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PULPARA - KIA ORA -
BENDIGO BEDROCK DRILLING
PROGRAMME, 1992
Volume I

by

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Pulpara - Kia Ora - Bendigo Bedrock Drilling Programme, 1992

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In September-December 1992, as part of the SA Exploration Initiative, DME completed a bedrock drilling programme in the area of the Delamerian Bendigo Granite and surrounding metasediments of Adelaidean age, to the southeast of the Nackara Arc. Drilling included the granite margins, and associated magnetic features. 131 reverse circulation drillholes were completed, for a total of 8531.6m on the Caroon and Murkaby 1:100 000 map sheets.

Basement geochemistry indicated slightly anomalous Au, Cr, Cu, Mo and Pb associated with the granitoid, which included mafic and felsic phases. Anomalous Au, Co, Cu, Ni, Pb and Zn were associated with a small altered diorite body to the west of Bendigo HS. Drilling of a magnetic feature extending south-southwest from the granite intrusion revealed a possible alteration zone, with anomalous As, Au, Co and Mn. The Pine Creek kimberlite area was anomalous in Cr, Ni and Co.

INTRODUCTION

Between 15 September and 16 December 1992, 131 reverse circulation drill holes were completed, totalling 8531.6m. CRN 1 to 115, totalling 7718.1m, were on the Caroon 1:100 000 map sheet, and MUR 1 to 16, totalling 813.5m, were on the Murkaby 1:100 000 map sheet.

A total of 504 samples were collected for base metal, precious metal and trace element geochemistry, and submitted for routine analysis (12 elements), or for extended analysis (29 elements). Ten samples were submitted for full silicate analysis, and 16 samples were submitted for petrological description.

Analytical results are available from DME in computer disc format, as are drillhole co-ordinates, drill logs, and ground and aeromagnetic data.

GEOLOGICAL SETTING

The Bendigo Granite (informal name) crops out several kilometres to the southeast of Bendigo HS, intruding Adelaidean metasediments. Aeromagnetic data (flown for BHP in 1979, and reprocessed in 1992 by Pitt Research Pty Ltd for DME) indicates that the granite subcrop extends about 18 km to the south, with another granite? body further to the south at South Dam (to the south of the current project area). The current drilling programme was designed to test the

altered? margins of the granite intrusion, and features eg structural discontinuities within adjacent country rock, and a number of north-northeasterly trending magnetic features thought to be associated with faulting? extending south from the Anabama - Redan Fault, possibly associated with thickening of Murray Basin sediments.

The granite is covered by up to 130 m of Cainozoic sediments, comprising up to 25 m of Quaternary Pooraka Formation (alluvial/colluvial sediments comprising reddish brown clay and sandy clay, and gravel and gravelly clay), underlain by an unidentified Cainozoic sequence of grey to bluish or greenish grey silty clay underlain by fine to medium grained clean sands. These may be terrestrial equivalents of Murray Basin sediments (Olney Formation in drill logs), and in drillholes in the southeast these were seen to interfinger with marine carbonate, but further palaeontological investigation is required to confirm this correlation.

As a consequence of the thick cover over the granite, many holes were deeper than anticipated; maximum depth was 149.5 m, and in the centre, south, and southeast of the area, most holes were deeper than 100 m.

PREVIOUS EXPLORATION

DME drilling across the granite subcrop in the early 1970s (Sibenaler, 1973, and Langsford, 1972c) in general confirmed the granite outline as indicated by aeromagnetics. Highest zinc values were recorded in phyllite? along the northeastern margin of the granite.

Subsequent company exploration within the current project area between 1971 and 1988 is summarised in appendix B, and drillhole locations, and ground magnetic grids, are shown on figure 2.

PROJECT OBJECTIVES AND DRILLING TARGETS

Three traverses were proposed in the Pulpara - Kia Ora - Hog Back area by Wolfgang Preiss (DME).

The first, of approximately 50 holes, was along an approximately east-west track from Kia Ora Station west to the eastern edge of Adelaidean outcrop (the "Willara" traverse of this report), with holes at 1 km spacing, closing up to 500 m or less over the contact zone (ie zone of thermal metamorphism?) of the Bendigo Granite.

A second traverse (the "Pulpara" traverse) was proposed extending northerly from near the middle of the Willara traverse, to cross a narrow magnetic high feature indicated on the aeromagnetics.

A third traverse (the "Hog Back - Kia Ora" traverse) was proposed extending southwesterly from Kia Ora towards Hog Back; this traverse parallels a linear magnetic feature which offsets the margin of the Bendigo Granite and extends southwesterly into the enclosing Adelaidean? metasediments?.

Additional traverses were proposed to the south and north, across the western and eastern? contact zones of the Bendigo Granite, extending towards the Adelaidean outcrop in the ranges to the west.

The primary objective of these was to test the zone of contact/thermal metamorphism and alteration adjacent to the granite.

The Darling River Lineament strikes west-southwest to the south of the outcropping Adelaidean metasediments and Anabama Granite on the OLARY sheet. The lineament lines up with the northern outcropping portion of the Bendigo Granite, but does not extend into the outcropping Adelaidean rocks to the west. It may swing to the south, to the east of the Bendigo Granite, and this trend can be followed on the poor quality and dated OLARY and BURRA 1:250 000 aeromagnetic maps. Cover sequences of the Tertiary marine Murray Basin thicken to the south across the lineament, indicating a deep seated fracture which has been re-activated. The aeromagnetism indicate that this feature is about 20 km east of the granite outcrop at Bendigo, and hence it was recommended that several traverses across the eastern margin of the granite be extended east to intersect this lineament.

Three holes were drilled on the Pine Creek kimberlite, investigated by Stockdale in 1972, to provide fresh samples, as part of an ongoing investigation by DME of kimberlites in SA.

GROUND MAGNETIC SURVEYS

In September to December 1992, 12 ground magnetic traverses were completed, totalling 240.3 line kilometres (Table 1), along predominantly east-west traverses. Traverses were sited to intersect significant aeromagnetic features,

including the Bendigo Granite. Readings were taken at 25 m intervals, using an Overhauser proton precession magnetometer. A GPS reading was taken on a pegged station every 500 m along the traverse, using either a JRC or Garman GPS, and these are shown on ground magnetic traverses on Figure 3. For all traverses, a base magnetometer station was established with automatic recording every 30 seconds. One traverse was repeated when the base station data indicated a severe magnetic storm during the original recording of the traverse.

Ground magnetic profiles for the 12 traverses are presented in Appendix C. These have not been corrected for diurnal drift. Base station and uncorrected traverse data are available in computer disc format.

DRILLING

Holes were sited at nominally 500m or 1 km intervals along traverses, site locations adjusted to investigate features delineated by ground magnetism. Drillhole locations were established by GPS and/or by relating to previously established and ground magnetic stations.

Drillholes CRN 1 to 115 and MUR 1 to 16 are summarised in Table 2 and AMG co-ordinates are presented in Table 3.

Holes were drilled with the DME Investigator Mark V drill rig equipped with 3" reverse circulation drill rods, and with a maximum depth capacity of 149.5m. Holes were logged by Joanne

Janz, Peter Hill or Wayne McCallum, and logs are presented in Appendix A.

Logging samples were collected in screw top plastic jars at 2 m intervals, and placed in HQ core trays, now held at the DME Glenside core library. The remaining sample was arranged in rows on the ground adjacent to the drill site for analytical sampling. At the completion of each hole, magnetic susceptibility (k) was determined for each 2 m sample (measured in 10^{-3} SI units, where $k=4\pi K$ in cgs units) with a view to correlation with the ground magnetic profiles. Scintillometer readings were taken from each sample to determine whether samples should be submitted for analysis for uranium or thorium. No samples showed radioactivity above background levels.

GEOCHEMICAL SAMPLING

Samples for geochemical analysis (base metal, precious metal and trace element) were collected at 2 m intervals or bulked over intervals of up to 10 m, at the discretion of the on-site geologist.

Samples were submitted for either of two separate geochemical schemes:

- a routine, simplified, scheme of 12 elements, comprising 11 elements (Ag, As, Co, Cr, Cu, Fe, Mn, Mo, Ni, Pb, Zn) by ICP (Inductively Coupled Plasma emission spectroscopy) with an aqua regia digest, and Au by Fire Assay/AAS (Atomic Absorption Spectroscopy).
- an extended scheme of 29 elements, comprising the elements as above, plus Cd, P, V by ICP, plus Pt and Pd by Fire Assay/AAS, and a suite

of 12 elements by X-ray fluorescence emission spectroscopy (XRF), comprising Ba, Ce, La, Nb, Rb, Sb, Se, Sn, Sr, Th, U, W.

Routinely, at least one sample of fresh basement was collected for extended analysis from the base of each hole. Several samples were collected for the simplified analytical scheme from the overlying weathered basement intersection. Additional samples were collected from mineralised? zones, eg pyritic zones, ferruginous and/or manganiferous zones, altered (eg silicified) zones, or from zones with quartz veining, etc.

Initially 470 samples were analysed by Australian Mineral Development Laboratories (AMDEL) in Adelaide, comprising 322 samples for the simplified scheme, and 148 samples for the extended scheme.

A subsequent suite of 34 check samples were submitted to ALS (Australian Laboratory Services) in Brisbane, bringing the total number of analyses to 504. Correlations of original and check analyses are presented and discussed in Appendix G. The correlations indicate that variations in results from both laboratories are within acceptable limits.

Caroona 1:100 000 map sheet: 451 samples (6731 RS 576-1038), of which 132 were for extended analysis, 285 were for routine analysis, and 34 were check samples.

[excluding: RS 1004 and 1015 from CRN 112, 46-48 m and 132-135 m respectively (samples missing); RS 636-640 from small prospecting pits

between CRN 12 and 13; and 5 palaeontology samples, RS 1005-1009, from CRN 26, 27.]

Murkaby 1:100 000 map sheet: 53 samples (6831 RS 29-82), of which 16 were for extended analysis, and 37 were for routine analysis.

Ten samples, all from the Caroon sheet, were submitted for full silicate analysis, most being from the Bendigo Granite and associated and adjacent altered regions, with one from Adelaidean metasediments, and one from the Pine Creek kimberlite.

Results of all analyses are presented in Appendix E, and results for each drill hole are presented subsequent to the relevant drill log in Appendix A..

Petrology of 16 samples submitted to Pontifex and Associates is included in appendix F; samples were from the Bendigo Granite, from alteration zones in CRN 80, 81, from calc-silicates and mylonitic zones to the east of the granite, and from kimberlite in CRN 55.

RESULTS OF DRILLING

Of the 131 holes drilled, 9 did not reach basement, either Adelaidean metasediments, Cambro-Ordovician intrusives, or Cretaceous kimberlite. CRN 22, 26, and 27 were abandoned at about 120m, the maximum depth with rods available at that time; CRN 45, 54, 104, and 110 were abandoned in collapsing sands and gravels at depths of more than 100 m; CRN 46 and 47 were abandoned at an impenetrable / silicified cover horizon, ie silcrete? at about 31-33 m depth.

Drilling success at the western granite margin was poor, resulting in failure to identify possible alteration zones associated with the granite in the following areas:

- the western contact of the granite on the Willara Traverse, which is overlain by more than 120m of cover in CRN22 and 110 which were abandoned in loose Cainozoic sands and basal gravels;
- The western part of the granite at the intersection of the Willara and Hog Back - Kia Ora traverses, CRN 26, 27 & 104;
- the western contact of the granite on the Saltbush Dam traverse, CRN 45, 46, 47 and 54.

RESULTS OF BASEMENT GEOCHEMISTRY

Anomalous geochemical analyses are summarised in Table 5.

Geochemical analysis of drill samples revealed few anomalous intersections, and there was limited mineralisation associated with the margins of the granite.

Sample 6831 RS 40 from the base of MUR 7 was contaminated by fragments of disintegrating tungsten tipped drill bit (noted in the field logs, and confirmed by strongly anomalous Ag, W, Cu, etc in the analytical results), and was therefore excluded from further consideration.

Statistics for each element are shown in table 4, including minimum and maximum values and

mean and standard deviation. When calculating the mean and standard deviation, values below the detection limit were set to half the detection limit.

Frequency distributions for the 29 elements are shown graphically in appendix F.

Of the 29 elements analysed, Table 5 summarises the anomalous geochemical results for 14 significant elements: base metals (Cr, Cu, Ni, Pb, Sn, W, Zn), precious metals (Ag, Au, Pd), and indicator elements (As, Co, Mn, Mo).

For most elements the anomalous cut-off value was selected as the mean plus two standard deviations (M+2S). For those elements with many samples below detection limit and for which the mean was below detection limit (Ag, Pd, Sn), the anomalous cut-off value was taken as the detection limit plus two standard deviations (DL+2SD). For Cr, Cu, Ni and W, the anomalous cut-off was taken as the mean plus one standard deviation (M+SD), as the standard deviation was significantly higher than the mean, and few results were higher than M+2SD. For those samples which were anomalous in one or more of these elements, iron is also shown on table 5, either as iron enrichment (M+2SD) or depletion (M-SD).

Results for major base and precious metals were:

Gold: 78% of samples were 1 ppb or less, and 97% were <10 ppb. Highest values were 34 ppb in CRN 83 and CRN 61, and results of 8 ppb or better (M+2SD = 7.3 ppb) were recorded in 18 samples from 14 holes.

Copper: Mean was 70.6 ppm with a standard deviation of 231 ppm. Maximum recorded value was 3850 ppm. Values >300 ppm (ie M+SD) were recorded in 9 samples from 4 holes.

Chromium: Mean was 46 ppm with a standard deviation of 105.4 ppm. Maximum recorded value was 1660 ppm, and values >152 ppm (M+SD) were recorded in 13 samples from 6 holes.

Nickel: Mean was 49.7 ppm with a standard deviation of 97.8 ppm. Maximum values was 1260 ppm, and values >148 ppm (M+SD) were recorded in 18 samples from 9 holes.

Lead: Mean was 9.9 ppm, with a standard deviation of 11.8 ppm. Maximum value was 155 ppm. Values >33 ppm (M+2SD) were recorded in 16 samples from 13 holes.

Zinc: Mean was 67.2 ppm, with a standard deviation of 85.2 ppm; the frequency distribution indicates a minor secondary peak at about 175 ppm. Maximum value was 960 ppm, and values >235 ppm (M+2SD) were recorded in 13 samples from 8 holes.

ADELAIDEAN LITHOLOGIES

Adelaidean sedimentary and metasedimentary lithologies intersected in drilling are summarised as follows:

Siltstone: CRN 02, 05-13, 17-21, 32-34, 38-44, 58-59, 62, 66-68, 70-76, 78-79, 80*, 85, 93-94, 99, 100*, 101, 105, 107*, 108, 112*; MUR 01, 05, 09-10, 12

Calcareous siltstone: CRN 35; MUR 06

Sandstone & siltstone: CRN 01, 03-04, 16, 31, 36, 69, 77, 84, 106*, 109

Sandstone/quartzite: CRN 30, 37, 57, 61, 81*, 114*; MUR 07, 13

Diamictite/sandy siltstone: CRN 14-15, 28-29, 63-65, 82-83; MUR 04

Schist: CRN 88-90, 98

Phyllitic siltstone: MUR 02-03, 08

Shale: CRN 91-92

Calc-silicate/metasiltstone: CRN 96, 102*, 103*; MUR 11*

[* also discussed under skarns &/or contact rocks]

The dominant lithology intersected in drilling was **siltstone**, and in most cases it was difficult to assign a unit or group name. Many siltstones were slightly sandy, with thin laminae or coarser sandy interbeds, and only rarely calcareous. In most cases, drill cuttings were not sufficiently large for sedimentary structures to be apparent.

Coarser grained **sandstones** and/or **quartzites** are not common, and intersections were widely spaced.

Bi-modal or poly-modal sandy siltstones, ie **diamictite**, were noted in 10 holes in 4 areas:

- CRN 14, 15, 28, and 29 correlatable with outcrop of Appila Tillite to the south-southwest,
- CRN 63 (and less sandy siltstones in CRN 64, 65), in an area of zero outcrop in the southwest of the project area,
- CRN 82 and 83, 2 km west of Bendigo HS (as per the unpublished Ucocola 1:40 000 preliminary map),
- MUR 04, 9.5 km east-northeast of Kia Ora HS, and the only intersection of tillite to the east of the Bendigo Granite.

Fine grained metamorphosed equivalents of the above sequences, including phyllite and phyllitic siltstone, metasiltstone, fine grained calc-silicates and schist and shale, predominate on the eastern side of the Bendigo Granite (CRN 88-92, 96, 98; MUR 02-03, 08, & 11). Petrology of samples from CRN 88 and 89 (samples 6731 RS 910 and 912) revealed quartz - biotite schists with cordierite? porphyroblasts altered to sericite. A full silicate analysis of cordierite schist from CRN 88 is included in appendix E.

Anomalous geochemical results for Adelaidean sediments from 30 drillholes are shown in Table 6 (not including those sediments adjacent to the Bendigo Granite, which are discussed later), and comprised from north to south:

- Between Pulpara HS and the western margin of the Bendigo Granite: siltstones in drillholes CRN 33, 38, 39, 41 and 42 included a scatter of anomalous Au (8,11 ppb), Mn (7200, 5100 ppm), Sn (8 ppm) and Zn (260, 320 ppm).
- East of the Bendigo Granite: siltstones in CRN 92, MUR 01 and 02 included some anomalous Ni (160 ppm), Pb (36 ppm), and Zn (260, 370, 280 ppm).
- South of Pulpara HS: CRN 31 was sited on a prominent symmetrical magnetic peak about 50 m wide on the ground magnetics (Pulpara traverse) with an alteration? zone extending 500 m on each side. CRN 31 intersected carbonaceous siltstone (similar to CRN 16, 18 below) and fine grained sandstone, with abundant disseminated ex-sulphides, quartz veining, and ferruginous stained and bleached fracture zones and boxworks; geochemistry

revealed anomalous As (30, 39 ppm) and Au (10 ppb). CRN 32 on the flank of the anomaly intersected carbonaceous siltstone with fine pyrite-infilled fractures, and contained anomalous Pb (42 ppm) and Zn (270 ppm). Petrological descriptions of samples 6731 RS 667 and 673 from CRN 31 and 32 indicate that pyrite is disseminated within carbonaceous silty dolomite, or contained within complex vein-sets with limonite.

- South of Pulpura HS and west of Willara HS: a zone of dark (carbonaceous in part) siltstones in CRN 16, 18 included anomalous As (62, 36, 32, 42, 66 ppm), Au (13, 17 ppb), Co (115 ppm) and Mo (6 ppm);
- On the Willara traverse close to Collinsville HS: drillholes CRN 02, 04, 05, 07 included slightly anomalous Pb (35, 38, 66 ppm) and Pd (3, 3 ppb) in siltstone and siltstone with thin sandstones.
- In the southwest of the project area on the Caroon - Hog Back traverse: siltstones in CRN 67, 68, 69, 70, 73, 74, 75 and 76 contained a scatter of anomalous results, including As (72, 62, 44), Co (175 ppm), Mn (5700, 7000 ppm), Mo (7 ppm), Ni (170 ppm), Pb (38 ppm), Pd (3 ppb), Sn (8 ppm) and Zn (260, 250 and 330 ppm). The most significant was CRN 75 which contained anomalous Co, Mn, Ni, and Zn.
- At the southwest of the project area: diamictite in CRN 64 and 65 contained anomalous As (30 ppm), Mo (9 ppm), Pb (44, 40, 38, 62 ppm) and Zn (340 ppm); siltstone in CRN 62 adjacent to the west was strongly anomalous in As (34, 72 ppm), Co (380, 534 ppm), Cu (360,

334 ppm), Ni (270, 396 ppm) and Zn (960, 943 ppm).

- In the southeast of the project area: siltstone in MUR 05 and 06 included slightly anomalous Ag (1.5 ppm), As (28 ppm) and Mo (6 ppm).

BENDIGO GRANITE AND MAFIC INTRUSIVES

The informal name, "Bendigo Granite", has been used herein for all igneous granitoids, presumed to be equivalents to the Cambro-Ordovician granite (or microgranite, as the grainsize in drillholes is typically fine to medium) which crops out several kilometres southeast of Bendigo Homestead. The granite is cut by mafic dykes, and large quartz veins, some of which have been prospected for gold? in shallow pits.

Table 7 summarises the 23 holes which intersected granitoid lithologies. CRN 60, sited on a pronounced ground magnetic high, intersected altered diorite about 5 km west of the outcropping Bendigo Granite, and is inferred to be a smaller intrusion to the west of the main body. Remaining holes intersected igneous rocks within the subcrop area inferred from aeromagnetics.

Much of the Bendigo Granite intersected in drilling is considerably more mafic than that exposed near Bendigo HS, and further evaluation of the nature of this intrusive body is warranted.

16 holes intersected fine to coarse grained granite comprising quartz-feldspar-biotite-mafic minerals, viz:

CRN 23: cream to light pink, m grained, faint foliation;

CRN 25: very weathered;

CRN 49: vf grained, quartz-feldspar-biotite-hornblende (petrological sample 6731 RS 730 is described as plagioclase - quartz - hornblende-biotite-granodiorite with altered sphene and oxidised magnetite);

CRN 50: plagioclase-quartz-biotite-opaques, and greisen.

CRN 51: dark grey, m grained, quartz-feldspar-biotite-hornblende;

CRN 52: green to dark green, vf-m grained, quartz-biotite;

CRN 53: quartz-plagioclase-biotite-hornblende;

CRN 86: m-c grained, pink k-feldspar-white feldspar-quartz-biotite;

CRN 87: quartz-feldspar-biotite;

CRN 95: slightly gneissic, ie biotite-rich/biotite-poor layering, and slightly foliated;

CRN 97: m-c grained, quartz-plagioclase-hornblende-biotite; with light grey to pink stressed quartz-rich granite-mylonite.

CRN 100: siltstone, and gneiss? or granite?.

CRN 103: calc-silicate, with very weathered or altered granite and minor granite mylonite.

CRN 113: f-m grained, quartz-feldspar;

CRN 115: green, m grained, quartz-orthoclase?-green feldspar-biotite, with vf grained black mafic minerals.

MUR 15: f-m grained, quartz-plagioclase-orthoclase?-pyroxene / amphibole-biotite, with minor dark green f grained felsic granite.

Four holes intersected fine to coarse grained intermediate to mafic intrusives, comprising

k feldspar - feldspar (eg orthoclase) - pyroxene / amphibole-biotite \pm minor quartz.

CRN 48: dark green plagioclase-hornblende-biotite-epidote granite/ diorite (petrological sample 6731 RS 725 is described as biotite microtonalite with oxidised magnetite, appendix H);

CRN 60: altered m grained diorite; petrological sample 6731 RS 768 indicates this is a haematitic albite-rich rock, possibly originally a dolerite which has been albitised and oxidised;

CRN 111: dark green-grey to black, m grained, with intergrown felsic & mafic minerals, minor biotite, and rare quartz.

CRN 112: dark green to black m grained mafic intrusive.

Three holes intersected mixed felsic and mafic granitoid lithologies as above, viz:

CRN 24:

- green to dark green m-c grained granite;
- dominantly green feldspar-black hornblende?.

MUR 14: two rock types, mutually cross-cutting with diffuse irregular contacts:

- dark green f grained mafic intrusive,
- vf grained silica-rich rock, with some clear sugary vein? quartz.

MUR 16: strongly weathered or altered and comprising two distinct intermixed lithologies:

- f-m grained quartz-plagioclase-biotite? granite,
- f-c grained granite? containing felsic and mafic minerals.

Full silicate analyses for the 7 granitoid samples are detailed in Table 8.

The altered diorite in CRN 60 is the most distinctive, having the lowest SiO₂, MnO, K₂O (and amongst the lowest for Al₂O₃), and highest TiO₂, MgO, Na₂O, P₂O₅, and by far the highest Fe₂O₃. The very weathered granite from CRN 25 was also moderately low in SiO₂, high in Al₂O₃ and slightly high in TiO₂, Fe₂O₃, but comparatively low in MgO, CaO, Na₂O and K₂O.

The remaining granitoids are more consistent, with SiO₂ from 69 to 73.3%, Al₂O₃ from 12.9 to 15.4%, Fe₂O₃ from 3.64 to 5.35%.

Anomalous geochemical results associated with the igneous intrusives are summarised in Table 9:

- Anomalous gold, 10 ppb, was recorded in two samples from drillhole CRN 60, on the small diorite intrusive to the west of the main intrusive, on the Pine Creek-Bendigo traverse, together with minor anomalous chrome and palladium,
- Granite adjacent to outcrop near Bendigo HS included anomalous molybdenum (drillholes CRN 86 and 87),
- Granite intersected on the Saltbush Dam traverse to the south of the outcrop included minor anomalous cobalt (52-140 ppm), nickel (81-200 ppm), lead (46, 72 ppm) and palladium (3-5 ppb) from drillholes CRN 48, 49, 50,
- Felsic and mafic granitoid, east of Kia Ora HS, close to the eastern margin of the intrusive, included anomalous silver (2.5 ppm), cobalt (330 ppm), chrome (249 ppm), lead (35 ppm) and tungsten (1040 ppm) from CRN 115 and MUR 14 and 15.

ALTERED ADELAIDEAN LITHOLOGIES, CONTACT OR SKARN ROCKS

14 drill holes intersected Adelaidean lithologies either in contact with the Bendigo Granite, or showing evidence of thermal or hydrothermal alteration, presumably associated with the granite (see Table 10).

Lithologies include:

- siltstone in contact with granite? (CRN 100), or mafic intrusive (CRN 112);
- granite and **granite-mylonite** in contact with **calc-silicates** (CRN 103); calc silicates (CRN 96, 102, MUR 11, and outcrop east of CRN 51) and granite mylonites (CRN 97) are developed along the eastern margin of the intrusive. Petrology indicated foliated protomylonitic granite in contact with layered hornfels (originally calcareous shale or siltstone) in CRN 96, and fine grained granite mylonite with feldspar augens and ribbons of quartz in fresh to albitised alkali feldspar in CRN 97.
- fine grained **silicified skarns** or **greisen** ± muscovite ± garnet (CRN 50, CRN 107, CRN 114; & perhaps CRN 61, adjacent to diorite in CRN 61); petrological sample 6731 RS 736 from CRN 50 is described as a fine grained muscovite-quartz greisen possibly derived from a granitoid, and full silicate analysis indicates the composition is similar to the adjacent/enclosing granitoids (with the exceptions of having slightly lower Fe₂O₃, MnO, and much lower CaO and Na₂O, and higher K₂O and LOI);

- a zone of intense hydrothermal? alteration was intersected in CRN 80, 81, 106 and 107 to the southwest of Kia Ora HS, corresponding with a linear aeromagnetic feature which strikes south-southwest from the Bendigo Granite.

This is evidenced by:

CRN 80 - *intense alteration and abundant quartz and specular haematite veining,*

CRN 81 - multiple episodes of *brecciation?* and *intense dolomitisation (originally logged as silicification)*, and with minor *muscovite veining*, and with *altered fine grained mafic intrusive?*,

[petrology on samples 6731 RS 886, 887, 888, and 890 indicated a suite of carbonate - quartz - chlorite - nickel?-rich-mica - phlogopite (or talc?) rocks of possible carbonatite, evaporitic, or diapiric origin]

CRN 106 - *silicification* and alteration and the development of *massive talc*,

CRN 107 - *silicification*, with garnet, and proto-boxwork.

The northeastern end of this feature on the aeromagnetic image appears to be associated with offsetting of the granite, but the nature of the feature (eg faulting subsequent to the intrusion, or perhaps dislocation synchronous with the original intrusion) was not established.

Anomalous geochemical results associated with the margins of the Bendigo Granite are summarised in Table 11, for 22 drill holes, comprising the 14 as above, and 8 others (CRN 44, 59, 83, 84, 85, 98, 99, and MUR 13) close to the intrusive margins:

- CRN 59, 61 & 83 adjacent to the smaller altered diorite intrusive in CRN 60 to the west

of Bendigo HS intersected anomalous gold (12, 19, 30, 34 ppb), cobalt (115 ppm), copper (670 ppm), manganese (6600, 38500 ppm), nickel (170 ppm), lead (155 ppm), and zinc (240 ppm);

- In the area adjacent to the granite outcrop, southeast of Bendigo HS, drillholes CRN 84, 85 intersected anomalous copper (750-3850 ppm), and slightly anomalous silver (1.5-3.5 ppm) and molybdenum (7-8 ppm);
- On the Saltbush Dam traverse to the south of the outcrop, CRN 44 intersected anomalous gold (10 ppb) and arsenic (66 ppm); and CRN 50 (a greisen zone within the granite intersected anomalous cobalt (140 ppm), nickel (200 ppm), and palladium (5 ppb);
- On the South Dam traverse, drillholes CRN 96 and 98 adjacent to the east of the granite intersected slightly anomalous molybdenum (12 & 9 ppm);
- West of Kia Ora HS, and adjacent to the west of the granite, drillholes CRN 102, 103 intersected slightly anomalous gold (8 ppb) and silver (2.5 ppm);
- In the region associated with the aeromagnetic feature extending southwest from the granite (ie hydro-thermal zone?), drillholes CRN 80, 99, 106, 107 intersected anomalous arsenic (28-54 ppm), gold (5-12 ppb), cobalt (110-175 ppm), manganese (6300 - 12600 ppm), molybdenum (9 ppm), nickel (185 ppm), palladium (5 ppb), and tin (17 ppm);
- Drillhole MUR 13, adjacent to the east of the granite east of Kia Ora HS intersected anomalous molybdenum (19 ppm), nickel (195 ppm), and tungsten (350 ppm);

- South of Kia Ora HS, drillhole CRN 114 (adjacent to east of granite in CRN 113) intersected anomalous arsenic (32 ppm) and chrome (163 ppm).

PINE CREEK KIMBERLITE

Three holes (CRN 55, 56 and 57) were targeted on the subcrop area of the Pine Creek kimberlite, as delineated by trenching and shallow drilling by Stockdale in 1972.

CRN 55 intersected weathered kimberlite from the surface, becoming dark grey and fresh below 38 m to the base at 47.5 m, comprising predominantly phlogopite mica with fine pale green and orange veining. Petrological sample 6731 RS 757 (appendix H) was an altered kimberlite containing scattered megacrysts of olivine altered to smectite+carbonate+limonite+, and smaller crystals of phlogopite and of olivine partially altered to smectite, within a groundmass of fine phlogopite with disseminated carbonate.

CRN 56 intersected weathered kimberlite, including olivine and fragments of host-rock siltstone, from the surface to 50 m, then passing into an inferred karst infilled with kimberlite, marl, and weathered siltstone detritus.

CRN 57 intersected fine grained quartzite and silicified sandstone adjacent to the kimberlite.

Geochemically these 3 holes were consistently anomalous in chrome (up to 1660 ppm) and nickel (up to 1260 ppm), with CRN 57 being the most

anomalous. CRN 57 was also anomalous in gold (8 ppb) and cobalt (175 ppm), and CRN 55 was slightly anomalous in gold (3 ppb).

Full silicate analysis of a sample of fresh kimberlitic rock from drillhole CRN 55 (in appendix E) highlighted the distinctive chemistry, ie low SiO₂ and Al₂O₃, and high TiO₂, CaO (as carbonate?, as LOI is also high), MgO and Fe₂O₃.

CAINOZOIC COVER SEQUENCES

Drilling intersected Cainozoic cover sequences reaching a maximum thickness of 124 m in CRN 109.

Typically the Cainozoic cover comprised Pooraka Formation overlying a terrestrial? clay and sand sequence which interfingers with thin marine limestones to the southeast of the project area. Near Kia Ora HS basement is overlain by in excess of 120m of cover, comprising about 25 m of Pooraka Formation sandy clays with coarse quartz and ironstone gravels, underlain by more than 80-100 m of Cainozoic compact greenish grey clays (possibly Olney Formation, the terrestrial equivalent of Murray Basin sediments), which are in turn underlain by 10+m of clean and loose fine sands and coarser gravels.

Some anomalous geochemical results were recorded within the Cainozoic cover (however very few samples were submitted for analysis from the cover sequences). Anomalous geochemical results and visible sulphides were:

CRN 44, anomalous silver (1.5 ppm) in basal gravels at 94-98 m;

CRN 50, anomalous cobalt (140 ppm) and manganese (6400 ppm) in basal gravels at 10-16m;

CRN 54, anomalous arsenic (30 ppm) and lead (38, 34 ppm) in ferruginous gravel and gravelly clay from 16-30 m;

CRN 57, anomalous gold (8 ppb), cobalt (115-175 ppm), chrome (962-1660 ppm), and nickel (1000-1260 ppm) in dark green clays;

CRN 104, framboidal sulphide at 94 m, within a thick sequence (from 36 to 118 m) of light greenish grey slightly micaceous clay;

CRN 112, dark grey framboidal sulphide aggregates at 46-47 m depth, within a thick sequence (from 30 to 95.5 m) of grey to dark grey clay, manganese stained in part;

CRN 115, light grey framboidal sulphide aggregates at 38.5 m and 39 m depth, and framboidal sulphide infilling worm burrows at 44 m depth, within a thick sequence (from 6 to 59.8 m) of pale to light grey clay which is black stained in part, and with some sand interbeds.

Five palynological samples of dark grey to black clean or silty clays within the thick clay sequence underlying Pooraka Formation between Willara HS and Kia Ora HS were submitted from two drillholes:

RS 1005, CRN 26, 48-50 m

RS 1006, CRN 27, 38-40 m

RS 1007, " , 50-52 m

RS 1008, " , 54-56 m

RS 1009, " , 74-76 m

None of the samples contained carbonaceous material, hence the age and stratigraphic

correlatives of this unit are uncertain. The dark to black zones within the clay are manganese staining rather than carbonaceous zones.

Ferruginous gravels within and at the base of the Pooraka Formation include rounded pebbles and cobbles of vein? quartz, quartzite / sandstone, siltstone / shale, and iron oxides including magnetite. The magnetic susceptibility of these gravels is very high, up to 42×10^{-3} SI. Gravel infilled palaeo-channels may account for some of the features on the aeromagnetics, eg the boomerang shaped feature which was targeted in the central portion of the Caroon - Hog Back traverse as no basement features were intersected to account for this anomaly.

The magnetic susceptibility of the basal gravels was useful in confirming the basal contact of Pooraka Formation. The Cainozoic/basement contact was often indicated by a minor increase in magnetic susceptibility which extended several metres down into the weathered basement. This may be indicative of iron remobilisation on a palaeo-weathering surface.

SUMMARY

The exploration ground magnetics and drilling programme of 8531.6m, completed in December 1992, was concentrated over, and at the margins of, the Bendigo Granite of Cambro - Ordovician age, and in surrounding Adelaidean metasediments.

Drilling indicated that the Bendigo Granite is a complex inhomogenous intrusion and includes

felsic and mafic phases. The granitoid suite of rocks including the Bendigo Granite is locally anomalous in gold, copper, chromium, palladium, molybdenum, or lead.

The altered diorite? intersected in CRN 60 to the west of the main granite body, contained 10 ppb gold and anomalous chromium. Adjacent country rock intersected in drillholes CRN 59, 61 and 83 contained the highest values of gold (up to 34 ppb) and manganese (up to 38500 ppm) recorded in this programme, and were also strongly anomalous in cobalt (115 ppm), copper (670 ppm), nickel (170 ppm), lead (155 ppm), and zinc (240 ppm).

The contact zones adjacent to the intrusive included skarn, greisen and granite mylonite which include anomalous gold, arsenic, copper and molybdenum. In particular, CRN 84 to the east of Bendigo HS intersected siltstone and sandy siltstone with strongly anomalous copper (750-3850 ppm) with slightly anomalous gold.

The aeromagnetic image highlights a feature which extends south-southwest from the intrusion. Five holes in this area intersected a variety of lithologies indicative of a probable strong zone of hydrothermal alteration and possible structural dislocation, including brecciation?, dolomitisation, and specular haematite and muscovite veining. Drillholes CRN 80, 99, 106, 107 intersected moderately to very anomalous arsenic and manganese, and slightly to moderately anomalous gold and cobalt, with some anomalous molybdenum, nickel, palladium and tin.

Adjacent to the east of this feature, the aeromagnetic image indicates that the intrusion has been offset? with obviously complex structure in the Kia Ora HS area and to the south and east. Due to the thickness of Cainozoic cover (more than 100m), this area had only a scatter of drillholes in this programme.

The area in and adjacent to the Pine Creek kimberlite of Jurassic age (drillholes CRN 55, 56 and 57) was strongly anomalous in chrome (up to 1660 ppm) and nickel (up to 1260 ppm), moderately anomalous in cobalt (175 ppm), and slightly anomalous in gold (8 and 3 ppb).

Follow-up exploration should include detailed interpretation of the aeromagnetic image, and should further investigate:

- the extent of gold and base metal anomaly associated with the altered diorite?, and the nature and extent of this intrusive, to the west of Bendigo HS,
- anomalous copper in the contact zone on the eastern side of the Bendigo Granite, east of Bendigo HS,
- the nature of the complex zone of hydrothermal alteration and structural dislocation? which transects the southern subcrop of the Bendigo Granite, although it is acknowledged that there is thick cover in this region.

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TABLE I.

GROUND MAGNETIC TRAVERSE SUMMARY TABLE

SHEET NAME & NUMBER		LINE NO.	INTERVAL (M)	TOTAL LENGTH (KM)
CAROONA	6731	3437 E	0.0 N-11300 N	11.300
		3471 E	0.0 N-14000 N	14.000
		3403 E	0.0 N- 3000 N	3.000
		3420 E	0.0 S- 4500 S	4.500
		3088 N	0.0 E-33500 E	33.500
		3201 N	0.0 E-10500 E	10.500
		2940 N	0.0 E-21900 E	21.500
		2983 N	0.0 E- 4500 E	4.500
		3024 N	0.0 E-12600 E	12.600
CAROONA- MURKABY	6731- 6831	3225 N	15000 W-0.0 W	
			0.0 E-13225 E	28.225
		3021 N	0.0 E-40000 E	40.000
		2968 N	0.0 E- 2800 E	2.800
		3189 N	0.0 E- 7000 E	7.000
		3080 N	0.0 E-15000 E	15.000
MURKABY	6831	3111 N	0.75W-13000 E	13.075
		3133 N	0.0 E-17000 E	17.000
TOTAL				240.300

TABLE 2.

SUMMARY OF DRILLING, 1992

DRILLHOLE DEPTHS & DATES

DRILL HOLE	DEPTH (m)	TRA- VERSE	DATE DRILLED	DRILL HOLE	DEPTH (m)	TRA- VERSE	DATE DRILLED
CRN 01	35.5	3088mN	15.09.92	CRN 53	73.5	"	21.10.92
CRN 02	29.5	"	15-16.09.92	CRN 54	101.5	"	"
CRN 03	11.5	"	17.09.92	CRN 55	47.5	3225mN	22.10.92
CRN 04	26.0	"	"	CRN 56	68.0	"	"
CRN 05	11.5	"	"	CRN 57	19.0	"	"
CRN 06	56.0	"	"	CRN 58	19.0	"	"
CRN 07	53.5	"	17-18.09.92	CRN 59	69.5	"	"
CRN 08	47.5	"	18.09.92	CRN 60	75.5	"	23.10.92
CRN 09	35.5	"	"	CRN 61	125.5	"	"
CRN 10	26.0	"	"	CRN 62	100.0	2940mN	26.10.92
CRN 11	8.5	"	"	CRN 63	53.5	"	27.10.92
CRN 12	8.0	"	"	CRN 64	53.5	"	"
CRN 13	13.0	"	"	CRN 65	28.0	"	28.10.92
CRN 14	50.5	"	"	CRN 66	50.0	"	"
CRN 15	44.5	"	19.09.92	CRN 67	50.0	"	"
CRN 16	74.5	"	"	CRN 68	52.0	"	"
CRN 17	92.5	"	"	CRN 69	63.0	"	"
CRN 18	67.0	"	20.09.92	CRN 70	46.0	"	29.10.92
CRN 19	107.5	"	"	CRN 71	86.5	"	"
CRN 20	95.5	"	21.09.92	CRN 72	83.0	"	"
CRN 21	116.5	"	"	CRN 73	59.5	"	30.10.92
CRN 22	118.0	"	22.09.92	CRN 74	58.0	"	"
CRN 23	109.0	"	"	CRN 75	55.0	"	30-31.10.92
CRN 24	117.0	"	28.09.92	CRN 76	95.5	3240mE	31.10.92-
CRN 25	119.5	"	29.09.92				01.11.92
CRN 26	119.5	"	"	CRN 77	85.5	"	01.11.92
CRN 27	119.5	"	30.09.92	CRN 78	77.5	2940mN	02.11.92
CRN 28	68.5	3437mN	"	CRN 79	122.5	"	"
CRN 29	52.0	"	"	CRN 80	118.2	"	03.11.92
CRN 30	47.5	"	01.10.92	CRN 81	121.5	"	04.11.92
CRN 31	64.0	"	"	CRN 82	64.0	3225mN	10.11.92
CRN 32	68.5	"	"	CRN 83	33.0	"	"
CRN 33	38.0	"	"	CRN 84	88.0	"	"
CRN 34	10.0	"	03.10.92	CRN 85	49.0	"	11.11.92
CRN 35	4.0	"	"	CRN 86	32.0	"	12.11.92
CRN 36	21.0	"	"	CRN 87	36.0	"	"
CRN 37	44.5	"	"	CRN 88	3.0	"	13.11.92
CRN 38	47.5	"	"	CRN 89	25.0	"	"
CRN 39	65.5	"	05.10.92	CRN 90	42.0	"	"
CRN 40	54.0	3201mN	13.10.92	CRN 91	34.0	"	"
CRN 41	72.0	"	"	CRN 92	91.5	"	"
CRN 42	84.0	"	"	CRN 93	59.5	"	14.11.92
CRN 43	115.0	"	14.10.92	CRN 94	24.0	"	15.11.92
CRN 44	123.5	"	"	CRN 95	9.0	3189mN	"
CRN 45	108.0	"	16.10.92	CRN 96	5.0	"	16.11.92
CRN 46	33.0	"	17.10.92	CRN 97	62.5	"	"
CRN 47	31.0	"	"	CRN 98	57.5	"	17.11.92
CRN 48	78.0	"	"	MUR 01	29.5	"	"
CRN 49	56.2	"	20.10.92	MUR 02	89.5	3133mN	18.11.92
CRN 50	73.0	"	"	MUR 03	53.5	"	"
CRN 51	17.0	"	"	MUR 04	40.0	"	"
CRN 52	55.0	"	"	CRN 99	104.0	"	24.11.92

TABLE 2. (Continued)

DRILL HOLE	DEPTH (m)	TRA- VERSE	DATE DRILLED

CRN100	106.0	"	"
CRN101	118.0	"	25.11.92
CRN102	117.0	"	"
CRN103	127.0	"	27.11.92
CRN104	121.0	"	28.11.92
CRN105	74.0	"	"
CRN106	112.2	"	29.11.92
CRN107	122.5	"	30.11.92
CRN108	149.5	"	01.12.92
CRN109	133.5	3088mN	02.12.92
CRN110	116.5	"	02-03.12.92
CRN111	107.5	"	03.12.92
CRN112	135.0	"	04-07.12.92
CRN113	111.5	"	08.12.92
CRN114	62.0	"	09.12.92
MUR 05	17.5	3021mN	"
MUR 06	31.0	"	"
MUR 07	31.0	"	"
MUR 08	44.0	"	10.12.92
MUR 09	29.5	"	10-11.12.92
MUR 10	98.5	3111mN	11-12.12.92
MUR 11	7.0	3133mN	12.12.92
MUR 12	10.0	"	13.12.92
MUR 13	10.0	"	"
MUR 14	91.5	3080mN	"
MUR 15	127.5	"	14.12.92
MUR 16	103.5	"	15.12.92
CRN115	90.5	3080mN	16.12.92

TOTAL

CRN HOLES: 7718.1m

MUR HOLES: 813.5m

ALL HOLES: 8531.6m

TABLE 3.

NACKARA ARC DRILLHOLE LOCATIONS
CAROONA-MURKABY 1:100000 MAP SHEETS

HOLE NO.	LINE	INTERVAL	EASTING	NORTHING	ZONE
CRN 1	3088 N	0 E	328 557	6 308 878	54
CRN 2	3088 N	1000 E	329 449	6 308 426	54
CRN 3	3088 N	2000 E	330 290	6 307 921	54
CRN 4	3088 N	5000 E	333 226	6 307 530	54
CRN 5	3088 N	6000 E	334 370	6 307 496	54
CRN 6	3088 N	7000 E	335 253	6 307 720	54
CRN 7	3088 N	8000 E	336 164	6 307 976	54
CRN 8	3088 N	9000 E	337 196	6 308 332	54
CRN 9	3088 N	10000 E	338 067	6 308 550	54
CRN 10	3088 N	11000 E	339 029	6 309 244	54
CRN 11	3088 N	12000 E	339 748	6 309 833	54
CRN 12	3088 N	13000 E	340 656	6 310 199	54
CRN 13	3088 N	14000 E	341 187	6 310 914	54
CRN 14	3088 N	16000 E	342 879	6 311 686	54
CRN 15	3088 N	17000 E	343 753	6 311 553	54
CRN 16	3088 N	18000 E	344 661	6 311 922	54
CRN 17	3088 N	19000 E	345 614	6 311 856	54
CRN 18	3088 N	20000 E	346 604	6 311 851	54
CRN 19	3088 N	21000 E	347 591	6 311 972	54
CRN 20	3088 N	22000 E	348 585	6 311 823	54
CRN 21	3088 N	23000 E	349 539	6 311 938	54
CRN 22	3088 N	24000 E	350 632	6 312 023	54
CRN 23	3088 N	26000 E	352 678	6 311 871	54
CRN 24	3088 N	26900 E	353 620	6 311 740	54
CRN 25	3088 N	28000 E	354 723	6 311 600	54
CRN 26	3088 N	29000 E	355 686	6 311 264	54
CRN 27	3088 N	29000 E	355 893	6 310 491	54
CRN 28	3437 E	1000 N	343 546	6 312 579	54
CRN 29	3437 E	2000 N	343 292	6 313 584	54
CRN 30	3437 E	3000 N	343 046	6 314 588	54
CRN 31	3437 E	3500 N	343 050	6 315 135	54
CRN 32	3437 E	4000 N	342 824	6 315 551	54
CRN 33	3437 E	5000 N	342 556	6 316 463	54
CRN 34	3437 E	6000 N	342 220	6 317 285	54
CRN 35	3437 E	7000 N	342 867	6 317 971	54
CRN 36	3437 E	8000 N	343 719	6 318 767	54
CRN 37	3437 E	9000 N	344 431	6 319 226	54
CRN 38	3437 E	10000 N	345 363	6 319 827	54
CRN 39	3437 E	11000 N	346 298	6 320 329	54
CRN 40	3201 N	0 E	346 667	6 320 043	54
CRN 41	3201 N	1000 E	347 647	6 320 140	54
CRN 42	3201 N	2000 E	348 760	6 320 131	54
CRN 43	3201 N	2975 E	349 777	6 320 197	54
CRN 44	3201 N	4000 E	350 769	6 320 244	54
CRN 45	3201 N	5000 E	351 799	6 320 246	54
CRN 46	3201 N	5575 E	352 342	6 320 296	54
CRN 47	3201 N	6050 E	352 885	6 320 343	54
CRN 48	3201 N	8000 E	354 633	6 320 093	54
CRN 49	3201 N	9000 E	355 590	6 319 756	54
CRN 50	3201 N	9500 E	356 059	6 319 632	54

TABLE 3 continued

CRN 51	3201 N	10000 E	356 624	6 319 685	54
CRN 52	3201 N	7600 E	354 269	6 320 245	54
CRN 53	3201 N	6700 E	353 452	6 320 305	54
CRN 54	3201 N	5700 E	352 439	6 320 314	54
CRN 55	3225 N	12000 E	338 695	6 326 199	54
CRN 56	3225 N	12000 E	338 876	6 326 354	54
CRN 57	3225 N	12000 E	339 027	6 326 445	54
CRN 58	3225 N	14500 E	336 831	6 324 989	54
CRN 59	3225 N	3000 E	348 207	6 325 920	54
CRN 60	3225 N	1600 E	349 630	6 325 956	54
CRN 61	3225 N	1250 E	350 121	6 325 851	54
CRN 62	2940 N	0 E	327 709	6 293 770	54
CRN 63	2940 N	1000 E	328 692	6 293 798	54
CRN 64	2940 N	2000 E	329 693	6 293 786	54
CRN 65	2940 N	3000 E	330 698	6 293 769	54
CRN 66	2940 N	4000 E	331 623	6 294 170	54
CRN 67	2940 N	5000 E	332 568	6 294 691	54
CRN 68	2940 N	5880 E	333 459	6 294 983	54
CRN 69	2940 N	7000 E	334 362	6 295 646	54
CRN 70	2940 N	8000 E	335 199	6 296 221	54
CRN 71	2940 N	10000 E	336 934	6 297 302	54
CRN 72	2940 N	12000 E	338 455	6 298 470	54
CRN 73	2940 N	13000 E	339 207	6 299 155	54
CRN 74	2940 N	15000 E	340 459	6 300 424	54
CRN 75	2940 N	16860 E	342 020	6 301 040	54
CRN 76	3240 E	1500 N	342 176	6 300 151	54
CRN 77	3240 E	1850 N	342 156	6 299 851	54
CRN 78	2940 N	19000 E	344 175	6 301 167	54
CRN 79	2940 N	21000 E	346 93	6 301 408	54
CRN 80	3021 N	500 E	347 346	6 301 939	54
CRN 81	3021 N	1085 E	347 911	6 301 796	54
CRN 82	3225 N	750 E	350 614	6 326 010	54
CRN 83	3225 N	500 E	350 998	6 325 907	54
CRN 84	3225 N	3000 E	354 226	6 325 711	54
CRN 85	3225 N	4000 E	355 064	6 325 405	54
CRN 86	3225 N	4800 E	355 206	6 325 166	54
CRN 87	3225 N	4900 E	355 251	6 324 081	54
CRN 88	3225 N	5500 E	355 694	6 324 266	54
CRN 89	3225 N	6500 E	356 498	6 323 766	54
CRN 90	3225 N	7300 E	357 273	6 323 249	54
CRN 91	3225 N	8500 E	358 151	6 323 042	54
CRN 92	3225 N	9300 E	358 911	6 322 949	54
CRN 93	3225 N	10000 E	359 580	6 322 951	54
CRN 94	3225 N	10700 E	360 211	6 322 949	54
CRN 95	3189 N	300 E	357 417	6 318 843	54
CRN 96	3189 N	850 E	357 948	6 318 702	54
CRN 97	3189 N	1000 E	358 095	6 318 671	54
CRN 98	3189 N	1500 E	358 446	6 318 517	54
CRN 99	3024 N	2000 E	348 477	6 303 596	54
CRN 100	3024 N	5000 E	350 988	6 305 601	54
CRN 101	3024 N	5700 E	351 600	6 306 000	54
CRN 102	3024 N	7000 E	352 817	6 306 674	54
CRN 103	3024 N	8000 E	353 541	6 307 419	54
CRN 104	3024 N	9400 E	354 479	6 308 566	54
CRN 105	3021 N	4000 E	350 073	6 303 277	54
CRN 106	3021 N	1400 E	348 199	6 301 752	54

TABLE 3 continued

CRN 107	3021 N	1700 E	348 507	6 301 801	54
CRN 108	3021 N	9300 E	354 898	6 303 613	54
CRN 109	3088 N	24500 E	351 117	6 310 031	54
CRN 110	3088 N	24850 E	351 520	6 311 954	54
CRN 111	3088 N	30350 E	356 703	6 310 497	54
CRN 112	3088 N	31200 E	357 342	6 309 867	54
CRN 113	3021 N	13175 E	358 555	6 303 140	54
CRN 114	3021 N	13500 E	358 881	6 303 102	54
CRN 115	3080 N	950 E	359 511	6 307 958	54
MUR 1	3189 N	4000 E	360 923	6 318 008	54
MUR 2	3133 N	4000 E	366 520	6 313 116	54
MUR 3	3133 N	4800 E	367 279	6 313 066	54
MUR 4	3133 N	5900 E	367 973	6 313 024	54
MUR 5	3021 N	27300 E	372 086	6 301 251	54
MUR 6	3021 N	28800 E	373 450	6 300 925	54
MUR 7	3021 N	29050 E	373 694	6 300 854	54
MUR 8	3021 N	25600 E	370 433	6 301 662	54
MUR 9	3021 N	28000 E	372 715	6 301 054	54
MUR 10	3111 N	9550 E	388 125	6 310 696	54
MUR 11	3133 N	16200 E	378 164	6 312 260	54
MUR 12	3133 N	16000 E	377 944	6 312 241	54
MUR 13	3133 N	16350 E	378 276	6 312 292	54
MUR 14	3080 N	4500 E	362 927	6 307 755	54
MUR 15	3080 N	4000 E	362 439	6 307 776	54
MUR 16	3080 N	3000 E	361 439	6 307 868	54

TABLE 4. SUMMARY OF STATISTICS OF GEOCHEMICAL RESULTS

	No of Samples	Detectn Limit	Max & Min Values	No of Samples >DL	Method 1: Samples <DL = DL/2	MEAN	STD DEV	Method 2: Samples <DL = zero	MEAN	STD DEV
Ag	503	0.5 ppm	3.5	<DL	27	0.31	0.26	0.23	3.93	
As	503	1.0 ppm	72	<DL	414	6.89	10.29	6.76	10.34	
Au	503	1.0 ppb	34	<DL	245	1.54	2.88	1.25	2.92	
Ba	164	10.0 ppm	1320	<DL	163	508.4	245.6	507.6	245.1	
Cd	164	1.0 ppm	3	<DL	10	0.56	0.29	0.24	1.97	
Ce	164	20.0 ppm	920	<DL	160	91.7	88.3	91.1	88.4	
Co	503	2.0 ppm	534	<DL	466	25.2	39.4	28.8	90.5	
Cr	503	2.0 ppm	1660	<DL	503	46.0	105.4	46.1	105.5	
Cu	503	1.0 ppm	3850	3	503	70.6	230.4	70.5	230.6	
Fe	503	0.01 %	18.8	0.12	503	4.22	2.81	4.21	2.82	
La	164	20.0 ppm	800	<DL	158	60.3	68.8	59.7	68.9	
Mn	503	5.0 ppm	38500	<DL	501	777.1	2113.4	702.8	1278.4	
Mo	503	1.0 ppm	19	<DL	73	1.05	1.77	0.50	1.85	
Nb	164	2.0 ppm	125	<DL	162	16.3	16.7	16.2	16.7	
Ni	503	1.0 ppm	1260	1	501	49.7	97.8	49.8	97.9	
P	164	5.0 ppm	3100	22	164	602.6	422.5	600.1	422.4	
Pb	503	3.0 ppm	155	<DL	385	9.84	11.77	9.47	12.06	
Pd	164	1.0 ppb	5	<DL	36	0.83	0.81	0.44	0.97	
Pt	164	1.0 ppb	5	<DL	1	2.31	0.64	0.03	0.39	
Rb	164	2.0 ppm	360	2	164	138.2	55.7	137.7	55.9	
Sb	164	4.0 ppm	10	<DL	34	2.64	1.47	1.05	2.20	
Se	164	2.0 ppm	7	<DL	63	1.49	1.02	0.73	1.39	
Sn	164	4.0 ppm	17	<DL	70	3.28	1.83	2.10	2.69	
Sr	164	2.0 ppm	1120	6	164	113.6	149.1	113.7	148.7	
Th	164	4.0 ppm	42	<DL	157	14.9	5.9	14.7	6.1	
U	164	4.0 ppm	38	<DL	82	4.20	4.09	3.18	4.70	
V	164	1.0 ppm	280	4	164	51.5	41.6	51.4	41.5	
W	164	10.0 ppm	1040	<DL	35	18.1	85.2	29.4	229.1	
Zn	503	1.0 ppm	960	1	502	66.9	85.1	67.2	85.2	
SiO2	10	0.01 %	73.3	32.0	10	63.9	12.0			
TiO2	10	0.01 %	3.56	0.21	10	1.08	1.21			
Al2O3	10	0.01 %	20.5	4.40	10	13.92	3.90			
Fe2O3	10	0.01 %	15.5	2.32	10	6.40	3.80			
MnO	10	0.01 %	0.13	<DL	8	0.04	0.04			
MgO	10	0.01 %	20.7	0.06	10	2.83	5.99			
CaO	10	0.01 %	10	0.05	10	2.28	2.73			
Na2O	10	0.01 %	7.3	0.09	10	2.62	2.12			
K2O	10	0.01 %	4.24	0.09	10	2.48	1.24			
P2O5	10	0.01 %	0.75	<DL	8	0.16	0.24			
LOI	10	0.01 %	13.7	0.83	10	3.98	4.05			

TABLE 5

SUMMARY OF ANOMALOUS GEOCHEMICAL RESULTS

		ELEMENT:	Ag	As	Au	Co	Cr	Cu	Fe++	Fe-	Mn	Mo	Ni	Pb	Pd	Sn	W	Zn
			ppm	ppm	ppb	ppm	ppm	ppm	%	%	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm
		CUT-OFF:	>0.8	>27.5	>7.3	>105	>152	>301	>9.85	<1.4	>5004	>4.6	>148	>33	>2.4	>6.9	>103	>235
			DL+2S	M+2S	M+2S	M+2S	M+S	M+S	M+2S	M-S	M+2STD	M+2S	M+S	M+2S	DL+2S	DL+2S	M+S	M+2S
HOLE	DEPTH	SAMPLE No	-----															
# = check sample																		
CRN02	8-18m	6731RS 579												35				
CRN02	18-28m	6731RS 580												38				
CRN04	24-26m	6731RS 586													3			
CRN05	8-11.5m	6731RS 588												66				
CRN07	48-53.5m	6731RS 593													3			
CRN16	22-40m	6731RS 612		62	13							6						
CRN16	40-56m	6731RS 613			17													
CRN16	56-66m	6731RS 614		36														
CRN16	66-68m	6731RS 615		32														
CRN16	68-72m	6731RS 616		42														
CRN16	72-74m	6731RS 617		66														
CRN18	42-54m	6731RS 622				115												
CRN31	28-30m	6731RS 662		30					14.2									
CRN31	40-52m	6731RS 664			10													
CRN31	52-60m	# 6731RS 668		39														
CRN32	38-48m	6731RS 670												42				270
CRN33	28-36m	6731RS 676									7200							
CRN38	46-47.5m	6731RS 688			8													
CRN39	62-65.5m	6731RS 697														8		
CRN41	40-60m	6731RS 701			11													
CRN42	56-62m	6731RS 704																260
CRN42	62-70m	6731RS 705									5100							320
CRN44	94-98m	6731RS 712	1.5						0.3									
CRN44	110-112m	6731RS 713			10													
CRN44	116-120m	6731RS 715		66														
CRN48	66-76m	6731RS 724												72				
CRN49	14-34m	6731RS 727												46				
CRN50	10-16m	6731RS 731				140			10.1		6400							
CRN50	72-73m	6731RS 735				140				0.62			200		5			
CRN50	72-73m	# 6731RS 736							0.56						3			
CRN54	16-20m	6731RS 749		30					18.3					38				
CRN54	20-30m	6731RS 750												34				
CRN55	0-6m	6731RS 752					500						490					
CRN55	6-22m	6731RS 753					410						490					
CRN55	22-34m	6731RS 754					540						540		3			
CRN55	34-40m	6731RS 755					590						600		3			
CRN55	40-44m	6731RS 756					610						640		3			
CRN55	44-47.5m	6731RS 757					690						680					
CRN56	46-56m	6731RS 758					290						260					

TABLE 5 cont.

SUMMARY OF ANOMALOUS GEOCHEMICAL RESULTS

HOLE	DEPTH	ELEMENT:	Ag	As	Au	Co	Cr	Cu	Fe++	Fe-	Mn	Mo	Ni	Pb	Pd	Sn	W	Zn	
			ppm	ppm	ppb	ppm	ppm	ppm	%	%	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	
			CUT-OFF:	>0.8	>27.5	>7.3	>105	>152	>301	>9.85	<1.4	>5004	>4.6	>148	>33	>2.4	>6.9	>103	>235
			DL+2S	M+2S	M+2S	M+2S	M+S	M+S	M+2S	M-S	M+2STD	M+2S	M+S	M+2S	DL+2S	DL+2S	M+S	M+2S	
SAMPLE No		-----																	
# = check sample		-----																	
CRN56	56-68m	6731RS 759					290						230						
CRN57	14-16m	6731RS 760			8	175	1660		10.9				1260						
CRN57	14-16m	# 6731RS 761				145	962						1000						
CRN59	44-46m	6731RS 763				115					38500			155					
CRN59	46-64m	6731RS 764									6600								
CRN59	68-69.5m	6731RS 766			12														
CRN60	62-68m	6731RS 767			10		170		17.9										
CRN60	68-74m	6731RS 768			10														
CRN60	74-75.5m	6731RS 769							10.3						4				
CRN61	108-118m	6731RS 770			19					0.44									
CRN61	118-125.5m	6731RS 771			30														
CRN62	84-88m	6731RS 773		34		380							170					240	
CRN62	88-96m	6731RS 772						360		0.34			270					960	
CRN62	84-88m	# 6731RS 775		72		534							396					943	
CRN62	88-96m	# 6731RS 776						334		0.39									
CRN64	32-40m	6731RS 785																340	
CRN64	40-44m	6731RS 786		30								9		44					
CRN65	22-24m	6731RS 790												40					
CRN65	24-28m	6731RS 791												38					
CRN67	42-44m	6731RS 799									5700			62					
CRN68	38-44m	6731RS 802										7							
CRN68	50-52m	6731RS 804												38					
CRN69	54-60m	6731RS 809																	
CRN70	32-44m	6731RS 812																260	
CRN70	44-46m	6731RS 813													3			250	
CRN73	36-48m	6731RS 826		72															
CRN73	48-54m	6731RS 827		62															
CRN74	54-56m	6731RS 832											170					330	
CRN75	16-26m	6731RS 834				175					7000								
CRN75	40-54m	6731RS 836		44															
CRN76	92-95.5m	6731RS 842														8			
CRN80	78-80m	6731RS 862				110													
CRN80	114-116m	6731RS 870									10400								
CRN80	80-86m	# 6731RS 872														17			
	repeat analysis	872														13			
CRN80	114-116m	# 6731RS 879			11				12		7410	9							
CRN83	32-33m	6731RS 892			34			670											
CRN84	60-64m	6731RS 897	1.5					750		1.2									
CRN84	64-72m	6731RS 898	3.5					3850											
CRN84	72-76m	6731RS 899						860		0.89									
CRN84	86-88m	6731RS 901	2							1.3									

TABLE 5 cont.

SUMMARY OF ANOMALOUS GEOCHEMICAL RESULTS

		ELEMENT:	Ag	As	Au	Co	Cr	Cu	Fe++	Fe-	Mn	Mo	Ni	Pb	Pd	Sn	W	Zn
		CUT-OFF:	ppm	ppm	ppb	ppm	ppm	ppm	%	%	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm
			>0.8	>27.5	>7.3	>105	>152	>301	>9.85	<1.4	>5004	>4.6	>148	>33	>2.4	>6.9	>103	>235
			DL+2S	M+2S	M+2S	M+2S	M+S	M+S	M+2S	M-S	M+2STD	M+2S	M+S	M+2S	DL+2S	DL+2S	M+S	M+2S
HOLE	DEPTH	SAMPLE No	-----															
# = check sample			-----															
CRN85	40-44m	6731RS 902						1400				8						
CRN85	44-48m	6731RS 903						2000				7						
CRN85	48-49m	6731RS 904						2150				7						
CRN86	6-12m	6731RS 905								1.1		13						
CRN86	12-22m	6731RS 906										9						
CRN86	22-30m	6731RS 907										16						
CRN86	30-32m	6731RS 908										6						
CRN87	32-36m	6731RS 909										6						
CRN92	56-68m	6731RS 917																
CRN92	68-78m	6731RS 918																260
CRN92	78-86m	6731RS 919																370
CRN96	0-2m	6731RS 929																280
CRN98	52-57.5m	# 6731RS 938										12						
CRN99	62-72m	6731RS 941				135					12600	9						
CRN99	72-82m	6731RS 942									6300							
CRN102	110-114m	6731RS 966			8													
CRN103	124-127m	6731RS 971	2.5															
CRN106	88-96m	6731RS 981			10				14.9						5			
CRN107	76-86m	6731RS 984		34	12													
CRN107	88-100m	6731RS 985		28	9													
CRN107	100-112m	6731RS 986		48														
CRN107	112-114m	6731RS 987		54		175			18.8				185					
CRN107	120-122.5m	6731RS 989		28														
CRN114	36-46m	6731RS1021		32														
CRN114	46-54m	# 6731RS1026					163		0.47									
CRN115	60-70m	# 6731RS1034					249		0.44									
MUR01	20-22m	6831RS 29											160					
MUR02	62-68m	6831RS 32												36				
MUR05	14-16m	6831RS 45		28								6						
MUR06	30-31m	6831RS 47	1.5															
MUR12	6-8m	6831RS 60		44														
MUR13	9-10m	6831RS 62							1.06			19	195				350	
MUR14	91-91.5m	6831RS 67				330											1040	
MUR15	70-80m	6831RS 70												35				
MUR15	102-110m	6831RS 73	2.5						1									
No. of anomalous samples/element:			7	23	18	13	13	9	9	14	11	16	18	16	10	4	2	13

TABLE 6.
SUMMARY OF GEOCHEMICALLY ANOMALOUS SAMPLES FROM ADELAIDEAN SEDIMENTS

HOLE	DEPTH	SAMPLE	LITHOLOGY	FEATURES	ANOMALOUS ELEMENTS											
6731RS:																
CRN 02	8-18m	579	sltst												Pb	
CRN 02	18-28m	580	sltst												Pb	
CRN 04	24-26m	586	sltst/sst													Pd
CRN 05	8-11.5m	588	sltst												Pb	
CRN 07	48-53.5m	593	sltst													Pd
CRN 16	22-40m	612	sltst/clay	v weathered	As	Au				Mo						
CRN 16	40-56m	613	sltst/clay	"		Au										
CRN 16	56-66m	614	sst	carb, & weathered sulphides	As											
CRN 16	66-68m	615	sltst	sulphides, & qtz veins	As											
CRN 16	68-72m	616	sltst	"	As											
CRN 16	72-74m	617	sltst	"	As											
CRN 18	42-54m	622	sltst	carb, & rare qtz veinlets					Co							
CRN 31	28-30m	662	sltst	qtz veins, Fe boxwork	As											
CRN 31	40-52m	664	sltst	carbonaceous		Au										
CRN 31	52-60m #	668	sst	dissem sulphides	As											
CRN 32	38-48m	670	sltst	Fe boxwork											Pb	Zn
CRN 33	28-36m	676	sltst							Mn						
CRN 38	46-47.5m	688	sltst	qtz veins		Au										
CRN 39	62-65.5m	697	sltst	qtz veins, dissem MIO												Sn
CRN 41	40-60m	701	clay			Au										
CRN 42	56-62m	704	sltst/clay													Zn
CRN 42	62-70m	705	sltst							Mn						Zn
CRN 62	84-88m	773	sltst	carbonaceous	As		Co				Ni					Zn
CRN 62	88-96m	772	sltst	carb, & qtz veins						Cu						
CRN 62	84-88m #	775	sltst	carb	As		Co				Ni					Zn
CRN 62	88-96m #	776	sltst	carb, & qtz veins						Cu						
CRN 64	32-40m	785	sltst/diamct	Fe infilled joints												Zn
CRN 64	40-44m	786	sltst/diamct	"	As						Mo				Pb	
CRN 65	22-24m	790	sltst/diamct												Pb	
CRN 65	24-28m	791	sltst/diamct												Pb	
CRN 67	42-44m	799	sltst	Mn?, goethite? & qtz veinlets						Mn					Pb	
CRN 68	38-44m	802	sltst	Mn? joints							Mo					
CRN 68	50-52m	804	sltst	"											Pb	
CRN 69	54-60m	809	sltst	qtz veins, + bleached/stained												Zn
CRN 70	32-44m	812	sltst													Zn
CRN 70	44-46m	813	sltst													Pd
CRN 73	36-48m	826	sltst	bleached joints	As											
CRN 73	48-54m	827	sltst	"	As											
CRN 74	54-56m	832	sltst	Mn? joints								Ni				Zn
CRN 75	16-26m	834	sltst							Co		Mn				
CRN 75	40-54m	836	sltst		As											
CRN 76	92-95.5m	842	sltst													Sn
CRN 92	56-68m	917	sltst													Zn
CRN 92	68-78m	918	sltst													Zn
CRN 92	78-86m	919	sltst													Zn
6831RS:																
MUR 01	20-22m	29	sltst	massive Mn?										Ni		
MUR 02	62-68m	32	sltst												Pb	
MUR 05	14-16m	45	sltst	heavy min lamn, dissem sulphides?	As						Mo					
MUR 06	30-31m	47	sltst	Mn? lamn & dendrites	Ag											

No of anomalous samples per element: 1 14 5 4 2 4 4 4 10 3 2 12
MIO = micaceous iron oxide Ag As Au Co Cu Mn Mo Ni Pb Pd Sn Zn
ie specular haematite

TABLE 7.

SUMMARY OF GRANITOID INTERSECTIONS & LITHOLOGIES.

CRN 23: Intersection: 98-109m
. Cream to light pink medium grained quartz-feldspar-biotite granite; biotite aggregates show a faint vertical alignment.

CRN 24: Intersection: 76-117m
. Green to dark green medium to coarse grained granite; some is more mafic, dark green to black, quartz-poor and dominantly green feldspar-black hornblende?.

CRN 25: Intersection: 88-119.5m
. Silty and sandy clay, showing relict granitic or gneissic? texture, and minor biotite.

CRN 48: Intersection: 32-78m
. Dark green intermediate to mafic plagioclase-hornblende-biotite-epidote granite/ diorite.

CRN 49: Intersection: 12-56.5m
. Quartz-feldspar-biotite-hornblende microgranite.

CRN 50: Intersection: 16-73m
. Weathered olive-green granite? (plagioclase-quartz-biotite-opaques), and greissen, chloritised in part.

CRN 51: Intersection: 4-17m
. Dark grey medium grained quartz-feldspar-biotite-hornblende granite.

CRN 52: Intersection: 18-55m
. Green to dark green quartz-biotite granite/ microgranite.

CRN 53: Intersection: 34-73.5m
. Quartz-plagioclase-biotite-hornblende granite, chloritised at 52-54m.

CRN 60: Intersection: 58-75.5m
. Weathered and altered diorite, with a boxwork of haematite, and with sphene and coarse albite.

CRN 86: Intersection: 6-32m
. Medium to coarse grained pink k-feldspar-white feldspar-quartz-biotite granite.

CRN 87: Intersection: 16-36m
. Quartz (clear/ stained)-feldspar-biotite granite.

CRN 95: Intersection: 2-9m
. Slightly gneissic granite, ie biotite-rich to biotite-poor layering, and slightly foliated.

CRN 97: Intersection: 18-62.5m
. Medium to coarse grained quartz-plagioclase-hornblende-biotite granite, with large fragments of light grey to pink stressed quartz-rich granite-mylonite at 48m.

TABLE 7 continued

CRN 100: Intersection: 102-106m

. Weathered siltstone, vein quartz, and weathered gneiss? or granite?.

CRN 103: Intersection: 100-127m

. Green-grey calc-silicate, with very weathered or altered granite, and with minor granite mylonite at 118m.

CRN 111: Intersection: 64-107.5m

. Dark green-grey to black medium grained granite, with intergrown felsic & mafic minerals, minor biotite, and rare quartz.

CRN 112: Intersection: 121-135m

. Dark green to black medium grained mafic intrusive; with minor to abundant light yellow-brown translucent acicular mineral, <4mm by 1.5mm.

CRN 113: Intersection: 78-110.5m

. Fine to medium grained granite or quartz-felsic intrusive.

CRN 115: Intersection: 59.8-90.5m

. Green medium grained quartz-orthoclase?-green feldspar-biotite granite with very fine black mafic minerals.

MUR 14: Intersection: 60.5?-91.5m

. Two rock types, mutually cross-cutting with diffuse irregular contacts:

. Dark green fine grained mafic intrusive,

. Very fine grained silica-rich rock,

. with some clear sugary vein? quartz.

MUR 15: Intersection: 47-127.5m

. Fine to medium grained quartz-plagioclase-orthoclase?-pyroxene/amphibole-biotite granite, with minor dark green fine grained felsic granite.

MUR 16: Intersection: 76.5-103.5m

. Strongly weathered or altered and comprising two distinct but intermixed igneous lithologies:

. fine to medium grained quartz-plagioclase-biotite? granite,

. fine to coarse grained granite? containing felsic and mafic minerals.

TABLE 8: WHOLE ROCK, ie SILICATE ANALYSES, FOR GRANITOIDS

(results in %)

Hole No	Sample No	Lithology	SiO2	TiO2	Al2O3	Fe2O3	MnO	MgO	CaO	Na2O	K2O	P2O5	LOI
6731RS:													
CRN23	634	granite	73.3	0.38	12.3	4.06	0.02	0.50	1.49	2.40	2.98	0.04	1.59
CRN24	644	diorite	69.1	0.42	14.6	5.35	0.02	0.67	2.12	3.20	2.80	0.05	1.98
CRN48	725	diorite	72.2	0.30	12.9	3.96	0.02	0.54	1.66	3.12	2.62	<.01	1.90
CRN49	730	granite	69.0	0.31	15.4	3.82	0.04	0.95	2.98	4.28	2.22	0.08	0.96
CRN53	747	granite	70.7	0.21	14.0	3.64	0.02	0.56	2.32	3.68	3.02	0.04	0.83
FOR 5 SAMPLES:													
MEAN			70.9	0.32	13.8	4.17	0.02	0.64	2.11	3.34	2.73	0.04	1.45
STANDARD DEVIATION			1.7	0.07	1.1	0.61	0.01	0.16	0.53	0.62	0.29	0.03	0.47
FOR 7 SAMPLES:													
MAXIMUM VALUE			73.3	3.32	20.5	15.50	0.05	1.22	2.98	7.30	3.02	0.75	9.45
MINIMUM VALUE			55.3	0.21	12.3	3.64	<.01	0.06	0.05	0.09	0.09	<.01	0.83
CRN25	647	granite	62.3	0.88	20.5	6.90	0.05	0.06	0.05	0.09	0.31	0.02	9.45
CRN60	769	diorite	55.3	3.32	12.9	15.50	<.01	1.22	1.43	7.30	0.09	0.75	1.69

TABLE 9 SUMMARY OF ANOMALOUS GRANITOID SAMPLES

HOLE	DEPTH	SAMPLE No	LITHOLOGY	FEATURES	ANOMALOUS ELEMENTS									
CRN 48	66-76m	6731RS	724	granite/diorite									Pb	
CRN 49	14-34m	6731RS	727	granite									Pb	
CRN 50	72-73m	6731RS	735/6	greissen/CZ	some granite	Co	Fe			Ni			Pd	
CRN 60	62-68m	6731RS	767	diorite ?	v weathered	Au	Cr	Fe						
"	68-74m	6731RS	768	diorite ?	Fe boxwork	Au								
"	74-75.5m	6731RS	769	diorite ?				Fe					Pd	
CRN 86	6-12m	6731RS	905	granite	weathered			Fe		Mo				
"	12-22m	6731RS	906	granite	"					Mo				
"	22-30m	6731RS	907	granite	"					Mo				
"	30-32m	6731RS	908	granite						Mo				
CRN 87	32-36m	6731RS	909	granite						Mo				
CRN 115	60-70m	6731RS	1034	granite			Cr	Fe						
MUR 14	91-91.5m	6831RS	67	basic, & siliceous granite		Co							W	
MUR 15	70-80m	6831RS	70	granite								Pb		
"	102-110m	6831RS	73	felsic & mafic granite		Ag		Fe						
No of anomalous samples per element					1	2	2	2	6	5	1	3	2	1

TABLE 10
CONTACT, OR ALTERED, OR SKARN LITHOLOGIES ETC

- CRN 50: Intersection: 16-73 m
. Fine grained muscovite-quartz greisen.
- CRN 61: Intersection: 80?-125.5 m
. Light grey or greenish sandstone, finely layered, well silicified in part, & chloritised in part.
- CRN 80: Intersection: 77.5-118.2 m
. Dark grey, deeply altered or weathered siltstone, fissile and finely laminated in part; containing abundant specular haematite and quartz veining, intergrown or as separate veins.
- CRN 81: Intersection: 67-121.5 m
. Fine grained sandstone/quartzite, overprinted with an intense but irregular silicification (ie skarn or hydrothermal alteration), resulting in a very fine grained homogenous silica rock, or a silica boxwork, or a silicified fine grained breccia, with some quartz veining which includes rare black acicular minerals and rare blue-black sulphides near base;
. with zones of green to dark green very fine grained soft and altered slightly micaceous altered intrusive?), with rare irregular muscovite veinlets and fine muscovite-rich layers.
- CRN 96: Intersection: 0-5 m
. Green to dark green meta-siltstone/calc-silicate, clinopyroxene- plagioclase- orthoclase hornfels.
- CRN 97: Intersection: 18-62.5 m
. Medium to coarse grained quartz-plagioclase-hornblende-biotite granite, with large fragments of light grey to pink stressed quartz-rich granite-mylonite at 48 m.
- CRN 100: Intersection: 102-106 m
. Weathered siltstone, vein quartz, and weathered gneiss? or granite?.
- CRN 102: Intersection: 108-118 m
. Green calc-silicate, green, variably altered and limonitic, with minor quartzite and grey siltstone, and minor sulphides?.
- CRN 103: Intersection: 100-127 m
. Green-grey calc-silicate with biotite-rich lenses, and with minor very weathered or altered granite, and minor granite mylonite.
- CRN 106: Intersection: 56-112.2 m
. Fine grained quartzite with some quartz veins, and altered siltstone; passing into fine grained homogenous light olive-green talc below 98 m, with rare muscovite.
- CRN 107: Intersection: 76-122.5 m
. Biotitic siltstone with minor quartz veining and bleached and iron stained fractures (ie proto boxwork); skarn near base, ie variably silicified? with minor scattered rounded garnet?.

TABLE 10 continued

CRN 112: Intersection: 95.5-135 m

95.5-121 m: Weathered Adelaidean micaceous siltstone with vein quartz near base, overlying:

121-135 m: Dark green to black medium grained mafic intrusive.

CRN 114: Intersection: 41?-62 m

. Light grey very fine grained recrystallised quartzite (ie possibly a skarn), with minor coarser biotite?, and quartz veins.

MUR 11: Intersection: 3.6-7 m

. Greenish grey to dark green very fine grained silicified? or recrystallised? calc-silicate?, with disseminated fine black minerals.

TABLE II. ANOMALOUS SAMPLES FROM CONTACT, ALTERED, SKARN, OR HYDROTHERMAL ZONES

HOLE	DEPTH	SAMPLE No 6731RS:	LITHOLOGY	FEATURES	ANOMALOUS ELEMENTS										
CRN 44	110-112m	713	sltst	dissem sulphides	Au										
CRN 44	116-120m	715	sltst	"	As										
CRN 50	72-73m	735/6	greissen/CZ			Co	Fe	Ni	Pd						
CRN 59	44-46m	763	sltst	massive & dendritic Mn		Co	Mn		Pb						
CRN 59	46-64m	764	sltst	"			Mn								
CRN 59	68-69.5m	766	sltst	MIO veins	Au										
CRN 61	108-118m	770	sst/CZ?	silicified, chloritized	Au		Fe								
"	118-125.5m	771	sst/CZ?	"	Au			Ni							
CRN 80	78-80m	862	sltst/skarn/CZ	abund qtz & MIO veins		Co									
"	80-86m	872 & rept	sltst/skarn/CZ	"										Sn	
"	114-116m	870/9	sltst/skarn/CZ	"	Au		Fe	Mn	Mo						
CRN 83	32-33m	892	diamictite		Au		Cu								
CRN 84	60-64m	897	clay/sltst	+ chrysocolla	Ag		Cu	Fe							
CRN 84	64-72m	898	sltst	"	Ag		Cu								
CRN 84	72-76m	899	sandy sltst	"			Cu	Fe							
CRN 84	86-88m	901	sst		Ag		Fe								
CRN 85	40-44m	902	sltst/shale				Cu		Mo						
CRN 85	44-48m	903	sltst/shale				Cu		Mo						
CRN 85	48-49m	904	sltst				Cu		Mo						
CRN 96	0-2m	929	metasltst/calc-silc/CZ?						Mo						
CRN 98	52-57.5m	938	#schist						Mo						
CRN 99	62-72m	941	Adelaidean?, clay			Co		Mn							
CRN 99	72-82m	942	Adelaidean?, clay					Mn							
CRN 102	110-114m	966	calc-silicate/CZ		Au										
CRN 103	124-127m	971	calc-silicate/CZ		Ag										
CRN 106	88-96m	981	altrd sltst	Mn? nodules, hydrothermal zone	Au		Fe							Pd	
CRN 107	76-86m	984	sltst/HZ	qtz veins & Fe joints	As	Au									
"	88-100m	985	sltst/HZ	variably silicf, & bleached	As	Au									
"	100-112m	986	sltst/HZ	& Fe stained joints/boxwork	As										
"	112-114m	987	sltst/HZ	"	As	Co	Fe		Ni						
"	120-122.5m	989	sltst/HZ	"	As										
CRN 114	36-46m	1021	qtzite/CZ	silicf/recryst, & qtz veins	As										
"	46-54m	1026	qtzite/CZ	"			Cr	Fe							
6831RS:															
MUR 12	6-8m	60	sltst	Fe boxwork	As										
MUR 13	9-10m	62	sst/CZ?					Fe	Mo	Ni				W	

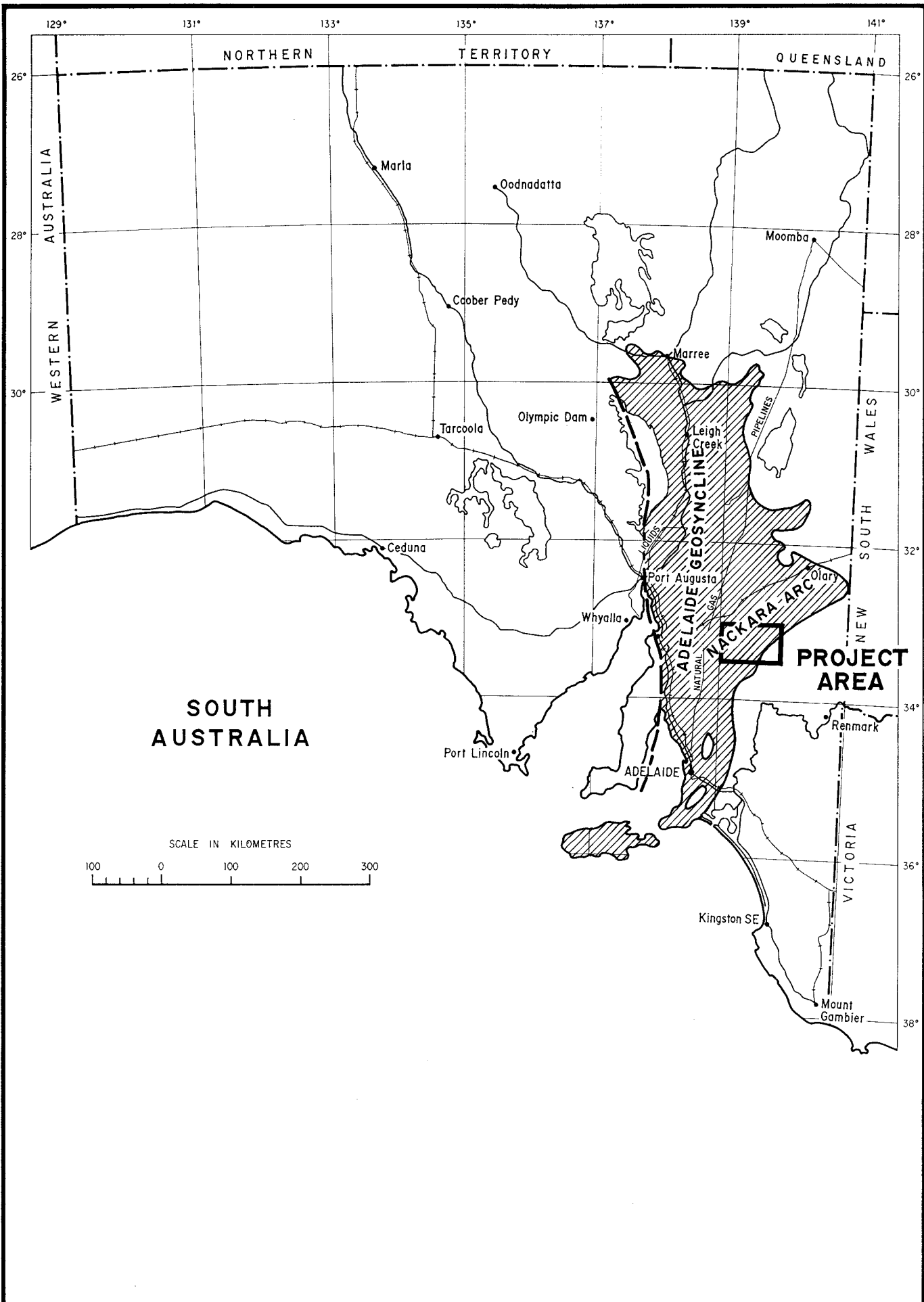
No of anomalous samples per element:

4 8 10 5 1 7 10 5 7 4 1 2 1 1 1

CZ = contact zone

HZ = hydrothermal zone

MIO = micaceous iron oxide
ie specular haematite



SCALE IN KILOMETRES
100 0 100 200 300



DEPARTMENT OF MINES AND ENERGY
SOUTH AUSTRALIA

PULPARA - KIA ORA - BENDIGO
1992 EXPLORATION INITIATIVE
LOCALITY PLAN

COMPILED
W.S. McC.

DRAWN
J.A.G.

DATE
June, 1993

CHECKED

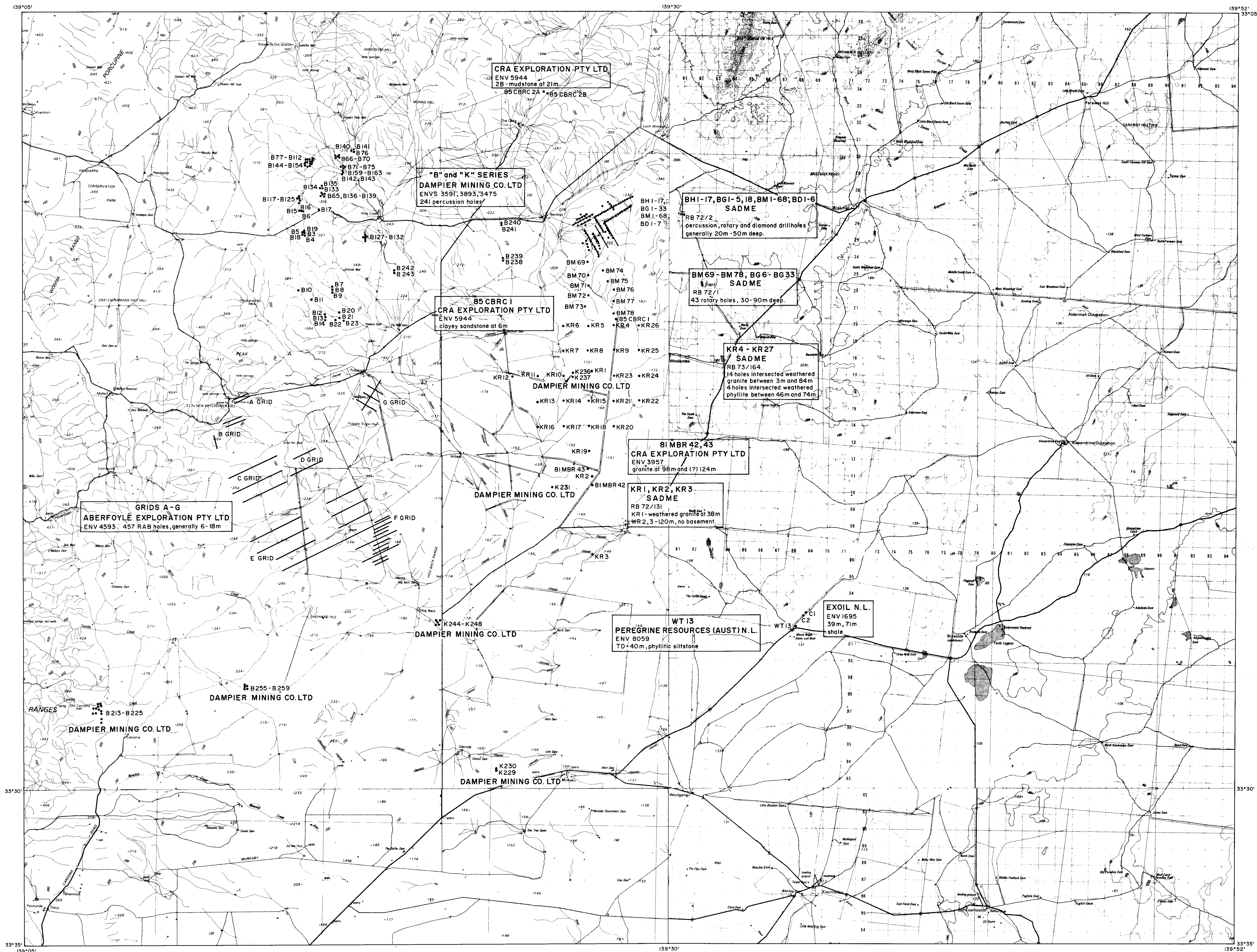


9.7.93
C.D.O. DATE

SCALE As shown

PLAN NUMBER

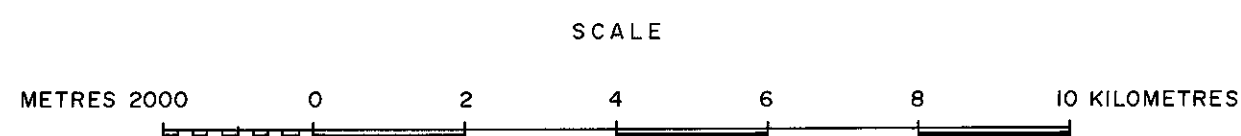
93-938



LEGEND

Drillhole or grid name
(for close spaced drillholes)
Company
SADME open file envelope
or report book number
Brief drilling summary

KR1, KR2, KR3
SADME
RB 72/131
KR1 - weathered granite at 38m
KR2, 3 - 120m, no basement

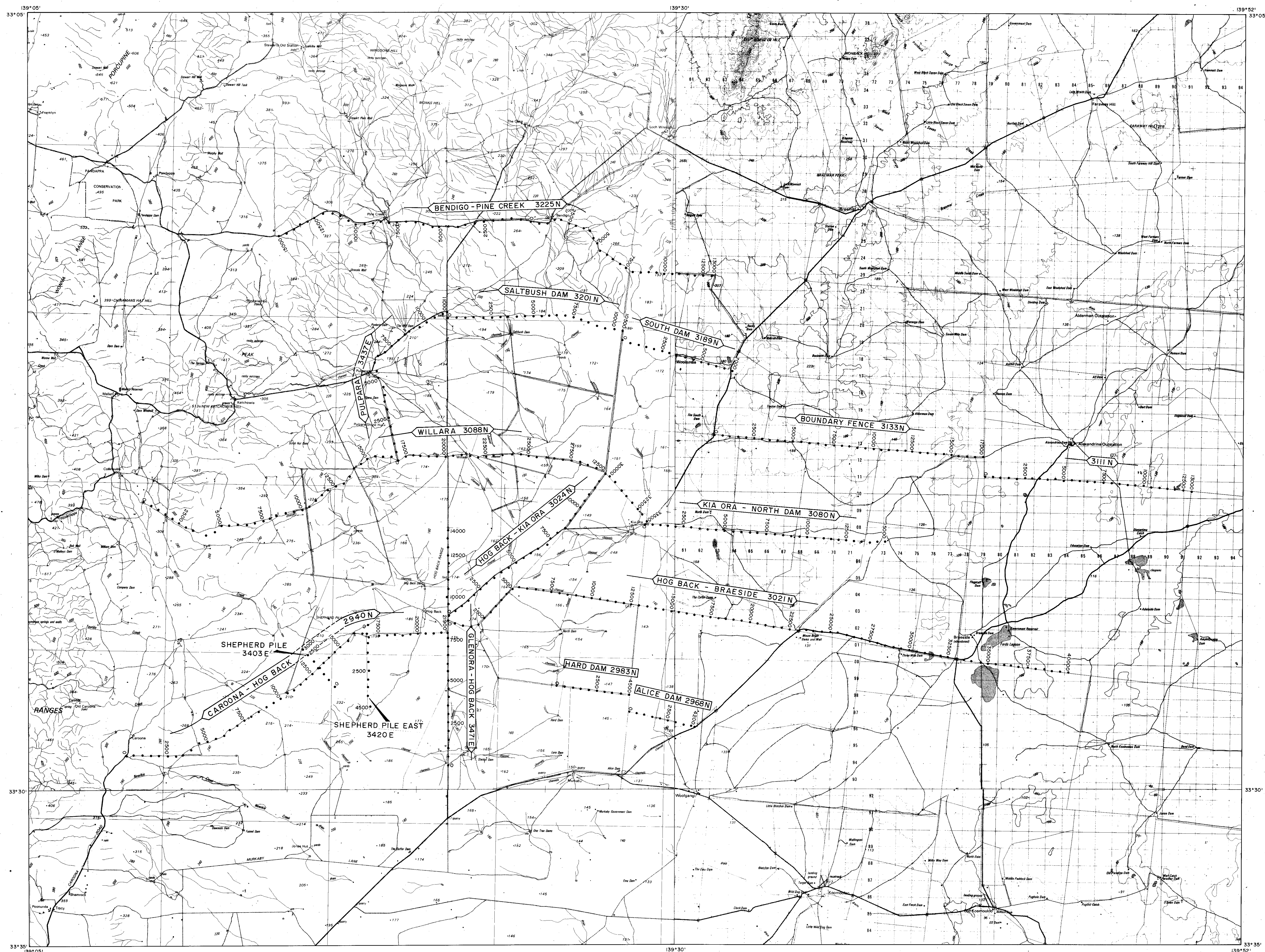


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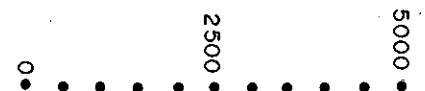
PREVIOUS DRILLING

CAROONA SHEET 6731
MURKABY SHEET 6831



HARD DAM 2983N

Ground magnetic traverse showing distance in metres.....



METRES 2000 0 2 4 6 8 10 KILOMETRES

SCALE

DEPARTMENT OF MINES AND ENERGY - SOUTH AUSTRALIA

PULPARA - KIA ORA - BENDIGO 1992 EXPLORATION INITIATIVE

GROUND MAGNETIC TRAVERSES

CAROONA SHEET 6731

MURKABY SHEET 6831

BENDIGO
GRANITE

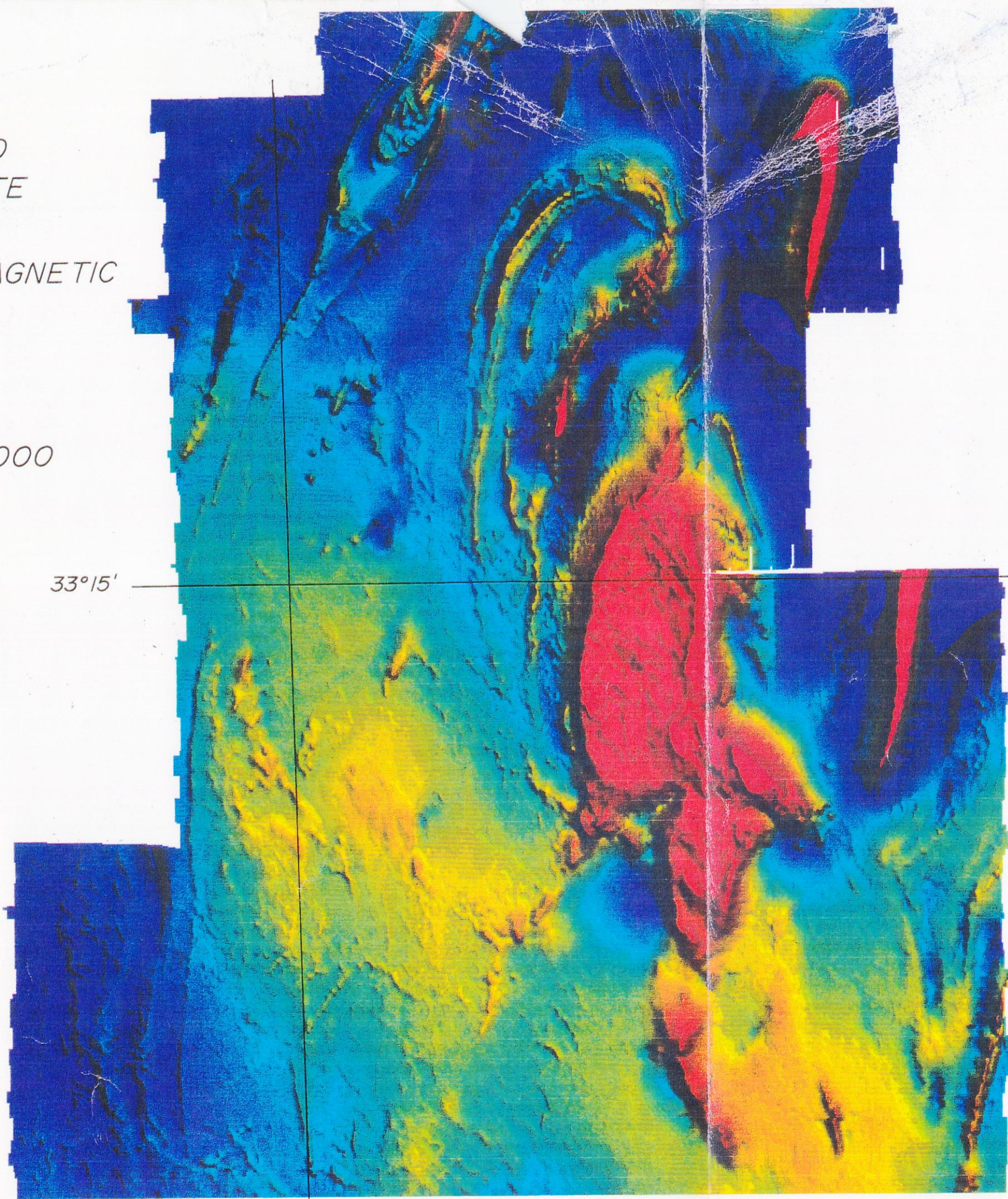
AEROMAGNETIC
IMAGE

SCALE
1:220 000

33°15'

139°15'

DME-SA 93-1349



APPENDIX A

**GEOLOGICAL LOGS OF DRILL HOLES CRN 01 TO CRN 115 AND MUR 1 TO MUR 16
AND RESULTS OF GEOCHEMICAL ANALYSIS OF SAMPLES FROM DRILLING
KIA ORA - BENDIGO AREA
SADME, SEPTEMBER TO DECEMBER 1992**

DRILLHOLES WERE LOGGED BY

JOANNE JANZ	CRN 39, 99-107
PETER HILL	CRN 40-61, 82-98, MUR 1-4
WAYNE McCALLUM	CRN 1-38, 62-81, 108-115, MUR 5-16

**MAGNETIC SUSCEPTIBILITY (k) IS IN 10^{-3} SI UNITS
(WHERE $k = 4\pi \cdot K$ IN CGS UNITS)**

ABBREVIATIONS USED IN DRILL LOGS

dk	=	dark	irreg	=	irregular
lt	=	light	discont	=	discontinuous
pl	=	pale	dissem	=	disseminated
brt	=	bright	fin	=	finely
brn	=	brown	foliat	=	foliated
grn	=	green	fiss	=	fissile
blk	=	black	lamn	=	laminae
vf	=	very fine	lamntd	=	laminated
f	=	fine	ind	=	indurated
m	=	medium	ferrug	=	ferruginous
c	=	coarse	calc	=	calcareous
sl	=	slightly	carb	=	carbonaceous
mod	=	moderately	silicf	=	silicified
v	=	very	silic	=	siliceous
esp	=	especially	sub-ang	=	sub angular
<u>c</u>	=	with	ang	=	angular
&	=	and	sub-ro	=	sub rounded
domn	=	dominantly	well-ro	=	well rounded
abund	=	abundant,	xtal	=	crystal
or	=	numerous	xtalln	=	crystalline
frags	=	fragments	transl	=	translucent
weathrd	=	weathered			
sst	=	sandstone			
sltst	=	siltstone			
qtzite	=	quartzite			
diamct	=	diamictite			
mins	=	minerals			
min	=	mineral			
qtz	=	quartzite			
fspar	=	feldpar			
fspathc	=	feldspathic			
biot	=	biotite			
musc	=	muscovite			
Fe	=	ferruginous			
Mn	=	manganese			

HOLE NO:
TRAVERSE:
STATION:
DATE:
LOGGED BY:
COMMENTS: 7m NE of ground mag peg.

CRN 01
"Willara", 3088 mN
0 000 mE
15.09.92
WSM

100 000 SHEET NO: 6731
LOCATION: 328 557 mE
6 308 878 mN
DRILLING METHOD: RC
TOTAL DEPTH: 35.5 m

Magnetic Susc.		Geological Log		
Interval	Value	Depth	Description	

Holocene?				
0-2	2.97	0	2.0	Clayey silt, lt brn, & frags of sltst, dk grey, fiss.
2-4	2.79	2.0	6.0	Clay, silty & plastic, brn.
4-6	2.45			
6-8	1.97	6.0	7.0	Clay, v silty, soft, brn.
		7.0	8.0	Clay, silty & plastic, brn.
Adelaidean				
8-10	2.68	8.0	10.0	Silty clay, brn, & some sltst frags.
10-12	2.13	10.0	10.7	Clay, & sltst, brn weathrd, some is grey to grn-grey, & rare milky vein qtz.
		10.7	11.0	Qtzite, m grained, cream to red-cream, c poorly defined heavy min layering, 1mm thick, & crosscut by 2mm milky vein qtz; & rare frags of blk haematitic sltst; very hard & slow drilling.
12-14	1.22	11.0	16.0	Silty clay, brn, & rare frags of sltst, grey or weathrd brn.
14-16	1.57			
16-18	1.65	16.0	18.0	Silty clay, aa, & minor grey fiss sltst.
18-20	0.31	18.0	20.0	Silty clay, aa, & frags of grey or lt grey sltst, sl silicf? in part, & weathrd brn.
20-22	0.09	20.0	20.5	Sltst, lt grey, weathrd, some darker, & some weathrd brn.
22-24	0.06	20.5	23.5	Sltst & sst vf, lt grn-brn, poorly bedded, c some ferrug layers from 22-23.5m.
24-26	0.08	23.5	26.5	Sst vf-f, silty, lt grey, v poorly sorted, poorly bedded; coarser grains are sub-ro clear sl frosted qtz.
26-28	0.09	26.5	35.5	Sst vf-f, aa, less silty.
28-30	0.06			Trace of milky vein qtz from 29.5-32.5m.
30-32	0.05			
32-34	0.06			
34-35.5	0.06			
		35.5		End of hole.

Geochemistry Samples:

RS 576: 8 - 20m

Routine geochemistry

RS 577: 20 - 34m

"

RS 578: 34 - 35.5m

Bottom hole, extended geochemistry.

				CRN 01	CRN 01	CRN 01
				8-20m	20-34m	34-35.5m
				6731RS	6731RS	6731RS
				576	577	578
Detctn	Limit	Method				
Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5
As	ppm	1.0	IC2	7	8	11
Au	ppb	1.0	FA3	2	1	1
Ba	ppm	10.0	XRF1			550
Cd	ppm	1.0	IC2			<1
Ce	ppm	20.0	XRF1			60
Co	ppm	2.0	IC2	16	15	12
Cr	ppm	2.0	IC2	30	24	28
Cu	ppm	1.0	IC2	28	28	50
Fe	%	0.01	IC2	3.56	3.08	3.04
La	ppm	20.0	XRF1			50
Mn	ppm	5.0	IC2	630	100	195
Mo	ppm	1.0	IC2	<1	<1	<1
Nb	ppm	2.0	XRF1			13
Ni	ppm	1.0	IC2	28	26	26
P	ppm	5.0	IC2			490
Pb	ppm	3.0	IC2	18	8	5
Pd	ppb	1.0	FA3			1
Pt	ppb	5.0	FA3			<5
Rb	ppm	2.0	XRF1			175
Sb	ppm	4.0	XRF1			<4
Se	ppm	2.0	XRF1			<2
Sn	ppm	4.0	XRF1			4
Sr	ppm	2.0	XRF1			20
Th	ppm	4.0	XRF1			16
U	ppm	4.0	XRF1			4
V	ppm	1.0	IC2			38
W	ppm	10.0	XRF1			<10
Zn	ppm	1.0	IC2	55	135	38

HOLE NO:CRN 02

TRAVERSE:"Willara", 3088 mN

STATION:1 000 mE

DATE:15-16.09.92

LOGGED BY:WSM

COMMENTS:9m SW of ground mag peg; 200m NW of the centre of a broad (approx 1400m wide) 200nT low on the ground mag traverse.

100 000 SHEET NO: 6731

LOCATION: 329 449 mE

6 308 426 mN

DRILLING METHOD: RC

TOTAL DEPTH: 29.5 m

Magnetic Susc.		Geological Log		
Interval	Value	Depth		Description
Holocene?				
		0	0.2	Soil.
Adelaidean				
0-2	0.71	0.2	2.5	Sst vf-f, lt grey, poorly sorted & poorly layered, weathrd lt pink-brn & soft.
2-4	0.04	2.5	3.0	Sst vf, & sltst, soft, weathrd lt pink-brn.
4-8	0.14	3.0	5.5	Sst vf-f, silty, lt grey, soft & weathrd, poorly layered.
		5.5	8.0	Sltst, pl fawn, faintly lamntd?.
8-10	0.04	8.0	10.0	Sltst, pl brn-grey, partially weathrd.
10-12	0.05	10.0	12.0	Sltst, pl grey to pl brn-grey, faintly foliat.
12-14	0.04	12.0	16.0	Sltst, pl brn, mod weathrd, foliat, & some reddish Fe spots & mottling parallel to foliat.
14-16	0.07			
16-18	0.05	16.0	18.0	Sltst, aa, & some vf sst.
18-20	0.07	18.0	20.0	Sst vf-f, lt brn-grey, mod sorted, & mod weathrd.
20-22	0.05	20.0	24.5	Sltst, lt brn-grey, <u>c</u> minor reddish Fe spots & mottling.
22-24	0.06			
24-26	0.05	24.5	26.5	Sst vf-f, pl grey, well sorted, fresh <u>c</u> some Fe stained joints.
26-28	0.11	26.5	29.5	Sltst, lt grey, & minor vf sst, fresh.
28-29.5	0.09			
		29.5		End of hole
Geochemistry Samples:				
RS 579:	8 - 18m	Routine geochemistry		
RS 580:	18 - 28m	"		
RS 581:	28 - 29.5m	Bottom hole, extended geochemistry.		

				CRN 02	CRN 02	CRN 02
				8-18m	18-28m	28-29.5m
				6731RS	6731RS	6731RS
				579	580	581
Detctn	Limit	Method				
Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5
As	ppm	1.0	IC2	9	3	2
Au	ppb	1.0	FA3	2	2	1
Ba	ppm	10.0	XRF1			590
Cd	ppm	1.0	IC2			<1
Ce	ppm	20.0	XRF1			70
Co	ppm	2.0	IC2	38	24	10
Cr	ppm	2.0	IC2	17	18	20
Cu	ppm	1.0	IC2	44	64	30
Fe	%	0.01	IC2	3.18	5	5.35
La	ppm	20.0	XRF1			40
Mn	ppm	5.0	IC2	85	450	590
Mo	ppm	1.0	IC2	<1	<1	<1
Nb	ppm	2.0	XRF1			14
Ni	ppm	1.0	IC2	62	38	14
P	ppm	5.0	IC2			540
Pb	ppm	3.0	IC2	35	38	11
Pd	ppb	1.0	FA3			2
Pt	ppb	5.0	FA3			<5
Rb	ppm	2.0	XRF1			150
Sb	ppm	4.0	XRF1			<4
Se	ppm	2.0	XRF1			5
Sn	ppm	4.0	XRF1			<4
Sr	ppm	2.0	XRF1			28
Th	ppm	4.0	XRF1			15
U	ppm	4.0	XRF1			4
V	ppm	1.0	IC2			30
W	ppm	10.0	XRF1			<10
Zn	ppm	1.0	IC2	185	98	70

HOLE NO:CRN 03

TRAVERSE:"Willara", 3088 mN

STATION:2 000 mE

DATE:17.09.92

LOGGED BY:WSM

COMMENTS: Calcrete pebbles on the surface.

100 000 SHEET NO: 6731

LOCATION: 330 290 mE

6 307 921 mN

DRILLING METHOD: RC

TOTAL DEPTH: 11.5m

Magnetic Susc.		Geological Log		
Interval	Value	Depth		Description
Pooraka Formation?				
0-2	0.34	0	1.0	Soil, calcrete pebbles <20mm, & sltst frags, grn-grey.
Adelaidean				
2-4	0.10	1.0	3.5	Sltst, faintly foliat, grn-brn weathrd, or pink-brn v weathrd & soft, some fresh & grey.
4-6	0.06	3.5	5.5	Sst vf, hard, grn-brn to pink-brn.
6-8	0.07	5.5	7.0	Sst vf, lt grn-brn, well sorted, c v thin clay lamn along partings, dip 85°, & some Mn stained joints.
		7.0	8.0	Sst vf, aa, fresher, lt grey-brn.
8-10	0.05	8.0	8.5	Sst vf, aa, lt grn-brn to grey-brn, f lamn.
10-11.5	0.06	8.5	11.5	Sst vf, aa, brn-grey.
		11.5		End of hole.

Geochemistry Samples:

RS 582:	2 - 10m	Routine geochemistry
RS 583:	10 - 11.5m	Bottom hole, extended geochemistry.

		CRN 03		CRN 03	
		2-10m		10-11.5m	
Detctn		Method		6731RS	
Limit				582	
				6731RS	
				583	
Ag	ppm	0.5	IC2	<0.5	<0.5
As	ppm	1.0	IC2	13	18
Au	ppb	1.0	FA3	2	7
Ba	ppm	10.0	XRF1		570
Cd	ppm	1.0	IC2		<1
Ce	ppm	20.0	XRF1		70
Co	ppm	2.0	IC2	22	28
Cr	ppm	2.0	IC2	40	42
Cu	ppm	1.0	IC2	38	34
Fe	%	0.01	IC2	3.94	3.92
La	ppm	20.0	XRF1		50
Mn	ppm	5.0	IC2	220	960
Mo	ppm	1.0	IC2	<1	1
Nb	ppm	2.0	XRF1		13
Ni	ppm	1.0	IC2	54	50
P	ppm	5.0	IC2		1280
Pb	ppm	3.0	IC2	18	24
Pd	ppb	1.0	FA3		<1
Pt	ppb	5.0	FA3		<5
Rb	ppm	2.0	XRF1		125
Sb	ppm	4.0	XRF1		<4
Se	ppm	2.0	XRF1		<2
Sn	ppm	4.0	XRF1		5
Sr	ppm	2.0	XRF1		48
Th	ppm	4.0	XRF1		10
U	ppm	4.0	XRF1		4
V	ppm	1.0	IC2		54
W	ppm	10.0	XRF1		<10
Zn	ppm	1.0	IC2	210	115

HOLE NO:CRN 04

TRAVERSE:"Willara", 3088 mN

STATION:5 000 mE

DATE:17.09.92

LOGGED BY:WSM

COMMENTS: 6m E of peg & 6m S of track; no outcrop; flat saltbush country, & nearest outcrop is hills 250m to S & to N.

100 000 SHEET NO: 6731

LOCATION: 333 226 mE

6 307 530 mN

DRILLING METHOD: RC

TOTAL DEPTH: 26.0m

Magnetic Susc.		Geological Log		
Interval	Value	Depth		Description
Holocene?				
0-2	4.97	0	1.0	Clayey soil, brn.
Adelaidean		1.0	2.0	Sltst, hard, lt brn to lt yellow-brn, or darker reddish Fe stained, & clayey silt.
2-4	0.52	2.0	3.0	Silty & sandy clay, lt brn, & minor sltst, reddish Fe stained.
4-6	0.17	3.0	6.0	Silty & sandy clay, aa, & minor sst vf-f, pl grey brn, v weathrd.
6-8	0.08	6.0	9.0	Silty clay, lt yellow-brn, & minor sltst frags.
8-10	0.12	9.0	11.5	Sltst, lt yellow-brn, fiss, mod weathrd, <u>c</u> hard layer at 9.7m.
10-12	0.16			
12-14	0.10	11.5	14.5	Sltst, aa, lt brn.
14-16	0.13	14.5	20.0	Sltst, aa, v weathrd.
16-18	0.11			
18-20	0.14			
20-22	0.10	20.0	22.5	Sltst to sst vf, brn to lt grey brn, poorly lamntd, mod weathrd.
22-24	0.11	22.5	23.0	Sltst, foliat, blue-grey, fresh.
24-26	0.10	23.0	26.0	Sst vvf, fresh & hard, faintly lamntd, & minor dissem vf biot?, <u>c</u> minor reddish Fe stained 1-2mm lamn.
		26.0		End of hole.

Geochemistry Samples:

RS 58410-20m

RS 58520-24m

RS 58624-26m

Routine geochemistry

"

Bottom hole, extended geochemistry.

			CRN 04	CRN 04	CRN 04
			10-20m	20-24m	24-26m
Detctn			6731RS	6731RS	6731RS
Limit			584	585	586
Method					
Ag	ppm	0.5	IC2	<0.5	<0.5
As	ppm	1.0	IC2	2	3
Au	ppb	1.0	FA3	1	1
Ba	ppm	10.0	XRF1		470
Cd	ppm	1.0	IC2		<1
Ce	ppm	20.0	XRF1		70
Co	ppm	2.0	IC2	32	28
Cr	ppm	2.0	IC2	30	38
Cu	ppm	1.0	IC2	54	88
Fe	%	0.01	IC2	4.68	5
La	ppm	20.0	XRF1		40
Mn	ppm	5.0	IC2	370	490
Mo	ppm	1.0	IC2	<1	<1
Nb	ppm	2.0	XRF1		15
Ni	ppm	1.0	IC2	58	60
P	ppm	5.0	IC2		640
Pb	ppm	3.0	IC2	24	19
Pd	ppb	1.0	FA3		3
Pt	ppb	5.0	FA3		<5
Rb	ppm	2.0	XRF1		165
Sb	ppm	4.0	XRF1		<4
Se	ppm	2.0	XRF1		<2
Sn	ppm	4.0	XRF1		6
Sr	ppm	2.0	XRF1		58
Th	ppm	4.0	XRF1		16
U	ppm	4.0	XRF1		4
V	ppm	1.0	IC2		34
W	ppm	10.0	XRF1		<10
Zn	ppm	1.0	IC2	180	175

HOLE NO:CRN 05

TRAVERSE:"Willara", 3088 mN

STATION:6 000 mE

DATE:17.09.92

LOGGED BY:WSM

COMMENTS: 8m SE of peg & S of track; no outcrop; flat saltbush country, & nearest outcrop is hills 400m to NE; minor milky vein qtz float on surface.

100 000 SHEET NO: 6731

LOCATION: 334 370 mE

6 307 496 mN

DRILLING METHOD: RC

TOTAL DEPTH: 11.5m

Magnetic Susc.		Geological Log		
Interval	Value	Depth		Description
Holocene?				
0-2	0.83	0	2.0	Silty & sandy clay, pink-brn.
Adelaidean				
2-4	0.18	2.0	2.5	Silty & sandy clay, aa, c minor sltst, foliat, lt brn, partially weathrd.
4-6	0.10	2.5	5.5	Sltst, foliat, partially weathrd, lt brn, c minor blk Mn? stained layers.
		5.5	6.0	Sltst, aa, c minor red-orange Fe stained lamn.
6-8	0.11	6.0	8.5	Sltst, lt grey-brn lamntd, fresh.
8-10	0.11	8.5	11.5	Sltst, blue-grey, f foliat c dissem biot, & minor sl Fe stained lamn.
10-11.5	0.10			
		11.5		End of hole.

Geochemistry Samples:

RS 5872-8m

Routine geochemistry

RS 5888-11.5m

Bottom hole, extended geochemistry.

			CRN 05	
			2-8m	8-11.5m
Detctn			6731RS	6731RS
Limit			587	588
Method				
Ag	ppm	0.5	IC2	<0.5
As	ppm	1.0	IC2	2
Au	ppb	1.0	FA3	<1
Ba	ppm	10.0	XRF1	400
Cd	ppm	1.0	IC2	<1
Ce	ppm	20.0	XRF1	80
Co	ppm	2.0	IC2	60
Cr	ppm	2.0	IC2	32
Cu	ppm	1.0	IC2	40
Fe	%	0.01	IC2	4.68
La	ppm	20.0	XRF1	50
Mn	ppm	5.0	IC2	2000
Mo	ppm	1.0	IC2	<1
Nb	ppm	2.0	XRF1	14
Ni	ppm	1.0	IC2	94
P	ppm	5.0	IC2	680
Pb	ppm	3.0	IC2	12
Pd	ppb	1.0	FA3	1
Pt	ppb	5.0	FA3	<5
Rb	ppm	2.0	XRF1	170
Sb	ppm	4.0	XRF1	<4
Se	ppm	2.0	XRF1	<2
Sn	ppm	4.0	XRF1	<4
Sr	ppm	2.0	XRF1	72
Th	ppm	4.0	XRF1	14
U	ppm	4.0	XRF1	5
V	ppm	1.0	IC2	35
W	ppm	10.0	XRF1	<10
Zn	ppm	1.0	IC2	140

HOLE NO: CRN 06
 TRAVERSE: "Willara", 3088 mN
 STATION: 7 000 mE
 DATE: 17.09.92
 LOGGED BY: WSM

100 000 SHEET NO: 6731
 LOCATION: 335 253 mE
 6 307 720 mN
 DRILLING METHOD: RC
 TOTAL DEPTH: 56.0m

COMMENTS: 3m S of peg on S of track; no outcrop; flat sandy saltbush country, & nearest outcrop is hills 400m to S.

Magnetic Susc.		Geological Log		
Interval	Value	Depth		Description

Pooraka Formation?				
0-2	2.50	0	3.0	Silty & sandy clay, pink-brn, & minor sltst, lt brn, & minor vein qtz, white or pink & rounded.
Adelaidean				
2-4	0.16	3.0	4.0	Clay-silt, mustard brn, & frags of sst vf-f, lt grey to lt brn, weathrd.
4-6	0.08	4.0	8.5	Clay-silt, aa, mustard yell, & weathrd sst frags, aa, & minor sub-ang vein qtz.
6-8	0.13			
8-10	0.08	8.5	11.5	Clay-silt & sst, aa, <u>c</u> some f Fe-ind & stained lamn in sst.
10-12	0.08			
12-14	0.06	11.5	20.5	Clay-silt, mustard brn.
14-16	0.06			
16-18	0.06			
18-20	0.05			
20-22	0.04	20.5	26.5	Clay-silt, aa, & minor sltst, foliat mustard-brn, soft & weathrd.
22-24	0.01			
24-26	0.00			
26-28	0.06	26.5	35.5	Clay-silt & minor sltst, aa, lt brn to mustard-brn.
28-30	0.06			
30-32	0.05			
32-34	0.09			
34-36	0.07			
36-38	0.08	35.5	38.5	Sltst, lt brn to mustard-brn, mod-v weathrd.
38-40	0.07	38.5	41.5	Sltst, & sst vf, biotitic, yellow-brn, mod weathrd.
40-42	0.06	41.5	50.0	Sltst, lt grn-brn, mod weathrd.
42-44	0.07			
44-46	0.11			
46-48	0.07			
48-50	0.11			
50-52	0.10	50.0	50.5	Sltst, lt brn partially weathrd, or blue-grey, fresh.
52-54	0.09	50.5	56.0	Sltst, blue grey, faintly foliat, fresh, & minor lt brn staining, & some Fe/Mn stained joints.
54-56	0.07			
		56.0		End of hole.

Geochemistry Samples:

RS 589	42-54m	Routine geochemistry
RS 590	54-56m	Bottom hole, extended geochemistry.
RS 591	54-56m	Check sample, extended geochemistry.

				CRN 06	CRN 06	CRN 06
				42-54m	54-56m	54-56m
				6731RS	6731RS	(check) 6731RS
				589	590	591
Detctn	Limit	Method				
Ag	ppm	0.5	IC2	<0.5	<0.5	<1
As	ppm	1.0	IC2	9	16	10
Au	ppb	1.0	FA3	2	6	3
Ba	ppm	10.0	XRF1		320	339
Cd	ppm	1.0	IC2		2	<1
Ce	ppm	20.0	XRF1		80	82
Co	ppm	2.0	IC2	30	16	19
Cr	ppm	2.0	IC2	28	32	34
Cu	ppm	1.0	IC2	55	32	33
Fe	%	0.01	IC2	6	5.3	4.13
La	ppm	20.0	XRF1		50	39
Mn	ppm	5.0	IC2	290	300	222
Mo	ppm	1.0	IC2	<1	<1	<5
Nb	ppm	2.0	XRF1		16	17
Ni	ppm	1.0	IC2	54	40	39
P	ppm	5.0	IC2		870	894
Pb	ppm	3.0	IC2	16	8	<5
Pd	ppb	1.0	FA3		2	<1
Pt	ppb	5.0	FA3		<5	<1
Rb	ppm	2.0	XRF1		125	112
Sb	ppm	4.0	XRF1		<4	<4
Se	ppm	2.0	XRF1		<2	2
Sn	ppm	4.0	XRF1		5	<5
Sr	ppm	2.0	XRF1		52	51
Th	ppm	4.0	XRF1		14	15
U	ppm	4.0	XRF1		10	<4
V	ppm	1.0	IC2		35	32
W	ppm	10.0	XRF1		<10	<10
Zn	ppm	1.0	IC2	80	64	51

HOLE NO: CRN 07
 TRAVERSE: "Willara", 3088 mN
 STATION: 8 000 mE
 DATE: 17-18.09.92
 LOGGED BY: WSM

100 000 SHEET NO: 6731
 LOCATION: 336 164 mE
 6 307 976 mN
 DRILLING METHOD: RC
 TOTAL DEPTH: 53.5m

COMMENTS: 8m SW of peg on S of track; no outcrop; flat sandy saltbush country, c abundant float of 2-15mm sub-ang white to pale pink vein qtz.

Magnetic Susc.		Geological Log		
Interval	Value	Depth		Description
Pooraka Formation?				
0-2	0.71	0	1.0	Clayey sand, vf, red-brn.
		1.0	2.5	Clayey sand, vf, red-brn, & frags of vein qtz, clear to white, weathrd, fractured, yellow clay-stained.
Adelaidean				
2-4	0.44	2.5	4.5	Sst vf, red-brn, Fe ind, or v weathrd; was originally lt brn to pl yellow-brn.
4-6	0.07	4.5	12.0	Clay-silt-sand vf, pink-brn, soft.
6-8	0.03			
8-10	0.07			
10-12	0.05			
12-14	0.06	12.0	14.5	Clay-silt-sand vf, aa, & sltst, purple-brn, soft, weathrd.
14-16	0.07	14.5	17.5	Clay-silt-sand, vf, aa, & sltst includes f red-brn Fe banding parallel to foliation.
16-18	0.07	17.5	18.0	Sltst, lt olive brn, mod weathrd, & purple stained & mottled & f banded,
18-20	0.08	18.0	22.0	Sltst, lt brn, foliat, soft, mod weathrd.
20-22	0.08			
22-24	0.09	22.0	23.5	Sltst, aa, brn & purple-brn.
24-26	0.07	23.5	29.5	Sltst, aa, purple-brn & grey-brn.
26-28	0.07			
28-30	0.09			
30-32	0.08	29.5	35.5	Sltst, aa, brn to lt brn, c some partially weathrd sltst below 32.
32-34	0.08			
34-36	0.08			
36-38	0.10	35.5	38.0	Sltst, aa, lt grey brn to lt red-brn, sl to mod weathrd.
38-40	0.10	38.0	38.5	Sltst, aa, lt olive brn.
40-42	0.09	38.5	44.5	Sltst, aa, lt grn-grey.
42-44	0.09			
44-46	0.07	44.5	48.0	Sltst, aa, grn-grey, sl weathrd.
46-48	0.10			
48-50	0.09	48.0	53.5	Sltst, aa, grey to blue-grey to lt grey, fresh, faintly foliat.
50-52	0.08			
52-53.5	0.08			
		53.5		End of hole.

Geochemistry Samples:

RS 592 36-48m Routine geochemistry
 RS 593 48-53.5m Bottom hole, extended geochemistry.

				CRN 07	CRN 07
				36-48m	48-53.5m
		Detctn	Method	6731RS	6731RS
		Limit		592	593
Ag	ppm	0.5	IC2	<0.5	<0.5
As	ppm	1.0	IC2	<1	2
Au	ppb	1.0	FA3	<1	<1
Ba	ppm	10.0	XRF1		940
Cd	ppm	1.0	IC2		<1
Ce	ppm	20.0	XRF1		80
Co	ppm	2.0	IC2	95	22
Cr	ppm	2.0	IC2	22	28
Cu	ppm	1.0	IC2	84	32
Fe	%	0.01	IC2	4.02	4.32
La	ppm	20.0	XRF1		50
Mn	ppm	5.0	IC2	3250	1260
Mo	ppm	1.0	IC2	1	<1
Nb	ppm	2.0	XRF1		18
Ni	ppm	1.0	IC2	120	50
P	ppm	5.0	IC2		1340
Pb	ppm	3.0	IC2	6	3
Pd	ppb	1.0	FA3		3
Pt	ppb	5.0	FA3		<5
Rb	ppm	2.0	XRF1		210
Sb	ppm	4.0	XRF1		<4
Se	ppm	2.0	XRF1		<2
Sn	ppm	4.0	XRF1		<4
Sr	ppm	2.0	XRF1		52
Th	ppm	4.0	XRF1		18
U	ppm	4.0	XRF1		5
V	ppm	1.0	IC2		36
W	ppm	10.0	XRF1		10
Zn	ppm	1.0	IC2	76	34

HOLE NO:CRN 08

TRAVERSE:"Willara", 3088 mN

STATION:9 000 mE

DATE:18.09.92

LOGGED BY:WSM

COMMENTS: 7m N of peg; no outcrop; flat sandy saltbush country, minor vein qtz float.

100 000 SHEET NO: 6731

LOCATION: 337 196 mE

6 308 332 mN

DRILLING METHOD: RC

TOTAL DEPTH: 47.5m

Magnetic Susc.		Geological Log		
Interval	Value	Depth		Description
Pooraka Formation?				
0-2	2.23	0	3.0	Silty clay, brn, & grit, ie small frags of vein qtz & qtzite.
2-4	0.51	3.0	4.0	Silty clay, aa, pl brn, & frags of v weathrd qtzite.
Adelaidean				
4-6	0.28	4.0	5.5	Clay-silt, off-white, & minor frags of qtz (either weathrd/fractured/decomposed qtzite or vein qtz).
6-8	0.08	5.5	11.0	Sltst, pl grey to off-white, soft, v weathrd.
8-10	0.05			
10-12	0.12			
12-14	0.05	11.0	14.5	Sltst, aa, v weathrd, & frags of fresher lt grey siltst.
14-16	0.07	14.5	17.0	Sltst, aa, pl brn to pl grey, v weathrd.
16-18	0.12	17.0	18.0	Sltst, aa, lt grey brn.
18-20	0.12	18.0	20.5	Sltst, aa, lt grey to brn-grey.
20-22	0.09	20.5	26.5	Sltst, aa, lt olive grey, mod-v weathrd.
22-24	0.08			
24-26	0.06			
26-28	0.06	26.5	29.5	Sltst, aa, lt olive grey, v weathrd.
28-30	0.06	29.5	30.0	Sltst, aa, lt brn-grey, v weathrd.
30-32	0.08	30.0	32.0	Sltst, aa, lt brn-grey, mod weathrd.
32-34	0.05	32.0	38.0	Sltst, aa, partially weathrd, lt grey, faintly foliat, & some orange Fe stained partings.
34-36	0.08			
36-38	0.08			
		38.0	38.5	Sltst, aa, grey.
38-40	0.06	38.5	47.5	Sltst, grey, fresh, faintly foliat.
40-42	0.07			
42-44	0.10			
44-46	0.08			
46-47.5	0.05			
		47.5		End of Hole.

Geochemistry Samples:

RS 59436-46m

RS 59546-47.5m

Routine geochemistry

Bottom hole, extended geochemistry.

				CRN 08	CRN 08
				36-46m	46-47.5m
				6731RS	6731RS
				594	595
Detctn	Limit	Method			
Ag	ppm	0.5	IC2	<0.5	<0.5
As	ppm	1.0	IC2	<1	2
Au	ppb	1.0	FA3	2	1
Ba	ppm	10.0	XRF1		470
Cd	ppm	1.0	IC2		<1
Ce	ppm	20.0	XRF1		60
Co	ppm	2.0	IC2	14	14
Cr	ppm	2.0	IC2	16	20
Cu	ppm	1.0	IC2	24	42
Fe	%	0.01	IC2	2.96	2.94
La	ppm	20.0	XRF1		50
Mn	ppm	5.0	IC2	870	910
Mo	ppm	1.0	IC2	<1	<1
Nb	ppm	2.0	XRF1		16
Ni	ppm	1.0	IC2	50	50
P	ppm	5.0	IC2		1220
Pb	ppm	3.0	IC2	3	<3
Pd	ppb	1.0	FA3		<1
Pt	ppb	5.0	FA3		<5
Rb	ppm	2.0	XRF1		190
Sb	ppm	4.0	XRF1		<4
Se	ppm	2.0	XRF1		<2
Sn	ppm	4.0	XRF1		5
Sr	ppm	2.0	XRF1		42
Th	ppm	4.0	XRF1		15
U	ppm	4.0	XRF1		<4
V	ppm	1.0	IC2		22
W	ppm	10.0	XRF1		<10
Zn	ppm	1.0	IC2	16	18

HOLE NO: CRN 09
 TRAVERSE: "Willara", 3088 mN
 STATION: 10 000 mE
 DATE: 18.09.92
 LOGGED BY: WSM
 COMMENTS: 18m NNE of peg.

100 000 SHEET NO: 6731
 LOCATION: 338 067 mE
 6 308 550 mN
 DRILLING METHOD: RC
 TOTAL DEPTH: 35.5m

Magnetic Susc.		Geological Log	
Interval	Value	Depth	Description
Pooraka Formation?			
0-2	0.79	0	3.0
2-4	0.10		
Adelaidean			
		3.0	5.5
4-6	0.23	5.5	8.5
6-8	0.07		
8-10	0.07	8.5	10.0
10-12	0.05	10.0	11.5
12-14	0.04	11.5	16.0
14-16	0.05		
16-18	0.07	16.0	17.5
18-20	0.04	17.5	21.0
20-22	0.08		
22-24	0.07	21.0	24.0
24-26	0.08	24.0	26.0
		26.0	26.5
28-30	0.06	26.5	29.5
30-32	0.04	29.5	32.0
32-34	0.06	32.0	32.5
34-35.5	0.077	32.5	35.5
		35.5	

Geochemistry Samples:

RS 596	14-26m	Routine geochemistry
RS 597	26-34m	"
RS 598	34-35.5m	Bottom hole, extended geochemistry.

				CRN 09	CRN 09	CRN 09
				14-26m	26-34m	34-35.5m
Detctn		Method	Limit	6731RS	6731RS	6731RS
				596	597	598
Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5
As	ppm	1.0	IC2	12	13	17
Au	ppb	1.0	FA3	3	3	7
Ba	ppm	10.0	XRF1			460
Cd	ppm	1.0	IC2			<1
Ce	ppm	20.0	XRF1			60
Co	ppm	2.0	IC2	16	17	16
Cr	ppm	2.0	IC2	22	22	28
Cu	ppm	1.0	IC2	54	62	56
Fe	%	0.01	IC2	4.74	4.42	3.82
La	ppm	20.0	XRF1			50
Mn	ppm	5.0	IC2	1020	540	930
Mo	ppm	1.0	IC2	<1	<1	<1
Nb	ppm	2.0	XRF1			14
Ni	ppm	1.0	IC2	36	30	34
P	ppm	5.0	IC2			750
Pb	ppm	3.0	IC2	4	4	4
Pd	ppb	1.0	FA3			<1
Pt	ppb	5.0	FA3			<5
Rb	ppm	2.0	XRF1			135
Sb	ppm	4.0	XRF1			<4
Se	ppm	2.0	XRF1			<2
Sn	ppm	4.0	XRF1			4
Sr	ppm	2.0	XRF1			48
Th	ppm	4.0	XRF1			14
U	ppm	4.0	XRF1			<4
V	ppm	1.0	IC2			34
W	ppm	10.0	XRF1			<10
Zn	ppm	1.0	IC2	17	22	28

HOLE NO:CRN 10

TRAVERSE:"Willara", 3088 mN

STATION:11 000 mE

DATE:18.09.92

LOGGED BY:WSM

COMMENTS: 15m N of peg; flat salt bush country; nearest outcrop is in hills 200m to N & 300m to S.

100 000 SHEET NO: 6731

LOCATION: 338 067 mE

6 308 550 mN

DRILLING METHOD: RC

TOTAL DEPTH: 26.0m

Magnetic Susc.		Geological Log		
Interval	Value	Depth		Description
Holocene?				
0-2	1.11	0	0.5	Clayey soil, brn.
Adelaidean				
		0.5	2.5	Sltst, lt olive brn, soft or ind, or weathrd to clay-silt, lt pink brn.
2-4	0.23	2.5	5.0	Sltst, olive brn, partially weathrd, & silty clay, pink brn c some blk Mn staining.
4-6	0.09			
		5.0	5.5	Sltst, lt brn-grey to lt orange brn, partially weathrd.
6-8	0.07	5.5	8.5	Sltst, grey-brn, fresh.
8-10	0.09	8.5	11.5	Sltst, aa, lt grn-grey, & some orange Fe stained joints.
10-12	0.08			
12-14	0.09	11.5	16.0	Sltst, aa, grey to brn-grey.
14-16	0.08	16.0	20.5	Sltst, aa, & some Mn stained joints, & minor pl orange brn sl weathrd zones.
16-18	0.08			
18-20	0.06			
20-22	0.07	20.5	26.5	Sltst, aa, fresh, grey.
22-24	0.07			
24-26.5	0.10			
		26.5		End of hole.

Geochemistry samples:

RS 5994-12m

Routine geochemistry

RS 60012-22m

"

RS 60122-26.5m

Bottom hole, extended geochemistry.

			CRN 10		CRN 10		CRN 10	
			4-12m		12-22m		22-26.5m	
Detctn			Method					
Limit			6731RS		6731RS		6731RS	
			599		600		601	
Ag	ppm	0.5	IC2	<0.5	<0.5		<0.5	
As	ppm	1.0	IC2	3	<1		4	
Au	ppb	1.0	FA3	1	1		1	
Ba	ppm	10.0	XRF1				490	
Cd	ppm	1.0	IC2				3	
Ce	ppm	20.0	XRF1				60	
Co	ppm	2.0	IC2	78	38		35	
Cr	ppm	2.0	IC2	28	28		34	
Cu	ppm	1.0	IC2	36	36		30	
Fe	%	0.01	IC2	4.24	4		4.38	
La	ppm	20.0	XRF1				50	
Mn	ppm	5.0	IC2	430	2500		4450	
Mo	ppm	1.0	IC2	<1	<1		<1	
Nb	ppm	2.0	XRF1				13	
Ni	ppm	1.0	IC2	78	46		38	
P	ppm	5.0	IC2				850	
Pb	ppm	3.0	IC2	24	22		25	
Pd	ppb	1.0	FA3				1	
Pt	ppb	5.0	FA3				<5	
Rb	ppm	2.0	XRF1				155	
Sb	ppm	4.0	XRF1				<4	
Se	ppm	2.0	XRF1				<2	
Sn	ppm	4.0	XRF1				6	
Sr	ppm	2.0	XRF1				80	
Th	ppm	4.0	XRF1				16	
U	ppm	4.0	XRF1				<4	
V	ppm	1.0	IC2				40	
W	ppm	10.0	XRF1				<10	
Zn	ppm	1.0	IC2	165	98		120	

HOLE NO:CRN 11

TRAVERSE:"Willara", 3088 mN

STATION:12 000 mE

DATE:18.09.92

LOGGED BY:WSM

COMMENTS: 15m SE of peg; flat salt bush country; nearest outcrop is in low hills 100m to S & N.

100 000 SHEET NO: 6731

LOCATION: 339 748 mE

6 309 833 mN

DRILLING METHOD: RC

TOTAL DEPTH: 8.5m

Magnetic Susc.		Geological Log	
Interval	Value	Depth	Description

Holocene?			
		0 0.3	Sandy clayey soil, brn.
Adelaidean			
0-2	0.57	0.3 2.5	Sltst, grey, fresh, <u>c</u> some calcrete infilling on joints & partings.
2-4	0.57	2.5 6.0	Sltst, grey, fresh, faintly foliat.
4-6	0.06		
6-8.5	0.06	6.0 8.0	Sltst, aa, grey to dk grey, fiss in part.
		8.0 8.5	Sltst, aa, dk grey.
		8.5	End of hole.
Geochemistry Samples:			
RS 602	6-8.5m	Bottom hole, extended geochemistry.	

CRN 11
6-8.5m

Detctn Method
Limit 6731RS
602

Ag	ppm	0.5	IC2	<0.5
As	ppm	1.0	IC2	7
Au	ppb	1.0	FA3	3
Ba	ppm	10.0	XRF1	560
Cd	ppm	1.0	IC2	<1
Ce	ppm	20.0	XRF1	70
Co	ppm	2.0	IC2	17
Cr	ppm	2.0	IC2	34
Cu	ppm	1.0	IC2	44
Fe	%	0.01	IC2	3.76
La	ppm	20.0	XRF1	40
Mn	ppm	5.0	IC2	940
Mo	ppm	1.0	IC2	3
Nb	ppm	2.0	XRF1	12
Ni	ppm	1.0	IC2	40
P	ppm	5.0	IC2	700
Pb	ppm	3.0	IC2	30
Pd	ppb	1.0	FA3	<1
Pt	ppb	5.0	FA3	<5
Rb	ppm	2.0	XRF1	160
Sb	ppm	4.0	XRF1	<4
Se	ppm	2.0	XRF1	<2
Sn	ppm	4.0	XRF1	6
Sr	ppm	2.0	XRF1	155
Th	ppm	4.0	XRF1	10
U	ppm	4.0	XRF1	4
V	ppm	1.0	IC2	42
W	ppm	10.0	XRF1	<10
Zn	ppm	1.0	IC2	130

HOLE NO:CRN 12

TRAVERSE:"Willara", 3088 mN

STATION:13 000 mE

DATE:18.09.92

LOGGED BY:WSM

COMMENTS: 9m SW of peg; in valley, about 150m W of small mine; nearest outcrop is in low hills 50m to N & 100m to SE.

100 000 SHEET NO: 6731

LOCATION: 340 656 mE

6 310 199 mN

DRILLING METHOD: RC

TOTAL DEPTH: 8.0m

Magnetic Susc.		Geological Log		
Interval	Value	Depth		Description

Holocene?				
		0	0.2	Sandy soil, lt brn.
Adelaidean				
0-2	0.86	0.2	2.0	Sltst, lt grey to grey, partially weathrd, <u>c</u> some orange to red Fe ind, esp on partings, & some calcrete infilling on fractures.
2-4	0.52	2.0	4.0	Silty sandy clay, lt brn, & sltst, aa.
4-6	0.07	4.0	5.5	Sltst, lt brn, partially weathrd, foliat & sl fiss, & Mn dendrites on joints & partings, & minor orange Fe staining on joints.
6-8	0.04	5.5	7.0	Sltst, aa, lt olive brn.
		7.0	8.0	Sltst, lt brn to lt orange-brn, v hard, partially silicf, <u>c</u> abund cross cutting thin 1mm qtz veins in fractures & pods etc (some qtz is dk Mn stained?), & some v thin 0.2mm blk Mn? infilled fractures.
		8.0		End of hole.
Geochemistry Samples:				
RS 603	0-6m	Routine geochemistry		
RS 604	6-8m	Bottom hole, extended geochemistry.		

			CRN 12	
			0-6m	6-8m
Detctn			6731RS	6731RS
Limit			603	604
Method				
Ag	ppm	0.5	IC2	<0.5
As	ppm	1.0	IC2	13
Au	ppb	1.0	FA3	<1
Ba	ppm	10.0	XRF1	480
Cd	ppm	1.0	IC2	<1
Ce	ppm	20.0	XRF1	60
Co	ppm	2.0	IC2	22
Cr	ppm	2.0	IC2	22
Cu	ppm	1.0	IC2	18
Fe	%	0.01	IC2	3.24
La	ppm	20.0	XRF1	40
Mn	ppm	5.0	IC2	910
Mo	ppm	1.0	IC2	<1
Nb	ppm	2.0	XRF1	13
Ni	ppm	1.0	IC2	42
P	ppm	5.0	IC2	890
Pb	ppm	3.0	IC2	10
Pd	ppb	1.0	FA3	1
Pt	ppb	5.0	FA3	<5
Rb	ppm	2.0	XRF1	100
Sb	ppm	4.0	XRF1	<4
Se	ppm	2.0	XRF1	<2
Sn	ppm	4.0	XRF1	6
Sr	ppm	2.0	XRF1	60
Th	ppm	4.0	XRF1	12
U	ppm	4.0	XRF1	<4
V	ppm	1.0	IC2	52
W	ppm	10.0	XRF1	<10
Zn	ppm	1.0	IC2	34

HOLE NO:CRN 13

TRAVERSE:"Willara", 3088 mN

STATION:14 000 mE

DATE:18.09.92

LOGGED BY:WSM

COMMENTS: 15m WSW of peg, ie 10m W of stockyard; nearest outcrop is in low hills 200m to N & S; calcrete float & minor vein qtz.

100 000 SHEET NO: 6731

LOCATION: 341 187 mE

6 310 914 mN

DRILLING METHOD: RC

TOTAL DEPTH: 13.0m

Magnetic Susc.		Geological Log		
Interval	Value	Depth		Description
Pooraka Formation?				
0-2	0.93	0	1.0	Soil, brn, & gravel, ie sub-ro vein qtz, Fe-ind dk brn qtzite vf, & sltst olive-grey.
Adelaidean				
2-4	0.51	1.0	3.0	Clay-silt, brn, & minor frags of sltst, lt olive-grey to pl grey.
4-6	0.12	3.0	6.5	Sltst, lt olive-brn, mod weathrd, & minor Fe or Mn stained joints.
6-8	0.09	6.5	7.5	Sltst, aa, sl-mod weathrd.
		7.5	8.5	Sltst, aa, grey-brn, sl weathered.
8-10	0.08	8.5	9.0	Sltst, aa, dk grey, fresh, & some lt grey-brn weathering along fractures.
		9.0	10.0	Sltst, aa, dk grey, fresh, & minor orange Fe staining on joints & partings.
10-12	0.11	10.0	12.0	Sltst, grey, sl weathered, c Fe staining along joints & partings.
12-13	0.08	12.0	13.0	Sltst, dk grey, hard & fresh, c minor Fe staining on joints & minor bleaching adjacent to joints.
		13.0		End of hole.

Geochemistry Samples:

RS 6054-12m

Routine geochemistry

RS 60612-13m

Bottom hole, extended geochemistry.

				CRN 13 4-12m	CRN 13 12-13m
	Detctn Limit	Method		6731RS 605	6731RS 606
Ag	ppm	0.5	IC2	<0.5	<0.5
As	ppm	1.0	IC2	13	13
Au	ppb	1.0	FA3	1	2
Ba	ppm	10.0	XRF1		440
Cd	ppm	1.0	IC2		1
Ce	ppm	20.0	XRF1		50
Co	ppm	2.0	IC2	19	16
Cr	ppm	2.0	IC2	34	40
Cu	ppm	1.0	IC2	28	25
Fe	%	0.01	IC2	4.14	3.64
La	ppm	20.0	XRF1		40
Mn	ppm	5.0	IC2	850	1040
Mo	ppm	1.0	IC2	<1	1
Nb	ppm	2.0	XRF1		12
Ni	ppm	1.0	IC2	46	46
P	ppm	5.0	IC2		810
Pb	ppm	3.0	IC2	7	6
Pd	ppb	1.0	FA3		<1
Pt	ppb	5.0	FA3		<5
Rb	ppm	2.0	XRF1		110
Sb	ppm	4.0	XRF1		<4
Se	ppm	2.0	XRF1		<2
Sn	ppm	4.0	XRF1		<4
Sr	ppm	2.0	XRF1		125
Th	ppm	4.0	XRF1		12
U	ppm	4.0	XRF1		4
V	ppm	1.0	IC2		52
W	ppm	10.0	XRF1		<10
Zn	ppm	1.0	IC2	28	32

HOLE NO: CRN 14
 TRAVERSE: "Willara", 3088 mN
 STATION: 16 000 mE
 DATE: 18.09.92
 LOGGED BY: WSM

100 000 SHEET NO: 6731
 LOCATION: 342 879 mE
 6 311 686 mN
 DRILLING METHOD: RC
 TOTAL DEPTH: 50.5m

COMMENTS: 10m NW of peg; on N flank of hill; float consists of vein qtz, vf sst & qtzite, finely laminated.

Magnetic Susc.		Geological Log		Description
Interval	Value	Depth	Depth	

Pooraka Formation?				
0-2	0.29	0	2.0	Clayey soil, lt pink-brn, & gravel of vein qtz & vf sst & qtzite, f lamntd.
Adelaidean (Appila Tillite)				
2-4	0.04	2.0	6.0	Sst/sltst vf-f, pl grey to lt brn-grey, soft, weathrd, no lamn, layering or foliation.
4-6	0.06			The sandstone is poly-modal, & comprises vf-f well sorted & rounded qtz grains in a clay-silt matrix, & appears to be matrix supported, & also includes rare to minor sub-ang to well rounded but poorly sorted clear to dk m-c qtz grains. It thus appears to be a diamictite (possibly a tillite?).
6-8	0.06	6.0	8.5	Diamct, aa, lt grey, c minor orange Fe-ind &/or stained lamn 2-4mm, & rare qtzite, 1-2mm, dk & clear (interbedded?).
8-10	0.09	8.5	10.0	Diamct, aa, pl yellow-orange, or dk Fe stained, soft & weathered.
10-12	0.06	10.0	14.0	Diamct, aa, pl grey, minor Fe staining, & minor qtzite interbeds? & rare vein?
12-14	0.05			qtz (perhaps these are pebbles within the diamct).
14-16	0.05	14.0	17.5	Diamct, aa, lt olive-grey to pl grey, & minor dk Fe-ind joints, soft & mod
16-18	0.04			weathrd.
18-20	0.05	17.5	18.5	Diamct, aa, lt brn-grey.
		18.5	19.5	Diamct, aa, orange Fe stained.
		19.5	20.5	Diamct, aa, lt brn-grey.
20-22	0.05	20.5	23.5	Diamct, aa, also includes rare dk opaque grains / minerals?
22-24	0.05			
24-26	0.06	23.5	27.0	Diamct, aa, lt olive-grey-brn, & minor rounded qtzite pebbles; sl increase in
26-28	0.05			m-c grains below about 25m, & in coarser pebbles eg qtzite vf-f, lt grey to grey-brn, & clear qtz, & sub-ang frags of grey sltst within the diamct.
28-30	0.04	27.0	29.5	Diamct, aa, orange-brn Fe stained, c minor f dk brn to blk Fe- or Mn?-infilled fractures.
30-32	0.07	29.5	32.5	Diamct, aa, lt olive-grey-brn.
32-34	0.10	32.5	37.5	Diamct, aa, lt orange-brn, sl-mod weathrd & stained.
34-36	0.08			
		37.5	38.5	Diamct, aa, lt grey, partially weathrd, some pl orange Fe staining.
38-40	0.05	38.5	42.0	Diamct, aa, pl to lt grey, minor Fe staining.
40-42	0.04			
42-44	0.05	42.0	43.0	Diamct, aa, & some hard white silicf? layers.
		43.0	44.0	Diamct, aa, lt orange-brn to lt grey-brn, soft.
44-46	0.06	44.0	44.5	Diamct, aa, orange Fe stained.
46-48	0.07	44.5	47.0	Diamct, aa, lt grey, fresh, or lt orange Fe stained.
48-50.5	0.06	47.0	50.5	Diamct, aa, lt grey, fresh.
		50.5		End of hole.

Geochemistry Samples:

RS 607	20-40m	Routine geochemistry
RS 608	40-48m	"
RS 609	48-50.5m	Bottom hole, extended geochemistry.

				CRN 14	CRN 14	CRN 14
				20-40m	40-48m	48-50.5m
				6731RS	6731RS	6731RS
				607	608	609
Detctn	Limit	Method				
Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5
As	ppm	1.0	IC2	8	9	11
Au	ppb	1.0	FA3	1	1	<1
Ba	ppm	10.0	XRF1			460
Cd	ppm	1.0	IC2			<1
Ce	ppm	20.0	XRF1			80
Co	ppm	2.0	IC2	28	13	20
Cr	ppm	2.0	IC2	15	14	18
Cu	ppm	1.0	IC2	58	65	58
Fe	%	0.01	IC2	2.9	2.5	2.86
La	ppm	20.0	XRF1			60
Mn	ppm	5.0	IC2	850	450	640
Mo	ppm	1.0	IC2	<1	<1	<1
Nb	ppm	2.0	XRF1			11
Ni	ppm	1.0	IC2	30	19	34
P	ppm	5.0	IC2			380
Pb	ppm	3.0	IC2	3	<3	<3
Pd	ppb	1.0	FA3			<1
Pt	ppb	5.0	FA3			<5
Rb	ppm	2.0	XRF1			145
Sb	ppm	4.0	XRF1			<4
Se	ppm	2.0	XRF1			<2
Sn	ppm	4.0	XRF1			<4
Sr	ppm	2.0	XRF1			48
Th	ppm	4.0	XRF1			15
U	ppm	4.0	XRF1			<4
V	ppm	1.0	IC2			22
W	ppm	10.0	XRF1			<10
Zn	ppm	1.0	IC2	5	3	2

HOLE NO:CRN 15

TRAVERSE:"Willara", 3088 N

STATION:17 000 mE

DATE:19.09.92

LOGGED BY:WSM

COMMENTS: 8m N of peg, & 20m NE of gate in N-S fence; float consists of sub-ro vein qtz, & rounded qtzite.

100 000 SHEET NO: 6731

LOCATION: 343 753 mE

6 311 553 mN

DRILLING METHOD: RC

TOTAL DEPTH: 44.5m

Magnetic Susc.		Geological Log		
Interval	Value	Depth		Description
Holocene?				
0-2	0.20	0	1.0	Sandy clay, lt brn.
Adelaidean (Appila Tillite)				
		1.0	2.5	Sltst & sandy sltst, foliat, lt orange-brn, weathrd.
2-4	0.08	2.5	5.0	Diamct, bi- or poly-modal, f-m sand in a foliat sltst/vvf sst matrix; no lamn or bedding; mod weathrd.
4-6	0.04			
6-8	0.05	5.0	9.0	Diamct, aa, greyish brn, & includes abund m-c sand, mostly sub-ro clear to white qtz or lt pink to dk grey qtzite; also some coarser sub-ang grains <3mm; not foliat below 5m.
8-10	0.06			
10-12	0.06	9.0	16.0	Diamct, aa, & some lt grey sltst interbeds.
12-14	0.08			
14-16	0.06			
16-18	0.04	16.0	18.0	Diamct, aa, , mod weathrd, & lt orange-brn Fe stained, & minor dk Fe-ind bands.
18-20	0.05	18.0	22.0	Diamct, aa, lt pink-brn & lt orange-brn, sl-mod weathrd.
20-22	0.05			
22-24	0.04	22.0	23.5	Diamct, aa, pl grey to lt orange-brn, & some brn Fe stained &/or ind joints.
24-26	0.06	23.5	26.5	Diamct, aa, grey-brn to orange-brn, & minor Fe stained joints.
26-28	0.08	26.5	27.0	Diamct, aa, lt grey-brn.
28-30	0.09	27.0	32.0	Sltst, grey-purple, foliat.
30-32	0.05			
32-34	0.09	32.0	34.0	Diamct, becoming fresher, grey-purple, lt orange-brn stained in part, similar to above, ie bi-modal, f-m sand in a faintly foliat sltst/vvf sst matrix; no lamn or bedding, but no coarser sand or pebbles; & minor sltst, aa.
34-36	0.06	34.0	35.5	Diamct, aa, lt blue-grey, & some orange Fe staining.
36-38	0.09	35.5	44.5	Diamct, aa, fresh, grey.
38-40	0.05			
40-42	0.05			
42-44.5	0.06			
		44.5		End of hole.

Geochemistry Samples:

RS 61032-42m

RS 61142-44.5m

Routine geochemistry

Bottom hole, extended geochemistry.

				CRN 15	CRN 15
				32-42m	42-44.5m
				6731RS	6731RS
				610	611
Detctn	Limit	Method			
Ag	ppm	0.5	IC2	<0.5	<0.5
As	ppm	1.0	IC2	6	4
Au	ppb	1.0	FA3	<1	<1
Ba	ppm	10.0	XRF1		560
Cd	ppm	1.0	IC2		<1
Ce	ppm	20.0	XRF1		70
Co	ppm	2.0	IC2	16	15
Cr	ppm	2.0	IC2	14	18
Cu	ppm	1.0	IC2	24	18
Fe	%	0.01	IC2	3.72	2.64
La	ppm	20.0	XRF1		40
Mn	ppm	5.0	IC2	720	70
Mo	ppm	1.0	IC2	<1	<1
Nb	ppm	2.0	XRF1		13
Ni	ppm	1.0	IC2	24	25
P	ppm	5.0	IC2		500
Pb	ppm	3.0	IC2	3	3
Pd	ppb	1.0	FA3		<1
Pt	ppb	5.0	FA3		<5
Rb	ppm	2.0	XRF1		155
Sb	ppm	4.0	XRF1		<4
Se	ppm	2.0	XRF1		<2
Sn	ppm	4.0	XRF1		4
Sr	ppm	2.0	XRF1		30
Th	ppm	4.0	XRF1		18
U	ppm	4.0	XRF1		<4
V	ppm	1.0	IC2		15
W	ppm	10.0	XRF1		<10
Zn	ppm	1.0	IC2	7	8

HOLE NO: CRN 16
 TRAVERSE: "Willara", 3088 mN
 STATION: 18 000 mE
 DATE: 19.09.92
 LOGGED BY: WSM
 COMMENTS: 11m N of peg; float consists of calcrete & rarer reddish brown Fe-ind vf-f sandstone.

100 000 SHEET NO: 6731
 LOCATION: 344 661 mE
 6 311 922 mN
 DRILLING METHOD: RC
 TOTAL DEPTH: 74.5m

Magnetic Susc.		Geological Log	
Interval	Value	Depth	Description
Pooraka Formation?			
0-2	2.11	0 2.0	Sandy clay, reddish brn; and pebbles of calcrete, & red-brn to blk Fe-ind vf-f sst, & ang frags of sltst, lt grey.
Olney? Formation?			
2-4	0.41	2.0 5.5	Sandy sltst, mottled lt fawn & lt red-brn, soft & mod-v weathrd.
4-6	0.10		
6-8	0.11	5.5 8.5	Sandy & clayey sltst, aa, soft & Fe stained & mottled.
8-10	0.06	8.5 13.5	V sandy & silty clay, soft or compact, pl grey c purple mottling.
10-12	0.03		
12-14	0.04		
		13.5 14.5	Sandy sltst, hard & ind, off-white, v poorly sorted, & no bedding.
14-16	0.04	14.5 16.5	Silty clay, off-white, compact.
16-18	0.04	16.5 17.5	Silty clay, aa, lt fawn to lt orange-brn.
		17.5 18.0	Clay, sl silty, mottled grey, red, lt orange & off-white, plastic.
18-20	0.03	18.0 20.5	Clay, aa, c some qtz grit.
Very Weathered Adelaidean?			
20-22	0.03	20.5 25.0	Clay, lt to pl brn-grey, compact.
22-24	0.02	25.0 26.0	Clay, aa, lt brn.
24-26	0.03	26.0 26.7	Clay, aa, plastic, carb, dk grey-brn to black.
26-28	0.03	26.7 28.5	Clay, aa, lt grey c minor thin blk carb? layers.
28-30	0.02	28.5 29.5	Clay, aa, c abund blk carb? layers.
30-32	0.03	29.5 32.5	Clay, aa, lt grey.
32-34	0.05	32.5 41.5	Clay, aa, pl to lt grey c irreg f blk lamn, & minor frags of clear vein qtz & clear to blk vf sst/sltst?, or weathrd sugary & Mn? stained vein qtz.
34-36	0.19		
36-38	0.08		
38-40	0.05		
40-42	0.03		
42-44	0.09	41.5 44.0	Clay, aa, olive-grey, soft & plastic, & abund blk carb? layers.
44-46	0.08	44.0 45.0	Clay, aa, lt grey or blk & carb.
46-48	0.09	45.0 47.5	Sltst, dk brn to olive brn, v weathered; & clay, lt orange-brn.
48-50	0.10	47.5 50.0	Sltst, blk & carb, or lt grey to lt olive-brn c some orange Fe stained fractures & zones, weathrd.
50-52	0.06	50.0 50.5	Sltst, aa, blk & carb, c pl grey interbeds c pl orange Fe staining.
		50.5 52.0	Clay, sl silty, pl grey, soft & plastic, & rare blk sltst.
52-54	0.16	52.0 53.5	Sltst, soft, blk & carb; & clay, sl silty, olive-brn, compact.
54-56	0.26	53.5 55.0	V sandy clay, olive-brn, compact, & some sst vf, sugary & v weathrd, lt grey.
		55.0 56.5	Sst vf, clayey, pl grey, mod sorted & sub-ro, v weathrd.
56-58	0.05	56.5 57.0	Clayey sltst, sl carb, pl to lt grey banded (bedding?), v weathrd.
Adelaidean	(if there is a unit overlying the Adelaidean, the contact is very hard to determine)	57.0 58.5	Sltst, sl clayey, lt grey, sl carb, weathers to pl to lt orange-brn; c dissem small cuboid voids 0.5mm, c Fe stained haloes, some still containing a blk dull opaque mineral, weathrd sulphide?.
58-60	0.06	58.5 60.0	Sltst, aa, lt grey, mod weathrd, rare cuboid voids.
60-62	0.04	60.0 61.0	Sltst, aa, becoming harder & fresher, grey or brn mottled.
62-64	0.12	61.0 64.0	Sst vf, pl to lt grey, or lt orange Fe stained, mod sorted, & no bedding. Contains enigmatic voids, some are cuboid as above but c no Fe staining around them, & some are irreg, possibly weathrd clasts or coarser grains.
64-66	0.08	64.0 66.0	Sst vf, aa, & sltst, dk brn & mod weathrd.
66-68	0.13	66.0 68.5	Sltst, grey & fresh, faintly foliat, no bedding; c rare dissem silver-yellow sulphide - may be pyrite? or chalcopryite?.
68-70	0.06	68.5 70.0	Sltst, aa, lt grey, c abund dissem f brn Fe spotting.
70-72	0.16	70.0 71.0	Sltst/sst vf, lt grey, no bedding.
72-74	0.09	71.0 73.0	Sltst, grey to lt grey, mottled or banded in part, faintly foliat, fresh or sl weathrd.
74-74.5	0.17	73.0 74.5	Sltst, grey, faintly foliat, c minor vein qtz, clear c milky margins & lt orange Fe stained rims.
		74.5	End of hole.

				CRN 16	CRN 16	CRN 16
				22-40m	40-56m	56-66m
				6731RS	6731RS	6731RS
				612	613	614
Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5
As	ppm	1.0	IC2	62	22	36
Au	ppb	1.0	FA3	13	17	3
Ba	ppm	10.0	XRF1			
Cd	ppm	1.0	IC2			
Ce	ppm	20.0	XRF1			
Co	ppm	2.0	IC2	19	24	22
Cr	ppm	2.0	IC2	8	14	5
Cu	ppm	1.0	IC2	140	185	110
Fe	%	0.01	IC2	3.08	7.05	4.06
La	ppm	20.0	XRF1			
Mn	ppm	5.0	IC2	105	450	320
Mo	ppm	1.0	IC2	6	<1	<1
Nb	ppm	2.0	XRF1			
Ni	ppm	1.0	IC2	42	42	35
P	ppm	5.0	IC2			
Pb	ppm	3.0	IC2	<3	<3	4
Pd	ppb	1.0	FA3			
Pt	ppb	5.0	FA3			
Rb	ppm	2.0	XRF1			
Sb	ppm	4.0	XRF1			
Se	ppm	2.0	XRF1			
Sn	ppm	4.0	XRF1			
Sr	ppm	2.0	XRF1			
Th	ppm	4.0	XRF1			
U	ppm	4.0	XRF1			
V	ppm	1.0	IC2			
W	ppm	10.0	XRF1			
Zn	ppm	1.0	IC2	6	10	5

. Lloyd Moore (the driller) indicated the hole cut abund water below about 30m.

This hole included a number of unusual & significant features:

- . The grey carbonaceous siltstone contained weathered sulphides? from 57-58.5m & 61-64m (dissem small cuboid voids 0.5mm, some still containing a blk dull opaque mineral).
- . Fresh grey siltstone contained rare dissem silver-yellow pyrite? from 66-68.5m.
- . Water/air return near base of hole smelt of H₂S.

Geochemistry Samples:

RS 612	22-40m	Routine geochemistry
RS 613	40-56m	"
RS 614	56-66m	"
RS 615	66-68m	Extended geochemistry (sulphides noted)
RS 616	68-72m	Routine geochemistry
RS 617	72-74m	Bottom hole, extended geochemistry.
RS 618	66-68m	Check sample, extended geochemistry.

				CRN 16	CRN 16	CRN 16	CRN 16
				66-68m	68-72m	72-74m	66-68m
				6731RS	6731RS	6731RS	(check) 6731RS
				615	616	617	618
Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5	<1
As	ppm	1.0	IC2	32	42	66	22
Au	ppb	1.0	FA3	2	2	2	2
Ba	ppm	10.0	XRF1	370		390	442
Cd	ppm	1.0	IC2	1		<1	<1
Ce	ppm	20.0	XRF1	80		80	94
Co	ppm	2.0	IC2	28	18	34	26
Cr	ppm	2.0	IC2	4	6	7	49
Cu	ppm	1.0	IC2	48	50	58	78
Fe	%	0.01	IC2	9.2	3.08	4.74	6.98
La	ppm	20.0	XRF1	50		60	44
Mn	ppm	5.0	IC2	950	210	570	665
Mo	ppm	1.0	IC2	<1	<1	1	<5
Nb	ppm	2.0	XRF1	16		15	15
Ni	ppm	1.0	IC2	38	32	40	39
P	ppm	5.0	IC2	520		530	662
Pb	ppm	3.0	IC2	<3	<3	3	<5
Pd	ppb	1.0	FA3	1		<1	<1
Pt	ppb	5.0	FA3	<5		<5	<1
Rb	ppm	2.0	XRF1	110		125	107
Sb	ppm	4.0	XRF1	<4		<4	<4
Se	ppm	2.0	XRF1	<2		<2	3
Sn	ppm	4.0	XRF1	<4		<4	<5
Sr	ppm	2.0	XRF1	42		52	39
Th	ppm	4.0	XRF1	16		20	16
U	ppm	4.0	XRF1	<4		4	4
V	ppm	1.0	IC2	10		11	33
W	ppm	10.0	XRF1	10		<10	<10
Zn	ppm	1.0	IC2	4	5	4	<5

HOLE NO: CRN 17
 TRAVERSE: "Willara", 3088 mN
 STATION: 19 000 mE
 DATE: 19.09.92
 LOGGED BY: WSM
 COMMENTS: 19m N of peg; float consists of calcrete.

100 000 SHEET NO: 6731
 LOCATION: 345 614 mE
 6 311 856 mN
 DRILLING METHOD: RC
 TOTAL DEPTH: 92.5m

Magnetic Susc.		Geological Log		Description
Interval	Value	Depth	Depth	

Pooraka Formation				
0-2	1.01	0	2.0	Clayey sand, red-brn, & frags of white silicf? sltst.
2-4	2.19	2.0	3.0	Clay-silt-vf sand, red-brn, compact, & minor vein qtz.
4-6	12.5	3.0	8.0	Clay-silt-vf sand, red-orange, & abund frags of rounded to ang sltst, & Fe-ind
6-8	6.05			sltst, & minor vein qtz. Minor rounded coarse 2cm vein qtz gravel at base.
Olney? Formation?				
8-10	12.3	8.0	8.5	Sltst, ind, lt grey or orange-brn Fe stained.
10-12	21.6	8.5	11.5	Sltst, Fe-ind, dk red-brn to brn, & minor milky vein qtz; & clay-silt, weathrd, lt grey to lt orange.
12-14	0.20	11.5	18.0	Clayey sltst, v weathrd, pl grey, c some red Fe stained soft interbeds, & some red
14-16	0.07			to lt pink-brn mottling.
16-18	0.04			
18-20	0.03	18.0	19.0	Clay-silt, pl brn-grey, & some f-m sandy layers.
		19.0	20.0	Clay, sl silty, pl grey, compact, minor red Fe mottling.
20-22	0.16	20.0	25.0	Sltst, clayey, ind, pl fawn to grey, no layering, & minor sandy interbeds?.
22-24	0.04			
24-26	0.02	25.0	25.5	Clay, mottled off-white to pl purple, compact.
26-26	0.03	25.5	28.0	Clay, pl grey, plastic.
28-30	0.07	28.0	29.5	Clay, off-white, plastic, foliat in part.
		29.5	30.0	Clay, aa, lt grey.
30-32	0.02	30.0	36.0	Clay, aa, off-white, & minor pl grey weathrd sltst from 31-32.5m.
32-34	0.03			
34-36	0.04			
36-38	0.01	36.0	38.0	Clay, pl brn-grey, compact.
38-40	0.04	38.0	40.0	Clay, aa, lt brn-grey, & some thin dk carb? layers from 38-38.5m.
40-42	0.03	40.0	45.0	Clay, aa, pl brn-grey.
42-44	0.02			
44-46	0.03			
46-48	0.03	45.0	51.5	Clay, sl silty, dk brn-grey, carb, compact.
48-50	0.03			
50-52	0.04	51.5	52.5	Clay, sl silty, dk brn-grey, c abund dk purple-brn mottling, compact.
52-54	0.02	52.5	53.0	Clay, sl silty, lt grey c abund dk red, yellow & dk grey mottling.
54-56	0.03	53.0	55.5	Clay, sl silty, pl grey.
56-58	0.03	55.5	58.0	Clay, sl silty, dk brn-grey, c abund dk purple-brn mottling, compact.
58-60	0.03	58.0	61.0	Clay, sl silty, grey, compact.
60-62	0.02	61.0	62.5	Clay, aa, pl grey-brn, c minor red Fe mottling.
62-64	0.02	62.5	67.0	Clay, aa, pl grey.
64-66	0.05			
66-68	0.03			
68-70	0.03	67.0	69.0	Clay, aa, mottled pl grey, lt orange, red-brn, Fe stained.
70-72	0.03	69.0	75.0	Clay, silty, pl grey, soft & plastic, c some orange-brn staining, & some soft
72-74	0.01			sandy interbeds.
74-76	0.03			With abund clear or sl milky vein qtz at 72.5m and at 74m.
Adelaidean				
76-78	0.06	75.0	78.0	Sltst, fiss & f foliat, orange-brn, v weathrd; & clay.
78-80	0.05	78.0	81.0	Sltst, aa, orange- to red-brn.
80-82	0.03	81.0	83.0	Sltst, aa, grn-grey & pink-brn mottled.
82-84	0.07	83.0	84.0	Sltst, aa, mod weathrd, lt brn to lt grn-brn.
84-86	0.06	84.0	88.0	Sltst, aa, v weathrd, olive-brn.
86-88	0.08			
88-90	0.08	88.0	89.5	Sltst, aa, sl-mod weathrd, brn-grn.
90-92	0.06	89.5	92.5	Sltst, dk blue-grey, massive, c minor faint lamn, faintly foliat, & sl paler colour
90-92.5	0.05			along joints & partings at 5-15mm spacing.
		92.5		End of hole.

				CRN 17	CRN 17	CRN 17
				76-86m	86-92m	92-92.5m
				6731RS	6731RS	6731RS
				619	620	621
Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5
As	ppm	1.0	IC2	9	6	6
Au	ppb	1.0	FA3	<1	<1	2
Ba	ppm	10.0	XRF1			600
Cd	ppm	1.0	IC2			<1
Ce	ppm	20.0	XRF1			80
Co	ppm	2.0	IC2	30	28	17
Cr	ppm	2.0	IC2	28	32	34
Cu	ppm	1.0	IC2	42	35	24
Fe	%	0.01	IC2	5.65	4.56	3.8
La	ppm	20.0	XRF1			50
Mn	ppm	5.0	IC2	1360	2750	410
Mo	ppm	1.0	IC2	<1	<1	<1
Nb	ppm	2.0	XRF1			14
Ni	ppm	1.0	IC2	44	45	42
P	ppm	5.0	IC2			840
Pb	ppm	3.0	IC2	14	13	8
Pd	ppb	1.0	FA3			<1
Pt	ppb	5.0	FA3			<5
Rb	ppm	2.0	XRF1			145
Sb	ppm	4.0	XRF1			<4
Se	ppm	2.0	XRF1			<2
Sn	ppm	4.0	XRF1			4
Sr	ppm	2.0	XRF1			42
Th	ppm	4.0	XRF1			15
U	ppm	4.0	XRF1			4
V	ppm	1.0	IC2			44
W	ppm	10.0	XRF1			<10
Zn	ppm	1.0	IC2	70	72	54

Significant features:

- . siltstone is carbonaceous in part.

Geochemistry Samples:

RS 619	76-86m	Routine geochemistry
RS 620	86-92m	"
RS 621	92-92.5m	Bottom hole, extended geochemistry.

HOLE NO: CRN 18
 TRAVERSE: "Willara", 3088 mN
 STATION: 20 000 mE
 DATE: 20.09.92
 LOGGED BY: WSM
 COMMENTS: 12m N of peg; float consists of vein qtz & subrounded Fe-ind sst.

100 000 SHEET NO: 6731
 LOCATION: 346 604 mE
 6 311 851 mN
 DRILLING METHOD: RC
 TOTAL DEPTH: 67.0m

Magnetic Susc.		Geological Log		
Interval	Value	Depth		Description
Pooraka Formation				
0-2	0.71	0	2.0	Clay-sand, orange-brn.
2-4	2.83	2.0	4.0	Sltst/sst vf, off-white, & lt orange-brn to red-brn stained, ind (silicf?), no layering, & minor irreg calcite or qtz veining; & clay-sand.
4-6	16.2	4.0	5.5	Sltst/sst, aa, & abund gravel of rounded & Fe-ind sltst, brn sltst, & vf sst.
6-8	0.95	5.5	12.0	Sltst, orange-brn to brn to lt grey, soft & v weathrd.
8-10	0.13			9.5m: Minor gravel, aa.
10-12	11.05			12m: Abund gravel, aa, Fe-ind brn to red-brn to blk sltst frags, rounded & platey, <15mm.
Olney? Formation?				
12-14	0.49	12.0	14.5	Sandy & silty clay, lt grey (v weathered vf sst?), compact; & abund red Fe staining, and soft red Fe interbeds.
14-16	3.02	14.5	17.5	Clay, silty, lt grey, compact, & minor purple mottling, esp at top.
16-18	0.21			
18-20	0.02	17.5	20.5	Clay, lt grey; c some interbeds of sltst/sst vf, off-white, silicf from 17.5-19m.
20-22	0.07	20.5	22.0	Clay, aa, pl grey.
20-22	0.07	22.0	24.0	Clay, aa, & some lt orange staining.
24-26	0.03	24.0	26.5	Clay, lt grey-brn, plastic.
26-28	0.15	26.5	29.0	Clay, aa, pl grey-brn.
28-30	0.27			
Very Weathered Adelaidean?				
30-32	0.02	29.0	32.0	Clay, grey-brn, compact, & some sltst frags, faintly foliat, v weathered
32-34	0.04	32.0	35.8	Clay, lt brn-grey, plastic; & minor vf sst hard, lt blue-grey from 33.5-35m.
34-36	0.02			
36-38	0.05	35.8	37.0	Clay, aa, & minor dk grey sl-mod carb? interbeds.
38-40	0.10	37.0	39.0	Clay, aa, & only rare carb? interbeds.
40-42	0.04	39.0	41.5	Clay, lt grey, compact, & some v weathrd sltst, & minor dk grey fresh sltst.
42-44	0.04	41.5	44.0	Clay, lt grey, plastic, & minor 1-2mm carb? interbeds.
		44.0	44.5	Clay, aa, & some sltst frags, v weathrd, pl brn, & rare dk grey fresh sltst/sst vf.
44-46	0.04	44.5	47.5	Sltst, grey to brn-grey, faintly foliat, v weathrd.
46-48	0.06	47.5	48.0	Clay, lt grey, plastic, minor carb? interbeds, & rare dk grey sltst.
Adelaidean				
48-50	0.04	48.0	52.0	Sltst, lt grey to grn-grey, f foliat, v weathrd.
50-52	0.17			
52-54	0.13	52.0	52.5	Silty clay, lt grey, soft.
54-56	0.08	52.5	56.5	Sltst, lt grn or lt blue-grey, mod weathrd, or pl grey v weathrd, & minor darker carb? sltst from 53.5-54m.
56-58	0.10	56.5	58.0	Sltst, aa, lt grey, mod-v weathrd.
58-60	0.08	58.0	59.0	Sltst, aa, foliat & sl fiss.
60-62	0.10	59.0	62.5	Sltst, blue- to grn-grey, foliat, sl weathrd, c some f irreg & discont dk lamn, c diffuse margins, marked by a concentration of blk biot?.
62-64	0.06	62.5	64.0	Sltst, blue-grey weathrd brn, f foliat, & dissem f biot, & rare vf white irreg qtz veinlets or augens.
64-66	0.09	64.0	66.0	Sltst, blue-grey, f foliat.
66-67	0.11	66.0	67.0	Sltst, aa, purple-brn, dissem biot, & rare claystone lamn, sl irreg.
		67.0		End of Hole

Significant features: siltstone is carbonaceous in part.

