157001

GEOPEKO LIMITED

KING ISLAND

REPORT No. KI/75/4

RESTRICTED FILE

REPORT ON THE STATE OF THE ORE RESOURCE, No.1 OREBODY, AS AT OCTOBER 30th 1974.

M. J. DANIELSON

KING ISLAND

MARCH 1975

ISG COORDINATES
REFER REPORT 70-0676

93-3463

157002

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ORE RESOURCE TABLE (18.2.75).

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	12	KG1 - 14
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INTRODUCTION

On October 29th, 1974 the open pit officially ceased production ending approximately 37 years of almost continuous mining activity. Ore mined in this period is estimated at 6,290,000 tonnes at an average grade of 0.53% tungstic oxide. Overburden removed has been 21,840,000 tonnes.

An ore resource exceeding half a million tonnes at an average grade of 0.6% WO_3 remains, mostly in the floor of the open pit and the potential for any continued mining operations lies in being able to extract the better parts of this resource by underground methods; access being available from the Dolphin Mine. This report examines the resource remaining and makes recommendations for upgrading the definition of some of the resource to permit underground extraction.

A final report on the Wedgeblock is included.

SUMMARY

The No.1 Orebody is defined as that ore west of 219880 E to drill section 22 and includes any ore within the Wedgeblock.

The probable ore resource remaining in the No.1. Orebody at the cessation of mining operations on October 29th 1974 is estimated at -

B lens		15,070	tonnes	1.09% WO_3
C lens	(219880E - drill section 15)	551,220	"	0.60 "
Western Extension	(drill section 15 - 22)	48,700	"	0.62 "
Wedgeblock		147,310	"	0.52 "

A probable ore resource of 207,180 tonnes at an average grade of 0.56% WO_3 is estimated between sections 7 - 10. The major part of this ore is built up around section 9 and occurs above the -100m R.L. This resource is considered to contain a potential mining reserve.

Definition of the potential mining reserve indicated by section 9 is poor due to the wide section spacing (approximately 40m) and the lack of information on section 8 where a major aplite dyke obscures much of the section. Drilling on half sections (approximately 20m) will be required to adequately define this resource for mining purposes.

A drill drive of approximately 400 metres length is proposed to be developed westward from the Dolphin Mine to section 10 at the -100m R.L. An oreblocking programme of 28 holes totalling 1130 metres is proposed of which 9 holes totalling 415 metres could be drilled from the surface.

There is considered to be no potential for an underground mining operation beneath the floor of the open pit west of section 10.

Both B lens and Western Extension ore resources are made up of extremely variable grade and stringy mineralization. Past experience has shown these two ore sources to be uneconomic mining operations by open cut methods.

An ore reserve of 10,000 tonnes at an average grade of 0.5% WO_3 is estimated on 9 and 10 bench in the Wedgeblock. Access to these benches would need to be re-established to permit mining of this reserve. It is probable that this ore has a high Mo content. The method of ore reserve calculation was identical to that used for a mining block in the Open Pit.

CONCLUSIONS

The section spacing (approximately 40m) used to define the No.1 Orebody for open cut mining is considered inadequate to permit underground mining to proceed with confidence.

Diamond drilling at approximately 20m cuddy spacing will be required to adequately define the ore resource about section 9.

The stringy and low grade nature of the C lens mineralization west of section 10 is unlikely to constitute a mining reserve.

There is no potential for any significant increase to the No.1 Orebody ore resource. Further drilling is required to secure a proven resource and a mining reserve.

RECOMMENDATIONS

A drive be developed from the Dolphin Mine westward to section 10 at the -100m R.L.

Diamond drill cuddies be cut on each principal section and on half sections 7½, 8½ and 9½.

A program of 28 holes totalling 1130 metres be drilled to define the potential ore reserve indicated by section 9 and to complete the definition of the Pit Extension Dolphin Orebody.

The C lens ore exposed on 9 and 10 bench in the Wedgeblock be assayed for Mo.

ACTION SHEET

No.1 OREBODY

Definition

The No.1 Orebody of King Island Scheelite Limited was originally defined as that ore enclosed within drill sections 00 - 22 inclusive. However with the cessation of mining operations in the open pit all ore east of 219880 E was transferred to the Dolphin Orebody resource as it was considered that this ore would be readily accessible from the Dolphin workings.

The No.1 Orebody is now defined as that ore west of 219880 E to drill section 22 and includes any ore within the Wedgeblock.

Geology

The No.1 Orebody was worked by open pit methods to a final depth of 66m below sea level in the eastern end and was mined over a strike length of 500m at the -36m reference level.

The mineable ore was mostly confined to two horizons, the Upper and Lower C lens with minor tonnages being worked from the pyroxene garnet hornfels and the banded footwall beds. Ore grades in the Upper C lens in the eastern end at times exceeded 1% tungstic oxide but grades diminished downdip to the granodiorite basement and westward where the horizon was often completely unmineralized. The Lower C lens was of a lesser grade, usually less than 0.6% tungstic oxide but often carried the major part of the mineralization particularly in the western end.

The strike of the beds is uniformly 290° (I.S.G.) with a swing to 050° (I.S.G.) in the eastern end. Beds dip south at 30° - 50°. The principal structure is interpreted as an anticline plunging southeast at 30° with the eastern limb of the structure having been removed by the No.3 Fault. There is a high degree of faulting within the orebody but most faults have a relative movement of less than 10m.

In the centre and western part of the open pit a block of mine series is down thrown approximately 35m into the footwall and is known as the Wedgeblock. This structure will be discussed in more detail in a later section.

The stratigraphy of the No.1 Orebody is illustrated in drawing No. KG1 - 1A and is fully described by earlier workers (Edwards, Baker and Callow, 1956).

Ore Potential

During 1971 - 72 an intensive diamond drill programme was conducted over the No.1 Orebody and 35 holes totalling 1673 metres were drilled. All holes in this series are numbered in the 400 series. Most of the drilling took place in the western end where half sections 11½, 12½, 13½ and 14½ were created but some drilling also took place on the principal sections to more correctly define ore outlines and examine the potential for any addition to the ore resource. On completion of this drilling programme it was considered that no potential existed for any significant increase to the ore resource and that further drilling would only more accurately define the resource as already outlined. All drill sections with the exception of 11½ (1 hole), 15 + 80 (2 holes) and 17 + 80 (1 hole) are included in this report.

As economic considerations now prevent the extraction of ore by open cut methods such ore as can be mined in the future will be removed by underground methods and will probably need to be readily accessible to the Dolphin workings.

The ore resource of the No.1 Orebody (excluding the Wedge-block) is calculated at -

B lens	15,070	tonnes @	1.09% WO_3
C lens (21980E drill section 15)	551,220	"	0.60% "
Western Extension (drill section 15 - 22)	48,700	"	0.62% "

Of the C lens ore resource 207,180 tonnes (i.e. 37% of the total resource tonnage) at an average grade of 0.66% WO_3 is defined between sections 7 and 10 with the major part of the tonnage built up around section 9. It is evident from section 9 that an underground mineable ore reserve exists in this area but exact definition of the resource is difficult due to the wide drill section spacing (approximately 40m) and that section 8 is of little use in ore resource estimation due to much of the section being obscured by a major aplite dyke running sub parallel to the section. More detailed ore definition is required in this area to define this potential mineable reserve with a high degree of confidence.

West of section 10 C lens is too stringy and low grade to have any potential as a mineable underground ore source.

The variable nature of the mineralization in B lens and the Western Extension combined with past mining experience in these areas is sufficient to discount these two resources as a mineable proposition.

Proposed diamond drilling programme

To more adequately define the potential ore source as indicated by section 9 an oreblocking programme is proposed as set out below. It is considered essential that the oreblocking be conducted at half section spacing (approximately 20m) between sections 7 and 10 allowing that section 8 is of little value in definition of the ore outlines.

It can be seen that some drilling is proposed on drill sections 00, 1S, 2S, 3S and 5 (by definition the Dolphin Orebody) but these holes are essential for ore definition in what is known as the Pit Extension area.

Section	Underground drilling		Surface drilling	
	No. of holes	Total m.	No. of holes	Total m.
00	2	75		
1S	2	75		
2S	2	45		
3S	1	20	1	60
5	1	15		
6			1	35
7	1	20	1	20
7½	2	100	2	100
8				
8½	2	100	2	100
9	2	70		
9½	2	100	2	100
10	2	95		
	19	715	9	415

No. of holes : 28
Total metreage: 1130

A drill drive of approximately 400m length is proposed in the footwall of C lens at -100m R.L. (drawing No. KG1 - 124).

WEDGEBLOCK

During late 1972 a reappraisal of the Wedgeblock was undertaken to upgrade the level of definition to that of the remainder of the No.1 Orebody. The area was remapped and much of the earlier drilling relogged where core was still available. Diamond drill holes 69 - 74 inclusive were reassayed as previous 'assays' were visual estimates only. This work was reported on by Mr P. Cottam (November, 1972) and J. Innes (January, 1973) and recommendations made to complete the study. In early 1973 three short D.D.H.'s were drilled on sections 13, 14 and 16 and a line of nine auger holes were drilled between sections 16 and 17. The following sections review the more recent work and summarize the geological situation and ore potential of the Wedgeblock.

Structure

The wedgeblock is a sequence of mine series rocks downthrown approximately 35m by the No.2 Fault and bounded in the north by the No.3 Fault which upthrows the underlying quartzite (drawing No. KG1 - 1). The northward dip of the No.2 Fault and the southward dip of the No.3 Fault give the block its wedge shaped form.

The No.2 Fault strikes uniformly northwest and dips north east at 50° - 55°. A well defined breccia zone is developed on benches 7 and 8 west of 219650 E and a series of stratigraphically anomalous fragmental rocks, similar in appearance to the pyroxene garnet hornfels, occur on the sole of the fault. There rocks are interpreted as a thrust sheet. The No.3 Fault also strikes north west and dips steeply south at 70° - 80°.

Within the block the primary structure is a W.N.W. trending anticlinal flexure developed on the southern flank of the southward dipping strata of the No.1 Orebody. The amplitude of the fold decreases westward and in the east is terminated against the No.3 Fault.

Faulting within the block is complex. An easterly trending fault ('A' Fault) is inferred along 9 and 10 bench and terminates mineralization in the south. Relative movement south block up must exceed 25m. Faults 'B' and 'C' are readily mappable features and their relative movements are clearly seen on sections 11 and 12 respectively. Fault 'D' is largely inferred but a fault of such magnitude would be required to explain the relative position of hangingwall biotite hornfels and the highly weathered C lens garnet hornfels (or pyroxene garnet hornfels) on 5 bench. The strike of such a fault is unclear as no corresponding fault is mapped on 6 bench.

Continuation of the wedgeblock northwest beyond section 16 is obscured by soil cover but little ore potential exists in this area unless it could be shown that the anticlinal flexure continued and the northern limb dipped north under the township. A line of nine auger holes were drilled between sections 16 and 17 north of 564450N to examine this possibility but all encountered quartzites which were interpreted as the stratigraphic basal quartzites which precluded the possibility of a northern limb to the anticlinal flexure.

Stratigraphy

Within the wedgeblock the complete stratigraphic sequence is present with the exception of the Upper metavolcanics and the B lens host rocks i.e. the upper part of the stratigraphic column.

The rock units present are characteristic of the No.1 Orebody whose stratigraphy has been described in detail by earlier workers (Edwards, Baker and Callow, 1956). The most significant variation is that the Upper C lens is either absent or very thin (<3m) and the marble marker is not observed. The C lens sequence is made up mostly of a medium to fine grained marble or andradite skarn containing thin (approximately 1cm) interbeds of biotite and pyroxene hornfels whose frequency increases with depth where the unit grades into the banded footwall sequence.

Mineralization

Mineralization in the wedgeblock is similar in appearance to that in the western end of the No.1 Orebody. There are broad similarities in the absence of any high grade Upper C lens orebody and the discontinuous and stringy nature of the mineralization in the Lower C lens interspersed with barren beds of silicate hornfels.

Wedgeblock ore is reported to be high in molybdenum (personal communication with K.I.S. mining engineers) although very few of the diamond drill holes have been assayed for Mo. Plates of molybdenite can be seen on joint surfaces throughout the whole of the wedgeblock sequence down into the underlying quartzites.

Pyrite and pyrrhotite are common accessories in the skarn.

Ore Potential

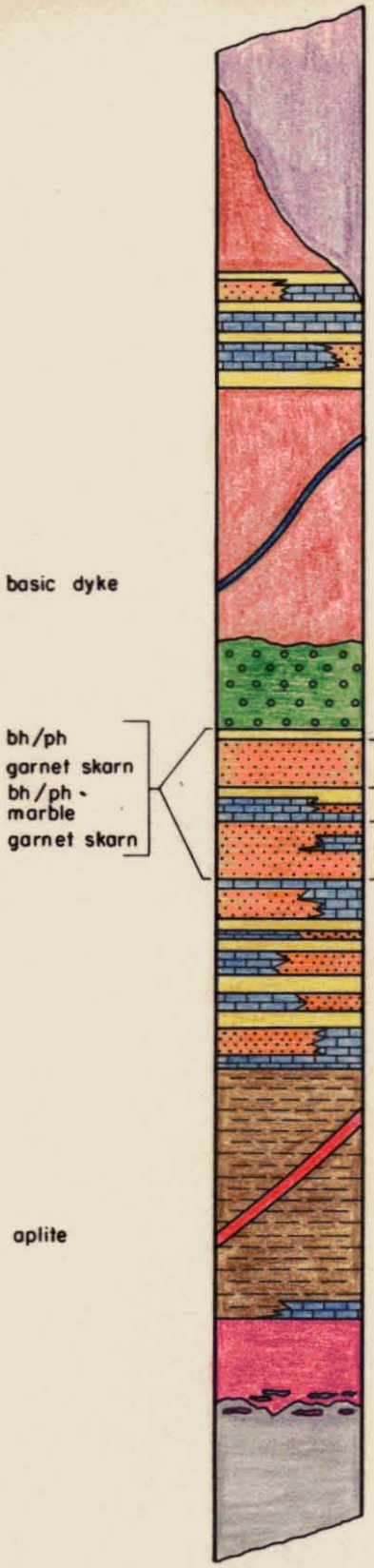
The Wedgeblock is calculated as possessing a probable ore resource of 147,310 tonnes at an average grade of 0.52% WO_3. Extensive diamond drilling of the area excludes the possibility of any significant increase to the ore resource although potential exists for limited increases between faults 'B' and 'D' northwest of section 11.

An ore reserve of 10,000 tonnes at an average grade of 0.5% WO_3 is estimated. This tonnage would be available from 9 and 10 bench although the economics of re-establishing access to these benches coupled with the uncertainty of the ore and probably high Mo content make it unlikely that the reserve will be mined. Mining operations ceased in this area in 1970 supposedly due to the high Mo content in the ore.

