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PASMINCO EXPLORATION
BURNS PEAK EL 44/88
JOINT VENTURE
ANNUAL REPORT
PERIOD ENDING OCTOBER 1996

MINERALS SERVICES
EL44/88
- 4 DEC 1996
See folio 41

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SUMMARY

Exploration activity during the 12 months ending October 1996 focused on the Hollway, Brown's Tunnel, and Southern Trenches areas. A recent emphasis on near surface open pittable resources has encouraged a new approach to exploration in the Browns Tunnel & Southern Trenches areas.

Work completed included:

Hollway:

- drilling of BPD87 to a depth of 375.1m at East Hollway;
- geological mapping in the Hollway and Cone Hill areas;
- ground magnetics and IP surveys in the Hollway area;
- DHEM on BPD87;

Browns Tunnel:

- drilling of BT1, BT2, BT3 and BT4 (totaling 798 drilled meters) at Brown's Tunnel;
- re-evaluation of the Browns Tunnel mineralisation;

Browns Tunnel to Southern Trenches:

- 14.5km of grid refurbishment and infilling gridding;
- soil sampling along the new grid;
- ground magnetics along the new grid;
- 150m of trenching at Southern Trenches;
- 7 RC drill holes (441m) at Southern Trenches.

Results from this year's exploration relating to the geometry and mode of deposition of the Browns Tunnel mineralisation will redefine exploration philosophy in both the immediate vicinity and in the region.

Recommendations for the coming licence year includes:

- further detailed resource evaluation at Browns Tunnel including RC drilling on a grid pattern;
- evaluation of Southern Trenches mineralisation;
- follow up the results of the Browns Tunnel - Southern Trenches grid soil and ground magnetic surveys;
- testing of a zone of slight base metal anomalism at the contact between the Hollway Andesite and the Southwell Subgroup proximal to a N-S trending fault identified in recent IP data.

1 INTRODUCTION

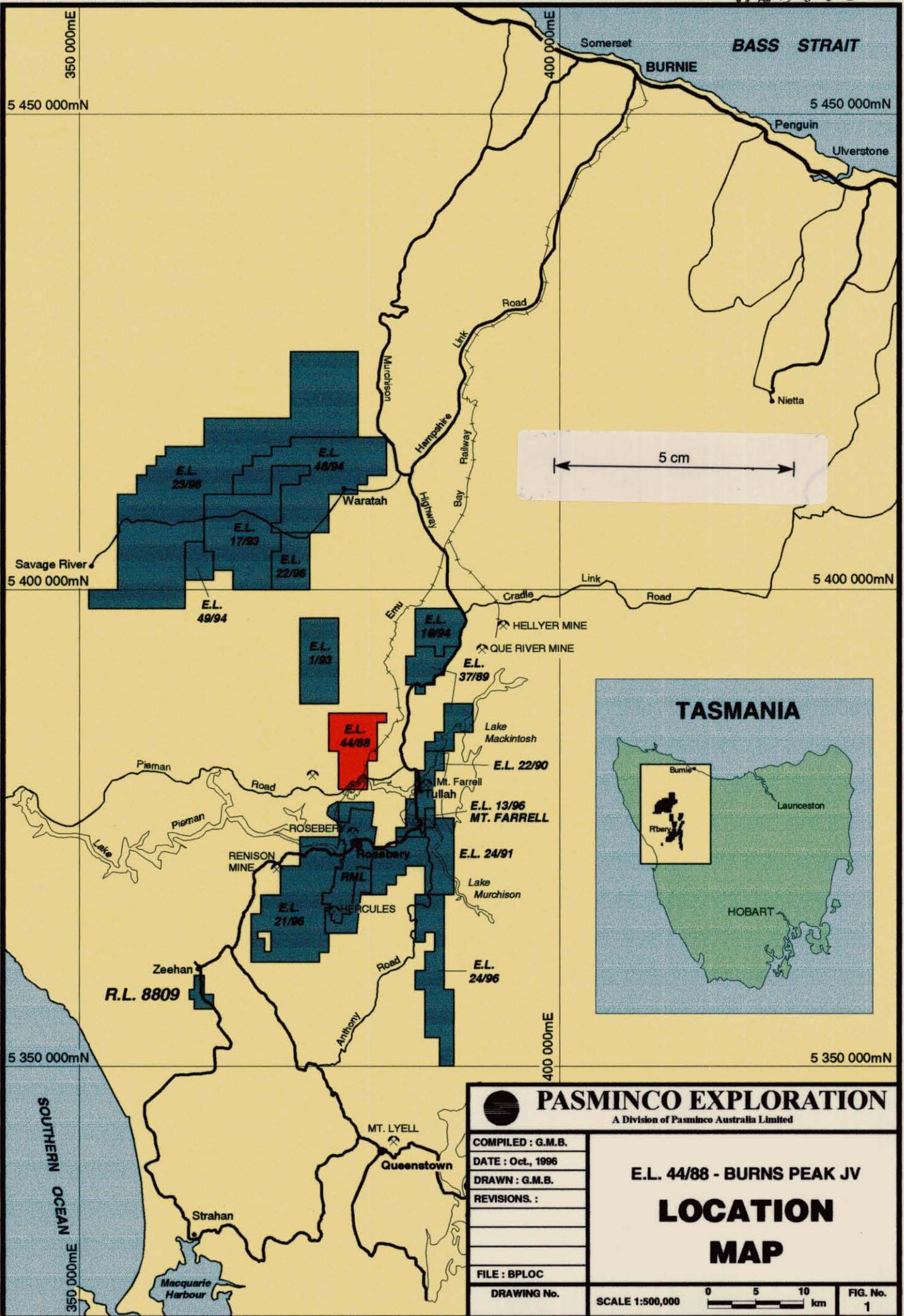
This report documents work undertaken on Exploration Licences 44/88 Burns Peak in Western Tasmania, covering the period November 1995 to October 1996.

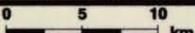
Exploration on the Burns Peak EL is managed and operated by Pasmaenco Exploration, a division of Pasmaenco Australia Limited (Pasmaenco), on behalf of a Joint Venture between Pasmaenco, Noranda Proprietary Limited and Plutonic Resources Limited.

The EL covers 34km² of Cambrian Mt Read Volcanics, and lies 6km northwest of the Tullah township and north of Lake Rosebery (Figure 1). The principal target of exploration on the licence is volcanic hosted auriferous base metal massive sulphide similar to mineralisation at Rosebery and Hercules.

The EL includes old workings in the Pinnacles and Chester areas. These sites have been the focus of a sustained exploration effort over 40 years, which has left a legacy of good access tracks and grid lines.

During the period covered by this report the target areas for exploration have been Hollway, East Hollway, Brown's Tunnel, and Southern Trenches (see Figure 4). Activity has included: geological mapping; diamond drilling; RC drilling; soil sampling; rock chip sampling; petrology; trenching; IP and ground magnetic surveys, and DHEM.



 PASMINCO EXPLORATION A Division of Pasma Australia Limited	
COMPILED : G.M.B. DATE : Oct., 1996 DRAWN : G.M.B. REVISIONS : FILE : BPLOC	E.L. 44/88 - BURNS PEAK JV LOCATION MAP
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	FIG. No. 1

2 TENURE

EL 44/88, Burns Peak, was initially granted for a renewable one year term on 9 December 1988 to Noranda Pty Ltd. Following the successful tender Noranda Pty Ltd and Pasminco Limited form a Joint Venture involving EL 44/88. Pioneer Minerals Australia Limited became a third member of the Joint Venture upon granting of the EL. The Burns Peak Joint Venture was executed on 6 March 1990, between the three companies, having been effectively in place since granting of the EL. The licence has been renewed each year since December 1989 and a further one year renewal is being sought. The licence area was reduced by 50% in accordance with Mines Department regulations at the end of the 5th year of tenure.

Until 1 July 1990, Geopeko, the exploration division of North Broken Hill Peko Ltd managed the EL under contract to Pasminco. Since that time, Pasminco Exploration (a division of Pasminco Australia Ltd) has managed the project. Exploration expenditure was shared equally between the joint venture partners until June 1993, when Noranda elected not to contribute to the July-December 1993 program. Pioneer Minerals Australia was renamed Plutonic Resources Limited and "Pasminco Australia Limited" has been substituted on all licence documents in place of "Pasminco Limited".

The EL is subject to a number of land classifications, which were revised in May 1993. The current land tenure includes land vested in the Hydro-Electric Commission in the area immediately surrounding Lake Rosebery and the Transmission Lines, Multiple Use Forest Land and Deferred Forest (Figure 2). Most of the tenement is Unallocated Crown Land designated as Multiple Use Forest.

328010

E.L. 1/93

E.L. 8/90

E.L. 44/88

E.L. 2/90

5 385 000mN

5 385 000mN

5 380 000mN

5 380 000mN

375 000mE

375 000mE

380 000mE

KEY

-  HEC Vested Land - excluded from E.L.
-  HEC Vested Land - included in E.L.
-  Deferred Forest
-  Multiple Use Forest
-  Nomination for National Estate
-  Unallocated Crown Land (within EL only)

Bobadil Dam

R.M.L. J.V.

Rosebery M.L.

5 375 000mN

5 cm



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E.L. 44/88 - BURNS PEAK

LAND TENURE

DRAWING No.

SCALE 1:50,000

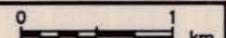
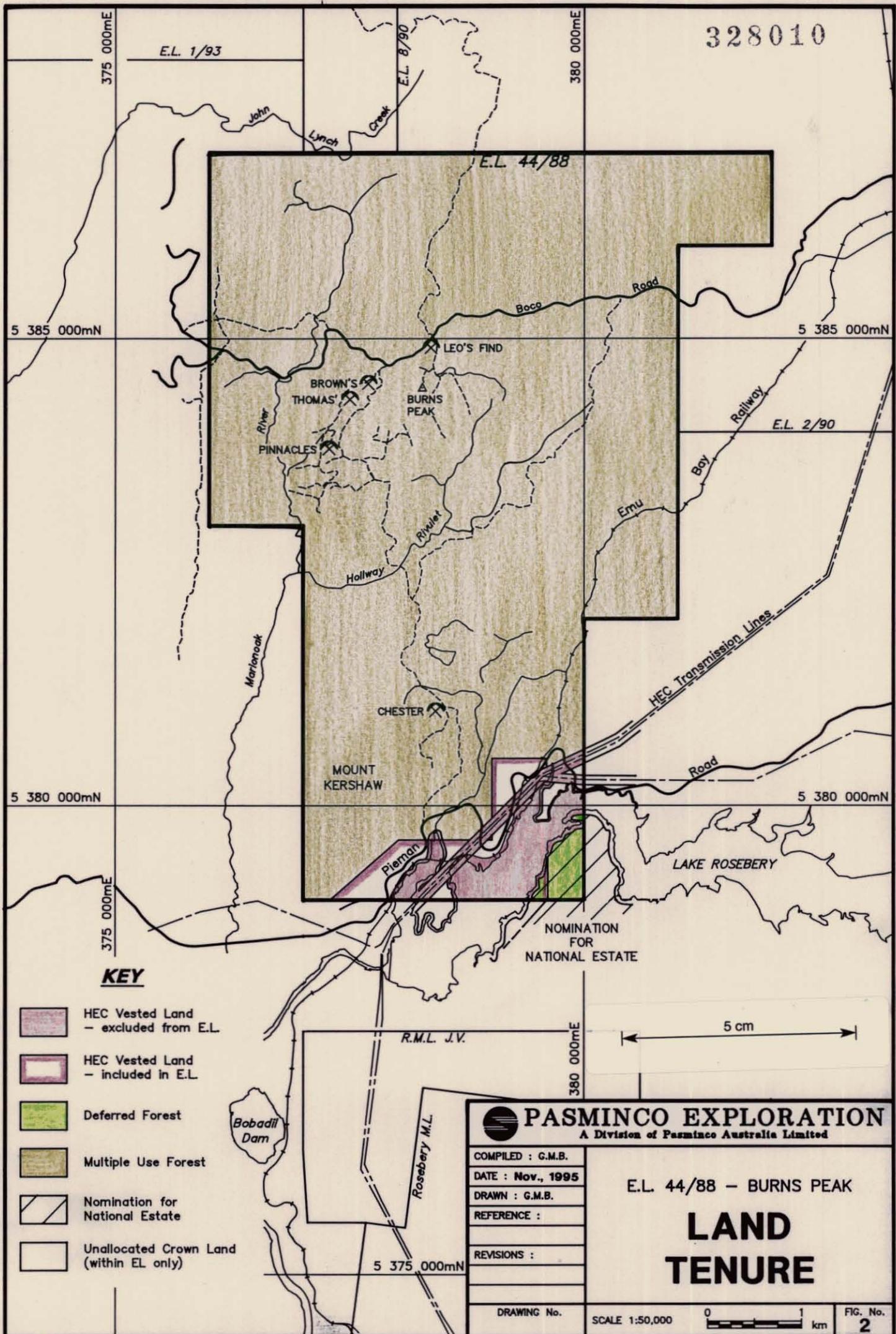


FIG. No. **2**



3 REGIONAL GEOLOGY

Basement in western Tasmania is Precambrian age, comprising predominantly greenschist facies meta-sediments with minor basalts and dolerites. Higher grade amphibolite and eclogite facies are also present within the Precambrian. This Precambrian basement is exposed to the west of the Burns Peak licence (Figure 3).

Cambrian volcanism and sedimentation developed on this Precambrian continental crust, and is subdivided into the Eo-Cambrian tholeiitic Crimson Creek Formation (CCF) and, the mid to late Cambrian Dundas Group and the predominantly calc-alkaline, Mt Read Volcanics (MRV).

The CCF was deposited in shallow but rapidly subsiding basins (Brown, 1986). The CCF consists of basaltic lavas and volcanoclastics, turbidites, carbonates, chert and minor evaporites. This formation is exposed west of the licence.

Ultramafic cumulates and volcanic equivalents were thrust onto the CCF in the mid Cambrian (Crawford and Berry 1991). These rocks generate strong magnetic anomalies and outcrop within the Huskisson Syncline, to the west of the licence. Ultramafics are interpreted at depth to the north of the licence.

The MRV form a 200km long by 20km wide north-south trending belt along the eastern side of the Dundas Trough, adjacent to and in some areas overlapping and intruding the Precambrian basement. The volcanics include intermediate to felsic lavas, subvolcanic porphyries and granites, volcanoclastics and basement-derived sedimentary rocks. The MRV host five economically significant volcanic hosted massive sulphide deposits.

Equivalents of the MRV underlie the entire Burns Peak licence, and vary from massive felsic lavas, volcanoclastics and subvolcanic intrusives in the southeast, to mixed provenance fine to coarse grained sediments in the north and northwest.



PASMINCO EXPLORATION

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DATE : Oct., 1994

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REF. :

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E.L. 44/88 - BURNS PEAK JV

REGIONAL GEOLOGY

FROM MAP 6
MT. READ VOLCANICS PROJECT

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SCALE



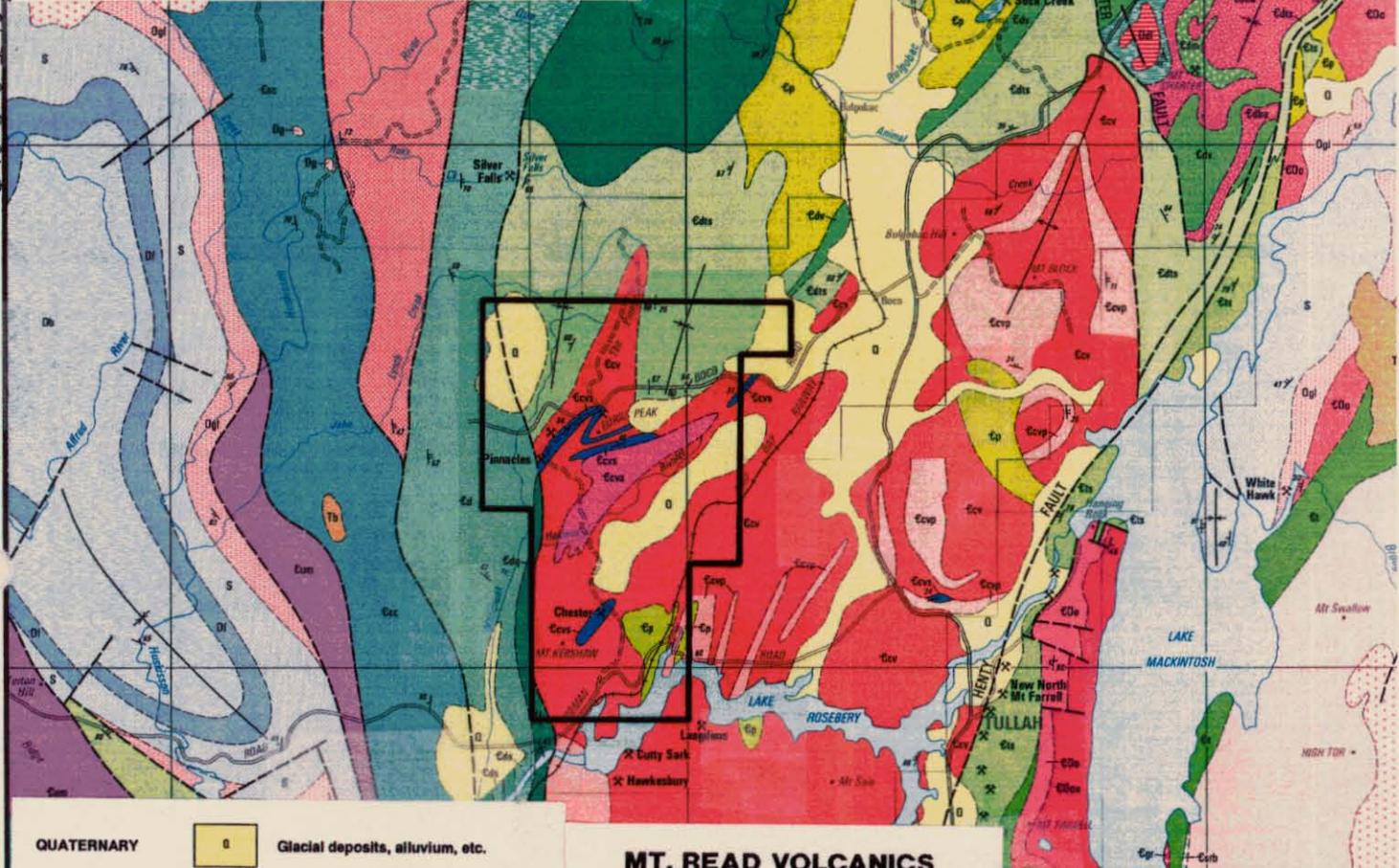
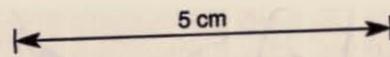
FIG. No.

3

ACKNOWLEDGEMENT: Mt. Read Volcanics Project Map adopted from Map 6 - Geological Compilation Map of the Mt. Read Volcanics and Associated Rocks, from Hellyer to South Darwin.

K. D. Corbett B Sc (Hons), PhD and A. W. McNeill B Sc (Hons), 1988

328012



QUATERNARY



Glacial deposits, alluvium, etc.

TERTIARY



Basalt
Sediments - gravel, sand, clays

JURASSIC



Dolerite

PERMIAN - CARBONIFEROUS



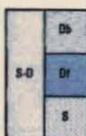
Undifferentiated

DEVONIAN



Dolerite
Granite

DEVONIAN - SILURIAN



Bell Shale
Florence Sandstone
Silurian

ORDOVICIAN



GORDON GROUP limestone

EARLY ORDOVICIAN - LATE CAMBRIAN



Upper sandstone sequence including Pioneer Beds (COu)
Undifferentiated conglomerate and sandstone (COo)
Newton Creek Sandstone (COs) - interbedded sandstone siltstone and conglomerate with marine fossils

MT. READ VOLCANICS

NORTH AND WEST OF HENTY FAULT DUNDAS GROUP AND CORRELATES



Quartz-feldspar porphyry, mostly intrusive
Mostly sedimentary rocks - greywacke, siltstone, conglomerate
Interbedded tuffs and sedimentary rocks
Quartzwacke-slate-siltstone units, e.g. Silt Quartzite
Mostly felsic volcanics - mainly tuffs
Mixed felsic and mafic volcanics and epiclastic breccias, Que-Hellyer area
Basaltic to andesitic volcanics

CENTRAL VOLCANIC COMPLEX



Mainly feldspar-phyric volcanics - dacite, rhyolite, minor andesite (Ccv)
Felsic porphyry, mainly intrusive
Mainly pyroclastic rocks
Sedimentary rocks, mainly shale and sandstone
Andesitic volcanics

SOUTH AND EAST OF HENTY FAULT TYNDALL GROUP AND CORRELATES



Mainly sed. rocks, incl Farrell Slates
Mainly quartz-feldspar-phyric volcanic and volcanoclastic rocks (Ct)
Mainly volcanoclastic congl. and sandstone
Sticht Range Beds - sandstone, siltstone, siliciclastic conglomerate

CAMBRIAN INTRUSIVE ROCKS



Granite
Felsic porphyry
Gabbro
Ultramafic rocks & serpentinite

PRECAMBRIAN



Quartzite-slate sequences - correlates of Oonah Formation
Metamorphosed sequences of Tyennan I
Major lithological boundary trends show

A package of sediments which possibly postdates the MRV occurs in the western sector of the licence, footwall to the Rosebery Fault. These carbonate siltstones, wackes and polymict conglomerates have been recently temporally correlated via fossil evidence with the Owen Conglomerate, and are considered to be part of the Dundas Group. Gradationally overlying this sequence are quartz muscovite sandstone and conglomerate largely derived from Precambrian metasediments, but with some material from felsic volcanics and ultramafics.

Regional structures which subdivide the MRV are the Rosebery Fault, which lies close to and parallels the western licence boundary, and the Henty Fault which is located 5km east of the licence.

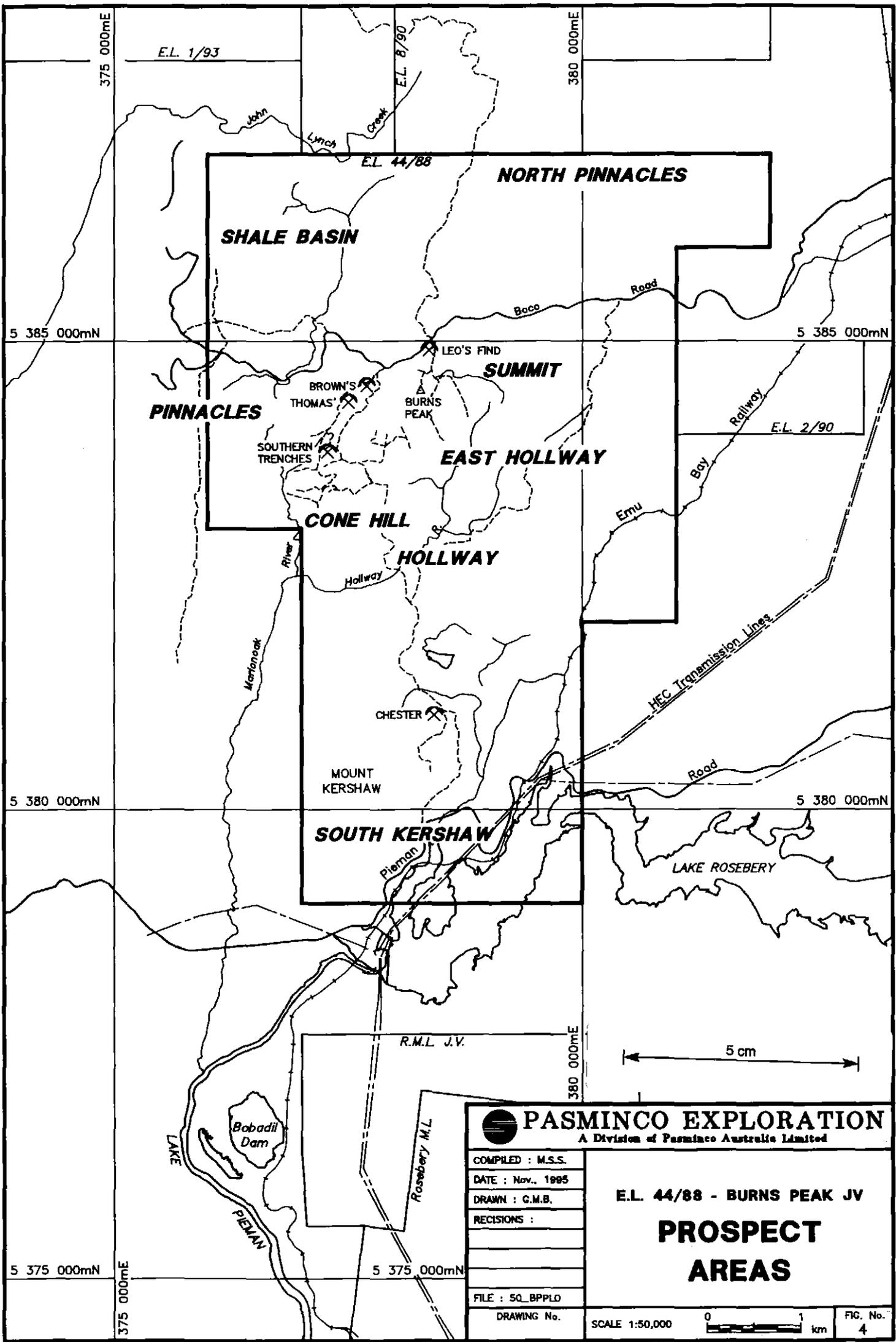
Cambrian volcanism and sedimentation was followed by predominantly basement derived late Cambrian to Devonian age sedimentation, which includes siliciclastic conglomerate, sandstone and limestone. None of these sequences occur within the licence.

At least two phases of regional compression were associated with the mid-Devonian Tabberabberan Orogeny (Keele, 1991). The development of folding, cleavage and regional thrusts in lower Paleozoic rocks were associated with this event. Fold trends in the licences are N to NE.

Deformation was followed by the extensive intrusion of Devonian to Carboniferous granitoids. The Meredith Granite and associated hornfels aureole outcrop west of the Burns Peak licence (Brown, 1986). The Meredith Granite dominates the regional gravity feature in the licence area. The Devonian granites are associated with carbonate replacement Sn mineralisation at Renison Bell and Mount Bischoff, and the Pb Zn Ag vein deposits of Zeehan and possibly the Tullah Fields.

After substantial erosion of this terrane extensive Tertiary flood basalts and sub-volcanic sediments were deposited. Remnants of the basalt flows are preserved to the north of the licence.

Numerous sub-economic base metal sulphide deposits occur on the western side of the EL, in a narrow belt of NE-SW mineralised rocks including the Southern Trenches, Thomas' Tunnel, Brown's Tunnel and Leo's Find workings (Figure 4). The large Chester massive pyrite deposit occurs in the south of the EL. A number of smaller gold, base metals or pyrite workings are also documented, mainly along the western side of the EL, within the Central Volcanic Complex.



 PASMINCO EXPLORATION A Division of Pasma Australia Limited	
COMPILED : M.S.S.	E.L. 44/88 - BURNS PEAK JV PROSPECT AREAS
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	FIG. No. 4

4 PREVIOUS EXPLORATION

The extensive history of exploration and mining in the area covered by the current Burns Peak EL 44/88 was summarised by Rosenhain and Mathison (1989) and this has been modified below as Table 1.

EL44/88 is currently at the end of the 8th year of tenure. Details of these activities are documented in the past six annual reports (Rosenhain and Mathison, 1989; Lorrigan, 1990; Kirsner, Lorrigan and Rae, 1991, Kirsner, 1992, Poltock, Kirsner and Saxon, 1993, Poltock and Saxon, 1994, and Saxon 1995).

TABLE 1: HISTORY OF EXPLORATION ON EL 44/88

1896	Discovery of alluvial gold in Marionoak River by Tom Strong. (Strong's Alluvial Workings)
1896	Discovery of Pinnacles Lodes by McGuiness Bros.
1899	Discovery of Chester by F Kershaw and H Sanderson. (Kershaw's Iron Blow)
1899	Brown's Tunnel driven (Brown's Workings) est. production 300t @ 2% Zn, 2g/t Au, 44g/t Ag.
1899	Southern Trenches est. production 55t @ +10% Zn, +8% Pb, 8g/t Au, 38g/t Ag.
1899	Thomas' Tunnel driven (Thomas' workings) est. production 50t @ 4% Zn, 7% Pb, 1g/t Au, 240g/t Ag.
1908	Mt Lyell Mining and Railway Co Ltd secured Chester Leases.
1908-1913	Intensive exploration and mining development at Chester. Production 36 000t @ 37% S.
1918-1920	Minor production from Chester by Cuming Smith & Co. Production 700t @ +25% S.
1947-1950	Electrolytic Zinc Company created foot and vehicle access to the Pinnacles area. 14 small diameter diamond drill holes (PP31, 34, 36,

- 39, 40, 41, 42, 45, 46, 48, 50, 51, 52, 59) completed and workings and topography surveyed. Geophysical test surveys at the Pinnacles (SP, ground magnetics and resistivity).
- 1959-1960 Geochemical, geological and geophysical surveys over Pinnacles and Chester. Techniques included Sharp vertical loop EM, Turam, ground magnetics (vertical field), gravity. "The significant feature of this coverage is that Pinnacles Mine Mineralisation is non-conducting".
- 1963 Comstaff acquires EL 5/63 which included the Burns Peak area.
- 1968-1972 Initial phase of gridding, geochemical sampling, geophysics (IP and EM), mapping and 3DDH at Chester (CH1-3) by Comstaff.
- 1973-1976 Second phase of gridding, geochemical sampling, etc. 10 DDH drilled (plus CP2 redrilled) at Pinnacles and 13 DDH at Chester (CP1-23). (New metric grid, new soil sampling, new IP). Airborne EM.
- 1976-1979 Preussag entered into Joint Venture with Comstaff. Detailed mapping and structural synthesis completed. C horizon soil geochemistry, 2 DDH, (PIN1 & 2) trial PEM and IP over Leo's Find.
- 1980-1983 Exploration of East Chester area. New grid, grid extensions, C horizon soil geochemistry, ground magnetics. IP, DIGHEM. Four DDH (EABI-4) drilled at East Chester.
- 1984-1985 New grid at Pinnacles (EAF) mapped, C horizon soil sampling, ground magnetics and UTEM. 19 DDH (ESB1 & EAF 1-18) with the discovery of small lenses of massive sulphides and patchy gold mineralisation. New geological interpretation.
- 1986-1988 BHP entered Joint Venture. Reinterpretation and compilation of exploration results. "Blanket" UTEM and downhole SIROTEM. New geological interpretation. Petrological studies. Wacker sampling.
- 1988-1991 Pasmenco-Noranda-Plutonic Joint Venture on new EL 44/88. Extensive geological mapping, re-appraisal of previous data, Wacker sampling, geochemistry, petrology, DHEM, CSAMT, DH-SIROTEM, Mise-a-la-Masse, aeromagnetic survey, regional and local gravity surveys, drilling of 12 DDH (BPD62-73). Rehabilitation of old tracks,

costeans and workings.

- 1991-92 Pasminco-Noranda-Plutonic JV, exploration was managed by Pasminco and included drilling BPD74, 75, 76, geological mapping and relogging drill core at Hollway and Summit, gravity infill and interpretation, ore/pathfinder/whole rock geochemistry, down hole EM in BPD69,71,75 and compilation/computerisation of historic geochemical data.
- 1992-93 Pasminco-Noranda-Plutonic JV, exploration was managed by Pasminco and included drilling holes BPD77-79, geological mapping, gridding at South Kershaw-Hollway, review and compilation of previous exploration, Dipole-dipole IP at South Kershaw-Hollway, soil geochemistry at South Kershaw and ore/pathfinder/whole rock geochemistry.
- 1993-94 Pasminco-Noranda-Plutonic JV, exploration was managed by Pasminco and included drill holes BPD80, BPD81 and EAF2, gridding, soil/rock geochemistry, DHEM, Mise-a-la-masse, ground magnetics and mapping.
- 1994-95 Pasminco-Noranda-Plutonic JV, exploration was managed by Pasminco and included drill holes BPD82 to 86 and extension of CP7, DHEM, gridding and geological mapping in the Hollway area.

5 WORK COMPLETED NOVEMBER 1995 - OCTOBER 96

Work completed on the Burns Peak JV EL 44/88 during the year November 1995 to October 1996 has been confined to three main projects as follows:

5.1 Hollway

An area with anomalous gold and base metals in a zone of alteration and magnetic depletion at the lower contact of the Hollway Andesite with Animal Creek Greywackes was explored by means of geological mapping, a ground magnetic survey, an IP survey and diamond drilling one hole totaling 375.1m.

5.1.1 GEOLOGICAL MAPPING AND SAMPLING

Mapping was completed in the Hollway and Cone Hill areas (Figure 5 and 6). Mapping of the IP grid failed to locate much useful outcrop, however one sample of silica altered and galena/sphalerite mineralised rhyolite lava was located in the far north of line 1930E. The Hollway Andesite and footwall units outcrop poorly, however dacite and sediment sequences that overlie the andesite are locally observed.

Mapping at Cone Hill was undertaken to ground check a moderate IP / resistivity anomaly. Intensely silicified, weakly pyritic outcrop of felsic lava, and float of coarsely vuggy ironstone after semi-massive siderite? was located. No significant assay results were returned from samples.

Rock chip sample results are listed in Appendix 8.

5.1.2 DIAMOND DRILLING

Assay results and drill log BPD84 is contained in Appendix 5 and the drill section illustrated in Figure 7.

BPD87 (375.1m)

BPD87 was collared 250m along strike from BPD84 at East Hollway, to follow up low level Zn-Au mineralisation and alteration intersected by this hole. The hole targeted the East Hollway Magnetic Low, interpreted to be an expression of the alteration associated with mineralisation. Weakly elevated auger geochemistry and minor sphalerite within brecciated Hollway Andesite are present within the targeted area.

The hole was drilled to 375.1m depth, and intersected the expected stratigraphic sequence with numerous complications. The Animal Creek Greywacke (ACG) is a quartz-muscovite-lithic sandstone and siltstone, and was intersected from surface to 160.6m. The thickness, the presence of intercalated andesite lava, local tight folds, and local abundant pyrite contrasts with ACG intersected in BPD84.

Below the ACG to 169.9m feldspathic pumice breccia was intersected. Early sericite-pyrite alteration is partially replaced by green chlorite, preserving pseudoclasts of sericite in a chlorite matrix. From 165.9 to 169.9m, pale grey silica-chlorite? alteration has obliterated much of the pumice texture. This alteration is constantly associated with sphalerite, occurring as fine networks and patchy replacement of green chlorite. 1 - 2% Zn is estimated for this interval.

From 169.9m to the end of hole, variably altered felsic lava and volcanoclastics of the CVC have been intruded by numerous basalt dykes. Alteration includes extensive sericite and minor sericite-pyrite-silica, plus silica-haematite-chlorite adjacent to basalt dykes. A zone of semi-massive carbonate was intersected from 228.4m to 233.5m.

5.1.3 INDUCED POLARISATION SURVEY - HOLLWAY

From November 24 to 8 December 1995, Geotrex conducted an Induced Polarisation survey over the EAB grid (figure 8). Data was recorded using an ELREC-6 receiver and Hunttec LOPO M-4 portable battery operated transmitter. A total of 25 line kilometres of data was collected using a 50m dipole-dipole array, collecting data to pseudo-depth $n=4$. Pseudo-section plots are located in Appendix 1.

Two areas of the EAB grid were surveyed, the first in-filling previously established coverage to further define anomalous areas and detect structures (denoted the western grid). This grid contains lines spaced 100m and 200m apart and the grid was extended north of the Boco Road. The second area surveyed was an eastern extension of the EAB grid, denoted the eastern grid, where lines were spaced 200m apart.

The western grid data revealed several anomalous zones along with a number of key structures, not all of which are evident in outcrop geology. Eastern grid data did not contain the same degree of information and is difficult to correlate with the western grid data.

Previous data collected over the EAB grid (1980) used 80m, 60m and 40m dipole-dipole arrays. Merging of the 1980 and 1995 data sets was done for a single pseudo-depth level, of approximately 160m. This was carried out by using the $n=3$ data for the 1995 50m dipole data, $n=2$ for the 80m dipole data, $n=3$ for the 60m dipole data and $n=4$ for the 40m dipole data. This represents roughly the same volume sampled. Appendix 1 contains contours of the combined data sets.

The combined data sets correlated well, with the most prominent feature evident being the shale horizon above the Hollway Andesite. Both chargeability and resistivity data appear to map the Hollway Andesite throughout the grid region, as well as the basal contact with the Animal Creek Greywacke.

5.1.4 GROUND MAGNETIC SURVEY - HOLLWAY

Ground magnetic data was collected over the same grid as the Induced Polarisation survey (figure 8). A GSM 19-F overhauser rapid sampling magnetometer was used to collect field data, and a Scintrex OMNI-IV magnetometer monitored diurnal variation. Data along lines was sampled every second, which approximates to a reading every 1.5m, whilst diurnal variation data was collected at ten second intervals.

Data inferred the presence of a number of highly magnetic sources at the southern end of the grids. The location of the anomalies correlates closely with the contacts inferred in the induced polarisation data. Appendix 2 contains profiles of ground magnetic data and contours of each 'grid'.

Superposition of multiple ground magnetic responses would explain the observed aeromagnetic response over the area., inferring the two data sets correlate.

5.1.5 DHEM BPD87

Hole BPD87 was surveyed with DHEM in May 1995 using a CRONE Pulse EM system. Two 400m by 400m loops were used to survey the hole. A peak current of 4 Amps was circulated through each loop. Data was recorded over 10 msecs with 20 channels and using a 0.5 msec ramp. The transmitter used had a very fast turn-off which caused ringing in the primary field. To reduce the affect of this noise a 15 ohm resistor was placed in the loop.

There was no evidence of an off-hole conductive body in the secondary field data. Data is in Appendix 3.

5.2 Browns Tunnel

It was agreed during the Burns Peak JV meeting (23 January 1996), to refocus exploration onto the Browns Tunnel resource. This refocus was to comprise a programme of diamond drilling.

The Browns Tunnel programme was designed to assess the near surface open-pittable potential, and to test for significant resource extensions.

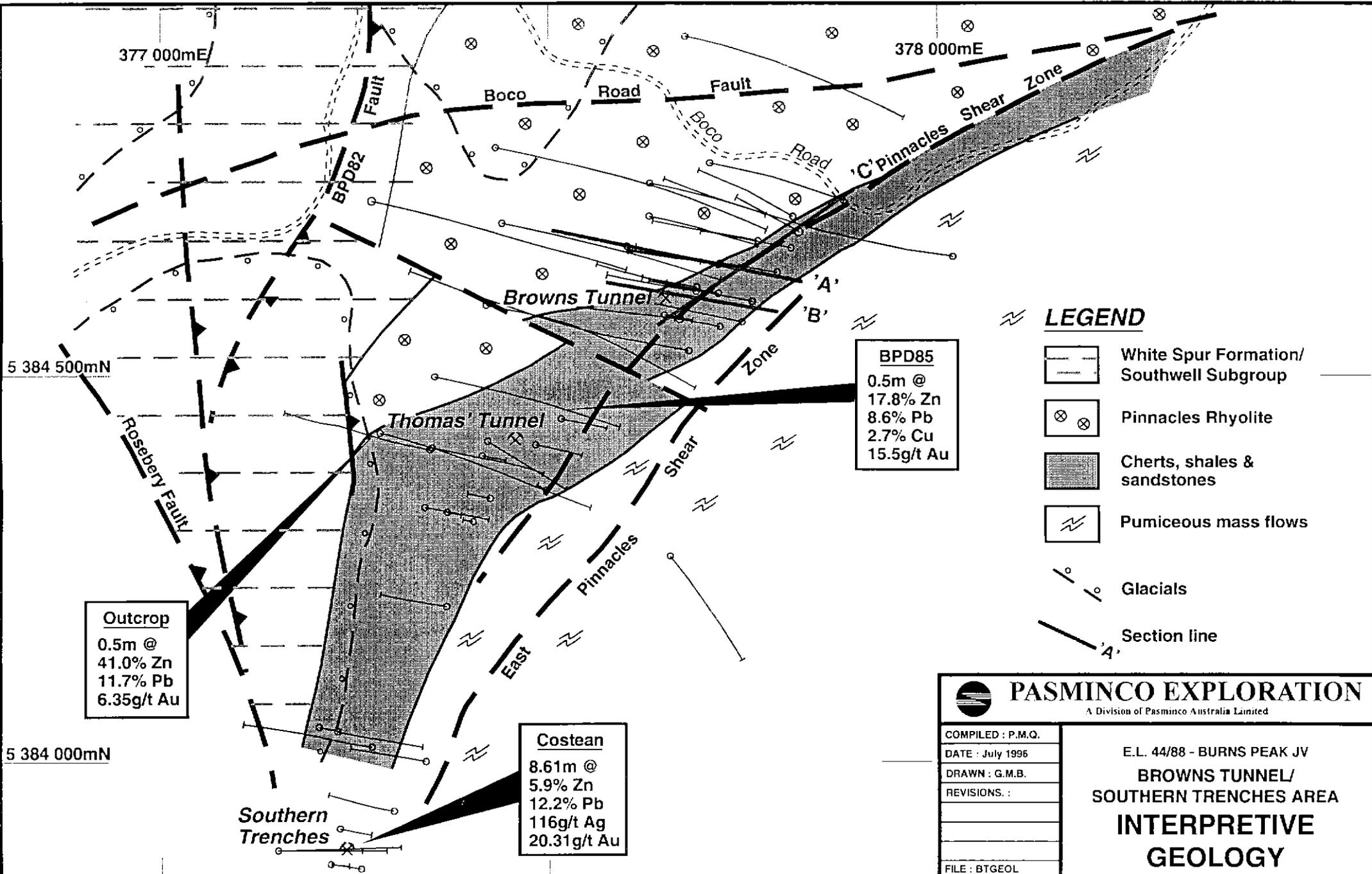
The programme involved reviewing all existing core, and the drilling of five diamond drill holes totaling 798m.

5.2.1 REVIEW OF EXISTING CORE

- All existing core was viewed (EAF1 to EAF14, & PP31) and collar locations downhole surveys are tabulated in Appendix 4.

Section A (Figure 10) was chosen for initial review as it was central to the mineralisation, and contained two of the most significant intersections (ie., EAF6 & EAF9). An initial concern involving the continuity of mineralisation was due to the apparent lack of correlation of lithologies between drill holes. Recent work has indicated that: there is more than one lens of mineralisation; mineralisation has both a lithological and structural control; and that whilst the geological framework is complex, lithologies can be correlated.

The mineralisation intersected in EAF6 which is the eastern most lens, and is close to the flow-banded autoclastic rhyolite, is here termed lens 1. The high grade mineralisation intersected in EAF9 associated with the eastern margin of the peperitic andesite is here termed lens 2.



 PASMINCO EXPLORATION <small>A Division of Pasmenco Australia Limited</small>	
COMPILED : P.M.Q. DATE : July 1996 DRAWN : G.M.B. REVISIONS : FILE : BTGEOL	E.L. 44/88 - BURNS PEAK JV BROWNS TUNNEL/ SOUTHERN TRENCHES AREA INTERPRETIVE GEOLOGY
DRAWING No.	Not to scale
	FIG. No. 9

3226023

377 600mE

377 700mE

377 800mE

12.1m @
17.5% Zn
7.4% Pb
0.76% Cu
88g/t Ag
4.36g/t Au

12.8m @
5.2% Zn
56g/t Ag
0.4g/t Au

21.3m @
2.1% Zn

19.0m @
5.6% Zn
26g/t Ag
0.11g/t Au

9.0m @
0.21% Zn
2.47% Cu
98g/t Ag

10.1m @
2.19% Zn
1.39% Cu
53g/t Ag

KEY

-  Pumiceous mass flows
-  Pinnacles Rhyolite
-  Rhyolite (lava breccia)
-  Andesite
-  Andesite (peperitic)
-  Andesite (perlitic)
-  Basalt (vesicular fuchsitic)
-  Cherts, shales & sandstones
-  Mineralization
-  Zn values

400mRL

300mRL

200mRL

100mRL

BT1

EAf6

EAf9

EAf13

BpD78

Rosebery Fault

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 DATE : July 1996
 DRAWN : G.M.B.
 REVISIONS :
 FILE : BT1SECT

E.L. 44/88 - BURNS PEAK JV
BROWNS TUNNEL
SECTION 'A'

DRAWING No.

Not to scale FIG. No. 10

Lithology

The geological framework is complex but can be resolved. The complexity includes rapid facies variation in mixed volcanic and sedimentary rocks in an overturned anticlinal position. The stratigraphy from the top (west) to the bottom (east) is as follows:

Pinnacles Rhyolite - prominently quartz phyric, flow banded, lava;
 pumice breccia occurs below the Pinnacles Rhyolite in part.
 fuchsitic vesicular basalt, occurs as a 1 to 5m band immediately below the
 Pinnacles Rhyolite in part;
 shales and sandstones;
 perlitic andesite;
 peperitic andesite;
 cherty siltstones;
 Pinnacles Rhyolite sill;
 mixed shales, siltstones and sandstones;
 dacite;
 flowbanded, autobrecciated rhyolite (phyric quartz poor);
 pumice breccia;
 pumiceous mass flow containing black shale ripup clasts.

In the Browns Tunnel area, the Transition Zone, that is the mixed volcanic and sedimentary rocks that host the *Rosebery* and *Hercules* deposits, are known as the Browns Tunnel Host Sequence (BTHS). The BTHS is defined as the mixed sedimentary and contemporaneous volcanic rocks between the felsic CVC pumice breccia footwall, and the prominently quartz-phyric Pinnacles Rhyolite hangingwall. This zone is complicated by several bands of pumice breccia, and sills of quartz-phyric rhyolite within the BTHS.

Mineralisation

Mineralisation comprises sphalerite, galena, chalcopyrite, pyrite, minor silver bearing tetrahedrite, and gold (Shaw 1985 et al.). Mineralisation appears to be associated with zones of intensely silicified sedimentary rocks, including laminated shales, pumice breccias and the fine grained sedimentary component of andesite peperite, and is termed "cherty alteration". Mineralisation appears to have nucleated within fractures in the cherty silicification and thus post dates the silicification. Sphalerite occurs as distinctive coarse grained brown crystals, or as granular white patches, both occurrences appear to be partially to completely replaced by fine grained gunmetal coloured amalgamations of galena, sphalerite and chalcopyrite.

Mineralisation appears to occur as a series of veins varying in scale from veinlets to thick zones of massive sulphide within a pencil shaped envelope plunging 20 degrees to the north east. This envelope appears to be a zone of dilation caused by the folding of the sequence of discontinuous mixed volcanic and sedimentary rocks with contrasting competencies. Thus the structural sites are in part lithologically controlled.

Lens 1 is located in cherty silicified sedimentary rocks peripheral to the shoulder of an autoclastic flow-banded rhyolite lava. This lava has a very rapid termination, and may indicate a syndepositional structure.

Lens 2 is located at the eastern margin of a distinctive peperitic andesite/dacite. Mineralisation is very high grade and is gold rich, (12m @ 17.5%Zn & 4.36g/t Au - EAF9), and sphalerite is typically white and granular in appearance. This sphalerite is associated with gold poor mineralisation located in fractures in cherty silicification of the sedimentary component of the peperitic andesite as intersected in EAF9, EAF13, and EAF6 extension.

Long Sections

Once the different intersections could be identified as different lenses it was possible to produce a long sections specific to individual lenses. Figure 12 is a long section with a 20m influence drawn along the long axis of lens 1. This shows the problems involved in drilling a body with a cylindrical geometry, several of the holes have clearly either passed over or under the mineralisation. Possibly the two northern-most intersections i.e., BT4 and BPD66 could have clipped the top and bottom of the lens respectively, thus the lens is not closed off down plunge.

Figure 13 is a long section drawn on the same plane as Figure 12, with a 100m influence thus showing all intersections. The geometry of lens 2 intersected in EAF9 has not been resolved as yet and due to the high grades involved warrants further investigation. The intersections in BT3 and BPD81 to the south of the long section may represent the top and bottom of a further significant lens of mineralisation. The copper rich intersections in BPD78 also warrant further investigation.

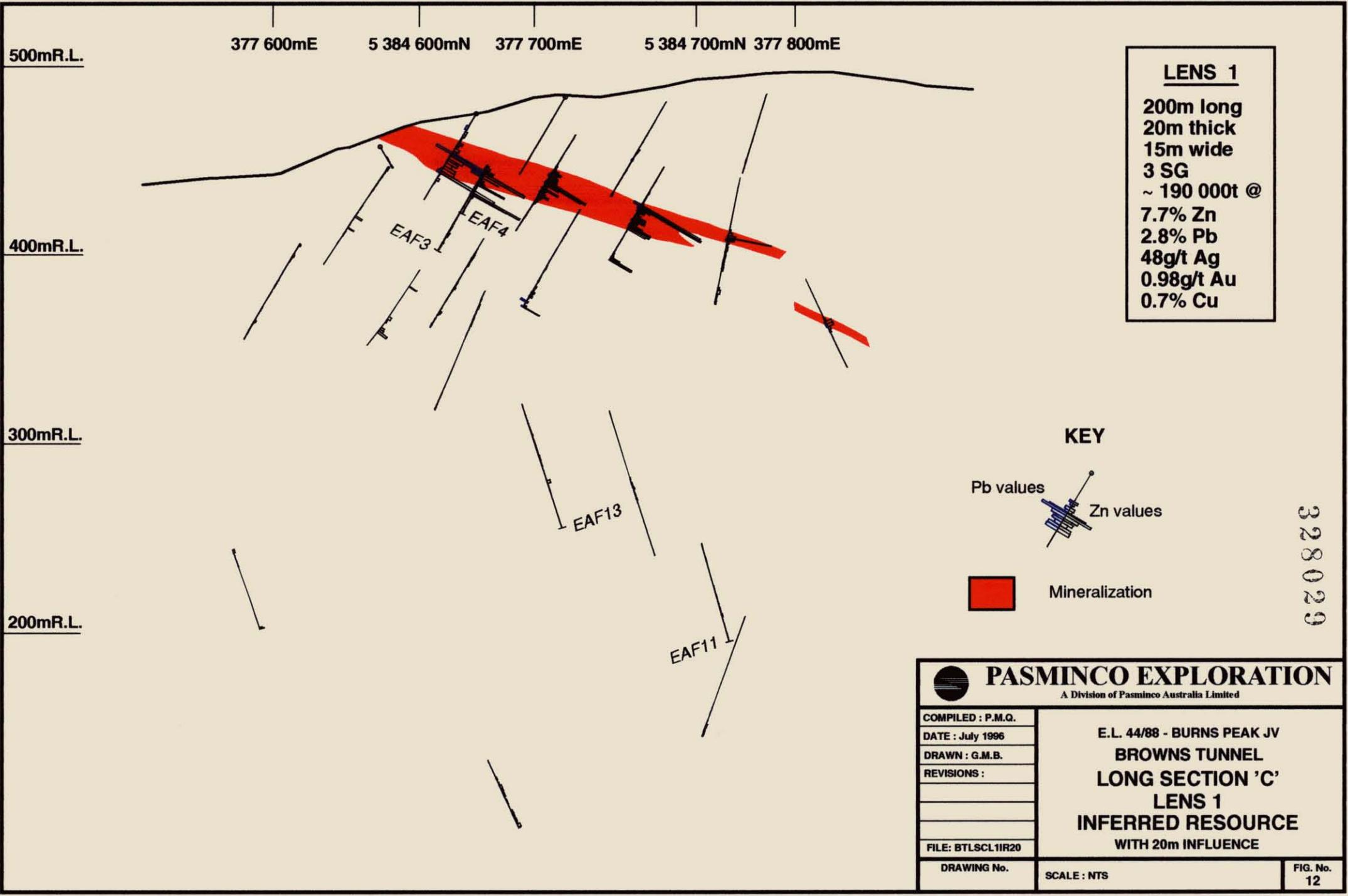
5.2.2 DIAMOND DRILLING

All assay results are drill logs are contained in Appendix 5, with sections illustrated on Figures 15-18.

BT1 (167m)

OBJECTIVE:

BT1 was drilled to test the updip continuation of lens 1, to test the proposed continuation of lens 2 to the west of EAF6, and to further resolve the structural and stratigraphic framework for mineralisation.



LENS 1
 200m long
 20m thick
 15m wide
 3 SG
 ~ 190 000t @
 7.7% Zn
 2.8% Pb
 48g/t Ag
 0.98g/t Au
 0.7% Cu

KEY

Pb values 

Zn values 

 Mineralization

328029

 PASMINCO EXPLORATION <small>A Division of Pasminco Australia Limited</small>		
COMPILED : P.M.Q. DATE : July 1996 DRAWN : G.M.B. REVISIONS : FILE: BTLSC11R20	E.L. 44/88 - BURNS PEAK JV BROWNS TUNNEL LONG SECTION 'C' LENS 1 INFERRED RESOURCE WITH 20m INFLUENCE	
DRAWING No.	SCALE : NTS	FIG. No. 12

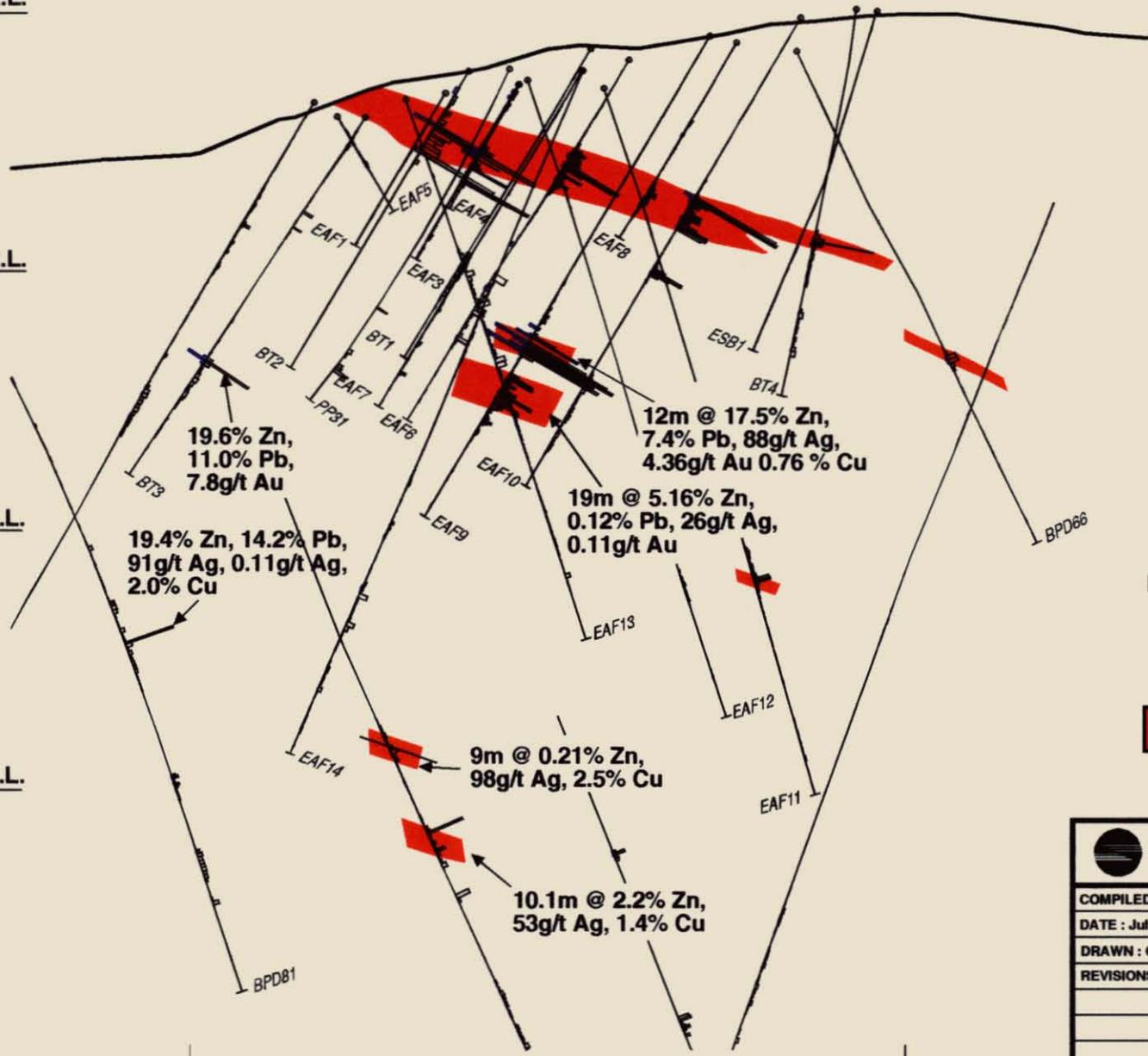
500mR.L.

377 600mE 5 384 600mN 377 700mE 5 384 700mN 377 800mE

400mR.L.

300mR.L.

200mR.L.



KEY

- Pb values
- Zn values
- Mineralization

328030

 PASMINCO EXPLORATION <small>A Division of Pasmenco Australia Limited</small>		
COMPILED : P.M.Q.	E.L. 44/88 - BURNS PEAK JV BROWNS TUNNEL LONG SECTION 'C' ALL DRILLING	
DATE : July 1996		
DRAWN : G.M.B.		
REVISIONS :		
FILE : BTLSCALL		
DRAWING No.	SCALE : NTS	FIG. No. 13

RESULTS:

Only trace mineralisation was observed in the lens 1 up-dip position, and minor mineralisation in the cherty altered sedimentary component of the andesite peperite. The overturned anticline position, and continuation of the BTHS to the west of Pinnacles Rhyolite sill intersected at the base of EAF6 were confirmed (Figure 15).

EAF6 (extended from 102.4m to 197m (94.6m))

OBJECTIVE:

EAF6 was extended to test the continuation of high grade lens 2 mineralisation intersected in EAF9.

RESULTS:

Low tenor mineralisation occurs over a broad interval through the andesite peperite (21m at 2.1% Zn, including 3.9m at 3.5% Zn). The mineralisation is Zn dominant with only low Au, Ag, Cu and Pb values. Mineralisation is located in abundant fine fractures in the silicified fine grained sedimentary part of andesite peperite. It occurs as coarse grained red-brown sphalerite partially replaced along crystal boundaries or fringed by fine grained gunmetal coloured sulphide which by petrographic examination were identified as remnant sphalerite partially to completely replaced by chalcopyrite, deace, and galena.

The intermediate to mafic volcanics were subdivided on the basis of phenocryst type and abundance and textures. All the volcanics exhibit textures indicating that they were contemporaneous with sedimentary deposition (Figure 15).

BT2 (163m)

OBJECTIVE:

BT2 was drilled to test for the southern continuation (40m south) of lens 1 intersected in EAF6, and to test the eastern margin of the andesite, lens 2 position.

RESULTS:

The expected lithologies were intersected, with lens 1 in a cherty altered zone of sedimentary rocks immediately to the east of the Pinnacles Rhyolite sill. This was overlain by the sequence of peperitic andesites, perlitic mafics, and fuchsitic-vesicular basalts, which were in turn overlain by Pinnacles Rhyolite.

Lens 1 comprised a 15.1m zone approximately 20 to 35m below surface (Figure 11). This zone comprises moderate sulphide mineralisation in abundant fine fractures in silicified sediments including both fine grained siltstones, and pumice breccias. This silicified mineralised zone was bounded by two bands of massive sulphide with the upper band exhibiting spectacular pseudo-porphyroblastic textures (petrographically described in Appendix 6).

Results include:

15.1m @ 0.8%Cu, 5.9%Pb, 9.8%Zn, 43g/t Ag, 0.5g/t Au;
including:

1.4m @ 1.11%Cu, 9.3%Pb, 14.8%Zn, 62g/t Ag, 0.27g/t Au;

1.5m @ 2.48%Cu, 23.2%Pb, 32.5%Zn, 153g/t Ag, 1.96g/t Au; —

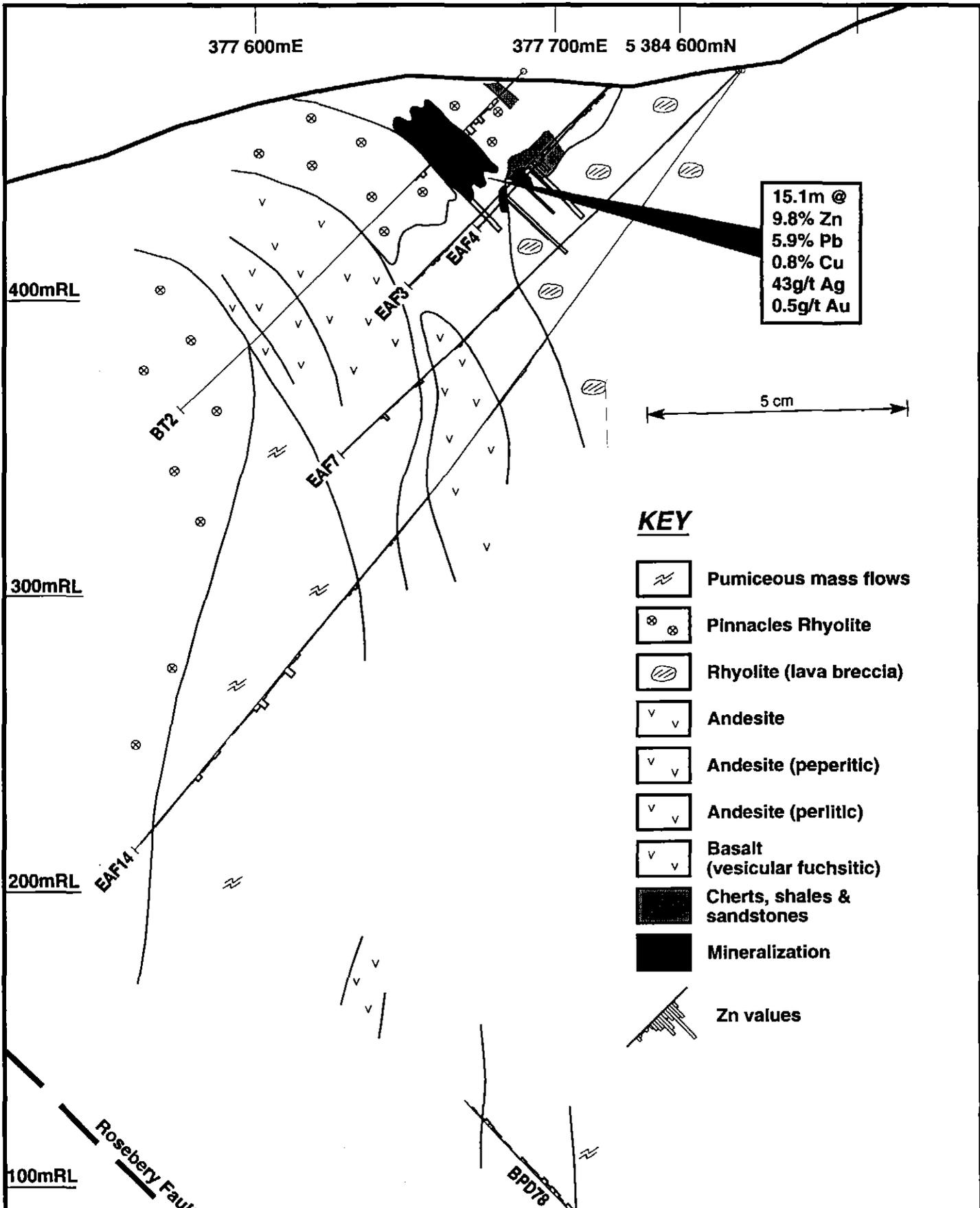
The lens 2 position, the eastern margin of the peperitic andesite was unmineralised (Figure 16).

BT3 (198.4m)**OBJECTIVE:**

BT3 was drilled to test beneath outcropping high grade mineralisation to the west of the Browns Tunnel workings (lens 1), and to test for mineralisation in the peperitic andesite position (lens 2), completing the section in the Pinnacles Rhyolite.

RESULTS:

Minor fracture fill sphalerite was intersected in mixed cherty shales and sericitised felsic volcanics (lens 1) beneath the sulphide outcrop.



15.1m @
 9.8% Zn
 5.9% Pb
 0.8% Cu
 43g/t Ag
 0.5g/t Au

5 cm

KEY

- Pumiceous mass flows
- Pinnacles Rhyolite
- Rhyolite (lava breccia)
- Andesite
- Andesite (peperitic)
- Andesite (perlitic)
- Basalt (vesicular fuchsitic)
- Cherts, shales & sandstones
- Mineralization
- Zn values

 PASMINCO EXPLORATION <small>A Division of Pasminco Australia Limited</small>	
COMPILED : P.M.O. DATE : July 1998 DRAWN : G.M.B. REVISIONS : FILE : BT2XSECT	E.L. 44/88 - BURNS PEAK JV BROWNS TUNNEL SECTION 'B'
DRAWING No.	SCALE  m
	FIG. No. 11

Two narrow bands of massive sulphide were intersected peripheral to a quartz phyric intrusive close to the andesite contact (lens 2), these assayed 1m @ 4.05% Zn and 0.4m @ 3.63% Zn respectively.

A zone of mineralisation intersected in cherty sediments between the andesite and the Pinnacles Rhyolite assayed 3.8m @ 3.3% Pb, 6.5% Zn, 26g/t Ag and 2.83g/t Au including 0.9m @ 11% Pb, 19.6% Zn, 50g/t Ag and 7.78g/t Au. These sediments are overlain by carbonate altered pumice breccias with minor mineralisation. This zone does not correlate with lens 1 or 2, but may correlate with a narrow high grade intersection in BPD81 (Figure 13). These two intersections may indicate a third zone of mineralisation which is here termed lens 3.

The alteration in the pumice breccia comprises ragged 5 to 30mm patches of fine grained manganoan carbonate and/or blebby silica, many of which exhibit partial replacement by sphalerite, galena and/or pyrite. This alteration is very reminiscent of that footwall to the South Hercules deposit. It may also be significant that apart from this occurrence, and minor siderite veining, carbonate alteration appears to be absent from the Browns Tunnel system.

A zone of cherty alteration and veinlet sphalerite mineralisation occurring between the postulated lens 3 and the altered pumice breccias is similar in appearance to mineralisation and alteration peripheral to lenses 1 & 2. This may represent the most important area to follow up (Figure 17).

BT4 (175m)

OBJECTIVE:

Lens 1 was interpreted as a pipe shaped envelope of vein style mineralisation plunging to the north east at 20 degrees. BT4 was drilled to test the down plunge continuation of this envelope at approximately 85m below surface, and 50m north of the intersection in EAF10. A secondary target in BT4 was the down plunge continuation of the high grade mineralisation intersected in EAF9 in the lens 2 position.

RESULTS:

BT4 intersected the lens 1 mineralisation within a metre of the predicted position giving credence to the postulated geometry. BT4 intersected a zone of 3.3m @ 0.106%Cu, 3.3%Pb, 4.8%Zn and 22g/t Ag this included a band of 0.3m @ 17.3%Pb and 23%Zn and 0.8m @ 12.8%Ba. This is the only significant barite occurrence identified to date at Browns Tunnel.

The lens 2 secondary target zone comprised cherty sedimentary rocks with several bands of >1%Zn. There is potential for the continuation of EAF9 mineralisation at a greater depth below BT4 (Figure 18).

5.2.3 PETROLOGY

A set of 12 polished thin sections (PTS) and 14 thin sections were prepared for petrographic examination. 5 of the PTS were accompanied by polished sections. This preparation was done by Pontifex Ltd. The petrographic sample locations, and descriptions are documented in Appendix 6.

OBJECTIVE:

The PTS were taken from both high and low grade mineralisation from EAF9 and BT2 to resolve the relationship between the white and brown sphalerite and the gunmetal coloured sulphides, and to determine mineral paragenesis. The set of 14 thin sections were taken to characterise different lithologies.

RESULTS:

The main features of note included:

- The presence of delicate polysynthetic twinning and growth zonation in sphalerite crystals indicate that the sphalerite is primary open space filling, and is undeformed and unmetamorphosed.
- The lack of deformation or annealing textures, indicates that the mineralisation is post deformation and post metamorphic.

- In incident light sphalerite boundaries are distinct, however in transmitted light, the peripheries to the translucent sphalerite grains are opaque. Under high magnification these opaque fringes can be resolved as an abundance of very fine chalcopyrite blebs, thus the opaqueness is the result of chalcopyrite dease. The chalcopyrite replacement seems to be accompanied by galena. Thus the fine grained gunmetal coloured sulphide comprises a mixture of remnant sphalerite partially to totally replaced by chalcopyrite and galena.

CONCLUSIONS:

The mineralisation is post deformation and post metamorphism.

The mineral paragenesis is: silica alteration; followed by sphalerite which is subsequently replaced by chalcopyrite and galena, and then muscovite and pyrite. The best gold grades appear to be associated with the early sphalerite but this observation needs verification. If this association is real, then it would indicate that gold is "liberated" by the replacement of sphalerite by chalcopyrite/galena, and therefore may have been redeposit peripheral to the sulphide lenses.

5.2.4 INFERRED RESOURCE -

A provisional inferred resource was done on Browns Tunnel lens 1 mineralisation to aid future planning (Figure 12). Specifications used to define this resource are shown in Table 2. Selected drill samples were re-assayed for Pb, Zn and Au to verify initial results (Tables 3 and 4).

Some re-assaying for multi-elements was also conducted as part of a comparative study with Rosebery mineralisation. (Table 5)

TABLE 2: PROVISIONAL INFERRED RESOURCE - BROWNS TUNNEL - LENS 1

Section	thick	width	infl.	sg	tonnes	Cu	Pb	Zn	Ag	Au
1	15.1	30.0	40	3	54 360	0.8000	5.90	9.80	43	0.50
2	8.0	26.0	25	3	15 600	0.7550	2.80	4.99	41	5.82
3	12.8	24.0	40	3	36 864	0.5000	0.40	5.20	56	0.42
4	18.0	25.0	50	3	67 500	0.9000	1.40	5.60	54	0.66
5	5.0	15.0	70	3	15 750	0.1060	3.30	4.80	22	0.53
					190 074	0.7161	2.77	7.67	48	0.98

The Inferred Resource is as follows:

190,000t @ 0.7%Cu, 2.8%Pb, 7.7%Zn, 48g/t Ag, & 0.98g/t Au

Note: an arbitrary SG of 3 has been used in the calculations, and no cut factors have been applied.