Geochemistry Samples:

RS 622 42-54m Routine geochemistry
 RS 623 54-66m "
 RS 624 66-67m Bottom hole, extended geochemistry.

				CRN 18	CRN 18	CRN 18
				42-54m	54-66m	66-67m
				6731RS	6731RS	6731RS
				622	623	624
Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5
As	ppm	1.0	IC2	19	18	13
Au	ppb	1.0	FA3	1	1	1
Ba	ppm	10.0	XRF1			500
Cd	ppm	1.0	IC2			<1
Ce	ppm	20.0	XRF1			70
Co	ppm	2.0	IC2	115	25	17
Cr	ppm	2.0	IC2	22	32	30
Cu	ppm	1.0	IC2	40	32	34
Fe	%	0.01	IC2	3.98	4.08	6.2
La	ppm	20.0	XRF1			40
Mn	ppm	5.0	IC2	370	760	1220
Mo	ppm	1.0	IC2	<1	<1	<1
Nb	ppm	2.0	XRF1			12
Ni	ppm	1.0	IC2	115	40	34
P	ppm	5.0	IC2			750
Pb	ppm	3.0	IC2	6	8	<3
Pd	ppb	1.0	FA3			<1
Pt	ppb	5.0	FA3			<5
Rb	ppm	2.0	XRF1			150
Sb	ppm	4.0	XRF1			<4
Se	ppm	2.0	XRF1			<2
Sn	ppm	4.0	XRF1			<4
Sr	ppm	2.0	XRF1			56
Th	ppm	4.0	XRF1			15
U	ppm	4.0	XRF1			5
V	ppm	1.0	IC2			40
W	ppm	10.0	XRF1			10
Zn	ppm	1.0	IC2	230	72	80

HOLE NO: CRN 19
 TRAVERSE: "Willara", 3088 mN
 STATION: 21 000 mE
 DATE: 20.09.92
 LOGGED BY: WSM

100 000 SHEET NO: 6731
 LOCATION: 347 591 mE
 6 311 972 mN
 DRILLING METHOD: RC
 TOTAL DEPTH: 107.5m

COMMENTS: 15m WSW of peg; float consists of rounded vein qtz & red-brn to purple Fe-ind vf sst.

Magnetic Susc.		Geological Log		Description
Interval	Value	Depth	Depth	
Pooraka Formation				
0-2	1.01	0	4.0	Clay-sand, & soil, orange-brn; & frags of rounded vein qtz & red-brn to purple
2-4	1.11			Fe-ind vf sst; & sltst/sst vf, off-white, & lt orange-brn to red-brn stained, ind (silicf?), no layering, & minor irreg calcite or qtz veining.
4-6	11.7	4.0	5.7	Gravel, rounded Fe-ind sltst, vein qtz, & vf sst.
6-8	3.18	5.7	7.8	Sst vf, silty, red-brn.
		7.8	8.0	Gravel, rounded Fe-ind sltst, vein qtz, & vf sst.
8-10	5.99	8.0	10.0	Sst vf, silty, red-brn.
10-12	8.32	10.0	12.0	Sltst/ sst vf, lt olive-brn to lt red-brn, faintly Fe mottled & banded.
12-14	9.61	12.0	14.3	Sltst, aa, lt olive-brn, & gravel, rounded & platy sltst frags, <8mm, red- to dk brn.
		14.3	14.5	Gravel, <25mm, rounded sltst, & Fe-ind sltst, & minor vein qtz & Fe-ind vf sst.
14-16	18.6	14.5	15.9	Sst vf, sl clayey, lt grey, soft.
		15.9	16.0	Gravel, <25mm, rounded sltst, & Fe-ind sltst, & minor vein qtz & Fe-ind vf sst.
Olney? Formation?				
16-18	2.91	16.0	20.5	Clay, grey, compact, minor purple Fe mottling.
18-20	0.19			
20-22	0.12	20.5	23.0	Clay, aa, & only rare Fe staining.
22-24	0.14	23.0	27.0	Clay, aa, & minor red Fe mottling, & soft red Fe stained interbeds.
24-26	0.09			
26-28	0.08	27.0	29.0	Clay, aa, lt grey, & only rare Fe staining.
28-30	0.05	29.0	29.5	Clay, aa, pl grey, & minor dk grey vf sst interbeds.
30-32	0.04	29.5	34.0	Clay, compact, pl fawn to pl grey, & minor lt yellow to pl purple mottling.
32-34	0.03			
34-36	0.04	34.0	35.0	Clay, pl grey, plastic.
		35.0	36.0	Clay, pl fawn, c rare purple mottling.
36-38	0.03	36.0	39.0	Clay, sl silty & sandy, pl grey-brn, compact.
38-40	0.04	39.0	40.5	Clay, lt grey, compact, & minor dk grey vf sst frags.
40-42	0.04	40.5	43.0	Clay, lt grey, compact.
42-44	0.07	43.0	44.0	Clay, lt yellow-fawn to pl grey mottled.
44-46	0.14	44.0	47.0	Clay, mottled lt grey, pl purple, lt red-brn, lt fawn, compact.
Very Weathered Adelaidean?				
46-48	0.05	47.0	48.0	Clay, plastic, red Fe stained, & some Fe-ind frags show relict foliation.
48-50	0.05	48.0	50.5	Clay, mottled pl grey, red-brn, purple-brn, compact.
50-52	0.08	50.5	63.5	Clay, aa, Fe mottled & banded, mostly red-brn, some paler less Fe stained zones.
52-54	0.11			
54-56	0.12			
56-58	0.15			
58-60	0.15			
60-62	0.14			
62-64	0.09			
64-66	0.09	63.5	66.0	Clay, lt yellow-mustard-brn to red-brn, soft & plastic.
66-68	0.11	66.0	77.0	Clay, aa, yellow-mustard, & rare dk brn Fe-ind bands from 69-71m.
68-70	0.09			
70-72	0.17			
72-74	0.05			
74-76	0.10			
76-78	0.07			
Adelaidean				
		77.0	77.5	Clay, aa, & some mustard to red-brn Fe-ind sltst, lamntd & faintly foliat.
78-80	0.07	77.5	80.0	Sltst, yellow-brn to lt grey-brn, mod-v weathrd.
80-82	0.07	80.0	80.5	Sltst, aa, & some f red liesegang banding.
82-84	0.05	80.5	83.5	Sltst, aa, v weathrd, & minor Fe-ind frags.
84-86	0.04	83.5	88.0	Sltst, aa, v weathrd, & rare dk grey sltst frags.

86-88	0.06			
88-90	0.12	88.0	90.0	Sltst, aa, mod-v weathrd.
90-92	0.05	90.0	97.0	Sltst, lt mustard-brn, v weathrd, faintly foliat & fiss.
92-94	0.13			
94-96	0.14			
96-100	0.12	97.0	102.0	Sltst, aa, mod weathrd, & minor red liesegang banding.
100-102	0.05			
102-104	0.06	102.0	104.5	Sltst, mod weathrd, lt grn-grey-brn, fiss & foliat.
106-106	0.10	104.5	106.5	Sltst, aa, sl to mod weathrd.
106-107.5	0.07	106.5	107.5	Sltst, blue-grey, fiss & foliat, fresh.
		107.5		End of hole.

Geochemistry Samples:		
RS 625	64-98m	Routine geochemistry
RS 626	98-106m	"
RS 627	106-107.5m	Bottom hole, extended geochemistry.

				CRN 19	CRN 19	CRN 19
				64-98m	98-106m	106-107.5m
				6731RS	6731RS	6731RS
				625	626	627
Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5
As	ppm	1.0	IC2	4	4	4
Au	ppb	1.0	FA3	<1	<1	1
Ba	ppm	10.0	XRF1			710
Cd	ppm	1.0	IC2			<1
Ce	ppm	20.0	XRF1			80
Co	ppm	2.0	IC2	42	38	28
Cr	ppm	2.0	IC2	22	32	36
Cu	ppm	1.0	IC2	42	45	34
Fe	%	0.01	IC2	8.4	8.15	6.7
La	ppm	20.0	XRF1			50
Mn	ppm	5.0	IC2	1320	950	710
Mo	ppm	1.0	IC2	<1	<1	<1
Nb	ppm	2.0	XRF1			16
Ni	ppm	1.0	IC2	48	55	38
P	ppm	5.0	IC2			760
Pb	ppm	3.0	IC2	30	30	13
Pd	ppb	1.0	FA3			<1
Pt	ppb	5.0	FA3			<5
Rb	ppm	2.0	XRF1			155
Sb	ppm	4.0	XRF1			<4
Se	ppm	2.0	XRF1			<2
Sn	ppm	4.0	XRF1			<4
Sr	ppm	2.0	XRF1			70
Th	ppm	4.0	XRF1			15
U	ppm	4.0	XRF1			<4
V	ppm	1.0	IC2			38
W	ppm	10.0	XRF1			10
Zn	ppm	1.0	IC2	135	210	125

HOLE NO: CRN 20
 TRAVERSE: "Willara", 3088 mN
 STATION: 22 000 mE
 DATE: 21.09.92
 LOGGED BY: WSM
 COMMENTS: 15m NE of peg; flat salt bush terrain, no float.

100 000 SHEET NO: 6731
 LOCATION: 348 585 mE
 6 311 823 mN
 DRILLING METHOD: RC
 TOTAL DEPTH: 95.5m

Magnetic Susc.		Geological Log		
Interval	Value	Depth		Description
Pooraka Formation				
0-2	1.86	0	6.0	Clayey sandy silt, soft clayey sst, & minor frags of dk grey to brn sltst.
2-4	2.73			
4-6	3.47			
		6.0	6.5	Gravel, <15mm, rounded & platy frags of red-brn to blk sltst, & some vf sst.
6-8	0.93	6.5	11.0	Clay, silty & sandy, red-brn, ind in part.
8-10	0.83			
10-12	0.36			
12-14	0.32	11.0	14.0	Clay-sand vf, silty, red-brn, compact.
14-16	0.52	14.0	17.5	Clay-sand, aa, mottled lt red-brn to pl grey, & ind in part from 14.5-15m.
16-18	0.54			
18-20	1.02	17.5	20.0	Clay-sand, aa, & some gravel, <3mm, aa.
Olney? Formation				
20-22	0.10	20.0	20.5	Clay, silty, gritty in part, mottled & banded purple to dk brn, compact.
22-24	0.03	20.5	23.5	Clay, lt grey c minor purple mottling, compact.
		23.5	24.5	Clay, aa, & abund red mottling.
24-26	0.02	24.5	25.0	clay, aa, minor red mottling.
26-28	0.02	25.0	28.5	Clay, pl grey, compact to plastic.
28-30	0.04	28.5	29.5	Clay, aa, c some lt fawn to lt red mottling.
30-32	0.03	29.5	31.0	Clay, pl grey c pink staining, soft, plastic.
32-34	0.02	31.0	34.0	Clay, aa, c lt purple mottling.
34-36	0.06	34.0	35.0	Clay, lt grey to lt purple, compact.
36-38	0.02	35.0	38.0	Clay, pl grey to pl fawn, c minor purple or lt orange mottling, & purple stained joints.
38-40	0.02	38.0	40.0	Clay, grey to lt grey, c white or pink vein qtz <15mm at 39.5m.
40-42	0.03	40.0	45.0	Clay, aa, mottled lt grey to lt yellow-orange.
42-44	0.03			
44-46	0.04	45.0	46.0	Clay, lt yellow-orange-mustard, plastic.
46-48	0.07	46.0	48.0	Clay, aa, & abund red staining.
48-50	0.08	48.0	50.0	Clay, aa, red-purple-brn, c some mustard mottling, compact.
50-52	0.05	50.0	54.0	Clay, mottled lt red-brn & yellow, soft, plastic, & minor dk brn Fe-ind layers from 52-53m.
52-54	0.06			
54-56	0.06	54.0	58.0	Clay, lt brn, some yellow.
56-58	0.05	58.0	62.5	Clay, mottled & banded purple-grey to red-brn, v soft, c vf silvery mica?
58-60	0.07			
60-62	0.07			
Adelaidean				
62-64	0.09	62.5	68.5	Clay, lt brn, v soft, & minor sltst, hard, lt grn to blue-grey, some red Fe staining.
64-66	0.15			
66-68	0.10			
68-70	0.22	68.5	70.0	Clay, aa, & minor sltst, aa, f foliat & fiss.
70-72	0.22	70.0	73.0	Clay, aa, & sltst, aa, & some dk red Fe-ind sltst.
72-74	0.16	73.0	76.0	Sltst, foliat, lt grn-brn, minor red-brn Fe-ind layers, mod-v weathrd.
74-76	0.19			
76-78	0.09	76.0	77.5	Sltst, aa, c blk Fe or Mn? stained joints.
78-80	0.09	77.5	80.0	Sltst, aa, grn-brn, foliat & sl fiss, c blk Fe or Mn? stained joints, mod weathrd.
80-82	0.10	80.0	81.0	Sltst, aa, v weathrd.
82-84	0.09	81.0	83.5	Sltst, aa, mod weathrd, c dissem vf blk mins.
84-86	0.12	83.5	87.0	Sltst, aa, c minor red-brn Fe staining along joints.
86-88	0.08	87.0	88.0	Sltst, aa, v weathrd.
88-90	0.10	88.0	89.5	Sltst, aa, grey-grn, harder & fresh, faintly foliat, c paler 1-2mm lamn, & dissem biot?.
90-92	0.16	89.5	92.5	Sltst, aa, dk grn- to blue-grey, foliat & fiss, c lineation on foliation plane.
92-94	0.09	92.5	95.5	Sltst, aa, fresh, grn-grey.
94-95.5	0.11			

95.5 End of hole

Geochemistry Samples:
RS 628 76-82m Routine geochemistry
RS 629 82-94m "
RS 630 94-95.5m Bottom hole, extended geochemistry.

				CRN 20	CRN 20	CRN 20
				76-82m	82-94m	94-95.5m
				6731RS	6731RS	6731RS
				628	629	630
Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5
As	ppm	1.0	IC2	<1	<1	2
Au	ppb	1.0	FA3	1	<1	<1
Ba	ppm	10.0	XRF1			400
Cd	ppm	1.0	IC2			<1
Ce	ppm	20.0	XRF1			70
Co	ppm	2.0	IC2	32	28	30
Cr	ppm	2.0	IC2	40	34	36
Cu	ppm	1.0	IC2	34	38	32
Fe	%	0.01	IC2	6.9	5.55	5
La	ppm	20.0	XRF1			50
Mn	ppm	5.0	IC2	3550	4750	350
Mo	ppm	1.0	IC2	<1	<1	<1
Nb	ppm	2.0	XRF1			15
Ni	ppm	1.0	IC2	58	45	45
P	ppm	5.0	IC2			780
Pb	ppm	3.0	IC2	10	6	<3
Pd	ppb	1.0	FA3			2
Pt	ppb	5.0	FA3			<5
Rb	ppm	2.0	XRF1			165
Sb	ppm	4.0	XRF1			<4
Se	ppm	2.0	XRF1			<2
Sn	ppm	4.0	XRF1			4
Sr	ppm	2.0	XRF1			44
Th	ppm	4.0	XRF1			12
U	ppm	4.0	XRF1			<4
V	ppm	1.0	IC2			30
W	ppm	10.0	XRF1			10
Zn	ppm	1.0	IC2	170	94	98

HOLE NO: CRN 21
 TRAVERSE: "Willara", 3088 mN
 STATION: 23 000 mE
 DATE: 21.09.92
 LOGGED BY: WSM
 COMMENTS: 8m SW of peg; flat salt bush terrain, no float.

100 000 SHEET NO: 6731
 LOCATION: 349 539 mE
 6 311 938 mN
 DRILLING METHOD: RC
 TOTAL DEPTH: 116.5m

Magnetic Susc.		Geological Log	
Interval	Value	Depth	Description
Pooraka Formation			
0-2	1.91	0 2.0	Clay-sand vf-f, gritty, orange-brn, & pink-cream ind vf sst (calcrete?).
2-4	1.41	2.0 4.0	Clay-sand, aa.
		4.0 4.7	Gravel, clayey, red-brn, <20mm, rounded sltst, & Fe-ind sltst, & sub-ang vein qtz & Fe-ind sst f.
4-6	1.77	4.7 8.5	Clay-sand vf-f, gritty, orange-brn, c minor gravel interbeds, & minor interbeds
6-8	1.01		of blk Fe-ind vf-f sst.
8-10	1.15	8.5 14.0	Sst vf, sl clayey, & semi-ind, red-brn to brn, well sorted & ro.
10-12	1.34		
12-14	1.56		
		14.0 14.5	Clay-silt to clay-sand vf, red-brn, compact.
14-16	1.32	14.5 21.0	Clay-silt to clay-sand, aa, brn.
16-18	1.13		
18-20	0.69		
		21.0 21.3	Gravel, <35mm, sub-ro, brn to blk Fe-ind sltst frags.
20-22	24.9	21.3 22.0	Clay-silt to clay-sand vf, brn, compact.
22-24	4.37	22.0 26.0	Clay-sand vf, pl brn to pl grey, compact, & minor layers of gravel, ie rounded
24-26	11.09		red-brn Fe-ind sltst frags, & some vein qtz & dk brn to red-brn vf qtzite & sst.
26-28	1.46	26.0 27.5	Clayey silt/sst vf, lt orange-brn to red Fe-ind.
Olney? Formation			
		27.5 28.0	Clay, grey, compact, c minor purple mottling.
28-30	0.19	28.0 29.0	Clay, aa, & abundant red mottling.
		29.0 30.0	Clay, sl silty, pl grey, minor red Fe mottling, & rare purple Fe-ind.
30-32	0.05	30.0 31.5	Clay, aa, off-white.
32-34	0.04	31.5 33.0	Clay, aa, & abund red to lt purple mottling.
34-36	0.04	33.0 35.5	Clay, aa, pl fawn to pl grey, plastic, & some red Fe staining.
36-38	0.02	35.5 44.8	Clay, aa, pl grey, plastic.
38-40	0.01		
40-42	0.06		
42-44	0.01		
		44.8 45.0	Clay, aa, lt grey, compact.
44-46	0.03	45.0 46.5	Clay, aa, lt purple-grey.
46-48	0.03	46.5 47.5	Clay, aa, c lt orange-red Fe mottling & staining along fractures & bands, & minor purple mottling.
48-50	0.04	47.5 51.0	Clay, aa, lt grey c minor purple mottling.
50-52	0.02	51.0 52.0	Clay, lt grey, soft & plastic, & rare red & purple staining.
52-54	0.04	52.0 53.4	Clay, aa, pl fawn.
54-56	0.15	53.4 56.0	Clay, lt purple-grey, c lt orange-red Fe mottling & staining along fractures & bands, & minor purple mottling.
56-58	0.02	56.0 58.0	Clay, compact, pl grey, Fe stained & mottled & liesegang banding, lt orange, lt purple & red.
58-60	0.04	58.0 59.0	Clay, aa, domn purple.
60-62	0.01	59.0 61.5	Clay, compact, pl grey, Fe stained & mottled & liesegang banding, lt orange, lt purple & red.
		61.5 62.0	Clay, lt grey, soft & plastic.
62-64	0.04	62.0 65.0	Clay, lt grey, compact & plastic, c minor lt mauve staining.
64-68	0.02	65.0 69.5	Clay, grey, compact, c minor purple staining.
68-70	0.04		
70-72	0.04	69.5 75.5	Clay, aa, dk grey, c minor red or purple mottling.
72-74	0.03		
74-76	0.03		
76-78	0.06	75.5 77.0	Clay, aa, grey.
		77.0 78.5	Clay, aa, lt grey, plastic, c minor lt orange mottling.
78-80	0.03	78.5 80.3	Clay, aa, grey.
80-82	0.03	80.3 94.5	Clay, aa, lt grey or pl grey, plastic.
82-84	0.02		
84-86	0.02		

86-88	0.04			
88-90	0.02			
90-92	0.02			
92-94	0.03			
94-96	0.03	94.5	96.0	Clay, aa, compact, pl grey & mottled lt red to lt yellow.
96-98	0.05	96.0	97.5	Clay, soft, pl grey & pl fawn.
		97.5	98.5	Clay, off-white, <u>c</u> abund Fe mottling & liesegang banding, lt red to lt mustard.
Adelaidean				
98-100	0.05	98.5	105.0	Clay, aa, off-white <u>c</u> dk red mottling, some mustard, & rare broken frags of
100-102	0.05			lt orange-brn to brn sltst & vein qtz.
102-104	0.04			
104-106	0.05			
106-108	0.05	105.0	107.5	Clay, aa, & some sltst, soft v weathrd, foliat, purple.
108-110	0.05	107.5	112.0	Clay, lt mauve & lt yellow mottled, & sltst, soft mod-v weathrd, foliat & fiss,
110-112	0.08			lt grn-brn, lt purple or yellow-brn.
112-114	0.06	112.0	113.5	Sltst, red-brn to purple-brn, foliat, mod-v weathrd, <u>c</u> some pl stained/bleached joints.
114-116.5	0.07	113.5	116.5	Sltst, fiss, grn-brn to red-brn, soft & mod weathrd.
		116.5		End of Hole, no more drill rods.

Geochemistry Samples:

RS 631	100-114m	Routine geochemistry.
RS 632	114-116.5m	Bottom hole, extended geochemistry.

CRN 21 CRN 21
100-114m 114-116.5m

6731RS 6731RS
631 632

Ag	ppm	0.5	IC2	<0.5	<0.5
As	ppm	1.0	IC2	2	3
Au	ppb	1.0	FA3	<1	1
Ba	ppm	10.0	XRF1		810
Cd	ppm	1.0	IC2		<1
Ce	ppm	20.0	XRF1		380
Co	ppm	2.0	IC2	4	16
Cr	ppm	2.0	IC2	45	34
Cu	ppm	1.0	IC2	10	10
Fe	%	0.01	IC2	3.9	4.56
La	ppm	20.0	XRF1		90
Mn	ppm	5.0	IC2	165	195
Mo	ppm	1.0	IC2	<1	<1
Nb	ppm	2.0	XRF1		17
Ni	ppm	1.0	IC2	14	24
P	ppm	5.0	IC2		270
Pb	ppm	3.0	IC2	5	<3
Pd	ppb	1.0	FA3		<1
Pt	ppb	5.0	FA3		<5
Rb	ppm	2.0	XRF1		145
Sb	ppm	4.0	XRF1		<4
Se	ppm	2.0	XRF1		<2
Sn	ppm	4.0	XRF1		6
Sr	ppm	2.0	XRF1		64
Th	ppm	4.0	XRF1		14
U	ppm	4.0	XRF1		4
V	ppm	1.0	IC2		60
W	ppm	10.0	XRF1		10
Zn	ppm	1.0	IC2	13	22

HOLE NO: CRN 22
 TRAVERSE: "Willara", 3088 mN
 STATION: 24 000 mE
 DATE: 22.09.92
 LOGGED BY: WSM

100 000 SHEET NO: 6731
 LOCATION: 350 632 mE
 6 312 023 mN
 DRILLING METHOD: RC
 TOTAL DEPTH: 118.0m

COMMENTS: 12m SW of peg; flat salt bush terrain; float is white vein qtz & dk brown rounded Fe indurated siltstone.

Magnetic Susc.		Geological Log		
Interval	Value	Depth		Description
Pooraka Formation				
0-2	2.18	0	2.0	Clay-sand, red-brn, & rounded gravel <10mm of white vein qtz & dk brown, well-ro Fe-ind sltst.
2-4	1.26	2.0	3.0	Gravel, aa, <4mm, clayey,
4-6	0.86	3.0	8.0	Clay-sand, aa, mottled lt red-brn to lt olive-brn, & minor gravel, aa.
6-8	1.02			
8-10	0.93	8.0	10.0	Clay-sand, aa, lt orange-red-brn.
10-12	16.02	10.0	12.0	Clay-sand, aa, Fe-ind in part, & abund gravel, <12mm, aa.
12-14	12.02	12.0	14.5	Clay-sand, aa, & minor gravel layers.
14-16	9.01	14.5	15.0	Clay-sand, aa, ind in part.
		15.0	17.0	Clay-sand, aa, & abund gravel, aa, <5mm.
16-18	1.85	17.0	18.0	Sst vf, sl clayey, red-brn, soft.
18-20	6.16	18.0	20.0	Sst vf, aa, & gravel, aa, <4mm.
		20.0	20.5	Sand vf-f, clayey, red-brn, mod sorted, c some fe-ind layers & minor f gravel.
20-22	3.51	20.5	22.5	Sand vf, sl clayey, lt grey, compact.
Olney? Formation				
22-24	1.22	22.5	26.0	Clay, silty, lt olive-grey c minor lt yellow mottling, compact.
24-26	0.05			
26-28	0.17	26.0	28.0	Clay, pl grey c minor red Fe-ind & staining.
28-30	0.03	28.0	30.0	Clay, pl grey, compact.
30-32	0.15	30.0	34.0	Clay, aa, minor red to purple mottling.
32-34	0.02			
34-36	0.03	34.0	41.0	Clay, aa, pl grey.
36-38	0.06			
38-40	0.02			
40-42	0.04	41.0	42.5	Clay, v silty, sl sandy, pl grey, compact.
42-44	0.05	42.5	45.0	Clay, lt grey, minor purple mottling.
44-46	0.04	45.0	47.0	Clay, aa, c minor yellow, red, & lt purple mottling.
46-48	0.03	47.0	48.0	Clay, aa, pl grey c minor Fe mottling, aa.
48-50	0.22	48.0	50.0	Clay, pl grey, soft, & layers of clay, compact, grey c lt purple mottling.
50-52	0.03	50.0	51.0	Clay, lt grey, compact, c minor orange & lt purple mottling.
52-54	0.06	51.0	55.0	Clay, aa, & abund red, yellow & purple mottling.
54-56	0.04	55.0	57.0	Clay, pl grey, soft, c abund dk red & yellow staining & liesegang banding.
56-58	0.04	57.0	59.0	Clay, aa, pl grey or lt purple.
58-60	0.04	59.0	59.5	Clay, grey, c dk purple-brn staining, compact.
60-62	0.03	59.5	62.0	Clay, aa, minor staining.
62-64	0.04	62.0	67.5	Clay, soft, lt grey, c minor red staining,
64-66	0.03			
66-68	0.03			
68-70	0.04	67.5	69.0	Clay, aa, & red & yellow staining.
		69.0	69.5	Clay, compact, grey c abund red, purple & mustard mottling.
70-72	0.06	69.5	71.5	Clay, aa, lt grey, & purple or lt mustard mottled.
72-74	0.02	71.5	73.0	Clay, aa, grey, red & purple mottled.
74-76	0.03	73.0	75.5	Clay, aa, lt grey.
Parilla Sand?				
76-78	0.06	75.5	78.0	Sltst/sst vf, mod-v clayey, soft, mod sorted, pl grey & lt yellow-brn stained & banded.
78-80	0.04	78.0	80.0	Sltst/sst vf, aa, lt mustard-brn.
80-82	0.03	80.0	81.0	Sltst/sst vf, aa, lt brn, & some dissem f blk opaque biot?, & some clay-sand interbeds.
82-84	0.03	81.0	85.0	Sltst/sst vf, aa, pl grey-brn.
84-86	0.04	85.0	86.5	Sltst/sst vf, aa, lt grey; & vf-f sand, mod clayey & silty, c some blk mins, aa, & musc?.
		86.5	87.0	Sand vf-f, v clayey, pl grey & pl brn, & some clay-sand layers, mottled red & purple.
86-88	0.06	87.0	88.0	Sltst/sst vf, aa, lt grey; & vf-f sand, mod clayey & silty, c some blk mins, aa, & musc?.
88-90	0.03	88.0	93.0	Clay-silt-sand vf, pl grey, & some biot?.
90-92	0.16			

92-94	0.03			
???				
94-96	0.03	93.0	96.0	Clay, sandy & silty, pl grey or pl fawn, plastic, & trace of musc?.
96-98	0.05	96.0	97.0	Clay, aa, lt mustard-brn.
		97.0	98.0	Clay, aa, lt to pl grey, minor mustard staining.
98-100	0.04	98.0	102.0	Clay, silty, pl grey & mustard mottled, compact or plastic.
100-102	0.04			
102-104	0.03	102.0	108.0	Clay, aa, pl grey.
104-106	0.03			
106-108	0.07			
???				
108-110	0.03	108.0	109.0	Silt/sand vf, mod clayey, soft, lt fawn, & trace of blk mins.
110-112	0.03	109.0	112.5	Sand vf, silty, sl clayey, pl grey to pl fawn.
112-114	0.02	112.5	115.0	Sand vf, aa, & minor silicf sst, off-white.
114-116	0.02	115.0	118.0	Sand vf, aa, & rare white clay layers.
116-118	0.02			
		118.0		End of hole, no more drill rods.

Geochemistry Samples:
None collected.

HOLE NO: CRN 23
 TRAVERSE: "Willara", 3088 mN
 STATION: 26 000 mE
 DATE: 22.09.92
 LOGGED BY: WSM

100 000 SHEET NO: 6731
 LOCATION: 352 678 mE
 6 311 871 mN
 DRILLING METHOD: RC
 TOTAL DEPTH: 109.0m

COMMENTS: 28m NW of peg; flat salt bush terrain; float is pebbles of vein qtz & brown to black Fe indurated sst.

Magnetic Susc.		Geological Log		Description
Interval	Value	Depth	Depth	

Pooraka Formation				
0-2	2.89	0	3.0	Clay-sand, orange-brn, c gravel layers from 1-1.5m & 2-2.5m, rounded white to pink vein qtz & gm to red-brn to blk vf sst & qtzite, <10mm.
2-4	2.12			
4-6	0.58	3.0	9.0	Clay-sand & vf sst, soft, red-brn, partially ind;
6-8	2.71			c gravel, aa, at 6.5-7m, 8-8.2m, 8.7-8.8m.
8-10	33.1	9.0	15.0	Sst vf, soft, red-brn, & gravel, aa, at 9.8-10.5m, & with abund minor gravel layers.
10-12	27.6			
12-14	21.4			
14-16	5.24			
16-18	3.45	15.0	17.5	Clay-sand & clayey sand, brn, compact.
18-20	0.24	17.5	20.2	V clayey sand, mottled lt gm-grey to red-brn, compact.
Olney? Formation				
20-22	0.08	20.2	27.0	Clay, lt grey, compact, c minor purple mottling, more purple mottling from 25-22-240.1126m.
24-26	0.04			
26-28	0.07	27.0	28.5	Clay, aa, grey to lt grey, some lt mauve-brn mottling.
28-30	0.05	28.5	29.5	Clay, aa, lt grey.
30-32	0.04	29.5	32.0	Clay, aa, & abund red Fe staining, & Fe stained interbeds.
32-34	0.05	32.0	35.5	Clay, pl grey.
34-36	0.04			
36-38	0.03	35.5	37.5	Clay, pl grey, c zones of pl yellow, pl purple mottling.
38-40	0.03	37.5	43.0	Clay, sandy in part, pl grey, c minor zones of red, pl yellow or pl purple Fe staining, & some Fe stained interbeds, plastic in part.
40-42	0.04			
42-44	0.05	43.0	45.0	Clay, sl silty, pl grey, lt mustard stained & mottled.
44-46	0.03	45.0	46.0	Clay, v silty, mod sandy, soft, pl grey or mottled.
46-48	0.03	46.0	49.5	Clay, aa, off-white.
48-50	0.03	49.5	51.0	Clay, aa, & abund pl yellow-brn to lt orange mottling.
50-52	0.04	51.0	55.0	Clay, aa, lt red to lt orange mottled.
52-54	0.04			
54-56	0.06			
56-58	0.05	55.0	68.0	Clay, aa, off-white to lt yellow, c minor purple mottling, c some brn sandy layers.
58-60	0.06			
60-62	0.07			
62-64	0.05			
64-66	0.05			
66-68	0.05			
68-70	0.06	68.0	70.0	Clay, aa, & interbeds of clayey sand, brn.
70-72	0.05	70.0	72.0	Sand f-m, silty & clayey, brn, soft.
72-74	0.06	72.0	76.0	Clay, aa, v silty, off-white c red & lt purple mottling, & interbeds of sand f-m, aa.
74-76	0.06			
76-78	0.06	76.0	80.0	Clay, aa, v silty, off-white or pl yellow c some purple to red mottling.
78-80	0.06			
80-82	0.06	80.0	92.0	Clay, aa, & some interbeds of brn sandy clay, & of lt brn sand m, mod sorted 82-840.05& rounded.
84-86	0.06			
86-88	0.06			
88-90	0.05			
90-92	0.06			
92-94	0.07	92.0	97.0	Clay, aa, & sand, aa, coarsens to f-m.
94-96	0.06			
96-98	0.07	97.0	98.0	Clay, aa, mottled & banded, pl grey & lt gm-grey (glauconitic?), & sand, aa.
Bendigo Granite				
98-100	0.05	98.0	102.0	Clay, soft, off-white to lt fawn mottled, & sand f-m, comprising ang qtz, white or pinkish white fspar, abund biot, & minor musc.
100-102	0.06			
102-104	0.04	102.0	106.0	Sand vf-m & silt, mostly qtz & abund biot, some clay.

104-106	0.05			
106-108	0.05	106.0	107.5	Sand aa, coarsens to 2mm, & includes minor frags of partially weathrd granite.
108-109	0.11	107.5	109.0	Fresh granite; m grained 0.5-1mm, qtz, fspar & biot; biot as 0.5-2mm aggregates which show a faint vertical alignment.
		109.0		End of hole

Geochemistry Samples:

RS 633	98-106m	Routine geochemistry
RS 634	106-109m	Bottom hole, extended geochemistry, plus full silicate analysis.
RS 635	106-109m	Check sample, extended geochemistry

				CRN 23	CRN 23	CRN 23
				98-106m	106-109m	106-109m
						(check)
				6731RS	6731RS	6731RS
				633	634	635
Ag	ppm	0.5	IC2	<0.5	0.5	<1
As	ppm	1.0	IC2	<1	<1	5
Au	ppb	1.0	FA3	<1	<1	<1
Ba	ppm	10.0	XRF1		680	688
Cd	ppm	1.0	IC2		<1	<1
Ce	ppm	20.0	XRF1		260	320
Co	ppm	2.0	IC2	9	9	13
Cr	ppm	2.0	IC2	32	30	149
Cu	ppm	1.0	IC2	26	16	92
Fe	%	0.01	IC2	3.2	2.78	2.22
La	ppm	20.0	XRF1		70	64
Mn	ppm	5.0	IC2	220	170	126
Mo	ppm	1.0	IC2	<1	<1	<5
Nb	ppm	2.0	XRF1		9	10
Ni	ppm	1.0	IC2	25	19	26
P	ppm	5.0	IC2		260	331
Pb	ppm	3.0	IC2	13	8	<5
Pd	ppb	1.0	FA3		2	<1
Pt	ppb	5.0	FA3		<5	<1
Rb	ppm	2.0	XRF1		185	190
Sb	ppm	4.0	XRF1		<4	6
Se	ppm	2.0	XRF1		<2	<2
Sn	ppm	4.0	XRF1		<4	<5
Sr	ppm	2.0	XRF1		230	210
Th	ppm	4.0	XRF1		18	17
U	ppm	4.0	XRF1		12	10
V	ppm	1.0	IC2		76	60
W	ppm	10.0	XRF1		<10	<10
Zn	ppm	1.0	IC2	48	30	23
SiO2	%	0.01	IC4		73.3	
TiO2	%	0.01	IC4		0.38	
Al2O3	%	0.01	IC4		12.3	
Fe2O3	%	0.01	IC4		4.06	
MnO	%	0.01	IC4		0.02	
MgO	%	0.01	IC4		0.5	
CaO	%	0.01	IC4		1.49	
Na2O	%	0.01	IC4		2.4	
K2O	%	0.01	IC4		2.98	
P2O5	%	0.01	IC4		0.04	
LOI	%	0.01	IC4		1.59	

HOLE NO: CRN 24
 TRAVERSE: "Willara", 3088 mN
 STATION: 26 900 mE
 DATE: 28.09.92
 LOGGED BY: WSM

100 000 SHEET NO: 6731
 LOCATION: 353 620 mE
 6 311 740 mN
 DRILLING METHOD: RC
 TOTAL DEPTH: 117.0m

COMMENTS: Sited over a prominent spike on the ground magnetic profile; float is calcrete & rounded black sltst, red-brn vf sst, & white vein qtz.

Magnetic Susc.		Geological Log		Description
Interval	Value	Depth	Depth	
Pooraka Formation				
0-2	7.92	0	5.0	Gravel, <25mm, poorly sorted & sub-ro, orange to red-brn Fe stained vf-f sst
2-4	8.39			& qtzite, white qtz, & brn grey sltst pebbles; & minor red-brn clay-sand.
4-6	1.65	5.0	6.0	Clay-silt, sandy, orange-brn, compact.
6-8	1.31	6.0	16.0	Sand vf, clayey & silty, orange-brn, & minor gravel at 8m, & at 12-14m.
8-10	1.04			
10-12	2.60			
12-14	2.54			
14-16	1.12			
16-18	1.26	16.0	18.0	Sand, vf, clayey & silty, aa, & ind in part.
18-20	3.79	18.0	22.0	Sst vf-f, ind & v hard, off-white to red-brn, well sorted & rounded, c a trace of f dissem blk mins, c no bedding or layering.
20-22	1.77			
Olney? Formation?				
22-24	0.08	22.0	28.0	Clay, sl silty in part, compact, lt grey c abund lt red to lt purple mottling.
24-26	0.09			
26-28	0.08			
28-30	0.04	28.0	30.0	Clay, aa, lt red, lt purple, & lt orange mottling.
30-32	0.03	30.0	32.0	Clay, v sandy f, pl grey, compact.
32-34	0.04	32.0	36.0	Clay, v sandy vf, pl grey, soft.
34-36	0.05			
36-38	0.05	36.0	38.0	Clay-sand vf, off-white.
38-40	0.05	38.0	40.0	Clay-sand, aa; & layers of sand vf, sl clayey, white.
40-42	0.03	40.0	46.0	Clay, mod silty & sandy, pl grey, compact; c layers of sand vf-f, sl clayey & loose.
42-44	0.04			
44-46	0.03			
46-48	0.02	46.0	48.0	Clay, aa, & sand, aa, lt grey c vf lt purple & yellow mottling.
48-50	0.04	48.0	53.0	Clay, clean to sl silty, lt grey, compact, c minor darker carbonaceous patches 50-52.05near 52m.
52-54	0.05	53.0	56.0	Clay, mod sandy vf-m, compact, lt to pl grey.
54-56	0.09			
56-58	0.05	56.0	59.0	Clay, aa, & interbeds of clayey f-m sand.
58-60	0.04			
60-62	0.03	59.0	61.0	Clay & clayey sand, aa, pl yellow-brn.
62-64	0.03	61.0	64.0	Clay, sandy vf-m, soft, off-white or stained red- to dk brn; & interbeds of sand f-m, clayey, mod sorted & sub-ro to sub-ang.
64-66	0.04	64.0	72.0	Clay, aa, off-white c minor lt yellow staining, & san, aa, pl to lt brn.
66-68	0.05			
68-70	0.05			
70-72	0.05			
72-74	0.05	72.0	74.0	Clay, v sandy vf-m, soft, off-white to lt grn-brn stained, & some clay-sand, soft, lt brn.
74-76	0.05	74.0	76.0	Clay, sandy vf-m, soft, lt mustard-brn, & trace of dissem musc.
Weathered Bendigo Granite?				
76-78	0.05	76.0	80.0	Clay, silty & sandy, soft, lt khaki-grn, & trace of dissem musc.
78-80	0.06			
80-82	0.05	80.0	82.0	Silt/sand vf, clayey, khaki-grn, soft, & minor musc.
82-84	0.05	82.0	88.0	Sand vf-f, clayey & silty, khaki-grn, & trace of musc <1mm.
84-86	0.05			
86-88	0.05			
88-90	0.07	88.0	90.0	Sand, aa, & abund f musc.
Bendigo Granite				
90-92	0.11	90.0	95.0	Sand, aa, & some angular 1-2mm composite qtz/fspar frags, ie granite frags.
92-94	0.05			
94-96	0.05	95.0	102.0	Granite, mod-v weathrd, med grained, dk grn to grey-grn, composed of white

96-98	0.06			qtz, grn fspar, biot, minor musc?, & blk hornblende?, domn sand, aa.
98-100	0.07			
100-102	0.05			
102-104	0.06	102.0	112.0	Granite, aa, sl-mod weathrd, dk grn, soft.
104-106	0.10			
106-108	0.06			
108-110	0.08			
110-112	0.06			
112-114	0.06	112.0	116.0	Granite, aa, med to coarse grained, grn, & some more mafic granite, qtz-
114-116	0.08			poor, dk grn to blk, domn grn fspar & blk hornblende?.
116-117	0.08	116.0	117.0	Granite, aa, fresh & hard.
		117.0		End of hole.

Cut abundant water below about 70-75m depth, ie within the weathered granite.

Geochemistry Samples:

RS 641	76-92m	Routine geochemistry
RS 642	92-104m	"
RS 643	104-116m	"
RS 644	116-117m	Bottom hole, extended geochemistry, plus full silicate analysis.

				CRN 24 76-92m	CRN 24 92-104m	CRN 24 104-116m	CRN 24 116-117m
				6731RS 641	6731RS 642	6731RS 643	6731RS 644
Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5	0.5
As	ppm	1.0	IC2	<1	<1	<1	1
Au	ppb	1.0	FA3	<1	<1	<1	<1
Ba	ppm	10.0	XRF1				700
Cd	ppm	1.0	IC2				<1
Ce	ppm	20.0	XRF1				100
Co	ppm	2.0	IC2	9	8	8	8
Cr	ppm	2.0	IC2	26	19	16	25
Cu	ppm	1.0	IC2	40	32	28	26
Fe	%	0.01	IC2	5.5	3.14	2.52	3.86
La	ppm	20.0	XRF1				50
Mn	ppm	5.0	IC2	370	170	175	175
Mo	ppm	1.0	IC2	<1	<1	<1	<1
Nb	ppm	2.0	XRF1				9
Ni	ppm	1.0	IC2	24	22	17	22
P	ppm	5.0	IC2				360
Pb	ppm	3.0	IC2	15	5	5	8
Pd	ppb	1.0	FA3				1
Pt	ppb	5.0	FA3				<5
Rb	ppm	2.0	XRF1				175
Sb	ppm	4.0	XRF1				<4
Se	ppm	2.0	XRF1				<2
Sn	ppm	4.0	XRF1				<4
Sr	ppm	2.0	XRF1				350
Th	ppm	4.0	XRF1				15
U	ppm	4.0	XRF1				6
V	ppm	1.0	IC2				72
W	ppm	10.0	XRF1				10
Zn	ppm	1.0	IC2	40	32	28	30
SiO2	%	0.01	IC4				69.1
TiO2	%	0.01	IC4				0.42
Al2O3	%	0.01	IC4				14.6
Fe2O3	%	0.01	IC4				5.35
MnO	%	0.01	IC4				0.02
MgO	%	0.01	IC4				0.67
CaO	%	0.01	IC4				2.12
Na2O	%	0.01	IC4				3.2
K2O	%	0.01	IC4				2.8
P2O5	%	0.01	IC4				0.05
LOI	%	0.01	IC4				1.98

HOLE NO: CRN 25
 TRAVERSE: "Willara", 3088 mN
 STATION: 28 000 mE
 DATE: 29.09.92
 LOGGED BY: WSM
 COMMENTS: Slightly undulating sandy saltbush country; float is minor calcrete, & rare white vein qtz.

100 000 SHEET NO: 6731
 LOCATION: 354 723 mE
 6 311 600 mN
 DRILLING METHOD: RC
 TOTAL DEPTH: 119.5m

Magnetic Susc.		Geological Log		
Interval	Value	Depth		Description

Pooraka Formation				
0-2	0.54	0	2.0	Clay-sand, orange-brn; <u>c</u> calcareous ind in part (ie calcrete), pl brn to cream; & minor gravel <3mm of rounded sltst & sst.
2-4	0.10	2.0	8.0	Clay, mod silty & sandy vf, mottled pl grey to lt red-brn, compact.
4-6	0.29			
6-8	0.23			
8-10	0.23	8.0	10.0	Clay, aa, mottled lt grey to orange-brn, & rare f gravel <2mm.
10-12	0.16	10.0	13.0	Clay, aa, soft, lt brn.
12-14	0.10	13.0	15.0	Clay, aa, mottled lt grey to red-brn, <u>c</u> minor ind at base.
14-16	0.07			
Olney? Formation?				
16-18	0.07	15.0	18.0	Clay, sl silty & sandy vf, lt grey, compact, <u>c</u> some purple Fe staining, some purple sandy interbeds, & minor Fe-ind.
18-20	0.07	18.0	20.0	Clay, aa, & increasing abund purple staining.
20-22	0.04	20.0	22.0	Clay, silty, compact, lt grey or red Fe stained, & minor red Fe-ind clay-silt.
22-24	0.05	22.0	24.0	Clay, aa, lt grey to off-white.
24-26	0.06	24.0	27.5	Clay, sl silty, lt grey, or lt red mottled.
26-28	0.08	27.5	28.0	Clay, v sandy vf-f, compact, lt grey, <u>c</u> some orange to red mottling.
28-30	0.09	28.0	30.5	Clay-sand vf-f, soft, mottled pl grey to lt yellow.
30-32	0.03	30.5	31.0	Clay-sand, aa, pl grey & lt pink-purple mottled.
32-34	0.04	31.0	35.5	Clay-sand, compact, pl grey, <u>c</u> minor loose sand f-m.
34-36	0.04			
36-38	0.05	35.5	39.5	Clay, clean to sl silty, sl sandy in part, compact, pl grey.
38-40	0.04	39.5	40.0	Clay, aa, dk grey.
40-42	0.03	40.0	43.0	Clay, aa, lt to pl grey, & rare black carb? layers below 41m.
44-46	0.04	43.0	47.0	Clay, sl silty & sandy vf, compact, grey.
46-48	0.04			
48-50	0.03	47.0	51.0	Clay, sl silty, lt grey, semi-plastic, minor pl grn to pl yellow staining.
50-52	0.04	51.0	52.5	Clay, sl silty, dk grey, carb?.
52-54	0.05	52.5	53.0	Clay, pl grey & red mottled, soft.
		53.0	54.0	Clay, aa, pl grey, minor lt yellow mottling.
54-56	0.06	54.0	56.0	Clay, aa, minor red, yellow, or purple mottling.
		56.0	57.0	Clay, aa, & abund red to lt purple mottling.
56-58	0.06	57.0	58.0	Clay, mod silty, compact, purple-grey, <u>c</u> yellow to olive mottling.
58-60	0.04	58.0	59.5	Clay, sl silty, compact, grey.
		59.5	60.0	Clay, aa, pl grey, <u>c</u> minor lt yellow mottling.
60-62	0.06	60.0	62.0	Clay, v silty & sandy vf, pl grey, compact, or lt grey mod silty & sandy.
62-64	0.06	62.0	66.0	Clay, sl silty & sandy vf, pl grey, plastic, <u>c</u> some lt red & pl orange mottling below 63.5m.
64-66	0.07			
66-68	0.08	66.0	68.0	Clay, mod silty & sandy, compact, pl grey.
68-70	0.05	68.0	72.0	Clay, v silty & sandy vf, & trace of blk mins.
70-72	0.05	72.0	73.0	Clay, sl silty, plastic, lt grey.
72-74	0.07			
74-76	0.08	73.0	76.0	Clay, sl silty & sandy, grey <u>c</u> some mustard mottled layers.
76-78	0.06	76.0	77.5	Clay, aa, pl grey to lt yellow-grey mottled.
78-80	0.06	77.5	79.5	Clay, aa, pl grey to lt khaki-yellow mottled.
80-82	0.05	79.5	82.0	Clay, v silty & sandy vf-f, off-white.
82-84	0.06	82.0	84.0	Clay, aa, & interbeds of clay-silt, pl brn.
84-86	0.04	84.0	86.0	Clay, v silty & sandy f, off-white, soft.
86-88	0.05	86.0	88.0	Clay, aa, mottled off-white to lt yellow-brn.
Very Weathered Bendigo Granite				
88-90	0.05	88.0	90.0	Clay, mod to v silty & sandy vf-f-m, soft, mottled off-white, red, & pl khaki.
90-92	0.04	90.0	94.0	Clay, aa, ind in part, & abund clay-silt lt red-brn.

92-94	0.03			
94-96	0.04	94.0	98.0	Clay, aa, pl grey & f mottled red-brn & dk khaki-grn; the khaki-grn colouring is within irreg 1mm bands.
96-98	0.09			
98-100	0.40	98.0	100.0	Clay, aa, only minor red Fe mottling.
100-102	0.10	100.0	104.0	Clay, aa, & qtz sand f-m, <u>c</u> minor f-m black mins.
102-104	0.06			
104-106	0.07	104.0	112.0	Clay, mottled and banded off-white & lt khaki, <u>c</u> minor black mins; internally the clay shows relict interlocking grain texture.
106-108	0.08			
108-110	0.12			
110-112	0.07			
112-114	0.12	112.0	117.0	Clay, aa, strongly banded, 0.7mm wide, off-white & lt khaki, some red-brn bands, perhaps a relict gneissic texture (cf CRN 24).
114-116	0.08			
116-118	0.10			
118-119.5	0.09	117.0	119.5	Clay, aa, & qtz sand f-m, silty & clayey, mod sorted, sub-ang, clear qtz grains.
		119.5		End of hole.

Cut water below about 75m depth.

Geochemistry Samples:

RS 645	88-94m	Routine geochemistry
RS 646	94-106m	"
RS 647	106-119.5	Bottom hole, extended geochemistry, plus full silicate analysis.

				CRN 25	CRN 25	CRN 25
				88-94m	94-106m	106-119.5m
				6731RS	6731RS	6731RS
				645	646	647
Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5
As	ppm	1.0	IC2	<1	<1	<1
Au	ppb	1.0	FA3	<1	<1	<1
Ba	ppm	10.0	XRF1			75
Cd	ppm	1.0	IC2			<1
Ce	ppm	20.0	XRF1			60
Co	ppm	2.0	IC2	<2	4	7
Cr	ppm	2.0	IC2	28	20	20
Cu	ppm	1.0	IC2	18	24	22
Fe	%	0.01	IC2	3.94	10.7	4.82
La	ppm	20.0	XRF1			40
Mn	ppm	5.0	IC2	125	680	380
Mo	ppm	1.0	IC2	<1	<1	<1
Nb	ppm	2.0	XRF1			19
Ni	ppm	1.0	IC2	8	9	11
P	ppm	5.0	IC2			115
Pb	ppm	3.0	IC2	5	10	20
Pd	ppb	1.0	FA3			<1
Pt	ppb	5.0	FA3			<5
Rb	ppm	2.0	XRF1			24
Sb	ppm	4.0	XRF1			<4
Se	ppm	2.0	XRF1			<2
Sn	ppm	4.0	XRF1			<4
Sr	ppm	2.0	XRF1			28
Th	ppm	4.0	XRF1			35
U	ppm	4.0	XRF1			6
V	ppm	1.0	IC2			94
W	ppm	10.0	XRF1			<10
Zn	ppm	1.0	IC2	11	22	12
SiO2	%	0.01	IC4			62.3
TiO2	%	0.01	IC4			0.88
Al2O3	%	0.01	IC4			20.5
Fe2O3	%	0.01	IC4			6.9
MnO	%	0.01	IC4			0.05
MgO	%	0.01	IC4			0.06
CaO	%	0.01	IC4			0.05
Na2O	%	0.01	IC4			0.09
K2O	%	0.01	IC4			0.31
P2O5	%	0.01	IC4			0.02
LOI	%	0.01	IC4			9.45

HOLE NO: CRN 26
 TRAVERSE: "Willara", 3088 mN
 STATION: 29 000 mE
 DATE: 29.09.92
 LOGGED BY: WSM

100 000 SHEET NO: 6731
 LOCATION: 355 686 mE
 6 311 264 mN
 DRILLING METHOD: RC
 TOTAL DEPTH: 119.5m

COMMENTS: Slightly undulating sandy saltbush country; float is minor gravel of Fe-ind sltst & sst, & rare white vein qtz.

Magnetic Susc.		Geological Log		Description
Interval	Value	Depth		
Pooraka Formation				
0-2	1.68	0	5.0	Clay-sand, lt orange-brn; ind & calcareous in part (ie calcrete), pl brn to lt orange-brn, c minor blk staining of ind sst; & rare gravel <3mm.
2-4	0.96			
4-6	0.26			
6-8	0.37	5.0	8.0	Clay-sand f, sl mottled lt brn to pl grey-brn to lt red-brn.
8-10	0.06	8.0	12.0	Clay-sand & clayey sand vf-f, compact, sl mottled pl grey to pl yellow-brn to lt red-brn.
10-12	0.07			
Olney? Formation?				
12-14	0.05	12.0	16.0	Clay, sl-m silty, compact, pl grey & red & yellow mottled.
14-16	0.06			
16-18	0.05	16.0	18.0	Clay, mod silty, sl sandy vf, lt grey, minor mottling.
18-20	0.05	18.0	21.0	Clay, sl silty, compact, lt grey & red mottled.
20-22	0.06			
22-24	0.05	21.0	23.5	Clay, sl silty & sandy vf, lt grey & purple mottled.
24-26	0.05	23.5	26.0	Clay, aa, grey, & red-purple mottled.
26-28	0.02	26.0	28.0	Sand f, v clayey, pl grey, ind in part, & some is pl gm glauconitic?.
28-30	0.02	28.0	30.0	
30-32	0.03	30.0	32.0	Sand, aa, pl grey to off-white.
32-34	0.00	32.0	36.0	Clay, sl silty & sandy vf, plastic, pl grey, c minor pl purple mottling. Some hard ind sst vf at 34m, lt grey-brn, porous.
34-36	0.00			
36-38	0.00	36.0	41.5	Clay, sl-m silty, compact, lt grey.
38-40	0.00			
40-42	0.00			
42-44	0.01	41.5	44.0	Clay, aa, grey, carb?.
44-46	0.02	44.0	47.8	Clay, mod silty, compact, pl grey.
46-48	0.02			
		47.8	48.0	Clay, sl silty, grey.
48-50	0.01	48.0	49.5	Clay, lt grey, compact.
50-52	0.03	49.5	51.0	Clay, aa, grey to dk grey, carb?.
52-54	0.03	51.0	53.8	
		53.8	54.2	Clay, aa, grey.
54-56	0.03	54.2	55.9	Clay, aa, lt to pl grey, c minor red-brn & yellow mottling below 55m.
56-58	0.05	55.9	57.0	
		57.0	58.0	Clay, sl silty, compact, dk grey, c minor dk red-brn mottling.
		58.0	59.0	Clay, aa, pl grey.
58-60	0.04	59.0	60.0	Clay, aa, lt yellow-brn mottled.
		60.0	61.0	Clay, aa, & minor purple mottling.
60-62	0.02	61.0	62.5	Clay, aa, & abund pl mauve, lt orange, & lt red mottling.
		62.5	63.5	
62-64	0.05	63.5	65.0	Clay, aa, & minor soft silty interbeds.
64-66	0.06	65.0	65.5	Clay, aa, pl red, pl yellow-brn, & pl grey mottled & liesegang banded.
66-68	0.05	65.5	68.0	Clay, sl silty, compact, lt grey c minor lt red & lt yellow-grn mottling.
68-70	0.06	68.0	75.0	
70-72	0.04			Clay, aa, pl grey, c minor lt pink staining near 72m.
72-74	0.04			
74-76	0.05	75.0	77.0	Clay, aa, grey, c minor red staining.
76-78	0.03	77.0	78.0	
78-80	0.02	78.0	79.0	Clay, aa, pl grey c abund red & some yellow staining & liesegang banding.
		79.0	80.5	
				Clay, aa, lt grey, c minor mottling.
80-82	0.02	80.5	83.0	Clay, aa, lt grey, c some dk purple mottling.
82-84	0.01	83.0	83.5	Clay, aa, grey, c some dark red mottling.
		83.5	84.0	
				Clay, sl silty, plastic, pl grey.
				Clay, aa, c abund mauve staining & minor f irreg dk grn banding.

84-86	0.01	84.0	91.0	Clay, aa, pl grey.
86-88	0.03			
88-90	0.02			
90-92	0.02	91.0	94.0	Clay, aa, grey.
92-94	0.01			
94-96	0.03	94.0	97.0	Clay, sl silty, compact, lt grey.
96-98	0.01			
98-100	0.01	97.0	102.5	Clay, aa, semi-plastic, pl grey.
100-102	0.03	102.5	103.0	Clay, aa, & some lt red & lt orange mottling.
102-104	0.04	103.0	104.5	Clay, plastic, pl grey.
104-106	0.04	104.5	106.0	Clay, aa, & abund pink-brn or lt khaki mottling.
106-108	0.05	106.0	107.5	Clay, mod silty & sandy vf, pl grey, <u>c</u> minor lt red staining; & clay-silt-sand vf, soft, lt brn.
108-110	0.01	107.5	109.0	Clay, aa, variably mottled, lt to dk.
		109.0	110.0	Clay, aa, pl grey.
110-112	0.03	110.0	113.0	Clay, aa, lt orange-brn, some red & yellow.
112-114	0.02	113.0	115.0	Clay, aa, pl grey, mottled pl red to pl yellow-brn.
114-116	0.01	115.0	116.5	Clay, mod silty & sandy vf, pl grey, soft.
Parilla Sand?				
116-118	0.04	116.5	119.5	Sand f, pl grey, loose, well sorted & rounded, & trace of black mins.
118-119.5	0.05			
		119.5		End of hole.

Geochemistry Samples:
None collected.

Palynology Sample:
RS 1005 48-50m Grey clay, but no palynological specimens were obtained from this sample.

HOLE NO: CRN 27
 TRAVERSE: "Willara", 3088 mN
 STATION: 29 000 mE
 DATE: 30.09.92
 LOGGED BY: WSM
 COMMENTS: 8m SW of peg; float is rounded vein qtz & minor sst.

100 000 SHEET NO: 6731
 LOCATION: 355 893 mE
 6 310 491 mN
 DRILLING METHOD: RC
 TOTAL DEPTH: 119.5m

Magnetic Susc.		Geological Log	
Interval	Value	Depth	Description
Pooraka Formation			
0-2	1.93	0 0.5	Sand f, clayey, orange-brn.
		0.5 2.0	Sand, aa, & abund gravel <20mm, rounded, sltst & sst, blk Fe-ind sst, & vein qtz.
2-4	0.92	2.0 5.0	Clay-sand, lt brn, compact.
4-6	1.07	5.0 5.5	Clay-sand, aa, & minor gravel <4mm, & minor cream calc ind (ie calcrete).
6-8	0.22	5.5 8.5	Clay-sand vf, lt brn.
8-10	0.26	8.5 13.0	Clay-sand, aa, pl fawn to lt brn, mottled or faintly lamn.
10-12	0.10		
12-14	0.33	13.0 15.0	V clayey sand vf, compact, pl fawn to lt brn.
Olney? Formation?			
14-16	0.05	15.0 16.0	Clay, sl silty & sandy, lt to pl grey, mottled purple in part.
16-18	0.04	16.0 21.0	Clay, sl silty, pl grey, minor purple mottling.
18-20	0.03		
20-22	0.06		
22-24	0.06	21.0 24.0	Clay, sl silty & sandy, lt grey, mottled purple.
24-26	0.03	24.0 27.0	Sand vf-f, v clayey, off white, compact, & some red mottling.
26-28	0.35	27.0 30.0	Sand vf-f, mod clayey, well sorted, compact, pl grey c rare mottling.
28-30	0.01		
30-32	0.02	30.0 33.0	Sand vf-f, v clayey, to clay-sand, pl grey.
32-34	0.03	33.0 35.0	Sand f, sl-mod clayey, pl grey to pl fawn.
34-36	0.00	35.0 35.5	Clay, mod silty, sl sandy, compact, pl mauve to pl pink.
		35.5 37.0	Clay, mod silty & sandy, pl grey c lt orange mottling & liesegang banding.
36-38	0.01	37.0 38.0	Clay, sl silty, lt grey, semi-plastic.
38-40	0.00	38.0 43.0	Clay, sl silty & sandy, grey,
40-42	0.00		
42-44	0.00		
44-46	0.00	43.0 46.5	Clay, sl silty, lt grey.
46-48	0.00	46.5 48.0	Clay, aa, grey.
48-50	0.01	48.0 50.0	Clay, aa, lt grey.
50-52	0.00	50.0 52.0	Clay, aa, grey c minor orange to dk grey stained fractures.
52-54	0.00	52.0 53.8	Clay, aa, lt grey.
54-56	0.01	53.8 56.0	Clay, aa, dk grey, carb.
56-58	0.06	56.0 58.0	Clay, aa, pl grey c some lt red mottling.
58-60	0.01	58.0 64.0	Clay, sl-mod silty, pl to lt grey.
60-62	0.01		
62-64	0.01		
64-66	0.03	64.0 65.0	Clay, mod-v silty & sandy vf, pl grey, soft & plastic.
66-68	0.03	65.0 68.5	Clay, sl silty & sandy, compact, lt grey to grey, c faint lt mauve mottling.
68-70	0.15	68.5 73.0	Clay, lt grey.
70-72	0.03		
72-74	0.03	73.0 74.5	Clay, sl silty & sandy vf, pl grey, semi-plastic.
74-76	0.02	74.5 76.0	Clay, aa, grey, c rare red-brn stained fractures.
76-78	0.02	76.0 80.0	Clay, aa, pl grey, c some red mottling, & red stained layers.
78-80	0.02		
80-82	0.04	80.0 81.0	Clay, aa, pl grey & purple mottled.
		81.0 82.0	Clay, aa, compact, dk grey & dk red-brn mottled.
82-84	0.03	82.0 84.0	Clay, aa, lt grey, semi-plastic.
84-86	0.01	84.0 85.0	Clay, aa, pl grey, mottled lt red & lt orange.
86-88	0.03	85.0 87.0	Clay, mod silty & sandy, pl grey, semi-plastic.
88-90	0.04	87.0 90.0	Clay, aa, pl to lt purple-grey, c some pl khaki mottling.
90-92	0.03	90.0 94.0	Clay, sl silty, pl to lt grey, semi-plastic.
92-94	0.01		
94-96	0.03	94.0 98.0	Clay, sl silty & sandy, pl to lt grey.

96-98	0.02			
98-100	0.02	98.0	105.0	Clay, sl silty, pl grey.
100-102	0.03			
102-104	0.09			
104-106	0.05			
106-108	0.03	105.0	108.0	Clay, aa, & abund lt red & pl purple mottling.
108-110	0.03	108.0	109.0	Clay, aa, pl mauve-grey.
110-112	0.03	109.0	111.0	Clay, mod silty & sandy, pl grey & lt khaki mottled.
112-114	0.06	111.0	115.0	Clay, mod silty, pl grey.
Parilla Sand?				
114-116	0.03	115.0	116.0	Sand f-m, sl clayey, pl grey, well sorted & sub-ro, clean & clear qtz grains, <u>c</u> trace of vf black mins & trace of f musc.
116-118	0.01	116.0	119.0	Sand, aa, & minor dk grey ind sst.
118-119.5	0.02	119.0	119.5	Sand f-vc, <5mm, sl clayey, poorly sorted, sub-ang, clean & clear to white qtz grains, <u>c</u> trace of black mins & musc & grey ind sst.
		119.5		End of hole.

Geochemistry Samples:

None collected.

Palynology Sample:

RS 1006	38-40m	Grey clay.
RS 1007	50-52m	Grey clay.
RS 1008	54-56m	Dark grey clay.
RS 1009	74-76m	Grey clay.

No palynological specimens were obtained from these samples.

HOLE NO:
TRAVERSE:
STATION:
DATE:
LOGGED BY:
COMMENTS:

CRN 28
"Pulpara", 3437 mE
1 000 mN
30.09.92
WSM
12m SE of peg; abundant float of white vein qtz c some red-brn stained fracturing, & minor brown sst vf to f.

100 000 SHEET NO: 6731
LOCATION: 343 546 mE
6 312 579 mN
DRILLING METHOD: RC
TOTAL DEPTH: 68.5m

Magnetic Susc.	Value	Geological Log		
Interval		Depth	Description	

Pooraka Formation? (or Yamba Formation?)				
0-2	0.20	0	3.0	Clay-sand, lt red-brn, <u>c</u> abund vein qtz frags, clear to white, sub-ro, & abund
2-4	0.07			gypsum xtals, <12mm, clear & well formed.
4-6	0.04	3.0	6.0	Clay-silt, white, <u>c</u> vein qtz & gypsum xtals, aa.
Quaternary talus deposit?, or v weathered Adelaidean?				
6-8	0.06	6.0	8.5	Clay-silt/sand vf, white, soft, <u>c</u> abund vein? qtz, <8mm, semi-transl, to cream or pink-cream.
8-10	0.04	8.5	11.5	Clay-silt/sand, aa, & qtz, aa, & some harder sst vf-f, off-white, well sorted.
10-12	0.04			
12-14	0.02	11.5	13.5	Clay-silt/sand, aa, & minor qtzite vf, semi-transl dk grey, hard.
14-16	0.03	13.5	17.5	Clay-silt/sand, aa, & abund qtzite & sst vf frags, sub-ro, pl grey to pl grey-brn,
16-18	0.27			poorly layered.
18-20	0.07	17.5	22.0	Clay-silt/sand, aa, lt fawn, & qtzite gravel, aa.
20-22	0.15			
22-24	0.13	22.0	24.0	Clay-silt-sand vf, compact, pl grey, & lt orange & lt red mottled.
Adelaidean				
24-26	0.06	24.0	26.0	Clay, silty & sandy, grey, <u>c</u> minor layers of coarse gravel <15mm, ie sub-ro dk grey qtzite vf.
26-28	0.04	26.0	36.0	Clay, aa, grey to dk grey, & gravel, aa.
28-30	0.07			
30-32	0.03			
32-34	0.03			
34-36	0.02			
36-38	0.02	36.0	41.0	Clay, aa, lt grey-brn to dk grey, gritty in part, & minor gravel, aa, <20mm.
38-40	0.03			
40-42	0.02			
42-44	0.05	41.0	44.5	Clay, aa, grey-brn; sl more compact, ie v weathrd clayey & silty sst vf-f.
44-46	0.04	44.5	66.0	Sst vf-f, mod-v weathrd & soft, gm-grey, mod sorted to bi-modal, ie diamct:
46-48	0.05			vf-f sand in a silty matrix, & minor m grains, well rounded; & minor rounded
48-50	0.05			pebbles of dk grey to dk gm qtzite vf, & lt grey-brn qtzite <u>c</u> gm stained rims.
50-52	0.09			
52-54	0.09			
54-56	0.13			
56-58	0.16			
58-60	0.08			
60-62	0.19			
62-64	0.11			
64-66	0.08			
66-68.5	0.12	66.0	68.5	Diamct, aa, & minor rounded qtzite pebbles, fresher & harder.
		68.5		End of hole.
Geochemistry Samples:				
RS 648	24-34m	Routine geochemistry		
RS 649	34-46m	"		
RS 650	46-56m	"		
RS 651	56-66m	"		
RS 652	66-68.5m	Bottom hole, extended geochemistry.		

				CRN 28 24-34m	CRN 28 34-46m	CRN 28 46-56m	CRN 28 56-66m	CRN 28 66-68.5m
				6731RS 648	6731RS 649	6731RS 650	6731RS 651	6731RS 652
Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5	<0.5	<0.5
As	ppm	1.0	IC2	8	2	2	2	3
Au	ppb	1.0	FA3	3	1	1	<1	<1
Ba	ppm	10.0	XRF1					500
Cd	ppm	1.0	IC2					<1
Ce	ppm	20.0	XRF1					70
Co	ppm	2.0	IC2	24	19	12	12	9
Cr	ppm	2.0	IC2	8	10	11	13	14
Cu	ppm	1.0	IC2	46	22	20	38	34
Fe	%	0.01	IC2	0.56	1.29	2.32	2.02	3.82
La	ppm	20.0	XRF1					50
Mn	ppm	5.0	IC2	20	45	80	175	1180
Mo	ppm	1.0	IC2	<1	<1	<1	<1	<1
Nb	ppm	2.0	XRF1					10
Ni	ppm	1.0	IC2	28	28	19	24	17
P	ppm	5.0	IC2					300
Pb	ppm	3.0	IC2	5	<3	<3	<3	<3
Pd	ppb	1.0	FA3					<1
Pt	ppb	5.0	FA3					<5
Rb	ppm	2.0	XRF1					140
Sb	ppm	4.0	XRF1					<4
Se	ppm	2.0	XRF1					<2
Sn	ppm	4.0	XRF1					<4
Sr	ppm	2.0	XRF1					18
Th	ppm	4.0	XRF1					14
U	ppm	4.0	XRF1					<4
V	ppm	1.0	IC2					18
W	ppm	10.0	XRF1					<10
Zn	ppm	1.0	IC2	5	12	9	7	3

HOLE NO:CRN 29

TRAVERSE:"Pulpara", 3437 mE

STATION:2 000 mN

DATE:30.09.92

LOGGED BY:WSM

COMMENTS: 8m SE of peg; N foot of low rise which extends south to 0 000 mN.

100 000 SHEET NO: 6731

LOCATION: 343 292 mE

6 313 584 mN

DRILLING METHOD: RC

TOTAL DEPTH: 52.0m

Magnetic Susc.		Geological Log		
Interval	Value	Depth		Description
Pooraka Formation				
0-2	1.366	0	2.0	Clayey & sandy soil, red-brn, & some gravel <5mm, ie red-brn sst vf & f, & grey sltst.
2-4	0.54	2.0	4.0	Clay-sand, red-brn, & abund gravel <40mm, ie sst & sltst, & minor vein qtz.
4-6	1.29	4.0	5.0	Clay-sand, aa, & gravel, aa, & some calcrete pebbles, cream to pl pink-brn calc ind sst vf.
Adelaidean				
6-8	0.01	5.0	8.5	Clay, v silty & sandy vf-m, off-white, & minor grit <3mm of white vein qtz & red-brn to grey sst vf.
8-10	0.02	8.5	10.0	Clay, aa, pl brn.
10-12	0.26	10.0	11.5	Clay, aa, lt yellow-brn; some sst/qtzite frags are <6mm, sub-ro, c a lt brn ind coating.
12-14	0.19	11.5	14.5	Clay, aa, & minor coarser gravel.
14-16	0.09	14.5	20.5	Clay, aa, orange-brn, & minor gravel, aa; & minor sst vf, v soft, lt orange-brn, 16-180.14bi-modal?
18-20	0.06			
20-22	0.06	20.5	30.0	Sst vf-f, sl silty & clayey, minor m grains & minor rounded qtzite pebbles within
22-24	0.08			the sst, lt orange-brn, soft & v weathrd, no layering, ie a diamct.
24-26	0.06			
26-28	0.06			
28-30	0.11			
30-32	0.04	30.0	40.0	Diamct, aa, yellow-grey-brn, mod weathrd.
32-34	0.06			
34-36	0.06			
36-38	0.08			
38-40	0.07			
40-42	0.06	40.0	42.0	Diamct, aa, brn-grey, sl weathrd.
42-44	0.05	42.0	47.5	Diamct/sst f, aa, grey to lt brn-grey, & rare grey qtzite pebbles.
44-46	0.06			
46-48	0.07			
48-50	0.07	47.5	50.0	Diamct, aa, grey-brn.
50-52	0.06	50.0	52.0	Diamct, aa, brn-grey, fresh & hard.
		52.0		End of hole.
Geochemistry Samples:				
RS 653	32-40m	Routine geochemistry		
RS 654	40-50m	"		
RS 655	50-52m	Bottom hole, extended geochemistry.		
RS 656	50-52m	Check sample, extended geochemistry.		

				CRN 29 32-40m 6731RS 653	CRN 29 40-50m 6731RS 654	CRN 29 50-52m 6731RS 655	CRN 29 50-52m (check) 6731RS 656
Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5	<1
As	ppm	1.0	IC2	2	<1	2	5
Au	ppb	1.0	FA3	<1	<1	<1	<1
Ba	ppm	10.0	XRF1			500	450
Cd	ppm	1.0	IC2			<1	<1
Ce	ppm	20.0	XRF1			70	80
Co	ppm	2.0	IC2	42	17	10	14
Cr	ppm	2.0	IC2	18	22	22	86
Cu	ppm	1.0	IC2	30	32	30	44
Fe	%	0.01	IC2	4.54	2.68	2.52	2.22
La	ppm	20.0	XRF1			50	38
Mn	ppm	5.0	IC2	1150	185	520	404
Mo	ppm	1.0	IC2	<1	<1	<1	<5
Nb	ppm	2.0	XRF1			13	12
Ni	ppm	1.0	IC2	68	30	22	27
P	ppm	5.0	IC2			490	635
Pb	ppm	3.0	IC2	5	4	<3	<5
Pd	ppb	1.0	FA3			<1	<1
Pt	ppb	5.0	FA3			<5	<1
Rb	ppm	2.0	XRF1			145	135
Sb	ppm	4.0	XRF1			<4	10
Se	ppm	2.0	XRF1			<2	<2
Sn	ppm	4.0	XRF1			<4	5
Sr	ppm	2.0	XRF1			40	34
Th	ppm	4.0	XRF1			14	14
U	ppm	4.0	XRF1			<4	<4
V	ppm	1.0	IC2			24	29
W	ppm	10.0	XRF1			<10	<10
Zn	ppm	1.0	IC2	32	12	9	9

HOLE NO: CRN 30
 TRAVERSE: "Pulpara", 3437 mE
 STATION: 3 000 mN
 DATE: 01.10.92
 LOGGED BY: WSM
 COMMENTS: 10m E of peg; float comprises sub-ang white vein qtz & sub-ro brown f sst.

100 000 SHEET NO: 6731
 LOCATION: 343 046 mE
 6 134 588 mN
 DRILLING METHOD: RC
 TOTAL DEPTH: 47.5m

Magnetic Susc.		Geological Log	
Interval	Value	Depth	Description
Pooraka Formation? (some Yamba Formation?)			
0-2	2.66	0 2.0	Clay-sand, lt brn, & gravel of sub-ang white vein qtz & sub-ro brn f sst, & calcrete, lt pink-brn.
2-4	1.45	2.0 3.5	Clay-sand, aa, sl calc in part.
		3.5 4.5	Clay, silty, off-white, soft, c some white qtz frags.
4-6	0.06	4.5 6.0	Clay-sand f, compact, pl purple, & minor f gravel 1-2mm, & rare gypsum xtals.
Weathered Adelaidean?			
6-8	0.03	6.0 8.5	Clay, silty, pl mauve & lt purple mottled.
8-10	0.02	8.5 9.0	Clay, sl silty, pl fawn to lt grey.
10-12	0.04	9.0 11.0	Clay, aa, lt grey, c minor lt orange to lt red mottling.
12-14	0.04	11.0 14.5	Clay, aa, lt grey, c abund red, yellow & purple mottling from 13-13.5m & 14-14.5m.
14-16	0.05	14.5 18.0	Clay, mod silty & sandy vf, lt grey, c minor mottling, aa, compact.
16-18	0.06		
18-20	0.03	18.0 20.0	Clay, sl silty & sandy, lt mauve-grey.
		20.0 20.5	Clay, mod silty & sandy, pl pink.
20-22	0.02	20.5 28.0	Clay, aa, lt grey, c minor lt pink mottling at top.
22-24	0.04		
24-26	0.03		
26-28	0.03		
28-30	0.02	28.0 30.5	Clay, aa, grey, c abund vein qtz, freshly broken?, semi-transl to white, below 30m.
Adelaidean			
30-32	0.11	30.5 37.8	Clay, silty & sandy vf-f, lt khaki-grey.
32-34	0.05		
34-36	0.12		
36-38	0.07		
38-40	0.11	37.8 41.5	Sst vf, mod-v weathrd, lt grn-grey, mod sorted, c abund dissem f blk mins, &
40-42	0.07		rare m sand grains within sst (ie almost a diamct); & clay, aa.
42-44	0.07	41.5 47.5	Sst, aa, dk grey or some is grn-grey, fresh.
44-46	0.07		
46-47.5	0.10		
		47.5	End of hole.

Geochemistry Samples:

RS 657	30-38m	Routine geochemistry
RS 658	38-46m	"
RS 659	46-47.5m	Bottom hole, extended geochemistry.

				CRN 30	CRN 30	CRN 30
				30-38m	38-46m	46-47.5
				6731RS	6731RS	6731RS
				657	658	659
Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5
As	ppm	1.0	IC2	4	3	3
Au	ppb	1.0	FA3	1	<1	<1
Ba	ppm	10.0	XRF1			570
Cd	ppm	1.0	IC2			<1
Ce	ppm	20.0	XRF1			80
Co	ppm	2.0	IC2	24	22	34
Cr	ppm	2.0	IC2	22	25	19
Cu	ppm	1.0	IC2	28	34	26
Fe	%	0.01	IC2	4.04	4.56	4.5
La	ppm	20.0	XRF1			50
Mn	ppm	5.0	IC2	145	190	250
Mo	ppm	1.0	IC2	<1	<1	<1
Nb	ppm	2.0	XRF1			15
Ni	ppm	1.0	IC2	34	34	38
P	ppm	5.0	IC2			650
Pb	ppm	3.0	IC2	4	4	<3
Pd	ppb	1.0	FA3			<1
Pt	ppb	5.0	FA3			<5
Rb	ppm	2.0	XRF1			175
Sb	ppm	4.0	XRF1			<4
Se	ppm	2.0	XRF1			<2
Sn	ppm	4.0	XRF1			4
Sr	ppm	2.0	XRF1			34
Th	ppm	4.0	XRF1			16
U	ppm	4.0	XRF1			<4
V	ppm	1.0	IC2			30
W	ppm	10.0	XRF1			<10
Zn	ppm	1.0	IC2	24	11	9

HOLE NO: CRN 31
 TRAVERSE: "Pulpara", 3437 mE
 STATION: 3 500 mN
 DATE: 01.10.92
 LOGGED BY: WSM

100 000 SHEET NO: 6731
 LOCATION: 343 050 mE
 6 315 135 mN
 DRILLING METHOD: RC
 TOTAL DEPTH: 64.0m

COMMENTS: 15m E of peg; float comprises abundant sub-ang white vein qtz, & pebbles <50mm of sst f, brown, & Fe stained, & magnetic (ie magnetite?) pebbles <10mm, rounded dk brn to blk, possibly Fe-ind sltst. This hole was drilled at the centre of a sharp symmetrical peak in the ground magnetic profile.

Magnetic Susc.		Geological Log	
Interval	Value	Depth	Description
Pooraka Formation?			
0-2	5.32	0 2.5	Clay-sand, orange-brn; calc ind in part, lt pink, & gravel of vein qtz, sst f, brn & Fe stained, & magnetite?, as seen in float.
2-4	0.34	2.5 5.5	Clay-sand, aa, & gravel, aa; & sst vf, hard or soft & clayey, white to lt orange-brn, c f blk Fe or Mn dendritic staining.
4-6	0.28		
Olney? Formation?, or v weathered Adelaidean?			
		5.5 6.0	Clay, mod silty, compact, off-white to pl orange or pl pink-brn.
6-8	0.04	6.0 7.0	Clay, pl grey.
		7.0 8.5	Clay, aa, lt orange to lt red-brn stained.
8-10	0.03	8.5 11.5	Clay, sl silty & sandy, off-white to pl grey, c abund dk purple, red, lt orange & yellow mottling.
10-12	0.08		
12-14	0.04	11.5 13.5	Clay, mod silty, c abund mottling, aa.
14-16	0.07	13.5 18.0	Clay, lt grey, c abund bright red mottling, & red stained interbeds / fractures / partings.
16-18	0.07		
18-20	0.07	18.0 23.0	Clay, mod silty & sandy, off-white c bright red mottling.
20-22	0.03		
22-24	0.04		
Adelaidean			
		23.0 23.5	Clay, mod-v silty & sandy vf, soft, lt fawn.
24-26	0.03	23.5 26.0	Sltst, faintly foliat, lt orange, soft & mod weathrd, faint bedding? ie f sl Fe stained & ind lamn 3-4mm apart, & minor clear to milky freshly broken vein qtz.
26-28	0.03	26.0 29.0	Sltst, aa, lt orange-brn, & some dk brn Fe-ind, irreg but c well defined margins - perhaps a poorly developed boxwork?.
28-30	0.07	29.0 30.0	Sltst, aa, & abund dk brn Fe-ind boxwork, aa.
30-32	0.04	30.0 36.0	Sltst, aa, faintly foliat, c minor Fe-ind.
32-34	0.05		
34-36	0.29		
36-38	0.04	36.0 39.0	Sltst, mustard brn, v weathrd.
38-40	0.03	39.0 40.0	Sltst, aa, khaki-grey, & minor soft dk grey sltst.
40-42	0.05	40.0 50.0	Sltst, black, carb?, partially weathrd, bleached pl fawn along fractures / joints / partings etc, & mottled lt orange.
42-44	0.02		
44-46	0.05		
46-48	0.04		
48-50	0.91		
50-52	0.05	50.0 52.0	Sst vf, mod-well sorted, lt orange-brn, & abund dissem f-m blk grains or grain aggregates, no layering.
52-54	0.05	52.0 53.5	Sst, aa, lt mauve to lt orange brn.
54-56	0.05	53.5 56.0	Sst, aa, lt orange-brn, c faint f lt red liesegang banding.
56-58	0.05	56.0 58.0	Sst, aa, & some fresh blk sst, & minor dk red-brn Fe-ind zones.
58-60	0.04	58.0 60.0	Sst, aa, & some zones contain abund dissem f-m blk grains or grain aggregates (possibly weathrd sulphide?), & minor 1mm sub-ro blebs with brn core & blk goethite? rims (sharp boundaries).
60-62	0.04	60.0 64.0	Sltst/sst vf, black, carb? (floats as scum in sample bucket), no obvious layering, hard.
62-64	0.24		
		64.0	End of hole.

This hole included a number of unusual & significant features:

- . Magnetite? pebbles were seen in float and in the upper several metres, & may possibly explain the ground magnetic anomaly.
- . The clay was extremely brightly Fe stained/mottled from 12-23m.
- . The weathered siltstone included strong dark brown Fe induration approaching a boxwork, in particular from 29-30m.
- . The bleached & weathered siltstone also included zones containing abundant disseminated black & brown Fe stained? medium grained blebs/grains, possibly representing weathered sulphides.

. The fresh siltstone is extremely carbonaceous.

Geochemistry Samples:

RS 660	12-22m	Routine geochemistry
RS 661	22-28m	"
RS 662	28-30m	"
RS 663	30-40m	"
RS 664	40-52m	"
RS 665	52-60m	"
RS 666	60-62m	"
RS 667	62-64m	Bottom hole, extended geochemistry and petrology.
RS 668	52-60m	Check sample, routine geochemistry.
RS 669	62-64m	Check sample, extended geochemistry.

				CRN 31	CRN 31	CRN 31	CRN 31	CRN 31	CRN 31
				12-22m	22-28m	28-30m	30-40m	40-52	52-60m
				6731RS	6731RS	6731RS	6731RS	6731R	6731RS
				660	661	662	663	664	665
Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
As	ppm	1.0	IC2	17	7	30	22	11	24
Au	ppb	1.0	FA3	1	<1	<1	1	10	7
Ba	ppm	10.0	XRF1						
Cd	ppm	1.0	IC2						
Ce	ppm	20.0	XRF1						
Co	ppm	2.0	IC2	3	6	30	14	24	36
Cr	ppm	2.0	IC2	60	19	10	12	8	9
Cu	ppm	1.0	IC2	28	54	160	78	94	195
Fe	%	0.01	IC2	6.7	4.6	14.2	7	5.15	7.3
La	ppm	20.0	XRF1						
Mn	ppm	5.0	IC2	35	60	210	170	115	230
Mo	ppm	1.0	IC2	2	<1	1	1	1	2
Nb	ppm	2.0	XRF1						
Ni	ppm	1.0	IC2	10	35	115	65	64	98
P	ppm	5.0	IC2						
Pb	ppm	3.0	IC2	12	5	5	5	6	5
Pd	ppb	1.0	FA3						
Pt	ppb	5.0	FA3						
Rb	ppm	2.0	XRF1						
Sb	ppm	4.0	XRF1						
Se	ppm	2.0	XRF1						
Sn	ppm	4.0	XRF1						
Sr	ppm	2.0	XRF1						
Th	ppm	4.0	XRF1						
U	ppm	4.0	XRF1						
V	ppm	1.0	IC2						
W	ppm	10.0	XRF1						
Zn	ppm	1.0	IC2	19	54	190	70	40	40

				CRN 31 60-62m	CRN 31 62-64m	CRN 31 52-60m (check)	CRN 31 52-60m (repeat)	CRN 31 62-64m (check)
				6731RS 666	6731RS 667	6731RS 668	6731RS 668	6731RS 669
Ag	ppm	0.5	IC2	<0.5	<0.5	<1		<1
As	ppm	1.0	IC2	1	12	39		9
Au	ppb	1.0	FA3	4	1	4	2	2
Ba	ppm	10.0	XRF1		670			662
Cd	ppm	1.0	IC2		<1			<1
Ce	ppm	20.0	XRF1		90			96
Co	ppm	2.0	IC2	6	17	26		19
Cr	ppm	2.0	IC2	14	12	27		46
Cu	ppm	1.0	IC2	70	200	222		186
Fe	%	0.01	IC2	1.75	3.16	5.61		2.65
La	ppm	20.0	XRF1		60			45
Mn	ppm	5.0	IC2	40	620	165		483
Mo	ppm	1.0	IC2	<1	4	<5		<5
Nb	ppm	2.0	XRF1		16			17
Ni	ppm	1.0	IC2	17	30	75		32
P	ppm	5.0	IC2		830			950
Pb	ppm	3.0	IC2	3	5	<5		5
Pd	ppb	1.0	FA3		<1			<1
Pt	ppb	5.0	FA3		<5			<1
Rb	ppm	2.0	XRF1		180			173
Sb	ppm	4.0	XRF1		<4			5
Se	ppm	2.0	XRF1		<2			3
Sn	ppm	4.0	XRF1		<4			5
Sr	ppm	2.0	XRF1		105			83
Th	ppm	4.0	XRF1		14			13
U	ppm	4.0	XRF1		5			<4
V	ppm	1.0	IC2		24			28
W	ppm	10.0	XRF1		<10			<10
Zn	ppm	1.0	IC2	19	17	39		12

HOLE NO: CRN 32
 TRAVERSE: "Pulpara", 3437 mE
 STATION: 4 000 mN
 DATE: 01.10.92
 LOGGED BY: WSM
 COMMENTS: 6m E of peg; float comprises hard pl grey vf quartzite.

100 000 SHEET NO: 6731
 LOCATION: 34 824 mE
 6 315 551 mN
 DRILLING METHOD: RC
 TOTAL DEPTH: 68.5m

Magnetic Susc.		Geological Log		
Interval	Value	Depth		Description
Pleistocene/Holocene?				
0-2	0.07	0	2.0	Sst vf, & clay-sand, calc ind, lt red-brn to cream, <u>c</u> minor blk Fe or Mn staining & dendrites.
2-4	1.08	2.0	4.0	Sst vf, well sorted, ind, cream or lt orange, & minor blk dendrites.
4-6	0.04	4.0	5.5	Clay, sl silty & sandy vf, f mottled pl grey to off-white, <u>c</u> minor lt red & orange mottling.
		5.5	6.0	Clay, aa, lt grey, or fawn mottled.
6-8	0.02	6.0	8.0	Clay, aa, mottled pl pink, pl yellow, pl brn.
		8.0	8.5	Clay, aa, & some purple Fe-ind.
8-10	0.11	8.5	10.0	Sst vf, orange to lt red-brn, Fe-ind & stained.
10-12	0.02	10.0	11.0	Sst, aa, pl grey & lt fawn, <u>c</u> some orange mottling.
Adelaidean				
12-14	0.01	11.0	13.0	Clay, sl silty, compact, pl grey-brn.
14-16	0.02	13.0	17.0	Clay, sl silty & sandy vf, & abund lt yellow-brn & pl mauve mottling, compact.
16-18	0.05	17.0	18.0	Clay, aa, & abund dk red & mustard mottling.
18-20	0.01	18.0	24.0	Clay, sl silty, soft, pl grey, <u>c</u> some pl fawn mottling.
20-22	0.06			
22-24	0.05			
24-26	0.00	24.0	28.0	Clay, aa, lt fawn, & trace of Fe-ind sltst/sst vf, brn.
26-28	0.02			
28-30	0.01	28.0	34.0	Clay, aa, & rare sltst, sl foliat.
30-32	0.00			
32-34	0.01			
34-36	0.04	34.0	36.0	Clay, aa, & minor Fe-ind red-brn to dk brn to orange-brn sltst.
36-38	0.01	36.0	42.0	Sltst, clayey & v weathrd, pl grey-brn & mottled orange-brn, & minor Fe-ind
38-40	0.07			sltst, & clay, aa.
40-42	0.06			
42-44	0.06	42.0	46.0	Sltst & clay, aa, some Fe staining may be a poorly developed boxwork, ie
44-46	0.06			<0.3mm wide intersecting Fe stained/ind fractures <u>c</u> lt orange halos.
46-48	0.06	46.0	48.0	Sltst, aa, v weathrd, <u>c</u> minor Fe-ind/staining, & some mod weathrd sltst, grey to lt grey, & lt orange
				to lt red-brn bleached/stained.
48-50	0.06	48.0	51.0	Sltst, aa, <u>c</u> lt red-brn to brn Fe stained joints/ fractures <u>c</u> 1-2mm pl yellow to
50-52	0.12			pl grey-brn bleached halos.
52-54	0.06	51.0	56.5	Sltst, sl to mod weathrd, grey to dk grey, <u>c</u> Fe stained & bleached fractures,
54-56	0.05			aa; some v weathrd.
56-58	0.05	56.5	66.0	Sltst, fresh, dk grey, <u>c</u> abund Fe bleached & stained joints, aa.
58-60	0.05			
60-62	0.06			
62-64	0.05			
64-66	0.04			
66-68.5	0.16	66.0	68.5	Sltst, fresh, black, carb?, <u>c</u> f fractures infilled <u>c</u> silvery yellow pyrite, <u>c</u> f 0.5mm sl pyritic halos.
		68.5		End of hole.

This hole included a number of unusual & significant features:

- . The weathered siltstone included strong dark brown Fe induration approaching a boxwork, in particular from 36-38m & 42-44m.
- . The weathered siltstone included abundant bleached & Fe stained fractures or joints.
- . The fresh siltstone is carbonaceous & included pyritic fractures.

Geochemistry Samples:

RS 670	38-48m	Routine geochemistry
RS 671	48-58m	"
RS 672	58-66m	"
RS 673	66-68.5m	Bottom hole, extended geochemistry, and petrology.
RS 674	66-68.5m	Check sample, extended geochemistry.

				CRN 32	CRN 32	CRN 32	CRN 32	CRN 32
				38-48m	48-58m	58-66m	66-68.5m	66-68.5m
								(check)
				6731RS	6731RS	6731RS	6731RS	6731RS
				670	671	672	673	674
Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5	<0.5	<1
As	ppm	1.0	IC2	11	5	3	5	5
Au	ppb	1.0	FA3	1	2	<1	1	1
Ba	ppm	10.0	XRF1				530	494
Cd	ppm	1.0	IC2				<1	<1
Ce	ppm	20.0	XRF1				60	77
Co	ppm	2.0	IC2	28	17	15	16	17
Cr	ppm	2.0	IC2	35	30	30	28	45
Cu	ppm	1.0	IC2	48	32	32	34	28
Fe	%	0.01	IC2	5.55	3.82	4.32	4.4	3.19
La	ppm	20.0	XRF1				30	36
Mn	ppm	5.0	IC2	4050	180	155	950	613
Mo	ppm	1.0	IC2	1	<1	<1	1	<5
Nb	ppm	2.0	XRF1				14	14
Ni	ppm	1.0	IC2	85	52	44	42	40
P	ppm	5.0	IC2				830	882
Pb	ppm	3.0	IC2	42	10	13	13	5
Pd	ppb	1.0	FA3				<1	<1
Pt	ppb	5.0	FA3				<5	<1
Rb	ppm	2.0	XRF1				130	122
Sb	ppm	4.0	XRF1				<4	<4
Se	ppm	2.0	XRF1				<2	2
Sn	ppm	4.0	XRF1				5	5
Sr	ppm	2.0	XRF1				80	72
Th	ppm	4.0	XRF1				8	19
U	ppm	4.0	XRF1				<4	5
V	ppm	1.0	IC2				40	55
W	ppm	10.0	XRF1				<10	<10
Zn	ppm	1.0	IC2	270	96	88	92	68

HOLE NO:CRN 33

TRAVERSE:"Pulpara", 3437 mE

STATION:5 000 mN

DATE:01.10.92

LOGGED BY:WSM

COMMENTS: 15m SE of peg; float comprises abundant gravel <60mm, sub-rounded quartz & quartzite c calcreted rims.

100 000 SHEET NO: 6731

LOCATION: 342 556 mE

6 316 463 mN

DRILLING METHOD: RC

TOTAL DEPTH: 38.0m

Magnetic Susc.		Geological Log		
Interval	Value	Depth		Description

Pooraka Formation				
0-2	0.90	0	4.5	Clay-sand, orange-brn, <u>c</u> some calc ind, & gravel, ie sub-ro qtz & qtzite <u>c</u> calcreted rims.
2-4	6.34			
Adelaidean				
4-6	0.33	4.5	16.0	Clay-silt, lt mustard-brn, v sticky, & some sltst, v weathrd, lt mustard-brn to lt pinkish brn, sl mottled.
6-8	0.09			
8-10	0.09			
10-12	0.06			
12-14	0.06			
14-16	0.06			
16-18	0.04	16.0	28.0	Clay-silt, aa, & sltst, aa, v weathrd, <u>c</u> f sl darker lamn, & sl foliat?.
18-20	0.04			
20-22	0.09			
22-24	0.05			
24-26	0.29			
26-28	0.07			
28-30	0.00	28.0	33.0	Clay-silt, aa, lt mustard-khaki, & sltst, mod-v weathrd, lt khaki, & stained orange-brn or lt brn.
30-32	0.44			
32-34	0.07	33.0	34.0	Clay-silt & soft sltst, aa, & some hard blk sltst <u>c</u> lt orange & pl brn bleaching & staining along fractures/partings/joints.
34-36	0.09	34.0	36.5	Sltst, dk grey, fresh, or partially & irreg weathrd to khaki-grey, <u>c</u> orange-brn Fe stained joints.
36-38	0.09	36.5	38.0	Sltst, blk, fresh, <u>c</u> well developed fissile parting at 3-6mm spacing, but no obvious foliat or lamn, & <u>c</u> 2+ well developed orthogonal joints.
		38.0		End of hole.

Geochemistry Samples:

RS 6754-28m

RS 67628-36m

RS 67736-38m

Routine geochemistry

"

Bottom hole, extended geochemistry.

				CRN 33	CRN 33	CRN 33
				4-28m	28-36m	36-38m
				6731RS	6731RS	6731RS
				675	676	677
Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5
As	ppm	1.0	IC2	11	8	10
Au	ppb	1.0	FA3	<1	<1	<1
Ba	ppm	10.0	XRF1			520
Cd	ppm	1.0	IC2			1
Ce	ppm	20.0	XRF1			60
Co	ppm	2.0	IC2	14	78	28
Cr	ppm	2.0	IC2	40	44	42
Cu	ppm	1.0	IC2	35	36	42
Fe	%	0.01	IC2	5.05	4.8	3.94
La	ppm	20.0	XRF1			40
Mn	ppm	5.0	IC2	480	7200	4250
Mo	ppm	1.0	IC2	<1	<1	<1
Nb	ppm	2.0	XRF1			12
Ni	ppm	1.0	IC2	48	82	44
P	ppm	5.0	IC2			810
Pb	ppm	3.0	IC2	8	22	24
Pd	ppb	1.0	FA3			<1
Pt	ppb	5.0	FA3			<5
Rb	ppm	2.0	XRF1			125
Sb	ppm	4.0	XRF1			<4
Se	ppm	2.0	XRF1			<2
Sn	ppm	4.0	XRF1			6
Sr	ppm	2.0	XRF1			140
Th	ppm	4.0	XRF1			12
U	ppm	4.0	XRF1			6
V	ppm	1.0	IC2			58
W	ppm	10.0	XRF1			<10
Zn	ppm	1.0	IC2	95	190	140

HOLE NO:

CRN 34

TRAVERSE:

"Pulpara", 3437 mE

STATION:

6 000 mM

DATE:

03.10.92

LOGGED BY:

WSM

COMMENTS:

9m NE of peg; float is vein qtz & rounded grey-brown sst vf.

100 000 SHEET NO: 6731

LOCATION: 342 264 mE

6 317 285 mN

DRILLING METHOD: RC

TOTAL DEPTH: 10.0m

Magnetic Susc.		Geological Log		
Interval	Value	Depth	Description	

Pooraka Formation				
0-2	1.14	0	1.0	Clay-sand, calc, lt pink-brn, ind in part, <u>c</u> minor gravel.
2-4	0.99	1.0	5.0	Clay-sand, calc, lt pink-brn, compact, <u>c</u> minor blk Mn? dendritic staining.
4-6	0.66	5.0	5.3	Sst f, calc, lt pink-brn, v poorly sorted <u>c</u> minor dissem black mins, & some rock frags <8mm.
Adelaidean				
6-8	0.07	5.3	8.0	Sltst, dk grey to blk, weathrd khaki-grey.
8-10	0.12	8.0	10.0	Sltst, aa, dk grey, <u>c</u> f laminae, dip 25°, & thin blk fractures <u>c</u> 2-3mm bleached lt khaki haloes, v hard.
		10.0		End of hole.
Geochemistry Samples:				
RS 678	8-10m	Bottom hole, extended geochemistry.		

CRN 34
8-10m

6731RS
678

Ag	ppm	0.5	IC2	<0.5
As	ppm	1.0	IC2	9
Au	ppb	1.0	FA3	6
Ba	ppm	10.0	XRF1	580
Cd	ppm	1.0	IC2	<1
Ce	ppm	20.0	XRF1	60
Co	ppm	2.0	IC2	20
Cr	ppm	2.0	IC2	40
Cu	ppm	1.0	IC2	38
Fe	%	0.01	IC2	4
La	ppm	20.0	XRF1	40
Mn	ppm	5.0	IC2	1760
Mo	ppm	1.0	IC2	2
Nb	ppm	2.0	XRF1	12
Ni	ppm	1.0	IC2	48
P	ppm	5.0	IC2	810
Pb	ppm	3.0	IC2	19
Pd	ppb	1.0	FA3	<1
Pt	ppb	5.0	FA3	<5
Rb	ppm	2.0	XRF1	125
Sb	ppm	4.0	XRF1	<4
Se	ppm	2.0	XRF1	<2
Sn	ppm	4.0	XRF1	<4
Sr	ppm	2.0	XRF1	90
Th	ppm	4.0	XRF1	10
U	ppm	4.0	XRF1	<4
V	ppm	1.0	IC2	58
W	ppm	10.0	XRF1	<10
Zn	ppm	1.0	IC2	94

HOLE NO:CRN 35

TRAVERSE:"Pulpara", 3437 mE

STATION:7 000 mN

DATE:03.10.92

LOGGED BY:WSM

COMMENTS: 9m S of peg; abund float of white vein qtz c brn Fe infilled fractures, & Fe-ind & stained sltst & sst vf, & brn to blk ironstone (non-magnetic), & minor lt to dk grey sltst, finely lamn; closest outcrop is in prominent ridge 100m NW.

100 000 SHEET NO: 6731

LOCATION: 342 867 mE

6 317 971 mN

DRILLING METHOD: RC

TOTAL DEPTH: 4.0m

Magnetic Susc.		Geological Log		
Interval	Value	Depth		Description
Pooraka Formation				
0-2	1.21	0	2.0	Clay-sand, calc, lt brn, compact, & gravel, as seen in float.
Adelaidean				
2-4	0.11	2.0	4.0	Sltst, calc, lt grey-gm or dk grey & fresh, v hard, faint darker lamn dip 20°, & foliat & fissile in part, dip 60° (some cores show lamn & foliat, & strike appears to be the same), & rare mod-steep dipping joints.
		4.0		End of hole.
Geochemistry Samples:				
RS 679	2-4m			Bottom hole, extended geochemistry.

CRN 35
2-4m

6731RS
679

Ag	ppm	0.5	IC2	<0.5
As	ppm	1.0	IC2	16
Au	ppb	1.0	FA3	<1
Ba	ppm	10.0	XRF1	690
Cd	ppm	1.0	IC2	<1
Ce	ppm	20.0	XRF1	60
Co	ppm	2.0	IC2	26
Cr	ppm	2.0	IC2	38
Cu	ppm	1.0	IC2	38
Fe	%	0.01	IC2	4.12
La	ppm	20.0	XRF1	50
Mn	ppm	5.0	IC2	1420
Mo	ppm	1.0	IC2	3
Nb	ppm	2.0	XRF1	12
Ni	ppm	1.0	IC2	52
P	ppm	5.0	IC2	730
Pb	ppm	3.0	IC2	32
Pd	ppb	1.0	FA3	<1
Pt	ppb	5.0	FA3	<5
Rb	ppm	2.0	XRF1	105
Sb	ppm	4.0	XRF1	<4
Se	ppm	2.0	XRF1	<2
Sn	ppm	4.0	XRF1	<4
Sr	ppm	2.0	XRF1	930
Th	ppm	4.0	XRF1	8
U	ppm	4.0	XRF1	5
V	ppm	1.0	IC2	72
W	ppm	10.0	XRF1	<10
Zn	ppm	1.0	IC2	95

HOLE NO:CRN 36

TRAVERSE:"Pulpara", 3437 mE

STATION:8 000 mN

DATE:03.10.92

LOGGED BY:WSM

COMMENTS: 10m S of peg; float is calcrete; closest outcrop is in prominent ridge 500m NW.

100 000 SHEET NO: 6731

LOCATION: 343 719 mE

6 318 767 mN

DRILLING METHOD: RC

TOTAL DEPTH: 21.0m

Magnetic Susc.		Geological Log		
Interval	Value	Depth		Description
Pooraka Formation				
0-2	1.46	0	5.2	Clay-sand, calc, lt brn, soft.
2-4	1.78			
4-6	0.33			
Adelaidean				
		5.2	6.0	Sst vf/sltst, sl calc, lt mustard-brn, mod weathrd.
6-8	0.06	6.0	8.0	Sst vf/sltst, aa, c some blk irreg & intersecting Fe stained & ind fractures/joints, 0.5mm wide, & minor dk brn Fe-ind interbeds 1-2mm.
8-10	0.05	8.0	12.0	Sltst, lt mustard-brn, sl calc in part, c some faint f dk lamn, & Fe stained joints, aa.
10-12	0.07			
12-14	0.06	12.0	16.0	Sltst, aa, c minor lt orange Fe stained joints at 30° & 150° to lamn.
14-16	0.05			
16-18	0.04	16.0	17.5	Sltst, fresh to sl weathrd, brn-grey, c strong f dk lamn, & some orange stained lamn, & minor orange Fe stained joints.
18-20	0.04	17.5	21.0	Sltst, fresh, dk grey, c strong f blk lamn 0.2mm at 0.2-0.6mm spacing, dip 40°, & some grey-brn to lt khaki-brn bleaching, esp on joints.
20-21	0.12	21.0		End of hole.
Geochemistry Samples:				
RS 680	6-16m	Routine geochemistry		
RS 681	16-20m	"		
RS 682	20-21m	Bottom hole, extended geochemistry.		

				CRN 36	CRN 36	CRN 36
				6-16m	16-20m	20-21m
				6731RS	6731RS	6731RS
				680	681	682
Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5
As	ppm	1.0	IC2	14	8	10
Au	ppb	1.0	FA3	3	<1	<1
Ba	ppm	10.0	XRF1			530
Cd	ppm	1.0	IC2			<1
Ce	ppm	20.0	XRF1			70
Co	ppm	2.0	IC2	50	28	14
Cr	ppm	2.0	IC2	40	38	36
Cu	ppm	1.0	IC2	44	32	24
Fe	%	0.01	IC2	5.6	5.2	4.12
La	ppm	20.0	XRF1			40
Mn	ppm	5.0	IC2	3350	830	590
Mo	ppm	1.0	IC2	2	<1	<1
Nb	ppm	2.0	XRF1			12
Ni	ppm	1.0	IC2	90	62	44
P	ppm	5.0	IC2			770
Pb	ppm	3.0	IC2	10	11	9
Pd	ppb	1.0	FA3			<1
Pt	ppb	5.0	FA3			<5
Rb	ppm	2.0	XRF1			110
Sb	ppm	4.0	XRF1			<4
Se	ppm	2.0	XRF1			<2
Sn	ppm	4.0	XRF1			<4
Sr	ppm	2.0	XRF1			70
Th	ppm	4.0	XRF1			12
U	ppm	4.0	XRF1			<4
V	ppm	1.0	IC2			42
W	ppm	10.0	XRF1			<10
Zn	ppm	1.0	IC2	175	185	105

HOLE NO:CRN 37

TRAVERSE:"Pulpara", 3437 mE

STATION:9 000 mN

DATE:03.10.92

LOGGED BY:WSM

COMMENTS: 25m SE of peg; abundant gravel float, vein qtz & grey vf sst/qtzite.

100 000 SHEET NO: 6731

LOCATION: 344 431 mE

6 319 226 mN

DRILLING METHOD: RC

TOTAL DEPTH: 44.5m

Magnetic Susc.		Geological Log	
Interval	Value	Depth	Description
Pooraka Formation?			
0-2		0 2.5	Clay-sand, sl calc, lt khaki-brn to lt pink-brn, compact, c minor blk Mn? dendrites.
Adelaidean			
2-4		2.5 4.0	Sst vf, v weathrd, lt orange-khaki, hard, c orange Fe & blk Mn? dendritic stained joints.
4-6		4.0 8.5	Sst vf, aa, khaki-grey to grey-brn, mod-v weathrd, faintly lamntd, & c some joints / fractures c f 0.2mm blk sl irreg cores, & 1-3mm pl grey bleached haloes.
6-8			
8-10		8.5 12.0	Sst vf, aa, mod weathrd, grey to brn, finely & strongly lamntd, & some joints, aa, & some orange-brn Fe-ind / stained joints.
10-12			
12-14		12.0 14.0	Sst vf, aa, mostly mod-v weathrd, orange to brn bleached laminae or irreg zones.
14-16		14.0 16.0	Sst vf, aa, sl weathrd, grey, c orange-brn stained lamn.
16-18		16.0 18.0	Sst vf, aa, sl weathrd, purple-grey-brn, c orange to pl grey bleached lamn & joints.
18-20		18.0 21.0	Sst vf, aa, & some fractures c red 0.2mm Fe-ind cores & 2mm pl grey bleached haloes.
20-22			
22-24		21.0 23.0	Sst vf, aa, dk grey, c minor Fe stained joints.
24-26		23.0 30.0	Sst vf, aa, sl to mod weathrd, grey to orange-brn, & variably bleached & Fe stained in joints & fractures.
26-28			
28-30			
30-32		30.0 36.0	Sst vf, aa, purple-brn c grn-grey bleaching on joints, & faint f lamn at 1-2mm spacing.
32-34			
34-36			
36-38		36.0 40.0	Sst vf, aa, lt grey-grn, sl weathrd, c f foliat, c minor 1mm qtz veins.
38-40			
40-42		40.0 42.0	Sst vf, aa, dk grey, or lt grey-grn sl weathrd.
42-44		42.0 44.5	Sst vf, aa, dk grey, faintly lamn, c minor orange Fe stained joints/fractures, & minor lt grey-grn bleached lamn & joints, hard.
		44.5	End of hole.
Geochemistry Samples:			
RS 683	2-22m	Routine geochemistry	
RS 684	22-42m	"	
RS 685	42-44.5m	Bottom hole, extended geochemistry.	

				CRN 37	CRN 37	CRN 37
				2-22m	22-42m	42-44.5m
				6731RS	6731RS	6731RS
				683	684	685
Ag	ppm	0.5	IC2	<0.5	<0.5	0.5
As	ppm	1.0	IC2	17	8	8
Au	ppb	1.0	FA3	<1	<1	<1
Ba	ppm	10.0	XRF1			480
Cd	ppm	1.0	IC2			2
Ce	ppm	20.0	XRF1			60
Co	ppm	2.0	IC2	30	34	11
Cr	ppm	2.0	IC2	20	26	30
Cu	ppm	1.0	IC2	26	32	20
Fe	%	0.01	IC2	4.04	4.02	3.52
La	ppm	20.0	XRF1			40
Mn	ppm	5.0	IC2	1560	1700	650
Mo	ppm	1.0	IC2	<1	<1	<1
Nb	ppm	2.0	XRF1			14
Ni	ppm	1.0	IC2	52	48	25
P	ppm	5.0	IC2			710
Pb	ppm	3.0	IC2	18	30	32
Pd	ppb	1.0	FA3			<1
Pt	ppb	5.0	FA3			<5
Rb	ppm	2.0	XRF1			125
Sb	ppm	4.0	XRF1			<4
Se	ppm	2.0	XRF1			<2
Sn	ppm	4.0	XRF1			<4
Sr	ppm	2.0	XRF1			50
Th	ppm	4.0	XRF1			12
U	ppm	4.0	XRF1			<4
V	ppm	1.0	IC2			36
W	ppm	10.0	XRF1			<10
Zn	ppm	1.0	IC2	120	135	135

HOLE NO:CRN 38

TRAVERSE:"Pulpara", 3437 mE

STATION:10 000 mN

DATE:03.10.92

LOGGED BY:WSM

COMMENTS: 6m SW of peg; calcrete float.

100 000 SHEET NO: 6731

LOCATION: 345 362 mE

6 319 827 mN

DRILLING METHOD: RC

TOTAL DEPTH: 47.5m

Magnetic Susc.		Geological Log		
Interval	Value	Depth		Description

Pooraka Formation				
0-2	0.36	0	2.0	Clay-sand, calc, lt pink-brn, & gravel of white vein qtz & red-brn to blk-brn Fe-ind sst vf to f.
Adelaidean				
2-4	0.31	2.0	3.0	Silt/sand vf, sl calc, lt brn, soft, well sorted.
		3.0	4.5	Clay-silt, sl calc, pl brn, soft.
4-6	0.21	4.5	11.5	Clay-silt, aa, non-calc.
6-8	0.06			
8-10	0.04			
10-12	0.06			
12-14	0.05	11.5	14.5	Clay-silt, aa, pl khaki or pl pink-brn, <u>c</u> rare frags of soft v weathrd sltst from 12-14m.
14-16	0.05	14.5	20.0	Clay-silt, aa, pl khaki.
16-18	0.05			
18-20	0.05			
20-22	0.09	20.0	26.0	Clay-silt, aa, lt purple- to lt khaki-grey, & frags of soft v weathrd sltst, lt grey-
22-24	0.10			gm, faintly foliat, <u>c</u> f orange stained laminae?.
24-26	0.15			
26-28	0.08	26.0	33.0	Sltst, soft, mod weathrd, khaki-grey or lt purple, faintly foliat & faintly fissile,
28-30	0.11			<u>c</u> minor orange stained joints.
30-32	0.11			
32-34	0.13			
34-36	0.11	33.0	43.0	Sltst, sl weathrd, grey, <u>c</u> minor orange-brn Fe stained joints.
36-38	0.10			
38-40	0.10			
40-42	0.11			
42-44	0.08	43.0	44.0	Sltst, fresh, dk grey, <u>c</u> minor orange Fe stained joints.
44-46	0.12	44.0	47.5	Sltst, aa, <u>c</u> some 1mm opaque qtz veining.
46-47.5	0.14			
		47.5		End of hole.
Geochemistry Samples:				
RS 686	4-26m	Routine geochemistry		
RS 687	26-46m	"		
RS 688	46-47.5m	Bottom hole, extended geochemistry.		

				CRN 38	CRN 38	CRN 38
				4-26m	26-46m	46-47.5m
				6731RS	6731RS	6731RS
				686	687	688
Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5
As	ppm	1.0	IC2	1	<1	2
Au	ppb	1.0	FA3	<1	3	8
Ba	ppm	10.0	XRF1			500
Cd	ppm	1.0	IC2			<1
Ce	ppm	20.0	XRF1			50
Co	ppm	2.0	IC2	3	32	16
Cr	ppm	2.0	IC2	17	26	24
Cu	ppm	1.0	IC2	30	44	54
Fe	%	0.01	IC2	1.07	3.46	3.26
La	ppm	20.0	XRF1			50
Mn	ppm	5.0	IC2	40	900	250
Mo	ppm	1.0	IC2	<1	<1	<1
Nb	ppm	2.0	XRF1			15
Ni	ppm	1.0	IC2	14	88	52
P	ppm	5.0	IC2			930
Pb	ppm	3.0	IC2	7	10	4
Pd	ppb	1.0	FA3			<1
Pt	ppb	5.0	FA3			<5
Rb	ppm	2.0	XRF1			200
Sb	ppm	4.0	XRF1			<4
Se	ppm	2.0	XRF1			<2
Sn	ppm	4.0	XRF1			6
Sr	ppm	2.0	XRF1			40
Th	ppm	4.0	XRF1			18
U	ppm	4.0	XRF1			4
V	ppm	1.0	IC2			28
W	ppm	10.0	XRF1			<10
Zn	ppm	1.0	IC2	24	180	120

HOLE NO: CRN 39
 TRAVERSE: "Pulpara", 3437 mE
 STATION: 11 000 mN
 DATE: 29.11.92
 LOGGED BY: JKJ

100 000 SHEET NO: CAR00NA
 LOCATION: 346 298 mE
 6 320 329 mN
 DRILLING METHOD: RC WITH WATER
 TOTAL DEPTH: 65.5m

Depth From	To	Magn. Susc.	Description
Quaternary, Pooraka Formation?			
0.0	2.0	0.88	Soil, red brn & yellow, c grey calcareous sltst frags.
2.0	4.0	0.43	Clay, orange, c yellow silcrete, & minor frags of dk grey sltst.
4.0	6.0	0.21	Clay, yellow, c dk grey sltst frags, Mn stained in part.
6.0	8.0	0.12	Clay, yellow brn & dk grey, c weathered sltst frags.
8.0	10.0	0.07	Clay, yellow/cream, c small ~1mm frags of dk grey sltst.
10.0	12.0	0.06	Clay, yellow, indurated, non gritty.
12.0	14.0	0.08	Clay/silt, red brn, well layered, c Mn stained surfaces, & foliation dips 40° to layering.
Weathered Adelaidean			
14.0	16.0	0.13	Sltst, red brn & yellow interbedded?, becoming micaceous, c dk min bands 1-2mm thick.
16.0	18.0	0.38	Clay/silt, red, c blk min flecks; noted one <i>limonite pseudomorph after pyrite</i> .
18.0	20.0		Clay/silt, red brn, c yellow clay interbeds, & blk min flecks.
20.0	22.0	0.07	Clay/silt, red brn, c Mn staining on surfaces.
22.0	24.0	0.09	Clay/silt a/a, c yellow brn clay interbeds.
24.0	26.0	0.08	Clay/silt, c blk min flecks, & cream clay interbeds
Adelaidean			
26.0	28.0	0.08	Sltst, yellow brn, c small dk grey sltst frags.
28.0	30.0	0.10	Sltst, red & yellow interbeds, c frags a/a, & grey ?carbonaceous interbeds.
30.0	32.0	0.09	Sltst, yellow brn, c cream clay interbeds, & carbonaceous interbeds <~1mm thick.
32.0	34.0	0.50	Sltst a/a.
34.0	36.0	0.09	Clay/Silt, red & yellow brn, c dk grey clay interbeds.
36.0	38.0	0.11	Claystone, red purple brn, well banded, c Mn stained surfaces, & sl micaceous.
38.0	40.0	0.13	Claystone a/a, also interbedded c khaki clay & minor qtz.
40.0	42.0	0.09	Claystone, red purple brn, indurated.
42.0	44.0	0.13	Silt/clay, red & yellow brn, c blk min bands.
44.0	46.0	0.13	Sltst, dk red brn yellow, & khaki clay beds, & ?carbonaceous beds, Mn stained surfaces.
46.0	48.0	0.20	Sltst, reddish purple brn & grn, c red bands; becoming micaceous, c qtz veins.
48.0	50.0	0.18	Sltst, grey, micaceous, c red purple interbeds, & ?carbonaceous interbeds.
50.0	52.0	0.16	Sltst, dk grey, laminated, c occ red silt interbeds, & blk min flecks.
52.0	54.0	0.90	Sltst, grn grey, c dk red brn & yellow brn & cream clay interbeds. Vein qtz cuts across beds. ?Specular haematite on surfaces.
54.0	56.0	0.14	Sltst, dk blue grey.
56.0	58.0	0.10	Sltst, grn grey, c occ red beds.
58.0	60.0	0.20	Sltst, grey grn, c red interbeds, & some qtz veins.
60.0	62.0	0.11	Sltst, grey, c purple to red & yellow interbeds; blk min flecks in parts.
62.0	64.0	0.09	Sltst a/a.
64.0	65.5		Sltst, lt grey, c blk min flecks.
65.5			End of Hole

Geochemistry Samples.

RS 689	4-14m	Extended geochemistry.
RS 690	14-18m	"
RS 691	20-30m	"
RS 692	30-38m	"
RS 693	38-42m	"
RS 694	46-52m	"
RS 695	52-56m	"
RS 696	56-62m	"
RS 697	62-65.5m	Bottom hole, extended geochemistry.

				CRN 39 4-14m	CRN 39 14-18m	CRN 39 20-30m	CRN 39 30-38m
				6731RS 689	6731RS 690	6731RS 691	6731RS 692
Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5	<0.5
As	ppm	1.0	IC2	<1	2	2	4
Au	ppb	1.0	FA3	1	1	<1	2
Ba	ppm	10.0	XRF1	450	480	470	480
Cd	ppm	1.0	IC2	<1	<1	<1	<1
Ce	ppm	20.0	XRF1	80	70	70	70
Co	ppm	2.0	IC2	28	30	26	28
Cr	ppm	2.0	IC2	42	36	40	38
Cu	ppm	1.0	IC2	50	38	38	42
Fe	%	0.01	IC2	4.9	4.38	4.62	4.58
La	ppm	20.0	XRF1	40	50	40	50
Mn	ppm	5.0	IC2	1040	1020	1180	1680
Mo	ppm	1.0	IC2	<1	<1	<1	<1
Nb	ppm	2.0	XRF1	15	15	16	15
Ni	ppm	1.0	IC2	58	58	54	54
P	ppm	5.0	IC2	620	600	620	640
Pb	ppm	3.0	IC2	13	9	6	14
Pd	ppb	1.0	FA3	<1	<1	<1	<1
Pt	ppb	5.0	FA3	<5	<5	<5	<5
Rb	ppm	2.0	XRF1	160	180	170	170
Sb	ppm	4.0	XRF1	<4	4	<4	<4
Se	ppm	2.0	XRF1	<2	<2	<2	<2
Sn	ppm	4.0	XRF1	4	<4	6	5
Sr	ppm	2.0	XRF1	410	105	70	86
Th	ppm	4.0	XRF1	14	16	16	18
U	ppm	4.0	XRF1	<4	5	6	<4
V	ppm	1.0	IC2	34	28	34	32
W	ppm	10.0	XRF1	<10	<10	<10	<10
Zn	ppm	1.0	IC2	155	130	135	120

		CRN 39 38-42m	CRN 39 46-52m	CRN 39 52-56m	CRN 39 56-62m	CRN 39 62-65.5m
		6731RS 693	6731RS 694	6731RS 695	6731RS 696	6731RS 697
Ag	ppm	<0.5	<0.5	0.5	<0.5	<0.5
As	ppm	2	2	1	4	3
Au	ppb	1	1	1	2	1
Ba	ppm	450	610	670	510	420
Cd	ppm	<1	<1	<1	<1	<1
Ce	ppm	80	70	70	80	80
Co	ppm	22	28	62	22	17
Cr	ppm	34	32	34	35	38
Cu	ppm	32	40	44	45	48
Fe	%	3.96	4.4	4.52	4.74	5.1
La	ppm	50	40	50	50	60
Mn	ppm	1250	2300	3000	910	480
Mo	ppm	<1	<1	<1	<1	<1
Nb	ppm	15	15	16	16	16
Ni	ppm	40	42	44	44	44
P	ppm	700	600	620	620	690
Pb	ppm	9	4	22	17	5
Pd	ppb	<1	<1	<1	<1	<1
Pt	ppb	<5	<5	<5	<5	<5
Rb	ppm	150	195	170	175	160
Sb	ppm	<4	<4	<4	<4	<4
Se	ppm	<2	<2	<2	<2	<2
Sn	ppm	4	4	<4	6	8
Sr	ppm	80	90	110	70	58
Th	ppm	16	15	16	18	22
U	ppm	4	<4	<4	<4	4
V	ppm	28	26	28	30	32
W	ppm	<10	<10	40	<10	10
Zn	ppm	95	94	105	110	110

HOLE NO: CRN 40
TRAVERSE: "Saltbush Dam", 3201 mN
STATION: 0 000 mE
DATE: 13.10.92
LOGGED BY: PWH

100 000 SHEET NO: 6731
LOCATION: 346 667 mE
6 320 043 mN
DRILLING METHOD: RC
TOTAL DEPTH: 54.0 m

Depth		Magn.	Description
From	To	Susc.	
Recent			
0	2.0	0.91	Soil & Alluvium, red-brn calc silt, <u>c</u> frags of qtz & rock pebbles.
2.0	4.0	1.37	Sandy Clay, red-brn, ang qtz sand.
4.0	6.0	0.35	Clay, red-brn, sandy, Mn stained.
6.0	8.0	0.04	Clay, red-brn, yellow, yellow-brn, soft, <u>c</u> occ qtz grains.
8.0	10.0	0.05	Clay, aa.
10.0	12.0	0.05	Clay, aa.
Adelaidean Ulupa Siltstone			
12.0	14.0	0.07	Clay, aa.
14.0	16.0	0.07	Clay, aa.
16.0	18.0	0.08	Clay, aa.
18.0	20.0	0.06	Clay, aa.
20.0	22.0	0.08	Clay, aa.
22.0	24.0	0.06	Clay, aa.
24.0	26.0	0.07	Clay, aa.
26.0	28.0	0.07	Weathrd Siltstone, pale olive-grn, soft weathrd bsmnt.
28.0	30.0	0.07	Weathrd Siltstone, aa.
30.0	32.0	0.06	Clay, pale olive-grn.
32.0	34.0	0.07	Weathrd Siltstone, pale olive-grn, f grained, foliated, lamn, sl limonitic.
34.0	36.0	0.06	Weathrd Siltstone, aa, <u>c</u> occ large frag of vein qtz & sericite.
36.0	38.0	0.06	Weathrd Siltstone, yellow-brn, sl limonitic.
38.0	40.0	0.07	Weathrd Siltstone, aa.
40.0	42.0	0.10	Siltstone, aa, harder.
42.0	44.0	0.09	Weathrd Siltstone, aa, weathrd.
44.0	46.0	0.08	Weathrd Siltstone, aa.
46.0	48.0	0.10	Weathrd Siltstone, aa.
48.0	50.0	0.10	Siltstone, olive-grn, <u>c</u> regular thin red lamn.
50.0	52.0	0.12	Siltstone, aa, joint plane approx perpendicular to lamn.
52.0	54.0	0.04	Siltstone, aa, occ 1cm thick sst layer, & ferrug.
54.0			End of Hole

Geochemistry Samples:
RS 698 24-34m Routine geochemistry.
RS 699 34-48m "
RS 700 48-54m Bottom hole, extended geochemistry.

				CRN 40	CRN 40	CRN 40
				24-34m	34-48m	48-54m
				6731RS	6731RS	6731RS
				698	699	700
Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5
As	ppm	1.0	IC2	3	3	1
Au	ppb	1.0	FA3	1	<1	1
Ba	ppm	10.0	XRF1			460
Cd	ppm	1.0	IC2			<1
Ce	ppm	20.0	XRF1			60
Co	ppm	2.0	IC2	17	25	32
Cr	ppm	2.0	IC2	32	40	25
Cu	ppm	1.0	IC2	50	42	34
Fe	%	0.01	IC2	4.26	4.26	3.72
La	ppm	20.0	XRF1			50
Mn	ppm	5.0	IC2	450	310	1100
Mo	ppm	1.0	IC2	<1	<1	<1
Nb	ppm	2.0	XRF1			15
Ni	ppm	1.0	IC2	50	56	42
P	ppm	5.0	IC2			760
Pb	ppm	3.0	IC2	12	11	12
Pd	ppb	1.0	FA3			<1
Pt	ppb	5.0	FA3			<5
Rb	ppm	2.0	XRF1			140
Sb	ppm	4.0	XRF1			<4
Se	ppm	2.0	XRF1			2
Sn	ppm	4.0	XRF1			<4
Sr	ppm	2.0	XRF1			85
Th	ppm	4.0	XRF1			18
U	ppm	4.0	XRF1			4
V	ppm	1.0	IC2			22
W	ppm	10.0	XRF1			<10
Zn	ppm	1.0	IC2	100	105	64

HOLE NO: CRN 41
 TRAVERSE: "Saltbush Dam", 3201 mN
 STATION: 1 000 mE
 DATE: 13.10.92
 LOGGED BY: PWH

100 000 SHEET NO: 6731
 LOCATION: 347 647 mE
 6 320 140 mN
 DRILLING METHOD: RC
 TOTAL DEPTH: 72.0 m

Depth From	To	Magn. Susc.	Description
0	2.0	1.20	Soil & Alluvium, red-brn, sandy calc silty clay, <u>c</u> Mn mineralisation.
2.0	4.0	0.06	Clay, white & red, smooth, <u>c</u> ang qtz grains & frags.
4.0	6.0	0.13	Clay, aa.
6.0	8.0	0.02	Clay, aa.
8.0	10.0	0.04	Clay, aa, <u>c</u> occ gypsum xtal.
10.0	12.0	0.02	Clay, aa.
12.0	14.0	0.03	Clay, aa.
14.0	16.0	0.06	Clay, aa.
16.0	18.0	0.01	Clay, aa.
18.0	20.0	0.04	Clay, aa.
20.0	22.0	0.03	Clay, aa.
22.0	24.0	0.03	Clay, aa, <u>c</u> occ limonite grain.
24.0	26.0	0.04	Clay, aa.
26.0	28.0	0.05	Clay, red & yellow, soft <u>c</u> occ qtz & limonite frags.
28.0	30.0	0.05	Clay, aa.
30.0	32.0	0.05	Clay, aa.
Adelaidean?			
32.0	34.0	0.06	Clay, mottled purple, red, grn, white, f-med ang qtz & grn weathrd sltst frags.
34.0	36.0	0.04	Clay, orange-lt brn.
36.0	38.0	0.05	Clay, aa.
38.0	40.0	0.06	Clay, aa.
40.0	42.0	0.13	Clay, red-brn & purple, & occ vein qtz frag.
42.0	44.0	0.06	Clay, aa.
44.0	46.0	0.07	Clay, aa.
46.0	48.0	0.07	Clay, aa.
48.0	50.0	0.09	Clay, aa.
50.0	52.0	0.07	Clay, lt brn, olive-grn, soft.
52.0	54.0	0.05	Clay, aa.
54.0	56.0	0.06	Clay, aa.
56.0	58.0	0.05	Clay, aa.
58.0	60.0	0.04	Clay, aa.
60.0	62.0	0.08	Clay & Weathrd Siltstone, lt khaki-grn, soft clay & firm sltst.
62.0	64.0	0.06	Weathrd Siltstone, aa.
64.0	66.0	0.07	Clay & Weathrd Siltstone, brn, red.
66.0	68.0	0.06	Weathrd Siltstone, grn, red.
Adelaidean			
68.0	70.0	0.08	Siltstone, dk grey, fine grained, foliated & jointed.
70.0	72.0	0.09	Siltstone, dk grey, homogenous, hard.
72.0			End of Hole

Geochemistry Samples:

RS 701 40-60 m Routine geochemistry.
 RS 702 60-70 m "
 RS 703 70-71.5m m Bottom hole, extended geochemistry.

				CRN 41	CRN 41	CRN 41
				40-60m	60-70m	70-71.5m
				6731RS	6731RS	6731RS
				701	702	703
Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5
As	ppm	1.0	IC2	2	2	2
Au	ppb	1.0	FA3	11	2	1
Ba	ppm	10.0	XRF1			480
Cd	ppm	1.0	IC2			<1
Ce	ppm	20.0	XRF1			80
Co	ppm	2.0	IC2	44	50	25
Cr	ppm	2.0	IC2	36	40	38
Cu	ppm	1.0	IC2	60	72	76
Fe	%	0.01	IC2	5.45	5.3	5.4
La	ppm	20.0	XRF1			50
Mn	ppm	5.0	IC2	420	490	550
Mo	ppm	1.0	IC2	<1	<1	<1
Nb	ppm	2.0	XRF1			15
Ni	ppm	1.0	IC2	98	92	45
P	ppm	5.0	IC2			610
Pb	ppm	3.0	IC2	7	4	<3
Pd	ppb	1.0	FA3			<1
Pt	ppb	5.0	FA3			<5
Rb	ppm	2.0	XRF1			175
Sb	ppm	4.0	XRF1			<4
Se	ppm	2.0	XRF1			<2
Sn	ppm	4.0	XRF1			5
Sr	ppm	2.0	XRF1			54
Th	ppm	4.0	XRF1			18
U	ppm	4.0	XRF1			4
V	ppm	1.0	IC2			34
W	ppm	10.0	XRF1			<10
Zn	ppm	1.0	IC2	105	105	50

HOLE NO: CRN 42
 TRAVERSE: "Saltbush Dam", 3201 mN
 STATION: 2 000 mE
 DATE: 13.10.92
 LOGGED BY: PWH

100 000 SHEET NO: 6731
 LOCATION: 348 760 mE
 6 320 131 mN
 DRILLING METHOD: RC
 TOTAL DEPTH: 84.0 m

Depth From	To	Magn. Susc.	Description
0	2.0	2.51	Soil & Alluvium, red-brn sandy calc clay, <u>c</u> ironstone.
2.0	4.0	4.40	Alluvium & Clay, red-brn silt, qtz sand & ironstone.
4.0	6.0	19.10	Alluvium & Clay, aa, <u>c</u> gravel.
6.0	8.0	16.10	Alluvium & Clay, aa.
8.0	10.0	27.20	Gravel, pebbles of silcrete, ironstone, limonite, qtz, sst.
10.0	12.0	3.16	Silcrete & Clay, white, vf grain & occ ironstone.
12.0	14.0	0.17	Silcrete & Clay, aa, <u>c</u> occ qtz pebble.
14.0	16.0	0.22	Clay, white & red-brn, v firm, <u>c</u> minor sand.
16.0	18.0	0.04	Clay, aa.
18.0	20.0	0.04	Clay, aa.
20.0	22.0	0.05	Clay, lt brn-yellow, soft, <u>c</u> occ coarse ang vein qtz.
22.0	24.0	0.05	Clay, aa.
24.0	26.0	0.05	Clay, aa.
26.0	28.0	0.04	Clay, red-brn, soft.
28.0	30.0	2.25	Clay, red & green, <u>c</u> f sand, med ironstone & qtz frags.
30.0	32.0	0.06	Clay, aa.
Adelaidean?			
32.0	34.0	0.04	Clay, red-brn, <u>c</u> red ferrug weathrd sltst & limonite frags.
34.0	36.0	0.04	Clay, aa.
36.0	38.0	0.05	Clay, aa.
38.0	40.0	0.05	Clay, aa.
40.0	42.0	0.06	Clay, aa.
42.0	44.0	0.05	Clay, aa.
44.0	46.0	0.10	Clay, aa.
46.0	48.0	0.06	Clay, aa.
48.0	50.0	0.06	Clay, aa.
50.0	52.0	0.05	Clay, aa.
52.0	54.0	0.06	Clay, aa.
54.0	56.0	0.06	Clay, aa.
56.0	58.0	0.10	Clay & Weathrd Siltstone, khaki-grn, <u>c</u> layering in sltst.
58.0	60.0	0.10	Clay & Weathrd Siltstone, aa.
60.0	62.0	0.15	Weathrd Siltstone, grn, <u>c</u> limonite frags.
62.0	64.0	0.10	Weathrd Siltstone, aa.
64.0	66.0	0.11	Weathrd Siltstone, aa.
66.0	68.0	0.10	Weathrd Siltstone, aa, <u>c</u> lamn.
Adelaidean Ulupa Siltstone			
68.0	70.0	0.13	Siltstone, grn, dk grey-grn, sl weathrd, <u>c</u> 1-2 mm lamn every 7mm.
70.0	72.0	0.16	Siltstone, aa.
72.0	74.0	0.11	Siltstone, aa, dk grey.
74.0	76.0	0.13	Siltstone, aa.
76.0	78.0	0.11	Siltstone, aa.
78.0	80.0	0.12	Siltstone, aa.
80.0	82.0	0.15	Siltstone, dk grey, regular lamn.
82.0	84.0	0.13	Siltstone, aa.
84.0			End of Hole

Geochemistry Samples:

RS 704	56-62 m	Routine geochemistry.
RS 705	62-70 m	"
RS 706	72-80 m	"
RS 707	80-84 m	Bottom hole, extended geochemistry.

				CRN 42	CRN 42	CRN 42	CRN 42
				56-62m	62-70m	70-80m	80-84m
				6731RS	6731RS	6731RS	6731RS
				704	705	706	707
Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5	<0.5
As	ppm	1.0	IC2	2	3	3	1
Au	ppb	1.0	FA3	<1	1	<1	<1
Ba	ppm	10.0	XRF1				510
Cd	ppm	1.0	IC2				<1
Ce	ppm	20.0	XRF1				60
Co	ppm	2.0	IC2	30	24	28	28
Cr	ppm	2.0	IC2	34	36	38	38
Cu	ppm	1.0	IC2	50	60	35	50
Fe	%	0.01	IC2	7.05	5.5	4.76	5.5
La	ppm	20.0	XRF1				50
Mn	ppm	5.0	IC2	4100	5100	1120	1880
Mo	ppm	1.0	IC2	<1	<1	<1	<1
Nb	ppm	2.0	XRF1				16
Ni	ppm	1.0	IC2	48	55	48	46
P	ppm	5.0	IC2				590
Pb	ppm	3.0	IC2	12	13	5	<3
Pd	ppb	1.0	FA3				<1
Pt	ppb	5.0	FA3				<5
Rb	ppm	2.0	XRF1				195
Sb	ppm	4.0	XRF1				<4
Se	ppm	2.0	XRF1				<2
Sn	ppm	4.0	XRF1				4
Sr	ppm	2.0	XRF1				54
Th	ppm	4.0	XRF1				16
U	ppm	4.0	XRF1				<4
V	ppm	1.0	IC2				30
W	ppm	10.0	XRF1				<10
Zn	ppm	1.0	IC2	260	320	135	120

HOLE NO: CRN 43
 TRAVERSE: "Saltbush Dam", 3201 mN
 STATION: 3 000 mE
 DATE: 14.10.92
 LOGGED BY: PWH

100 000 SHEET NO: 6731
 LOCATION: 349 777 mE
 6 320 197 mN
 DRILLING METHOD: RC
 TOTAL DEPTH: 115.0 m

Depth From	To	Magn. Susc.	Description
Recent			
0	2.0	2.24	Soil & Alluvium, red-brn <u>c</u> calcrete, qtz frags & Mn mineralisation.
2.0	4.0	2.84	Alluvium & Clay, aa.
4.0	6.0	2.69	Sandy Clay, red-brn, firm.
6.0	8.0	6.00	Sandy Clay, red-brn, <u>c</u> ang & md qtz & ironstone grains.
8.0	10.0	6.49	Sandy Clay, aa.
10.0	12.0	6.77	Sandy Clay, aa.
12.0	14.0	16.40	Gravel & Clay, red-brn, <u>c</u> ironstone, qtzite, & silcrete pebbles.
14.0	16.0	11.80	Gravel & Clay, aa.
16.0	18.0	12.40	Gravel, aa.
18.0	20.0	21.70	Gravel & Silt, aa.
20.0	22.0	22.10	Gravel, aa.
22.0	24.0	9.18	Gravel, aa.
Very Weathered Adelaidean?			
24.0	26.0	0.25	Clay, brn, grn, hard, v sandy, ang qtz.
26.0	28.0	0.05	Clay, mottled grn, grey, red, purple, yellow, hard, & sandy.
28.0	30.0	0.07	Clay, aa.
30.0	32.0	0.04	Clay, lt grey & yellow, <u>c</u> f sand.
32.0	34.0	0.03	Clay, aa.
34.0	36.0	0.09	Clay, aa.
36.0	38.0	0.02	Clay, lt grey, red-purple, dk grey, & minor f-med sand.
38.0	40.0	0.10	Clay, aa.
40.0	42.0	0.04	Clay, aa.
42.0	44.0	0.02	Clay, aa.
44.0	46.0	0.07	Clay, lt brn, yellow, smooth, occ qtz.
46.0	48.0	0.05	Clay, aa.
48.0	50.0	0.06	Clay, limonitic, yellow, smooth, occ cse limonite grain.
50.0	52.0	0.15	Clay, aa.
52.0	54.0	0.17	Clay, aa.
54.0	56.0	0.09	Clay, aa.
56.0	58.0	0.10	Clay, aa.
58.0	60.0	0.09	Clay, aa.
60.0	62.0	0.07	Clay, aa.
62.0	64.0	0.14	Clay, aa.
64.0	66.0	0.07	Clay, lt brn, pale grn, soft, <u>c</u> occ limonite & qtz grain.
66.0	68.0	0.05	Clay, aa.
68.0	70.0	0.07	Clay, aa, also <u>c</u> frags of weathrd grn sltst.
Weathered Adelaidean			
70.0	72.0	0.05	Clay, & Weathrd Siltstone, grn, brn, red weathrd sltst <u>c</u> remanant foliation.
72.0	74.0	0.06	Weathrd Siltstone, laminated, <u>c</u> liesegang bands.
74.0	76.0	0.06	Weathrd Siltstone, aa.
76.0	78.0	0.05	Weathrd Siltstone & Clay, aa.
78.0	80.0	0.04	Weathrd Siltstone & Clay, aa.
80.0	82.0	0.07	Weathrd Siltstone, aa.
82.0	84.0	0.08	Clay & Weathrd Siltstone, aa.
84.0	86.0	0.03	Clay & Weathrd Siltstone, aa.
86.0	88.0	0.10	Clay & Weathrd Siltstone, aa.
88.0	90.0	0.01	Clay, aa.
90.0	92.0	0.03	Clay & Weathrd Siltstone, aa.
92.0	94.0	0.05	Weathrd Siltstone, aa.
94.0	96.0	0.05	Weathrd Siltstone, aa.
96.0	98.0	0.04	Weathrd Siltstone, aa.
98.0	100.0	0.05	Weathrd Siltstone, aa.
100.0	102.0	0.04	Weathrd Siltstone, aa.

102.0	104.0	0.05	Weathrd Siltstone, aa.
104.0	106.0	0.05	Weathrd Siltstone & Clay, aa.
106.0	108.0	0.05	Weathrd Siltstone, aa.
Adelaidean Ulupa Siltstone			
108.0	110.0	0.07	Siltstone, grn, sl weathrd.
110.0	112.0	0.07	Siltstone, blue & green lamn.
112.0	114.0	0.07	Siltstone, aa, blue laminae 2mm thick, green laminae 5-7 mm.
114.0	115.0	0.18	Siltstone, aa, fresh, <u>c</u> dk blue-grey & dk grn lamn.
115.0			End of Hole

Geochemistry Samples:		
RS 708	12-24 m	Routine geochemistry.
RS 709	90-112 m	"
RS 710	112-115 m	Bottom hole, extended geochemistry.

				CRN 43	CRN 43	CRN 43
				12-24m	90-112m	112-115m
				6731RS	6731RS	6731RS
				708	709	710
Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5
As	ppm	1.0	IC2	17	4	3
Au	ppb	1.0	FA3	<1	1	1
Ba	ppm	10.0	XRF1			450
Cd	ppm	1.0	IC2			<1
Ce	ppm	20.0	XRF1			50
Co	ppm	2.0	IC2	7	17	18
Cr	ppm	2.0	IC2	78	48	42
Cu	ppm	1.0	IC2	16	34	38
Fe	%	0.01	IC2	10	4.74	5.25
La	ppm	20.0	XRF1			40
Mn	ppm	5.0	IC2	230	260	370
Mo	ppm	1.0	IC2	<1	<1	<1
Nb	ppm	2.0	XRF1			13
Ni	ppm	1.0	IC2	11	42	44
P	ppm	5.0	IC2			1020
Pb	ppm	3.0	IC2	22	12	9
Pd	ppb	1.0	FA3			<1
Pt	ppb	5.0	FA3			<5
Rb	ppm	2.0	XRF1			170
Sb	ppm	4.0	XRF1			<4
Se	ppm	2.0	XRF1			<2
Sn	ppm	4.0	XRF1			<4
Sr	ppm	2.0	XRF1			38
Th	ppm	4.0	XRF1			14
U	ppm	4.0	XRF1			6
V	ppm	1.0	IC2			45
W	ppm	10.0	XRF1			<10
Zn	ppm	1.0	IC2	12	130	94

HOLE NO: CRN 44
 TRAVERSE: "Saltbush Dam", 3201 mN
 STATION: 4 000 mE
 DATE: 14.10.92
 LOGGED BY: PWH

100 000 SHEET NO: 6731
 LOCATION: 350 769 mE
 6 320 244 mN
 DRILLING METHOD: RC
 TOTAL DEPTH: 123.5 m

Depth From	To	Magn. Susc.	Description
Recent			
0	2.0	3.37	Soil & Clay, red-brn, calc.
2.0	4.0	3.90	Alluvium, red-brn, silty, <u>c</u> silcrete, ironstone, calcrete pebbles.
4.0	6.0	3.40	Alluvium, aa.
6.0	8.0	5.16	Alluvium & Clay, aa.
8.0	10.0	11.50	Alluvium & Clay, aa.
10.0	12.0	3.36	Alluvium & Clay, aa.
12.0	14.0	12.10	Alluvium & Clay, aa, <u>c</u> larger pebbles.
Tertiary			
14.0	16.0	6.72	Silcrete & Gravel, aa.
16.0	18.0	9.56	Silcrete & Gravel, aa.
18.0	20.0	10.10	Silcrete & Gravel, aa.
20.0	22.0	0.57	Clay, lt grey, yellow, red, orange, <u>c</u> f-med sand, & occ limonite & ironstone.
22.0	24.0	0.10	Clay, aa.
24.0	26.0	0.08	Clay, aa.
26.0	28.0	0.06	Clay, aa.
28.0	30.0	0.04	Clay, aa.
30.0	32.0	0.03	Clay, aa.
32.0	34.0	0.03	Clay, yellow, white, lt grey, firm.
34.0	36.0	0.03	Clay, aa, also sandy <u>c</u> silicf frags.
36.0	38.0	0.03	Clay, aa.
38.0	40.0	0.05	Clay, grey, red, purple, hard.
40.0	42.0	0.04	Clay, aa.
42.0	44.0	0.02	Clay, aa.
44.0	46.0	0.04	Clay, aa.
46.0	48.0	0.04	Clay, aa.
48.0	50.0	0.02	Clay, aa.
50.0	52.0	0.04	Clay, aa.
52.0	54.0	0.03	Clay, aa.
54.0	56.0	0.03	Clay, aa.
56.0	58.0	0.03	Clay, aa.
58.0	60.0	0.05	Clay, aa.
60.0	62.0	0.04	Clay, aa.
62.0	64.0	0.03	Clay, aa.
64.0	66.0	0.02	Clay, aa.
66.0	68.0	0.04	Clay, aa.
68.0	70.0	0.03	Clay, aa.
70.0	72.0	0.03	Clay, aa.
72.0	74.0	0.03	Clay, aa.
74.0	76.0	0.02	Clay, aa.
76.0	78.0	0.03	Clay, lt grey & pale khaki grn, <u>c</u> vf sand.
78.0	80.0	0.01	Clay, aa.
80.0	82.0	0.01	Clay, aa.
82.0	84.0	0.05	Clay, aa.
84.0	86.0	0.02	Clay, aa.
86.0	88.0	0.02	Sandy Clay, lt grey, <u>c</u> f-med ang qtz.
88.0	90.0	0.03	Sandy Clay, aa, <u>c</u> some yellow clay.
90.0	92.0	0.04	Sandy Clay, aa.
92.0	94.0	0.03	Sand, poorly sorted, 80% f-med & spherical, 20% med-cse, water in sand.
94.0	96.0	0.15	Gravel, qtz & sst pebbles & sand.
96.0	98.0	0.10	Sand, <u>c</u> lt grey clay, vf-med md qtz.
98.0	100.0	0.06	Clay, lt grey, soft, <u>c</u> occ f-med sand.
100.0	102.0	0.02	Clay, aa.
102.0	104.0	0.02	Sand & Gravel, vf to vc sand & qtzite pebbles, <u>c</u> accessory limonite & opaques.

104.0	106.0	0.03	Sand & Gravel, aa.
106.0	108.0	0.06	Sand & Gravel, aa.
108.0	110.0	0.05	Clay, olive-grn, partly brittle.
Adelaidean			
110.0	112.0	0.24	Weathrd Siltstone, grn, laminated.
112.0	114.0	0.08	Siltstone, dk grey, lamn, sl weathrd.
114.0	116.0	0.09	Siltstone, v dk grey, c occ v thin white veins.
116.0	118.0	0.06	Siltstone, aa, also med-c dissem sulphide grains.
118.0	120.0	0.09	Siltstone, aa.
120.0	122.0	0.06	Siltstone, grn, sl weathrd.
122.0	123.5	0.10	Siltstone, aa.
123.5			End of Hole

Geochemistry Samples:

RS 711	10-20 m	Routine geochemistry.
RS 712	94-98 m	"
RS 713	110-112 m	Extended geochemistry.
RS 714	112-116 m	"
RS 715	116-120 m	"
RS 716	120-123.5 m	Bottom hole, extended geochemistry.

CRN 44 CRN 44 CRN 44 CRN 44 CRN 44 CRN 44
10-20m 94-98m 110-112m 112-116m 116-120m 120-123.5

				6731RS 711	6731RS 712	6731R 713	6731R 714	6731R 715	6731RS 716
Ag	ppm	0.5	IC2	<0.5	1.5	<0.5	<0.5	<0.5	<0.5
As	ppm	1.0	IC2	13	1	6	19	66	12
Au	ppb	1.0	FA3	1	<1	10	3	2	1
Ba	ppm	10.0	XRF1			230	300	510	1040
Cd	ppm	1.0	IC2			<1	<1	<1	<1
Ce	ppm	20.0	XRF1			50	60	70	60
Co	ppm	2.0	IC2	6	<2	19	26	54	15
Cr	ppm	2.0	IC2	52	4	92	80	72	86
Cu	ppm	1.0	IC2	15	4	36	38	56	42
Fe	%	0.01	IC2	6.25	0.3	5.05	5.05	7	8.95
La	ppm	20.0	XRF1			40	40	40	40
Mn	ppm	5.0	IC2	140	20	380	390	560	1200
Mo	ppm	1.0	IC2	<1	<1	<1	<1	<1	<1
Nb	ppm	2.0	XRF1			14	12	14	13
Ni	ppm	1.0	IC2	10	2	52	55	94	44
P	ppm	5.0	IC2			210	210	170	400
Pb	ppm	3.0	IC2	16	<3	5	<3	4	<3
Pd	ppb	1.0	FA3			<1	<1	<1	<1
Pt	ppb	5.0	FA3			<5	<5	<5	<5
Rb	ppm	2.0	XRF1			145	105	130	150
Sb	ppm	4.0	XRF1			<4	<4	<4	<4
Se	ppm	2.0	XRF1			<2	3	4	<2
Sn	ppm	4.0	XRF1			4	5	4	4
Sr	ppm	2.0	XRF1			24	19	20	30
Th	ppm	4.0	XRF1			10	14	12	10
U	ppm	4.0	XRF1			4	6	14	5
V	ppm	1.0	IC2			150	145	135	155
W	ppm	10.0	XRF1			<10	10	10	10
Zn	ppm	1.0	IC2	13	5	80	62	58	80

HOLE NO: CRN 45
 TRAVERSE: "Saltbush Dam", 3201 mN
 STATION: 5 000 mE
 DATE: 16.10.92
 LOGGED BY: PWH

100 000 SHEET NO: 6731
 LOCATION: 351 799 mE
 6 320 246 mN
 DRILLING METHOD: RC
 TOTAL DEPTH: 108.0 m

Depth From	To	Magn. Susc.	Description
Recent			
0	2.0	1.84	Soil & Alluvium, red-brn, calc gravel c qtz & ironstone.
2.0	4.0	2.06	Clay, red-brn, hard, sandy.
4.0	6.0	2.55	Clay, aa.
6.0	8.0	3.32	Gravel, red-brn, clayey, c ironstone & qtzite pebbles.
8.0	10.0	1.12	Clay, red-brn, lt grey, sl sandy.
10.0	12.0	3.35	Clay, aa, c gravel.
12.0	14.0	1.84	Gravel, clayey, c ironstone, qtz, silcrete, & poorly sort ang & rounded sand.
14.0	16.0	0.96	Sandy Clay, red-brn, lt grey, c f sand.
16.0	18.0	0.89	Sandy Clay, aa.
Tertiary			
18.0	20.0	0.03	Clay, aa.
20.0	22.0	0.03	Clay, lt grey, c silicf frags & red ferrug grains.
22.0	24.0	0.04	Clay, mottled lt grey, red, yellow, c minor f sand.
24.0	26.0	0.04	Clay, aa.
26.0	28.0	0.05	Clay, aa.
28.0	30.0	0.02	Clay, aa.
30.0	32.0	0.02	Clay, aa.
32.0	34.0	0.03	Clay, aa.
34.0	36.0	0.02	Sandy Clay, lt grey, c poorly sorted rnd & ang qtz.
36.0	38.0	0.06	Sand, clayey, c water.
38.0	40.0	0.04	Clay, lt grey, c minor qtz .
40.0	42.0	0.02	Clay, aa.
42.0	44.0	0.03	Clay, aa.
44.0	46.0	0.01	Clay, aa.
46.0	48.0	0.02	Sand, sl clayey, f-med qtz.
48.0	50.0	0.03	Clay, lt brn, yellow, c sand.
50.0	52.0	0.03	Clay, aa.
52.0	54.0	0.03	Clay, aa.
54.0	56.0	0.12	Sand, vf qtz, c occ med-c porous opaque.
56.0	58.0	0.54	Sand, aa.
58.0	60.0	0.03	Sand, aa.
60.0	62.0	0.03	Sand & Clay, aa.
62.0	64.0	0.05	Clay, lt grey, sl sandy.
64.0	66.0	0.07	Clay, aa.
66.0	68.0	0.03	Clay, mottled grey, gm, red, purple.
68.0	70.0	0.04	Clay, aa.
70.0	72.0	0.04	Clay, aa.
72.0	74.0	0.07	Clay, aa.
74.0	76.0	0.04	Clay, aa.
76.0	78.0	0.03	Clay, aa.
78.0	80.0	0.03	Clay, aa.
80.0	82.0	0.03	Clay, aa.
82.0	84.0	0.02	Clay, aa.
84.0	86.0	0.04	Clay, aa.
86.0	88.0	0.03	Clay, aa.
88.0	90.0	0.02	Clay, aa.
90.0	92.0	0.03	Clay, aa.
92.0	94.0	0.04	Clay, aa.
94.0	96.0	0.04	Clay, aa.
96.0	98.0	0.03	Clay, aa.
98.0	100.	0.02	Clay, lt grey, gm.
100.0	102.0	0.01	Clay, aa.
102.0	104.0	0.02	Clay, lt grey, c f-c ang sand.

104.0	106.0	0.03	Gravel & Clay, aa, also <u>c</u> pebbles .
106.0	108.0	0.01	Sand & Gravel, aa.
108.0			End of Hole

Geochemistry Samples:
RS 717 58-62 m Routine geochemistry.

CRN 45
58-62m

6731RS
717

Ag	ppm	0.5	IC2	<0.5
As	ppm	1.0	IC2	5
Au	ppb	1.0	FA3	2
Ba	ppm	10.0	XRF1	
Cd	ppm	1.0	IC2	
Ce	ppm	20.0	XRF1	
Co	ppm	2.0	IC2	3
Cr	ppm	2.0	IC2	15
Cu	ppm	1.0	IC2	5
Fe	%	0.01	IC2	0.44
La	ppm	20.0	XRF1	
Mn	ppm	5.0	IC2	10
Mo	ppm	1.0	IC2	<1
Nb	ppm	2.0	XRF1	
Ni	ppm	1.0	IC2	6
P	ppm	5.0	IC2	
Pb	ppm	3.0	IC2	<3
Pd	ppb	1.0	FA3	
Pt	ppb	5.0	FA3	
Rb	ppm	2.0	XRF1	
Sb	ppm	4.0	XRF1	
Se	ppm	2.0	XRF1	
Sn	ppm	4.0	XRF1	
Sr	ppm	2.0	XRF1	
Th	ppm	4.0	XRF1	
U	ppm	4.0	XRF1	
V	ppm	1.0	IC2	
W	ppm	10.0	XRF1	
Zn	ppm	1.0	IC2	13

HOLE NO: CRN 46
TRAVERSE: "Saltbush Dam", 3201 mN
STATION: 5 575 mE
DATE: 17.10.92
LOGGED BY: PWH

100 000 SHEET NO: 6731
LOCATION: 354 324 mE
6 320 296 mN
DRILLING METHOD: RC
TOTAL DEPTH: 108.0 m

33.0

Depth		Magn.	Description
From	To	Susc.	
Recent			
0	2.0	1.94	Alluvium & Soil, red-brn clay, c calcrete, silcrete and ironstone.
2.0	4.0	3.34	Alluvium & Soil, aa.
4.0	6.0	10.20	Gravel, pebbles of qtz, ferrug & limonite sltst, c clay & sand.
6.0	8.0	10.00	Gravel, aa.
8.0	10.0	7.13	Gravel, aa.
10.0	12.0	28.10	Gravel, aa.
12.0	14.0	8.48	Gravel, aa.
14.0	16.0	22.20	Gravel, aa.
16.0	18.0	21.30	Gravel, aa, c occ clay layers.
18.0	20.0	26.10	Gravel, aa.
20.0	22.0	10.30	Gravel & Silt, lt brn silt & pale grn silcrete.
22.0	24.0	18.90	Gravel & Silt, aa.
24.0	26.0	1.16	Clay, mottled lt grey, red, yellow.
26.0	28.0	0.10	Clay, aa.
28.0	30.0	0.21	Clay, aa.
30.0	32.0	0.01	Clay, lt grey, c pale grn silcrete .
32.0	33.0	0.01	Clay & Silcrete, aa.
33.0			End of Hole

Geochemistry Samples:
RS 718 10-20 m Routine geochemistry.

CRN 46
10-20m

6731RS
718

Ag	ppm	0.5	IC2	<0.5
As	ppm	1.0	IC2	19
Au	ppb	1.0	FA3	<1
Ba	ppm	10.0	XRF1	
Cd	ppm	1.0	IC2	
Ce	ppm	20.0	XRF1	
Co	ppm	2.0	IC2	9
Cr	ppm	2.0	IC2	85
Cu	ppm	1.0	IC2	20
Fe	%	0.01	IC2	11.8
La	ppm	20.0	XRF1	
Mn	ppm	5.0	IC2	380
Mo	ppm	1.0	IC2	<1
Nb	ppm	2.0	XRF1	
Ni	ppm	1.0	IC2	18
P	ppm	5.0	IC2	
Pb	ppm	3.0	IC2	20
Pd	ppb	1.0	FA3	
Pt	ppb	5.0	FA3	
Rb	ppm	2.0	XRF1	
Sb	ppm	4.0	XRF1	
Se	ppm	2.0	XRF1	
Sn	ppm	4.0	XRF1	
Sr	ppm	2.0	XRF1	
Th	ppm	4.0	XRF1	
U	ppm	4.0	XRF1	
V	ppm	1.0	IC2	
W	ppm	10.0	XRF1	
Zn	ppm	1.0	IC2	16

HOLE NO: CRN 47
TRAVERSE: "Saltbush Dam", 3201 mN
STATION: 6 050 mE
DATE: 17.10.92
LOGGED BY: PWH

100 000 SHEET NO: 6731
LOCATION: 352 885 mE
6 320 344 mN
DRILLING METHOD: RC
TOTAL DEPTH: 31.0 m

Depth		Magn. Susc.	Description
From	To		
Recent			
0	2.0	3.26	Soil & Alluvium, red-brn calc silt. <u>c</u> sand & gravel.
2.0	4.0	5.49	Gravel & Alluvium, red-brn silt, <u>c</u> sst, silcrete & ironstone gravel.
4.0	6.0	10.90	Gravel & Alluvium, aa.
6.0	8.0	12.60	Gravel & Alluvium, aa.
8.0	10.0	11.50	Gravel & Alluvium, aa.
10.0	12.0	9.29	Gravel & Alluvium, aa.
12.0	14.0	13.20	Gravel & Alluvium, aa.
14.0	16.0	1.50	Silt, red-brn.
16.0	18.0	14.00	Gravel, red-brn, <u>c</u> ironstone, limonite sltst.
18.0	20.0	11.40	Gravel, aa.
20.0	22.0	11.70	Gravel, aa.
22.0	24.0	6.45	Clay, mottled lt grey, yellow, red, <u>c</u> occ cse ironstone.
24.0	26.0	1.10	Clay, aa.
26.0	28.0	0.25	Clay, aa.
28.0	30.0	0.05	Clay, aa.
Tertiary			
30.0	31.0		Silcrete, lt grey, v hard.
31.0			End of Hole

Geochemistry Samples:
RS 719 4-14 m Routine geochemistry.
RS 720 16-24 m "

				CRN 47	CRN 47
				4-14m	16-24m
				6731RS	6731RS
				719	720
Ag	ppm	0.5	IC2	<0.5	<0.5
As	ppm	1.0	IC2	13	16
Au	ppb	1.0	FA3	1	<1
Ba	ppm	10.0	XRF1		
Cd	ppm	1.0	IC2		
Ce	ppm	20.0	XRF1		
Co	ppm	2.0	IC2	14	7
Cr	ppm	2.0	IC2	62	74
Cu	ppm	1.0	IC2	22	17
Fe	%	0.01	IC2	8.1	9.45
La	ppm	20.0	XRF1		
Mn	ppm	5.0	IC2	4150	200
Mo	ppm	1.0	IC2	<1	<1
Nb	ppm	2.0	XRF1		
Ni	ppm	1.0	IC2	22	11
P	ppm	5.0	IC2		
Pb	ppm	3.0	IC2	15	19
Pd	ppb	1.0	FA3		
Pt	ppb	5.0	FA3		
Rb	ppm	2.0	XRF1		
Sb	ppm	4.0	XRF1		
Se	ppm	2.0	XRF1		
Sn	ppm	4.0	XRF1		
Sr	ppm	2.0	XRF1		
Th	ppm	4.0	XRF1		
U	ppm	4.0	XRF1		
V	ppm	1.0	IC2		
W	ppm	10.0	XRF1		
Zn	ppm	1.0	IC2	25	16

HOLE NO: CRN 48
 TRAVERSE: "Saltbush Dam", 3201 mN
 STATION: 8 000 mE
 DATE: 17.10.92
 LOGGED BY: PWH

100 000 SHEET NO: 6731
 LOCATION: 354 633 mE
 6 320 093 mN
 DRILLING METHOD: RC
 TOTAL DEPTH: 78.0 m

Depth From	To	Magn. Susc.	Description
Recent			
0	2.0	1.07	Soil & Clay, red-brn, silty, calc.
2.0	4.0	4.04	Gravel & Clay, red-brn silt, <u>c</u> sst, qtz, sltst & ironstone pebbles.
4.0	6.0	6.07	Gravel, aa.
6.0	8.0	2.99	Clay, red-brn, firm.
8.0	10.0	3.13	Clay, aa.
10.0	12.0	2.67	Clay, aa.
12.0	14.0	1.34	Clay, aa.
14.0	16.0	2.94	Clay, lt grey, lt gm, <u>c</u> f-c ang qtz & ironstone.
16.0	18.0	0.21	Clay, lt grey, yellow, sandy.
Tertiary			
18.0	20.0	1.10	Silcrete, lt grey, <u>c</u> f.sand.
20.0	22.0	0.12	Silcrete, aa, <u>c</u> interbeds of white clay.
22.0	24.0	0.19	Silcrete, aa.
24.0	26.0	0.02	Sandy Clay, red, yellow, lt grey, white.
26.0	28.0	0.04	Clay, red-brn, <u>c</u> rnd & ang sand.
28.0	30.0	0.04	Clay, aa.
30.0	32.0	0.03	Clay, white, sandy well sorted ang qtz, weathrd fspars.
Weathered granite?			
32.0	34.0	0.56	Clay, aa.
34.0	36.0	0.03	Clay, aa.
36.0	38.0	0.08	Clay, aa.
38.0	40.0	0.02	Clay, aa.
40.0	42.0	0.02	Clay, aa.
42.0	44.0	0.03	Clay, aa, yellow.
44.0	46.0	0.02	Clay, aa.
46.0	48.0	0.02	Clay, aa.
48.0	50.0	0.04	Clay, aa.
50.0	52.0	0.03	Clay, aa.
52.0	54.0	0.04	Clay, brn to pale olive, <u>c</u> well sorted ang qtz & weathrd fspars.
54.0	56.0	0.05	Clay, aa, <u>c</u> occ cse dk grey metallic mineral.
56.0	58.0	0.07	Clay, aa.
58.0	60.0	0.05	Clay, aa.
60.0	62.0	0.03	Clay, aa.
62.0	64.0	0.05	Clay, aa.
64.0	66.0	0.05	Clay, aa.
66.0	68.0	0.08	Clay, aa.
Cambro - Ordovician Bendigo Granite			
68.0	70.0	0.08	Clay & Weathrd Granite, aa.
70.0	72.0	0.07	Clay & Weathrd Granite, aa, <u>c</u> weathrd biot.
72.0	74.0	0.09	Clay & Weathrd Granite, aa.
74.0	76.0	0.07	Clay & Weathrd Granite, aa.
76.0	78.0	0.10	Granite/Diorite, dk gm intermediate mafic, <u>c</u> plagioclase, hornblende, biot, epidote.
78.0			End of Hole

Geochemistry Samples:

RS 721	32-34 m	Routine geochemistry.
RS 722	56-60 m	"
RS 723	60-66 m	"
RS 724	66-76 m	"
RS 725	76-78 m	Bottom hole, extended geochemistry, full silicate analysis, and petrology.

				CRN 48 32-34m	CRN 48 56-60m	CRN 48 60-66m	CRN 48 66-76m	CRN 48 76-78m
				6731RS 721	6731RS 722	6731RS 723	6731RS 724	6731R 725
Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5	<0.5	<0.5
As	ppm	1.0	IC2	2	<1	<1	4	1
Au	ppb	1.0	FA3	<1	<1	1	<1	<1
Ba	ppm	10.0	XRF1					1120
Cd	ppm	1.0	IC2					<1
Ce	ppm	20.0	XRF1					70
Co	ppm	2.0	IC2	<2	<2	<2	8	9
Cr	ppm	2.0	IC2	9	9	12	26	14
Cu	ppm	1.0	IC2	6	17	28	66	115
Fe	%	0.01	IC2	1.21	3.24	2.72	4.66	2.42
La	ppm	20.0	XRF1					50
Mn	ppm	5.0	IC2	35	210	100	290	160
Mo	ppm	1.0	IC2	<1	<1	<1	<1	<1
Nb	ppm	2.0	XRF1					12
Ni	ppm	1.0	IC2	2	1	3	17	16
P	ppm	5.0	IC2					110
Pb	ppm	3.0	IC2	5	13	13	72	5
Pd	ppb	1.0	FA3					<1
Pt	ppb	5.0	FA3					<5
Rb	ppm	2.0	XRF1					155
Sb	ppm	4.0	XRF1					<4
Se	ppm	2.0	XRF1					3
Sn	ppm	4.0	XRF1					<4
Sr	ppm	2.0	XRF1					260
Th	ppm	4.0	XRF1					18
U	ppm	4.0	XRF1					5
V	ppm	1.0	IC2					46
W	ppm	10.0	XRF1					<10
Zn	ppm	1.0	IC2	4	5	8	42	28
SiO2%	0.01	IC4						72.2
TiO2%	0.01	IC4						0.3
Al2O%	0.01	IC4						12.9
Fe2O%	0.01	IC4						3.96
MnO %	0.01	IC4						0.02
MgO %	0.01	IC4						0.54
CaO %	0.01	IC4						1.66
Na2O%	0.01	IC4						3.12
K2O %	0.01	IC4						2.62
P2O5%	0.01	IC4						<0.01
LOI %	0.01	IC4						1.9

HOLE NO: CRN 49
 TRAVERSE: "Saltbush Dam", 3201 mN
 STATION: 9 000 mE
 DATE: 20.10.92
 LOGGED BY: PWH

100 000 SHEET NO: 6731
 LOCATION: 355 590 mE
 6 319 756 mN
 DRILLING METHOD: RC
 TOTAL DEPTH: 56.5 m

Depth From	To	Magn. Susc.	Description
Recent			
0	2.0	2.17	Soil & Alluvium, red-brn sandy clay, silt & gravel.
2.0	4.0	1.23	Alluvium, aa.
4.0	6.0	4.74	Alluvium & Gravel, red-brn silt, <u>c</u> sst, silcrete & ironstone pebbles.
6.0	8.0	7.08	Alluvium & Gravel, aa.
8.0	10.0	7.94	Gravel, aa.
10.0	12.0	6.19	Gravel, aa.
Weathered granite?			
12.0	14.0	0.47	Clay, red-pink, <u>c</u> equi-granular qtz grains & occ opaques.
14.0	16.0	0.09	Clay, aa.
16.0	18.0	0.07	Clay, aa, also <u>c</u> weathrd fspars.
18.0	20.0	0.09	Clay, aa.
20.0	22.0	0.08	Clay, aa, also <u>c</u> weathrd biot.
22.0	24.0	0.08	Clay & Weathrd Granite, red-pink, <u>c</u> weathrd biot, fspars, & white clay.
24.0	26.0	0.11	Clay & Weathrd Granite, aa.
26.0	28.0	0.08	Clay & Weathrd Granite, aa.
28.0	30.0	0.08	Clay & Weathrd Granite, aa.
30.0	32.0	0.09	Clay & Weathrd Granite, aa.
32.0	34.0	0.10	Clay & Weathrd Granite, aa.
34.0	36.0	0.08	Weathrd Granite, <u>c</u> lt brn clay & biot.
36.0	38.0	0.06	Weathrd Granite, aa.
38.0	40.0	0.06	Weathrd Granite, aa.
40.0	42.0	0.07	Clay & Weathrd Granite, lt brn clay <u>c</u> biot.
42.0	44.0	0.07	Clay & Weathrd Granite, aa.
44.0	46.0	0.08	Clay & Weathrd Granite, aa.
46.0	48.0	0.07	Clay & Weathrd Granite, aa, <u>c</u> clear & spherical well sorted qtz, white weathrd fspars & biot.
48.0	50.0	0.05	Clay & Weathrd Granite, aa.
50.0	52.0	0.07	Weathrd Granite, aa, <u>c</u> hornblende.
Cambro - Ordovician Bendigo Granite			
52.0	54.0	0.08	Granite, sl weathrd microgranite.
54.0	56.5	0.07	Granite, aa.
56.5			End of Hole

Geochemistry Samples:

RS 726	6-12 m	Routine geochemistry.
RS 727	14-34 m	"
RS 728	34-48 m	"
RS 729	48-54 m	"
RS 730	54-56.5 m	Bottom hole, extended geochemistry, full silicate analysis, and petrology.

				CRN 49 6-12m	CRN 49 14-34m	CRN 49 34-48m	CRN 49 48-54m	CRN 49 54-56m
				6731RS 726	6731RS 727	6731RS 728	6731RS 729	6731R 730
Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5	<0.5	<0.5
As	ppm	1.0	IC2	12	<1	2	1	1
Au	ppb	1.0	FA3	1	<1	<1	<1	<1
Ba	ppm	10.0	XRF1					600
Cd	ppm	1.0	IC2					<1
Ce	ppm	20.0	XRF1					50
Co	ppm	2.0	IC2	9	<2	6	6	6
Cr	ppm	2.0	IC2	42	20	24	19	22
Cu	ppm	1.0	IC2	16	9	35	42	34
Fe	%	0.01	IC2	5.75	2.72	3.36	2.68	2.28
La	ppm	20.0	XRF1					40
Mn	ppm	5.0	IC2	370	140	195	145	175
Mo	ppm	1.0	IC2	<1	<1	<1	<1	<1
Nb	ppm	2.0	XRF1					8
Ni	ppm	1.0	IC2	17	2	14	16	15
P	ppm	5.0	IC2					440
Pb	ppm	3.0	IC2	11	46	13	7	4
Pd	ppb	1.0	FA3					<1
Pt	ppb	5.0	FA3					<5
Rb	ppm	2.0	XRF1					125
Sb	ppm	4.0	XRF1					<4
Se	ppm	2.0	XRF1					<2
Sn	ppm	4.0	XRF1					<4
Sr	ppm	2.0	XRF1					410
Th	ppm	4.0	XRF1					12
U	ppm	4.0	XRF1					<4
V	ppm	1.0	IC2					58
W	ppm	10.0	XRF1					<10
Zn	ppm	1.0	IC2	17	6	24	32	26
SiO2%		0.01	IC4					69
TiO2%		0.01	IC4					0.31
Al2O%		0.01	IC4					15.4
Fe2O%		0.01	IC4					3.82
MnO %		0.01	IC4					0.04
MgO %		0.01	IC4					0.95
CaO %		0.01	IC4					2.98
Na2O%		0.01	IC4					4.28
K2O %		0.01	IC4					2.22
P2O5%		0.01	IC4					0.08
LOI %		0.01	IC4					0.96

HOLE NO: CRN 50
 TRAVERSE: "Saltbush Dam", 3201 mN
 STATION: 9 500 mE
 DATE: 20.10.92
 LOGGED BY: PWH

100 000 SHEET NO: 6731
 LOCATION: 356 059 mE
 6 319 632 mN
 DRILLING METHOD: RC
 TOTAL DEPTH: 73.0 m

Depth From	To	Magn. Susc.	Description
Recent			
0	2.0	2.23	Soil & Alluvium, red-brn silt, & poorly sorted rnd & ang sand.
2.0	4.0	4.26	Soil & Alluvium, aa.
4.0	6.0	1.18	Alluvium, aa.
6.0	8.0	1.70	Clay, red-brn, sl sandy, c frags of weathrd sltst.
8.0	10.0	2.17	Clay, & Alluvium, gravel c silt, sand & ironstone.
10.0	12.0	7.05	Gravel, pebbles of sst, sltst, granite, ironstone.
12.0	14.0	6.08	Gravel, aa.
14.0	16.0	7.29	Gravel, aa.
Very weathered granite?			
16.0	18.0	0.08	Clay, white, pink, sandy.
18.0	20.0	0.03	Clay, aa.
20.0	22.0	0.05	Clay, aa.
22.0	24.0	0.05	Clay, aa.
24.0	26.0	0.05	Clay, pink, yellow, c weathrd f biot & fspars & qtz.
26.0	28.0	0.05	Clay, red, yellow, white mottled, c v ang clear qtz.
28.0	30.0	0.07	Clay, sl sandy.
30.0	32.0	0.05	Clay, aa.
32.0	34.0	0.02	Clay, aa.
34.0	36.0	0.04	Clay, white, c ang & spher qtz.
36.0	38.0	0.02	Clay, aa.
38.0	40.0	0.35	Clay, aa.
40.0	42.0	0.05	Clay, aa.
42.0	44.0	0.03	Clay, aa.
44.0	46.0	0.04	Clay, aa.
46.0	48.0	0.05	Clay, aa.
Cambro - Ordovician?			
48.0	50.0	0.04	Clay & Weathrd Basement, pale olive-grn, c weathrd biot.
50.0	52.0	0.10	Clay & Weathrd Basement, aa.
52.0	54.0	0.05	Weathrd Basement & Clay, white weathrd fspars, biot, & occ qtz.
54.0	56.0	0.07	Weathrd Basement & Clay, aa.
56.0	58.0	0.29	Weathrd Basement & Clay, aa.
58.0	60.0	0.07	Weathrd Basement & Clay, aa, v weathrd granite.
60.0	62.0	0.04	Clay, & Weathrd Basement, gm-grey, c chloritised plagioclase.
62.0	64.0	0.05	Clay & Weathrd Basement, aa.
64.0	66.0	0.06	Clay & Weathrd Basement, aa.
66.0	68.0	0.06	Clay & Weathrd Basement, aa.
68.0	70.0	0.07	Weathrd Basement, weathrd plagioclase, qtz, biot, opaques, & clay.
70.0	72.0	0.04	Weathrd Basement, aa.
Cambro - Ordovician			
72.0	73.0	0.07	Greisen, f grained muscovite & qtz.
73.0			End of Hole

Geochemistry Samples:

RS 731	10-16 m	Routine geochemistry.
RS 732	56-58 m	Extended analysis.
RS 733	58-68 m	Routine analysis.
RS 734	68-72 m	"
RS 735	72-73 m	Extended and full silicate analysis.
RS 736	72-73 m	Check sample, extended geochemistry, and petrology.

