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COMINCO EXPLORATION PTY. LTD.

Exploration Licence 47/71,
(Queen Hill)
Progress Report.

20/12/74.

74/1059
D.C. Simpson

AMG REFERENCE POINTS ADDED

LIST OF ATTACHMENTS

1. Geological drill log D.D.H. G30
2. " " " D.D.H. G31
3. " " " D.D.H. G32
4. Assay log G30
5. Assay log G31
6. Plate QH7a showing positions of D.D.H. G30, G31, G32
7. Plate QG29b showing position of D.D.H. BD1
8. Plate QH44 Cross section D.D.H. G30
9. Plate QH45 Cross section D.D.H. G31
10. Plate QH46 Long Projection of D.D.H.'s G30, G31, G32

COMINCO EXPLORATION PTY. LTD.

Subject: Progress Report, Exploration Licence 47/71, (Queen Hill)
Period: 6 months ended December 21, 1974.
Date: December 20, 1974.
By: D.C. Simpson

1. SUMMARY

During the period, diamond drilling on Bradshaw's lode encountered drilling difficulties and results are inconclusive.

Drilling on "Stormsdown" produced two intersections grading better than 1% Sn.

Metallurgical experiments conducted in London on the Queen Hill ore gave encouraging results.

2. DIAMOND DRILLING

During the period under review three diamond holes were drilled on Queen Hill. Results of drilling on Bradshaw's prospect in the western part of the licence were received. Each is discussed separately below.

Bradshaw's No. 1 D.D.H.

This hole was reported in the last six-monthly report, but at that time assay results were not available.

As can be seen from the assay log attached, tin values are generally low, the only moderately mineralised section being the one metre interval 22.25 - 23.25 metres which assayed 1260 ppm Sn. Very low Cu, Pb and Zn results were obtained also.

As the drill rig used only A and E sized coring equipment, with consequent low recoveries in broken ground, the results of this drill hole are not assumed to be conclusive. Because of bad core loss in the target zone the assay results from 20 metres onwards are not reliable.

Queen Hill D.D.H. G30

This hole was reported in June this year, and intersected 16.8 metres of coarse grained pyrite-quartz lode. The weighted assay over the interval was 1.37% Sn. (For cross-section see Plate QH 44 - longitudinal projection shown on Plate QH 46)

The intersection in this hole was wider than expected, so D.D.H.'s G31 and G32 were drilled to define the plunge of the body.

Surface geological mapping of the "Stormsdown" lode suggests that it represents a mineralised fold "knot" but the consistent core bedding angles obtained in G30 do not support this.

J03

D.D.H. G30

Assay results from this hole were reported in August.

Recovery from the lode section was only 48% so assay results are not entirely representative of the intersection. Grades, and in particular, style of mineralisation, were similar to those obtained in G30. The intersection, however, is short due to faulting, both at the upper and lower contacts of the lode.

D.D.H. G32 did not intersect lode but remained in contorted shales with occasional quartzite blebs to the bottom of the hole. Small pyrite knots are developed locally.

The results of these three holes indicate that the plunge of the "Stormsdown" lode is probably ~70-80° towards the N.E. Diamond drilling, using a larger rig, is planned for the coming year to extend the down-plunge information on this body.

3. GEOPHYSICS

No geophysical surveys were carried out during the period. The flying of test lines over this and other Cominco-Aberfoyle Exploration Licences using the McPhar F500 system has been delayed due to problems with the contractor's equipment.

4. METALLURGY

A final report by K. Foo on experimental procedures for the extraction of tin from the Queen Hill ore was received. One series of tests yielded 90% recovery of tin using a method which appears to be economic. The patentable aspects of the method are being investigated at present.

5. GEOCHEMISTRY

No geochemical surveys were undertaken during the period.

It is proposed to develop a sensitive geochemical technique, over the lease and E.L. during the coming year, designed to detect blind mineralisation.

