

PENNZOIL OF AUSTRALIA LIMITED

DIAL RANGE PROJECT

**PROGRESS REPORT  
&  
RECOMMENDATIONS FOR DRILLING**

**74\_1049**

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Trevor Scott  
M. C. Tippet.

17th May 1974.

Progress Report & Recommendations Dial Project.

The Dial Project has now pretty well boiled down to one area of interest, i.e. the Dial Mine and environment, more precisely an area of gossan, gossan breccia and possibly a volcanic centre approximately 500 metres north west of the Dial Mine.

The regional work involving stream sampling and follow-up ridge and spur sampling has been disappointing in that no areas of anomalous soils could be detected to substantiate stream anomalies. Additionally no geological indications in float or outcrop could be found in areas of stream anomalism. It is therefore doubtful that any further work will be directed towards regional exploration.

Our most encouraging work to date has been on the Dial Mine grid where mapping of gossanous breccia/agglomerate beds has led to the discovery of what is thought to be an environment at or close to a volcanic centre. Enclosed are maps of the geological mapping and geochemical sampling of this area. An extensive area of leached metallisation extends over a strike length in excess of 300 metres and with a maximum indicated width of 150 metres.

Within this zone are gossans varying from massive banded to variably mineralised breccias, rock chip samples of which <sup>copper</sup> ranges from 1300 ppm to 5500 ppm for massive and banded gossans and from 750 ppm to 2550 ppm for breccia gossans. The average values of these are 2920 ppm (6 samples) and 1410 ppm (9 samples) respectively.

The geochemical pattern of the soil sampling is displaced from the gossanous zones. It does, however, to an extent, parallel the gossans and it is possible that dispersion has taken place down the hill together with displacement caused by the heavy leaching which must have taken place in a high pyrite environment. The geochemical soil sampling does, however, corroborate the rock samples in outlining a significant Cu anomaly.

The geological assemblage is typical of a near volcanic centre environment with interbedded tuffs, lavas, agglomerates and coarse explosive breccias. In fact the gossan zones and volcanic assemblage conform perfectly with the classic model of a volcanogenic massive sulphide occurrence.

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It is obvious that we have not as yet fully encompassed the zone of interest and it will be necessary to do this. However, it is felt that a more detailed exploration program can still be drawn up at this stage. This program is as follows:

1. Extend and sample lines 2000N, 1900N and 2400N to 1400E which should completely cover the zone.
2. The vertical loop EM should again be tried over the breccia zone as, although results over the Dial mine were disappointing, the possible presence of massive sulphides in this new zone should be tested.
3. If the vertical loop does not detect a conductor then an IP survey should be carried out to try to delineate areas of more intense metallisation in what is expected to be a broad chargeability zone.
4. It is recommended that the zone should be drilled based on geological and geochemical evidence no matter what additional evidence is derived from geophysical work.

The present approved ER should be enough to cover future exploration to part three of the recommended program.

Trev.

Encls:

- map 48 022 Dial Mine Grid - Reconnaissance Geology. Plates 1 & 2
- map 48 014 Dial Mine Grid - Soil sampling Cu. - Zn.
- 48,025 - - - - Composite Profile 2000 N
- 48,026 - - - - - 2200 N
- 48,027 - - - - - 2300 N

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PENNZOIL OF AUSTRALIA LIMITED  
SUBSIDIARY OF DUVAL CORPORATION  
INTER-OFFICE MEMORANDUM

FROM SYDNEY DATE 25th October, 1974.  
TO SYDNEY ATTENTION M.C.Tippett

SUBJECT Dial Range Project Progress Report and Recommendations for Drilling

Introduction

Exploratory work on the Dial mine grid has now reached an advanced stage at which diamond drilling is warranted. A total of 6 holes have been designed of which 3 only are recommended for drilling at present to initially test the mineral potential of the grid area.

The grid now covers a total area of around 700 metres by 1200 metres with a total metric line length of 7100 metres.

Geology (Plan 48,022) Mapping based mainly on float and scree, particularly away from ridges, has outlined a sequence of volcanic rocks within which are units of variously metallised medium to coarse grained pyroclastics. Sulphide content (leached) of these pyroclastics range from less than 1 vol % to in excess of 10 vol % and a gradational increase and decrease in sulphide content can be noted along strike. The sulphide style is dominantly disseminated although some fracture filling is present and a few narrow (1 metre or so) zones of massive gossan have been observed. Cementations of coarse fragments in the "so-called" vent breccia is dominantly of vein type sulphide.

Fragment size ranges from 2 mm to 10 cm generally averaging in most units around 5 cm. The extremely coarse breccia unit postulated as a vent breccia contains very large fragments many in excess of 50 cm.

Other units within the volcanic pile consist of unmetallised to weakly metallised medium grained lithic tuffs, fine grained tuffs, mudstones, and a possible siliceous rhyolitic unit, weakly metallised, flow banded, in parts, fragmental in others and considered to be possible tuffite. This latter unit is intimately associated with the pyroclastic units.

Rock chip sampling of the metallised pyroclastic unit has given anomalous values of plus 1000 ppm Cu, 250 ppm Pb, and 200 ppm Zn dominantly around the "vent" zone. Soil sampling has confirmed these values showing the strongest anomalies over this area.

A recently detected western zone of metallised pyroclastics has been found and this shows interesting high Pb and Cu rock chip and soil values.

Geological mapping has detected the presence of a suspected fault truncating the "vent" zone on the south at about 2000N where it crossed the line at approximately 1600E-1700E. South of this line an unmineralised medium grained lithic tuff unit outcrops almost exclusively. It is postulated that movement on this fault have given an apparent transcurrent displacement of the metallised pyroclastic units eastward about 500 metres. The approximate trace of the fault is sketched on the accompanying geology plan.

#### Geochemical soil sampling

Since last reported the western zone of pyroclastics mentioned above is all that has been detected. Soil sampling information has therefore remained unaltered. No plan has therefore been included with this report.

A short series of soil samples were collected from line 2200N for a test analysis by Scintrex using their mercury "sniffer", results of this show some peaks which may be interesting. These results are plotted on the attached profile of 2200N and discussed in reference to this line.

#### Scintrex Geophysical Survey

Scintrex carried out a gradient array I.P. survey over the whole of the Dial grid, together with Turam over portion of the grid and a pole-dipole line along part of 2200N. The Scintrex report covering this work is presented separately from this. However several interesting features emerged from this work and in particular the apparent presence of a deeply leached surface layer and the presence below this of an extensive area of disseminated sulphides within which are horizons of greater sulphide concentration. Turam detected very narrow zones of very high conductivity within a disseminated host. Specific instances of these features are discussed below in examining lines where drilling is recommended.

#### Profiles of lines 2200N, 2300N and recommendations for drilling.

A set of composite profiles (plans 48,024, 48,025, 48,026) have been drawn up to examine all the features pertaining to these lines and to design drill holes to test these features. Each of these lines is discussed separately below.

Line 2200N. This line at present is the most extensively explored having been covered with pole dipole I.P., Turam (in part) and mercury analysis of soil samples in addition to the gradient array I.P., Cu, Pb, Zn soil sampling and geological mapping carried out over the whole of the grid.

Geological mapping has outlined areas of leached gossanous pyroclastic units centred roughly at 1900E, 1625E, a sequence of units interspersed with less mineralised rocks between 1450E and 1600E and another pyroclastic unit at 1200E. Dips where detected are steeply east. Rock ship sampling of these units give values of plus 1000 ppm at about 1575E, 1550E, 1500E (also anomalous in Pb, plus 250 ppm) and 1450E a sample at 1200E is anomalous in Pb.