				CRN 50 10-16m	CRN 50 56-58m	CRN 50 58-68m	CRN 50 68-72m	CRN 50 72-73m	CRN 50 72-73m (check)
				6731RS 731	6731R 732	6731RS 733	6731RS 734	6731R 735	6731RS 736
Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5	<0.5	0.5	<1
As	ppm	1.0	IC2	22	2	3	2	4	5
Au	ppb	1.0	FA3	<1	<1	<1	1	1	<1
Ba	ppm	10.0	XRF1		530			570	663
Cd	ppm	1.0	IC2		<1			<1	<1
Ce	ppm	20.0	XRF1		90			80	113
Co	ppm	2.0	IC2	140	14	10	9	140	52
Cr	ppm	2.0	IC2	68	34	28	18	10	56
Cu	ppm	1.0	IC2	48	120	86	56	94	41
Fe	%	0.01	IC2	10.1	5.85	3.58	2.32	0.62	0.56
La	ppm	20.0	XRF1		40			70	62
Mn	ppm	5.0	IC2	6400	185	155	145	25	22
Mo	ppm	1.0	IC2	3	<1	<1	<1	<1	<5
Nb	ppm	2.0	XRF1		15			14	14
Ni	ppm	1.0	IC2	82	42	28	22	200	81
P	ppm	5.0	IC2		370			85	190
Pb	ppm	3.0	IC2	22	11	11	11	7	<5
Pd	ppb	1.0	FA3		<1			5	3
Pt	ppb	5.0	FA3		<5			<5	<1
Rb	ppm	2.0	XRF1		360			135	141
Sb	ppm	4.0	XRF1		<4			<4	6
Se	ppm	2.0	XRF1		<2			3	2
Sn	ppm	4.0	XRF1		<4			<4	<5
Sr	ppm	2.0	XRF1		125			46	39
Th	ppm	4.0	XRF1		20			26	23
U	ppm	4.0	XRF1		8			38	23
V	ppm	1.0	IC2		100			26	27
W	ppm	10.0	XRF1		<10			<10	<10
Zn	ppm	1.0	IC2	110	88	68	48	28	19
SiO2%		0.01	IC4					72.9	
TiO2%		0.01	IC4					0.4	
Al2O%		0.01	IC4					15.2	
Fe2O%		0.01	IC4					2.32	
MnO %		0.01	IC4					<0.01	
MgO %		0.01	IC4					0.51	
CaO %		0.01	IC4					0.12	
Na2O%		0.01	IC4					0.35	
K2O %		0.01	IC4					3.24	
P2O5%		0.01	IC4					<0.01	
LOI %		0.01	IC4					4.62	

HOLE NO: CRN 51
TRAVERSE: "Saltbush Dam", 3201 mN
STATION: 10 000 mE
DATE: 20.10.92
LOGGED BY: PWH

100 000 SHEET NO: 6731
LOCATION: 356 624 mE
6 319 685 mN
DRILLING METHOD: RC
TOTAL DEPTH: 17.0 m

Depth		Magn. Susc.	Description
From	To		
Recent			
0	2.0	0.89	Soil & Sand, weathrd granite detritus.
2.0	4.0	0.26	Sand, qtz, fspars, biot.
Cambro - Ordovician, weathered Bendigo Granite			
4.0	6.0	0.14	Sand & Weathrd Granite, aa, weathrd to granite grit.
6.0	8.0	0.12	Sand & Weathrd Granite, aa.
8.0	10.0	0.15	Sand & Weathrd Granite, aa.
10.0	12.0	0.16	Sand & Weathrd Granite, aa.
12.0	14.0	0.28	Sand & Weathrd Granite, aa.
14.0	16.0	0.12	Weathrd Granite, med qtz, fspar, plagioclase, biot, hornblende.
Cambro - Ordovician Bendigo Granite			
16.0	17.0	0.34	Granite, dk grey, biot & hornblende rich.
17.0			End of Hole.

Geochemistry Samples:
RS 737 4-16 m Routine geochemistry.
RS 738 16-17 m Bottom hole, extended geochemistry.

				CRN 51 4-16m	CRN 51 16-17m
				6731RS 737	6731RS 738
Ag	ppm	0.5	IC2	<0.5	0.5
As	ppm	1.0	IC2	1	1
Au	ppb	1.0	FA3	<1	<1
Ba	ppm	10.0	XRF1		710
Cd	ppm	1.0	IC2		<1
Ce	ppm	20.0	XRF1		80
Co	ppm	2.0	IC2	2	5
Cr	ppm	2.0	IC2	4	8
Cu	ppm	1.0	IC2	10	22
Fe	%	0.01	IC2	0.91	1.37
La	ppm	20.0	XRF1		50
Mn	ppm	5.0	IC2	80	155
Mo	ppm	1.0	IC2	<1	<1
Nb	ppm	2.0	XRF1		11
Ni	ppm	1.0	IC2	4	6
P	ppm	5.0	IC2		135
Pb	ppm	3.0	IC2	10	8
Pd	ppb	1.0	FA3		<1
Pt	ppb	5.0	FA3		<5
Rb	ppm	2.0	XRF1		155
Sb	ppm	4.0	XRF1		<4
Se	ppm	2.0	XRF1		<2
Sn	ppm	4.0	XRF1		4
Sr	ppm	2.0	XRF1		230
Th	ppm	4.0	XRF1		20
U	ppm	4.0	XRF1		5
V	ppm	1.0	IC2		28
W	ppm	10.0	XRF1		15
Zn	ppm	1.0	IC2	16	24

HOLE NO: CRN 52
 TRAVERSE: "Saltbush Dam", 3201 mN
 STATION: 7 600 mE
 DATE: 20.10.92
 LOGGED BY: PWH

100 000 SHEET NO: 6731
 LOCATION: 354 269 mE
 6 320 245 mN
 DRILLING METHOD: RC
 TOTAL DEPTH: 55.0 m

Depth From	To	Magn. Susc.	Description
Recent			
0	2.0	1.23	Soil & Calcrete, red-brn silty, calc, milky qtz & ironstone.
2.0	4.0	1.94	Alluvium, aa, c sst & sltst.
4.0	6.0	11.30	Gravel, silty, c pebbles of granite, sst, sltst, ironstone.
6.0	8.0	3.22	Alluvium, silty clay, c smaller frags aa.
8.0	10.0	2.15	Alluvium, aa.
10.0	12.0	1.09	Alluvium, aa.
12.0	14.0	1.27	Alluvium, aa.
14.0	16.0	3.36	Alluvium & Clay, aa.
16.0	18.0	18.40	Gravel, pebbles of qtzite, sst, sltst, ironstone.
Cambro - Ordovician?			
18.0	20.0	0.48	Clay, brn, olive-grn, c biot & occ gravel.
20.0	22.0	0.07	Clay, aa, c occ greisen frag.
22.0	24.0	0.09	Clay, aa.
24.0	26.0	0.07	Clay, aa.
26.0	28.0	0.09	Clay, aa.
Cambro - Ordovician Bendigo Granite			
28.0	30.0	0.06	Clay & Weathrd Granite, gm clay & weathrd microgranite.
30.0	32.0	0.08	Clay & Weathrd Granite, aa.
32.0	34.0	0.10	Clay & Weathrd Granite, aa.
34.0	36.0	0.09	Clay & Weathrd Granite, aa.
36.0	38.0	0.07	Clay & Weathrd Granite, aa.
38.0	40.0	0.06	Clay & Weathrd Granite, aa.
40.0	42.0	1.56	Clay & Weathrd Granite, aa.
42.0	44.0	0.09	Clay & Weathrd Granite, aa.
44.0	46.0	0.11	Weathrd Granite, gm clay c weathrd granite grit.
46.0	48.0	0.14	Weathrd Granite, aa, alternates between fresh & weathrd.
48.0	50.0	0.20	Weathrd Granite, aa.
50.0	52.0	0.14	Weathrd Granite, aa.
52.0	54.0	0.26	Weathrd Granite, aa.
54.0	55.0	0.46	Granite, microgranite, dark green.
55.0			End of Hole

Geochemistry Samples:

RS 739 48-54 m Routine geochemistry.
 RS 740 54-55 m Bottom hole, extended geochemistry.

				CRN 52	CRN 52
				48-54m	54-55m
				6731RS	6731RS
				739	740
Ag	ppm	0.5	IC2	<0.5	<0.5
As	ppm	1.0	IC2	2	<1
Au	ppb	1.0	FA3	1	<1
Ba	ppm	10.0	XRF1		620
Cd	ppm	1.0	IC2		<1
Ce	ppm	20.0	XRF1		50
Co	ppm	2.0	IC2	7	8
Cr	ppm	2.0	IC2	13	15
Cu	ppm	1.0	IC2	17	8
Fe	%	0.01	IC2	2.5	2.5
La	ppm	20.0	XRF1		30
Mn	ppm	5.0	IC2	145	210
Mo	ppm	1.0	IC2	<1	<1
Nb	ppm	2.0	XRF1		9
Ni	ppm	1.0	IC2	12	14
P	ppm	5.0	IC2		380
Pb	ppm	3.0	IC2	<3	3
Pd	ppb	1.0	FA3		<1
Pt	ppb	5.0	FA3		<5
Rb	ppm	2.0	XRF1		115
Sb	ppm	4.0	XRF1		<4
Se	ppm	2.0	XRF1		<2
Sn	ppm	4.0	XRF1		<4
Sr	ppm	2.0	XRF1		350
Th	ppm	4.0	XRF1		16
U	ppm	4.0	XRF1		4
V	ppm	1.0	IC2		62
W	ppm	10.0	XRF1		<10
Zn	ppm	1.0	IC2	19	24

HOLE NO: CRN 53
 TRAVERSE: "Saltbush Dam", 3201 mN
 STATION: 6 700 mE
 DATE: 21.10.92
 LOGGED BY: PWH

100 000 SHEET NO: 6731
 LOCATION: 353 452 mE
 6 320 305 mN
 DRILLING METHOD: RC
 TOTAL DEPTH: 73.5 m

Depth From	To	Magn. Susc.	Description
Recent			
0	2.0	0.30	Soil, red-brn, calc, silty, milky qtz & ironstone.
2.0	4.0	7.88	Alluvium & Gravel, red-brn silt, <u>c</u> sst, sltst, silcrete gravel.
4.0	6.0	9.01	Alluvium & Gravel, aa.
6.0	8.0	9.61	Gravel, aa.
8.0	10.0	4.57	Gravel, aa.
10.0	12.0	10.40	Gravel, aa.
12.0	14.0	18.70	Gravel, aa.
14.0	16.0	5.27	Gravel, aa.
16.0	18.0	2.12	Silt, red-brn, <u>c</u> m-c ironstone & frags of silcrete.
18.0	20.0	15.90	Silt, aa.
20.0	22.0	8.30	Silt & Clay, aa.
22.0	24.0	1.75	Clay, lt grey, yellow, firm, sl sandy.
24.0	26.0	0.22	Clay, aa.
26.0	28.0	0.05	Clay, aa, & mottled red clay.
28.0	30.0	0.48	Clay, aa.
30.0	32.0	0.28	Clay, aa.
32.0	34.0	0.09	Clay, lt grn, grey, <u>c</u> occ f-med ang qtz.
Cambro - Ordovician?			
34.0	36.0	0.06	Clay & Weathrd Basement, lt brn, yellow, <u>c</u> weathrd granite.
36.0	38.0	0.11	Clay & Weathrd Basement, aa.
38.0	40.0	0.09	Clay & Weathrd Basement, aa.
40.0	42.0	1.92	Clay & Weathrd Basement, aa.
42.0	44.0	0.10	Clay & Weathrd Basement, aa.
44.0	46.0	0.04	Clay & Weathrd Basement, aa.
46.0	48.0	0.10	Clay & Weathrd Basement, aa.
48.0	50.0	0.05	Clay & Weathrd Basement, aa.
50.0	52.0	0.06	Clay & Weathrd Basement, aa.
52.0	54.0	0.04	Weathrd Granite, <u>c</u> chloritised fspar, biot.
54.0	56.0	0.04	Weathrd Granite, aa.
56.0	58.0	0.10	Weathrd Granite, aa.
58.0	60.0	0.04	Weathrd Granite, aa.
60.0	62.0	0.07	Weathrd Granite, aa.
62.0	64.0	0.18	Weathrd Granite, aa.
64.0	66.0	0.10	Weathrd Granite, aa.
66.0	68.0	0.12	Weathrd Granite, aa.
68.0	70.0	0.07	Weathrd Granite, aa, <u>c</u> frags of weathrd granite.
70.0	72.0	0.08	Weathrd Granite, aa.
Cambro - Ordovician Bendigo Granite			
72.0	73.5	0.05	Granite, qtz, plagioclase, biot, hornblende.
73.5			End of Hole

Geochemistry Samples:

RS 741	6-12 m	Routine geochemistry.
RS 742	12-14 m	"
RS 743	18-22 m	"
RS 744	42-52 m	"
RS 745	52-62 m	"
RS 746	62-72 m	Extended geochemistry.
RS 747	72-73.5 m	Bottom hole, extended geochemistry and full silicate analysis.

Granodiorite

				CRN 53 6-12m	CRN 53 12-14m	CRN 53 18-22m	CRN 53 42-52m
				6731RS 741	6731RS 742	6731RS 743	6731RS 744
Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5	<0.5
As	ppm	1.0	IC2	14	15	10	<1
Au	ppb	1.0	FA3	<1	<1	<1	<1
Ba	ppm	10.0	XRF1				
Cd	ppm	1.0	IC2				
Ce	ppm	20.0	XRF1				
Co	ppm	2.0	IC2	15	11	7	<2
Cr	ppm	2.0	IC2	70	52	58	12
Cu	ppm	1.0	IC2	22	18	15	5
Fe	%	0.01	IC2	9.05	7.35	7.1	0.98
La	ppm	20.0	XRF1				
Mn	ppm	5.0	IC2	720	580	130	55
Mo	ppm	1.0	IC2	<1	<1	<1	<1
Nb	ppm	2.0	XRF1				
Ni	ppm	1.0	IC2	22	24	9	2
P	ppm	5.0	IC2				
Pb	ppm	3.0	IC2	17	17	18	14
Pd	ppb	1.0	FA3				
Pt	ppb	5.0	FA3				
Rb	ppm	2.0	XRF1				
Sb	ppm	4.0	XRF1				
Se	ppm	2.0	XRF1				
Sn	ppm	4.0	XRF1				
Sr	ppm	2.0	XRF1				
Th	ppm	4.0	XRF1				
U	ppm	4.0	XRF1				
V	ppm	1.0	IC2				
W	ppm	10.0	XRF1				
Zn	ppm	1.0	IC2	24	18	11	8

				CRN 53	CRN 53	CRN 53
				52-62m	62-72m	72-73.5m
				6731RS	6731RS	6731RS
				745	746	747
Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5
As	ppm	1.0	IC2	1	1	1
Au	ppb	1.0	FA3	<1	<1	<1
Ba	ppm	10.0	XRF1		690	620
Cd	ppm	1.0	IC2		<1	<1
Ce	ppm	20.0	XRF1		70	50
Co	ppm	2.0	IC2	<2	6	5
Cr	ppm	2.0	IC2	11	22	22
Cu	ppm	1.0	IC2	8	22	15
Fe	%	0.01	IC2	0.72	3.46	2.54
La	ppm	20.0	XRF1		40	30
Mn	ppm	5.0	IC2	45	140	140
Mo	ppm	1.0	IC2	<1	<1	<1
Nb	ppm	2.0	XRF1		11	9
Ni	ppm	1.0	IC2	5	18	15
P	ppm	5.0	IC2		270	270
Pb	ppm	3.0	IC2	11	4	4
Pd	ppb	1.0	FA3		<1	<1
Pt	ppb	5.0	FA3		<5	<5
Rb	ppm	2.0	XRF1		170	145
Sb	ppm	4.0	XRF1		<4	<4
Se	ppm	2.0	XRF1		<2	<2
Sn	ppm	4.0	XRF1		<4	<4
Sr	ppm	2.0	XRF1		280	300
Th	ppm	4.0	XRF1		24	18
U	ppm	4.0	XRF1		<4	<4
V	ppm	1.0	IC2		56	48
W	ppm	10.0	XRF1		<10	<10
Zn	ppm	1.0	IC2	11	28	20
SiO2	%	0.01	IC4			70.7
TiO2	%	0.01	IC4			0.21
Al2O3	%	0.01	IC4			14
Fe2O3	%	0.01	IC4			3.64
MnO	%	0.01	IC4			0.02
MgO	%	0.01	IC4			0.56
CaO	%	0.01	IC4			2.32
Na2O	%	0.01	IC4			3.68
K2O	%	0.01	IC4			3.02
P2O5	%	0.01	IC4			0.04
LOI	%	0.01	IC4			0.83

HOLE NO: CRN 54
 TRAVERSE: "Saltbush Dam", 3201 mN
 STATION: 5 700 mE
 DATE: 21.10.92
 LOGGED BY: PWH

100 000 SHEET NO: 6731
 LOCATION: 352 290 mE
 6 320 256 mN
 DRILLING METHOD: RC
 TOTAL DEPTH: 101.5 m

Depth From	To	Magn. Susc.	Description
Recent			
0	2.0	0.92	Soil & Gravel, red-brn, silt c sltst, qtz, qtzite, ironstone gravel, Mn staining.
2.0	4.0	5.56	Gravel & Silt, aa
4.0	6.0	6.82	Gravel & Silt, aa.
6.0	8.0	14.30	Gravel & Silt, aa.
8.0	10.0	11.10	Gravel & Silt, aa.
10.0	12.0	11.00	Gravel & Silt, aa.
12.0	14.0	9.89	Gravel & Silt, aa, c nodular concretions of sand.
14.0	16.0	6.39	Gravel & Silt, aa.
16.0	18.0	34.80	Gravel & Silt, aa.
18.0	20.0	28.30	Gravel & Silt, aa.
20.0	22.0	17.80	Gravel & Silt, aa.
22.0	24.0	17.40	Gravel & Silt, aa.
24.0	26.0	13.40	Gravel & Silt, aa.
26.0	28.0	0.26	Sand & Gravel, v rnd & spher qtz sand, yellow, c sandy silcrete frags .
28.0	30.0	0.17	Clay, mottled grey, red, yellow, orange, sl sandy.
30.0	32.0	0.04	Clay, aa.
Tertiary?			
32.0	34.0	0.02	Clay & Silcrete, lt grey, siliceous in part.
34.0	36.0	0.05	Clay, pale yellow-grn, smooth.
36.0	38.0	0.03	Clay, aa.
38.0	40.0	0.05	Sandy Clay, lt grey, f-m rounded qtz.
40.0	42.0	0.03	Sandy Clay, aa.
42.0	44.0	0.03	Sandy Clay, aa.
44.0	46.0	0.02	Sandy Clay, aa.
46.0	48.0	0.12	Sandy Clay, aa.
48.0	50.0	0.04	Sandy Clay, aa.
50.0	52.0	0.03	Clay, pale olive-grn, firm.
52.0	54.0	0.03	Clay, aa.
54.0	56.0	0.02	Clay, lt grey-grey c vf qtz.
56.0	58.0	0.04	Clay, aa.
58.0	60.0	0.02	Clay, aa.
60.0	62.0	0.03	Clay, aa.
62.0	64.0	0.11	Clay, purple, grn, smooth.
64.0	66.0	0.04	Clay, aa.
66.0	68.0	0.03	Clay, mottled grey, purple, red, yellow.
68.0	70.0	0.06	Clay, aa.
70.0	72.0	0.05	Clay, aa.
72.0	74.0	0.03	Clay, dk grey.
74.0	76.0	0.04	Clay, lt grey.
76.0	78.0	0.03	Clay, aa.
78.0	80.0	0.02	Clay, aa.
80.0	82.0	0.06	Clay, aa.
82.0	84.0	0.04	Clay, aa, c occ well rounded sand.
84.0	86.0	0.03	Sandy Clay, lt grey, c f-m qtz.
86.0	88.0	0.04	Sand, aa, c bands of clay.
88.0	90.0	0.01	Clay, black, dk grn.
90.0	92.0	0.01	Clay, grey, c thin sand layers.
92.0	94.0	0.04	Clay, lt grey, dk grey, sandy.
94.0	96.0	0.01	Sandy Clay, aa, c med-c sand.
96.0	98.0	0.00	Sandy Clay, aa.
98.0	100.0	0.01	Sandy Clay, aa.
100.0	101.5	0.00	Sand, f-med qtz, c water.
101.5			End of Hole

Geochemistry Samples:

RS 748	6-16 m	Routine geochemistry.
RS 749	16-20 m	"
RS 750	20-30 m	"
RS 751	100-101.5m	Bottom hole, extended geochemistry.

				CRN 54 6-16m	CRN 54 16-20m	CRN 54 20-30m	CRN 54 100-101.5
				6731RS 748	6731RS 749	6731RS 750	6731RS 751
Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5	<0.5
As	ppm	1.0	IC2	18	30	13	3
Au	ppb	1.0	FA3	<1	<1	<1	<1
Ba	ppm	10.0	XRF1				50
Cd	ppm	1.0	IC2				<1
Ce	ppm	20.0	XRF1				<20
Co	ppm	2.0	IC2	13	6	2	60
Cr	ppm	2.0	IC2	72	125	60	3
Cu	ppm	1.0	IC2	30	24	15	6
Fe	%	0.01	IC2	9.6	18.3	7.8	1.18
La	ppm	20.0	XRF1				<20
Mn	ppm	5.0	IC2	580	150	70	25
Mo	ppm	1.0	IC2	<1	<1	<1	1
Nb	ppm	2.0	XRF1				8
Ni	ppm	1.0	IC2	22	15	6	80
P	ppm	5.0	IC2				25
Pb	ppm	3.0	IC2	20	38	34	4
Pd	ppb	1.0	FA3				<1
Pt	ppb	5.0	FA3				<5
Rb	ppm	2.0	XRF1				5
Sb	ppm	4.0	XRF1				<4
Se	ppm	2.0	XRF1				<2
Sn	ppm	4.0	XRF1				<4
Sr	ppm	2.0	XRF1				6
Th	ppm	4.0	XRF1				4
U	ppm	4.0	XRF1				6
V	ppm	1.0	IC2				12
W	ppm	10.0	XRF1				<10
Zn	ppm	1.0	IC2	22	17	35	8

HOLE NO:
TRAVERSE:
STATION:
DATE:
LOGGED BY:

CRN 55
"Pine Creek - Bendigo", 3225 mN
North of road, approx 11 500-12 000 mW
22.10.92
BJM, PWH

100 000 SHEET NO: 6731
LOCATION: 338 695 mE
6 326 199 mN
DRILLING METHOD: RC
TOTAL DEPTH: 47.5 m

Depth		Magn.	Description
From	To	Susc.	
Cretaceous weathered kimberlite			
0	2.0	2.74	Kimberlite, dk grey-grn matrix, cse phlogopite, sl calcitic.
2.0	4.0	2.57	Weathrd Kimberlite, aa.
4.0	6.0	2.27	Weathrd Kimberlite, aa, c minor white, pale grn marl.
6.0	8.0	3.55	Weathrd Kimberlite, aa.
8.0	10.0	3.38	Weathrd Kimberlite, aa.
10.0	12.0	4.45	Weathrd Kimberlite, aa.
12.0	14.0	3.85	Weathrd Kimberlite & Marl, aa, c pale green marl.
14.0	16.0	3.17	Weathrd Kimberlite & Marl, aa.
16.0	18.0	3.55	Weathrd Kimberlite & Marl, aa.
18.0	20.0	2.80	Weathrd Kimberlite & Marl, aa.
20.0	22.0	2.54	Weathrd Kimberlite & Marl, aa.
22.0	24.0	4.74	Kimberlite & Marl, grey matrix of cse phlogopite, c olivine, & marl aa.
24.0	26.0	6.62	Kimberlite & Marl, aa.
26.0	28.0	3.29	Kimberlite & Marl, aa.
28.0	30.0	2.08	Kimberlite & Marl, aa.
30.0	32.0	5.41	Kimberlite & Marl, aa.
32.0	34.0	5.27	Kimberlite & Marl, aa.
34.0	36.0	3.22	Kimberlite & Marl, aa.
36.0	38.0	4.36	Kimberlite & Marl, aa.
38.0	40.0	4.28	Kimberlite, dk grey, fresh, cse phlogopite, c pale grn & orange veining.
40.0	42.0	7.02	Kimberlite, aa.
42.0	44.0	5.62	Kimberlite, aa.
44.0	46.0	7.84	Kimberlite, aa.
46.0	47.5	6.4	Kimberlite, aa.
47.5			End of Hole

Geochemistry Samples:		
RS 752	0-6 m	Extended geochemistry.
RS 753	6-22 m	"
RS 754	22-34 m	"
RS 755	34-40 m	"
RS 756	40-44 m	"
RS 757	44-47.5 m	", and full silicate analysis and petrology.

				CRN 55 0-6m	CRN 55 6-22m	CRN 55 22-34m	CRN 55 34-40m	CRN 55 40-44m	CRN 55 44-47.5m
				6731R 752	6731R 753	6731R 754	6731R 755	6731R 756	6731R 757
Ag	ppm	0.5	IC2	1	0.5	0.5	0.5	<0.5	<0.5
As	ppm	1.0	IC2	2	1	<1	<1	2	<1
Au	ppb	1.0	FA3	4	1	<1	<1	<1	<1
Ba	ppm	10.0	XRF1	960	620	890	1080	1040	1320
Cd	ppm	1.0	IC2	<1	<1	<1	<1	<1	<1
Ce	ppm	20.0	XRF1	80	70	90	100	100	130
Co	ppm	2.0	IC2	48	40	52	56	52	60
Cr	ppm	2.0	IC2	500	410	540	590	610	690
Cu	ppm	1.0	IC2	78	70	86	100	98	105
Fe	%	0.01	IC2	4.5	4.18	5.05	5.2	5.75	6.4
La	ppm	20.0	XRF1	70	60	70	70	80	90
Mn	ppm	5.0	IC2	750	630	740	770	620	730
Mo	ppm	1.0	IC2	<1	<1	<1	<1	<1	<1
Nb	ppm	2.0	XRF1	86	68	94	105	105	125
Ni	ppm	1.0	IC2	490	490	540	600	640	680
P	ppm	5.0	IC2	1550	1400	1780	1750	1820	2300
Pb	ppm	3.0	IC2	11	9	9	8	5	5
Pd	ppb	1.0	FA3	<1	<1	3	3	3	2
Pt	ppb	5.0	FA3	<5	<5	<5	<5	<5	<5
Rb	ppm	2.0	XRF1	68	76	115	120	150	175
Sb	ppm	4.0	XRF1	<4	<4	<4	<4	<4	<4
Se	ppm	2.0	XRF1	<2	2	<2	<2	<2	3
Sn	ppm	4.0	XRF1	4	<4	<4	<4	<4	<4
Sr	ppm	2.0	XRF1	350	320	370	350	360	540
Th	ppm	4.0	XRF1	6	8	8	10	10	8
U	ppm	4.0	XRF1	4	<4	<4	4	4	<4
V	ppm	1.0	IC2	145	140	145	175	185	220
W	ppm	10.0	XRF1	<10	<10	<10	<10	<10	<10
Zn	ppm	1.0	IC2	40	32	40	46	38	46
SiO2%	0.01	IC4							32
TiO2%	0.01	IC4							3.56
Al2O%	0.01	IC4							4.4
Fe2O%	0.01	IC4							10.2
MnO %	0.01	IC4							0.13
MgO %	0.01	IC4							20.7
CaO %	0.01	IC4							10
Na2O%	0.01	IC4							0.22
K2O %	0.01	IC4							3.24
P2O5%	0.01	IC4							0.52
LOI %	0.01	IC4							13.7

HOLE NO: CRN 56
 TRAVERSE: "Pine Creek - Bendigo", 3225 mN
 STATION: North of road, approx 11 500-12 000 mW
 DATE: 22.10.92
 LOGGED BY: BJM, PWH

100 000 SHEET NO: 6731
 LOCATION: 338 876 mE
 6 326 354 mN
 DRILLING METHOD: RC
 TOTAL DEPTH: 68.0 m

Depth From	To	Magn. Susc.	Description
Cretaceous weathered kimberlite			
0	2.0	1.05	Weathrd Kimberlite & Marl, kimberlite has grey matrix & cse phlogopite, marl is calc & gm.
2.0	4.0	1.30	Weathrd Kimberlite & Marl, aa.
4.0	6.0	2.28	Weathrd Kimberlite & Marl, aa.
6.0	8.0	3.91	Weathrd Kimberlite & Marl, aa.
8.0	10.0	3.93	Weathrd Kimberlite & Marl, aa, <u>c</u> occ sltst frag.
10.0	12.0	4.15	Weathrd Kimberlite & Marl, aa.
12.0	14.0	2.77	Weathrd Kimberlite & Marl, aa.
14.0	16.0	4.65	Weathrd Kimberlite, grey, <u>c</u> yellow & orange weathrd olivine, frags of dk grey-grn sltst.
16.0	18.0	3.41	Weathrd Kimberlite, aa.
18.0	20.0	1.49	Weathrd Kimberlite, aa.
20.0	22.0	1.25	Weathrd Kimberlite, aa.
22.0	24.0	2.74	Weathrd Kimberlite, aa.
24.0	26.0	2.61	Weathrd Kimberlite, aa.
26.0	28.0	2.13	Weathrd Kimberlite, aa.
28.0	30.0	1.51	Weathrd Kimberlite, aa.
30.0	32.0	2.11	Weathrd Kimberlite, aa.
32.0	34.0	2.54	Weathrd Kimberlite, aa, <u>c</u> wood frags from tree root.
34.0	36.0	2.26	Weathrd Kimberlite & Alluvium, aa, <u>c</u> lt gm clay, ironstone, sst & sltst.
36.0	38.0	2.92	Weathrd Kimberlite & Alluvium, aa.
38.0	40.0	1.64	Weathrd Kimberlite & Alluvium, aa.
40.0	42.0	2.00	Weathrd Kimberlite & Alluvium, aa.
42.0	44.0	1.93	Weathrd Kimberlite & Alluvium, aa.
44.0	46.0	3.53	Weathrd Kimberlite & Alluvium, aa.
46.0	48.0	2.08	Weathrd Kimberlite & Alluvium, aa.
48.0	50.0	2.49	Weathrd Kimberlite & Alluvium, aa.
Adelaidean?			
50.0	52.0	2.22	Marl & Clay, weathrd marl, <u>c</u> blue, lt grey & white clay.
52.0	54.0	2.13	Marl, pale grey-grn calc, silty, <u>c</u> dk grey rnd calc grains.
54.0	56.0	1.32	Marl, aa, <u>c</u> occ dissem pyrite.
56.0	58.0	0.81	Marl, aa.
58.0	60.0	0.22	Marl, aa.
60.0	62.0	0.12	Marl, aa, <u>c</u> fine lamn.
62.0	64.0	0.16	Marl, aa.
64.0	66.0	0.12	Marl & Clay, fractured & porous marl, karst infilled <u>c</u> kimberlite & marl detritus.
Belair Sub Group?			
66.0	68.0	0.15	Marl & Alluvium, aa.
68.0			End of Hole

Geochemistry Samples:

RS 758 46-56 m Routine geochemistry.
 RS 759 56-68 m "

				CRN 56 46-56m	CRN 56 56-68m
				6731RS 758	6731RS 759
Ag	ppm	0.5	IC2	<0.5	<0.5
As	ppm	1.0	IC2	2	2
Au	ppb	1.0	FA3	<1	<1
Ba	ppm	10.0	XRF1		
Cd	ppm	1.0	IC2		
Ce	ppm	20.0	XRF1		
Co	ppm	2.0	IC2	28	25
Cr	ppm	2.0	IC2	290	290
Cu	ppm	1.0	IC2	40	34
Fe	%	0.01	IC2	2.86	2.94
La	ppm	20.0	XRF1		
Mn	ppm	5.0	IC2	770	830
Mo	ppm	1.0	IC2	2	2
Nb	ppm	2.0	XRF1		
Ni	ppm	1.0	IC2	260	230
P	ppm	5.0	IC2		
Pb	ppm	3.0	IC2	9	11
Pd	ppb	1.0	FA3		
Pt	ppb	5.0	FA3		
Rb	ppm	2.0	XRF1		
Sb	ppm	4.0	XRF1		
Se	ppm	2.0	XRF1		
Sn	ppm	4.0	XRF1		
Sr	ppm	2.0	XRF1		
Th	ppm	4.0	XRF1		
U	ppm	4.0	XRF1		
V	ppm	1.0	IC2		
W	ppm	10.0	XRF1		
Zn	ppm	1.0	IC2	22	18

HOLE NO:
TRAVERSE:
STATION:
DATE:
LOGGED BY:

CRN 57
"Pine Creek - Bendigo", 3225 mN
North of road, approx 11 500-12 000 mW
22.10.92
BJM, PWH

100 000 SHEET NO: 6731
LOCATION: 352 439 mE
6 320 314 mN
DRILLING METHOD: RC
TOTAL DEPTH: 19.5 m

Depth		Magn.	Description
From	To	Susc.	
Recent			
0	2.0	0.24	Alluvium, yellow clay, frags of weathrd kimberlite, lt grey sst, dk grey sltst.
2.0	4.0	0.08	Clay, yellow, limonitic, c occ opaque.
4.0	6.0	0.06	Clay, aa, c weathrd rock frags.
6.0	8.0	0.04	Clay, aa.
8.0	10.0	0.04	Clay, aa.
10.0	12.0	0.04	Clay, aa.
12.0	14.0	1.74	Clay, aa.
14.0	16.0	3.17	Clay, dk grn clay, c cse biot, calcitic.
16.0	18.0	1.42	Clay, aa.
Adelaidean Belair? Sub Group			
18.0	19.5	0.11	Quartzite, brn, f grained sst, strongly silicified, massive, c opaques.
19.5			End of Hole

Geochemistry Samples:

RS 76014-16 m

Routine geochemistry.

RS 76114-16 m

Check sample, routine geochemistry.

				CRN 57 14-16m 6731RS 760	CRN 57 14-16m (check) 6731RS 761	CRN 57 14-16m (repeat) 6731RS 761
Ag	ppm	0.5	IC2	<0.5	<1	
As	ppm	1.0	IC2	<1	5	
Au	ppb	1.0	FA3	8	4	6
Ba	ppm	10.0	XRF1			
Cd	ppm	1.0	IC2			
Ce	ppm	20.0	XRF1			
Co	ppm	2.0	IC2	175	145	
Cr	ppm	2.0	IC2	1660	962	
Cu	ppm	1.0	IC2	155	128	
Fe	%	0.01	IC2	10.9	8.35	
La	ppm	20.0	XRF1			
Mn	ppm	5.0	IC2	2200	1650	
Mo	ppm	1.0	IC2	<1	<5	
Nb	ppm	2.0	XRF1			
Ni	ppm	1.0	IC2	1260	1000	
P	ppm	5.0	IC2			
Pb	ppm	3.0	IC2	22	<5	
Pd	ppb	1.0	FA3			
Pt	ppb	5.0	FA3			
Rb	ppm	2.0	XRF1			
Sb	ppm	4.0	XRF1			
Se	ppm	2.0	XRF1			
Sn	ppm	4.0	XRF1			
Sr	ppm	2.0	XRF1			
Th	ppm	4.0	XRF1			
U	ppm	4.0	XRF1			
V	ppm	1.0	IC2			
W	ppm	10.0	XRF1			
Zn	ppm	1.0	IC2	105	79	

CRN 58
18-19m

6731RS
762

Ag	ppm	0.5	IC2	<0.5
As	ppm	1.0	IC2	10
Au	ppb	1.0	FA3	<1
Ba	ppm	10.0	XRF1	
Cd	ppm	1.0	IC2	
Ce	ppm	20.0	XRF1	
Co	ppm	2.0	IC2	12
Cr	ppm	2.0	IC2	60
Cu	ppm	1.0	IC2	54
Fe	%	0.01	IC2	2.92
La	ppm	20.0	XRF1	
Mn	ppm	5.0	IC2	260
Mo	ppm	1.0	IC2	<1
Nb	ppm	2.0	XRF1	
Ni	ppm	1.0	IC2	48
P	ppm	5.0	IC2	
Pb	ppm	3.0	IC2	4
Pd	ppb	1.0	FA3	
Pt	ppb	5.0	FA3	
Rb	ppm	2.0	XRF1	
Sb	ppm	4.0	XRF1	
Se	ppm	2.0	XRF1	
Sn	ppm	4.0	XRF1	
Sr	ppm	2.0	XRF1	
Th	ppm	4.0	XRF1	
U	ppm	4.0	XRF1	
V	ppm	1.0	IC2	
W	ppm	10.0	XRF1	
Zn	ppm	1.0	IC2	6

HOLE NO: CRN 58
TRAVERSE: "Pine Creek - Bendigo", 3225 mN
STATION: 14 500 mW
DATE: 22.10.92
LOGGED BY: PWH

100 000 SHEET NO: 6731
LOCATION: 336 831 mE
6 324 989 mN
DRILLING METHOD: RC
TOTAL DEPTH: 19.0 m

Depth		Magn.	Description
From	To	Susc.	
Recent			
0	2.0	0.79	Soil & Weathrd Basement, grey-grn weathrd sltst, <u>c</u> Mn mineralisation.
Adelaidean?, Tapley Hill Formation?			
2.0	4.0	0.07	Weathrd Siltstone, aa, yellow & red staining.
4.0	6.0	0.07	Weathrd Siltstone, pale olive grn, sl weathrd.
6.0	8.0	0.05	Siltstone, aa, f lamn.
8.0	10.0	0.06	Siltstone, aa.
10.0	12.0	0.08	Siltstone, aa.
12.0	14.0	0.06	Siltstone, aa.
14.0	16.0	0.08	Siltstone, aa, purple, <u>c</u> pencil jointing.
16.0	18.0	0.12	Siltstone, dk purple-grey, sl weathrd, Mn dendrites, f lamn.
18.0	19.0	0.17	Siltstone, aa.
19.0			End of Hole

Geochemistry Samples:

RS 762 18-19 m Routine geochemistry.

HOLE NO: CRN 59
 TRAVERSE: "Pine Creek - Bendigo", 3225 mN
 STATION: 3 000 mW
 DATE: 22.10.92
 LOGGED BY: PWH

100 000 SHEET NO: 6731
 LOCATION: 348 207 mE
 6 325 920 mN
 DRILLING METHOD: RC
 TOTAL DEPTH: 69.5 m

Depth From	To	Magn. Susc.	Description
Recent			
0	2.0	2.25	Soil & Alluvium, red-brn clay & silt, <u>c</u> qtz, ironstone, sst gravel.
2.0	4.0	1.31	Alluvium, aa.
4.0	6.0	0.80	Alluvium, aa.
6.0	8.0	0.48	Clay, & Silt, red-brn & yellow, <u>c</u> occ frags of calcrete.
8.0	10.0	0.09	Clay, & Silt, aa.
10.0	12.0	0.08	Clay, & Silt, aa.
12.0	14.0	0.07	Clay, & Silt, aa.
Adelaidean?			
14.0	16.0	0.07	Clay & Weathrd Siltstone, v weathrd sltst, <u>c</u> occ white qtz veins & limonite.
16.0	18.0	0.06	Clay & Weathrd Siltstone, aa.
18.0	20.0	0.06	Clay & Weathrd Siltstone, aa.
20.0	22.0	0.07	Clay & Weathrd Siltstone, aa.
22.0	24.0	0.06	Clay & Weathrd Siltstone, aa.
24.0	26.0	0.06	Clay & Weathrd Siltstone, aa.
26.0	28.0	0.18	Clay & Weathrd Siltstone, aa.
28.0	30.0	0.06	Clay & Weathrd Siltstone, aa.
30.0	32.0	0.07	Clay & Weathrd Siltstone, aa.
32.0	34.0	0.10	Clay & Weathrd Siltstone, aa.
34.0	36.0	0.08	Clay & Weathrd Siltstone, aa.
36.0	38.0	0.06	Clay & Weathrd Siltstone, aa.
38.0	40.0	0.07	Clay & Weathrd Siltstone, aa.
Adelaidean			
40.0	42.0	0.08	Weathrd Siltstone, aa.
42.0	44.0	0.07	Weathrd Siltstone, aa.
44.0	46.0	0.06	Weathrd Siltstone, aa, <u>c</u> massive & dendritic Mn mineralisation.
46.0	48.0	0.06	Weathrd Siltstone, aa.
48.0	50.0	0.06	Weathrd Siltstone, aa.
50.0	52.0	0.05	Weathrd Siltstone, aa.
52.0	54.0	0.07	Weathrd Siltstone, aa.
54.0	56.0	0.10	Weathrd Siltstone, aa.
56.0	58.0	0.10	Weathrd Siltstone, aa.
58.0	60.0	0.08	Weathrd Siltstone, aa.
60.0	62.0	0.06	Weathrd Siltstone, aa.
62.0	64.0	0.09	Weathrd Siltstone, aa, <u>c</u> a pseudomorph after pyrite.
64.0	66.0	0.05	Weathrd Siltstone, red-brn sltst.
66.0	68.0	0.04	Weathrd Siltstone, aa, <u>c</u> sst interbeds & veins of micaceous haematite.
68.0	69.5	0.08	Weathrd Siltstone, aa.
69.5			End of Hole

Geochemistry Samples:

RS 763	44-46 m	Routine geochemistry.
RS 764	46-64 m	"
RS 765	64-68 m	"
RS 766	68-69.5 m	Bottom hole, extended geochemistry.

				CRN 59 44-46m	CRN 59 46-64m	CRN 59 64-68m	CRN 59 68-69.5m
				6731RS 763	6731RS 764	6731RS 765	6731RS 766
Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5	<0.5
As	ppm	1.0	IC2	1	4	2	<1
Au	ppb	1.0	FA3	2	1	4	12
Ba	ppm	10.0	XRF1				360
Cd	ppm	1.0	IC2				<1
Ce	ppm	20.0	XRF1				70
Co	ppm	2.0	IC2	115	30	16	10
Cr	ppm	2.0	IC2	16	19	26	19
Cu	ppm	1.0	IC2	50	17	16	18
Fe	%	0.01	IC2	3.62	8.65	3.84	2.82
La	ppm	20.0	XRF1				40
Mn	ppm	5.0	IC2	0.0385	6600	1140	1300
Mo	ppm	1.0	IC2	1	<1	<1	<1
Nb	ppm	2.0	XRF1				13
Ni	ppm	1.0	IC2	24	58	34	24
P	ppm	5.0	IC2				1100
Pb	ppm	3.0	IC2	155	16	11	7
Pd	ppb	1.0	FA3				<1
Pt	ppb	5.0	FA3				<5
Rb	ppm	2.0	XRF1				115
Sb	ppm	4.0	XRF1				<4
Se	ppm	2.0	XRF1				<2
Sn	ppm	4.0	XRF1				4
Sr	ppm	2.0	XRF1				52
Th	ppm	4.0	XRF1				18
U	ppm	4.0	XRF1				<4
V	ppm	1.0	IC2				19
W	ppm	10.0	XRF1				<10
Zn	ppm	1.0	IC2	24	11	7	7

HOLE NO: CRN 60
 TRAVERSE: "Pine Creek - Bendigo", 3225 mN
 STATION: 1 625 mW
 DATE: 23.10.92
 LOGGED BY: PWH

100 000 SHEET NO: 6731
 LOCATION: 349 630 mE
 6 325 956 mN
 DRILLING METHOD: RC
 TOTAL DEPTH: 75.5 m

Depth From	To	Magn. Susc.	Description
Recent			
0	2.0	4.72	Soil & Alluvium, red-brn silt <u>c</u> sst, sltst, ironstone gravel.
2.0	4.0	7.08	Alluvium & Gravel, aa.
4.0	6.0	2.74	Alluvium & Gravel, aa.
6.0	8.0	17.20	Alluvium & Gravel, aa.
8.0	10.0	27.80	Alluvium & Gravel, aa.
10.0	12.0	13.00	Gravel & Silt, aa.
12.0	14.0	16.10	Gravel & Silt, aa.
14.0	16.0	11.20	Clay & Gravel, lt grey, yellow, red, <u>c</u> gravel aa.
16.0	18.0	0.25	Clay & Gravel, aa.
18.0	20.0	0.04	Clay, yellow, lt grey, occ red, sl sandy.
20.0	22.0	0.04	Clay, aa.
22.0	24.0	0.04	Clay, aa.
24.0	26.0	0.05	Clay, aa.
26.0	28.0	0.04	Clay, aa.
28.0	30.0	0.04	Clay, aa.
30.0	32.0	0.03	Clay, aa.
32.0	34.0	0.04	Clay, aa.
34.0	36.0	0.02	Sandy Clay, limonite yellow rounded & spher f-c qtz.
Tertiary?			
36.0	38.0	0.02	Sand & Gravel, aa, <u>c</u> gravel.
38.0	40.0	0.05	Clay, lt grey, red, yellow, grn.
40.0	42.0	0.05	Clay, aa.
42.0	44.0	0.03	Clay, aa.
44.0	46.0	0.03	Clay, aa.
46.0	48.0	0.03	Clay, aa.
48.0	50.0	0.04	Clay, aa, <u>c</u> sand.
50.0	52.0	0.04	Sand, lt grey, <u>c</u> rnd & spher f-med qtz, f-med opaques.
52.0	54.0	0.07	Sand, aa.
54.0	56.0	0.05	Sand, aa.
56.0	58.0	0.15	Sand, aa.
Cambro - Ordovician			
58.0	60.0	0.10	Clay, limonitic, yellow.
60.0	62.0	0.11	Clay, aa, <u>c</u> chlorite & haematite after pyrite.
62.0	64.0	0.22	Weathrd Basement, lt brn, <u>c</u> chlorite & haematite.
64.0	66.0	0.12	Weathrd Basement, aa.
66.0	68.0	0.16	Weathrd Basement, aa.
68.0	70.0	0.34	Weathrd Basement, aa.
70.0	72.0	0.34	Altered Diorite, m grained, weathrd, <u>c</u> boxwork haematite, & <u>c</u> sphene & cse albite.
72.0	74.0	0.23	Altered Diorite, weathrd, aa.
74.0	75.5	0.63	Altered Diorite, aa.
75.5			End of Hole

Geochemistry Samples:

RS 767 62-68 m Routine geochemistry.
 RS 768 68-74 m ", petrology sample from 72-74m.
 RS 769 74-75.5 m Bottom hole, extended geochemistry and full silicate analysis.

				CRN 60 62-68m	CRN 60 68-74m	CRN 60 74-75.5m
				6731RS 767	6731RS 768	6731RS 769
Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5
As	ppm	1.0	IC2	7	4	1
Au	ppb	1.0	FA3	10	10	5
Ba	ppm	10.0	XRF1			<10
Cd	ppm	1.0	IC2			<1
Ce	ppm	20.0	XRF1			50
Co	ppm	2.0	IC2	62	35	50
Cr	ppm	2.0	IC2	170	9	5
Cu	ppm	1.0	IC2	95	26	30
Fe	%	0.01	IC2	17.9	8.95	10.3
La	ppm	20.0	XRF1			20
Mn	ppm	5.0	IC2	420	90	65
Mo	ppm	1.0	IC2	<1	<1	<1
Nb	ppm	2.0	XRF1			44
Ni	ppm	1.0	IC2	115	38	30
P	ppm	5.0	IC2			3100
Pb	ppm	3.0	IC2	6	<3	<3
Pd	ppb	1.0	FA3			4
Pt	ppb	5.0	FA3			5
Rb	ppm	2.0	XRF1			2
Sb	ppm	4.0	XRF1			<4
Se	ppm	2.0	XRF1			<2
Sn	ppm	4.0	XRF1			<4
Sr	ppm	2.0	XRF1			82
Th	ppm	4.0	XRF1			<4
U	ppm	4.0	XRF1			4
V	ppm	1.0	IC2			280
W	ppm	10.0	XRF1			<10
Zn	ppm	1.0	IC2	42	6	5
SiO2	%	0.01	IC4			55.3
TiO2	%	0.01	IC4			3.32
Al2O3	%	0.01	IC4			12.9
Fe2O3	%	0.01	IC4			15.5
MnO	%	0.01	IC4			<0.01
MgO	%	0.01	IC4			1.22
CaO	%	0.01	IC4			1.43
Na2O	%	0.01	IC4			7.3
K2O	%	0.01	IC4			0.09
P2O5	%	0.01	IC4			0.75
LOI	%	0.01	IC4			1.69

HOLE NO: CRN 61
 TRAVERSE: "Pine Creek - Bendigo", 3225 mN
 STATION: 1 250 mW
 DATE: 23.10.92
 LOGGED BY: PWH

100 000 SHEET NO: 6731
 LOCATION: 350 121 mE
 6 325 851 mN
 DRILLING METHOD: RC
 TOTAL DEPTH: 125.5 m

Depth From	To	Magn. Susc.	Description
Recent			
0	2.0	0.69	Alluvium, red-brn calc silt, qtz, sst gravel.
2.0	4.0	0.69	Alluvium, aa.
4.0	6.0	4.77	Alluvium & Gravel, red-brn silt & gravel aa.
6.0	8.0	18.20	Alluvium & Gravel, aa.
8.0	10.0	12.50	Alluvium & Gravel, aa.
10.0	12.0	16.20	Alluvium & Gravel, aa, <u>c</u> lt grey clay.
12.0	14.0	1.61	Alluvium & Gravel, aa, <u>c</u> dk red ferrug sltst frags.
14.0	16.0	10.70	Alluvium & Gravel, aa.
Tertiary?			
16.0	18.0	4.42	Clay & Gravel, yellow, lt grey, <u>c</u> sand & rock frags.
18.0	20.0	0.27	Sandy Clay, lt grey, <u>c</u> f-c sand.
20.0	22.0	2.48	Sandy Clay, aa.
22.0	24.0	0.05	Clay, lt grey, yellow.
24.0	26.0	0.23	Clay, aa.
26.0	28.0	0.05	Clay, aa.
28.0	30.0	0.03	Clay, aa.
30.0	32.0	0.01	Clay, aa.
32.0	34.0	0.03	Clay, aa.
34.0	36.0	0.03	Clay, aa.
36.0	38.0	0.05	Clay, aa.
38.0	40.0	0.06	Clay, aa.
40.0	42.0	0.04	Clay, aa.
42.0	44.0	0.04	Clay, pale grey, pale olive-grn.
Tertiary			
44.0	46.0	0.08	Sand, vf-m rnd & spher qtz, <u>c</u> occ opaque.
46.0	48.0	0.03	Sand, aa.
48.0	50.0	0.04	Sand, aa.
50.0	52.0	0.04	Sand, aa.
52.0	54.0	0.02	Sandy Clay, limonitic, yellow, <u>c</u> sand as above.
54.0	56.0	0.06	Sandy Clay, aa, <u>c</u> haematite grains.
56.0	58.0	0.05	Sandy Clay, aa.
58.0	60.0	0.04	Clay, lt yellow, <u>c</u> frags of limonite.
60.0	62.0	0.02	Sandy Clay, yellow, <u>c</u> white ang qtz.
62.0	64.0	0.02	Sandy Clay, aa.
64.0	66.0	0.02	Sandy Clay, aa.
66.0	68.0	0.03	Sandy Clay, aa.
68.0	70.0	0.03	Clay, yellow, white, brn, smooth.
70.0	72.0	0.02	Clay, aa.
72.0	74.0	0.04	Sandy Clay, white, <u>c</u> ang qtz & f opaque.
74.0	76.0	0.03	Sandy Clay, aa.
76.0	78.0	0.03	Sandy Clay, aa.
78.0	80.0	0.02	Sandy Clay, aa.
Adelaidean?			
80.0	82.0	0.03	Sand & Weathrd Sandstone, layered sst, orange & pale brn.
82.0	84.0	0.03	Sandy Clay, white, orange, weathrd orthoquartzite?
84.0	86.0	0.03	Clay & Weathrd Sandstone, sst is finely lamn & well silicified.
86.0	88.0	0.02	Clay & Weathrd Sandstone, aa.
88.0	90.0	0.04	Sandy Clay, aa.
90.0	92.0	0.03	Sandy Clay, aa.
92.0	94.0	0.03	Sandy Clay, aa.
94.0	96.0	0.05	Sandy Clay, aa.
96.0	98.0	0.00	Sandy Clay & Sandstone, white weathrd sst, <u>c</u> vf opaques interbedded <u>c</u> clay or weathrd fspars.
98.0	100.0	0.03	Sandstone, aa.

100.0	102.0	0.02	Clay, white, <u>c</u> red & orange Fe staining.
102.0	104.0	0.02	Clay, & Sandstone, aa.
104.0	106.0	0.02	Clay, & Sandstone, aa.
106.0	108.0	0.04	Clay, aa.
Adelaidean?			
108.0	110.0	0.21	Sandstone, lt grey, layered <u>c</u> dissolution.
110.0	112.0	0.08	Sandstone, aa.
112.0	114.0	0.05	Sandstone, aa.
114.0	116.0	0.01	Sandstone, aa.
116.0	118.0	0.05	Sandstone, aa.
118.0	120.0	0.03	Sandstone, aa.
120.0	122.0	0.03	Clay, grn, <u>c</u> white chloritised fspar.
122.0	124.0	0.04	Clay, yellow, grn, <u>c</u> limonite.
124.0	125.5	0.09	Clay, pale grn, <u>c</u> weathrd fspar & sst.
125.5			End of Hole

Geochemistry Samples:

RS 770	108-118 m	Routine geochemistry.
RS 771	118-125.5 m	"

CRN 61 CRN 61
108-118m 118-125.5

6731RS 6731RS
770 771

Ag	ppm	0.5	IC2	<0.5	<0.5
As	ppm	1.0	IC2	3	14
Au	ppb	1.0	FA3	19	30
Ba	ppm	10.0	XRF1		
Cd	ppm	1.0	IC2		
Ce	ppm	20.0	XRF1		
Co	ppm	2.0	IC2	25	88
Cr	ppm	2.0	IC2	6	38
Cu	ppm	1.0	IC2	80	115
Fe	%	0.01	IC2	0.44	3.52
La	ppm	20.0	XRF1		
Mn	ppm	5.0	IC2	35	330
Mo	ppm	1.0	IC2	<1	<1
Nb	ppm	2.0	XRF1		
Ni	ppm	1.0	IC2	24	170
P	ppm	5.0	IC2		
Pb	ppm	3.0	IC2	<3	4
Pd	ppb	1.0	FA3		
Pt	ppb	5.0	FA3		
Rb	ppm	2.0	XRF1		
Sb	ppm	4.0	XRF1		
Se	ppm	2.0	XRF1		
Sn	ppm	4.0	XRF1		
Sr	ppm	2.0	XRF1		
Th	ppm	4.0	XRF1		
U	ppm	4.0	XRF1		
V	ppm	1.0	IC2		
W	ppm	10.0	XRF1		
Zn	ppm	1.0	IC2	48	240

HOLE NO: CRN 62
 TRAVERSE: "Caroona - Hog Back", 2940 mN
 STATION: 0 000 mE
 DATE: 26.10.92
 LOGGED BY: WSM
 COMMENTS: 20m SE of peg.

100 000 SHEET NO: 6731
 LOCATION: 327 709 mE
 6 293 770 mN
 DRILLING METHOD: RC
 TOTAL DEPTH: 100.0m

Magnetic Susc.	Value	Geological Log		Description
Interval		Depth		
Pooraka Formation				
0-2	1.49	0	2.0	Sandy soil, red-brn, & gravel <15mm, rounded qtz & qtzite.
2-4	1.95	2.0	6.0	Clayey sand, aa, & gravel, Fe stained sltst, sst & qtzite, & some calcrete, cream-orange, hard.
4-6	1.76			
6-8	2.22	6.0	12.0	Clay-sand f, red-brn, & semi-ind in part, <u>c</u> minor gravel layers.
8-10	2.00			
10-12	0.59			
12-14	1.04	12.0	14.0	Clay-sand, aa, <u>c</u> abund gravel layers of white qtz, & rounded qtzite, & <u>c</u> some sst, white, ind & hard.
14-16	0.88	14.0	20.0	Clay-sand vf-f, lt brn to orange-brn, <u>c</u> dissem rounded m-c grains.
16-18	0.43			
18-20	1.01			
20-22	1.16	20.0	24.0	Clay-sand, aa, <u>c</u> minor gravel, rounded clear to white qtz.
22-24	2.15			
24-26	1.84	24.0	34.0	Clay-sand, aa, lt brn.
26-28	1.57			
28-30	1.11			
30-32	0.84			
32-34	0.62			
34-36	1.08	34.0	38.0	Clay-sand vf, compact, mottled lt red-brn to lt orange-brn, <u>c</u> minor blk Mn?
36-38	0.85			stained blebs.
38-40	1.07	38.0	40.0	Clay-sand, aa, dk red-brn & lt grey mottled, <u>c</u> minor lt grey clay.
40-42	1.27	40.0	44.0	Clay-sand, aa, <u>c</u> minor rounded f-m sand.
42-44	2.46			
44-46	2.08	44.0	50.0	Clay-silt-sand vf, mottled red-brn to pale, compact, <u>c</u> minor blk Mn? stained
46-48	1.70			blebs.
48-50	2.14			
50-52	1.69	50.0	52.0	Clay-silt-sand vf, aa, faintly mottled lt-red-brn to lt khaki.
52-54	1.32	52.0	54.0	Clay-sand & v clayey sand, lt red-brn to lt khaki.
54-56	1.40	54.0	56.0	Clay-sand, aa, mottled & banded lt grey to lt yellow-grey to red-brn.
56-58	1.01	56.0	61.5	Gravel <25mm, qtz, qtzite & sst & minor ironstone, rounded & Fe stained, <u>c</u>
58-60	27.4			minor pink clay-sand, aa.
60-62	15.7			
???				
62-64	0.79	61.5	64.0	Clay, sl silty & sandy vf, faintly mottled pl grey to lt yellow to pl khaki.
64-66	0.16	64.0	65.5	Clay, aa, pl grey, minor lt mottling.
66-68	0.38	65.5	67.0	Clay, aa, f mottled & banded pl grey & orange-brn.
		67.0	67.5	Clay-sand f, soft, pl grey <u>c</u> minor lt yellow mottling.
		67.5	68.0	Clay, aa, f mottled & banded pl grey & orange-brn.
68-70	0.30	68.0	68.5	Clay, aa, brt red stained.
70-72	0.37	68.5	72.0	Clay, sl silty, off white.
72-74	0.58	72.0	74.0	Clay, v sandy vf-f, off white, <u>c</u> minor gravel, clear qtz.
74-76	0.06	74.0	75.0	Gravel <15mm, sub-ang clear qtz, & minor dk grey qtzite, & rare blk tourmaline?.
76-78	0.25	75.0	78.0	Gravel, aa, <40mm, clear to milky or smokey translucent grey or pl pink qtz & minor lt grey sst &
				qtzite, & some off white clay layers.
78-80	0.10	78.0	79.0	Sand f-m, off white.
		79.0	80.0	Gravel, aa.
80-82	0.30	80.0	83.0	Gravel, aa, <50mm, increasing orange to brn Fe staining to base.
82-84	0.21			
Adelaidean				
		83.0	85.0	Clay, sl silty, pl grey, faintly mottled, faintly foliat?.
84-86	0.01	85.0	86.5	Clay, aa, lt grey.
86-88	0.17	86.5	88.0	Clay, aa, grey, <u>c</u> minor dk grey carb? layers.
88-90	0.01	88.0	90.0	Sltst, grey, v weathrd, c f dk grey lamn, & parallel faint foliat, & fissile.

90-92	0.00	90.0	92.0	Sltst, aa, & some vf sst lamn, & minor clear qtz veins.
92-94	0.00	92.0	98.0	Sltst, aa, lt grey, fresh, c f lamn, faintly fiss.
94-96	0.03			
96-98	0.08			
98-100	0.12	98.0	100.0	Sltst, aa, lt grey, grey, or grn-grey.
		100.0		End of hole.

Geochemistry Samples:

RS 772	84-88m	Routine geochemistry
RS 773	88-96m	"
RS 774	96-100m	Bottom hole, extended geochemistry.
RS 775	84-88m	Check sample, routine geochemistry.
RS 776	88-96m	Check sample, routine geochemistry.
RS 777	96-100m	Check sample, extended geochemistry.

				CRN 62 84-88m	CRN 62 88-96m	CRN 62 96-100m	CRN 62 84-88m (check)	CRN 62 88-96m (check)	CRN 62 96-100m (check)
				6731R 772	6731R 773	6731R 774	6731R 775	6731R 776	6731R 777
Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5	<1	<1	<1
As	ppm	1.0	IC2	6	34	25	72	11	12
Au	ppb	1.0	FA3	3	<1	1	1	5	<1
Ba	ppm	10.0	XRF1			430			392
Cd	ppm	1.0	IC2			<1			<1
Ce	ppm	20.0	XRF1			80			99
Co	ppm	2.0	IC2	30	380	80	534	16	66
Cr	ppm	2.0	IC2	34	26	40	39	37	48
Cu	ppm	1.0	IC2	360	160	18	170	334	14
Fe	%	0.01	IC2	0.34	1.48	4.86	2	0.39	4.03
La	ppm	20.0	XRF1			50			48
Mn	ppm	5.0	IC2	5	15	980	21	16	696
Mo	ppm	1.0	IC2	<1	<1	<1	<5	<5	<5
Nb	ppm	2.0	XRF1			14			13
Ni	ppm	1.0	IC2	30	270	72	396	21	66
P	ppm	5.0	IC2			890			934
Pb	ppm	3.0	IC2	8	7	11	<5	<5	<5
Pd	ppb	1.0	FA3			<1			1
Pt	ppb	5.0	FA3			<5			<1
Rb	ppm	2.0	XRF1			120			114
Sb	ppm	4.0	XRF1			5			<4
Se	ppm	2.0	XRF1			3			<2
Sn	ppm	4.0	XRF1			<4			5
Sr	ppm	2.0	XRF1			68			55
Th	ppm	4.0	XRF1			10			14
U	ppm	4.0	XRF1			<4			<4
V	ppm	1.0	IC2			54			52
W	ppm	10.0	XRF1			<20			<10
Zn	ppm	1.0	IC2	230	960	140	943	176	104

HOLE NO: CRN 63
 TRAVERSE: "Caroona - Hog Back", 2940 mN
 STATION: 1 000 mE
 DATE: 27.10.92
 LOGGED BY: WSM
 COMMENTS: 30m SW of peg.

100 000 SHEET NO: 6731
 LOCATION: 328 692 mE
 6 293 798 mN
 DRILLING METHOD: RC
 TOTAL DEPTH: 53.5m

Magnetic Susc.		Geological Log		Description
Interval	Value	Depth		
Quaternary Pooraka Formation				
0-2	1.49	0	4.0	Sandy soil, brn.
2-4	2.32			
4-6	1.00	4.0	6.0	Clayey sand, brn, & coarse gravel <15mm, rounded Fe stained qtz & qtzite.
6-8	0.63	6.0	9.0	Clay-sand, v calc, compact, pl brn to lt orange-brn, semi-ind in part.
8-10	0.71			
10-12	0.70	9.0	15.0	Clay-sand, faintly mottled red- to orange-brn, <u>c</u> some v calc ind zones.
12-14	0.79			
14-16	0.65			
16-18	0.75	15.0	17.3	Clay-sand, aa, <u>c</u> minor gravel <5mm, rounded qtz & dk brn to dk grey qtzite; gravel is Fe stained at base.
	17.3	18.0		Clay-silt, calc, compact, red-brn, <u>c</u> f dk grey, white or red-brn lamn.
18-20	0.93	18.0	23.3	Clay-silt, calc & lamn, lt brn, <u>c</u> minor gravel <8mm, qtz & qtzite etc.
20-22	1.16			
22-24	0.49	23.3	23.5	Sand, v clayey, lt grey-brn.
Adelaidean				
24-26	0.08	23.5	26.5	Clayey sand vf, ind in part, mottled lt purple-brn, lt brn, lt orange, pl grey, sl foliat?, <u>c</u> some stained joints & minor blk Mn? stained blebs & fractures.
26-28	0.05	26.5	30.0	Sltst, lt purple-brn, <u>c</u> pl to lt orange bleached & stained joints.
28-30	0.06			
30-32	0.06	30.0	43.0	Sst vf, lt brn to brownish purple, semi-ind, poorly sorted & includes rounded f-m qtz, <u>c</u> minor bleached & stained joints/partings.
32-34	0.06			Sst includes numerous bright red stained rounded voids 1-2mm, <u>c</u> vf sst? cores,
34-36	0.05			& distinct edges <u>c</u> lt green haloes - possibly weathrd pebbles.
36-38	0.06			Sst has poorly developed vertical layering?, foliat?, which is straight along one
38-40	0.06			side of the pebbles, and flows around the opposite side, ie drop-stones?.
40-42	0.10			This is probably a diamictite.
42-44	0.07			
44-46	0.06	43.0	48.0	Sst/diamct, aa, lt orange-brn, <u>c</u> some dk brn Fe stained joints, & minor qtz
46-48	0.06			veins, white qtz <u>c</u> dk brn to blk stained rims, & some pl grey bleached joints <u>c</u> blk Mn blebs on joint plane.
48-50	0.07	48.0	53.5	Sst/diamct, aa, & some discont & irreg 5mm long thin blk lamn, Mn? or
50-52	0.06			Fe? stained or carbonaceous?.
52-53.5	0.05			
		53.5		End of hole, drill rods blocked.

Geochemistry Samples:

RS 778	24-40m	Routine geochemistry
RS 779	40-48m	"
RS 780	48-52m	"
RS 781	52-53.5m	Bottom hole, extended geochemistry.

				CRN 63 24-40m	CRN 63 40-48m	CRN 63 48-52m	CRN 63 52-53.5m
				6731RS 778	6731RS 779	6731RS 780	6731RS 781
Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5	<0.5
As	ppm	1.0	IC2	4	5	3	<1
Au	ppb	1.0	FA3	2	<1	<1	1
Ba	ppm	10.0	XRF1				660
Cd	ppm	1.0	IC2				<1
Ce	ppm	20.0	XRF1				90
Co	ppm	2.0	IC2	7	32	30	22
Cr	ppm	2.0	IC2	20	20	17	17
Cu	ppm	1.0	IC2	34	52	28	35
Fe	%	0.01	IC2	3.56	6.45	3.66	3.66
La	ppm	20.0	XRF1				60
Mn	ppm	5.0	IC2	135	320	2950	1740
Mo	ppm	1.0	IC2	<1	<1	<1	<1
Nb	ppm	2.0	XRF1				14
Ni	ppm	1.0	IC2	14	28	56	40
P	ppm	5.0	IC2				580
Pb	ppm	3.0	IC2	18	14	9	10
Pd	ppb	1.0	FA3				<1
Pt	ppb	5.0	FA3				<5
Rb	ppm	2.0	XRF1				190
Sb	ppm	4.0	XRF1				<4
Se	ppm	2.0	XRF1				<2
Sn	ppm	4.0	XRF1				<4
Sr	ppm	2.0	XRF1				30
Th	ppm	4.0	XRF1				18
U	ppm	4.0	XRF1				<4
V	ppm	1.0	IC2				16
W	ppm	10.0	XRF1				<20
Zn	ppm	1.0	IC2	34	125	200	125

HOLE NO: CRN 64
 TRAVERSE: "Caroona - Hog-Back", 2940 mN
 STATION: 2 000 mE
 DATE: 27.10.92
 LOGGED BY: WSM
 COMMENTS: 10m S of peg.

100 000 SHEET NO: 6731
 LOCATION: 329 693 mE
 6 293 786 mN
 DRILLING METHOD: RC
 TOTAL DEPTH: 53.5m

Magnetic Susc.		Geological Log	
Interval	Value	Depth	Description
Quaternary Pooraka Formation			
		0 0.3	Sandy soil, brn.
0-2	1.63	0.3 3.0	Calcrete, mottled lt to pl pink-brn, <u>c</u> some blk staining, irreg or along fractures.
2-4	1.16	3.0 4.0	Clay-sand, red-brn.
4-6	0.88	4.0 5.5	Gravel <20mm, qtzite & sltst.
Weathered diamictite? or Pooraka Formation?			
6-8	0.80	5.5 9.0	Clay-sand vf, to v silty clay, <u>c</u> minor rounded m sand, compact, red-brn <u>c</u> some mottling, minor blk Mn? staining.
8-10	0.64	9.0 10.0	Clay-sand, aa, lt brn.
10-12	0.82	10.0 15.0	Clay-sand, aa, & some rounded sltst & vf sst pebbles, & some vein qtz.
12-14	0.62		
14-16	0.64		
Adelaidean			
		15.0 16.0	Sltst, lt yellow-brn, foliat, v weathrd.
16-18	0.17	16.0 18.0	Sst vf, lt brn, lt yellow-brn, or lt red-brn, massive, <u>c</u> minor sl ind joints, v weathrd.
18-20	0.16	18.0 22.5	Sst, aa, lt red-brn, fiss in part <u>c</u> parallel faint vf lamn, <u>c</u> some bleached & ind joints.
20-22	0.08		
22-24	0.05	22.5 28.0	Sltst/vf sst, lt yellow-khaki, massive, v weathrd.
24-26	0.07		
26-28	0.10		
28-30	0.06	28.0 32.0	Sltst, aa, lt khaki, faint foliat, mod-v weathrd.
30-32	0.06		
32-34	0.17	32.0 34.0	Sltst, aa, lt khaki or lt brn, <u>c</u> some blk Mn? stained intersecting joints.
34-36	0.07	34.0 40.0	Sltst, aa, lt khaki, sl fiss.
36-38	0.09		
38-40	0.19		
40-42	0.10	40.0 44.0	Sltst, aa, <u>c</u> minor blk or brn Fe stained & infilled joints from 0.5 to 6mm wide.
42-44	0.10		
44-46	0.07	44.0 48.0	Sltst, aa, sandy, khaki, sl fiss, <u>c</u> minor blk or dk brn stained joints, sl weathrd.
46-48	0.07		
48-50	0.16	48.0 53.5	Sltst, aa, khaki-grey, fresh.
50-52	0.09		
52-53.5	0.03		
		53.5	End of hole.

Geochemistry Samples:

RS 782	6-16m	Routine geochemistry
RS 783	16-20m	"
RS 784	20-32m	"
RS 785	32-40m	"
RS 786	40-44m	"
RS 787	44-52m	"
RS 788	52-53.5m	Bottom hole, extended geochemistry.

				CRN 64 6-16m	CRN 64 16-20m	CRN 64 20-32m	CRN 64 32-40m
				6731RS 782	6731RS 783	6731RS 784	6731RS 785
Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5	<0.5
As	ppm	1.0	IC2	11	15	14	9
Au	ppb	1.0	FA3	<1	<1	<1	3
Ba	ppm	10.0	XRF1				
Cd	ppm	1.0	IC2				
Ce	ppm	20.0	XRF1				
Co	ppm	2.0	IC2	14	5	9	42
Cr	ppm	2.0	IC2	38	34	48	44
Cu	ppm	1.0	IC2	30	45	50	38
Fe	%	0.01	IC2	3.54	3.84	4.16	4.22
La	ppm	20.0	XRF1				
Mn	ppm	5.0	IC2	530	110	290	1140
Mo	ppm	1.0	IC2	1	1	<1	<1
Nb	ppm	2.0	XRF1				
Ni	ppm	1.0	IC2	28	19	40	92
P	ppm	5.0	IC2				
Pb	ppm	3.0	IC2	20	30	32	17
Pd	ppb	1.0	FA3				
Pt	ppb	5.0	FA3				
Rb	ppm	2.0	XRF1				
Sb	ppm	4.0	XRF1				
Se	ppm	2.0	XRF1				
Sn	ppm	4.0	XRF1				
Sr	ppm	2.0	XRF1				
Th	ppm	4.0	XRF1				
U	ppm	4.0	XRF1				
V	ppm	1.0	IC2				
W	ppm	10.0	XRF1				
Zn	ppm	1.0	IC2	62	40	220	340

				CRN 64 40-44m	CRN 64 44-52m	CRN 64 52-53.5m
				6731RS 786	6731RS 787	6731RS 788
Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5
As	ppm	1.0	IC2	30	15	14
Au	ppb	1.0	FA3	1	1	5
Ba	ppm	10.0	XRF1			510
Cd	ppm	1.0	IC2			<1
Ce	ppm	20.0	XRF1			50
Co	ppm	2.0	IC2	55	19	13
Cr	ppm	2.0	IC2	40	42	36
Cu	ppm	1.0	IC2	120	40	32
Fe	%	0.01	IC2	5.05	4.26	3.6
La	ppm	20.0	XRF1			50
Mn	ppm	5.0	IC2	3100	880	770
Mo	ppm	1.0	IC2	9	2	<1
Nb	ppm	2.0	XRF1			13
Ni	ppm	1.0	IC2	145	58	40
P	ppm	5.0	IC2			800
Pb	ppm	3.0	IC2	44	28	25
Pd	ppb	1.0	FA3			<1
Pt	ppb	5.0	FA3			<5
Rb	ppm	2.0	XRF1			125
Sb	ppm	4.0	XRF1			4
Se	ppm	2.0	XRF1			3
Sn	ppm	4.0	XRF1			6
Sr	ppm	2.0	XRF1			60
Th	ppm	4.0	XRF1			12
U	ppm	4.0	XRF1			<4
V	ppm	1.0	IC2			48
W	ppm	10.0	XRF1			<20
Zn	ppm	1.0	IC2	200	100	80

HOLE NO:CRN 65

TRAVERSE:"Caroona - HogBack", 2940 mN

STATION:3 000 mE

DATE:28.10.92

LOGGED BY:WSM

COMMENTS: 25m S of peg.

100 000 SHEET NO: 6731

LOCATION: 330 698 mE

6 293 769 mN

DRILLING METHOD: RC

TOTAL DEPTH: 28.0

Magnetic Susc.		Geological Log		
Interval	Value	Depth	Description	
Quaternary Pooraka Formation				
0-2	6.78	0	3.0	Sandy soil, brn, c minor gravel, rounded qtz & sltst.
2-4	1.94			
4-6	1.59	3.0	5.5	Calcrete, red-brn, hard c minor blk staining; & some clay-sand.
6-8	0.72	5.5	7.0	Clay-sand, c minor gravel at base.
Adelaidean				
8-10	0.08	7.0	11.0	Sltst, lt grn-grey, sl fiss, soft or hard, weathrd in part.
10-12	0.07	11.0	14.0	Sltst, aa, lt grey to lt grn-grey, soft sl weathrd, c minor lt orange stained joints
12-14	0.07			c rare 1-2mm orange Fe infilled joints.
14-16	0.09		14.0	18.0 Sltst, aa, grey, sl fiss & foliat in part, mod weathrd & brn in part.
16-18	0.06			
18-20	0.07	18.0	20.0	Sltst, aa, grey, sl weathrd.
20-22	0.08	20.0	22.0	Sltst, aa, grey, lt grey-brn, or grey-purple, sl-mod weathrd, c minor 1-2mm Fe stained joints c blk cores & brn rims.
22-24	0.09	22.0	25.0	Sltst, sandy, grey-purple, sl weathrd, includes abund dissem rounded f-m qtz
24-26	0.09			grains, no layering; sand grains decrease below 24m. Possibly a diamictite?.
			25.0	26.0 Sltst, grey-purple, c 2-4mm lighter coloured lamn.
26-28	0.06	26.0	28.0	Sltst, aa, grey, fresh, c minor ind or blk stained joints.
		28.0		End of hole.
Geochemistry Samples:				
RS 789	8-22m	Routine geochemistry		
RS 790	22-24m	"		
RS 791	24-28m	Bottom hole, extended geochemistry.		

				CRN 65 8-22m	CRN 65 22-24m	CRN 65 24-28m
				6731RS 789	6731RS 790	6731RS 791
Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5
As	ppm	1.0	IC2	4	3	4
Au	ppb	1.0	FA3	<1	<1	1
Ba	ppm	10.0	XRF1			550
Cd	ppm	1.0	IC2			<1
Ce	ppm	20.0	XRF1			60
Co	ppm	2.0	IC2	17	14	15
Cr	ppm	2.0	IC2	19	17	16
Cu	ppm	1.0	IC2	28	18	14
Fe	%	0.01	IC2	3.52	3.36	5.05
La	ppm	20.0	XRF1			40
Mn	ppm	5.0	IC2	780	1680	1400
Mo	ppm	1.0	IC2	<1	<1	<1
Nb	ppm	2.0	XRF1			15
Ni	ppm	1.0	IC2	58	44	52
P	ppm	5.0	IC2			670
Pb	ppm	3.0	IC2	32	40	38
Pd	ppb	1.0	FA3			<1
Pt	ppb	5.0	FA3			<5
Rb	ppm	2.0	XRF1			185
Sb	ppm	4.0	XRF1			<4
Se	ppm	2.0	XRF1			<2
Sn	ppm	4.0	XRF1			4
Sr	ppm	2.0	XRF1			46
Th	ppm	4.0	XRF1			16
U	ppm	4.0	XRF1			4
V	ppm	1.0	IC2			22
W	ppm	10.0	XRF1			<20
Zn	ppm	1.0	IC2	90	84	100

HOLE NO: CRN 66
 TRAVERSE: "Caroona - Hog Back", 2940 mN
 STATION: 4 000 mE
 DATE: 28.10.92
 LOGGED BY: WSM
 COMMENTS: 45m S of peg.

100 000 SHEET NO: 6731
 LOCATION: 331 623 mE
 6 294 170 mN
 DRILLING METHOD: RC
 TOTAL DEPTH: 50.0m

Magnetic Susc.		Geological Log		
Interval	Value	Depth		Description
Quaternary Pooraka Formation				
0-2	1.21	0	3.0	Clay-silt, brn, gritty.
2-4	0.80			
4-6	0.76	3.0	5.0	Calcrete, lt orange-brn, minor blk staining.
6-8	0.71	5.0	8.0	Clay-sand, lt brn, <u>c</u> minor gravel <10mm, rounded sltst & sst, <u>c</u> minor calc ind in part.
		8.0	8.2	Clay-sand, aa, & abund gravel.
8-10	0.81	8.2	10.0	Sst, clayey, calc ind, lt red-brn, & some f gravel, rounded dk grey sltst, qtz & sst.
10-12	2.01	10.0	14.5	Sst, clayey & calc ind, aa, <u>c</u> increasing coarser gravel <15mm.
12-14	0.82			
14-16	0.23	14.5	16.0	Clay, sandy, red-brn, calc in part, & some gravel of white qtz & lesser dk sltst.
16-18	0.06	16.0	20.5	Clay, sandy, aa, lt red-brn, compact or ind, silic (ie silcrete?), <u>c</u> some yellow
18-20	0.08			ind fractures.
Adelaidean				
20-22	0.03	20.5	21.0	Sltst, lt yellow-brn, hard/ind or soft & clayey, v calc in part, <u>c</u> minor Fe mottling & Fe stained joints.
22-24	0.04	21.0	26.5	Sltst, lt yellow-brn, faint f lamn in part, weathrd.
24-26	0.07			
26-28	0.08	26.5	29.5	Sltst, aa, lt mustard, f lamn & foliat, v weathrd.
28-30	0.19			
30-32	0.10	29.5	32.0	Sltst, aa, lt brn to lt mustard, mod weathrd, <u>c</u> minor lt red Fe staining.
32-34	0.08	32.0	38.0	Sltst/vf sst, lt brn, faint lamn, sl-mod weathrd.
34-36	0.10			
36-38	0.09			
38-40	0.13	38.0	42.0	Sltst, lt mustard- to lt khaki-brn, sl fiss.
40-42	0.19			
42-44	0.11	42.0	44.0	Sltst/vf sst, lt mustard- to lt khaki-brn.
44-46	0.08	44.0	46.0	Sltst/vf sst, lt khaki, sl fiss, sl weathrd.
46-48	0.11	46.0	48.0	Sltst/vf sst, aa, grey-brn to lt khaki-brn.
48-50	0.11	48.0	50.0	Sltst/vf sst, aa, grey to grn-grey, fresh.
		50.0		End of hole.

Geochemistry Samples:

RS 792	24-30m	Routine geochemistry
RS 793	30-46m	"
RS 794	46-50m	Bottom hole, extended geochemistry.

				CRN 66 24-30m	CRN 66 30-46m	CRN 66 46-50m
				6731RS 792	6731RS 793	6731RS 794
Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5
As	ppm	1.0	IC2	3	2	3
Au	ppb	1.0	FA3	<1	<1	<1
Ba	ppm	10.0	XRF1			480
Cd	ppm	1.0	IC2			<1
Ce	ppm	20.0	XRF1			70
Co	ppm	2.0	IC2	40	24	22
Cr	ppm	2.0	IC2	34	28	24
Cu	ppm	1.0	IC2	52	35	30
Fe	%	0.01	IC2	4.62	3.94	3.62
La	ppm	20.0	XRF1			40
Mn	ppm	5.0	IC2	290	270	390
Mo	ppm	1.0	IC2	<1	<1	<1
Nb	ppm	2.0	XRF1			14
Ni	ppm	1.0	IC2	66	44	38
P	ppm	5.0	IC2			700
Pb	ppm	3.0	IC2	26	16	20
Pd	ppb	1.0	FA3			1
Pt	ppb	5.0	FA3			<5
Rb	ppm	2.0	XRF1			155
Sb	ppm	4.0	XRF1			4
Se	ppm	2.0	XRF1			2
Sn	ppm	4.0	XRF1			5
Sr	ppm	2.0	XRF1			62
Th	ppm	4.0	XRF1			16
U	ppm	4.0	XRF1			<4
V	ppm	1.0	IC2			20
W	ppm	10.0	XRF1			<20
Zn	ppm	1.0	IC2	230	105	90

HOLE NO: CRN 67
TRAVERSE: "Caroona - Hog Back", 2940 mN
STATION: 5 000 mE
DATE: 28.10.92
LOGGED BY: WSM

100 000 SHEET NO: 6731
LOCATION: 332 568 mE
6 294 691 mN
DRILLING METHOD: RC
TOTAL DEPTH: 50.0m

Magnetic Susc.	Geological Log			
Interval	Value	Depth	Description	

Quaternary Pooraka Formation				
0-2	1.11	0	2.0	Clayey sand vf-f, calc, lt pink-brn, ind in part.
2-4	1.21	2.0	4.0	Clayey sand, aa, & minor sltst gravel.
4-6	1.49	4.0	5.5	Clay-sand, red-brn, & clay-silt, compact, <u>c</u> f lamn.
6-8	1.38	5.5	12.0	Clayey silt, red-brn, <u>c</u> faint f lamn, compact, calc in part, ie marl, mottled pl
8-10	1.20			brn, lt red-brn.
10-12	1.00			
12-14	0.61	12.0	15.0	Marl, aa, calc ind in part.
14-16	0.61	15.0	16.0	Marl, aa, <u>c</u> minor gravel <5mm, white qtz & blk sltst.
16-18	0.34	16.0	18.0	Marl, aa.
18-20	0.47	18.0	19.0	Marl, aa, <u>c</u> strong calc ind at 18m, red & cream mottled <u>c</u> blk Mn? staining as blebs & fractures.
		19.0	20.0	Marl, aa.
20-22	0.56	20.0	23.0	Clay-silt, soft, lt pink-brn, minor ind.
22-24	0.22			
Adelaidean.				
		23.0	24.0	Sltst, lt grn, off white, lt brn, lt red-brn, faint f lamn, & sl fiss, & rare bleached joints, v weathrd.
24-26	0.10	24.0	26.0	Sltst, aa, brn to lt brn, sl fiss.
26-28	0.10	26.0	29.0	Sltst, aa, fiss & sl foliat, & rare f lamn.
28-30	0.11	29.0	30.0	Sltst, aa, lt khaki.
30-32	0.16	30.0	33.0	Sltst, aa, chocolate-brn, sl-mod weathrd, <u>c</u> minor dendritic joints.
32-34	0.09	33.0	38.0	Sltst, aa, lt khaki.
34-36	0.10			
36-38	0.07			
38-40	0.12	38.0	43.0	Sltst, aa, sl weathrd, <u>c</u> abund 1mm veins of blk Mn? or goethite? & clear to
40-42	0.13			sl milky qtz at 39m.
42-44	0.13	43.0	44.0	Sltst, aa, <u>c</u> abund 1-3mm veins of blk Mn? or goethite? at 43m.
44-46	0.11	44.0	46.0	Sltst, aa, lt khaki, sl weathrd.
46-48	0.13	46.0	48.5	Sltst, aa, lt khaki- to lt grey-brn, fiss, sl foliat.
48-50	0.08	48.5	50.0	Sltst, aa, grey, fresh.
		50.0		End of hole.
Geochemistry Samples:				
RS 795	24-30m	Routine geochemistry		
RS 796	30-38m	"		
RS 797	38-40m	"		
RS 798	40-42m	"		
RS 799	42-44m	"		
RS 800	44-48m	"		
RS 801	48-50m	Bottom hole, extended geochemistry.		

				CRN 67 24-30m	CRN 67 30-38m	CRN 67 38-40m	CRN 67 40-42m
				6731RS 795	6731RS 796	6731RS 797	6731RS 798
Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5	<0.5
As	ppm	1.0	IC2	2	3	4	5
Au	ppb	1.0	FA3	<1	<1	2	1
Ba	ppm	10.0	XRF1				
Cd	ppm	1.0	IC2				
Ce	ppm	20.0	XRF1				
Co	ppm	2.0	IC2	32	30	32	22
Cr	ppm	2.0	IC2	38	38	38	38
Cu	ppm	1.0	IC2	45	40	58	56
Fe	%	0.01	IC2	4.76	4.76	5.25	5.1
La	ppm	20.0	XRF1				
Mn	ppm	5.0	IC2	440	500	1640	450
Mo	ppm	1.0	IC2	<1	<1	<1	<1
Nb	ppm	2.0	XRF1				
Ni	ppm	1.0	IC2	58	58	60	56
P	ppm	5.0	IC2				
Pb	ppm	3.0	IC2	24	14	28	28
Pd	ppb	1.0	FA3				
Pt	ppb	5.0	FA3				
Rb	ppm	2.0	XRF1				
Sb	ppm	4.0	XRF1				
Se	ppm	2.0	XRF1				
Sn	ppm	4.0	XRF1				
Sr	ppm	2.0	XRF1				
Th	ppm	4.0	XRF1				
U	ppm	4.0	XRF1				
V	ppm	1.0	IC2				
W	ppm	10.0	XRF1				
Zn	ppm	1.0	IC2	125	145	130	125

				CRN 67 42-44m	CRN 67 44-48m	CRN 67 48-50m
				6731RS 799	6731RS 800	6731RS 801
Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5
As	ppm	1.0	IC2	6	5	2
Au	ppb	1.0	FA3	2	<1	1
Ba	ppm	10.0	XRF1			500
Cd	ppm	1.0	IC2			<1
Ce	ppm	20.0	XRF1			50
Co	ppm	2.0	IC2	55	25	22
Cr	ppm	2.0	IC2	38	40	35
Cu	ppm	1.0	IC2	64	54	50
Fe	%	0.01	IC2	5	5	4.58
La	ppm	20.0	XRF1			30
Mn	ppm	5.0	IC2	5700	670	1180
Mo	ppm	1.0	IC2	<1	<1	<1
Nb	ppm	2.0	XRF1			18
Ni	ppm	1.0	IC2	50	48	40
P	ppm	5.0	IC2			590
Pb	ppm	3.0	IC2	62	28	25
Pd	ppb	1.0	FA3			<1
Pt	ppb	5.0	FA3			<5
Rb	ppm	2.0	XRF1			170
Sb	ppm	4.0	XRF1			<4
Se	ppm	2.0	XRF1			3
Sn	ppm	4.0	XRF1			4
Sr	ppm	2.0	XRF1			65
Th	ppm	4.0	XRF1			18
U	ppm	4.0	XRF1			<4
V	ppm	1.0	IC2			28
W	ppm	10.0	XRF1			<20
Zn	ppm	1.0	IC2	120	115	105

HOLE NO: CRN 68
 TRAVERSE: "Caroona - Hog Back", 2940 mN
 STATION: 5 880 mE
 DATE: 28.10.92
 LOGGED BY: WSM
 COMMENTS: 120m W of peg 6000mE, at ground mag anomaly, 20m S of track.

100 000 SHEET NO: 6731
 LOCATION: 333 459 mE
 6 294 983 mN
 DRILLING METHOD: RC
 TOTAL DEPTH: 52.0

Magnetic Susc.	Geological Log			
Interval	Value	Depth	Description	

Quaternary Pooraka Formation				
0-2	1.13	0	3.0	Sandy clay, red-brn.
2-4	1.07	3.0	7.7	Clayey silt, mottled pl brn to red-brn, <u>c</u> faint f lamn, compact, calc in part, ie
4-6	1.35			marl.
6-8	0.79	7.7	8.5	Marl, aa, calc, dk red-brn, <u>c</u> blk Mn? mottling, <u>c</u> gravel <15mm, sub-ro qtz, qtzite, sst, sltst, & calcrete pebbles.
8-10	1.12	8.5	12.0	Sst f, clayey, sl calc, red-brn, <u>c</u> minor Mn staining & minor clear qtz gravel.
10-12	0.58			
12-14	0.45	12.0	14.0	Sst f, aa, mod calc, red-brn.
14-16	0.89	14.0	16.0	Sst f, aa, sl calc, <u>c</u> some harder calc ind zones.
16-18	1.09	16.0	22.0	Clayey silt, compact, mottled & lamn, red-brn to pl brn.
18-20	1.01			
20-22	0.99			
22-24	1.01	22.0	29.3	Clayey silt, aa, <u>c</u> minor red-brn calc ind.
24-26	0.83			
26-28	0.63			
28-30	2.58			
		29.3	29.6	Gravel <10mm, qtz & qtzite.
Adelaidean				
		29.6	30.0	Sst f, grey-brn, some orange-brn stained joints & partings, weathrd & ind.
30-32	0.18	30.0	34.0	Clay, silty, lt mustard, <u>c</u> minor soft sltst.
32-34	0.11			
34-36	0.09	34.0	44.0	Sltst, lt khaki to lt mustard-brn, sl fiss & foliat <u>c</u> some faint 1-1.5mm lamn at 70° to foliat, mod weathrd.
36-38	0.10			
38-40	0.16			
40-42	0.15			
42-44	0.13			
44-46	0.15	44.0	46.0	Sltst, aa, lt brn to lt khaki, sl weathrd.
46-48	0.13	46.0	49.5	Sltst, lt grn-grey to lt grey-brn, some reddish Fe stained lamn parallel? to parting.
48-50	0.12			
50-52	0.14	49.5	52.0	Sltst, aa, grey, fresh, rare f lamn & parallel parting, <u>c</u> minor blk stained joints <u>c</u> purple stained 1-2mm haloes.
		52.0		End of hole.

Geochemistry Samples:

RS 802	38-44m	Routine geochemistry
RS 803	44-50m	"
RS 804	50-52m	Bottom hole, extended geochemistry.

				CRN 68 38-44m	CRN 68 44-50m	CRN 68 50-52m
				6731RS 802	6731RS 803	6731RS 804
Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5
As	ppm	1.0	IC2	3	3	1
Au	ppb	1.0	FA3	1	<1	3
Ba	ppm	10.0	XRF1			590
Cd	ppm	1.0	IC2			<1
Ce	ppm	20.0	XRF1			70
Co	ppm	2.0	IC2	42	26	24
Cr	ppm	2.0	IC2	38	38	34
Cu	ppm	1.0	IC2	56	54	42
Fe	%	0.01	IC2	4.82	4.82	4.26
La	ppm	20.0	XRF1			50
Mn	ppm	5.0	IC2	1680	740	1420
Mo	ppm	1.0	IC2	7	<1	<1
Nb	ppm	2.0	XRF1			16
Ni	ppm	1.0	IC2	74	48	40
P	ppm	5.0	IC2			620
Pb	ppm	3.0	IC2	30	18	38
Pd	ppb	1.0	FA3			2
Pt	ppb	5.0	FA3			<5
Rb	ppm	2.0	XRF1			160
Sb	ppm	4.0	XRF1			<4
Se	ppm	2.0	XRF1			2
Sn	ppm	4.0	XRF1			<4
Sr	ppm	2.0	XRF1			58
Th	ppm	4.0	XRF1			15
U	ppm	4.0	XRF1			4
V	ppm	1.0	IC2			28
W	ppm	10.0	XRF1			<20
Zn	ppm	1.0	IC2	170	110	96

HOLE NO: CRN 69
 TRAVERSE: "Caroona - Hog Back", 2940 mN
 STATION: 7 000 mE
 DATE: 28.10.92
 LOGGED BY: WSM
 COMMENTS: 20m SE of peg.

100 000 SHEET NO: 6731
 LOCATION: 334 362 mE
 6 295 646 mN
 DRILLING METHOD: RC
 TOTAL DEPTH: 63.0m

Magnetic Susc.	Geological Log			
Interval	Value	Depth		Description

Quaternary, Pooraka Formation?				
0-2	0.02	0	2.0	Sandy soil, lt brn.
2-4	1.45	2.0	4.0	Clayey sand, red-brn, calc in part, <u>c</u> some f sltst & sst gravel.
4-6	0.92	4.0	6.0	Clayey silt/vf sand, red-brn, calc in part.
6-8	0.38	6.0	8.0	Clayey silt, aa, <u>c</u> some pl pink-brn calc ind, & minor blk Mn? stained blebs.
8-10	0.20	8.0	9.5	Clayey silt, aa, <u>c</u> minor clear coarse qtz grains, & some silic? ind, ie silcrete.
Adelaidean				
10-12	0.07	9.5	12.0	Sltst, mottled off white, lt yellow, & lt red-brn, irregularly ind, <u>c</u> rare Fe stained fractures, & faint lamn?.
12-14	0.06	12.0	20.0	Sltst, yellow-brn, f lamn, ind in part, v weathrd.
14-16	0.07			
16-18	0.06			
18-20	0.07			
20-22	0.06	20.0	24.0	Sltst, aa, <u>c</u> minor clear qtz veins, & minor blk or dk brn Fe stained joints & fractures.
22-24	0.08			
24-26	0.07	24.0	30.0	Sltst, aa.
26-28	0.06			
28-30	0.08			
30-32	0.11	30.0	34.0	Sltst, aa, lt brn, fiss & foliat, <u>c</u> f mica on parting.
32-34	0.07			
34-36	0.05	34.0	35.0	Sltst, aa, brn.
36-38	0.08	35.0	38.5	Sst vf, sl micaceous, lt orange-brn, some paler or darker bands, sl fiss & foliat, sl-mod weathrd.
38-40	0.08	38.5	48.0	Sst vf, aa, <u>c</u> minor faint f lamn.
40-42	0.08			
42-44	0.08			
44-46	0.10			
46-48	0.12			
48-50	0.09	48.0	51.0	Sltst, lt khaki to lt orange-brn, sl foliat in part, & some f red lamn, mod weathrd.
50-52	0.07			
52-54	0.09	51.0	60.0	Sltst/sst vf, aa, <u>c</u> zones of abund veins of white qtz <u>c</u> some dk red to blk Fe stained qtz at 55m, 56.5m & between 57 & 60m; sltst/sst at 55m is bleached lt yellow & stained red in part.
54-56	0.07			
56-58	0.08			
58-60	0.08			
60-62	0.08	60.0	61.0	Sltst, lt khaki, sl weathrd, <u>c</u> minor qtz veining.
62-63	0.15	61.0	63.0	Sltst, lt blue- to lt green-grey, weathrd in part to lt grey-brn, hard & fresh.
		63.0		End of hole.

Geochemistry Samples:

RS 805	20-24m	Routine geochemistry
RS 806	24-32m	"
RS 807	32-42m	"
RS 808	42-54m	"
RS 809	54-60m	"
RS 810	60-63m	Bottom hole, extended geochemistry.

CRN 69 20-24m	CRN 69 24-32m	CRN 69 32-42m	CRN 69 42-54m	CRN 69 54-60m	CRN 69 60-63m
6731R 805	6731R 806	6731R 807	6731R 808	6731R 809	6731R 810

Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
As	ppm	1.0	IC2	3	2	2	1	3	3
Au	ppb	1.0	FA3	<1	1	2	<1	4	4
Ba	ppm	10.0	XRF1						410
Cd	ppm	1.0	IC2						<1
Ce	ppm	20.0	XRF1						70
Co	ppm	2.0	IC2	10	12	20	32	28	44
Cr	ppm	2.0	IC2	22	32	26	34	34	30
Cu	ppm	1.0	IC2	36	38	38	70	125	42
Fe	%	0.01	IC2	3.06	3.32	3.72	4.1	4.7	4.26
La	ppm	20.0	XRF1						50
Mn	ppm	5.0	IC2	170	170	210	260	210	510
Mo	ppm	1.0	IC2	<1	<1	<1	<1	<1	<1
Nb	ppm	2.0	XRF1						18
Ni	ppm	1.0	IC2	24	30	44	70	80	64
P	ppm	5.0	IC2						560
Pb	ppm	3.0	IC2	20	22	25	22	26	24
Pd	ppb	1.0	FA3						<1
Pt	ppb	5.0	FA3						<5
Rb	ppm	2.0	XRF1						145
Sb	ppm	4.0	XRF1						4
Se	ppm	2.0	XRF1						<2
Sn	ppm	4.0	XRF1						5
Sr	ppm	2.0	XRF1						60
Th	ppm	4.0	XRF1						20
U	ppm	4.0	XRF1						5
V	ppm	1.0	IC2						26
W	ppm	10.0	XRF1						<20
Zn	ppm	1.0	IC2	98	110	155	195	260	160

HOLE NO: CRN 70
 TRAVERSE: "Caroona - Hog Back", 2940 mN
 STATION: 8 000 mE
 DATE: 29.10.92
 LOGGED BY: WSM
 COMMENTS: 15m S of peg.

100 000 SHEET NO: 6731
 LOCATION: 335 199 mE
 6 296 221 mN
 DRILLING METHOD: RC
 TOTAL DEPTH: 46.0m

Magnetic Susc.		Geological Log		Description
Interval	Value	Depth	Depth	

Quaternary?				
0-2	0.81	0	2.0	Sandy soil, red-brn, & calcrete, hard, lt pink-brn <u>c</u> blk Mn? blebs.
2-4	0.96	2.0	4.0	Calcrete, aa.
Quaternary Pooraka Formation				
4-6	1.11	4.0	6.0	Sand, clayey, red-brn, calcreted in part; & minor f gravel <5mm, rounded grey sltst & white qtz.
6-8	0.44	6.0	8.0	Marl, ie, v clayey silt, compact, pl brn to red-brn mottled, calc in part <u>c</u> some calc ind, & some blk Mn? stained blebs.
8-10	0.47	8.0	15.0	Marl, aa, <u>c</u> pl brn, lt brn & lt red-brn laminae, sl to v calc.
10-12	0.42			
12-14	0.62			
14-16	0.33	15.0	17.0	Marl, aa, & gravel <15mm, sub-ang qtz & qtzite; & some sst, ind, sl Fe stained.
16-18	1.14	17.0	18.3	Conglomerate, hard & ind, comprising sub-ang clasts < 4mm of qtz, qtzite, sst, & sltst etc, in a matrix of calc vf-f sst, red-brn to pl brn.
Adelaidean				
18-20	0.37	18.3	32.0	Clay-silt, lt mustard-brn to lt orange, <u>c</u> some reddish staining, ie sltst, v weathrd, sl foliat, sl fiss, & <u>c</u> some faint f lamn.
20-22	0.09			
22-24	0.08			
24-26	0.04			
26-28	0.07			
28-30	0.07			
30-32	0.08			
32-34	0.10	32.0	33.0	Sltst, aa, mod weathrd.
34-36	0.09	33.0	37.0	Sltst, aa, lt brn.
36-38	0.09			
38-40	0.10	37.0	40.0	Sltst, aa, lt brn to lt khaki-brn, sl-mod weathrd.
40-42	0.10	40.0	42.0	Sltst, aa, lt brn, <u>c</u> trace of vf mica on partings, <u>c</u> rare v faint f lamn parallel? to parting.
42-44	0.12	42.0	44.0	Sltst, grey-brn, minor fiss parting, sl weathrd.
44-46	0.15	44.0	46.0	Sltst, grey-brn to dk grey, sl fiss or massive.
		46.0		End of hole.

Geochemistry Samples:

RS 811	20-32m	Routine geochemistry
RS 812	32-44m	"
RS 813	44-46m	Bottom hole, extended geochemistry.

				CRN 70 20-32m	CRN 70 32-44m	CRN 70 44-46m
				6731RS 811	6731RS 812	6731RS 813
Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5
As	ppm	1.0	IC2	3	4	2
Au	ppb	1.0	FA3	<1	<1	1
Ba	ppm	10.0	XRF1			520
Cd	ppm	1.0	IC2			<1
Ce	ppm	20.0	XRF1			60
Co	ppm	2.0	IC2	28	34	32
Cr	ppm	2.0	IC2	38	38	32
Cu	ppm	1.0	IC2	60	60	40
Fe	%	0.01	IC2	4.96	4.84	4.46
La	ppm	20.0	XRF1			30
Mn	ppm	5.0	IC2	270	420	700
Mo	ppm	1.0	IC2	<1	<1	<1
Nb	ppm	2.0	XRF1			16
Ni	ppm	1.0	IC2	52	80	48
P	ppm	5.0	IC2			700
Pb	ppm	3.0	IC2	26	24	28
Pd	ppb	1.0	FA3			3
Pt	ppb	5.0	FA3			<5
Rb	ppm	2.0	XRF1			155
Sb	ppm	4.0	XRF1			4
Se	ppm	2.0	XRF1			2
Sn	ppm	4.0	XRF1			<4
Sr	ppm	2.0	XRF1			68
Th	ppm	4.0	XRF1			18
U	ppm	4.0	XRF1			<4
V	ppm	1.0	IC2			25
W	ppm	10.0	XRF1			<20
Zn	ppm	1.0	IC2	200	250	98

HOLE NO: CRN 71
 TRAVERSE: "Caroona - Hog Back", 2940 mN
 STATION: 10 000 mE
 DATE: 29.10.92
 LOGGED BY: WSM
 COMMENTS: 20m SE of peg.

100 000 SHEET NO: 6731
 LOCATION: 336 934 mE
 6 297 302 mN
 DRILLING METHOD: RC
 TOTAL DEPTH: 86.5m

Magnetic Susc.		Geological Log		Description
Interval	Value	Depth	Depth	
Quaternary				
		0	0.5	Sandy soil.
0-2	1.52	0.5	2.0	Calcrete, pl brn to lt pink-brn mottled, ind, <u>c</u> blk Mn? stained blebs.
Quaternary Pooraka Formation				
2-4	0.70	2.0	8.0	Marl, ie clay-silt, compact, mottled pl brn to lt red-brn, f lamn in part,
4-6	0.64			sl to v calc, <u>c</u> some calc ind.
6-8	0.56			
8-10	1.18	8.0	10.0	Gravel <15mm, rounded sst, qtzite & qtz, <u>c</u> minor sst, off white, ind.
10-12	1.98	10.0	10.8	Sst f-c, off white, poorly sorted, <u>c</u> minor gravel within sst.
		10.8	11.2	Conglomerate, varicoloured gravel eg sst & sltst, within a calc white vf sst matrix, poorly sorted, no layering, hard.
12-14	0.98	11.2	16.5	Sst vf, red-brn, calc, ind & massive, <u>c</u> some lt grey-brn mottling, <u>c</u> some blk
14-16	0.85			Mn? stained blebs.
16-18	0.72	16.5	20.5	Clayey silt, mottled pl to lt brn, soft or ind in part, <u>c</u> some irreg blk lamn.
18-20	0.15			
20-22	0.06	20.5	22.5	Clayey silt, aa, <u>c</u> some gravel, white & red stained qtz, <u>c</u> some blk limonitic or Fe stained gravel below 21.5m.
Adelaidean				
22-24	0.02	22.5	25.0	Clay, white kaolin?, silty, soft.
24-26	0.14	25.0	26.0	Clay, aa, pl yellow-brn.
26-28	0.15	26.0	29.0	Clay, aa, off white, <u>c</u> abund clear vein qtz at 26.2m, & at 27-28m.
28-30	0.06	29.0	30.0	Clay, aa, yellow-brn.
30-32	0.04	30.0	34.0	Clay, aa, lt yellow, <u>c</u> some clear vein qtz at 32-34m.
32-34	0.05			
34-36	0.06	34.0	38.0	Clay & silt, aa, yellow-brn, v weathrd & soft.
36-38	0.14			
38-40	0.09	38.0	41.0	Clay & silt, aa, dk yellow-brn.
40-42	0.01			
42-44	0.06	41.0	54.0	Sltst, mod-v weathrd, yellow-brn, <u>c</u> minor faint lamn, <u>c</u> minor qtz veins throughout & abund clear to sl milky qtz veins from 42-44m, 46-47m, & at 49m.
44-46	0.04			
46-48	0.06			
48-50	0.08			
50-52	0.08			
52-54	0.06			
54-56	0.09	54.0	60.0	Sltst, aa, yellow-brn to lt brn, v weathrd.
56-58	0.10			
58-60	0.18			
60-62	0.08	60.0	61.0	Sltst, aa, lt brn, sl-mod weathrd.
62-64	0.15	61.0	66.0	Sltst, aa, pl grey to yellow-brn mottled, v weathrd.
64-66	0.08			
66-68	0.09	66.0	68.0	Sltst, aa, grey-brn, mod weathrd, <u>c</u> orange & yellow-brn lamn, & fiss parting parallel to lamn.
68-70	0.10	68.0	70.0	Sltst, aa, lt khaki.
70-72	0.09	70.0	73.0	Sltst, aa, khaki, strongly fiss.
72-74	0.16	73.0	74.0	Sltst, aa, blue-grey, soft, sl weathrd.
74-76	0.12	74.0	76.0	Sltst, aa, khaki-brn, mod weathrd.
76-78	0.12	76.0	80.0	Sltst, aa, blue-grey, mod weathrd.
78-80	0.10			
80-82	0.10	80.0	82.0	Sltst, aa, lt khaki-brn & blue-grey, sl fiss, soft & sl-mod weathrd, <u>c</u> some brn Fe stained joints.
82-84	0.16	82.0	86.0	Sltst, aa, silver-blue-grey, <u>c</u> sl darker or lighter f lamn, & partings are sl 84-86.0micaceous.
86-86.5	0.05	86.0	86.5	Sltst, aa, fresh & hard.
		86.5		End of hole.

Geochemistry Samples:

RS 814	26-40m	Routine geochemistry
RS 815	40-50m	"
RS 816	50-62m	"
RS 817	62-74m	"
RS 818	74-84m	"
RS 819	84-86m	Bottom hole, extended geochemistry.

				CRN 71 26-40m	CRN 71 40-50m	CRN 71 50-62m	CRN 71 62-74m	CRN 71 74-84m	CRN 71 84-86m
				6731R 814	6731R 815	6731R 816	6731R 817	6731R 818	6731R 819
Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
As	ppm	1.0	IC2	3	4	3	4	4	3
Au	ppb	1.0	FA3	1	<1	<1	1	<1	2
Ba	ppm	10.0	XRF1						450
Cd	ppm	1.0	IC2						<1
Ce	ppm	20.0	XRF1						70
Co	ppm	2.0	IC2	2	5	25	32	30	13
Cr	ppm	2.0	IC2	34	26	36	32	34	35
Cu	ppm	1.0	IC2	58	155	64	38	58	58
Fe	%	0.01	IC2	2.22	3.36	5.1	5.15	5.15	4.66
La	ppm	20.0	XRF1						50
Mn	ppm	5.0	IC2	40	45	210	310	530	660
Mo	ppm	1.0	IC2	<1	<1	<1	<1	3	<1
Nb	ppm	2.0	XRF1						17
Ni	ppm	1.0	IC2	14	28	55	58	46	38
P	ppm	5.0	IC2						700
Pb	ppm	3.0	IC2	5	5	7	9	12	7
Pd	ppb	1.0	FA3						2
Pt	ppb	5.0	FA3						<5
Rb	ppm	2.0	XRF1						155
Sb	ppm	4.0	XRF1						4
Se	ppm	2.0	XRF1						4
Sn	ppm	4.0	XRF1						4
Sr	ppm	2.0	XRF1						50
Th	ppm	4.0	XRF1						16
U	ppm	4.0	XRF1						4
V	ppm	1.0	IC2						28
W	ppm	10.0	XRF1						<20
Zn	ppm	1.0	IC2	26	42	210	175	105	110

HOLE NO: CRN 72
 TRAVERSE: "Caroona - Hog Back", 2940 mN
 STATION: 12 000 mE
 DATE: 29.10.92
 LOGGED BY: WSM
 COMMENTS: 10m SE of peg; float is rounded sltst & sst gravel <60mm in sandy soil.

100 000 SHEET NO: 6731
 LOCATION: 338 455 mE
 6 298 470 mN
 DRILLING METHOD: RC
 TOTAL DEPTH: 83.0m

Magnetic Susc.	Geological Log			
Interval	Value	Depth		Description
Quaternary Pooraka Formation				
0-2	1.41	0	4.0	Sandy soil, & gravel, ie rounded sltst, sst, qtzite, & calcrete pebbles.
2-4	2.39			
4-6	2.46	4.0	5.0	Sand, clayey, aa, & gravel, aa, ind in part.
6-8	0.63	5.0	8.5	Sand vf & silt, v clayey, calc, red-brn, ind in part, & <u>c</u> minor f gravel.
8-10	0.51	8.5	11.0	Marl, ie clay-silt, sl calc, compact, mottled pl grey, lt brn to red-brn.
10-12	1.25	11.0	11.5	Marl, aa, & gravel <6mm, qtz, qtzite, & sltst etc.
		11.5	12.5	Sst vf-f, calc, hard & ind, poorly sorted, off white to brn to red-brn.
12-14	1.08	12.5	14.0	Clay-silt, mottled pale brn to pink-brn, ind in part.
14-16	0.57	14.0	18.0	Clay-silt, aa, compact, faintly mottled pl grey- to pl orange-brn.
16-18	1.02			
18-20	0.90	18.0	20.0	Clay-silt, aa, red-brn.
20-22	3.10	20.0	22.5	Gravel <6mm, blk to dk red-brn ironstone & Fe stained sltst, rounded, & rare qtz; & some red-brn to brn clay or clayey gravel layers.
Weathered Adelaidean?				
22-24	19.0	22.5	25.0	Clay, silty, lt yellow-brn, <u>c</u> sltst gravel interbeds.
24-26	1.27			
Adelaidean				
26-28	0.09	25.0	28.0	Clay, white kaolin?, sl silty, sl sandy vf in part, & minor soft sltst frags <u>c</u> f relict lamn.
28-30	0.06	28.0	29.5	Clay, aa, white <u>c</u> minor pink staining.
		29.5	30.0	Clay, aa, <u>c</u> abund red mottling.
30-32	0.24	30.0	32.0	Clay, silty, sl sandy vf in part, compact, f mottled off white to pl yellow.
32-34	0.04	32.0	37.0	Clay, aa, lt yellow & off white mottled.
34-36	0.15			
36-38	0.28			
38-40	0.20	37.0	40.0	Clay, aa, lt yellow-brn, mottled pl grey, <u>c</u> some soft v weathrd sltst frags.
40-42	0.07	40.0	56.0	Clay, aa, mustard-brn.
42-44	0.08			
44-46	0.06			
46-48	0.94			
48-50	0.39			
50-52	0.18			
52-54	0.07			
54-56	0.11			
56-58	0.07	56.0	60.0	Sltst, brn to lt yellow-brn, mod-v weathrd & v soft, <u>c</u> f lamn.
58-60	0.18			
60-62	0.04	60.0	62.0	Sltst, mustard-brn, mod weathrd, faint f foliat, <u>c</u> fiss parting parallel to foliat.
62-64	0.06	62.0	72.0	Sltst, aa, lt khaki-brn, mod weathrd.
64-66	0.05			
66-68	0.07			
68-70	0.07			
70-72	0.07			
72-74	0.11	72.0	74.0	Sltst, aa, sl-mod weathrd.
74-76	0.09	74.0	78.0	Sltst, aa, <u>c</u> faint foliat at about 60° to strong parting; & rare elongate voids
76-78	0.08			<2mm by 0.5mm, rounded & orange-brn stained, no orientation.
78-80	0.07	78.0	79.0	Sltst, lt brn to pl khaki-brn, <u>c</u> some thin brn Fe stained joints, & minor 1-2mm blk Fe infilled fractures.
80-82	0.08	79.0	82.0	Sltst, lt blue-grey, <u>c</u> irreg 3-8mm long brn ind streaks or lamn?; some sl weathrd khaki-brn zones.
82-83	0.05	82.0	83.0	Sltst, lt blue-grey, fresh; <u>c</u> minor f semi-transl to grey elongate tapered acicular minerals on the parting, <2mm by 0.3mm, <u>c</u> basal cleavage, & roughly oriented.
		83.0		End of hole.

Geochemistry Samples:

RS 820	26-40m	Routine geochemistry
RS 821	40-62m	"
RS 822	62-74m	"
RS 823	74-82m	"
RS 824	82-83m	Bottom hole, extended geochemistry.

				CRN 72 26-40m	CRN 72 40-62m	CRN 72 62-74m	CRN 72 74-82m	CRN 72 82-83m
				6731RS 820	6731RS 821	6731RS 822	6731RS 823	6731RS 824
Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5	<0.5	<0.5
As	ppm	1.0	IC2	2	10	11	12	9
Au	ppb	1.0	FA3	6	<1	1	<1	1
Ba	ppm	10.0	XRF1					460
Cd	ppm	1.0	IC2					<1
Ce	ppm	20.0	XRF1					70
Co	ppm	2.0	IC2	<2	22	26	22	38
Cr	ppm	2.0	IC2	18	34	32	30	24
Cu	ppm	1.0	IC2	19	50	22	52	110
Fe	%	0.01	IC2	1.06	6.9	4.16	5.7	7.5
La	ppm	20.0	XRF1					50
Mn	ppm	5.0	IC2	70	140	155	210	290
Mo	ppm	1.0	IC2	<1	<1	<1	<1	<1
Nb	ppm	2.0	XRF1					17
Ni	ppm	1.0	IC2	4	44	32	38	66
P	ppm	5.0	IC2					900
Pb	ppm	3.0	IC2	4	4	8	4	6
Pd	ppb	1.0	FA3					2
Pt	ppb	5.0	FA3					<5
Rb	ppm	2.0	XRF1					130
Sb	ppm	4.0	XRF1					6
Se	ppm	2.0	XRF1					3
Sn	ppm	4.0	XRF1					4
Sr	ppm	2.0	XRF1					44
Th	ppm	4.0	XRF1					16
U	ppm	4.0	XRF1					4
V	ppm	1.0	IC2					25
W	ppm	10.0	XRF1					<20
Zn	ppm	1.0	IC2	4	110	54	58	60

HOLE NO: CRN 73
 TRAVERSE: "Caroona - Hog Back", 2940 mN
 STATION: 13 000 mE
 DATE: 30.10.92
 LOGGED BY: WSM
 COMMENTS: Calcrete float; 8m SE of peg.

100 000 SHEET NO: 6731
 LOCATION: 339 207 mE
 6 299 155 mN
 DRILLING METHOD: RC
 TOTAL DEPTH: 59.5m

Magnetic Susc.		Geological Log		Description
Interval	Value	Depth	Depth	
Quaternary				
		0	0.5	Sandy soil, brown.
0-2	0.71	0.5	2.0	Sandy soil, & calcrete, lt red-brn, v calc & hard.
Quaternary Pooraka Formation				
2-4	1.64	2.0	4.0	Clay-silt, red-brn, compact, sl calc in part.
4-6	1.18	4.0	6.0	Clay-silt, aa, & minor f gravel <5mm, rounded sltst & qtz.
6-8	0.50	6.0	8.0	Marl, ie calc clayey silt, compact, f mottled pl to lt red-brn.
8-10	2.07	8.0	12.0	Clayey silt/vf sand, compact, non calc, or calc ind in part, mottled.
10-12	1.09			
12-14	0.73	12.0	20.0	Clayey sst, poorly sorted, red-brn, <u>c</u> silic or sl calc ind, hard, <u>c</u> some included
14-16	0.77			f ironstone gravel (ie almost a conglomerate), & minor dendritic Mn?
16-18	1.01			staining; & clay-silt-sand vf, compact, mottled pl grey to lt brn.
18-20	0.68			
20-22	0.34	20.0	23.5	Clay-sand vf, soft, mottled lt yellow-brn to lt grey.
22-24	0.24			
24-26	7.24	23.5	27.0	Clay-sand, aa, & gravel <40mm, becoming Fe stained below 25m.
26-28	10.4			
Adelaidean				
28-30	0.14	27.0	30.0	Clay, white kaolin, sl silty, <u>c</u> some pl yellow staining.
30-32	0.05	30.0	37.0	Clay, aa, off white.
32-34	0.02			
34-36	0.01			
36-38	0.02	37.0	38.0	Clay, aa, lt yellow-brn, f mottled & lamn.
38-40	0.04	38.0	42.0	Clay, aa, mustard-brn.
40-42	0.12			
42-44	0.07	42.0	47.0	Clay, aa, & some mod-v weathrd sltst, sl foliat.
44-46	0.06			
46-48	0.05	47.0	48.0	Clay, aa, lt khaki-brn.
48-50	0.08	48.0	50.0	Sltst, khaki-grey-brn, sl-mod weathrd.
50-52	0.08	50.0	54.0	Sltst, aa, grey-brn, mod weathrd, <u>c</u> faint foliat?, f discont (1-3mm by 0.1mm)
52-54	0.10			brn layers.
54-56	0.11	54.0	58.0	Sltst, aa, grey to grn- or blue-grey, hard, fresh.
56-58	0.11			
58-59.5	0.11	58.0	59.5	Sltst, aa, grey-brn, massive, alters to blue-grey in 1-2mm haloes along joints/partings.
		59.5		End of hole.

Geochemistry Samples:

RS 825	28-36m	Routine geochemistry
RS 826	36-48m	"
RS 827	48-54m	"
RS 828	54-58m	"
RS 829	58-59.5m	Bottom hole, extended geochemistry.

				CRN 73 28-36m	CRN 73 36-48m	CRN 73 48-54m	CRN 73 54-58m	CRN 73 58-59.5m
				6731RS 825	6731RS 826	6731RS 827	6731RS 828	6731RS 829
Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5	<0.5	<0.5
As	ppm	1.0	IC2	6	72	62	19	8
Au	ppb	1.0	FA3	<1	<1	1	<1	5
Ba	ppm	10.0	XRF1					1250
Cd	ppm	1.0	IC2					<1
Ce	ppm	20.0	XRF1					50
Co	ppm	2.0	IC2	<2	18	44	32	26
Cr	ppm	2.0	IC2	13	50	50	36	26
Cu	ppm	1.0	IC2	9	140	115	46	100
Fe	%	0.01	IC2	0.17	5.9	6.1	5.2	4.08
La	ppm	20.0	XRF1					40
Mn	ppm	5.0	IC2	155	300	340	1120	310
Mo	ppm	1.0	IC2	<1	2	<1	<1	<1
Nb	ppm	2.0	XRF1					17
Ni	ppm	1.0	IC2	2	42	72	54	45
P	ppm	5.0	IC2					830
Pb	ppm	3.0	IC2	11	11	8	6	5
Pd	ppb	1.0	FA3					2
Pt	ppb	5.0	FA3					<5
Rb	ppm	2.0	XRF1					210
Sb	ppm	4.0	XRF1					4
Se	ppm	2.0	XRF1					<2
Sn	ppm	4.0	XRF1					<4
Sr	ppm	2.0	XRF1					32
Th	ppm	4.0	XRF1					16
U	ppm	4.0	XRF1					6
V	ppm	1.0	IC2					26
W	ppm	10.0	XRF1					<20
Zn	ppm	1.0	IC2	4	125	155	80	60

HOLE NO: CRN 74
 TRAVERSE: "Caroona - Hog Back", 2940 mN
 STATION: 15 000 mE
 DATE: 30.10.92
 LOGGED BY: WSM
 COMMENTS: 15m SE of peg.

100 000 SHEET NO: 6731
 LOCATION: 340 459 mE
 6 300 424 mN
 DRILLING METHOD: RC
 TOTAL DEPTH: 58.0m

Magnetic Susc.		Geological Log		Description
Interval	Value	Depth	Depth	
Quaternary Pooraka Formation				
0-2	0.96	0	1.0	Sandy soil, brn, & minor f gravel.
2-4	0.38	1.0	4.0	Conglomerate, f, ie calc ind vf-c sand & f gravel <3mm, red-brn, pebbles are mostly ironstone or Fe stained sltst etc <u>c</u> lesser white qtz, poorly sorted, no layering.
4-6	0.45	4.0	8.0	Conglomerate/poorly sorted sst, aa, calc, becoming sl finer.
6-8	0.73			
8-10	0.16	8.0	10.0	Clay-silt, sl calc, mottled pl grey to lt orange-brn.
10-12	0.33	10.0	12.0	Clay-silt, aa, & some f gravel <5mm.
12-14	0.54	12.0	14.0	Clay-silt/sand vf, lt brn <u>c</u> lt grey mottling.
14-16	0.78	14.0	15.0	Sst, vf-c, lt brn to lt red-brn, poorly sorted, silic ind, includes some f ironstone gravel & some Mn? staining and dendrites; & some clay-silt-sand vf, compact, pl to lt brn, sl calc in part.
		15.0	16.0	Clay-silt-sand vf, compact, lt brn, <u>c</u> some gravel, ie red Fe stained sltst.
16-18	2.97	16.0	21.0	Siliceous claystone?, ie silcrete, lt grey, sl calc, hard, vf grained, <u>c</u> irreg lt orange
18-20	1.65			& grey mottling; & minor f gravel, Fe stained sltst.
20-22	21.1	21.0	23.3	Gravel, clayey, dk red-brn, <u>c</u> ironstone & Fe stained sltst pebbles.
22-24	10.2			
Adelaidean				
24-26	0.18	23.3	26.0	Clay, sl silty, mottled pl brn, off white & orange.
26-28	0.07	26.0	31.0	Clay, aa, pl grey, <u>c</u> minor lt yellow & red f lamn.
28-30	0.08			
30-32	0.06	31.0	32.0	Clay, aa, mustard brn, <u>c</u> f red mottling.
32-34	0.03	32.0	38.0	Clay, aa, mottled off white, lt yellow, & lt mustard.
34-36	0.05			
36-38	0.05			
38-40	0.06	38.0	44.0	Clay, aa, & some soft sltst, v weathrd, lt brn, variably mottled lt brn, lt purple, 40-42.07lt mustard.
42-44	0.07			
44-46	0.07	44.0	48.0	Sltst, lt yellow-brn, mod-v weathrd.
46-48	0.10			
48-50	0.11	48.0	54.0	Sltst, aa, foliat, <u>c</u> faint lamn at 60° to foliat.
50-52	0.08			
52-54	0.05			
54-56	0.07	54.0	56.0	Sltst, aa, lt grey-brn, sl foliat, sl weathrd, <u>c</u> red-brn stained joints.
56-58	0.12	56.0	58.0	Sltst, aa, lt brn to lt grn-brn, massive, fresh, <u>c</u> some black Mn stained joints <u>c</u> 0.5mm bleached haloes.
		58.0		End of hole.

Geochemistry Samples:

RS 830	26-44m	Routine geochemistry
RS 831	44-54m	"
RS 832	54-56m	"
RS 833	56-58m	Bottom hole, extended geochemistry.

				CRN 74	CRN 74	CRN 74	CRN 74
				26-44m	44-54m	54-56m	56-58m
				6731RS	6731RS	6731RS	6731RS
				830	831	832	833
Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5	<0.5
As	ppm	1.0	IC2	<1	<1	3	4
Au	ppb	1.0	FA3	<1	1	<1	2
Ba	ppm	10.0	XRF1				620
Cd	ppm	1.0	IC2				<1
Ce	ppm	20.0	XRF1				70
Co	ppm	2.0	IC2	3	5	66	42
Cr	ppm	2.0	IC2	22	25	20	22
Cu	ppm	1.0	IC2	30	65	84	34
Fe	%	0.01	IC2	2.4	3.58	4.26	3.06
La	ppm	20.0	XRF1				40
Mn	ppm	5.0	IC2	70	85	500	1300
Mo	ppm	1.0	IC2	<1	<1	<1	<1
Nb	ppm	2.0	XRF1				14
Ni	ppm	1.0	IC2	15	35	170	68
P	ppm	5.0	IC2				750
Pb	ppm	3.0	IC2	5	15	24	30
Pd	ppb	1.0	FA3				<1
Pt	ppb	5.0	FA3				<5
Rb	ppm	2.0	XRF1				180
Sb	ppm	4.0	XRF1				4
Se	ppm	2.0	XRF1				4
Sn	ppm	4.0	XRF1				5
Sr	ppm	2.0	XRF1				50
Th	ppm	4.0	XRF1				14
U	ppm	4.0	XRF1				4
V	ppm	1.0	IC2				18
W	ppm	10.0	XRF1				<20
Zn	ppm	1.0	IC2	36	76	330	175

HOLE NO: CRN 75
 TRAVERSE: "Caroona - Hog Back", 2940 mN
 STATION: 16 860 mE
 TRAVERSE: "Shepherds Pile East", 3240 mE
 STATION: 655 mS
 DATE: 30-31.10.92
 LOGGED BY: WSM
 COMMENTS: 25m E of gate.

100 000 SHEET NO: 6731
 LOCATION: 342 020 mE
 6 301 040 mN

DRILLING METHOD: RC
 TOTAL DEPTH: 55.0m

Magnetic Susc.		Geological Log		Description
Interval	Value	Depth	Depth	
Quaternary Pooraka Formation				
0-2	0.82	0	2.0	Clayey sand & gravel, dk Fe stained qtzite, white qtz & calcrete pebbles.
2-4	0.75	2.0	6.0	Clay-silt, dk red-brn, compact, v calc in part, <u>c</u> minor grit & minor blk
4-6	1.06			ironstone grains, & some blk Mn? staining.
6-8	1.00	6.0	8.0	Clay-silt, aa, ind & hard, mottled pl brn to lt red-brn, mod calc, some ind is silic, & <u>c</u> minor rounded
				sltst & qtzite gravel <10mm.
8-10	0.63	8.0	10.0	Conglomerate, calc cemented lt red-brn to pl brn matrix, <u>c</u> varicoloured pebbles <6mm of qtz, qtzite,
				sltst, sst etc.
10-12	0.67	10.0	11.8	Clay-sand f, mottled lt red-brn to lt brn, calc ind in part.
12-14	0.58	11.8	13.0	Clay-sand, hard calc or silic ind, red-brn, <u>c</u> abund blk Mn? staining along fractures or irreg or blebs,
				& <u>c</u> rare coarser grains.
14-16	0.11	13.0	16.0	Clay-sand, ind, aa, mottled lt red-brn to lt yellow-brn.
Adelaidean				
16-18	0.24	16.0	18.0	Clay, mod silty, soft, off white & mottled lt yellow & lt red-brn, ind in part.
18-20	0.06	18.0	19.0	Clay, silty, lt mustard brn, & some v weathrd sltst.
		19.0	20.0	Clay, aa, dk khaki-grey.
20-22	0.11	20.0	22.0	Sltst, mottled & streaked lt red-brn to pl brn, <u>c</u> f lamn, v weathrd, & <u>c</u> some 1-2mm hard blk sltst
				layers.
22-24	0.07	22.0	25.0	Sltst, aa, <u>c</u> fiss parting parallel to lamn.
24-26	na			
26-28	0.08	25.0	32.0	Sltst, lt khaki, faint foliat & fiss, v weathrd, <u>c</u> some f blk stained joints.
28-30	0.06			
30-32	0.07			
		32.0	32.5	Sltst, aa, lt mustard-brn.
32-34	0.05	32.5	38.0	Sltst, aa, pl grey-brn <u>c</u> f orange lamn, & <u>c</u> some blk stained joints, mod-v
34-36	0.05			weathrd.
36-38	0.06			
38-40	0.13	38.0	40.0	Sltst, aa, & <u>c</u> fiss parting parallel to f lamn.
40-42	0.11	40.0	44.0	Sltst, aa, pl grey-brn, mod weathrd, & <u>c</u> some dark blk staining at 40.5m.
42-44	0.09			
44-46	0.05	44.0	51.0	Sltst, aa, <u>c</u> some lt orange-brn stained joints.
46-48	0.06			
48-50	0.07			
50-52	0.11	51.0	52.0	Clay, lt yellow-brn, compact.
52-54	0.09	52.0	54.0	Sltst, lt khaki-brn, <u>c</u> v faint f lamn, & faint foliat & fiss parting, sl to mod weathrd.
54-55	0.10	54.0	55.0	Sltst, lt khaki-grey, aa, fresh & hard.
		55.0		End of hole.

Geochemistry Samples:

RS 834	16-26m	Routine geochemistry
RS 835	26-40m	"
RS 836	40-54m	"
RS 837	54-55m	Bottom hole, extended geochemistry.

				CRN 75	CRN 75	CRN 75	CRN 75
				16-26m	26-40m	40-54m	54-55m
				6731RS	6731RS	6731RS	6731RS
				834	835	836	837
Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5	<0.5
As	ppm	1.0	IC2	17	15	44	19
Au	ppb	1.0	FA3	<1	<1	<1	1
Ba	ppm	10.0	XRF1				440
Cd	ppm	1.0	IC2				<1
Ce	ppm	20.0	XRF1				60
Co	ppm	2.0	IC2	175	40	8	13
Cr	ppm	2.0	IC2	38	42	45	44
Cu	ppm	1.0	IC2	68	48	32	44
Fe	%	0.01	IC2	4.42	4.16	4.26	4.64
La	ppm	20.0	XRF1				50
Mn	ppm	5.0	IC2	7000	2750	890	760
Mo	ppm	1.0	IC2	1	2	1	<1
Nb	ppm	2.0	XRF1				17
Ni	ppm	1.0	IC2	78	92	52	84
P	ppm	5.0	IC2				820
Pb	ppm	3.0	IC2	13	8	6	10
Pd	ppb	1.0	FA3				<1
Pt	ppb	5.0	FA3				<5
Rb	ppm	2.0	XRF1				155
Sb	ppm	4.0	XRF1				4
Se	ppm	2.0	XRF1				3
Sn	ppm	4.0	XRF1				6
Sr	ppm	2.0	XRF1				52
Th	ppm	4.0	XRF1				14
U	ppm	4.0	XRF1				<4
V	ppm	1.0	IC2				52
W	ppm	10.0	XRF1				<20
Zn	ppm	1.0	IC2	68	175	115	62

HOLE NO: CRN 76
 TRAVERSE: "Shepherds Pile East", 3240 mE
 STATION: 1 500 mS
 DATE: 31.10.92-1.11.92
 LOGGED BY: WSM
 COMMENTS: 15m E of peg.

100 000 SHEET NO: 6731
 LOCATION: 342 176 mE
 6 300 151 mN
 DRILLING METHOD: RC
 TOTAL DEPTH: 95.5m

Magnetic Susc.		Geological Log		Description
Interval	Value	Depth	Depth	

Quaternary				
		0	0.5	Sandy soil.
Quaternary Pooraka Formation				
0-2	2.17	0.5	5.0	Sand f, sl clayey, brn, calc, & <u>c</u> some rounded calcrete pebbles & minor
2-4	1.61			rounded gravel, ind & hard from 3.5-4m.
4-6	1.38	5.0	7.0	Gravel <10mm, rounded & poorly sorted sltst, qtz & sst etc, ind in part.
6-8	1.49	7.0	9.0	Sst f, calc ind & hard, red-brn, some pl brn mottling, & blk stained & mottled, <u>c</u> minor gravel.
8-10	0.95	9.0	10.0	Clayey silt, compact, lt pink-brn <u>c</u> some pl brn lamn.
10-12	0.99	10.0	14.0	Sst f, calc ind & hard, red-brn, some pl brn mottling, & blk stained & mottled,
12-14	0.74			<u>c</u> minor gravel.
14-16	0.49	14.0	19.0	Sst, aa, mottled lt grey & lt red-brn, <u>c</u> blk Mn? mottling, dendritic in part, <u>c</u>
16-18	0.42			rare f gravel.
18-20	3.59			
20-22	4.88	19.0	23.3	Gravel, <50mm, loose & poorly sorted, qtz, sst sltst etc & rare ironstone; <u>c</u>
22-24	4.94			some hard bands 10-30cm thick, of calc ind f sst, aa.
Adelaidean?				
24-26	4.13	23.3	25.0	Clay, silty, off white to pl grey, <u>c</u> red & orange mottling.
		25.0	26.0	Clay, aa, grey, & dk grey sltst, <u>c</u> abund dk red Fe staining & ind of sltst.
26-28	0.28	26.0	29.0	Clay, white.
28-30	0.14	29.0	31.0	Sst vf, pl grey, poorly sorted, silic ind, no layering; <u>c</u> lt yellow rounded mottles 0.5-3mm <u>c</u> clear or
				blurred edges.
30-32	0.11	31.0	32.5	Clay, silty & sl sandy, pl grey.
32-34	0.04	32.5	35.0	Clay, aa, pl brn to lt grey mottled.
34-36	0.05			
36-38	0.04	35.0	37.0	Clay, aa, pl brn <u>c</u> lt yellow & dk red mottling.
38-40	0.05	37.0	43.0	Clay, aa, pl yellow-grey, sandy & pl grey in part.
40-42	0.16			
42-44	0.09			
44-46	0.02	43.0	48.0	Clay, aa, mottled lt yellow & purple.
46-48	0.06			
48-50	0.12	48.0	51.0	Clay, aa, pl grey <u>c</u> minor yellow & red mottling.
50-52	0.08			
Adelaidean.				
52-54	0.14	51.0	58.0	Clay, aa, pl grey <u>c</u> dk mustard mottling, <u>c</u> frags of soft v weathrd lt mustard
54-56	0.07			brn to brn sltst.
56-58	0.10			
58-60	0.11	58.0	59.0	Sltst, red-brn <u>c</u> minor lt olive mottling, fiss, soft & v weathrd.
60-62	0.11	59.0	64.0	Sltst, lt mustard-brn to khaki, mod weathrd.
62-64	0.11			
64-66	0.14	64.0	70.0	Sltst, aa, lt khaki, & some sl-mod weathrd sltst.
66-68	0.10			
68-70	0.09			
70-72	0.16	70.0	73.0	Sltst, aa, soft & v weathrd.
72-74	0.10			
74-76	0.08	73.0	78.0	Sltst, khaki-brn, v fiss 1-2mm spacing, sl-mod weathrd, <u>c</u> some v weathrd
76-78	0.14			zones.
78-80	0.09	78.0	82.0	Sltst, aa, sl-mod weathrd.
80-82	0.10			
82-84	0.08	82.0	88.0	Sltst, aa, grn-grey, fiss, hard & sl weathrd, <u>c</u> faint foliat at 70° to parting.
84-86	0.07			
86-88	0.11			
88-90	0.12	88.0	91.0	Sltst, aa, <u>c</u> some faint khaki 1-2mm lamn?.
90-92	0.14			

92-94	0.09	91.0	95.5	Sltst, dk grey to blue-grey, some khaki-brn, sl foliat c strong fiss parting, hard & fresh.
94-95.5	0.06			
		95.5		End of hole.

Geochemistry Samples:

RS 838	24-50m	Routine geochemistry
RS 839	50-70m	"
RS 840	70-82m	"
RS 841	82-92m	"
RS 842	92-95.5m	Bottom hole, extended geochemistry.

				CRN 76 24-50m	CRN 76 50-70m	CRN 76 70-82m	CRN 76 82-92m	CRN 76 92-95.5m
				6731RS 838	6731RS 839	6731RS 840	6731RS 841	6731RS 842
Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5	<0.5	<0.5
As	ppm	1.0	IC2	4	11	12	14	9
Au	ppb	1.0	FA3	<1	<1	1	1	1
Ba	ppm	10.0	XRF1					570
Cd	ppm	1.0	IC2					<1
Ce	ppm	20.0	XRF1					60
Co	ppm	2.0	IC2	4	11	32	22	16
Cr	ppm	2.0	IC2	26	50	50	44	40
Cu	ppm	1.0	IC2	13	34	28	34	38
Fe	%	0.01	IC2	2.68	4.4	4.26	4.22	4.66
La	ppm	20.0	XRF1					40
Mn	ppm	5.0	IC2	100	220	780	330	430
Mo	ppm	1.0	IC2	<1	<1	<1	<1	<1
Nb	ppm	2.0	XRF1					16
Ni	ppm	1.0	IC2	3	52	68	48	44
P	ppm	5.0	IC2					920
Pb	ppm	3.0	IC2	8	5	7	7	7
Pd	ppb	1.0	FA3					<1
Pt	ppb	5.0	FA3					<5
Rb	ppm	2.0	XRF1					135
Sb	ppm	4.0	XRF1					<4
Se	ppm	2.0	XRF1					<2
Sn	ppm	4.0	XRF1					8
Sr	ppm	2.0	XRF1					44
Th	ppm	4.0	XRF1					15
U	ppm	4.0	XRF1					<4
V	ppm	1.0	IC2					48
W	ppm	10.0	XRF1					<20
Zn	ppm	1.0	IC2	4	60	72	44	44

HOLE NO: CRN 77
 TRAVERSE: "Shepherds Pile East", 3240 mE
 STATION: 1 850 mS
 DATE: 1.11.92
 LOGGED BY: WSM
 COMMENTS: 25m E of fence; abundant gravel float eg sst, sltst, qtzite.

100 000 SHEET NO: 6731
 LOCATION: 342 156 mE
 6 299 851 mN
 DRILLING METHOD: RC
 TOTAL DEPTH: 85.5m

Magnetic Susc.	Value	Geological Log		Description
Interval		Depth		

Quaternary				
		0	0.5	Sandy soil, brn.
Quaternary Pooraka Formation				
0-2	1.61	0.5	2.5	Clay-sand, calc, red-brn, <u>c</u> some gravel.
2-4	1.12	2.5	4.0	Clay-sand f-c, v calc, compact, red-brn, <u>c</u> some calcrete pebbles.
4-6	1.28	4.0	6.5	Clay-sand & sst f, gritty, brn, ind & sl calc.
6-8	0.85	6.5	7.3	Gravel <20mm, sltst & qtz etc.
		7.3	8.0	Sst f, ind & sl calc, brn.
		8.0	8.5	Gravel <20mm.
8-10	0.69	8.5	10.0	Sst vf, ind & sl calc, lt red-brn, & clay-sand, <u>c</u> faint blk mottling.
10-12	0.75	10.0	11.5	Sst, aa, coarsens in part to conglomerate, ind, <u>c</u> red-brn sl calc matrix & rounded pebbles from 1-15mm.
		11.5	12.5	Clay-sand, compact, lt brn.
12-14	0.49	12.5	13.0	Gravel, & clay-sand, aa.
14-16	1.33	13.0	15.0	Gravel, <u>c</u> some ironstone & blk Fe stained sltst pebbles; & some sst, calc ind & hard, red-brn <u>c</u> f blk staining, dendritic or irreg streaks.
16-18	0.76	15.0	20.2	Sst f, calc ind, red-brn, aa, <u>c</u> some calcite infilled fractures; & lt brn clay-sand;
18-20	0.71			& minor gravel layers.
		20.2	20.5	Clay, silty, mottled lt yellow-brn to red-brn.
20-22	2.22	20.5	22.0	Clay, aa, red-brn, <u>c</u> some 1-2mm ironstone & blk sltst pebbles etc.
22-24	0.78	22.0	24.0	Clay, silty, lt grey <u>c</u> red-brn mottling.
24-26	8.20	24.0	25.0	Clay, silty & sandy, pl grey to lt yellow-grey <u>c</u> red-brn mottling.
26-28	34.1	25.0	27.2	Clay, sandy, red-brn, & clayey gravel eg rounded ironstone, blk sltst & qtz pebbles.
28-30	3.58	27.2	29.0	Clay, silty & sandy, pl grey & lt yellow, <u>c</u> some gravel, aa.
???				
		29.0	30.0	Clay, sl silty, white.
30-32	0.06	30.0	32.0	clay, aa, <u>c</u> some pl yellow mottling & rare red mottling.
		32.0	33.0	Clay, aa, pl grey, <u>c</u> minor purple mottling & some pl purple zones.
32-34	0.05	33.0	34.5	Clay, aa, pl grey.
		34.5	35.0	Clay, aa, pl purple, <u>c</u> red-purple stained fractures.
34-36	0.05	35.0	36.5	Clay, aa, lt grey to lt grey-purple.
36-38	0.07	36.5	39.0	Clay, aa, pl grey to lt yellow, <u>c</u> some white vein qtz <u>c</u> blk dendritic staining on
38-40	0.03			qtz, most is sub-ang ie vein? but some is rounded ie gravel??.
40-42	0.03	39.0	42.0	Clay, silty, pl yellow-grey, <u>c</u> some lt mustard-brn staining.
42-44	0.04	42.0	44.0	Clay, aa, <u>c</u> some white gravel, sub-ro to angular.
Adelaidean				
44-46	0.03	44.0	48.0	Clay, silty, pl fawn <u>c</u> some f mustard-brn mottling & banding.
46-48	0.06			
48-50	0.05	48.0	50.0	Clay, aa, mustard-brn.
50-52	0.03	50.0	52.0	Clay, aa, brt mustard.
52-54	0.07	52.0	53.5	Clay, aa, lt orange-brn, <u>c</u> some sltst, v weathrd, <u>c</u> f lamn & parallel parting.
54-56	0.04	53.5	60.0	Clay, aa, lt brn.
56-58	0.06			
58-60	0.14			
60-62	0.11	60.0	63.0	Clay, aa, lt mustard-brn.
62-64	0.08			
64-66	0.13	63.0	66.0	Clay, aa, lt khaki, <u>c</u> some sltst, sl to mod weathrd, <u>c</u> fiss parting & faint f parallel parting.
66-68	0.08	66.0	68.0	Clay, aa, lt khaki.
68-70	0.12	68.0	70.0	Sltst, lt khaki-grey, sl-mod weathrd, & some brn v weathrd.
70-72	0.06	70.0	72.0	Sltst, lt grn-grey, <u>c</u> fiss parting; & sst vf, lt grey-brn, sl-mod weathrd.
72-74	0.09	72.0	74.5	Sltst, lt grn-grey, some lt blue grey (fresher?), faint f lamn & faint parallel fiss parting, some orange stained joints and parting, sl weathrd.
74-76	0.05	74.5	82.0	Sltst, lt grn-grey, <u>c</u> some softer zones.

76-78	0.12			
78-80	0.11			
80-82	0.12			
82-84	0.15	82.0	83.8	Quartz veins? or quartz gravel?. Most qtz is sub-ro & of even grain size, ie 1-2.5mm, & some qtz looks polished; also includes some f rounded sltst frags, aa.
84-85.5	0.07	83.8	84.5	Sltst, dk grey-purple to grn-grey, hard & fresh, lamn dip 50° <u>c</u> faint parallel parting.
		84.5	85.5	Sltst, aa, blk, v hard, sandy vf in part.
		85.5		End of hole.

Comments:

This is a difficult hole to interpret.

The contact was difficult to determine between the Adelaidean metasediments (siltstone) and the overlying cover sequence, comprising red-brown calcareous indurated silty and sandy clay, sandy clay, and gravel. But for the presence of ironstone and Fe stained siltstone gravel within the underlying clays, the contact would have been interpreted at 20.2m, 22.0m, or 29.0m. The contact is inferred at 29.0m, at the base of the lowest gravels, and corresponding to a change in colour of the clays to predominantly mustard-brn or khaki.

The quartz-rich gravel at 82 to 83.8m is perplexing. The quartz is similar in appearance to a transported gravel, being sub-rounded and of even grain size, ie 1-2.5mm, & some of the quartz looks polished. The gravel also includes some fine rounded siltstone fragments, identical to the overlying and underlying sequences. It is difficult to explain a loose unconsolidated gravel layer within fresh siltstone. Is it perhaps a zone of intense quartz veining?, in which the quartz is already fractured and perhaps partially altered or disintegrated in situ, eg sugary quartz. Or is it possible that quartz grains can abrade and round off to this extent in transit in the drill pipes?.

The siltstone from 44 to 82m is so obviously weathered Adelaidean basement that it is impossible to interpret the quartz-rich layer as a post-Adelaidean transported conglomerate, yet it is difficult to explain it as quartz veining, so its origin remains enigmatic.

Geochemistry Samples:

RS 843	22-30m	Routine geochemistry
RS 844	30-44m	"
RS 845	44-52m	"
RS 846	52-64m	"
RS 847	64-72m	"
RS 848	72-82m	"
RS 849	84-85.5m	Bottom hole, extended geochemistry.

				CRN 77 22-30m	CRN 77 30-44m	CRN 77 44-52m	CRN 77 52-64m
				6731RS 843	6731RS 844	6731RS 845	6731RS 846
Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5	<0.5
As	ppm	1.0	IC2	9	3	8	12
Au	ppb	1.0	FA3	<1	1	1	1
Ba	ppm	10.0	XRF1				
Cd	ppm	1.0	IC2				
Ce	ppm	20.0	XRF1				
Co	ppm	2.0	IC2	14	5	3	9
Cr	ppm	2.0	IC2	56	12	25	28
Cu	ppm	1.0	IC2	22	12	14	26
Fe	%	0.01	IC2	6.4	0.31	1.67	4.28
La	ppm	20.0	XRF1				
Mn	ppm	5.0	IC2	1140	260	105	1000
Mo	ppm	1.0	IC2	<1	<1	<1	<1
Nb	ppm	2.0	XRF1				
Ni	ppm	1.0	IC2	17	4	12	32
P	ppm	5.0	IC2				
Pb	ppm	3.0	IC2	28	9	5	11
Pd	ppb	1.0	FA3				
Pt	ppb	5.0	FA3				
Rb	ppm	2.0	XRF1				
Sb	ppm	4.0	XRF1				
Se	ppm	2.0	XRF1				
Sn	ppm	4.0	XRF1				
Sr	ppm	2.0	XRF1				
Th	ppm	4.0	XRF1				
U	ppm	4.0	XRF1				
V	ppm	1.0	IC2				
W	ppm	10.0	XRF1				
Zn	ppm	1.0	IC2	22	4	16	38

				CRN 77 64-72m	CRN 77 72-82m	CRN 77 84-85.5m
				6731RS 847	6731RS 848	6731RS 849
Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5
As	ppm	1.0	IC2	15	12	10
Au	ppb	1.0	FA3	1	1	1
Ba	ppm	10.0	XRF1			550
Cd	ppm	1.0	IC2			<1
Ce	ppm	20.0	XRF1			60
Co	ppm	2.0	IC2	30	12	13
Cr	ppm	2.0	IC2	46	42	42
Cu	ppm	1.0	IC2	34	28	17
Fe	%	0.01	IC2	4.32	4.22	4.32
La	ppm	20.0	XRF1			50
Mn	ppm	5.0	IC2	1540	185	1650
Mo	ppm	1.0	IC2	<1	<1	<1
Nb	ppm	2.0	XRF1			14
Ni	ppm	1.0	IC2	65	40	34
P	ppm	5.0	IC2			900
Pb	ppm	3.0	IC2	8	6	8
Pd	ppb	1.0	FA3			<1
Pt	ppb	5.0	FA3			<5
Rb	ppm	2.0	XRF1			130
Sb	ppm	4.0	XRF1			<4
Se	ppm	2.0	XRF1			<2
Sn	ppm	4.0	XRF1			5
Sr	ppm	2.0	XRF1			48
Th	ppm	4.0	XRF1			16
U	ppm	4.0	XRF1			6
V	ppm	1.0	IC2			54
W	ppm	10.0	XRF1			<20
Zn	ppm	1.0	IC2	86	55	52

HOLE NO: CRN 78
 TRAVERSE: "Caroona - Hog Back", 2940 mN
 STATION: 19 000 mE
 DATE: 2.11.92
 LOGGED BY: WSM
 COMMENTS: 15m S of peg.

100 000 SHEET NO: 6731
 LOCATION: 344 175 mE
 6 301 167 mN
 DRILLING METHOD: RC
 TOTAL DEPTH: 77.5m

Magnetic Susc.	Value	Geological Log		Description
Interval		Depth		

Quaternary				
		0	0.5	Sandy soil, brn.
Quaternary Pooraka Formation				
0-2	1.68	0.5	2.0	Clayey sand, brn, <u>c</u> minor f gravel.
2-4	0.92	2.0	4.0	Gravel <10mm, rounded, coarsening downwards.
4-6	0.71	4.0	5.5	Sst vf, clayey, semi-ind & soft, calc, lt brn, <u>c</u> minor f gravel.
6-8	0.79	5.5	8.0	Clayey silt/sand vf, compact, sl clayey, mottled pl brn to lt red-brn.
8-10	0.93	8.0	11.5	Clayey silt, aa, <u>c</u> rare grit & minor calc ind.
10-12	0.81			
12-14	0.77	11.5	14.0	Clayey silt, compact, lt red-brn, <u>c</u> minor blk f mottling.
		14.0	14.5	Clayey silt, aa, lt brn, <u>c</u> some pl grey clay layers, & minor gravel esp ironstone.
14-16	0.39	14.5	17.0	Sltst, red-brn, massive <u>c</u> hard silic ind, ie silcrete?.
16-18	0.47	17.0	20.0	Clay, silty & sandy, red-brn, <u>c</u> some pl brn lamn, & some f blk mottling.
18-20	0.74			
		20.0	20.5	Clay, aa, lt khaki.
		20.5	21.0	Clay, red-brn, & gravel, ironstone & Fe stained sltst & sst pebbles.
20-22	6.27	21.0	22.0	Silt/vf sand, clayey, red-brn Fe stained, <u>c</u> rounded Fe stained m-c grit.
Adelaidean?				
2-24	1.15	22.0	23.5	Sand vf, v clayey, compact, lt orange, <u>c</u> pl grey-brn 1-5mm lamn?.
24-26	0.05	23.5	26.0	Sand, clayey, aa, pl grey, <u>c</u> some lt orange mottling & silic ind zones at top.
		26.0	26.5	Sand, clayey, aa, pl yellow-brn.
26-28	0.09	26.5	29.0	Sand, clayey, aa, gritty in part <u>c</u> some lt orange f lamn, & some semi-ind sst.
28-30	0.02			
30-32	0.05	29.0	38.0	Clay, silty & sandy vf, or clayey silt/sand vf, pl yellow-brn, <u>c</u> some vf orange lamn.
32-34	0.05			
34-36	0.05			
36-38	0.04			
38-40	0.07	38.0	42.0	Clay, silty, lt brn, vf mottled lt yellow-brn to lt pink-brn, <u>c</u> some lt red sl irreg .2-.5mm thick lamn.
40-42	0.07			
42-44	0.07	42.0	46.0	Clay, silty, aa, some is semi-ind.
44-46	0.06			
46-48	0.19	46.0	48.0	Sst vf, semi-ind, brn, <u>c</u> lt khaki 1-5mm layers.
48-50	0.04	48.0	49.0	Clay, silty, compact, red-purple & red-brn f banded.
Adelaidean				
50-52	0.11	49.0	56.0	Sst vf & sltst, soft, lt khaki-brn, <u>c</u> f lt red-brn lamn, v weathrd.
52-54	0.06			
54-56	0.09			
56-58	0.09	56.0	60.0	Sltst, khaki to khaki-grey, f foliat & sl fiss, mod weathrd.
58-60	0.08			
60-62	0.07	60.0	62.0	Sltst, grn-grey, sl weathrd.
62-64	0.05	62.0	69.0	Sltst, grn-grey to lt grn-brn, sl foliat, & sl fiss, <u>c</u> some dk brn to blk Fe stained joints, sl weathrd.
64-66	0.07			
66-68	0.07			
68-70	0.06	69.0	70.0	Clay-silt, pl grey, <u>c</u> some 1-2mm orange to brn to blk Fe ind lamn or joints.
70-72	0.09	70.0	72.0	Sltst, grn-grey, sl weathrd, aa.
72-74	0.07	72.0	75.0	Sltst, aa, lt khaki to lt brn, sl-mod weathrd, <u>c</u> some brn Fe stained joints.
74-76	0.11	75.0	76.0	Sltst, grey, sl weathrd.
76-77.5	0.11	76.0	77.5	Sltst, grey, fresh & hard, <u>c</u> faint f lt grey-brn (sandy?) lamn .2-.5mm, & faint fiss parting parallel to lamn.
		77.5		End of hole.

Geochemistry Samples:

RS 850	22-38m	Routine geochemistry
RS 851	38-50m	"
RS 852	50-56m	"
RS 853	56-76m	"
RS 854	76-77.5m	"

				CRN 78 22-38m	CRN 78 38-50m	CRN 78 50-56m	CRN 78 56-76m	CRN78 76-77.5m
				6731RS 850	6731RS 851	6731RS 852	6731RS 853	6731RS 854
Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5	<0.5	<0.5
As	ppm	1.0	IC2	7	8	4	4	2
Au	ppb	1.0	FA3	<1	<1	<1	4	4
Ba	ppm	10.0	XRF1					
Cd	ppm	1.0	IC2					
Ce	ppm	20.0	XRF1					
Co	ppm	2.0	IC2	2	9	34	62	36
Cr	ppm	2.0	IC2	30	38	35	30	54
Cu	ppm	1.0	IC2	9	34	34	24	100
Fe	%	0.01	IC2	1.22	3.52	4.08	3.42	5.65
La	ppm	20.0	XRF1					
Mn	ppm	5.0	IC2	135	190	1350	2500	3450
Mo	ppm	1.0	IC2	<1	<1	<1	<1	<1
Nb	ppm	2.0	XRF1					
Ni	ppm	1.0	IC2	3	14	45	74	32
P	ppm	5.0	IC2					
Pb	ppm	3.0	IC2	6	4	4	7	8
Pd	ppb	1.0	FA3					
Pt	ppb	5.0	FA3					
Rb	ppm	2.0	XRF1					
Sb	ppm	4.0	XRF1					
Se	ppm	2.0	XRF1					
Sn	ppm	4.0	XRF1					
Sr	ppm	2.0	XRF1					
Th	ppm	4.0	XRF1					
U	ppm	4.0	XRF1					
V	ppm	1.0	IC2					
W	ppm	10.0	XRF1					
Zn	ppm	1.0	IC2	6	35	155	95	55

HOLE NO: CRN 79
 TRAVERSE: "Caroona - Hog Back", 2940 mN
 STATION: 21 000 mE
 DATE: 2.11.92
 LOGGED BY: WSM
 COMMENTS: 20m N of peg.

100 000 SHEET NO: 6731
 LOCATION: 346 093 mE
 6 301 408 mN
 DRILLING METHOD: RC
 TOTAL DEPTH: 122.5m

Magnetic Susc.		Geological Log		Description
Interval	Value	Depth	Depth	
Quaternary Pooraka Formation				
0-2	1.19	0	4.0	Sandy clay, lt brn, & gravel, qtz, Fe ind sst etc.
2-4	1.55			
4-6	0.67	4.0	5.5	Gravel, sst, qtz & calcrete pebbles etc; & calcrete, ie hard calc ind lt pink-brn poorly sorted sst f.
6-8	0.80	5.5	8.0	Clay-silt/sand vf, poorly sorted, calc, lt pink-brn vf mottled, compact.
8-10	0.81	8.0	15.5	Clay-silt, aa, sl calc, lt red-brn to pl brn, c f irreg pale or blk lamn, & calc ind from 11.5-12m.
10-12	0.61			
12-14	1.85			
14-16	5.07			
		15.5	16.0	Clay, silty, mottled lt brn to red-brn, compact, c rounded gravel <10mm of ironstone & Fe stained sltst & sst etc.
16-18	0.50	16.0	17.0	Clay, silty, aa, c minor hard silicf yellow to orange zones c blk dendrites on fractures, ie silcrete.
		17.0	17.5	Clay, silty, aa, mottled off-white, lt yellow, & red.
		17.5	18.0	Silcrete, ie silic sltst/sst vf, hard, mottled off-white, yellow-orange, to red.
18-20	0.31	18.0	19.8	Silcrete, aa, pl grey.
Adelaidean?				
20-22	0.11	19.8	24.2	Clay, sl silty & sandy, pl grey, c zones of abund orange, red, & purple motting, compact.
24-26	0.16	24.2	25.0	Clay, aa, white, c clear vein qtz at 24.5m.
26-28	0.03	25.0	27.0	Clay, aa, pl yellow, c abund clear vein qtz at 25.5m.
28-30	0.04	27.0	31.0	Clay, soft, pl yellow-brn to pl pink, c some thin qtz veins.
30-32	0.05			
32-34	0.04	31.0	38.0	Clay, aa, lt mustard, c some thin qtz veins from 31-32.5m.
34-36	0.07			
36-38	0.06			
38-40	0.10	38.0	40.0	Clay, aa, lt pink-brn & lt mustard.
40-42	0.18	40.0	44.0	Clay, aa, lt brn.
42-44	0.19			
44-46	0.12	44.0	45.0	Clay, aa, lt mustard.
Adelaidean				
46-48	0.12	45.0	52.0	Clay, aa, lt brn, c some v soft weathrd sltst.
48-50	0.13			
50-52	0.10			
52-54	0.10	52.0	54.0	Clay, aa, lt mustard, c some soft sltst, aa.
54-56	0.17	54.0	60.0	Clay & soft sltst, aa, mustard.
56-58	0.08			
58-60	0.08			
60-62	0.13	60.0	73.0	Clay & soft sltst, aa, lt mustard, c faint f foliat.
62-64	0.12			
64-66	0.13			
66-68	0.07			
68-70	0.29			
70-72	0.06			
72-74	0.06	73.0	77.0	Clay & soft sltst, aa, sl f foliat & sl fiss.
74-76	na			
76-78	0.06	77.0	86.0	Clay & soft sltst, aa, lt khaki.
78-80	0.09			
80-82	0.10			
82-84	0.16			
84-86	0.10			
86-88	0.15	86.0	90.0	Sltst, lt khaki, v weathrd, c some mod weathrd khaki-grey sltst, fiss.
88-90	0.14			
90-92	0.11	90.0	92.0	Sltst, lt khaki, aa, mod weathrd, c faint thin orange-brn lamn & faint parallel foliat.
92-94	0.11	92.0	94.0	Sltst, khaki, sl weathrd.

94-96	0.09	94.0	100.0	Sltst, khaki, v weathrd.
96-98	0.09			
98-100	0.10			
100-102	0.15	100.0	104.0	Sltst, blue-grey, or khaki & orange-brn banded, mod weathrd.
102-104	0.08			
104-106	0.36	104.0	110.0	Sltst, aa, <u>c</u> some faint lamn, & some f liesegang banding.
106-108	0.10			
108-110	0.22			
110-112	0.13	110.0	114.0	Sltst, grey to blue grey, sl weathrd, massive.
112-114	0.16			
114-116	0.15	114.0	118.0	Sltst, grey, sl foliat <u>c</u> rare orange Fe stained joints, fresh.
116-118	0.12			
118-120	0.11	118.0	122.5	Sltst, blue-grey, sl foliat, soft, fresh.
120-122.5	na			
		122.5		End of hole

Geochemistry Samples:		
RS 855	20-30m	Routine geochemistry
RS 856	30-52m	"
RS 857	52-78m	"
RS 858	78-92m	"
RS 859	92-112m	"
RS 860	112-120m	"
RS 861	120-122.5m	"

				CRN 79 20-30m	CRN 79 30-52m	CRN 79 52-78m	CRN 79 78-92m
				6731RS 855	6731RS 856	6731RS 857	6731RS 858
Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5	<0.5
As	ppm	1.0	IC2	<1	<1	2	2
Au	ppb	1.0	FA3	<1	<1	<1	1
Ba	ppm	10.0	XRF1				
Cd	ppm	1.0	IC2				
Ce	ppm	20.0	XRF1				
Co	ppm	2.0	IC2	<2	3	11	28
Cr	ppm	2.0	IC2	36	52	40	38
Cu	ppm	1.0	IC2	12	75	60	38
Fe	%	0.01	IC2	1.69	4.02	4.88	5.75
La	ppm	20.0	XRF1				
Mn	ppm	5.0	IC2	25	80	200	290
Mo	ppm	1.0	IC2	<1	<1	<1	<1
Nb	ppm	2.0	XRF1				
Ni	ppm	1.0	IC2	1	22	42	62
P	ppm	5.0	IC2				
Pb	ppm	3.0	IC2	6	3	4	4
Pd	ppb	1.0	FA3				
Pt	ppb	5.0	FA3				
Rb	ppm	2.0	XRF1				
Sb	ppm	4.0	XRF1				
Se	ppm	2.0	XRF1				
Sn	ppm	4.0	XRF1				
Sr	ppm	2.0	XRF1				
Th	ppm	4.0	XRF1				
U	ppm	4.0	XRF1				
V	ppm	1.0	IC2				
W	ppm	10.0	XRF1				
Zn	ppm	1.0	IC2	3	64	60	170

				CRN 79	CRN 79	CRN79
				92-112	112-120m	120-122.5m
				6731RS	6731RS	6731RS
				859	860	861
Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5
As	ppm	1.0	IC2	<1	3	1
Au	ppb	1.0	FA3	1	1	<1
Ba	ppm	10.0	XRF1			
Cd	ppm	1.0	IC2			
Ce	ppm	20.0	XRF1			
Co	ppm	2.0	IC2	32	32	42
Cr	ppm	2.0	IC2	40	36	52
Cu	ppm	1.0	IC2	125	70	66
Fe	%	0.01	IC2	5.15	4.9	7.35
La	ppm	20.0	XRF1			
Mn	ppm	5.0	IC2	340	530	690
Mo	ppm	1.0	IC2	<1	<1	<1
Nb	ppm	2.0	XRF1			
Ni	ppm	1.0	IC2	60	50	64
P	ppm	5.0	IC2			
Pb	ppm	3.0	IC2	7	5	<3
Pd	ppb	1.0	FA3			
Pt	ppb	5.0	FA3			
Rb	ppm	2.0	XRF1			
Sb	ppm	4.0	XRF1			
Se	ppm	2.0	XRF1			
Sn	ppm	4.0	XRF1			
Sr	ppm	2.0	XRF1			
Th	ppm	4.0	XRF1			
U	ppm	4.0	XRF1			
V	ppm	1.0	IC2			
W	ppm	10.0	XRF1			
Zn	ppm	1.0	IC2	165	110	155

HOLE NO: CRN 80
 TRAVERSE: "Hog Back - Braeside", 3021 mN
 STATION: 500 mE
 DATE: 3.11.92
 LOGGED BY: WSM
 COMMENTS: 25m NE of peg.

100 000 SHEET NO: 6731
 LOCATION: 347 346 mE
 6 301 939 mN
 DRILLING METHOD: RC
 TOTAL DEPTH: 118.2m

Magnetic Susc.	Value	Geological Log		Description
Interval		Depth		
Quaternary Pooraka Formation				
0-2	1.16	0	2.0	Clay-silt, lt brn, & calcrete, lt brn c f Mn? staining, & rare qtz grit.
2-4	1.18	2.0	5.0	Clay-silt, lt brn, calc & compact, c minor rounded qtz grit.
4-6	0.54	5.0	6.0	Gravel, ie rounded sltst, qtz, calcrete, & some silcrete.
6-8	1.06	6.0	9.0	Clay-silt/sand vf, red-brn c some pl brn calc zones & f blk lamn, c minor qtz
8-10	1.12			& ironstone? grit.
10-12	1.35	9.0	12.0	Clay-silt/sand, aa, c some gravel from 9-10m, esp rounded qtz.
12-14	1.87	12.0	13.0	Clay-silt/sand, aa, c minor hard calc ind.
		13.0	14.5	Clay-silt/sand, aa, c minor gravel, increasing below 14m.
14-16	4.96	14.5	15.5	Gravel <20mm, c layers of clay-silt, lt brn, compact.
		15.5	16.0	Conglomerate, calc ind matrix, lt pink-brn, c rounded sltst, sst etc pebbles.
16-18	1.41	16.0	18.0	Conglomerate, aa, silicf in part (ie silcrete?), & some lt yellow vf grained silcrete.
18-20	1.37	18.0	20.0	Sandy clay-silt, red-brn to lt brn mottled, compact, c f blk dendritic staining, & c minor rounded
				ironstone & qtz grit.
		20.0	20.5	Sandy clay-silt, aa, c abundant gravel <6mm, eg ironstone, Fe stained sltst, & qtz.
20-22	20.1	20.5	22.0	Gravel <20mm, rounded red-brn sltst etc, c layers of sst vf, calc ind & hard, lt grey-brn.
22-24	1.84	22.0	26.0	Clayey silt, red-brn, c minor ironstone & qtz f gravel, & some sst vf, calc ind
24-26	8.00			& hard, lt grey-brn.
26-28	25.7	26.0	27.0	Ironstone gravel <5mm, & some qtz & clayey silt.
Tertiary?				
28-30	0.94	27.0	30.0	Clay-silt, sand, lt brn to lt red-brn, compact.
30-32	0.55	30.0	34.0	Clay-silt, aa, faintly layered, lamn?.
32-34	0.06			
34-36	0.07	34.0	35.5	Clayey sand vf-f, compact, mottled pl red to pl grn-brn, faintly layered.
36-38	0.06	35.5	38.0	Clay, silty & sandy, compact, pl grey, c minor lt red & lt purple mottling.
38-40	0.06	38.0	40.0	Sand f, clayey, compact, pl grey, some lt yellow.
40-42	0.25	40.0	44.0	Sand, clayey, aa, lt yellow.
42-44	0.03			
44-46	0.04	44.0	46.0	Sand, clayey, aa, pl brn to lt yellow, c some purple staining.
46-48	0.05	46.0	48.0	Sand f, clayey, brt mustard, soft, & minor sub-ro 0.5-2mm qtz grit.
48-50	0.04	48.0	49.0	Sand, f, lt orange, loose.
Olney? Formation? (or weathered Adelaidean?)				
50-52	0.03	49.0	58.0	Clay, clean to sl silty, pl to lt grey, c minor lt purple mottling, compact.
52-54	0.02			
54-56	0.06			
56-58	0.22			
58-60	0.06	58.0	59.0	Clay, aa, silicf in part.
		59.0	60.5	Claystone, pl grey, silicf & hard, structureless.
60-62	0.17	60.5	64.0	Clay, clean to sl silty, lt grey, compact.
62-64	0.04			
64-66	0.05	64.0	66.0	Clay, aa, lt grey, c rare red mottling, & dk red mottled at 65.5m.
66-68	0.06	66.0	72.0	Clay, aa, lt grey, c minor f red, purple & khaki mottling.
68-70	0.06			
70-72	0.04			
72-74	0.04	72.0	77.5	Clay, silty, pl grey c abund lt red, khaki, & dk khaki mottling.
74-76	0.05			
76-78	0.02			
Adelaidean				
78-80	0.07	77.5	79.0	Clay, silty, pl grey, c minor dk grey sltst frags, & minor clear qtz veins.
		79.0	80.0	Clay, silty, aa, lt khaki, c minor dk grey sltst frags, & minor clear qtz veins.
80-82	0.13	80.0	84.0	Abund clear qtz veins, & abund f to vc blk metallic specular haematite? (ie
82-84	0.12			platey, lustrous, c curved plates, non magnetic) within and adjacent to the qtz veins; qtz is banded in part. Slstst is v weathrd/alterd? to soft clay.

84-86	0.12	84.0	86.0	Clay, aa, lt khaki-grey, & abund qtz & specular haematite, aa.
86-88	0.10	86.0	91.0	Clay, pl khaki-grey, c v weathrd sltst, khaki-mustard, & foliat, & minor qtz
88-90	0.21			& spec haem, aa.
90-92	0.15	91.0	95.0	Abund clear qtz & specular haematite veins, aa, including some coarsely xtalln
92-94	0.13			qtz; specular haematite also occurs as f to c grains or aggregates within clay, & clay includes some
				khaki to olive v weathrd sltst.
94-96	0.10	95.0	96.0	Clay, aa, pl khaki-grey, c some sltst, lt grey-brn, sl-mod weathrd, & minor qtz & spec haem veins,
				aa.
96-98	0.11	96.0	98.0	Clay, aa, c abund specular haematite as 2-20mm irreg aggregates within clay, & c minor qtz veins.
98-100	0.08	98.0	102.0	Sltst, pl khaki & pl pink, mod-v weathrd & v soft, f fiss, & faint lamn?, c rare
100-102	0.14			qtz & spec haem, aa.
102-104	0.09	102.0	104.0	Sltst, aa, c minor f qtz & spec haem veining.
104-106	0.27	104.0	110.0	Sltst, aa, pl grey to pl grey-brn, fiss & lamn, c minor f qtz & spec haem veining,
106-108	0.60			& c minor f (ie 0.1-0.3mm wide & 3-4mm long) specular haematite veinlets,
108-110	0.06			& c several zones of abund spec haem as 10mm wide veins.
110-112	0.14	110.0	112.0	Sltst, pl to lt pink to lt orange-brn bedded 1-3mm, & some f lamn, v weathrd, c minor f qtz & spec
				haem veining.
112-114	0.06	112.0	113.0	Sltst, aa, pl to lt khaki, some lt pink, c some thin blk sltst, c rare f qtz & spec haem veining.
114-116	0.25	113.0	116.0	Abund specular haematite & clear vein qtz, aa, & sltst, aa, pl khaki, v weathrd.
116-118.2	0.09	116.0	118.2	Silty clay, pl grey to pl khaki, faint f lamn, c minor f qtz & spec haem veining.
		118.2		Very hard, & v poor sample recovery, ie a few small fragments of specular haematite.
		118.2		End of hole.

Comments:

This hole intersected abundant quartz and specular haematite? veining within weathered or altered finely laminated siltstone below the inferred basement contact at 77.5m. This veining was particularly abundant from 80-86m, 91-95m, between 104 & 110m, and at 113-116m. The quartz and specular haematite occur intergrown or as separate veins or veinlets. No sulphides were observed. The quartz, specular haematite, and strong alteration represent a major hydrothermal system, possibly associated with a strong magnetic feature striking south-southwest from the Bendigo Granite (The zones of veining and alteration had low magnetic susceptibility).

