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BILLITON AUSTRALIA

AUREOLE N.L.
AMERICAN HORIZON RESOURCES, INC.
FEDERATION RESOURCES N.L.

E.L. 58/88 - GOLDEN RIDGE JOINT VENTURE

Annual Exploration Report for the Period
7th April 1991 to 7th April 1992

MICROFILMED

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1. INTRODUCTION

This report summarizes the results of exploration carried out by Billiton Australia on behalf of the Golden Ridge Joint Venture since April 1991.

Exploration completed in previous years has been presented in Billiton reports 08.4946, 08.5292.

2. LOCATION AND ACCESS

The licence is situated in the north-east of Tasmania approximately 20 kms west of St. Helens and 70 kms east of Launceston. (Fig. 1). Access to the tenements is obtained via well maintained Forestry roads (eg Hogans Road) and thence by tracks in varying states of disrepair.

The topography is steep with numerous linear spines and deep gullies. Vegetation consists of dry sclerophyll forest, eucalypt regeneration and pine plantations.

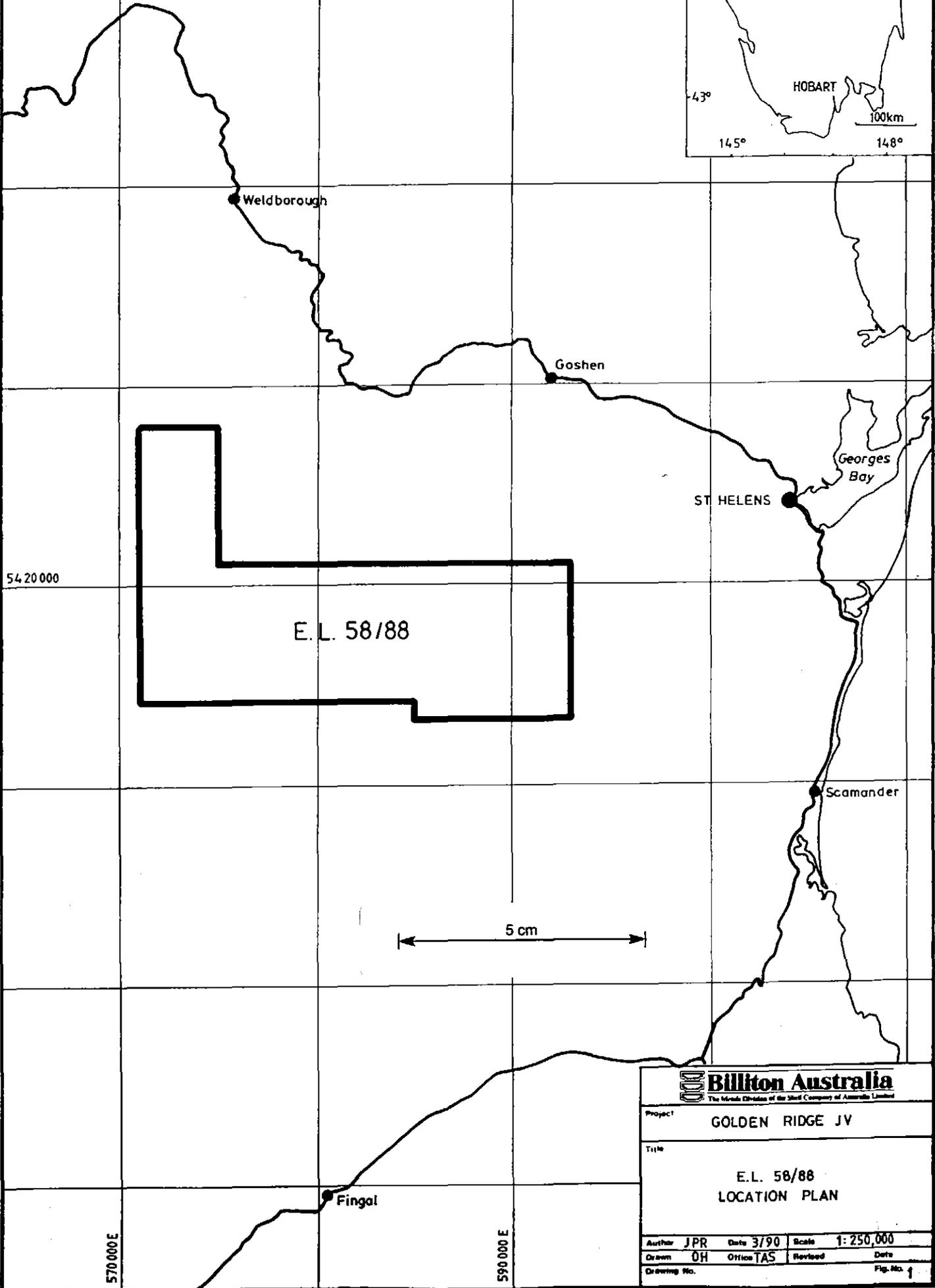
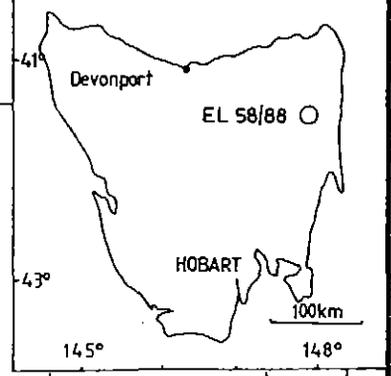
3. LAND TENURE

Exploration licence 58/88, of 189km², was granted on 7th April 1989 to a consortium consisting of:

Federation Resources N.L.	20% equity
American Horizon Resources Inc.	30% equity
Aureole N.L.	50% equity

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E. L. 58/88

5 cm

570 000 E

590 000 E

Billiton Australia
The Metals Division of the Steel Company of Australia Limited

Project	GOLDEN RIDGE JV		
Title	E.L. 58/88 LOCATION PLAN		
Author	JPR	Date	3/90
Scale	1: 250,000		
Drawn	OH	Office	TAS
Revised		Date	
Drawing No.		Fig. No.	1

Aureole N.L. was elected operator of this group.

The Shell Company of Australia Ltd., through its subsidiary Billiton Australia, farmed into the project on 9th October, 1989 as manager of the joint venture.

Within the tenement, mining lease 43M/88 (100ha, Oceania Tas. Pty Ltd) is current and was included within the joint venture until 11th July 1991.

4. REGIONAL SETTING

The licence covers the southern ends of the Pyengana and Poimena Plutons (biotite-hornblende granodiorite and granite) of Upper Devonian age that have intruded Siluro - Devonian Mathinna Beds sediments (see Fig. 2). Around the margins of these plutons, a contact metamorphic zone characterized by moderate hornfelsing of the sediments occurs as a band up to 1km wide.

A mineralization zonation is well known in the Scamander area and from east to west a gradation from Cu-Pb to Sn-W to Au-As is noted. The Golden Ridge locality defines this latter category and is represented by numerous shafts, adits and pits over a 4km strike length wrapping around the margin of the Poimena Pluton.

Throughout the North-East Province there is good evidence of a strong structural control to the emplacement and grade of the auriferous mineralization. At both regional and local scales a favoured NNW-SSE orientation is evidently the major directional control and this can be identified on all scales from Landsat imagery analysis to "walking the outcrop".

5. PREVIOUS EXPLORATION

The licence area was previously held as E.L. 24/82 by Oceania Tasmania but very little exploration has been carried out or at least reported. Their work appeared to be limited to minor rock chip and soil sampling around the old workings but no systematic work is evident.

Union Corporation (Aust) Pty. Ltd. carried out some stream sediment sampling within E.L. 21/80 during 1981 but apparently analysed the samples for Sn, W, Mo, Cu, Pb, Zn only.

Texins Development Pty. Ltd. through Geophoto Resources Consultants also completed a stream sediment survey with some follow up rock chip and soil sampling.

Other recorded work within the area relates to the initial mining activity surrounding the Hogans Track or Brilliant Creek Goldfields viz.

"Report on the Queen of the Earth Gold Mine and Neighbourhood",
by W.H. Twelvetrees, 1900.

"Report on Gold Mines near Hogans Track". by W.H. Twelvetrees,
1899.

"Notes on the Trafalgar Leases - Upper Scamander District". by
Q.J. Henderson, 1935.

"Report on the Geological Survey of the Country between
Scamander and Mathinna". by Q.J. Henderson, 1939.

Un-named Report by Q.J. Henderson, 1935.

Exploration completed by Billiton from 1989-90 has
included rock chip sampling, stream sediment sampling and
initial reconnaissance around the area of the Brilliant Creek
Goldfield.

During the 1990-91 year of tenure a programme of stream
sediment sampling, costeaning, gridding, geological mapping and
soil sampling was completed. In addition, a research grant to
the University of Tasmania enabled work to be completed to
attempt to understand the local structural and geochemical
controls on mineralization. A geological consultant with
experience in thermal aureole gold mineralization was also
engaged to carry out a brief regional study.

6. MINERALIZATION

Within the tenement, several groups of workings occur that were prospected during the turn of the century for gold. The location of these workings is shown in Fig. 2 and comments pertaining to each are presented below.

The New Carthage-Trafalgar workings occupy an area of 200m x 120m and are located on the margin of and within a granodiorite plug. They occur on the crest and flanks of a north-south trending ridge and are typified by numerous small pits with larger shafts and small costeans. One adit of 25m length has been dug. The Trafalgar workings consist of 3 shafts only and although reasonably large, no access ways are evident.

Where observed the mineralization style is characterized by thin (5-10cm) quartz lodes of variable orientation but it is apparent from the distribution of pits and costeans that the style is overall one of broad anastomosing quartz veins in a stockwork pattern.

The Queen of the Earth workings are dominated by extensive exploitation of a 0.5m wide quartz vein over a strike length of 70-80m. Underground examination was not possible to any great degree both due to blockages in the main adit and unsafe stopes. These workings are located 1.5km south of the Trafalgar-New Carthage occurrences and are interpreted to be structurally related. On Golden Ridge itself, numerous small pits occur and these line up with the named workings.

Along the crest of Golden Ridge are situated 3 groups of workings, viz. Golden Ridge, New Golden Ridge and Brilliant. Between these workings are scattered numerous small pits over an area of 1.5km x 200m. Examination of material from these pits indicated the presence of a fine anastomosing quartz veinlet system within Mathinna Beds micaceous silts and sands.

The Golden Ridge workings themselves are centred on this area of scattered pits and consist of a single shaft and several costeans.

The New Golden Ridge and Brilliant workings occur along the same structural feature and are separated by a distance of 150m. At New Golden Ridge, two subparallel quartz veins (5-7cm width) are separated by 20m of sandy sediments that show a variable content of fine quartz veinlets in a stockwork arrangement. Evidence of mineralization occurs over a strike length of 70m.

The Brilliant workings consist of 2 adits that enable access to a ballroom of dimensions 26m x 15m. Numerous small headings have been developed with the aim of following thin ferruginous shears some of which contain thin quartz veinlets. The orientation of these shears is in several directions giving the impression of a wide stockwork system.

The Double Event workings were not located despite several attempts to find them amongst the thick scrub.

7. EXPLORATION COMPLETED 1991-92

Within the joint venture exploration focused mainly on ML 43M/88, a mining lease covering the New Carthage, Trafalgar and Queen of the Earth workings. Results of this work are not included in this report.