Soil sampling along 2200N has detected significant copper anomalies centred at 1900E with a peak value of 200 ppm, 1700E with a peak of 230 ppm Cu, between 1575E and 1375E with a peak of 530 ppm Cu and associated Pb peaking at 90 ppm. An additional anomaly peak occurs at 1200E of 340 ppm Cu and 90 ppm Pb however the area between these latter two peaks is also above threshold with an average value of around 200 ppm Cu.

Mercury analysis of samples collected along 2200N between 1150E and 1750E on a trial basis show anomalous peaks at 1350E, 1575E and 1650E, to an extent these correlate well with copper anomalies although displaced by about 25 metres and usually uphill from the copper, apparently due to less rapid downslope dispersion.

Scintrex analysis of the profiles of the gradient array I.P. carried out by them show anomalies positioned as indicated below with approximate widths in brackets. 2112E (20 metres) 1960E (20 metres) 1850-1900E, 1650-1675E, 1275-1425E, 1600E (?). Indications of dip are uncertain but suggested as westerly.

Interpretation of the pole dipole data over portion of line 2200N indicates only two of these anomalies as being close to surface i.e. 1275E-1425E with a peak at about 1375E and at 1938E which is interpreted as about 40 metres wide. The I.P. data indicates that a significant heavily leached layer exists over the area to a depth of 25 to 40 metres, below which sulphide mineralisation exists everywhere to varying degrees of concentration.

Turam profiles of traverses made over a portion of 2200N indicate good conduction over narrow widths at 1362E and 1438E and a weaker conductor at about 1580E, all occurring within a disseminated source.

From examination of composites of the profiles of the above information drill holes are recommended at the following locations on 2200N.

2000E drilled westerly at  $-50^{\circ}$  approximately 200 metres. This hole will intersect the strong pole dipole anomaly and gradient array anomalies at 1960E and 1850-1900E and the moderate copper soil anomaly at 1900E, assuming an eastward dip.

1700E drilled westerly at  $-50^{\circ}$  approximately 250 metres. This hole is designed to intersect the gradient array anomaly at 1650-1675E, the turam conductor at 1580E, the strong copper, lead and mercury soil anomalies between 1375E and 1575E and which corresponds with the broad zone of gossanous pyroclastics between 1450E and 1600E, again assuming an easterly dip on the rocks.

1450E drilled westerly at  $-50^{\circ}$  approximately 150 metres to intersect the I.P. anomaly between 1275E and 1425E with two associated turam anomalies at 1362E and 1438E and the mercury soil anomaly at 1350E. No geological explanation is available for these anomalies which occur in the creek valley beneath soil and talus.

Line 2300N. Geological mapping of this line has outlined gossanous pyroclastic units centred at 1400E, 1450E, a relatively broad unit between approximately 1525E and 1625E, 1675E, 1812E, and 1960E. Rock chip sampling of these units give anomalous copper value at plus 1000 ppm at approximately 1400E, 1450E, 1500E (also Zn) 1550E (also Zn), 1600E (also Pb) and 1825E.

Soil sampling along 2300N has detected significant anomalies at about 1350E - 1375E Cu peak 220 ppm, Pb peak 60 ppm, 1450E Cu 180 ppm, 1525E Cu 190 ppm, 1600-1650 Cu peak 620 ppm, Pb 80 ppm, 1850E Cu 210 ppm and 1975E Pb 80 ppm.

Gradient array I.P. by Scintrex detected the following anomalies, west of 1450E to the end of the line at 1150E, 1550E (20 metres wide), 1638E (25 metres wide), 1825E (50-60 metres).

Turam conductors were indicated from narrow zones at 1388E and 1462E and both within high chargeability haloes.

A synthesis of this data on to profiles has given the following recommendations for drill holes.

1500E drilled west at  $-50^{\circ}$  approximately 200 metres and designed to intersect the I.P. chargeability anomaly extending west from 1450E and associated with mineralised pyroclastic units at 1400E and 1450E showing moderate Cu and Pb soil anomalies. Two Turam conductors are also associated with these zones.

1700E drilled west at  $-50^{\circ}$  approximately 250 metres to intersect chargeability anomalies at 1550E and 1638E which are associated with a mineralised pyroclastic unit showing strongly anomalous copper and moderate Pb values at about 1425E - 1450E.

Line 2000N. Geological mapping along this line has outlined leached metallised pyroclastics units centred at 1800E, 1850E, 1925E, 2010E - 2080E, 2175E. Anomalous rock chip samples have been collected from between 2010E - 1080E with copper values in excess of 1000 ppm, Pb over 250 ppm and Zn over 200 ppm.

A fault zone is suspected crossing this lines at about 1600E - 1700E which displaces the geology eastward an estimated 500 metres. The trend of this fault is ENE.

Soil sampling along 2000N has detected two distinct zones of anomalous values, between 1350E - 1600E with a Pb, Zn high centred around 1350E and a copper peak between 1450E and 1600E with associated weaker Pb. The second distinct zone occurs between 2000E and 2225E and consists of a moderate multi-peaked Cu and Pb anomaly. It is postulated that these two anomalies are the same having been displaced along the fault zone mentioned above.

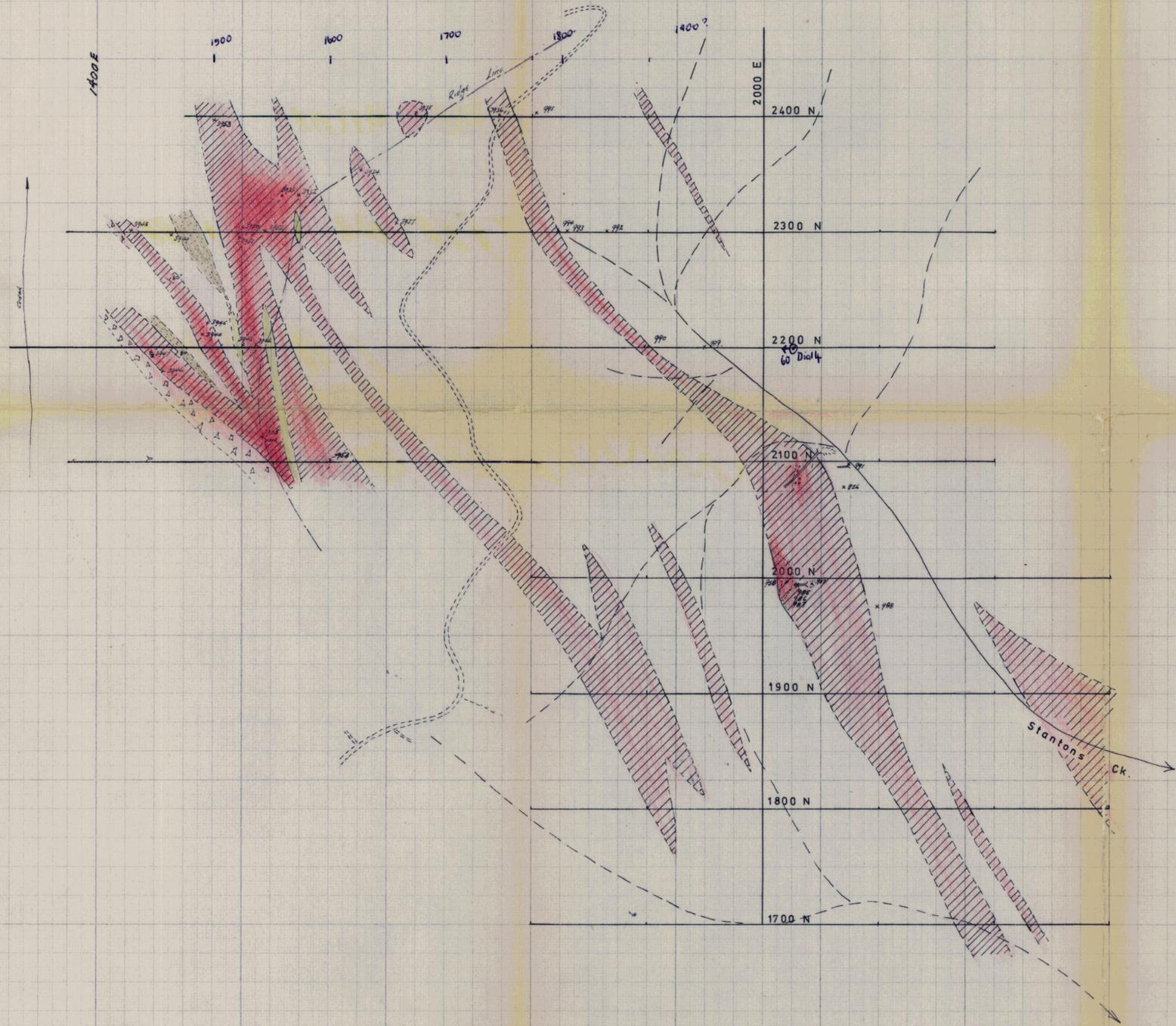
The gradient array I.P. survey has detected significant chargeability anomalies at 1338E, 1488E and 1562E and all about 25 metres wide. East of 1750E chargeability steadily increases. Strong chargeability anomalies exist within this area at 2062E - 2112E and 2138E-2200E.

