



Australian Laboratory Services Pty. Ltd.

32 Shand Street  
Stafford  
Brisbane QLD 4053  
Phone: +61 (7) 3243 7222 Fax: +61 (7) 3243 7218  
www.alsglobal.com/geochemistry

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

## QC CERTIFICATE PH18134499

Project: THOMAS CREEK

P.O. No.: SSF002

This report is for 86 Drill Core samples submitted to our lab in Perth, WA, Australia  
on 7-JUN-2018.

The following have access to data associated with this certificate:

ANDY RUST

Page: 1

Total # Pages: 4 (A - D)

Plus Appendix Pages

Finalized Date: 3-JUL-2018

This copy reported on 5-JUL-2018

Account: ACCELE

## SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LEV-01	Waste Disposal Levy
TRSPEC-20	Spectral Scan VNIR and SWIR
CRU-31	Fine crushing - 70% <2mm
SPLIT-D	Create D Split
CRU-QC	Crushing QC Test
LOG-22	Sample login - Rcd w/o BarCode
SAM-COR01	Sample Core from Boxes - Regular
CRU-21	Crush entire sample >70% -6 mm
PUL-23	Pulv Sample - Split/Retain
BAG-01	Bulk Master for Storage
SPL-21	Split sample - riffle splitter
PUL-QC	Pulverizing QC Test

## ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION
ME-MS61	48 element four acid ICP-MS
Au-AA25	Ore Grade Au 30g FA AA finish AAS

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



Australian Laboratory Services Pty. Ltd.

32 Shand Street  
Stafford  
Brisbane QLD 4053  
Phone: +61 (7) 3243 7222 Fax: +61 (7) 3243 7218  
www.alsglobal.com/geochemistry

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

Project: THOMAS CREEK

Page: 2 - A  
Total # Pages: 4 (A - D)  
Plus Appendix Pages  
Finalized Date: 3-JUL-2018  
Account: ACCELE

## QC CERTIFICATE OF ANALYSIS PH18134499

Sample Description	Method Analyte Units LOD	Au-AA25 Au ppm 0.01	ME-MS61 Ag ppm 0.01	ME-MS61 Al % 0.01	ME-MS61 As ppm 0.2	ME-MS61 Ba ppm 10	ME-MS61 Be ppm 0.05	ME-MS61 Bi ppm 0.01	ME-MS61 Ca % 0.01	ME-MS61 Cd ppm 0.02	ME-MS61 Ce ppm 0.01	ME-MS61 Co ppm 0.1	ME-MS61 Cr ppm 1	ME-MS61 Cs ppm 0.05	ME-MS61 Cu ppm 0.2	ME-MS61 Fe % 0.01
STANDARDS																
G312-10		25.7														
Target Range - Lower Bound		23.4														
Upper Bound		26.4														
G914-10		10.05														
Target Range - Lower Bound		9.63														
Upper Bound		10.90														
GBM908-10			3.02	7.44	55.8	1160	1.56	1.14	3.86	1.72	110.5	27.5	139	3.90	3670	5.75
Target Range - Lower Bound			2.60	6.40	50.2	930	1.27	1.12	3.33	1.53	99.0	24.0	125	3.44	3350	4.98
Upper Bound			3.20	7.84	61.8	1280	1.66	1.39	4.10	1.91	121.0	29.6	155	4.32	3850	6.10
JK-17		1.94														
Target Range - Lower Bound		1.87														
Upper Bound		2.13														
LEA-16		0.53														
Target Range - Lower Bound		0.46														
Upper Bound		0.54														
MRGeo08		4.44	7.94	33.7	1150	3.61	0.70	2.71	2.23	77.9	20.7	94	12.80	640	4.18	
Target Range - Lower Bound		4.00	6.64	29.5	920	2.98	0.60	2.35	2.00	66.2	17.7	81	11.20	587	3.55	
Upper Bound		4.92	8.14	36.5	1270	3.76	0.76	2.90	2.48	81.0	21.9	102	13.80	675	4.37	
OGGeo08		19.85	6.93	118.5	740	2.83	10.40	2.22	19.20	71.3	97.6	85	11.10	8550	5.44	
OGGeo08		19.80	7.35	127.0	320	2.95	9.73	2.28	20.1	72.8	99.5	87	11.30	8750	5.74	
Target Range - Lower Bound		18.15	6.07	106.0	700	2.59	9.44	1.98	16.70	64.8	87.2	78	9.85	7800	4.81	
Upper Bound		22.2	7.44	130.0	980	3.27	11.55	2.44	20.5	79.2	107.0	98	12.15	8980	5.91	
OREAS 24b		0.06	7.95	8.5	770	2.63	0.66	1.07	0.05	86.5	16.9	128	10.60	38.8	4.45	
OREAS 24b		0.10	7.83	8.3	740	2.73	0.71	1.05	0.04	85.9	16.3	118	10.55	37.2	4.45	
OREAS 24b		0.07	8.06	8.6	760	2.52	0.69	1.08	0.05	84.9	16.5	117	10.75	38.2	4.56	
Target Range - Lower Bound		0.05	7.02	7.3	600	2.25	0.60	0.94	<0.02	76.8	14.3	105	9.58	35.1	3.94	
Upper Bound		0.10	8.60	9.4	830	2.86	0.76	1.18	0.09	93.8	17.8	131	11.80	40.9	4.84	
OREAS 601		49.9	6.47	329	1110	2.02	21.2	1.32	7.77	63.5	5.4	40	6.69	1010	2.48	
OREAS 601		48.9	6.33	317	230	2.04	20.0	1.29	7.79	61.6	5.2	38	6.72	973	2.47	
Target Range - Lower Bound		44.3	5.66	276	740	1.81	18.80	1.17	7.05	56.7	4.5	37	6.00	939	2.22	
Upper Bound		54.1	6.94	338	1020	2.33	23.0	1.45	8.67	69.3	5.8	47	7.44	1080	2.74	



Australian Laboratory Services Pty. Ltd.