6. EXPENDITURE

The following expenditures are for the period June 16, 1974 to November 26, 1974, the later date being this company's financial year end. Figures are quoted for both Consolidated lease 43m/73 and Exploration Licence 47/71.

E.L. 47/71	Geology, supervision etc.	1216
	Geochemistry	100
	Drilling	251 *
	Metallurgy, feasibility studies	373
	Tenure	51
		<u>1991</u>
	Plus 15% administration	299
		<u>\$2290</u>
		====

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C.M.L. 43M/73	Geology	5
	Drilling	2465
	Legal	198
		<u>2668</u>
	Plus 15% supervision	400
		<u>\$3068</u>
		=====

* A credit of \$938 for diamond recovery is included in this figure.

Submitted by: *Daniel Simpson*
 D.C. Simpson
 Geologist
 Cominco Exploration Pty. Ltd.

Endorsed by: *L.V. Gentle*
 L.V. Gentle
 Chief Geologist
 Cominco Exploration Pty. Ltd.

Drill Hole Record



008

551006

Property	QUEEN HILL	District		Hole No.	G30
Commenced		Location	Zeehan	Tests at	
Completed		Core Size	AX, EX	Corr. Dip	-55° at collar
Co-ordinates				True Brg.	250° mag.
Objective	Geological down plunge info on Stormsdown			% Recov.	
				Collar RL	775'
				Logged by	D.C. Simpson
				Date	

Footage		Description	Sample No.	Length
From	To			
0	8'	No recovery		
8'	11'	Broken rubble - probably up hole material - shale and quartz fragments.		
11'	18'	Slightly pyritic sheared shales - pyrite appears to replace some bands in the shale-quartz-augen irregularly distributed in the shale.		
		Mineralisation - 2% fained grained pyrite.		
		Structure - shearing 20° to CA		
18	50'6"	Lode rock - pyrite-quartz rock - original rock indeterminate probably completely replaced by qtz and pyrite. This section is faintly banded but consistently at 70° to CA. (ie mineralogical banding)		
		Mineralisation - pyrite generally fine grained less than .1 mm but grain size increases slightly towards bottom of section (up to 0.3mm). Pyrite averages 60% of the rock. Quartz veining sparse - usually 1-5mm wide and 60-70° to CA. Minor galena at 28' (½" only) and at 32'3" on shear at 65° to CA		
50'6"	53'0"	Similar to above but more anastomosing quartz veins. Section washed partly so core appears honeycombed		
		Minor galena mineralisation 5% (PbS) 52'6"-53'0". Banding 45° to CA.		
53'0"	65'0"	Pyrite quartzite - variably mineralised from fresh quartzite to rock containing 70% pyrite. Pyritic sections heavily quartz veined.		
		Structure - Mineralogical banding ~70° to CA.		
		Mineralisation - Pyrite generally fine grained up to 0.5mm diam. Pyrite grains from rounded clusters up to 5mm across. Pyrite 30%.		
65'0"	68'0"	Extensively weathered pyritic rock - probably kaolinised shales. Recovery very low. Pyrite 5%		
68'0"	73'0"	Pyritic quartzite - quartzite dark in patches possibly due to shale fragments. Like above sections parts are heavily silicified. Pyrite 40%.		

BRISTOL PRINT

Drill Hole Record



009

551007

Property	District	Hole No.	G30
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Footage		Description	Sample No.	Length
From	To			
73'0"	151'1"	Interbedded quartzite and shales - pyritic in parts eg 95-100, 75-76, 107-110', 124-127'. Section has v. poor recovery (see recovery sheet) due to shearing a kaolinisation. Heavy kaol. of shale. 136-146'. Mineralisation - minor pyritic sections contain up to 20% pyrite generally fine grained as above (NB No bedded pyrite observed in this hole). Traces of galena at 117 Structure - Banding angle doubtful because of shearing possible ~60°.		
		<u>Recoveries</u>		
	0-8' 0	59 4"	110 10"	
	10 2"	59.8 5"	116 0	
	11 4"	63 7"	121 7"	
	15 2'3"	68 1'11"	124.6 5"	
	18 9"	69.5 1'2"	126.6 8"	
	20 1'4"	75.9 2'9"	127.6 10"	
	25 5'0"	83 9"	131. 6"	
	30 5'0"	86 9"	136 7"	
	35 4'9"	90 1'0"	141 0	
	38 2'1"	94 3"	146 1'2"	
	43 2'9"	95 3"	149 0	
	48 3'6"	100 3"	151 7"	
	53 3'9"	103 7"		
	58 1'8"	107 8"		