There is no potential for an underground mining operation.

M.J. Danielson.
Mine Geologist.

157016



5 cm

GEOPEKO LIMITED
KING ISLAND

Scale: 1:1000

Nº KGI-1A

DATE: 1975
GEOL: —
DWN: R.F.
CHKD: M.C.R.

Nos. 1 and 2 Orebodies
STRATIGRAPHIC SUCCESSION

SECTION 21 SECTION 20 SECTION 19 SECTION 18 SECTION 17 SECTION 16 SECTION 15 SECTION 14 SECTION 13 SECTION 12 SECTION 11 SECTION 10 SECTION 9 SECTION 8 SECTION 7 SECTION 6 SECTION 5

564 400N
564 300N
564 200N
564 100N
564 000N

219 200E 219 300E 219 400E 219 500E 219 600E 219 700E 219 800E 219 900E 220 000E 220 100E

N° 7
N° 8
N° 9
N° 10
N° 11
N° 13
N° 15
N° 15
N° 12
N°11
N° 8
N° 9
N° 10
N° 11
N° 13
N°17
N°19
N°20
N°17
N°15

No. 3
No. 2
No. 9
FAULT
FAULT
FAULT

AREA BACKFILLED
AREA BACKFILLED
RAMP BACKFILLED
RAMP BACKFILLED

5 cm

157017

LEGEND:

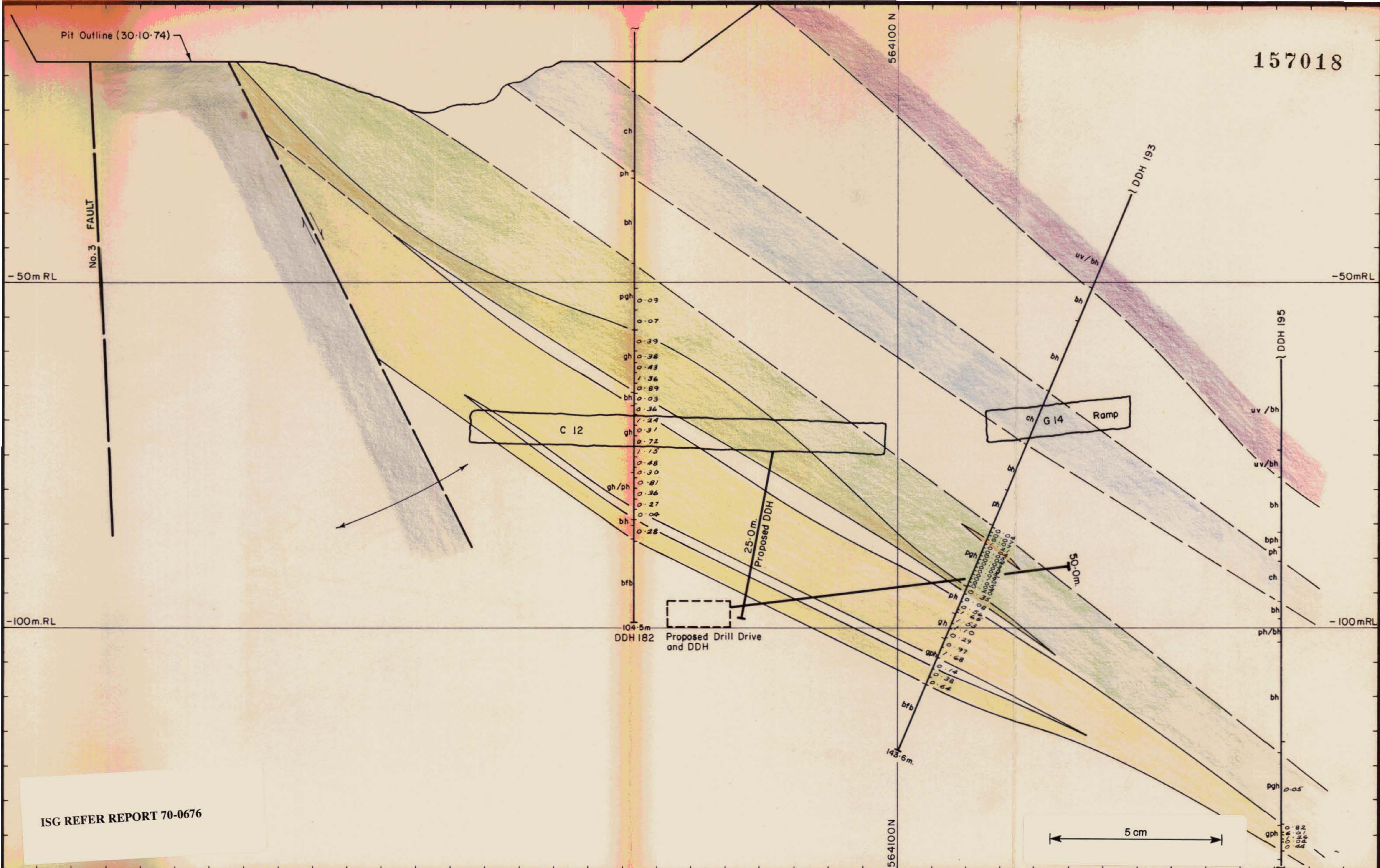
- uv Upper metavolcanics
- bh Biotite hornfels
- pgh Pyroxene garnet hornfels
- gh Garnet hornfels
- ch Marble
- bfb Banded footwall beds
- bph Biotite pyroxene hornfels
- lv Lower metavolcanics
- q Quartzite
- gr Granite
- ap Aplite
- Basic dyke
- Fault
- 63 Strike and dip
- -15-8 Reduced Levels

ISG REFER REPORT 70-0676

N°1. ← → D.

93-3463

GEOPEKO LIMITED
KING ISLAND
Scale: 1:1000 No KGI-1
DATE 30-10-70
GEOL. M.J.D.
DWN. R.F
CHK'D M.J.D.
No. 1 Orebody
GEOLOGICAL MAP
OPEN PIT



LEGEND:

uv	Upper metavolcanics	ch	Marble	q	Quartzite
bh	Biotite hornfels	bfb	Banded footwall beds		
pgh	Pyroxene garnet hornfels	bph	Biotite pyroxene hornfels	gr	Granite
gh	Garnet hornfels	lv	Lower metavolcanics	ap	Aplite

Fault, showing relative movement.

1·03, 0·56, 0·07 } $\%WO_3$

123·4m ← Depth of DDH

GEOPEKO LIMITED
KING ISLAND

Scale: 1:500

Nº KGI - 2

DATE: 30·10·74
GEOL: M.J.D.
DWN: R.F.
CHKD: M.J.D.

No. 1 Orebody
GEOLOGICAL CROSS SECTION
00

157019

DDH 110

DDH 86

DDH 162

DDH 191

Pit Outline (30·10·74)

-50m.R.L.

-100m.R.L.

76·2m.

103·5m

123·4m

142·3m.

30·0m

45·0m.

C 16

Proposed Drill Drive and DDH's.

564100N

5 cm

ISG REFER REPORT 70-0676

LEGEND:

uv	Upper metavolcanics	ch	Marble	q	Quartzite
bh	Biotite hornfels	bfb	Banded footwall beds		
pgh	Pyroxene garnet hornfels	bph	Biotite pyroxene hornfels	gr	Granite
gh	Garnet hornfels	lv	Lower metavolcanics	ap	Aplite

Fault, showing relative movement.

1·03 / 0·56 / 0·07 — % WO_3

123·4m ← Depth of DDH

GEOPEKO LIMITED
KING ISLAND

Scale: 1:500

Nº KGI-3

DATE: 30-10-74
GEOL: M.J.D.
DWN: R.F.
CHKD: M.J.D.

No. 1 Orebody

GEOLOGICAL CROSS SECTION

I S

157020

564100 N

Pit Outline (30-10-74)

DDH 171

DDH 436

DDH 170

DDH 172

DDH 190

-50m.RL

-100m RL

81·1m.

124·1m.

166·7m

22·9m

20·0m.

25·0m.

132·0m.

C 20

Proposed DDH

Proposed Drill Drive and DDH.

ISG REFER REPORT 70-0676

5 cm

LEGEND:

uv	Upper metavolcanics	ch	Marble	q	Quartzite
bh	Biotite hornfels	bfb	Banded footwall beds		
pgh	Pyroxene garnet hornfels	bph	Biotite pyroxene hornfels	gr	Granite
gh	Garnet hornfels	lv	Lower metavolcanics	ap	Aplite

Fault, showing relative movement.

1·03 / 0·56 / 0·07 — % WO_3

123·4m ← Depth of DDH

GEOPEKO LIMITED
KING ISLAND

Scale: 1:500

Nº KGI-4

DATE: 30-10-74
GEOL: M.J.D.
DWN: R.F.
CHKD: M.J.D.

No. 1 Orebody

GEOLOGICAL CROSS SECTION

2 S

157021

564 100 N

DDH 274

DDH 94

DDH 166

DDH 167

Pit Outline (30·10·74)

-50 m R.L.

-50 m. R.L.

-100 m.R.L.

-100 m.R.L.

89·6m.

60·0m.

Proposed DDH

116·5m.

200m.

83

Proposed Drill Drive and DDH.

ISG REFER REPORT 70-0676

5 cm

LEGEND:

uv	Upper metavolcanics	ch	Marble	q	Quartzite
bh	Biotite hornfels	bfb	Banded footwall beds		
pgh	Pyroxene garnet hornfels	bph	Biotite pyroxene hornfels	gr	Granite
gh	Garnet hornfels	lv	Lower metavolcanics	ap	Aplite

Fault, showing relative movement.

1·03 / 0·56 / 0·07 — % WO_3

123·4m ← Depth of DDH

DATE: 30-10-74
GEOL: M.J.D.
DWN: R.F.
CHKD: M.J.D.

GEOPEKO LIMITED
KING ISLAND

Scale: 1:500

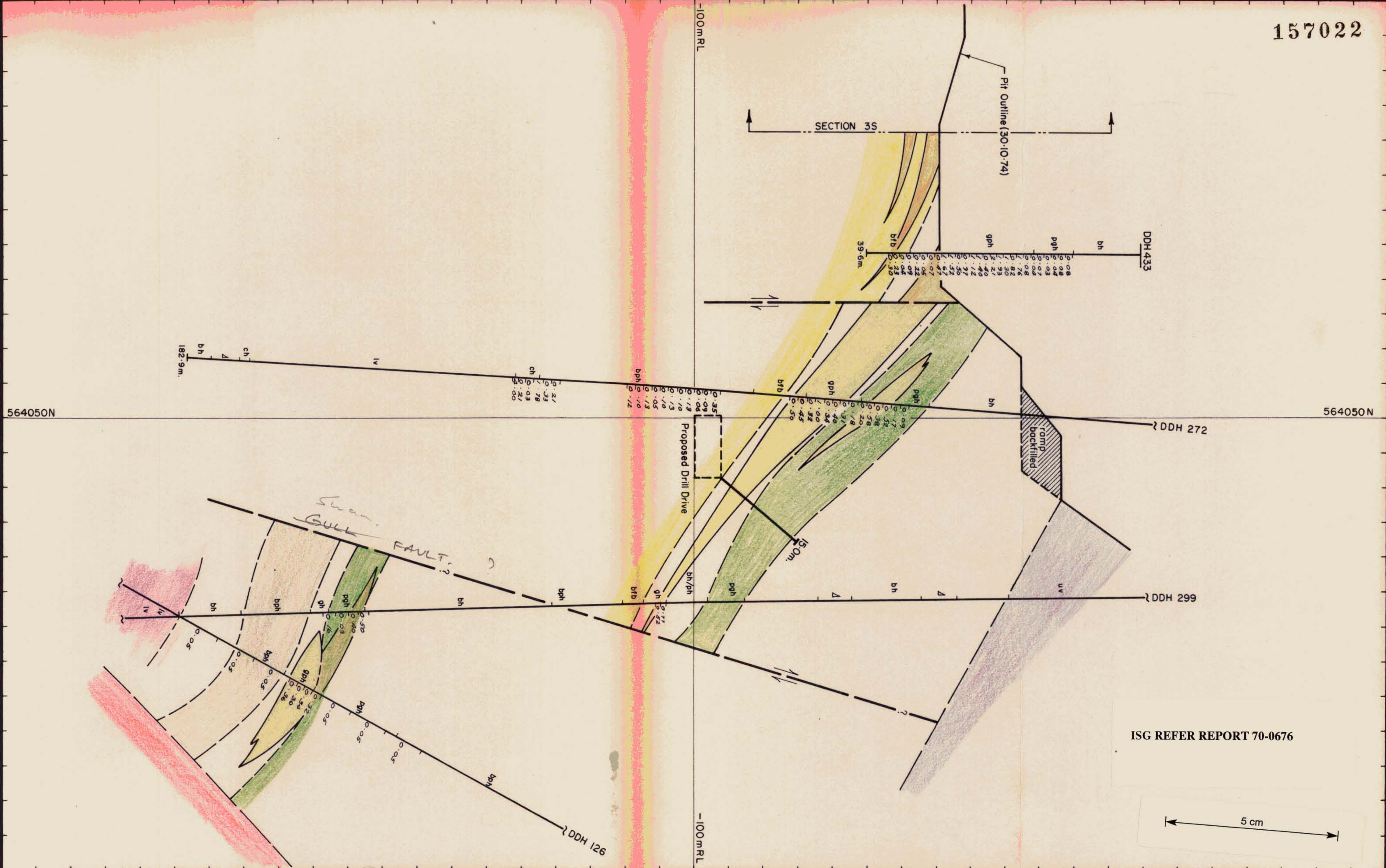
Nº KGI-5

No. 1 Orebody

GEOLOGICAL CROSS SECTION

3 S

157022



ISG REFER REPORT 70-0676

LEGEND:

uv	Upper metavolcanics	ch	Marble	q	Quartzite
bh	Biotite hornfels	bfb	Banded footwall beds		
pgh	Pyroxene garnet hornfels	bph	Biotite pyroxene hornfels	gr	Granite
gh	Garnet hornfels	lv	Lower metavolcanics	ap	Aplite

Fault, showing relative movement.

1·03 / 0·56 / 0·07 – % WO_3

123·4m ← Depth of DDH

GEOPEKO LIMITED
KING ISLAND

Scale: 1:500 — Nº KGI-6

DATE: 30·10·74
GEOL: M.J.D.
DWN: R.F.
CHKD: M.J.D.

No. 1 Orebody
GEOLOGICAL CROSS SECTION
5

157023

564100 N

DDH 274

DDH 435

DDH 213

DDH 164

DDH 332

DDH 273

Pit Outline (30·10·74)

SECTION 3S

-50mRL

-100mRL

ramp backfilled

38·4m.

82·9m.

106·7m.

35·0m.

Proposed DDH

Proposed Drill Drive

123·4m.