A drill hole is recommended on this line at 2200E drilled west at -50<sup>o</sup> to 250 metres. This hole will intersect the two strong chargeability anomalies at 2062E-2112E which are associated with two units of gossanous pyroclastics and beneath the moderate copper and lead soil anomaly between 2000E and 2225E.

A total of six drill holes have been designed to evaluate most of the possibilities of the prospect. However at this stage it is recommended that three only of these be drilled as an initial examination to ascertain if ore grade mineralisation is present at depth. These three holes in order of priority are:-

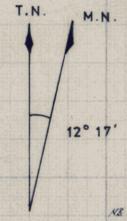
1. 2200N 1700E
2. 2200N 1450E
3. 2000N 2200E

  
T.B. Scott

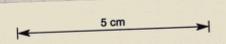


| ASSAY DATA |       |    |    |    |    |        |        |
|------------|-------|----|----|----|----|--------|--------|
| SAMPLE     | WIDTH | Cu | Mo | Pb | Zn | oz. Au | oz. Ag |
| 986        | 280   |    |    |    |    |        |        |
| 987        | 540   |    |    |    |    |        |        |
| 988        | 500   |    |    |    |    |        |        |
| 985        | 400   |    |    |    |    |        |        |
| 986        | 70    |    |    |    |    |        |        |
| 987        | 70    |    |    |    |    |        |        |
| 988        | 50    |    |    |    |    |        |        |
| 989        | 50    |    |    |    |    |        |        |
| 990        | 140   |    |    |    |    |        |        |
| 991        | 60    |    |    |    |    |        |        |
| 992        | 960   |    |    |    |    |        |        |
| 993        | 1000  |    |    |    |    |        |        |
| 994        | 1700  |    |    |    |    |        |        |
| 995        | 1250  |    |    |    |    |        |        |
| 9912       | 2550  |    |    |    |    |        |        |
| 9913       | 2850  |    |    |    |    |        |        |
| 9914       | 1800  |    |    |    |    |        |        |
| 9915       | 1250  |    |    |    |    |        |        |
| 9916       | 400   |    |    |    |    |        |        |
| 9917       | 70    |    |    |    |    |        |        |
| 9918       | 3400  |    |    |    |    |        |        |
| 9919       | 300   |    |    |    |    |        |        |
| 9920       | 2350  |    |    |    |    |        |        |
| 9921       | 1300  |    |    |    |    |        |        |
| 9922       | 1150  |    |    |    |    |        |        |
| 9923       | 1400  |    |    |    |    |        |        |
| 9924       | 730   |    |    |    |    |        |        |
| 9925       | 1850  |    |    |    |    |        |        |
| 9926       | 620   |    |    |    |    |        |        |
| 9927       | 810   |    |    |    |    |        |        |
| 9928       | 1250  |    |    |    |    |        |        |
| 9929       | 5500  |    |    |    |    |        |        |

- Very coarse Breccia, mass
  - Liki Tuff, unmineralised
  - Fine-medium Agglomerate, variously mineralised
  - Unfossiliferous fine-grained tuff, lenses, and muscovites
  - Fine grained Breccia (Sample 11)
- x 3000 Rock chip Sample