32 Shand Street  
Stafford  
Brisbane QLD 4053  
Phone: +61 (7) 3243 7222 Fax: +61 (7) 3243 7218  
www.alsglobal.com/geochemistry

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

Project: THOMAS CREEK

Page: 2 - B  
Total # Pages: 4 (A - D)  
Plus Appendix Pages  
Finalized Date: 3-JUL-2018  
Account: ACCELE

## QC CERTIFICATE OF ANALYSIS PH18134499

Sample Description	Method Analyte Units LOD	ME-MS61 Ga ppm 0.05	ME-MS61 Ge ppm 0.05	ME-MS61 Hf ppm 0.1	ME-MS61 In ppm 0.005	ME-MS61 K % 0.01	ME-MS61 La ppm 0.5	ME-MS61 Li ppm 0.2	ME-MS61 Mg % 0.01	ME-MS61 Mn ppm 5	ME-MS61 Mo ppm 0.05	ME-MS61 Na % 0.01	ME-MS61 Nb ppm 0.1	ME-MS61 Ni ppm 0.2	ME-MS61 P ppm 10	ME-MS61 Pb ppm 0.5
STANDARDS																
G312-10																
Target Range - Lower Bound																
Upper Bound																
G914-10																
Target Range - Lower Bound																
Upper Bound																
GBM908-10		20.4	0.18	3.7	0.078	2.20	56.4	11.6	1.89	844	58.8	2.24	10.8	2330	990	2080
Target Range - Lower Bound		18.65	0.13	3.3	0.064	1.87	49.0	9.8	1.61	715	57.9	1.93	9.5	2020	880	1845
Upper Bound		22.9	0.35	4.3	0.092	2.31	61.0	12.4	1.99	885	70.9	2.38	11.9	2470	1100	2250
JK-17																
Target Range - Lower Bound																
Upper Bound																
LEA-16																
Target Range - Lower Bound																
Upper Bound																
MRGeo08		19.05	0.16	3.3	0.180	3.33	37.9	34.9	1.39	590	15.20	2.07	21.3	712	1060	1100
Target Range - Lower Bound		17.50	<0.05	2.8	0.155	2.79	31.1	29.5	1.17	497	13.65	1.76	19.0	622	930	971
Upper Bound		21.5	0.27	3.6	0.201	3.43	39.1	36.5	1.45	619	16.75	2.18	23.4	760	1160	1185
OGGeo08		17.35	0.18	2.8	1.470	3.01	34.7	31.6	1.29	519	907	1.80	17.1	8830	920	7270
OGGeo08		17.80	0.18	2.9	1.490	3.17	36.0	34.2	1.32	539	935	1.96	17.4	9140	870	7530
Target Range - Lower Bound		16.05	0.25	2.5	1.320	2.59	31.0	29.7	1.11	447	841	1.62	15.4	8000	760	6520
Upper Bound		19.75	0.49	3.3	1.620	3.19	39.0	36.7	1.38	557	1030	2.00	19.0	9770	950	7970
OREAS 24b		20.8	0.12	4.1	0.074	2.89	42.4	55.0	1.59	447	3.89	0.81	14.9	65.6	760	22.9
OREAS 24b		19.70	0.14	4.0	0.075	2.83	42.4	54.6	1.58	445	3.65	0.82	14.1	57.4	680	22.0
OREAS 24b		20.8	0.16	4.0	0.078	2.91	43.2	56.4	1.62	455	3.96	0.84	14.9	59.9	710	23.4
Target Range - Lower Bound		18.05	<0.05	3.4	0.063	2.52	37.7	48.4	1.39	391	3.46	0.70	13.0	53.8	610	20.3
Upper Bound		22.2	0.26	4.4	0.091	3.10	47.1	59.6	1.72	489	4.34	0.88	16.2	66.2	770	25.9
OREAS 601		20.8	0.12	4.4	1.720	2.15	31.5	21.2	0.37	485	3.75	1.44	12.9	23.8	510	330
OREAS 601		20.9	0.15	4.4	1.745	2.10	30.6	21.6	0.36	482	3.86	1.43	13.1	24.6	440	324
Target Range - Lower Bound		18.30	<0.05	4.0	1.550	1.88	27.3	18.3	0.34	427	3.43	1.30	11.2	21.7	410	296
Upper Bound		22.5	0.27	5.1	1.910	2.32	34.5	22.8	0.44	533	4.31	1.61	14.0	26.9	530	362



Australian Laboratory Services Pty. Ltd.

