

GEOLOGY - KING ISLAND SCHEELITE

LOG OF D.D.H. No. D 120/23

PLANNING PROPOSER: Terry F. Potter DEPTH: 35 m
LOCATION: M7 Cuddy (off N13)
PURPOSE OF HOLE: Test B Lens
PROPOSED CO-ORDS: 220120 E 563900 N
INCLINATION: +45°
BEARING: 180° °GRID °MAG
TARGET: E N
DEPTH:
CHECKED BY: S. G. Brown DATE: 4/2/80

SURVEY SURVEY CO-ORDS: E N
SURVEYED BEARING: 177°57' °GRID °MAG
SURVEYED IN BY: DATE:
ACTUAL CO-ORDS: 220120.30 E 563896.95 N
R.L. OF COLLAR: -201.61
INCLINATION OF HOLE: +46°17'
PICKED UP BY: J. Cook DATE: 22/2/80

SUMMARY LOGGED BY: W. Black
RESULTS: No significant mineralisation

DRILLING DATE COMMENCED: DATE TERMINATED:
DRILLER/CONTRACTOR:
CASING: SIZE:
DEPTH:
CORE: SIZE:
DEPTH:
WEDGE PLACED: DEPTH: PROPOSER:
EXTENSION:
FINAL DEPTH: 33.0 m
REASON FOR TERMINATION:
CONDITION OF HOLE ON COMPLETION:
CASING:
CEMENTED:
BORE HOLE SURVEY:
WATER:
COMMENTS ON DRILLING CONDITIONS:

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SUMMARY BORE HOLE SURVEY DATA

D.D.H. No. D 120/23

Surveyed method: Multishot
Final depth: 33.0 m
Casing depth: Nil

Depth surveyed to: 33.0 m
Date surveyed: 21.2.80
Surveyed by: L. Denby
Checked by:

Depth (m)	Bearing		Inclination		True Vertical Depth (m)	Co-ordinates	
	Grid	Mag.	Read	Corr.		S	E
4.00	176°	166°	45°	+45°	2.83	2.75	.68
13.00	176°	166°	45°	+45°	9.19	8.92	2.22
22.00	176°	166°	45°	+45°	15.55	15.09	3.76
28.00	176°	166°	45°	+45°	19.79	19.20	4.79
33.00	176°	166°	45°	+45°	23.33	22.63	5.65

REMARKS:

CORE RECOVERY

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INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 3.3	3.3	3.0	91
3.3 - 4.6	1.3	1.3	100
4.6 - 5.0	0.4	0.4	100
5.0 - 7.24	2.24	2.24	100
7.24 - 8.0	0.76	0.76	100
8.0 - 11.0	3.0	3.0	100
11.0 - 14.0	3.0	3.0	100
14.0 - 14.7	0.7	0.7	100
14.7 - 17.0	2.3	2.3	100
17.0 - 20.0	3.0	3.0	100
20.0 - 22.1	2.1	2.1	100
22.1 - 23.0	0.9	0.9	100
23.0 - 26.0	3.0	3.0	100
26.0 - 28.0	2.0	2.0	100
28.0 - 29.5	1.5	1.5	100
29.5 - 31.0	1.5	1.5	100
31.0 - 32.2	2.2	2.2	100
32.2 - 32.4	0.2	0.2	100
32.4 - 33.0	0.6	0.6	100
EOH 33.0 m			

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SUMMARY STRUCTURAL DATA

D.D.H. No. D 120/23

DEPTH INTERVAL (METRES)	ROCK TYPE	FRAC- TURES /m	JOINT ANGLE (WRT/ LAOC)	JOINT FILLING	BEDDING ANGLE (W. R. T./ L. A. C.)	% CORE RECO- VERY	R. Q. D.	REMARKS (WEATHERING)
0.0 - 4.9	Marble	9	34°	Clay		95	51	
4.9 - 11.0	Ph	9		Clay		100	85	
11.0 - 33.0	Bh	4				100	90	

FURTHER DATA & REMARKS

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

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ASSAY DATA

D.D.H. No. D 120/23

SAMPLE NO.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Rec.	WO ₃	Mo		
D 12386	0	1	1.0	1.0	0.14	0.01		
87	1	2	"	"	0.01	0.01		
88	2	3	"	"	<0.01	0.01		
89	3	4	"	"	0.15	0.01		
90	4	5	"	"	0.08	0.01		
91	5	6	"	"	0.24	0.01		
92	6	7	"	"	<0.01	0.01		
93	7	8	"	"	0.22	0.01		
94	8	9	"	"	0.04	0.01		
95	9	10	"	"	0.46	0.01		
96	10	11	"	"	0.08	0.01		
97	11	12	"	"	0.01	0.01		

SPECIFIC GRAVITY

Depth (metres):

Rock Type:

S.G.:

Determined by:

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GEOLOGICAL LOG

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0.0 - 11.0 m B LENS

0.0 - 4.9 Marble

Light grey rock with a high carbonate content. Bands of Pyroxene hornfels with some scheelite mineralization present. The marble has some dark grey metamorphic spots.

Possible faults:

- 1.40 m shear filled with green clay. (34° to LCA) + some broken core.
- 2.30 m Small clay-filled joint
- 2.40 m Small clay-filled joint
- 3.1 m Small clay-filled joint
- 3.3 m Small clay-filled joint plus broken core
- 3.5 m Small clay-filled joint
- 4.5 - 4.6 m broken core
- 4.8 - 4.9 m broken core.

4.9 - 11.0 Pyroxene Hornfels

A grey/green coloured rock, with very little carbonate. Bands of biotite hornfels and garnet hornfels (grossular garnet) present. Scheelite mineralisation occurs within the garnet hornfels bands.

Possible faults:

- 5.0 m broken core with clay.
- 5.3 m broken core

11.0 - 33.0 Biotite Hornfels

Dark grey to black rock, containing pyrite. No scheelite mineralisation. Intruded in many places by ptymatically folded aplitic veins; larger aplite dykes at: 26.2 - 26.3, 27.1 - 27.25, 28.2 - 28.35, 31.3.

There are pyroxene-rich area throughout especially at: 14.25 - 14.90 m 21.3 - 21.4 m 17.2 - 17.4 m and numerous pyroxene-rich bands.

Possible faults:

- 24.9 highly broken core
- 27.1 broken core
- 27.9 - 28.0 highly broken core with clay.
- 31.8 - 32.4 broken core
- 24.6 - 33.0 broken core

EOH 33.0 m

Note: Mineralisation is too sparse to warrant sampling.

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LOG OF D.D.H. No. D 120/22

PLANNING PROPOSER: T. F. Potter DEPTH: 55 m
LOCATION: M7 Cuddy (Off N13)
PURPOSE OF HOLE: Test C lens and Granite Contact
PROPOSED CO-ORDS: 220120 E 563900 N
INCLINATION: -90°
BEARING: 360 $^{\circ}$ GRID $^{\circ}$ MAG
TARGET: E N
DEPTH:
CHECKED BY: S. G. Brown DATE: 4/2/80

SURVEY SURVEY CO-ORDS: E N
SURVEYED BEARING: $5^{\circ} 17'$ $^{\circ}$ GRID $^{\circ}$ MAG
SURVEYED IN BY: DATE:
ACTUAL CO-ORDS: 220120.32 E 563899.61 N
R.L. OF COLLAR: -206.08
INCLINATION OF HOLE: $-88^{\circ} 26'$
PICKED UP BY: J, Cook DATE: 22/2/80

SUMMARY LOGGED BY: W. Black
RESULTS: 15-24 m, 9 m @ 1.06% WO_3 , 0.02% Mo Upper C-lens
28-31 m, 3 m @ 1.03% WO_3 , 0.02% Mo Lower C-lens

DRILLING DATE COMMENCED: DATE TERMINATED:
DRILLER/CONTRACTOR:
CASING: SIZE:
DEPTH:
CORE: SIZE: BQ
DEPTH:
WEDGE PLACED: DEPTH: PROPOSER:
EXTENSION:
FINAL DEPTH: 47.8 m
REASON FOR TERMINATION: In Granite
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. D120/22

Surveyed method: Multishot
Final depth: 47.80 m
Casing depth: 1.00 m

Depth surveyed to: 47.80 m
Date surveyed: 19.2.80
Surveyed by: R. Drake
Checked by:

Bearing			Inclination		True Vertical Depth (m)	Co-ordinates	
Depth (m)	Grid	Mag.	Read	Corr.		N	W
10.00	289°	279°	1° 30'	-88° 30'	10.00	.04	.26
28.00	284° 30'	274° 30'	1° 30'	-88° 30'	27.99	.08	.73
34.00	284°	274°	1° 30'	-88° 30'	33.99	.09	.89
46.00	289°	279°	1° 30'	-88° 30'	45.99	.14	1.20
47.80	285°	275°	1° 45'	-88° 15'	47.79	.14	1.25

REMARKS:

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CORE RECOVERY

D.D.H. No. D 130/22

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.00 - 3.10 m	3.10	2.80	90.32
3.10 - 4.90	1.80	1.80	100
4.90 - 6.50	1.60	1.60	100
6.50 - 7.63	1.13	1.13	100
7.63 - 9.50	1.87	0.87	100
9.50 - 12.50	3.00	3.00	100
12.50 - 15.17	2.67	2.67	100
15.17 - 15.20	0.03	0.03	100
15.20 - 18.20	3.00	3.00	100
18.20 - 21.50	3.30	3.30	100
21.50 - 22.63	1.13	1.13	100
22.63 - 24.50	1.87	1.87	100
24.50 - 27.50	3.00	3.00	100
27.50 - 30.07	2.57	2.57	100
30.07 - 30.50	0.43	0.43	100
30.50 - 33.50	3.00	3.00	100
33.50 - 36.50	3.00	3.70	100
36.50 - 37.58	1.08	1.08	100
37.58 - 39.50	1.92	1.92	100
39.50 - 42.50	3.00	3.00	100
42.50 - 44.00	1.50	1.50	100
44.00 - 44.90	0.90	0.90	100
44.90 - 45.50	0.60	0.60	100
45.50 - 46.40	0.90	0.90	100
46.40 - 47.80	1.40	1.40	100

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY STRUCTURAL DATA

D.D.H. No. D 120/22

DEPTH INTERVAL (METRES)	ROCK TYPE	FRAC- TURES /m	JOINT ANGLE (WRT/ LAOC)	JOINT FILLING	BEDDING ANGLE (W. R. T./ L. A. Q. C.)	% CORE RECO- VERY	R. Q. D.	REMARKS (WEATHERING)
0.00 - 5.55 m	B-lens	6		Clay		97	67	
5.55 - 9.75	bh	7	43	Clay		100	57	
9.75 - 18.55	pgh	5	51	Clay		100	73	
18.55 - 22.90	gh (U/C)	4				100	90	
22.90 - 32.60	L/C				79	100	90	
32.60 - 38.30	bfb	5	55		38°-90°	100	77	
38.30 - 40.00	ap	11				100	65	
40.00 - 42.70	Qtz	10				100	41	
42.70 - 44.00	ap	5				100	65	
44.00 - 47.80	G	5				100	67	

FURTHER DATA & REMARKS

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

ASSAY DATA

D.D.H. No. D 120/22

SAMPLE NO.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Rec.	WO ₃	Mo		
D 11955	14	15	1.0	1.0	0.01	0.01		
56	15	16	"	"	0.71	0.01		
57	16	17	"	"	0.60	0.01		
58	17	18	"	"	0.09	0.01		
59	18	19	"	"	1.20	0.03		
60	19	20	"	"	1.71	0.04		
61	20	21	"	"	1.68	0.04		
62	21	22	"	"	1.74	0.03		
63	22	23	"	"	1.24	0.02		
64	23	24	"	"	0.56	0.02		
65	24	25	"	"	0.27	0.01		
66	25	26	"	"	0.25	0.01		
67	26	27	"	"	0.01	0.01		
68	27	28	"	"	0.01	0.01		
69	28	29	"	"	1.67	0.03		
70	29	30	"	"	0.43	0.01		
71	30	31	"	"	1.00	0.01		
72	31	32	"	"	0.03	0.01		

SPECIFIC GRAVITY

Depth (metres):

Rock Type:

S.G.:

Determined by:

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GEOLOGICAL LOG

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0.00 - 5.55 m B-LENS MARBLE

A dark grey rock with high carbonate content. Mainly marble with zones of pyroxene and biotite. Scheelite mineralisation is sparse - medium grade fine grained mineralisation at 5.30 - 5.55 m.

- 0.00 - 0.03 m Broken core
- 4.90 - 5.30 m Clay filled joints and broken core (fault?).
- 5.30 - 5.55 m Broken core

5.55 - 9.75 BIOTITE HORNFELS

A dark grey rock with some pyroxene Barren of scheelite mineralisation. Some pyrite present in veinlets with calcite.

- 6.15 - 6.55 m Clay filled joints and broken core (fault?).

9.75 - 18.55 PYROXENE GARNET HORNFELS

Typical pyroxene garnet hornfels - a pyroxene-rich rock with pods of calcite, surrounded by pink grossular garnet. Occasional zones of biotite hornfels.

Scheelite mineralisation is variable:

- 9.75 - 12.00 m Almost barren
- 12.00 - 15.00 m Occasional coarse patchy scheelite mineralisation.
- 15.00 - 18.55 m Low grade mineralisation with areas of fine disseminated mineralisation and areas of coarse, patchy scheelite.

Possible faults occur at:

- 9.90 - A thin (about 0.5 cm wide). joint which is filled with clay and pug material.
- 11.50 - 11.80 m Broken core and clay filled joints.
- 14.40 - 15.00 Broken core.

18.55 - 22.90 GARNET HORNFELS (Upper C-lens)

A massive grey rock with interstitial calcite visible. The rock is medium grained, with black andradite garnet, quartz, calcite and pyrite. High grade scheelite mineralisation, occurring as fine, disseminated material evenly distributed throughout.

Possible faults:

- 19.2 m About 3 cm of highly broken core.
- 21.40 - 21.50 Broken core.

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GEOLOGICAL LOG

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22.90 - 32.60 m PARTIALLY REPLACED LOWER C-LENS

A banded rock consisting of bands of pyroxene hornfels, biotite hornfels, garnet hornfels (grossularite and andradite) and some areas of marble. An overall low to medium grade of scheelite mineralisation occurring mainly in the garnet hornfels bands as fine grained, disseminated scheelite. The rock is barren at 25.8 - 28.5 m and also after 30.9 m

Broken core at 23.1 m, 23.7 m, 29.5 m and 31.0 - 31.1 m.

32.60 - 38.30 BANDED FOOTWALL BEDS

Well banded rock consisting of bands of pyroxene hornfels, biotite hornfels, marble and some garnet hornfels. Negligible mineralisation. Banding is between 38° and 90° to LCA. Small aplite dyke 35.3 - 35.5 m.

38.30 - 40.00 APLITE

Pink-coloured contaminated aplite with variable mafic mineral content. Some pyrite mineralisation. Patches of clean, white quartz throughout.

40.00 - 42.70 QUARTZ

Clean white quartz with large patches of green orange and yellow material (epidote?) which contain pyrite.

Broken core at 40.1 m, 41.7 m.

42.70 - 44.90 APLITE

Contaminated aplite - pink and green in colour with mafic minerals and pyrite.

44.90 - 47.80 GRANITE

Pink granite with fairly uniform mafic mineral content. A yellow mineral is present between 45.8 and 46.2 m.

EOH 47.80 m

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LOG OF D.D.H. No. D 120/21

PLANNING PROPOSER: S. G. Brown DEPTH: 110 m
LOCATION: -75 m Cuddy off Main Decline
PURPOSE OF HOLE: To Test 'C' Pit Area
PROPOSED CO-ORDS: 220120.0 E 564038.0 N
INCLINATION: -83°
BEARING: 180° °GRID °MAG
TARGET: E N
DEPTH:
CHECKED BY: S. G. Brown DATE: 24/9/79

SURVEY SURVEY CO-ORDS: E N
SURVEYED BEARING: 184° 43' °GRID °MAG
SURVEYED IN BY: DATE:
ACTUAL CO-ORDS: 220120.8 E 564036.9 N
R.L. OF COLLAR: C-80.0
INCLINATION OF HOLE: -80° 33'
PICKED UP BY: R. Howman DATE: 21/11/79

SUMMARY LOGGED BY: T. Potter
RESULTS: 62 - 64 m 2 m @ 0.32% 0.01%
66 - 67 m 1 m @ 0.47% 0.01%
69 - 70 m 1 m @ 0.63% 0.01%
72 - 90 m 18 m @ 1.83% 0.06%

DRILLING DATE COMMENCED: 25/9/79 DATE TERMINATED: 4/10/79
DRILLER/CONTRACTOR: ADD
CASING: SIZE:
DEPTH:
CORE: SIZE: 46TT
DEPTH: 119.60
WEDGE PLACED: DEPTH: PROPOSER:
EXTENSION:
FINAL DEPTH: 119.60
REASON FOR TERMINATION:
CONDITION OF HOLE ON COMPLETION:
CASING:
CEMENTED:
BORE HOLE SURVEY: Surveyed to 119.60 multishot
WATER:
COMMENTS ON DRILLING CONDITIONS: Very good

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SUMMARY BORE HOLE SURVEY DATA

D.D.H. No. D 120/21

Surveyed method: Multishot
 Final depth: 119.60 m
 Casing depth: 1.5 m

Depth surveyed to: 119.60 m
 Date surveyed: 4/10/79
 Surveyed by: L. DENBY
 Checked by:

Depth (m)	Bearing		Inclination		True Vertical Depth (m)	Co-ordinates	
	Grid	Mag.	Read	Corr.		S	W
10	192°	182°	9° 30'	-80° 30'	9.86	1.65	.06
13	194°	184°	9°	-81°	12.82	2.12	.09
22	188°	178°	9° 15'	-80° 45'	21.70	3.57	.04
34	183°	173°	9°	-81°	33.55	5.44	.19
46	187°	177°	9°	-81°	45.40	7.32	.29
58	186°	176°	9° 15'	-80° 45'	57.24	9.25	.42
70	186°	176°	9° 30'	-80° 30'	69.08	11.23	.56
79	186°	176°	9° 45'	-80° 15'	77.95	12.75	.67
88	187°	177°	9° 30'	-80° 30'	86.83	14.24	.75
97	186°	176°	9°	-81°	95.72	15.65	.85
109	186°	176°	9° 15'	-80° 45'	107.56	17.58	.98
119.60	182°	172°	9° 30'	-80° 30'	118.01	19.31	1.22

REMARKS:

GEOLOGY - KING ISLAND SCHEELITE

CORE RECOVERY

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INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 1.3	1.3	1.3	100
1.3 - 3.8	2.5	2.5	100
3.8 - 6.4	2.6	2.6	100
6.4 - 9.4	3.0	3.0	100
9.4 - 12.4	2.9	2.9	100
12.4 - 15.3	3.0	3.0	100
15.3 - 18.3	3.0	3.0	100
18.3 - 19.5	1.2	1.2	100
19.5 - 21.5	2.0	2.0	100
21.5 - 24.5	3.0	3.0	100
24.5 - 27.5	3.0	3.0	100
27.5 - 30.5	3.0	3.0	100
30.5 - 33.2	2.7	2.7	100
33.2 - 36.2	3.0	3.0	100
36.2 - 39.2	3.0	3.0	100
39.2 - 42.2	3.0	3.0	100
42.2 - 45.2	3.0	3.0	100
45.2 - 47.3	2.1	2.1	100
47.3 - 49.6	2.3	2.3	100
49.6 - 51.0	1.4	1.4	100
51.0 - 54.0	3.0	3.0	100
54.0 - 57.0	3.0	3.0	100
57.0 - 60.0	3.0	3.0	100
60.0 - 64.0	3.0	3.0	100
63.0 - 66.0	3.0	3.0	100
66.0 - 69.0	3.0	3.0	100
69.0 - 72.0	3.0	3.0	100
72.0 - 75.0	3.0	3.0	100
75.0 - 78.0	3.0	3.0	100
78.0 - 81.0	3.0	3.0	100
81.0 - 83.2	2.2	2.2	100
83.2 - 86.0	2.8	2.8	100
86.0 - 89.0	3.0	3.0	100
89.0 - 91.4	2.4	2.4	100
91.4 - 94.1	2.7	2.7	100
94.1 - 97.1	3.0	3.0	100
97.1 - 100.1	3.0	3.0	100
100.1 - 103.1	3.0	3.0	100
103.1 - 106.1	3.0	3.0	100
106.1 - 109.1	3.0	3.0	100
109.1 - 112.1	3.0	3.0	100
112.1 - 115.1	3.0	3.0	100
115.1 - 118.1	3.0	3.0	100
118.1 - 119.6	1.5	1.5	100
EOH 119.6			

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SUMMARY STRUCTURAL DATA

D.D.H. No. D 120/21

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)
0.4 - 14.2	Bh						91,0	
14.2 - 21.0	Bh/ph/ch						67,6	
21.0 - 31.0	ch						90,5	
31.0 - 32.6	ch/ph						65,6	
32.6 - 39.4	ch						90,4	
39.4 - 39.7	ph						50,0	
39.7 - 40.3	bh						33,3	
40.3 - 60.9	bh						67,5	
60.9 - 72.4	pgh						85,2	
72.4 - 82.0	gh						83,1	
82.0 - 83.25	gph						33,6	
83.25 - 84.27	m/m						93,1	
84.27 - 90.2	Lower C						71,3	
90.2 - 92.6	bh						41,7	
92.6 - 98.2	bh/ph						32,2	
98.2 - 102.4	ch						72,6	
102.4 - 111.6	bh						76,1	

111.6 - 119.6 Low Volc
FURTHER DATA & REMARKS

77,5

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

GEOLOGY - KING ISLAND SCHEELITE

ASSAY DATA

D.D.H. No. D120/21

SAMPLE NO.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Rec.	WO ₃	Mo		
D 11484	20	21	1.0	1.0	0.29	0.02		
85	21	22	"	"	0.01	0.01		
86	61	62	"	"	0.13	<0.01		
87	62	63	"	"	0.30	0.01		
88	63	64	"	"	0.34	0.01		
89	64	65	"	"	0.14	0.01		
90	65	66	"	"	0.03	<0.01		
91	66	67	"	"	0.47	0.01		
92	67	68	"	"	0.16	0.01		
93	68	69	"	"	0.17	<0.01		
94	69	70	"	"	0.63	0.01		
95	70	71	"	"	0.09	<0.01		
96	71	72	"	"	0.16	0.01		
97	72	73	"	"	0.71	0.01		
98	73	74	"	"	0.72	<0.01		
99	74	75	"	"	1.76	0.03		
500	75	76	"	"	1.44	0.02		
01	76	77	"	"	1.75	0.03		
02	77	78	"	"	1.97	0.06		
03	78	79	"	"	1.03	0.04		
04	79	80	"	"	0.98	0.02		
05	80	81	"	"	1.25	0.02		
06	81	82	"	"	1.82	0.04		
07	82	83	"	"	9.13	0.16		
08	83	84	"	"	0.05	0.02		
09	84	85	"	"	1.09	0.02		
10	85	86	"	"	1.92	0.04		
11	86	87	"	"	24.3	0.35		
12	87	88	"	"	12.4	0.19		
13	88	89	"	"	6.9	0.09		
89	89	90	"	"	0.47	0.01		
515	99	100	"	"	0.06	0.01		

SPECIFIC GRAVITY

Depth (metres):

Rock Type:

S.G.:

Determined by:

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 120/21

- 0.0 - 0.4 m CEMENTITE
- 0.4 - 14.2 BIOTITE HORNFELS
Minor bedding. Dark in colour.
8.0 - 9.5 m Contains calcite infilled, cracks parallel to core axis.
- 14.2 - 39.7 B LENS
- 14.2 - 21.0 Interbedded sequence of biotite hornfels/pyroxene garnet/marble. 19.1 - 19.4 massive grossularite some quartz, Minor calcite veining which carry some andradite with minor mineralisation, 20.25 - 20.48 andradite - pyroxene - calcite with moderate mineralisation.
- 21.0 - 31.0 Marble - unreplaced, dark coloured, moderate bedded. Occasional calcite veins. 24.5 - 27.5 metamorphic spotting, Carrying very weak fine mineralisation. Bedding 80° to core axis at 28 m,
- 31.0 - 32.6 Marble - light coloured with about 20% grossularite and pyroxene no mineralisation.
- 32.6 - 39.4 Marble as for 21.0 - 31.0 m.
- 39.4 - 39.7 Pyroxene rich unit, no bedding, minor grossularite.
- 39.7 - 60.9 BIOTITE HORNFELS
- 39.7 - 40.3 Biotite hornfels with patchwork of white veins (not calcite or quartz).
- 40.3 - 43.8 Biotite hornfels with minor pyroxenite and grossularite. Partly well bedded and partly massive.
- 43.8 - 44.2 Zone showing pyroxene coarse grained biotite and calcite, very minor mineralisation. Indistinct boundaries. Possible fault??
- 44.2 - 60.9 Biotite hornfels weakly bedded with some areas of minor pyroxene.
Bedding 65° to core axis at 61 m
- 59.4 - 59.55 and 60.2 - 60.45 lightly broken zone - minor fault?
- 60.9 - 72.4 PYROXENE GARNET HORNFELS
Typical podded pyroxene garnet hornfels mineralisation - probably sub-ore.
- 72.4 - 82.0 UPPER C LENS
Andradite skarn. Uniform medium grained with very strong mineralisation.
- 82.0 - 83.25 GARNET - PYROXENE - HORNFELS
Moderately mineralised.
- 82.8 - 83.2 Crumbly sheared with calcite veining - shearing maybe 20° to core axis - fault zone.

GEOLOGY - KING ISLAND SCHEELITE

GEOLOGICAL LOG

D.D.H. No. D 120/21

83.25 - 84.27 m MARBLE MARKER

Barren.

Bedding 40° to Core Axis of 83.25

84.27 - 90.2 LOWER C - BANDED SKARN

Weakly bedded garnet - pyroxene - hornfels strongly mineralised to 88.5 m 85.5 - 85.6 very coarse grained scheelite,

87.4 Bedding 55° to core axis

85.8 Chlorite shear zone?

90.2 - 91.6 BIOTITE HORNFELS

Very fine grained. Slightly bedded at 45° to core axis.

