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Vol 1 of 3

GOLDFIELDS EXPLORATION

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EL8/96 Pt 2

See folio 61

ANNUAL REPORT

TASMANIAN GOLD PROJECT

EL 8/96

SOUTH HENTY

MINERAL RESOURCES
19 MAY 2000
TASMANIA

Vol 1 of 3
Text and Appendices 1, 2 and 3.

HELD BY: RESOLUTE LTD.

MANAGER & OPERATOR: GOLDFIELDS EXPLORATION LTD.

AUTHOR(s):Tim Callaghan

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FICHE No. -

10 May 2000

PROSPECTS: Lake Newton prospect, Howard's Anomaly, Spillway Horizon, Canal Zone.

MAP SHEETS:	**1:25,000: Tyndall, Oceana Dundas**	**1:100,000: Sophia**
GEOGRAPHIC COORDS	**Min East: 379,000mE** **Min North: 5,356,000mN**	**Max East:382,000mE** **Max North: 5,352,000mN**

COMMODITY(s): Au, Cu, Pb, Zn, Ag

)RDS: Central Volcanic Complex, Tyndall Group, Yolande River Sequence, Henty Gold Mine,

ion:

RGC Exploration Information Centre Reference:
Goldfields Exploration Zeehan
Department of Mineral Resources, Tasmania
Resolute Ltd, Perth.

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Annual report - Tasmanian Gold Project - EL8/96 - South Henty
Goldfields Exploration Proprietary Limited*; Resolute Li
Callaghan, T.
EL8/96 Vol 1 of 3

SUMMARY

Goldfields Exploration became operators of EL 8/96 'South Henty' after completion of JV negotiations with Resolute Ltd. in March 1998. The principal target sought by Goldfields is Henty Style volcanogenic gold mineralisation. Three prospective areas are present on the EL, the Lake Newton Prospect, Canal Zone and the Spillway Horizon.

Work completed during the 1999-2000 year included reporting of last years CSAMT survey, downhole EM surveys, reprocessing of old dipole-dipole IP data, the completion of ~~five~~ six diamond drillholes, sulphur isotope analysis and a 100m spaced sectional interpretation of the Lake Newton Prospect.

The CSAMT survey covered the entire South Henty EL on 400m spaced E-W lines. A broad anomaly is coincident with the Lake Newton Prospect and remains open to the south. The northern extension was tested by DDH SHD20 which intersected the outer carbonate-basemetal halo of the Lake Newton Prospect. One further drillhole is recommended to test the southern extension of the CSAMT anomaly.

Downhole EM modelling of drillholes completed in 1998 and a review of the existing DHEM data identified many offhole conductors in the Lake Newton Prospect area. These anomalies were coincident with the CSAMT anomaly and alteration zonation and were tested by DDH's SHD21 and SHD22. Both holes intersected extensive, zoned alteration typical of the Lake Newton Prospect with extensive, low grade (0.2-0.4 g/t Au) gold and basemetal anomalies.

Subsequent DHEM modelling, sectional interpretation and sulphur isotope analysis of these holes suggests they are proximal to the centre of the system. Two further drillholes are recommended to test the Lake Newton Prospect. These are targeted on DHEM anomalies hosted within the core of the alteration system.

Two drillholes (SHD23 and SHD24) were drilled into the Canal Prospect during the past year. The first of these intersected extensive silicification and associated sericite-pyrite alteration but did not contain any gold. The last hole closed off the southern extension of the alteration zone. The Canal Prospect does not appear to host any significant mineralisation on the Sth Henty EL within 400m of the surface. No further work is recommended for this prospect.

Reprocessing of old dipole-dipole IP data identified prominent anomalies coincident with the Lake Newton Prospect, South Henty Fault and the base of the Tyndall Group. Most of these had been drilled previously. The strongest anomaly coincident with the base of the Tyndall group was tested by DDH SHD25. No significant alteration was identified. No further work is recommended for this upper area of the Lake Newton Prospect.

An untested CSAMT and IP anomaly exists on the Spillway Horizon at approximately 5357500N, 380000E. One short hole is recommended to test this anomaly.

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1.0 INTRODUCTION

1.1 Tenure

E.L. 8/96 "South Henty" was granted to Resolute Ltd. on the 14th of June 1996. Resolute was granted the licence as the result of a tendering process in which Resolute committed to spending $1.4M in two years. After 18 months of exploration and an expenditure of $1.0M, a downturn in the gold price resulted in Resolute negotiating a joint venture with Goldfields Exploration to complete expenditure commitments and continue exploration.

Joint Venture negotiations were completed by March 1998 under the following terms and conditions:

Stage 1 Goldfields will spend $1.5 million (the Stage 1 expenditure) on the Project to earn a 60% equity Interest in the Tenement within a two year period. A minimum of $400,000 would be spent prior to 30 June 1998 to fulfil work commitments to the Mines Department.

A minimum of $500,000 (including the $400,000 above) will be spent within 12 months of execution of a farm-in and joint venture agreement. Prior to expending the entire Stage 1 Expenditure Goldfields will not have earned an Interest in the Project. Goldfields may withdraw at any time after spending the first $500,000.

Upon Goldfields having earned its 60% equity Resolute will have the opportunity to elect, within 30 days of notification by Goldfields that its 60% interest has been earned, to contribute at the 40% level. If Resolute elects to contribute the Joint Venture will be constituted and a Joint Venture Management Committee shall be formed. Decisions by the Joint Venture Committee will be by simple majority vote.

If Resolute elects, or is deemed to have elected, not to contribute to project expenditure at the 40% level Goldfields will continue sole funding Stage 2.

Stage 2 During Stage 2, which will commence at the end of Stage 1, Goldfields may sole fund to earn an additional 20% equity by expending a further $1.5 million over a further two year period.

Once Goldfields has earned its 80% equity, Resolute may elect to contribute proportionally to ongoing budgets or dilute as below.

In addition:

- In the event of a Party defaulting in making cash contributions that party's interest will dilute at the rate of one percentage point for each $40,000 spent by the nondefaulting Party. Any Party whose Interest is diluted to below 5% will be deemed to have withdrawn from the Joint Venture and

that Party will immediately transfer its remaining Interest to the remaining Party.

- Goldfields will be entitled to have its Interest registered on the titles at the completion of Stage 1.
- The Parties will have pre-emptive rights over any dealings involving the project by any Party wishing to sell its interest.
- Goldfields will determine and manage the budget and program for the Project during the sole funding period. Goldfields will provide Resolute with regular reports on the work carried out.
- Resolute warrants that at the date of signing of the Farm-in Agreement that the tenements are in good standing.
- If a decision is taken to develop a mine on the tenement, the area containing the proposed mine will be excised from the tenement and a development JV will be negotiated.
- Goldfields will charge an overhead fee of 15% on direct costs.

The JV conditions were renegotiated in 1999 with Goldfields being able to proceed directly to 80% ownership after meeting expenditure commitments. The renegotiated deal involved the signing of a JV deal with Resolute on tenements held by Goldfields in the Narromine district of NSW.

The license area consists of crown land and land vested in the HEC, both land uses coming under the mines act. The western part of the tenement is part of the Mt. Read Recommended Area for Protection (RAP) but doesn't preclude exploration. Any disturbances in this area require notification and approval from both MRT and the Department of Environment and Land Management (DELM).

The Henty Gold Mine has an easement right for a tailings dam over much of the E.L. to the north of Lake Newton. The Goldfields-Resolute JV has the mineral rights for the area.

The land vested in the HEC includes Lake Newton and associated pump station and access roads, the Henty Canal and service track and the high tension power lines and their services tracks.

1.2 Location and Access

South Henty E.L. 8/96 lies midway between Queenstown and Tullah on Tasmania's west coast (figure 1.). The EL's northern boundary abuts the Henty Mine Lease.

The E.L. is accessible by bitumen road (Anthony Road) and a number of two wheel and four wheel drive dirt roads. The western third of the E.L lies in the Henty Gorge and access is by foot only. The E.L. is well gridded on 200m line spacings providing easy foot access to most of the E.L.

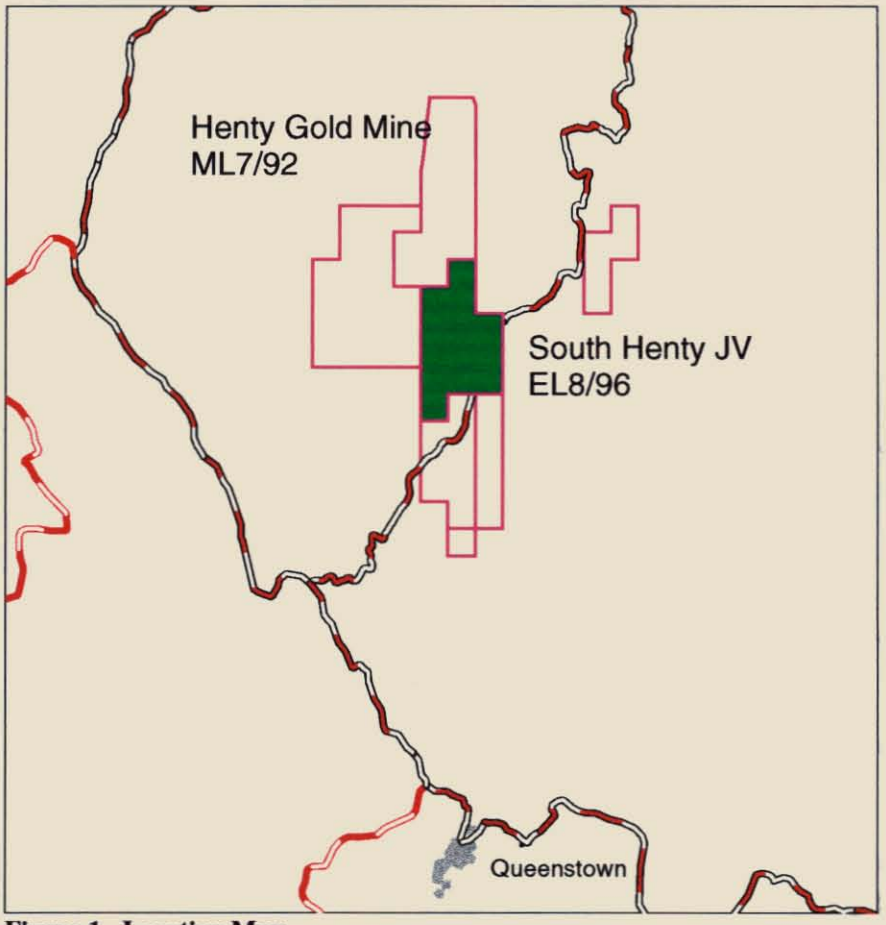

Figure 1. Location Map.

