

000

		13 AUG 1985		
		DEPT. OF MINES		
		8556/85		

REPORT ON WORK COMPLETED,  
 JULY, 1984 to JANUARY, 1985  
 ON AUTHORITY TO PROSPECT,  
 LINDA VALLEY AREA

**OPEN FILE**

*Beddows*

By: J.W. Beddows

Date: June, 1985

Circulation: Gold Fields Exploration (2)  
 Mt. Lyell (1)  
 Mines Department (1)

**MICROFILMED**

85-2475

SUMMARY

In the seven month period to January, 1985 the exploration on the Authority to Prospect (A to P) included a 5 hole diamond drilling program and some grassroots geochemical work.

Three prospects were drilled in the diamond drilling program - Lyell Blocks (NL1101, NL1102), Gormanston (G12, G13) and McDowell's P.A. (G14A). A total of 2392.9m was drilled.

At Lyell Blocks the two holes were drilled to test the possibility of high grade copper mineralization continuing with depth in a structurally controlled lode. No mineralization of significance was intersected in either hole other than a small interval of 0.7% Cu and 8 g/t Ag between 151.9m and 177.5m in NL1102. NL1102 also contained significant hematite-barite alteration between 332 and 380m.

At Gormanston drilling was done to test the possibility of high grade copper ore being located near the Great Lyell Fault, under the Pioneer unconformity in a structural setting comparable to North Lyell. The results here were even more disappointing as there was a lack of any significant alteration.

McDowell's P.A. is a small gold show thought to be located on the North Lyell Fault and the drilling here was done to check the possibility of replacement gold mineralization in the Gordon Limestone against the North Lyell Fault at depth. The hole drilled 421m of glacials.

M. Bird also did some stream sediment work sampling moss from just above water level to check the occurrence of fine gold. Using this technique he outlined areas that were anomalous and these included Western Tharsis, Cemetery Creek and near the waterfall at Gormanston Gap. These anomalous areas should be followed up.

TABLE OF CONTENTS

	<u>Page</u>
SUMMARY	
1. INTRODUCTION	1.
2. WORK COMPLETED AND RESULTS, JULY, 1984 TO JANUARY, 1985	3.
2.1 Lyell Blocks	3.
2.2 Gormanston	6.
2.3 McDowell's P.A.	9.
3. GEOCHEMICAL SAMPLING OF MOSS IN CREEKS	12.
4. REFERENCES	13.

APPENDICES

APPENDIX 1 : Expenditure

APPENDIX 2 : Detailed Logs

LIST OF FIGURES

- ✓ Figure 1 Location Map (In Text).
- ✓ Figure 2 Distribution of Glacial Deposits at Gormanston  
(In Text)
- ✓ Figure 3 Geochemical Moss Sampling 1:10,000
- ✓ Figure 4 Drillhole Location and Geological Compilation  
of the Mt. Lyell Mine Lease and Buffer Zone 1:10,000

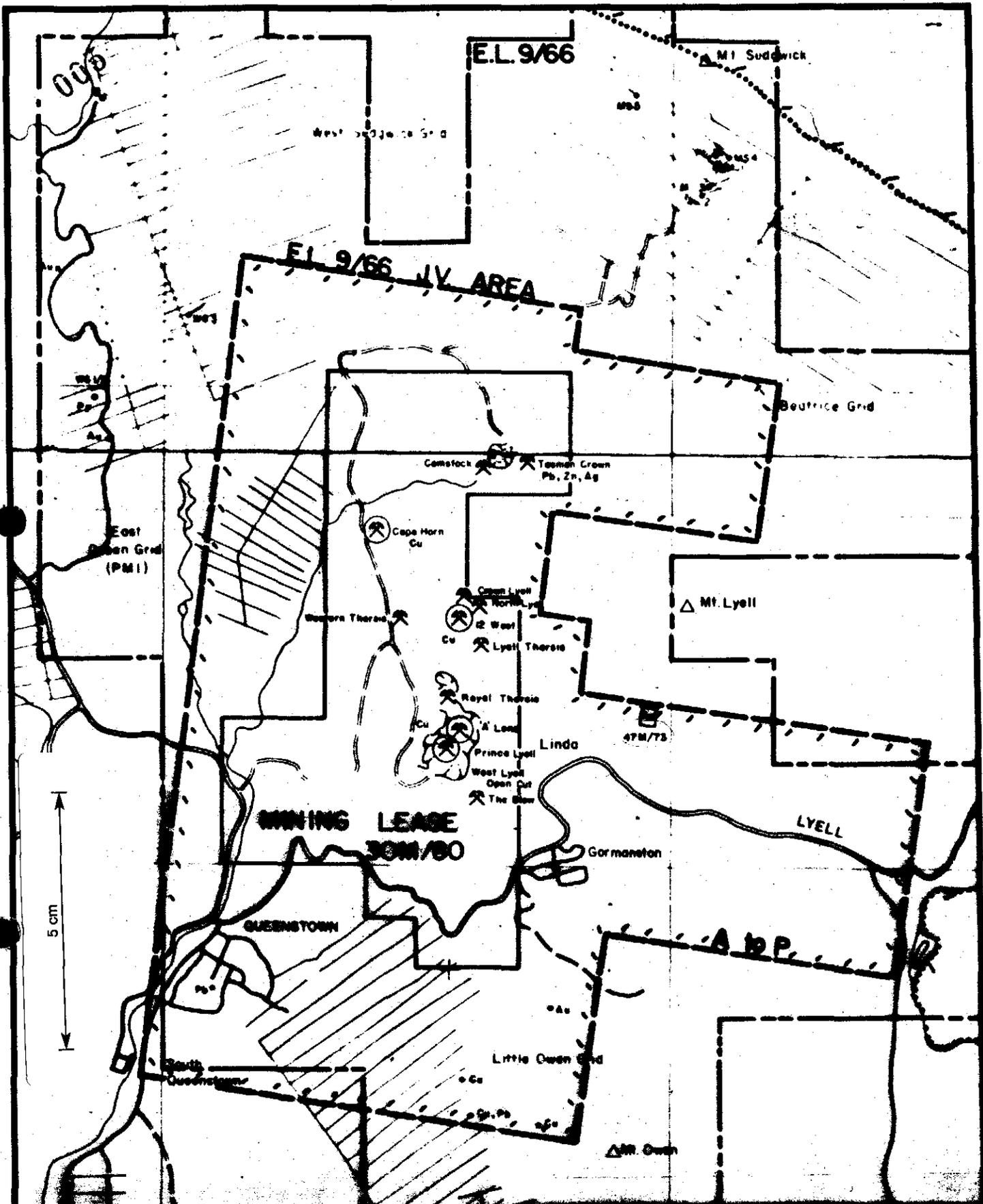
1. INTRODUCTION

The Authority to Prospect (A to P) covers an area of approximately 30km<sup>2</sup> around Queenstown in Western Tasmania (Figure 1). The A to P surrounds the Consolidated Mining Lease 30M/80 held by the Mt. Lyell Mining and Railway Company Limited, and includes both the Comstock and Linda Valleys, Mt. Lyell and the Northern slopes of Mt. Owen.

Geologically, the area consists of Cambrian Mt. Read Volcanics and Tyndall Group rocks in the North and South-west, Ordovician Owen Conglomerate, Pioneer Beds and Gordon Limestone in the South and East. There is also some Gordon Limestone in the West but that area is largely underlain by Silurian sediments. Glacial effects can be seen over much of the A to P. The exploration effort is aimed at finding copper-precious metal orebodies similar to those in the Mt. Lyell Field, and gold replacement bodies in the Gordon Limestone.

The area now covered by the Authority to Prospect was originally part of the Mt. Lyell Consolidated Mining Lease. Mt. Lyell then reduced the area of the Mining Lease and the released area was included in E.L. 9/66 as Area C and was known as the Buffer Zone. Recently Mt. Lyell applied to have the area reincluded in the Mining Lease (Mining Lease applications 1M/84-40M/84), but while this application was under consideration the decision to wind down the Mt. Lyell mining operation was made and the Authority to Prospect was granted instead.

There is a great deal of historical literature covering the Mt. Lyell mining field and a brief summary is contained in a paper by Reid (1975). Recently the majority of work has concentrated on the Mt. Lyell Consolidated Mining Lease.



GOLD FIELDS EXPLORATION PTY. LIMITED

# LINDA VALLEY LOCALITY MAP

SCALE 1:50000



DRAWN BY : J.B.
DRAFTSMAN: S.F.
DATE: June, 80
REVISIONS :
FILE NO.

FIG. 1

006

100007

This report describes the work undertaken on the A to P in the seven months to the end of January, 1985. The majority of this work was done by Senior Geologist M. Bird; the author was only involved in the splitting and assaying of some of the core. The work done included the drilling of 5 diamond drillholes (total length of 2392.9m) on 3 prospects (Lyell Blocks, Gormanston and McDowell's P.A.) and some grassroots geochemical work. This program cost about \$147,000 to the end of February, 1985. All the drilling in the program was done by Boart Australia Drilling.

007

2. WORK COMPLETED AND RESULTS, JULY, 1984 TO JANUARY, 19852.1 Lyell Blocks

The Lyell Blocks area is an old native copper mining area. The native copper is in clays thought to be derived from Gordon Limestone. It is located, just to the south of the North Lyell area.

Mining in the area consisted of several levels of stoping and each level was almost immediately below the one above, possibly suggesting that they were mining a structurally controlled lode of some kind. There is also a suggestion, in historical literature that the native copper may have been grading into chalcocite with depth (M. Bird, pers. comm.). R. Sillitoe (pers. comm.) thought that the Blocks may represent mineralization along an earlier fault.

Two angled drillholes (NL1101, NL1102) with a total length of 1024.4m, were diamond drilled beneath the "Blocks" workings from opposite directions to test the possibility of high grade copper mineralization (chalcocite) continuing with depth. The reason for the two holes was that there was some uncertainty as to which way the possible lode may have dipped. Results of the drilling are given below:

NL1101

COLLAR CO-ORDINATES: 5343276.7mN 383497.3mE

R.L.: 531.7m

Azimuth: 265° 10' 43"

Dip: -59° 45' 43"

008

Abbreviated Log:

0-35m	Glacials
35-211m	Clayey material mainly, probably Gordon Limestone that has been balled up and slumped due to glacial action?
211-227m	Pioneer Sandstone with quite abundant chromite.
227-554.4m	Owen Conglomerate. This is a mixture of conglomerates and sandstones that have patchy hematitic alteration varying from slight hematization of the matrix to massive hematite replacement of clasts.

Assays: There were no samples taken.

Comments: The black pug has up to 5% pyrite in places and some minor chalcopyrite between 87 and 90m. The Pioneer Sandstone has some minor sericitization but is essentially unaltered. The Owen Conglomerate is also except for the interval 289-313m where there is a partial massive replacement of the conglomerate clasts by hematite and barite.

NL1102

Collar Coordinates: 5343159.0mN 383213.6mE

R.L.: 521.4m

Azimuth: 67.08°

Dip: -44.75°

009

Abbreviated Log

- 0-75m Massive silica and silica-hematite breccia-  
probably the "North Lyell Chert".
- 75-152m Owen Conglomerate with patchy silicification  
and hematization. Interval cut by some  
quartz-hematite-sericite-barite veins,  
several with galena.
- 152-304m Sandstones and grits with chromite (Pioneer  
Sandstone) that are quite strongly  
sericitic-chloriticly altered between  
152-172m and 193-220m. The remaining  
quartzites are only weakly hematitic  
or unaltered.
- 304-470m Quartzites and conglomerates with variable  
(E.O.H.) hematization. Strong hematization of  
matrix from 304-332m. From 332-380m  
there is total replacement of the rock  
by hematite-barite alteration.

Assays: This hole was assayed completely between  
105m and 389m at approximately 2m intervals.  
Results were poor for all elements except  
copper and silver, which average 0.68%  
between 151.9m and 177.5m with a peak  
value of 1.66% for the two metre interval  
between 171.5m to 173.5m. Silver values  
were also elevated for this interval averaging  
about 8 g/t.

Comments: The high values for copper and silver  
were in the strongly sericitized Pioneer  
Sandstone, which is interesting although  
the values obtained were not economic.  
The massive replacement of conglomerate  
by hematite-barite is very similar

010

to the rock type found on the surface adjacent to the Lyell Tharsis orebody so it too was interesting to find. This hematite-barite is not on the Great Lyell Fault or beneath the unconformity but probably replacing a certain more permeable horizon in the Owen Conglomerate. This hole has indicated that some Mt. Lyell type mineralization has edged into the Ordovician sediments.

2.2 Gormanston

It was thought that the Great Lyell Fault or a similar structure passes through the Gormanston area, thrusting volcanics over conglomerate, and this is unconformably overlain by Pioneer Sandstone. This was interpreted as a similar situation to North Lyell where at least part of the high grade copper is trapped along the base of the unconformity, which was impervious to fluids moving up the Great Lyell Fault.

So two diamond drillholes (G12, G13), totalling 814.5m in length, were planned and drilled in the Gormanston area; the results of this drilling are shown below:

G12

Collar Coordinates: 5341185mN 383750mE

R.L.: 352m

Azimuth: 241°

Dip: -70°

Abbreviated Log:

0-19m Glacials  
19-379.5m Owen Conglomerate. Quartzites and conglomerates (E.O.H.) erates that are slightly hematitic in general. From 176-230m is a grey quartzite with abundant sericitic spots (this was identified as siderite by M. Bird). There is minor pyrite and some native copper associated with small goethitic veins from 330-345m. Several quartz-chlorite veins intersect the core and some of these contain pyrite and minor chalcopyrite.

Assays: M. Bird sampled this hole at irregular intervals between 25 and 284m. Some of these samples were a full half core split but others were only parts of a half core split.

Results of assays from these samples were poor with Cu, Pb and Zn all less than 0.01%, Ag less than 3 ppm and Au less than 0.05 ppm throughout the interval assayed.

Comments: The assay results were very low and there was very little mineralization and alteration of any significance. The hole was disappointing as there was no Pioneer Sandstone intersected and there was a lack of any strong hematite-barite alteration.