91.6 - 98.2 BIOTITE HORNFELS/PYROXENE HORNFELS

97.2 - 97.9 calcite, pyroxene with feldspar crystals - diffused aplite? interbeds of pyroxene hornfels/biotite hornfels show discontinuous biotite beds,

Bedding 60° to core axis at 95.5 m

Bedding 45° to core axis at 91.93 m

Minor broken material at 95.5 m

98.2 - 102.4 MARBLE

Barren except for weak mineralisation between 99 - 100.0 m vague bedding. Looks more like B lens than C lens marble,

102.4 - 111.6 BIOTITE HORNFELS

Very fine grained, vague bedding with occasional minor pyroxene joint pattern $45 - 60^{\circ}$ to core axis.

111.6 - 119.6 LOWER VOLCANICS

111.6 - 11.7 shows 10% feldspar crystals.

117.3 - 177.8 crumbly chloritised and zone - no shearing, possible fault zone.

EOH 119.6 m

GEOPEKO LIMITED - KING ISLAND

LOG OF D.D.H. No. D 120/20

PLANNING

Proposer: A. Younger Depth: 40cm
Location: -150 m R.L. Drill Drive

Purpose of hole: To further define C lens pit.

Co-ordinates: 220120 E 563957 N

Inclination: -14° Magnetic:

Bearing: 0° Grid Target depth:

Target: E N

Approved by: Date:

SURVEY

Survey Co-ords: E N

Survey bearing 355°40' Grid Magnetic:

Surveyed in by: Date:

Actual Co-ords: 220122.54 E 563953.41 N

R.L. of collar: W-146.96 Inclination of hole: -12°50'

Picked up by: R.J.H. Date: 24-5-78

SUMMARY

Logged by: A. Younger

Results:

DRILLING

Driller/Contractor: A.D.D.

Date Commenced: 23-5-78 Date Terminated:

Casing: Size :			
Depth :			
Core: Size :	46TT		
Depth :	37.1 m		

Wedge Runoff:

Wedge Placed: Nil Depth:

Proposed by: Approved by:

Reason:

Extension:

Final depth: 37.1 m

Reason for termination: Determined position of C lens as required

Condition of hole on completion:

Casing:

Cemented: Open

Bore hole survey: L. Denby

Water: Normal water return

Comments on drilling conditions:

GEOPEKO LIMITED - KING ISLAND

SUMMARY FORE HOLE SURVEY DATA

D.D.H. No. D 120/20

Survey method: Singleshot
Final depth: 37.1
Casing depth: Nil

Depth surveyed to: 37.1
Date surveyed: 24-5-78
Surveyed by: L. Denby
Checked by:

Bearing			Inclination		True vertical Depth (m)	Co-ordinates	
Depth (m)	Grid	Mag.	Read	Corrected		N	W
4.0	357	347	77.25	-12.75	0.88	3.80	0.88
37.1	356	346	76.45	-13.25	8.47	35.06	8.67

REMARKS:

GEOPEKO LIMITED - KING ISLAND

CORE RECOVERY

D.D.H. No. D 120/20

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 3.0	3.0	2.8	93
3.0 - 4.7	1.7	1.7	100
4.7 - 7.1	2.9	2.95	101
7.6 - 10.6	3.0	3.0	100
10.6 - 13.6	3.0	2.95	98
13.6 - 16.0	2.4	2.5	104
16.0 - 17.4	1.4	1.35	96
17.4 - 17.5	0.1	0.1	100
17.5 - 19.4	1.9	1.8	94
19.4 - 21.2	1.8	1.85	102
21.2 - 23.0	1.8	1.9	105
23.0 - 26.0	3.0	3.0	100
26.0 - 28.1	2.1	2.0	95
28.1 - 31.1	3.0	2.95	98
31.1 - 34.1	3.0	2.95	98
34.1 - 37.1	3.0	2.9	96

			98.3
		Recoverys	98%

GEOPEKO LIMITED - KING ISLAND

SUMMARY STRUCTURAL DATA

DDH No. D 120/20

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)
0.0 - 21.95	Biotite Hornfels	5	40-70	carb, chl, minor sulph.	15	100	77	
21.95 - 37.1	Pyroxene Garnet Hornfels	6	40-60	carb, chl, minor clay.	-	98	77	

FURTHER DATA & REMARKS

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

GEOPEKO LIMITED - KING ISLAND

GEOLOGICAL LOG

D.D.H. No. D 120/20

0.0 - 21.95

BIOTITE HORNFELS

Typical fine grained grey biotite hornfels. Except for the first 3.4 m the unit is very uniform and homogeneous. From 0.0 - 3.4 m it seems to be coarser grained than is normal.

Carbonate veining is quite common generally at 70° to LCA.

F/M average 5 at 40°-70° to the LCA. Minor pyroxene alteration areas occur eg 11.6 and 11.9 m. Minor quartz veining 12.2 m and 13.7 m.

Broken zones occur:-

0.4 - 0.5 m,
3.7 - 3.8 m,
17.4 - 17.5 m,
19.3 - 19.4 m and
21.2 - 21.3 m.

At 16.2 m a healed breccia zone occurs, and the broken zone 19.3 - 19.4 m has some clay possibly indicating a fault.

21.95 - 37.1 m

PYROXENE GARNET HORNFELS

This distinctive podded unit seems to be transitioned with the above biotite hornfels. Though podded the biotite hornfels matrix continues to about 28.5 m, where the pyroxene matrix is dominant.

F/M average about 6 mostly at 40°-60° to the LCA.

Broken zones occur:-

28.0 - 28.1 m and
35.7 - 35.8 m.

The zone 35.7 - 35.8 m has calcite and clay fill indicating fault movement.

Mineralization is low grade, patchy and only occurs in the last 6 metres of the hole.

EOH 37.1 m.

GEOPEKO DIVISION - King Island

LOG OF D.D.H. No. D 120/19

PLANNING

Proposer: ...A. Younger..... Depth: ...50 m.....
Location: ...-150 m, R.L. Drill Drive off M14.....
.....
Purpose of Hole: Test C lens (Pit) adjacent to Swan Fault.....
Co-ords: ..220120..... E ..563957..... N
Inclination: 0°.....
Bearing: ...0°..... °Grid °Mag
Target: E N
Depth:
Approved by: Date:

SURVEY

Survey Co-ords: E N
Surveyed Bearing: ...355°30'..... °Grid °Mag
Surveyed in by: Date
Actual Co-ords: ..220122.66..... E ..563953.54..... N
R.L. of Collar: ...W-146.52.....
Inclination of Hole: ...-0°00'.....
Picked up By: ...R.J.H..... Date ...10-5-1978.....

SUMMARY

Logged By: ..A. Younger..... Date
Results: ...38-41 m, 3 m @ 0.52% WO₃.....
.....
.....
.....

DRILLING

Date Commenced: ...9-5-1978..... Date Terminated...12-5-1978.....
Driller/Contractor ...A.D.D.....

Casing:	Size :	Nil		
	Depth :			
Core:	Size :	46TT		
	Depth :	41.3 m		

Wedge Runoff:

Wedge placed:	Depth
Proposed by:	Approved by
Reason	

Extension:

Final Depth: 41.3 m
Reason for Termination: Intersected pgh (Pit) giving position of C lens.

Condition of hole on completion:

Casing; Nil
Cemented:

Bore hole survey:

Water: Normal

Comments on Drilling Conditions:

GEOPEKO LIMITED - KING ISLAND

SUMMARY BORE HOLE SURVEY DATA

D.D.H. No. D 120/19

Survey method: Singleshot Camera
Final depth: 41.3 m
Casing depth: Nil

Depth surveyed to: 41.30m
Date surveyed: 9-5-78
Surveyed by: L. Denby
Checked by: A. Younger

Bearing			Inclination		True vertical Depth (m)	Co-ordinates	
Depth (m)	Grid	Mag.	Read	Corrected		N	W
11.3	359	349	89.75°	-0.25°	0.05	11.09	2.16
41.3	358	348	87.75	-0.25	0.18	40.43	8.40

REMARKS:

GEOPEKO LIMITED - KING ISLAND

CORE RECOVERY

D.D.H. No. D 120/19

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 3.1	3.1	2.9	93
3.1 - 4.5	1.4	1.4	100
4.5 - 5.7	1.2	1.25	104
5.7 - 6.3	0.6	0.6	100
6.3 - 9.0	2.7	2.75	101
9.0 - 12.0	3.0	2.9	96
12.0 - 15.0	3.0	3.0	100
15.0 - 15.7	0.7	0.85	121
15.7 - 17.3	1.6	1.6	100
17.3 - 19.5	2.2	2.2	100
19.5 - 22.3	2.8	2.85	101
22.3 - 25.3	3.0	3.0	100
25.3 - 28.3	3.0	3.0	100
28.3 - 31.3	3.0	2.9	96
31.3 - 32.3	1.0	1.0	100
32.3 - 33.0	0.7	0.9	128
33.0 - 33.7	0.7	0.7	100
33.7 - 34.1	0.4	0.35	87
34.1 - 34.5	0.4	0.55	137
34.5 - 36.0	1.5	1.2	80
36.0 - 36.7	0.6	0.8	133
36.7 - 38.3	1.6	1.8	112
38.3 - 41.3	3.0	2.9	96

OH 106.07%

GEOPEKO LIMITED - KING ISLAND

ASSAY DATA

D.D.H. No. D 120/19

Sample No.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	TO	Length	Length Recovered	WO ₃	Mo		
D 8040	37	38	1.0	1.0	0.11	<0.01		
41	38	39	"	"	0.50	<0.01		
42	39	40	"	"	0.73	0.01		
43	40	41	"	"	0.32	<0.01		

SPECIFIC GRAVITY

Depth (metres):

Rock Type :

S.G. :

Determined by:

GEOPEKO LIMITED - KING ISLAND

SUMMARY STRUCTURAL DATA

DDH No. D 120/19

DEPTH INTERVAL (METRES)	ROCK TYPE	FRAC- TURES /m	JOINT ANGLE (WRT I.A.O.C.)	JOINT FILLING	BEDDING ANGLE (WRT. L.A.O.C.)	% CORE RECO- VERY	R.Q.D.	REMARKS (WEATHERING)
0.0 - 1.15m	Lower Volcanics	12		minor carb	-	100	39	
1.15 - 36.5 m	Bh	7	20°-60°	clay, chl, carb	15	100	72	
	<u>1.3 - 6.3 m</u>	Probably	Swan Fault					
	<u>33.85</u>	Unknown	Major Fault					
36.5 - 41.3	Pyroxene garnet hornfels	4	70°-80°	Minor Clay Chl.	-	100	79	

FURTHER DATA & REMARKS

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

GEOPEKO LIMITED - KING ISLAND

GEOLOGICAL LOG

D.D.H. No. D 120/19

0.0 - 1.15

LOWER VOLCANICS?

Slightly foliated and finely spotted unit which seems to have a transitional contact with the underlying biotite hornfels.

The spotting or foliation is by biotite and is not well developed, but appears to be at about 80° to the LGA.

It could be a slightly different phase of the biotite hornfels.

F/M are about 12 to the LCA.

1.15 - 36.5 m

BIOTITE HORNFELS

Typical fine grained, mostly grey brown biotite hornfels with some spotted zones (19.4 - 19.9 m, 27.5 - 28.0 m) and much tonal colour variation.

Relic bedding traces at about 13 m indicate a dip of about 15° to the LCA.

F/M average 7 at about 20° - 60° to the LCA.

There are three major fault or fracture zones which occur at:-

1.3 - 6.4 m,
15.8 - 17.3 m,
32.8 - 36.7 m, which has a clay pug zone of 0.2m at
33.85 m.

These zones consist of many broken, rubbly, chlorites; and some minor clayey; areas within these zones.

The zone 1.3 - 6.3 m is probably the Swan Fault.

36.5 - 41.3

PYROXENE GARNET HORNFELS

Fairly typical pyroxene garnet hornfels, beginning with a biotite hornfels matrix and pyroxene / grossular garnet rims on pods progressing through to a grossular / pyroxene matrix with andradite garnet rimming some pods.

Good but patchy mineralization occurs F/M average 4 at about 70° - 80° to the LCA.

E.O.H.

GEOLOGY - KING ISLAND SCHEELITE

CHECK ASSAY DATA

D.D.H. No. D 120/19

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	
8043	0.32	<0.01	11778	0.40		11779	0.39		11780	0.38		

GEOPEKO DIVISION - King Island

LOG OF D.D.H. No. D 120/18

PLANNING Proposer: ...G. J. Buitor..... Depth:
Location: ...-150 m. R.L. Drill Drive.....
.....
Purpose of Hole: ..To test C lens mineralization.....
Co-ords: ...220120 E..... E ...563950..... N
Inclination: ...-28°.....
Bearing:0.....°Grid°Mag
Target: E N
Depth:
Approved by: Date:

SURVEY Survey Co-ords: E N
Surveyed Bearing: 357° 20'.....°Grid°Mag
Surveyed in by: Date
Actual Co-ords: ...220122.71... E ...563953.56..... N
R.L. of Collar:F-147.44.....
Inclination of Hole: ...-28° 20'.....
Picked up By:R.J.H..... Date 8-5-78.....

SUMMARY Logged By: ...A. Younger..... Date
Results: ...13 - 16 m, 3 m @ 0.75% WO₃ Upper C lens.....
.....18 - 30 m, 12 m @ 0.8% WO₃ Upper C lens.....
.....49 - 54 m, 5 m @ 1.01% WO₃ BFB (m).....
.....

DRILLING Date Commenced:3-5-1978..... Date Terminated.....16-5-1978.....
Driller/Contractor ...A.D.D.....

Casing:	Size :	BQ		
	Depth :	1m		
Core:	Size :	46TT		
	Depth :	58.0		

Wedge Runoff:
Wedge placed: Nil
Proposed by: _____ Depth
Reason . _____ Approved by

Extension:
Final Depth: 58.00
Reason for Termination: Entered unmineralized bh/ph

Condition of hole on completion:
Casing; 1m
Cemented: Nil
Bore hole survey: L. Denby @ 8m, 28m, 58m
Water: Normal
Comments on Drilling Conditions:

GEOPEKO LIMITED - KING ISLAND

SUMMARY BORE HOLE SURVEY DATA

D.D.H. No. D 120/18

Survey method: Singleshot Camera
Final depth: 58.00 m
Casing depth: Nil

Depth surveyed to: 58.00
Date surveyed: 8-5-1978
Surveyed by: L. Denby
Checked by: A. Younger

Bearing			Inclination		True vertical Depth (m)	Co-ordinates	
Depth (m)	Grid	Mag.	Read	Corrected		N	W
8.00	359	349	-28		3.76	6.93	1.35
28.00	354	344	-28		-13.15	24.07	5.62
58.00	353	343	-28		-27.24	49.4	13.37

REMARKS:

GEOPEKO LIMITED - KING ISLAND

CORE RECOVERY

D.D.H. No. D 120/18

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 2.5	2.5	2.5	100
2.5 - 4.1	1.6	1.4	37
4.1 - 6.0	1.9	2.15	113
6.0 - 9.0	3.0	3.0	100
9.0 - 12.0	3.0	3.05	101
12.0 - 15.0	3.0	3.00	100
15.0 - 17.2	2.2	2.4	109
17.2 - 20.0	2.8	2.7	96
20.0 - 23.0	3.0	2.9	96
23.0 - 24.2	1.2	1.3	108
24.2 - 27.0	2.8	2.9	103
27.0 - 29.3	2.3	2.3	100
29.3 - 32.0	2.7	2.7	100
32.0 - 34.2	2.2	2.05	93
34.2 - 37.0	2.8	2.8	100
37.0 - 38.5	1.5	1.9	126
38.5 - 41.5	3.0	3.0	100
41.5 - 44.5	3.0	3.0	100
44.5 - 47.5	3.0	3.0	100
47.5 - 50.0	2.5	2.6	104
50.0 - 51.7	1.7	1.7	100
51.7 - 53.7	2.0	2.05	102
53.7 - 54.5	0.8	0.9	112
54.5 - 55.6	1.1	1.2	109
55.6 - 58.0	2.4	2.4	100
			102.21
			recovery = 100%

GEOPEKO LIMITED - KING ISLAND

ASSAY DATA

D.D.H. No. D ~~7603~~ 120/18

Sample No.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	TO	Length	Length Recovered	WO ₃	Mo		
D 7603	10	11	1.0	1.0	<0.01	<0.01		
4	11	12	"	"	0.12	0.01		
5	12	13	"	"	0.16	0.02		
6	13	14	"	"	0.58	0.04	3m @	0.75% WO ₃
7	14	15	"	"	1.36	0.04		
8	15	16	"	"	0.33	0.01		
9	16	17	"	"	0.04	<0.01		
10	17	18	"	"	0.03	<0.01		
11	18	19	"	"	0.85	0.03	12m @	0.8% WO ₃
12	19	20	"	"	0.65	0.01		
13	20	21	"	"	0.88	0.02		
14	21	22	"	"	1.62	0.05		
15	22	23	"	"	1.24	0.05		
16	23	24	"	"	0.86	0.04		
17	24	25	"	"	0.8	0.03		
18	25	26	"	"	0.47	0.02		
19	26	27	"	"	0.65	0.02		
20	27	28	"	"	0.69	0.02		
21	28	29	"	"	0.38	0.01		
22	29	30	"	"	0.51	0.01		
23	30	31	"	"	0.02	<0.01		
24	37	38	"	"	0.15	0.01		
25	38	39	"	"	0.35	0.02		
26	39	40	"	"	0.08	<0.01		
27	48	49	"	"	0.06	<0.01		
28	49	50	"	"	1.26	0.04	5m @	1.01% WO ₃
29	50	51	"	"	0.3	0.01		
30	51	52	"	"	1.41	0.03		
31	52	53	"	"	0.5	0.01		
32	53	54	"	"	1.56	0.05		
33	54	55	"	"	0.22	<0.01		
34	55	56	"	"	0.08	<0.01		
35	56	57	"	"	0.12	<0.01		
36	57	58	"	"	0.89	0.02		

SPECIFIC GRAVITY

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

Determined by:

GEOPEKO LIMITED - KING ISLAND

SUMMARY STRUCTURAL DATA

DDH No. D 120/18

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)
0.0 - 10.8	Bh	7	40-60°	Chl, clay	45°	100	66	
	Swan Fault 0.0 - 4.1 m							
10.8 - 29.9	Upper C lens	6	50-40°	Clay, carb		100	79	
29.9 - 36.3	Marble marker Bh/Ph/Ch/Gh	5	30-80°	Chl, carb, clay	50-60°	100	84	
36.3 - 40.5	Banded foot- wall beds (min)	9	50-70°	Chl, carb	30°-35°	100	65	
40.5 - 47.25	Lower Vol?	4	60-80°	Chl,	Foliation 15-20°	100	96	
47.25 - 55.05	BFB (m)	7	40-60°	Chl, clay	50-60°	100	83	
55.05 - 58	Bh/Ph	6	40-50°	Chl, clay	40-50°	100	84	

FURTHER DATA & REMARKS

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

GEOPEKO LIMITED - KING ISLAND

GEOLOGICAL LOG

D.D.H. No. D 120/18

0.0 - 10.8 m

BIOTITE HORNFELS

Grey brown biotite hornfels with minor pyroxene hornfels zones (3.0m, 8.0 m).

Much carbonate veining with preferred orientation at 45° to LCA and may represent relic bedding.

Zone from 5.95 - 8.15 m has a fine spotted nature F/M average 7 at about 40-60° to the LCA. Several broken zones occur:-

0.0 - 1.1 m

2.2 - 2.5 m

2.8 - 3.3 m

4.0 - 4.1 m

These probably represent the Swan Fault Zone as the core varies between breccia, rubble and sheared material.

10.8 - 29.9 m

MASSIVE SKARN - UPPER C LENS

The contact with the biotite hornfels is faulted at 35° to the LCA and filled with clay pug.

The unit is massive andradite garnet skarn with minor calcite and sulphides, except for the zones 10.8 - 12.0 m and 17.3 - 18.6 m where there is a large amount of pyroxene present. The zone 10.8 - 12.0 m also has a minor unit of biotite hornfels.

Sheared zones occur at 15.5 - 15.9 m and 28.1 - 29.2 m, there is also some brecciation.

F/M average 6 at about 50-90° to the LCA.

Mineralization is mainly finely disseminated throughout and mostly of high grade.

29.9 - 36.3 m

MARBLE MARKER

Mixed units of biotite hornfels, pyroxene hornfels and marble. The marble forming nearly 50% of whole spread across 3 units. Minor grossular garnet and traces of mineralization. A sheared and broken zone occurs 33.6 - 34.1 m within one of the biotite hornfels unit.

Overall F/M is 5 at about 30-80° to the LCA. Relic bedding is prominent in all units mostly at 50-60° to the LCA.

GEOPEKO LIMITED - KING ISLAND

GEOLOGICAL LOG

D.D.H. No. D 120/18

36.3 - 40.5 m

BANDED FOOTWALL BEDS LOWER C LENS

Thinly laminated pyroxene hornfels and biotite hornfels interbedded with weakly mineralized grossular and andradite garnet skarn.

A peculiar pyroxene / grossular garnet unit occur 39.4 - 39.7 m, where fragments of grossular garnet skarn occur in a pyroxene ground mass. A sheared and weathered section occurs 38.0 - 38.2 m giving a major broken zone. F/M average 9 generally at about 50-70° to the LCA.

Relic bedding has an angle of about 30-35° to the LCA.

40.5 - 47.25 m

LOWER VOLCANICS?

Finely spotted homogeneous unit which seems conformable and does not appear to be a sediment. The fine spotting is probably biotite and forms a distinct foliation in the unit at about 15-20° to the LCA. The F/M averages about 4 generally at about 60-80° to the LCA.

47.25 - 55.05 m

BANDED FOOTWALL BEDS (MINERALIZED)

Laminated pyroxene hornfels, biotite hornfels and garnet hornfels; showing some contorted bedding. The garnet hornfels is about 50% grossular and 50% andradite garnet.

Bedding is mostly at about 50-60° to the LCA but does get down to 10° to the LCA.

Sulphides are relatively common as belbs and joint surface coatings.

Mineralization is poor to medium grade and an unusually high proportion is coarse (+5 mm) grain size.

Broken and sheared zone and minor faults occur:-

49.0 - 49.1 m,

49.9 - 50.0 m,

53.6 - 53.7 m, and

53.8 - 53.95m where a slicken sided, carbonate filled fracture occurs.

F/M average about 7 mostly at 40-60° to the LCA.

GEOPEKO LIMITED - KING ISLAND

GEOLOGICAL LOG

D.D.H. No. D 120/18

55.05 - 58.00 m

BIOTITE HORNFELS / PYROXENE HORNFELS

Mostly fine interbeds of biotite hornfels and pyroxene hornfels, but minor grossular garnet skarn units are present.

The mineralization in the garnet units is still unusually coarse but very patchy and subgrade in occurrence. Bedding is at 40°-50° to the LCA, with minor contorted bedding around 57.4 m.

F/M average about 6 at about 40-50° to the LCA.

The core is sheared and broken between 57.8 - 58.0 m indicating a probable fault.

E.O.H. 58.00 m.

GEOLOGY - KING ISLAND SCHEELITE

CHECK ASSAY DATA

D.D.H. No. D 120/18

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	
7612	0.65	0.01	11718	0.54	< 0.01	11719	0.64		11720	0.62		
7622	0.51	0.01	11721	0.44	< 0.01	11722	0.49		11723	0.44		
7633	0.22	< 0.01	11724	0.40	< 0.01	11725	0.26		11726	0.19		

GEOPEKO LIMITED - KING ISLAND

SUMMARY BORE HOLE SURVEY DATA

D.D.H No. Dolphin 120/17

Survey method: Multishot camera

Final depth : 176.0

Casing depth : 1m

Depth surveyed to: 118.0

Date surveyed: 24/6/77

Surveyed by : L. Denby

Checked by : M.J.D.

Depth (m)	Bearing		Inclination		True vertical Depth (m)	Co-ordinates	
	Grid	Mag.	Read	Corrected		S	E
22	178	168	-46	-44	15.28	15.52	3.13
40	181	171	-45.75	-44.25	27.80	28.23	5.48
64	184	174	-45.25	-44.75	44.64	45.19	7.79
85	187	177	-45	-45	59.48	59.98	8.78
118	186	176	-44	-46	83.11	82.96	10.49

REMARKS: Hole caved at 118m

GEOPEKO LIMITED - KING ISLAND

CORE RECOVERY

D.D.H. No. Dolphin 120/17

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0 - 1.8	1.8	1.8	100
4.7	2.9	2.9	100
6.5	1.8	1.8	100
7.7	1.2	1.2	100
10.7	3.0	3.0	100
13.7	3.0	3.0	100
14.8	1.1	1.1	100
16.7	1.9	1.9	100
19.7	3.0	3.0	100
22.7	3.0	3.0	100
25.7	3.0	3.0	100
28.7	3.0	3.0	100
31.7	3.0	3.0	100
34.7	3.0	3.0	100
37.7	3.0	3.0	100
40.7	3.0	2.9	97
43.7	3.0	3.0	100
46.7	3.0	3.0	100
49.7	3.0	3.0	100
52.7	3.0	3.0	100
55.7	3.0	3.0	100
58.7	3.0	3.0	100
61.7	3.0	3.0	100
64.7	3.0	3.0	100
67.7	3.0	3.0	100
70.7	3.0	3.0	100
73.7	3.0	2.4	80
76.7	3.0	3.0	100
79.7	3.0	3.0	100
82.7	3.0	3.0	100
85.8	3.1	3.1	100
88.7	2.9	2.9	100
91.7	3.0	3.0	100
94.7	3.0	3.0	100
97.7	3.0	3.0	100
100.7	3.0	3.0	100
103.7	3.0	3.0	100
106.7	3.0	3.0	100
109.5	2.8	2.7	96
112.5	3.0	3.0	100
114.9	2.4	2.4	100
117.9	3.0	3.0	100
121.7	3.8	4.2	110

GEOPEKO LIMITED - KING ISLAND

CORE RECOVERY

D.D.H. No. D 120/17

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
124.7	3.0	2.8	93
127.3	2.6	2.6	100
130.1	2.8	2.9	104
133.4	3.3	3.0	91
136.5	3.1	3.0	97
137.4	0.9	0.8	89
139.7	2.3	2.3	100
142.7	3.0	3.0	100
145.7	3.0	3.0	100
148.7	3.0	3.0	100
151.4	2.7	2.5	93
154.5	3.1	3.1	100
157.6	3.1	3.1	100
160.7	3.1	3.1	100
163.7	3.0	3.0	100
166.0	2.3	2.3	100
169.7	3.7	3.0	81
172.6	2.9	2.8	97
175.2	2.6	2.5	96
176.2	1.0	1.0	100
EOH			

GEOPEKO LIMITED - KING ISLAND

SUMMARY STRUCTURAL DATA

D.D.H. No. Dolphin 120/17

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 - 40.7	bh	5		clay minor carbonate		100	84	
40.7 - 67.7	bh ph ph	4		clay	49m: 40°	100	87	
67.7 - 79.7	ch	10		carbonate		95	64	
79.7 - 100.7	ch	4		carbonate		100	94	
100.7 - 127.3	bh	7		clay		100	77	Possible Fault
* 110.7m	water inflow							110.7 - 111.1
127.7 - 142.7	pgh granite	4		clay		97	95	Partially re- cemented breccia, carbonate filled.
142.7 - 169.7	pgh gh	5		clay		97	81	
168.9 - 169.7	is zone of core rather than bad		loss apparently due to core grinding away in barrel ground.					
169.7 - 176.2	granite	4		nil		97	87	
* 170.6	making water							

FURTHER DATA & REMARKS

- Detailed % core recoveries within each depth interval is shown in the core recovery tabulation.
- R.Q.D. (rock quality designation) $\pm \frac{\text{length core} > 10 \text{ cms}}{\text{length drilled}} \%$
- Core size. 46TT = 36mms dia.

