



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

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

QC CERTIFICATE AD17083757

Project: MH03

P.O. No.: 338153

This report is for 30 Percussion samples submitted to our lab in Adelaide, SA,
Australia on 2-MAY-2017.

The following have access to data associated with this certificate:

KIM GREY

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 *****

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Plus Appendix Pages

Finalized Date: 15-MAY-2017

Account: TODRIV

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
PUL-23	Pulv Sample - Split/Retain
LOG-22	Sample login - Rcd w/o BarCode
PUL-QC	Pulverizing QC Test

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME-ICP61	33 element four acid ICP-AES	ICP-AES
Au-ICP22	Au 50g FA ICP-AES finish	ICP-AES

Signature:

Cameron Brosnan, Laboratory Manager, Perth



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Sample Description	Method Analyte Units LOR	ME-ICP61 La ppm 10	ME-ICP61 Mg % 0.01	ME-ICP61 Mn ppm 5	ME-ICP61 Mo ppm 1	ME-ICP61 Na % 0.01	ME-ICP61 Ni ppm 1	ME-ICP61 P ppm 10	ME-ICP61 Pb ppm 2	ME-ICP61 S % 0.01	ME-ICP61 Sb ppm 5	ME-ICP61 Sc ppm 1	ME-ICP61 Sr ppm 1	ME-ICP61 Th ppm 20	ME-ICP61 Ti % 0.01	ME-ICP61 Tl ppm 10
STANDARDS																
GBM908-10		50	1.86	806	62	2.21	2260	1000	2050	0.39	<5	18	297	20	0.68	10
GBM908-10		50	1.92	799	57	2.25	2280	1060	2140	0.41	<5	19	303	20	0.70	<10
Target Range - Lower Bound		20	1.61	715	57	1.93	2030	880	1860	0.33	<5	14	260	<20	0.59	<10
Upper Bound		70	1.99	885	72	2.38	2480	1100	2280	0.43	12	20	320	60	0.74	20
GLG912-5																
Target Range - Lower Bound																
Upper Bound																
MRGeo08		30	1.35	557	15	1.99	683	1080	1070	0.31	7	12	307	30	0.50	<10
MRGeo08		40	1.40	559	26	2.08	701	1070	1090	0.32	10	13	318	30	0.52	<10
Target Range - Lower Bound		<10	1.17	497	12	1.76	621	930	969	0.27	<5	10	276	<20	0.44	<10
Upper Bound		60	1.45	619	18	2.18	761	1160	1190	0.35	15	15	340	60	0.56	20
OREAS-45e																
Target Range - Lower Bound																
Upper Bound																
PK2																
Target Range - Lower Bound																
Upper Bound																
BLANKS																
BLANK																
Target Range - Lower Bound																
Upper Bound																
BLANK		<10	<0.01	<5	1	<0.01	<1	<10	<2	<0.01	<5	<1	<1	<20	<0.01	<10
BLANK		<10	<0.01	<5	1	<0.01	<1	<10	2	<0.01	<5	<1	<1	<20	<0.01	<10
Target Range - Lower Bound		<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<5	<1	<1	<20	<0.01	<10
Upper Bound		20	0.02	10	2	0.02	2	20	4	0.02	10	2	2	40	0.02	20



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Sample Description	Method Analyte Units LOR	ME-ICP61 U ppm 10	ME-ICP61 V ppm 1	ME-ICP61 W ppm 10	ME-ICP61 Zn ppm 2
STANDARDS					
GBM908-10		<10	145	<10	1070
GBM908-10		<10	142	<10	1140
Target Range - Lower Bound		<10	123	<10	939
Upper Bound		20	153	20	1155
GLG912-5					
Target Range - Lower Bound					
Upper Bound					
MRGeo08		<10	110	<10	797
MRGeo08		<10	109	<10	809
Target Range - Lower Bound		<10	97	<10	722
Upper Bound		30	121	30	886
OREAS-45e					
Target Range - Lower Bound					
Upper Bound					
PK2					
Target Range - Lower Bound					
Upper Bound					
BLANKS					
BLANK					
Target Range - Lower Bound					
Upper Bound					
BLANK		<10	<1	<10	<2
BLANK		<10	<1	<10	<2
Target Range - Lower Bound		<10	<1	<10	<2
Upper Bound		20	2	20	4