ISG REFER REPORT 70-0676

5 cm

LEGEND:

uv	Upper metavolcanics	ch	Marble	q	Quartzite
bh	Biotite hornfels	bfb	Banded footwall beds		
pgh	Pyroxene garnet hornfels	bph	Biotite pyroxene hornfels	gr	Granite
gh	Garnet hornfels	lv	Lower metavolcanics	ap	Aplite

Fault, showing relative movement.

1·03 / 0·56 / 0·07] %WO_3

123·4m ← Depth of DDH

GEOPEKO LIMITED
KING ISLAND

Scale: 1:500

Nº KGI-7

DATE: 30-10-74
GEOL: M.J.D.
DWN: R.F.
CHKD: M.J.D.

No. 1 Orebody

GEOLOGICAL CROSS SECTION

6

157024

564100 N

Pit Outline (30·10·74)

DDH 106

DDH 422

DDH 207

DDH 125

DDH 174

DDH 112

-50m.RL

-50m RL

-100m RL

-100m RL

113·9m.

58·8m

96·0m

20·0m.

Proposed DDH

Proposed Drill Drive and DDH.

20·0m.

136·6m

564100N

ISG REFER REPORT 70-0676

5 cm

LEGEND:

uv	Upper metavolcanics	ch	Marble	q	Quartzite
bh	Biotite hornfels	bfb	Banded footwall beds		
pgh	Pyroxene garnet hornfels	bph	Biotite pyroxene hornfels	gr	Granite
gh	Garnet hornfels	lv	Lower metavolcanics	ap	Aplite

Fault, showing relative movement.

1·03 / 0·56 / 0·07] % WO_3

123·4m ← Depth of DDH

GEOPEKO LIMITED
KING ISLAND

Scale: 1:500

Nº KGI - 8

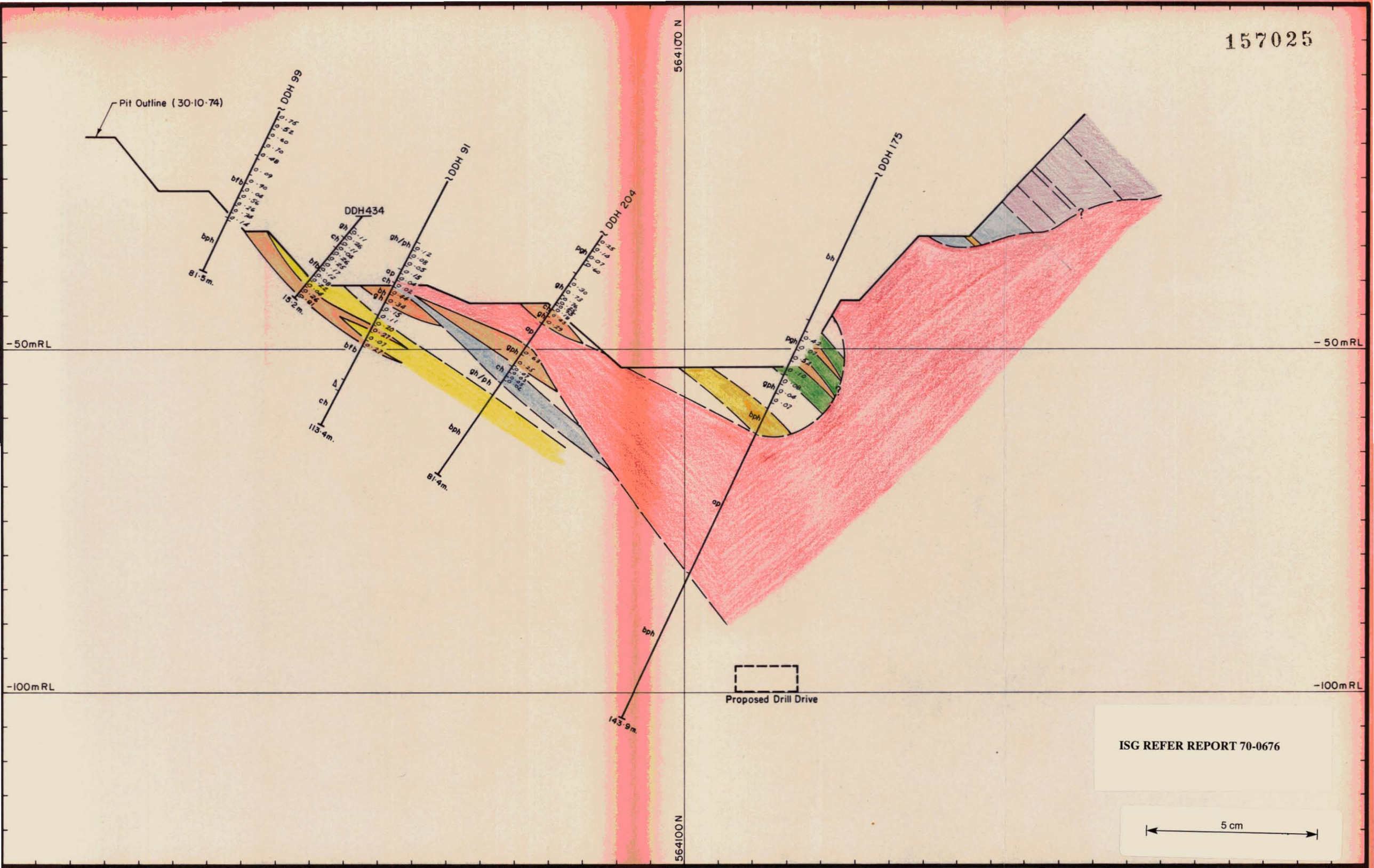
DATE: 30-10-74
GEOL: M.J.D.
DWN: R.F.
CHKD: M.J.D.

No. 1 Orebody

GEOLOGICAL CROSS SECTION

7

157025



ISG REFER REPORT 70-0676

5 cm

LEGEND:

- uv — Upper metavolcanics
- bh — Biotite hornfels
- pgh — Pyroxene garnet hornfels
- gh — Garnet hornfels
- ch — Marble
- bfb — Banded footwall beds
- bph — Biotite pyroxene hornfels
- lv — Lower metavolcanics
- q — Quartzite
- gr — Granite
- ap — Aplite

Fault, showing relative movement.

1·03 / 0·56 / 0·07 — % WO_3

123·4m ← Depth of DDH

GEOPEKO LIMITED
KING ISLAND

Scale: 1:500

Nº KGI - 9

DATE: 30-10-74
GEOL: M.J.D.
DWN: R.F.
CHKD: M.J.D.

No. 1 Orebody

GEOLOGICAL CROSS SECTION 8

157026

Pit Outline (30·10·74)

DDH 205

DDH 271

DDH 452

DDH 457

DDH 147

DDH 453

DDH 180

DDH 276

backfilled

No. 9 FAULT

-50m.RL

-100m RL

25.9m.

64.9m.

76·2m.

121·9m.

94·8m.

35·0m.

35·0m.

Proposed Drill Drive and DDH's.

564100N

564100 N

Note: DDH 180 unsurveyed and disregarded in view of more reliable information.

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5 cm

LEGEND:

uv	Upper metavolcanics	ch	Marble	q	Quartzite
bh	Biotite hornfels	bfb	Banded footwall beds		
pgh	Pyroxene garnet hornfels	bph	Biotite pyroxene hornfels	gr	Granite
gh	Garnet hornfels	lv	Lower metavolcanics	ap	Aplite

Fault, showing relative movement.

1·03 / 0·56 / 0·07] % WO_3

123·4m ← Depth of DDH

GEOPEKO LIMITED
KING ISLAND

Scale: 1:500

Nº KGI-10

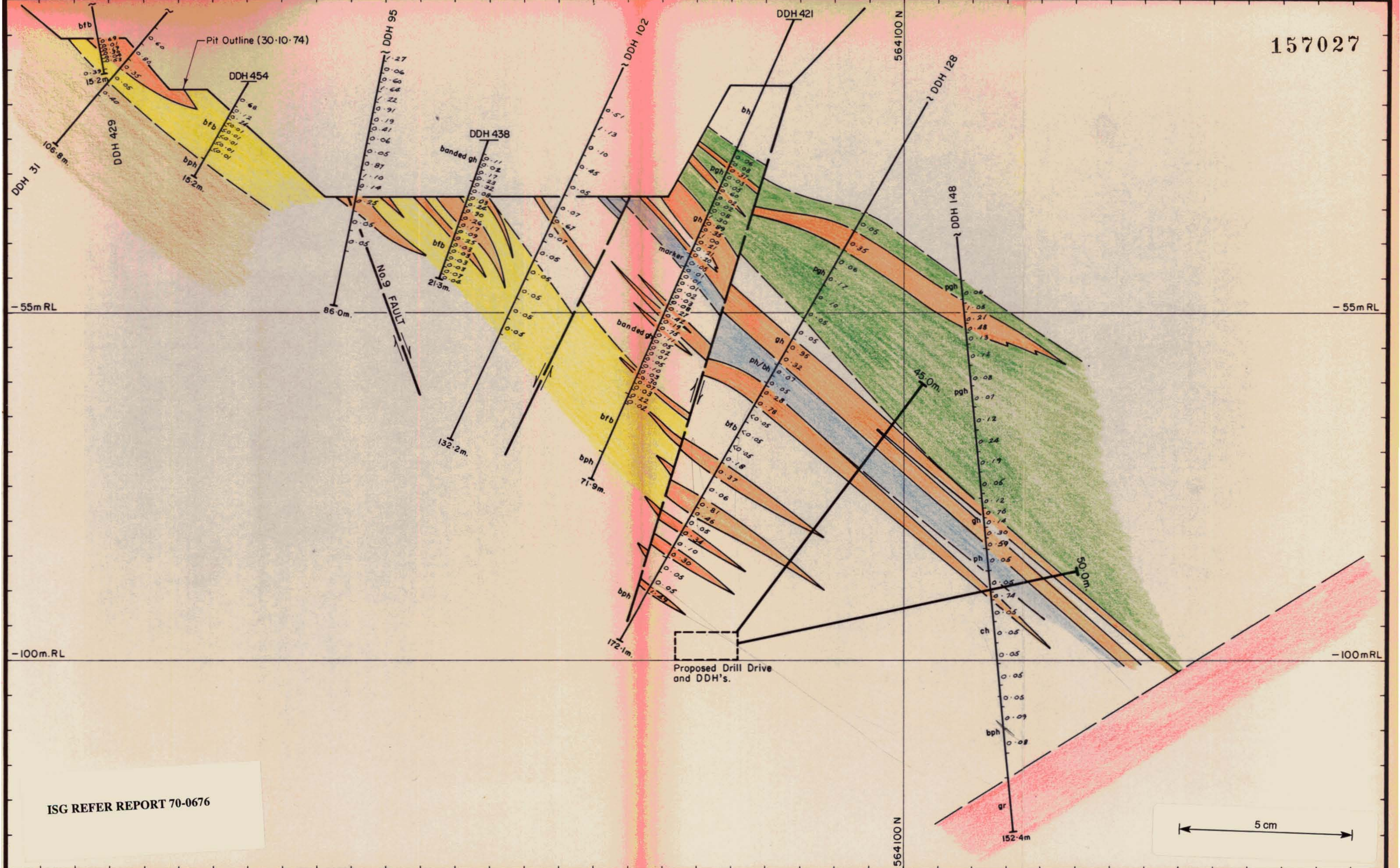
DATE: 30-10-74
GEOL: M. J. D.
DWN: R. F.
CHKD: M. J. D.

No. 1 Orebody

GEOLOGICAL CROSS SECTION

9

157027



LEGEND:

uv	Upper metavolcanics	ch	Marble	q	Quartzite
bh	Biotite hornfels	bfb	Banded footwall beds		
pgh	Pyroxene garnet hornfels	bph	Biotite pyroxene hornfels	gr	Granite
gh	Garnet hornfels	lv	Lower metavolcanics	ap	Aplite

Fault, showing relative movement.

1·03 / 0·56 / 0·07 – % WO_3

123·4m ← Depth of DDH

GEOPEKO LIMITED
KING ISLAND

Scale: 1:500 — Nº KGI - 11

DATE: 30-10-74
GEOL: M.J.D.
DWN: R.F.
CHKD: M.J.D.

No. 1 Orebody
GEOLOGICAL CROSS SECTION
10

157028

564200 N

DDH 206

DDH 97

DDH 100

DDH 447

DDH 135

Pit Outline (30·10·74)

Note: DDH 100 unsurveyed, position unreliable.

-50mRL

-100mRL

85·9m

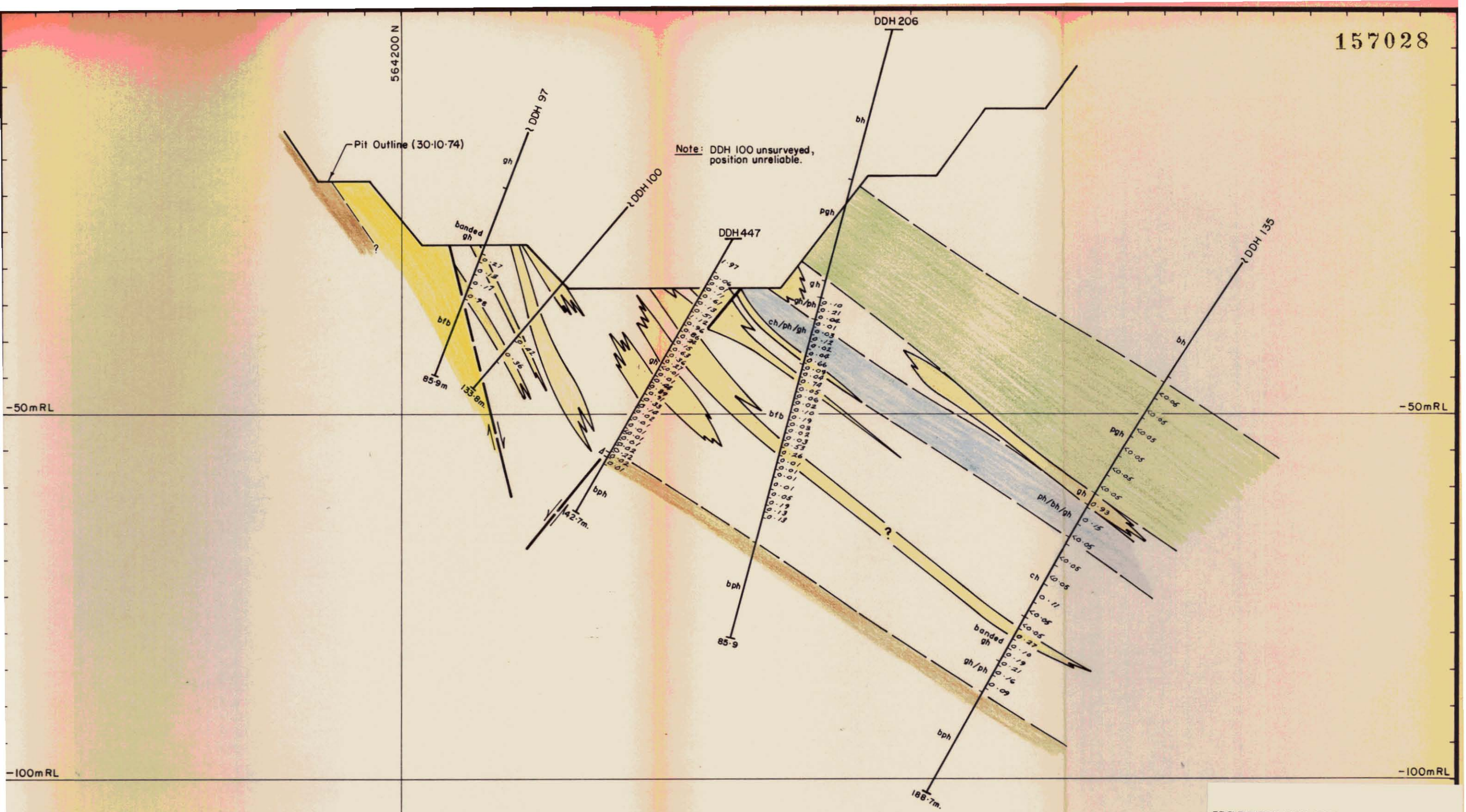
133·8m.

