

SOIL AND ROCK SAMPLING RESULTS

E.L 16/71 Liena (L)

E.L. 17/71 Black Bluff (BB)

Contents

Analytical Reports

Plate 1 & 2 Liena (E.L. 16/71)

Plate 1 & 2 Black Bluff (E.L. 17/71)

NOTE:
Duplicates for report in back pocket

801002 71-828 Q36 & 45

GEOCHEMICAL AND MINERALOGICAL
LABORATORIES PTY. LTD.

76 McLACHLAN AVENUE, RUSHCUTTERS BAY, N.S.W., 2011

Registered
Laboratory
Number 743



Phones: 31-9011
Telex: 21757
Cables: Geochem Sydney

Your Ref. S.A. Dark	Our Ref. 13681
Date In 14.5.71	Date Out 2.6.71
Client Quilko Mining Pty. Ltd.,	
Samples Identification BB1 to BB12, BB6a, BB6b, BB20, BB22 L(1 to 9) Soils, L2, L4, L5, L7, L8, L9.	

ANALYTICAL REPORT

REMARKS: *Soil and rock samples from Black Bluff (BB) and Liena (L) 17/71 & 16/71*

ANALYTICAL TECHNIQUE	ELEMENTS	PRECISION AT LEVEL		LIMIT OF DETECTION
AAS HClO ₄ Extraction	Cu Pb Zn	10%	500 ppm	2
	As	20%	10 ppm	0.02

- AAS** *Geochemical Analysis by Atomic Absorption Spectrophotometry. Sample attack by methods giving highest extraction within cost-limitations. Conditions carefully controlled to give high precision. Suitable for levels up to 1%.*
- Sorting** *Sorting Analysis. As above but technique extended to operate in percentage range. Generally suitable for levels up to 15%.*
- Colorimetric** *Geochemical Analysis by Colorimetry. Used for elements which cannot be determined by AAS due to poor sensitivity - Sample attack by methods giving highest extraction within cost limitations. Generally suitable for levels up to 1000 ppm. Above 1000 ppm AAS can usually be used.*

PRECISION is determined with standards similar in composition to the samples. The value given is \pm two standard deviations. This means that if the analysis is repeated sixteen times, on average only one result will differ from the mean by more than the value given. Results are usually rounded to the nearest 0.5 standard deviation.



This laboratory is registered by the National Association of Testing Authorities, Australia.

These results, comprising pages, have been obtained in accordance with the Association's terms of registration

Shuether
NATA SIGNATORY



GEOMIN LABORATORIES

SYDNEY — DARWIN — KALGOORLIE — PERTH

801003

REPORT and SHEET No.

1368/1

Analyst	V.J.		C.E.	Z.M.
Sample No.	Cu		Pb	Zn
BB1	20	beology drained Alluvium over limestone	34	120
BB2	32	" " "	40	132
3	36	Limestone	48	128
4	44	"	40	120
5	40	"	30	130
6	30	Altered impure limestone	50	210
7	30	Limestone	36	110
8	16	"	40	72
9	20	"	34	102
10	30	"	30	110
INTERNAL STANDARD	120		40	120
11	20	Basalt.	50	72
BB12	14	Basalt + limestone	34	54
BB6a	10	Altered impure limestone.	130	150
BB 6b	4	Limestone & calcite.	60	38
BB20	6	" & "	48	12
21	6	Jasper conglomerate.	20	12
BB22	14	River gravels.	20	48
L1(Soil)	4	Moina sandstone.	22	8
2 "	2	" "	10	4
3 "	66	Gordon limestone.	28	88
4 "	44	" "	24	100
5 "	52	Tertiary basalt.	28	94
6 "	36	" "	40	92
7 "	38	" "	22	76
L8(Soil)	T/F	Gordon limestone	T/F	T/F

All results in parts per million unless otherwise stated.

- not requested T/F to follow X below limit of detection S/P sent previously I.S. insufficient sample SNR sample not received

These results are authentic only when accompanied by cover sheet signed by the registered NATA signatory.



GEOMIN LABORATORIES

SYDNEY — DARWIN — KALGOORLIE — PERTH

REPORT and SHEET No.