G13

Collar Coordinates: 5341053mN 383505mE

R.L.: 365m

Azimuth: 104°

Dip: -75°

Abbreviated Log:

- 0-126m      Glacials - rubble, sands and clays. Fragments include Owen Conglomerate, Mt. Read Volcanics, Gordon Pug? and other unknown sediments. The section 7.0m-88.0m is composed almost entirely of angular volcanic fragments in a volcanics, clay and sand matrix.
- 126-435m    Quartzite and conglomerate, the top (E.O.H.) 5=10m may be Pioneer Sandstone. The remainder is Owen Conglomerate which is, in general, slightly hematitic with patchy minor sericite-pyrite alteration.

Assays: No samples were taken for assaying from this hole due to the lack of alteration in the sequence.

Comments: M. Bird, when logging this hole, encountered what appeared to be a volcanoclastic breccia and this led to his interpretation of the Gormanston area as an explosion crater that was rapidly infilled with sediment.

This "volcanoclastic breccia" has since been interpreted by Sillitoe (1985)

013

100014

and Arnold (pers. comm.) as glacial debris. Sillitoe and Arnold also re-examined the logs of all previous holes drilled in the Gormanston area and produce a map (Figure 2) showing depth of glacials. It would appear that previous workers in the Gormanston area have not recognized either the thickness variation or the abundance of glacial debris there.

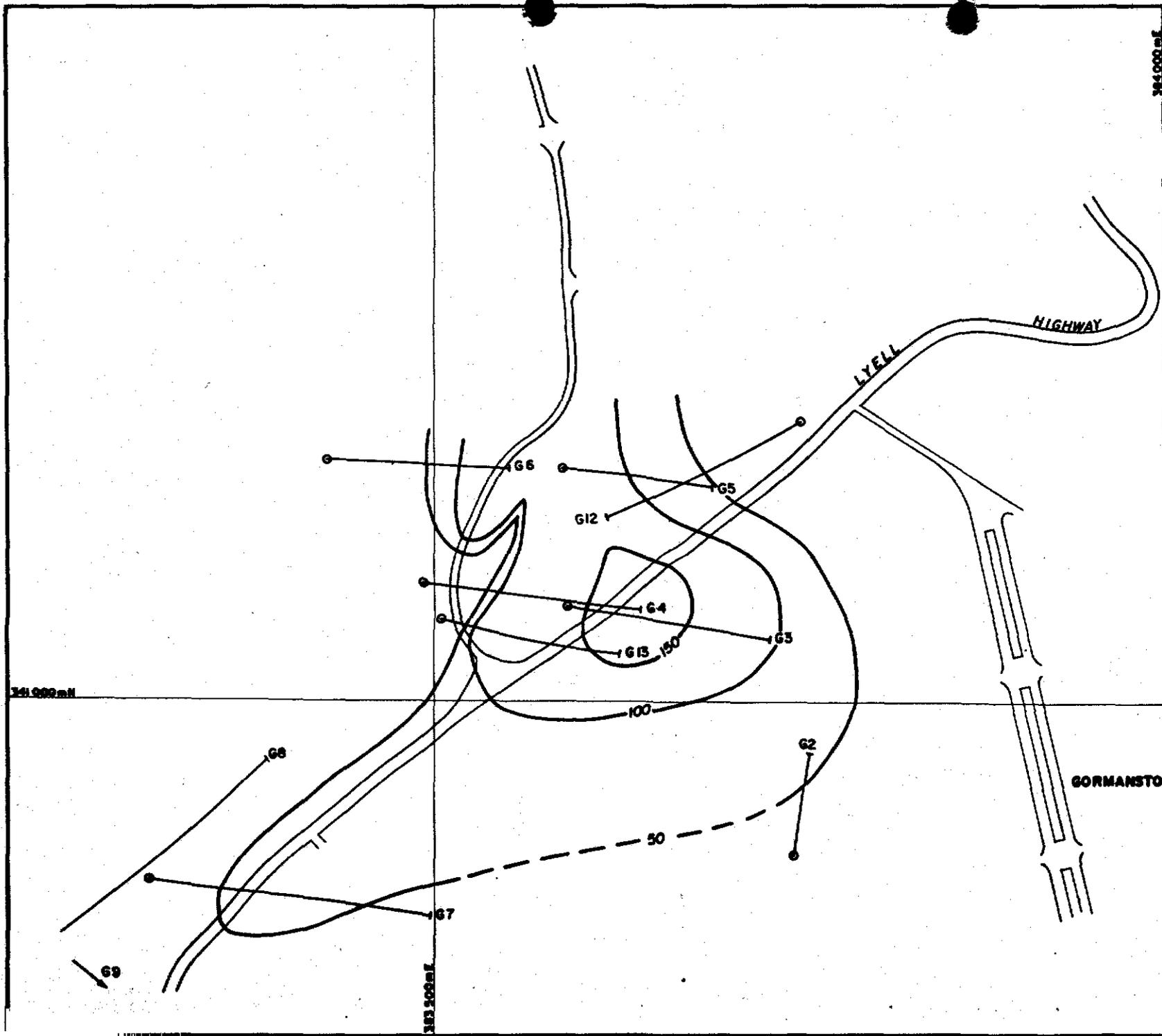
The two holes drilled at Gormanston were disappointing in that it is still not known whether the unconformity is present and also the absence of any major alteration phase.

2.3 McDowell's P.A.

An internal company document by M. Bird describes the geology of this prospect as follows:

"McDowell's" P.A. is a gold prospect on the South-western slopes of Mt. Lyell. The gold at McDowell's occurs within a small localized goethitic-quartz breccia on a bedding plane between Middle Owen Sandstone above and conglomerate below. This became obvious from a plan held at the Mines Department, when observable geology and openings were intergrated with information in Quarterly Reports on the Mineral Industry. Earlier observations had noted that the major fault in the open cut was approximately vertical with an East-West strike. It was thought that this was a minor fault offsetting the North Lyell Fault. Re-examination showed that this was the case but that a small part of the North Lyell Fault does occur in the western end of the open cut and this is rotated 50° anticlockwise in plan,

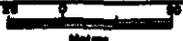
014



 DIAMOND DRILL HOLE  
 50 APPROXIMATE DEPTH OF GLACIAL DEPOSITS (in metres)

5 cm



GOLD FIELDS EXPLORATION PTY. LIMITED	
DISTRIBUTION OF GLACIAL DEPOSITS AT GORMANSTON	DRAWN BY : R.S.
	DRAFTSMAN S.F.
	DATE : Mar. 68
	REVISIONS :
SCALE 1:2500	FILE NO.
	FIG. 2

with a 20° steepening in dip, from its true orientation. This is strongly suggestive that it is a slide block and not in-situ. The bedding slip is somewhat supportive of this also."

One drillhole was planned for McDowell's to test the possibility of replacement gold mineralization in Gordon Limestone against the North Lyell Fault. G14 was the planned hole but this collapsed at 133m, was abandoned and redrilled as G14A. This hole was 421m long. The log for the abandoned hole has been included in Appendix 2, and the assays from the first 90m compliment those of G14A.

G14A

Collar Coordinates: 5342408mN 384723mE

R.L.: 350m

Azimuth: 32.5°

Dip: -53°

Abbreviated Log:

- |                      |   |
|----------------------|---|
| 0-336m               | Rubble containing free flowing sands, and sandy clays with subrounded to angular fragments of Owen Conglomerate, Silurian sediments and siderite. |
| 336-400m             | Solid sections of Owen Conglomerate 3-5m long separated by material similar to that in the previous interval-probably large slide blocks.         |
| 400-421m<br>(E.O.H.) | Similar to above but rock types in blocks are finer, i.e. grits, sandstones and siltstones.   |

Assays: Grab samples covering 20m intervals were taken and results of assaying were poor. Cu <0.01%, Pb and Zn <0. 2%, Ag <0.5 ppm and Au <0.01 ppm.

Comments: M. Bird at the time of drilling interpreted the fragmental rocks as breccias and concluded that the McDowell's area was a hydrothermal explosion crater that was rapidly infilled with sediment. He proposed that the faults in the area were acting as hydrothermal fluid conduits and these sealed. Later movement on the North Lyell Fault ruptured the seal causing the fluids to flash boil and explode leaving a large explosion crater. This crater was then rapidly infilled with sediment.

An alternative interpretation was obtained by Sillitoe and Arnold (pers. comm.). They suggested that the entire hole was drilled through glacial debris. Hence if this interpretation is correct then there is a huge depth of glacial material against the edge of outcropping Owen Conglomerate (along the North Lyell Fault) of Mt. Lyell.

As for the mineralization at McDowell's, this appears to be contained in a large slide block of quartzite, possibly from a lithology faulted in on the south side of the North Lyell Fault (?Crotty Quartzite), within the glacials.

017

3. GEOCHEMICAL SAMPLING OF MOSS IN CREEKS

*terrible pan!*

M. Bird carried out some grassroots geochemical work for gold in several areas on the A to P and Mine Lease. This work involved the panning of sediment obtained from moss in the creeks to check for fine gold.

The method of this stream sediment sampling is outlined below:

A moss sample weighing approximately 1 kg is collected from just above water level in the creek to be sampled. This is then forced through a coarse seive and the sediment obtained (200-300g) is then panned. The pan concentrate obtained is then examined and the colours (specks of presumed gold) counted. This value is then recorded for the site.

The method outlined above was quite successful in concentrating fine gold although variations in individuals' techniques could easily cause a large variation in results.

M. Bird used this method to test the creeks draining the Western Tharsis Area, Cemetery Creek in the Linda Valley, Creeks draining McDowell's P.A. and he also took a few samples in several other places. The results of the work are shown in Figure 3. Most of the creeks sampled contained some gold but only those draining Western Tharsis, Cemetery Creek and the sample from near the waterfall at Gormanston Gap were considered to be anomalous.

4. REFERENCES

Reid, K.O, 1975 Mount Lyell Copper Deposits, in Knight, c.l., ed., Economic Geology of Australia and Papua New Guinea, I.. Metals: Melbourne, Australasian Inst. Mining and Metall. Monog. 5, p. 604-619.

Sillitoe, R.H, 1984 A Reappraisal of the Mt. Lyell Copper Deposits, Tasmania: Implications for Exploration. Unpub. Report prepared for Goldfields Exploration.

85-2469  
also in  
85-2473

Sillitoe, R.H, 1985 Further Comments on Geology and Exploration at Mt. Lyell, Tasmania. Unpub. Report prepared for Goldfields Exploration.

85-2468

APPENDIX 1

LINDA VALLEY PROJECT  
EXPENDITURE JULY, 1984 to FEBRUARY, 1985

EXPENDITURE

	<u>\$</u>
<u>GEOLOGY</u>	
- Salaries	24,285
Salary on-costs	1,641
Transport	155
Miscellaneous	7
Outside Contractors	6,014
Travel	1,190
Stores	<u>996</u>
	<u>34,288</u>
 <u>GEOPHYSICS</u>	
- Outside Contractors	<u>1,796</u>
 <u>GEOCHEMISTRY</u>	
- Assays	<u>440</u>
 <u>DRILLING</u>	
- Outside Contractors	101,681
Stores	<u>4,146</u>
	<u>105,827</u>
 <u>SITE PREPARATION</u>	
- Outside Contractors	<u>1,875</u>
 <u>STAFF SERVICE FEES</u>	
	<u>200</u>
 <u>LABORATORY COSTS</u>	
	<u>631</u>
 <u>INDIRECT MOTOR VEHICLE EXPENSES</u>	
	<u>1,707</u>
	<u>146,764</u>

02-

**APPENDIX 2**

**Detailed Logs**



100024

HOLE NO. NL 1101

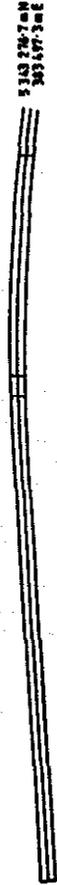
# GOLD FIELDS EXPLORATION PTY. LIMITED DIAMOND DRILL HOLE PLOT

SCALE 1:

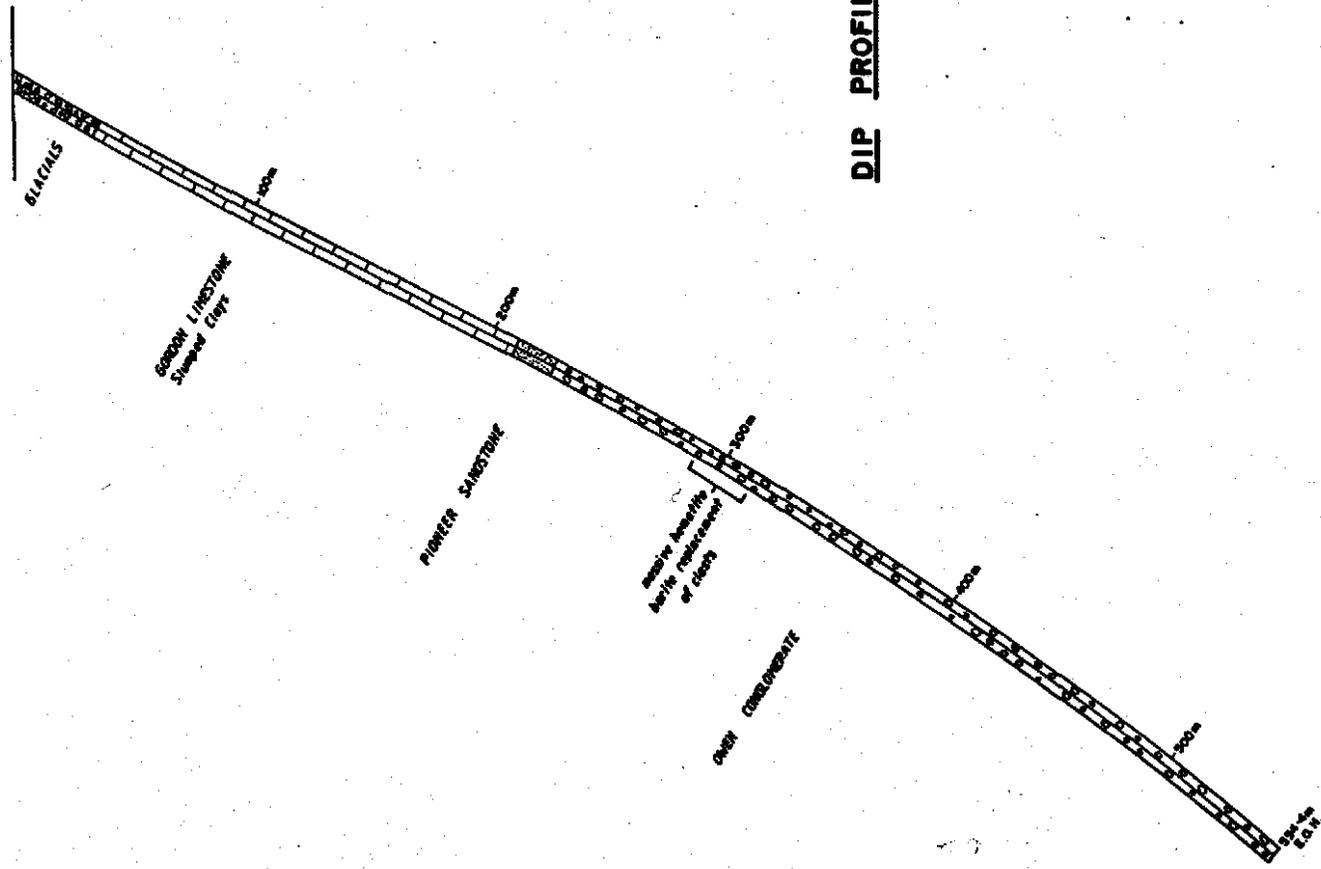


5 cm

PLAN VIEW



DIP PROFILE



023









028

GOLD FIELDS EXPLORATION PTY. LIMITED  
 DRILL CORE LOG AND ASSAY DATA

100029

HOLE NUMBER: N.L. 1101

Page: 5.