142·7m.

85·9

188·7m.

?



ISG REFER REPORT 70-0676

5 cm

LEGEND:

uv	Upper metavolcanics	ch	Marble	q	Quartzite
bh	Biotite hornfels	bfb	Banded footwall beds		
pgh	Pyroxene garnet hornfels	bph	Biotite pyroxene hornfels	gr	Granite
gh	Garnet hornfels	lv	Lower metavolcanics	ap	Aplite

Fault, showing relative movement.

1·03 / 0·56 / 0·07 — % WO_3

123·4m ← Depth of DDH

GEOPEKO LIMITED
KING ISLAND

Scale: 1:500

Nº KGI-12

DATE: 30-10-74
GEOL: M.J.D.
DWN: R.F.
CHKD: M.J.D.

No. 1 Orebody

GEOLOGICAL CROSS SECTION 11

157029

564200 N

DDH 92

DDH 93

DDH 443

DDH 423

DDH 96

DDH 445

DDH 449

Pit Outline (30·10·74)

Shaded area backfilled

No.9 FAULT

78·4m.

36·6m.

100·4m

72·2m.

140·0m

89·9m.

91·7m.

−50mRL

564200 N

ISG REFER REPORT 70-0676

5 cm

LEGEND:

uv	Upper metavolcanics	ch	Marble	q	Quartzite
bh	Biotite hornfels	bfb	Banded footwall beds		
pgh	Pyroxene garnet hornfels	bph	Biotite pyroxene hornfels	gr	Granite
gh	Garnet hornfels	lv	Lower metavolcanics	ap	Aplite

Fault, showing relative movement.

1·03 / 0·56 / 0·07 — %WO_3

123·4m ← Depth of DDH

GEOPEKO LIMITED
KING ISLAND

Scale: 1:500

Nº KGI-14

DATE: 30-10-74
GEOL: M.J.D.
DWN: R.F.
CHKD: M.J.D.

No. 1 Orebody

GEOLOGICAL CROSS SECTION

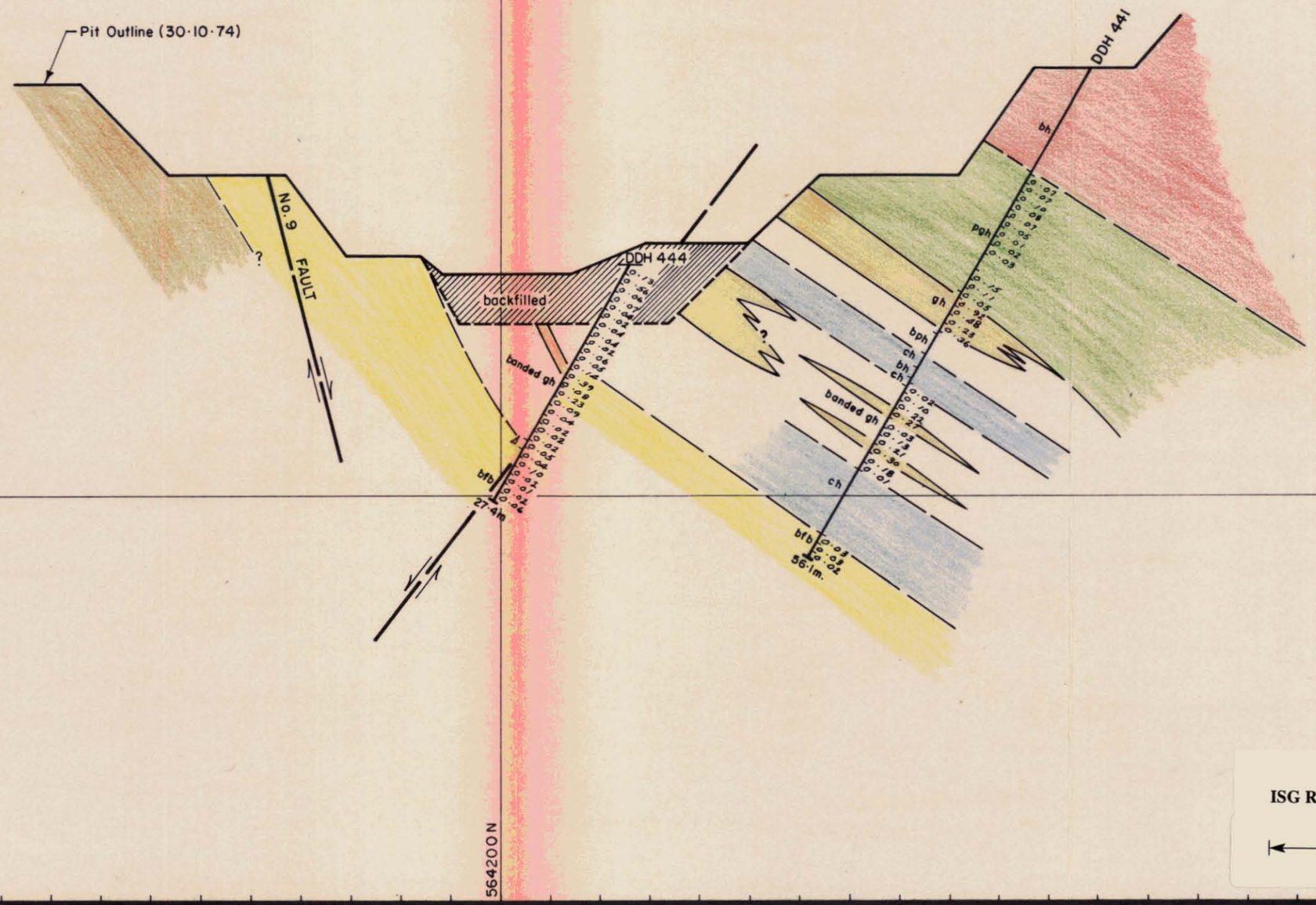
12

157030

564200 N

00mRL

00mRL



-50mRL

-50mRL

564200 N

ISG REFER REPORT 70-0676

5 cm

LEGEND:

uv	Upper metavolcanics	ch	Marble	q	Quartzite
bh	Biotite hornfels	bfb	Banded footwall beds		
pgh	Pyroxene garnet hornfels	bph	Biotite pyroxene hornfels	gr	Granite
gh	Garnet hornfels	lv	Lower metavolcanics	ap	Aplite

Fault, showing relative movement.

1·03
0·56 } % WO_3
0·07

123·4m ← Depth of DDH

GEOPEKO LIMITED
KING ISLAND

Scale: 1:500

Nº KGI-15

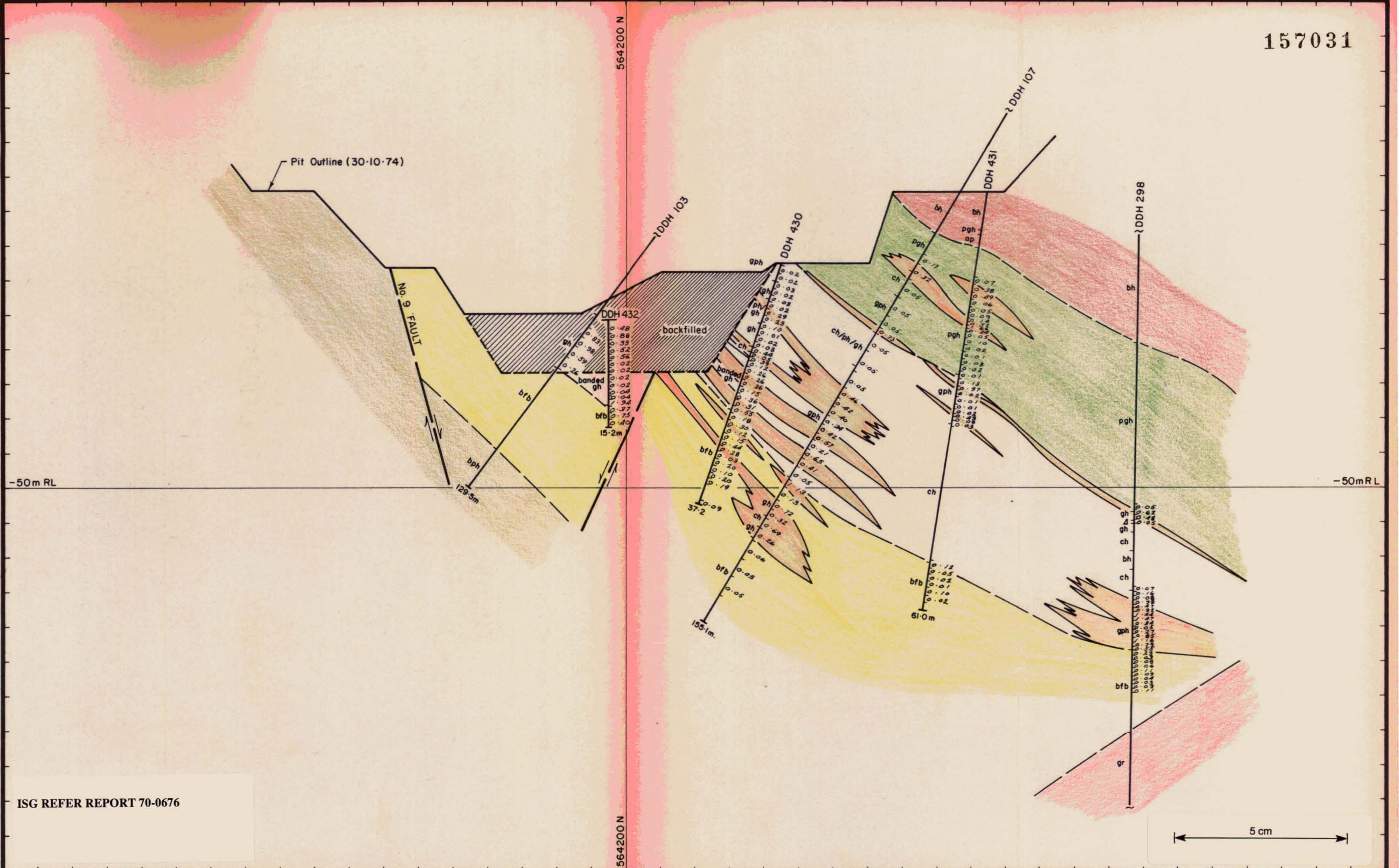
DATE: 30-10-74
GEOL: M.J.D.
DWN: R.F.
CHKD: M.J.D.

No. 1 Orebody

GEOLOGICAL CROSS SECTION

12½

157031



ISG REFER REPORT 70-0676

LEGEND:

uv	Upper metavolcanics	ch	Marble	q	Quartzite
bh	Biotite hornfels	bfb	Banded footwall beds		
pgh	Pyroxene garnet hornfels	bph	Biotite pyroxene hornfels	gr	Granite
gh	Garnet hornfels	lv	Lower metavolcanics	ap	Aplite

Fault, showing relative movement.

1·03 / 0·56 / 0·07 — % WO_3

123·4m ← Depth of DDH

GEOPEKO LIMITED
KING ISLAND

Scale: 1:500

Nº KGI-16

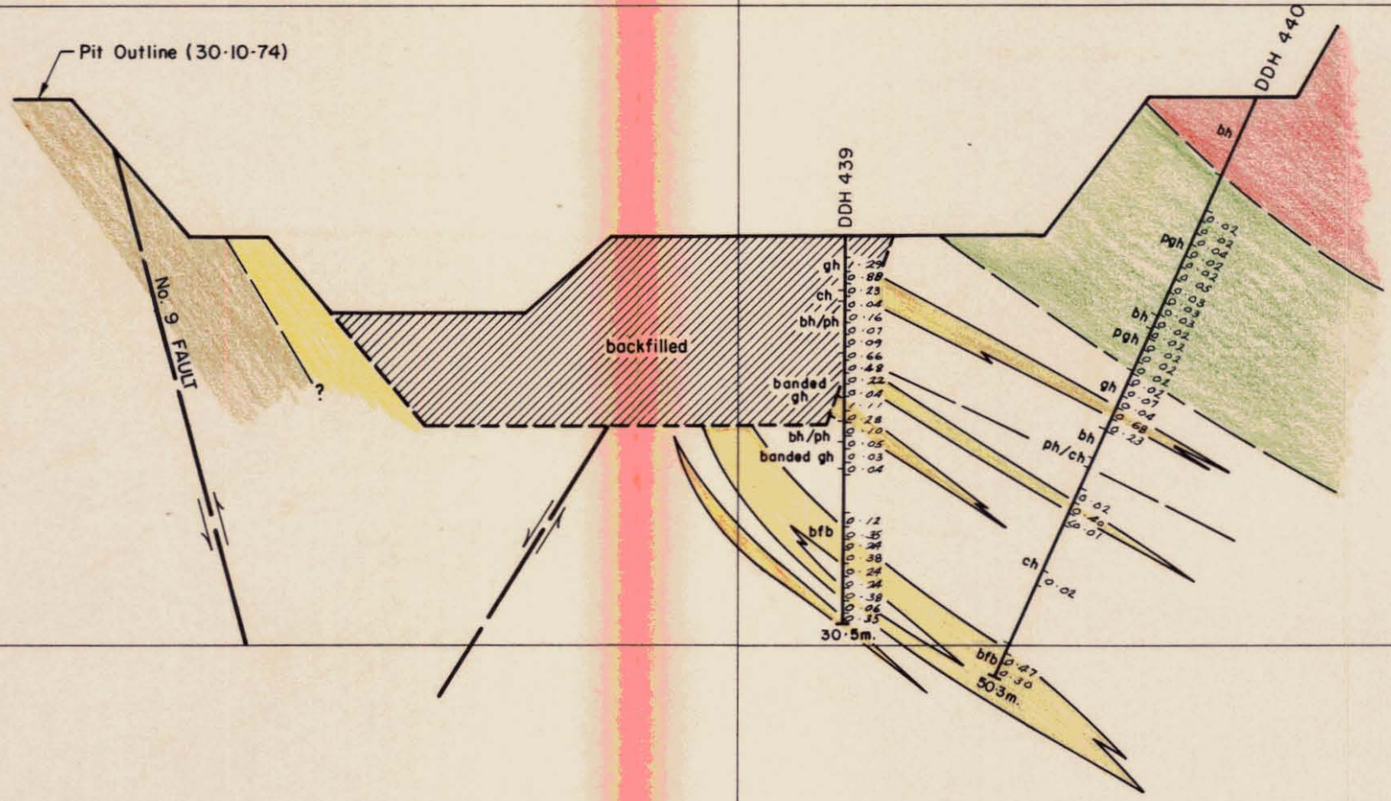
DATE: 30·10·74
GEOL: M.J.D.
DWN: R.F.
CHKD: M.J.D.