13681/1a

Analyst	J.K.	J.K.
Sample No.	Au	Au
BB1	X	L9
2	X	L2
3	X	L4
4	X	L5
5	X	L7
6	X	L8
7	X	L9
8	X	
9	X	
10	X	
INTERNAL STANDARD	5.3	
11	X	
BB12	X	
BB6a	X	
BB6b	X	
BB20	X	
21	X	
BB22	X	
L1	X	
2	X	
3	X	
4	X	
5	X	
6	X	
7	X	
L8	X	

All results in parts per million unless otherwise stated.

- not requested T/F to follow X below limit of detection S/P sent previously I.S. insufficient sample SNR sample not received

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100

801006

GEOCHEMICAL AND MINERALOGICAL
LABORATORIES PTY. LTD.

76 McLACHLAN AVENUE, RUSHCUTTERS BAY, N.S.W., 2011

Registered
Laboratory
Number 743



Phones: 31-9011
Telex: 21757
Cables: Geochem Sydney

Your Ref. S.A. Dark	Our Ref. 13681
Date In 28.5.71	Date Out 4.6.71
Client Quilko Mining Pty.Ltd.,	
Samples Identification BB1 to BB22,L(1 to 9) Soils L2,L4,L5,L(7 to 9)	

ANALYTICAL REPORT

REMARKS

ANALYTICAL TECHNIQUE	ELEMENTS	PRECISION AT LEVEL		LIMIT OF DETECTION
AAS/Aqua Regia	Ag	10%	10 ppm	0.1
Fusion	W	20%	200 ppm	4

AAS

Geochemical Analysis by Atomic Absorption Spectrophotometry. Sample attack by methods giving highest extraction within cost-limitations. Conditions carefully controlled to give high precision. Suitable for levels up to 1%.

Sorting

Sorting Analysis. As above but technique extended to operate in percentage range. Generally suitable for levels up to 15%.

Colorimetric

Geochemical Analysis by Colorimetry. Used for elements which cannot be determined by AAS due to poor sensitivity - Sample attack by methods giving highest extraction within cost limitations. Generally suitable for levels up to 1000 ppm. Above 1000 ppm AAS can usually be used.

PRECISION is determined with standards similar in composition to the samples. The value given is \pm two standard deviations. This means that if the analysis is repeated sixteen times, on average only one result will differ from the mean by more than the value given. Results are usually rounded to the nearest 0,5 standard deviation.



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005



GOMIN LABORATORIES

SYDNEY — DARWIN — KALGOORLIE — PERTH

801007

REPORT and SHEET No.

13677/2

Analyst	M.Z.	M.Z.
Sample No	W	W
BB 1	x	L9 Soils x
2	x	L2 x
3	x	L4 x
4	x	L5 x
5	x	L7 x
6	x	L8 x
7	x	L9 x
8	x	
9	x	
10	x	
INTERNAL STANDARD		
11	x	
BB12	x	
BB6A	x	
BB6B	x	
BB20	x	
21	x	
BB22	x	
L 1 Soils	x	
2	x	
3	x	
4	x	
5	x	
6	x	
7	x	
8 Soil	x	

All results in parts per million units, unless otherwise stated
 -- not requested T/F to follow X below limit of detection S/P sent previously I.S. insufficient sample SNP sample not received

These results are authoritative only when accompanied by the original sheet signed by a registered NATA laboratory

006

801008



GEOMIN LABORATORIES

SYDNEY - DARWIN - KALGOORLIE - PERTH

REPORT and SHEET No.

13681

Analyst	E.M.	E.M.
Sample No.	Ag	Ag
BE1	0.6	L9 Soil 0.4
2	1.1	L2 x
3	2.0	L4 3.0
4	1.1	L5 0.6
5	0.9	L7 0.8
6	1.2	L8 0.1
7	0.8	L9 0.3
8	0.5	
9	1.0	
10	1.0	
STANDARD		
11	0.5	
BB 12	0.6	
BB 6A	3.4	
BB 6B	4.1	
BB 2G	3.5	
21	0.2	
BB 22	0.3	
L1 Soil	0.3	
2 Soil	x	
3 Soil	1.4	
4 Soil	1.1	
5 Soil	1.3	
6 Soil	T/F	
7 Soil	0.9	
L 3 Soil	1.1	

All results in parts per million unless otherwise stated.

