



Australian Laboratory Services Pty. Ltd.

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ALS Perth is a NATA Accredited Testing Laboratory. Corporate Accreditation  
No: 825, Corporate Site No: 23001.

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Plus Appendix Pages  
Finalized Date: 14-JAN-2019  
Account: ACCELE

## CERTIFICATE AD18313747

Project: Thomas Creek

This report is for 55 Soil samples submitted to our lab in Adelaide, SA, Australia on 28-NOV-2018.

The following have access to data associated with this certificate:

ROBERT REID

ANDY RUST

## SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
PUL-QC	Pulverizing QC Test
LEV-01	Waste Disposal Levy
PUL-31	Pulverize split to 85% <75 um

## ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-ICP21	Au 30g FA ICP-AES Finish	ICP-AES
ME-MS61	48 element four acid ICP-MS	

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 AD18313747

Sample Description	Method Analyte Units LOD	WEI-21	Au-ICP21	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61
		Recvd Wt.	Au	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu
		kg	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm
		0.02	0.001	0.01	0.01	0.2	10	0.05	0.01	0.01	0.02	0.01	0.1	1	0.05	0.2
TC347		0.16	0.001	0.01	9.48	18.5	50	0.35	0.21	0.06	<0.02	23.3	21.3	183	1.23	32.9
TC348		0.16	0.003	<0.01	7.93	17.5	110	0.53	0.66	0.07	<0.02	46.1	3.0	93	1.36	54.7
TC349		0.21	0.002	<0.01	4.83	9.1	260	0.57	0.22	0.04	<0.02	97.8	1.8	57	1.01	15.1
TC350		0.16	0.002	0.02	5.04	9.4	120	0.56	0.37	0.04	<0.02	82.5	2.4	76	1.12	29.4
TC351		0.18	0.030	0.01	8.43	16.8	250	0.87	0.51	0.14	0.02	29.1	25.3	169	0.85	381
TC352		0.16	0.006	0.01	9.51	14.6	470	0.52	0.37	0.07	<0.02	24.1	8.1	149	1.12	103.0
TC353		0.19	0.004	0.02	9.61	20.2	210	0.53	0.63	0.06	<0.02	10.95	5.4	141	1.92	103.0
TC354		0.18	0.010	0.01	10.35	20.0	50	0.44	0.31	0.04	<0.02	4.16	8.2	262	1.49	295
TC355		0.22	0.003	0.01	9.41	22.4	520	0.43	0.19	0.07	<0.02	16.70	18.9	215	1.00	105.0
TC356		0.14	0.003	0.03	10.35	14.4	580	0.47	0.29	0.48	0.02	11.55	13.9	165	1.34	184.5
TC357		0.12	0.008	0.04	10.15	17.7	460	0.44	0.32	0.41	0.03	13.00	12.1	237	1.42	301
TC358		0.14	0.018	0.04	8.51	13.6	930	0.50	0.32	0.67	0.03	50.1	9.0	140	1.35	171.5