No. 1 Orebody
GEOLOGICAL CROSS SECTION
13

157032

564200 N

00m RL



-50m RL

564200 N

ISG REFER REPORT 70-0676

5 cm

LEGEND:

uv	Upper metavolcanics	ch	Marble	q	Quartzite
bh	Biotite hornfels	bfb	Banded footwall beds		
pgh	Pyroxene garnet hornfels	bph	Biotite pyroxene hornfels	gr	Granite
gh	Garnet hornfels	lv	Lower metavolcanics	ap	Aplite

Fault, showing relative movement.

1·03 / 0·56 / 0·07 — % WO_3

123·4m ← Depth of DDH

GEOPEKO LIMITED
KING ISLAND

Scale: 1:500

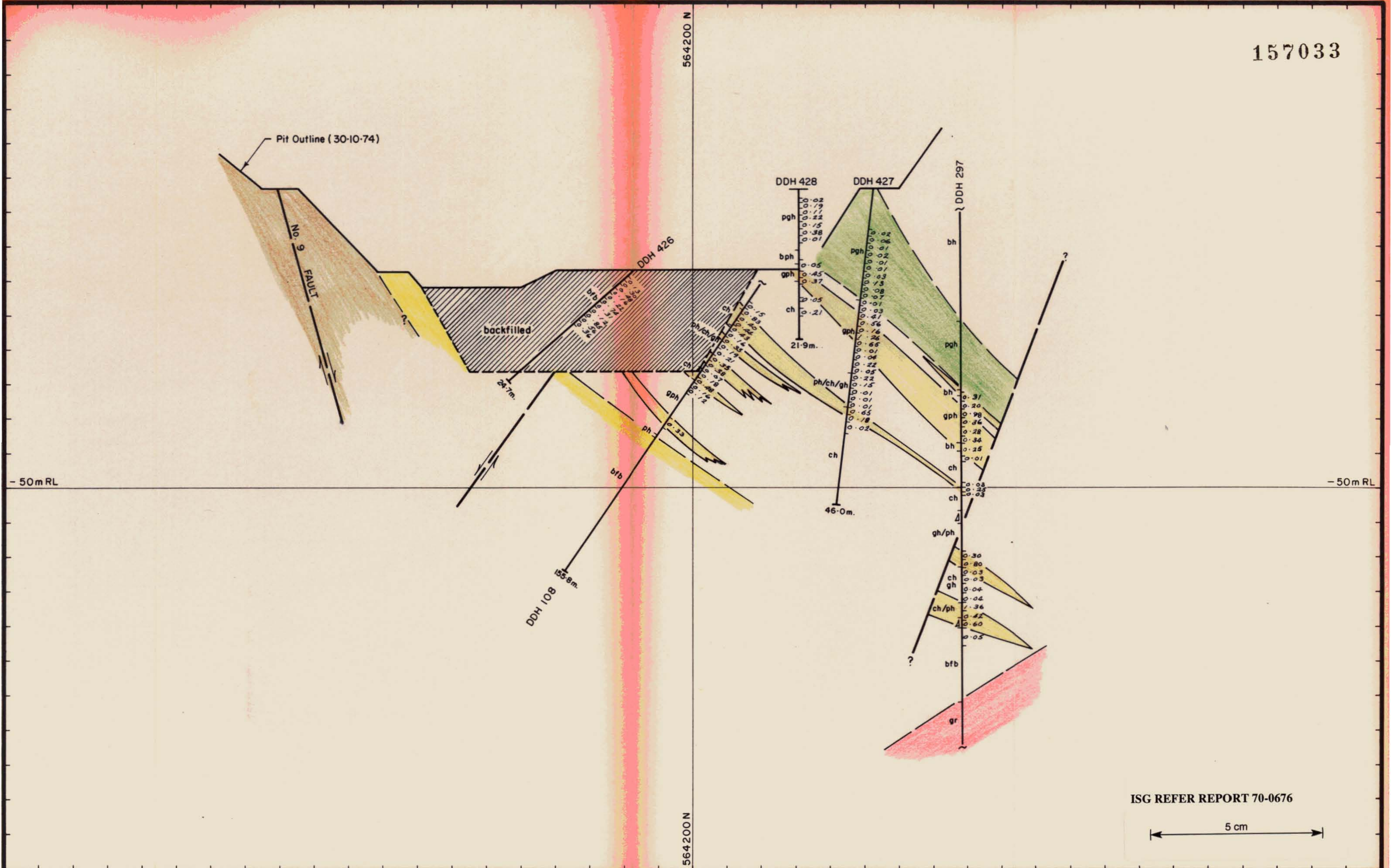
Nº KGI-17

DATE: 30-10-74
GEOL: M.J.D.
DWN: R.F.
CHKD: M.J.D.

No. 1 Orebody

GEOLOGICAL CROSS SECTION

13½



LEGEND:

uv	Upper metavolcanics	ch	Marble	q	Quartzite
bh	Biotite hornfels	bfb	Banded footwall beds		
pgh	Pyroxene garnet hornfels	bph	Biotite pyroxene hornfels	gr	Granite
gh	Garnet hornfels	lv	Lower metavolcanics	ap	Aplite

Fault, showing relative movement.

1·03, 0·56, 0·07 – % WO_3

123·4m ← Depth of DDH

GEOPEKO LIMITED
KING ISLAND

Scale: 1:500

Nº KGI-18

DATE: 30-10-74
GEOL: M.J.D.
DWN: R.F.
CHKD: M.J.D.

No. 1 Orebody
GEOLOGICAL CROSS SECTION
14

157034

564200 N

DDH 446

DDH 448

Pit Outline (30·10·74)

DDH 450

backfilled

banded gh

fault ? zone ?

27·1m.

48·8m.

62·8m

-50mRL

-50mRL

564200 N

ISG REFER REPORT 70-0676

5 cm

LEGEND:

uv	Upper metavolcanics	ch	Marble	q	Quartzite
bh	Biotite hornfels	bfb	Banded footwall beds		
pgh	Pyroxene garnet hornfels	bph	Biotite pyroxene hornfels	gr	Granite
gh	Garnet hornfels	lv	Lower metavolcanics	ap	Aplite

Fault, showing relative movement.

1·03
0·56
0·07
% WO_3

123·4m ← Depth of DDH

GEOPEKO LIMITED
KING ISLAND

Scale: 1:500

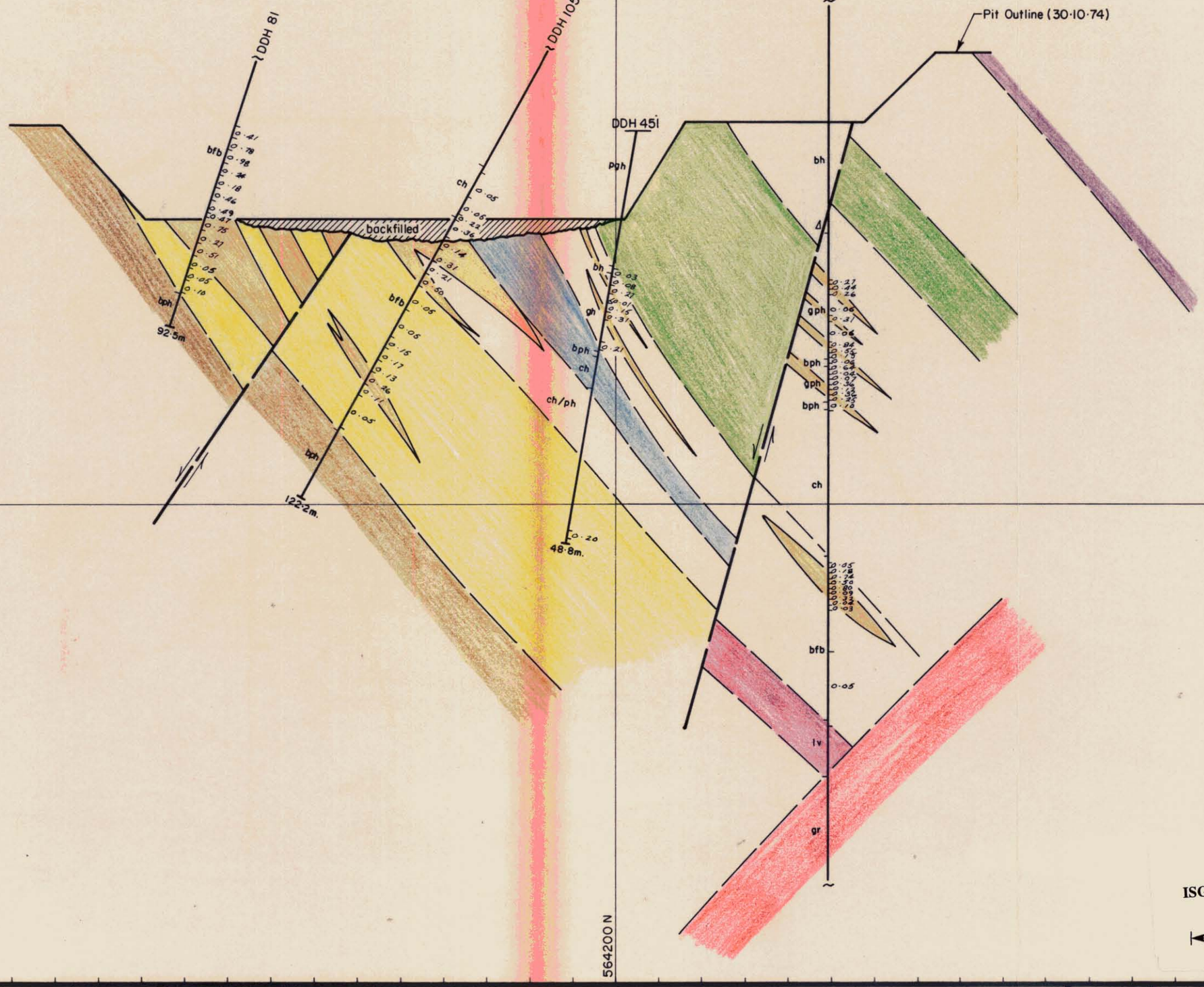
Nº KGI - 19

DATE: 30-10-74
GEOL: M.J.D.
DWN: R.F.
CHKD: M.J.D.

No. 1 Orebody

GEOLOGICAL CROSS SECTION 14½

157035



ISG REFER REPORT 70-0676

5 cm

LEGEND:

- uv — Upper metavolcanics
- bh — Biotite hornfels
- pgh — Pyroxene garnet hornfels
- gh — Garnet hornfels
- ch — Marble
- bfb — Banded footwall beds
- bph — Biotite pyroxene hornfels
- lv — Lower metavolcanics
- q — Quartzite
- gr — Granite
- ap — Aplite

Fault, showing relative movement.

1·03 / 0·56 / 0·07 — % WO_3

123·4m ← Depth of DDH

GEOPEKO LIMITED
KING ISLAND

Scale: 1:500

Nº KGI-20

DATE: 30-10-74
GEOL: M.J.D.
DWN: R.F.
CHKD: M.J.D.

No. 1 Orebody

GEOLOGICAL CROSS SECTION 15

157036

564250 N

DDH 89

sand

bh

Pgh ?

ap

bfb

7.11
9.23

bph

lv

bph

bfb

82.9m.

Pit Outline (30·10·74)

00mRL

00mRL

No. 9 FAULT

bh

lv

ch

bph

bfb

lower C lens

marker

upper C lens

lower C lens

bfb

pgh

uv

gr

bh ?

gr

?

?

?

gr

564250N

ISG REFER REPORT 70-0676

5 cm

LEGEND:

uv	Upper metavolcanics	ch	Marble	q	Quartzite
bh	Biotite hornfels	bfb	Banded footwall beds		
pgh	Pyroxene garnet hornfels	bph	Biotite pyroxene hornfels	gr	Granite
gh	Garnet hornfels	lv	Lower metavolcanics	ap	Aplite

Fault, showing relative movement.

1·03
0·56
0·07
% WO_3

123·4m ← Depth of DDH

GEOPEKO LIMITED
KING ISLAND

Scale: 1:500

Nº KGI-114

DATE: 30-10-74
GEOL: M.J.D.
DWN: R.F.
CHKD: M.J.D.

No. 1 Orebody

GEOLOGICAL CROSS SECTION

16

157037

564250 N

DDH 117

DDH 118

DDH 119

DDH 333

Pit Outline (30·10·74)

bfb

36·9m.

sand

pgh

bh

gph

ph/gh

bh/ph/gh

gh/ph

0·04

0·05

0·87

0·05

bfb

bph

64·3m.

bh

lv

bph

bfb

gr

gr

36·6m.

bph

95·9m.

00m RL

00m RL

564250 N

5 cm

ISG REFER REPORT 70-0676

LEGEND:

uv	Upper metavolcanics	ch	Marble	q	Quartzite
bh	Biotite hornfels	bfb	Banded footwall beds		
pgh	Pyroxene garnet hornfels	bph	Biotite pyroxene hornfels	gr	Granite
gh	Garnet hornfels	lv	Lower metavolcanics	ap	Aplite

Fault, showing relative movement.

1·03
0·56
0·07 } % WO_3

123·4m ← Depth of DDH

GEOPEKO LIMITED
KING ISLAND

Scale: 1:500

Nº KGI-115

DATE: 30-10-74
GEOL: M.J.D.
DWN: R.F.
CHKD: M.J.D.