- not requested T/F to follow X below limit of detection S/P sent previously I.S. insufficient sample SNR sample not received

These results are authentic only when accompanied by cover sheet signed by the registered NATA signatory

003

GEOCHEMICAL AND MINERALOGICAL LABORATORIES PTY. LTD

D/B No. **13681**

Company **Quilko Mining Pty. Ltd.** Batch No. **S.A. Dark** INV No.

Transport Details DATE REC'D **14/5**

Work Required DATE DESP. **16/6**

Results omitted from previous report dated 2/6/71

by submitter →

← To be filled in by laboratory only →

SAMPLE NUMBER	Ag													
L6 Soil	0.9													
Standard														
Limit of detection (ppm)														

X indicates that the content of the element sought is below the limit of detection.
 Tr indicates element detected but too low a concentration to be measured.
 - indicates not determined
 , in parts per million unless otherwise indicated

008
 ASPHAR

801011 71-828

GEOCHEMICAL ANALYSES

50, DE BARY STREET
 OXFORD, S.A. 5001
 PHONE 79 2123
 CABLE "PHARSCO"
 ADELAIDE
 TRUX "PHARGES"
 AAP2573

E.L. 16/71

Samples from: AUSTRALIA & NEW ZEALAND EXPLORATION CO.
 Area:
 Samples of: STREAM SEDIMENT
 Batch No.: CH 2165

Sheet No.: 4
 Date: 8/6/71

SAMPLES DISPOSED OF AFTER TWO MONTHS UNLESS WE ARE OTHERWISE ADVISED

EL 17/71 Stream sed
 samples from
 Leven River at
 Loongana.
 EL 16/71

Sample Description	Cu, ppm	Su, ppm	W, ppm	Mo, ppm
1	<2	<5	<2	<2
2	<2	<5	<2	<2
3	10	<5	<2	<2
4	20	<5	<2	<2
5	20	<5	<2	<2
6	20	<5	<2	<2
7	30	<5	<2	<2
8	15	<5	<2	<2
9	5	<5	<2	<2
10	<2	<5	<2	<2
11	20	<5	<2	<2

ANALYTICAL METHODS:

Cu by AAS following conc. HClO₄ leach for 1 hour on 0.25gm sample. Sn by the Gallein method on 0.5gm sample. W by ~~modified Dithiol~~ following potassium pyrosulphate fusion on 0.1gm sample. Mo by modified Dithiol following potassium pyrosulphate fusion on 0.2gm sample.
 (1 copy to Mr. Callow, 1 copy to Mr. Agaihy)