Geochemistry Samples:

RS 862	78-80m	Extended geochemistry
RS 863	80-86m	"
RS 864	86-90m	"
RS 865	90-96m	"
RS 866	96-98m	Routine geochemistry
RS 867	98-104m	"
RS 868	104-108m	"
RS 869	108-114m	Extended geochemistry
RS 870	114-116m	"
RS 871	116-118m	Routine geochemistry
-	78-80m	Insufficient sample for a duplicate.
RS 872	80-86m	Check sample, extended geochemistry
RS 873	86-90m	Check sample, extended geochemistry
RS 874	90-96m	Check sample, extended geochemistry
RS 875	96-98m	Check sample, routine geochemistry
RS 876	98-104m	Check sample, routine geochemistry
RS 877	104-108m	Check sample, routine geochemistry
RS 878	108-114m	Check sample, extended geochemistry
RS 879	114-116m	Check sample, extended geochemistry
RS 880	116-118m	Check sample, routine geochemistry

				CRN 80 78-80m	CRN 80 80-86m	CRN 80 86-90m	CRN 80 90-96m	CRN 80 96-98m	CRN 80 98-104m
				6731 862	6731 863	6731 864	6731 865	6731 866	6731 867
Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
As	ppm	1.0	IC2	12	<1	2	<1	1	3
Au	ppb	1.0	FA3	3	1	1	2	1	<1
Ba	ppm	10.0	XRF1	105	260	370	750		
Cd	ppm	1.0	IC2	<1	<1	<1	<1		
Ce	ppm	20.0	XRF1	380	250	160	160		
Co	ppm	2.0	IC2	110	24	16	25	20	22
Cr	ppm	2.0	IC2	25	30	25	24	22	22
Cu	ppm	1.0	IC2	12	24	18	17	11	11
Fe	%	0.01	IC2	3.38	8.35	7.50	9.95	7.00	5.30
La	ppm	20.0	XRF1	160	280	110	150		
Mn	ppm	5.0	IC2	30	800	430	650	490	490
Mo	ppm	1.0	IC2	4	<1	<1	<1	<1	<1
Nb	ppm	2.0	XRF1	13	17	16	16		
Ni	ppm	1.0	IC2	76	25	30	40	25	24
P	ppm	5.0	IC2	220	350	350	470		
Pb	ppm	3.0	IC2	6	5	3	<3	<3	<3
Pd	ppb	1.0	FA3	<1	<1	<1	<1		
Pt	ppb	5.0	FA3	<5	<5	<5	<5		
Rb	ppm	2.0	XRF1	44	135	170	130		
Sb	ppm	4.0	XRF1	<4	<4	<4	5		
Se	ppm	2.0	XRF1	<2	<2	4	<2		
Sn	ppm	4.0	XRF1	5	<4	<4	<4		
Sr	ppm	2.0	XRF1	24	88	54	72		
Th	ppm	4.0	XRF1	12	20	22	14		
U	ppm	4.0	XRF1	8	8	6	4		
V	ppm	1.0	IC2	32	54	42	44		
W	ppm	10.0	XRF1	<20	<20	<20	<20		
Zn	ppm	1.0	IC2	94	24	22	34	26	22

CRN 80	CRN 80	CRN 80	CRN 80
104-108m	108-114m	114-116m	116-118m

6731RS	6731RS	6731RS	6731RS
868	869	870	871

Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5	<0.5
As	ppm	1.0	IC2	2	2	3	3
Au	ppb	1.0	FA3	<1	<1	<1	<1
Ba	ppm	10.0	XRF1		560	660	
Cd	ppm	1.0	IC2		<1	<1	
Ce	ppm	20.0	XRF1		90	100	
Co	ppm	2.0	IC2	40	32	64	26
Cr	ppm	2.0	IC2	22	24	15	30
Cu	ppm	1.0	IC2	8	9	12	20
Fe	%	0.01	IC2	11.90	6.45	12.30	4.14
La	ppm	20.0	XRF1		50	40	
Mn	ppm	5.0	IC2	1280	2450	10400	810
Mo	ppm	1.0	IC2	<1	<1	<1	<1
Nb	ppm	2.0	XRF1		15	11	
Ni	ppm	1.0	IC2	26	26	32	65
P	ppm	5.0	IC2		290	240	
Pb	ppm	3.0	IC2	<3	<3	4	13
Pd	ppb	1.0	FA3		<1	<1	
Pt	ppb	5.0	FA3		<5	<5	
Rb	ppm	2.0	XRF1		145	160	
Sb	ppm	4.0	XRF1		<4	<4	
Se	ppm	2.0	XRF1		<2	2	
Sn	ppm	4.0	XRF1		<4	4	
Sr	ppm	2.0	XRF1		22	28	
Th	ppm	4.0	XRF1		20	16	
U	ppm	4.0	XRF1		<4	<4	
V	ppm	1.0	IC2		38	42	
W	ppm	10.0	XRF1		<20	<20	
Zn	ppm	1.0	IC2	42	25	54	35

				CRN 80 80-86m (check) 6731RS 872	CRN80 80-86m (repeat) 6731RS 872	CRN 80 86-90m (check) 6731RS 873	CRN80 86-90m (repeat) 6731RS 873	CRN 80 90-96m (check) 6731RS 874	CRN 80 96-98m (check) 6731RS 875
Ag	ppm	0.5	IC2	<1	<1	<1	<1	<1	<1
As	ppm	1.0	IC2	6	5	4	3	4	7
Au	ppb	1.0	FA3	<1		<1		1	2
Ba	ppm	10.0	XRF1	230	250	323	311	599	
Cd	ppm	1.0	IC2	<1	<1	<1	<1	<1	
Ce	ppm	20.0	XRF1	260	250	152	156	149	
Co	ppm	2.0	IC2	31	27	22	17	30	24
Cr	ppm	2.0	IC2	68	66	89	77	100	72
Cu	ppm	1.0	IC2	22	23	16	10	14	38
Fe	%	0.01	IC2	7.33	7.99	6.15	6.18	7.52	6.13
La	ppm	20.0	XRF1	226	220	94	94	96	
Mn	ppm	5.0	IC2	612	644	302	322	390	361
Mo	ppm	1.0	IC2	<5	<5	<5	<5	<5	<5
Nb	ppm	2.0	XRF1	15	15	17	14	16	
Ni	ppm	1.0	IC2	36	30	46	38	56	47
P	ppm	5.0	IC2	489	437	438	388	631	
Pb	ppm	3.0	IC2	<5	<5	<5	<5	<5	<5
Pd	ppb	1.0	FA3	<1		1		2	
Pt	ppb	5.0	FA3	<1		<1		<1	
Rb	ppm	2.0	XRF1	150	149	164	162	113	
Sb	ppm	4.0	XRF1	<4	<4	<4	<4	10	
Se	ppm	2.0	XRF1	3	2	<2	<2	<2	
Sn	ppm	4.0	XRF1	17	13	<5	<5	<5	
Sr	ppm	2.0	XRF1	66	67	45	48	43	
Th	ppm	4.0	XRF1	16	17	20	21	18	
U	ppm	4.0	XRF1	7	5	5	4	<4	
V	ppm	1.0	IC2	47	44	50	40	59	
W	ppm	10.0	XRF1	10	12	<10	<10	<10	
Zn	ppm	1.0	IC2	18	18	12	15	26	37

			CRN 80 98-104m (check) 6731RS 876	CRN 80 104-108m (check) 6731RS 877	CRN 80 108-114m (check) 6731RS 878	CRN 80 114-116m (check) 6731RS 879	CRN 80 116-118m (check) 6731RS 880
Ag	ppm	0.5 IC2	<1	<1	<1	<1	<1
As	ppm	1.0 IC2	3	5	5	5	21
Au	ppb	1.0 FA3	1	<1	<1	11	<1, & <1
Ba	ppm	10.0 XRF1			495	742	(repeat)
Cd	ppm	1.0 IC2			<1	<1	
Ce	ppm	20.0 XRF1			98	79	
Co	ppm	2.0 IC2	18	31	44	79	19
Cr	ppm	2.0 IC2	41	57	89	131	50
Cu	ppm	1.0 IC2	28	19	13	25	26
Fe	%	0.01 IC2	4.95	9.63	6.79	12.00	4.61
La	ppm	20.0 XRF1			38	23	
Mn	ppm	5.0 IC2	354	881	2210	7410	805
Mo	ppm	1.0 IC2	<5	<5	<5	9	<5
Nb	ppm	2.0 XRF1			14	12	
Ni	ppm	1.0 IC2	24	23	36	72	48
P	ppm	5.0 IC2			508	769	
Pb	ppm	3.0 IC2	<5	<5	<5	<5	<5
Pd	ppb	1.0 FA3			<1	<1	
Pt	ppb	5.0 FA3			<1	<1	
Rb	ppm	2.0 XRF1			126	148	
Sb	ppm	4.0 XRF1			<4	9	
Se	ppm	2.0 XRF1			2	3	
Sn	ppm	4.0 XRF1			5	5	
Sr	ppm	2.0 XRF1			21	27	
Th	ppm	4.0 XRF1			18	10	
U	ppm	4.0 XRF1			<4	<4	
V	ppm	1.0 IC2			42	61	
W	ppm	10.0 XRF1			<10	<10	
Zn	ppm	1.0 IC2	25	39	27	50	40

HOLE NO: CRN 81
 TRAVERSE: "Hog Back - Braeside", 3021 mN
 STATION: 1 085 mE
 DATE: 4.11.92
 LOGGED BY: WSM

100 000 SHEET NO: 6731
 LOCATION: 347 912 mE
 6 031 795 mN
 DRILLING METHOD: RC
 TOTAL DEPTH: 121.5m

Magnetic Susc.		Geological Log	
Interval	Value	Depth	Description
Quaternary Pooraka Formation			
		0 0.5	Sandy soil, brn.
0-2	1.06	0.5 3.0	Calcrete, pl purple-brn calc ind vf sand & silt.
2-4	0.81	3.0 4.0	Calcrete, aa, & gravel <20mm, rounded sltst, qtz, some blk sltst, minor sst.
4-6	0.61	4.0 6.0	Clay-silt, lt brn to lt red-brn, compact, c some f gravel, & rare coarse gravel beds, minor silic ind in part at base.
6-8	0.88	6.0 8.0	Clay-silt & gravel, aa, c some blk ironstone nodules <8mm, rounded & irreg c rough texture.
8-10	1.08	8.0 12.0	Clay-silt, lt red-brn, compact to soft, c some hard calc ind, & gravel, aa.
10-12	1.02		
12-14	2.51	12.0 14.0	Conglomerate & f sst, ie hard brn sl calc f sand matrix, c rounded pebbles.
14-16	9.40	14.0 15.0	Gravel, ironstone-rich, rounded, poorly sorted, c some qtz & dk Fe stained sltst.
???			
16-18	0.69	15.0 17.5	Clay-sand vf, pl brn to lt orange-brn, c f lamn.
18-20	21.8	17.5 19.0	Clay-sand, aa, f lamn & f mottling.
20-22	1.58	19.0 21.0	Clay-silt, red-brn, & ironstone gravel, rounded, poorly sorted, c some qtz & dk Fe stained sltst.
		21.0 22.0	Clay-silt, aa, lt brn, & gravel, aa, c some hard silic ind sst, lt orange to pl brn.
22-24	1.19	22.0 27.0	Clay-silt, sandy, lt red-brn, soft to compact.
24-26	0.69		
26-28	4.68		
28-30	1.14	27.0 31.5	Clay-silt, aa, lt brn to lt orange-brn f faintly mottled, compact, c minor sltst & ironstone gravel near 27m at from 19.5 to 31.5m.
30-32	0.40		
Olney? Formation?			
		31.5 32.0	Sandy clay, off white to lt red-brn mottled, compact.
32-34	0.06	32.0 34.0	Sandy clay, aa, pl grey to off white c red & red-brn 1-2mm banding.
34-36	0.06	34.0 38.0	Sand, v clayey, lt yellow-brn, compact, c faint pink mottling.
36-38	0.04		
		38.0 38.5	Sand, clayey, aa, ind in part c f dissem blk mins.
38-40	0.07	38.5 42.0	Sand, clayey, aa, pl grey, pl purple-grey, or lt orange, c minor rounded qtz
40-42	0.07		gravel <5mm at 41.5m.
42-44	0.05	42.0 46.0	Sand, clayey, aa, pl grey & lt purple-pink.
44-46	0.04		
46-48	0.04	46.0 47.0	Sand, clayey, aa, c some f-c rounded qtz grit, & Fe-ind sst, orange to red-brn to dk brn.
		47.0 48.5	Clay, sandy f-c, white.
48-50	0.03	48.5 49.2	Clay, sandy f-c, aa, c clear qtz gravel, coarsening to <10mm at base.
Weathered Adelaidean? (or Olney? Formation?)			
		49.2 50.5	Clay, sl silty, plastic, grey c f yellow mottling.
50-52	0.33	50.5 51.5	Clay, aa, f mottled lt red, lt orange, & yellow.
52-54	0.03	51.5 53.0	Clay, v sandy, grey, c minor lt orange staining, & c rare qtz grit.
54-56	0.03	53.0 56.0	Clay, sl silty, lt to pl grey.
56-58	0.04	56.0 58.5	Clay, aa, soft, c some lt olive-grey f mottling.
		58.5 59.0	Clay, aa, c abund khaki mottling.
58-60	0.07	59.0 61.0	Clay, aa, red-brn, lt orange, & lt purple mottled.
60-62	0.10	61.0 63.0	Clay, pl grey & lt khaki.
62064	0.15		
64-66	0.01	63.0 67.0	Clay, aa, red-brn mottled.
66-68	0.02		
Altered and silicified Adelaidean			
68-70	0.01	67.0 70.0	Clay, sandy vf-m, pl grey, compact.
70-72	0.02	70.0 71.0	Sand f, v clayey, lt grey.
		71.0 72.0	Clay, silty & sl to v sandy, pl grey, c interbeds of grey plastic clay.
72-74	0.03	72.0 74.0	Clay, aa, c abund sst/qtzite vf-f, ie pl grey opaque to semi-translucent, sandy texture, hard.
74-76	0.02	74.0 76.0	Clay, aa.
76-78	0.04	76.0 77.5	Clay, aa, lt khaki, sl micaceous ie f musc?, & sst/qtzite, aa.
		77.5 79.0	Clay, variably silty & sandy, & varicoloured, ie lt khaki, khaki, lt grn, & brn.

78-80	0.02	79.0	80.5	Clay, aa, pl grey, soft, & qtzite vf-f, pl grey to grey, semi-translucent, hard.
80-82	0.03	80.5	82.0	Sst f, overprinted <u>c</u> intense irreg silicf, no layering, <u>c</u> some irreg vughs.
82-84	0.02	82.0	84.0	Sst, f, silicf, aa, & includes some which could be a silicf f breccia, ie irreg ang f-c frags <10mm but mostly 1-2mm, overprinted by later silicf.
84-86	0.02	84.0	87.0	Sst f, & breccia, silicf, aa; & lt khaki silty & sandy clay; & silicf claystone &
86-88	0.04			sltst, lt khaki to lt grey-brn, <u>c</u> intense irreg silicf, & silicf in part along pre-existing joints etc to yield a silica boxwork.
88-90	0.09	87.0	90.0	Slstst/sst vf, & silty clay, gm to dk gm, sl micaceous, compact to soft & altered?, <u>c</u> rare irreg muscovite veins & veinlets 0.2-2mm wide <u>c</u> musc xtals normal to vein, & f musc-rich layers, ie lamn?, dip 70°; & minor lt grey silicf sst/qtzite & silicf breccia, aa.
90-92	0.06	90.0	92.5	Slstst & silty clay, & increasing lt grey silicf sst/qtzite & silicf breccia, aa, <u>c</u> some f grn lamn? within vf sst.
92-94	0.07	92.5	94.0	Sst/qtzite & sltst, v altered & silicf, aa, <u>c</u> minor thin musc veins.
94-96	0.08	94.0	96.0	Sst/qtzite & sltst, aa, <u>c</u> intense silicf in part, & some vein qtz, clear to milky & some is clear & glassy.
96-98	0.08	96.0	98.0	Sst/qtzite & sltst, aa, brn, altered & silicf, & <u>c</u> some vein qtz, aa.
98-100	0.08	98.0	102.0	Sst/qtzite & sltst, aa, <u>c</u> intense silicf, yielding white to off-white to grey vvf silica, & minor brn clay, musc, & vein qtz, aa.
100-102	0.06			
102-104	0.06	102.0	105.5	Slstst/sst vf, & clay, dk grn, soft & altered, <u>c</u> musc dissem within clay, & minor vein qtz, & silicf sst/qtzite, aa.
104-106	0.05			
		105.5	106.0	Sst/qtzite & sltst, aa, <u>c</u> intense silicf, yielding white to off-white to grey vvf silica (possibly several generations of silicf), & minor clay, musc, & vein qtz, aa.
106-108	0.06	106.0	108.0	Slstst, sandy, soft, dk grn-grey, <u>c</u> minor vein qtz & white silicf rock, aa. [WVP's preliminary opinion is that the texture of this rock, ie poor sorting, lack of sedimentary layering, high matrix content, does not look like sediments he knows from the area; possibly altered intrusive?].
108-110	0.05	108.0	110.0	Clay, pl brn & soft, clay & sltst, dk grn & soft, & vein qtz & silicf rock, aa.
110-112	0.05	110.0	114.0	Clay, silty & sandy, soft, <u>c</u> minor vein qtz, aa, & several thin zones of intense silicf, aa.
112-114	0.05			
114-116	0.06	114.0	116.0	Slstst, dk grn-grey to blk, soft, <u>c</u> f pale speckling (ie alteration rather than weathering), & minor silicf & vein qtz.
116-118	0.04	116.0	118.0	Sst, f, lt grey to dk grn, variable & intense silicf, & rare vein qtz.
118-120	0.07	118.0	119.8	Sst, f, lt grey to grey, <u>c</u> intense silicf overprint, <u>c</u> f-vc sub-ang texture, ie silicf breccia? (or conglomerate?), v hard.
		119.8	120.2	Silicf vvf grained rock, pl grey.
120-121.5	0.05	120.2	121.0	Sst, f, or vf-c breccia?, aa, lt grey to off white, poorly sorted, <u>c</u> intense silicf; <u>c</u> rare blk mins as f bundles of needle-like xtals associated <u>c</u> strong silicf & vein qtz, & rare aggregates 1-4mm of dull blk mins? including dissem vvf sulphides?.
		121.0	121.5	Sst, f, off white to lt grey, mod sorted, <u>c</u> faint vf lamn at 0.5-1.5mm spacing, containing sl darker dark mins, dip 70°, & trace of shiny blue-black vf min (sulphide?), <u>c</u> widespread intense silicf, sl vughy in part.
		121.5		End of hole, very hard drilling.

Comments:

The basement sequence included two distinct rock types:

. from 80.5 to 87.0m, 92.5m to 106.0m, and 116.0 to 121.5m;

Fine grained sandstone/quartzite, fine grained, overprinted with an *intense but irregular silicification*, in part to a homogenous pale grey to light brown silica rock, and in part there appear to be multiple generations of silicification. This rock includes some which could be a silicified fine grained breccia, ie irregular angular fine to coarse fragments <10mm but mostly 1-2mm, overprinted by later silicification. The sequence includes clear to milky or glassy quartz veins, and silicification along pre-existing joints etc yields a silica boxwork. From 116.0 to 121.5m, this rock type contains rare *black acicular minerals* associated with strong silicification and quartz veining, and rare blue-black *sulphides*.

. 87.0 to 92.5m, and 106.0 to 116.0m;

Very fine grained sandy clay/silt rock, green to dark green, and structureless, sl micaceous (possibly an altered intrusive?), with rare irregular muscovite veins & veinlets 0.2-2mm wide with muscovite crystals perpendicular to the vein, and with fine muscovite-rich layers (or laminae?), dipping 70°. In part this rock type interfingers with the silicified sandstone /quartzite.

Subsequent comments:

Based on the petrological descriptions of 4 selected samples from this drillhole, it is apparent that much of what was logged as silicification is in fact fine grained dolomite/carbonate, ie dolomitisation. Petrological sample 6731 RS 886 from 80-88m was a green fine grained rock comprising phlogopite?, chlorite (possibly with nickel or copper), clay, and limonite after biotite, typical of the 87-92.5m, and 106-116m intervals; samples 6731 RS 887, 888, 890 were pale brown fine grained quartz-dolomite, and carbonate - mica rocks typical of the 80.5-87m, 92.5-106m, and 116-121.5m intervals.

Geochemistry Samples:

RS 881	50-68m	Routine geochemistry
RS 882	68-70m	"
RS 883	70-74m	"
RS 884	74-78m	"
RS 885	78-80m	"
RS 886	80-88m	Extended geochemistry
RS 887	88-98m	"
RS 888	98-102m	"
RS 889	102-106m	Routine geochemistry
RS 890	106-116m	Extended geochemistry
RS 891	116-121.5m	"

RS 886	88m	Petrology
RS 887	94-96m	"
RS 888	98-100m	"
RS 889	106m	"

				CRN 81 50-68m	CRN 81 68-70m	CRN 81 70-74m	CRN 81 74-78m	CRN 81 78-80m	CRN 81 80-88m
				6731R 881	6731R 882	6731R 883	6731R 884	6731R 885	6731 886
Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
As	ppm	1.0	IC2	1	<1	3	2	1	3
Au	ppb	1.0	FA3	1	<1	<1	<1	6	3
Ba	ppm	10.0	XRF1						40
Cd	ppm	1.0	IC2						<1
Ce	ppm	20.0	XRF1						20
Co	ppm	2.0	IC2	3	<2	9	10	18	10
Cr	ppm	2.0	IC2	44	8	10	15	15	7
Cu	ppm	1.0	IC2	22	7	32	38	54	58
Fe	%	0.01	IC2	2.1	0.2	0.5	1.63	0.88	0.59
La	ppm	20.0	XRF1						<20
Mn	ppm	5.0	IC2	40	10	15	150	50	40
Mo	ppm	1.0	IC2	3	<1	<1	<1	<1	<1
Nb	ppm	2.0	XRF1						3
Ni	ppm	1.0	IC2	5	2	10	14	22	18
P	ppm	5.0	IC2						45
Pb	ppm	3.0	IC2	15	8	7	9	8	<3
Pd	ppb	1.0	FA3						<1
Pt	ppb	5.0	FA3						<5
Rb	ppm	2.0	XRF1						6
Sb	ppm	4.0	XRF1						<4
Se	ppm	2.0	XRF1						<2
Sn	ppm	4.0	XRF1						<4
Sr	ppm	2.0	XRF1						15
Th	ppm	4.0	XRF1						<4
U	ppm	4.0	XRF1						<4
V	ppm	1.0	IC2						16
W	ppm	10.0	XRF1						<20
Zn	ppm	1.0	IC2	11	1	3	20	115	16

				CRN 81 88-98m	CRN 81 98-102m	CRN 81 102-106m	CRN 81 106-116m	CRN 81 116-121.5m
				6731R 887	6731RS 888	6731RS 889	6731RS 890	6731RS 891
Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5	<0.5	<0.5
As	ppm	1.0	IC2	3	3	3	4	6
Au	ppb	1.0	FA3	<1	1	1	2	2
Ba	ppm	10.0	XRF	60	25		40	50
Cd	ppm	1.0	IC2	<1	<1		<1	<1
Ce	ppm	20.0	XRF	<20	<20		20	<20
Co	ppm	2.0	IC2	22	10	14	22	9
Cr	ppm	2.0	IC2	11	7	9	15	7
Cu	ppm	1.0	IC2	16	10	16	32	22
Fe	%	0.01	IC2	1.42	1.21	1.53	1.86	0.99
La	ppm	20.0	XRF	30	<20		20	<20
Mn	ppm	5.0	IC2	590	680	700	500	570
Mo	ppm	1.0	IC2	<1	<1	<1	<1	1
Nb	ppm	2.0	XRF	3	3		6	4
Ni	ppm	1.0	IC2	22	10	13	24	7
P	ppm	5.0	IC2	220	190		320	250
Pb	ppm	3.0	IC2	8	10	9	7	8
Pd	ppb	1.0	FA3	<1	<1		<1	<1
Pt	ppb	5.0	FA3	<5	<5		<5	<5
Rb	ppm	2.0	XRF	16	11		24	16
Sb	ppm	4.0	XRF	<4	4		<4	<4
Se	ppm	2.0	XRF	<2	2		3	<2
Sn	ppm	4.0	XRF	4	<4		<4	<4
Sr	ppm	2.0	XRF	145	150		135	135
Th	ppm	4.0	XRF	<4	<4		<4	<4
U	ppm	4.0	XRF	<4	<4		<4	<4
V	ppm	1.0	IC2	30	25		46	24
W	ppm	10.0	XRF	<20	<20		<20	<20
Zn	ppm	1.0	IC2	13	2	8	14	4

HOLE NO: CRN 82
 TRAVERSE: "Pine Creek - Bendigo", 3225 mN
 STATION: 750 mW
 DATE: 10.11.92
 LOGGED BY: PWH

100 000 SHEET NO: 6731
 LOCATION: 350 614 mE
 6 326 010 mN
 DRILLING METHOD: RC
 TOTAL DEPTH: 64.0 m

Depth From	To	Magn. Susc.	Description
Recent			
0	2.0	1.24	Soil & Calcrete, red-brn & lt brn, clayey, <u>c</u> frags of qtz, sltst, ironstone, & Mn mineralisation.
2.0	4.0	2.21	Clay & Alluvium, red-brn, sandy clay, <u>c</u> rock frags aa.
4.0	6.0	9.68	Clay & Gravel, aa.
6.0	8.0	1.2	Sand & Alluvium, lt brn, <u>c</u> f qtz sand.
Adelaidean?			
8.0	10.0	0.43	Sand & Clay, f-m sand cemented by hard brn siliceous matrix.
10.0	12.0	0.09	Sand & Clay, aa.
Adelaidean Pualco Tillite?			
12.0	14.0	0.06	Tillite, aa, lt brn, <u>c</u> brn m-c mottles.
14.0	16.0	0.04	Tillite, aa.
16.0	18.0	0.05	Tillite, aa.
18.0	20.0	0.06	Tillite, aa.
20.0	22.0	0.00	Tillite, aa, sl clayey.
22.0	24.0	0.08	Tillite, lt brn, clayey, diamict, <u>c</u> occ limonite stains.
24.0	26.0	0.59	Tillite, aa.
26.0	28.0	0.06	Tillite, aa.
28.0	30.0	0.10	Tillite, aa.
30.0	32.0	0.05	Tillite, aa.
32.0	34.0	0.14	Tillite, aa.
34.0	36.0	0.14	Tillite, aa.
36.0	38.0	0.25	Tillite, aa.
38.0	40.0	0.04	Tillite, aa, <u>c</u> occ qtzite frag, Mn mineralisation.
40.0	42.0	0.05	Tillite, aa.
42.0	44.0	0.05	Tillite, aa.
44.0	46.0	0.05	Tillite, aa.
46.0	48.0	0.04	Tillite, aa.
48.0	50.0	0.19	Tillite, aa.
50.0	52.0	0.04	Tillite, aa.
52.0	54.0	0.05	Tillite, aa.
54.0	56.0	0.03	Clay & Tillite, lt grey, silty, sl sandy, occ yellow & red Fe stains.
56.0	58.0	0.06	Clay & Tillite, aa.
58.0	60.0	0.12	Clay & Tillite, aa.
60.0	62.0	0.03	Tillite, lt brn to brn diamict <u>c</u> f red mottling.
62.0	64.0	0.07	Tillite, aa, <u>c</u> fine braided layers, Mn mineralisation.
64.0			End of Hole

Geochemistry Samples:
 None submitted

HOLE NO: CRN 83
 TRAVERSE: "Pine Creek - Bendigo", 3225 mN
 STATION: 500 mW
 DATE: 10.11.92
 LOGGED BY: PWH

100 000 SHEET NO: 6731
 LOCATION: 350 998 mE
 6 325 907 mN
 DRILLING METHOD: RC
 TOTAL DEPTH: 33.0 m

Depth From	To	Magn. Susc.	Description
Recent			
0	2.0	2.03	Soil & Alluvium, red-brn, <u>c</u> qtz, ironstone, calcitic.
2.0	4.0	1.03	Alluvium & Clay, red-brn, <u>c</u> gravel & frags of mottled diamict.
4.0	6.0	0.46	Gravel & Clay, aa.
6.0	8.0	1.05	Gravel & Clay, aa.
8.0	10.0	0.27	Gravel & Clay, aa.
10.0	12.0	0.03	Gravel & Clay, aa.
12.0	14.0	0.11	Gravel & Clay, aa.
14.0	16.0	0.09	Clay, lt brn, yellow, <u>c</u> frags of qtzite.
16.0	18.0	0.04	Clay, aa.
Adelaidean? Pualco Tillite?			
18.0	20.0	0.07	Weathrd Tillite, grey, brn, vf matrix <u>c</u> med to cse qtz, & occ v cse qtzite frags.
20.0	22.0	0.07	Weathrd Tillite, aa.
22.0	24.0	0.10	Weathrd Tillite, aa.
24.0	26.0	0.05	Weathrd Tillite, aa.
26.0	28.0	0.06	Weathrd Tillite, aa.
28.0	30.0	0.06	Weathrd Tillite, aa.
30.0	32.0	0.06	Weathrd Tillite, aa.
32.0	33.0	0.17	Weathrd Tillite, aa.
33.0			End of Hole

Geochemistry Samples:
 RS 892 32-33 m Bottom hole, extended geochemistry.

CRN 83
32-33m

6731RS
892

Ag	ppm	0.5	IC2	<0.5
As	ppm	1.0	IC2	18
Au	ppb	1.0	FA3	34
Ba	ppm	10.0	XRF1	230
Cd	ppm	1.0	IC2	<1
Ce	ppm	20.0	XRF1	50
Co	ppm	2.0	IC2	92
Cr	ppm	2.0	IC2	30
Cu	ppm	1.0	IC2	670
Fe	%	0.01	IC2	2.38
La	ppm	20.0	XRF1	40
Mn	ppm	5.0	IC2	1480
Mo	ppm	1.0	IC2	<1
Nb	ppm	2.0	XRF1	13
Ni	ppm	1.0	IC2	48
P	ppm	5.0	IC2	620
Pb	ppm	3.0	IC2	<3
Pd	ppb	1.0	FA3	<1
Pt	ppb	5.0	FA3	<5
Rb	ppm	2.0	XRF1	125
Sb	ppm	4.0	XRF1	<4
Se	ppm	2.0	XRF1	<2
Sn	ppm	4.0	XRF1	<4
Sr	ppm	2.0	XRF1	32
Th	ppm	4.0	XRF1	15
U	ppm	4.0	XRF1	4
V	ppm	1.0	IC2	28
W	ppm	10.0	XRF1	<20
Zn	ppm	1.0	IC2	17

HOLE NO: CRN 84
 TRAVERSE: "Pine Creek - Bendigo", 3225 mN
 STATION: 3 000 mE
 DATE: 10.11.92
 LOGGED BY: PWH

100 000 SHEET NO: 6731
 LOCATION: 354 226 mE
 6 325 711 mN
 DRILLING METHOD: RC
 TOTAL DEPTH: 88.0 m

Depth From	To	Magn. Susc.	Description
Recent			
0	2.0	0.54	Soil & Alluvium, red-brn, calcitic.
2.0	4.0	0.11	Clay, white to lt grey, <u>c</u> occ sand.
4.0	6.0	0.08	Clay, aa.
6.0	8.0	0.09	Clay, aa.
8.0	10.0	0.30	Clay, aa, also <u>c</u> occ frag of cse ang qtz.
10.0	12.0	0.25	Clay, aa, sl silty & sandy.
12.0	14.0	0.23	Clay, aa.
14.0	16.0	0.17	Clay, aa.
16.0	18.0	0.19	Clay, aa.
18.0	20.0	0.51	Clay, aa.
20.0	22.0	0.43	Clay, aa.
22.0	24.0	0.25	Clay, aa.
24.0	26.0	0.13	Clay, aa.
26.0	28.0	0.25	Clay, aa.
Adelaidean?			
28.0	30.0	0.10	Clay, aa, <u>c</u> occ frag of weathrd sltst.
30.0	32.0	0.09	Clay, aa.
32.0	34.0	0.07	Clay, aa.
34.0	36.0	0.11	Clay, aa.
36.0	38.0	0.13	Clay, aa.
38.0	40.0	0.16	Clay, aa, <u>c</u> occ frag of layered sst.
40.0	42.0	0.09	Clay, aa, sl chloritic.
42.0	44.0	0.14	Clay, aa.
44.0	46.0	0.21	Clay, aa.
46.0	48.0	0.13	Clay, aa.
48.0	50.0	0.05	Clay, khaki-yellow, <u>c</u> frags of v weathrd layered sltst.
50.0	52.0	0.09	Clay, aa.
52.0	54.0	0.28	Clay, aa, <u>c</u> frags of orthoquartzite.
54.0	56.0	0.39	Clay, white, <u>c</u> frags of sst & qtz.
56.0	58.0	0.26	Clay, lt brn, grn, pink, <u>c</u> limonite stained qtz & sst.
58.0	60.0	0.07	Clay, pale grn, silty.
60.0	62.0	0.27	Clay, mottled grey, red, grn, orange, yellow, silty.
62.0	64.0	0.08	Clay, aa, <u>c</u> flat blue frags of chrysocolla.
Adelaidean Benda Siltstone?			
64.0	66.0	0.10	Weathrd Siltstone & Clay, grey, grn.
66.0	68.0	0.06	Weathrd Siltstone & Clay, aa.
68.0	70.0	0.11	Weathrd Siltstone & Clay, aa.
70.0	72.0	0.05	Weathrd Siltstone, grey, dk grey <u>c</u> blue chrysocolla.
72.0	74.0	0.02	Weathrd Sandstone, grey, dk grey, well sorted spher & rnd med qtz.
74.0	76.0	0.14	Weathrd Sandstone-Siltstone, aa, <u>c</u> grn & blue chrysocolla.
76.0	78.0	0.04	Weathrd Sandstone-Siltstone, dk grey <u>c</u> white weathrd fspars from orthoquartzite.
78.0	80.0	0.08	Weathrd Sandstone-Siltstone, aa.
80.0	82.0	0.03	Weathrd Sandstone-Siltstone, aa.
82.0	84.0	0.12	Weathrd Sandstone-Siltstone, aa.
84.0	86.0	0.03	Weathrd Sandstone-Siltstone, aa.
86.0	88.0	0.25	Sandstone, lt grey, dk grey f-m qtz.
88.0			End of Hole

Geochemistry Samples:

RS 893	8-18 m	Routine geochemistry.
RS 894	18-28 m	"
RS 895	40-48 m	"
RS 896	52-58 m	"

RS 897	60-64 m	"
RS 898	64-72 m	"
RS 899	72-76 m	"
RS 900	76-86 m	"
RS 901	86-88 m	Bottom hole, extended geochemistry.

				CRN 84 8-18m	CRN 84 18-28m	CRN 84 40-48m	CRN 84 52-58m	CRN 84 60-64m
				6731RS 893	6731RS 894	6731RS 895	6731RS 896	6731RS 897
Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5	0.5	1.5
As	ppm	1.0	IC2	2	<1	1	<1	<1
Au	ppb	1.0	FA3	1	1	1	2	<1
Ba	ppm	10.0	XRF1					
Cd	ppm	1.0	IC2					
Ce	ppm	20.0	XRF1					
Co	ppm	2.0	IC2	<2	<2	<2	<2	6
Cr	ppm	2.0	IC2	11	8	13	22	38
Cu	ppm	1.0	IC2	7	15	34	125	750
Fe	%	0.01	IC2	0.28	0.2	0.25	0.48	1.2
La	ppm	20.0	XRF1					
Mn	ppm	5.0	IC2	20	20	15	25	75
Mo	ppm	1.0	IC2	1	<1	1	3	2
Nb	ppm	2.0	XRF1					
Ni	ppm	1.0	IC2	6	4	5	10	17
P	ppm	5.0	IC2					
Pb	ppm	3.0	IC2	6	9	8	5	5
Pd	ppb	1.0	FA3					
Pt	ppb	5.0	FA3					
Rb	ppm	2.0	XRF1					
Sb	ppm	4.0	XRF1					
Se	ppm	2.0	XRF1					
Sn	ppm	4.0	XRF1					
Sr	ppm	2.0	XRF1					
Th	ppm	4.0	XRF1					
U	ppm	4.0	XRF1					
V	ppm	1.0	IC2					
W	ppm	10.0	XRF1					
Zn	ppm	1.0	IC2	3	2	3	9	38

				CRN 84 64-72m	CRN 84 72-76m	CRN 84 76-86m	CRN 84 86-88m
				6731RS 898	6731RS 899	6731RS 900	6731RS 901
Ag	ppm	0.5	IC2	3.5	<0.5	<0.5	2
As	ppm	1.0	IC2	<1	1	<1	<1
Au	ppb	1.0	FA3	1	1	<1	<1
Ba	ppm	10.0	XRF1				75
Cd	ppm	1.0	IC2				<1
Ce	ppm	20.0	XRF1				30
Co	ppm	2.0	IC2	10	26	8	8
Cr	ppm	2.0	IC2	48	20	36	14
Cu	ppm	1.0	IC2	3850	860	200	80
Fe	%	0.01	IC2	1.54	0.89	1.8	1.3
La	ppm	20.0	XRF1				20
Mn	ppm	5.0	IC2	70	110	100	65
Mo	ppm	1.0	IC2	<1	<1	<1	<1
Nb	ppm	2.0	XRF1				6
Ni	ppm	1.0	IC2	20	12	22	10
P	ppm	5.0	IC2				40
Pb	ppm	3.0	IC2	5	<3	4	<3
Pd	ppb	1.0	FA3				<1
Pt	ppb	5.0	FA3				<5
Rb	ppm	2.0	XRF1				120
Sb	ppm	4.0	XRF1				<4
Se	ppm	2.0	XRF1				<2
Sn	ppm	4.0	XRF1				<4
Sr	ppm	2.0	XRF1				11
Th	ppm	4.0	XRF1				10
U	ppm	4.0	XRF1				<4
V	ppm	1.0	IC2				26
W	ppm	10.0	XRF1				100
Zn	ppm	1.0	IC2	45	25	56	22

HOLE NO: CRN 85
 TRAVERSE: "Pine Creek - Bendigo", 3225 mN
 STATION: 4 000 mE
 DATE: 11.11.92
 LOGGED BY: PWH

100 000 SHEET NO: 6731
 LOCATION: 355 065 mE
 6 325 405 mN
 DRILLING METHOD: RC
 TOTAL DEPTH: 49.0 m

Depth From	To	Magn. Susc.	Description
Recent			
0	2.0	0.52	Alluvium & Clay, red-brn, c ang & rnd qtz.
2.0	4.0	0.24	Alluvium & Clay, aa.
4.0	6.0	0.09	Alluvium & Clay, aa.
6.0	8.0	0.11	Alluvium & Clay, aa.
8.0	10.0	0.25	Clay, red.
10.0	12.0	0.07	Clay, aa, c weathrd shale.
Weathered Adelaidean, Benda Siltstone?			
12.0	14.0	0.06	Clay & Weathrd Shale, red.
14.0	16.0	0.08	Clay & Weathrd Shale, aa.
16.0	18.0	0.07	Clay & Weathrd Shale, aa.
18.0	20.0	0.10	Clay & Weathrd Shale, aa, c frags of sltst.
20.0	22.0	0.08	Clay & Weathrd Shale, aa.
22.0	24.0	0.07	Clay lt brn-yellow, c frags of qtzite & sltst.
24.0	26.0	0.06	Clay, aa.
26.0	28.0	0.07	Weathrd Siltstone & Clay, brn-grn, layered sltst, c qtz veins.
28.0	30.0	0.06	Clay, pale khaki- grn, c occ sltst & qtz frag.
30.0	32.0	0.06	Weathrd Siltstone & Clay, dk grey-grn sltst, yellow-grn clay.
32.0	34.0	0.09	Weathrd Shale & Clay, aa, c frags of sltst & qtz.
34.0	36.0	0.06	Weathrd Shale & Clay, aa.
36.0	38.0	0.06	Weathrd Siltstone & Clay, aa.
38.0	40.0	0.07	Clay, khaki-grn, c occ frags of weathrd sltst.
40.0	42.0	0.08	Clay, aa.
42.0	44.0	0.07	Clay, aa.
44.0	46.0	0.04	Clay, pale orange-yellow & pale grn, occ ferrug vein qtz.
46.0	48.0	0.05	Clay & Weathrd Siltstone, aa, c layered sltst.
48.0	49.0	0.07	Siltstone, dk grey-grn, sl layered, massive, v hard.
49.0			End of Hole

Geochemistry Samples:

RS 902 40-44 m Routine geochemistry.
 RS 903 44-48 m "
 RS 904 48-49 m Bottom hole, extended geochemistry.

				CRN 85 40-44m	CRN 85 44-48m	CRN 85 48-49m
				6731RS 902	6731RS 903	6731RS 904
Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5
As	ppm	1.0	IC2	2	<1	2
Au	ppb	1.0	FA3	<1	<1	<1
Ba	ppm	10.0	XRF1			910
Cd	ppm	1.0	IC2			<1
Ce	ppm	20.0	XRF1			190
Co	ppm	2.0	IC2	15	11	16
Cr	ppm	2.0	IC2	74	56	58
Cu	ppm	1.0	IC2	1400	2000	2150
Fe	%	0.01	IC2	4.18	3.88	3.68
La	ppm	20.0	XRF1			70
Mn	ppm	5.0	IC2	380	155	200
Mo	ppm	1.0	IC2	8	7	7
Nb	ppm	2.0	XRF1			17
Ni	ppm	1.0	IC2	58	45	38
P	ppm	5.0	IC2			520
Pb	ppm	3.0	IC2	5	10	4
Pd	ppb	1.0	FA3			<1
Pt	ppb	5.0	FA3			<5
Rb	ppm	2.0	XRF1			200
Sb	ppm	4.0	XRF1			5
Se	ppm	2.0	XRF1			<2
Sn	ppm	4.0	XRF1			<4
Sr	ppm	2.0	XRF1			140
Th	ppm	4.0	XRF1			18
U	ppm	4.0	XRF1			22
V	ppm	1.0	IC2			70
W	ppm	10.0	XRF1			90
Zn	ppm	1.0	IC2	110	68	52

HOLE NO: CRN 86
 TRAVERSE: "Pine Creek - Bendigo", 3225 mN
 STATION: 4 800 mE
 DATE: 12.11.92
 LOGGED BY: PWH

100 000 SHEET NO: 6731
 LOCATION: 355 206 mE
 6 325 166 mN
 DRILLING METHOD: RC
 TOTAL DEPTH: 32.0 m

Depth From	To	Magn. Susc.	Description
Recent			
0	2.0	0.92	Soil & Clay, red-brn sandy clay, c occ qtz pebble.
2.0	4.0	0.58	Clay & Sand, red-brn, off white, c clear sl ang spher qtz sand & white weathrd fspar.
4.0	6.0	0.10	Clay & Sand, aa.
Cambro - Ordovician Weathered Granite			
6.0	8.0	0.07	Weathrd Granite & Clay, ang qtz, white weathrd fspar, fresh pink k.spar & biot.
8.0	10.0	0.07	Weathrd Granite & Clay, aa.
10.0	12.0	0.07	Weathrd Granite & Clay, aa.
12.0	14.0	0.06	Weathrd Granite & Clay, aa, but no k.spar.
14.0	16.0	0.06	Weathrd Granite & Clay, aa.
16.0	18.0	0.06	Weathrd Granite & Clay, aa.
18.0	20.0	0.07	Weathrd Granite qtz, white weathrd f.spar, occ k.spar & opaques.
20.0	22.0	0.08	Weathrd Granite, aa.
22.0	24.0	0.07	Weathrd Granite, aa.
24.0	26.0	0.10	Weathrd Granite, aa.
26.0	28.0	0.09	Weathrd Granite, aa.
Cambro - Ordovician Bendigo Granite			
28.0	30.0	0.08	Granite, 30% k.spar, 30% qtz, 30% fspar, 10% biot, med-c grained.
30.0	32.0	0.09	Granite, aa.
32.0			End of Hole.

Geochemistry Samples:

RS 905	6-12 m	Routine geochemistry.
RS 906	12-22 m	"
RS 907	22-30 m	"
RS 908	30-32 m	Bottom hole, extended geochemistry.

				CRN 86 6-12m	CRN 86 12-22m	CRN 86 22-30m	CRN 86 30-32m
				6731RS 905	6731RS 906	6731RS 907	6731RS 908
Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5	<0.5
As	ppm	1.0	IC2	<1	<1	1	<1
Au	ppb	1.0	FA3	<1	<1	<1	<1
Ba	ppm	10.0	XRF1				540
Cd	ppm	1.0	IC2				<1
Ce	ppm	20.0	XRF1				70
Co	ppm	2.0	IC2	2	4	3	4
Cr	ppm	2.0	IC2	8	13	8	8
Cu	ppm	1.0	IC2	105	200	120	155
Fe	%	0.01	IC2	1.1	1.67	1.46	1.53
La	ppm	20.0	XRF1				30
Mn	ppm	5.0	IC2	60	105	70	80
Mo	ppm	1.0	IC2	13	9	16	6
Nb	ppm	2.0	XRF1				13
Ni	ppm	1.0	IC2	6	12	8	9
P	ppm	5.0	IC2				115
Pb	ppm	3.0	IC2	<3	3	5	4
Pd	ppb	1.0	FA3				1
Pt	ppb	5.0	FA3				<5
Rb	ppm	2.0	XRF1				230
Sb	ppm	4.0	XRF1				4
Se	ppm	2.0	XRF1				<2
Sn	ppm	4.0	XRF1				<4
Sr	ppm	2.0	XRF1				95
Th	ppm	4.0	XRF1				16
U	ppm	4.0	XRF1				<4
V	ppm	1.0	IC2				24
W	ppm	10.0	XRF1				20
Zn	ppm	1.0	IC2	8	16	12	13

HOLE NO: CRN 87
 TRAVERSE: "Pine Creek - Bendigo", 3225 mN
 STATION: 4 900 mE
 DATE: 12.11.92
 LOGGED BY: PWH

100 000 SHEET NO: 6731
 LOCATION: 355 251 mE
 6 325 081 mN
 DRILLING METHOD: RC
 TOTAL DEPTH: 36.0 m

Depth From	To	Magn. Susc.	Description
Recent			
0	2.0	0.76	Clay & Alluvium, red-brn sandy clay.
2.0	4.0	0.11	Sand & Clay, clear & stained qtz, white & pink weathrd fspars.
4.0	6.0	0.07	Sand & Clay, aa.
6.0	8.0	0.07	Sand & Clay, aa.
8.0	10.0	0.07	Sand & Clay, aa, <u>c</u> frags of weathrd granite.
10.0	12.0	0.05	Sand & Clay, aa.
12.0	14.0	0.06	Sand & Clay, aa.
14.0	16.0	0.07	Sand & Clay, aa.
Cambro - Ordovician Weathered Granite?			
16.0	18.0	0.07	Weathrd Granite & Clay, lt brn clay, qtz & weathrd fspars.
18.0	20.0	0.05	Weathrd Granite & Clay, aa.
20.0	22.0	0.06	Weathrd Granite & Clay, aa, also <u>c</u> occ haematite pseudomorphs.
22.0	24.0	0.07	Weathrd Granite & Clay, aa.
Cambro - Ordovician Bendigo Granite			
24.0	26.0	0.07	Weathrd Granite, clear & stained qtz, white weathrd fspar, occ biot.
26.0	28.0	0.05	Weathrd Granite, aa, <u>c</u> occ haematitic & limonitic grains.
28.0	30.0	0.08	Weathrd Granite, aa.
30.0	32.0	0.08	Weathrd Granite, aa.
32.0	34.0	0.26	Weathrd Granite, aa.
34.0	36.0	0.06	Weathrd Granite, aa.
36.0			End of Hole.

Geochemistry Samples:

RS 909 32-36 m Bottom hole, extended geochemistry.

CRN 87
32-36m

6731RS
909

Ag	ppm	0.5	IC2	<0.5
As	ppm	1.0	IC2	<1
Au	ppb	1.0	FA3	<1
Ba	ppm	10.0	XRF	610
Cd	ppm	1.0	IC2	<1
Ce	ppm	20.0	XRF	90
Co	ppm	2.0	IC2	4
Cr	ppm	2.0	IC2	10
Cu	ppm	1.0	IC2	130
Fe	%	0.01	IC2	1.52
La	ppm	20.0	XRF	50
Mn	ppm	5.0	IC2	95
Mo	ppm	1.0	IC2	6
Nb	ppm	2.0	XRF	9
Ni	ppm	1.0	IC2	8
P	ppm	5.0	IC2	125
Pb	ppm	3.0	IC2	5
Pd	ppb	1.0	FA3	<1
Pt	ppb	5.0	FA3	<5
Rb	ppm	2.0	XRF	200
Sb	ppm	4.0	XRF	<4
Se	ppm	2.0	XRF	<2
Sn	ppm	4.0	XRF	<4
Sr	ppm	2.0	XRF	90
Th	ppm	4.0	XRF	18
U	ppm	4.0	XRF	6
V	ppm	1.0	IC2	30
W	ppm	10.0	XRF	30
Zn	ppm	1.0	IC2	16

HOLE NO: CRN 88
TRAVERSE: "Pine Creek - Bendigo", 3225 mN
STATION: 5 500 mE
DATE: 13.11.92
LOGGED BY: PWH

100 000 SHEET NO: 6731
LOCATION: 355 694 mE
6 324 266 mN
DRILLING METHOD: RC
TOTAL DEPTH: 3.0 m

Depth From	To	Magn. Susc.	Description
Recent			
0	2.0	0.09	Soil & Schist, red-brn soil, calcrete & meta-sltst.
Adelaidean			
2.0	3.0	0.13	Schist, dk grey-grn, purple, pelitic, <u>c</u> med grained grey oblong altered cordierite metacrysts.
3.0			End of Hole.

Geochemistry Samples:

RS 910 0-2 m Routine geochemistry, and petrology at 2m
RS 911 2-3 m Bottom hole, extended geochemistry.

				CRN 88 0-2m	CRN 88 2-3m
				6731RS 910	6731RS 911
Ag	ppm	0.5	IC2	<0.5	<0.5
As	ppm	1.0	IC2	5	<1
Au	ppb	1.0	FA3	<1	<1
Ba	ppm	10.0	XRF1		460
Cd	ppm	1.0	IC2		<1
Ce	ppm	20.0	XRF1		90
Co	ppm	2.0	IC2	25	34
Cr	ppm	2.0	IC2	58	66
Cu	ppm	1.0	IC2	28	25
Fe	%	0.01	IC2	4.22	4.68
La	ppm	20.0	XRF1		50
Mn	ppm	5.0	IC2	400	390
Mo	ppm	1.0	IC2	<1	<1
Nb	ppm	2.0	XRF1		15
Ni	ppm	1.0	IC2	62	54
P	ppm	5.0	IC2		550
Pb	ppm	3.0	IC2	3	3
Pd	ppb	1.0	FA3		<1
Pt	ppb	5.0	FA3		<5
Rb	ppm	2.0	XRF1		230
Sb	ppm	4.0	XRF1		4
Se	ppm	2.0	XRF1		<2
Sn	ppm	4.0	XRF1		4
Sr	ppm	2.0	XRF1		115
Th	ppm	4.0	XRF1		15
U	ppm	4.0	XRF1		<4
V	ppm	1.0	IC2		100
W	ppm	10.0	XRF1		<20
Zn	ppm	1.0	IC2	60	72
SiO2	%	0.01	IC4		62.2
TiO2	%	0.01	IC4		0.97
Al2O3	%	0.01	IC4		17
Fe2O3	%	0.01	IC4		8.25
MnO	%	0.01	IC4		0.09
MgO	%	0.01	IC4		2.62
CaO	%	0.01	IC4		0.59
Na2O	%	0.01	IC4		1.56
K2O	%	0.01	IC4		4.24
P2O5	%	0.01	IC4		0.13
LOI	%	0.01	IC4		3.1

HOLE NO:
TRAVERSE:
STATION:
DATE:
LOGGED BY:

CRN 89
"Pine Creek - Bendigo", 3225 mN
6 500 mE
13.11.92
PWH

100 000 SHEET NO: 6731
LOCATION: 356 498 mE
6 323 766 mN
DRILLING METHOD: RC
TOTAL DEPTH: 25.0 m

Depth		Magn. Susc.	Description
From	To		

Recent			
0	2.0	0.99	Soil & Weathrd Schist, red-brn sandy clay, <u>c</u> lt brn calcrete & weathrd meta-sltst.
Adelaidean			
2.0	4.0	0.24	Weathrd Schist & Clay, pale grn, orange, red frags.
4.0	6.0	0.22	Weathrd Schist & Clay, grn clay, yellow sltst <u>c</u> med metacrysts.
6.0	8.0	0.05	Weathrd Schist & Clay, aa.
8.0	10.0	0.06	Weathrd Schist & Clay, aa.
10.0	12.0	0.06	Weathrd Schist, grn-grey flaggy meta-sltst.
12.0	14.0	0.08	Weathrd Schist, aa.
14.0	16.0	0.06	Schist, aa, <u>c</u> layers of altered cordierite metacrysts.
16.0	18.0	0.04	Schist, aa.
18.0	20.0	0.03	Schist, aa, increasing grey med grained oblong altered cordierite.
20.0	22.0	0.08	Weathrd Schist, aa, sl weathrd.
22.0	24.0	0.09	Weathrd Schist, aa.
24.0	25.0	0.12	Schist, aa.
25.0			End of Hole

Geochemistry Samples:

RS 912 20-25 m Bottom hole, extended geochemistry, and petrology.

CRN 89
20-25m

6731RS
912

Ag	ppm	0.5	IC2	<0.5
As	ppm	1.0	IC2	4
Au	ppb	1.0	FA3	<1
Ba	ppm	10.0	XRF	610
Cd	ppm	1.0	IC2	<1
Ce	ppm	20.0	XRF	170
Co	ppm	2.0	IC2	24
Cr	ppm	2.0	IC2	56
Cu	ppm	1.0	IC2	92
Fe	%	0.01	IC2	4.34
La	ppm	20.0	XRF	200
Mn	ppm	5.0	IC2	310
Mo	ppm	1.0	IC2	<1
Nb	ppm	2.0	XRF	16
Ni	ppm	1.0	IC2	46
P	ppm	5.0	IC2	590
Pb	ppm	3.0	IC2	4
Pd	ppb	1.0	FA3	<1
Pt	ppb	5.0	FA3	<5
Rb	ppm	2.0	XRF	200
Sb	ppm	4.0	XRF	4
Se	ppm	2.0	XRF	<2
Sn	ppm	4.0	XRF	<4
Sr	ppm	2.0	XRF	55
Th	ppm	4.0	XRF	16
U	ppm	4.0	XRF	14
V	ppm	1.0	IC2	76
W	ppm	10.0	XRF	20
Zn	ppm	1.0	IC2	180

HOLE NO: CRN 90
 TRAVERSE: "Pine Creek - Bendigo", 3225 mN
 STATION: 7 300 mE
 DATE: 13.11.92
 LOGGED BY: PWH

100 000 SHEET NO: 6731
 LOCATION: 357 273 mE
 6 323 249 mN
 DRILLING METHOD: RC
 TOTAL DEPTH: 44.0 m

Depth From	To	Magn. Susc.	Description
Recent			
0	2.0	0.77	Clay & Silt, red-brn, sandy, calcitic, <u>c</u> ironstone.
2.0	4.0	0.59	Clay & Silt, aa.
4.0	6.0	0.49	Clay & Silt, aa.
6.0	8.0	0.26	Clay, olive grn, <u>c</u> soft frags of weathrd schist.
8.0	10.0	0.08	Clay, aa.
10.0	12.0	0.13	Clay, aa.
Weathered Adelaidean			
12.0	14.0	0.17	Clay & Weathrd Schist, aa.
14.0	16.0	0.17	Clay & Weathrd Schist, aa, <u>c</u> occ layers of altered cordierite metacrysts.
16.0	18.0	0.21	Clay & Weathrd Schist, aa.
18.0	20.0	0.14	Clay & Weathrd Schist, aa.
20.0	22.0	0.16	Clay & Weathrd Schist, aa.
22.0	24.0	0.16	Weathrd Schist & Clay, aa.
24.0	26.0	0.11	Weathrd Schist & Clay, aa.
26.0	28.0	0.12	Weathrd Schist & Clay, aa.
28.0	30.0	0.15	Weathrd Schist, dk grn, f grained, <u>c</u> f dk grey grains.
30.0	32.0	0.23	Weathrd Schist, aa.
Adelaidean			
32.0	34.0	0.16	Schist, aa, <u>c</u> sl foliation.
34.0	36.0	0.09	Schist, aa.
36.0	38.0	0.10	Schist, aa.
38.0	40.0	0.10	Schist, aa.
40.0	42.0	0.14	Schist, aa.
42.0	44.0	0.10	Schist, aa.
44.0			End of Hole

Geochemistry Samples:

RS 913 28-32 m Routine geochemistry.
 RS 914 32-42 m Bottom hole, extended geochemistry.

				CRN 90 28-32m	CRN 90 32-42m
				6731RS 913	6731RS 914
Ag	ppm	0.5	IC2	<0.5	<0.5
As	ppm	1.0	IC2	<1	<1
Au	ppb	1.0	FA3	<1	<1
Ba	ppm	10.0	XRF1		540
Cd	ppm	1.0	IC2		<1
Ce	ppm	20.0	XRF1		60
Co	ppm	2.0	IC2	100	50
Cr	ppm	2.0	IC2	52	44
Cu	ppm	1.0	IC2	42	26
Fe	%	0.01	IC2	4.06	3.62
La	ppm	20.0	XRF1		40
Mn	ppm	5.0	IC2	4450	1650
Mo	ppm	1.0	IC2	<1	<1
Nb	ppm	2.0	XRF1		16
Ni	ppm	1.0	IC2	68	56
P	ppm	5.0	IC2		650
Pb	ppm	3.0	IC2	3	4
Pd	ppb	1.0	FA3		<1
Pt	ppb	5.0	FA3		<5
Rb	ppm	2.0	XRF1		150
Sb	ppm	4.0	XRF1		5
Se	ppm	2.0	XRF1		3
Sn	ppm	4.0	XRF1		<4
Sr	ppm	2.0	XRF1		110
Th	ppm	4.0	XRF1		18
U	ppm	4.0	XRF1		<4
V	ppm	1.0	IC2		62
W	ppm	10.0	XRF1		<20
Zn	ppm	1.0	IC2	170	115

HOLE NO: CRN 91
 TRAVERSE: "Pine Creek - Bendigo", 3225 mN
 STATION: 8 500 mE
 DATE: 13.11.92
 LOGGED BY: PWH

100 000 SHEET NO: 6731
 LOCATION: 358 151 mE
 6 323 042 mN
 DRILLING METHOD: RC
 TOTAL DEPTH: 34.0 m

Depth From	To	Magn. Susc.	Description
Recent			
0	2.0	1.85	Clay & Alluvium, red-brn alluvium, & calcrete.
2.0	4.0	0.45	Clay & Alluvium, aa.
4.0	6.0	0.15	Clay aa, c occ frag of weathrd shale.
Adelaidean?			
6.0	8.0	0.10	Clay & Weathrd Shale, orange-lt brn.
8.0	10.0	0.14	Clay & Weathrd Shale, aa.
10.0	12.0	0.24	Clay & Weathrd Shale, aa.
12.0	14.0	0.06	Clay & Weathrd Shale, olive-grn clay, c frags of milky qtz.
14.0	16.0	0.07	Clay & Weathrd Shale, aa.
16.0	18.0	0.08	Clay & Weathrd Shale, aa.
18.0	20.0	0.09	Clay & Weathrd Shale, aa.
20.0	22.0	0.10	Weathrd Shale & Clay, aa.
22.0	24.0	0.09	Weathrd Shale & Clay, aa.
24.0	26.0	0.10	Weathrd Shale & Clay, aa.
26.0	28.0	0.11	Weathrd Shale & Clay, aa.
28.0	30.0	0.11	Weathrd Shale & Clay, aa.
Adelaidean Willyerpa Shale?			
30.0	32.0	0.08	Shale, dk grey-grn, homogeneous.
32.0	34.0	0.10	Shale, aa, occ layers.
34.0			End of Hole

Geochemistry Samples:

RS 915 22-32 m Routine geochemistry.
 RS 916 32-34 m "

				CRN 91 22-32m	CRN 91 32-34m
				6731RS 915	6731RS 916
Ag	ppm	0.5	IC2	<0.5	<0.5
As	ppm	1.0	IC2	2	<1
Au	ppb	1.0	FA3	<1	<1
Ba	ppm	10.0	XRF1		
Cd	ppm	1.0	IC2		
Ce	ppm	20.0	XRF1		
Co	ppm	2.0	IC2	35	48
Cr	ppm	2.0	IC2	50	48
Cu	ppm	1.0	IC2	58	40
Fe	%	0.01	IC2	4.02	4.34
La	ppm	20.0	XRF1		
Mn	ppm	5.0	IC2	320	1180
Mo	ppm	1.0	IC2	<1	<1
Nb	ppm	2.0	XRF1		
Ni	ppm	1.0	IC2	58	66
P	ppm	5.0	IC2		
Pb	ppm	3.0	IC2	9	<3
Pd	ppb	1.0	FA3		
Pt	ppb	5.0	FA3		
Rb	ppm	2.0	XRF1		
Sb	ppm	4.0	XRF1		
Se	ppm	2.0	XRF1		
Sn	ppm	4.0	XRF1		
Sr	ppm	2.0	XRF1		
Th	ppm	4.0	XRF1		
U	ppm	4.0	XRF1		
V	ppm	1.0	IC2		
W	ppm	10.0	XRF1		
Zn	ppm	1.0	IC2	190	165

HOLE NO: CRN 92
 TRAVERSE: "Pine Creek - Bendigo", 3225 mN
 STATION: 9 300 mE
 DATE: 13.11.92
 LOGGED BY: PWH

100 000 SHEET NO: 6731
 LOCATION: 361 090 mE
 6 175 094 mN
 DRILLING METHOD: RC
 TOTAL DEPTH: 92.0 m

Depth From	To	Magn. Susc.	Description
Recent			
0	2.0	6.95	Silt & Alluvium, red-brn, c qtz & ironstone.
Cainozoic?, or very weathered Adelaidean?			
2.0	4.0	0.09	Clay, mottled red & grey, hard.
4.0	6.0	0.07	Clay, aa.
6.0	8.0	0.10	Clay, aa.
8.0	10.0	0.04	Clay, aa, c occ cse ang milky qtz frag.
10.0	12.0	0.04	Clay, aa.
12.0	14.0	0.05	Clay, aa.
14.0	16.0	0.04	Clay, orange, pale grn.
16.0	18.0	0.04	Clay, aa.
18.0	20.0	0.10	Clay, yellow, c occ frag of weathrd sltst.
20.0	22.0	0.06	Clay, aa.
22.0	24.0	0.11	Clay, aa.
24.0	26.0	0.04	Clay, aa.
26.0	28.0	0.06	Clay, aa.
28.0	30.0	0.05	Clay, aa.
30.0	32.0	0.04	Clay, aa.
32.0	34.0	0.06	Clay, orange, lt brn, c occ grain of weathrd sltst.
34.0	36.0	0.05	Clay, aa, also c some sub-ang spher clear qtz.
36.0	38.0	0.06	Clay, aa.
38.0	40.0	0.12	Clay, aa.
40.0	42.0	0.06	Clay, aa.
42.0	44.0	0.07	Clay, aa.
44.0	46.0	0.07	Clay, aa.
46.0	48.0	0.07	Clay, aa.
48.0	50.0	0.09	Clay, aa.
50.0	52.0	0.08	Clay, aa.
52.0	54.0	0.11	Clay, aa.
54.0	56.0	0.09	Clay, aa.
Weathered Adelaidean			
56.0	58.0	0.14	Clay & Weathrd Siltstone, khaki yellow-grn.
58.0	60.0	0.11	Clay & Weathrd Siltstone, aa, c frags olive-grn sltst.
60.0	62.0	0.15	Clay & Weathrd Siltstone, aa.
62.0	64.0	0.09	Clay & Weathrd Siltstone, aa.
64.0	66.0	0.10	Clay & Weathrd Siltstone, aa.
66.0	68.0	0.12	Clay & Weathrd Siltstone, aa, c regular layering.
68.0	70.0	0.11	Weathrd Shale & Clay, aa.
70.0	72.0	0.26	Weathrd Shale & Clay, dk grn, c orange layers 2mm to 2cm thick, & slump structures.
72.0	74.0	0.21	Weathrd Shale, aa.
74.0	76.0	0.12	Weathrd Shale, aa, green, & weathrd lt grey.
76.0	78.0	0.13	Weathrd Shale, aa.
78.0	80.0	0.10	Weathrd Shale, aa.
80.0	82.0	0.10	Weathrd Shale, aa.
82.0	84.0	0.10	Weathrd Shale, aa, c sandy layers, & flame structures.
84.0	86.0	0.10	Weathrd Shale, aa.
Adelaidean, Wilyerpa Formation? or Tapley Hill Formation?			
86.0	88.0	0.10	Shale, dk grey, c occ f lamn.
88.0	90.0	0.14	Shale, aa.
90.0	92.0	0.10	Shale, aa.
92.0			End of Hole

Geochemistry Samples:

RS 917	56-68 m	Routine geochemistry.
RS 918	68-78 m	"
RS 919	78-86 m	Extended geochemistry.
RS 920	86-91.5 m	Bottom hole, extended geochemistry.

				CRN 92 56-68m	CRN 92 68-78m	CRN 92 78-86m	CRN 92 86-91.5m
				6731RS 917	6731RS 918	6731RS 919	6731RS 920
Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5	<0.5
As	ppm	1.0	IC2	2	2	<1	<1
Au	ppb	1.0	FA3	2	1	1	<1
Ba	ppm	10.0	XRF1			540	500
Cd	ppm	1.0	IC2			<1	<1
Ce	ppm	20.0	XRF1			60	60
Co	ppm	2.0	IC2	28	34	32	30
Cr	ppm	2.0	IC2	54	55	48	48
Cu	ppm	1.0	IC2	68	80	45	5
Fe	%	0.01	IC2	5.95	5.9	4.96	5.1
La	ppm	20.0	XRF1			50	40
Mn	ppm	5.0	IC2	270	320	310	440
Mo	ppm	1.0	IC2	<1	<1	<1	<1
Nb	ppm	2.0	XRF1			15	15
Ni	ppm	1.0	IC2	78	98	84	70
P	ppm	5.0	IC2			470	680
Pb	ppm	3.0	IC2	7	5	4	<3
Pd	ppb	1.0	FA3			<1	<1
Pt	ppb	5.0	FA3			<5	<5
Rb	ppm	2.0	XRF1			185	145
Sb	ppm	4.0	XRF1			4	<4
Se	ppm	2.0	XRF1			2	<2
Sn	ppm	4.0	XRF1			<4	<4
Sr	ppm	2.0	XRF1			30	35
Th	ppm	4.0	XRF1			20	16
U	ppm	4.0	XRF1			4	4
V	ppm	1.0	IC2			40	42
W	ppm	10.0	XRF1			<20	<20
Zn	ppm	1.0	IC2	260	370	280	190

HOLE NO: CRN 93
 TRAVERSE: "Pine Creek - Bendigo", 3225 mN
 STATION: 10 000 mE
 DATE: 14.11.92
 LOGGED BY: PWH

100 000 SHEET NO: 6731
 LOCATION: 359 580 mE
 6 322 951 mN
 DRILLING METHOD: RC
 TOTAL DEPTH: 59.0 m

Depth From	To	Magn. Susc.	Description
Recent			
0	2.0	0.07	Alluvium & Silt, red-brn sandy silt, <u>c</u> calcrete.
2.0	4.0	6.73	Alluvium & Clay, aa, <u>c</u> qtz & weathrd sltst frags.
4.0	6.0	0.02	Alluvium & Clay, aa.
Cainozoic?, or very weathered Adelaidean?			
6.0	8.0	0.06	Clay, lt grey, sl silty.
8.0	10.0	0.06	Clay, lt grey, sl silicified in patches.
10.0	12.0	0.04	Clay, aa.
12.0	14.0	0.05	Clay, aa.
14.0	16.0	0.04	Clay, aa.
16.0	18.0	0.05	Clay, aa.
18.0	20.0	0.05	Clay, aa.
20.0	22.0	0.03	Clay, aa.
22.0	24.0	0.12	Clay, aa.
24.0	26.0	0.03	Clay, aa.
26.0	28.0	0.02	Clay, khaki-green, soft, <u>c</u> occ frag of red & grn weathrd sltst.
28.0	30.0	0.05	Clay, aa.
30.0	32.0	0.04	Clay, yellow-brn.
32.0	34.0	0.05	Clay, aa.
34.0	36.0	0.04	Clay, aa.
Weathered Adelaidean			
36.0	38.0	0.05	Clay & Weathrd Siltstone, yellow-brn, <u>c</u> frags of weathrd sltst.
38.0	40.0	0.06	Clay & Weathrd Siltstone, aa.
40.0	42.0	0.05	Clay & Weathrd Siltstone, aa.
42.0	44.0	0.04	Clay & Weathrd Siltstone, grn, grey, <u>c</u> vein qtz & haematitic grains.
44.0	46.0	0.04	Weathrd Siltstone & Clay, dk grey, occ sl lamn, <u>c</u> vein qtz & haematite aa.
46.0	48.0	0.04	Weathrd Siltstone & Clay, aa.
48.0	50.0	0.09	Weathrd Siltstone & Clay, yellow-brn, grn.
50.0	52.0	0.12	Weathrd Siltstone & Clay, aa, <u>c</u> occ lt grey laminated sltst.
52.0	54.0	0.08	Weathrd Siltstone & Clay, aa, <u>c</u> haematitic qtz vein.
54.0	56.0	0.07	Weathrd Siltstone & Clay, aa.
56.0	58.0	0.10	Weathrd Siltstone & Clay, aa.
Adelaidean, Willyerpa Formation?			
58.0	59.0	5.06	Siltstone, dk grey, sl laminated, jointed & fractured, <u>c</u> qtz veins.
59.0			End of Hole

Geochemistry Samples:

RS 921 44-48 m Routine geochemistry.
 RS 922 48-58 m "
 RS 923 58-59.5 m Bottom hole, extended geochemistry.

				CRN 93 44-48m	CRN 93 48-58m	CRN 93 58-59.5m
				6731RS 921	6731RS 922	6731RS 923
Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5
As	ppm	1.0	IC2	<1	1	<1
Au	ppb	1.0	FA3	<1	1	<1
Ba	ppm	10.0	XRF1			45
Cd	ppm	1.0	IC2			<1
Ce	ppm	20.0	XRF1			40
Co	ppm	2.0	IC2	3	12	7
Cr	ppm	2.0	IC2	52	46	24
Cu	ppm	1.0	IC2	22	70	46
Fe	%	0.01	IC2	2.02	5	2.26
La	ppm	20.0	XRF1			20
Mn	ppm	5.0	IC2	65	125	115
Mo	ppm	1.0	IC2	<1	<1	<1
Nb	ppm	2.0	XRF1			9
Ni	ppm	1.0	IC2	11	30	13
P	ppm	5.0	IC2			135
Pb	ppm	3.0	IC2	<3	<3	<3
Pd	ppb	1.0	FA3			<1
Pt	ppb	5.0	FA3			<5
Rb	ppm	2.0	XRF1			25
Sb	ppm	4.0	XRF1			4
Se	ppm	2.0	XRF1			<2
Sn	ppm	4.0	XRF1			<4
Sr	ppm	2.0	XRF1			48
Th	ppm	4.0	XRF1			8
U	ppm	4.0	XRF1			<4
V	ppm	1.0	IC2			24
W	ppm	10.0	XRF1			<20
Zn	ppm	1.0	IC2	20	28	19

HOLE NO:
TRAVERSE:
STATION:
DATE:
LOGGED BY:

CRN 94
"Pine Creek - Bendigo", 3225 mN
10 700 mE
15.11.92
PWH

100 000 SHEET NO: 6731
LOCATION: 360 211 mE
6 322 949 mN
DRILLING METHOD: RC
TOTAL DEPTH: 24.0 m

Depth		Magn.	Description
From	To	Susc.	
Recent			
0	2.0	0.29	Soil & Weathrd Siltstone, red.
Adelaidean Willyerpa Formation			
2.0	4.0	0.10	Weathrd Siltstone, lt brn, yellow, c Mn mineralisation.
4.0	6.0	0.08	Siltstone, aa, c f heavy min layers.
6.0	8.0	0.14	Siltstone, aa, mostly grn.
8.0	10.0	0.04	Siltstone, aa, mostly red.
10.0	12.0	0.07	Siltstone, aa, sl layering.
12.0	14.0	0.06	Siltstone, aa, c heavy min layers.
14.0	16.0	0.08	Siltstone, grn, sl weathrd silty & shaley layers, & heavy min bands.
16.0	18.0	0.07	Siltstone, aa.
18.0	20.0	0.07	Siltstone, aa.
20.0	22.0	0.14	Siltstone, aa.
22.0	24.0	0.07	Siltstone, aa.
24.0			End of Hole

Geochemistry Samples:

RS 924 8-12 m
RS 925 12-29 m
RS 926 20-24 m

Routine geochemistry.
"
Bottom hole, extended geochemistry.

				CRN 94 8-12m	CRN 94 12-20m	CRN 94 20-24m
				6731RS 924	6731RS 925	6731RS 926
Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5
As	ppm	1.0	IC2	1	<1	2
Au	ppb	1.0	FA3	<1	1	<1
Ba	ppm	10.0	XRF1			570
Cd	ppm	1.0	IC2			<1
Ce	ppm	20.0	XRF1			90
Co	ppm	2.0	IC2	7	22	40
Cr	ppm	2.0	IC2	17	18	22
Cu	ppm	1.0	IC2	40	70	38
Fe	%	0.01	IC2	2.4	2.5	2.6
La	ppm	20.0	XRF1			50
Mn	ppm	5.0	IC2	70	120	470
Mo	ppm	1.0	IC2	<1	<1	<1
Nb	ppm	2.0	XRF1			14
Ni	ppm	1.0	IC2	30	70	85
P	ppm	5.0	IC2			290
Pb	ppm	3.0	IC2	<3	<3	<3
Pd	ppb	1.0	FA3			<1
Pt	ppb	5.0	FA3			<5
Rb	ppm	2.0	XRF1			190
Sb	ppm	4.0	XRF1			<4
Se	ppm	2.0	XRF1			3
Sn	ppm	4.0	XRF1			<4
Sr	ppm	2.0	XRF1			55
Th	ppm	4.0	XRF1			15
U	ppm	4.0	XRF1			<4
V	ppm	1.0	IC2			19
W	ppm	10.0	XRF1			<20
Zn	ppm	1.0	IC2	38	190	210

HOLE NO: CRN 95
TRAVERSE: "South Dam Homestead", 3189 mN
STATION: 300 mE
DATE: 15.11.92
LOGGED BY: PWH

100 000 SHEET NO: 6731
LOCATION: 357 417 mE
6 318 843 mN
DRILLING METHOD: RC
TOTAL DEPTH: 9.0 m

Depth		Magn.	Description
From	To	Susc.	
Recent			
0	2.0	0.58	Soil & Weathrd Granite, qtz, biot, weathrd fspar.
Cambro - Ordovician Weathered Granite			
2.0	4.0	0.28	Granite, aa.
4.0	6.0	0.42	Weathrd Granite, aa.
6.0	8.0	0.51	Granite, aa, changes from biot-rich to biot- poor, ie sl gneissic.
8.0	9.0	0.65	Granite, aa, foliated.
9.0			End of Hole

Geochemistry Samples:
RS 927 6-8 m Routine geochemistry.
RS 928 8-9 m Bottom hole, extended geochemistry.

				CRN 95 6-8m	CRN 95 8-9m
				6731RS 927	6731RS 928
Ag	ppm	0.5	IC2	<0.5	<0.5
As	ppm	1.0	IC2	<1	<1
Au	ppb	1.0	FA3	<1	<1
Ba	ppm	10.0	XRF1		640
Cd	ppm	1.0	IC2		<1
Ce	ppm	20.0	XRF1		140
Co	ppm	2.0	IC2	9	8
Cr	ppm	2.0	IC2	17	17
Cu	ppm	1.0	IC2	28	38
Fe	%	0.01	IC2	2.12	2.36
La	ppm	20.0	XRF1		80
Mn	ppm	5.0	IC2	240	270
Mo	ppm	1.0	IC2	<1	<1
Nb	ppm	2.0	XRF1		9
Ni	ppm	1.0	IC2	14	15
P	ppm	5.0	IC2		100
Pb	ppm	3.0	IC2	7	4
Pd	ppb	1.0	FA3		<1
Pt	ppb	5.0	FA3		<5
Rb	ppm	2.0	XRF1		140
Sb	ppm	4.0	XRF1		<4
Se	ppm	2.0	XRF1		<2
Sn	ppm	4.0	XRF1		4
Sr	ppm	2.0	XRF1		370
Th	ppm	4.0	XRF1		16
U	ppm	4.0	XRF1		<4
V	ppm	1.0	IC2		74
W	ppm	10.0	XRF1		<20
Zn	ppm	1.0	IC2	28	30

HOLE NO:
TRAVERSE:
STATION:
DATE:
LOGGED BY:

CRN 96
"South Dam Homestead", 3189 mN
850 mE
16.11.92
PWH

100 000 SHEET NO: 6731
LOCATION: 357 948 mE
6 318 702 mN
DRILLING METHOD: RC
TOTAL DEPTH: 5.0 m

Depth		Magn.	Description
From	To	Susc.	
Adelaidean			
0	2.0	0.40	Meta-Siltstone, grn, dk grn, calc-silicate, flaggy & layered, v hard.
2.0	4.0	0.56	Meta-Siltstone, aa.
4.0	5.0	0.67	Meta-Siltstone, aa, clinopyroxene- plagioclase- orthoclase hornfels.
5.0			End of Hole

Geochemistry Samples:

RS 929 0-2 m

RS 930 2-4 m

RS 931 4-5 m

Routine geochemistry, and petrological samples A and B.
Extended geochemistry.
Bottom hole, extended geochemistry.

				CRN 96 0-2m	CRN 96 2-4m	CRN 96 4-5m
				6731RS 929	6731RS 930	6731RS 931
Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5
As	ppm	1.0	IC2	6	2	2
Au	ppb	1.0	FA3	1	<1	<1
Ba	ppm	10.0	XRF1		720	680
Cd	ppm	1.0	IC2		<1	<1
Ce	ppm	20.0	XRF1		110	80
Co	ppm	2.0	IC2	9	30	11
Cr	ppm	2.0	IC2	48	90	58
Cu	ppm	1.0	IC2	38	24	12
Fe	%	0.01	IC2	1.6	3.06	1.87
La	ppm	20.0	XRF1		70	70
Mn	ppm	5.0	IC2	200	650	280
Mo	ppm	1.0	IC2	12	<1	<1
Nb	ppm	2.0	XRF1		15	12
Ni	ppm	1.0	IC2	15	30	17
P	ppm	5.0	IC2		450	600
Pb	ppm	3.0	IC2	24	4	5
Pd	ppb	1.0	FA3		<1	<1
Pt	ppb	5.0	FA3		<5	<5
Rb	ppm	2.0	XRF1		175	125
Sb	ppm	4.0	XRF1		5	<4
Se	ppm	2.0	XRF1		<2	<2
Sn	ppm	4.0	XRF1		<4	<4
Sr	ppm	2.0	XRF1		165	190
Th	ppm	4.0	XRF1		20	20
U	ppm	4.0	XRF1		8	8
V	ppm	1.0	IC2		98	68
W	ppm	10.0	XRF1		<20	<20
Zn	ppm	1.0	IC2	55	48	28

HOLE NO: CRN 97
 TRAVERSE: "South Dam Homestead", 3189 mN
 STATION: 1 000 mE
 DATE: 16.11.92
 LOGGED BY: PWH

100 000 SHEET NO: 6731
 LOCATION: 358 095 mE
 6 318 671 mN
 DRILLING METHOD: RC
 TOTAL DEPTH: 62.5 m

Depth From	To	Magn. Susc.	Description
Recent			
0	2.0	0.89	Silt & Alluvium, red-brn, calcitic frags c sand & ironstone.
2.0	4.0	0.07	Clay, mottled lt grey, red, yellow, sl sandy.
4.0	6.0	0.05	Clay, aa.
6.0	8.0	0.06	Clay, aa.
8.0	10.0	0.06	Clay, mottled grey, purple, red & sandy, v ferruginous.
10.0	12.0	0.08	Clay, lt grey, c f sand.
12.0	14.0	0.06	Clay, aa, c silcrete.
14.0	16.0	0.03	Silcrete & Clay, aa, c cse qtz.
16.0	18.0	0.03	Silcrete, aa, c occ frag of weathrd granite.
Very Weathered granite?			
18.0	20.0	0.02	Clay & Gravel, white, v pale grn, c weathrd granite gravel.
20.0	22.0	0.05	Clay, pale brn, v sandy, c limonitic grains.
22.0	24.0	0.06	Gravel & Clay, v weathrd granite, c occ frag of qtz rich granite.
24.0	26.0	0.10	Gravel & Clay, aa.
Cambro - Ordovician Bendigo Granite			
26.0	28.0	0.13	Clay, c occ highly stressed granite frags.
28.0	30.0	0.07	Weathrd Granite & Clay, aa, med-cse grained.
30.0	32.0	0.09	Weathrd Granite, qtz, biot, c chloritic gm clays.
32.0	34.0	0.15	Weathrd Granite, brown, c qtz, fspar, biot & chloritic clay.
34.0	36.0	0.17	Weathrd Granite & Clay, aa.
36.0	38.0	0.16	Weathrd Granite & Clay, aa.
38.0	40.0	0.27	Weathrd Granite & Clay, aa.
40.0	42.0	0.13	Weathrd Granite & Clay, aa.
42.0	44.0	0.05	Weathrd Granite & Clay, aa.
44.0	46.0	0.12	Weathrd Granite & Clay, aa.
46.0	48.0	0.16	Weathrd Granite & Clay, aa.
48.0	50.0	0.13	Weathrd Granite, large frags of lt grey, pink stressed qtz-rich granite-mylonite.
50.0	52.0	0.13	Weathrd Granite, aa, ribbons of qtz set in fresh to albitised alkali fspar augen.
52.0	54.0	0.09	Weathrd Granite, aa.
54.0	56.0	0.09	Weathrd Granite, aa.
56.0	58.0	0.13	Weathrd Granite, aa.
58.0	60.0	0.11	Weathrd Granite, aa.
60.0	62.0	0.16	Granite, m-c grained, 40% qtz, 20% plagioclase, 30% hornblende, 10% biot.
62.0	62.5	0.33	Granite, aa.
62.5			End of Hole

Geochemistry Samples:

RS 932 44-52 m Routine geochemistry, and petrological sample from 48-50m
 RS 933 56-62 m "
 RS 934 62-62.5 m Bottom hole, extended geochemistry.

				CRN 97 44-52m	CRN 97 52-62m	CRN 97 62-62.5m
				6731RS 932	6731RS 933	6731RS 934
Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5
As	ppm	1.0	IC2	<1	<1	<1
Au	ppb	1.0	FA3	<1	<1	<1
Ba	ppm	10.0	XRF1			500
Cd	ppm	1.0	IC2			<1
Ce	ppm	20.0	XRF1			40
Co	ppm	2.0	IC2	4	7	4
Cr	ppm	2.0	IC2	20	24	22
Cu	ppm	1.0	IC2	10	12	12
Fe	%	0.01	IC2	1.59	1.87	1.49
La	ppm	20.0	XRF1			30
Mn	ppm	5.0	IC2	65	105	120
Mo	ppm	1.0	IC2	<1	<1	<1
Nb	ppm	2.0	XRF1			9
Ni	ppm	1.0	IC2	14	20	12
P	ppm	5.0	IC2			80
Pb	ppm	3.0	IC2	<3	<3	<3
Pd	ppb	1.0	FA3			1
Pt	ppb	5.0	FA3			<5
Rb	ppm	2.0	XRF1			98
Sb	ppm	4.0	XRF1			<4
Se	ppm	2.0	XRF1			<2
Sn	ppm	4.0	XRF1			<4
Sr	ppm	2.0	XRF1			400
Th	ppm	4.0	XRF1			20
U	ppm	4.0	XRF1			<4
V	ppm	1.0	IC2			40
W	ppm	10.0	XRF1			<20
Zn	ppm	1.0	IC2	15	22	14

HOLE NO: CRN 98
 TRAVERSE: "South Dam Homestead", 3189 mN
 STATION: 1 500 mE
 DATE: 17.11.92
 LOGGED BY: PWH

100 000 SHEET NO: 6731
 LOCATION: 358 447 mE
 6 318 517 mN
 DRILLING METHOD: RC
 TOTAL DEPTH: 57.5 m

Depth From	To	Magn. Susc.	Description
Recent			
0	2.0	1.12	Alluvium & Clay, red-brn, <u>c</u> calcitic clasts, ironstone, & qtz grains.
2.0	4.0	0.17	Clay, red-brn, lt grey, sandy, ferruginous, hard.
4.0	6.0	0.06	Clay, pale brn, orange, yellow, sandy.
6.0	8.0	0.08	Clay, lt grey, <u>c</u> f-med ang qtz sand.
Cainozoic? ie Tertiary?, or very weathered basement?			
8.0	10.0	0.03	Clay, mottled lt grey, red, yellow.
10.0	12.0	0.05	Clay, aa.
12.0	14.0	0.07	Clay, aa.
14.0	16.0	0.04	Clay, aa, sl silty.
16.0	18.0	0.06	Clay, aa, sl sandy.
18.0	20.0	0.07	Clay, aa.
20.0	22.0	0.05	Clay, aa.
22.0	24.0	0.04	Clay, lt grey, <u>c</u> occ sand.
24.0	26.0	0.04	Clay, aa.
26.0	28.0	0.04	Clay, aa.
28.0	30.0	0.03	Clay, aa.
30.0	32.0	0.03	Clay, aa.
32.0	34.0	0.02	Clay, aa.
34.0	36.0	0.02	Clay, aa.
36.0	38.0	0.05	Clay, aa, <u>c</u> dk grey med altered cordierite.
38.0	40.0	0.04	Clay, aa.
40.0	42.0	0.04	Clay, grey, brn, <u>c</u> occ dk grey-grn siltstone.
42.0	44.0	0.14	Clay, aa.
44.0	46.0	0.08	Clay, grey-grn, <u>c</u> altered cordierite.
46.0	48.0	0.07	Clay, aa.
Adelaidean			
48.0	50.0	0.08	Clay, & Weathrd Schist, dk grey-grn meta-siltstone, <u>c</u> porphyroblasts.
50.0	52.0	0.11	Clay & Weathrd Schist, aa.
52.0	54.0	0.12	Weathrd Schist, aa.
54.0	56.0	0.15	Weathrd Schist, aa.
56.0	57.5	0.09	Schist, aa
57.5			End of Hole

Geochemistry Samples:

RS 935 46-52 m Routine geochemistry.
 RS 936 52-57.5 m Bottom hole, extended geochemistry.

RS 937 46-52m Check sample, routine geochemistry
 RS 938 52-57.5m Check sample, extended geochemistry

				CRN 98 46-52m	CRN 98 52-57.5m	CRN 98 46-52m (check)	CRN98 46-52m (repeat)	CRN 98 52-57.5m (check)
				6731RS 935	6731RS 936	6731RS 937	6731RS 937	6731RS 938
Ag	ppm	0.5	IC2	<0.5	<0.5	<1	<1	<1
As	ppm	1.0	IC2	<1	3	5	6	6
Au	ppb	1.0	FA3	2	1	3		4
Ba	ppm	10.0	XRF1		450			342
Cd	ppm	1.0	IC2		<1			1
Ce	ppm	20.0	XRF1		260			314
Co	ppm	2.0	IC2	13	22	9	9	30
Cr	ppm	2.0	IC2	70	62	69	68	68
Cu	ppm	1.0	IC2	40	6	46	39	22
Fe	%	0.01	IC2	3.30	3.80	3.40	3.27	3.56
La	ppm	20.0	XRF1		160			156
Mn	ppm	5.0	IC2	35	70	34	29	63
Mo	ppm	1.0	IC2	<1	<1	<5	<5	9
Nb	ppm	2.0	XRF1		17			18
Ni	ppm	1.0	IC2	38	48	30	29	66
P	ppm	5.0	IC2		190			441
Pb	ppm	3.0	IC2	<3	<3	<5	<5	<5
Pd	ppb	1.0	FA3		<1			<1
Pt	ppb	5.0	FA3		<5			<1
Rb	ppm	2.0	XRF1		190			187
Sb	ppm	4.0	XRF1		<4			<4
Se	ppm	2.0	XRF1		<2			<2
Sn	ppm	4.0	XRF1		4			5
Sr	ppm	2.0	XRF1		38			31
Th	ppm	4.0	XRF1		22			19
U	ppm	4.0	XRF1		10			5
V	ppm	1.0	IC2		115			91
W	ppm	10.0	XRF1		<20			<10
Zn	ppm	1.0	IC2	19	28	21	20	23

HOLE NO: CRN 99
 TRAVERSE: "Hog Back - Kia Ora", 3024 mN
 STATION: 2 000 mE
 DATE: 24.11.92
 LOGGED BY: JKJ

100 000 SHEET NO: CAR00NA
 LOCATION: 348 477 mE
 6 303 596 mN
 DRILLING METHOD: RC WITH WATER
 TOTAL DEPTH: 104.0m

Depth From	To	Magn. Susc.	Description
Quaternary, Pooraka Formation and calcrete			
0.0	2.0	0.60	Surficial seds, red brn, c Mn staining.
2.0	4.0	0.75	A/A, c occ grey sltst frags.
4.0	6.0	0.70	Clay, red-yellow brn c blk flecks.
6.0	8.0	0.80	Silcrete, red brn yellow c Mn staining, & clay a/a.
8.0	10.0	0.86	Clay, red brn, c frags a/a.
10.0	12.0	0.74	Clay, red brn, c occ grey sltst & round ironstone frags.
12.0	14.0	1.13	Clay, red brn a/a, c round ironstone pebbles.
14.0	16.0	0.91	Clay, red brn a/a.
16.0	18.0	0.87	Clay, red brn a/a, gritty.
18.0	20.0	0.69	Clay, red brn, c round ironstone pebbles + grit.
Cainozoic, Tertiary?			
20.0	22.0	1.21	Clay, yellow + buff coloured.
22.0	24.0	0.87	Clay, yellow buff, non gritty.
24.0	26.0	0.46	Clay, yellow buff, indurated c ?calcite frags.
26.0	28.0	0.36	Clay, buff, c fine ?qtz, biot + mica, angular + rounded grit.
28.0	30.0	0.08	Clay, white cream.
30.0	32.0	0.41	Clay, cream, c ?weathrd feldspar frags, qtz, mica, almost all fines.
32.0	34.0	1.21	Clay, cream, micaceous c rounded qtz pebbles 1 cm, & ironstone frags.
34.0	36.0	0.21	Clay - sltst, tan, c well rounded qtz & ironstone pebbles & weathrd feldspar.
36.0	38.0	0.03	Clay/grit, cream, c rounded qtz pebbles, ?halite, mica, + blk min flecks. High loss of clay fines.
38.0	40.0	0.07	Clay, cream + purple red, c qtz, feldspar, ironstone flecks, well rounded.
40.0	42.0	0.09	Clay, yellow & cream, & interbeds of grey micaceous non gritty 99% clay.
42.0	44.0	0.07	Clay, cream + pale pink purple ochre, + yellow interbeds, micaceous.
44.0	46.0	0.05	Clay, yellow, c fine blk ?mica/biot flecks.
46.0	48.0	0.03	Clay, cream white, c occ pink purple interbeds.
48.0	50.0	0.03	Clay, white, plastic non gritty, c occ blk min flecks.
50.0	52.0	0.03	Clay, white to lt grey, non gritty, c occ micaceous lenses.
52.0	54.0	0.02	Clay, lt grey, non gritty, c occ blk ?mica lenses.
54.0	56.0	0.02	Clay, lt to dk grey, micaceous.
56.0	58.0	0.03	Clay a/a, c dk micaceous lenses, non gritty.
58.0	60.0	0.05	Clay, olive grey, non gritty.
60.0	62.0	0.04	Clay, olive grey to grey, c dk micaceous lenses & buff lenses non gritty.
62.0	64.0	0.11	Clay a/a.
Very weathered Adelaidean?			
64.0	66.0	0.17	Clay, olive grey, micaceous, sl gritty, c cream clay frags.
66.0	68.0	0.14	Clay, olive grn grey, c dk micaceous lenses.
68.0	70.0	0.19	Clay, dk grey, sl more indurated, non gritty.
70.0	72.0	0.15	Clay, dk grey, micaceous, sl gritty.
72.0	74.0	0.15	Clay, dk grey, c occ cream clay grit, & occ blk min frags.
74.0	75.0	0.13	Clay, dk grn grey, c occ cream clay grit frags.
76.0	78.0	0.23	Clay grn grey a/a, interbedded c cream gritty clay, c occ qtz, feldspar & sltst frags.
78.0	80.0	0.16	Clay, cream, c yellow & grn grey interbeds, gritty & micaceous.
80.0	82.0	0.13	Clay, olive grey, micaceous, sl gritty, c occ cream fine interbeds.
82.0	84.0	0.14	Clay, olive grn grey, micaceous, c occ cream clay grit frags.
84.0	86.0	0.13	Clay, olive grn grey, c occ biot-rich lenses, non-gritty.
86.0	88.0	0.19	Clay, dk olive grn, micaceous, non gritty.
88.0	90.0	0.15	Clay, olive grn, c occ fine (1mm) buff-tan clay lenses, micaceous.
Adelaidean			
90.0	92.0	0.16	Sltst, grn grey olive, c mica biot frags.
92.0	94.0	0.10	Sltst, olive grn, indurated & fissile.
94.0	96.0	0.13	Sltst, olive grn, gritty, micaceous c occ cream clay & brn clay interbeds.
96.0	98.0	0.10	Sltst a/a, c qtz pebbles & blk min flecks.
98.0	100.0	0.12	Sltst, grn grey a/a, micaceous.

100.0	102.0	0.19	Sltst, grey, micaceous.
102.0	104.0	0.08	A/A.
104.0			End of Hole.

Geochemistry Samples:

RS 939	40-50m	Routine geochemistry
RS 940	50-62m	"
RS 941	62-72m	"
RS 942	72-82m	"
RS 943	82-90m	"
RS 944	90-100m	"
RS 945	100-104m	Bottom hole, extended geochemistry.

				CRN 99 40-50m	CRN 99 50-62m	CRN 99 62-72m	CRN 99 72-82m	CRN 99 82-90m	CRN 99 90-100m	CRN 99 100-104m
				6731R 939	6731 940	6731 941	6731 942	6731 943	6731R 944	6731RS 945
Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
As	ppm	1.0	IC2	8	4	5	7	1	<1	<1
Au	ppb	1.0	FA3	<1	<1	2	2	1	2	1
Ba	ppm	10.0	XRF1							470
Cd	ppm	1.0	IC2							<1
Ce	ppm	20.0	XRF1							70
Co	ppm	2.0	IC2	5	24	135	76	52	36	30
Cr	ppm	2.0	IC2	11	8	32	36	40	36	34
Cu	ppm	1.0	IC2	34	74	100	78	100	44	26
Fe	%	0.01	IC2	2.22	1.3	7.15	8	7.05	6.35	5.35
La	ppm	20.0	XRF1							50
Mn	ppm	5.0	IC2	55	145	12600	6300	2050	2550	500
Mo	ppm	1.0	IC2	1	<1	<1	<1	<1	<1	<1
Nb	ppm	2.0	XRF1							13
Ni	ppm	1.0	IC2	11	45	86	60	55	50	48
P	ppm	5.0	IC2							620
Pb	ppm	3.0	IC2	6	4	<3	<3	4	4	<3
Pd	ppb	1.0	FA3							<1
Pt	ppb	5.0	FA3							<5
Rb	ppm	2.0	XRF1							195
Sb	ppm	4.0	XRF1							<4
Se	ppm	2.0	XRF1							<2
Sn	ppm	4.0	XRF1							6
Sr	ppm	2.0	XRF1							42
Th	ppm	4.0	XRF1							16
U	ppm	4.0	XRF1							<4
V	ppm	1.0	IC2							22
W	ppm	10.0	XRF1							10
Zn	ppm	1.0	IC2	10	54	110	70	68	50	50

HOLE NO: CRN 100
 TRAVERSE: "Hog Back - Kia Ora", 3024 mN
 STATION: 5 000 mE
 DATE: 24.11.92
 LOGGED BY: JKJ

100 000 SHEET NO: CAR00NA
 LOCATION: 350 988 mE
 6 305 601 mN
 DRILLING METHOD: RC WITH WATER
 TOTAL DEPTH: 106.0m

Depth From	To	Magn. Susc.	Description.
Quaternary, Pooraka Formation			
0.0	2.0	0.69	Surficial seds, red brn.
2.0	4.0	0.85	Silcrete, red brn <u>c</u> Mn staining, & qtz & ironstone pebbles.
4.0	6.0	0.57	A/A.
6.0	8.0	0.81	A/A, + rounded ironstone pebbles.
8.0	10.0	0.71	Calcrete, red brn, <u>c</u> frags a/a, & occ sltst frags/pebbles, becoming clayey.
10.0	12.0	0.59	Calcrete, red brn, <u>c</u> Mn staining, becoming clayey.
12.0	14.0	0.77	Clay, red brn, <u>c</u> biot lenses, sl gritty, & calcrete frags a/a.
14.0	16.0	0.54	A/A.
16.0	18.0	0.96	Clay, red brn yellow, <u>c</u> micaceous/biot (weathrd lenses).
18.0	20.0	1.17	A/A, <u>c</u> occ calcrete frags & occ round ironstone frags.
20.0	22.0	1.48	Clay, red brn, <u>c</u> micaceous lenses, & occ calcrete frags a/a.
22.0	24.0	1.13	Clay, red brn, gritty, <u>c</u> rounded qtz & ironstone pebbles.
24.0	26.0	0.26	Clay, gritty, red brn a/a.
26.0	28.0	0.35	Clay, red brn - ochre, gritty.
Cainozoic, Tertiary?			
28.0	30.0	0.16	Silty sand fine, yellow, friable & unconsolidated, also white-grey v fine.
30.0	32.0	0.05	Sand, grey white + yellow, <u>c</u> fine-v fine qtz, micaceous.
32.0	34.0	0.05	Sand fine, grey white, friable & unconsolidated.
34.0	36.0	0.04	A/A.
36.0	38.0	0.03	Sand med to coarse grained, tan red, <u>c</u> clean qtz pebbles & blk mins.
38.0	40.0	0.13	Sand, clean, <u>c</u> qtz pebbles <2mm, & rounded rock pebbles.
40.0	42.0	0.03	Sand, fine & clayey, white, <u>c</u> qtz frags pebbles a/a; into a white/cream micaceous clay <u>c</u> fine blk min flecks.
42.0	44.0	0.04	Clay, white grey, plastic non gritty.
44.0	46.0	0.02	Clay, plastic, mostly white-grey <u>c</u> pink, red, & purple interbeds, non gritty.
46.0	48.0	0.02	Clay, white grey, <u>c</u> occ yellow interbeds.
48.0	50.0	0.01	Clay, lt grey, <u>c</u> fine blk min flecks, non gritty.
50.0	52.0	0.03	Clay, lt grey, <u>c</u> v fine blk min flecks & occ grey sltst frags.
52.0	54.0	0.02	Clay, dk grey, plastic non gritty, <u>c</u> fine blk min flecks.
54.0	56.0	0.03	Clay, grey a/a, <u>c</u> occ sltst frag.
56.0	58.0	0.01	Clay a/a, <u>c</u> occ grey sltst frags.
58.0	60.0	0.01	Clay, grey, plastic, <u>c</u> occ white clay frags, non gritty.
60.0	62.0	0.02	Clay a/a.
62.0	64.0	0.01	Clay, lt grey, <u>c</u> occ fine micaceous lenses.
64.0	66.0	0.01	Clay, lt grey.
66.0	68.0	0.01	Clay, lt grey, non gritty
68.0	70.0	0.03	Clay, lt grey, non gritty, <u>c</u> fine blk min fleck.
70.0	72.0	0.02	A/A.
72.0	74.0	0.02	A/A, <u>c</u> micaceous interbeds.
74.0	76.0	0.26	Clay, grey, plastic non gritty.
76.0	78.0	0.04	Clay a/a, into yellow brn + reddish & olive grn plastic clay, non gritty.
78.0	80.0	0.32	Clay, white grey, <u>c</u> blk min flecks.
80.0	82.0	0.02	Clay, lt grey, plastic non gritty, <u>c</u> fine blk min flecks.
82.0	84.0	0.06	Clay, grey - purple; <u>c</u> red clay interbeds, non gritty, <u>c</u> blk min flecks.
84.0	86.0	0.05	Clay, lt grey, <u>c</u> yellow brn lenses.
86.0	88.0	0.08	Clay, lt grey + buff, <u>c</u> red ochre yellow brn purple & grey lenses, <u>c</u> blk min flecks, non gritty.
88.0	90.0	0.26	Clay a/a.
90.0	92.0	0.04	Clay, buff yellow brn, plastic non gritty, <u>c</u> v fine blk min flecks.
92.0	94.0	0.03	Clay, white buff, plastic non gritty.
94.0	96.0	0.02	A/A, <u>c</u> yellow brn lenses, & minor blk min specks.
96.0	98.0	0.16	Clay a/a, buff & yellow brn, micaceous.
98.0	100.0	0.03	Clay, yellow brn buff, <u>c</u> minor lt pink interbeds, plastic non gritty, micaceous.
100.0	102.0	0.08	Clay, lt brn tan, plastic, <u>c</u> lenses of grey clay, sl gritty.

Weathered Adelaidean? and Bendigo Granite?

102.0	104.0	0.07	Clay a/a, becoming gritty, <u>c</u> angular frags of qtz, grey sltst, feldspar, ?ironstone, <u>c</u> limonitic surfaces, ?weathrd gneiss or ?granite.
104.0	106.0	0.10	A/A.
106.0			Drill rods blocked-off in loose sand, abandoned hole.

Geochemistry Samples:

RS 946	44-52m	Routine geochemistry
RS 947	52-62m	"
RS 948	62-74m	"
RS 949	74-84m	"
RS 950	84-90m	"
RS 951	90-100m	"
RS 952	100-104m	"
RS 953	104-106m	Bottom hole, extended geochemistry.

				CRN 100 44-52m	CRN 100 52-62m	CRN 100 62-74m	CRN 100 74-84m
				6731RS 946	6731RS 947	6731RS 948	6731RS 949
Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5	<0.5
As	ppm	1.0	IC2	<1	6	3	<1
Au	ppb	1.0	FA3	<1	<1	<1	<1
Ba	ppm	10.0	XRF1				
Cd	ppm	1.0	IC2				
Ce	ppm	20.0	XRF1				
Co	ppm	2.0	IC2	<2	<2	<2	<2
Cr	ppm	2.0	IC2	19	34	16	17
Cu	ppm	1.0	IC2	8	54	25	20
Fe	%	0.01	IC2	0.31	0.23	0.32	0.62
La	ppm	20.0	XRF1				
Mn	ppm	5.0	IC2	10	5	<5	15
Mo	ppm	1.0	IC2	<1	1	<1	<1
Nb	ppm	2.0	XRF1				
Ni	ppm	1.0	IC2	2	4	1	1
P	ppm	5.0	IC2				
Pb	ppm	3.0	IC2	10	24	6	8
Pd	ppb	1.0	FA3				
Pt	ppb	5.0	FA3				
Rb	ppm	2.0	XRF1				
Sb	ppm	4.0	XRF1				
Se	ppm	2.0	XRF1				
Sn	ppm	4.0	XRF1				
Sr	ppm	2.0	XRF1				
Th	ppm	4.0	XRF1				
U	ppm	4.0	XRF1				
V	ppm	1.0	IC2				
W	ppm	10.0	XRF1				
Zn	ppm	1.0	IC2	2	4	2	3

				CRN 100 84-90m	CRN 100 90-100m	CRN 100 100-104m	CRN 100 104-106m
				6731RS 950	6731RS 951	6731RS 952	6731RS 953
Ag	ppm	0.5	IC2	<0.5	<0.5	1.5	<0.5
As	ppm	1.0	IC2	<1	22	22	10
Au	ppb	1.0	FA3	<1	<1	2	<1
Ba	ppm	10.0	XRF1				460
Cd	ppm	1.0	IC2				<1
Ce	ppm	20.0	XRF1				130
Co	ppm	2.0	IC2	3	2	13	26
Cr	ppm	2.0	IC2	22	24	50	30
Cu	ppm	1.0	IC2	10	12	38	48
Fe	%	0.01	IC2	2.48	1.02	3.78	6.25
La	ppm	20.0	XRF1				140
Mn	ppm	5.0	IC2	35	25	55	55
Mo	ppm	1.0	IC2	<1	<1	1	<1
Nb	ppm	2.0	XRF1				17
Ni	ppm	1.0	IC2	4	7	26	42
P	ppm	5.0	IC2				840
Pb	ppm	3.0	IC2	8	15	24	6
Pd	ppb	1.0	FA3				<1
Pt	ppb	5.0	FA3				<5
Rb	ppm	2.0	XRF1				210
Sb	ppm	4.0	XRF1				<4
Se	ppm	2.0	XRF1				<2
Sn	ppm	4.0	XRF1				<4
Sr	ppm	2.0	XRF1				30
Th	ppm	4.0	XRF1				16
U	ppm	4.0	XRF1				5
V	ppm	1.0	IC2				38
W	ppm	10.0	XRF1				<10
Zn	ppm	1.0	IC2	7	17	42	90

HOLE NO: CRN 101
 TRAVERSE: "Hog Back - Kia Ora", 3024 mN
 STATION: 5 700 mE
 DATE: 25.11.92
 LOGGED BY: JKJ

100 000 SHEET NO: CAR00NA
 LOCATION: 351 600 mE
 6 306 000 mN
 DRILLING METHOD: RC WITH WATER
 TOTAL DEPTH: 118.0m

Depth From	To	Magn. Susc.	Description.
Quaternary, Pooraka Formation and calcrete			
0.0	2.0	0.33	Calcrete, red brn, c weathrd ironstone clasts/pebbles.
2.0	4.0	0.37	A/A, c Mn staining on pebbles qtz.
4.0	6.0	0.28	A/A, c qtz-biot pebbles.
6.0	8.0	0.36	A/A, into grey calcrete, c ironstone frags + white clay frags.
8.0	10.0	0.23	A/A.
10.0	12.0	1.53	Calcrete, red brn, with a conglomeratic interbed c rounded pebbles of sltst & ironstone up to ~1cm, c clay, white - buff.
12.0	14.0	4.74	Conglomerate bed, c large qtzite pebbles a/a.
14.0	16.0	0.24	Calcrete, red brn, c small qtz pebbles & Mn staining.
16.0	18.0	0.37	Calcrete, red brn + buff, c weathrd qtz + round ironstone pebbles.
18.0	20.0	0.69	Clay, red brn, c buff clay lenses.
20.0	22.0	0.97	Clay, red brn, c gritty buff clay frags.
22.0	24.0	0.67	A/A, into buff grn clay.
24.0	26.0	1.01	Clay, red brn, fine sandy, unconsolidated.
26.0	28.0	1.88	A/A, into tan.
28.0	30.0		Calcrete, yellow c pebbles of ironstone & qtz.
30.0	32.0	0.31	Sand, tan yellow, consol, c fine rounded qtz pebbles, & blk min flecks.
32.0	34.0	0.31	Conglomerate, tan yellow, c well rounded qtz & ironstone pebbles ~1 cm.
34.0	36.0	0.14	A/A.
Cainozoic, Tertiary?			
36.0	38.0	0.14	Sand, fine to med, unconsolidated, red-brown.
38.0	40.0	0.15	Sand, fine qtz, tan & yellow, + occ blk min flecks.
40.0	42.0	0.11	Sand a/a.
42.0	44.0	0.24	Sand, yellow tan a/a.
44.0	46.0	0.08	Clay, sandy (qtz), tan, c fine rounded pebbles, & blk min pebbles.
46.0	48.0	0.05	Clay, grey, sl gritty, c fine blk min flecks.
48.0	50.0	0.02	Clay a/a, plastic sl gritty, c v fine blk min flecks.
50.0	52.0	0.04	Clay, grey, c blk min flecks, & white buff clay frags, non gritty.
52.0	54.0	0.04	Clay a/a, micaceous.
54.0	56.0	0.03	Clay, grey, a/a, c ?occ weathrd biot flecks, plastic non gritty.
56.0	58.0	0.05	Clay, lt grey, c blk min flecks, & occ buff clay, non gritty.
58.0	60.0	0.05	Clay a/a.
60.0	62.0	0.03	Clay a/a.
62.0	64.0	0.04	Clay a/a, lt grey, plastic non gritty.
64.0	66.0	0.05	Clay a/a, lt grey.
66.0	68.0	0.02	Clay, lt grey, c occ thin lenses of reddish pink & purple mottled clay.
68.0	70.0	0.03	Clay, lt grey, c occ round qtz pebbles, & blk min flecks, non gritty.
70.0	72.0	0.03	Clay, v lt grey, c occ lenses of cream plastic non gritty clay, c v fine blk min flecks.
74.0	76.0	0.03	Clay, grey, c red purple mottling, gritty.
76.0	78.0	0.04	Clay, red/mottled purple.
78.0	80.0	0.05	Grey, clay, c occ purple red mottled lenses.
80.0	82.0	0.03	A/A.
82.0	84.0	0.04	Clay, grey buff, c occ frags of white clay, becoming sl gritty.
84.0	86.0	0.07	Clay, grey, + mottled purple c yellow brn lenses.
86.0	88.0	0.05	Clay, grey, c occ rare purple mottled lenses.
88.0	90.0	0.04	Clay a/a.
90.0	92.0	0.04	Clay, dk grey, c small white clay frags, micaceous.
92.0	94.0	0.04	Clay, grey, & mottled purple red.
94.0	96.0	0.04	Clay, grey, + purple mottled clays.
96.0	98.0	0.04	Clay, dk grey, plastic.
98.0	100.0	0.05	Clay, dk grey + mottled purple.
100.0	102.0	0.04	Clay, dk grey + mottled purple, plastic non gritty, c occ olive grn grey lenses.
102.0	104.0	0.04	Clay, dk gm + mottled purple, c occ tan red coloured lenses.

104.0	106.0	0.04	Clay, grey, <u>c</u> lenses of limonitic tan + mottled purple, pink purple + dk ochre red clay, non gritty.
106.0	108.0	0.03	Clay, lt grey, micaceous, non gritty.
108.0	110.0	0.08	Clay, grey, <u>c</u> purple + tan interbeds, micaceous.
110.0	112.0	0.07	Clay, buff tan & ochre red to mottled purple.
112.0	114.0	0.03	Clay, buff, micaceous, <u>c</u> occ tan lenses.
114.0	116.0	0.03	Clay, buff tan, <u>c</u> angular qtzite frags, <u>c</u> lenses of cream + occ mottled purple clay, & dk grey blk sltst frags.
Very weathered Adelaidean?			
116.0	118.0	0.08	Clay, tan, <u>c</u> angular smoky qtz frags, & dk grey sltst frags (lost most of sample in fines).
118.0			End of Hole, drill rods blocked-off.

Geochemistry Samples:

RS 954	24-58m	Routine geochemistry
RS 955	54-66m	"
RS 956	66-76m	"
RS 957	76-88m	"
RS 958	88-102m	"
RS 959	102-108m	"
RS 960	108-114m	"
RS 961	114-118m?	"
RS 962	116-118m	Bottom hole, extended geochemistry.

				CRN 101 24-28m	CRN 101 54-66m	CRN 101 66-76m	CRN 101 76-88m	CRN 101 88-102m
				6731RS 954	6731RS 955	6731RS 956	6731RS 957	6731RS 958
Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5	<0.5	<0.5
As	ppm	1.0	IC2	4	3	4	1	<1
Au	ppb	1.0	FA3	<1	1	<1	<1	<1
Ba	ppm	10.0	XRF1					
Cd	ppm	1.0	IC2					
Ce	ppm	20.0	XRF1					
Co	ppm	2.0	IC2	9	<2	<2	<2	9
Cr	ppm	2.0	IC2	22	17	12	16	35
Cu	ppm	1.0	IC2	13	28	9	9	62
Fe	%	0.01	IC2	2.32	0.26	0.49	0.83	1.36
La	ppm	20.0	XRF1					
Mn	ppm	5.0	IC2	290	<5	5	15	10
Mo	ppm	1.0	IC2	<1	<1	<1	<1	<1
Nb	ppm	2.0	XRF1					
Ni	ppm	1.0	IC2	10	3	3	3	12
P	ppm	5.0	IC2					
Pb	ppm	3.0	IC2	11	10	7	7	13
Pd	ppb	1.0	FA3					
Pt	ppb	5.0	FA3					
Rb	ppm	2.0	XRF1					
Sb	ppm	4.0	XRF1					
Se	ppm	2.0	XRF1					
Sn	ppm	4.0	XRF1					
Sr	ppm	2.0	XRF1					
Th	ppm	4.0	XRF1					
U	ppm	4.0	XRF1					
V	ppm	1.0	IC2					
W	ppm	10.0	XRF1					
Zn	ppm	1.0	IC2	11	3	2	6	2

CRN 101 CRN 101 CRN 101 CRN 101
102-108m 108-114m 114-118m 116-118m

6731RS 6731RS 6731RS 6731RS
959 960 961 962

Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5	<0.5
As	ppm	1.0	IC2	<1	<1	1	7
Au	ppb	1.0	FA3	2	7	2	1
Ba	ppm	10.0	XRF1				85
Cd	ppm	1.0	IC2				<1
Ce	ppm	20.0	XRF1				20
Co	ppm	2.0	IC2	4	3	4	4
Cr	ppm	2.0	IC2	16	52	24	5
Cu	ppm	1.0	IC2	135	32	14	9
Fe	%	0.01	IC2	1.05	5.15	1	0.99
La	ppm	20.0	XRF1				20
Mn	ppm	5.0	IC2	20	105	130	200
Mo	ppm	1.0	IC2	<1	<1	<1	<1
Nb	ppm	2.0	XRF1				<2
Ni	ppm	1.0	IC2	6	7	7	7
P	ppm	5.0	IC2				34
Pb	ppm	3.0	IC2	6	3	3	<3
Pd	ppb	1.0	FA3				1
Pt	ppb	5.0	FA3				<5
Rb	ppm	2.0	XRF1				4
Sb	ppm	4.0	XRF1				<4
Se	ppm	2.0	XRF1				<2
Sn	ppm	4.0	XRF1				<4
Sr	ppm	2.0	XRF1				26
Th	ppm	4.0	XRF1				<4
U	ppm	4.0	XRF1				<4
V	ppm	1.0	IC2				8
W	ppm	10.0	XRF1				20
Zn	ppm	1.0	IC2	1	6	7	6

HOLE NO: CRN 102
 TRAVERSE: "Hog Back - Kia Ora", 3024 mN
 STATION: 7 000 mE
 DATE: 25.11.92
 LOGGED BY: JKI

100 000 SHEET NO: CAR00NA
 LOCATION: 352 817 mE
 6 306 674 mN
 DRILLING METHOD: RC WITH WATER
 TOTAL DEPTH: 117.0m

Depth From	To	Magn. Susc.	Description.
Quaternary, Pooraka Formation and calcrete			
0.0	2.0	0.69	Surficial seds, red brn, c ironstone pebbles + Mn staining.
2.0	4.0	0.70	A/A, clayey, c rounded qtz pebbles.
4.0	6.0	0.67	A/A, c white clay frags.
6.0	8.0	0.72	Calcrete, red-brown + buff, c frags a/a.
8.0	10.0	0.67	Calcrete a/a.
10.0	12.0	0.53	Calcrete, buff - red-brown, c frags a/a.
12.0	14.0	0.68	Calcrete a/a, c fine rounded qtz pebbles & red Fe oxide pebbles, c Mn staining, ie possible weathering surface.
14.0	16.0	3.16	A/A, c 2cm rounded dk grey sltst pebbles, 3mm ironstone pebbles, & rounded qtz c Mn staining.
16.0	18.0	2.36	A/A.
18.0	20.0	5.99	A/A.
20.0	22.0	7.37	A/A.
22.0	24.0	20.1	A/A.
24.0	26.0	3.84	A/A.
26.0	28.0	5.45	Conglomerate, red brn, consisting of rounded pebbles a/a.
28.0	30.0	1.20	A/A, becoming clayey.
30.0	32.0	0.08	Sandstone, v fine grained qtz, tan, friable unconsolidated (poor sample return, all fines).
32.0	34.0	0.72	Conglomerate, c qtz, ironstone, & red sltst.
34.0	36.0	1.43	Grey sltst frags.
36.0	38.0	0.12	Sandstone, fine, buff, unconsolidated; basically all fines c pebbles a/a.
38.0	40.0	0.12	Sandstone a/a.
40.0	42.0	0.14	Sandstone, med grained, buff, unconsolidated & friable, c pebbles a/a.
42.0	44.0	0.34	Clay, buff, c occ frags sltst.
44.0	46.0	0.05	Clay, ochre red, c lenses of yellow + choc grey & buff-grey plastic clay, non gritty, micaceous.
46.0	48.0	0.05	A/A.
48.0	50.0	0.05	Clay, buff, plastic non gritty, c minor tan lenses, micaceous.
50.0	52.0	0.03	Clay, lt grey, micaceous non gritty.
52.0	54.0	0.06	Clay a/a.
54.0	56.0	0.02	Clay, grey, non gritty, micaceous.
56.0	58.0	0.01	Clay, dk grey chocolate grey, a/a.
58.0	60.0	0.01	Clay a/a, c occ white clay frags, non gritty plastic.
60.0	62.0	0.00	Clay, grey, c occ buff tan clay lens, non gritty micaceous.
62.0	64.0	0.02	Clay, med-dk grey, occ white & red ochre lenses.
64.0	66.0	0.03	Clay a/a.
66.0	68.0	0.04	Clay, lt grey, micaceous, non gritty plastic.
68.0	70.0	0.01	Clay, lt grey, micaceous, plastic.
70.0	72.0	0.02	Clay a/a.
72.0	74.0	0.00	Clay a/a.
74.0	76.0	0.00	Clay, med grey, c occ gm olive lenses, micaceous.
76.0	78.0	0.05	Clay a/a, c yellow brn lenses.
78.0	80.0	0.02	Clay, grey, c occ yellow brn red ochre/purple lenses 2m thick.
80.0	82.0	0.00	Clay, med grey, c occ yellow brn lenses, non gritty.
82.0	84.0	0.01	Clay a/a, c chocolate to purple-brown lenses.
84.0	86.0	0.00	Clay a/a.
86.0	88.0	0.02	Clay, lt grey, micaceous.
88.0	90.0	0.04	Clay a/a.
90.0	92.0	0.03	Clay a/a.
92.0	94.0	0.01	Clay a/a.
94.0	96.0	0.03	Clay a/a.
96.0	98.0	0.04	Clay a/a.
98.0	100.0	0.06	Clay, grey, c tan yellow brn + pale pink to purple clay interbeds.
100.0	102.0	0.03	Clay, lt grey, micaceous, & indurated.
102.0	104.0	0.07	Clay, red brn, c yellow brn & grey lenses.
104.0	106.0	0.04	Clay, alternating tan + grey c red ochre lenses.

106.0	108.0	0.04	Clay, tan, <u>c</u> grey + yellow brn lenses, micaceous.
Adelaidean?, Calc-silicate			
108.0	110.0	0.07	Calcrete?, buff; possible weathering surface with qtzite, ?weathrd granite, & grey sltst ang frags. Minor <i>sulphide</i> ?pyrite.
110.0	112.0	0.10	Calc? silicate?, weathrd olive grn, limonitic, ie contact <u>c</u> metamorphosed granite.
112.0	114.0		A/A.
114.0	116.0	0.08	Calc silicate, variably altered, grn, <u>c</u> qtz & sltst frags.
116.0	118.0	0.01	A/A.
118.0			End of Hole.

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Geochemistry Samples:

RS 963	92-102m	Routine geochemistry.
RS 964	102-108m	"
RS 965	108-110m	Extended geochemistry.
RS 966	110-114m	"
RS 967	114-117m	Bottom hole, extended geochemistry.

CRN 102 CRN 102 CRN 102 CRN 102 CRN 102
92-102m 102-108m 108-110m 110-114m 114-117m

				6731R 963	6731RS 964	6731RS 965	6731RS 966	6731RS 967
Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5	<0.5	<0.5
As	ppm	1.0	IC2	<1	10	2	2	2
Au	ppb	1.0	FA3	1	6	1	8	2
Ba	ppm	10.0	XRF1			220	115	80
Cd	ppm	1.0	IC2			<1	<1	<1
Ce	ppm	20.0	XRF1			50	40	20
Co	ppm	2.0	IC2	<2	3	8	17	22
Cr	ppm	2.0	IC2	11	54	8	48	44
Cu	ppm	1.0	IC2	12	65	18	32	13
Fe	%	0.01	IC2	0.26	3.94	0.78	5.25	3.22
La	ppm	20.0	XRF1			40	30	<20
Mn	ppm	5.0	IC2	20	180	270	260	270
Mo	ppm	1.0	IC2	<1	<1	<1	<1	<1
Nb	ppm	2.0	XRF1			19	9	11
Ni	ppm	1.0	IC2	2	8	8	28	36
P	ppm	5.0	IC2			40	370	600
Pb	ppm	3.0	IC2	7	4	<3	<3	4
Pd	ppb	1.0	FA3			1	1	<1
Pt	ppb	5.0	FA3			<5	<5	<5
Rb	ppm	2.0	XRF1			13	38	34
Sb	ppm	4.0	XRF1			<4	<4	4
Se	ppm	2.0	XRF1			<2	<2	<2
Sn	ppm	4.0	XRF1			<4	<4	<4
Sr	ppm	2.0	XRF1			48	98	96
Th	ppm	4.0	XRF1			8	8	12
U	ppm	4.0	XRF1			<4	6	<4
V	ppm	1.0	IC2			26	110	85
W	ppm	10.0	XRF1			10	<10	<10
Zn	ppm	1.0	IC2	8	4	8	60	80

HOLE NO: CRN 103
 TRAVERSE: "Hog Back - Kia Ora", 3024 mN
 STATION: 8 000 mE
 DATE: 27.11.92
 LOGGED BY: JKJ

100 000 SHEET NO: CAR00NA
 LOCATION: 353 541 mE
 6 307 419 mN
 DRILLING METHOD: RC WITH WATER
 TOTAL DEPTH: 127.0m

Depth From	To	Magn. Susc.	Description
Quaternary, Pooraka Formation and calcrete			
0.0	2.0	0.89	Surficial seds, red brn, into calcrete <u>c</u> Mn staining & rounded ironstone frags.
2.0	4.0	0.91	Calcrete a/a, <u>c</u> qtz pebbles.
4.0	6.0	0.76	Calcrete, buff + red brn.
6.0	8.0	0.76	A/A, becoming clayey.
8.0	10.0	0.28	Calcrete, buff + red brn, <u>c</u> rounded qtz + ironstone pebbles.
10.0	12.0	0.47	Clay, red brn, <u>c</u> calcrete frags.
12.0	14.0	0.62	Clay a/a.
14.0	16.0	0.71	Calcrete, <u>c</u> frags of qtz & ironstone, & occ grn? calc silicate.
16.0	18.0	0.36	Clay & calcrete.
18.0	20.0	0.25	Clay & calcrete a/a.
20.0	22.0	0.34	Grit, sandy + clayey, red brn.
22.0	24.0	0.47	Clay sand & calcrete, buff & red brn a/a.
24.0	26.0	0.14	A/A.
Cainozoic, Tertiary?			
26.0	28.0	0.05	Sandstone, tan, <u>c</u> qtz + small rounded ironstone frags.
28.0	30.0	0.05	Qtzite, <u>c</u> minor ironstone pebbles.
30.0	32.0	0.11	Sandstone, tan, <u>c</u> fine qtz & occ ironstone pebbles. Mostly fines.
32.0	34.0	0.18	Sandstone a/a, unconsolidated.
34.0	36.0	0.12	Sand, med to coarse, tan, unconsolidated.
36.0	38.0	0.17	Sand, red brn, unconsolidated friable.
38.0	40.0	0.13	Sandstone, tan & red brn, <u>c</u> qtz & ironstone frags.
40.0	42.0	0.05	Sandy clay, buff grey + yellow brn, fine grained <u>c</u> qtz pebbles.
42.0	44.0	0.04	Clay, sandy, lt grey, micaceous, <u>c</u> lenses of yellow brn clay.
44.0	46.0	0.02	Clay, med grey, <u>c</u> occ qtz pebbles.
46.0	48.0	0.03	Clay, med grey, plastic, micaceous ?after feldspar.
48.0	50.0	0.05	Clay a/a, <u>c</u> occ rounded qtz pebbles & rare coal frags.
50.0	52.0	0.08	Sandstone, grey, <u>c</u> blk coal.
52.0	54.0	0.04	Clay, lt grey, micaceous, <u>c</u> fine rounded qtz pebbles.
54.0	56.0	0.03	Clay, grey, micaceous.
56.0	58.0	0.03	Clay a/a.
58.0	60.0	0.12	Clay, lt grey, micaceous.
60.0	62.0	0.03	Clay, med grey, micaceous.
62.0	64.0	0.36	Clay a/a, <u>c</u> yellow brn lenses & purple red lenses.
64.0	66.0	0.08	Clay, lt grey, <u>c</u> occ yellow brn lenses, & rare purple red lenses, micaceous.
66.0	68.0	0.03	Clay, lt grey, plastic non gritty.
68.0	70.0	0.03	Clay, lt grey, plastic, micaceous.
70.0	72.0	0.03	Clay, med grey.
72.0	74.0	0.05	Clay, med to dk grey, <u>c</u> occ yellow brn & purple lenses.
74.0	76.0	0.03	Clay a/a.
76.0	78.0	0.04	Clay a/a.
78.0	80.0	0.05	Clay a/a.
80.0	82.0	0.04	Clay a/a, grey, <u>c</u> occ lenses of mottled clay.
82.0	84.0	0.02	Clay a/a.
84.0	86.0	0.06	Clay a/a, <u>c</u> mottled purple red + yellow brn lenses 2-3mm thick.
86.0	88.0	0.03	Clay a/a.
88.0	90.0	0.03	Clay, lt grey.
90.0	92.0	0.02	Clay a/a.
92.0	94.0	0.17	Clay a/a, micaceous.
94.0	96.0	0.21	Clay a/a.
96.0	98.0	0.05	Clay a/a, <u>c</u> olive lenses.
98.0	100.0	0.13	Clay, lt or dk grey.
Weathered and Altered? granite??			
100.0	102.0	0.10	Clay, pl grey to white, <u>c</u> occ clasts of ?weathrd & altered granite, yellow brn + purple red brn.

102.0	104.0	0.05	Clay a/a.
104.0	106.0	0.07	Clay a/a, mottled, micaceous.
106.0	108.0	0.06	?Altered granite, consists of clay, red brn, <u>c</u> buff + yellow brn lenses, remnant texture is visible.
108.0	110.0	0.07	Clay a/a.
110.0	112.0	0.20	Clay a/a, <u>c</u> occ clasts of botryoidal calc-silicate.
112.0	114.0	0.48	Clay a/a, <u>c</u> botryoidal cal- silicate.
114.0	116.0	0.04	Altered ? granite - calc-silicate, red brn buff & purple clay, <u>c</u> remnant granitic texture.
116.0	118.0	0.05	A/A.
118.0	120.0	0.12	? Mylonite, <u>c</u> granite & calc silicate frags.
120.0	122.0	0.06	Clay, buff, biot-rich, <u>c</u> occ crystal/frag of Fe oxide, ?granite, calc-silicate.
Adelaidean? Calc-silicate			
122.0	124.0	0.12	?Weathrd altered calc-silicate, <u>c</u> lenticular yellow brn biot, <u>c</u> buff clay.
124.0	126.0	0.07	Calc-silicate, grn grey.
126.0	127.0	0.18	Calc-silicate, grey + grn.
			End of Hole.

Geochemistry Samples:

RS 968	98-108m	Routine geochemistry.
RS 969	108-116m	"
RS 970	116-124m	"
RS 971	124-127m	Bottom hole, extended geochemistry.

CRN 103 CRN 103 CRN 103 CRN 103
98-108m 108-116m 116-124m 124-127m

				6731RS 968	6731RS 969	6731RS 970	6731RS 971
Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5	2.5
As	ppm	1.0	IC2	<1	3	3	13
Au	ppb	1.0	FA3	<1	<1	<1	1
Ba	ppm	10.0	XRF1				270
Cd	ppm	1.0	IC2				<1
Ce	ppm	20.0	XRF1				920
Co	ppm	2.0	IC2	3	4	11	55
Cr	ppm	2.0	IC2	32	74	120	80
Cu	ppm	1.0	IC2	68	62	135	110
Fe	%	0.01	IC2	5.15	4.96	6.7	4.28
La	ppm	20.0	XRF1				800
Mn	ppm	5.0	IC2	150	230	390	680
Mo	ppm	1.0	IC2	<1	<1	<1	1
Nb	ppm	2.0	XRF1				16
Ni	ppm	1.0	IC2	7	14	58	65
P	ppm	5.0	IC2				860
Pb	ppm	3.0	IC2	7	9	17	30
Pd	ppb	1.0	FA3				<1
Pt	ppb	5.0	FA3				<5
Rb	ppm	2.0	XRF1				135
Sb	ppm	4.0	XRF1				<4
Se	ppm	2.0	XRF1				<2
Sn	ppm	4.0	XRF1				<4
Sr	ppm	2.0	XRF1				140
Th	ppm	4.0	XRF1				12
U	ppm	4.0	XRF1				8
V	ppm	1.0	IC2				130
W	ppm	10.0	XRF1				25
Zn	ppm	1.0	IC2	6	16	105	180

HOLE NO: CRN 104
 TRAVERSE: "Hog Back - Kia Ora", 3024 mN
 STATION: 9 400 mE
 DATE: 28.11.92
 LOGGED BY: JKJ

100 000 SHEET NO: CAR00NA
 LOCATION: 354 479 mE
 6 308 567 mN
 DRILLING METHOD: RC WITH WATER
 TOTAL DEPTH: 121.0m

Depth From	To	Magn. Susc.	Description
Quaternary, Pooraka Formation and calcrete			
0.0	2.0	3.39	Surficial sediments, red brn, <u>c</u> qtzite & ironstone frags & pebbles.
2.0	4.0	2.07	A/A.
4.0	6.0	2.67	Calcrete, & clay & seds a/a, red brn.
6.0	8.0	1.89	Clay red brn, dk grey ironstone frags, buff calcrete, & buff clay <u>c</u> occ sltst frag.
8.0	10.0	3.35	A/A.
10.0	12.0	4.68	A/A, minor reddish brn iron oxide & ?sltst frags.
12.0	14.0	5.16	Calcrete, tan - buff, <u>c</u> angular - rounded qtz, & <u>c</u> ironstone pebbles.
14.0	16.0	3.86	Calcrete a/a, <u>c</u> Mn staining on calcrete.
16.0	18.0	0.10	Clay, buff tan grey, micaceous.
18.0	20.0	0.20	Clay, red brn & buff, micaceous.
20.0	22.0	0.25	Clay, red brn buff & cream, micaceous, non gritty.
22.0	24.0	0.07	Clay, grey yellow brn + buff, non gritty, micaceous.
24.0	26.0	0.07	Clay, buff + reddish purple, micaceous, plastic.
26.0	28.0	0.06	Clay, grey + cream white, <u>c</u> occ red brn purplish lenses.
28.0	30.0	0.09	Sandstone, tan, <u>c</u> rounded pebbles of ironstone & qtz pebbles 1-2 cm.
30.0	32.0	0.07	Sand, fine, tan, friable unconsolidated (large loss in fines).
32.0	34.0	0.04	Sand a/a, <u>c</u> qtzite pebbles, & well rounded ironstone pebbles.
34.0	36.0	0.03	Clay, buff, micaceous, <u>c</u> fine qtz pebbles.
Cainozoic, Tertiary?			
36.0	38.0	0.03	Clay, grey to lt grey, micaceous, non gritty.
38.0	40.0	0.02	Clay a/a.
40.0	42.0	0.03	Clay, med grey, non gritty, micaceous, <u>c</u> occ white clay frags.
42.0	44.0	0.03	Clay, med grey, non gritty, micaceous.
44.0	46.0	0.03	Clay a/a.
46.0	48.0	0.03	Clay a/a.
48.0	50.0	0.03	Clay, lt grey, non gritty, micaceous.
50.0	52.0	0.02	Clay a/a.
52.0	54.0	0.03	Clay a/a, <u>c</u> occ buff - olive grn lenses.
54.0	56.0	0.02	Clay, lt grey, non gritty, micaceous.
56.0	58.0	0.03	Clay, lt & dk grey, <u>c</u> occ buff & olive grn lenses.
58.0	60.0	0.03	Clay, med - dk grey, non gritty, micaceous.
60.0	62.0	0.03	Clay, med grey, <u>c</u> occ red purple lenses, non gritty, micaceous, + occ fine white clay frags.
62.0	64.0	0.03	Clay, lt grey, micaceous, non gritty, <u>c</u> occ red purple lenses.
64.0	66.0	0.03	Clay a/a, <u>c</u> tan lenses.
66.0	68.0	0.06	Clay, grey a/a, <u>c</u> red purple mottled lenses <~2cm thick.
68.0	70.0	0.03	Clay, lt grey, <u>c</u> occ fine lenses of red clay, non gritty, micaceous.
70.0	72.0	0.02	Clay, med grey, <u>c</u> red purple & yellow brn lenses.
72.0	74.0	0.03	Clay, lt grey, non gritty, micaceous.
74.0	76.0	0.03	Clay, med grey a/a, <u>c</u> occ yellow brn clay.
76.0	78.0	0.04	Clay, med - dk grey, <u>c</u> yellow brn & pink purple red interbeds.
78.0	80.0	0.04	Clay a/a.
80.0	82.0	0.03	Clay, lt grey, <u>c</u> occ purple lenses, non gritty, micaceous.
82.0	84.0	0.03	Clay, lt grey, <u>c</u> red purple mottled lenses, & rare yellow brn clay, non gritty, micaceous.
84.0	86.0	0.03	Clay a/a.
86.0	88.0	0.02	Clay, lt grey, non gritty, micaceous.
88.0	90.0	0.04	Clay a/a, <u>c</u> red purple + yellow brn lenses.
90.0	92.0	0.03	Clay a/a.
92.0	94.0	0.01	Clay, lt grn, non gritty, micaceous.
94.0	96.0	0.01	Clay a/a, v plastic, noted single <i>sulphide</i> ?pyrite <i>framboid</i> . Large loss in fines.
96.0	98.0	0.01	Clay a/a.
98.0	100.0	0.02	Clay, lt grn, <u>c</u> yellow brn & mottled purple lenses.
100.0	102.0	0.05	Clay a/a, <u>c</u> red ochre interbeds.
102.0	104.0	0.04	Clay, buff grey & red.

104.0	106.0	0.03	Clay, lt grey tan, buff + yellow brn, plastic non gritty, micaceous.
106.0	108.0	0.07	Clay, yellow brn buff.
108.0	110.0	0.02	Clay, lt grey, non gritty, micaceous.
110.0	112.0	0.03	Clay a/a, <u>c</u> minor red oxide frags, & yellow brn clay interbeds.
112.0	114.0	0.07	Clay, yellow brn tan + grey, non gritty plastic, micaceous.
114.0	116.0	0.01	Clay, lt grey, interbedded <u>c</u> fine tan sand.
116.0	118.0	0.02	Clay, grey, <u>c</u> fine sandy interbeds, micaceous (large loss in fines).
118.0	120.0	0.02	Sandstone, tan, friable & unconsolidated, <u>c</u> rounded qtz & ironstone frags.
120.0	122.0	0.04	Sand, med grey, unconsolidated & friable, <u>c</u> frags a/a.
122.0			End of Hole, rods blocked-off in sand.

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Geochemistry Samples:

RS 972	90-98m	Extended geochemistry.
RS 973	98-104m	Routine geochemistry.
RS 974	104-112m	"
RS 975	112-118m	"
RS 976	118-121m	"

				CRN 104 90-98m	CRN 104 98-104m	CRN 104 104-112m	CRN 104 112-118m	CRN 104 118-121m
				6731R 972	6731RS 973	6731RS 974	6731RS 975	6731RS 976
Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5	<0.5	<0.5
As	ppm	1.0	IC2	13	4	1	2	2
Au	ppb	1.0	FA3	1	1	1	2	<1
Ba	ppm	10.0	XRF1	300				
Cd	ppm	1.0	IC2	<1				
Ce	ppm	20.0	XRF1	40				
Co	ppm	2.0	IC2	<2	4	3	3	8
Cr	ppm	2.0	IC2	18	17	11	15	3
Cu	ppm	1.0	IC2	11	17	8	17	5
Fe	%	0.01	IC2	1.58	3.32	2.48	2.36	0.24
La	ppm	20.0	XRF1	40				
Mn	ppm	5.0	IC2	15	80	140	175	40
Mo	ppm	1.0	IC2	1	<1	<1	<1	<1
Nb	ppm	2.0	XRF1	22				
Ni	ppm	1.0	IC2	3	7	6	6	4
P	ppm	5.0	IC2	22				
Pb	ppm	3.0	IC2	8	10	5	5	<3
Pd	ppb	1.0	FA3	<1				
Pt	ppb	5.0	FA3	<5				
Rb	ppm	2.0	XRF1	125				
Sb	ppm	4.0	XRF1	<4				
Se	ppm	2.0	XRF1	<2				
Sn	ppm	4.0	XRF1	<4				
Sr	ppm	2.0	XRF1	35				
Th	ppm	4.0	XRF1	8				
U	ppm	4.0	XRF1	4				
V	ppm	1.0	IC2	46				
W	ppm	10.0	XRF1	10				
Zn	ppm	1.0	IC2	3	17	7	8	2

HOLE NO: CRN 105
 TRAVERSE: "Hog Back - Braeside", 3021 mN
 STATION: 4 000 mE
 DATE: 28.11.92
 LOGGED BY: JKJ

100 000 SHEET NO: CAR00NA
 LOCATION: 350 073 mE
 6 303 277 mN
 DRILLING METHOD: RC WITH WATER
 TOTAL DEPTH: 74.0m

Depth From	To	Magn. Susc.	Description
Quaternary, Pooraka Formation and calcrete and silcrete			
0.0	2.0	0.61	Surficial sediments, red brn, c ironstone pebbles, & Mn staining.
2.0	4.0	0.80	A/A.
4.0	6.0	1.02	Calcrete, red brn, & surficial seds, c qtz, ironstone & sltst pebbles.
6.0	8.0	1.30	Calcrete, red brn, c well rounded frags a/a.
8.0	10.0	0.53	Calcrete, buff & red brn.
10.0	12.0	0.68	Clay-grit, red brn, c frags a/a.
12.0	14.0	0.16	Clay grit, tan.
14.0	16.0	0.22	Clay, brn & buff.
16.0	18.0	0.76	Clay, red brn, c dk clay lenses, micaceous.
18.0	20.0	1.19	Clay, buff yellow brn & red ochre, interbedded.
20.0	22.0	0.99	Calcrete, red brn, & clay c wispy Mn lenses.
22.0	24.0	1.37	Clay, red brn, c frags of calcrete as above.
24.0	26.0	1.38	Clay a/a.
26.0	28.0	1.61	Clay a/a, c occ frag of sltst, qtz, & ironstone, c Mn stained frags.
28.0	30.0	1.57	Clay, red brn, c frags as above.
30.0	32.0	0.83	Silcrete, buff, c blk min frags, & red iron ox in clay.
32.0	34.0	0.35	Silcrete, red brn yellow brn + buff, in clay, c qtz & dk to blk min flecks.
Cainozoic, Tertiary?, or as above?			
34.0	36.0	0.16	Grit fine sandy, buff grey.
36.0	38.0	0.06	Sand fine, clayey, buff.
38.0	40.0	0.05	Clay, fine sandy, tan, micaceous (large loss in fines).
40.0	42.0	0.06	Clay a/a, c rounded qtz & ironstone pebbles, into buff & yellow brn clay.
Cainozoic, Tertiary?			
42.0	44.0	0.11	Clay, tan yellow brn, micaceous, non gritty.
44.0	46.0	0.04	Clay, grey yellow brn & purple red, non gritty, micaceous.
46.0	48.0	0.04	Clay, grey, c occ yellow brn + pale purple lenses.
48.0	50.0	0.03	Clay, lt grey, micaceous, non gritty.
50.0	52.0	0.02	Clay, grey, non gritty, micaceous.
52.0	54.0	0.05	Clay a/a.
54.0	56.0	0.08	Clay, grey, c red purple + yellow interbeds.
56.0	58.0	0.12	Clay a/a, micaceous, non gritty.
Very weathered Adelaidean?			
58.0	60.0	0.16	Clay, yellow brn & grn, micaceous, c buff clay grit.
60.0	62.0	0.09	Clay a/a, c purple ochre lenses (large loss in fines).
62.0	64.0	0.08	Clay, red brn & grn grey, micaceous, non gritty.
64.0	66.0	0.07	Clay, dk purple red brn, micaceous.
66.0	68.0	0.08	Clay, red brn purple, c rounded frags of tan & red brn sltst.
68.0	70.0	0.10	Sltst, weathrd, red brn, laminated, c yellow brn & buff interbeds 1mm thick.
Adelaidean?			
70.0	72.0	0.08	Sltst a/a, micaceous.
72.0	74.0	0.12	Clay, purple red brn.
			End of Hole, lost circulation.

Geochemistry Samples:

RS 977 54-64m Routine geochemistry.
 RS 978 64-74m "

				CRN 105	CRN 105
				54-64m	64-74m
				6731RS	6731RS
				977	978
Ag	ppm	0.5	IC2.	<0.5	<0.5
As	ppm	1.0	IC2	22	2
Au	ppb	1.0	FA3	2	<1
Ba	ppm	10.0	XRF1		
Cd	ppm	1.0	IC2		
Ce	ppm	20.0	XRF1		
Co	ppm	2.0	IC2	22	7
Cr	ppm	2.0	IC2	62	40
Cu	ppm	1.0	IC2	38	11
Fe	%	0.01	IC2	14.2	5.05
La	ppm	20.0	XRF1		
Mn	ppm	5.0	IC2	175	15
Mo	ppm	1.0	IC2	<1	<1
Nb	ppm	2.0	XRF1		
Ni	ppm	1.0	IC2	16	9
P	ppm	5.0	IC2		
Pb	ppm	3.0	IC2	<3	<3
Pd	ppb	1.0	FA3		
Pt	ppb	5.0	FA3		
Rb	ppm	2.0	XRF1		
Sb	ppm	4.0	XRF1		
Se	ppm	2.0	XRF1		
Sn	ppm	4.0	XRF1		
Sr	ppm	2.0	XRF1		
Th	ppm	4.0	XRF1		
U	ppm	4.0	XRF1		
V	ppm	1.0	IC2		
W	ppm	10.0	XRF1		
Zn	ppm	1.0	IC2	18	2

HOLE NO: CRN 106
 TRAVERSE: "Hog Back - Braeside", 3021 mN
 STATION: 1 400 mE
 DATE: 29.11.92
 LOGGED BY: JKJ

100 000 SHEET NO: CAR00NA
 LOCATION: 348 199 mE
 6 301 752 mN
 DRILLING METHOD: RC WITH WATER
 TOTAL DEPTH: 112.2m

Depth From	To	Magn. Susc.	Description
Quaternary, Pooraka Formation and calcrete			
0.0	2.0	1.28	Calcrete, red brn buff, c Mn staining, & c qtz & ironstone pebbles/frags.
2.0	4.0	1.33	Calcrete a/a, c occ sltst.
4.0	6.0	1.07	Calcrete a/a, c occ dk grey weathrd sltst pebbles.
6.0	8.0	0.63	Calcrete a/a, c qtz, ironstone & sltst pebbles.
8.0	10.0	1.02	Conglomerate, grey, c sltst, qtzite, buff calcrete, & ironstone frags.
10.0	12.0	1.36	A/A, into red brn clay, c Mn staining, & c frags a/a.
12.0	14.0	1.27	Clay, red brn, gritty, c occ frags a/a, micaceous.
14.0	16.0	1.33	Clay, red brn, gritty, c occ frags a/a, micaceous.
16.0	18.0	1.20	Clay a/a, c red brn calcrete frags.
18.0	20.0	0.86	Clay, red brn, gritty, micaceous.
20.0	22.0	0.95	Clay a/a, c Mn rich lenses.
22.0	24.0	0.88	Clay, red brn - buff, micaceous.
24.0	26.0	0.78	Clay, red brn, c qtz, ironstone & calcrete pebbles ~2cm.
26.0	28.0	17.5	Calcrete, buff, c rounded purple red sltst pebbles & rounded ironstone pebbles & purple red chocolate Mn stained sltst.
28.0	30.0	8.66	Clay, red brn, c frags a/a.
30.0	32.0	4.42	Calcrete, red brn, c qtz, & ironstone frags in red brn clay.
32.0	34.0	0.56	A/A, c buff calcrete frags.
34.0	36.0	0.25	Calcrete, buff tan, c rounded qtz & ironstone pebbles.
36.0	38.0	1.79	Clay, tan yellow, c frags of qtz, buff + red brn calcrete (c Mn st), & rounded ironstone.
38.0	40.0	4.16	Clay, red brn, c frags a/a.
40.0	42.0	2.34	Clay, sandy, tan yellow, c frags a/a, + red brn buff clay lenses.
Cainozoic?, Tertiary?			
42.0	44.0	0.61	Sandstone med grained, yellow brn, c frags a/a.
44.0	46.0	1.03	Sst a/a (large loss in fines).
46.0	48.0	0.07	Clay, lt grey, micaceous, non gritty.
48.0	50.0	0.06	Clay, buff pl pink orange ochre red -purple brn lt grey, micaceous.
50.0	52.0	0.06	Clay, buff, c micaceous & fine red Fe oxide? stained rock frags.
52.0	54.0	0.03	Clay, buff, gritty, micaceous.
54.0	56.0	0.02	Clay, pale to lt grey, gritty.
Altered Adelaidean			
56.0	58.0	0.04	Qtzite, grey bluish, c blk min flecks and ironstone pebbles.
58.0	60.0	0.02	Qtzite, white, c occ blue grey qtz pebbles, & occ red rock frags.
60.0	62.0	0.03	A/A, & blue grey qtzite frags.
62.0	64.0	0.03	Silcrete, buff grey, c white clay.
64.0	66.0	0.02	A/A.
66.0	68.0	0.01	Clay, lt grey, micaceous, gritty.
68.0	70.0	0.04	Clay, pl grey, gritty.
70.0	72.0	0.02	Qtzite, blue grey c micaceous clay.
72.0	74.0	0.03	A/A, into clay, med grey, non gritty, micaceous.
74.0	76.0	0.01	Clay, lt grey, c qtz frags.
76.0	78.0	0.03	Clay, buff yellow brn, biotitic, c grey olive grn micaceous clay, & c occ qtz frags.
78.0	80.0	0.03	Clay, grey, micaceous, c qtzite & c blue grey qtz.
80.0	82.0	0.04	Qtzite & clay, pl grey.
82.0	84.0	0.04	Clay, yellow brn grey, c ?remnant altered ?granite texture, & red ochre lenses.
84.0	86.0	0.05	Clay, olive grn grey, & altered ?granite, ie yellow brn tan buff clay.
86.0	88.0	0.03	Clay, buff olive grn grey a/a.
88.0	90.0	0.03	Clay, med to dk grey, altered, c purple - red clay lenses, some dissolution?
90.0	92.0	0.03	Sltst/clay, olive grn + buff, c ?remnant bedding, & c purple & yellow brn nodules c Mn rims.
92.0	94.0	0.06	Sltst/clay, reddish choc purple, c grey interbeds, & qtz pebbles.
94.0	96.0	0.16	Sltst, weathrd, olive grn.
96.0	98.0	0.18	Sltst, olive grn.
98.0	100.0	0.09	Talc, olive grn grey, c altered grn olive grey ?granite.

100.0	102.0	0.10	Talc, olive grn.
102.0	104.0	0.03	Talc a/a, <u>c</u> occ qtz frags.
104.0	106.0	0.06	Talc a/a.
106.0	108.0	0.08	Talc a/a.
108.0	110.0	0.05	Talc a/a, <u>c</u> interbeds of white clay.
110.0	112.0	0.03	Qtzite.
112.0	112.2	0.04	Talc, pale grn grey, <u>c</u> rare muscovite & qtzite.
112.2			End of Hole

Geochemistry Samples:

RS 979	74-80m	Extended geochemistry.
RS 980	80-88m	"
RS 981	88-96m	"
RS 982	96-106m	Routine geochemistry.
RS 983	106-112.2m	"

				CRN 106 74-80m	CRN 106 80-88m	CRN 106 88-96m	CRN 106 96-106m	CRN 106 106-112.1
				6731R 979	6731R 980	6731RS 981	6731RS 982	6731RS 983
Ag	ppm	0.5	IC2	<0.5	<0.5	1	<0.5	<0.5
As	ppm	1.0	IC2	3	<1	1	<1	<1
Au	ppb	1.0	FA3	2	1	10	2	<1
Ba	ppm	10.0	XRF1	85	75	55		
Cd	ppm	1.0	IC2	<1	<1	2		
Ce	ppm	20.0	XRF1	50	130	230		
Co	ppm	2.0	IC2	13	20	75	54	10
Cr	ppm	2.0	IC2	13	13	4	26	20
Cu	ppm	1.0	IC2	75	26	30	40	3
Fe	%	0.01	IC2	0.89	1.24	14.9	3.74	1.57
La	ppm	20.0	XRF1	40	80	60		
Mn	ppm	5.0	IC2	20	60	640	1850	710
Mo	ppm	1.0	IC2	<1	<1	<1	3	<1
Nb	ppm	2.0	XRF1	2	6	8		
Ni	ppm	1.0	IC2	24	26	110	70	14
P	ppm	5.0	IC2	90	160	490		
Pb	ppm	3.0	IC2	6	6	4	15	10
Pd	ppb	1.0	FA3	2	1	5		
Pt	ppb	5.0	FA3	<5	<5	<5		
Rb	ppm	2.0	XRF1	13	38	35		
Sb	ppm	4.0	XRF1	<4	<4	4		
Se	ppm	2.0	XRF1	<2	<2	<2		
Sn	ppm	4.0	XRF1	4	<4	<4		
Sr	ppm	2.0	XRF1	72	120	60		
Th	ppm	4.0	XRF1	8	6	4		
U	ppm	4.0	XRF1	5	6	8		
V	ppm	1.0	IC2	75	28	44		
W	ppm	10.0	XRF1	10	<10	10		
Zn	ppm	1.0	IC2	9	19	75	48	3

HOLE NO: CRN 107
 TRAVERSE: "Hog Back - Braeside", 3021 mN
 STATION: 1 700 mE
 DATE: 30.11.92
 LOGGED BY: JKJ & WSM

100 000 SHEET NO: 6731
 LOCATION: 348 507 mE
 6 301 801 mN
 DRILLING METHOD: RC
 TOTAL DEPTH: 122.5m

Magnetic Susc.		Geological Log		Description
Interval	Value	Depth	Depth	
Recent				
0-2	1.03	0	2.0	Clay-sand-soil, red-brn, <u>c</u> calcrete <u>c</u> Mn staining, & qtz & ironstone gravel.
2-4	0.98	2.0	4.0	Calcrete, aa, & red-brn gravel & clay-sand, aa.
Quaternary Pooraka Formation				
4-6	1.32	4.0	8.0	Conglomerate, aa, red-brn, <u>c</u> rounded calcrete, sst, qtzite, & ironstone pebbles.
6-8	1.40	8.0	14.0	Clay, gritty, red-brn, <u>c</u> some gravel, aa.
8-10	1.11			
10-12	1.12			
12-14	1.24			
14-16	0.88	14.0	16.0	Gravel, aa, red-brn calcrete & Mn stained qtz & ironstone.
16-18	0.74	16.0	24.0	Gravel, aa, hard, ind?, <u>c</u> red-brn to buff or dk grey sltst, calcrete, qtz, & ironstone pebbles.
18-20	1.84			
20-22	0.61			
22-24	0.53			
24-26	1.10	24.0	26.0	Clay, red-brn & buff, <u>c</u> some gravel, aa.
26-28	2.75	26.0	28.0	Clay, aa, gritty, <u>c</u> rare ironstone gravel.
28-30	0.69	28.0	30.0	Clay, aa, red-brn, <u>c</u> Mn stained zones.
30-32	0.05	30.0	32.0	Gravel, red-brn & buff, <u>c</u> ironstone & vein qtz gravel, Mn stained.
32-34	0.05	32.0	34.0	Clay, sandy, buff & red-brn, <u>c</u> f blk min specks.
34-36	0.05	34.0	36.0	Clay, aa, buff & yellow-brn.
36-38	0.05	36.0	38.0	Clay, gritty, tan & red-brn, <u>c</u> minor ironstone gravel.
38-40	0.04	38.0	40.0	Clay, gritty, aa, <u>c</u> minor qtz gravel.
40-42	0.05	40.0	42.0	Clay, gritty, aa, yellow-brn, <u>c</u> minor ironstone & qtz gravel & f blk mins.
42044	0.06	42.0	44.0	Sand vf, buff to v pl grey, <u>c</u> f blk mins.
44-46	0.05	44.0	48.0	Clay, buff, <u>c</u> f blk mins.
46-48	0.03			
48-50	0.02	48.0	56.0	Clay, aa, buff or yellow-brn, <u>c</u> f blk mins.
50-52	0.02			
52-54	0.03			
54-56	0.03			
56-58	0.05	56.0	58.0	Clay, aa, grey.
58-60	0.06	58.0	60.0	Clay, aa, <u>c</u> some olive-grn-grey interbeds.
60-62	0.10	60.0	62.0	Clay, aa, grey to olive-grn-grey, <u>c</u> red-purple & dk yellow-brn stained bands.
62-64	0.07	62.0	64.0	Clay, aa, & some qtz grit, & some buff & cream colouring.
64-66	0.09	64.0	66.0	Clay, aa, lt grey to yellow-brn, red Fe stained, & <u>c</u> some qtz grit, blk mins, & ironstone.
66-68	0.03	66.0	68.0	Clay, aa, lt grey to buff, <u>c</u> some tan & yellow-brn bands, <u>c</u> f blk mins, & minor f ironstone pebbles.
68-70	0.04	68.0	72.0	Clay, aa, gritty, buff <u>c</u> yellow-brn bands, & some qtz & ironstone grit, aa.
70-72	0.03			
72-74	0.03	72.0	76.0	Clay, aa, lt grey <u>c</u> some yellow-brn bands, <u>c</u> f blk mins.
74-76	0.03			
Adelaidean				
76-78	0.05	76.0	78.0	Clay, lamn buff, yellow-brn, tan, & brn, <u>c</u> f biotite lamn.
78-80	0.02	78.0	80.0	Clay, interbedded buff & tan, gritty in part, <u>c</u> f blk mins.
80-82	0.04	80.0	82.0	Sltst/claystone, weathrd, grey to yellow-brn, & rare qtz & Fe-stained pebbles.
82-84	0.02	82.0	86.0	Sltst/claystone, aa, weathrd, <u>c</u> some f biotitic lamn, <u>c</u> some lenticular limonitic pods (altered biotitic? lenses?).
84-86	0.03			
86-88	0.51	86.0	88.0	Sltst, aa, lt tan to off-white, soft, <u>c</u> minor clear ropy vein qtz.
88-90	0.08	88.0	89.0	Sltst, pl grey, mod weathrd, <u>c</u> f brn stained joints & fractures.
90-92	0.04	89.0	91.0	Sltst, dk or pl grey, sl-mod weathrd, frags have dk grey core <u>c</u> lt brn weathrd halo & pl grey outer halo, approx 1-2mm, & <u>c</u> minor brn stained f lamn, & some brn Fe ind fractures.
		91.0	92.0	Sltst, bleached off-white, <u>c</u> minor clear ropy vein qtz.
92-94	0.03	92.0	96.0	Sltst, dk or pl grey, sl-mod weathrd, as at 89-91m, <u>c</u> some f orange-brn Fe spotting & mottling.
94-96	0.02			
96-98	0.02	96.0	99.0	Sltst, pl or dk grey, aa, sl weathrd, c faint f lamn.

98-100	0.03			
100-102	0.03	99.0	104.0	Sltst, aa, dk grey, sl-mod weathrd, <u>c</u> some f lamn, & some weathrd/altered halos & weathrd & bleached lamn.
102-104	0.03			
104-106	0.05	104.0	108.0	Sltst, lt tan, mod weathrd.
106-108	0.02			
108-110	0.02	108.0	112.0	Sltst, dk grey or bleached lt grey, <u>c</u> f lamn, & <u>c</u> minor lt brn staining.
110-112	0.07			
112-114	0.31	112.0	113.0	Sltst, lt grey, <u>c</u> lt orange stained f fractures (almost a boxwork in part) & f mottling & spotting; variably silicf? in part, off-white & mottled, <u>c</u> minor scattered rounded garnet?, no orientation or layering (ie skarn).
		113.0	114.0	Sltst, dk grey or bleached lt grey, <u>c</u> f lamn, & <u>c</u> minor lt brn staining.
114-116	0.08	114.0	119.0	Sltst, pl to lt grey, sl-mod weathrd, <u>c</u> minor orange f spots & mottling & Fe stained joints.
116-118	0.05			
118-120	0.10	119.0	120.0	Sltst, pl grey, fresh, <u>c</u> scattered coarser qtz? grains approx 1mm, ang or 6-sided or irreg, semi-transl dk grey (ie skarn).
		120.0	121.0	Sltst, pl brn, mottled.
120-122.5	0.06	121.0	122.5	Sltst, dk to lt grey, sl weathrd, as at 113-114m, <u>c</u> faint lamn, & fiss.
		122.5		End of Hole, drill rods tight in fractured siltstone.

Geochemistry Samples:

RS 984	76-86m	Routine geochemistry
RS 985	88-100m	"
RS 986	100-112m	"
RS 987	112-114m	"
RS 988	114-120m	"
RS 989	120-122.5m	Extended geochemistry
RS 987	113m	Petrology
RS 988	119m	"

				CRN107 76-86m	CRN107 88-100m	CRN 107 100-112m	CRN 107 112-114m	CRN 107 114-120m	CRN 107 120-122.5
				6731RS 984	6731RS 985	6731RS 986	6731RS 987	6731RS 988	6731RS 989
Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
As	ppm	1.0	IC2	34	28	48	54	25	28
Au	ppb	1.0	FA3	12	9	<1	<1	<1	<1
Ba	ppm	10.0	XRF1						370
Cd	ppm	1.0	IC2						<1
Ce	ppm	20.0	XRF1						70
Co	ppm	2.0	IC2	12	9	25	175	60	44
Cr	ppm	2.0	IC2	25	10	13	11	15	5
Cu	ppm	1.0	IC2	100	58	115	155	150	240
Fe	%	0.01	IC2	5.9	3.58	4.12	18.8	7.45	4.6
La	ppm	20.0	XRF1						40
Mn	ppm	5.0	IC2	70	60	175	4450	2050	1300
Mo	ppm	1.0	IC2	<1	2	2	<1	2	3
Nb	ppm	2.0	XRF1						16
Ni	ppm	1.0	IC2	28	24	44	185	68	54
P	ppm	5.0	IC2						890
Pb	ppm	3.0	IC2	<3	<3	<3	4	<3	<3
Pd	ppb	1.0	FA3						<1
Pt	ppb	5.0	FA3						<5
Rb	ppm	2.0	XRF1						125
Sb	ppm	4.0	XRF1						<4
Se	ppm	2.0	XRF1						<2
Sn	ppm	4.0	XRF1						<4
Sr	ppm	2.0	XRF1						35
Th	ppm	4.0	XRF1						14
U	ppm	4.0	XRF1						<4
V	ppm	1.0	IC2						15
W	ppm	10.0	XRF1						<10
Zn	ppm	1.0	IC2	12	4	11	86	44	22

HOLE NO: CRN 108
 TRAVERSE: "Hog Back - Braeside", 3021 mN
 STATION: 9 300 mE
 DATE: 01.12.92
 LOGGED BY: WSM
 COMMENTS: 20m south of fence.

100 000 SHEET NO: 6731
 LOCATION: 354 898 mE
 6 303 613 mN
 DRILLING METHOD: RC
 TOTAL DEPTH: 149.5m

Magnetic Susc.	Value	Geological Log		Description
Interval		Depth		
Pooraka Formation?				
0-2	0.87	0	3.0	Clay-sand, red-brn, calc, & c some calcrete pebbles & blk Mn staining.
2-4	0.88	3.0	4.0	Clay-sand, aa, & some gravel, sub-ang white vein qtz, olive-brn or blk stained sltst, & calcrete.
4-6	0.90	4.0	4.5	Clay-sand, aa, & gravel, aa, <10mm.
		4.5	5.5	Clay, sandy, lt pink-brn, & minor gravel <3mm.
Olney? Formation?				
6-8	0.52	5.5	12.0	Clay-silt, compact, f mottled lt orange, lt red-brn, pl brn, & ind in part,
8-10	0.71			c minor hard calc ind, eg at 6.5m & 9m, & c some f blk Mn staining.
10-12	0.59			
12-14	0.39	12.0	17.0	Clay, silty & sandy vf, or clayey silt, soft or semi-ind, f mottled lt orange,
14-16	0.38			lt red-brn, pl brn.
16-18	0.47			
18-20	0.73	17.0	24.0	Sand vf-f, mod clayey, red-brn, some off white, soft or compact.
20-22	1.29			
22-24	1.57			
24-26	0.32	24.0	29.0	Silt/sand vf, mod clayey, soft or compact, lt red-brn to lt brn.
26-28	0.34			
28-30	0.10	29.0	29.5	Silt/sand, clayey, aa, compact, lt grey, c f red & yellow mottling.
30-32	0.23	29.5	32.0	Silt/sand vf, v clayey, compact, lt olive to lt grey.
32-34	0.18	32.0	34.5	Clay, sandy, lt olive-grn to lt olive-brn, c minor mottling, & minor blk Mn mottling.
34-36	0.04	34.5	35.8	Clay, sandy, aa, c strong blk Mn mottling.
36-38	0.04	35.8	38.3	Sand vf-f (some m), clayey, compact, off-white, poorly sorted, c pl pink diffuse mottling & minor blk MN staining.
38-40	0.09	38.3	42.0	Sand vf-m, clayey & compact, aa, white c abund f blk Mn dendrites, or lt
40-42	0.05			orange-brn stained.
42-44	0.02	42.0	44.5	Sst vf-m, sl clayey, aa, off-white c abund blk Mn dendrites, or lt orange- to lt red-brn stained.
44-46	0.05	44.5	48.0	Sst vf-m, sl clayey, aa, pl brn to lt red- or lt orange-brn.
46-48	0.03			
48-50	0.04	48.0	51.0	Sst vf-m, aa, c some blk Mn stained joints.
50-52	0.03	51.0	52.0	Clay, sl silty, pl grey, plastic.
52-54	0.04	52.0	53.5	Clay, aa, pl grey to pl brn mottled, c some red, yellow, & dk grey Mn staining.
		53.5	54.0	Clay, sl silty, compact, lt grey-brn.
54-56	0.01	54.0	56.0	Clay, aa, c abund lt red-brn mottling.
56-58	0.02	56.0	57.5	Clay, aa, grey.
		57.5	58.5	Clay, aa, dk purple-grey Mn stained, & some f brt yellow mottling.
58-60	0.03	58.5	60.0	Clay, aa, lt to dk grey.
		60.0	60.5	Clay, aa, dk purple-grey Mn stained, & some f brt yellow mottling.
60-62	0.03	60.5	62.0	Clay, aa, lt to dk grey.
62-64	0.04	62.0	63.0	Clay, aa, dk purple-grey Mn stained, & some f brt yellow mottling.
64-66	0.03	63.0	65.0	Clay, aa, lt to dk grey, c abund lt red & lt mauve mottling.
		65.0	66.0	Clay, aa, dk grey.
66-68	0.03	66.0	71.0	Clay, aa, dk to lt grey, c rare mottling.
68-70	0.02			
70-72	0.03	71.0	73.0	Clay, aa, lt grey & lt mauve mottled.
72-74	0.04	73.0	75.0	Clay, aa, lt to pl grey, c minor lt mauve.
74-76	0.03	75.0	76.0	Clay, aa, dk grey c dk red mottling.
76-78	0.04	76.0	77.0	Clay, aa, lt grey, c minor mottling.
		77.0	77.5	Clay, aa, pl grey & red-brn mottled.
78-80	0.03	77.5	83.0	Clay, aa, lt grey, c minor purple or red mottled bands.
80-82	0.02			
82-84	0.02	83.0	93.0	Clay, aa, lt to dk grey, c minor purple mottling in darker bands, & sl sandy in
84-86	0.03			part.
86-88	0.03			

88-90	0.03			
90-92	0.04			
92-94	0.01			
94-96	0.03	93.0	95.0	Clay, aa, pl grey c red mottling.
96-98	0.02	95.0	98.0	Clay, aa, pl grey, c minor red & purple mottling, & abund mottling from 96-97m.
98-100	0.01	98.0	100.0	Clay, sl silty, sl sandy in part, lt grey, c minor mottling.
100-102	0.03	100.0	102.0	Clay, aa, c abund pl purple & lt yellow mottling.
102-104	0.04	102.0	104.0	Clay, aa, pl grey & pl khaki mottled, c some abund lt red & lt orange brn mottling.
104-106	0.04	104.0	105.0	Clay, aa, pl grey, c lt red, lt yellow, & lt purple mottling.
		105.0	105.5	Clay, aa, dk grey.
106-108	0.03	105.5	109.5	Clay, aa, pl grey, c minor pl mottling
108-110	0.07			
		109.5	110.5	Clay, aa, brt mustard stained.
110-112	0.02	110.5	113.0	Clay, aa, pl grey, c minor mottling.
112-114	0.03	113.0	114.0	Clay, aa, pl grey c lt khaki & pl pink mottling.
114-116	0.01	114.0	117.0	Clay, aa, lt to pl grey.
116-118	0.00	117.0	120.0	Clay, v sandy vf-f, pl grey, compact.
118-120	0.03			[NB dark zones within the Olney? Frmn appear to have abrupt tops, and lighten gradually downwards]
Adelaidean				
120-122	0.04	120.0	121.0	Clay, sandy vf, khaki to lt khaki, soft, sl fiss, c minor white or lt yellow bleaching.
122-124	0.05	121.0	127.0	Clay, aa, pl grey, & c abund vein qtz from 122.5-126m, ang to sub-ro, white to clear or pl grey.
124-126	0.03			
126-128	0.04	127.0	129.0	Clay, aa, khaki, lt khaki, & pl grey, mottled & banded, c minor vein qtz, aa, & rare sltst, khaki, fiss.
128-130	0.05	129.0	130.0	Clay, aa, mottled purple, pink, & white.
130-132	0.03	130.0	132.0	Clay, aa, dk purple c white, yellow & pink f bands or lamn.
132-134	0.04	132.0	133.0	Clay, aa, purple-grey, c grey-grn f lamn.
134-136	0.04	133.0	135.0	Clay, aa, lt purple-brn & lt grey-brn mottled.
		135.0	136.0	Clay, khaki, sl fiss, & c some irreg pl, white or yellow f lamn.
136-138	0.10	136.0	138.0	Clay, aa, c minor grey-grn fiss sltst frags, & rare white vein qtz frags.
138-140	0.04	138.0	144.0	Sltst, fresh to sl weathrd, aa, khaki to lt grey, sl fiss & jointed, & clay, aa.
140-142	0.04			
142-144	0.06			
144-146	0.05	144.0	148.0	Sltst, sl weathrd, aa.
146-148	0.08			
148-149.5	0.08	148.0	149.5	Sltst, mod weathrd, aa,
		149.5		End of hole.
Geochemistry Samples:				
RS 990	124-130m	Routine geochemistry		
RS 991	130-136m	"		
RS 992	136-144m	"		
RS 993	144-148m	"		
RS 994	148-149.5m	Extended geochemistry.		

CRN 108 CRN 108 CRN 108 CRN 108 CRN 108
124-130m 130-136m 136-144m 144-148m 148-149.5

6731RS 6731RS 6731RS 6731RS 6731RS
990 991 992 993 994

Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5	<0.5	<0.5
As	ppm	1.0	IC2	7	9	6	2	2
Au	ppb	1.0	FA3	2	<1	<1	1	<1
Ba	ppm	10.0	XRF1					420
Cd	ppm	1.0	IC2					<1
Ce	ppm	20.0	XRF1					60
Co	ppm	2.0	IC2	10	9	13	14	15
Cr	ppm	2.0	IC2	14	38	35	48	45
Cu	ppm	1.0	IC2	65	50	25	30	30
Fe	%	0.01	IC2	0.55	2.98	2.96	3.44	3.42
La	ppm	20.0	XRF1					30
Mn	ppm	5.0	IC2	25	150	250	320	440
Mo	ppm	1.0	IC2	<1	<1	<1	<1	<1
Nb	ppm	2.0	XRF1					11
Ni	ppm	1.0	IC2	17	13	24	24	24
P	ppm	5.0	IC2					450
Pb	ppm	3.0	IC2	<3	<3	<3	<3	<3
Pd	ppb	1.0	FA3					<1
Pt	ppb	5.0	FA3					<5
Rb	ppm	2.0	XRF1					270
Sb	ppm	4.0	XRF1					<4
Se	ppm	2.0	XRF1					<2
Sn	ppm	4.0	XRF1					4
Sr	ppm	2.0	XRF1					35
Th	ppm	4.0	XRF1					16
U	ppm	4.0	XRF1					<4
V	ppm	1.0	IC2					45
W	ppm	10.0	XRF1					<10
Zn	ppm	1.0	IC2	7	22	15	24	22

HOLE NO: CRN 109
 TRAVERSE: "Willara", 3088 mN
 STATION: 24 500 mE
 DATE: 02.12.92
 LOGGED BY: WSM
 COMMENTS: Brown sandy soil with minor white vein quartz float; hole is 50m north of fence.

100 000 SHEET NO: 6731
 LOCATION: 351 117 mE
 6 312 031 mN
 DRILLING METHOD: RC
 TOTAL DEPTH: 133.5m

Magnetic Susc.		Geological Log		Description
Interval	Value	Depth	Depth	

Pooraka Formation?				
0-2	2.51	0	2.0	Sandy soil, red-orange, & calcrete, qtzite & sltst gravel <15mm.
2-4	3.58	2.0	4.0	Sandy clayey soil, red-orange, & dendritic calcrete & blk Mn stained gravel.
4-6	0.88	4.0	10.0	Clay, sl silty & sandy vf, compact, red-brn, <u>c</u> minor f blk mottling;
6-8	0.90			<u>c</u> minor coarse gravel <50mm, rounded, dk grey semi-transl qtzite at 5.3m.
8-10	0.48			
10-12	0.54	10.0	12.0	Clay, aa, lt grey & red-brn mottled.
12-14	0.35	12.0	14.0	Clay, aa, <u>c</u> some ind silicf? clay/silt bands, lt grey-brn, structureless.
14-16	0.18	14.0	17.0	Clay-sand vf, red-brn, compact, & sst vf, ind & silicf?, lt grey-brn.
16-18	2.76	17.0	18.0	Clay-sand, aa, & ind sst, aa, & minor gravel <10mm, rounded, blk Mn stained, sltst & sst.
18-20	0.10	18.0	21.0	Sst vf-f, lt red-brn to lt brn diffusely mottled.
20-22	0.19			
Olney? Formation?				
		21.0	23.0	Clay, compact, lt grey <u>c</u> red mottling.
22-24	0.06	23.0	24.0	Clay, aa, lt grey <u>c</u> purple mottling.
24-26	0.07	24.0	27.0	Clay, aa, lt grey, <u>c</u> minor mottling.
26-28	0.07			
28-30	0.07	27.0	30.0	Clay, aa, lt grey, <u>c</u> minor to abund dk red mottling.
30-32	0.03	30.0	34.0	Clay, aa, pl grey, <u>c</u> minor red, lt red-brn, or orange mottling; <u>c</u> minor dk brn
32-34	0.08			Fe-ind at 33m.
34-36	0.04	34.0	35.0	Clay, sl silty, pl grey, & lt yellow-brn mottled.
36-38	0.03	35.0	37.0	Clay, v sandy vf-f, & st vf, pl grey.
38-40	0.02	37.0	40.0	Clay, sandy, aa, & minor hard sst vf-f, ind, pl grey, & minor vein qtz gravel <3mm.
40-42	0.03	40.0	44.0	Clay, sl silty/sandy, pl grey, gritty & sandy f-m in part, & minor vein qtz gravel
42-44	0.01			at 42.2m.
44-46	0.02	44.0	46.0	Clay, sl silty/sandy, pl to lt grey, <u>c</u> minor f red & purple mottling.
44-46	0.02			
46-48	0.03	46.0	48.0	Clay, aa, pl grey, <u>c</u> lt red & yellow mottling.
48-50	0.02	48.0	54.0	Clay, pl grey, soft & loose.
50-52	0.02			
54-56	0.03	54.0	56.0	Clay, sl silty, compact, lt grey <u>c</u> abund purple, grey, red, & yellow mottling.
		56.0	56.5	Clay, aa, grey, <u>c</u> minor mottling.
		56.5	57.0	Clay, aa, lt grey, minor mottling.
56-58	0.03	57.0	58.0	Clay, aa, pl grey.
58-60	0.04	58.0	59.5	Clay, aa, lt grey & red mottled.
60-62	0.02	59.5	65.5	Clay, silty, soft, pl grey-khaki.
62-64	0.01			
64-66	0.05			
66-68	0.05	65.5	68.0	Clay, compact, lt purple-grey to lt grey.
68-70	0.05	68.0	69.0	Clay, aa, lt grey <u>c</u> yellow & red mottling.
		69.0	70.0	Clay, aa, pl grey & mottled aa.
70-72	0.05	70.0	72.0	Clay, aa, pl fawn to pl khaki, <u>c</u> some red mottling.
72-74	0.03	72.0	74.0	Clay, aa, pl grey & lt khaki mottled-banded-lamn.
		74.0	74.5	Clay, aa, & rare dk khaki sltst frags.
74-76	0.04	74.5	76.5	Clay, lt grey, pl khaki, lt fawn mottled.
76-78	0.04	76.5	78.0	Clay, aa, pl grey, <u>c</u> minor mottling.
78-80	0.02	78.0	85.0	Clay, aa, pl to lt grey, <u>c</u> minor to abund yellow & dk red mottling.
80-82	0.02			
82-84	0.04			
84-86	0.04	85.0	86.0	Clay, aa, pl grey.
86-88	0.05	86.0	87.0	Clay, sl to mod silty & sandy vf, mustard to lt red-brn mottled.
88-90	0.02	87.0	95.5	Clay, aa, pl grey.
90-92	0.02			

92-94	0.02			
94-96	0.09			
96-98	0.06	95.5	99.5	Clay, aa, pl grey c abund purple, red, orange, & yellow mottling.
98-100	0.06			
		99.5	100.0	Clay, aa, pl khaki-grey.
100-102	0.05	100.0	101.0	Clay, aa, pl grey c abund purple, red, orange, & yellow mottling.
		101.0	101.5	Clay, aa, pl grey.
102-104	0.04	101.5	105.0	Clay, aa, pl yellow-brn & pl grey mottled, c minor red mottling.
104-106	0.05	105.0	107.0	Clay, aa, lt grey, c zones of abund lt red mottling.
106-108	0.03	107.0	109.0	Clay, aa, pl grey, c zones of lt red or lt yellow & pl pink-brn mottling.
108-110	0.01	109.0	111.5	Clay, aa, pl yellow-brn.
110-112	0.01	111.5	113.0	Clay, mod-v sandy, vf-m, pl grey.
112-114	0.00	113.0	115.0	Clay, compact, plastic, lt yellow-grn-brn.
114-116	0.02	115.0	117.0	Clay, aa, pl grey.
116-118	0.02	117.0	118.0	Sand vf-m, sl clayey, lt brn, loose, poorly sorted, c rare white vein qtz gravel.
		118.0	118.5	Sand & gravel <6mm, rounded poorly sorted clear to white vein qtz, c minor white clay interbeds.
118-120	0.01	118.5	123.5	Sand c-vc, & gravel <10mm, sub-ang to rounded qtz, qtzite & sst, & trace of
120-122	0.04			f blk mins, & rare coarser gravel.
122-124	0.04			
		123.5	124.0	Sand c-vc, v clayey, brn.
Adelaidean				
		124.0	124.3	Clay, gritty, soft, brn or grn-brn.
124-126	0.08	124.3	126.0	Clay, lt khaki-grn, c some irreg 1mm pl or dk lamn, & c minor f sltst frags.
126-128	0.11	126.0	130.0	Clay, aa, darkening to khaki to khaki-grn-grey, & increasing sltst/sst vf frags,
128-130	0.04			grey to grey-brn, c faint f lamn & fiss.
130-132	0.05	130.0	132.0	Clay, aa, khaki-grey, & sltst/sst vf, aa, c lt orange stained & dendritic partings, & c abund vein qtz
				at 131-131.3m, semi-transl grey.
132-133.5	0.06	132.0	133.5	Sltst, grn-grey, fiss.
		133.5		End of hole (run out of water)

Geochemistry Samples:

RS 995	124-130m	Routine geochemistry
RS 996	130-132m	Extended geochemistry
RS 997	124-130m	Check sample, routine geochemistry
RS 998	130-132m	Check sample, extended geochemistry

				CRN 109 124-130m	CRN 109 130-132m	CRN 109 124-130m (check)	CRN 109 130-132m (check)
				6731RS 995	6731RS 996	6731RS 997	6731RS 998
Ag	ppm	0.5	IC2	<0.5	<0.5	<1	<1
As	ppm	1.0	IC2	18	7	18	6
Au	ppb	1.0	FA3	<1	<1	1	<1
Ba	ppm	10.0	XRF1		370		318
Cd	ppm	1.0	IC2		<1		<1
Ce	ppm	20.0	XRF1		70		105
Co	ppm	2.0	IC2	22	10	18	9
Cr	ppm	2.0	IC2	50	52	75	84
Cu	ppm	1.0	IC2	145	140	136	91
Fe	%	0.01	IC2	7.05	4.76	6.65	4.08
La	ppm	20.0	XRF1		40		49
Mn	ppm	5.0	IC2	1020	220	912	141
Mo	ppm	1.0	IC2	<1	<1	<5	<5
Nb	ppm	2.0	XRF1		17		17
Ni	ppm	1.0	IC2	40	32	34	30
P	ppm	5.0	IC2		510		498
Pb	ppm	3.0	IC2	<3	<3	<5	<5
Pd	ppb	1.0	FA3		<1		<1
Pt	ppb	5.0	FA3		<5		<1
Rb	ppm	2.0	XRF1		185		199
Sb	ppm	4.0	XRF1		<4		6
Se	ppm	2.0	XRF1		<2		<2
Sn	ppm	4.0	XRF1		4		5
Sr	ppm	2.0	XRF1		28		26
Th	ppm	4.0	XRF1		16		17
U	ppm	4.0	XRF1		<4		<4
V	ppm	1.0	IC2		125		93
W	ppm	10.0	XRF1		<10		<10
Zn	ppm	1.0	IC2	54	48	51	44

				CRN 109 124-130m	CRN 109 130-132m	CRN 109 124-130m (check)	CRN109 124-130m (repeat)	CRN 109 130-132m (check)
				6731RS 995	6731RS 996	6731RS 997	6731RS 997	6731RS 998
Ag	ppm	0.5	IC2	<0.5	<0.5	<1	<1	<1
As	ppm	1.0	IC2	18	7	18	17	6
Au	ppb	1.0	FA3	<1	<1	1		<1
Ba	ppm	10.0	XRF1		370			318
Cd	ppm	1.0	IC2		<1			<1
Ce	ppm	20.0	XRF1		70			105
Co	ppm	2.0	IC2	22	10	18	18	9
Cr	ppm	2.0	IC2	50	52	75	79	84
Cu	ppm	1.0	IC2	145	140	136	135	91
Fe	%	0.01	IC2	7.05	4.76	6.65	6.78	4.08
La	ppm	20.0	XRF1		40			49
Mn	ppm	5.0	IC2	1020	220	912	931	141
Mo	ppm	1.0	IC2	<1	<1	<5	<5	<5
Nb	ppm	2.0	XRF1		17			17
Ni	ppm	1.0	IC2	40	32	34	36	30
P	ppm	5.0	IC2		510			498
Pb	ppm	3.0	IC2	<3	<3	<5	<5	<5
Pd	ppb	1.0	FA3		<1			<1
Pt	ppb	5.0	FA3		<5			<1
Rb	ppm	2.0	XRF1		185			199
Sb	ppm	4.0	XRF1		<4			6
Se	ppm	2.0	XRF1		<2			<2
Sn	ppm	4.0	XRF1		4			5
Sr	ppm	2.0	XRF1		28			26
Th	ppm	4.0	XRF1		16			17
U	ppm	4.0	XRF1		<4			<4
V	ppm	1.0	IC2		125			93
W	ppm	10.0	XRF1		<10			<10
Zn	ppm	1.0	IC2	54	48	51	63	44

HOLE NO: CRN 110
 TRAVERSE: "Willara", 3088 mN
 STATION: 24 850 mE
 DATE: 02-03.12.92
 LOGGED BY: WSM
 COMMENTS: Sandy brown soil with minor white vein quartz float; hole is 50m north of fence.