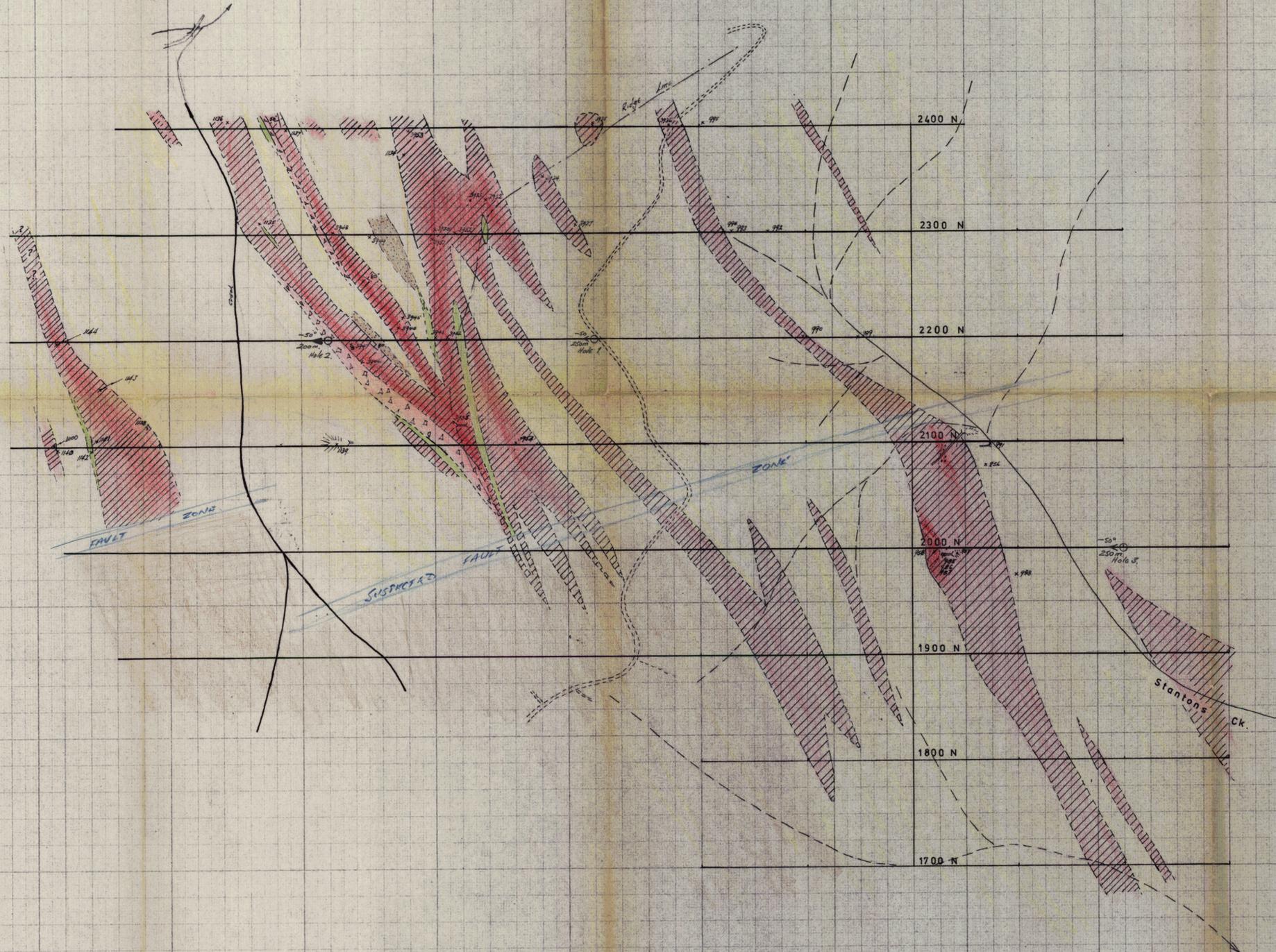


NS Geology mainly derived from rock field, geological boundaries are interpretive only.



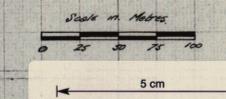
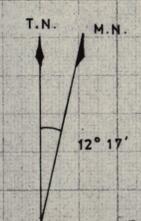
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|  |                         |            |               |
|--|-------------------------|------------|---------------|
| <b>PENNZOIL OF AUSTRALIA LIMITED</b>                   |                         | COUNTRY:   | AUSTRALIA     |
| <b>SUBSIDIARY OF DUVAL CORPORATION</b>                 |                         | STATE:     | TASMANIA      |
| <b>E.L. 2473 DIAL RANGE TAS.</b>                       |                         | LATITUDE:  | 41° 10' S     |
| TYPE<br><i>Dial Mine Grid - Reconnaissance Geology</i> |                         | LONGITUDE: | 146° 02' E    |
| DATA BY<br><i>E.V.D. T.S.</i>                          | DRAWN BY<br><i>T.S.</i> | DATE       | <i>Aug 74</i> |
|  |                         | MAP No.    | <i>18.022</i> |
|  |                         | PLATE No.  | <i>1</i>      |



| ASSAY DATA |       |    |    |    |    |        |        |
|------------|-------|----|----|----|----|--------|--------|
| SAMPLE     | WIDTH | Cu | Mo | Pb | Zn | oz. Au | oz. Ag |
| 926        | 380   |    |    |    |    |        |        |
| 927        | 540   |    |    |    |    | <0.2   | 2      |
| 928        | 400   |    |    |    |    | <0.2   | 2      |
| 929        | 400   |    |    |    |    |        |        |
| 930        | 70    |    |    |    |    |        |        |
| 931        | 70    |    |    |    |    |        |        |
| 932        | 70    |    |    |    |    |        |        |
| 933        | 70    |    |    |    |    |        |        |
| 934        | 70    |    |    |    |    |        |        |
| 935        | 70    |    |    |    |    |        |        |
| 936        | 70    |    |    |    |    |        |        |
| 937        | 70    |    |    |    |    |        |        |
| 938        | 70    |    |    |    |    |        |        |
| 939        | 70    |    |    |    |    |        |        |
| 940        | 70    |    |    |    |    |        |        |
| 941        | 70    |    |    |    |    |        |        |
| 942        | 70    |    |    |    |    |        |        |
| 943        | 70    |    |    |    |    |        |        |
| 944        | 70    |    |    |    |    |        |        |
| 945        | 70    |    |    |    |    |        |        |
| 946        | 70    |    |    |    |    |        |        |
| 947        | 70    |    |    |    |    |        |        |
| 948        | 70    |    |    |    |    |        |        |
| 949        | 70    |    |    |    |    |        |        |
| 950        | 70    |    |    |    |    |        |        |
| 951        | 70    |    |    |    |    |        |        |
| 952        | 70    |    |    |    |    |        |        |
| 953        | 70    |    |    |    |    |        |        |
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| 961        | 70    |    |    |    |    |        |        |
| 962        | 70    |    |    |    |    |        |        |
| 963        | 70    |    |    |    |    |        |        |
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| 965        | 70    |    |    |    |    |        |        |
| 966        | 70    |    |    |    |    |        |        |
| 967        | 70    |    |    |    |    |        |        |
| 968        | 70    |    |    |    |    |        |        |
| 969        | 70    |    |    |    |    |        |        |
| 970        | 70    |    |    |    |    |        |        |
| 971        | 70    |    |    |    |    |        |        |
| 972        | 70    |    |    |    |    |        |        |
| 973        | 70    |    |    |    |    |        |        |
| 974        | 70    |    |    |    |    |        |        |
| 975        | 70    |    |    |    |    |        |        |
| 976        | 70    |    |    |    |    |        |        |
| 977        | 70    |    |    |    |    |        |        |
| 978        | 70    |    |    |    |    |        |        |
| 979        | 70    |    |    |    |    |        |        |
| 980        | 70    |    |    |    |    |        |        |
| 981        | 70    |    |    |    |    |        |        |
| 982        | 70    |    |    |    |    |        |        |
| 983        | 70    |    |    |    |    |        |        |
| 984        | 70    |    |    |    |    |        |        |
| 985        | 70    |    |    |    |    |        |        |
| 986        | 70    |    |    |    |    |        |        |
| 987        | 70    |    |    |    |    |        |        |
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| 989        | 70    |    |    |    |    |        |        |
| 990        | 70    |    |    |    |    |        |        |
| 991        | 70    |    |    |    |    |        |        |
| 992        | 70    |    |    |    |    |        |        |
| 993        | 70    |    |    |    |    |        |        |
| 994        | 70    |    |    |    |    |        |        |
| 995        | 70    |    |    |    |    |        |        |
| 996        | 70    |    |    |    |    |        |        |
| 997        | 70    |    |    |    |    |        |        |
| 998        | 70    |    |    |    |    |        |        |
| 999        | 70    |    |    |    |    |        |        |
| 1000       | 70    |    |    |    |    |        |        |
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| 1002       | 70    |    |    |    |    |        |        |
| 1003       | 70    |    |    |    |    |        |        |
| 1004       | 70    |    |    |    |    |        |        |
| 1005       | 70    |    |    |    |    |        |        |
| 1006       | 70    |    |    |    |    |        |        |
| 1007       | 70    |    |    |    |    |        |        |
| 1008       | 70    |    |    |    |    |        |        |
| 1009       | 70    |    |    |    |    |        |        |
| 1010       | 70    |    |    |    |    |        |        |
| 1011       | 70    |    |    |    |    |        |        |
| 1012       | 70    |    |    |    |    |        |        |
| 1013       | 70    |    |    |    |    |        |        |
| 1014       | 70    |    |    |    |    |        |        |
| 1015       | 70    |    |    |    |    |        |        |
| 1016       | 70    |    |    |    |    |        |        |
| 1017       | 70    |    |    |    |    |        |        |
| 1018       | 70    |    |    |    |    |        |        |
| 1019       | 70    |    |    |    |    |        |        |
| 1020       | 70    |    |    |    |    |        |        |
| 1021       | 70    |    |    |    |    |        |        |
| 1022       | 70    |    |    |    |    |        |        |
| 1023       | 70    |    |    |    |    |        |        |
| 1024       | 70    |    |    |    |    |        |        |
| 1025       | 70    |    |    |    |    |        |        |
| 1026       | 70    |    |    |    |    |        |        |
| 1027       | 70    |    |    |    |    |        |        |
| 1028       | 70    |    |    |    |    |        |        |
| 1029       | 70    |    |    |    |    |        |        |
| 1030       | 70    |    |    |    |    |        |        |
| 1031       | 70    |    |    |    |    |        |        |
| 1032       | 70    |    |    |    |    |        |        |
| 1033       | 70    |    |    |    |    |        |        |
| 1034       | 70    |    |    |    |    |        |        |
| 1035       | 70    |    |    |    |    |        |        |
| 1036       | 70    |    |    |    |    |        |        |
| 1037       | 70    |    |    |    |    |        |        |
| 1038       | 70    |    |    |    |    |        |        |
| 1039       | 70    |    |    |    |    |        |        |
| 1040       | 70    |    |    |    |    |        |        |
| 1041       | 70    |    |    |    |    |        |        |
| 1042       | 70    |    |    |    |    |        |        |
| 1043       | 70    |    |    |    |    |        |        |
| 1044       | 70    |    |    |    |    |        |        |
| 1045       | 70    |    |    |    |    |        |        |
| 1046       | 70    |    |    |    |    |        |        |
| 1047       | 70    |    |    |    |    |        |        |
| 1048       | 70    |    |    |    |    |        |        |
| 1049       | 70    |    |    |    |    |        |        |
| 1050       | 70    |    |    |    |    |        |        |
| 1051       | 70    |    |    |    |    |        |        |
| 1052       | 70    |    |    |    |    |        |        |
| 1053       | 70    |    |    |    |    |        |        |
| 1054       | 70    |    |    |    |    |        |        |
| 1055       | 70    |    |    |    |    |        |        |
| 1056       | 70    |    |    |    |    |        |        |
| 1057       | 70    |    |    |    |    |        |        |
| 1058       | 70    |    |    |    |    |        |        |
| 1059       | 70    |    |    |    |    |        |        |
| 1060       | 70    |    |    |    |    |        |        |
| 1061       | 70    |    |    |    |    |        |        |
| 1062       | 70    |    |    |    |    |        |        |
| 1063       | 70    |    |    |    |    |        |        |
| 1064       | 70    |    |    |    |    |        |        |
| 1065       | 70    |    |    |    |    |        |        |
| 1066       | 70    |    |    |    |    |        |        |
| 1067       | 70    |    |    |    |    |        |        |
| 1068       | 70    |    |    |    |    |        |        |
| 1069       | 70    |    |    |    |    |        |        |
| 1070       | 70    |    |    |    |    |        |        |
| 1071       | 70    |    |    |    |    |        |        |
| 1072       | 70    |    |    |    |    |        |        |
| 1073       | 70    |    |    |    |    |        |        |
| 1074       | 70    |    |    |    |    |        |        |
| 1075       | 70    |    |    |    |    |        |        |
| 1076       | 70    |    |    |    |    |        |        |
| 1077       | 70    |    |    |    |    |        |        |
| 1078       | 70    |    |    |    |    |        |        |
| 1079       | 70    |    |    |    |    |        |        |
| 1080       | 70    |    |    |    |    |        |        |
| 1081       | 70    |    |    |    |    |        |        |
| 1082       | 70    |    |    |    |    |        |        |
| 1083       | 70    |    |    |    |    |        |        |
| 1084       | 70    |    |    |    |    |        |        |
| 1085       | 70    |    |    |    |    |        |        |
| 1086       | 70    |    |    |    |    |        |        |
| 1087       | 70    |    |    |    |    |        |        |
| 1088       | 70    |    |    |    |    |        |        |
| 1089       | 70    |    |    |    |    |        |        |
| 1090       | 70    |    |    |    |    |        |        |
| 1091       | 70    |    |    |    |    |        |        |
| 1092       | 70    |    |    |    |    |        |        |
| 1093       | 70    |    |    |    |    |        |        |
| 1094       | 70    |    |    |    |    |        |        |
| 1095       | 70    |    |    |    |    |        |        |
| 1096       | 70    |    |    |    |    |        |        |
| 1097       | 70    |    |    |    |    |        |        |
| 1098       | 70    |    |    |    |    |        |        |
| 1099       | 70    |    |    |    |    |        |        |
| 1100       | 70    |    |    |    |    |        |        |

