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TENNECO AUSTRALIA, INC.

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E.L. 44/70 - (A.R.A. Dodson)

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REPORT ON OPERATIONS FOR THE SIM
MONTHS TO NOVEMBER 3, 1972
AND PROPOSED WORK PROGRAM TO
MAY 3, 1973

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Gravity Data & Corrections -
 Black Jacks and Eden Prospects

Geophysical Profiles -
 Black Jacks and Eden Prospects

Drwg No.
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SUMMARY

Reconnaissance gravity profiles were run in the Black Jacks and Eden areas. In the Black Jacks area, there are no coinciding gravity and Turam electromagnetic anomalies. In the Eden area a poorly defined 0.2 mgal gravity anomaly coincides with a Turam electromagnetic anomaly. The value of a detailed gravity survey is still to be determined.

REPORT OF ACTIVITIES

Gravity profiles were run over electromagnetic anomalies obtained previously on Line 8S in the Black Jacks area and on Line 00E in the Eden area. The gravity survey was made as a research effort to determine what, if any, applications the gravity method might have to aid in the detection of massive sulphides in this environment.

Theoretically, an economic vertical massive sulphide zone, 50 feet wide, 400 feet in strike length, 2,000 feet in vertical depth and with its top edge 250 feet below the surface, with a density contrast of 2.0 gm/cc should cause a maximum gravity anomaly of 0.83 mgal.

The results of this survey are shown in Figure 1. The gravity observations were corrected for station elevation, drift and latitude but no terrain corrections were made. (See Appendix 1). A density of 2.80 gram/cc was used in making the corrections. Station locations were chosen to minimize terrain effects.

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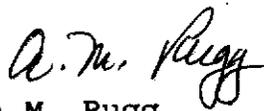
At Black Jacks, the sharp change in the level of gravity response at 2W is associated with an equally rapid change in station elevation. (See Figure 1). Therefore, it is assumed that some revision in density, at least for the hill is required. There appears to be no gravity anomaly over the flat alluvial covered area, where Turam anomalies are located from 1W to 6E.

The gravity profile at Eden was run across an alluvial covered area with a maximum elevation change of 12 feet. There appears to be a gravity gradient from north to south. A relatively large, poorly defined anomaly of approx. 0.5 mgal relief is located between two Turam anomalies at 1.5S and 5.5N. (See Figure 1). Another weak, poorly defined anomaly, 0.1 to 0.2 mgal occurs at 6N and correlates with a Turam anomaly.

The data collected so far has been partially assessed and suggests that a detailed gravity survey over alluvial covered limestone areas may be justified.

PROPOSED WORK PROGRAM

Further assessment of geochemical, geological and geophysical data is to be made in order to determine whether or not a detailed gravity survey followed by diamond drilling should be conducted over the alluvial covered limestone areas. At this time it still appears to be a very marginal type of exploration in view of the deposits found in limestone in the area, such as at the Oceana Mine.


A.M. Rugg
Managing Director
TENNECO AUSTRALIA, INC.

November 1, 1972

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REGISTERED OFFICE:
8th FLOOR,
A.M.P. BUILDING,
ELIZABETH STREET,
HOBART.

JEDS PTY. LTD.

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GEOPHYSICAL AND EXPLORATION CONSULTANTS

28 SEP 1972

PLEASE ADDRESS ALL CORRESPONDENCE TO:

~~100 GORDON AVENUE,~~
~~TASMANIA~~
~~7000~~
~~7 Hampden Road~~
7 Hampden Road
Battery Point
Tasmania 7000
Phone 231177

26th September, 1972.

Mr. A.M. Rugg,
Managing Director,
Tenneco Australia Inc.,
P.O. Box 484,
North Sydney N.S.W. 2060

Dear Mr. Rugg,

Please find enclosed all field documents and calculations associated with the gravity survey at Black Jacks and Eden requested by you on 12th September.

As you did not request a formal report I assume you only require the data enclosed. A report can be forwarded if required. The density used for Bouguer anomaly calculations is 2.80 gm/cc. The average density of the Gordon Limestone is 2.72 gm/cc and I recalculated a few corrections. There is no significant difference, consequently I did not complete this.