100 000 SHEET NO: 6731
 LOCATION: 351 520 mE
 6 311 954 mN
 DRILLING METHOD: RC
 TOTAL DEPTH: 116.5m

Magnetic Susc.		Geological Log		Description
Interval	Value	Depth	Depth	
Pooraka Formation				
0-2	1.64	0	3.0	Clayey sand vf, c minor sltst, sst & vein qtz gravel.
2-4	0.73			
4-6	0.76	3.0	6.0	Clay, silty & gritty, red-brn, compact, sl calc in part, & c rare sltst & blk Mn stained gravel <3mm.
		6.0	6.5	Clay, calc ind, red-brn, hard.
6-8	0.92	6.5	14.0	Clay, silty & gritty & clayey silt, compact, red-brn to orange-brn, compact,
8-10	1.19			sl calc in part; & ind sst vf interbeds, calc or non-calc, red-brn.
10-12	0.93			
12-4	0.75			
Olney? Formation?				
14-16	0.68	14.0	19.0	Clay, silty, compact, lt grey, & some red-brn silty clay & clayey silt.
16-18	0.17			
18-20	0.09			
20-22	0.10	19.0	22.0	Clay, silty, compact, grey, c abund dk red-purple staining on joints etc.
22-24	0.15	22.0	29.0	Clay, aa, lt grey & red-purple mottled-streaked-banded.
24-26	0.1			
26-28	0.08			
28-30	0.05			
30-32	0.04	29.0	31.0	Clay, aa, pl grey c red-brn mottling.
		31.0	32.5	Clay, aa, rare to minor mottling.
32-34	0.04	32.5	34.0	Clay, aa, off white c lt red & yellow mottling.
34-36	0.05	34.0	36.0	Clay, mod-v sandy, lt grey, c bands of strong orange & dk brn Fe-ind & staining, & rare c-vc sub-ang vein qtz gravel.
36-38	0.05	36.0	38.0	Clay, sl silty, lt yellow-brn & lt grey mottled, compact.
38-40	0.09	38.0	41.0	Clay, pl grey, semi-plastic.
40-42	0.05	41.0	42.0	Clay, aa, c some zones of abund vein qtz gravel <12mm, sub-ang to sub-ro, clear or milky, & vughy.
42-44	0.02	42.0	44.0	Clay, lt grey, compact, c some lt orange-brn mottled zones.
44-46	0.04	44.0	45.0	Clay, aa, lt grey, c some red mottling.
		45.0	47.0	Clay, aa, lt to pl grey.
46-48	0.02	47.0	48.0	Clay, aa, mottled lt grey, red, purple.
48-50	0.01	48.0	49.0	Clay, aa, lt grey, or mottled, aa.
50-52	0.03	49.0	52.0	Clay, aa, grey to lt grey.
52-54	0.02	52.0	54.0	Clay, aa, c minor red & purple mottling.
54-56	0.07	54.0	55.5	Clay, aa, lt grey.
56-58	0.03	55.5	57.0	Clay, aa, lt grey & red mottled.
		57.0	58.5	Clay, aa, pl grey, c red & purple mottling.
58-60	0.02	58.5	61.0	Clay, aa, pl grey, c rare to minor f mottling.
60-62	0.02			
62-64	0.03	61.0	64.0	Clay, aa, lt grey, c some purple mottling.
64-66	0.05	64.0	70.0	Clay, aa, grey, c minor purple mottling.
66-68	0.04			
68-70	0.02			
70-72	0.04	70.0	72.0	Clay, aa, lt grey, c minor mottling.
72-74	0.03	72.0	74.0	Clay, mod silty, lt grey, c f lt yellow-brn lamn-bands, 1mm, sl irreg.
74-76	0.04	74.0	76.0	Clay, aa, lt grey c abund lt khaki-brn stained joints-fractures etc.
76-78	0.04	76.0	78.0	Clay, sl silty, compact, lt grey c red mottling.
78-80	0.03	78.0	81.0	Clay, mod silty, lt grey, c orange-brn to lt yellow-brn lamn-bands, 1-4mm, sl irreg.
80-82	0.03			
82-84	0.06	81.0	83.0	Clay, pl grey, c minor dk red-brn mottling, & minor strong lt & dk purple-red banding.
84-86	0.09	83.0	85.5	Clay, aa, pl grey, c minor mottling.
86-88	0.02	85.5	87.5	Clay, aa, lt grey c abund red-brn & purple mottling.
88-90	0.01	87.5	90.0	Clay, pl grey, soft, c rare red & yellow mottling.
90-92	0.02	90.0	93.0	Clay, mod silty, pl grey, soft, mod-v sandy vf in part.

92-94	0.04			
94-96	0.02	93.0	96.0	Sand vf-f, clayey & silty, soft & loose, pl grey, & some clay, aa.
96-98	0.02	96.0	100.0	Clay, sl silty, compact, pl to lt grey, <u>c</u> minor red & purple mottling.
98-100	0.04			
100-102	0.06	100.0	101.0	Clay, aa, red-purple.
		101.0	102.0	Clay, aa, mottled red, purple, lt grey.
102-104	0.04	102.0	104.0	Clay, aa, lt grey, <u>c</u> red & pl brn mottling.
		104.0	104.5	Clay, aa, pl grey, <u>c</u> pl to lt purple & lt yellow-brn mottling.
104-106	0.03	104.5	107.0	Clay, aa, mottled off-white & lt red to lt purple & yellow.
106-108	0.04	107.0	109.0	Clay, soft, off white.
108-110	0.04	109.0	110.0	Clay, compact, lt yellow-brn to pl grey mottled, <u>c</u> minor red mottling.
110-112	0.05	110.0	113.0	Clay, sl silty, compact, yellow-brn.
112-114	0.03	113.0	114.0	Clay, aa, pl khaki-grey.
115-116.5	0.03	114.0	115.0	Clay, aa, pl khaki-grey, mod sandy vf-f in part.
		115.0	116.0	Sand c-vc, & clay interbeds, aa.
		116.0	116.5	Sand c-vc, & gravel <10mm, poorly sorted, sub-ang to sub-ro, mostly clear to white vein qtz, <u>c</u> minor grey qtzite & gm-grey sst & sltst.
		116.5		End of hole, drill rods repeatedly blocked.

Geochemistry Samples:
None collected.

HOLE NO: CRN 111
 TRAVERSE: "Willara", 3088 mN
 STATION: 30 350 mE
 DATE: 03.12.92
 LOGGED BY: WSM
 COMMENTS: Sandy brown soil with minor white vein quartz float; hole is 15m north of fence.

100 000 SHEET NO: 6731
 LOCATION: 356 703 mE
 6 310 497 mN
 DRILLING METHOD: RC
 TOTAL DEPTH: 107.5m

Magnetic Susc.		Geological Log		
Interval	Value	Depth		Description

Pooraka Formation				
0-2	2.38	0	2.0	Clayey sand, red-brn, & calcrete, & minor vein qtz gravel.
2-4	0.63	2.0	3.0	Clay-silt-sand, compact, mottled lt brn, lt pink-brn, & off-white, <u>c</u> minor blk Mn specks, & minor calcrete pebbles.
4-6	0.14	3.0	6.0	Clay-sand vf, compact, red-brn.
6-8	0.09	6.0	8.0	Clay-sand, aa, lt grey, <u>c</u> lt orange & lt yellow-brn mottling & lamn.
Olney? Formation				
8-10	0.07	8.0	15.0	Clay-silt, compact to soft, lt red & lt yellow-brn mottled & lamn.
10-12	0.08			
12-14	0.09			
14-16	0.09	15.0	16.0	Clay-silt, aa, compact, lt red, lt grey, & lt red-brn mottled & f banded.
16-18	0.07	16.0	20.0	Clay, sl silty & sandy vf-f, compact, lt grey <u>c</u> abund lt red mottling.
18-20	0.09	20.0	21.0	Clay, silty, lt to pl grey f to c banded (bedding?), <u>c</u> abund red stained joints & partings?.
20-22	0.08			
22-24	0.06	21.0	29.0	Sand vf-f, mod clayey, pl grey-brn, loose.
24-26	0.05			
26-28	0.07			
28-30	0.04			
30-32	0.02	29.0	32.0	Clay, sl silty, compact to soft, pl grey.
32-34	0.03	32.0	34.0	Clay, aa, <u>c</u> minor purple & red f mottling, & <u>c</u> some ind clayey sltst, pl grey.
34-36	0.04	34.0	39.0	Clay-silt to silty clay, pl to lt grey, compact.
36-38	0.05	39.0	40.5	Clay, sl silty, compact, lt grey-brn, <u>c</u> minor dk Mn? mottling.
38-40	0.02			
40-42	0.02	40.5	48.0	Clay, aa, lt grey to grey, <u>c</u> minor faint yellow mottling, & minor blk Mn mottling in part.
42-44	0.04			
44-46	0.02			
46-48	0.04			
48-50	0.04	48.0	50.0	Clay, aa, lt to pl grey.
50-52	0.04	50.0	52.0	Clay, compact, lt purplish-grey.
52-54	0.04	52.0	57.0	Clay, aa, pl to lt grey, <u>c</u> minor lt yellow mottling in part.
54-56	0.05	57.0	58.5	Clay, soft, off-white, khaki & lt khaki mottled-banded-lamn.
56-58	0.10			
58-60	0.04	58.5	61.0	Clay, soft, pl grey, <u>c</u> minor lt yellow mottling in part.
60-62	0.08	61.0	62.0	Clay, soft, lt brn.
62-64	0.13	62.0	64.0	Clay. soft, white, <u>c</u> some lt brn staining & interbeds.
Bendigo Granite				
64-66	0.09	64.0	68.0	Clay, soft, f mottling, white, lt purple, lt khaki, & yellow.
66-68	0.08			
68-70	0.09	68.0	70.0	Clay, aa, soft & v micaceous & slippery, f mottled & speckled.
70-72	0.09	70.0	78.0	Clay, aa, mostly purple, <u>c</u> minor yellow, khaki, white.
72-74	0.11			
74-76	0.15			
76-78	0.11			
78-80	0.13	78.0	90.0	Clay, aa, mostly off-white to pl khaki, <u>c</u> lesser purple & khaki & yellow mottling.
80-82	0.17			
82-84	0.21			[textures are complex, appearing to be contorted in part, or finely conglomeratic or nodular in appearance]
84-86	0.19			
86-88	0.12			
88-90	0.11			
90-92	0.15	90.0	92.0	Clay, aa, lt khaki to lt yellow-brn or off-white; textures are those of weathered granite, ie intergrown, & <u>c</u> some soft weathrd biotite.
92-94	0.16	92.0	96.0	Clay, aa, lt grey-grn & off-white (reflecting weathrd mafic & felsic mins respectively), c blk biot & rare relict qtz.
94-96	0.17			

96-98	0.21	96.0	98.0	Clay, aa, & minor soft weathrd granite, grn, & m grained.
98-100	0.16	98.0	102.0	Granite, soft & weathrd, grn-grey, m grained, intergrown mafic & felsic mins
100-102	0.27			<u>c</u> minor biotite & rare qtz, <u>c</u> no obvious layering.
102-104	0.14	102.0	106.5	Granite, aa, sl to mod weathrd.
104-106	0.27			
106-107.5	0.30	106.5	107.5	Granite, aa, fresh, dk grn-grey to blk, hard.
		107.5		End of hole.

Geochemistry Samples:

RS 999	64-78m	Routine geochemistry
RS 1000	78-90m	"
RS 1001	90-102m	"
RS 1002	102-106m	"
RS 1003	106-107.5m	Extended geochemistry.

CRN 111 CRN 111 CRN 111 CRN 111 CRN 111
64-78m 78-90m 90-102m 102-106m 106-107.5m

				6731R 999	6731R 1000	6731R 1001	6731RS 1002	6731RS 1003
Ag	ppm	0.5	IC2	<0.5	<0.5	0.5	0.5	<0.5
As	ppm	1.0	IC2	<1	1	<1	2	2
Au	ppb	1.0	FA3	<1	<1	1	<1	<1
Ba	ppm	10.0	XRF1					1250
Cd	ppm	1.0	IC2					<1
Ce	ppm	20.0	XRF1					180
Co	ppm	2.0	IC2	8	9	38	26	32
Cr	ppm	2.0	IC2	15	8	13	9	8
Cu	ppm	1.0	IC2	52	68	78	50	62
Fe	%	0.01	IC2	7.5	7.3	6.15	3.78	3.94
La	ppm	20.0	XRF1					120
Mn	ppm	5.0	IC2	370	310	220	210	410
Mo	ppm	1.0	IC2	<1	<1	<1	<1	<1
Nb	ppm	2.0	XRF1					10
Ni	ppm	1.0	IC2	6	9	40	24	24
P	ppm	5.0	IC2					1800
Pb	ppm	3.0	IC2	<3	7	7	5	4
Pd	ppb	1.0	FA3					<1
Pt	ppb	5.0	FA3					<5
Rb	ppm	2.0	XRF1					98
Sb	ppm	4.0	XRF1					5
Se	ppm	2.0	XRF1					<2
Sn	ppm	4.0	XRF1					<4
Sr	ppm	2.0	XRF1					1120
Th	ppm	4.0	XRF1					35
U	ppm	4.0	XRF1					<4
V	ppm	1.0	IC2					150
W	ppm	10.0	XRF1					<10
Zn	ppm	1.0	IC2	10	26	110	40	34

X Mafic

HOLE NO: CRN 112
 TRAVERSE: "Willara", 3088 mN
 STATION: 31 200 mE
 DATE: 04-07.12.92
 LOGGED BY: WSM
 COMMENTS: Sandy brown soil with vein quartz and calcrete float; hole is 8m north of fence.

100 000 SHEET NO: 6731
 LOCATION: 357 342 mE
 6 309 867 mN
 DRILLING METHOD: RC
 TOTAL DEPTH: 135.0m

Magnetic Susc.	Geological Log			
Interval	Value	Depth		Description
Pooraka Formation				
0-2	2.87	0	2.0	Clayey sand, brn, c calcrete & minor vein qtz pebbles.
2-4	1.18	2.0	5.0	Clay-sand vf, calc, pl brn to lt red-brn diffuse mottling, c blk Mn flecks.
4-6	2.59	5.0	6.0	Clay-sand, aa, lt pink-brn, & gravel 2-3mm, of ironstone, Fe stained sltst, calcrete & qtz.
6-8	9.07	6.0	7.0	Clay-sand & gravel, aa, coarsens to <30mm, mostly sub-ro qtzite, c lesser ironstone, minor qtz.
		7.0	7.5	Conglomerate, hard, sand & gravel in a pale calc in matrix.
		7.5	8.3	Gravel, clayey, as at 6m, c minor ind bands, aa.
Olney? Formation?				
8-10	2.09	8.3	10.0	Clay-silt-sand vf, compact, mottled lt red, pl grey, lt yellow-brn.
10-12	0.75	10.0	12.0	Clay-silt-sand, aa, f mottled-lamn, lt yellow-brn, lt khaki, & off-white.
12-14	0.15	12.0	14.0	Clay, sl-mod silty, pl to lt grey, compact.
14-16	0.05	14.0	18.0	Clay, aa, & sl silty & sandy vf in part, c abund f red mottling.
16-18	0.09			
18-20	0.07	18.0	20.0	Sand vf, clayey, & sandy clay, lt grey, c abund red stained joints?.
20-22	0.03	20.0	21.0	Sand vf-f, mod-v clayey, compact, lt grey, c f red mottling.
22-24	0.03	21.0	26.0	Sand, aa, loose, c minor purple staining at 24m.
24-26	0.03			
26-28	0.13	26.0	30.0	Sand, aa, lt grey-brn.
28-30	0.03			
30-32	0.03	30.0	32.0	Clay, sl silty, compact, pl grey, c minor f red & orange mottling.
32-34	0.01	32.0	35.0	Clay, compact, lt grey.
34-36	0.04	35.0	36.0	Clay, aa, lt mauve-grey.
36-38	0.05	36.0	38.0	Clay, silty, compact, lt mauve, pl grey, pl khaki, faintly mottled & banded.
		38.0	38.5	Clay, compact, grey.
38-40	0.02	38.5	40.0	Clay, sandy or sl silty, pl grey-brn c f orange mottling.
40-42	0.02	40.0	41.0	Clay, silty, lt grey, c some orange stained fractures.
		41.0	42.0	Clay, plastic, pl to lt grey.
42-44	0.02	42.0	43.0	Clay, aa, grey, Mn? stained.
44-46	0.02	43.0	48.0	Clay, aa, pl to lt grey, c dk grey f grained framboydal sulphide aggregates at 46-48.0347m.
48-50	0.03	48.0	57.0	Clay, semi-plastic, dk to lt grey.
50-52	0.03			
52-54	0.02			
54-56	0.04			
56-58	0.04	57.0	58.0	Clay, aa, lt to pl grey, c some red & yellow-brn mottling.
58-60	0.02	58.0	61.5	Clay, aa, pl grey.
60-62	0.02			
62-64	0.02	61.5	64.5	Clay, lt to pl grey, c rare to minor f lt red-brn & lt khaki mottling.
64-66	0.05	64.5	68.5	Clay, aa, pl grey-mauve or pl grey, c some lt orange mottling.
66-68	0.03			
68-70	0.04	68.5	70.0	Clay, aa, compact, mauve to purple.
70-72	0.04	70.0	76.0	Clay, aa, lt grey to lt mauve-grey.
72-74	0.02			
74-76	0.03			
76-78	0.04	76.0	77.0	Clay, aa, lt grey, c minor lt red & lt orange mottling.
		77.0	78.0	Clay, aa, grey c red-purple mottling, & rare white gritty (weathrd fspar?) interbeds.
78-80	0.05	78.0	79.0	Clay, aa, purple-grey.
		79.0	80.5	Clay, aa, lt grey c lt red & lt khaki-yellow mottling.
80-82	0.03	80.5	82.0	Clay, aa, lt grey, c abund thin brn & orange Fe ind zones.
82-84	0.05	82.0	83.5	Clay, aa, lt grey c brt red & khaki mottling.
84-86	0.03	83.5	89.0	Clay, aa, grey to lt grey, c minor purple mottling at top.
86-88	0.03			
88-90	0.01	89.0	90.0	Clay, mod silty, pl grey to lt mauve grey.
90-92	0.01	90.0	95.5	Clay, aa, sl silty or clean, lt grey.

92-94	0.02			
94-96	0.03			
Weathered Adelaidean? siltstone?				
		95.5	96.0	Clay, aa, <u>c</u> some f brn sltst? frags.
96-100	0.04	96.0	100.0	Clay or claystone, lt grey, clean or sl silty.
100-102	0.03	100.0	100.5	Clay, sandy vf, pl grey-brn.
		100.5	101.0	Silt & sand vf, v clayey, pl grey-brn.
		101.0	101.5	Clay, silty, brt brick-red, sandy vf in part.
		101.5	102.0	Clayey silt, pl brn or red-brn, <u>c</u> minor lt brn sltst frags.
102-104	0.04	102.0	103.0	Clay, sl silty, pl yellow-brn to lt khaki, <u>c</u> brt red staining.
		103.0	105.0	Clay, sl silty & sandy vf, lt mauve to pl grey.
104-106	0.06	105.0	106.0	Clay, mod silty & sandy vf, lt brn, <u>c</u> minor f brn Fe-ind sltst frags.
106-108	0.04	106.0	107.0	Clay, sl silty, pl grey to pl mauve-grey.
		107.0	107.5	Clay, aa, f mottled brick-red, yellow, white.
		107.5	108.0	Clay, mod silty & sandy vf, lt brn, <u>c</u> minor f brn Fe-ind sltst frags.
108-110	0.05	108.0	110.0	Clay/claystone, lt khaki, <u>c</u> f brt purple-red mottling, & rare white altered fractures/veins.
110-112	0.02	110.0	111.0	Clay, mod silty & sandy vf, lt brn, <u>c</u> minor f brn Fe-ind sltst frags.
112-114	0.04	111.0	114.0	Clay, silty, pl grey.
114-116	0.03	114.0	115.0	Clay, aa, pl grey & pl yellow-brn mottled & banded.
		115.0	116.0	Clay, silty & lt grey, or silty/sandy vf & pl brn.
116-118	0.02	116.0	118.0	Clay, mod silty & sandy vf, lt brn, <u>c</u> minor f brn Fe-ind sltst frags.
118-120	0.04	118.0	119.0	Clay, silty/sandy, pl grey, <u>c</u> minor clear vein qtz.
		119.0	119.5	Clay, aa, & minor brn micaceous sltst? frags.
120-122	0.08	119.5	121.0	Clay, silty, compact, f mottled brn, lt khaki, white.
Bendigo Granite				
122-124	0.08	121.0	123.0	Clay, gritty, dk & lt grn f banded & mottled (could be weathrd m grained granite gneiss).
124-126	0.01	123.0	132.0	Granite, soft & weathrd, m grained, dk green, <u>c</u> 70% dk grn weathrd mafic mins, 30% white to pl grn weathrd fspar, & minor biotite, & minor pl grey-brn vein qtz at 129-130m.
126-128	0.19			
128-130	0.15			
130-132	0.26			
132-134	0.22	132.0	134.8	Granite, fresh to sl weathrd, dk grn.
		NB: minor to abundant lt yellow-brn translucent acicular <u>min</u> , < 4mm long, < 1.5mm wide, esp at 132m & at 134m.		
134-135	0.11	134.8	135.0	Granite, fresh & v hard, <u>dk grn to blk, m grained, mafic.</u>
		135.0		End of hole.

diorite?

Geochemistry Samples:

RS 1004	46-48m	Routine geochemistry (sample missing)
RS 1010	96-110m	"
RS 1011	110-120m	"
RS 1012	120-124m	"
RS 1013	124-130m	"
RS 1014	130-132m	"
RS 1015	132-135m	Extended geochemistry (sample missing).

CRN 112 CRN 112 CRN 112 CRN 112 CRN 112
96-110m 110-120m 120-124m 124-130m 130-132m

6731R 6731RS 6731RS 6731RS 6731RS
1010 1011 1012 1013 1014

Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5	<0.5	<0.5
As	ppm	1.0	IC2	<1	<1	3	1	2
Au	ppb	1.0	FA3	<1	<1	<1	2	1
Ba	ppm	10.0	XRF1					
Cd	ppm	1.0	IC2					
Ce	ppm	20.0	XRF1					
Co	ppm	2.0	IC2	<2	3	22	55	44
Cr	ppm	2.0	IC2	24	44	125	94	84
Cu	ppm	1.0	IC2	35	19	145	50	46
Fe	%	0.01	IC2	2.28	0.77	3.1	6.05	5.4
La	ppm	20.0	XRF1					
Mn	ppm	5.0	IC2	10	15	70	1240	1080
Mo	ppm	1.0	IC2	1	1	<1	<1	<1
Nb	ppm	2.0	XRF1					
Ni	ppm	1.0	IC2	3	13	54	92	72
P	ppm	5.0	IC2					
Pb	ppm	3.0	IC2	<3	<3	7	4	3
Pd	ppb	1.0	FA3					
Pt	ppb	5.0	FA3					
Rb	ppm	2.0	XRF1					
Sb	ppm	4.0	XRF1					
Se	ppm	2.0	XRF1					
Sn	ppm	4.0	XRF1					
Sr	ppm	2.0	XRF1					
Th	ppm	4.0	XRF1					
U	ppm	4.0	XRF1					
V	ppm	1.0	IC2					
W	ppm	10.0	XRF1					
Zn	ppm	1.0	IC2	16	7	62	105	80

HOLE NO: CRN 113
 TRAVERSE: "Hog Back - Braeside", 3021 mN
 STATION: 13 175 mE
 DATE: 08.12.92
 LOGGED BY: WSM
 COMMENTS: Sandy brown soil with vein quartz and sandstone float; hole is 30m north of fence.

100 000 SHEET NO: 6731
 LOCATION: 358 555 mE
 6 303 140 mN
 DRILLING METHOD: RC
 TOTAL DEPTH: 111.5m

Magnetic Susc.	Geological Log			
Interval	Value	Depth		Description

Pooraka Formation				
0-2	1.39	0	2.0	Sandy soil, brn, & vein qtz & sst gravel.
2-4	1.27	2.0	4.0	Calcrete, lt brn, hard, c blk Mn mottling, & some clayey sand.
4-6	1.18	4.0	5.5	Gravel, <50mm, qtz, sltst, & sst pebbles, poorly sorted, sub-ang to rounded, & some clayey sand.
6-8	1.07	5.5	9.0	Sand vf, clayey, compact, brn, c some rounded qtz gravel <15mm at base.
8-10	0.45			
		9.0	9.5	Silcrete, ie sst f, hard, silicf, structureless & non-porous, lt grey-brn, c minor gravel layers.
10-12	0.80	9.5	17.0	Clay, sandy vf, red-brn, c minor silcrete, aa, at 13m & 16.3-16.6m.
12-14	0.48			
14-16	0.39			
16-18	0.70	17.0	18.5	Clay-sand vf-f, soft, red-brn, c minor thin ind silcrete horizons, aa.
18-20	0.81	18.5	21.5	Silcrete, aa, silicf structureless vf sst, pl grey-brn to lt red-brn, c minor dk sltst
20-22	0.35			/ sst frags.
Olney? Formation?				
		21.5	22.0	Clay, sl-mod silty, compact, pl grey, c minor f red & yellow mottling.
22-24	0.08	22.0	26.0	Clay, aa, pl grey, & lt brick-red mottled.
24-26	0.08			
26-28	0.10	26.0	28.0	Clay, aa, pl gre-brn c lt to pl red-brn mottling.
28-30	0.15	28.0	33.5	Sand vf, mod-v clayey, compact, pl grey, c some red mottling & orange-brn 30-320.04staining.
32-34	0.05			
34-36	0.04	33.5	36.0	Sand vf, clayey, pl grey, c minor lt pink & pl orange f mottling & banding.
36-38	0.07	36.0	38.0	Sand vf, clayey, aa, pl khaki.
38-40	0.01	38.0	39.0	Clay, silty/sand vf, compact, mottled pl khaki, dk grn, orange, off-white.
		39.0	39.4	Clay, orange-brn, gritty & Fe stained & ind.
Marine equivalent of Olney? Formation?				
40-42	0.03	39.4	41.0	Limestone, vf-f, lt orange-brn, hard, poorly sorted c minor white (shelly?) frags - marine?.
		41.0	42.0	Clay, sandy vf, calc, pl brn to pl grey, c minor blk Mn speckling.
42-44	0.03	42.0	44.0	Limestone, aa, & interbedded calc clay, aa.
Olney? Formation				
44-46	0.03	44.0	45.5	Clay, sl sandy vf, compact, chocolate-brn, c minor orange-brn mottling, & minor coarse gravel ie rounded qtz <15mm.
		45.5	46.0	Clay, aa, grey.
46-48	0.07	46.0	48.0	Sand vf, loose, pl grey, c trace of f blk mins.
48-50	0.04	48.0	52.0	Sand f, mod clayey, pl grey to pl mauve faintly mottled.
50-52	0.02			
52-54	0.03	52.0	54.0	Sand, aa, lt orange-brn to pl brn, c minor Fe-ind sst, dk orange-brn.
54-56	0.03	54.0	56.0	Clay, lt blue-grey, plastic.
56-58	0.02	56.0	58.0	Clay, aa, pl to lt grey.
58-60	0.03	58.0	59.0	Clay, aa, dk grey, c some blk Mn? or carb? staining.
60-62	0.02	59.0	61.0	Clay, aa, grey to lt grey, c minor orange Fe stained fractures & blebs.
		61.0	62.0	Clay, aa, grey to dk grey mottled.
62-64	0.04	62.0	63.0	Clay, mod-v sandy vf, soft, lt grey.
		63.0	64.0	Clay, sl silty, purple-grey, c some f lt orange mottling.
64-66	0.04	64.0	65.0	Clay, aa, lt grey, c lt red & yellow mottling.
		65.0	66.0	Clay, aa, pl grey.
66-68	0.02	66.0	68.0	Clay, aa, pl grey c f orange stained specks & fractures.
68-70	0.03	68.0	69.0	Clay, aa, lt grey.
70-72	0.04	69.0	72.0	Clay, mod silty & sandy vf, compact, lt grey.
		72.0	72.5	Clay, aa, pl grey, c red-brn & dk purple-brn Fe-ind zones.
72-74	0.06	72.5	74.5	Clay, aa, pl grey, c minor Fe-ind zones.
???				
74-76	0.02	74.5	77.0	Clay, pl grey, c appearance of extremely weathrd granite.
76-78	0.02	77.0	78.0	Sand vf-f, v clayey, pl grey.

Weathered Bendigo Granite

78-80	0.02	78.0	80.0	Clay, off-white, soft, sl micaceous, c f red & grn mottling.
80-82	0.03	80.0	82.0	Clay, aa, off-white & brick-red f mottled.
82-84	0.02	82.0	86.0	Clay, aa, gritty & fspathc? in part; in part the red & white mottling appears to reflect the relict m grained xtalline texture, but otherwise is coarser textured.
84-86	0.04			
86-88	0.05	86.0	87.0	Felsic intrusive?, f grained, weathrd in part to clay, ie fspar, qtz & white mica, & trace of blk mins, no layering, pl grey to lt brn.
88-90	0.04	87.0	95.0	Clay, gritty, soft, off-white, c f dk grn, khaki, or orange-brn stained relict grains.
90-92	0.11			
92-94	0.03			
94-96	0.05	95.0	96.0	Clay, aa, c abund lt grey-pink vein qtz.
96-98	0.04	96.0	97.0	Granite, mod weathrd, m grained, grn.
		97.0	98.5	Clay, khaki to grn, sl foliat, ie weathrd vf grained intrusive?, or metasediment?.
98-100	0.06	98.5	104.5	Qtz-rich intrusive?, f-m grained, mod weathrd, ie interlocking or discrete f-m (some c) qtz grains, sub-euhedral, c 30% white or pink stained vf matrix (weathrd interstitial fspar?); weathrd sst?, or f-m grained intrusive?.
100-102	0.04			
102-104	0.09			
104-106	0.05	104.5	107.5	Clay, gritty, white, c some grn or brn mottling, ie v weathrd granite.
106-108	0.04			
		107.5	108.5	Qtz-rich intrusive?, f-m grained, mod weathrd, aa, 98.5m.
108-110	0.12	108.5	110.5	Granite, v weathrd, ie off-white to pl pink clay, c relict dk grn mafic mins, & trace of white mica.
110-110.5	0.05	110.5	111.5	End of hole, bit blocked, & water truck bogged so that drill rig had to be moved off site.

Comments:

- . This hole intersected possible marine sediments of the Murray Basin, intertonguing with the terrestrial, ie fluvial and lacustrine, clay, silt & sand of the Olney? Formation.
- . The Bendigo Granite section in this hole comprised two distinct rock types:
 - . a fine grained to medium (some coarse) grained quartz-rich intrusive, or possible re-melted or partially assimilated quartz-rich metasediment.
 - . medium grained granite, which was very to extremely weathered in the section intersected in this hole; the granite comprises intergrown white relict fspar, and dark green relict mafic minerals, with minor mica.
- . The hole was abandoned due to drilling and logistical difficulties before a fresh sequence was intersected.

Geochemistry Samples:

RS 1016	78-88m	Routine geochemistry
RS 1017	88-96m	"
RS 1018	96-102m	"
RS 1019	102-110m	"
RS 1020	110-112m	Extended geochemistry.

CRN 113 CRN 113 CRN 113 CRN 113 CRN 113
78-88m 88-96m 96-102m 102-110m 110-112m 111.5

				6731R 1016	6731R 1017	6731RS 1018	6731RS 1019	6731RS 1020
Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5	<0.5	<0.5
As	ppm	1.0	IC2	<1	<1	<1	2	1
Au	ppb	1.0	FA3	<1	1	<1	<1	<1
Ba	ppm	10.0	XRF1					740
Cd	ppm	1.0	IC2					<1
Ce	ppm	20.0	XRF1					90
Co	ppm	2.0	IC2	5	4	3	6	7
Cr	ppm	2.0	IC2	28	8	5	11	8
Cu	ppm	1.0	IC2	74	58	30	62	62
Fe	%	0.01	IC2	3.42	3.18	1.07	2.88	2.64
La	ppm	20.0	XRF1					100
Mn	ppm	5.0	IC2	50	150	45	155	130
Mo	ppm	1.0	IC2	<1	<1	<1	<1	<1
Nb	ppm	2.0	XRF1					11
Ni	ppm	1.0	IC2	7	10	5	10	10
P	ppm	5.0	IC2					280
Pb	ppm	3.0	IC2	6	5	<3	5	6
Pd	ppb	1.0	FA3					<1
Pt	ppb	5.0	FA3					<5
Rb	ppm	2.0	XRF1					120
Sb	ppm	4.0	XRF1					<4
Se	ppm	2.0	XRF1					<2
Sn	ppm	4.0	XRF1					<4
Sr	ppm	2.0	XRF1					185
Th	ppm	4.0	XRF1					42
U	ppm	4.0	XRF1					6
V	ppm	1.0	IC2					68
W	ppm	10.0	XRF1					<10
Zn	ppm	1.0	IC2	22	19	7	13	17

HOLE NO: CRN 114
 TRAVERSE: "Hog Back - Braeside", 3021 mN
 STATION: 13 500 mE
 DATE: 09.12.92
 LOGGED BY: WSM
 COMMENTS: Sandy brown soil with vein quartz and quartzite float; hole is 40m north of fence.

100 000 SHEET NO: 6731
 LOCATION: 358 881 mE
 6 303 102 mN
 DRILLING METHOD: RC
 TOTAL DEPTH: 62.0m

Magnetic Susc.		Geological Log		Description
Interval	Value	Depth	Depth	
Pooraka Formation				
0-2	1.20	0	3.0	Sandy soil, brn, <u>c</u> gravel <50mm, rounded lt grey to dk brn sst & qtzite & white qtz, & minor pl brn calcrete.
2-4	1.19			
4-6	1.32	3.0	11.0	Clay-sand, red-brn, compact; & clayey sand; & abund gravel layers, aa, <8mm; & calc ind zones, ie calcrete, red-brn <u>c</u> blk Mn mottling.
6-8	2.76			
8-10	3.93			
10-12	0.24			
Olney? Formation				
12-14	0.09	11.0	15.0	Clay-silt-sand vf, red-brn, compact.
14-16	0.07	15.0	17.0	Sand vf, v clayey, lt brn to pl red-brn, compact.
16-18	0.09	17.0	18.0	Sst vf-f, sl calc, red-brn, hard.
18-20	0.34	18.0	19.0	Sst vf-f, aa, lt grey-brn.
		19.0	20.5	Clay, sl silty/sandy, pl grey-brn, compact.
20-22	0.06	20.5	24.0	Clay, sl silty, lt grey & lt red-brn, mottled & banded, mod sandy in part.
22-24	0.10			
24-26	0.28	24.0	26.0	Clay, v sandy, lt grey & lt red-brn, compact
26-28	0.05	26.0	28.0	Sand f, mod-v clayey, pl brn-grey, compact.
28-30	0.03	28.0	32.5	Sand vf, mod clayey, pl grey, soft.
30-32	0.04			
32-34	0.05	32.5	35.0	Sand, aa, <u>c</u> some clay-sand, faint yellow mottled.
		35.0	35.5	Sand, aa, & clay-sand, aa, & some silty clay, lt grey, compact.
34-36	0.09	35.5	36.0	Sand, clay-sand, & silty clay, aa, dk brn to blk Fe/Mn stained, <u>c</u> f orange speckling.
36-38	0.09	36.0	37.5	Clay, mod silty, lt orange & khaki, compact, Fe stained.
		37.5	38.0	Clay, aa, lt grey-brn, <u>c</u> some lt red-brn & lt khaki mottling.
Marine equivalent of Olney? Formation				
38-40	0.03	38.0	39.0	Sandy Lst f, pl orange to lt yellow-brn, poorly sorted, <u>c</u> rare f blk Mn staining.
40-42	0.02	39.0	41.0	Clay, mod silty & sandy vf, lt grey to orange-brn f mottled, compact.
Weathered Adelaidean?				
		41.0	41.5	Qtzite, semi-transl pl grey, <u>c</u> some clearer vein? qtz.
42-44	0.03	41.5	43.0	Clay, sl silty, pl yellow-brn.
		43.0	45.0	Clay, aa, & some lt grey sst vf, ie silic? ind <u>c</u> f orange speckling.
44-46	0.03	45.0	46.0	Qtzite, semi-transl lt grey-brn, <u>c</u> some clearer vein? qtz.
46-48	0.03	46.0	49.0	Clay, gritty, off-white, ind in part.
48-50	0.04	49.0	51.0	Qtzite, semi-transl lt grey-brn <u>c</u> some pl orange staining, hard, <u>c</u> some clearer vein? qtz.
50-52	0.08			
52-54	0.05	51.0	55.5	Clay, silty, pl grey, soft, sl gritty in part, <u>c</u> minor qtzite layers, aa.
54-56	0.40			
Adelaidean?				
		55.5	56.0	Qtzite f, lt grey, hard, no layering.
56-58	0.42	56.0	58.0	Qtzite, aa, <u>c</u> some dk grn staining on joints & some grn vf grained qtzite?; & clay, soft, pl grn, <u>c</u> vein qtz.
58-60	0.08	58.0	59.5	Qtzite vf, mottled pl grey to lt brn or grn, <u>c</u> trace of vf blk mins, & cross-cutting vf qtz veins.
60-62	0.14	59.5	62.0	Skarn, ie qtzite f, aa, pl grey, recrystallized, <u>c</u> coarser blk mins, possibly recrystallised biotite, & minor qtz veins & orange-brn Fe stained in part.
		62.0		End of hole

Geochemistry Samples:

RS 1021	36-46m	Routine geochemistry
RS 1022	46-54m	"
RS 1023	54-60m	"
RS 1024	60-62m	Extended geochemistry.
RS 1025	36-46m	Check sample, routine geochemistry
RS 1026	46-54m	Check sample, routine geochemistry
RS 1027	54-60m	Check sample, routine geochemistry
RS 1028	60-62m	Check sample, extended geochemistry

				CRN 114 36-46m	CRN 114 46-54m	CRN 114 54-60m	CRN 114 60-62m
				6731RS 1021	6731RS 1022	6731RS 1023	6731RS 1024
Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5	<0.5
As	ppm	1.0	IC2	32	2	2	2
Au	ppb	1.0	FA3	<1	<1	<1	<1
Ba	ppm	10.0	XRF1				580
Cd	ppm	1.0	IC2				<1
Ce	ppm	20.0	XRF1				70
Co	ppm	2.0	IC2	20	<2	5	5
Cr	ppm	2.0	IC2	105	13	16	20
Cu	ppm	1.0	IC2	50	28	38	65
Fe	%	0.01	IC2	4.3	0.28	0.64	3.78
La	ppm	20.0	XRF1				100
Mn	ppm	5.0	IC2	920	20	35	95
Mo	ppm	1.0	IC2	2	<1	1	<1
Nb	ppm	2.0	XRF1				7
Ni	ppm	1.0	IC2	24	3	6	12
P	ppm	5.0	IC2				250
Pb	ppm	3.0	IC2	6	<3	<3	5
Pd	ppb	1.0	FA3				<1
Pt	ppb	5.0	FA3				<5
Rb	ppm	2.0	XRF1				185
Sb	ppm	4.0	XRF1				<4
Se	ppm	2.0	XRF1				2
Sn	ppm	4.0	XRF1				<4
Sr	ppm	2.0	XRF1				54
Th	ppm	4.0	XRF1				14
U	ppm	4.0	XRF1				<4
V	ppm	1.0	IC2				38
W	ppm	10.0	XRF1				<10
Zn	ppm	1.0	IC2	82	6	17	30

				CRN 114 36-46m (check) 6731RS 1025	CRN 114 46-54m (check) 6731RS 1026	CRN 114 54-60m (check) 6731RS 1027	CRN 114 60-62m (check) 6731RS 1028	CRN 114 60-62m (repeat) 6731RS 1028
Ag	ppm	0.5	IC2	<1	<1	<1	<1	
As	ppm	1.0	IC2	14	5	6	2	
Au	ppb	1.0	FA3	<1	<1	<1	<1	<1
Ba	ppm	10.0	XRF1				672	
Cd	ppm	1.0	IC2				<1	
Ce	ppm	20.0	XRF1				95	
Co	ppm	2.0	IC2	10	<5	<5	<5	
Cr	ppm	2.0	IC2	144	163	150	105	
Cu	ppm	1.0	IC2	39	33	40	57	
Fe	%	0.01	IC2	2.70	0.47	0.65	3.48	
La	ppm	20.0	XRF1				75	
Mn	ppm	5.0	IC2	485	25	21	59	
Mo	ppm	1.0	IC2	<5	<5	<5	<5	
Nb	ppm	2.0	XRF1				5	
Ni	ppm	1.0	IC2	9	<5	<5	12	
P	ppm	5.0	IC2				278	
Pb	ppm	3.0	IC2	<5	<5	<5	22	
Pd	ppb	1.0	FA3				<1	
Pt	ppb	5.0	FA3				<1	
Rb	ppm	2.0	XRF1				134	
Sb	ppm	4.0	XRF1				8	
Se	ppm	2.0	XRF1				2	
Sn	ppm	4.0	XRF1				<5	
Sr	ppm	2.0	XRF1				46	
Th	ppm	4.0	XRF1				11	
U	ppm	4.0	XRF1				<4	
V	ppm	1.0	IC2				30	
W	ppm	10.0	XRF1				<10	
Zn	ppm	1.0	IC2	60	18	19	20	

HOLE NO: CRN 115
 TRAVERSE: 3080 mN
 STATION: 950 mE
 DATE: 16.12.92
 LOGGED BY: WSM
 COMMENTS: Lt brown sandy soil; 25m north of fence.

100 000 SHEET NO: 6831
 LOCATION: 359 511 mE
 6 307 958 mN
 DRILLING METHOD: RC
 TOTAL DEPTH: 90.5m

Magnetic Susc.		Geological Log		
Interval	Value	Depth		Description
Quaternary				
0-2	1.20	0	2.0	Clayey sand-soil, lt orange-brn, c pl brn calcrete infilled tubules, worm? burrows?.
2-4	1.63	2.0	3.0	Clay, silty & sandy vf, lt orange-brn to pl grey-brn.
4-6	7.11	3.0	5.0	Clay, aa, c minor gravel <3mm, sub-ang white qtz & rounded ironstone & Fe stained sltst.
		5.0	5.5	Clay-sand vf-m, pl grey-brn.
		5.5	5.7	Gravel <20mm, rounded qtzite & sltst, lesser ironstone & qtz.
		5.7	6.0	Conglomerate, rounded gravel in red-brn matrix, hard & silicf?.
Olney? Formation				
6-8	0.11	6.0	8.0	Clay-sand vf, lt mustard-brn.
8-10	0.13	8.0	11.0	Clay, v sandy vf, lt red-brn & pl khaki mottled.
10-12	0.12			
12-14	0.06	11.0	13.0	Clay, sl silty & sandy, pl grey, c rare red mottling, compact.
14-16	0.08	13.0	15.0	Clay, aa, red mottled, c minor red Fe-ind.
		15.0	16.0	Clay, aa, c minor red mottling.
16-18	0.08	16.0	17.0	Clay, v sandy vf-f, lt grey, c minor red mottling.
		17.0	18.0	Clay, sl silty & sandy, lt grey.
		18.0	18.5	Clay, v sandy, lt grey & red mottled.
18-20	0.09	18.5	20.0	Clay, sl silty, plastic, pl grey, c abund red, purple, & yellow mottling in part.
20-22	0.12	20.0	21.0	Clay, aa, v sandy in part.
22-24	0.09	21.0	24.0	Clay, sl silty, plastic, pl grey, c some lt red-purple staining.
24-26	0.07	24.0	27.0	Clay, aa, lt grey-purple, c minor red or yellow mottling.
26-28	0.05	27.0	28.0	Clay, sl silty & sandy, compact, grey to dk grey, c minor red & yellow mottling.
28-30	0.06	28.0	29.0	Clay, clean to mod silty//sandy, lt to pl grey.
		29.0	30.0	Sand vf-f, clayey, pl grey-brn.
30-32	0.06	30.0	31.0	Sand f-m, mod to v clayey, lt grey.
		31.0	32.0	Clay, v sandy vf-m, lt to pl grey, compact.
32-34	0.03	32.0	33.5	Clay, sl silty, blk, soft.
		33.5	34.0	Clay, clean to sl silty, grey.
34-36	0.04	34.0	45.0	Clay, aa, grey to lt grey, c framboydal lt grey sulphide aggregates at 38.5m & 39m, & framboydal sulphide infilling worm? burrows at 44m.
36-38	0.02			
38-40	0.02			
40-42	0.02			
42-44	0.02			
44-46	0.01			
46-48	0.04	45.0	51.0	Clay, aa, c some brn staining on joints.
48-50	0.02			
50-52	0.03	51.0	52.0	Clay, aa, pl to lt grey, c rare faint red mottling.
52-54	0.01	52.0	54.0	Clay, aa, pl grey c lt red & yellow mottling.
54-56	0.02	54.0	55.0	Clay, mod silty & sandy vf, pl grey, soft.
		55.0	56.0	Sand, clayey vf-f, pl grey, compact.
56-58	0.03	56.0	57.0	Sand f-m, sl clayey, lt brn-grey, c some clay-sand interbeds.
58-60	0.03	57.0	59.8	Clay, mod silty & sandy vf, plastic, pl grey.
Weathered Bendigo Granite				
60-62	0.02	59.8	65.0	Clay, v gritty, white, soft, c f-c ang qtz grit.
62-64	0.01			
64-66	0.01	65.0	66.0	Clay, aa, v gritty, c some pl grn f mottling.
66-68	0.02	66.0	71.0	Clay, aa, v gritty, white.
68-70	0.01			
70-72	0.04	71.0	72.0	Clay, aa, v gritty, pl pink lt olive-grn mottled.
72-74	0.05	72.0	73.0	Clay, aa, v gritty, white lt red mottled, c minor lt grn mottling.
		73.0	74.0	Clay, aa, v gritty, white & lt grn mottled.
74-76	0.11	74.0	75.0	Clay, aa, v gritty, pl pink, pl blue, lt khaki, & white f mottled; looks like weathrd granite.
		75.0	76.0	Clay, aa, v gritty, grey, grn & white f mottled.

76-78	0.06	76.0	84.0	Clay, aa, v gritty, <u>c</u> loose blk biotite f-m, white orthoclase? m, clear qtz m, & soft granite frags.
78-80	0.04			
80-82	0.03			
82-84	0.02			
84-86	0.13	84.0	90.0	Granite, sl weathrd, gm, comprising m grained clear to pl gm translucent qtz, white orthoclase?, grn fspar, biotite, & vf blk mafic mins.
86-88	0.16			
88-90	0.15			
90-90.5	0.23	90.0	90.5	Granite, aa, fresh & hard. End of hole.
		90.5		

Geochemistry Samples:

RS 1029	60-70m	Routine geochemistry
RS 1030	70-76m	"
RS 1031	76-84m	"
RS 1032	84-90m	"
RS 1033	90-90.5m	Extended geochemistry
RS 1034	60-70m	Check sample, routine geochemistry
RS 1035	70-76m	Check sample, routine geochemistry
RS 1036	76-84m	Check sample, routine geochemistry
RS 1037	84-90m	Check sample, routine geochemistry
RS 1038	90-90.5m	Check sample, extended geochemistry

				CRN 115 60-70m	CRN 115 70-76m	CRN 115 76-84m	CRN 115 84-90m	CRN 115 90-90.5m
				6731R 1029	6731R 1030	6731R 1031	6731R 1032	6731RS 1033
Ag	ppm	0.5	IC2	<0.5	<0.5	1	<0.5	1
As	ppm	1.0	IC2	1	4	6	3	3
Au	ppb	1.0	FA3	1	2	<1	<1	1
Ba	ppm	10.0	XRF1					910
Cd	ppm	1.0	IC2					<1
Ce	ppm	20.0	XRF1					90
Co	ppm	2.0	IC2	4	4	7	7	11
Cr	ppm	2.0	IC2	3	15	13	11	13
Cu	ppm	1.0	IC2	7	36	42	32	42
Fe	%	0.01	IC2	0.12	3.08	2.26	2.88	3.12
La	ppm	20.0	XRF1					140
Mn	ppm	5.0	IC2	5	50	105	180	165
Mo	ppm	1.0	IC2	<1	<1	1	<1	<1
Nb	ppm	2.0	XRF1					11
Ni	ppm	1.0	IC2	5	6	11	11	16
P	ppm	5.0	IC2					530
Pb	ppm	3.0	IC2	4	5	9	<3	7
Pd	ppb	1.0	FA3					<1
Pt	ppb	5.0	FA3					<5
Rb	ppm	2.0	XRF1					140
Sb	ppm	4.0	XRF1					<4
Se	ppm	2.0	XRF1					<2
Sn	ppm	4.0	XRF1					<4
Sr	ppm	2.0	XRF1					570
Th	ppm	4.0	XRF1					24
U	ppm	4.0	XRF1					8
V	ppm	1.0	IC2					65
W	ppm	10.0	XRF1					20
Zn	ppm	1.0	IC2	3	7	24	16	24

				CRN 115 60-70m (check) 6731RS 1034	CRN 115 70-76m (check) 6731RS 1035	CRN 115 76-84m (check) 6731RS 1036	CRN 115 84-90m (check) 6731RS 1037	CRN 115 90-90.5m (check) 6731RS 1038	CRN 115 90-90.5m (repeat) 6731RS 1038
Ag	ppm	0.5	IC2	<1	<1	<1	<1	<1	
As	ppm	1.0	IC2	7	11	14	6	2	
Au	ppb	1.0	FA3	<1	<1	<1	<1	<1	<1
Ba	ppm	10.0	XRF1					883	
Cd	ppm	1.0	IC2					<1	
Ce	ppm	20.0	XRF1					111	
Co	ppm	2.0	IC2	<5	<5	<5	6	9	
Cr	ppm	2.0	IC2	249	84	57	39	69	
Cu	ppm	1.0	IC2	17	48	46	42	30	
Fe	%	0.01	IC2	0.44	3.42	2.11	2.62	2.68	
La	ppm	20.0	XRF1					134	
Mn	ppm	5.0	IC2	13	57	84	154	138	
Mo	ppm	1.0	IC2	<5	<5	<5	<5	<5	
Nb	ppm	2.0	XRF1					11	
Ni	ppm	1.0	IC2	8	5	7	7	14	
P	ppm	5.0	IC2					586	
Pb	ppm	3.0	IC2	<5	<5	<5	<5	5	
Pd	ppb	1.0	FA3					<1	
Pt	ppb	5.0	FA3					<1	
Rb	ppm	2.0	XRF1					137	
Sb	ppm	4.0	XRF1					4	
Se	ppm	2.0	XRF1					<2	
Sn	ppm	4.0	XRF1					5	
Sr	ppm	2.0	XRF1					516	
Th	ppm	4.0	XRF1					24	
U	ppm	4.0	XRF1					<4	
V	ppm	1.0	IC2					48	
W	ppm	10.0	XRF1					13	
Zn	ppm	1.0	IC2	18	14	27	30	18	

HOLE NO: MUR 01
 TRAVERSE: "South Dam Homestead", 3189 mN
 STATION: 4 000 mE
 DATE: 17.11.92
 LOGGED BY: PWH

100 000 SHEET NO: 6731
 LOCATION: 360 923 mE
 6 318 007 mN
 DRILLING METHOD: RC
 TOTAL DEPTH: 29.5 m

Depth From	To	Magn. Susc.	Description
Recent			
0	2.0	0.77	Alluvium, red-brn silt & sand, sl calcitic.
2.0	4.0	0.31	Alluvium & Clay, red-brn, sandy.
4.0	6.0	0.27	Alluvium & Clay, aa, c weathrd sltst.
Adelaidean?			
6.0	8.0	0.09	Clay & Weathrd Siltstone, red-brn, lt grey sltst.
8.0	10.0	0.08	Weathrd Siltstone & Clay, aa.
10.0	12.0	0.12	Weathrd Siltstone & Clay, aa.
12.0	14.0	0.07	Weathrd Siltstone & Clay, aa.
14.0	16.0	0.16	Weathrd Siltstone, aa.
16.0	18.0	0.04	Weathrd Siltstone, red grn, lt grey, lamn.
Adelaidean Wilyerpa Formation			
18.0	20.0	0.06	Siltstone, aa, mostly red.
20.0	22.0	0.05	Siltstone, aa, mostly grn, c massive Mn mineralisation.
22.0	24.0	0.06	Siltstone, olive-grn.
24.0	26.0	0.05	Siltstone, aa, c thin heavy min bands.
26.0	28.0	0.08	Siltstone, aa.
28.0	29.5	0.07	Siltstone, aa.
29.5			End of Hole

Geochemistry Samples:

RS 29 20-22 m Routine geochemistry.
 RS 30 22-29.5 "

				MUR 16 76-78m	MUR 16 78-90m	MUR 16 80-96m	MUR 16 96-102m	MUR 16 102-103.5
				6831R 77	6831R 78	6831R 79	6831RS 80	6831RS 81
Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5	<0.5	0.5
As	ppm	1.0	IC2	2	4	2	1	<1
Au	ppb	1.0	FA3	1	2	1	1	1
Ba	ppm	10.0	XRF1					980
Cd	ppm	1.0	IC2					<1
Ce	ppm	20.0	XRF1					50
Co	ppm	2.0	IC2	10	14	25	58	32
Cr	ppm	2.0	IC2	24	15	25	72	44
Cu	ppm	1.0	IC2	30	74	74	70	60
Fe	%	0.01	IC2	3.9	10.3	5.3	4.04	3.28
La	ppm	20.0	XRF1					40
Mn	ppm	5.0	IC2	310	300	240	120	105
Mo	ppm	1.0	IC2	<1	<1	<1	<1	<1
Nb	ppm	2.0	XRF1					5
Ni	ppm	1.0	IC2	5	13	42	110	58
P	ppm	5.0	IC2					200
Pb	ppm	3.0	IC2	4	5	25	7	6
Pd	ppb	1.0	FA3					<1
Pt	ppb	5.0	FA3					<5
Rb	ppm	2.0	XRF1					165
Sb	ppm	4.0	XRF1					<4
Se	ppm	2.0	XRF1					<2
Sn	ppm	4.0	XRF1					<4
Sr	ppm	2.0	XRF1					260
Th	ppm	4.0	XRF1					24
U	ppm	4.0	XRF1					<4
V	ppm	1.0	IC2					74
W	ppm	10.0	XRF1					<10
Zn	ppm	1.0	IC2	4	17	45	125	55

MUR 01 MUR 01
20-22m 22-29.5m

6831RS 6831RS
29 30

Ag	ppm	0.5	IC2	<0.5	<0.5
As	ppm	1.0	IC2	1	3
Au	ppb	1.0	FA3	<1	<1
Ba	ppm	10.0	XRF1		
Cd	ppm	1.0	IC2		
Ce	ppm	20.0	XRF1		
Co	ppm	2.0	IC2	92	30
Cr	ppm	2.0	IC2	24	30
Cu	ppm	1.0	IC2	120	100
Fe	%	0.01	IC2	2.96	3.32
La	ppm	20.0	XRF1		
Mn	ppm	5.0	IC2	3650	300
Mo	ppm	1.0	IC2	3	<1
Nb	ppm	2.0	XRF1		
Ni	ppm	1.0	IC2	160	105
P	ppm	5.0	IC2		
Pb	ppm	3.0	IC2	3	4
Pd	ppb	1.0	FA3		
Pt	ppb	5.0	FA3		
Rb	ppm	2.0	XRF1		
Sb	ppm	4.0	XRF1		
Se	ppm	2.0	XRF1		
Sn	ppm	4.0	XRF1		
Sr	ppm	2.0	XRF1		
Th	ppm	4.0	XRF1		
U	ppm	4.0	XRF1		
V	ppm	1.0	IC2		
W	ppm	10.0	XRF1		
Zn	ppm	1.0	IC2	190	180

HOLE NO: MUR 02
 TRAVERSE: "Boundary Fence", 3133 mN
 STATION: 4 000 mE
 DATE: 18.11.92
 LOGGED BY: PWH

100 000 SHEET NO: 6731
 LOCATION: 366 520 mE
 6 313 116 mN
 DRILLING METHOD: RC
 TOTAL DEPTH: 89.5 m

Depth From	To	Magn. Susc.	Description
Recent			
0	2.0	3.47	Alluvium & Clay, red-brn, <u>c</u> cse milky rnd & ang qtz, ironstone, calcrete.
2.0	4.0	0.52	Alluvium & Clay, aa.
Cainozoic?			
4.0	6.0	0.54	Clay, yellow-brn, sandy & ferruginous sltst frags.
6.0	8.0	0.02	Clay, aa.
8.0	10.0	0.03	Clay, aa.
10.0	12.0	0.18	Clay, lt grey, yellow, <u>c</u> ang qtz, ferrug & limonitic sltst grains.
12.0	14.0	0.04	Clay, aa.
14.0	16.0	0.04	Clay, lt grey, lt brn, <u>c</u> occ ang qtz.
16.0	18.0	0.03	Clay, aa.
18.0	20.0	0.04	Clay, aa.
20.0	22.0	0.82	Clay, aa.
22.0	24.0	0.04	Clay, aa.
24.0	26.0	0.05	Clay, aa.
Adelaidean			
26.0	28.0	0.62	Weathrd Siltstone & Clay, yellow-brn.
28.0	30.0	0.10	Weathrd Siltstone & Clay, aa.
30.0	32.0	0.44	Weathrd Siltstone & Clay, aa.
32.0	34.0	0.08	Weathrd Siltstone & Clay, limonitic, yellow, <u>c</u> frags of weathrd sltst.
34.0	36.0	0.12	Weathrd Siltstone & Clay, aa.
36.0	38.0	0.06	Weathrd Siltstone & Clay, aa.
38.0	40.0	0.42	Weathrd Siltstone & Clay, aa.
40.0	42.0	0.35	Weathrd Siltstone & Clay, aa.
42.0	44.0	0.11	Weathrd Siltstone, yellow, <u>c</u> occ red ferrug sltst.
44.0	46.0	0.07	Weathrd Siltstone, aa.
46.0	48.0	0.06	Weathrd Siltstone, aa.
48.0	50.0	0.05	Weathrd Siltstone, limonitic, yellow, brn, <u>c</u> minor Mn mineralisation.
50.0	52.0	0.03	Weathrd Siltstone, aa.
52.0	54.0	0.06	Weathrd Siltstone, aa.
54.0	56.0	0.10	Weathrd Siltstone, aa.
56.0	58.0	0.07	Weathrd Siltstone, aa.
58.0	60.0	0.30	Weathrd Siltstone, aa.
60.0	62.0	0.05	Weathrd Siltstone, aa, <u>c</u> occ lt grey, red sandy-silty layers.
62.0	64.0	0.12	Weathrd Siltstone, lt grey, <u>c</u> red, brn, orange mottling.
64.0	66.0	0.08	Weathrd Siltstone, aa, <u>c</u> abundant haematite, ironstone, & qtz frags, & layers.
66.0	68.0	0.08	Weathrd Siltstone, aa.
Adelaidean, Wilyerpa Formation?			
68.0	70.0	0.08	Siltstone, brn, grn, <u>c</u> occ layering & joint planes.
70.0	72.0	0.06	Siltstone, aa.
72.0	74.0	0.07	Siltstone, grn-dk grn, v slightly phyllitic.
74.0	76.0	0.07	Siltstone, aa.
76.0	78.0	0.07	Siltstone, aa.
78.0	80.0	0.07	Siltstone, aa.
80.0	82.0	0.22	Siltstone, aa.
82.0	84.0	0.09	Siltstone, aa.
84.0	86.0	0.08	Siltstone, aa.
86.0	88.0	0.09	Siltstone, lt grey, grey-grn.
88.0	89.5	0.09	Siltstone, aa, <u>c</u> fine dk grains.
89.5			End of Hole

Geochemistry Samples:

RS 31	52-62 m	Routine geochemistry.
RS 32	62-68 m	"
RS 33	68-78 m	"
RS 34	78-84 m	"
RS 35	84-88 m	Extended geochemistry.
RS 36	88-89.5 m	Bottom hole, extended geochemistry.

				MUR 02 52-62m	MUR 02 62-68m	MUR 02 68-78m	MUR 02 78-84m	MUR 02 84-88m	MUR 02 88-89.5m
				6831R 31	6831R 32	6831R 33	6831R 34	6831R 35	6831R 36
Ag	ppm	0.5	IC	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
As	ppm	1.0	IC	4	2	<1	5	<1	<1
Au	ppb	1.0	FA	2	<1	1	<1	<1	1
Ba	ppm	10.0	XRF1					470	490
Cd	ppm	1.0	IC2					<1	<1
Ce	ppm	20.0	XRF1					90	80
Co	ppm	2.0	IC	11	8	13	16	14	13
Cr	ppm	2.0	IC	22	8	19	26	26	22
Cu	ppm	1.0	IC	80	34	34	32	40	38
Fe	%	0.01	IC	4.9	9.3	4.24	3.98	3.86	3.98
La	ppm	20.0	XRF1					50	60
Mn	ppm	5.0	IC	1020	270	105	105	120	120
Mo	ppm	1.0	IC	<1	<1	<1	<1	<1	<1
Nb	ppm	2.0	XRF1					16	14
Ni	ppm	1.0	IC	28	26	26	32	25	24
P	ppm	5.0	IC2					850	830
Pb	ppm	3.0	IC	6	36	9	<3	9	10
Pd	ppb	1.0	FA3					<1	<1
Pt	ppb	5.0	FA3					<5	<5
Rb	ppm	2.0	XRF1					160	160
Sb	ppm	4.0	XRF1					<4	<4
Se	ppm	2.0	XRF1					7	6
Sn	ppm	4.0	XRF1					<4	<4
Sr	ppm	2.0	XRF1					38	36
Th	ppm	4.0	XRF1					16	16
U	ppm	4.0	XRF1					4	<4
V	ppm	1.0	IC2					32	28
W	ppm	10.0	XRF1					<20	<20
Zn	ppm	1.0	IC	52	95	92	78	78	80

HOLE NO: MUR 03
TRAVERSE: "Boundary Fence", 3133 mN
STATION: 4 800 mE
DATE: 18.11.92
LOGGED BY: PWH

100 000 SHEET NO: 6731
LOCATION: 367 279 mE
6 313 066 mN
DRILLING METHOD: RC
TOTAL DEPTH: 53.5 m

Depth From	To	Magn. Susc.	Description
Recent			
0	2.0	1.01	Calcrete, red-brn, silty, ferruginous, sandy.
Tertiary?			
2.0	4.0	0.08	Ferricrete & Silcrete, v hard red ferricrete, & lt grey, yellow, sandy clay.
4.0	6.0	0.11	Ferricrete & Silcrete, aa.
Adelaidean			
6.0	8.0	0.33	Clay & Weathrd Siltstone, dk red, ferrug.
8.0	10.0	0.14	Clay & Weathrd Siltstone, dk red, white, c cse qtz frags.
10.0	12.0	0.43	Clay & Weathrd Siltstone, aa.
12.0	14.0	0.51	Clay & Weathrd Siltstone, aa.
14.0	16.0	0.48	Clay & Weathrd Siltstone, grn, grey, occ limonitic.
16.0	18.0	0.62	Clay & Weathrd Siltstone, aa.
18.0	20.0	0.54	Clay & Weathrd Siltstone, aa.
20.0	22.0	0.39	Clay & Weathrd Siltstone, aa.
22.0	24.0	0.24	Clay & Weathrd Siltstone, grn, grey, laminated, c occ red & yellow staining.
24.0	26.0	0.29	Clay & Weathrd Siltstone, aa.
26.0	28.0	0.29	Clay & Weathrd Siltstone, aa.
28.0	30.0	0.39	Clay & Weathrd Siltstone, aa.
30.0	32.0	0.20	Clay & Weathrd Siltstone, aa.
32.0	34.0	0.26	Clay & Weathrd Siltstone, aa.
34.0	36.0	0.24	Clay & Weathrd Siltstone, aa.
36.0	38.0	0.19	Clay & Weathrd Siltstone, aa.
38.0	40.0	0.19	Weathrd Siltstone & Clay, grn-grey, sl phyllitic, & vein qtz.
40.0	42.0	0.19	Weathrd Siltstone & Clay, aa, c convoluted sand interbeds.
42.0	44.0	0.30	Weathrd Siltstone & Clay, aa.
44.0	46.0	0.22	Weathrd Siltstone & Clay, aa.
46.0	48.0	0.44	Siltstone-Phyllite, grey, grn, sl phyllitic.
48.0	50.0	0.27	Weathrd Siltstone, aa.
50.0	52.0	0.16	Weathrd Siltstone, aa, c thin sand interbeds.
52.0	53.5	0.13	Weathrd Siltstone, aa.
53.5			End of Hole

Geochemistry Samples:

RS 37	0-14 m	Routine geochemistry.
RS 38	14-22 m	Extended geochemistry.
RS 39	22-38 m	Routine geochemistry.
RS 40	38-46 m	"
RS 41	46-50 m	Extended geochemistry.
RS 42	50-53.5	Routine geochemistry.

				MUR 03 0-14m	MUR 03 14-22m	MUR 03 22-38m	MUR 03 38-46m	MUR 03 46-50m	MUR 03 50-52m
				6831R 37	6831R 38	6831R 39	6831R 40	6831R 41	6831R 42
Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
As	ppm	1.0	IC2	<1	<1	<1	<1	<1	<1
Au	ppb	1.0	FA3	<1	<1	<1	1	<1	1
Ba	ppm	10.0	XRF1		330			430	
Cd	ppm	1.0	IC2		<1			<1	
Ce	ppm	20.0	XRF1		160			50	
Co	ppm	2.0	IC2	2	7	7	22	13	12
Cr	ppm	2.0	IC2	75	58	64	64	64	34
Cu	ppm	1.0	IC2	7	22	15	22	22	22
Fe	%	0.01	IC2	10.6	18	14.5	14.3	15.4	6.8
La	ppm	20.0	XRF1		80			20	
Mn	ppm	5.0	IC2	25	40	55	170	125	125
Mo	ppm	1.0	IC2	<1	<1	<1	<1	<1	<1
Nb	ppm	2.0	XRF1		8			9	
Ni	ppm	1.0	IC2	2	9	13	24	24	24
P	ppm	5.0	IC2		720			840	
Pb	ppm	3.0	IC2	4	6	5	8	7	9
Pd	ppb	1.0	FA3		<1			<1	
Pt	ppb	5.0	FA3		<5			<5	
Rb	ppm	2.0	XRF1		44			74	
Sb	ppm	4.0	XRF1		<4			<4	
Se	ppm	2.0	XRF1		<2			<2	
Sn	ppm	4.0	XRF1		<4			4	
Sr	ppm	2.0	XRF1		82			32	
Th	ppm	4.0	XRF1		8			12	
U	ppm	4.0	XRF1		<4			6	
V	ppm	1.0	IC2		76			64	
W	ppm	10.0	XRF1		<20			<20	
Zn	ppm	1.0	IC2	11	38	54	96	90	62

HOLE NO: MUR 04
TRAVERSE: "Boundary Fence", 3133 mN
STATION: 5 500 mE
DATE: 18.11.92
LOGGED BY: PWH

100 000 SHEET NO: 6731
LOCATION: 367 973 mE
6 313 024 mN
DRILLING METHOD: RC
TOTAL DEPTH: 40.0 m

Depth		Magn.	Description
From	To	Susc.	
Recent			
0	2.0	0.95	Alluvium & Quartz, red-brn silt, cse white vein qtz & ironstone.
2.0	4.0	0.40	Gravel & Silt, aa.
Adelaidean?, Pualco Tillite?			
4.0	6.0	0.06	Clay & Weathrd Siltstone, yellow-brn, pale red
6.0	8.0	0.03	Clay & Weathrd Siltstone, aa.
8.0	10.0	0.04	Weathrd Siltstone-Sandstone, yellow-brn, c f sand.
10.0	12.0	0.03	Weathrd Siltstone-Sandstone, aa.
12.0	14.0	0.06	Weathrd Siltstone, yellow-brn.
14.0	16.0	0.04	Weathrd Tillite, yellow-brn, f grained matrix c med-cse slst grains.
16.0	18.0	0.04	Weathrd Tillite & Siltstone, aa, silty.
18.0	20.0	0.06	Weathrd Tillite & Siltstone, aa.
20.0	22.0	0.05	Weathrd Tillite, yellow-brn, massive, interbedded c small qtzite pebbles.
22.0	24.0	0.06	Weathrd Tillite, aa.
24.0	26.0	0.06	Weathrd Tillite, aa.
26.0	28.0	0.05	Weathrd Tillite, aa.
28.0	30.0	0.04	Weathrd Tillite, aa.
30.0	32.0	0.05	Weathrd Tillite, aa.
32.0	34.0	0.06	Weathrd Tillite, aa.
34.0	36.0	0.06	Weathrd Tillite, aa.
36.0	38.0	0.05	Tillite, aa, c sl layering.
38.0	40.0	0.10	Tillite, grey, sl layering, v poorly sorted sand & qtzite grains & frags.
40.0			End of Hole

Geochemistry Samples:
RS 43 30-38 m Routine geochemistry.
RS 44 38-40 m "

				MUR 04 30-38m	MUR 04 38-40m
				6831RS 43	6831RS 44
Ag	ppm	0.5	IC2	<0.5	<0.5
As	ppm	1.0	IC2	5	5
Au	ppb	1.0	FA3	1	<1
Ba	ppm	10.0	XRF1		
Cd	ppm	1.0	IC2		
Ce	ppm	20.0	XRF1		
Co	ppm	2.0	IC2	19	17
Cr	ppm	2.0	IC2	20	13
Cu	ppm	1.0	IC2	28	22
Fe	%	0.01	IC2	2.8	3.26
La	ppm	20.0	XRF1		
Mn	ppm	5.0	IC2	540	830
Mo	ppm	1.0	IC2	<1	<1
Nb	ppm	2.0	XRF1		
Ni	ppm	1.0	IC2	32	22
P	ppm	5.0	IC2		
Pb	ppm	3.0	IC2	<3	<3
Pd	ppb	1.0	FA3		
Pt	ppb	5.0	FA3		
Rb	ppm	2.0	XRF1		
Sb	ppm	4.0	XRF1		
Se	ppm	2.0	XRF1		
Sn	ppm	4.0	XRF1		
Sr	ppm	2.0	XRF1		
Th	ppm	4.0	XRF1		
U	ppm	4.0	XRF1		
V	ppm	1.0	IC2		
W	ppm	10.0	XRF1		
Zn	ppm	1.0	IC2	58	28

HOLE NO:

MUR 5

TRAVERSE:

"Hog Back - Braeside", 3021 mN

STATION:

27 300 mE

DATE:

09.12.92

LOGGED BY:

WSM

COMMENTS:

Sandy brown calcareous soil with minor calcrete float; hole is 30m south of road.

100 000 SHEET NO: 6831

LOCATION: 372 086 mE

6 301 251 mN

DRILLING METHOD: RC

TOTAL DEPTH: 17.5m

Magnetic Susc.		Geological Log		
Interval	Value	Depth		Description

Pooraka Formation				
0-2	1.71	0	3.0	Sandy soil, v calc, brn, <u>c</u> minor calcrete pebbles.
2-4	1.02			
Olney? Formation				
4-6	0.33	3.0	5.5	Sand vf-m, v clayey, sl calc, pl brn, loose.
6-8	0.11	5.5	8.0	Sand, aa, arkosic?, <u>c</u> minor transl lt red m grains, & trace of vf blk mins.
8-10	0.11	8.0	9.0	Sand, vf-m, v clayey, white.
10-12	0.07	9.0	11.0	Sand, aa, pl khaki.
		11.0	11.6	Sand, aa, lt yellow-brn, lt orange Fe-ind & Fe stained in part; <u>c</u> some silty clay, lt brn <u>c</u> f brick-red mottling & banding.
Marine equivalent of Olney? Formation				
12-14	0.04	11.6	13.6	Sandy 1st f-m, lt orange-brn, <u>c</u> minor blk Mn flecks, & abund f-m shell? frags, hard.
Adelaidean				
		13.6	14.5	Sltst, fiss, lt to dk grey poorly banded, or lt yellow-brn bleached, sl weathrd.
14-16	0.03	14.5	16.0	Sltst, aa, <u>c</u> some blk Mn? stained zones, & foliated, & thin orange stained & ind streaks or lamn? parallel to foliation.
16-17.5	0.06	16.0	17.0	Sltst, f lamn, dk brn to blk Fe stained, hard.
		17.0	17.5	Sltst, grey to dk grey, fresh, or sl weathrd lt grey bleached, <u>c</u> discount & diffuse 1-1.5mm lamn of heavy min? or mica? (vf shiny red-brn mins), & dissem vf blk mins, foliated & sl fissile; <u>c</u> minor white to dk grey (& blk Mn?) veining, & minor whitish diffuse sl calcitic fracturing.
		17.5		End of hole
Geochemistry Samples:				
RS 45	14-16m	Routine geochemistry		
RS 46	16-17.5m	Extended geochemistry.		

MUR 05 MUR 05
14-16m 16-17.5m

6831RS 6831RS
45 46

Ag	ppm	0.5	IC2	<0.5	<0.5
As	ppm	1.0	IC2	28	14
Au	ppb	1.0	FA3	1	2
Ba	ppm	10.0	XRF1		710
Cd	ppm	1.0	IC2		1
Ce	ppm	20.0	XRF1		60
Co	ppm	2.0	IC2	22	24
Cr	ppm	2.0	IC2	18	13
Cu	ppm	1.0	IC2	52	45
Fe	%	0.01	IC2	2.28	3.76
La	ppm	20.0	XRF1		40
Mn	ppm	5.0	IC2	490	780
Mo	ppm	1.0	IC2	6	<1
Nb	ppm	2.0	XRF1		12
Ni	ppm	1.0	IC2	54	55
P	ppm	5.0	IC2		370
Pb	ppm	3.0	IC2	26	22
Pd	ppb	1.0	FA3		<1
Pt	ppb	5.0	FA3		<5
Rb	ppm	2.0	XRF1		140
Sb	ppm	4.0	XRF1		<4
Se	ppm	2.0	XRF1		4
Sn	ppm	4.0	XRF1		4
Sr	ppm	2.0	XRF1		125
Th	ppm	4.0	XRF1		16
U	ppm	4.0	XRF1		<4
V	ppm	1.0	IC2		16
W	ppm	10.0	XRF1		<10
Zn	ppm	1.0	IC2	82	92

HOLE NO: MUR 6
 TRAVERSE: "Hog Back - Braeside", 3021 mN
 STATION: 28 800 mE
 DATE: 09.12.92
 LOGGED BY: WSM
 COMMENTS: Sandy brown soil; hole is 30m north of road.

100 000 SHEET NO: 6831
 LOCATION: 373 450 mE
 6 300 925 mN
 DRILLING METHOD: RC
 TOTAL DEPTH: 31.0m

Magnetic Susc.		Geological Log	
Interval	Value	Depth	Description
Pooraka Formation			
0-2	0.90	0 1.0	Sandy soil, brn.
2-4	0.53	1.0 3.0	Calcrete, vf, lt brn to lt red-brn, sandy & gritty, & some red-brn clay-silt.
		3.0 4.0	Clay-silt, red-brn, sl calc, compact.
Olney? Formation			
4-6	0.12	4.0 5.0	Clay, mod silty & sandy vf, f mottled lt grey & lt yellow.
6-8	0.06	5.0 7.0	Clay-sand vf, compact, f banded/lamn pl grey, lt orange, pl pink. <i>70 Q13</i>
8-10	0.07	7.0 11.0	Sand vf-f, mod clayey, lt orange-brn, soft.
10-12	0.04	11.0 12.0	Sand vf-m, v clayey, pl grey, poorly sorted.
12-14	0.05	12.0 14.0	Sand, aa, coarsens slowly to m-c, mod clayey, pl brn.
		14.0 14.5	Sand vf, v clayey, pl grey & lt orange, compact.
14-16	0.05	14.5 16.0	Sand vf, mod clayey, lt orange-brn, & some clay-sand, aa. <i>Top 3</i>
Marine equivalent of Olney? Formation			
16-18	0.03	16.0 17.0	Sand aa, sl calc, <u>c</u> some sandy lst bands.
		17.0 18.5	Sandy lst f-m, orange-brn, hard, <u>c</u> some white shell? frags. <i>Tgw.</i>
18-20	0.04	18.5 19.5	Sandy lst, aa, friable.
20-22	0.03	19.5 21.0	Sandy lst, aa, hard, lt grey-brn.
22-24	0.06	21.0 23.0	Sandy lst, aa, lt orange-brn.
Olney? Formation			
24-26	0.05	23.0 27.5	Sand vf-f, mod clayey, calc, lt orange, loose.
26-28	0.07		
28-30	0.12	27.5 29.8	Clay, sl silty, compact, off-white, lt brn or lt orange-brn, gritty in part.
Adelaidean			
		29.8 30.0	Sltst, sl weathrd, lt blue-grey, & red-brn stained.
30-31	0.37	30.0 31.0	Sltst, calc and orange-brn to reddish brn, & interbedde non-calc or sl calc grey to dk grey siltst, banded & lamn, dip 70°, hard & silicf?, <u>c</u> some blk stained & dendritic lamn, hard, & f blk stained joints/fractures.
		31.0	End of hole.
Geochemistry Samples:			
RS 47	30-31m	Extended geochemistry.	

MUR 06
30-31m

6831RS
47

Ag	ppm	0.5	IC2	1.5
As	ppm	1.0	IC2	17
Au	ppb	1.0	FA3	<1
Ba	ppm	10.0	XRF1	310
Cd	ppm	1.0	IC2	<1
Ce	ppm	20.0	XRF1	60
Co	ppm	2.0	IC2	68
Cr	ppm	2.0	IC2	16
Cu	ppm	1.0	IC2	50
Fe	%	0.01	IC2	2.06
La	ppm	20.0	XRF1	30
Mn	ppm	5.0	IC2	1600
Mo	ppm	1.0	IC2	1
Nb	ppm	2.0	XRF1	12
Ni	ppm	1.0	IC2	19
P	ppm	5.0	IC2	420
Pb	ppm	3.0	IC2	9
Pd	ppb	1.0	FA3	<1
Pt	ppb	5.0	FA3	<5
Rb	ppm	2.0	XRF1	92
Sb	ppm	4.0	XRF1	<4
Se	ppm	2.0	XRF1	<2
Sn	ppm	4.0	XRF1	4
Sr	ppm	2.0	XRF1	94
Th	ppm	4.0	XRF1	16
U	ppm	4.0	XRF1	<4
V	ppm	1.0	IC2	25
W	ppm	10.0	XRF1	90
Zn	ppm	1.0	IC2	26

HOLE NO:
TRAVERSE:
STATION:
DATE:
LOGGED BY:
COMMENTS:

MUR 7
"Hog Back - Braeside", 3021 mN
29 050 mE
09.12.92
WSM
Sandy brown soil with abundant calcrete float; hole is 10m north of road.

100 000 SHEET NO: 6831
LOCATION: 373 694 mE
6 300 854 mN
DRILLING METHOD: RC
TOTAL DEPTH: 31.0m

Magnetic Susc.		Geological Log		
Interval	Value	Depth	Description	

Pooraka Formation				
0-2	0.82	0	1.0	Calcrete, pl brn & red-brn mottled, <u>c</u> blk Mn dendritic staining.
		1.0	<u>2.5</u>	Silty clay & clayey silt, calc, red-brn, compact.
2-4	0.62	2.5	6.0	Clay, sl silty, red-brn, compact.
4-6	0.29			
Olney? Formation				
6-8	0.14	6.0	9.0	Clay, mod silty & sandy vf, red-brn.
8-10	0.23	9.0	10.0	Clay, aa, mottled lt khaki.
10-12	0.05	10.0	<u>12.0</u>	Clay, aa, pl grey, <u>c</u> some lt pink mottling, & ind in part.
12-14	0.09	12.0	14.0	Sand f, mod clayey, lt mauve, loose & well sorted, & trace of f blk mins.
14-16	0.06	14.0	15.0	Sand vf-f, aa, pl grey, mod sorted.
		15.0	16.0	Sand, aa, pl khaki.
16-18	0.15	16.0	18.0	Silt/sand vf, mod-v clayey, pl grey-brn, soft.
Marine equivalent of Olney? Formation				
18-20	0.03	18.0	22.5	Sandy lst vf, lt orange & off-white faintly mottled, hard, <u>c</u> some orange & brn
20-22	0.03			Fe stained tubules? or shell? fragments, 1-1.5mm by 3-5mm, & <u>c</u> some lt yellow-brn silty & sandy clay interbeds.
22-24	0.05	22.5	24.0	Clay, silty, lt khaki-grey, compact; & sand f-c, clayey, lt brn, rounded, loose.
24-26	0.10	24.0	26.5	Clay-silt-sand vf, lt orange, lt orange, soft, <u>c</u> minor sandy lst interbeds, aa.
26-28	0.06	26.5	29.6	Sandy lst f-m, off-white & lt orange or lt brn f mottled, soft & friable.
28-30	0.06			
30-30.5	0.30	29.6	30.3	Clay, silty & sandy, compact, lt grey <u>c</u> orange mottling & banding.
Adelaidean				
30.5-31	0.41	30.3	31.0	Qtzite/sst f-m, lt grey, well so & rounded, no layering, <u>c</u> abund f dissem darker rounded qtz grains, & minor blk mins, v hard; <u>c</u> abund white vein qtz at base.
		31.0		End of hole.

Geochemistry Samples:
RS 48 30.5-31m Extended geochemistry.
(NB sample is contaminated by fragments of metal from the drill bit)

MUR 07
30.5-31m

6831RS
48

Ag	ppm	0.5	IC2	88
As	ppm	1.0	IC2	38
Au	ppb	1.0	FA3	3
Ba	ppm	10.0	XRF1	390
Cd	ppm	1.0	IC2	25
Ce	ppm	20.0	XRF1	40
Co	ppm	2.0	IC2	1850
Cr	ppm	2.0	IC2	22
Cu	ppm	1.0	IC2	42
Fe	%	0.01	IC2	2.96
La	ppm	20.0	XRF1	30
Mn	ppm	5.0	IC2	570
Mo	ppm	1.0	IC2	4
Nb	ppm	2.0	XRF1	5
Ni	ppm	1.0	IC2	22
P	ppm	5.0	IC2	195
Pb	ppm	3.0	IC2	11
Pd	ppb	1.0	FA3	<1
Pt	ppb	5.0	FA3	<5
Rb	ppm	2.0	XRF1	58
Sb	ppm	4.0	XRF1	<4
Se	ppm	2.0	XRF1	<2
Sn	ppm	4.0	XRF1	<4
Sr	ppm	2.0	XRF1	130
Th	ppm	4.0	XRF1	6
U	ppm	4.0	XRF1	<4
V	ppm	1.0	IC2	35
W	ppm	10.0	XRF1	2750
Zn	ppm	1.0	IC2	54

HOLE NO: MUR 8
 TRAVERSE: "Hog Back - Braeside", 3021 mN
 STATION: 25 600 mE
 DATE: 10.12.92
 LOGGED BY: WSM
 COMMENTS: Light red-brown sandy soil; hole is 30m south of road.

100 000 SHEET NO: 6831
 LOCATION: 370 433 mE
 6 301 662 mN
 DRILLING METHOD: RC
 TOTAL DEPTH: 44.0m

Magnetic Susc.		Geological Log	
Interval	Value	Depth	Description
Pooraka Formation			
0-2	2.01	0 2.0	Sandy soil, lt red-brn, c abund red-purple calcrete, qtz, sltst, & ironstone pebbles <10mm.
2-4	0.78	2.0 3.0	Sandy soil, aa, & qtz, sltst, & ironstone gravel, <50mm.
Olney? Formation			
		3.0 4.0	Clay, sl silty, compact, lt khaki, c minor lt orange f mottling.
4-6	0.08	4.0 6.0	Clay, mod sandy vf, compact, mottled pl blue-grey & lt brick-red.
6-8	0.05	6.0 9.0	Sand vf, v clayey, compact, brn.
8-10	0.04	9.0 10.0	Clay-sand vf, compact, pl khaki.
10-12	0.05	10.0 12.0	Sand vf-f, v clayey, soft, pl khaki, c trace of vf blk mins.
12-14	0.06	12.0 13.0	Sand, aa, lt yellow-brn.
Marine equivalent of Olney? Formation			
		13.0 14.0	Sandy lst, f-m, hard, lt orange, c some f-m shell? frags.
14-16	0.03	14.0 17.0	Sandy lst, aa, pl yellow-brn, friable c minor orange-brn sandy clay at 16.3m.
16-18	0.03		
		17.0 17.5	Sandy lst, friable, some zones include 50% rounded f-c poorly sorted qtz within vf-f lst.
18-20	0.03	17.5 20.0	Sandy lst, vf-f, pl orange-brn, friable.
Adelaidean			
20-22	0.08	20.0 24.0	Clay, silty, lt khaki, soft, shiny & micaceous.
22-24	0.09		
24-26	0.08	24.0 26.0	Clay, aa, c sl weathrd sltst, grey-brn, fiss, v micaceous.
26-28	0.06	26.0 30.0	Phyllite, silvery grey to grey-brn, fiss, sl-mod weathrd.
28-30	0.07		
30-32	0.10	30.0 32.0	Phyllite, aa, fresh to sl weathrd, silvery blue-grey to grey-brn.
32-34	0.08	32.0 39.0	Phyllite, aa, sl to mod weathrd.
34-36	0.08		
36-38	0.07		
38-40	0.12		
40-42	0.13	39.0 44.0	Phyllite, aa, sl weathrd, lt silvery grey, c some orange stained sl weathrd.
42-44	0.13		
		44.0	End of hole.

Geochemistry Samples:

RS 49	20-30m	Routine geochemistry
RS 50	30-38m	"
RS 51	38-42m	"
RS 52	42-44m	Extended geochemistry.

				MUR 08 20-30m	MUR 08 30-38m	MUR 08 38-42m	MUR 08 42-44m
				6831RS 49	6831RS 50	6831RS 51	6831RS 52
Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5	<0.5
As	ppm	1.0	IC2	13	5	10	3
Au	ppb	1.0	FA3	<1	<1	<1	<1
Ba	ppm	10.0	XRF1				580
Cd	ppm	1.0	IC2				<1
Ce	ppm	20.0	XRF1				80
Co	ppm	2.0	IC2	30	28	28	22
Cr	ppm	2.0	IC2	32	30	32	28
Cu	ppm	1.0	IC2	52	40	44	40
Fe	%	0.01	IC2	4.8	5	5.8	5.05
La	ppm	20.0	XRF1				40
Mn	ppm	5.0	IC2	230	200	470	300
Mo	ppm	1.0	IC2	<1	<1	<1	<1
Nb	ppm	2.0	XRF1				17
Ni	ppm	1.0	IC2	60	58	68	44
P	ppm	5.0	IC2				750
Pb	ppm	3.0	IC2	<3	5	<3	<3
Pd	ppb	1.0	FA3				<1
Pt	ppb	5.0	FA3				<5
Rb	ppm	2.0	XRF1				175
Sb	ppm	4.0	XRF1				<4
Se	ppm	2.0	XRF1				<2
Sn	ppm	4.0	XRF1				4
Sr	ppm	2.0	XRF1				70
Th	ppm	4.0	XRF1				16
U	ppm	4.0	XRF1				4
V	ppm	1.0	IC2				26
W	ppm	10.0	XRF1				<10
Zn	ppm	1.0	IC2	150	110	94	74

HOLE NO:

MUR 9

TRAVERSE:

"Hog Back - Braeside", 3021 mN

STATION:

28 000 mE

DATE:

10-11.12.92

LOGGED BY:

WSM

COMMENTS:

Light red-brown sandy soil; hole is 30m south of road.

100 000 SHEET NO: 6831

LOCATION: 372 715 mE

6 301 054 mN

DRILLING METHOD: RC

TOTAL DEPTH: 29.5m

Magnetic Susc.		Geological Log		
Interval	Value	Depth		Description

Pooraka Formation				
0-2	1.97	0	3.0	Sandy soil, mod clayey, lt red-brn.
2-4	1.25	3.0	4.0	Sandy soil, aa, sl calc ind in part, <u>c</u> minor qtz, ironstone & sltst gravel <10mm at 32.m.
Olney? Formation				
4-6	0.11	4.0	5.0	Clay, v sandy vf, compact, lt grey & lt orange mottled.
		5.0	5.5	clay, aa, lt khaki, brn & lt yellow-brn mottled.
		5.5	6.0	Clay-sand vf, lt yellow-brn to pl khaki.
6-8	0.07	6.0	7.0	Sand vf, v clayey & calc, pl brn, <u>c</u> some red mottling.
8-10	0.05	7.0	10.0	Sand f, mod clayey, poorly sorted, pl brn, loose.
10-12	0.05	10.0	12.0	Sand f-m, aa.
		12.0	12.8	Sand f-m, pl grey & lt orange-brn, & some semi-ind sst.
Marine equivalent of Olney? Formation.				
12-14	0.02	12.8	13.5	Sandy lst f-m, lt yellow-brn to lt orange, hard <u>c</u> some friable bands, <u>c</u> some f blk Mn dendritic staining.
		13.5	14.0	Sandy lst, aa, pl grey.
14.0	14.5			Sandy lst, aa, orange-brn.
14-16	0.05	14.5	17.0	Sandy lst vf-f, <u>c</u> minor f-m white shell? frags.
16-18	0.05	17.0	18.0	Clay, silty, compact, lt orange, <u>c</u> some lst, aa.
18-20	0.02	18.0	19.0	Sandy lst vf-f, lt orange-brn, hard.
		19.0	20.3	Sandy lst, lt yellow-brn, friable.
Adelaidean				
20-22	0.08	20.3	24.0	Sltst, blk, v fiss, <u>c</u> lt grey & orange stained partings.
22-24	0.06			
24-26	0.08	24.0	26.5	Sltst, v fiss, dk silvery grey, <u>c</u> micaceous partings; purple stained partings at 25.5 & 26.3m.
		26.5	27.0	Sltst, aa, <u>c</u> some red garnet? or rutile? rich lamn 1-4mm.
26-28	0.14	27.0	28.0	Sltst, aa, lt grey-grn.
28-29.5	0.05	28.0	29.5	Sltst, aa, blk, <u>c</u> micaceous & reddish purple stained partings, aa, & minor garnet-rich lamn, aa, fresh.
		29.5		End of hole.
Geochemistry Samples:				
RS 53	20-26m	Routine geochemistry		
RS 54	26-28m	"		
RS 55	28-29.5m	Extended geochemistry.		

				MUR 09 20-26m	MUR 09 26-28m	MUR 09 28-29.5m
				6831RS 53	6831RS 54	6831RS 55
Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5
As	ppm	1.0	IC2	8	6	5
Au	ppb	1.0	FA3	1	1	<1
Ba	ppm	10.0	XRF1			630
Cd	ppm	1.0	IC2			<1
Ce	ppm	20.0	XRF1			60
Co	ppm	2.0	IC2	14	34	8
Cr	ppm	2.0	IC2	35	32	28
Cu	ppm	1.0	IC2	38	32	25
Fe	%	0.01	IC2	4.26	4	3.48
La	ppm	20.0	XRF1			40
Mn	ppm	5.0	IC2	450	320	150
Mo	ppm	1.0	IC2	<1	<1	<1
Nb	ppm	2.0	XRF1			15
Ni	ppm	1.0	IC2	42	38	17
P	ppm	5.0	IC2			430
Pb	ppm	3.0	IC2	22	19	15
Pd	ppb	1.0	FA3			<1
Pt	ppb	5.0	FA3			<5
Rb	ppm	2.0	XRF1			155
Sb	ppm	4.0	XRF1			<4
Se	ppm	2.0	XRF1			3
Sn	ppm	4.0	XRF1			4
Sr	ppm	2.0	XRF1			160
Th	ppm	4.0	XRF1			15
U	ppm	4.0	XRF1			<4
V	ppm	1.0	IC2			22
W	ppm	10.0	XRF1			25
Zn	ppm	1.0	IC2	80	80	52

HOLE NO: MUR 10
 TRAVERSE: "Quondong", 3111 mN
 STATION: 9 550 mE
 DATE: 11-12.12.92
 LOGGED BY: WSM
 COMMENTS: Red-brown dune sand; hole is 15m north of fence.

100 000 SHEET NO: 6831
 LOCATION: 388 125 mE
 6 310 696 mN
 DRILLING METHOD: RC
 TOTAL DEPTH: 98.5m

Magnetic Susc. Interval	Value	Geological Log Depth		Description
Pooraka Formation				
0-2	0.19	0	2.0	Sand vf, clayey & calc, dk brn.
		2.0	2.5	Sand vf, clayey, banded dk brn.
2-4	0.10	2.5	4.0	Sand vf, sl silty/sandy, banded & mottled lt grey, lt red, pl fawn & lt yellow.
4-6	0.11	4.0	7.0	Sand, aa, lt grey, c minor mottling.
6-8	0.08			
Olney? Formation?				
8-10	0.04	7.0	9.0	Sand f, mod clayey, compact, lt grey, c orange clayey Fe stained lamn or fractures.
10-12	0.07	9.0	11.0	Sand vf-f, mod-v clayey, lt orange-brn, loose.
		11.0	12.0	Sand, aa, lt yellow-brn.
12-14	0.04	12.0	14.0	Sand, aa, pl grey.
14-16	0.06	14.0	15.0	Sand f, mod clayey, lt yellow-brn, loose.
16-18	0.04	15.0	18.0	Sand, aa, lt grey.
18-20	0.07	18.0	20.0	Clay, lt grey-brn, semi-plastic, c some sand interbeds, aa.
20-22	0.02	20.0	21.0	Clay, v sandy vf, lt mauve-brn, soft.
		21.0	22.0	Sand vf-c, rounded clear qtz, c red stained clay lamn & interbeds.
22-24	0.06	22.0	22.5	Sand, aa, lt yellow-brn.
		22.5	23.0	Clay, v sandy vf-f, lt orange.
		23.0	23.5	Clay, aa, pl khaki.
24-26	0.05	23.5	26.0	Sand vf-f, lt orange, loose, & clay, aa, off-white c brt orange & brn Fe staining & ind.
26-28	0.05	26.0	27.0	Sand f-c, sl clayey, orange.
28-30	0.03	27.0	29.0	Sand vf-f, sl-mod clayey, pl brn to lt orange, ind in part.
Marine equivalent of Olney? Formation				
		29.0	29.5	Sandy lst f, lt brn, friable, c rare blk Mn dendritic flecks.
30-32	0.03	29.5	38.0	Sandy lst f, lt brn, friable, c trace of blk mins.
32-34	0.03			
34-36	0.02			
36-38	0.03			
38-40	0.02	38.0	41.0	Sandy lst, aa, sand grains are probably mostly qtz, well rounded, mod sorted, in calc matrix.
40-42	0.02			
42-44	0.05	41.0	43.0	Sandy lst, aa, soft friable & clayey.
44-46	0.05	43.0	45.0	Clay, sandy & v calc, mottled & lamn pl brn & lt yellow.
		45.0	45.3	Sandy lst vf, lt brn to lt orange-brn, hard, similar to 38-41m.
		45.3	45.5	Clay, sandy & calc, lt yellow-brn.
		45.5	46.0	Clay, sl silty, compact, lt grey-brn & lt orange mottled.
46-48	0.11	46.0	48.0	Clay, clean to sl silty, dk bluish grey.
48-50	0.06	48.0	49.0	Clay, aa, lt grey, ind in part.
		49.0	50.0	Clay, aa, dk grey, semi-plastic.
50-52	0.10	50.0	52.0	Clay, aa, lt grey, faintly dendritic, c silicf zone at 51.5m.
52-54	0.07	52.0	54.0	Clay, aa, dk grey.
54-56	0.07	54.0	57.0	Clay, aa, grey.
56-58	0.09	57.0	58.0	Clay, grey, calc, c white f-m shell frags.
58-60	0.07	58.0	68.0	Clay, dk grey, clean, semi-plastic, c trace of white f-m shell frags from 59.5-60m, & hard silicf lt grey band at 66.5m.
60-62	na			
62-64	0.07			
64-66	0.07			
66-68	0.22			
68-70	0.09	68.0	73.0	Clay, aa, grey.
70-72	0.06			
72-74	0.08			
74-76	0.08	73.0	81.0	Clay, aa, grey to dk grey.
76-78	0.08			
78-80	0.09			

80-82	0.07	81.0	84.0	Clay, mod silty, dk grey, semi-plastic, <u>c</u> rare white f shell frags & intact shells
82-84	0.09			<8mm.
84-86	0.09	84.0	86.0	Clay, sandy, lt grey, <u>c</u> increasing shell frags & spines etc, & abund black f-m mins (possibly Mn? nodules, or carbon frags CHECK).
86-88	0.12	86.0	88.0	Clay, aa, <u>c</u> 20% blk mins, aa.
88-90	0.08	88.0	90.0	Clay, aa, <u>c</u> abund shell frags, & lt grey calc ind at 88.5m.
90-92	0.09	90.0	92.0	Clay, sandy vf-c, soft, lt khaki-brn, <u>c</u> shell frags, aa, & minor blk mins, aa; sand is poorly sorted rounded qtz, Fe stained qtzite & sst etc.
		92.0	92.5	Sandy lst, lt grey, poorly sorted.
92-94	0.06	92.5	93.5	Clay, lt khaki-grey, sandy, aa, <u>c</u> shell frags, aa, & abund m-vc staurolite? sand, semi-transl, lt orange-brn, sub-euhedral, poorly sorted.
Adelaidean				
94-96	0.10	93.5	96.0	Sltst, pink, fiss, soft, weathrd.
96-98	0.07	96.0	98.0	Sltst, aa, lt brn to red-brn, <u>c</u> rare thin 0.5mm lamn, mod weathrd.
98-98.5	0.09	98.0	98.5	Sltst, aa, v fiss, sl weathrd to fresh, <u>c</u> abund vein qtz at 98.2m, white, irreg, fractured & ropey.
		98.5		End of Hole.

Geochemistry Samples:

RS 56	96-98m	Routine geochemistry
RS 57	98-98.5m	Extended geochemistry.

MUR 10 MUR 10
96-98m 98-98.5m

6831RS 6831RS
56 57

Ag	ppm	0.5	IC2	<0.5	<0.5
As	ppm	1.0	IC2	25	14
Au	ppb	1.0	FA3	1	<1
Ba	ppm	10.0	XRF1		370
Cd	ppm	1.0	IC2		<1
Ce	ppm	20.0	XRF1		80
Co	ppm	2.0	IC2	6	7
Cr	ppm	2.0	IC2	36	22
Cu	ppm	1.0	IC2	18	19
Fe	%	0.01	IC2	4.14	3.2
La	ppm	20.0	XRF1		50
Mn	ppm	5.0	IC2	35	100
Mo	ppm	1.0	IC2	<1	<1
Nb	ppm	2.0	XRF1		15
Ni	ppm	1.0	IC2	25	24
P	ppm	5.0	IC2		310
Pb	ppm	3.0	IC2	14	19
Pd	ppb	1.0	FA3		<1
Pt	ppb	5.0	FA3		<5
Rb	ppm	2.0	XRF1		150
Sb	ppm	4.0	XRF1		5
Se	ppm	2.0	XRF1		<2
Sn	ppm	4.0	XRF1		<4
Sr	ppm	2.0	XRF1		30
Th	ppm	4.0	XRF1		16
U	ppm	4.0	XRF1		<4
V	ppm	1.0	IC2		25
W	ppm	10.0	XRF1		10
Zn	ppm	1.0	IC2	50	40

HOLE NO: MUR 11
TRAVERSE: 3133 mN
STATION: 16 200 mE
DATE: 12.12.92
LOGGED BY: WSM
COMMENTS: Brown sandy soil & calcrete; hole is 35m south of fence.

100 000 SHEET NO: 6831
LOCATION: 378 164 mE
6 312 260 mN
DRILLING METHOD: RC & hammer
TOTAL DEPTH: 7.0m

Magnetic Susc.		Geological Log	
Interval	Value	Depth	Description
Quaternary			
		0 0.5	Calcrete, off-white, massive.
0-2	0.28	0.5 2.0	Calcrete, & lt brn sandy soil, calc.
Marine Tertiary???			
2-4	0.68	2.0 2.6	Sst f-m, calc, well sorted, pl brn, c abund blk dendritic flecks.
		2.6 3.6	Clay-sand vf, brn.
Adelaidean?			
		3.6 3.7	Silicified rock, vf grained, grn-grey (c one enigmatic round void 6mm c lt orange stained 1mm halo).
4-6	4.33	3.7 7.0	Silicified rock, aa, dk grn, c dissem f blk mins, joint surfaces are dk brn & blk
6-7	5.68		mottled; rock appears to comprise interlocking vf silicate mins, ie recrystallised sediment, or vf
			grained intrusive.
		7.0	End of hole.

Geochemistry Samples:

RS 58 4-6m Routine geochemistry
RS 59 6-7m Extended geochemistry

				MUR 11 4-6m	MUR 11 6-7m
				6831RS 58	6831RS 59
Ag	ppm	0.5	IC2	<0.5	<0.5
As	ppm	1.0	IC2	8	3
Au	ppb	1.0	FA3	<1	2
Ba	ppm	10.0	XRF1		490
Cd	ppm	1.0	IC2		<1
Ce	ppm	20.0	XRF1		70
Co	ppm	2.0	IC2	12	11
Cr	ppm	2.0	IC2	25	22
Cu	ppm	1.0	IC2	5	3
Fe	%	0.01	IC2	3.26	3.34
La	ppm	20.0	XRF1		50
Mn	ppm	5.0	IC2	270	250
Mo	ppm	1.0	IC2	<1	<1
Nb	ppm	2.0	XRF1		16
Ni	ppm	1.0	IC2	24	24
P	ppm	5.0	IC2		400
Pb	ppm	3.0	IC2	26	13
Pd	ppb	1.0	FA3		<1
Pt	ppb	5.0	FA3		<5
Rb	ppm	2.0	XRF1		185
Sb	ppm	4.0	XRF1		<4
Se	ppm	2.0	XRF1		<2
Sn	ppm	4.0	XRF1		4
Sr	ppm	2.0	XRF1		120
Th	ppm	4.0	XRF1		18
U	ppm	4.0	XRF1		<4
V	ppm	1.0	IC2		24
W	ppm	10.0	XRF1		10
Zn	ppm	1.0	IC2	68	60

HOLE NO: MUR 12
TRAVERSE: 3133 mN
STATION: 16 000 mE
DATE: 13.12.92
LOGGED BY: WSM

100 000 SHEET NO: 6831
LOCATION: 377 944 mE
6 312 240 mN
DRILLING METHOD: RC & hammer
TOTAL DEPTH: 10.0m

COMMENTS: Brown sandy soil & calcrete pebbles; hole is 80m south of fence, at southeast corner of dam.

Magnetic Susc.		Geological Log		
Interval	Value	Depth		Description

Quaternary				
0-2	0.14	0	1.0	Sandy soil, brn.
Marine Tertiary ???				
2-4	0.25	1.0	3.0	Sst f-m, calc, well sorted, pl grey-brn, <u>c</u> abund blk dendritic flecks.
		3.0	4.0	Sst f, calc, pl brn, <u>c</u> trace of blk mins, hard.
4-6	0.03	4.0	5.5	Sst f, calc, aa; & irreg discordant zones of cemented calc breccia; & hard lt orange vf grained calc rock, <u>c</u> irreg Mn staining, appears to be nodular or concretionary.
		5.5	6.0	Sst vf, grey, well sorted.
Adelaidean?				
6-8	0.12	6.0	9.0	Sltst, weathrd, off-white & soft, or dk brn to orange-brn Fe stained & ind, <u>c</u> poorly developed Fe boxwork.
8-10	0.14	9.0	10.0	Sltst, brn, hard, <u>c</u> some f Mn & Fe veining & boxwork, no lamn or parting, & non calc.
		10.0		End of Hole.
Geochemistry Samples:				
RS 60	6-8m	Routine geochemistry		
RS 61	8-10m	Extended geochemistry.		

				MUR 12 6-8m	MUR 12 8-10m
				6831RS 60	6831RS 61
Ag	ppm	0.5	IC2	<0.5	<0.5
As	ppm	1.0	IC2	44	19
Au	ppb	1.0	FA3	<1	<1
Ba	ppm	10.0	XRF1		550
Cd	ppm	1.0	IC2		1
Ce	ppm	20.0	XRF1		70
Co	ppm	2.0	IC2	34	36
Cr	ppm	2.0	IC2	11	5
Cu	ppm	1.0	IC2	32	68
Fe	%	0.01	IC2	5.6	8.9
La	ppm	20.0	XRF1		40
Mn	ppm	5.0	IC2	390	1420
Mo	ppm	1.0	IC2	<1	<1
Nb	ppm	2.0	XRF1		15
Ni	ppm	1.0	IC2	54	52
P	ppm	5.0	IC2		520
Pb	ppm	3.0	IC2	<3	3
Pd	ppb	1.0	FA3		<1
Pt	ppb	5.0	FA3		<5
Rb	ppm	2.0	XRF1		240
Sb	ppm	4.0	XRF1		<4
Se	ppm	2.0	XRF1		3
Sn	ppm	4.0	XRF1		<4
Sr	ppm	2.0	XRF1		85
Th	ppm	4.0	XRF1		22
U	ppm	4.0	XRF1		4
V	ppm	1.0	IC2		19
W	ppm	10.0	XRF1		<10
Zn	ppm	1.0	IC2	50	30

HOLE NO: MUR 13
TRAVERSE: 3133 mN
STATION: 16 350 mE
DATE: 13.12.92
LOGGED BY: WSM
COMMENTS: Lt brown sandy soil & abundant calcrete pebbles; hole is 30m south of fence.

100 000 SHEET NO: 6831
LOCATION: 378 276 mE
6 312 292 mN
DRILLING METHOD: RC & roller
TOTAL DEPTH: 10.0m

Magnetic Susc.		Geological Log		
Interval	Value	Depth		Description
Quaternary				
0-2	0.71	0	1.5	Calcrete, pink & cream, hard, massive.
Marine Tertiary???				
2-4	0.22	1.5	5.0	Sst f-m, calc, well sorted, pl grey-brn, <u>c</u> abund blk dendritic flecks, <u>c</u> some shell frags within sst, & minor sub-ang vein qtz gravel, hard or friable.
4-6	0.16	5.0	6.0	Sand f, pl grey, loose.
6-8	0.12	6.0	7.0	Sand f-m, sl clayey, pl grey, loose, well sorted, <u>c</u> trace of vf blk mins.
8-9	0.29	7.0	8.8	Sand, aa, lt orange Fe stained.
		8.8	9.0	Sand, aa, Fe-ind, hard.
Adelaidean				
9-10	5.18	9.0	9.3	Sst f-m, lt grey, hard, mod sorted, well rounded, & minor thin sltst, fiss, dk brn, hard.
		9.3	9.8	Qtzite, dk grey, no lamn.
		9.8	10.0	Qtzite, aa, lt grey, <u>c</u> minor orange staining.
		10.0		End of Hole.

Geochemistry Samples:
RS 62 9-10m Extended geochemistry.
(NB sample is contaminated by fragments of metal from the roller bit)

MUR 13
9-10m

6831RS
62

Ag	ppm	0.5	IC2	<0.5
As	ppm	1.0	IC2	4
Au	ppb	1.0	FA3	1
Ba	ppm	10.0	XRF1	600
Cd	ppm	1.0	IC2	<1
Ce	ppm	20.0	XRF1	20
Co	ppm	2.0	IC2	7
Cr	ppm	2.0	IC2	18
Cu	ppm	1.0	IC2	11
Fe	%	0.01	IC2	1.06
La	ppm	20.0	XRF1	<20
Mn	ppm	5.0	IC2	125
Mo	ppm	1.0	IC2	19
Nb	ppm	2.0	XRF1	<2
Ni	ppm	1.0	IC2	195
P	ppm	5.0	IC2	230
Pb	ppm	3.0	IC2	8
Pd	ppb	1.0	FA3	<1
Pt	ppb	5.0	FA3	<5
Rb	ppm	2.0	XRF1	48
Sb	ppm	4.0	XRF1	<4
Se	ppm	2.0	XRF1	<2
Sn	ppm	4.0	XRF1	<4
Sr	ppm	2.0	XRF1	44
Th	ppm	4.0	XRF1	4
U	ppm	4.0	XRF1	<4
V	ppm	1.0	IC2	4
W	ppm	10.0	XRF1	350
Zn	ppm	1.0	IC2	4

HOLE NO: MUR 14
 TRAVERSE: 3080 mN
 STATION: 4 500 mE
 DATE: 13.12.92
 LOGGED BY: WSM
 COMMENTS: Lt brown sandy soil & abundant calcrete pebbles; hole is 20m north of fence.

100 000 SHEET NO: 6831
 LOCATION: 363 307 mE
 6 289 297 mN
 DRILLING METHOD: RC
 TOTAL DEPTH: 91.5m

Magnetic Susc. Interval	Value	Geological Log Depth		Description

Quaternary				
0-2	1.11	0	2.0	Sandy soil, lt brn, & calcrete pebbles.
2-4	0.61	2.0	3.0	Clay-sand vf, calc, red-brn, & calcrete.
4-6	0.72	3.0	11.0	Clay-sand vf, lt red-brn & off white mottled, compact.
6-8	0.42			
8-10	0.31			
10-12	0.27	11.0	12.0	Clay, silty & sandy vf, lt grey-khaki to lt red-brn, compact.
12-14	0.24	12.0	14.5	Sand f, v clayey, lt red-brn, loose, & rare gravel, sub-ro ironstone Fe stained qtzite etc <12mm, c minor sub-ang white qtz gravel.
Olney? Formation				
14-16	1.30	14.5	16.0	Clay, clean to sl silty & sandy, pl grey, compact, c minor red mottling.
		16.0	16.5	Clay, aa, c abund red mottling.
16-18	0.05	16.5	18.0	Clay, aa, c minor mottling.
18-20	0.04	18.0	20.0	Clay, aa, grey c red mottling.
20-22	0.06	20.0	23.0	Clay, aa, lt grey, c minor purple to red mottling.
22-24	0.04			
		23.0	23.5	Clay, mod silty & sandy vf, lt grey, c minor yellow & red mottling.
		23.5	25.0	Clay, mod to v sandy vf-f, yellow & lt grey mottled.
24-26	0.07	25.0	26.0	Sand vf-m, mod to v clayey, lt yellow-brn, soft or compact.
26-28	0.09	26.0	27.0	Sand, f-c, aa.
		27.0	28.0	Clay, aa, becoming v clayey.
		28.0	28.5	Clay, v sandy vf-f, lt grey & orange mottled.
28-30	0.08	28.5	30.5	Clay, aa, faintly mottled lt grey-brn.
Marine equivalent of Olney? Formation				
		30.5	31.0	Sandy lst f, pl brn, hard, well so & ro, c f white shelly? frags.
30-32	0.04	31.0	32.0	Sandy lst, aa, hard or friable, pl brn to lt yellow-brn, c some clayey interbeds.
32-34	0.03	32.0	33.0	Sandy lst, aa, c some orange-brn staining, & c some v shelly (f-vc frags) bands, & some soft pl grey sandy vf calc clay interbeds.
Olney? Formation				
34-36	0.05	33.0	35.0	Clay, lt brn c pl grey stained joints/fractures, compact.
		35.0	36.0	Clay, aa, lt grey-brn, c minor lt red liesegang? banding.
36-38	0.04	36.0	37.5	Clay, mod silty/sandy vf, pl grey & lt mauve mottled c some faint red banding, & Fe ind at 37m.
		37.5	38.0	Clay, aa, lt grey, grey & purple mottled,
38-40	0.04	38.0	39.0	Clay, pl grey & pl mauve mottled.
		39.0	40.0	Clay, v silty/sandy vf, lt grey.
		40.0	40.5	Clay, mod silty, lt grey, compact.
40-42	0.05	40.5	42.0	Clay, sl silty, lt grey & pl grey-brn, f lamn.
42-44	0.04	42.0	43.0	Clay, aa, soft, off-white, mottled pl grn & lt yellow.
44-46	0.04	43.0	46.0	Clay, aa, pl grey, c pl mottling, & rare red-brn Fe-ind at base.
46-48	0.11	46.0	49.0	Clay, aa, pl grey-brn, c f orange & red flecking.
48-50	0.06	49.0	51.0	Clay, aa, pl grey.
		51.0	51.5	Clay, sl silty, blue-grey, compact.
50-52	0.07	51.5	52.0	Clay, aa, dk purple stained.
52-54	0.10	52.0	54.0	Clay, lt grey to grey mottled, c red & purple stained joints.
54-56	0.07	54.0	55.0	Clay, aa, dk grey, c minor mottling.
		55.0	55.5	Clay, grey c red & purple mottling.
		55.5	56.0	Clay, lt grey, c minor mottling.
56-58	0.05	56.0	57.0	Clay, aa, mauve, c minor red mottling.
		57.0	57.7	Clay, lt mauve & lt grey mottled.
		57.7	59.0	Clay, v sandy vf-m, soft, off-white c red & lt khaki mottling.
58-60	0.04	59.0	60.5	Clay, silty, off-white, c pl brn & pl yellow mottling, & some mod sandy layers.
Bendigo Granite?, or (Weathered Adelaidean?)				
60-62	0.06	60.5	65.0	Clay, gritty, soft & slippery/shiny, pl grey & lt khaki mottled & f banded, c

62-64	0.03			some dk red & blk Fe-ind bands at 62m.
64-66	0.05			
		65.0	65.5	Clay, aa, <u>c</u> rare dk grn vf grained frags (sst?, or basic? intrusive?).
		65.5	67.0	Clay, brick-red <u>c</u> white & lt khaki flecks.
66-68	0.04	67.0	68.0	Clay, gritty, white, soft, grit is f-m qtz.
68-70	0.04	68.0	69.0	Clay, gritty f-c, aa, <u>c</u> rare blk grain aggregates <2mm, rounded, comprising f-m blk well so & ro grains.
		69.0	70.0	Clay, gritty f-m qtz, white or pl to lt khaki.
70-72	0.09	70.0	71.0	Clay, gritty f-c, aa, <u>c</u> rare blk grain aggregates <2mm, rounded, comprising f-m blk well so & ro grains - weathrd f grained qtzite? or mafic intrusive?.
		71.0	72.0	Clay, gritty vf-m qtz, <u>c</u> minor blk grains, aa.
72-74	0.04	72.0	78.0	Clay, gritty vf-m qtz, aa, white.
74-76	0.13			
76-78	0.05			
78-80	0.02	78.0	81.0	Clay, v gritty f-c qtz, white, soft.
80-82	0.03			
82-84	0.05	81.0	83.0	Clay, v silty, white, <u>c</u> faint pl pink & pl grn lamn, ie weathrd meta-sed?.
84-86	0.02	83.0	87.0	Clay, aa, <u>c</u> irreg brick-red Fe mottling & ind, cross-cutting & anastomosing.
86-88	0.05	87.0	88.5	Clay, gritty, mottled white & pl grn (looks like weathered granite), <u>c</u> minor red ind, aa.
88-90	0.10	88.5	90.0	Silicate rock f, clayey, olive-grn, interlocking sub-ang f grains, soft or compact - weathrd f grained basic intrusive?.
90-91	0.10	90.0	91.0	Basic intrusive?, f grained, dk grn, sl-mod weathrd, <u>c</u> some clear sugary vein? qtz.
91-91.5	0.02	91.0	91.5	Basic intrusive?, aa, & vf grained silica-rich rock, lt orange to off-white; the two rock types are mutually cross-cutting <u>c</u> diffuse irreg contacts.
		91.5		End of hole

Geochemistry Samples:

RS 63	62-72m	Routine geochemistry
RS 64	72-84m	"
RS 65	84-90m	"
RS 66	90-91m	"
RS 67	91-91.5m	Extended geochemistry.

				MUR 14 62-72m	MUR 14 72-84m	MUR 14 84-90m	MUR 14 90-91m	MUR 14 91-91.5m
				6831R 63	6831R 64	6831R 65	6831RS 66	6831RS 67
Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5	<0.5	0.5
As	ppm	1.0	IC2	3	2	1	4	<1
Au	ppb	1.0	FA3	1	1	1	1	<1
Ba	ppm	10.0	XRF1					135
Cd	ppm	1.0	IC2					<1
Ce	ppm	20.0	XRF1					110
Co	ppm	2.0	IC2	4	<2	10	18	330
Cr	ppm	2.0	IC2	3	3	7	13	12
Cu	ppm	1.0	IC2	8	7	84	125	35
Fe	%	0.01	IC2	2.36	0.45	4.98	4.76	1.37
La	ppm	20.0	XRF1					90
Mn	ppm	5.0	IC2	100	10	60	45	45
Mo	ppm	1.0	IC2	<1	<1	<1	<1	3
Nb	ppm	2.0	XRF1					8
Ni	ppm	1.0	IC2	2	1	13	28	10
P	ppm	5.0	IC2					230
Pb	ppm	3.0	IC2	3	8	20	3	8
Pd	ppb	1.0	FA3					<1
Pt	ppb	5.0	FA3					<5
Rb	ppm	2.0	XRF1					26
Sb	ppm	4.0	XRF1					<4
Se	ppm	2.0	XRF1					<2
Sn	ppm	4.0	XRF1					<4
Sr	ppm	2.0	XRF1					34
Th	ppm	4.0	XRF1					4
U	ppm	4.0	XRF1					<4
V	ppm	1.0	IC2					15
W	ppm	10.0	XRF1					1040
Zn	ppm	1.0	IC2	6	2	20	52	22

HOLE NO: MUR 15
 TRAVERSE: 3080 mN
 STATION: 4 000 mE
 DATE: 14.12.92
 LOGGED BY: WSM
 COMMENTS: Lt brown sandy soil with minor calcrete pebbles; hole is 10m north of fence.

100 000 SHEET NO: 6831
 LOCATION: 362 439 mE
 6 307 776 mN
 DRILLING METHOD: RC
 TOTAL DEPTH: 127.5m

Magnetic Susc.		Geological Log		Description
Interval	Value	Depth	Depth	
Quaternary				
0-2	0.32	0	1.0	Sandy soil, lt brn, c minor calcrete pebbles.
		1.0	2.0	Calcrete, red-brn, hard, clayey sand c minor ironstone gravel <10mm.
2-4	0.84	2.0	6.0	Sand vf-m, v clayey, red-brn, soft or compact, c f white or blk Mn? mottling.
4-6	0.97			
6-8	0.58	6.0	8.0	Sand vf, clayey, compact, mottled lt grey-brn to red-brn.
8-10	0.80	8.0	10.0	Sand, aa, hard & semi-ind in part.
10-12	0.77	10.0	12.0	Sand, aa, c some hard lt grey calc ind bands, & rare blk ironstone gravel <6mm.
12-14	0.38	12.0	13.0	Clay-silt, lt grey or red-brn, compact to hard, ind.
		13.0	13.3	Silcrete, lt grey, silicf sst vf-f to vf-m, lt red-brn or lt grey, rounded qtz, c f blk specks.
		13.7	14.0	Clay, silty & sandy, lt brn, soft.
14-16	0.05	14.0	15.0	Silcrete, aa.
Olney? Formation				
		15.0	16.0	Clay, silty, soft, lt grey, c f lt red-brn & lt khaki mottling & banding.
16-18	0.29	16.0	18.0	Clay, sl silty, compact, lt grey, c abund dk red-purple mottling.
18-20	0.14	18.0	20.0	Clay, aa, lt grey, c minor mottling.
20-22	0.08	20.0	22.0	Clay, aa, lt grey, c lt to dk red-purple mottling, esp on fractures/joints.
22-24	0.06	22.0	26.0	Clay, aa, lt grey.
24-26	0.04			
26-28	0.04	26.0	28.0	Clay, mod sandy vf, lt grey.
		28.0	28.5	Clay, aa, mauve, c minor lt khaki banding.
		28.5	29.0	Clay, v sandy, compact, lt grey to pl yellow-grey faintly mottled.
28-30	0.04	29.0	30.0	Sand f, mod clayey, mod sorted, pl grey to lt orange.
30-32	0.05	30.0	33.5	Sand, aa, mod-v clayey, f lamn, c trace of f white mica?
32-34	0.06			
Marine equivalent of Olney? Formation				
		33.5	34.3	Sandy 1st f, lt yellow-brn, hard to friable.
Olney? Formation				
		34.3	34.5	Clay, mod silty & sandy vf, lt khaki to lt orange, soft.
34-36	0.04	34.5	35.5	Clay, sl silty, compact, khaki.
36-38	0.02	35.5	37.0	Clay, aa, pl grey, c rare f orange speckling.
		37.0	37.5	Clay, aa, pl grey, c abund red-purple mottling.
38-40	0.05	37.5	40.0	Clay, aa, pl grey, c some pl brn interbeds.
40-42	0.03	40.0	41.0	Clay, aa, pl grey, soft.
42-44	0.04	41.0	43.0	Clay, aa, lt grey, compact, c minor red-purple mottling.
		43.0	44.5	Clay, aa, pl grey to grey, c minor orange mottling.
44-46	0.05	44.5	46.0	Clay, mod sandy vf, compact, pl grey.
46-48	0.06	46.0	47.0	Clay, off-white or lt yellow-brn, soft, c minor rounded m-vf ironstone gravel.
Weathered Bendigo Granite?				
48-50	0.03	47.0	51.0	Clay, pl grey, soft.
50-52	0.04			
52-54	0.04	51.0	54.0	Clay, aa, & some sandy/gritty layers, ie vf-c sub-ang qtz.
54-58	0.03	54.0	56.0	Clay, aa, off-white & lt yellow-brn, c minor qtz, aa.
		56.0	57.0	Clay, pl grey.
		57.0	58.0	Clay, aa, c abund clear m-c sub-ang qtz, aa, (vein?, or more probably relict qtz in weathrd granite?).
58-60	0.03	58.0	64.0	Clay, aa, with or without qtz, aa, & rare blk m-c ang mafic mins.
60-62	0.03			
62-64	0.03			
64-66	0.04	64.0	67.0	Clay, aa, c increasing qtz, aa, & some lt khaki mottling.
66-68	0.04			
68-70	0.03	67.0	70.0	Clay, v gritty, aa, lt to pl grey, v gritty.
70-72	0.03	70.0	72.0	Clay, gritty, aa, c rare soft lt red & lt grn mins.
72-74	0.05	72.0	78.0	Clay, gritty, aa, c minor khaki staining on fractures.

74-76	0.05			
76-78	0.05			
78-80	0.04	78.0	84.0	Clay, gritty, aa, pl brn.
80-82	0.04			
82-84	0.05			
Bendigo Granite				
84-86	0.05	84.0	88.0	Weathrd granite, dominantly loose m-c qtz, aa.
86-88	0.06			
88-90	0.05	88.0	96.0	Weathrd granite, f-vf grains & frags, ie clear qtz, pink opaque fspar, minor
90-92	0.05			blk mafic mins, & minor soft pl grn clay, c some composite qtz / fspar frags
92-94	0.03			from 92-94m.
94-96	0.06			
96-98	0.07	96.0	98.0	Weathrd granite, aa, mod clayey.
98-100	0.06	98.0	102.0	Weathrd granite, aa, sl clayey, & first appearance of opaque white fspar
100-102	0.10			(orthoclase?) grains.
102-104	0.06	102.0	104.0	Weathrd granite, aa, & some composite frags, aa.
104-106	0.05	104.0	106.0	Weathrd granite, aa, & minor frags of dk grn semi-transl vf grained basic? igneous? rock.
106-108	0.05	106.0	108.0	Weathrd granite, aa, & minor pyroxene?, ie shiny blk, equant xtals, & trace of biotite.
108-110	0.05	108.0	109.5	Weathrd granite, aa, v weathrd, no rock frags.
		109.5	110.0	Weathrd granite, aa; & frags of soft white to lt grn weathrd f-m grained felsic granite? c minor f blk
				mins.
110-112	0.05	110.0	117.0	Weathrd granite, as at 106m, ie grains & frags, comprising (in decreasing order
112-114	0.04			of abundance):
114-116	0.09			. qtz, f-c gr, clear to transl pl grey-brn
116-118	0.07			. plagioclase, m-vc gr, opaque pink to semi-transl lt orange-red
				. orthoclase?, f-c gr, opaque white
				. pyroxene? or amphibole?, f-c gr, blk
				. biotite, f-c gr.
118-120	0.07	117.0	123.0	Weathrd granite, slowly becoming sl harder.
120-122	0.05			
122-124	0.07			
124-126	0.06	123.0	127.0	Weathrd granite, aa, & some dk grn banded felsic f-m grained granite frags
126-127.5	0.19			(some frags have m-c grained felsic core, & vf grained dk grn rim).
		127.0	127.5	Granite, aa, harder drilling, but still only dis-aggregated frags, ie no solid core.
		127.5		End of hole
Geochemistry Samples:				
RS 68	48-60m	Routine geochemistry		
RS 69	60-70m	"		
RS 70	70-80m	"		
RS 71	80-90m	"		
RS 72	90-100m	"		
RS 73	102-110m	"		
RS 74	110-120m	"		
RS 75	120-126m	"		
RS 76	126-127.5m	Extended geochemistry.		

				MUR 15 48-60m	MUR 15 60-70m	MUR 15 70-80m	MUR 15 80-90m	MUR 15 90-100m
				6831RS 68	6831RS 69	6831RS 70	6831RS 71	6831RS 72
Ag	ppm	0.5	IC2	<0.5	<0.5	<0.5	<0.5	<0.5
As	ppm	1.0	IC2	2	3	2	2	3
Au	ppb	1.0	FA3	<1	<1	<1	2	1
Ba	ppm	10.0	XRF1					
Cd	ppm	1.0	IC2					
Ce	ppm	20.0	XRF1					
Co	ppm	2.0	IC2	<2	<2	<2	3	3
Cr	ppm	2.0	IC2	9	7	4	3	2
Cu	ppm	1.0	IC2	6	8	6	6	7
Fe	%	0.01	IC2	0.49	0.46	1.45	1.6	0.81
La	ppm	20.0	XRF1					
Mn	ppm	5.0	IC2	20	35	120	170	35
Mo	ppm	1.0	IC2	<1	<1	<1	<1	2
Nb	ppm	2.0	XRF1					
Ni	ppm	1.0	IC2	1	2	2	3	2
P	ppm	5.0	IC2					
Pb	ppm	3.0	IC2	<3	24	35	24	10
Pd	ppb	1.0	FA3					
Pt	ppb	5.0	FA3					
Rb	ppm	2.0	XRF1					
Sb	ppm	4.0	XRF1					
Se	ppm	2.0	XRF1					
Sn	ppm	4.0	XRF1					
Sr	ppm	2.0	XRF1					
Th	ppm	4.0	XRF1					
U	ppm	4.0	XRF1					
V	ppm	1.0	IC2					
W	ppm	10.0	XRF1					
Zn	ppm	1.0	IC2	2	3	5	10	13

MUR 15 MUR 15 MUR 15 MUR 15
102-110m 110-120m 120-126m 126-127.5

				6831RS 73	6831RS 74	6831RS 75	6831RS 76
Ag	ppm	0.5	IC2	2.5	<0.5	0.5	<0.5
As	ppm	1.0	IC2	<1	<1	2	1
Au	ppb	1.0	FA3	<1	<1	<1	<1
Ba	ppm	10.0	XRF1				810
Cd	ppm	1.0	IC2				<1
Ce	ppm	20.0	XRF1				50
Co	ppm	2.0	IC2	3	3	4	4
Cr	ppm	2.0	IC2	3	3	3	3
Cu	ppm	1.0	IC2	5	3	4	4
Fe	%	0.01	IC2	1	1.22	1.25	1
La	ppm	20.0	XRF1				50
Mn	ppm	5.0	IC2	115	130	125	90
Mo	ppm	1.0	IC2	<1	<1	<1	<1
Nb	ppm	2.0	XRF1				7
Ni	ppm	1.0	IC2	3	3	3	4
P	ppm	5.0	IC2				145
Pb	ppm	3.0	IC2	3	<3	4	5
Pd	ppb	1.0	FA3				<1
Pt	ppb	5.0	FA3				<5
Rb	ppm	2.0	XRF1				210
Sb	ppm	4.0	XRF1				<4
Se	ppm	2.0	XRF1				<2
Sn	ppm	4.0	XRF1				<4
Sr	ppm	2.0	XRF1				210
Th	ppm	4.0	XRF1				18
U	ppm	4.0	XRF1				<4
V	ppm	1.0	IC2				13
W	ppm	10.0	XRF1				15
Zn	ppm	1.0	IC2	12	12	11	9

HOLE NO: MUR 16
 TRAVERSE: 3080 mN
 STATION: 3 000 mE
 DATE: 15.12.92
 LOGGED BY: WSM
 COMMENTS: Lt brown sandy soil with minor calcrete pebbles; hole is 10m north of fence.

100 000 SHEET NO: 6831
 LOCATION: 342 014 mE
 6 316 780 mN
 DRILLING METHOD: RC
 TOTAL DEPTH: 103.5m

Magnetic Susc. Interval	Value	Geological Log Depth		Description
Quaternary				
0-2	1.85	0	4.0	Sandy soil, lt red-brn, <u>c</u> pl brn calcrete pebbles.
2-4	0.87			
4-6	0.76	4.0	6.0	Clay, silty/sandy vf, red-brn, compact.
6-8	0.48	6.0	8.0	Clay, aa, <u>c</u> minor calcrete, ie pl brn calc ind.
8-10	0.80	8.0	10.0	Clay, aa, lt red-brn, <u>c</u> some pl brn calc semi-ind, & rare f blk Mn flecking.
10-12	0.79	10.0	13.5	Clay, aa, red-brn.
12-14	0.63			
		13.5	14.0	Calcrete, red-brn, hard calc ind, <u>c</u> f blk Mn flecks.
		14.0	14.3	Clay-silt, lt brn, compact.
14-16	0.45	14.3	15.5	Silcrete/calcrete, hard, non or sl calc, pl brn to red-brn, vf grained, <u>c</u> blk Mn flecks, & <u>c</u> irreg white calcite veining.
16-18	0.76	15.5	18.0	Clay, mod silty & sandy vf, lt red-brn, compact.
18-20	0.22	18.0	20.0	Clay, aa, lt brn.
20-22	0.04	20.0	22.0	Clay, sl to mod silty, lt grey & lt brn mottled, compact.
22-24	0.06	22.0	24.0	Clay, sl silty, pl grey <u>c</u> yellow or red mottling.
24-26	0.08	24.0	28.0	Clay, pl grey <u>c</u> purple mottling.
26-28	0.05			
28-30	0.08	28.0	32.0	Clay, sl silty/sandy vf, pl grey <u>c</u> red mottling.
30-32	0.06			
32-34	0.08	32.0	33.5	Clay, aa, pl grey <u>c</u> red-purple mottling.
		33.5	35.0	Clay, aa, lt grey, <u>c</u> yellow & red-purple mottling.
34-36	0.05	35.0	36.0	Clay, aa, lt grey & yellow mottled, compact.
36-38	0.12	36.0	38.0	Clay, mod silty & sandy vf, brt orange stained, <u>c</u> abund Fe-ind bands, 10mm thick, <u>c</u> blk cores & dk brn rims.
38-40	0.06	38.0	39.0	Sand vf, v clayey, mustard-yellow & lt pink-brn, compact.
		39.0	40.0	Clay, mod sandy vf, lt mustard-yellow, compact.
40-42	0.04	40.0	41.0	Clay, v sandy vf, lt yellow & brn.
		41.0	42.0	Clay, aa, lt grey <u>c</u> some orange mottling, & rare silic ind ie grey vf sst.
42-44	0.02	42.0	44.0	Clay, mod silty, pl grey, compact.
44-46	0.06	44.0	46.0	Clay-silt, & silty & sandy clay, pl grey, soft.
46-48	0.06	46.0	48.0	Clay, lt grey, <u>c</u> minor red mottling, compact.
48-50	0.03	48.0	51.0	Clay, aa, pl grey.
50-52	0.04	51.0	52.0	Clay, aa, grey.
52-54	0.03	52.0	53.5	Clay, aa, lt grey.
		53.5	54.5	Clay, aa, lt grey & pl mauve mottled.
54-56	0.03	54.5	56.0	Clay, aa, grey, <u>c</u> minor f red & yellow mottling.
56-58	0.03	56.0	58.0	Clay, lt to pl grey.
58-60	0.05	58.0	60.0	Clay, aa, <u>c</u> minor faint purple & pink banding.
		60.0	60.5	Clay, off-white, soft.
		60.5	61.0	Clay, off-white <u>c</u> abund dk brn Fe staining, & abund dk brn Fe-ind.
60-62	0.10	61.0	62.0	Clay, sl silty & sandy, off-white to pl grey, compact.
		62.0	62.5	Clay, aa, brn, <u>c</u> some f white & grn banding.
62-64	0.04	62.5	63.5	Clay, aa, white, <u>c</u> some brn mottling.
		63.5	64.0	Clay, sl silty, pl grey, semi-plastic.
64-66	0.02	64.0	66.0	Clay, aa, lt grey.
66-68	0.03	66.0	68.0	Clay, aa, pl grey.
68-70	0.03	68.0	69.0	Clay, aa, grey, compact.
		69.0	70.0	Clay, aa, grey, <u>c</u> some dk grey-purple staining.
70-72	0.01	70.0	72.0	Clay, aa, dk grey, <u>c</u> some dk purple mottling.
72-74	0.03	72.0	73.0	Clay, aa, grey <u>c</u> purple mottling.
		73.0	74.0	Clay, aa, lt to pl grey, mottled lt purple, lt red, & yellow.
74-76	0.03	74.0	76.5	Clay, aa, lt grey to grey, <u>c</u> minor mottling.

Weathered Bendigo Granite

76-78	0.11	76.5	78.0	Clay, white, <u>c</u> brn, yellow, & pl mauve mottling, rare brn stained ang vf grained rock frags <2mm.
78-80	3.23	78.0	80.0	Clay, silty & gritty, mottled & banded brn, orange-brn, & khaki, compact or soft & sticky.
80-82	0.17	80.0	88.0	Clay, aa, mottled & banded dk brn, dk brick red, white, & khaki.
82-84	0.11			
84-86	0.12			
86-88	0.08			
88-90	0.08	88.0	90.0	Clay, sl gritty, mottled dk purple, grey-purple, & yellow.
90-92	0.05	90.0	91.0	Clay, aa, f lamn or mottled, pl grn to khaki (weathrd felsic mins?), <u>c</u> dk purple-grey flecks (weathrd mafic mins?).
		91.0	92.0	Clay, aa, <u>c</u> zones of strong white & red mottling.
92-94	0.06	92.0	94.0	Clay, aa, red-purple & lt grn strong f banding & mottling (could be weathrd layered intrusive?, or gneiss?).
94-96	0.06	94.0	96.0	Clay, lt grn, f mottled, no banding.
96-98	0.09	96.0	100.0	Clay, aa, increasingly gritty, esp dk grn mafic mins, <u>c</u> some white & pl pink opaque qtz & fspar frags (weathrd granite &/or vein qtz?).
98-100	0.08			
100-102	0.04	100.0	103.0	Clay, aa; & abund frags of mixed white qtz & pl pink fspar <u>c</u> trace blk mafic mins.
102-103.5	0.09	103.0	103.5	Clay, v gritty, pl grn, weathrd granite.
		103.5		End of hole (drill bit blocked)

NB: Probably two distinct igneous lithologies:

. light pink quartz-plagioclase-black mineral (biotite?) medium to coarse grained granite - fresh samples from 96-103m,

. pale green fine to coarse grained felsic & mafic mineral granite?, represented by the gritty clay intersected from 76.5 to 103.5m; the hole was abandoned before fresh samples could be obtained of this lithology.

These two lithologies appear to be intermixed.

Geochemistry Samples:

RS 77	76-78m	Routine geochemistry
RS 78	78-90m	"
RS 79	90-96m	"
RS 80	96-102m	"
RS 81	102-103.5m	Extended geochemistry.

APPENDIX B

SUMMARY OF PREVIOUS DRILLING
NEAR THE BENDIGO GRANITE

COMPILED BY PETER HILL

Previous Drilling Summary Data Sheets and Index

Presented here is a brief summary and index of open file references obtained from the SAMREF database and the Mineral Exploration Index Series at the SADME.

Drill holes within 5 km of the 1992 SAEI Burra Drill Program were transferred to the "Previous Drilling" plan which accompanies this appendix.

The Summary Data Sheets are a brief guide to the open file company reports (ie. quarterly, final and/or relinquishment) and SADME Report Books. They indicate the extent of the various drill programs and the range of geochemical assay values and rock types encountered. The original data is accessible through the relevant envelopes and report books.

Index

<u>Page No.</u>	<u>Company</u>	<u>Tenement</u>	<u>Duration</u>	<u>Envelope/Report Book</u>
1	SADME	-	1970-'72	RB 72/2
2	SADME	-	1971-'73	RB 73/63
3	SADME	-	1971-'72	RB 72/1
4	Exoil/Transoil	SML 550	1971-'72	Env 1695
5	SADME	-	1972	RB 72/131
6	SADME	-	1973	RB 73/164
7	Dampier	EL 517	1979	Env 3591
8	Dampier	EL 479	1979	Env 3893, 3475
9	CRA	EL 664	1980	Env 3957
10	Aberfoyle	EL 927	1981	Env 4539
11	CRA	EL 1294	1984	Env 5944
12	Peregrine	EL 1510-1512	1988	Env 8059

Company: SADME

Tenement: -

Source: SADME unpublished report RB 72/2
("Investigation at the Bendigo Copper and Molybendum prospect
Report No 2. Drill hole Information"). Related to RB 72/1, RB
73/63, RB 72/131, RB 73/164.

Duration: 19/9/70 to 5/1/72

Target: Cu, Mo, Pb

Secondary Targets:

Age/Rock Units: Cambro-Ordovician granitoids
Adelaidean siltstones and hornfelses, greisen quartz veins

Location: Caroon 1:100 000

East of Bendigo HS, at northern end of granitoid outcrop.

Exploration Summary: A total of 91 rotary holes were drilled ranging in depth from 7
metres to 91 metres. (BH 1 - 17, BG 1 - 5, 18, BM 1 - 68).

6 diamond drill holes were drilled to depths ranging from 124 m
to 162 m. BD 1 - 6. Thin pyrite veins were encountered and
analysis showed raised background copper levels 400-700 ppm.

Best Drilling Results:

BH 8	57 - 59 m	6200 ppm Cu
BD 5	122 - 128 m	1300 ppm Pb
BH 16	20 - 22 m	350 ppm Pb
BD 5	107 - 110 m	1200 ppm Mo
BG 4	40 - 43 m	1100 ppm Mo
BH 7	48 - 49 m	1000 ppm Cu

Company: SADME

Tenement: -

Source: SADME unpublished report RB 73/63 ("Investigation of the Bendigo Cu and Mo Prospect, Report 4 - Diamond Drilling). Related to RB 72/1, RB 72/2, RB 72/131, RB 63/164.

Duration: 1/12/71 - 1/3/73

Target: Cu, Mo

Secondary Targets:

Age/Rock Units: Cambro-Ordovician granitoids.

Location: Caroonna 1:100 000

East of Bendigo HS at northern end of granitoid outcrop.

Exploration Summary: Two deep diamond drill holes tested an induced polarisation anomaly. Minor chalcopyrite was intersected in BD3.

Diamond Drill Holes: BD 3 drilled to 157 m
BD 7 drilled to 305 m

Best Drilling Results: BD 7 134 - 137 m 610 ppm Cu
BD 7 238 - 241 m 90 ppm Mo
BD 3 259 - 262 m 1200 ppm Cu
BD 3 296 - 299 m 250 ppm Mo

Company: SADME

Tenement: -

Source: SADME unpublished report RB 72/1
("The Investigation of the Bendigo Copper and Mo Prospect Report No 3"). Related to RB 72/2, RB 73/63, RB 72/131, RB 73/164

Duration: 10/6/71 to 5/1/72

Target: Cu, Mo

Secondary Targets:

Age/Rock Units: Cambro-Ordovician Granitoids
Contact aureole meta-siltstones/hornfelses/phyllites and quartz veins.

Location: Caroon 1:100 000

South of Bendigo HS and 2 km east of Bendigo HS.

Exploration Summary: The aim of the drill program was to locate zones of copper and molybdenum mineralisation in the southerly extension of the granodiorite exposed east of Bendigo homestead.

Drilling Summary: 43 rotary holes (BM 69 - BM 78 BG 6 - BG 33) were drilled to depths ranging from 30 to 90 m (max).

Coring was attempted on six holes but only 4 recovered core.

Best Drilling Results:

BG 20	40 - 43 m	65 ppm Mo
BG 24	3 - 6 m	12 ppm Mo
BG 24	24 - 27 m	1000 ppm Cu
BG 25	49 - 52 m	360 ppm Cu

Company: Exoil NL and Transoil NL

Tenement: SML 550, Bendigo

Source: SADME Open File Env 1695

Duration: October 1971 to 7th February 1972

Target: Cu

Secondary Targets:

Age/Rock Units: Braemar Ironstone
Ulupa Siltstone
Anabama Granite

Location: Murkaby 1:100 000
Near Mt ^{Bryan} Byon Well, between Kia Ora HS and Braeside HS.

Exploration Summary: It was hoped that a large scale copper deposit might be discovered on the east-northeast striking Darling Lineament.

Aeromagnetics were interpreted and two holes were drilled close together to test basement geology of a circular topographic depression.

C1 intersected highly weathered shale, TD = 39 m.

C1 intersected dk green to dk grey shale, TD = 72 m.

No rock/drill cutting samples were analysed.

Best Drilling Results:

Company: SADME

Tenement: -

Source: SADME unpublished report RB 72/131 ("Kia Ora - Southern Project, Report No 1").

Duration: 1972

Target: Cu, Mo

Secondary Targets:

Age/Rock Units: Cambro-Ordovician granitoids

Location: Caroona 1:100 000

North west and south west of Kia Ora HS.

Exploration Summary: Granite bodies detected by aeromagnetism lie completely covered by alluvium.

Seven holes drilled with a Mayhew 100, 3 of which are within map area.

KR1 intersected weathered granite at 39 m.

KR2, 3 were both drilled to 120 m but did not reach bedrock.

Best Drilling Results:

Company: SADME

Tenement: -

Source: SADME unpublished report RB 73/164 ("Kia Ora - South Dam Project, Rotary Drilling Report No 2". Related to RB 72/131, RB 72/1, RB 72/2).

Duration: 20/1/73 to 11/7/73

Target: Cu, Mo

Secondary Targets:

Age/Rock Units: Cambro-Ordovician granitoids, phyllites, clays

Location: Caroon 1:100 000

Between Bendigo HS and Kia Ora HS.

Exploration Summary: A large granite pluton, informally called the Bendigo Granite, is mostly covered by Tertiary and Recent sediments and granite weathering products. Phyllites occur adjacent to the granite body where siltstones have been metamorphosed in the contact aureole.

Drillholes:

KR 4 - 27 rotary holes drilled by Maghew 1000 to depths less than 100 m.

Best Drilling Results:

KR 11 12-15 m 5 ppm Mo
 KR 9 6-9 m 120 ppm Cu
 KR 9 21-24 m 120 ppm Cu

Copper was normally at a background level of 20 - 60 ppm Cu. Mo was rarely above 3 ppm.

Company: Dampier Mining Company Ltd

Tenement: EL 517 Willara

Source: SADME Open File Env 3591

Duration: 21/8/79 to 21/8/79

Target: Diamonds

Secondary Targets: Base metals, coal

Age/Rock Units: Jurassic kimberlite
Umberatana Group
Burra Group
Metamorphics in contact aureole

Location: Caroonna 1:100 000

Murkaby, Hogback, north of Kia Ora.

Exploration Summary: Aeromagnetic surveys were flown and targeted anomalies were delineated with ground magnetics then drilled with a Bourne 1000 rig.

10 holes were drilled (K 226 to K236). Depths generally range from 4 m to 50 m and hole K 231 (approx. 4 km NW from Kia Ora) was the deepest at 132 m.

No diamonds were found.

Best Drilling Results:

Company: Dampier Mining Co Ltd

Tenement: EL 479

Source: SADME Open File Env 3475 and Env 3893

Duration: 17/5/79 to 16/2/81

Target: Diamonds, kimberlite

Secondary Targets: Base metals, coal,

Age/Rock Units: Jurassic kimberlites
Umberatana Group
Burra Group
Cambro-Ordovician mafic igneous dykes

Location: Caroonna 1:100 000

Pine Creek, Bendigo, Pulpara, Caroonna.

Exploration Summary: Kimberlite pipes and dolerite dykes cut through Adelaidean siltstones, dolomites and quartzites in the region around Pine Creek.

Colour aerial photography, aeromagnetic and radiometric surveys were flown. Anomalies were delineated by ground magnetics prior to drilling.

241 holes (B3 to 23, B29 to 225, B238 to 259) were drilled and ranged in depth from about 10 metres to about 30 metres.

Base metal levels were low or at background levels.

Best Drilling Results: B240 44-45 m 300 ppm Ni, 180 ppm Cu (2 km West from Bendigo).

Company: CRA Exploration Pty Ltd

Tenement: EL 664 (also 665, 657-662, 665-669, 1033, 1037)

Source: SADME Open File Env 3957

Duration: 7/7/1980 to 6/12/84

Target: Coal, lignite

Secondary Targets: Kimberlites, diamonds, base metals

Age/Rock Units: Late Eocene Upper Renmark Group (Murray Basin)
Adelaidean

Location: Carroona 1:100 000

North west of Kia Ora HS.

Exploration Summary: Exploration was primarily for coal, and only a few selected samples were analysed for base metals.

In the area of concern only two holes were drilled.

Best Drilling Results: 81 MBR 42 reached granite at 98 m.

81 MBR 43 reached a very hard rock at 124 m with insufficient return to confirm lithology, but it was believed to be granite.

No multi-element analyses were done.

Company: Aberfoyle Exploration Pty Ltd

Tenement: EL 927, Ketchowla

Source: SADME Open File Env 4539

Duration: 16/11/81 to 16/8/83

Target: Cu, Pb, Zn, Mo

Secondary Targets: Au, Sn, W, Be, Bi, As

Age/Rock Units: Burra Group
Umberatana Group
Cambro-Ordovician Granitoids
Mylonitic breccia
Cavona
Carpma 1:100 000

Location: West of Hog Back Range, Between Hog Back HS and Pulpora HS.

Exploration Summary: Magnetic anomalies were delineated with ground magnetics grids A to G. Geological mapping, petrology and rockchip sampling was followed up with a RAB drilling program of 457 holes.

Holes were generally 3-12 m deep with the deepest being RG22 at 36 m. Geochemistry was mostly at low background levels.

Best Drilling Results:

RF 25	1500 ppm Cu	(F Grid)
RF 37	680 ppm Cu	(F Grid)
RF 220	21 ppm Mo	(F Grid)
AF 8A (Rock chip sample) 2.4% Cu		(F Grid)
AA 9 (Rock chip sample) 1.1% Cu		(A Grid)

Company: CRA Exploration Pty Ltd

Tenement: EL 1294, Cottage Bore

Source: SADME Open File Env 5944

Duration: 24/9/84 to 24/9/85

Target: Diamonds, microilmenites (diamond indicator)

Secondary Targets: Base metals

Age/Rock Units: Jurassic kimberlite
Meta-basalts
Umbertana Group siltstones
Burra Group siltstones

Location: Carroona 1:100 000

North eastern portion of Carroona, near Pulpara HS and Bendigo HS.

Exploration Summary: Detailed aeromagnetic and radiometric surveys, heavy mineral studies, petrology and ground magnetic traverses were used to locate diamond indicator minerals in cover sequence of ?Recent and Tertiary sediments which overlay Adelaidean formations and occasional mafic igneous bodies. In the area around the 1992 SADME drilling, 3 holes were drilled.

Best Drilling Results:

85 CBRC1 drilled a circular patch of soft soil 200 m in diameter which showed the correct indicator minerals in a soil sample. After drilling, the flat topographic anomaly appeared to be caused by the formation of an ancient gypsiferous lake. Total depth 10.5 m in clayey sandstone (possibly silcrete).

85 CBRC2A abandoned in shallow gravel.

85 CBRC2B cored 2 m of a thinly laminated grey green mudstone with fine iron flecks. Analysis showed only background values of base metals. Total depth 28 m.

Company: Peregrine Resources (Aust) NL

Tenement: EL 1510, 1511, 1512

Source: SADME Open File Env 8059

Duration: October 1988 to March 1989

Target: Mineral sands

Secondary Targets:

Age/Rock Units: Pliocene Parilla Sand, Murray Basin

Location: Burkaby 1:100 000
Near Mt Bryan Well, between Kia Ora HS and Braeside HS.

Exploration Summary: Pliocene sediments containing heavy mineral sands in the western margin of the Murray Basin cover the Adelaidean basement.

Targets were located after flying a low level, high sensitivity airborne magnetic and radiometric survey.

Drill hole WT 13 drilled to 40 m deep intersected a pale grey/green phyllitic siltstone. Samples from overlying Recent and Tertiary sediments were analysed for heavy mineral sands.

Base metals were not analysed for.