1.3 Topography and Vegetation.

Most of the prospective part of the South Henty E.L. occupies a peneplain at around 500mRL. The western third of the E.L plunges steeply down 300m to the Henty Gorge, which occupies the South Henty Fault lineament. The eastern margin of the E.L. is bound by the Tyndall Ranges rising to approximately 1000m.

Much of the northern peneplain is covered by button grass and low tea-tree scrub whilst the Henty Gorge and southern EL are covered by temperate rainforest.

The area receives a high annual rainfall of around 3m.

2 REGIONAL GEOLOGY

2.1 Regional Stratigraphy

The South Henty E.L. is hosted in the Cambrian Mt. Read Volcanics. The Mt Read volcanics are an arcuate belt of acid to intermediate volcanics occupying the eastern margin of the Dundas Trough. They are bounded to the east by Precambrian basement rocks of the Tyennan Region and younger Cambro-Ordovician siliciclastics and appear

to interfinger with fossiliferous volcanosedimentary rocks of the Dundas Group and Western Sedimentary Sequence to the west.

A major north south striking structure, the Henty Fault divides the Mt Read Volcanics into two parts, north and west of the Henty Fault and south and east of the Henty Fault. Within the Henty Fault are rocks of the Henty Fault Sequence to the south of Mt Murchison, and the Farrell Slates to the north near Tullah. The Mt. Read Volcanics north and west of the Henty Fault (figure 2) host the Pb-Zn rich polymetallic volcanogenic massive sulphide (VHMS) deposits of Rosebery, Hercules, Que River and Hellyer while the volcanics south and east host the Henty Gold Mine, Mt Julia Prospect and copper gold deposits of the Mt. Lyell Field.

The Mt. Read Volcanics south and east of the Henty fault are divided into four lithological groups (Corbett 1992),

1) Central Volcanic Complex (CVC) consisting of mainly rhyolitic to andesitic volcanics with minor sediments and mafic units.

2) Eastern Quartz Phyric Sequence of quartz porphyritic lavas and volcaniclastics.

3) Tyndall Group comprising mainly quartz-phyric felsic and intermediate extrusives and volcaniclastics with interbedded epiclastics.

3) Western Sequence of volcanosedimentary siltstones, shales, quartzose and volcaniclastic turbidites and felsic porphyry intrusives.

The oldest rocks belong to the CVC and Western sequence. The CVC is thought to underly and partially interfinger with the Western sequence to the west, and the Eastern Quartz Phyric Sequence to the east. Recent investigations on the South Henty E.L. suggest the CVC overlies the Western sequence. The Tyndall Group overlies the CVC both conformably and unconformably.

Overlying the Mt Read Volcanics are the Cambro Ordovician siliciclastics of the Owen Conglomerate which have an unconformable to interdigitating relationship.

2.2 Regional Structure

The NNE trending, 70° west dipping Henty Fault dominates the Mt Read Volcanic Belt for at least 60km. The Henty Fault divides into the North and South Henty Faults near Mt. Read. The Great Lyell Fault splays off the Henty Fault somewhere in the vicinity of Mt. Murchison and trends in a southerly direction to the south of Mt Lyell. Both of these structures bound the western margin of thick sequences of Owen Conglomerate.

The Cambrian and younger (to early Middle Devonian) rocks in western Tasmania have been effected by widespread Devonian folding of the Tabberabberan Orogeny. The Tabberraberan Orogeny was a multiphase deformation event, with an early phase of NNW folding (D_1) and a later NW to WNW (D_2) trend recognised in the region

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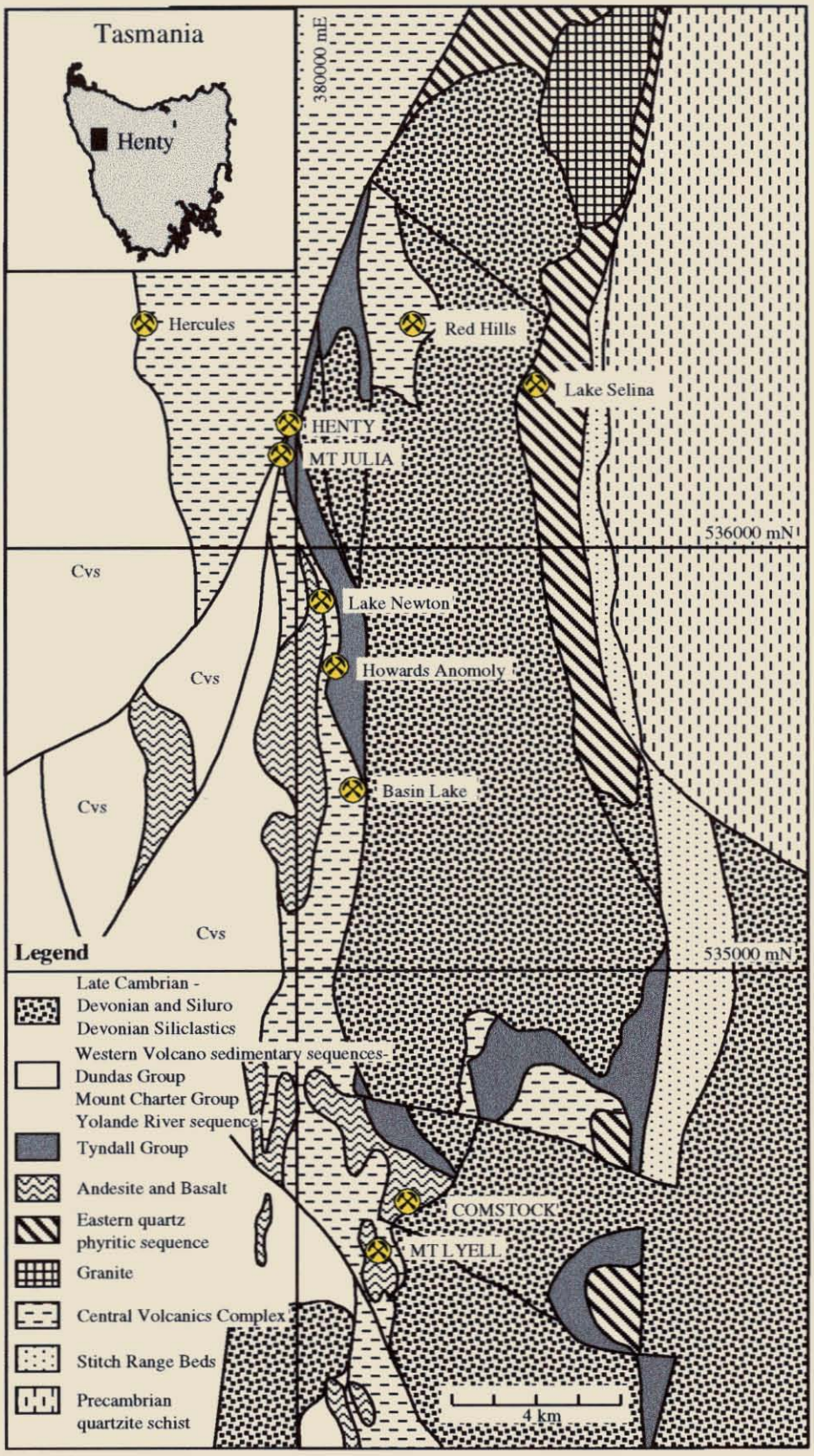


Figure 2. Location Map and Regional Geology (Modified after Corbett, 1992)

(Williams, 1989). This has produced open upright folding in competent siliciclastic units but tight folding in phyllosilicate rich volcanics. Reverse faulting is common and the rocks have developed a pervasive regional foliation. Metamorphism was of prehnite-pumpellyite to lower greenschist facies.

2.3 Tectonic History

Basement rocks of western and central Tasmania comprise Late Proterozoic sediments multiply deformed in the Late Proterozoic Penguin Orogeny. A following rift phase deposited continental shelf sequences followed by extensive tholeiitic volcanism (Crawford & Berry 1992). Eastern Australia's passive margin collided with an oceanic arc thrusting slices of ultramafic to mafic forearc sequences over most of western Tasmania (Crawford & Berry 1992).