32 Shand Street  
Stafford  
Brisbane QLD 4053  
Phone: +61 (7) 3243 7222 Fax: +61 (7) 3243 7218  
www.alsglobal.com/geochemistry

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

Project: THOMAS CREEK

Page: 2 - C  
Total # Pages: 4 (A - D)  
Plus Appendix Pages  
Finalized Date: 3-JUL-2018  
Account: ACCELE

## QC CERTIFICATE OF ANALYSIS PH18134499

Sample Description	Method Analyte Units LOD	ME-MS61 Rb ppm 0.1	ME-MS61 Re ppm 0.002	ME-MS61 S % 0.01	ME-MS61 Sb ppm 0.05	ME-MS61 Sc ppm 0.1	ME-MS61 Se ppm 1	ME-MS61 Sn ppm 0.2	ME-MS61 Sr ppm 0.2	ME-MS61 Ta ppm 0.05	ME-MS61 Te ppm 0.05	ME-MS61 Th ppm 0.01	ME-MS61 Ti % 0.005	ME-MS61 Tl ppm 0.02	ME-MS61 U ppm 0.1	ME-MS61 V ppm 1
STANDARDS																
G312-10																
Target Range - Lower Bound																
Upper Bound																
G914-10																
Target Range - Lower Bound																
Upper Bound																
GBM908-10		171.5	<0.002	0.38	1.72	19.6	<1	3.2	311	0.87	0.06	18.30	0.669	1.20	2.2	144
Target Range - Lower Bound		153.0	<0.002	0.33	1.40	17.0	<1	2.7	258	0.68	<0.05	16.55	0.591	1.00	2.0	123
Upper Bound		187.0	0.006	0.43	2.01	21.0	3	3.9	316	0.97	0.16	20.3	0.733	1.40	2.6	153
JK-17																
Target Range - Lower Bound																
Upper Bound																
LEA-16																
Target Range - Lower Bound																
Upper Bound																
MRGeo08		203	0.010	0.32	4.57	13.1	1	4.0	327	1.56	<0.05	20.9	0.509	1.15	5.7	112
Target Range - Lower Bound		173.5	0.005	0.27	3.89	11.1	<1	3.5	277	1.39	<0.05	17.90	0.443	0.89	4.9	97
Upper Bound		212	0.013	0.35	5.39	13.7	4	4.7	339	1.81	0.14	21.9	0.553	1.25	6.2	121
OGGeo08		185.5	1.405	2.89	25.9	10.3	11	13.7	252	1.40	0.19	18.70	0.404	1.72	5.3	91
OGGeo08		190.5	1.490	2.94	26.9	10.5	11	14.1	271	1.40	0.17	18.25	0.417	1.72	5.4	92
Target Range - Lower Bound		164.5	1.285	2.51	22.8	9.2	8	12.5	224	1.19	0.09	16.90	0.353	1.43	4.5	77
Upper Bound		201	1.575	3.09	31.0	11.4	14	15.7	274	1.57	0.31	20.7	0.443	1.98	5.8	97
OREAS 24b		166.0	<0.002	0.20	0.88	15.8	<1	4.2	126.0	1.18	<0.05	17.15	0.450	0.87	3.1	113
OREAS 24b		161.5	<0.002	0.19	0.90	16.0	1	3.9	122.5	1.09	<0.05	16.40	0.436	0.84	2.8	107
OREAS 24b		167.0	<0.002	0.20	0.95	16.3	<1	4.2	127.0	1.16	<0.05	16.80	0.446	0.87	3.1	109
Target Range - Lower Bound		147.5	<0.002	0.17	0.76	13.7	<1	3.6	111.5	0.99	<0.05	14.75	0.387	0.71	2.7	96
Upper Bound		180.5	0.006	0.23	1.15	16.9	3	4.9	136.5	1.33	0.10	18.05	0.484	1.01	3.5	120
OREAS 601		92.8	<0.002	1.10	30.3	5.0	12	4.1	237	1.00	15.70	10.85	0.185	1.23	4.0	27
OREAS 601		93.8	<0.002	1.03	31.5	5.1	12	4.1	229	0.98	15.80	9.88	0.180	1.22	4.0	26
Target Range - Lower Bound		87.2	<0.002	0.95	25.8	4.3	9	3.5	207	0.89	14.35	9.80	0.157	1.01	3.5	22
Upper Bound		107.0	0.004	1.19	35.0	5.4	15	4.8	253	1.19	17.65	12.00	0.203	1.41	4.5	29



Australian Laboratory Services Pty. Ltd.