GEOPEKO LIMITED - KING ISLAND

ASSAY DATA

D.D.H. No. Dolphin 120/17

Sample No.	DEPTH (METRES)				ELEMENTS		COMMENTS
	From	To	Length	Length Recovered	WO ₃	Mo	
D5814	64	65	1.0	1.0	0.27	0.02	
5	65	66	"	"	0.25	0.01	
6	66	67	"	"	< 0.01	< 0.01	
7	67	68	"	"	0.09	< 0.01	
8	68	69	"	"	0.30	0.01	
9	69	70	"	"	< 0.01	< 0.01	
20	70	71	"	"	< 0.01	< 0.01	
1	71	72	"	"	"	"	
2	72	73	"	0.55	"	"	
3	73	74	"	0.85	"	"	
4	74	75	"	1.0	"	"	
D5825	75	76	"	1.0	0.44	"	
D5826	85	86	1.0	1.0	< 0.01	< 0.01	
7	86	87	"	"	0.18	< 0.01	
D5828	91	92	"	"	< 0.01	< 0.01	
9	92	93	"	"	0.58	0.03	
30	93	94	"	"	0.54	0.02	
1	94	95	"	"	0.58	0.02	B lens, 3m @ 0.57% WO ₃
2	95	96	1.0	1.0	< 0.01	< 0.01	
3	96	97	"	"	0.09	"	
4	97	98	"	"	0.22	"	
5	98	99	"	"	0.30	"	
6	99	100	"	"	< 0.01	"	
D5837	100	101	"	"	< 0.01	"	
D5854	130	131	1.0	1.0	< 0.01	< 0.01	
5	131	132	"	"	< 0.01	< 0.01	
6	132	133	"	"	< 0.01	< 0.01	
D5861	143	144	1.0	1.0	< 0.01	< 0.01	
2	144	145	"	"	0.06	< 0.01	
3	145	146	"	"	0.03	< 0.01	
4	146	147	"	"	< 0.01	< 0.01	
D5865	147	148	"	"	< 0.01	< 0.01	

SPECIFIC GRAVITY

Determined by:

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

GEOPEKO LIMITED - KING ISLAND

ASSAY DATA

D.D.H. No. Dolphin 120/17

Sample No.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Recovered	WO ₃	Mo		
D5866	152	153	1.0	1.0	0.20	0.01		
7	153	154	"	"	0.26	0.01		
8	154	155	1.0	1.0	0.84	0.02		
9	155	156	"	"	0.26	< 0.01		
70	156	157	"	"	0.01	< 0.01		
1	157	158	"	"	< 0.01	< 0.01		
2	158	159	"	"	0.80	0.02		
3	159	160	"	"	1.04	0.04	C lens, 4m	@ 0.87% WO ₃
4	160	161	"	"	0.95	0.04		
5	161	162	"	"	0.70	0.02		
6	162	163	"	"	0.20	< 0.01		
7	163	164	"	"	< 0.01	< 0.01		
8	164	165	"	"	0.05	0.01		
9	165	166	"	"	< 0.01	< 0.01		
80	166	167	"	"	0.27	0.01		
D5881	167	168	"	"	0.28	0.01		

SPECIFIC GRAVITY

Determined by:

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

GEOPEKO LIMITED - KING ISLAND

GEOLOGICAL LOG

D.D.H. No. Dolphin 120/17

0.0 - 40.7

BIOTITE HORNFELS

Barren pale grey brown fine grained biotite hornfels. Minor carbonate veining but no apparent bedding.

This unit increases in pyroxene content towards base and contact with unit below is arbitrary.

40.7 - 58.7

BIOTITE PYROXENE HORNFELS

Essentially barren fine grained green pyroxene and black biotite hornfels unit typical of the hangingwall of B lens.

Scheelite on joint interface at 40.4m.

58.7 - 104.0

B LENS

Pyroxene hornfels 58.7 - 68.6

Dominantly a pale green pyroxene rich rock. Minor grossular garnet developed occasionally and minor disseminated scheelite below 64.5m.

Marble 68.6 - 104.0

Essentially a barren grey marble which is replaced to a grossular garnet skarn in places which carry minor disseminated scheelite.

e.g. 64.5 - 76.3
85.3 - 86.7
92.5 - 100.9

104.0 - 127.7

BIOTITE HORNFELS

Barren grey fine grained biotite hornfels.
123.9 - 124.3 aplite.

127.7 - 133.6

PYROXENE GARNET HORNFELS

Typical pgh. Fine grained green diopside groundmass containing white carbonate pods up to 5cm dia.

Minor (sub oregrade) disseminated scheelite 130.1 - 133.0

133.6 - 139.2

GRANITE

Medium grained barren pale pink granite.

GEOPEKO LIMITED - KING ISLAND

GEOLOGICAL LOG

D.D.H. No. DOLPHIN 120/17

139.2 - 157.0

PYROXENE GARNET HORNFELS

Mottled green ph and pale brown grossular garnet matrix containing moderate to abundant white carbonate pods up to 3cm dia.

Minor disseminated scheelite 143.4 - 147.3
and 152.4 - 157.0

Aplite 133.7 - 139.0
141.5 - 143.0

157.0 - 164.0

GARNET HORNFELS

Medium grained massive andradite skarn.

High grade disseminated scheelite 158.4 - 162.4m.

Unit becomes finer grained below 162.4 and sub oregrade.

164.0 - 166.3

GARNET PYROXENE HORNFELS

Fine grained pyroxene rich andradite garnet hornfels containing minor disseminated scheelite throughout.

166.3 - 176.2

GRANITE

EOH

Pale pink fine to medium grained granite.

GEOPEKO LIMITED - KING ISLAND

CHECK ASSAY DATA

D.D.H. D 120/17

LAB.		K.I.S.		LAB. K.I.S. Check			LAB. AMDEL			LAB. A.C.S.I.			HOLE No.
Original Sample No.	WO ₃	Mo	Check Sample No.	WO ₃	Mo	Check Sample No.	WO ₃	Mo	Check Sample No.	WO ₃	Mo		
5868	0.84		6662	0.58		6663	0.78		6664	0.65		D 120/17	
5874	0.95		6665	0.90		6666	1.07		6667	1.01		"	

GEOPEKO LIMITED - KING ISLAND

LOG OF D.D.H. NO. Dolphin 120/16

PLANNING

Proposer: M. Danielson **Depth:** 120m

Location: K.9. -150m R.L.

Purpose of hole: C lens oreblocking

Co-ordinates: 220120 E 563950 N
Inclination: -54 **Magnetic:**
Bearing: 180 **Grid:** **Target Depth:**
Target: E N
Approved by: M.C. Rogers **Date:** 1/5/77

SURVEY

Survey Co-ords: - E N
Survey bearing: **Grid:** **Magnetic:**
Surveyed in by: **Date:**
Actual Co-ords: 220121.75 E 563947.61 N
R.L. of Collar: F - 148.0 **Inclination of Hole:** -
Picked up by: R.J.H. *19.50* **Date:** 0/6/77

SUMMARY

Logged by: M. Danielson
Results: C lens 115 - 122m , 7m @ 0.69% WO₃

DRILLING

Driller/Contractor: A.D.D.

Date commenced: 22/5/77 **Date terminated:** 1/6/77

Casing:	Size: BXTT			
	Depth: 1m			
Core:	Size: 46TT			
	Depth: 133.8			

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

Extension: Nil
Reason for termination: Hole in footwall hornfels.

Condition of hole on completion: **Final depth:** 133.8m

Casing: No
Cemented: Yes
Bore hole survey: Multishot to 133.0m
Water: Nil

Comments on drilling conditions: -

GEOPEKO LIMITED - KING ISLAND

SUMMARY BORE HOLE SURVEY DATA

D.D.H No. D120/16

Survey method: Multishot camera

Final depth : 133.8

Casing depth : 1m

Depth surveyed to: 133.0

Date surveyed: 1/6/77

Surveyed by : L. Denby

Checked by : M.J.D.

Depth (m)	Bearing		Inclination		True vertical Depth (m)	Co-ordinates	
	Grid	Mag.	Read	Corrected		S	E
22	184	174	36	54	17.83	12.70	2.09
40	189	179	37.75	52.25	32.10	23.71	2.50
58	189	179	36.25	53.75	46.47	34.55	2.56
79	194	184	36.25	53.75	63.37	47.00	2.26
100	192	182	36.75	53.25	80.26	59.47	1.82
112	191.5	181.5	36	54	89.97	66.52	1.65
121	191	181	36	54	97.28	71.76	1.50
133	194	184	35.25	54.75	107.05	78.72	1.06

REMARKS:

GEOPEKO LIMITED - KING ISLAND

CORE RECOVERY

D.D.H. No. D120/16

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0 - 2.90	2.90	2.80	97
5.95	3.05	3.05	100
7.60	1.65	1.65	100
9.30	1.70	1.70	100
11.80	2.50	2.5	100
15.0	3.20	3.2	100
18.0	3.0	3.0	100
21.1	3.10	3.05	98
24.2	3.10	3.10	100
27.25	3.05	3.05	100
30.35	3.10	3.10	100
33.40	3.05	3.05	100
36.40	3.0	3.0	100
38.40	2.0	1.9	95
40.80	2.4	2.4	100
43.80	3.0	2.9	97
46.8	3.0	3.0	100
49.8	3.0	3.0	100
52.8	3.0	3.0	100
55.8	3.0	3.0	100
58.8	3.0	3.0	100
61.8	3.0	2.9	97
64.8	3.0	3.0	100
67.8	3.0	3.0	100
70.8	3.0	3.0	100
73.8	3.0	3.0	100
76.8	3.0	3.0	100
79.8	3.0	3.0	100
82.8	3.0	3.0	100
85.8	3.0	1.5	50
86.9	1.1	1.1	100
88.8	1.9	1.9	100
91.8	3.0	3.0	100
94.8	3.0	2.9	97
97.8	3.0	2.9	97
100.8	3.0	3.0	100
103.8	3.0	3.0	100
106.8	3.0	3.0	100
109.8	3.0	3.0	100
112.8	3.0	3.0	100
115.8	3.0	3.0	100
118.8	3.0	3.0	100
121.8	3.0	3.0	100
124.8	3.0	3.0	100
127.8	3.0	3.0	100
130.8	3.0	3.0	100
133.8	3.0	3.0	100

GEOPEKO LIMITED - KING ISLAND

SUMMARY STRUCTURAL DATA

D.D.H. No. D120/16

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 - 36.4	bh	0 -10m 10 10-36.4 5		clay, minor carbonate		100	89	
36.4 - 76.8	bph ch	36.4 - 44m 8 44 - 76.8m 4		carbonate		99	88	
76.8 - 97.8	tuffite ch	7		clay carbonate		92	59	Core loss 50% 82.8 - 85.8 Pug zone 86.3 - 86.9
97.8 - 133.8		4		clay carbonate minor pyrite	121m 65° 130m 70°	100	94	

FURTHER DATA & REMARKS

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

46TT = 36mms dia.

GEOPEKO LIMITED - KING ISLAND

ASSAY DATA

D.D.H. No. D 120/16

Sample No.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Recovered	WO ₃	Mo		
D5784	42	43	1.0	1.0	0.21	0.01		
5	43	44	"	"	0.15	0.01		
6	44	45	"	"	0.18	0.01		
7	45	46	"	"	0.10	0.02		
8	46	47	"	"	0.43	0.01		
9	47	48	"	"	<0.01	<0.01		
90	48	49	"	"	0.86	0.02		
D5791	49	50	"	"	<0.01	<0.01		
D5792	68	69	"	"	0.10	<0.01		
3	69	70	"	"	0.53	0.01		
D5794	70	71	"	"	<0.01	<0.01		
D5751	100	101	1.0	1.0	<0.01	<0.01		
2	101	102	"	"	0.02	"		
3	102	103	"	"	0.26	"		
4	103	104	"	"	0.30	"		
5	104	105	"	"	0.47	"		
6	105	106	"	"	0.23	"		
7	106	107	"	"	0.25	0.01		
8	107	108	"	"	0.32	0.01		
9	108	109	"	"	0.19	0.01		
60	109	110	"	"	0.02	<0.01		
1	110	111	"	"	<0.01	"		
2	111	112	"	"	<0.01	"		
3	112	113	"	"	<0.01	"		
4	113	114	"	"	0.05	"		
5	114	115	"	"	0.18	"		
6	115	116	"	"	0.27	"		
7	116	117	"	"	0.46	0.01		
8	117	118	"	"	1.27	0.06	C lens	
9	118	119	"	"	1.41	0.04	115 - 122m @ 0.69% WO ₃	
70	119	120	"	"	0.57	0.02		
71	120	121	"	"	0.49	0.02		
2	121	122	"	"	0.34	0.02		
3	122	123	"	"	0.13	<0.01		
4	123	124	"	"	0.23	0.01		

SPECIFIC GRAVITY

Determined by:

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

GEOPEKO LIMITED - KING ISLAND

ASSAY DATA

D.D.H. No. D 120/16

Sample No.	DEPTH (METRES)				ELEMENTS		COMMENTS
	From	To	Length	Length Recovered	WO ₃	Mo	
5	124	125	1.0	1.0	0.95	0.04	
6	125	126	"	"	<0.01	<0.01	
7	126	127	"	"	0.59	0.02	
8	127	128	"	"	<0.01	<0.01	
9	128	129	"	"	<0.01	<0.01	
80	129	130	"	"	0.32	<0.01	
1	130	131	"	"	0.28	0.01	
2	131	132	"	"	0.38	0.01	
D5783	132	133	"	"	0.02	<0.01	

SPECIFIC GRAVITY

Determined by:

Depth (m):

Rock Type:

S.G. :

GEOPEKO LIMITED - KING ISLAND

CHECK ASSAY DATA

D.D.H. 3 120/16

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	Check Sample No.	WO ₃	Mo	Check Sample No.	WO ₃	Mo	Check Sample No.	WO ₃	Mo	
D5788	0.43	0.01	D5959	0.46		D5960	0.58		D5961	0.49											
5759	0.19	0.01	5962	0.21		5963	0.24		5964	0.25											
5768	1.27	0.06	5965	1.13		5966	1.21		5967	1.18											
5782	0.38	0.01	5968	0.38		5969	0.47		5970	0.43											

GEOPEKO LIMITED - KING ISLAND

GEOLOGICAL LOG

D.D.H. No. D120/16

0.0 - 36.0

BIOTITE HORNFELS

Barren pale grey brown hangingwall biotite hornfels.

Unit becomes more actinolite rich below 27m.

36.0 - 98.6

B LENS

A mixture of rock types as follows:-

36.0 - 42.7 Biotite pyroxene hornfels

Mostly a barren green ph with minor grey black bh.

42.7 - 49.0 Garnet pyroxene hornfels

Dominantly green ph and pink grossular garnet rock containing minor disseminated scheelite.

49.0 - 76.8 Marble

Barren grey white marble containing minor scheelite
between 68.8 - 70.2.
64.5 - 64.8.

76.8 - 87.0 Tuffite

Pale grey weakly fragmental spotted rock. No mineralisation
50% core loss between 82.8 - 85.8 and pug zone 86.6 - 86.9.
Quality of core is poor in this unit.

87.0 - 92.9 Marble

Dark grey barren marble. Contains abundant graphite (?)
inclusions.

92.9 - 98.6 Tuffite

Barren grey green spotted rock, weakly fragmental.
Both upper and lower contact of this unit appears stratigraphic.

98.6 - 99.3

BIOTITE HORNFELS

Typical grey brown barren fine grained biotite hornfels.
Both upper and lower contacts are stratigraphic.

GEOPEKO LIMITED - KING ISLAND

GEOLOGICAL LOG

D.D.H. No. D120/16

99.3 - 111.9 PYROXENE GARNET HORNFELS

Very typical pgh unit. Green dropside groundmass containing white carbonate pods up to 4cm dia. rimmed by brown grossular garnet.

Low grade disseminated scheelite throughout.

111.9 - 118.8 GARNET HORNFELS

Typical medium to fine grained andradite garnet skarn. Unit is mostly barren to 115m but below contains medium grade finely disseminated scheelite.

This unit is massive and not banded at all.

118.8 - 133.8 MINERALISED BANDED FOOTWALL BEDS
E.O.H.

An interbedded white carbonate, green pyroxene and grey biotite hornfels containing minor andradite garnet interbeds containing disseminated scheelite.

GEOPEKO LIMITED - KING ISLAND

LOG OF D.D.H. NO. Dolphin 120/15

PLANNING

Proposer: M. Danielson Depth: 80m

Location: K9 -150m R.L.

Purpose of hole: C lens coreblocking south of Swan Fault

Co-ordinates: 220 120 E 563 950 N
Inclination: -72 Magnetic:
Bearing 180 Grid Target Depth:
Target: E N
Approved by: M.C. Rogers Date: 1/5/77

SURVEY

Survey Co-ords: E N
Survey bearing: Grid Magnetic:
Surveyed in by: Date:
Actual Co-ords: 220 121.74 E 563 948.10 N
R.L. of Collar: F-148.1 Inclination of Hole: -
Picked up by: R.J.H Date: 10/6/77

SUMMARY

Logged by: M. Danielson
Results: C lens 79 - 89m 10m @ 0.64% WO₃

DRILLING

Driller/Contractor: A.D.D.

Date commenced: 14/5/77

Date terminated: 22/5/77

Casing:	Size:	BXTT		
	Depth:	1m		
Core:	Size:	46TT		
	Depth:	103.0		

Wedge Runoff:

Wedge placed:	Depth:
Proposed by:	Approved by:
Reason:	

Extension: Nil

Reason for termination: Hole in footwall hornfels

Condition of hole on completion: Final depth: 103.0

Casing: Nil
Cemented: Yes

Bore hole survey: Multishot to 97.3m.

Water: Nil

Comments on drilling conditions: -

GEOPEKO LIMITED - KING ISLAND

CORE RECOVERY

D.D.H. No. D120/15

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0 - 3.6	3.6	3.6	100
6.6	3.0	3.0	100
8.8	2.2	2.2	100
11.1	2.3	2.4	104
14.2	3.1	3.0	97
17.7	3.5	3.5	100
19.8	2.1	2.0	95
22.1	2.3	2.3	100
24.0	1.9	1.9	100
26.8	2.8	2.8	100
29.8	3.0	3.0	100
32.1	2.3	2.1	91
33.9	1.8	1.8	100
36.1	2.2	2.2	100
37.4	1.3	1.3	100
39.8	2.4	2.4	100
40.1	0.3	0.3	100
41.1	1.0	0.8	80
43.3	2.2	2.2	100
46.3	3.0	3.0	100
49.3	3.0	2.95	98
52.3	3.0	3.0	100
55.4	3.1	3.1	100
58.4	3.0	2.75	92
60.7	2.3	2.2	96
62.1	1.4	1.3	93
65.1	3.0	3.0	100
67.9	2.8	2.7	96
69.3	1.4	1.4	100
70.3	1.0	1.0	100
71.7	1.4	1.4	100
74.1	2.4	2.3	96
75.2	1.1	1.1	100
79.5	4.1	4.1	100
82.5	3.0	3.0	100
85.5	3.0	3.0	100
88.5	3.0	3.0	100
91.3	2.8	2.75	98
94.3	3.0	3.0	100
97.3	3.0	3.0	100
100.3	3.0	3.0	100
101.0	0.7	0.7	100
103.0	2.0	1.6	80
E.O.H.			

GEOPEKO LIMITED - KING ISLAND

SUMMARY BORE HOLE SURVEY DATA

D.D.H No. D120/15

Survey method: Multishot camera
Final depth : 103.0m
Casing depth : 1m

Depth surveyed to: 97.3,
Date surveyed: 21/5/77
Surveyed by : L. Denby
Checked by : M.J.D.

Depth (m)	Bearing		Inclination		True vertical Depth (m)	Co-ordinates	
	Grid	Mag.	Read	Corrected		S	E
19	184	174	16.75	73.25	18.19	5.36	0.90
40	190	180	18	72	38.19	11.77	1.02
61	197	187	18	72	58.18	18.23	0.54
76	203	193	17.75	72.25	72.47	22.72	<u>W</u> 0.29
97	201	191	17.75	72.25	92.49	28.82	1.88

REMARKS :

GEOPEKO LIMITED - KING ISLAND

SUMMARY STRUCTURAL DATA

D.D.H. No. D120/15

Depth Interval (metres)	Rock Type	Frac- tures /m.	Joint Angle (wrt LAOC)	Joint Filling	Bedding Angle (w.r.t. L.A.O.C.C.)	% Core Reco- very	R.Q.D.	Remarks (weathering)
0 - 24.0	bh	8		clay minor carbonate	10m: 35° 17m: 15°	100	72	
24.0 - 36.1	bph	6		clay	31m: 45°	98	78	
36.1 - 60.7	B lens	5		carbonate	45m: 55° 50m: 45°	98	81	
60.7 - 71.7	bh	6		clay	63m: 45°	97	56	
71.7 - 79.5	bh	6		clay	-	99	65	
79.5 - 97.3	bfb	3		clay	85m: 80°	100	90	
97.3 - 103.0	IV aplite	8		clay	100.5m: 55° 91m: 70° 96m: 55°	93	54	

FURTHER DATA & REMARKS

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

46TT = 36mms dia.

GEOPEKO LIMITED - KING ISLAND

ASSAY DATA

D.D.H. No. D 120/15

Sample No.	DEPTH (METRES)				ELEMENTS		COMMENTS
	From	To	Length	Length Recovered	WO ₃	Mo	
D5690	36	37	1.0	1.0	<0.01	<0.01	
1	37	38	"	"	<0.01	<0.01	
2	38	39	"	"	0.15	<0.01	
3	39	40	"	"	0.49	0.01	
4	40	41	"	"	<0.01	<0.01	
5	41	42	"	"	<0.01	<0.01	
6	42	43	"	"	<0.01	<0.01	
7	43	44	"	"	0.35	<0.01	
8	44	45	"	"	<0.01	<0.01	
9	45	46	"	"	<0.01	<0.01	
D5700	46	47	"	"	<0.01	<0.01	
D 5701	52	53	"	"	0.15	<0.01	
2	53	54	"	"	0.05	<0.01	
3	54	55	"	"	0.14	<0.01	
D 5726	77	78	"	"	<0.01	<0.01	
7	78	79	"	"	0.07	<0.01	
8	79	80	"	"	0.28	<0.01	
9	80	81	"	"	1.28	0.04	
30	81	82	"	"	0.21	<0.01	
1	82	83	"	"	0.16	<0.01	
2	83	84	"	"	1.13	0.03	C lens 79 - 89m 10m @ 0.64% WO ₃
3	84	85	"	"	0.52	0.01	
4	85	86	"	"	0.99	0.03	
5	86	87	"	"	1.23	0.04	
6	87	88	"	"	0.25	0.01	
7	88	89	"	"	0.40	0.01	
8	89	90	"	"	0.10	<0.01	
9	90	91	"	"	0.29	0.01	
40	91	92	"	"	0.07	0.01	
1	92	93	"	"	<0.01	<0.01	
2	93	94	"	"	<0.01	<0.01	
D 5743	94	95	"	"	<0.01	<0.01	

SPECIFIC GRAVITY

Determined by:

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

GEOPEKO LIMITED - KING ISLAND

CHECK ASSAY DATA

D.D.H. D 120/15

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
D5692	0.15	0.01	D5950	0.14		D5951	0.19		D5952	0.17	
5729	1.28	0.04	5953	1.29		5954	1.46		5955	1.25	
5733	0.52	0.01	5956	0.57		5957	0.66		5958	0.59	

GEOPEKO LIMITED - KING ISLAND

GEOLOGICAL LOG

D.D.H. No. Dolphin 120/15

0 - 24.0 BIOTITE HORNFELS

Barren grey brown fine grained biotite hornfels.
Bedding faintly visible in places.

24.0 - 36.1 BIOTITE PYROXENE HORNFELS

This unit is approximately 50% green ph, no mineralisation and represents the hangingwall unit of the B lens sequence.

36.1 - 62.8 B LENS

A variety of rock types as follows:

Garnet Pyroxene hornfels 36.1 - 40.1

Interbedded green ph and pale brown grossular garnet.
Minor disseminated mineralisation 37.7 - 40.1.

Marble 40.1 - 54.1

Mostly a barren grey marble but does contain minor disseminated scheelite 43.6 - 46.5 and 52.8 - 54.4 where some garnet and pyroxene hornfels is developed.

Biotite Pyroxene Calcite Garnet Hornfels 54.1 - 62.8

This is a mottled variety of rock units. Very weak mineralisation 59.7 - 59.9 and 60.4 - 60.6m. Otherwise unit is barren.

62.8 - 78.1 BIOTITE HORNFELS

Barren grey brown biotite hornfels.

78.1 - 78.7 PYROXENE GARNET HORNFELS

Mostly a green pyroxene hornfels with minor andradite garnet developed. Some blotchy pale pink grossular garnet and occasional carbonate fragments approx 1cm dia.