Middle Middle Cambrian extensional tectonism associated with the Delamerian Orogeny resulted in rapid deposition of sediments and calc-alkaline volcanics (Mt. Read Volcanics), particularly along the eastern margin of the newly formed Dundas Trough (Berry 1994). Late reactivation of extensional faults as reverse faults formed open north trending folds and the uplift and erosion of the Tyennan Block forming the Owen Conglomerate (Berry 1994).

Continued sag phase sedimentation continued to the Middle Devonian with the exception of a hiatus in deposition during the Silurian (Berry 1994).

Deposition ceased in the middle Devonian with the onset of the Tabberrabberan Orogeny. In western Tasmania north trending Cambrian folds were tightened with a NNW striking cleavage. Locally developed WNW trending folding and cleavage is associated with NNE trending compression. Late to post orogenic granitoids intruded the West Coast region with associated mineralisation (eg Renison Bell).

3.0 PREVIOUS EXPLORATION

Good summaries of previous exploration are available in Lewis (1995b), Quayle (1995), Fitzgerald (1987), and Donaldson (1993).

The South Henty EL. has been prospected since late last century to the present. Only minor workings are evident from very early exploration. Small pits and minor shafts are located on minor disseminated and vein sulphides, and barite outcrops at Howard's Anomaly, Tyndall Creek and near the southern wall of the Henty Mine tailings dam. The Tyndall Mine appears to be located on the Henty Horizon and consists of several costeans, adits and shafts, apparently on quartz-galena veins (Donaldson, 1993).

Pickands Mather explored the region in the late 50's/early 60's. Reporting from this era is almost non existent, but apparently they used EM, mapping and soil and rock chip sampling and located the Howard's Anomaly gossan associated with the barite-base metal veins located in Tyndall Creek (MacDonald, 1996).

Goldfields Exploration (formerly Mt Lyell Mining and Railway Co.) explored much of the district as EL 9/66 between 1966 and 1984. EL 9/66 covered a vast area from just

south of Mt Darwin to Mt Read. Their intention was to find Rosebery style zinc-rich volcanic hosted massive sulphide or Mt Lyell style Cu-Au mineralisation. Reconnaissance exploration involving griding, soil sampling, and IP surveys resulted in the drilling of HA1/2, HA3 and HA4 on coincident IP/soil geochemical anomalies between 1966 and 1979.

HA4 intersected significant silver mineralisation associated with barite-haematite and calcite. This intersection became the focus of Howard's Anomaly work which included further IP and soil surveys and the drilling of HA5 at Howard's Anomaly and HA6 further north.

A review of the large EL in 1983 (Purvis, Fitzgerald and Komyshan, 1983) delineated both the silver-barite-haematite zone and a sulphide zone at the confluence of Tyndall Creek and Newton Creek (now Lake Newton) identified from IP surveys and anomalous soil geochemistry. HA7 and HA8 were drilled into this zone, both intersecting strong sericite-silica-pyrite-carbonate alteration with HA8 intersecting 232m @ 0.2% Zn including 15m @ 0.1 g/t Au. Goldfields were required to relinquish the ground in 1985 after completing eight drillholes.

The current EL was split into two halves in 1985 after a tendering process. East of 380 000mE (AMG) was granted to CRAE (EL 5/85 "Lake Margaret") while the western half was granted to Arimco/EZ (EL11/85 "Yolande River"). Exploration on the EL's was initiated in the late 1980's. CRAE conducted A-horizon soil sampling on 400m spacings and complete UTEM coverage before signing a joint venture agreement with Aberfoyle in 1989.

Pasminco Exploration took control of the Arimco/EZ JV in 1990 and carried out systematic C-horizon soil sampling, mapping, rock sampling, helimag and blanket UTEM east of the Henty River. After recognition of the Spillway Horizon stratigraphic sequence, a systematic drilling program ensued from 1992 to 1995. A total of 4412.7m were drilled from16 diamond drillholes. Drillholes YNC3 to 15 were stratigraphic holes designed to test the spillway horizon massflows hosting massive sulphide clasts outcropping in the Lake Newton Spillway (Poltock and Fitzgerald, 1991: Poltock, 1992: Quayle, 1993: Quayle, 1994: Quayle, 1995). YNC16 was drilled into the Henty Horizon based on a stratigraphic model of the Henty deposit. YNC1, 2 and 3 were targeted on anomalous soil/rock geochemistry near the Henty Gorge.

Aberfoyle continued exploration on EL 5/85 with further 200m spaced soil sampling, helimagnetics and lithogeochemistry, petrology and isotope geochemistry (Richardson, 1991: Sharpe, 1993). Five short holes (TC1-5) were drilled under the Tyndall Creek barite-sulphide outcrop with some high grade intersections (2.1m @ 5% Pb and 7% Zn) (Lewis, 1994). Four deep diamond drillholes (NC1-4) were drilled in the last two years of the licence life. Although not stated, the target is assumed to have been the intersection of the base of the Tyndall Group with the Great Lyell Fault (Lewis 1995a and Lewis 1995b). DHEM and side grind geochemistry was completed on all four holes.

Both EL 11/85 and EL 5/85 expired in 1995. After a fiercely competitive tendering process, the two EL's were combined and granted to Resolute Ltd. in June 1996 to form the current EL 8/96 "South Henty".

After thorough collation and analysis of the available data (Herrmann and MacDonald, 1996) the Spillway Horizon and the Henty-Comstock horizon were identified as favourable target horizons for VHMS-volcanogenic gold mineralisation. Other minor structurally controlled gold targets near Tyndall Creek, the Newton Dam Access Road and the Henty Canal were also delineated.

Resolute completed localised, detailed infill C-Horizon soil sampling (wacker samples) and IP surveys on the Henty canal, Tyndall Creek and Access Road Prospects.

A total of 4984.5m of drilling from 14 diamond drillholes was completed by Resolute up to September 1997 (MacDonald, 1997). Most of the work concentrated on the Lake Newton Prospect magnetic anomaly, centred on and below the Henty Comstock Horizon including drillholes SHD1, 10, 11, 13 and 14. No mineralisation was identified on the Henty Horizon, but a significant zone of anomalous alteration was intersected in the underlying CVC in SHD1 (94m @ 0.2% Zn, 0.13% Pb and 0.04g/t Au). This alteration zone is an extension of the zone identified in HA7 and HA8 by Goldfield's Exploration in the 1980's.

Two drillholes were targeted on the Spillway Horizon, SHD2 and SHD12 with another two SHD8 and SHD9 intersecting the horizon although based on a different model (Access Road alteration, structurally controlled Au mineralisation). The last two holes were drilled on IP and Soil geochemical anomalies. Little indication of the source of the massive sulphides was indicated but a significant alteration zone was intersected in SHD2 with a best result of 0.5m @ 0.13% Cu, 11.7% Pb, 18.2% Zn, 3.42 g/t Au and 220 g/t Ag. SHD8 also intersected anomalous Au mineralisation (3m @ 0.8 g/t Au) in similar pumice breccias as the alteration intersected in SHD2. It is now apparent that all the alteration is related to the one system as discussed below.

Drillhole SHD6 was designed to test outcropping alteration and coincident IP soil anomalies near the Henty Canal after infill surveys by Resolute Ltd. The Lower Tyndall Group including the Henty Horizon was intersected with some Henty style albite-silica alteration being intersected. No significant assays were returned. A black siltstone explains the IP response but the geochemical anomaly remains unresolved.

Four short holes were drilled on the interpreted Tyndall Creek Fault after gridding and soil and IP surveys identified several significant anomalies. Minor pyrite veining was intersected in SHD4, SHD5 and SHD7 but only low level Au and basemetal values were returned.

Resolute Ltd. signed a JV partnership with Goldfields Exploration with Goldfields as managers of the partnership in March 1998. Exploration recommenced immediately.

Goldfields first year (Callaghan, 1998) of operating the South Henty EL involved:

Orientation mapping of EL8/96.

Rock Chip Sampling.
Diamond drilling, four holes, (SHD15, SHD16, SHD17, SHD18) for 2426.4m.
Downhole EM, (SHD15, SHD16 and SHD18).
Lithogeochemistry.

Goldfield's work identified a large alteration zone anomalous in copper and gold at the Lake Newton Prospect in drillhole SHD16 with best results of:

615-736, 121m @ 0.2 g/t Au
770.8-791.8, 21m @ 0.4 g/t Au.

These alteration zones include best intersections of:

654.3-672.6, 18.3m @ 0.4 g/t Au.
683.8-694.0, 10.2m @ 0.4 g/t Au.
622.2-626.2, 4.0m @ 0.5 g/t Au.
771.8-775.8, 4.0m @ 1.4 g/t Au.

Best Cu assays include:

667.3-672.6, 5.3m @ 1.9% Cu.
719.5-721.5, 2.0m @ 1.3% Cu.

It is apparent that the alteration drilled in the previous Mt Lyell, Pasminco, Aberfoyle and Resolute programs is all related to a single, zoned hydrothermal system and not several unrelated horizons as previously thought. The Lake Newton Prospect consists of a high grade Cu-Au anomalous core of dominantly silica-sericite-pyrite alteration surrounded by an extensive halo of blebby carbonate and carbonate-sericite alteration with anomalous Pb-Zn values averaging 0.2%. It is probable that the alteration system is related to a regional copper gold mineralising event including the Henty Gold Mine and Mount Lyell field and has the potential to host similar deposits.