COCKINGTON PRINT

Drill Hole Record



010

551008

Property	QUEEN HILL	District		Hole No.	G31		
Commenced		Location	Zeehan	Tests at		Hor. Comp.	
Completed		Core Size	AX, EX	Corr. Dip	50° at collar	Vert. Comp.	
Co-ordinates				True Brg.	250° mag.	Logged by	D.C. Simpson
Objective	Test plunge of Stormsdown mineralisation.			% Recov.		Date	
				RL Collar.	765'		

Footage		Description	Sample No.	Length
From	To			
0'	4'	Buff coloured fine grained quartzite. Generally sericitic and containing occasional quartz veins.		
4'	25'	Rubble consisting of broken fragments of contorted and sheared grey shales, occasional quartzite fragments, traces of pyrite in quartz veins and on fractures.		
25'	41'3"	Shale. This section extensively sheared and in places schistose. Within the shale are many rounded and elongate quartzite fragments. Elongation lies in the plane of shearing. Mineralisation - minor pyrite occurs on fracture planes along with sericite. Small elongated pods of pyrite at 28-29'. Also some disseminated pyrite. Structure - Sequence extensively sheared - plane of shearing 5-25° \wedge CA. Very broken lower contact.		
41'3"	51'	Pyrite-quartz rock. Medium to coarse grained rock with pyrite aggregates in a groundmass of quartz Anastomosing quartz veins up to 2mm wide developed locally. Top contact brecciated and silicified. Pyrite 60-70% of rock.		
51'	60'	Very tough pale grey chalcedony slightly fractured and healed.		
60'	76'	Rubble consisting of clay, quartz pyrite fragments and shale. No certainty that this is core.		
76'	81'	Silicified and pyritised shale (possibly core) v. low recovery.		
81'	86'	No core.		
86'	91'	Silicified siltstones. Possibly core. V. low recovery.		
91'	121'	Shales. Doubtful core. Grey shales containing minor pyrite on fractures.		
		121' = end of hole		
Note: 60' onwards, ground enormous - core barrel dropped through openings often (Fault?)				

DOCKINGTON PRINT

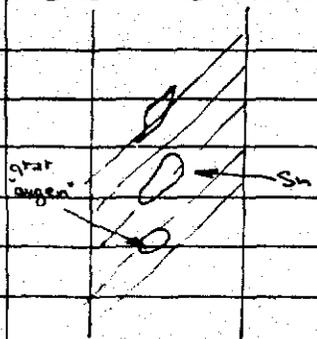
Drill Hole Record



011

551009

Property	Queen Hill	District		Hole No.	G32	
Commenced		Location	Zeehan	Tests at		Hor. Comp.
Completed		Core Size	AX, EX	Corr. Dip.	60° (?)	Vert. Comp.
Co-ordinates				True Brg.	250 mag.	Logged by D.C. Simpson
Objective	Determine plunge of Stormsdown mineralisation.			% Recov.		Date September 8, 1974
				RI Collar	781'	

Footage		Description	Sample No.	Length
From	To			
0	10'	Rubble of sheared shales and quartzite (doubtful core)		
10'	102'	Extensively sheared sequence of shales and quartzites, generally graphitic, mineralised locally. The shales are pale to dark grey, and black where graphitic (eg 72'-73'). Shearing has broken the beds of quartzite to produce an "augen" structure which is characteristic. Elsewhere breccias show angular fragments of quartzite. Muscovite has possibly been recrystallised to produce a soft sheen to most of the core. Graphite and pyrite are common on slip planes. Irregular quartz veining up to 1 cm in width is locally developed in lower half of the hole.		
				