32 Shand Street  
Stafford  
Brisbane QLD 4053  
Phone: +61 (7) 3243 7222 Fax: +61 (7) 3243 7218  
www.alsglobal.com/geochemistry

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

Project: THOMAS CREEK

Page: 2 - D  
Total # Pages: 4 (A - D)  
Plus Appendix Pages  
Finalized Date: 3-JUL-2018  
Account: ACCELE

## QC CERTIFICATE OF ANALYSIS PH18134499

Sample Description	Method Analyte Units LOD	ME-MS61 W ppm 0.1	ME-MS61 Y ppm 0.1	ME-MS61 Zn ppm 2	ME-MS61 Zr ppm 0.5
STANDARDS					
G312-10					
Target Range - Lower Bound					
Upper Bound					
G914-10					
Target Range - Lower Bound					
Upper Bound					
GBM908-10		3.4	38.7	1080	137.5
Target Range - Lower Bound		2.9	35.2	939	117.5
Upper Bound		4.1	43.2	1150	160.5
JK-17					
Target Range - Lower Bound					
Upper Bound					
LEA-16					
Target Range - Lower Bound					
Upper Bound					
MRGeo08		4.8	28.1	819	108.0
Target Range - Lower Bound		4.1	23.8	722	92.2
Upper Bound		5.8	29.3	886	126.0
OGGeo08		4.6	24.0	7220	91.2
OGGeo08		4.7	25.1	7300	94.8
Target Range - Lower Bound		3.9	21.1	6500	78.6
Upper Bound		5.4	26.0	7950	107.5
OREAS 24b		3.5	20.5	110	138.0
OREAS 24b		3.8	20.1	104	132.0
OREAS 24b		3.5	20.5	107	136.0
Target Range - Lower Bound		3.0	18.3	93	113.5
Upper Bound		4.3	22.5	118	154.5
OREAS 601		5.7	11.7	1370	162.0
OREAS 601		5.8	12.1	1310	163.5
Target Range - Lower Bound		4.8	10.0	1195	131.5
Upper Bound		6.8	12.4	1465	179.0



Australian Laboratory Services Pty. Ltd.

32 Shand Street  
Stafford  
Brisbane QLD 4053  
Phone: +61 (7) 3243 7222 Fax: +61 (7) 3243 7218  
www.alsglobal.com/geochemistry

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

Project: THOMAS CREEK

Page: 3 - A  
Total # Pages: 4 (A - D)  
Plus Appendix Pages  
Finalized Date: 3-JUL-2018  
Account: ACCELE

## QC CERTIFICATE OF ANALYSIS PH18134499

Method Analyte Units LOD	Au-AA25 Au ppm 0.01	ME-MS61 Ag ppm 0.01	ME-MS61 Al % 0.01	ME-MS61 As ppm 0.2	ME-MS61 Ba ppm 10	ME-MS61 Be ppm 0.05	ME-MS61 Bi ppm 0.01	ME-MS61 Ca % 0.01	ME-MS61 Cd ppm 0.02	ME-MS61 Ce ppm 0.01	ME-MS61 Co ppm 0.1	ME-MS61 Cr ppm 1	ME-MS61 Cs ppm 0.05	ME-MS61 Cu ppm 0.2	ME-MS61 Fe % 0.01
Sample Description															
BLANKS															
BLANK	0.09														
BLANK	0.02														
Target Range - Lower Bound	<0.01														
Upper Bound	0.02														
BLANK		0.01	<0.01	<0.2	<10	<0.05	0.02	<0.01	<0.02	0.01	<0.1	<1	<0.05	<0.2	<0.01
BLANK		0.01	<0.01	<0.2	<10	<0.05	<0.01	<0.01	<0.02	0.01	<0.1	<1	<0.05	1.2	<0.01
BLANK		<0.01	<0.01	<0.2	<10	<0.05	<0.01	<0.01	<0.02	0.01	<0.1	<1	<0.05	<0.2	<0.01
Target Range - Lower Bound	<0.01	<0.01	<0.2	<10	<0.05	<0.01	<0.01	<0.01	<0.02	<0.01	<0.1	<1	<0.05	<0.2	<0.01
Upper Bound	0.02	0.02	0.4	20	0.10	0.02	0.02	0.02	0.04	0.02	0.2	2	0.10	0.4	0.02
DUPLICATES															
TCD060	0.01														
DUP	<0.01														
Target Range - Lower Bound	<0.01														
Upper Bound	0.02														
TCD080	<0.01														
DUP	<0.01														
Target Range - Lower Bound	<0.01														
Upper Bound	0.02														
TCD104		0.05	7.76	6.8	810	1.44	0.41	1.13	<0.02	74.8	54.4	76	1.28	110.5	6.05
DUP		0.05	8.19	7.2	860	1.41	0.40	1.18	<0.02	75.0	56.4	79	1.30	115.5	6.40
Target Range - Lower Bound		0.04	7.57	6.5	760	1.30	0.37	1.09	<0.02	71.1	52.5	73	1.18	109.0	5.90
Upper Bound		0.06	8.38	7.6	910	1.55	0.44	1.22	0.04	78.7	58.3	82	1.40	117.0	6.55
TCD115	0.01														
DUP	<0.01														
Target Range - Lower Bound	<0.01														
Upper Bound	0.02														
TCD124		0.01	8.92	5.7	1550	2.37	0.20	0.34	<0.02	87.6	25.7	35	1.27	6.9	4.24
DUP		0.02	8.56	5.7	1460	2.37	0.19	0.31	<0.02	86.9	26.1	31	1.25	6.9	4.01
Target Range - Lower Bound		<0.01	8.29	5.2	1380	2.20	0.18	0.30	<0.02	82.9	24.5	30	1.15	6.5	3.91
Upper Bound		0.02	9.19	6.2	1630	2.54	0.21	0.35	0.04	91.6	27.3	36	1.37	7.3	4.34



Australian Laboratory Services Pty. Ltd.