Exploration completed within E.L. 58/88 has included:

- Rehabilitation: all costeans constructed during the last year of tenure have been back filled and top soil, vegetation replaced. (See Plates 1-4, Fig. 3).
- C.O.D.E.S. Research: minor additional work has been completed by the research team and documented in a report (see Appendix 1).
- Honours thesis: a graduate student, Stuart Capp, has completed a study of the geochemical nature of the Golden Ridge Pluton and the structural setting of the Brilliant workings. His work titled, "The Geology of the Evercreech Area, North East Tasmania", is retained at the University of Tasmania.
- BLEG Stream sediment Sampling: a total of 19 stream sediment samples were collected in the Back Gully Creek area where mapping by Honours student Stuart Capp had identified a wedge of Mathinna Beds sediments separating the Golden Ridge and Pyengana Plutons. Results are presented in Appendix 2 and Figure 4.

012



PLATE 1 : Costean 1, after backfilling.



PLATE 2 : Costeans 2, 2A located along edge of Golden Ridge, after backfilling.

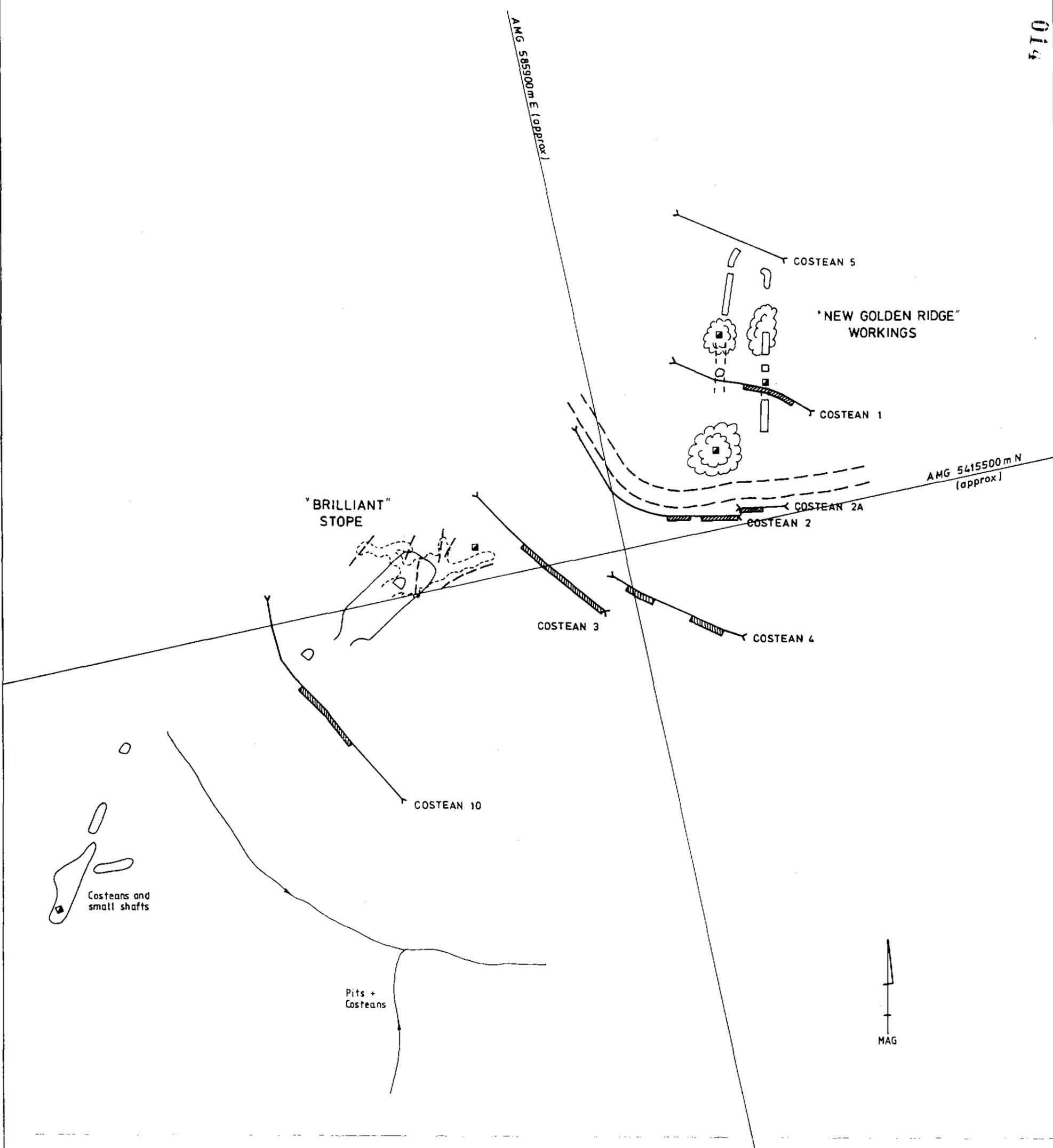
013



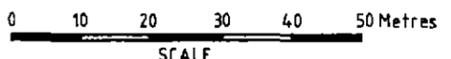
PLATE 3 : Costean 5, located on northern slope of Golden Ridge,
after backfilling.



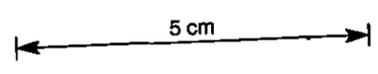
PLATE 4 : Costean 10, located south of Brilliant workings,
after backfilling.



098014



-  Zone of ferruginous ± quartz veinlets.
-  Shaft
-  Adit entrance
-  Old stope/costean



Billiton Australia <small>The Metals Division of the Shell Company of Australia Limited</small>			
Project		E. L. 58/88 GOLDEN RIDGE JV	
Title			
NEW GOLDEN RIDGE - BRILLIANT LOCATION OF COSTEANS			
Author	JPR	Date	5/90
Scale	1:1000		
Drawn	OH	Office	TAS
Revised	Date		
Drawing No.	D/LJ 30/002		Fig. No. 3

8. EXPLORATION RESULTS

8.1 C.O.D.E.S. Research

Investigations were made into the nature of an irregularly shaped magnetic anomaly located west of Hogans Road.

A line of gravity stations was acquired crossing the anomaly and modelling carried out in conjunction with aeromagnetic interpretation. This work indicated that the magnetic anomaly is caused by a dome shaped body of granodiorite of maximum thickness 1500m and minimum depth to top of 50-200m.

8.2 Honours Thesis

The following account has been taken from Stuart Capp's thesis and reflects the major conclusions from his work.

"This study of the Evercreech area was undertaken in order to geochemically characterise the Golden Ridge pluton and assess the processes operative during its emplacement. In conjunction with this, a study of the gold mineralization at the Brilliant Workings was undertaken. These studies are synthesized in order to determine controls on gold mineralization at Brilliant and to assess zones of possible economic interest within the Evercreech area. The studies were carried out using a combination of mapping and geochemical and structural analysis".

"The Golden Ridge pluton is a chemically homogeneous body which has an areal extent of at least 24 km². The pluton extends from the Trafalgar mine in the east, to Back Gully Creek in the west. The western Margin of the Golden Ridge pluton shows a faulted contact with a septum of Mathinna Beds 1km wide which separates it from the Pyengana Pluton to the west. Its northern extent is largely undefined, and hence its contact relationship to the Poimena Pluton to the north is poorly understood. The Golden Ridge pluton shows a discordant contact with the Mathinna Beds to the south and east. The Golden Ridge pluton is chemically distinct from the Pyengana and Poimena Plutons.

The Golden Ridge pluton was emplaced at a depth of 3-5km into tightly folded (D₁) Mathinna Beds. Emplacement was a combination of forceful and passive processes. The first stage of emplacement was of largely diapiric nature which produced conformable deformation of the Mathinna Beds (D₂). The second stage of emplacement took place via the stoping of large quantities of the Mathinna Beds truncating the F₁ fold hinges.

Joints opened during thermal contraction of the Golden Ridge pluton were intruded by diorite dykes, followed by aplite and spessartine-garnet bearing aplites, which also intruded the Mathinna Beds on the southern margin of the pluton. Crystallisation of the Golden Ridge pluton was followed by faulting. The faults have wide fracture zones and trend to

025°, and are suggested to act as the dominant control on joint orientations throughout the area. These faults acted as conduits to hydrothermal fluids which stripped base metals from the western portion of the Golden Ridge pluton depositing them in intensely altered zones dominated by chlorite sericite alteration.

Gold mineralization at the Brilliant Workings is hosted within the contact hornfels aureole of the Golden Ridge pluton. The mineralization is comprised of a combination of fault hosted discontinuous high-grade quartz veins surrounded by a diffuse halo of low-grade gold mineralization. Gold grades in the halo surrounding the high-grade quartz veins are proposed to be controlled by the primary chemical variations of the Mathinna Beds. Mineralized quartz veins have an average trend to 025° and are closely associated with zones of intense fracturing and faults. Unmineralized quartz veins crosscut D₂ folds and trend to 345°. The temporal relationship between the mineralized and unmineralized veins is unknown.

The relationship of mineralization to the Golden Ridge pluton and the Hogans Road anomaly is unclear. If the mineralization is genetically associated with the Golden Ridge pluton then it represents mineralization in the marginal hornfels of a partially eroded granite.

If mineralization is genetically linked to the Hogans Road anomaly and the proposal of Roach (1991) (that it represents a granodioritic body which intrudes the Golden Ridge pluton) is correct then the Brilliant Workings represent mineralization in the roof of a subsurface intrusion. This would increase the prospectivity of a large area to the south and southwest which is also interpreted to be underlain by the same material (Roach, 1991).

These models may be tested by extending the magnetics coverage east along Golden Ridge, to investigate the behaviour of the Hogans Road anomaly beneath the workings and drilling to intersect the material causing Hogans Road anomaly".

8.3 BLEG Stream Sediment Sampling

Results of the small survey completed within the septum of the Pyengana and Golden Ridge Plutons were not highly anomalous, the maximum value being 1.75ppb Au. However, there is some evidence to suggest a higher than background regime at Back Gully Creek. Stuart Capp reported minor quartz veining in this area which may account for the slightly elevated values.

9. CONCLUSIONS

Whilst field activity within the licence area has been limited, the research work completed has confirmed the regional prospectivity of the Golden Ridge area. In particular, the Brilliant area is notable for the development of a fine stockwork of auriferous veinlets surrounding subvertical quartz lodes. The economic potential of this zone is of interest in view of the current hypothesis that mineralization is in part stratabound and may extend beneath the topographic spine of Golden Ridge.

10. RECOMMENDATIONS

Confirmation of the stratabound nature of the stockwork mineralization is required and is best assessed by a traverse of angled shallow (50-70m depth) reverse circulation percussion drill holes. Initially a single traverse of 5-10 holes along the Golden Ridge track is recommended.

APPENDIX 1

Hogans Road Magnetic Anomaly Interpretation
and Modelling

by

M. Roach, C.O.D.E.S. Key Centre

Hogans Road Magnetic Anomaly Interpretation and Modelling

M.J.Roach - 15/1/91

Centre For Ore Deposits and Exploration Studies

1. Introduction

The irregularly shaped magnetic anomaly which occurs just to the west of Hogans Road is inferred to result from a subsurface body of granodiorite with a composition and mineralogy similar to the Pyengana Granodiorite (Figure 1). Detailed two dimensional gravity and magnetic modelling indicates that the granodiorite is present within 200 metres of the surface near the anomaly maximum at 583600mE 415000mN A.M.G..

2. Data

Gravity

A line of gravity stations was acquired, crossing the anomaly from west to east, as shown in Figure 1. Station spacing was variable, ranging from 200 to 1000 metres. This data is somewhat erratic due primarily to steep topography and the lack of barometric control points, however a general trend, increasing to the west is apparent.

Magnetics

The magnetics data used for modelling comes from the Tasmanian Department of Resources and Energy, Mathinna - Alberton aeromag survey. This survey was flown as an imperfect drape over the topography. In the study area, terrain clearance ranged from approximately 120m to in excess of 200m with a mean of around 150m.

Raw magnetic data, sampled directly from the grid supplied by the Department of Resources and Energy, was used for all modelling. A terrain clearance of 150m has been used for all models. Variations in terrain clearance may be the cause of some minor perturbations in the field however over most of the area in question the effect of these variations is thought to be small.

