GEOLOGY - KING ISLAND SCHEELITE

LOG OF D.D.H. No. D 220/23

PLANNING

PROPOSER: R.E.S. Davies DEPTH: 65 m

LOCATION: P11 Mid Wedge access

PURPOSE OF HOLE: Test granite contact for planning of Decline Bypass

PROPOSED CO-ORDS: 220 220 E 564 042 N

INCLINATION: -47°

BEARING: 0 °GRID °MAG

TARGET: E N

DEPTH:

CHECKED BY: DATE:

SURVEY

SURVEY CO-ORDS: E N

SURVEYED BEARING: 358° 53' °GRID °MAG

SURVEYED IN BY: DATE:

ACTUAL CO-ORDS: 220 220.6 E 564 044.7 N

R.L. OF COLLAR: -195.97

INCLINATION OF HOLE: -45° 02'

PICKED UP BY: J. Cook DATE: 13/5/81

SUMMARY

LOGGED BY: R.E.S. Davies

RESULTS: Hole abandoned

DRILLING

DATE COMMENCED: 24/4/81 DATE TERMINATED: 7/5/81

DRILLER/CONTRACTOR: S. BAtchelor/A.D.D.

CASING: SIZE:
DEPTH:

CORE: SIZE: BQ
DEPTH: 63

WEDGE PLACED: DEPTH: PROPOSER:

EXTENSION:

FINAL DEPTH: 63 m

REASON FOR TERMINATION: Driller could not penetrate fault 0.5 m from end of hole.

CONDITION OF HOLE ON COMPLETION:

CASING:

CEMENTED:

BORE HOLE SURVEY: S/S

WATER:

COMMENTS ON DRILLING CONDITIONS:

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY BORE HOLE SURVEY DATA

D.D.H. No. D 220/23

Surveyed method: Single shot
Final depth: 63.0 m
Casing depth: Nil

Depth surveyed to: 63.0 m
Date surveyed: 7/5/81
Surveyed by: R. Drake
Checked by:

Bearing			Inclination		True Vertical Depth (m)	Co-ordinates	
Depth (m)	Grid	Mag.	Read	Corr.			
0.0	358° 53'			135° 02'	0.0		
30.0	357° 30'	N 12° 30'W	43° 15'	136° 45'	21.23		
63.0	357° 30'	N 12° 30'W	43° 30'	136° 30'	45.26		

REMARKS:

GEOLOGY - KING ISLAND SCHEELITE

CORE RECOVERY

D.D.H. No. D 220/23

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 1.5	1.5	0.8	53
1.5 - 2.0	0.5	0.4	80
2.0 - 3.0	1.0	0.8	80
3.0 - 3.5	0.5	0.4	80
3.5 - 4.0	0.5	0.3	60
4.0 - 4.3	0.3	02	66
4.2 - 4.4	0.1	0.05	50
4.4 - 6.2	1.8	1.6	89
6.2 - 7.8	1.6	1.5	94
7.8 - 8.8	1.0	0.9	90
8.8 - 9.3	0.5	0.4	80
9.3 - 10.0	0.7	0.5	71
10.0 - 10.3	0.3	0.3	100
10.3 - 11.0	0.7	0.7	100
11.0 - 12.5	1.5	1.2	80
12.5 - 13.1	0.6	0.4	75
13.1 - 13.5	0.4	0.3	75
13.5 - 14.8	1.3	1.2	92
14.8 - 16.3	1.5	1.5	100
16.3 - 17.0	0.7	0.6	86
17.0 - 18.2	1.2	1.2	100
18.2 - 19.7	1.5	1.5	100
14.7 - 21.1	1.4	1.4	100
21.1 - 22.7	1.6	1.3	81
22.7 - 24.2	1.5	1.5	100
24.2 - 25.5	1.3	1.3	100
25.5 - 27.2	1.7	1.6	94
27.2 - 28.7	1.5	1.5	100
28.7 - 30.2	1.5	1.5	100
30.2 - 33.0	2.8	2.8	100
33.0 - 35.0	2.0	2.0	100
35.0 - 37.2	2.2	2.1	95
37.2 - 40.2	3.0	3.0	100
40.2 - 42.3	2.1	2.1	100
42.3 - 44.7	2.4	2.4	100
44.7 - 46.4	1.7	1.5	88
46.4 - 48.3	1.9	1.8	95
48.3 - 48.6	0.3	0.2	66
49.6 - 49.0	0.4	0.3	75
49.0 - 50.5	1.5	1.3	87
50.5- - 52.0	1.5	1.3	87
52.0 - 52.7	0.7	0.6	86
52.7 - 53.0	0.3	0.2	66
53.0 - 53.4	0.4	0.3	75
53.4 - 53.7	0.3	0.2	66
53.7 - 53.9	0.2	0.2	100
53.9 - 54.2	0.2	0.1	50
54.2 - 56.0	1.8	1.7	94
56.0 - 57.7	1.7	1.7	94
57.7 - 59.5	1.8	1.7	94
59.5 - 59.9	0.4	0.4	100
59.9 - 60.2	0.3	0.2	66
60.2 - 60.5	0.3	0.2	66
60.5 - 63.0	2.5	2.0	80

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 220/23

0.0 - 32.2 m **BIOTITE PYROXENE HORNFELS**

Mostly a very fractured unit of dominantly biotite hornfels with subsidiary interbedded pyroxene hornfels. Most of the core to 17 m is very broken, not only on the frequent bedding planes, but also on the numerous fractures. Fragments range in size from 1 to rarely 10 cm. The mode being about 5 cm. From 17 - 21.5 m a pure biotite hornfels sequence is reasonably competant with sticks overaging 20 cm. The rock reverts to biotite hornfels/pyroxene hornfels beyond this with thin (5 cm) beds of mineralised andradite garnet skarn @ 22.8 m, 23.2 m and 23.8 m. The base of the unit consists of biotite hornfels, pyroxene hornfels and marble which grade into each other. The basal quartzite presumably represents a washed high silica meta-sandstone.

26.8 - 27.6 biotite hornfels
27.6 - 29.5 pyroxene hornfels
29.5 - 30.8 marble
30.8 - 32.2 Quartzite

Possible fault @ 13 - 14 m

Bedding is @	70^{o}	to LCA @	6 m
"	65^{o}	"	10 m
"	40^{o}	"	15 m
"	75^{o}	"	23 m
"	60^{o}	"	28 m

32.4 - 63.0 m **QUARTZITES**

This is the stratigraphic quartzite at the base of the mine series and is a light, pale grey rock, rich in silica and having a fine grained texture.

The quality of the rock deteriates down the core, being very good to about 48 m (30 cm sticks). Beyond that it gets progessively worse and the hole was abandoned due to badly broken ground @ 61.5 - 62.5 m.

Between 48 - 63 m the core is recovered as fragments 1 - 10 cm long usually with chloritic or talcy coatings on fractured surfaces.

Possible bedding @ 50 m is @ 50^{o} to LCA.

EOH 63.0 m

GEOLOGY - KING ISLAND SCHEELITE

LOG OF D.D.H. No. D 220/22

PLANNING

PROPOSER: R. E. S. Davies DEPTH: 40 m

LOCATION: -75 m level

PURPOSE OF HOLE: Test B Lens

PROPOSED CO-ORDS: 220 220 E 564 174 N

INCLINATION: +45°

BEARING: 0° °GRID °MAG

TARGET: E N

DEPTH:

CHECKED BY: DATE:

SURVEY

SURVEY CO-ORDS: E N

SURVEYED BEARING: 359° 40' °GRID °MAG

SURVEYED IN BY: DATE:

ACTUAL CO-ORDS: 220 219.4 E 564 171.6 N

R.L. OF COLLAR: -70.8

INCLINATION OF HOLE: +46° 22'

PICKED UP BY: R. Howman DATE: 9/2/81

SUMMARY

LOGGED BY: R. E. S. Davies

RESULTS: No economic mineralisation

DRILLING

DATE COMMENCED: 27/1/81 DATE TERMINATED: 1/2/81

DRILLER/CONTRACTOR: W. Gilligan/K.I.S

CASING: SIZE:
DEPTH:

CORE: SIZE: 46TT
DEPTH:

WEDGE PLACED: DEPTH: PROPOSER:

EXTENSION:

FINAL DEPTH: 41.7 m

REASON FOR TERMINATION: In Northern Boundary Fault

CONDITION OF HOLE ON COMPLETION:

CASING:

CEMENTED:

BORE HOLE SURVEY: M/S

WATER:

COMMENTS ON DRILLING CONDITIONS:

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY BORE HOLE SURVEY DATA

D.D.H. No. D 220/22

Surveyed method: Multishot
Final depth: 41.7 m
Casing depth: Nil

Depth surveyed to: 40.0 m
Date surveyed: 6/2/81
Surveyed by: R. Drake
Checked by:

Bearing			Inclination		True Vertical Depth (m)	Co-ordinates	
Depth (m)	Grid	Mag.	Read	Corr.		N	W
0.0	359° 40'	349° 40'	46° 22'	43° 38'	0.00	0.00	0.00
20.0	360°	350°	45°	45°	14.20	14.20	0.00
40.0	359° 15'	349° 15'	45° 45'	44° 15'	28.20	28.40	0.19

REMARKS:

GEOLOGY - KING ISLAND SCHEELITE

CORE RECOVERY

D.D.H. No. D 220/22

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 0.5	0.5	0.5	100
0.5 - 1.1	0.6	0.4	67
1.1 - 2.7	1.6	1.6	100
2.7 - 4.3	1.6	1.6	100
4.3 - 6.0	1.7	1.7	100
6.0 - 7.7	1.7	1.7	100
7.7 - 9.4	1.7	1.7	100
9.4 - 11.1	1.7	1.7	100
11.1 - 13.8	2.7	2.7	100
13.8 - 14.2	0.4	0.2	50
14.2 - 15.1	0.9	0.4	44
15.1 - 17.8	2.7	2.0	74
17.8 - 20.5	2.2	2.6	91
20.5 - 23.3	2.8	2.5	89
23.3 - 25.6	2.3	2.2	96
25.6 - 28.0	2.4	2.1	88
28.0 - 30.9	2.9	2.8	97
30.9 - 33.4	2.5	2.3	92
33.4 - 35.9	2.5	2.4	96
35.9 - 38.3	2.4	2.3	96
38.3 - 40.4	2.1	2.0	95
40.4 - 41.7	1.3	1.2	92
EOH 41.7 m			

GEOLOGY - KING ISLAND SCHEELITE

ASSAY DATA

D.D.H. No. D 220/22

SAMPLE NO.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Rec.	WO_3	Mo		
D 12983	11	12	1.0	1.0	0.13			
84	12	13	"	"	0.38			
85	13	14	"	"	0.18			
86	14	15	"	"	0.13			
87	27	28	"	"	0.15			
88	28	29	"	"	0.68			
89	29	30	"	"	0.48			

SPECIFIC GRAVITY

Depth (metres):
Rock Type:
S.G.:

Determined by:

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 220/22

Summary

0.0 - 12.0 m	Marble
12.0 - 15.1 m	gph (m)
15.1 - 17.6 m	Leached gph Δ
17.6 - 28.0 m	ph Δ
28.0 - 30.0 m	gph (m)
30.0 - 41.1 m	ph/bh
41.1 - 41.7 m	F.Z.

0.0 - 12.0 m B LENS MARBLE

Fresh grey competant unmineralised marble

Bedding	30°	to	LCA @	5.5 m
"	30		"	9.0 m
"	30		"	12.0 m

12.0 - 15.1 GARNET PYROXENE HORNFELS

Poorly mineralised garnet and pyroxene skarn, gradual transition from the marble but the unit is extensively broken from 13.0 to 15.1 m.

15.1 - 17.6 LEACHED GARNET PYROXENE HORNFELS

A pale grey/cream rock with a leached appearance. The central section is very broken and fractured and probably represents a fault.

Marble is present from the first 0.6 m of the unit.

A few scattered flecks of scheelite are present.

17.6 - 28.0 PYROXENE HORNFELS

This unit is mostly broken into pieces of core less than 10 cm long. Often only 2 cm diameter. Scattered crystals of scheelite are present in the unit.

The rock type is initially marble for about 1 m, the remainder is a siliceous pyroxene hornfels. The whole zone would appear to be close to or related to nearby faulting.

Bedding is @ 20° to LCA @ 19 m

28.0 - 30.0 GARNET PYROXENE HORNFELS (MINERALISED)

Mineralised andradite garnet skarn is present in this piece of ground which is also fractured. The mineralisation is probably sub-grade.

30.0 - 41.1 PYROXENE HORNFELS

This is a pale blue/grey coloured silca rich pyroxene hornfels. No scheelite is present but many fractures are present through the core. Average length of core is about 15 cm.

A small amount of carbonate is present.

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 220/22

41.1 - 41.7 FAULT ZONE

This is probably the Northern Boundary Fault. Fragments are 2 cm diameter or less. Thers is only moderate development of chlorite slickensides and minimal clay.

EOH 41.7 m

GEOLOGY - KING ISLAND SCHEELITE

LOG OF D.D.H. No. D 220/21

PLANNING

PROPOSER: S. G. Brown DEPTH: 40 m

LOCATION: 010 Lower Pit access

PURPOSE OF HOLE: Test area between Wedge and Central Faults

PROPOSED CO-ORDS: 220 220 E 564 014 N

INCLINATION: +61°

BEARING: 0° °GRID °MAG

TARGET: E N

DEPTH:

CHECKED BY: DATE:

SURVEY

SURVEY CO-ORDS: E N

SURVEYED BEARING: 002.00 °GRID °MAG

SURVEYED IN BY: DATE:

ACTUAL CO-ORDS: 564 013.6 N 220 219.6 E

R.L. OF COLLAR: -190.1

INCLINATION OF HOLE: +60°.

PICKED UP BY: J. Cook DATE: 22/8/80

SUMMARY

LOGGED BY: R. E. Sandell Davies

RESULTS: 0 - 6 m, 6 m @ 2.06% WO_3
15 - 25 m, 10 m @ 0.69% WO_3 Central
30 - 35 m, 5 m @ 0.84% WO_3

DRILLING

DATE COMMENCED: 8/8/80 DATE TERMINATED: 13/8/80

DRILLER/CONTRACTOR: D. Rutherford/K.I.S.

CASING: SIZE:
DEPTH:

CORE: SIZE: 46TT
DEPTH:

WEDGE PLACED: DEPTH: PROPOSER:

EXTENSION:

FINAL DEPTH: 35 m

REASON FOR TERMINATION: In Garnet Hornfels, thought to be Wedge Orebody. Rig required urgently at Bold Head

CONDITION OF HOLE ON COMPLETION:

CASING:

CEMENTED:

BORE HOLE SURVEY: Multishot

WATER:

COMMENTS ON DRILLING CONDITIONS:

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY BORE HOLE SURVEY DATA

D.D.H. No. D 220/21

Surveyed method: Multishot
Final depth: 35.0 m
Casing depth: Nil

Depth surveyed to: 35 m
Date surveyed: 13/8/80
Surveyed by: R. Drake, B. Schneiders
Checked by:

Bearing			Inclination		True Vertical Depth (m)	Co-ordinates	
Depth (m)	Grid	Mag.	Read	Corr.		N	W
8.0	2°	S8° E	30°	60°	6.93	3.96	0.56
14.0	2°	S8° E	30°	60°	12.13	6.93	0.98
23.0	2°	S8° E	30°	60°	19.92	11.39	1.61
35.0	2°	S8° E	31°	59°	30.21	17.51	2.47

REMARKS:

GEOLOGY - KING ISLAND SCHEELITE

CORE RECOVERY

D.D.H. No. D 220/21

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 2.5 m	2.5	2.4	96
2.5 - 5.0	2.5	1.9	76
5.0 - 7.0	2.0	1.9	95
7.0 - 8.7	1.7	1.5	88
8.7 - 9.2	0.5	0.4	80
9.2 - 11.4	2.2	2.1	95
11.4 - 13.6	2.2	2.2	100
13.6 - 15.0	1.4	1.3	93
15.0 - 18.2	3.2	3.0	94
18.2 - 20.4	2.2	2.2	100
20.4 - 22.5	2.1	2.1	100
22.5 - 25.5	3.0	3.0	100
25.5 - 28.5	3.0	3.0	100
28.5 - 30.5	2.0	1.5	75
30.5 - 33.5	3.0	2.8	93
33.5 - 35.0	1.5	1.5	100
EOH 35.0 m			

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY STRUCTURAL DATA

D.D.H. No. D 220/21

DEPTH INTERVAL (METRES)	ROCK TYPE	FRAC-TURES /m	JOINT ANGLE (WRT/ LAOC)	JOINT FILLING	BEDDING ANGLE (W. R. T./ L. A. O. C.)	% CORE RECO-VERY	R. Q. D.	REMARKS (WEATHERING)
0.0 - 7.0	gh	5-12		Chlor/cc			27	
7.0 - 14.8	B lens	5-15		Chlor/cc			35	
14.8 - 24.0	gh	6-10		Chlor/cc			46	
24.0 - 30.7	gph	4		Chlor/cc			52	
30.7 - 35.0	gh	18		Chlor/cc			13	

FURTHER DATA & REMARKS

1. Detailed % core recoveries within each depth interval is shown in the core recovery tabulation.
2. R.Q.D. (rock quality designation) $+= \frac{\text{Length Core} > 10 \text{ cm}}{\text{Length Drilled}}$
3. Core size.

GEOLOGY - KING ISLAND SCHEELITE

ASSAY DATA

D.D.H. No. D 220/21

SAMPLE NO.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Rec.	WO_3	Mo		
D 12825	0	1	1.0	1.0	0.38			
26	1	2	"	"	1.45			
27	2	3	"	"	2.6			
28	3	4	"	"	2.2			
29	4	5	"	"	0.74			
30	5	6	"	"	5.0			
31	6	7	"	"	0.01			
32	7	8	"	"	0.03			
33	8	9	"	"	2.8			
34	9	10	"	"	0.06			
35	13	14	"	"	0.01			
36	14	15	"	"	0.02			
37	15	16	"	"	0.66			
38	16	17	"	"	0.69			
39	17	18	"	"	0.62			
40	18	19	"	"	0.51			
41	19	20	"	"	0.73			
42	20	21	"	"	0.75			
43	21	22	"	"	0.55			
44	22	23	"	"	0.81			
45	23	24	"	"	0.85			
46	24	25	"	"	0.77			
47	25	26	"	"	0.06			
48	26	27	"	"	0.05			
49	27	28	"	"	0.02			
50	28	29	"	"	0.08			
51	29	30	"	"	0.18			
52	30	31	"	"	0.33			
53	31	32	"	"	1.04			
54	32	33	"	"	1.00			
55	33	34	"	"	0.95			
56	34	35	"	"	0.89			

SPECIFIC GRAVITY

Depth (metres):

Rock Type:

S.G.:

Determined by:

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 220/21

Summary

0.0	- 7.0	Garnet Hornfels
7.0	- 14.8	~~B lens~~
14.8	- 24.0	Garnet Hornfels
24.0	- 30.7	Garnet Pyroxene Hornfels
30.7	- 35.0	Garnet Hornfels

disturbed mineralized marble beds from left unit. AGB 7/2/85

0.0 - 7.0 m GARNET SKARN

Well mineralised (0.7% WO_3) khaki coloured andradite garnet skarn. The first 1 m of core shows a breccia texture. Clasts of pyroxene hornfels, marble and garnet hornfels are held in a biotite hornfels matrix. Clasts are angular and <1.5 m diameter.

The core is mostly broken into pieces 10 - 15 cm long, but some areas are more fractured and here the core is in fragments of 2 - 3 cm. This occurs @ 3.5 - 5.0 m, @ 6 m and 6.8 - 7.0 m.

The last 80 cm of core is biotite hornfels which contains this pyroxene hornfels beds and some small clasts.

7.0 - 14.8 B LENS

A fault contact between this and the previous unit is inferred from the sudden change in rock type, and the brecciation at the limits of each unit.

The B Lens is brecciated (rehealed) to about 8 m. Initially the lithology is pyroxene hornfels and marble to 9.2 m and sparsely mineralised from 8.0 - 9.2 m.

The remainder of the unit is entirely marble except for 40 cm of pyroxene hornfels alteration from 13.6 m.

The majority of the marble is fractured in addition to the pyroxene hornfels @ 13.6 m which is brecciated.

A section of rubble @ 10 cm at the end of the unit is taken to be a fault. The rubble is in about 1 cm diameter pieces, all heavily slickenslided.

14.8 - 24.0 GARNET SKARN

A large competant well mineralised unit of khaki andradite garnet skarn.

From 22.7 m the unit has a pale grey leached appearance.

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 220/21

24.0 - 30.7 m GARNET PYROXENE HORNFELS

At first glance this unit appears to be the podded pyroxene garnet hornfels. But closer inspection reveal a lack of calcite and grossular clasts. However it does contain patches (1 - 2 cm wide) of white calcite. As they are set in pyroxene hornfels/garnet hornfels matrix. This gives a "pyroxene garnet hornfels look" to the rock.

The rock is disturbed and seems to consist of a mixture of lithologies pyroxene hornfels, garnet hornfels and some biotite hornfels in a fault induced rehealed breccia. The carbonate crystals thus being secondary.

Mineralisation is randomly present as small or large crystals.

The unit is badly fractured and broken @ 30 - 30.3 m

30.7 - 35.0 GARNET SKARN

This rock is darker than the normal garnet hornfels and is cut by joints and fractures into pieces of core about 5 - 10 m long. A section of core from 32.7 - 33.4 m consists solely of sand and gravel sized fragments.

The first 20 m of the unit is badly fractured and broken, and has lithology of biotite hornfels.

This rock is well mineralised ($>1\%$ WO_3), a dense pattern of small scheelite crystals present in the rock.

EOH 35.0 m

GEOLOGY - KING ISLAND SCHEELITE

LOG OF D.D.H. No. D 220/20

PLANNING

PROPOSER: R. E. Sandell Davies DEPTH: 55 m

LOCATION: P11 Mid-Wedge Access

PURPOSE OF HOLE: Test for Ore between Petrel and Central Fault

PROPOSED CO-ORDS: 220 212 E 564 031 N

INCLINATION: 0°

BEARING: 120° °GRID °MAG

TARGET: E N

DEPTH:

CHECKED BY: S. G. Brown DATE: 23/6/80

SURVEY

SURVEY CO-ORDS: E N

SURVEYED BEARING: 119° 46' °GRID °MAG

SURVEYED IN BY: DATE:

ACTUAL CO-ORDS: 564 031.01 N 220 211.98 E

R.L. OF COLLAR: -193.64

INCLINATION OF HOLE: +0° 35'

PICKED UP BY: J. Cook DATE: 4/7/80

SUMMARY

LOGGED BY: R. E. Sandell Davies

RESULTS: 33 - 45 m, 12 m @ 0.97% WO_3 Mid Wedge

DRILLING

DATE COMMENCED: 25/6/80 DATE TERMINATED: 7/7/80

DRILLER/CONTRACTOR: Joe Penna/KIS

CASING: SIZE:
DEPTH:

CORE: SIZE: 46TT
DEPTH:

WEDGE PLACED: DEPTH: PROPOSER:

EXTENSION:

FINAL DEPTH: 52.4 m

REASON FOR TERMINATION: Hit W40 Mid Wedge Undercut.

CONDITION OF HOLE ON COMPLETION:

CASING:

CEMENTED:

BORE HOLE SURVEY: End of Hole picked up in W40 drive, coords, 563 004.8 N, 220 257.36 E, R.L. -194.1 m.

WATER:

COMMENTS ON DRILLING CONDITIONS:

GEOLOGY - KING ISLAND SCHEELITE

CORE RECOVERY

D.D.H. No. D 220/20

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 3.4 m	3.4	2.2	65
3.4 - 7.3	3.9	3.5	90
7.3 - 9.9	2.6	2.5	96
9.9 - 12.9	3.0	3.0	100
12.9 - 15.4	2.5	2.5	100
15.4 - 18.2	2.8	2.8	100
18.2 - 20.4	2.2	2.1	95
20.4 - 23.8	2.4	3.0	88
23.8 - 27.5	2.7	2.5	95
27.5 - 28.3	0.8	0.5	63
28.3 - 29.5	1.2	1.1	92
29.5 - 30.7	1.2	1.1	92
30.7 - 32.3	1.6	1.5	94
32.3 - 33.9	1.6	1.5	94
33.9 - 34.7	0.8	0.6	75
34.7 - 35.2	0.5	0.3	60
35.2 - 36.1	0.9	0.8	89
36.1 - 38.2	2.1	1.9	90
38.2 - 40.1	1.9	1.9	100
40.1 - 42.2	1.1	1.1	100
42.2. - 44.6	2.4	2.3	96
44.6 - 46.1	1.5	1.4	93
46.1 - 47.0	0.9	0.8	89
47.0 - 47.6	0.6	0.5	83
47.6 - 49.1	1.5	1.5	100
49.1 - 51.6	2.5	2.5	100
51.6 - 52.4	0.8	0.6	75
EOH 52.4 m			

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY STRUCTURAL DATA

D.D.H. No. D 220/20

DEPTH INTERVAL (METRES)	ROCK TYPE	FRAC-TURES /m	JOINT ANGLE (WRT/ LAOC)	JOINT FILLING	BEDDING ANGLE (W. R. T./ L. A.O.C.)	% CORE RECO-VERY	R. Q. D.	REMARKS (WEATHERING)
0.00 - 15.5	LV	5-12		Chlor/cc			53	
15.5 - 45.0	bfb	10-15		Clay/chlor/cc			21	
45.0 - 52.4	bh	5-15		Chlor			34	

FURTHER DATA & REMARKS

1. Detailed % core recoveries within each depth interval is shown in the core recovery tabulation.
2. R.Q.D. (rock quality designation) $+= \frac{\text{Length Core} > 10 \text{ cm}}{\text{Length Drilled}}$
3. Core size.

