



Australian Laboratory Services Pty. Ltd.

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Finalized Date: 25-OCT-2017
Account: TODRIV

QC CERTIFICATE AD17205406

P.O. No.: SC17-05

This report is for 13 Pan Con samples submitted to our lab in Adelaide, SA, Australia on 25-SEP-2017.

The following have access to data associated with this certificate:

PAUL BURTON
CATH WETHERBY

KIM GREY

GAVIN OTTO

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
LOG-22	Sample login - Rcd w/o BarCode
WEI-21g	Received Wet Sample Wt in grams
LEV-01	Waste Disposal Levy
PUL-31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME-MS89L	Super Trace DL Na2O2 by ICP-MS	ICP-MS

To: TODD RIVER METALS
ATTN: CATH WETHERBY
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:

Colin Ramshaw, Vancouver Laboratory Manager



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QC CERTIFICATE OF ANALYSIS AD17205406

Sample Description	Method Analyte Units LOR	ME-MS89L Ag ppm 5	ME-MS89L As ppm 4	ME-MS89L Ba ppm 2	ME-MS89L Be ppm 0.4	ME-MS89L Bi ppm 0.1	ME-MS89L Ca % 0.1	ME-MS89L Cd ppm 0.8	ME-MS89L Ce ppm 0.2	ME-MS89L Co ppm 0.5	ME-MS89L Cs ppm 0.1	ME-MS89L Cu ppm 20	ME-MS89L Dy ppm 0.03	ME-MS89L Er ppm 0.02	ME-MS89L Eu ppm 0.03	ME-MS89L Fe % 0.05
STANDARDS																
GTA-01		8	<4	51	176.0	2.5	0.3	0.9	0.6	1.1	159.5	<20	0.08	0.05	<0.03	0.51
Target Range - Lower Bound		<5	<4	48	165.0	1.4	0.3	<0.8	<0.2	<0.5	132.5	<20	<0.03	<0.02	0.23	0.41
Upper Bound		15	10	64	202	2.0	0.8	2.1	0.7	1.6	162.0	50	0.15	0.07	0.38	0.66
SY-4		<5	<4	336	3.3	0.1	5.8	<0.8	225	2.0	1.3	<20	18.75	14.30	1.83	4.06
Target Range - Lower Bound		<5	<4	299	2.1	<0.1	5.1	<0.8	107.5	1.7	1.2	<20	16.35	12.75	1.75	3.91
Upper Bound		15	12	369	4.0	0.4	6.4	1.6	131.5	3.9	1.8	60	20.1	15.65	2.21	4.89
BLANKS																
BLANK		14	<4	2	<0.4	0.7	0.1	1.2	3.8	0.5	<0.1	<20	0.05	0.03	<0.03	<0.05
BLANK		13	<4	<2	<0.4	0.2	0.1	1.0	0.4	<0.5	<0.1	<20	0.03	0.09	<0.03	<0.05
Target Range - Lower Bound		<5	<4	<2	<0.4	<0.1	<0.1	<0.8	<0.2	<0.5	<0.1	<20	<0.03	<0.02	<0.03	<0.05
Upper Bound		10	8	4	0.8	0.2	0.2	1.6	0.4	1.0	0.2	40	0.06	0.04	0.06	0.10
DUPLICATES																
SCA019		9	303	111	4.9	1.8	0.2	<0.8	3370	10.8	7.2	<20	149.5	66.1	5.14	1.97
DUP		<5	307	91	4.6	1.6	0.2	<0.8	3320	11.4	8.4	<20	143.0	61.4	4.85	1.93
Target Range - Lower Bound		<5	286	94	4.0	1.5	<0.1	<0.8	3180	10.0	7.3	<20	139.0	60.5	4.72	1.80
Upper Bound		10	324	108	5.5	1.9	0.3	1.6	3510	12.2	8.3	40	153.5	67.0	5.27	2.10