No. 1 Orebody

GEOLOGICAL CROSS SECTION 17

157038

564250N

DDH 83

clay 0·08

gh 0·10 0·25 0·21 0·05

bfb 0·22 0·11

bfb 0·05

bfb 0·38

0·05

0·21

bph 0·05

53·9

DDH 82

sand

gh 0·20 0·16

<0·05

bph

51·3m

Pit Outline (30·10·74)

00m RL

00m RL

?

?

564250N

ISG REFER REPORT 70-0676

5 cm

LEGEND:

uv	Upper metavolcanics	ch	Marble	q	Quartzite
bh	Biotite hornfels	bfb	Banded footwall beds		
pgh	Pyroxene garnet hornfels	bph	Biotite pyroxene hornfels	gr	Granite
gh	Garnet hornfels	lv	Lower metavolcanics	ap	Aplite

Fault, showing relative movement.

1·03 / 0·56 / 0·07 — % WO_3

123·4m ← Depth of DDH

GEOPEKO LIMITED
KING ISLAND

Scale: 1:500

Nº KGI-117

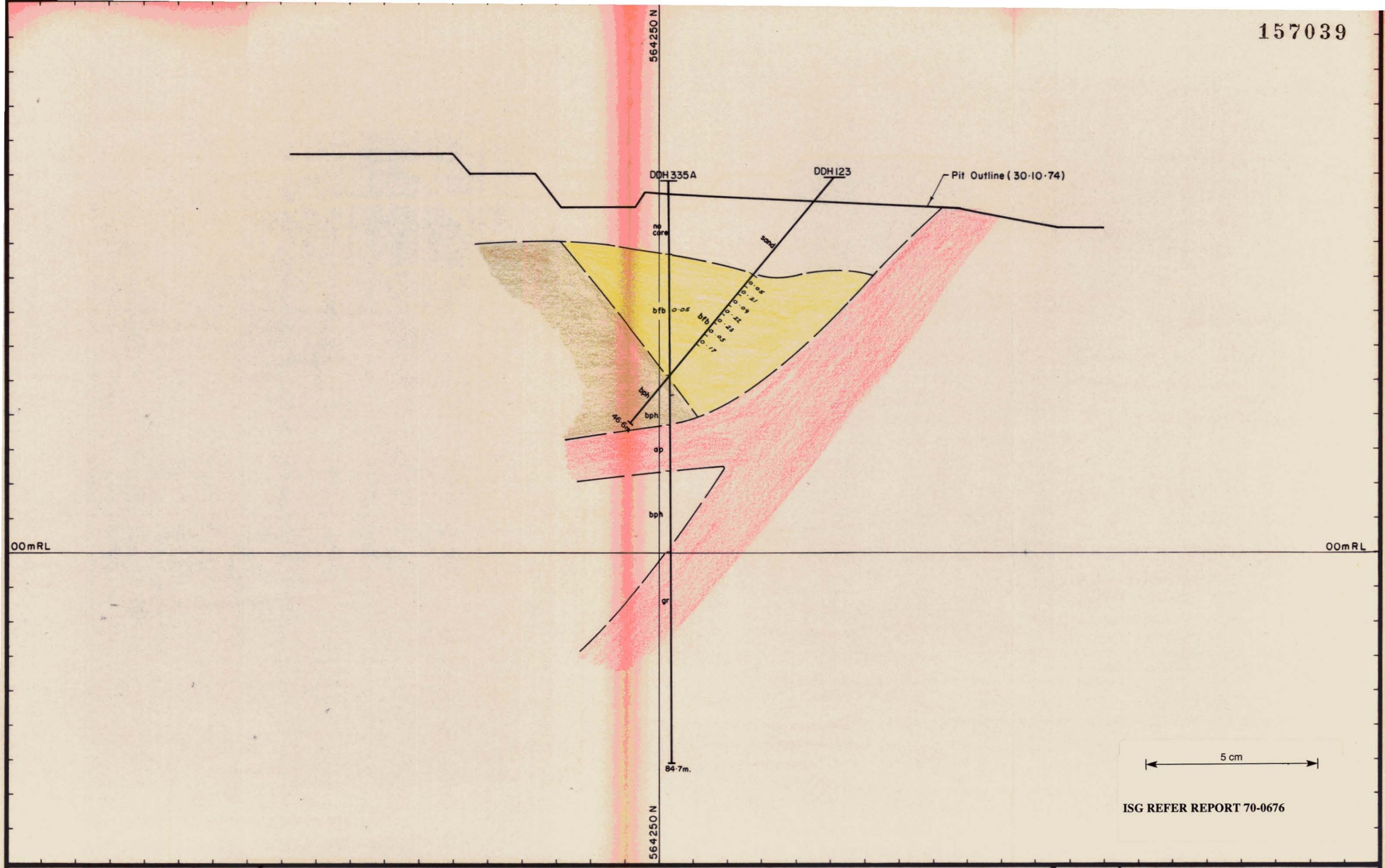
DATE: 30-10-74
GEOL: M.J.D.
DWN: R.F.
CHKD: M.J.D.

No. 1 Orebody

GEOLOGICAL CROSS SECTION

18

157039



LEGEND:

uv	Upper metavolcanics	ch	Marble	q	Quartzite
bh	Biotite hornfels	bfb	Banded footwall beds		
pgh	Pyroxene garnet hornfels	bph	Biotite pyroxene hornfels	gr	Granite
gh	Garnet hornfels	lv	Lower metavolcanics	ap	Aplite

Fault, showing relative movement.

1·03
0·56
0·07
% WO_3

123·4m ← Depth of DDH

GEOPEKO LIMITED
KING ISLAND

Scale: 1:500

Nº KGI-118

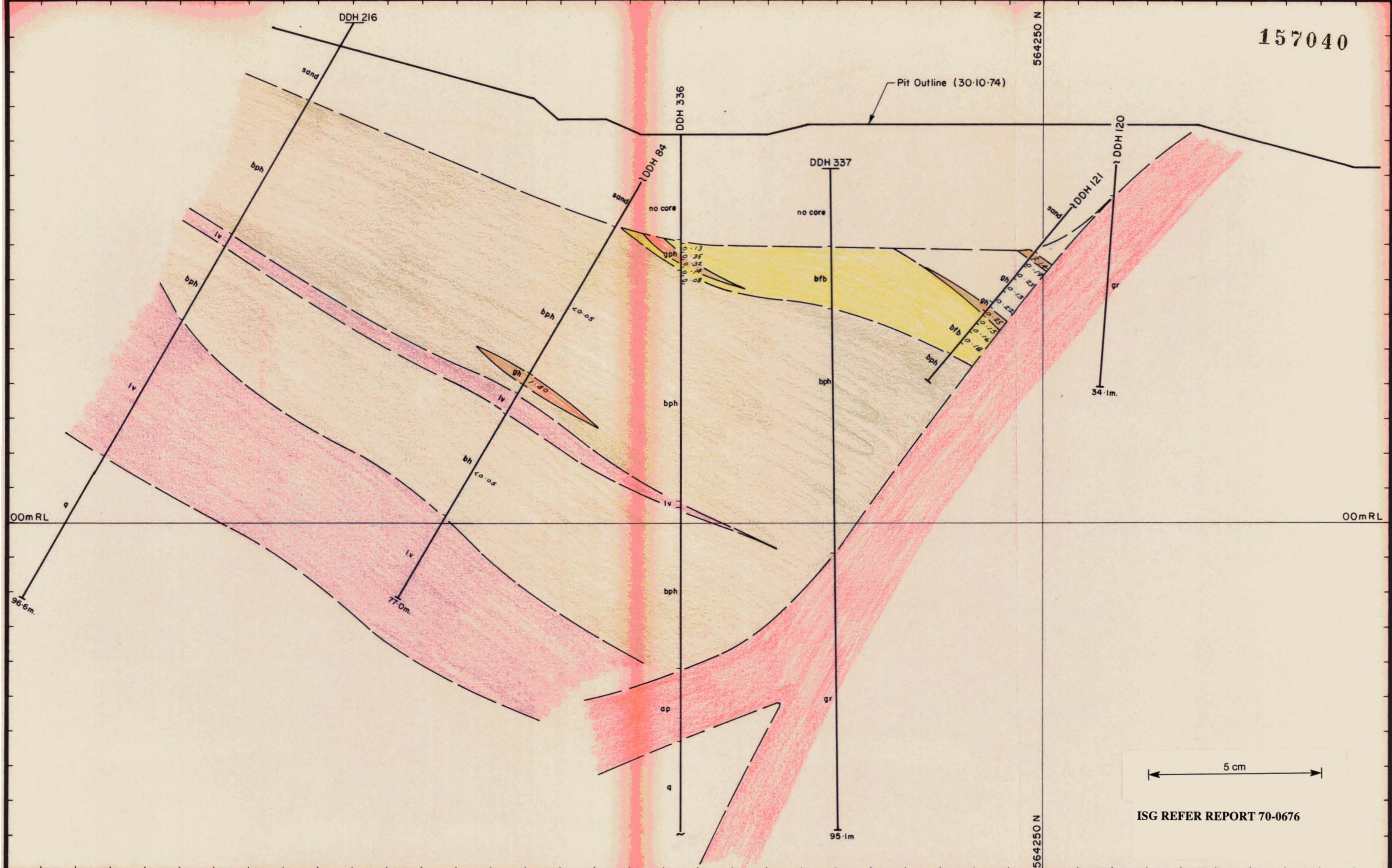
DATE: 30-10-74
GEOL: M.J.D.
DWN: R.F.
CHKD: M.J.D.

No. 1 Orebody

GEOLOGICAL CROSS SECTION

19

157040



ISG REFER REPORT 70-0676

LEGEND:

uv	Upper metavolcanics	ch	Marble	q	Quartzite
bh	Biotite hornfels	bfb	Banded footwall beds		
pgh	Pyroxene garnet hornfels	bph	Biotite pyroxene hornfels	gr	Granite
gh	Garnet hornfels	lv	Lower metavolcanics	ap	Aplite

Fault, showing relative movement.

1·03, 0·56, 0·07 — % WO_3

123·4m ← Depth of DDH

GEOPEKO LIMITED
KING ISLAND

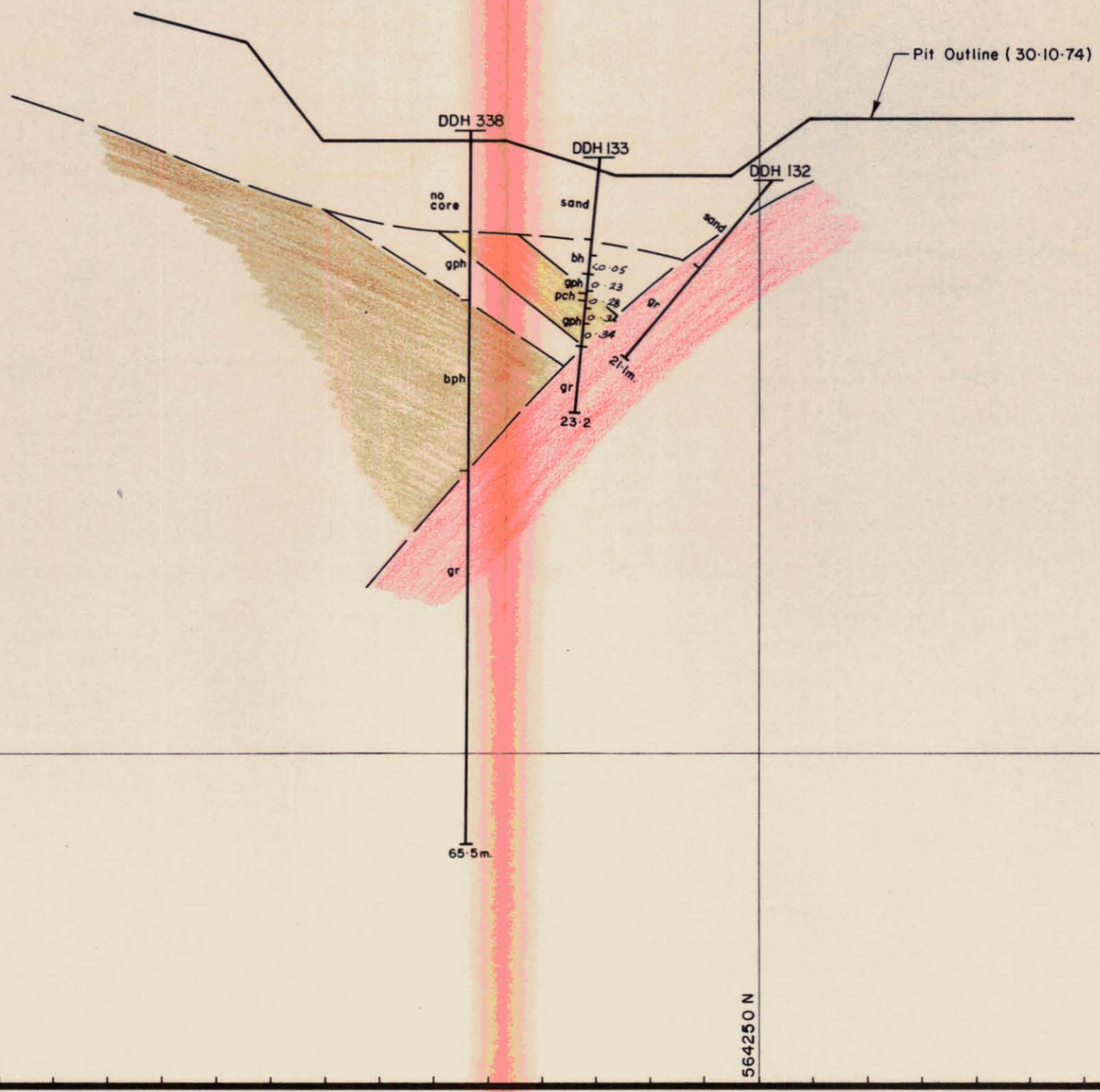
Scale: 1:500

Nº KGI-119

DATE: 30-10-74
GEOL: M.J.D.
DWN: R.F.
CHKD: M.J.D.

No. 1 Orebody
GEOLOGICAL CROSS SECTION
20

157041



ISG REFER REPORT 70-0676

5 cm

LEGEND:

uv	Upper metavolcanics	ch	Marble	q	Quartzite
bh	Biotite hornfels	bfb	Banded footwall beds		
pgh	Pyroxene garnet hornfels	bph	Biotite pyroxene hornfels	gr	Granite
gh	Garnet hornfels	lv	Lower metavolcanics	ap	Aplite

Fault, showing relative movement.

1·03 / 0·56 / 0·07 — % WO_3

123·4m ← Depth of DDH

DATE: 30-10-74
GEOL: M.J.D.
DWN: R.F.
CHKD: M.J.D.