Minor specks of coarse scheelite.

78.7 - 93.3 MINERALISED BANDED FOOTWALL BEDS

Typical interbedded bh, ch, gh and ph of the bfb unit.
Variable low grade mineralisation to 93.3m.

Between 78.7 - 79.4 is a barren grey ch (massive) and may represent unreplaced Upper C lens.

GEOPEKO LIMITED - KING ISLAND

GEOLOGICAL LOG

D.D.H. No. Dolphin 120/15

93.3 - 98.4 UNMINERALISED BANDED FOOTWALL BEDS

Similar unit to that described above but no mineralisation.

98.4 - 100.00 LOWER METAVOLCANICS

Pale green grey massive mica flecked. No mineralisation.

100.0 - 100.75 UNMINERALISED BANDED FOOTWALL BEDS

As above.

100.75 - 103.0 APLITE
E.O.H.

Unmineralised fine grained pink aplite.

GEOPEKO LIMITED - KING ISLAND

LOG OF D.D.H. NO. D 120/14

PLANNING

Proposer: M. Danielson

Depth: 40m

Location: K9 -150m R.L.

Purpose of hole: C lens oreblocking

Co-ordinates: 220 120 E 563 950

Inclination: - 54°

Bearing: 360° Grid

Target: E

Approved by: M.C. Rogers

N

Magnetic:

Target Depth:

N

Date: /4/77

SURVEY

Survey Co-ords: E

Survey bearing: 355° 20' Grid

Surveyed in by:

Actual Co-ords: 220 120.19 E 563 950.87

R.L. of Collar: F - 148.23

Picked up by: R.J.H.

N

Magnetic:

Date:

N

Inclination of Hole: -51° 40'

Date: 10/5/77

SUMMARY

Logged by: M. Danielson

Results: C lens 7 - 9m, 2m @ 0.53% WO₃

DRILLING

Driller/Contractor: A.D.D.

Date commenced: 8/5/77

Date terminated: 13/5/77

Casing: Size: 8xTT

Depth: 0.9

Core: Size: 46TT

Depth: 35.6

Wedge Runoff:

Wedge placed: Nil

Proposed by:

Reason:

Depth:

Approved by:

Extension: Nil

Reason for termination: Hole passed into unmineralised footwall hornfels

Condition of hole on completion:

Final depth: 35.6

Casing: Nil

Cemented: Yes

Bore hole survey: Multishot to 35.6m

Water: No

Comments on drilling conditions: -

GEOPEKO LIMITED - KING ISLAND

SUMMARY BORE HOLE SURVEY DATA

D.D.H No. D 120/14

Survey method: Multishot camera
Final depth : 35.6
Casing depth : 0.9m

Depth surveyed to: 35.6
Date surveyed: 12/5/77
Surveyed by : L. Denby
Checked by : M.J.D.

Depth (m)	Bearing		Inclination		True vertical Depth (m)	Co-ordinates	
	Grid	Mag.	Read	Corrected			
6	001	351	38.75	-51.25	4.70	3.72	0.35
15	357	347	38.5	-51.5	11.74	9.21	1.55
35.6	353	343	38	-52	27.87	21.60	4.86

REMARKS:

GEOPEKO LIMITED - KING ISLAND

CORE RECOVERY

D.D.H. No. D120/14

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0 - 1.7	1.7	1.7	100
3.8	2.1	2.05	98
6.0	2.2	2.2	100
9.6	3.6	3.4	94
12.6	3.0	3.0	100
15.6	3.0	3.0	100
18.6	3.0	3.0	100
20.6	2.0	2.0	100
24.10	3.5	3.5	100
25.10	1.0	1.0	100
29.10	4.0	4.0	100
30.10	1.0	1.0	100
31.5	1.4	1.4	100
32.6	1.1	1.1	100
33.10	0.5	0.5	100
35.60	2.5	2.5	100
EOH			

GEOPEKO LIMITED - KING ISLAND

SUMMARY STRUCTURAL DATA

D.D.H. No. D 120/14

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	bh	10		clay minor carbonate		99	50	
6 - 35.6 E.O.H.	banded gh bh.ph	4		clay	10m: 60° 20m: 35° 28m: 50° 31m: 40° 35m: 0°	99	81	

FURTHER DATA & REMARKS

- Detailed % core recoveries within each depth interval is shown in the core recovery tabulation.
- R.Q.D. (rock quality designation) $\pm = \frac{\text{length core } >10 \text{ cms}}{\text{length drilled}} \%$
- Core size.
46 TT 36mms dia.

GEOPEKO LIMITED - KING ISLAND

ASSAY DATA

D.D.H. No. D 120/14

Sample No.	DEPTH (METRES)				ELEMENTS			COMMENTS
	From	To	Length	Length Recovered	WO ₃	Mo		
D5672	6	7	1.0	1.0	< 0.01	< 0.01		
3	7	8	"	"	0.77	0.05		
4	8	9	"	0.9	0.28	0.01	7 - 9m	
5	9	10	"	0.9	0.20	< 0.01	2m @ 0.53%	WO ₃
6	10	11	"	1.0	0.19	"		
7	11	12	"	"	< 0.01	"		
8	12	13	"	"	0.11	"		
9	13	14	"	"	0.38	"		
80	14	15	"	"	0.24	"	13 - 16m	
1	15	16	"	"	0.27	"	3m @ 0.30%	WO ₃
2	16	17	"	"	< 0.01	"		
3	17	18	"	"	0.25	"		
4	18	19	"	"	0.14	"		
5	19	20	"	"	0.11	0.01		
6	20	21	"	"	< 0.01	< 0.01		
7	26	27	"	"	0.66	0.02		
8	27	28	"	"	0.15	< 0.01		
D5689	28	29	"	"	< 0.01	< 0.01		

SPECIFIC GRAVITY

Determined by:

Depth (m):

Rock Type:

S.G. :

GEOPEKO LIMITED - KING ISLAND

CHECK ASSAY DATA

D.D.H. D120/14

LAB.		K. I. S.		LAB.			LAB.			LAB.		
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 5673	0.77	0.05	D5944	1.18		D5945	0.91		D5946	0.94		
5683	0.25	0.01	5947	0.24		5948	0.29		5949	0.28		

GEOPEKO LIMITED - KING ISLAND

GEOLOGICAL LOG

D.D.H. No. D 120/14

0 - 6.0m BIOTITE HORNFELS

Barren grey brown fine grained hornfels. Minor green ph and unit is probably in immediate hangingwall of B lens.

Bedding is variable from 45° L.A.O.C. at 2m to 0° L.A.O.C. 2.5m and 4m.

Between 5.8 - 6.1 core is weakly brecciated, clay recemented and some montmorillonite on fracture surfaces. Interpreted as fault zone.

6.0 - 27.8m BANDED GARNET HORNFELS

Very weakly mineralised interbedded garnet hornfels, pyroxene and grossular hornfels. Minor bh/ph between 22 - 25m.

Bedding is clearly apparent and unit is considered as lower C lens.

Grossular garnet content increases below 15m and unit approaches banded footwall beds.

27.8 - 31.1 LOWER METAVOLCANICS

Pale green barren rock with abundant mica flecks vaguely lineated.

Unit has some resemblance to lower metavolcanics.

31.1 - 35.6m BANDED BIOTITE ACTINOLITE HORNFELS
E.O.H.

Barren thinly bedded brown grey hornfels.

GEOPEKO LIMITED - KING ISLAND

LOG OF D.D.H. NO. D 120/13

PLANNING

Proposer: M. Danielson

Depth: 55m

Location: K 9 -150m R.L.

Purpose of hole: C lens oreblocking

Co-ordinates: 220120 E 563950

Inclination: -83

Bearing 360 Grid

Target: E

Approved by: M.C. Rogers

N

Magnetic:

Target Depth:

N

Date: 1/5/77

SURVEY

Survey Co-ords: E

Survey bearing: 1° 50' Grid

Surveyed in by:

Actual Co-ords: 220120.24 E 563950.14

R.L. of Collar: F - 148.2

Picked up by: R.J.H.

N

Magnetic:

Date:

N

Inclination of Hole: -80° 20'

Date: 2/6/77

SUMMARY

Logged by: M. Danielson

Results: No significant mineralisation.

DRILLING

Driller/Contractor: A.D.D.

Date commenced: 26/4/77

Date terminated: 8/5/77

Casing: Size: BXTT

Depth: 1m

Core: Size: 46TT

Depth: 65.10

Wedge Runoff:

Wedge placed: Nil

Proposed by:

Reason:

Depth:

Approved by:

Extension: Nil

Reason for termination: Hole in footwall hornfels.

Condition of hole on completion:

Final depth: 65.10m

Casing: Nil

Cemented: Yes

Bore hole survey: Multishot to 63.5m

Water: Nil

Comments on drilling conditions: -

GEOPEKO LIMITED - KING ISLAND

SUMMARY BORE HOLE SURVEY DATA

D.D.H No. D 120/13

Survey method: Multishot Camera

Final depth : 65.10m

Casing depth : 0.6m

Depth surveyed to: 63.5m

Date surveyed: 12/5/77

Surveyed by : L. Denby

Checked by : M.J.D.

Depth (m)	Bearing		Inclination		True vertical Depth (m)	Co-ordinates	
	Grid	Mag.	Read	Corrected		N	W
12	004	354	9.75	-80.25	11.84	1.96	0.15
30	358	348	9.5	-80.5	29.57	5.00	0.65
42	355	345	9.25	-80.75	41.41	6.87	1.10
51	353	343	9	-81	50.29	8.24	1.50
63.5	344	334	9	-81	62.63	10.03	2.27

REMARKS :

GEOPEKO LIMITED - KING ISLAND

CORE RECOVERY

D.D.H. No. D 120/13

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0 - 0.6	0.60	0.4	67
2.10	1.5	1.6	107
5.10	3.0	3.0	100
8.10	3.0	2.9	97
11.10	3.0	2.75	92
14.10	3.0	3.0	100
17.10	3.0	3.0	100
20.0	2.9	2.9	100
22.6	2.6	2.6	100
24.6	2.0	2.1	105
27.6	3.0	3.0	100
30.6	3.0	3.0	100
33.6	3.0	3.0	100
36.40	2.8	2.8	100
39.40	3.0	3.0	100
42.50	3.1	2.7	87
45.50	3.0	2.9	97
47.60	2.1	2.1	100
50.10	2.5	2.5	100
53.10	3.0	3.0	100
56.10	3.0	3.0	100
59.10	3.0	3.0	100
61.0	2.0	1.8	90
63.6	2.6	2.6	100
65.10	1.5	1.5	100
E.O.H.			

GEOPEKO LIMITED - KING ISLAND

SUMMARY STRUCTURAL DATA

D.D.H. No. D 120/13

Depth Interval (metres)	Rock Type	Fractures /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 - 11.10	bh	5		clay		96	73	
10.8 - 11.1	Block SWAN Fault							
11.10 - 39.4	Banded gh bfb	4		clay carbonate	15m: 55° 17m: 55° 23m: 40°	100	91	
39.4 - 45.5	bah	+10		clay minor pyrite		92	34	
45.5 - 65.10	bah bh/ph	4		clay	64m: 50°	99	92	

FURTHER DATA & REMARKS

- Detailed % core recoveries within each depth interval is shown in the core recovery tabulation.
- R.Q.D. (rock quality designation) += $\frac{\text{length core} > 10 \text{ cms}}{\text{length drilled}} \%$
- Core size.
46TT = 36mm dia.

GEOPEKO LIMITED - KING ISLAND

ASSAY DATA

D.D.H. No. D 120/13

Sample No.	DEPTH (METRES)				ELEMENTS		COMMENTS
	From	To	Length	Length Recovered	WO ₃	Mo	
D 5650	11	12	1.0	1.0	<0.01	<0.01	
1	12	13	"	"	0.15	"	
2	13	14	"	"	<0.01	"	
3	14	15	"	"	<0.01	"	
4	15	16	"	"	<0.01	"	
5	16	17	"	"	<0.01	"	
6	17	18	"	"	0.03	"	
7	18	19	"	"	0.05	"	
8	19	20	"	"	0.14	"	
9	25	26	"	"	<0.01	"	
60	26	27	"	"	0.13	"	
1	32	33	"	"	0.20	"	
2	33	34	"	"	<0.01	"	
3	34	35	"	"	<0.01	"	
4	35	36	"	"	<0.01	"	
D 5665	36	37	"	"	<0.01	"	

SPECIFIC GRAVITY

Determined by:

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

GEOPEKO LIMITED - KING ISLAND

CHECK ASSAY DATA

D.D.H. D 120/13

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	
D5650	0.15	0.01	D5938	< 0.01		D5939	0.01		D5940	< 0.01		
5661	0.21	0.01	5941	0.18		5942	0.25		5943	0.22		

GEOPEKO LIMITED - KING ISLAND

GEOLOGICAL LOG

D.D.H. No. D120/13

0 - 10.8

BIOTITE HORNFELS

Barren grey brown bh with minor green ph (less than 10% of rock) and this unit is probably in immediate hangingwall of B lens.

10.8 - 11.1

~~BIOTITE~~ SWAN
FAULT

Broken core, slickensides or fracture surfaces.

11.1 - 20.0

BANDED GARNET HORNFELS

Very weakly mineralised interbedded andradite garnet, green ph and pale white pink grossular garnet .

20.0 - 39.0

BANDED FOOTWALL BEDS

Not typical bfb but is strongly ph rich, only very weakly mineralised and bedding is not as prominent as in usual footwall hornfels sequences.

39.0 - 63.0

BIOTITE ACTINOLITE HORNFELS

Pale grey whitish brown hornfels. Bedding is not prominent. No mineralisation. Spotted texture 57 - 59m.

63.0 - 65.10
E.O.H.

BIOTITE PYROXENE HORNFELS

Thinly bedded grey-black and green hornfels. Bedding prominent. No mineralisation.

GEOPEKO LIMITED - KING ISLAND

LOG OF D.D.H. No. D120/12

PLANNING

Proposer: M.J. Danielson. Depth:

Location: Junction of -75m X-cut. and B lens P.16.

Purpose of hole: B lens oreblocking.

Co-ordinates: 220123 E 564110 N
Inclination: +75° Magnetic
Bearing: 360° Grid Target depth:
Target: E N
Approved by: M.C. Rogers. Date: 15/4/75

SURVEY

Survey Co-ords: E N
Survey bearing: Grid Magnetic
Surveyed in by: Date:
Actual Co-ords: 220123.9 E 564113.3 N
R.L. of collar: -73.7 Inclination of hole:
Picked up by : R.J.H. Date: 2/5/75

SUMMARY

Logged by : M.J. Danielson.
Results: **B lens 23 - 25m 2m @ 0.37% WO₃**

DRILLING

Driller/Contractor: A.D.D.
Date commenced: 23/4/75 Date terminated: 2/5/75

Casing: Size :	NIL		
Depth :			
Core: Size :	A.17		
Depth :	41.45		

Wedge Runoff:

Wedge placed: NIL Depth:
Proposed by : Approved by:
Reason:

Extension: NIL Hole passed beyond
Reason for termination: B lens sequence. Final depth: 41.45m

Condition of hole on completion:

Casing : NIL

Cemented : No

Bore hole survey: Surveyed to 15.24m.

Water: NIL.

Comments on drilling conditions:

GEOLOGY - KING ISLAND SCHEELITE

SUMMARY BORE HOLE SURVEY DATA

D.D.H. No. D 120/12

Surveyed method: Multishot camera

Final depth: 41.45 m

Casing depth: Nil

Depth surveyed to: 15.24 m

Date surveyed: 2/5/75

Surveyed by: G. L. Buckland

Checked by: M. J. Danielson

Bearing			Inclination		True Vertical Depth (m)	Co-ordinates	
Depth (m)	Grid	Mag.	Read	Corr.		E	N
15.24	009 ^o	359 ^o	+15 ^o	+75 ^o	+14.72	-	-

REMARKS: Hole was only surveyed to 15.24 m to check bearing.

GEOPEKO LIMITED - KING ISLAND

SUMMARY STRUCTURAL DATA

D.D.H. No. D 120/12

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 - 9.14m	bh, bh/ph	4		clay,	6m:65°	98	70	
9.14 - 18.29	ph, ch gph	5		clay & carbonate		57	25	bad ground: 14 - 17m. Note: significant core loss.
18.29 - 24.38m	ch	4		carbonate		99	66	
24.38 - 41.45	gph, bh/ph	6		clay & carbon- ate.	31m:60° 37m:70°	96	64	

FURTHER DATA & REMARKS

- Detailed % core recoveries within each depth interval is shown in the core recovery tabulation.
- R.Q.D. (rock quality designator). = $\frac{\text{length core} > 10 \text{ cms}}{\text{length recovered}} \%$
- Core size. A.17 0 - 41.45m (32 mms. diameter).

GEOPEKO LIMITED - DOLPHIN MINE

ASSAY DATA

D.D.H. No. D120/12

SAMPLE No.	DEPTH (METRES)				ELEMENTS				COMMENTS
	From	To	Length	Length Recovered	WO ₃	Mo			
D3661	13	15	2.0	0.72	0.12	< 0.01			
2	15	18	3.0	1.40	0.12	< 0.01			
3	18	19	1.0	1.0	0.01	< 0.01			
4	22	23	1.0	1.0	0.01	< 0.01			
5	23	24	1.0	1.0	0.38	< 0.01			B lens 2m @ 0.37% WO ₃
6	24	25	"	"	0.37	0.01			
7	25	26	"	0.76	0.01	0.01			
8	26	27	"	0.70	0.11	0.02			
9	27	28	"	1.0	0.61	0.04			
D3670	28	29	1.0	1.0	0.01	< 0.01			

SPECIFIC GRAVITY

Determined by:

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

GEOPEKO LIMITED - KING ISLAND

CHECK ASSAY DATA

D.D.H. D120/12

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
D 3665	0.38	<0.01	D 3878	0.37	<0.01	D 3879	0.50		D 3880	0.53	

GEOPEKO LIMITED - KING ISLAND

GEOLOGICAL LOG

D.D.H. No. D120/12

- 0 - 5.1m BIOTITE HORNFELS
 Barren fine grained grey brown biotite hornfels.
- B LENS
- 5.1 - 7.5m Banded biotite pyroxene hornfels
 Barren banded grey and green rock.
 Bedding: 6m 70° L.A.O.C.
- 7.5 - 12.0m Pyroxene hornfels
 Mostly a medium grained mottled green rock
 similar to the unit described as tuffite.
 No mineralization.
- 12.0 - 13.5m Marble
 Barren grey ch.
- 13.5 - 17.5m Garnet pyroxene hornfels
 Pyroxene and grossular garnet rich skarn. Some
 free MoS₂. Considerable core loss in this interval.
 Very weak mineralization 15 - 18m.
- 17.5 - 24.0m Marble
 Barren grey ch.
- 24.0 - 27.4m Pyroxene hornfels
 Very weakly mineralised green ph and weak grossular
 skarn developed.
- 27.4 - 30.0m Tuffite (?)
 Pale green brown medium grained hornfels.
 No mineralization.
- 30.0 - 33.6m Biotite garnet pyroxene hornfels
 Mostly a barren grey bh but minor interbeds of
 grossular and pyroxene rich skarn.
 Bedding 31m 60° L.A.O.C.
- 33.6m - 41.45m Biotite pyroxene hornfels
 Barren grey biotite hornfels with occasional interbeds
 of green ph. No mineralization. Probably represents
 uppermost horizon of B lens.
- 41.45m E.O.H.

GEOPEKO LIMITED - KING ISLAND

LOG OF D.D.H. No.D 120/11

PLANNING

Proposer: M.J. Danielson Depth: 35m.

Location: Junction of the -75m cross-cut and B lens drive.

Purpose of hole: Exploration of B lens.

Co-ordinates: 220125 E 564110 N
Inclination: +45 Magnetic
Bearing: 180° Grid Target depth:
Target: E N
Approved by: M.C.Rogers. Date: 1/4/75

SURVEY

Survey Co-ords: E N
Survey bearing: 179°10' Grid Magnetic
Surveyed in by: Date:
Actual Co-ords: 220123.3 E 564102.8 N
R.L. of collar: -74.9 Inclination of hole: 43°20'
Picked up by : R.J.H. Date: 23/4/75

SUMMARY

Logged by : M.J. Danielson.
Results: No assays taken.

DRILLING

Driller/Contractor: A.D.D.
Date commenced: 18/4/75 Date terminated: 2/5/75

Casing: Size :	NIL		
Depth :			
Core: Size :	A17		
Depth :	28.04		

Wedge Runoff:

Wedge placed: NIL Depth:
Proposed by : Approved by:
Reason:

Extension: NIL Hole passed out of B
Reason for termination: lens sequence. Final depth: 28.04

Condition of hole on completion:
Casing : NIL
Cemented : No.

Bore hole survey: Surveyed to 15.24m

Water: NIL.

Comments on drilling conditions:
Considerable core loss.

GEOPEKO LIMITED - DOLPHIN MINE

SUMMARY BORE HOLE SURVEY DATA

D.D.H. No. D 120/11

Survey method : Multishot camera.

Final depth : 28.04m

Casing depth : NIL

Depth surveyed to : 15.24m

Date surveyed : 2/5/75

Surveyed by : G.L. Buckland

Checked by : M.J. Danielson.

DEPTH	Bearing		Inclination		True Vertical Depth	Co-ordinates	
	Grid	Mag.	Read	Corrected		E	N
15.24	178°	169°	+47°	+43°	+10.39	Not calculated.	

REMARKS

GEOPEK LIMITED - KING ISLAND

SUMMARY STRUCTURAL DATA

D.D.H. No. D 120/11

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 - 9.75	bh	8		clay minor pyrite		87	49	Considerable core loss throughout.
9.75 - 20.42	ph gph	6		clay minor carbonate.		87	42	
20.42 - 28.04	bh	+15		clay		83	17	Broken core throughout.

FURTHER DATA & REMARKS

- Detailed % core recoveries within each depth interval is shown in the core recovery tabulation.
- R.Q.D. (rock quality designator). = $\frac{\text{length core} > 10 \text{ cms}}{\text{length recovered}} \%$
- Core size. A.17 0 - 28.04m
32mms dia.

GEOPEKO LIMITED - KING ISLAND

CORE RECOVERY

D.D.H. No. D 120/11

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	RECOVERED % CORE
0 - 3.20	3.20	2.65	83
4.42	1.22	1.22	100
5.03	.61	.17	28
6.25	1.22	1.17	96
9.75	3.50	3.30	94
11.89	2.14	1.90	89
13.11	1.22	1.10	90
13.72	.61	.65	106
14.93	1.21	.82	68
15.54	.61	.33	54
16.76	1.22	.80	65
18.23	1.47	1.60	109
19.20	.97	.92	95
20.42	1.22	1.16	95
21.64	1.22	.95	78
22.55	.91	.85	93
23.16	.61	.60	100
23.77	.61	.61	100
24.69	.92	.75	81
25.91	1.22	1.22	100
27.13	1.22	.75	61
27.74	.61	.31	50
28.04	.30	.28	93
E.O.H.			

GEOPEKO LIMITED - KING ISLAND

GEOLOGICAL LOG

D.D.H. No. D 120/11

0 - 11.5m

BIOTITE HORNFELS

Fine grained purplish brown barren biotite hornfels.
Bedding 8m 45° L.A.O.C.

Below 8m the core is more pyroxene and quartz rich and indicative of the footwall sequence of B lens.

11.5m - 21.5m

B LENS

Pyroxene hornfels 11.5 - 14.0

Barren coarse grained green ph, weak volcanic texture and similar in appearance to the unit, often named 'tuffite'.

Biotite hornfels 14.0 - 15.7

Barren grey bh.

Garnet pyroxene hornfels 15.7 - 18.23

Pyroxene rich fine grained andradite skarn but no mineralization.

Biotite hornfels 18.23 - 21.5

Barren purplish brown bh flecked with fine (← 1mm dia.) plates of brown mica.

21.5 - 28.04m

BIOTITE HORNFELS

Typical hangingwall bh. Very fine grained, barren, siliceous, brown grey in colour with clay on joint surfaces. Abundant spotting below 25.5m.

Core in this section is moderately broken throughout.
R.Q.D. (20.42 - 28.04) = 17%.

28.04m E.O.H.

GEOPEKO LIMITED - KING ISLAND

CORE RECOVERY

D.D.H. No. D 120/10

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	RECOVERED % CORE
0 - 3.96 -	3.96	3.60	91
5.18 -	1.22	1.22	100
6.48 -	1.30	1.30	100
7.14 -	.66	.66	100
8.36	1.22	1.21	100
11.40	3.04	3.03	100
13.05	1.65	1.61	98
14.27	1.22	1.22	100
17.40	3.13	3.08	98
19.53	2.13	2.15	100
20.45	.92	.88	96
20.75	.30	.30	100
22.07	1.32	0.66	50
24.07	2.00	1.50	75
27.20	3.13	3.05	97
30.33	3.13	3.05	97
33.45	3.12	3.13	100
36.57	3.12	3.12	100
36.88	.31	0.35	100
39.93	3.05	3.05	100
42.98	3.05	3.04	100
46.02	3.04	3.04	100
48.92	2.90	2.98	100
51.15	2.23	2.17	97
51.76	.61	.62	100
53.90	2.14	2.10	98
54.81	.91	.94	100
56.64	1.83	1.74	95
57.86	1.22	1.25	100
60.91	3.05	3.05	100
63.65	2.74	2.70	99
63.95	.30	.30	100
67.0	3.05	3.05	100
69.36	2.36	2.30	97
69.67	.31	.35	100
70.71	1.04	1.47	141
72.06	1.35	1.69	125
75.18	3.12	3.13	100
78.23	3.05	3.05	100
81.28	3.05	3.12	100
84.33	3.05	3.05	100
87.22	2.89	2.85	99

GEOPEKO LIMITED - KING ISLAND

CORE RECOVERY

D.D.H. No. D 120/10

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	RECOVERED % CORE
0 - 90.27	3.05	3.08	100
93.32	3.05	3.03	99
96.06	2.74	2.80	100
99.19	3.13	3.13	100
101.47	2.28	1.28	56
102.39	.92	.72	78
103.83	1.44	1.42	99
105.46	1.63	1.63	100
106.07	.61	.61	100
108.20	2.13	2.13	100
111.25	3.05	3.10	100
114.30	3.05	3.08	100
116.94	2.64	2.62	99
117.24	.30	.30	100
119.33	2.09	2.09	100
120.09	.76	.80	100
123.14	3.05	3.05	100
126.19	3.05	3.05	100
129.23	3.04	3.04	100
131.98	2.75	2.75	100
135.03	3.05	3.04	100
138.15	3.12	3.12	100
140.89	2.74	2.80	100
144.02	3.13	3.08	98
147.06	3.04	3.05	100
150.11	3.05	3.05	100
152.86	2.75	2.75	100
155.90	3.04	3.04	100
E.O.H.			