		31' - 31'6" 41'6" - 42'0"		
		Quartzite bands at 44'-44'6", 49'-49'3", 51'-51'6" ^ 65'-66'.		
		Other minor beds up to 5 cms thick below 40'		
		Structure - Extensive shearing and minor folding are conspicuous except in the homogeneous quartzite shearing ΔCA becomes greater over length of hole being at $\sim 30^\circ$ at 25'; 45° at 60'; 60° at 100'. This shearing is parallel to bedding. Core very broken 32'-50'.		
		Mineralisation - Pyrite is the only significant sulphide developed. At 24'3"-25' Co. gr. py is developed in a fault in a quartz network. Bounding this in the shales are thin beds of pyrite. Pyrite is scattered in small breccia blocks of qtzt within the shales. Pyrite also developed on slip planes.		
		Mineralisation developed 65'10"-66'4". Similar to G30, ie c. gr. pyrite with faint banding, minor sphalerite, in a qtz gangue.		

REGISTRATION PRINT

QUEEN HILL

Diamond Drill Hole Bradshaws No. 1

DRILL CORE ASSAYS

From (metres)	To	Sample Number	Length (cm)	Sn(XRF)	Metal values			
					Cu(AAS)%	Pb(AAS)%	Zn(AAS)%	
0.00	2.05	138001	205	<20	<0.01	0.02	0.01	
2.05	3.05	2	100	<20	<0.01	0.03	0.02	
3.05	4.05	3	100	<20	0.03	0.02	<0.01	
4.05	5.05	4	100	<20	0.01	0.04	0.02	
5.05	6.10	5	105	<20	0.02	0.17	0.02	
6.10	6.71	6	61	30	0.05	0.06	0.01	
6.71	7.93	7	122	390	0.05	0.05	<0.01	
7.93	9.45	8	152	<20	0.01	<0.01	<0.01	
9.45	12.19		Not sampled, high core loss					
12.19	12.65	9	46	20	<0.01	0.06	0.06	
12.65	13.07	10	42	30	<0.01	0.02	<0.01	
13.07	14.07	11	100	<20	<0.01	0.02	<0.01	
14.07	14.87	12	80	<20	<0.01	0.03	0.02	
14.87	15.45	13	58	850	0.03	0.04	0.03	
15.45	16.45	14	100	100	0.02	0.02	<0.01	
16.45	16.90	15	45	80	<0.01	0.02	<0.01	
16.90	17.45	16	55	360	0.01	0.01	<0.01	
17.45	18.25	17	80	70	<0.01	0.02	<0.01	
18.25	19.25	18	100	160	0.01	0.01	0.02	
19.25	20.25	19	100	120	<0.01	<0.01	<0.01	
20.25	21.25	20	100	170	<0.01	0.02	0.01	
21.25	22.25	1	100	310	<0.01	0.02	0.01	
22.25	23.25	2	100	1260	<0.01	0.01	<0.01	
23.25	24.25	3	100	490	<0.01	0.02	<0.02	
24.25	24.55	4	30	310	<0.01	<0.01	<0.01	
24.55	25.35	5	80	140	<0.01	<0.01	<0.01	
25.35	25.76	6	41	150	<0.01	0.01	<0.01	
25.76	26.50	7	74	290	<0.01	0.02	<0.01	
26.50	27.58	8	108	40	<0.01	0.01	<0.01	
27.58	29.26		Not sampled, high core loss					
29.26	30.00	9	74	20	<0.01	<0.01	<0.01	
30.00	32.20	30	230	<20	<0.01	<0.01	<0.01	
32.20	33.07	1	77	<20	0.01	<0.01	<0.01	