GEOPEKO LIMITED
KING ISLAND

Scale: 1:500

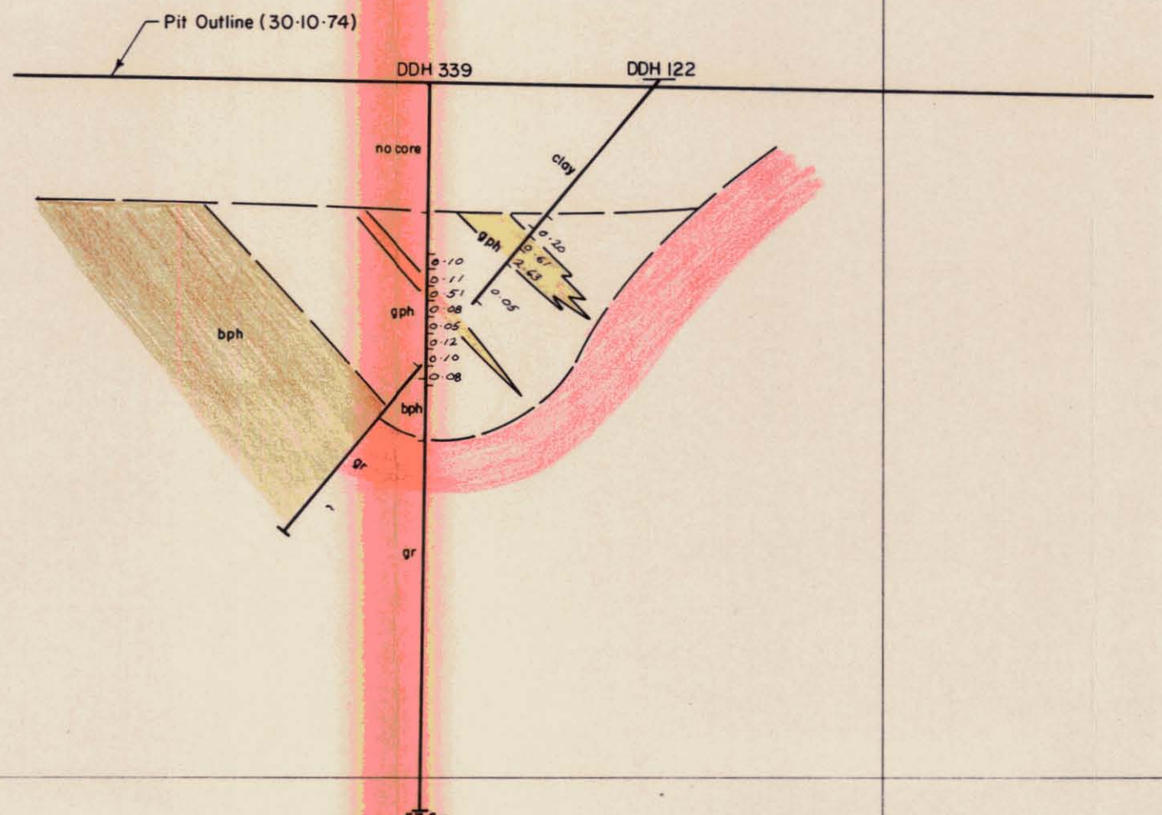
Nº KGI-120

No. 1 Orebody

GEOLOGICAL CROSS SECTION

21

157042



ISG REFER REPORT 70-0676

5 cm

LEGEND:

uv	Upper metavolcanics	ch	Marble	q	Quartzite
bh	Biotite hornfels	bfb	Banded footwall beds		
pgh	Pyroxene garnet hornfels	bph	Biotite pyroxene hornfels	gr	Granite
gh	Garnet hornfels	lv	Lower metavolcanics	ap	Aplite

Fault, showing relative movement.

1·03
0·56
0·07
% WO_3

123·4m ← Depth of DDH

GEOPEKO LIMITED
KING ISLAND

Scale: 1:500

Nº KGI-121

DATE: 30-10-74
GEOL: M. J. D.
DWN: R. F.
CHKD: M. J. D.

No. 1 Orebody

GEOLOGICAL CROSS SECTION

22

219700E 219800E 219900E 220000E 220100E

564200N

564100N

564000N

PROPOSED MINE DEVELOPMENT

-117·0

-109·0

-101·0

Nº 3 FAULT

CENTRAL FAULT

PROPOSED DRILL DRIVE

PROPOSED DRILL DRIVE

?

Legend:

- uv Upper metavolcanics
- bh/ph Banded hornfels
- ch Marble
- pgh Pyroxene garnet hornfels
- gh Garnet hornfels (ore grade)
- Garnet hornfels (sub ore grade)
- bfb Banded footwall beds
- ap/g Aplite / Granite
- q Quartzite
- Fault
- Degree of uncertainty in Fault position.

DATE: JAN., 1975
GEOLOGIST: M.J.D.
DRAWN: R.F.
CHECKED: M.C.R.

GEOPEKO LIMITED 157043
KING ISLAND GROUP

SCALE: 1:500

No. KGI-124

5 cm

Nº 1 OREBODY
GEOLOGICAL PLAN
-100 mRL

93-3463

ISG REFER REPORT 70-0676

SECTION 16 | SECTION 15 | SECTION 14 | SECTION 13 | SECTION 12 | SECTION 11 | SECTION 10 | SECTION 9

219600 E | 219700 E | 219800 E

564400 N

564300 N

2140 | 1577 | 2122 | 2123 | 2121 | 1187 | 2033

D FAULT | C FAULT | A FAULT | No. 2 FAULT | No. 3 FAULT | FAULT

BENCH 7 | BENCH 8 | BENCH 9 | BENCH 10

ISG REFER REPORT 70-0676

93-3463

Legend:

- bh — Hangingwall biotite hornfels
- pgh — Pyroxene garnet hornfels
- gh — Garnet hornfels
- bfb — Banded footwall beds (mineralized)
- ch — Marble
- bfb — Banded footwall beds (unmineralized)
- bph — Biotite pyroxene hornfels
- lv — Lower metavolcanics
- q — Quartzite

Lithological boundary (accurate)

Lithological boundary (approx.)

Fault, accurate

Fault, approx.

Established Fault, position accurate with dip

40/30 Fault with bearing and plunge of grooves, slickensides etc.

67 Strike and dip of bedding

2268 Survey station

+22·3 Spot elevation

DATE: MAR., 1974
GEOLOGIST: M.J.D.
DRAWN: R.F
CHECKED: M.C.R.

GEOPEKO LIMITED 157044
KING ISLAND GROUP

SCALE: 1:500

No. KGI-104

5 cm

GEOLOGICAL MAP
WEDGE BLOCK
No. 1 OREBODY

157045

564300 N

564200 N

DDH 60

DDH 58

DDH 27

DDH 40

0·81 0·04 0·11 0·93 0·19

32·6m

1·23 ? 0·83 0·06 0·52 0·41 0·52

34·4m

0·30 0·10 0·15 0·10 0·45 0·15 0·60 0·40 0·05 0·05

55·2m

0·45 0·60 0·05 0·25 0·15 0·10 0·05 0·05 0·05 0·05 0·05 0·05 0·05 0·05

48·2m

No.3 FAULT

A FAULT

No.2 FAULT

00m R.L.

00m R.L.

NOTE:
There are no geological logs available for any of the above DDH's.

5 cm

ISG REFER REPORT 70-0676

LEGEND:

- bh — Hangingwall biotite hornfels
- pgh — Pyroxene garnet hornfels
- gh/ch — Garnet hornfels/calcite hornfels
- bfb — Banded footwall beds (mineralized)
- bfb — Banded footwall beds (unmineralized)
- bph — Biotite pyroxene hornfels
- lv — Lower metavolcanics
- q — Quartzite
- 60 — Strike and dip
- Fault, showing relative movement
- Degree of uncertainty in Fault position

DATE: MAR., 1974
GEOLOGIST: M.J.D.
DRAWN: R.F.
CHECKED: M.C.R.

GEOPEKO LIMITED
KING ISLAND GROUP

SCALE: 1:500

No. KGI-105

GEOLOGICAL CROSS-SECTION 9
WEDGE BLOCK
No. 1 OREBODY

157046

564300 N

564200 N

DDH 72

clay

pgh

bh/ph

q

36·6m

DDH 293

bph

bh

q

73·1m

DDH 295

bh/ph/gh

36·6m

q (?)

ph

q

43·3m

DDH 62*

56·7m

DDH 26*

50·3m

DDH 25*

No. 3 FAULT

FAULT

FAULT

No. 2 FAULT

A

B

00m.R.L.

00m R.L.

NOTE:
* Geological logs not available.

ISG REFER REPORT 70-0676

5 cm

LEGEND:

bh	Hangingwall biotite hornfels	bfb	Banded footwall beds (unmineralized)	60	Strike and dip
pgh	Pyroxene garnet hornfels	bph	Biotite pyroxene hornfels		Fault, showing relative movement
gh/ch	Garnet hornfels / calcite hornfels	lv	Lower metavolcanics		Degree of uncertainty in Fault position
bfb	Banded footwall beds (mineralized)	q	Quartzite		Breccia

DATE: MAR., 1974
GEOLOGIST: M.J.D.
DRAWN: R.F.
CHECKED: M.C.R.

GEOPEKO LIMITED
KING ISLAND GROUP

SCALE: 1:500

No. KGI-106

GEOLOGICAL CROSS-SECTION 10
WEDGE BLOCK
No. 1 OREBODY

157047

DDH 288

DDH 143

DDH 292

DDH 73

DDH 294

DDH 69

DDH 24*

564 300 N

564 300 N

00m. R.L.

00m. R. L.

96·0m

49·1m

51·2m

65·5m

69·2m

E.O.H. 88·4m

E.O.H. 108·8m

NOTE:
*No core or geological log available.

No. 3 FAULT

B FAULT

D FAULT

A FAULT

No. 2 FAULT

ISG REFER REPORT 70-0676

5 cm

LEGEND:

- bh — Hangingwall biotite hornfels
- pgh — Pyroxene garnet hornfels
- gh/ch — Garnet hornfels / calcite hornfels
- bfb — Banded footwall beds (mineralized)
- bfb — Banded footwall beds (unmineralized)
- bph — Biotite pyroxene hornfels
- lv — Lower metavolcanics
- q — Quartzite
- 60 — Strike and dip
- Fault, showing relative movement
- Degree of uncertainty in Fault position
- Breccia

DATE: MAR., 1974
GEOLOGIST: M.J.D.
DRAWN: R.F.
CHECKED: M.C.R.

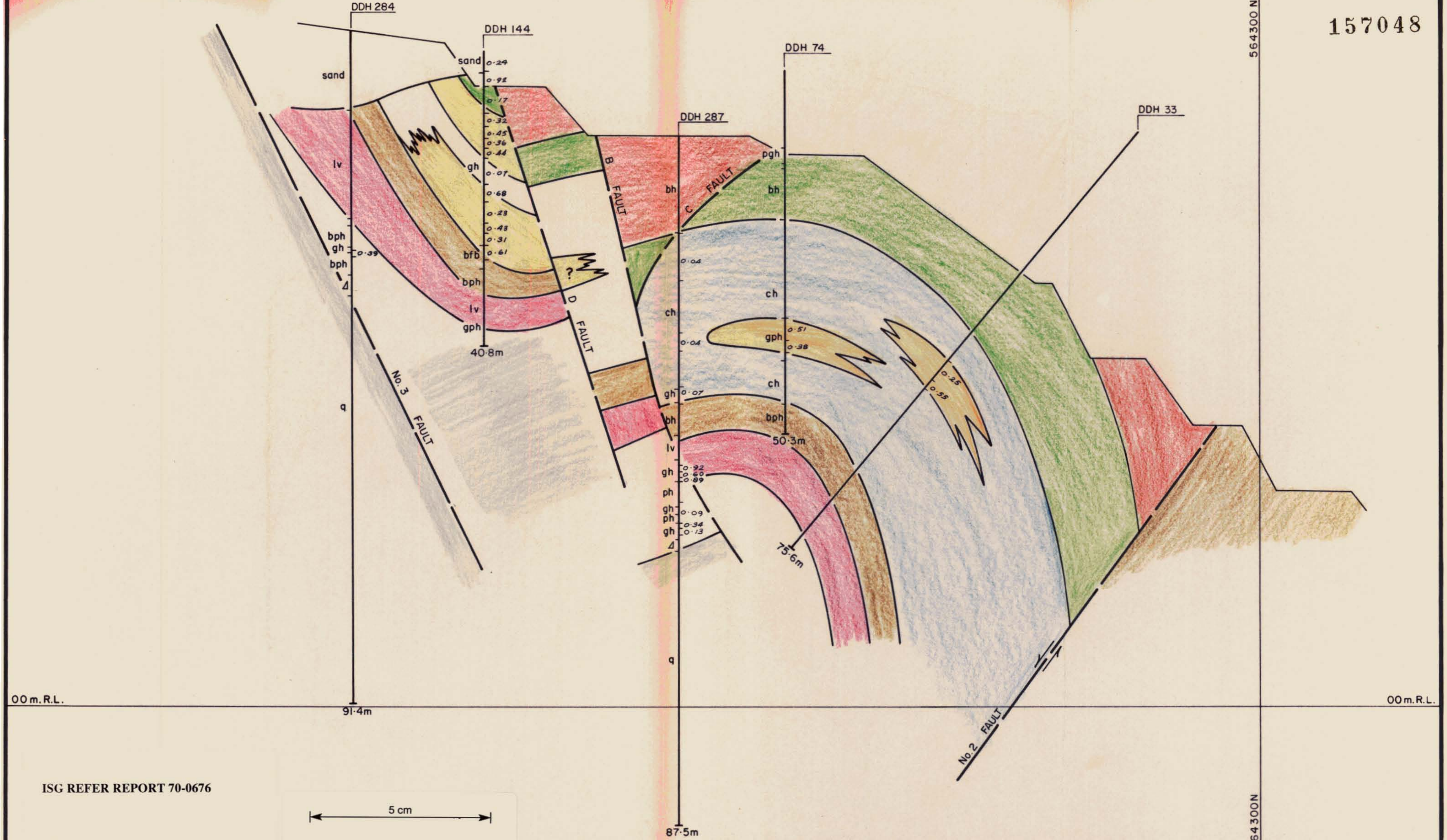
GEOPEKO LIMITED
KING ISLAND GROUP

SCALE: 1:500

No. KGI-107

GEOLOGICAL CROSS-SECTION II
WEDGE BLOCK
No. 1 OREBODY

157048



ISG REFER REPORT 70-0676

LEGEND:

bh	Hangingwall biotite hornfels	bfb	Banded footwall beds (unmineralized)	60	Strike and dip
pgh	Pyroxene garnet hornfels	bph	Biotite pyroxene hornfels		Fault
gh/ch	Garnet hornfels / calcite hornfels	lv	Lower metavolcanics		Degree of uncertainty in Fault position
bfb	Banded footwall beds (mineralized)	q	Quartzite	ΔΔΔΔ	Breccia

GEOPEKO LIMITED
KING ISLAND GROUP

SCALE: 1:500

No. KGI-108

DATE: MAR., 1974
GEOLOGIST: M.J.D.
DRAWN: R.F.
CHECKED: M.C.R.