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Sample Description	Method Analyte Units LOR	ME-MS89L Ga ppm 0.5	ME-MS89L Gd ppm 0.03	ME-MS89L Ge ppm 0.5	ME-MS89L Ho ppm 0.01	ME-MS89L In ppm 0.3	ME-MS89L K % 0.05	ME-MS89L La ppm 0.08	ME-MS89L Li ppm 2	ME-MS89L Lu ppm 0.05	ME-MS89L Mn ppm 10	ME-MS89L Mo ppm 2	ME-MS89L Nb ppm 0.8	ME-MS89L Nd ppm 0.07	ME-MS89L Ni ppm 10	ME-MS89L Pb ppm 0.5
STANDARDS																
GTA-01		55.8	<0.03	7.3	<0.01	<0.3	2.38	0.28	3300	<0.05	900	2	43.5	0.56	10	10.8
Target Range - Lower Bound		47.5	<0.03	5.7	<0.01	<0.3	1.91	<0.08	3020	<0.05	800	<2	41.5	<0.07	<10	10.2
Upper Bound		59.1	0.13	8.5	0.03	0.7	2.45	0.42	3700	0.13	1000	6	52.5	0.25	40	13.6
SY-4		36.1	14.90	2.2	4.08	<0.3	1.51	172.5	41	1.86	820	<2	15.4	94.2	<10	8.9
Target Range - Lower Bound		32.7	12.75	<0.5	3.86	<0.3	1.19	52.1	32	1.84	760	<2	11.3	52.0	<10	8.5
Upper Bound		41.1	15.65	2.6	4.74	1.0	1.57	63.9	44	2.36	950	6	15.9	63.8	30	11.5
BLANKS																
BLANK		<0.5	0.22	0.7	0.02	<0.3	0.07	1.76	<2	<0.05	10	<2	1.5	1.98	<10	0.8
BLANK		0.9	<0.03	1.6	<0.01	<0.3	0.08	0.10	<2	<0.05	<10	<2	1.5	0.10	<10	<0.5
Target Range - Lower Bound		<0.5	<0.03	<0.5	<0.01	<0.3	<0.05	<0.08	<2	<0.05	<10	<2	<0.8	<0.07	<10	<0.5
Upper Bound		1.0	0.06	1.0	0.02	0.6	0.10	0.16	4	0.10	20	4	1.6	0.14	20	1.0
DUPLICATES																
SCA019		24.0	248	4.9	24.0	<0.3	1.48	1480	23	6.18	290	2	4020	1260	50	139.0
DUP		24.1	237	3.4	24.0	<0.3	1.41	1510	23	6.52	300	2	4070	1240	40	138.0
Target Range - Lower Bound		22.3	230	3.4	22.8	<0.3	1.32	1420	20	5.98	270	<2	3840	1185	30	131.0
Upper Bound		25.8	255	4.9	25.2	0.6	1.57	1570	26	6.72	320	4	4250	1315	60	146.0



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



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Sample Description	Method Analyte Units LOR	ME-MS89L U ppm 0.2	ME-MS89L V ppm 1	ME-MS89L W ppm 0.3	ME-MS89L Y ppm 0.2	ME-MS89L Yb ppm 0.02	ME-MS89L Zn ppm 10
STANDARDS							
GTA-01		5.8	3	4.7	0.8	0.05	70
Target Range - Lower Bound		5.0	<1	4.5	0.3	<0.02	50
Upper Bound		6.6	4	6.2	1.2	0.06	90
SY-4		1.1	5	<0.3	110.5	14.50	110
Target Range - Lower Bound		0.4	6	<0.3	107.0	13.65	80
Upper Bound		1.2	10	0.9	131.0	16.75	130
BLANKS							
BLANK		0.5	1	1.1	0.8	0.07	20
BLANK		0.3	2	<0.3	<0.2	<0.02	10
Target Range - Lower Bound		<0.2	<1	<0.3	<0.2	<0.02	<10
Upper Bound		0.4	2	0.6	0.4	0.04	20
DUPLICATES							
SCA019		146.0	16	109.0	740	49.0	70
DUP		147.0	17	113.5	711	47.6	70
Target Range - Lower Bound		139.0	15	105.5	689	45.9	60
Upper Bound		154.0	18	117.0	762	50.7	80



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	CERTIFICATE COMMENTS
	<p style="text-align: center;">LABORATORY ADDRESSES</p> <p>Processed at ALS Adelaide located at Unit 1, 1 Burma Road, Pooraka, Adelaide, SA, Australia. LEV-01 LOG-22 PUL-31 WEI-21g</p> <p>Processed at ALS Vancouver located at 2103 Dollarton Hwy, North Vancouver, BC, Canada. ME-MS89L</p>