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QUEEN HILL

Diamond Drill Hole G30

DRILL CORE ASSAYS

From (metres)	To	Sample Number	Length (cm)	Sn %
5.49	6.59	145889	110	1.28
6.59	7.29	90	70	0.53
7.29	8.13	1	84	0.79
8.13	8.99	2	86	0.95
8.99	9.79	3	80	0.46
9.79	10.89	4	110	2.47
10.89	11.59	5	70	1.44
11.59	12.25	6	66	2.19
12.25	13.25	7	100	1.03
13.25	14.49	8	124	2.73
14.49	15.14	9	65	0.13
15.14	16.14	900	100	1.68
16.14	16.77	141872	63	0.80
16.77	17.13	141873	36	0.04

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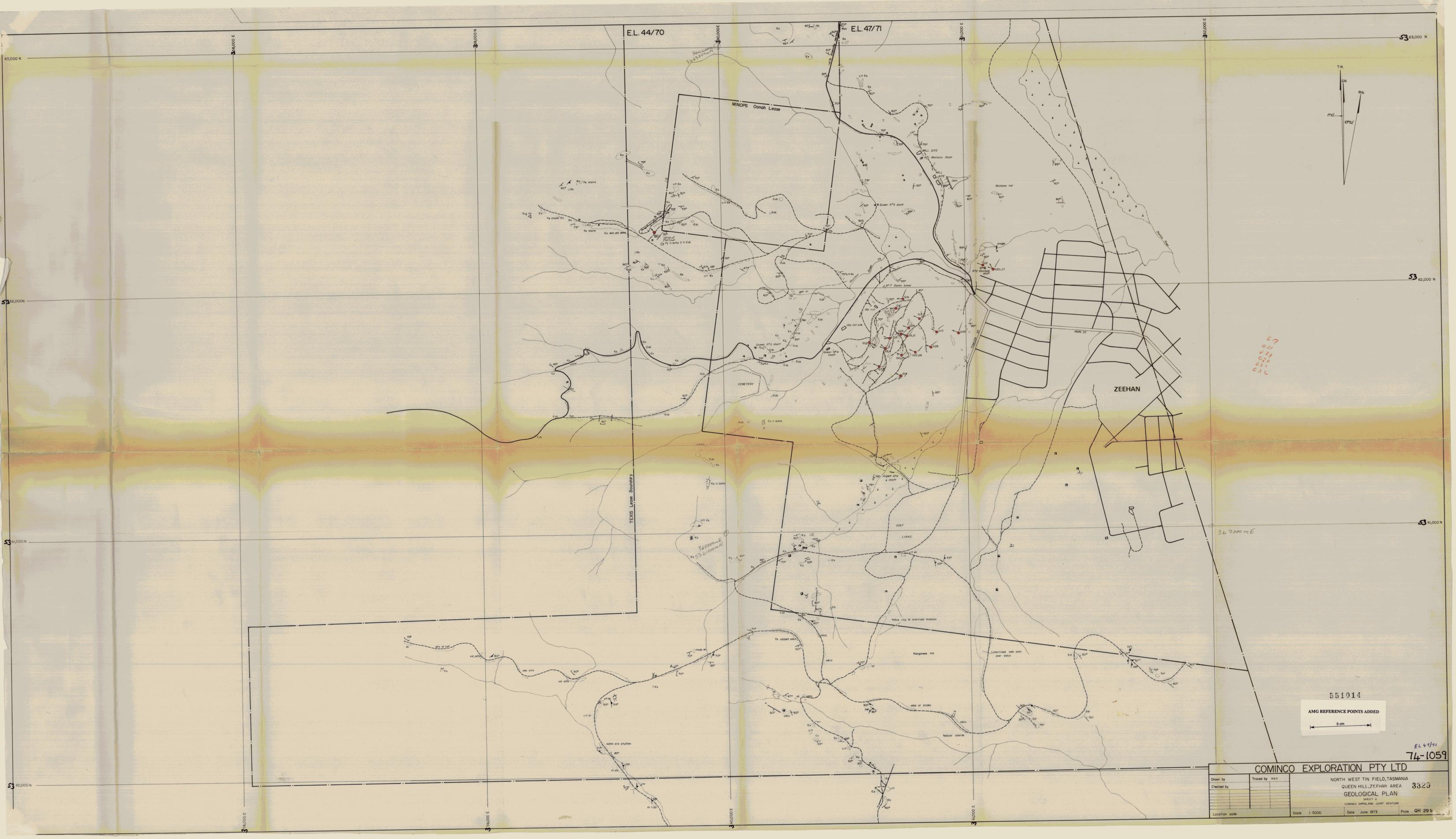
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QUEEN HILL