TC359		0.20	0.006	<0.01	7.52	4.2	240	0.91	0.08	2.87	<0.02	76.3	21.2	202	0.29	80.5
TC360		0.23	0.049	0.03	8.72	1.9	3160	0.57	0.11	0.41	<0.02	111.0	14.8	34	0.77	65.2
TC361		0.26	0.005	0.01	8.68	5.9	240	0.97	0.10	0.84	<0.02	177.0	17.0	114	0.31	134.5
TC362		0.20	0.027	0.05	11.40	6.4	1020	0.93	0.34	2.00	<0.02	44.0	22.1	266	0.49	318
TC363		0.20	0.008	0.01	8.94	8.7	2150	0.42	0.14	0.72	<0.02	59.4	10.8	128	0.75	111.5
TC364		0.17	0.015	0.01	10.05	11.6	310	0.59	0.35	1.28	<0.02	35.8	14.3	347	1.22	302
TC365		0.18	0.010	0.02	12.75	2.9	1720	0.59	0.31	1.08	<0.02	14.20	15.4	89	0.71	275
TC366		0.16	0.020	<0.01	9.81	8.9	520	0.49	0.31	1.45	0.02	45.8	14.7	348	1.02	267
TC367		0.13	0.051	0.03	9.90	10.2	400	0.43	0.38	1.68	<0.02	32.9	11.8	377	1.41	255
TC368		0.11	0.021	0.01	10.10	11.6	170	0.74	0.21	2.35	<0.02	32.3	20.9	342	0.33	406
TC369		0.17	0.004	<0.01	9.54	12.8	760	0.84	0.12	2.39	<0.02	20.5	18.0	112	0.57	84.7
TC370		0.16	0.001	0.02	13.65	17.6	220	0.35	0.19	0.29	<0.02	7.74	10.4	35	1.62	23.9
TC371		0.12	0.003	0.02	6.11	7.5	130	0.29	0.16	0.05	<0.02	15.40	6.7	39	1.37	33.2
TC372		0.21	0.002	<0.01	10.20	6.8	250	1.35	0.07	0.02	<0.02	14.75	45.2	40	7.19	97.0
TC373		0.20	0.002	0.01	7.48	21.4	100	1.24	0.15	1.82	0.02	143.0	25.1	179	1.21	33.0
TC374		0.18	0.002	0.01	5.33	10.2	120	1.26	0.14	2.10	0.02	116.0	12.5	41	0.41	17.7
TC375		0.18	0.009	<0.01	13.15	16.4	150	1.11	0.10	0.17	<0.02	6.74	17.3	151	1.08	353
TC376		0.14	0.004	0.02	8.27	9.9	160	0.60	0.22	0.41	0.02	17.40	5.6	136	1.29	77.7
TC377		0.27	0.011	0.02	7.73	6.2	390	1.16	0.09	0.09	0.03	59.2	39.8	87	1.57	278
TC378		0.20	0.013	0.05	9.84	45.3	220	1.19	0.24	0.05	<0.02	143.5	9.0	157	0.92	641
TC379		0.18	0.003	<0.01	5.83	8.2	50	0.80	0.04	0.22	<0.02	173.5	3.8	82	0.36	5.1
TC380		0.13	0.006	0.02	7.51	11.7	110	0.39	0.30	0.95	0.03	50.9	17.4	325	2.03	195.5
TC381		0.17	0.002	0.01	9.03	12.8	330	0.79	0.17	0.03	<0.02	34.7	11.8	59	3.06	55.5
TC382		0.27	0.002	<0.01	2.13	21.3	20	1.03	0.06	0.14	<0.02	5.27	9.8	36	0.38	27.5
TC383		0.32	0.002	0.01	5.75	11.2	30	0.81	0.06	1.22	<0.02	13.45	20.2	71	0.27	18.8
TC384		0.22	0.009	0.01	6.97	9.2	200	1.14	0.06	2.76	<0.02	9.80	15.9	63	0.70	91.6
TC385		0.20	0.003	<0.01	4.30	13.0	60	0.62	0.07	0.64	<0.02	4.53	8.6	30	0.41	59.9
TC386		0.22	0.005	0.02	7.35	7.4	150	0.78	0.14	1.86	<0.02	20.2	19.4	45	0.66	65.8