PROJECT: LINDA VALLEY

ULV. PRESS

INTERVAL		RECOVERY		DESCRIPTION	ASSAY DATA														
From	To	m	%		Sample No.	From	To	Rec. %											
				mauvish grey shales (5%): and chert hematite breccia (15%).															
				231-236 Chert hematite breccia with silicified wall rocks, veined by chlorite and hematite.															
				264-265 Quartz-pyrophyllite-chlorite-galena vein within altered shale beds @ 60° to C.A.															
				Bedding 227m 30° to CA.															
				228m 60° to CA.															
				229m 0° to CA.															
				230m 20° to CA.															
				236m 40° to CA.															
				239m 35° to CA.															
				243m 45° to CA.															
				244m 55° to CA.															
				245m 70° to CA.															
				246m 80° over 35°, same direction															
				248m 25° to CA.															
				25±m 45° to CA.															
				253m 60° over 45°, opposite direction															
				254m 60° to CA.															
				254.5m 80° to CA.															
				257m 40° to CA.															
				258m 40° - top is up the hole															
				261m 45° to CA.															
				266m 45° to CA.															
				267m 55° to CA.															
				268m 65° to CA.															
				268.5m 45° to CA.															
				269m 30° to CA.															
				269.5m 45° over 30° same direction															
				270m 45° to CA.															
				Faults 255-256 chloritic zone @ 10° to core															
				265 shearing at 15° to CA.															
270.0	279.0			Breccia: 3mm to 3cm chert clasts in a variably hematized and silicified sandy-shaley matrix.															
				Bedding 272 45° to CA.															

*Handwritten notes:* 270m - 279m













GOLD FIELDS EXPLORATION PTY. LIMITED  
**DRILL CORE LOG AND ASSAY DATA**

100036  
 035

PROJECT: LINDA VALLEY

HOLE NUMBER: N.L. 1102 Page: 2.

INTERVAL		RECOVERY		DESCRIPTION	ASSAY DATA										
From	To	m	%		Sample No.	From	To	Rec. %	Cu	Zn	Ag	Ba <sup>#</sup>	Au	Pb	Cu (checks)
				filled with chlorite-maximum thickness 4mm. Bedding 84m 50°	700069	105.5	107.5		18	8	1.3	4000	-	23	(Analytical method 104)
				Hematite breccia (see 28-26) 78-80m, fracture @ 80m @ 80°	00071	107.5	109.5		70	16	3.1	3800	0.017	72	
					00072	109.5	111.5		138	23	4.0	6200	-	104	
86.0	94.0			Mainly sand matrix supported conglomerate with many injected clasts.	00073	111.5	113.5		102	15	6.2	2800	-	83	
					00075	113.5	115.5		105	20	5.4	3600	0.017	90	
					00076	115.5	117.5		124	34	51.0	2900	-	59	
94.0	124.0			Greyish and yellowish grey "chert" mostly textureless but in places with well preserved grit textures.	00077	117.5	119.5		52	11	2.2	3700	0.017	45	
				Bedding @ 112m, 60°	00079	119.5	121.5		31	11	1.5	3000	0.008	43	
				Quartz veining 111m 100cm @ 5° to CA.	00080	121.5	123.5		45	12	2.0	5700	0.009	50	
				113m 20cm @ ? to CA.	00091	123.5	125.5		65	13	2.1	4400	0.017	73	
				114m 20cm @ 45° to CA.	00093	125.5	127.5		54	16	1.7	4800	0.040	41	
				116m 120cm @ 70° to CA.	00094	127.5	129.5		33	23	0.9	5300	0.025	28	
				Hematite breccia 117m-122m @ 45° to CA.	00085	129.5	131.5		44	18	2.8	3300	0.032	46	
					00087	131.5	133.5		77	28	3.1	7050	0.032	160	
					00088	133.5	135.5		84	24	3.6	5700	0.032	210	
124.0	143.0			Interbedded (0.2 to 0.7m beds) grits sands and conglomerate	00089	135.5	137.5		61	22	2.4	4650	0.040	230	
				grits - massive grey and silicified	00090	137.5	139.5		28	33	1.4	2650	0.017	200	
				sands - red and pink silicified	00092	139.5	141.5		19	11	1.2	7300	0.017	48	
				conglomerates - grey clasts in pink matrix - these look like breccia intrusions along bedding.	00093	141.5	143.5		121	23	2.0	4400	0.050	230	
					00094	143.5	145.5		121	56	1.7	6500	0.025	116	
				Bedding 137m 70°	00096	145.5	147.5		85	44	0.9	2300	0.017	115	
				141m 60°	00097	147.5	149.5		23	22	0.1	1200	0.008	40	
				Pug Zone 131m 10cm @ 745°	00098	149.5	151.9		32	22	0.3	600	-	44	
					00100	151.9	153.5		10660	35	21.0	500	0.025	20	0.95%
143.0	152.0			Sands interbedded with a few shale horizons to 0.7m thick.	00701	153.5	155.5		5300	39	2.2	600	0.025	33	0.53%
				Shales - yellow-green pyrophyllite + chlorite + ? sudoite	00702	155.5	157.5		5200	58	2.8	1200	0.009	430	0.51%
				Sands - somewhat silicified with hematized margins again	00704	157.5	159.5		2600	98	1.7	920	-	1300	0.25%
				yellow shales.	00705	159.5	161.5		40	61	0.1	1100	-	102	
				Bedding 148m 45° to CA.	00706	161.5	163.5		200	70	0.1	1000	-	565	
				152m 30° to CA.	00707	163.5	165.5		290	200	0.3	735	-	257	
				Pug Zone 144m 5cm @ 60° to CA.	00709	165.5	167.5		8500	450	10.5	1250	-	1500	0.91%
					00710	167.5	169.5		9000	280	13.1	970	0.050	1970	0.93%
152.0	177.0			Grey green quartzites and yellow green shales. Frequent sand filled worm holes. Sulphides occur in small fractures	00711	169.5	171.5		12000	230	18.0	570	0.017	935	1.15%
				and replace patches of rock and lime worm holes. Chalcopyrite	00712	171.5	173.5		16000	200	12.3	950	-	400	1.66%
					00713	173.5	175.5		16000	77	15.0	1000	-	95	1.60%
					00715	175.5	177.5		3200	140	9.0	1250	0.032	32	0.20%

GOLD FIELDS EXPLORATION PTY. LIMITED  
**DRILL CORE LOG AND ASSAY DATA**

100037

036

PROJECT: LINDA VALLEY

HOLE NUMBER: N.L. 1102 Page: 3.

REV. PRESS

INTERVAL		RECOVERY		DESCRIPTION	ASSAY DATA										
From	To	m	%		Sample No.	From	To	Rec. %	Cu	Zn	Ag	Ba*	Au	Pb	Ba (checks)
				is most common, then galena with very minor sphalerite and bornite in places. This is down dip extension of 11 stope mineralisation and is most intense near faulting.	00716	177.5	179.5		112	21	0.3	1250	-	53	
					00717	179.5	181.0		13	12	0.2	1250	-	53	
					00718	181.5	183.5		11	15	0.3	535	-	33	
				Bedding 155m 20° to CA.	00719	183.5	185.5		9	16	-	800	-	34	
				156m 0° to CA.	00720	185.5	187.5		9	21	-	770	-	41	
				160m 10° to CA.	00722	187.5	189.5		10	25	-	525	-	28	
				175m 20° to CA.	00723	189.5	191.5		35	72	0.3	970	0.008	23	
				Pug Zones 159m 20cm 30° to CA.	00724	191.5	193.5		80	110	0.3	1750	-	60	
				165m 300cm 45° to CA.	00725	193.5	195.5		700	240	1.9	1450	-	60	
					00726	195.5	197.5		2300	140	1.8	535	-	770	
177.0	191.0			Grey to mauve shaley sands, darker purple down hole. Chert hematite breccia 181.5-182. Hematisation is intense in horizons with many sand filled worm holes.	00727	197.5	199.5		1900	260	1.4	490	-	2020	
					00728	199.5	201.5		640	115	2.7	140	-	4130	
				Bedding 178m 30° to CA.	00730	203.5	205.5		230	530	1.3	210	-	2410	
				180m 40° to CA.	00732	205.5	207.5		330	300	0.5	210	-	1150	250
				190m 45° to CA.	00733	207.5	209.5		400	930	1.9	700	-	3920	
					00734	209.5	211.5		250	290	1.4	470	-	1470	
191.0	193.0			Sand matrix supported conglomerate with 1cm clasts. Carries injected chert and hematite clasts (angular) to 8cm.	00735	211.5	213.5		340	400	1.5	1150	-	1370	
					00736	213.5	215.5		2900	920	1.9	1150	0.009	1960	
					00737	215.5	217.9		54	250	0.5	1400	0.017	49	
193.0	195.5			Chloritised sandstone with hematite on microfractures (maximum 1mm wide) and as irregular replacements of chlorite.	00738	217.9	219.5		20	136	-	1150	-	83	
					00739	219.5	221.5		10	72	-	450	-	54	
					00740	221.5	223.5		8	14	-	490	-	50	
195.5	216.0			Grey friable sand with minor chromite bands and clay horizons.	00742	223.5	225.5		6	16	-	600	-	45	
				Bedding 196m 40° to CA.	00743	225.5	227.5		7	25	-	275	-	45	
				200m 20° to CA.	00744	227.5	229.5		6	20	-	430	-	39	
				208m 0° to CA.	00745	229.5	231.5		4	18	-	300	-	22	
				212m 20° to CA.	00746	231.5	233.5		5	26	-	270	-	22	
				215m 40° to CA.	00747	233.5	235.5		6	25	-	290	-	24	
				This is probably the same unit as that from 152-177	00749	235.5	237.5		6	24	-	240	-	30	
					00750	239.5	239.5		10	16	-	480	-	100	
216.0	220.0			Same as 195-195.5	00751	239.5	241.5		24	45	0.6	235	-	560	
					00752	241.5	243.5		10	30	0.5	290	-	475	
220.0	221.0			Same as 191-193.	00753	243.5	245.5		8	27	0.2	205	-	92	
					00754	245.5	247.5		19	24	0.4	245	-	325	
					00756	247.5	249.5		8	37	0.2	215	-	153	

GOLD FIELDS EXPLORATION PTY. LIMITED  
 DRILL CORE LOG AND ASSAY DATA

PROJECT: LINDA VALLEY

HOLE NUMBER: N.L. 1102 Page: 4.

SLV. PRESS

INTERVAL		RECOVERY		DESCRIPTION	ASSAY DATA									
From	To	m	%		Sample No	From	To	Rec. %	Cu	Zn	Ag	Ba*	Au	Pb
221.0	222.0			Yellow (sudaite?) to dark brown silica replacements of limey thin bedded shales with dark green to light green chloritised sand dykes to 1cm wide.	00757	249.5	251.5		8	42	0.2	175	-	58
					00758	251.5	253.5		5	24	-	290	-	32
					00759	253.5	255.5		110	40	0.5	170	-	340
					00760	255.5	257.5		10	38	-	160	-	90
222.0	269.0			Same unit as that ending at 191m. Mauve purple and yellow grey shaley sandstone with minor grit beds. Hematisation is intense in worm hole beds.	00761	257.5	259.5		10	27	-	160	-	180
					00762	259.5	261.5		9	23	-	420	-	40
					00764	261.5	263.5		56	24	0.4	470	-	92
				229-238 intensely silicified and brecciated with bright yellow to orange sudsite? in fractures.	00765	263.5	265.5		97	45	0.6	230	-	107
					00766	265.5	267.5		24	31	0.1	405	-	103
				Bedding 223m 40° to CA.	00767	267.5	269.5		10	40	0.1	475	0.017	82
				230m 0° to CA.	00768	269.5	271.5		20	250	0.4	470	0.058	73
				238m 40° to CA	00769	271.5	273.5		40	44	0.3	80	-	30 150
				242m 30° to CA	00770	273.5	275.5		41	47	1.2	265	-	1510
				246m 30° to CA.	00771	275.5	277.5		16	83	0.5	45	-	310
				252m 45° to CA.	00772	277.5	279.5		6	48	-	100	0.008	6
				Faults: 242.5 20cm with barite 30° to C.A. in opposite sense to bedding	00773	279.5	281.5		5	66	0.2	190	-	5
					00775	281.5	283.5		4	55	-	250	-	2
				264 200cm with quartz veins at 25° to C.A.	00776	283.5	285.5		4	83	-	115	-	3
					00777	285.5	287.5		5	56	-	80	-	2
269.0	271.0			Same as 191-193	00778	287.5	289.5		4	85	-	150	-	2
					00779	289.5	291.5		5	51	0.1	120	-	2
271.0	275.0			Same as 193-195.5	00780	291.5	293.5		5	47	0.2	115	-	3
					00781	293.5	295.5		6	59	0.1	95	-	3
275.0	278.0			Same as 195.5-216	00782	295.5	297.5		16	144	0.2	140	-	58
					00784	297.5	299.5		12	67	0.5	95	-	535
278.0	295.5			Same as 193-195.5	00785	299.5	301.5		9	76	0.3	1150	-	76
					00786	301.5	303.5		9	13	0.3	1800	-	103
295.5	299.0			Same as 195.5-216, chromium has been mobilised from chromite to give rock a bright yellow green colour.	00787	303.5	305.5		7	15	0.4	1650	-	113 2050
					00788	305.5	307.5		12	22	0.4	310	-	130
					00789	307.5	309.5		9	17	0.3	270	-	190
299.0	302.0			As for 191-193.	00790	309.5	311.5		8	31	0.4	295	-	240
					00791	311.5	312.9		16	38	1.0	180	-	870
302.0	312.0			As for 177-191 with	00792	312.9	314.2		5	12	0.2	235	-	68
				Bedding 303m 55° to CA.	00794	314.2	315.5		40	42	1.9	180	0.017	1450
				308m 65° to CA.	00795	315.5	317.5		24	31	1.3	160	-	550
					00796	317.5	319.5		38	34	2.3	720	-	835

GOLD FIELDS EXPLORATION PTY. LIMITED  
**DRILL CORE LOG AND ASSAY DATA**

038

PROJECT: LINDA VALLEY

HOLE NUMBER: N.L. 1102

Page: 5.