Models were constructed for five east-west profiles across the anomaly (Figure 1). These were located at 414000mN, 414500mN, 415000mN, 415500mN and 416000mN.

3. Physical Properties

Measured physical properties for all the major rock units in the Hogans Rd area are shown below:

	Density (t/m ³)	Susceptibility (x10 ⁻³ SI)
Poimena pluton (northern end)	2.60	0.03
Poimena pluton (southern end)	2.70	0.15
Pyengana pluton	2.75	5.00
Mathinna Beds (see note below)	2.50 - 2.72	0.05 - 0.25

The density of the Mathinna Beds, as measured from surface samples is highly variable and almost always less than 2.70t/m³ and sometimes as low as 2.50t/m³. Gravimetrically however the Mathinna Beds show a positive

contrast with respect to granodioritic units with densities of 2.70t/m^3 and little or no contrast with units with densities of 2.75t/m^3 . Mathinna Beds units as a whole must thus have an effective bulk density of approximately 2.75t/m^3 .

The table above clearly shows that the only strongly magnetic unit in the Hogans Rd area is the Pyengana granodiorite. It is assumed that the Hogans Rd anomaly results from a subsurface body with a composition and mineralogy similar to the Pyengana. The physical properties for the Pyengana granodiorite have been used in modelling the Hogans Rd anomaly.

4. Modelling

Gravity and magnetic anomalies have been matched using a forward modelling approach, employing the method of Talwani (Geophysics, 1960).

Gravity

The first thing that is apparent when attempting to fit a model to the residual bouguer anomaly profile is that the anomaly values are all highly negative (-10 to -17mGal). This immediately implies some constraints on the combined thickness of the relatively dense Mathinna beds and granodiorite. It also implies that the entire Hogans Rd area is underlain, at no great depth, by low density granite. It is not possible gravimetrically to distinguish between the Mathinna Beds and the granodiorite as they both have the same density (2.75t/m^3).

Figure 2 shows a gravity model fitted to the observed data, it indicates a gradually thickening package of Mathinna Beds and granodiorite, moving to the west. In the region covered by the magnetic profiles, the depth to the base of the dense package ranges from 1500m in the east to 2000m in the west. This information has been used to provide a constraint on the depth to the base of the granodiorite for magnetic models.

Magnetics

Calculated models for the five east - west profiles are shown in figures 3 to 10. The nature of the anomaly in all cases implies a sheet-like source. The minimum calculated depth to the top of the granodiorite for each profile is listed below:

414000mN	470m	(Figure 3)
414500mN	170m	(Figure 4)
415000mN	105m	(Figures 5 & 6)
415500mN	260m	(Figures 7 & 8)
416000mN	230m	(Figures 9 & 10)

The fit between observed and calculated anomalies is good for the main portion of the anomaly in each case, however a degree of misfit is apparent towards the centre of the profile in some cases (Figures 3 & 4). It is difficult to account for these discrepancies without radical, geologically unreasonable, alterations to the geometry of the granodiorite body. Relatively simple geometries only have been considered.

On the three northern profiles, 415000mN, 415500mN and 416000mN, there is a second, smaller amplitude anomaly to the west of the main anomaly. This corresponds to the roughly oval shaped feature at 581900mE 415000mN in Figure 1. Models were constructed initially ignoring this anomaly (Figures 5, 7 & 9) and then attempting to fit it using additional granodiorite (Figures 6, 8 & 10). It is necessary to infer a dyke-like geometry in order to satisfactorily match this anomaly using additional granodiorite.

Figure 11 shows a sensitivity diagram for the profile at 415000mN , which

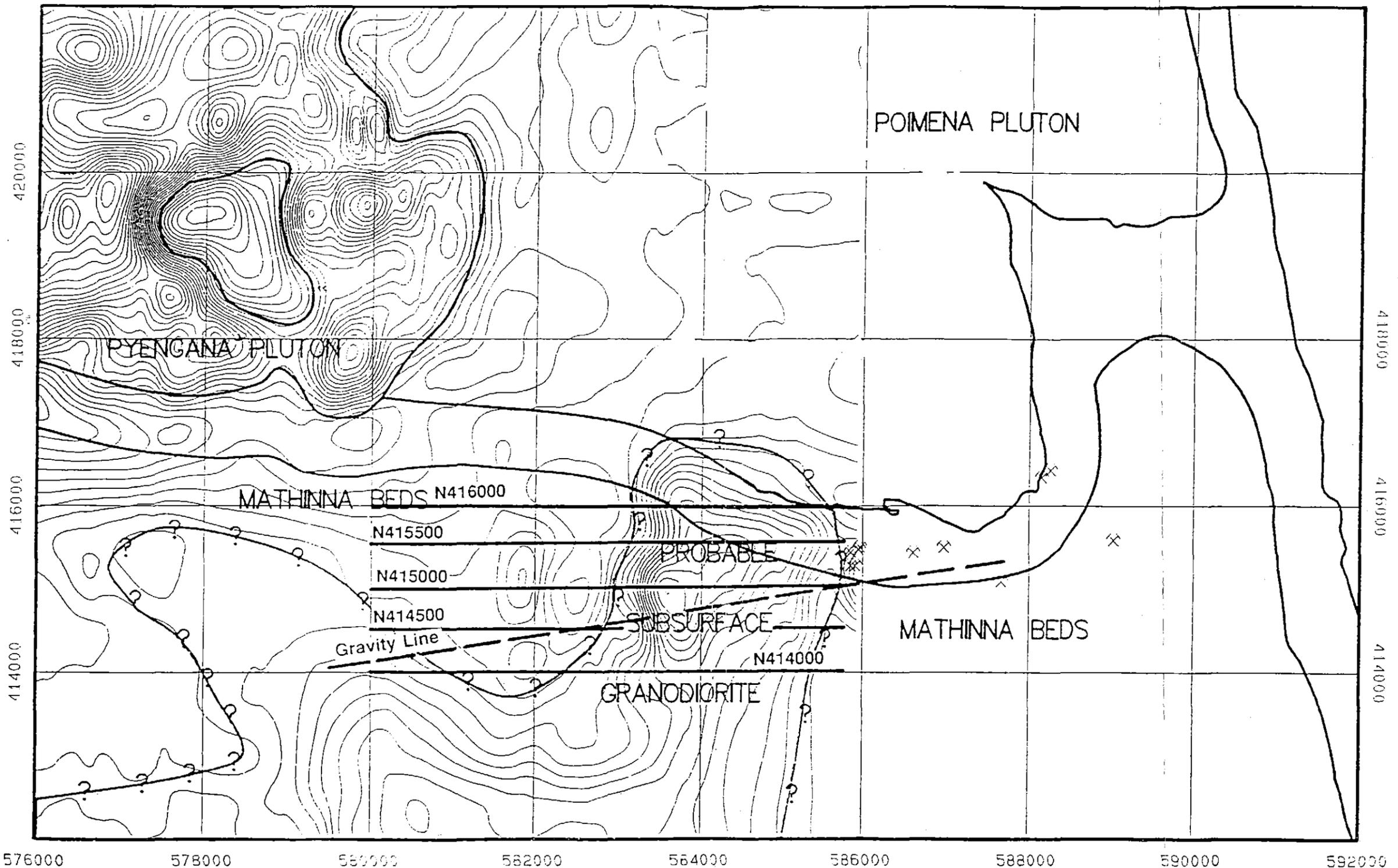
passes through the maximum of the anomaly. It was constructed by incrementally varying the minimum depth to the top of the granodiorite and plotting the RMS error between calculated and observed anomalies as a function of depth. The minimum in RMS error of 0.23 occurs for a depth of 108m, this value is the best estimate of the minimum depth. For a given RMS error it is also possible to assess the range of possible depths. As an example, for an RMS error of 0.28 the range is 50 to 200m. Less than 50m and greater than 200m, the RMS error increases more rapidly with changes in depth.

5. Conclusions

It is inferred that the Hogans Rd magnetic anomaly is caused by a dome-shaped body of granodiorite with properties similar to the Pyengana granodiorite. The maximum thickness of the granodiorite is approximately 1500m and it is likely to be underlain by low density granitic material. The thickness of Mathinna Beds overlying the granodiorite ranges from in excess of 500m in the south to a minimum of approximately 105m at the anomaly maximum at 415000mN. This figure is somewhat uncertain due, in part, to variations in terrain clearance and also to the inherent ambiguity associated with magnetic interpretation. Adopting a maximum RMS error of 0.28 between the calculated and observed profiles, then the minimum depth of Mathinna Beds lies in the range 50 to 200m.

The bulk of the Hogans Rd anomaly lies to the south of the mapped contact aureole surrounding the southern margin of the Poimena Pluton. It is likely however, considering the small thickness of overlying Mathinna Beds, that contact metamorphism may be apparent across much of the magnetic anomaly. This conclusion could be best tested where thickness of Mathinna beds is at a minimum and outcrop is best, in the creeks which run to the west to join Evercreech Rivulet.

It is unfortunate that the magnetic survey was not continued slightly further to the east. This would have enabled an assessment of the relationship between the granodiorite and the known gold occurrences along Golden Ridge, as shown on Figure 1. At this stage, any relationship is at best conjectural.