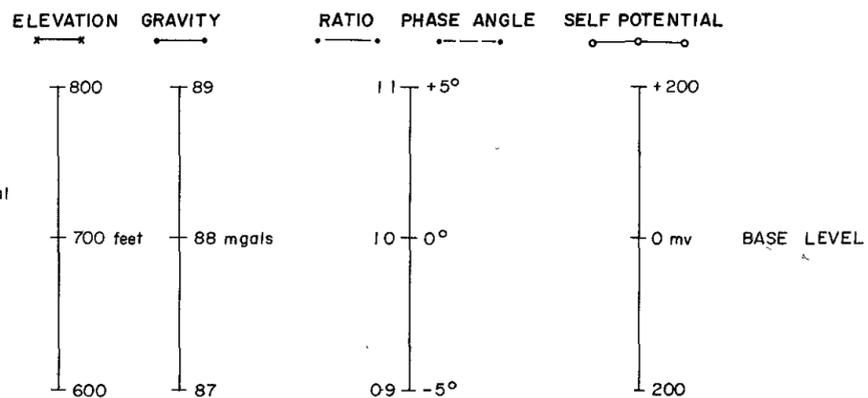
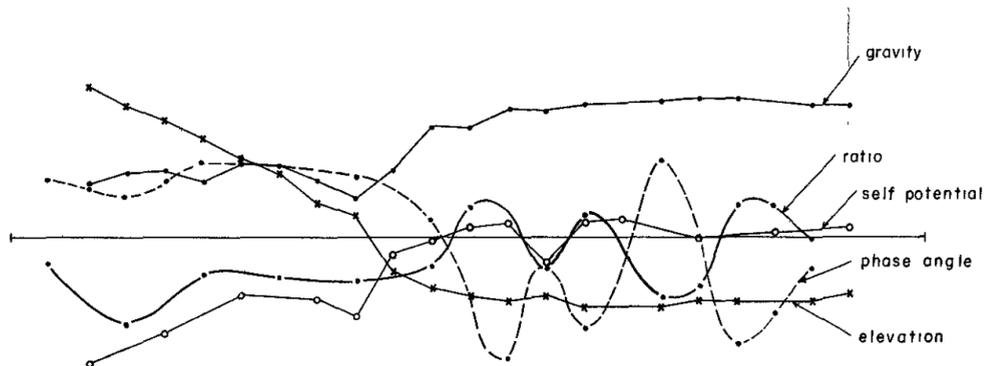
The levelling was carried out using a Watts Quickset level and the accuracy is at least 0.1 feet. The gravity data is fairly good but the soggy ground resulted in significant vibration and continual level drift. The observed data are accurate to 0.3 dial divisions (approx. 0.03 mgal).

If you have any queries concerning the data do not hesitate to contact me.

Yours sincerely,

J. E. Shirley
J. E. Shirley.

LINE 8 S

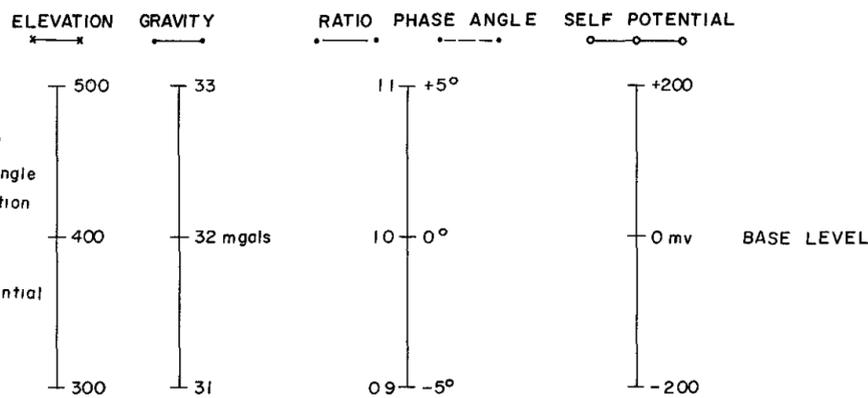
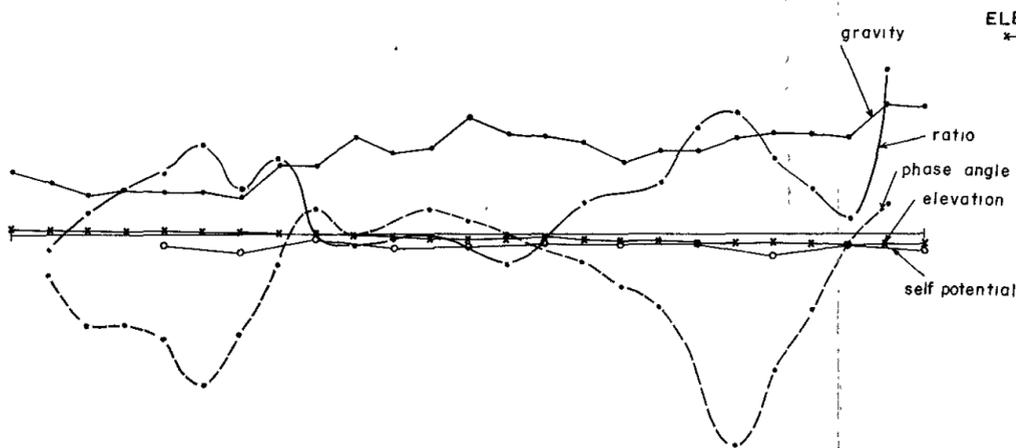


Note Maximum elevation difference is approx 146 feet
Density used for Bouguer anomaly corrections = 2.8 gm/cc

6N 4N 2N 0 2E 4E 6E
6W 4W 2W

BLACK JACKS PROSPECT

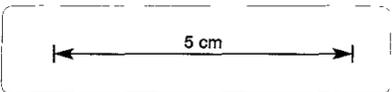
LINE 00 E



Note Maximum elevation difference is approx 12 feet
Density used for Bouguer anomaly corrections = 2.8 gm/cc

4S 2S 0 2N 4N 6N 8N

EDEN PROSPECT



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FIGURE 1.

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TENNECO AUSTRALIA INC		
E.L. 44/70		
GEOPHYSICAL PROFILES BLACK JACKS & EDEN PROSPECTS ZEEHAN AREA, TASMANIA		
DATE 1 11 72	DRAWN BY L FISHER	DWG No
SCALE 1" = 200'	GEOPHYSICIST A ORSATTI	964