GEOLOGY - KING ISLAND SCHEELITE

ASSAY DATA

D.D.H. No. D 220/20

SAMPLE NO.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Rec.	WO_3	Mo		
D 12516	10	11	1.0	1.0	0.08	0.01		
17	14	15	"	"	0.08	0.01		
18	15	16	"	"	0.08	0.01		
19	16	17	"	"	0.44	0.01		
20	17	18	"	"	0.96	0.01		
21	18	19	"	"	0.11	0.01		
22	19	20	"	"	0.07	0.01		
23	20	21	"	"	0.58	0.01		
24	21	22	"	"	0.44	0.01		
25	22	23	"	"	0.20	0.01		
26	23	24	"	"	0.10	0.01		
27	24	25	"	"	0.08	0.01		
28	25	26	"	"	0.16	0.01		
29	26	27	"	"	0.04	0.01		
30	27	28	"	"	0.08	0.01		
31	28	29	"	"	0.10	0.01		
32	29	30	"	"	0.07	0.01		
33	30	31	"	"	0.07	0.01		
34	31	32	"	"	0.07	0.02		
35	32	33	"	"	0.07	0.01		
36	33	34	"	"	1.50	0.01		
37	34	35	"	"	0.16	0.01		
36	35	36	"	"	0.65	0.01		
39	36	37	"	"	0.97	0.01		
40	37	38	"	"	2.40	0.01		
41	38	39	"	"	1,98	0.01		
42	39	40	"	"	1.51	0.01		
43	40	41	"	"	0.81	0.01		
44	41	42	"	"	0.57	0.01		
45	42	43	"	"	0.46	0.01		
46	43	44	"	"	0.10	0.01		
47	44	45	"	"	0.47	0.01		
48	45	46	"	"	0.08	0.01		
49	46	47	"	"	0.09	0.02		

SPECIFIC GRAVITY

Depth (metres):

Rock Type:

S.G.:

Determined by:

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 220/20

0.0 - 15.5 m LOWER VOLCANICS

Mostly a dark green, commonly mottled rock. It is fairly fractured for the first 3 m but beyond that appears quite competant. Small (1 mm) pale brown crystals canbe seen in the core..

Aplite occur from 7.1 - 7.3 m, 12.3 - 12.9 m.

White alteration spotting is developed from 14.6 - 15.0 m, in the usual position, slightly below the top contact.

A few flecks of scheelite are present in a vein @ 10.9 m

Small white altertion spots are also present for 10 cm immediatley below the top contact,

15.5 - 45.0 BANDED FOOTWALL BEDS (MINERALISED)

The bottom contact of this unit shows a slight brecciation against the lower volcanics, but only extending for 15 cm.

This unit is heterogeneous and badly fractured in places. Mineralisation is erratic up to 35 m, but beyond that is fairly regular.

Areas of broken core occur at: 18.0 - 18.2 m, 19 m, 20.2 m, 24.0 - 24.7 m, 25.0 - 26.4 m, 27.4 - 28.3 m, 29.5 - 30.7 m, 32.0 - 32.3 m, 33.0 m, 34.6 - 36.2 m, 27.3 m, 38.0 - 38.2 m, 41.0 - 42.2 m, 44.6 m.

Mineralised beds are present @ : 16.8 - 18.0 m, 20.0 - 22.5 m, 35.0 - 44.0 m.

The remainder is dominantly biotite hornfels with subsiderary pyroxene hornfels and grossular.

Bedding angle is @	28°	to LCA @	16.8 m
"	24°	"	18.7 m
"	36°	"	21.0 m
"	0 °	"	26.5 m
"	32°	"	28.4 m
"	27°	"	30.5 m
"	50°	"	33.8 m
"	34°	"	36.0 m
"	22°	"	39.0 m
"	32°	"	41.2 m

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 220/20

The zone from 22.0 - 23.8 m is characterised by the prescence of a breccia. It contains angular clasts of pyroxene hornfels and biotite hornfels of around 1 cm diameter. Set in a dominantly biotite hornfels matrix.

If presumably represents an interformational breccia.

45.0 - 52.4 BIOTITE HORNFELS

Pale grey fine grained homogeneous biotite hornfels. It has a fault contact with the banded footwall beds and is fairly well jointed at the end of the core.

EOH 52.4 m

GEOLOGY - KING ISLAND SCHEELITE

LOG OF D.D.H. No. D 220/19E

PLANNING

PROPOSER: S. G. Brown — DEPTH: 20m

LOCATION: 010

PURPOSE OF HOLE: To locate marble marker

PROPOSED CO-ORDS: 220223.5E 563976.0 N

INCLINATION: -60

BEARING: 310° °GRID °MAG

TARGET: E N

DEPTH: 4.0m

CHECKED BY: SGB — DATE: 16/9/79

SURVEY

SURVEY CO-ORDS: E N

SURVEYED BEARING: 309° 03' °GRID °MAG

SURVEYED IN BY: DATE:

ACTUAL CO-ORDS: 220223.5 E 563975.8 N

R.L. OF COLLAR: -196.08

INCLINATION OF HOLE: -63° 34'

PICKED UP BY: W. Davies — DATE: 17/9/79

SUMMARY

LOGGED BY: R. H. Davies

RESULTS: Not split

DRILLING

DATE COMMENCED: DATE TERMINATED:

DRILLER/CONTRACTOR: ADD

CASING: SIZE:
DEPTH:

CORE: SIZE:
DEPTH:

WEDGE PLACED: DEPTH: PROPOSER:

EXTENSION:

FINAL DEPTH: 6.3 m

REASON FOR TERMINATION:

CONDITION OF HOLE ON COMPLETION:

CASING: Nil

CEMENTED: No

BORE HOLE SURVEY: Not Surveyed

WATER:

COMMENTS ON DRILLING CONDITIONS:

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY BORE HOLE SURVEY DATA

D.D.H. No. D 220/19E

Surveyed method:
Final depth:
Casing depth:

Depth surveyed to:
Date surveyed:
Surveyed by:
Checked by:

Bearing			Inclination		True Vertical Depth (m)	Co-ordinates	
Depth (m)	Grid	Mag.	Read	Corr.			
NOT SURVEYED							

REMARKS:

GEOLOGY - KING ISLAND SCHEELITE

CORE RECOVERY

D.D.H. No. D 220/19E

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 2.7	2.7	2.5	93
2.7 - 4.5	1.8	1.75	97
4.5 - 5.6	1.1	1.35	123
5.6 - 6.3	0.7	0.71	101

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY STRUCTURAL DATA

D.D.H. No. D 220/19E

DEPTH INTERVAL (METRES)	ROCK TYPE	FRAC-TURES /m	JOINT ANGLE (WRT/ LAOC)	JOINT FILLING	BEDDING ANGLE (W. R. T./ L. A.O.C.)	% CORE RECO-VERY	R. Q. D.	REMARKS (WEATHERING)
0.0 - 2.95	Gh	8.47	Sub 11 at 2.3m 32° at 1.9m	Cal/pyr			0.18	
2.95 - 3.63	Ch (min)	11.76		Cal/clay			0.81	
3.63 - 6.30	Ch	12.73	Sub 11 at 4.9m 63° at 4.1m 80° at 5.1m	Cal	40° 5.4m 25° 5.7		0.71	Small rehealed fracture at 4.2m Broken core at 5.1m

FURTHER DATA & REMARKS

1. Detailed % core recoveries within each depth interval is shown in the core recovery tabulation.
2. R.Q.D. (rock quality designation) $+= \frac{\text{Length Core} > 10 \text{ cm}}{\text{Length Drilled}}$
3. Core size.

GEOLOGY - KING ISLAND SCHEELITE

ASSAY DATA

D.D.H. No. D 220/19E

SAMPLE NO.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Rec.	WO_3	Mo		
NOT ASSAYED								

SPECIFIC GRAVITY

Depth (metres):

Rock Type:

S.G.:

Determined by:

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 220/19E

0.0 - 2.95m GARNET HORNFELS

This zone consists of massive andradite skarn which contains high grade scheelite mineralization.

Joints

Sub parallel		LCA	2.3m
	32°		1.9m

2.95 - 6.3m MARBLE (MARBLE MARKER)

2.95 - 3.63 This zone consists of a garnet skarn in which banding is present. It possibly represent replacement of the uppermost portion of the Marble Marker.

3.63 - 6.30 This zone consists of alternating pale green pyroxene hornfels and dark grey marble bands. Within this zone, mineralized andradite garnet bands are present. The first of these occurs at 4.6 - 5.3m.

A small rehealed fracture is present in pyroxene hornfels at 4.2m. Another possible fracture exists at 5.1m again in pyroxene hornfels where the core is very broken.

Joints

Sub parallel		LCA	4.9m
	63°		4.1m
	80°		5.1m
Bedding	40°	LCA	5.4m
	25°		5.7m

EOH 6.3m

GEOLOGY - KING ISLAND SCHEELITE

LOG OF D.D.H. No. D 220/18

PLANNING

PROPOSER: R. E. Sandell Davies DEPTH: 100 m

LOCATION: -150 m Hangingwall Drill Drive

PURPOSE OF HOLE: To Define Lows Central Area

PROPOSED CO-ORDS: 220220 E 563950 N

INCLINATION: -74

BEARING: 0 °GRID °MAG

TARGET: E N

DEPTH:

CHECKED BY: DATE:

SURVEY

SURVEY CO-ORDS: E N

SURVEYED BEARING: 352° 00' °GRID °MAG

SURVEYED IN BY: DATE:

ACTUAL CO-ORDS: 220218.4 E 563951.2 N

R.L. OF COLLAR: -146.3

INCLINATION OF HOLE: -72° 53'

PICKED UP BY: W. Davies DATE: 29/6/79

SUMMARY

LOGGED BY:

RESULTS:

1m	to	4m	3.0m	at	1.83,	0.04
37m	to	40m	3.0m	at	1.86	0.03
43	to	57m	14.0m	at	0.97	0.02
59	to	60m	1.0m	at	0.46	0.01
62	to	74m	12.0	at	0.58	0.01

DRILLING

DATE COMMENCED: 27.6.79 DATE TERMINATED 5.7.79

DRILLER/CONTRACTOR: ADD

CASING: SIZE:
DEPTH:

CORE: SIZE: 46TT
DEPTH: 90m

WEDGE PLACED: Nil DEPTH: PROPOSER:

EXTENSION: Nil

FINAL DEPTH: Nil

REASON FOR TERMINATION:

CONDITION OF HOLE ON COMPLETION:

CASING:

CEMENTED:

BORE HOLE SURVEY: Multishot

WATER:

COMMENTS ON DRILLING CONDITIONS: Good

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY BORE HOLE SURVEY DATA

D.D.H. No. D 220/18

Surveyed method: Multishot
Final depth: 90.00 m
Casing depth: 1 m

Depth surveyed to: 90.00 m
Date surveyed: 3/7/79
Surveyed by: L. Denby
Checked by:

Bearing			Inclination		True Vertical Depth (m)	Co-ordinates	
Depth (m)	Grid	Mag.	Read	Corr.		N	W
13	350°	340°	18°	-72°	12.36	3.78	1.37
25	349°	339°	18° 30'	-72° 30'	23.74	7.34	2.74
43	346°	336°	18° 30'	-72° 30'	40.81	12.56	5.06
58	345°	335°	18°	-72°	55.08	16.77	7.02
73	345°	335°	18°	-72°	69.35	20.98	8.98
85	345°	335°	18°	-72°	80.76	24.34	10.55
90	345°	335°	17°	-73°	85.54	25.66	11.17

REMARKS:

GEOLOGY - KING ISLAND SCHEELITE

CORE RECOVERY

D.D.H. No. D 220/18

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 3.0	3.0	3.0	100
3.0 - 6.0	3.0	3.0	100
6.0 - 9.0	3.0	3.0	100
9.0 - 12.0	3.0	3.0	100
12.0 - 15.0	3.0	3.0	100
15.0 - 18.0	3.0	3.0	100
18.0 - 21.0	3.0	3.0	100
21.0 - 23.0	2.0	2.0	100
23.0 - 26.0	3.0	3.0	100
26.0 - 28.0	2.0	2.0	100
28.0 - 32.0	4.0	4.0	100
32.0 - 33.8	1.8	1.8	100
33.8 - 36.1	2.7	2.7	100
36.1 - 38.5	2.4	2.4	100
38.5 - 41.0	1.5	1.5	100
41.0 - 43.3	2.3	2.3	100
43.3 - 46.0	2.7	2.7	100
46.0 - 49.0	3.0	3.0	100
49.0 - 52.0	3.0	3.0	100
52.0 - 55.0	3.0	3.0	100
55.0 - 58.0	3.0	3.0	100
58.0 - 61.0	3.0	3.0	100
61.0 - 64.0	3.0	3.0	100
64.0 - 67.0	3.0	3.0	100
67.0 - 69.5	2.5	2.5	100
69.0 - 72.7	3.2	3.2	100
72.7 - 75.0	2.3	2.3	100
75.0 - 78.0	3.0	3.0	100
78.0 - 81.0	3.0	3.0	100
81.0 - 84.0	3.0	3.0	100
84.0 - 86.5	2.5	2.5	100
86.5 - 88.0	1.5	1.5	100
88.0 - 90.0	2.0	1.5	75
EOH 90.0 m			

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY STRUCTURAL DATA

D.D.H. No. D 220/18

DEPTH INTERVAL (METRES)	ROCK TYPE	FRAC-TURES /m	JOINT ANGLE (WRT/ LAOC)	JOINT FILLING	BEDDING ANGLE (W.R.T./ L.A.O.C.)	% CORE RECO-VERY	R.Q.D.	REMARKS (WEATHERING)
0.00 - 7.53	B Lens	4-7		Chl/carb	50° - 5.7m 60° - 7.0m	100	77	
7.53 - 32.0	Bh	4-8	33°-12.1 57°-16.7 5°-29m 40°-31.9	Chl/carb	50° - 9.8 66° - 12.2 68° - 14.7	100	76	
32.0 - 43.0	Pgh	10-15	12°-39.4	Chl/carb/clay		100	39	
43.0 - 50.8	U/C	2-4		Carb/sulph		100	79	
50.8 - 62.0	M/M	12-17	55°-52.4 8°-56	Carb/chl/clay	67° - 51.6 90° - 59.5	100	82	
62.0 - 75.4	L/C	9-15	20°-62.9 32°-72.5	Chl/carb	85° -63.8 54° - 71.7 75° - 74.9	100	41	
75.4 - 90.0	BFB	13-19		Chl/carb/sulph	47° - 76 80° - 80.9 59° - 85.6		71	
EOH 90.0 m								

FURTHER DATA & REMARKS

1. Detailed % core recoveries within each depth interval is shown in the core recovery tabulation.
2. R.Q.D. (rock quality designation) $+= \frac{\text{Length Core} > 10 \text{ cm}}{\text{Length Drilled}}$
3. Core size.

GEOLOGY - KING ISLAND SCHEELITE

ASSAY DATA

D.D.H. No. D 220/18

SAMPLE NO.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Rec.	WO_3	Mo		
D 11378	0	1	1.0	1.0	0.03	0.02		
79	1	2	"	"	3.05	0.07		
80	2	3	"	"	0.79	0.01		
81	3	4	"	"	1.65	0.04		
82	4	5	"	"	0.01	<0.01		
83	5	6	"	"	<0.01	0.03		
84	6	7	"	"	<0.01	0.02		
85	7	8	"	"	<0.01	0.02		
86	31	32	"	"	<0.01	0.04		
87	32	33	"	"	0.02	0.01		
88	33	34	"	"	0.16	0.01		
89	34	35	"	"	0.15	0.01		
90	35	36	"	"	<0.01	0.02		
91	36	37	"	"	0.01	<0.01		
92	37	38	"	"	5.1	0.08		
93	38	39	"	"	0.06	<0.01		
94	39	40	"	"	0.41	0.01		
95	40	41	"	"	0.13	0.01		
96	41	42	"	"	0.03	0.01		
97	42	43	"	"	0.02	<0.01		
98	43	44	"	"	1.35	0.02		
99	44	45	"	"	0.60	0.01		
400	45	46	"	"	0.56	0.01		
01	46	47	"	"	0.45	0.01		
02	47	48	"	"	0.79	0.01		
03	48	49	"	"	0.90	0.01		
04	49	50	"	"	4.9	0.09		
05	50	51	"	"	0.99	0.01		
06	51	52	"	"	0.47	0.02		
07	52	53	"	"	<0.01	0.03		
08	53	54	"	"	0.24	0.01		
09	54	55	"	"	0.98	0.01		
10	55	56	"	"	0.87	0.01		
11	56	57	"	"	0.46	0.01		
12	57	58	"	"	<0.01	<0.01		
13	58	59	"	"	<0.01	<0.01		
14	59	60	"	"	0.46	0.01		
15	60	61	"	"	<0.01	<0.01		
16	61	62	"	"	<0.01	<0.01		
17	62	63	"	"	0.44	0.01		
18	63	64	"	"	0.36	0.01		
19	64	65	"	"	1.28	0.03		
20	65	66	"	"	0.31	<0.01		
21	66	67	"	"	0.13	<0.01		
22	67	68	"	"	0.31	<0.01		
23	68	69	"	"	1.11	<0.01		

SPECIFIC GRAVITY

Depth (metres):

Rock Type:

S.G.:

Determined by:

GEOLOGY - KING ISLAND SCHEELITE

ASSAY DATA

D.D.H. No. D 220/18

SAMPLE NO.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Rec.	WO_3	Mo		
D 11424	69	70	1.0	1.0	1.05	0.01		
25	70	71	"	"	0.37	<0.01		
26	71	72	"	"	0.71	<0.01		
27	72	73	"	"	0.53	<0.01		
28	73	74	"	"	0.40	<0.01		
29	74	75	"	"	0.01	0.01		
30	75	76	"	"	0.16	<0.01		
31	76	77	"	"	<0.01	0.01		
32	77	78	"	"	<0.01	0.01		
33	78	79	"	"	<0.01	0.01		

SPECIFIC GRAVITY

Depth (metres):

Rock Type:

S.G.:

Determined by:

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 220/18

0.0 - 7.53 m **B LENS**

Slightly variable unit, colours ranging from pale pink - green - pale purple - light grey to dark grey. Bedding is rare and disturbed, the rock occasionally has a podded tesutre e.g. @ 6 m. Elsewhere it has the charachteristics of andratite skarn brown coarse grained - totally replaced. Mineralisation is fair. Grossular garnet is also present.

Bedding	50^{o}	to	LCA	@ 5.7 m
Bedding	60^{o}	to	LCA	@ 7.0 m

7.53 - 32.0 **BIOTITE HORNFELS**

This unit is a massive fine grained light to dark grey meta-mudstone. Fairly uniform and its length except for rare, pyroxene hornfels interbeds e.g. @ 16 m.

The top of the unit is gradational with the overlying B Lens.

Metamorphic spotting is developed @ 19 m, 22.3 m, 25 m and 28 m.

The unit is not well bedded on mineralised.

Bedding	50^{o}	to	LCA	@ 9.8 m
Bedding	66^{o}			12.2 m
Bedding	68^{o}			14.7 m
Joints	33^{o}	to	LCA	@ 12.1 m
Joints	57^{o}			16.7 m
Joints	05^{o}			29.0 m
Joints	40^{o}			31.9 m

Sulphides are common in this unit. Broken and loose rock from 7.6 - 8.0 m with slicknslides - indicates a probable fault.

32.0 - 43.0 **PYROXENE GARNET HORNFELS**

The rock has a typical podded appearance and is disturbed throughout. Light grey calcite pods up to 8cm lie in a green pyroxene background and are rimmed with orange grossular garnet. Andradite occurs sporadcially through the unit as does the mineralisation. Some large powelite with minor scheelite crystals are present e.g. 33.5 m and 39.7 m.

Grain size is generally coarse and the rock is often well jointed and broken.

Joint	12^{o}	to	LCA	@ 39.4 m

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 220/18

43.0 - 50.8 UPPER C LENS

A uniform, coarse grained massive andradite skarn. Mineralisation ineralisation good (1% WO_3 by eye estemate).

50.8 - 62.0 MARBLE MARKER

A heterogeneous unit consisting of black biotite hornfels light grey marble, green pyroxene hornfels and some brown andradite skarn with occasional grossular. Mineralisation is erratic.

The unit is mostly well bedded and reasonably competent.

Bedding	67^{o}	to	LCA @	51.6 m
Bedding	90^{o}			59.6 m
Joints	55^{o}			52.4 m
Joints	8^{o}			56 m

62.0 - 68.6 LOWER C LENS

Although this unit is essentially brown, coase grained andradite skarn, interbeds of green and orange pyroxene hornfels with grossular garnet and rare biotite hornfels do occur.

Mineralisation is generally good. The rock is broken and loose @ 66.7 m.

Bedding	85^{o}	to	LCA @	63.8 m
Joints	20^{o}			62.9 m

The unit is disturbed at its lower end.

68.4 - 75.4 LOWER C LENS

A well banded garnet honrfels with good mineralisation throughout. Brown andradite garnets loweys approximately 10 - 20 cm thick are interbedded with thinner green pyroxene hornfels. Grossular garnet is commonly present as orange bands and occasional pods.

Biotite honrfels layers are present in the base 1.5 m

Bedding	54^{o}	to	LCA @	71.7 m
Bedding	75^{o}			74.9 m
Joints	32^{o}			72.5 m

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 220/18

75.4 - 90.0 BANDED FOOTWALL BEDS

This unit consists of frequent interbeds of biotite hornfels black and fine grained, with green fine grianed pyroxene hornfels and orange.
Slightly coarse grained grossular garnet.

There is no significant mineralisation some sulphides are present in the biotite hornfels. The biotite hornfels is very well bedded and is aplite along bedding plants into many sections, commonly 5 cm long.

Aplite dykes occur at 85 - 9 - 86,4 m and 89,5 - 90 m,

Bedding	47^{o}	to	LCA @	76 m,
Bedding	80^{o}			80,9 m
Bedding	59^{o}			85,6 m

EOH 90,0 m

GEOLOGY - KING ISLAND SCHEELITE

CHECK ASSAY DATA

D.D.H. No. D 220/18

LAB.	K.I.S.		LAB.	K.I.S. CHECK		LAB.	AMDEL		LAB.	A.C.S.L.		
Original Sample No.	WO_3	Mo	Check Sample No.	WO_3	Mo	Check Sample No.	WO_3	Mo	Check Sample No.	WO_3	Mo	
11380	0.79	0.01	12030	0.82		12031	0.77		12032	0.69		
11389	0.15	0.01	12033	0.16		12034	0.17		12035	0.16		
11400	0.56	0.01	12036	0.62		12037	0.72		12038	0.64		
11410	0.87	0.01	12039	0.85		12040	0.96		12041	0.87		
11420	0.31	<0.01	12042	0.19		12043	0.29		12044	0.26		
11430	0.16	<0.01	12045	0.15		12046	0.17		12047	0.14		

GEOLOGY - KING ISLAND SCHEELITE

LOG OF D.D.H. No. D 220/17

PLANNING

PROPOSER: G. J. Bujtor DEPTH: 100m

LOCATION: -150 R.L. Hangingwall Drill Drive

PURPOSE OF HOLE: To Define the Lower Central Area

PROPOSED CO-ORDS: 220220 E 563950 N

INCLINATION: -52^{o}

BEARING: 0^{o} ^{o}GRID ^{o}MAG

TARGET: E N

DEPTH:

CHECKED BY: DATE:

SURVEY

SURVEY CO-ORDS: E N

SURVEYED BEARING: 358^{o} 00^{ρ}GRID ^{o}MAG

SURVEYED IN BY: DATE:

ACTUAL CO-ORDS: 220218.4 E 563951.9 N

R.L. OF COLLAR: -146.4

INCLINATION OF HOLE: -50^{o} 55'

PICKED UP BY: W. Davies DATE: 29/6/79

SUMMARY

LOGGED BY: R. E. Sandell Davies

RESULTS: 50-67 17m @ 1.15% WO_3 Lower C Pit.