INTERVAL		RECOVERY		DESCRIPTION	ASSAY DATA											
From	To	m	%		Sample No.	From	To	Rec. %	Cu	Zn	Ag	Ba <sup>ppm</sup>	Au	Pb	Ba (check)	
				31m 80° to CA.	T00797	319.5	321.5		35	33	3.0	330	-	630		
					00798	321.5	323.5		63	25	5.1	1650	0.017	1060		
312.0	333.5			Pinkish to purplish shaley sands with 20-80cm bands of injected chert clasts in sand matrix. These bands are either perpendicular to or parallel bedding. There are no quartz pebble clasts. Bedding variable 65-80° to CA.	00799	323.5	325.5		52	29	3.5	3100	-	880		
					00800	325.5	327.5		34	32	3.4	2400	-	1060		
					00801	327.5	329.5		45	44	6.7	4000	-	1560	5600	
					00802	329.5	331.5		50	32	6.3	3300	-	565		
					00804	331.5	333.0		460	40	24.0	3200	0.017	630	2.9%	
333.5	379.0			Hematite barite red chert goethite pyrophyllite replacement body. Top and bottom contacts are sharp and bedding controlled. Bedding, preserved as banding, in this unit is all foreset bedding, i.e. @ approx. 40° to top and bottom contacts, which are at 75° to C.A.	Mt. Lyell Assays:							BaSO <sub>4</sub>				
						333.0	335.0		0.01%	<0.02		33		0.37		
						335.0	337.0		0.02%	<0.02		36		0.07		
						337.0	339.0		0.01%	<0.02		21		0.04		
						339.0	341.0		0.01%	<0.02		22		0.05		
				333.5-348 Ba-He-Goe-Chl-Pyroph mineralogy banded at 70° to C.A. Barite is earliest mineral, with sequence of others being Hematite-Pyrophyllite-Chlorite-Goethite. Hematite is later partly replaced by very fine grained chalcocite which also occurs in minute fractures.		341.0	343.0		0.01%	<0.02	3.8 g/t	25	<0.05 g/t	0.04		
						343.0	345.0		<0.01%	<0.02		18		0.04	These assays are in % unless otherwise indicated.	
						345.0	347.0		<0.01%	<0.02		27		0.04		
						347.0	349.0		0.01%	<0.02		33		0.04		
						349.0	351.0		0.02%	<0.02		33		0.03		
						351.0	353.0		0.01%	<0.02		29		0.02		
				Grey chert is replaced by red chert. Barite replaces silica (quartz, quartzite, rarely chert) clasts, preserving sand, grit and conglomerate textures. Also occurs in coarsely crystalline veins.		353.0	355.0		<0.01	<0.02	9.0 g/t	31	<0.05 g/t	0.03		
						355.0	357.0		<0.01	<0.02		44		0.02		
						357.0	359.0		<0.01	<0.02		42		0.02		
						359.0	361.0		<0.01	<0.02		31		0.03		
						361.0	363.0		<0.01	<0.02		33		0.03		
						363.0	365.0		<0.01	<0.02	3.6 g/t	47	<0.05 g/t	0.02		
				348-354 Hematite is dominant mineral, pyrophyllite is common and chlorite is rare.		365.0	367.0		<0.01	<0.02		41		0.03		
						367.0	369.0		<0.01	<0.02		23		0.06		
						369.0	371.0		<0.01	<0.02		26		0.03		
				354-364 Barite is dominant, replacing quartz conglomerate. Hematite and red chert replace shales, bedded at 45° to C.A.		371.0	373.0		<0.01	<0.02		28		0.04		
						373.0	375.0		<0.01	<0.02	2.5 g/t	27	<0.05 g/t	0.03		
						375.0	377.0		<0.01	<0.02		19		0.04		
				364-379 Red chert and barite dominant. Barite partially replaces red chert, and also occurs in 1-2mm veins. Hematite bands are rare except in last few metres. In the last 7m white chalcidonic silica both brecciates and replaces the Ba-		377.0	379.0		<0.01	<0.02		15		0.03		
					Analab Assays:				(ppm)	(ppm)		Ba (ppm)		(ppm)		
					T00805	379.0	381.0		12	37	6.2	5100	0.017	144	2.9%	
					00806	381.0	383.0		12	52	3.0	445	-	85		
					00807	383.0	385.0		12	34	1.2	240	-	92		
					00608	385.0	387.0		8	25	0.4	230	-	90		

100039

GOLD FIELDS EXPLORATION PTY. LIMITED  
**DRILL CORE LOG AND ASSAY DATA**

PROJECT: LINDA VALLEY

HOLE NUMBER: N.L. 1102 Page: 6

039

INTERVAL		RECOVERY		DESCRIPTION	ASSAY DATA									
From	To	m	%		Sample No.	From	To	Rec. %	Cu	Zn	Ag	Ba*	Au	Pb
				Hematite-chert material.										
379.0	380.0			Brecciated, hematized silicified wall rock.	T00809	387.0	389.0		7	28	0.4	190	-	140
380.0	442.0			Puplish red sandstone, slightly shaley in places, with minor grit beds - Upper Owen.										
				Bedding 384m 60° to CA.										
				390m 50° to CA.										
				392m 45° to CA.										
				398m 35° to CA.										
				402m 50° to CA.										
				410m 60° to CA.										
				420m 60° to CA.										
				429m 65° to CA.										
				430m 70° to CA.										
				438m 70° to CA.										
				439m 75° to CA.										
				423-428 Zone of dense chlorite veining in a vuggy dark purple siliceous and hematized zone. Vugs carry euhedral chlorite and hematite.										
				439-442 Fault zone with intense hydrothermal alteration : 439-441.5 Sudoite-quartz alteration. 441.5-442 Purple pyrophyllitic mylonite?										
442.0	463.0			Pinkish mauve Middle Owen quartzite/quartz clastic (well rounded) conglomerate with 1-10cm clasts. Pervasively silicified and variably slightly hematized. Bedding @ 60° to CA.										
463.0	470.0			Similar rock : variably randomly fractured at 20 to 20cm intervals. Fractures carry goethite and pyrophyllite. Rock is slightly to moderately orange tinged due to irregular goethite-pyrophyllite-sudoite? replacement.										
				END OF HOLE.										

\* Note: Ba assayed by Analabs method 130 which can underestimate Ba values over 1000ppm substantially; see check results (method 401) and Mt Lyell assays

100040



HOLE NO. 612

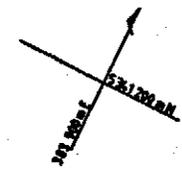
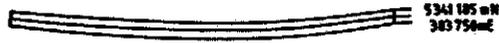
GOLD FIELDS EXPLORATION PTY. LIMITED  
DIAMOND DRILL HOLE PLOT

SCALE 1:



5 cm

PLAN VIEW



335 mRL

GLACIALS

100m  
Cu < 0.03%  
Zn < 0.10%  
Pb < 0.01%  
Ag < 0.00%  
Au < 2.87  
Ni < 0.08g/t

OPEN CONGLOMERATE  
Sericitic Spotted  
Quartzite

200m

300m

DIP PROFILE

40 mRL

3750m  
E.G.M.

PLAN

100042

GOLD FIELDS EXPLORATION PTY. LIMITED  
DRILL CORE LOG AND ASSAY DATA

PROJECT: LINDA VALLEY

HOLE NUMBER: G.12

Page: 1.

042

INTERVAL		RECOVERY		DESCRIPTION	ASSAY DATA										
From	To	m	%		Sample No.	From	To	Rec. %	Cu	Zn	Ag	Ba	Au	Pb	
0	3.0	Tricone		Sand & boulders - wash.	*10	20% of half core taken for use in assaying.									
					16866	25.0	30.0		227	780	-	280	0.032	20	
3.0	19.0	Tricone		Grey clay and pink conglomerate pebbles-glacials.	16867	30.0	33.0		99	250	-	250	0.017	5	
					16868	33.0	35.0		73	180	-	180	-	6	
19.0	25.0	Tricone		Yellow green sandy shale.	16869	35.0	38.3		33	390	-	100	0.017	4	
					16870*	38.3	44.0		7	80	-	150	-	6	
25.0	35.0	coring		Yellow green sandstone - highly porous and goethite stained-pyrite leached out.	16871*	44.0	50.0		5	153	-	300	-	10	
				Bedding 30° to CA.	16872*	50.0	58.5		10	108	-	350	-	11	
					16873*	58.5	65.0		10	94	-	390	-	10	
					16874*	65.0	71.0		6	98	-	230	-	3	
35.0	38.0			Pale yellow-grey sands, minor grits and some chromite rich beds.	16875*	71.0	79.0		17	350	-	90	-	7	
38.0	41.0			Hematitic sandy grit with angular volcanic clasts, bedding 40° to CA.	16877*	79.0	84.5		7	23	-	110	-	3	
					16878*	84.5	95.0		7	37	-	110	0.067	4	
41.0	48.0			Hematitic gritty sandstone	16879*	95.0	98.0		13	63	-	70	-	2	
					16880*	98.0	100.0		21	68	-	85	-	5	
48.0	58.0			Hematitic quartz clastic conglomerate with sparse bright yellow sudoite specks.	16881*	100.0	103.0		12	46	-	65	-	5	
					16882*	103.0	105.0		14	40	-	90	-	11	
					16883*	105.0	113.0		7	42	-	70	-	8	
58.0	64.0			Hematitic sandy shale. Bedding 45° to CA @60.5-61.5 zone of quartz/chlorite/chalcopyrite veining.	16884*	113.0	120.0		8	50	-	150	-	12	
					16886*	120.0	126.5		7	34	-	140	-	6	
64.0	71.0			Hematitic sandstone, bedding 30° to CA.	16887	126.5	129.0		164	40	0.6	120	0.050	7	
					16888	129.0	131.5		56	44	0.7	130	0.067	12	
71.0	79.0			Hematitic angular grit, bedding at 40° to CA	16889	131.5	133.0		36	68	0.5	120	-	7	
					16890	133.0	134.2		16	65	0.5	160	-	12	
79.0	85.0			Grey and red hematized bioturbated sandstone.	16891	134.2	135.2		75	49	0.4	100	-	7	
					16892*	135.2	145.0		21	31	-	120	-	3	
85.0	127.0			Hematized quartzite, bedded at 40-45° to CA 120-125 sparse native copper in cracks and in quartzite.	16893*	145.0	155.0		20	40	-	150	-	4	
					16894*	155.0	160.0		7	39	-	130	-	2	
					16895*	160.0	165.0		6	36	-	110	-	2	
127.0	129.0			Grey green mottled quartzite, minor pyrite, gradational contacts.	16897*	165.0	170.0		17	34	-	280	-	4	
129.0	132.0			Hematized quartzite with irregular 1 to 50mm wide areas of pyrite replacing hematite. Bedding at 35° to CA.	16898*	170.0	176.0		31	58	-	150	-	2	
					16899*	176.0	181.0		58	50	-	90	-	5	
					16900*	181.0	186.0		44	39	-	70	-	64	

10043

GOLD FIELDS EXPLORATION PTY. LIMITED  
DRILL CORE LOG AND ASSAY DATA

PROJECT: LINDA VALLEY

HOLE NUMBER: G. 12

Page: 2.

043

INTERVAL		RECOVERY		DESCRIPTION	ASSAY DATA									
From	To	m	%		Sample No.	From	To	Rec. %	Cu	Zn	Ag	Ba	Au	Pb
132.0	155.0			Variably grey green to purplish brown quartzite bedded at 30° to CA with irregular carbonate spotting.	16901	186.0	191.5		536	74	0.3	120	-	8
					16902*	191.5	197.5		13	37	-	100	-	4
					16903*	197.5	201.5		12	38	-	140	-	5
155.0	176.0			Grey quartzite with leached carbonate spotting.	16904*	201.5	206.5		6	36	-	110	-	6
					16905*	206.5	211.5		5	35	-	180	-	7
176.0	192.0			As above, carbonate unleached in 1-3mm spots, 10% of rock.	16907*	211.5	216.0		8	43	-	150	0.017	5
192.0	230.0			Purplish hematized quartzite with rare 2mm pyrite euhedra and coarse sericite flakes on bedding.	16908*	216.0	221.5		8	36	-	170	0.032	9
				Bedding 200m 25° to CA.	16909*	221.5	226.5		11	31	-	190	0.017	7
				225m 25° to CA.	16910*	226.5	229.5		16	31	-	75	0.032	11
				229m 10° to CA.	16911*	229.5	235.0		8	37	-	260	-	10
					16912*	235.0	240.0		10	30	-	220	-	11
					16913*	240.0	245.0		5	32	-	230	-	10
230.0	274.0			Shales with some sandy horizons and thin sand and grit beds. Generally greyish colour, with rare chalco in worm holes, or dark purple brown.	16914*	245.0	250.0		7	25	-	210	0.025	13
				Bedding 235m 30° to CA.	16915*	250.0	255.0		8	24	-	190	0.017	29
				245m 25° to CA.	16917	255.0	260.0		11	29	-	190	0.017	19
				257m 10° to CA.	16918	260.0	263.0		11	35	0.2	190	0.022	17
				259m 0° to CA.	16919	263.0	266.0		818	45	0.4	340	0.017	20
				261m 10° to CA.	16920	266.0	269.0		96	45	-	340	0.025	5
				268m 25° to CA.	16921	269.0	272.0		539	49	0.8	380	0.017	4
				274m 30° to CA.	16922	272.0	274.0		37	36	2.2	400	-	1270
				Shearing 230-235 @ 20° to CA.	16923*	274.0	284.0		17	28	0.1	150	0.040	18
				256-259 @ 10° to CA.										
274.0	330.0			Purplish grey quartzite with minor grit and shale beds.										
				Bedding 278m 20° to CA.										
				286m 15° to CA.										
				290m 10° to CA.										
				295m 20° to CA.										
				300m 15° to CA.										
				310m 20° to CA.										
				315m 15° to CA.										
				320m 30° to CA.										