The second year of operation (Callaghan, 1999) involved:

Mapping of the southern part of EL8/96 and minor reinterpretation of the northern sheet.
Rock Chip Sampling and lithogeochemistry.
Diamond drilling, one hole (SHD19) for 750.4m.
Downhole electro-magnetic surveying.
CSAMT survey.
Compilation of previous IP data.
Sulphur Isotope Study.
Alteration Geochemistry Study.

Drillhole SHD19 was targeted at the base of the Tyndall Group, directly up dip from the large alteration zone identified in SHD16. The hole was based on a conceptual model where the base of the Tyndall Group was interpreted to be either a seafloor position or mixing zone where the metalliferous hydrothermal fluids had the potential to form a high grade deposit. No alteration or mineralisation was identified at the base

of the Tyndall Group and the hole was extended to test the CVC dacites below the Suite II porphyry. The dacites were also unaltered so the hole was stopped at 750.4m.

DHEM surveys of diamond drillholes SHD15, SHD16, SHD18 and SHD19 were completed and the new and existing data reprocessed by consultant geophysicist Mike Asten of Flagstaff Geoconsultants. No off hole conductors were identified in drillholes SHD15, SHD18 or SHD19. An offhole conductor, coincident with the Cu-Au mineralisation was identified in SHD16. Re-examination of the SHD2, SHD1 and SHD12 data suggested some anomalism in the vicinity of the known mineralisation. It was suggested these holes be resurveyed with a different loop configuration to enable modelling of the alteration system.

The similarities of the Lake Newton Prospect with the Western Tharsis deposit on the Mt Lyell Field were documented in the 1998 South Henty Annual Report (Callaghan, 1998). Copper Mines of Tasmania (CMT), the former operators of the Mt Lyell Mine had some success with CSAMT in defining deep, high grade copper (and gold) zones within extensive barren pyrite halos at the Western Tharsis deposit. After discussions with group geophysicists Chris Dauth and Steve Mudge, a CSAMT survey over the entire South Henty EL was completed on 400m spaced lines. The results from the survey are included in this Annual Report.

Sulphur isotope and alteration geochemical studies of the Lake Newton prospect supports the existing evidence suggesting the SHD16 intersection represents a proximal feeder of a large Cambrian hydrothermal system. $\delta^{34}S$ is distinctly lower (5-6) in the inner Cu-Au mineralised core than the outer Pb-Zn mineralised halo (11-14). The studies are more of academic interest than practical use to exploration as the zonation is most easily (and cheaply) identified by alteration mapping and basemetal geochemistry. A follow up study was completed by a B.Sc. Honours student at the University of Tasmania.

4.0 LOCAL GEOLOGY

4.1 Stratigraphy

The stratigraphy of the South Henty lease has been well documented by Resolute geologists (Herrmann and MacDonald, 1996) through detailed lithogeochemistry, mapping and graphical logging. Goldfield's work to date has not altered the stratigraphy to any great degree and is summarised below. Goldfields stratigraphic codes are included.

Tyndall Group	Zig Zag Hill Fm	Post-eruptive rhyolitic, volcanolithic conglomerate and qtz-crystal rich sandstone. *Ctc*
	Mt Julia Member	Syn-eruptive qtz-feld crystal rich sandstone. *Ctt* Massive qtz-phyric rhyolitic lavas, breccias and intrusions. *Ctl*
	Lynchford Member	Syn-eruptive feld crystal rich volcaniclastic sandstone. *Ctl* Massive carbonate and marly sediments. *Ccarb* Dacitic volcaniclastic sediments. *Cttld* Howard's Basalt. Fine grained basaltic andesite dykes, lavas and lithic breccias. *Cb*

CVC (Suite II)	Suite II Porphyry	Qtz-feld-hbl porphyry. Intrusive, fractionated. *Cp*
	Anthony Road Andesite	Feld-hbl phyric andesite and breccia , extrusive and intrusive. *Ca*
CVC (Suite I)	Newton Creek Dacites	Dacitic to andesitic volcaniclastic sediments. *Ccv* Dacitic, feld phyric to aphyric lavas, breccias and intrusions. *Ccvl* Dacitic volcaniclastic pumice breccias. *Ccv*
	Spillway Breccia	Coarse polymict and dacitic massflows with some sulphide clasts. *Ccvag*
	Spillway Basalt	Massive to stratified monomictic "fire fountain' basalt breccia. *Cb*
Yolande River Sequence	Footwall pumice breccia	Massive feld-phyric pumice breccia. *Cymf* Vitric siltstones and sandstones. *Cys*

4.2 Structure

Two major faults control the geology of the South Henty Lease, the South Henty Fault to the west and the Great Lyell Fault to the east. The South Henty Fault is a steeply west dipping (60-90°) major regional structure extending for approximately 70km of strike length dividing the geology of the Mt Read Volcanics into distinct terrains. It forms the western boundary of the Yolande River Sequence, CVC and Tyndall Group rocks on the South Henty EL and Henty Mine Lease. The Great Lyell Fault is a large west dipping reverse fault with several hundred metres of displacement. The rocks of exploration interest lie between these two structures.

Bedding consistently faces east and is steeply east dipping to overturned west dipping on most of the EL. Bedding generally trends north, north-westerly and is truncated at low angles by the South Henty Fault. A tight, shallow north plunging syncline is located near the Great Lyell Fault in the south east of the lease and may be a southern extension of the Mt Julia syncline. The major regional S_2 foliation overprints most rocks and has a northwesterly strike and steep southwest dip.

A prominent displacement/flexure in the stratigraphy is evident in the middle of the lease, particularly below surface around 0mRL (figure 4). Bedding is strongly controlled by the morphology of both the Mt Julia Rhyolite and the Suite II porphyry, and possibly syn-intrusive/growth faults. Thickening of the stratigraphic package around intrusive margins and stratigraphic variations including rapid local thickening of the basal Lynchford Member volcaniclastics, increased thickness and number of basaltic andesite flows, dacite domes and rhyolite domes suggests synvolcanic faulting within the Lake Newton Prospect area.

Extensive ductile deformation has focused on the Howard's basalt horizon, particularly in the southeast corner of the lease in the Howard's Anomaly area. The localised deformation has resulted in a strongly developed foliation and down dip stretching lineation in the chloritised basaltic breccias grading into brittle faulting and kinking of the earlier foliation. The fault represents the extended limb and hinge of a series of

NNW trending asymmetric folds located in the SE corner of the EL and extending onto the Anthony EL. These structures mark the change from dominantly east facing-steeply dipping bedding strongly influenced by the Henty Fault in the west to flatter lying strata, disrupted by N to NNW trending open to tight folds and associated faulted limbs with wavelengths of approximately 200m in the east.

Many minor, late, east-west trending brittle faults with displacements of less than ten metres disrupt the stratigraphy.

4.3 Alteration and Mineralisation.

Previous work on the South Henty EL and Henty Mine Lease has identified three target areas with the potential to host volcanogenic gold deposits and VHMS deposits:

- The Lake Newton Prospect (Cu-Au) (including Howard's Anomaly).
- The Canal Zone, a southern extension of the Henty-Mt Julia alteration system (Au only).
- The Spillway Horizon (polymetallic massive sulphide).

Each requires a different exploration strategy. A map of prospect locations is located in Figure 3.

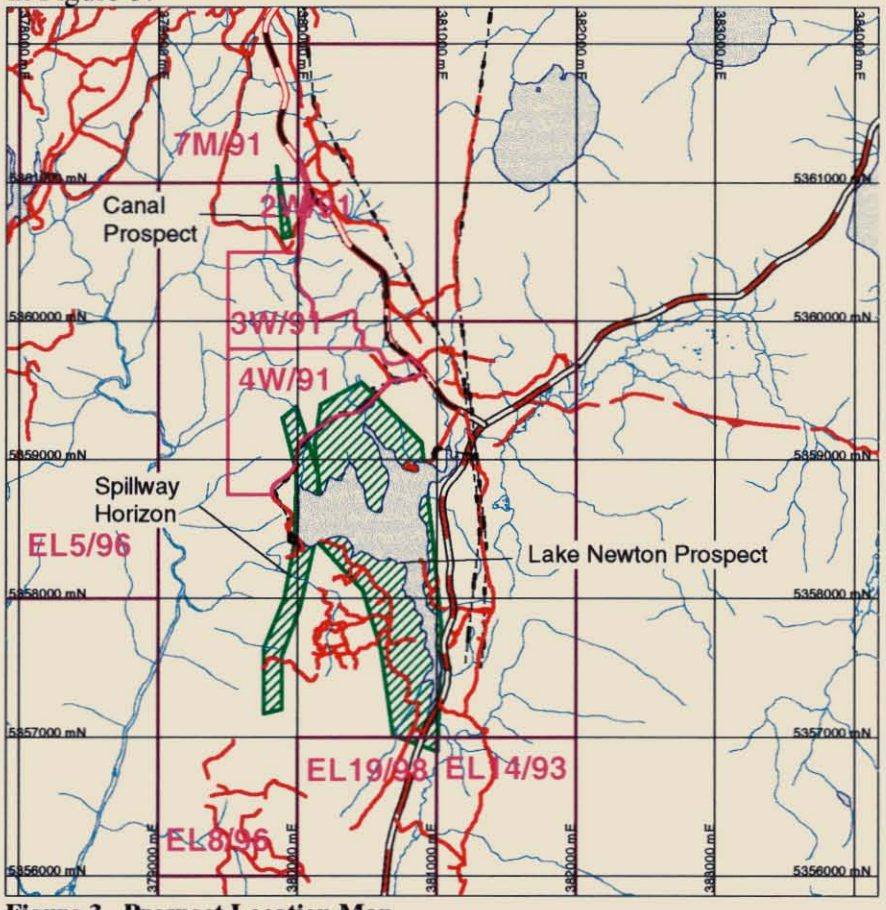


Figure 3. Prospect Location Map

Lake Newton Prospect

Exploration over the past two years has demonstrated that the basemetal carbonate alteration extensively explored by Pasminco in the north of the EL, the Lake Newton sulphide alteration discovered by Goldfield's Exploration and extensively explored by Resolute Ltd., and the Howard's Anomaly alteration are all part of the one large hydrothermal system.