DRILLING

DATE COMMENCED: 19/6/79 DATE TERMINATED: 26/6/79

DRILLER/CONTRACTOR:

CASING: SIZE:
DEPTH:

CORE: SIZE: 46TT
DEPTH: 97.70m

WEDGE PLACED: Nil DEPTH: PROPOSER:

EXTENSION: Nil

FINAL DEPTH: 97.70m

REASON FOR TERMINATION:

CONDITION OF HOLE ON COMPLETION:

CASING:

CEMENTED:

BORE HOLE SURVEY: Multishot

WATER:

COMMENTS ON DRILLING CONDITIONS: Good

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY BORE HOLE SURVEY DATA

D.D.H. No. D 220/17

Surveyed method: Multishot
Final depth: 97.70m
Casing depth: 1.00m

Depth surveyed to: 97.70m
Date surveyed: 26/6/79
Surveyed by: L. Denby
Checked by:

Bearing			Inclination		True Vertical Depth (m)	Co-ordinates	
Depth (m)	Grid	Mag.	Read	Corr.		N	W
4.00	359°	349°	40°	-50°	3.06	2.52	.49
13.00	360°	350°	40°	-50°	9.95	8.22	1.50
22.00	358°	348°	40°	-50°	16.84	13.88	2.70
34.00	356°	346°	39°	-51°	26.17	21.21	4.53
43.00	356°	346°	39°	-51°	33.16	26.70	5.90
55.00	356°	346°	39°	-51°	42.49	34.03	7.73
70.00	356°	346°	39°	-51°	54.15	43.19	10.01
79.00	356°	346°	39°	-51°	61.14	48.68	11.38
91.00	356°	346°	39°	-51°	70.47	56.01	13.21
97.70	357°	347°	39°	-51°	75.68	60.12	14.16

REMARKS:

GEOLOGY - KING ISLAND SCHEELITE

CORE RECOVERY

D.D.H. No. D 220/17

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 1.3m	1.3	0.27	21
1.3 - 2.8	1.5	1.5	100
2.8 - 5.8	3.0	3.0	100
5.8 - 8.8	3.0	3.0	100
8.8 - 11.8	3.0	3.0	100
11.8 - 14.8	3.0	3.0	100
14.8 - 17.8	3.0	3.0	100
17.8 - 20.8	3.0	3.0	100
20.8 - 23.8	3.0	3.0	100
23.8 - 26.8	3.0	3.0	100
26.8 - 29.8	3.0	3.0	100
29.8 - 32.8	3.0	3.0	100
32.8 - 35.8	3.0	3.0	100
35.8 - 38.8	3.0	3.0	100
38.8 - 41.8	3.0	3.0	100
41.8 - 43.0	2.2	2.0	91
43.0 - 47.8	4.8	4.8	100
47.8 - 50.8	3.0	2.7	90
50.8 - 52.5	1.7	1.7	100
52.5 - 55.3	3.1	2.9	94
55.3 - 58.3	3.0	3.0	100
58.3 - 61.3	3.0	3.0	100
61.3 - 64.3	3.0	3.0	100
64.3 - 67.3	3.0	3.0	100
67.3 - 70.3	3.0	3.0	100
70.3 - 72.4	2.1	2.1	100
72.4 - 75.1	2.7	2.7	100
75.1 - 76.2	1.1	1.1	100
76.2 - 79.0	2.8	2.7	96
79.0 - 81.5	2.5	2.5	100
81.5 - 84.5	3.0	3.0	100
84.5 - 87.3	2.8	2.8	100
87.3 - 90.3	3.0	3.0	100
90.3 - 93.3	3.0	3.0	100
93.3 - 94.0	0.7	0.6	86
94.0 - 94.7	0.7	0.6	86
94.7 - 97.7	3.0	3.0	100
EOH 97.7m			

GEOLOGY - KING ISLAND SCHEELITE

ASSAY DATA

D.D.H. No. D 220/17

SAMPLE NO.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Rec.	WO_3	Mo		
D 10902	1	2	1.0	1.0	0.03			
03	2	3	"	"	0.19			
04	3	4	"	"	0.32			
05	4	5	"	"	0.01			
06	5	6	"	"	<0.01			
07	6	7	"	"	<0.01			
08	38	39	"	"	0.01			
08	39	40	"	"	<0.01			
10	40	41	"	"	<0.01			
11	41	42	"	"	0.09			
12	42	43	"	"	0.09			
13	43	44	"	"	0.01			
14	44	45	"	"	1.02			
15	45	46	"	"	0.01			
16	46	47	"	"	0.07			
17	47	48	"	"	<0.01			
18	48	49	"	"	0.02			
19	49	50	"	"	0.09			
20	50	51	"	"	1.28			
21	51	52	"	"	1.89			
22	52	53	"	"	1.42			
23	53	54	"	"	1.92			
24	54	55	"	"	1.69			
25	55	56	"	"	1.11			
26	56	57	"	"	1.35			
27	57	58	"	"	1.05			
28	58	59	"	"	1.47			
29	59	60	"	"	1.10			
30	60	61	"	"	1.64			
31	61	62	"	"	1.24			
32	62	53	"	"	1.29			
33	63	64	"	"	1.12			
34	64	65	"	"	0.26			
35	65	66	"	"	0.61			
36	66	67	"	"	0.51			
37	67	68	"	"	0.16			
38	68	69	"	"	0.14			
39	69	70	"	"	0.21			
40	70	71	"	"	0.42			
41	71	72	"	"	0.50			
42	72	73	"	"	0.02			
43	73	74	"	"	0.23			
44	74	75	"	"	0.34			
45	75	76	"	"	<0.01			
46	76	77	"	"	0.58			
47	77	78	"	"	0.03			
48	78	79	"	"	<0.01			

SPECIFIC GRAVITY

Depth (metres):

Rock Type:

S.G.:

Determined by:

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY STRUCTURAL DATA

D.D.H. No. D 220/17

DEPTH INTERVAL (METRES)	ROCK TYPE	FRAC-TURES /m	JOINT ANGLE (WRT/ LAOC)	JOINT FILLING	BEDDING ANGLE (W. R. T./ L. A. O. C.)	% CORE RECO-VERY	R. Q. D.	REMARKS (WEATHERING)
0.0 - 6.4m	B Lens	60-10		Chl/carb	58° @ 1.7m	100	0.79	
6.4 - 34.6	Bh	2-11		Sulph/chl/carb	45° - 6.7m 53° - 11.3 47° - 16.7 49° - 21.2 52° - 27m	100	0.85	
34.6 - 47.4	Pgh	5-15		Carb/chl/sulph	-	98	0.45	
47.4 - 64.3	U/L	4-8		Carb/chl/sulph			0.71	
64.3 - 65.2	M/M	10		Chl/sulph/carb			0.28	
65.2 - 72.0	L/C	8-12		Chl/carb	44° - 70.3	100	0.40	
72.0 - 77.0	BFB	8-10		Chl/sulph/carb	45° - 74.7 66° - 73.4	100	0.47	
77.0 - 92.3	Bh/ph	6-12	56° - 90.1	Chl/clay/carb	48° - 87.9 44° - 89.9 60° - 91.5	100	0.45	
92.3 - 94.6	Aplite	20		Carb	-	90	0.0	
94.6 - 97.7	Bh/ph	10-15		Chl/carb	60° - 95.1	100	0.31	
EOH 97.7m								

FURTHER DATA & REMARKS

1. Detailed % core recoveries within each depth interval is shown in the core recovery tabulation.
2. R.Q.D. (rock quality designation) += $\frac{\text{Length Core} > 10 \text{ cm}}{\text{Length Drilled}}$
3. Core size.

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 220/17

0.0 - 6.4m B LENS

This unit consists of unmineralised grey marble, interbanded with green pyroxene hornfels hornfels Grossularite development in places e.g. 2.2m. Mineralisation overall is sporadic and generally of low grade.

Bedding 58^{o} to LCA at 1.7m.

Faults at 5.1 - 5.2 and 5.3m are defined by a powered rock crush zones and fracturing. Joints are 20 - 40cm apart.

6.4 - 34.6 BIOTITE HORNFELS

This rock unit is dominantly black in colour, although interbanded pyroxene hornfels give local green colours. In general the biotite hornfels takes on a lighter colour with depth, so that at the base of the unit it is a pale grey.

Bedding is occasionally developed

Bedding	45^{o}	to	LCA	at 6.7m
Bedding	53^{o}			11.3m
Bedding	47^{o}			16.7m
Bedding	49^{o}			21.2m
Bedding	52^{o}			27.0m

Bedding is better developed in the upper section of the unit. Metamorphic spotting occurs rarely e.g. at 21.5m, 23.5m, 29.0m, 30.5. No scheelite is present. Joints are often 50cm or more apart, although close jointing does occur e.g. at 13.6m.

Faulting is suspected at the following sites.

18.0m Fractured rock and slickenslides.
32.7m Brecciated and fractured rock with clay.

At 22.7m is an injection of a green and white spotted rock 8cm long and discordant to bedding. Thought to be an altered basic dyke.

34.6 - 36.6 PYROXENE GARNET HORNFELS

This unit has a gradational contact with the overlying biotite hornfels. It is varied in colour from dark to light grey dark green and orange where it contains grossularite. The unit has a podded and variegated appearance.

No bedding or scheelite is present. The unit is competent with joints about every 80cm. Some sulphides are present.

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 220/17

37.0 - 47.4 PYROXENE GARNET HORNFELS

This unit is fairly heterogeneous, having some other rock units interbanded within true pyroxene garnet hornfels. These subdivisions are described below:

37.0 - 37.9m Typical pyroxene garnet hornfels having a podded appearance - dominantly green colour. The pods are commonly 1cm long and either grey or orange in colour.

37.9 - 39.5 Biotite hornfels, black massive and fine grained poor bedding at a high angle to long core axis.

39.5 - 47.4 Varied pyroxene garnet hornfels, some typical as described above. But mostly pyroxene hornfels are dominant with rare podding. It has a gradational contact with the underlying Upper C unit. Bedding is not well developed. The unit is commonly broken with probable minor faults at:

44m Fractured rock and slick 'n' slides
44.7 Fractured rock and slick 'n' slides
46.5 Fractured rock and slick 'n' slides

A 15cm aplite dyke occurs at @ 45.8m.

The unit is poorly mineralised from 40.35 - 47.4m. A good example of scheelite/powellite zoning can be seen at 44m

Rare sulphides in biotite hornfels.

47.4 - 64.3 UPPER C LENS

A thick, generally massive unit, the upper contact is gradational with the pyroxene garnet hornfels, but the lower contact appears to be faulted against the marble marker, as indicated by slickenslides.

The unit is coarse grained is 2mm, a brown/grey in colour - typical andradite skarn. Mineralisation is good from 50.3 to 64.3 From 47.4 - 50.3 mineralisation is poor.

57.3

Bedding is not clearly developed. Slickenslides and fractured rock at 47.5m indicate a small fault.

64.3 - 65.2 MARBLE MARKER

This unit is thin, with only about 50cm of true marble at the base. The marble is light grey and competent. Between it and the upper C lens is a 30cm band of biotite/pyroxene hornfels which are fractured and have many slickenslides. This seems to indicate a faulted contact.

The unit is unmineralised and is not well bedded

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 220/17

65.2 - 72.0m LOWER C LENS

This rock is dark grey to brown in colour, with rare green interbeds. Generally coase grained, bedding is moderately well developed

Bedding 44^{o} to LCA at 70.3m

Mineralisation is good. A moderate amount of fractured rock is present, indicating a rock of only moderate competance.

72.0 - 77.0 BANDED FOOTWALL BEDS

This unit is heterogeneous, consisting of interbedded pyroxene garnet (grossularite) hornfels, andradite skarn, and bedded biotite hornfels. Mineralisation is virtually confined to the andradite skarn, notably between 73.7 and 74.5m, though other mineralised bands occur rarely through the unit.

Bedding 45^{o} to LCA at 74.7m
Bedding 66^{o} 73.4m

Both the upper and lower contacts are vogue and have been arbitrarily defined.

77.0 - 84.9 BIOTITE/PYROXENE HORNFELS

This unit is generally uniform, having an overall black - dark green colour with rare patches of orange grossualrite especially near joints. The unit is massive with evidence of bedding.

There is some patchy mineralisations in the upper most 1m but nane below that.

From 81.5 - 84.9m the unit is extensively, broken, fractured and brecciated and most faces have slickenslides. This indicates aproximity to , or forming part of, a large fault.

Minor surfaces with slickenslides occur at 78.8m and 79.4m

84.8 - 97.7 BANDED BIOTITE/PYROXENE HORNFELS

The unit si intruded in 2 places by aplite dykes:

90.1 - 91.45m Medium grained equigranular garnetiferous rock. 3 cm chill margin a upper contact. Overall pinkish colour.
92.3 - 94.6 Fine grained very fractured aplite. No granitic texture, or individual minerals readily visible.

The remainder of the unit is well bedded, black - dark green light green with some orange grossularite in places eg. 87.1m. Mostly the the rock is well bedded biotite and pyroxene hornfels. Sulphides are common in the biotite hornfels.

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 220/17

In these places the rock is brecciated, probably indicating faulting:

84.8 - 85.0m
85.5 - 86.0m
@ 88.0m
@ 97.0m lost 20cm have some vughs and cavities.

Bedding	48°	to	LCA	at 87.9m
	44°			89.9m
	60°			91.5m
	60°			95.1m
Joints	59°			90.1m
Joints	26°			91.9m

EOH 97.7m

GEOLOGY - KING ISLAND SCHEELITE

CHECK ASSAY DATA

D.D.H. No. D 220/17

LAB.	K.I.S.		LAB.	K.I.S. CHECK		LAB.	AMDEL		LAB.	A.C.S.L.		
Original Sample No.	WO_3	Mo	Check Sample No.	WO_3	Mo	Check Sample No.	WO_3	Mo	Check Sample No.	WO_3	Mo	
10903	0.19		11985	0.16		11986	0.12		11987	0.09		
10912	0.09		11988	0.10		11989	0.10		11990	0.11		
10922	1.42		11991	0.90		11992	1.42		11993	1.22		
10934	0.26		11994	0.26		11995	0.32		11996	0.28		
10944	0.34		11997	0.31		11998	0.37		11994	0.28		

GEOLOGY - KING ISLAND SCHEELITE

LOG OF D.D.H. No. D 220/16

PLANNING

PROPOSER: G. J. Bujtor DEPTH:

LOCATION: -150m RL Drill Drive

PURPOSE OF HOLE: To Define Central Area/Lower Central Area

PROPOSED CO-ORDS: 220220 E 563950 N

INCLINATION: -32^{o}

BEARING: 0^{o} ^{o}GRID ^{o}MAG

TARGET: E N

DEPTH:

CHECKED BY: DATE:

SURVEY

SURVEY CO-ORDS: E N

SURVEYED BEARING: 358^{o} 57' ^{o}GRID ^{o}MAG

SURVEYED IN BY: DATE:

ACTUAL CO-ORDS: 220217.5 E 563951.9 N

R.L. OF COLLAR:-145.7

INCLINATION OF HOLE: -31^{o} 40'

PICKED UP BY: W. Davies DATE: 4/5/79

SUMMARY

LOGGED BY: G. J. Bujtor

RESULTS: 52 - 62m, 10m @ 0.80% WO_3
73 - 76m, 3m @ 0.74% WO_3
79 - 83m, 4m @ 0.72% WO_3

DRILLING

DATE COMMENCED: 24/4/79 DATE TERMINATED: 4/5/79

DRILLER/CONTRACTOR: ADD

CASING: SIZE:
DEPTH:

CORE: SIZE: 46TT
DEPTH: 99m

WEDGE PLACED: Nil DEPTH: PROPOSER:

EXTENSION: Nil

FINAL DEPTH: 99.00m

REASON FOR TERMINATION:

CONDITION OF HOLE ON COMPLETION:

CASING:

CEMENTED:

BORE HOLE SURVEY: Single shot

WATER:

COMMENTS ON DRILLING CONDITIONS: Good

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY BORE HOLE SURVEY DATA

D.D.H. No. D 220/16

Surveyed method: Single shot
Final depth: 99.0m
Casing depth: -

Depth surveyed to: 99.00m
Date surveyed: 7/5/79
Surveyed by: L. Denby
Checked by:

Bearing			Inclination		True Vertical Depth (m)	Co-ordinates	
Depth (m)	Grid	Mag.	Read	Corr.		N	W
69	351°	341°	57°	-33°	37.58	54.72	18.84
99	358°	348°	56° 15'	-33° 45'	54.25	79.12	24.03

REMARKS:

GEOLOGY - KING ISLAND SCHEELITE

CORE RECOVERY

D.D.H. No. D 220/16

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 2.3	2.3	2.3	100
2.3 - 3.8	1.5	1.5	100
3.8 - 6.1	2.3	2.3	100
6.1 - 8.25	2.15	2.15	100
8.25 - 9.80	1.55	1.55	100broken
9.80 - 11.65	1.85	1.85	100
11.65 - 12.55	0.9	0.9	100broken
12.55 - 13.60	1.05	1.05	100 "
13.60 - 15.65	2.05	2.05	100
15.65 - 18.10	2.45	2.45	100
18.10 - 20.10	2.0	2.0	100broken
20.10 - 20.60	0.5	0.5	100 "
20.60 - 21.10	0.5	0.7	140 "
21.10 - 23.10	2.0	2.0	100 "
23.10 - 24.80	1.7	1.7	100 "
24.80 - 27.10	2.30	2.3	100 "
27.10 - 30.0	2.9	2.9	100
20.0 - 32.9	2.9	2.9	100
32.9 - 35.9	3.0	3.0	100
35.9 - 38.9	3.0	3.0	100
38.9 - 41.65	2.75	2.75	100
41.65 - 44.65	3.0	3.0	100
44.65 - 46.90	2.25	2.25	100broken
46.9 - 49.7	2.8	2.8	100
49.7 - 52.7	3.0	3.0	100
52.7 - 55.65	2.95	2.95	100
55.65 - 58.60	2.95	2.95	100
58.60 - 59.9	1.3	1.3	100
59.9 - 62.9	3.0	3.0	100
62.9 - 65.9	3.0	3.0	100
65.9 - 68.5	2.6	2.6	100
68.5 - 70.11	1.61	1.61	100broken
70.11 - 71.20	1.09	1.09	100 "
71.20 - 72.40	1.20	0.8(?)	67 "
72.40 - 75.30	2.90	2.90	100
75.30 - 76.70	1.4	2.0(?)	143broken
76.70 - 79.70	3.0	3.0	100 "
79.70 - 81.60	1.9	1.4	74 "
81.60 - 84.40	2.8	2.8	100
84.40 - 87.30	2.9	2.9	100 "
87.30 - 90.30	3.0	3.0	100 "
90.30 - 93.30	3.0	3.0	100
93.30 - 96.3	2.0	2.0	100broken
96.3 - 99.0	2.7	2.7	100 "
EOH 99.0m			

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY STRUCTURAL DATA

D.D.H. No. D 220/16

DEPTH INTERVAL (METRES)	ROCK TYPE	FRAC-TURES /m	JOINT ANGLE (WRT/ LAOC)	JOINT FILLING	BEDDING ANGLE (W.R.T./ L.A.O.C.)	% CORE RECO-VERY	R.Q.D.	REMARKS (WEATHERING)
0.0 - 7.85	B-lens	12		Chl/clay/carb		41		
7.85 - 14.0	bh	12->20		Chl/clay/sulph/carb		66		
14.0 - 19.5	Bh	5-6		Chl/clay/sulph		76		
19.5 - 27.5	bh	12->20		Chl/clay/carb/sulph		69		
27.5 - 46.0	bh	4-6		Chl/clay/sulph/clay		86		
46.0 - 56.10	Pgh	5-8		Chl/sulph/carb/clay		60		
56.10 - 60.15	U/C	3-12		Sulph/clay/carb		88		
60.15 - 67.2	M/M	8-12		Clay/chl/sulph/carb		45		
67.2 - 77.1	L/C	8->20		Chl/clay/carb/sulph		72		
77.1 - 77.15	F A U L T							
77.15 - 79.75	Bh/Ph	6-11		Chl/clay/sulph		92		
79.75 - 87.30		9- 20		Chl/clay/carb/sulph		32		
(81.5 - 81.62	M A J O R F A U L T)							
87.3 - 92.25	LV	6-14		Chl/clay/carb/sulph		52		
92.25 - 99.0	bh/ph	15- 20		Chl/clay/sulph/carb		13		
EOH 99.0m								

FURTHER DATA & REMARKS

1. Detailed % core recoveries within each depth interval is shown in the core recovery tabulation.
2. R.Q.D. (rock quality designation) $+= \frac{\text{Length Core} > 10 \text{ cm}}{\text{Length Drilled}}$
3. Core size.

GEOLOGY - KING ISLAND SCHEELITE

ASSAY DATA

D.D.H. No. D 220/16

SAMPLE NO.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Rec.	WO_3	Mo		
D 10419	0	1	1.0	1.0	0.80	0.03		
20	1	2	"	"	0.07	0.01		
21	2	3	"	"	0.72	0.01		
22	3	4	"	"	0.64	0.03		
23	4	5	"	"	0.25	0.01		
24	5	6	"	"	0.23	0.02		
25	6	7	"	"	< 0.01	< 0.01		
26	7	8	"	"	0.09	0.01		
27	8	9	"	"	< 0.01	< 0.01		
28	46	47	"	"	< 0.01	< 0.01		
29	47	48	"	"	< 0.01	< 0.01		
30	48	49	"	"	0.12	< 0.01		
31	49	50	"	"	0.18	< 0.01		
32	50	51	"	"	0.03	< 0.01		
33	51	52	"	"	0.02	< 0.01		
34	52	53	"	"	0.32	< 0.01		
35	53	54	"	"	0.31	0.01		
36	54	55	"	"	0.31	0.01		
37	55	56	"	"	0.14	0.01		
38	56	57	"	"	1.54	0.03		
39	57	58	"	"	1.40	0.03		
40	58	59	"	"	1.41	0.02		
41	59	60	"	"	1.02	0.01		
42	60	61	"	"	1.05	0.02		
43	61	62	"	"	0.46	0.01		
44	62	63	"	"	0.03	0.03		
45	63	64	"	"	< 0.01	0.01		
46	64	65	"	"	< 0.01	< 0.01		
47	65	66	"	"	< 0.01	< 0.01		
48	66	67	"	"	< 0.01	< 0.01		
49	67	68	"	"	0.23	< 0.01		
50	68	69	"	"	0.49	< 0.01		
51	69	70	"	"	0.38	< 0.01		
52	70	71	"	"	0.16	< 0.01		
53	71	72	"	"	0.12	< 0.01		
54	72	73	"	"	0.25	< 0.01		
55	73	74	"	"	0.89	0.01		
56	74	75	"	"	0.84	0.01		
57	75	76	"	"	0.49	0.01		
58	76	77	"	"	< 0.01	< 0.01		
59	77	78	"	"	< 0.01	< 0.01		
60	78	79	"	"	0.09	< 0.01		
61	79	80	"	"	0.35	0.01		
62	80	81	"	"	1.28	0.02		
63	81	82	"	"	0.80	0.01		
64	82	83	"	"	0.46	0.01		
65	83	84	"	"	0.05	< 0.01		

SPECIFIC GRAVITY

Depth (metres):

Rock Type:

S.G.:

Determined by:

GEOLOGY - KING ISLAND SCHEELITE

ASSAY DATA

D.D.H. No. D 220/16

SAMPLE NO.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Rec.	WO_3	Mo		
D 10466	84	85	1.0	1.0	<0.01	< 0.01		
67	85	86	"	"	<0.01	< 0.01		
68	86	87	"	"	0.46	0.01		
69	87	88	"	"	0.20	0.01		
70	88	89	"	"	<0.01	<0.01		
71	89	90	"	"	<0.01	<0.01		

SPECIFIC GRAVITY

Depth (metres):
Rock Type:
S.G.:

Determined by:

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 220/16

0.0 - 7.85m **B-LENS**

B-lens conisiting of dominantly white to greyish marbles with minor pyroxene hornfels, grossular garnet and andradite garnet. Fine disseminated scheelite is present throughout.

The marble in places is quite fractured. particularly between 4 - 5m, and at the top of the hole (caused by blasting).

The lower 1m of the unit is pyroxene rich, especially close to the bottom contact with biotite hornfels below. Here, a pyroxene-grossular rich rock as present, and this is generally associated with faulting. (ie sheared and schistose biotite hornfels below).

Bedding (?) 13^{o} to LCA at 5.0m

7.85 - 46.00 **BIOTITE HORNFELS**

Fine grained, dark brown to grey coloured biotite hornfels with no scheelite mineralisation present.

Badly broken and fractured core occurs from 7.85 - 14.0m (some shearing, and core immediately below B-lens is somewhat schistose); 19.5 - 27.5m (fractured; slickensides around 23.85m - faulting); and 45.5 - 46.0m (sheared?). The remainder of the core is very competant and massive.

Random metamorphic spotting is present in numerous places ie around 30m, 44m. Bedding in places is very disturbed.

(?)Beddding 33^{o} to LCA at 23.80m

46.00 - 56.10 **PYROXENE GARNET HORNFELS**

Typical pyroxene garnet hornfels with pods and fragments of marble with metamorphic reaction zones. Pods and fragments become more siliceous and chloritic towards the base of the unit. Pods range from 1cm to 10cm across. The base of the unit grades into Upper C-lens.
Scattered and patchy scheelite mineralisation is present but unlikely to go ore grade (ie 0.3% WO_3).

56.10 - 60.15 **UPPER C-LENS/ANDADITE SKARN**

Coarse grained andradite garnet skarn with good disseminated scheelite present throughout (1%WO_3). Broken, fractured and slightly leached core occurs from 56.6 - 57.1m. (possible fault zone?).

Sulphides are common throughout and could amount to 5% of the unit.

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 220/16

60.15 - 67.20m MARBLE MARKER

Marble marker unit consisting dominantly of marble and grossular garnet, with pyroxene hornfels and biotite hornfels interbeds. The top 3m of the unit is partly mineralised and contains some andradite garnet faulting and fracturing is common as evidenced by the numerous fault breccia zones between 62 - 63m.

Bedding not well defined.

Bedding	52^{o}	to	LCA	at 64.35m
Bedding	45^{o}			66.35m

67.20 - 77.10 BANDED ANDRADITE SKARN

Bedded/banded lower C-lens andradite skarn with fair to good disseminated scheeltie present throughout.

The unit is highly fractured and broken with numerous faults between 69.4 - 72.4m (mainly rubble); and 75.0 - 76.7m (clay, rubble). The actual position of any faults is difficult to determine (see photographs).

The base of the unit from 75.5 - 77.10 appears to be grading into mineralised Banded footwall beds with numerous unreplaced marble interbeds and increasing grossular garnet content.

Bad ground conditions can be expected in this unit.

Bedding	45^{o}_{o}	to	LCA	at 66.4m
Bedding	44^{o}			68.75m
Bedding	53^{o}			74.1m
Bedding	65^{o}			76.5m

77.10 - 77.15 FAULT

Brecciated, fractured fault zone with pyroxene enrichment. Numerous faults also occur in the unit below.

77.15 - 79.75 BIOTITE - PYROXENE HORNFELS

Finely bedded, highly disturbed biotite hornfels - pyroxene hornfels unit with numerous fault zones and no scheelite mineralisation. The base of the unit is pyroxene rich.

79.75 - 81.50 SKARN

Leached and weathered skarn. Difficult to determine whether Upper C or Lower C, but is mineralised (approx. 0.7% WO_3). The unit is broken and fractured and contains chloritic slickensides around 80 - 80.2m.

81.50 - 81.62 MAJOR FAULT

Major fault zone containing mainly chloritic clay - pug.

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 220/16

81.62 - 84.40 **BANDED SKARN**

Lower C-lens(?) banded skarn containing some disseminated scheelite. The core is slightly leached and disturbed with evidence of fractureing of beds - (ie around 84m, displaced grossular).

No obvious faults appear to be present.

