



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 Brisbane is a NATA Accredited Testing Laboratory. Corporate

Accreditation No: 825, Corporate Site No: 818.

To: CRESSWELLS TRANSPORT PTY LTD

PO BOX 310

DELORAINES TAS 7304

Page: 1

Total # Pages: 4 (A - B)

Plus Appendix Pages

Finalized Date: 10-MAR-2021

Account: CRETRA

QC CERTIFICATE BU21027566

Project: Cresswells

This report is for 82 samples of Drill Chip submitted to our lab in Burnie, TAS, Australia on 5-FEB-2021.

The following have access to data associated with this certificate:

TONY CRESSWELL

KEN MORRISON

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
PUL-QC	Pulverizing QC Test
LOG-22	Sample login - Rcd w/o BarCode
LEV-01	Waste Disposal Levy
CRU-21	Crush entire sample
PUL-23	Pulv Sample - Split/Retain
BAG-01	Bulk Master for Storage
SPL-21	Split sample - riffle splitter

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME-GRA05CE	LOI by CERES Furnace TGA System	HAG
ME-XRF26	Whole Rock By Fusion/XRF	XRF
ME-GRA05	H2O/LOI by TGA furnace	TGA

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:

Shaun Kenny, Brisbane Laboratory Manager



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 Brisbane is a NATA Accredited Testing Laboratory. Corporate
Accreditation No: 825, Corporate Site No: 818.

To: CRESSWELLS TRANSPORT PTY LTD
PO BOX 310
DELORAIN TAS 7304

Project: Cresswells

Page: 2 - A
Total # Pages: 4 (A - B)
Plus Appendix Pages
Finalized Date: 10-MAR-2021
Account: CRETRA

QC CERTIFICATE OF ANALYSIS BU21027566

Method Analyte Units LOD	ME-XRF26 Al2O3 %	ME-XRF26 BaO %	ME-XRF26 CaO %	ME-XRF26 Cr2O3 %	ME-XRF26 Fe2O3 %	ME-XRF26 K2O %	ME-XRF26 MgO %	ME-XRF26 MnO %	ME-XRF26 Na2O %	ME-XRF26 P2O5 %	ME-XRF26 SO3 %	ME-XRF26 SiO2 %	ME-XRF26 SrO %	ME-XRF26 TiO2 %	ME-XRF26 Total %
Sample Description	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
STANDARDS															
BAUX CS4															
BAUX CS4															
Target Range - Lower Bound															
Upper Bound															
GIOP-129															
GIOP-129															
GIOP-129															
Target Range - Lower Bound															
Upper Bound															
NCS 14014a	0.10	<0.01	55.2	<0.01	0.08	0.02	0.30	<0.01	0.01	<0.01	0.10	0.20	0.02	<0.01	56.03
NCS 14014a	0.09	<0.01	55.5	<0.01	0.09	0.02	0.32	0.01	0.01	<0.01	0.10	0.20	0.02	0.01	56.37
Target Range - Lower Bound	0.07	<0.01	54.0	<0.01	0.06	<0.01	0.26	<0.01	<0.01	<0.01	0.08	0.19	<0.01	<0.01	<0.01
Upper Bound	0.12	0.02	56.6	0.02	0.11	0.04	0.32	0.03	0.03	0.02	0.13	0.25	0.04	0.02	0.02
NCS 14017b	0.60	<0.01	54.2	<0.01	0.32	0.01	0.77	0.01	0.02	<0.01	0.47	0.88	0.03	<0.01	57.31
NCS 14017b	0.61	<0.01	53.9	<0.01	0.32	<0.01	0.78	0.01	0.02	<0.01	0.48	0.88	0.03	0.01	57.04
Target Range - Lower Bound	0.56	<0.01	52.8	<0.01	0.28	<0.01	0.73	<0.01	<0.01	<0.01	0.40	0.78	<0.01	<0.01	<0.01
Upper Bound	0.66	0.02	55.4	0.02	0.36	0.02	0.85	0.03	0.02	0.02	0.51	0.92	0.05	0.02	0.02
NCSDC73037	12.71	0.04	7.81	0.01	13.78	1.19	5.07	0.18	3.58	0.45	0.03	47.84	0.03	4.16	99.64
Target Range - Lower Bound	12.25	<0.01	7.28	<0.01	13.30	1.11	4.89	0.15	3.43	0.39	<0.01	46.79	<0.01	3.88	<0.01
Upper Bound	13.11	0.05	7.88	0.04	14.22	1.27	5.33	0.21	3.79	0.48	0.05	49.11	0.05	4.26	0.02
SARM-4	16.50	0.01	11.40	0.01	8.97	0.25	7.55	0.18	2.46	0.01	0.02	52.64	0.03	0.20	100.35
SARM-4	16.47	0.01	11.50	0.01	8.95	0.25	7.63	0.18	2.49	0.01	0.02	52.76	0.03	0.20	100.65
Target Range - Lower Bound	15.97	<0.01	11.10	<0.01	8.63	0.22	7.20	0.15	2.33	<0.01	<0.01	51.39	<0.01	0.17	<0.01
Upper Bound	17.03	0.03	11.90	0.03	9.31	0.28	7.80	0.21	2.59	0.03	0.02	53.89	0.05	0.23	0.02
SARM-43	0.06	<0.01	0.75	0.03	0.26	0.04	44.1	0.01	0.05	0.02	0.10	5.99	<0.01	0.01	51.45
SARM-43	0.06	<0.01	0.75	0.03	0.26	0.04	44.1	0.01	0.05	0.02	0.10	6.03	<0.01	0.01	51.49
Target Range - Lower Bound	0.04	<0.01	0.69	<0.01	0.23	0.02	43.0	<0.01	0.03	<0.01	0.08	5.74	<0.01	<0.01	<0.01
Upper Bound	0.08	0.02	0.81	0.05	0.29	0.06	45.2	0.03	0.07	0.04	0.13	6.24	0.02	0.03	0.02