Diamond Drill Hole G31

DRILL CORE ASSAYS

From (feet)	To	Sample Number	Length (feet)	Metal values %			
				Sn	Cu	Pb	Zn
41' 3"	44' 0"	145461	2' 9"	0.95	<0.01	0.65	2.38
44' 0"	44' 10 $\frac{1}{2}$ "	2	10 $\frac{1}{2}$ "	0.74	<0.01	0.25	0.09
44' 10 $\frac{1}{2}$ "	48' 0"	3	3' 1 $\frac{1}{2}$ "	0.16	<0.01	0.10	0.18
48' 0"	51' 0"	4	3' 0"	1.22	0.01	0.14	0.35



E.L. 44/70

E.L. 47/71

53 63,000 N

53 62,000 N

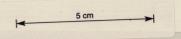
53 61,000 N

E.L. 47/71

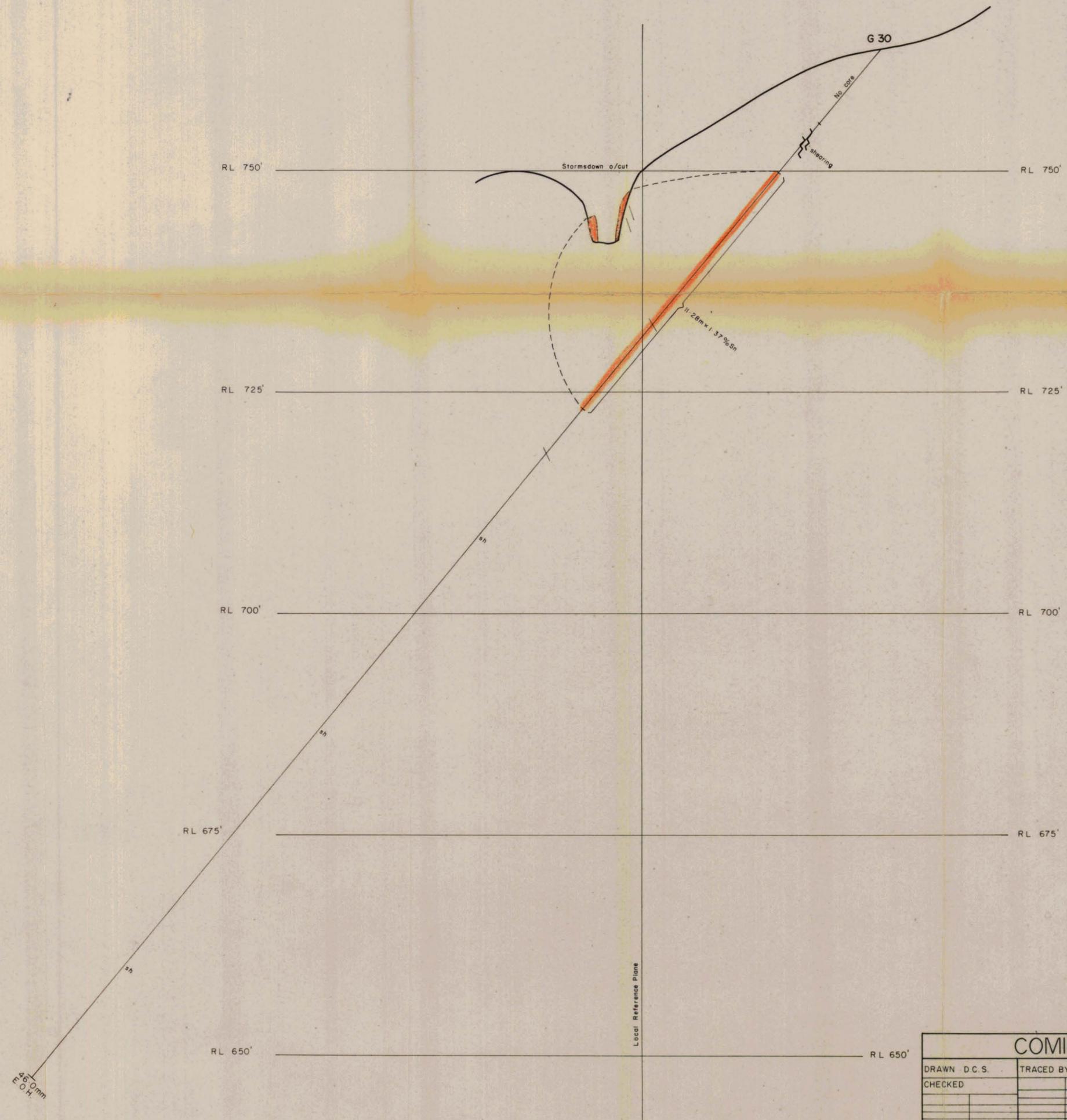
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AMG REFERENCE POINTS ADDED