84.40 - 87.30 **BIOTITE - PYROXENE HORNFELS**

Interbedded, fine grained biotite hornfels/pyroxene hornfels with minor andradite interbeds. The interbed between 86 - 87.3m is the typical 'barren' marble 'overlying' the lower volcanics, but the proximity in this case of the major fault has resulted in its replacement and mineralisation.

Numerous fault zones are present, particularly at 85.3m. (breccia, clay, pug, carbonate).

87.30 - 92.25 **LOWER VOLCANICS**

Typical medium grained spotted lower volcanics with no visible scheelite.

Badly broken and partly clayey core occurs from 88.7 - 88.9m.

92.25 - 99.0 **BIOTITE - PYROXENE HORNFELS**

Well bedded, fine grained biotite hornfels/pyroxene hornfels with no visible scheelite, but with abundant chloritic on joints and fractures.

The core is badly broken and fractured throughout, with probable minor faults.

A major fault breccia zone appears to be present from 98.3 - 99.0m. Some carbonate veining is present.

A coarse grained granite dyke occurs from 96.85 - 98.3m.

EOH 99.0m

GEOLOGY - KING ISLAND SCHEELITE

CHECK ASSAY DATA

D.D.H. No. D 220/16

LAB.	K.I.S.		LAB.	K.I.S. CHECK		LAB.	AMDEL		LAB.	A.C.S.L.		
Original Sample No.	WO_3	Mo	Check Sample No.	WO_3	Mo	Check Sample No.	WO_3	Mo	Check Sample No.	WO_3	Mo	
10423	0.25	0.01	11913	0.36		11914	0.36		11915	0.25		
10434	0.32	<0.01	11916	0.39		11917	0.36		11918	0.29		
10443	0.46	0.01	11919	0.53		11920	0.59		11921	0.50		
10454	0.25	<0.01	11922	0.28		11923	0.32		11924	0.28		
10464	0.46	0.01	11925	0.47		11926	0.53		11927	0.44		

GEOLOGY - KING ISLAND SCHEELITE

LOG OF D.D.H. No. D 220/15A

PLANNING

PROPOSER: G. J. Bujtor DEPTH: 100m

LOCATION: 150m RL Drill Drive

PURPOSE OF HOLE: Define Upper Central Area along Section

PROPOSED CO-ORDS: 220220 E 563950 N

INCLINATION: -15^{o}

BEARING: 0^{o} ^{o}GRID ^{o}MAG

TARGET: E N

DEPTH:

CHECKED BY: DATE:

SURVEY

SURVEY CO-ORDS: E N

SURVEYED BEARING: $359^{o}25'$ ^{o}GRID ^{o}MAG

SURVEYED IN BY: DATE:

ACTUAL CO-ORDS: 220217.5 E 563952.2 N

R.L. OF COLLAR: -145.4

INCLINATION OF HOLE: -15^{o} 22'

PICKED UP BY: W. Davies DATE: 26/4/79

SUMMARY

LOGGED BY: G. J. Bujtor

RESULTS: 95.0 - 100.0m
5m @ 0.75% WO_3

DRILLING

DATE COMMENCED: 5/4/79 DATE TERMINATED: 22/4/79

DRILLER/CONTRACTOR: ADD

CASING: SIZE:
DEPTH:

CORE: SIZE: 46TT
DEPTH: 111m

WEDGE PLACED: Nil DEPTH: PROPOSER:

EXTENSION: Nil

FINAL DEPTH: 111m

REASON FOR TERMINATION: In lower volcancis

CONDITION OF HOLE ON COMPLETION:

CASING:

CEMENTED:

BORE HOLE SURVEY: Single shot

WATER:

COMMENTS ON DRILLING CONDITIONS: Good

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY BORE HOLE SURVEY DATA

D.D.H. No. D 220/15A

Surveyed method: Single shot
Final depth: 111.0m
Casing depth: Nil

Depth surveyed to: 111.00m
Date surveyed: 23/4/79
Surveyed by: S. Batchlar
Checked by: L. Denby

Bearing			Inclination		True Vertical Depth (m)	Co-ordinates	
Depth (m)	Grid	Mag.	Read	Corr.		N	W
15	360°	350	74°	-16°	4.13	14.20	2.50
45	359°	349	74°	-16°	12.40	42.51	8.00
95	358°	348	73°	-17°	27.02	89.28	17.94
111	358°	348°	73°	-17°	31.70	104.24	21.12

REMARKS:

GEOLOGY - KING ISLAND SCHEELITE

CORE RECOVERY

D.D.H. No. D 220/15A

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 4.2m	4.2	4.2	100
4.2 - 6.1	1.9	1.9	100
6.1 - 7.6	1.5	1.5	100
7.6 - 10.5	2.9	2.9	100
10.5 - 13.5	3.0	3.0	100
13.5 - 16.0	2.5	2.5	100
16.0 - 18.15	2.15	2.15	100
18.15 - 19.5	1.35	1.35	100 broken
19.5 - 20.3	0.8	0.8	100 broken
20.3 - 20.9	0.6	0.6	83 broken
20.9 - 21.5	0.6	0.6	100 broken
21.5 - 23.4	1.9	1.9	100
23.4 - 25.6	2.2	2.2	100
25.6 - 28.6	3.0	3.0	100
28.6 - 30.9	2.3	2.3	100
30.9 - 32.45	1.55	1.55	100
32.45 - 35.3	3.65	3.65	100
35.3 - 36.5	0.8	0.8	100
36.5 - 39.0	2.5	2.5	100
39.0 - 40.7	1.7	1.7	100
40.7 - 42.3	1.6	1.6	100
42.3 - 43.3	1.0	1.0	100
43.3 - 45.6	2.3	2.3	100
45.6 - 47.1	1.5	1.5	100 broken
47.1 - 47.75	0.65	0.65	100 broken
47.75 - 50.75	3.0	3.0	100
50.75 - 53.5	2.75	2.75	100 broken
53.5 - 55.75	2.25	2.25	100 broken
55.75 - 56.1	0.35	0.6	171 broken
56.1 - 57.2	1.1	1.1	100 broken
57.2 - 60.0	2.8	2.8	100
60.0 - 63.0	3.0	3.0	100
63.0 - 65.5	2.5	2.5	100
65.5 - 68.4	2.9	2.9	100
68.4 - 70.1	1.7	1.7	100
70.1 - 71.94	1.84	1.84	100
71.94 - 74.2	2.26	2.26	100
74.2 - 76.3	2.1	2.1	100
76.3 - 77.1	0.8	0.8	100
77.1 - 78.55	1.45	1.45	100
78.55 - 80.55	2.0	2.0	100 broken
80.55 - 81.75	1.25	1.25	100 broken
81.75 - 83.4	1.65	1.65	100 broken
83.4 - 85.3	1.9	1.9	100 broken
85.3 - 86.6	1.3	1.3	100 broken
86.6 - 86.92	0.32	0.32	100 broken
86.92 - 87.5	0.58	0.58	100
87.5 - 90.1	2.6	2.6	100
90.1 - 93.1	3.0	3.0	100
93.1 - 95.0	1.9	1.9	100
95.0 - 96.1	1.1	1.1	100
96.1 - 96.7	0.6	0.6	100
96.7 - 97.9	1.2	1.2	100

GEOLOGY - KING ISLAND SCHEELITE

CORE RECOVERY

D.D.H. No. D 220/15A

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
97.9 - 100.6	2.7	2.7	100
100.6 - 102.2	1.6	1.6	100 broken
102.6 - 105.0	2.4	2.4	100 broken
105.0 - 108.0	3.0	3.0	100
108.0 - 111.0	3.0	3.0	100
EOH 111.0m			

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY STRUCTURAL DATA

D.D.H. No. D 220/15A

DEPTH INTERVAL (METRES)	ROCK TYPE	FRACTURES /m	JOINT ANGLE (WRT/ LAOC)	JOINT FILLING	BEDDING ANGLE (W.R.T./ L.A.O.C.)	% CORE RECOVERY	R.Q.D.	REMARKS (WEATHERING)
0.0 - 29.4m	B lens	5-7		Chl/clay/carb	24° - 12m		75	
29.4 - 71.8	bh	6-12		Chl/clay/sulph/carb	34° - 33.4 33° - 39.8 32° - 43m		58	
71.8 - 89.5	B lens	9-12		Chl/clay/carb/sulph	47° - 73.8 45° - 76.6 55° - 85.0 57° - 88.3		33	
89.5 - 97.9	Banded gh	4-13		Chl/clay/carb/sulph	54° - 94.9 57° - 97 56° - 97.5		64	
97.9 - 103.4	Bfb	8-13		Chl/clay/carb	45° - 99 35° -100.2 5° -100.7 13° -102.6		53	
103.4 - 103.45	F A U L T							
103.45 - 111.0	Bfb/LV	8-10		Chl/clay/carb/sulph	38° -105.4 82° -109.7		56	
EOH 111.0m								

FURTHER DATA & REMARKS

1. Detailed % core recoveries within each depth interval is shown in the core recovery tabulation.
2. R.Q.D. (rock quality designation) += $\frac{\text{Length Core} > 10 \text{ cm}}{\text{Length Drilled}}$
3. Core size.

GEOLOGY - KING ISLAND SCHEELITE

ASSAY DATA

D.D.H. No. D 220/15A

SAMPLE NO.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Rec.	WO_3	Mo		
D 11055	87	88	1.0	1.0	0.08	0.01		
56	88	89	"	"	<0.01	<0.01		
57	89	90	"	"	0.24	<0.01		
58	90	91	"	"	0.66	<0.01		
59	91	92	"	"	0.24	<0.01		
60	92	93	"	"	0.12	0.01		
61	93	94	"	"	0.32	<0.01		
62	94	95	"	"	0.10	<0.01		
63	95	96	"	"	0.30	<0.01		
64	96	97	"	"	0.46	<0.01		
65	97	98	"	"	1.15	<0.01		
66	98	99	"	"	0.46	<0.01		
67	99	100	"	"	1.40	<0.01		
68	100	101	"	"	0.14	<0.01		
69	101	102	"	"	0.03	<0.01		
70	102	103	"	"	0.05	<0.01		
71	103	104	"	"	0.01	0.01		
72	104	105	"	"	0.05	<0.01		
73	105	106	"	"	0.11	<0.01		
74	106	107	"	"	0.03	<0.01		
75	107	108	"	"	<0.01	<0.01		
76	108	109	"	"	<0.01	<0.01		
77	109	110	"	"	<0.01	<0.01		
78	110	111	"	"	0.03	0.01		

SPECIFIC GRAVITY

Depth (metres):

Rock Type:

S.G.:

Determined by:

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 220/15A

0.0 - 29.40m B-LENS

B Lens consisting of dominantly grey coloured marbles with rare pyroxene and grossular garnet. Very pachy low grade mineralisation occurs from 5 - 8m, 13 - 17m, 23 - 27m and 28 - 30m.

In the top 10m of the unit clay weathering (white in colour) of joints and fractures is common.

A possible tuffite - volcanic unit occurs from around 16m - 24.8m. Contacts with marble appears to grade into pyroxene - rich zones.

The bottom contact of B-lens from 28.6 - 29.4m is pyroxene rich with minor scheelite.

Bedding 24^{o} to LCA at 12.0m

29.40 - 71.80 BIOTITE HORNFELS

Dark brown to black coloured, fine grained biotite hornfels with minor pyroxene - actinolite alternation zones and patches from 29.4 - 43.0m. No scheelite mineralisation is present.

The unit immediately below B-lens appears to be disturbed and fragmental with minor schistose - the texture being developed.

Numerous zones of broken core are present throughout, particularly 46.3 - 46.5m (finely broken); 50.0 - 51.5 (fracturely, minor clay + carbonate); 53.45 - 53.55m (breccia, clay); 55.25 - 56.10 (fractured and rubbly); 57.0 - 57.3m (broken); 64.8 - 65.5m (fractured and broken).

Bedding	34^{o}	to	LCA at	33.4m
Bedding	33^{o}			39.8m
Bedding	32^{o}			43

71.80 - 72.00 FAULT(?) REHEALED

Rehealed fault zone containing remnant breccia texture? This could also be a disturbed stratigraphic contact with B-lens below.

72.0 - 89.50 B-LENS

Appears to be typical B-lens consisting of dominantly white to grey coloured marbles, with minor biotite hornfels and pyroxene hornfels. Some grossular interbeds are present. Scheelite mineralisation is very poor. Bedding is common.

The unit, in general, is rather fractured and broken particular - around 77.2m (breccia, clay), 78.55m (rubble, clay), 80.55m (clay), 80.55 - 81.75 (breccia, fracturing, clay, rubble = MAJOR FAULT(, 81.75 85.30m (fractured and disturbed).

Note: The unit from 81.75m - 89.50m could possibly be marble marble(?), since no obvious fault is evident at the contact with banded Lower C-lens below.

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 220/15A

Bedding	47°	to	LCA	at 73.80m
Bedding	45°			76.6m
Bedding	55°			85.0m
Bedding	57°			88.3m

89.50 - 99.90 BANDED SKARN - LOWER C-LENS

Coarse grained bedded andradite garnet skarn with medium grained scheelite mineralisation present. The unit is somewhat fractured and broken, but no major faults are evident (hard to substantiate).

Note: (The top 3m of th e unit down to 92.0m is somewhat coarse grained andradite and in places resembles Upper C-lens, with possible later superimposed banded due to faulting? From 92.0 - 93.5m, the unit could well be altered marble marker?).

Bedding	54°	to	LCA	at 94.9m
Bedding	57°			97.0
Bedding	56°			97.5m
Bedding	45°			99.0m

99.90 - 103.4 BANDED FOOTWALL BEDS

Patchly and poorly mineralised banded footwall beds consisting of Marble, pyroxene hornfels, biotite hornfels, grossular garnet and minor andradite. The unit is slightly fractured with rubble and broken core (possible faults?) from 101.3 - 101.6m, and 102.0 - 102.2m.

Bedding is very disturbed and varies from 35° to LCA to subparallel to LCA.

Bedding	35°	to	LCA	at 100.2m
Bedding	5°			100.7
Bedding	13°			102.6

103.4 - 103.45 FAULT

Fault zone evident by shearing, clay and pug. No mineralisation is present.

103.45 - 109.9 BANDED FOOTWALL BEDS/BIOTITE HORNFELS - PYROXENE HORNFELS

Sequence of biotite hornfels/pyroxene hornfels and banded footwall beds consisting of Marble, pyroxene hornfels and minor grossular. Rare scheelite is present particularly from 104.3 - 105.2m. The longest sequence of marble occurs form 106.9 - 107.75m

The core is broken and fractured from 107.8 - 108.6m.

Bedding appears to steepen towards the bottom of the hole ie.

Bedding	38°	to	LCA	at 105.4m
Bedding	82°			109.7

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 220/15A

109.9 - 111.0m LOWER VOLCANICS

Medium to coarse grained spotted lower volcanics with no visible scheelite present.

EOH 111.0m

GEOLOGY - KING ISLAND SCHEELITE

CHECK ASSAY DATA

D.D.H. No. D 220/15a

LAB.	K.I.S.		LAB.	K.I.S. CHECK		LAB.	AMDEL		LAB.	A.C.S.L.		
Original Sample No.	WO_3	Mo	Check Sample No.	WO_3	Mo	Check Sample No.	WO_3	Mo	Check Sample No.	WO_3	Mo	
11057	0.24	< 0.01	12006	0.26		12007	0.31		12008	0.29		
11068	0.14	<0.01	12009	0.15		12010	0.15		12011	0.15		

GEOLOGY - KING ISLAND SCHEELITE

LOG OF D.D.H. No. D 220/15

PLANNING

PROPOSER: G. J. Bujtor DEPTH: 100 m

LOCATION: -150 m R.L. Drill Drive

PURPOSE OF HOLE: To define Central area/Lower Central area

PROPOSED CO-ORDS: 220220 E 563950 N

INCLINATION: -15°

BEARING: 0° $^{\circ}$GRID $^{\circ}$MAG

TARGET: E N

DEPTH:

CHECKED BY: DATE: 2/4/79

SURVEY

SURVEY CO-ORDS: E N

SURVEYED BEARING: 342° 19' $^{\circ}$GRID $^{\circ}$MAG

SURVEYED IN BY: DATE:

ACTUAL CO-ORDS: 220217.1 E 563952·1 56395.2 N

R.L. OF COLLAR: -145.4

INCLINATION OF HOLE: -12° 06'

PICKED UP BY: DATE:

SUMMARY

LOGGED BY: R. E. Sandell Davies

RESULTS: No Economic Mineralisation

(42 m then abandoned)

DRILLING

DATE COMMENCED: DATE TERMINATED:

DRILLER/CONTRACTOR:

CASING: SIZE:
DEPTH:

CORE: SIZE:
DEPTH:

WEDGE PLACED: DEPTH: PROPOSER:

EXTENSION:

FINAL DEPTH: 42.5 m

REASON FOR TERMINATION: Hole abondoned due to deviation from section. See D220/15A.

CONDITION OF HOLE ON COMPLETION:

CASING:

CEMENTED:

BORE HOLE SURVEY: Not surveyed

WATER:

COMMENTS ON DRILLING CONDITIONS:

GEOLOGY - KING ISLAND SCHEELITE

CORE RECOVERY

D.D.H. No. D 220/15

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0,0 - 2,2 m	2,2	2,0	91
2.2 - 5.4	3.2	3.0	94
5.4 - 7.5	2.1	2.0	95
7.5 - 9.8	2.3	2.2	96
9.8 - 10.9	1.1	0.9	82
10.9 - 11.55	0.65	0.4	62
11.55 - 14.5	2.95	2.9	98
14.5 - 15.8	1.3	1.2	92
15.8 - 16.35	0.55	0.4	73
16.35 - 19.3	2.95	3.0	100
19.3 - 22.3	3.0	3.0	100
22.3 - 23.7	1.4	1.3	93
23.7 - 26.3	2.7	2.5	93
26.3 - 29.1	2.8	2.8	100
29.1 - 30.1	1.0	1,0	100
30.1 - 32.4	1,3	1.3	100
32.4 - 34.6	2.2	2,0	91
34.6 - 36.7	2.1	2,1	100
36.7 - 38,85	2,15	2.1	98
38.85 - 41.8	2.95	3,0	100
41.8 - 42.5	0.7	0.5	71
EOH 42.5 m			

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 220/15

0.0 - 25.1 m **B LENS**

A heterogeneous unit, consisting dominantly of fresh grey unreplaced marble, intermingled with pyroxene hornfels and mineralised garnet hornfels.

The mineralisation is subgrade.

Fractured and broken core, possibly indicative of faulting exists @: 1.8 m, 5.3 - 5.4 m, 10.8 - 11.6 m.

Most of the mineralisation occurs in the first 15 m.

Bedding is @ 28^{o} to LCA @ 9.0 m
33^{o} 10.8 m

26.1 - 42.5 **BIOTITE/PYROXENE HORNFELS**

Mostly a black, fine grained biotite hornfels with thin (1 cm) or larger 40 cm interbeds of pyroxene hornfels.

Most of the interval from 34.8 - 36.8 m is pyroxene hornfels. Scattered scheelite is present at 40.0 m

Bedding 38^{o} to LCA @ 29.5 m
35^{o} 31.5 m
60^{o} 33.5 m
42^{o} 38.5 m
40^{o} 41.7 m

Shearing and broken core beyond 41.8 m indicates some faulting.

EOH 42.5 m

GEOLOGY - KING ISLAND SCHEELITE

LOG OF D.D.H. No. D 220/14

PLANNING

PROPOSER: G. J. Bujtor — DEPTH: 100m

LOCATION: -150m RL Drill Drvie

PURPOSE OF HOLE: To Define Central Area/Lower Central Area

PROPOSED CO-ORDS: 220220 E 563950 N

INCLINATION: -51 - 52°

BEARING: °GRID °MAG

TARGET: E N

DEPTH:

CHECKED BY: DATE: 27/3/79

SURVEY

SURVEY CO-ORDS: E N

SURVEYED BEARING: 340° 42° °GRID °MAG

SURVEYED IN BY: DATE:

ACTUAL CO-ORDS: 220217.2 E 563951.7 N

R.L. OF COLLAR: -146.2

INCLINATION OF HOLE: -50° 14'

PICKED UP BY: DATE:

SUMMARY

LOGGED BY: G. J. Bujtor

RESULTS: 2-4 m, 2m @ 0.54% WO_3
51-58m, 7m @ 1.09% WO_3
67-73m, 6m @ 0.74% WO_3

DRILLING

DATE COMMENCED: 27/3/79 DATE TERMINATED: 3/4/79

DRILLER/CONTRACTOR: ADD

CASING: SIZE: 56TT
DEPTH: 1.00

CORE: SIZE: 46TT
DEPTH: 100.00

WEDGE PLACED: Nil DEPTH: PROPOSER:

EXTENSION: Nil

FINAL DEPTH: 100.00

REASON FOR TERMINATION:

CONDITION OF HOLE ON COMPLETION:

CASING:

CEMENTED:

BORE HOLE SURVEY: Single shot to 100.00m

WATER:

COMMENTS ON DRILLING CONDITIONS: Good

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY BORE HOLE SURVEY DATA

D.D.H. No. D 220/14

Surveyed method: Single shot
Final depth: 100.0m
Casing depth: 1.0m

Depth surveyed to: 100.0m
Date surveyed: 3/4/79
Surveyed by: L. Denby
Checked by: G. J. Bujtor

Bearing			Inclination		True Vertical Depth (m)	Co-ordinates	
Depth (m)	Grid	Mag.	Read	Corr.		N	W
50	341°	331°	39	-51°	38.86	27.52	15.26
100	339°	329°	31	-59°	81.72	49.59	28.52

REMARKS:

GEOLOGY - KING ISLAND SCHEELITE

CORE RECOVERY

D.D.H. No. D 220/14

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 2.70	2.7	2.2	81
2.70 - 5.64	2.94	2.94	100
5.64 - 6.30	0.66	0.66	100
6.30 - 8.35	2.05	2.05	100
8.35 - 10.70	2.35	2.35	100
10.70 - 12.03	1.33	1.33	100
12.03 - 15.0	2.97	2.97	100
15.0 - 17.0	2.00	2.00	100
17.0 - 19.6	2.60	2.60	100
19.6 - 22.5	2.90	2.90	100
22.5 - 25.5	3.00	3.0	100
25.5 - 28.5	3.0	3.0	100
28.5 - 31.5	3.0	3.0	100
31.5 - 34.5	3.0	3.0	100
34.5 - 37.5	3.0	3.0	100
37.5 - 40.5	3.0	3.0	100
40.5 - 43.4	2.90	2.90	100
43.4 - 45.95	2.55	2.55	100
45.95 - 47.8	1.85	1.85	100
47.8 - 49.9	2.10	2.10	100
49.9 - 52.6	2.70	2.70	100
52.6 - 55.5	2.90	2.90	100
55.5 - 57.1	1.60	1.60	100
57.1 - 58.2	1.10	1.10	100
58.2 - 58.9	0.7	0.7	100
58.9 - 61.6	2.70	2.70	100
61.6 - 63.3	1.70	1.70	100
63.3 - 64.2	0.90	0.90	100
64.2 - 64.9	0.70	0.70	100
64.9 - 65.6	0.70	0.70	100
65.6 - 68.55	2.95	2.95	100
68.55 - 70.5	1.95	1.95	100
70.5 - 72.0	1.50	1.50	100
72.0 - 73.9	1.90	1.80	95
73.9 - 74.55	0.65	0.65	100
74.55 - 77.55	3.00	3.00	100
77.55 - 79.45	1.90	1.90	100
79.45 - 80.5	1.05	1.05	100
80.5 - 82.5	2.00	2.00	100
82.5 - 85.2	2.70	2.70	100
85.2 - 87.8	2.60	2.60	100
87.8 - 90.8	3.00	2.90	97
90.8 - 92.6	1.80	1.80	100
92.6 - 95.55	2.95	2.95	100
95.55 - 98.5	2.95	2.95	100
98.5 - 100.0	1.5	1.5	100
EOH 100.0m			

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY STRUCTURAL DATA

D.D.H. No. D 220/14

DEPTH INTERVAL (METRES)	ROCK TYPE	FRACTURES /m	JOINT ANGLE (WRT/ LAOC)	JOINT FILLING	BEDDING ANGLE (W. R. T./ L. A. O. C.)	% CORE RECOVERY	R. Q. D.	REMARKS (WEATHERING)
0.6 - 5.60m	Ch/ph	5				100	77	
5.60 - 34.60	bh	5			55°	100	73	6.0 - 7.4m Mildly broken core 9.3 - 9.35m Rubble. 20.4 - 20.7m Mildly broken core with calcite veins at 37° to core axis.
34.6 - 51.10	pgh	13				100	55	Intensely broken zones: 36.8 - 37.1m, 38.4 - 38.5m, 34.4 - 44.0, 44.9 - 45.1m, 47.7 - 47.9m.
51.10 - 55.60	gh	7				100	64	
55.60 - 64.00	MM	10 in marble 20 remainder			45	100	35	Ch relatively unbroken mineralised MM badly broken and rubble in places.
64.0 - 72.10	banded gh	> 20			38 - 57°	100	22	Badly broken throughout
72.00 - 74.55	bfb	>20				98	5	Very broken esp. 73.3 - 73.6m 74.0 - 74.3m (Fault Zone?)
74.55 - 100.0	bh/ph lv	15			70 - 75	100	49	Core brecciated in many places Most severe: 79.9 - 79.95m, 90.2 - 90.8m.
EOH 100.0m								

FURTHER DATA & REMARKS

1. Detailed % core recoveries within each depth interval is shown in the core recovery tabulation.
2. R.Q.D. (rock quality designation) $+= \frac{\text{Length Core} > 10 \text{ cm}}{\text{Length Drilled}}$
3. Core size.