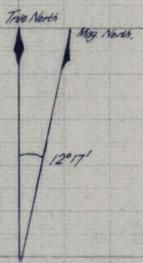
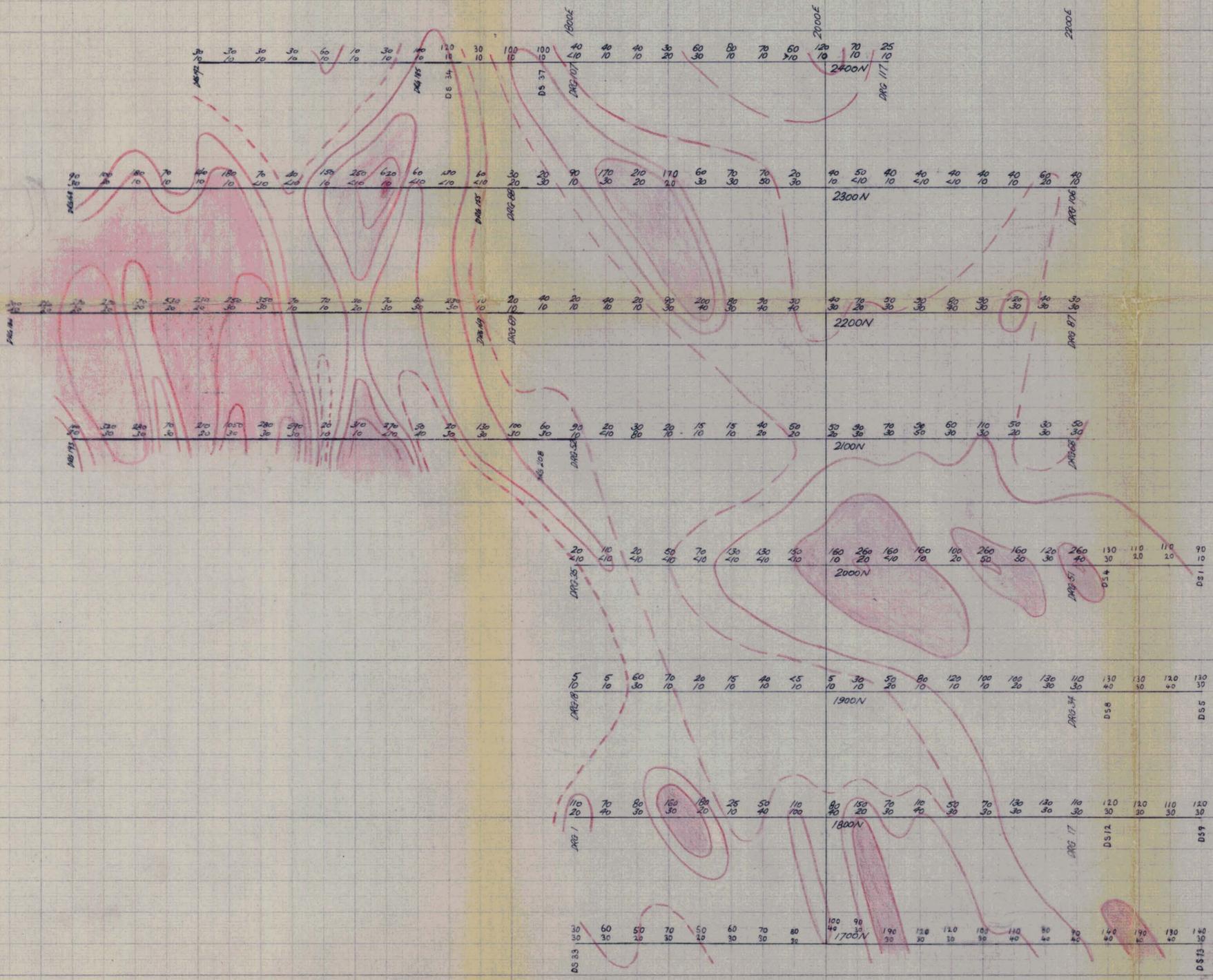
- Very Coarse Breccia, massive
- Litic Tuff, unconsolidated
- Fine-medium Agglomerate, variously mineralised
- Un differentiated fine grained tuffs, lavas, and mudstones
- Fine grained Rippled Breccia (Type II)
- x 370 Rock Chip Sample