32 Shand Street  
Stafford  
Brisbane QLD 4053  
Phone: +61 (7) 3243 7222 Fax: +61 (7) 3243 7218  
www.alsglobal.com/geochemistry

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

Project: THOMAS CREEK

Page: 3 - B  
Total # Pages: 4 (A - D)  
Plus Appendix Pages  
Finalized Date: 3-JUL-2018  
Account: ACCELE

## QC CERTIFICATE OF ANALYSIS PH18134499

Sample Description	Method Analyte Units LOD	ME-MS61 Ga ppm 0.05	ME-MS61 Ge ppm 0.05	ME-MS61 Hf ppm 0.1	ME-MS61 In ppm 0.005	ME-MS61 K % 0.01	ME-MS61 La ppm 0.5	ME-MS61 Li ppm 0.2	ME-MS61 Mg % 0.01	ME-MS61 Mn ppm 5	ME-MS61 Mo ppm 0.05	ME-MS61 Na % 0.01	ME-MS61 Nb ppm 0.1	ME-MS61 Ni ppm 0.2	ME-MS61 P ppm 10	ME-MS61 Pb ppm 0.5
BLANKS																
BLANK																
BLANK																
Target Range - Lower Bound																
Upper Bound																
BLANK		<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	<0.5
BLANK		<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	<0.5
BLANK		<0.05	<0.05	<0.1	<0.005	<0.01	<0.5	0.3	<0.01	<5	<0.05	<0.01	<0.1	<0.2	<10	<0.5
Target Range - Lower Bound		<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	<0.5
Upper Bound		0.10	0.10	0.2	0.010	0.02	1.0	0.4	0.02	10	0.10	0.02	0.2	0.4	20	1.0
DUPLICATES																
TCD060																
DUP																
Target Range - Lower Bound																
Upper Bound																
TCD080																
DUP																
Target Range - Lower Bound																
Upper Bound																
TCD104		15.35	0.11	4.0	0.032	2.78	38.0	26.2	1.93	321	1.39	2.20	7.4	44.5	560	2.1
DUP		15.55	0.13	4.1	0.034	2.93	38.7	25.9	2.03	335	1.49	2.34	7.5	45.6	580	2.1
Target Range - Lower Bound		14.65	0.06	3.7	0.026	2.70	35.9	24.5	1.87	307	1.32	2.15	7.0	42.6	530	1.5
Upper Bound		16.25	0.18	4.4	0.040	3.01	40.8	27.6	2.09	349	1.56	2.39	7.9	47.5	610	2.7
TCD115																
DUP																
Target Range - Lower Bound																
Upper Bound																
TCD124		17.25	0.17	3.5	0.034	6.16	45.6	13.7	1.15	320	1.32	2.34	10.9	20.7	620	2.0
DUP		17.50	0.14	3.4	0.039	5.82	45.3	13.6	1.08	296	1.23	2.26	11.0	20.6	590	1.8
Target Range - Lower Bound		16.45	0.10	3.2	0.030	5.68	42.7	12.8	1.05	288	1.16	2.18	10.3	19.4	560	1.3
Upper Bound		18.30	0.21	3.7	0.043	6.30	48.2	14.5	1.18	328	1.39	2.43	11.6	21.9	650	2.5



Australian Laboratory Services Pty. Ltd.

32 Shand Street  
Stafford  
Brisbane QLD 4053  
Phone: +61 (7) 3243 7222 Fax: +61 (7) 3243 7218  
www.alsglobal.com/geochemistry

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

Project: THOMAS CREEK

Page: 3 - C  
Total # Pages: 4 (A - D)  
Plus Appendix Pages  
Finalized Date: 3-JUL-2018  
Account: ACCELE