GEOLOGY - KING ISLAND SCHEELITE

ASSAY DATA

D.D.H. No. D 220/14

SAMPLE NO.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Rec.	WO_3	Mo		
D 10282	0	1	1.0	1.0	0.99	0.03		
83	1	2	"	"	<0.01	<0.01		
84	2	3	"	"	0.72	0.03		
85	3	4	"	"	0.35	0.03		
86	4	5	"	"	0.03	0.01		
87	5	6	"	"	<0.01	<0.01		
88	6	7	"	"	<0.01	0.01		
89	34	35	"	"	<0.01	0.01		
90	35	36	"	"	<0.01	0.01		
91	36	37	"	"	<0.01	<0.01		
92	37	38	"	"	<0.01	0.01		
93	38	39	"	"	<0.01	0.01		
94	39	40	"	"	<0.01	0.01		
95	40	41	"	"	0.37	0.02		
96	41	42	"	"	0.19	0.01		
97	42	43	"	"	0.02	0.01		
98	43	44	"	"	0.06	<0.01		
99	44	45	"	"	<0.01	<0.01		
10300	45	46	"	"	<0.01	0.01		
01	46	47	"	"	0.05	0.01		
02	47	48	"	"	<0.01	0.01		
03	48	49	"	"	<0.01	<0.01		
04	49	50	"	"	<0.01	<0.01		
05	50	51	"	"	0.03	<0.01		
06	51	52	"	"	1.02	0.02		
07	52	53	"	"	1.23	0.04		
08	53	54	"	"	1.54	0.03		
09	54	55	"	"	1.45	0.02		
10	55	56	"	"	0.89	0.02		
11	56	57	"	"	0.60	0.01		
12	57	58	"	"	0.92	0.02		
13	58	59	"	"	0.09	<0.01		
14	59	60	"	"	0.25	<0.01		
15	60	61	"	"	<0.01	<0.01		
16	61	62	"	"	<0.01	<0.01		
17	62	63	"	"	<0.01	<0.01		
18	63	64	"	"	0.27	<0.01		
19	64	65	"	"	0.36	<0.01		
20	65	66	"	"	0.03	<0.01		
21	66	67	"	"	0.11	<0.01		
22	67	68	"	"	0.44	<0.01		
23	68	69	"	"	0.84	0.01		
24	69	70	"	"	0.48	0.01		
25	70	71	"	"	1.13	0.02		
26	71	72	"	"	1.23	0.03		
27	72	73	"	"	0.30	<0.01		
28	73	74	"	"	<0.01	<0.01		
29	74	75	"	"	0.21	<0.01		

SPECIFIC GRAVITY

Depth (metres):

Rock Type:

S.G.:

Determined by:

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 220/14

0.0 - 0.60m NO CORE

0.60 - 5.60 MARBLE

Light grey fine grained marble containing abundant white calcite veinlets and many irregular shaped areas rich in pyroxene with minor grossular. Scattered fine grained scheelite is present throughout, and between 2.4 - 3.5m probably reaches ore grade.

5.0 - 5.6m Pyroxene rich rock with rounded bleds of grossular.

Fractures/m = 5
Recovery = 100%

5.60 - 34.60 BIOTITE HORNFELS

Purplish brown biotite hornfels, which in places contains lenses of pyroxene + minor marble between 5.6 - 20.4. Towards the end (20.7 - 34.6m) of the unit colour becomes brownish grey and spotting is not uncommon.

Minor mildly broken core is present near the top of the unit (6.0 - 7.4m) and mildly brecciated core is present at 6.8m.

20.4 - 20.7m Mildly broken core with calcite veining. There appears to be slightly different types of biotite hornfels on either side of the zone and it may represent a fault.

At 5.7	bedding	is	55	to core axis.
6.9			55	
16.5			60	

Fractures/m = 5
Recovery = 100%

34.60 - 51.10 PYROXENE GARNET HORNFELS

Calcite pods (sometimes rimmed by grossular) and calcite/amphibole/grossular masses are present in a matrix of pyroxene with lenses grossular and calcite. Minor biotite is also present.

Minor scattered fine to medium grained scheelite is present below 40.5m but no where reaches ore grade.

The unit as a whole in quite broken, with zones of badly broken core present at 36.8 - 37.1m, 38.4 - 38.5m, 43.4 - 4.40m, 44.9 - 45.1m, and 47.7 - 47.9m.

Fractures/m = 13
Recovery = 100%

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 220/14

51.10 - 55.60 GARNET HORNFELS

Massive coarse grained garnet hornfels which is typical of upper C-lens. Fine grained scheelite is thickly disseminated throughout and grade is probably $\geq$1% WO_3

Fractures/m = 7
Recovery = 100%

55.60 - 64.00 MARBLE MARKER

There are three distinct sections of this marble marker.

55.6 - 59.4m Interbedded garnet hornfels (containing abundant fine grained scheelite) pyroxene hornfels and minor marble. This unit is very broken with rubbly zones being present at 56.8 - 57.1m, 57.7 - 58.2m, (fracturing subparellel to core axis) and 58.8 - 58.9m.

59.4 - 62.6m Fine grained light grey marble with is relatively unbroken. Several soft calcite veins has caused minor broken core.

62.6 - 64.00 Interbedded garnet hornfels (containing abundant fine grained scheelite). Marble, biotite hornfels and pyroxene hornfels. core is very broken. There are slickensides on a broken biotite hornfels bed at 63.9m

At 58.5m bedding is 43^{o} to core axis.
63.9m 45^{o}

Fractures/m = 10 in marble
>20 in remainder
Recovery = 100%

64.00 - 72.10 GARNET HORNFELS

Very broken banded, andradite garnet (pyroxene) hornfels. Fine grained thickly disseminated scheelite is present in the garnet rich beds. The zones of rubbly core are 64.0 - 64.2m, 64.6 - 64.9m, 66.7 - 66.9m, 70.1 - 70.2m, 71.8 - 72.0m. None of these rubble zones arrpear to be major faults.

At 65.4m bedding in 45^{o} to core axis.
69.5 38^{o}
61.6 57^{o}

Fractures/m = >20
Recovery = 100%

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 220/14

72.10 - 74.55 **BANDED FOOTWALL BEDS**

Interbedded pyroxene hornfels, marble and grossular garnet hornfels. Minor andradite garnet is present and contians fine grained scheelite. Bedding in this unit is quite disturbed. Zones of broken core are present at 73.2 - 73.6m and 74.0 - 74.3m. The latter contains -alcite veins at 30° to core axis and minor recemented breccia. They are probable fault zones.

Fractures/m = >20
Recovery = 100%

74.55 - 97.90 **BIOTITE HORNFELS/PYROXENE HORNFELS**

Finely interbedded brown hornfels and green pyroxene hornfels with fine marble beds becoming abundant in places. The unit is very disturbed (microfaulted) and in places bedding has been distrupted by brecciation.

76.5	- 77.0m	Shearing with mild recemented breccia.
78.55	- 79.0	Recemented coarse breccia.
79.9	- 79.95	Sheared reccemented breccia with fine fragments. Coarser fragmetns are present 79.95 - 80.5m.
82.3	- 82.55	Rubbly core, the margins of which are slickensided.
84.0	- 84.4	Medium grained white aplite.
84.4	- 85.1	Zones of rubbly core with minor slickensides.
90.2	- 90.8	Broken core and recemented breccia.
96.9	- 97.9	Marble.

At 78.6 bedding is 72° to core axis.
85.8 70°
95.0 75°

Fractures/m = 15
Recovery = 100%

97.90 - 100.00 **LOWER VOLCANICS**

Dark green fine grained basic volcanics. The beginning of the unit (97.9 - 98.5m) is very broken, and the end (99.6 - 100.0) has been severely brecciated and chloritised. Small calcite veins are abundant.

Fractures/m = 15
Recovery = 100%

EOH 100.00m

GEOLOGY - KING ISLAND SCHEELITE

CHECK ASSAY DATA

D.D.H. No. D 220/14

LAB.	K.I.S.		LAB.	K.I.S. CHECK		LAB.	AMDEL		LAB.	A.C.S.L.		
Original Sample No.	WO_3	Mo	Check Sample No.	WO_3	Mo	Check Sample No.	WO_3	Mo	Check Sample No.	WO_3	Mo	
10285	0.35	0.03	11901	0.46	<0.01	11902	0.42		11903	0.34		
10295	0.37	0.02	11904	0.30	<0.01	11905	0.31		11906	0.28		
10311	0.60	0.01	11907	0.74	<0.01	11908	0.71		11909	0.58		
10322	0.44	<0.01	11910	0.40	<0.01	11911	0.48		11912	0.41		

GEOLOGY - KING ISLAND SCHEELITE

LOG OF D.D.H. No. D 220/13

PLANNING

PROPOSER: G. J. Bujtor DEPTH: 100m

LOCATION: 150m RL Drill Drive

PURPOSE OF HOLE: To Define Central Area/Lower Central Area

PROPOSED CO-ORDS: 220220 E 563950 N

INCLINATION: -32

BEARING: 0^{o} ^{o}GRID ^{o}MAG

TARGET: E N

DEPTH:

CHECKED BY: DATE: 14/3/79

SURVEY

SURVEY CO-ORDS: E N

SURVEYED BEARING: 340^{o} $19'$ ^{o}GRID ^{o}MAG

SURVEYED IN BY: DATE:

ACTUAL CO-ORDS: 220217.1 E 563952 N

R.L. OF COLLAR: -145.8

INCLINATION OF HOLE: -28^{o} 59'

PICKED UP BY: DATE:

SUMMARY

LOGGED BY: G. J. Bujtor

RESULTS: 62 - 68m, 6m @ 0.74% WO_3

DRILLING

DATE COMMENCED: 20/3/79 DATE TERMINATED: 26/3/79

DRILLER/CONTRACTOR: ADD

CASING: SIZE: BXTT
DEPTH: 1.00m

CORE: SIZE: 46TT
DEPTH: 93m

WEDGE PLACED: Nil DEPTH: PROPOSER:

EXTENSION: Nil

FINAL DEPTH: 93.00m

REASON FOR TERMINATION:

CONDITION OF HOLE ON COMPLETION:

CASING:

CEMENTED:

BORE HOLE SURVEY: Single shot to 93.00

WATER:

COMMENTS ON DRILLING CONDITIONS: Good

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY BORE HOLE SURVEY DATA

D.D.H. No. D 220/13

Surveyed method: Single shot
Final depth: 93.0m
Casing depth: 1.0m

Depth surveyed to: 93.0m
Date surveyed: 3/4/79
Surveyed by: L. Denby
Checked by: G. J. Bujtor

Bearing			Inclination		True Vertical Depth (m)	Co-ordinates	
Depth (m)	Grid	Mag.	Read	Corr.		N	W
43	340°	330°	56° 15'	-38.75°	35.75	30.96	17.88
93	340°	330°	56°	-39	41.45	66.86	38.61

REMARKS:

GEOLOGY - KING ISLAND SCHEELITE

CORE RECOVERY

D.D.H. No. D 220/13

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY	
0.0 - 2.63	2.63	2.63	100	
2.63 - 3.01	.038	0.38	100	
3.01 - 4.10	1.09	1.09	100	
4.10 - 5.54	1.44	1.44	100	
5.54 - 6.85	1.31	1.31	100	
6.85 - 9.10	2.35	2.35	100	
9.10 - 10.50	1.4	1.4	100	
10.50 - 13.45	2.95	2.95	100	
13.45 - 15.97	1.52	1.52	100	
15.97 - 17.20	1.23	1.23	100	
17.20 - 19.50	2.3	2.3	100	
19.50 - 20.25	0.75	0.75	100	
20.25 - 21.40	1.15	1.15	100	
21.4 - 22.40	1.0	1.0	100	
22.4 - 23.30	0.9	0.9	100	
23.30 - 24.20	0.9	0.9	100	
24.20 - 25.5	1.3	1.3	100	
25.5 - 27.2	1.7	1.7	100	
27.2 - 30.0	2.8	2.8	100	
30.0 - 33.0	3.0	3.0	100	
33.0 - 35.1	2.1	2.1	100	
35.1 - 37.50	2.4	2.4	100	
37.50 - 40.50	3.0	3.0	100	
40.50 - 43.50	3.0	3.0	100	
43.50 - 46.50	3.0	3.0	100	
46.50 - 49.50	3.0	3.0	100	broken
49.50 - 52.50	3.0	3.0	100	
52.50 - 53.50	1.0	1.0	100	broken
53.50 - 54.50	1.5	1.2	80	"
54.50 - 57.0	2.5	2.5	100	
57.0 - 58.6	1.6	1.6	100	
58.6 - 61.4	2.8	2.8	100	
61.4 - 64.3	2.9	2.9	100	
64.3 - 67.3	3.0	3.0	100	
67.3 - 68.8	1.5	1.9	127	broken
68.8 - 69.8	1.0	0.5	50	"
69.8 - 70.8	1.0	0.8	80	"
70.8 - 73.5	2.7	2.7	100	"
73.5 - 76.10	2.6	2.6	100	"
76.10 - 78.06	1.96	1.96	100	"
78.06 - 78.80	0.76	0.76	100	"
78.80 - 79.90	1.1	1.1	100	"
79.90 - 82.30	2.4	2.4	100	"
82.30 - 85.30	3.0	3.0	100	
85.30 - 88.30	3.0	3.0	100	
88.30 - 89.45	1.15	1.15	100	
89.45 - 90.0	0.55	0.3	55	
90.0 - 90.8	0.8	0.8	100	
90.8 - 91.0	0.2	0.25	125	
91.0 - 91.8	0.8	0.4	50	
91.8 - 92.1	0.3	0.3	100	
92.1 - 92.7	0.6	0.6	100	
92.7 - 93.0	0.3	0.3	100	

EOH 93.0m

GEOLOGY - KING ISLAND SCHEELITE

ASSAY DATA

D.D.H. No. D 220/13

SAMPLE NO.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Rec.	WO_3	Mo		
D 9807	0	1	1.0	1.0	0.36	0.01		
08	1	2	"	"	0.26	0.01		
09	2	3	"	"	0.88	0.01		
10	3	4	"	"	0.01	0.01		
11	4	5	"	"	<0.01	0.01		
12	5	6	"	"	<0.01	0.01		
13	6	7	"	"	<0.01	0.01		
9777	50	51	"	"	0.24	<0.01		
78	51	52	"	"	<0.01	<0.01		
79	52	53	"	"	0.14	<0.01		
80	53	54	"	"	0.01	<0.01		
81	54	55	"	"	0.09	<0.01		
82	55	56	"	"	0.18	<0.01		
83	56	57	"	"	<0.01	<0.01		
84	57	58	"	"	<0.01	<0.01		
85	58	59	"	"	0.01	<0.01		
86	59	60	"	"	<0.01	<0.01		
87	60	61	"	"	<0.01	<0.01		
88	61	62	"	"	0.04	<0.01		
89	62	63	"	"	0.63	0.01		
90	63	64	"	"	0.45	<0.01		
91	64	65	"	"	1.05	0.01		
92	65	66	"	"	1.09	<0.01		
93	66	67	"	"	0.63	0.02		
94	67	68	"	"	0.59	0.01		
95	68	69	"	"	<0.01	<0.01		
96	69	70	"	"	?	?		
97	70	71	"	"	0.21	0.01		
98	71	72	"	"	0.31	<0.01		
99	72	73	"	"	0.49	<0.01		
9800	73	74	"	"	0.04	<0.01		
01	74	75	"	"	0.06	<0.01		
02	75	76	"	"	<0.01	<0.01		
03	76	77	"	"	<0.01	<0.01		
04	77	78	"	"	<0.01	<0.01		
05	78	79	"	"	0.19	<0.01		
06	79	80	"	"	0.10	<0.01		

SPECIFIC GRAVITY

Depth (metres):

Rock Type:

S.G.:

Determined by:

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 220/13

0.0 - 6.60m **B-LENS**

Typical B-lens consisting of marble, grossular garnet, pyroxene hornfels and minor biotite hornfels. Some fine disseminated scheelite is present, especially in the top 3m of the unit.

The core in places is extrmely clay rich and incompetent (ie 3.2 - 3.3m - probable fault with breccia). Some of this clay material may also represent leached and weathered joints/fractues.

Beddding 48^{o} to LCA at 5.8m

6.60 - 46.40 **BIOTITE HORNFELS**

Fine grained grey to brown coloured biotite hornfels with numerous actinolite hornfels alteration zones, and minor metamorphic spotting (29.65 - 31.20m).

The top 6m of the unit is quite broken and fractured. Possible fault zone recorded occur at/from 8.0m (breccia, slickensides and shearing), 22.4m (clay, rubble), 26.6m (rubble).

Leached core with some open vugs and cavities occurs around 18.15m. From 27m onwards the core is very competant with fault or broken core zones.

?Bedding/S_1	31^{o}	to LCA at	20.4
Bedding	28^{o}		22.8m
?Bedding	45^{o}		29.65
?Bedding	38^{o}		31.50m
?Bedding	43^{o}		37.70m

46.40 - 49.35 **PYROXENE GARNET HORNFELS**

Typical pyroxene garnet hornfels, unmineralised, with pods/fragments of calcite with associated reaction rims of grossular and pyroxene The core becomes increasingly broken towards the base. Biotite hornfels above grades into the pyroxene garnet hornfels with increasing concentrations of pods/fragments.

General orientation of fragments is at 45^{o} to LCA.

49.35 - 49.50 **FAULT**

Broken fractures, clayey brecciated fault zone with abundant pyroxene. No scheelite present.

49.50 - 51.45 **BIOTITE HORNFELS**

Dark grey to brownish, finely spotted biottie hornfels with numerous carbonate filled tension fractures/gashes. No scheelite mineralisation is present, and the unit appears to grade into pyroxene garnet hornfels below.

Bedding 35^{o} to LCA at 50.90m

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 220/13

51.45 - 53.15 PYROXENE GARNET HORNFELS(?)

Pyroxene garnet hornfels like rock with abundant pyroxene and grossular and numerous fragmetns/or pods. It may also be a pyroxene - grossular rich zone associated with the fault below?

The core is fractured and broken and contain only very minor scheelite.

53.15 - 53.50 FAULT

Major broken, fractured, clayey - pug, brecciated fault zone, consisting now of mainly rubble.

53.50 - 62.60 PYROXENE GARNET HORNFELS

Typical pyroxene garnet hornfels with numerous calcite pods and fragments up to 22cm across. A pyroxene matrix is the norm, and grossular rims are common. Very little scheelite mineralisation is present.

62.60 - 66.20(?) UPPER C-LENS: ANDRADITE SKARN

Coarse grained andradite garnet skarn with good fine disseminated scheelite present throughout. The base of the unit may extend down to 67.9m, but also resembles ?mineralised marble marker. Some broken core is present at 63.4m

66.20 - ?70.50 ?MARBLE MARKER

Possible Marble Marker unit consisting of andradite and grossular (66.2 - 67.9m), marble (67.9 - 68.5m,), and pyroxene - grossular (68.5 - 69.0m).

The base of the unit is difficult to determine and may extend down to the fault at ?70.50m. This latter zone from 69.0 - 70.5m is mainly pyroxene and grossular garnet.

Minor scheelite is present.

?70.50 - ?70.80 FAULT

Broken and fractured, rubbly fault zone.

?70.80 - 76.25 ?BANDED FOOTWALL BEDS

Not typical Banded footwall beds or banded lower C, but consisting of mainly pyroxene hornfels interbedded with grossular and andradite garnet. Scheelite mineralisation is only poor to fair.

From 75.10 - 76.25m, the unit consists of mainly biotite hornfel/ pyroxene hornfels.

The core is generally broken and fractured.

Bedding	60^{o}	to	LCA	at 73m
Bedding	65^{o}			73.5m
Bedding	75^{o}			75.9m

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D220/13

76.25 - 76.90 **MARBLE**

Grey to white coloured, unmineralised marble.

76.90 - 80.55 **BIOTITE HORNFELS/PYROXENE HORNFELS**

Badly broken and disturbed unit consisting of biotite hornfels/ pyroxene hornfels, andradite garnet and numerous fault zones with pyroxene enrichment. Faults could be present throughout, particularly from/around 77.5 - 78.0m, 79.75 - 80.5m.

Some bedding is present - generally at 65^{o} to LCA.

Micro faulting and fracturing is common.

80.55 - 88.75 **LOWER VOLCANICS**

Typical coarse grained and spotted lower volcanics with no scheelite present.

88.75 - 93.0 **BIOTITE HORNFELS/PYROXENE HORNFELS**

Badly broken and fraftured biotite hornfels/pyroxene hornfels with no scheelite present. R.Q.D. is very low - incompetent.

EOH 93.0m

GEOPEKO - KING ISLAND

LOG OF D.D.H. No. D 220/12

PLANNING

PROPOSER: G. J. Bujtor DEPTH:

LOCATION:-75 m RL P16

PURPOSE OF HOLE: Determine Position of Decline Fault

CO-ORDS: 220220 E 564150 N

INCLINATION: + 23°

BEARING: 090 °GRID °MAG

TARGET: E N

Depth: 50 m

SURVEY

SURVEY CO-ORDS: E N

SURVEYED BEARING: 90° 57' °GRID °MAG

SURVEYED IN BY: DATE:

ACTUAL CO-ORDS: 220222.2 E 564150.6 N

R.L. OF COLLAR: -73.6

INCLINATION OF HOLE: 29° 00'

PICKED UP BY: B. Davies DATE: 4-1-79

SUMMARY

LOGGED BY: G. J. Bujtor

RESULTS: Decline Fault Intersected from 38.9 - 42.35 m

DRILLING

DATE COMMENCED: 19/11/78 DATE TERMINATED: 30/11/78

DRILLER/CONTRACTOR: ADD

CASING: SIZE: NQ
DEPTH: 2m

CORE: SIZE: NQ 46TT
DEPTH: 2.0m 42.35

WEDGE PLACED: DEPTH:

EXTENSION:

FINAL DEPTH: 42.35 m

REASON FOR TERMINATION:

CONDITION OF HOLE ON COMPLETION:

CASING:

CEMENTED:

BORE HOLE SURVEY: Surveyed to 39.0 m

WATER:

COMMENTS ON DRILLING CONDITIONS:

GEOPEKO LIMITED - KING ISLAND

SUMMARY BORE HOLE SURVEY DATA

D.D.H. No. D 220/12

Survey method: Single shot
Final depth: 42.35 m
Casing depth: 2 m

Depth surveyed to: 39.0 m
Date surveyed 30/11/78
Surveyed by: L. Denby
Checked by: A. Younger

Bearing			Inclination		True vertical Depth (m)	Co-ordinates	
Depth (m)	Grid	Mag.	Read	Corrected		N	E
0	91°			+ 29.0	0	0	0
9	92	82	62.25	+ 27.75	4.19	1.11	7.89
39	95	85	62,0	+ 28.0	18.28	3.42	34.26
42.35	95	85	62.0	+ 28.0	19.85	3.68	37.21
EOH	42.35 m						

REMARKS:

GEOPEKO LIMITED - KING ISLAND

CORE RECOVERY

D.D.H. No. D 220/12

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 1.8	1.8	1.8	100
1.8 - 3.2	1.4	1.4	100
3.2 - 6.1	2.9	2.9	100
6.1 - 8.8	2.7	2.7	100
8.8 - 11.8	3.0	3.0	100
11.8 - 14.8	3.0	3.0	100
14.8 - 17.8	3.0	3.0	100
17.8 - 19.9	2.1	2.1	100
19.9 - 22.75	2.85	2.85	100
22.75 - 25.70	2.95	2.95	100
25.7 - 28.6	2.9	2.9	100
28.6 - 29.6	1.0	1.0	100
29.6 - 31.2	1.6	1.6	100 broken
31.2 - 32.4	1.2	1.2	100 "
32.4 - 34.4	2.0	2.0	100
34.4 - 35.3	0.9	0.9	100
35.3 - 37.0	1.7	2.0	118
37.0 - 38.1	1.1	1.1	100
38.1 - 38.9	0.8	0.7	88 broken
38.9 - 39.45	0.55	0.45	82 broken
39.45 - 40.05	0.6	0.6	100 "
40.05 - 40.4	0.35	0.2	57 "
40.4 - 41.35	0.95	0.8	84 "
41.35 - 42.0	0.65	0.5	77 "
42.0 - 42.25	0.25	0.5	200 "
42.25 - 42.35	0.10	0.2	200 "
EOH 42.35 m			

GEOPEKO LIMITED - KING ISLAND

SUMMARY STRUCTURAL DATA

DDH No. D 220/12

DEPTH INTERVAL (METRES)	ROCK TYPE	FRAC-TURES /m	JOINT ANGLE (WRT LAOC)	JOINT FILLING	BEDDING ANGLE (W.R.T. L.A.O.C.)	% CORE RECO-VERY	R.Q.D.	REMARKS (WEATHERING)
0.0 - 8.65	B lens	8		Chl, clay, carb.	50°: 5 m	100	50	
8.65 - 28.6	Bh	8		" " "		100	74	
28.6 - 38.9	Bh	10-12		Chl, carb, clay sulph.		100	32	
38.9 - 42.35	Bh	FAULT ZONE		- DECLINE				
EOH 42.35 m								

FURTHER DATA & REMARKS

1. Detailed % core recoveries within each depth interval is shown in the core recovery tabulation.
2. R.Q.D. (rock quality designation) += $\frac{\text{Length Core 10 cm}}{\text{Length Drilled}}$ %
3. Core size. 46TT

GEOPEKO LIMITED - KING ISLAND

ASSAY DATA

D.D.H. No. D 220/12

Sample No.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	TO	Length	Length Recovered	WO_3	Mo		
D 8869	0	1	1.0	1.0	0.64	<0.01		
70	1	2	"	"	0.20	<0.01	3m @ 0.38% WO_3	
71	2	3	"	"	0.34	0.02		
72	3	4	"	"	<0.01	<0.01		

SPECIFIC GRAVITY

Depth (metres):

Rock Type :

S.G. :

Determined by:

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 220/12

0.0 - 8.65m B-LENS

Typical B-lens consisting of the following subdivisions

0.0 - 3.0m Skarn - pyroxene rich skarn with minor disseminated scheelite. Some grossular garnet is present.