GEOPEKO LIMITED - DOLPHIN MINE

SUMMARY BORE HOLE SURVEY DATA

D.D.H. No. D 120/10

Survey method : Multishot camera.

Final depth : 155.90m

Casing depth : 1.52m.

Depth surveyed to : 155.45m.

Date surveyed : 16.4.75

Surveyed by : G.L. Buckland.

Checked by : M.J. Danielson.

DEPTH	Bearing		Inclination		True Vertical Depth	Co-ordinates	
	Grid	Mag.	Read	Corrected		E	S
15.24	184°30'	175°30'	32°30'	-57°30'	12.85	0.58	8.17
30.48	185°	176°	33°	-57°	25.65	1.15	16.43
45.72	186°30'	177°30'	32°30'	-57°30'	38.47	1.62	24.65
60.96	187°30'	178°30'	33°	-57°	51.25	1.98	32.94
76.20	188°	179°	33°	-57°	64.03	1.92	41.24
91.44	188°	179°	33°15'	-56°45'	76.81	1.72	49.55
106.68	191°	182°	33°30'	-56°30'	89.52	1.45	57.96
121.92	192°30'	183°30'	33°30'	-56°30'	102.23	1.07	66.36
137.16	193°30'	184°30'	34°	-56°	114.86	0.46	74.86
155.49	193°30'	184°30'	33°30'	-56°30'	130.15	0.32	84.87

REMARKS

GEOPEKC LIMITED - KING ISLAND

SUMMARY STRUCTURAL DATA

D.D.H. No. D 120/10

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 - 14.27m	bph	5		clay, minor carbonate.		97	70	broken ground. 5.95 - 7.14
14.27 - 24.07	ph	7		clay	19m:60° 23m:60°	87	55	Significant core loss 20.75 - 24.07
24.07 - 51.15	ch	2		carbonate	27m:50° 33m:55° 47m:40°	100	86	
51.15 - 67.00	bh	5		clay	57m:40°	99	73	
67.00 - 72.06	bh	7		clay		115	78	
72.06 - 99.19	pgh	4 below 95m increases to 6.		clay, minor carbonate.		100	83	86.86 - 88.50 clay recemented breccia. chlorite on fracture surfaces. e.g. 88.2 - 88.5.
99.19 - 102.39	gh, banded gh,	8		clay	101m:55°	62	16	99.19 - 101.47 some core appears to have been ground away.
102.39 - 108.20	banded bh/ah	10		clay, minor chlorite & pyrite.	107m:65° 108m:0°	100	38	

FURTHER DATA & REMARKS

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

GEOPEKO LIMITED - KING ISLAND

SUMMARY STRUCTURAL DATA

D.D.H. No. D 120/10

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)
108.20 - 129.23	banded bh/ah	4		clay. chlorite	109m:45° 110m:15° 112m:90° 113m:0° 116m:50° 118m:60° 119m:35° 120m:0° 121m:0° 123m:0° 128m:0°	100	72	Fold axes @ 113m 119.7m 121.5m
129.23 - 155.90	banded bh/ah, lv	2		clay, minor carbon- ate.	130m:30° 132m:40° 133m:40° 138m:5° 139m:30° 141m:35° 154m:70°	100	86	

FURTHER DATA & REMARKS

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

GEOPEKO LIMITED - DOLPHIN MINE

ASSAY DATA

D.D.H. No. D 120/10

SAMPLE No.	DEPTH (METRES)				ELEMENTS		COMMENTS
	From	To	Length	Length Recovered	WO ₃	Mo	
D3346	20	21	1.0	0.88	0.02	< 0.01	
7	21	22	"	0.50	< 0.01	"	
8	22	23	"	0.78	0.80	0.02	
9	23	24	"	0.85	0.05	< 0.01	
50	24	25	"	1.0	0.17	"	
1	25	26	"	"	0.40	"	
2	26	27	"	"	< 0.01	"	
D3353	46	47	1.0	1.0	< 0.01	< 0.01	
4	47	48	"	"	0.02	"	
5	48	49	"	"	0.01	"	
6	49	50	"	"	< 0.01	"	
D3357	72	73	1.0	1.0	0.08	< 0.01	
8	73	74	"	"	0.03	"	
9	74	75	"	"	1.14	0.01	
60	75	76	"	"	1.76	0.02	C lens. pgh. 11m @
1	76	77	"	"	0.20	< 0.01	
2	77	78	"	"	0.21	"	
3	78	79	"	"	1.47	0.02	
4	79	80	"	"	0.30	< 0.01	0.83% WO ₃
5	80	81	"	"	2.61	0.06	
6	81	82	"	"	0.29	< 0.01	
7	82	83	"	"	0.40	"	
8	83	84	"	"	0.28	"	
9	84	85	"	"	0.47	"	
70	85	86	"	"	0.12	"	
1	86	87	"	"	0.08	"	
2	87	88	"	"	0.02	"	
3	88	89	"	"	0.07	"	
4	89	90	"	"	0.11	"	
5	90	91	"	"	0.10	"	
6	91	92	"	"	0.32	"	
7	92	93	"	"	0.02	"	
8	93	94	"	"	0.07	"	
9	94	95	"	"	0.02	"	
80	95	96	"	"	0.07	"	
1	96	97	"	"	0.13	"	
2	97	98	"	"	0.09	"	

SPECIFIC GRAVITY

Determined by:

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

GEOPEKO LIMITED - DOLPHIN MINE

ASSAY DATA

D.D.H. No. D120/10

SAMPLE No.	DEPTH (METRES)				ELEMENTS				COMMENTS
	From	To	Length	Length Recovered	WO ₃	Mo			
D3383	98	99	1.0	1.0	0.12	< 0.01			
4	99	100	"	0.46	0.17	"			
5	100	101	"	0.64	0.48	0.04			C lens
6	101	102	"	1.0	0.28	< 0.01			3m @
7	102	103	"	1.0	0.49	"			0.42% WO ₃
D3388	103	104	"	1.0	0.07	"			

SPECIFIC GRAVITY

Determined by:

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

GEOPEKO LIMITED - KING ISLAND

CHECK ASSAY DATA

D.D.H. D 120/10

LAB. K.I.S.		LAB. K.I.S.			LAB. A.M.D.E.L.			LAB. A.C.S.L.			A.C.S.L., & repeat sample.	
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 3350	0.17	< 0.01	D 3863	0.16	< 0.01	D 3864	0.22		D 3865	0.25		
3360	1.76	0.02	3866	1.48	0.01	3867	1.85		3868	1.82	1.87	
3369	0.47	< 0.01	3869	0.47	< 0.01	3870	0.65		3871	0.63		
3376	0.32	< 0.01	3872	0.28	< 0.01	3873	0.37		3874	0.40		
D 3386	0.28	< 0.01	D 3875	0.24	< 0.01	D 3876	0.33		D 3877	0.28		

GEOPEKO LIMITED - KING ISLAND

GEOLOGICAL LOG

D.D.H. No. D 120/10

- 0 - 14.37m BIOTITE PYROXENE HORNFELS
- Dominantly a fine grained barren grey black biotite hornfels with minor green interbeds of pyroxene. The unit is typical of the immediate hangingwall of the B lens host rocks.
- 14.37 - 59.0m B LENS
- The B lens sequence can be subdivided into the following units.
- 14.37 - 26.10 pyroxene hornfels
- This section is dominantly a green ph with minor black interbeds of black bh 15.6 - 17.0. Below 17m there is moderate to abundant pale pink grossular garnet and there is minor andradite garnet developed between 23 - 26m.
- There is minor disseminated scheelite between 20 - 26m.
- 26.10 - 51.0 MARBLE
- Typical barren dirty grey B lens marble.
- Between 30 - 36m there is frequent black spotting - probably carbon.
- There is some pyroxene rich grossular garnet skarn developed 38.80 - 39.73 with some minor disseminated scheelite.
- Bedding: 35m 42° L.A.C.C.
 40m 40° ..
 47m 40° ..
- 51.0 - 52.7m BIOTITE AND ~~PYROXENE~~ HORNFELS
- Barren grey black bh and green ph.
- 52.7 - 56.6m ACID DYKE
- Massive grey barren rock with a volcanic texture. Compare with 'acid dyke' in D 1601
- 56.6 - 59.0m BANDED BIOTITE PYROXENE HORNFELS
- A black barren bh with green interbeds of ph. Contained within the ph are thin (40.5cm) grossular garnet beds.
- 59.0 - 71.60m HANGINGWALL BIOTITE HORNFELS
- Barren grey hangingwall bh. No bedding apparent. Abundant carbonate veining and carbonate recemented breccia 63.95 - 64.20m.
- Spotting between 66 - 69m.
- 71.60 - 99.19m PYROXENE GARNET HORNFELS
- Mainly a green pyroxene hornfels with carbonate pods up to 10cm dia. and abundant very pale pink and brown grossular garnet.

GEOPEKO LIMITED - KING ISLAND

GEOLOGICAL LOG

D.D.H. No. D 120/10

- 71.60 - 99.19m
continued. Moderate mineralization throughout often in forms of coarse scheelite blebs up to 3mm diameter.
Core is leached and is a clay and carbonate recemented breccia between 86.9 - 88.5m. Some chlorite on fracture surfaces 88.2 - 88.5m.
- 99.19 - 99.60m GARNET HORNFELS
Massive medium grained andradite skarn. Low to medium grade fine disseminated scheelite.
- 99.60 - 103.2m BANDED GARNET HORNFELS
Fine grained andradite and grossular garnet skarn with barren interbeds of barren green ph up to 2cm wide.
Patchy mineralization both as finely disseminated and coarse grains of scheelite.
No mineralization below 103.17m.
- 103.2 - 144.0m BANDED BIOTITE ACTINOLITE HORNFELS
Thinly banded, usually less than 0.5^{cm} wide interbeds of grey black bh and whitish grey ah.
In places e.g. 125 - 128 & 132 - 134, the ah is replaced by a green ph.
The unit contains no mineralization. The variation in the bedding angle is the significant feature of this unit and in several places e.g. 123 - 128m.
The bedding is parallel to the core axis. Several fold axes are also recorded e.g. 113m, 119.7m.
The quality of core throughout this bedded unit is good.
R.Q.D. (108.2 - 129.2) = 72%
- 144.0 - 151.0m LOWER METAVOLCANICS?
This unit is similar in appearance to the lower meta-volcanic but is not exactly identical.
The unit is basically a barren massive pale green grey rock spotted with flecks of brown biotite hornfels.
- 151.0 - 155.90m BIOTITE HORNFELS
Pale grey barren weakly bedded biotite hornfels.
- E.O.H. 155.90m.

GEOPEKO LIMITED - KING ISLAND

LOG OF D.D.H. No. D 120/9

PLANNING

Proposer: M.J. Danielson. Depth: 68.88m.
Location: Junction of the 75m cross-cut and B lens drive.

Purpose of hole: Test footwall of C lens in Central Area.

Co-ordinates: 220125 E 564110 N
Inclination: -90° Magnetic
Bearing: Grid Target depth: 70m.
Target: E N
Approved by: M.C. Rogers. Date: 1/2/75

SURVEY

Survey Co-ords: E N
Survey bearing: 225°00' Grid Magnetic
Surveyed in by: Date:
Actual Co-ords: 220 123.74 E 564 108.89 N
R.L. of collar: - 78.02 Inclination of hole: Vertical
Picked up by : R.J.H. Date: 11/3/75

SUMMARY

Logged by : M.J. Danielson.
Results: pgh 13 - 17 4m 4.82%
Upper C lens 21 - 38 17m 1.80%
Lower C lens 43 - 49 6m 0.88%
Lower C lens 53 - 55 2m 0.36%

DRILLING

Driller/Contractor: A.D.D.
Date commenced: 6/3/75 Date terminated: 12/3/75

Casing: Size :	BX		
Depth :	Ø.5m		
Core: Size :	NQ	BQ	
Depth :	Ø.5	68.88	

Wedge Runoff:

Wedge placed: NIL Depth:
Proposed by : Approved by:
Reason:

Extension: NIL

Reason for termination: Hole passed into unmin- Final depth: 68.88m.
eralised footwall hornfels sequence.

Condition of hole on completion:
Casing : Ø.5m BX remains.
Cemented : Yes.

Bore hole survey: Surveyed to 68.88m.

Water: NIL.

Comments on drilling conditions:

GEOPEKO LIMITED - DOLPHIN MINE

SUMMARY BORE HOLE SURVEY DATA

D.D.H. NoD 120/9

Survey method : Multishot camera.

Final depth : 68.89m.

Casing depth : 1.52m.

Depth surveyed to : 68.89m.

Date surveyed : 12/3/75

Surveyed by : V.J. Powell.

Checked by : G.L. Buckland.

DEPTH	Bearing		Inclination		True Vertical Depth	Co-ordinates	
	Grid	Mag.	Read	Corrected		N	W
15.24	292°	283°	1°30'	-88°30'	15.24	0.15	0.24
30.48	294°	285°	1°30'	-88°30'	30.48	0.25	0.62
45.72	292°	283°	2°	-88°	45.71	0.34	0.97
60.96	276°	267°	2°15'	-87°45'	60.95	0.39	1.45
68.89	263°	254°	2°45'	-87°15'	68.86	0.31	1.69

REMARKS

GEOPEKO LIMITED - KING ISLAND

SUMMARY STRUCTURAL DATA

D.D.H. No.D 120/9

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 - 3.96	bh	+ 15		clay		100	24	
3.96 - 13.18	bh/ pgh	6		clay		100	79	bad ground: 7.46 - 8.13
13.18 - 22.32	pgh/gh	2		clay, minor carbonate.		99	88	
22.32 - 37.18	gh/ banded gh	2		clay, carbonate		100	94	
37.18 - 40.23	banded gh/ bh/ marble/ bh	10		clay, carbonate		100	36	
40.23 - 56.40	bh/ banded gh	3		clay, carbonate.	43m:55° 46m:60° 49m:75° 51m:65° 52m:60°	100	82	<u>NOTE:</u> Minor chlorite on bedding surfaces in the thinly bedded bah.
56.40 - 68.88	banded bph	8		minor chlorite & pyrite	59m:85° 63m:75° 66m:75° 68m:75°	100	67	

FURTHER DATA & REMARKS

- Detailed % core recoveries within each depth interval is shown in the core recovery tabulation.
- R.Q.D. (rock quality designator). = $\frac{\text{length core } > 10 \text{ cms}}{\text{length recovered}}$ %
Drilled
- Core size.
0 - 0.50 NQ
0.50 - 68.89 BQ

GEOPEKO LIMITED - KING ISLAND

CORE RECOVERY

D.D.H. No. D 120/9

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	RECOVERED % CORE
0 - 3.96	3.96	3.96	100
7.09	3.13	3.10	99
10.13	3.04	3.15	104
13.18	3.05	3.05	100
16.30	3.12	3.04	97
19.27	2.97	2.99	101
22.32	3.05	3.05	100
25.37	3.05	3.05	100
28.42	3.05	3.05	100
31.39	2.97	2.82	95
34.44	3.05	3.12	102
37.18	2.74	2.80	102
40.23	3.05	3.05	100
43.28	3.05	3.20	105
46.40	3.12	3.12	100
49.45	3.05	3.10	102
52.65	3.20	3.01	94
53.34	.69	.69	100
56.46	3.12	3.05	98
59.58	3.12	3.12	100
62.71	3.13	3.14	100
65.83	3.12	3.02	97
68.88	3.05	3.10	102
E.O.H.			

GEOPEKO LIMITED - DOLPHIN MINE

ASSAY DATA

D.D.H. No.D 120/9

SAMPLE No.	DEPTH (METRES)				ELEMENTS		COMMENTS
	From	To	Length	Length Recovered	WO ₃	Mo	
D3225	11	12	1.0	1.0	0.02	0.03	
6	12	13	"	"	0.01	0.02	
7	13	14	"	"	17.5	0.82	
8	14	15	"	"	0.22	0.05	Pgh
9	15	16	"	"	0.28	0.04	13 - 17m
30	16	17	"	"	1.29	0.10	4m @ 4.82% WO ₃
1	17	18	"	"	0.04	0.02	
2	18	19	"	"	0.46	0.05	
3	19	20	"	"	0.14	0.03	
4	20	21	"	"	0.11	0.03	
5	21	22	"	"	1.07	0.08	
6	22	23	"	"	1.59	0.19	
7	23	24	"	"	1.56	0.14	
8	24	25	"	"	1.39	0.13	
9	25	26	"	"	1.36	0.16	Upper C lens.
40	26	27	"	"	1.57	0.12	21 - 38m
1	27	28	"	"	1.86	0.11	17m
2	28	29	"	"	1.85	0.11	@ 1.80% WO ₃
3	29	30	"	"	1.07	0.08	
4	30	31	"	"	2.32	0.36	
5	31	32	"	"	11.5	0.57	
6	32	33	"	"	0.49	0.05	
7	33	34	"	"	0.93	0.08	
8	34	35	"	"	0.26	0.04	
9	35	36	"	"	0.24	0.04	
50	36	37	"	"	0.82	0.11	
1	37	38	"	"	0.71	0.07	
2	38	39	"	"	0.01	0.02	
3	39	40	"	"	0.31	0.03	
4	40	41	"	"	6.1	0.26	
5	41	42	"	"	0.01	0.02	
6	42	43	"	"	0.23	0.04	
7	43	44	"	"	1.42	0.23	Lower Clens
8	44	45	"	"	1.75	0.26	43 - 49
9	45	46	"	"	0.99	0.14	6m
60	46	47	"	"	0.47	0.07	@ 0.88% WO ₃

SPECIFIC GRAVITY

Determined by:

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

GEOPEKO LIMITED - DOLPHIN MINE

ASSAY DATA

D.D.H. No. D 120/9

SAMPLE No.	DEPTH (METRES)				ELEMENTS		COMMENTS
	From	To	Length	Length Recovered	WO ₃	Mo	
D2262 61	47	48	1.0	1.0	0.20	0.07	
	48	49	"	"	0.45	0.08	
	49	50	"	"	0.16	0.05	
	50	51	"	"	0.08	0.02	
	51	52	"	"	0.01	0.02	
	52	53	"	"	0.18	0.04	
	53	54	"	"	0.44	0.05	
	54	55	"	"	0.28	0.04	
						Lower C lens 53 - 55m 2m @ 0.36% WO ₃	
D3269	55	56	1.0	1.0	0.02	0.02	

SPECIFIC GRAVITY

Determined by:

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

GEOPEKO LIMITED - KING ISLAND

CHECK ASSAY DATA

D.D.H. D 120/9

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 3230	1.29	0.10	D 3440	1.27	0.04	D 3441	1.14	0.055	D 3442	1.22	0.076
3234	0.11	0.03	3443	0.08	0.01	3444	0.11	0.004	3445	0.14	0.060
3246	0.49	0.05	3446	0.54	0.01	3447	0.63	0.027	3448	0.71	0.027
3258	1.75	0.26	3449	1.77	0.15	3450	1.57	0.135	3451	1.92	0.200
D 3261	0.45	0.08	D 3452	0.18	0.01	D 3453	0.19	0.03	D 3454	0.26	0.036

GEOPEKO LIMITED - KING ISLAND

GEOLOGICAL LOG

D.D.H. No. D 120/9

- 00 - 11.80 BIOTITE HORNFELS
Barren fine grained pale grey biotite hornfels.
No bedding apparent.
- 11.80 - 21.45 PYROXENE GARNET HORNFELS
Mostly a pale green pyroxene hornfels with irregular patches of pale brown grossular garnet. Carbonate pods are very rare.
Coarse scheelite 13.25 - 13.60. With the exception of the coarse scheelite the unit is very weakly mineralized.
- 21.45 - 31.40 GARNET HORNFELS
Medium to coarse grained andradite grained andradite garnet skarn. The unit is very highly mineralized with fine disseminated scheelite.
- 31.40 - 37.74 BANDED GARNET HORNFELS
Weakly banded andradite garnet skarn with fine disseminated scheelite. This skarn has a higher pyroxene and grossular garnet content.
Coarse scheelite 31.83 - 32.02.
- 37.74 - 38.10 BIOTITE HORNFELS
Unmineralized grey fine grained biotite hornfels.
- 38.10 - 39.70 MARBLE (?)
This rock is very similar in appearance to the acid dyke logged in D 120/5, but has a very high carbonate content judging from its reaction with hydrochloric acid.
This rock is massive, medium grained and a 'volcanic' texture.
- 39.70 - 43.0 BIOTITE HORNFELS
Mostly a barren grey bh with minor green ph. There is some very minor skarn developed and coarse scheelite at 40.02 - 40.12.
- 43.0 - 56.0 BANDED GARNET HORNFELS
A weakly mineralized pyroxene rich andradite and grossularite garnet skarn.
Below 50m the unit is particularly grossular rich with increasing bh and ph content.

GEOPEKO LIMITED - KING ISLAND

GEOLOGICAL LOG

D.D.H. No. D 120/9

56.0 - 68.88

BANDED BIOTITE PYROXENE HORNFELS

A very thinly bedded ($\ll 0.5\text{cm}$) brown (bh) green (ph) unit with bedding mostly about 75° to the L.A.O.C.

No mineralization and the quality of core is particularly good for this bedded unit.

R.Q.D. (56.46 - 68.88) = 67%.

E.O.H. 68.88m.

GEOPEKO LIMITED - KING ISLANDLOG OF D.D.H. NO: D 120/8PLANNING

Proposer: M. J. Danielson Depth: 110m

Location: 220/20E cuddy main decline.

Purpose of hole: Oreblocking south of Central Fault.

Co-ordinates: 220 120 E 564 040 N

Inclination: -72° Target depth: 90mBearing: 180° $^{\circ}$ Grid $^{\circ}$ Magnetic

Target: E N

Approved by: M.C. Rogers. Date: 1/8/74

SURVEY

Survey Co-ords: E N

Survey bearing: $^{\circ}$ Grid $^{\circ}$ Magnetic

Surveyed in by: Date:

Actual Co-ords: 564038.6N 220119.9E

R.L. of collar: -80.4 Brg. $180^{\circ}57'$ Inclination of hole: $-71^{\circ}30'$

Picked up by: M.G.M. Date: 22nd August, 1974.

SUMMARY

Logged by: M.J. Danielson.

Results: C lens: 75 - 93m, 18m @ 1.11% WO_3 .DRILLING

Driller / Contractor: A.D.D.

Date commenced: 13/8/74

Date terminated: 4/9/74

Casing:	Size :	NX			
	Depth:	0.61			
Core:	Size :	NQ	BQ		
	Depth:	0.61	110.64		

Wedge Runoff:

Wedge placed: NIL. Depth:

Proposed by: Approved by:

Reason:

Extension: NIL

Final depth: 110.64m.

Reason for termination: Hole passed into unmineralised footwall beds.

Condition of hole on completion:

Casing :

Cemented: Yes

Bore hole survey: Surveyed to 109.73m.

Water: Normal water pressure throughout.

Comments on drilling conditions: Nine shifts lost due to bit being burnt off into bottom of hole.

GEOPEKO LIMITED - Dolphin MineSUMMARY BORE HOLE SURVEY DATAD.D.H. NO. D 120/8

Survey method : Multishot camera

Depth surveyed to : 109.73m

Final depth : 110.64m.

Date surveyed : 4/9/74

Casing depth : 1.52m.

Surveyed by : G.L. Buckland.

Checked by : G.L. Buckland.

DEPTH (m)	Bearing		Inclination		True Vertical depth (m)	Co-ordinates	
	Grid	Mag.	Read	Corrected		S	E
15.24	181°	172°	17°15'	- 72°45'	14.55	4.47	0.63
30.48	182°	173°	17°15'	- 72°45'	29.11	8.94	1.32
45.72	183°	174°	17°15'	- 72°45'	43.64	13.48	1.80
60.96	184°15'	175°15'	16°45'	- 73°15'	58.22	17.93	2.22
76.20	184°15'	175°15'	16°45'	- 73°15'	72.81	22.31	2.59
91.44	187°	178°	17°	- 73°	87.39	26.73	2.86
106.68	189°	180°	17°	- 73°	101.96	31.19	2.90
109.73	189°	180°	17°	- 73°	104.88	32.08	2.90

REMARKS

GEOPEKO LIMITED - KING ISLAND

SUMMARY STRUCTURAL DATA

D.D.H. NO.D 120/8

Depth Interval (metres)	Rock Type	Fractures / Metre	Joint Angle	Joint Filling	Bedding Angle	% Core Recovery	Broken Core % >10cms (R.Q.D.)	Remarks (weathering)
0.6.60	bph	9		carbon- ate, minor pyrite		95	68	0 - 0.61: rubble.
6.60-21.69	bph/pgh	7		carbon- ate, minor pyrite.	16m: 65° LAOC	100	84	bad ground 13.47-13.91
21.69-40.08	marble	3		clay, carbon- ate @ 33.83 39.75	25m:65° LAOC	100	93	
40.08-59.84	bph/ Tuffite/ hangingwall bh	7		clay, chlorite @ 40.17	42m:70° LAOC	116	57	bad ground: 48.7 - 49.5
59.84-75.08	hangingwall bh/pgh	6		clay		100	80	

FURTHER DATA & REMARKS (Compression Tests)

- Core size: 0 - 0.61m NQ
0.61 - 110.64 BQ
- For detailed % core recovery within each depth interval consult core recovery page.

GEOPEKO LIMITED - KING ISLAND

SUMMARY STRUCTURAL DATA

D.D.H. NO. D 120/8

Depth Interval (metres)	Rock Type	Fractures / Metre	Joint Angle	Joint Filling	Bedding Angle	% Core Recovery	Broken Core % >10cms (R.Q.D.)	Remarks (weathering)
75.08-92.35	gh	5		clay		98	91	
92.35-99.82	bh	15		clay; moderate chlorite through - out.		99	20	Poor to moderate ground conditions.
99.82-110.64	Lower metavolcanics /4 /banded footwall hornfels.			clay chlorite; minor pyrite.	110m:30° LAOC	101	37	108-110.64 marked improvement in core quality.