## QC CERTIFICATE OF ANALYSIS PH18134499

Sample Description	Method Analyte Units LOD	ME-MS61 Rb ppm 0.1	ME-MS61 Re ppm 0.002	ME-MS61 S % 0.01	ME-MS61 Sb ppm 0.05	ME-MS61 Sc ppm 0.1	ME-MS61 Se ppm 1	ME-MS61 Sn ppm 0.2	ME-MS61 Sr ppm 0.2	ME-MS61 Ta ppm 0.05	ME-MS61 Te ppm 0.05	ME-MS61 Th ppm 0.01	ME-MS61 Ti % 0.005	ME-MS61 Tl ppm 0.02	ME-MS61 U ppm 0.1	ME-MS61 V ppm 1
BLANKS																
BLANK																
BLANK																
Target Range - Lower Bound																
Upper Bound																
BLANK		<0.1	<0.002	<0.01	<0.05	<0.1	<1	<0.2	<0.2	<0.05	<0.05	<0.01	<0.005	<0.02	<0.1	<1
BLANK		0.1	<0.002	<0.01	<0.05	<0.1	<1	<0.2	<0.2	<0.05	<0.05	<0.01	<0.005	<0.02	<0.1	<1
BLANK		0.1	<0.002	<0.01	<0.05	<0.1	<1	<0.2	<0.2	<0.05	<0.05	<0.01	<0.005	<0.02	<0.1	<1
Target Range - Lower Bound		<0.1	<0.002	<0.01	<0.05	<0.1	<1	<0.2	<0.2	<0.05	<0.05	<0.01	<0.005	<0.02	<0.1	<1
Upper Bound		0.2	0.004	0.02	0.10	0.2	2	0.4	0.4	0.10	0.10	0.02	0.010	0.04	0.2	2
DUPLICATES																
TCD060																
DUP																
Target Range - Lower Bound																
Upper Bound																
TCD080																
DUP																
Target Range - Lower Bound																
Upper Bound																
TCD104		134.5	0.002	0.94	1.01	22.1	1	2.1	152.0	0.54	0.12	11.35	0.379	0.28	4.6	158
DUP		138.0	0.003	1.02	1.02	21.8	<1	2.2	159.0	0.57	0.14	11.70	0.403	0.27	4.7	169
Target Range - Lower Bound		129.5	<0.002	0.92	0.89	20.8	<1	1.8	147.5	0.48	0.07	10.95	0.366	0.23	4.3	154
Upper Bound		143.0	0.004	1.04	1.14	23.1	2	2.5	163.5	0.63	0.19	12.10	0.416	0.32	5.0	173
TCD115																
DUP																
Target Range - Lower Bound																
Upper Bound																
TCD124		207	0.002	0.11	0.69	9.6	<1	2.0	95.0	1.28	<0.05	17.55	0.253	0.54	9.2	79
DUP		196.0	0.002	0.11	0.71	9.3	<1	2.0	95.5	1.26	<0.05	17.50	0.239	0.48	9.1	76
Target Range - Lower Bound		191.5	<0.002	0.09	0.60	8.9	<1	1.7	90.3	1.16	<0.05	16.65	0.229	0.45	8.6	73
Upper Bound		212	0.004	0.13	0.80	10.0	2	2.3	100.0	1.38	0.10	18.40	0.263	0.57	9.7	82





Australian Laboratory Services Pty. Ltd.

32 Shand Street  
Stafford  
Brisbane QLD 4053  
Phone: +61 (7) 3243 7222 Fax: +61 (7) 3243 7218  
www.alsglobal.com/geochemistry

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

Project: THOMAS CREEK

Page: 3 - D  
Total # Pages: 4 (A - D)  
Plus Appendix Pages  
Finalized Date: 3-JUL-2018  
Account: ACCELE

QC CERTIFICATE OF ANALYSIS PH18134499

Sample Description	Method Analyte Units LOD	ME-MS61 W ppm 0.1	ME-MS61 Y ppm 0.1	ME-MS61 Zn ppm 2	ME-MS61 Zr ppm 0.5
BLANK BLANK Target Range - Lower Bound Upper Bound		BLANKS			
BLANK BLANK BLANK Target Range - Lower Bound Upper Bound		<0.1 <0.1 <0.1 <0.1 0.2	<0.1 <0.1 <0.1 <0.1 0.2	<2 <2 <2 <2 4	<0.5 <0.5 <0.5 <0.5 1.0
TCD060 DUP Target Range - Lower Bound Upper Bound		DUPLICATES			
TCD080 DUP Target Range - Lower Bound Upper Bound					
TCD104 DUP Target Range - Lower Bound Upper Bound		1.6 1.6 1.4 1.8	24.4 24.4 23.1 25.7	26 27 23 30	152.0 154.0 141.0 165.0
TCD115 DUP Target Range - Lower Bound Upper Bound					
TCD124 DUP Target Range - Lower Bound Upper Bound		2.2 2.2 1.9 2.5	19.8 20.5 19.0 21.3	23 21 19 25	109.5 113.5 102.5 120.5



Australian Laboratory Services Pty. Ltd.

32 Shand Street  
Stafford  
Brisbane QLD 4053  
Phone: +61 (7) 3243 7222 Fax: +61 (7) 3243 7218  
www.alsglobal.com/geochemistry

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

Project: THOMAS CREEK

Page: 4 - A  
Total # Pages: 4 (A - D)  
Plus Appendix Pages  
Finalized Date: 3-JUL-2018  
Account: ACCELE