COMINCO EXPLORATION PTY LTD		NORTH WEST TIN FIELD, TASMANIA		3323	
QUEEN HILL, ZEEHAN AREA		SHEET 2		COMINCO GIPPSLAND JOINT VENTURE	
Drawn by	Traced by RXY	Location code	Scale 1:5000	Date June 1973	Plate OH 29 b
Checked by					



- Qt Massive quartzite
- sh Shales & bedded quartz
- Course grain pyrite massive
- Fine grain pyrite massive
- Dip of bedding
- Fault
- Shear

5 cm

551015 74-1059

COMINCO EXPLORATION PTY. LTD.

QUEEN HILL		CROSS SECTION THROUGH DDH G30	
GEOLOGY		3330	
Section bears 250° mag looking North			
DRAWN D.C.S.	TRACED BY P.F.	Location code: K 55/5/50	Scale: 1:100
CHECKED		Date: November 1974	Plate: QH 44

46.0mm
E.O.H.

RL 750'

RL 750'

G 31

RL 725'

RL 725'

RL 700'

RL 700'

RL 675'

RL 675'

RL 650'

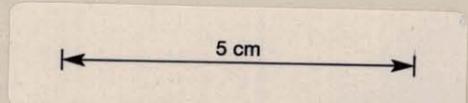
RL 650'

- Massive quartzite
- Shales & bedded quartz
- Course grain pyrite massive
- Fine grain pyrite massive
- Fault
- Shear