The prospect is a well zoned, epigenetic, low grade (so far), disseminated copper-gold system with an extensive low grade base metal halo. It is of considerable size and has many similarities with the Mt Lyell and Henty-Mt Julia copper-gold deposits of the district. The entire alteration zone extends over a strike length of at least 2kms, varies between 30m to over 400m in width and is open at depth. The alteration is well zoned (Figure 4) from the outer halo moving inwards in the following order:

carbonate-chlorite halo
carbonate-sericite-(chlorite-sphalerite-galena)
sericite-pyrite-carbonate (Au-galena-sphalerite)
sericite-silica-pyrite±chalcopyrite±gold

The top of the alteration system is characterised by either:

sericite-pyrite-barite-jasper-(sphalerite-galena)
hematite-carbonate-chlorite-jasper-(Ag)

The alteration is dominantly hosted in the polymict to dacitic massflows of the Spillway Horizon and overlying massive dacitic pumice breccias of the CVC, but also overprints the Spillway Basalt and extends down into the underlying Yolande River Sequence rhyolitic pumice breccias and vitric siltstones. The alteration partially overprints the boundary of the Suite II porphyry implying a syn to post porphyry timing of the hydrothermal event. Because the Suite II porphyry has peperitic contacts with the overlying Lynchford Member (as seen in SHD17, SHD19 etc.), it would appear that the porphyry and therefore the alteration postdate the carbonates and basaltic andesites of the Henty-Comstock Horizon.

The top of the alteration is hosted in the lower Tyndall Group, particularly the Howard's basalt and Lynchford member volcaniclastics. Mineralisation within the upper zone is rare, occuring as small discontinuous lenses of barite-sulphide alteration (eg. Tyndall Creek), weak, disseminated pyrite-sericite (eg. SHD21) or occasional elevated Ag assays from hematite altered volcaniclastics (eg. Howard's Anomaly, HA4 and HA6). It is possible this horizon represents the seafloor during the mineralising event but the overprinting of the Suite II porphyry suggests the mineralising event postdates the deposition of the host sequence basalts and carbonates.

Although the mineralisation is diffuse and low grade, the Cu-Au rich hydrothermal fluids are capable of forming economic deposits if the right physical and/or chemical conditions existed.

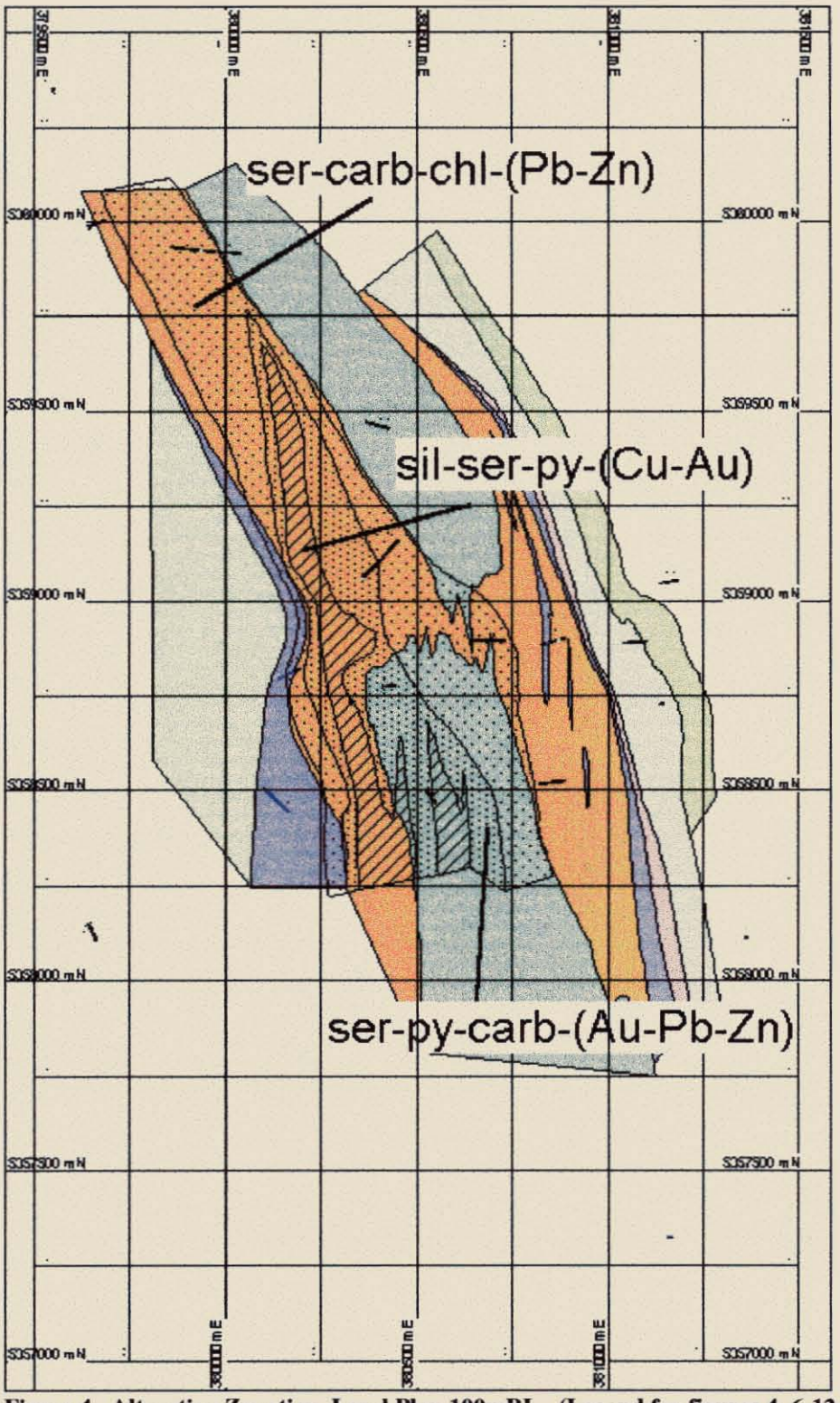
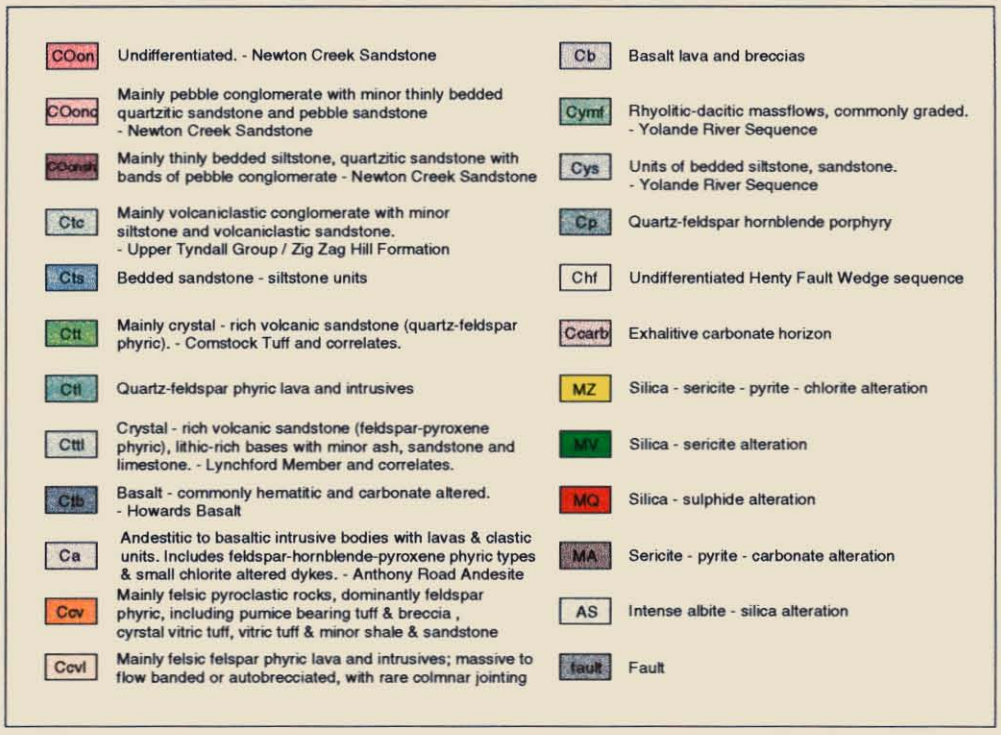


Figure 4. Alteration Zonation, Level Plan 100mRL. (Legend for figures 4, 6-12 is located in the following figure.)