5.3 Browns Tunnel & Southern Trenches Grid

Detailed investigations at Browns Tunnel identified a rod-like geometry for lens 1 and its epigenetic character. The area was originally thought to have been quite well drill tested. The likely scenario for numerous lenses of mineralisation to have been missed in the past or simply classified as not being able to form a continuous sheet-like lens highlights the potential for the ground between Browns Tunnel and Southern Trenches to host more zones of mineralisation.

To commence an intense exploration programme between Browns Tunnel and Southern Trenches, 14.5km of refurbished and infill grids were cut (Figure 19) to enable a ground magnetic survey, soil sampling and mapping. Areas of known mineralisation at Southern Trenches were rock chipped which was followed by trenching, rock chipping and RC drilling.

hole	sample	Pb	Pb	x/y	Zn	Zn	x/y
EA66	77729	0.16	0.18	0.87	5.16	5.27	0.98
EA66	77730	0.15	0.16	0.96	1.45	1.46	0.99
EA66	77731	0.13	0.15	0.86	0.43	0.59	0.73
EA66	77732	0.33	0.36	0.92	1.16	1.17	0.99
EA66	77733	0.32	0.37	0.85	1.39	1.62	0.86
EA66	77734	0.11	0.12	0.89	0.98	1.03	0.95
EA66	77735	0.07	0.08	0.85	0.94	0.96	0.98
EA66	77736	0.12	0.13	0.90	4.10	4.50	0.91
EA66	77737	0.08	0.08	1.01	3.01	3.20	0.94
EA66	77738	0.03	0.04	0.76	0.68	0.74	0.92
EA66	77739	0.04	0.04	0.88	0.13	0.18	0.72
EA66	77740	0.15	0.21	0.69	0.36	0.49	0.73
EA66	77741	0.08	0.05	1.60	0.94	1.01	0.93
EA66	77742	0.02	0.02	0.94	0.08	0.10	0.78
EA66	77743	0.01	0.02	0.73	1.01	1.07	0.94
EA66	77744	0.07	0.08	0.82	4.44	5.19	0.86
BT2	77759	1.37	1.27	1.08	2.42	2.53	0.96
BT2	77760	1.20	1.09	1.10	1.30	1.26	1.03
BT2	77761	0.24	0.27	0.91	0.22	0.28	0.78
BT2	77762	0.64	0.61	1.05	2.70	2.84	0.95
BT2	77763	1.3	1.37	1.01	1.95	2.13	0.92
BT2	77764	1.75	1.13	1.09	11.10	9.62	1.15
BT2	77765	9.31	8.42	1.11	14.81	15.20	0.97
BT2	77766	4.11	3.67	1.12	8.00	7.37	1.09
BT2	77767	2.33	2.12	1.10	4.87	5.48	0.89
BT2	77768	3.38	3.12	1.08	6.12	5.84	1.05
BT2	77769	2.72	2.32	1.17	3.65	3.67	0.99
BT2	77770	4.36	4.10	1.06	6.70	6.40	1.05
BT2	77771	4.20	3.78	1.11	7.02		1.07
BT2	77772	23.20	20.60	1.13	32.50	31.60	1.03
BT2	77773	0.16	0.16	0.99	0.13	0.26	0.50
BT2	77774	0.16	0.18	0.89	0.11	0.17	0.65
BT2	77775	1.00	0.9	1.05	1.42	1.57	0.90

BROWNS TUNNEL

TABLE 3: DRILL SAMPLE Pb and Zn RE - ASSAYS

hole_id	lgc_samp	Au	Au(R)	Au(S)		x/y	x/z	y/z
EAF6	77731	0.158	0.249	0.239		0.63	0.66	1.04
EAF6	77732	0.683	0.635	-		1.08		
EAF6	77733	0.212	0.198	-		1.07		
EAF6	77739	0.014	0.016	-		0.88		
EAF6	77741	0.372	0.22	-		1.69		
EAF6	77744	0.466	0.419	-		1.11		
EAF6	77746	<0.008	<0.008	-				
EAF6	77749	<0.008	<0.008	-				
EAF6	77750	0.034	-	0.029			1.17	
BT1	77703	0.088		0.092			0.96	0.00
BT1	77712	0.058	0.051			1.14		
BT1	77722	0.246	0.231	0.225		1.06	1.09	1.03
BT1	77724	<0.008	<0.008					
BT1	77725	<0.008		<0.008				
BT2	77754	0.874	1.13			0.77		
BT2	77761	0.065		0.064			1.02	0.00
BT2	77764	0.322	0.361	0.332		0.89	0.97	1.09
BT2	77765	0.272	0.258			1.05		
BT2	77766	0.305	0.288			1.06		
BT2	77767	0.375	0.372			1.01		
BT2	77770	0.216	0.241			0.90		
BT2	77771	0.967	0.921	0.82		1.05	1.18	1.12
BT2	77772	1.87	1.76	2.27		1.06	0.32	0.78
BT2	77774	<0.008	0.012					
BT2	77776	0.008		<0.008				
BT3	77793	0.004	0.003			1.33		
BT3	77794	0.005	0.005			1.00		
BT3	77795	0.006	0.006			1.00		
BT3	77860	0.003	0.003			1.00		
BT3	77863	7.78	5.61			1.39		
BT3	77864	1.17	1.32			0.89		
BT3	77872	0.186	0.195			0.95		
BT3	77873	0.091	0.063			1.34		
BT4	77884	0.1	0.142			0.70		
BT4	77885	0.379	0.34			1.11		
BT4	77886	0.484	0.587			0.82		
BT4	77887	0.369	0.36			1.03		
BT4	77889	1.11	0.926			1.20		
BT4	77890	0.11	0.149			0.94		
BT4	78507	0.231	0.235			0.98		

BROWNS TUNNEL

TABLE 4: DRILL SAMPLE Au RE - ASSAYS

ASSAY RESULTS

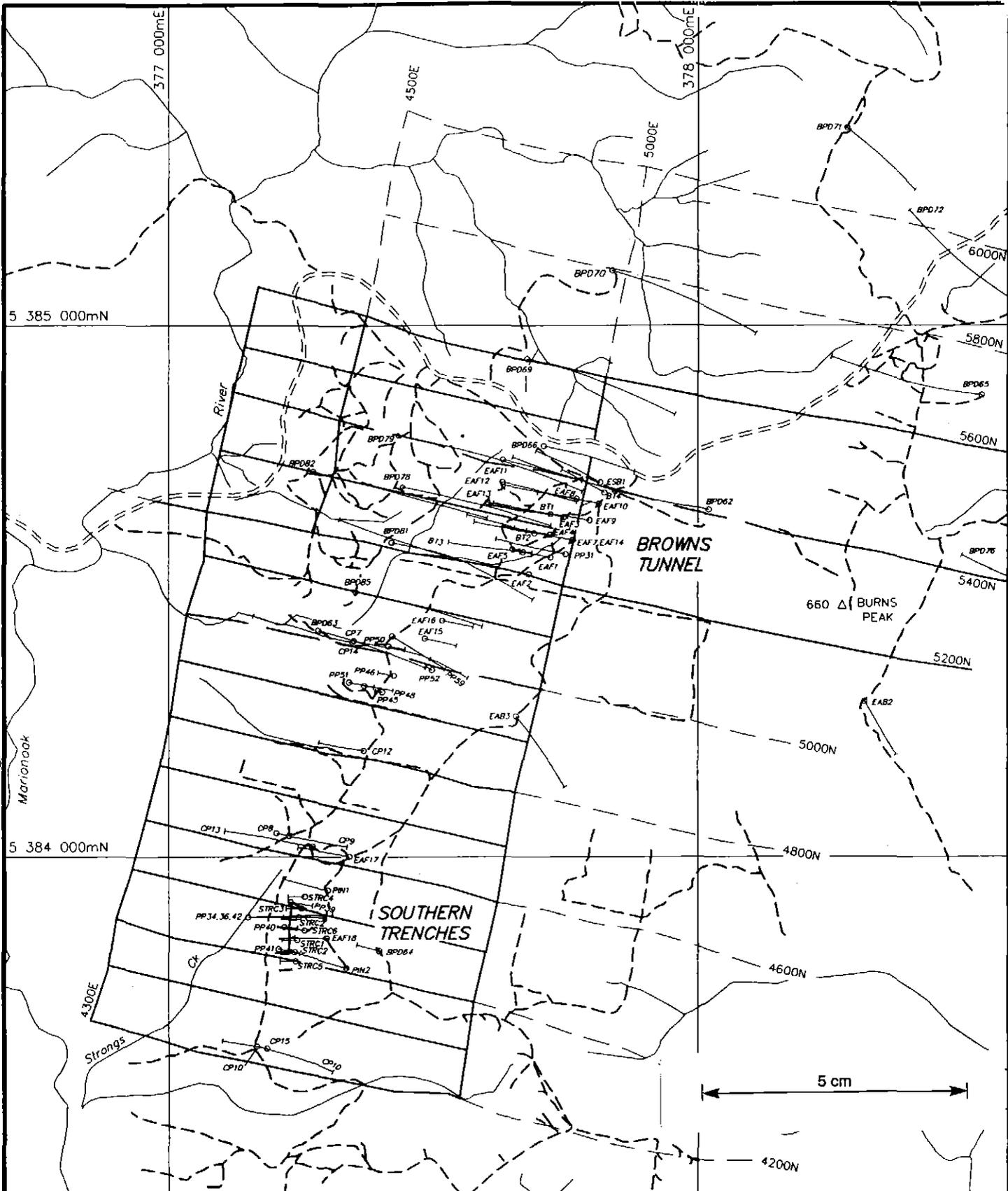
hole	sample	Cu	Pb	Zn	Ag	As	Co	Bi	Cd	Mo	V	Sb	Sn	W	P	S
EAf6	77729	0.32	0.18	5.27	14	247	6	25	147	95	22	142	34	100	100	7.1
EAf6	77730	0.04	0.16	1.46	9	172	11	14	40	31	37	52	30	50	345	4.9
EAf6	77731	0.17	0.15	0.59	12	226	15	25	15	49	39	100	<3	15	360	6.8
EAf6	77732	0.17	0.36	1.17	32	282	11	71	33	44	30	53	10	80	120	10.4
EAf6	77733	0.36	0.37	1.62	23	505	11	29	43	<5	45	220	8	60	330	4.9
EAf6	77734	0.04	0.12	1.03	5	113	12	<10	29	<5	56	62	7	35	525	3
EAf6	77735	0.07	0.08	0.96	5	52	13	15	28	<5	59	48	69	35	550	3.4
EAf6	77736	0.02	0.13	4.5	6	54	12	20	122	<5	53	26	34	45	515	4.5
EAf6	77737	0.02	0.08	3.2	3	<50	12	<10	86	10	43	20	59	40	545	2.6
EAf6	77738	0.05	0.04	0.74	1	<50	5	<10	17	<5	44	66	47	40	535	1
EAf6	77739	<0.01	0.04	0.18	1	<50	8	<10	3	<5	47	7	6	15	755	0.61
EAf6	77740	<0.01	0.21	0.49	1	<50	8	<10	10	<5	51	6	<3	10	1000	0.64
EAf6	77741	0.03	0.05	1.01	2	<50	8	<10	27	<5	60	8	6	40	1010	1
EAf6	77742	<0.01	0.02	0.1	<1	<50	5	<10	1	<5	62	4	3	<10	1090	0.48
EAf6	77743	0.07	0.02	1.07	3	<50	4	<10	31	12	63	7	<3	20	1160	1.4
EAf6	77744	0.41	0.08	5.19	18	<50	5	36	151	<5	54	8	60	100	1050	3.2
BT2	77759	0.08	1.27	2.53	6	143	3	<10	83	11	72	17	5	45	675	5.3
BT2	77760	0.02	1.09	1.26	4	142	5	<10	37	18	94	25	8	10	1800	5.3
BT2	77761	<0.01	0.27	0.28	3	108	7	<10	6	26	88	24	4	<10	380	3.1
BT2	77762	0.05	0.61	2.84	4	<50	<3	<10	86	16	25	11	3	<10	200	2.7
BT2	77763	0.06	1.37	2.13	8	65	<3	<10	65	27	20	18	3	30	160	2.8
BT2	77764	0.45	1.13	9.62	27	398	7	33	244	225	56	44	<3	<10	260	14.8
BT2	77765	1.07	8.42	15.2	63	<50	<3	12	336	461	52	69	10	100	<30	15.5
BT2	77766	0.71	3.67	7.37	36	75	<3	<10	186	101	33	32	6	200	60	7.3
BT2	77767	0.68	2.12	5.48	26	140	<3	<10	133	51	40	27	3	200	50	4.2
BT2	77768	0.53	3.12	5.84	31	134	4	<10	144	68	34	108	<3	100	50	4.7
BT2	77769	0.24	2.32	3.67	16	139	5	<10	91	40	23	28	<3	65	<30	3.7
BT2	77770	0.64	4.1	6.4	27	164	9	<10	158	139	64	27	<3	100	40	5.8
BT2	77771	0.89	3.78	6.59	40	141	4	<10	163	96	30	47	<3	250	<30	7.4
BT2	77772	2.22	20.6	31.6	144	610	<3	<10	800	245	23	115	5	<10	100	26
BT2	77773	<0.01	0.16	0.26	2	56	<3	<10	2	17	15	8	11	<10	170	0.61
BT2	77774	<0.01	0.18	0.17	2	<50	<3	<10	2	24	26	9	<3	<10	280	1.1
BT2	77775	0.1	0.95	1.57	11	<50	6	<10	42	35	64	16	3	<10	250	1.8

BT average	0.23	1.7	4	18	120	6	8	102	56	46	44	13	54	438	5.1
Rosebery	0.66	3.37	10.6	73	1300	14	75	260	10	36	240	15	21	183	20.7

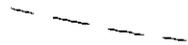
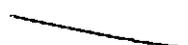
TABLE 5: BROWNS TUNNEL / ROSEBERY MINERALISATION COMPARISON

328040

328041



LEGEND

-  Existing grid line
-  Refurbished grid
-  IP lines
-  Trench
-  Drillhole

5 383 000mN

 PASMINCO EXPLORATION A Division of Pasminco Australia Limited	
COMPILED : S.M.D. DATE : Oct., 1996 DRAWN : G.M.B. REVISIONS : FILE : 10_SSCMDRTR	E.L. 44/88 - BURNS PEAK JV BROWNS TUNNEL-SOUTHERN TRENCHES SOIL SAMPLING/ GROUND MAG LINES, DIAMOND AND RC HOLES AND TRENCHES
DRAWING No.	SCALE 1:10,000  0 200 m
FIG. No. 19	

5.3.1 SOIL SAMPLING

585 'C' horizon soil samples were collected using a hand auger. Samples were taken every 20m on grid lines 100m apart. Samples were sent to Australian Assay Laboratories in Brisbane for Au (PM219) and Cu, Pb, Zn, Ag, Fe, Mn, Ba, As (IC587) analysis.

At the time of reporting results were not available.

5.3.2 GROUND MAGNETIC SURVEY - BROWNS TUNNEL

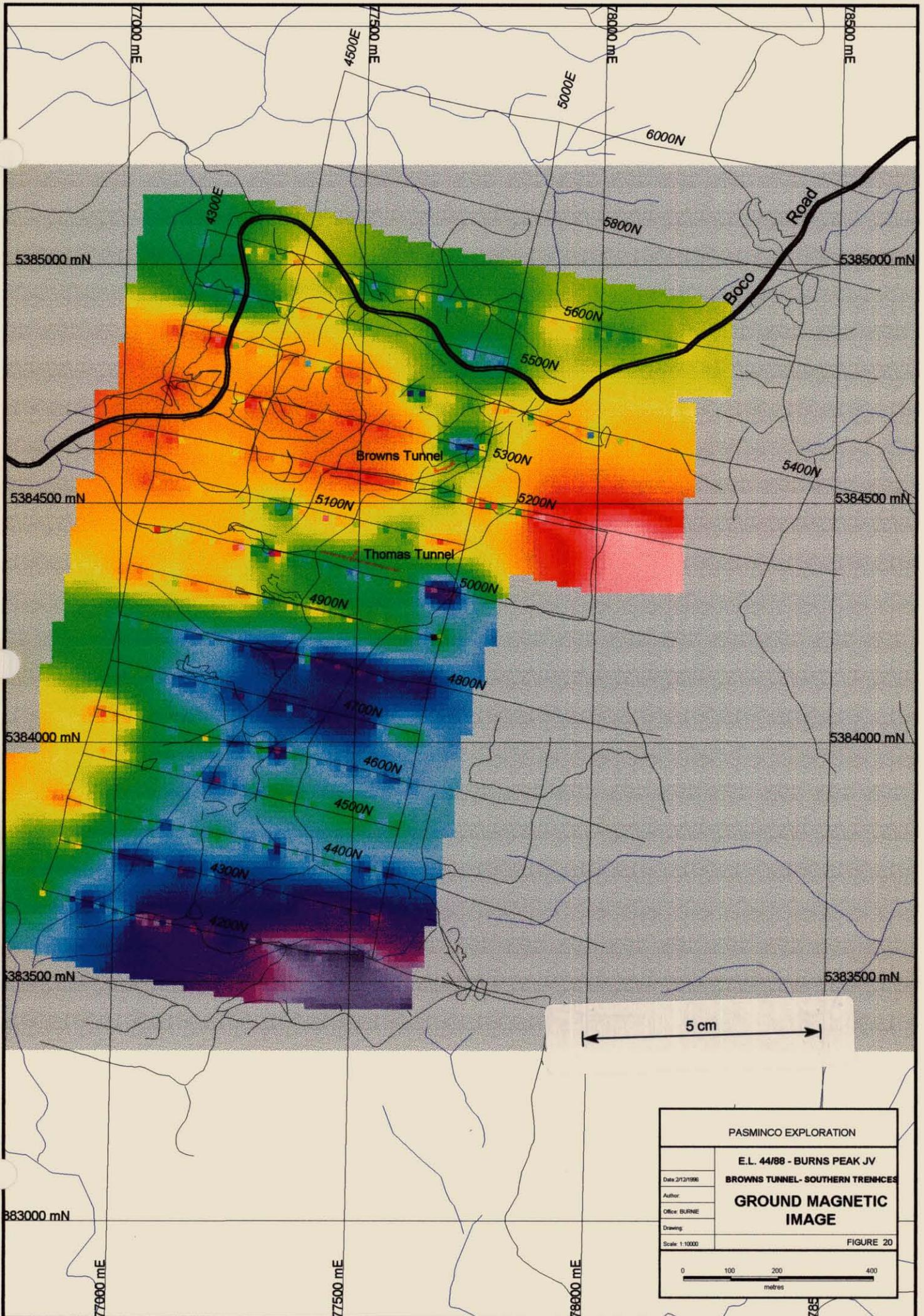
A ground magnetic survey was conducted over the Browns Tunnel - Southern Trenches 100m spaced grid in August. A GSM 19-F overhauser rapid sampling magnetometer was used to collect field data, with samples taken along lines every 1 second (equating to 1.5m). Diurnal variation was monitored by a Scintrex OMNI-IV magnetometer, taking readings every ten seconds. Profiles are located in Appendix 7.

Data indicated the presence of a major NNE-SSW structure running through the area, which is located proximal to the Southern Trenches mineralisation and the Browns Tunnel mineralisation (Figure 20). Data also indicated further structural complexity to the area.

Several magnetic lows were also prominent in the data, with one correlating to the location of the Browns Tunnel prospect.

5.3.3 TRENCHING, ROCK CHIP SAMPLING AND MAPPING

Trenches ST1-4 were dug by past explorers in the Southern Trench area with some encouraging rock chip results particularly from ST2. After repeat sampling in ST2 resulted in 6m @ 11% Zn, 8.3% Pb, 1% Cu, 64g/t Ag and 4.9g/t Au it was decided to dig two east-west trenches 20m north (ST5) and south (ST6) of the mineralisation in



5 cm

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BROWNS TUNNEL - SOUTHERN TRENCHES	
GROUND MAGNETIC IMAGE	
Date: 2/12/1986	FIGURE 20
Author:	
Office: BURNE	
Drawing:	
Scale: 1:10000	
0 100 200 400 metres	

ST2 and to clear the old ST3 trench. A north-south trench ST7 was dug connecting ST1 to ST3 (Figure 21).

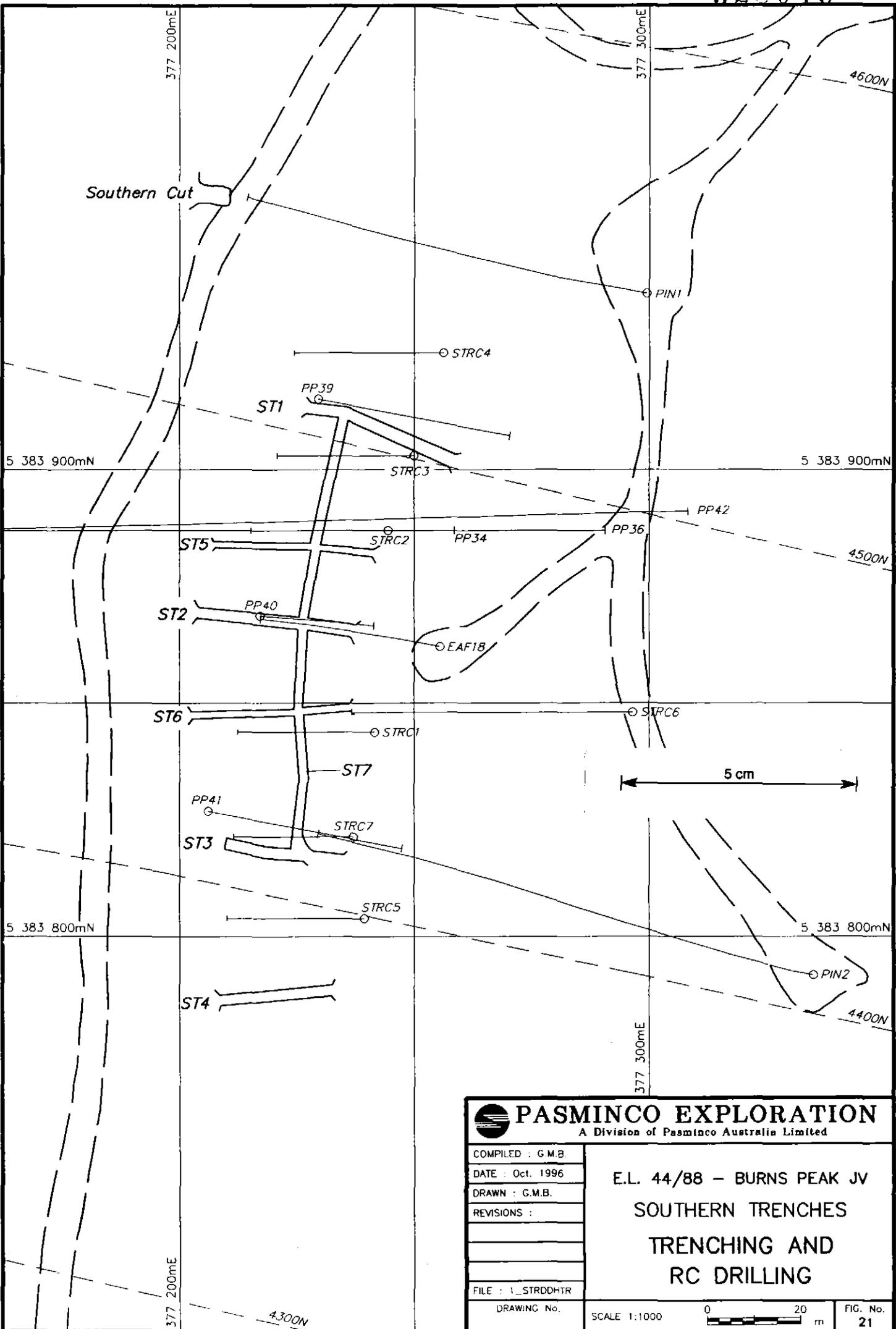
Two pods up to 5m wide of massive Zn-rich sulphide breccia were exposed, as well as zones of alteration and minor sulphide mineralisation. All new trenched areas have been rock chipped and results are awaited.

The exposure created by trenching has enabled detailed mapping of this complex zone. The roughly N-S striking zone of mineralisation occurs between two coherent blocks of pumice breccias and from W to E consists of a pyritic "blocky" zone, a sericitic "knotty" zone, a siliceous zone with massive sulphide breccia and then a band of cherty sediment and/or sericitic cataclastite. The first phase of this mapping by FC Murphy is illustrated in Figure 22.

5.3.4 RC DRILLING

Seven RC holes totaling 441m were drilled at the Southern Trenches prospect to test down dip/plunge extensions to surface mineralisation in the trenches and also to test up dip/plunge and along strike mineralisation which has been intersected in holes drilled by past explorers. The collar position of STRC1-7 and drill hole traces are shown on Figure 21.

The drill holes intersected a sequence dominated by competent pumice breccia and minor bands siltstone, and chert sediment. Silicic and sericitic alteration and minor sphalerite mineralisation was intersected in holes STRC1, 2, 3 and 7 with STRC5 having the best intercept estimated at 5m of >20% combined basemetal mineralisation. Results from the RC drilling have not been received at the time of reporting.



 PASMINCO EXPLORATION A Division of Pasma Australia Limited			
COMPILED : G.M.B.	E.L. 44/88 - BURNS PEAK JV SOUTHERN TRENCHES TRENCHING AND RC DRILLING		
DATE : Oct. 1996			
DRAWN : G.M.B.			
REVISIONS :			
FILE : 1_STRDDHTR			
DRAWING No.	SCALE 1:1000		FIG. No. 21

6 CONCLUSIONS AND RECOMMENDATIONS

Significant progress was made during the licence year, relating to the geometry and genesis of mineralisation at Browns Tunnel. Results of this work include:

- Defining a provisional inferred resource of 190 000t @ 0.7% Cu, 2.8% Pb, 7.7% Zn, 48g/t Ag and 0.98g/t Au for lens 1.
- Identifying the high probability of numerous other lenses of mineralisation within the immediate Browns Tunnel area.
- Highlighting the high prospectivity of the ground between Browns Tunnel and Southern Trenches, as well as the Southern Trenches prospect to host similar lenses of mineralisation.

Recommendations for the coming licence year includes:

- further detailed resource evaluation at Browns Tunnel including RC drilling on a grid pattern;
- evaluation of Southern Trenches mineralisation;
- follow up the results of the Browns Tunnel - Southern Trenches grid soil and ground magnetic surveys;
- testing of a zone of slight base metal anomalism at the contact between the Hollway Andesite and the Southwell Subgroup proximal to a N-S trending fault identified in recent IP data.

7 ENVIRONMENTAL DISTURBANCE AND REHABILITATION

Drilling in the Browns Tunnel area where possible made use of existing tracks. Approximately 100m of new track was made in the Southern Trench area to facilitate the RC drilling. Sumps were refilled on removal of rig, however sites have not been rehabilitated.

14.5km of grid were cut or refurbished in the Browns Tunnel to Southern Trenches area.

Minor trenching work totaling approximately 150m, was carried out in the immediate vicinity of Southern Trench No 2.

No rehabilitation work has been completed during the licence year.

8 EXPENDITURE

Expenditure on EL 44/88 during the 12 month period ending October 1996 was \$580 278. This brings the total spent on EL 44/88 since its inception in December 1988 to \$2 795 173.

Personnel	173 239
Travel & Accommodation	11 000
Geochemical Consultants & Assays	25 895
Geophysical Surveys & Surveys	68 817
Other Consultants	19 262
Drilling	146 116
Stores & Supplies	11 418
Vehicles Plant & Equipment	11 114
Land	3 541
Computing	9 541
Office	47 582
Administration Fee	52 753
TOTAL	580 278

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KEYWORDS

COPPER, ZINC, GOLD, ANDESITE, BASALT, RHYOLITE, VOLCANICS, FAULT, SHEAR ZONE, FOLD, PYRITE, CHLORITE, SERICITE, CARBONATE, MASSIVE SULPHIDES, ASSAYS GEOCHEM, DRILL DIAMOND, GEOCHEM SOIL, GEOL MAPPING DETAILED, GEOPHYS BOREHOLE, GEOPHYS MAGNETICS, ALTERATION, ORE POTENTIAL.

LOCATION

BURNIE SK5503

MT READ VOLCANICS, BURNS PEAK, SOUTHERN TRENCHES, THOMAS'S TUNNEL, BROWN'S TUNNEL, SHALE BASIN, SUMMIT, HOLLWAY, EAST HOLLWAY.

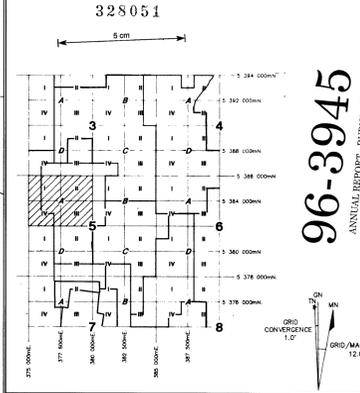
LEGEND

- 1. General Form**
 Colour, grain size, overall texture, Rock Type, constituents & textures, alteration, mineralisation.
 Descriptors and Rock Types to be separated by comma or slash. Derwent series 19 colours (in brackets) are intended for the Cambrian sequences.
- 2. Rock Types**
- | | | | |
|--------------|----------|--------------|------------------|
| Lavas | L | (a) acid | (4) intermediate |
| | I | (1) basaltic | (5) rhyolitic |
| | D | (1) dacitic | (4) andesitic |
- Intrusives**
- | | | |
|-----------|-------------|------------------|
| I | (1) acid | (4) intermediate |
| B | basic | |
| F | felsic | |
| P | porphyritic | |
| S | granitic | |
| PP | pegmatitic | |
- Volcanoclastics**
- | | |
|-----------|------------------------|
| PM | pyroclastic mass flow |
| V | quartz phric mass flow |
| SP | sandstone |
- Sediments**
- | | | |
|-----------|------------------------|------------------------------|
| S | (3) shale | (34) slate incl. black slate |
| ST | stiltstone | |
| SP | sandstone | |
| T | turbidite | |
| W | wacke | |
| CO | conglomerate | |
| B | breccia | |
| CS | clay silt | |
| LS | limestone | |
| DL | dolomite | |
| Q | quartzite | |
| IF | iron formation | |
| G | glacial deposits | |
| FD | fluvioglacial deposits | |
| QD | quartz deposits | |
| M | metasiltstone | |
- Metamorphic Rocks** **M**
 Colours should be hatched
- | | |
|-----------|-------------|
| SH | schist |
| SP | semi-pelite |
| PS | psammite |
| AM | amphibolite |
| GR | gneiss |
| SK | skarn |
| MS | marble |
| M | mylonite |
- Unassigned** **U** Use alone or as a qualifier to other rock types where uncertain.
- 3. Descriptors**
- Colour:**
- | | |
|----|---------|
| bl | blue |
| pk | pale |
| dk | dark |
| cr | clear |
| or | orange |
| bk | black |
| pk | pink |
| rd | red |
| br | brown |
| wh | white |
| yl | yellow |
| cl | clay |
| gn | green |
| pp | purple |
| cm | carmine |
- Grain size:**
- | | |
|-----|---------------------|
| fg | fine grained |
| mg | medium grained |
| cg | coarse grained |
| vfg | very coarse grained |
- Overall Texture:**
- | | |
|-----|-----------------|
| aug | augitic |
| p | porphyritic |
| fol | foliated |
| clv | cleaved |
| ms | massive |
| blk | blocky |
| bd | bedded |
| lam | laminated |
| abd | cross bedded |
| br | brecciated |
| fb | flow banded |
| fb | flow brecciated |
- Constituents & Internal Textures:**
- | | |
|-----|---------------|
| f | feldspar |
| q | quartz |
| l | lithic |
| pm | porphyroclast |
| stf | stylonites |
| wsp | wasp |
| ves | vesicles |
| sp | spherulites |
| lph | lithophysae |
- Alteration:**
- | | |
|-----|--------------------|
| ab | albitised |
| ca | calcite alteration |
| ch | chloritised |
| ser | sericitised |
| ks | kaolinitised |
| sd | sericite |
| fl | fluvioglacial |
| qu | quartz |
| sil | silicified |
- Mineralisation:**
- | | |
|-----|-------------|
| str | stringer |
| ms | massive |
| g | gossan |
| bx | barren |
| gr | granite |
| po | pyroclastic |
| am | amphibolite |
| gn | gneiss |
| sp | spinelite |
| mg | magnetite |
| hm | haematite |

- 4. Mapping Symbols**
- | | | | |
|---|--|---|--------------------------------------|
| — | Strike and Dip of Strata | — | Unconformity |
| — | Strike and dip of inverted strata | — | Fault |
| — | Strike and dip of cleavage or foliation | — | Thrust Fault |
| — | Plunge of lineation | — | Plunging anticline |
| — | Geological boundary position accurate | — | Plunging synform |
| — | Geological boundary position approximate | | |
| ⊙ | Mine | | |
| ⊙ | Abandoned prospect or mine | | |
| — | Coastline or trench | | |
| ⊙ | Diamond drill hole, including projection | | |
| — | Shear/mylonite | — | Tectonic breccia |
| — | Intense regional cleavage | — | Manganese oxide coating on outcrop |
| — | Disseminated pyrite | — | Mineralisation massive, disseminated |
- X Rock chip sampling

NOTE SOURCE

Comstaff Mapping	1984	10%
BHP Mapping	1986	5%
Geopetio/Pasminco Mapping	1988-1991	50%
R. Reid (Tas. Uni.)	1990	5%
B. Coutts (Tas. Uni.)	1990	10%



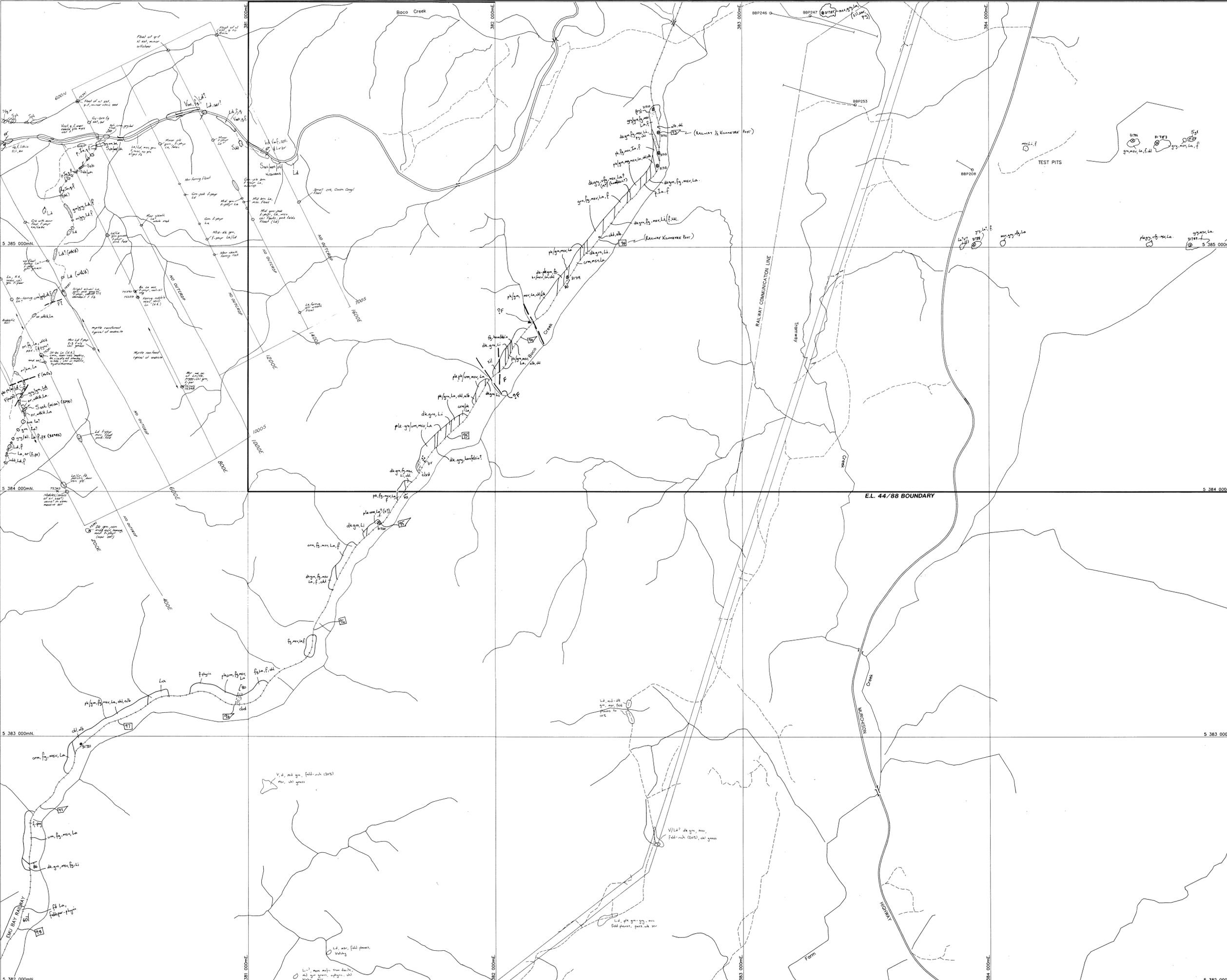
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COMPILED : L.W.K.
 DATE : Oct. 1991
 DRAWN : G.M.B.
 REVISIONS :
 L.W.K. 1992
 M.S.S. April 1994
 April 1995, Jan. 1996

E.L. 44/88 - BURNS PEAK JV
HOLLWAY - CONE HILL
OUTCROP GEOLOGY

DRAWING No. SHEET 5A SCALE 1:5000 FIG. No. 5

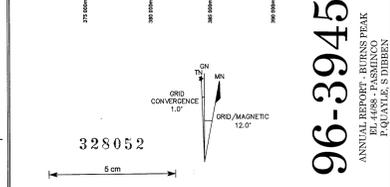
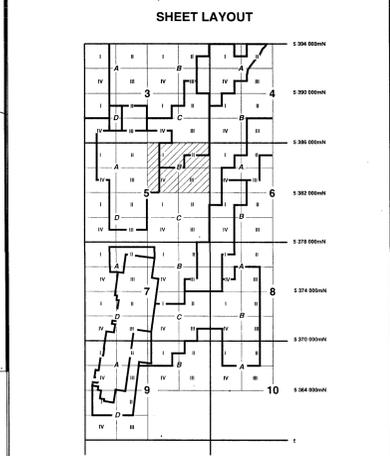
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 ANNUAL REPORT - BURNS PEAK
 E.L. 44/88
 P. QUANTLE, EDITOR



LEGEND

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 Colour, grain size, overall texture, Rock Type, constituents & textures, alteration, mineralisation.
 Descriptors and Rock Types to be separated by comma or slash. Derwent series 19 colours (in brackets) are intended for the Cambrian sequences.
- 2. Rock Types**
- | | | | | | |
|----------------|----------|------------------|--------------|----------------|----------------|
| L Lavae | (a) acid | (4) intermediate | (8) basaltic | (12) rhyolitic | (16) andesitic |
|----------------|----------|------------------|--------------|----------------|----------------|
- Intrusives I**
- | | | | | | | |
|----------|------------------|--------------|------------|-----------------|--------------|----------------|
| (1) acid | (2) intermediate | (3) basaltic | (4) felsic | (5) porphyritic | (6) granitic | (7) pegmatitic |
|----------|------------------|--------------|------------|-----------------|--------------|----------------|
- Volcaniclastics V**
- | | | |
|-------------------------|-----------------------------|---------------|
| (1) pumiceous mass flow | (2) quartz phytic mass flow | (3) sandstone |
|-------------------------|-----------------------------|---------------|
- Sediments S**
- | | | | | | | | | | | | | | | | |
|-----------------------------|---------------|---------------|---------------|-----------|------------------|-------------|-----------|---------------|---------------|----------------|---------------------|----------------------|-----------------------------|------------------------|---------------|
| (1) shale incl. block slate | (2) siltstone | (3) sandstone | (4) turbidite | (5) waste | (6) conglomerate | (7) breccia | (8) chert | (9) limestone | (10) dolomite | (11) quartzite | (12) iron formation | (13) gneiss deposits | (14) fluvioglacial deposits | (15) alluvial deposits | (16) mudstone |
|-----------------------------|---------------|---------------|---------------|-----------|------------------|-------------|-----------|---------------|---------------|----------------|---------------------|----------------------|-----------------------------|------------------------|---------------|
- Metamorphic Rocks M**
 Colours should be hatched
- | | | | | | | | |
|------------|-----------------|--------------|-----------------|---------------|-----------|------------|--------------|
| (1) schist | (2) semi-pelite | (3) psammite | (4) amphibolite | (5) granulite | (6) skarn | (7) marble | (8) mylonite |
|------------|-----------------|--------------|-----------------|---------------|-----------|------------|--------------|
- 3. Descriptors**
 Colour:
 pl pale, bl blue, dk dark, wh white, cr clear, yel yellow, or orange, ol olive, blk black, gm green, pk pink, pl purple, rd red, brn brown, crm cream
- Grain Size:**
 fg fine grained, mg medium grained, cg coarse grained, vcg very coarse grained
- Overall Texture:**
 p porphyritic, fol foliated, chl cleaved, m massive, blk blocky, bed bedded, lam laminated, xbd cross bedded, slm silt cross laminated, br brecciated, fl flow banded, fa flow brecciated, ufs upwards fining sequence
- Constituents & Internal Textures**
- | | | |
|--------------|-----------------|----------------|
| f feldspar | q quartz | st stibite |
| pm pumice | stl stibite | wsp wisp |
| ves vesicles | sph spherulites | lph lithophyse |
- Alteration:**
 alb albitised, co carbonate alteration, chl chloritised, ser sericitised, hss hornblended, ep epidotised, st stibitised
- Mineralisation:**
 dia disseminated, str stringer, msv massive, gss gangue, bx boxwork, py pyrite, po pyrrhotite, asp arsenopyrite, gdd galena, sp sphalerite, mag magnetite, hm haematite
- Unassigned U**
 Use alone or as a qualifier to other rock types where uncertain.

- 4. Mapping Symbols**
- | | |
|--|----------------------|
| — Strike and Dip of Strata | — Unconformity |
| — Strike and dip of inverted strata | — Fault |
| — Strike and dip of cleavage or foliation | — Thrust Fault |
| — Plunge of lineation | — Plunging anticline |
| — Geological boundary position accurate | — Plunging synform |
| — Geological boundary position approximate | |
- Mine
 Abandoned prospect or mine
 Coseam or trench
 Diamond drill hole, including projection
 X Rock chip sample



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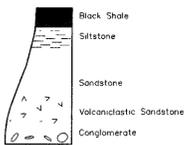
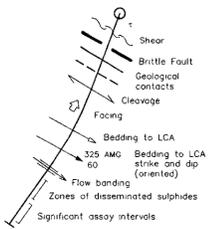
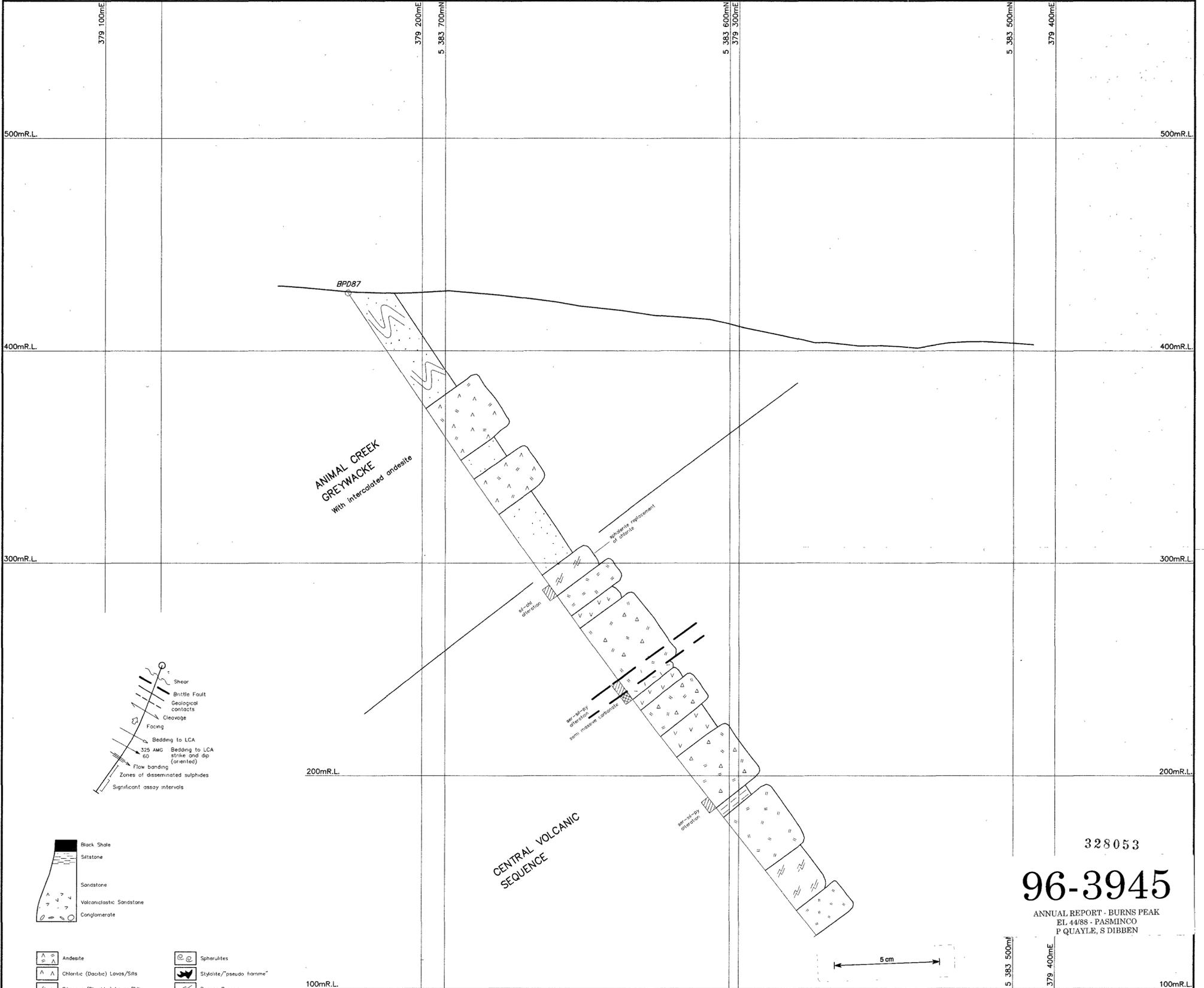
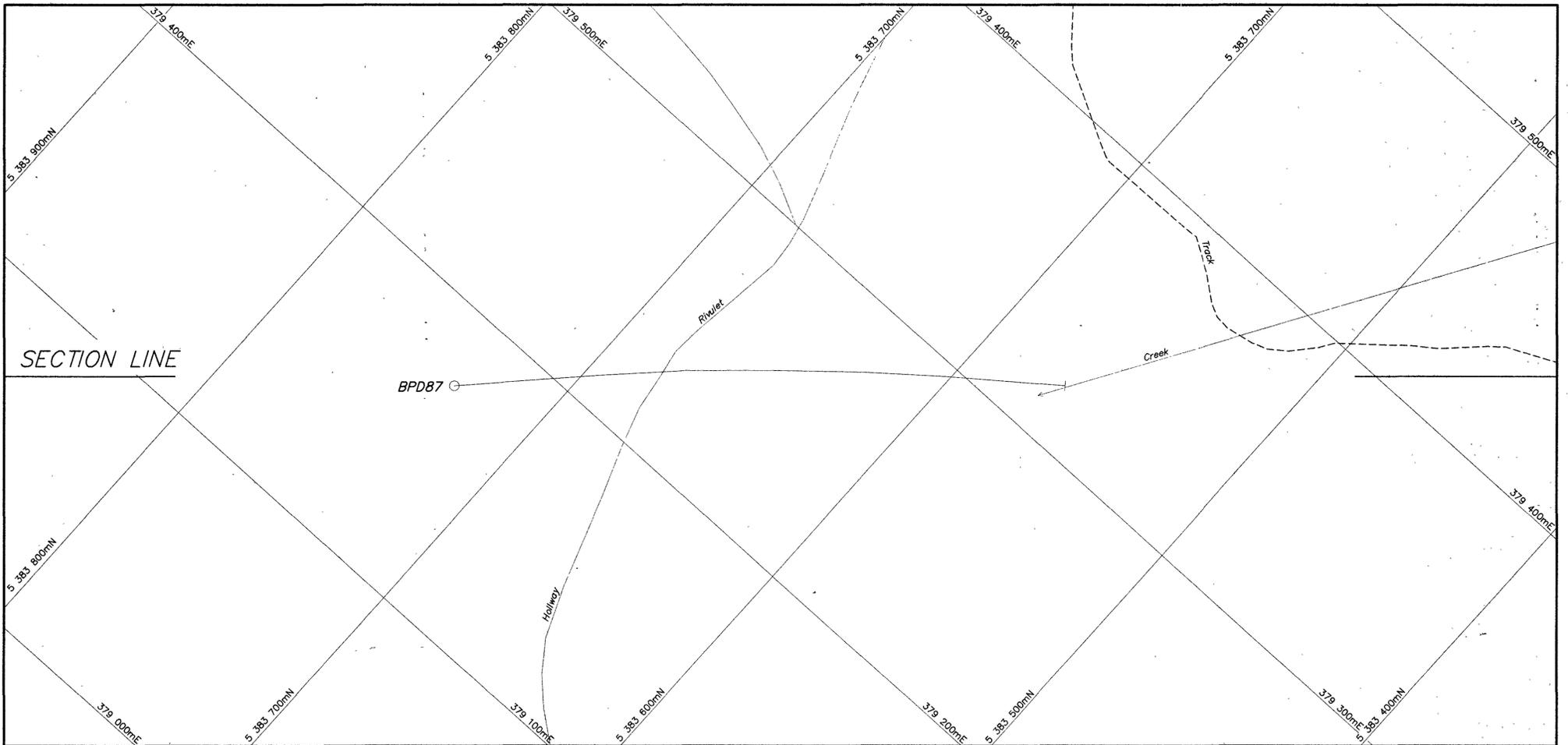
HOLLWAY

OUTCROP GEOLOGY

COMPILED: L.W.K.
 DATE: Oct., 1991
 DRAWN:
 REFERENCE:
 REVISIONS:
 L.W.K. - 1992
 M.S.S. Feb., 1996

DRAWING No. SHEET 5B
 SCALE 1:5000
 FIG. No. 6

96-3945
 ANNUAL REPORT - BURNS PEAK
 EQUUS 45, SUBBEN



- | | |
|---|---|
| <ul style="list-style-type: none"> Andesite Chloritic (Dacitic) Lavas/Salts Siliceous (Rhyolitic) Lavas/Salts Basic Dyke Hyaloclastite, Peperite Lava/sediment breccias Breccia Feldspar Quartz Crystals Lithic Clasts Black Mudstone Clasts Vesicles/Amygdaloids | <ul style="list-style-type: none"> Spherulites Stylolite/"pseudo flame" Pumice Breccia Flow Banding Gloamy silica or Nodular Carbonate alteration Skins Sulphides Schistose Massive Sulphides Brecciation (crackle/in-situ) |
|---|---|

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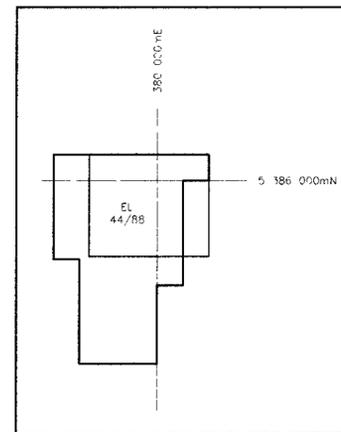
ANNUAL REPORT - BURNS PEAK
EL 44/88 - PASMINGO
P QUAYLE, S DIBBEN

PASMINGO EXPLORATION A Division of Pasmingo Australia Limited	
COMPILED : M.S.S. DATE : Feb., 1996 DRAWN : G.M.B. REVISIONS : FILE : BPD87_A1	E.L. 44/88 - BURNS PEAK JV HOLLWAY INTERPRETED DRILL SECTION BPD87 BEARING 138° AMG
DRAWING No.	SCALE 1:1000
	FIG. No. 7

LEGEND

-  New grid line
-  Refurbished grid line

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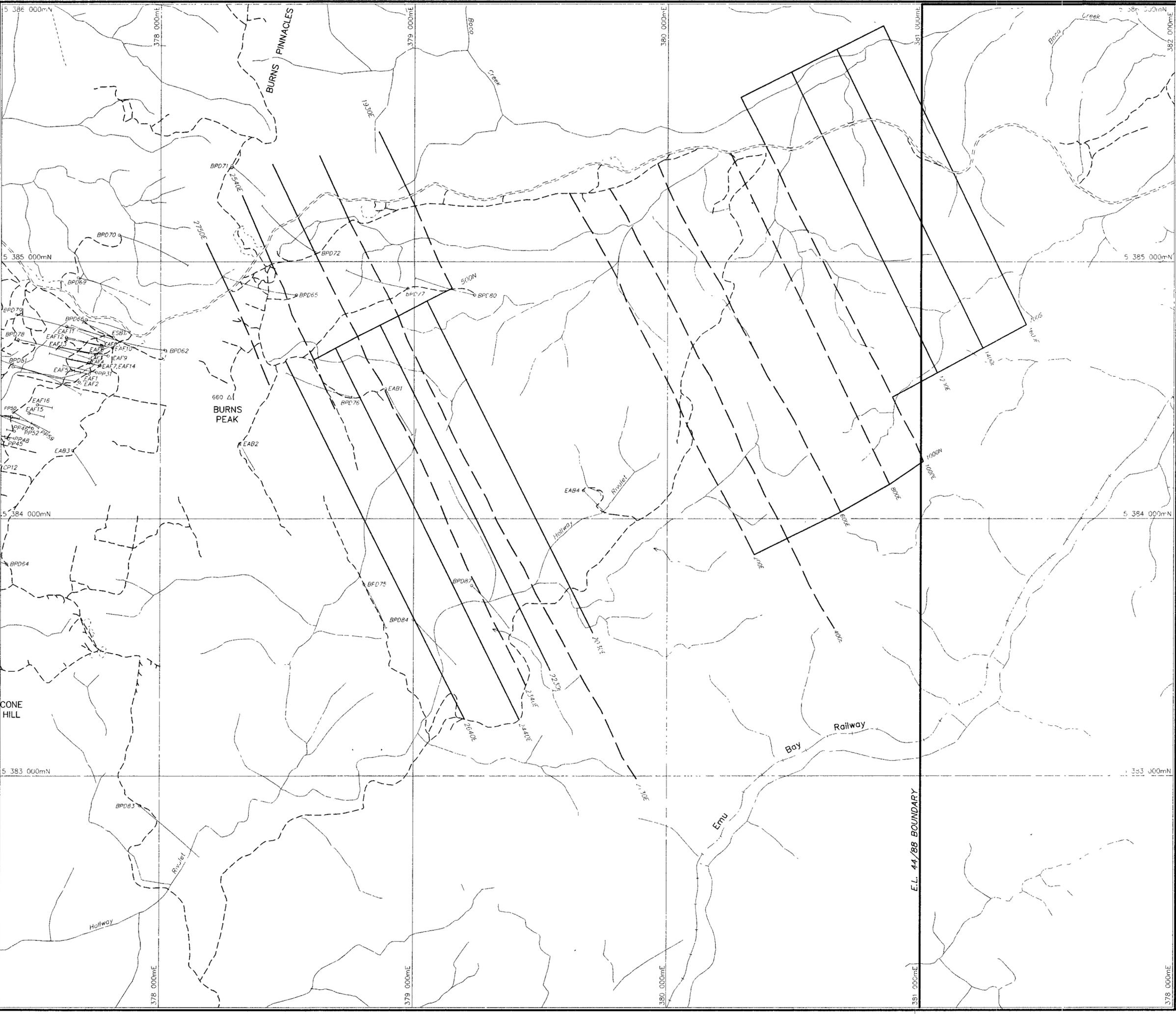
96-3945

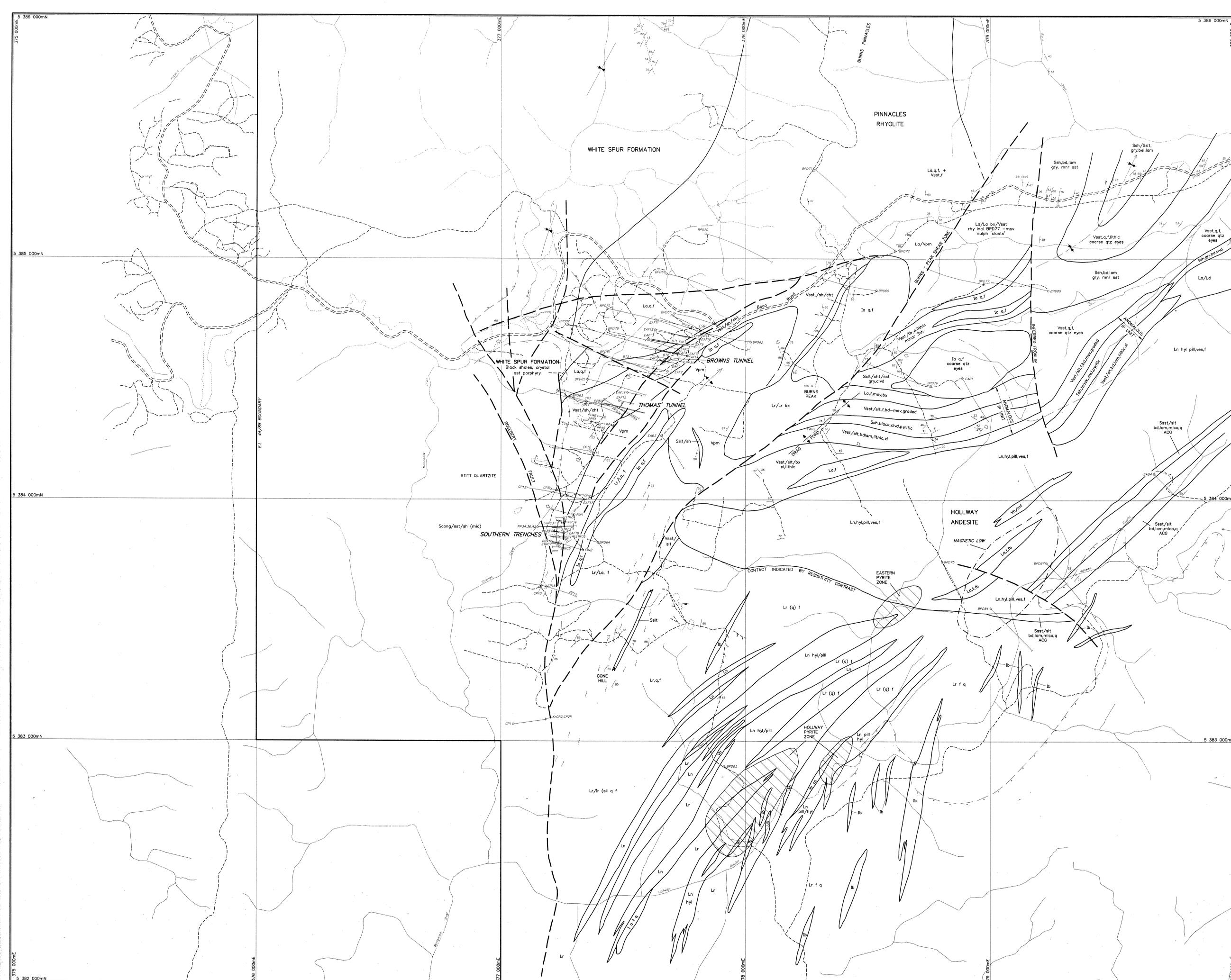
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DATE	July 1996
DRAWN	GMB
REVISIONS	
FILE	iO_BRGRID
DRAWING No	

**E.L. 44/88 - BURNS PEAK JV
HOLLWAY
I.P. AND GROUND
MAGNETIC SURVEY
GRID**

SCALE 1:10 000 0 200 m FIG No 8





LEGEND

1. GENERAL FORM
 Rock type, colour, grain size, overall texture, constituents & textures, alteration, mineralisation.
 Rock Types can be combined using a -
 Subordinate Rock Types are separated by /
 Each Descriptor Group is separated by .
 Descriptors within a group are separated by .
 Derwent series 19 colours (in brackets) are intended for the Cambrian sequences.