Signed: S. May

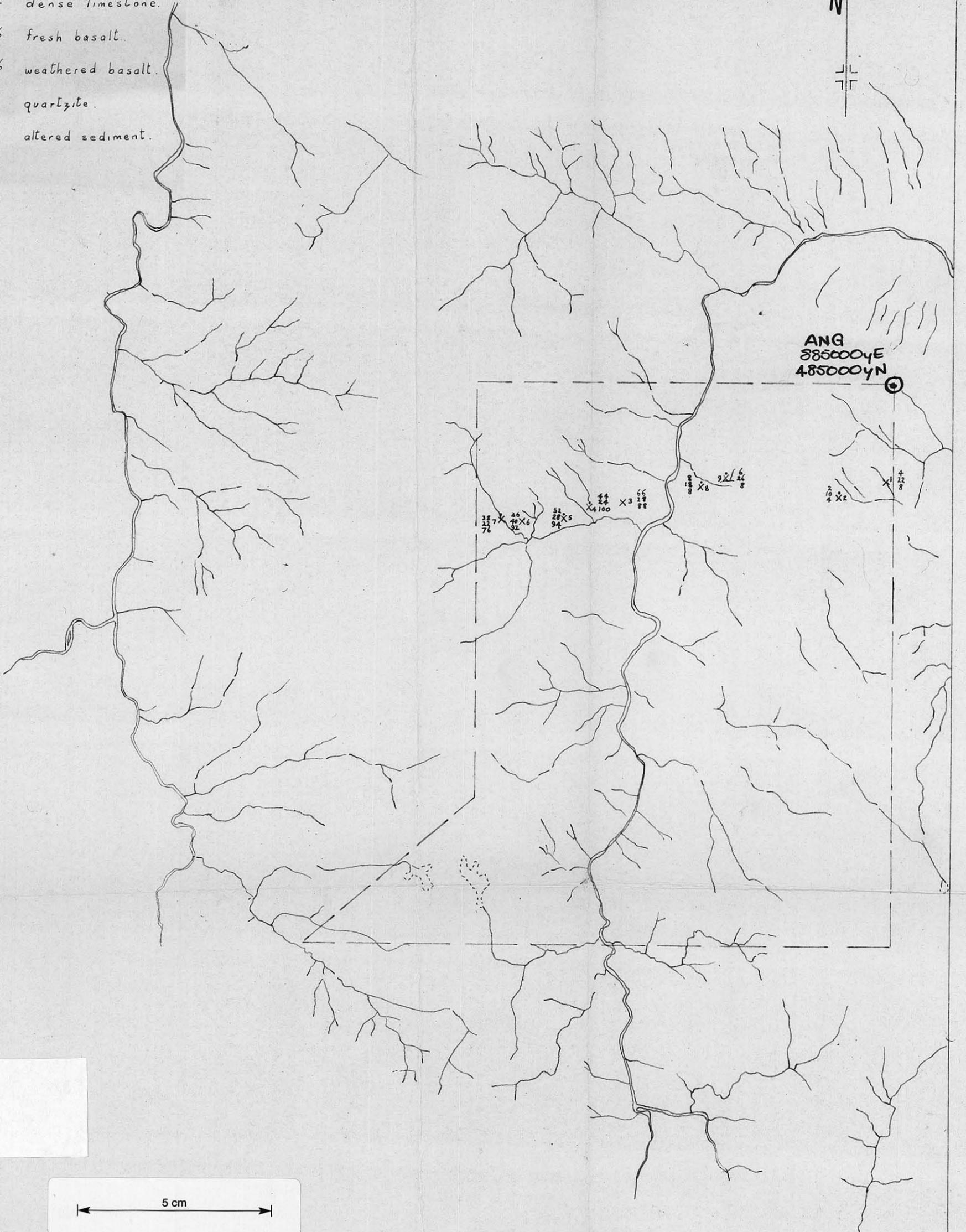
Eh 16/71 71-828

Plate I.

Rock samples values.

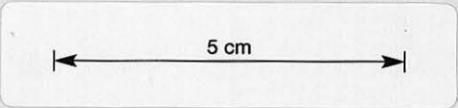
	Ag	Cu	Pb	Zn (in P.P.M.)	
L2	.	4	12	6	f/g sandstone.
L4	3.0	10	50	24	dense limestone.
L5	0.6	56	18	86	fresh basalt.
L7	0.8	58	18	86	weathered basalt.
L8	0.1	10	18	6	quartzite.
L9	0.3	6	26	6	altered sediment.

Drainage map showing sampling points.