## QC CERTIFICATE OF ANALYSIS PH18134499

Sample Description	Method Analyte Units LOD	Au-AA25 Au ppm 0.01	ME-MS61 Ag ppm 0.01	ME-MS61 Al % 0.01	ME-MS61 As ppm 0.2	ME-MS61 Ba ppm 10	ME-MS61 Be ppm 0.05	ME-MS61 Bi ppm 0.01	ME-MS61 Ca % 0.01	ME-MS61 Cd ppm 0.02	ME-MS61 Ce ppm 0.01	ME-MS61 Co ppm 0.1	ME-MS61 Cr ppm 1	ME-MS61 Cs ppm 0.05	ME-MS61 Cu ppm 0.2	ME-MS61 Fe % 0.01
DUPLICATES																
TCD135 DUP		<0.01														
Target Range - Lower Bound		<0.01														
Upper Bound		0.02														
TCD138 DUP			0.10 0.07	8.59 8.48	9.0 9.3	500 480	1.63 1.58	0.23 0.22	1.41 1.37	<0.02 <0.02	63.6 65.3	67.3 68.3	63 62	2.22 2.20	64.2 62.9	6.31 6.23
Target Range - Lower Bound			0.07	8.10	8.5	440	1.47	0.20	1.31	<0.02	61.2	64.3	58	2.05	61.1	5.95
Upper Bound			0.10	8.97	9.8	540	1.74	0.25	1.47	0.04	67.7	71.3	67	2.37	66.0	6.59
TCD155 DUP		0.01 <0.01														
Target Range - Lower Bound		<0.01														
Upper Bound		0.02														
TCD158 DUP			0.08 0.08	7.42 7.33	8.9 8.9	1110 1090	1.25 1.18	0.10 0.10	2.20 2.17	<0.02 <0.02	17.90 18.00	39.6 37.0	165 168	2.03 1.99	355 348	7.75 7.64
Target Range - Lower Bound			0.07	7.00	8.3	1010	1.10	0.09	2.07	<0.02	17.05	36.3	157	1.86	339	7.30
Upper Bound			0.09	7.75	9.5	1190	1.33	0.12	2.30	0.04	18.85	40.3	176	2.16	364	8.09
TCD172 DUP			0.07 0.07	8.72 8.86	10.6 10.9	400 410	1.19 1.19	0.14 0.15	2.21 2.23	<0.02 0.02	54.1 54.1	46.7 46.1	71 71	3.26 3.29	300 306	5.77 5.84
Target Range - Lower Bound			0.06	8.34	10.0	360	1.08	0.13	2.10	<0.02	51.4	44.0	66	3.06	292	5.50
Upper Bound			0.08	9.24	11.5	450	1.30	0.16	2.34	0.04	56.8	48.8	76	3.49	314	6.11
ORIGINAL DUP		0.07 0.05														
Target Range - Lower Bound		0.05														
Upper Bound		0.07														



Australian Laboratory Services Pty. Ltd.

32 Shand Street  
Stafford  
Brisbane QLD 4053  
Phone: +61 (7) 3243 7222 Fax: +61 (7) 3243 7218  
www.alsglobal.com/geochemistry

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

Project: THOMAS CREEK

Page: 4 - B  
Total # Pages: 4 (A - D)  
Plus Appendix Pages  
Finalized Date: 3-JUL-2018  
Account: ACCELE

## QC CERTIFICATE OF ANALYSIS PH18134499

Sample Description	Method Analyte Units LOD	ME-MS61 Ga ppm 0.05	ME-MS61 Ge ppm 0.05	ME-MS61 Hf ppm 0.1	ME-MS61 In ppm 0.005	ME-MS61 K % 0.01	ME-MS61 La ppm 0.5	ME-MS61 Li ppm 0.2	ME-MS61 Mg % 0.01	ME-MS61 Mn ppm 5	ME-MS61 Mo ppm 0.05	ME-MS61 Na % 0.01	ME-MS61 Nb ppm 0.1	ME-MS61 Ni ppm 0.2	ME-MS61 P ppm 10	ME-MS61 Pb ppm 0.5
TCD135 DUP Target Range - Lower Bound Upper Bound		DUPLICATES														
TCD138 DUP Target Range - Lower Bound Upper Bound		15.70 15.50 14.75 16.45	0.10 0.11 <0.05 0.16	3.3 3.5 3.1 3.7	0.025 0.026 0.019 0.032	2.31 2.29 2.18 2.43	36.3 36.7 34.2 38.8	34.3 32.3 31.4 35.2	2.33 2.27 2.18 2.43	775 746 717 804	2.09 2.10 1.94 2.25	2.77 2.72 2.60 2.89	6.5 6.3 6.0 6.8	56.7 55.6 53.1 59.2	460 460 430 490	7.8 8.0 7.0 8.8
TCD155 DUP Target Range - Lower Bound Upper Bound																
TCD158 DUP Target Range - Lower Bound Upper Bound		15.40 14.45 14.15 15.70	0.09 0.10 <0.05 0.10	4.2 4.0 3.8 4.4	0.074 0.073 0.065 0.082	3.78 3.69 3.54 3.93	8.3 8.2 7.3 9.2	40.1 38.3 37.0 41.4	3.43 3.40 3.23 3.60	664 658 623 699	0.34 0.30 0.25 0.39	1.21 1.18 1.13 1.26	7.6 7.3 7.0 7.9	60.0 57.2 55.5 61.7	670 650 620 700	2.4 2.5 1.8 3.1
TCD172 DUP Target Range - Lower Bound Upper Bound		16.45 16.60 15.65 17.40	0.11 0.13 0.06 0.18	3.0 3.0 2.8 3.3	0.028 0.026 0.021 0.033	1.90 1.94 1.81 2.03	29.0 29.4 27.2 31.2	30.1 30.2 28.4 31.9	2.58 2.60 2.45 2.73	591 596 559 628	1.65 1.77 1.57 1.85	2.46 2.50 2.35 2.61	6.1 6.2 5.7 6.6	180.0 182.0 172.0 190.5	800 810 750 860	2.5 2.8 2.0 3.3
ORIGINAL DUP Target Range - Lower Bound Upper Bound																



Australian Laboratory Services Pty. Ltd.