2. ROCK TYPES

Lavas	L	141 acid
Intrusives	I	142 intermediate
Volcaniclastics	V	143 basic
		144 ultrabasic
		145 dacite
		146 andesite
		147 basalt
		148 granite
		149 diorite
		150 gabbro
		151 peridotite
Sediments	S	152 black shale
Volcaniclastics	V	153 shale
		154 siltstone
		155 sandstone
		156 greywacke
		157 conglomerate
		158 breccia
		159 turbidite
		160 mass flow
		161 chert
		162 limestone
		163 dolomite
		164 iron formation
		165 glacial deposits
		166 evaporite
		167 diatomite
		168 colluvial deposits (talus)
		169
		170
		171
		172
Metamorphic and tectonic rocks	M	173 schist
		174 quartzite
		175 hornfels
		176 soapstone
		177 marble
		178 mylonite
		179
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3. DESCRIPTORS

Colour:
 101 white
 102 cream
 103 yellow
 104 orange
 105 red
 106 purple
 107 blue
 108 green
 109 brown
 110 black
 111 grey
 112 tan
 113 pink
 114 light blue
 115 light green
 116 light purple
 117 light brown
 118 light grey
 119 light tan
 120 light pink

Grain size:
 121 fine grained
 122 medium grained
 123 coarse grained
 124 very coarse grained

4. MAPPING SYMBOLS

Strike and Dip of Strata
 Strike and dip of inverted strata
 Strike and dip of cleavage or foliation
 Plunge of lineation
 Geological boundary position accurate
 Geological boundary position approximate
 Fluvio-glacial cover
 Mine
 Abandoned prospect or mine
 Adit/workings
 Costean or trench
 Diamond drill hole, including projection

Unconformity
 Fault
 Fault with dip
 Thrust Fault
 Plunging antiform
 Plunging synform
 Shear/strong cleavage
 Ven
 Finging

NOTE
 Geological mapping by: A N Lomigan, L W Kirchner, R A Patock, M S Savan
 Interpretation by: A N Lomigan, L W Kirchner, R A Patock and M S Savan

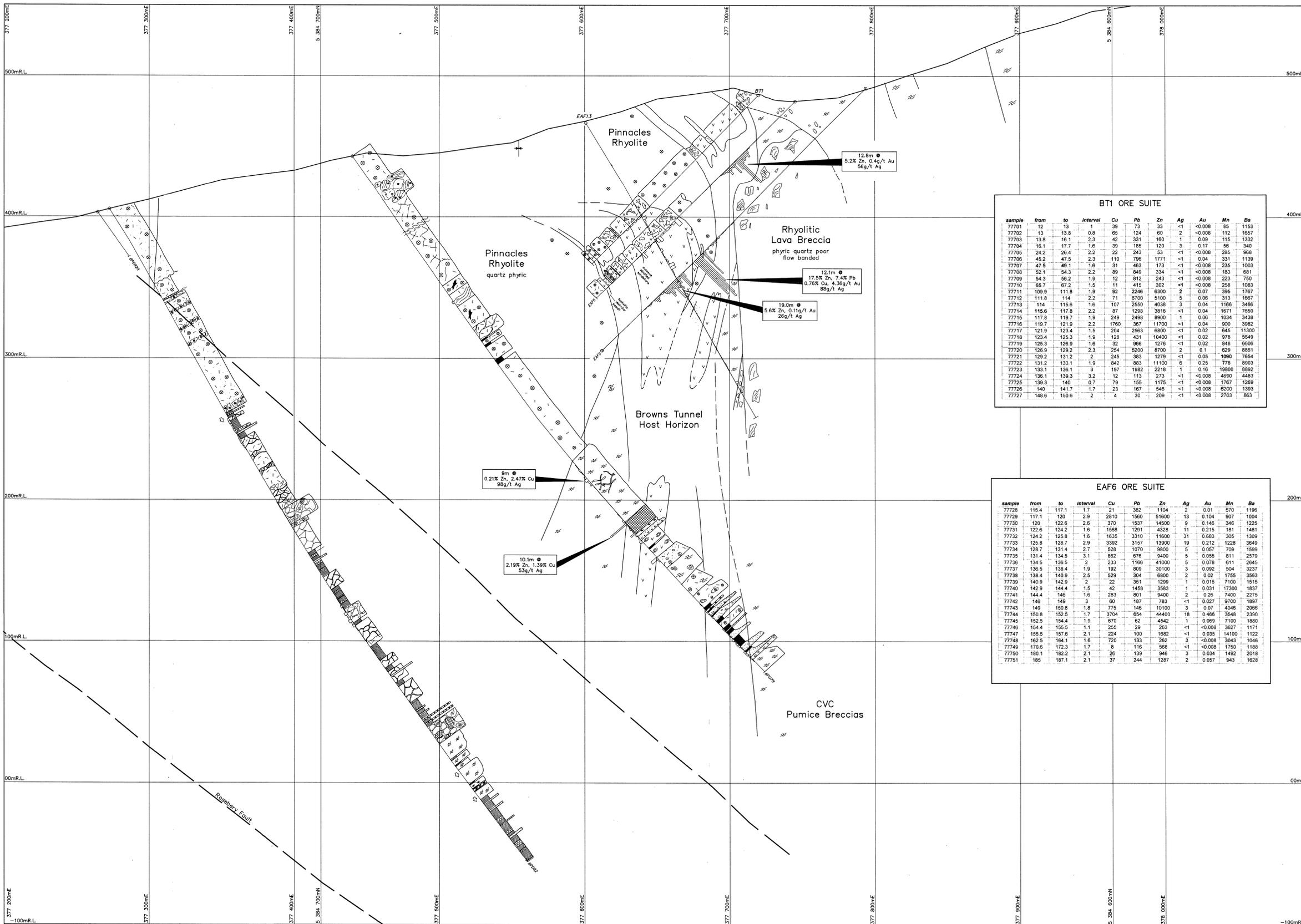
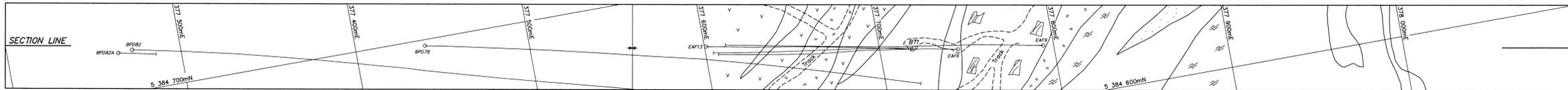
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COMPILED: ANL/LW
 DATE: Oct. 1992
 DRAWN: GMB
 REVISIONS:
 L.W.K. - March '93
 M.S.S. - April '94
 - Oct. '96
 FILE: 5A_GEO

EL. 44/88 - BURNS PEAK JV
INTERPRETIVE GEOLOGY
 SHEET 5A

DRAWING No. SCALE 1:5000 FIG. No. 14



BT1 ORE SUITE

sample	from	to	interval	Cu	Pb	Zn	Ag	Au	Mn	Ba
77701	12	13	1	39	73	33	<1	<0.008	85	1153
77702	13	13.8	0.8	65	124	60	2	<0.008	112	1657
77703	13.8	16.1	2.3	42	331	160	1	0.09	115	1332
77704	16.1	17.7	1.6	39	185	120	3	0.17	56	340
77705	24.2	26.4	2.2	22	243	53	<1	<0.008	285	968
77706	45.2	47.5	2.3	110	796	1771	<1	0.04	331	1139
77707	47.5	48.1	0.6	31	463	173	<1	<0.008	235	1003
77708	52.1	54.3	2.2	89	849	334	<1	<0.008	183	681
77709	54.3	56.2	1.9	12	812	243	<1	<0.008	223	750
77710	57.7	67.2	9.5	11	415	302	<1	<0.008	258	1083
77711	109.9	111.8	1.9	92	2246	6305	2	0.07	395	1767
77712	111.8	114	2.2	71	6700	5100	5	0.06	313	1667
77713	114	115.6	1.6	107	2550	4038	3	0.04	1168	3486
77714	115.6	117.8	2.2	87	1298	3818	<1	0.04	1671	7650
77715	117.8	119.7	1.9	249	2468	8900	1	0.06	1004	3438
77716	119.7	121.9	2.2	1760	367	11700	<1	0.04	900	3882
77717	121.9	123.4	1.5	204	2563	6800	<1	0.02	645	11300
77718	123.4	125.3	1.9	128	431	10400	<1	0.02	978	5649
77719	125.3	126.9	1.6	32	966	1276	<1	0.02	848	6096
77720	126.9	129.2	2.3	254	5200	8700	2	0.1	629	8851
77721	129.2	131.2	2	245	383	1279	<1	0.05	1090	7654
77722	131.2	133.1	1.9	840	883	11100	6	0.25	778	8903
77723	133.1	136.1	3	197	1882	2216	1	0.16	16800	8892
77724	136.1	139.3	3.2	12	113	273	<1	<0.008	4690	4483
77725	139.3	140	0.7	79	155	1175	<1	<0.008	1767	1269
77726	140	141.7	1.7	23	167	546	<1	<0.008	6200	1393
77727	148.6	150.6	2	4	30	209	<1	<0.008	2703	863

EAF6 ORE SUITE

sample	from	to	interval	Cu	Pb	Zn	Ag	Au	Mn	Ba
77728	115.4	117.1	1.7	21	382	1104	2	0.01	570	1196
77729	117.1	120	2.9	2810	1560	51600	13	0.104	907	1004
77730	120	122.5	2.5	370	1537	14500	9	0.146	346	1225
77731	122.5	124.2	1.6	1568	1291	4328	11	0.215	181	1481
77732	124.2	125.8	1.6	1635	3310	11600	31	0.583	305	1309
77733	125.8	128.7	2.9	3392	3157	13900	19	0.212	1228	3649
77734	128.7	131.4	2.7	528	1070	9800	5	0.057	709	1599
77735	131.4	134.5	3.1	882	678	9400	5	0.055	811	2579
77736	134.5	136.5	2	233	1166	41000	5	0.078	611	2645
77737	136.5	138.4	1.9	192	809	30100	3	0.092	504	3237
77738	138.4	140.9	2.5	529	304	8800	2	0.02	1755	3563
77739	140.9	142.9	2	22	351	1299	1	0.015	7100	1515
77740	142.9	144.4	1.5	42	1458	3583	1	0.031	17300	1837
77741	144.4	146	1.6	283	801	9400	2	0.26	7400	2275
77742	146	149	3	60	167	783	<1	0.027	9700	1897
77743	149	150.8	1.8	775	146	10100	3	0.07	4046	2066
77744	150.8	152.5	1.7	3704	654	44400	18	0.486	3548	2390
77745	152.5	154.4	1.9	670	62	4542	1	0.069	7100	1880
77746	154.4	155.5	1.1	255	29	263	<1	<0.008	3627	1171
77747	155.5	157.6	2.1	224	100	1682	<1	0.035	14100	1122
77748	162.5	164.1	1.6	720	133	262	3	<0.008	3043	1046
77749	170.6	172.3	1.7	8	116	568	<1	<0.008	1750	1188
77750	180.1	182.2	2.1	26	139	946	3	0.034	1492	2018
77751	185	187.1	2.1	37	244	1287	2	0.057	943	1628

LEGEND

DRILL HOLE

Geological Symbols:

- Black Slate
- Siltstone
- Sandstone
- Volcaniclastic Sandstone
- Conglomerate
- Chertite (Dacite) Lava/Silt
- Siltstone (Rhyolite) Lava/Silt
- Basalt Dike
- Hydrothermal Vein
- Lava/Sediment Breccia
- Breccia
- Feldspar
- Quartz Crystals
- Lithic Clasts
- Block Mudstone Clasts
- Veinlets/Ampiboles
- Spherulites
- Styolite/Pseudo flame*
- Pumice Breccia
- Flow Banding
- Cloudy silica or Nodular Carbonate alteration
- Skarn
- Sulphides
- Schistose
- Massive Sulphides
- Brecciation (cracks/vein-sets)

MAPPING SYMBOLS

- Strike and Dip of Strata
- Strike and dip of inverted strata
- Strike and dip of cleavage or foliation
- Plunge of lineation
- Geological boundary position accurate
- Geological boundary position approximate
- Mine
- Abandoned prospect or mine
- Cutline or trench
- Diamond drill hole, including projection
- Unconformity
- Fault
- Fault with dip
- Thrust Fault
- Plunging anticline
- Plunging system
- Shear/Along cleavage
- Vein

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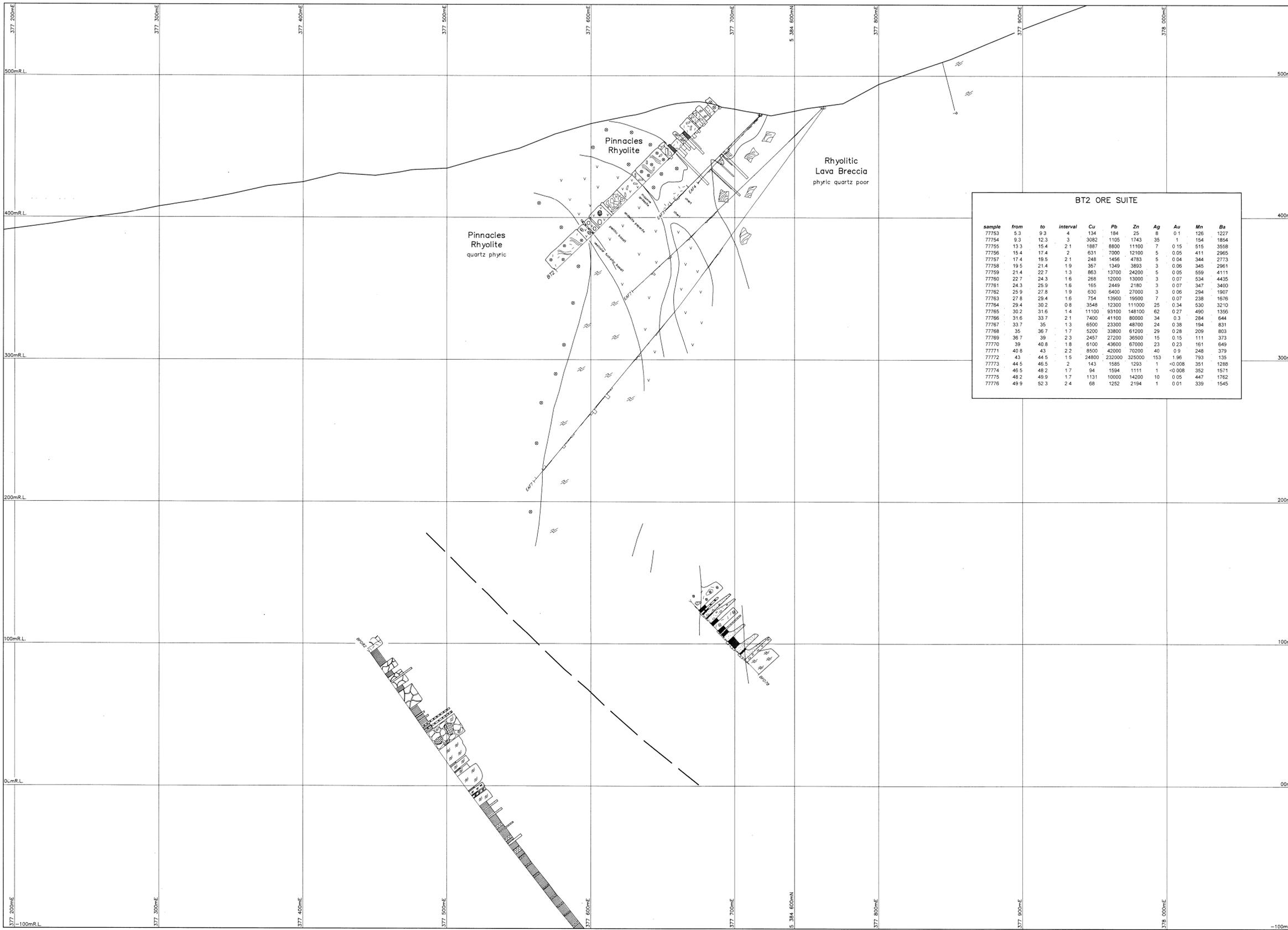
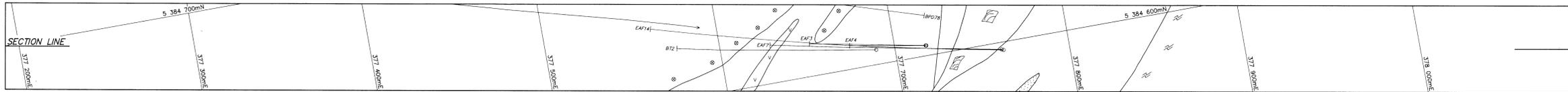
ANNUAL REPORT - BURNS PEAK
EL 4488 - PASMINGO
P QUAYLE, S DIBBEN

PASMINGO EXPLORATION
A Division of Pasmingo Australia Limited

COMPILED: P.M.G.
DATE: July 1996
DRAWN: G.M.B.
REVISIONS:
FILE: BT1,AD

E.L. 44/88 - BURNS PEAK JV
BROWNS TUNNEL
DRILL SECTION
BT1 AND EAF6
BEARING 280° AMG

DRAWING No. SCALE 1:1000 FIG. No. 15



BT2 ORE SUITE

sample	from	to	Interval	Cu	Pb	Zn	Ag	Au	Mn	Ba
77753	5.3	9.3	4	134	184	25	8	0.1	126	1227
77754	9.3	12.3	3	3082	1105	1743	35	1	154	1854
77755	13.3	15.4	2.1	1887	8800	11100	7	0.15	515	3558
77756	15.4	17.4	2	631	7000	12100	5	0.05	411	2955
77757	17.4	19.5	2.1	246	1456	4783	5	0.04	344	2773
77758	19.5	21.4	1.9	357	1349	3893	3	0.06	345	2261
77759	21.4	22.7	1.3	863	13700	24200	5	0.05	559	4111
77760	22.7	24.3	1.6	268	12000	13000	3	0.07	534	4435
77761	24.3	25.9	1.6	165	2449	2180	3	0.07	347	3400
77762	25.9	27.8	1.9	630	6400	27000	3	0.06	294	1907
77763	27.8	29.4	1.6	754	13900	19500	7	0.07	238	1676
77764	29.4	30.2	0.8	3548	12300	111000	25	0.34	530	3210
77765	30.2	31.6	1.4	11100	93100	148100	62	0.27	490	1355
77766	31.6	33.7	2.1	7400	41100	80000	34	0.3	284	644
77767	33.7	35	1.3	6500	23300	48700	24	0.38	194	831
77768	35	36.7	1.7	5200	33800	61200	29	0.28	209	803
77769	36.7	39	2.3	2457	27200	36500	15	0.15	111	373
77770	39	40.8	1.8	6100	43600	67000	23	0.23	161	649
77771	40.8	43	2.2	8500	42000	70200	40	0.9	248	379
77772	43	44.5	1.5	24800	232000	325000	153	1.96	793	135
77773	44.5	46.5	2	143	1886	1293	1	<0.008	351	1288
77774	46.5	48.2	1.7	94	1594	1111	1	<0.008	352	1571
77775	48.2	49.9	1.7	1131	10000	14200	10	0.05	447	1762
77776	49.9	52.3	2.4	68	1252	2194	1	0.01	339	1545

LEGEND

DRILL HOLE

Geological Features:

- Black Slate
- Siltstone
- Sandstone
- Volcaniclastic Sandstone
- Conglomerate
- Chertitic (Dacitic) Lava/Silt
- Siltstone (Rhyolitic) Lava/Silt
- Basalt Dyke
- Hydrothermal Vein
- Lava/Sediment Breccia
- Breccia
- Falagap
- Quartz Crystals
- Litic Clasts
- Block Maficite Clasts
- Venices/Amphiboles
- Spherulites
- Styrolite/Pseudo-forms
- Pumice Breccia
- Flow Banding
- Clayey Alite or Medial Carbonate alteration
- Skins
- Subsides
- Schistose
- Massive Sulphides
- Brecciation (cracks/in-situ)

MAPPING SYMBOLS

- Strike and Dip of Strata
- Strike and Dip of Inverted Strata
- Strike and Dip of Cleavage or Foliation
- Plunge of Lineation
- Geological boundary position accurate
- Geological boundary position approximate
- Mine
- Abandoned prospect or mine
- Crestline or trench
- Diamond drill hole, including projection
- Unconformity
- Fault
- Fault with dip
- Thrust Fault
- Plunging antiform
- Plunging synform
- Shear/strong cleavage
- Vein

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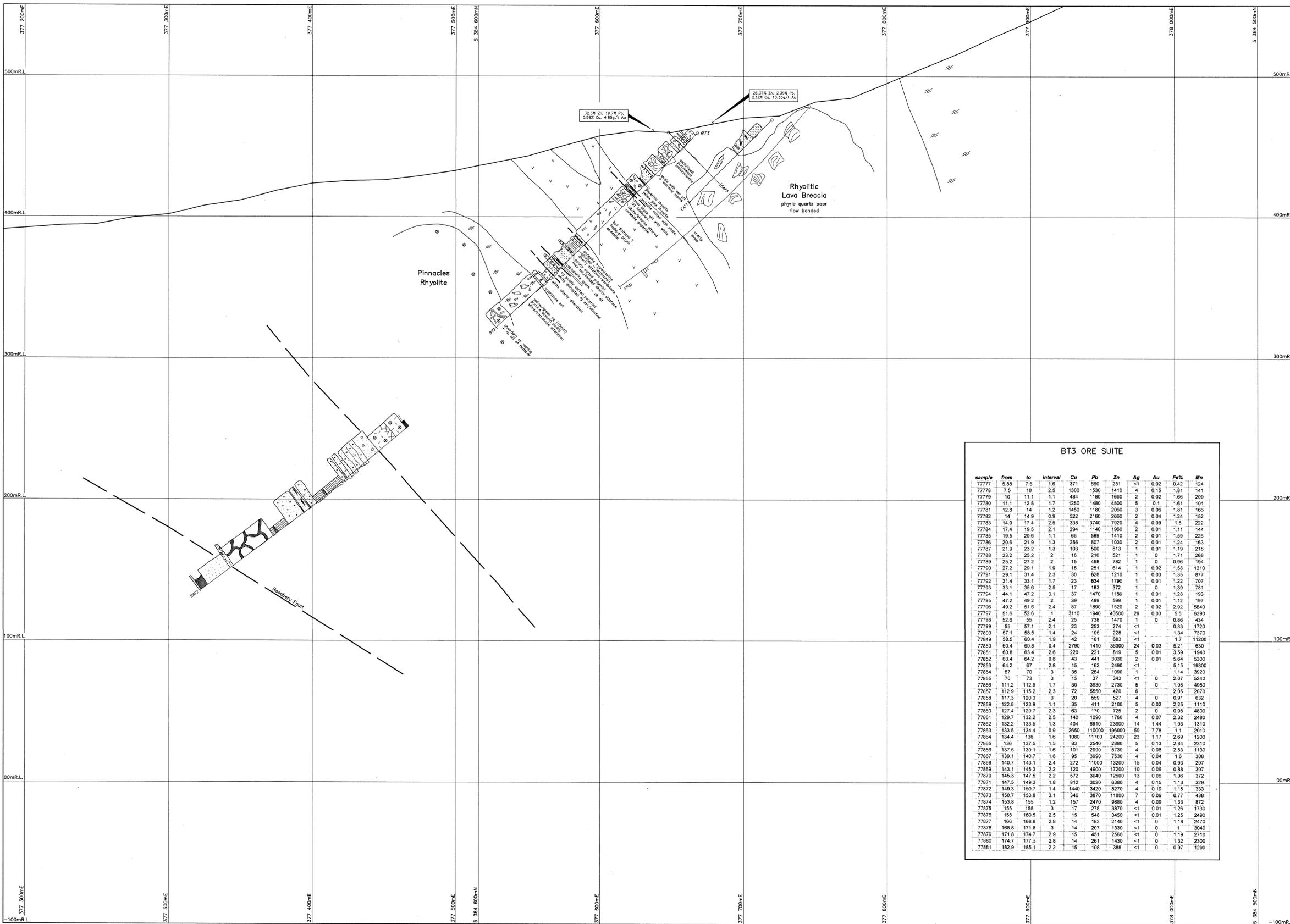
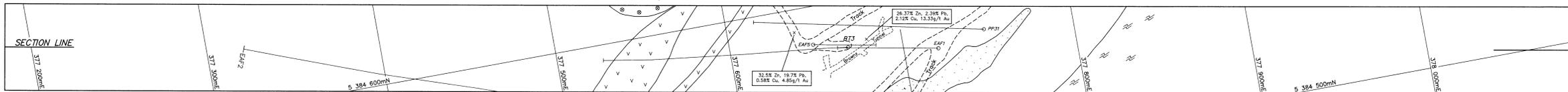
COMPILED: P.M.G.
DATE: July 1996
DRAWN: G.M.B.
REVISIONS:

FILE: BT2_AG
DRAWING No.:

E.L. 44/88 - BURNS PEAK JV
BROWNS TUNNEL
DRILL SECTION
BT2
BEARING 280° AMG

SCALE 1:1000

FIG. No. 16



BT3 ORE SUITE

sample	from	to	Interval	Cu	Pb	Zn	Ag	Au	Fe%	Mn
77777	5.88	7.5	1.6	371	660	251	<1	0.02	0.42	124
77778	7.5	10	2.5	1300	1530	1410	4	0.15	1.81	141
77779	10	11.1	1.1	464	1180	1660	2	0.02	1.86	209
77780	11.1	12.8	1.7	1250	1480	4500	5	0.1	1.61	101
77781	12.8	14	1.2	1450	1180	2060	3	0.06	1.81	166
77782	14	14.9	0.9	522	2190	2660	2	0.04	1.24	152
77783	14.9	17.4	2.5	338	3740	7920	4	0.09	1.8	222
77784	17.4	19.5	2.1	284	1140	1960	2	0.01	1.11	144
77785	19.5	20.6	1.1	66	588	1410	2	0.01	1.59	226
77786	20.6	21.9	1.3	266	607	1030	2	0.01	1.24	163
77787	21.9	23.2	1.3	103	500	813	1	0.01	1.19	218
77788	23.2	25.2	2	16	210	521	1	0	1.71	268
77789	25.2	27.2	2	15	488	782	1	0	0.96	194
77790	27.2	29.1	1.9	15	251	814	1	0.02	1.58	1310
77791	29.1	31.4	2.3	30	628	1210	1	0.03	1.35	877
77792	31.4	33.1	1.7	23	834	1790	1	0.01	1.22	707
77793	33.1	35.6	2.5	17	183	372	1	0	1.39	781
77794	35.6	37.1	1.5	37	1470	1150	1	0.01	1.28	193
77795	37.1	39.2	2.1	39	489	599	1	0.01	1.12	197
77796	39.2	41.6	2.4	87	1890	1520	2	0.02	2.92	5640
77797	41.6	44.1	2.5	3110	1940	40500	29	0.03	5.5	6390
77798	44.1	47.2	3.1	25	738	1470	1	0	0.86	434
77799	47.2	49.2	2	23	263	274	<1	0	0.83	1720
77800	49.2	51.6	2.4	24	165	228	<1	0	1.34	7370
77849	58.5	60.4	1.9	42	181	663	<1	0	1.7	11200
77850	60.4	60.8	0.4	2790	1410	36300	24	0.03	5.21	630
77851	60.8	63.4	2.6	220	221	819	5	0.01	3.59	1940
77852	63.4	64.2	0.8	43	441	3030	2	0.01	5.64	5300
77853	64.2	67	2.8	15	162	2490	<1	0	5.15	19800
77854	67	70	3	35	264	1090	1	0	1.14	3920
77855	70	73	3	15	37	343	<1	0	2.07	5240
77856	111.2	112.9	1.7	30	3630	2730	5	0	1.98	4880
77857	112.9	115.2	2.3	72	5550	420	6	0	2.05	2070
77858	117.3	120.3	3	20	556	527	4	0	0.91	630
77859	122.8	123.9	1.1	35	411	2100	5	0.02	2.25	1110
77860	127.4	129.7	2.3	63	170	725	2	0	0.98	4800
77861	129.7	132.2	2.5	140	1590	1760	4	0.07	2.32	2480
77862	132.2	133.5	1.3	404	6910	23600	14	1.44	1.93	1310
77863	133.5	134.4	0.9	2650	110000	196000	50	7.78	1.1	2010
77864	134.4	136	1.6	1080	11700	24200	23	1.17	2.69	1200
77865	136	137.5	1.5	83	3540	2880	5	0.13	2.84	2310
77866	137.5	139.1	1.6	101	2990	5730	4	0.08	2.53	1130
77867	139.1	140.7	1.6	95	3990	7530	4	0.04	1.6	308
77868	140.7	143.1	2.4	272	11000	13200	15	0.04	0.93	297
77869	143.1	145.3	2.2	120	4800	17200	10	0.06	0.88	397
77870	145.3	147.5	2.2	572	3040	12600	13	0.06	1.06	372
77871	147.5	149.3	1.8	812	3020	6380	4	0.15	1.13	329
77872	149.3	150.7	1.4	1440	3420	8270	4	0.19	1.15	333
77873	150.7	153.8	3.1	346	3870	11900	7	0.08	0.77	438
77874	153.8	155	1.2	157	2470	9880	4	0.09	1.33	872
77875	155	158	3	17	278	3870	<1	0.01	1.26	1730
77876	158	160.5	2.5	15	548	3450	<1	0.01	1.25	2480
77877	160.5	166.8	6.3	14	183	2140	<1	0	1.18	2470
77878	166.8	171.8	5	14	207	1330	<1	0	1	3040
77879	171.8	174.7	2.9	15	481	2560	<1	0	1.19	2710
77880	174.7	177.5	2.8	14	261	1430	<1	0	1.32	2300
77881	182.9	185.1	2.2	15	108	388	<1	0	0.97	1290

LEGEND

DRILL HOLE

MAPPING SYMBOLS

- Strike and Dip of Strata
- Strike and dip of inverted strata
- Strike and dip of cleavage or foliation
- Plunge of lineation
- Geological boundary position accurate
- Geological boundary position approximate
- Mine
- Abandoned prospect or mine
- Crestline or trench
- Diamond drill hole, including projection
- Unconformity
- Fault
- Fault with dip
- Thrust Fault
- Plunging antiform
- Plunging synform
- Shear/strong cleavage
- Ven

328057

5cm

96-3945

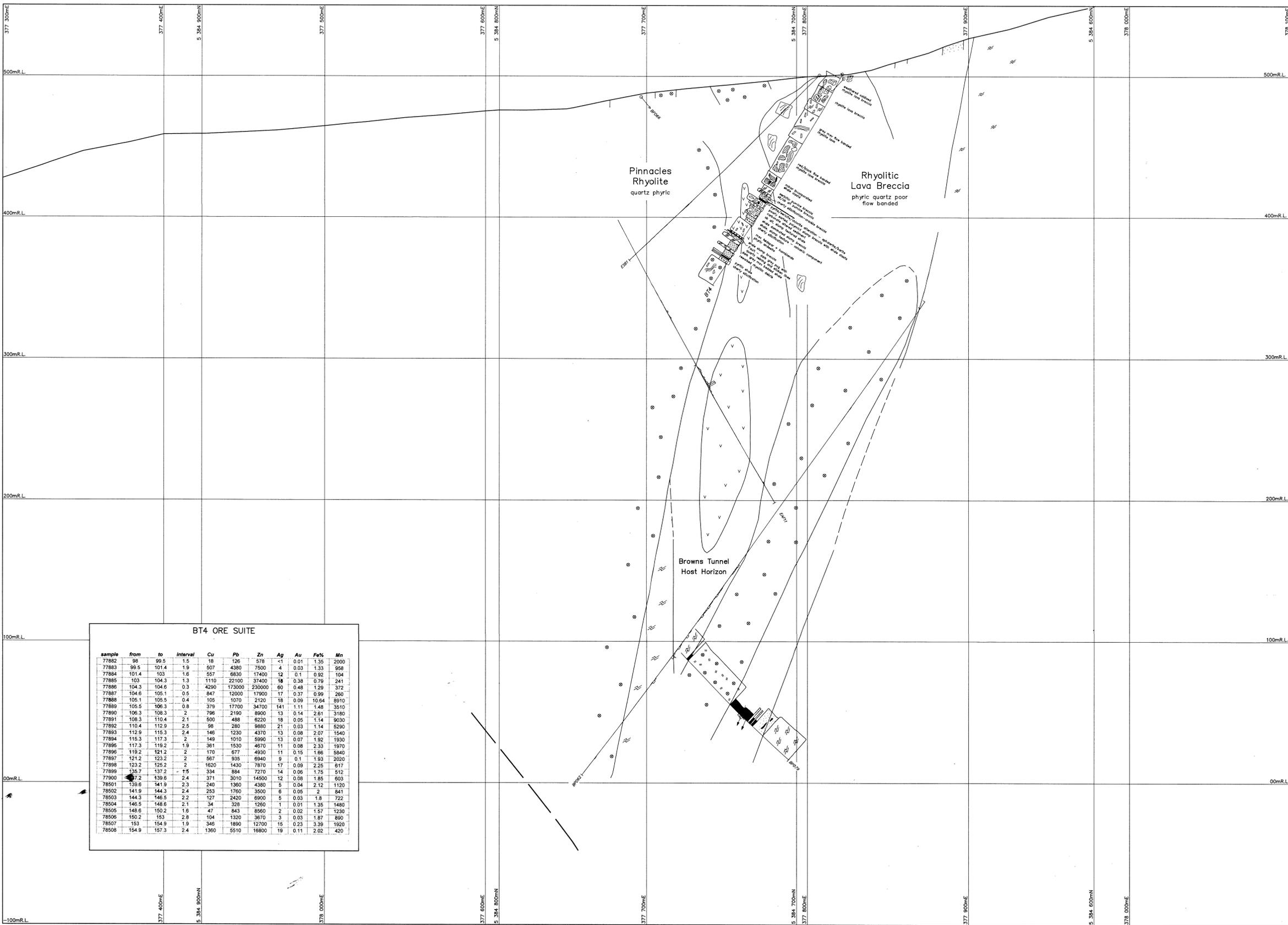
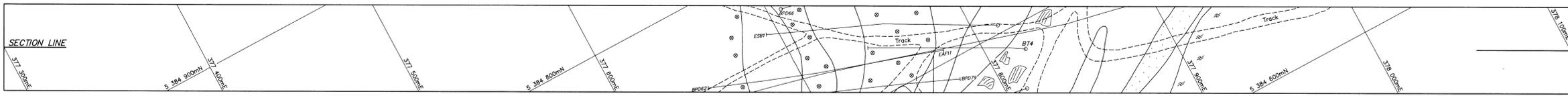
ANNUAL REPORT - BURNS PEAK
EL 4488 - PASMINGO
P QUAYLE, S DIBBEN

PASMINGO EXPLORATION
A Division of Pasmingo Australia Limited

COMPILED: P.M.G.
DATE: July 1996
DRAWN: G.M.B.
REVISIONS:

E.L. 44/88 - BURNS PEAK JV
BROWNS TUNNEL
DRILL SECTION
BT3
BEARING 280° AMG

FILE: BT3_AD
DRAWING No. SCALE 1:1000 FIG. No. 17



BT4 ORE SUITE

sample	from	to	Interval	Cu	Pb	Zn	Ag	Au	Fe%	Mn
77882	98	99.5	1.5	18	126	578	<1	0.01	1.35	2000
77883	99.5	101.4	1.9	507	4390	7500	4	0.03	1.33	958
77884	101.4	103	1.6	557	6830	17400	12	0.1	0.92	104
77885	103	104.3	1.3	1110	22100	37400	18	0.38	0.79	241
77886	104.3	104.8	0.5	4290	173000	230000	80	0.48	1.29	372
77887	104.8	105.1	0.3	847	12000	17900	17	0.37	0.99	260
77888	105.1	105.5	0.4	105	1070	2120	18	0.09	10.64	8910
77889	105.5	106.3	0.8	379	17700	34700	141	1.11	1.48	3510
77890	106.3	106.3	2	786	2190	8900	13	0.14	2.61	3180
77891	106.3	110.4	2.1	500	488	6220	18	0.08	1.14	9030
77892	110.4	112.9	2.5	98	280	9880	21	0.03	1.14	5290
77893	112.9	115.3	2.4	146	1230	4370	13	0.08	2.07	1540
77894	115.3	117.3	2	149	1010	5990	13	0.07	1.92	1930
77895	117.3	119.2	1.9	361	1530	4970	11	0.08	2.33	1970
77896	119.2	121.2	2	170	677	4930	11	0.15	1.86	5840
77897	121.2	123.2	2	567	935	6940	9	0.1	1.93	2020
77898	123.2	125.2	2	1620	1430	7870	17	0.09	2.25	617
77899	135.7	137.2	1.5	334	884	7270	14	0.06	1.75	512
77900	137.2	139.6	2.4	371	3010	14500	12	0.08	1.85	603
78501	139.6	141.9	2.3	240	1360	4380	5	0.04	2.12	1120
78502	141.9	144.3	2.4	263	1760	3500	6	0.05	2	841
78503	144.3	146.5	2.2	127	2420	6900	5	0.03	1.8	722
78504	146.5	148.6	2.1	34	328	1280	1	0.01	1.35	1480
78505	148.6	150.2	1.6	47	843	8560	2	0.02	1.57	1230
78506	150.2	153	2.8	104	1320	3870	3	0.03	1.87	890
78507	153	154.9	1.9	346	1890	12700	15	0.23	3.39	1920
78508	154.9	157.3	2.4	1360	5510	16800	19	0.11	2.02	420

LEGEND

DRILL HOLE

Shear
Brittle Fault
Geological contacts
Cleavage
Faulting
Bedding to LCA
20 and Bedding to LCA
Strike and dip
(oriented)
Flow banding
Zones of disseminated and
vein sulphides
Significant assay intervals
Zn values

Block Shale
Siltstone
Sandstone
Volcaniclastic Sandstone
Conglomerate

MAPPING SYMBOLS

Strike and Dip of Strata
Strike and dip of
Inverted strata
Strike and dip of cleavage
or foliation
Plunge of lineation
Geological boundary
position approximate
Geological boundary
position approximate
Mine
Abandoned prospect
or mine
Crestline or trench
Diamond drill hole,
including projection

Unconformity
Fault
Fault with dip
Thrust Fault
Plunging antiform
Plunging synform
Shear/strong
cleavage
Vein

325059

5 cm

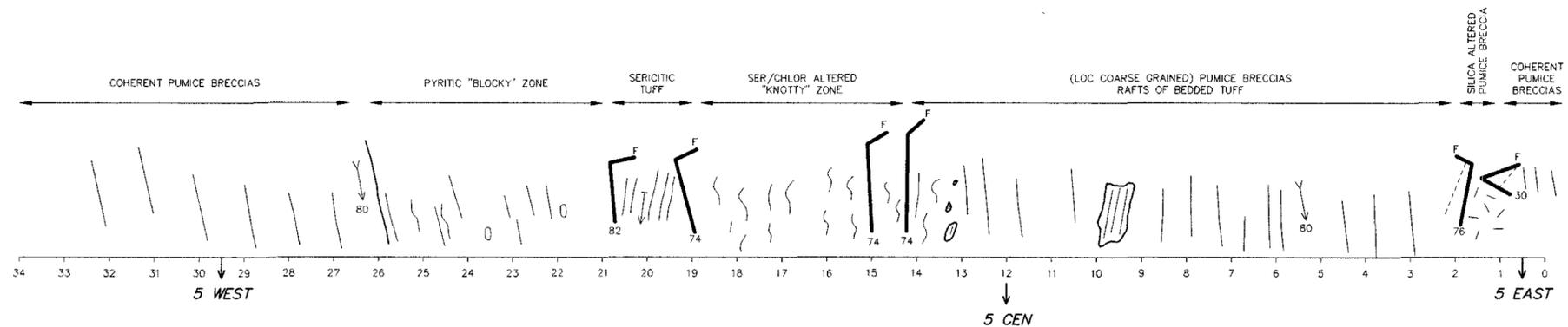
96-3945

ANNUAL REPORT - BURNS PEAK
EL 4488 - PASMINGO
P QUANTILE, S DIBDEN

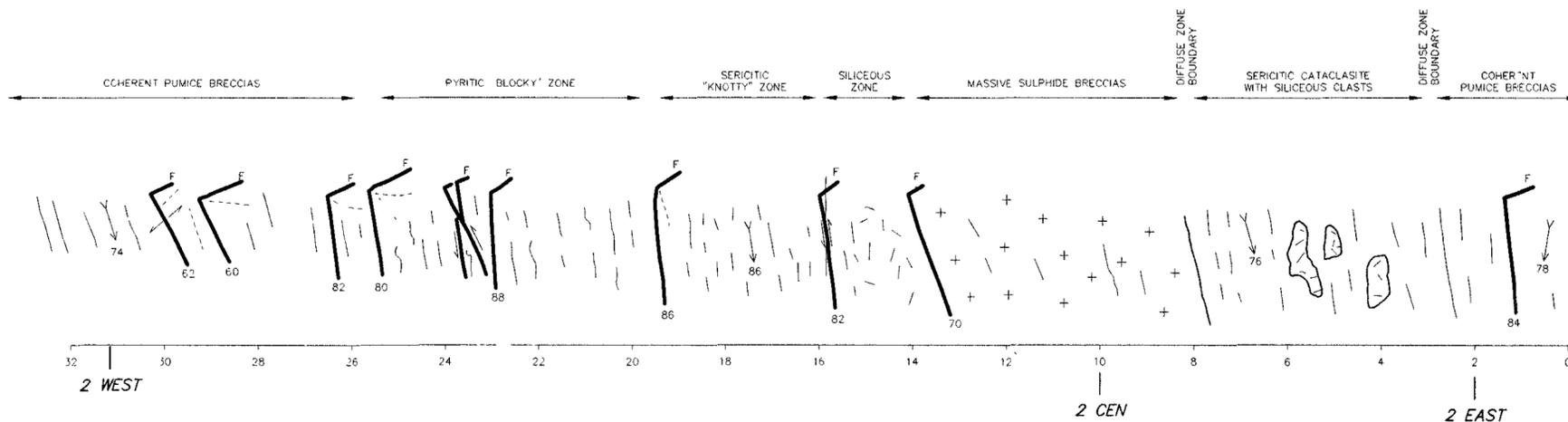
PASMINGO EXPLORATION
A Division of Pasmingo Australia Limited

COMPILED : P.M.G.	DATE : July 1998	E.L. 44/88 - BURNS PEAK JV
DRAWN : G.M.B.	REVISIONS :	BROWNS TUNNEL
		DRILL SECTION
		BT4
		BEARING 298° AMG
FILE : BT4_A0	DRAWING No.	SCALE 1:1000
		FIG. No. 18

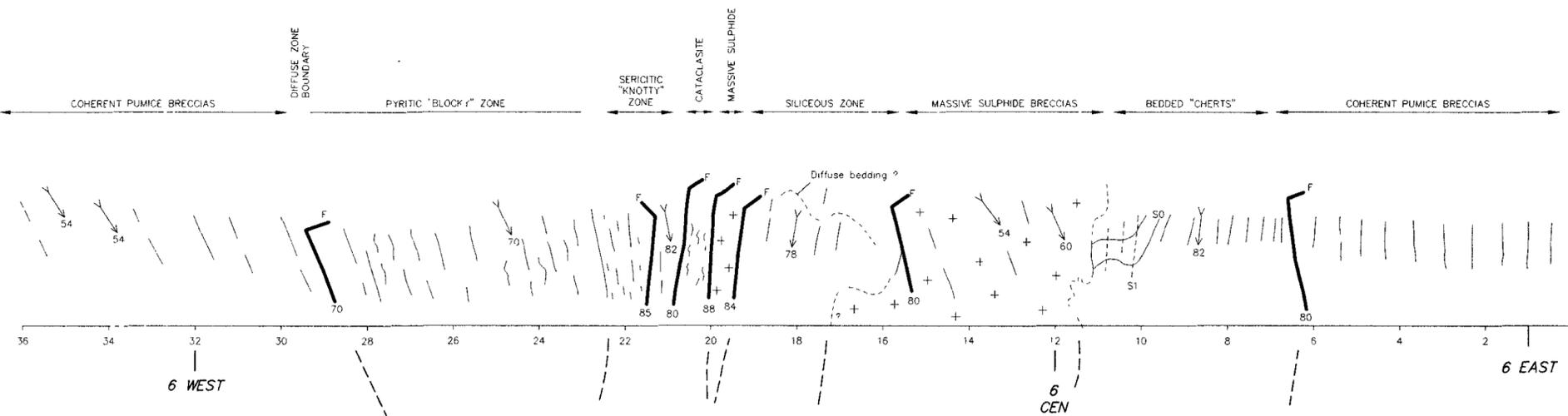
ST5



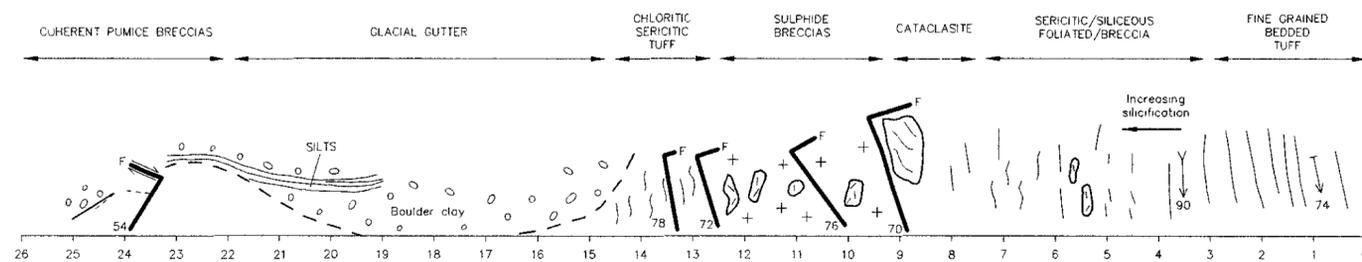
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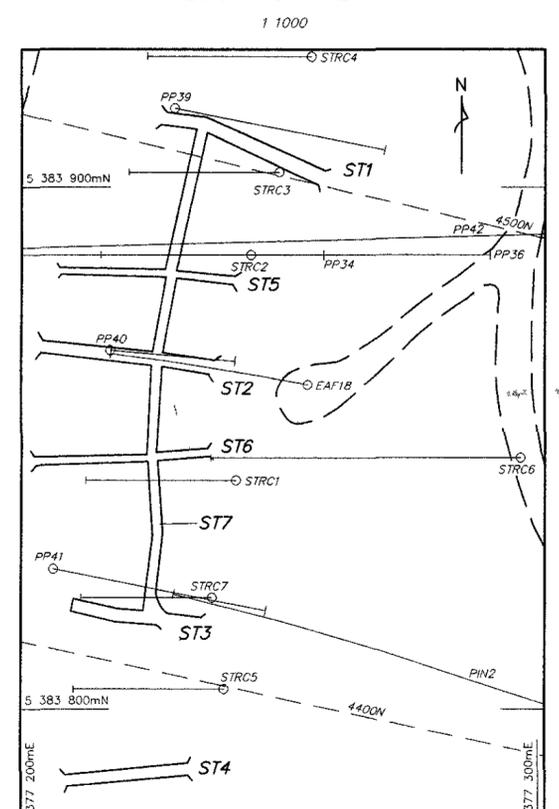
ST6



ST3



LOCATION PLAN



328060

96-3945

ANNUAL REPORT - BURNS PEAK
EL 44/88 - PASMINGO
P. QUAYLE, S. DIBBEN

PASMINGO EXPLORATION A Division of Pasmingo Australia Limited	
COMPILED F.C.M.	E.L. 44/88 - BURNS PEAK JV SOUTHERN TRENCHES COSTEAN MAPPING ST5, ST2, ST6 and ST3
DATE Oct., 1996	
DRAWN G.M.B.	
REVISIONS	
FILE STGEOLMAP	
DRAWING No	SCALE 1:100
	0 2 m
	FIG No 22

APPENDIX 1

IP Data - 1995 and 1980 - Hollway

(P.W Basford)

Pasminco Exploration Ltd

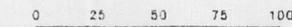
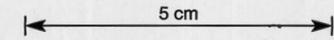
Burns Peak EL 44/88
EAB Grid

Survey Parameters

50m Dipole-Dipole
n = 1 to 4
Receiver: ELREC-6
Transmitter: LOPO
0.25 Hz
3/4-12-95

328062

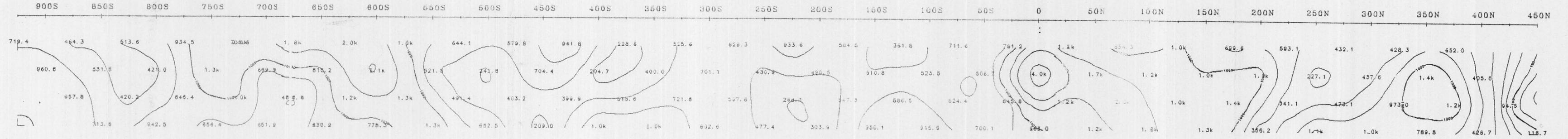
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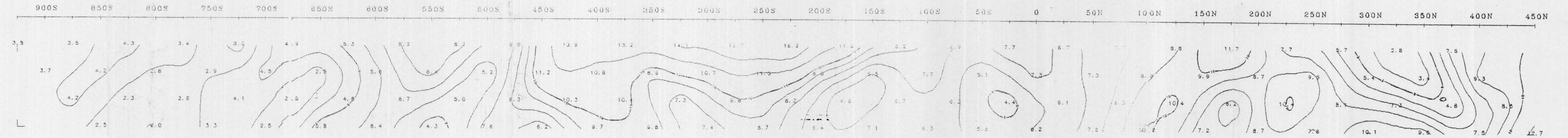
Scale 1 : 2500

IP & Resistivity Survey

Res



Chrg



Pasminco Exploration Ltd

Burns Peak EL 44/88
EAB Grid

Survey Parameters

50m Dipole-Dipole
n = 1 to 4
Receiver: ELREC-6
Transmitter: LQPO
0.25 Hz
3-12-95

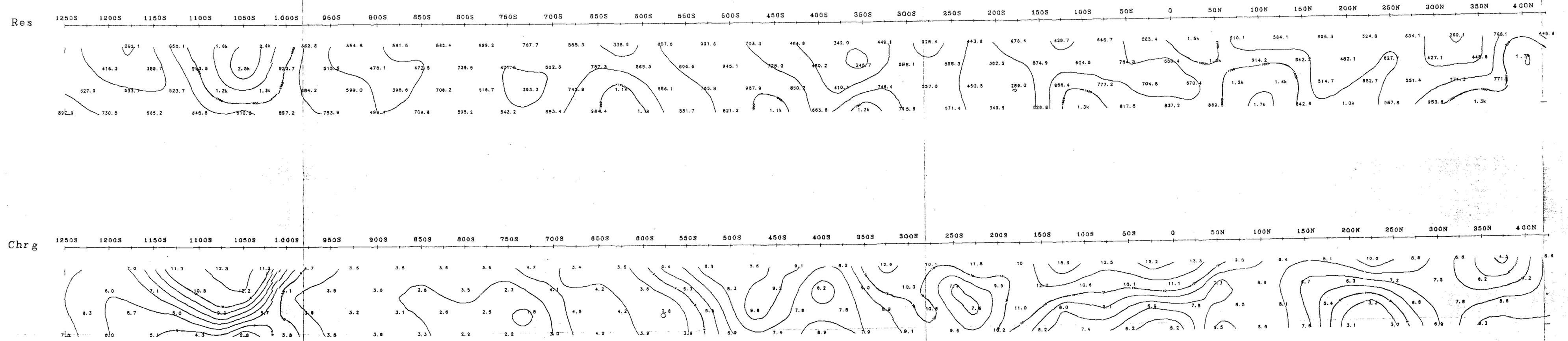
328063
Line 400E

5 cm

0 25 50 75 100

Scale 1 : 2500

IP & Resistivity Survey



Pasminco Exploration Ltd

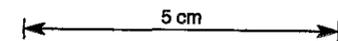
Burns Peak EL 44/88
EAB Grid

Survey Parameters

50m Dipole-Dipole
n = 1 to 4
Receiver: ELREC-6
Transmitter: LOPO
0.25 Hz
4/5-12-95

328064

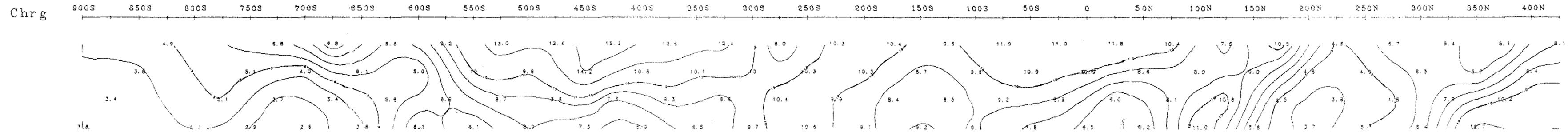
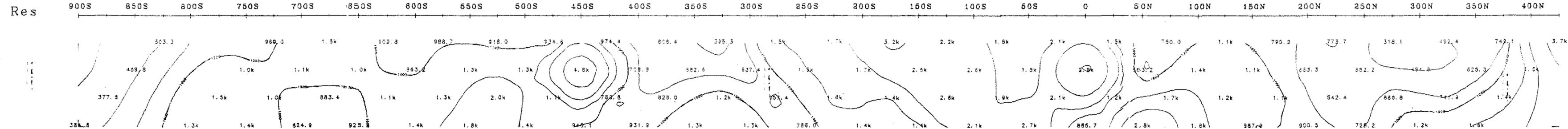
Line 600E



0 25 50 75 100

Scale 1 : 2500

IP & Resistivity Survey



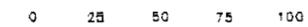
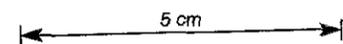
Pasminco Exploration Ltd

Burns Peak EL 44/88
EAB Grid

Survey Parameters

50m Dipole-Dipole
n = 1 to 4
Receiver: ELREC-6
Transmitter: LOPO
0.25 Hz
5-12-95

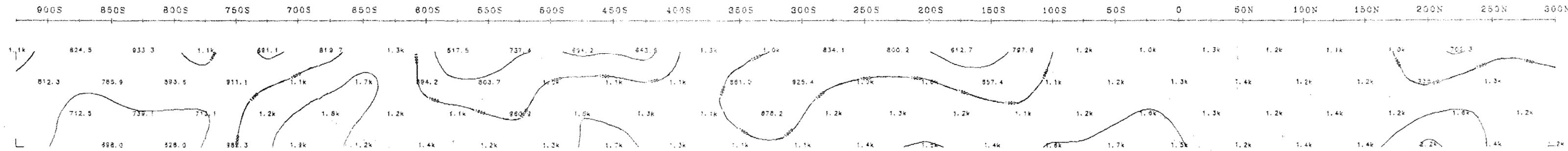
Line 800E



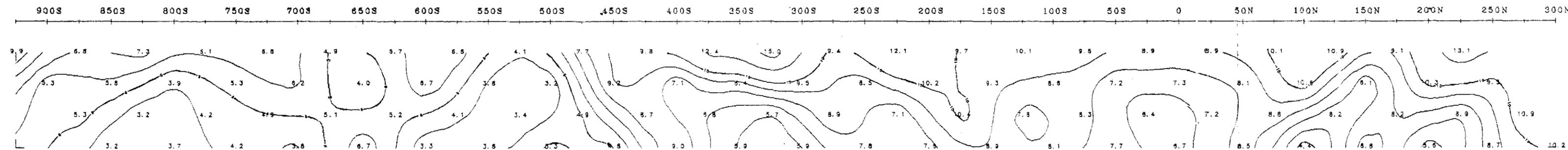
Scale 1 : 2500

IP & Resistivity Survey

Res



Chrg



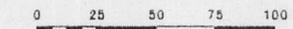
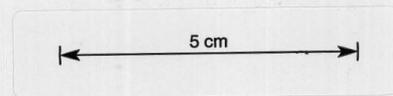
Pasminco Exploration Ltd

Burns Peak EL 44/88
EAB Grid

Survey Parameters

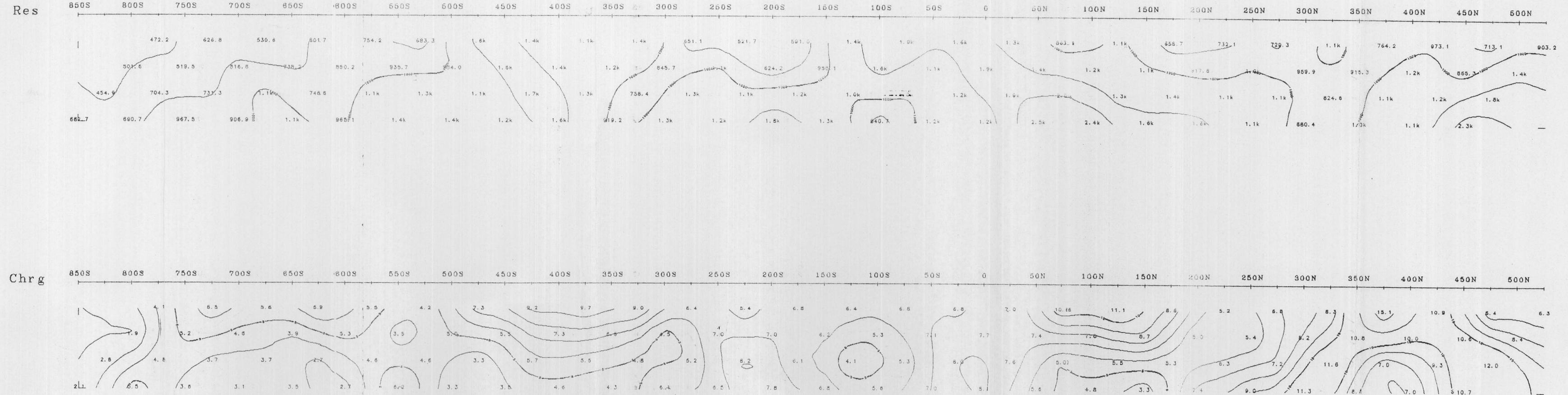
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n = 1 to 4
Receiver: ELREC-6
Transmitter: LOPO
0.25 Hz
8-12-95

Line 1000E



Scale 1 : 2500

IP & Resistivity Survey



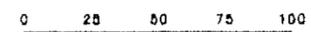
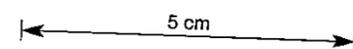
Pasminco Exploration Ltd

Burns Peak EL 44/88
EAB Grid

Survey Parameters

50m Dipole-Dipole
n = 1 to 4
Receiver: ELREC-6
Transmitter: LOPO
0.25 Hz
8-12-95

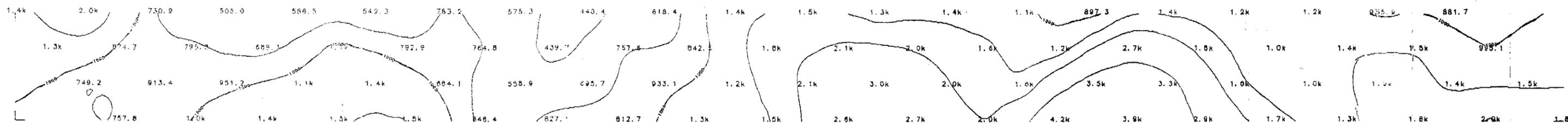
Line 1200E



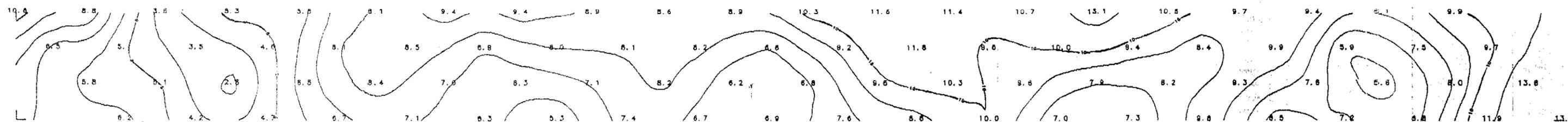
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IP & Resistivity Survey

Res 600S 550S 500S 450S 400S 350S 300S 250S 200S 150S 100S 50S 0 50N 100N 150N 200N 250N 300E 350N 400N 450N



Chrg 600S 550S 500S 450S 400S 350S 300S 250S 200S 150S 100S 50S 0 50N 100N 150N 200N 250N 300E 350N 400N 450N



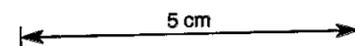
Pasminco Exploration Ltd

Burns Peak EL 44/88
EAB Grid

Survey Parameters

50m Dipole-Dipole
n = 1 to 4
Receiver: ELREC-6
Transmitter: LOPO
0.25 Hz
7-12-95

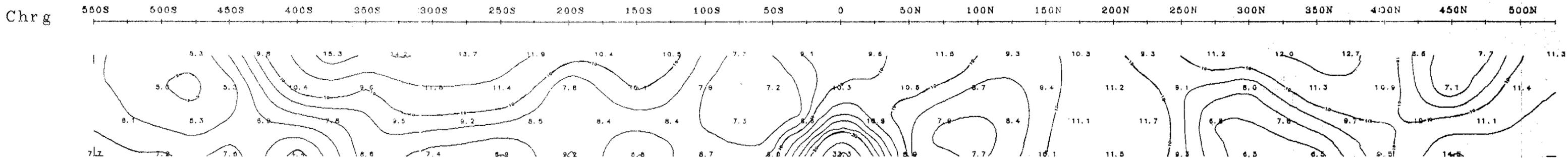
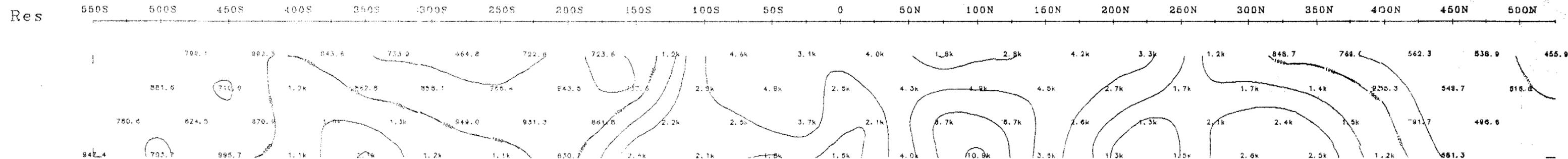
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0 25 50 75 100

Scale 1 : 2500

IP & Resistivity Survey



328068

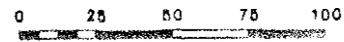
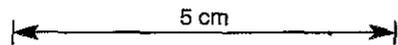
Pasminco Exploration Ltd

Burns Peak EL 44/88
EAB Grid

Survey Parameters

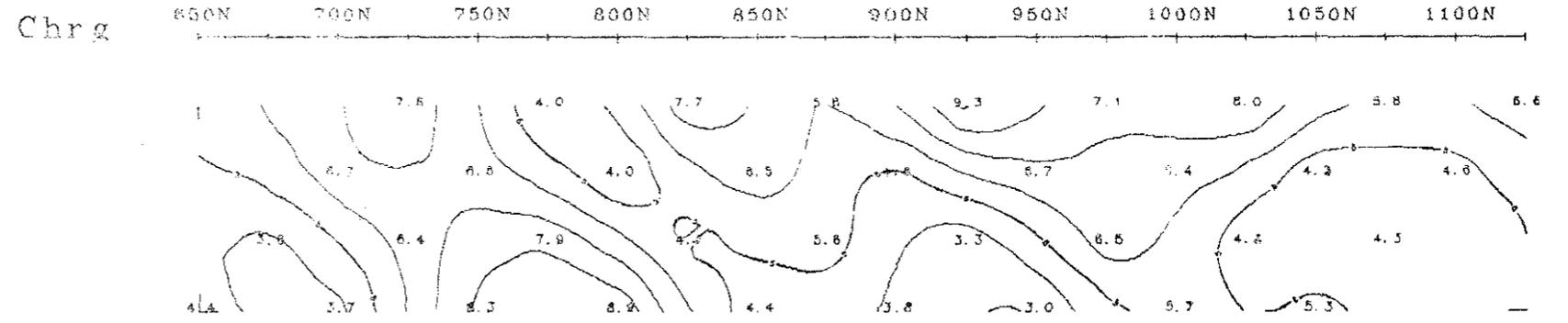
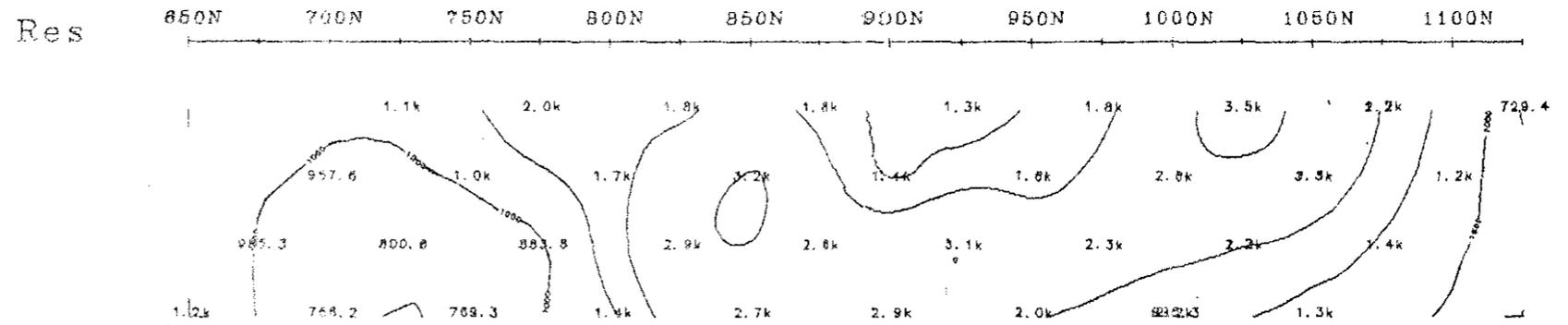
50m Dipole-Dipole
n = 1 to 4
Receiver: ELREC-8
Transmitter: LOPO
0.25 Hz
25-11-95

Line 1930E



Scale 1 : 2500

IP & Resistivity Survey



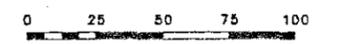
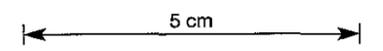
Pasminco Exploration Ltd

Burns Peak EL 44/88
EAB Grid

Survey Parameters

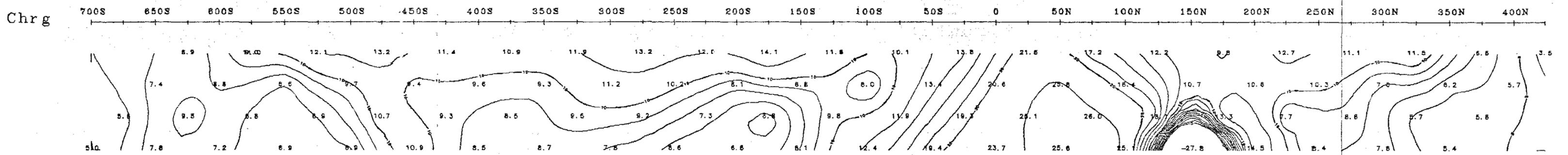
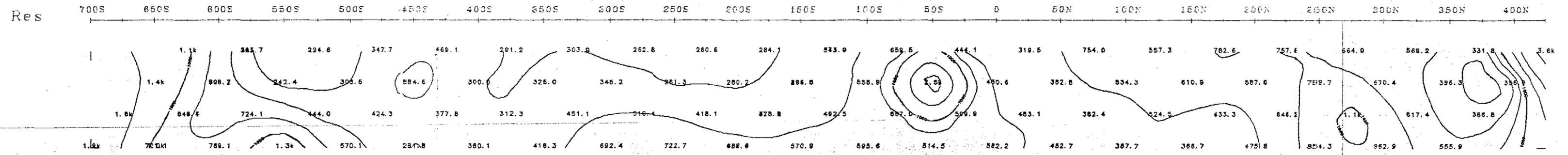
50m Dipole-Dipole
n = 1 to 4
Receiver: ELREC-6
Transmitter: LOPO
0.25 Hz
27/28-11-95

Line 2030E



Scale 1 : 2500

IP & Resistivity Survey



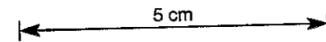
Pasminco Exploration Ltd

Burns Peak EL 44/88
EAB Grid

Survey Parameters

50m Dipole-Dipole
n = 1 to 4
Receiver: ELREC-6
Transmitter: LOPO
0.25 Hz
30-11-95

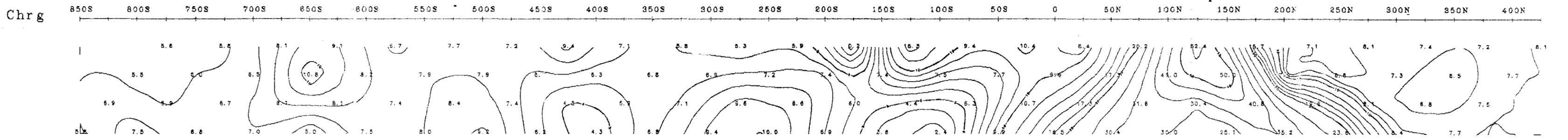
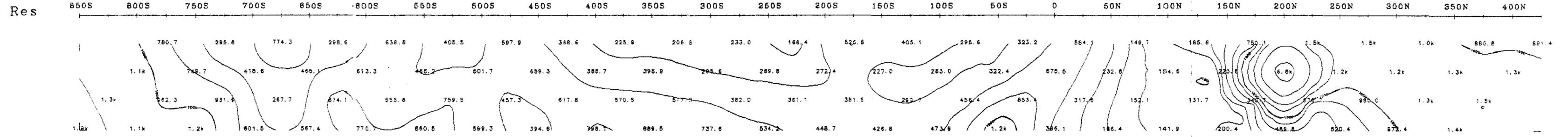
Line 2230E



0 25 50 75 100

Scale 1 : 2500

IP & Resistivity Survey

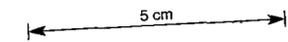


Pasminco Exploration Ltd

Burns Peak EL 44/88
EAB Grid

Survey Parameters
50m Dipole-Dipole
n = 1 to 4
Receiver: ELREC-6
Transmitter: LOPO
0.25 Hz
28/29-11-98

Line 2340E

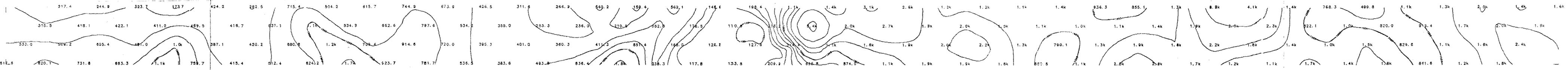


0 25 50 75 100

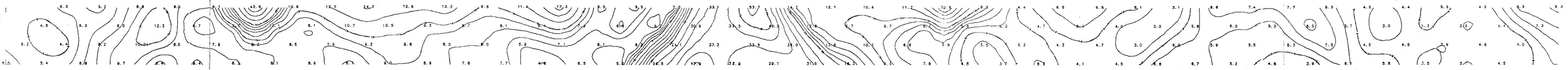
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IP & Resistivity Survey

Res 850S 800S 750S 700S 650S 600S 550S 500S 450S 400S 350S 300S 250S 200S 150S 100S 50S 0 50N 100N 150N 200N 250N 300N 350N 400N 450N 500N 550N 600N 650N 700N 750N 800N 850N 900N 950N 1000N 1050N 1100N 1150N



Chrg 850S 800S 750S 700S 650S 600S 550S 500S 450S 400S 350S 300S 250S 200S 150S 100S 50S 0 50N 100N 150N 200N 250N 300N 350N 400N 450N 500N 550N 600N 650N 700N 750N 800N 850N 900N 950N 1000N 1050N 1100N 1150N



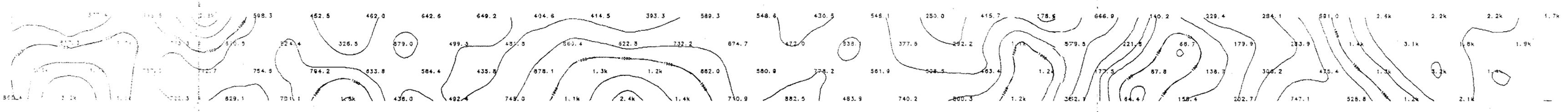
Pasminco Exploration Ltd

Burns Peak EL 44/88
EAB Grid

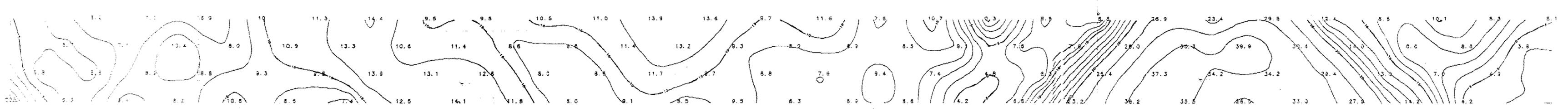
Survey Parameters

50m Dipole-Dipole
n = 1 to 4
Receiver: ELREC-6
Transmitter: LOPO
0.25 Hz
1-12-95

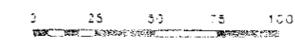
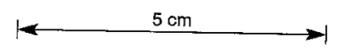
Res 950S 900S 850S 800S 750S 700S 650S 600S 550S 500S 450S 400S 350S 300S 250S 200S 150S 100S 50S 0 50N 100N 150N 200N 250N 300N 350N 400N



Chrg 950S 900S 850S 800S 750S 700S 650S 600S 550S 500S 450S 400S 350S 300S 250S 200S 150S 100S 50S 0 50N 100N 150N 200N 250N 300N 350N 400N



Line 2440E



Scale 1 : 2500

IP & Resistivity Survey

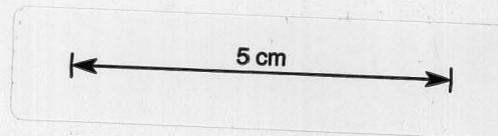
Pasminco Exploration Ltd

Burns Peak EL 44/88
EAB Grid

Survey Parameters

50m Dipole-Dipole
n = 1 to 4
Receiver: ELREC-6
Transmitter: LOPO
0.25 Hz
25-11-96

Line 2540E

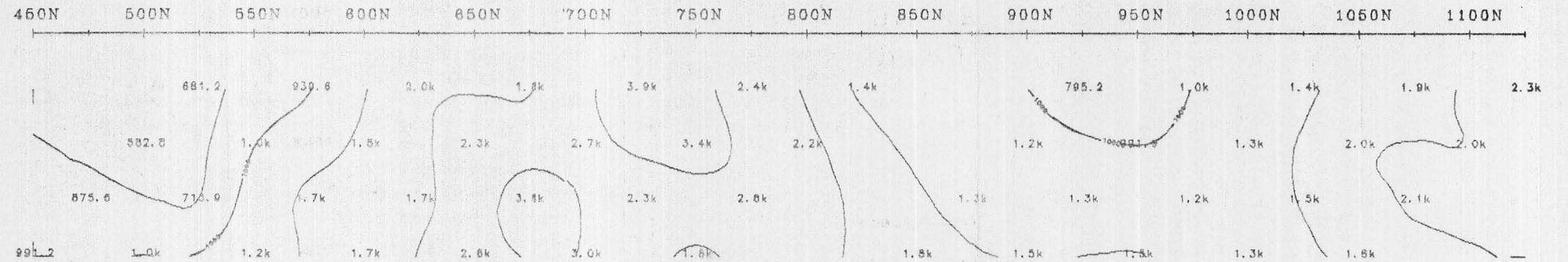


0 25 50 75 100

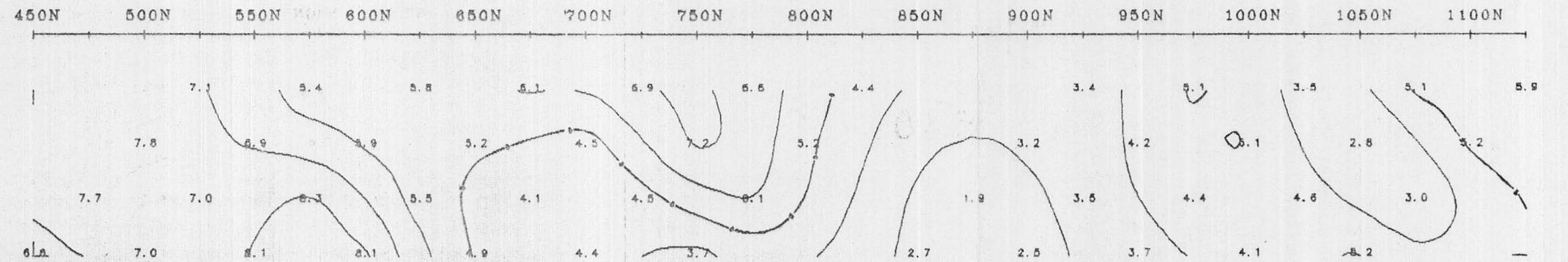
Scale 1 : 2500

IP & Resistivity Survey

Res



Chrg



Pasminco Exploration Ltd

Burns Peak EL 44/88
EAB Grid

Survey Parameters

50m Dipole-Dipole
n = 1 to 4
Receiver: ELREC-6
Transmitter: LOPO
0.25 Hz
2-12-98

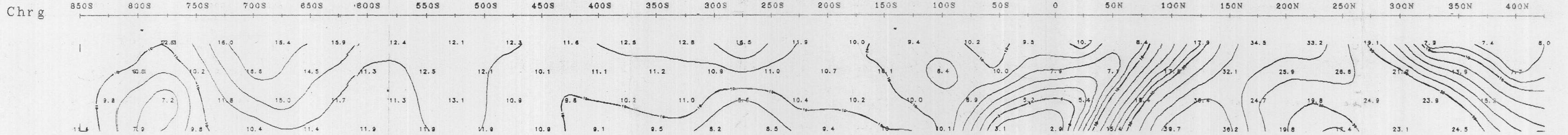
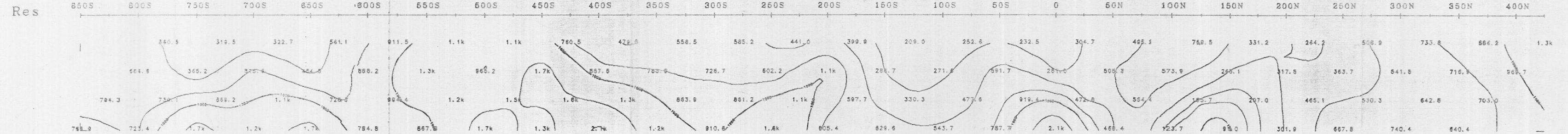
Line 2640E