FURTHER DATA & REMARKS (Compression Tests)

GEOPEKO LIMITED - KING ISLANDCORE RECOVERY

D.D.H. No. D 120/8

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0 - 0.61	0.61	0.57	93
3.56	2.95	2.64	89
6.60	3.04	3.04	100
9.65	3.05	3.14	103
12.70	3.05	3.04	100
13.77	1.07	1.07	100
16.82	3.05	3.15	103
18.64	1.82	1.84	101
21.89	3.05	3.05	100
24.74	3.05	3.09	101
25.95	1.21	1.11	92
29.01	3.06	3.15	103
30.84	1.83	1.78	97
33.88	3.04	3.05	100
34.44	0.56	0.58	184
37.49	3.05	3.04	100
40.08	2.59	2.64	102
43.18	3.10	3.12	107
44.96	1.78	1.93	108
45.26	0.30	0.27	90
47.70	2.44	2.50	102
49.48	1.78	1.52	85
50.09	0.61	0.63	103
53.14	3.05	2.87	94
56.19	3.05	3.01	98
56.79	0.60	0.83	138
59.84	3.05	3.25	107
62.89	3.05	3.05	100
65.94	3.05	3.05	100
68.99	3.05	3.05	100
72.03	3.04	3.05	100
75.09	3.05	3.05	100
78.13	3.05	3.05	100
81.18	3.05	3.05	100
84.23	3.05	3.05	100
87.27	3.04	3.05	100
90.32	3.05	3.05	100
92.35	2.03	1.70	84
92.96	.61	.61	100
93.57	.61	.40	66
93.88	.31	.29	94
94.34	.46	.40	87
94.79	.45	.55	122
95.71	.92	.94	102
97.55	1.84	1.85	101
98.30	.75	.90	120

GEOPEKO LIMITED - KING ISLANDCORE RECOVERYD.D.H. No. D 120/8

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
99.82	1.52	1.47	98
102.41	2.59	2.85	110
105.31	2.90	3.00	103
106.68	1.37	1.03	75
109.73	3.05	3.05	100
110.64	.91	.95	104

GEOPEKO LIMITED - Dolphin MineASSAY DATAD.D.H. NO.D 120/8

SAMPLE NO.	DEPTH (METRES)				ELEMENTS						COMMENTS
	From	To	Length	Length recovered	WO ₂	Mo					
D2540	16	17	1.0	1.0	0.12	0.02					
1	17	18	"	"	0.08	0.02					
2	18	19	"	"	0.01	0.01					
3	19	20	"	"	1.10	0.08					
4	20	21	"	"	6.00	0.27					
5	21	22	"	"	0.01	0.01					
6	22	23	"	"	0.01	0.01					
D2638	69	70	"	"	0.05	0.01					
9	70	71	"	"	0.11	0.01					
40	71	72	"	"	0.13	0.01					
1	72	73	"	"	2.15	0.06					
2	73	74	"	"	0.03	0.01					
3	74	75	"	"	0.09	0.01					
4	75	76	"	"	1.96	0.07					
5	76	77	"	"	1.62	0.06					
6	77	78	"	"	1.08	0.05					
7	78	79	"	"	0.87	0.03					
8	79	80	"	"	1.59	0.05					
9	80	81	"	"	1.23	0.04					
50	81	82	"	"	0.73	0.02					
1	82	83	"	"	0.78	0.03					
2	83	84	"	"	1.24	0.06					
2653	84	85	"	"	1.40	0.05					
D2654	85	86	1.0	1.0	1.51	0.07					
5	86	87	"	"	1.00	0.04					
6	87	88	"	"	0.47	0.01					
7	88	89	"	"	0.90	0.02					
8	89	90	"	"	1.17	0.04					
9	90	91	"	"	1.25	0.04					
60	91	92	"	0.72	0.82	0.02					
1	92	93	"	1.0	0.35	0.01					
D2662	93	94	"	"	0.01	0.01					

C lens
18m
at
1.11%

SPECIFIC GRAVITY

Determined by:

Depth (m) :

Rock Type :

GEOPEKO LIMITED - KING ISLAND

CHECK ASSAY DATA

D.D.H. D 120/8

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 2544	6.00	0.27	D 019 ³	5.4	0.28	D 0192	4.22	0.14	D 0191	4.72	0.005
2639	0.11	0.01	0190	0.12	0.03	0189	0.16	0.03	0188	0.12	0.005
2644	1.96	0.07	0178	2.13	0.12	0177	2.27	0.075	0176	1.92	0.039
2650	0.73	0.02	0181	0.90	0.08	0180	0.93	0.045	0179	0.92	0.022
2656	0.47	0.01	0187	0.40	0.05	0186	0.55	0.035	0185	0.52	0.018
2661	0.35	0.01	0184	0.39	0.04	0183	0.54	0.045	0182	0.43	0.011

GEOPEKO LIMITED - Dolphin MineGEOLOGICAL LOGD.D.H. NO. D 120/8

00 - 14.30

BIOTITE PYROXENE HORNFELS.

This unit is typically of the dominantly black biotite hornfels and minor interbedded green (ph) of the uppermost part of the B lens sequence.

Several fine carbonate filled fractures show a ^{halo} of green pyroxenation. e.g. 10.80m.

Bedding: 12.5m 68° LAOC.

14.30 - 20.90m

PYROXENE GROSSULAR HORNFELS.

A banded green pyroxene hornfels and pale pink grossular garnet hornfels with minor white carbonate. The unit contains moderate mineralisation 16.5 - 20.5m.

Bedding: 16m 65° LAOC.

20.9 - 40.53

MARBLE

A barren dirty grey marble. Quality of core is excellent. RQD = 93%. Core is spotted with black carbonaceous spots 24 - 28m. Spots up to 5mms dia.

Bedding: 25m 65° LAOC.

This unit has some green pyroxene and brown grossular garnet developed 31 - 32m with very minor disseminated scheelite.

Joints are all clay and carbonate filled.

40.53 - 42.30

BIOTITE PYROXENE HORNFELS.

A banded biotite pyroxene rock, no mineralisation. Bedding: 42m 70° LAOC.

42.30 - 45.26

TUFFITE.

A pale green and grey rock, fine grained with no mineralisation. Texture is weakly spotted or fragmental and is more volcanic than hornfelsic in appearance.

45.26 - 60.84

HANGINGWALL BIOTITE HORNFELS.

Typical grey purplish brown, fine grained and barren. No apparent bedding.

Clay on joint surfaces - no chlorite.

60.84 - 75.08

PYROXENE GARNET HORNFELS.

Pale green pyroxene hornfels with white carbonate pods up to 5cm. dia. rimmed with honey coloured grossular garnet. The unit is only very weakly mineralised.

75.08 - 92.35

GARNET HORNFELS.

Medium to coarse grained andradite garnet skarn

GEOPEKO LIMITED - Dolphin Mine

GEOLOGICAL LOG

D.D.H. NO. D 120/8

with moderate to high grade disseminated scheelite throughout. Quality of core is good. RQD = 91%

92.35 - 99.82

BIOTITE HORNFELS.

Mostly a grey brown barren fine grained biotite hornfels with occasional green ph and brown grossular garnet. e.g. 99.0 - 99.5

Quality of core is poor with some lost core.

RQD = 20%.

99.82 - 109.0

LOWER METAVOLCANICS.

A pale grey weakly biotite spotted (< 1mm dia) rock with a volcanic texture. Minor chlorite on joint surfaces.

109.0 - 110.64

BANDED FOOTWALL HORNFELS.

Mostly a barren grey biotite hornfels but there is some minor green ph banding and minor development of very weakly mineralised andradite skarn at 109.25 - 109.50,

Bedding: 110m 30° LAOC.

110.64 E.O.H.

GEOPEKO LIMITED - KING ISLANDLOG OF D.D.H. NO: D 120/7PLANNING

Proposer: M.J. Danielson Depth: 75m
 Location: 220 120E DRILL Cuddy.

Purpose of hole: Locate Central Fault

Co-ordinates: 220 120 E 564040 N
 Inclination: -67 Target depth:
 Bearing: 360 °Grid °Magnetic
 Target: E N
 Approved by: M.C. Rogers Date: 1/8/74

SURVEY

Survey Co-ords: E N
 Survey bearing: °Grid °Magnetic
 Surveyed in by: Date:
 Actual Co-ords: 220 120.1 E 564038.2 N
 R.L. of collar: - 80.4 Inclination of hole: - 71.5
 Picked up by: M.G.M Date: 9 August, 1974

SUMMARY

Logged by: M. J. Danielson
 Results: C lens, 61 - 75m, 14m @ 0.83% WO₃

DRILLING

Driller / Contractor: A.D.D.
 Date commenced: 1/8/74 Date terminated: 12/8/74

Casing:	Size :	BX				
	Depth:	1.52				
Core:	Size :	NQ	BQ			
	Depth:	1.52	75.39			

Wedge Runoff:

Wedge placed: NIL Depth:
 Proposed by: Approved by:
 Reason:

Extension: NIL. Final depth: 75.39
 Reason for termination: Hole passed through Central Fault.

Condition of hole on completion:

Casing :1.52 BX remains
 Cemented: Yes.

Bore hole survey: Surveyed to 73.15m.

Water: Normal Water return throughout.

Comments on drilling conditions: Faulty compass allowed rig to be set up at -71.5° instead of planned -67°.

GEOPEKO LIMITED - Dolphin MineSUMMARY BORE HOLE SURVEY DATAD.D.H. NO. D 120/7

Survey method : Multishot camera

Depth surveyed to : 73.15m.

Final depth : 75.39m

Date surveyed : 12/8/74

Casing depth : 1.52m

Surveyed by : V. Powell

Checked by : G.L. Buckland.

DEPTH (m)	Bearing		Inclination		True Vertical depth	Co-ordinates	
	Grid	Mag.	Read	Corrected		N	W
15.24	004°30'	355°30'	18°45'	- 71°15'	14.42	4.91	0.27
30.48	004°	355°	18°	- 72°	28.89	9.68	0.70
45.72	003°	354°	18°	- 72°	43.39	14.37	1.17
60.96	359°15'	350°15'	18°15'	- 71°45'	57.87	19.06	1.92
73.15	359°30'	350°30'	18°15'	- 71°45'	69.46	22.80	2.57

REMARKS

GEOPEKO LIMITED - KING ISLAND

SUMMARY STRUCTURAL DATA

D.D.H. NO. D 120/7

Depth Interval (metres)	Rock Type	Fractures / Metre	Joint Angle	Joint Filling	Bedding Angle	% Core Recovery	Broken Core % >10cms (R.Q.D.)	Remarks (weathering)
0 - 10.82	B lens hangingwall bh.	15		minor clay @ 8.10, minor pyrite, carbonate		109	33	bad ground 1.45-1.61 7.39-7.62
10.82-29.26	bph/ B lens.	9		minor clay and pyrite chlorite general eg @ 26.52 27.12	13.2m: 55° LAOC 18.0m: 50° 22.0m: 55°	98	73	bad ground 28.03-29.04, abundant chlorite. 23.66 - 24.31 core is fragmented, moderately leached and chlorite is weathered.
29.26-42.98	B lens.	3		carbonate @ 37.91, chlorite @ 30.65		100	93	

FURTHER DATA & REMARKS (Compression Tests)

- Core size: 0 - 0.91 NQ
0.91 - 75.39 BQ
- For detailed % core recovery within each depth interval consult core recovery page.

GEOPEKO LIMITED - KING ISLAND

SUMMARY STRUCTURAL DATA

D.D.H. NO. D120/7

Depth Interval (metres)	Rock Type	Fractures / Metre	Joint Angle	Joint Filling	Bedding Angle	% Core Recovery	Broken Core % >10cms (R.Q.D.)	Remarks (weathering)
42.98-61.26	B lens / hangingwall bh.	7		pyrite @ 49.0 52.15 chlorite @ 43.20 45.90		102	81	bad ground 61.0-61.26 (fault)
61.26-70.10	pgh / gh/ banded gh	8		carbon- ate, minor pyrite @ 64.5	66m:50 67m:45 71m:65 73.5m 55° LAOC	101	70	
70.10-75.39	banded gh	14		carbonate		107	35	bad ground: 74.0-74.25

FURTHER DATA & REMARKS (Compression Tests)

CORE RECOVERY - DDH D 120/7

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED	% CORE RECOVERY
0 - 0.91	0.91	0.81	89
2.44	1.53	1.65	108
4.72	2.28	3.14	138
7.77	3.05	3.13	103
10.82	3.05	3.11	102
13.67	3.05	3.07	101
16.15	2.28	2.20	96
19.20	3.05	2.83	93
22.25	3.05	3.06	100
23.47	1.22	1.06	87
26.52	3.05	3.11	102
29.26	2.74	2.66	97
32.31	3.05	3.06	100
35.36	3.05	3.04	99
38.40	3.04	3.06	101
41.45	3.05	3.04	99
42.98	1.53	1.48	97
46.02	3.04	3.11	102
47.85	1.83	1.88	103
50.90	3.05	3.03	99
53.95	3.05	3.07	101
55.17	1.22	1.20	98
58.22	3.05	3.11	102
61.26	3.04	3.22	102
64.31	3.05	3.13	103
67.36	3.05	3.12	103
70.10	2.74	2.71	99
71.73	1.63	1.70	104
73.25	1.52	1.52	103
74.47	1.22	1.30	106
75.39	0.92	1.00	108

GEOPEKO LIMITED - Dolphin MineASSAY DATAD.D.H. NO.D 120/7

SAMPLE NO.	DEPTH (METRES)				ELEMENTS						COMMENTS
	From	To	Length	Length recovered	WO ₃	Mo					
D2447	41	42	1.0	1.0	0.13	0.01					
2448	42	43	"	"	0.21	0.01					
2432	60	61	"	"	0.01	0.01					
3	61	62	"	"	0.37	0.03					
4	62	63	"	"	0.98	0.03					
5	63	64	"	"	0.68	0.02					
6	64	65	"	"	1.28	0.05					
7	65	66	"	"	1.93	0.08					
8	66	67	"	"	0.07	0.01					
9	67	68	"	"	0.30	0.01					
40	68	69	"	"	1.62	0.07					
1	69	70	"	"	0.87	0.03					
2	70	71	"	"	0.43	0.01					
3	71	72	"	"	0.96	0.03					
4	72	73	"	"	0.93	0.03					
5	73	74	"	"	0.79	0.02					
2446	74	75	"	"	0.45	0.01					

C Lens
14m
at
0.83%

SPECIFIC GRAVITY

Determined by:

Depth (m) :

Rock Type :

GEOPEKO LIMITED - KING ISLAND

CHECK ASSAY DATA

D.D.H. D 120/7

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 2433	0.37	0.03	D 0052	0.56	0.05	D 0051	0.76	0.045	D 0050	0.63	
2440	1.62	0.07	0055	1.72	0.09	0054	1.77	0.085	0053	1.82	
2445	0.79	0.02	0058	0.65	0.04	0057	0.91	0.025	0056	0.94	

GEOPEKO LIMITED - Dolphin MineGEOLOGICAL LOGD.D.H. NO. D 120/7

The unit is unmineralised and could be vaguely described as a pgh.

61.80 - 63.90 **GARNET HORNFELS**

Highly mineralised medium to coarse grained massive andradite garnet skarn - no banding or bedding. This unit looks like upper C lens.

63.90 - 75.39 **BANDED GARNET HORNFELS**

This unit is typical of the base of the C lens horizon. There are patches of well mineralised andradite garnet skarn interbedded with barren green (ph), pink grossular garnet and minor barren white marble. eg 67.70 - 67.85.

Bedding:	66m	50°	LOAC
	67m	45°	"
	71m	65°	"
	73.5m	55°	"

This unit is mineralised to E.O.H.

75.39 metres E.O.H.

GEOPEKO LIMITED - KING ISLANDLOG OF D.D.H. NO: D 120/6PLANNING

Proposer: K.I.S.

Depth: 140m

Location: -75m X cut

Purpose of hole: Test ground conditions in quartzites.

Co-ordinates: 220 120 E 564 150 N

Inclination: 0°

Target depth:

Bearing: 324 °Grid

°Magnetic

Target: E N

Approved by: M. C. Rogers

Date: 21.6.74

SURVEY

Survey Co-ords: E N

Survey bearing: °Grid

°Magnetic

Surveyed in by:

Date:

Actual Co-ords: 220113.054 E 564151.343 N

R.L. of collar: -76.35m

Inclination of hole: -2° dip

Picked up by: D. Brown

Date: 19.6.74

SUMMARY

Logged by: M. J. Danielson

Results: Ground conditions generally poor to moderate.

DRILLING

Driller / Contractor: A.D.D.

Date commenced: 19.6.74

Date terminated: 19.7.74

Casing: Size : NIL

Depth:

Core: Size : BQ

Depth: 73.10

Wedge Runoff:

Wedge placed:

Depth:

Proposed by:

Approved by:

Reason:

Extension:

Final depth: 73.10m

Reason for termination: Hole making water 3000 gals/min.

Condition of hole on completion:

Casing : NIL

Cemented: Grouted to 46.48m then grouted again on termination.

Bore hole survey: Surveyed to 70.10m Bearing 314° ISG/-2°

Water: At 46.48m making 3000 gal/min.

Comments on drilling conditions: At 73.10m making " Drilling machine F30.

GEOPEKO LIMITED - DOLPHIN MINESUMMARY BORE HOLE SURVEY DATAD.D.H. NO. D 120/6

Survey method : Multishot Camera

Depth surveyed to : 70.10m

Final depth : 73.12m

Date surveyed : 18.7.74

Casing depth :

Surveyed by : V. Powell

Checked by : G. Buckland

DEPTH	Bearing		Inclination		True Vertical depth	Co-ordinates	
	Grid	Mag.	Read	Corrected		XX N	XX W
0							
15.24	323 ^o	314 ^o	88 ^o	-2 ^o	0.53	10.58	10.95
30.48	323 ^o	314 ^o	88 ^o	-2 ^o	1.07	21.16	21.91
45.72	322.5 ^o	313.5 ^o	89 ^o	-1 ^o	1.37	31.84	32.78
60.96	323 ^o	314 ^o	88 ^o	-2 ^o	1.83	42.48	43.68
70.10	323 ^o	314 ^o	88 ^o	-2 ^o	2.15	48.83	50.26

REMARKS

GEOPEKO LIMITED - KING ISLAND

SUMMARY STRUCTURAL DATA

D.D.H. NO. D 120/6

Depth Interval (metres)	Rock Type	Fractures / Metre	Joint Angle	Joint Filling	Bedding Angle STABILITY INDEX	% Core Recovery	Broken Core % >10cms (R.Q.D.)	Remarks (weathering)
0.0-4.57	q	15		minor carbonate	12.9	99	38	ground core between 0.30- 0.61.
4.57-7.78	q	+20		minor -carbonate -clay -pyrite	17.5	100	6	
7.78-10.67	q	14		minor -carbonate -clay -pyrite	10.8	100	55	
10.67-21.39	q	+20		chlorite minor carbonate pyrite	16.9	95	17	interval is less siliceous and more shale rich.
21.39-36.45	q	14		minor -pyrite -carbonate, lesser clay	12.07	97	45	poor ground 26.0-27.5m.
36.45-38.81	q	+20		minor chlorite at 37m	17.3	95	13	
38.81-41.32	q	15		minor pyrite, carbonate	10.2	100	64	interval is exceptionally siliceous.
41.32-46.48	q	+20		pyrite	18.7	85	9	core badly broken.

FURTHER DATA & REMARKS (Compression Tests)

1. Core size Bq (36.5mm)
2. For detailed % core recovery within each interval consult core recovery page.

GEOPEKO LIMITED - KING ISLAND

SUMMARY STRUCTURAL DATA

D.D.H. NO. D 120/6

Depth Interval (metres)	Rock Type	Fractures / Metre	Joint Angle	Joint Filling	Bedding Angle STABILITY INDEX	% Core Recovery	Broken Core % >10cms (R.Q.D.)	Remarks (weathering)
46.48-48.77	q	+20		carbonate	16.7	100	14	at 47.5m core is dissected with many carbonate filled joints. Fault?
48.77-61.06	q	+20		pyrite	14.6	99	36	
61.06-69.00	q	+20		pyrite carbonate	17.9	100	2	very poor ground core is shattered At 64.20 core is shattered and appears recemented with carbonate. Fault?
69.00-73.10	q	+20			15.2	100	29	

Note: Bold Head quartzites
 approximate to the following
 parameters. (My memo on Dani Bone Notes
 at Bold Head 30.10.1973).

J/m 5
 R.Q.D 90
 S.I. 4 - 5

MJD

CORE RECOVERY - DDH D 120/6

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0.0 - 0.15	0.15	0.15	100
0.30	0.15	0.15	100
0.61	0.31	0.18	58
0.76	0.15	0.16	107
1.22	0.46	0.30	65
1.52	0.30	0.32	107
1.70	0.18	0.30	166
2.00	0.30	0.25	83
2.92	0.92	1.00	109
3.35	0.43	0.42	98
4.01	0.66	0.66	100
4.57	0.56	0.62	111
4.88	0.31	0.28	90
5.27	0.39	0.35	90
5.64	0.37	0.40	108
5.79	0.15	0.10	67
6.17	0.38	0.40	105
6.32	0.15	0.10	67
7.09	0.77	0.83	108
7.16	0.07	0.10	142
7.32	0.16	0.14	88
7.62	0.30	0.35	117
8.38	0.76	0.73	96
9.60	1.22	1.22	100
9.75	0.15	0.13	87
10.67	0.92	0.96	104
11.28	0.61	0.62	102
11.43	0.15	0.13	87
11.58	0.15	0.05	33
11.73	0.15	0.12	80
12.34	0.61	0.54	89
12.65	0.31	0.34	110
12.95	0.30	0.20	67
13.34	0.39	0.28	72
14.55	1.21	1.20	99
15.16	0.61	0.62	102
16.38	1.22	1.10	90
16.89	0.51	0.24	47
17.04	0.15	0.18	120
17.65	0.61	0.60	98
18.26	0.61	0.75	123
18.87	0.61	0.50	82
19.84	0.97	0.92	95
20.34	0.50	0.62	124
21.39	1.05	1.16	110
22.00	0.61	0.55	90
22.61	0.61	0.63	103
23.22	0.61	0.73	120
24.43	1.21	1.28	106
26.26	1.83	1.90	104
26.87	0.81	0.45	74
27.48	0.61	0.50	82
28.10	0.62	0.56	90
29.00	0.90	1.00	111
30.22	1.22	1.18	97
30.83	0.61	0.55	90

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
31.14	0.31	0.20	65
32.61	1.47	1.37	93
33.22	0.61	0.55	90
34.44	1.22	1.30	107
36.45	2.01	1.90	95
37.13	0.68	0.70	103
37.59	0.46	0.45	98
37.90	0.31	0.25	87
38.20	0.30	0.30	100
38.81	0.61	0.55	90
39.40	0.59	0.67	114
39.70	0.30	0.27	90
40.92	1.22	1.30	107
42.37	1.45	1.45	100
42.67	0.30	0.30	100
43.13	0.46	0.40	87
43.43	0.30	0.27	90
43.64	0.21	0.21	100
44.14	0.50	0.45	90
44.65	0.51	0.51	100
45.57	0.92	1.00	109
46.48	0.91	0.90	99
46.84	0.36	0.40	111
47.19	0.35	0.35	100
48.56	1.37	1.37	100
48.77	0.21	0.23	109
50.79	1.82	1.77	97
52.43	1.84	1.66	90
53.39	0.96	1.00	104
54.30	0.91	0.94	103
54.91	0.61	0.62	102
55.37	0.46	0.44	96
55.67	0.30	0.30	100
57.60	1.93	1.90	98
58.83	1.23	1.32	107
59.23	0.40	0.44	110
59.99	0.76	0.78	103
61.06	1.07	1.10	103
61.70	0.64	0.64	100
62.69	0.99	1.00	101
62.99	0.30	0.30	100
63.32	0.33	0.34	103
65.02	1.70	1.75	102
65.53	0.51	0.51	100
66.24	0.71	0.62	87
66.55	0.31	0.35	106
67.16	0.61	0.61	100
67.67	0.51	0.53	104
68.33	0.66	0.63	95
68.88	0.55	0.56	101
69.69	0.31	0.23	74
70.43	1.24	1.30	105
71.02	0.59	0.61	103
72.06	1.04	1.08	104
73.10	1.05	1.00	96

GEOPEKO LIMITED - DOLPHIN MINE

GEOLOGICAL LOG

D.D.H. NO. D 120/6

0 - 73.10

● QUARTZITE

A pale grey green structureless quartzite. No scheelite mineralisation. Subdivided as below:

0 - 10.67

Very siliceous quartzite with mostly carbonate and only minor pyrite on joint surfaces, - some clay.

10.67 - 21.39

Still a pale grey colour but gives appearance of being *softer* with less silica and more shale. Chlorite is very common on joint surfaces.

21.39 - 44.65

Siliceous grey green quartzite. Particularly "hard" between 38.81-41.32. Pyrite and minor carbonate are principal joint fillings.

44.65 - 45.57

Spotted grey quartzite. Spots are dark grey in colour and av. 5mm dia.

45.57 - 45.72

Very siliceous green quartzite.

45.72 - 50.59

More shale rich quartzite.

50.59 - 63.32

Spotted grey quartzite.

63.32 - 65.53

Core very badly broken with chlorite on fracture surfaces.

65.53 - 73.10

Quality of core improves. Very siliceous quartzite.

73.10

E.O.H.

GEOPEKO LIMITED - KING ISLANDLOG OF D.D.H. NO: D 120/5PLANNING

Proposer: M. J. Danielson Depth: 100m
 Location: 220 125 E entrance to B lens drive -75m

Purpose of hole: Oreblocking

Co-ordinates: 220 125 E 564 110 N
 Inclination: -65° Target depth:
 Bearing: 180° Grid ° Magnetic
 Target: E N
 Approved by: M. C. Rogers Date: 1.5.74

SURVEY

Survey Co-ords: E N
 Survey bearing: ° Grid ° Magnetic
 Surveyed in by: Date:

Actual Co-ords: 220124.691E564108.298N

R.L. of collar: -78.106m Inclination of hole:

Picked up by: D. Brown Date: 6.6.74

SUMMARY

Logged by: M. J. Danielson

Results: C lens 18--22 4m @ 0.46% WO₃
 32--40 8m @ 2.28% WO₃
 46--77 31m @ 0.85% WO₃

DRILLING

Driller / Contractor: A.D.D.