3.0 - 8.65 Pyroxene Hornfels - greenish, fine grained Pyroxene Hornfels with minor zones/interbeds of biotite hornfels This unit may infact be altered Biotite hornfels overlying B-lens. No visible scheelite is present.

Bedding 50^{o} to LAC at 5m

8.65 - 38.90 BIOTITE HORNFELS

Massive, fine grianed Biotite hornfels with numerous Pyroxene Hornfels zones and patches, and abundant carbonate veining in places (18 - 20m, 28 - 35m).

Possible fault zones occur around 19.5m (rubble and carbonate, fractured), and 31.2m (fratured and abundant carbonate), 35.3m (rubble), 37m (clayey, rubble).

A small granite - aplite dyke occurs form 9.0 - 9.15m.

?Bedding 65^{o} to LCA at 16.8m

38.90 - 42.35m FAULT ZONE - DECLINE

Badly broken, fractured, brecciated, rubbly fault zone with no visible scheelite present. The unit consists solely of Biotite Hornfels with minor Pyroxene.

EOH 42.35m.

GEOPEKO - KING ISLAND

LOG OF D.D.H. No. D 220/11

PLANNING

PROPOSER: G. J. Bujtor **DEPTH:**

LOCATION: -75m RL

PURPOSE OF HOLE: To Oreblock B-Lens

CO-ORDS: 220220 E E 564 175 N N

INCLINATION: -90°

BEARING: °GRID °MAG

TARGET: E N

SURVEY

SURVEY CO-ORDS: E N

SURVEYED BEARING: 203° 32' °GRID °MAG

SURVEYED IN BY: **DATE:**

ACTUAL CO-ORDS: 220219.3 E 564170.2 N

R.L. OF COLLAR: -75.0

INCLINATION OF HOLE: -88° 11'

PICKED UP BY: B. Davies **DATE:** 12/10/78

SUMMARY

LOGGED BY: A. Younger

RESULTS: B-lens 3.5 m 2m @ 1.01% WO_3

DRILLING

DATE COMMENCED: 21/9/78 **DATE TERMINATED:** 22/9/78

DRILLER/CONTRACTOR: KIS M5

CASING: **SIZE:**
DEPTH:

CORE: **SIZE:** AQ
DEPTH: 20.7

WEDGE PLACED: **DEPTH:**

EXTENSION:

FINAL DEPTH: 20.7

REASON FOR TERMINATION:

CONDITION OF HOLE ON COMPLETION:

CASING:

CEMENTED:

BORE HOLE SURVEY: Hole Not surveyed

WATER:

COMMENTS ON DRILLING CONDITIONS:

GEOPEKO LIMITED - KING ISLAND

SUMMARY BORE HOLE SURVEY DATA

D.D.H. No. D 220/11

Survey method: Survey
Final depth: 20.7 m
Casing depth: Nil

Depth surveyed to: 20.7m
Date surveyed 12/10/78
Surveyed by: W. Davies
Checked by: G. J. Bujtor

Bearing			Inclination		True vertical Depth (m)	Co-ordinates	
Depth (m)	Grid	Mag.	Read	Corrected		S	W
0	213.5	203.5		-88.2	0	0	0
1	213.5	203.5	2	-88	1.0	0.03	0.01
20.7	213.5	203.5	2	-88	20.7	0.67	0.29

REMARKS:

GEOPEKO LIMITED - KING ISLAND

CORE RECOVERY

D.D.H. No. D 220/11

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 3.2	3.2	1.9	59
3.2 - 6.8	3.6	3.05	88
6.8 - 9.0	2.2	0.8	36
9.0 - 11.8	2.8	2.45	88
11.8 - 14.8	3.0	3.0	100
14.8 - 17.46	2.66	2.75	103
17.46 - 18.9	1.44	0.4	28
18.9 - 20.2	1.3	1.3	100
20.0 - 20.7	0.5	0.5	100
			78

GEOPEKO LIMITED - KING ISLAND

SUMMARY STRUCTURAL DATA

DDH No. D 220/11

DEPTH INTERVAL (METRES)	ROCK TYPE	FRAC-TURES /m	JOINT ANGLE (WRT LAOC)	JOINT FILLING	BEDDING ANGLE (W.R.T. L.A.O.C.)	% CORE RECO-VERY	R.Q.D.	REMARKS (WEATHERING)
0.0 - 17.37	B L E N S							
0.0 - 0.2	Ph	-	-	Clay	-	60	0	
0.2 - 2.6	Ch	20	80^{o}	Clay, carb	-	60	0	
2.6 - 10.2	Gph	10	80^{o}	Chl, carb	-	70	28	RQD
10.2 - 14.95	Ch	6	80^{o}	carb	45^{o}	100	74	45
14.95 - 17.37	Gph	5	$60-70^{o}$	Carb, chl	-	100	88	
17.37 - 20.7	Bh	8	$50-60^{o}$	Chl, clay	-	100	32	

FURTHER DATA & REMARKS

1. Detailed % core recoveries within each depth interval is shown in the core recovery tabulation.
2. R.Q.D. (rock quality designation) $= \frac{\text{Length Core 10 cm}}{\text{Length Drilled}}$ %
3. Core size.

GEOPEKO LIMITED - KING ISLAND

ASSAY DATA

D.D.H. No. D 220/11

Sample No.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	TO	Length	Length Recovered	WO_3	Mo		
D 8419	0	1	1.0	1.0	0.06	0.01		
20	1	2	"	"	0.01	0.01		
21	2	3	"	"	0.02	0.02		
22	3	4	"	"	0.82	<0.01		
23	4	5	"	"	1.20	<0.01		
24	5	6	"	"	0.12	<0.01		
25	6	7	"	"	0.06	0.01		
26	7	8	"	"	0.13	0.03		
27	8	9	"	"	<0.01	<0.01		
28	9	10	"	"	0.02	<0.01		
29	10	11	"	"	0.32	<0.01		
30	11	12	"	"	0.07	<0.01		
31	12	13	"	"	0.03	0.01		

SPECIFIC GRAVITY

Depth (metres):

Rock Type :

S.G. :

Determined by:

GEOPEKO - KING ISLAND

GEOLOGICAL LOG

D.D.H. No. D 220/11

0.0 - 17.37 B LENS

0.0 - 0.2 m Pyroxene hornfels

Pale green pyroxene hornfelswith trace of mineralization, very broken due to mining.

0.2 - 2.6 Marble

Typical grey Blens marble still fairly broken due to mining.
F/m about 20 at about 80° to the LCA.

2.6 - 10.2 Garnet Pyroxene Hornfels

Normal unprepocessing B lens skarn at variable garnet and pyroxene contents. Some minor grossular garnet is present.

Scheelite mineralization is irregular in distribution and grain size.

F/m average about 10 mostly at about 80° to the LCA.

10.2 - 14.95 Marble

Typical B lens barren marble. Bedding is common at about 45° to the LCA. F/m average about 6 at about 80° to the LCA.

14.95 - 17.37 Garnet Pyroxene Hornfels

Very variable andradite and grossualr garnet with pyroxene and calcite skarn with fairly regular fine grained scheelite mineralization.

F/m average about 5 mostly at 60 - 70° to the LCA.

Broken zones occur

0.0 - 2.0 m mining
3.6 - 3.8 m
8.7 - 9.0 m
9.2 - 9.3 m
12.5 - 12.3 m which is clayey

GEOPEKO - KING ISLAND

GEOLOGICAL LOG

D.D.H. No. D 220/11

17.37 - 20.7 Biotite Hornfels

Typical brown biotite hornfels with some minor zones of pyroxene alteration. Bedding not apparent. F/m about 8 mostly at 50 - 60° to LCA.

From 17.46 - 18.9 m a major fault occurs and there is a large loss in core. Fault appears to be at about 40° to the LCA.

EOH 20·7m

GEOLOGY - KING ISLAND SCHEELITE

CHECK ASSAY DATA

D.D.H. No. D 220/11

LAB.	K.I.S.		LAB.	K.I.S. CHECK		LAB.	AMDEL		LAB.	A.C.S.L.		
Original Sample No.	WO_3	Mo	Check Sample No.	WO_3	Mo	Check Sample No.	WO_3	Mo	Check Sample No.	WO_3	Mo	
8429	0.32	<0.01	11811	0.31		11812	0.36		11813	0.34		

GEOPEKO - KING ISLAND

LOG OF D.D.H. No. D 220/10

PLANNING

PROPOSER: G. J. Bujtor DEPTH:

LOCATION: -75 m RL

PURPOSE OF HOLE: To Oreblock B-lens

CO-ORDS: 220220 E 564175 N

INCLINATION: -8^{o}

BEARING: 0 ^{o}GRID ^{o}MAG

TARGET: E N

SURVEY

SURVEY CO-ORDS: E N

SURVEYED BEARING: 358^{o} 00' ^{o}GRID ^{o}MAG

SURVEYED IN BY: DATE:

ACTUAL CO-ORDS: 220219.3 E 564173.7 N

R.L. OF COLLAR: -75.9

INCLINATION OF HOLE: -8^{o} 10'

PICKED UP BY: B. Davies DATE: 12/10/78

SUMMARY

LOGGED BY: A. Younger

RESULTS: B-lens 15-18m, 3m @ 0.80% WO_3

DRILLING

DATE COMMENCED: 21/9/78 DATE TERMINATED: 23/9/78

DRILLER/CONTRACTOR: KIS M5

CASING: SIZE:
DEPTH:

CORE: SIZE: AQ
DEPTH:

WEDGE PLACED: DEPTH:

EXTENSION:

FINAL DEPTH: 25.9

REASON FOR TERMINATION: Though B lens and Northern Boundary Fault

CONDITION OF HOLE ON COMPLETION:

CASING:

CEMENTED:

BORE HOLE SURVEY: Not Surveyed

WATER:

COMMENTS ON DRILLING CONDITIONS:

GEOPEKO LIMITED - KING ISLAND

SUMMARY BORE HOLE SURVEY DATA

D.D.H. No. D 220/10

Survey method: Survey Pick up
Final depth: 25.9 m
Casing depth: Nil

Depth surveyed to: 25.9 m
Date surveyed 12/10/78
Surveyed by: W. Davies
Checked by: G. J. Bujtor

Bearing			Inclination		True vertical Depth (m)	Co-ordinates	
Depth (m)	Grid	Mag.	Read	Corrected		N	W
1m	008	358	82	-8	0.14	0.99	0.03
12m	008	358	81	-9°	1.86	11.84	0.41
15m	008	358	81.25	-8.75°	2.32	14.8	0.51
25.9m	008	358	81.58	-8.75	3.98	25.56	0.89

REMARKS:

GEOPEKO LIMITED - KING ISLAND

CORE RECOVERY

D.D.H. No. D 220/10

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 3.5	3.5	2.5	71
3.5 - 7.0	3.5	3.3	94
7.0 - 10.0	3.0	3.15	105
10.0 - 13.0	3.0	2.7	90
13.0 - 15.5	2.5	2.0	80
15.5 - 16.6	1.1	1.1	100
16.6 - 18.6	2.0	2.05	103
18.6 - 20.6	2.0	1.9	95
20.6 - 23.4	2.8	2.55	91
23.4 - 25.4	2.0	0.75	43
25.4 - 25.9	0.5	0.5	100
			88

GEOPEKO LIMITED - KING ISLAND

SUMMARY STRUCTURAL DATA

DDH No. D 220/10

DEPTH INTERVAL (METRES)	ROCK TYPE	FRAC-TURES /m	JOINT ANGLE (WRT LAOC)	JOINT FILLING	BEDDING ANGLE (W.R.T. L.A.O.C.)	% CORE RECO-VERY	R.Q.D.	REMARKS (WEATHERING)
0.0 - 20.5	B L E N S							
0.0 - 3.1	Ph	30+	70-80°	Clay	-	71	0	45
3.1 - 4.2	Gph	12	70-80°	Clay carb	-	75	16	
4.2 - 13.4	Ch	10	50-70°	Carb, clay	20°	95	53	
13.4 - 20.5	Gph	12	60-70°	Carb	-	100	58	
20.5 - 25.0	Bh	15	50-70°	Chl, carb	30°	95	90	
25.1 - 25.1	N O R T H E R N B O U N D A R Y F A U L T							
25.1 - 25.9	Qtz	20+	0-90°	Chl	-	80	25	

FURTHER DATA & REMARKS

1. Detailed % core recoveries within each depth interval is shown in the core recovery tabulation.
2. R.Q.D. (rock quality designation) += $\frac{\text{Length Core 10 cm}}{\text{Length Drilled}}$ %
3. Core size. AQ

GEOPEKO LIMITED - KING ISLAND

ASSAY DATA

D.D.H. No. D 220/10

Sample No.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	TO	Length	Length Recovered	WO_3	Mo		
D 8407	0	1	1.0	1.0	0.16	0.02		
08	1	2	"	"	0.14	0.01		
09	2	3	"	"	0.19	0.05		
10	3	4	"	"	0.04	<0.01		
11	11	12	"	"	0.03	<0.01		
12	12	13	"	"	0.31	0.05		
13	13	14	"	"	0.10	0.02		
14	14	15	"	"	0.07	0.03		
15	15	16	"	"	0.88	0.02		
16	16	17	"	"	1.12	0.01		
17	17	18	"	"	0.39	0.01		
18	18	19	"	"	0.06	0.02		

SPECIFIC GRAVITY

Depth (metres):

Rock Type :

S.G. :

Determined by:

GEOPEKO - KING ISLAND

GEOLOGICAL LOG

D.D.H. No. D 220/10

0.0 20.5 B LENS

0.0 - 3.1 Pyroxene hornfels

Pale green slightly mineralized pyroxene hornfels. Highly broken with F/m rate 30+ mostly at 70-80° to LCA.

3.1 - 4.2 Garnet Pyroxene hornfels

Variable patchy skarn with irregular scheelite mineralization. F/m rate about 12 at about 70-80° to the LCA

4.2 - 13.4 Marble

Unaltered fairly pure B lens marble.
F/m about 10 at about 50 - 70° to LCA.
Bedding is not common but is at about 20° to the LCA.

13.4 - 20.5 Barnet Pyroxene hornfels

Variable skarn with some areas of high andradite garnet content, scheelite mineralization fairly uniform medium grade.
F/m about 12 at about 60 - 70° to LCA.

Numerous fault zones occur:

2.5 - 2.7 m
3.7 - 3.8 m
5.5 - 5.6 m clay filled
7.6 - 7.7 m clay
8.3 - 8.3 m carb filled
11.1 - 11.4 m clay carb
13.1 - 13.5 m clay major
15.3 - 15.6 m
16.9 - 17.25m leached zone
18.5 - 18.65m minor clay and
19.6 - 19.9 m

GEOPEKO - KING ISLAND

GEOLOGICAL LOG

D.D.H. No. D 220/10

20.5 - 25.1 BIOTITE HORNFELS

Fairly typical biotite hornfels some minor pyroxene alteration.
Bedding about 30° to LCA.
F/m about 15 mostly about 50 - 70° to LCA.

Major fault 25.0 - 25.1 clay and carbonate fill at about 60° to the LCA is the Northern Boundary Fault.

25.1 - 25.9 QUARTZITE

Fine grained grey quartzite, very broken with F/m 20+ at all angles to the LCA.

EOH 25.9

GEOLOGY - KING ISLAND SCHEELITE

CHECK ASSAY DATA

D.D.H. No. D 220/10

LAB.	K.I.S.		LAB.	K.I.S. CHECK		LAB.	AMDEL		LAB.	A.C.S.L.		
Original Sample No.	WO_3	Mo	Check Sample No.	WO_3	Mo	Check Sample No.	WO_3	Mo	Check Sample No.	WO_3	Mo	
8409	0.19	0.05	11808	0.19		11809	0.24		11810	0.13		

GEOPEKO LIMITED - KING ISLAND

LOG OF D.D.H. NO. D 220/9

PLANNING

Proposer: M. Danielson **Depth:** 70m

Location: W 28 86 -116m R.L.

Purpose of hole: B lens oreblocking

Co-ordinates: 220 220 **E** 564195 **N**
Inclination: +90 **Magnetic:**
Bearing **Grid** **Target Depth:**
Target: **E** **N**
Approved by: M.C. Rogers **Date:** 1/4/77

SURVEY

Survey Co-ords: **E** **N**
Survey bearing: 358° 50' **Grid** **Magnetic:**
Surveyed in by: **Date:**
Actual Co-ords: 220 218.12 **E** 564 198.02 **N**
R.L. of Collar: B-115.75 **Inclination of Hole:** +87°00'
Picked up by: R.J.H. **Date:** 10/5/77

SUMMARY

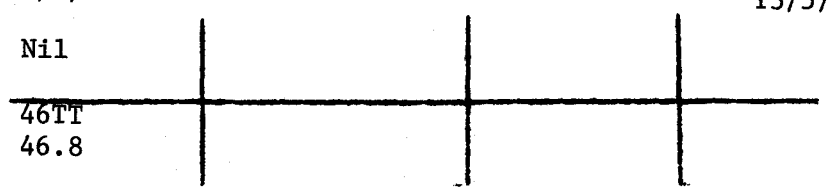
Logged by: M.J. Danielson
Results: C lens (pgh) 2 - 5m 3m @ 1.61% WO_3.

DRILLING

Driller/Contractor: A.D.D.

Date commenced: 23/4/77 **Date terminated:** 13/5/77

Casing: **Size:** Nil
Depth:
Core: **Size:** 46TT
Depth: 46.8



Wedge Runoff:
Wedge placed: Nil **Depth:**
Proposed by: **Approved by:**
Reason:

Extension: Nil
Reason for termination: Hole in quartzites North of Boundary Fault

Condition of hole on completion: **Final depth:** 46.8
Casing: No
Cemented: No
Bore hole survey: Multishot to 45m
Water: Nil

Comments on drilling conditions: Poor ground due to Northern Boundary Fault.

GEOPEKO LIMITED - KING ISLAND

CORE RECOVERY

D.D.H. No. Dolphin 220/9

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0 - 2.9	2.9	2.9	100
4.5	1.6	1.5	94
6.2	1.7	1.65	97
10.1	3.9	3.9	100
11.0	0.9	0.9	100
12.2	1.2	1.2	100
15.2	3.0	2.92	97
18.2	3.0	2.95	98
21.2	3.0	3.0	100
24.2	3.0	3.0	100
27.2	3.0	3.0	100
30.2	3.0	3.0	100
30.7	0.5	0.5	100
33.0	2.3	2.3	100
36.0	3.0	3.0	100
37.0	1.0	1.0	100
39.5	2.5	2.5	100
40.1	0.6	0.6	100
40.2	0.1	0.1	100
40.6	0.4	0.4	100
42.3	1.7	0.7	41
43.6	1.3	1.0	77
45.5	1.9	1.5	79
46.8	1.3	1.3	100
E.O.H.			

GEOPEKO LIMITED - KING ISLAND

SUMMARY BORE HOLE SURVEY DATA

D.D.H No. D225/9

Survey method: Multishot camera
Final depth : 46.8m
Casing depth : Nil

Depth surveyed to: 45.0
Date surveyed: 13/5/77
Surveyed by : L. Denby
Checked by : M.J.D

Depth (m)	Bearing		Inclination		True vertical Depth (m)	Co-ordinates	
	Grid	Mag.	Read	Corrected			
9	325	315	5.75	+84/25	+8.96	0.61	0.67
18	006	356	6.75	+83.25	+17.88	1.51	0.98
27	017	007	8.25	+81.75	+26.72	2.73	0.84
36	018	008	8.5	+81.5	+35.60	4.07	0.62
45	017	007	8.75	+81.25	+44.48	5.45	0.48

REMARKS:

GEOPEKO LIMITED - KING ISLAND

SUMMARY STRUCTURAL DATA

D.D.H. No. D220/9

Depth Interval (metres)	Rock Type	Fractures /m.	Joint Angle (wrt LAOC)	Joint Filling	Bedding Angle (w.r.t. L.A.O.C.)	% Core Recovery	R.Q.D.	Remarks (weathering)
0 - 24.2	pgh/bh	5		clay		99	75	broken ground 22.8 - 24.2
24.2 - 30.2	Q	+20		clay		100	42	Fault zone 25.3 - 27.0
30.2 - 46.8	Q	+20		clay		90	1	

FURTHER DATA & REMARKS

1. Detailed % core recoveries within each depth interval is shown in the core recovery tabulation.
2. R.Q.D. (rock quality designation) $+= \frac{\text{length core } >10 \text{ cms}}{\text{length drilled}}$ %
3. Core size.

   46TT = 36mms dia.

GEOPEKO LIMITED - KING ISLAND

ASSAY DATA

D.D.H. No. DOLPHIN 220/9

Sample No.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Recovered	WO_3	Mo		
D5666	0	1	1.0	1.0	0.07	< 0.01		
67	1	2	"	"	0.23	0.01		
68	2	3	"	"	3.81	0.17	Pgh C lens	
69	3	4	"	"	0.27	0.01	3m @ 1.61% WO_3	
70	4	5	"	"	0.75	0.03		
5671	5	6	"	"	< 0.01	< 0.01		

SPECIFIC GRAVITY

Depth (m):
Rock Type:
S.G. :

Determined by:

GEOPEKO LIMITED - KING ISLAND

GEOLOGICAL LOG

D.D.H. No. D 220/9

0 - 6.0	PYROXENE GARNET HORNFELS
	Pale green pyroxene hornfels containing white carbonate fragments usually less than 1cm dia. Minor mineralisation. Coarse scheelite. at 2.5m. Assay 2-3m 3.81% WO_3
6.0 - 25.3	BIOTITE HORNFELS
	Barren grey brown fine grained hornfels. No bedding.
25.3 - 27.0	FAULT ZONE
	Clay pug zone. No structural strength.
27.0 - 29.3	SHEARED BIOTITE HORNFELS
	Brown grey barren lineated biotite hornfels. Moderate carbonate veining.
29.3 - 46.8 E.O.H.	QUARTZITE
	Barren grey heavily broken quartzite.

GEOPEKO LIMITED - KING ISLAND

LOG OF D.D.H. NO. D 220/8

PLANNING

Proposer: M. Danielson

Depth: 45m

Location: Wedge area 3rd lift.

Purpose of hole: B lens ore blocking

Co-ordinates: 220 220 E 564 113 N
Inclination: +90°
Bearing Grid
Target: E N
Approved by: M.C Rogers

Magnetic:
Target Depth:
Date: 1/12/76

SURVEY

Survey Co-ords: E N
Survey bearing: 337° 40' Grid
Surveyed in by:
Actual Co-ords: 220 218.24 E 564 112.85 N
R.L. of Collar: B-116.0
Picked up by: R.J.H

Magnetic:
Date:
Inclination of Hole: 87° 30'
Date: 20/12/76

SUMMARY

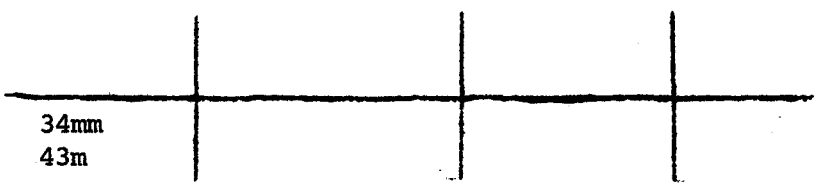
Logged by: M. Danielson
Results:
B lens 22 -29m 7m @ 0.75% WO_3

DRILLING

Driller/Contractor: A.D.D.

Date commenced: 17/12/76 Date terminated: 20/12/76

Casing: Size:
Depth:
Core: Size: 34mm
Depth: 43m



Wedge Runoff: Nil
Wedge placed: Depth:
Proposed by: Approved by:
Reason:
Extension: Nil
Reason for termination: Hole passed above B lens sequence

Condition of hole on completion: Final depth: 43m
Casing: Nil
Cemented: No
Bore hole survey: Surveyed to 42m.
Water: Minor trickle

Comments on drilling conditions:

GEOPEKO LIMITED - KING ISLAND

CORE RECOVERY

D.D.H. No. D 220/8

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0. - 3.3.	3.3	3.0	91
6.3	3.0	3.0	100
9.3	3.0	3.0	100
12.3	3.0	3.0	100
15.3	3.0	2.95	98
18.3	3.0	3.0	100
21.3	3.0	3.0	100
22.0	0.7	0.6	86
25.0	3.0	3.0	100
28.0	3.0	3.0	100
31.0	3.0	3.0	100
34.0	3.0	3.0	100
37.0	3.0	3.0	100
40.0	3.0	3.0	100
43.0	3.0	3.0	100
E.O.H.			

GEOPEKO LIMITED - KING ISLAND

SUMMARY BORE HOLE SURVEY DATA

D.D.H No. D220/8

Survey method: Multishot camera

Final depth : 43.0m

Casing depth : Nil

Depth surveyed to: 42m

Date surveyed: 20/12/76

Surveyed by : M.J.D.

Checked by :

Depth (m)	Bearing		Inclination		True vertical Depth (m)	Co-ordinates	
	Grid	Mag.	Read	Corrected			
12	180	170		+88	12.0	0.38	0.08
24	182	172		+87.5	24.0	0.88	0.16
42	190	180		+87.5	42.0	1.66	0.22

REMARKS:

GEOPEKO LIMITED - KING ISLAND

SUMMARY STRUCTURAL DATA

D.D.H. No. D 220/8

Depth Interval (metres)	Rock Type	Fractures /m.	Joint Angle (wrt LAOC)	Joint Filling	Bedding Angle (w.r.t. L.A.O.C.)	% Core Recovery	R.Q.D.	Remarks (weathering)
0 - 12.3	pgh	3		clay carbonate		98	89	
12.3 - 21.3	bh	8		clay		100	62	20.5 - 21.3 montmorillonite on fracture surfaces.
21.3 - 34.0	B lens	4		clay, minor carbonate	31m: 30°	99	86	33.5 - 34.0 heavily broken
34.0 - 43.0	bh	8		clay carbonate	36m: 60°	100	74	

FURTHER DATA & REMARKS

1. Detailed % core recoveries within each depth interval is shown in the core recovery tabulation.
2. R.Q.D. (rock quality designation) += $\frac{\text{length core >10 cms}}{\text{length drilled}}$ %
3. Core size. 34.0 mms dia.