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## CERTIFICATE OF ANALYSIS AD18313747

Sample Description	Method Analyte Units LOD	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61
		Fe	Ga	Ge	Hf	In	K	La	Li	Mg	Mn	Mo	Na	Nb	Ni	P
		%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm	ppm
		0.01	0.05	0.05	0.1	0.005	0.01	0.5	0.2	0.01	5	0.05	0.01	0.1	0.2	10
TC347		11.10	17.85	0.42	3.6	0.045	0.19	3.8	17.6	0.25	263	1.24	0.03	7.7	26.0	250
TC348		6.12	18.70	0.12	5.1	0.068	0.43	23.5	20.5	0.19	110	1.61	0.07	14.7	19.9	140
TC349		3.83	17.55	0.14	5.3	0.046	1.03	48.7	14.6	0.10	65	1.45	0.19	16.5	10.6	130
TC350		3.92	14.75	0.13	4.8	0.055	0.40	41.5	15.1	0.14	92	1.32	0.08	20.5	14.3	110
TC351		10.60	21.5	0.22	3.2	0.267	0.99	14.7	66.0	2.12	719	1.29	0.23	6.0	89.6	140
TC352		8.73	18.05	0.15	4.6	0.115	2.32	13.1	31.5	0.37	152	1.44	0.65	9.9	42.3	170
TC353		7.91	18.40	0.19	4.4	0.093	0.98	5.3	25.5	0.18	69	1.41	0.13	9.9	35.0	190
TC354		19.40	19.50	0.80	4.0	0.104	0.28	1.6	15.9	0.22	50	1.20	0.04	5.9	44.6	270
TC355		12.05	17.10	0.23	3.2	0.175	2.48	7.3	58.9	1.25	427	0.87	0.09	5.2	83.8	220
TC356		10.75	19.15	0.23	4.0	0.129	2.38	6.1	60.1	0.92	268	2.98	0.26	7.5	70.6	200
TC357		13.25	18.95	0.43	4.0	0.161	2.04	6.4	49.0	0.79	174	2.84	0.22	7.6	69.5	190
TC358		9.78	19.50	0.19	3.4	0.127	3.19	31.1	30.9	1.22	234	29.2	0.70	7.4	35.7	150
TC359		5.70	14.70	0.15	2.2	0.068	0.89	43.3	20.5	4.17	737	7.92	3.42	4.2	63.6	110
TC360		1.83	15.65	0.19	3.6	0.027	8.11	62.0	9.8	0.79	242	12.65	1.17	10.8	21.8	160
TC361		11.40	17.15	0.26	3.1	0.073	1.11	106.5	36.9	2.76	530	17.35	2.36	4.2	82.1	250
TC362		4.89	24.7	0.15	6.0	0.122	3.24	20.8	34.5	3.48	467	18.05	0.74	15.1	111.0	540
TC363		9.56	15.60	0.21	2.3	0.054	6.04	34.5	21.0	1.85	317	10.20	0.68	4.0	47.7	240
TC364		13.00	22.3	0.30	3.8	0.111	1.09	21.1	32.1	2.05	312	13.30	0.64	6.8	76.0	100