Date commenced: 6.6.74 Date terminated: 18.6.74

Casing: Size : BX

 Depth: 1.52

Core: Size : NQ

 Depth: 1.52 99.97

Wedge Runoff:

 Wedge placed:

 Depth:

 Proposed by:

 Approved by:

 Reason:

Extension: Nil

Final depth: 99.97

Reason for termination: Hole passed into unmineralised banded basal hornfels.

Condition of hole on completion:

 Casing : 1.52 BX remains

 Cemented: Yes

Bore hole survey: Surveyed to 97.53m.

Water:

Comments on drilling conditions:

GEOPEKO LIMITED - KING ISLAND

SUMMARY STRUCTURAL DATA

D.D.H. NO.D 120/5

Depth Interval (metres)	Rock Type	Fractures / Metre	Joint Angle	Joint Filling	Bedding Angle	% Core Recovery	Broken Core % >10cms (R.Q.D.)	Remarks (weathering)
0 - 1.52	bh	+20				30	0	Rubble
1.52 - 14.32	bh	6			6m 58° 12m 50°	13.72 - 14.02 50% otherwise 100%	80	
14.32-32.54	pgh	4				100	84	slightly brecciated 23.0-26.5m
32.54-39.85	gh	4				99	82	
39.85-46.90	marble marker	7				100	70	
46.90-56.90	banded gh	4				100	84	
56.90-66.90	"	10			57m 60° 62m 70° 66m 65°	100	58	
66.90-78.64	"	9			77m 60°	100	61	bad ground 70.0-71.5 73.0-73.5 76.5-77 78-79m
78.64-95.0	banded gh/bh/ ph	7		mod. chlorite	78.64-79.25 79.25-80.47 80.47-81.87 81.87-83.82 83.82-85.04 85.04-85.95 85.95-87.17	66% 92% 90% 49% 8% 100% 92%	55	
					otherwise	100%		

FURTHER DATA & REMARKS (Compression Tests)

GEOPEKO LIMITED - KING ISLAND

SUMMARY STRUCTURAL DATA

D.D.H. NO. D 120/5

Depth Interval (metres)	Rock Type	Fractures / Metre	Joint Angle	Joint Filling	Bedding Angle	% Core Recovery	Broken Core % >10cms (R.Q.D.)	Remarks (weathering)
95.0-99.97	bh/ph	+20		chlorite	85m 35°	100	20	Core is mainly broken along bedding.
					88m 30°			
					92m 40°			
					95m 40°			
					96m 50°			
					99m 50°			

FURTHER DATA & REMARKS (Compression Tests)

Core size: 0 - 1.52 NQ 1.52 - 99.97 BQ.

GEOPEKO LIMITED - DOLPHIN MINESUMMARY BORE HOLE SURVEY DATAD.D.H. NO. D 120/5

Survey method : Multishot Camera

Depth surveyed to : 97.53m

Final depth : 99.97m

Date surveyed : 18.6.74

Casing depth : 1.52m

Surveyed by : V. Powell

Checked by : M. J. Danielson

DEPTH	Bearing		Inclination		True Vertical depth	Co-ordinates	
	Grid	Mag.	Read	Corrected		E	N s
0	183			-63°			
15.24	183	174	26°45'	-63°15'	13.59	1.33	6.71
30.48	184	175	26	-64	27.28	1.93	13.36
45.72	184°15'	175°15'	26	-64	40.97	2.46	20.01
60.96	184°45'	175°45'	26	-64	54.65	2.93	26.66
91.44	184°30'	175°30'	26°15'	-63°45'	82.01	3.93	40.01
97.53	185	176	26	-64	87.49	4.11	42.67

REMARKS

GEOPEKO LIMITED - DOLPHIN MINEASSAY DATAD.D.H. NO. D 120/5

SAMPLE NO.	DEPTH (METRES)				ELEMENTS						COMMENTS
	From	To	Length	Length recovered	WO ₃	Mo		Check Assay N ^o WO ₃ Mo			
C 1656	15	16	1.0	1.0	0.03	0.01					
7	16	17	"	"	0.22	0.01		C1907	0.27	0.01	
8	17	18	"	"	0.04	0.01					
9	18	19	"	"	1.16	0.04					
60	19	20	"	"	0.02	0.01					
1	20	21	"	"	0.28	0.01					4m at 0.46% WO ₃
2	21	22	"	"	0.38	0.01					
3	22	23	"	"	0.02	0.01					
1665	23	24	"	"	0.07	0.01					
1664	24	25	"	"	0.03	0.01					
1666	30	31	"	"	0.01	0.01					
7	31	32	"	"	0.02	0.01		C1908	0.04	0.01	
8	32	33	"	"	3.80	0.16					
9	33	34	"	"	3.50	0.11					
70	34	35	"	"	1.86	0.07					
1	35	36	"	"	1.54	0.05					8m at 2.28% WO ₃
2	36	37	"	"	2.45	0.08					
3	37	38	"	"	2.70	0.10					
4	38	39	"	"	0.99	0.04					
5	39	40	"	"	1.40	0.04					
6	40	41	"	"	0.01	0.01					
7	41	42	"	"	0.21	0.01		C1909	0.20	0.01	
8	42	43	"	"	0.01	0.01					
9	43	44	"	"	0.01	0.01					
80	44	45	"	"	0.02	0.01					
1	45	46	"	"	0.01	0.01					
2	46	47	"	"	0.37	0.01					
3	47	48	"	"	1.23	0.02					
4	48	49	"	"	1.23	0.02					

SPECIFIC GRAVITY

Determined by:

Depth (m) :

Rock Type :

GEOPEKO LIMITED - DOLPHIN MINE

ASSAY DATA

D.D.H. NO. D 120/5

SAMPLE NO.	DEPTH (METRES)				ELEMENTS				COMMENTS
	From	To	Length	Length recovered	WO ₃	Mo	Check Assay NE WO ₃ Mo		
1685	49	50	1.0	1.0	1.66	0.04			
6	50	51	"	"	1.77	0.04			
7	51	52	"	"	0.99	0.02	C1910	1.08	0.04
8	52	53	"	"	0.77	0.01			
9	53	54	"	"	1.62	0.03			
90	54	55	"	"	0.21	<0.01			
1	55	56	"	"	0.02	<0.01			
2	56	57	"	"	0.03	<0.01			
3	57	58	"	"	0.54	0.01			
4	58	59	"	"	1.04	0.01			
5	59	60	"	"	0.03	<0.01			
6	60	61	"	"	0.25	<0.01			
7	61	62	"	"	3.5	0.09	C1911	3.8	0.12
8	62	63	"	"	0.02	<0.01			31m at 0.85% WO ₃
9	63	64	"	"	0.21	<0.01			
700	64	65	"	"	0.83	<0.01			
1	65	66	"	"	0.85	0.01			
2	66	67	"	"	2.05	0.07			
3	67	68	"	"	3.05	0.07			
4	68	69	"	"	0.02	<0.01			
5	69	70	"	"	1.01	0.02			
6	70	71	"	"	0.02	<0.01			
7	71	72	"	"	0.31	<0.01	C1912	0.43	0.03
8	72	73	"	"	0.26	<0.01			
9	73	74	"	"	0.05	<0.01			
10	74	75	"	"	0.59	0.01			
1	75	76	"	"	0.35	<0.01			
2	76	77	"	"	1.48	0.03	C1913	1.85	0.09
3	77	78	"	"	0.18	<0.01			
1714	78	79	"	"	<0.01	<0.01			

SPECIFIC GRAVITY

Determined by:

Depth (m) :

Rock Type :

GEOPEKO LIMITED - KING ISLAND

CHECK ASSAY DATA

D.D.H. D 120/5

LAB. K.I.S.			LAB. K.I.S.			LAB. K.I.S.			LAB.		
Original Sample No.	WO ₃	Mo.	Check Sample No.	WO ₃	Mo.	Check Sample No.	WO ₃	Mo.	Check Sample No.	WO ₃	Mo.
C 1657	0.22	< 0.01	C 1079	0.22	< 0.01		0.21				
1667	0.02	< 0.01	1080	0.06	< 0.01		0.05				
1677	0.21	< 0.01	1081	0.24	< 0.01		0.22				
1687	0.99	0.02	1082	1.23	0.04		1.14				
1697	3.5	0.09	1083	3.5	0.12		3.50				
1707	0.31	< 0.01	1084	0.36	0.01		0.34				
1712	1.48	0.03	1085	1.92	0.06		1.96				
C 1657	0.22	< 0.01		0.23		C 1907	0.27	< 0.01		0.26	
1667	0.02	< 0.01		0.02		1908	0.04	< 0.01		0.03	
1677	0.21	< 0.01		0.22		1909	0.20	0.01		0.19	
1687	0.99	0.02		1.05		1910	1.08	0.04		1.06	
1697	3.5	0.09		3.40		1911	3.8	0.12		3.60	
1707	0.31	< 0.01		0.35		1912	0.43	0.03		0.40	
1712	1.48	0.03		1.58		1913	1.85	0.09		1.85	

GEOPEKO LIMITED - KING ISLAND

CHECK ASSAY DATA

D.D.H. D 120/5

LAB. K.I.S.			LAB. K.I.S.			LAB.			LAB.		
Original Sample No.	WO ₃	Mo.	Check Sample No.	WO ₃	Mo.	Check Sample No.	WO ₃	Mo.	Check Sample No.	WO ₃	Mo.
C 1693	0.54	0.01	D 2080	0.32	< 0.01						
1674	0.99	0.04	2081	0.97	0.04						
1661	0.28	0.01	2082	0.28	0.02						
1702	2.05	0.07	2083	2.25	0.09						
1710	0.59	0.01	2084	1.00	0.02						
1668	3.80	0.16	2085	4.40	0.19						
1684	1.23	0.02	2086	1.30	0.04						

GEOPEKO LIMITED - KING ISLAND

CHECK ASSAY DATA

D.D.H. D 120/5

LAB. K.I.S.			LAB. A.C.S.L.			LAB. A.M.D.L.			LAB.		
Original Sample No.	WO ₃	Mo.	Check Sample No.	WO ₃	Mo.	Check Sample No.	WO ₃	Mo.	Check Sample No.	WO ₃	Mo.
O 1687	0.99	0.02	C 1060	1.09	0.029	D 0230	1.16	0.05			
C 1712	1.48	0.03	C 1054	1.85	0.035	0231	1.64	0.05			
C 1710	0.59	0.01	D 0242	1.00	0.014	D 0241	0.98	0.04			

GEOPEKO LIMITED - DOLPHIN MINEGEOLOGICAL LOGD.D.H. NO. D120/5

0 - 14.32

BIOTITE HORNFELS

Pale grey green hangingwall biotite hornfels. Fine grained with no mineralisation. Bedding 6m 58°.

Spotting in the hornfels, 3.70 - 4.00

9.00 - 9.50

11.30 - 13.00

The first two spotted areas show dark grey brown spots usually less than 2mm dia. The third area shows spots up to 1cm dia. Bedding 12.0m 50°.

14.32 - 25.55

PYROXENE GARNET HORNFELS

Green pyroxene hornfels with white carbonate ovoids up to 5cm dia. rimmed by honey coloured grossular garnets. Weakly mineralised throughout.

25.55 - 26.95

ACID DYKE

Pale grey massive barren rock with volcanic texture. Lower contact is clearly defined.

Note that there is some brecciation in the overlying pgh between 23.0 - 26.5.

26.95 - 32.54

PYROXENE GARNET HORNFELS

Similar appearance to the pgh unit above but is almost totally unmineralised except for the occasional speck of scheelite.

32.54 - 39.85

GARNET HORNFELS

Typical medium to coarse grained andradite skarn, very highly mineralised in the form of fine disseminated scheelite.

The skarn is generally massive but there is some bedding evident between 38 - 40m. Bedding: 38.5m 55° L.A.O.C.

39.85 - 46.90

MARBLE MARKER

A very weakly mineralised sequence of marbles, biotite and pyroxene hornfels and minor developments of scheelite bearing skarn.

The marbles are grey and structureless but the hornfels exhibit some bedding. Bedding: 45m 50°.

GEOPEKO LIMITED - DOLPHIN MINEGEOLOGICAL LOGD.D.H. NO. D 120/5

46.90 - 86.45

BANDED GARNET HORNFELS

Typical of the lower C lens unit.

It is an andradite skarn with interbedded barren bands of pyroxene hornfels. Bedding is clearly evident.

Bedding:	50m	40°
	51m	45°
	54m	45°
	57m	60°
	62.5m	70°
	66m	65°

Moderate disseminated mineralisation to 57m but becoming less continuous below this depth.

In the interval 57 - 64m there is abundant barren green (ph) and white (ch) interbedded with minor scheelite, although there are some coarse grains.

No mineralisation below 77.5m. Lost core:

78.64 - 79.25	0.40m rec.
79.25 - 80.47	1.12m "
80.47 - 81.87	1.26m "
81.87 - 83.82	0.95m "
83.82 - 85.04	0.10m "
85.04 - 85.95	0.91m "
85.95 - 87.17	1.12m "
Bedding: 77m	60°.

86.45 - 99.97

BANDED BIOTITE PYROXENE HORNFELS

Thinly banded black (bh) and grey green (ah/ph) rock. The unit is unmineralised and badly broken, particularly 95 - 99.97m. The breakage is mainly parallel to the bedding. Bedding:

85m	35°
88m	30°
92m	40°
95m	40°.

99.97

E.O.H.

GEOPEKO LIMITED - KING ISLANDLOG OF D.D.H. NO: D 120/4PLANNING

Proposer: M. J. Danielson Depth: 55m
 Location: 220 120 E drive, entrance to B lens drive.

Purpose of hole: Oreblocking C lens

Co-ordinates: 220 120 E 564 110 N
 Inclination: -65° Target depth:
 Bearing: 360° Grid $^{\circ}$ Magnetic
 Target: E N
 Approved by: M. C. Rogers Date: 1.4.74

SURVEY

Survey Co-ords: E N
 Survey bearing: $^{\circ}$ Grid $^{\circ}$ Magnetic
 Surveyed in by: Date:
 Actual Co-ords: 56412.8 ^N ~~E~~ 22012.7 ^E ~~N~~
 R.L. of collar: -78.2 Inclination of hole:
 Picked up by: D. Brown Date: 24.5.74

SUMMARY

Logged by: M. J. Danielson
 Results: C lens 13 - 15m 2m @ 2.29% WO₃ 51 - 55m 4m @ 1.57% WO₃
 22 - 29m 7m @ 1.38% WO₃
 31 - 38m 7m @ 2.52% WO₃
 42 - 44m 2m @ 0.87% WO₃

DRILLING

Driller / Contractor: A.D.D.
 Date commenced: 24.5.74 Date terminated: 31.5.74

Casing:	Size :	BX			
	Depth:	1.52			
Core:	Size :	NQ	BQ		
	Depth:	1.52	70.41		

Wedge Runoff:

Wedge placed: Depth:
 Proposed by: Approved by:
 Reason:

Extension: Nil Final depth: 70.41m

Reason for termination: Hole passed through No. 3 Fault into quartzites.

Condition of hole on completion:

Casing : 1.52 BX remaining
 Cemented: ~~Yes~~ No

Bore hole survey: Surveyed to 70.10m.

Water: Normal water pressure.

Comments on drilling conditions:

GEOPEKO LIMITED - KING ISLAND

SUMMARY STRUCTURAL DATA

D.D.H. NO. D 120/4

Depth Interval (metres)	Rock Type	Fractures / Metre	Joint Angle	Joint Filling	Bedding Angle	% Core Recovery	Broken Core % >10cms (R.Q.D.)	Remarks (weathering)
0 - 7.92	bh	8		clay/ chlorite	3m 67°	79	43	
7.92 - 28.41	pgh/gh	3				100	95	
28.41 - 46.33	bh/gph	5			32.92-35.66	89	80	bad ground 29.0-29.2m
					36.42-36.73	66		
					36.73-37.19	78		
					43.28-46.33	97		
46.33 - 54.74	bh/ph/gh	11			46.33-47.24 chlorite	50	50	bad ground 46.6-47.5m
54.74 - 70.41	q	7		clay		100	71	bad ground 57.2-58.0 69.1-70.0

FURTHER DATA & REMARKS (Compression Tests)

Core size: 0 - 1.52 NQ 1.52 - 70.41 BQ.

Contact with quartzite at 54.74m does not appear as a faulted one.

GEOPEKO LIMITED - DOLPHIN MINESUMMARY BORE HOLE SURVEY DATAD.D.H. NO.D 120/4

Survey method : Multishot Camera

Depth surveyed to : 70.10m

Final depth : 70.41m

Date surveyed : 31.5.74

Casing depth : 1.52m

Surveyed by : G. Buckland

Checked by : M. J. Danielson

DEPTH	Bearing		Inclination		True Vertical depth	Co-ordinates	
	Grid	Mag.	Read	Corrected		E W	N
0	360			-65			
15.24	359	350		-65°45'	13.90	1.09	6.16
30.48	359	350		-66	27.75	2.17	12.41
45.72	358	349		-66	41.68	3.33	18.50
60.96	359	350		-65°45'	55.57	4.47	24.67
70.10	358°30'	349°30'		-65°45'	63.90	5.13	28.37

REMARKS

GEOPEKO LIMITED - DOLPHIN MINE

ASSAY DATA

D.D.H. NO. D 120/4

SAMPLE NO.	DEPTH (METRES)				ELEMENTS						COMMENTS
	From	To	Length	Length recovered	WO ₃	Mo	CARA No.	check WO ₃	Assay Mo		
C 1584	11	12	1.0	1.0	0.03	<0.01					
1585	12	13	"	"	0.05	<0.01					
C 1501	13	14	"	"	2.46	0.07	C1903	0.89	0.01	2m @	
2	14	15	"	"	2.12	0.19				2.29% WO ₃	
3	15	16	"	"	0.06	<0.01					
4	16	17	"	"	0.28	<0.01					
1505	17	18	"	"	0.14	0.01					
1586	18	19	"	"	0.04	<0.01					
7	19	20	"	"	0.04	<0.01					
1588	20	21	"	"	0.04	<0.01					
1506	21	22	"	"	0.21	<0.01					
7	22	23	"	"	1.34	0.02					
8	23	24	"	"	0.90	0.02	C1904	0.19	<0.01	7m @	
9	24	25	"	"	1.00	0.04				1.38% WO ₃	
10	25	26	"	"	2.60	0.09					
1	26	27	"	"	2.08	0.09					
2	27	28	"	"	1.06	0.03					
3	28	29	"	0.87	0.68	0.02					
4	29	30	"	0.95	<0.01	<0.01					
5	30	31	"	0.92	<0.01	<0.01					
6	31	32	"	1.0	0.28	<0.01					
7	32	33	"	"	1.22	0.04					
8	33	34	"	0.81	0.70	0.01	C1905	0.72	0.02	7m @	
9	34	35	"	0.85	6.00	0.19				2.52% WO ₃	
20	35	36	"	1.0	5.80	0.18					
1	36	37	"	0.80	0.45	<0.01					
2	37	38	"	0.90	3.20	0.13					
3	38	39	"	1.0	0.23	<0.01					
4	39	40	"	"	0.02	<0.01					
5	40	41	"	"	0.01	<0.01					

SPECIFIC GRAVITY

Determined by:

Depth (m) :

Rock Type :

GEOPEKO LIMITED - DOLPHIN MINE

ASSAY DATA

D.D.H. NO. D 120/4

SAMPLE NO.	DEPTH (METRES)				ELEMENTS					COMMENTS
	From	To	Length	Length recovered	WO ₃	Mo		CARD NO	check Assay WO ₃ Mo	
1526	41	42	1.0	1.0	0.11	0.01				
7	42	43	"	"	0.96	0.01				2m at
8	43	44	"	"	0.78	0.02				0.87% WO ₃
C 1529	44	45	"	"	0.01	0.01				
C 1530	50	51	"	0.90	0.01	0.01				
C 1531	51	52	"	0.93	5.20	0.12				
C 1532	52	53	"	0.95	0.68	0.01				
C 1589	53	54	"	1.0	0.10	0.01				4m at
C 1590	54	55	"	"	0.31	0.01				1.57% WO ₃

SPECIFIC GRAVITY

Determined by:

Depth (m) :

Rock Type :

GEOPEKO LIMITED - KING ISLAND

CHECK ASSAY DATA

D.D.H. D 120/4

LAB. K.I.S.			LAB. K.I.S.			LAB. K.I.S.			LAB. K.I.S.		
Original Sample No.	WO ₃	Mo.	Check Sample No.	WO ₃	Mo.	Check Sample No.	WO ₃	Mo.	Check Sample No.	WO ₃	Mo.
C 1501	2.46	0.07		2.74		C 1903	0.89	0.01		2.36	
1508	0.90	0.02		0.97		1904	0.19	0.01		1.05	
1518	0.70	0.01		0.78		1905	0.72	0.02		0.67	
1528	0.78	0.02		0.88		1906	0.90	0.04		0.88	
C 1501	2.46	0.07	C 1061	3.6	0.12		2.71				
1508	0.90	0.02	1062	1.42	0.04		1.23				
1518	0.70	0.01	1063	0.21	0.11		0.09				
1528	0.78	0.02	1064	1.00	0.04		0.86				
C 1502	2.12	0.19	D 2076	2.56	0.12						
1519	6.00	0.19	2077	6.30	0.25						
1513	0.68	0.02	2078	0.76	0.03						
1532	0.68	0.01	2079	0.62	0.01						

GEOPEKO LIMITED - KING ISLAND

CHECK ASSAY DATA

D.D.H. D 120/4

LAB. K.I.S.			LAB.			LAB.			LAB.		
Original Sample No.	WO ₃	Mo.	Check Sample No.	WO ₃	Mo.	Check Sample No.	WO ₃	Mo.	Check Sample No.	WO ₃	Mo.
C 1501	2.46	0.07	C 1052	2.01	0.054	D 0228	2.59	0.09			
1508	0.90	0.02	1053	1.25	0.047	D 0229	1.39	0.06			
C 1519	6.00	0.19	D 0240	5.25	0.10	D 0239	5.67	0.18			

GEOPEKO LIMITED - DOLPHIN MINEGEOLOGICAL LOGD.D.H. NO.D 120/4

0 - 11.0

HANGINGWALL BIOTITE HORNFELS

Dark green to black massive fine grained biotite hornfels. Some bedding obvious at 4m 65° L.A.O.C.

Core is badly broken 0 - 1.5m but this is probably due to collaring.

11.0 - 23.7

PYROXENE GARNET HORNFELS

From 11.0 to 21.0 the rock is a typical pale green pgh with white carbonate fragments up to 50mm dia. rimmed by honey coloured grossular garnet.

From 21.0 - 23.7 the contact with the garnet skarn is gradational and the carbonate fragments are not so much in evidence.

The whole unit is only very weakly mineralised. The best sections of mineralisation are, 13.5 - 18.0
21.5 - 23.2.

The major part of the mineralisation is in isolated clusters of coarse grains up to 20mm dia. but generally less than 5mm dia.

23.7 - 29.0

GARNET SKARN

This is a fine grained pyroxene rich andradite skarn with only moderate mineralisation in form of very fine disseminations.

29.0 - 33.2

BIOTITE HORNFELS

Very bad ground 29.0 - 29.18, sheared etc. and may represent a fault. (*Galah fault*) *SGE*

This unit is mostly a dark purplish black barren fine grained biotite hornfels containing two sections of a mineralised andradite skarn, 31.30 - 31.50

	32.3	-	32.7	
Bedding	32.3	50°	L.A.O.C.	
	32.9	60°	L.A.O.C.	

GEOPEKO LIMITED - DOLPHIN MINEGEOLOGICAL LOGD.D.H. NO.D 120/4

33.2 - 43.85

GARNET PYROXENE HORNFELS

This is a variable unit consisting of fine to medium grained mineralised andradite skarns interbedded with zones of a pyroxene grossular garnet rock. This unit is typical of a weakly mineralised lower C lens skarn.

Bedding 35.7m 50° L.A.O.C.
42.0m 60° L.A.O.C.

Best zones of mineralisation are 34.25 - 35.74
36.73 - 37.90
41.50 - 42.56
42.80 - 43.90

43.85 - 46.63

BANDED FOOTWALL BEDS

Between 44.1 - 44.4 is the best example of unmineralised banded footwall beds. Bedding 44m 50° L.A.O.C.

Otherwise the remainder of this unit is a variable biotite pyroxene grossular garnet rock, no obvious bedding and no mineralisation.

46.63 - 47.24

Only 0.65 m recovered - core is only rubble.

47.24 - 54.74

FOOTWALL HORNFELS

This unit is a variable mixture of biotite, pyroxene, and grossular garnet, unbedded and mostly unmineralised.

Exceptions are small zones of a pyroxene rich weakly mineralised andradite skarn. eg. 48.82 - 48.94
51.58 - 52.0
54.44 - 54.80

Between 48.94 and 50.10 the unit is typical of thinly banded bh/ph.

Bedding 40° L.A.O.C. Abundant chlorite on joint surfaces.

54.74 - 70.41

QUARTZITE

The contact with the overlying hornfels is tight but there is a great deal of intermixing of the two rock types between 54.74 and 55.05.

The quartzite unit is barren grey massive and unmineralised.

Abundant clay on joint surfaces. Quality of core is good.
RQD = 71 %

70.41m

E.O.H.

GEOPEKO LIMITED - KING ISLANDLOG OF D.D.H. NO: D 120/3PLANNING

Proposer: M. J. Danielsom Depth: 60m
 Location: 220 120 E Drill Cuddy Main decline

Purpose of hole: Locate Central Fault

Co-ordinates: 220 120 E 564040 N
 Inclination: - 35° Target depth:
 Bearing: 360° °Grid °Magnetic
 Target: E N
 Approved by: M.C.Rogers Date: 1/8/74

SURVEY

Survey Co-ords: E N
 Survey bearing: °Grid °Magnetic
 Surveyed in by: Date:
 Actual Co-ords: 220 120.2E N 564 039.4
 R.L. of collar: - 80.5 Inclination of hole:
 Picked up by: M. Marchant Date: 12/8/74

SUMMARY

Logged by: M. J. Danielson
 Results: C lens 47 - 54 7 m @ 1.02%

DRILLING

Driller / Contractor: A.D.D.
 Date commenced: 29/7/74 Date terminated: 1/8/74

Casing:	Size :	BX			
	Depth:	0.91			
Core:	Size :	NQ	BQ		
	Depth:	0.91	54.25		

Wedge Runoff:

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

Extension: Nil Final depth: 54.25 m
 Reason for termination: Hole passed through Central Fault.