GOLDEN RIDGE AREA - GENERALISED GEOLOGY AND MAGNETICS - 1:50,000

Magnetics from Tas. Dept. of Mines Mathinna Alberton Survey. Contour Interval 5m

Figure 1

5430000 N

570000 E

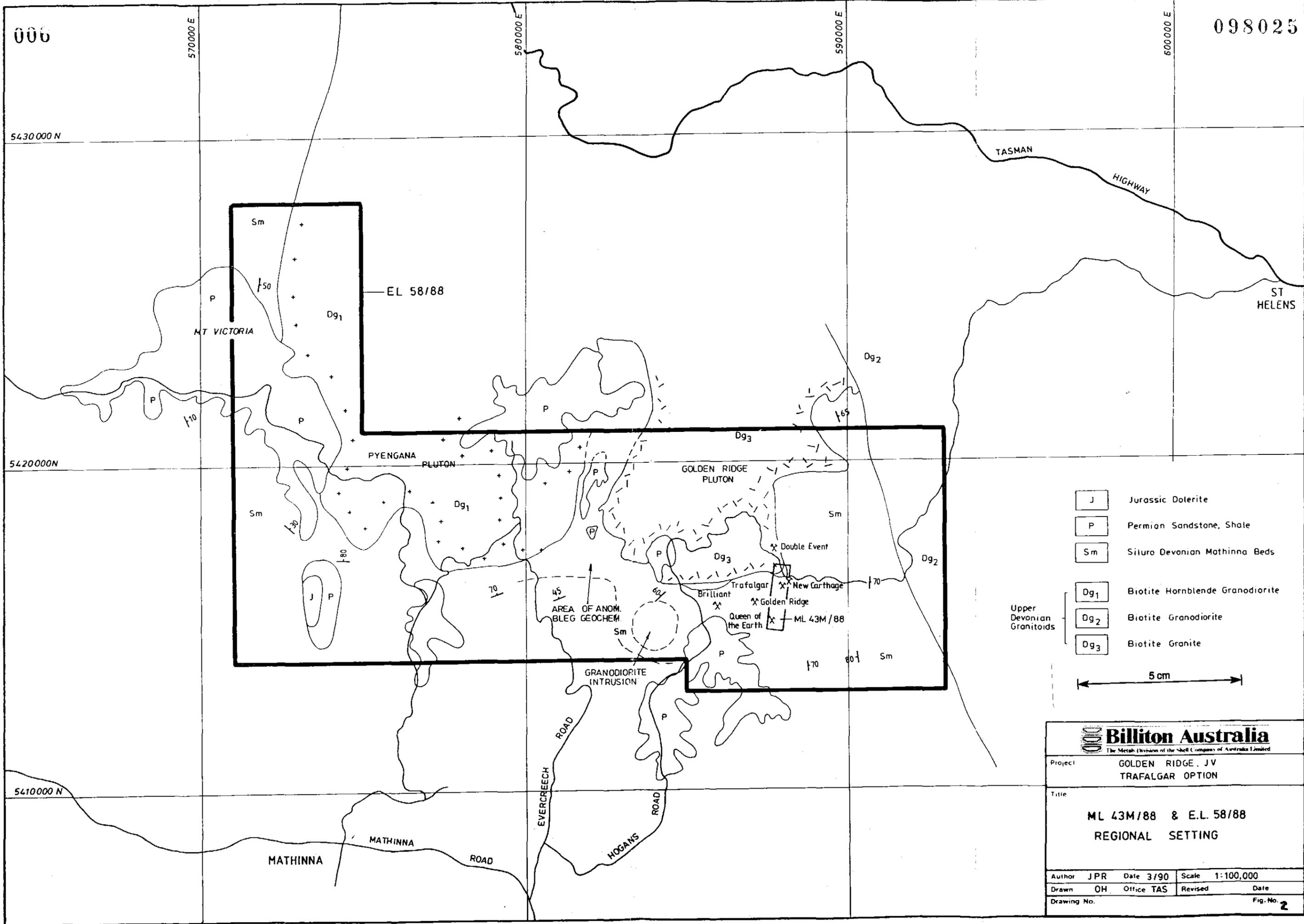
580000 E

590000 E

600000 E

5420000 N

5410000 N



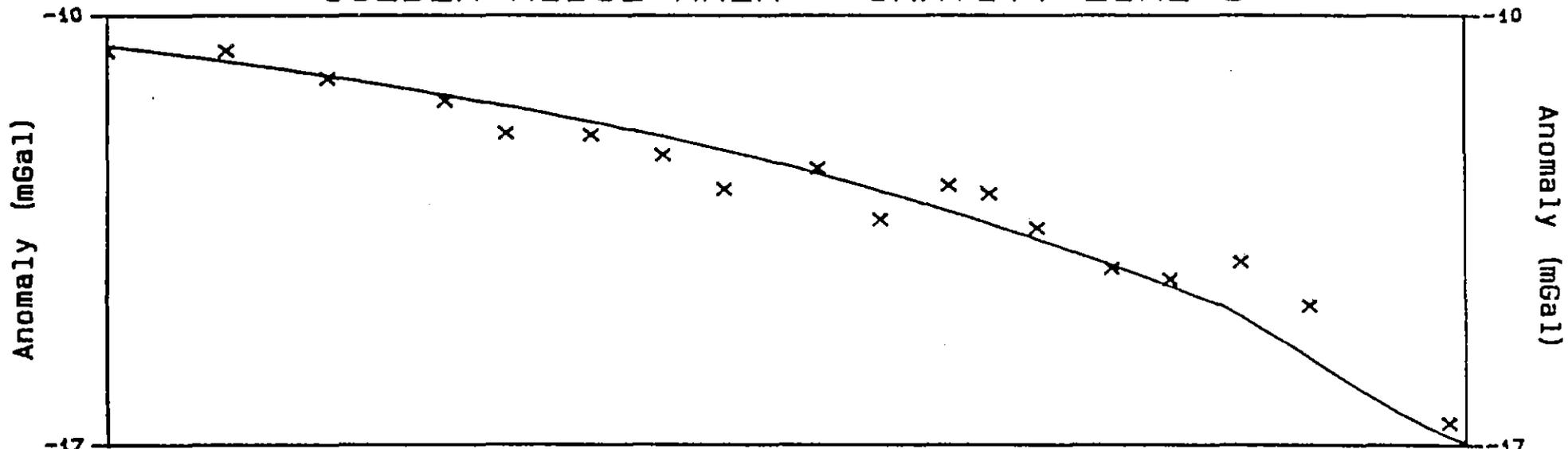
- J Jurassic Dolerite
- P Permian Sandstone, Shale
- Sm Suro Devonian Mathinna Beds
- Dg1 Biotite Hornblende Granodiorite
- Dg2 Biotite Granodiorite
- Dg3 Biotite Granite

5 cm

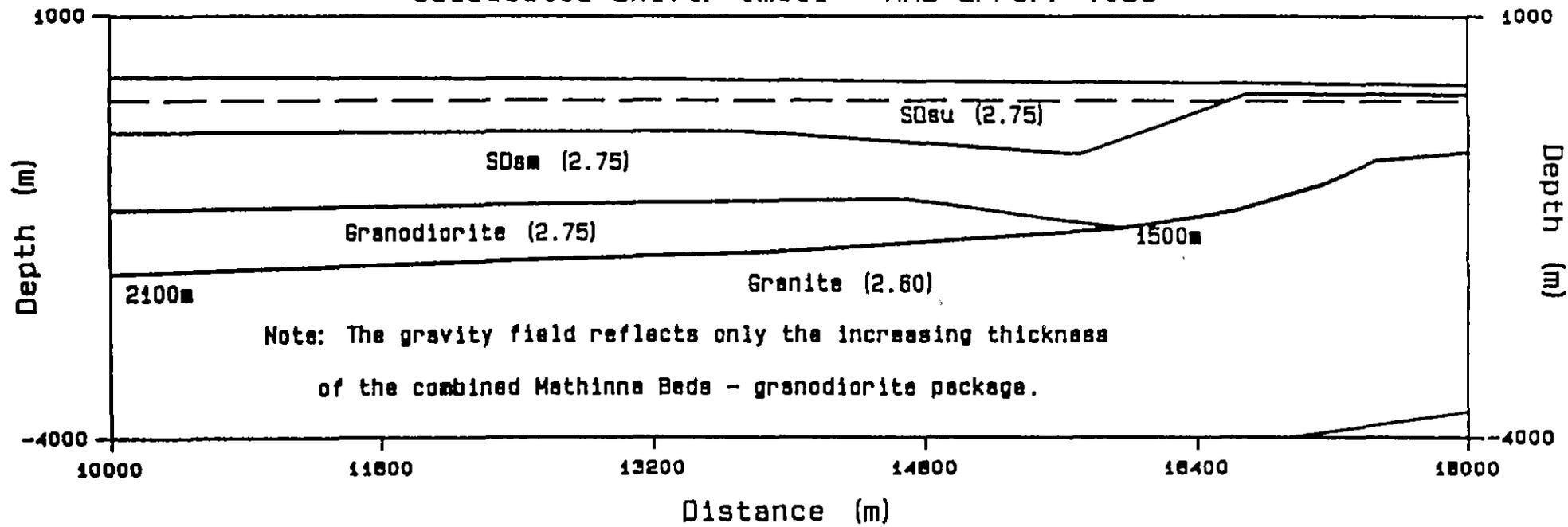
Billiton Australia <small>The Metals Division of the Shell Companies of Australia Limited</small>			
Project		GOLDEN RIDGE, JV TRAFALGAR OPTION	
Title		ML 43M/88 & E.L. 58/88 REGIONAL SETTING	
Author	JPR	Date	3/90
Scale	1:100,000		
Drawn	OH	Office	TAS
Revised	Date		
Drawing No.			Fig. No. 2

20 GRAVITY MODE_
 GOLDEN RIDGE AREA - GRAVITY LINE 3

025



Calculated Shift: 0mGal RMS Error: .096



Depth (m)

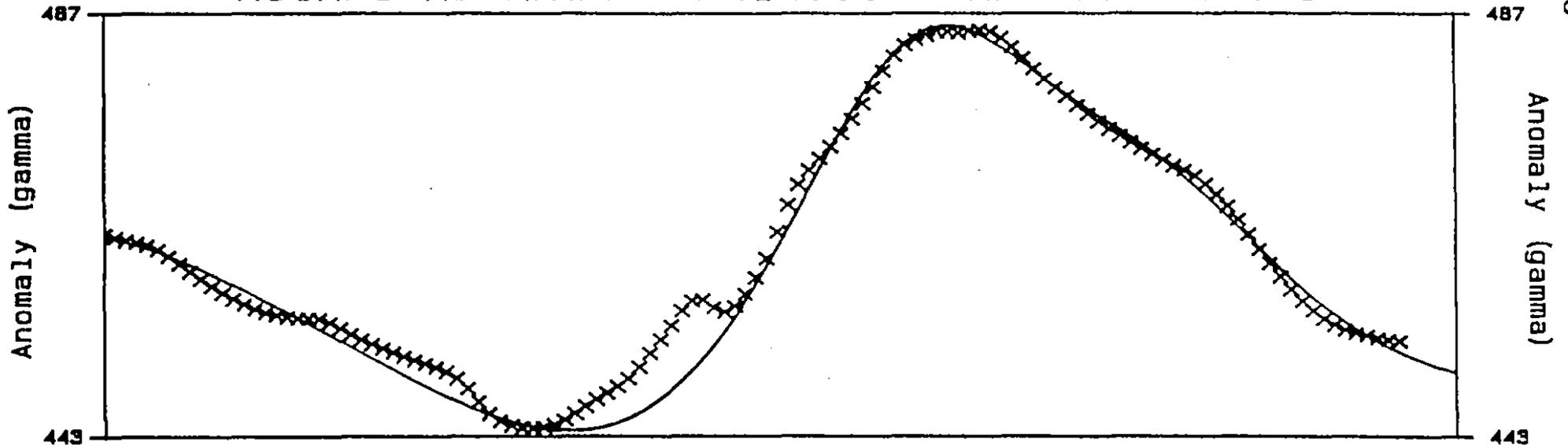
Distance (m)

098026

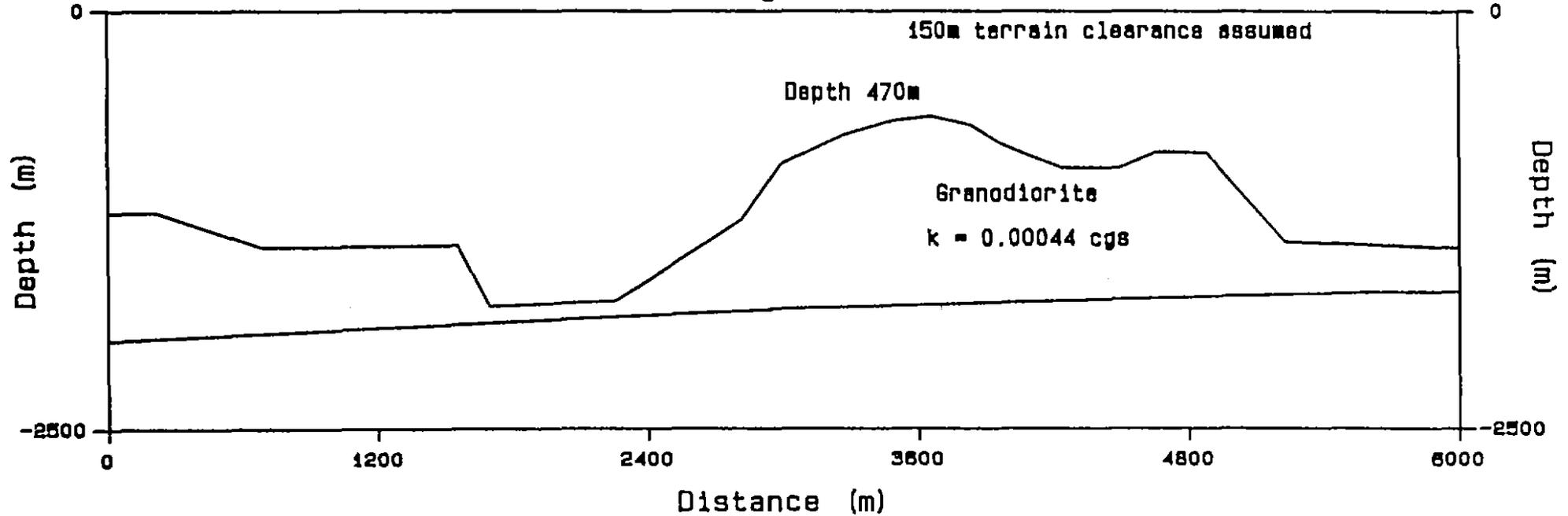
Figure 2

2D MAGNETICS MODEL

HOGANS RD AREA - N414000 - RAW MAGNETICS



Calculated Shift: 447gamma RMS Error: .176



Model File: N4140RAW.MOD Observed Data: N4140RAW.OBS Date: 01-15-1991 Time: 23:39:44