561009

74-1049

|  |                         |           |               |
|--|-------------------------|-----------|---------------|
| <b>PENNZOIL OF AUSTRALIA LIMITED</b>                   |                         | COUNTRY   | AUSTRALIA     |
| <b>SUBSIDIARY OF DUVAL CORPORATION</b>                 |                         | STATE     | TASMANIA      |
| <b>E.L. 24173 DIAL RANGE TAS.</b>                      |                         | LATITUDE  | 41° 10' S     |
| TYPE<br><i>Dial Mine Grid - Reconnaissance Geology</i> |                         | LONGITUDE | 146° 02' E    |
| DATA BY<br><i>E.V.D. T.S.</i>                          | DRAWN BY<br><i>T.S.</i> | DATE      | <i>May 74</i> |
|  |                         | MAP No.   | <i>18.022</i> |
|  |                         | PLATE No. | <b>2</b>      |

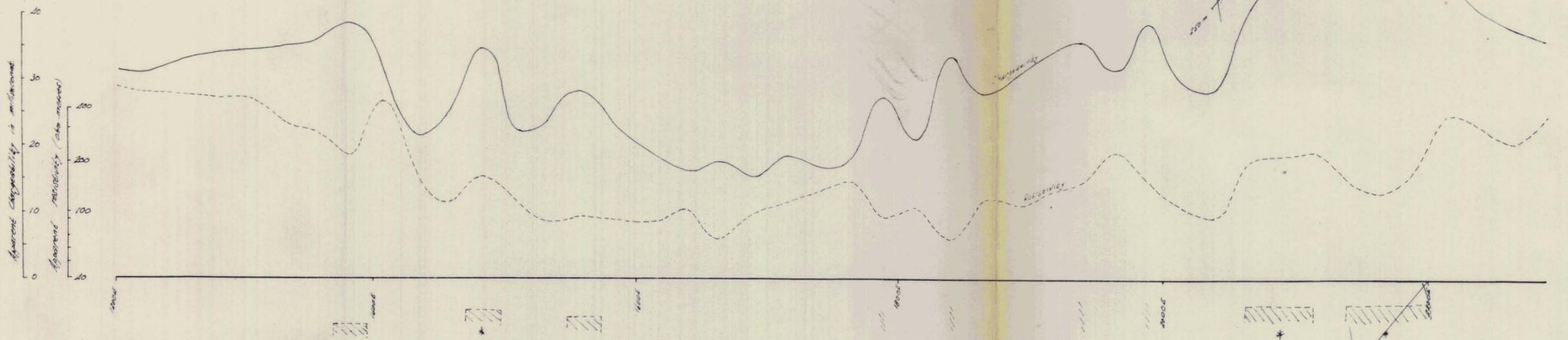
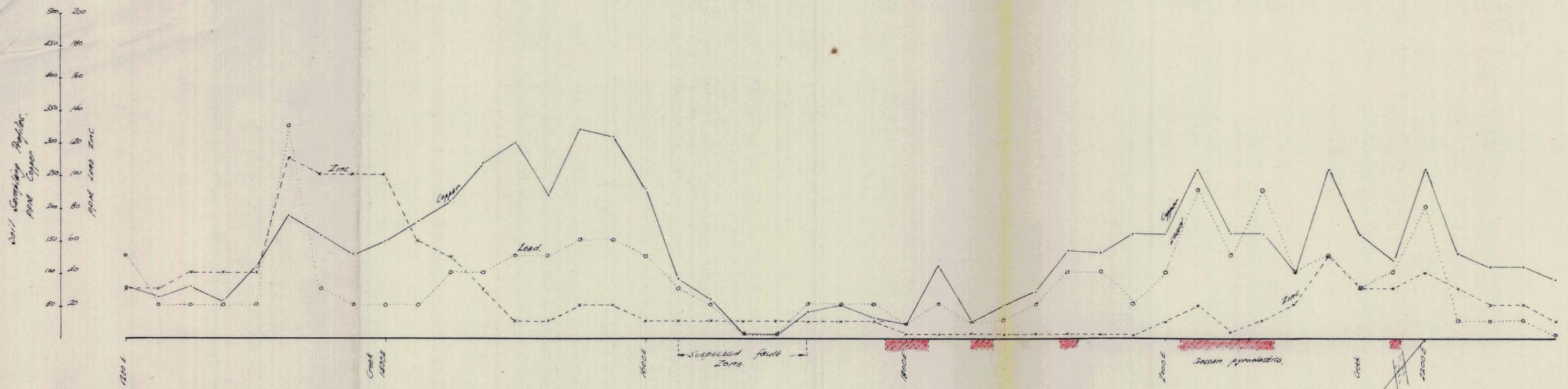


5 cm

561010

74-1049

|  |  |                         |                                |
|--|--|-------------------------|--------------------------------|
| <b>PENNZOIL OF AUSTRALIA LIMITED</b><br>SUBSIDIARY OF DUVAL CORPORATION        |  |                         | COUNTRY<br><i>Australia.</i>   |
| <i>E.L. 24/73 Dial Range Tasmania</i>  |  |                         | STATE<br><i>Tasmania.</i>      |
| TYPE<br><i>Geochemistry. Soil Sampling. Zn.</i>                                |  |                         | LATITUDE<br><i>41° 10' S</i>   |
| DATA BY<br><i>P.R. E.V.D.</i>  |  |                         | LONGITUDE<br><i>146° 05' E</i> |
| DRAWN BY<br><i>P.R.</i>  |  | DATE<br><i>FEB. '74</i> | MAP No.<br><i>AB, 014</i>      |
| Centimeters 1 2 3 4 5 6 7 8 9<br>Metres 10 20 30 40 50 60 70 80 90 100 150 200 |  |                         | PLATE No.                      |