\* 10-20% of half core taken for use in assaying.

100044

GOLD FIELDS EXPLORATION PTY. LIMITED  
**DRILL CORE LOG AND ASSAY DATA**

PROJECT: LINDA VALLEY

HOLE NUMBER: G. 12

Page: 3.

044

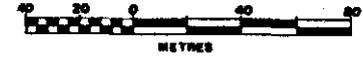
INTERVAL		RECOVERY		DESCRIPTION	ASSAY DATA															
From	To	m	%		Sample No.	From	To	Rec. %												
				329m 20° to CA.																
				This unit is variably hematized and leached with development of goethite filled cavities (ex pyrite?) in quartzites and quartz veins (ex pyrite & chalco?). Goethite is overgrown by euhedral (1mm) calcite and globular (1mm) siderite. Fractures in the rock carry goethite and native copper: these are often overgrown by carbonates and euhedral (1/2 mm) quartz. Euhedral cuprite to 2mm also occurs, rarely with clear calcite.																
				Unit terminates on a 5cm chlorite goethite hematite breccia sheared @ 45° to core.																
330.0	345.0			Coarse grit to conglomerate with angular clasts, minor sand and shale beds. Matrix is hematized as are some clasts. Bedding 336m 30° to CA. 340m 45° to CA. Unit terminates on intensely sheared zone 5cm wide at 40° to C.A.																
345.0	380.0			Coarse conglomerate (6 cm) with minor grit beds. 345-350 silicified and sericitized with minor copper in joints and matrix. Clasts are a peculiar orange colour. 350-362 Matrix is hematized 362-380 increasingly orange with increasing sericitisation and some leached cavities. Minor copper occurs in sericite. The matrix to the large clasts carries in places abundant black grains. ?chromite?-in Owen?! This unit has a low proportion of volcanic clasts - 5% - compared to 10-30% in preceding units.																
				END OF HOLE.																

100015

HOLE NO. 613

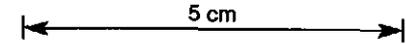
GOLD FIELDS EXPLORATION PTY. LIMITED  
DIAMOND DRILL HOLE PLOT

SCALE 1:

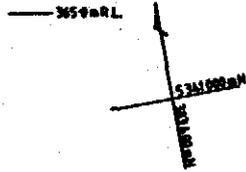
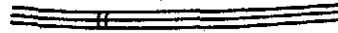


043

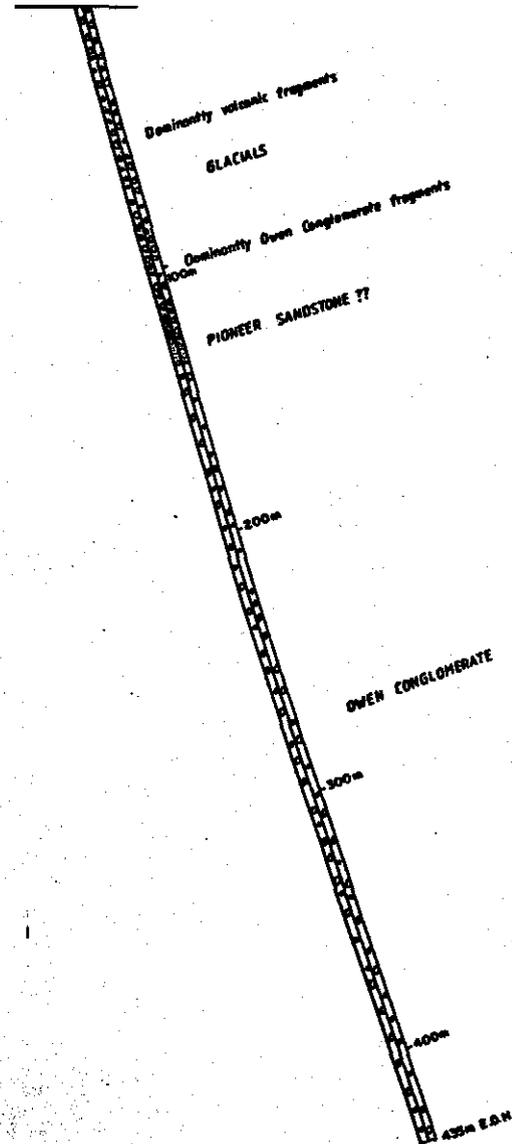
PLAN VIEW



5341053.0mN  
383505.0mE



363.0mR.L.  
739.5mR.L.



DIP PROFILE

31.5mR.L.

100046



047

GOLD FIELDS EXPLORATION PTY. LIMITED  
 DRILL CORE LOG AND ASSAY DATA

PROJECT: LINDA VALLEY

HOLE NUMBER: G. 13

Page: 1.

U.L.V. PRESS

INTERVAL		RECOVERY		DESCRIPTION	ASSAY DATA													
From	To	m	%		Sample No.	From	To	Rec. %										
0	7.0	0	0	Not cored - pale green schist cuttings.														
7.0	46.0	18.5	47	Epiclastic volcanics, 2-5mm grainsize with rare larger clasts to 2cm. Poorly Bedded @ 75°. Schistosity 5° to C.A. variably weakly hematized with a few patches to 3cm of more intense hematization.														
46.0	65.0	10.2	54	Bimodal volcaniclastic conglomerate: 2-10cm moderately to highly sheared rhyolite and tuff clasts in a pale green-grey 1-10mm matrix of similar rock types. Note: cleavage directions in clasts are random. The matrix is generally altered to pale grey through orange to purple clays. Matrix and clasts in equal amounts.														
65.0	84.0	16.6	87	Bimodal volcaniclastic matrix (75%) supported conglomerate; 5-30 mm clasts in a 0-3mm matrix. This unit is weakly silicified and variably hematized; hematization is very selective ?tuffaceous clasts-pink rhyolite is unaffected. Matrix is variably hematized along fine fractures. Bedding is poorly defined, between 70 & 80° to C.A. The rock is sheared in two directions 45° & 5° to C.A. : larger clasts have randomly orientated cleavage. N.B. 3 generations of cleavage!														
84.0	88.0	2.0	50	Conglomerate or breccia: 1 to 20cm angular clasts in a clay matrix. Clasts are volcanics, hematized shales, vein quartz and pioneer sandstone with hydrothermally mobilised chrome staining. Note that all the clasts are of previously sheared and altered rocks. This unit has been hematized and goethitised and carries sparse pyrite euhedra.														
88.0	91.0	2.9	97	Angular breccia of 1-3cm pyrophyllite goethite altered Gordon shales in a matrix of the same material. Bedding is at 75° to C.A. Hydraulic breccia zones 1mm to 100mm have more intense goethite alteration. These are at 50°														

100018

GOLD FIELDS EXPLORATION PTY. LIMITED  
**DRILL CORE LOG AND ASSAY DATA**

048

PROJECT: LINDA VALLEY

HOLE NUMBER: G.13

Page: 2.

ULV. PRESS

INTERVAL		RECOVERY		DESCRIPTION	ASSAY DATA													
From	To	m	%		Sample No.	From	To	Rec. %										
				to C.A., dip both ways and strike at right angles to bedding.														
91.0	92.0	0.6	60	see 93-105.														
92.0	93.0	0.6	60	see 88-91.														
93.0	105.0	10.2	85	Matrix supported breccia/conglomerate. The matrix is dark brown sand clay which sometimes forms thin well bedded units 10-40cm thick at 60-85° to C.A. The clasts are subrounded to highly angular, 3mm to 10cm across and very poorly sorted. Clast types: Volcanics: chloritised, hematized and white to mauve hydrothermally altered and sheared. Vein quartz with goethite cavities derived from sulphides pyrophyllitised and goethitised Gordon shales. Pioneer sandstones: goethitic derived from leaching of sulphides, intensely manganese stained, and chrome stained bright green. This rock shows many slump structures, but is only very weakly to non sheared, and carries a little pyrite.														
105.0	107.0	2.0	100	Basal portion of the above unit : matrix is derived from the underlying unit and clasts are all less than 2cm. The bottom contact is very sharp at 50° to C.A. Unit carries a little pyrite to 0.5mm cubes.														
107.0	126.0			Dominantly yellow goethitic clay (pyrophyllitic) derived from lower Gordon shales. Minor sand and grit beds occur, and sand and grit (with clay matrix) filled fluid conduits also occur, particularly between 115-118m and 123-125m. Slump structures are intensely developed : 107-112m blocky disrupted breccia : 112-122 glide surfaces and small scale isoclinal folding - surfaces are at 50°-90° to C.A. folds have wavelengths of 1-20cm; 122-125 is relatively undisturbed at 75° to C.A. At 114m is a 10cm goethite indurated shear with 1-2%														

100019

GOLD FIELDS EXPLORATION PTY. LIMITED  
**DRILL CORE LOG AND ASSAY DATA**

PROJECT: LINDA VALLEY

HOLE NUMBER: 6. 13

Page: 3.

049

INTERVAL		RECOVERY		DESCRIPTION	ASSAY DATA														
From	To	m	%		Sample No.	From	To	Rec. %											
				native copper as flakes and spangles to 2mm in cross fractures and matrix.															
				Primary sedimentation heavy minerals include chromite, zircon and garnet - indicating close affinities with Pioneer sandstone. Overall, unit carries small variable content of native copper as small octahedra, and pyrite as mainly cubes with some pyritohedra. Between 115-118m chalcopyrite tetrahedra have replaced native copper. The basal 30cm of this unit are indurated, chloritised and sericitised and colour is pale green. Sand content is high and contact with underlying quartzite is highly irregular and disrupted by syndimentary joints and slumping.															
126.0	132.0			Quartzite with minor grit beds grading down through quartzite scattered grit sized clasts to a uniform fine grained quartzite. Alteration is variable : 126-128 silicified and pale yellow. 128-130 yellow and grey with irregular hematization, 130-132 pale purplish brown, uniformly hematized Bedding 80° to C.A.															
132.0	155.0			Generally poorly bedded fine grained quartzite with a few 1-10mm shale horizons with Hematisation along grain boundaries. Hematite has been replaced by goethite (hypogene process) along fracture zones dominantly at 5° to C.A. Fractures are either open or goethite/silica filled. Major fracture zone is 143-145m.  Bedding 132m 90° to CA. 134m 45° to CA. 138m 60° to CA. 139m 80° to CA. 141m 90° to CA. 147m 80° to CA. 149m 60° to CA. 151m 60° to CA. 153m 50° to CA.															

100050

050

GOLD FIELDS EXPLORATION PTY. LIMITED

PROJECT: LINDA VALLEY

DRILL CORE LOG AND ASSAY DATA

HOLE NUMBER: 6. 13

Page: 4.

ULV. PRESS

INTERVAL		RECOVERY		DESCRIPTION	ASSAY DATA									
From	To	m	%		Sample No.	From	To	Rec. %						
				154m 90° to CA.										
155.0	191.0			A sequence of:										
				a) mm to cm finely interbedded fine sands and shales with sand filled worm holes:										
				b) coarse sands (1-3mm) with forest bedding.										
				c) poorly bedded fine sandstones.										
				The colour of all beds is grey to light mauvish grey, hematization is weak; silicification is fairly strong except in shale beds. 1-3mm goethite alteration zones occur in bedding to 160m.										
				Beds are:										
				Bedding:										
				155-155.5 a 70° to CA.										
				155.5-157 c 80° to CA.										
				157-159 a 80° to CA.										
				159-164 b 75° to CA.										
				164-165.5 a 70° to CA.										
				165.5-169 c 50° (? foreset) to CA.										
				169-171 a 70° to CA.										
				171-172 b 60° to CA.										
				172-172.5 a										
				172.5-173.5 b										
				173.5-174.5 a 70° to CA.										
				174.5-176.5 b 75° to CA.										
				176.5-182.5 85° to CA.										
				182-187 a 90° to CA.										
				187-189.5 c 80° to CA.										
				189.5-191 a 85° to CA.										
				At 182m is a pug and breccia fault zone at 35° to C.A. true width 15cm, lower half very goethitic fine grained quartzite with increasing proportion of 7mm highly angular grit clasts from 193m-this is gradational to the following unit. Colour is very dark purple brown and hematization is intense. Grit clasts are white grey red and dark brown non cleaved (?)										

100001

GOLD FIELDS EXPLORATION PTY. LIMITED  
**DRILL CORE LOG AND ASSAY DATA**

PROJECT: LINDA VALLEY

HOLE NUMBER: 6. 13

Page: 5.

051

INTERVAL		RECOVERY		DESCRIPTION	ASSAY DATA													
From	To	m	%		Sample No.	From	To	Rec. %										
				dacites and rhyolites with 0.2 to 1mm bleached alteration rims.														
				Bedding: 192m 65° to CA.														
				195m 75° to CA.														
				197m 85° to CA.														
				200m 85° to CA.														
				201m 80° to CA.														
191.0	211.0			Highly angular low sphericity grit with clasts as above. Matrix is sandy and intensely hematized. Pyrite replaces hematite in matrix and some clasts as irregular spots 1-15mm across. Acid leaching of pyrite produces goethite, and goethite lined cavities.														
				Bedding: 203m 75° to CA.														
				210m 80° to CA.														
211.0	223.0			Thinly bedded shales sands grits and conglomerates, with beds 5cm to 100cm thick (core length). Quartz veins occur at:														
				210.5 2cm 11 to C.A.														
				215 5cm 60° to CA.														
				216 10cm irregular in shale bed.														
				216.5 5cm 60° to CA.														
				218.5 5cm irregular in shale bed														
				219 3cm 60° to CA.														
				219.5 3cm 60° to CA.														
				Coarse beds carry 5% of 3mm goethitic cavities derived from pyrite. Hematization is less intense than previous unit OR hematite has been leached out.														
				Bedding: 213 65° to CA.														
				215 50° to CA.														
				216 60° to CA.														
				217 50° to CA.														
				218 45° to CA.														
				222 45° to CA.														