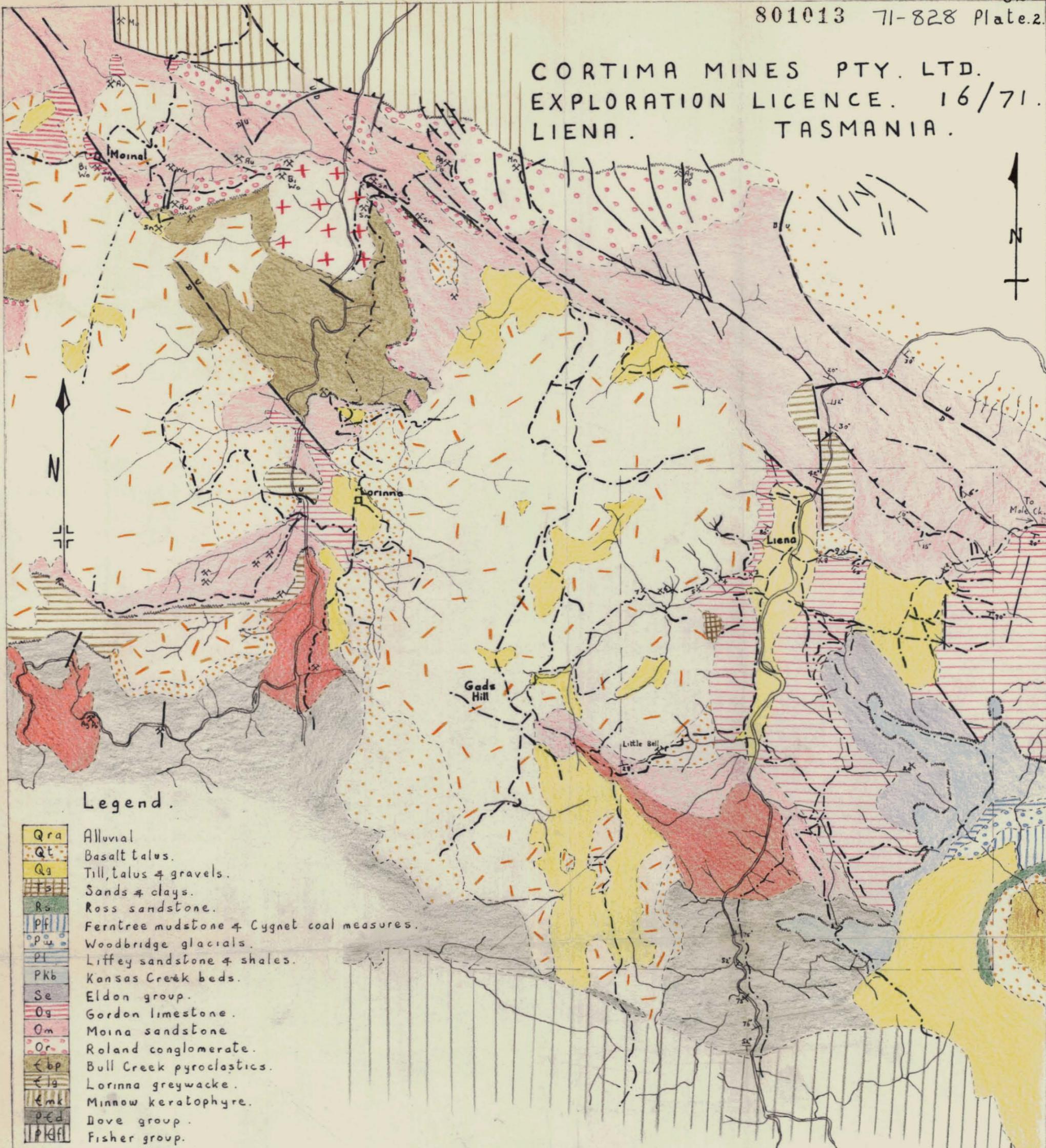
ANG COORDINATES

- 38 Copper.
- 22 Lead.
- 76 Zinc.
- X signifies sample point.
- " rock " "



Overlay for Middsex 1 mile — 1 inch geology sheet.

CORTIMA MINES PTY. LTD.
EXPLORATION LICENCE. 16/71.
LIENA. TASMANIA.



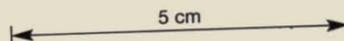
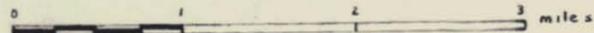
Legend.

- | | |
|-----|---|
| Qra | Alluvial |
| Qt | Basalt talus. |
| Qs | Till, talus & gravels. |
| Tb | Sands & clays. |
| Rs | Ross sandstone. |
| Pf | Ferntree mudstone & Cygnet coal measures. |
| Pw | Woodbridge glacials. |
| Pl | Liffey sandstone & shales. |
| Pkb | Kansas Creek beds. |
| Se | Eldon group. |
| Og | Gordon limestone. |
| Om | Moina sandstone. |
| Or | Roland conglomerate. |
| cbp | Bull Creek pyroclastics. |
| clg | Lorinna greywacke. |
| cmk | Minnow keratophyre. |
| ped | Dove group. |
| pkf | Fisher group. |