5 cm

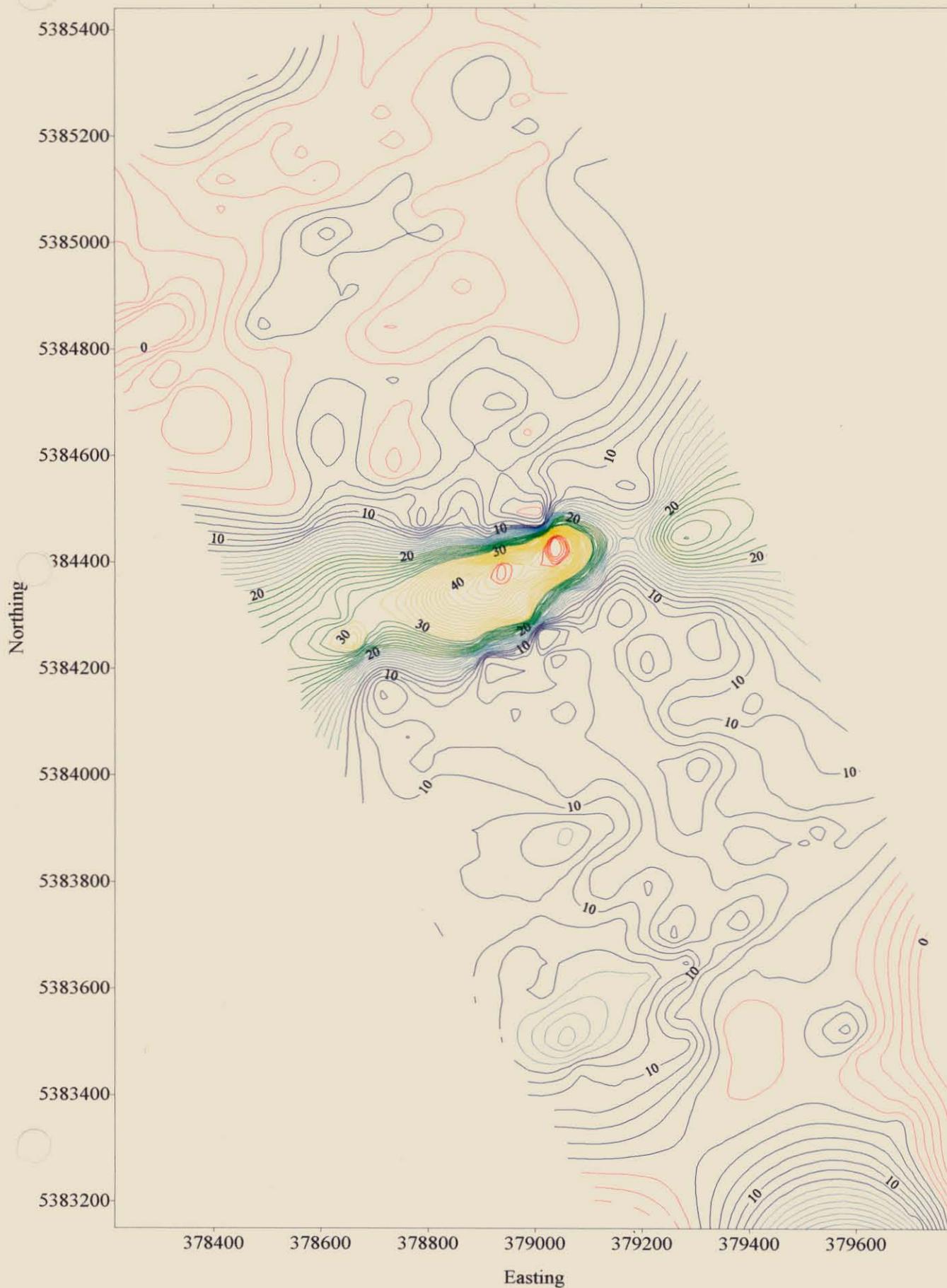
0 25 50 75 100

Scale 1 : 2500

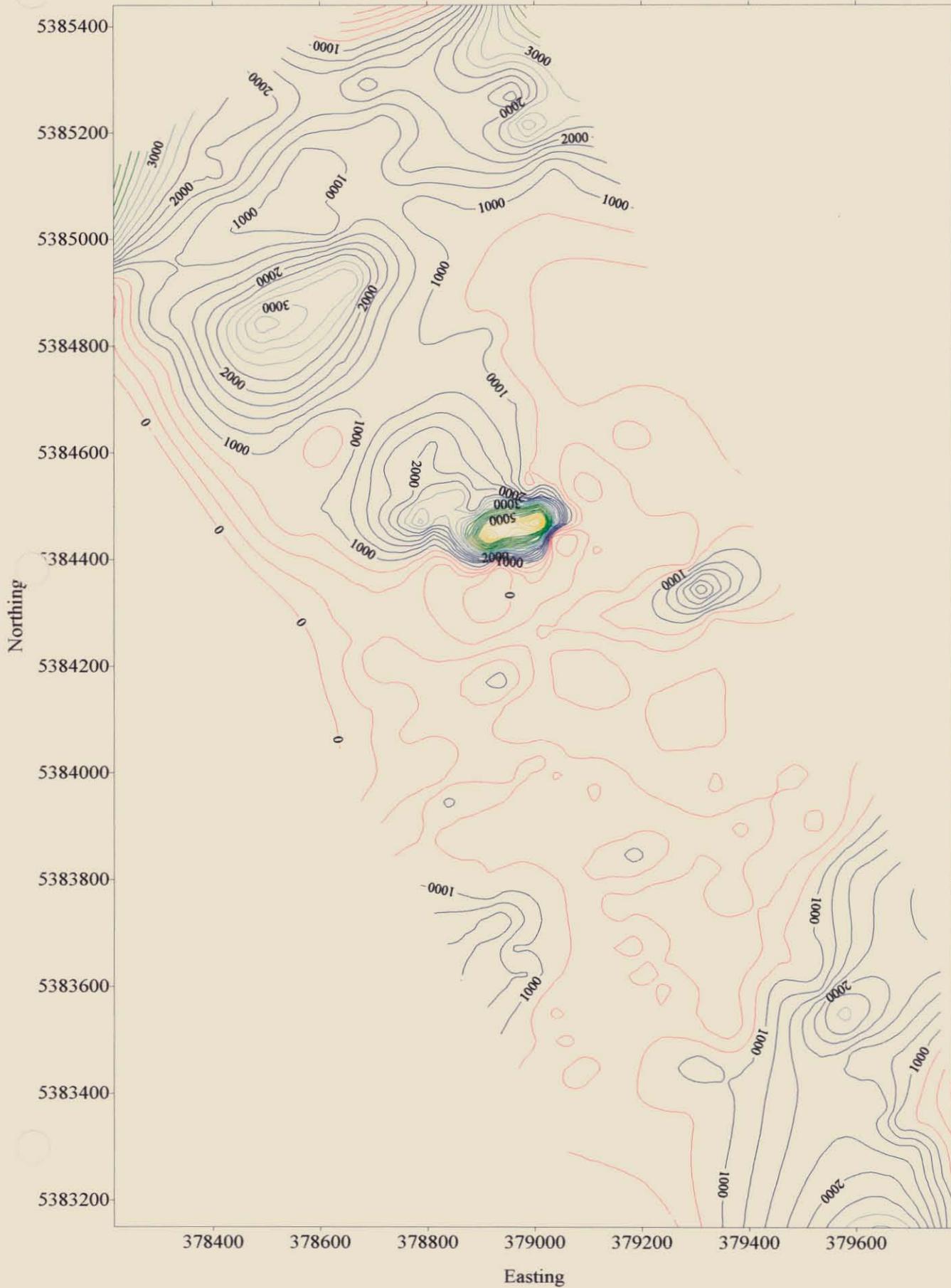
IP & Resistivity Survey



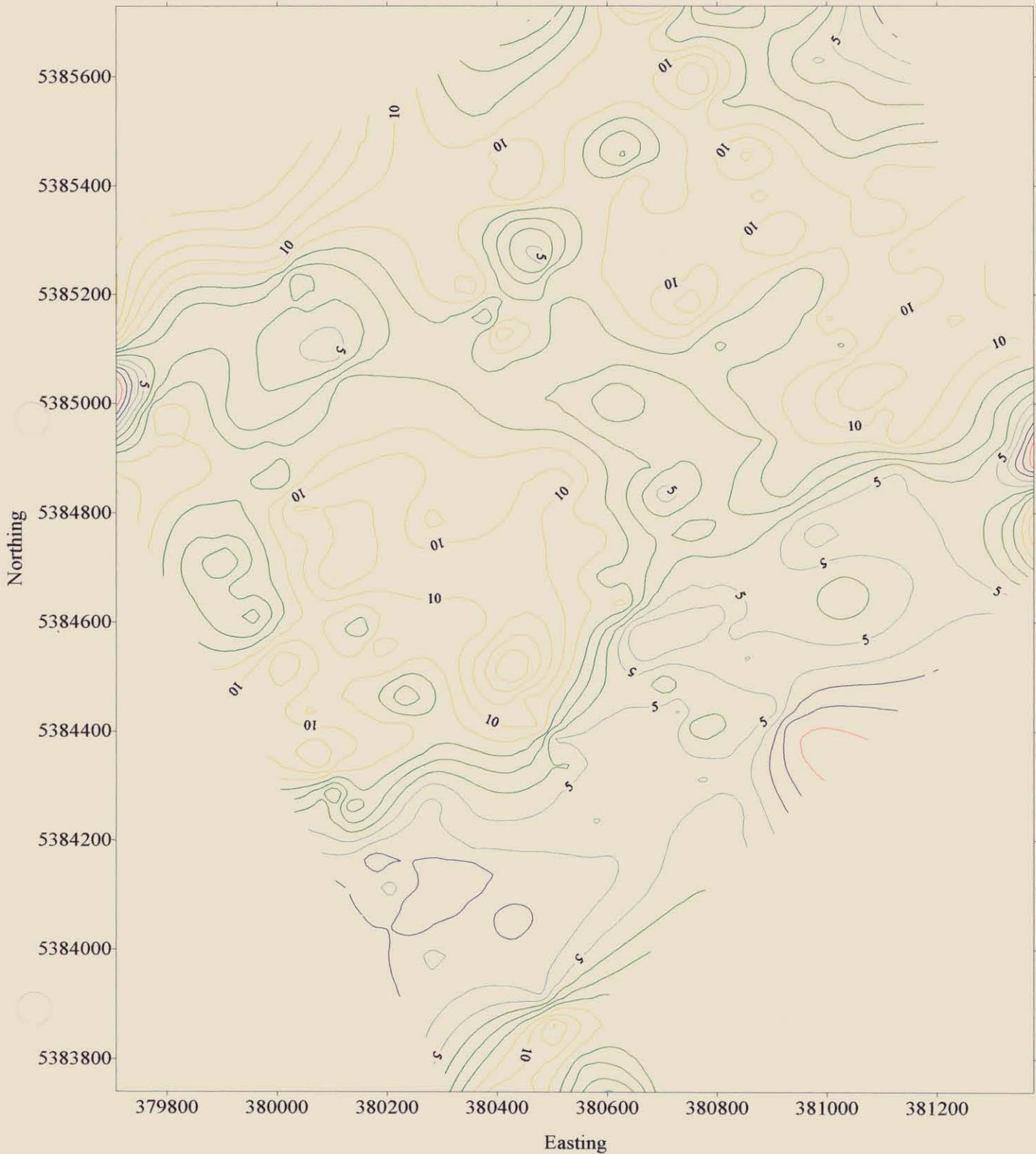
Chargeability Contours for EAB 1995 grid

(50m dipole spacing - $n = 2$)

Resistivity Contours for EAB 1995 grid

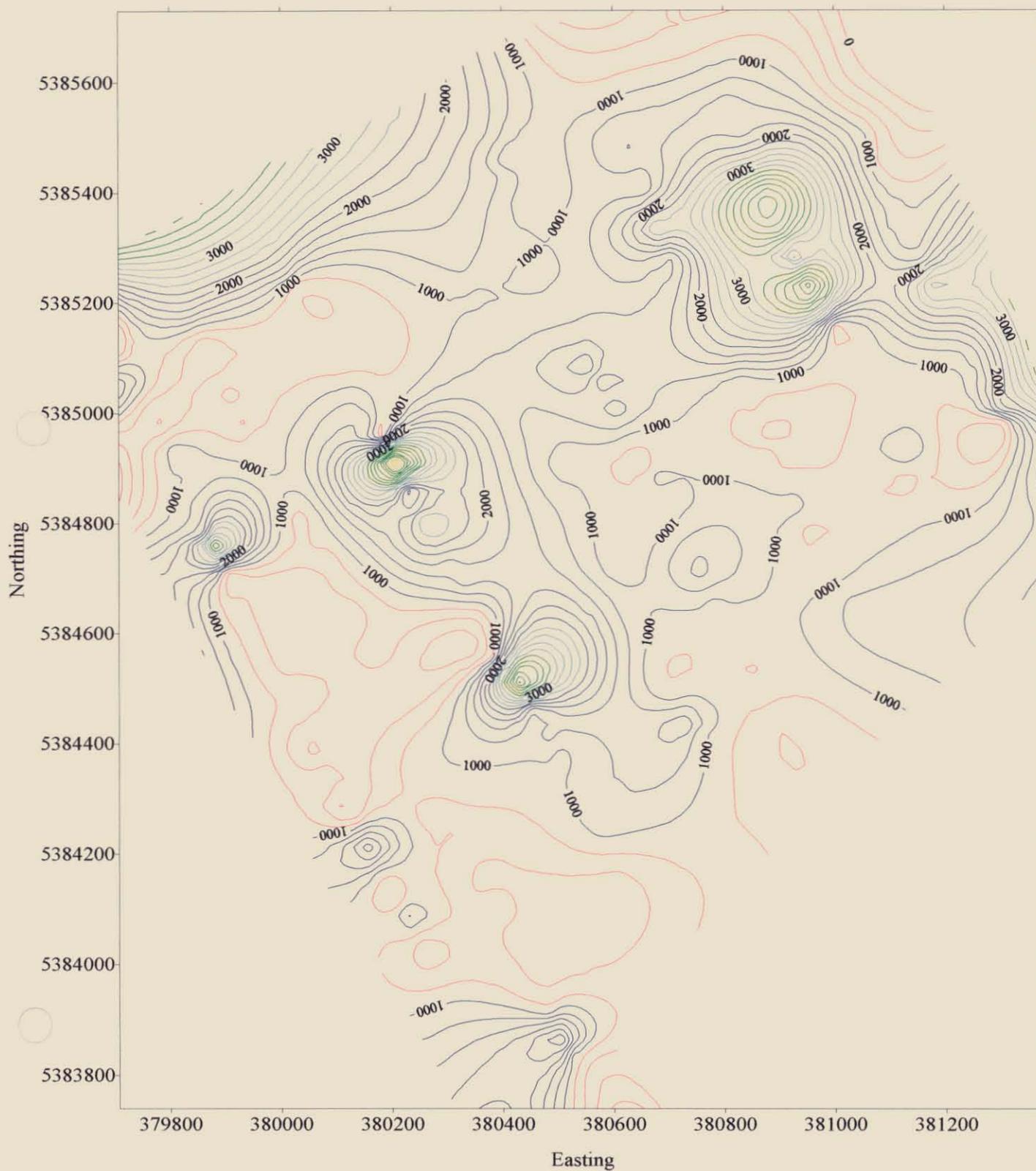
(50m dipole spacing - $n = 2$)

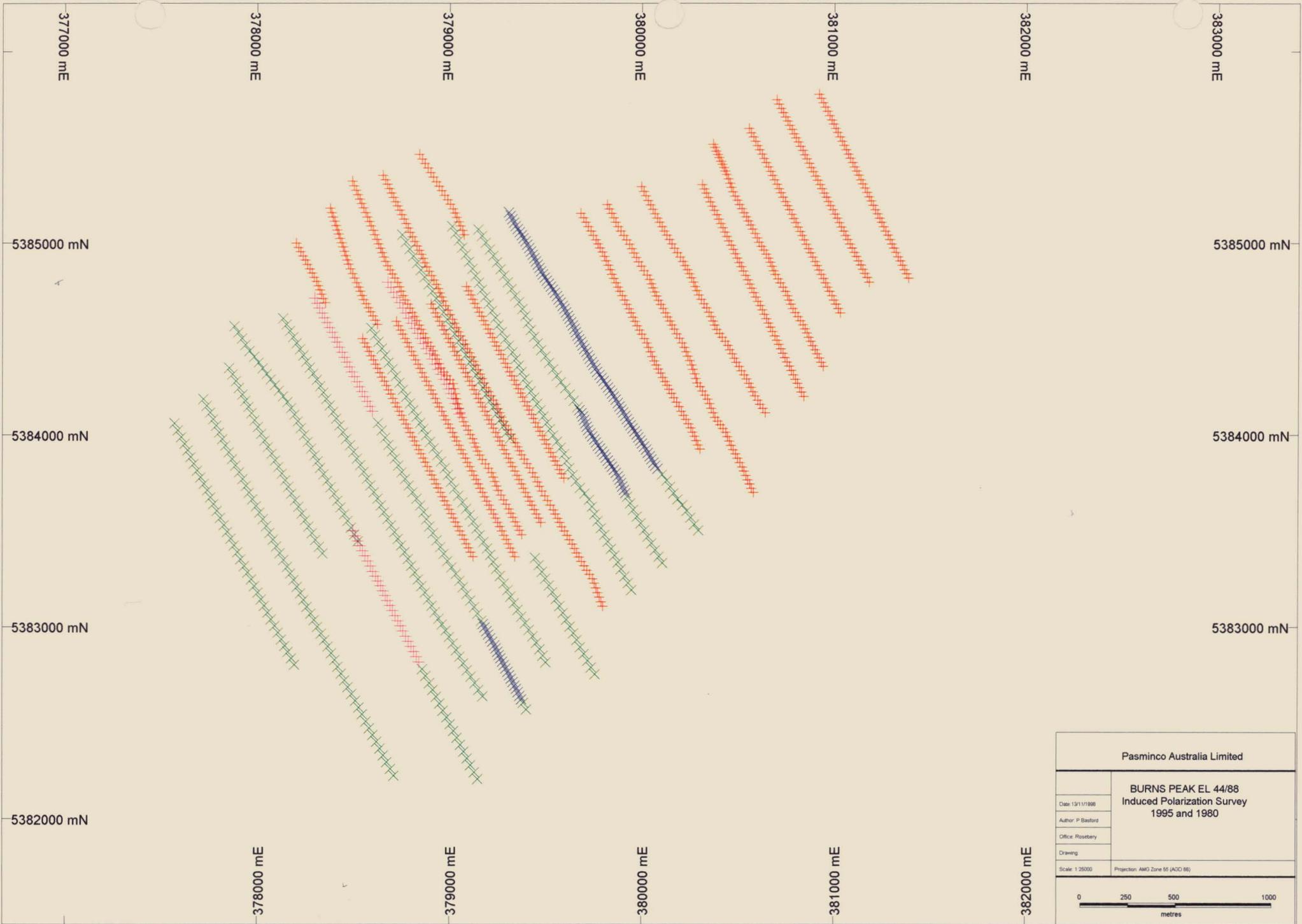
Chargeability Contours for EAB 1995 grid

(50m dipole spacing - $n = 2$)

Resistivity Contours for EAB 1995 grid

(50m dipole spacing - n = 2)



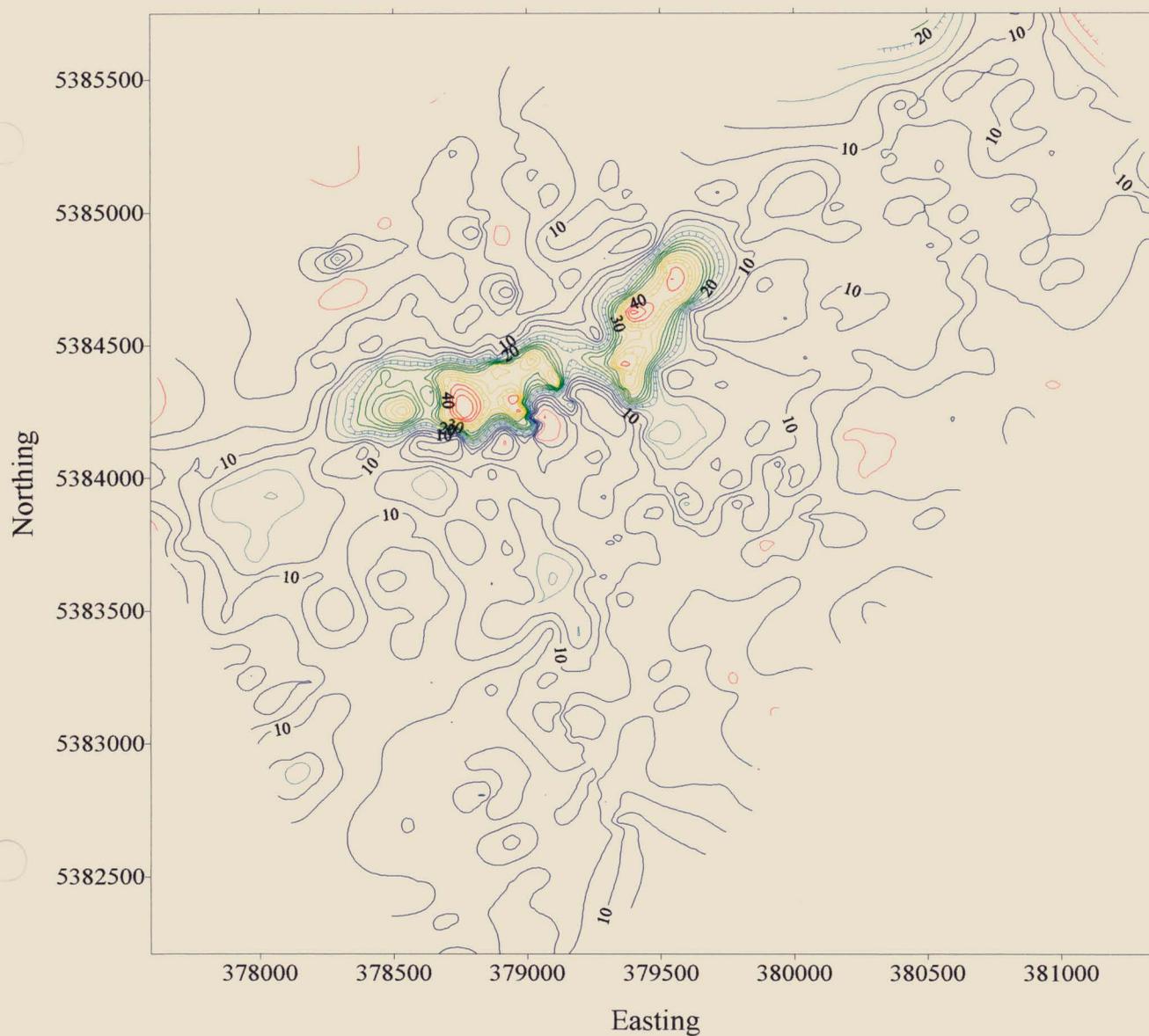


Pasminco Australia Limited	
BURNS PEAK EL 44/88 Induced Polarization Survey 1995 and 1980	
Date: 13/11/1998	Author: P Bestford
Office: Rosebery	Drawing:
Scale: 1:25000	Projection: AMG Zone 55 (ACD 98)

328083

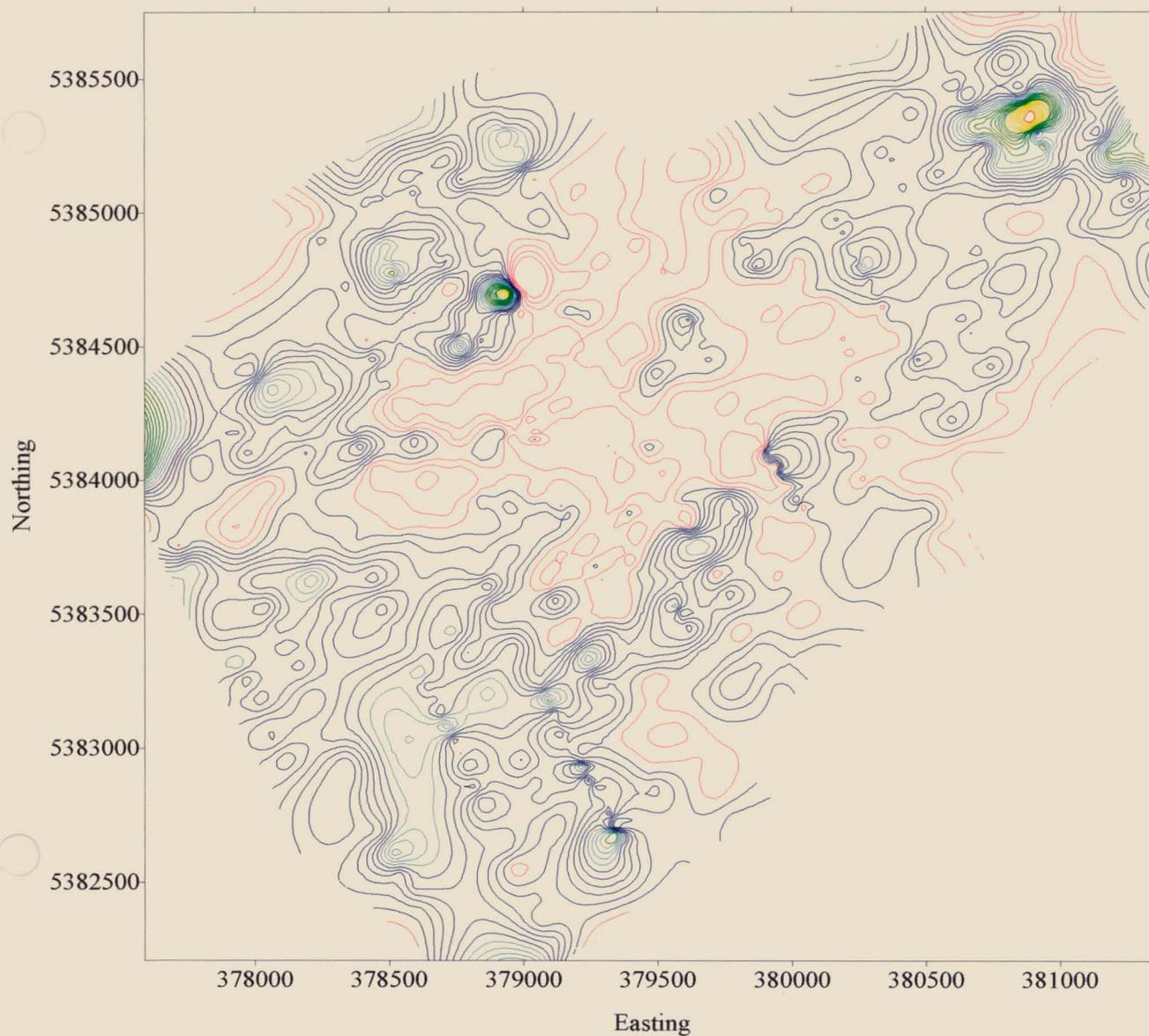
Chargeability Contours for 1995 and 1980 EAB grid

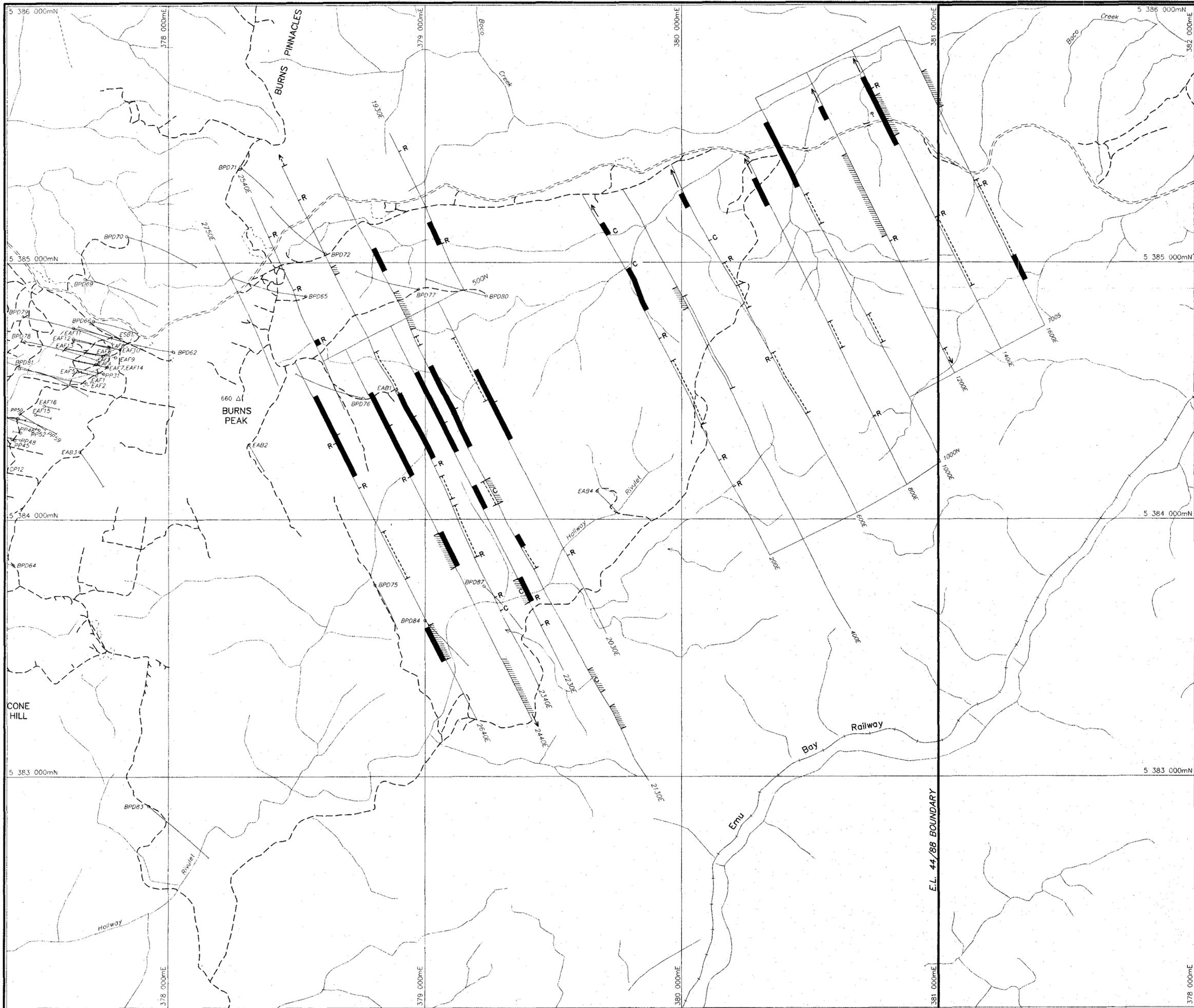
(1995 data - 50m dipole @ n=3; 1980 data - 80m dipole @ n=2, 60m dipole @ n=3 & 40m dipole @ n=4)



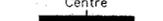
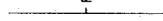
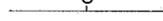
Resistivity Contours for 1995 and 1980 EAB grid

(1995 data - 50m dipole @ n=3; 1980 data - 80m dipole @ n=2, 60m dipole @ n=3 & 40m dipole @ n=4)

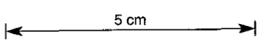




LEGEND

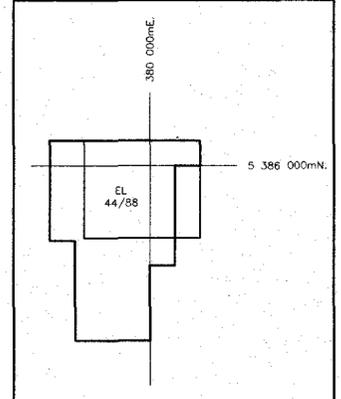
-  IP Anomaly
-  Shallow IP
-  Resistivity high
-  Conductivity high
-  Anomaly open
-  Resistivity contact
-  Chargeability contact

328086



96-3945

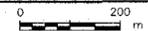
ANNUAL REPORT - BURNS PEAK
EL 44/88 - PASMINGO
P. QUAYLE, S. DIBBEN

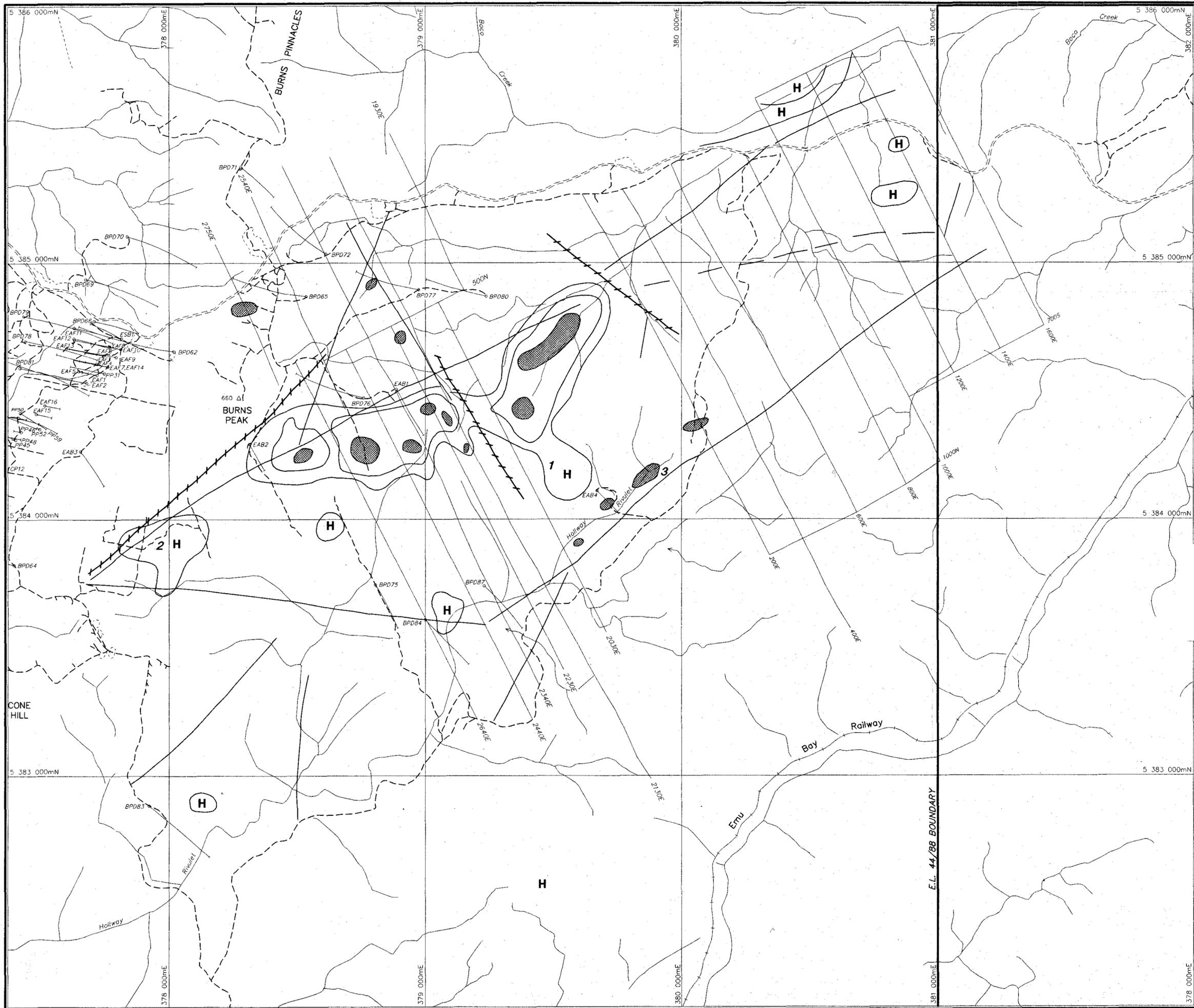


PASMINCO EXPLORATION
A Division of Pasminco Australia Limited

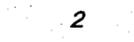
COMPILED : P.W.B.
DATE : Oct., 1996
DRAWN : G.M.B.
REVISIONS :
FILE : 10_BRIPANOMAL
DRAWING No.

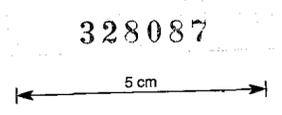
E.L. 44/88 - BURNS PEAK
**I.P.
ANOMALIES**

SCALE 1:10,000  FIG. No.



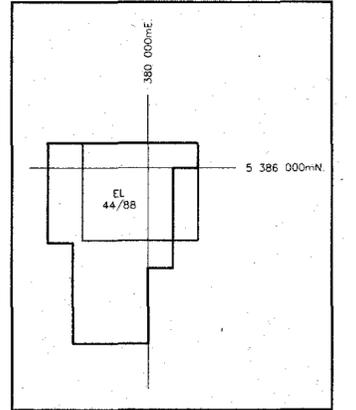
LEGEND

-  Resistivity structures and contacts
-  Chargeability structures and contacts
-  IP Highs
-  Target Area



96-3945

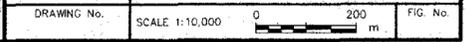
ANNUAL REPORT - BURNS PEAK
 EL 44/88 - PASMINGO
 P. QUAYLE, S. DIBBEN



PASMINGO EXPLORATION
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COMPILED :	P.W.B.
DATE :	Oct., 1996
DRAWN :	G.M.B.
REVISIONS :	
FILE :	10_BRIPINTERP
DRAWING No.	

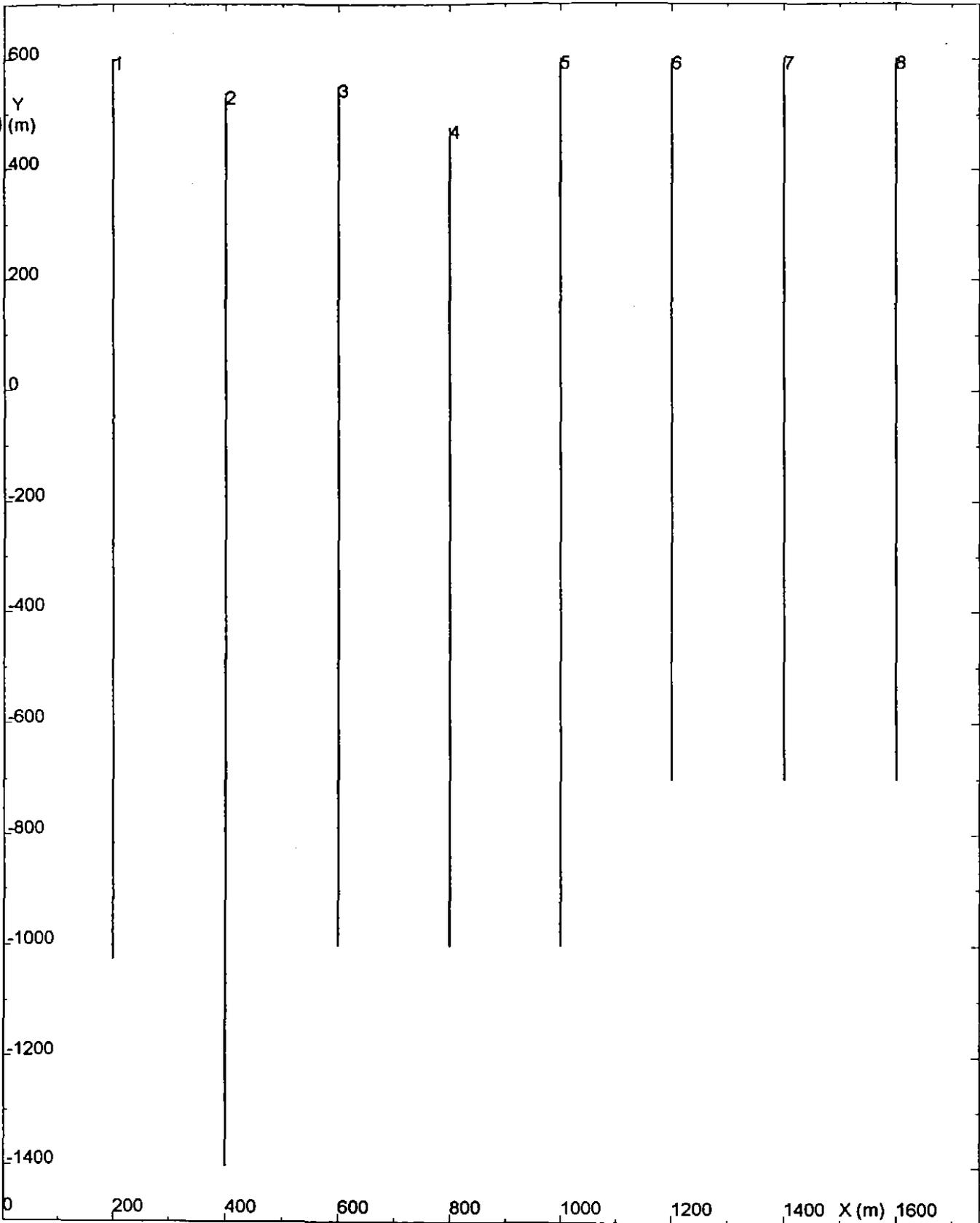
E.L. 44/88 - BURNS PEAK
I.P.
INTERPRETATION



APPENDIX 2

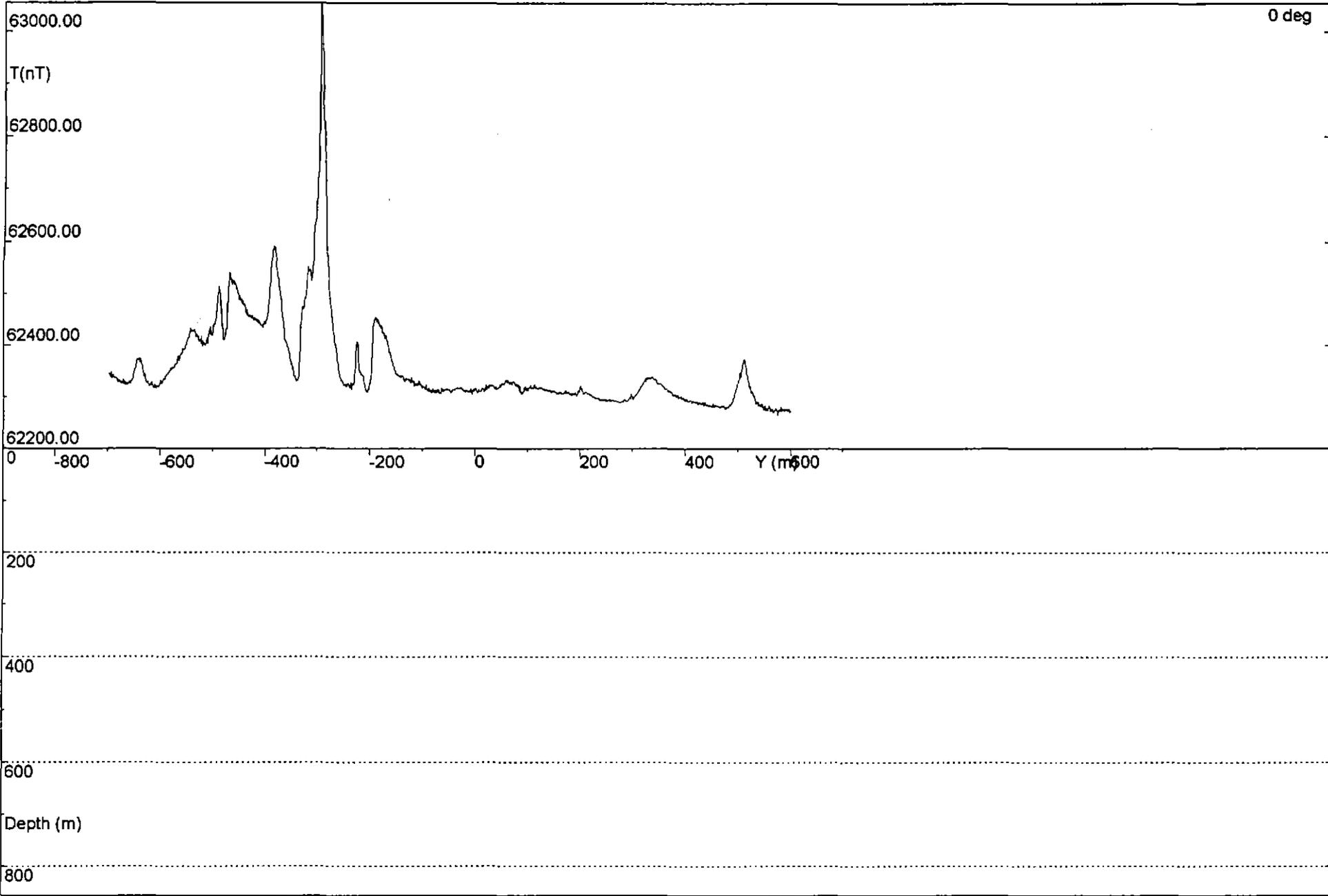
Ground Magnetic Data - Hollway

(P.W Basford)



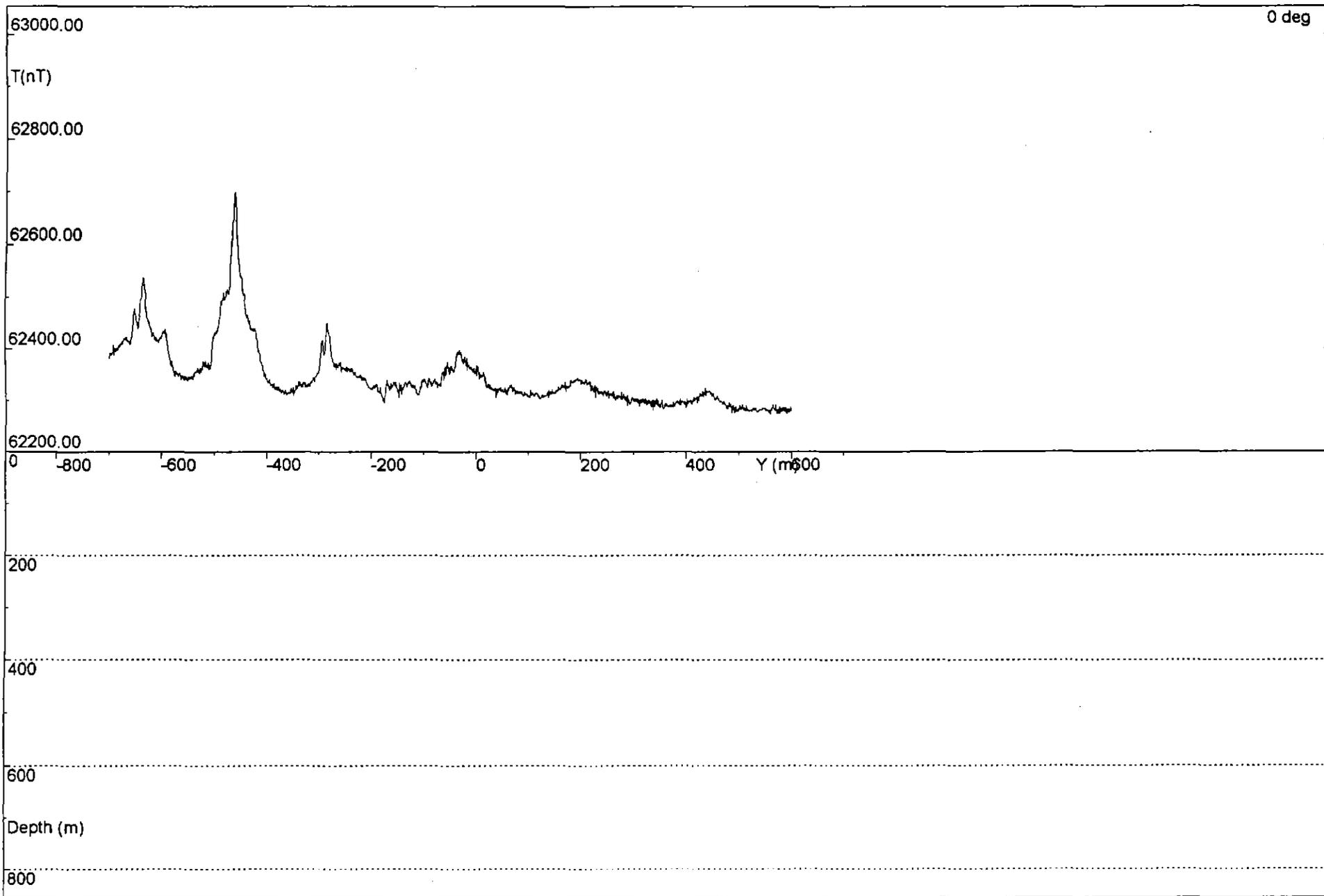
Observations: Hollway Ground Magnetic Data
Model:
POTENT v3.08 Plan drawn at 16:14 14/10/1996 for Pasmenco Exploration

0 deg



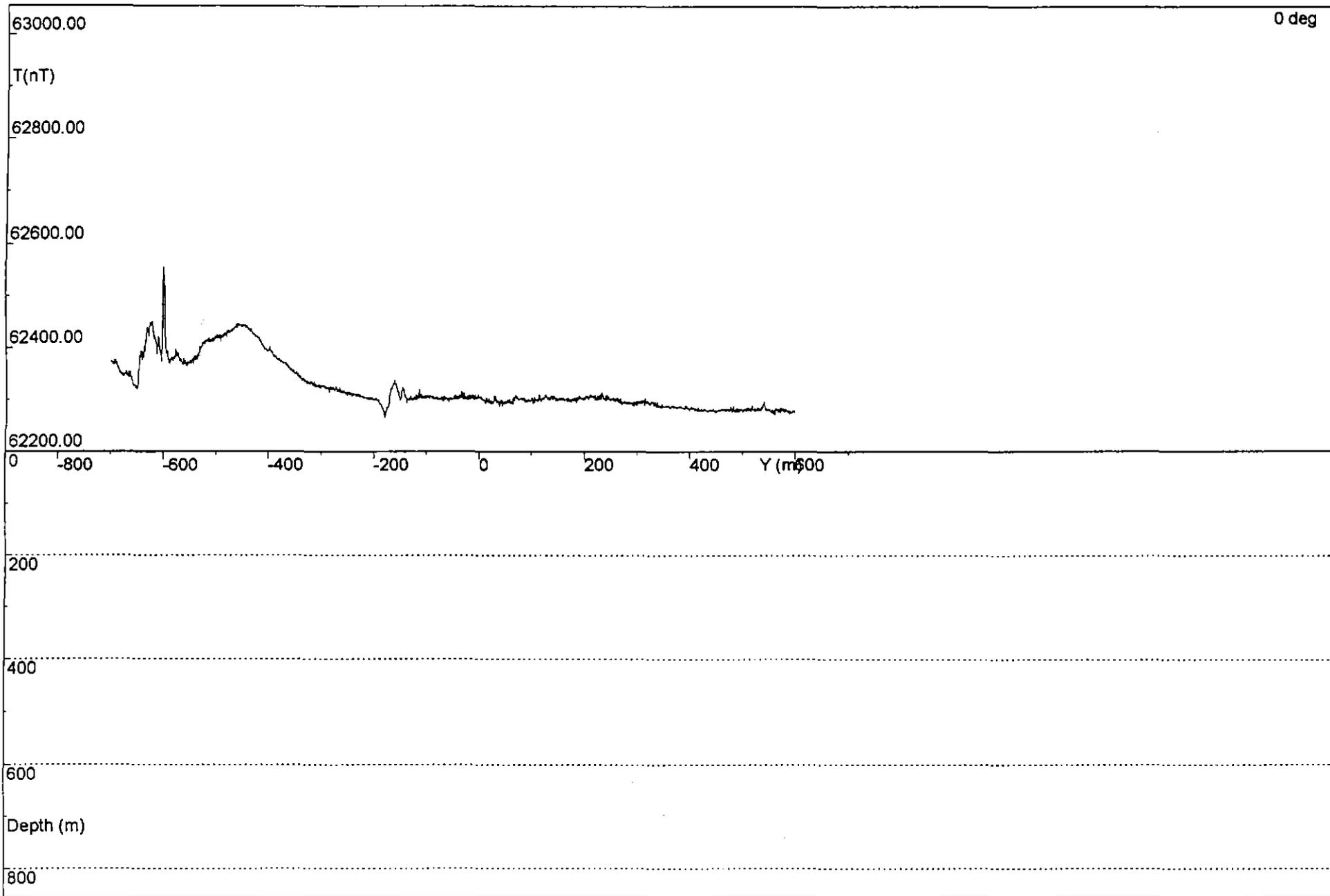
328090

Observations: Hollway Ground Magnetic Data
Profile #8: Line 1600E



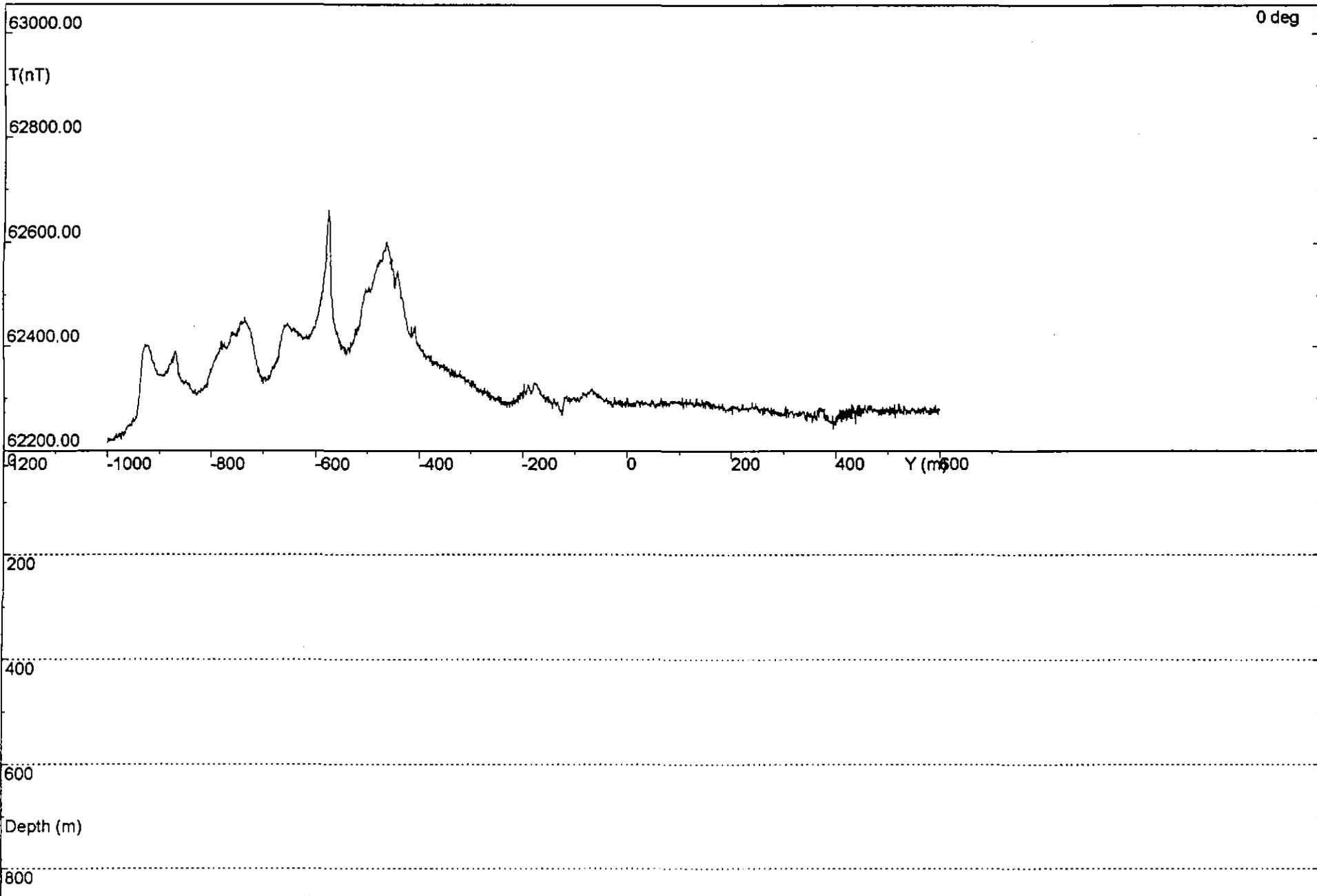
Observations: Hollway Ground Magnetic Data
Profile #7: Line 1400E

328091



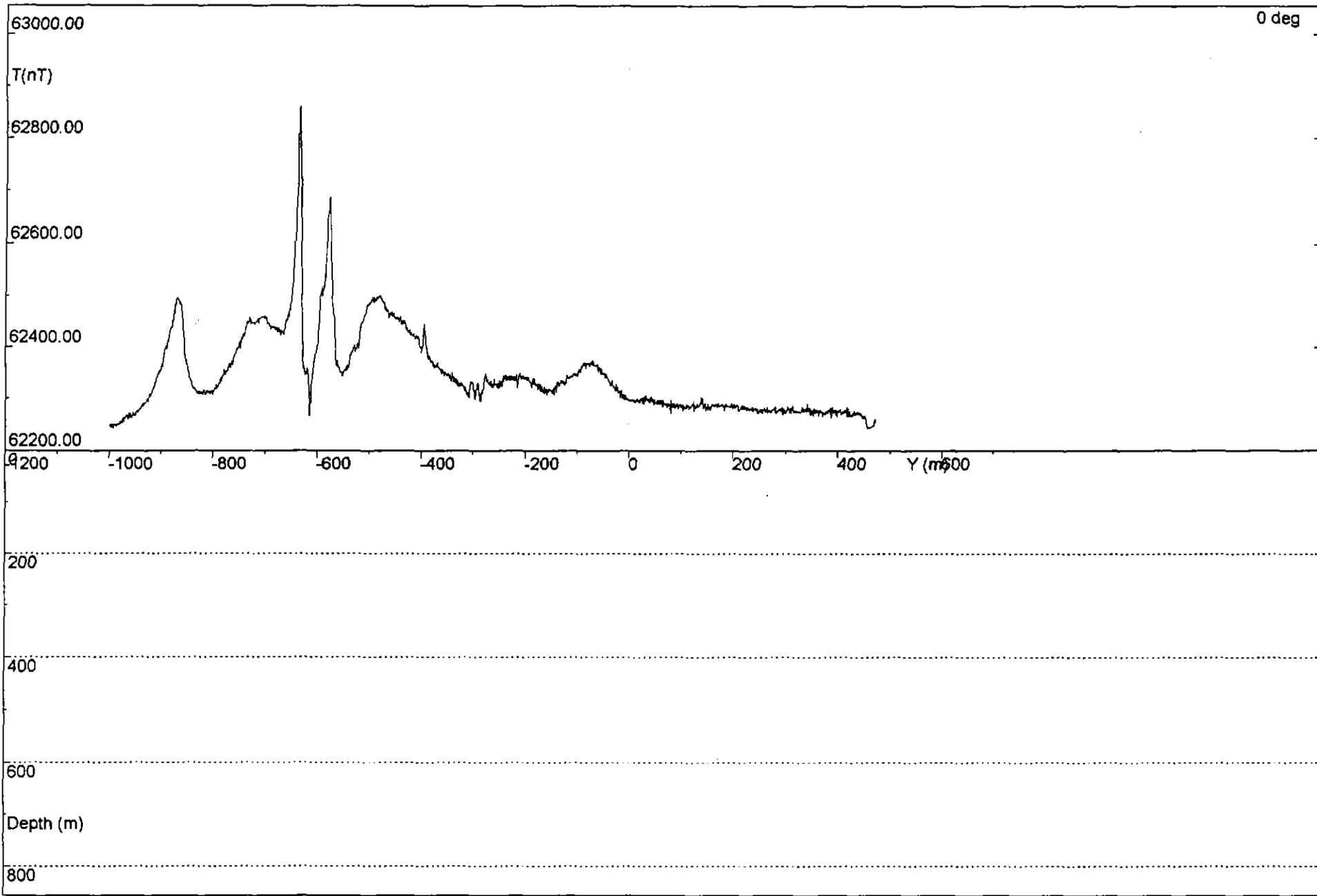
Observations: Hollway Ground Magnetic Data
Profile #6: Line 1200E

328092



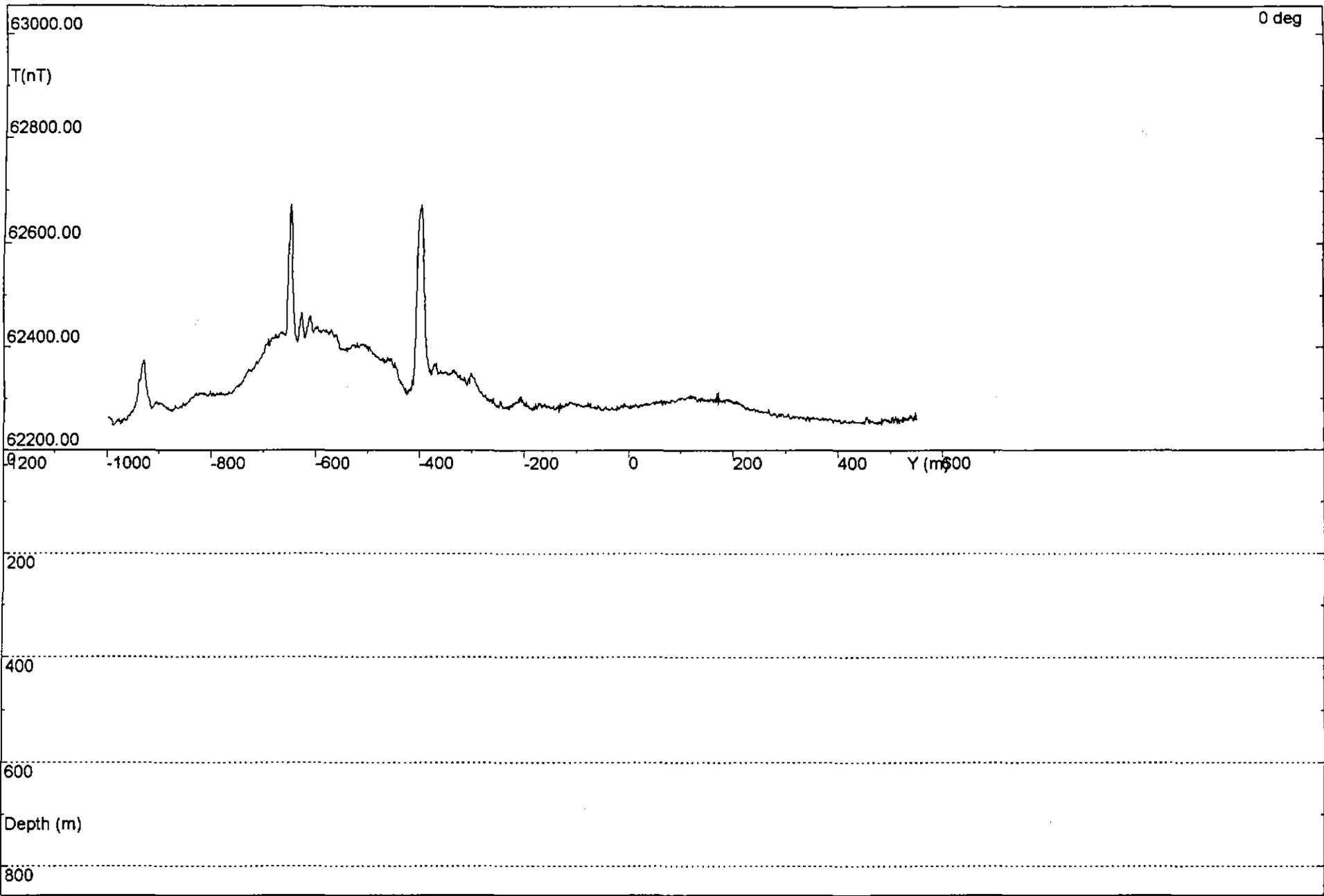
328093

Observations: Hollway Ground Magnetic Data
Profile #5: Line 1000E



Observations: Hollway Ground Magnetic Data
Profile #4: Line 800E

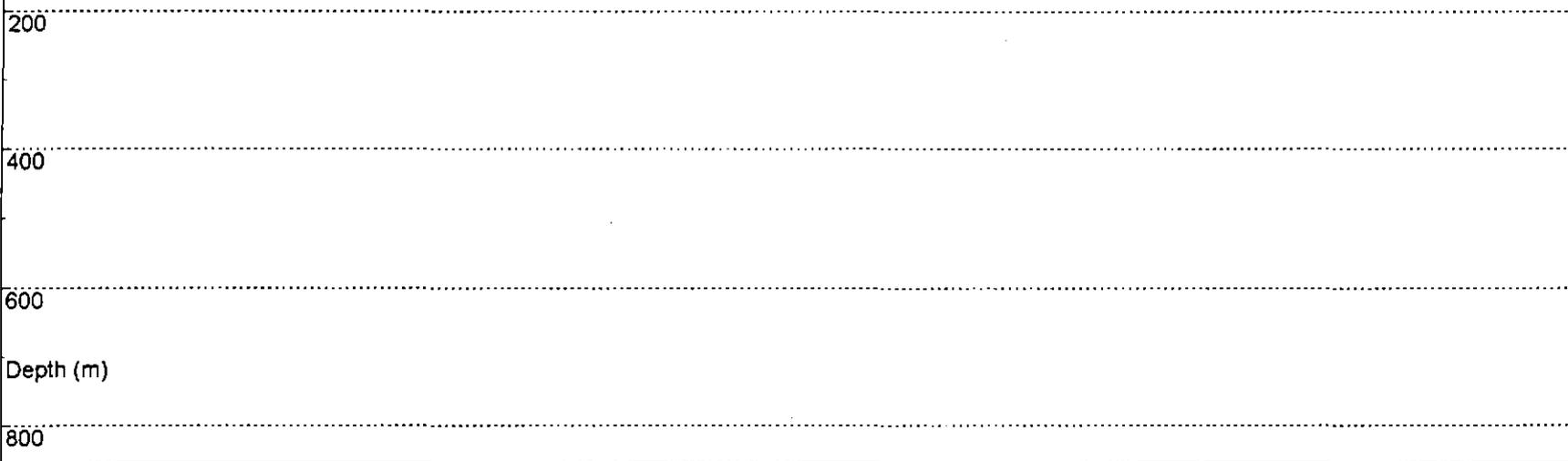
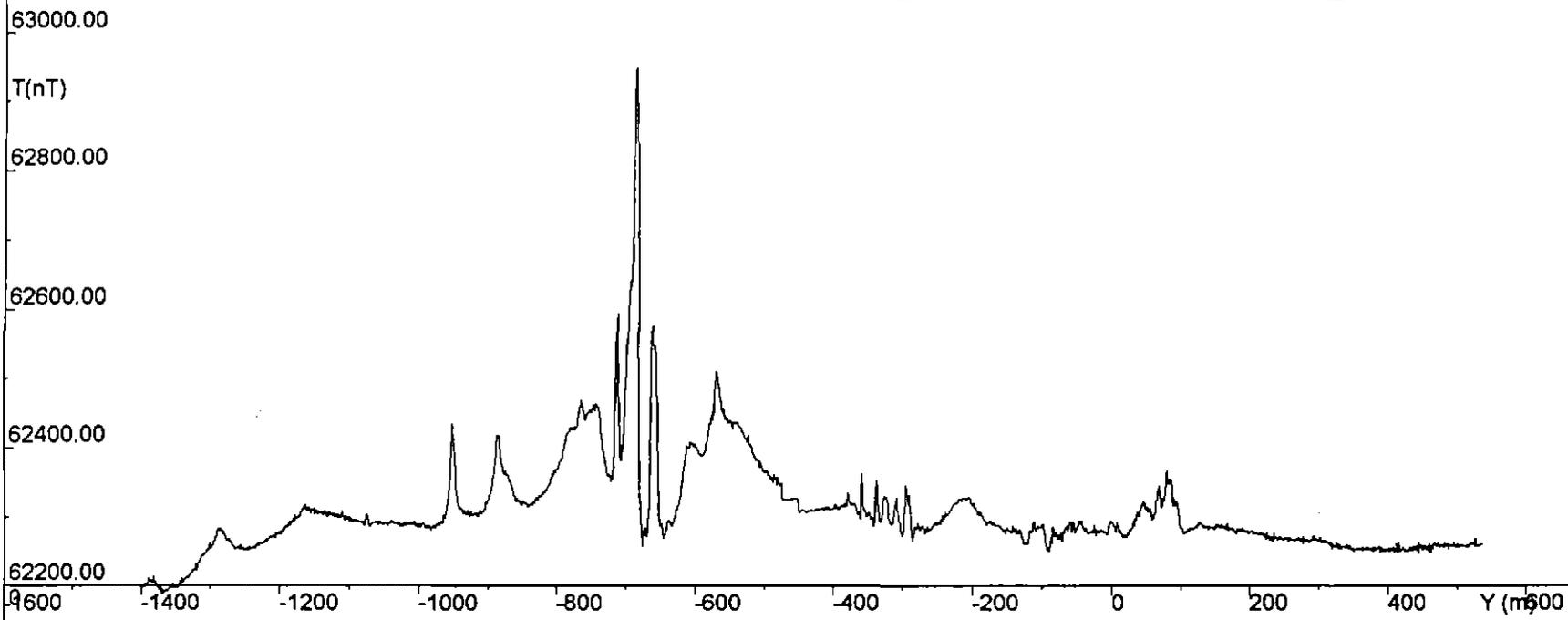
328094