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 Brisbane is a NATA Accredited Testing Laboratory. Corporate

Accreditation No: 825, Corporate Site No: 818.

To: CRESSWELLS TRANSPORT PTY LTD

PO BOX 310

DELORAIN TAS 7304

Page: 2 – B

Total # Pages: 4 (A – B)

Plus Appendix Pages

Finalized Date: 10-MAR-2021

Account: CRETRA

Project: Cresswells

QC CERTIFICATE OF ANALYSIS BU21027566

Sample Description	Method Analyte Units LOD	ME-GRA05 LOI % 0.01
STANDARDS		
BAUX CS4		23.68
BAUX CS4		23.76
Target Range – Lower Bound		22.91
Upper Bound		24.35
GIOP-129		6.01
GIOP-129		5.99
GIOP-129		6.02
Target Range – Lower Bound		5.73
Upper Bound		6.10
NCS 14014a		
NCS 14014a		
Target Range – Lower Bound		
Upper Bound		
NCS 14017b		
NCS 14017b		
Target Range – Lower Bound		
Upper Bound		
NCSDC73037		
Target Range – Lower Bound		
Upper Bound		
SARM-4		
SARM-4		
Target Range – Lower Bound		
Upper Bound		
SARM-43		
SARM-43		
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 Brisbane is a NATA Accredited Testing Laboratory. Corporate

Accreditation No: 825, Corporate Site No: 818.

To: CRESSWELLS TRANSPORT PTY LTD

PO BOX 310

DELORAIN TAS 7304

Page: 3 – A

Total # Pages: 4 (A – B)