026

Anomaly (gamma)

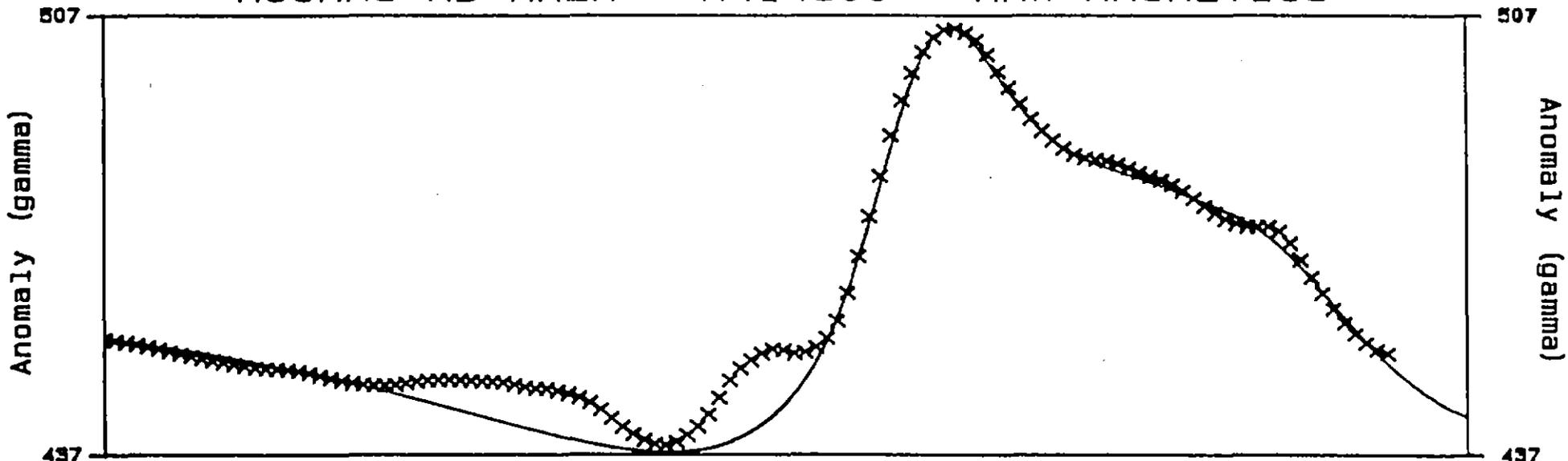
Depth (m)

098027

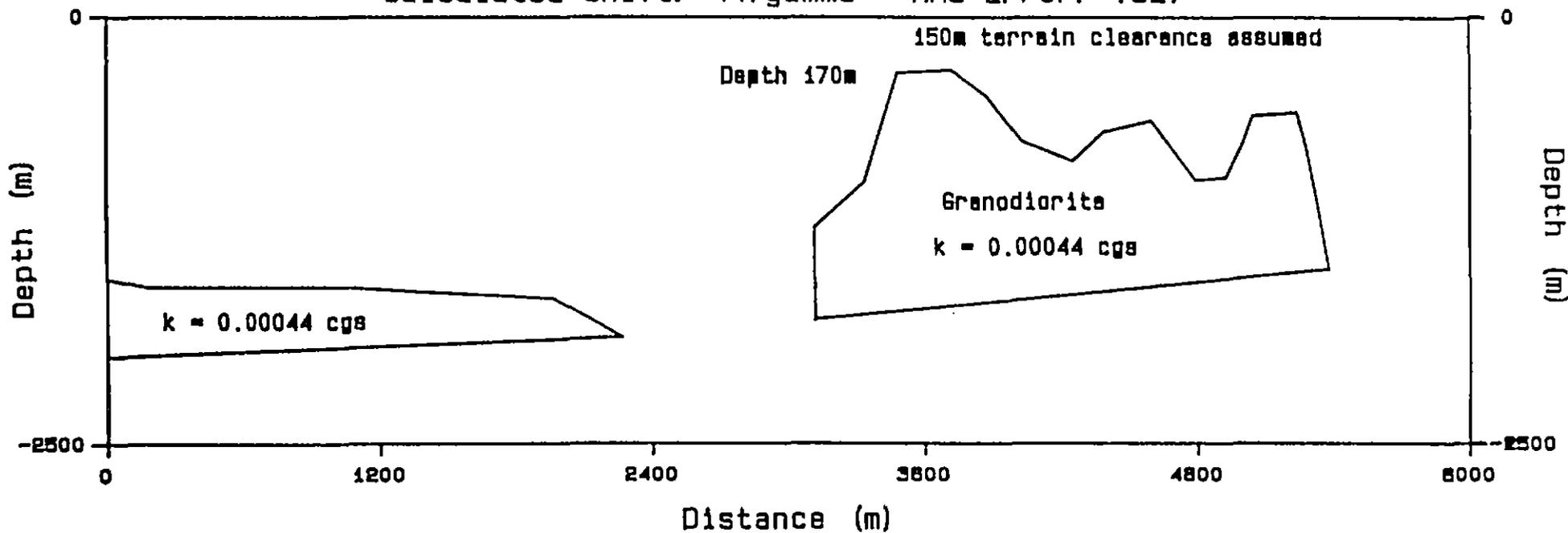
Figure 3

2D MAGNETICS MODEL

HOGANS RD AREA - N414500 - RAW MAGNETICS



Calculated Shift: 447gamma RMS Error: .327

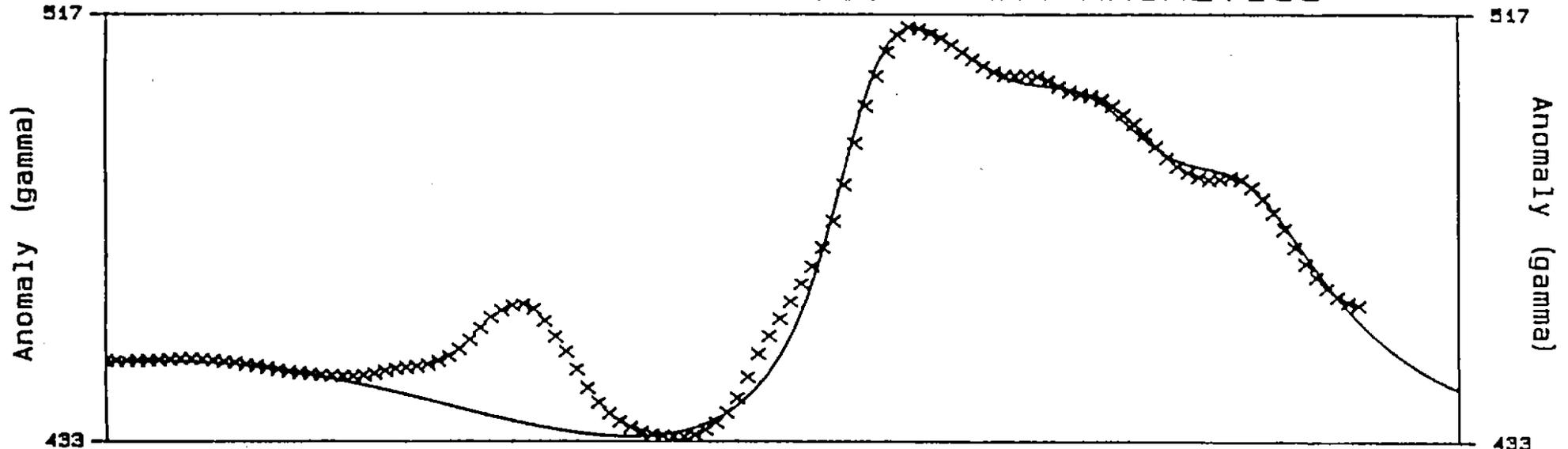


Model File: N4145RAW.MOD Observed Data: N4145RAW.OBS Date: 01-15-1991 Time: 16:19:44

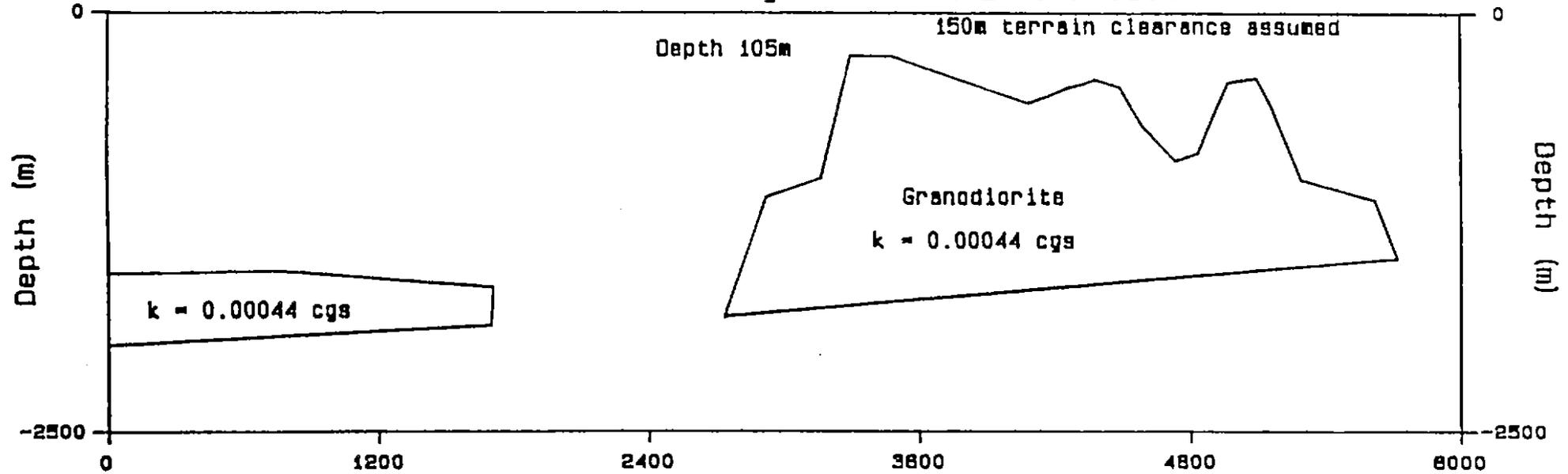
098028

2D MAGNETICS MODEL

HOGANS RD AREA - N415000 - RAW MAGNETICS



Calculated Shift: 447gamma RMS Error: .604



Model File: N4150RAW.MOD Observed Data: N4150RAW.OBS Date: 01-15-1991 Time: 10:23:17

020

Anomaly (gamma)