Canal Zone

The Henty-Mt Julia alteration system (A-Zone) has been closed off within the Henty Mine Lease by diamond drillholes MJ024, MJ023, MJ023A and MJ025 (Figure 5). Several weaker alteration zones (B-Zones?) were identified in the stratigraphic hangingwall to A-Zone. (B-Zone is a loose term given to smaller, discontinuous alteration zones located in the hangingwall to A-Zone). These zones often contain the same alteration facies as A-Zone, an outer sericite-chlorite-pyrite zone with an inner silica-sericite ± sulphide and silica ± sulphide zone. They usually contain anomalous gold, but intersections rarely exceed 1g/t Au and have not yet demonstrated to be of sufficient size and grade to constitute an economic target.

The Canal Prospect is a B-Zone type alteration zone located in the CVC volcaniclastics in the south of the Mine Lease and extending onto the South Henty EL. The alteration zone is not associated with the South Henty Fault and is poorly constrained by a few drillholes. Typically for these zones, it occasionally contains anomalous gold but most intersections to date have been barren.

Drilling this year has closed off the southern extension of the Canal Prospect on the South Henty EL

Spillway Horizon Massive Sulphides

The spillway horizon is a volcaniclastic massflow breccia containing a number of high-grade, polymetallic sulphide clasts outcropping in the Lake Newton Dam spillway. The stratigraphic sequence and volcanic facies hosting the Spillway Horizon Breccia and sulphide clasts is well understood largely due to the drilling program conducted by

Pasminco in the early 1990's. The source of the massive sulphide clasts is yet to be identified.

The sulphide clasts are well rounded cobbles and boulders consisting of massive sphalerite-galena-pyrite and chalcopyrite with an average grade of 27% Pb, 31.7% Zn, 700 g/t Ag and 0.92 g/t Au (Herrmann and MacDonald, 1996). Gangue minerals include quartz and calcite.

A detailed interpretation of the spillway breccia and sulphide clasts by Rod Allen (1993) suggested that the clasts had not been transported far from their source environment. The sulphides are most likely to have formed in the same source area as the dominantly dacitic hyaloclasite rich mass flow. The proximal sulphide source is likely to have existed within 5km of the outcropping clasts (Allen, 1993). The Spillway Basalt forms a distinct and laterally continuous marker horizon at the base of the massflow breccias.

The underlying footwall volcanics show no evidence of hydrothermal alteration or geophysical anomalies precluding a near surface source of the sulphides. The Lake Newton alteration overprints the horizon on the lake shore and probably at depth to the east of SHD22. It is possible that the hydrothermal fluids forming the lake Newton alteration used the same synvolcanic structure as the earlier Spillway Massive sulphide as a fluid conduit.

Exploration for the massive sulphide source within the South Henty EL must concentrate on two areas, the largely unexplored south western corner of the lease, or down dip.

5.0 WORK COMPLETED

In the period June 1999 to May 2000 the following work was completed:

- Processing and imaging of CSAMT survey.
- Additional DHEM survey and modelling of earlier drillholes (SHD16, SHD2, SHD1, NC4, SHD12).
- Inversion and imaging of old IP sections.
- Diamond Drilling of holes SHD20, SHD21, SHD22, SHD23, SHD24 and SHD25.
- DHEM survey of new drillholes (SHD20, SHD21, SHD22).
- Sulphur isotope study.

5.1 CSAMT survey

Consultant geophysicist, Mike Asten, (Flagstaff Geoconsultants) completed processing and analysis of the CSAMT survey conducted by Zonge in March 1999. A consultants report imaged sections and plans are located in Appendix 1. The survey completes the 400m spaced coverage of the South Henty, Anthony and Basin Lake EL's, the last two EL's previously surveyed by Billiton during the 1980's.

The most significant CSAMT anomaly is a broad zone of low resistivity (Cagniard resistivity) coincident with the sericite-pyrite alteration of the Lake Newton Prospect to a depth of greater than 500m. A simplified plan of the CSAMT Cagniard Resistivity anomaly over lake Newton at 1024hz (300-500m) with the known mineralisation is included in figure 6. The survey has proved useful in defining the trend of the deposit as well as identifying the more intensely altered core of the system. Unfortunately the survey could not be completed over the centre of the prospect due to the HEC impoundment. Bostick inversions of the data are harder to interpret, and give spotty results that are difficult to correlate with the known mineralisation.

The Cagniard Resistivity anomaly over the Lake Newton Prospect was drill tested this year by diamond drillholes SHD20, SHD21 and SHD22 as discussed in section 5.4. The 1km southern extension of the anomaly remains untested. This area underlies the Tyndall Creek mineralisation and constitutes a prospective zone worthy of follow up drilling.

A smaller CSAMT anomaly and coincident IP anomaly is detected on lines 5357400N and 5357800N in the vicinity of the Spillway Horizon stratigraphic position. This anomaly has not been adequately tested with Pasminco drillholes YNC12 and YNC13 collared too far west within the stratigraphically lower Spillway Basalt horizon. Because of its favourable stratigraphic location, it is recommended that one short drillhole be completed to test this anomaly. Coincident, low-level basemetal anomalism is a located in soil samples over the area.

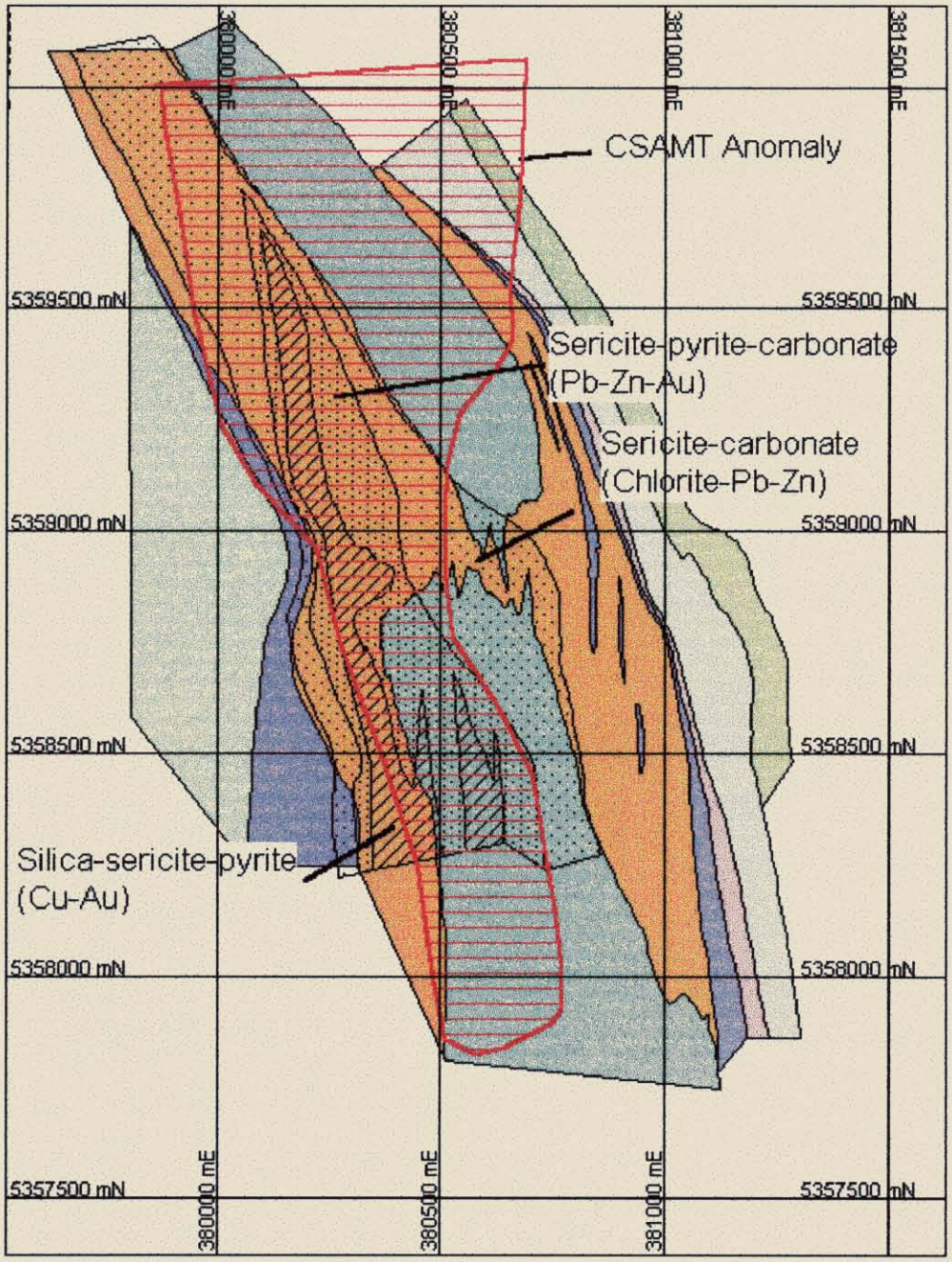


Figure 6. CSAMT Anomaly (1024Hz), alteration zonation and geology, Level Plan 100mRL. (Legend as for Figure 4).

The Mt Julia deposit (600m depth) was not detected by the orientation survey completed on line 5362000mN. The survey detected the black shales of the Henty Fault sequence to the west of the South Henty Fault as well as the South Henty Fault (presumably clays) on 1D smooth-model inversion cross section. These features probably masked the deep alteration zone lying below at a depth of 0 to –300m. The Bostick inversion section defined an anomaly associated with the black shales but not the South Henty Fault or Mt Julia mineralisation.