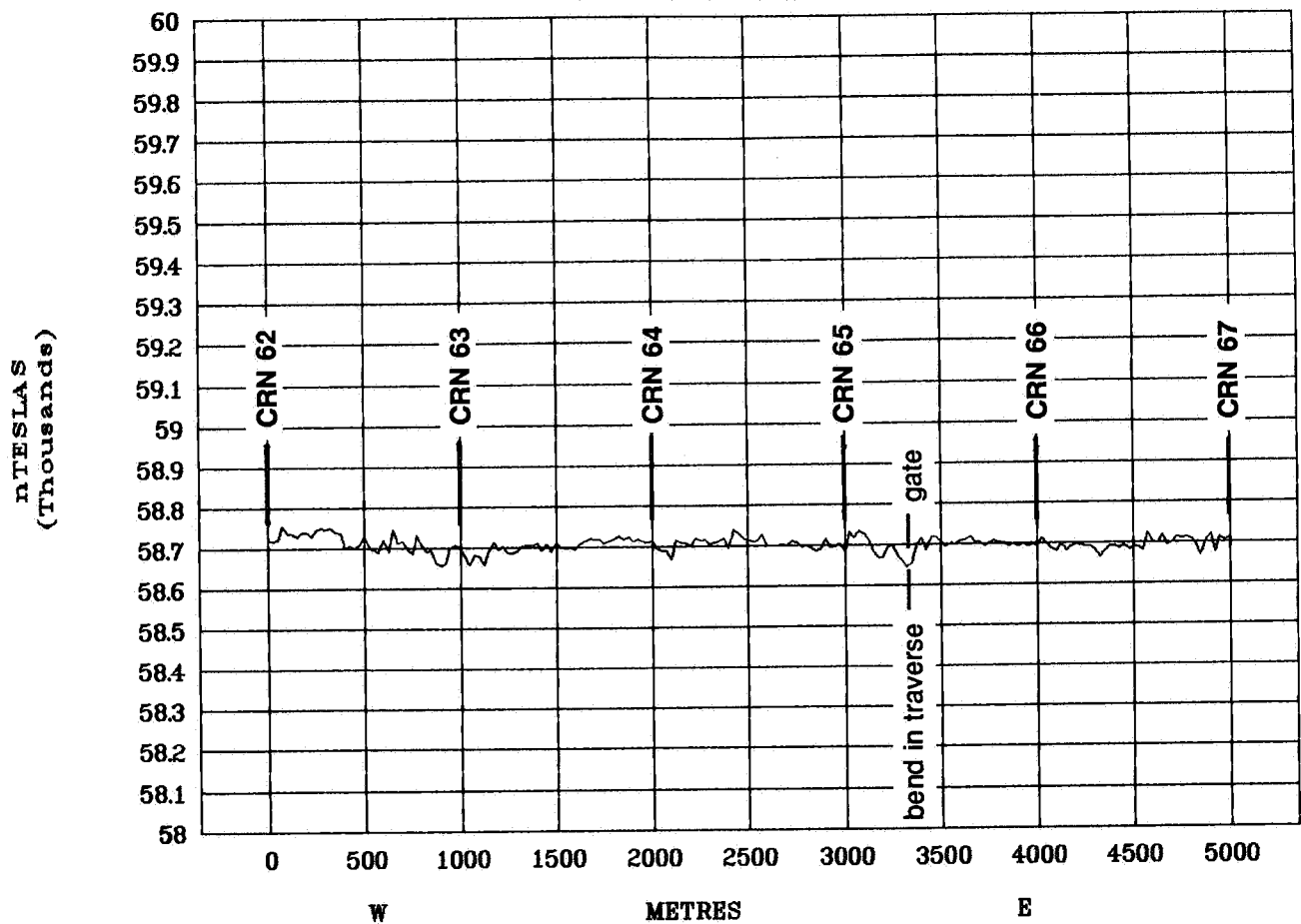
Best Drilling Results:

APPENDIX C

GROUND MAGNETIC PROFILES

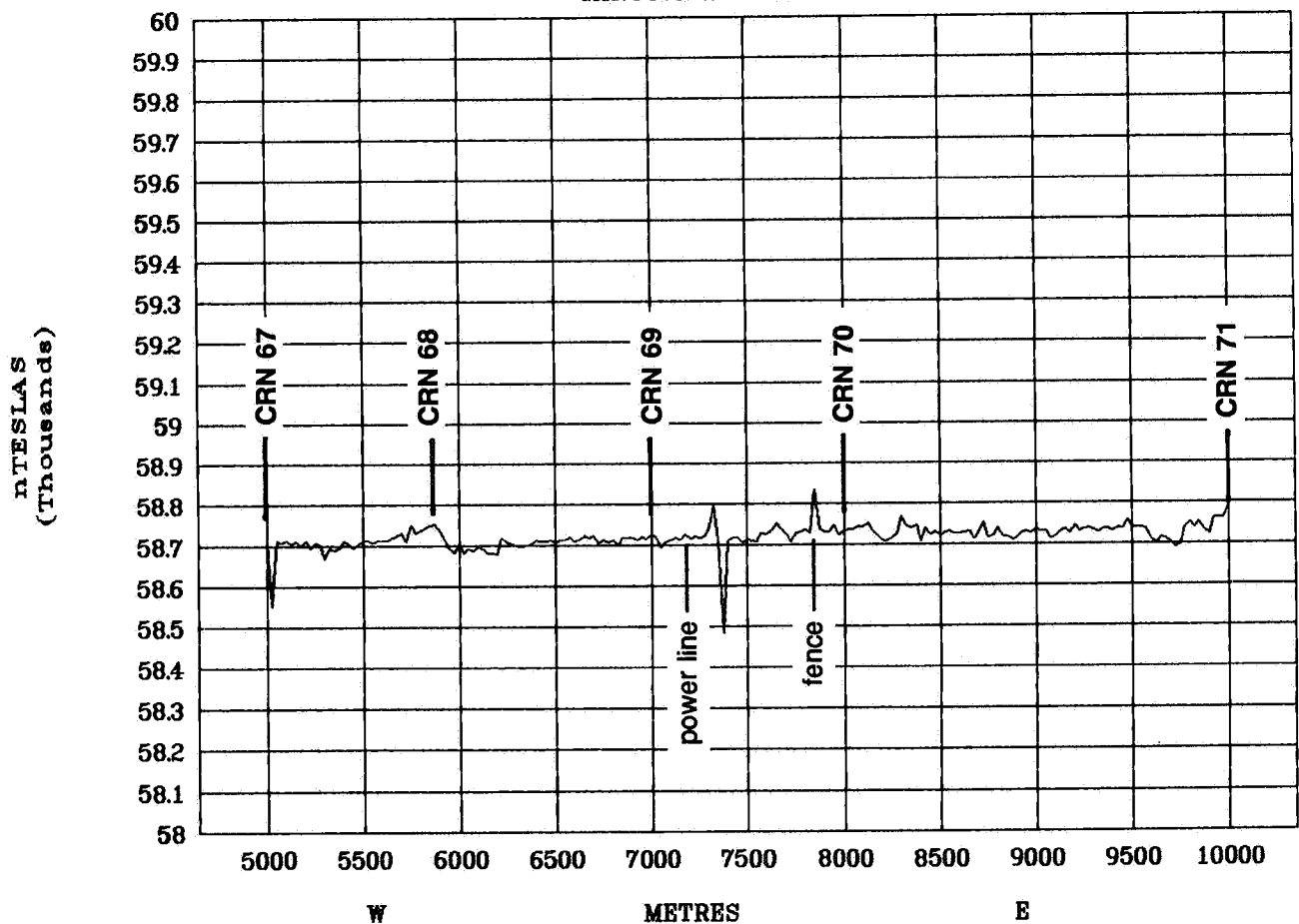
CAROONA-HOG BACK

CAROONA:2940N_1



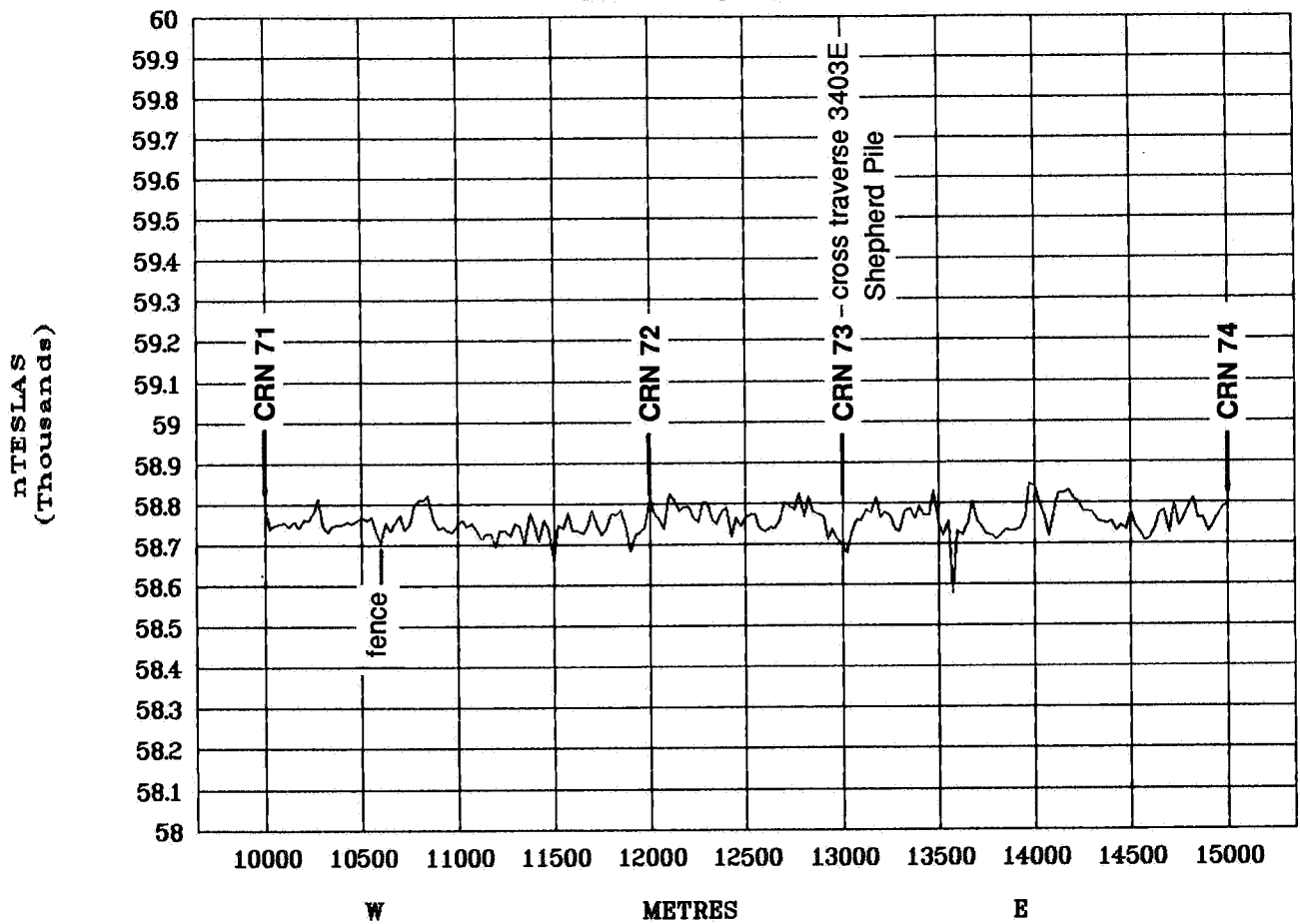
CAROONA-HOG BACK

CAROONA:2940N_2



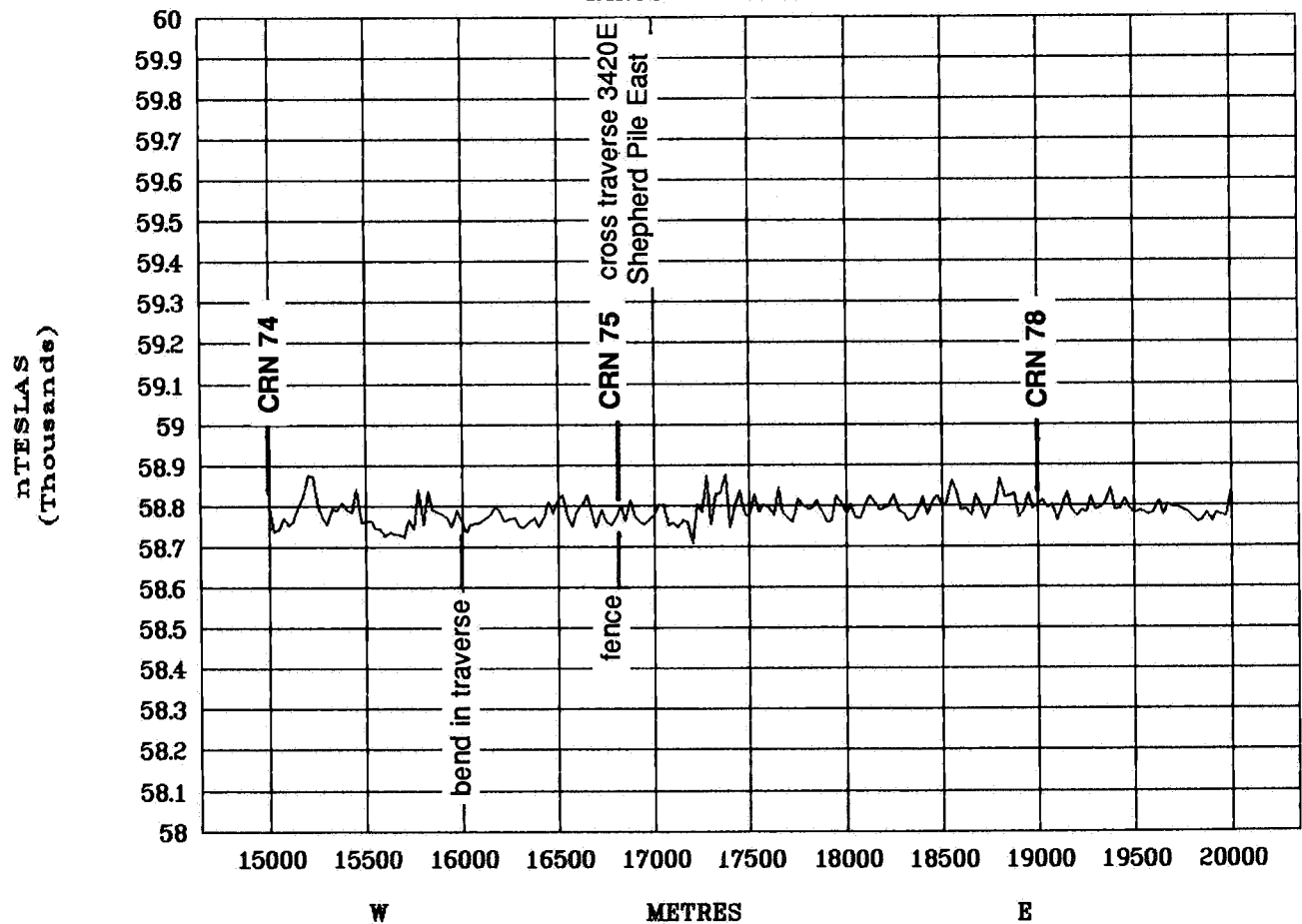
CAROONA-HOG BACK

CAROONA:2940N_3



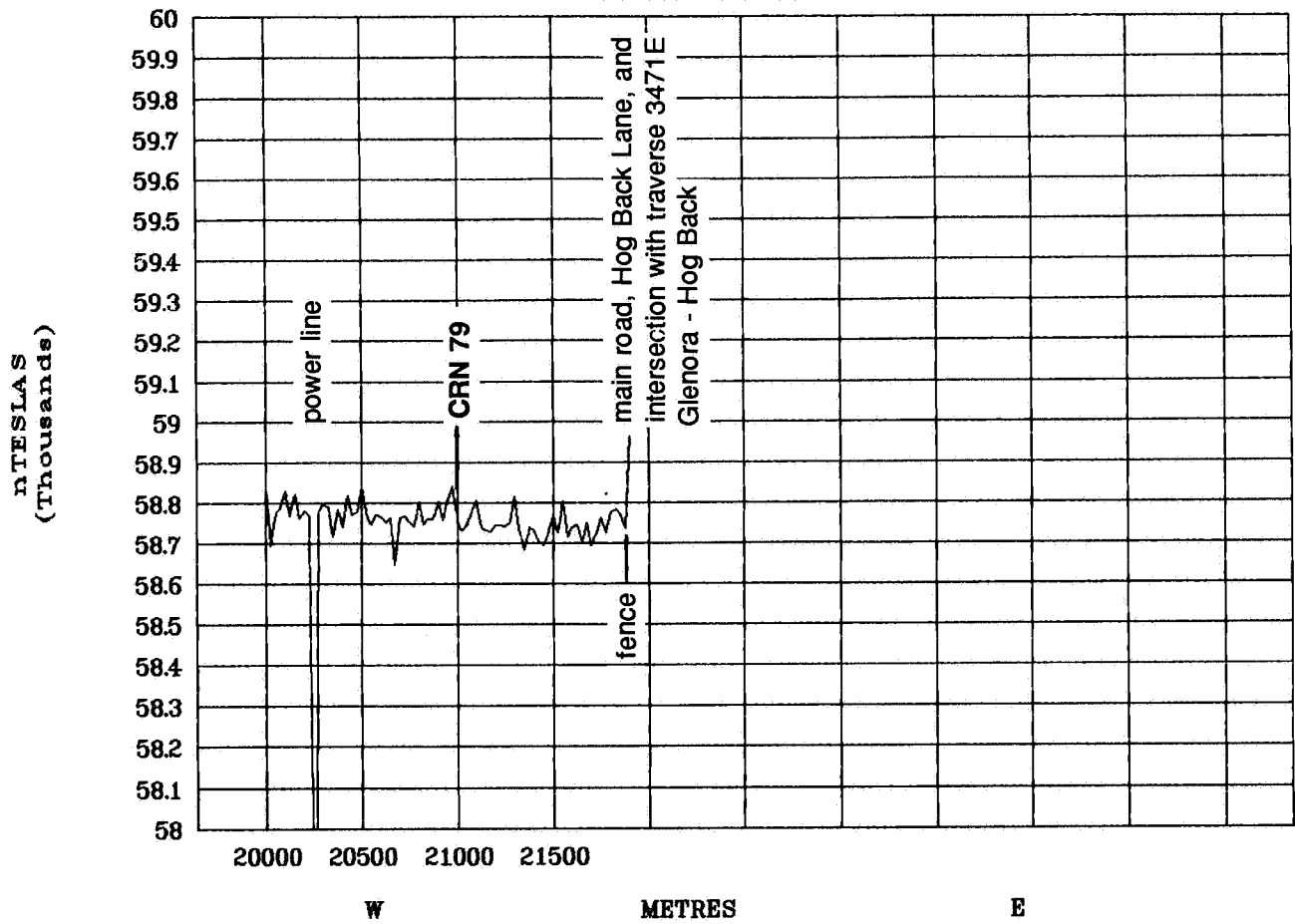
CAROONA-HOG BACK

CAROONA:2940N_4



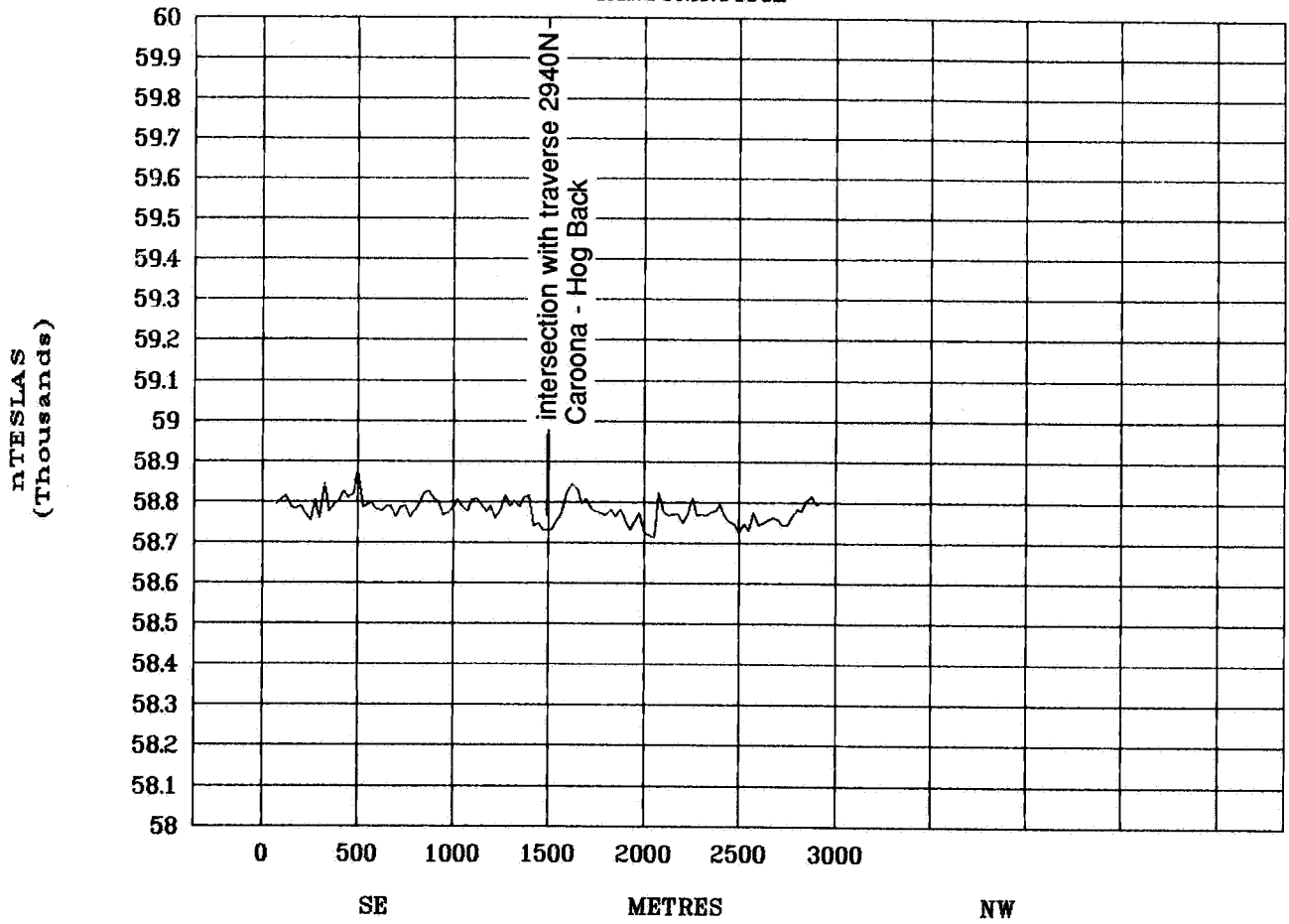
CAROONA-HOG BACK

CAROONA:2940N_5



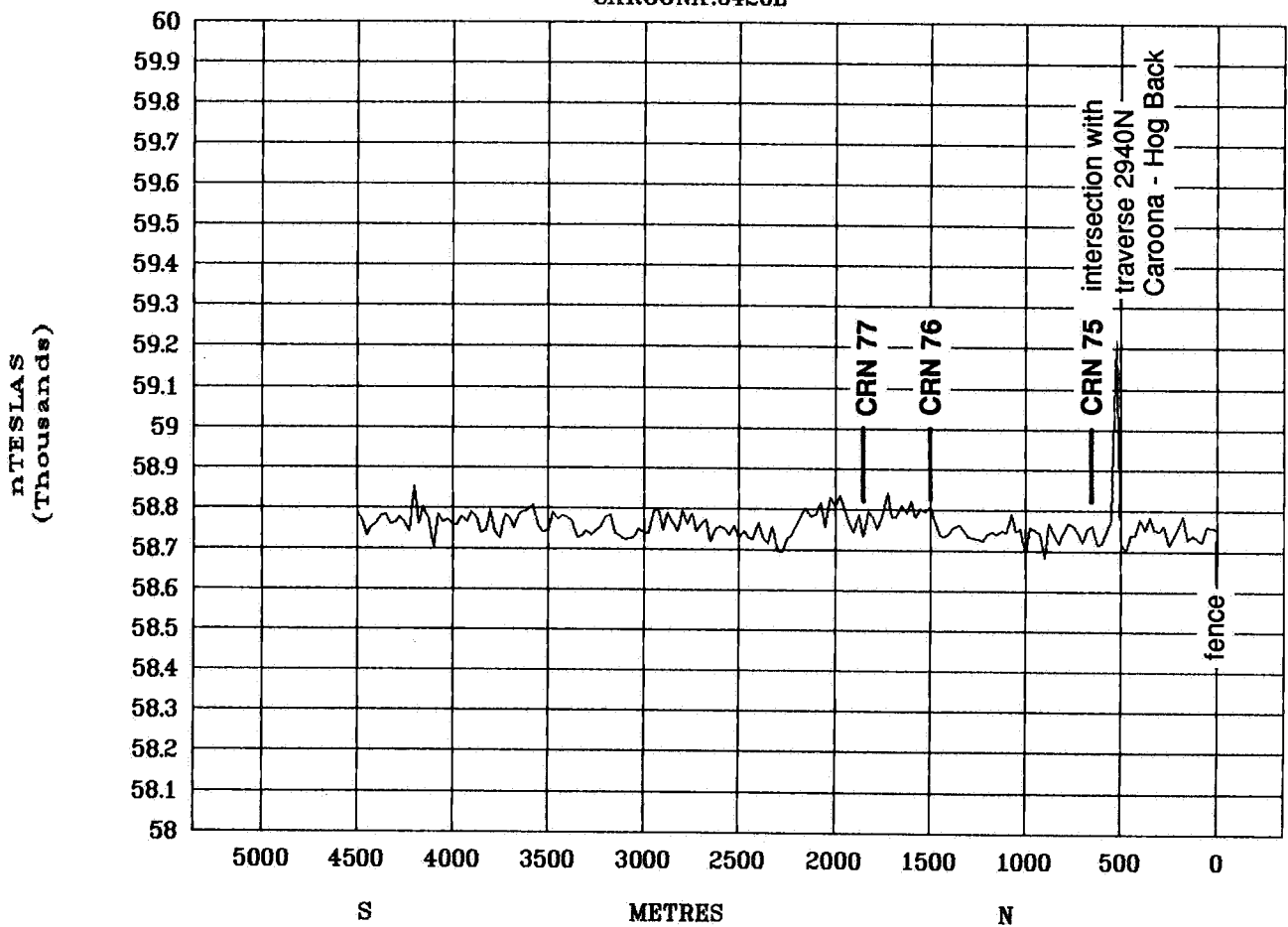
SHEPHERD PILE

CAROONA:3403E



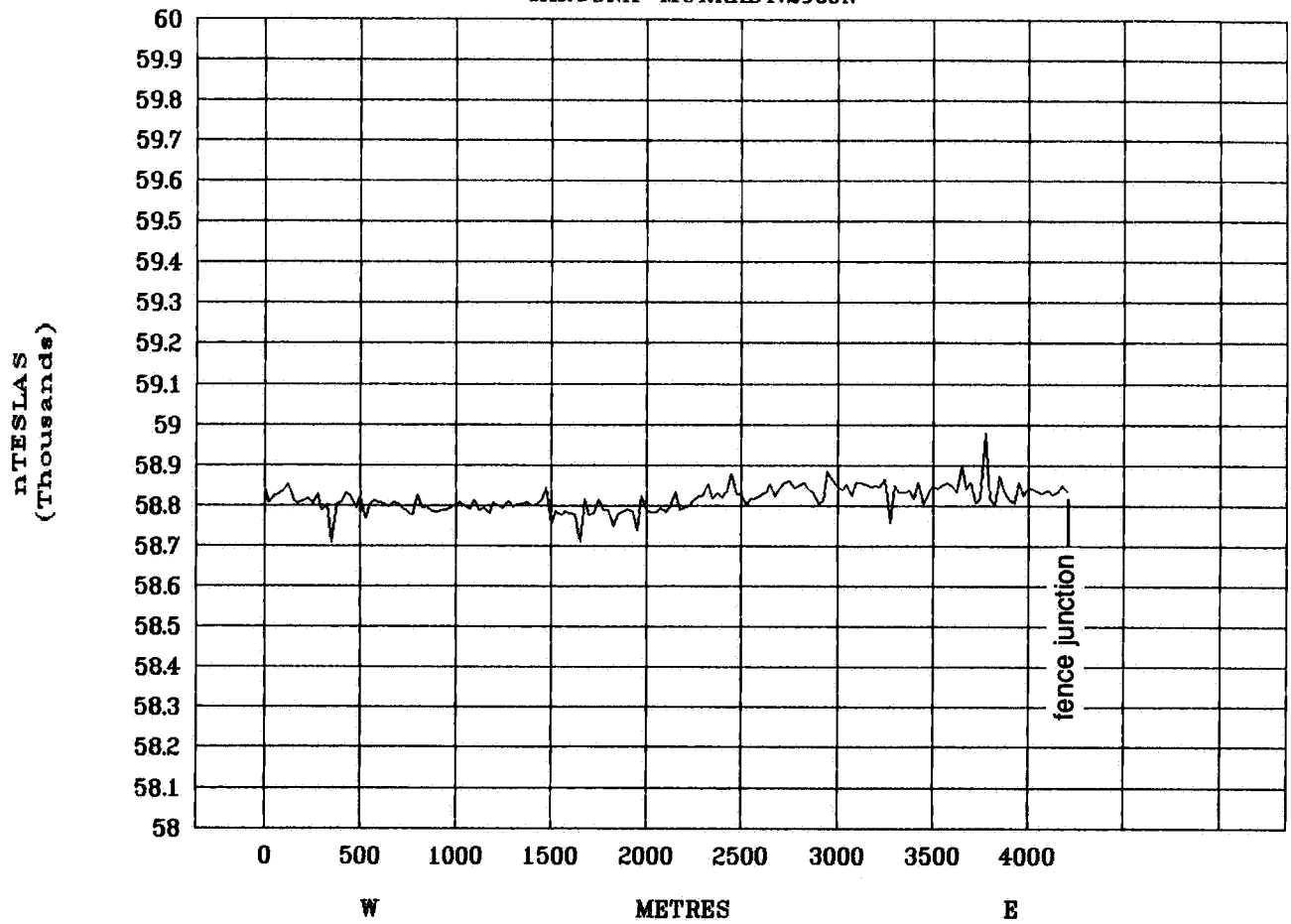
SHEPHERD PILE EAST

CAROONA:3420E



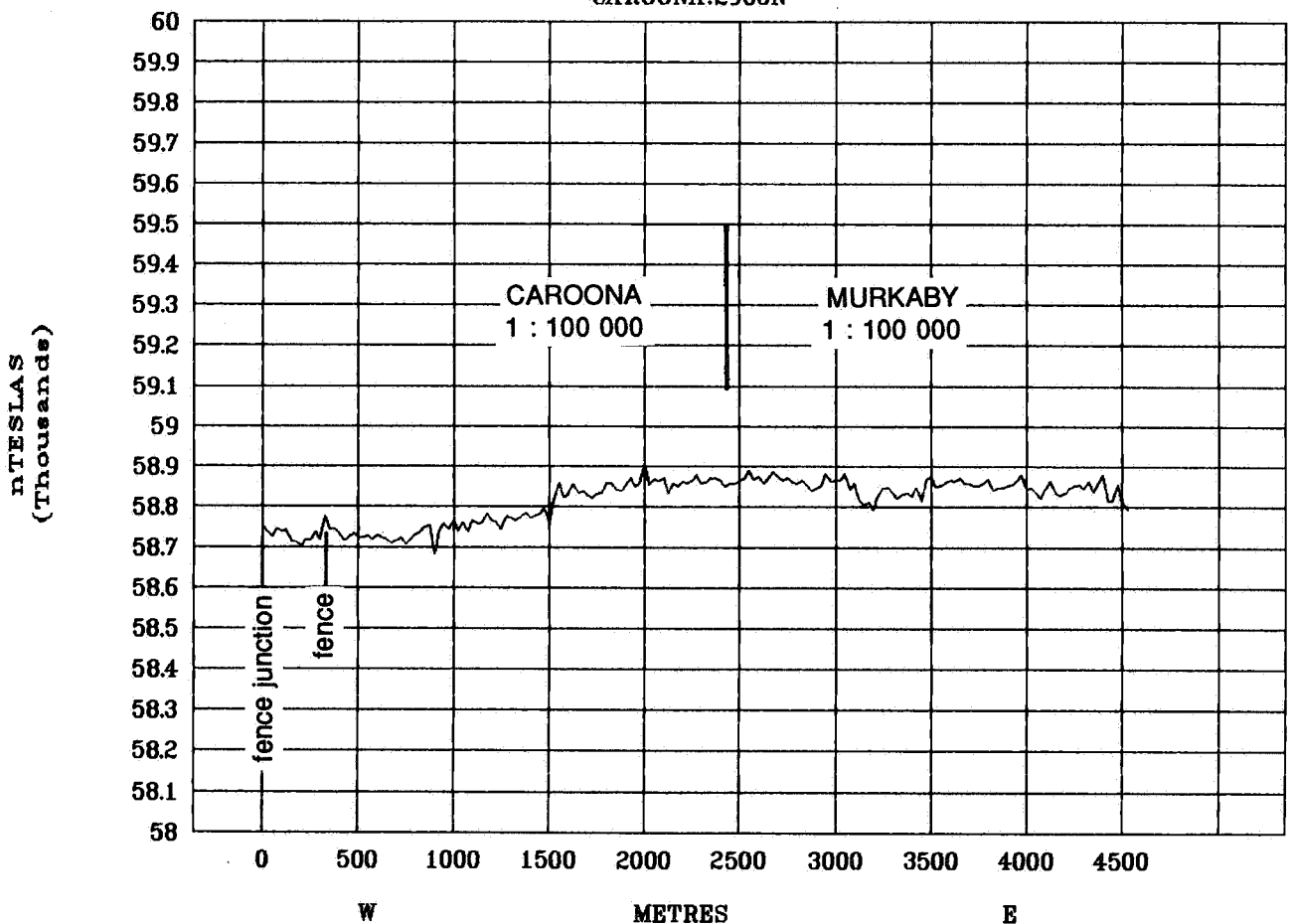
ALICE DAM

CAROONA - MURKABY:2968N



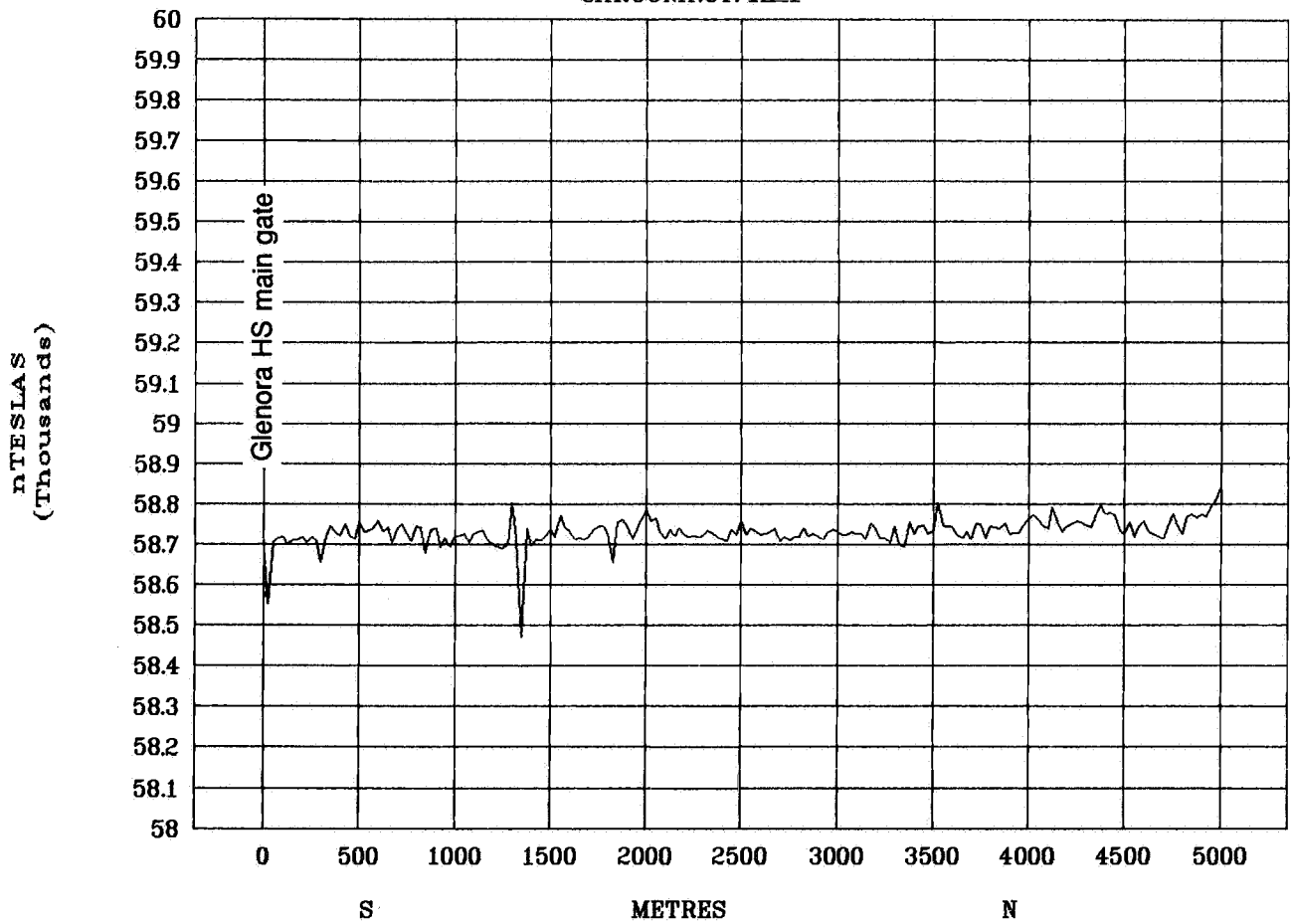
HARD DAM

CAROONA:2983N



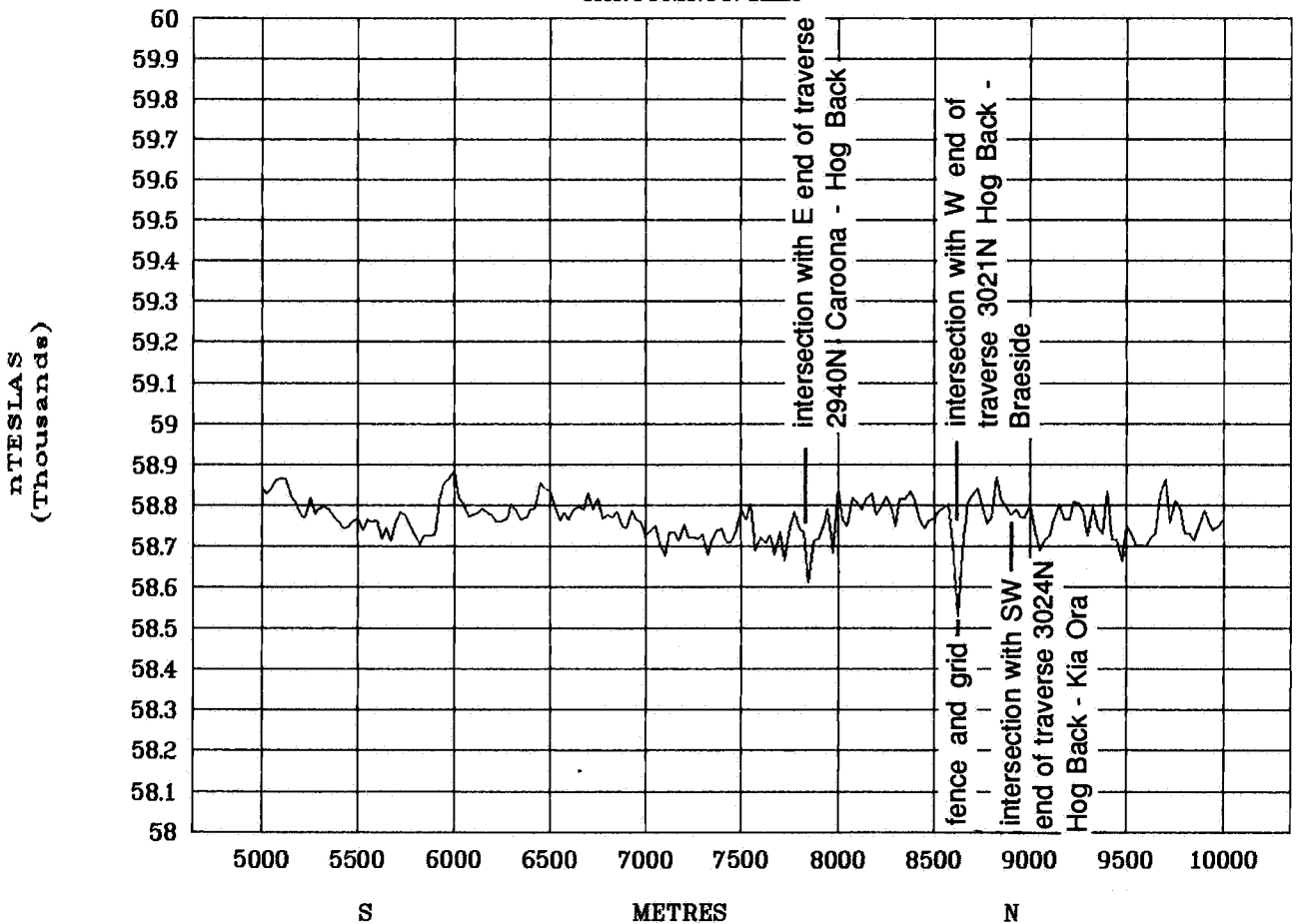
GLENORA-HOG BACK

CAROONA:3471E_1



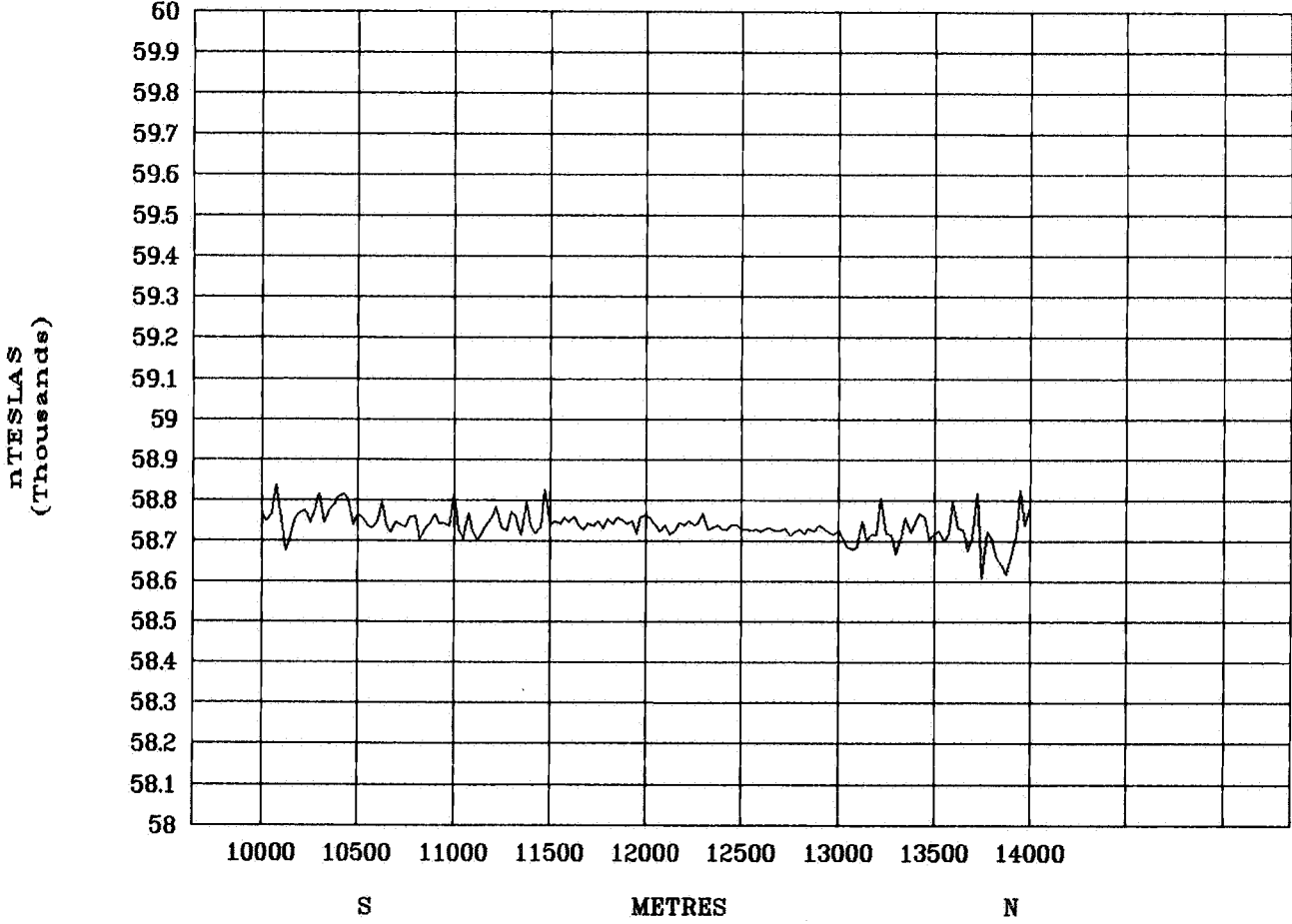
GLENORA-HOG BACK

CAROONA:3471E_2



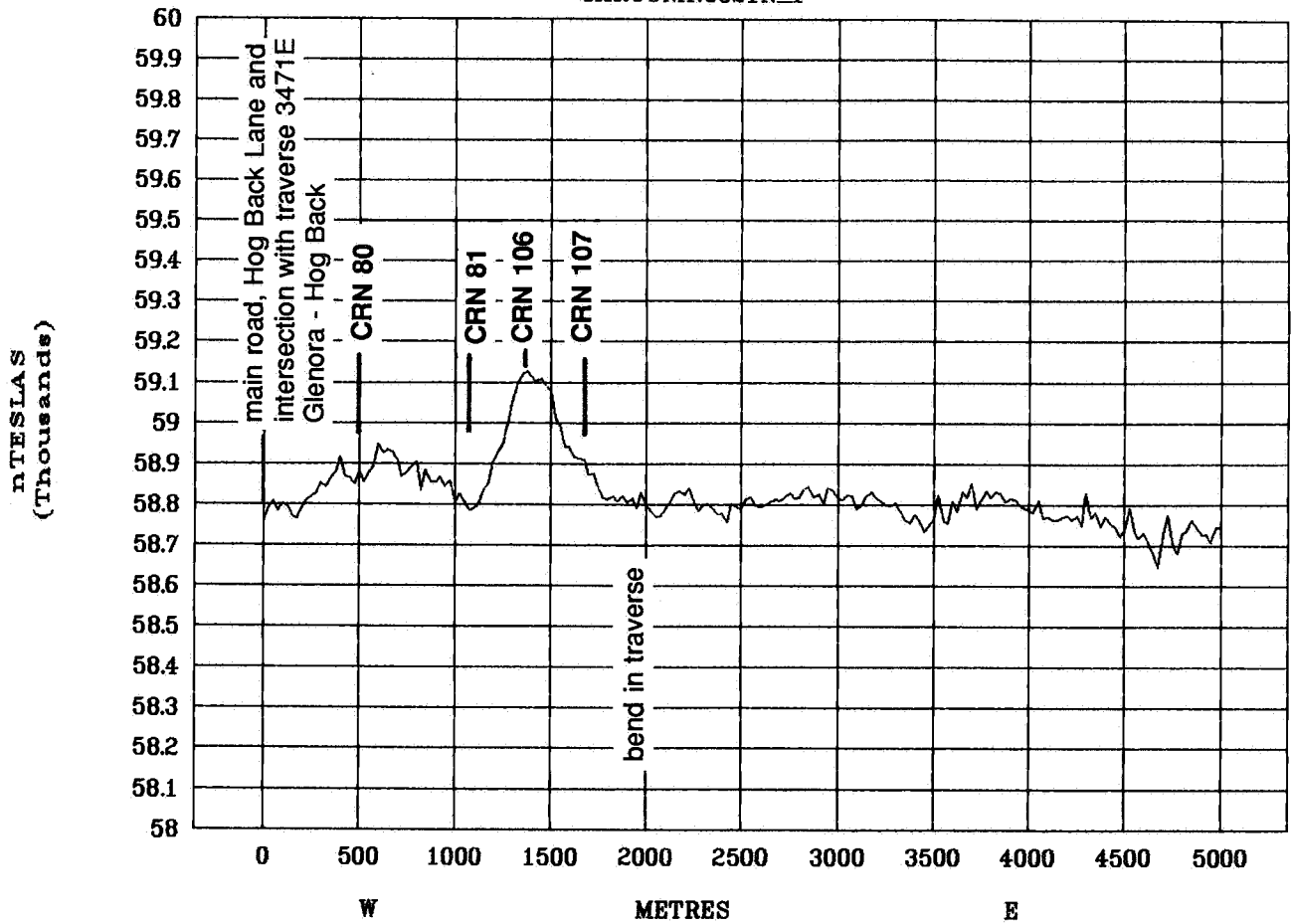
GLENORA-HOG BACK

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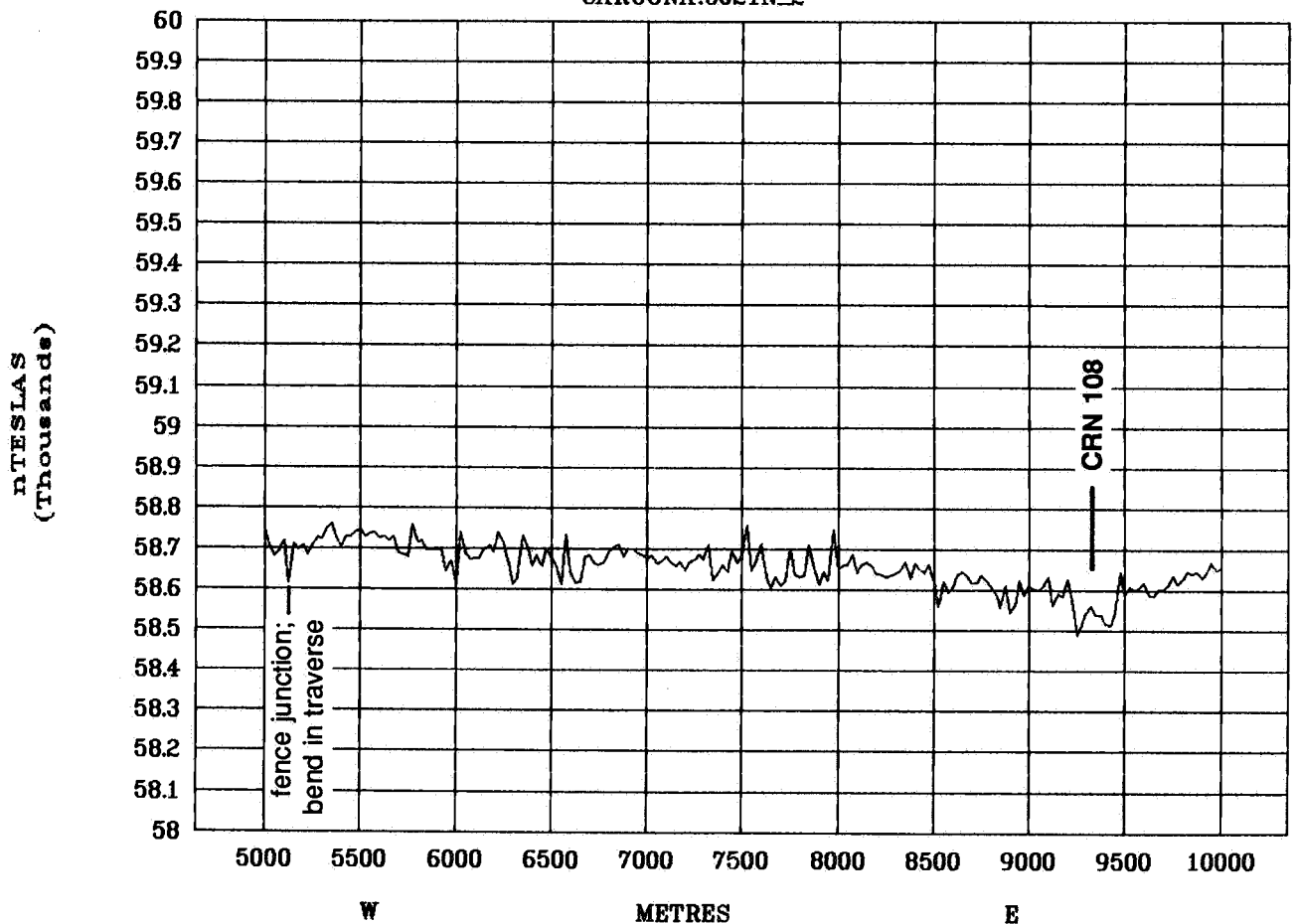
HOG BACK-BRAESIDE

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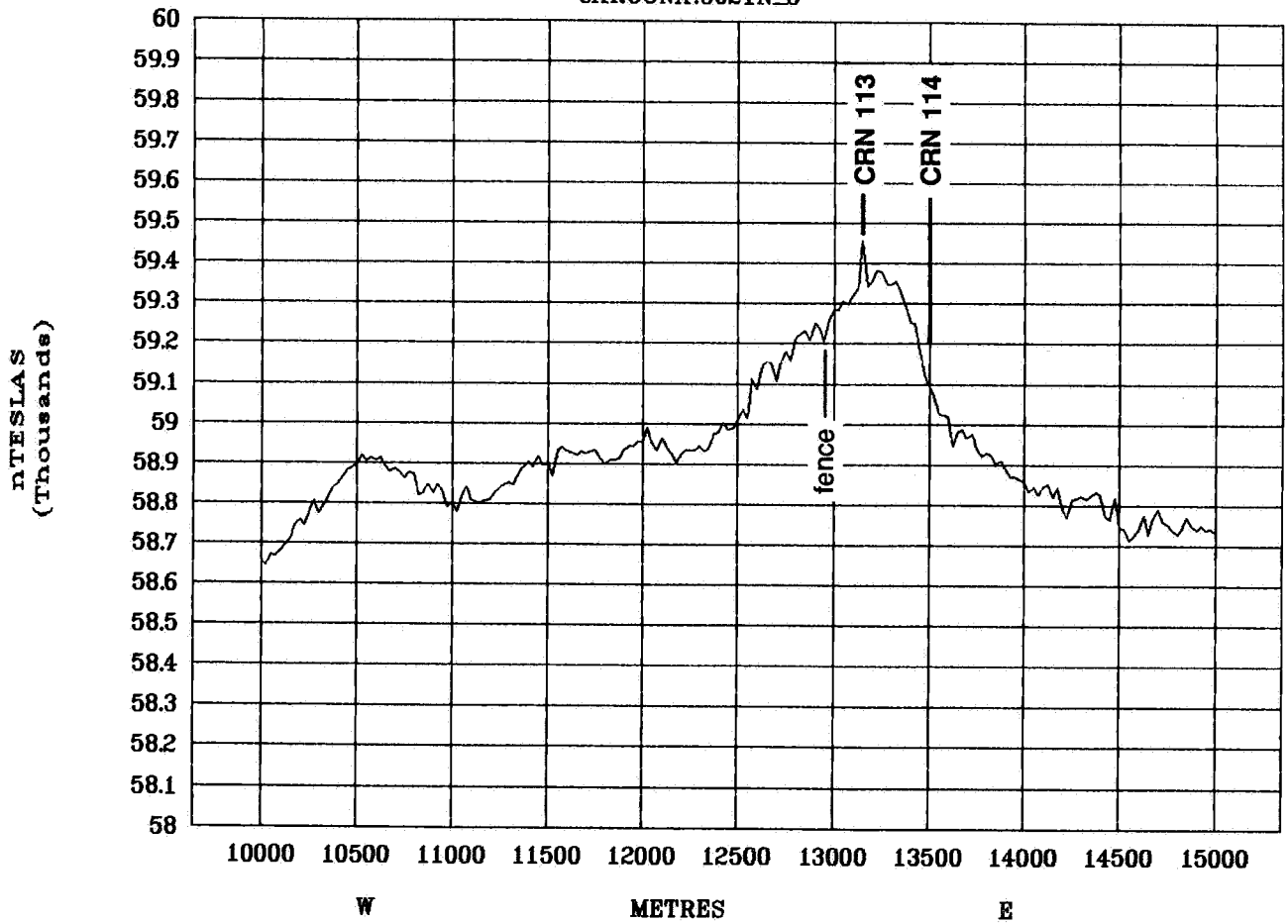
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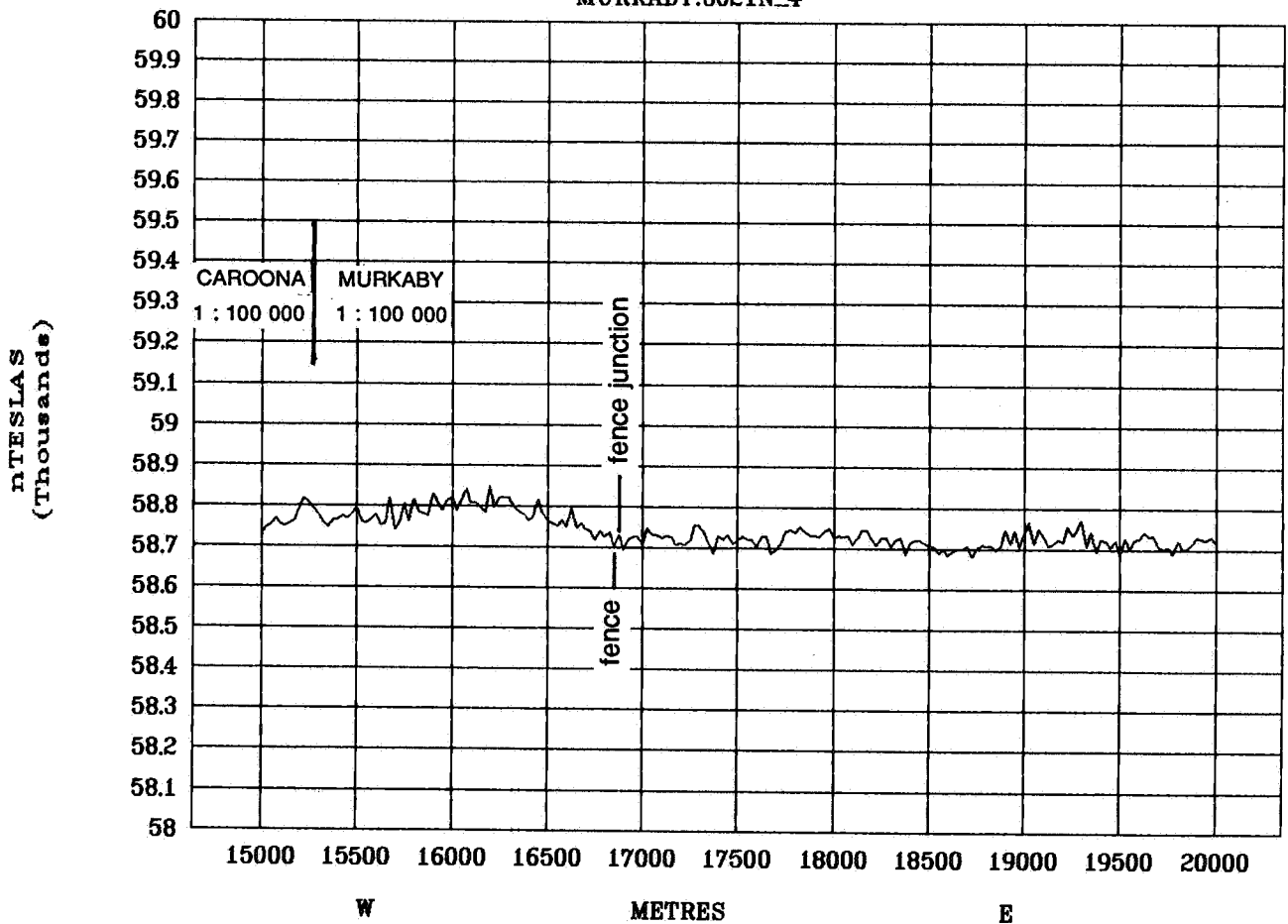
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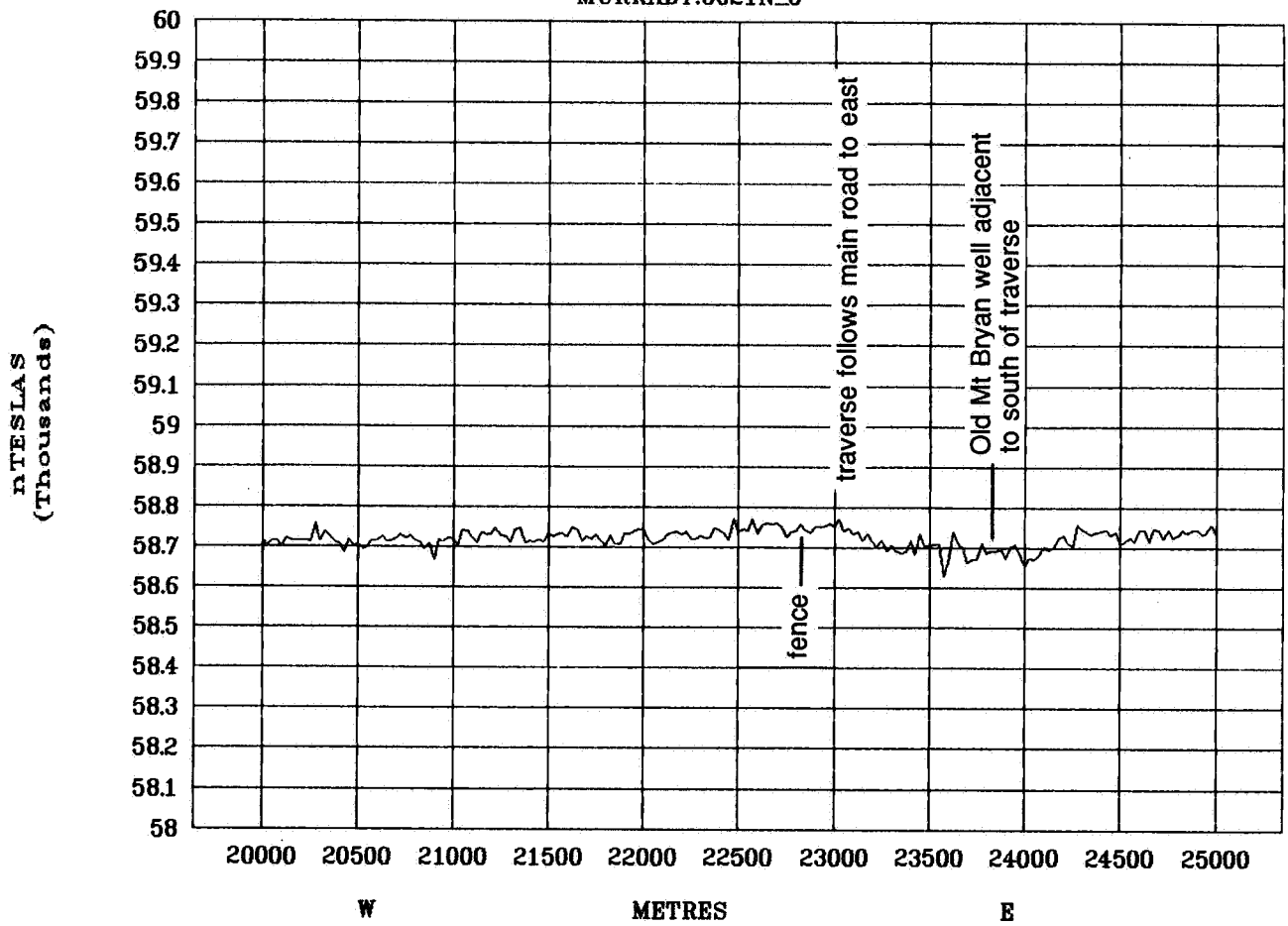
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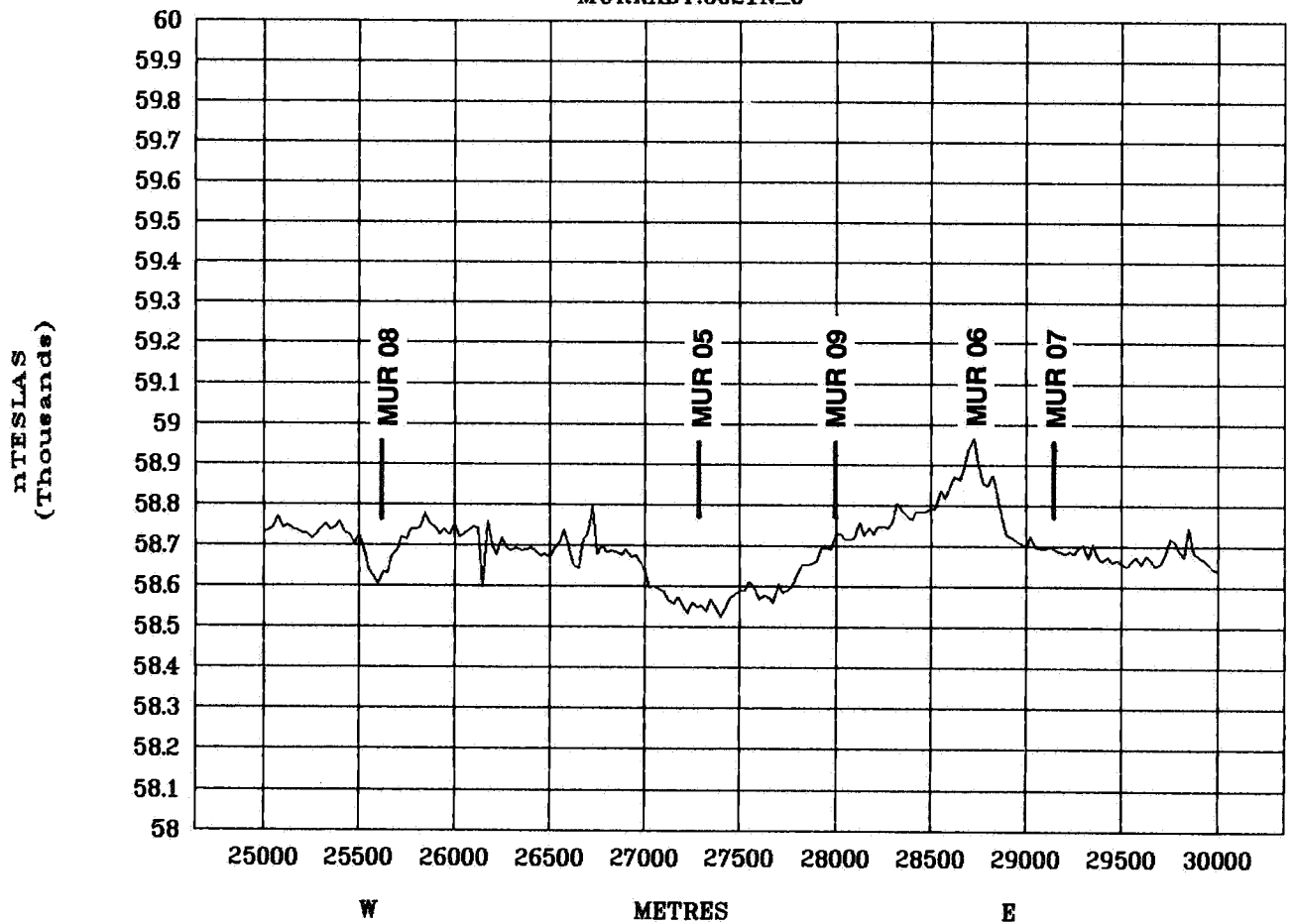
HOG BACK-BRAESIDE

MURKABY:3021N_5



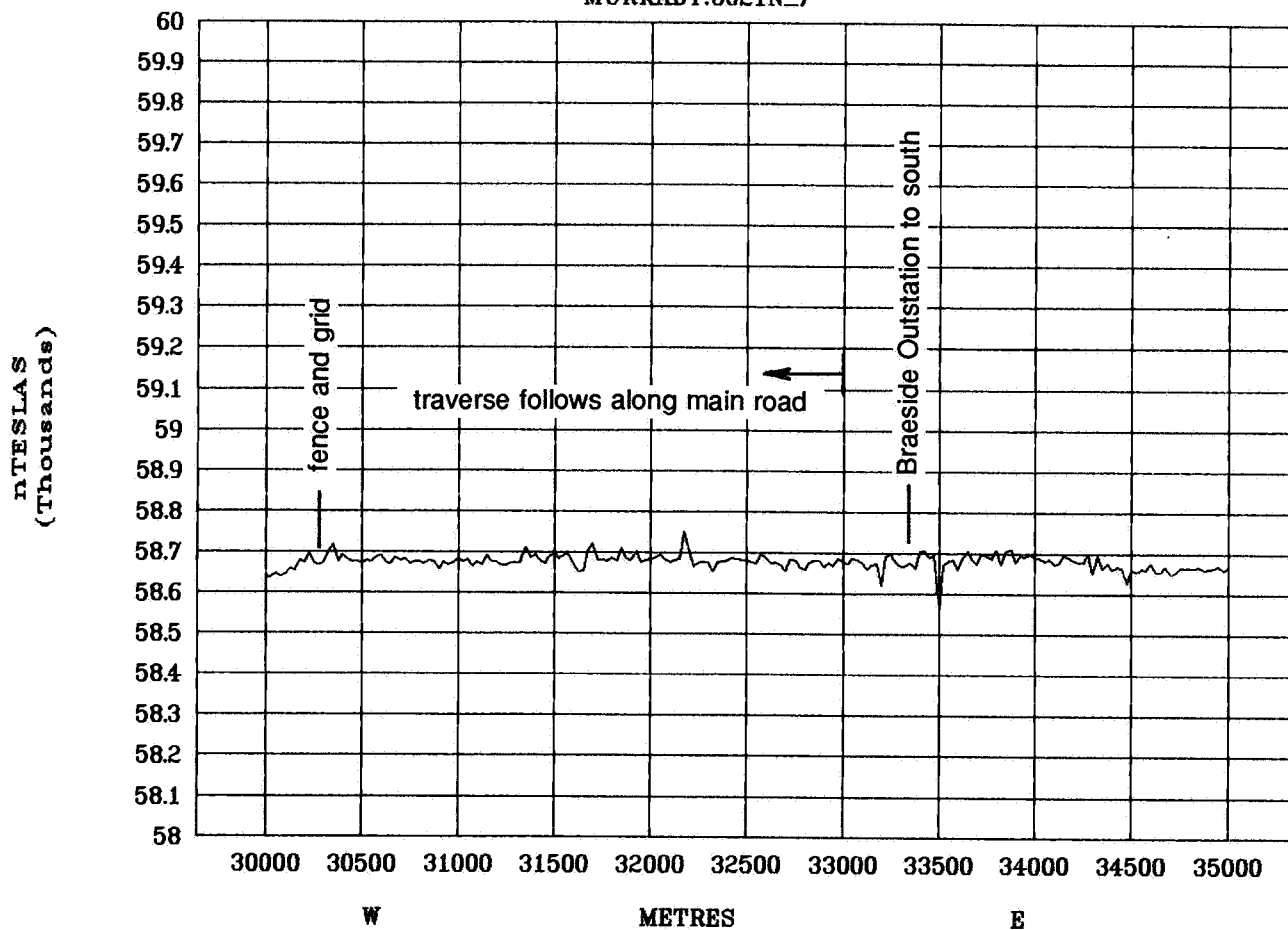
HOG BACK-BRAESIDE

MURKABY:3021N_6



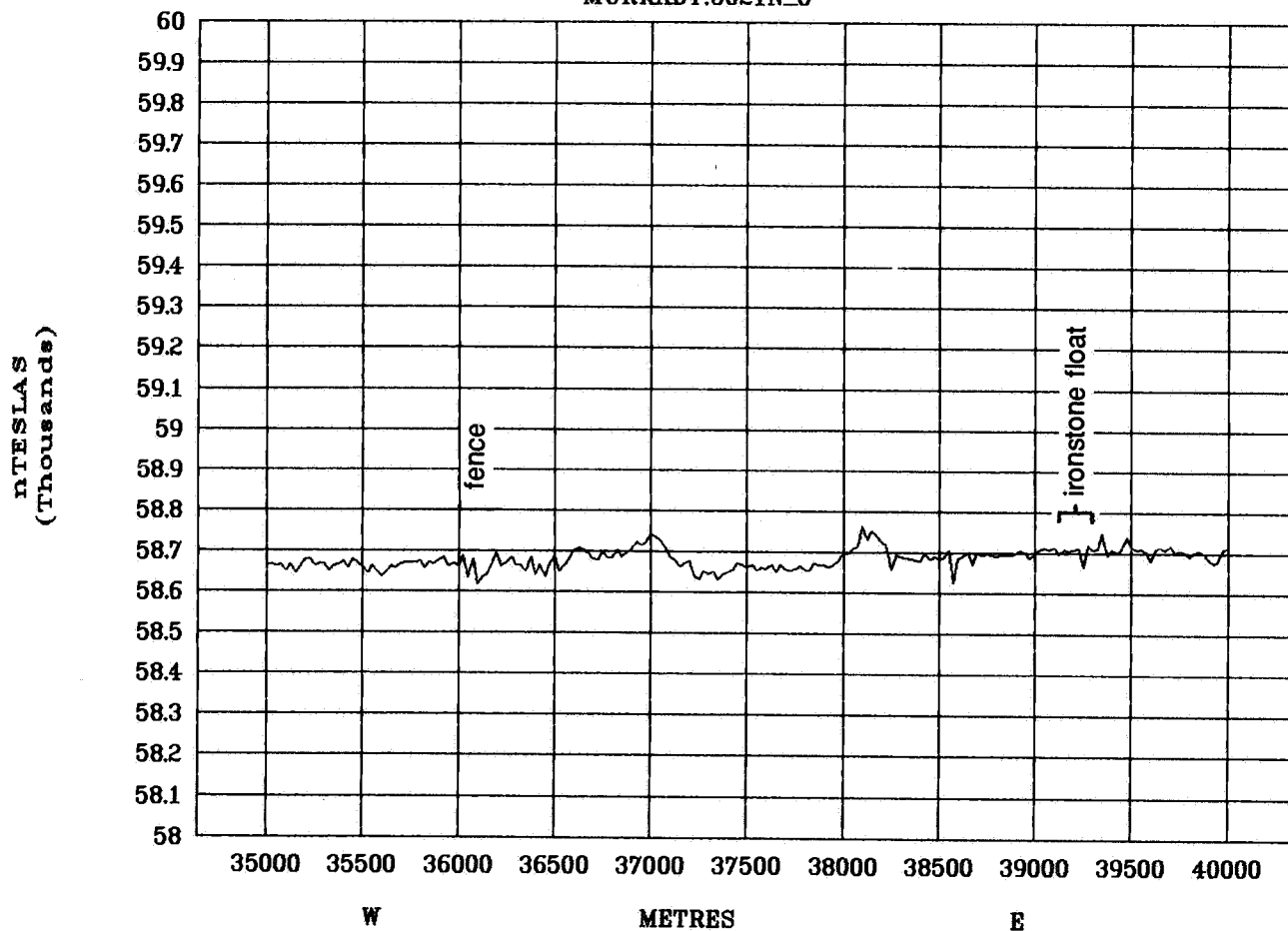
HOG BACK-BRAESIDE

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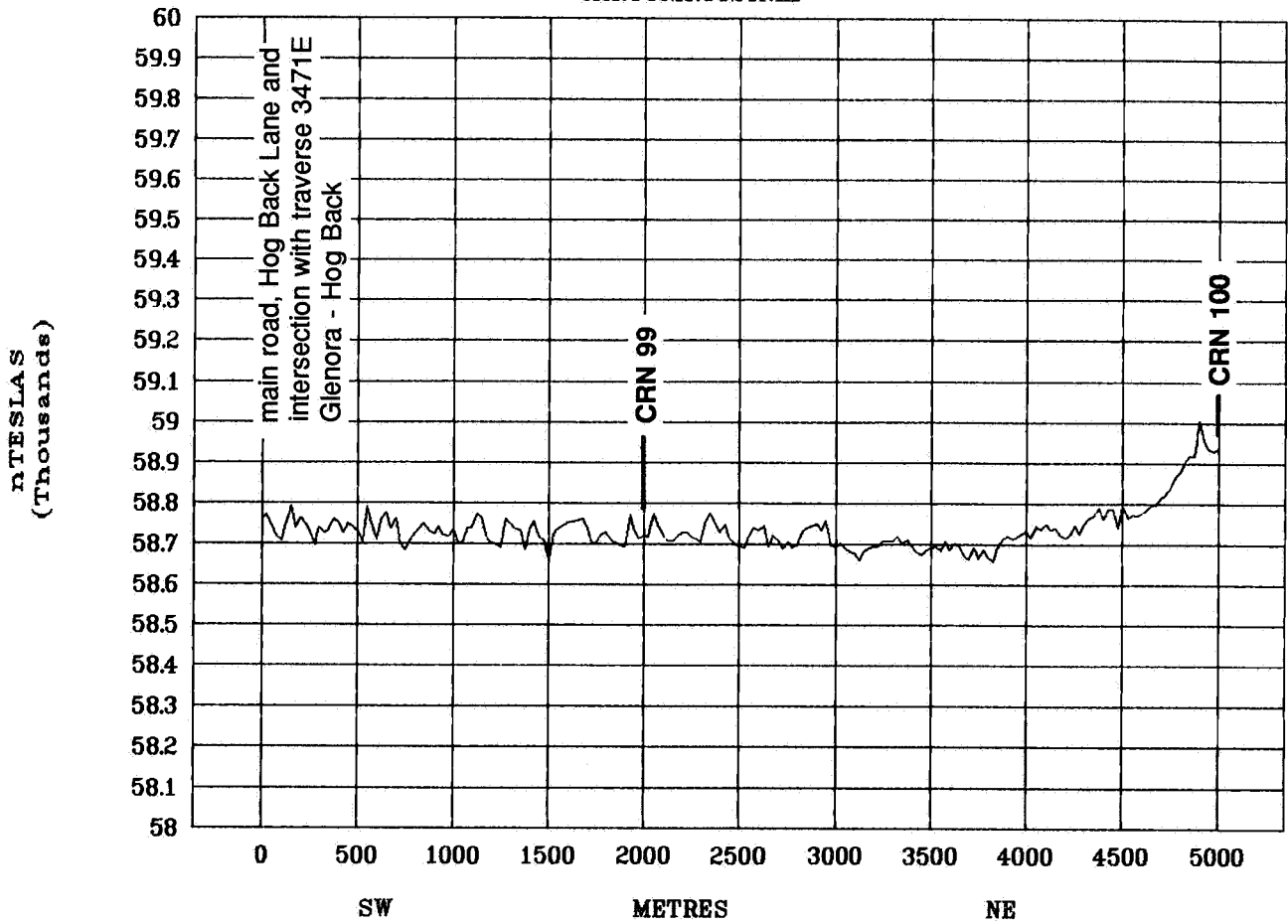
HOG BACK-BRAESIDE

MURKABY:3021N_8



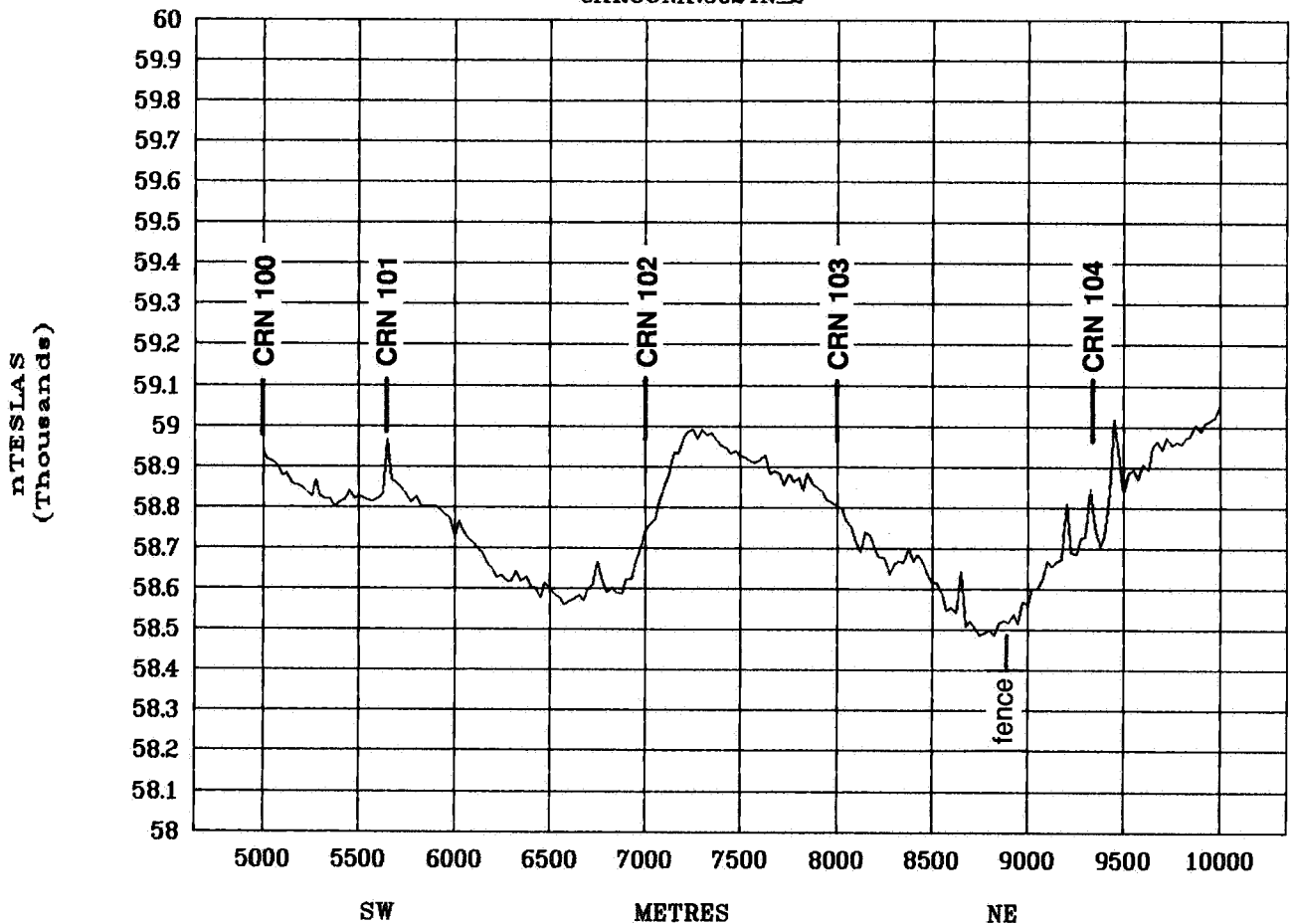
HOG BACK-KIA ORA

CAROONA:3024N_1



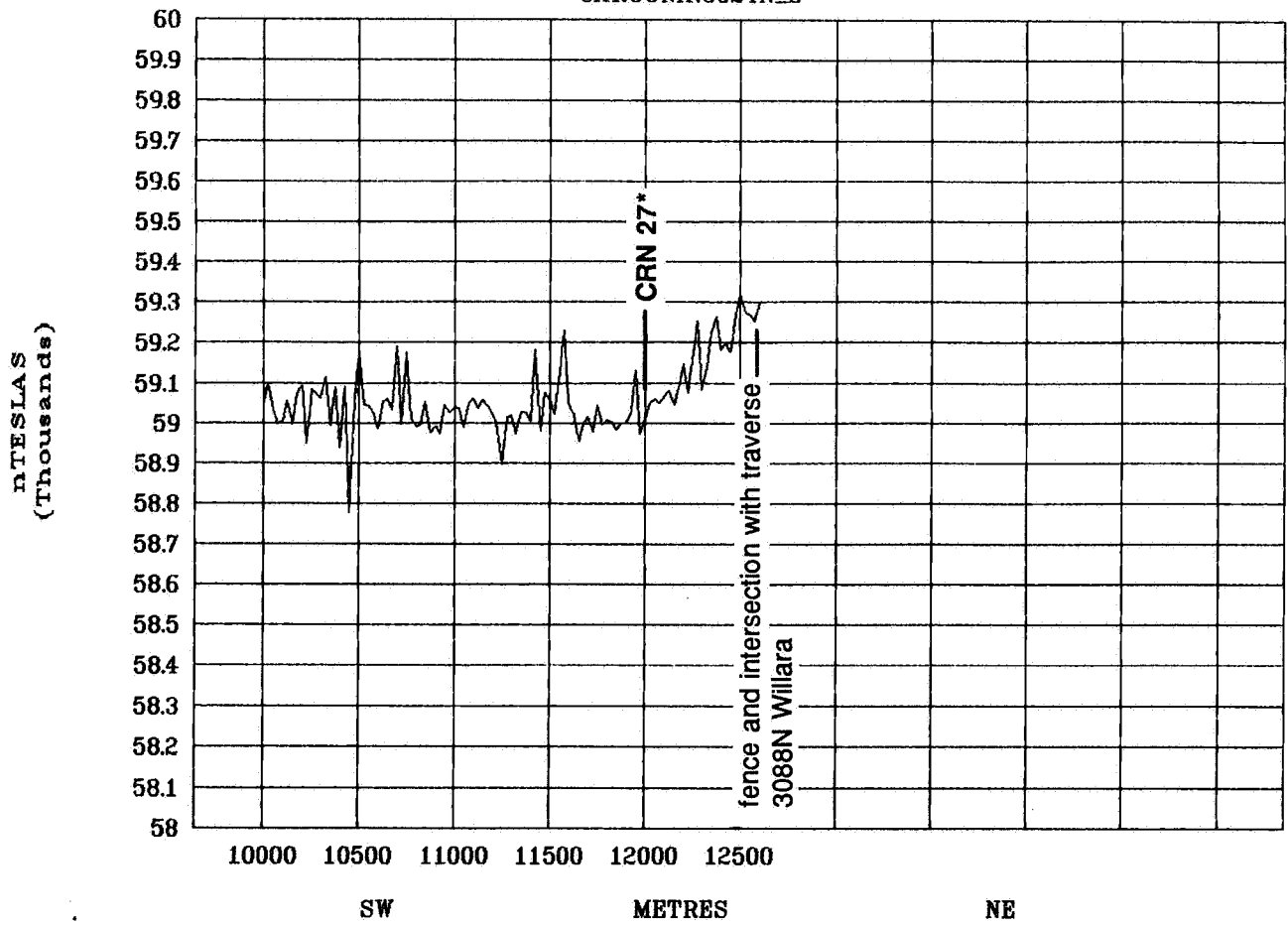
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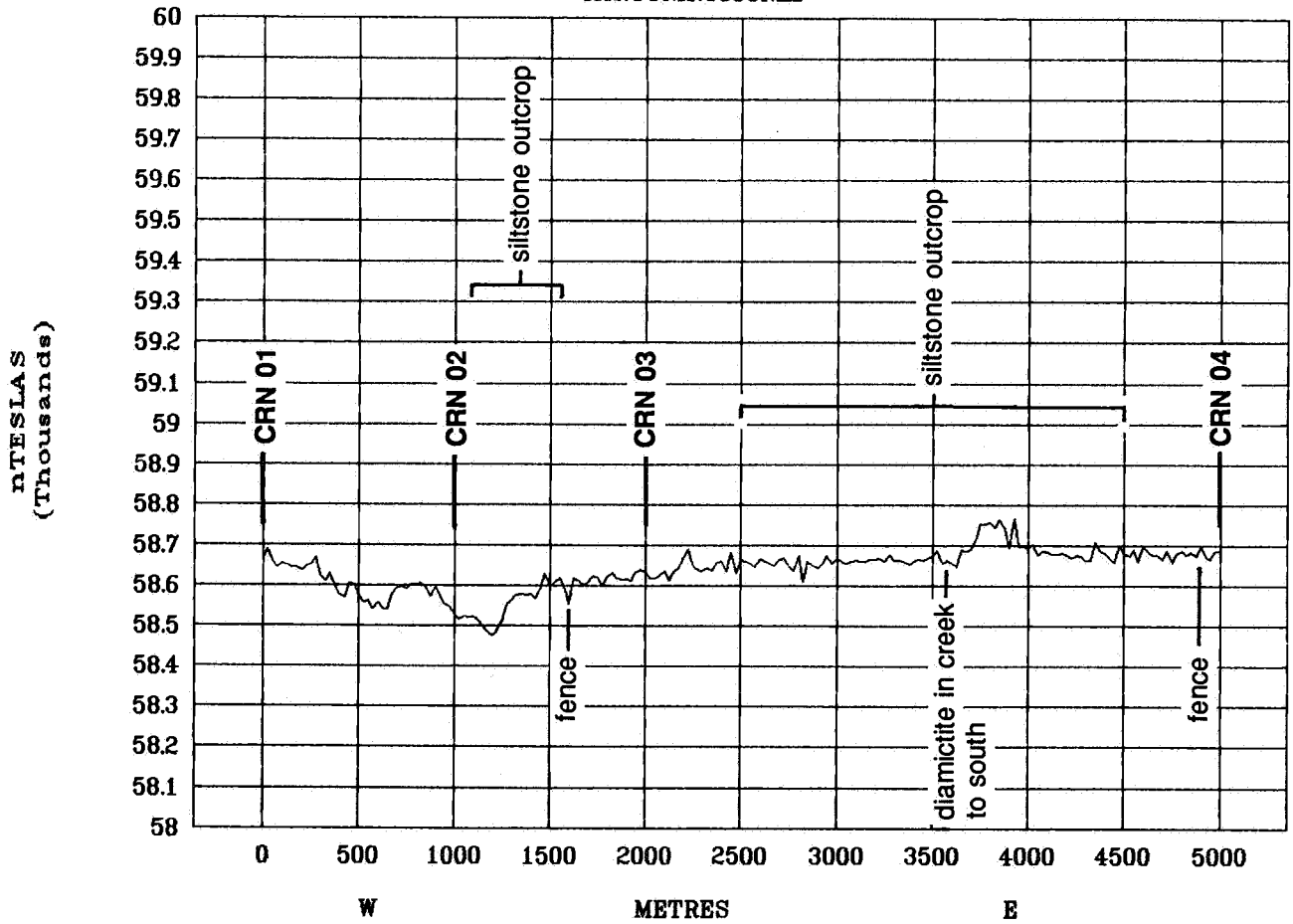
HOG BACK-KIA ORA

CAROONA:3024N_3



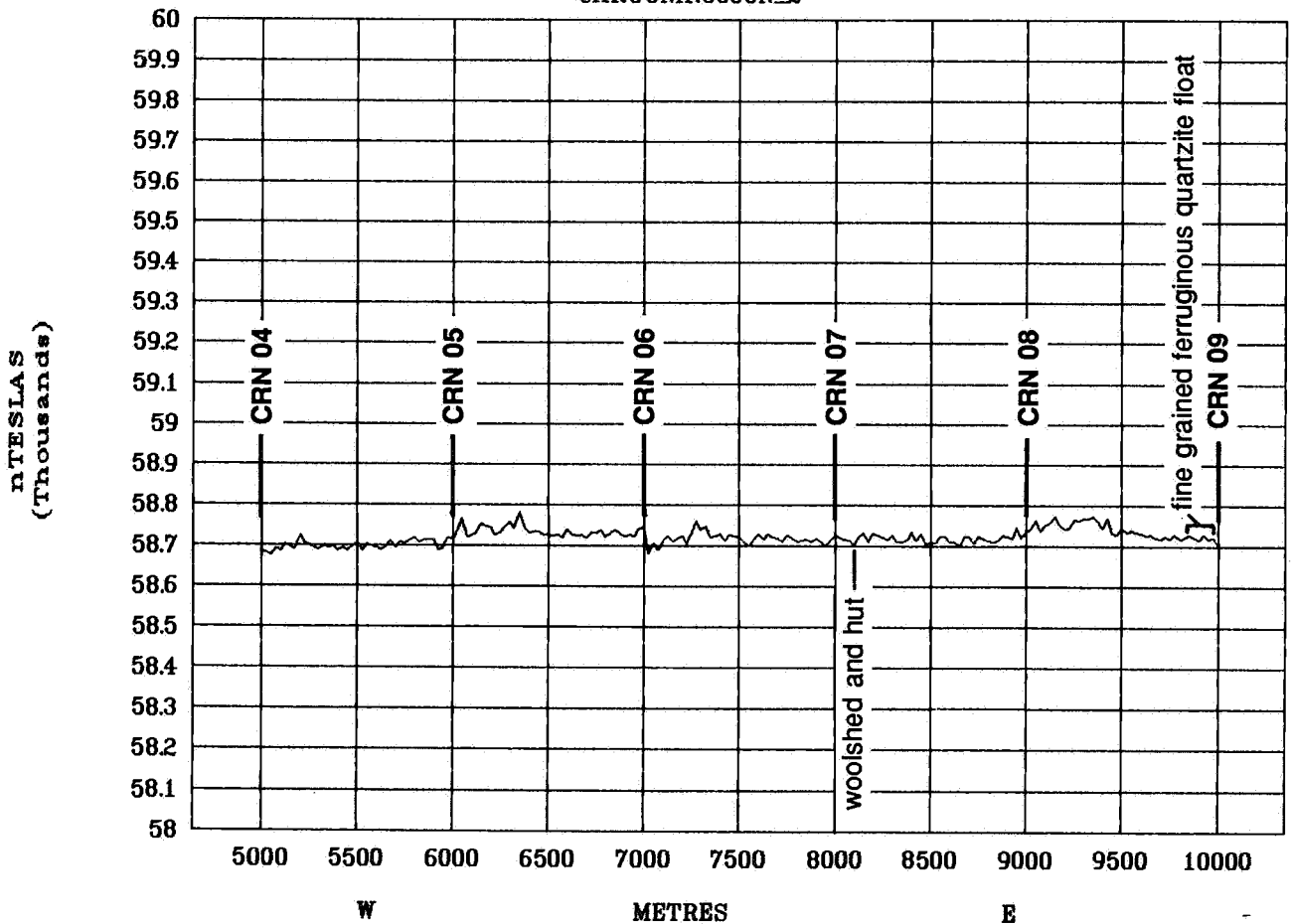
WILLARA

CAR00NA:3088N_1



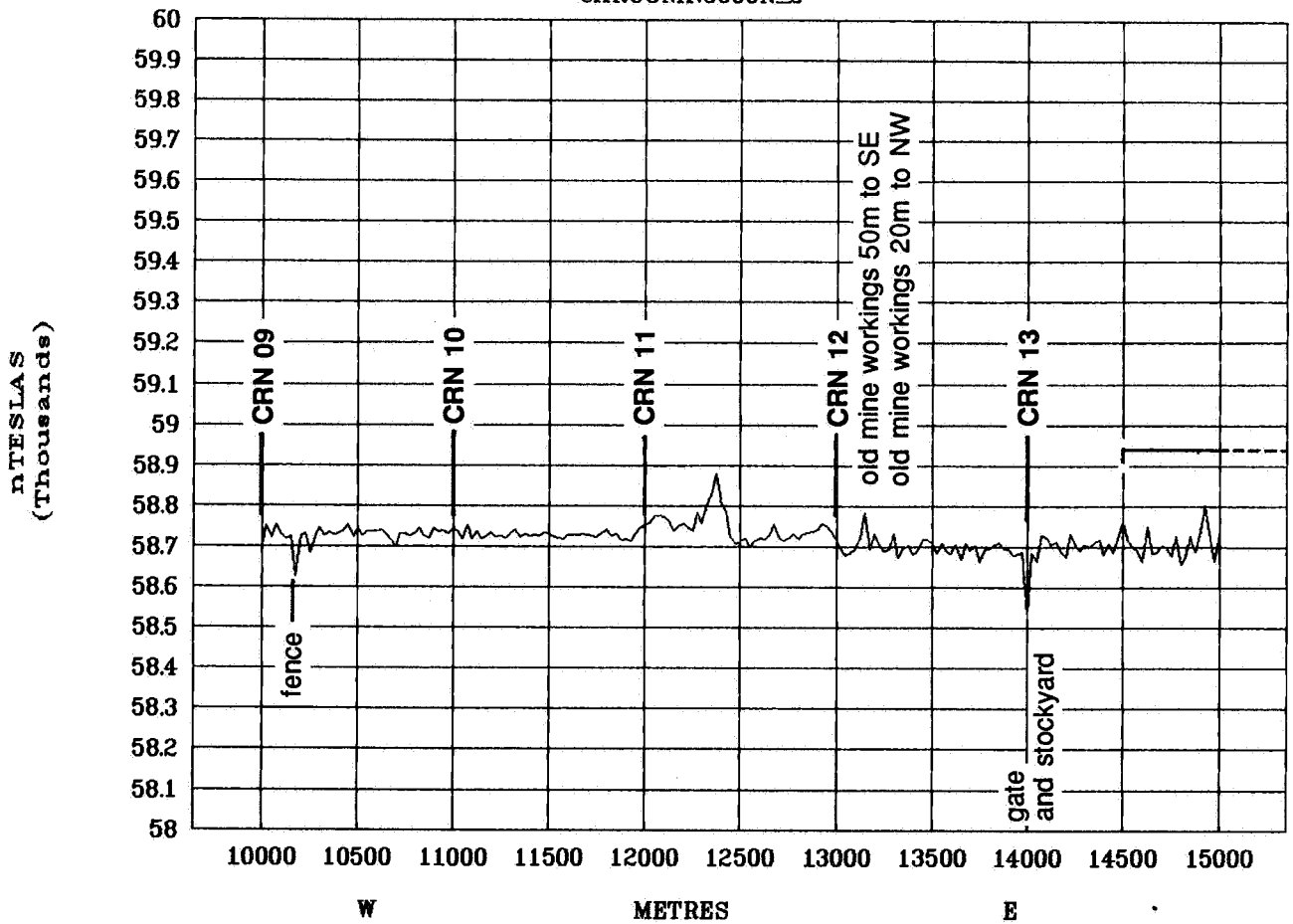
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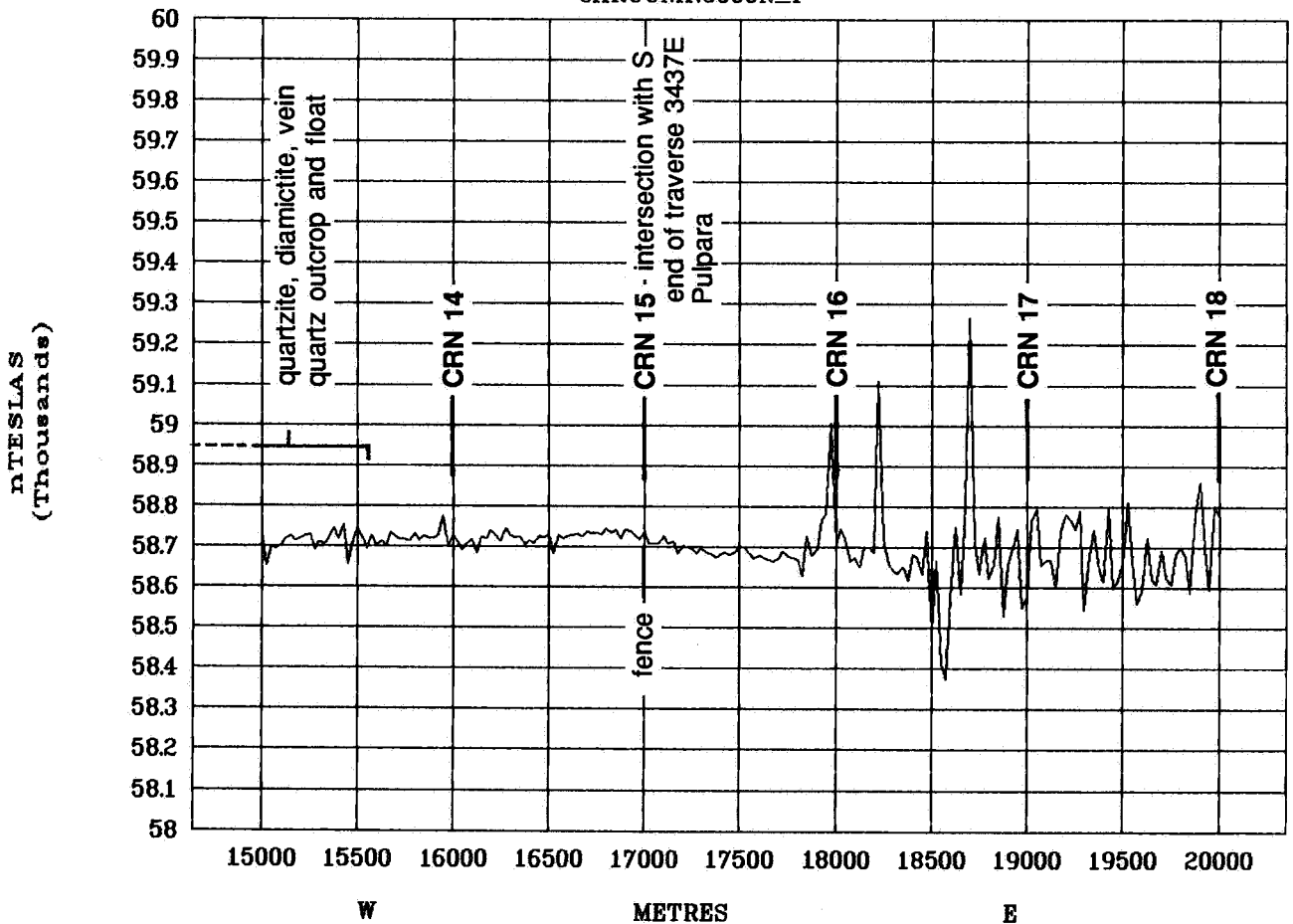
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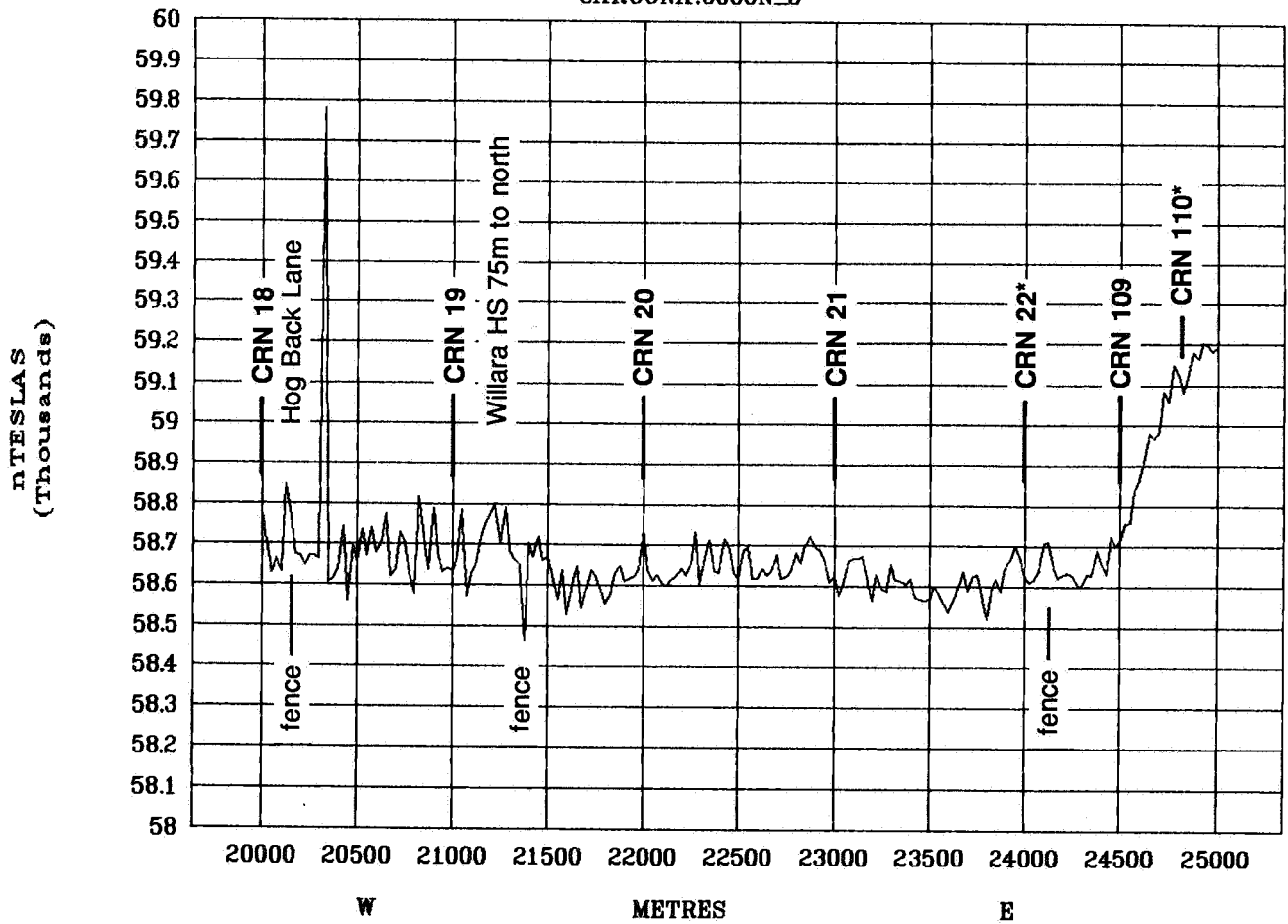
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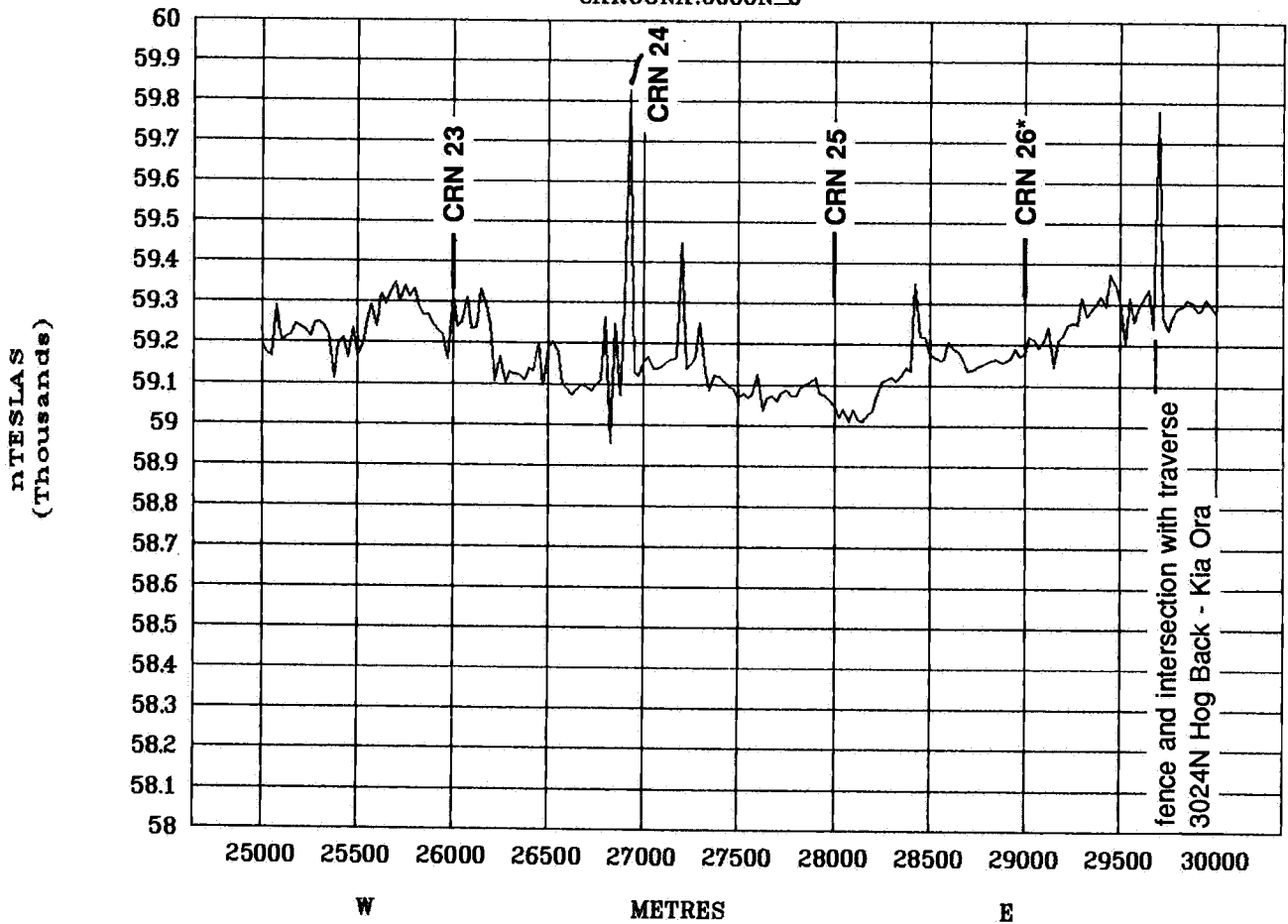
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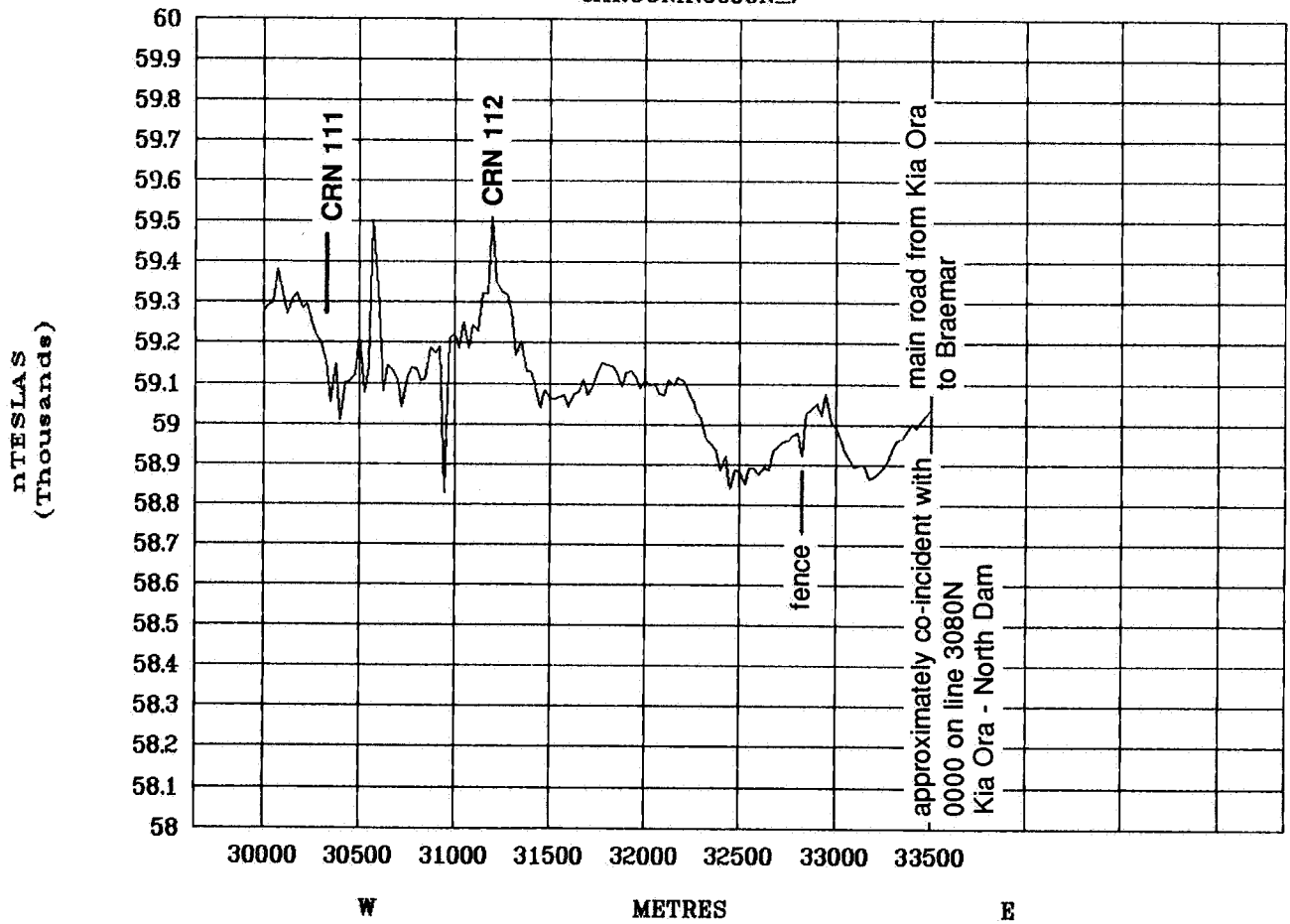
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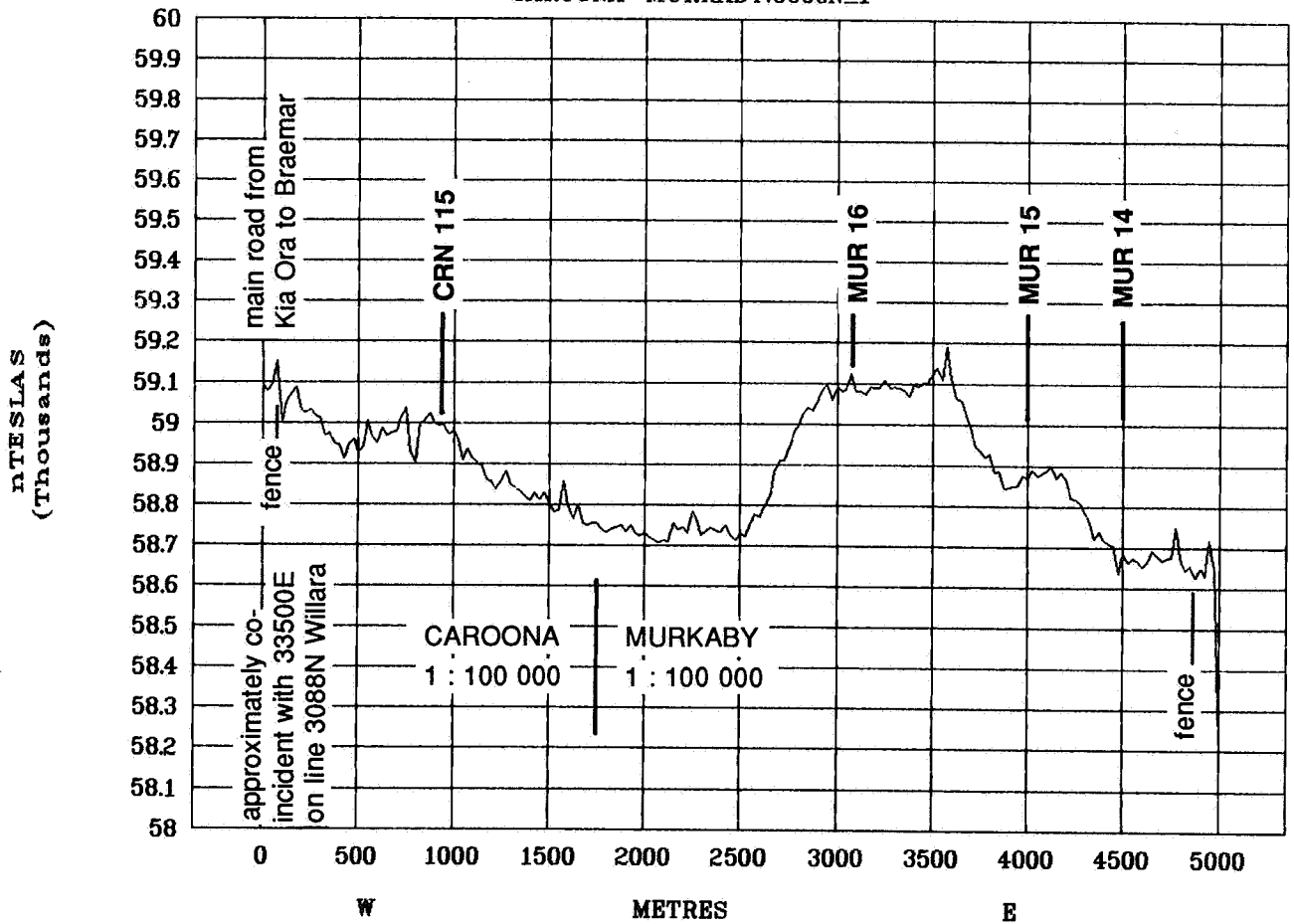
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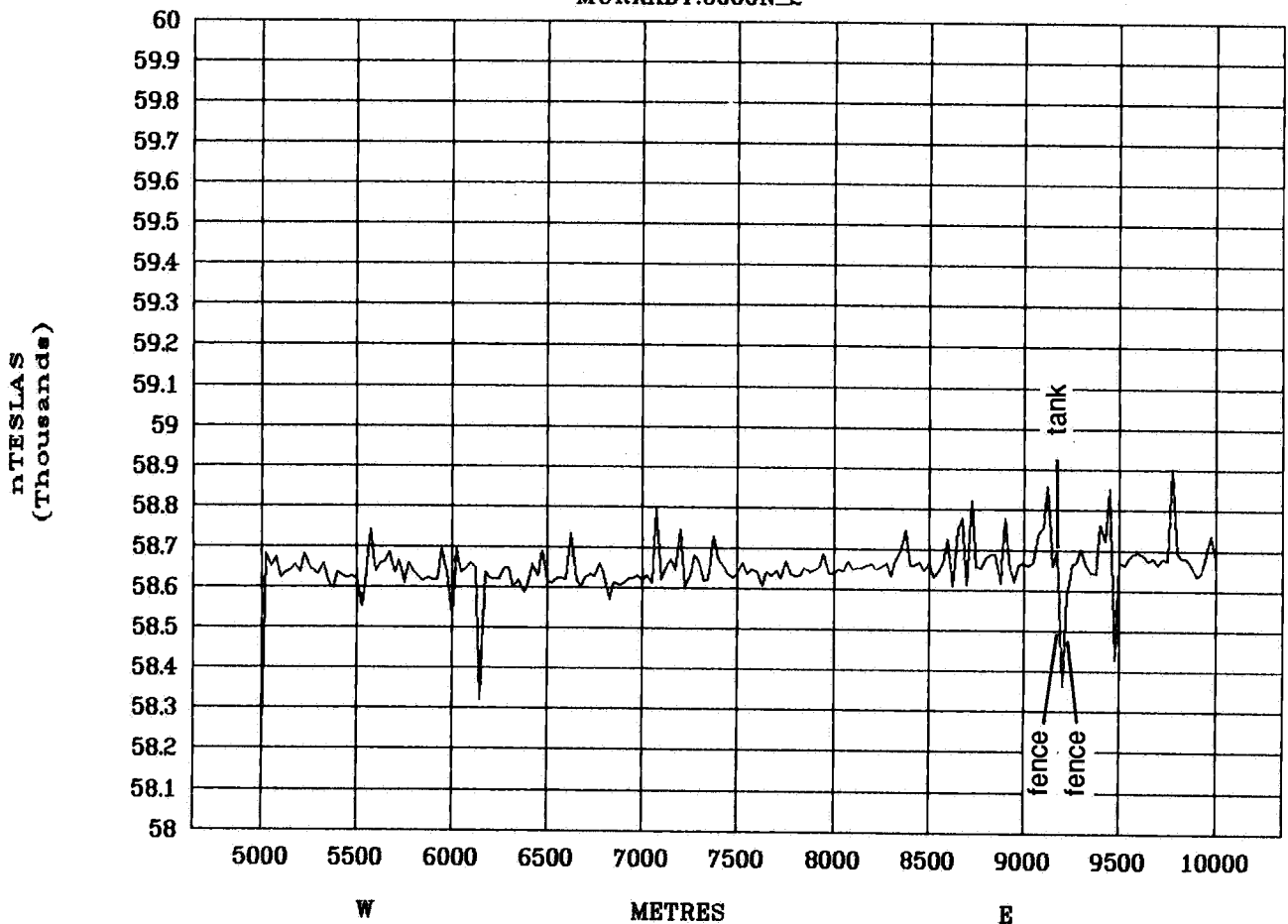
KIA ORA-NORTH DAM

CAROONA - MURKABY:3080N_1



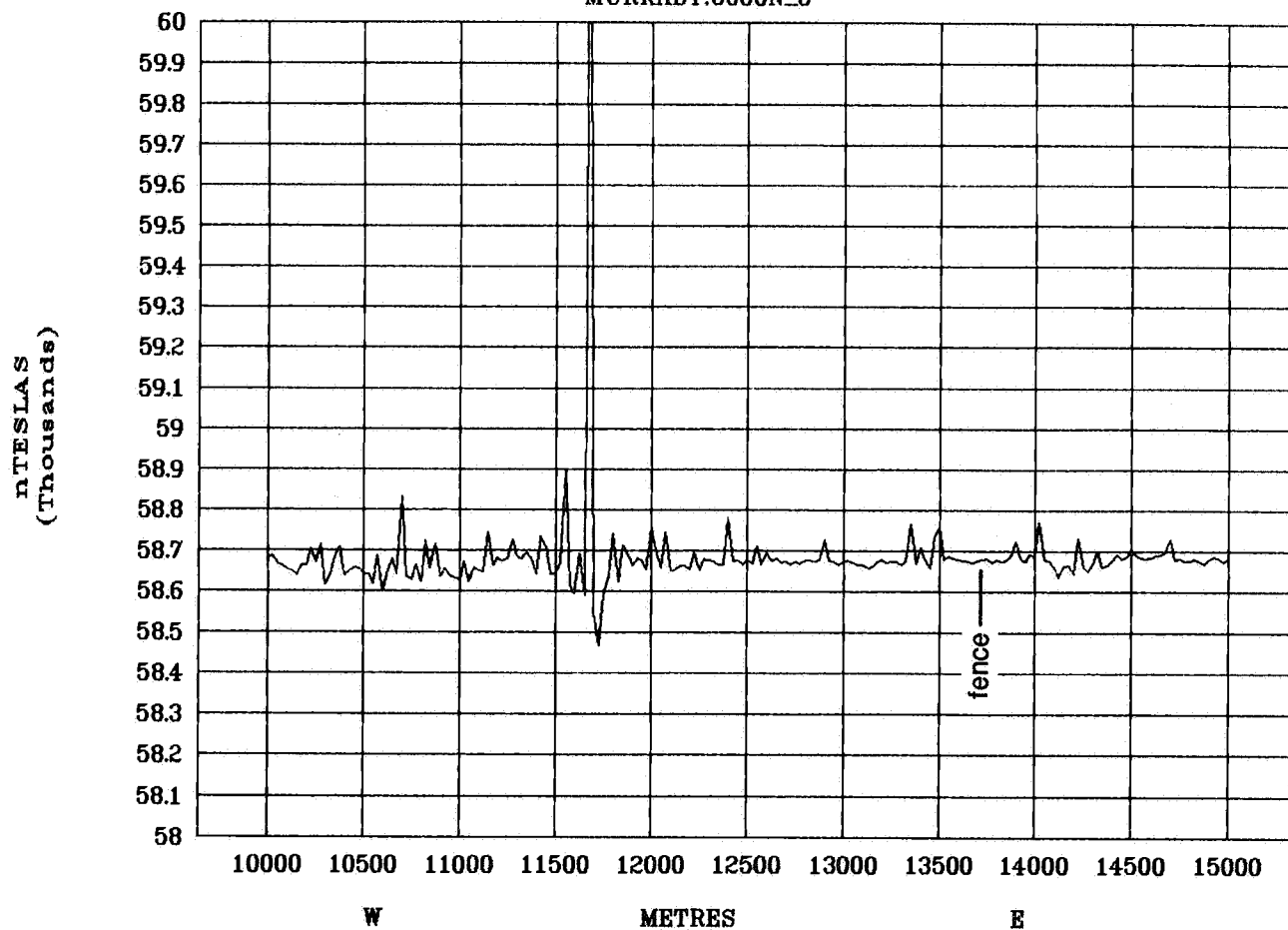
KIA ORA-NORTH DAM

MURKABY:3080N_2



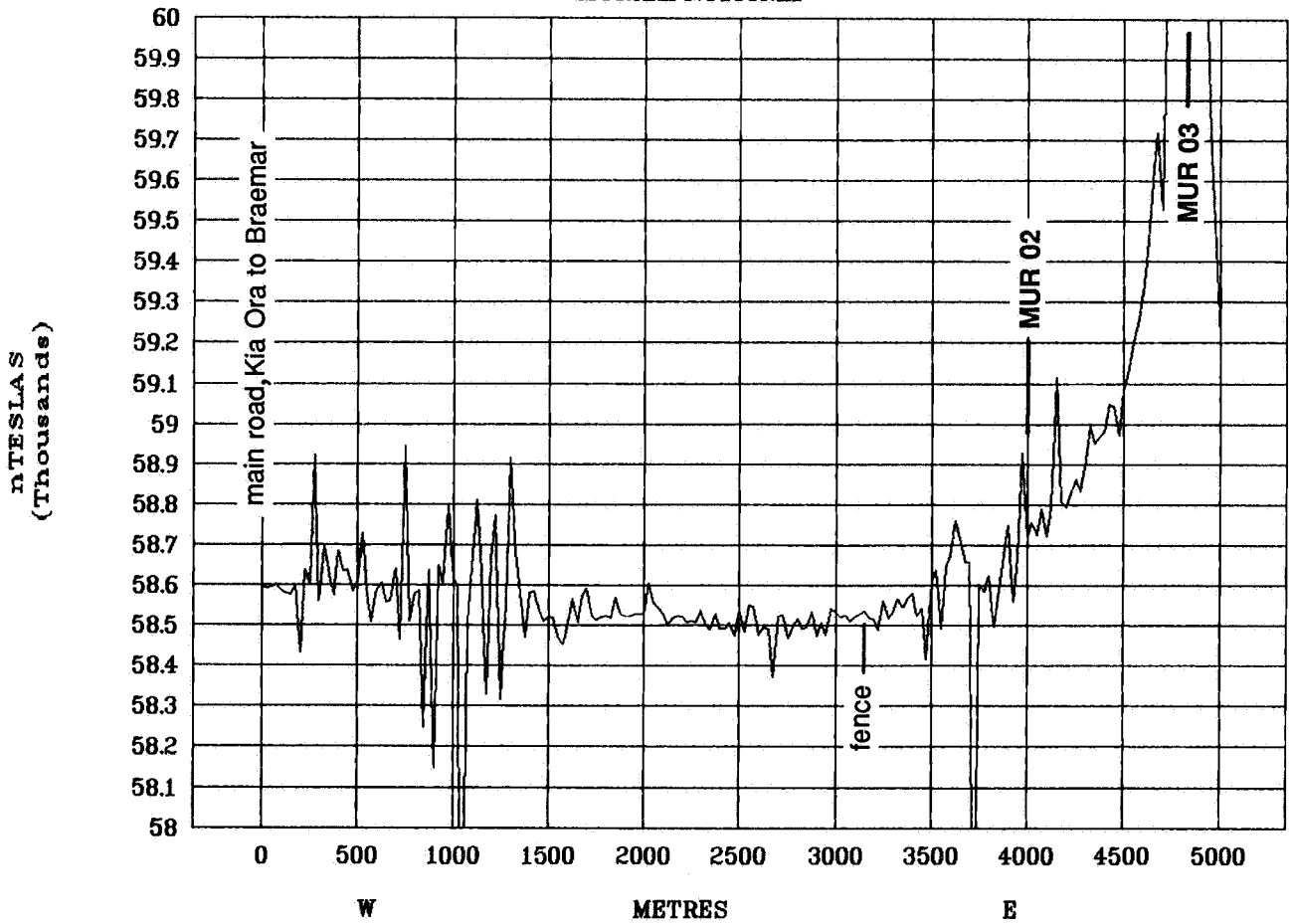
KIA ORA—NORTH DAM

MURKABY:3080N_3



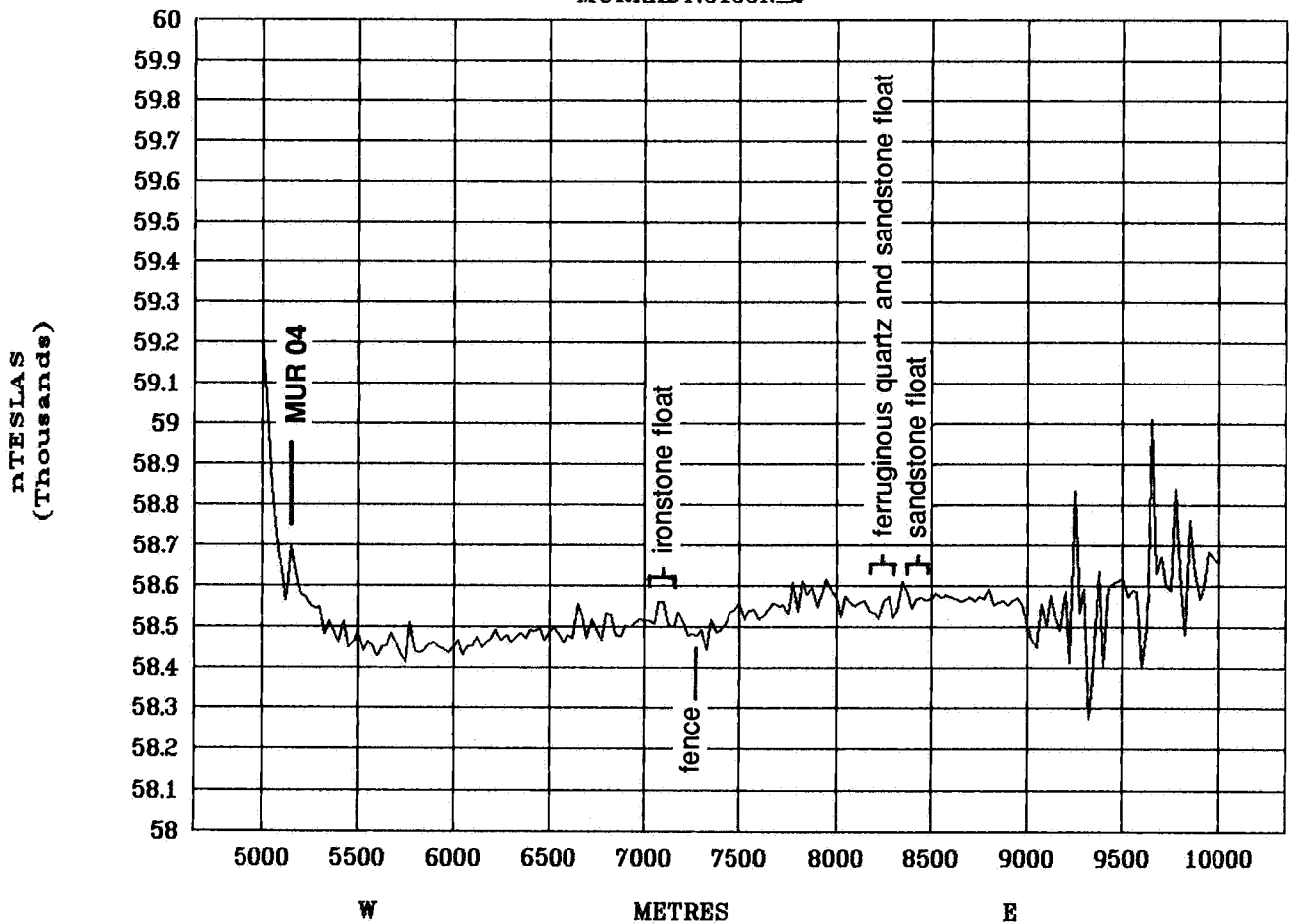
BOUNDARY FENCE

MURKABY:3133N_1



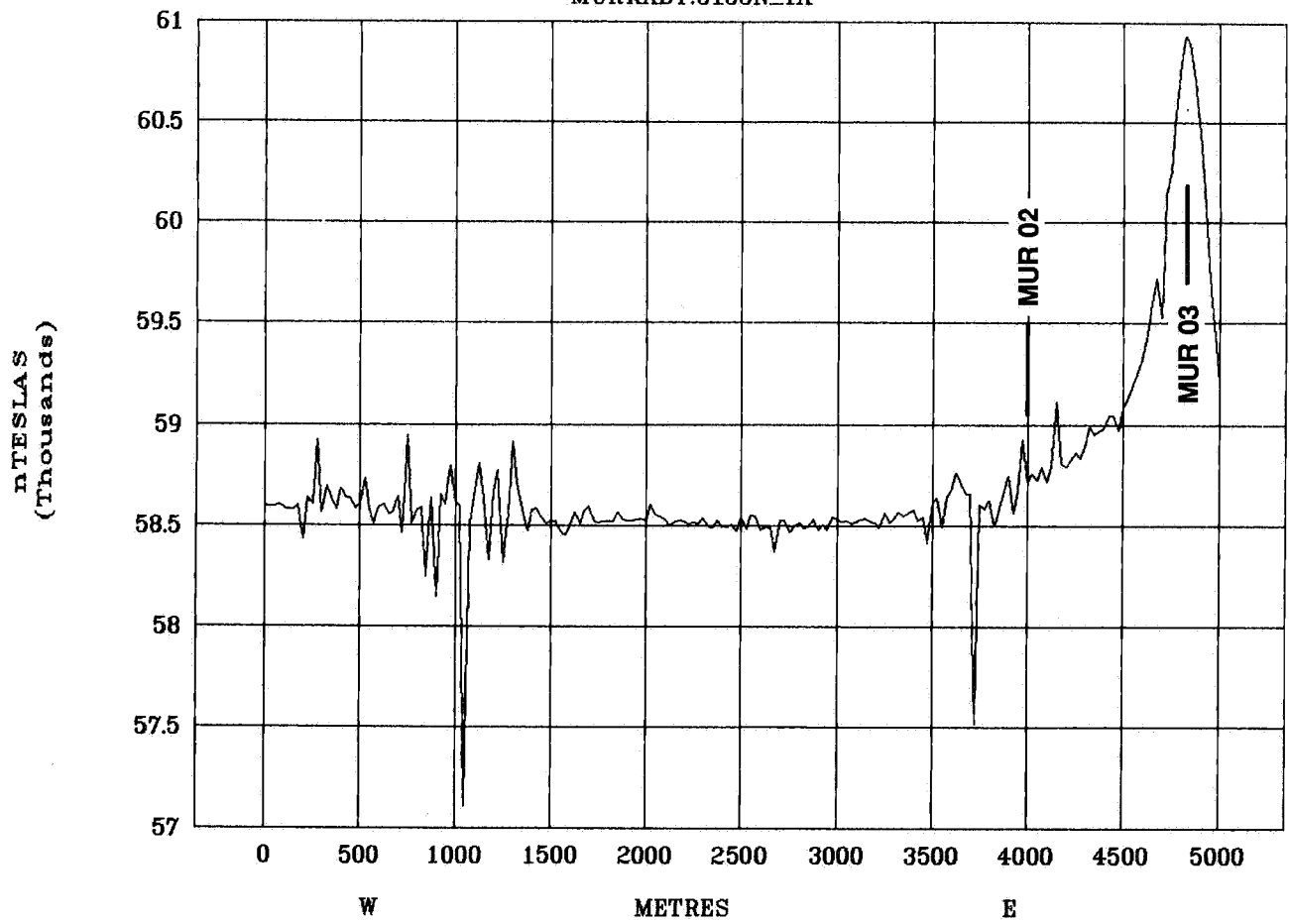
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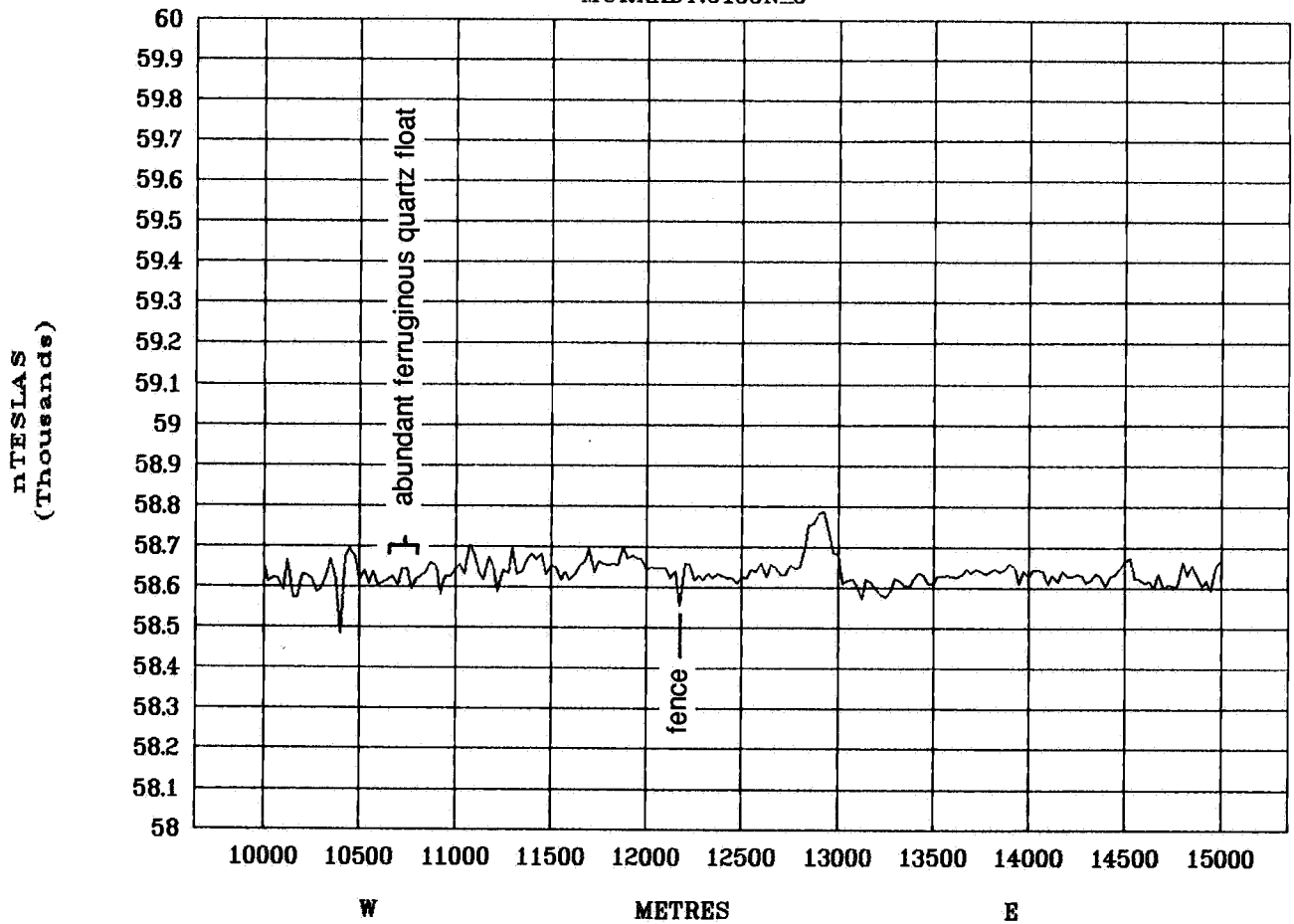
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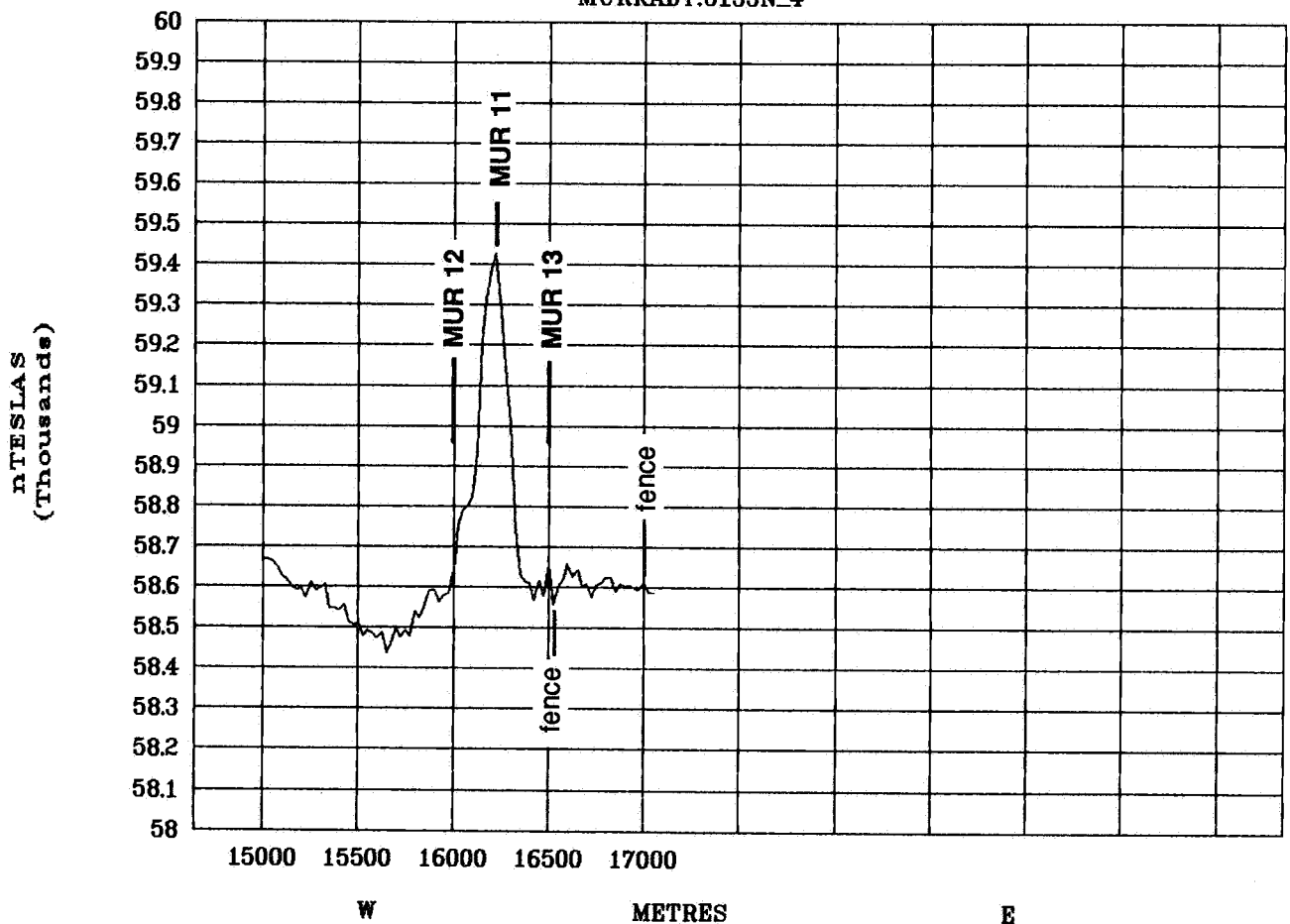
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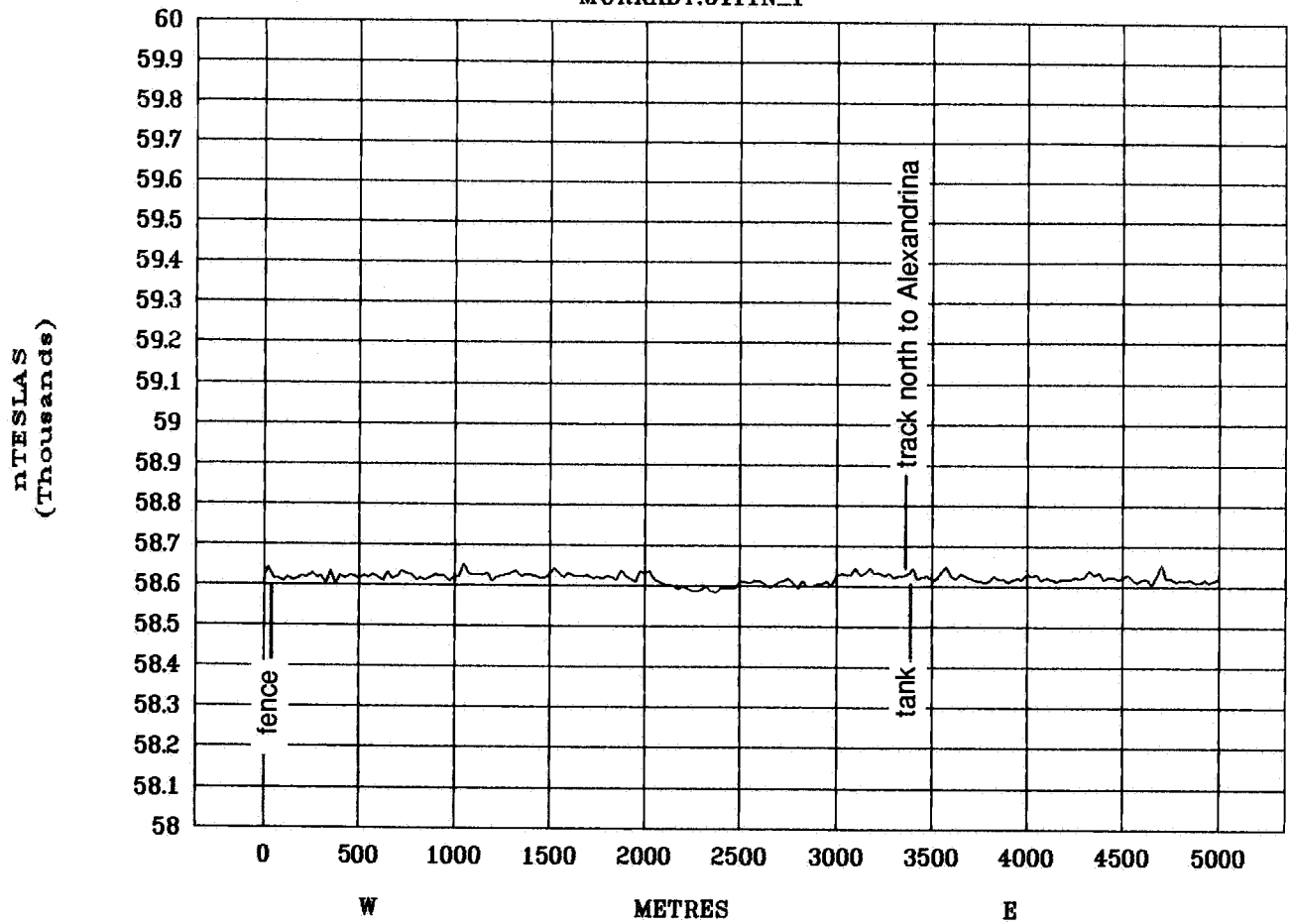
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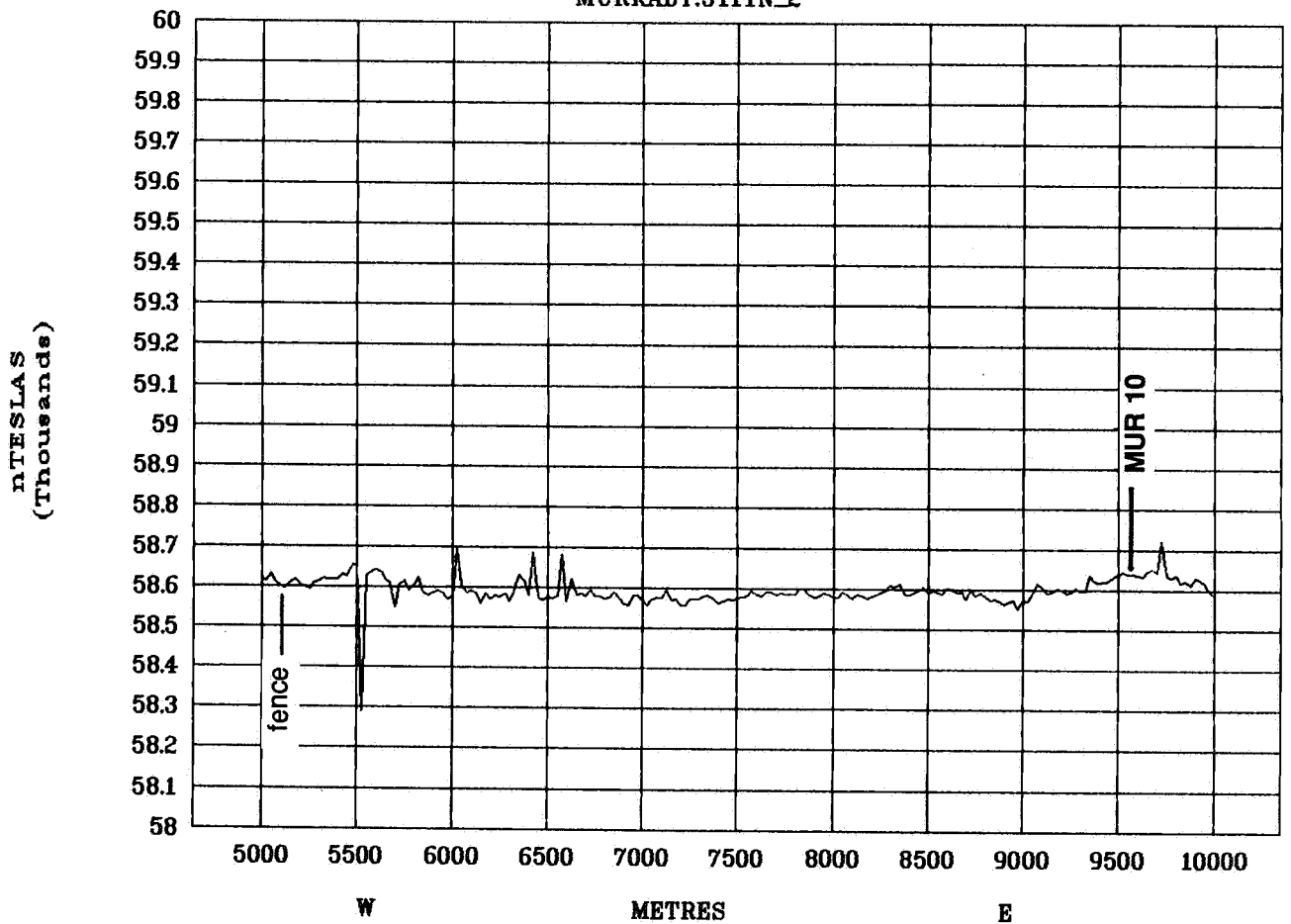
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MURKABY:3111N_1



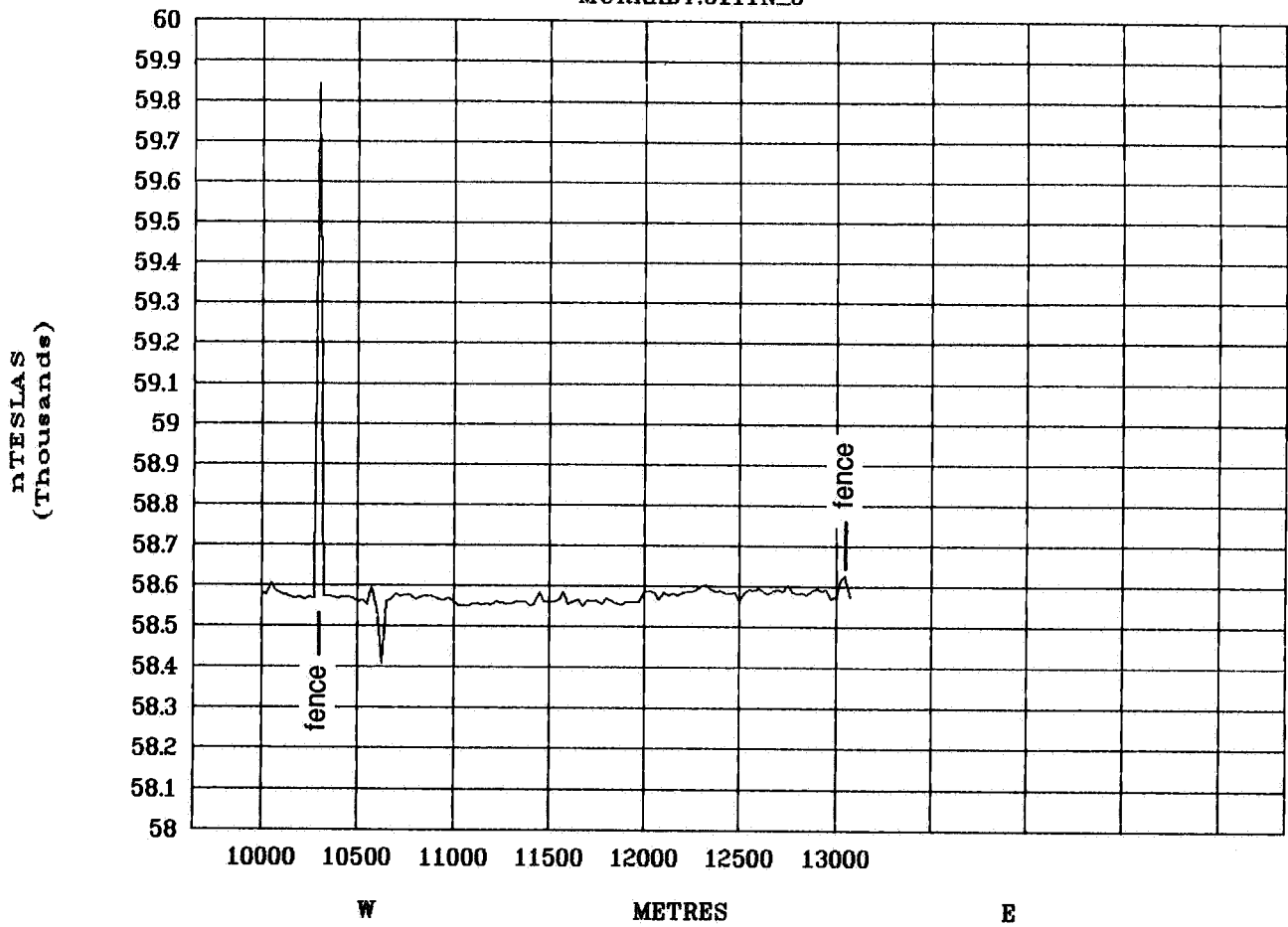
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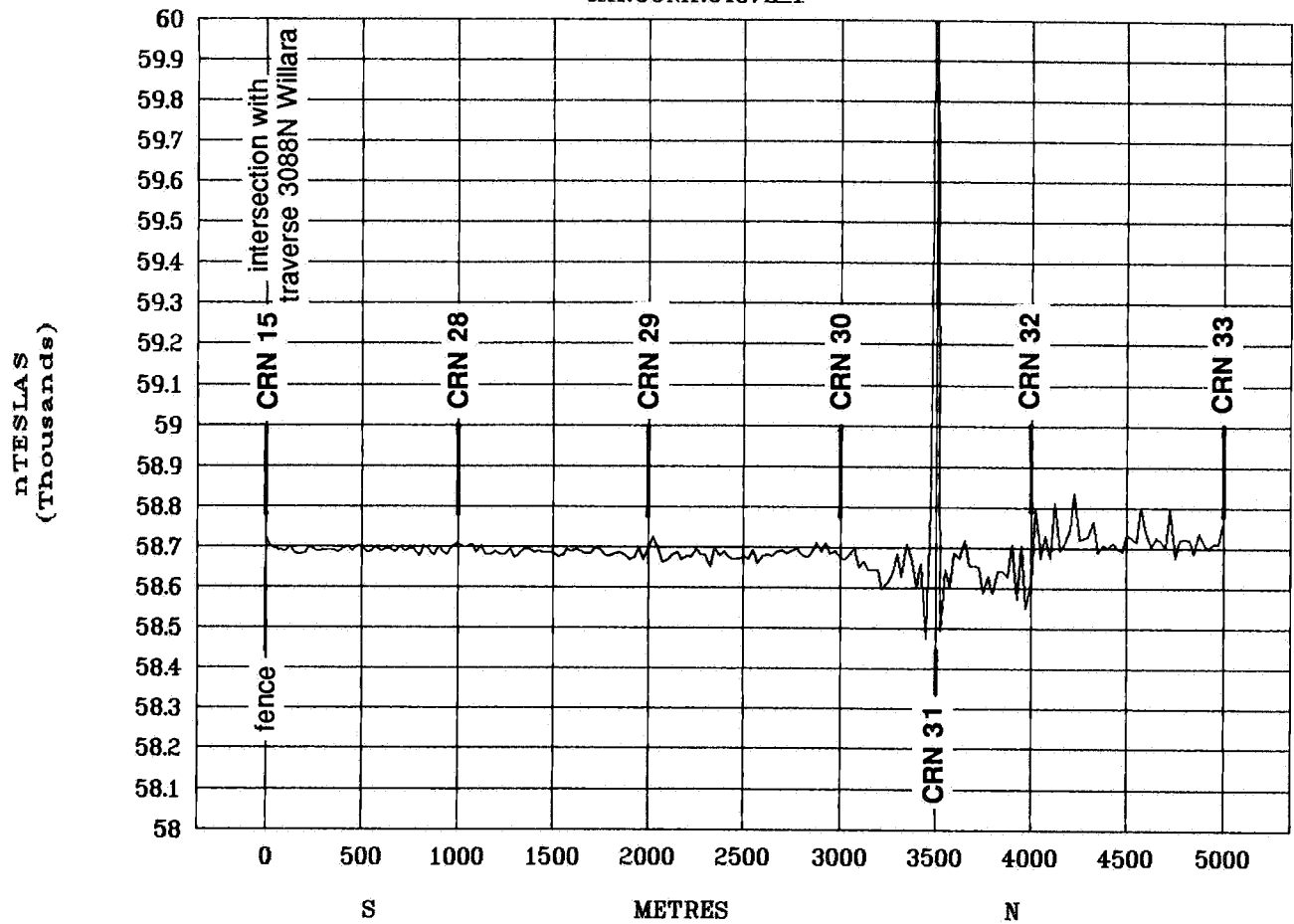
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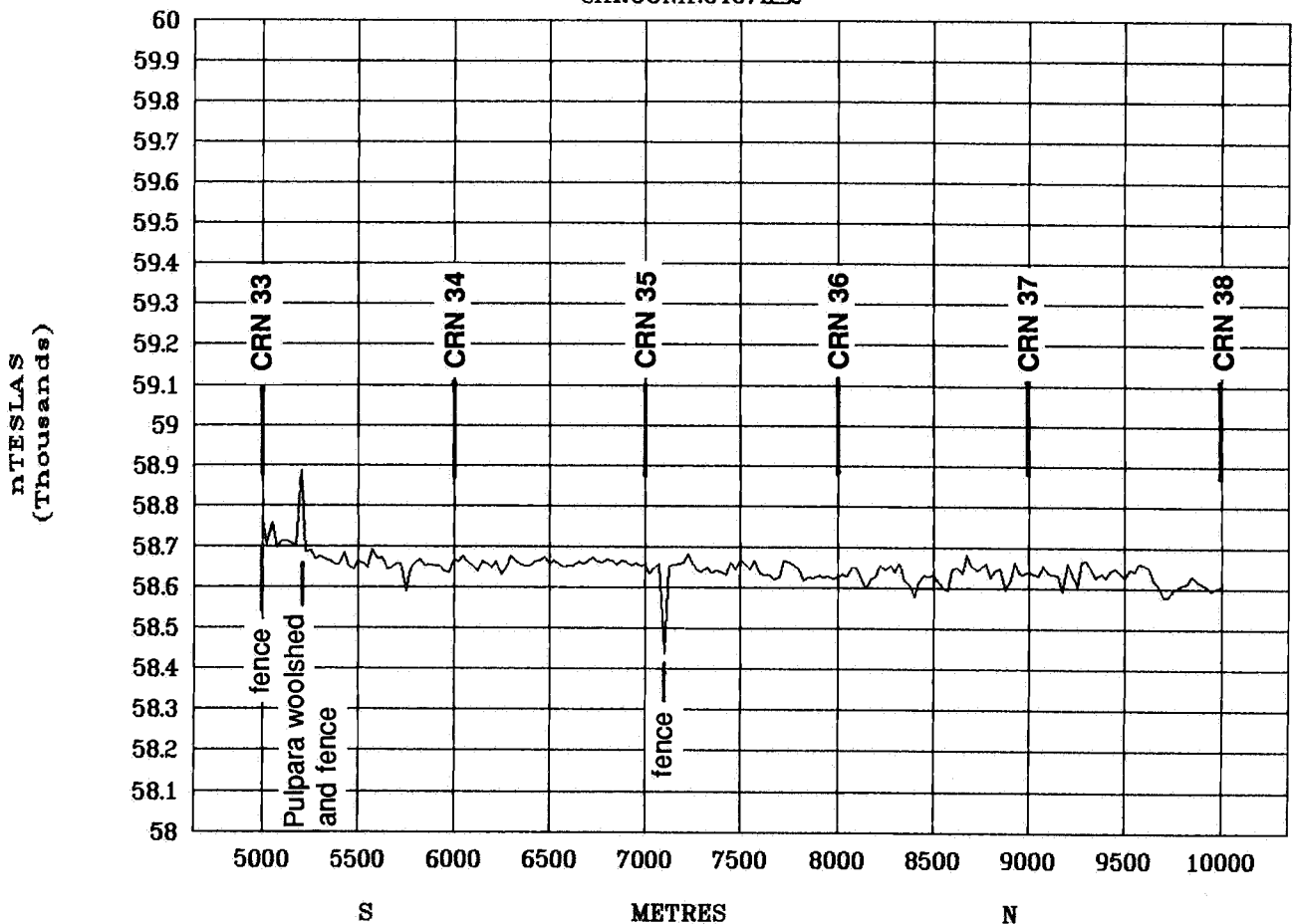
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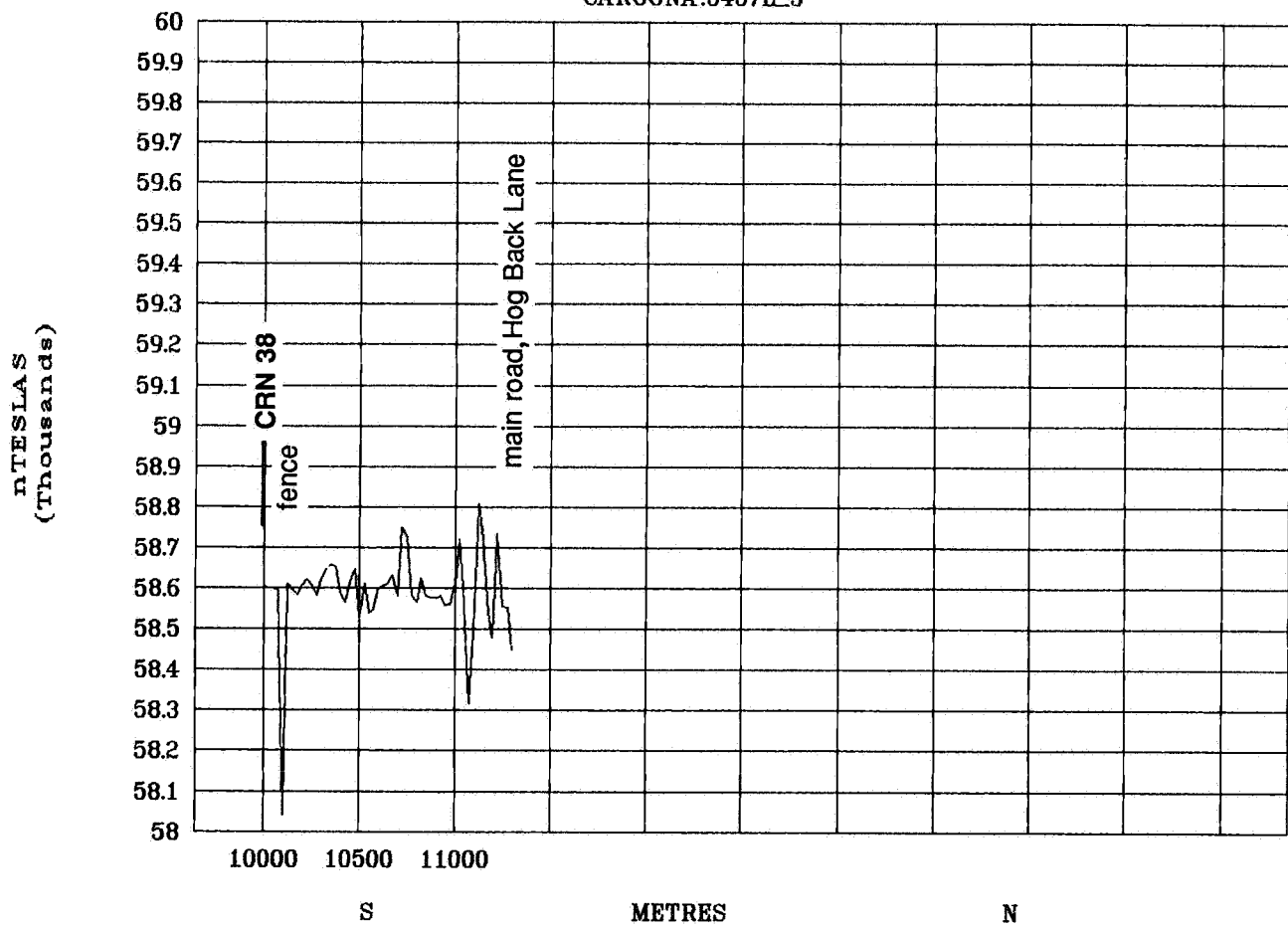
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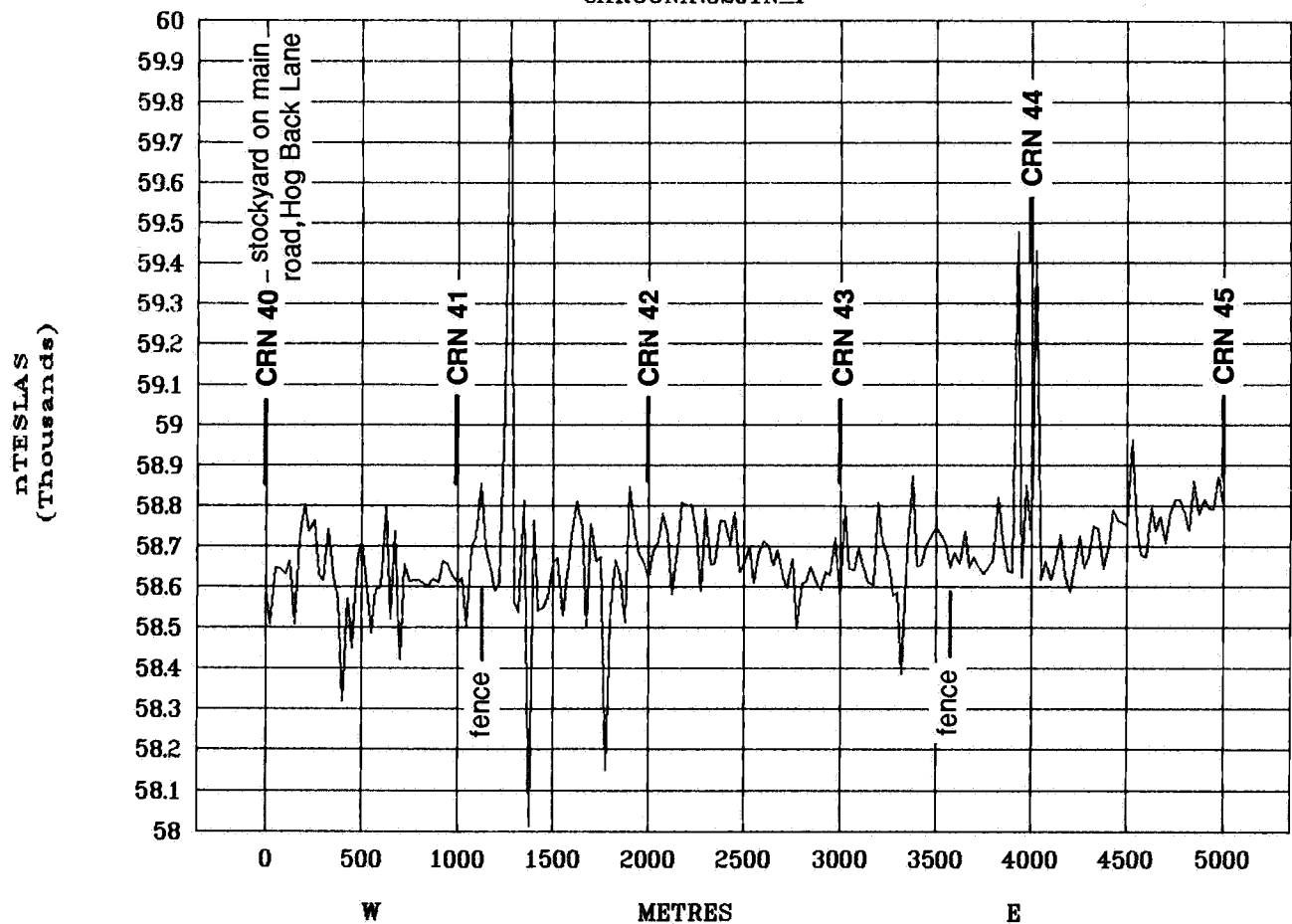
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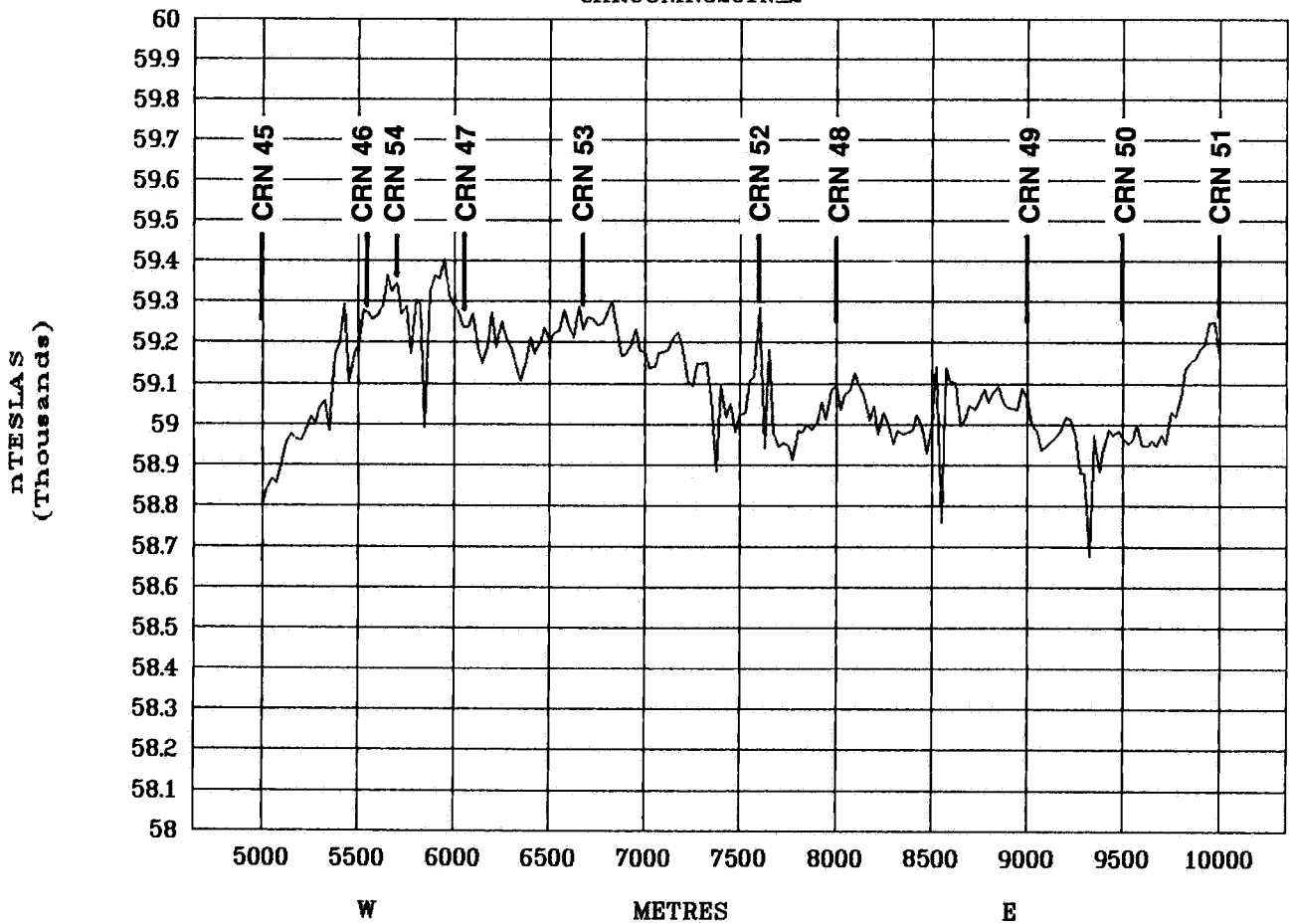
SALTBUSH DAM

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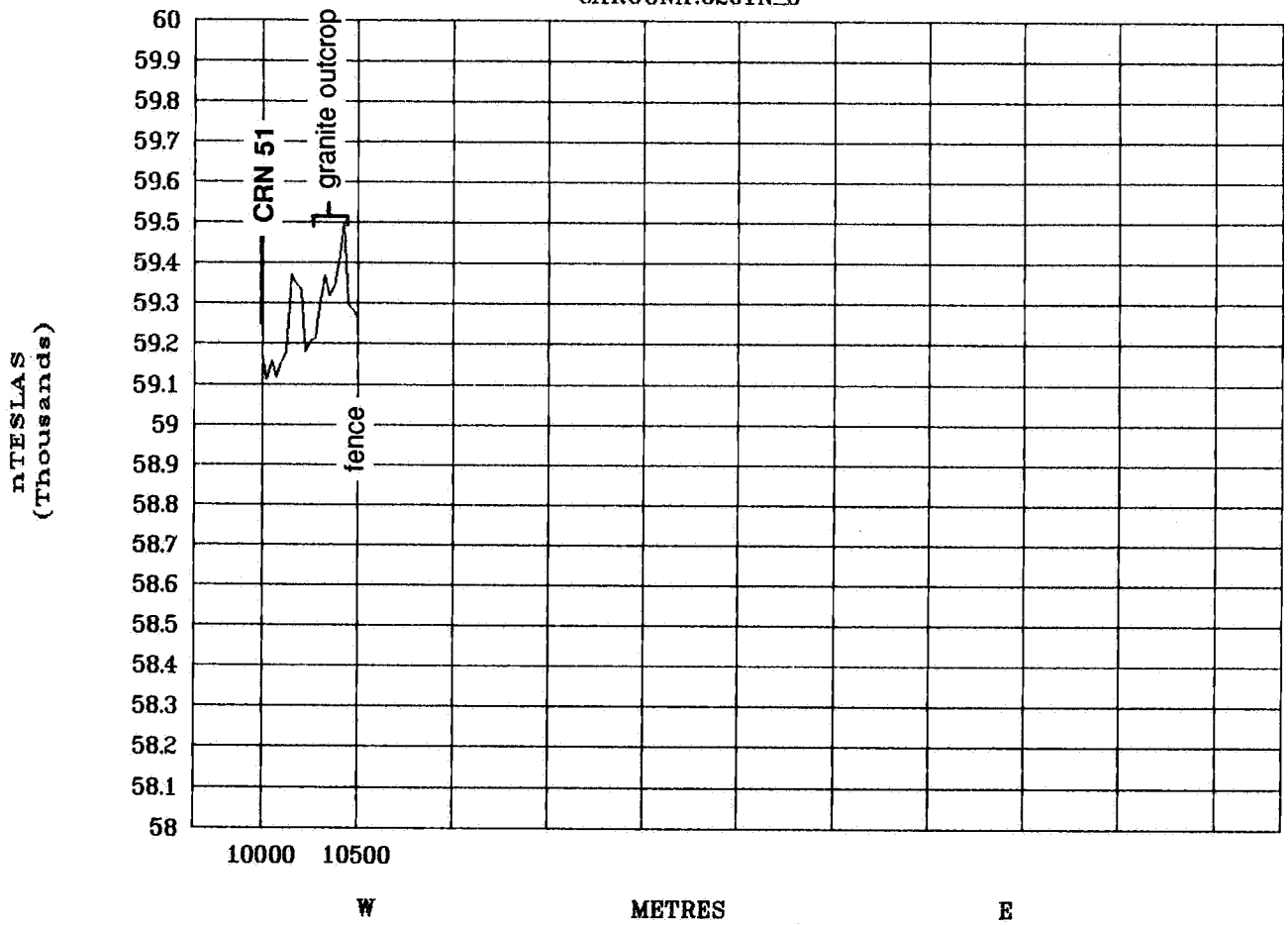
SALTBUSH DAM

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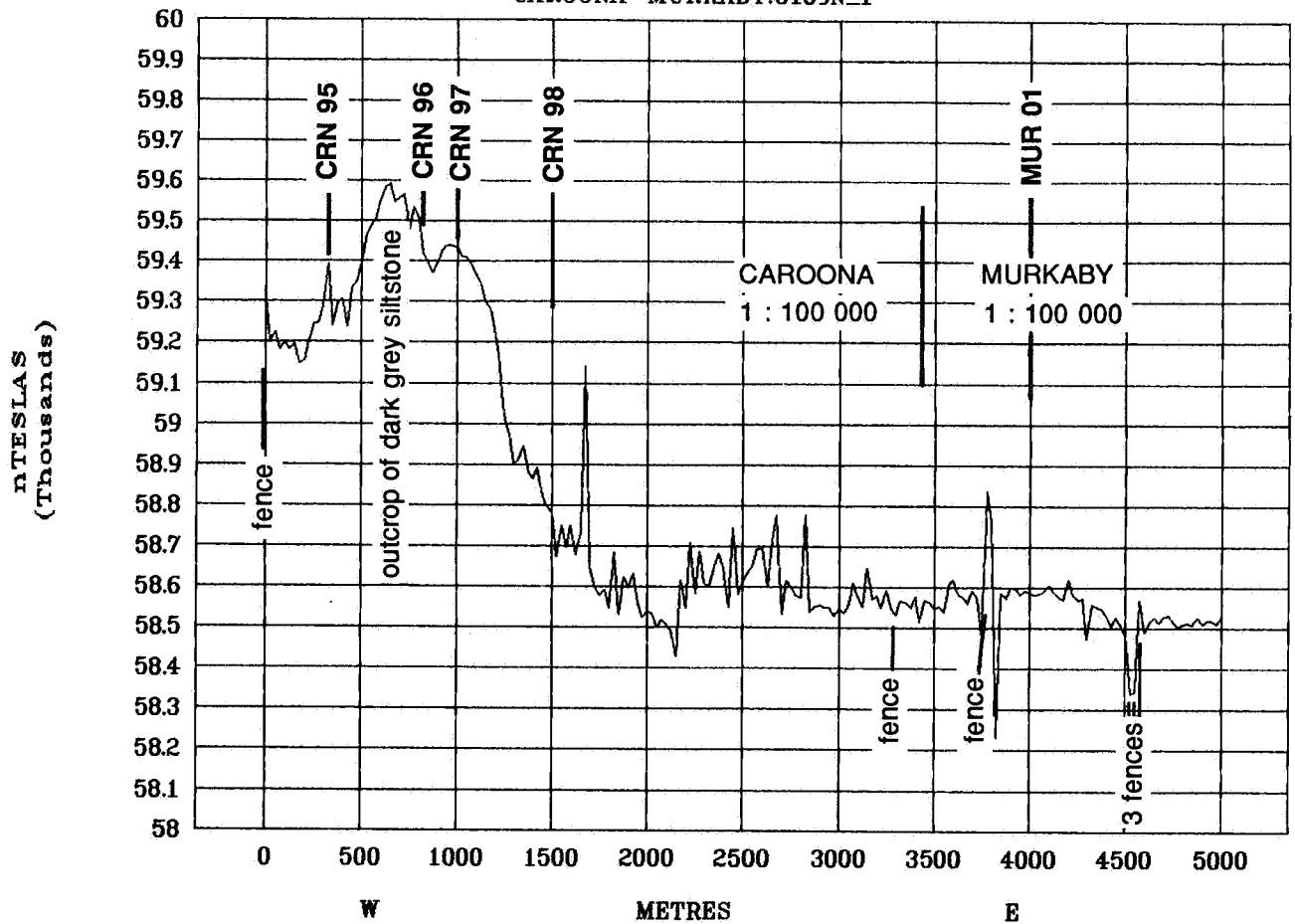
SALTBUSH DAM

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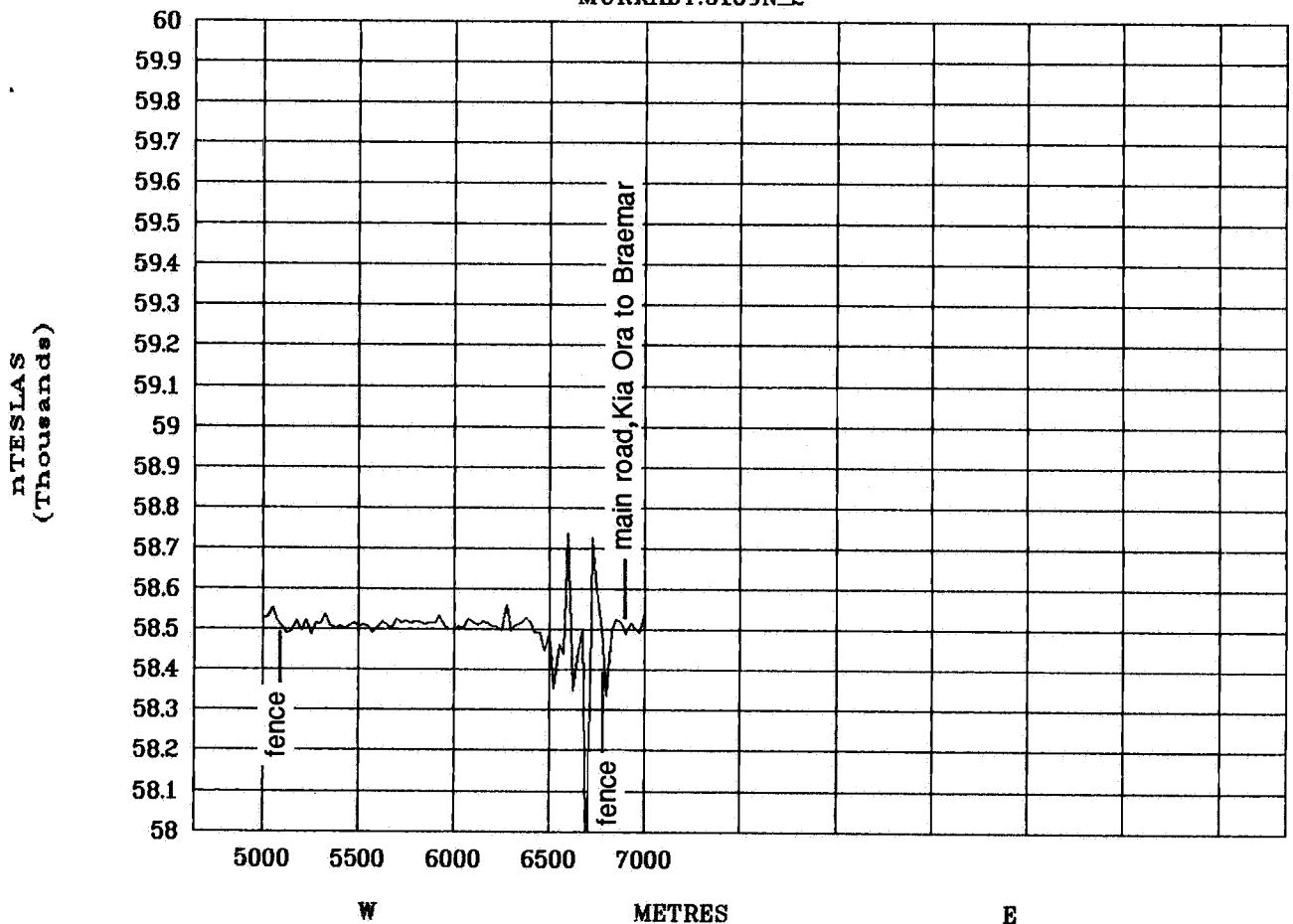
SOUTH DAM H.S.

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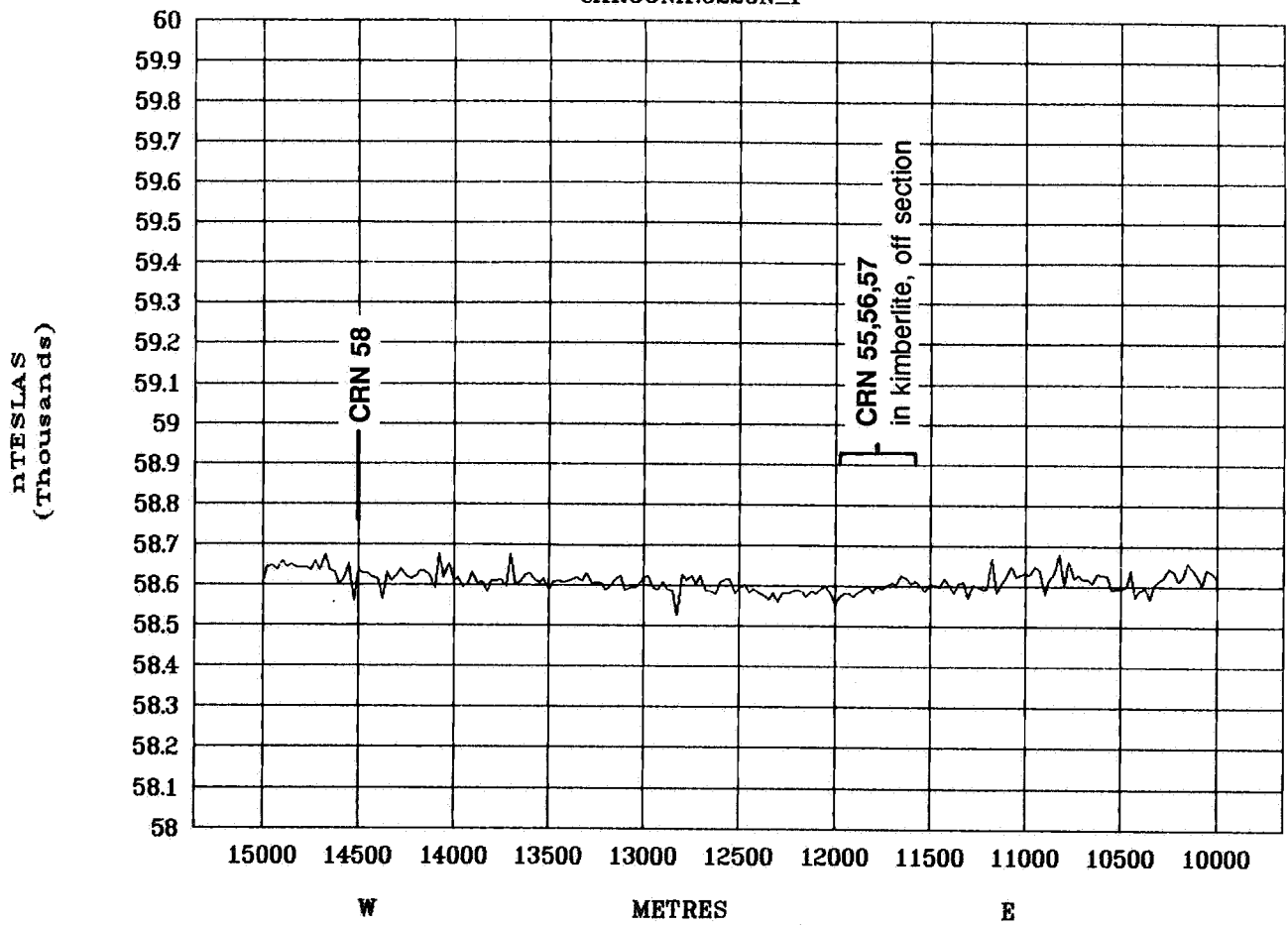
SOUTH DAM H.S.