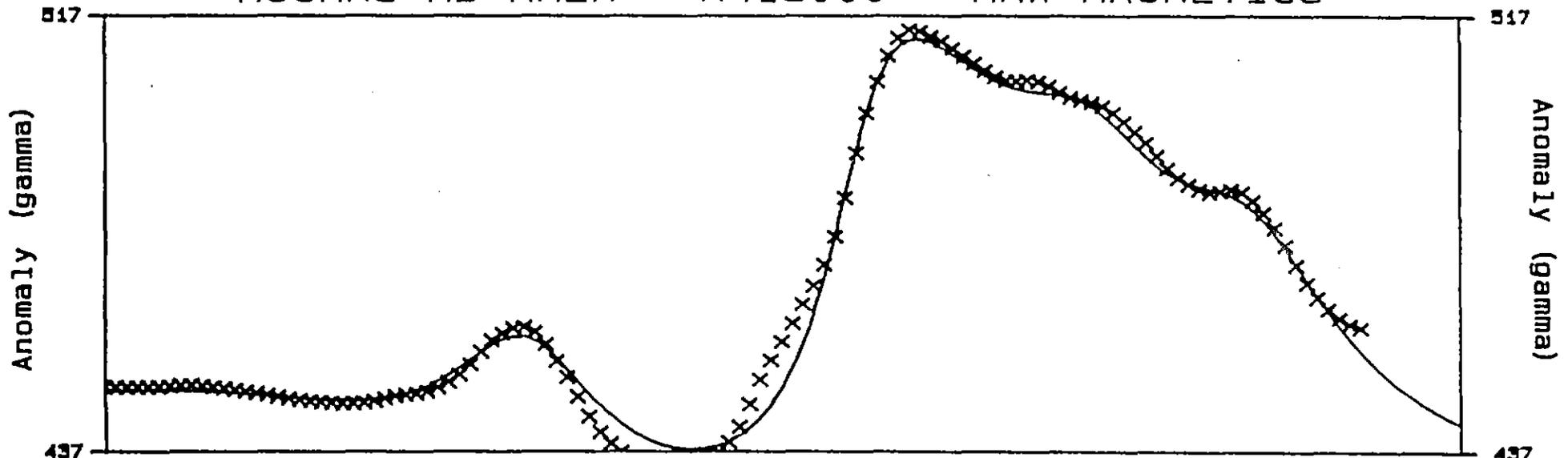
Depth (m)

098029

Figure 5

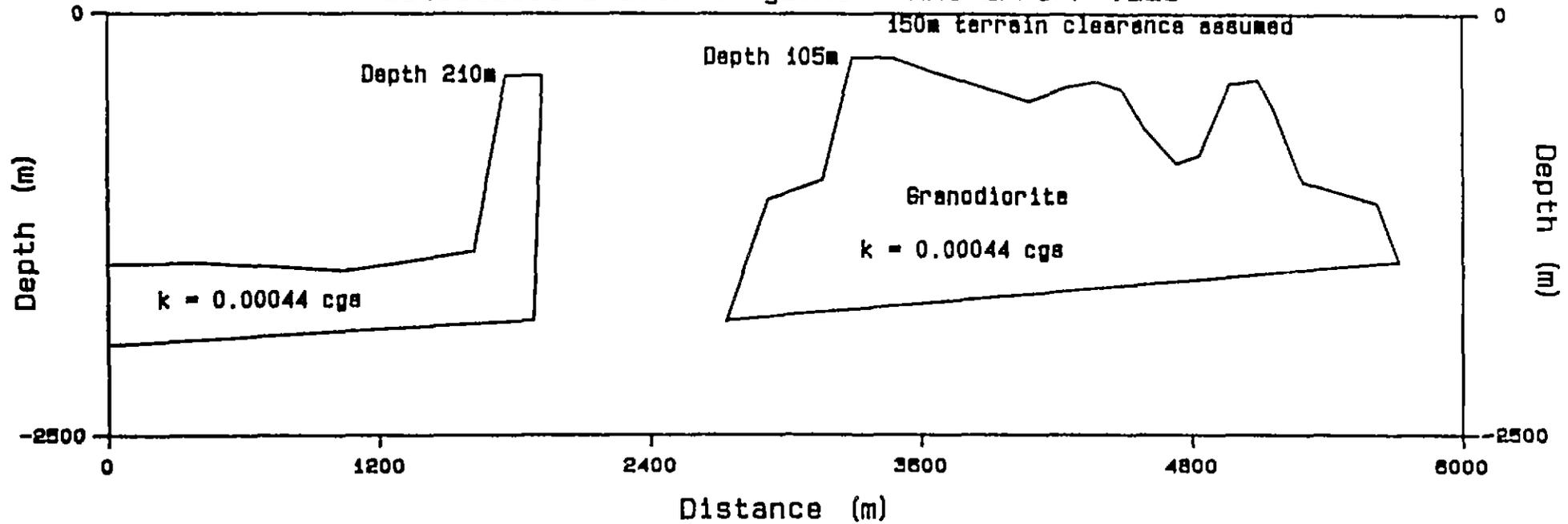
2D MAGNETICS MODEL

HOGANS RD AREA - N415000 - RAW MAGNETICS



Calculated Shift: 447gamma RMS Error: .225

150m terrain clearance assumed



Model File: N4150RAW.MOD Observed Data: N4150RAW.OBS Date: 01-15-1991 Time: 11:39:00

023

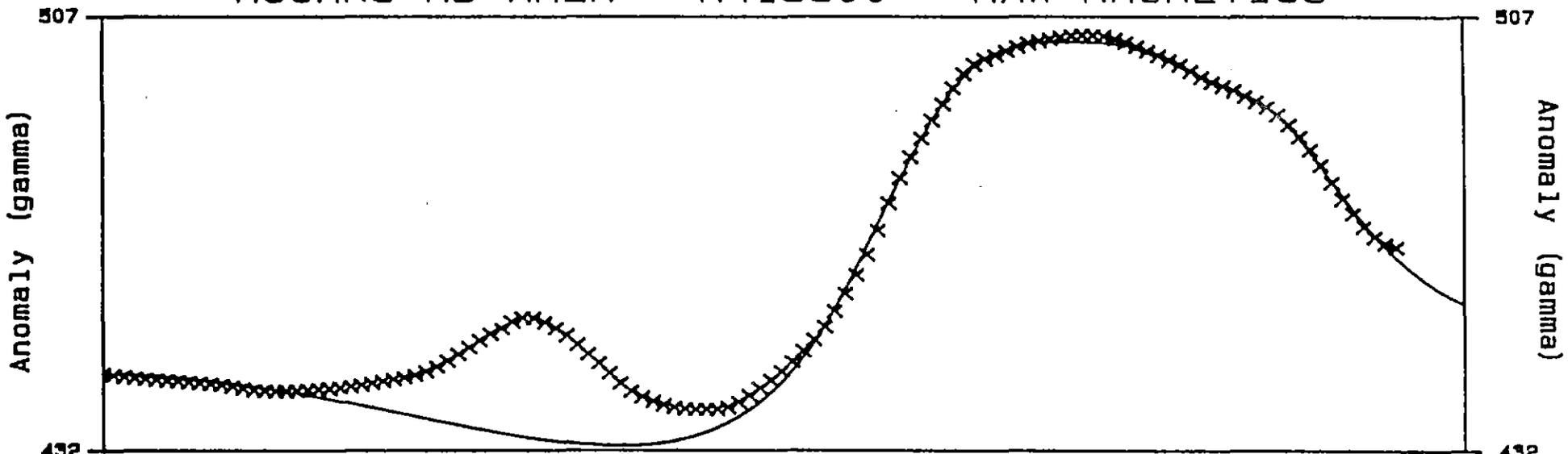
098030

Figure 6

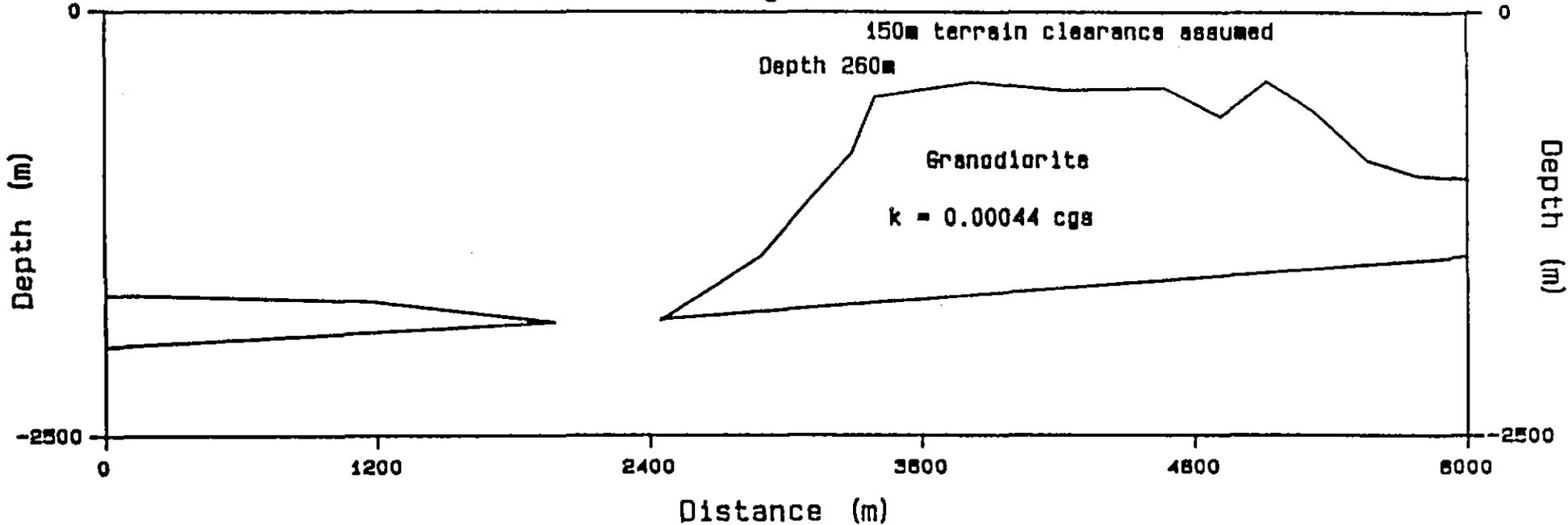
2D MAGNETICS MODEL

HOGANS RD AREA - N415500 - RAW MAGNETICS

030



Calculated Shift: 447gamma RMS Error: .622



Depth (m)

Distance (m)