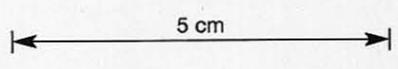
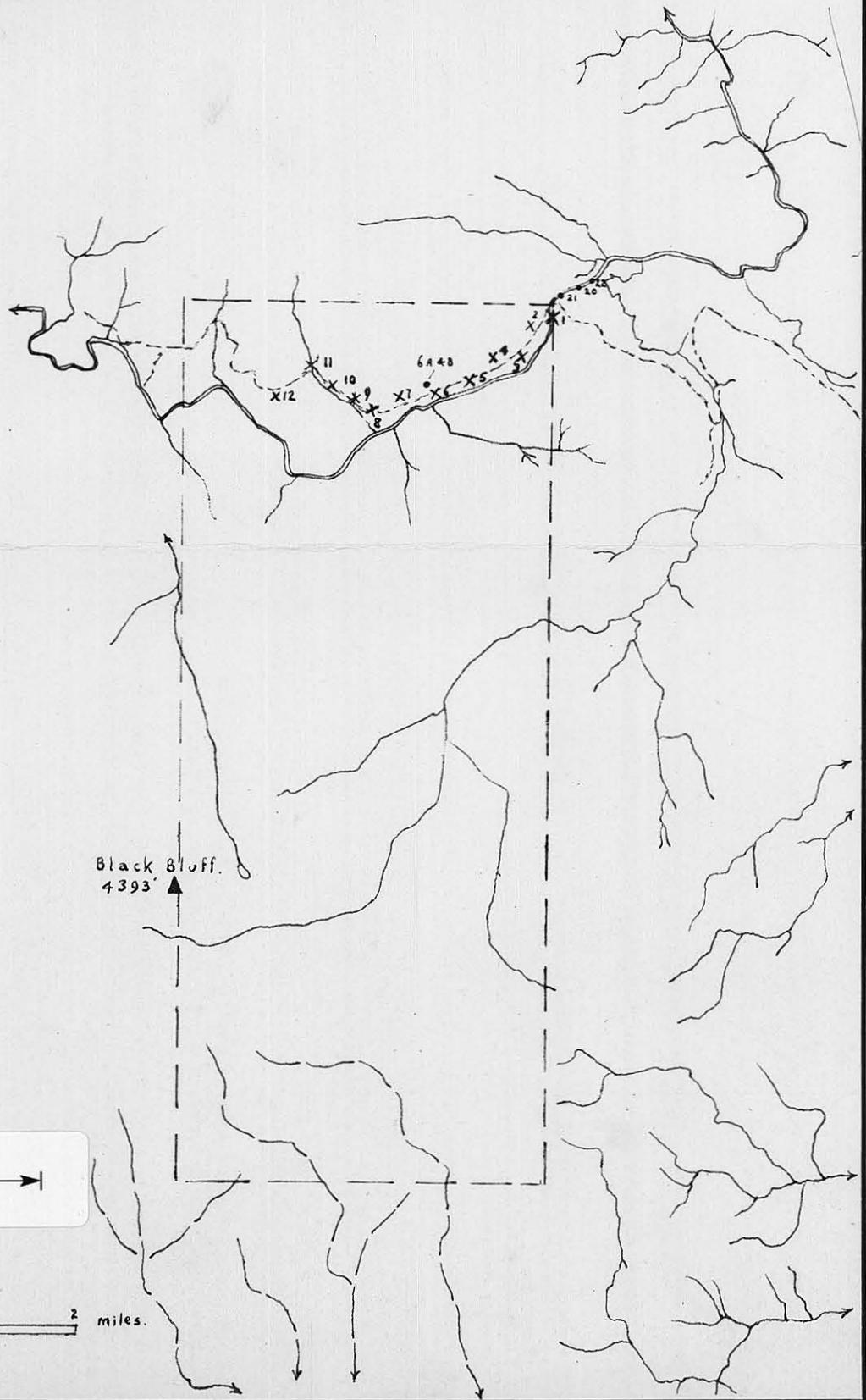
Igneous rocks.

- | | |
|-------|--------------------|
| Tb | Tertiary basalt. |
| Jdl | Jurassic dolerite. |
| ddlgr | Dolcoath granite. |
| ldogr | Dove granite. |

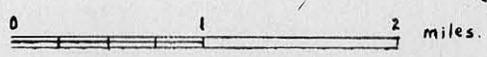
SCALE.



CORTIMA MINES PTY. LTD.
EXPLORATION LICENCE. 17/71.
BLACK BLUFF, TASMANIA.
Drainage map showing sampling points.



SCALE.