TC365		4.66	21.4	0.14	3.6	0.051	4.80	7.3	26.7	2.36	441	2.87	0.64	5.5	83.5	120
TC366		9.39	22.6	0.20	3.2	0.099	1.73	26.6	27.6	1.97	270	8.22	0.60	7.5	77.1	90
TC367		8.50	23.4	0.28	3.5	0.107	1.38	17.3	23.4	1.83	245	3.83	0.42	8.2	57.3	80
TC368		5.05	18.30	0.17	3.4	0.100	0.63	15.5	22.3	3.50	305	0.95	2.16	6.2	112.0	220
TC369		5.45	22.5	0.15	2.6	0.085	2.58	7.5	31.2	3.46	848	0.54	2.28	8.4	97.7	160
TC370		8.44	27.3	0.32	2.8	0.056	0.68	4.3	30.5	0.40	287	1.23	0.20	8.6	32.3	160
TC371		5.49	14.15	0.08	4.3	0.018	0.45	8.9	16.2	0.20	99	5.09	0.26	13.0	14.9	100
TC372		7.31	14.60	0.14	3.0	0.038	1.66	5.3	22.4	0.44	64	5.15	0.26	8.0	27.8	310
TC373		11.85	18.85	0.28	2.8	0.122	0.65	68.6	26.1	2.21	313	1.43	0.19	7.0	85.8	2710
TC374		6.29	17.20	0.19	3.6	0.049	0.56	61.7	7.2	2.14	324	1.05	2.69	2.4	38.9	650
TC375		9.00	18.35	0.44	4.4	0.085	1.00	2.3	35.0	0.51	171	3.90	0.04	7.6	143.0	1130
TC376		10.20	23.4	0.16	3.9	0.072	0.59	8.8	25.9	0.60	110	4.54	0.18	12.9	35.7	250
TC377		2.83	15.65	0.12	3.4	0.015	2.31	31.2	21.6	2.53	220	7.54	0.79	9.4	40.5	270
TC378		4.03	19.15	0.21	3.1	0.058	2.00	63.7	25.4	2.47	86	366	0.08	8.1	44.7	270
TC379		1.37	15.10	0.17	2.6	0.011	0.26	97.7	3.6	1.70	59	3.64	0.48	3.8	15.4	180
TC380		9.18	20.2	0.33	4.7	0.070	0.48	28.0	47.0	1.91	173	4.22	0.14	14.6	57.8	170
TC381		9.03	19.85	0.17	4.2	0.033	1.46	20.0	33.2	0.29	60	2.11	0.10	11.5	29.3	270
TC382		44.0	6.46	1.61	0.5	0.022	0.06	2.7	2.6	0.10	415	2.12	0.63	0.8	16.5	150
TC383		14.70	16.00	0.17	1.8	0.040	0.17	6.3	18.4	1.73	382	0.99	3.30	2.4	99.6	190
TC384		14.90	14.30	0.20	1.1	0.099	0.88	5.0	9.0	2.76	463	0.89	3.21	1.3	55.0	30
TC385		30.5	13.90	0.55	1.5	0.041	0.24	2.4	3.9	0.44	300	1.75	1.66	1.2	15.1	90
TC386		7.32	17.10	0.10	1.7	0.070	0.57	11.8	25.2	2.29	442	1.38	3.19	2.4	44.4	60