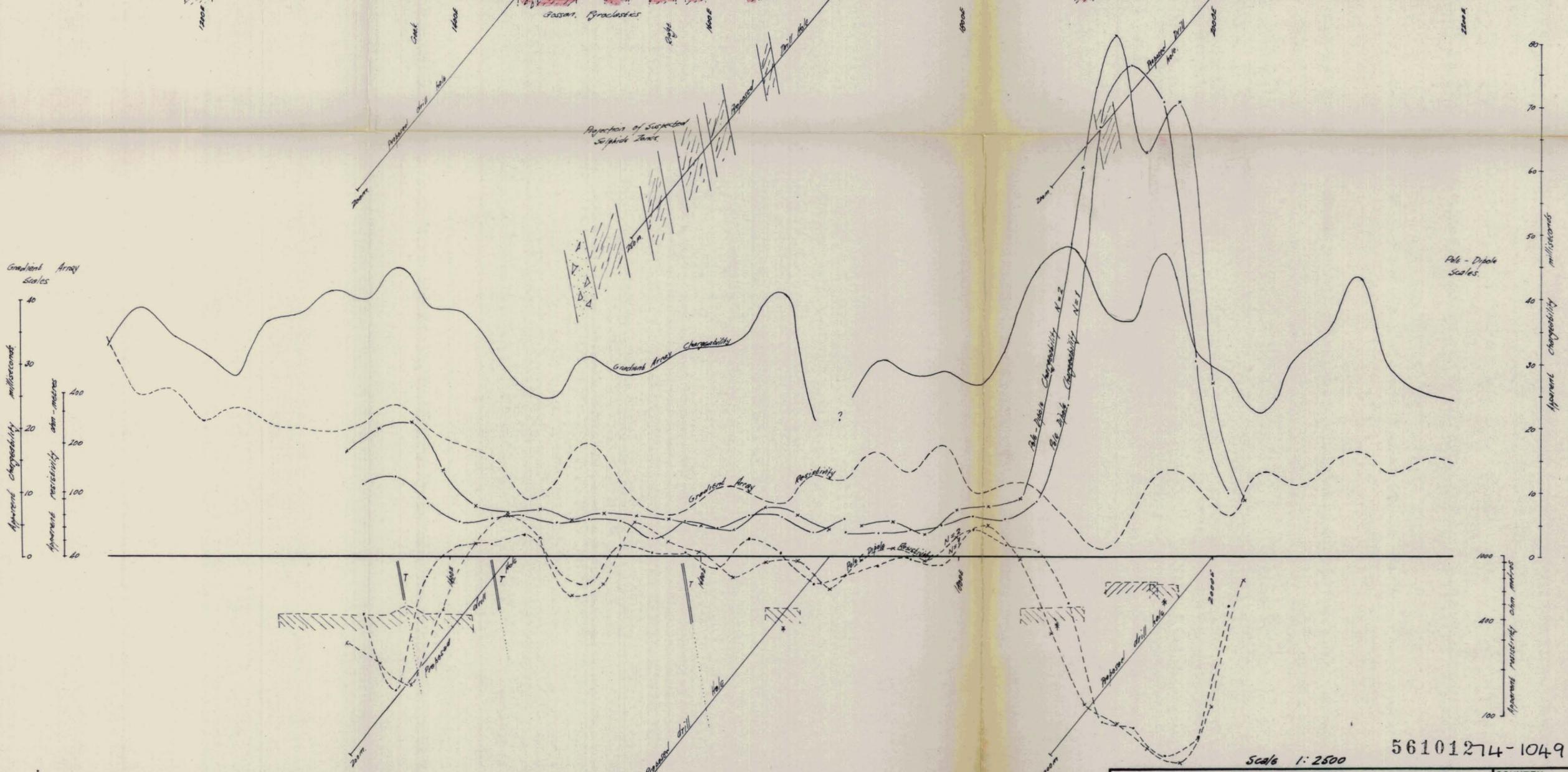
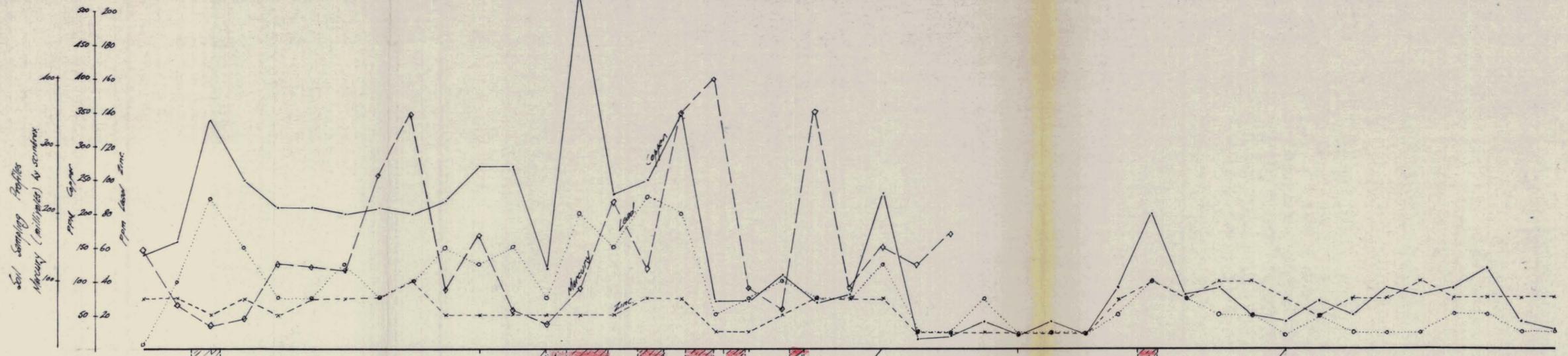


[Hatched pattern] Apparent Anomaly  
 from Seintrex Gradient Array  
 Survey, showing depth &  
 width  
 \* Recommended Anomaly  
 for drilling by Seintrex.