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Sample Description	Method Analyte Units LOR	Au-ICP22	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61
		Au	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	K
		ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	%
		0.001	0.5	0.01	5	10	0.5	2	0.01	0.5	1	1	1	0.01	10	0.01
MH20392 DUP Target Range - Lower Bound Upper Bound		DUPLICATES														
		0.002														
		0.002														
		<0.001														
		0.003														
MH20415 DUP Target Range - Lower Bound Upper Bound		<0.5	4.27	<5	410	1.7	<2	0.41	<0.5	5	25	17	1.68	10	1.71	
		<0.5	4.42	<5	430	1.8	<2	0.42	<0.5	5	26	17	1.74	10	1.77	
		<0.5	4.12	<5	390	1.2	<2	0.38	<0.5	4	23	15	1.61	<10	1.64	
		1.0	4.57	10	450	2.3	4	0.45	1.0	6	28	19	1.81	20	1.84	
MH20483 DUP Target Range - Lower Bound Upper Bound		<0.5	9.15	<5	720	3.7	2	0.19	<0.5	12	56	6	3.71	20	4.06	
		<0.5	9.19	<5	720	3.8	<2	0.19	<0.5	12	57	6	3.72	30	4.01	
		<0.5	8.70	<5	670	3.1	<2	0.17	<0.5	10	53	5	3.52	<10	3.82	
		1.0	9.64	10	770	4.4	4	0.21	1.0	14	60	7	3.91	40	4.25	
MHB101 DUP Target Range - Lower Bound Upper Bound		2.0	6.56	5	50	<0.5	90	0.03	3.8	38	10	>10000	2.52	30	0.15	
		2.3	6.08	<5	50	<0.5	94	0.03	3.8	36	10	>10000	2.39	30	0.15	
		1.5	5.99	<5	40	<0.5	85	0.02	3.1	34	9	9650	2.32	20	0.13	
		2.8	6.65	10	60	1.0	99	0.04	4.5	40	12	>10000	2.59	40	0.17	
ORIGINAL DUP Target Range - Lower Bound Upper Bound		0.039														
		0.038														
		0.036														
		0.041														



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MH20392 DUP Target Range - Lower Bound Upper Bound		DUPLICATES														
MH20415 DUP Target Range - Lower Bound Upper Bound		50 50 40 60	0.36 0.38 0.34 0.40	256 266 243 279	1 1 <1 2	0.96 0.99 0.92 1.03	13 11 10 14	480 480 450 510	16 13 12 17	<0.01 <0.01 <0.01 0.02	<5 <5 <5 10	5 5 4 6	63 64 59 68	30 40 <20 40	0.22 0.22 0.20 0.24	<10 <10 <10 20
MH20483 DUP Target Range - Lower Bound Upper Bound		30 40 20 50	0.86 0.88 0.82 0.92	419 423 395 447	1 1 <1 2	0.69 0.69 0.65 0.73	27 26 24 29	540 530 500 570	14 21 15 20	<0.01 <0.01 <0.01 0.02	<5 6 <5 10	12 12 10 14	29 29 27 31	20 20 <20 40	0.29 0.29 0.27 0.31	10 <10 <10 20
MHB101 DUP Target Range - Lower Bound Upper Bound		10 10 <10 20	0.12 0.11 0.10 0.13	305 283 274 314	1 1 <1 2	0.01 0.01 <0.01 0.02	7 6 5 8	520 530 490 560	2130 2180 2050 2260	0.05 0.05 0.04 0.06	<5 <5 <5 10	<1 <1 <1 2	23 24 21 26	<20 <20 <20 40	0.01 0.01 <0.01 0.02	<10 <10 <10 20
ORIGINAL DUP Target Range - Lower Bound Upper Bound																



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MH20392 DUP Target Range - Lower Bound Upper Bound		DUPLICATES			
MH20415 DUP Target Range - Lower Bound Upper Bound		<10 <10 <10 20	25 26 23 28	<10 <10 <10 20	39 40 36 43
MH20483 DUP Target Range - Lower Bound Upper Bound		<10 <10 <10 20	59 59 55 63	<10 <10 <10 20	81 80 74 87
MHB101 DUP Target Range - Lower Bound Upper Bound		40 40 30 50	19 17 16 20	<10 <10 <10 20	>10000 >10000 9500 >10000
ORIGINAL DUP Target Range - Lower Bound Upper Bound					



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CERTIFICATE COMMENTS

ACCREDITATION COMMENTS

Applies to Method:

NATA Accredited. Corporate Accreditation No: 825, Corporate Site No: 23001. The Technical Signatory is Wendy Wong, Senior QC Chemist.
Au-ICP22 ME-ICP61

LABORATORY ADDRESSES

Applies to Method:

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
Au-ICP22 ME-ICP61

Applies to Method:

Processed at ALS Adelaide located at Unit 1, 1 Burma Road, Pooraka, Adelaide, SA, Australia.
LOG-22 PUL-23 PUL-QC WEI-21