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		Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	U
		ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm
		0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.01	0.005	0.1
TC347		7.9	16.9	<0.002	0.05	0.79	20.4	3	1.0	8.2	0.53	<0.05	14.05	0.383	3.5
TC348		5.2	28.1	<0.002	0.04	0.68	11.5	4	2.6	13.1	1.20	0.05	20.8	0.367	4.1
TC349		3.8	41.7	<0.002	0.03	0.59	8.3	2	2.7	17.2	1.45	<0.05	14.90	0.363	3.6
TC350		5.5	19.7	<0.002	0.03	0.69	8.8	2	2.9	13.2	1.69	<0.05	14.20	0.458	3.4
TC351		4.0	43.0	<0.002	0.03	1.06	25.1	3	2.6	41.7	0.49	0.08	9.71	0.379	2.5
TC352		5.1	88.0	<0.002	0.04	1.15	14.7	4	2.0	28.1	0.79	<0.05	15.95	0.355	4.4
TC353		5.9	56.5	<0.002	0.03	1.55	25.6	3	1.8	23.3	0.76	<0.05	13.75	0.470	4.3
TC354		8.7	22.0	<0.002	0.04	1.54	33.3	4	1.8	7.9	0.48	0.05	11.95	0.414	3.9
TC355		5.0	95.0	<0.002	0.05	1.23	24.5	2	2.2	50.7	0.47	0.13	9.81	0.394	3.0
TC356		55.2	105.0	<0.002	0.06	1.34	19.0	5	2.6	77.2	0.59	0.12	11.50	0.460	3.4
TC357		25.4	89.9	<0.002	0.07	1.58	17.9	6	3.1	63.7	0.58	0.23	12.85	0.477	4.2
TC358		16.4	112.0	0.002	0.06	0.99	17.0	3	4.0	84.6	0.54	0.13	7.88	0.474	6.5
TC359		2.1	35.0	0.008	0.03	0.57	29.5	<1	3.7	117.0	0.30	0.05	5.26	0.328	3.2
TC360		2.2	122.0	0.015	0.05	0.47	14.0	<1	3.4	150.5	0.70	<0.05	9.06	0.369	5.3
TC361		2.5	42.5	<0.002	0.03	1.15	31.5	1	4.1	116.5	0.33	0.07	13.50	0.385	5.5
TC362		9.5	65.6	<0.002	0.03	1.09	45.6	1	9.4	146.0	1.06	0.09	20.7	0.602	11.2
TC363		3.2	168.5	<0.002	0.04	0.77	25.4	2	5.1	121.0	0.27	0.10	12.65	0.328	5.5
TC364		5.0	49.6	<0.002	0.05	1.08	33.3	5	6.0	82.9	0.49	0.10	14.70	0.523	6.6
TC365		2.4	122.5	<0.002	0.02	0.74	23.5	1	2.1	144.5	0.53	0.09	7.54	0.503	3.7
TC366		5.2	60.5	<0.002	0.04	1.07	27.2	4	4.9	98.6	0.52	0.06	11.05	0.585	4.8
TC367		6.0	64.1	<0.002	0.04	0.95	30.4	4	5.6	109.5	0.56	0.12	11.25	0.628	4.7
TC368		1.9	20.0	<0.002	0.05	0.94	36.3	2	4.1	140.5	0.40	0.07	8.26	0.480	4.4
TC369		2.2	79.2	<0.002	0.02	0.73	42.8	1	3.8	137.0	0.43	0.05	10.60	0.506	3.1
TC370		7.1	32.9	<0.002	0.04	0.80	13.4	3	2.9	27.5	0.55	<0.05	6.43	0.877	2.5
TC371		10.3	20.4	<0.002	0.04	0.46	8.9	2	4.8	15.3	1.14	<0.05	7.66	0.423	3.4
TC372		18.5	162.0	<0.002	0.02	0.63	15.9	1	3.3	18.2	0.69	0.06	11.95	0.257	7.8
TC373		30.9	47.3	<0.002	0.07	1.60	25.0	3	3.5	49.1	0.73	<0.05	44.5	0.279	4.9
TC374		5.4	22.1	<0.002	0.02	1.43	12.0	<1	1.8	143.0	0.27	<0.05	21.4	0.140	2.7
TC375		50.2	67.6	<0.002	0.05	0.94	25.5	3	2.6	15.2	0.56	<0.05	28.0	0.394	7.5
TC376		13.9	25.7	<0.002	0.07	4.38	14.6	5	3.3	38.6	0.97	<0.05	14.55	0.557	4.2
TC377		6.4	99.6	0.008	0.23	5.20	20.1	<1	2.8	91.9	0.78	<0.05	10.45	0.322	4.7
TC378		5.9	27.5	0.003	0.06	2.61	21.6	6	2.0	31.8	0.53	0.15	7.14	0.383	2.6
TC379		1.5	15.7	0.002	0.02	1.00	36.0	<1	10.8	46.8	0.37	<0.05	5.47	0.277	2.6
TC380		10.1	24.6	<0.002	0.05	0.71	19.1	5	4.6	30.3	0.73	0.06	10.80	0.532	5.1
TC381		7.3	67.1	<0.002	0.06	0.99	10.4	5	3.8	27.2	0.96	<0.05	18.05	0.372	3.6
TC382		14.0	2.9	<0.002	0.05	0.24	3.1	<1	0.5	18.8	0.06	<0.05	2.04	0.070	0.5
TC383		9.0	6.2	<0.002	0.02	0.48	15.0	<1	1.5	113.5	0.21	<0.05	4.50	0.239	1.1
TC384		7.3	59.8	<0.002	0.04	0.80	27.6	<1	5.7	171.5	0.12	<0.05	3.38	0.206	1.4
TC385		12.4	15.1	<0.002	0.06	0.67	5.9	<1	1.2	62.3	0.10	<0.05	3.05	0.173	1.0
TC386		13.4	31.4	<0.002	0.09	0.73	18.8	<1	2.8	233	0.24	<0.05	3.38	0.378	1.5