100052

GOLD FIELDS EXPLORATION PTY. LIMITED  
**DRILL CORE LOG AND ASSAY DATA**

PROJECT: LINDA VALLEY

HOLE NUMBER: 6. 13.

Page: 6.

054

INTERVAL		RECOVERY		DESCRIPTION	ASSAY DATA															
From	To	m	%		Sample No.	From	To	Rec. %												
223.0	248.5			From 213-215m rock is sheared @ 25° to C.A. Quartzite with 0-40% 3-8mm highly angular unshaped dacite/rhyolite clasts and a few 2-30cm shale beds 227-231m which are symmetrically disposed about 230m. Colour is pinkish to yellowish grey with dark brown mottles. Hematite appears to have been leached during silicification, which is in places very intense-rock is then pale grey colour. Coarse clasts have bleached rims and some have hematite halos in the matrix. Quartz veins occur at 232-233 30% 2mm to 120mm veins @ 60° 236-238 10% 2mm to 50mm random 50°-80° 245.5-246.5 60% highly irregular quartz. Bedding: Note facing and sense reverse as dips cross core axis 222 45° to CA. 224 40° to CA. 225 30° to CA. 227 15° to CA. 228 0° to CA. 229.5 30° to CA. 230 0° to CA. 231 30° to CA. 236 15° to CA. 238.5 0° to CA. 240 15° to CA. 243.5 0° to CA. 244 5° to CA. 248 25° to CA.																
248.5	254.0			Grits sands and conglomerate, pinkish grey colour clasts are predominantly Tyennan quartz/quartzite and well rounded. Matrix replaced by white bladed mineral - does not fizz in acid ?barite, feldspar.																

100053

GOLD FIELDS EXPLORATION PTY. LIMITED  
**DRILL CORE LOG AND ASSAY DATA**

053

PROJECT: LINDA VALLEY

HOLE NUMBER: 6. 13

Page: 7.

ULV. PRESS

INTERVAL		RECOVERY		DESCRIPTION	ASSAY DATA									
From	To	m	%		Sample No.	From	To	Rec. %						
				Bedding 249 25° to CA.										
				250 45° to CA.										
				254 30° to CA.										
254.0	261.0			Quartzite, with a 2cm shale/sand band which repeatedly crosses the core. Bedding is overall parallel to core axis, swinging 15° either way at 50 to 150cm wavelength. A few 1/2 to 2m random 30°-60° to C.A. calcite filled fractures occur.										
261.0	276.5			The same unit as 248.5-254, but beds are in reverse order, i.e. fold, fault axis occurs in previous unit. Alteration here is more intense than when unit intersected as above. White bladed mineral is common, replacing matrix and some clasts. Some thin zones are bright yellow due to sudsite? Bedding to 268 0-5° to C.A. to 272 0-25°, swinging either way at 272 25° to CA. at 273 40° to CA. at 276 80° scour surface. to CA.  From 272.5 to 276.5 highly irregular calcite replacement masses to 25mm long have been replaced by hematite, some calcite cores remaining.										
276.5	306.5			Predominantly quartzite with thin shale and grit beds. Generally purplish brown in colour. Colour becomes grey green where pyrite, chalcopryite and silica replace hematite-particularly 285-286. Bladed white mineral is of frequent occurrence replacing matrix, hematite replaces large calcite masses (to 30 mm) and whole unit is veined by 1mm calcite veins at 20° to C.A. Bedding variable around 45° to CA.										
306.5	314.0			Complex fault zone between Upper Owen sands and grits (above) and Middle? Owen Conglomerate. Fault is syndimentary with interbedded grits shales and conglomerates. Grits have been brecciated into 2 to 10cm slabs, and shales have flowed										

100054

GOLD FIELDS EXPLORATION PTY. LIMITED  
**DRILL CORE LOG AND ASSAY DATA**

054

PROJECT: LINDA VALLEY

HOLE NUMBER: G. 13

Page: 8.

ULV. PRESS

INTERVAL		RECOVERY		DESCRIPTION	ASSAY DATA														
From	To	m	%		Sample No.	From	To	Rec. %											
				around these "clasts". The unit is pale green grey with hematite replaced by pyrite and minor chalco.															
				Bedding 307 45° to CA.															
				307.5 20° to CA.															
				308 60° to CA.															
				308.5 30° to CA.															
				309.5 45°, sheared @ 5° to C.A.															
				310 20° to CA.															
				310.5 0° to CA.															
				311 20° to CA.															
				312 40° to CA.															
				312.5 20° to CA.															
				313 0° to CA.															
				313.5 45° to CA.															
				314 50° to CA.															
314.0	392.0			quartz/Quartzite clastic conglomerate with 90% well rounded 1-8cm clasts and 10% angular 1-3cm clasts in sandy matrix and minor interbedded grits sands and shales. Matrix is weakly to moderately hematitic. Clasts beyond 357 have 1-2 mm hematitic reaction rims. Sudsite is a minor matrix alteration component between 370-382m. Between 373.25-374. Quartz has pervasively replaced conglomerate with pebble outlines shown by hematite goethite chlorite zones to 1mm thick. Weak fault zone @ 20° to C.A. occurs between 325-328m.															
				Bedding 317 60° to CA.															
				322 50° to CA.															
				330 60° to CA.															
				337 60° to CA.															
				338-340 0-90 variable (fault zone)															
				345 60° to CA.															
				369 70° to CA.															
				387 50° to CA.															
				390 60° to CA.															

100055

055

GOLD FIELDS EXPLORATION PTY. LIMITED  
**DRILL CORE LOG AND ASSAY DATA**

PROJECT: LINDA VALLEY

HOLE NUMBER: G. 13

Page: 9.

ULV. PRESS

INTERVAL		RECOVERY		DESCRIPTION	ASSAY DATA													
From	To	m	%		Sample No.	From	To	Rec. %										
392.0	405.5			Interbedded conglomerate (as above) and sands (as below). Beds 30cm to 150cm thick (core length). Bedding 60-70° to CA.														
405.5	434.0			Extremely intensely silicified pink Middle Owen sandstone-essentially jasperoidal silica. Hematisation is variable and would average 1% Fe. From 412.5-413 hematite has totally replaced the sandstone about a thin grit bed. Elsewhere spots of hematite 1-10mm across occur which appear to have nucleated on volcanic clasts. Rock is fairly intensely veined by Quartz with 1-10mm veins at 2-20cm intervals. Many of these are sub parallel to bedding. Infrequent chlorite pyrophyllite veins to 2 cm cut both rock and quartz veins, with offsetting of quartz vein. Bedding 407 50° to CA 411 65° to CA 414 45° to CA 418 55° to CA 423 55° to CA 428 45° to CA 433 50° to CA														
				END OF HOLE														

100056





GOLD FIELDS EXPLORATION PTY. LIMITED  
**DRILL CORE LOG AND ASSAY DATA**

PROJECT: LINDA VALLEY

HOLE NUMBER: G. 14

Page: 1.

058

INTERVAL		RECOVERY		DESCRIPTION	ASSAY DATA													
From	To	m	%		Sample No.	From	To	Rec. %	Cu	Zn	Ag	Ba	Au	Pb				
0	11.0	0	0	Not cored-brown sands with a few white hard siliceous sand chips.														
					14051*	11.0	30.0		14	82	0.1	190	-	22				
11.0	19.0	4.0	50	1-10cm angular silicified sandstone breccia in a silicified sand matrix. Stained blackish brown by organic matter.	14052*	30.0	50.0		11	98	0.2	220	-	13				
					14053*	50.0	70.0		12	170	0.1	265	-	14				
					14054*	70.0	90.0		7	51	0.1	165	-	10				
19.0	23.0	1.2	40	Quartz sand and clay with highly angular quartz vein fragments in thin bands. Rock is sloppy to firm. Bottom contact is sharp at 50° to C.A. colour is white-hydrothermal dyke.	14055*	90.0	110.0		30	75	0.2	275	-	8				
					14056*	110.0	133.0		8	56	0.1	220	-	12				
23.0	34.0	9.2	83	White silt-silty sand firm and microfractured with mm to cm displacements. Top contact 50°, Bedding 30° (80° to contact) 26m 20° to CA. 28m 35° to CA. 30m 10° to CA. 31m 0° to CA. 33m 30° to CA. 34m 30° to CA.	*10-20% of half core taken for use in assaying.													
34.0	36.0	0.6	30	Brown breccia of 1-2cm dark brown to white silicified sandstone and grit clasts in a soft clay/sand matrix.														
36.0	41.0	1.3	25	Angular white silicified sandstone breccia with clasts to 15cm in a sand matrix-wall rock														
41.0	46.0	2.7	55	Firm pale yellow sandy clay, with sparse 10cm silicified sandstone (clasts?).														
46.0	54.0	3.4	43	Yellow sandy clay with some angular leached grit clasts 3-15cm (derived from Upper Owen grits) sands are bedded at 15° to C.A.														
54.0	60.0	3.6	60	Brown and yellow clayey sand with a few highly angular quartz vein clasts, bedded parallel to C.A.														
60.0	77.0	7.4	46	Yellow brown sandy/gritty clay with well rounded to highly														

100059

059

GOLD FIELDS EXPLORATION PTY. LIMITED  
**DRILL CORE LOG AND ASSAY DATA**

PROJECT: LINDA VALLEY

HOLE NUMBER: G. 14

Page: 2.

INTERVAL		RECOVERY		DESCRIPTION	ASSAY DATA													
From	To	m	%		Sample No.	From	To	Rec. %										
				angular clasts of leached middle Owen grits and angular to highly angular clasts of silicified sandstones from 3.20cm. Rare vein quartz and pyrophyllitic shale. clasts also occur. The sandy matrix is crudely bedded at 0-15° to C.A.														
77.0	87.0	2.8	28	White leached siliceous upper Owen grit clats in disaggregated white grit derived matrix. Unit is banded at 15° to C.A.														
97.0	94.0	3.2	46	Structureless yellow brown clayey sand.														
94.0	103.0	5.6	62	Bimodal breccia-hydrothermal. Yellow brown clay sand matrix with abundant highly angular to subrounded silicified variable grains size sand and grit clasts to 2cm across from matrix to highly angular to subrounded silicified mudstone clasts 10-50cm across.														
103.0	107.0	4.0	100	Thixotropic clayey sand with 50% 3mm to 15mm assorted siliceous clasts.														
107.0	130.0	21.0	91	As for 94-103: from 120-124 matrix to large clasts is strongly sheared parallel to C.A..														
130.0	133.0	2.6	87	Silicified sandstone. Well bedded at 30° to C.A. 1 to 3 cm sandy clay veins occur at 20 to 50 cm intervals - this is wall rock to a hydrothermal breccia pipe.														
				Drill string failure terminated hole. Re collared 3m east as G14A.														

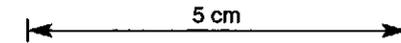
100060



HOLE NO. 614 & 14A

GOLD FIELDS EXPLORATION PTY. LIMITED  
DIAMOND DRILL HOLE PLOT

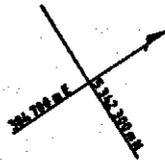
SCALE 1:



PLAN VIEW

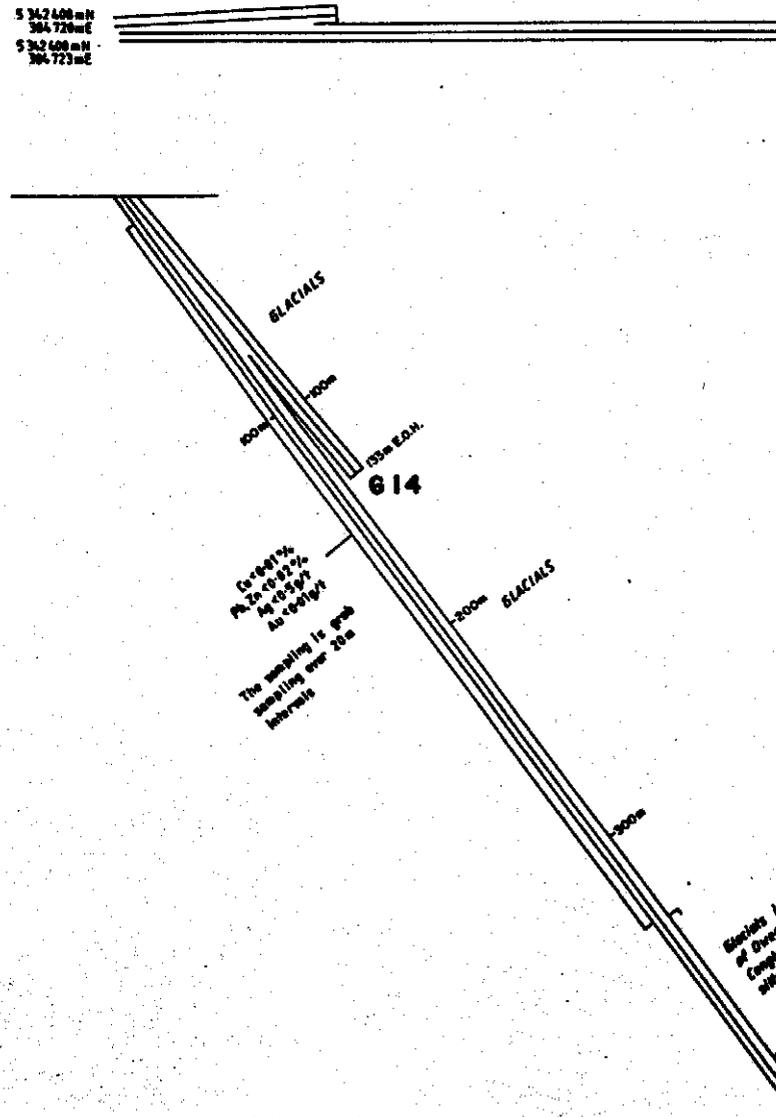
1061

S 342 600 mN  
S 04 720 mE  
S 342 600 mN  
S 04 723 mE



750 m R.L.