32 Shand Street  
Stafford  
Brisbane QLD 4053  
Phone: +61 (7) 3243 7222 Fax: +61 (7) 3243 7218  
www.alsglobal.com/geochemistry

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

Project: THOMAS CREEK

Page: 4 - C  
Total # Pages: 4 (A - D)  
Plus Appendix Pages  
Finalized Date: 3-JUL-2018  
Account: ACCELE

## QC CERTIFICATE OF ANALYSIS PH18134499

Sample Description	Method Analyte Units LOD	ME-MS61 Rb ppm 0.1	ME-MS61 Re ppm 0.002	ME-MS61 S % 0.01	ME-MS61 Sb ppm 0.05	ME-MS61 Sc ppm 0.1	ME-MS61 Se ppm 1	ME-MS61 Sn ppm 0.2	ME-MS61 Sr ppm 0.2	ME-MS61 Ta ppm 0.05	ME-MS61 Te ppm 0.05	ME-MS61 Th ppm 0.01	ME-MS61 Ti % 0.005	ME-MS61 Tl ppm 0.02	ME-MS61 U ppm 0.1	ME-MS61 V ppm 1
TCD135 DUP Target Range - Lower Bound Upper Bound		DUPLICATES														
TCD138 DUP Target Range - Lower Bound Upper Bound		152.5 150.5 144.0 159.0	0.003 0.002 <0.002 0.004	0.49 0.50 0.46 0.53	0.64 0.64 0.54 0.74	22.1 21.6 20.7 23.0	<1 <1 <1 2	3.2 3.0 2.7 3.5	185.0 181.0 173.5 192.5	0.45 0.46 0.38 0.53	0.07 0.07 <0.05 0.10	9.90 9.66 9.28 10.30	0.382 0.371 0.353 0.400	0.29 0.30 0.25 0.34	4.5 4.7 4.3 4.9	135 131 125 141
TCD155 DUP Target Range - Lower Bound Upper Bound																
TCD158 DUP Target Range - Lower Bound Upper Bound		163.0 158.0 152.5 168.5	<0.002 <0.002 <0.002 0.004	0.18 0.18 0.16 0.20	0.69 0.71 0.60 0.80	27.1 26.3 25.3 28.1	<1 <1 <1 2	5.3 5.0 4.7 5.6	191.0 184.0 178.0 197.0	0.52 0.48 0.43 0.58	<0.05 <0.05 <0.05 0.10	11.80 11.50 11.05 12.25	0.336 0.334 0.313 0.357	0.26 0.24 0.21 0.29	9.5 8.6 8.5 9.6	180 179 170 189
TCD172 DUP Target Range - Lower Bound Upper Bound		133.5 134.5 127.0 141.0	0.002 0.003 <0.002 0.004	0.78 0.77 0.73 0.82	0.42 0.43 0.34 0.51	24.1 24.6 23.0 25.7	1 1 <1 2	1.4 1.4 1.1 1.7	200 203 191.0 212	0.44 0.41 0.35 0.50	0.05 0.06 <0.05 0.10	12.05 12.00 11.40 12.65	0.384 0.391 0.363 0.412	0.20 0.21 0.17 0.24	3.8 3.8 3.5 4.1	172 175 164 183
ORIGINAL DUP Target Range - Lower Bound Upper Bound																



Australian Laboratory Services Pty. Ltd.

32 Shand Street  
Stafford  
Brisbane QLD 4053  
Phone: +61 (7) 3243 7222 Fax: +61 (7) 3243 7218  
www.alsglobal.com/geochemistry

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

Project: THOMAS CREEK

Page: 4 - D  
Total # Pages: 4 (A - D)  
Plus Appendix Pages  
Finalized Date: 3-JUL-2018  
Account: ACCELE

QC CERTIFICATE OF ANALYSIS PH18134499

Sample Description	Method Analyte Units LOD	ME-MS61 W ppm 0.1	ME-MS61 Y ppm 0.1	ME-MS61 Zn ppm 2	ME-MS61 Zr ppm 0.5
TCD135 DUP Target Range - Lower Bound Upper Bound		DUPLICATES			
TCD138 DUP Target Range - Lower Bound Upper Bound		1.2 1.3 1.1 1.4	13.1 12.6 12.1 13.6	70 68 64 74	126.0 124.0 115.0 135.0
TCD155 DUP Target Range - Lower Bound Upper Bound					
TCD158 DUP Target Range - Lower Bound Upper Bound		0.9 1.1 0.8 1.2	23.9 23.4 22.4 24.9	48 48 44 52	155.0 152.5 141.5 166.0
TCD172 DUP Target Range - Lower Bound Upper Bound		0.8 0.8 0.6 1.0	13.4 13.5 12.7 14.2	61 62 56 67	109.0 111.0 101.5 119.0
ORIGINAL DUP Target Range - Lower Bound Upper Bound					



Australian Laboratory Services Pty. Ltd.

32 Shand Street  
Stafford  
Brisbane QLD 4053  
Phone: +61 (7) 3243 7222 Fax: +61 (7) 3243 7218  
www.alsglobal.com/geochemistry

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

Project: THOMAS CREEK

Page: Appendix 1  
Total # Appendix Pages: 1  
Finalized Date: 3-JUL-2018  
Account: ACCELE

**QC CERTIFICATE OF ANALYSIS PH18134499**

**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-AA25 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-AA25	BAG-01	CRU-21	CRU-31
CRU-QC	LEV-01	LOG-22	ME-MS61
PUL-23	PUL-QC	SAM-COR01	SPL-21
SPLIT-D	TRSPEC-20	WEI-21	