MURKABY:3189N_2



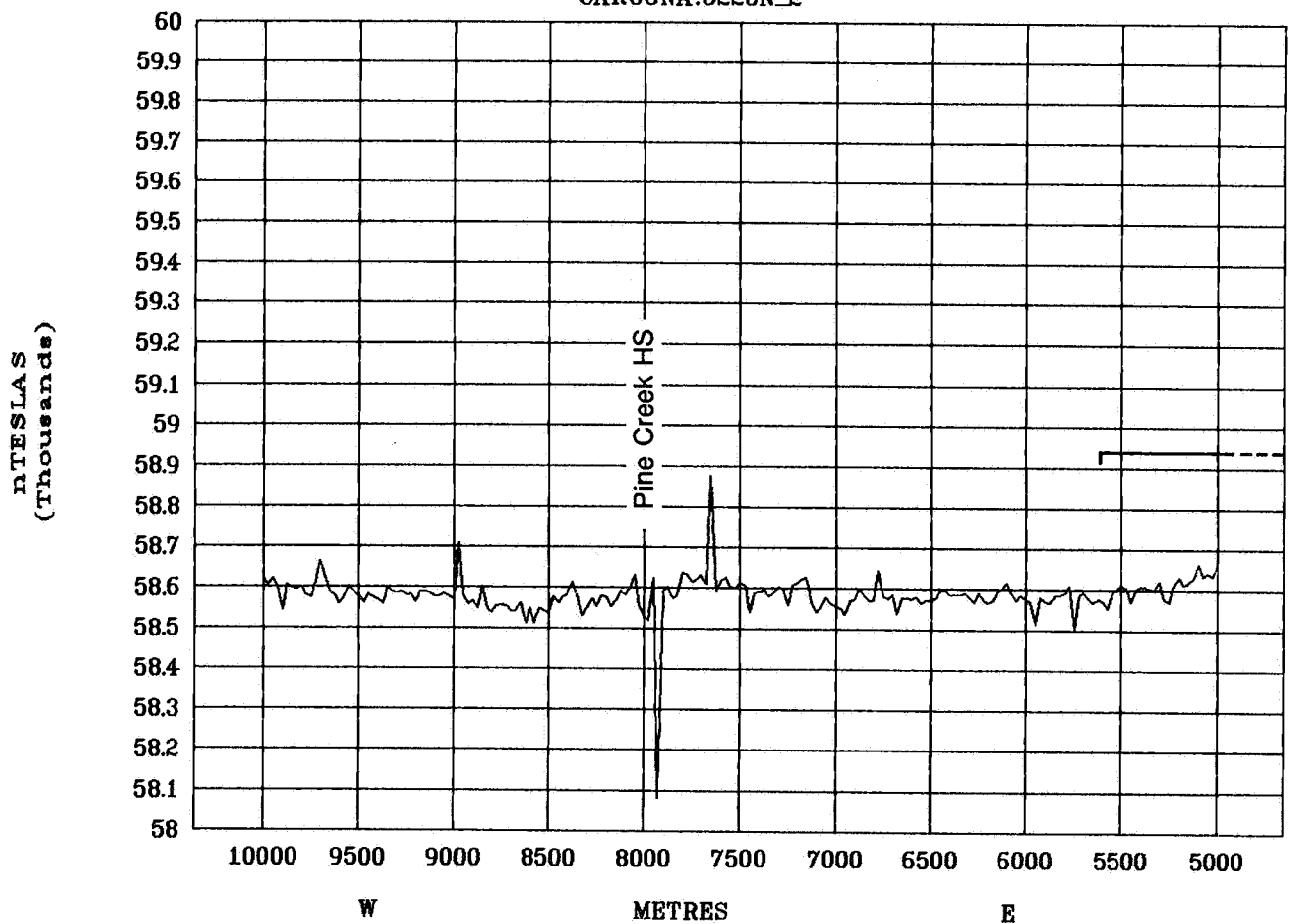
PINE CREEK—BENDIGO

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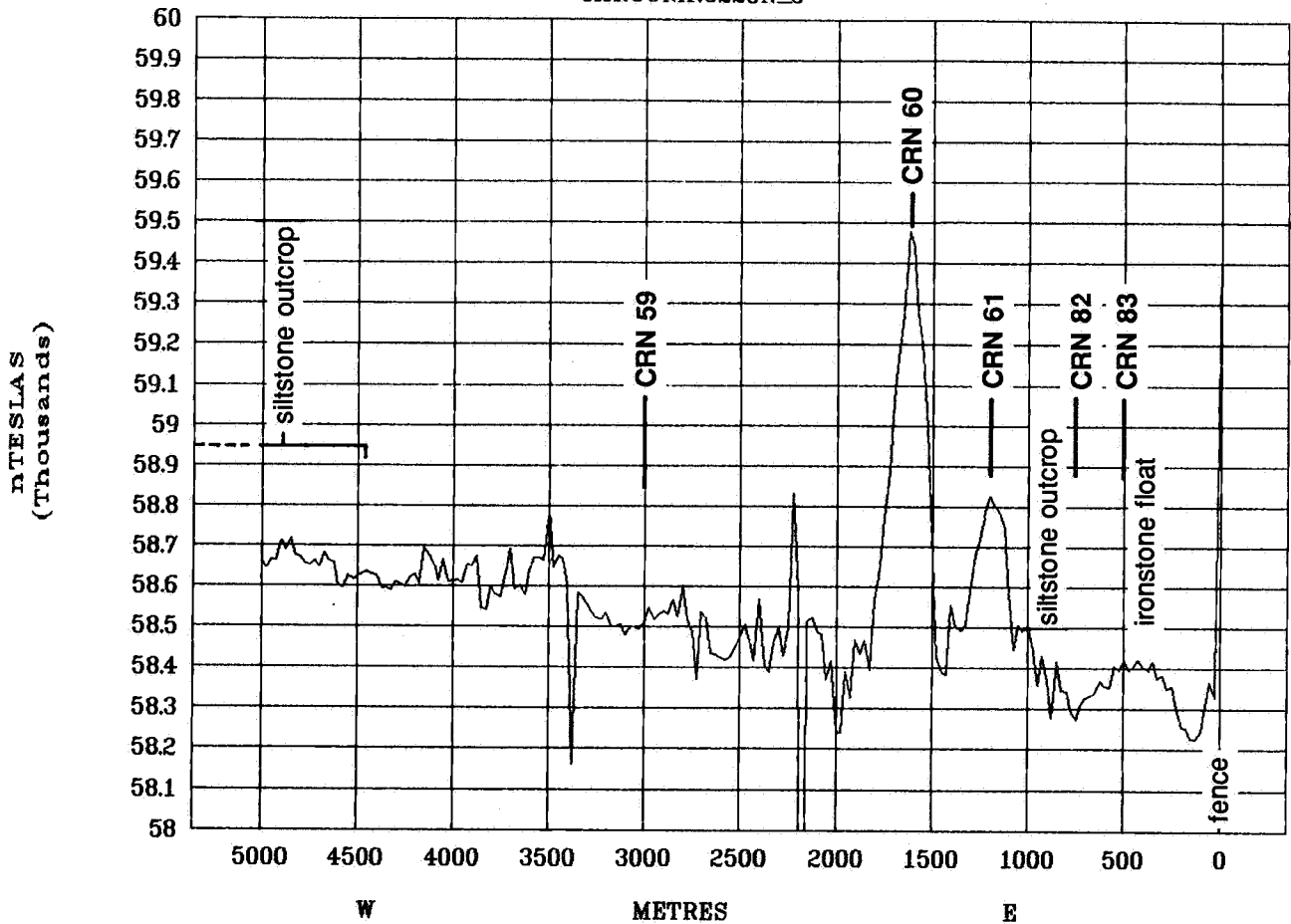
PINE CREEK—BENDIGO

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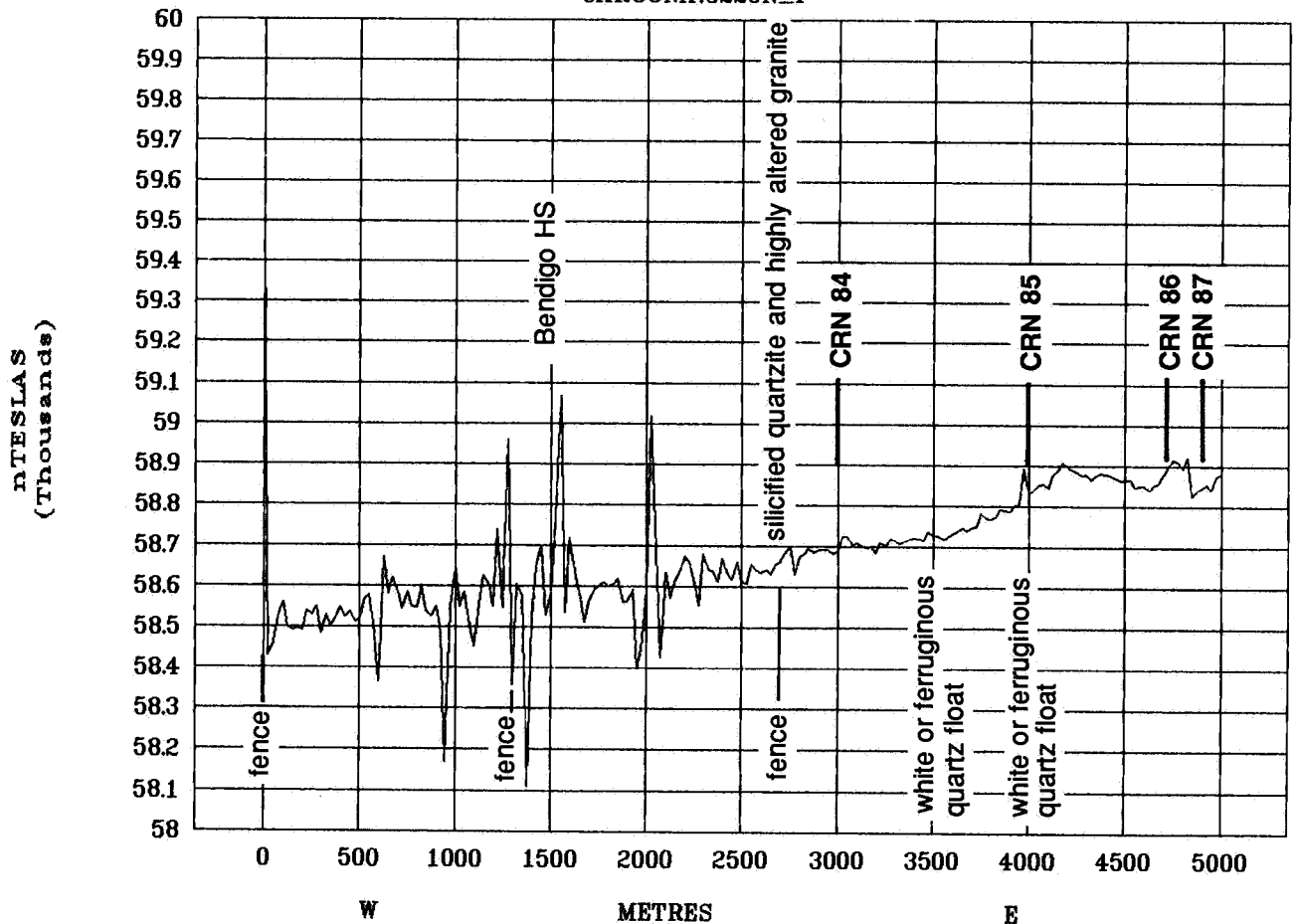
PINE CREEK-BENDIGO

CAROONA:3225N_3



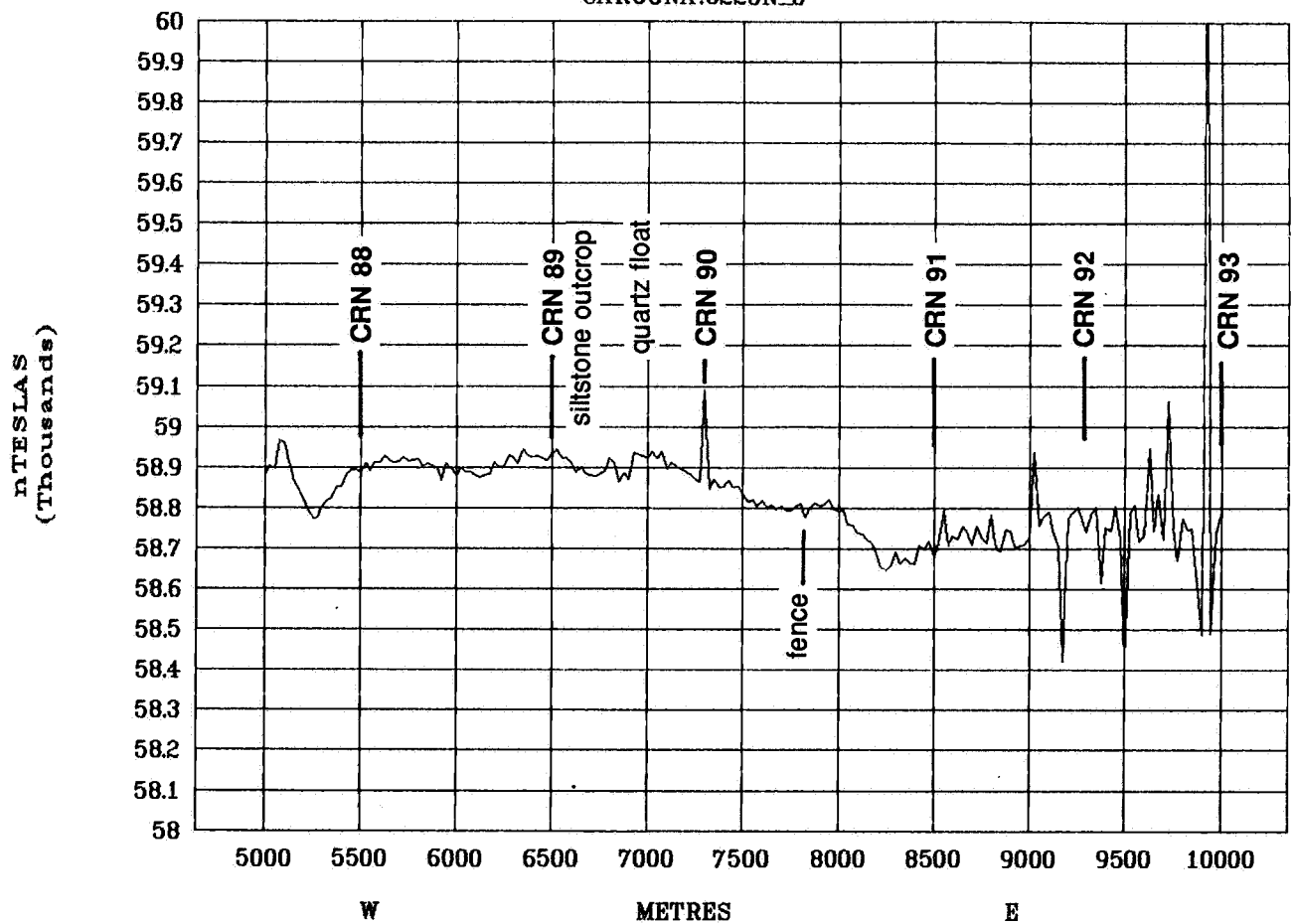
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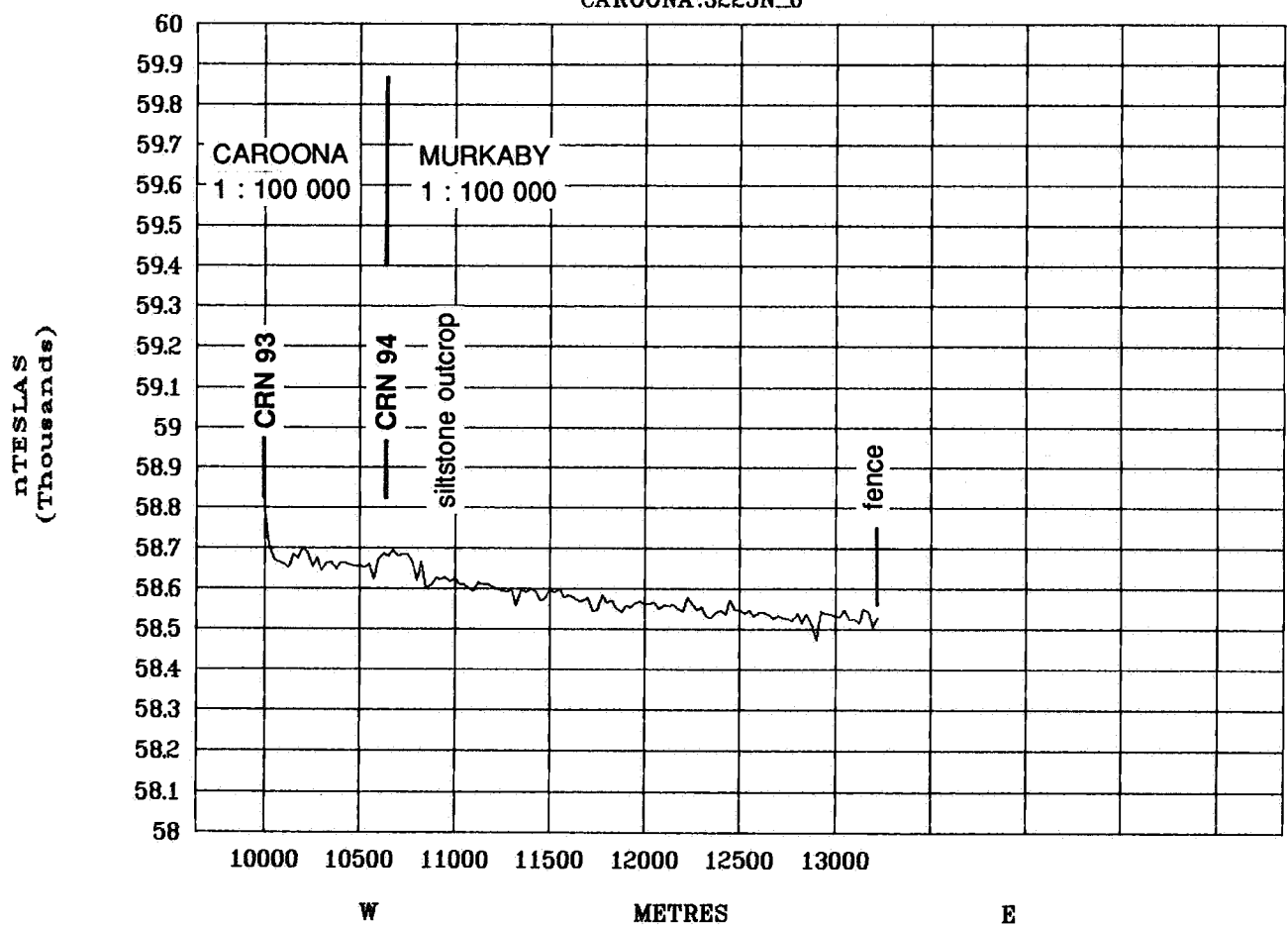
PINE CREEK-BENDIGO

CAROONA:3225N_5



PINE CREEK-BENDIGO

CAROONA:3225N_6



APPENDIX D

SUMMARY OF BASEMENT LITHOLOGIES DRILLHOLES CRN 01 TO CRN 115 AND MUR 01 TO MUR 16

SUMMARY OF BASEMENT LITHOLOGIES

DRILLHOLES CRN 01 TO CRN 115, AND MUR 01 TO MUR 16

CRN 01: 8-35	<i>Adelaidean:</i> Siltstone , dark grey, & haematitic in part, or lighter grey & partially silicified; Sandstone , v fine to fine grained, light grey, poorly bedded, & poorly sorted in part; Quartzite , medium grained, cream to reddish cream coloured, with poorly defined heavy mineral layering 1mm thick; & minor 2mm thick milky <i>quartz veins</i> .
CRN 02: 0.2-29.5	<i>Adelaidean:</i> Siltstone , pale to light grey, faintly foliated, with some reddish Fe spotting, & minor sandstone, v fine to fine grained, poorly layered, & poorly sorted in part.
CRN 03: 1-11.5	<i>Adelaidean:</i> Siltstone , greenish brown, faintly foliated, & sandstone , v fine grained, greenish to pinkish or greyish brown, well sorted, finely laminated, dip 85°, with thin clay along some laminae, & some Mn stained joints.
CRN 04: 1-26	<i>Adelaidean:</i> Siltstone & sandstone , v fine grained, bluish grey, faintly laminated, with minor disseminated v fine black minerals (biotite), & minor Fe reddish stained laminae.
CRN 05: 2-11.5	<i>Adelaidean:</i> Siltstone , bluish grey, with some Fe stained laminae, & faint foliation.
CRN 06: 3-36 36-50 52-56	<i>Adelaidean:</i> Siltstone , v weathered. Siltstone , moderately weathered. Siltstone , bluish grey, faintly foliated, with some Fe or Mn stained joints.
CRN 07: 2.5-16 16-40 40-53.5	<i>Adelaidean:</i> Siltstone , v weathered. Siltstone , moderately weathered. Siltstone , bluish grey to grey or light grey, faintly foliated.
CRN 08: 4-38 38-47.5	<i>Adelaidean:</i> Siltstone , moderately to v weathered. Siltstone , grey, faintly foliated.
CRN 09: 3-24 24-35.5	<i>Adelaidean:</i> Siltstone , moderately to v weathered. Siltstone , grey to olive-grey, faintly foliated, with minor orange (Fe) stained joints.
CRN 10: 0.5-26.5	<i>Adelaidean:</i> Siltstone , greyish brown to greenish grey, with minor orange Fe stained jointing.
CRN 11: 0.3-8.5	<i>Adelaidean:</i> Siltstone , grey to dark grey, faintly foliated, & fissile in part.
CRN 12: 0.2-8	<i>Adelaidean:</i> Siltstone , light olive-brown to light brown, v hard, foliated & slightly fissile in part, with Mn dendrites on joints & partings, & minor orange Fe staining on joints, partially silicified?, with <i>abundant cross-cutting thin 1mm quartz veins</i> in fractures & pods etc, (some quartz is dark Mn? stained), & some v thin 0.2mm black Mn? infilled fractures.
CRN 13: 1-13	<i>Adelaidean:</i> Siltstone , dark grey, with minor Fe staining on joints & partings, & minor bleaching adjacent to joints.
CRN 14: 2-38 38-50.5	<i>Adelaidean, Appila Tillite?:</i> Diamictite , moderately weathered, with minor Fe staining, & minor thin Fe stained or indurated laminae, & rare dark brown to black Fe or Mn infilled fractures. Diamictite , ie poly-modal sandstone, light grey or light orange Fe stained, comprising v fine to fine grained well sorted & rounded quartz grains in a clay-silt matrix, & appears to be matrix supported, & also includes rare to minor sub-angular to well rounded but poorly sorted clear to dark medium to coarse grained quartz grains.

- CRN 15:** *Adelaidean, Appila Tillite?:*
2.5-20 **Diamictite**, moderately weathered.
20-44.5 **Diamictite**, light bluish grey (as in CRN 14), with minor greyish purple foliated siltstone interbeds at 28-30m.
- CRN 16:** *Very weathered Adelaidean?:*
20.5-57 **Clay**, dark, & soft v weathered siltstone.
Adelaidean:
57-61 **Siltstone**, grey, *carbonaceous?*, with disseminated small cuboid voids 0.5mm, with fine Fe stained haloes, & some still contain a black dull opaque mineral, *ie weathered sulphide?*.
61-66 **Sandstone**, v fine grained, pale to light grey or light orange stained, with minor enigmatic voids, some are cuboid as above but with no Fe staining around them, & some are irregular, *ie possibly weathered clasts or coarser grains*.
66-74 **Siltstone**, grey, faintly foliated, with rare *disseminated silver-yellow sulphide* at 66 to 68.5m, & abundant fine Fe spotting from 68.5-70m, & minor clear or milky *quartz veins* from 73 to 74.5m, with light orange Fe stained rims.
- CRN 17:** *Adelaidean:*
75-88 **Siltstone**, moderately weathered.
88-92.5 **Siltstone**, dark bluish grey, *carbonaceous?* in part, massive, with minor faint laminae & faint foliation, & slightly paler colour along joints & partings at 5-15mm spacing.
- CRN 18:** *Very weathered Adelaidean?:*
30-48 **Clay** & minor siltstone, light grey to greyish brown.
Adelaidean:
48-67 **Siltstone**, bluish to greenish grey, *carbonaceous?* in part, faintly foliated, with some fine irregular & discontinuous dark laminae, marked by a concentration of black biotite?, with diffuse margins, & rare slightly irregular claystone laminae, & rare v fine white irregular quartz veinlets or augens.
- CRN 19:** *Very weathered Adelaidean?:*
47-77 **Clay**, soft, with some Fe induration.
Adelaidean:
77-104 **Siltstone**, moderately to v weathered.
104-107.5 **Siltstone**, bluish grey, fissile & foliated,
- CRN 20:** *Adelaidean:*
62.5-88 **Siltstone**, moderately to v weathered, greenish brown, foliated & slightly fissile, with minor orange to red Fe staining along joints.
88-95.5 **Siltstone**, greenish to bluish grey, with some pale 1-2mm laminae, & foliated & fissile, with lineation on foliation plane.
- CRN 21:** *Adelaidean:*
98.5-116.5 **Siltstone**, moderately to v weathered, greenish to reddish brown, foliated, with some pale bleached joints.
- CRN 22:** Did not reach basement: 118.0m deep
- CRN 23:** *Bendigo Granite:*
98-108 Quartz, biotite, & pinkish white feldspar sand.
108-109 **Granite**, medium grained 0.5-1mm, cream to light pink, quartz, feldspar & biotite; biotite as 0.5-2mm aggregates which show a faint vertical alignment.
- CRN 24:** *Weathered granite?:*
76-90 Micaceous, silty, & clayey sand, khaki-green colour.
Bendigo Granite:
90-102 **Granite**, moderately to v weathered.
102-117 **Granite/diorite**, medium to coarse grained, green to dark green, some is more mafic granite, quartz-poor, dark green to black, dominantly green feldspar & black hornblende?.
- CRN 25:** *Very weathered Bendigo Granite:*
88-119.5 **Clay**, silty & sandy, showing relict interlocking grain texture (granitic or gneissic), mottled off-white, khaki, light khaki, & red-brown, & minor biotite.
- CRN 26:** Did not reach basement 119.5m deep.
- CRN 27:** Did not reach basement 119.5m deep.

- CRN 28:** Talus deposit?, or *very weathered Adelaidean?*:
6-24 **Clayey silt/sand**, v fine grained, with abundant vein quartz, sandstone, & quartzite fragments, & some rounded gravel.
Adelaidean:
24-44.5 **Clay**, with minor quartzite interbeds.
44.5-66 **Diamictite**, greenish grey, moderately to v weathered, v fine to fine grained sand in a silty matrix with minor medium grains, well rounded, moderately sorted to bi-modal; & minor rounded pebbles of dark grey to dark green v fine grained quartzite & light greyish brown quartzite with green stained rims.
66-68.5 **Diamictite**, aa, fresh.
- CRN 29:** *Adelaidean:*
5-20 **Diamictite**, weathered to clay & gravel.
20-30 **Sandstone**, v fine to fine grained, with minor medium grains & minor rounded quartzite pebbles within the sandstone matrix, light orange-brown.
30-52 **Diamictite**, as in CRN 28, brownish grey.
- CRN 30:** *Weathered Adelaidean?*:
6-30.5 Silty & sandy **clay**, grey.
Adelaidean:
30.5-41.5 **Sandstone**, moderately weathered.
41.5-47.5 **Sandstone**, v fine grained, dark grey or greenish grey, moderately sorted, with abundant disseminated fine black minerals, & rare medium sized grains within the sandstone matrix.
- CRN 31:** *Adelaidean:*
23-40 **Siltstone**, moderately weathered, light orange-brown, faintly foliated, faint slightly Fe stained & indurated laminae 3-4mm apart, & minor clear to milky freshly broken vein quartz; with Fe boxwork from 26 to 30m;
40-50 **Siltstone**, black, *carbonaceous*, fractures, joints, & partings are bleached pale fawn & mottled light orange.
50-60 **Sandstone**, v fine grained, moderately to well sorted, black or weathered light orange-brown; some zones contain *abundant disseminated* fine to medium black grains or grain aggregates (possibly weathered *sulphide?*), & minor 1mm sub-rounded blebs with a brown core & black goethite? rims, with sharp boundaries.
60-64 **Siltstone/sandstone**, v fine grained, black, *carbonaceous*. Petrological sample 6731 RS 667 is silty carbonaceous slate.
- CRN 32:** *Adelaidean:*
11-56 **Clay** & v weathered **siltstone**, with minor Fe boxwork at 36 to 38m & 42 to 46m. Petrological sample 6731 RS 673 comprised carbonaceous silty carbonate with pyrite disseminated and in veins with limonite.
56-66 **Siltstone**, dark grey, with abundant bleached & Fe stained joints.
66-68.5 **Siltstone**, black, *carbonaceous?*, with *fine fractures infilled with silvery yellow pyrite*, with fine 0.5mm slightly *pyritic halos*.
- CRN 33:** *Adelaidean:*
4.5-33 **Clay-silt** & v weathered **siltstone**, slightly foliated.
33-38 **Siltstone**, dark grey to black, with well developed fissile parting at 3-6mm spacing, but no obvious foliation or laminae, & 2 or more well developed orthogonal joints sets, with orange-brown Fe stained joints.
- CRN 34:** *Adelaidean:*
5.3-10 **Siltstone**, dark grey to black, with fine laminae, dip 25°, & thin black fractures with 2-3mm bleached light khaki haloes.
- CRN 35:** *Adelaidean:*
2-4 **Siltstone**, *calcareous*, light greyish green or dark grey, with faint darker laminae dipping 20°, & foliated & fissile in part, dip 60° (some cores show both laminae & foliation, & strike appears to be the same), & rare moderate to steep dipping joints.
- CRN 36:** *Adelaidean:*
5.2-8 **Sandstone/siltstone**, v fine grained, with some faint fine dark laminae which are Fe stained in part, & minor Fe stained fractures & joints.
8-21 **Siltstone**, brownish grey to dark grey, with strong fine dark to black laminae 0.2mm at 0.2-0.6mm spacing, dip 40°, some laminae are orange stained, & some greyish brown to light khaki-brown bleaching, especially on joints.

- CRN 37:**
2.5-14 *Adelaidean:*
Sandstone, moderately to v weathered, faintly laminated, with some joints / fractures with fine 0.2mm black slightly irregular cores & 1-3mm pale grey bleached haloes.
14-44.5 **Sandstone**, v fine grained, grey to dark grey, minor faint or orange & brown fine laminae, & some joints & fractures with orange, brown or reddish Fe stained fine 0.2mm cores, & bleached margins.
- CRN 38:**
2-34 *Adelaidean:*
Clay-silt & moderately to v weathered siltstone.
34-47.5 **Siltstone**, dark grey, with minor orange-brown Fe stained joints & minor fine opaque *quartz veins*.
- CRN 39:**
14-26 *Adelaidean*
Clay-silt and siltstone, very weathered, reddish or yellowish brown, and micaceous in part; noted one *limonite pseudomorph after pyrite* at 16m.
26-48 **Siltstone**, reddish or yellowish brown, with some grey *carbonaceous laminae* ~1mm, micaceous in part, and some *quartz veins* at 46m.
48-65.5 **Siltstone**, grey to dark grey or greenish to bluish grey, micaceous, laminated and with fine dark *carbonaceous? laminae*, and fine black disseminated biotite?; minor cross-cutting *quartz veins*, and with some *specular haematite?* on surfaces.
- CRN 40:**
12-26 *Adelaidean, Ulupa Siltstone:*
Clay and very weathered siltstone.
26-48 **Siltstone**, weathered, pale olive-green or orange.
48-54 **Siltstone**, olive-green, with regular thin red laminae, with occasional 1cm thick sandstone interbeds, ferruginous in part, & jointing approximately perpendicular to laminae.
- CRN 41:**
32-60 *Adelaidean?:*
Clay, mottled.
Adelaidean:
60-68 **Clay & weathered siltstone.**
68-72 **Siltstone**, dark grey, foliated & jointed.
- CRN 42:**
32-60 *Adelaidean, Ulupa Siltstone:*
Clay & v weathered siltstone, ferruginous in part.
60-68 **Siltstone**, weathered.
68-84 **Siltstone**, green to dark grey, with regular 1-2mm laminae every 7mm.
- CRN 43:**
24-72 *Very weathered Adelaidean?:*
Clay, mottled, & limonitic in part.
Adelaidean, Ulupa Siltstone:
70-108 **Siltstone**, weathered, & clay.
108-115 **Siltstone**, dark bluish grey with darker or greenish laminae, 2mm or more.
- CRN 44:**
110-123.5 *Adelaidean:*
Siltstone, dark grey to black, with rare v thin white quartz? veins, & some medium to coarse *disseminated sulphides*.
- CRN 45:** Did not reach basement: 108.0m deep
- CRN 46:** Did not reach basement: 33.0m deep
- CRN 47:** Did not reach basement: 31.0m deep
- CRN 48:**
32-68 *Weathered granite?:*
Clay, with rare quartz, & rare dark grey metallic? mineral.
Bendigo Granite:
68-76 **Clay & weathered granite.**
76-78 **Granite/Diorite**, dark green intermediate mafic, with plagioclase, hornblende, biotite, epidote. Petrological sample 6731 RS 725 indicated a plagioclase - quartz - biotite - microcline microtonalite, with oxidized magnetite.
- CRN 49:**
12-52 *Bendigo Granite:*
Clay & weathered granite.
52-56.5 **Microgranite**, with quartz, feldspar, biotite, & hornblende. Petrological sample 6731RS 730 indicated a medium to coarse grained plagioclase - quartz - orthoclase - biotite - hornblende granodiorite.

- CRN 50:** *Weathered granite?:*
16-48 **Clay**, white, with biotite, quartz & feldspar grains.
Bendigo Granite:
48-72 **Clay & weathered greissen & granite?**, pale olive-green, feldspar (eg plagioclase), biotite, quartz, & opaques, & chloritised in part.
72-73 **Greissen**, fine grained muscovite & quartz. Petrological sample 6731 RS 736 indicated a fine grained muscovite - quartz greisen with patches of rutile, and low temperature Fe sulphide enclosing muscovite.
- CRN 51:** *Bendigo Granite:*
4-16 **Sand & weathered granite**, ie medium grained quartz, feldspar, biotite, & hornblende grit.
16-17 **Granite**, dark grey, biotite & hornblende-rich.
- CRN 52:** *Weathered Bendigo Granite?:*
18-28 **Clay**, brown or olive-green, with minor biotite, quartz, & greissen fragments.
Bendigo Granite:
28-54 **Clay & weathered granite/microgranite**, green.
54-55 **Microgranite**, dark green.
- CRN 53:** *Bendigo Granite:*
34-52 **Clay & weathered granite** grit.
52-72 **Weathered granite**, chloritised at 52-54m.
72-73.5 **Granite**, quartz, plagioclase, biotite, & hornblende.
- CRN 54:** Did not reach basement: 101.5m deep
- CRN 55:** *Cretaceous? kimberlite:*
0-22 Moderately to v weathered kimberlite, & pale green marl.
22-38 **Weathered kimberlite & marl**, grey.
38-47.5 **Kimberlite**, dark grey, phlogopite with pale green & orange veining. Petrological sample 6731 RS 757 was an altered kimberlite with scattered megacrysts of olivine altered to smectite+carbonate+limonite+, and smaller crystals of phlogopite and of olivine partially altered to smectite, within a groundmass of fine phlogopite with disseminated carbonate.
- CRN 56:** *Cretaceous? weathered kimberlite:*
0-14 **Weathered kimberlite**, grey, & green marl.
14-50 **Weathered kimberlite**, grey, with yellow & orange weathered olivine, & fragments of dark grey-green siltstone.
Adelaidean?, Belair sub group?:
50-68 **Marl**, finely laminated with rare disseminated pyrite, clay, blue, light grey & white, & weathered siltstone, (karst infilled with kimberlite & marl detritus).
- CRN 57:** *Adelaidean, Belair? Sub group:*
18-19.5 **Quartzite**, brown, fine grained & massive, strongly silicified sandstone, with minor opaques.
- CRN 58:** *Adelaidean:*
2-14 **Siltstone**, weathered, grey-green, finely laminated.
14-19 **Siltstone**, purple to dark purplish grey, finely laminated, with pencil jointing, & Mn dendrites.
- CRN 59:** *Adelaidean:*
14-40 **Clay, & weathered siltstone.**
40-69.5 **Siltstone**, weathered, reddish brown, with massive & dendritic Mn mineralisation at 44-46m, & a pseudomorph after pyrite at 62-64m; with sandstone interbeds & veins of micaceous haematite at base.
- CRN 60:** *Bendigo Granite? equivalent:*
58-70 **Clay**, limonitic, & chloritic & haematitic weathered basement, light brown.
70-75.5 **Altered diorite**, weathered, with a boxwork of haematite, & with sphene & coarse albite. Petrological sample 6731RS 768 is altered 'diorite'.
- CRN 61:** *Adelaidean?:*
80-108 **Sand, sandy clay, & weathered sandstone**, white or orange stained.
Adelaidean:
108-125.5 **Sandstone**, finely layered, & well silicified in part, light grey or greenish, chloritised in part.

- CRN 62:**
83-90
90-100
Adelaidean:
Clay, & weathered siltstone, faintly foliated, & *carbonaceous* in part.
Siltstone, light grey to greenish grey, finely laminated, with some v fine grained sandstone laminae, & faintly fissile, & with minor clear *quartz veins*.
- CRN 63:**
23.5-53.5
Adelaidean:
Sandstone & diamictite, fine to v fine grained, with rounded fine to medium grained quartz grains; light orange brown, with some bleached & Fe stained joints & partings, with minor black Mn blebs on joint plane; in places includes numerous bright red stained rounded voids 1-2mm, with sandstone? cores, & distinct edges with light green haloes-weathered pebbles?; & minor white *quartz veins with dark brown to black stained rims*; poorly developed planar vertical laminae? wrap around one side of coarser grains, ie dropstones?; minor siltstone interbeds.
- CRN 64:**
15-53.5
Adelaidean:
Siltstone, sandy in part, khaki-grey when fresh, & minor v fine grained sandstone interbeds; siltstone is massive, & faintly foliated; with minor black or brown Fe stained & infilled joints from 0.5-6mm wide.
- CRN 65:**
7-28
Adelaidean:
Siltstone, grey, slightly fissile & foliated, with minor 1-2mm Fe stained joints with black cores & brown rims, & includes abundant disseminated rounded fine to medium quartz grains from 22 to 25m; & some 2-4mm lighter coloured laminae at base.
- CRN 66:**
20.5-50
Adelaidean:
Siltstone, grey to greenish grey, with minor sandy interbeds, faintly & finely laminated, & faintly foliated & fissile in part.
- CRN 67:**
23-50
Adelaidean:
Siltstone, grey, fissile & slightly foliated, with zones of abundant thin veinlets of Mn? or goethite?, & of clear quartz.
- CRN 68:**
29.6 to 52
Adelaidean:
Siltstone, grey, with rare fine laminae & parallel parting, & rare foliation at 70° to laminae, & minor black stained joints with purple stained 1-2mm haloes.
- CRN 69:**
9.5-35
Adelaidean:
Siltstone, brown to light yellow-brown, finely laminated, & foliated & fissile in part with micaceous partings.
35-48
Sandstone, v fine grained, light orange-brown, slightly micaceous, with minor faint laminae, & faintly foliated & fissile.
48-63
Siltstone, light bluish to greenish grey, sandy in part; with some zones of *abundant veins of white quartz* with some dark red to black Fe stained quartz, & some bleaching & staining of siltstone.
- CRN 70:**
18.3-33
33-46
Adelaidean:
Clay & siltstone, moderately to v weathered, faint laminae & foliation.
Siltstone, greyish brown to dark grey, massive, or slightly fissile, with trace of v fine mica on partings, & rare v faint fine laminae parallel? to parting.
- CRN 71:**
22.5-60
60-86.5
Adelaidean:
Clay, & v weathered siltstone, with *abundant clear to slightly milky quartz veins* from 42-44m, 46-47m, & at 49m.
Siltstone, silvery bluish grey when fresh, with slightly darker or lighter fine laminae which weathers to orange or brown, & slightly micaceous partings.
- CRN 72:**
22.5-56
56-80
Adelaidean:
Clay, & v weathered siltstone & sandy siltstone.
Siltstone, moderately weathered, khaki- to yellow-brown, with a faint foliation at about 60° to a strong fissile parting, & some thin brown Fe stained joints, & minor 1-2mm black Fe infilled fractures; also rare elongate voids 2mm by 0.5mm, rounded & orange-brown stained, no orientation.
80-83
Siltstone, light bluish grey, with irregular 3-8mm long brown indurated streaks or laminae?; & minor fine semi-translucent to grey elongate tapered acicular minerals on the parting, <2mm by 0.3mm, with a basal cleavage, & rough orientation.

- CRN 73:**
27-48
48-59.5
- Adelaidean:*
Clay, & moderately to v weathered siltstone.
Siltstone, greyish brown, alters to blue-grey in 1-2mm haloes along joints/partings, massive, or with faint foliation?, or fine discontinuous 1-3mm by 0.1mm brown layers.
- CRN 74:**
23.3-44
44-54
54-58
- Adelaidean:*
Clay, & v weathered siltstone.
Siltstone, moderately weathered, with faint laminae at 60° to foliation.
Siltstone, light greyish brown, massive, with some black Mn stained joints with 0.5mm bleached haloes.
- CRN 75:**
16-20
20-55
- Adelaidean:*
Clay, & v weathered siltstone.
Siltstone, greyish brown to khaki grey, with some fine laminae, & minor hard black siltstone laminae, & foliated & fissile parallel to laminae.
- CRN 76:**
23.3-51
51-60
60-82
82-95.5
- Weathered Adelaidean?:*
Silty clay, with minor siltstone & fine silicified? sandstone.
Adelaidean:
Clay, & v weathered siltstone.
Siltstone, slightly to v weathered, fissile in part.
Siltstone, dark grey to bluish grey, with some faint khaki 1-2mm laminae, slight foliation with a strong fissile parting.
- CRN 77:**
44-68
68-85.5
- Adelaidean:*
Clay, & v weathered siltstone.
Siltstone, greenish grey, with faint fine laminae dipping 50°, & faint parallel fissile parting, & minor v fine grained sandstone interbeds; with *abundant quartz veins?* or quartz gravel? from 82 to 83.8m, most quartz is sub-rounded & of even grain size, 1-2.5mm, & some looks polished, & also includes some fine rounded siltstone fragments.
- CRN 78:**
22-29
29-49
49-60
60-77.5
- Weathered Adelaidean?:*
Clayey & silty v fine grained sand, mottled, & laminated, & silicified? in part.
Clay, silty & sandy, with fine mottling, & some laminae.
Adelaidean:
Siltstone, moderately to v weathered.
Siltstone, grey, faintly foliated & slightly fissile, & with faint fine light greyish brown (sandy?) laminae 0.2-0.5mm, & faint fissile parting parallel to laminae, with some dark brown to black Fe stained joints.
- CRN 79:**
19.8-46
46-86
86-100
100-122.5
- Weathered Adelaidean?:*
Clay, pale coloured, with zones of abundant clear vein quartz.
Adelaidean:
Clay & v soft siltstone, light mustard colour, v faintly foliated.
Siltstone, slightly to v weathered, with faint thin orange-brown laminae, & faintly foliated & fissile parallel to laminae.
Siltstone, grey to bluish grey, faintly laminated in part, & slightly foliated in part.
- CRN 80:**
50-77.5
77.5-118.2
- Cainozoic? or weathered Adelaidean?:*
Clay, silty, light grey.
Adelaidean:
Siltstone, dark grey, deeply altered or weathered to clay, khaki to mustard colourings, & fissile & finely laminated in part. The sequence contained *abundant quartz & specular haematite? veining within weathered or altered siltstone* in particular from 80-86m, 91-95m, between 104 & 110m, & at 113-116m. The quartz & specular haematite occur intergrown or as separate veins or veinlets. No sulphides were observed.

- CRN 81:** *Cainozoic? or weathered Adelaidean?:*
49.2-67 **Clay**, slightly silty, & sandy in part, light grey or mottled.
Altered & silicified Adelaidean:
67-80.5 **Clay**, silty & sandy & micaceous in part, & weathered sandstone/quartzite.
80.5-87 **Sandstone?**, fine grained, overprinted with an *intense but irregular dolomitisation* (originally logged as silicification), in part to a homogenous pale grey to light brown rock; in part there appear to be multiple generations of dolomitisation; ie along pre-existing joints etc, yielding a *boxwork* pattern; includes some rock which could be a dolomitised *fine grained breccia*, ie irregular angular fine to coarse fragments <10mm but mostly 1-2mm, overprinted by later dolomitisation; & with some *clear to milky or glassy quartz veins*.
87-92.5 V fine grained sandy clay/silt rock, green to dark green, & structureless, slightly micaceous (possibly an **altered intrusive?**), with rare irregular *muscovite veins & veinlets* 0.2-2mm wide with muscovite crystals perpendicular to the vein, & with *fine muscovite-rich layers* (or laminae?), dipping 70°; & minor light grey dolomitised sandstone/quartzite & breccia as above.
92.5-106 **Dolomitised sandstone & breccia**, as at 80.5-87m, with minor thin *muscovite veinlets*.
106-116.0 V fine grained sandy clay/silt rock, dark green, **altered intrusive?** as at 87-92.5m.
116-121.5 **Dolomitised sandstone & breccia**, as at 80.5-87m; & rare black acicular minerals associated with strong silicification/dolomitisation & quartz veining, & rare *blue-black sulphides*.
[Petrological sample 6731 RS 886 from 80-88m was a green fine grained rock comprising phlogopite?, chlorite (possibly with nickel or copper), clay, and limonite after biotite, typical of the 87-92.5m, and 106-116m intervals; samples 6731 RS 887, 888, 890 were pale brown fine grained quartz-dolomite, and carbonate - mica rocks typical of the 80.5-87m, 92.5-106m, and 116-121.5m intervals].
- CRN 82:** *Adelaidean, Pualco Tillite?:*
12-64 **Tillite**, light brown to brown, & mottled reddish brown, & with rare quartzite interbed, & minor Mn staining.
- CRN 83:** *Adelaidean, Pualco Tillite?:*
18-33 **Tillite**, weathered, grey or brown, v fine grained matrix, with medium to coarse quartz grains, & rare v coarse quartzite.
- CRN 84:** *Weathered Adelaidean?:*
28-64 **Clay**, & minor weathered siltstone or weathered sandstone or quartzite, clay is varicoloured, & mottled in part, with flat blue fragments of *chrysocolla* at 62-64m.
Adelaidean, Benda Siltstone?:
64-74 **Siltstone**, weathered, grey to dark grey, with trace of *chrysocolla* at 70-72m.
74-86 **Silty sandstone**, weathered, dark grey, with minor *chrysocolla* at 74-76m.
86-88 **Sandstone**, fine to medium grained, light to dark grey.
- CRN 85:** *Adelaidean, Benda Siltstone?:*
12-48 **Clay**, & **weathered siltstone & shale**, reddish or greenish brown, with rare quartzite interbeds, & *minor quartz veins* at 26-34m.
48-49 **Siltstone**, dark greenish grey, slightly layered, massive, v hard.
- CRN 86:** *Bendigo Granite:*
6-28 **Weathered granite**, & **clay**, angular quartz, white weathered feldspar, fresh pink k feldspar & biotite.
28-32 **Granite**, medium to coarse grained, 30% k feldspar, 30% quartz, 30% feldspar, 10% biotite.
- CRN 87:** *Bendigo Granite:*
16-24 **Weathered granite**, & **clay**, light brown, with quartz & weathered feldspars.
24-36 **Granite**, weathered, with clear or stained quartz, white weathered feldspar, & minor biotite.
- CRN 88:** *Adelaidean:*
2-3 **Schist**, dark greenish grey to purple, with medium grained grey oblong altered cordierite metacrysts. Petrological sample 6731 RS 910 is a pelitic schist, containing cordierite? porphyroblasts altered to sericite in a fine grained schistose biotite - quartz \pm feldspar matrix.
- CRN 89:** *Adelaidean:*
2-14 **Weathered schist**, & **clay**, with some meta-siltstone with medium grained metacrysts.
14-25 **Schist**, weathered in part, with layers of medium grained, grey, oblong, altered cordierite metacrysts. Petrological sample 6731 RS 912 is a quartz - biotite schist with minor elongate cordierite? porphyroblasts. Three distinct layerings were noted: S? (bedding?) comprising diffuse quartz-rich vs biotite-rich layering; S1 schistosity, at 60-70+° to S?; S2 evidenced by crenulation cleavage of biotite, and by a strongly planar layering of quartz-rich vs biotite-rich layers at 1-10mm scale, at 45° to S1 and 60-90° to S?.

- CRN 90:** *Adelaidean:*
12-22 **Clay, & weathered schist**, with minor layers of altered cordierite metacrysts.
22-32 **Schist**, weathered, dark green, fine grained, with fine dark grey grains.
32-44 **Schist**, aa, faintly foliated.
- CRN 91:** *Adelaidean, Wilyerpa Formation?:*
6-20 **Clay, & weathered shale**, light orange-brown, with fragments of milky quartz at 12m.
20-30 **Shale**, v weathered.
30-34 **Shale**, dark greenish grey, massive, or minor laminae.
- CRN 92:** *Cainozoic?, or very weathered Adelaidean?:*
2-56 **Clay**, mottled, with rare fragments of weathered siltstone, & of milky quartz.
Adelaidean, Wilyerpa Formation? or Tapley Hill Formation?:
56-68 **Clay, & weathered siltstone**, khaki-, yellow-, or olive-green.
68-86 **Siltstone**, weathered, dark green to light grey, with regular layering, some sandy layers, & with minor slump & flame structures.
86-92 **Shale**, dark grey, with minor fine laminae.
- CRN 93:** *Cainozoic?, or very weathered Adelaidean?:*
6-36 **Clay**, light grey, or khaki-green below 26m with rare weathered siltstone.
Adelaidean, Wilyerpa Formation?:
36-44 **Clay, & weathered siltstone**, yellow-brown to greenish grey, with vein quartz & haematite at base.
44-58 **Siltstone**, weathered, dark grey to green or yellowish brown, laminated in part, with rare vein quartz & haematite.
58-59 **Siltstone**, dark grey, slightly laminated, jointed & fractured, with quartz veins.
- CRN 94:** *Adelaidean, Wilyerpa Formation?:*
2-24 **Siltstone**, green, or red, with some shaley layers, & fine heavy mineral layering.
- CRN 95:** *Bendigo Granite:*
2-6 **Weathered granite.**
6-9 **Granite**, slightly gneissic, ie changes from biotite-rich to biotite-poor, & slightly foliated.
- CRN 96:** *Adelaidean:*
0-5 **Meta-Siltstone**, green to dark green, calc-silicate, clinopyroxene- plagioclase- orthoclase hornfels, flaggy & layered, v hard. Petrological sample 6731 RS 929 comprises foliated fine to coarse grained alkali feldspar - quartz - plagioclase - clinopyroxene protomylonitic granite, in contact with layered fine grained clinopyroxene - plagioclase - orthoclase - hornblende hornfels.
- CRN 97:** *Very weathered granite?:*
18-26 **Clay**, white to pale grey, & gravel with weathered granite fragments.
Bendigo Granite:
26-60 **Weathered granite, & clay**, off-white to brown, medium to coarse grained with quartz, feldspar & biotite, & chloritic in part, with large fragments of light grey to pink stressed **quartz-rich granite-mylonite** at 48m, & ribbons of quartz set in fresh to albitised alkali feldspar augen at 50m. Petrological sample 6731 RS 932 from 48-50m comprised granite mylonite, mostly fine grained with ribbons of quartz in fresh to albitised alkali feldspar, with some zones rich in similar feldspar augens.
60-62.5 **Granite**, medium to coarse grained, 40% quartz, 20% plagioclase, 30% hornblende, 10% biotite.
- CRN 98:** *Cainozoic? ie Tertiary?, or very weathered basement?:*
8-48 **Clay**, slightly silty & sandy in part, light grey; dark grey below 36m with minor altered cordierite & weathered siltstone fragments.
Adelaidean:
48-52 **Clay, & weathered schist.**
52-57.5 **Schist**, dark grey-green meta-siltstone, with porphyroblasts.
- CRN 99:** *Very weathered Adelaidean?*
64-90 **Clay**, dark grey to olive-grey, with some gritty or micaceous (esp biotite) interbeds.
Adelaidean
90-104 **Siltstone**, grey to greenish grey, fissile and micaceous/biotitic.
- CRN 100:** *Weathered Adelaidean? and Bendigo Granite?*
102-106 **Clay**, and fragments of grey siltstone, vein? quartz, and weathered gneiss? or granite?.
- CRN 101:** *Very weathered Adelaidean?*
116-118 **Siltstone**, dark grey, with some smokey vein quartz.

CRN 102: 108-118	<i>Adelaidean?</i> Calc-silicate , green, and <i>variably altered</i> and limonitic, with minor quartzite and grey siltstone, and with <i>minor sulphide? ie pyrite?</i> at top.
CRN 103: 100-122	<i>Weathered? or altered? Bendigo Granite? &/or calc-silicate</i> Clay , mottled and micaceous, with remnant granitic texture, and fragments of weathered or altered granite, and botryoidal calc-silicate , and of granite mylonite at 118m.
122-127	<i>Adelaidean? Calc-silicate</i> Calc-silicate , green to grey, with biotite-rich lenses.
CRN 104: CRN 105: 58-68	Did not reach basement 122m deep <i>Very weathered Adelaidean?</i> Clay , reddish brown to purple with minor weathered siltstone.
68-74	<i>Adelaidean</i> Siltstone , purplish to reddish brown, weathered.
CRN 106: 56-90	<i>Altered Adelaidean</i> Quartzite , fine grained and light bluish grey to white in colour, with minor disseminated fine black biotite?, and with minor bluish grey <i>vein quartz</i> ; and with siltstone? interbeds which are substantially weathered or altered to pale to light grey gritty and slightly micaceous clay.
90-98	Siltstone , olive-green, or reddish stained, with some remnant bedding, and with minor manganiferous nodules.
98-112.2	Talc , fine grained and homogenous, light olive-green in colour, and with rare muscovite, and with rare quartzite interbeds as above.
CRN 107: 76-80 80-90	<i>Adelaidean:</i> Clay , & v weathered siltstone , layered buff & tan, with biotite-rich laminae. Siltstone , moderately weathered, grey or yellow-brown, with rare biotite-rich lenses, & with <i>minor quartz veining</i> , & Fe stained joints.
90-122.5	Siltstone , dark to light grey, with faint fine laminae, & with <i>bleached & lightly Fe stained joint sets</i> (almost a <i>boxwork</i> in part); <i>variably silicified?</i> in part, off-white & mottled, & with minor scattered rounded garnet?, no orientation or layering, ie possibly a skarn (eg at 112 & 118m).
CRN 108: 120-138 138-149.5	<i>Adelaidean:</i> Clay , & v weathered siltstone , khaki to purplish brown, with <i>abundant quartz veining</i> at 122.5-126m, Siltstone , khaki to light grey, slightly fissile.
CRN 109: 124-132 132-133.5	<i>Adelaidean:</i> Clay , & moderately to v weathered sandy siltstone , brown to khaki-green, with thin pale or darker laminae; <i>abundant vein quartz</i> at 131m. Siltstone , grey-green, fissile.
CRN 110:	Did not reach basement 116.5m deep
CRN 111: 64-98	<i>Bendigo Granite:</i> Clay , white to pale khaki, or dark to light greenish grey, & finely mottled, micaceous (muscovite or biotite); with fragments of v weathered granite.
98-106.5 106.5-107.5	Granite , weathered, greenish grey. Granite , dark green-grey to black, hard, medium grained, with intergrown felsic & mafic minerals, minor biotite, & rare quartz.
CRN 112: 95.5-121	<i>Weathered Adelaidean?:</i> Clay & claystone , & minor weathered siltstone, pale grey to light purplish grey or light brown or light yellowish brown, with minor Fe indurated siltstone, micaceous siltstone, & vein quartz near base.
121-132	<i>Bendigo Granite:</i> Gritty clay , dark or light green finely banded or mottled; & weathered granite, medium grained, dark green, with 70% dark green weathered mafic minerals, 30% white to pale green weathered feldspar, & minor biotite; with minor pale grey-brown vein quartz at 129-130m.
132-135	Granite , dark green to black, medium grained, <i>mafic</i> ; with minor to abundant light yellow-brown translucent acicular mineral, <4mm by 1.5mm.
CRN 113: 78-96	<i>Bendigo Granite:</i> Clay , white with fine red & green mottling, feldspathic & gritty in part, & felsic intrusive?, fine grained, weathered to clay, feldspar, muscovite, & trace of black minerals.
96-110.5	Granite , or felsic & quartz-rich intrusive , fine to medium grained, slightly to v weathered.

- CRN 114:** *Weathered Adelaidean?:*
41-55.5 **Clay**, silty, pale grey, & **quartzite**, v fine grained, semi-translucent pale grey (ie sandstone interbeds? or siliceous induration?), & some translucent vein? quartz,
Adelaidean?:
55.5-62 **Quartzite**, v fine grained, *recrystallised* (ie possibly a *skarn*), light grey with some dark green staining on joints & minor greenish grey quartzite, & minor coarser black minerals, possibly biotite, & some *cross-cutting quartz veins*.
- CRN 115:** *Bendigo Granite:*
59.8-84 **Clay**, white, or finely mottled light olive-green or light red, gritty, with some loose biotite & weathered granite fragments below 76m.
84-90.5 **Granite**, green, comprising medium grained clear to pale green translucent quartz, white orthoclase?, green feldspar, biotite, & v fine black mafic minerals.
- MUR 01:** *Adelaidean, Willyerpa Formation?:*
6-18 **Weathered siltstone**, & **clay**, light grey or reddish brown, laminated in part.
18-29.5 **Siltstone**, olive-green, laminated in part, with some thin heavy mineral banding, & minor massive Mn mineralisation.
- MUR 02:** *Adelaidean:*
26-42 **Clay**, & **weathered siltstone**, yellowish brown, & limonitic in part, & minor Mn mineralisation.
42-68 **Weathered siltstone**, yellowish brown, with abundant haematite, ironstone, & quartz fragments at 64m.
68-89.5 **Siltstone**, green to dark green, v slightly phyllitic, & with rare layering.
- MUR 03:** *Adelaidean:*
6-38 **Clay**, & **weathered siltstone**, green, grey, & dark red, with minor limonite & Fe staining.
38-53.5 **Weathered siltstone**, & **clay**, greenish grey, slightly phyllitic, with convoluted sand interbeds, & *minor vein quartz*; some fresher greenish grey **phyllitic siltstone** at 46m.
- MUR 04:** *Adelaidean, Pualco Tillite?:*
4-14 **Weathered siltstone & sandy siltstone**, & **clay**, yellowish brown.
14-38 **Tillite**, weathered, yellowish brown, fine grained matrix with medium to coarse siltstone grains, poorly layered, & minor thin gravelly interbeds.
38-40 **Tillite**, grey, slightly layered, v poorly sorted sand with quartzite grains & fragments.
- MUR 5:** *Adelaidean:*
13.6-17.5 **Siltstone**, fissile, light to dark grey, or light yellow-brown bleached, with some black Mn? stained zones, & relict foliation evidenced by thin orange stained & indurated streaks or fine laminae, with discontinuous & diffuse heavy mineral laminae (very fine shiny red-brown minerals?), & disseminated v fine black minerals.
- MUR 6:** *Adelaidean:*
29.8-31 **Siltstone**, **calcareous**, dark grey to red-brown banded & laminated, dip 70°, hard & silicified?, with some black stained & dendritic laminae.
- MUR 7:** *Adelaidean:*
30.5-31 **Quartzite/sandstone**, fine to medium grained, light grey, well sorted & rounded, no layering, with abundant fine disseminated black minerals; with *abundant white vein quartz* at base.
- MUR 8:** *Adelaidean:*
20-26 **Clay**, light khaki, micaceous, & **weathered siltstone**.
26-44 **Phyllite**, silvery grey to greyish brown, fissile.
- MUR 9:** *Adelaidean:*
20.3-29.5 **Siltstone**, black or dark silvery grey, v fissile, with light grey & orange or purple bleached & stained partings, & some micaceous partings, with some red garnet? or rutile? rich laminae, 1-4mm.
- MUR 10:** *Adelaidean:*
93.5-98.5 **Siltstone**, light brown to reddish brown, fissile, with rare thin 0.5mm laminae, with *abundant vein quartz* at 98.2m, white, irregular, fractured & ropy.
- MUR 11:** *Adelaidean?:*
3.6-7 **Silicified calc-silicate?**, v fine grained, greenish-grey to dark green, with disseminated fine black minerals, joint surfaces are mottled dark brown & black; rock comprises interlocking v fine silicate minerals, ie recrystallised?, silicified?, or v *fine grained intrusive?*.
- MUR 12:** *Adelaidean:*

- 6-10 **Siltstone**, brown, or bleached, & stained & indurated orange or dark brown, with *poorly developed ferruginous boxwork*.
- MUR 13:** *Adelaidean:*
9-10 **Sandstone**, fine to medium grained, light grey, moderately sorted, well rounded, & minor thin siltstone interbeds, fissile, dark brown; & **quartzite**, dark to light grey, with minor orange staining.
- MUR 14:** *Bendigo Granite?, or weathered Adelaidean?:*
60.5-88.5 **Clay**, gritty, white, some is red-brown irregularly stained or finely mottled, with some weathered fine grained dark green fragments (possibly weathered granite basic intrusive?)
Bendigo Granite:
88.5-91.5 **Basic intrusive?**, fine grained, dark green, slightly to moderately weathered, with some clear sugary vein? quartz; & **v fine grained silica-rich rock**, light orange to off-white; the two rock types are mutually cross-cutting with diffuse irregular contacts.
- MUR 15:** *Weathered Bendigo Granite?*
47-84 **Clay**, pale grey or off-white, gritty in part, with some zones of *abundant vein? quartz*, & rare mafic minerals.
Bendigo Granite:
84-110 **Granite**, moderately to v weathered, fine grained, weathers to clay & quartz & feldspar grit, with minor mafic minerals.
110-127.5 **Granite**, moderately weathered, comprising (in decreasing order of abundance):
 . quartz, fine to coarse grained, clear to translucent pale grey-brown
 . plagioclase, med to v coarse, opaque pink to semi-translucent light orange-red
 . orthoclase?, fine to coarse grained, opaque white
 . pyroxene? or amphibole?, fine to coarse grained, black
 . biotite, fine to coarse grained.
 with some dark green banded felsic fine to medium grained granite fragments.
- MUR 16:** *Weathered Bendigo Granite?:*
76.5-103.5 **Clay**, off-white, or mottled & banded dark brown, purple, dark brick red, or khaki, gritty in part; fine mottling below 90m may represent weathering of felsic & mafic minerals, clay at 92 is strongly banded, ie weathered layered intrusive?, or gneiss?.
- There were probably two distinct but intermixed igneous lithologies:
 . fine to medium grained **quartz-plagioclase-biotite? granite**, weathering to light pink gritty clay.
 . fine to coarse grained **granite? containing felsic & mafic minerals**, weathering to pale green gritty clay.

APPENDIX E

**GEOCHEMICAL RESULTS AND
FULL SILICATE ANALYSES**

SILICATE ANALYSES
SADME 1992

BURRA DRILLING PROJECT

HOLE NO	DEPTH	SAMPLE NO	LITHOLOGY	ELEMENT:	SiO2	TiO2	Al2O3	Fe2O3	MnO	MgO	CaO	Na2O	K2O	P2O5	LOI
				UNITS:	%	%	%	%	%	%	%	%	%	%	%
				DETECT LIMIT:	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
				METHOD:	IC4	IC4	IC4	IC4	IC4	IC4	IC4	IC4	IC4	IC4	IC4
					SiO2	TiO2	Al2O3	Fe2O3	MnO	MgO	CaO	Na2O	K2O	P2O5	LOI
CRN23	106-109m	6731RS	634 granite		73.3	0.38	12.3	4.06	0.02	0.5	1.49	2.4	2.98	0.04	1.59
CRN24	116-117m	6731RS	644 diorite		69.1	0.42	14.6	5.35	0.02	0.67	2.12	3.2	2.8	0.05	1.98
CRN25	106-119.5m	6731RS	647 weathrd granite		62.3	0.88	20.5	6.9	0.05	0.06	0.05	0.09	0.31	0.02	9.45
CRN48	76-78m	6731RS	725 diorite		72.2	0.3	12.9	3.96	0.02	0.54	1.66	3.12	2.62	<0.01	1.9
CRN49	54-56m	6731RS	730 granite		69	0.31	15.4	3.82	0.04	0.95	2.98	4.28	2.22	0.08	0.96
CRN50	72-73m	6731RS	735 greisen		72.9	0.4	15.2	2.32	<0.01	0.51	0.12	0.35	3.24	<0.01	4.62
CRN53	72-73.5m	6731RS	747 granite		70.7	0.21	14	3.64	0.02	0.56	2.32	3.68	3.02	0.04	0.83
CRN55	44-47.5m	6731RS	757 kimberlite		32	3.56	4.4	10.2	0.13	20.7	10	0.22	3.24	0.52	13.7
CRN60	74-75.5m	6731RS	769 diorite		55.3	3.32	12.9	15.5	<0.01	1.22	1.43	7.3	0.09	0.75	1.69
CRN88	2-3m	6731RS	911 cordierite schist		62.2	0.97	17	8.25	0.09	2.62	0.59	1.56	4.24	0.13	3.1
MAXIMUM VALUE					73.3	3.56	20.5	15.5	0.13	20.7	10	7.3	4.24	0.75	13.7
MINIMUM VALUE					32.0	0.21	4.40	2.32	0.01	0.06	0.05	0.09	0.09	0.01	0.83
DETECTION LIMIT					0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
NO OF SAMPLES ABOVE DL					10	10	10	10	8	10	10	10	10	8	10
MEAN					63.9	1.075	13.92	6.4	0.04	2.833	2.276	2.62	2.476	0.164	3.982
STANDARD DEVIATION					11.98	1.207	3.904	3.8	0.038	5.992	2.727	2.118	1.241	0.244	4.049

GEOCHEMICAL ANALYSES BURRA DRILLING PROJECT
 SADME 1992
 DRILL HOLES CRN 1 TO 115 AND MUR 1 TO 16

ELEMENT	Ag	As	Au	Ba	Cd	Ce	Co	Cr	Cu	Fe	La	Mn	Mo	Nb	Ni	P	Pb	Pd	Pt	Rb	Sb	Se	Sn	Sr	Th	U	V	W	Zn
UNITS	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
DETECT LIMIT	0.5	1.0	1.0	10.0	1.0	20.0	2.0	2.0	1.0	0.01	20.0	5.0	1.0	2.0	1.0	5.0	3.0	1.0	5.0	2.0	4.0	2.0	4.0	2.0	4.0	4.0	1.0	10.0	1.0
METHOD	IC2	IC2	FA3	XRF1	IC2	XRF1	IC2	IC2	IC2	IC2	XRF1	IC2	IC2	XRF1	IC2	IC2	IC2	FA3	FA3	XRF1	XRF1	XRF1	XRF1	XRF1	XRF1	XRF1	IC2	XRF1	IC2

* indicates silicate analysis, see table
 # indicates check sample

HOLE NO	DEPTH	SAMPLE NO	Ag	As	Au	Ba	Cd	Ce	Co	Cr	Cu	Fe	La	Mn	Mo	Nb	Ni	P	Pb	Pd	Pt	Rb	Sb	Se	Sn	Sr	Th	U	V	W	Zn
CRN01	8-20m	6731RS 576	<0.5	7	2				16	30	28	3.56		630	<1		28		18												55
CRN01	20-34m	6731RS 577	<0.5	8	1				15	24	28	3.08		100	<1		26		8												135
CRN01	34-35.5m	6731RS 578	<0.5	11	1	550	<1	60	12	28	50	3.04	50	195	<1	13	26	490	5	1	<5	175	<4	<2	4	20	16	4	38	<10	38
CRN02	8-18m	6731RS 579	<0.5	9	2				38	17	44	3.18		85	<1		62		35												185
CRN02	18-28m	6731RS 580	<0.5	3	2				24	18	64	5		450	<1		38		38												98
CRN02	28-29.5m	6731RS 581	<0.5	2	1	590	<1	70	10	20	30	5.35	40	590	<1	14	14	540	11	2	<5	150	<4	5	<4	28	15	4	30	<10	70
CRN03	2-10m	6731RS 582	<0.5	13	2				22	40	38	3.94		220	<1		54		18												210
CRN03	10-11.5m	6731RS 583	<0.5	18	7	570	<1	70	28	42	34	3.92	50	960	1	13	50	1280	24	<1	<5	125	<4	<2	5	48	10	4	54	<10	115
CRN04	10-20m	6731RS 584	<0.5	2	1				32	30	54	4.68		370	<1		58		24												180
CRN04	20-24m	6731RS 585	<0.5	<1	1				30	34	44	4.98		450	<1		64		19												175
CRN04	24-26m	6731RS 586	<0.5	3	1	470	<1	70	28	38	88	5	40	490	<1	15	60	640	19	3	<5	165	<4	<2	6	58	16	4	34	<10	165
CRN05	2-8m	6731RS 587	<0.5	2	1				60	32	40	4.68		2000	<1		94		12												140
CRN05	8-11.5m	6731RS 588	<0.5	3	<1	400	<1	80	28	38	68	5.25	50	1100	1	14	60	680	66	1	<5	170	<4	<2	<4	72	14	5	35	<10	125
CRN06	42-54m	6731RS 589	<0.5	9	2				30	28	55	6		290	<1		54		16												80
CRN06	54-56m	6731RS 590	<0.5	16	6	320	2	80	16	32	32	5.3	50	300	<1	16	40	870	8	2	<5	125	<4	<2	5	52	14	10	35	<10	64
CRN06	54-56m #	6731RS 591	<1	10	3	339	<1	82	19	34	33	4.13	39	222	<5	17	39	894	<5	<1	<1	112	<4	2	<5	51	15	<4	32	<10	51
CRN07	36-48m	6731RS 592	<0.5	<1	<1				95	22	84	4.02		3250	1		120		6												76
CRN07	48-53.5m	6731RS 593	<0.5	2	<1	940	<1	80	22	28	32	4.32	50	1260	<1	18	50	1340	3	3	<5	210	<4	<2	<4	52	18	5	36	10	34
CRN08	36-46m	6731RS 594	<0.5	<1	2				14	16	24	2.96		870	<1		50		3												16
CRN08	46-47.5m	6731RS 595	<0.5	2	1	470	<1	60	14	20	42	2.94	50	910	<1	16	50	1220	<3	<1	<5	190	<4	<2	5	42	15	<4	22	<10	18
CRN09	14-26m	6731RS 596	<0.5	12	3				16	22	54	4.74		1020	<1		36		4												17
CRN09	26-34m	6731RS 597	<0.5	13	3				17	22	62	4.42		540	<1		30		4												22
CRN09	34-35.5m	6731RS 598	<0.5	17	7	460	<1	60	16	28	56	3.82	50	930	<1	14	34	750	4	<1	<5	135	<4	<2	4	48	14	<4	34	<10	28
CRN10	4-12m	6731RS 599	<0.5	3	1				78	28	36	4.24		430	<1		78		24												165
CRN10	12-22m	6731RS 600	<0.5	<1	1				38	28	36	4		2500	<1		46		22												98
CRN10	22-26.5m	6731RS 601	<0.5	4	1	490	3	60	35	34	30	4.38	50	4450	<1	13	38	850	25	1	<5	155	<4	<2	6	80	16	<4	40	<10	120
CRN11	6-8.5m	6731RS 602	<0.5	7	3	560	<1	70	17	34	44	3.76	40	940	3	12	40	700	30	<1	<5	160	<4	<2	6	155	10	4	42	<10	130
CRN12	0-6m	6731RS 603	<0.5	13	<1				22	22	18	3.24		910	<1		42		10												34
CRN12	6-8m	6731RS 604	<0.5	24	<1	480	<1	60	22	34	3	3.86	4	670	2	13	52	890	<3	1	<5	100	<4	<2	6	60	12	<4	52	<10	8
CRN13	4-12m	6731RS 605	<0.5	13	1				19	34	28	4.14		850	<1		46		7												28
CRN13	12-13m	6731RS 606	<0.5	13	2	440	1	50	16	40	25	3.64	40	1040	1	12	46	810	6	<1	<5	110	<4	<2	<4	125	12	4	52	<10	32

HOLE NO	DEPTH	SAMPLE NO	Ag	As	Au	Ba	Cd	Ce	Co	Cr	Cu	Fe	La	Mn	Mo	Nb	Ni	P	Pb	Pd	Pt	Rb	Sb	Se	Sn	Sr	Th	U	V	W	Zn
MUR11	4-6m	6831RS 58	<0.5	8	<1				12	25	5	3.26		270	<1		24		26												68
MUR11	6-7m	6831RS 59	<0.5	3	2	490	<1	70	11	22	3	3.34	50	250	<1	16	24	400	13	<1	<5	185	<4	<2	4	120	18	<4	24	10	60
MUR12	6-8m	6831RS 60	<0.5	44	<1				34	11	32	5.6		390	<1		54		<3												50
MUR12	8-10m	6831RS 61	<0.5	19	<1	550	1	70	36	5	68	8.9	40	1420	<1	15	52	520	3	<1	<5	240	<4	3	<4	85	22	4	19	<10	30
MUR13	9-10m	6831RS 62	<0.5	4	1	600	<1	20	7	18	11	1.06	<20	125	19	<2	195	230	8	<1	<5	48	<4	<2	<4	44	4	<4	4	350	4
MUR14	62-72m	6831RS 63	<0.5	3	1				4	3	8	2.36		100	<1		2		3												6
MUR14	72-84m	6831RS 64	<0.5	2	1				<2	3	7	0.45		10	<1		1		8												2
MUR14	84-90m	6831RS 65	<0.5	1	1				10	7	84	4.98		60	<1		13		20												20
MUR14	90-91m	6831RS 66	<0.5	4	1				18	13	125	4.76		45	<1		28		3												52
MUR14	91-91.5m	6831RS 67	0.5	<1	<1	135	<1	110	330	12	35	1.37	90	45	3	8	10	230	8	<1	<5	26	<4	<2	<4	34	4	<4	15	1040	22
MUR15	48-60m	6831RS 68	<0.5	2	<1				<2	9	6	0.49		20	<1		1		<3												2
MUR15	60-70m	6831RS 69	<0.5	3	<1				<2	7	8	0.46		35	<1		2		24												3
MUR15	70-80m	6831RS 70	<0.5	2	<1				<2	4	6	1.45		120	<1		2		35												5
MUR15	80-90m	6831RS 71	<0.5	2	2				3	3	6	1.6		170	<1		3		24												10
MUR15	90-100m	6831RS 72	<0.5	3	1				3	2	7	0.81		35	2		2		10												13
MUR15	102-110m	6831RS 73	2.5	<1	<1				3	3	5	1		115	<1		3		3												12
MUR15	110-120m	6831RS 74	<0.5	<1	<1				3	3	3	1.22		130	<1		3		<3												12
MUR15	120-126m	6831RS 75	0.5	2	<1				4	3	4	1.25		125	<1		3		4												11
MUR15	126-127.5m	6831RS 76	<0.5	1	<1	810	<1	50	4	3	4	1	50	90	<1	7	4	145	5	<1	<5	210	<4	<2	<4	210	18	<4	13	15	9
MUR16	76-78m	6831RS 77	<0.5	2	1				10	24	30	3.9		310	<1		5		4												4
MUR16	78-90m	6831RS 78	<0.5	4	2				14	15	74	10.3		300	<1		13		5												17
MUR16	80-96m	6831RS 79	<0.5	2	1				25	25	74	5.3		240	<1		42		25												45
MUR16	96-102m	6831RS 80	<0.5	1	1				58	72	70	4.04		120	<1		110		7												125
MUR16	102-103.5m	6831RS 81	0.5	<1	1	980	<1	50	32	44	60	3.28	40	105	<1	5	58	200	6	<1	<5	165	<4	<2	<4	260	24	<4	74	<10	55

HOLE NO	DEPTH	SAMPLE NO	Ag	As	Au	Ba	Cd	Ce	Co	Cr	Cu	Fe	La	Mn	Mo	Nb	Ni	P	Pb	Pd	Pt	Rb	Sb	Se	Sn	Sr	Th	U	V	W	Zn
SOUTH MINE		6731RS 636	0.5	6	3	95	1	20	50	10	5	1.9	20	520	1	4	24	380	5	3	15	5	4	12	14	85	4	14	18	110	1
SOUTH MINE		6731RS 637	0.5	6	3	160	1	20	34	6	7	2.76	20	1040	2	3	24	280	12	2	15	5	14	12	14	170	14	14	34	110	1
SOUTH MINE		6731RS 638	0.5	6	1	250	1	40	14	9	3	1.45	40	1700	1	11	12	680	13	1	15	7	14	12	4	150	4	14	64	15	1
NORTH MINE		6731RS 639	0.5	36	1	570	1	40	34	38	9	3.98	30	920	2	12	75	960	5	1	15	105	14	12	5	90	10	14	85	110	22
NORTH MINE		6731RS 640	0.5	48	4	2850	1	30	78	22	20	3.98	20	10700	8	5	82	620	10	2	15	62	14	12	14	370	8	4	155	110	22
CRN14	20-40m	6731RS 607	0.5	8	1				28	15	58	2.9		850	1		30			3											5
CRN14	40-48m	6731RS 608	0.5	9	1				13	14	65	2.5		450	1		19			13											3
CRN14	48-50.5m	6731RS 609	0.5	11	1	460	1	80	20	18	58	2.86	60	640	1	11	34	380	13	1	15	145	14	12	14	48	15	14	22	110	2
CRN15	32-42m	6731RS 610	0.5	6	1				16	14	24	3.72		720	1		24			3											7
CRN15	42-44.5m	6731RS 611	0.5	4	1	560	1	70	15	18	18	2.64	40	70	1	13	25	500	3	1	15	155	14	12	4	30	18	14	15	110	8
CRN16	22-40m	6731RS 612	0.5	62	13				19	8	140	3.08		105	6		42			13											6
CRN16	40-56m	6731RS 613	0.5	22	17				24	14	185	7.05		450	1		42			13											10
CRN16	56-66m	6731RS 614	0.5	36	3				22	5	110	4.06		320	1		35			4											5
CRN16	66-68m	6731RS 615	0.5	32	2	370	1	80	28	4	48	9.2	50	950	1	16	38	520	13	1	15	110	14	12	14	42	16	14	10	10	4
CRN16	68-72m	6731RS 616	0.5	42	2				18	6	50	3.08		210	1		32			13											5
CRN16	72-74m	6731RS 617	0.5	66	2	390	1	80	34	7	58	4.74	60	570	1	15	40	530	3	1	15	125	14	12	14	52	20	4	11	110	4
CRN16	66-68m #	6731RS 618	1	22	2	442	1	94	26	49	78	6.98	44	665	15	15	39	662	5	1	1	107	14	3	15	39	16	4	33	110	15
CRN17	76-86m	6731RS 619	0.5	9	1				30	28	42	5.65		1360	1		44			14											70
CRN17	86-92m	6731RS 620	0.5	6	1				28	32	35	4.56		2750	1		45			13											72
CRN17	92-92.5m	6731RS 621	0.5	6	2	600	1	80	17	34	24	3.8	50	410	1	14	42	840	8	1	15	145	14	12	4	42	15	4	44	110	54
CRN18	42-54m	6731RS 622	0.5	19	1				115	22	40	3.98		370	1		115			6											230
CRN18	54-66m	6731RS 623	0.5	18	1				25	32	32	4.08		760	1		40			8											72
CRN18	66-67m	6731RS 624	0.5	13	1	500	1	70	17	30	34	6.2	40	1220	1	12	34	750	13	1	15	150	14	12	14	56	15	5	40	10	80
CRN19	64-98m	6731RS 625	0.5	4	1				42	22	42	8.4		1320	1		48			30											135
CRN19	98-106m	6731RS 626	0.5	4	1				38	32	45	8.15		950	1		55			30											210
CRN19	106-107.5m	6731RS 627	0.5	4	1	710	1	80	28	36	34	6.7	50	710	1	16	38	760	13	1	15	155	14	12	14	70	15	14	38	10	125
CRN20	76-82m	6731RS 628	0.5	1	1				32	40	34	6.9		3550	1		58			10											170
CRN20	82-94m	6731RS 629	0.5	1	1				28	34	38	5.55		4750	1		45			6											94
CRN20	94-95.5m	6731RS 630	0.5	2	1	400	1	70	30	36	32	5	50	350	1	15	45	780	13	2	15	165	14	12	4	44	12	14	30	10	98
CRN21	100-114m	6731RS 631	0.5	2	1				4	45	10	3.9		165	1		14			5											13
CRN21	114-116.5m	6731RS 632	0.5	3	1	810	1	380	16	34	10	4.56	90	195	1	17	24	270	13	1	15	145	14	12	6	64	14	4	60	10	22
CRN23	98-106m	6731RS 633	0.5	1	1				9	32	26	3.2		220	1		25			13											48
CRN23	106-109m *	6731RS 634	0.5	1	1	680	1	260	9	30	16	2.78	70	170	1	9	19	260	8	2	15	185	14	12	14	230	18	12	76	110	30
CRN23	106-109m #	6731RS 635	1	5	1	688	1	320	13	149	92	2.22	64	126	15	10	26	331	15	1	1	190	6	12	15	210	17	10	60	110	23
CRN24	76-92m	6731RS 641	0.5	1	1				9	26	40	5.5		370	1		24			15											40
CRN24	92-104m	6731RS 642	0.5	1	1				8	19	32	3.14		170	1		22			5											32
CRN24	104-116m	6731RS 643	0.5	1	1				8	16	28	2.52		175	1		17			5											28
CRN24	116-117m *	6731RS 644	0.5	1	1	700	1	100	8	25	26	3.86	50	175	1	9	22	360	8	1	15	175	14	12	14	350	15	6	72	10	30
CRN25	88-94m	6731RS 645	0.5	1	1				12	28	18	3.94		125	1		8			5											11
CRN25	94-106m	6731RS 646	0.5	1	1				4	20	24	10.7		680	1		9			10											22
CRN25	106-119.5m *	6731RS 647	0.5	1	1	75	1	60	7	20	22	4.82	40	380	1	19	11	115	20	1	15	24	14	12	14	28	35	6	94	110	12

HOLE NO	DEPTH	SAMPLE NO	Ag	As	Au	Ba	Cd	Ce	Co	Cr	Cu	Fe	La	Mn	Mo	Nb	Ni	P	Pb	Pd	Pt	Rb	Sb	Se	Sn	Sr	Th	U	V	W	Zn
CRN28	24-34m	6731RS 648	(0.5	8	3				24	8	46	0.56		20	(1		28		5												5
CRN28	34-46m	6731RS 649	(0.5	2	1				19	10	22	1.29		45	(1		28		(3												12
CRN28	46-56m	6731RS 650	(0.5	2	1				12	11	20	2.32		80	(1		19		(3												9
CRN28	56-66m	6731RS 651	(0.5	2	(1				12	13	38	2.02		175	(1		24		(3												7
CRN28	66-68.5m	6731RS 652	(0.5	3	(1	500	(1	70	9	14	34	3.82	50	1180	(1	10	17	300	(3	(1	(5	140	(4	(2	(4	18	14	(4	18	(10	3
CRN29	32-40m	6731RS 653	(0.5	2	(1				42	18	30	4.54		1150	(1		68		5												32
CRN29	40-50m	6731RS 654	(0.5	(1	(1				17	22	32	2.68		185	(1		30		4												12
CRN29	50-52m	6731RS 655	(0.5	2	(1	500	(1	70	10	22	30	2.52	50	520	(1	13	22	490	(3	(1	(5	145	(4	(2	(4	40	14	(4	24	(10	9
CRN29	50-52m #	6731RS 656	(1	5	(1	450	(1	80	14	86	44	2.22	38	404	(5	12	27	635	(5	(1	(1	135	10	(2	5	34	14	(4	29	(10	9
CRN30	30-38m	6731RS 657	(0.5	4	1				24	22	28	4.04		145	(1		34		4												24
CRN30	38-46m	6731RS 658	(0.5	3	(1				22	25	34	4.56		190	(1		34		4												11
CRN30	46-47.5	6731RS 659	(0.5	3	(1	570	(1	80	34	19	26	4.5	50	250	(1	15	38	650	(3	(1	(5	175	(4	(2	4	34	16	(4	30	(10	9
CRN31	12-22m	6731RS 660	(0.5	17	1				3	60	28	6.7		35	2		10		12												19
CRN31	22-28m	6731RS 661	(0.5	7	(1				6	19	54	4.6		60	(1		35		5												54
CRN31	28-30m	6731RS 662	(0.5	30	(1				30	10	160	14.2		210	1		115		5												190
CRN31	30-40m	6731RS 663	(0.5	22	1				14	12	78	7		170	1		65		5												70
CRN31	40-52m	6731RS 664	(0.5	11	10				24	8	94	5.15		115	1		64		6												40
CRN31	52-60m	6731RS 665	(0.5	24	7				36	9	195	7.3		230	2		98		5												40
CRN31	60-62m	6731RS 666	(0.5	1	4				6	14	70	1.75		40	(1		17		3												19
CRN31	62-64m	6731RS 667	(0.5	12	1	670	(1	90	17	12	200	3.16	60	620	4	16	30	830	5	(1	(5	180	(4	(2	(4	105	14	5	24	(10	17
CRN31	52-60m #	6731RS 668	(1	39	4				26	27	222	5.61		165	(5		75		(5												39
			2 repeat value																												
CRN31	62-64m #	6731RS 669	(1	9	2	662	(1	96	19	46	186	2.65	45	483	(5	17	32	950	5	(1	(1	173	5	3	5	83	13	(4	28	(10	12
CRN32	38-48m	6731RS 670	(0.5	11	1				28	35	48	5.55		4050	1		85		42												270
CRN32	48-58m	6731RS 671	(0.5	5	2				17	30	32	3.82		180	(1		52		10												96
CRN32	58-66m	6731RS 672	(0.5	3	(1				15	30	32	4.32		155	(1		44		13												88
CRN32	66-68.5m	6731RS 673	(0.5	5	1	530	(1	60	16	28	34	4.4	30	950	1	14	42	830	13	(1	(5	130	(4	(2	5	80	8	(4	40	(10	92
CRN32	66-68.5m #	6731RS 674	(1	5	1	494	(1	77	17	45	28	3.19	36	613	(5	14	40	882	5	(1	(1	122	(4	2	5	72	19	5	55	(10	68
CRN33	4-28m	6731RS 675	(0.5	11	(1				14	40	35	5.05		480	(1		48		8												95
CRN33	28-36m	6731RS 676	(0.5	8	(1				78	44	36	4.8		7200	(1		82		22												190
CRN33	36-38m	6731RS 677	(0.5	10	(1	520	1	60	28	42	42	3.94	40	4250	(1	12	44	810	24	(1	(5	125	(4	(2	6	140	12	6	58	(10	140
CRN34	8-10m	6731RS 678	(0.5	9	6	580	(1	60	20	40	38	4	40	1760	2	12	48	810	19	(1	(5	125	(4	(2	(4	90	10	(4	58	(10	94
CRN35	2-4m	6731RS 679	(0.5	16	(1	690	(1	60	26	38	38	4.12	50	1420	3	12	52	730	32	(1	(5	105	(4	(2	(4	930	8	5	72	(10	95
CRN36	6-16m	6731RS 680	(0.5	14	3				50	40	44	5.6		3350	2		90		10												175
CRN36	16-20m	6731RS 681	(0.5	8	(1				28	38	32	5.2		830	(1		62		11												185
CRN36	20-21m	6731RS 682	(0.5	10	(1	530	(1	70	14	36	24	4.12	40	590	(1	12	44	770	9	(1	(5	110	(4	(2	(4	70	12	(4	42	(10	105
CRN37	2-22m	6731RS 683	(0.5	17	(1				30	20	26	4.04		1560	(1		52		18												120
CRN37	22-42m	6731RS 684	(0.5	8	(1				34	26	32	4.02		1700	(1		48		30												135
CRN37	42-44.5m	6731RS 685	0.5	8	(1	480	2	60	11	30	20	3.52	40	650	(1	14	25	710	32	(1	(5	125	(4	(2	(4	50	12	(4	36	(10	135
CRN38	4-26m	6731RS 686	(0.5	1	(1				3	17	30	1.07		40	(1		14		7												24
CRN38	26-46m	6731RS 687	(0.5	(1	3				32	26	44	3.46		900	(1		88		10												180
CRN38	46-47.5m	6731RS 688	(0.5	2	8	500	(1	50	16	24	54	3.26	50	250	(1	15	52	930	4	(1	(5	200	(4	(2	6	40	18	4	28	(10	120

HOLE NO	DEPTH	SAMPLE NO	Ag	As	Au	Ba	Cd	Ce	Co	Cr	Cu	Fe	La	Mn	Mo	Nb	Ni	P	Pb	Pd	Pt	Rb	Sb	Se	Sn	Sr	Th	U	V	W	Zn
CRN39	4-14m	6731RS 689	<0.5	<1	1	450	<1	80	28	42	50	4.9	40	1040	<1	15	58	620	13	<1	<5	160	<4	<2	4	410	14	<4	34	<10	155
CRN39	14-18m	6731RS 690	<0.5	2	1	480	<1	70	30	36	38	4.38	50	1020	<1	15	58	600	9	<1	<5	180	4	<2	<4	105	16	5	28	<10	130
CRN39	20-30m	6731RS 691	<0.5	2	<1	470	<1	70	26	40	38	4.62	40	1180	<1	16	54	620	6	<1	<5	170	<4	<2	6	70	16	6	34	<10	135
CRN39	30-38m	6731RS 692	<0.5	4	2	480	<1	70	28	38	42	4.58	50	1680	<1	15	54	640	14	<1	<5	170	<4	<2	5	86	18	<4	32	<10	120
CRN39	38-42m	6731RS 693	<0.5	2	1	450	<1	80	22	34	32	3.96	50	1250	<1	15	40	700	9	<1	<5	150	<4	<2	4	80	16	4	28	<10	95
CRN39	46-52m	6731RS 694	<0.5	2	1	610	<1	70	28	32	40	4.4	40	2300	<1	15	42	600	4	<1	<5	195	<4	<2	4	90	15	<4	26	<10	94
CRN39	52-56m	6731RS 695	0.5	1	1	670	<1	70	62	34	44	4.52	50	3000	<1	16	44	620	22	<1	<5	170	<4	<2	<4	110	16	<4	28	40	105
CRN39	56-62m	6731RS 696	<0.5	4	2	510	<1	80	22	35	45	4.74	50	910	<1	16	44	620	17	<1	<5	175	<4	<2	6	70	18	<4	30	<10	110
CRN39	62-65.5m	6731RS 697	<0.5	3	1	420	<1	80	17	38	48	5.1	60	480	<1	16	44	690	5	<1	<5	160	<4	<2	8	58	22	4	32	10	110
CRN40	24-34m	6731RS 698	<0.5	3	1				17	32	50	4.26		450	<1		50		12												100
CRN40	34-48m	6731RS 699	<0.5	3	<1				25	40	42	4.26		310	<1		56		11												105
CRN40	48-54m	6731RS 700	<0.5	1	1	460	<1	60	32	25	34	3.72	50	1100	<1	15	42	760	12	<1	<5	140	<4	2	<4	85	18	4	22	<10	64
CRN41	40-60m	6731RS 701	<0.5	2	11				44	36	60	5.45		420	<1		98		7												105
CRN41	60-70m	6731RS 702	<0.5	2	2				50	40	72	5.3		490	<1		92		4												105
CRN41	70-71.5m	6731RS 703	<0.5	2	1	480	<1	80	25	38	76	5.4	50	550	<1	15	45	610	<3	<1	<5	175	<4	<2	5	54	18	4	34	<10	50
CRN42	56-62m	6731RS 704	<0.5	2	<1				30	34	50	7.05		4100	<1		48		12												260
CRN42	62-70m	6731RS 705	<0.5	3	1				24	36	60	5.5		5100	<1		55		13												320
CRN42	70-80m	6731RS 706	<0.5	3	<1				28	38	35	4.76		1120	<1		48		5												135
CRN42	80-84m	6731RS 707	<0.5	1	<1	510	<1	60	28	38	50	5.5	50	1880	<1	16	46	590	<3	<1	<5	195	<4	<2	4	54	16	<4	30	<10	120
CRN43	12-24m	6731RS 708	<0.5	17	<1				7	78	16	10		230	<1		11		22												12
CRN43	90-112m	6731RS 709	<0.5	4	1				17	48	34	4.74		260	<1		42		12												130
CRN43	112-115m	6731RS 710	<0.5	3	1	450	<1	50	18	42	38	5.25	40	370	<1	13	44	1020	9	<1	<5	170	<4	<2	<4	38	14	6	45	<10	94
CRN44	10-20m	6731RS 711	<0.5	13	1				6	52	15	6.25		140	<1		10		16												13
CRN44	94-98m	6731RS 712	1.5	1	<1				<2	4	4	0.3		20	<1		2		<3												5
CRN44	110-112m	6731RS 713	<0.5	6	10	230	<1	50	19	92	36	5.05	40	380	<1	14	52	210	5	<1	<5	145	<4	<2	4	24	10	4	150	<10	80
CRN44	112-116m	6731RS 714	<0.5	19	3	300	<1	60	26	80	38	5.05	40	390	<1	12	55	210	<3	<1	<5	105	<4	3	5	19	14	6	145	10	62
CRN44	116-120m	6731RS 715	<0.5	66	2	510	<1	70	54	72	56	7	40	560	<1	14	94	170	4	<1	<5	130	<4	4	4	20	12	14	135	10	58
CRN44	120-123.5m	6731RS 716	<0.5	12	1	1040	<1	60	15	86	42	8.95	40	1200	<1	13	44	400	<3	<1	<5	150	<4	<2	4	30	10	5	155	10	80
CRN45	58-62m	6731RS 717	<0.5	5	2				3	15	5	0.44		10	<1		6		<3												13
CRN46	10-20m	6731RS 718	<0.5	19	<1				9	85	20	11.8		380	<1		18		20												16
CRN47	4-14m	6731RS 719	<0.5	13	1				14	62	22	8.1		4150	<1		22		15												25
CRN47	16-24m	6731RS 720	<0.5	16	<1				7	74	17	9.45		200	<1		11		19												16
CRN48	32-34m	6731RS 721	<0.5	2	<1				<2	9	6	1.21		35	<1		2		5												4
CRN48	56-60m	6731RS 722	<0.5	<1	<1				<2	9	17	3.24		210	<1		1		13												5
CRN48	60-66m	6731RS 723	<0.5	<1	1				<2	12	28	2.72		100	<1		3		13												8
CRN48	66-76m	6731RS 724	<0.5	4	<1				8	26	66	4.66		290	<1		17		72												42
CRN48	76-78m *	6731RS 725	<0.5	1	<1	1120	<1	70	9	14	115	2.42	50	160	<1	12	16	110	5	<1	<5	155	<4	3	<4	260	18	5	46	<10	28
CRN49	6-12m	6731RS 726	<0.5	12	1				9	42	16	5.75		370	<1		17		11												17
CRN49	14-34m	6731RS 727	<0.5	<1	<1				<2	20	9	2.72		140	<1		2		46												6
CRN49	34-48m	6731RS 728	<0.5	2	<1				6	24	35	3.36		195	<1		14		13												24
CRN49	48-54m	6731RS 729	<0.5	1	<1				6	19	42	2.68		145	<1		16		7												32
CRN49	54-56m *	6731RS 730	<0.5	1	<1	600	<1	50	6	22	34	2.28	40	175	<1	8	15	440	4	<1	<5	125	<4	<2	<4	410	12	<4	58	<10	26

HOLE NO	DEPTH	SAMPLE NO	Ag	As	Au	Ba	Cd	Ce	Co	Cr	Cu	Fe	La	Mn	Mo	Nb	Ni	P	Pb	Pd	Pt	Rb	Sb	Se	Sn	Sr	Th	U	V	W	Zn	
CRN50	10-16m	6731RS 731	0.5	22	1			140	68	48	10.1		6400	3		82		22														110
CRN50	56-58m	6731RS 732	0.5	2	1	530	1	90	14	34	120	5.85	40	185	1	15	42	370	11	1	5	360	14	2	14	125	20	8	100	110	88	
CRN50	58-68m	6731RS 733	0.5	3	1					28	86	3.58		155	1		28		11												68	
CRN50	68-72m	6731RS 734	0.5	2	1				9	18	56	2.32		145	1		22		11												48	
CRN50	72-73m *	6731RS 735	0.5	4	1	570	1	80	140	10	94	0.62	70	25	1	14	200	85	7	5	5	135	14	3	14	46	26	38	26	110	28	
CRN50	72-73m #	6731RS 736	1	5	1	663	1	113	52	56	41	0.56	62	22	5	14	81	190	5	3	1	141	6	2	5	39	23	23	27	110	19	
CRN51	4-16m	6731RS 737	0.5	1	1				2	4	10	0.91		80	1		4		10												16	
CRN51	16-17m	6731RS 738	0.5	1	1	710	1	80	5	8	22	1.37	50	155	1	11	6	135	8	1	5	155	14	2	4	230	20	5	28	15	24	
CRN52	48-54m	6731RS 739	0.5	2	1				7	13	17	2.5		145	1		12		3												19	
CRN52	54-55m	6731RS 740	0.5	1	1	620	1	50	8	15	8	2.5	30	210	1	9	14	380	3	1	5	115	14	2	14	350	16	4	62	110	24	
CRN53	6-12m	6731RS 741	0.5	14	1				15	70	22	9.05		720	1		22		17												24	
CRN53	12-14m	6731RS 742	0.5	15	1				11	52	18	7.35		580	1		24		17												18	
CRN53	18-22m	6731RS 743	0.5	10	1				7	58	15	7.1		130	1		9		18												11	
CRN53	42-52m	6731RS 744	0.5	1	1				2	12	5	0.98		55	1		2		14												8	
CRN53	52-62m	6731RS 745	0.5	1	1				2	11	8	0.72		45	1		5		11												11	
CRN53	62-72m	6731RS 746	0.5	1	1	690	1	70	6	22	22	3.46	40	140	1	11	18	270	4	1	5	170	14	2	14	280	24	14	56	110	28	
CRN53	72-73.5m *	6731RS 747	0.5	1	1	620	1	50	5	22	15	2.54	30	140	1	9	15	270	4	1	5	145	14	2	14	300	18	14	48	110	20	
CRN54	6-16m	6731RS 748	0.5	18	1				13	72	30	9.6		580	1		22		20												22	
CRN54	16-20m	6731RS 749	0.5	30	1				6	125	24	18.3		150	1		15		38												17	
CRN54	20-30m	6731RS 750	0.5	13	1				2	60	15	7.8		70	1		6		34												35	
CRN54	100-101.5m	6731RS 751	0.5	3	1	50	1	20	60	3	6	1.18	20	25	1	8	80	25	4	1	5	5	14	2	14	6	4	6	12	110	8	
CRN55	0-6m	6731RS 752	1	2	4	960	1	80	48	500	78	4.5	70	750	1	86	490	1550	11	1	5	68	14	2	4	350	6	4	145	110	40	
CRN55	6-22m	6731RS 753	0.5	1	1	620	1	70	40	410	70	4.18	60	630	1	68	490	1400	9	1	5	76	14	2	14	320	8	14	140	110	32	
CRN55	22-34m	6731RS 754	0.5	1	1	890	1	90	52	540	86	5.05	70	740	1	94	540	1780	9	3	5	115	14	2	14	370	8	14	145	110	40	
CRN55	34-40m	6731RS 755	0.5	1	1	1080	1	100	56	590	100	5.2	70	770	1	105	600	1750	8	3	5	120	14	2	14	350	10	4	175	110	46	
CRN55	40-44m	6731RS 756	0.5	2	1	1040	1	100	52	610	98	5.75	80	620	1	105	640	1820	5	3	5	150	14	2	14	360	10	4	185	110	38	
CRN55	44-47.5m *	6731RS 757	0.5	1	1	1320	1	130	60	690	105	6.4	90	730	1	125	680	2300	5	2	5	175	14	3	14	540	8	14	220	110	46	
CRN56	46-56m	6731RS 758	0.5	2	1				28	290	40	2.86		770	2		260		9												22	
CRN56	56-68m	6731RS 759	0.5	2	1				25	290	34	2.94		830	2		230		11												18	
CRN57	14-16m	6731RS 760	0.5	1	8				175	1660	155	10.9		2200	1		1260		22												105	
CRN57	14-16m #	6731RS 761	1	5	4				145	962	128	8.35		1650	5		1000		5												79	
6 repeat value																																
CRN58	18-19m	6731RS 762	0.5	10	1				12	60	54	2.92		260	1		48		4												6	
CRN59	44-46m	6731RS 763	0.5	1	2				115	16	50	3.62		0.039	1		24		155												24	
CRN59	46-64m	6731RS 764	0.5	4	1				30	19	17	8.65		6600	1		58		16												11	
CRN59	64-68m	6731RS 765	0.5	2	4				16	26	16	3.84		1140	1		34		11												7	
CRN59	68-69.5m	6731RS 766	0.5	1	12	360	1	70	10	19	18	2.82	40	1300	1	13	24	1100	7	1	5	115	14	2	4	52	18	14	19	110	7	
CRN60	62-68m	6731RS 767	0.5	7	10				62	170	95	17.9		420	1		115		6												42	
CRN60	68-74m	6731RS 768	0.5	4	10				35	9	26	8.95		90	1		38		3												6	
CRN60	74-75.5m *	6731RS 769	0.5	1	5	110	1	50	50	5	30	10.3	20	65	1	44	30	3100	3	4	5	2	14	2	14	82	14	4	280	110	5	
CRN61	108-118m	6731RS 770	0.5	3	19				25	6	80	0.44		35	1		24		3												48	
CRN61	118-125.5m	6731RS 771	0.5	14	30				88	38	115	3.52		330	1		170		4												240	

HOLE NO	DEPTH	SAMPLE NO	Ag	As	Au	Ba	Cd	Ce	Co	Cr	Cu	Fe	La	Mn	Mo	Nb	Ni	P	Pb	Pd	Pt	Rb	Sb	Se	Sn	Sr	Th	U	V	W	Zn
CRN62	84-88m	6731RS 772	(0.5	6	3				30	34	360	0.34		5	(1		30		8												230
CRN62	88-96m	6731RS 773	(0.5	34	(1				380	26	160	1.48		15	(1		270		7												960
CRN62	96-100m	6731RS 774	(0.5	25	1	430	(1	80	80	40	18	4.86	50	980	(1	14	72	890	11	(1	(5	120	5	3	(4	68	10	(4	54	(20	140
CRN62	84-88m #	6731RS 775	(1	72	1				534	39	170	2		21	(5		396		(5												943
CRN62	88-96m #	6731RS 776	(1	11	5				16	37	334	0.39		16	(5		21		(5												176
CRN62	96-100m #	6731RS 777	(1	12	(1	392	(1	99	66	48	14	4.03	48	696	(5	13	66	934	(5	1	(1	114	(4	(2	5	55	14	(4	52	(10	104
CRN63	24-40m	6731RS 778	(0.5	4	2				7	20	34	3.56		135	(1		14		18												34
CRN63	40-48m	6731RS 779	(0.5	5	(1				32	20	52	6.45		320	(1		28		14												125
CRN63	48-52m	6731RS 780	(0.5	3	(1				30	17	28	3.66		2950	(1		56		9												200
CRN63	52-53.5m	6731RS 781	(0.5	(1	1	660	(1	90	22	17	35	3.66	60	1740	(1	14	40	580	10	(1	(5	190	(4	(2	(4	30	18	(4	16	(20	125
CRN64	6-16m	6731RS 782	(0.5	11	(1				14	38	30	3.54		530	1		28		20												62
CRN64	16-20m	6731RS 783	(0.5	15	(1				5	34	45	3.84		110	1		19		30												40
CRN64	20-32m	6731RS 784	(0.5	14	(1				9	48	50	4.16		290	(1		40		32												220
CRN64	32-40m	6731RS 785	(0.5	9	3				42	44	38	4.22		1140	(1		92		17												340
CRN64	40-44m	6731RS 786	(0.5	30	1				55	40	120	5.05		3100	9		145		44												200
CRN64	44-52m	6731RS 787	(0.5	15	1				19	42	40	4.26		880	2		58		28												100
CRN64	52-53.5m	6731RS 788	(0.5	14	5	510	(1	50	13	36	32	3.6	50	770	(1	13	40	800	25	(1	(5	125	4	3	6	60	12	(4	48	(20	80
CRN65	8-22m	6731RS 789	(0.5	4	(1				17	19	28	3.52		780	(1		58		32												90
CRN65	22-24m	6731RS 790	(0.5	3	(1				14	17	18	3.36		1680	(1		44		40												84
CRN65	24-28m	6731RS 791	(0.5	4	1	550	(1	60	15	16	14	5.05	40	1400	(1	15	52	670	38	(1	(5	185	(4	(2	4	46	16	4	22	(20	100
CRN66	24-30m	6731RS 792	(0.5	3	(1				40	34	52	4.62		290	(1		66		26												230
CRN66	30-46m	6731RS 793	(0.5	2	(1				24	28	35	3.94		270	(1		44		16												105
CRN66	46-50m	6731RS 794	(0.5	3	(1	480	(1	70	22	24	30	3.62	40	390	(1	14	38	700	20	1	(5	155	4	2	5	62	16	(4	20	(20	90
CRN67	24-30m	6731RS 795	(0.5	2	(1				32	38	45	4.76		440	(1		58		24												125
CRN67	30-38m	6731RS 796	(0.5	3	(1				30	38	40	4.76		500	(1		58		14												145
CRN67	38-40m	6731RS 797	(0.5	4	2				32	38	58	5.25		1640	(1		60		28												130
CRN67	40-42m	6731RS 798	(0.5	5	1				22	38	56	5.1		450	(1		56		28												125
CRN67	42-44m	6731RS 799	(0.5	6	2				55	38	64	5		5700	(1		50		62												120
CRN67	44-48m	6731RS 800	(0.5	5	(1				25	40	54	5		670	(1		48		28												115
CRN67	48-50m	6731RS 801	(0.5	2	1	500	(1	50	22	35	50	4.58	30	1180	(1	18	40	590	25	(1	(5	170	(4	3	4	65	18	(4	28	(20	105
CRN68	38-44m	6731RS 802	(0.5	3	1				42	38	56	4.82		1680	7		74		30												170
CRN68	44-50m	6731RS 803	(0.5	3	(1				26	38	54	4.82		740	(1		48		18												110
CRN68	50-52m	6731RS 804	(0.5	1	3	590	(1	70	24	34	42	4.26	50	1420	(1	16	40	620	38	2	(5	160	(4	2	(4	58	15	4	28	(20	96
CRN69	20-24m	6731RS 805	(0.5	3	(1				10	22	36	3.06		170	(1		24		20												98
CRN69	24-32m	6731RS 806	(0.5	2	1				12	32	38	3.32		170	(1		30		22												110
CRN69	32-42m	6731RS 807	(0.5	2	2				20	26	38	3.72		210	(1		44		25												155
CRN69	42-54m	6731RS 808	(0.5	1	(1				32	34	70	4.1		260	(1		70		22												195
CRN69	54-60m	6731RS 809	(0.5	3	4				28	34	125	4.7		210	(1		80		26												260
CRN69	60-63m	6731RS 810	(0.5	3	4	410	(1	70	44	30	42	4.26	50	510	(1	18	64	560	24	(1	(5	145	4	(2	5	60	20	5	26	(20	160
CRN70	20-32m	6731RS 811	(0.5	3	(1				28	38	60	4.96		270	(1		52		26												200
CRN70	32-44m	6731RS 812	(0.5	4	(1				34	38	60	4.84		420	(1		80		24												250
CRN70	44-46m	6731RS 813	(0.5	2	1	520	(1	60	32	32	40	4.46	3	700	(1	16	48	700	28	3	(5	155	4	2	(4	68	18	(4	25	(20	98

[illegible]

HOLE NO	DEPTH	SAMPLE NO	Ag	As	Au	Ba	Cd	Ce	Co	Cr	Cu	Fe	La	Mn	Mo	Nb	Ni	P	Pb	Pd	Pt	Rb	Sb	Se	Sn	Sr	Th	U	V	W	Zn
CRN80	78-80m	6731RS 862	(0.5	12	3	105	(1	380	110	25	12	3.38	160	30	4	13	76	220	6	(1	(5	44	(4	(2	5	24	12	8	32	(20	94
CRN80	80-86m	6731RS 863	(0.5	(1	1	260	(1	250	24	30	24	8.35	280	800	(1	17	25	350	5	(1	(5	135	(4	(2	(4	88	20	8	54	(20	24
CRN80	86-90m	6731RS 864	(0.5	2	1	370	(1	160	16	25	18	7.5	110	430	(1	16	30	350	3	(1	(5	170	(4	4	(4	54	22	6	42	(20	22
CRN80	90-96m	6731RS 865	(0.5	(1	2	750	(1	160	25	24	17	9.95	150	650	(1	16	40	470	(3	(1	(5	130	5	(2	(4	72	14	4	44	(20	34
CRN80	96-98m	6731RS 866	(0.5	1	1				20	22	11	7		490	(1		25		(3												26
CRN80	98-104m	6731RS 867	(0.5	3	(1				22	22	11	5.3		490	(1		24		(3												22
CRN80	104-108m	6731RS 868	(0.5	2	(1				40	22	8	11.9		1280	(1		26		(3												42
CRN80	108-114m	6731RS 869	(0.5	2	(1	560	(1	90	32	24	9	6.45	50	2450	(1	15	26	290	(3	(1	(5	145	(4	(2	(4	22	20	(4	38	(20	25
CRN80	114-116m	6731RS 870	(0.5	3	(1	660	(1	100	64	15	12	12.3	40	10400	(1	11	32	240	4	(1	(5	160	(4	2	4	28	16	(4	42	(20	54
CRN80	116-118m	6731RS 871	(0.5	3	(1				26	30	20	4.14		810	(1		65		13												35
CRN80	80-86m # 6731RS 872		(1	6	(1	230	(1	260	31	68	22	7.33	226	612	(5	15	36	489	(5	(1	(1	150	(4	3	17	66	16	7	47	10	18
	repeat analysis	872	(1	5		250	(1	250	27	66	23	7.99	220	644	(5	15	30	437	(5			149	(4	2	13	67	17	5	44	12	18
CRN80	86-90m # 6731RS 873		(1	4	(1	323	(1	152	22	89	16	6.15	94	302	(5	17	46	438	(5	1	(1	164	(4	(2	(5	45	29	5	50	(10	12
	repeat analysis	873	(1	3		311	(1	156	17	77	10	6.18	94	322	(5	14	38	388	(5			162	(4	(2	(5	48	21	4	40	(10	15
CRN80	90-96m # 6731RS 874		(1	4	1	599	(1	149	30	100	14	7.52	96	390	(5	16	56	631	(5	2	(1	113	10	(2	(5	43	18	(4	59	(10	26
CRN80	96-98m # 6731RS 875		(1	7	2				24	72	38	6.13		361	(5		47		(5												37
CRN80	98-104m # 6731RS 876		(1	3	1				18	41	28	4.95		354	(5		24		(5												25
CRN80	104-108m # 6731RS 877		(1	5	(1				31	57	19	9.63		881	(5		23		(5												39
CRN80	108-114m # 6731RS 878		(1	5	(1	495	(1	98	44	89	13	6.79	38	2210	(5	14	36	508	(5	(1	(1	126	(4	2	5	21	18	(4	42	(10	27
CRN80	114-116m # 6731RS 879		(1	5	11	742	(1	79	79	131	25	12	23	7410	9	12	72	769	(5	(1	(1	148	9	3	5	27	10	(4	61	(10	50
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CRN81	68-70m	6731RS 882	(0.5	(1	(1				(2	8	7	0.2		10	(1		2		8												1
CRN81	70-74m	6731RS 883	(0.5	3	(1				9	10	32	0.5		15	(1		10		7												3
CRN81	74-78m	6731RS 884	(0.5	2	(1				10	15	38	1.63		150	(1		14		9												20
CRN81	78-80m	6731RS 885	(0.5	1	6				18	15	54	0.88		50	(1		22		8												115
CRN81	80-88m	6731RS 886	(0.5	3	3	40	(1	20	10	7	58	0.59	(20	40	(1	3	18	45	(3	(1	(5	6	(4	(2	(4	15	(4	(4	16	(20	16
CRN81	88-98m	6731RS 887	(0.5	3	(1	60	(1	(20	22	11	16	1.42	30	590	(1	3	22	220	8	(1	(5	16	(4	(2	4	145	(4	(4	30	(20	13
CRN81	98-102m	6731RS 888	(0.5	3	1	25	(1	(20	10	7	10	1.21	(20	680	(1	3	10	190	10	(1	(5	11	4	2	(4	150	(4	(4	25	(20	2
CRN81	102-106m	6731RS 889	(0.5	3	1				14	9	16	1.53		700	(1		13		9												8
CRN81	106-116m	6731RS 890	(0.5	4	2	40	(1	20	22	15	32	1.86	20	500	(1	6	24	320	7	(1	(5	24	(4	3	(4	135	(4	(4	46	(20	14
CRN81	116-121.5m	6731RS 891	(0.5	6	2	50	(1	(20	9	7	22	0.99	(20	570	1	4	7	250	8	(1	(5	16	(4	(2	(4	135	(4	(4	24	(20	4
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CRN84	8-18m	6731RS 893	(0.5	2	1				(2	11	7	0.28		20	1		6		6												3
CRN84	18-28m	6731RS 894	(0.5	(1	1				(2	8	15	0.2		20	(1		4		9												2
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CRN84	60-64m	6731RS 897	1.5	(1	(1				6	38	750	1.2		75	2		17		5												38
CRN84	64-72m	6731RS 898	3.5	(1	1				10	48	3850	1.54		70	(1		20		5												45
CRN84	72-76m	6731RS 899	(0.5	1	1				26	20	860	0.89		110	(1		12		(3												25
CRN84	76-86m	6731RS 900	(0.5	(1	(1				8	36	200	1.8		100	(1		22		4												56
CRN84	86-88m	6731RS 901	2	(1	(1	75	(1	30	8	14	80	1.3	20	65	(1	6	10	40	(3	(1	(5	120	(4	(2	(4	11	10	(4	26	100	22
CRN85	40-44m	6731RS 902	(0.5	2	(1				15	74	1400	4.18		380	8		58		5												110
CRN85	44-48m	6731RS 903	(0.5	(1	(1				11	56	2000	3.88		155	7		45		10												68
CRN85	48-49m	6731RS 904	(0.5	2	(1	910	(1	190	16	58	2150	3.68	70	200	7	17	38	520	4	(1	(5	200	5	(2	(4	140	18	22	70	90	52

HOLE NO	DEPTH	SAMPLE NO	Ag	As	Au	Ba	Cd	Ce	Co	Cr	Cu	Fe	La	Mn	Mo	Nb	Ni	P	Pb	Pd	Pt	Rb	Sb	Se	Sn	Sr	Th	U	V	W	Zn
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CRN86	12-22m	6731RS 906	<0.5	<1	<1				4	13	200	1.67		105	9		12		3												16
CRN86	22-30m	6731RS 907	<0.5	1	<1				3	8	120	1.46		70	16		8		5												12
CRN86	30-32m	6731RS 908	<0.5	<1	<1	540	<1	70	4	8	155	1.53	30	80	6	13	9	115	4	1	<5	230	4	<2	<4	95	16	<4	24	20	13
CRN87	32-36m	6731RS 909	<0.5	<1	<1	610	<1	90	4	10	130	1.52	50	95	6	9	8	125	5	<1	<5	200	<4	<2	<4	90	18	6	30	30	16
CRN88	0-2m	6731RS 910	<0.5	5	<1				25	58	28	4.22		400	<1		62		3												60
CRN88	2-3m	6731RS 911	<0.5	<1	<1	460	<1	90	34	66	25	4.68	50	390	<1	15	54	550	3	<1	<5	230	4	<2	4	115	15	<4	100	<20	72
CRN89	20-25m	6731RS 912	<0.5	4	<1	610	<1	170	24	56	92	4.34	200	310	<1	16	46	590	4	<1	<5	200	4	<2	<4	55	16	14	76	20	180
CRN90	28-32m	6731RS 913	<0.5	<1	<1				100	52	42	4.06		4450	<1		68		3												170
CRN90	32-42m	6731RS 914	<0.5	<1	<1	540	<1	60	50	44	26	3.62	40	1650	<1	16	56	650	4	<1	<5	150	5	3	<4	110	18	<4	62	<20	115
CRN91	22-32m	6731RS 915	<0.5	2	<1				35	50	58	4.02		320	<1		58		9												190
CRN91	32-34m	6731RS 916	<0.5	<1	<1				48	48	40	4.34		1180	<1		66		<3												165
CRN92	56-68m	6731RS 917	<0.5	2	2				28	54	68	5.95		270	<1		78		7												260
CRN92	68-78m	6731RS 918	<0.5	2	1				34	55	80	5.9		320	<1		98		5												370
CRN92	78-86m	6731RS 919	<0.5	<1	1	540	<1	60	32	48	45	4.96	50	310	<1	15	84	470	4	<1	<5	185	4	2	<4	30	20	4	40	<20	280
CRN92	86-91.5m	6731RS 920	<0.5	<1	<1	500	<1	60	30	48	5	5.1	40	440	<1	15	70	680	<3	<1	<5	145	<4	<2	<4	35	16	4	42	<20	190
CRN93	44-48m	6731RS 921	<0.5	<1	<1				3	52	22	2.02		65	<1		11		<3												20
CRN93	48-58m	6731RS 922	<0.5	1	1				12	46	70	5		125	<1		30		<3												28
CRN93	58-59.5m	6731RS 923	<0.5	<1	<1	45	<1	40	7	24	46	2.26	20	115	<1	9	13	135	<3	<1	<5	25	4	<2	<4	48	8	<4	24	<20	19
CRN94	8-12m	6731RS 924	<0.5	1	<1				7	17	40	2.4		70	<1		30		<3												38
CRN94	12-20m	6731RS 925	<0.5	<1	1				22	18	70	2.5		120	<1		70		<3												190
CRN94	20-24m	6731RS 926	<0.5	2	<1	570	<1	90	40	22	38	2.6	50	470	<1	14	85	290	<3	<1	<5	190	<4	3	<4	55	15	<4	19	<20	210
CRN95	6-8m	6731RS 927	<0.5	<1	<1				9	17	28	2.12		240	<1		14		7												28
CRN95	8-9m	6731RS 928	<0.5	<1	<1	640	<1	140	8	17	38	2.36	80	270	<1	9	15	100	4	<1	<5	140	<4	<2	4	370	16	<4	74	<20	30
CRN96	0-2m	6731RS 929	<0.5	6	1				9	48	38	1.6		200	12		15		24												55
CRN96	2-4m	6731RS 930	<0.5	2	<1	720	<1	110	30	90	24	3.06	70	650	<1	15	30	450	4	<1	<5	175	5	<2	<4	165	20	8	98	<20	48
CRN96	4-5m	6731RS 931	<0.5	2	<1	680	<1	80	11	58	12	1.87	70	280	<1	12	17	600	5	<1	<5	125	<4	<2	<4	190	20	8	68	<20	28
CRN97	44-52m	6731RS 932	<0.5	<1	<1				4	20	10	1.59		65	<1		14		<3												15
CRN97	52-62m	6731RS 933	<0.5	<1	<1				7	24	12	1.87		105	<1		20		<3												22
CRN97	62-62.5m	6731RS 934	<0.5	<1	<1	500	<1	40	4	22	12	1.49	30	120	<1	9	12	80	<3	1	<5	98	<4	<2	<4	400	20	<4	40	<20	14
CRN98	46-52m	6731RS 935	<0.5	<1	2				13	70	40	3.3		35	<1		38		<3												19
CRN98	52-57.5m	6731RS 936	<0.5	3	1	450	<1	260	22	62	6	3.8	160	70	<1	17	48	190	<3	<1	<5	190	<4	<2	4	38	22	10	115	<20	28
CRN98	46-52m #	6731RS 937	<1	5	3				9	69	46	3.4		34	<5		30		<5												21
	repeat analysis:	937	<1	6					9	68	39	3.27		29	<5		29		<5												20
CRN98	52-57.5m #	6731RS 938	<1	6	4	342	1	314	30	68	22	3.56	156	63	9	18	66	441	<5	<1	<1	187	<4	<2	5	31	19	5	91	<10	23

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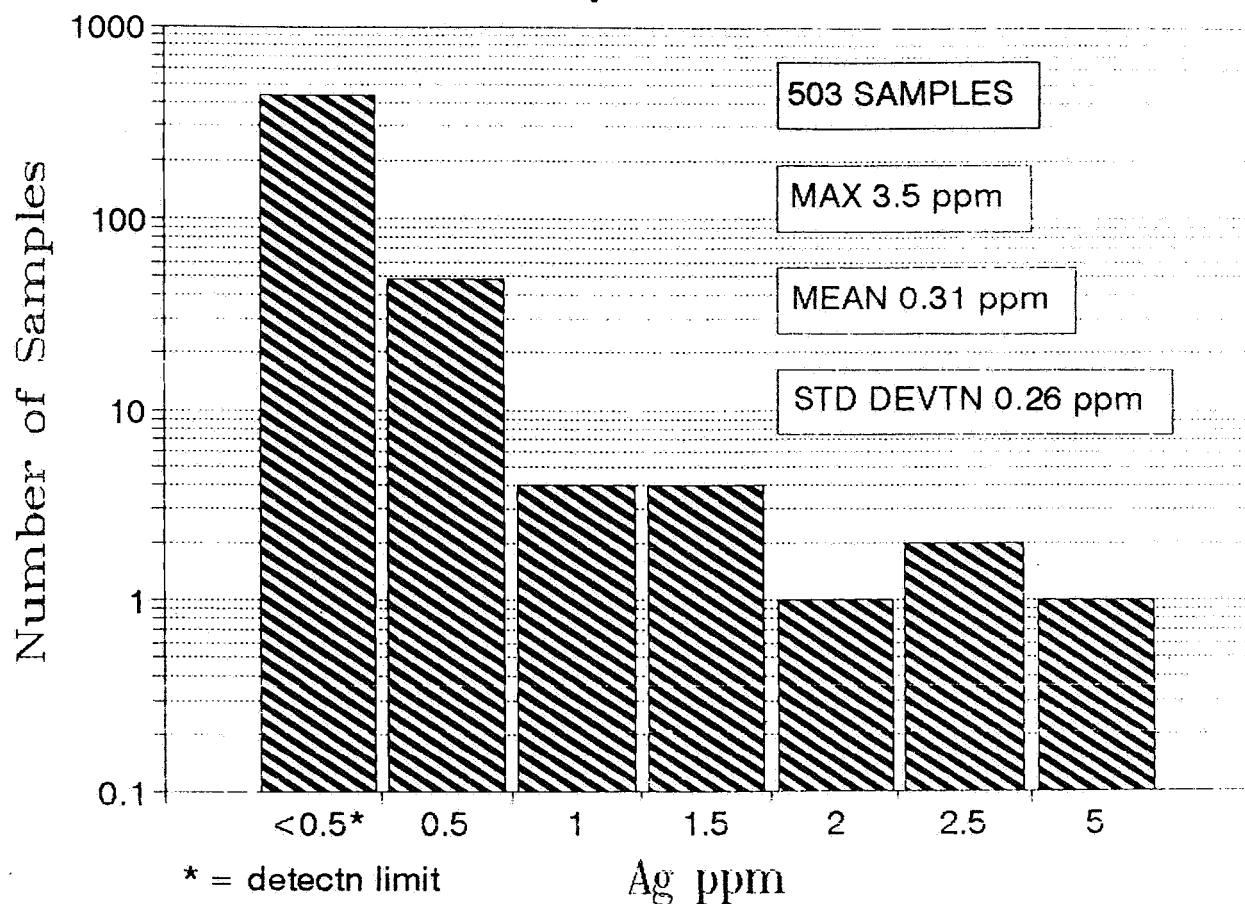
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CRN115	70-76m	6731RS1030	(0.5	4	2				4	15	36	3.08		50	(1		6		5													7
CRN115	76-84m	6731RS1031	1	6	(1				7	13	42	2.26		105	1		11		9													24
CRN115	84-90m	6731RS1032	(0.5	3	(1				7	11	32	2.88		180	(1		11		(3													16
CRN115	90-90.5m	6731RS1033	1	3	1	910	(1	90	11	13	42	3.12	140	165	(1	11	16	530	7	(1	(5	140	(4	(2	(4	570	24	8	65	20		24
CRN115	60-70m #	6731RS1034	(1	7	(1				(5	249	17	0.44		13	(5		8		(5													18
CRN115	70-76m #	6731RS1035	(1	11	(1				(5	84	48	3.42		57	(5		5		(5													14
CRN115	76-84m #	6731RS1036	(1	14	(1				(5	57	46	2.11		84	(5		7		(5													27
CRN115	84-90m #	6731RS1037	(1	6	(1				6	39	42	2.62		154	(5		7		(5													30
CRN115	90-90.5m #	6731RS1038	(1	2	(1	883	(1	111	9	69	30	2.68	134	138	(5	11	14	586	5	(1	(1	137	4	(2	5	516	24	(4	48	13		18
			(1 repeat value																													
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MUR01	20-22m	6831RS 29	(0.5	1	(1				92	24	120	2.96		3650	3		160		3													190
MUR01	22-29.5m	6831RS 30	(0.5	3	(1				30	30	100	3.32		300	(1		105		4													180
MUR02	52-62m	6831RS 31	(0.5	4	2				11	22	80	4.9		1020	(1		28		6													52
MUR02	62-68m	6831RS 32	(0.5	2	(1				8	8	34	9.3		270	(1		26		36													95
MUR02	68-78m	6831RS 33	(0.5	(1	1				13	19	34	4.24		105	(1		26		9													92
MUR02	78-84m	6831RS 34	(0.5	5	(1				16	26	32	3.98		105	(1		32		(3													78
MUR02	84-88m	6831RS 35	(0.5	(1	(1	470	(1	90	14	26	40	3.86	50	120	(1	16	25	850	9	(1	(5	160	(4	7	(4	38	16	4	32	(20		78
MUR02	88-89.5m	6831RS 36	(0.5	(1	1	490	(1	80	13	22	38	3.98	60	120	(1	14	24	830	10	(1	(5	160	(4	6	(4	36	16	(4	28	(20		80
MUR03	0-14m	6831RS 37	(0.5	(1	(1				2	75	7	10.6		25	(1		2		4													11
MUR03	14-22m	6831RS 38	(0.5	(1	(1	330	(1	160	7	58	22	18	80	40	(1	8	9	720	6	(1	(5	44	(4	(2	(4	82	8	(4	76	(20		38
MUR03	22-38m	6831RS 39	(0.5	(1	(1				7	64	15	14.5		55	(1		13		5													54
MUR03	38-46m	6831RS 40	(0.5	(1	1				22	64	22	14.3		170	(1		24		8													96
MUR03	46-50m	6831RS 41	(0.5	(1	(1	430	(1	50	13	64	22	15.4	20	125	(1	9	24	840	7	(1	(5	74	(4	(2	4	32	12	6	64	(20		90
MUR03	50-52m	6831RS 42	(0.5	(1	1				12	34	22	6.8		125	(1		24		9													62
MUR04	30-38m	6831RS 43	(0.5	5	1				19	20	28	2.8		540	(1		32		(3													58
MUR04	38-40m	6831RS 44	(0.5	5	(1				17	13	22	3.26		830	(1		22		(3													28
MUR05	14-16m	6831RS 45	(0.5	28	1				22	18	52	2.28		490	6		54		26													82
MUR05	16-17.5m	6831RS 46	(0.5	14	2	710	1	60	24	13	45	3.76	40	780	(1	12	55	370	22	(1	(5	140	(4	4	4	125	16	(4	16	(10		92
MUR06	30-31m	6831RS 47	1.5	17	(1	310	(1	60	68	16	50	2.06	30	1600	1	12	19	420	9	(1	(5	92	(4	(2	4	94	16	(4	25	90		26
MUR07	30.5-31m	6831RS 48	88	38	3	390	25	40	1850	22	42	2.96	30	570	4	5	22	195	11	(1	(5	58	(4	(2	(4	130	6	(4	35	2750		54
MUR08	20-30m	6831RS 49	(0.5	13	(1				30	32	52	4.8		230	(1		60		(3													150
MUR08	30-38m	6831RS 50	(0.5	5	(1				28	30	40	5		200	(1		58		5													110
MUR08	38-42m	6831RS 51	(0.5	10	(1				28	32	44	5.8		470	(1		68		(3													94
MUR08	42-44m	6831RS 52	(0.5	3	(1	580	(1	80	22	28	40	5.05	40	300	(1	17	44	750	(3	(1	(5	175	(4	(2	4	70	16	4	26	(10		74
MUR09	20-26m	6831RS 53	(0.5	8	1				14	35	38	4.26		450	(1		42		22													80
MUR09	26-28m	6831RS 54	(0.5	6	1				34	32	32	4		320	(1		38		19													80
MUR09	28-29.5m	6831RS 55	(0.5	5	(1	630	(1	60	8	28	25	3.48	40	150	(1	15	17	430	15	(1	(5	155	(4	3	4	160	15	(4	22	25		52
MUR10	96-98m	6831RS 56	(0.5	25	1				6	36	18	4.14		35	(1		25		14													50
MUR10	98-98.5m	6831RS 57	(0.5	14	(1	370	(1	80	7	22	19	3.2	50	100	(1	15	24	310	19	(1	(5	150	5	(2	(4	30	16	(4	25	10		40

HOLE NO	DEPTH	SAMPLE NO	Ag	As	Au	Ba	Cd	Ce	Co	Cr	Cu	Fe	La	Mn	Mo	Nb	Ni	P	Pb	Pd	Pt	Rb	Sb	Se	Sn	Sr	Th	U	V	W	Zn
# indicates check sample																															
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CRN80	104-108m #	6731RS 877	(1	5	(1				31	57	19	9.63		881	(5		23		(5												39
CRN80	108-114m	6731RS 869	(0.5	2	(1	560	(1	90	32	24	9	6.45	50	2450	(1	15	26	290	(3	(1	(5	145	(4	(2	(4	22	20	(4	38	(20	25
CRN80	108-114m #	6731RS 878	(1	5	(1	495	(1	98	44	89	13	6.79	38	2210	(5	14	36	508	(5	(1	(1	126	(4	2	5	21	18	(4	42	(10	27
CRN80	114-116m	6731RS 870	(0.5	3	(1	660	(1	100	64	15	12	12.3	40	10400	(1	11	32	240	4	(1	(5	160	(4	2	4	28	16	(4	42	(20	54
CRN80	114-116m #	6731RS 879	(1	5	11	742	(1	79	79	131	25	12	23	7410	9	12	72	769	(5	(1	(1	148	9	3	5	27	10	(4	61	(10	50
CRN80	116-118m	6731RS 871	(0.5	3	(1				26	30	20	4.14		810	(1		65		13												35
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(1 repeat value																															
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CRN98	46-52m #	6731RS 937	(1	5	3				9	69	46	3.4		34	(5		30		(5												21
repeat analysis: 937			(1	6					9	68	39	3.27		29	(5		29		(5												20
CRN98	52-57.5m	6731RS 936	(0.5	3	1	450	(1	260	22	62	6	3.8	160	70	(1	17	48	190	(3	(1	(5	190	(4	(2	4	38	22	10	115	(20	28
CRN98	52-57.5m #	6731RS 938	(1	6	4	342	1	314	30	68	22	3.56	156	63	9	18	66	441	(5	(1	(1	187	(4	(2	5	31	19	5	91	(10	23
CRN109	124-130m	6731RS 995	(0.5	18	(1				22	50	145	7.05		1020	(1		40		(3												54
CRN109	124-130m #	6731RS 997	(1	18	1				18	75	136	6.65		912	(5		34		(5												51
repeat analysis: 997			(1	17					18	79	135	6.78		931	(5		36		(5												63
CRN109	130-132m	6731RS 996	(0.5	7	(1	370	(1	70	10	52	140	4.76	40	220	(1	17	32	510	(3	(1	(5	185	(4	(2	4	28	16	(4	125	(10	48
CRN109	130-132m #	6731RS 998	(1	6	(1	318	(1	105	9	84	91	4.08	49	141	(5	17	30	498	(5	(1	(1	199	6	(2	5	26	17	(4	93	(10	44
CRN114	36-46m	6731RS1021	(0.5	32	(1				20	105	50	4.3		920	2		24		6												82
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CRN114	60-62m	6731RS1024	(0.5	2	(1	580	(1	70	5	20	65	3.78	100	95	(1	7	12	250	5	(1	(5	185	(4	2	(4	54	14	(4	38	(10	30
CRN114	60-62m #	6731RS1028	(1	2	(1	672	(1	95	(5	105	57	3.48	75	59	(5	5	12	278	22	(1	(1	134	8	2	(5	46	11	(4	30	(10	20
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CRN115	60-70m	6731RS1029	(0.5	1	1				4	3	7	0.12		5	(1		5		4												3
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CRN115	70-76m	6731RS1030	(0.5	4	2				4	15	36	3.08		50	(1		6		5												7
CRN115	70-76m #	6731RS1035	(1	11	(1				(5	84	48	3.42		57	(5		5		(5												14
CRN115	76-84m	6731RS1031	1	6	(1				7	13	42	2.26		105	1		11		9												24
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CRN115	84-90m	6731RS1032	(0.5	3	(1				7	11	32	2.88		180	(1		11		(3												16
CRN115	84-90m #	6731RS1037	(1	6	(1				6	39	42	2.62		154	(5		7		(5												30
CRN115	90-90.5m	6731RS1033	1	3	1	910	(1	90	11	13	42	3.12	140	165	(1	11	16	530	7	(1	(5	140	(4	(2	(4	570	24	8	65	20	24
CRN115	90-90.5m #	6731RS1038	(1	2	(1	883	(1	111	9	69	30	2.68	134	138	(5	11	14	586	5	(1	(1	137	4	(2	5	516	24	(4	48	13	18

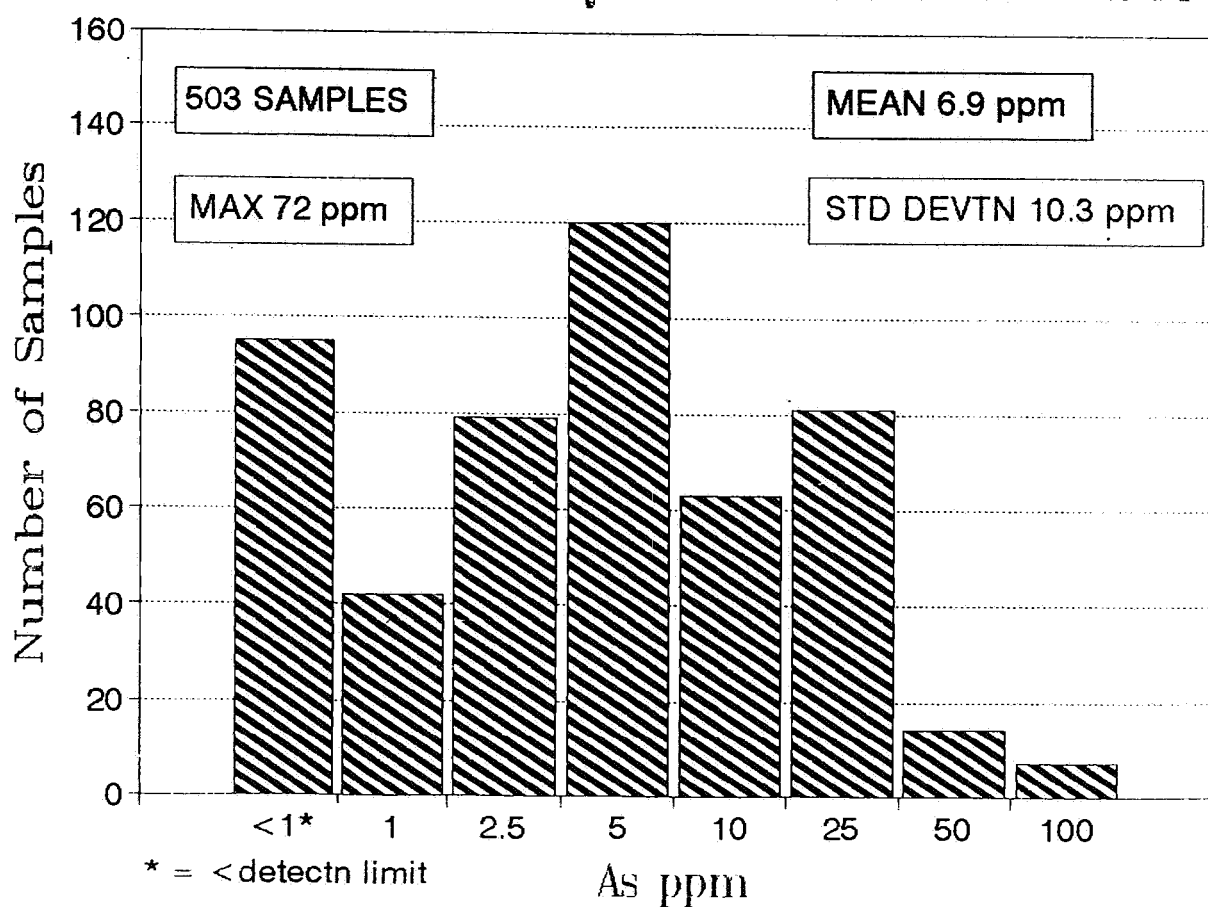
APPENDIX F

**FREQUENCY DISTRIBUTION FOR
GEOCHEMICAL ANALYSES,
29 ELEMENTS**

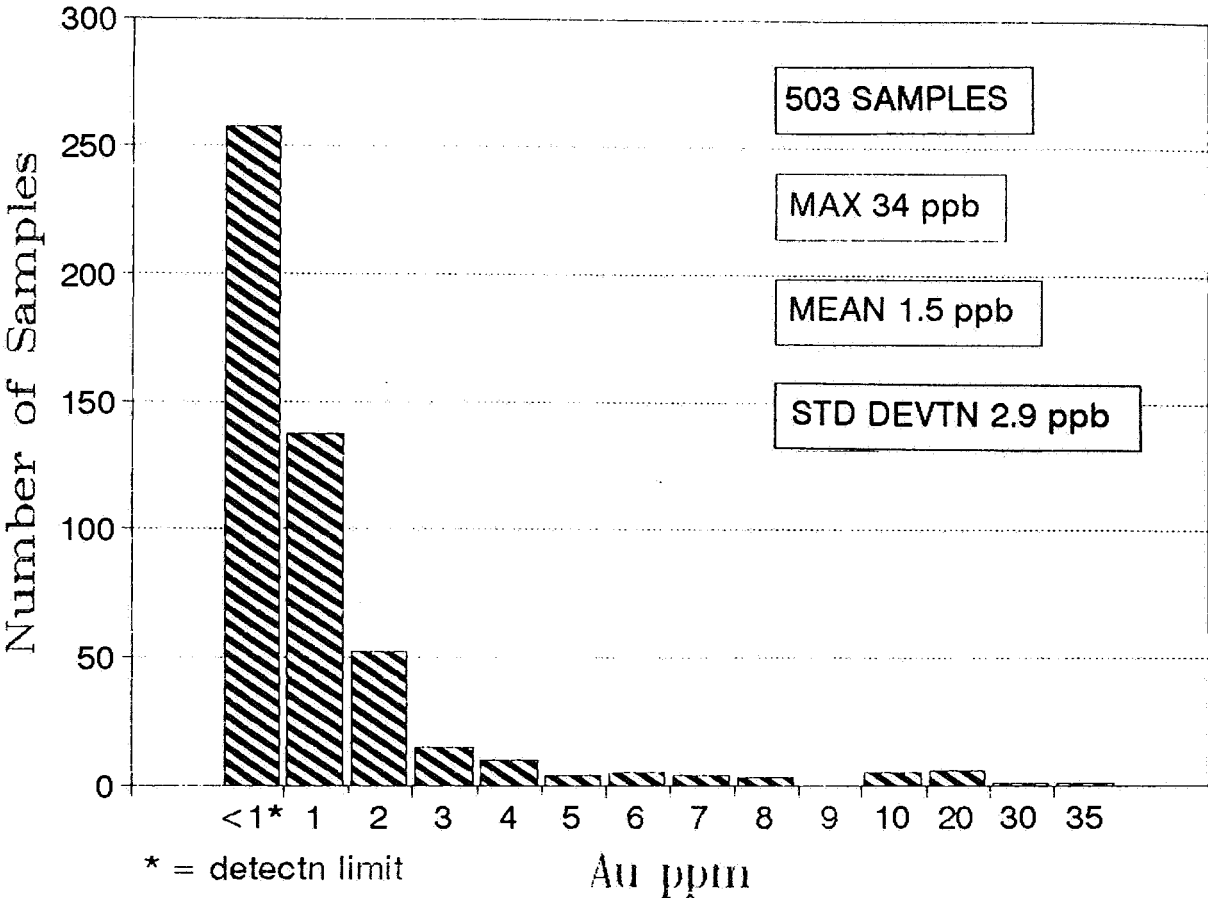
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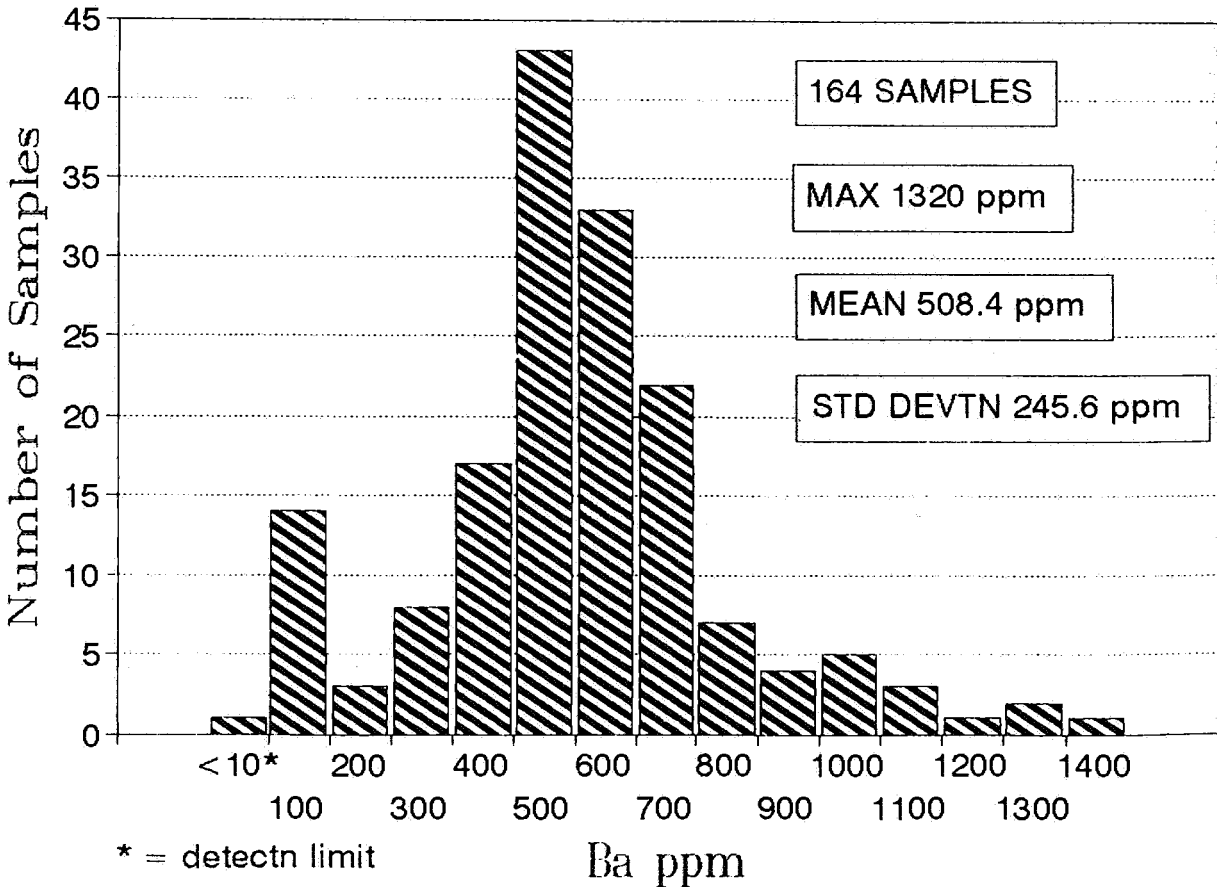
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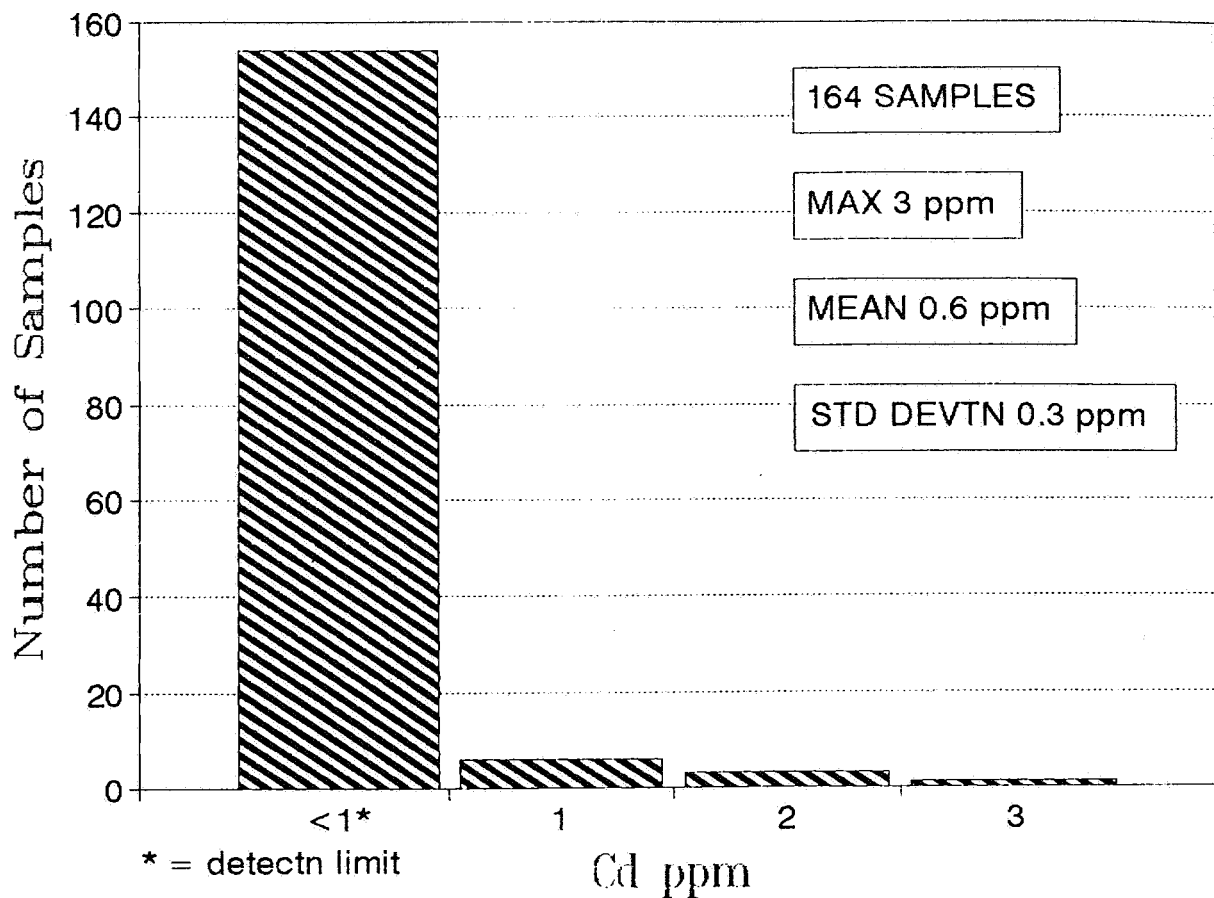
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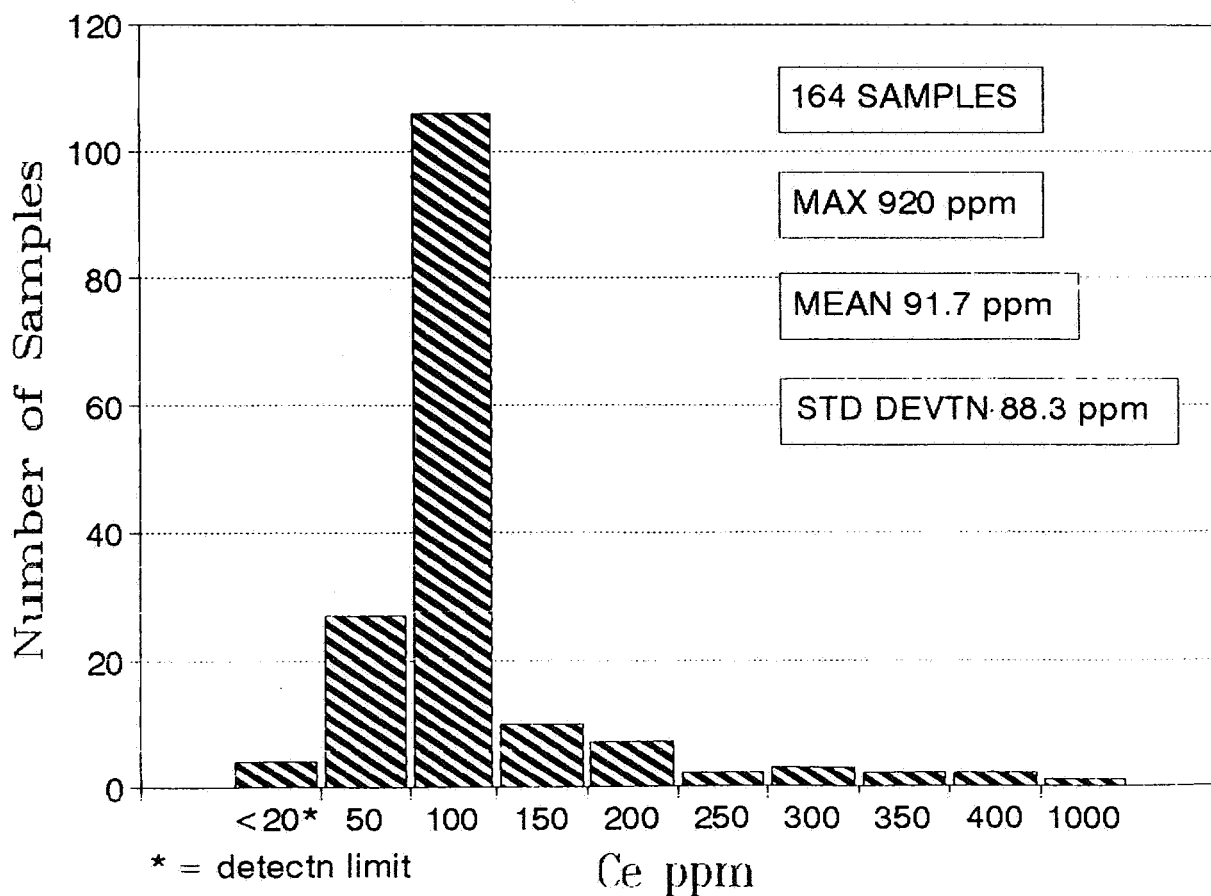
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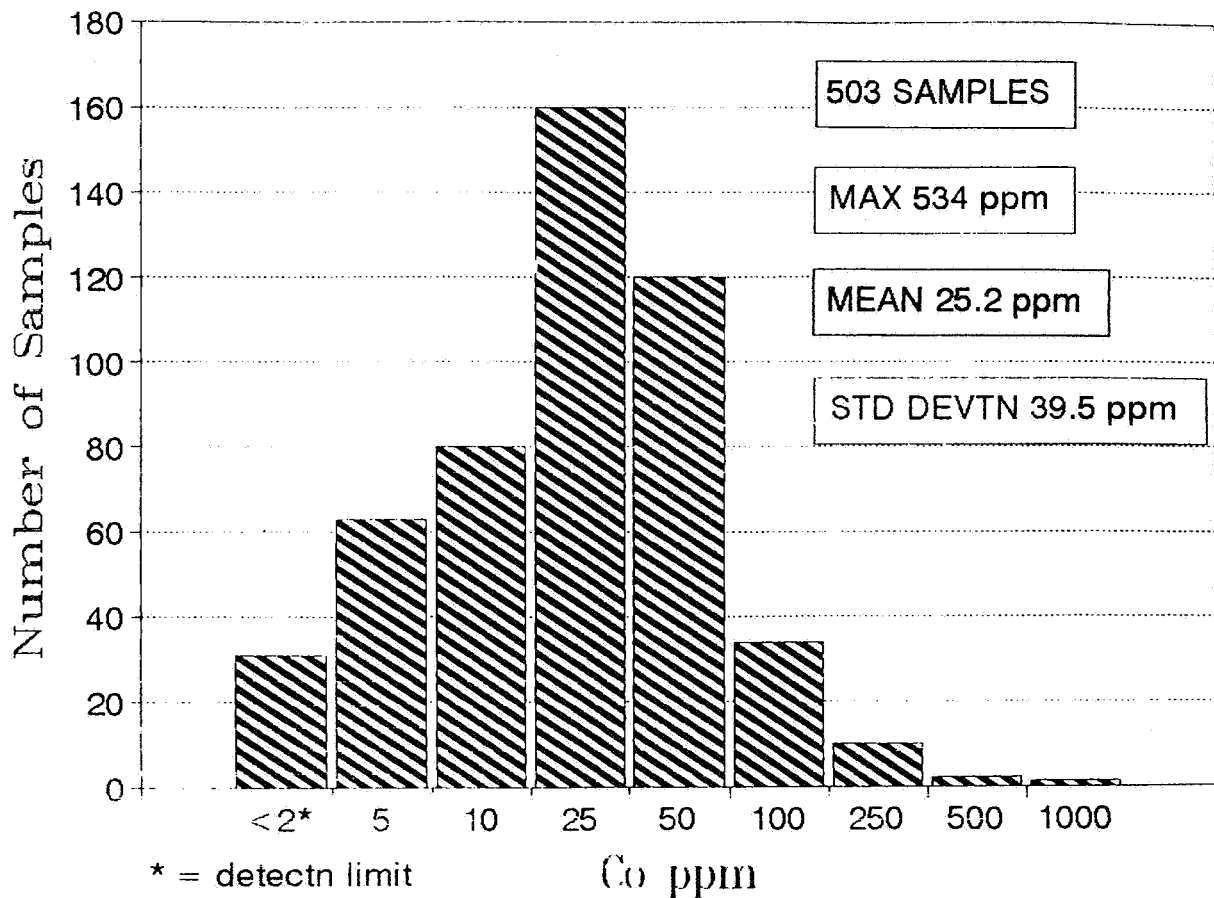
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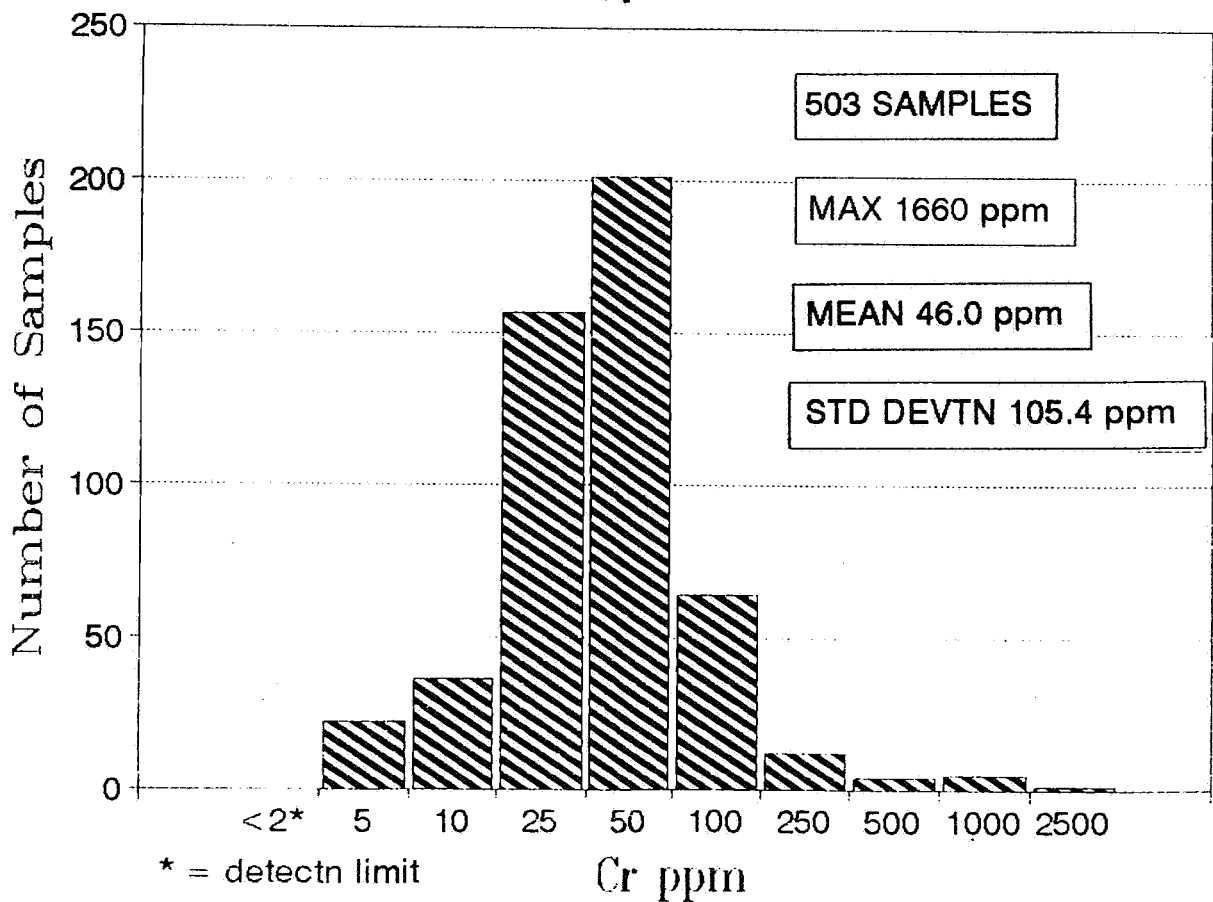
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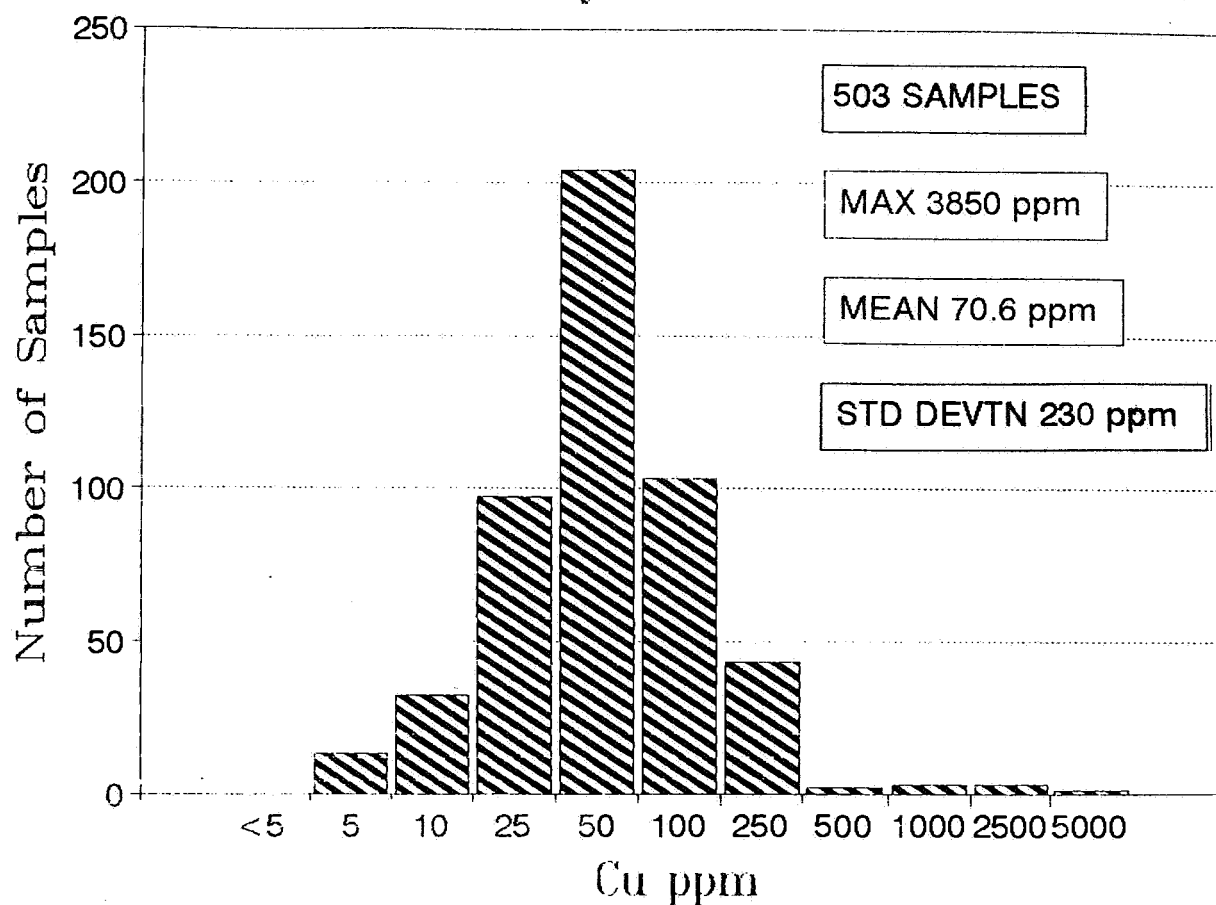
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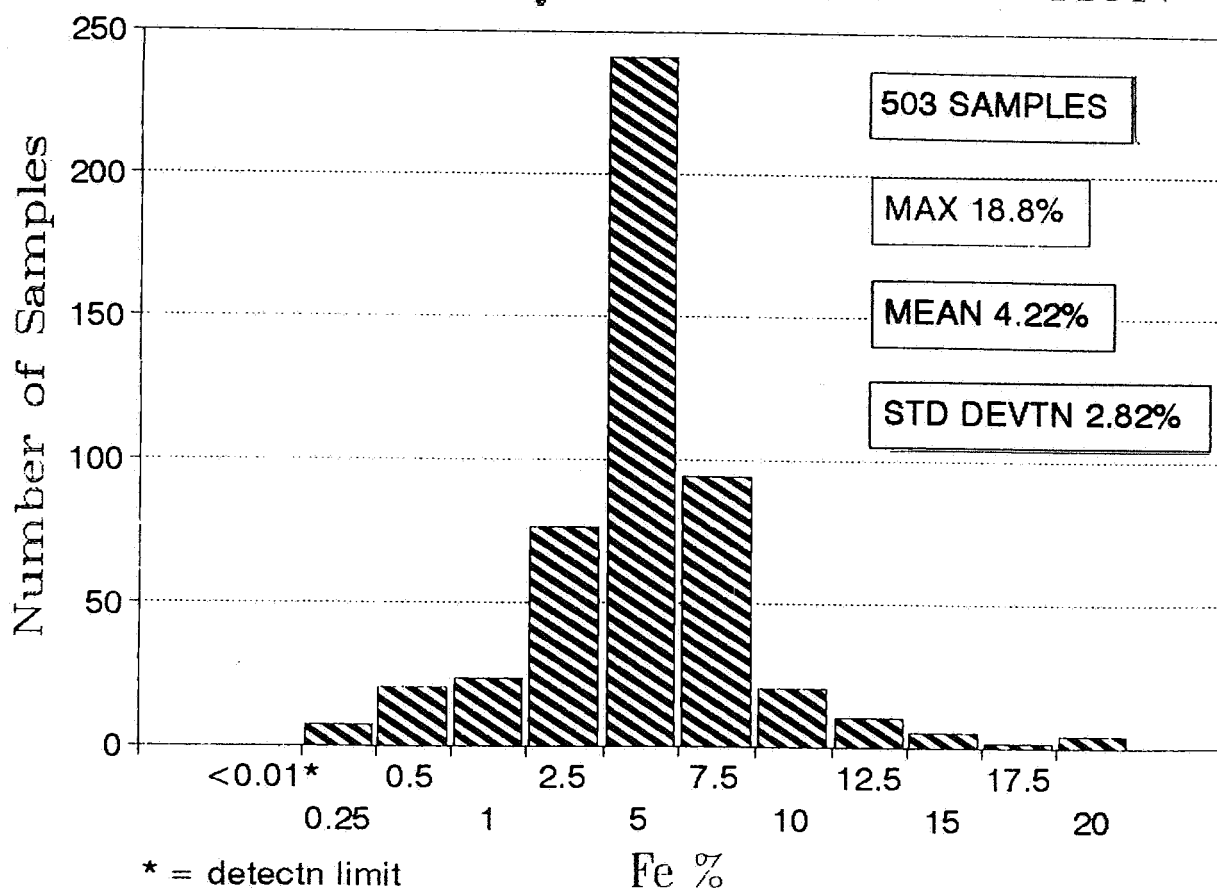
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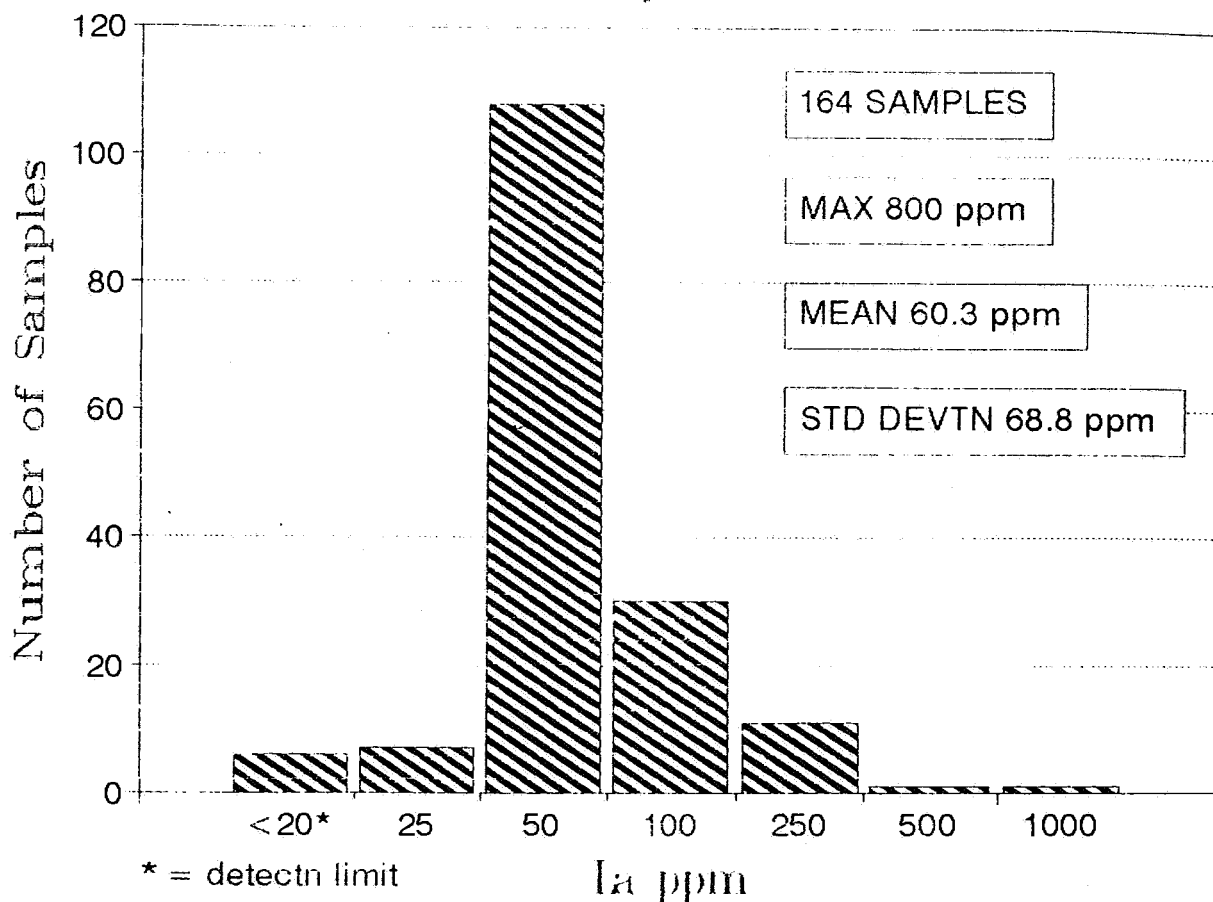
COPPER - FREQUENCY DISTRIBUTION