268.1 m R.L.



DIP PROFILE

130 m R.L.

NOTE: ASSAYS FOR THE FIRST 10m ARE TAKEN FROM 614 AS THERE WAS NO RECOVERED CORE FROM 614A UNTIL 93m.

100062

GOLD FIELDS EXPLORATION PTY. LIMITED  
**DRILL CORE LOG AND ASSAY DATA**

PROJECT: LINDA VALLEY

HOLE NUMBER: G. 14A

Page: 1.

062

ULV. PRESS

INTERVAL		RECOVERY		DESCRIPTION	ASSAY DATA									
From	To	m	%		Sample No.	From	To	Rec %	Cu	Zn	Ag	Ba	Au	Pb
0	93.0			Advance - yellow clayey sand cutting with some hard siliceous white chips.	14057	93.0	120.0		8	83	-	220	-	12
					14058	120.0	140.0		11	82	-	210	-	39
93.0	129.0			Very low core recovery makes this difficult to log, but 129mm in this hole appears to correspond with 133mm in the first attempt.	14059	140.0	160.0		13	87	0.1	250	-	133
					14060	160.0	180.0		18	119	0.1	290	-	265
					14061	180.0	200.0		20	109	0.1	290	-	240
					14062	200.0	220.0		23	1030	0.3	380	-	730
129.0	154.0	11.1	53	Coarse sandy yellow clay with angular to rounded silicified to intensely acid leached disaggregated grit and sandstone clasts 1 to 30cm across. Larger slab like clasts-shabby parallel to internal bedding-are inclined at 30-50° to C.A. Matrix is weakly sheared at 10-20° to C.A.	14063	220.0	240.0		27	1000	0.2	320	-	1950
					14064	240.0	260.0		22	680	0.2	230	-	1600
					14065	260.0	290.0		22	700	0.3	330	-	360
					14066	280.0	300.0		23	650	0.2	290	-	335
					14067	300.0	320.0		25	710	0.1	300	-	395
					14068	320.0	333.0		32	930	0.2	385	-	452
154.0	162.0	4.5	56	Yellow brown featureless indurated sands.										
162.0	176.0	7.7	55	Yellow clayey sand and sandy clay forms matrix to 3mm to .2cm angular silicified sandstone clasts. This forms matrix to four silicified sandstone clasts 20-50cm across. The unit is weakly flow sheared at 40° to C.A., hydraulic breccia.	N.B. ALL SAMPLES TAKEN FOR ASSAY ARE ONLY 10-20% OF THE HALF CORE.									
176.0	179.0	1.5	50	Brown to yellow brown shale, slightly brecciated. Bedding oscillates between 0-40° over 40° to C.A. random patches 1-10cm thick have been leached of goethite to leave pale grey green kaolin-pyrophyllite rock.										
179.0	184.0	2.8	55	Hydraulic breccia of brown sandy clay with rounded to angular silicified sand clasts. upper contact is at 40° to C.A. : 60° to bedding in previous unit. Lower contact has been lost.										
184.0	185.0	1.0	100	Brown sand, well bedded at 40° to C.A.										
185.0	201.0	12.8	80	Yellow grey shale, in bedded contact with the above unit. This unit is mostly somewhat brecciated with narrow zones of intense brecciation which carry vein quartz and silicified sandstone clasts as well as dominantly shale clasts.										

100063

063

GOLD FIELDS EXPLORATION PTY. LIMITED  
**DRILL CORE LOG AND ASSAY DATA**

PROJECT: LINDA VALLEY

HOLE NUMBER: G.14A

Page: 2.

ULV. PRESS

INTERVAL		RECOVERY		DESCRIPTION	ASSAY DATA														
From	To	m	%		Sample No.	From	To	Rec. %											
				Bedding within the unit is at 40° to C.A.															
201.0	243.0	21.0	50	Yellow brown clayey sand with a few angular 2-5mm quartz clasts.															
				Bedding 206 30 to CA.															
				212 20 to CA.															
				220 20 to CA.															
				227 50 to CA.															
				234 45 to CA.															
				239 45 to CA.															
				241 45 to CA.															
243.0	259.0	13.3	83	Bedded yellow clayey sand with very rare angular silicified sandstone clasts to 3cm and many small slumping faults.															
				Bedding 246 30 to CA.															
				248 30 to CA.															
				251 20 to CA.															
				255 10 to CA.															
				258 10 to CA.															
				2cm breccia dykes at 255 and 257 are perpendicular to bedding.															
259.0	274.0	12.0	80	Brown and yellow brown sandy clay with rare 1mm disrupted quartz veins and 1-3cm silicified sandstone as angular clasts.															
				Also carries bulbous injection masses of clay with shale siliceous sand and quartz clasts to 5mm in masses from a few cm to 50cm across.															
				Bedding is crude and at															
				259 is 45° to CA.															
				261 45° to CA.															
				266 45° to CA.															
				271 45° to CA.															
274.0	300.0	14.3	55	Yellow brown, reddish in places, slightly undurated clayey sand poorly to crudely bedded with many slump features and carrying sporadic angular vein quartz and silicified sandstone clasts to 4cm. A number of breccia dykes occur at a generally															

100064

GOLD FIELDS EXPLORATION PTY. LIMITED  
**DRILL CORE LOG AND ASSAY DATA**

PROJECT: LINDA VALLEY

HOLE NUMBER: G.14, A

Page: 3.

06A

INTERVAL		RECOVERY		DESCRIPTION	ASSAY DATA									
From	To	m	%		Sample No.	From	To	Rec. %						
				high angle to bedding.										
				Dykes 276m 10cm 60° to CA										
				283 70cm diffuse contacts										
				287 150cm contact lost in drilling										
				289 10cm 80° to CA.										
				291 10cm 40° to CA.										
				293 30cm 90° to CA.										
				294 20cm 60° to CA.										
				Bedding 280m 30° to CA.										
				285 20° to CA.										
				292 15° to CA.										
				297 40° to CA.										
300.0	316.0	14.4	90	Yellow brown clayey sand with 1-6cm clasts of shale and silicified sandstone. Bedded in places but mostly slump structures. Breccia dykes with silicified sandstone and shale clasts occur, generally at a high angle to bedding.										
				Dykes 302m 20cm 80° to CA.										
				305m 40cm 20° to CA.										
				310m 50cm 60° to CA.										
				313m 20cm 50° to CA.										
				Bedding 307 20° to CA.										
				314 5° to CA.										
				H.B. This contains well rounded 1-2cm pebbles of Upper Owen grit.										
316.0	319.0	3.0	100	Brownish yellow clay with contorted bedding.										
319.0	323.0	3.9	96	Yellow brown clay with mostly well rounded clasts, some angular, or silicified sandstones, silicified shales, vein quartz and "gossan", 2-10mm.										
323.0	333.5	9.4	90	Brown clayey sand, crudely bedded and with last 2m sheared.										
				Bedding 323 10° to CA.										
				324 30° to CA.										

100065

065

GOLD FIELDS EXPLORATION PTY. LIMITED  
 DRILL CORE LOG AND ASSAY DATA

PROJECT: LINDA VALLEY

HOLE NUMBER: G. 14A

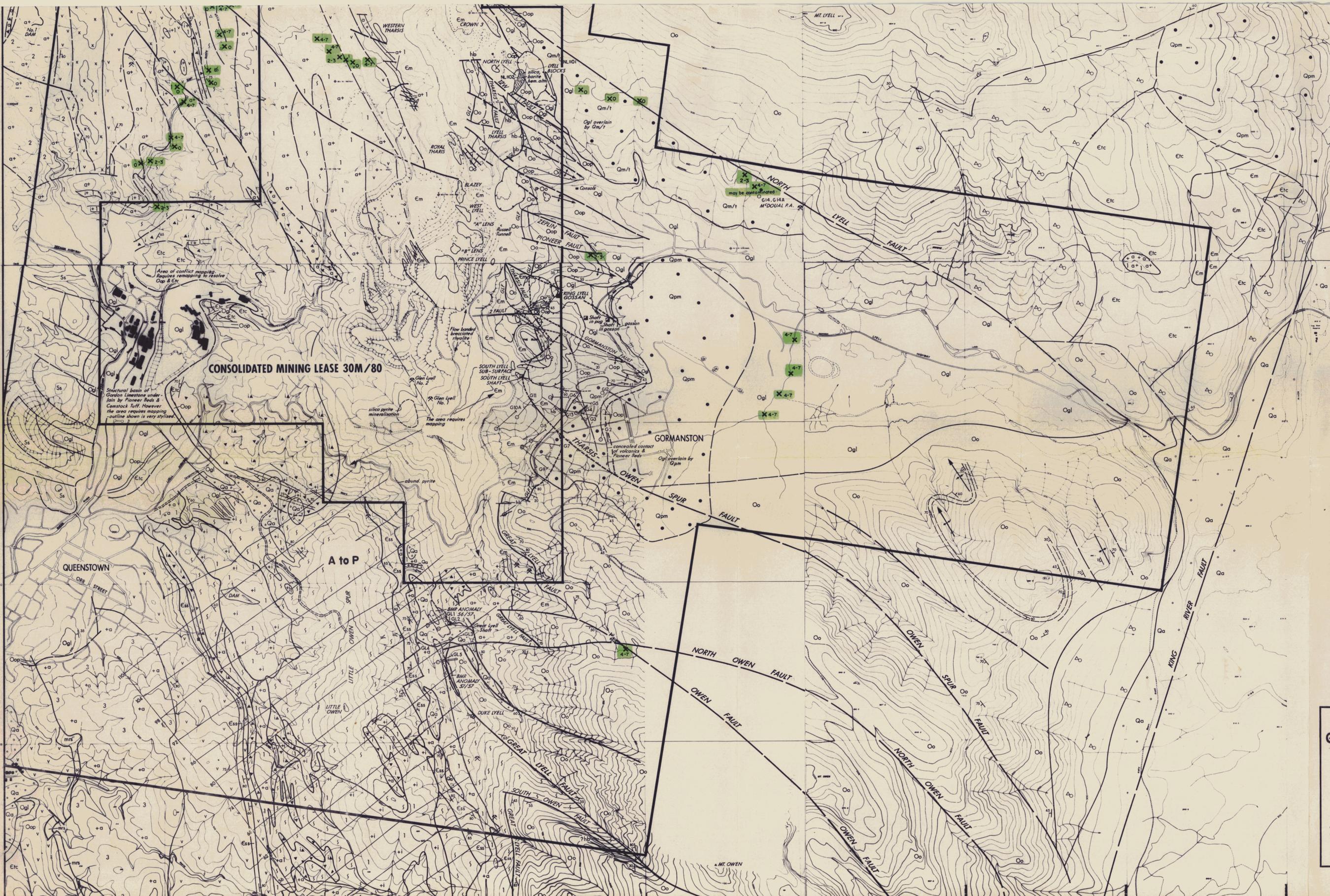
Page: 4.

ULV. PRESS

INTERVAL		RECOVERY		DESCRIPTION	ASSAY DATA													
From	To	m	%		Sample No.	From	To	Rec. %										
				327 45° to CA.														
				329 70° to CA.														
				329.5 90° to CA.														
				330 70° parallel to shearing														
333.5	335.0	1.5	100	Severely fractured leached yellow silicified Middle Owen matrix supported conglomerate, with yellow clay and quartz vein fragments in fractures.														
335.0	336.0	1.0	100	Brown clay, sheared at 75° to CA.														
336.0	338.0	2.0	100	Yellow sandy clay matrix breccia. Clasts are rounded to angular Owen (as above) white chert and shale.														
338.0	340.0	1.9	95	White to reddish acid leached Owen matrix supported conglomerate with sparse limonite pseudomorphs of euhedral pyrite to 2mm.														
340.0	355.0	11.3	75	Yellow and red stained white to purplish grey Owen, as above. From 343 to 343.5 is an irregular replacement type quartz vein with sparse limonite pseudomorphs after pyrite. One metre either side of this vein, and the vein have been disaggregated by leaching.														
355.0	357.5	1.5	60	Intensely acid leached puggy sand with fragments of vein quartz and Owen to 2cm.														
357.5	374.0	9.9	60	Fresh pale mauve Owen, to pink stained and leached Owen to disaggregated sand. Bedding is vague at 70° to C.A. sheared at 75° in places (right angles to bedding). Core loss is in acid leached sands.														
374.0	398.0	14.4	60	As above but without red staining and with some of the Tyennan clasts totally removed by leaching. These cavities are mica lined.														

100000





- Ebs Black shales generally with volcanic rocks
- Ess Shales, sandstones and volcanics
- Mrs Miners Ridge Sandstone
- v v v Interbedded vitric tuffs, shales, sandstones and graywackes.
- △ △ △ Well bedded tuffs, agglomerates and minor shale.
- S S S Welded ash-flow tuffs
- x x x "Quartz feldspar crystal tuffs"
- Em Undifferentiated acid volcanics
- a a a Acid Agglomerates
- i a i Intermediate agglomerates
- + i + Crown Hill Andesite - massive or brecciated plagioclase - pyroxene - hornblende porphyry.
- + a 1 + a Quartz feldspar porphyry, massive, flow-banded or brecciated, probably domes.
- + a 2 + a Rhodacite quartz feldspar chlorite porphyry
- + a 3 + a Quartz feldspar porphyry usually with xenoliths, probably intrusive.
- + a 4 + a Beatrice Dome, weakly magnetic pink feldspar-phyrlic rhyolite with magnetite - haematite veins.
- Outline of orebody
- hb Haematite - barite alteration
- Silicification
- Strike and dip
- Facing direction
- Unconformity, possible
- Unconformity, observed
- Outer limit of Buffer Zone
- Drill Hole Collar
- x 4-7 Moss panning site & colour in dish

Compilation is based on Mount Lyell mine data, Gold Fields EL 9/66 data and Tasmania Mines Department Publications.