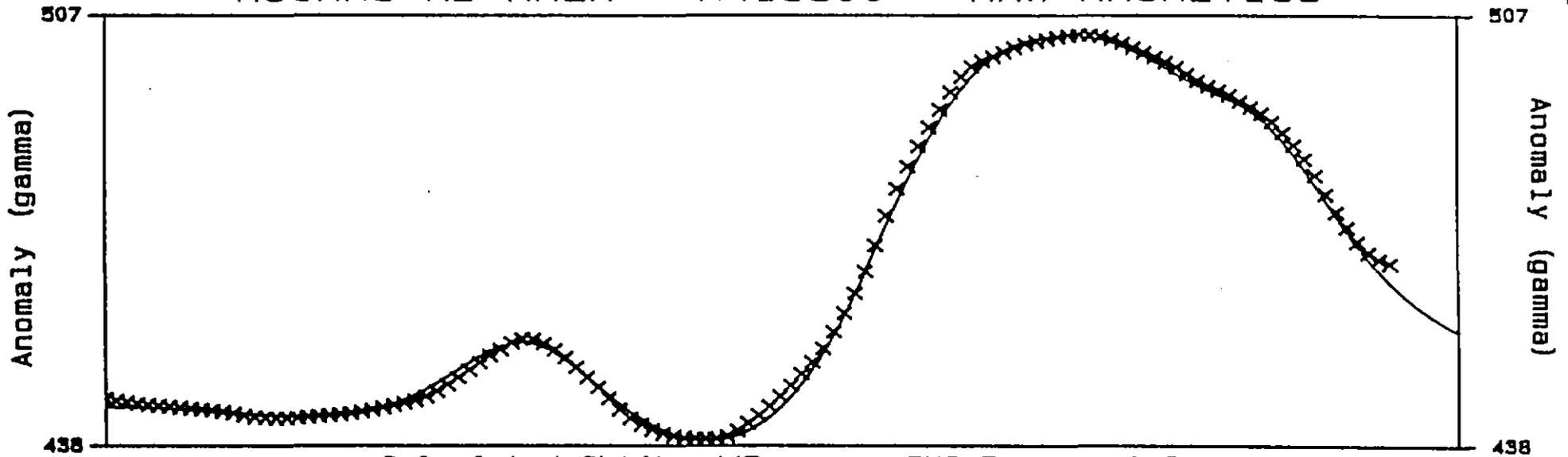
098031

Figure 7

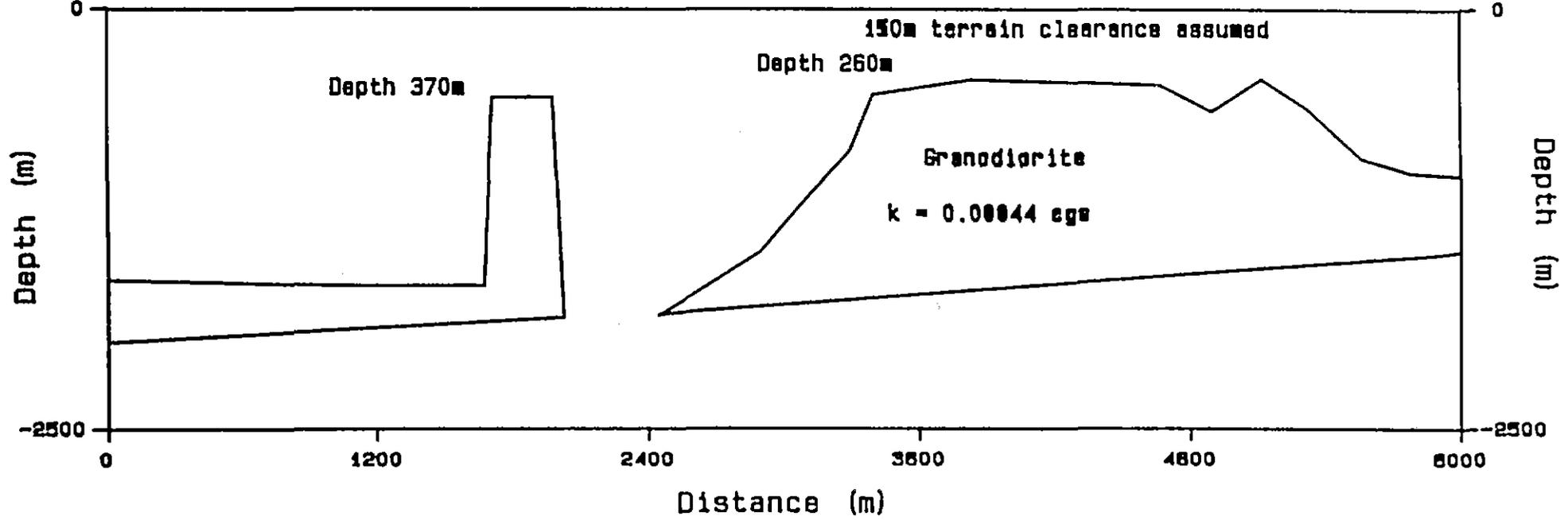
2D MAGNETICS MODEL

HOGANS RD AREA - N415500 - RAW MAGNETICS

031



Calculated Shift: 447gamma RMS Error: .087



Depth (m)

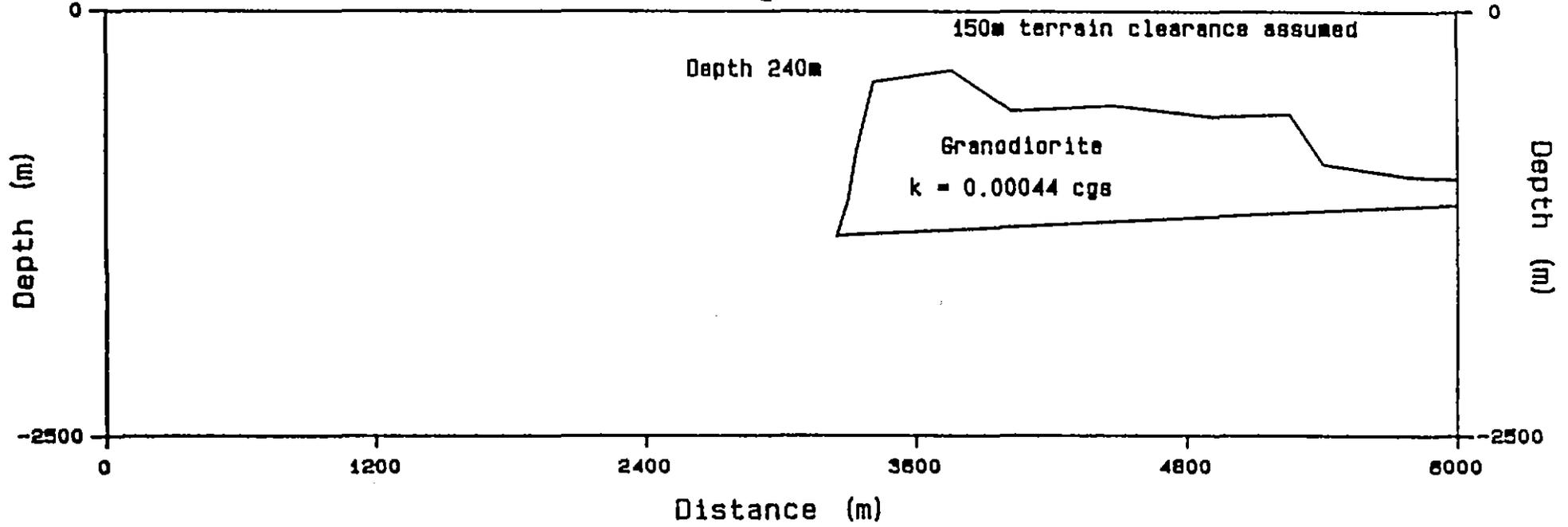
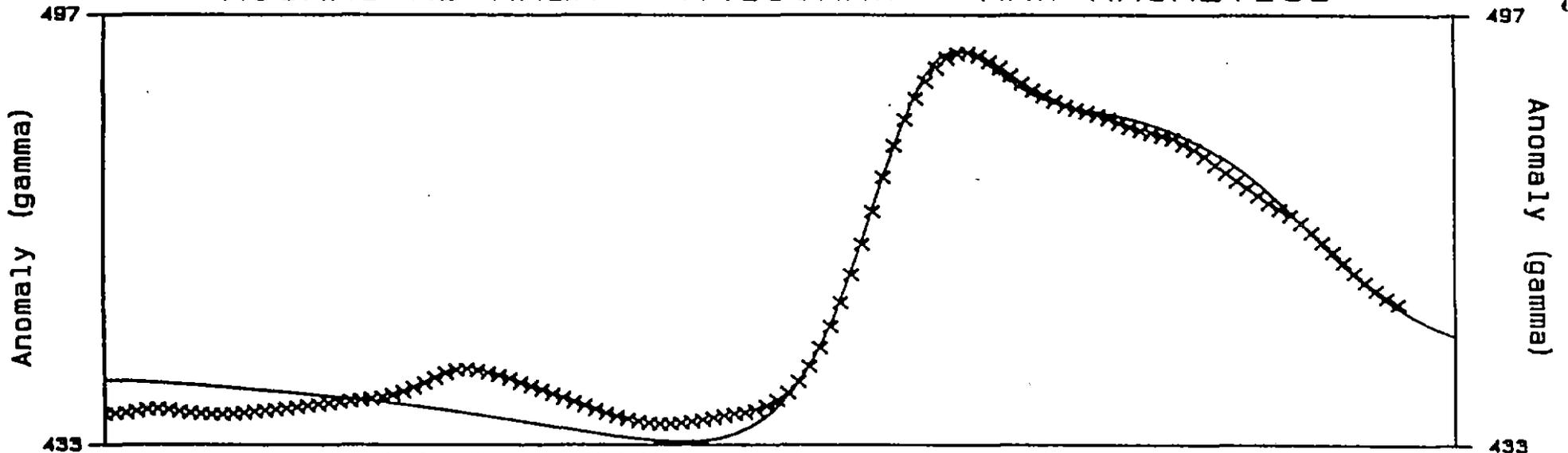
Model File: N4155RA1.MOD Observed Data: N4155RAW.OBS Date: 01-16-1991 Time: 09: 50: 02

Figure 8

098032

2D MAGNETICS MODEL

HOGANS RD AREA - N4160RAW - RAW MAGNETICS



Model File: N4160RAW.MOD Observed Data: N4160RAW.OBS Date: 01-16-1991 Time: 10:34:14