A deep, narrow conductor to the northeast of the prominent conductive trend extends from 5359200N to 5361000N. This conductor has been partially drilled by drillholes SHD19, SHD20, SHD6 and SHD17 which intersected black shales at the base of the

Tyndall Group. A small offset conductor below SHD6 may represent weak sulphide mineralisation outcropping on surface and may require further work.

5.2 DHEM surveys

DHEM surveys of the South Henty Lease include modelling of last years data (Callaghan, 1999) and surveying and modelling of SHD20, SHD21 and SHD22 this year. Outer Rim Exploration were contracted to complete the new surveys using the Crone PEM three component downhole system. Survey results are located in Appendix 2. The two reports detailing the modelled data are located in Appendices 3 and 4.

5.2.1 Modelling of previous surveys and additional loops.

After preliminary study of the existing DHEM data by Mike Asten in 1999, it was concluded that additional information could be gained by resurveying some holes with different loop configurations. The results from the additional survey were reported in the 1999 Annual Report (Callaghan, 1999), but the final report on the modelled data was not available at the time of reporting. The additional report is located in Appendix 3.

Modelling of borehole EM data for holes SHD1 and SHD2 indicates a thick conductive zone exists between these holes. The conductor strikes north-south, has a width of 300m, a shallow dip and a thickness of up to 400m (Asten, 1999). The conductive zone is only weakly detected in SHD16 which was not logged to the bottom of the hole due to shallow dips. The conductive zone is weakly detected between NC4 and SHD12 in the south, giving the zone an overall length of 800m, open to both the north and south.

This conductor is coincident with the CSAMT anomaly and the geochemical zonation of the Lake Newton Prospect (Section 5.1 and Callaghan, 1999). The EM target was drilled this year by drillholes SHD21 and SHD22 (figures 7 and 8), both of which intersected extensive alteration zones and anomalous Au and Pb-Zn mineralisation (see section 5.4).

No offhole conductors were identified in drillhole SHD19. SHD 19 did not intersect any significant alteration.

5.2.2 Modelling of SHD20, SHD21 and SHD22.

The final report for drillholes SHD20, SHD21 and SHD22 is located in Appendix 4. Modelling of the data, combined with previously acquired data has identified three conductive bodies within the Lake Newton Prospect (Asten, 2000).

Body 1 (Figure 10 and 11) lies above SHD21, between SHD21 and SHD2 and extends south to the end of SHD22 and north through SHD16. It is 800m long, 150m wide and approximately 50m deep. The conductive body lies in exactly the same vicinity as the inner silica-sericite-pyrite-(Cu-Au) core of the Lake Newton prospect and has possibly been intersected by SHD16. The anomaly represents either:

1 The inner silica-sericite-pyrite zone of the alteration system.

2 A higher grade zone within the inner core.

Drilling to date suggests the first possibility however two drillholes are recommended to test the anomaly. A vertical hole drilled from the collar site of SHD2 and a steep westerly directed hole from the SHD22 collar site are recommended (Figures 10,11 and 12).

Body 2 (Figure 10 and 12) is the best conductor identified on the prospect. It lies beyond and below the ends of SHD21 and SHD1 at a depth of approximately –270m RL or 770m from surface. Extending SHD19 400m would intersect this deep body. This would require removal of PVC lining which is not an easy task. Collaring a new hole to intersect disseminated mineralisation approximately 800m below surface is probably not warranted at this stage. This anomaly can be tested by extending the vertical hole from the SHD2 site recommended for testing Body 1 (Figure 10 and 12).

Body 3 is a weak off hole conductor located below and east of SHD20, coincident with the deep CSAMT anomaly. The anomaly occurs approximately 800m below surface making it a low priority target.

5.3 IP Compilation

Old dipole-dipole IP data from the 1967 Mt Lyell Mining and Railway Co. exploration work (Purvis *et al*, 1983) was reprocessed this year by Mike Asten of Flagstaff Geoconsultants. The data was inverted and imaged cross-sections of the 400m spaced lines produced. The consultants report on the survey is located in Appendix 1.

A continuous IP anomaly on lines 20N, 22N and 24N is coincident with the silver-hematite zone located at the top of the Lake Newton Prospect. The anomaly occurs at the base of the Tyndall Group within the Howard's basalt and limestones, a correlate of the Henty-Comstock horizon. Although this anomaly had been previously drilled (HA3, NC4, HA6 and HA4), one short diamond drillhole, SHD25 was drilled to test the strongest anomaly on line 22. The hole did not detect any significant mineralisation. A small pyritic vitric siltstone unit at the top of the Howard's basalt may be responsible for the IP response.

An IP anomaly over the Lake Newton Prospect disseminated sulphide mineralisation has been well tested by old drillholes HA7 and HA8 as well as the new program of drilling.

The Henty Canal area in the vicinity of the South Henty Fault also has a prominent IP response. This alteration has been tested by Pasminco drillholes YNC14 and YNC15.

An IP and coincident CSAMT response is located on lines 16N and 18N (see Appendix 1) around 5357000N 380000E. This anomaly is located on the Spillway Horizon and should be tested by one short (250-300m) drillhole as discussed in Section 5.1.

5.4 Diamond Drilling.

Six Diamond drillholes were completed on the South Henty EL during the past year. Four holes, SHD20, SHD21, SHD22 and SHD25 were drilled into the Lake Newton Prospect. Two holes, SHD23 and SHD24 were drilled into the Canal Prospect. Collar coordinates, downhole surveys, assay data and drill logs for each hole are listed in Appendix 5. Cross sections are located in Enclosure 1.

SHD20

Diamond Drillhole SHD20 was designed to test a deep CSAMT anomaly, 300m north of the previously identified Lake Newton Prospect Cu-Au mineralisation. The hole intersected extensive carbonate-sericite alteration with associated minor lead-zinc mineralisation typical of the outer halo of the Lake Newton alteration system. It is possible the hole has passed under the silica-sericite-pyrite (Cu-Au) inner alteration zone. The hole was lined with PVC and surveyed by Outer Rim with DHEM to detect any off hole conductors. A weak conductor was detected east of and below SHD20 (Asten, 2000). A cross section of the hole is shown in figure 9. A summary log of the hole is as follows:

0.0 – 167.7	Qtz-Feld phyric rhyolite lava/intrusive. Mt Julia Rhyolite.
167.7 – 211.2	Interbedded rhyolitic volcaniclastics and carbonates with hyaloclastic to peperitic Qtz-Feld phyric, suite II porphyry intrusions.
211.2 - 220.2	Dacitic, pumiceous volcaniclastic sandstone. Newton Creek dacites.
220.2 – 561	Qtz-Feld Hbl porphyry Intrusion. Minor carbonate and dacitic volcaniclastic peperite. Suite II Porphyry.
561 – 793	Dacitic pumice lithic volcaniclastic breccia. Newton Creek dacites. Pervasive sericite-carbonate-chlorite alteration. Minor zones of silica-sericite-pyrite-carbonate alteration.

No significant gold assays were returned. Individual Zn analyses to 1% were returned from minor basemetal mineralisation associated with the sericite-carbonate alteration. Although a deep, weak offhole conductor was detected below SHD20, this hole effectively closes off the Lake Newton Prospect to the north.

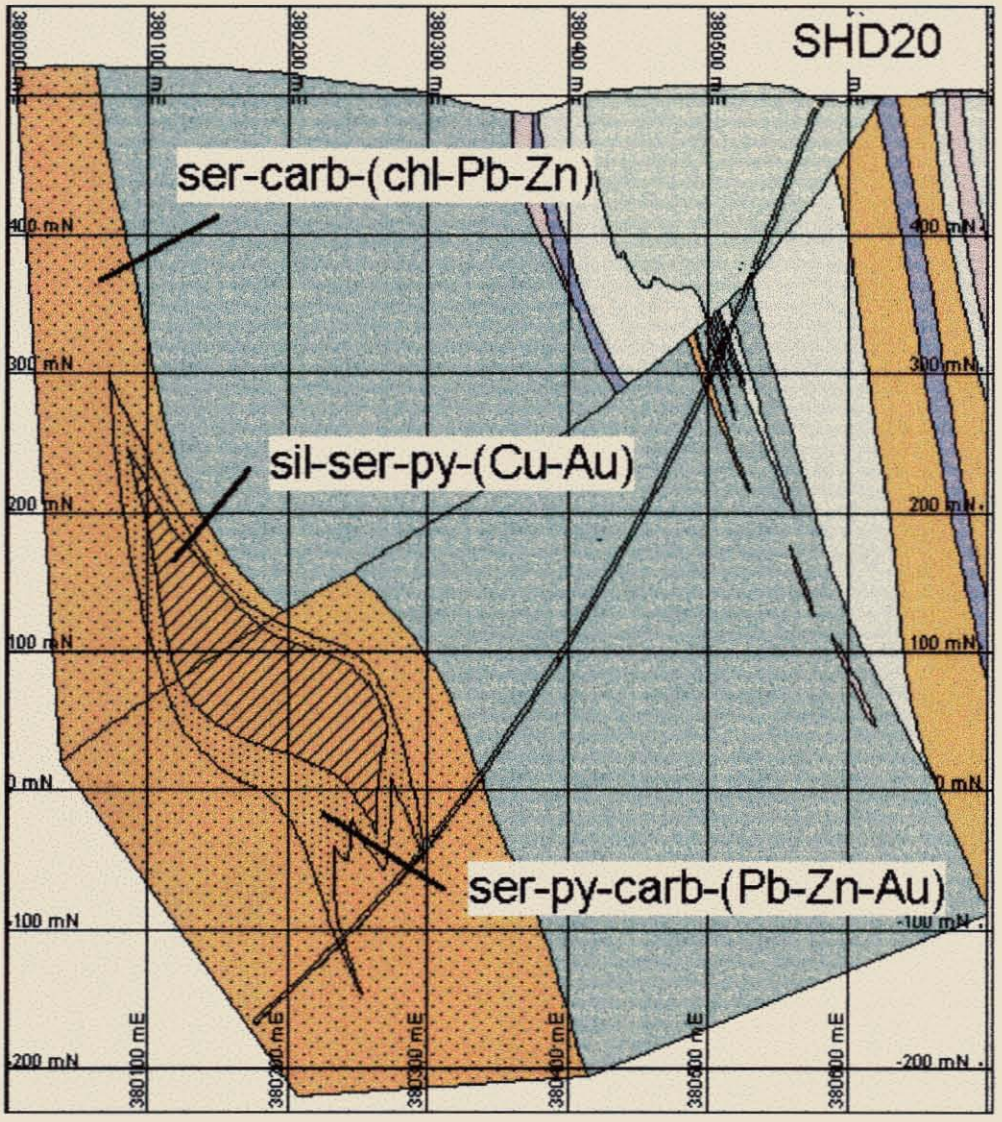


Figure 9. Cross Section 5359480, SHD20. (Legend as for Figure 4).