328095

Observations: Hollway Ground Magnetic Data
Profile #3: Line 600E

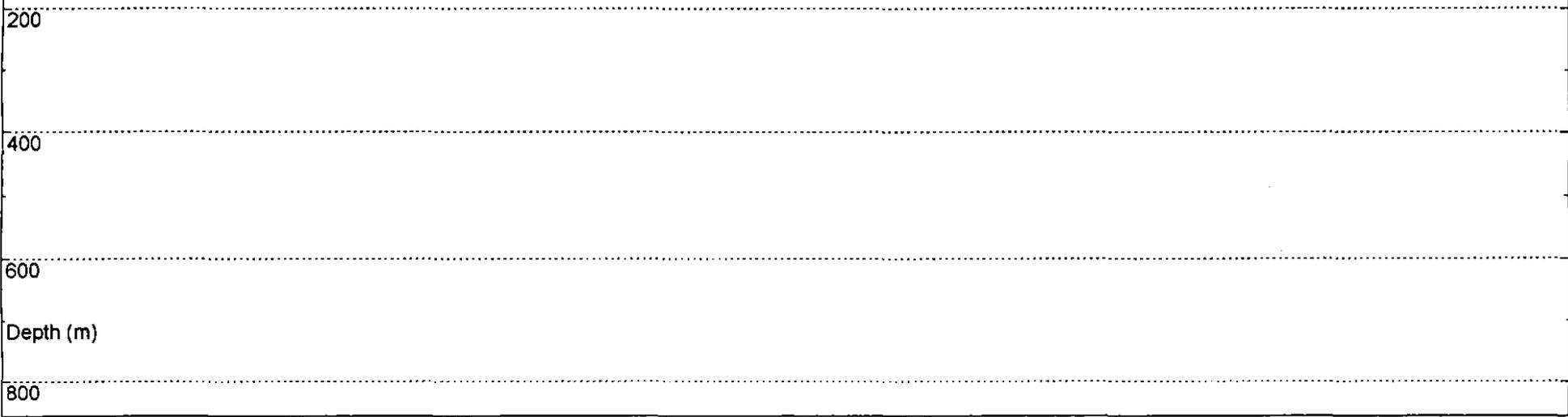
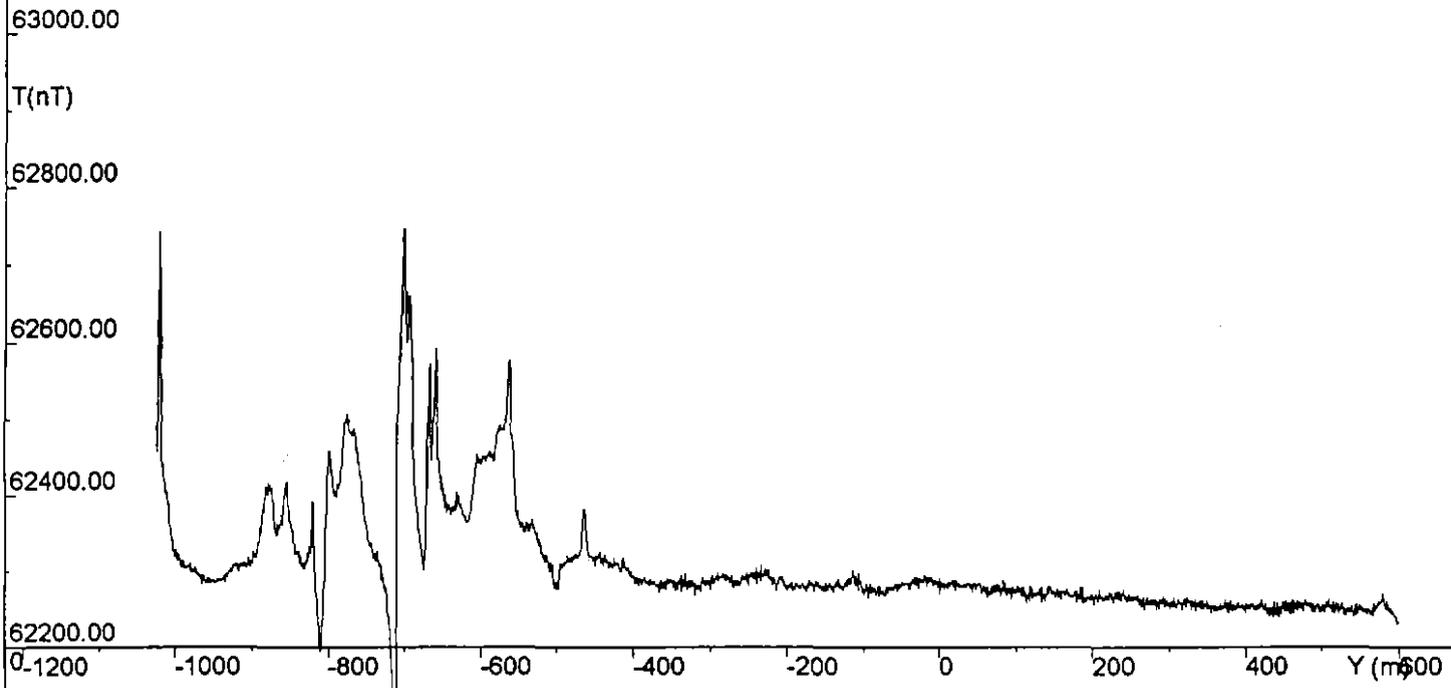
0 deg



Observations: Hollway Ground Magnetic Data
Profile #2: Line 400E

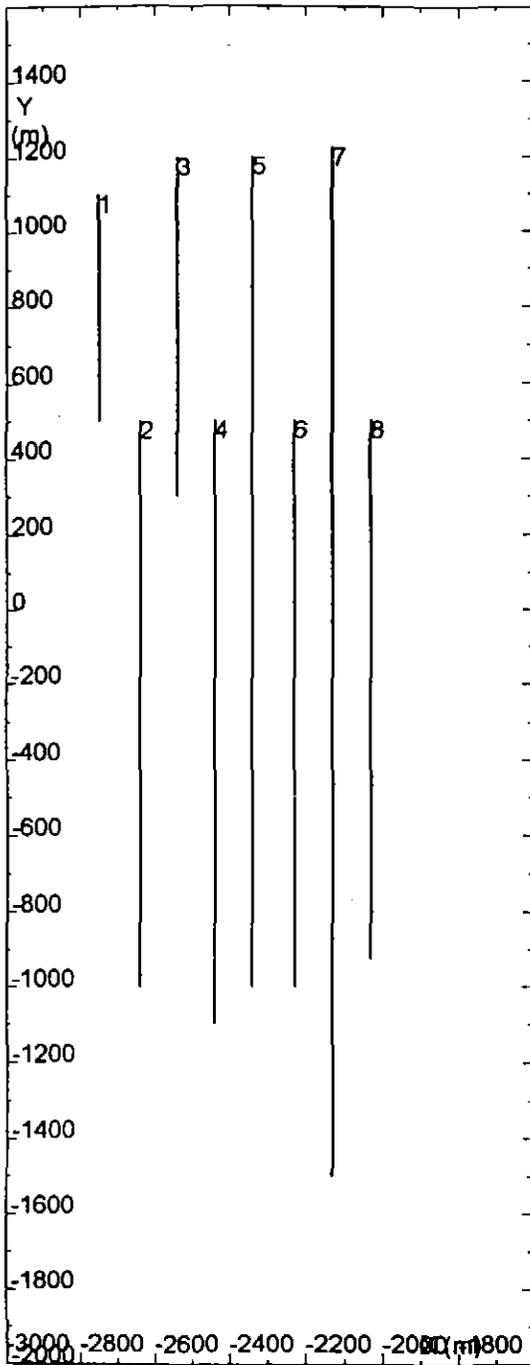
328096

0 deg



Observations: Hollway Ground Magnetic Data
Profile #1: Line 200E

328097

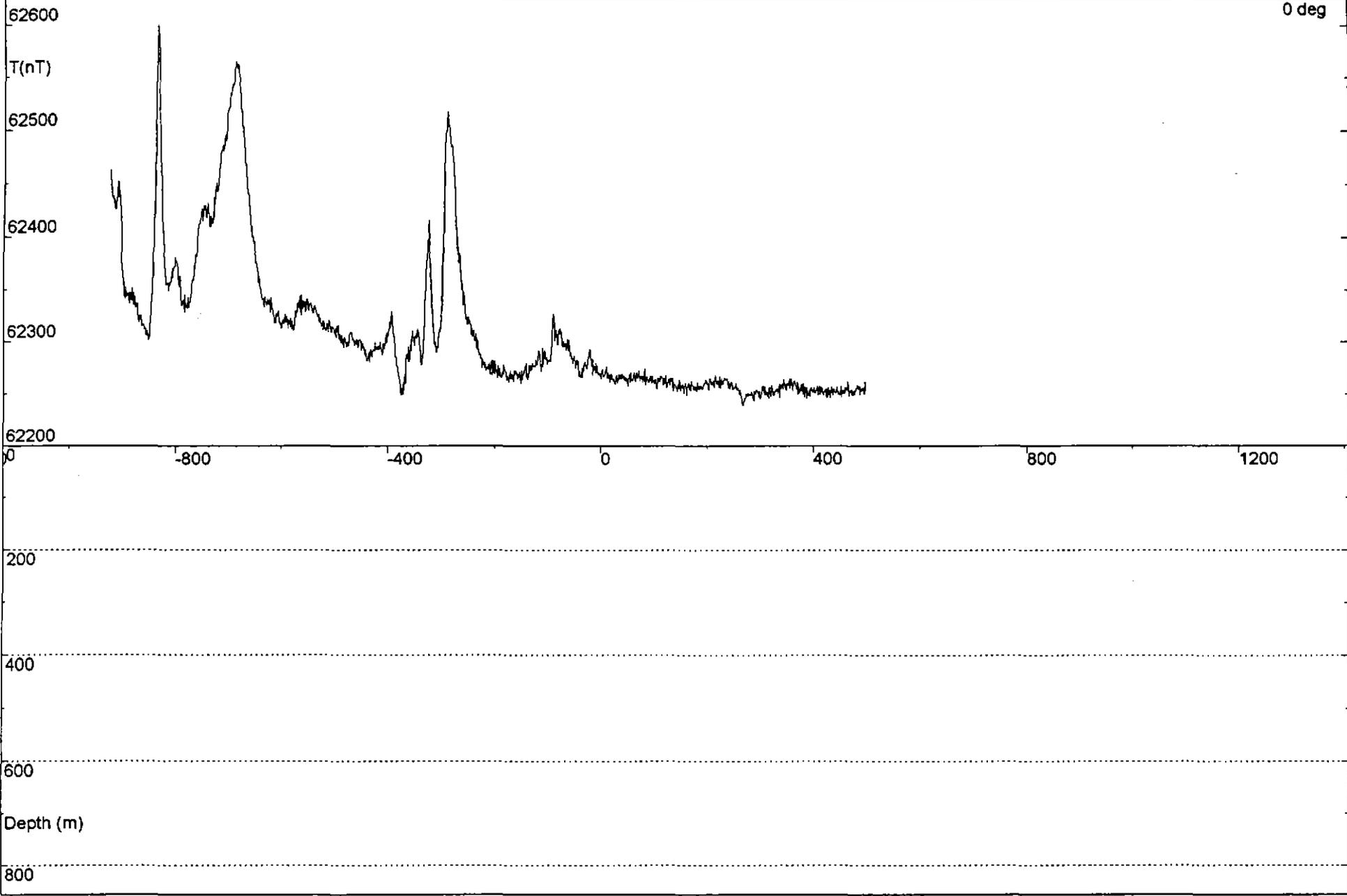


Observations: Hollway Ground Magnetics

Model:

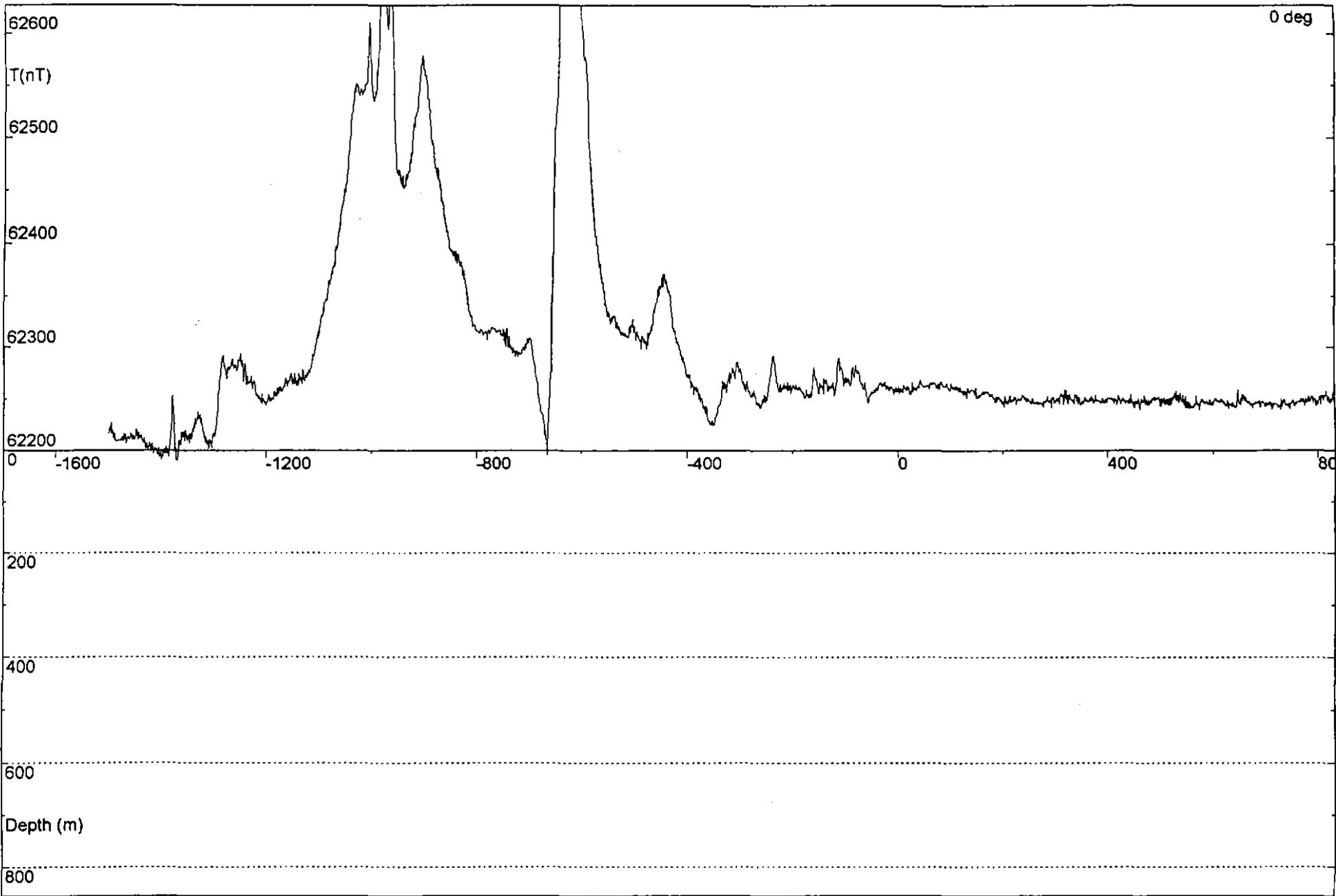
POTENT v3.07 Plan drawn at 14:00 14/10

0 deg



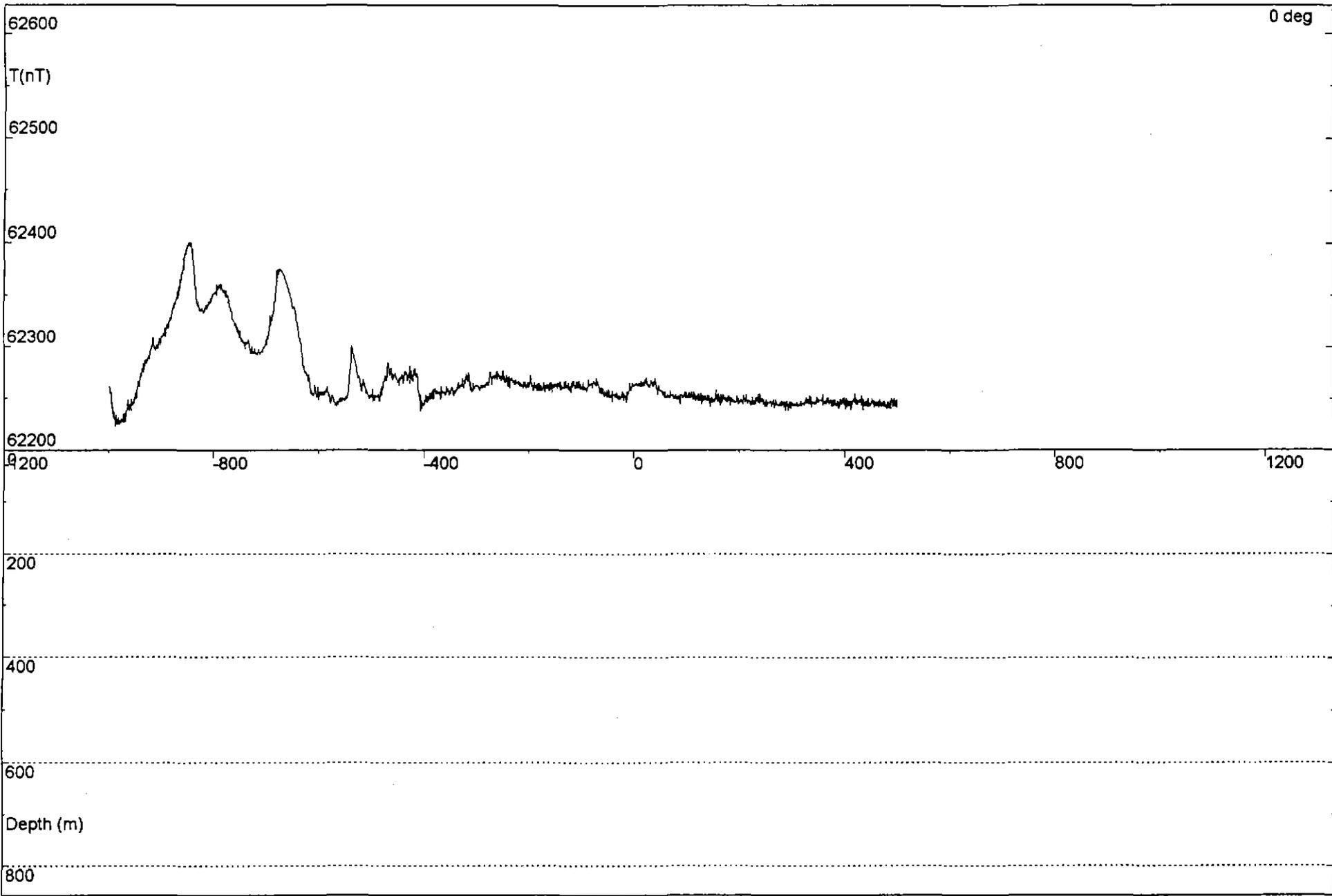
Observations: Hollway Ground Magnetics
Profile #8: Line 2030E

328099



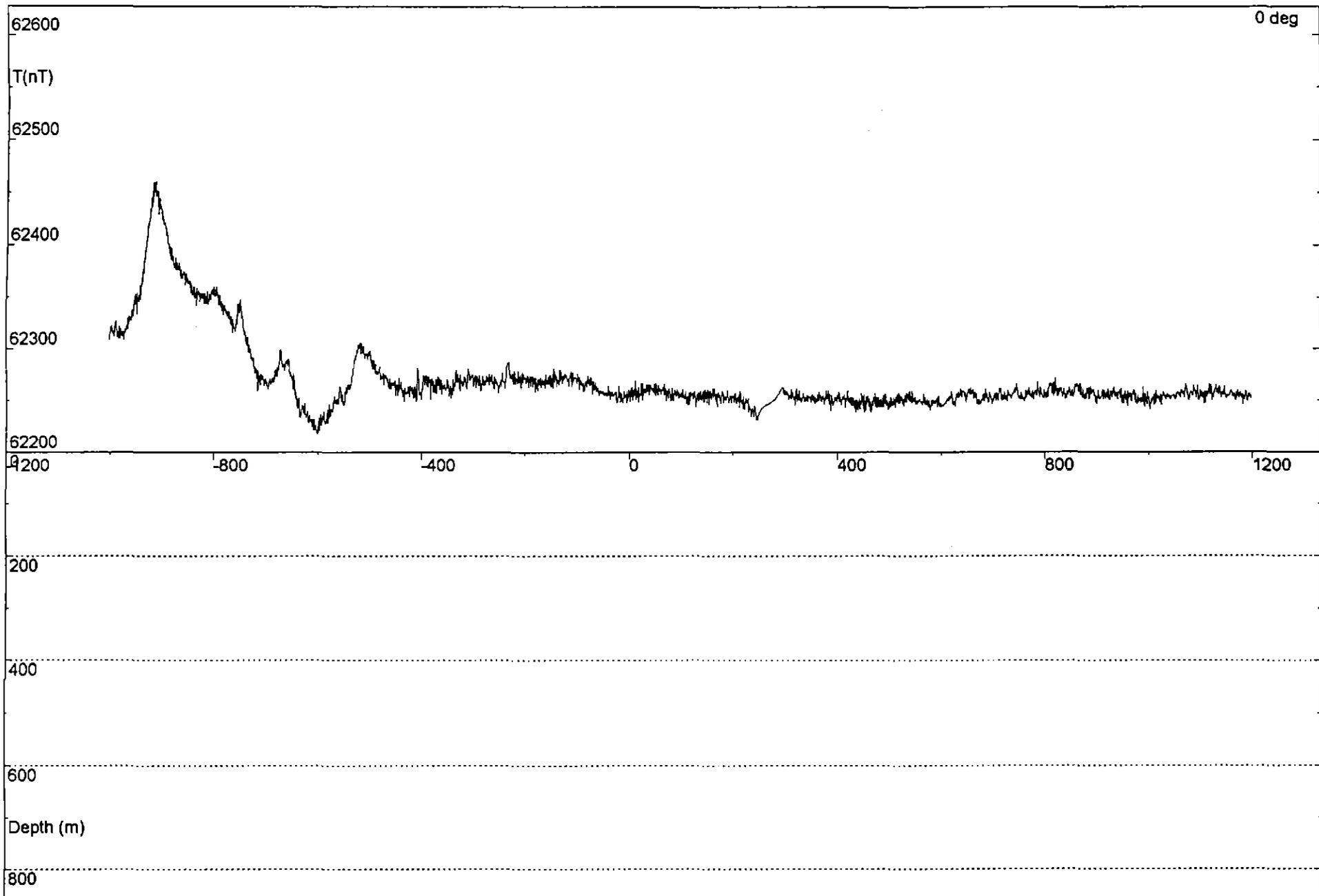
328100

Observations: Hollway Ground Magnetics
Profile #7: Line 2130E



Observations: Hollway Ground Magnetics
Profile #6: Line 2230E

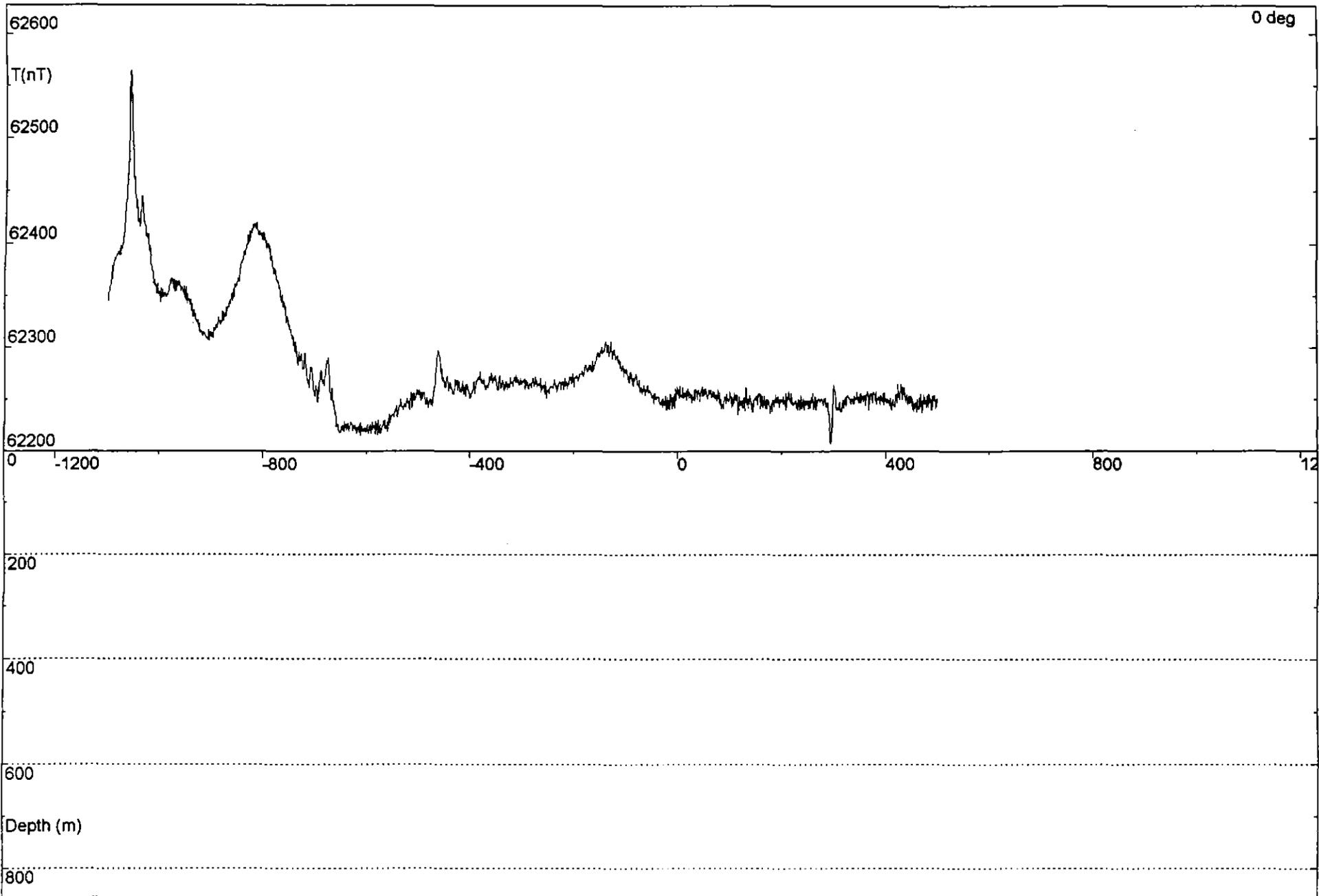
328101



Observations: Hollway Ground Magnetics

Profile #5 Line 2340E

328102



Observations: Hollway Ground Magnetics
Profile #4: Line 2440E

328103

0 deg

62600

T(nT)

62500

62400

62300

62200

0

400

800

1200

1600

2000

Y (m)

2400

200

400

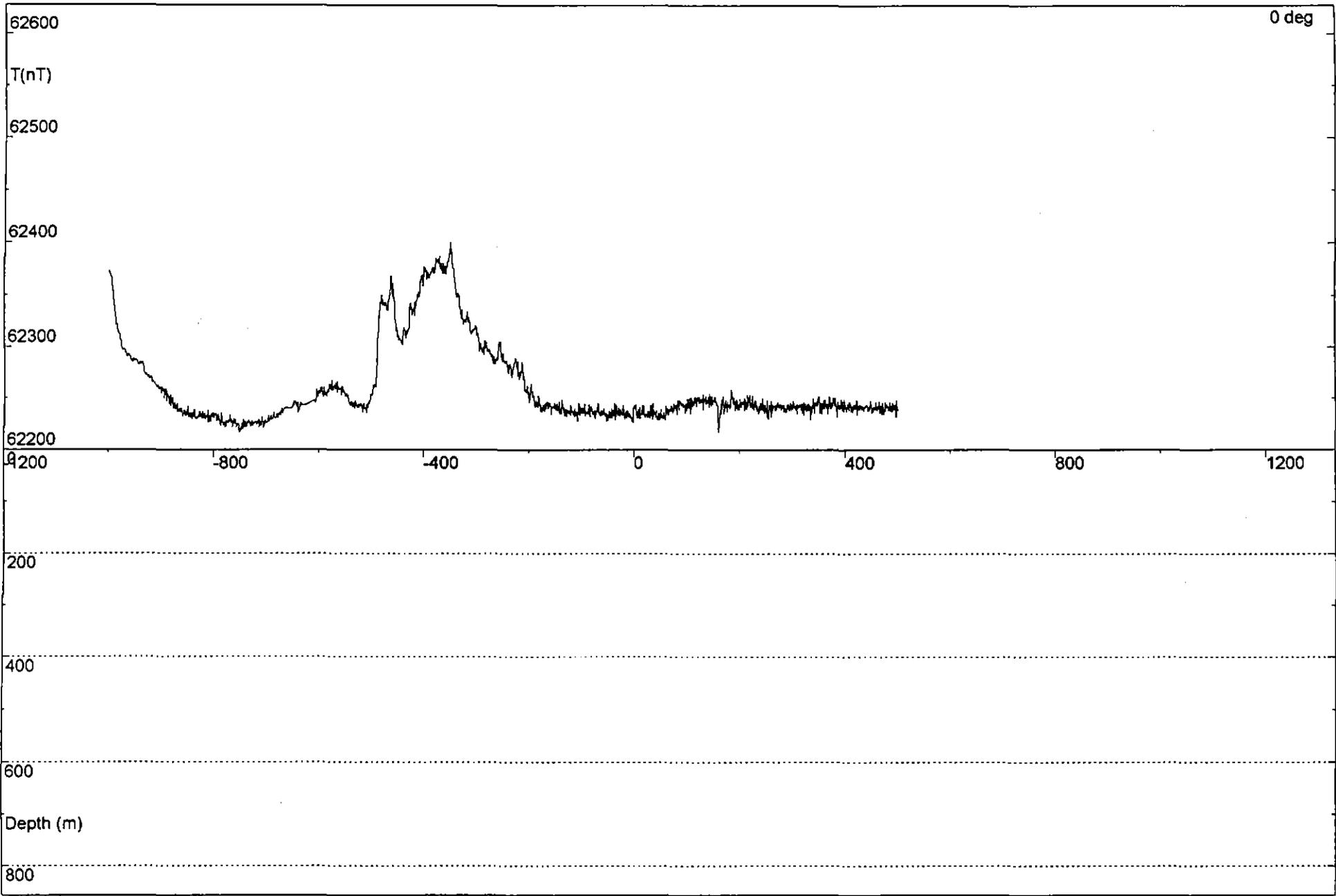
600

Depth (m)

800

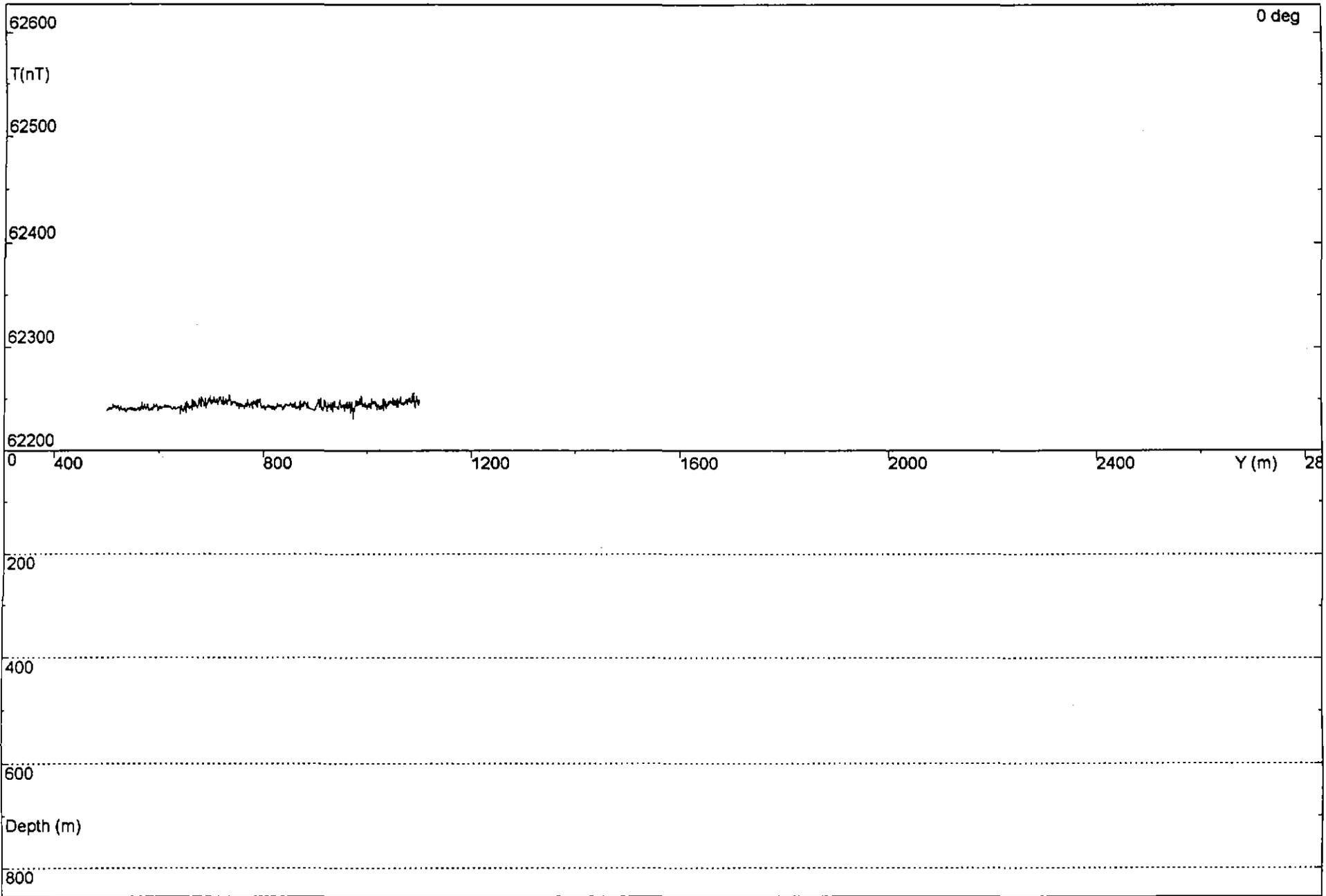
Observations: Hollway Ground Magnetics
Profile #3: Line 2540E

328104



328105

Observations: Hollway Ground Magnetics
Profile #2: Line 2640E

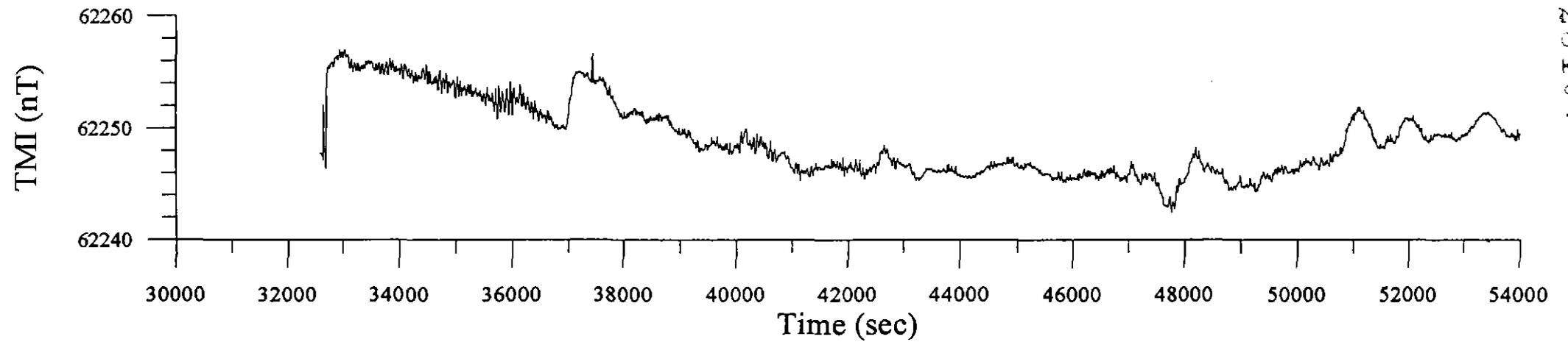


0 deg

328106

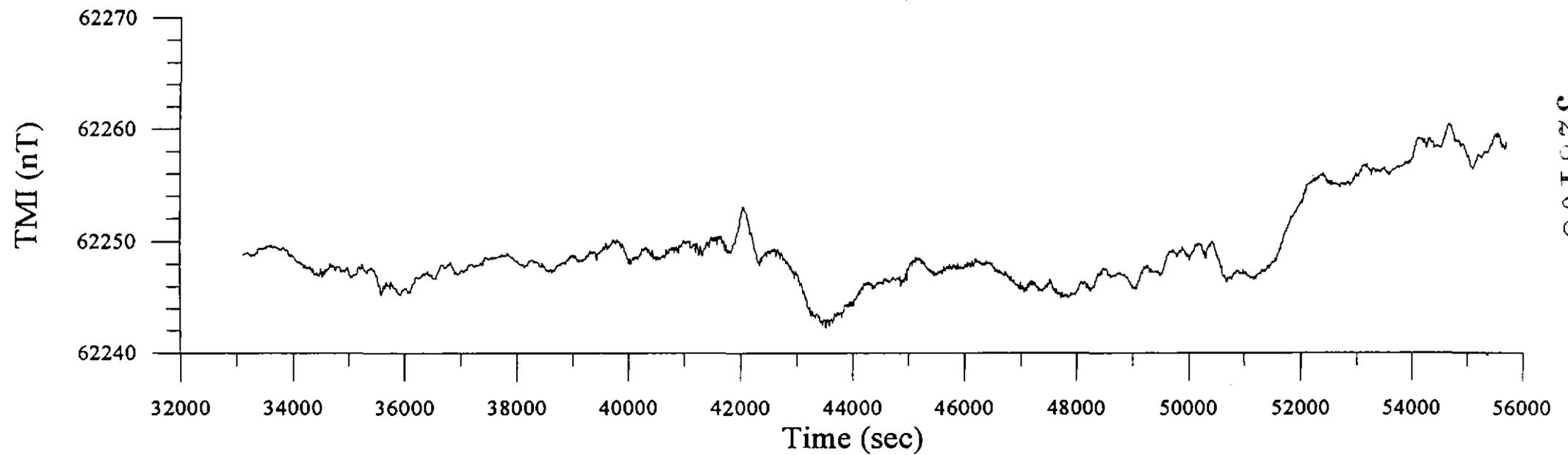
Observations: Hollway Ground Magnetics
Profile #1: Line 2750E

Base Station Data for 19-3-96



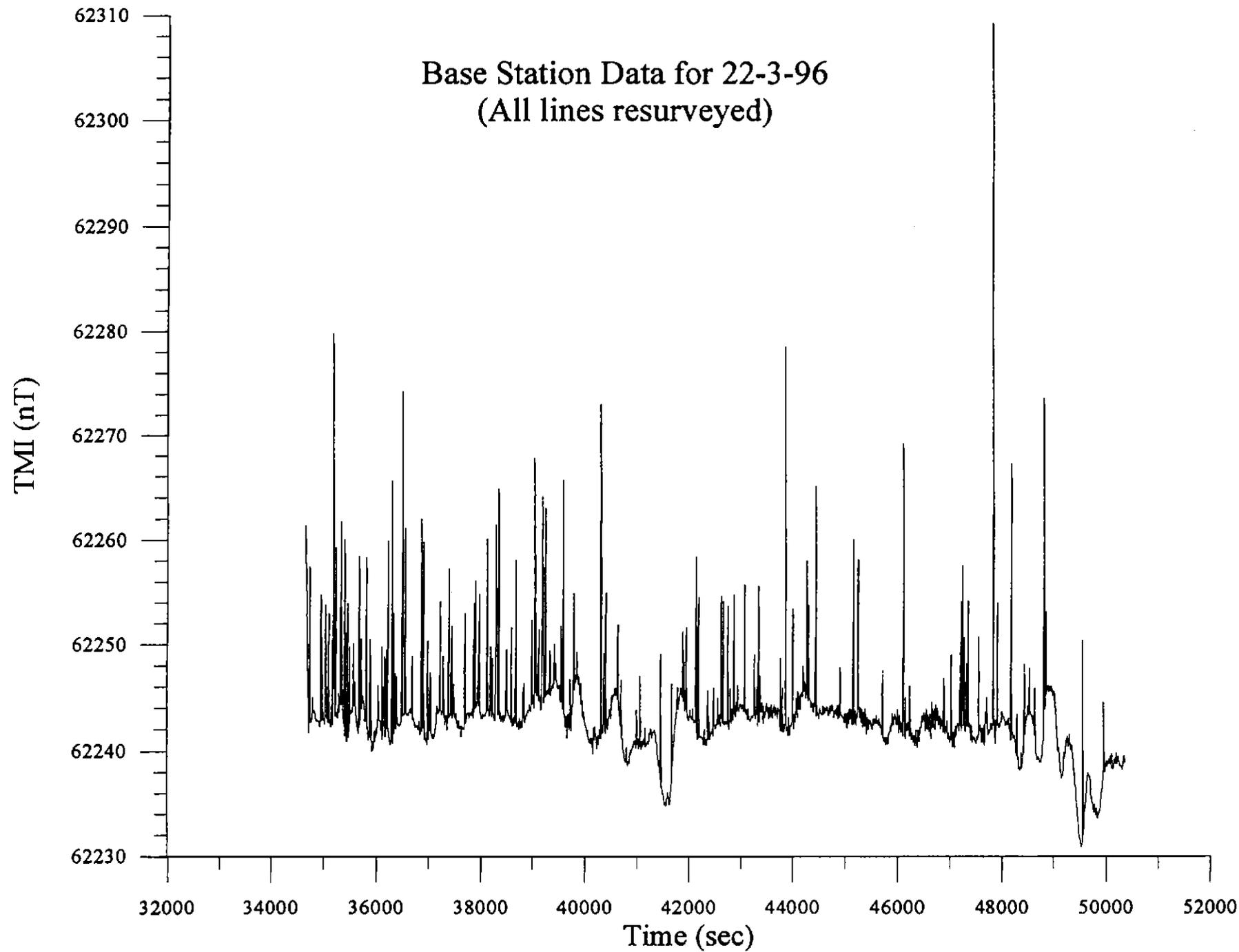
328107

Base Station Data for 20-3-96



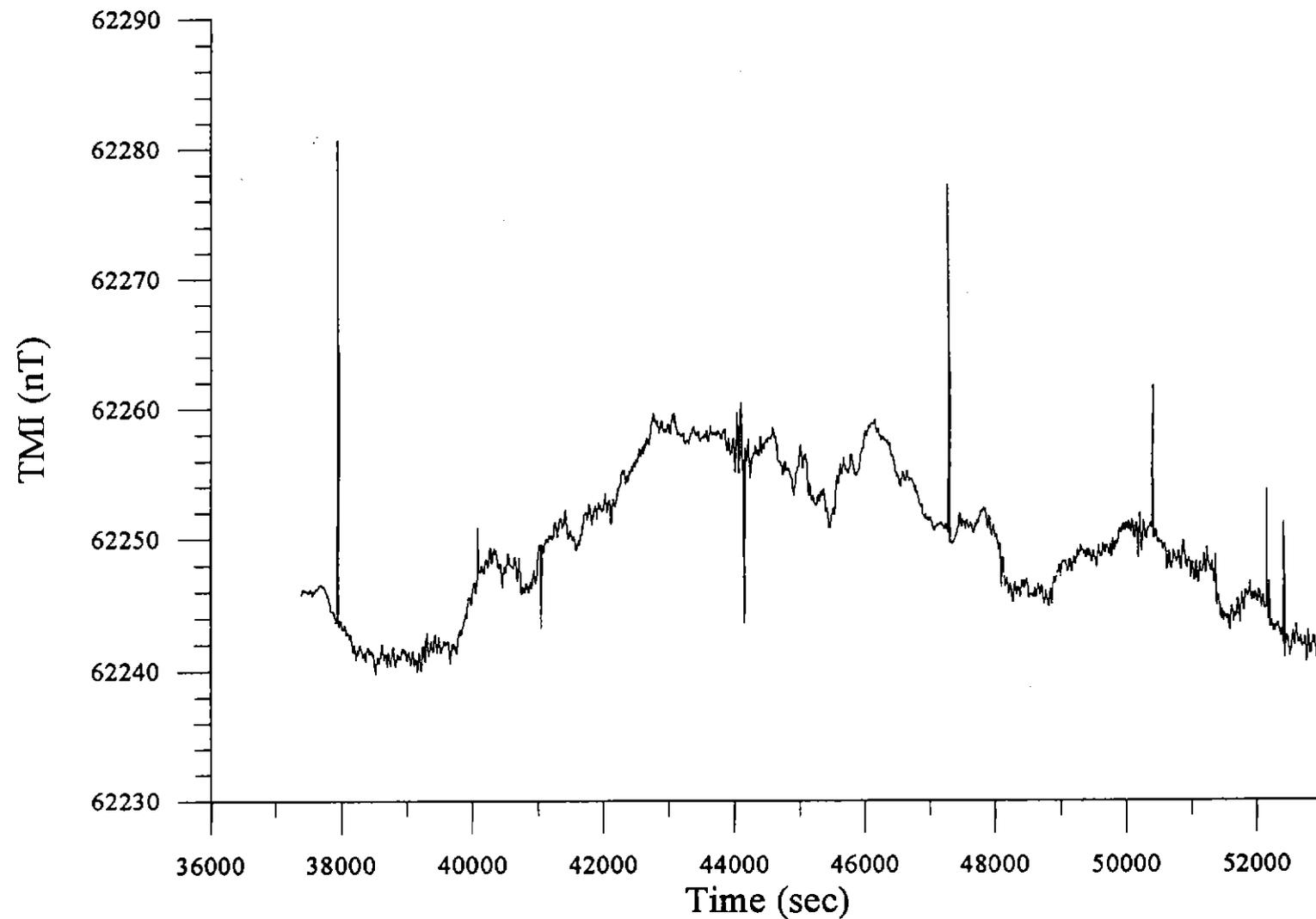
328108

Base Station Data for 22-3-96
(All lines resurveyed)



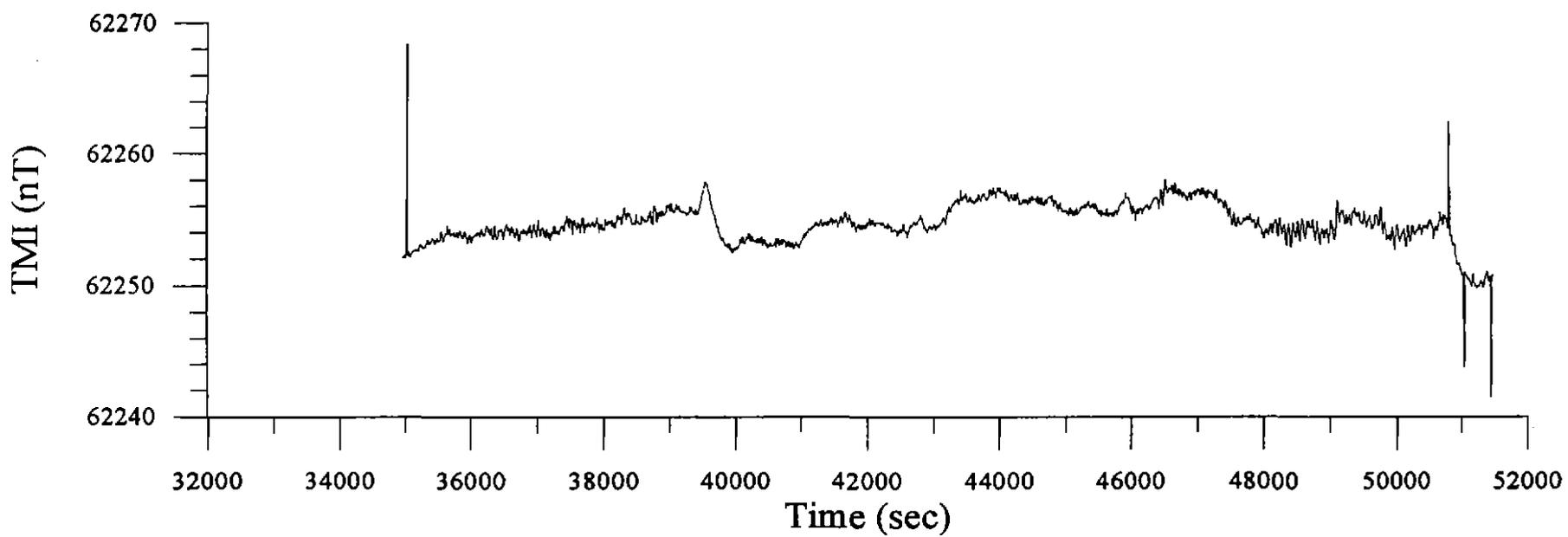
328109

Base Station Data for 25-3-96



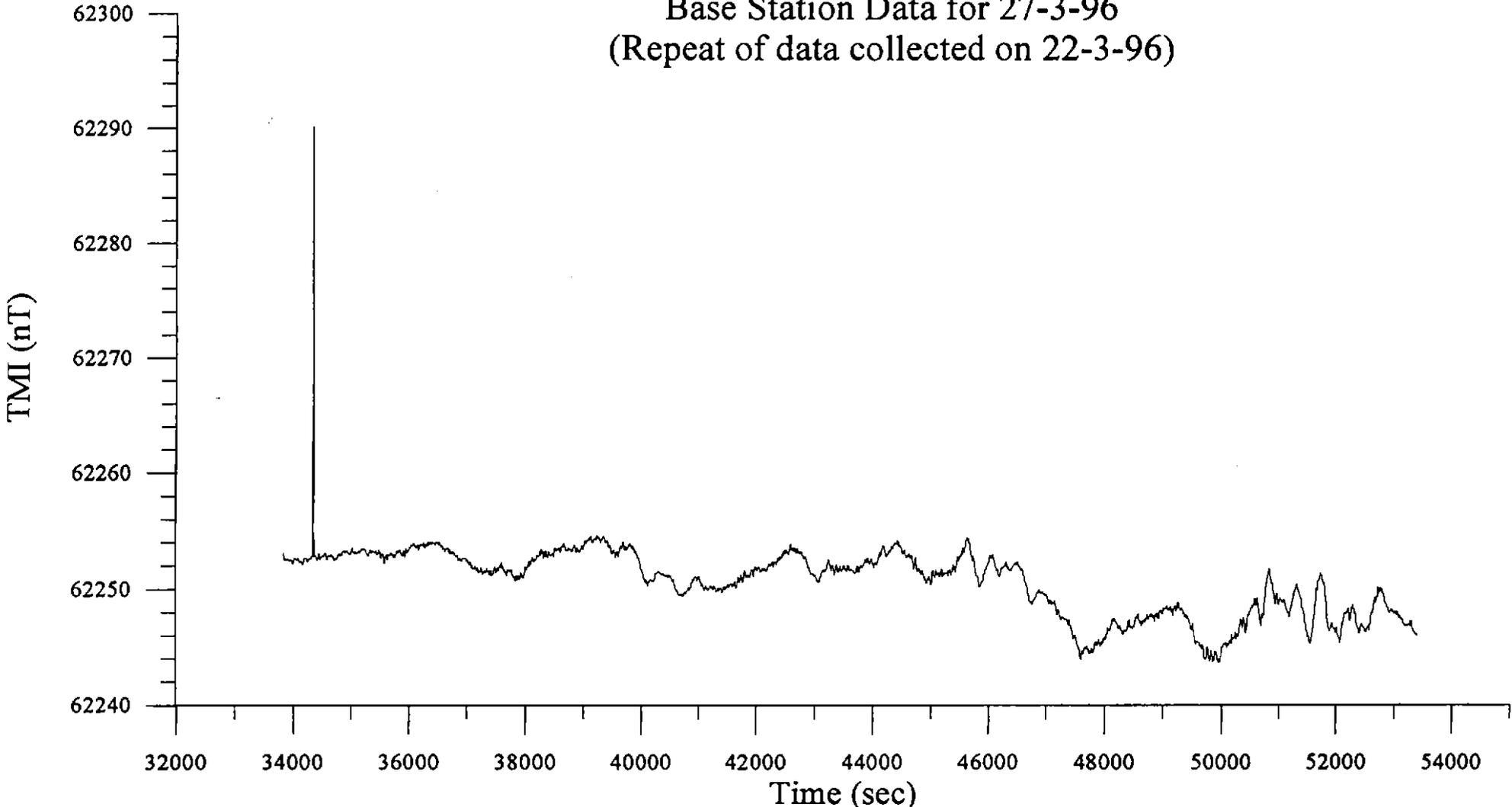
328110

Base Station Data for 26-3-96



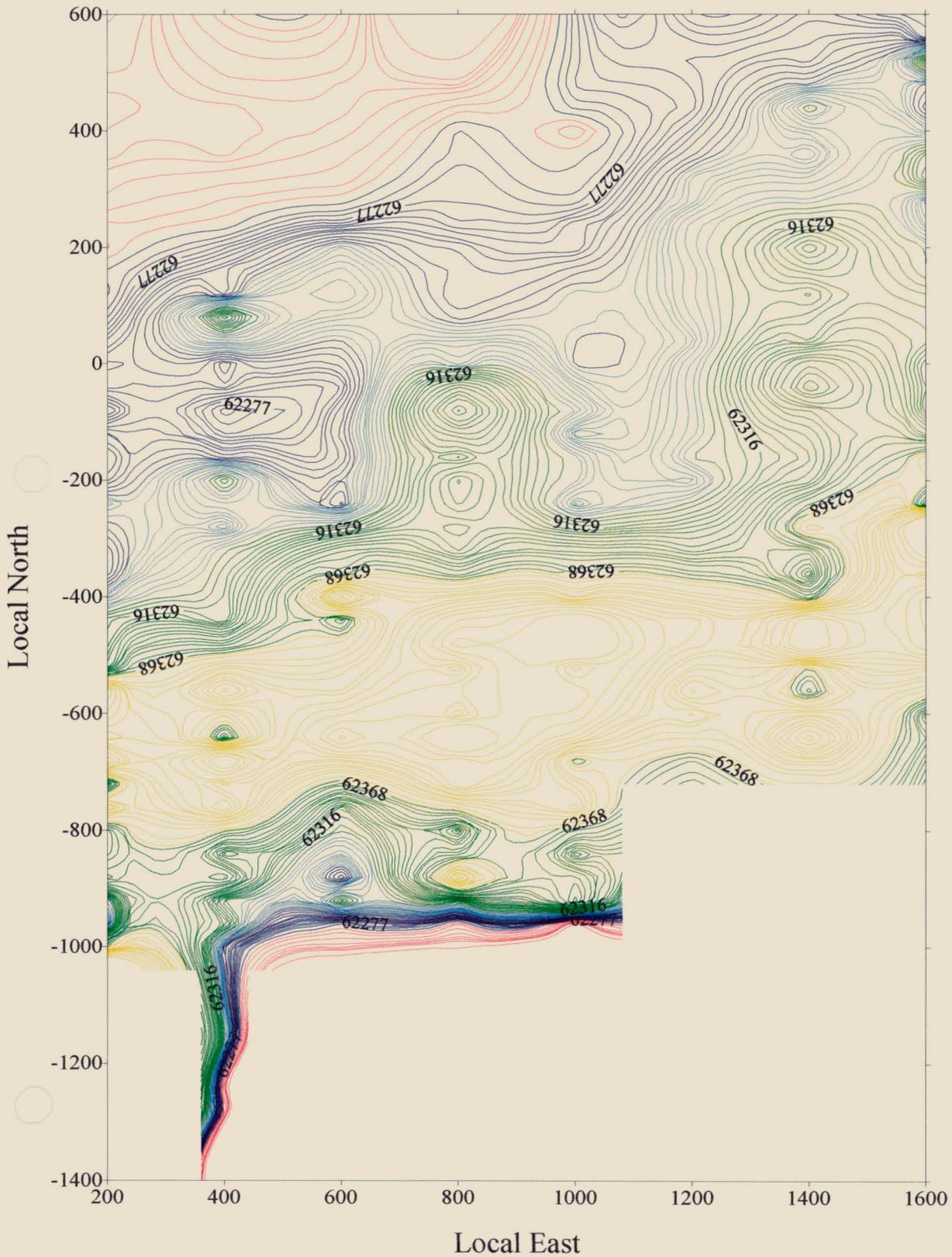
328111

Base Station Data for 27-3-96
(Repeat of data collected on 22-3-96)



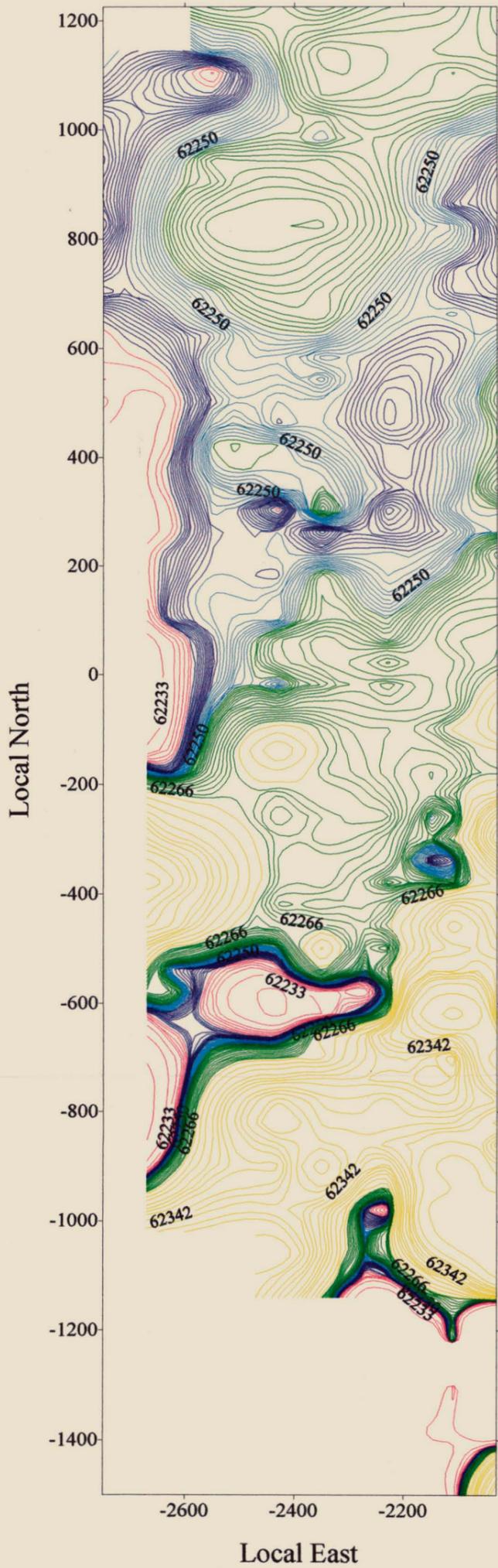
328112

Ground Magnetic Data
EAB Grid - East



Ground Magnetic Survey

EAB Grid - West



328114

APPENDIX 3

DHEM - BPD87

(P.W Basford)



MEMORANDUM

TO: P M Quayle
FROM: P W Basford
DATE: 8 June 1996
REF: pwb/96289
SUBJECT: DHEM on BPD87 - Burns Peak EL 44/88

Summary

BPD87 was surveyed with DHEM, axial probe only, in May 1996, using the Pasmaenco leased CRONE PEM system.

Conclusions and Recommendations

No conductors were observed in the data.

Surveying

Two loops were used for the survey, one placed over the collar (loop 16-96), the other south of the collar overlying the hole at depth (loop 17-96; loop 1). The survey was recorded using a 10 msec time base and 0.5 msec ramp on the receiver. The transmitter had a very fast shut off (*unknown speed*) which causes *ringing in the primary pulse as it decays*. A 15 ohm resistor was placed in the loop to decrease the amplitude of the ringing. Twenty channels of data were recorded from 0.05 to 6.2 msec. A peak current of 4 Amps was circulated through both loops. The hole was surveyed to 365m.

Two days were spent trying to survey this hole. During the first it was discovered that the crystal clocks were drifting and that the drift was uncontrollable. Data was recorded during the second day, using sync cable for synchronising the transmitter and receiver.

Interpretation

Data from both loop 16-96 and 17-96 does not contain any indications for a conductive body close to the hole. The dc shift in the data from loop 17-96 (loop 1) may be attributed to system problems.

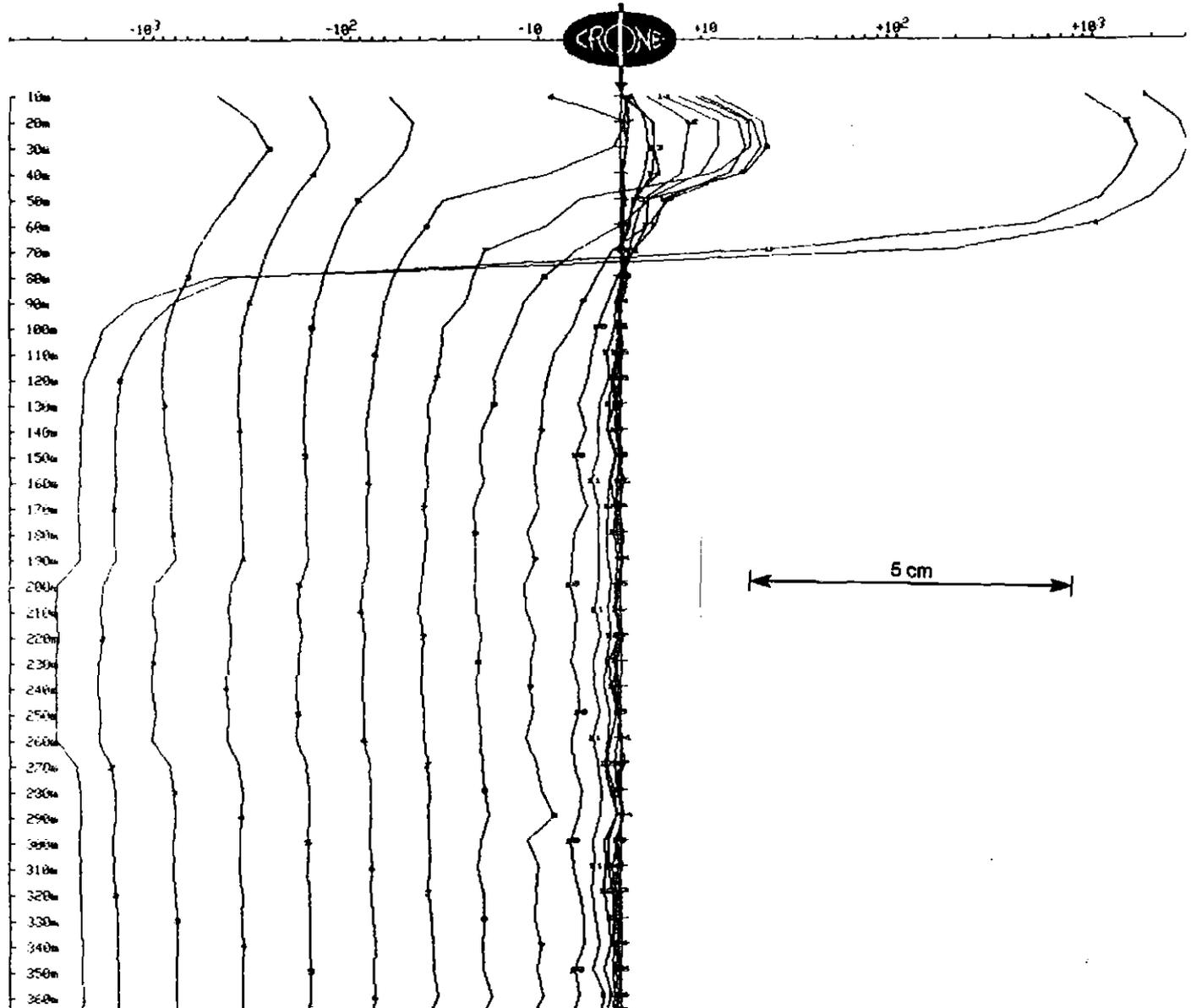
Pasminco Exploration
BOREHOLE PEM

Client : BURNIE, Tasmania
Grid : EAB
Date : May 15, 1996

Note : BPDB7
Drill no : 1
File name : BPDB7L1.PEM

Z COMPONENT dBz/dt nanoTesla/sec - 17 channels

Scale: 1:2500



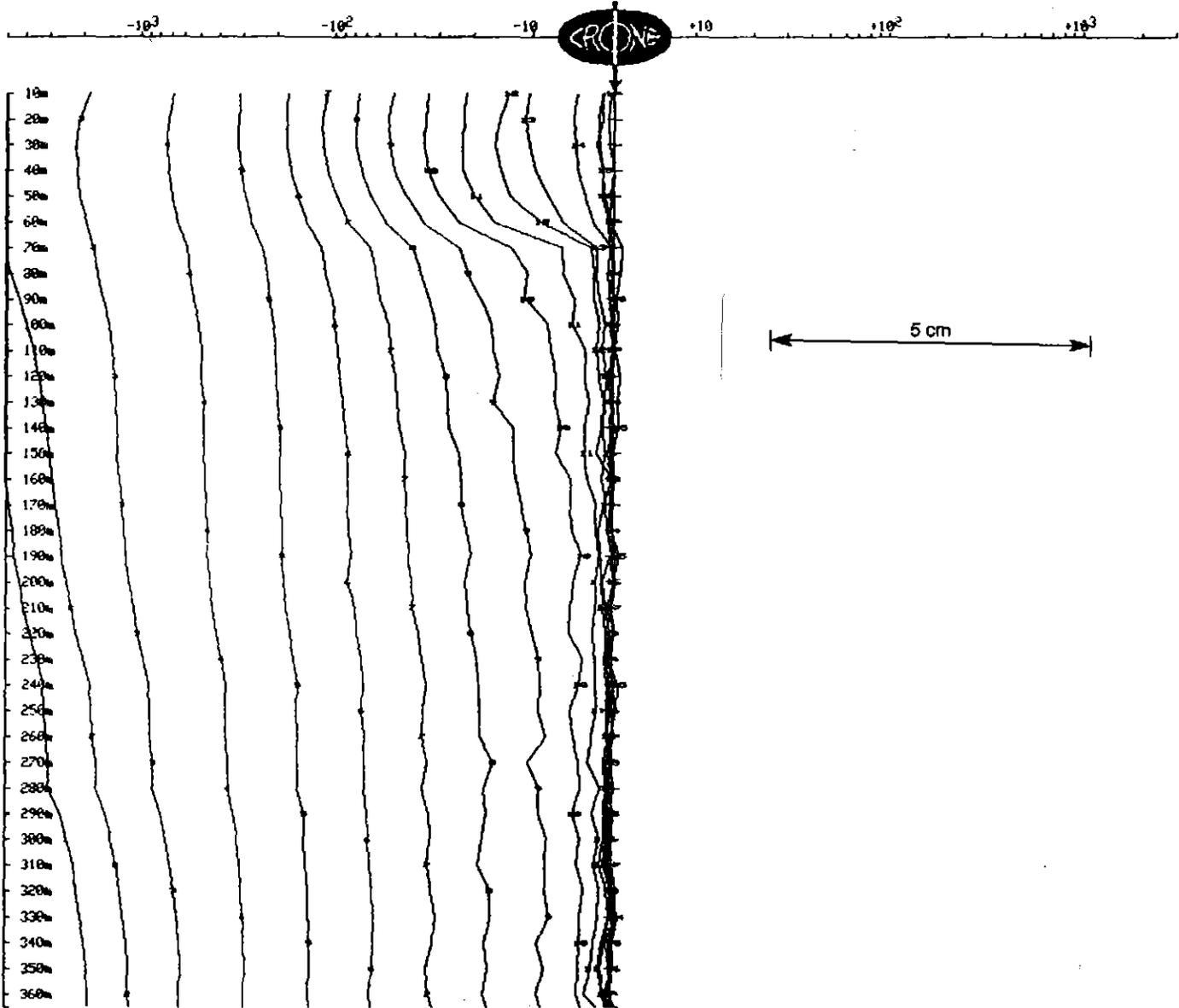
Fasminco Exploration BOREHOLE PEM

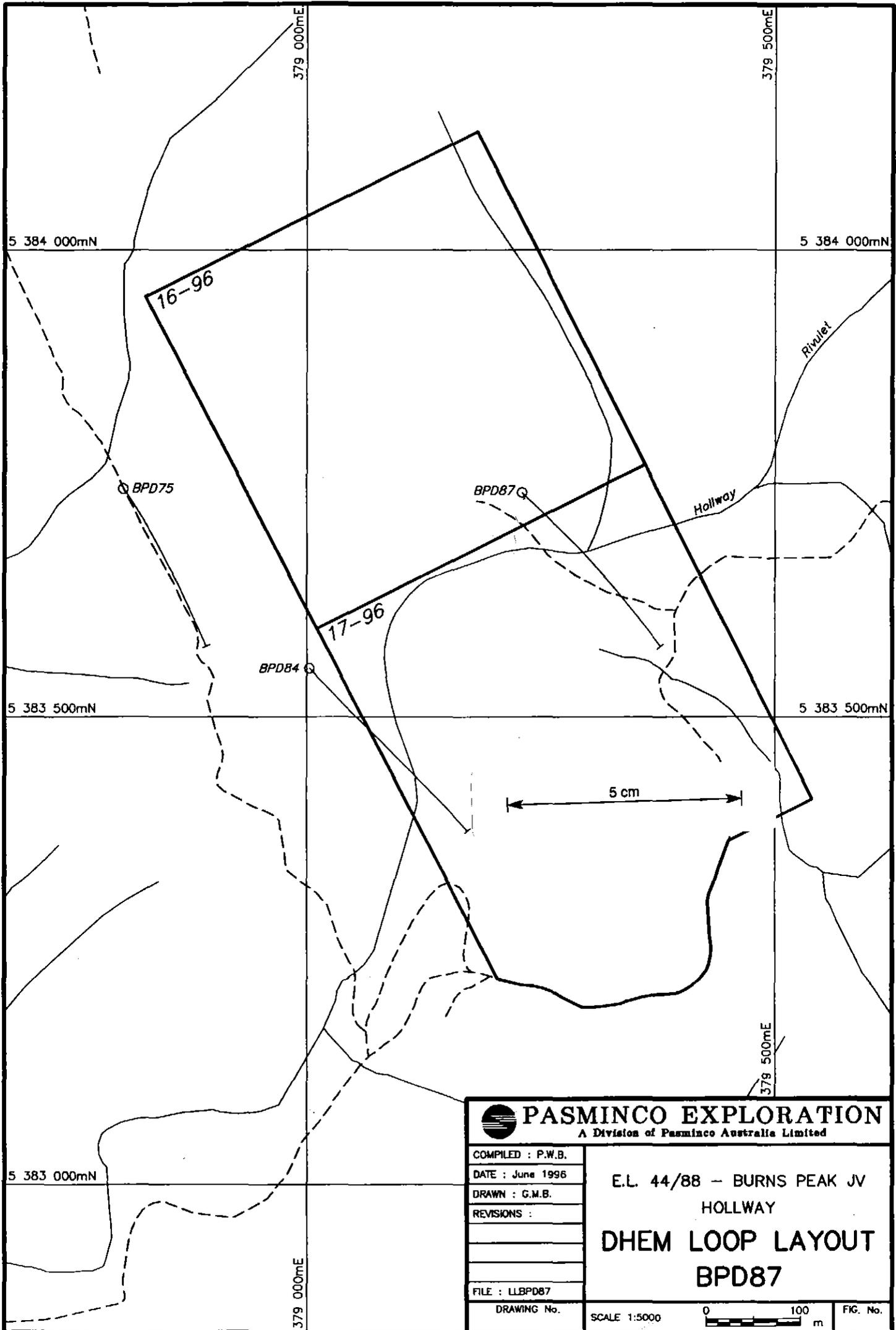
Client : BURNIE, Tasmania
Grid : EAB
Date : May 15, 1996

Hole : BPD87
Tx Loop : 2
File name : BPD87L2.PEM

Z COMPONENT dBz/dt nanoTesla/sec - 17 channels

Scale: 1:2500





 PASMINCO EXPLORATION A Division of Pasma Australia Limited	
COMPILED : P.W.B. DATE : June 1996 DRAWN : G.M.B. REVISIONS : FILE : LLBPD87	E.L. 44/88 - BURNS PEAK JV HOLLWAY DHEM LOOP LAYOUT BPD87
DRAWING No.	SCALE 1:5000 
	FIG. No.