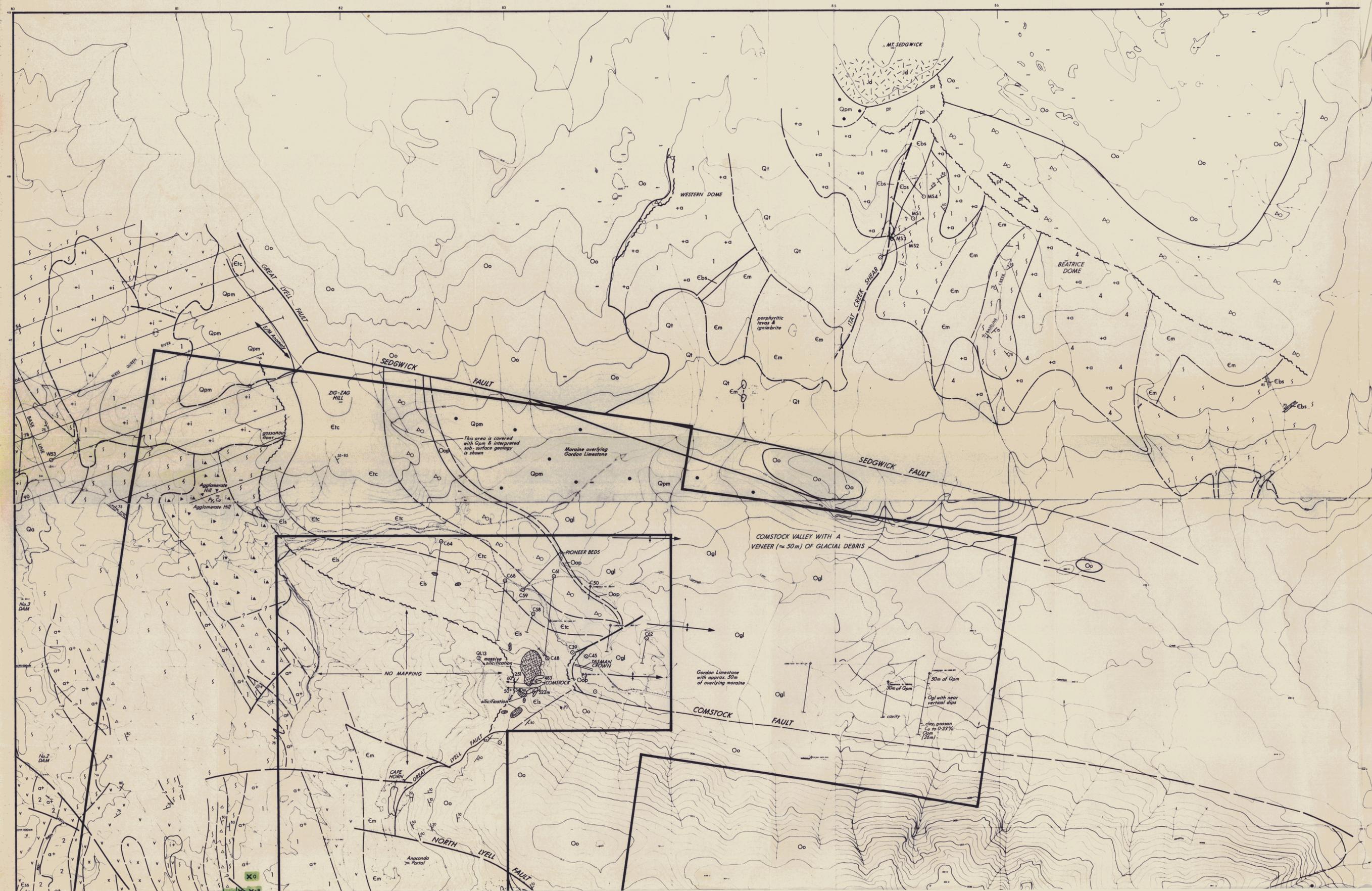
100068



**GOLD FIELDS EXPLORATION PTY. LTD.**  
**GEOCHEMICAL MOSS SAMPLING &**  
**GEOLOGICAL COMPILATION**  
**OF MOUNT LYELL MINE LEASE**  
**AND BUFFER ZONE**

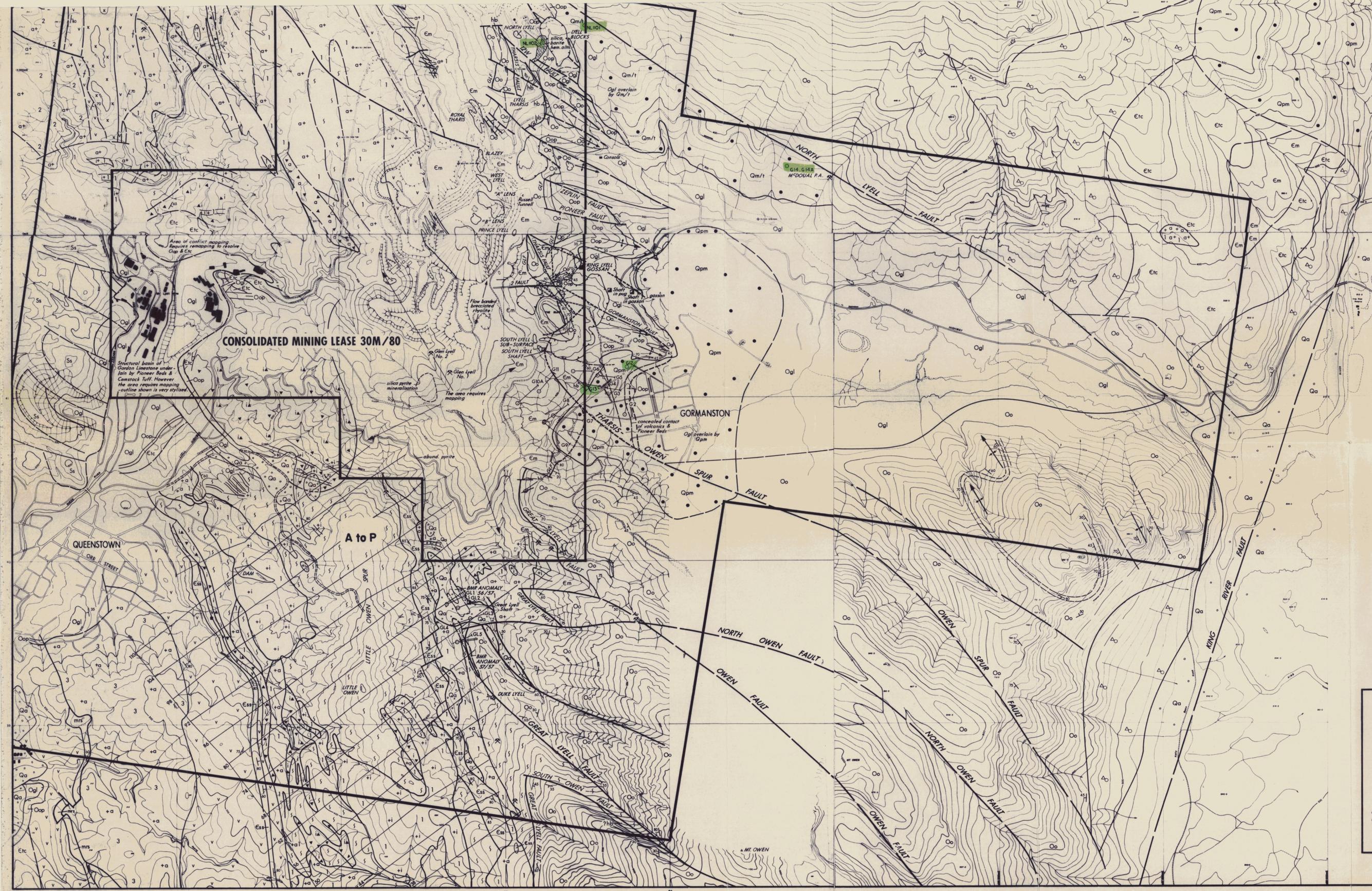
Amended by: J. Beddows, June 85  
 Geology by: W. Brook, Geopacific Services Pty. Ltd.      Scale 1:10000  
 Drawn by: L. Underhill, Geographica, S. Freer      Date: 17/3/84

85-2475



### LEGEND

- Toe of main waste dump
- Recent Alluvium
- Recent talus
- Pleistocene moraine and glacial deposits, reworked in part
- Jurassic dolerite
- Permian tillite
- Undifferentiated Silurian sediments
- Gordon Limestone
- Pioneer Beds
- Jules Conglomerate
- Owen Conglomerate
- Comstock Tuff
- Sedimentary unit with limestone (marble) lenses, conglomerates, greywackes and marls.



- Mrs Miners Ridge Sandstone
- v v v Interbedded vitric tuffs, shales, sandstones and greywackes.
- △ △ △ Well bedded tuffs, agglomerates and minor shale.
- § § § Welded ash-flow tuffs
- x x x "Quartz feldspar crystal tuffs"
- Em Undifferentiated acid volcanics
- ▲ ▼ Acid Agglomerates
- ▲ ▼ ▲ Intermediate agglomerates
- + | + Crown Hill Andesite - massive or brecciated plagioclase - pyroxene - hornblende porphyry.
- + 1 + Quartz feldspar porphyry, massive, flow-banded or brecciated, probably domes.
- + 2 + Rhyolite quartz feldspar chlorite porphyry
- + 3 + Quartz feldspar porphyry usually with xenoliths; probably intrusive.
- + 4 + Beatrice Dome, weakly magnetic pink feldspar-phyrlic rhyolite with magnetite - haematite veins.
- Outline of orebody
- hb Haematite - barite alteration
- ▨ Silicification
- ↘ Strike and dip
- Fault direction
- ~ Unconformity, possible
- - - Unconformity, observed
- Outer limit of Buffer Zone
- Drill Hole Collar

Compilation is based on Mount Lyell mine data, Gold Fields EL 9/66 data and Tasmania Mines Department Publications.

100069 85-2475

**GOLD FIELDS EXPLORATION PTY. LTD.**  
**DRILLHOLE LOCATION &**  
**GEOLOGICAL COMPILATION**  
**OF MOUNT LYELL MINE LEASE**  
**AND BUFFER ZONE**

Amended by: J. Beddows, June 85  
 Geology by: W. Brook, Geopacific Services Pty. Ltd. Scale 1:10000  
 Drawn by: L. Underhill, Geographica., S. Freer  
 Date: 17/3/84

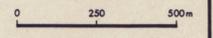
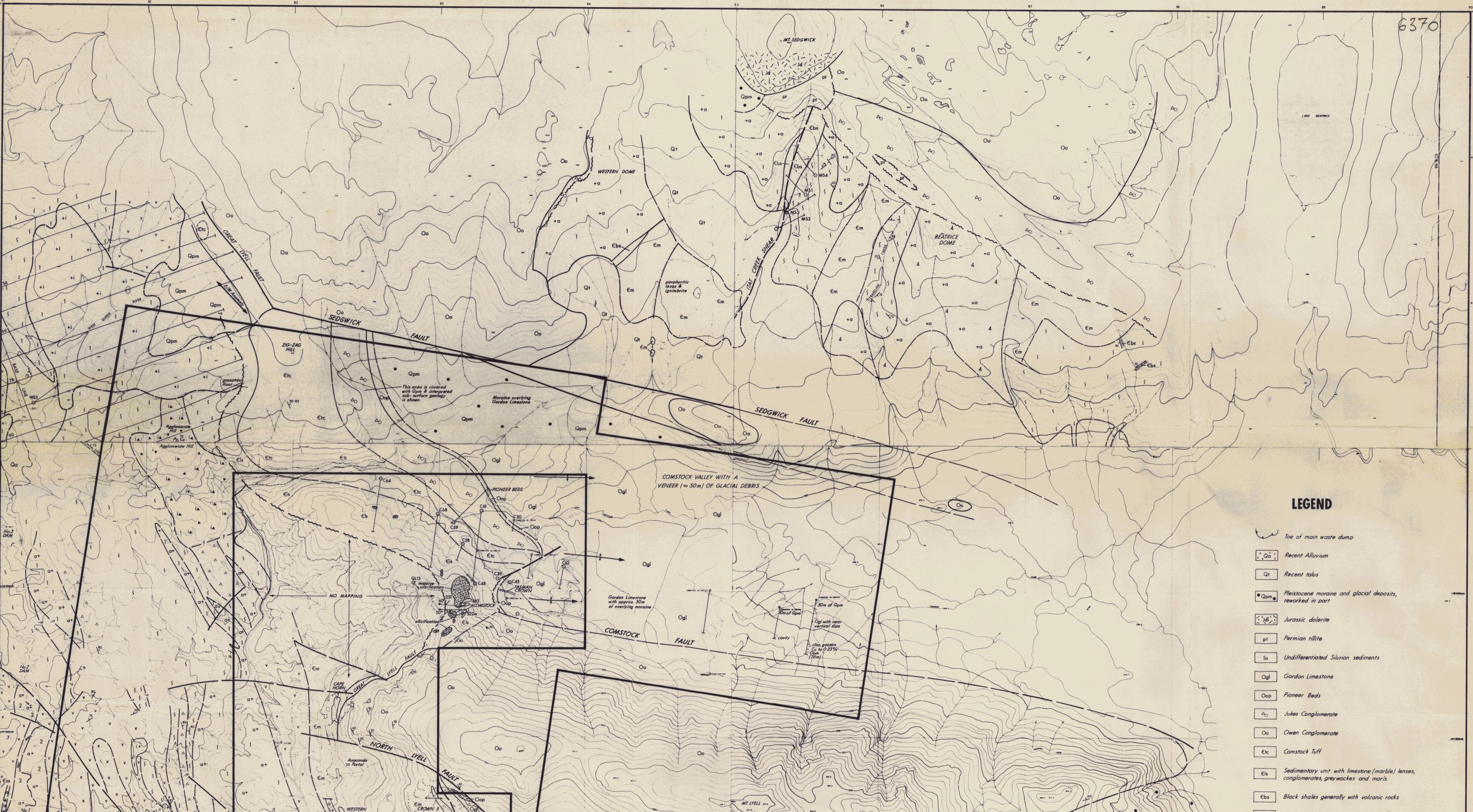


FIG. 4



**LEGEND**

-  Toe of main waste dump
-  Recent Alluvium
-  Recent talus
-  Pleistocene moraine and glacial deposits, reworked in part
-  Jurassic dolerite
-  Permian tillite
-  Undifferentiated Silurian sediments
-  Gordon Limestone
-  Pioneer Beds
-  Jules Conglomerate
-  Owen Conglomerate
-  Comstock Tuff
-  Sedimentary unit with limestone (marble) lenses, conglomerates, greywackes and marls.
-  Black shales generally with volcanic rocks
-  Shales, sandstones and volcanics