561011

Scale 1:2500

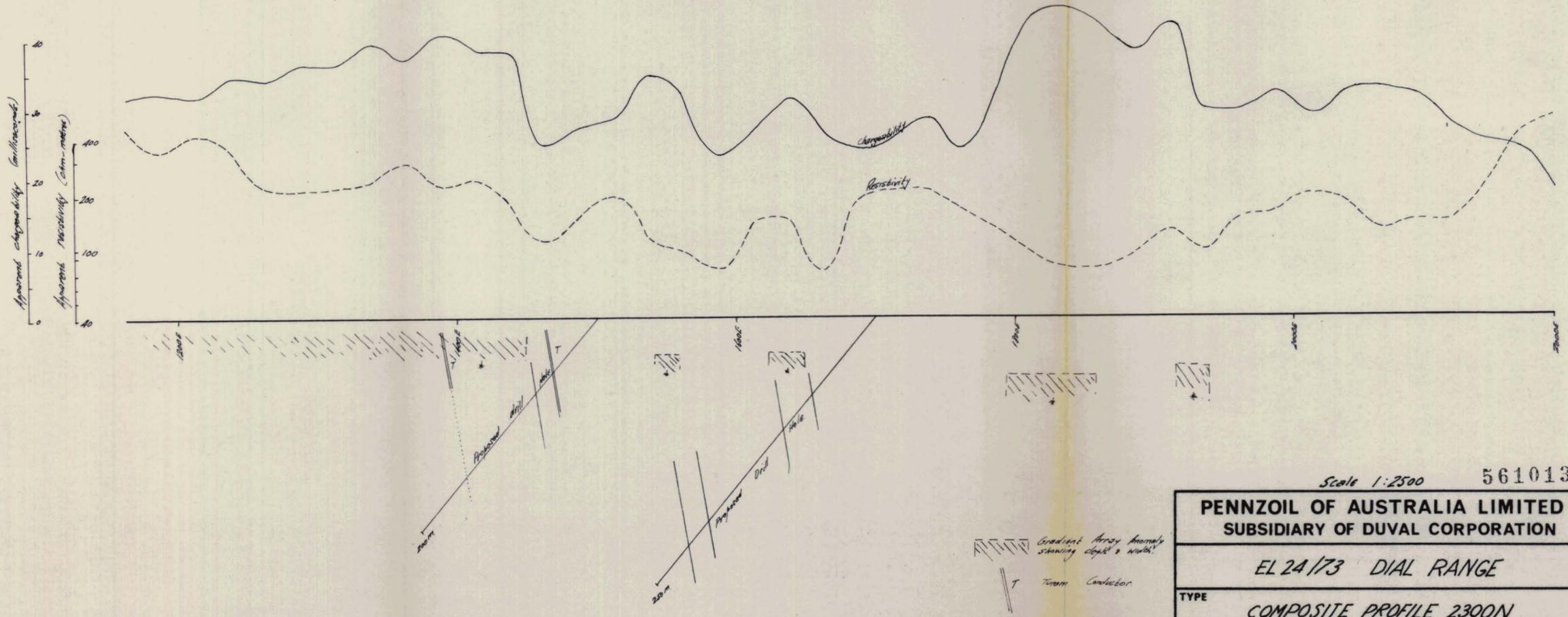
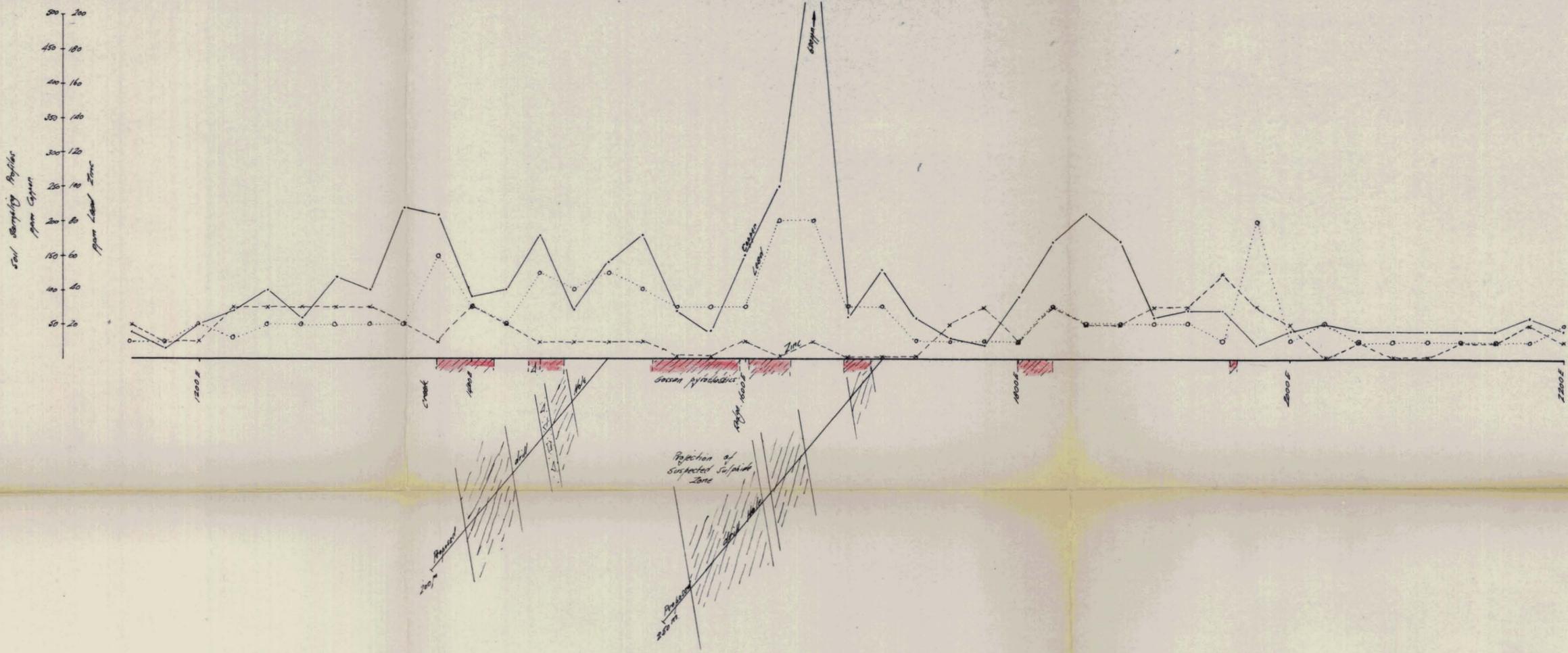
|  |                       |                        |  |
|--|-----------------------|------------------------|--|
| <b>PENNZOIL OF AUSTRALIA LIMITED</b><br><b>SUBSIDIARY OF DUVAL CORPORATION</b> |                       |                        | COUNTRY.<br><i>Australia</i>                         |
| <i>EL24/73 DIAL RANGE</i>  |                       |                        | STATE.<br><i>Tasmania</i>                            |
| TYPE<br><b>COMPOSITE PROFILE 2000N</b>   |                       |                        | LATITUDE <i>41°10'S</i><br>LONGITUDE <i>146°02'E</i> |
| DATA BY<br><i>Seintrex T.S. P.R. EXP.</i>                                      | DRAWN BY<br><i>TS</i> | DATE<br><i>Oct. 74</i> | MAP No.<br><i>48,025</i>                             |
|  |                       |                        | PLATE No.  |



- Gradient Array Anomaly showing dip & width
- Pole-Dipole Anomaly showing dip & width
- Trench Conductor
- Scintrex recommendation for drilling

Scale 1:2500      56101274-1049

|  |          |        |                             |
|--|----------|--------|-----------------------------|
| <b>PENNZOIL OF AUSTRALIA LIMITED</b>   |          |        | COUNTRY                     |
| <b>SUBSIDIARY OF DUVAL CORPORATION</b> |          |        | Australia                   |
| <b>EL24/73 DIAL RANGE</b>              |          |        | STATE                       |
| <b>COMPOSITE PROFILE 2200N</b>         |          |        | Tasmania                    |
| DATA BY                                | DRAWN BY | DATE   | LATITUDE $41^{\circ}10'S$   |
| SCINTREX T.S.                          | T.S.     | Oct 74 | LONGITUDE $146^{\circ}02'E$ |
|  |          |        | MAP No.                     |
|  |          |        | AB, 026                     |
|  |          |        | PLATE No.                   |



Gradient Array Anomaly showing depth & width  
 Trench Conductor  
 Scintrex drilling  
 20m  
 200m

Scale 1:2500 561013 74-1049

|  |  |                       |  |
|--|--|-----------------------|--|
| <b>PENNZOIL OF AUSTRALIA LIMITED</b><br><b>SUBSIDIARY OF DUVAL CORPORATION</b> |  |                       | COUNTRY<br><i>Australia</i>                              |
| <b>EL 24/73 DIAL RANGE</b>   |  |                       | STATE<br><i>Tasmania</i>                                 |
| <b>COMPOSITE PROFILE 2300N</b>   |  |                       | LATITUDE <i>41° 10' S</i><br>LONGITUDE <i>146° 02' E</i> |
| DATA BY<br><i>SCINTREX T &amp; R/P</i>   |  | DRAWN BY<br><i>TS</i> | DATE<br><i>Oct '74</i>                                   |
| MAP No.<br><i>AB 027</i>   |  |                       | PLATE No.  |