APPENDIX 4

Drill Collar Locations and Downhole Surveys

BROWN'S TUNNEL COLLARS

<i>HOLE_ID</i>	<i>AMG_E</i>	<i>AMG_N</i>	<i>RL</i>	<i>EOH</i>
BPD62	378019.6	5384653	539.9	658.5
BPD66	377707.6	5384773	485.4	261
BPD69	377675.7	5384937	460.2	420.5
BPD78	377440.2	5384696	443	466.3
BPD79	377432.2	5384793	459.3	574.5
BPD81	377419.5	5384591	426.6	421.6
BPD85	377352.9	5384499	415.8	394.3
BT1	377719.8	5384644	486.4	167
BT2	377689.2	5384609	477.6	163
BT3	377668.1	5384573	459.7	198.4
BT4	377821.8	5384685	501.6	175.3
EAB1	378887	5384505	529	295.5
EA1	377719.9	5384563	469.21	83.4
EA10	377811.7	5384665	498.36	256
EA11	377630.1	5384747	471.09	313.6
EA12	377629.3	5384705	474.18	285.4
EA13	377600.9	5384667	466.75	240
EA14	377761.9	5384595	477.84	334.5
EA15	377482.7	5384410	427.71	85.7
EA16	377515.8	5384444	431.61	84.5
EA17	377340.5	5384001	445.23	176.2
EA18	377257.2	5383863	431.27	75
EA2	377679.8	5384532	465.53	499.5
EA3	377717.9	5384606	472.5	95.6
EA4	377718.3	5384606	472.5	65.6
EA5	377648.4	5384578	460.08	52.1
EA6	377745	5384639	482	197
EA7	377760.8	5384596	477.74	186.9
EA8	377769.1	5384674	488.74	106
EA9	377794	5384632	491.27	262
ESB1	377814.1	5384705	500.8	188
PP31	377748	5384569	478.45	186.2

BROWNS TUNNEL DOWNHOLE SURVEYS

HOLE_ID	DEPTH	DIP	AMG_AZ
BPD62	0	-55	282
BPD62	30	-57	278
BPD62	79	-56	278
BPD62	130	-55.5	282
BPD62	180	-54	282
BPD62	230	-55	283
BPD62	280	-54	282
BPD62	330	-54	287
BPD62	380	-54	287
BPD62	430	-54	287
BPD62	480	-54	287
BPD62	530	-53.25	288
BPD62	580	-53	290
BPD62	630	-52	291
BPD66	0	-50	102
BPD66	53	-51	102
BPD66	100	-45	103
BPD66	150	-46	108
BPD66	200	-45	108
BPD66	250	-44	108
BPD66	261	-44	108
BPD69	0	-50	102
BPD69	52	-48	104
BPD69	100	-46	107
BPD69	151	-45	108
BPD69	202	-44	112
BPD69	253	-43	112
BPD69	304	-42	114
BPD69	355	-41.5	115
BPD69	406	-40.5	117
BPD78	0	-55	101.5
BPD78	51	-56.25	102.5
BPD78	100	-55	102.5
BPD78	154	-54.75	103.5
BPD78	202	-54	104
BPD78	250	-51	103.5
BPD78	301	-49	105.5
BPD78	355	-47.75	106.5
BPD78	409	-46.75	107.5
BPD78	460	-46	107.5
BPD79	0	-55	102
BPD79	52	-55	102
BPD79	100	-53	103
BPD79	151	-53	103
BPD79	199	-53	104
BPD79	250	-52	104
BPD79	301	-51	106
BPD79	352	-51	107
BPD79	400	-50	109

<i>HOLE_ID</i>	<i>DEPTH</i>	<i>DIP</i>	<i>AMG_AZ</i>
BPD79	451	-47	111
BPD79	499	-46	112
BPD79	550	-43	113
BPD79	574	-42	114
BPD81	0	-50	102
BPD81	50	-50.5	101
BPD81	100	-49.5	102
BPD81	150	-49	107
BPD81	200	-46	113
BPD81	250	-45	116
BPD81	300	-44	118
BPD81	350	-43	119
BPD81	400	-41	120
BPD85	0	-50	102
BPD85	58	-52.75	103
BPD85	97	-52.5	103
BPD85	127	-52.5	103
BPD85	160	-52	104
BPD85	190	-51	105
BPD85	220	-51	106
BPD85	261	-51	107
BPD85	295	-50.5	108
BPD85	325	-50	108
BPD85	358	-49.75	108.5
BPD85	388	-49.25	108.5
BT1	0	-46	280
BT1	34	-46	279
BT1	64	-46	278
BT1	94	-45.75	278
BT1	124	-45.5	279
BT1	154	-45	279.5
BT2	0	-45	280
BT2	40	-45	279.5
BT2	70	-45	280.5
BT2	100	-45	280.5
BT2	160	-43.5	282
BT3	0	-45	278
BT3	40	-44	276
BT3	70	-45	276
BT3	100	-45	277
BT3	130	-44	277
BT3	190	-42	279.5
BT4	0	-62	302
BT4	50	-59	298
BT4	100	-57.75	298.5
BT4	150	-57	298
EAB1	0	-50	148
EAB1	55.5	-48	152
EAB1	85.5	-48	151.5
EAB1	115.5	-47.25	151.5
EAB1	145.5	-46.5	150
EAB1	175.5	-44	147.5

<i>HOLE_ID</i>	<i>DEPTH</i>	<i>DIP</i>	<i>AMG_AZ</i>
EAB1	205.5	-42.75	148
EAB1	235.5	-41.75	147
EAB1	265.5	-40.25	148
EAB1	295.5	-38.15	150
EAF1	0	-45	281
EAF1	42	-45	280.5
EAF1	83.4	-45.5	280
EAF10	0	-45	281
EAF10	125	-45	281
EAF10	256	-45	281
EAF11	0	-60	101.5
EAF11	100	-61.5	103.5
EAF11	150	-60.75	104
EAF11	200	-60.5	106
EAF11	250	-59.75	107.5
EAF11	313.6	-59	109
EAF12	0	-60	101
EAF12	100	-60.75	104
EAF12	150	-59.25	107.5
EAF12	200	-59	106
EAF12	250	-58	105.5
EAF13	0	-59	101
EAF13	100	-60.75	100
EAF13	150	-60.5	101
EAF13	200	-60.5	102
EAF13	240	-60	103
EAF14	0	-54	281
EAF14	100	-54	282
EAF14	150	-53.25	283
EAF14	200	-50.25	284.5
EAF14	250	-50.25	285
EAF14	334.5	-50	286
EAF15	0	-45	101
EAF15	43	-44.5	103
EAF15	85.7	-44	105
EAF16	0	-45	101
EAF16	42	-45	101.5
EAF16	84.5	-45	102
EAF17	0	-60	281
EAF17	91.6	-56	279
EAF17	176.2	-52	280
EAF18	0	-60	281
EAF18	35	-59	279
EAF18	75	-58	277
EAF2	0	-45	281
EAF2	65	-45	280.5
EAF2	132.5	-46	279.5
EAF2	150	-44.5	283.5
EAF2	200	-43.5	285.5
EAF2	250	-41	286.5
EAF2	300	-40	289.5
EAF2	350	-39.5	288.5

<i>HOLE_ID</i>	<i>DEPTH</i>	<i>DIP</i>	<i>AMG_AZ</i>
EAF2	450	-36.5	290.5
EAF2	499	-36	291
EAF3	0	-45	281
EAF3	45	-45	281
EAF3	95.6	-45	281
EAF4	0	-47	280
EAF4	62	-47	280
EAF4	65.6	-47	280
EAF5	0	-45	101
EAF5	26	-45	100.5
EAF5	52.1	-45	100
EAF6	0	-45	281
EAF6	51	-45	279
EAF6	102.4	-45	276
EAF6	133	-45.75	279.5
EAF6	163	-45	280
EAF6	190	-43.5	281
EAF7	0	-45	281
EAF7	90	-44	281
EAF7	186.9	-43	282
EAF8	0	-45	282
EAF8	53	-45.5	280
EAF8	106	-46	275.5
EAF9	0	-45	281
EAF9	100	-46	279
EAF9	150	-45.5	280.5
EAF9	200	-44.25	281
ESB1	0	-45	299
PP31	0	-50	282
PP31	35	-48.5	282
PP31	70	-45.5	282
PP31	105	-42.5	282
PP31	140	-40.5	282
PP31	175	-36.25	282
PP31	186.2	-36.25	282

APPENDIX 5

**Assay Results and Drill Logs
BT1, 2, 3 and BT4, EAF6 Extension
BPD84 and BPD87**

BROWNS TUNNEL - ASSAY RESULTS FROM RECENT DRILLING

<i>hole_id</i>	<i>sample</i>	<i>from</i>	<i>to</i>	<i>lgc_int</i>	<i>Cu</i>	<i>Pb</i>	<i>Zn</i>	<i>Ag</i>	<i>Au</i>	<i>Fe%</i>	<i>Ba</i>	<i>Mn</i>
BT1	77701	12	13	1	39	73	33	<1	<0.008		1153	85
BT1	77702	13	13.8	0.8	65	124	60	2	<0.008		1657	112
BT1	77703	13.8	16.1	2.3	42	331	160	1	0.09		1332	115
BT1	77704	16.1	17.7	1.6	39	185	120	3	0.17		340	56
BT1	77705	24.2	26.4	2.2	22	243	53	<1	<0.008		968	285
BT1	77706	45.2	47.5	2.3	110	796	1771	<1	0.04		1139	331
BT1	77707	47.5	49.1	1.6	31	463	173	<1	<0.008		1003	235
BT1	77708	52.1	54.3	2.2	89	849	334	<1	<0.008		681	183
BT1	77709	54.3	56.2	1.9	12	812	243	<1	<0.008		750	223
BT1	77710	65.7	67.2	1.5	11	415	302	<1	<0.008		1083	258
BT1	77711	109.9	111.8	1.9	92	2246	6300	2	0.07		1767	395
BT1	77712	111.8	114	2.2	71	6700	5100	5	0.06		1667	313
BT1	77713	114	115.6	1.6	107	2550	4038	3	0.04		3486	1166
BT1	77714	115.6	117.8	2.2	87	1298	3818	<1	0.04		7650	1671
BT1	77715	117.8	119.7	1.9	249	2498	8900	1	0.06		3438	1034
BT1	77716	119.7	121.9	2.2	1760	367	11700	<1	0.04		3982	900
BT1	77717	121.9	123.4	1.5	204	2563	6800	<1	0.02		11300	645
BT1	77718	123.4	125.3	1.9	128	431	10400	<1	0.02		5649	978
BT1	77719	125.3	126.9	1.6	32	966	1276	<1	0.02		6606	848
BT1	77720	126.9	129.2	2.3	254	5200	8700	2	0.1		8851	629
BT1	77721	129.2	131.2	2	245	383	1279	<1	0.05		7654	1090
BT1	77722	131.2	133.1	1.9	842	883	11100	6	0.25		8903	778
BT1	77723	133.1	136.1	3	197	1982	2218	1	0.16		8892	19800
BT1	77724	136.1	139.3	3.2	12	113	273	<1	<0.008		4483	4690
BT1	77725	139.3	140	0.7	79	155	1175	<1	<0.008		1269	1767
BT1	77726	140	141.7	1.7	23	167	546	<1	<0.008		1393	6200
BT1	77727	148.6	150.6	2	4	30	209	<1	<0.008		863	2703
BT2	77753	5.3	9.3	4	134	184	25	8	0.1		1227	126
BT2	77754	9.3	12.3	3	3082	1105	1743	35	1		1854	154
BT2	77755	13.3	15.4	2.1	1887	8800	11100	7	0.15		3558	515

328127

hole_id	sample	from	to	lgc_int	Cu	Pb	Zn	Ag	Au	Fe%	Ba	Mn
BT2	77756	15.4	17.4	2	631	7000	12100	5	0.05		2965	411
BT2	77757	17.4	19.5	2.1	248	1456	4783	5	0.04		2773	344
BT2	77758	19.5	21.4	1.9	357	1349	3893	3	0.06		2961	345
BT2	77759	21.4	22.7	1.3	863	13700	24200	5	0.05		4111	559
BT2	77760	22.7	24.3	1.6	268	12000	13000	3	0.07		4435	534
BT2	77761	24.3	25.9	1.6	165	2449	2180	3	0.07		3400	347
BT2	77762	25.9	27.8	1.9	630	6400	27000	3	0.06		1907	294
BT2	77763	27.8	29.4	1.6	754	13900	19500	7	0.07		1676	238
BT2	77764	29.4	30.2	0.8	3548	12300	111000	25	0.34		3210	530
BT2	77765	30.2	31.6	1.4	11100	93100	148100	62	0.27		1356	490
BT2	77766	31.6	33.7	2.1	7400	41100	80000	34	0.3		644	284
BT2	77767	33.7	35	1.3	6500	23300	48700	24	0.38		831	194
BT2	77768	35	36.7	1.7	5200	33800	61200	29	0.28		803	209
BT2	77769	36.7	39	2.3	2457	27200	36500	15	0.15		373	111
BT2	77770	39	40.8	1.8	6100	43600	67000	23	0.23		649	161
BT2	77771	40.8	43	2.2	8500	42000	70200	40	0.9		379	248
BT2	77772	43	44.5	1.5	24800	232000	325000	153	1.96		135	793
BT2	77773	44.5	46.5	2	143	1585	1293	1	<0.008		1288	351
BT2	77774	46.5	48.2	1.7	94	1594	1111	1	<0.008		1571	352
BT2	77775	48.2	49.9	1.7	1131	10000	14200	10	0.05		1762	447
BT2	77776	49.9	52.3	2.4	68	1252	2194	1	0.01		1545	339
BT2	77752	72.2	73.3	1.1	-	-	-	-	-		-	-
BT3	77777	5.88	7.5	1.6	371	660	251	<1	0.02	0.42		124
BT3	77778	7.5	10	2.5	1300	1530	1410	4	0.15	1.81		141
BT3	77779	10	11.1	1.1	484	1180	1660	2	0.02	1.66		209
BT3	77780	11.1	12.8	1.7	1250	1480	4500	5	0.1	1.61		101
BT3	77781	12.8	14	1.2	1450	1180	2060	3	0.06	1.81		166
BT3	77782	14	14.9	0.9	522	2160	2660	2	0.04	1.24		152
BT3	77783	14.9	17.4	2.5	338	3740	7920	4	0.09	1.8		222
BT3	77784	17.4	19.5	2.1	294	1140	1960	2	0.01	1.11		144
BT3	77785	19.5	20.6	1.1	66	589	1410	2	0.01	1.59		226
BT3	77786	20.6	21.9	1.3	256	607	1030	2	0.01	1.24		163
BT3	77787	21.9	23.2	1.3	103	500	813	1	0.01	1.19		218

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hole_id	sample	from	to	lgc_int	Cu	Pb	Zn	Ag	Au	Fe%	Ba	Mn
BT3	77788	23.2	25.2	2	16	210	521	1	0	1.71		268
BT3	77789	25.2	27.2	2	15	498	782	1	0	0.96		194
BT3	77790	27.2	29.1	1.9	15	251	614	1	0.02	1.58		1310
BT3	77791	29.1	31.4	2.3	30	628	1210	1	0.03	1.35		877
BT3	77792	31.4	33.1	1.7	23	634	1790	1	0.01	1.22		707
BT3	77793	33.1	35.6	2.5	17	183	372	1	0	1.39		781
BT3	77794	44.1	47.2	3.1	37	1470	1160	1	0.01	1.28		193
BT3	77795	47.2	49.2	2	39	489	599	1	0.01	1.12		197
BT3	77796	49.2	51.6	2.4	87	1890	1520	2	0.02	2.92		5640
BT3	77797	51.6	52.6	1	3110	1940	40500	29	0.03	5.5		6390
BT3	77798	52.6	55	2.4	25	738	1470	1	0	0.86		434
BT3	77799	55	57.1	2.1	23	253	274	<1		0.83		1720
BT3	77800	57.1	58.5	1.4	24	195	228	<1		1.34		7370
BT3	77849	58.5	60.4	1.9	42	181	683	<1		1.7		11200
BT3	77850	60.4	60.8	0.4	2790	1410	36300	24	0.03	5.21		630
BT3	77851	60.8	63.4	2.6	220	221	819	5	0.01	3.59		1940
BT3	77852	63.4	64.2	0.8	43	441	3030	2	0.01	5.64		5300
BT3	77853	64.2	67	2.8	15	162	2490	<1		5.15		19800
BT3	77854	67	70	3	35	264	1090	1		1.14		3920
BT3	77855	70	73	3	15	37	343	<1	0	2.07		5240
BT3	77856	111.2	112.9	1.7	30	3630	2730	5	0	1.98		4980
BT3	77857	112.9	115.2	2.3	72	5550	420	6		2.05		2070
BT3	77858	117.3	120.3	3	20	559	527	4	0	0.91		632
BT3	77859	122.8	123.9	1.1	35	411	2100	5	0.02	2.25		1110
BT3	77860	127.4	129.7	2.3	63	170	725	2	0	0.98		4800
BT3	77861	129.7	132.2	2.5	140	1090	1760	4	0.07	2.32		2480
BT3	77862	132.2	133.5	1.3	404	6910	23600	14	1.44	1.93		1310
BT3	77863	133.5	134.4	0.9	2650	110000	196000	50	7.78	1.1		2010
BT3	77864	134.4	136	1.6	1080	11700	24200	23	1.17	2.69		1200
BT3	77865	136	137.5	1.5	83	2540	2880	5	0.13	2.84		2310
BT3	77866	137.5	139.1	1.6	101	2990	5730	4	0.08	2.53		1130
BT3	77867	139.1	140.7	1.6	95	3990	7530	4	0.04	1.6		308
BT3	77868	140.7	143.1	2.4	272	11000	13200	15	0.04	0.93		297

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hole_id	sample	from	to	lgc_int	Cu	Pb	Zn	Ag	Au	Fe%	Ba	Mn
BT3	77869	143.1	145.3	2.2	120	4900	17200	10	0.06	0.88		397
BT3	77870	145.3	147.5	2.2	572	3040	12600	13	0.06	1.06		372
BT3	77871	147.5	149.3	1.8	812	3020	6380	4	0.15	1.13		329
BT3	77872	149.3	150.7	1.4	1440	3420	8270	4	0.19	1.15		333
BT3	77873	150.7	153.8	3.1	346	3870	11800	7	0.09	0.77		438
BT3	77874	153.8	155	1.2	157	2470	9880	4	0.09	1.33		872
BT3	77875	155	158	3	17	278	3870	<1	0.01	1.26		1730
BT3	77876	158	160.5	2.5	15	548	3450	<1	0.01	1.25		2490
BT3	77877	166	168.8	2.8	14	183	2140	<1	0	1.18		2470
BT3	77878	168.8	171.8	3	14	207	1330	<1	0	1		3040
BT3	77879	171.8	174.7	2.9	15	451	2560	<1	0	1.19		2710
BT3	77880	174.7	177.5	2.8	14	261	1430	<1	0	1.32		2300
BT3	77881	182.9	185.1	2.2	15	108	388	<1	0	0.97		1290
BT4	77882	98	99.5	1.5	18	126	578	<1	0.01	1.35		2000
BT4	77883	99.5	101.4	1.9	507	4380	7500	4	0.03	1.33		958
BT4	77884	101.4	103	1.6	557	6830	17400	12	0.1	0.92		104
BT4	77885	103	104.3	1.3	1110	22100	37400	18	0.38	0.79		241
BT4	77886	104.3	104.6	0.3	4290	173000	230000	60	0.48	1.29		372
BT4	77887	104.6	105.1	0.5	847	12000	17900	17	0.37	0.99		260
BT4	77888	105.1	105.5	0.4	105	1070	2120	18	0.09	10.64		8910
BT4	77889	105.5	106.3	0.8	379	17700	34700	141	1.11	1.48		3510
BT4	77890	106.3	108.3	2	796	2190	8900	13	0.14	2.61		3180
BT4	77891	108.3	110.4	2.1	500	488	6220	18	0.05	1.14		9030
BT4	77892	110.4	112.9	2.5	98	280	9880	21	0.03	1.14		5290
BT4	77893	112.9	115.3	2.4	146	1230	4370	13	0.08	2.07		1540
BT4	77894	115.3	117.3	2	149	1010	5990	13	0.07	1.92		1930
BT4	77895	117.3	119.2	1.9	361	1530	4670	11	0.08	2.33		1970
BT4	77896	119.2	121.2	2	170	677	4930	11	0.15	1.66		5840
BT4	77897	121.2	123.2	2	567	935	6940	9	0.1	1.93		2020
BT4	77898	123.2	125.2	2	1620	1430	7870	17	0.09	2.25		617
BT4	77899	135.7	137.2	1.5	334	884	7270	14	0.06	1.75		512
BT4	77900	137.2	139.6	2.4	371	3010	14500	12	0.08	1.85		603
BT4	78501	139.6	141.9	2.3	240	1360	4380	5	0.04	2.12		1120

328130

<i>hole_id</i>	<i>sample</i>	<i>from</i>	<i>to</i>	<i>lgc_int</i>	<i>Cu</i>	<i>Pb</i>	<i>Zn</i>	<i>Ag</i>	<i>Au</i>	<i>Fe%</i>	<i>Ba</i>	<i>Mn</i>
BT4	78502	141.9	144.3	2.4	253	1760	3500	6	0.05	2		841
BT4	78503	144.3	146.5	2.2	127	2420	6900	5	0.03	1.8		722
BT4	78504	146.5	148.6	2.1	34	328	1260	1	0.01	1.35		1480
BT4	78505	148.6	150.2	1.6	47	843	8560	2	0.02	1.57		1230
BT4	78506	150.2	153	2.8	104	1320	3670	3	0.03	1.87		890
BT4	78507	153	154.9	1.9	346	1890	12700	15	0.23	3.39		1920
BT4	78508	154.9	157.3	2.4	1360	5510	16800	19	0.11	2.02		420
EAf6	77728	115.4	117.1	1.7	21	382	1104	2	0.01		1196	570
EAf6	77729	117.1	120	2.9	2810	1560	51600	13	0.1		1004	907
EAf6	77730	120	122.6	2.6	370	1537	14500	9	0.15		1225	346
EAf6	77731	122.6	124.2	1.6	1568	1291	4328	11	0.21		1481	181
EAf6	77732	124.2	125.8	1.6	1635	3310	11600	31	0.68		1309	305
EAf6	77733	125.8	128.7	2.9	3392	3157	13900	19	0.21		3649	1228
EAf6	77734	128.7	131.4	2.7	528	1070	9800	5	0.06		1599	709
EAf6	77735	131.4	134.5	3.1	862	676	9400	5	0.06		2579	811
EAf6	77736	134.5	136.5	2	233	1166	41000	5	0.08		2645	611
EAf6	77737	136.5	138.4	1.9	192	809	30100	3	0.09		3237	504
EAf6	77738	138.4	140.9	2.5	529	304	6800	2	0.02		3563	1755
EAf6	77739	140.9	142.9	2	22	351	1299	1	0.01		1515	7100
EAf6	77740	142.9	144.4	1.5	42	1458	3583	1	0.03		1837	17300
EAf6	77741	144.4	146	1.6	283	801	9400	2	0.26		2275	7400
EAf6	77742	146	149	3	60	187	783	<1	0.03		1897	9700
EAf6	77743	149	150.8	1.8	775	146	10100	3	0.07		2066	4046
EAf6	77744	150.8	152.5	1.7	3704	654	44400	18	0.47		2390	3548
EAf6	77745	152.5	154.4	1.9	670	62	4542	1	0.07		1880	7100
EAf6	77746	154.4	155.5	1.1	255	29	263	<1	<0.008		1171	3627
EAf6	77747	155.5	157.6	2.1	224	100	1682	<1	0.04		1122	14100
EAf6	77748	162.5	164.1	1.6	720	133	262	3	<0.008		1046	3043
EAf6	77749	170.6	172.3	1.7	8	116	568	<1	<0.008		1188	1750
EAf6	77750	180.1	182.2	2.1	26	139	946	3	0.03		2018	1492
EAf6	77751	185	187.1	2.1	37	244	1287	2	0.06		1628	943

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PASMINGO EXPLORATION DIAMOND DRILL HOLE LOG

Hole ID
BT1

DRILLING			OBJECTIVE			COLLAR SURVEY (AMG)							
Location	BROWNS TUNNEL		To test for continuation of mineralization up dip of that intersected in EAF6 & EAF9, and to correlate lithologies. RESULT Intersected minor Pb Zn mineralization in peperitic andesites up dip of EAF9, and identified overturned anticline.			AMG mN	5384644.4		Bearing	280.0			
Project	BURNS PEAK					AMG mE	377719.8		Dip	-46.0			
Prospect	BROWNS TUNNEL					mN			Hole Length	167.0			
Design By	PMQ					mE			DH Survey Type	eastman single shot			
Logged By	PMQ					RL	486.4						
Relogged													
Commenced	14 March 1996												
Completed	28 March 1996												
Drilled By	East Coast Drilling												
Drill Rig	LM38												
SIGNIFICANT CORE LOSS			POOR GROUND CONDITION ZONES										
HOLE SIZE			HOLE CONDITIONS AFTER COMPLETION										
From	To	Size	Collar		CAPPED								
0	29.5	HQ	Steel Casing		NIL								
29.5	167	NQ	PVC Casing										
			Ground Water										
			Wedge										
			Drill Pad								LEVELED AND SUMP FILLED IN		
SIGNIFICANT INTERSECTIONS													

DOWNHOLE SURVEY (AMG)		
Depth	Bearing	Dip
0.0	-46.00	280.00
34.0	-46.00	279.00
64.0	-46.00	278.00
94.0	-45.75	278.00
124.0	-45.50	279.00
154.0	-45.00	279.50

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PASMINGO EXPLORATION DIAMOND DRILL HOLE LOG

Hole ID
BT1

PHYSICAL PROPERTIES / RECOVERIES

Depth	Rec %	Mag	SG	Formn	Lith	Depth	Rec %	Mag	SG	Formn	Lith	Depth	Rec %	Mag	SG	Formn	Lith
1.20	25	0.04		CVC	bx	32.60	93	0.04		BTS	Ln	89.30	104	0.13		BTS	Ln
1.80	83	0.02		CVC	bx	34.10	100	0.03		BTS	Ln	90.50	92	0.01		BTS	Ln
2.40	100	0.01		CVC	bx	35.90	78	0.09		BTS	Ln	91.50	100			BTS	Ln
3.00	83	0.02		CVC	bx	37.10	75	0.01		BTS	Ln	93.30	100	0.10		BTS	Ln
4.10	82	0.05		CVC	qpm	37.80	57	0.01		BTS	Ln	94.80	100	0.04		BTS	Ln
5.60	47	0.09		CVC	bx	38.80	80	0.02		BTS	Ln	97.10	100	0.06		BTS	Ln
6.40	88	0.02		CVC	bx	39.60	38	0.03		BTS	Ln	98.20	100	0.04		BTS	Ln
8.20	44	0.01		CVC	bx	40.90	85	0.06		BTS	Ln	100.10	95	0.02		BTS	Ln
8.80	33	0.02		CVC	bx	43.10	95	0.02		BTS	Ln	101.80	100	0.04		BTS	Ln
9.00	100	0.04		CVC	bx	45.50	104	0.08		BTS	cht	103.10	100	0.05		BTS	Ln
9.10	100			CVC	bx	47.50	110	0.03		BTS	Ln	105.00	89	0.04		BTS	Ln
10.30	25	0.05		CVC	bx	49.10	100	0.15		BTS	Ln	107.80	100	0.05		BTS	Ln
11.00	57			CVC	bx	50.90	94	0.11		BTS	Ln	109.60	94	0.08		BTS	Ln
11.70	14	0.05		CVC	bx	51.60	100	0.05		BTS	Ln	110.10	60	0.01		BTS	Ln
11.90	50	0.01		BTS	cht	52.50	106	0.04		BTS	Ln	111.00	89	0.03		BTS	Ln
12.40	100	0.07		BTS	cht	54.80	70	0.02		BTS	Ln	112.20	100	0.09		BTS	Ln
13.00	83	0.01		BTS	cht	56.40	112	0.03		BTS	Ln	112.90	86	0.29		BTS	Ln
13.60	117	0.03		BTS	cht	58.10	103	0.03		BTS	bx	114.90	95	0.05		BTS	Ln
15.30	97	0.03		BTS	slt	61.00	97	0.02		BTS	bx	118.00	100	0.07		BTS	Ln
15.90	100	0.01		BTS	cht	63.10	100	0.03		BTS	Ln	121.10	100	0.03		BTS	Ln
17.70	78	0.03		BTS	Ln	64.10	100	0.02		BTS	Ln	124.10	100	0.03		BTS	Ln
18.30	67	0.03		BTS	Ln	66.10	90	0.05		BTS	Ln	127.10	100	0.02		BTS	Ln
19.00	100	0.06		BTS	Ln	69.20	100	0.02		BTS	Ln	130.10	100	0.04		BTS	Ln
20.50	93	0.06		BTS	Ln	72.30	100	0.11		BTS	Ln	133.10	100	0.04		BTS	Ln
21.10	100	0.01		BTS	Ln	73.60	100	0.02		BTS	Ln	136.10	100	0.08		BTS	Ln
21.90	100	0.05		BTS	Ln	75.10	100	0.07		BTS	Ln	139.10	100	0.07		BTS	Ln
23.40	93	0.04		BTS	Ln	76.70	100	0.05		BTS	Ln	141.60	100	0.09		BTS	Ln
24.00	83	0.13		BTS	Ln	77.90	100			BTS	Ln	144.70	100	0.10		BTS	Ln
25.20	96	0.04		BTS	Ln	80.80	100	0.05		BTS	Ln	147.80	100	0.18		BTS	Ln
26.50	108	0.04		BTS	Ln	82.10	96	0.02		BTS	Ln	150.80	100	0.09		PR	Ln
28.00	100	0.04		BTS	Ln	85.10	97	0.03		BTS	Ln	153.90	100	0.16		PR	Ln
29.50	93	0.03		BTS	Ln	86.30	75	0.06		BTS	Ln	154.70	100	0.23		PR	Ln
31.10	78	0.04		BTS	Ln	88.10	94			BTS	Ln	156.20	107	0.14		PR	Ln

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PASMINGO EXPLORATION DIAMOND DRILL HOLE LOG

Hole ID
BT1

PHYSICAL PROPERTIES / RECOVERIES

Depth	Rec %	Mag	SG	Formn	Lith	Depth	Rec %	Mag	SG	Formn	Lith	Depth	Rec %	Mag	SG	Formn	Lith	
159.30	94	0.05		PR	cht													
162.30	100	0.06		PR	Ln													
163.10	100	0.07		PR	Ln													
164.30	100	0.30		PR	Ln													
166.10	92	0.05		PR	Ln													
167.00	100	0.07		PR	Ln													

328134

PASMINCO EXPLORATION

Hole No.

BT1

DIAMOND DRILL HOLE LOG

PROJECT:

Vertical Scale 1 : 150

Page 1 of 1

DESCRIPTION				GRAPHIC			STRUCTURES	
FROM	TO	LITHOLOGY	ALTERATION	MINERALISATION	Depth	Lith		Struct
0.00	3.60	BRECCIA buff, very coarse grained, poorly sorted matrix supported, lithic quartz phyrlic. distinct rock comprising abundant 5 to 50mm massive to laminated siliceous grey shale clasts in matrix containing abundant 1mm glassy phyrlic quartz, and silica-sericite altered pumice.. CONTACT: missing	highly oxidised, bleached and weathered andesites and volcaniclastics.					FAULT breccia
3.60	4.90	QUARTZ PHYRIC MASS FLOW buff, pumiceous quartz phyrlic. quartz phyrlic pumiceous volcaniclastic, similar to above interval without shale clasts.. CONTACT: missing						
4.90	11.90	BRECCIA buff, pumiceous quartz phyrlic. similar to above intervals with variable shale clast content.. CONTACT: faulted						FAULT breccia
11.90	13.80	CHERT buff, brecciated. zone of cherty alteration? intensely brittle fractured with infill oxidised clays. Minor patchy massive pyrite partly oxidised.. CONTACT: missing						FAULT breccia
13.80	14.50	SANDSTONE buff, pumiceous quartz phyrlic feldspar phyrlic. quartz-feldspar phyrlic pumiceous, rhyodacite lava, or volcaniclastic?. CONTACT: missing		MASSIVE abundant pyrite massive, irregular patches of massive pyrite and oxidised material. The pyrite occurs in two zones, the first appears to be a folded vein, the second appears to be as 2cm clasts.				FAULT R50 pug FAULT R45 pug FAULT R45 pug
14.50	15.50	SILTSTONE buff. zone of faulting with pyritic shale, massive siltstone and cherty breccia.. CONTACT: faulted						
15.50	17.70	CHERT red, fine grained. zone of red siliceous alteration with fine fractures filled with pyrite.. CONTACT: missing						
17.70	45.10	ANDESITE buff red, massive. massive bleached and oxidised, weathered andesite. Minor relict plagiocase and hornblende present.. CONTACT: faulted		STRANGER very minor sulphide in veinlets, Minor fine irregular pyrite veinlets, and trace coarse grained brown sphalerite filling open space.				BROKEN CORE

328133

328136

Hole No. BT1

PRSMINCO EXPLORATION
DIAMOND DRILL HOLE LOG

Vertical Scale 1 : 150

PROJECT:

DESCRIPTION		GRAPHIC	
FROM	TO	Depth	Lith
17.70	45.10		
LITHOLOGY		ALTERATION	MINERALISATION
ANDESITE buff red, massive. massive bleached and oxidised, weathered andesite. Minor relict plagioclase and hornblende present. CONTACT: faulted		highly oxidised. bleached and weathered andesites. and volcaniclastics.	
STRUCTURES		Strat	BROKEN CORE

PASMINCO EXPLORATION

Hole No.

BT1

DIAMOND DRILL HOLE LOG

PROJECT:

Vertical Scale 1 : 150

Page of 1

DESCRIPTION					GRAPHIC			STRUCTURES
FROM	TO	LITHOLOGY	ALTERATION	MINERALISATION	Depth	Lith	Struct	
17.70	45.10	ANDESITE buff red, massive. massive bleached and oxidised, weathered andesite. Minor relict plagioclase and hornblende present.. CONTACT: faulted	highly oxidised. bleached and weathered andesites and volcaniclastics.					
45.10	47.50	CHERT MIXED WITH ANDESITE green grey. zone of irregular mixed cherty siltstone and reworked andesite derived detritus.. CONTACT: conformable abrupt		STRINGER very minor sulphide in veinlets pyrite disseminated. Trace irregular veinlet brown sphalerite, and minor disseminated pyrite with trace sphalerite.				
47.50	56.80	ANDESITE buff, massive. zone of massive bleached rock possibly weathered bleached andesite.. CONTACT: missing		STRINGER very minor sulphide in veinlets pyrite disseminated. Trace irregular veinlets of grey pyritic sulphides.	50			
56.80	63.10	BRECCIA buff. zone of irregular angular clasts predominantly quartz phyrlic dacite/rhyolite in sericite altered pumiceous? matrix.. CONTACT: conformable abrupt	moderately oxidised. bleached volcanics with feldspars weathered to clays, and oxidised on joint faces.	STRINGER very minor sulphide in veinlets pyrite disseminated. Trace irregular veinlets of grey pyritic sulphides.	60			

328137

PASMINCO EXPLORATION
DIAMOND DRILL HOLE LOG

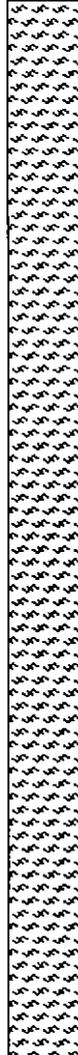
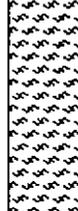
Hole No.

BT1

PROJECT:

Vertical Scale 1 : 150

Page of 1

DESCRIPTION				GRAPHIC			STRUCTURES
FROM	TO	LITHOLOGY	ALTERATION	MINERALISATION	Depth	Lith	
63.10	109.80	<p>BRECCIA buff. zone of irregular angular clasts predominantly quartz phyric dacite/rhyolite in sericite altered pumiceous? matrix.. CONTACT: conformable abrupt</p> <p>RHYOLITE buff, massive, quartz phyric feldspar phyric. prominently quartz phyric rhyolite to dacite lava to lava breccia. Trace flow banding in part.. CONTACT: missing</p>	<p>moderately oxidised. bleached volcanics with feldspars weathered to clays, and oxidised on joint faces.</p>	<p>STRONGER very minor sulphide in veinlets pyrite disseminated. Trace irregular veinlets of grey pyritic sulphides.</p>	70		PRIMARY FABRIC AB0
					80		

328138

PASMINCO EXPLORATION
DIAMOND DRILL HOLE LOG

Hole No.

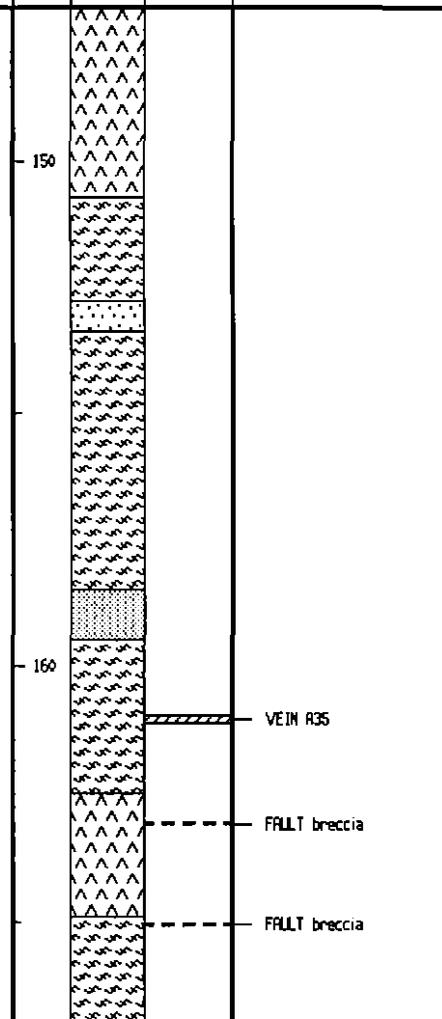
BT1

PROJECT:

Vertical Scale 1 : 150

Page of 1

DESCRIPTION				GRAPHIC				
FROM	TO	LITHOLOGY	ALTERATION	MINERALISATION	Depth	Lith	Struct	STRUCTURES
141.20	150.70	ANDESITE grey green. classic andesite autobreccia.. CONTACT: conformable abrupt	slightly carbonatised. minor clasts and infill of fine grained cream coloured manganoan carbonate.			▲▲▲▲		
150.70	152.80	RHYOLITE red, massive, quartz phyric feldspar phyric. prominently quartz phyric (Pinnacles) rhyolite.. CONTACT: conformable abrupt	slightly silicified, slightly carbonatised. carbonate altered feldspars.			▲▲▲▲		
152.80	153.40	SANDSTONE grey, massive. irregular band of fine grained reworked andesite?. CONTACT: conformable abrupt				▲▲▲▲		
153.40	158.50	RHYOLITE red, massive, quartz phyric feldspar phyric. typical Pinnacles rhyolite.. CONTACT: conformable abrupt				▲▲▲▲		
158.50	159.50	CHERT pale grey, massive. cherty siltstone with minor carbonate pseudo clast.. CONTACT: conformable abrupt				▲▲▲▲		
159.50	162.50	RHYOLITE red, massive, quartz phyric feldspar phyric. typical Pinnacles Rhyolite.. CONTACT: conformable abrupt				▲▲▲▲		
162.50	164.90	ANDESITE pale green, massive. massive very fine grained mafic pale green, with minor fuchsite.. CONTACT: faulted	moderately chloritised, slightly fuchsitic, chlorite - fuchsite altered andesite.			▲▲▲▲		
164.90	167.00	RHYOLITE grey, massive, quartz phyric feldspar phyric. quartz phyric rhyolite.	slightly silicified, slightly carbonatised. carbonate altered feldspars.			▲▲▲▲		



328142

BT1 ORE SUITE

<i>sample</i>	<i>from</i>	<i>to</i>	<i>Interval</i>	<i>Cu</i>	<i>Pb</i>	<i>Zn</i>	<i>Ag</i>	<i>Au</i>	<i>Mn</i>	<i>Ba</i>
77701	12	13	1	39	73	33	<1	<0.008	85	1153
77702	13	13.8	0.8	65	124	60	2	<0.008	112	1657
77703	13.8	16.1	2.3	42	331	160	1	0.09	115	1332
77704	16.1	17.7	1.6	39	185	120	3	0.17	56	340
77705	24.2	26.4	2.2	22	243	53	<1	<0.008	285	968
77706	45.2	47.5	2.3	110	796	1771	<1	0.04	331	1139
77707	47.5	49.1	1.6	31	463	173	<1	<0.008	235	1003
77708	52.1	54.3	2.2	89	849	334	<1	<0.008	183	681
77709	54.3	56.2	1.9	12	812	243	<1	<0.008	223	750
77710	65.7	67.2	1.5	11	415	302	<1	<0.008	258	1083
77711	109.9	111.8	1.9	92	2246	6300	2	0.07	395	1767
77712	111.8	114	2.2	71	6700	5100	5	0.06	313	1667
77713	114	115.6	1.6	107	2550	4038	3	0.04	1166	3486
77714	115.6	117.8	2.2	87	1298	3818	<1	0.04	1671	7650
77715	117.8	119.7	1.9	249	2498	8900	1	0.06	1034	3438
77716	119.7	121.9	2.2	1760	367	11700	<1	0.04	900	3982
77717	121.9	123.4	1.5	204	2563	6800	<1	0.02	645	11300
77718	123.4	125.3	1.9	128	431	10400	<1	0.02	978	5649
77719	125.3	126.9	1.6	32	966	1276	<1	0.02	848	6606
77720	126.9	129.2	2.3	254	5200	8700	2	0.1	629	8851
77721	129.2	131.2	2	245	383	1279	<1	0.05	1090	7654
77722	131.2	133.1	1.9	842	883	11100	6	0.25	778	8903
77723	133.1	136.1	3	197	1982	2218	1	0.16	19800	8892
77724	136.1	139.3	3.2	12	113	273	<1	<0.008	4690	4483
77725	139.3	140	0.7	79	155	1175	<1	<0.008	1767	1269
77726	140	141.7	1.7	23	167	546	<1	<0.008	6200	1393
77727	148.6	150.6	2	4	30	209	<1	<0.008	2703	863

PASMINGO EXPLORATION DIAMOND DRILL HOLE LOG

Hole ID
BT2

DRILLING			OBJECTIVE						COLLAR SURVEY (AMG)													
Location	BROWNS TUNNEL		To test for the near surface southern continuation of mineralization intersected in EAF6 & EAF9, and to test developing structural/stratigraphic interpretation.						AMG mN	5384608.5		Bearing	280.0									
Project	BURNS PEAK								AMG mE	377689.2		Dip	-45.0									
Prospect	BROWNS TUNNEL								mN			Hole Length	163.0									
Design By	PMQ								mE			DH Survey Type	eastman single shot									
Logged By	PMQ								RL	477.6												
Relogged									RESULT													
Commenced	11 April 1996								Intersected ore grade mineralization close to surface in EAF6 mineralized position, EAF9 mineralized position is barren, lithologies intersected are consistent with developing interpretation.						DOWNHOLE SURVEY (AMG)							
Completed	23 April 1996														Depth	Bearing	Dip					
Drilled By	East Coast Drilling														0.0	-45.00	280.00					
Drill Rig	LM38														40.0	-45.00	279.50					
SIGNIFICANT CORE LOSS			70.0	-45.00	280.50																	
			100.0	-45.00	280.50																	
			150.0	-43.50	282.00																	
			POOR GROUND CONDITION ZONES																			
HOLE SIZE			HOLE CONDITIONS AFTER COMPLETION																			
From	To	Size	Collar	CRAPPED																		
0	29.9	HQ	Steel Casing																			
29.9	163	N NQ	PVC Casing							NIL												
			Ground Water							NIL												
			Wedge							NIL												
			Drill Pad							LEVELLED AND SUMP FILLED												
SIGNIFICANT INTERSECTIONS																						
From	To	Int	Cu	Pb	Zn	Ag	Au	Comments														
29.4	44.5	15.1	8195	5.9%	9.8%	43	0.53	190ppm Mn 750ppm Ba														

328144

PASMINGO EXPLORATION DIAMOND DRILL HOLE LOG

Hole ID
BT2

PHYSICAL PROPERTIES / RECOVERIES

Depth	Rec %	Mag	SG	Formn	Lith	Depth	Rec %	Mag	SG	Formn	Lith	Depth	Rec %	Mag	SG	Formn	Lith
131.80				BTS		15.20	100	0.04		BTS	Ld	43.00				BTS	cht
4.60				BTS	Lr	16.70	93	0.13		BTS	Ld	37.00	100	0.05		BTS	cht
2.60	100	0.04		BTS	Lr	16.70	93	0.13		BTS	Ld	37.00	100	0.05		BTS	cht
2.60	100	0.04		BTS	Lr	20.40				BTS	?	40.00	100	0.01		BTS	cht
3.80	75			BTS	Lr	18.40	88	0.03		BTS	?	40.00	100	0.01		BTS	cht
3.80	75			BTS	Lr	18.40	88	0.03		BTS	?	43.00	100	0.03		BTS	m/s
4.40	17			BTS	Lr	19.70	115	0.06		BTS	?	44.50				BTS	m/s
4.40	17			BTS	Lr	19.70	115	0.06		BTS	?	43.00	100	0.03		BTS	m/s
8.40				BTS	cht	20.80				BTS	sh	50.40				BTS	Lr
5.00	50			BTS	cht	20.50	75	0.04		BTS	sh	46.00	82	0.04		BTS	Lr
5.00	50			BTS	cht	20.50	75	0.04		BTS	sh	46.00	82	0.04		BTS	Lr
5.60	67			BTS	cht	29.40				BTS	Ld	48.50	104	0.07		BTS	Lr
5.60	67			BTS	cht	22.00	73	0.19		BTS	Ld	48.50	104	0.07		BTS	Lr
6.70	100	0.02		BTS	cht	22.00	73	0.19		BTS	Ld	73.80				BTS	Lr
6.70	100	0.02		BTS	cht	23.60	81	0.06		BTS	Ld	51.30	100	0.03		BTS	Lr
8.20	67	0.04		BTS	cht	23.60	81	0.06		BTS	Ld	51.30	100	0.03		BTS	Lr
8.20	67	0.04		BTS	cht	25.10	87			BTS	Ld	54.40	95	0.07		BTS	Lr
9.40				BTS	?	25.10	87			BTS	Ld	54.40	95	0.07		BTS	Lr
9.40	25	0.07		BTS	pmf	26.60	93	0.10		BTS	Ld	56.10	106	0.09		BTS	Lr
13.30				BTS	pmf	26.60	93	0.10		BTS	Ld	56.10	106	0.09		BTS	Lr
9.40	25	0.07		BTS	pmf	28.10	107	0.05		BTS	Ld	58.00	100	0.04		BTS	Lr
10.00	67	0.02		BTS	pmf	28.10	107	0.05		BTS	Ld	58.00	100	0.04		BTS	Lr
10.00	67	0.02		BTS	pmf	31.60				BTS	m/s	61.00	103	0.07		BTS	Lr
11.50	13	0.01		BTS	pmf	29.60	100	0.07		BTS	m/s	61.00	103	0.07		BTS	Lr
11.50	13	0.01		BTS	pmf	29.60	100	0.07		BTS	m/s	63.50	96	0.06		BTS	Lr
12.10	67	0.06		BTS	pmf	29.90	83	0.03		BTS	m/s	63.50	96	0.06		BTS	Lr
12.10	67	0.06		BTS	pmf	29.90	83	0.03		BTS	m/s	66.60	100	0.06		BTS	Lr
13.30	25	0.13		BTS	Ld	31.00	100	0.10		BTS	m/s	66.60	100	0.06		BTS	Lr
13.30	25	0.13		BTS	Ld	31.00	100	0.10		BTS	m/s	69.70	100	0.06		BTS	Lr
16.80				BTS	Ld	33.70				BTS	cht	69.70	100	0.06		BTS	Lr
14.00	92	0.05		BTS	Ld	36.50				BTS	pmf	72.80	100	0.04		BTS	Lr
14.60	92	0.05		BTS	Ld	34.00	100	0.01		BTS	pmf	72.80	100	0.04		BTS	Lr
15.20	100	0.04		BTS	Ld	34.00	100	0.01		BTS	pmf	77.20				BTS	Lr

328145

PASMINGO EXPLORATION DIAMOND DRILL HOLE LOG

Hole ID
BT2

PHYSICAL PROPERTIES / RECOVERIES

Depth	Rec %	Mag	SG	Formn	Lith	Depth	Rec %	Mag	SG	Formn	Lith	Depth	Rec %	Mag	SG	Formn	Lith
75.90	100	0.06		BTS	Lr												
75.90	100	0.06		BTS	Lr												
92.40				BTS	Ln												
78.20	100	0.06		BTS	Ln												
78.20	100	0.06		BTS	Ln												
81.30	100	0.03		BTS	Ln												
81.30	100	0.03		BTS	Ln												
84.40	100	0.03		BTS	Ln												
84.40	100	0.03		BTS	Ln												
86.50	95	0.02		BTS	Ln												
86.50	95	0.02		BTS	Ln												
88.00	100	0.04		BTS	Ln												
88.00	100	0.04		BTS	Ln												
91.00	100	0.06		BTS	Ln												
91.00	100	0.06		BTS	Ln												
106.40				BTS	Ln												
94.00	100	0.03		BTS	Ln												
94.00	100	0.03		BTS	Ln												
107.90				BTS	sst												
119.60				BTS	Lb												
120.40				BTS	sst												
125.00				BTS	Lb												
125.90				BTS	bx												
131.80				BTS	Ln												
139.80				PR	Lr												
163.00				PR	Ln												
163.00				PR	Lr												

328146

PASMINCO EXPLORATION

DIAMOND DRILL HOLE LOG

Hole No.

BT2

PROJECT:

Vertical Scale 1 : 150

Page 1 of 1

DESCRIPTION				GRAPHIC			STRUCTURES	
FROM	TO	LITHOLOGY	ALTERATION	MINERALISATION	Depth	Lith		Struct
0.00	4.60	RHYOLITE white, massive, feldspar phyric quartz phyric. CONTACT: faulted	moderately bleached. moderately oxidised					
4.60	8.40	CHERT cream pink, fine grained, massive laminated. Cherty silica altered sediments, finely laminated in part, cherty breccia in part, mostly massive. Grain size variations. Interval broken and faulted.. CONTACT: missing	moderately silicified. Typical massive pink cherty alteration.	DISSEMINATED minor pyrite disseminated. minor irregular 5 to 15mm patches of massive very fine grained pyrite in more pumiceous unit, fractured cherts no visible mineralization.				FALLT A70 pug breccia FALLT A80 pug breccia FALLT A70 pug breccia
8.40	9.40	UNASSIGNED. core loss?						FALLT
9.40	13.30	PUMICEDOUS MASS FLOW white. Uniform grainsize of fine grained pumiceous fragments with feldspar? weathering pits. Associated with significant core loss and major structures.. CONTACT: faulted			10			FALLT FALLT A90 pug breccia
13.30	16.80	DACITE pale green, peperitic. Indistinct peperitic texture.. CONTACT: faulted to LCA	moderately sericified. bleached green sericite.	DISSEMINATED minor sphalerite disseminated very minor pyrite disseminated. spots of black sphalerite partially replaced by brown sphalerite aligned with minor cleavage in sediment fraction of peperite. also in discontinuous irregular veinlets and fracture infill.				FALLT A30 pug
16.80	20.40	UNASSIGNED buff. Undifferentiated felsic volcanic/volcaniclastic. SHALE black. broken altered and mineralized sediment.. CONTACT: faulted DACITE pale. indistinct felsic volcanic mixed with silicified shale in part. Becoming more silicified and mineralized towards downhole contact.. CONTACT: conformable abrupt to LCA			20			FALLT pug breccia
20.40	20.80							

328147

PASMINCO EXPLORATION
DIAMOND DRILL HOLE LOG

Hole No.

BT2

PROJECT:

Vertical Scale 1 : 150

Page of 1

		DESCRIPTION	GRAPHIC					
FROM	TO	LITHOLOGY	ALTERATION	MINERALISATION	Depth	Lith	Struct	STRUCTURES
20.80	29.40	DACITE pale. indistinct felsic volcanic mixed with silicified shale in part. Becoming more silicified and mineralized towards downhole contact.. CONTACT: conformable abrupt to LCA	moderately sericified, bleached green sericite.	DISSEMINATED minor sphalerite disseminated very minor pyrite disseminated. spots of black sphalerite partially replaced by brown sphalerite aligned with brown cleavage in sediment fraction of peperite. also in discontinuous irregular veinlets and fracture infill.				
		MASSIVE SULPHIDE dark grey. Massive sulphides: distinct and complex paragenesis: silica alteration; massive fine grained gun metal grey sulphides predominantly sphalerite with galena, with 1mm coarse grained bright pale brown sphalerite porphyroblasts with chalcopyrite in pressure shadows oriented parallel to cleavage. Sphalerite porphyroblasts replaced by chalcopyrite in part. Chalcopyrite in late fine fractures perpendicular to cleavage.. CONTACT: conformable abrupt	moderately silicified, moderately sericified, blue grey cherty alteration of fine grained sediments, and green sericite alteration of felsic volcanic component.	VEIN minor sphalerite in veinlets very minor galena in veins. grey and brown sphalerite rimmed with galena and chalcopyrite in cross cutting fractures, and in folded veinlets.				FAULT A30 pug
29.40	31.60		massive sulphides	MASSIVE 20% sphalerite massive 5% galena associated with alteration. zone of massive gun metal grey sulphides predominantly sphalerite and galena with minor silica gangue. Abundant 10mm bright pale brown sphalerite porphyroblasts with chalcopyrite forming in pressure shadows elongate parallel with cleavage. Minor coarse grained galena in cores of sphalerite porphyroblasts. Minor fine chalcopyrite filled fractures perpendicular to cleavage. Minor chalcopyrite replacement of sphalerite porphyroblasts. Distinct and complex petrogenesis.	30	m/s		FAULT A45 shear breccia FIRST CLEAVAGE A45
31.60	33.70	CHERT blue grey, fine grained, massive. Cherty alteration, abundant fine fractures, mineralised.. CONTACT: conformable abrupt	intensely silicified, massive blue cherty alteration associated with sulphides.	STRANGER abundant sphalerite as stringers abundant galena as stringers. zone of mineralized cherty alteration, gun metal, red-brown and straw coloured sphalerite present infilling fine fractures in cherty alteration, coalescing into semi-massive pyrite sphalerite galena chalcopyrite patches.				FIRST CLEAVAGE A60
33.70	36.50	PUMICEDUS MASS FLOW blue grey, fine grained, massive. cherty alteration of pumiceous sandstone.. CONTACT: conformable abrupt						
36.50	43.00	CHERT blue grey, fine grained, massive. cherty alteration of fine grained sediment, finely laminated in part.. CONTACT: conformable abrupt						

328148

PASMINCO EXPLORATION
DIAMOND DRILL HOLE LDC

Hole No.

BT2

PROJECT:

Vertical Scale 1 : 150

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DESCRIPTION				GRAPHIC			STRUCTURES		
FROM	TO	LITHOLOGY	ALTERATION	MINERALISATION	Depth	Lith		Struct	
36.50	43.00	CHERT blue grey, fine grained, massive. cherty alteration of fine grained sediment, finely laminated in part.. CONTACT: conformable abrupt	intensely silicified, massive blue cherty alteration associated with sulphides.	<p>STRINGER abundant sphalerite as stringers abundant galena as stringers. zone of mineralized cherty alteration, gun metal, red-brown and straw coloured sphalerite present infilling fine fractures in cherty alteration, coalescing into semi-massive pyrite sphalerite galena chalcocopyrite patches.</p> <p>MASSIVE 20% sphalerite massive 5% galena associated with alteration. zone of massive fine grained gunmetal grey sulphides predominantly sphalerite, and minor semi-massive pale brown sphalerite. Minor 1mm brown sphalerite porphyroblasts, and minor semi-massive fine grained pyrite/chalcocopyrite patches.</p> <p>VEIN very minor sphalerite in veinlets very minor galena in veinlets. Minor sulphides infilling fractures, free growth in part.</p>	50				
43.00	44.50	MASSIVE SULPHIDE dark grey. Massive gun metal grey sphalerite with semi-massive patchy pyrite/chalcocopyrite in part.. CONTACT: faulted	massive sulphides						FALT
44.50	50.40	RHYOLITE buff grey, feldspar phyric. massive to fragmented felsic volcanic, chlorite altered and mineralized in part, and Mn carbonate altered in part.. CONTACT: faulted	slightly sericitised, slightly carbonatised, minor manganoan carbonate alteration. Note weathering pits of carbonate altered? feldspars.						FRACURE A20
50.40	73.80	RHYOLITE buff, massive, quartz phyric feldspar phyric. Distinct quartz/feldspar phyric lava massive to flow banded towards downhole contact.. CONTACT: faulted to LCA	slightly sericitised, slightly carbonatised		60			FALT A60 pug	
								PRIMARY FABRIC A70	
								FALT A15	

328149

PRSMINCO EXPLORATION
DIAMOND DRILL HOLE LOG

Hole No.

BT2

PROJECT:

Vertical Scale 1 : 150

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DESCRIPTION				GRAPHIC			STRUCTURES	
FROM	TO	LITHOLOGY	ALTERATION	MINERALISATION	Depth	Lith		Struct
50.40	73.80	RHYOLITE buff, massive, quartz phyric feldspar phyric. Distinct quartz/feldspar phyric lava massive to flow banded towards downhole contact.. CONTACT: faulted to LCR	slightly sericitised, slightly carbonatised					FAULT R15
73.80	77.20	RHYOLITE MIXED WITH RHYOLITE buff. Transition zone between distinct quartz/feldspar phyric flowbanded rhyolite and massive fine grained and perlitic fractured rhyolite? lava.. CONTACT: conformable mixed		STRAINER trace sphalerite as stringers, trace irregular sphalerite gash filling.				PRIMARY FABRIC R40
77.20	92.40	ANDESITE buff, fine grained, massive perlitic. Massive perlitic lava, distinct colour, unusual rock (possibly altered andesite?).. CONTACT: pp						BROKEN CORE FAULT R65 pug

328150

**PASMINCO EXPLORATION
DIAMOND DRILL HOLE LOG**

Hole No. **BT2**

PROJECT: Vertical Scale 1 : 150 Page of 1

DESCRIPTION				GRAPHIC			STRUCTURES	
FROM	TO	LITHOLOGY	ALTERATION	MINERALISATION	Depth	Lith		Struct
92.40	106.40	ANDESITE green grey, peperitic, feldspar phyric. Distinctly peperitic with fine grained grey shale comprising approximately 40% of rock. Lava is sericitised in part and obviously feldspar phyric, but is also perlitic fractured and similar to uphole interval (without obvious feldspars) in part.. CONTACT: conformable abrupt	slightly sericitised. minor waxy green sericite alteration of fragmented lava, with carbonate altered feldspars.					
106.40	107.90							
107.90	119.50	SANDSTONE grey green, fine grained, massive, polymict. Distinctly massive rock but (indistinctly) granular and polymict.. CONTACT: conformable abrupt to LCA BASIC LAVA dark green, perlitic hyaloclastitic. Distinctly textured volcanic: mafic in composition, basaltic or andesitic, with prominent perlitic texture with mixed peperite/hyaloclastite, pseudo-clastic and possibly pillowed texture.. CONTACT: conformable mixed	slightly chloritised. slightly carbonatised. chlorite altered mafic fragments. with carbonate altered matrix (finer fragmented mafic).		110			
		SANDSTONE buff grey, fine grained						
119.50	120.40	BASIC LAVA dark green, perlitic hyaloclastitic. Distinctly textured volcanic: mafic in composition, basaltic or andesitic, with prominent perlitic texture with mixed peperite/hyaloclastite, pseudo-clastic and possibly pillowed texture.			120			
120.40	125.00	BRECCIA, poorly sorted, polymict. Mass flow comprising andesite, pumice breccia, and fine grained sediment, and sericite and carbonate/pyrite altered clasts.. CONTACT: pp						
125.00	125.90	ANDESITE pale green, fine grained, vesicles. Distinct vesicular fuchsitic andesite. Peperitic towards uphole contact, and fractured towards downhole contact with fine pyrite/chlorite infilling.. CONTACT: faulted to LCA	highly carbonatised, slightly fuchsitic. straw coloured manganese carbonate altered mafic with minor fuchsite.					

FIRST CLEAVAGE R50

328152

PASMINCO EXPLORATION
DIAMOND DRILL HOLE LOG

Hole No.

BT2

PROJECT:

Vertical Scale 1 : 150

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DESCRIPTION				GRAPHIC			STRUCTURES	
FROM	TO	LITHOLOGY	ALTERATION	MINERALISATION	Depth	Lith		Struct
139.80	163.00	RHYOLITE pink buff, porphyritic flow banded, quartz phyric feldspar phyric. Typical Pinnacles Rhyolite: prominently quartz feldspar phyric and massive to flowbanded in part.						

328154

BT2 ORE SUITE

<i>sample</i>	<i>from</i>	<i>to</i>	<i>interval</i>	<i>Cu</i>	<i>Pb</i>	<i>Zn</i>	<i>Ag</i>	<i>Au</i>	<i>Mn</i>	<i>Ba</i>
77753	5.3	9.3	4	134	184	25	8	0.1	126	1227
77754	9.3	12.3	3	3082	1105	1743	35	1	154	1854
77755	13.3	15.4	2.1	1887	8800	11100	7	0.15	515	3558
77756	15.4	17.4	2	631	7000	12100	5	0.05	411	2965
77757	17.4	19.5	2.1	248	1456	4783	5	0.04	344	2773
77758	19.5	21.4	1.9	357	1349	3893	3	0.06	345	2961
77759	21.4	22.7	1.3	863	13700	24200	5	0.05	559	4111
77760	22.7	24.3	1.6	268	12000	13000	3	0.07	534	4435
77761	24.3	25.9	1.6	165	2449	2180	3	0.07	347	3400
77762	25.9	27.8	1.9	630	6400	27000	3	0.06	294	1907
77763	27.8	29.4	1.6	754	13900	19500	7	0.07	238	1676
77764	29.4	30.2	0.8	3548	12300	111000	25	0.34	530	3210
77765	30.2	31.6	1.4	11100	93100	148100	62	0.27	490	1356
77766	31.6	33.7	2.1	7400	41100	80000	34	0.3	284	644
77767	33.7	35	1.3	6500	23300	48700	24	0.38	194	831
77768	35	36.7	1.7	5200	33800	61200	29	0.28	209	803
77769	36.7	39	2.3	2457	27200	36500	15	0.15	111	373
77770	39	40.8	1.8	6100	43600	67000	23	0.23	161	649
77771	40.8	43	2.2	8500	42000	70200	40	0.9	248	379
77772	43	44.5	1.5	24800	232000	325000	153	1.96	793	135
77773	44.5	46.5	2	143	1585	1293	1	<0.008	351	1288
77774	46.5	48.2	1.7	94	1594	1111	1	<0.008	352	1571
77775	48.2	49.9	1.7	1131	10000	14200	10	0.05	447	1762
77776	49.9	52.3	2.4	68	1252	2194	1	0.01	339	1545

PASMINGO EXPLORATION DIAMOND DRILL HOLE LOG

Hole ID
BT3

DRILLING			OBJECTIVE					COLLAR SURVEY (AMG)			
Location	BROWNS TUNNEL		To test the southern extention of mineralization intersected in BT2 and below outcrop of high grade mineralization on surface. A secondary target was to test the andesite position and to complete the section to the Pinnacles Rhyolite.					AMG mN	5384572.9	Bearing	278.0
Project	BURNS PEAK							AMG mE	3778668.1	Dip	-45.0
Prospect	BROWNS TUNNEL							mN		Hole Length	198.4
Design By	PMQ							mE		DH Survey Type	eastman single shot
Logged By	PMQ							RL	459.7		
Relogged											
Commenced	24 April 1996		RESULT					DOWNHOLE SURVEY (AMG)			
Completed	8 May 1996		Only minor mineralization was intersected close to surface. A thin band of high grade mineralization was intersected in a zone of interesting mineralized cherty silicified sediments stratigraphically above the andesite and below a zone of pumice breccia with blebby carbonate/silica alteration and mineralization below the Pinnacles Rhyolite.					Depth	Bearing	Dip	
Drilled By	East Coast Drilling							0.0	-45.00	278.00	
Drill Rig	LM38							40.0	-44.00	276.00	
								70.0	-45.00	276.00	
								100.0	-45.00	277.00	
								130.0	-44.00	277.00	
			190.0	-42.00	279.50						
SIGNIFICANT CORE LOSS			POOR GROUND CONDITION ZONES								
HOLE SIZE			HOLE CONDITIONS AFTER COMPLETION								
From	To	Size	Collar		CAPPED						
0	29.7	HQ	Steel Casing		NILL						
29.7	198.4	NQ	PVC Casing								
			Ground Water								
			Wedge				NILL				
			Drill Pad		CLEARED AND SUMP FILLED IN						
SIGNIFICANT INTERSECTIONS											
From	To	Int	Cu	Pb	Zn	Ag	Au	Comments			
132.2	136	3.8		3.3%	6.5%	26	2.8				

328156

PASMINCO EXPLORATION
DIAMOND DRILL HOLE LOG

Hole No.

BT3

PROJECT:

Vertical Scale 1 : 100

Page 1 of 1

DESCRIPTION			GRAPHIC								
FROM	TO	LITHOLOGY	ALTERATION	MINERALISATION	Depth	Lith	Struct	STRUCTURES			
0.00	1.90	UNASSIGNED. no core. CONTACT: missing	moderately sericitised, moderately silicified, banded silica and sericite alteration controlled by lithology.		0	????					
2.00	7.50	CHERT grey. cherty silicified shale? may be not in place.. CONTACT: missing ACID LAVA white. broken and weathered felsic volcanic.. CONTACT: missing									FAULT breccia pug
7.50	7.70	CHERT grey. cherty silicified shale?. CONTACT: conformable abrupt									
7.70	8.80	ACID LAVA white. poor recovery, missing core, felsic volcanic mixed with grey cherty shale.. CONTACT: missing					VEIN minor sphalerite on fractures minor pyrite disseminated. minor dark brown sphalerite in fine irregular fractures in cherty sediments, and disseminated pyrite in sericitised felsic volcanics.	10			FIRST CLEAVAGE R40
8.80	10.00	CHERT grey. broken and mineralized cherty shale.. CONTACT: conformable mixed ACID LAVA yellow. sheared felsic volcanic with abundant fracture fill mineralization.. CONTACT: missing									BROKEN CORE
11.00	12.50	CHERT grey. cherty silicification of fine grained sediment? Abundant fine mineralized fractures.. CONTACT: faulted to LCA ACID LAVA yellow. CONTACT: faulted									
12.50	12.90	FAULT ZONE (PUG) grey. mixed pug and breccia. Significant fault.. CONTACT: faulted to LCA					VEIN minor sphalerite on fractures minor pyrite disseminated. dark grey sphalerite on joint faces and crackle fractures, and disseminated fine grained pyrite and coarse grained red sphalerite in sericitised felsic volcanics.				
12.90	13.90	ACID LAVA yellow. Possible flow banding in part, sericitic and mineralized felsic volcanic.. LCA								fz	FAULT R30 breccia pug

328157

PASMINCO EXPLORATION
DIAMOND DRILL HOLE LOG

Hole No.

BT3

PROJECT:

Vertical Scale 1 : 100

Page of 1

DESCRIPTION					GRAPHIC			STRUCTURES
FROM	TO	LITHOLOGY	ALTERATION	MINERALISATION	Depth	Lith	Struct	
13.90	17.80	ACID LAVA yellow. Possible flow banding in part, sericitic and mineralized felsic volcanic.. LCA	moderately sericitised, moderately silicified, banded silica and sericite alteration controlled by lithology.	VEIN minor sphalerite on fractures minor pyrite disseminated, dark grey sphalerite on joint faces and crackle fractures, and disseminated fine grained pyrite and coarse grained red sphalerite in sericitised felsic volcanics.				FAULT R20
17.80	19.50	SANDSTONE dark grey. broken and fractured and mineralized sediment, cherty in part, and massive medium grained sandstone in part.. CONTACT: missing		DISSEMINATED minor pyrite disseminated minor sphalerite disseminated				
19.50	29.10	ACID LAVA yellow grey, very coarse grained. Irregular unit, obscured by sericitisation but comprising volcanic clasts upto 50mm with possibly pumiceous matrix, interpreted as a slump or mass flow of pumiceous volcanic debris.. CONTACT: conformable abrupt to LCA	moderately sericitised, slightly carbonatised, matrix and pumiceous clasts dominantly sericitised, minor clasts carbonate altered.	DISSEMINATED minor pyrite disseminated very minor sphalerite disseminated, very fine disseminated pyrite throughout. Trace fine black sphalerite on fracture faces, minor disseminated sphalerite in manganese carbonate? altered clasts.	20			

328158

PASMINCO EXPLORATION

DIAMOND DRILL HOLE LOG

Vertical Scale 1 : 100

Hole No.