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**CERTIFICATE OF ANALYSIS AD18313747**

Sample Description	Method Analyte Units LOD	ME-MS61 V ppm 1	ME-MS61 W ppm 0.1	ME-MS61 Y ppm 0.1	ME-MS61 Zn ppm 2	ME-MS61 Zr ppm 0.5	PUL-QC Pass75um % 0.01
TC347		230	1.7	5.9	37	127.0	99.0
TC348		121	4.4	16.6	19	169.0	
TC349		95	5.2	19.1	14	169.0	
TC350		95	5.9	17.2	15	159.0	
TC351		241	5.8	10.2	101	110.5	
TC352		155	4.6	11.3	54	165.5	
TC353		213	4.5	6.7	23	158.0	
TC354		241	2.6	5.1	25	137.0	
TC355		214	3.0	6.8	53	98.5	
TC356		221	4.7	8.2	50	136.0	
TC357		235	3.6	6.9	34	138.5	
TC358		247	3.2	8.8	27	122.5	
TC359		175	1.2	14.6	43	77.0	
TC360		94	2.0	21.6	18	129.0	
TC361		274	2.2	14.0	26	108.5	
TC362		364	4.7	14.2	29	208	
TC363		304	22.4	9.9	21	74.7	
TC364		363	3.6	11.0	26	124.5	
TC365		267	1.1	4.9	44	122.5	
TC366		362	3.1	10.3	25	110.0	
TC367		403	2.8	9.3	18	116.5	
TC368		248	1.7	17.6	28	110.5	
TC369		307	1.6	19.7	56	89.5	
TC370		502	1.2	3.0	19	97.6	
TC371		126	3.8	8.8	10	151.0	
TC372		100	4.1	8.7	15	106.0	
TC373		263	1.4	30.1	24	99.9	
TC374		196	0.5	23.7	15	127.5	
TC375		343	1.2	4.8	26	157.0	
TC376		320	2.6	8.3	10	149.0	
TC377		151	2.8	12.3	45	125.0	
TC378		325	3.2	8.2	22	113.0	
TC379		362	2.3	15.6	2	99.6	
TC380		255	2.4	14.0	19	182.0	
TC381		144	2.0	8.1	12	148.0	
TC382		268	1.2	4.2	27	19.1	
TC383		478	1.4	10.6	34	72.1	
TC384		356	1.1	19.8	39	38.3	
TC385		608	1.1	4.5	18	60.4	
TC386		283	1.8	14.4	34	70.7	





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**CERTIFICATE OF ANALYSIS AD18313747**

Sample Description	Method Analyte Units LOD	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61
		Fe	Ga	Ge	Hf	In	K	La	Li	Mg	Mn	Mo	Na	Nb	Ni	P
		%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm	ppm
		0.01	0.05	0.05	0.1	0.005	0.01	0.5	0.2	0.01	5	0.05	0.01	0.1	0.2	10
TC387		6.44	24.4	0.16	4.6	0.092	0.38	20.0	15.5	0.49	105	2.30	0.32	15.7	48.7	170
TC388		5.33	17.20	0.11	6.5	0.073	0.35	25.0	9.7	0.21	152	0.74	0.04	22.9	38.4	220
TC389		7.58	23.7	0.30	4.9	0.119	0.26	22.3	11.1	0.34	147	0.67	0.04	20.0	53.6	230
TC390		6.82	18.10	0.11	4.9	0.049	0.38	21.7	9.8	0.20	125	0.57	0.04	14.3	39.9	210
TC391		6.07	21.0	0.11	5.5	0.058	0.60	21.5	13.3	0.41	166	1.13	0.10	19.1	44.8	210
TC392		8.00	20.7	0.14	3.6	0.044	0.89	25.8	14.3	0.96	249	0.50	0.45	10.9	89.6	370
TC393		16.30	24.2	0.43	5.9	0.094	0.30	64.4	22.9	0.55	105	3.01	0.10	14.7	84.2	430
TC394		11.90	22.0	0.21	3.1	0.073	1.01	14.7	19.6	1.09	248	0.78	0.70	9.5	122.0	490
TC395		3.81	20.9	0.18	6.2	0.039	2.95	65.3	32.0	1.10	323	3.20	0.31	13.5	26.3	210
TC396		4.14	14.30	0.12	4.4	0.028	3.32	21.5	23.3	0.91	322	1.74	0.90	9.5	16.9	220
TC397		2.56	17.70	0.12	4.5	0.025	4.48	10.0	18.6	1.01	286	0.98	1.44	10.0	15.0	190
TC398		3.72	15.15	0.14	4.3	0.032	2.04	36.7	17.5	0.62	209	0.81	0.23	10.4	15.0	140
TC399		3.96	15.40	0.12	3.6	0.033	2.77	20.8	16.0	1.20	329	0.41	1.33	9.8	20.1	300
TC400		3.33	17.60	0.11	4.6	0.023	2.65	11.5	18.4	0.32	157	1.04	0.28	10.6	13.3	80
TC401		3.85	14.40	0.15	3.4	0.022	3.99	17.5	8.2	0.55	177	0.61	1.03	8.5	12.4	200