GEOPEKO LIMITED - D 220/8

ASSAY DATA

D.D.H. No. Dolphin 220/8

Sample No.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Recovered	WO_3	Mo		
D5343	21	22	1.0	1.0	<0.01	0.01		
4	22	23	1.0	1.0	0.51	0.03		
5	23	24	1.0	1.0	0.62	0.03		
6	24	25	1.0	1.0	0.30	0.02	22 - 29m	
7	25	26	1.0	1.0	0.21	0.01		
8	26	27	1.0	1.0	0.36	0.01	7m @ 0.75% WO_3	
9	27	28	1.0	1.0	1.46	0.07		
50	28	29	1.0	1.0	1.82	0.06		
1	29	30	1.0	1.0	0.23	0.01		
2	30	31	1.0	1.0	<0.01	0.03		
3	31	32	1.0	1.0	0.16	0.01		
D5354	32	33	1.0	1.0	0.19	0.01		

SPECIFIC GRAVITY

Depth (m):
Rock Type:
S.G. :

Determined by:

GEOPEKO LIMITED - KING ISLAND

CHECK ASSAY DATA

D.D.H. 220/8

LAB.	K.I.S.		LAB.	K.I.S.		LAB. A.M.D.E.L.			LAB. A.C.S.L.			
Original Sample No.	WO_3	Mo	Check Sample No.	WO_3	Mo	Check Sample No.	WO_3	Mo	Check Sample No.	WO_3	Mo	
D5348	0.36	0.01	D5550	0.35		D5551	0.40		D5552	0.37		

GEOPEKO LIMITED - KING ISLAND

GEOLOGICAL LOG

D.D.H. No. D220/8

0. - 13.45	PYROXENE GARNET HORNFELS
	Mostly pale green pyroxene hornfels with minor carbonate occasionally in form of pods and brown grossular garnet. Minor pyrite.
	The unit is unmineralised except for some coarse scheelite.
	5.3 - 5.4
	7.65 - 7.70
	11.50 - 11.55
	11.7 - 11.75
13.45 - 21.0	BIOTITE HORNFELS
	Barren grey brown bh. Ground conditions deteriorate at contact with B lens.
21.0 - 33.5	B LENS
	The whole unit could be described as a pyroxene rich grossular and andradite garnet hornfels. Variable mineralisation throughout.
	Ground conditions good but deteriorate at contact with overlying bh.
33.5 - 43.0	BIOTITE HORNFELS
	Barren grey brown bh.
43.0m E.O.H.	

GEOPEKO LIMITED - KING ISLAND

LOG OF D.D.H. No. D 220/7

PLANNING

Proposer: M.C. Rogers. Depth: 30m.

Location: P.16 N. cross-cut.

Purpose of hole: B Lens exploration.

Co-ordinates: 220 220 E 564130 N

Inclination: -90° Magnetic

Bearing: 360° Grid Target depth:

Target: E N

Approved by: M.C. Rogers. Date: 8/5/75

SURVEY

Survey Co-ords: E N

Survey bearing: Grid Magnetic

Surveyed in by: Date:

Actual Co-ords: 220220.5 E 564131.0 N

R.L. of collar: -73.9 Inclination of hole:

Picked up by : R.J.H. Date: 22/5/75

SUMMARY

Logged by : M.J. Danielson.

Results: B Lens. 3 - 14m [illegible]m @ 0.53% WO_3

DRILLING

Driller/Contractor: A.D.D.

Date commenced: 19.5.75 Date terminated: 24.5.75

Casing:	Size :	BX			
	Depth :	1.52			
Core:	Size :	A17			
	Depth :	28.35			

Wedge Runoff:

Wedge placed: NIL Depth:

Proposed by : Approved by:

Reason:

Extension: NIL

Reason for termination: Hole passed out of b lens sequence. Final depth: 28.35m

Condition of hole on completion:

Casing : 1.52 BX remains.

Cemented : Yes

Bore hole survey: Survey to 27.43m.

Water: NIL

Comments on drilling conditions:

GEOPEKO LIMITED - KING ISLAND

CORE RECOVERY

D.D.H. No. D 220/7

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	RECOVERED % CORE
0 - 3.66	3.66	2.75	75
4.27	.61	.61	100
4.88	.61	.70	115
5.79	.91	.91	100
7.62	1.83	1.81	99
8.84	1.22	1.24	102
11.89	3.05	3.05	100
14.93	3.04	3.00	99
17.98	3.05	3.03	99
21.03	3.05	3.01	99
24.08	3.05	3.05	100
25.91	1.83	1.92	105
28.35	2.44	2.44	100
E.O.H.			

GEOPEKO LIMITED - Dolphin Mine

SUMMARY BORE HOLE SURVEY DATA

D.D.H. No. D 220/7

Survey method : Multishot camera.
Final depth : 28.35m
Casing depth : 1.52m

Depth surveyed to : 27.43m
Date surveyed : 24/5/75
Surveyed by : M.J. Danielson.
Checked by : " "

DEPTH	Bearing		Inclination		True Vertical Depth	Co-oridinates	
	Grid	Mag.	Read	Corrected		E	N
27.430	211	202	0.5°	-89.5°	-27.429	--	--

REMARKS

GEOPEKO LIMITED - KING ISLAND

SUMMARY STRUCTURAL DATA

D.D.H. No. D 220/7

Depth Interval (metres)	Rock Type	Fract-ures/m.	Joint Angle (w.r.t. L.A.O.C.)	Joint Filling	Bedding Angle (w.r.t. L.A.O.C.	% Core Reco-very	R.Q.D.	Remarks (weathering)
0 - 5.79	ph ch gph	+10		clay	1m:32°	86	15	Core very rubbly in this section.
5.79 - 28.35m	gph ch bph	5		clay & carbon-ate.	25m:55° 28m:45°	100	70	

FURTHER DATA & REMARKS

1. Detailed % core recoveries within each depth interval is shown in the core recovery tabulation.
2. R.Q.D. (rock quality designator). = $\frac{\text{length core} > 10 \text{ cms}}{\text{length } \sout{\text{recovered}} \text{ DRILLED}}$ %
3. Core size. A.17 (32mms. dia.).

GEOPEKO LIMITED - DOLPHIN MINE

ASSAY DATA

D.D.H. No. D 220/7

SAMPLE No.	DEPTH (METRES)				ELEMENTS					COMMENTS
	From	To	Length	Length Recovered	WO_3	Mo				
D3766	0	1	1.0	0.84	0.01	<0.01				
7	1	2	"	0.65	0.55	0.01				
8	2	3	"	0.68	0.04	<0.01				
9	3	4	"	0.90	0.32	<0.01				
70	4	5	"	1.0	0.23	<0.01				
1	5	6	"	"	0.79	0.01				B Lens
2	6	7	"	"	1.02	0.03				
3	7	8	"	"	0.94	0.03				11m @
4	8	9	"	"	0.64	0.01				
5	9	10	"	"	0.37	0.01				0.53% WO_3
6	10	11	"	"	0.27	<0.01				
7	11	12	"	"	0.54	0.01				
8	12	13	"	"	0.28	<0.01				
9	13	14	"	"	0.41	0.01				
80	14	15	"	"	0.19	<0.01				
D3781	15	16	"	"	0.12	<0.01				

SPECIFIC GRAVITY

Depth (m) :
Rock Type :
S.G. :

Determined by:

GEOPEKO LIMITED - KING ISLAND

CHECK ASSAY DATA

D.D.H. D220/7

LAB.	K.I.S.		LAB.	K.I.S.		LAB. A.M.D.E.L.			LAB. A.C.S.L.			
Original Sample No.	WO_3	Mo	Check Sample No.	WO_3	Mo	Check Sample No.	WO_3	Mo	Check Sample No.	WO_3	~~Mo~~ WO_3 - check	A.C.S.L. & repeat sample.
D 3767	0.55	0.01	D 3947	0.49	<0.01	D 3948	0.62		D 3949	0.99	0.97	
3773	0.94	0.03	3950	1.44	0.03	3951	1.60		3952	1.75	1.75	
D 3780	0.19	<0.01	D 3953	0.17	<0.01	D 3954	0.26		D 3956	0.29		

GEOPEKO LIMITED - KING ISLAND

GEOLOGICAL LOG

D.D.H. No. D 220/7

0 - 1.0m	**PYROXENE HORNFELS** Very weak desseminated scheelite in a dominantly pale green pyroxene hornfels.
1.0 - 4.50m	**CALCITE GARNET HORNFELS** Dominantly a grey ch and greenish brown gph. Variable desseminated scheelite.
4.50 - 15.50m	**GARNET PYROXENE HORNFELS** Variable desseminated scheelite in a green brown pyroxene rich grossular and minor andradite garnet skarn.
15.50 - 20.10m	**MARBLE** Barren grey ch. Bedding 17m = 50° L.A.O.C.
20.10 - 28.35m	**BIOTITE PYROXENE HORNFELS** Dominantly a barren grey brown bh with frequent thin (< 0.5cm), green interbeds of ph. Bedding: 24m 50° L.A.O.C. 27m 50° "
28.35m E.O.H.	

GEOPEKO LIMITED - KING ISLAND

LOG OF D.D.H. No. D 220/6

PLANNING

Proposer: M.C. Rogers. Depth: 40m.

Location: P16 N X-C

Purpose of hole: Exploration of B lens.

Co-ordinates: 220 220 E 564 130 N

Inclination: -32° Magnetic

Bearing: 360° Grid Target depth:

Target: E N

Approved by: M.C. Rogers. Date: 8/5/75

SURVEY

Survey Co-ords: E N

Survey bearing: 02°00' Grid Magnetic

Surveyed in by: Date:

Actual Co-ords: 220 220.6 E 564 131.8 N

R.L. of collar: -73.9 Inclination of hole: -33°50'

Picked up by : R.J.H. Date: 14/5/75

SUMMARY

Logged by : M.J. Danielson.

Results: B lens 9 - 14m 5m @ 0.45% WO_3
B lens 18 - 24m 6m @ 0.33% WO_3

DRILLING

Driller/Contractor: A.D.D.

Date commenced: 8/5/75 Date terminated: 19/5/75

Casing:	Size :	BQ
	Depth :	1.52
Core:	Size :	A17
	Depth :	36.12

Wedge Runoff:

Wedge placed: NIL Depth:

Proposed by : Approved by:

Reason:

Extension: NIL

Reason for termination: Hole passed out of B lens sequence. Final depth: 36.12m.

Condition of hole on completion:

Casing : 1.52m BX remains.

Cemented : Yes.

Bore hole survey: No. On completion the collar pipe was bent by an under/ground vehicle.

Water: Nil

Comments on drilling conditions:

GEOPEKO LIMITED - KING ISLAND

CORE RECOVERY

D.D.H. No.D 220/6

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	RECOVERED % CORE
0 - 1.68	1.68	.67	40
2.29	.61	.41	67
3.66	1.37	.81	59
5.94	2.28	1.90	83
7.01	1.07	1.03	96
10.21	3.20	3.13	98
13.26	3.05	2.93	96
13.71	.45	.68	151
15.85	2.14	2.07	97
18.14	2.29	2.15	94
21.18	3.04	3.13	103
24.23	3.05	3.05	100
27.28	3.05	2.90	95
30.33	3.05	2.75	97
33.38	3.05	3.05	100
36.12	2.74	2.12	77
E.O.H.			

GEOPEKO LIMITED - KING ISLAND

SUMMARY STRUCTURAL DATA

D.D.H. No. D 220/6

Depth Interval (metres)	Rock Type	Fractures/m.	Joint Angle (w.r.t. L.A.O.C.)	Joint Filling	Bedding Angle (w.r.t. L.A.O.C.	% Core Recovery	R.Q.D.	Remarks (weathering)
0 - 7.01	gph, ch	5		carbonate		69	30	Significant core loss 0 - 5.94 Core appears to have ground away in barrel.
7.01 - 24.06	ch, gph	4		clay, minor carbonate.		99	90	leached ch 15.85m
24.06 - 27.08	fault zone, bph.	24 - 25 + 20 25 - 27 8		clay		96	42	Fault zone 24 - 25m
27.08 - 36.12 E.O.H.	ch gph bh	8		clay		92	33	Bad ground 35.18 - 36.12 core loss 33.38 - 36.12.

FURTHER DATA & REMARKS

1. Detailed % core recoveries within each depth interval is shown in the core recovery tabulation.
2. R.Q.D. (rock quality designator). = $\frac{\text{length core} > 10 \text{ cms}}{\text{length } \sout{\text{recovered}} \text{ DRILLED}}$ %
3. Core size.
   0 - 36.12m A17. (32mms dia.)

GEOPEKO LIMITED - DOLPHIN MINE

ASSAY DATA

D.D.H. No.D 220/6

SAMPLE No.	DEPTH (METRES)				ELEMENTS					COMMENTS
	From	To	Length	Length Recovered	WO_3	Mo				
D3694	0	2	2.0	0.95	1.75	0.03				
5	2	4	2.0	1.24	0.12	<0.01				
6	4	5	1.0	0.78	<0.01	"				
7	5	6	"	0.82	<0.01	"				
8	6	7	"	0.96	0.24	"				
9	7	8	"	0.88	<0.01	"				
3700	8	9	"	1.0	0.01	"				
1	9	10	"	0.95	0.55	"				5m @
2	10	11	"	1.0	0.44	"				0.45% WO_3
3	11	12	"	"	0.36	"				
4	12	13	"	"	0.40	"				
5	13	14	"	"	0.50	"				
6	14	15	"	"	0.21	"				
7	15	16	"	"	0.05	"				
8	16	17	"	"	<0.01	"				
9	17	18	"	"	<0.01	"				
10	18	19	"	"	0.25	"				6m @
1	19	20	"	"	0.27	"				
2	20	21	"	"	0.29	"				0.33% WO_3
3	21	22	"	"	0.44	"				
4	22	23	"	"	0.37	"				
5	23	24	"	"	0.39	"				
D3716	31	32	"	"	<0.01	<0.01				
7	32	33	"	"	0.29	"				
D3718	33	34	"	"	0.07	"				

SPECIFIC GRAVITY

Depth (m) :
Rock Type :
S.G. :

Determined by:

GEOPEKO LIMITED - KING ISLAND

CHECK ASSAY DATA

D.D.H. D 220/6

LAB.	K.I.S.		LAB. K.I.S.			LAB. A.M.D.E.L.			LAB. A.C.S.L.			
Original Sample No.	WO_3	Mo	Check Sample No.	WO_3	Mo	Check Sample No.	WO_3	Mo	Check Sample No.	WO_3	WO_3 - check	A.C.S.L. & repeat sample.
D 3694	1.75	0.03	D 3938	1.76	0.03	D 3939	2.10		D 3940	2.08	2.12	
3705	0.50	<0.01	3941	0.45	<0.01	3942	0.61		3943	0.60		
D 3715	0.39	<0.01	D 3944	0.42	<0.01	D 3945	0.56		D 3946	0.50		

GEOPEKO LIMITED - KING ISLAND

GEOLOGICAL LOG

D.D.H. No. D 220/6

0 - 3.66m	GARNET PYROXENE HORNFELS Very pyroxene rich fine grained grossular and andradite garnet skarn. Very significant core loss to 3.66m. 0 - 3.66m = 49% lost. Appearance of core would indicate that the core has ground away in the barrell. Moderate desseminated scheelite throughout.
3.66m - 9.23m	MARBLE A generally barren grey B lens marble. Minor skarn developed 6.5 - 7.0 with moderate desseminated scheelite
9.23m - 14.81m	GARNET PYROXENE HORNFELS Fine grained grossular and andradite garnet pyroxene rich skarn. Moderate desseminated scheelite. The unit becomes more carbonate rich below 13.7m.
14.81 - 18.14m	MARBLE Barren grey ch.
18.14m - 24.06m	GARNET PYROXENE HORNFELS Pyroxene rich fine grained skarn. Moderate desseminated scheelite.
24.06 - 25.0m	FAULT ZONE (?) Clay recemented breccia to 24.23m then heavily broken ground to 25.0m. Core loss 24.23 - 27.28 = 15cm lost.
25.0 - 26.68m	BIOTITE PYROXENE HORNFELS Mottled grey and green barren hornfels.
26.68 - 32.10m	MARBLE Barren grey marble. Bedding: 29m 42° L.A.O.C.
32.10 - 35.18m	GARNET PYROXENE HORNFELS Fine grained pyroxene and grossular garnet rich skarn. Moderate desseminated scheelite 32.10 - 33.30m. Minor marble and biotite pyroxene hornfels incorporated in this unit between 33.4 and 33.9m. Bedding: 33.8m 35° L.A.O.C.
35.18 - 36.12m	BIOTITE HORNFELS Barren grey brown fine grained bh. Core is very broken and core recovery 33.38 - 36.12 = 0.62m lost.
36.12m E.O.H.	

GEOPEKO LIMITED - KING ISLAND

LOG OF D.D.H. NO: D220/5

PLANNING

Proposer: M.J. Danielson. Depth: 30m.

Location: N X L P.16

Purpose of hole: B lens oreblocking.

Co-ordinates: 220220 E 564150 N

Inclination: +90 Target depth:

Bearing: °Grid °Magnetic

Target: E N

Approved by: M.C. Rogers. Date: 1/5/75.

SURVEY

Survey Co-ords: E N

Survey bearing: °Grid °Magnetic

Surveyed in by: Date:

Actual Co-ords: 220221.1 E 564150.7 N

R.L. of collar: -71.1 Inclination of hole: +90°

Picked up by: R.J.H. Date: 13/5/75

SUMMARY

Logged by: M.J. Danielson.

Results: No assays taken.

DRILLING

Driller / Contractor: A.D.D.

Date commenced: 5/5/75 Date terminated: 8/5/75

Casing: Size : NIL

Depth:

Core: Size : A.17

Depth: 28.45

Wedge Runoff:

Wedge placed: NIL Depth:

Proposed by: Approved by:

Reason:

Extension: NIL Final depth: 28.45m.

Reason for termination: Hole passed out of B lens sequence.

Condition of hole on completion:

Casing : NIL

Cemented: No

Bore hole survey: No.

Water: NIL.

Comments on drilling conditions:

GEOPEKO LIMITED - KING ISLAND

CORE RECOVERY

D.D.H. No. D220/5

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	RECOVERED % CORE
0 - 5.94	5.94	5.94	100
7.47	1.53	1.51	99
8.48	1.01	1.01	100
9.24	.76	.29	38
12.29	3.05	3.05	100
13.82	1.53	1.18	77
14.43	.61	.48	79
15.34	.91	.91	100
16.86	1.52	1.52	100
18.39	1.53	1.52	100
21.44	3.05	2.80	92
24.48	3.04	3.04	100
26.62	2.14	1.51	71
28.45	1.83	1.30	71

GEOPEKO LIMITED - KING ISLAND

SUMMARY STRUCTURAL DATA

D.D.H. No.D 220/5

Depth Interval (metres)	Rock Type	Fract-ures/m.	Joint Angle (w.r.t. L.A.O.C.)	Joint Filling	Bedding Angle (w.r.t. L.A.O.C.	% Core Recovery	R.Q.D.	Remarks (weathering)
0 - 7.47	ch, ph	10		clay & carbonate		100	40	leached zone 0.8 - 1.2m.
7.47 - 26.62	bh	10		clay to 15m. carbonate 15 - 18m.		90	37	Note significant core loss 8.48 - 9.24 12.29 -13.82
26.62 - 28.45	bh	+20		clay & carbonate.		71	0	

FURTHER DATA & REMARKS

1. Detailed % core recoveries within each depth interval is shown in the core recovery tabulation.
2. R.Q.D. (rock quality designator). $= \frac{\text{length core} > 10 \text{ cms}}{\text{length } \sout{\text{recovered}} \text{ DRILLED}} \%$
3. Core size. 0 - 28.45m A.17 (32 mms. diameter.)

GEOPEKO LIMITED - KING ISLAND

GEOLOGICAL LOG

D.D.H. No. D 220/5

B lens 0 - 6.9m.

0 - 1.2m MARBLE

Barren grey ch. leached with no structural competency between 0.8 - 1.2m.

1.2 - 6.9m PYROXENE HORNFELS

Barren pale green fine grained ph. Isolated specks of scheelite at 3.0m but core not split.
Bedding 5.5m 55° L.A.O.C.
6.9m 55° "

6.9m - 21.4m BIOTITE HORNFELS

Barren pale grey fine grained bh.
Core loss: 8.48 - 9.24m 62% lost.
12.29 - 13.8m 23% "

There is minor pyroxene banding in this unit to 15m and is indicative of B lens hangingwall hornfels.
Bedding 11.5m 30° L.A.O.C.
13m 40° "
Moderate carbonate veining 15 - 18m.

21.4 - 26.0m SPOTTED BIOTITE HORNFELS

Almost identical unit to that described above except for abundant pale grey spots up to 5mm diameter.
There does not appear to be any orientation to the spotting.

26.0 - 28.45m BIOTITE HORNFELS

Barren fine grained pale grey bh. No spotting.
Note significant core loss. 24.48 - 26.62 29% lost.
26.62 - 28.45 29% "

28.45m E.O.H.

GEOPEKO LIMITED - KING ISLAND

LOG OF D.D.H. No. D220/4

PLANNING

Proposer: M.J. Danielson. Depth: 30m

Location: N X C P.16

Purpose of hole: B lens oreblocking.

Co-ordinates: 220220 E 564170 N

Inclination: +90° Magnetic

Bearing: 360 Grid Target depth 0 - 30m.

Target: E N

Approved by: M.C. Rogers. Date: 1/5/75

SURVEY

Survey Co-ords: E N

Survey bearing: Grid Magnetic

Surveyed in by: Date:

Actual Co-ords: 220219.9 E 564170.2 N

R.L. of collar: -70.4 Inclination of hole: +90°

Picked up by : R.J.H. Date: 12/5/75

SUMMARY

Logged by : M.J. Danielson.

Results: B lens 10 - 16m 6m @ 0.82% WO_3

DRILLING

Driller/Contractor: A.D.D.

Date commenced: 5/5/75 Date terminated: 9/5/75

Casing: Size : NIL

Depth :

Core: Size : A.17

Depth : 22.86m

Wedge Runoff:

Wedge placed: NIL Depth:

Proposed by : Approved by:

Reason:

Extension: NIL

Reason for termination: Passed beyond B lens sequence. Final depth: 22.86m

Condition of hole on completion:

Casing : NIL

Cemented : No.

Bore hole survey: NO.

Water: NIL.

Comments on drilling conditions:

GEOPEKO LIMITED - KING ISLAND

CORE RECOVERY

D.D.H. No. D 220/4

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	RECOVERED % CORE
0 - 3.05	3.05	3.02	99
6.10	3.05	3.05	100
9.14	3.04	3.04	100
12.19	3.05	2.83	93
15.24	3.05	2.70	89
16.15	.91	.80	88
18.23	2.08	2.08	100
20.42	2.19	2.12	97
22.86	2.44	2.40	98

GEOPEKO LIMITED - KING ISLAND

SUMMARY STRUCTURAL DATA

D.D.H. No. D220/4

Depth Interval (metres)	Rock Type	Fractures/m.	Joint Angle (w.r.t. L.A.O.C.)	Joint Filling	Bedding Angle (w.r.t. L.A.O.C.	% Core Recovery	R.Q.D.	Remarks (weathering)
0 - 9.14	Marble	5		carbonate		100	81	
9.14 - 22.86	gph, ph	8		clay		94	52	leached zone 9.6 - 10.7

FURTHER DATA & REMARKS

1. Detailed % core recoveries within each depth interval is shown in the core recovery tabulation.
2. R.Q.D. (rock quality designator). $= \frac{\text{length core} > 10 \text{ cms}}{\text{length ~~recovered~~ DRILLED}} \%$
3. Core size. 0 - 22.86 A.17 (32mms. dia)

GEOPEKO LIMITED - DOLPHIN MINE

ASSAY DATA

D.D.H. No.D220/4

SAMPLE No.	DEPTH (METRES)				ELEMENTS					COMMENTS
	From	To	Length	Length Recovered	WO_3	Mo				
D3651	9	10	1.0	0.90	0.01	<0.01				
2	10	11	"	0.84	0.29	<0.01				B lens 6m
3	11	12	"	1.0	0.85	0.03				@ 0.82% WO_3
4	12	13	"	"	1.54	0.06				
5	13	14	"	0.81	0.56	0.05				
6	14	15	"	0.81	1.10	0.04				
7	15	16	"	0.90	0.56	0.01				
8	16	17	"	1.0	0.03	<0.01				
9	17	18	"	"	<0.01	<0.01				
D3660	18	19	"	---	0.88	0.04				

SPECIFIC GRAVITY

Depth (m) :
Rock Type :
S.G. :

Determined by:

GEOPEKO LIMITED - KING ISLAND

CHECK ASSAY DATA

D.D.H. D 220/4

LAB.	K.I.S.		LAB. K.I.S.			LAB. A.M.D.E.L.			LAB. A.C.S.L.			
Original Sample No.	WO_3	Mo	Check Sample No.	WO_3	Mo	Check Sample No.	WO_3	Mo	Check Sample No.	WO_3	Mo WO_3 - check	A.C.S.L. & repeat sample.
D 3656	1.10	0.04	D 3935	1.04	0.02	D 3936	1.30		D 3937	1.16	1.14	

GEOPEKO LIMITED - KING ISLAND

GEOLOGICAL LOG

D.D.H. No. D220/4

B lens 0 - 22.0m.