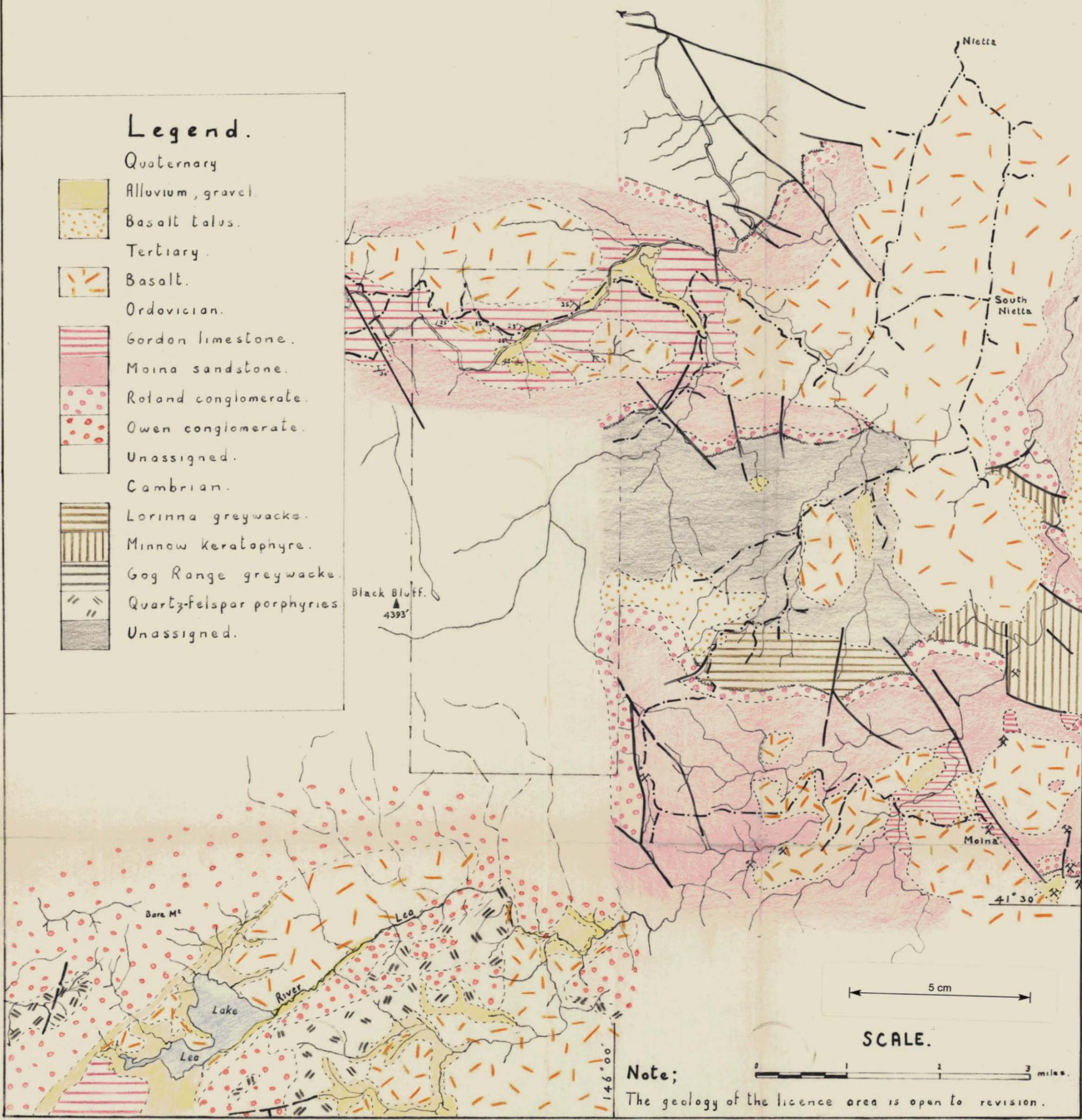
021

022

CORTIMA MINES PTY. LTD.
EXPLORATION LICENCE. 17/71.
BLACK BLUFF. TASMANIA.

Legend.

- Quaternary
- Alluvium, gravel.
- Basalt talus.
- Tertiary
- Basalt.
- Ordovician.
- Gordon limestone.
- Moina sandstone.
- Rotand conglomerate.
- Owen conglomerate.
- Unassigned.
- Cambrian.
- Lorinna greywacke.
- Minnow keratophyre.
- Gog Range greywacke.
- Quartz-felspar porphyries.
- Unassigned.



5 cm

SCALE.

0 1 2 3 miles.

Note;
The geology of the licence area is open to revision.