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Sample Description	Method Analyte Units LOD	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61
		Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	U
		ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm
		0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.01	0.005	0.1
TC387		12.1	23.4	<0.002	0.04	0.79	16.4	2	8.1	25.3	1.14	<0.05	12.70	0.646	5.3
TC388		18.2	24.1	<0.002	0.03	0.97	17.9	1	5.8	17.5	1.69	<0.05	18.55	0.796	6.6
TC389		15.7	18.2	<0.002	0.04	0.95	28.8	2	7.9	19.9	1.27	<0.05	16.80	0.794	5.6
TC390		23.7	23.4	<0.002	0.03	0.70	12.8	1	2.9	16.7	1.39	<0.05	18.35	0.558	4.2
TC391		30.7	30.5	<0.002	0.03	0.68	10.9	1	4.5	25.2	1.47	<0.05	15.50	0.704	4.3
TC392		7.4	36.1	<0.002	0.03	0.41	17.2	1	2.0	64.2	1.03	<0.05	14.60	0.375	3.1
TC393		18.6	13.7	<0.002	0.09	0.81	16.1	4	4.8	30.2	1.05	0.06	36.2	0.597	8.9
TC394		6.5	35.8	<0.002	0.04	0.52	21.6	3	3.1	70.8	0.90	<0.05	26.6	0.388	4.7
TC395		5.8	98.4	<0.002	0.02	0.51	13.0	1	3.3	125.0	1.07	<0.05	15.65	0.417	8.1
TC396		4.6	117.0	<0.002	0.03	0.46	8.7	<1	2.0	144.0	0.76	<0.05	10.80	0.316	7.8
TC397		5.6	167.0	<0.002	0.01	0.35	10.4	<1	1.6	178.5	0.84	<0.05	13.55	0.352	4.4
TC398		4.3	80.1	<0.002	0.03	0.29	7.0	1	1.8	69.3	0.88	<0.05	7.87	0.353	2.6
TC399		3.2	112.0	<0.002	0.01	0.27	11.8	<1	1.8	183.5	0.79	<0.05	12.50	0.318	2.9
TC400		4.1	79.5	<0.002	0.03	0.27	6.2	1	1.8	69.5	0.90	<0.05	5.65	0.359	2.3
TC401		2.8	120.0	<0.002	0.03	0.28	10.1	<1	2.8	121.0	0.69	<0.05	7.97	0.283	3.4



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



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**CERTIFICATE OF ANALYSIS AD18313747**

**CERTIFICATE COMMENTS**

**ANALYTICAL COMMENTS**

Applies to Method:

REE's may not be totally soluble in this method.  
ME-MS61

**ACCREDITATION COMMENTS**

Applies to Method:

NATA Accreditation covers the performance of this service but does not cover the performance of ALS Perth Sample Preparation. Corporate Accreditation No: 825, Corporate Site No: 23001. The Technical Signatory is Wendy Wong, Senior QC Chemist  
Au-ICP21 ME-MS61

**LABORATORY ADDRESSES**

Applies to Method:

Processed at ALS Perth located at 31 Denninup Way, Malaga, Australia. Processed at ALS Perth Sample Preparation at 79 Distinction Road, Wangara, WA, Australia  
Au-ICP21 ME-MS61

Applies to Method:

Processed at ALS Adelaide located at Unit 1, 1 Burma Road, Pooraka, Adelaide, SA, Australia.  
LEV-01 LOG-22 PUL-31 PUL-QC  
WEI-21