Plus Appendix Pages

Finalized Date: 10-MAR-2021

Account: CRETRA

Project: Cresswells

QC CERTIFICATE OF ANALYSIS BU21027566

Sample Description	Method Analyte Units LOD	ME-XRF26 Al2O3 %	ME-XRF26 BaO %	ME-XRF26 CaO %	ME-XRF26 Cr2O3 %	ME-XRF26 Fe2O3 %	ME-XRF26 K2O %	ME-XRF26 MgO %	ME-XRF26 MnO %	ME-XRF26 Na2O %	ME-XRF26 P2O5 %	ME-XRF26 SO3 %	ME-XRF26 SiO2 %	ME-XRF26 SrO %	ME-XRF26 TiO2 %	ME-XRF26 Total %
		0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
BLANKS																
BLANK		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	99.31	<0.01	<0.01	99.31
BLANK		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	99.37	<0.01	<0.01	99.37
BLANK		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	98.36	<0.01	<0.01	98.36
Target Range – Lower Bound		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Upper Bound		0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
DUPLICATES																
RR205 2-5		0.02	<0.01	30.7	<0.01	0.14	0.03	20.9	<0.01	0.04	0.01	0.06	0.56	<0.01	0.01	100.00
DUP		0.03	<0.01	30.7	<0.01	0.14	0.03	20.9	<0.01	0.04	0.01	0.06	0.57	<0.01	0.01	100.00
Target Range – Lower Bound		<0.01	<0.01	30.2	<0.01	0.13	0.02	20.6	<0.01	0.03	<0.01	0.05	0.55	<0.01	<0.01	98.99
Upper Bound		0.04	0.02	31.2	0.02	0.15	0.04	21.2	0.02	0.05	0.02	0.07	0.58	0.02	0.02	101.00
RR702 7-2																
DUP																
Target Range – Lower Bound																
Upper Bound																
RR802 8-2		0.11	<0.01	30.5	<0.01	0.99	0.03	20.7	0.02	0.04	0.01	0.09	0.32	0.01	0.01	100.25
DUP		0.11	<0.01	30.5	<0.01	0.99	0.03	20.8	0.02	0.03	0.01	0.09	0.29	0.01	0.01	100.30
Target Range – Lower Bound		0.10	<0.01	30.0	<0.01	0.97	0.02	20.4	<0.01	0.02	<0.01	0.08	0.29	<0.01	<0.01	99.26
Upper Bound		0.12	0.02	31.0	0.02	1.01	0.04	21.1	0.03	0.05	0.02	0.10	0.32	0.02	0.02	101.30
RR1104 11-4																
DUP																
Target Range – Lower Bound																
Upper Bound																
RR1401 14-1		0.22	<0.01	31.1	<0.01	0.51	0.05	20.3	0.01	0.03	0.01	0.06	0.51	0.01	0.02	100.20
DUP		0.22	<0.01	31.3	<0.01	0.51	0.05	20.4	0.01	0.03	0.01	0.07	0.52	0.01	0.02	100.55
Target Range – Lower Bound		0.21	<0.01	30.7	<0.01	0.49	0.04	20.0	<0.01	0.02	<0.01	0.05	0.50	<0.01	<0.01	99.36
Upper Bound		0.23	0.02	31.7	0.02	0.53	0.06	20.7	0.02	0.04	0.02	0.08	0.53	0.02	0.03	101.40
RR1503 15-3																
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 Brisbane is a NATA Accredited Testing Laboratory. Corporate

Accreditation No: 825, Corporate Site No: 818.

To: CRESSWELLS TRANSPORT PTY LTD

PO BOX 310

DELORAIN TAS 7304

Page: 3 - B

Total # Pages: 4 (A - B)

Plus Appendix Pages

Finalized Date: 10-MAR-2021

Account: CRETRA

Project: Cresswells

QC CERTIFICATE OF ANALYSIS BU21027566

Sample Description	Method Analyte Units LOD	ME-GRA05 LOI % 0.01
BLANK BLANK BLANK Target Range - Lower Bound Upper Bound		BLANKS
RR205 2-5 DUP Target Range - Lower Bound Upper Bound		47.50 47.58 46.34 48.74 DUPLICATES
RR702 7-2 DUP Target Range - Lower Bound Upper Bound		47.37 47.40 46.19 48.58
RR802 8-2 DUP Target Range - Lower Bound Upper Bound		
RR1104 11-4 DUP Target Range - Lower Bound Upper Bound		47.57 47.74 46.45 48.86
RR1401 14-1 DUP Target Range - Lower Bound Upper Bound		
RR1503 15-3 DUP Target Range - Lower Bound Upper Bound		47.09 47.05 45.88 48.26



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 Brisbane is a NATA Accredited Testing Laboratory. Corporate
Accreditation No: 825, Corporate Site No: 818.