Condition of hole on completion:

Casing :
 Cemented: Yes

Bore hole survey: Surveyed to 54.25 m.

Water: Normal water throughout.

Comments on drilling conditions:

CORE RECOVERY - DDH D 120/3

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED	% CORE RECOVERY
0 - 3.96	3.96	3.96	100
7.01	3.05	3.06	101
10.06	3.05	3.00	98
13.11	3.05	3.13	103
16.15	3.04	3.12	103
19.20	3.05	2.96	97
22.25	3.05	3.07	101
25.30	3.05	2.88	94
25.60	0.30	0.33	110
26.21	0.61	0.57	93
29.26	3.05	3.03	99
32.31	3.05	3.10	102
35.36	3.05	3.00	98
38.40	3.04	3.60	118
39.21	0.81	0.15	99
39.32	0.11	0.15	136
39.93	0.61	0.56	92
40.23	0.30	0.35	112
41.45	1.22	1.14	93
44.50	3.05	3.03	99
47.55	3.05	3.14	103
50.60	3.05	3.10	102
53.64	3.04	3.09	102
54.25	0.61	0.61	100

GEOPEKO LIMITED - Dolphin MineSUMMARY BORE HOLE SURVEY DATAD.D.H. NO. 120/3

Survey method : Multishot camera

Depth surveyed to : 54.25m

Final depth : 54.25m

Date surveyed : 1/8/74

Casing depth : 0.91m

Surveyed by : G.B.

Checked by : G.L.B.

DEPTH	Bearing		Inclination		True Vertical depth	Co-ordinates	
	Grid	Mag.	Read	Corrected		E N	W
15.24	004°	355°	55°45	-34°15'	8.58	12.55	1.10
30.48	003°	354°	55°	-35°	17.32	24.97	2.40
40.72 45	003°	354°	55°	-35°	26.06	37.38	3.71
51.82	002°	353°	55°	-35°	29.56	42.34	4.32
54.25	002°	353°	55°	-35°	30.96	44.32	4.56

REMARKS

GEOPEKO LIMITED - Dolphin MineASSAY DATAD.D.H. NO. D 120/3

SAMPLE NO.	DEPTH (METRES)				ELEMENTS						COMMENTS	
	From	To	Length	Length recovered	WO ₃	Mo						
D2326	46	47	1.0	1.0	0.02	0.01						
7	47	48	1.0	1.0	0.37	0.02						C Lens 7m at 1.02%
8	48	49	1.0	1.0	0.82	0.02						
9	49	50	1.0	1.0	1.40	0.06						
30	50	51	1.0	1.0	1.03	0.03						
1	51	52	1.0	1.0	1.91	0.08						
2	52	53	1.0	1.0	0.62	0.02						
2333	53	54	1.0	1.0	0.97	0.04						

SPECIFIC GRAVITY

Determined by:

Depth (m) :

Rock Type :

GEOPEKO LIMITED - KING ISLAND

CHECK ASSAY DATA

D.D.H. D 120/3

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 2327	0.37	0.02	D 0067	1.10	0.06	D 0066	1.39	0.07	D 0065	1.60	0.029
2333	0.97	0.04	0061	1.05	0.07	0060	1.11	0.075	0059	1.10	
2330	1.03	0.03	0064	1.11	0.07	0063	1.39	0.06	0062	1.09	0.021

GEOPEKO LIMITED - Dolphin MineGEOLOGICAL LOGD.D.H. NO. D 120/3

00 - 32.56

B LENS HANGING WALL BIOTITE HORNFELS

Mostly a purplish brown barren finegrained biotite hornfels.

There are occasional areas where there is significant pale green (ph) or pale grey (actinolite).

e.g. 7.0 - 8.0 ph

Bedding.	4m	10°	LAOC
	12m	15°	LAOC
	14m	15°	LAOC
	15m	30°	LAOC
	23m	25°	

32.56 - 38.40

B Lens

Mostly a palegreen pyroxene hornfels with minor developments of a grossular and andradite garnet ~~skarn~~. No significant mineralisation.

Bedding.	34m	45°	LAOC
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Fault	38.40 - 39.32
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Only 0.30m core recovered which represents 67% core loss.

19.32 - 47.40

Pyroxene Garnet Hornfels

A pale mottled green (ph) and pink (grossular garnet) rock with minor carbonate inclusions which are not typically the carbonate "pods" of a classical pgh. The unit contains no significant mineralisation. Minor coarse scheelite at 42.90 - 42.95.

47.40 - 54.25

Garnet Hornfels

Typical dark brown medium to coarse grained andradite ~~skarn~~. No noticeable bedding and highly mineralised.

The core is not split beyond 54.0m to maintain continuity of 1m length splits.

E.O.H. 54.25

GEOPEKO LIMITED - KING ISLANDLOG OF D.D.H. NO: D 120/2PLANNING

Proposer: M. J. Danielson Depth: 100m
 Location: 220 120E Drill cuddy, main decline.

Purpose of hole: Oreblocking

Co-ordinates: 220 120 E 564 040 N

Inclination: -85° Target depth:

Bearing: 360° $^{\circ}$ Grid $^{\circ}$ Magnetic

Target: E N

Approved by: M. C. Rogers Date: 19.7.74

SURVEY

Survey Co-ords: E N

Survey bearing: $^{\circ}$ Grid $^{\circ}$ Magnetic

Surveyed in by: Date:

Actual Co-ords: 220119.9 E 564038.0 N

R.L. of collar: -80.5° m. Inclination of hole: $-83^{\circ}48'$

Picked up by: M. G. Marchant Date: 23.7.74

SUMMARY

Logged by: M. J. Danielson

Results: B lens 15-17m 2m @ 1.28% WO_3

C lens 73-84m 11m @ 0.94% WO_3

DRILLING

Driller / Contractor: A.D.D.

Date commenced: 19.7.74 Date terminated: 29.7.74

Casing: Size : BX

 Depth: 1.47

Core: Size : NQ

 Depth: 1.47

BQ

104.24

Wedge Runoff:

Wedge placed: Depth:

Proposed by: Approved by:

Reason:

Extension: NIL Final depth: 104.24m

Reason for termination: Hole passed into unmineralised footwall beds.

Condition of hole on completion:

Casing : BX 1.47m

Cemented: Yes

Bore hole survey: Surveyed to 104.24m

Water: Normal water return throughout.

Comments on drilling conditions:

GEOPEKO LIMITED - DOLPHIN MINESUMMARY BORE HOLE SURVEY DATAD.D.H. NOD 120/2

Survey method : Multishot Camera

Depth surveyed to : 104.24m

Final depth : 104.24m

Date surveyed : 26.7.74

Casing depth : 1.22m

Surveyed by : V. Powell

Checked by : G. Buckland

DEPTH	Bearing		Inclination		True Vertical depth	Co-ordinates	
	Grid	Mag.	Read	Corrected		XX N	XX E
0							
15.24	011	002	6	-84	15.16	1.98	0.61
30.48	011	002	5°30'	-84°30'	30.33	3.47	0.03
45.72	009	358	5°30'	-84°30'	45.50	<u>N</u> 4.97	<u>W</u> 0.02
60.96	349	340	5	-85°	60.68	6.33	0.35
76.20	337	328	5°07'	-84°53'	75.86	7.54	0.99
91.44	340	331	5°08'	-84°53'	91.03	8.78	1.65
104.24	343	334	5°15'	-84°45'	103.78	9.82	2.30

REMARKS

Hole surveyed to 104.24m (E.O.H.) as the camera fell to the bottom.

GEOPEKO LIMITED - KING ISLAND

SUMMARY STRUCTURAL DATA

D.D.H. NO. D 120/2

Depth Interval (metres)	Rock Type	Fractures / Metre	Joint Angle	Joint Filling	Bedding Angle	% Core Recovery	Broken Core % >10cms (R.Q.D.)	Remarks (weathering)
0 - 1.47	B lens hangingwall bh	14		clay, carbonate	0.5m 50° L.A.O.C.	100	34	
1.47 - 19.20	B lens hangingwall bh/host rocks	4		clay, minor carbonate /pyrite	2.08-3.96 otherwise	89% 100%	84	
19.20-37.49	B lens host rocks	5		carbonate	21m 65° 26m 68° 35m 65° L.A.O.C.	100	86	
37.49-70.56	C lens hangingwall bh	6		carbonate 3mm wide @ 38.70. chlorite @ 40.95 & 64.17. clay @ 64.47		100	85	bad ground 54.75-55.32 core is shattered, Fault?
70.56-76.81	gph/gh/ marble marker	9		minor carbonate chlorite @ 72.60	76.5m 35 L.A.O.C.	98	73	bad ground 73.36-73.76 core slightly leached 70.56-71.18
76.81-89.00	marble marker/ lower C lens/ banded bph	7		minor clay, carbonate, pyrite @ 80.70	88m 75° L.A.O.C.	100	76	

FURTHER DATA & REMARKS (Compression Tests)

Core size: 0 - 1.47m NQ 1.47 - 104.24 BQ

For detailed % core recoveries within each interval consult core recovery page.

GEOPEKO LIMITED - KING ISLAND

SUMMARY STRUCTURAL DATA

D.D.H. NO D 120/2

Depth Interval (metres)	Rock Type	Fractures / Metre	Joint Angle	Joint Filling	Bedding Angle	% Core Recovery	Broken Core % >10cms (R.Q.D.)	Remarks (weathering)
89.00-98.60	banded bph/ banded bh- ph-gh/marble	13		minor pyrite; carbonate @ 98.20	93m 65° 95m 75° L.A.O.C.	100	65	
98.60-104.24		14		abundant chlorite 103.0 - 104.0		103	49	bad ground 103.40 - 104.24

FURTHER DATA & REMARKS (Compression Tests)

CORE RECOVERY - DDH D 120/2

INTERVAL (m)	LENGTH (m)	LENGTH RECOVERED (m)	% CORE RECOVERY
0 - 0.48	0.48	0.48	100
0.86	0.38	0.40	105
1.17	0.31	0.31	100
1.47	0.30	0.30	100
2.08	0.61	0.61	100
3.96	1.88	1.67	89
7.01	3.05	3.00	98
10.05	3.04	3.05	100
13.11	3.06	3.05	100
16.15	3.04	3.05	100
18.29	2.14	2.00	93
19.20	0.91	1.04	114
22.25	3.05	3.05	100
25.30	3.05	3.05	100
28.35	3.05	3.05	100
31.39	3.04	3.05	100
34.44	3.05	3.05	100
37.49	3.05	3.05	100
40.54	3.05	3.05	100
43.59	3.05	3.05	100
46.68	3.04	3.05	100
49.68	3.05	3.08	107
50.90	1.22	1.25	102
52.73	1.83	1.76	96
55.32	2.59	2.60	100
58.37	3.05	3.10	102
61.42	3.05	3.10	102
64.47	3.05	3.01	99
67.51	3.04	3.08	101
70.56	3.05	3.05	100
73.76	3.20	2.88	90
75.59	1.83	1.98	108
76.81	1.22	1.24	102
79.86	3.05	3.05	100
82.91	3.05	3.05	100
85.95	3.04	3.04	103
89.00	3.05	3.05	99
92.05	3.05	3.05	104
95.10	3.05	3.05	100
98.15	3.05	3.05	102
98.60	0.45	0.45	102
99.67	1.07	1.15	107
101.19	1.52	1.45	95
101.50	0.31	0.33	106
104.24	2.74	2.86	104

GEOPEKO LIMITED - DOLPHIN MINE

ASSAY DATA

D.D.H. NO.D 120/2

SAMPLE NO.	DEPTH (METRES)				ELEMENTS						COMMENTS
	From	To	Length	Length recovered	WO ₃	Mo					
C 1097	15	16	1.0	1.0	0.37	0.01					B lens 2m @ 1.28% WO ₃
8	16	17	"	"	2.18	0.05					
1099	17	18	"	"	0.02	0.01					
C 1100	32	33	"	"	0.38	0.02					
D 2056	70	71	"	"	0.13	0.01					C lens 11m @ 0.94% WO ₃
7	71	72	"	"	0.02	0.01					
8	72	73	"	"	0.13	0.01					
9	73	74	"	0.86	1.61	0.04					
60	74	75	"	1.0	1.52	0.04					
1	75	76	"	"	0.03	0.01					
2	76	77	"	"	0.02	0.01					
2064	77	78	"	"	0.53	0.02					
2063	78	79	"	"	0.70	0.02					
2065	79	80	"	"	2.70	0.08					
6	80	81	"	"	1.04	0.03					
7	81	82	"	"	0.54	0.01					
8	82	83	"	"	0.82	0.02					
9	83	84	"	"	0.88	0.01					
70	84	85	"	"	0.22	0.01					
1	85	86	"	"	0.20	0.01					
2	86	87	"	"	0.02	0.01					
D 2073	87	88	"	"	0.01	0.01					

SPECIFIC GRAVITY

Determined by:

Depth (m) :

GEOPEKO LIMITED - KING ISLAND

CHECK ASSAY DATA

D.D.H. D 120/2

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.
C 1097	0.37	◀ 0.01	D 0004	0.45	0.03	D 0003	0.43	0.025	D 0002	0.42	
1098	2.18	0.05	7	1.44	0.08	6	2.27	0.055	5	1.70	
D 2058	0.13	◀ 0.01	10	0.17	0.04	9	0.23	0.04	8	0.14	
2064	0.53	0.02	19	0.60	0.07	18	0.66	0.04	17	0.67	
2068	0.82	0.02	16	0.75	0.07	15	1.01	0.055	14	0.68	
2071	0.20	◀ 0.01	13	0.24	0.02	12	0.30	0.02	11	0.23	

GEOPEKO LIMITED - DOLPHIN MINEGEOLOGICAL LOGD.D.H. NO. D120/2

0 - 13.40

B LENS HANGINGWALL BIOTITE HORNFELS

This unit is mostly a purplish-brown, barren fine grained biotite hornfels, with interbeds (up to 20cm) of pale green pyroxene hornfels.

The quality of core is good with no significant chlorite on fracture surfaces. There is minor pyrite.

There are several elongate patches of green pyroxene rimmed with a pale grey (actinolite?) mineral. The core of these structures usually exhibits some zoning. An example is at 8.66m where the elongate bleb measures 6cm X 2cm.

Bedding: 0.5m 50° L.A.O.C.

13.40 - 39.40

B LENS HOST ROCKS

This variety of rock types can be subdivided as follows:
Pyroxene Hornfels: 13.40 - 20.0

A pale green barren ph with some very pale pink grossular garnet. Very weak andradite skarn development at 18.7-18.9m.

There is minor coarse scheelite 15.80 - 15.95
16.73 - 16.88

Marble 20.0 - 37.4

Typical pale grey barren marble. Very minor grossular garnet in places and some andradite garnet 32.66-32.75 which has some weak disseminated scheelite.

The marble has some very dark carbonaceous(?) spotting 25.0-29.3m and 35.8 - 37.0.

Bedding: 21m 65°
26m 68°
35m 65°

Joint fillings are carbonate with some solutions moving along fracture surfaces at 26-27m with probably little structural strength.

GEOPEKO LIMITED - DOLPHIN MINE

GEOLOGICAL LOG

D.D.H. NO. D 120/2

Pyroxene Hornfels 37.4 - 39.4

Very rubbly contact 37.4 - 37.5m which is typical of B lens marble contacts.

The unit is mostly a green ph with some pale pink grossular garnet and a small interbed of bh 37.8 - 38.1m.

The unit is unmineralised.

39.4 - 70.30

C LENS HANGINGWALL BIOTITE HORNFELS

A dark grey-brown fine grained barren hornfels. Minor pyroxene hornfels - particularly 40.45 - 42.85m. Minor carbonate veining - particularly 54.7 - 56.0m.

Some broken ground with minor chlorite on joint surfaces and some carbonate veining 54.7 - 55.3m. Minor brecciation.

70.30 - 73.40

PYROXENE GARNET HORNFELS

The unit is weakly leached and brecciated.

A green pyroxene rich rock with moderate pink grossular garnet and irregular patches of white carbonate. There are only occasional specks of scheelite so the unit is sub ore grade.

73.40 - 75.40

GARNET HORNFELS

Fine to medium grained brown andradite garnet skarn. Moderate to high grade mineralisation. This skarn is massive with no bedding.

75.60 - 77.20

MARBLE MARKER

A variety of rock types as follows:

Marble 75.40 - 76.25

Barren grey marble

Biotite Pyroxene Hornfels 76.25 - 76.85

Bedded green (ph) and grey (bh) rock. Minor grossular garnet. No mineralisation.

Bedding: 76.5m 35° L.A.O.C.

Marble 76.85 - 77.20

Barren grey marble.

GEOPEKO LIMITED - DOLPHIN MINE

GEOLOGICAL LOG

D.D.H. NO. D 120/2

77.20 - 87.30

LOWER C LENS

Banded andradite garnet skarn interbedded with barren green ph.

Bedding: 77m 60° L.A.O.C.

87.30 - 92.0

BANDED BIOTITE PYROXENE HORNFELS

Thinly banded purplish-brown (bh) and grey-green (pyroxene/ antinolite) rock. No mineralisation.

Bedding: 88m 75° L.A.O.C.

92.0 - 97.15

BANDED BH/PH/GH

Banded green (ph) brown (bh) and pink (grossular garnet). Minor carbonate. No mineralisation.

Bedding: 93m 65° L.O.A.C.
95m 75°

97.15 - 97.80

MARBLE

Barren dirty grey marble. No bedding apparent.

97.80 - 104.24

BIOTITE HORNFELS

Pale grey brown fine grained barren hornfels. No apparent bedding.

Minor to moderate chlorite on joint surfaces.

104.24

E.O.H.

GEOPEKO LIMITED - KING ISLANDLOG OF D.D.H. NO: D 120/1PLANNING

Proposer: M. Baker Depth: 70 metres

Location: Dolphin Mine
-75 m Cross cut.

Purpose of hole: Test ground conditions. Locate No. 3 Fault.

Co-ordinates: 220120 E 564095 N

Inclination: Horizontal Target depth: 50 metres

Bearing: 360 ISG^oGrid ^oMagnetic

Target: - E - N

Approved by: M. Baker Date: 1.2.74

SURVEY

Survey Co-ords: - E - N

Survey bearing: 360 ISG^oGrid ^oMagnetic

Surveyed in by: K.I.S. Date: 1.2.74

Actual Co-ords: 220120 E 564094 N (approx.)

R.L. of collar: -75 m Inclination of hole: Horizontal

Picked up by: Not picked up. Date: -

SUMMARY

Logged by: P. Volk

Results: C lens. 38 - 43 m at 10.6% WO₃DRILLING

Driller / Contractor: A.D.D.

Date commenced: 2.2.74

Date terminated: 4.2.74

Casing: Size : -

Depth: -

Core: Size : E

Depth: 60.65

Wedge Runoff:

Wedge placed:

Depth:

Proposed by:

Approved by:

Reason:

Extension: Nil

Final depth: 60.65 metres

Reason for termination: Hole passed into quartzites north of
No. 3 Fault.

Condition of hole on completion:

Casing : Nil

Cemented: Nil

Bore hole survey: No. E size hole.

Water: Hole made small amount of water - not measured.

Comments on drilling conditions:

GEOPEKO LIMITED - KING ISLANDSUMMARY STRUCTURAL DATAD.D.H. NO. D 120/1

Depth Interval (metres)	Rock Type	Fractures / Metre	Joint Angle	Joint Filling	Bedding Angle	% Core Recovery	Broken Core % >10cms (R.Q.D.)	Remarks (weathering)
0 - 10.00	bh	+ 20				95.0	22.9	
10.0 - 37.72	bh	12				98.0	56.6	
37.72 - 43.48	Pgh/gh	7				84.6	69.4	
43.48 - 50.00	bh/ph	10				85.6	55.9	
50.00 - 60.65	q	15				90.9	33.7	

FURTHER DATA & REMARKS (Compression Tests)

GEOPEKO LIMITED - KING ISLANDASSAY DATAD.D.H. NO. D 120/1

SAMPLE NO.	DEPTH (METRES)				ELEMENTS					COMMENTS
	From	To	Length	Length recovered	WO ₃	Mo	CAD	Check assay WO ₃	Mo	
C 0859	36	37	1.0		0.04	0.01				
60	37	38	"		0.19	0.01	CAD	0.22	0.01	
1	38	39	"		2.3	0.05				5 m at 10.6% WO ₃
2	39	40	"		8.8	0.19				
3	40	41	"		7.3	0.15				
4	41	42	"		13.4	0.31				
5	42	43	"		21.3	0.44	CMS	27.0	0.97	
C 0866	43	44	"		0.09	0.01				

SPECIFIC GRAVITY

Determined by:

Depth (m) :

Rock Type :

S.G. :

GEOPEKO LIMITED - KING ISLAND

CHECK ASSAY DATA

D.D.H. D 120/1

LAB. K.I.S.			LAB. K.I.S.			LAB. K.I.S.			LAB. K.I.S.		
Original Sample No.	WO ₃	Mo.	Check Sample No.	WO ₃	Mo.	Check Sample No.	WO ₃	Mo.	Check Sample No.	WO ₃	Mo.
C 0860	0.19	0.01	D 2162	0.18	0.01	C 1737	0.22	0.01	D 2208	0.30	0.01
0865	21.3	0.44	2161	27.9	1.08	1752	27.0	0.97	2233	26.8	1.04
C 0860	0.19	0.01	D 2140	0.13	< 0.01	D 2412	0.12	< 0.01			
0865	21.3	0.44	2141	30.5	1.19	2413	1.74	0.38			

GEOPEKO LIMITED - KING ISLAND

CHECK ASSAY DATA

D.D.H. D 120/1

LAB. K.I.S.			LAB. A.M.D.L.			LAB. A.C.S.L.			LAB.		
Original Sample No.	WO ₃	Mo.	Check Sample No.	WO ₃	Mo.	Check Sample No.	WO ₃	Mo.	Check Sample No.	WO ₃	Mo.
C 0865	21.3	0.44	D 0269	16.77	0.48	D 0270	17.2	0.33			

GEOPEKO LIMITED - KING ISLANDGEOLOGICAL LOGD.D.H. NO. D 120/1

0 - 37.70 BIOTITE HORNFELS

The biotite hornfels becomes more pyroxene rich from 31.15 metres. Finally the hornfels is mainly a light bluish green pyroxene hornfels, spotted with biotite. Bedding is not good. Carbonate veining is generally at greater than 45° to core axis.

37.70 - 40.94 GARNET PYROXENE BIOTITE HORNFELS (Pgh?)

The garnet is grossularite and is in irregular pods or fragments. The unit is mainly a biotite pyroxene hornfels with interbedded garnet rich bands. Some quartz veining is present.

40.94 - 43.47 PYROXENE AND BIOTITE RICH APLITE?

This unit is highly mineralized from 37.80 m to 43.05 m. A complex rock with quartz and feldspar?, within irregular patches of pyroxene and biotite.

43.47 - 50.00 BIOTITE PYROXENE HORNFELS

A well bedded unit, becoming pyroxene rich and less well bedded from approximately 48 metres. Carbonate veining is common.

An aplite vein from 49.30 - 49.90 m contains biotite xenoliths.

50.00 - 60.65 TYPICAL GREY QUARTZITE

Moderately fractured, with sulphides, chlorite and carbonate on fractures. Molybdenite is scattered throughout. From 54.50 - 55.50 m the quartzite is very fractured with carbonate veining.

60.65 metres E.O.H.

GEOPEKO LIMITED

D.D.H. No.: D 120/1

Location: 220 120E Cross cut, Dolphin Mine.

Purpose of Hole: Test ground conditions ahead of cross cut
and locate No. 3 Fault.

Hole Proposed by: M. Baker; Geopeko. Date: Dec. 1973.

Surveyed in by: Not surveyed Date: -

Proposed: No proposed E N
co-ords.

Surveyed: Not surveyed E N
in.

Actual from (These are approx.
which Drilled: 220 120E 564 094N as collar was not
picked up.)

Reduced Level
of Collar: -75.0 m

Bearing: 360° I.S.G. Grid Magnetic

Inclination: Horizontal degrees

Target depth: metres

Planned depth: 60 metres

Actual depth: 60.65 metres

Date Commenced: 2-2-1974

Date Completed: 4-2-1974

Wedges Placed: Nil

Extensions
(if any) Nil

Checked: M. J. Danielson

Summary Result: Ground conditions were generally good.
No. 3 Fault intersected at 50 metres.

Remarks: Hole drilled in E size core. No bore hole
survey possible.

DIAMOND DRILL LOG

D.D.H. D 120/1

Depth in Meters

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STRUCTURAL DATAD.D.H. D 120/1

Depth Interval (m)	Rock Quality Designator	Stability Index	Fractures / metre	Core loss %	Broken Core % (Core <7.5 cm)
0.0 - 5.0	13.4	+6.4	+20	3.0	74.2
5.0 - 10.0	32.3	+6.8	+20	7.0	54.2
10.0 - 15.0	54.4	4.5	15	0	39.8
15.0 - 20.0	43.5	4.8	15	3.4	43.5
20.0 - 25.0	47.6	3.5	12	0	38.0
25.0 - 30.0	64.3	3.6	8	11.6	10.0
30.0 - 35.0	60.7	3.7	11	3.2	24.6
35.0 - 37.72	68.9	3.1	10	0	25.7
37.72 - 43.48	69.4	3.7	7	15.4	17.5
43.48 - 50.00	55.9	4.4	10	14.4	38.2
50.00 - 55.00	17.8	5.8	15	12.6	63.2
55.00 - 60.65	49.6	4.7	14	5.5	42.2
<u>SUMMARY</u>					
0.0 - 10.00	22.9	+6.6	+20	5.0	64.2
10.0 - 37.72	56.6	3.9	12	3.0	30.3
37.72 - 43.48	69.4	3.7	7	15.4	17.5
43.48 - 50.00	55.9	4.4	10	14.4	38.2
50.00 - 60.65	33.7	5.3	15	9.1	52.7