0 - 10.7m	MARBLE Barren grey ch. Quality of core is good to 9.6m but severe leaching 9.6 - 10.7 with some core loss. The section 9.6 - 10.7m becomes increasingly pyroxene rich.
10.7m - 15.2m	GARNET PYROXENE HORNFELS A fine grained pyroxene rich grossular and andradite garnet skarn. Variable grade scheelite throughout both as finely desseminated and coarse grains up to 1cm. dia. Minor core loss between 12.19m - 15.24m may be due to some broken ground at 14.0 - 14.08m.
15.2m - 20.0m	PYROXENE HORNFELS Barren fine grained green pyroxene hornfels. A 1cm wide vein of coarse scheelite at 18.25m. Bedding: 18.5m 40° L.A.O.C.
20.0 - 22.0m	TUFFITE (?) Mottled green and brown medium grained barren weakly fragmental textured rock.
22.0m - 22.86m	BIOTITE HORNFELS Barren fine grained grey bh. 22.0 - 22.3m is a clay recemented breccia, moderate pyrite but does not look like a fault.

22.86m E.O.H.

GEOPEKO LIMITED - KING ISLAND

GEOLOGICAL LOG

D.D.H. No. D220/4

B Lens 0 - 22.0m

0 - 10.7m **MARBLE**

Barren grey ch. Quality of core is good to 9.6m but severe leaching 9.6 - 10.7m with some core loss. The section 9.6 - 10.7m becomes increasingly pyroxene rich.

10.7m - 15.2m **GARNET PYROXENE HORNFELS**

A fine grained pyroxene rich grossular and andradite garnet skarn. Variable grade scheelite throughout both as finely desseminated and coarse grains up to 1cm. dia.

Minor core loss between 12.19 - 15.24m may be due to some broken gro

GEOPEKO LIMITED - KING ISLAND

LOG OF D.D.H. No. D220/3

PLANNING

Proposer: M.J. Danielson. Depth: 30m.

Location: Drilled from the B lens drive, -75m R.L. at 220221E 564159N.

Purpose of hole: To test for B lens on the -75m level.

Co-ordinates: 220221 E 564159 N

Inclination: Horizontal Magnetic

Bearing: 127° Grid Target depth:

Target: E N

Approved by: M.C. Rogers. Date: 1/2/75

SURVEY

Survey Co-ords: E N

Survey bearing: 128°11'10" Grid Magnetic

Surveyed in by: Date:

Actual Co-ords: 220222.025 E 564160.086 N

R.L. of collar: -72.083 Inclination of hole: Horiz. 00°

Picked up by : R.J.H. Date: 11/3/75

SUMMARY

Logged by : M.J. Danielson.

Results: B lens: 0 - 13m, 13m @ 1.02% WO_3

DRILLING

Driller/Contractor: A.D.D.

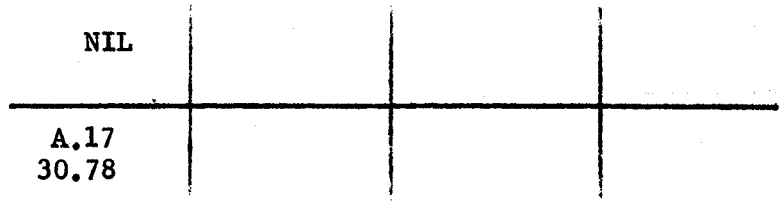
Date commenced: 26/2/75 Date terminated: 27/2/75

Casing: Size : NIL

Depth :

Core: Size : A.17

Depth : 30.78



Wedge Runoff:

Wedge placed: NIL Depth:

Proposed by : Approved by:

Reason:

Extension: NIL

Reason for termination: Hole passed into B lens hangingwall. Final depth: 30.78m

Condition of hole on completion:

Casing : NIL

Cemented : No.

Bore hole survey: Surveyed to 30.48m.

Water: Normal water return throughout.

Comments on drilling conditions:

GEOPEKO LIMITED - KING ISLAND

CORE RECOVERY

D.D.H. No. D220/3

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	RECOVERED % CORE
0 - 2.13	2.13	2.07	97
3.05	.92	.74	80
6.40	3.35	2.61	78
7.16	.76	.72	95
9.30	2.14	2.14	100
12.04	2.74	2.44	89
13.26	1.22	1.14	93
13.87	.61	.60	100
14.93	1.06	1.10	104
16.76	1.83	1.90	104
17.83	1.07	.77	72
20.88	3.05	3.05	100
23.47	2.59	2.70	104
26.52	3.05	2.82	92
28.80	2.28	2.14	94
29.56	.76	.61	80
30.78	1.22	.98	80

GEOPEKO LIMITED - Dolphin Mine

SUMMARY BORE HOLE SURVEY DATA

D.D.H. No. D220/3

Survey method : Multishot camera.
Final depth : 30.78m
Casing depth : NIL

Depth surveyed to : 30.48m
Date surveyed : 27/2/75
Surveyed by : V.J. Powell
Checked by : G.L. Buckland.

DEPTH	Bearing		Inclination		True Vertical Depth	Co-oridinates	
	Grid	Mag.	Read	Corrected		E S	N E
12.19	127°	118°	89°15'	-0°45'	-0.16	5.72	10.77
18.29	127°	118°	88°30'	-1°30'	-0.32	8.59	16.15
24.38	127°	118°	89°	-1°	-0.42	11.45	21.53
30.48	126°	117°	89°15'	-0°45'	-0.50	14.22	26.96

REMARKS

GEOPEKO LIMITED - KING ISLAND

SUMMARY STRUCTURAL DATA

D.D.H. No. D220/3

Depth Interval (metres)	Rock Type	Fractures/m.	Joint Angle (w.r.t. L.A.O.C.)	Joint Filling	Bedding Angle (w.r.t. L.A.O.C.	% Core Recovery	R.Q.D.	Remarks (weathering)
0 - 16.76	pg skarn.	4		clay, minor carbonate		92	39	bad ground: 3.05 - 6.40
16.76 - 30.78	ph/ bph	5		clay, minor carbonate.	18m:30° 23m:40° 26m:35°	93	58	

FURTHER DATA & REMARKS

1. Detailed % core recoveries within each depth interval is shown in the core recovery tabulation.
2. R.Q.D. (rock quality designator). = $\frac{\text{length core} > 10 \text{ cms}}{\text{length } \sout{\text{recovered}} \text{ DRILLED}}$ %
3. Core size. A.17. (32 mms dia)

GEOPEKO LIMITED - Dolphin Mine

ASSAY DATA

D.D.H. No. D220/3

SAMPLE No.	DEPTH (METRES)				ELEMENTS					COMMENTS
	From	To	Length	Length Recovered	WO_3	Mo				
D3171	0	1	1.0	1.0	0.42	0.04				
2	1	2	"	"	2.05	0.11				
3	2	3	"	0.80	1.11	0.08				B lens:
4	3	4	"	1.0	2.26	0.13				0 - 13m
5	4	5	"	0.75	0.91	0.08				13m @
6	5	6	"	0.80	0.93	0.07				1.02% WO_3
7	6	7	"	0.75	0.50	0.04				0.07% Mo
8	7	8	"	1.0	0.47	0.04				
3180	8	9	"	"	2.41	0.14				
3179	9	10	"	"	0.66	0.06				
3181	10	11	"	0.77	0.15	0.02				
2	11	12	"	0.90	0.35	0.04				
3	12	13	"	1.0	0.98	0.07				
D3185	13	14	"	"	0.16	0.02				
3184	14	15	"	"	0.16	0.02				

SPECIFIC GRAVITY

Depth (m) :
Rock Type :
S.G. :

Determined by:

GEOPEKO LIMITED - DOLPHIN MINE

ASSAY DATA

D.D.H. No. D 220/3 (reassay)

SAMPLE No.	DEPTH (METRES)				ELEMENTS					COMMENTS
	From	To	Length	Length Recovered	WO_3	Mo				
D3407	0	1			0.43	<0.01				
8	1	2			1.98	0.07				
9	2	3			1.12	0.04				
10	3	4			2.04	0.07				B lens 0.0 -
1	4	5			0.88	0.04				13.0m
2	5	6			0.92	0.04				13m @ 1.09% WO_3
3	6	7			0.49	0.01				
4	7	8			0.49	0.01				
5	8	9			3.03	0.11				
6	9	10			0.62	0.01				
7	10	11			0.16	<0.01				
8	11	12			0.43	<0.01				
9	12	13			1.63	0.06				
20	13	14			0.11	<0.01				
D3421	14	15			0.12	<0.01				

SPECIFIC GRAVITY

Determined by:

Depth (m) :
Rock Type :
S.G. :

NOTE: These assays are reassays of the crushed core samples D 3171 - 3185 inclusive.

GEOPEKO LIMITED - KING ISLAND

GEOLOGICAL LOG

D.D.H. No. D220/3

00 - 16.80m — PYROXENE GARNET SKARN

A weakly mineralized pyroxene rich garnet skarn. The garnet is mostly grossularite.

Quality of core is moderate but there is significant core loss between 3.05 - 7.16m.

16.80m - 19.75m — PYROXENE HORNFELS

Barren fine grained green hornfels.
Bedding: 18m 30° L.A.O.C.

19.75m - 30.78m — BIOTITE PYROXENE HORNFELS

This unit would be approx. 90% dark grey to black biotite hornfels with occasional green interbeds of pyroxene hornfels.

No mineralization.
Aplite: 20.7m - 20.88m
Bedding: 23m 40° L.A.O.C.
26m 35° "

30.78m E.O.H.

GEOPEKO LIMITED - KING ISLAND

LOG OF D.D.H. No. D 220/2

PLANNING

Proposer: M.J. Danielson. Depth: 40m.

Location: Drilled from the B lens drive. -75m R.L. at 220 220 E 564 175 N.

Purpose of hole: To test for B lens on the -75m level.

Co-ordinates: 220 220 E 564 175 N

Inclination: Horizontal Magnetic

Bearing: 118° Grid Target depth:

Target: E N

Approved by: M.C. Rogers. Date: 1/2/75

SURVEY

Survey Co-ords: E N

Survey bearing: Grid Magnetic

Surveyed in by: Date:

Actual Co-ords: 220219.8 E 564173.3 N

R.L. of collar: -73.5 Inclination of hole: Horizontal Brg

Picked up by : J. Cook. Date: 117°40'

SUMMARY

Logged by : M.J. Danielson.

Results: B lens: 19 - 24m, 5m @ 2.47% WO_3

DRILLING

Driller/Contractor: A.D.D.

Date commenced: 22/2/75 Date terminated: 25/2/75

Casing: Size : NIL

Depth :

Core: Size : A17

Depth : 39.62

Wedge Runoff:

Wedge placed: Depth:

Proposed by : Approved by:

Reason:

Extension: NIL

Reason for termination: Passed into B lens hangingwall. Final depth: 39.62m.

Condition of hole on completion:

Casing : NIL

Cemented : No.

Bore hole survey: Yes, to 39.6m.

Water: No.

Comments on drilling conditions:

GEOPEKO LIMITED - Dolphin Mine

SUMMARY BORE HOLE SURVEY DATA

D.D.H. No. D 220/2

Survey method : Multishot camera
Final depth : 39.62m
Casing depth : NIL.

Depth surveyed to :39.62m
Date surveyed :25/2/75
Surveyed by : V.J. Powell.
Checked by : G.L. Buckland.

DEPTH	Bearing		Inclination		True Vertical Depth	Co-oridinates	
	Grid	Mag.	Read	Corrected		S	E
6.10	119°	110°	89°15'	-0°45'	0.08	2.08	5.73
18.29	118°	109°	89°	-1°	0.29	6.05	17.25
30.48	117°30'	108°30'	89°	-1°	0.51	9.92	28.82
39.62	117°30'	108°30'	88°45'	-1°15'	0.71	12.83	37.49

REMARKS

GEOPEKO LIMITED - KING ISLAND

SUMMARY STRUCTURAL DATA

D.D.H. No. 220/2

Depth Interval (metres)	Rock Type	Fractures/m.	Joint Angle (w.r.t. L.A.O.C.)	Joint Filling	Bedding Angle (w.r.t. L.A.O.C.	% Core Recovery	R.Q.D.	Remarks (weathering)
0 - 15.62	ch	4		carbonate		95	61	
15.62 - 23.93	ch/pg skarn	15		clay, carbonate		90	21	Rubble: 17.5 - 18.0
23.93 - 35.97	ph/ bph	7		mostly clay, minor carbonate.	24m:35° 29m:25° 34m:35°	97	44	bad ground: 24.0 - 25.3 minor clay recemented breccia: 27.90 - 27.95 Abundant pyrite in breccia zone.
35.97 - 39.62	bh	15		clay, minor carbonate.		81	11	Rubble: 35.97 - 36.50, poor ground generally.

FURTHER DATA & REMARKS

1.. Detailed % core recoveries within each depth interval is shown in the core recovery tabulation..

2.. R.Q.D.. (rock quality designator).. = $\frac{\text{length core} > 10 \text{ cms}}{\text{length recovered}}$ % DRILLED

3.. Core size..

GEOPEKO LIMITED - KING ISLAND

CORE RECOVERY

D.D.H. No.D 220/2

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	RECOVERED % CORE
0 - 3.66	3.66	3.22	88
5.79	2.13	2.01	94
6.40	.61	.65	106
9.45	3.05	3.02	99
12.50	3.05	2.98	98
15.62	3.12	2.98	96
17.98	2.36	2.00	85
20.42	2.44	2.05	84
21.95	1.53	1.58	103
23.93	1.98	1.82	92
25.30	1.37	1.50	109
28.04	2.74	2.80	102
29.11	1.07	1.12	105
31.39	2.28	1.87	82
33.53	2.14	2.20	103
35.97	2.44	2.22	91
36.58	.61	.55	90
39.62	3.04	2.40	79
E.O.H.			

GEOPEKO LIMITED - Dolphin Mine

ASSAY DATA

D.D.H. No. D 220/2

SAMPLE No.	DEPTH (METRES)				ELEMENTS					COMMENTS
	From	To	Length	Length Recovered	WO_3	Mo				
D3127	16	17	1.0	0.76	0.04	0.02				
8	17	18	"	0.84	0.15	0.03				
9	18	19	"	0.67	0.05	0.02				
30	19	20	"	1.0	0.33	0.04				B lens:
1	20	21	"	"	0.26	0.04				5m @
2	21	22	"	"	0.15	0.02				2.47% WO_3
3	22	23	"	"	10.60	0.47				0.13% Mo.
4	23	24	"	0.83	1.01	0.07				
D3135	24	25	"	1.0	0.03	0.01				

SPECIFIC GRAVITY

Depth (m) :
Rock Type :
S.G. :

Determined by:

GEOPEKO LIMITED - KING ISLAND

CHECK ASSAY DATA

D.D.H. D 220/2

LAB.	K.I.S.		LAB. K.I.S.			LAB. A.M.D.L.			LAB. A.C.S.L.		
Original Sample No.	WO_3	Mo	Check Sample No.	WO_3	Mo	Check Sample No.	WO_3	Mo	Check Sample No.	WO_3	Mo
D 3131	0.26	0.04	D 3620	0.24	0.01	D3621	0.27	0.016	D3622	0.36	0.016
3134	1.01	0.07	3623	1.02	0.01	3624	0.83	0.033	3625	1.24	0.042

GEOPEKO LIMITED - KING ISLAND

GEOLOGICAL LOG

D.D.H. No. D 220/2

0 - 18.65 **MARBLE**

Barren grey typical B lens marble. There is minor core loss throughout but generally core is of good quality.

Below 16m the marble becomes more pyroxene rich and minor desseminated scheelite appears below 16.6m.

18.65 - 23.50 **PYROXENE GARNET SKARN**

A dominantly pyroxene rock with a weak skarn development. Garnet is mostly grossular and the unit is fine grained. There is weak desseminated scheelite throughout with coarse scheelite 22.85 - 22.95.

Quality of core in this interval is poor R.Q.D. (15.62 - 23.93) = 21%.

23.5 - 27.50 **PYROXENE HORNFELS**

A green fine grained barren hornfels. Similar unit to that described previously but here there is no skarn developed. No mineralization.
Bad ground 24.0 - 25.3. Minor clay recemented breccia 27.90 - 27.95. Pyrite in and around breccia.

Bedding: 24m 35° L.A.O.C.
29m 25° "
34m 35° "

27.5 - 36.7 **BIOTITE PYROXENE HORNFELS**

Mostly a fine grained grey black biotite hornfels with frequent green pyroxene interbeds (average 2cm wide).

No mineralization.

Aplite 33.63 - 33.98m.

36.7 - 39.62 **BIOTITE HORNFELS**

Broken fine grained purplish brown biotite hornfels. No mineralization. No chlorite evident.

39.62m E.O.H.

GEOPEKO LIMITED - KING ISLAND

LOG OF D.D.H. No. B 220/1

PLANNING

Proposer: M.J. Danielson. Depth: 45m.

Location: Drilled from the B lens drive, -75m R.L. at 220 220E 564175N.

Purpose of hole: To test for B lens ore on the -75m level.

Co-ordinates:	220 220	E	564 175	N
Inclination:	Horizontal			Magnetic
Bearing:	086°	Grid		Target depth:
Target:		E		N
Approved by:	M.C. Rogers.			Date: 1/2/75

SURVEY

Survey Co-ords:		E		N
Survey bearing:		Grid		Magnetic
Surveyed in by:				Date:
Actual Co-ords:	220 219.1	E	564 174.6	N
R.L. of collar:	-73.5m			Inclination of hole:
Picked up by :	M.G.M.			Date: Horizontal, Brg 86°40'.

SUMMARY

Logged by : M.J. Danielson. 25 Feb. 1975.

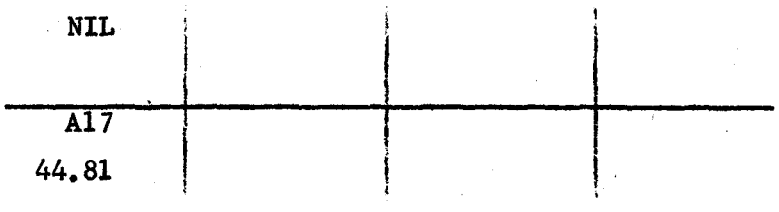
Results: B lens:
18 - 38m, 20m @ 1·01% WO_3

DRILLING

Driller/Contractor: A.D.D.

Date commenced: 20/2/75 Date terminated: 22/2/75

Casing:	Size :	NIL
	Depth :	
Core:	Size :	A17
	Depth :	44.81



Wedge Runoff:

Wedge placed: Depth:

Proposed by : Approved by:

Reason:

Extension: NIL

Reason for termination: Hole passed into hangingwall of B lens. Final depth: 44.81m

Condition of hole on completion:

Casing : NIL

Cemented : No

Bore hole survey: Yes. to 12.2m. Hole blocked.

Water: No.

Comments on drilling conditions:

Bh hangingwall of B lens very poor ground. R.Q.D. = 0%.

GEOPEKO LIMITED - DOLPHIN MINE

SUMMARY BORE HOLE SURVEY DATA

D.D.H. NO.D 220/1

Survey method : Multishot camera.
Final depth : 44.81m
Casing depth : NIL.

Depth surveyed to : 12.19m
Date surveyed : 25/2/75
Surveyed by : V.J. Powell.
Checked by : G.L. Buckland.

DEPTH	Bearing		Inclination		True Vertical depth	Co-oridinates	
	Grid	Mag.	Read	Corrected		N	E
6.10	088°	079°	90°	0°	0.0	1.16	5.98
12.19	084°	076°	90°	0°	0.0	2.64	11.90

REMARKS Hole blocked at 12.19m.

GEOPEKO LIMITED - KING ISLAND

SUMMARY STRUCTURAL DATA

D.D.H. NO.D 220/1

Depth Interval (metres)	Rock Type	Fractures / Metre	Joint Angle	Joint Filling	Bedding Angle	% Core Recovery	Broken Core % >10cms (R.Q.D.)	Remarks (weathering)
0 - 6.40	ch	13		clay, carbonate.		94	44	Poor ground particularly so : 0 - 0.75 3.74 - 4.34.
6.40 - 13.72	ch	11		carbonate		97	56	8.84 - 9.22: core has no structural strength - weathered carbonate.
13.72 - 22.56	gp skarn	15		chlorite		85	29	Poor ground: particularly - 13.72 - 13.95 15.10 - 17.50. (core has little structural strength). 21.65 - 22.56 rubble + heavily sheared core.

FURTHER DATA & REMARKS (Compression Tests)

1. Detailed % core recoveries within each depth interval is shown in the core recovery tabulation.
2. R.Q.D. (rock quality designator). = $\frac{\text{length core} > 10\text{cms}}{\text{length recovered}}$ %
3. Core size. 0 - 44.81: A17.

GEOPEKO LIMITED - KING ISLAND

SUMMARY STRUCTURAL DATA

D.D.H. NO. D 220/1

Depth Interval (metres)	Rock Type	Fractures / Metre	Joint Angle	Joint Filling	Bedding Angle	% Core Recovery	Broken Core % >10cms (R.Q.D.)	Remarks (weathering)
22.56 - 31.69	gp skarn	7		moderate chlorite		100	68	22.56 - 23.47: core is heavily sheared and in places carbonate recemented. Best core quality for the entire hole.
31.69 - 36.88	gp skarn	13		chlorite, minor pyrite.		101	36	Rubble: 34.75 - 35.05
36.88 - 44.81	bh	+20		chlorite to approx. 38.40 then minor pyrite & carbonate.		71	0	Almost entirely rubble. 36.88 - 37.30: Fault. (sheared & brecciated).

FURTHER DATA & REMARKS (Compression Tests)

GEOPEKO LIMITED - KING ISLAND

CORE RECOVERY

D.D.H. No. D 220/1

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0 - 2.74	2.74	2.64	96
6.40	3.66	3.38	92
8.84	2.44	2.42	99
10.67	1.83	1.82	99
13.72	3.05	2.84	93
14.48	0.76	0.68	89
16.46	1.98	1.70	86
19.51	3.05	2.40	79
21.18	1.67	1.54	92
22.56	1.38	1.16	84
25.60	3.04	3.02	99
28.65	3.05	3.07	101
31.69	3.04	3.02	99
34.75	3.06	3.16	103
36.88	2.13	2.08	98
39.01	2.13	1.95	92
41.45	2.44	1.30	53
42.67	1.22	0.84	69
44.81	2.14	1.53	71
E.O.H.			

GEOPEKO LIMITED - DOLPHIN MINE

ASSAY DATA

D.D.H. No. D 220/1

SAMPLE No.	DEPTH (METRES)				ELEMENTS					COMMENTS
	From	To	Length	Length Recovered	WO_3	Mo				
D3102	13	14	1.0	1.0	0.04	0.01				
3	14	15	"	0.92	0.62	0.06				
4	15	16	"	0.70	0.21	0.03				
5	16	17	"	1.0	0.11	0.02				
6	17	18	"	0.64	0.02	0.02				
7	18	19	"	0.64	1.12	0.08				
8	19	20	"	1.0	0.27	0.04				
9	20	21	"	0.87	0.26	0.04				B lens:
10	21	22	"	1.0	0.02	0.01				18 - 38m,
1	22	23	"	0.85	0.03	0.02				20m @
2	23	24	"	"	0.11	0.15				~~0.06~~
3	24	25	"	"	0.48	0.07				1.01% WO_3
4	25	26	"	"	0.63	0.08				0.12% Mo
5	26	27	"	"	0.80	0.08				
6	27	28	"	"	0.35	0.10				
7	28	29	"	"	3.32	0.72				
8	29	30	"	"	1.44	0.20				
9	30	31	"	"	0.46	0.06				
20	31	32	"	"	3.72	0.30				
1	32	33	"	"	0.12	0.04				
2	33	34	"	"	1.94	0.17				
3	34	35	"	"	1.58	0.10				
4	35	36	"	"	1.08	0.08				
5	36	37	"	"	1.52	0.12				
D3126	37	38	"	0.85	1.02	0.05				

SPECIFIC GRAVITY

Depth (m) :
Rock Type :
S.G. :

Determined by:

GEOPEKO LIMITED - KING ISLAND

CHECK ASSAY DATA

D.D.H. D 220/1

LAB.	K.I.S.		LAB.	K.I.S.		LAB.	S.M.D.L.		LAB.	A.C.S.L.	
Original Sample No.	WO_3	Mo	Check Sample No.	WO_3	Mo	Check Sample No.	WO_3	Mo	Check Sample No.	WO_3	Mo
D 3105	0.11	0.02	D 3605	0.17	0.01	D 3606	0.16	0.009	D 3607	0.20	0.011
3109	0.26	0.04	3608	0.28	0.01	3609	0.31	0.017	3610	0.40	0.021
3118	1.44	0.20	3611	1.54	0.14	3612	1.36	0.138	3613	1.73	0.17
3123	1.58	0.10	3614	1.59	0.05	3615	1.54	0.069	3616	1.72	0.07
3126	1.02	0.05	2617	0.02	0.01	3618	0.02	0.024	3619	0.30	0.032

GEOPEKO LIMITED - KING ISLAND

GEOLOGICAL LOG

D.D.H. No. D 220/1

0 - 13.72 MARBLE

Barren grey B lens marble. No dominant bedding. R.Q.D. in this interval is only 48% but generally core is good quality although in short pieces.

A leached incompetent zone at 8.84 - 9.22m.

13.72 - 36.80 GARNET PYROXENE SKARN

A fine grained greenish brown rock. The pyroxene is dominant and although both grossular and andradite garnet are present, the grossularite predominates.

This unit is variably mineralized throughout and is of moderate (+.5% WO_3) between 23.6 - 36.8m.

Quality of core in this interval is only moderate. R.Q.D. = 66% (22.56 - 31.69)

Bad ground 15.10 - 17.50
21.65 - 22.56
34.75 - 35.05

Core is basically a clay recemented breccia 21.4 - 23.6m.

36.8 - 37.30 FAULT

Sheared and brecciated biotite hornfels partially cemented by carbonate.

37.30 - 44.81 BIOTITE HORNFELS

Grey black fine grained biotite hornfels. No mineralization.

Quality of core is very bad R.Q.D. = 0% (36.88 - 44.81m).

This bad ground appears to be typical of the B lens hangingwall particularly in the wedge area.

Note significant core loss in this section.

44.81m E.O.H.