BT3

PROJECT:

Page of 1

DESCRIPTION			GRAPHIC			STRUCTURES		
FROM	TO	LITHOLOGY	ALTERATION	MINERALISATION	Depth		Lith	Struct
19.50	29.10	ACID LAVA yellow grey, very coarse grained. Irregular unit, obscured by sericitisation but comprising volcanic clasts upto 50mm with possibly pumiceous matrix, interpreted as a slump or mass flow of pumiceous volcanic debris.. CONTACT: conformable abruptto LCA	moderately sericitised, slightly carbonatised. matrix and pumiceous clasts dominantly sericitised, minor clasts carbonate altered.	DISSEMINATED minor pyrite disseminated very minor sphalerite disseminated. very fine disseminated pyrite throughout. Trace fine black sphalerite on fracture faces, minor disseminated sphalerite in manganoan carbonate? altered clasts.	30			FIRST CLEAVAGE 005
29.10	33.10	SHALE grey, peperitic. zone of shale mixed with minor waxy green sericite altered and irregular shaped feldspar phytic volcanic fragments.. CONTACT: conformable abruptto LCA						
33.10	42.20	ACID LAVA yellow grey, feldspar phytic. Irregular zone of waxy green sericitises feldspar phytic volcanic fragments in blebby silica altered feldspar phytic matrix, could be peperite with reworked felsic volcanic matrix.. CONTACT: missing	moderately sericitised, slightly carbonatised. matrix and pumiceous clasts dominantly sericitised, minor clasts carbonate altered.	DISSEMINATED very minor pyrite disseminated trace sphalerite disseminated	40			

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PASMINCO EXPLORATION

DIAMOND DRILL HOLE LOG

Hole No.

BT3

PROJECT:

Vertical Scale 1 : 100

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		DESCRIPTION			GRAPHIC			
FROM	TO	LITHOLOGY	ALTERATION	MINERALISATION	Depth	Lith	Struct	STRUCTURES
39.10	42.20							
42.20	44.10	ACID LAVA yellow grey, feldspar phyrlic. Irregular zone of waxy green sericitises feldspar phyrlic volcanic fragments in blebby silica altered feldspar phyrlic matrix, could be peperite with reworked felsic volcanic matrix.. CONTACT: missing	moderately sericitised, slightly carbonatised, matrix and pumiceous clasts dominantly sericitised, minor clasts carbonate altered.	DISSEMINATED very minor pyrite disseminated trace sphalerite disseminated				
44.10	51.50	SHALE grey, fine grained. Massive to finely laminated in part. Minor waxy green feldspar phyrlic peperite component. Faulted associated with water loss.. CONTACT: missing SANDSTONE grey, upwards fining sequence. Zone of coarse grained (5mm) volcanic derived sandstone with minor lithic component grading downhole to siltstone from 48.1m, and shale from 50m. The coarse grained zone could be the matrix to the above irregular peperite?. CONTACT: conformable abrupt to LCA		VEIN minor sphalerite in veins minor pyrite disseminated. Red brown sphalerite in undeformed 5mm free growth to fibrous quartz veins. Minor fine grained disseminated pyrite throughout.				
			slightly carbonatised, minor white carbonate spotting elongate in cleavage.	DISSEMINATED minor pyrite disseminated trace sphalerite on fractures	50			BEDDING grading downhole
51.50	52.60	MINERALISATION/ALTERATION yellow grey. Sericitised and cleaved, feldspar phyrlic zone possibly pumiceous surrounding 30cm band of cherty silica alteration with patchy red sphalerite mineralization, and fracture fill chalcopryrite.. CONTACT: conformable abrupt to LCA	moderately sericitised, moderately silicified, slightly carbonatised, blebby fine grained blue grey fractured and mineralized silica with cleaved sericitised bands, carbonate altered breccia, and chloritic bands.	STRINGER abundant sphalerite as stringers minor chalcopryrite in veinlets, unusual coarse grained red brown sphalerite with yellow cores in pressure shadows of grey silica pods, associated with shear texture brecciated carbonate. Chalcopryrite in fine cross cutting fractures in cherty patches. Associated with silica-sericite-chlorite and carbonate alteration.				BEDDING R&S
52.60	53.80	RHYOLITE yellow grey, peperitic. Rhyolite fragments in silicified shale.. CONTACT: conformable abrupt				m/a		
53.80	60.40	RHYOLITE yellow pink, quartz phyrlic feldspar phyrlic. prominently quartz phyrlic lava, fragmented with waxy sericitised bands.. CONTACT: conformable abrupt	slightly sericitised, slightly albitised, matrix sericitised, clasts cream white, silica/albite? feldspars, white?	DISSEMINATED trace pyrite disseminated				

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PASMINCO EXPLORATION
DIAMOND DRILL HOLE LOG

Hole No.

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PROJECT:

Vertical Scale 1 : 100

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DESCRIPTION					GRAPHIC			
FROM	TO	LITHOLOGY	ALTERATION	MINERALISATION	Depth	Lith	Struct	STRUCTURES
53.80	60.40	RHYOLITE yellow pink, quartz phyrlic feldspar phyrlic. prominently quartz phyrlic lava, fragmented with waxy sericitised bands.. CONTACT: conformable abrupt	slightly sericitised, slightly albitised. matrix sericitised. clasts cream white, silica/albite? feldspars, white?	DISSEMINATED trace pyrite disseminated				
60.40	60.60	MINERALISATION/ALTERATION grey, sericitic volcanic with patchy silica/coarse grained pyrite, coarse grained red sphalerite, and fine grained dark grey sulphide mineralization.. CONTACT: faulted to LCR						
60.60	63.40	ANDESITE MIXED WITH SHALE yellow grey, irregular zone with minor bands of massive andesite? at 62.3 - 62.5, and 63.2 - 63.4m, with mixed yellow sericite and blebby silica altered feldspar phyrlic volcanic and grey shale.. CONTACT: faulted	moderately silicified, moderately sericitised, blebby silica, sericite in cleavage and peripheral to fractures together with chlorite.	MASSIVE 5% pyrite disseminated minor sphalerite associated with alteration, 10cms of semi-massive coarse grained red, and fine grained grey sphalerite with coarse grained pyrite and 10cms of massive granular pyrite comprising fault zone. DISSEMINATED abundant pyrite disseminated	60			FAULT A35
63.40	64.30	ALTERATION ZONE black, massive black chlorite with white altered feldspars, and abundant weathering pits?. CONTACT: faulted to LCR	intensely chloritised, massive chlorite with white altered feldspars, and abundant evenly distributed feldspar? weathering pits. Emanating from fault.			a/z		FAULT
64.30	75.00	ANDESITE buff, peperitic. Unusual texture with massive pale lava with chloritised feldspars, and minor pale grey cherty silica possibly irregular veining rather than peperitic sediment?. CONTACT: gradational	moderately sericitised, Mn staining of sericite. moderately silicified, moderately albitised, irregular crypto crystalline pale grey silica veins in albitised? lava.					

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PASMINCO EXPLORATION
DIAMOND DRILL HOLE LOG

Hole No.

BT3

PROJECT:

Vertical Scale 1 : 100

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DESCRIPTION				GRAPHIC			STRUCTURES	
FROM	TO	LITHOLOGY	ALTERATION	MINERALISATION	Depth	Lith		Struct
64.30	75.00	ANDESITE buff, peperitic. Unusual texture with massive pale lava with chloritised feldspars, and minor pale grey cherty silica possibly irregular veining rather than peperitic sediment?. CONTACT: gradational	<p>moderately silicified, moderately albitised, irregular crypto crystalline pale grey silica veins in albitised? lava.</p> <p>moderately bleached</p>					
75.00	111.20	ANDESITE buff, massive buf pink (albitised?) andesite, altered phyric feldspars, minor zones with fragmental texture, and chlorite and/or sericite alteration.. CONTACT: conformable abrupt to LCA	<p>moderately silica-albite</p>					

FAULT

80

328162

328163

Hole No. BT3

PRSMINDO EXPLORATION
 DIAMOND DRILL HOLE LOG
 Vertical Scale 1 : 100
 PROJECT: Page 1 of 1

DESCRIPTION

FROM	TO	LITHOLOGY	ALTERATION	MINERALISATION	Depth	Lith	Struct	STRUCTURES
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75.00 111.20

ANDESITE buff. massive buff pink (albitised?)
 andesite, altered phyrlic feldspars, minor zones with
 fragmental texture, and chlorite and/or sericite
 alteration.. CONTACT: conformable abrupt to LCR

moderately
 silica-alkali



PRSMINCO EXPLORATION

DIAMOND DRILL HOLE LOC

Vertical Scale 1 : 100

PROJECT:

BT3

Hole No.

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DESCRIPTION		GRAPHIC	
FROM	TO	Lith	Struct
75.00	111.20		
<p>LITHOLOGY</p> <p>ANDESITE buff, massive buff pink (albitised?) andesite, altered phyrlic feldspars, minor zones with fragmental texture, and chlorite and/or sericite alteration.. CONTACT: conformable abrupto LCR</p>			
<p>ALTERATION</p> <p>moderately silice-albite</p>			
<p>ALTERATION</p> <p>moderately chloritised</p>			
<p>ALTERATION</p> <p>slightly silice-albite, massive fine grained buff coloured hard matrix and altered feldspar phenocrysts, with minor grey cryptocrystalline silica veinlets.</p>			
<p>MINERALISATION</p> <p>DISSEMINATED minor pyrite on fractures</p>			
<p>MINERALISATION</p> <p>DISSEMINATED minor pyrite on fractures</p>			
<p>LITHOLOGY</p> <p>SANDSTONE green grey, coarse grained, irregular reworked andesite debris.. CONTACT: conformable abrupto LCR</p>			
111.20	115.10		
<p>STRUCTURES</p> <p>Fault R50</p>			

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PASMINCO EXPLORATION

Hole No.

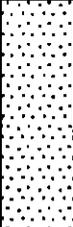
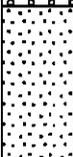
BT3

DIAMOND DRILL HOLE LOG

PROJECT:

Vertical Scale 1 : 100

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DESCRIPTION				GRAPHIC				
FROM	TO	LITHOLOGY	ALTERATION	MINERALISATION	Depth	Lith	Struct	STRUCTURES
111.20	115.10	SANDSTONE green grey, coarse grained. irregular reworked andesite debris.. CONTACT: conformable abrupt to LCA	moderately chloritised, moderately sericitised carbonatised	DISSEMINATED minor pyrite disseminated very minor sphalerite on fractures				FAULT R65 BEDDING R55 FIRST CLEAVAGE R55
115.10	117.00	ANDESITE buff green, hyaloclastitic, feldspar phytic. Autobrecciated margin of andesite.. CONTACT: missing	moderately silica-albite					
117.00	122.80	SANDSTONE pale grey, laminated. variable sediments from fine grained cherty massive siltstone, laminated siltstones, fine grained to medium grained sandstones.. CONTACT: conformable abrupt to LCA	moderately silicified, slightly sericitised	VEIN minor sphalerite on fractures very minor pyrite disseminated, minor coarse grained red brown sphalerite in vugs and fractures.				FAULT R45 pug
					120			
122.80	123.90	CONGLOMERATE grey buff, poorly sorted, polymict. clasts from 1 to 50mm, of siltstone, pumice and volcanic clasts several totally replaced by pyrite.. CONTACT: gradational		CLAST minor pyrite massive. minor 10mm pods of massive pyrite, replaced clasts?				
123.90	130.90	SANDSTONE grey, massive. variable massive to bedded fine cherty siltstones to medium grained sandstone.. CONTACT: faulted		DISSEMINATED trace sphalerite disseminated				BEDDING R50

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PASMINCO EXPLORATION
DIAMOND DRILL HOLE LOG

Hole No.

BT3

PROJECT:

Vertical Scale 1 : 100

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DESCRIPTION					GRAPHIC			
FROM	TO	LITHOLOGY	ALTERATION	MINERALISATION	Depth	Lith	Struct	STRUCTURES
123.90	130.90	SANDSTONE grey, massive. variable massive to bedded fine cherty siltstones to medium grained sandstone.. CONTACT: faulted	moderately silicified, slightly sericitised moderately silicified, moderately sericitised, slightly carbonatised. structurally disrupted zone with variable alteration, manganoan carbonate in fractures and alteration of feldspars, and fine grained sericite silica alteration with bleached appearance.	DISSEMINATED trace sphalerite disseminated DISSEMINATED minor sphalerite disseminated minor pyrite disseminated. mineralization increasing to 133.5m. Abundant 1mm spots of pale cg sphalerite rimmed with black sphalerite? and radiating fringe of sericite. Abundant fine fractures with pale sphalerite and galena, minor vfg pale sphalerite in 10mm radiating alteration patches. Abundant very fine grained disseminated pyrite.	130			BEDDING A40 BEDDING A5 BEDDING A20 BEDDING A25 FAULT A30
130.90	133.50	SANDSTONE pale grey. irregular altered sandstone, fine grained sericitic matrix with minor sphalerite spots and minor carbonate patches.. CONTACT: conformable abrupt						BROKEN CORE
133.50	134.40	MASSIVE SULPHIDE black. Matrix of fine grained white to dark grey sulphides (sphalerite and galena) with common 3mm faun coloured sphalerite spots rimmed with dark sphalerite. Minor enclosed waxy green sericite.. CONTACT: conformable abrupt		MASSIVE 10% sphalerite massive 5% galena massive. Abundant 1 - 4mm pale sphalerite spots in matrix of fine galena, and dark sphalerite, and wispy textured pale sphalerite? Chalcopyrite disseminated throughout. Distinct and unusual texture.		m/s		FIRST CLEAVAGE A55
134.40	137.50	SANDSTONE pale grey, coarse grained, bedded, polymict. pale grey fine grained sericite matrix, quartzose sandstone. Bedding parallel to LCR (fold?) in part.. CONTACT: gradational CONGLOMERATE grey yellow, coarse grained, poorly sorted, polymict. Clasts ranging from 1 to 20mm of predominantly pale grey sediment, soft sediment texture in part, with wispy pumice clasts and abundant pyrite replaced clasts.. CONTACT: conformable abrupt		VEIN minor pyrite on fractures minor sphalerite on fractures. minor mineralization in structurally disrupted zone associated with fracture fill carbonate.				FAULT A20 FAULT A30
137.50	139.20	SANDSTONE white, medium grained. zone of disrupted altered fine to medium grained sediments, comprising silica-sericite with minor 2mm pyrite and sphalerite spots. Abundant fine fractures, and shear texture obliteration primary textures.. CONTACT: faulted		CLAST minor pyrite massive. minor pyrite replaced clasts in conglomerate.				BEDDING A5
139.20	143.80			VEIN minor sphalerite on fractures minor pyrite on fractures. minor pale brown sphalerite in fractures and veinlets in structurally disrupted zone.				

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PASMINCO EXPLORATION

Hole No.

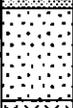
BT3

DIAMOND DRILL HOLE LOG

PROJECT:

Vertical Scale 1 : 100

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DESCRIPTION				GRAPHIC				
FROM	TO	LITHOLOGY	ALTERATION	MINERALISATION	Depth	Lith	Struct	STRUCTURES
139.20	143.80	SANDSTONE white, medium grained. zone of disrupted altered fine to medium grained sediments, comprising silica-sericite with minor 2mm pyrite and sphalerite spots. Abundant fine fractures, and shear texture obliteration primary textures.. CONTACT: faulted	moderately silicified. moderately sericitised, slightly carbonatised. structurally disrupted zone with variable alteration. manganese carbonate in fractures and alteration of feldspars. and fine grained sericite silica alteration with bleached appearance.	VEIN minor sphalerite on fractures minor pyrite on fractures. minor pale brown sphalerite in fractures and veinlets in structurally disrupted zone.	140			
143.80	149.40	CHERT white, fine grained. zone of cherty altered sediments, porcelain like in part, fine fractures in part. Pyrite bands in veins and fractures. Disseminated sulphides in part.. CONTACT: conformable abrupt to LCA	highly silicified. cherty alteration.	VEIN minor sphalerite in veinlets minor chalcocopyrite on fractures. mineralization in veins and fractures in cherty altered zone, also as fine disseminations with regular distribution in some bands, unusual texture.			<p>----- FALLT R20 shear</p> <p>----- FALLT R10</p>	
149.40	150.60	SANDSTONE grey, medium grained, massive, quartz phyric. massive sandstone composed of abundant 0.2mm quartz grains in fine silica matrix. Disrupted by minor fractures and mineralization.. CONTACT: conformable abrupt			150			
150.60	153.80	PUMICEOUS MASS FLDW grey yellow, pumiceous. zone of mixed blocks of pumice breccia and sediment clasts irregular texture, possibly a slump mixing lithologies, grading to reworked pumiceous sandstone. Slump? zone resembles texture of possible? pumiceous slump breccia near the top of hole.. CONTACT: faulted	moderately sericitised	DISSEMINATED minor sphalerite disseminated				
153.80	155.00	SANDSTONE grey, medium grained fine grained, quartz phyric. quartzose sandstone with siliceous matrix, similar to interval above pumiceous interval.. CONTACT: faulted						

----- FIRST CLEAVAGE R45

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PRSMINCO EXPLORATION

Hole No.

BT3

DIAMOND DRILL HOLE LOG

PROJECT:

Vertical Scale 1 : 100

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DESCRIPTION			GRAPHIC			STRUCTURES		
FROM	TO	LITHOLOGY	ALTERATION	MINERALISATION	Depth		Lith	Struct
155.00	185.10	PUMICEDUS MASS FLOW green yellow, pumiceous feldspar phytic. Coarse pumice clasts upto 10mm, typified by (50mm) poddy silica or manganoan carbonate alteration. Carbonate may be replacing silica, with minor sulphides nucleated in carbonate. Well preserved chlorite and sericite altered pumice clasts. Abundant 1mm sericite/carbonate altered feldspars.. CONTACT: conformable abruptto LCA	moderately sericitised, moderately carbonatised, slightly silicified. zone of blebby manganoan carbonate alteration upto 50mm pods mineralised in part. Carbonate pods uniformly distributed throughout.	DISSEMINATED very minor sphalerite associated with alteration. minor fine grained grey sulphides, and coarse grained straw and bright brown sphalerite nucleating within cream carbonate alteration patches and within minor carbonate veinlets. Distribution is uniform throughout, but the most mineralized are sampled.	170			
					180			FIRST CLEAVAGE #60

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PASMINCO EXPLORATION
DIAMOND DRILL HOLE LOG

Hole No.

BT3

PROJECT:

Vertical Scale 1 : 100

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DESCRIPTION					GRAPHIC			STRUCTURES
FROM	TO	LITHOLOGY	ALTERATION	MINERALISATION	Depth	Lith	Struct	
155.00	185.10	PUMICEOUS MASS FLOW green yellow, pumiceous feldspar phytic. Coarse pumice clasts upto 10mm, typified by (50mm) poddy silica or manganoan carbonate alteration. Carbonate may be replacing silica, with minor sulphides nucleated in carbonate. Well preserved chlorite and sericite altered pumice clasts. Abundant 1mm sericite/carbonate altered feldspars.. CONTACT: conformable abruptto LCA	moderately sericitised, moderately carbonatised, slightly silicified. zone of blebby manganoan carbonate alteration upto 50mm pods mineralised in part. Carbonate pods uniformly distributed throughout.	DISSEMINATED very minor sphalerite associated with alteration. minor fine grained grey sulphides, and coarse grained straw and bright brown sphalerite nucleating within cream carbonate alteration patches and within minor carbonate veinlets. Distribution is uniform throughout, but the most mineralized are sampled.				
185.10	198.40	RHYOLITE buff grey, flow banded massive, feldspar phytic quartz phytic. Typical Pinnacles Rhyolite, flow banded, abundant 1mm (white carbonate altered) feldspars, and minor 0.5mm phytic quartz. Massive homogenous rock. Abundant fine white carbonate veining.	slightly carbonatised. white carbonate as fine veinlets and altered feldspars throughout.					

FIRST CLEAVAGE R45

PRIMARY FABRIC R60

190

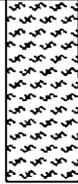
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PASMINCO EXPLORATION
DIAMOND DRILL HOLE LOG

Hole No. **BT3**

PROJECT: Vertical Scale 1 : 100

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DESCRIPTION				GRAPHIC			STRUCTURES	
FROM	TO	LITHOLOGY	ALTERATION	MINERALISATION	Depth	Lith		Struct
185.10	198.40	RHYOLITE buff grey, flow banded massive, feldspar phyrlic quartz phyrlic. Typical Pinnacles Rhyolite, flow banded, abundant 1mm (white carbonate altered) feldspars, and minor 0.5mm phyrlic quartz. Massive homogenous rock. Abundant fine white carbonate veining.	slightly carbonatised. white carbonate as fine veinlets and altered feldspars throughout.					
					200			

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sample	from	to	interval	Cu	Pb	Zn	Ag	Au	Fe%	Mn
77777	5.88	7.5	1.6	371	660	251	<1	0.02	0.42	124
77778	7.5	10	2.5	1300	1530	1410	4	0.15	1.81	141
77779	10	11.1	1.1	484	1180	1660	2	0.02	1.66	209
77780	11.1	12.8	1.7	1250	1480	4500	5	0.1	1.61	101
77781	12.8	14	1.2	1450	1180	2060	3	0.06	1.81	166
77782	14	14.9	0.9	522	2160	2660	2	0.04	1.24	152
77783	14.9	17.4	2.5	338	3740	7920	4	0.09	1.8	222
77784	17.4	19.5	2.1	294	1140	1960	2	0.01	1.11	144
77785	19.5	20.6	1.1	66	589	1410	2	0.01	1.59	226
77786	20.6	21.9	1.3	256	607	1030	2	0.01	1.24	163
77787	21.9	23.2	1.3	103	500	813	1	0.01	1.19	218
77788	23.2	25.2	2	16	210	521	1	0	1.71	268
77789	25.2	27.2	2	15	498	782	1	0	0.96	194
77790	27.2	29.1	1.9	15	251	614	1	0.02	1.58	1310
77791	29.1	31.4	2.3	30	628	1210	1	0.03	1.35	877
77792	31.4	33.1	1.7	23	634	1790	1	0.01	1.22	707
77793	33.1	35.6	2.5	17	183	372	1	0	1.39	781
77794	44.1	47.2	3.1	37	1470	1160	1	0.01	1.28	193
77795	47.2	49.2	2	39	489	599	1	0.01	1.12	197
77796	49.2	51.6	2.4	87	1890	1520	2	0.02	2.92	5640
77797	51.6	52.6	1	3110	1940	40500	29	0.03	5.5	6390
77798	52.6	55	2.4	25	738	1470	1	0	0.86	434
77799	55	57.1	2.1	23	253	274	<1		0.83	1720
77800	57.1	58.5	1.4	24	195	228	<1		1.34	7370
77849	58.5	60.4	1.9	42	181	683	<1		1.7	11200
77850	60.4	60.8	0.4	2790	1410	36300	24	0.03	5.21	630
77851	60.8	63.4	2.6	220	221	819	5	0.01	3.59	1940
77852	63.4	64.2	0.8	43	441	3030	2	0.01	5.64	5300
77853	64.2	67	2.8	15	162	2490	<1		5.15	19800
77854	67	70	3	35	264	1090	1		1.14	3920
77855	70	73	3	15	37	343	<1	0	2.07	5240
77856	111.2	112.9	1.7	30	3630	2730	5	0	1.98	4980
77857	112.9	115.2	2.3	72	5550	420	6		2.05	2070
77858	117.3	120.3	3	20	559	527	4	0	0.91	632
77859	122.8	123.9	1.1	35	411	2100	5	0.02	2.25	1110
77860	127.4	129.7	2.3	63	170	725	2	0	0.98	4800
77861	129.7	132.2	2.5	140	1090	1760	4	0.07	2.32	2480
77862	132.2	133.5	1.3	404	6910	23600	14	1.44	1.93	1310
77863	133.5	134.4	0.9	2650	110000	196000	50	7.78	1.1	2010
77864	134.4	136	1.6	1080	11700	24200	23	1.17	2.69	1200
77865	136	137.5	1.5	83	2540	2880	5	0.13	2.84	2310
77866	137.5	139.1	1.6	101	2990	5730	4	0.08	2.53	1130
77867	139.1	140.7	1.6	95	3990	7530	4	0.04	1.6	308
77868	140.7	143.1	2.4	272	11000	13200	15	0.04	0.93	297
77869	143.1	145.3	2.2	120	4900	17200	10	0.06	0.88	397
77870	145.3	147.5	2.2	572	3040	12600	13	0.06	1.06	372
77871	147.5	149.3	1.8	812	3020	6380	4	0.15	1.13	329
77872	149.3	150.7	1.4	1440	3420	8270	4	0.19	1.15	333
77873	150.7	153.8	3.1	346	3870	11800	7	0.09	0.77	438
77874	153.8	155	1.2	157	2470	9880	4	0.09	1.33	872
77875	155	158	3	17	278	3870	<1	0.01	1.26	1730
77876	158	160.5	2.5	15	548	3450	<1	0.01	1.25	2490

<i>sample</i>	<i>from</i>	<i>to</i>	<i>interval</i>	<i>Cu</i>	<i>Pb</i>	<i>Zn</i>	<i>Ag</i>	<i>Au</i>	<i>Fe%</i>	<i>Mn</i>
77877	166	168.8	2.8	14	183	2140	<1	0	1.18	2470
77878	168.8	171.8	3	14	207	1330	<1	0	1	3040
77879	171.8	174.7	2.9	15	451	2560	<1	0	1.19	2710
77880	174.7	177.5	2.8	14	261	1430	<1	0	1.32	2300
77881	182.9	185.1	2.2	15	108	388	<1	0	0.97	1290

PASMINGO EXPLORATION DIAMOND DRILL HOLE LOG

Hole ID
BT4

DRILLING			OBJECTIVE							COLLAR SURVEY (AMG)			
Location	BROWNS TUNNEL		To test the northern down plunge position of a postulated cylindrical lens of mineralization intersected in EAF6 & BT2. RESULT High grade mineralization was intersected with a metre of the predicted position which gives credence to the model. The intersection is narrow but may represent clipping the top of a thicker lens.							AMG mN	5384685.0	Bearing	302.0
Project	BURNS PEAK									AMG mE	377821.8	Dip	-62.0
Prospect	BROWNS TUNNEL									mN		Hole Length	175.0
Design By	PMQ									mE		DH Survey Type	eastman single shot
Logged By	PMQ									RL	501.6		
Relogged										DOWNHOLE SURVEY (AMG)			
Commenced	13 May 1996									Depth	Bearing	Dip	
Completed	22 May 1996									0.0	-62.00	302.00	
Drilled By	East Coast Drilling									50.0	-59.00	298.00	
Drill Rig	LM38									100.0	-57.75	298.50	
SIGNIFICANT CORE LOSS			POOR GROUND CONDITION ZONES							150.0	-57.00	298.00	
HOLE SIZE			HOLE CONDITIONS AFTER COMPLETION										
From	To	Size	Collar		CAPPED								
0	29.8	HQ	Steel Casing		NIL								
29.8	175	NQ	PVC Casing										
			Ground Water										
			Wedge										
			Drill Pad									CLEARED AND SUMP FILLED IN	
SIGNIFICANT INTERSECTIONS													
From	To	Int	Cu	Pb	Zn	Ag	Au	Comments					
103	108.3	3.3	1060	3.1	4.7	51	0.53	Baritic					

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PASMINCO EXPLORATION
DIAMOND DRILL HOLE LOG

Hole No.

BT4

PROJECT:

Vertical Scale 1 : 150

Page 1 of 1

DESCRIPTION				GRAPHIC			STRUCTURES	
FROM	TO	LITHOLOGY	ALTERATION	MINERALISATION	Depth	Lith		Struct
0.00	3.30	UNASSIGNED. core missing.	highly oxidised			???		
3.30	14.80	RHYOLITE red, brecciated, weathered oxidised rhyolitic lava breccia.. CONTACT: gradational				10		BROKEN CORE
14.80	26.20	RHYOLITE pink, brecciated, feldspar phyric. Abundant 5 to 50mm angular blocky feldspar phyric lava clasts in massive feldspar phyric matrix.. CONTACT: faulted to LCR	moderately oxidised			20		JOINT

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PASMINCO EXPLORATION
DIAMOND DRILL HOLE LOG

Hole No.

BT4

PROJECT:

Vertical Scale 1 : 150

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DESCRIPTION				GRAPHIC			STRUCTURES	
FROM	TO	LITHOLOGY	ALTERATION	MINERALISATION	Depth	Lith		Struct
14.80	26.20	RHYOLITE pink, brecciated, feldspar phyric. Abundant 5 to 50mm angular blocky feldspar phyric lava clasts in massive feldspar phyric matrix.. CONTACT: faulted to LCR	moderately oxidised					
26.20	34.20	PUMICEDUS MASS FLOW buff, brecciated, feldspar phyric pumiceous. Abundant 5 to 50mm pumiceous clasts in feldspar phyric matrix. Similar composition and appearance to above interval but with distinct pumiceous texture.. CONTACT: faulted to LCR						JOINT
34.20	56.80	RHYOLITE grey, massive flow banded, feldspar phyric. Abundant 1mm white to pink feldspars, fine grained leucoxene and fine grained chlorite altered phenocrysts in pale grey massive vitric matrix. Flow banding occurs from 44 to 52m.. CONTACT: conformable abrupt						FAULT

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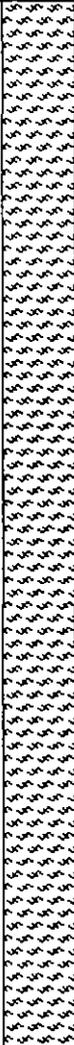
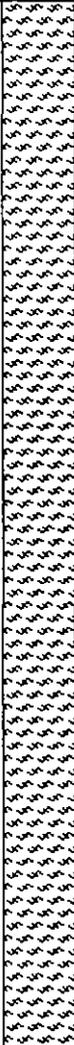
PASMINCO EXPLORATION
DIAMOND DRILL HOLE LOG

Hole No. **BT4**

PROJECT:

Vertical Scale 1 : 150

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DESCRIPTION				GRAPHIC			STRUCTURES	
FROM	TO	LITHOLOGY	ALTERATION	MINERALISATION	Depth	Lith		Struct
34.20	56.80	RHYOLITE grey, massive flow banded, feldspar phyric. Abundant 1mm white to pink feldspars, fine grained leucoxene and fine grained chlorite altered phenocrysts in pale grey massive vitric matrix. Flow banding occurs from 44 to 52m.. CONTACT: conformable abrupt				50		
56.80	85.50	RHYOLITE red black, brecciated flow banded, feldspar phyric. Abundant 5 to 100mm angular to ragged clasts of massive to flowbanded red (feldspar altered) to dark green (chloritic) felspar phyric lava in massive vitric lava of same composition.. CONTACT: gradational	slightly chloritised. red/green feldspar/ chlorite alteration.			60		

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PASMINCO EXPLORATION
DIAMOND DRILL HOLE LOG

Hole No.

BT4

PROJECT:

Vertical Scale 1 : 150

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DESCRIPTION				GRAPHIC			STRUCTURES	
FROM	TO	LITHOLOGY	ALTERATION	MINERALISATION	Depth	Lith		Struct
56.80	85.50	RHYOLITE red black, brecciated flow banded, feldspar phyric. Abundant 5 to 100mm angular to ragged clasts of massive to flowbanded red (feldspar altered) to dark green (chloritic) felspar phyric lava in massive vitric lava of same composition.. CONTACT: gradational	slightly chloritised. red/green feldspar/ chlorite alteration.					
					70			FAULT R65
					80			FAULT R20 pug
								FAULT

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PASMINCO EXPLORATION
DIAMOND DRILL HOLE LOG

Hole No.

BT4

PROJECT:

Vertical Scale 1 : 150

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DESCRIPTION				GRAPHIC			STRUCTURES	
FROM	TO	LITHOLOGY	ALTERATION	MINERALISATION	Depth	Lith		Struct
56.80	85.50	RHYOLITE red black, brecciated flow banded, feldspar phyruc. Abundant 5 to 100mm angular to ragged clasts of massive to flowbanded red (feldspar altered) to dark green (chloritic) felspar phyruc lava in massive vitric lava of same composition.. CONTACT: gradational	slightly chloritised. red/green feldspar/ chlorite alteration.					
85.50	95.20	RHYOLITE red black, brecciated flow banded, feldspar phyruc. Reworked lava breccia similar to above interval, with minor incorporated shale clasts.. CONTACT: conformable abrupt to LCA		DISSEMINATED trace pyrite disseminated. very fine grained pyrite. VEIN minor pyrite in veinlets minor sphalerite in veinlets, minor red brown coarse grained sphalerite aligned in cleavage in part, and in fine cream coloured carbonate veinlets perpendicular to cleavage. Trace chalcopyrite fringing dark sphalerite in cross cutting veinlets. VEIN minor sphalerite in veinlets trace galena in veinlets. crackle breccia in cherty silicified rock with network of fine red sphalerite, galen and chalcopyrite.	90			Fault R20
95.20	99.50	PUMICEOUS MASS FLOW yellow, pumiceous. Distinct zone of finely preserved 3mm pumice clasts, silica/sericite altered, feldspar phyruc and containing minor grey shale clasts.	moderately sericitised. pumice breccia. lithology controle on alteration.	MASSIVE 10% sphalerite massive 10% galena massive. massive dark grey fine grained sulphide with fine trains of galena in pseudomorphing foliation in part, and interstitial to 5mm sulphide domains in part. Minor ghost cherty breccia texture in part. Trace brown coarse grained sphalerite replacement in part.				FIRST CLEAVAGE R45
99.50	101.30	PUMICEOUS MASS FLOW white grey, pumiceous. Blebby silicified pumice with sericite and chlorite with minor cream carbonate veinlets, and minor mineralization.. CONTACT: conformable abrupt	moderately silicified. silicified pumice breccia.	VEIN minor sphalerite in veinlets minor galena in veinlets. crackle breccia in cherty silicified rock with network of fine sphalerite galena and chalcopyrite.	100			
101.30	105.10	CHERT pale grey, fine grained. Zone of cherty silicification, original textures not evident. Abundant fine crackle fractures, mineralized to massive sulphide in part. Typical host.. CONTACT: faulted to LCA	highly silicified. typical cherty silica alteration with mineralised fine fractures.	MASSIVE 10% pyrite massive. Semi-massive fine grained pyrite aligned in cleavage in chloritic/sericitic feldspar phyruc rock within fault zone.				

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PASMINCO EXPLORATION
DIAMOND DRILL HOLE LOG

Hole No.

BT4

PROJECT:

Vertical Scale 1 : 150

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DESCRIPTION			GRAPHIC					
FROM	TO	LITHOLOGY	ALTERATION	MINERALISATION	Depth	Lith	Struct	STRUCTURES
105.10	106.30	CHERT pale grey, fine grained. Zone of cherty silicification, original textures not evident. Abundant fine crackle fractures, mineralized to massive sulphide in part. Typical host.. CONTACT: faulted to LCA	highly silicified, typical cherty silica alteration with mineralised fine fractures.	MASSIVE 10% pyrite massive. Semi-massive fine grained pyrite aligned in cleavage in chloritic/sericitic feldspar phyrlic rock within fault zone.	110	a/z		FALT R40
106.30	110.40	ALTERATION ZONE brown. Altered mineralized and cleaved zone between two faults. Zone is broken but comprises three bands: cleaved pyrite/sericite/chlorite; massive cleaved pyrite; and pale brown/white massive sphalerite/barite mineralization.. CONTACT: faulted to LCA	moderately chloritised, moderately sericitised, pyritic	MASSIVE 10% sphalerite massive 10% barite massive. pale brown wispy sphalerite in massive granular white barite with trace fine disseminated chalcopyrite. Check gold. In cleaved zone between two faults.				FALT R45
110.40	112.40	BRECCIA dark grey, poorly sorted matrix supported, polymict. mass flow slump breccia with massive shale matrix and clasts predominantly composed of shale and fine grained sediments. Altered and mineralized.. CONTACT: faulted to LCA	moderately carbonatised, white carbonate spots from .1 to 2mm in fine grained pale grey carbonate rich matrix, note Mn staining.	DISSEMINATED abundant pyrite disseminated trace sphalerite disseminated. zone with abundant pyrite and minor sphalerite throughout as disseminations, partial clast replacement, and in veinlets and cleavage.	120	a/z		FALT R40
112.40	117.30	ALTERATION ZONE pale grey. zone comprises abundant fine white carbonate spots/grains in fine grained grey carbonate rich matrix. Rock weathers with Mn stain. Note minor 1 x 10mm bladed crystals pseudomorphs after gypsum?. CONTACT: faulted	slightly carbonatised, slightly silicified, minor silica/pyrite alteration with minor 3mm carbonate spots.	DISSEMINATED minor pyrite disseminated, very fine grained pyrite disseminated throughout.				
117.30	119.40	SHALE grey. irregular zone comprising shales with slump textures and nodular carbonate alteration in part.. CONTACT: conformable abrupt	moderately chloritised, slightly sericitised, slightly carbonatised	DISSEMINATED minor pyrite disseminated, minor semi-massive replacement spots, associated with nodular carbonate alteration and veining.				
119.40	121.90	BRECCIA dark grey, poorly sorted matrix supported. slump breccia texture with dark grey fine grained chloritic matrix and abundant monomict shale clasts.. CONTACT: conformable abrupt						
121.90	125.20	SHALE grey. irregular zone comprising shales with slump textures and minor feldspar phyrlic volcanic component.. CONTACT: conformable abrupt						FALT R20
125.20	135.70	CHERT pale grey. mineralized cherty silicification to fine grained sandstone.. CONTACT: faulted to LCA ANDESITE buff, massive, feldspar phyrlic hornblende phyrlic. massive fine grained matrix with abundant 1mm white feldspars and green hornblend phenocrysts. (NOTE: no peperitic texture). CONTACT: conformable abrupt to LCA		VEIN trace chalcopyrite in veinlets trace sphalerite in veinlets. minor fine irregular veinlets in silicified sediments, chalcopyrite with dark sphalerite cores.				FALT R60

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PASMINCO EXPLORATION
DIAMOND DRILL HOLE LOG

Hole No. **BT4**

PROJECT: Vertical Scale 1 : 150 Page of 1

DESCRIPTION				GRAPHIC			STRUCTURES	
FROM	TO	LITHOLOGY	ALTERATION	MINERALISATION	Depth	Lith		Struct
125.20	135.70	ANDESITE buff, massive, feldspar phyric hornblende phyric. massive fine grained matrix with abundant 1mm white feldspars and green hornblend phenocrysts. (NOTE: no peperitic texture). CONTACT: conformable abrupt to LCA				130		
135.70	136.90	BRECCIA dark grey, poorly sorted matrix supported. chloritic monomict shale slump breccia.. CONTACT: conformable abrupt						Fault A35 pug
136.90	137.20	PUMICEOUS MASS FLOW white. silicified and mineralized pumice breccia, ghost undeformed 5mm pumice clasts.. CONTACT: faulted						
137.20	139.70	FAULT ZONE (PUG) dark grey. zone comprising pug, breccia, quartz veining at low angle to LCA and slickenlines on plane of quartz vein.. CONTACT: faulted					fz	Fault A15 pug breccia
139.70	141.70	PUMICEOUS MASS FLOW MIXED WITH SHALE dark grey, pumiceous. CONTACT: conformable abrupt				140		
141.70	147.00	SHALE dark grey, massive bedded. massive to bedded fine grained sandstone to shale unaltered but with minor mineralized veinlets.						

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PASMINCO EXPLORATION

Hole No.

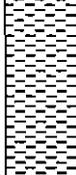
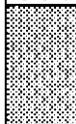
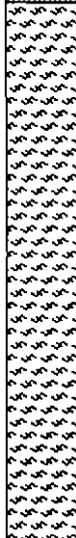
BT4

DIAMOND DRILL HOLE LOG

PROJECT:

Vertical Scale 1 : 150

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DESCRIPTION				GRAPHIC			STRUCTURES
FROM	TO	LITHOLOGY	ALTERATION	MINERALISATION	Depth	Lith	
147.00	148.50	RHYOLITE grey green, feldspar phytic. zone of reworked feldspar phytic volcanic detritus.. CONTACT: faulted to LCA		DISSEMINATED minor pyrite in veinlets trace sphalerite in veinlets. minor fine disseminated pyrite and minor coarse grained red sphalerite in fine irregular veinlets.	150		
148.50	152.90	SHALE dark grey, massive bedded. massive fine grained sandstone to shale unaltered but with minor mineralized veinlets.					
152.90	153.50	RHYOLITE yellow grey. reworked? feldspar phytic volcanic debris.. CONTACT: missing					
153.50	154.30	ALTERATION ZONE grey. Abundant to semi-massive cleaved pyrite in shale unit.. CONTACT: faulted				a/z	
154.30	154.90	RHYOLITE yellow. reworked volcanic debris.					
154.90	157.30	CHERT pale grey, massive. zone of mineralized cherty silicification. Typical host.. CONTACT: faulted to LCA	highly silicified, zone of mineralized cherty silicification, typical host.	VEIN minor sphalerite in veinlets trace chalcopryrite in veinlets. Minor coarse grained red sphalerite fringed by chalcopryrite in part, in crackle breccia in zone of cherty silicification.	160		Fault 160 breccia quartz
157.30	175.30	RHYOLITE buff pink, massive flow banded, feldspar phytic quartz phytic. Typical Pinnacles Rhyolite: feldspar and quartz phenocrysts in massive to flow banded lava. Minor leucoxene.					

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PASMINCO EXPLORATION

Hole No.

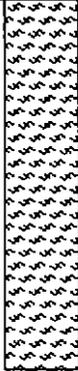
BT4

DIAMOND DRILL HOLE LOG

PROJECT:

Vertical Scale 1 : 150

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DESCRIPTION					GRAPHIC			STRUCTURES
FROM	TO	LITHOLOGY	ALTERATION	MINERALISATION	Depth	Lith	Struct	
157.30	175.30	RHYOLITE buff pink, massive flow banded, feldspar phytic quartz phytic. Typical Pinnacles Rhyolite: feldspar and quartz phenocrysts in massive to flow banded lava. Minor leucoxene.			170			
					180			

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BT4 ORE SUITE

<i>sample</i>	<i>from</i>	<i>to</i>	<i>interval</i>	<i>Cu</i>	<i>Pb</i>	<i>Zn</i>	<i>Ag</i>	<i>Au</i>	<i>Fe%</i>	<i>Mn</i>
77882	98	99.5	1.5	18	126	578	<1	0.01	1.35	2000
77883	99.5	101.4	1.9	507	4380	7500	4	0.03	1.33	958
77884	101.4	103	1.6	557	6830	17400	12	0.1	0.92	104
77885	103	104.3	1.3	1110	22100	37400	18	0.38	0.79	241
77886	104.3	104.6	0.3	4290	173000	230000	60	0.48	1.29	372
77887	104.6	105.1	0.5	847	12000	17900	17	0.37	0.99	260
77888	105.1	105.5	0.4	105	1070	2120	18	0.09	10.64	8910
77889	105.5	106.3	0.8	379	17700	34700	141	1.11	1.48	3510
77890	106.3	108.3	2	796	2190	8900	13	0.14	2.61	3180
77891	108.3	110.4	2.1	500	488	6220	18	0.05	1.14	9030
77892	110.4	112.9	2.5	98	280	9880	21	0.03	1.14	5290
77893	112.9	115.3	2.4	146	1230	4370	13	0.08	2.07	1540
77894	115.3	117.3	2	149	1010	5990	13	0.07	1.92	1930
77895	117.3	119.2	1.9	361	1530	4670	11	0.08	2.33	1970
77896	119.2	121.2	2	170	677	4930	11	0.15	1.66	5840
77897	121.2	123.2	2	567	935	6940	9	0.1	1.93	2020
77898	123.2	125.2	2	1620	1430	7870	17	0.09	2.25	617
77899	135.7	137.2	1.5	334	884	7270	14	0.06	1.75	512
77900	137.2	139.6	2.4	371	3010	14500	12	0.08	1.85	603
78501	139.6	141.9	2.3	240	1360	4380	5	0.04	2.12	1120
78502	141.9	144.3	2.4	253	1760	3500	6	0.05	2	841
78503	144.3	146.5	2.2	127	2420	6900	5	0.03	1.8	722
78504	146.5	148.6	2.1	34	328	1260	1	0.01	1.35	1480
78505	148.6	150.2	1.6	47	843	8560	2	0.02	1.57	1230
78506	150.2	153	2.8	104	1320	3670	3	0.03	1.87	890
78507	153	154.9	1.9	346	1890	12700	15	0.23	3.39	1920
78508	154.9	157.3	2.4	1360	5510	16800	19	0.11	2.02	420

PASMINGO EXPLORATION DIAMOND DRILL HOLE LOG

Hole ID
EAF6 EXT

DRILLING			OBJECTIVE					COLLAR SURVEY (AMG)									
Location	BROWNS TUNNEL		EAF6 was extended from 102.4m to test the continuation of mineralization intersected in EAF9 thought to be downhole of existing drill hole.					AMG mN	5384639.0	Bearing	281.0						
Project	BURNS PEAK							AMG mE	377745.0	Dip	-45.0						
Prospect	BROWNS TUNNEL							mN			Hole Length	197.0					
Design By	PMQ							mE			DH Survey Type	eastman single shot					
Logged By	PMQ							RL	482.0								
Relogged								RESULT					DOWNHOLE SURVEY (AMG)				
Commenced	30 March 1996							Low tenor mineralization was intersected in the andesite position.					Depth	Bearing	Dip		
Completed	3 April 1996												0.0	-45.00	281.00		
Drilled By	East Coast Drilling												51.0	-45.00	279.00		
Drill Rig	LM38												102.4	-45.00	276.00		
SIGNIFICANT CORE LOSS			POOR GROUND CONDITION ZONES					133.0	-45.75	279.50							
								163.0	-45.00	280.00							
								190.0	-43.50	281.00							
HOLE SIZE			HOLE CONDITIONS AFTER COMPLETION														
From	To	Size	Collar	CAPPED													
102.4	197	NQ	Steel Casing	YES													
			PVC Casing	NIL													
			Ground Water														
			Wedge	NIL													
			Drill Pad	CLEARED AND SUMP FILLED IN													
SIGNIFICANT INTERSECTIONS																	
From	To	Int	Cu	Pb	Zn	Ag	Au	Comments									
0	0	21.3			2.1%												

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PASMINGO EXPLORATION DIAMOND DRILL HOLE LOG

Hole ID
EAF6 EXT

PHYSICAL PROPERTIES / RECOVERIES

Depth	Rec %	Mag	SG	Formn	Lith	Depth	Rec %	Mag	SG	Formn	Lith
103.20	100	0.02		BTS	Lr	197.00	100	0.05		PR	Lr
105.90	100	0.04		BTS	Lr						
107.70	106	0.02		BTS	Lr						
110.20	96	0.02		BTS	Lr						
114.20	100	0.14		BTS	Lr						
116.00	100	0.01		BTS	Ln						
118.20	95	0.06		BTS	Ln						
121.20	100	0.03		BTS	Ln						
124.20	97	0.01		BTS	Ln						
127.20	100	0.03		BTS	Ln						
130.20	100	0.04		BTS	Ln						
133.20	100	0.06		BTS	Ln						
136.20	100	0.01		BTS	Ln						
139.20	100	0.03		BTS	Ln						
141.90	100	0.10		BTS	Ln						
145.00	100	0.13		BTS	Ln						
148.10	100	0.17		BTS	Ln						
151.20	97	0.08		BTS	Ln						
154.20	72	0.22		BTS	Ln						
157.20	100	0.26		BTS	Ln						
160.20	100	0.14		BTS	Ln						
163.20	100	0.11		BTS	Ln						
166.20	100	0.08		BTS	Ln						
169.20	100	0.15		BTS	Ln						
172.20	100	0.08		BTS	Ln						
175.20	100	0.10		BTS	Ln						
178.20	100	0.09		BTS	Ln						
181.20	100	0.12		BTS	sst						
184.20	100	0.10		BTS	sh						
187.20	100	0.08		BTS	Ln						
189.20	100	0.05		PR	Lr						
192.20	100	0.06		PR	Lr						
195.30	100	0.09		PR	Lr						

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PASMINCO EXPLORATION
DIAMOND DRILL HOLE LOG

Hole No.

ERF6

PROJECT:

Vertical Scale 1 : 150

Page 1 of 1

DESCRIPTION					GRAPHIC			STRUCTURES
FROM	TO	LITHOLOGY	ALTERATION	MINERALISATION	Depth	Lith	Struct	
0.00	14.50	BRECCIA. poorly sorted coarse grained breccia comprising rhyolitic lava and grey shale clasts.						
14.50	20.00	SANDSTONE. irregular pumiceous clastic, possibly mass flow incorporating shale clasts, possibly part of a upwards fining mass flow.						
20.00	39.00	SANDSTONE. volcanoclastic sandstone rhyolite derived with minor shale pumice and pyrite clasts.						

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PASMINCO EXPLORATION

Hole No.

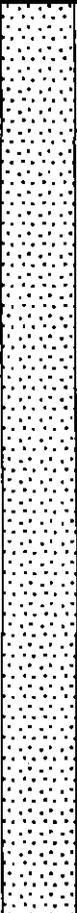
EA66

DIAMOND DRILL HOLE LOG

PROJECT:

Vertical Scale 1 : 150

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DESCRIPTION				GRAPHIC			STRUCTURES	
FROM	TO	LITHOLOGY	ALTERATION	MINERALISATION	Depth	Lith		Struct
20.00	39.00	SANDSTONE. volcanoclastic sandstone rhyolite derived with minor shale pumice and pyrite clasts.						
39.00	41.60	PUMICEDUS MASS FLOW. pumiceous sandstone with abundant 3mm shale clasts.						
41.60	44.80	CHERT. tan-grey massive to laminated cherty siltstone.						

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PASMINCO EXPLORATION

DIAMOND DRILL HOLE LDG

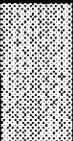
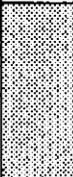
Hole No.

ERF6

PROJECT:

Vertical Scale 1 : 150

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DESCRIPTION					GRAPHIC			
FROM	TO	LITHOLOGY	ALTERATION	MINERALISATION	Depth	Lith	Struct	STRUCTURES
41.60	44.80	CHERT. tan-grey massive to laminated cherty siltstone.						
44.80	46.30	BRECCIA. polymict breccia comprising predominantly chert clasts with pumice clasts and sphalerite clasts.						
46.30	48.10	CHERT. grey massive to laminated cherty siltstone.						
48.10	48.90	BRECCIA. cherty breccia						
48.90	53.60	BRECCIA. breccia cherty siltstone.			50			
53.60	57.00	BRECCIA. cherty breccia						
57.00	59.40	MASSIVE SULPHIDE. in cherty siltstone				m/s		
59.40	74.50	CHERT. massive to brecciated cherty siltstone.			60			

328189

PASMINCO EXPLORATION

DIAMOND DRILL HOLE LOG

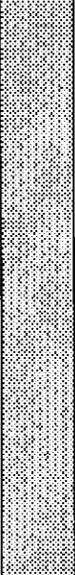
Hole No.

EA66

PROJECT:

Vertical Scale 1 : 150

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DESCRIPTION					GRAPHIC			
FROM	TO	LITHOLOGY	ALTERATION	MINERALISATION	Depth	Lith	Struct	STRUCTURES
59.40	74.50	CHERT. massive to brecciated cherty siltstone.			70			
74.50	84.20	BRECCIA. lava breccia.			80			

328190

PASMINCO EXPLORATION

Hole No.

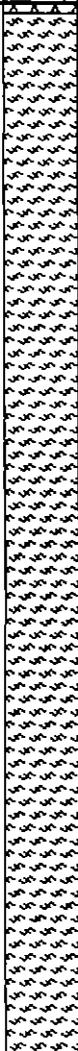
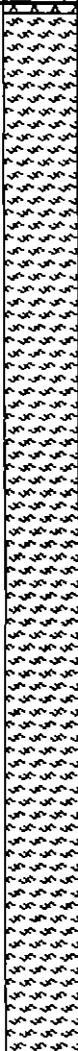
EA66

DIAMOND DRILL HOLE LOG

PROJECT:

Vertical Scale 1 : 150

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DESCRIPTION			GRAPHIC			STRUCTURES		
FROM	TO	LITHOLOGY	ALTERATION	MINERALISATION	Depth		Lith	Struct
84.20	102.40	BRECCIA. lava breccia. RHYOLITE. quartz phyric rhyolite lava, sill? of Pinnacles Rhyolite.			90			
102.40	115.30	RHYOLITE buff, massive, quartz phyric feldspar phyric. massive in part but with autobrecciation in part with flow banded clasts.. CONTACT: conformable abrupt	moderately sericitised, slightly silicified		100			

328191

PASMINCO EXPLORATION

DIAMOND DRILL HOLE LOG

Hole No.

EAFG

PROJECT:

Vertical Scale 1 : 150

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DESCRIPTION					GRAPHIC			STRUCTURES
FROM	TO	LITHOLOGY	ALTERATION	MINERALISATION	Depth	Lith	Struct	
102.40	115.30	RHYOLITE buff, massive, quartz phyric feldspar phyric. massive in part but with autobrecciation in part with flow banded clasts.. CONTACT: conformable abrupt	moderately sericitised, slightly silicified					
					110			BROKEN CORE
			highly carbonatised, massive fine grained straw coloured manganese carbonate alteration. (Could this be the altered fringe of the rhyolite that is replaced by massive sphalerite? elsewhere.)					PRIMARY FABRIC A45
115.30	128.60	ANDESITE MIXED WITH CHERT blue grey, peperitic. cherty shale comprises 60% of rock, and is finely laminated in part. The andesite is chlorite/sericite/pyrite altered and displays classical peperite textures.. CONTACT: gradational	moderately silicified, moderately sericitised. intense cherty alteration in fine grained sediment part, and waxy green sericite alteration in lava part of peperite.					PRIMARY FABRIC A50
				STRINGER abundant sphalerite as stringers minor chalcocopyrite as stringers. coarse grained red-brown sphalerite and chalcocopyrite possibly replacing fine grained gun-metal grey galena/sphalerite nucleating in fine fractures in the cherty altered fine grained sediment part of peperite.	120			
				STRINGER minor sphalerite as stringers minor pyrite disseminated. similar occurrence to above interval, but less abundant. Minor band of spotty fine grained semi-massive pyrite apparently replacement of sphalerite.				FAULT A70 pug

328192

PRSMINCO EXPLORATION

Hole No.

EA66

DIAMOND DRILL HOLE LOG

PROJECT:

Vertical Scale 1 : 150

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		DESCRIPTION			GRAPHIC			
FROM	TO	LITHOLOGY	ALTERATION	MINERALISATION	Depth	Lith	Struct	STRUCTURES
115.30	128.60	ANDESITE MIXED WITH CHERT blue grey, peperitic. cherty shale comprises 60% of rock, and is finely laminated in part. The andesite is chlorite/sericite/pyrite altered and displays classical peperite textures.. CONTACT: gradational	moderately silicified, moderately sericitised. intense cherty alteration in fine grained sediment part, and waxy green sericite alteration in lava part of peperite.	STRANGER minor sphalerite as stringers minor pyrite disseminated. similar occurrence to above interval, but less abundant. Minor band of spotty fine grained semi-massive pyrite apparently replacement of sphalerite.				
128.60	140.90	ANDESITE MIXED WITH CHERT buff grey, peperitic. Cream massive carbonate sericite altered andesite comprises 80% of rock with blue grey cherty mineralized silica occurring as irregular veins and breccia fill. The andesite contains common quartz grains, possibly silica filled vesicles, abundant sericite altered feldspars and possibly hornblends, and abundant fine grained sericite-sphalerite-leucoxene, and frequent pseudo-clasts of less altered andesite.. CONTACT: conformable abrupt	moderately carbonatised, moderately silicified, slightly sericitised. blue grey cherty alteration in irregular veins or fracture infill between fragmented straw coloured manganese carbonate altered volcanics	STRANGER abundant sphalerite as stringers minor galena as stringers. coarse grained red brown sphalerite apparently replaced fine grained gunmetal grey fine sulphides nucleated on fractures in silicified sediment part of peperite.	130			
140.90	152.40	ANDESITE MIXED WITH CHERT buff, hyaloclastitic. Textures are more like hyaloclastite with preferential silica alteration of finer fraction, and mineralized silica infilling. Andesite is sericite altered.. CONTACT: conformable abrupt	moderately silicified, moderately sericitised, slightly carbonatised. blue grey cherty alteration in sediment part and waxy green sericite alteration in fragmented volcanic part of peperite.	STRANGER minor sphalerite as stringers minor galena as stringers. coarse grained red brown sphalerite and coarse grained galena interstitial to fragmental volcanics.	140			

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PASMINCO EXPLORATION

DIAMOND DRILL HOLE LOG

Hole No.

EAFF6

PROJECT:

Vertical Scale 1 : 150

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DESCRIPTION				GRAPHIC			STRUCTURES
FROM	TO	LITHOLOGY	ALTERATION	MINERALISATION	Depth	Lith	
140.90	152.40	ANDESITE MIXED WITH CHERT buff, hyaloclastitic. Textures are more like hyaloclastite with preferential silica alteration of finer fraction, and mineralized silica infilling. Andesite is sericite altered.. CONTACT: conformable abrupt	moderately chloritised, slightly sericitised, slightly silicified. dark green chlorite appears to have replaced sericite.	STAINER minor sphalerite as stringers minor galena as stringers. coarse grained red brown sphalerite and coarse grained galena interstitial to fragmental volcanics.	150		
152.40	162.50	ANDESITE pale pink, massive. Massive silicified volcanic, feldspar and hornblende phytic, with abundant leucoxene. Lithogeochemical and petrological samples taken.. CONTACT: faulted	highly silicified. massive pink fine grained siliceous alteration.		160		
			moderately chloritised, moderately silicified. patchy dark green chlorite alteration overprinting? massive fine grained pink silicification?	VEIN very minor sphalerite on fractures very minor galena on fractures			
162.50	169.20	ANDESITE dark green, hyaloclastitic. highly altered fragmental mafic to intermediate volcanic.. CONTACT: gradational	moderately carbonatised. moderately chloritised. dark green chlorite appears to be replacing manganese carbonate alteration.				--- FAULT #40 breccia FIRST CLEAVAGE #40

328104

**PASMINCO EXPLORATION
DIAMOND DRILL HOLE LOG**

Hole No.

ERF6

PROJECT:

Vertical Scale 1 : 150

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		DESCRIPTION	GRAPHIC					
FROM	TO	LITHOLOGY	ALTERATION	MINERALISATION	Depth	Lith	Struct	STRUCTURES
162.50	169.20	ANDESITE dark green, hyaloclastitic, highly altered fragmental mafic to intermediate volcanic.. CONTACT: gradational	moderately carbonatised, moderately chlorinised, dark green chlorite appears to be replacing manganese carbonate alteration.		170			
169.20	170.00	ANDESITE pale green, fine grained, massive, vesicles. Start of vesicular andesite fine grained fucsitic peperitic distinct correlatable.						
170.00	172.30	ANDESITE MIXED WITH CHERT, perlitic. Irregular mix of volcanic with distinct perlitic fracture, pumiceous volcanic and cherty altered shale to sandstone.. CONTACT: faulted						
172.30	173.90	ANDESITE pale green, fine grained, massive perlitic, vesicles. Distinct vesicular texture in part, also minor vesicles overprinted by perlitic fracture.. CONTACT: gradational	slightly silicified, slightly carbonatised, minor silicification in fine grained sediments and minor patchy carbonate emanation from fine fractures.					BEDDING A60 younging downhole
173.90	174.40	SANDSTONE, coarse grained, upwards fining sequence, polymict. Graded (downhole) from 2 to 5mm poorly sorted angular basal zone to fine grained siltstone.. CONTACT: gradational						
174.40	178.50	ANDESITE, perlitic, pumiceous vesicles. Zone of irregular fragmented vesicular andesite, pumiceous and perlitic component indicates interaction at periphery of flow, classic peperite margin at top 30cms.. CONTACT: gradational						
178.50	179.00	SANDSTONE grey, bedded, polymict. CONTACT: gradational	moderately fuchsitic, slightly silicified, slightly carbonatised, abundant fuchsite in andesite fragments, cherty silicification of fine grained sediments, and manganese carbonate altered volcanic fragments.	CLAST very minor pyrite massive, sparse 2 to 5mm spots of very fine grained massive pyrite in reworked volcanics in part, and associated with saccharoidal calcite in part.	180			BEDDING A60
179.00	180.20	BRECCIA grey, upwards fining sequence poorly sorted, polymict. Zone with coarse 2 to 50mm chert and shale clasts grading downhole.. CONTACT: gradational						BEDDING A65
180.20	181.40	SANDSTONE MIXED WITH ANDESITE, peperitic. Zone with sparse ragged andesite fragments in irregular sandstone.. CONTACT: faulted						BEDDING A60
181.40	182.30	SANDSTONE grey, massive. note coalescing blebby silica grains?. CONTACT: gradational	slightly silicified, siliceous margin to Pinnacles Rhyolite.	VEIN trace sphalerite on fractures, trace coarse grained red sphalerite associated with calcite.				
182.30	185.00	SHALE black, massive. with increasing peperitic andesite component downhole.. CONTACT: pp						
185.00	188.30	ANDESITE MIXED WITH SHALE pale green, peperitic, vesicles. distinct fuchsitic vesicular andesite, massive in part and peperitic in part.. CONTACT: conformable abrupt						
188.30	197.00	RHYOLITE pink, massive, quartz phyric feldspar phyric. Typical Pinnacles Rhyolite.						

328195

PASMINCO EXPLORATION

DIAMOND DRILL HOLE LOG

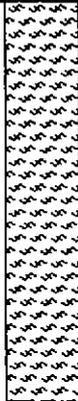
Hole No.