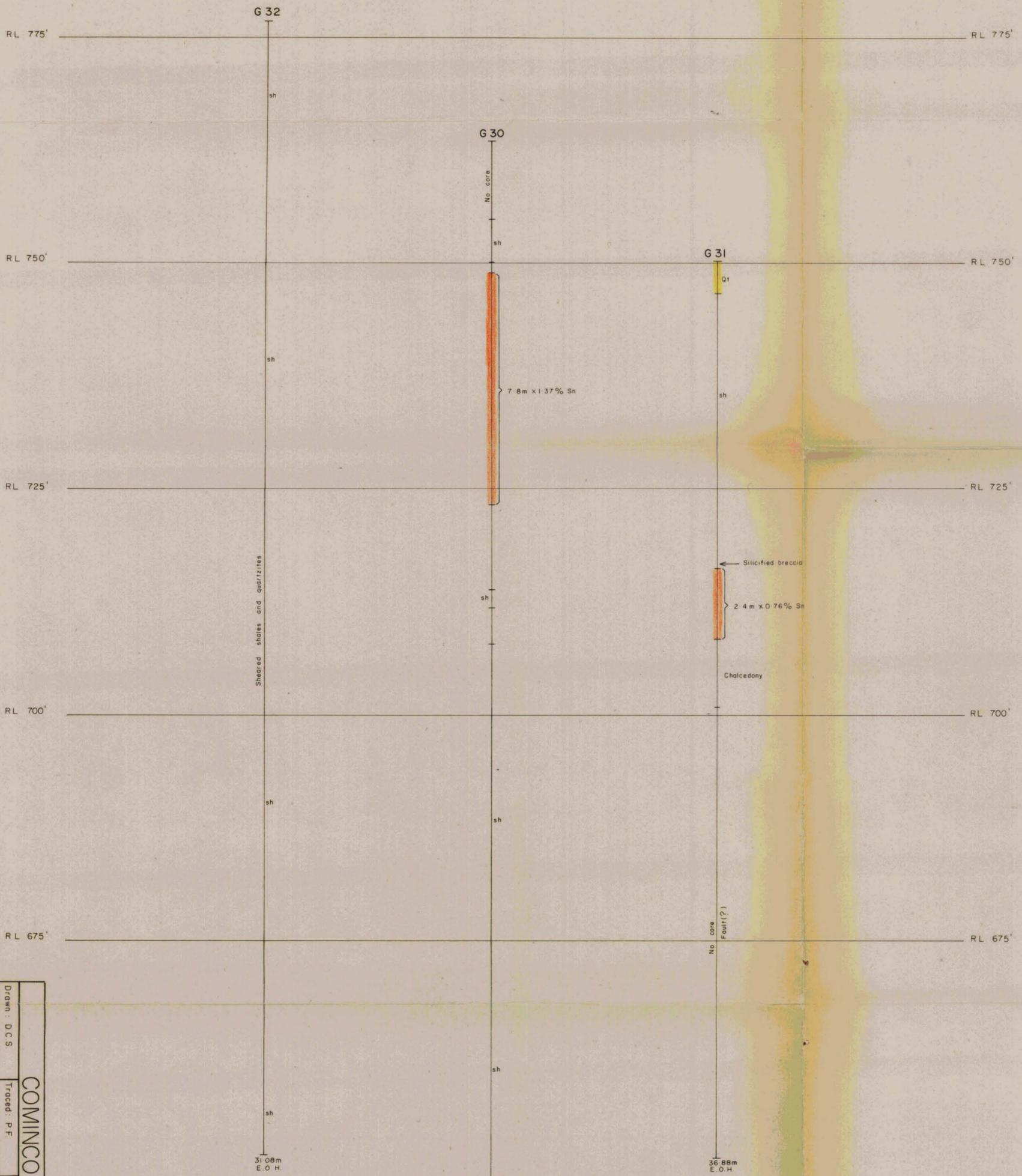
No confirmed core
Probably fault zone

Silicified breccia
2.97m x 0.76% Sn

Chalcedony



Location code: K 55/5/50		Scale: 1:100		Date: November 1974	Plate: QH 45
Drawn: D.C.S.	Traced: P.F.	COMINCO EXPLORATION PTY. LTD. QUEEN HILL CROSS SECTION THROUGH DDH G31 GEOLOGY 3331 Looking North			
Checked:					
55101C		74-1059			



- Massive quartzite
- Shales & bedded quartz
- Course grain pyrite massive
- Fine grain pyrite massive

5 cm

NB: This projection is on a local reference plane bearing 340° (mag) to 111° 34' 10" QM ref. plane.

COMINCO EXPLORATION PTY. LTD.	
Drawn: D.C.S.	Traced: P.F.
Checked:	
QUEEN HILL	
STORMSDOWN	
LONG SECTION SHOWING DDH'S G30, G31, G32	
GEOLOGY	
Section bears 340° mag looking West	
Location code: K 55/5/50	Scale: 1:100
Date: November 1974	Plate: QH 46

551017 74-1059

3332