032

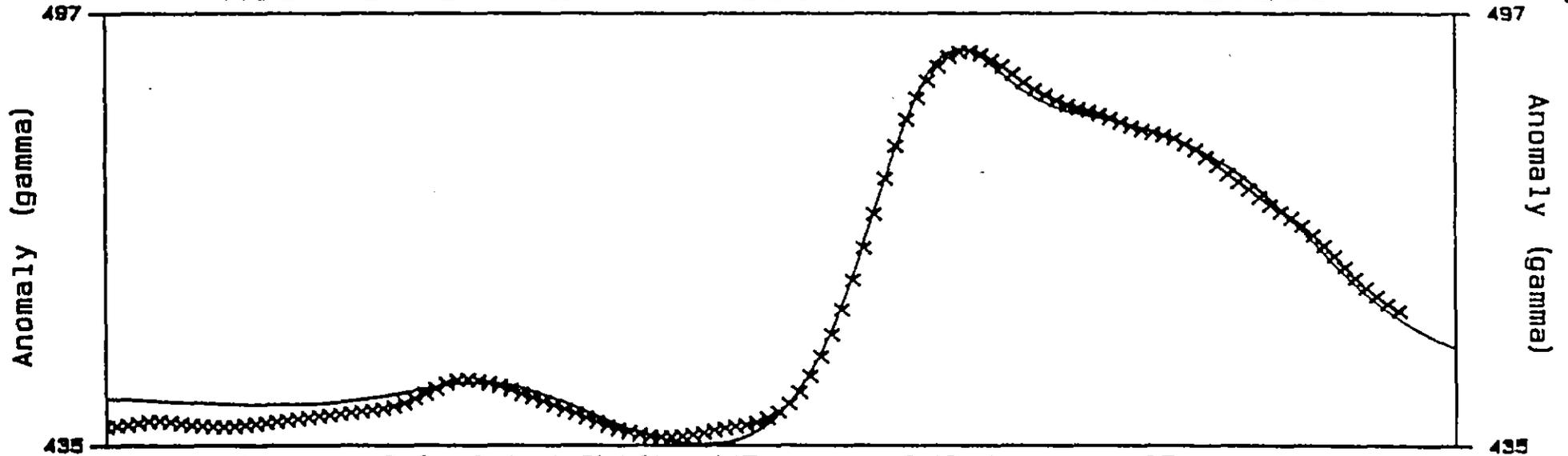
098033

Figure 9

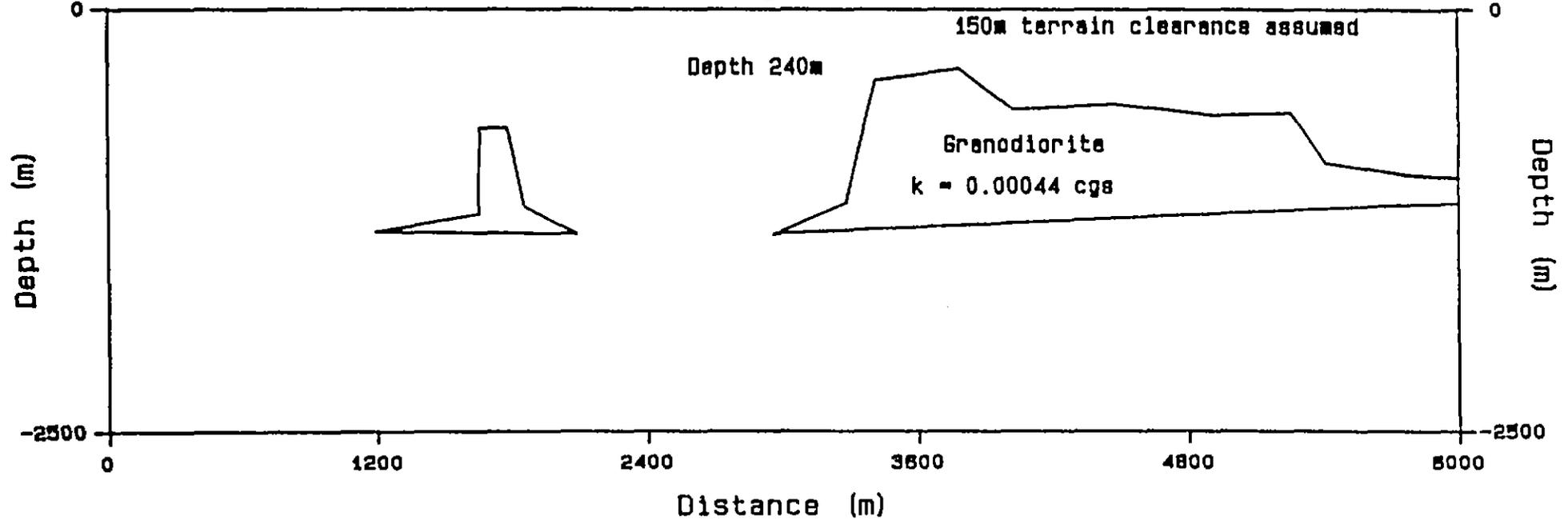
2D MAGNETICS MODEL

HOGANS RD AREA - N4160RAW - RAW MAGNETICS

035



Calculated Shift: 447gamma RMS Error: .137



Anomaly (gamma)

Depth (m)

Model File: N4160RAW.MOD Observed Data: N4160RAW.OBS Date: 01-16-1991 Time: 10:50:25

Figure 10

098034

PROFILE N415000

Sensitivity Analysis

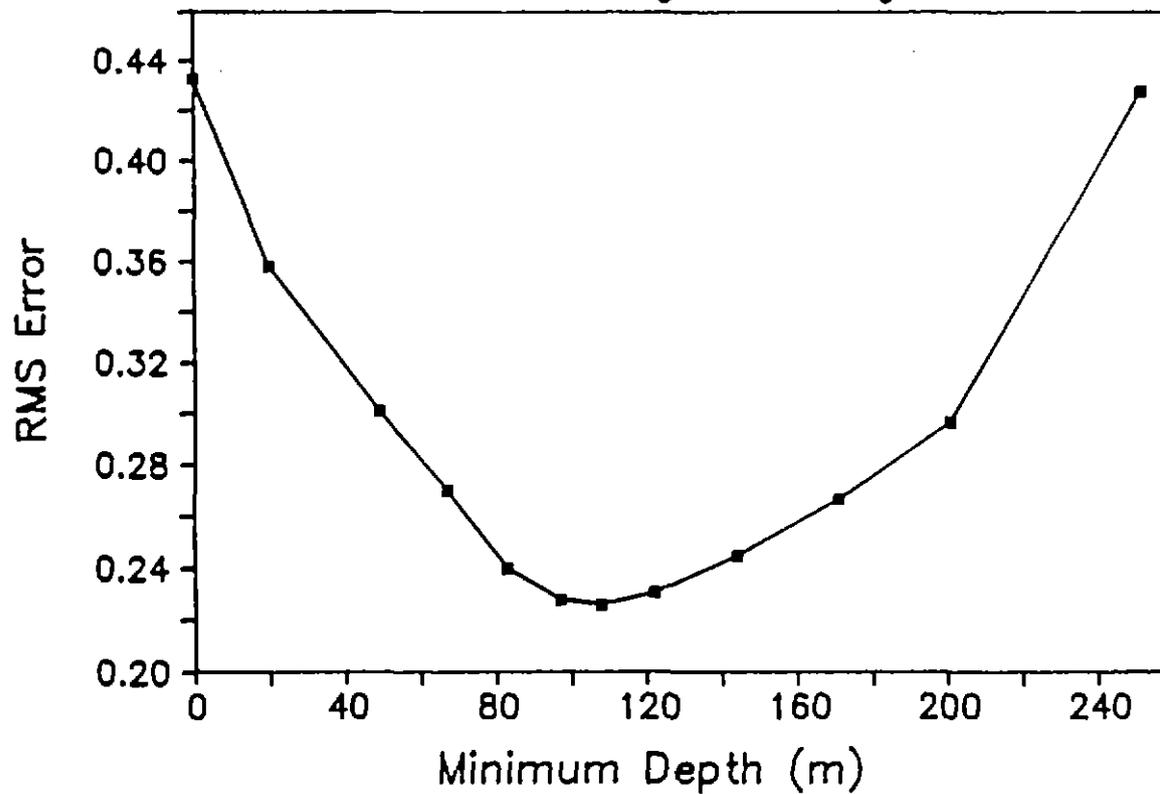


Figure 11

030

098036

APPENDIX 2

BLEG Stream Sediment Sample Results



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Mr. Jeff Randell
Billiton Australia Ltd
PO Box 860
DEVONPORT
TAS 7310

FINAL ANALYSIS REPORT

Your Order No: 11747/LJ30/JPR

Our Job Number : 1AD1947

Samples received : 05-JUL-1991

Results reported : 12-JUL-1991

No. of samples : 19

Report comprises a cover sheet and pages 1 to 1

This report relates specifically to the samples tested in so far as that the samples as supplied are truly representative of the sample source.

Note:

If you have any enquiries please contact Miss Anne Reed quoting the above job number.

Approved Signatory:

John Waters

John Waters
Technical Manager - Adelaide

Report Codes:

N.A. - Not Analysed.
L.N.R. - Listed But Not Received.
I.S. - Insufficient Sample.

Distribution Codes:

CC - Carbon Copy
EM - Electronic Media
MM - Magnetic Media

"RELIABLE ANALYSES AT COMPETITIVE COST"

037



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098038



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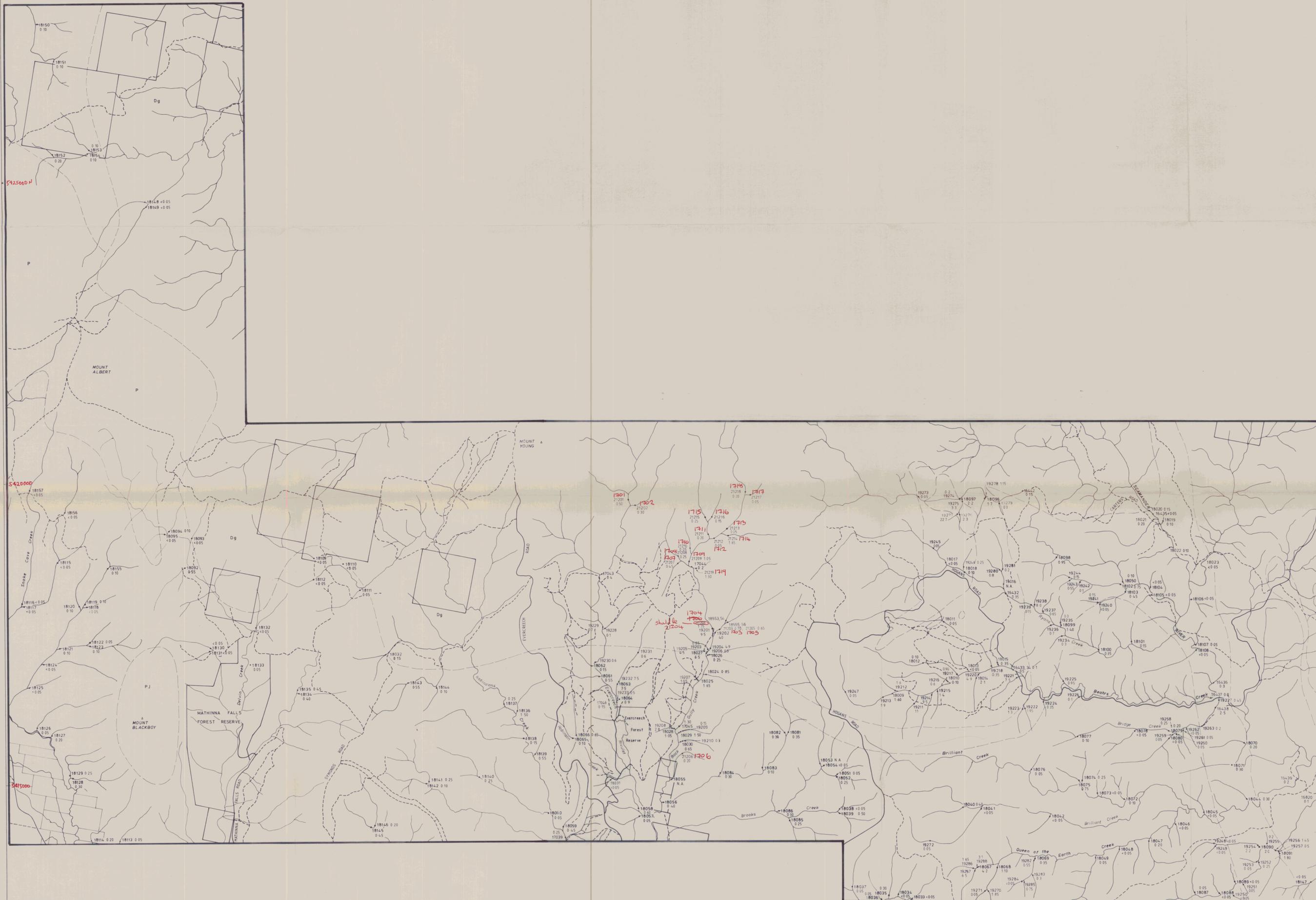
Job: 1AD1947

O/N: 11747/LJ30/JPR

ANALYTICAL REPORT

DATA BASE NO.	Sample	Au
↓		
1701	21201	0.50
2	21202	0.30
3	21203	0.70
4	21204	1.75
5	21205	0.65
6	21206	0.20
7	21207	0.45
8	21208	0.25
9	21209	1.05
1710	21210	0.05
1	21211	0.20
2	21212	0.05
3	21213	0.05
4	21214	1.65
5	21215	0.25
6	21216	0.15
7	21217	0.05
8	21218	0.20
1719	21219	1.30

Units ppb
DL 0.05
Scheme BLEG2



LEGEND

- Road/track
- Creek
- 18100 Sample number
- 0.05 BLEG Assay (ppb)
- Dg Devonian Granite
- PJ Permian Jurassic Cover

Geochemical Statistics

background < 1ppb Au
 mildly anomalous > 1.5ppb Au
 strongly anomalous > 2.5ppb Au

095039
 92-3341.

Billiton Australia
 The Metals Division of the Shell Company of Australia Limited

Project E L 58/88
 GOLDEN RIDGE JV

Title
 BLEG STREAM SEDIMENT SURVEY
 SAMPLE LOCATION
 AND ASSAY RESULTS

Author	Dept.	Scale	1: 25 000
Drawn	OH	Date	5/90
Checked	Date	Staged	Date
Sheet No.	FIG 4	Drawing No.	D/L/J 30/1007