To: CRESSWELLS TRANSPORT PTY LTD
PO BOX 310
DELORAINIE TAS 7304

Page: 4 – A
Total # Pages: 4 (A – B)
Plus Appendix Pages
Finalized Date: 10-MAR-2021
Account: CRETRA

Project: Cresswells

QC CERTIFICATE OF ANALYSIS BU21027566

Sample Description	Method Analyte Units LOD	ME-XRF26	ME-XRF26	ME-XRF26	ME-XRF26	ME-XRF26	ME-XRF26	ME-XRF26	ME-XRF26	ME-XRF26	ME-XRF26	ME-XRF26	ME-XRF26	ME-XRF26	ME-XRF26	ME-XRF26
		Al2O3	BaO	CaO	Cr2O3	Fe2O3	K2O	MgO	MnO	Na2O	P2O5	SO3	SiO2	SrO	TiO2	Total
		%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
		0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
		DUPLICATES														
RR1804 18-4		0.07	<0.01	30.6	<0.01	0.18	0.02	21.3	0.01	0.03	0.01	0.06	0.17	<0.01	0.01	100.25
DUP		0.07	<0.01	30.8	<0.01	0.18	0.02	21.3	0.01	0.03	0.01	0.07	0.15	<0.01	0.01	100.45
Target Range – Lower Bound		0.06	<0.01	30.2	<0.01	0.17	<0.01	21.0	<0.01	0.02	<0.01	0.05	0.15	<0.01	<0.01	99.34
Upper Bound		0.08	0.02	31.2	0.02	0.19	0.03	21.6	0.02	0.04	0.02	0.08	0.17	0.02	0.02	101.35
RR2001 20-1																
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 Brisbane is a NATA Accredited Testing Laboratory. Corporate

Accreditation No: 825, Corporate Site No: 818.

To: CRESSWELLS TRANSPORT PTY LTD

PO BOX 310

DELORAINES TAS 7304

Page: 4 - B

Total # Pages: 4 (A - B)

Plus Appendix Pages

Finalized Date: 10-MAR-2021

Account: CRETRA

Project: Cresswells

QC CERTIFICATE OF ANALYSIS BU21027566

Sample Description	Method Analyte Units LOD	ME-GRA05 LOI % 0.01
RR1804 18-4 DUP Target Range - Lower Bound Upper Bound	DUPLICATES	
RR2001 20-1 DUP Target Range - Lower Bound Upper Bound	47.27 47.32 46.10 48.49	



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 Brisbane is a NATA Accredited Testing Laboratory. Corporate

Accreditation No: 825, Corporate Site No: 818.

To: CRESSWELLS TRANSPORT PTY LTD

PO BOX 310

DELORAIN TAS 7304

Page: Appendix 1

Total # Appendix Pages: 1

Finalized Date: 10-MAR-2021

Account: CRETRA

Project: Cresswells

QC CERTIFICATE OF ANALYSIS BU21027566

CERTIFICATE COMMENTS

ACCREDITATION COMMENTS

Applies to Method:

NATA Accreditation covers the performance of this service but does not cover the performance of ALS Brisbane Sample Preparation. Corporate Accreditation No: 825, Corporate Site No: 818. The Technical Signatory is James Lo, XRF Supervising Chemist

ME-GRA05

ME-XRF26

LABORATORY ADDRESSES

Applies to Method:

Processed at ALS Brisbane located at 32 Shand Street, Stafford, Brisbane, QLD, Australia. Processed at ALS Brisbane Sample Preparation at 23 Pineapple Street, Zillmere, QLD, 4034, Australia

ME-GRA05

ME-GRA05CE

ME-XRF26

Applies to Method:

Processed at ALS Burnie located at 39 River Road, Burnie, TAS, Australia.

BAG-01

CRU-21

LEV-01

LOG-22

PUL-23

PUL-QC

SPL-21

WEI-21