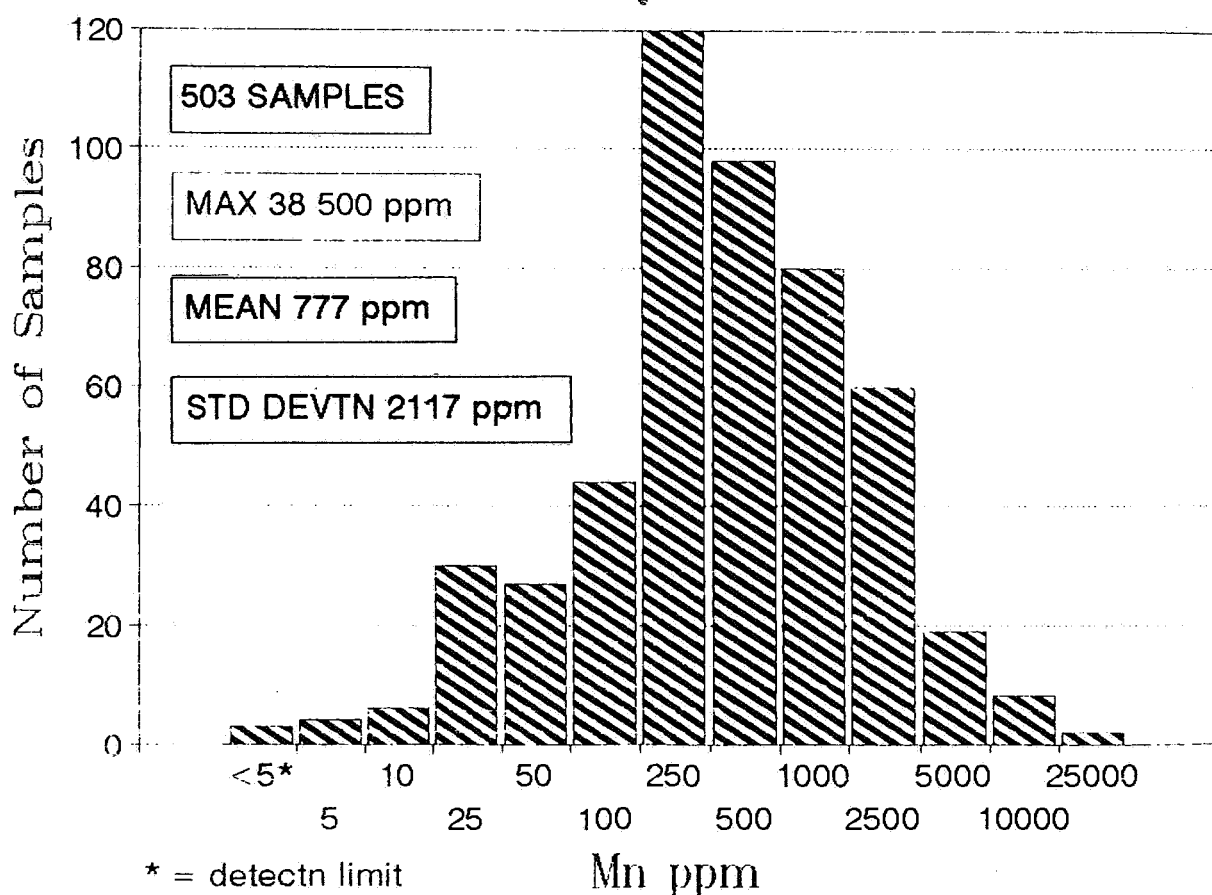
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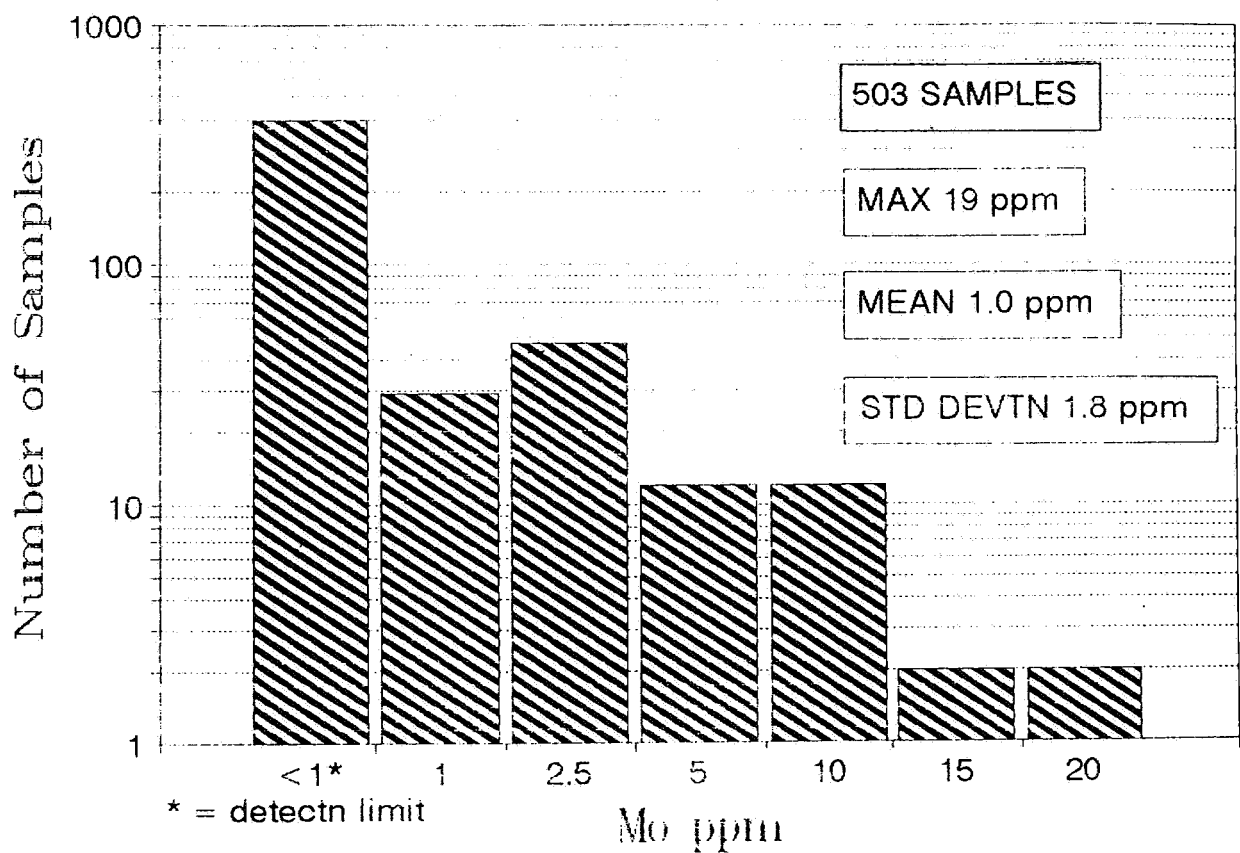
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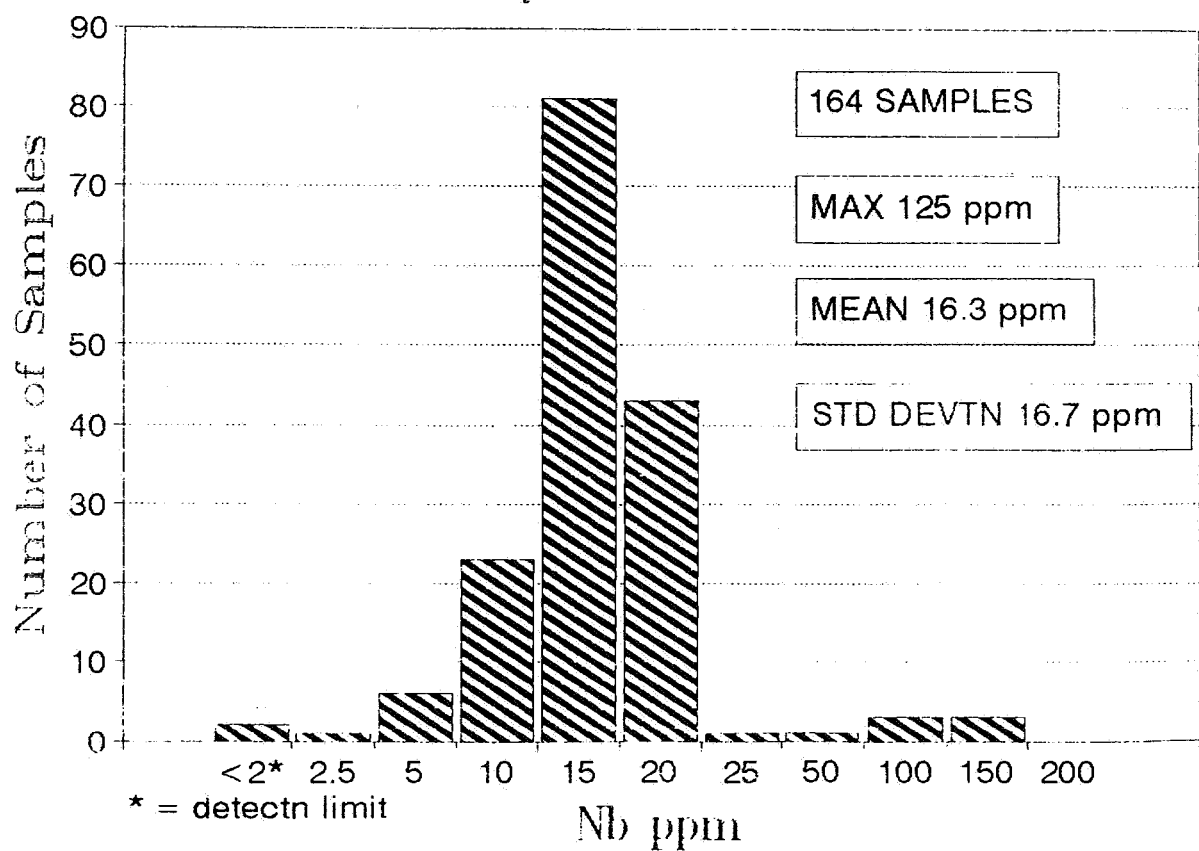
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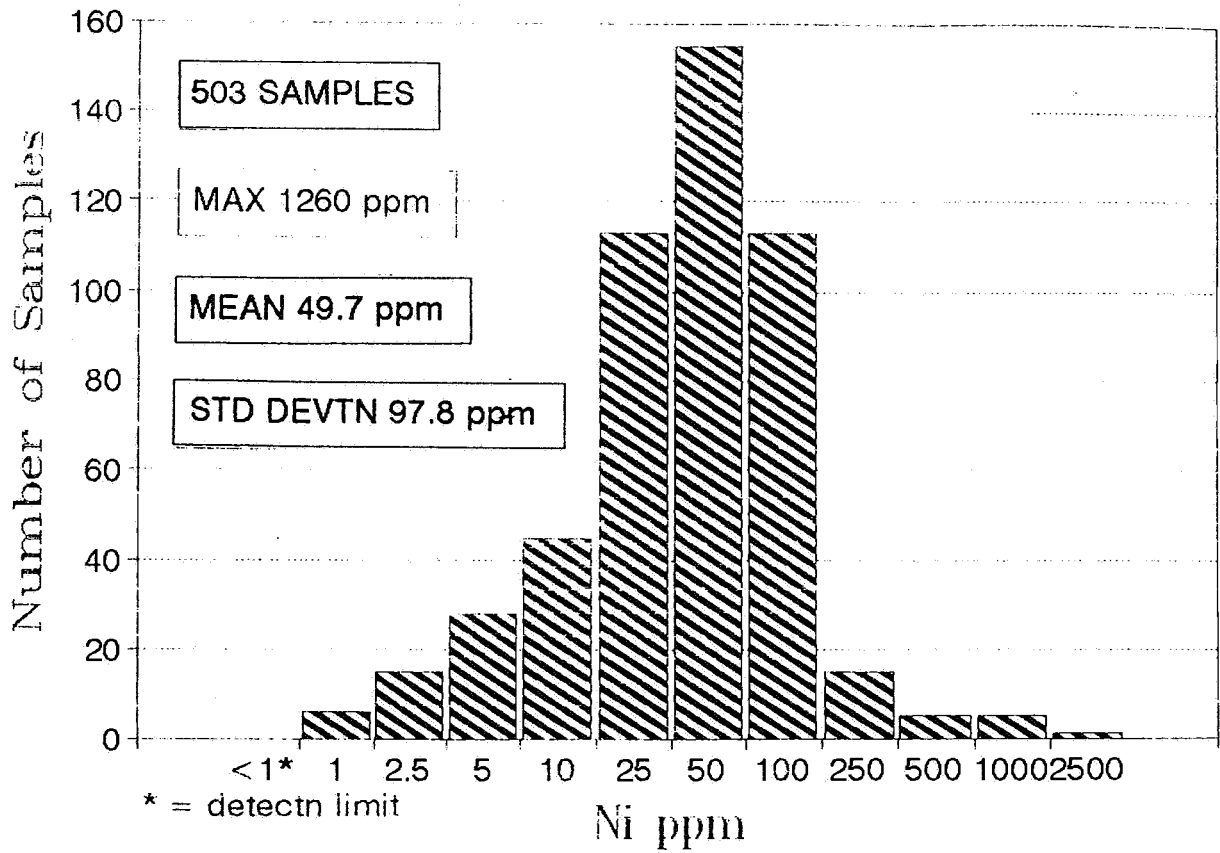
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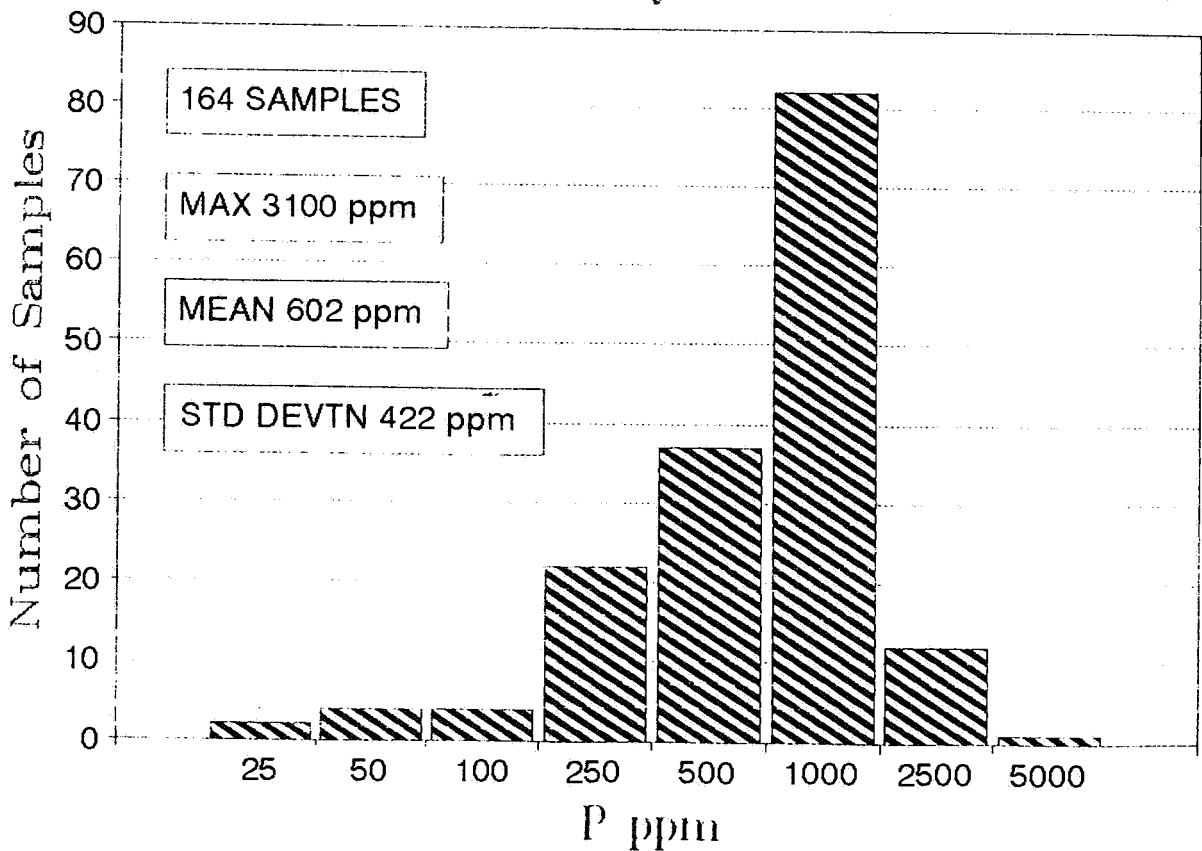
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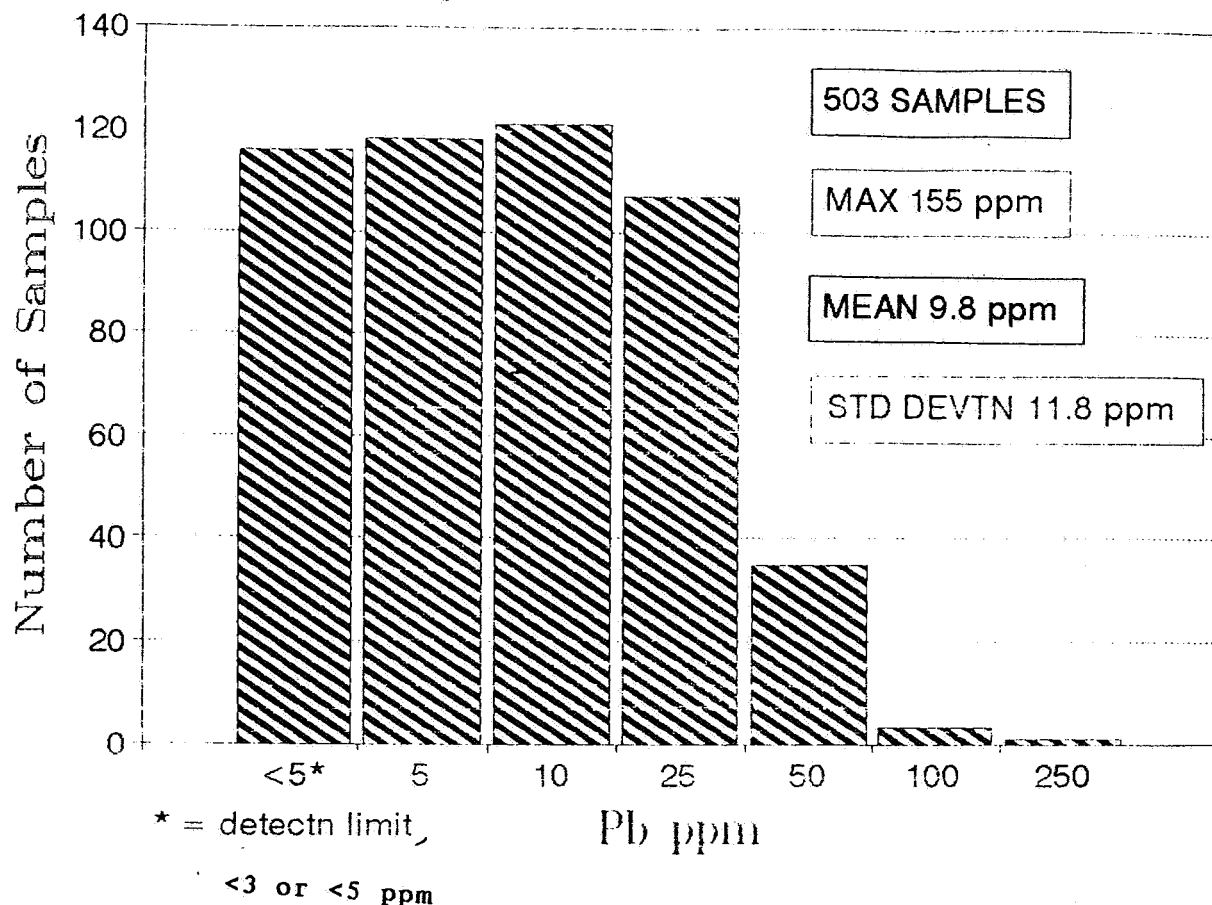
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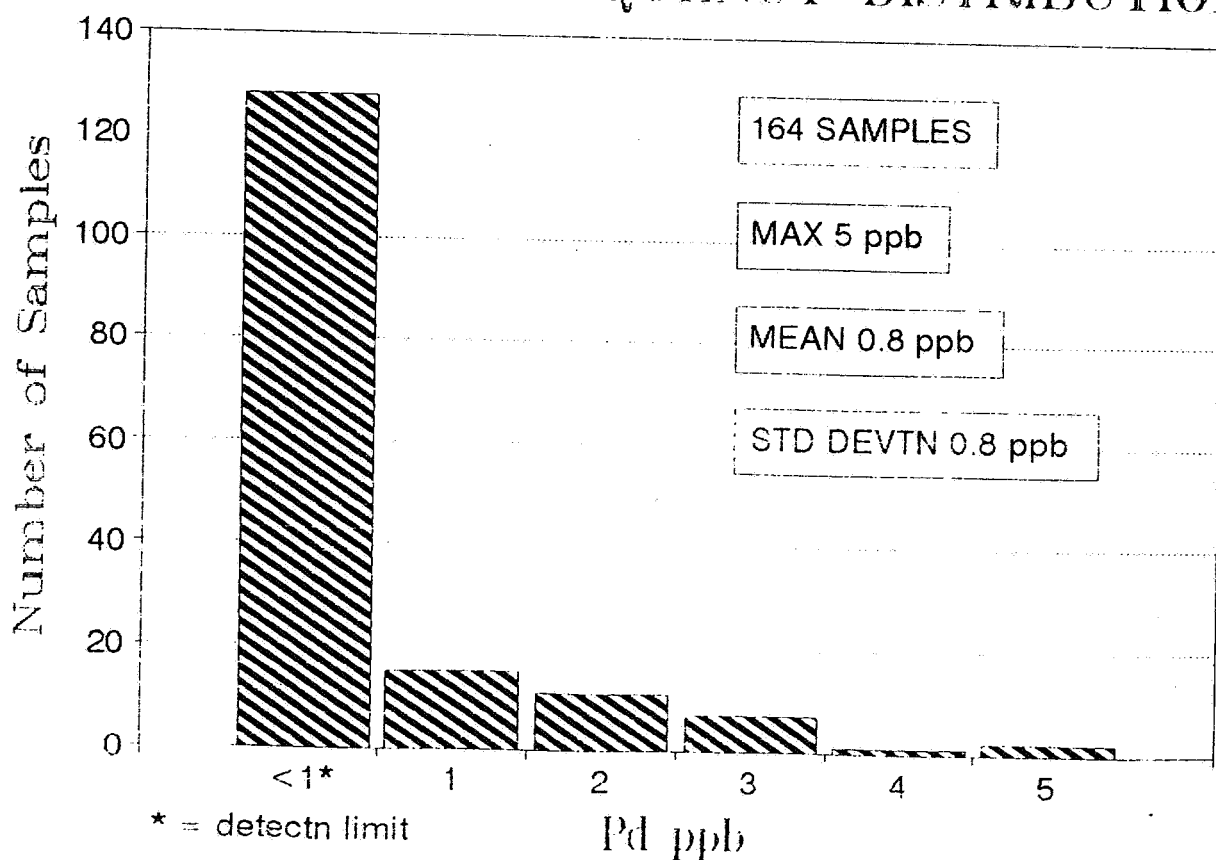
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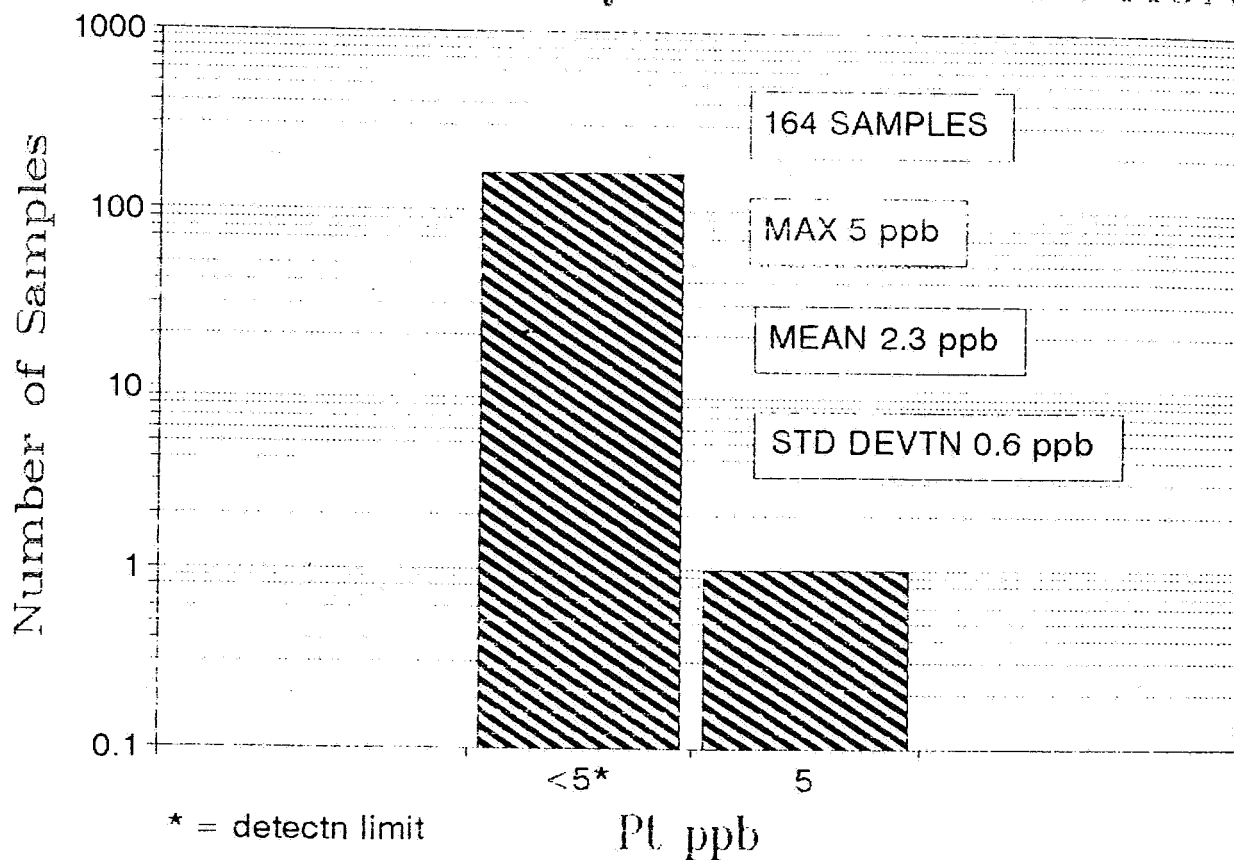
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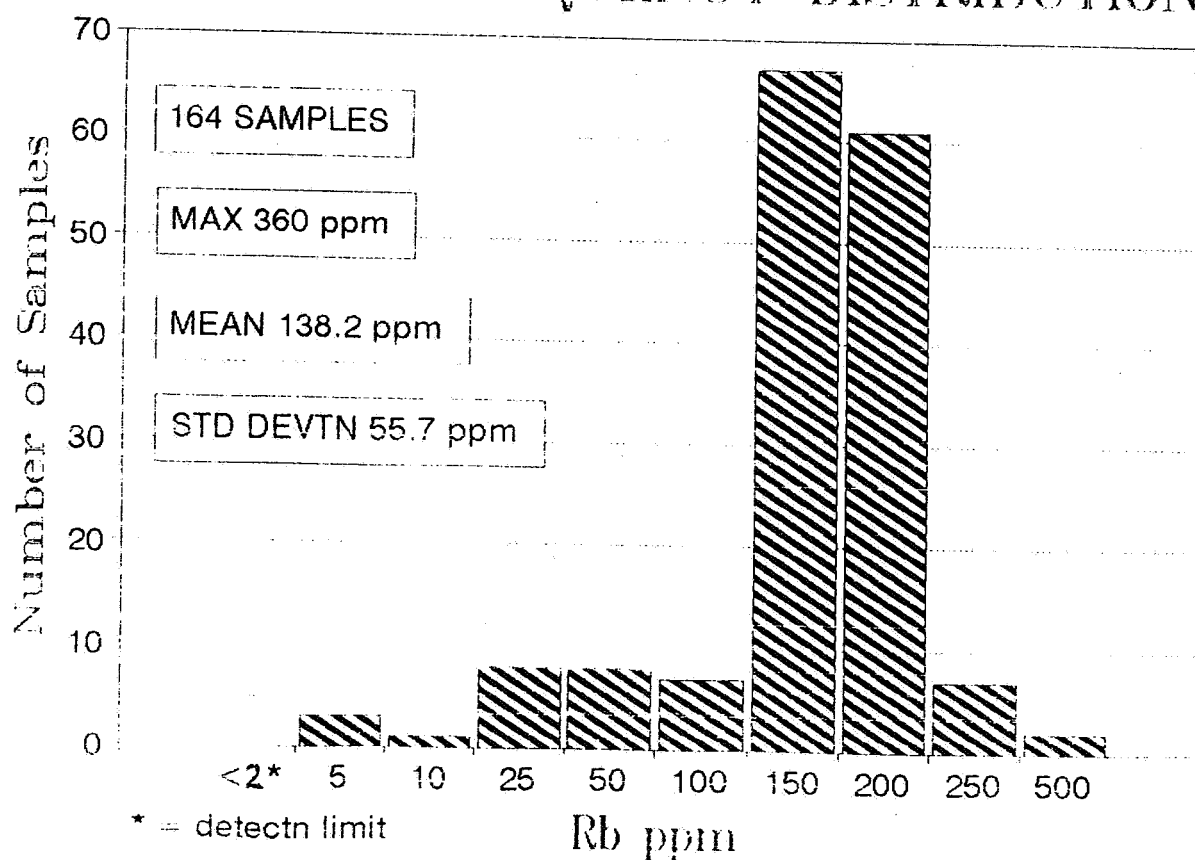
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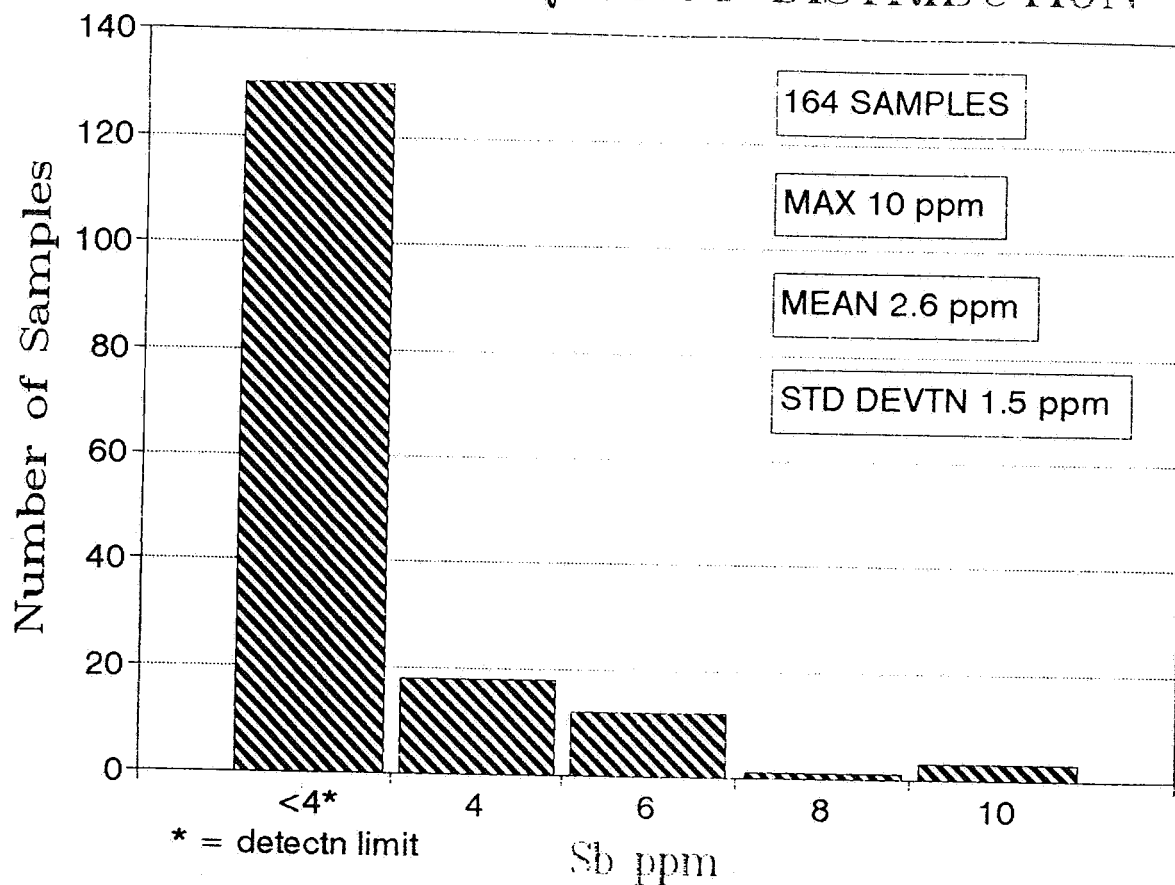
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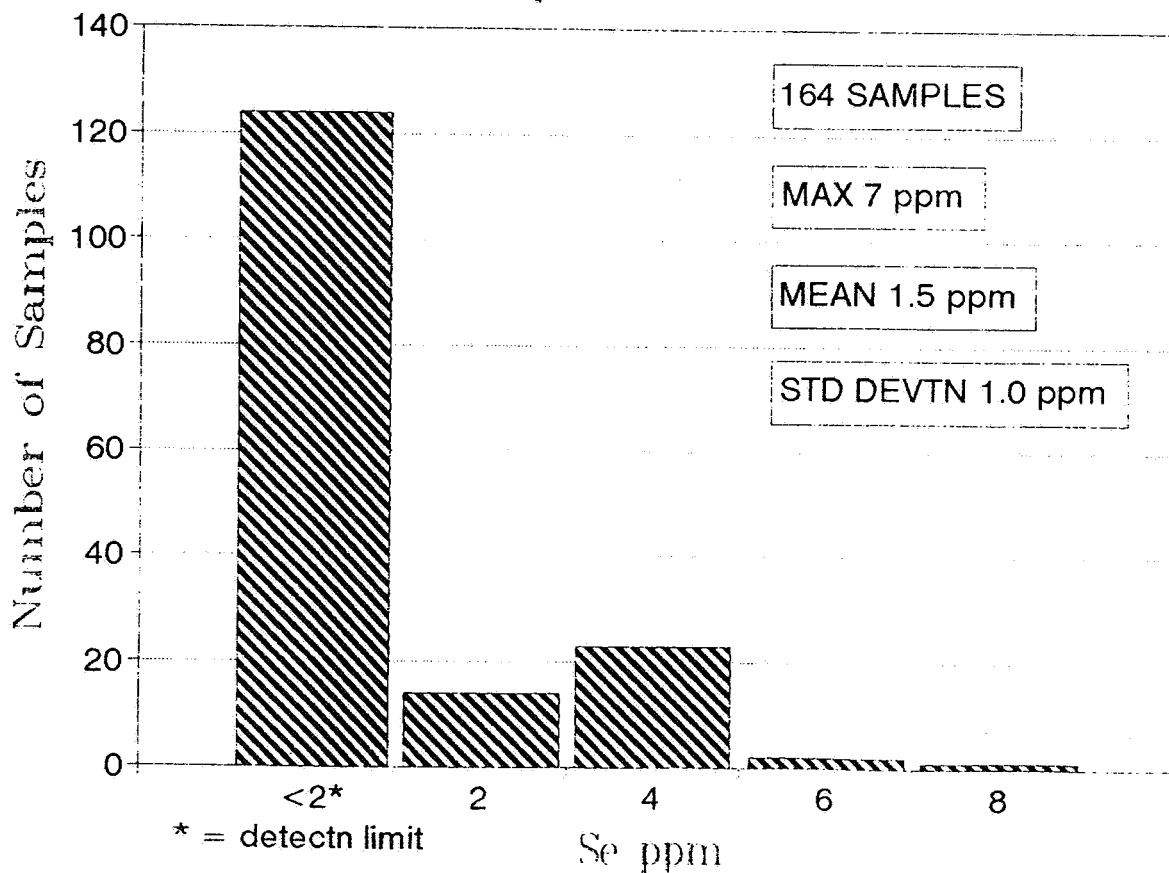
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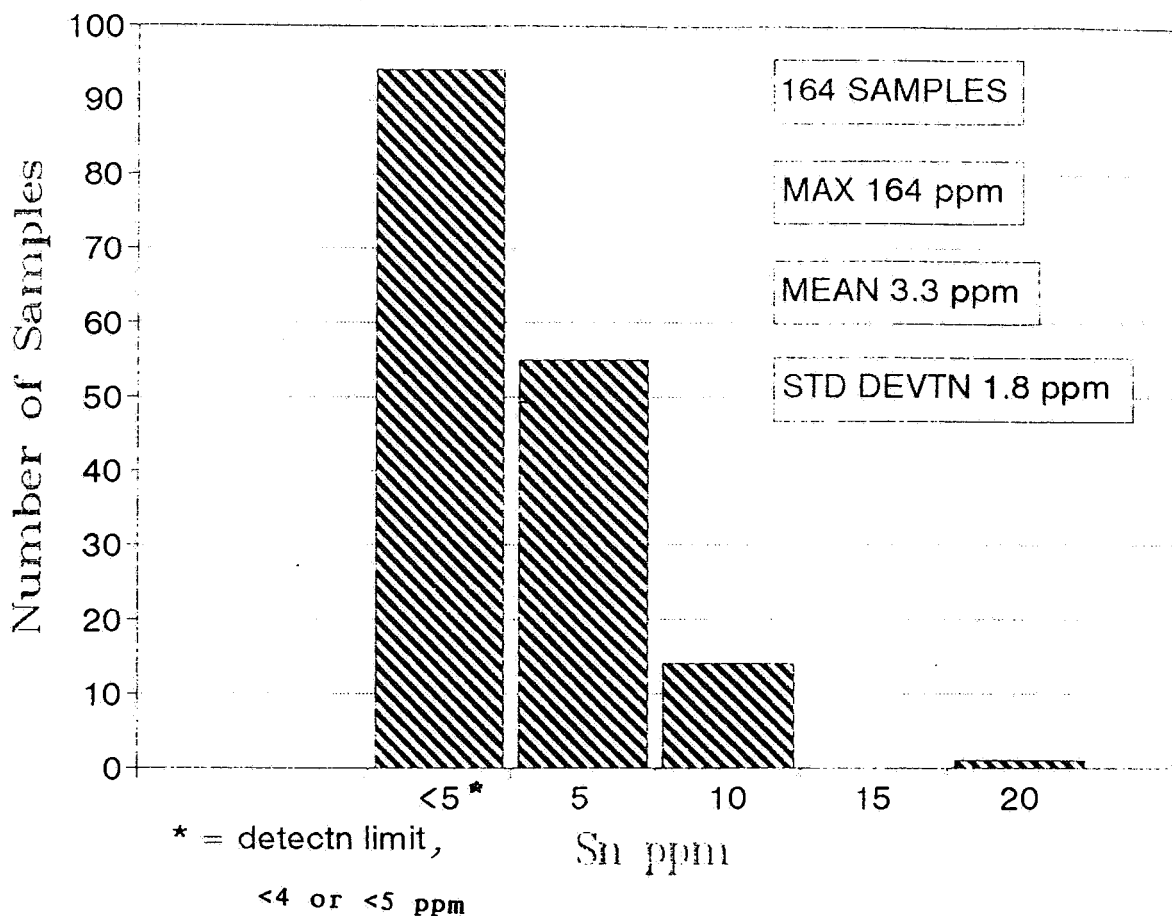
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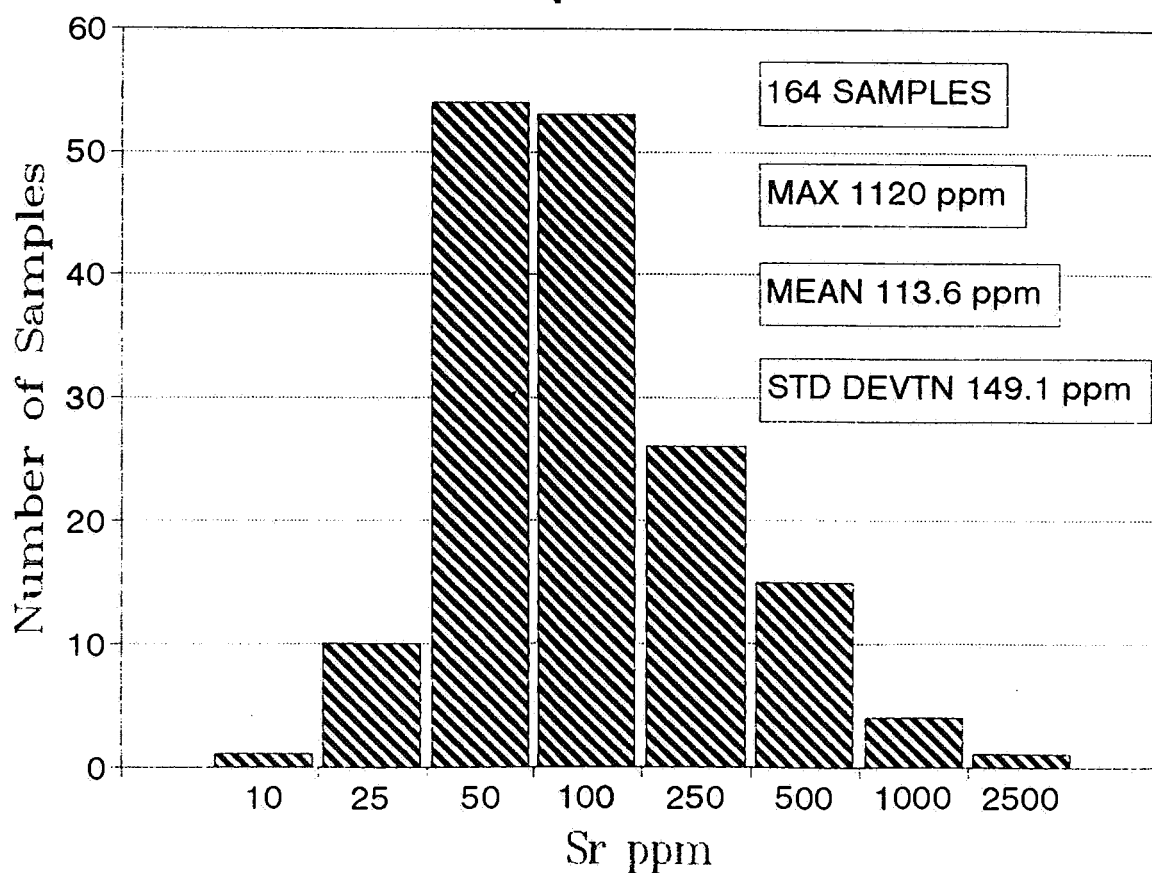
SELENIUM – FREQUENCY DISTRIBUTION



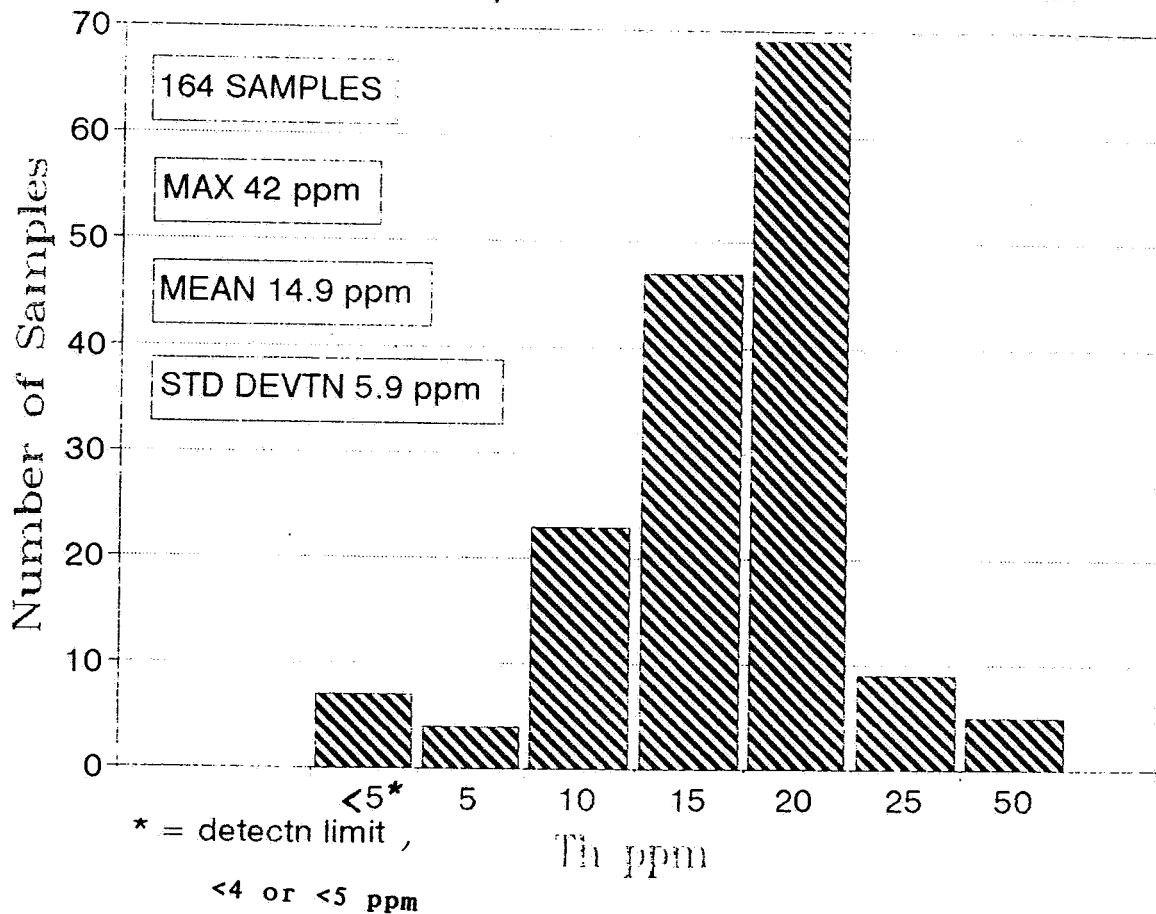
TIN – FREQUENCY DISTRIBUTION



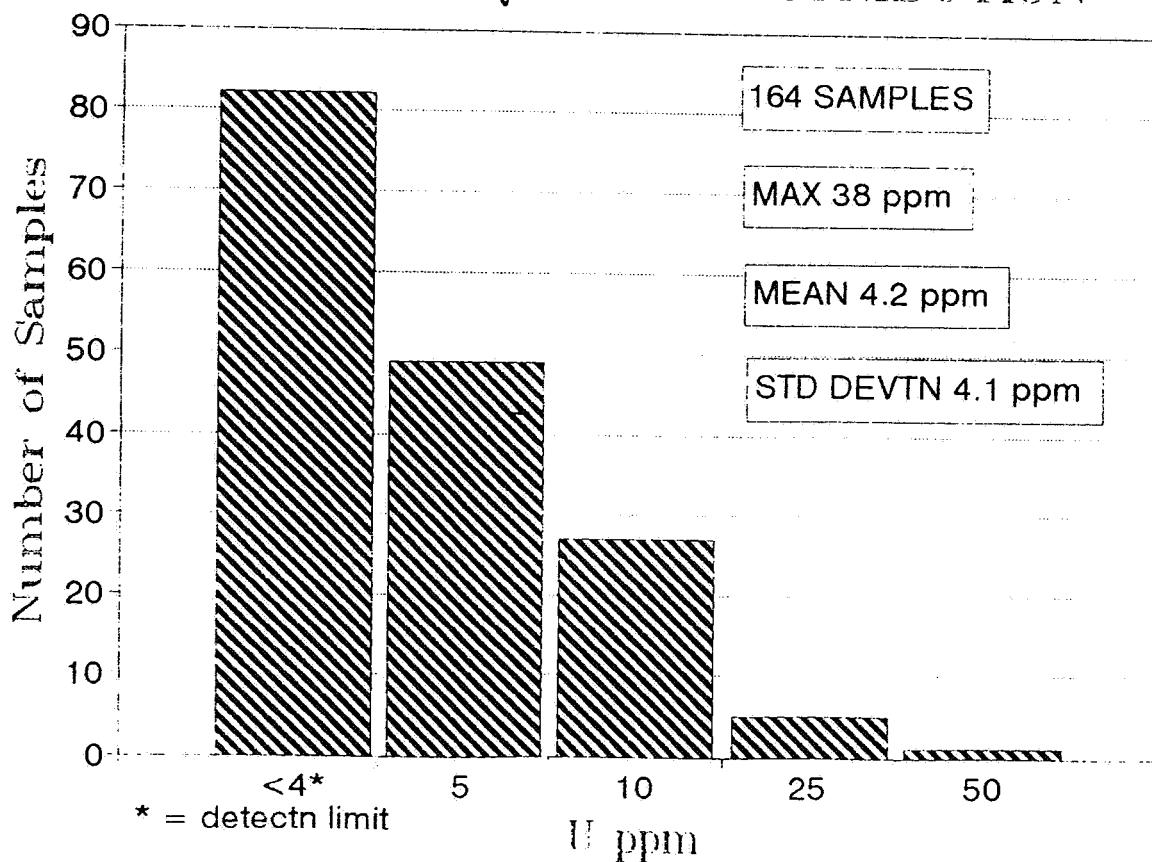
STRONTIUM – FREQUENCY DISTRIBUTION



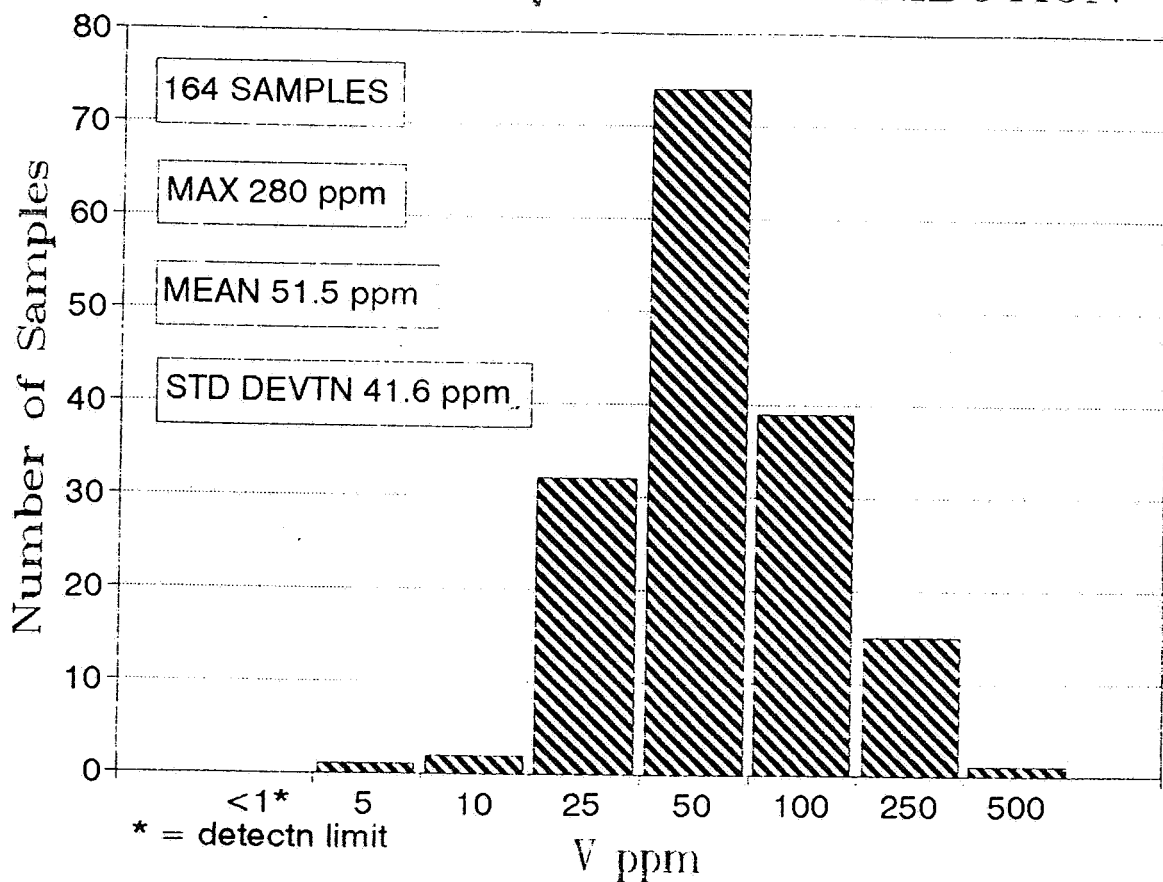
THORIUM – FREQUENCY DISTRIBUTION



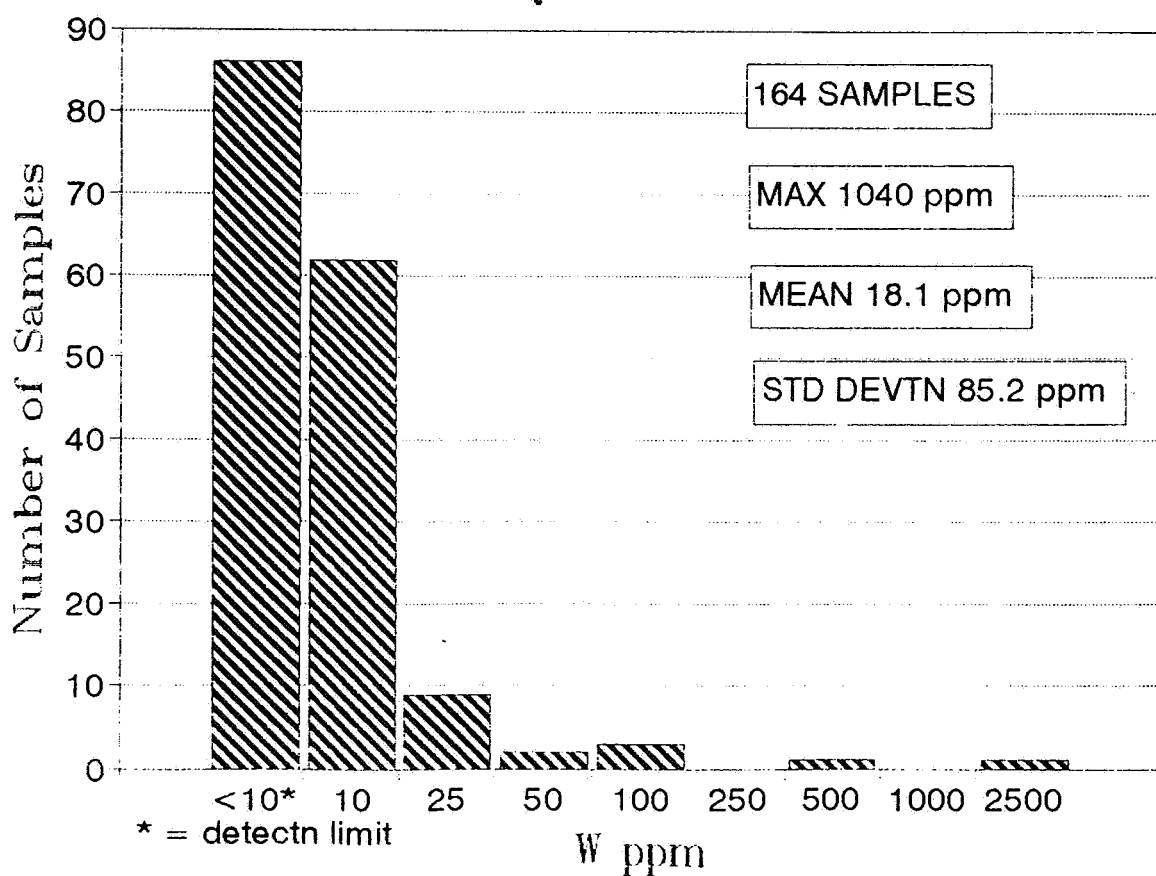
URANIUM – FREQUENCY DISTRIBUTION



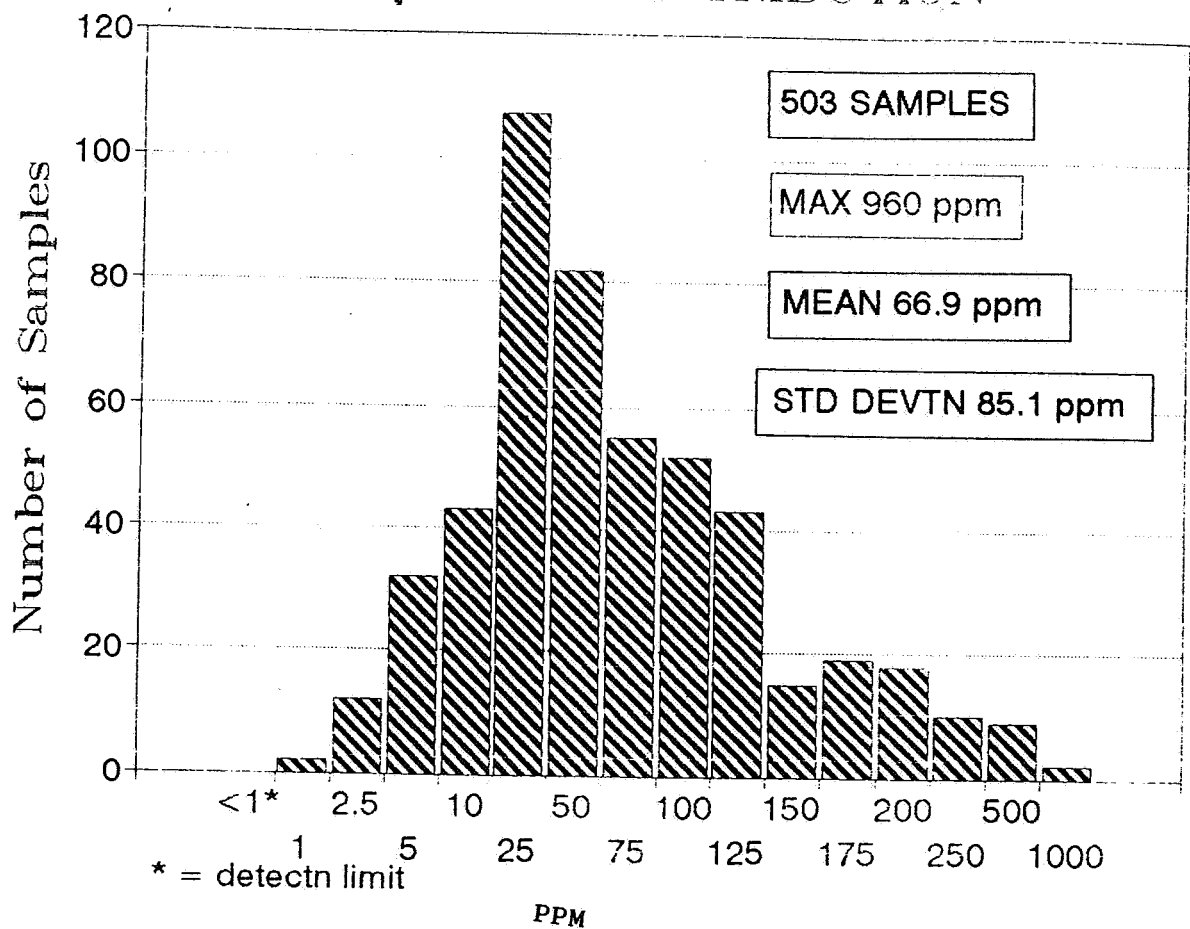
VANADIUM – FREQUENCY DISTRIBUTION



TUNGSTEN – FREQUENCY DISTRIBUTION



ZINC - FREQUENCY DISTRIBUTION



APPENDIX G
ANALYSIS OF CHECK SAMPLES

CHECK SAMPLES

Check samples were collected at the drill site, with the aim of duplicating every 20th sample, or every sample from each 20th drillhole, with additional samples at the discretion of the on-site geologist if the drilled sequence was considered to be unusual or significant. The check samples were collected from the same sample heaps as the original samples, being accurate duplicates as far as was possible, ie by collecting similar sized samples from matching portions of the sample heaps.

It is accepted that there may be variations between the original and check samples due to this collection method (which is not as accurate as collecting one sample which is then dried, pulverised, and split into two samples).

Hence the variation between the original and check samples is a function of both the accuracy of the two laboratories and the natural variation within the samples.

From a visual inspection of Table F1, which correlates the original AMDEL analytical results for the DME drilling programme at Kia Ora - Bendigo in 1992, with the results of 34 subsequent check analyses by Australian Laboratory Services (ALS), it is apparent that (with one exception, as discussed at the end) the elements compare as follows:

Element	Correlates:	Comments
Ag	well	Most are below detection limit
As	mod well	ALS values are 50% higher than AMDEL
Au	well	Most are below detection limit
Ba	well	
Cd	well	Most are below detection limit
Ce	well	
Co	well	
Cr	v poorly	ALS values higher than AMDEL, except samples RS 760/761
Cu	well	
Fe	poorly	ALS values generally lower than AMDEL
La	well	
Mn	v poorly	ALS approx 2/3 of AMDEL values
Mo	v well	
Nb	v well	
Ni	poorly	
P	poorly	ALS values much higher than AMDEL
Pb	poorly	ALS values lower than AMDEL
Pd	well	Many values below detection limit
Pt	well	All values below detection limit
Rb	well	
Sb	well	Most values below detection limit
Se	well	Most values below detection limit
Sn	well	Many values below detection limit
Sr	mod well	ALS slightly lower than AMDEL
Th	well	
U	well	
V	poorly	
W	well	Most samples below detection limit
Zn	poorly	ALS values are approx 2/3 of AMDEL values

Comparisons of 15 selected elements for each pair of samples are shown graphically (ie As, Ba, Ce, Co, Cr, Cu, Fe, Mn, Ni, P, Pb, Rb, Sr, V, and Zn); it was considered that the discrepancies in the other elements were insignificant, or that most values were below detection limit.

The elements for which the correlation is notably poor include some of the economically more significant minerals, viz Cr, Mn, Ni, Pb, V, and Zn; however in the case of Cr, Ni, Zn, these are mostly variations in low background levels.

Some of the discrepancies reflect consistent differences between the two laboratories, which in turn reflect differences in preparation and in efficiency of acid digestion prior to analysis:

- ALS results were typically higher than AMDEL results for As, Cr, P;
- ALS results were typically lower than AMDEL results for Fe, Mn, Pb, Sr, Zn;
- there did not seem to be a clear trend in the discrepancies for Ni and V.

The frequency distribution of values from the two laboratories is plotted for 10 selected elements (As, Ba, Cr, Cu, Fe, Mn, Ni, P, Pb, and Zn) in comparison to the frequency distribution for the complete suite of samples, 470 from AMDEL and 34 from ALS. This confirms that in comparison to AMDEL, the spread of results from ALS are slightly higher for As and P, markedly higher for Cr, and slightly lower for Fe, Mn, and Pb. However, the distributions show similar trends, and with the exception of Cr, the differences are not significant.

Several samples showed much greater discrepancies than others. The ALS results were compared to AMDEL results for two samples on either side of the original sample, to check for any possible mix-up of samples by either laboratory, or in the original sample collecting. With one exception, no better correlations could be constructed by this checking, and the differences between ALS and AMDEL do not appear to have been caused by mixing-up of samples.

The largest discrepancies was in two adjacent sample pairs from drillhole CRN 62:

84-88m depth:sample RS 772 to AMDEL

sample RS 775 to ALS,

88-96m depth:sample RS 773 to AMDEL

sample RS 776 to ALS.

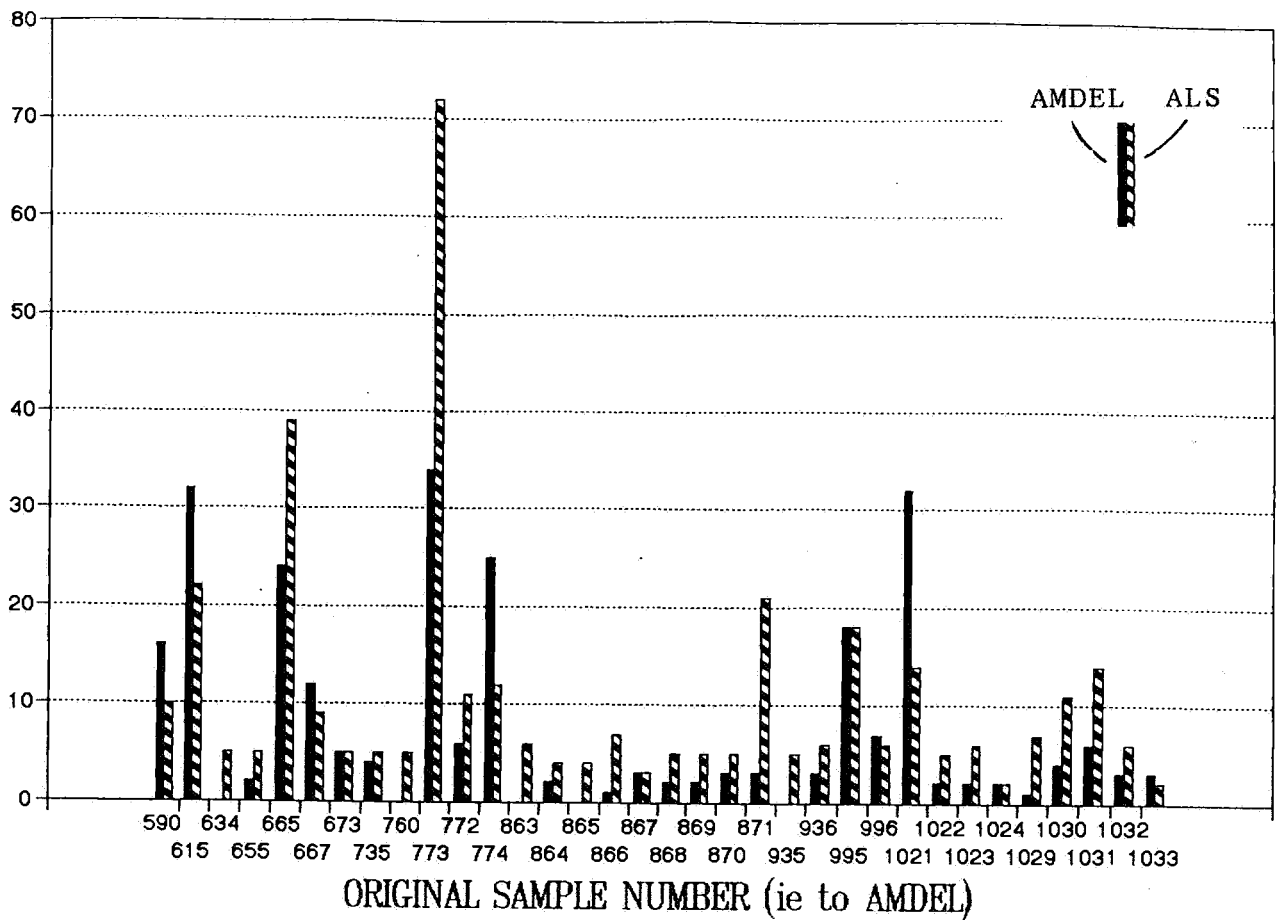
Both sample pairs showed strong discrepancies in As, Au, Co, Cu, Fe, Ni, and Zn (the largest discrepancies in the suite of check samples), and the discrepancies were of similar magnitude but reversed in direction between the sample pairs. These discrepancies became insignificant when it was assumed that one or other of the sample pairs had been reversed. As these are consecutive samples at both laboratories, and were collected consecutively at the same drill site, it can not be ascertained where the mistake occurred. In the data presented in this report, the results from the original sample pair have been reversed to correct the error.

In general the correlation between the original and check samples is acceptable, indicating acceptable accuracy by both laboratories. The variation between the original and check samples is of a similar order to the variation between adjacent samples down a hole (ie quite variable in some cases).

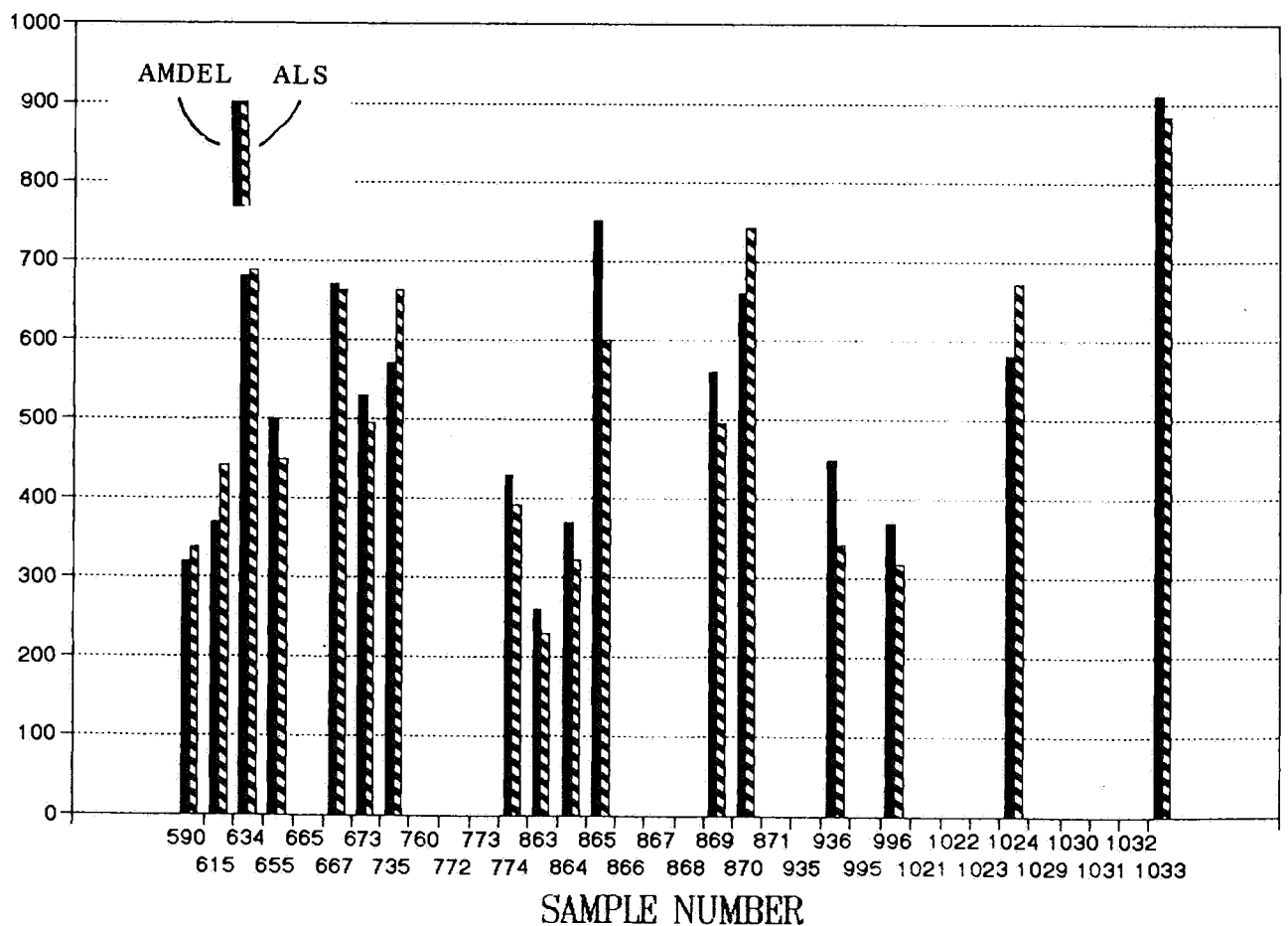
TABLE 1

HOLE NO	DEPTH	SAMPLE NO	Ag	As	Au	Ba	Cd	Ce	Co	Cr	Cu	Fe	La	Mn	Mo	Nb	Ni	P	Pb	Pd	Pt	Rb	Sb	Se	Sn	Sr	Th	U	V	W	Zn
# indicates check sample																															
CRN06	54-56m	6731RS 590	0.5	16	6	320	2	80	16	32	32	5.3	50	300	11	16	40	870	8	2	15	125	14	12	5	52	14	10	35	110	64
CRN06	54-56m #	6731RS 591	1	10	3	339	1	82	19	34	33	4.13	39	222	15	17	39	894	15	1	1	112	14	2	15	51	15	14	32	110	51
CRN16	66-68m	6731RS 615	0.5	32	2	370	1	80	28	4	48	9.2	50	950	11	16	38	520	13	1	15	110	14	12	14	42	16	14	10	10	4
CRN16	66-68m #	6731RS 618	1	22	2	442	1	94	26	49	78	6.98	44	665	15	15	39	662	15	1	1	107	14	3	15	39	16	4	33	110	15
CRN23	106-109m	6731RS 634	0.5	11	11	680	1	260	9	30	16	2.78	70	170	11	9	19	260	8	2	15	185	14	12	14	230	18	12	76	110	30
CRN23	106-109m #	6731RS 635	1	5	11	688	1	320	13	149	92	2.22	64	126	15	10	26	331	15	1	1	190	6	12	15	210	17	10	60	110	23
CRN29	50-52m	6731RS 655	0.5	2	11	500	1	70	10	22	30	2.52	50	520	11	13	22	490	13	1	15	145	14	12	14	40	14	14	24	110	9
CRN29	50-52m #	6731RS 656	1	5	11	450	1	80	14	86	44	2.22	38	404	15	12	27	635	15	1	1	135	10	12	5	34	14	14	29	110	9
CRN31	52-60m	6731RS 665	0.5	24	7				36	9	195	7.3		230	2		98		5											40	
CRN31	52-60m #	6731RS 668	1	39	4				26	27	222	5.61		165	15		75		15											39	
2 repeat value																															
CRN31	62-64m	6731RS 667	0.5	12	1	670	1	90	17	12	200	3.16	60	620	4	16	30	830	5	1	15	180	14	12	14	105	14	5	24	110	17
CRN31	62-64m #	6731RS 669	1	9	2	662	1	96	19	46	186	2.65	45	483	15	17	32	950	5	1	1	173	5	3	5	83	13	14	28	110	12
CRN32	66-68.5m	6731RS 673	0.5	5	1	530	1	60	16	28	34	4.4	30	950	1	14	42	830	13	1	15	130	14	12	5	80	8	14	40	110	92
CRN32	66-68.5m #	6731RS 674	1	5	1	494	1	77	17	45	28	3.19	36	613	15	14	40	882	5	1	1	122	14	2	5	72	19	5	55	110	68
CRN50	72-73m	6731RS 735	0.5	4	1	570	1	80	140	10	94	0.62	70	25	11	14	200	85	7	5	15	135	14	3	14	46	26	38	26	110	28
CRN50	72-73m #	6731RS 736	1	5	11	563	1	113	52	56	41	0.56	62	22	15	14	81	190	15	3	1	141	6	2	15	39	23	23	27	110	19
CRN57	14-16m	6731RS 760	0.5	11	8				175	1660	155	10.9		2200	1		1260		22											105	
CRN57	14-16m #	6731RS 761	1	5	4				145	962	128	8.35		1650	15		1000		15											79	
6 repeat value																															
CRN62	84-88m	6731RS 772	0.5	6	3				30	34	360	0.34		5	1		30		8											230	
CRN62	84-88m #	6731RS 775	1	72	1				534	39	170	2		21	15		396		15											943	
CRN62	88-96m	6731RS 773	0.5	34	11				380	26	160	1.48		15	1		270		7											960	
CRN62	88-96m #	6731RS 776	1	11	5				16	37	334	0.39		16	15		21		15											176	
CRN62	96-100m	6731RS 774	0.5	25	1	430	1	80	80	40	18	4.86	50	980	11	14	72	890	11	1	15	120	5	3	14	68	10	14	54	120	140
CRN62	96-100m #	6731RS 777	1	12	1	392	1	99	66	48	14	4.03	48	696	15	13	66	934	15	1	1	114	14	12	5	55	14	14	52	110	104
CRN80	80-86m	6731RS 863	0.5	11	1	260	1	250	24	30	24	8.35	280	800	11	17	25	350	5	1	15	135	14	12	14	88	20	8	54	120	24
CRN80	80-86m #	6731RS 872	1	6	1	230	1	260	31	68	22	7.33	226	612	15	15	36	489	15	1	1	150	14	3	17	66	16	7	47	10	18
	repeat analysis	872	1	5		250	1	250	27	66	23	7.99	220	644	15	15	30	437	15			149	14	2	13	67	17	5	44	12	18
CRN80	86-90m	6731RS 864	0.5	2	1	370	1	160	16	25	18	7.5	110	430	11	16	30	350	3	1	15	170	14	4	14	54	22	6	42	120	22
CRN80	86-90m #	6731RS 873	1	4	1	323	1	152	22	89	16	6.15	94	302	15	17	46	438	15	1	1	164	14	12	15	45	29	5	50	110	12
	repeat analysis	873	1	3		311	1	156	17	77	10	6.18	94	322	15	14	38	388	15			162	14	12	15	48	21	4	40	110	15
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CRN80	90-96m #	6731RS 874	1	4	1	599	1	149	30	100	14	7.52	96	390	15	16	56	631	15	2	1	113	10	12	15	43	18	14	59	110	26
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CRN80	96-98m #	6731RS 875	1	7	2				24	72	38	6.13		361	15		47		15											37	
CRN80	98-104m	6731RS 867	0.5	3	1				22	22	11	5.3		490	1		24		13											22	
CRN80	98-104m #	6731RS 876	1	3	1				18	41	28	4.95		354	15		24		15											22	

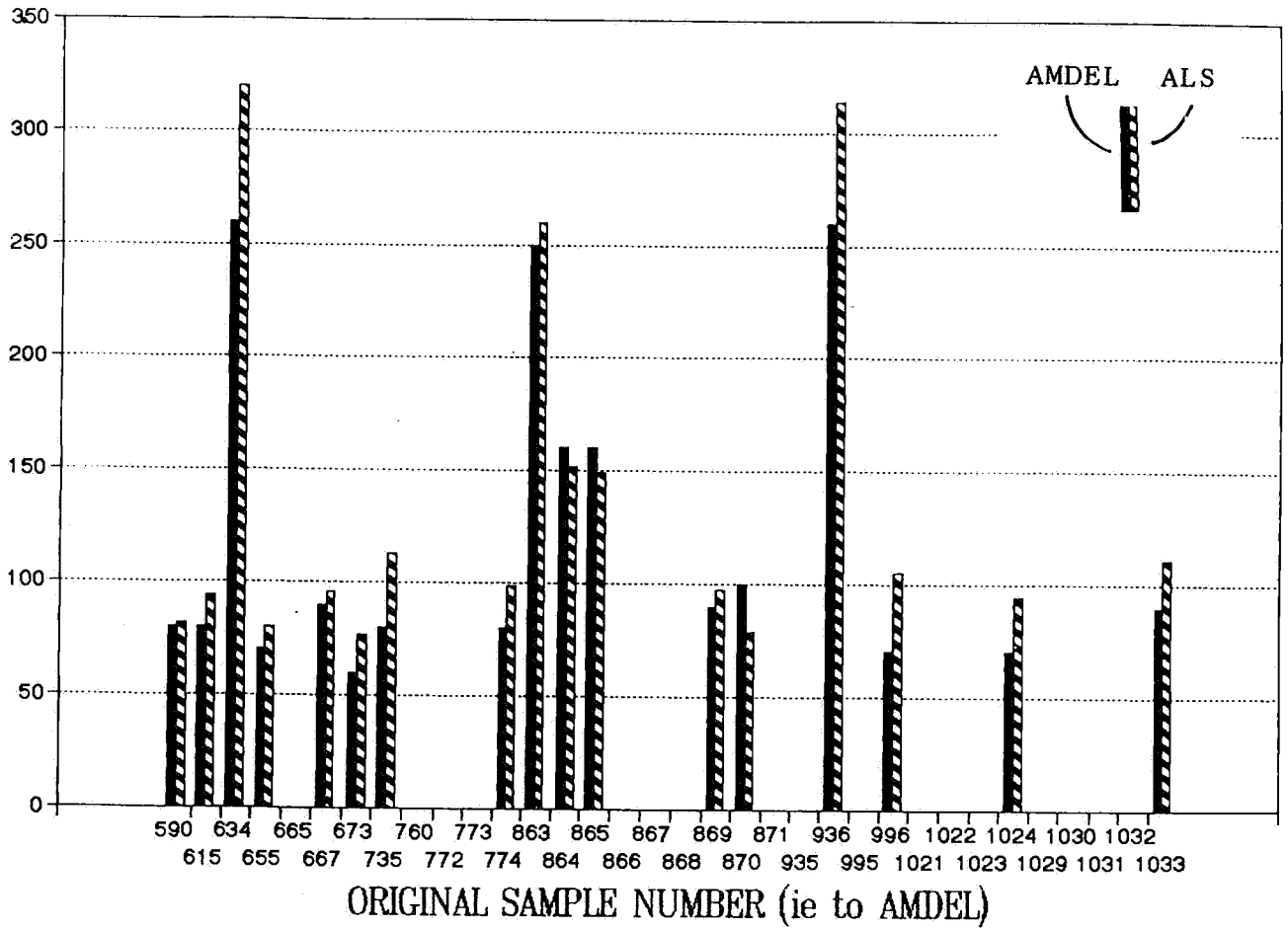
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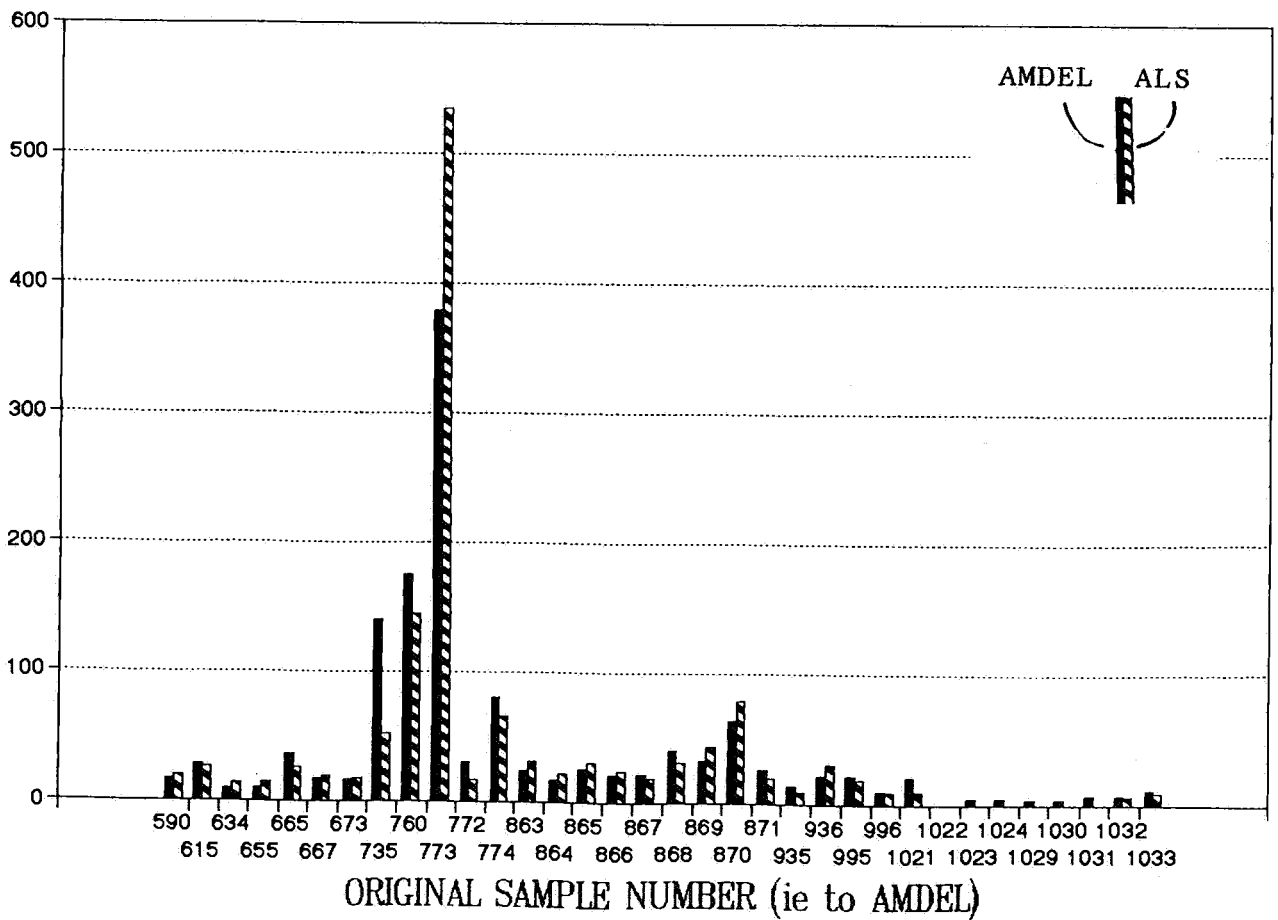
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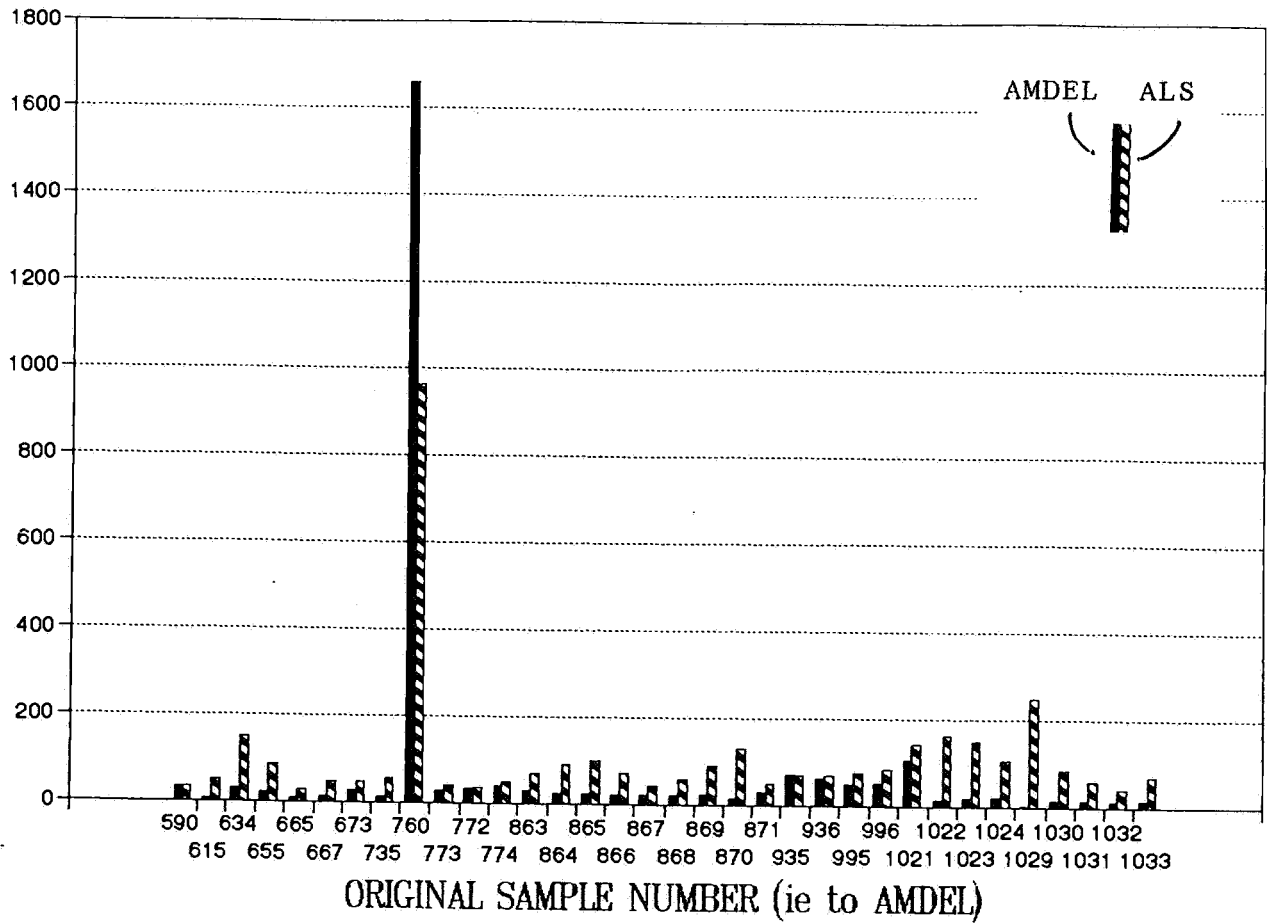
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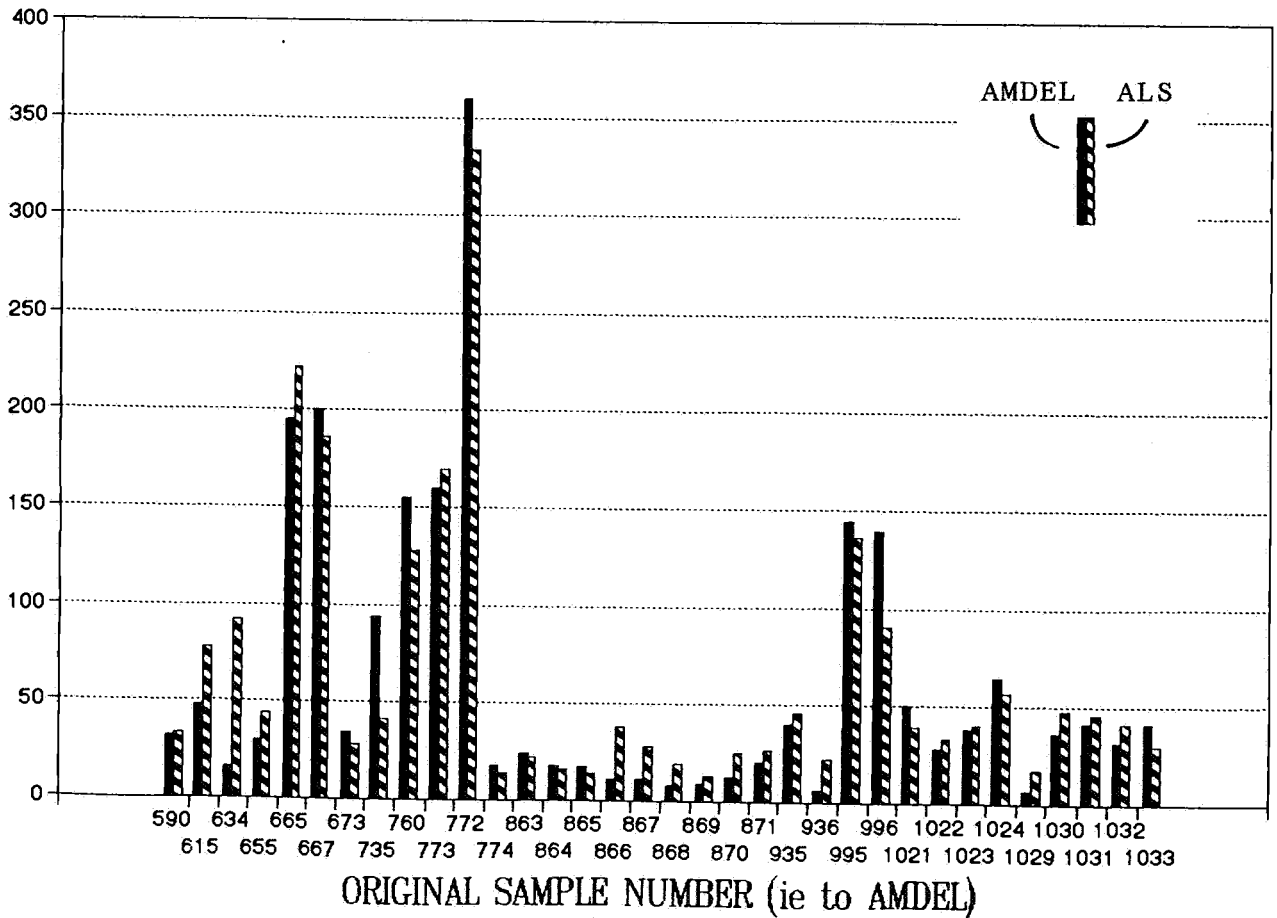
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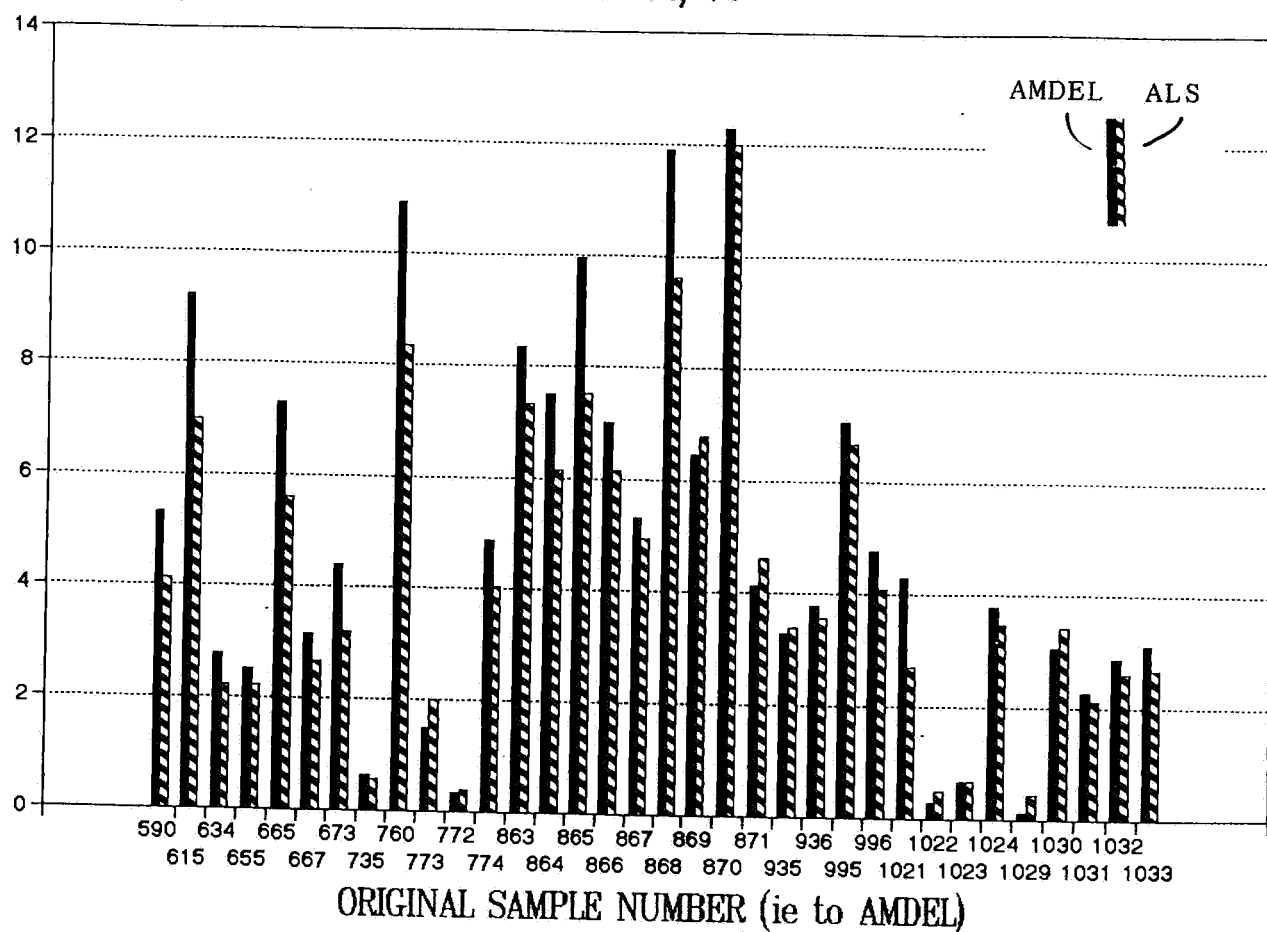
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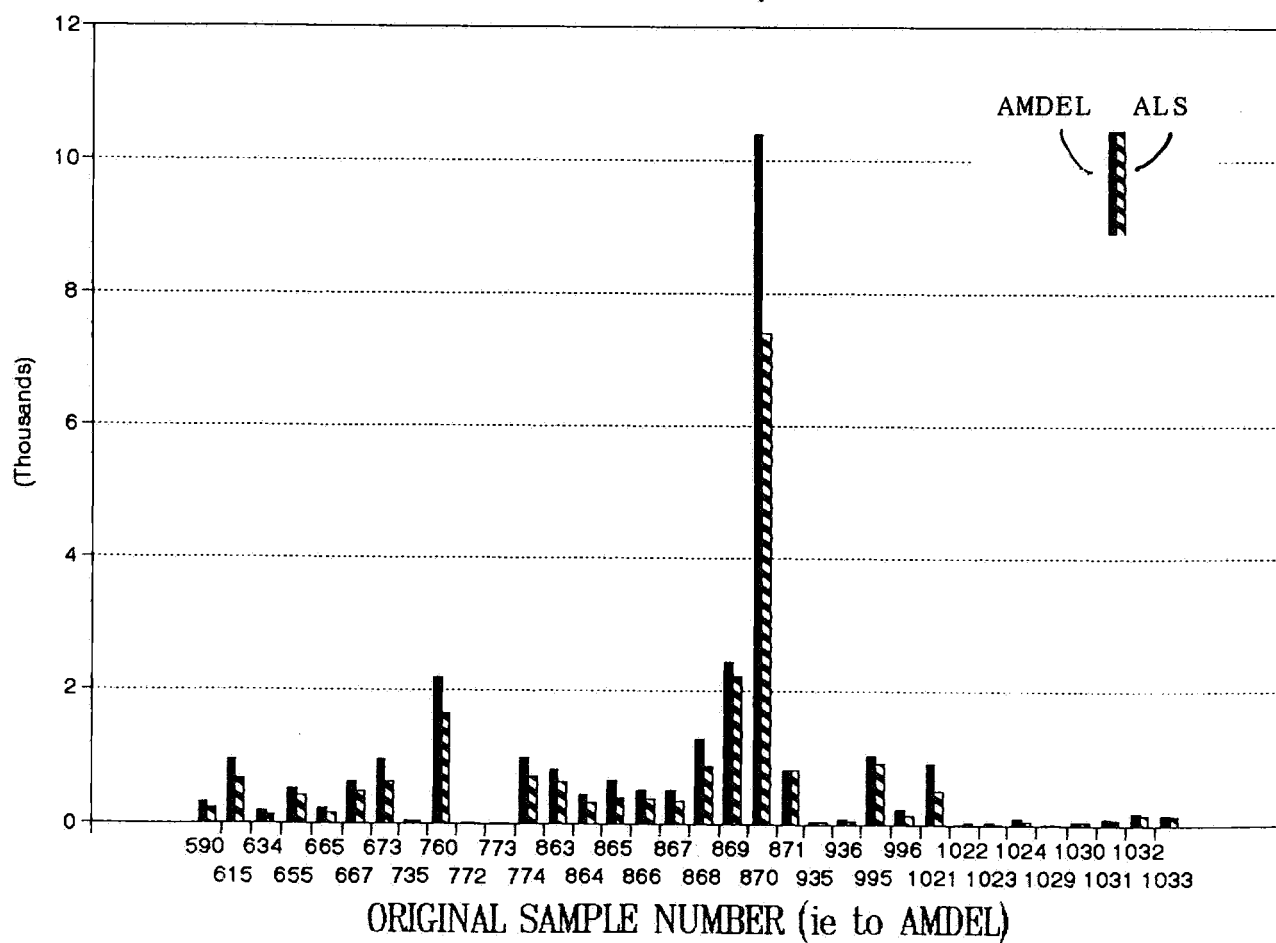
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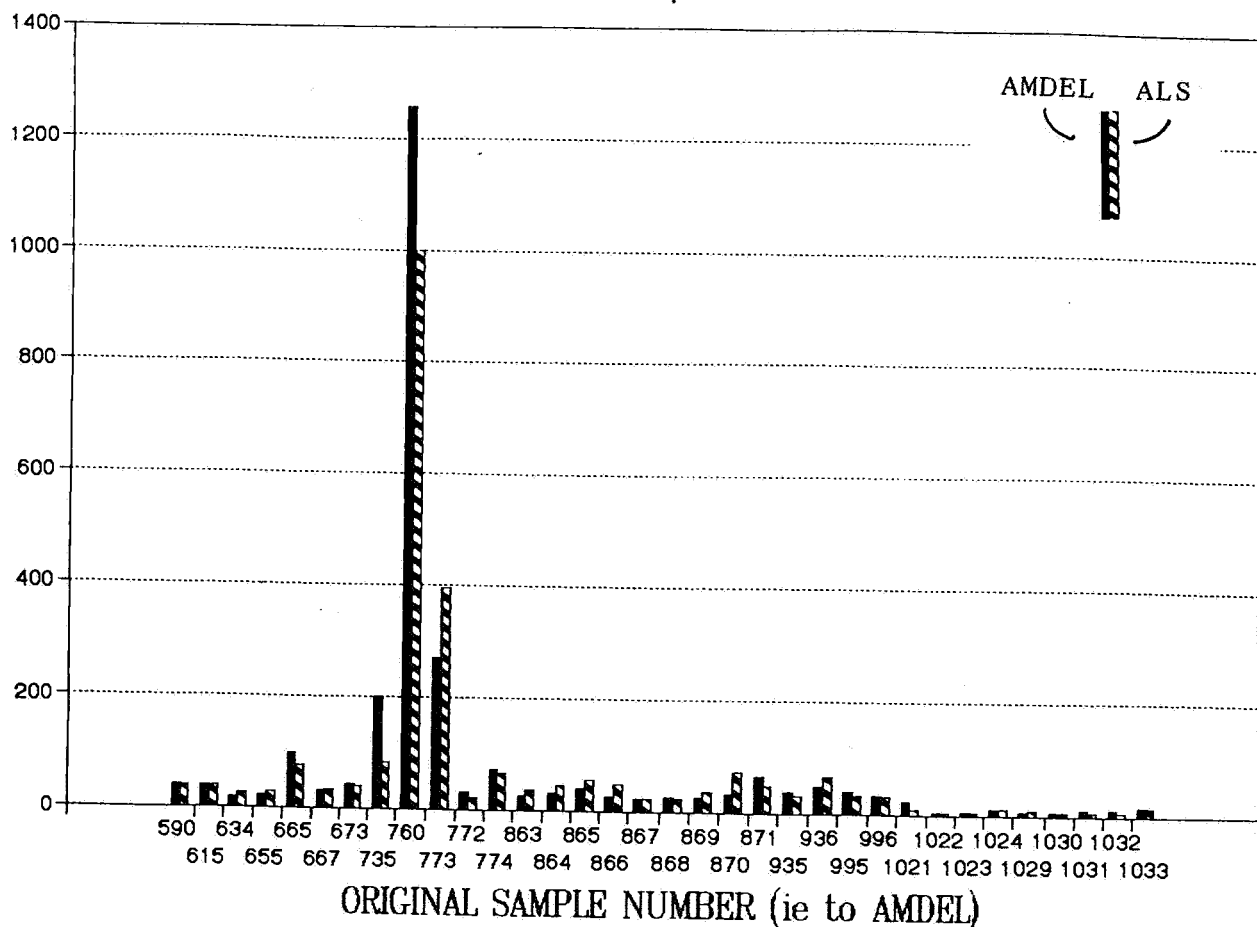
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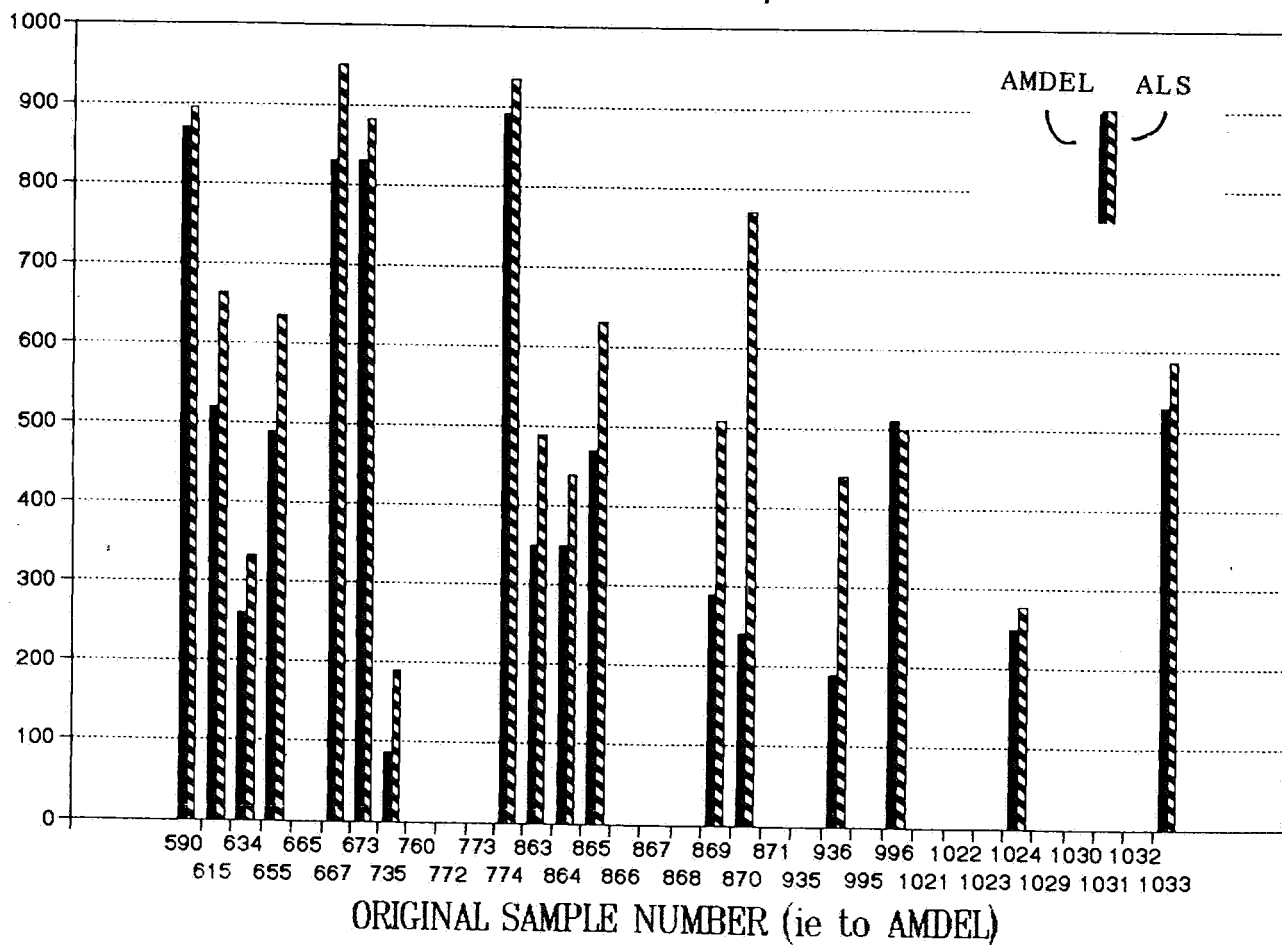
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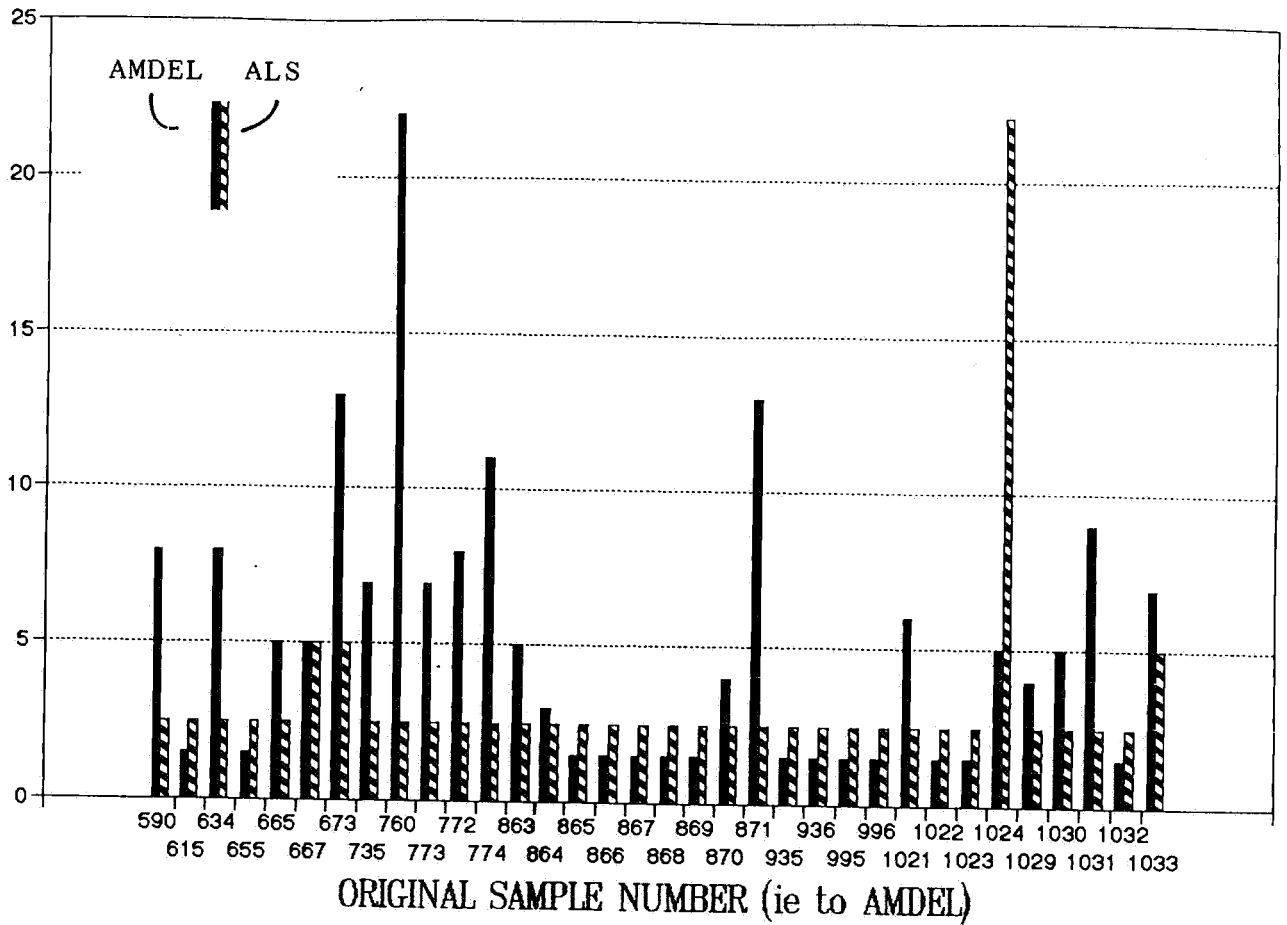
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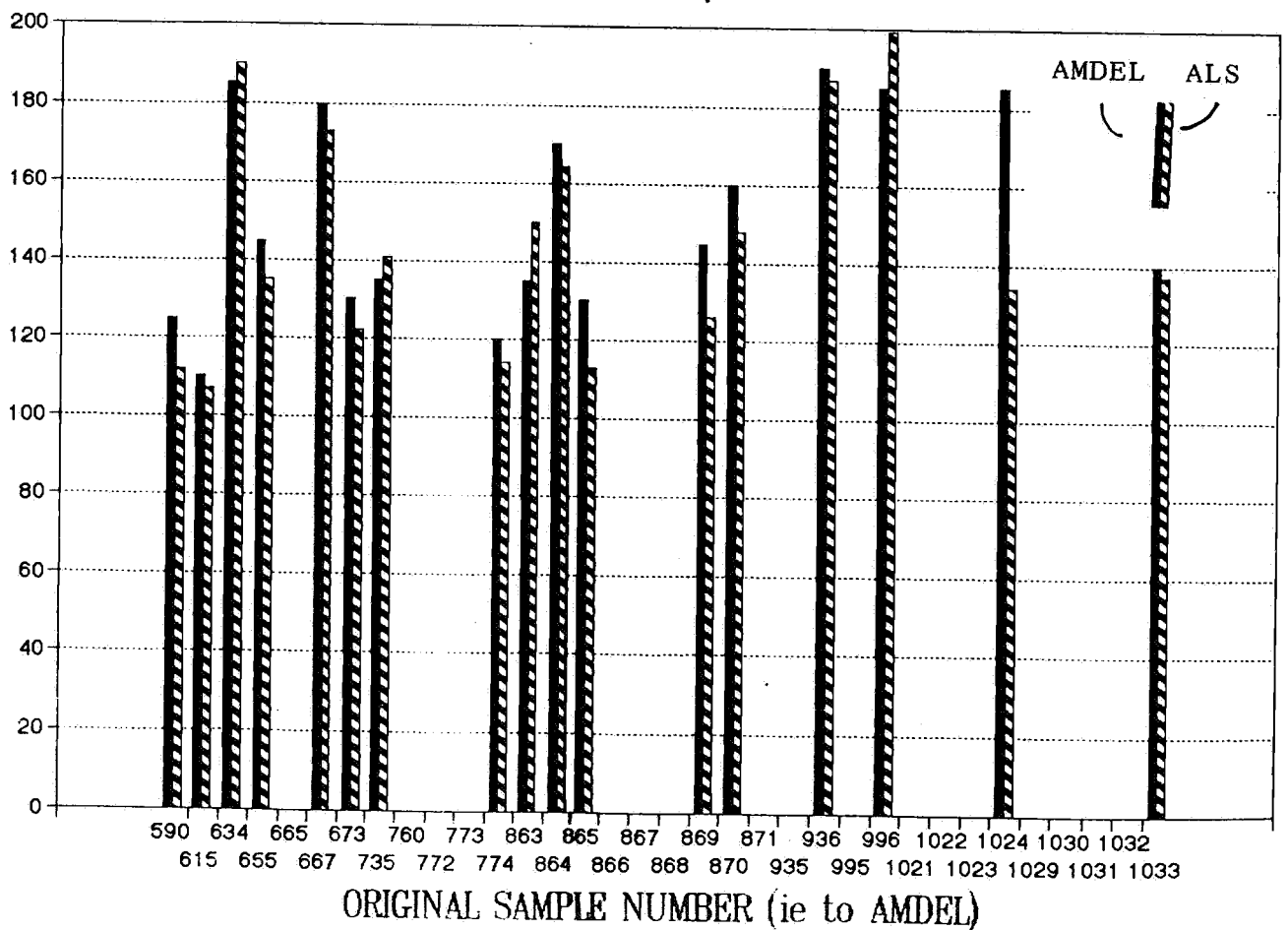
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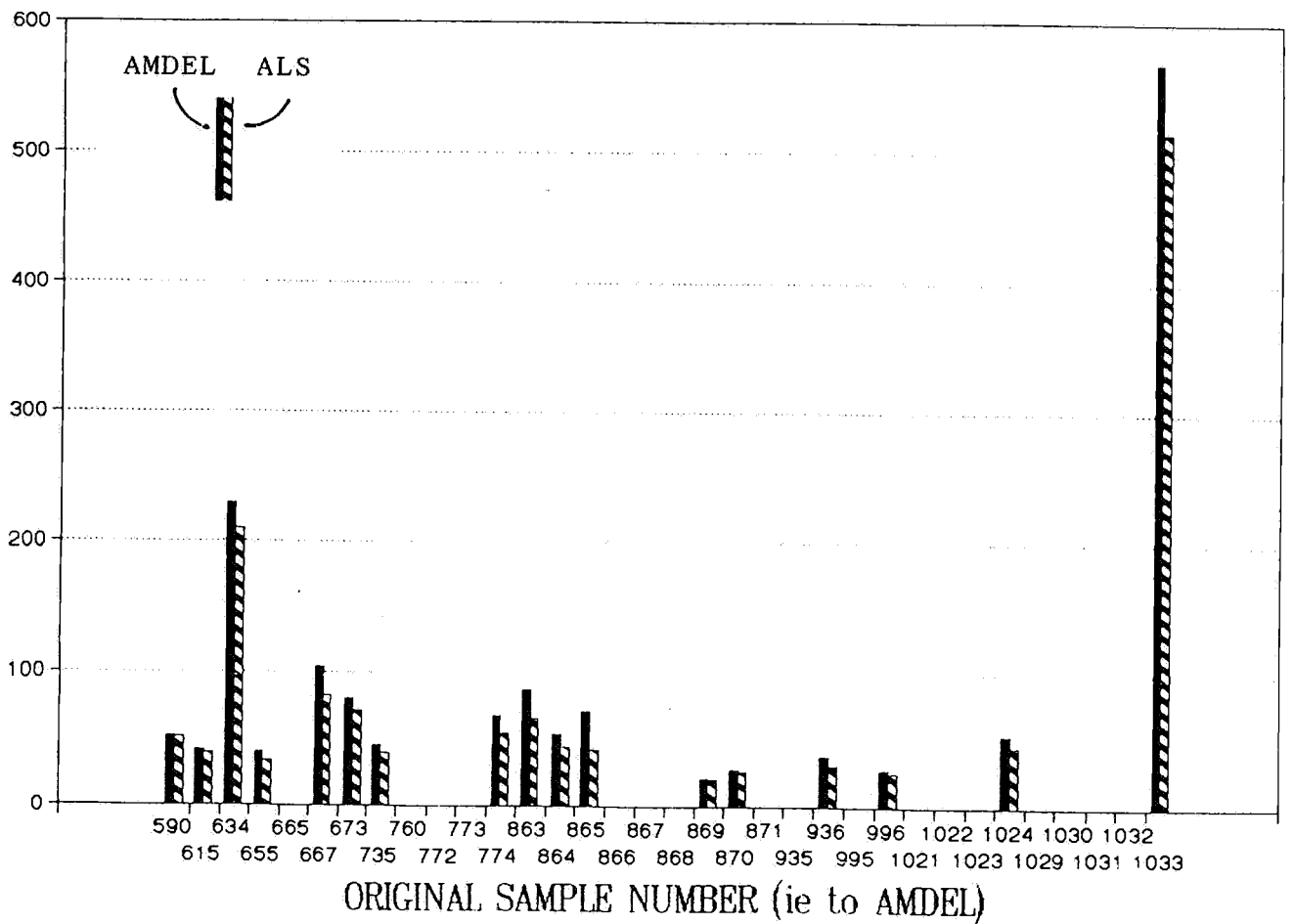
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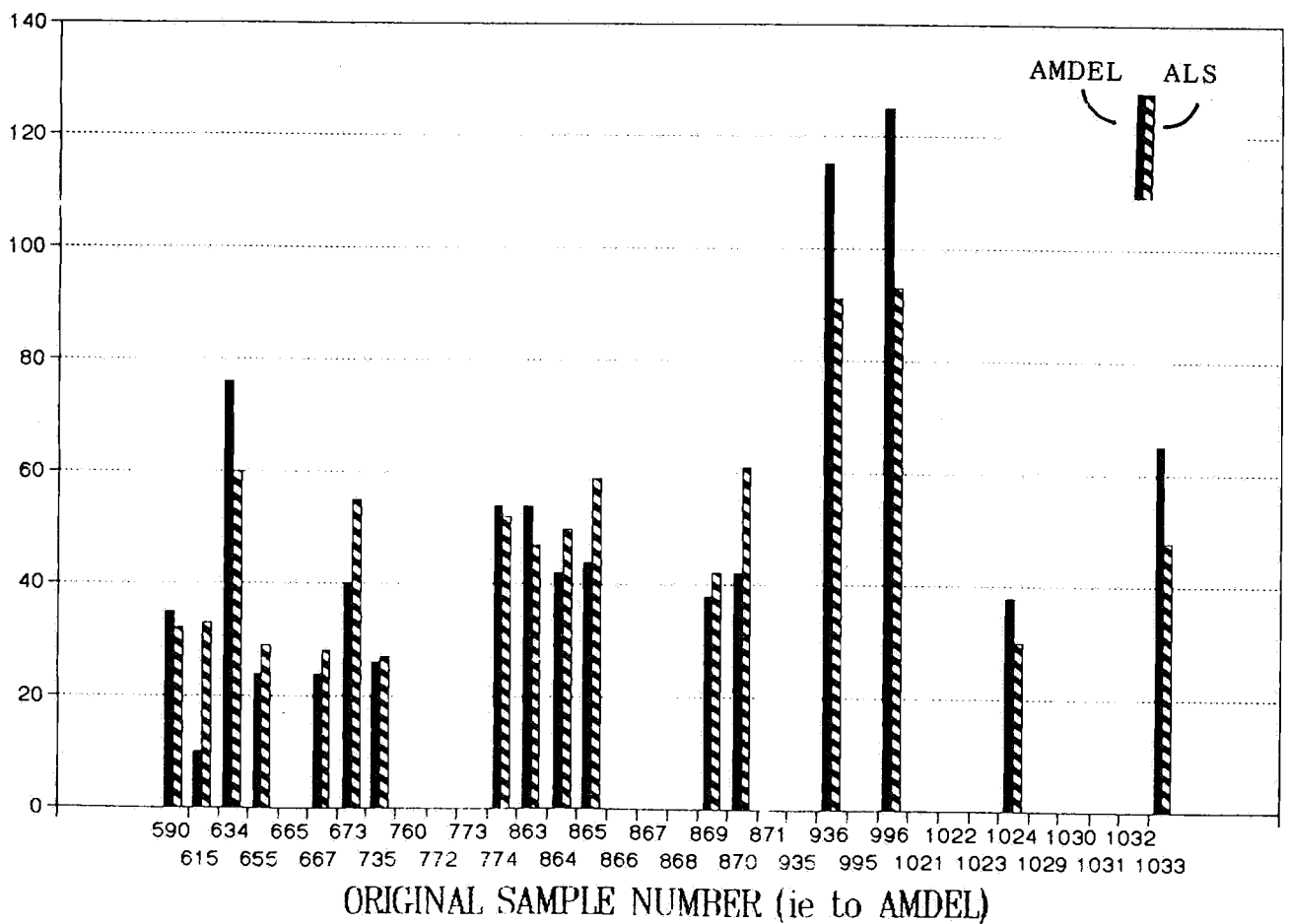
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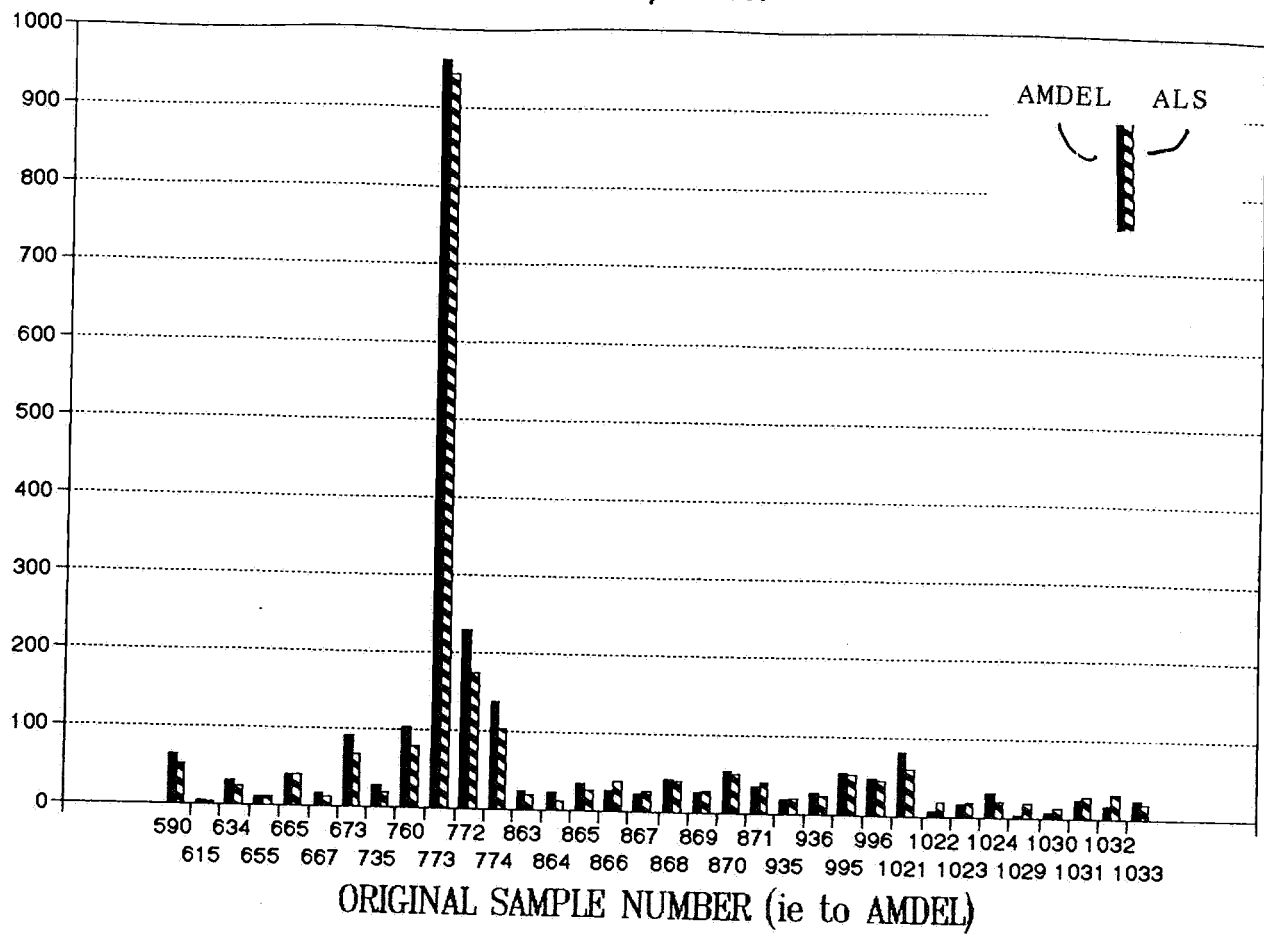
STRONTIUM, PPM

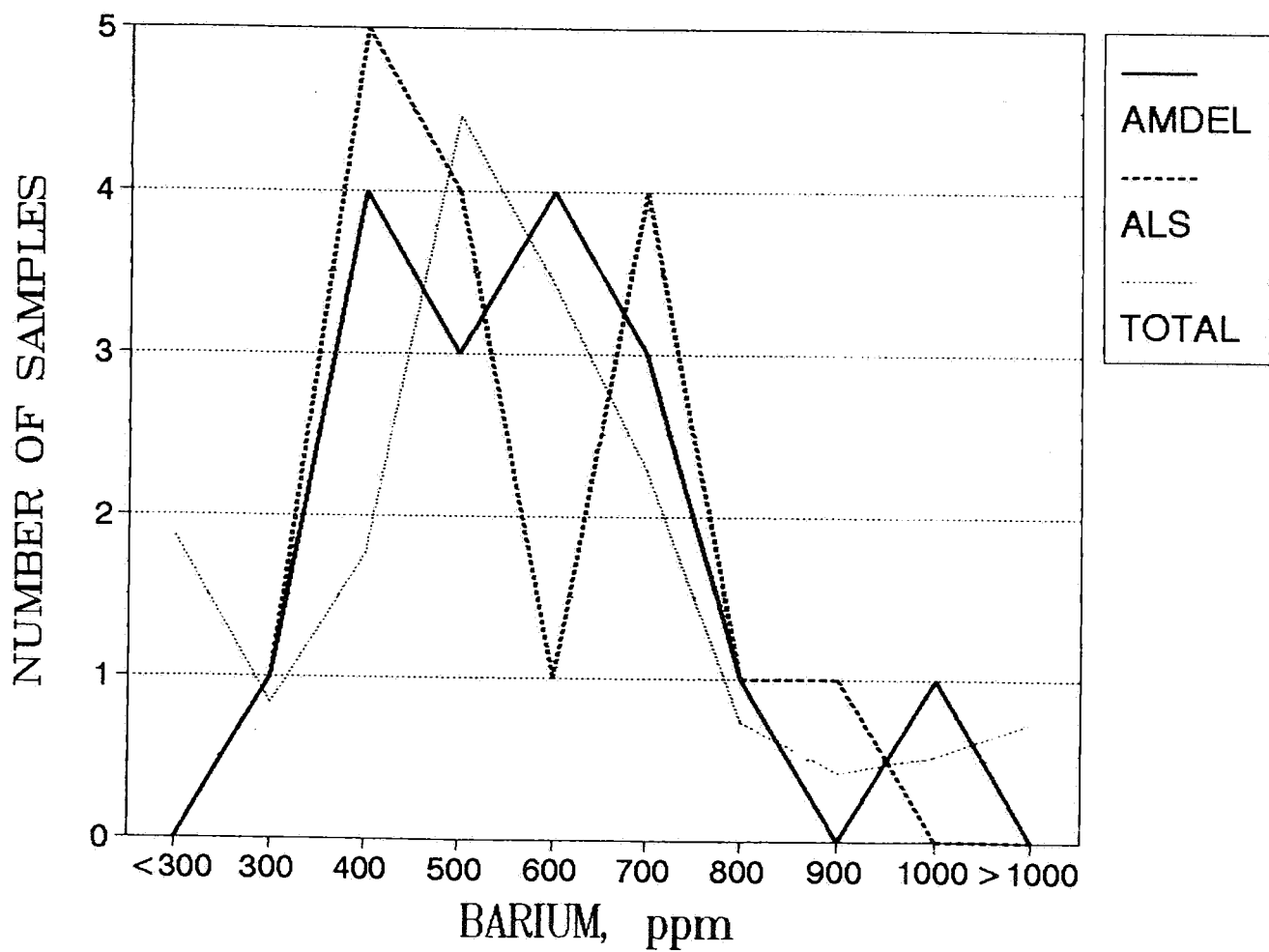
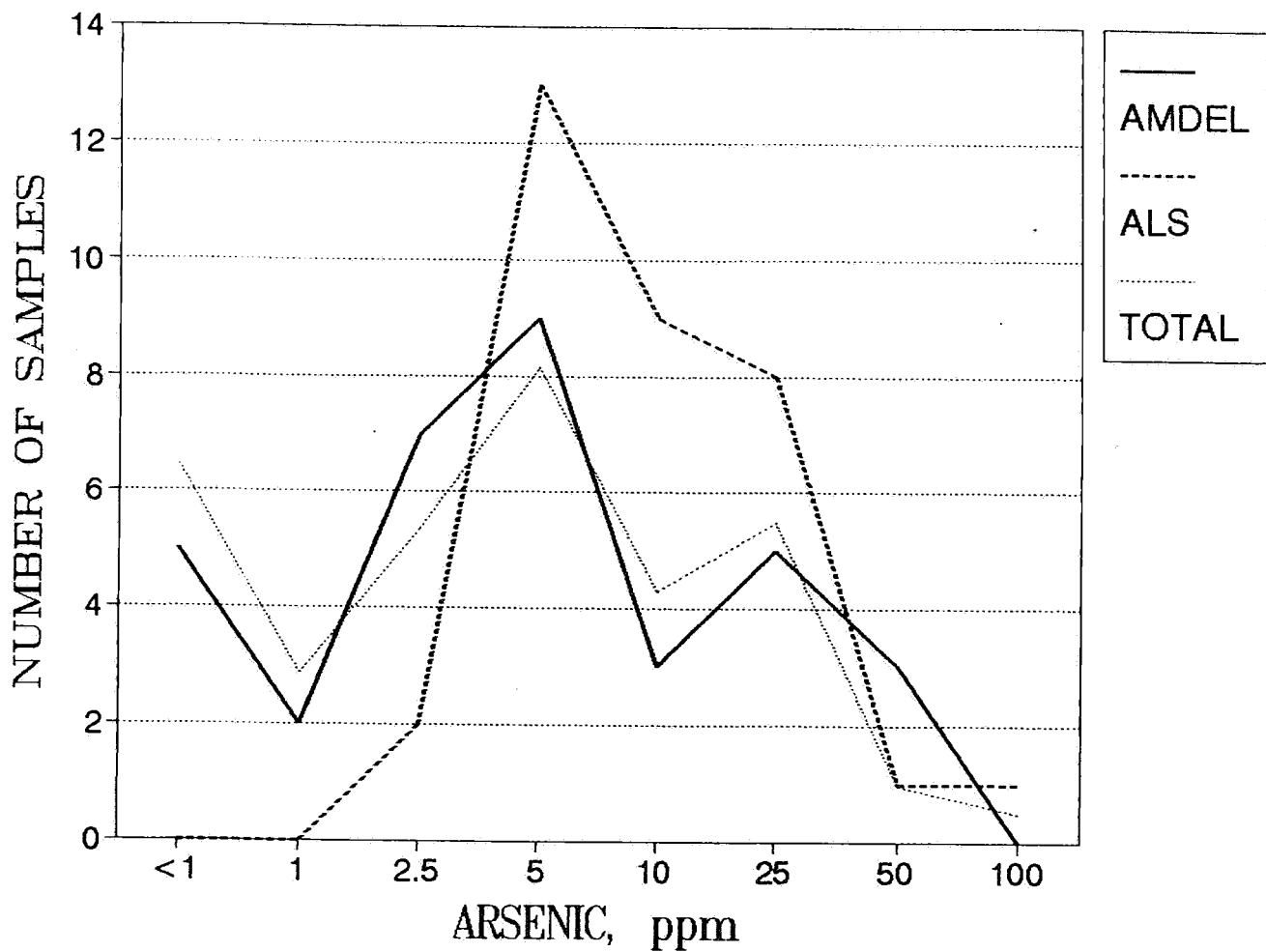


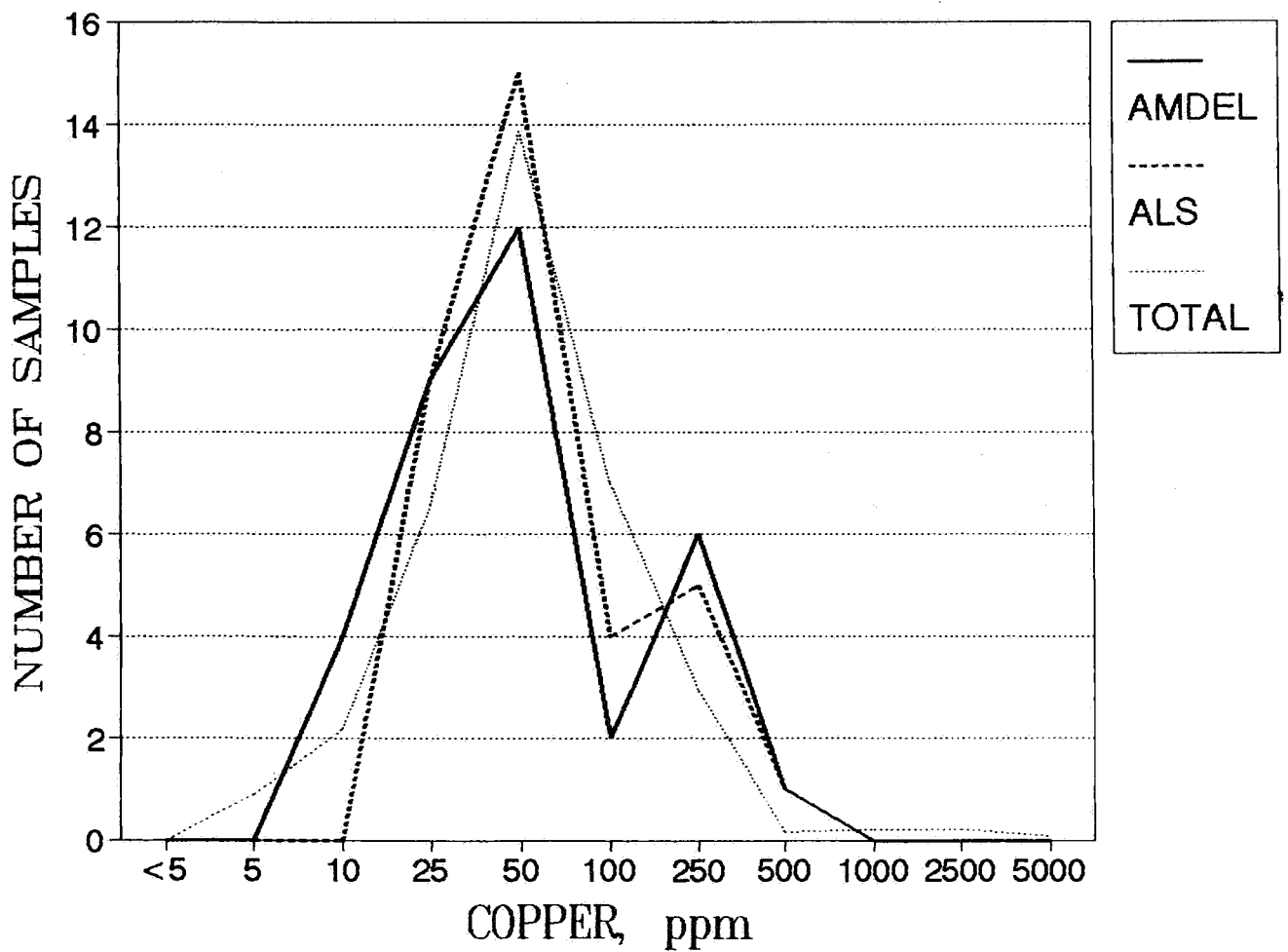
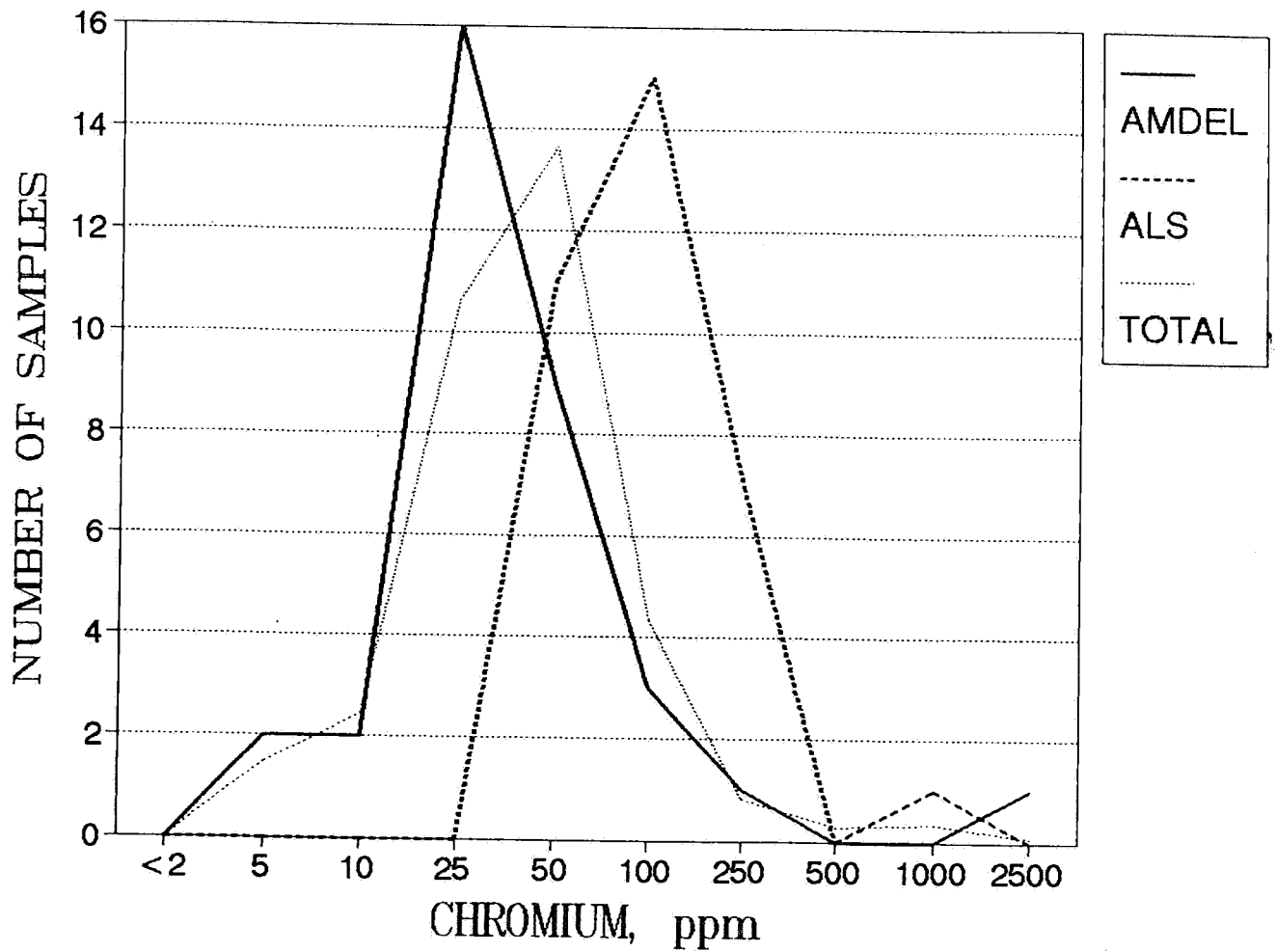
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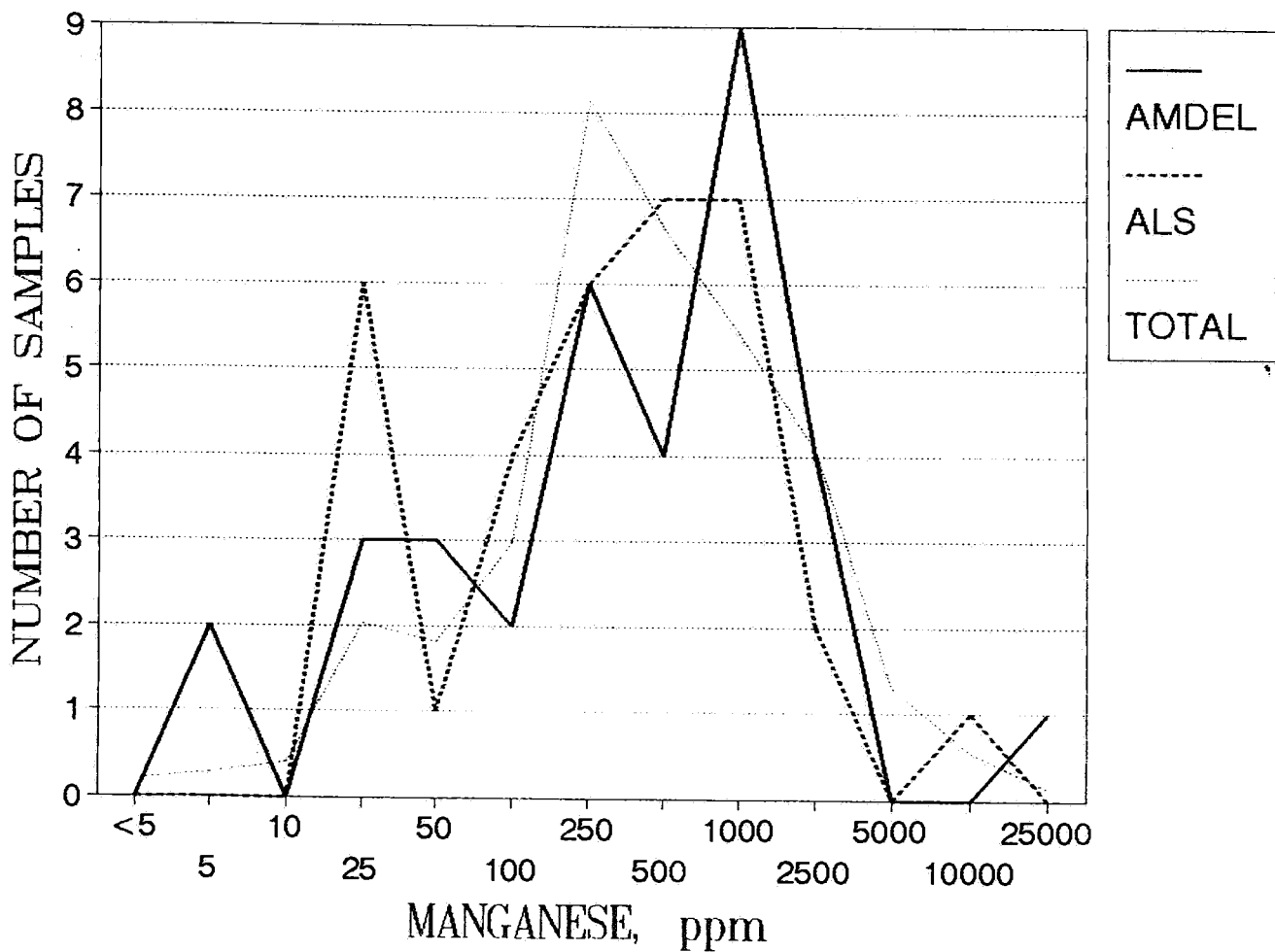
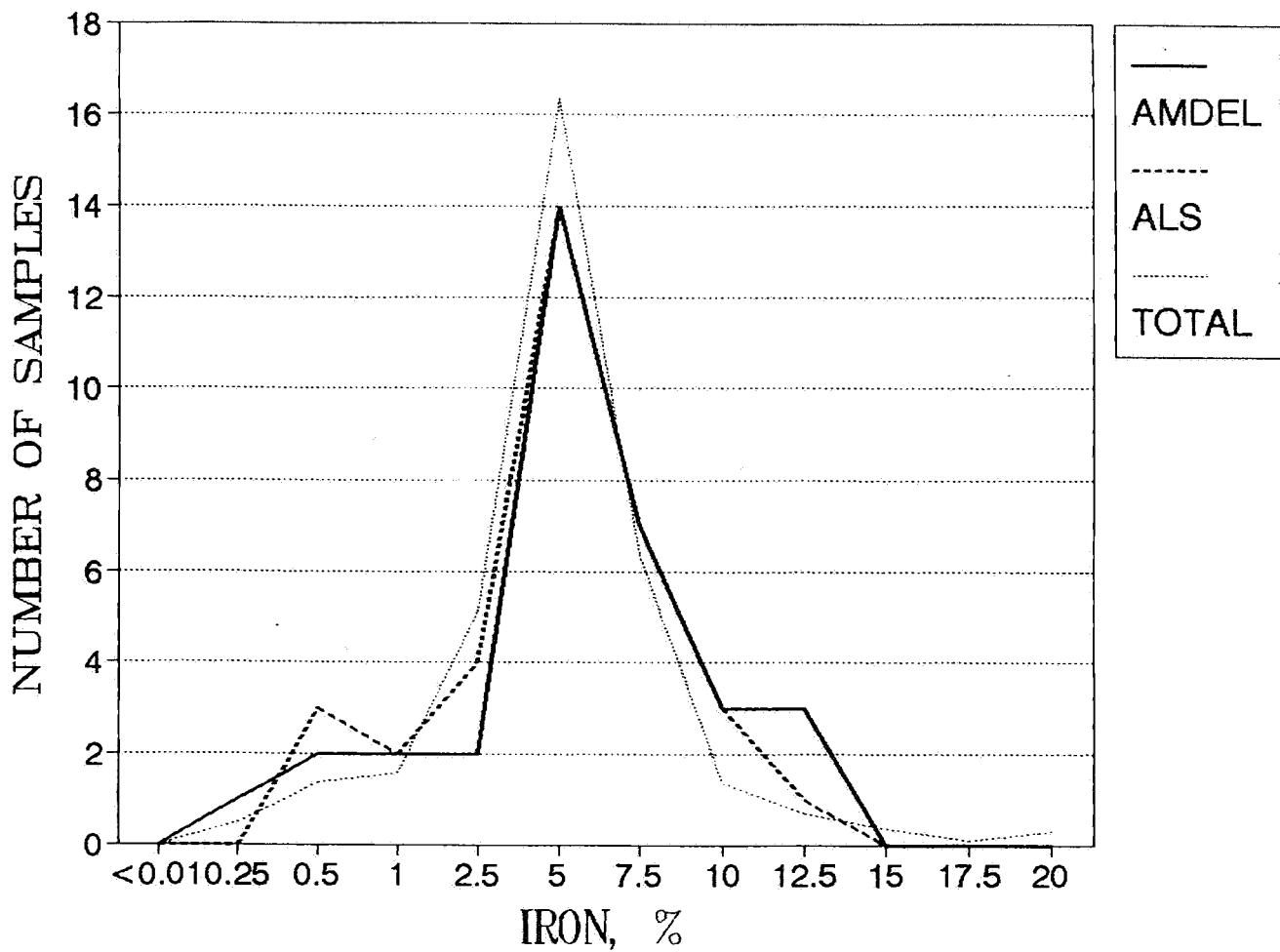


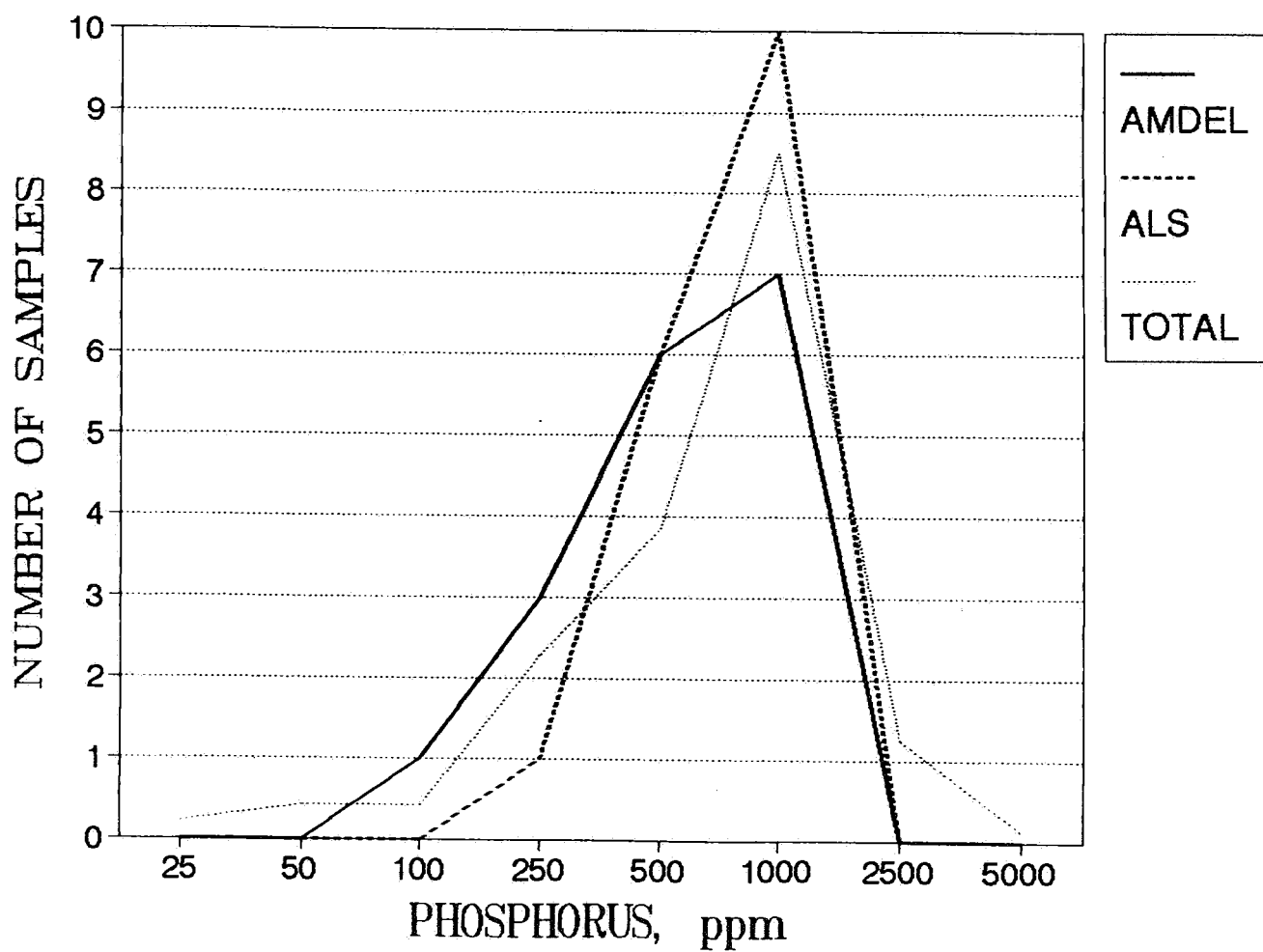
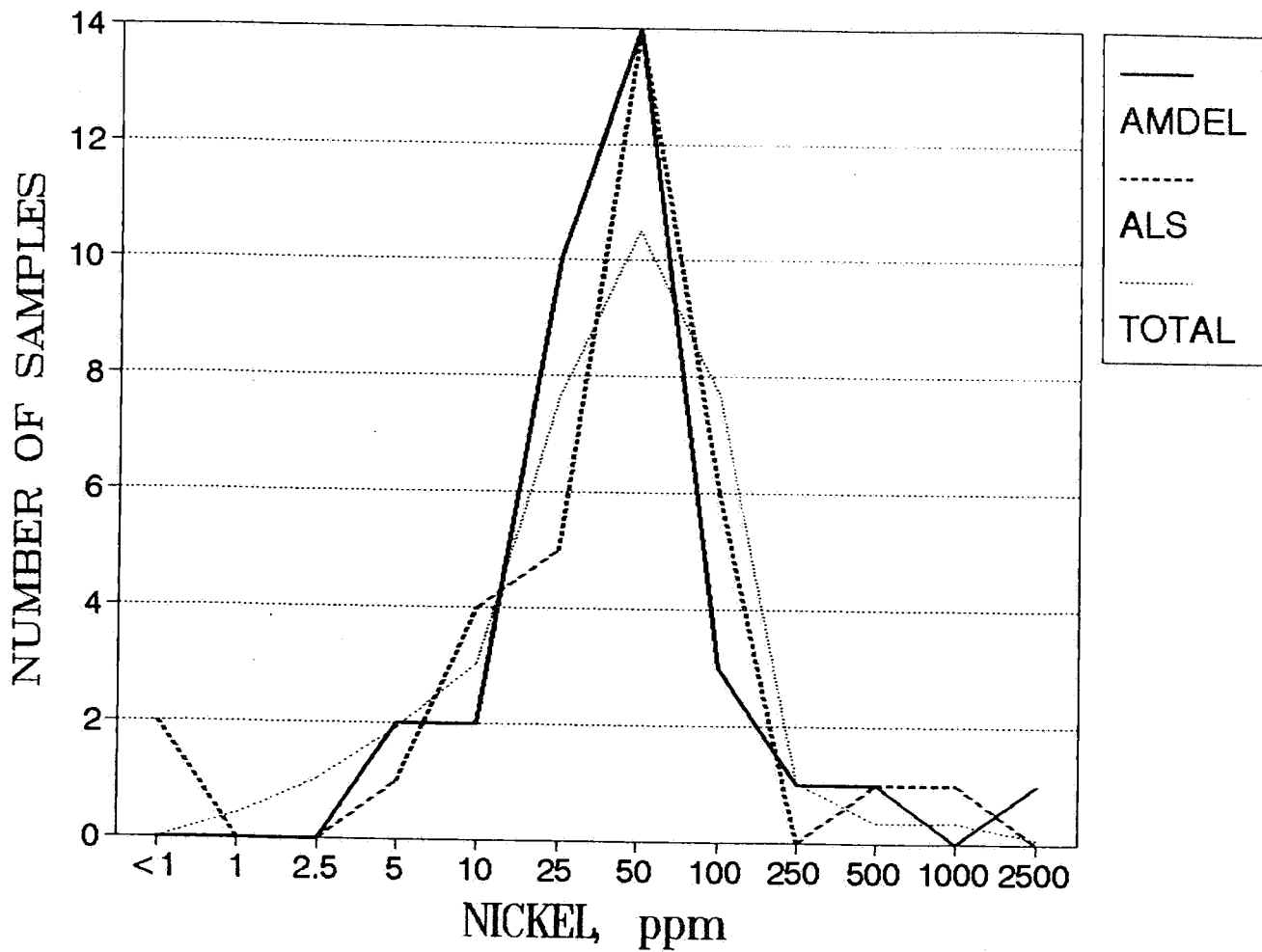
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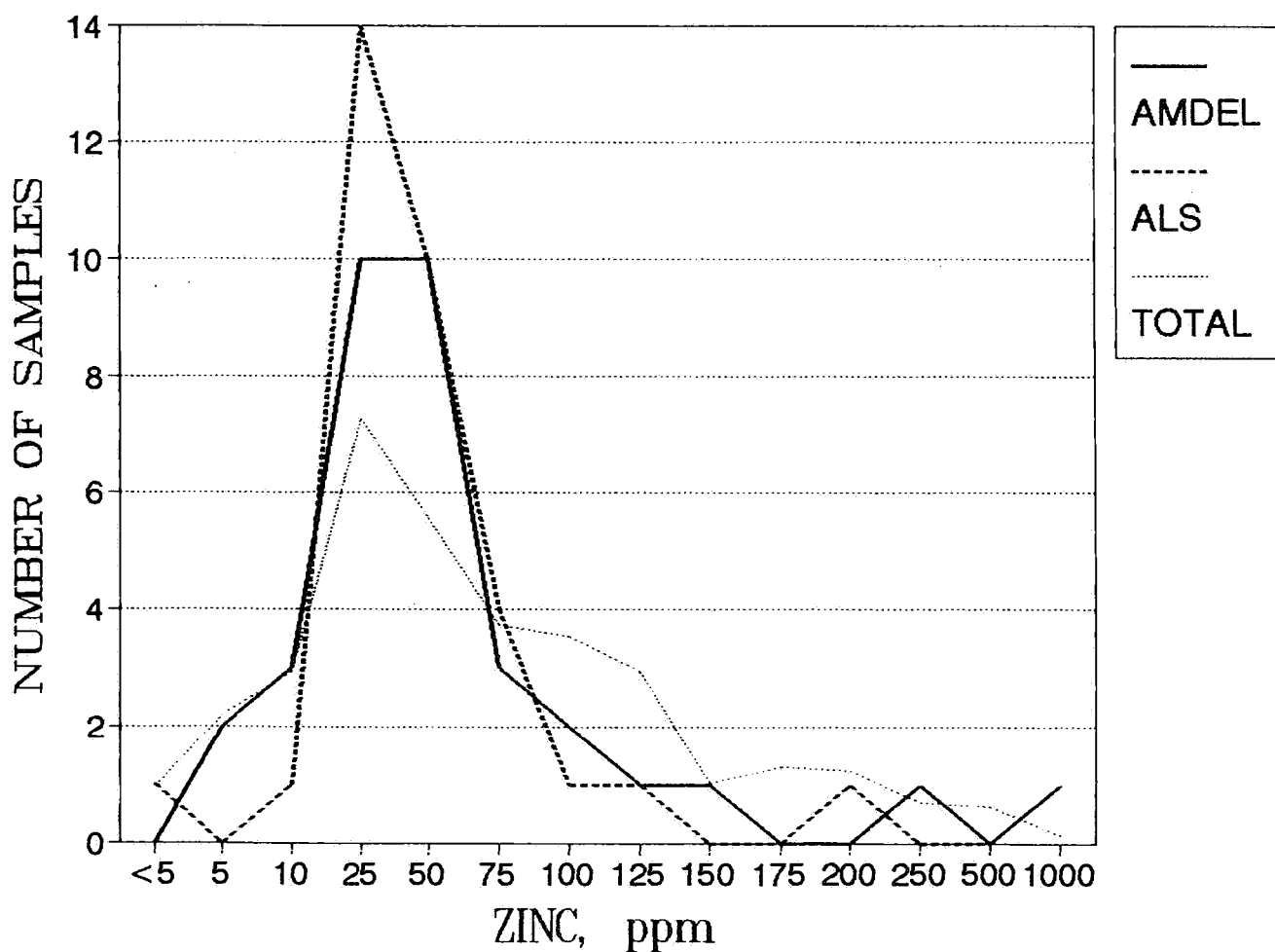
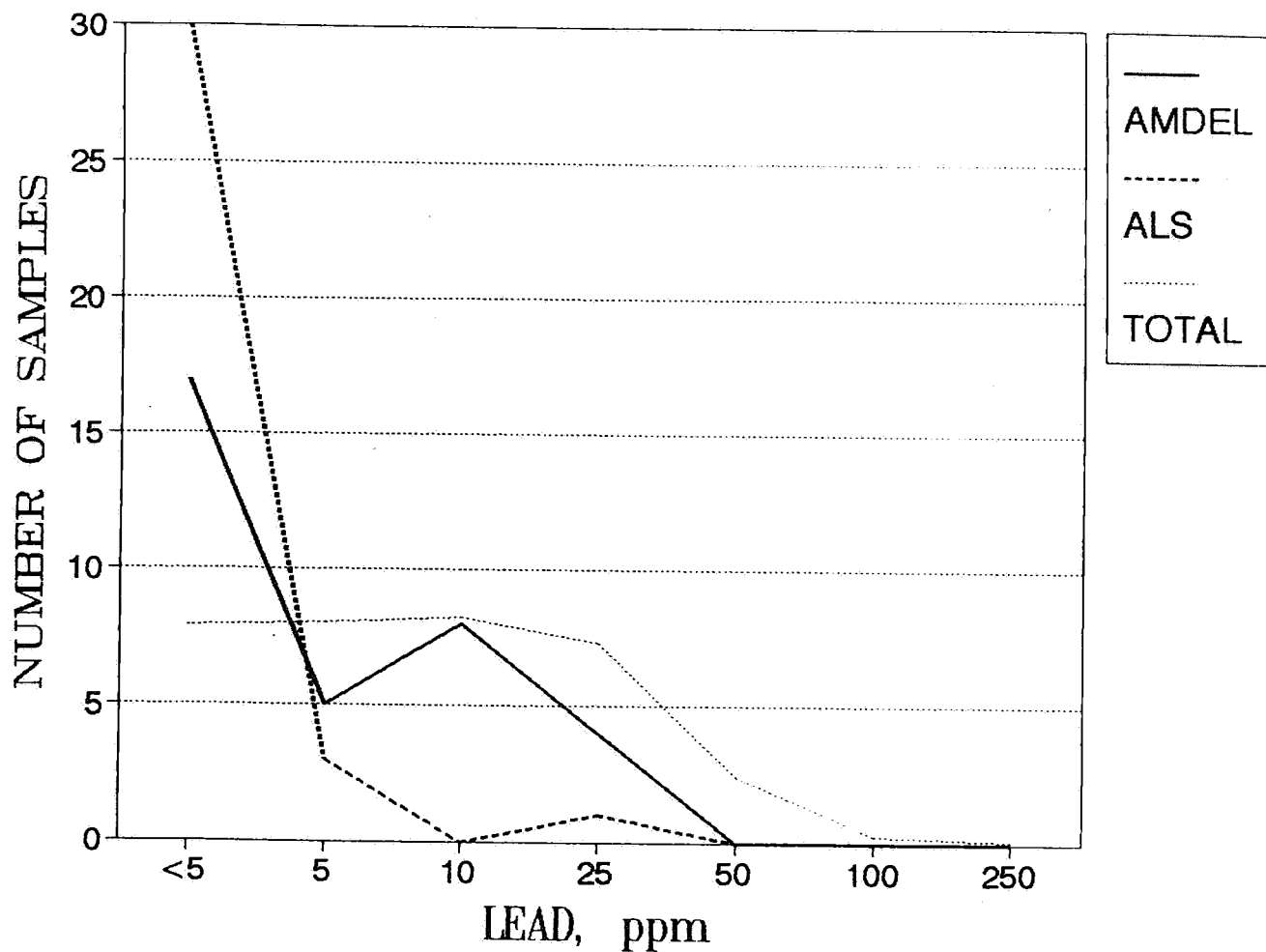












APPENDIX H

PETROLOGICAL DESCRIPTIONS OF 16 SAMPLES FROM DRILLING

**FROM: Mineralogical Reports No's 6245 and 6285
Pontifex and Associates Pty Ltd**

Pontifex & Associates Pty. Ltd.

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MINERALOGICAL REPORT NO. 6245

by A.C. Purvis, PhD

November 30th, 1992

TO:

Mr Peter Hill
S.A. Dept. Mines & Energy
191 Greenhill Rd
PARKSIDE SA 5063

YOUR REFERENCE:

EX1266
12/03/534
57G84 766/A06

MATERIAL:

4 Core Samples

IDENTIFICATION:

6731 RS 725, 730, 736, 757

WORK REQUESTED:

Polished thin section preparation and
description, with comments as specified.

SAMPLES & SECTIONS:

Returned to you with this report.



PONTIFEX & ASSOCIATES PTY LTD

SUMMARY COMMENTS

Four samples from 1:100,000 sheet Caroonna 6731 are described from polished thin sections in this report. Sample RS757 includes three separate chips first mounted in epoxy before section preparation.

Two of the samples (6731 RS 725, 730 from drill holes CRN 48-49) represent potassium-poor, I-type granitoids, including microtonalite (6731 RS 725) and fine grained hornblende-biotite granodiorite (6731 RS 730). The oxidised assemblage magnetite-sphene in 6731 RS 730 is also typical of Hiltaba suite granitoids, but in this case, the granitoids are probably post-Delamerian (i.e. Ordovician) in age.

Sample 6731 RS 736 is a fine grained greisen possibly derived from a granitoid such as 6731 RS 725. Sulphides in this rock are low temperature Fe-rich varieties, including possibly greigite (Fe_3S_4) (or unusually pink pyrite) and marcasite.

Sample 6731 RS 757 appears to have been a micaceous kimberlite with altered olivine as megacrysts and small grains, abundant phlogopite, minor carbonate, and possibly perovskite (CaTiO_3 to NaNbO_3 with rare earths etc.). Minor magnetite, ilmenite and rutile are also present. The accessories indicate very low silica activities. The carbonate is possibly of secondary origin, but could indicate a link with carbonatite magma, as could the reddish rims on the phlogopite. The groundmass phlogopite is similar to the rims on the phlogopite phenocrysts. SEM analyses of the phlogopite and ?perovskite may be useful in attempting to elucidate any kimberlite-carbonatite relationships.

6731 RS 725 : CRN48, 76-78m

Biotite microtonalite with oxidised magnetite.

plagioclase	55-60%
quartz	30%
biotite + chlorite	5%
microcline	5-7%
oxidised magnetite	2-3%
clays, epidote	< 1%

This is a fine grained granitoid with few grains over 1mm in maximum dimension. Plagioclase is the dominant mineral as zoned subhedral laths. The quartz is mostly granular with only weak suggestions of a bipyramidal habit in some grains. The microcline is also granular. Biotite flakes occur singly or in clusters to 2mm long, and are poorly oriented. The fine opaque grains are martite after magnetite, to 0.1mm grain size.

Some of the biotite has altered to chlorite + leucoxene \pm epidote. Minor epidote is scattered and there are rare clay patches. Some of the plagioclase has altered to sericite and clays.

6731 RS 730 : CRN 49, 54-56m Hornblende-biotite-granodiorite with altered
sphene and oxidised magnetite.

plagioclase	50-55%
quartz	25%
biotite	7%
hornblende	3%
orthoclase	7-10%
magnetite (oxidised)	3%
sphene (altered)	1-2%
apatite, zircon, epidote	traces

This is a coarser granitoid than 6731 RS 725 with grains 0.5 to 2.5mm in maximum dimensions, apart from poikilitic late magmatic orthoclase as grains over 5mm in diameter. Plagioclase is dominant as in 6731 RS 725m but there is less quartz and more ferromagnesian grains than in that rock.

The plagioclase is subhedral and zoned and only rarely altered to sericite and clays. Some grains have inclusions of hornblende and biotite, indicating a history of resorption and reprecipitation.

The hornblende and biotite are subhedral to euhedral. Some of the hornblende has inclusions of biotite. Crystals of sphene to 2mm long have been reduced to porous aggregates of probable anatase. Oxide grains are abundant and consist of hematite, variety martite, after magnetite. Accessory apatite occurs as locally elongate crystals and there is a trace of zircon.

6731 RS 736 : CRN50, 72-73m

Fine greisen with accessory possible greigite or low temperature pyrite.

muscovite	55%
quartz	45%
rutile	1%
sulphide	1-2%

Muscovite and quartz dominate this slightly heterogeneous fine greisen with most grains smaller than 0.2mm. Patches and grains of rutile are scattered. Areas of porosity to 3mm long are mostly lined by muscovite.

Patches of sulphide to 4mm diameter also enclose muscovite. They appear to be low temperature iron sulphides, with possible greigite (cubic Fe_3S_4), or low temperature pyrite, and very minor marcasite. The dominant sulphide is pinker than most pyrite, however.

6731 RS 757 : CRN55, 44-47.5m

Altered micaceous kimberlite with scattered fine ?perovskite, magnetite and ilmenite. Minor secondary rutile. Groundmass mostly very fine compact phlogopite, incorporating megacrysts and small phenocrysts of ex-olivine, largely altered to smectite. Scattered coarse crystals of phlogopite.

Three chips of this core samples to 20mm across are included in this composite polished thin section. Megacrysts, probably of olivine, to 10mm or more in maximum dimension, are scattered to form about 20% of each of these fragments, and have been altered to smectite (?saponite) \pm carbonate \pm limonite. Smaller 'rounded' olivine grains (10-12%) to 1.5mm are also scattered and largely altered to smectite. Flakes of phlogopite (7% of each chip) to 2mm size, have olive brown cores and reddish rims, and some appear to lack pleochroism, which may indicate transition between normal phlogopite and reverse-pleochroic tetraferriphlogopite $[\text{KMg}_3\text{Fe}^{3+}\text{Si}_3\text{O}_{10}(\text{OH})_2]$.

The groundmass to these scattered crystals is mostly extremely fine compact phlogopite, with irregularly disseminated carbonate.

Minor (7-10%) translucent high relief grains, with a low birefringence, are scattered and mostly about 0.1mm in size. These are probably perovskite but lack the typical grid-twinning of that mineral. They are rimmed by magnetite. Zoned grains from titanomagnetite to magnetite, and crystals of ilmenite, locally altered to rutile, are accessory, locally (and finer) were abundant.

A vein of carbonate, about 2mm wide, has altered deformed large phlogopite crystals and veinlets of smectite.

This rock is probably an altered micaceous kimberlite.

Pontifex & Associates Pty. Ltd.

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P.O. BOX 91, KENT TOWN
SOUTH AUSTRALIA 5071

MINERALOGICAL REPORT NO. 6285

by A.C. Purvis, PhD

January 28th, 1993

TO:

The Director
SA Dept. Mines & Energy
191 Greenhill Rd
PARKSIDE SA 5063

Attention : Peter Hill (Mineral Resources)

YOUR REFERENCE:

EX1283
12/03/544
579, 84, 766/A06

MATERIAL:

Drill Cuttings, core, rock samples

IDENTIFICATION:

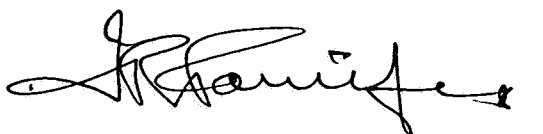
6731 RS 636 to 932
CRN60 to CRN81 (various depths)
[Not consecutive, 12 samples in all].

WORK REQUESTED:

Preparation of polished thin section and normal thin section; descriptions and report, with comments as specified.

SAMPLES & SECTIONS:

Returned to you with this report.



PONTIFEX & ASSOCIATES PTY LTD

SUMMARY COMMENTS

The twelve samples submitted from the Caroonna 1:100,000 sheet (No. 6731), were examined variably as polished thin section (3 samples), normal thin section (9 samples) and a large thin section (1 sample). Two sections were made from sample 6731 RS 929 to adequately represent all macroscopic characteristics, one from each of the rock fragments in the sample, including the single large thin section. Polished thin sections were made only of those samples with visible sulphide (6731 RS 636). The other samples were mostly sulphide-free, (except 6731 RS 887 with minor pyrite).

The petrography indicates a variety of rocks, including a single sample of vein quartz (6731 RS 36, labelled 'adit') with minor albite, limonite, tourmaline and rutile but no sulphide. The remaining rocks can be arranged in groups as follows :

- 1) Carbonaceous silty dolomites occur in CRN 31-32 (6731 RS 667, 673) with pyrite disseminated and in complex vein-sets with limonite. These have detrital carbonate > quartz with sericite, graphite and leucoxene and appear to be of relatively low metamorphic grade.
- 2) An albite-"mica"-altered chloritic rock from CRN60 (6731 RS 768) contains sphene, hematite and quartz and may be ultimately related to a dolerite suite. It has been oxidised as well as albitised.
- 3) Samples in CRN81 (6731 RS 886, 87, 88 and 90) may represent a carbonatite, diapric or evaporite suite with micaceous (6731 RS 86, 90) and dolomitic (6731 RS 87, 88) lithologies. The identity of micaceous minerals in these rocks may require confirmation by Xray diffraction and/or SEM analysis but probably nickel rich chlorite is present in the micaceous lithologies. [Similar clays occur in possibly evaporitic lithologies elsewhere in the Adelaidean sedimentary sequence].
- 4) Amphibole to hornblende hornfels facies metasediments are represented by schists in CRN88-89 (quartz-biotite-cordierite). One of the schists (6731 RS 912) has two separate compositional layers, both biotite-rich vs.. quartz rich. One is possibly bedding (So) and is folded about the other layering parallel to S₂. S₁ is at about 60° to So and 45° to S₂.

The hornfelses (group 5 below) have a single layering, but these could be So or S₂.

- 5) Fine layered hornfelses occur in the two rock fragments from CRN96, 0-2m (6731 RS 929). In one they are apparently intruded by mylonitic granite and have clinopyroxene--plagioclase and plagioclase-orthoclase layers with minor sphene. In the other clinopyroxene-orthoclase layers alternate with orthoclase-hornblende-clinopyroxene layers and pass into spotty clinopyroxene-scapolite-albite-epidote rock. This may represent an alteration possibly equivalent to the albitisation in the granite in CRN97 (see below).

These rocks were probably originally calcareous shales or siltstones, similar to those in CRN31-32, but without pyrite.

- 6) Mylonitic granites intrude the hornfelses in CRN96 (6731 RS 929) and occur in CRN97 (6731 RS 932). They have strong quartz fabric with the quartz c-axes at 0-20° to foliation and in CRN97 have strongly developed ribbon quartz. Either the hornfelses were too rigid to have been affected by the mylonitisation, or the granites are rafted blocks in a hornfelsed varied calcareous shale. However, veins of granite appear to intrude the hornfels, apparently eliminating the second possibility.

Zones of albitisation have affected the granite in CRN97.

A summary of sample location, lithology and relevant notes follows.

6731 RS	Location	Lithology	Notes
636	Adit	Vein quartz	Minor albite, limonite, tourmaline and rutile
667	CRN31 62-64m	Silty carbonaceous slate; detrital carbonate	Sericite-carbonate-quartz-graphite-pyrite-leucoxene
673	CRN32 38-48m	Bedded carbonaceous silty carbonate. Carbonate > quartz	Sericite-carbonate-quartz-graphite-leucoxene. Pyrite disseminated and in veins with limonite
768	CRN60 72-74m	Altered 'diorite' (?pegmatoidal and dolerite-related	Albite and mica with sphene, hematite, quartz and apatite as minor to accessory phases.
886	CRN81 80-88m	Phlogopite (or talc?) chlorite-limonite rock	Patches of alkali feldspar and apatite. Possibly related to carbonatite(?) evaporite or diapir
887	CRN81 94-96m	Quartz dolomite rock	Fine mica, pyrite, alkali feldspar and tourmaline
888	CRN81 98-100m	Carbonate-mica-alkali feldspar-tourmaline rock	Fine grained dolomite sample
890	CRN81 106-108	Carbonate-nickel-chlorite ?mica-albite-adularia-sphene-chlorite	Possibly carbonatite evaporite or diapir related with sphene possibly after perovskite
910	CRN88 2-3m	Pelitic schist	Quartz-biotite-?cordierite
912	CRN89 24-25m	Pelitic schist	Quartz-biotite-?cordierite; two distinct layerings, (possibly S_0 , S_2) and two S_0 foliations (S_1 , S_2)
929	CRN96 0-2(A)	Granite-calc silicate contact	Mylonitic granite and layered clinopyroxene-plagioclase-orthoclase-(hornblende-sphene) hornfels
	CRN96 0-2(B)	Granite-calc silicate contact	Mylonitic granite and layered clinopyroxene-plagioclase-orthoclase-(hornblende-sphene) hornfels
932	CRN97 48-50m	Granitic mylonites	Quartz ribbons in K-spar lenses rich in augen, zones of albitisation

INDIVIDUAL DESCRIPTIONS

CAROONA 1:1,000,000 SHEER AREA

6731 RS 636

Adit

Deformed vein quartz with albite, limonite, tourmaline and rutile.

Clouded elongate quartz grains from 1 to 6mm in length dominate this sample, and have subgrain texture and deformation lamellae. Planes of small secondary fluid inclusions are common. In some areas fractured crystals of rutile, 0.05 to 0.5mm long occur in the quartz. These crystals also occur in patches of clouded albite grains, to 10mm in size, with limonite and pale bronze to brownish dark green pleochroic tourmaline crystals 0.2 to 1mm long. Some tourmaline is also present in the quartz.

6731 RS 667

CRN31, 62-64m

Silty carbonaceous slate with minor pyrite; detrital carbonate > quartz.

Fine scale bedding laminations 0.2 to 0.6mm thick occur in this sample, and appear to be at least partly stylolitic, with concentrated graphite along the thinner laminations. Sericite and carbonaceous material are the main components, with minor (25%) carbonate and quartz (5-10%) as silt sized grains (about 0.05mm grain size). The sericite defines a slaty cleavage at about 45° to the overall trend of the bedding laminations. Some flakes and aggregates of fine graphite are present.

Scattered crystals of pyrite to 0.8mm in size constitute <1% of the rock, together with atoll-like pyrite bodies to 1mm diameter, elongate parallel to the cleavage.

6731 RS 673
CRN32, 38-48m

Bedded carbonaceous siltstone with detrital carbonate > quartz. Minor pyrite mostly in veins, with limonite.

Siltsized grains of carbonate (35%) and quartz (15%) are more abundant in this sample than in 6731 RS 667, but bedding laminations are broader (0.5 to 8mm in apparent thickness) and more diffuse. Layers richer in carbonaceous matter alternate with less carbonaceous, more sericitic layers. There is no clearly defined cleavage in this sample.

Disseminated fine pyrite is rare in this sample, but veins of pyrite are abundant in a zone 2-3mm in width and with individual veins mostly ≤ 0.2 mm wide. Limonite accompanies the pyrite and occurs locally as later veins cutting the pyrite.

6731 RS 768
CRN60, 72-74m

Altered albite 'diorite' possibly pegmatoidal and dolerite-related, with hematite and sphene.

albite	85%
?Muscovite \pm phlogopite	5-7%
Sphene + leucoxene	2-3%
Hematite	3-6%
Quartz	1-2%
Apatite	trace

Elongate laths of albite to 6mm long dominate this rock, together with patches of secondary coarse mica. Hematite occurs as granular to bladed aggregates with a cherry-red colour in the thinner translucent plates and fresh to leucoxenised granular to prismatic sphene is common. Quartz is very minor and there is accessory apatite. One of the smaller chips has been cut by a quartz vein with bladed hematite.

Most of the albite is after plagioclase, but some rims of checkerboard albite, after potassium feldspar, are present. The original rock may have been a pegmatoidal phase of a highly fractionated quartz-bearing dolerite body. It is not a typical granite.

6731 RS 886
CRN81, 80-88m

Phlogopite (or talc?) chlorite-limonite rock with alkali felspar and ?apatite. Possibly related to carbonatite.

The host rock in this sample consists of colourless fine possible phlogopite, pale green clays and chlorite, possibly with nickel and/or copper, and limonite after biotite. Partly porous veins cutting the rock contain coarse uniaxial but colourless probable phlogopite or talc (?) and there are patches of alkali felspar, mostly adularia, rarely transitional towards microcline. Very minor pale green chlorite occurs in the veins. A fine grained mineral which occurs between the adularia crystals may require identification by Xray diffraction, but could be apatite.

The original rock may have had carbonatite affinities but this is not clear.

6731 RS 887
CRN81, 94-96m

Quartz dolomite rock with muscovite, pyrite, alkali felspar and tourmaline.

Fine granular quartz and dolomite are subequal major components of this rock, as grains 20-50 μ m in size, with 2-3% disseminated fresh to oxidised pyrite. About 5% unoriented muscovite flakes and <1% tourmaline is scattered. The tourmaline is essentially colourless and probably magnesium rich.

Coarser quartz occurs in lenses and veins to 1mm in width and there are rare scattered poikilitic crystals of potassium felspar to 3mm long.

673 RS 888

Carbonate-mica-alkali feldspar-tourmaline rock.

CRN81, 98-100m

Carbonate dominates this sample as grains 0.05 to 0.2mm in size. Mica occurs as unoriented fine flakes and schistose lenses, paralleled by partly porous lenses of coarser carbonate about 0.5mm grain size. Colourless tourmaline is scattered and there are rare poikilitic crystals of alkali feldspar to 3mm long.

Grains adhering to the sample include carbonate, quartz, alkali feldspar, green tourmaline, mica and pleochroic green clay.

6731 RS 890

Carbonate-?nickel sepechlorite-'mica'-albite-adularia-sphene-chlorite rock. ?Carbonatite affinities.

CRN81, 106-108m

Fine granular carbonate is dominant in this sample, together with minor pleochroic green, possibly nickeliferous sepechlorite (or serpentine) and authigenic feldspar/albite in one chip; adularia in others). Very minor green chlorite and scattered colourless 'mica' flakes are present. The 'mica' as a low 2v and could be a talc or phlogopite. Patches rich in decussate 'mica' are present and there are areas rich in fine granular sphene, with rare rutile.

This rock may be related to carbonatite.

6731 RS 910
CRN88, 2-3m

Quartz-biotite-cordierite (? ± feldspar) schist.

Schistose biotite, a fine quartz ± feldspar mosaic and scattered altered porphyroblasts are the main constituents of this sample. The porphyroblasts were elliptical and about 1mm diameter and have been altered to sericite. They were probably cordierite. They constitute about 15% of the rock. Folded and boudinaged diffuse lenticular quartz veins are present and a thin coating of supergene carbonate occurs on one side of the rock.

Ultrafine possible ilmenite is present.

6731 RS 912
CRN 89, 24-25m

Quartz-biotite-?cordierite schist with two lithological layerings and a crenulated schistosity.

This is essentially a heterogeneous quartz-biotite schist with about 10-15% sericite elliptical probable cordierite porphyroblasts to 2mm long. A strongly planar layering, visible in hand specimen and dipping at a low angle to the core axis (i.e. steeply) can be seen to be parallel to the steep zones of a crenulation cleavage (S_2) defined by biotite, in the rock. This layering is essentially quartz-rich vs. biotite-rich and on a scale of 1-10mm. However, a more diffuse layering, also quartz-rich vs. biotite-rich is at 60-90° to this planar layering and appears to have been folded by the crenulation cleavage (S_2). It is not parallel to S_1 however, which, even in the less steep zones, is at 60 to 70° to this layering (and at least 45° to S_2).

It is possible that this more diffuse layering is bedding, but no sedimentary structures are present (e.g. the starved ripples at Petrol Cove, Victor Harbour) to define bedding.

6731 RS 929
CRN96, 0-2m (A)

Contact between protomylonitic granite and
layered clinopyroxene-plagioclase-orthoclase-
(hornblende) hornfels with minor sphene.

The centre of this sample is occupied by a strongly foliated granite, intruded into strongly layered but unfoliated clinopyroxene-felspar hornfels with neither epidote nor quartz, but locally with minor hornblende. Veins appear to extend from the granite into the hornfels.

The granite is inequigranular with grains 0.1 to 2mm in size and is dominated by alkali felspar with 25-30% quartz, 10% plagioclase and very minor, partly oxidised clinopyroxene. A foliation is defined by elongate lenses of quartz and by a strong quartz fabric. The quartz c-axes are roughly parallel to the elongation of the lenses and at a low angle to the layering in the host rock. Epidote, hornblende, oxide and sphene are also accessories.

The host rock has bands 4-10mm thick of fine clinopyroxene-plagioclase rock and bands 0.5 to 2mm thick of plagioclase-orthoclase. Micromosaic hornblende is minor to dominant in some bands and accessories include opaque oxide and sphene. The grain size is 0.05 to 0.15mm and the texture is hornfelsic. Hornfelsing has protected this lithology from the deformation affecting the granite.

6731 RS 929
CRN96, 0-2m (B)

Layered potassic calc-silicate with clinopyroxene, orthoclase, hornblende and plagioclase passing into a spotted zone with clinopyroxene, epidote, albite, and scapolite. Minor sphene.

Part of this sample is a layered potassic calc-silicate with layers 3-10mm thick of fine granular hornfelsic rock as in rock fragment (A). However in this sample, layers of clinopyroxene-orthoclase-hornblende-clinopyroxene rock. In the rest of the sample, an irregular contact is seen between a fine grained orthoclase-clinopyroxene hornfels and a blotchy-textured rock with elliptical clinopyroxene \pm epidote patches in poikilitic scapolite and albite. The lenses of clinopyroxene \pm epidote are up to 3mm long. Both scapolite and albite occur as polygonised poikiloblasts to 10mm long, enclosing quartz.

Minor sphene is present throughout and there are narrow albite-epidote vein.

6731 RS 932
CRN97, 48-50m

Granitic mylonites with ribbon quartz and zones rich in augen. Partly albitised.

These chips are mylonites with some zones rich in fresh to albitised alkali felspar augen, to 2mm in size. Most areas are fine grained, with ribbons of quartz (25-30%) set in fresh to albitised alkali felspar. The quartz fabric is very strong with the c-axes at about 10-20° to the ribbon elongation. A felspar fabric is apparent, but would probably need Xray orientation to elucidate. Very minor muscovite, biotite and leucoxene are present.

The albitised zones are clearly visible on the offcut, on which alkali felspar has been stained yellow, but the albite has remained white.