EA66

PROJECT:

Vertical Scale 1 : 150

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DESCRIPTION				GRAPHIC			STRUCTURES
FROM	TO	LITHOLOGY	ALTERATION	MINERALISATION	Depth	Lith	
188.30	197.00	RHYOLITE pink, massive, quartz phyric feldspar phyric. Typical Pinnacles Rhyolite.	slightly silicified. siliceous margin to Pinnacles Rhyolite.		190		
					200		

328196

EAF6 ORE SUITE

<i>sample</i>	<i>from</i>	<i>to</i>	<i>interval</i>	<i>Cu</i>	<i>Pb</i>	<i>Zn</i>	<i>Ag</i>	<i>Au</i>	<i>Mn</i>	<i>Ba</i>
77728	115.4	117.1	1.7	21	382	1104	2	0.01	570	1196
77729	117.1	120	2.9	2810	1560	51600	13	0.104	907	1004
77730	120	122.6	2.6	370	1537	14500	9	0.146	346	1225
77731	122.6	124.2	1.6	1568	1291	4328	11	0.215	181	1481
77732	124.2	125.8	1.6	1635	3310	11600	31	0.683	305	1309
77733	125.8	128.7	2.9	3392	3157	13900	19	0.212	1228	3649
77734	128.7	131.4	2.7	528	1070	9800	5	0.057	709	1599
77735	131.4	134.5	3.1	862	676	9400	5	0.055	811	2579
77736	134.5	136.5	2	233	1166	41000	5	0.078	611	2645
77737	136.5	138.4	1.9	192	809	30100	3	0.092	504	3237
77738	138.4	140.9	2.5	529	304	6800	2	0.02	1755	3563
77739	140.9	142.9	2	22	351	1299	1	0.015	7100	1515
77740	142.9	144.4	1.5	42	1458	3583	1	0.031	17300	1837
77741	144.4	146	1.6	283	801	9400	2	0.26	7400	2275
77742	146	149	3	60	187	783	<1	0.027	9700	1897
77743	149	150.8	1.8	775	146	10100	3	0.07	4046	2066
77744	150.8	152.5	1.7	3704	654	44400	18	0.466	3548	2390
77745	152.5	154.4	1.9	670	62	4542	1	0.069	7100	1880
77746	154.4	155.5	1.1	255	29	263	<1	<0.008	3627	1171
77747	155.5	157.6	2.1	224	100	1682	<1	0.035	14100	1122
77748	162.5	164.1	1.6	720	133	262	3	<0.008	3043	1046
77749	170.6	172.3	1.7	8	116	568	<1	<0.008	1750	1188
77750	180.1	182.2	2.1	26	139	946	3	0.034	1492	2018
77751	185	187.1	2.1	37	244	1287	2	0.057	943	1628

BPD84 Assays

sample	from	to	Cu	Pb	Zn	Mn	Fe%	Ag	As	Au	Ba	Rb	Sr	V	Nb	Y	Zr	Al2O3	SiO2	TiO2	Fe2O3	MnO	CaO	K2O	MgO	B2O5	SO3	Na2O
39823	31.00	32.00	22	43	739	1919	7.6	-1		-0.008																		
39824	32.00	33.00	35	24	416	1246	6.12	-1		-0.008																		
41498	32.00	32.10									799	30	331	178	10	33	211	20.7	48.7	0.95	11.49	0.26	0.82	0.91	5.18	0.37	-0.01	3.94
39825	33.00	34.00	24	21	181	825	4.41	-1		-0.008																		
39826	34.00	35.00	47	31	130	704	4.8	-1		-0.008																		
39827	35.00	36.00	75	83	131	714	5.2	-1		-0.008																		
39828	36.00	37.00	76	174	154	719	5.52	-1		-0.008																		
39829	37.00	38.00	58	153	149	604	4.04	-1		-0.008																		
39830	38.00	39.00	30	210	404	779	2.44	-1		-0.008																		
39831	39.00	40.00	31	646	404	530	3.59	2																				
39832	40.00	41.00	34	173	2891	758	2.78	1																				
39833	41.00	42.00	20	98	253	710	2.89	1																				
39834	42.00	43.00	12	126	747	1740	3.33	2																				
39835	43.00	44.00	10	160	989	865	2.74	1																				
39836	44.00	45.00	9	88	369	641	2.33	-1		-0.008																		
39837	45.00	46.00	12	160	277	744	2.95	-1		-0.008																		
39838	46.00	47.00	13	155	309	628	1.83	-1																				
39839	47.00	48.00	17	264	714	748	2.66	-1																				
39840	48.00	50.00	12	108	422	900	1.78	-1																				
39841	50.00	52.00	13	120	358	1288	1.68	-1																				
39842	52.00	54.00	12	90	284	783	1.81	-1																				
39843	54.00	56.00	10	226	959	515	1.73	-1																				
41401	55.00	55.20									1388	222	11	6	18	43	244	14.2	72.9	0.26	2.62	0.05	0.12	4.58	1.73	0.02	0.7	-0.05
39844	56.00	58.00	11	50	230	852	1.89	-1																				
39845	58.00	59.10	11	43	241	993	2.04	-1																				
39846	67.00	68.00	12	14	173	1222	2.1	-1		-0.008																		
39847	68.00	69.00	23	20	335	981	1.98	-1		-0.008																		
39848	69.00	70.00	25	23	411	3802	6.59	-1																				
39849	70.00	71.00	81	58	477	4325	8.93	-1																				
39850	71.00	72.00	294	73	308	3828	7.52	-1																				
39851	72.00	73.00	998	20	326	3939	5.61	-1																				
39852	85.00	87.00	10	-3	109	1210	1.7	-1																				
39853	87.00	89.00	9	10	100	1071	1.42	-1																				
41403	94.80	95.10									595	179	252	11	13	37	211	13.1	72.5	0.23	2.2	0.14	1.88	3.19	0.79	0.02	0.94	2.08
39854	98.00	99.00	6	27	88	924	1.64	-1																				
39855	99.00	100.00	13	47	420	1019	2.36	-1																				
39856	100.00	101.00	7	41	159	1056	1.9	-1																				
39857	101.00	102.00	11	378	2038	576	1.43	-1																				
39858	102.00	103.00	9	279	961	352	0.96	-1																				
39859	103.00	104.00	8	91	472	391	1.05	-1																				
39860	104.00	105.00	9	157	905	497	1.15	1																				

328198

sample	from	to	Cu	Pb	Zn	Mn	Fe%	Ag	As	Au	Ba	Rb	Sr	V	Nb	Y	Zr	Al2O3	SiO2	TiO2	Fe2O3	MnO	CaO	K2O	MgO	P2O5	SO3	Na2O
39861	105.00	106.00	8	158	1767	274	1.17	1																				
39862	106.00	107.00	6	141	686	496	1.11	-1																				
41404	107.40	107.70									2776	113	129	14	13	28	222	12.5	75.3	0.29	1.55	0.04	0.33	5.26	0.27	0.04	1.03	2.95
39863	115.00	116.00	6	122	673	503	1.27	-1																				
39864	116.00	117.00	22	290	1010	484	1.44	-1		-0.008																		
39865	117.00	118.00	73	154	1025	326	1.25	2		-0.008																		
39866	118.00	119.00	17	256	1036	336	1.19	-1		-0.008																		
39867	119.00	120.00	13	183	817	396	1.43	-1		-0.008																		
41405	119.90	120.10									1545	89	72	14	13	24	190	10.9	77.3	0.25	2.04	0.04	0.78	3.73	0.31	0.02	1.99	1.8
39868	120.00	121.00	25	334	291	672	1.41	-1		-0.008																		
39869	121.00	122.00	22	634	946	410	1.44	-1		-0.008																		
39870	122.00	123.00	220	855	1519	972	1.51	-1																				
39871	123.00	124.00	177	460	2792	2156	1.37	4																				
39872	124.00	125.00	189	758	6800	978	1.24	3																				
39895	133.00	134.00	8	24	171	1179	1.5	-1																				
39896	134.00	135.00	8	30	148	725	1.38	-1																				
39897	140.00	141.70	14	473	695	955	1.62	-1																				
39898	141.70	142.80	214	2918	4145	1110	1.31	-1		0.046																		
39899	143.20	144.20	42	1928	4541	1250	9.2	6		0.036																		
39900	144.20	145.20	11	42	125	1197	2.52	-1		-0.008																		
40901	145.20	146.20	18	58	103	1516	4.99	-1		-0.008																		
40902	146.20	147.20	24	621	832	781	4.14	2		-0.008																		
40903	147.20	148.20	18	303	401	1028	3.9	3		-0.008																		
40904	155.60	156.90	9	152	521	700	1.95	-1		-0.008																		
41435	166.10	167.10	9	7	93	1952	3.22	-1	30	-0.008																		
41436	167.10	168.10	10	103	596	1422	2.64	-1	16	0.011																		
40905	168.00	168.50	3749	6500	7000	340	16.1	36		2.81																		
40906	168.50	169.00	1758	10600	20000	588	7.19	20		1.014																		
40907	169.00	171.00	39	229	278	420	1.35	-1		0.059																		
40908	171.00	173.00	21	346	751	500	1.31	-1		0.045																		
40909	173.00	175.00	46	476	3607	727	1.51	-1		0.04																		
75101	175.00	177.00	14	346	720	1602	1.71			-0.008																		
75102	177.00	179.00	12	231	391	1215	1.49			-0.008																		
40910	179.00	180.00	99	714	6400	203	1.06	7		0.945																		
40911	180.00	181.00	24	2319	1739	311	1.05	4		0.638																		
40912	181.00	182.00	47	586	1259	942	1.57	2		0.202																		
75103	182.00	184.00	8	33	88	1334	1.91			-0.008																		
75104	184.00	186.00	8	21	98	1243	1.59			-0.008																		
41406	190.10	190.30									812	133	185	25	15	39	259	14.7	66.9	0.39	2.34	0.22	2.53	2.74	2.06	0.06	0.11	4.05
75105	198.00	200.00	74	30	213	3105	5.13			-0.008																		
75106	200.00	202.00	5	29	82	1524	1.87			-0.008																		
41407	207.60	207.80									638	168	61	312	5	19	110	17.2	50.1	0.85	12.12	0.45	2.57	3.22	5.29	0.32	1.24	-0.05
75107	211.00	213.00	16	85	158	277	0.94			0.049																		
75108	213.00	215.00	15	74	337	547	1.3			-0.008																		

328199

sample	from	to	Cu	Pb	Zn	Mn	Fe%	Ag	As	Au	Ba	Rb	Sr	V	Nb	Y	Zr	Al2O3	SiO2	TiO2	Fe2O3	MnO	CaO	K2O	MgO	P2O5	SO3	Na2O
40913	215.00	216.00	82	194	965	378	1.05	2		0.034																		
40914	216.00	217.00	803	273	12800	183	1.84	2		0.253																		
40915	217.00	218.00	453	204	2412	149	1.23	1		0.091																		
40916	218.00	219.00	153	179	259	314	1.04	-1		0.104																		
75109	219.00	221.00	7	37	116	634	1.42			-0.008																		
75110	221.00	223.00	6	10	74	552	1.17			-0.008																		
75111	223.00	225.00	2	12	96	783	1.51			-0.008																		
75112	225.00	227.00	3	14	97	540	1.05			-0.008																		
75113	227.00	229.00	4	15	86	661	1.47			-0.008																		
75114	229.00	231.00	4	22	228	575	1.21			0.018																		
75115	245.00	247.00	6	26	63	536	0.92			-0.008																		
75116	247.00	249.00	9	62	380	450	1.07			-0.008																		
75117	249.00	251.00	6	70	288	541	1.34			-0.008																		
75118	251.00	253.00	5	89	379	690	1.41			-0.008																		
75119	253.00	255.00	6	99	430	749		-1		-0.008																		
75120	255.00	257.00	8	54	164	873		-1		-0.008																		
75121	257.00	258.00	6	29	96	905		-1		-0.008																		
75122	258.00	260.00	10	147	121	509		-1		0.015																		
40923	258.30	258.90	13100	129	240	1462	2.18	4		-0.008																		
41408	260.10	260.30									2555	170	85	-5	12	27	159	10.5	78.9	0.17	0.92	0.01	0.12	7.71	0.18	0.01	0.98	0.14
40917	260.50	262.50	11	87	130	102	0.73	-1		-0.008																		
75123	262.50	264.50	7	99	154	540		-1		0.011																		
75124	264.50	266.50	7	54	99	173		-1		0.013																		
75125	266.50	268.50	9	31	94	155		-1		0.028																		
75126	268.50	270.50	8	22	41	73		-1		0.019																		
36494	270.00	272.00	9	22	45	134	0.87	-1		0.05																		
36495	272.00	274.00	8	189	387	503	1.08	-1		-0.008																		
36496	274.00	276.00	6	201	585	606	1.36	-1		-0.008																		
36497	279.00	281.00	7	135	114	343	1.22	-1		0.023																		
75127	281.00	283.00	16	62	51	206	0.8	-1		0.079																		
75128	283.00	285.00	34	25	27	198	0.8	-1		0.085																		
41409	283.95	284.15									2561	191	79	9	9	26	172	10.4	78.4	0.19	1.12	0.01	0.18	8.56	0.11	0.01	1.12	0.35
40918	285.00	287.00	8	23	32	316	0.75	-1																				
40919	287.00	289.00	16	27	40	313	0.79	0.5		0.018																		
75129	289.00	291.00	6	23	32	347	1.1	-1		0.016																		
36498	291.00	293.00	3	14	53	679	1.28	-1		-0.008																		
36499	293.00	295.00	4	10	49	612	1.34	-1		-0.008																		
40920	324.90	326.00	14	24	69	983	2.01	-1																				
40921	342.90	343.90	47	601	878	1523	4.64	2		-0.008																		
40922	343.90	344.90	24	76	1875	427	1.53	1																				
75130	353.00	355.00	33	31	249	2633		-1		0.013																		
75131	355.00	357.00	31	38	225	3172		-1		-0.008																		

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PAMINCO EXPLORATION DIAMOND DRILL LOG

328202

HOLE No. BPD87

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m	VEINING and ALTERATION (1 = weak, 4 = intense)	STRUCTURE b = bedding c = cleavage f = fault Angles to LCA	GRAPHIC LOG LOG mud 0.5 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50	LITHOLOGY	MINERALISATION
0				0-6m <u>FERRUGINOUS RUBBLE</u> No core.	
7-7.5m	VUGGY QUARTZ VEIN			6-18.3 <u>SILTSTONE</u> Well bedded and laminated, pale grey siltstone; minor sandstone. Cm scale or thicker beds. No visible quartz or muscovite.	
10		10m FOLDING Refolded isoclinal fold; F2 parallel to LCA; chevron;		Common folding, including refolded isoclinal fold.	
11-11.2m	VUGGY QUARTZ VEIN			Minor fault at lower contact.	
13m		13m FOLDING Hinge @ 5° LCA			
15-15.2m	VUGGY QUARTZ VEIN				
18-6-18.7m	VUGGY QUARTZ VEIN	15m Sa 5° LCA		18.3-23.2 <u>QUARTZ-LITHIC SST</u> Coarse sandstone; weakly bedded; shaly lithic clasts; increasing feldspar and lithic rich to base. Pyritic where unweathered; common folding throughout.	21.6-21.9 1% pyrite dissemin.
20		21.8m FOLDING		23.2-28.0 <u>SILTSTONE</u> Grey-bm, vitric, fine grained siltstone; weakly bedded, minor crystal sst; common folding;	22.4-23.0 1% pyrite dissemin. 1 nodules in sst.
25.0m		Sa 45° LCA S1 40° LCA Sa/S1 ~ 90°		28.0-31.2 <u>QUARTZ-LITHIC SST</u> As above; pale grey where fresh; moderately bedded; lithic rich; quartz and feld. abs;	
28.3m		Sa 5° LCA		31.2-40.5 <u>QUARTZ SANDSTONE</u> Medium grained qtz sst with minor lb. siltstone; bedded and laminated; slight cleavage; pale horizons more feldspar-rich; minor muscovite. Pyrite in clay bandings, lenses and disseminated.	31.2-35.6 2-4% pyrite dissemin. on fractures and as nodules;
30		31.0-31.2 FAULT Rug. Rubble, Feony.		40.5-48.8 <u>SILTSTONE</u> Grey-bm, vitric, fine grained siltstone; massive to weakly bedded, rare interbeds of crystal sandstone; pale cloudy appearance; common microfaults.	37.6-40.8 1% pyrite as nodules
32.0m		Sa 50° LCA			
34.0m		Sa 35° LCA			
38.0m		Sa 40° LCA S1 45° LCA			
40		41.0m Sa 0° LCA		48.8-54.3 <u>MID GREY SANDSTONE</u> Bedded and laminated mid grey sst; feldspathic where coarse; mod clay;	41.7-41.9 1% py on above
48.5m		Sa 55° LCA			48.4-48.5 carb-qtz vein + py-sph-crud
48.8m	FAULT with vein, 20° LCA				48.8-48.8 qtz vein + sph-crud
30					

Project: HOLLOWAY

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PASMINGO EXPLORATION DIAMOND DRILL LOG

328203
HOLE No. BPD87

m	VEINING and ALTERATION (1 = weak, 4 = intense)	STRUCTURE b = bedding c = cleavage f = fault Angles to LCA	GRAPHIC LOG 10 5 2 1 0 1 2 5 10 FINE	LITHOLOGY	MINERALISATION
50		50.5m So 90° LCA S. 30° LCA		48.8-54.3 MID GREY SANDSTONE	48.8-54.3m 1% py as nodules
		50.8m FOLDING So 0° LCA		54.3-65.2 SILTSTONE Green-grey, fine grained, vitric siltstone; rare crystal sandstone horizons; slightly siliceous, almost cherty in part; calcareous. Minor intercalated felsic/intermediate lava, with qtz+feldspar crystals.	
		51.0m FOLDING So 5° LCA			
60		60.0m So 70° LCA			
		64.3m So 35° LCA		65.2-66.6 FELSIC LAVA Feldspar phytic, quartz phytic, mid grey-green; massive; evenly phenocrystic. Faulted lower contact.	63.6-63.7m mar silica bx with tr chalc. 65.5-68.5m tr diss sphal, assoc with Lc; 69.3-74.6m fine pyrite veinlets
		66.4-66.6m FAULT Ruggy, mar vng;			
70	70-71.2m Mar bleaching assoc. with pyrite vng;	71.7-72.4 BRECCIA Qtz-pink calcite bx zone; early calcite fractured by qtz; assoc. with bleaching		66.6-95.2 INTERMEDIATE LAVA Feldspar phytic, no quartz pheno; commonly aphyric; mid-dk green, massive; rare glassy/vitric zones; vesicular in part; occasional quench breccia texture; with shardy appearance. Common carbonate veining and carbonate filled vesicles; Holloway Andesite.	with pyrite as selvage; up to 3% py;
	74.6m Pnk-erm zone, hematitic in part; pyrite network;	75.1-75.9m FAULT 5-10° LCA; puggy, mar hematite;			
80		79.6-80.0m VEIN Fractured calcite veining, 25° LCA			
		85.3-87.4m Qtz-chl-fuch? veinlets;			
		87.5 VEIN Qtz-chlorite 20° LCA			
90		88.3-88.6m Qtz-carb-chl vein, some bx		95.2-99.8 SILTSTONE GRADING TO SANDSTONE Pale grey vitric siltstone, grading down hole to qtz, feldspar, lithic sandstone. Faulted lower contact.	95.2-97.9m tr py in sst as nodules and disseminated;
100					

Project: HOLLWAY

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PASMINGO EXPLORATION DIAMOND DRILL LOG

HOLE No. BPD87

m	VEINING and ALTERATION (1 = weak, 4 = intense)	STRUCTURE b = bedding c = cleavage f = fault Angles to LCA	GRAPHIC LOG 0.05 max 0.5 2 8 32 max (mm)	LITHOLOGY	MINERALISATION
100				99.8-103.5 INTERMEDIATE LAVA Massive, mid green, feld-phyric lava; mar qtz veining.	
	104.5 FAULT pug, 60° LCA			103.5-107.1 INTERBEDDED SANDSTONE AND SILTSTONE	102.5-103.6m
	105m S, 45° LCA			Mid. grey qtz-musc. sandstone, mod pyritic; dark grey siltstone with weak cleavage; abrupt contacts; minor calcite veining throughout. Weakly faulted low contact.	Fine pyrite vlets, dissem py in halo; sil. alt'n of wallrock; py ↑ downhole;
	107m S ₀ 65° LCA				
110				107.1-125.5 INTERMEDIATE LAVA	103.5m
	111.7-112.5m VEIN Calcite- chl- qtz bx;			Massive mid green to pink lava; variably feldspar phyric, increasing downhole; local hydrostatic breccia texture; feldspars pale pink in colour; abundant pink carbonate-qtz-chl veining and brecciation;	Tr sph. in calcite vein;
				low pink colour is due to local carbonate/albite alteration;	
120				lower contact strongly brecciated, laminated calcite veining;	
	124.0-125.5m Mar spotted bleaching;			125.5-134.8 INTERBEDDED SST AND SILTSTONE	124-125.5
				Interbedded mid grey qtz-musc. sst and dark grey siltstone; moderately bedded, no grading, contacts com faulted; local carbonate veining and brecciation;	Tr sph, tr py; disseminated;
130				134.8-136.5 INTERMEDIATE LAVA	
	133.2 FAULT Pug, tr pyrite;			Mid gm aphyric, vesicular lava; carbonate veining and vesic. fill;	
	134.4m S ₀ 55° LCA			136.5-160.6 INTERBEDDED SANDSTONE AND SILTSTONE	
				Interbedded mid grey quartz-musc-lithic sandstone, and fine grained dark grey siltstone. Lithics of grey shaly material; common internal lamination, rare cross bedding; minor erosional contacts; minor nodular pyrite and pyrite lenses.	
140				minor carbonate veining.	
	143.0m S ₀ 80° LCA				
	146.0m S ₀ 75° LCA				
150					

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PASMINCO EXPLORATION DIAMOND DRILL LOG

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m	VEINING and ALTERATION (1 = weak, 4 = intense)	STRUCTURE b = bedding c = cleavage f = fault Angles to LCA	GRAPHIC LOG S N E W M max min	LITHOLOGY	MINERALISATION
150		152.0m \searrow 75° LCA		160.6-165.9 <u>PUMICE BRECCIA</u> Sericite green, feld-rich, pseudo-clastic txt; wispy pumice texture; intense and varied alteration - early ser-py-silica, overprinted by chl; pyrite nodules replace cleaved ser clots; chl uncleaved; feldspar typically carbonate altered; chng wraps feldspars;	
160	160.6-165.9m ser-py with patchy chl overpr; 164.0-164.1m pale grey sil alt'n; ming assoc, sharp fronts, overprints ser, chl; 165.3-165.7m pale grey, silica-chl clots;	160.0m \searrow 35° LCA		165.9-169.9 <u>ALTIN AND MINZ ZONE</u> Grades from overlying pumice bx; Pale grey-green rock, common post-feldspar phenos; intense silica alt'n overprints ser/chl; preserved chl clots assoc. with ming; irregular chlorite wisps; preserved ser zones unminged; sphalerite intergrown with chlorite and as rare veinlets;	160.6m 2cm vein of py at contact; 160.6m-165.9m small py lenses; 163.9-164.3m diss sphal assoc with chlorite preserved in grey silica alt'n; 165.3-165.7m tr diss sphal;
170	165.9-169.9m silicification, pale grey, overpr ser/chl; assoc with carbonate and sphal ming;	173.1-173.2m mnr qtz sealed breccia;		169.9-184.3 <u>VARIABLELY ALTERED FEL-SICS</u> Feldspar porphyritic unit of lava or volcanoclastic; similarly phytic to above unit, but feldspars pale pink; change in feld colour corresponds to reduction in alt'n and ming; clastic pseudoclastic txt of round silica/py clasts - vitric appearance; no included feldspars; mn ser wisps; less carbonate altered than above unit; pseudo bx in part;	165.9-169.9m sph + py as chl-ser replacement + veining; pak-bm;
180	184.3-188.8m calcite hematite veins; late fractures	180.0m small sericitic shear zone; 25° LCA; 180.4m FAULT puggy, mnr bx		184.3-188.8 <u>BASALT DYKE</u> Dark green aphyric, vesicular basalt dyke; bleached contacts, chl-hemat alt'n of wallrock; common calcite veins; hematite dusting;	172.5-174.0m mnr dk bm sphal assoc. with qtz vng; 169.9-184.3m tr-1% pyrite dissem. 179.6m mnr chalcopyrite.
190	193.3-193.7 sericite veining/alteration; 193.5-195.9m hem-chl alt'n, assoc. with basalt pervasive; 197.3-200.2m hem-chl as above			188.8-193.5 <u>LAVA/LAVA BRECCIA</u> Variably altered, minor flow banding; cream-pale pink, felsic; slightly hemat-sil alt; ghosts of feldspars; chl altered by basalt; 193.5-195.9 <u>LITHIC BRECCIA</u> Pink-grey, rounded lava fragments, minor flow banding, sandy matrix, matrix chlorite-silica altered;	189.8-191.1m tr chalc assoc. with qtz vng; 188.9-193.5m tr py, dissem and in veinlets; 191.3-191.4 mnr sphal-py;
200				195.7-197.3 <u>BASALT DYKE</u> As above	

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PASMINGO EXPLORATION DIAMOND DRILL LOG

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HOLE No. BPD87

m	VEINING and ALTERATION (1 = weak, 4 = Intense)	STRUCTURE b = bedding c = cleavage f = fault Angles to LCA	GRAPHIC LOG 0.06 mud 0.5 2 3 3 max thin	LITHOLOGY	MINERALISATION
200				197.3-206.7 RHYOLITE LAVA BRECCIA	200.0m
	202.3-204.3m mod to strong ser, mar grey sil; predates hematite;			Cream, pink, green, flow banded, feld- phyric rhyolite lava; fragmented, angular clasts; mod ser altn in part; minor qtz-calcite veining; sil-hema-chl altered by bas. dyke;	tr gry sphal;
	204.9-205.1m	206.2m FAULT mar		206.7-207.7 BASALT DYKE	201.8-201.9m
	int. sil, mar hematite;	207.7m FAULT crush, bx;		As above; faulted contacts;	tr gry sphal; 202.7-202.9m tr gry sphal, assoc with wk sil-hema;
210	207.7-210.2m mod as above			207.7-222.7 RHYOLITE LAVA BRECCIA	207.7-222.7
	212.6-215.6m mod ser altn, fracture control;			Variable pink, cream, green, variably altered; mis-orientated flow banded clasts, rhyolitic; feldspar-phyric; clasts commonly perlitic; clasts typically 1-3cm size, in siliceous matrix; pale pink lava progressively altered down hole to sericite, including sericite veining; selective alteration of perlitic fractures; lower contact faulted;	tr pyrite
	217.7-222.7m mod-strong ser altn, fracture controlled;				
220		222.7-222.9m FAULT		222.7-228.4 ALTERED ZONE	222.7-228.4m
				Strong-intense ser:sil:pyrite altn, possibly over lava bx as above; in part fracture/vein controlled, grading to msv sericite; pyrite as veinlets and dissemination; rare preserved per-lite txt; cross cutting qtz-carbonate veining; minor grey siliceous alteration;	tr pyrite dimen and vein; trace gal/sphal;
		225.3-225.6m. FAULT puggy, veined;			
		228.4-229.3m FAULT, pug, mbic, contact;		228.4-229.3 FAULT ZONE	228.4-228.5m mar dk brn sphal;
230		229.5m FAULT puggy; S; 20°		229.3-235.5 MASSIVE CARBONATE	229.3-235.4
	233.5-235.4m msv carbonate- silica altn; carbonate clvd, silica post carb;	230.1m S, 30° LCA		Rubblly zone of iron-rich carbonate, cleaved and bx in part, local intense silicification assoc. with fracturing; faulted margins;	tr gadena, py;
	233.4-233.9m ser + sil + py, mod	229.9-230.9m Breccia of carb, silica;		233.5-235.4 ALTERED ZONE	
				Sericite-siliceous altn, mod pyrite. Minor carbonate as above; no volc. txt visible; core of zone more sil rich, margins sericitic; common siliceous veinlets;	
240	233.9-234.8m sil-py-vein qtz;	233.9-234.1m FAULT, sericite.		235.4-241.5 BASALT DYKE	
	234.8-235.4m ser-sil-chl vng	242.9-244.9 VEINS - sericite.		Dark green, mod. vesic., slightly hematitic; included 'granitic' clots.	
	241.5-242.9m hema-chl altn;			241.5-253.8 RHYOLITE LAVA/ LAVA BRECCIA	
	242.9-244.5m ser-sil-py:chl; ± hema;			Variably pink and green, feld-phyric in part, indistinct upper contact; rare pumiceous txt; tr pyrite.	
250					

PASMINCO EXPLORATION DIAMOND DRILL LOG

m	VEINING and ALTERATION (1 = weak, 4 = intense)	STRUCTURE b = bedding c = cleavage f = fault Angles to LCA	GRAPHIC LOG		LITHOLOGY	MINERALISATION
			LOG	UNIT		
250	244.5-250.6m hema-sil + late chl overprint; irreg and in veins, calcite assoc. with carb; basalt assoc.;	253.5m FAULT contact, 10° LCA, puggy;			241.5-253.8 RHYOLITE LAVA/BRECCIA Faulted lwr contact	252.4m tr sph-chal in qtz vein;
	250.6-255.8m ser-sil, tr py, txt still visible; slight fract contd;				253.8-267.9 BASALT DYKE Dark green, vesicular, aphyric basalt dyke; inclusions of qtz-feldspar-chlorite masses with granite appearance.	
260	267.9-269.5m mod hematite, mnr ser, carb, chl;					
	269.5-276.3m mod ser-sil-py, overprints basalt alt'n;	269.5 FAULT mnr, qtz vng;			267.9-276.3 RHYOLITE LAVA BRECCIA Variable pink-gn, mod sil-ser alt, perlitic, feld-phyric, cmn bx txt; ser alt'n pervasive and in veins; ser appears to post-date contact alt'n of basalt dyke; small included basalt dyke;	
	273.5-273.8m minor frach alt'n;	272.7 FAULT puggy, carb vng, 45° LCA.				
	277.1-277.3m mod ser;	272.9 FAULT puggy, carb vng;			276.3-277.1 PORPHYRITIC INTRUSIVE chl gm unit, low mag size; qtz + post-feld phyric, richly phyric; dacite appearance, altered margins;	277.1-291.4 Trace pyrite
280	289.0-291.4m wk ser, bleaching; mnr sil-py	273.5-273.8m BRECCIA, polymict clasts, some chld; qtz/calcite vein clasts;			277.1-291.4 RHYOLITE LAVA BRECCIA Pink to green feldspar phyric to feldspar poor; typically breccia/clastic appearance; occasional flow banding, controlling alteration; hematitic in part, minor local chlorite alteration; weak sericite alteration from 289m, predominantly fracture controlled - detexturing; cream detexturing alteration increases to base, with mnr pyrite veining; minor qtz-chl-carb vng throughout.	
	290-291.4m mod ser + py + cmn mineral (?); Felds intact;	276.0 FAULT mnr, pug				289-291.4m Tr sphal;
	291.8-298.1m mod ser-sil; ser overprinted by sil; perlitic control;	277.1m FAULT mnr, pug;			291.4-291.8 FAULT, pug;	290.5-292.5m 1% py as veinlets;
290	297.4-298.4m unusual cm vng, prob. feldspar; late wrt above;	291.8-291.8 FAULT, pug;			291.8-291.8 FAULT, puggy	293.6-293.8m tr diss py;
		292.2 FAULT pug;			291.8-294.8 ALTERED FELSIC LAVA Breccia/pseudo brecciated pink-sericite green; local perlitic fractures control alteration; minor flow banding; alt'n txt of ser vngs included in later silium, fracture controlled;	297.2-298.1m 1% diss + vnglet py
		293.0 FAULT pug, 40° LCA				

PASMINCO EXPLORATION DIAMOND DRILL LOG

m	VEINING and ALTERATION (1 = weak, 4 = intense)	STRUCTURE b = bedding c = cleavage f = fault Angles to LCA	GRAPHIC LOG 3 2 1 0 1 2 3	LITHOLOGY	MINERALISATION
300	300.0-300.4m mod ser-py over Vpm;			294.8-299.3 ALTERED ZONE Green-grey ser-silica-pyrite zone, fracture controlled; early sericite alt'n overprinted by sil-py; alt silica replaces out from fractures; feldspar replaced by am mineral, ser grass; minor perlite tat;	300-301.1 m 2% py dissem.
	301.1-304.2m sil-py, mid gry silica with dusty py; flow banding or perlite contd;	304.0-304.2m FAULT 20° LCA		299.3-301.1 FINE GRAINED SEDIMENT Mid gry-bm vitric sediment, grades down hole to peperite; bedded in part, some coarse beds;	301.1-304.2m 3% py dissem.
	304.2-304.8 ser alt'n with later mid gry silica-pyrite as above; fracture controlled;			301.1-304.2 RHYOLITE LAVA BRECCIA Felsic lava, cm-grn clasts in matrix, in part peperitic; angular shardly clasts, slightly perlitic in part; matrix alteration enhanced; clast sericitic, matrix siliceous; minor brown weathering carbonate;	304.2-304.8 m 3% py, assoc with silicification, vms, dissem;
310	304.8-305.3m pk pink bleaching;			304.2-306.9 RHYOLITE LAVA Msv felsic lava, feld phyc, no signif. bx, cm elongated pyrite;	304.8-305.3m 1% py with silc;
	305.3-306.9m wk ser-sil-py; py in fractures;			306.7-307.8 FAULT ZONE Rubble/pyg fault zone, with wallrock clasts.	307.8-310.7 m 1% py assoc with gry silica; vein dissem;
320	307.8-311.4m gry sil-py alt'n; fract control + replacement; py diss in silica;			307.8-311.4 RHYOLITE LAVA Low-brecciated, but process not clear; perlitic, slight ser alt'n.	312.1-320.9m 1% py, dissem, assoc. with gry silica;
	312.1-312.5m wk ser with mod sil-py overprint;	328.8-329.0m Calcite-silica BRECCIA; tr-py		311.4-312.1 BASALT DYKE Dark green vesicular dyke; qtz vng;	320.9-324.2m tr py assoc. with silica;
330	312.5-316.5m: sil-hema-alb, pink alt'n of matrix + felds; ser pseudoclasts pres.			312.1-320.9 RHYOLITE LAVA/BRECCIA Pale pink-gr; bx text in part; typically massive; feldspar-phyc, slightly flow banded; variably altered, mixed pink-gr; sil-hematite-alb alt'n of matrix and feldspars; sequence of ser -> sil-alb-hem -> fract. chl -> pyrite-silica;	
	316.5-319.4m mod ser, fract controlled sil-py;			320.9-324.2 PUMICE BRECCIA Wispy textured volcanoclastic, possible pumice breccia; abundant feldspars, typically fractured; ser/chl pseudoclasts in pale grey matrix; irregular silica nodules; minor late ser-chl vng;	
	319.4-320.9 unusual pale gm ser, assoc. with pink felds. cmn fract pyrite;			324.2-324.6 BASALT DYKE 324.6-326.7 ALTERED ZONE Hematite/chl zone adjacent to dyke.	340.7-341.4m 2% py assoc. with shear zone;
340	326.7-342.2m mixed chl-sil alt'n mod ser, tr py.	340.7-341.4m SHEAR ZONE, chd, 35° LCA, mod py, sl. ser, sl. hematitic; 343.5-344.9m SHEAR ZONE, S, 20° LCA		326.7-342.2 FELDSPAR-RICH VOLCANICLASTIC	342-343.5m tr pyrite
350					

Project: HOLLWAY

Logged by: M. SAXON

Date: 8/12/95

PASMINCO EXPLORATION DIAMOND DRILL LOG

HOLE No. BPD 87

Page 8 of 8

m	VEINING and ALTERATION (1 = weak, 4 = intense)	STRUCTURE b = bedding c = cleavage f = fault Angles to LCA	GRAPHIC LOG											LITHOLOGY	MINERALISATION		
			10	9	8	7	6	5	4	3	2	1	0				
350		346.3 FAULT calc-chl vng, 20° LCA	v													326.7-342.2 FELDSPAR-RICH VOLCANICLASTIC	
			v													Green and grey, variably altered volcaniclastic; fractured to rounded feldspars; slight wipgy texture; common alteration - irregular dk green chlorite hosts feldspars and wallrock clasts; - grey silica (chlorite?), featureless grey alt'n predates chlorite, pre- <i>in-situ</i> felds;	357.5-373.8m trace pyrite;
360	362.3-365.1m mod. silicification slight detext; felds preserved, carbonate altered;															342.2-343.5 ALTERED ZONE Hematite/chl zone adjacent to dyke.	
																343.5-345.5 SHEAR ZONE Chl-hematite altered shear zone; clng control on alteration; some concentrically zoned sil-chl-py spotting; stony base alt'n at base;	
																345.5-346.8 BASALT DYKE Dark green, carbonate vesicles	
370	370.3-378.5m sil-hema alt'n, felds carbonate altered;	373.3m VEINING sil-carb-py														346.8-357.5 BASALT DYKE PLUS ALTERED ZONE Mixed zone of basalt and chlorite-hematite alteration.	
	← EOH															357.5-373.8 PUMICE-LITHIC VOLCANICLASTIC Richly feldspar phytic, coarse felds to 2mm; slight wipgy to bedded texture, common rounded lithic fragments - typically mid grey siliceous fragment, about which wipgy fabric wraps; feldspars commonly enveloped or replaced by silica; pale - mid gm when unaltered, grading to bleached pale gm-cm; alt'n predominantly silicification, detexturing, feldspar preserved; 3mm fracture controlled sil/sic zone;	
																373.8-375.4 (EOH) BASALT DYKE Hematite about contact. Feldspar phytic.	

BPD87 Assays

sample	from	to	Cu	Pb	Zn	Mn	Fe%	Ag	Au
75695	18	20	32	639	106	180	2.5	1	0.01
75696	20	22	24	128	100	490	2.61	-1	0.012
75697	22	24	36	697	345	243	2.45	1	0.014
75698	28	30	28	140	429	392	2.88	-1	0.018
75699	30	32	37	427	423	475	2.9	1	0.021
75700	32	34	53	476	1404	273	3.23	1	0.015
75705	34	36	43	678	1931	349	2.41	1	0.019
75706	36	38	32	299	958	499	2.39	1	-0.008
75707	41	42	21	91	1024	519	2.66	1	0.017
75708	48.2	48.8	962	639	1151	2654	4.1	10	0.018
75709	48.8	50.8	72	850	1651	962	3.7	2	0.019
75710	50.8	52.8	88	749	1200	870	3.22	3	0.015
75711	52.8	54.8	45	863	1485	743	3.26	2	0.02
75712	69	71	47	89	194	3318	7.73	1	0.008
75713	71	73	22	33	99	7900	11.82	-1	0.019
75714	73	75	7	3	88	3389	6.21	-1	0.012
75715	102	103	18	6	345	1200	5.49	-1	0.013
75716	103	104	58	194	594	1056	7.1	1	0.02
75717	139	141	27	25	106	1136	4.24	1	0.022
75718	141	143	16	37	140	766	3.13	-1	-0.008
75719	143	145	32	116	431	1356	4.43	1	0.011
75720	156.5	158.5	26	23	88	2135	4.54	-1	0.018
75721	158.5	160.5	28	55	120	2029	4.1	-1	0.016
75722	160.5	160.9	54	393	867	787	5.44	2	0.022
75723	160.9	162.9	13	70	93	718	2.12	1	0.019
75724	162.9	164.9	15	287	648	688	2.39	1	0.008
75725	164.9	165.9	13	590	659	795	2.59	1	0.013
75726	165.9	166.9	11	1014	3209	897	2.34	1	-0.008
75727	166.9	167.9	7	1045	2690	815	1.75	1	0.009
75728	167.9	168.9	8	930	3260	871	2.1	1	0.016
75729	168.9	169.9	6	540	1604	758	1.91	-1	0.011
75730	169.9	170.9	8	1488	2602	964	1.85	1	0.01

328210

<i>sample</i>	<i>from</i>	<i>to</i>	<i>Cu</i>	<i>Pb</i>	<i>Zn</i>	<i>Mn</i>	<i>Fe%</i>	<i>Ag</i>	<i>Au</i>
75731	170.9	171.9	23	1430	1773	563	2.47	-1	0.018
75732	171.9	173.9	28	170	2279	439	2.21	-1	0.01
75733	173.9	175.9	14	31	239	688	2.53	-1	0.012
75734	188.9	190.9	58	50	228	691	1.84	-1	0.012
75735	190.9	192.9	116	82	169	583	1.69	-1	0.023
75736	192.9	194.9	23	31	86	680	1.53	-1	0.019
75737	218	220	6	10	103	698	1.26	-1	0.015
75738	220	222	5	14	58	774	1.31	-1	0.014
75901	226.4	228.4	6	85	206	1412	2.15	-1	-0.008
75902	228.4	230.4	9	572	2167	8700	7.33	-1	0.016
75903	230.4	232.4	4	131	496	9000	8.53	-1	0.015
75904	232.4	233.4	3	135	347	9500	8.41	-1	0.012
75905	233.4	235.4	9	140	290	2550	2.98	-1	0.009
75906	289.5	291.5	5	33	127	899	1.77	-1	-0.008
75907	291.5	293.5	7	18	89	1452	1.83	-1	-0.008
75908	293.5	295.5	6	23	111	2119	2.35	-1	-0.008
75909	295.5	297.5	4	20	119	1633	2.41	-1	0.008
75910	297.5	299.5	6	19	111	1204	2.13	-1	-0.008
75911	299.5	301.5	14	43	126	1340	2.46	-1	0.013
75912	301.5	303.5	7	25	111	1428	2.06	-1	0.009
75913	303.5	305.5	3	18	90	1815	2.22	-1	-0.008
75914	340.5	341.5	6	34	84	1330	2.01	-1	-0.008
75915	343.5	345	9	22	55	365	1.29	-1	-0.008
75916	362	364	3	-3	25	1159	0.89	-1	-0.008
75917	364	366	2	5	34	764	1.05	-1	-0.008
75918	370	372	2	-3	16	1035	0.66	-1	0.008
75919	372	373.6	264	5	20	1300	0.76	-1	0.008

328211

APPENDIX 6

Petrographic Sample Locations and Descriptions

17 May Browns Tunnel Petrology

sample		DDH	depth	suite	comments
77901	PS PTS	EAf9	168.2	min	massive high grade ore: white fg granular SP1 replaced by fg SP2 grey with chalcopyrite. to determin the relationship paragenesis of 2 sphalerites and chalcopyrite
77902	PS PTS	EAf9	171.5	min	banded massive ore: SP1 peripheral to contact with pyritic peperitic andesite. to compare the sphalerite in the high grade zone with other occurences. to compare white and grey sphalerite note what is the gold associated with.
77903	PTS	EAf9	162.5	min	late ragged siderite vein in siliceous alteration. to compare the timing of alteration, mineralization in siliceous zone with siderite vein.
77904	PTS	EAf9	181.1	min	Peperitic andesite: pyrite 4 (P4) with chalcopyrite chlorite note Mn staining. to establish the relationship and timing of the chlorite wrt the pyrite and chalcopyrite.
77905	PTS	EAf9	182.6	min	Peperitic andesite: pyrite 4 (P4) with chalcopyrite, black chlorite, note Mn staining. to establish paragenesis and timing of chlorite alteration, py and cp.
77906	PTS	EAf9	194	min	deformed SP1 in stockwork type veining in peperitic andesite. to determin the relationship between brown sp1 and cleavage.
77907	PS PTS	BT2	30.9	min	massive ore: porphyroblastic SP1 (red) in massive grey SP2 + galena. to compare cg brown and fg grey sphalerite wrt timing, gold component .
77908	PS PTS	BT2	30.3	min	massive ore: mica rims radiating around SP1 porphyroblasts. compare and contrast sp1 sp2 ser gl etc
77909	PTS	BT2	36.7	min/lit	stockwork vein SP2 set in silicified altered volcanics? check lithology for andesite A1. establish paragenesis of silicification, grey sp, brown sp gl cp, and structural site of min.
77910	PTS	BT2	35.2	min/lit	stockwork cross cutting vein sets in silicified volcanic? establish paragenesis of silicification, grey sp, brown sp gl cp, and structural site of min.
77911	PTS	BT2	41	min/lit	stockwork veining in cherty sediments P1 + P2 + SP1 establish paragenesis of silicification, grey sp, brown sp gl cp, and structural site of min.
77912	PS PTS	EAf9	171	min	massive ore: SP1 being replaced by SP2 along fine fractures. this should establish wether white or grey sp is first. Also where is the gold?
77913	TS	BT4	49.6	lith	massive rhyolite/dacite (R1) footwall unit, massive part of rhyolite breccia. to characterise R1 footwall rhyolite lava.
77914	TS	EAf6	108.7	lith	quartz phyric rhyolite east of peperitic andesite (R2). to characterise R2 qtzphyric rhyolite (pinnacles sill)
77915	TS	EAf6	117	alt/lith	Peperitic andesite (A2) with cherty sediments, note orange alteration (early)? to characterise peperitic andesite A2 and identify distinct and possibly early orange alteration.

sample	DDH	depth	suite	comments
77916	TS EAF6	120.1	alt/lith	Peperitic andesite (A2) with waxy grey/green sericite alteration. to characterise peperitic andesite A2 silicified chert, and waxy sericite alteration.
77917	TS EAF6	121.2	alt/lith	Peperitic andesite (A2) with waxy grey/green sericite alteration. to characterise peperitic andesite A2 silicified chert, and waxy sericite alteration.
77918	TS EAF6	138	alt/lith	Peperitic andesite (A2) with SP1 + SP2 and waxey green sericite selvege to min passing out i to establish paragenesis in vein of sericite sp1 and sp2, and early orange alteration.
77919	TS EAF6	146.3	alt/lith	Peperitic andesite chlorite alteration, possibly close to major alteration change. identify alteration change
77920	TS EAF6	153.6	lith	massive andesite from central portion of peperitic andesite unit, relatively unaltered (type). to characterise relatively unaltred massive andesite.
77921	TS EAF6	186	lith	Fuchsitic andesite (A4) note layering. Close to Pinnacles Rhyolite contact. to characterise A4 fuchsitic vesicular basalt
77922	TS BT3	170.3	lith	pumice breccia lithology type relatively undeformed cg pumice breccia.. to characterise hangingwall pumice breccia Vpm2
77923	TS EAF6	196.8	lith	Pinncales Rhyolite lithology type. to characterise hangingwall pinnacles rhyolite.
77924	TS BT2	116.2	lith	Perlitic andesite type (A3) - between peperitic and fuchsitic andesites, correlate with massive to characterise perlitic andesite.
77925	TS BT2	87.5	lith	Andesite type (A1) immediatly east of peperitic andesite. to characterise massive andesite.
77926	TS BT3	24.8	lith/alt	possible mass flow of volcanic debris note sericite,min? barite? to determin lithology and mineralogy, of distinct rock

polished thin section No: 77901
DDH EAF9 depth: 168.2m

Hand specimen:

massive high grade white fine grained granular sphalerite partially replaced by galena and chalcopyrite.

Minerals present

Sphalerite, quartz, Galena, Chalcopyrite, Pyrite, Muscovite,

Fabrics

Textures

White skeletal intergrowths of sphalerite and quartz possibly sp replacing qtz.
Sphalerite twinned in part and with growth zonation picked out in brown?

Vein Types / Morphology

Alteration / Mineral Paragenesis

Possible protolith

polished thin section No: 77902

DDH EAF9 depth: 171.5m

Hand specimen:

massive high grade banded ore near peperitic andesite contact, white sphalerite.

Minerals present

Sphalerite, Galena, Chalcopyrite, Pyrite, Pyrrhotite (tr),
Muscovite, quartz (50% euhedral doubly terminating)

Deformation Fabrics

nil

Textures

anhedral intergrowths of galena & sphalerite, galena interconnecting networks in sphalerite, fracture controlled and ameboidal, intergrown with large euhedral pyrite and euhedral doubly terminating quartz grains. Sphalerite is riddled with very fine grained chalcopyrite rendering sphalerite opaque, lamella twinning in sphalerite is controlling chalcopyrite replacement. Pyrite is late overgrowing chalcopyrite everywhere as intergrowths with galena & sphalerite. Chalcopyrite shows a preference for galena rich patches. Rare sprays of muscovite crystals occur in galena.

Vein Types / Morphology

nil

Alteration / Mineral Paragenesis

Quartz euhedra (euhedral quartz inside sphalerite in part) and zoned euhedral sphalerite followed by chalcopyrite & galena, followed by muscovite then pyrite.

Possible protolith

No evidence remaining

Main conclusions

Sphalerite is open space filling at least in part, and is undeformed therefore is post deformation. No evidence of annealing textures and recrystallization such as triple point junctions therefore post metamorphic.

polished thin section No: 77907
DDH BT2 depth: 30.9m

Minerals present

Sphalerite, Galena, Chalcopyrite, Pyrite, Muscovite, quartz,

Fabrics

Nil

Textures

Large zoned (red to yellowish) and twinned sphalerite crystals (up to 0.5 cm) rimmed by muscovite spindles which tend to radiate inwards. In many cases the sphalerite crystals are surrounded and partially replaced by an opaque halo (which under high magnification is resolvable as chalcopyrite disease and possibly galena disease). Locally the chalcopyrite disease is clearly controlled by lamellar twinning in the sphalerite. Further out from this halo is coarser grained galena and chalcopyrite. There seems little doubt that the opaqueness is the first stage in the replacement of the sphalerite by galena and chalcopyrite. Pyrite is associated with muscovite and the sphalerite rich portions are relatively deficient in pyrite.

Vein Types / Morphology

Nil

Alteration / Mineral Paragenesis

Sphalerite is followed by chalcopyrite and galena which are followed by muscovite then pyrite.

Possible protolith

Unknown

polished thin section No: 77909

DDH BT2 depth: 36.7m

Minerals present

Qtz, Sp, Gal, Cpy, Py, carbonate (tr), musc (minor)

Deformation Fabrics

nil

Textures

Host rock: Fine grained interlocking quartz (not triple junction and unrecrystallized). Possibly minor carbonate cement. Minor fine grained disseminated pyrite (anhedral). Small masses of very fine grained white mica could possibly represent pumice fragments. Straight trails of solid and fluid inclusions occur in the siliceous portions. These cross-cut each other and all other features in the rock.

Mineralization: Sphalerite occurs as large translucent grains exhibiting good polysynthetic twinning. Abundant opaque material occurs as rims and following twinning and fractures within the sphalerite. Under high magnification this is resolvable as exceedingly fine grained chalcopyrite disease possibly with associated galena and other opaque phases. Relatively coarse grained galens occurs in quartz segregations, and veins exhibiting good evidence of replacement of quartz in the form of amaebooidal like protruberances and inclusion of portions of optically continuous quartz grains.

Vein Types / Morphology

Quartz veins common with minor muscovite + sphalerite + galena + chalcopyrite + pyrite. Irregular in geometry and stockwork like.

Alteration / Mineral Paragenesis

Early chertlike silicification of host rock.

Quartz & sphalerite (in veins) then galena & chalcopyrite alteration of the quartz and sphalerite then pyrite.

Possible protolith

Early altered pumice breccia

Main conclusions:

sphalerite is open space filling at least in part.

polished thin section No: 77916
DDH EAF6

Minerals present

Rock 1

quartz, fine grained ragged muscovite flakes throughout, feldspar? and small opaques, possibly inclusions of pyrite,

Rock 2

dominated by sericite, quartz and feldspar, with coarse grained feldspar altering to white mica. Note skeletal pyrite.

Deformation Fabrics

Rock 2 is cut by a pervasive fabric, all white micas are alligned, the pyrite has small pressure fringes of white mica, as have coarse grained quartz crystals. There are signs of recrystallization of quartz, with triple point junctions, elongation of quartz grains into fabric. Some pyrite is recrystallized after the fabric (ie., no pyrite is included in pressure fringes).

Rock 1: muscovite flakes are locally oriented but are in the most part random. They are of varying sizes and shapes possibly detrital in origin.

THE FABRIC IS TECTONIC as pressure fringes around pyrite grains are parallel to this fabric, as is the dissolution of quartz.

Textures

Rock 2: The development of fabric has obscured any original features disagggregated quartz masses may have been clasts. There are funny zones of fine grained white mica and fine grained abundant pyrite, are these clasts?

Vein Types / Morphology

Rock 1 is cut by irregular stockwork veinlets of fibrous quartz which locally have fringes of sphalerite which post date the quartz vein. In both Rocks 1 & 2 coarse grained quartz, muscovite and sphalerite veins occur locally with coarse grained muscovite selvages. In the veins the sphalerite is both translucent with opaque fringes.

Alteration / Mineral Paragenesis

Early sericite and possibly early silica alteration in Rock 1.

Vein Paragenesis: quartz & sphalerite with slightly later muscovite.

Possible protolith

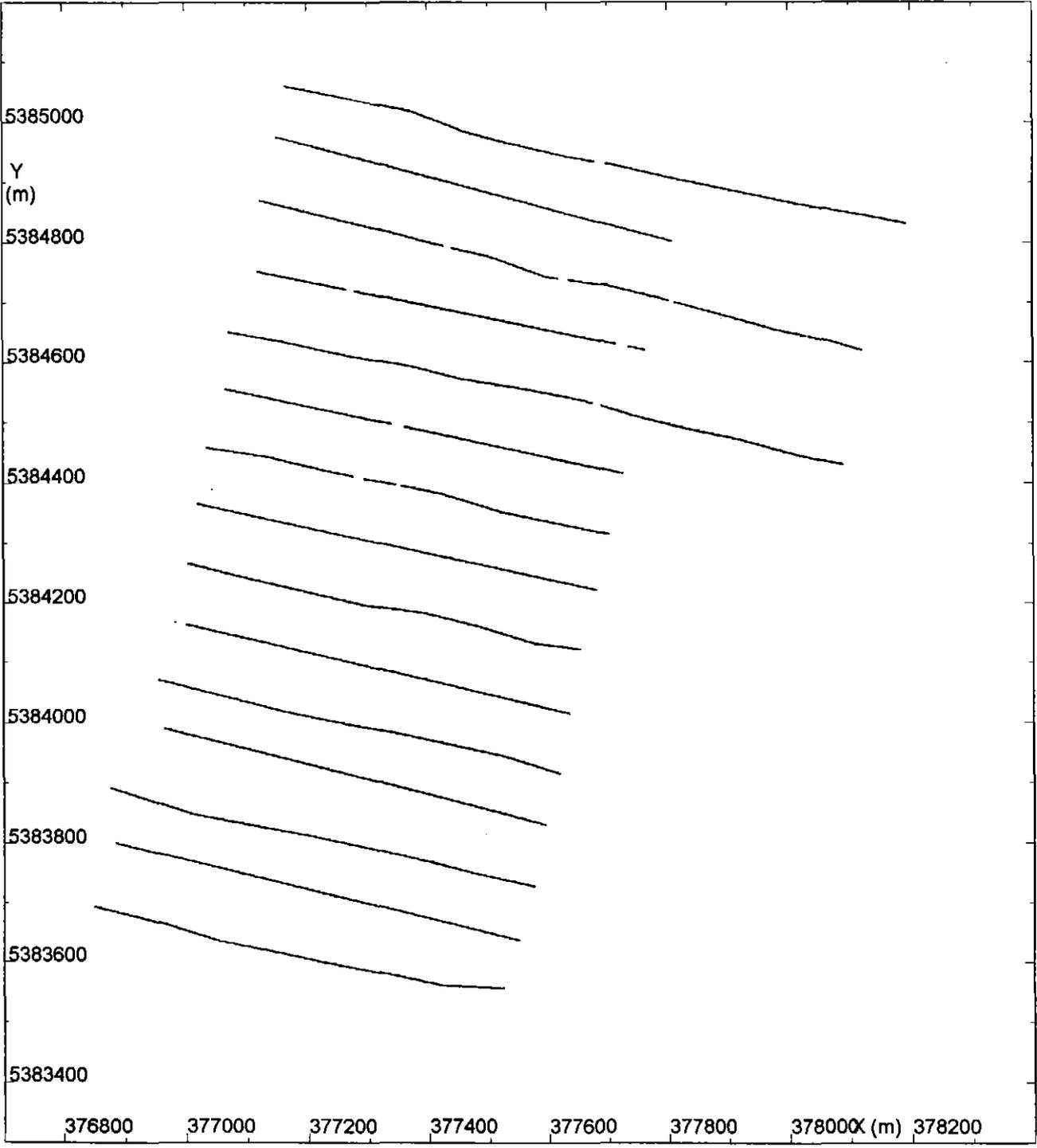
Rock 1: fine grained sediment.

Main conclusions:

sphalerite is open space filling at least in part.

APPENDIX 7

Ground Magnetic Data - Brown's Tunnel



Observations: Browns Tunnel - Southern Trenches (EAF grid)
Model:
POTENT v3.08 Plan drawn at 10:35 14/11/1996 for Pasmenco Exploration

103 deg

62360

T(nT)

62320

62280

62240

377200

377400

377600

377800

378000

X

378200

0

100

200

300

Depth (m)

400

Observations: EASTERN EAB GRID
Profile #1: LINE 5600N

328222

105 deg

62360

T(nT)

62320

62280

62240

0

100

200

300

Depth (m)

400

377200

377400

377600

377800

378000

X

378200

Observations: EASTERN EAB GRID
Profile #2: LINE 5500N

328223

104 deg

62360

T(nT)

62320

62280

62240

000

377200

377400

377600

377800

378000

X

378200

0

100

200

300

Depth (m)

400

Observations: EASTERN EAB GRID
Profile #3: LINE 5400N

328224

102 deg

62360

T(nT)

62320

62280

62240

0000

377200

377400

377600

377800

378000

X

378200

0

100

200

300

Depth (m)

400

Observations: EASTERN EAB GRID

Profile #4: LINE 5300N

328225

103 deg

62360

T(nT)

62320

62280

62240

377000

377200

377400

377600

377800

378000

X

3

0

100

200

300

Depth (m)

400

Observations: EASTERN EAB GRID

Profile #5: LINE 5200N

328226

103 deg

62360

T(nT)

62320

62280

62240

377000

377200

377400

377600

377800

378000

X

0

100

200

300

Depth (m)

400

Observations: EASTERN EAB GRID
Profile #6: LINE 5100N

328227

103 deg

62360

T(nT)

62320

62280

62240

377000

377200

377400

377600

377800

X

378000

0

100

200

300

Depth (m)

400

Observations: EASTERN EAB GRID

Profile #7: LINE 5000N

328228

103 deg

62360

T(nT)

62320

62280

62240

377000

377200

377400

377600

377800

X

378000

0

100

200

300

Depth (m)

400

Observations: EASTERN EAB GRID

Profile #8: LINE 4900N

328229

104 deg

62360

T(nT)

62320

62280

62240

377000

377200

377400

377600

377800

X

378000

0

100

200

300

Depth (m)

400

Observations: EASTERN EAB GRID

Profile #9: LINE 4800N

328230

103 deg

62360

T(nT)

62320

62280

62240

0

100

200

300

Depth (m)

400

377000

377200

377400

377600

377800

X

378000

Observations: EASTERN EAB GRID

Profile #10: LINE 4700N

328231

104 deg

62360

T(nT)

62320

62280

62240

377000

377200

377400

377600

377800

X

378000

0

100

200

300

Depth (m)

400

Observations: EASTERN EAB GRID

Profile #11: LINE 4600N

328232

105 deg

62360

T(nT)

62320

62280

62240

377000

377400

377600

377800

X

378000

0

100

200

300

Depth (m)

400

Observations: EASTERN EAB GRID

Profile #12: LINE 4500N

328233

104 deg

62360

T(nT)

62320

62280

62240

376800

377000

377200

377400

377600

377800

X

3

0

100

200

300

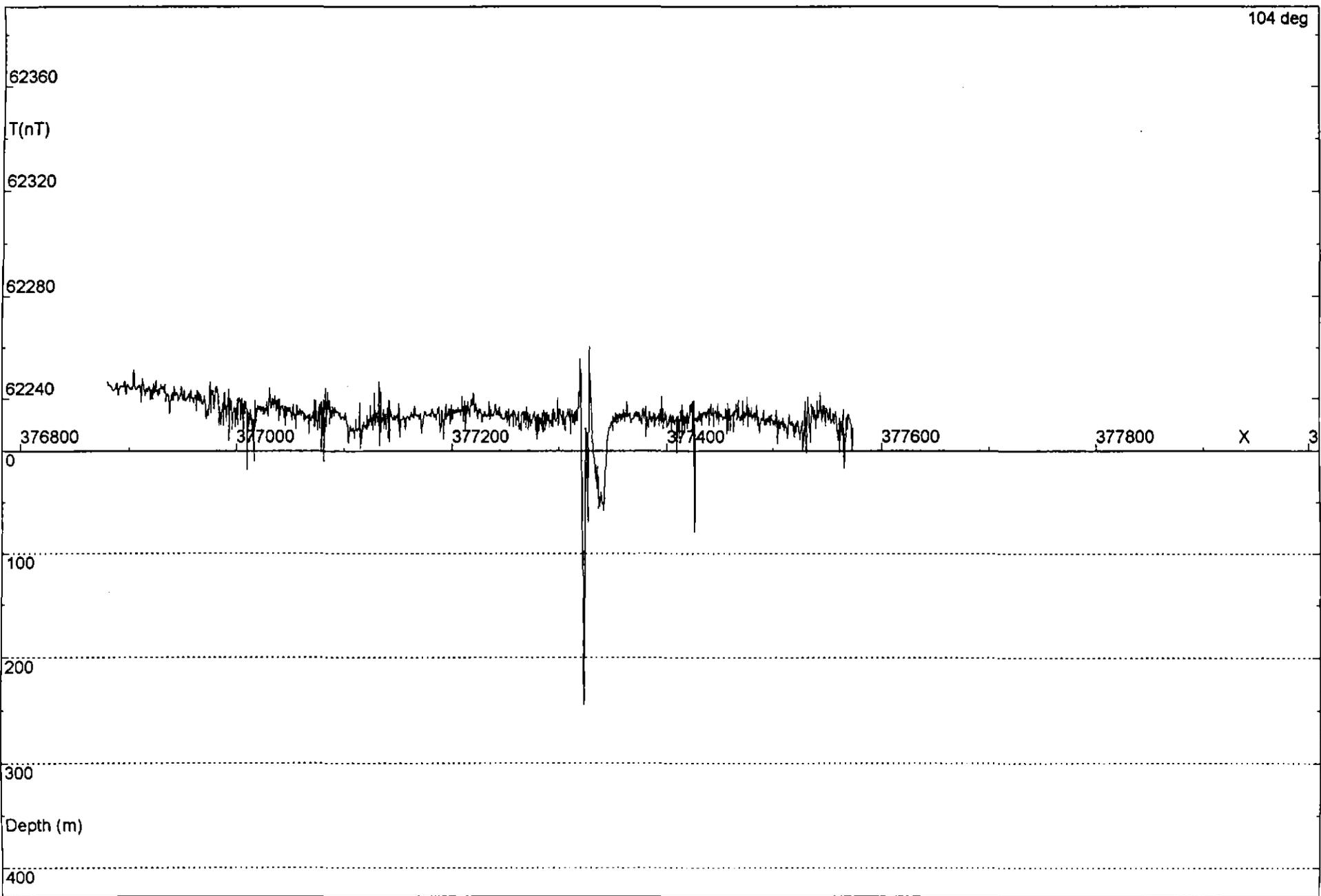
Depth (m)

400

Observations: EASTERN EAB GRID

Profile #13: LINE 4400N

328234



105 deg

62360

T(nT)

62320

62280

62240

376800

0

377000

377200

377400

377600

377600

377800

X

378000

100

200

300

Depth (m)

400

Observations: EASTERN EAB GRID

Profile #14: LINE 4300N

328235

103 deg

62360

T(nT)

62320

62280

62240

376800

377000

377200

377400

377600

377800

X

0

100

200

300

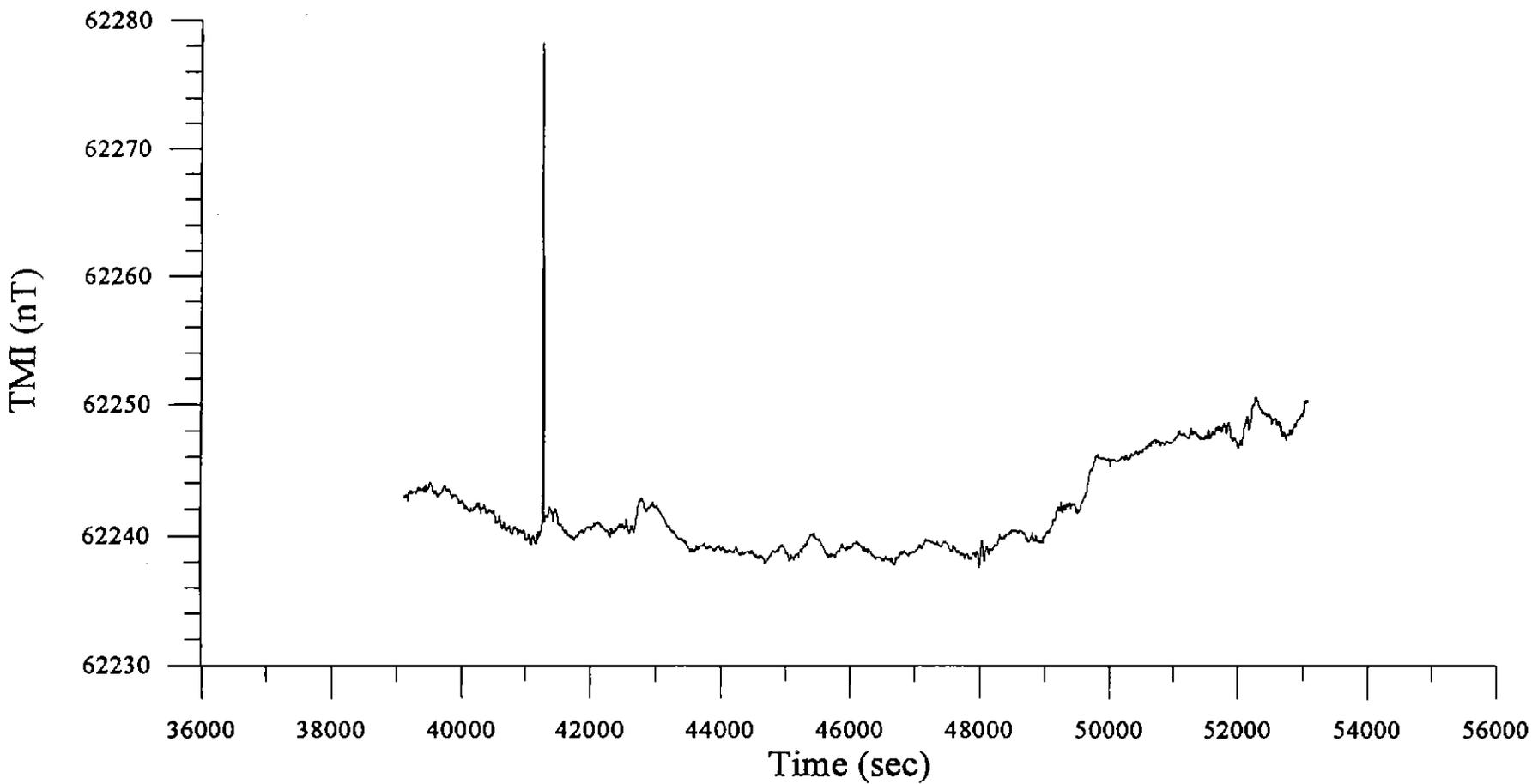
Depth (m)

400

Observations: EASTERN EAB GRID
Profile #15: LINE 4200N

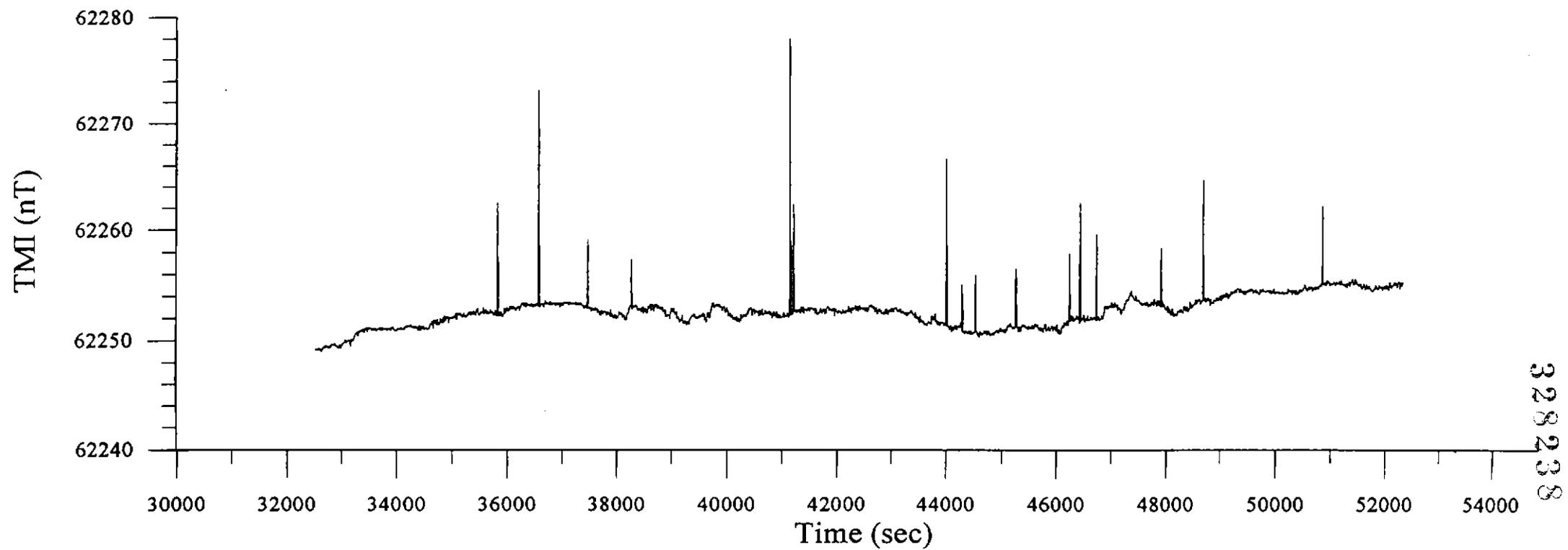
328236

Base Station Data for 2-8-96



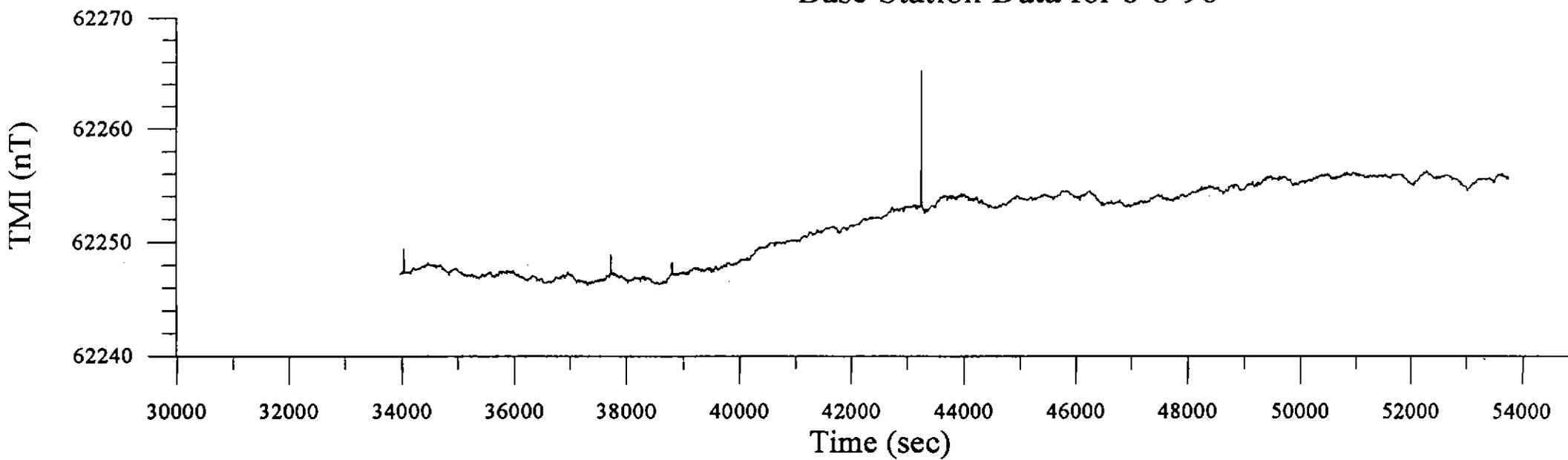
328237

Base Station Data for 6-8-96



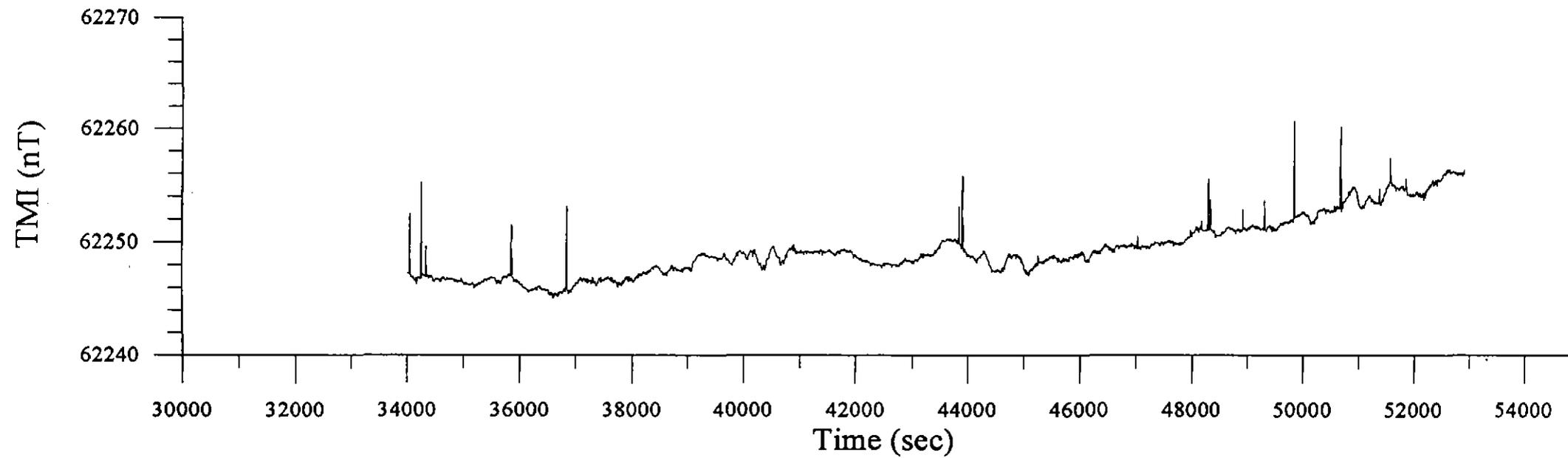
328238

Base Station Data for 8-8-96



328233

Base Station Data for 9-8-96



928240

APPENDIX 8

**Rock Chip Sampling from
Hollway and Cone Hill Areas**

HOLLWAY ROCK CHIP

sample	Cu	Pb	Zn	Mn	Fe%	Ag	Au
75310	3	4	36	182	0.86	-1	-0.008
75311	5	7	26	112	0.65	-1	-0.008
75312	11	6	29	234	1	-1	-0.008
75313	57	15	37	250	1.04	-1	-0.008
75314	5	23	19	200	0.68	-1	-0.008
75315	7	41	22	184	0.72	-1	-0.008
75316	6	8	28	211	0.71	-1	-0.008
75317	7	15	19	200	0.73	-1	-0.008
75318	6	4	12	104	3.25	-1	0.015
75319	8	-3	15	88	6.34	-1	0.034
75320	16	11	19	105	1.95	-1	-0.008
75321	5	18	28	349	0.75	-1	0.009
75322	6	38	20	201	0.81	-1	0.012
75323	6	28	15	152	0.62	-1	-0.008
75324	53	156	319	100	0.69	-1	-0.008
75325	24	88	56	82	1.08	-1	-0.008
75352	6	14	53	508	4.16	-1	0.013
75353	24	13	80	1154	6.47	-1	-0.008
75354	11	293	11	69	1.21	-1	-0.008
75355	13	98	168	287	1.2	2	0.029
75356	7	23	55	336	1.33	-1	0.019
75357	15	34	28	63	0.74	-1	0.151
75358	21	218	105	61	1.44	12	0.622
75359	6	100	24	82	0.85	39	0.504
75360	6	186	62	890	2.79	-1	0.02
75361	10	86	39	293	1.98	-1	0.026
75337	5	19	20	30	0.52	-1	0.013
75338	31	52	760	1810	7.7	-1	0.008
75339	35	3	115	361	16	-1	0.012
75340	6	-3	23	74	1.4	-1	0.068
75341	16	7	181	956	10.4	-1	-0.008
75342	29	43	147	1119	11.1	-1	0.014
75343	20	49	127	386	3.62	2	0.01
75344	9	26	81	498	1.58	-1	0.011
75345	19	-3	38	120	1.06	-1	-0.008
75346	28	2356	146	31	4.14	6	0.14
75347	10	40	93	610	3.19	-1	-0.008
75348	6	18	19	99	0.55	-1	0.01
75349	7	16	56	77	0.64	1	0.018
75350	7	49	22	294	0.93	-1	0.008
75351	9	225	164	358	1.38	1	0.012
75362	12	52	43	533	1.24	-1	0.03
75363	199	225	239	135	1.16	3	0.198
75364	24	133	83	142	0.89	2	0.038
75365	32	756	30	83	0.94	1	0.029
75366	56	508	1087	43	0.62	1	0.021
75367	16	64	41	52	0.62	1	0.036
75368	22	93	45	85	0.9	2	0.03
75369	10	47	102	279	1.28	2	0.022
75370	6	111	82	32	0.62	1	0.008