GEOLOGICAL CROSS-SECTION 12
WEDGE BLOCK
No. 1 OREBODY

157049

564 300 N

DDH 283

DDH 70

DDH 458

DDH 286

no core

bph

bh

pgh

gh

bfb

lv

q

553m

ch

bh

gh 0.46

pgh

ph

ch

ch

pgh 0.10

ch

ph

pgh

56.1m

bfb

bph

lv

1.63 gh

91.6m

q

EOH 103.6m

No. 2 FAULT

00m R.L.

00m R.L.

564300 N

ISG REFER REPORT 70-0676

5 cm

LEGEND:

bh	Hangingwall biotite hornfels	bfb	Banded footwall beds (unmineralized)	60	Strike and dip
pgh	Pyroxene garnet hornfels	bph	Biotite pyroxene hornfels		Fault
gh/ch	Garnet hornfels/calcite hornfels	lv	Lower metavolcanics		Degree of uncertainty in Fault position
bfb	Banded footwall beds (mineralized)	q	Quartzite		

DATE: MAR., 1974
GEOLOGIST: M.J.D.
DRAWN: R.F.
CHECKED: M.C.R.

GEOPEKO LIMITED
KING ISLAND GROUP

SCALE: 1:500

No. KGI-109

GEOLOGICAL CROSS-SECTION 13
WEDGE BLOCK
No. 1 OREBODY

157050

DDH 281 | DDH 291 | 564400 N | DDH 71 | DDH 459

clay | lv | qtz. vein | q | 88·4m.

clay | gh | lv | ch | q | 87·5m.

0·69 | 0·10 | 0·69 | 0·03 | 0·66 | 0·02 | 55·2m

bh | pgh | bh | ch | ph | lv | q

sand | bh | bph | bfb | bph | q | 67·7m

0·72 | 1·29 | 0·58 | 0·07 | 0·35

00m R.L. | 00m R.L.

564400 N

ISG REFER REPORT 70-0676

5 cm

LEGEND:

- bh — Hangingwall biotite hornfels
- pgh — Pyroxene garnet hornfels
- gh/ch — Garnet hornfels / calcite hornfels
- bfb — Banded footwall beds (mineralized)
- bfb — Banded footwall beds (unmineralized)
- bph — Biotite pyroxene hornfels
- lv — Lower metavolcanics
- q — Quartzite
- 60 — Strike and dip
- Fault
- Degree of uncertainty in Fault position
- Breccia

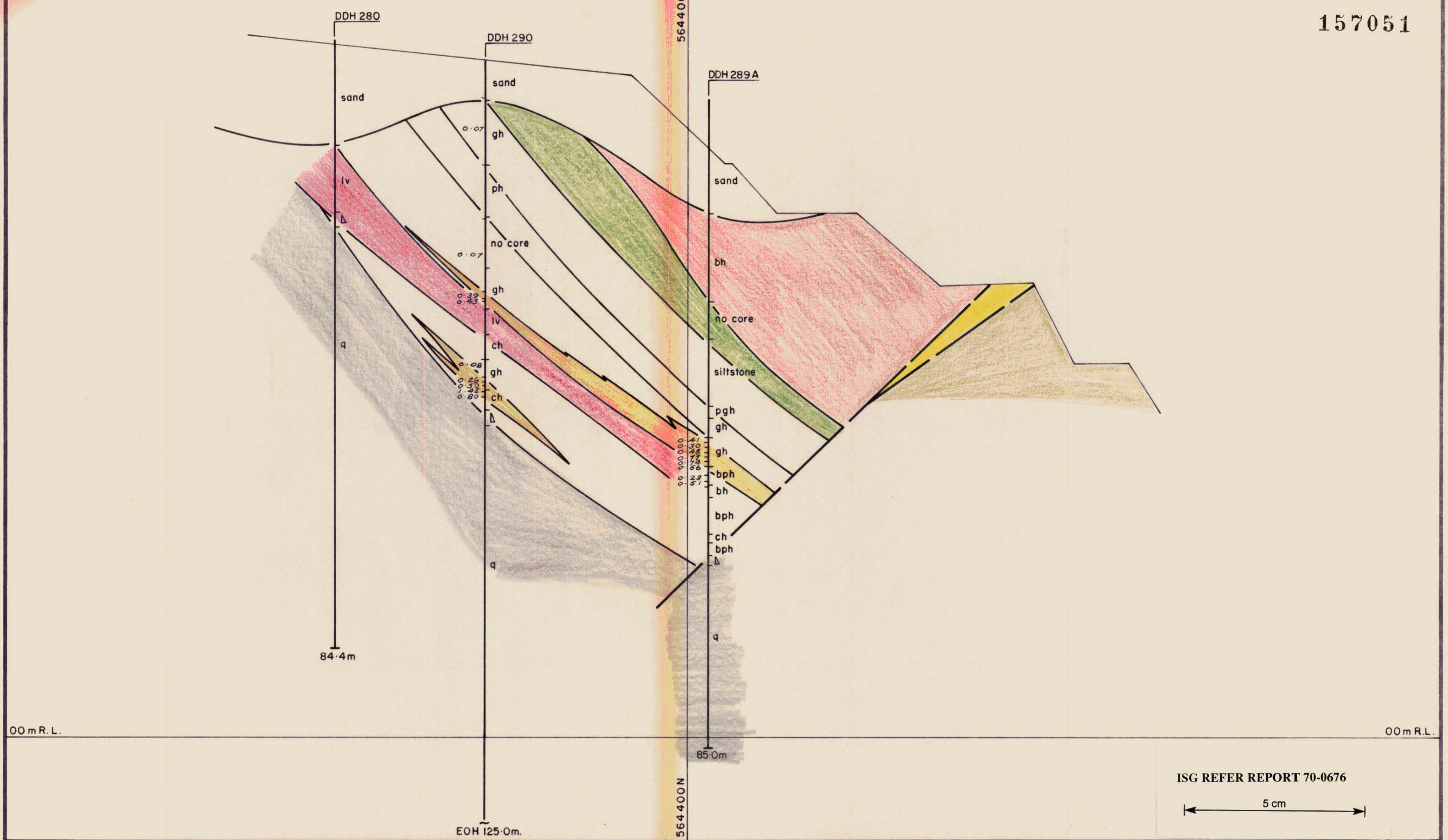
DATE MAR., 1974
GEOLOGIST M.J.D.
DRAWN R.F.
CHECKED M.C.R.

GEOPEKO LIMITED
KING ISLAND GROUP

SCALE 1:500

No. KGI-110

GEOLOGICAL CROSS-SECTION 14
WEDGE BLOCK
No. 1 OREBODY



LEGEND:

Symbol	Description	Symbol	Description
bh	Hangingwall biotite hornfels	bfb	Banded footwall beds (unmineralized)
pgh	Pyroxene garnet hornfels	bph	Biotite pyroxene hornfels
gh/ch	Garnet hornfels/calcite hornfels	lv	Lower metavolcanics
bfb	Banded footwall beds (mineralized)	q	Quartzite

60 Strike and dip

Fault

Degree of uncertainty in Fault position

Δ Δ Δ Δ Δ Breccia

GEOPEKO LIMITED
KING ISLAND GROUP

SCALE 1:500

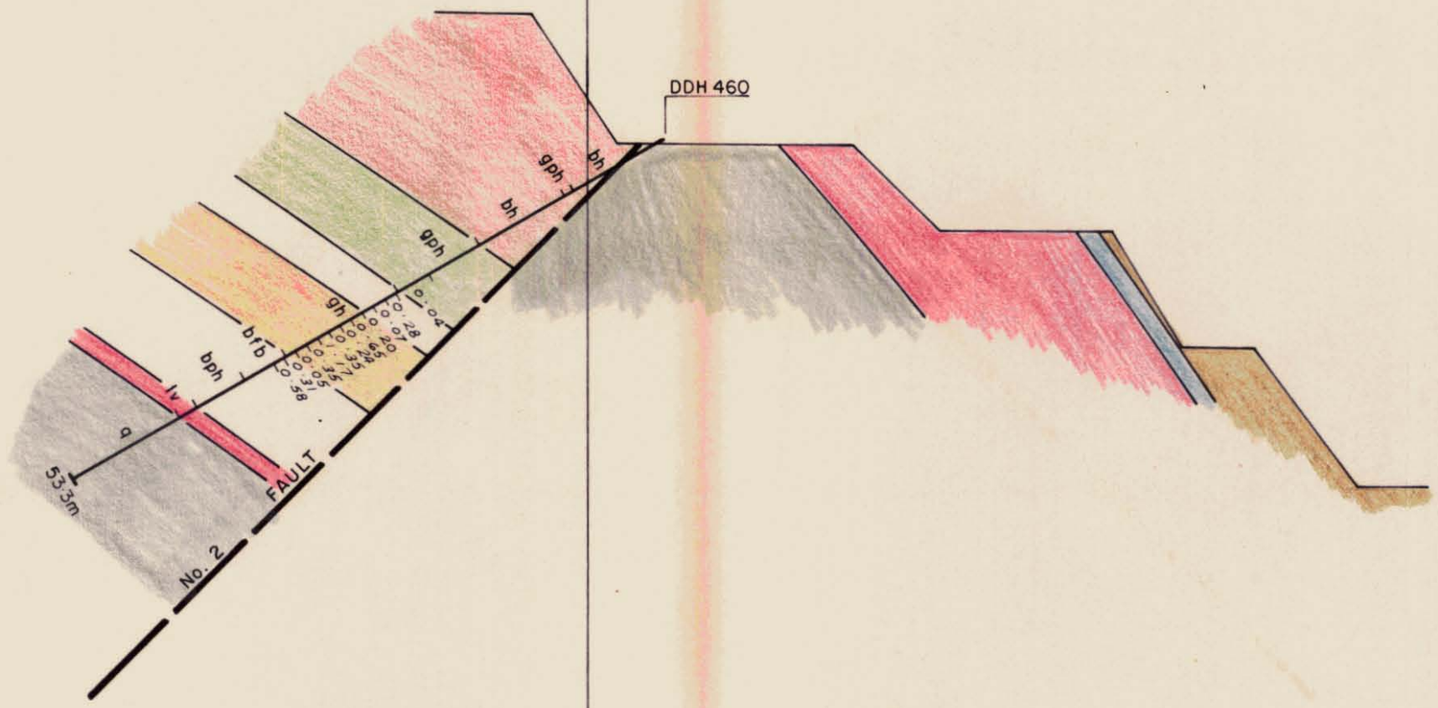
No. KGI-III

DATE MAR., 1974
GEOLOGIST M.J.D.
DRAWN R.F.
CHECKED M.C.R.

GEOLOGICAL CROSS-SECTION 15
WEDGE BLOCK
No. 1 OREBODY

157052

564500 N



00m R.L.

00m R.L.

564500 N

ISG REFER REPORT 70-0676

5 cm

LEGEND:

- bh — Hangingwall biotite hornfels
- pgh — Pyroxene garnet hornfels
- gh/ch — Garnet hornfels / calcite hornfels
- bfb — Banded footwall beds (mineralized)
- bfb — Banded footwall beds (unmineralized)
- bph — Biotite pyroxene hornfels
- lv — Lower metavolcanics
- q — Quartzite
- 60 — Strike and dip
- Fault
- Degree of uncertainty in Fault position

DATE: MAR., 1974
GEOLOGIST: M.J.D.
DRAWN: R.F.
CHECKED: M.C.R.

GEOPEKO LIMITED
KING ISLAND GROUP

SCALE: 1:500

No. KGI-112

GEOLOGICAL CROSS-SECTION 16
WEDGE BLOCK
No. 1 OREBODY

GEOPEKO LIMITED

KING ISLAND

Ore Resource-Reserve Table No. 1 Orebody-(Underground)

(18·2·75)

	TOTAL	15	14	13	12	11	10	9	8	7	6	5	3S	2S	1S	00
-25m.R.L.- 16	6,040 0·58	3,240 0·59	2,240 0·54	560 0·73												
17	51,960 0·57	6,050 0·49	15,390 0·49	12,040 0·59	8,220 0·67	7,190 0·63	3,070 0·63									
18	103,220 0·57	11,580 0·44	16,970 0·49	20,670 0·55	19,070 0·57	17,070 0·54	4,960 0·71	2,900 1·05								
-50m.R.L.- 19	85,520 0·56	6,010 0·42	7,280 0·56	19,800 0·57	19,070 0·62	11,160 0·65	16,500 0·51		5,700 0·45							
20	84,570 0·64	5,790 0·46	1,230 0·65	7,270 0·58	11,570 0·61	11,500 0·62	18,060 0·67		22,150 0·74	7,000 0·62						
21	85,080 0·63	5,100 0·46	6,950 0·78	8,370 0·63	6,240 0·46	10,150 0·54	18,270 0·66		18,200 0·76	6,800 0·46	3,000 0·69		2,000 0·71			
-75m.R.L.- BELOW 21	134,830 0·61	760 0·65	4,340 0·70	930 0·72	1,170 0·27	16,260 0·49	56,030 0·61		31,340 0·68	4,000 0·77	20,000 0·58					

551,220	0·60

Ore Resource. Tonnes at Grade % WO_3

SUMMARY

NOTE:

Method of grade calculation: modified polygonal method of weighted arithmetic means.
Method of tonnes calculation: truncated cone formula.

LEGEND:

——— final pit design

PROBABLE ORE RESOURCE	C LENS	551,220 T. at 0·60%	762,300 TONNES at 0·59% WO_3
	B LENS	15,070 T. at 1·09%	
	WEDGEBLOCK	147,310 T. at 0·52%	
	WESTERN EXTENSION	48,700 T. at 0·62%	
PRIMARY ORE RESERVE	C LENS (open cut)	NIL	8,600 TONNES at 0·40% WO_3
	C LENS (underground)	NOT CALCULATED	
	Nos 1,5 and CRUSHER STOCKPILES	8,600 T. at 0·40%	
SECONDARY ORE RESERVE	WEDGEBLOCK	10,000 T. at 0·5%	99,200 TONNES at 0·3% WO_3
	No's. 2 and 3 STOCKPILES	89,200 T. at 0·3%	

TAILINGS DAMS	No's. 1,2,3 and 4	43,000 Tonnes at 0·52% WO_3
	VANNER DAM	2,500 Tonnes at 6·70% WO_3
	SULPHIDE DAM	150 Tonnes at 22·84% WO_3

157053

5 cm

SCALE:	1:1000m. hor. 1:500m. vert.
DATE:	FEB., 1975
COMPILED BY:	M.J.D.
DRAWN BY:	R.F.
CHECKED BY:	M.C.R.

93-3463