SHD21

Diamond drillhole SHD21 was targeted on coincident CSAMT and DHEM anomalies within the Lake Newton Prospect. The entire hole was altered from the base of the Tyndall Group (171.3m) to the end of hole at 928m. The hole was terminated when the Longyear 44 reached its limit with NQ drill rods. Cross sections are located in Appendix 7 and Figure 7.

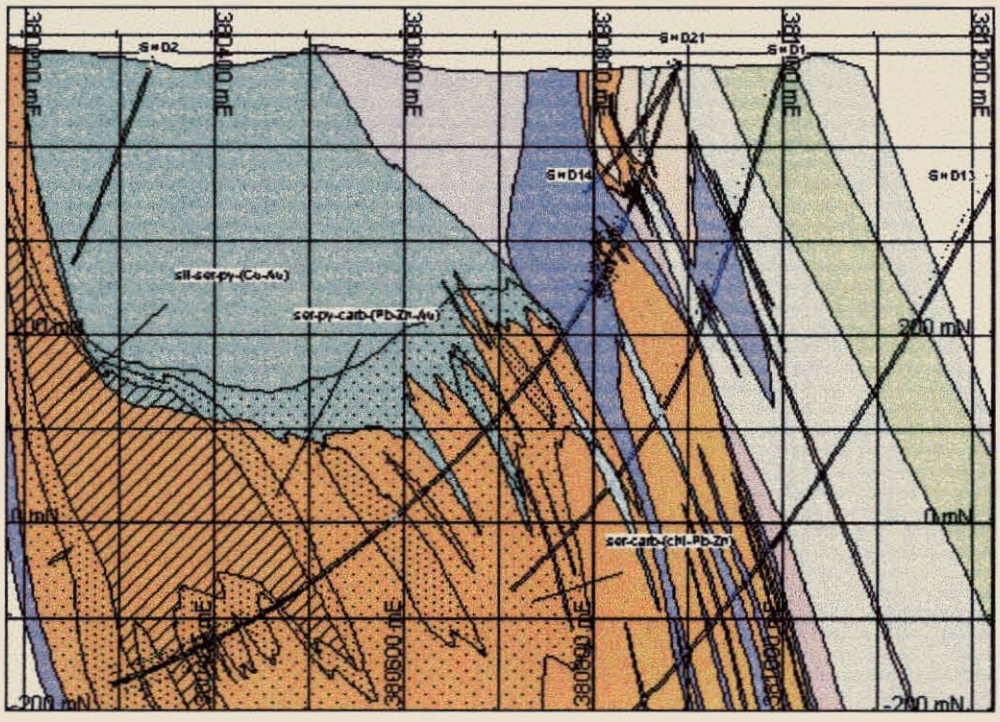


Figure 7. Section 5358900N, SHD21 (Legend as for Figure 4).

A summary log of the hole is as follows:

0 – 12.5	Feldspar crystal lithic volcaniclastic sandstone and vitric siltstone. Lynchford member.
12.5 – 82.6	Autoclastic feldspar phyric dacite lava. Newton Creek dacites.
82.6 – 103.8	Feldspar-qtz phyric rhyolite intrusive. Mt Julia rhyolite.
103.8 – 139.4	Massive, feldspar crystal lithic volcaniclastic breccia. Lynchford Member.
139.4 – 171.3	Massive white to purple carbonate with hematite veins and clasts.
171.3 – 314.4	Interbedded basaltic lithic breccia, basaltic lava and limestone. Howard's basalt. Moderate sericite-pyrite-barite alteration.
314.4 – 319.8	Qtz phyric porphyry. Suite II porphyry. Intense sericite-pyrite alteration.
319.8 – 322.3	Massive pyrite.
322.3 – 432.1	Massive, dacitic lithic volcaniclastics with qtz-feldspar porphyry intrusions and peperite. Pervasive sericite-carbonate alteration with minor silica-pyrite veins.
432.1 – 446.1	Qtz phyric suite II porphyry. Intense carbonate-sericite alteration with strong silica-pyrite veining and late basemetal sulphide veining.
446.1 – 501.1	Dacitic pumice breccia. Newton Creek dacites. Pervasive sericite-chlorite-carbonate alteration.
501.1 – 511.1	Qtz-Feld phyric Suite II porphyry. Sericite-carbonate alteration. Pyrite veinlets.

511.1 – 569.2	Dacitic pumice breccia. Newton Creek dacites. Dominantly sericite-carbonate alteration with minor zones of silica-sericite pyrite.
569.2 – 586.9	Black shale. Minor sphalerite-galena veins.
586.9 – 691.0	Dacitic pumice breccia. Newton creek dacites. Pervasive sericite-carbonate-pyrite alteration. Zones of silicification.
691.0 – 733.0	Dacitic pumice breccia. Newton Creek dacites. Intense silica-sericite-pyrite alteration.
733.0 – 850.8	Dacitic pumice volcaniclastic sandstone. Newton Creek dacites. Pervasive sericite-carbonate-chlorite alteration with zones of silica-pyrite alteration.
850.8 – 864.0	Dacitic pumice breccia. Newton Creek dacites. Intense silica-pyrite-sericite alteration.
864.0 – 873.0	Massive white quartz vein. Pyrite-chalcopyrite crystals.
873.0 – 885.9	Dacitic pumiceous volcaniclastic sandstone. Newton creek dacites. Intense silica-sericite-pyrite alteration.
885.9 – 898.8	Dacitic pumiceous volcaniclastic sandstone. Newton Creek dacites. Silica-sericite-pyrite-carbonate alteration.
898.8 – 921.7	Dacitic pumiceous volcaniclastic sandstone. Newton creek dacites. Intense silica-sericite-pyrite alteration.
921.7 – 928	Dacitic pumiceous volcaniclastic sandstone. Newton Creek dacites. Sericite-pyrite-carbonate alteration.

The following table details alteration styles and associated assay results:

SHD21 Alteration Summary Table.

To	From	Lithology	Alteration	Best Results
314.4	220.0	Basaltic VC	Ser-py-barite	No significant results.
319.8	322.3	Massive pyrite	py	2.5m @1.0% Zn (No Au)
322.3	432.1	Dacitic VC	Ser-carb.	No significant results
432.1	446.1	Qtz porphyry	Carb-sphal-gal-Sil-py stockwork	7m @ 0.4 g/t Au, 1% Pb, 1.9%Zn. Incl. 1m @ 1.8 g/t Au, 3.3% Pb, 6.8% Zn
446.1	928.0	Dacitic pumice Breccia	Interfingering ser-carb and silica-ser-py	851 – 866m 15m @ 0.3 g/t Au

This drillhole confirms the continuity of the large, zoned, alteration system identified in SHD16. However only low level Cu-Au and Zn-Pb values were returned. The CSAMT and DHEM surveys have successfully identified the alteration system at depth. A high grade core has yet to be identified. The hole was lined with PVC and a DHEM survey completed. Two significant offhole conductors were identified as discussed in Section 5.2.2. The larger conductor (Body 1, Asten, 2000) is located within the inner silica-sericite-pyrite core of the alteration system and may represent this style of alteration. Alternatively it may represent higher grade mineralisation within the zoned alteration. The dimensions of the anomaly (800m x 150m x 50m) contains a potential resource in excess of 15Mt.

A stronger, deeper anomaly was detected off and below SHD1 and SHD21 at a depth of approximately 800m from surface.

SHD22

Diamond drillhole SHD22 was collared from Jasper Point in December 1999. The hole was designed to test a deep CSAMT anomaly, off-hole electromagnetic anomaly from NC4 and geochemical zonation defined from previous drilling and mapping. Jasper point is the only site available for positioning a rig to test the 5358500 AMG northing due to the Lake Newton HEC impoundment.

The hole intersected extensive Au and basemetal anomalous silica-sericite-pyrite and sericite-pyrite-carbonate alteration from 94.5m to the end of hole at 616m. The hole was stopped at 616 metres in intensely altered CVC volcanics. The alteration zone proved to be extensive but low grade. The hole swung 30° to the north from the planned azimuth and was not going to test a broad enough stratigraphic package, resulting in the hole being stopped.

Cross sections are located in Appendix 7 and Figure 8.

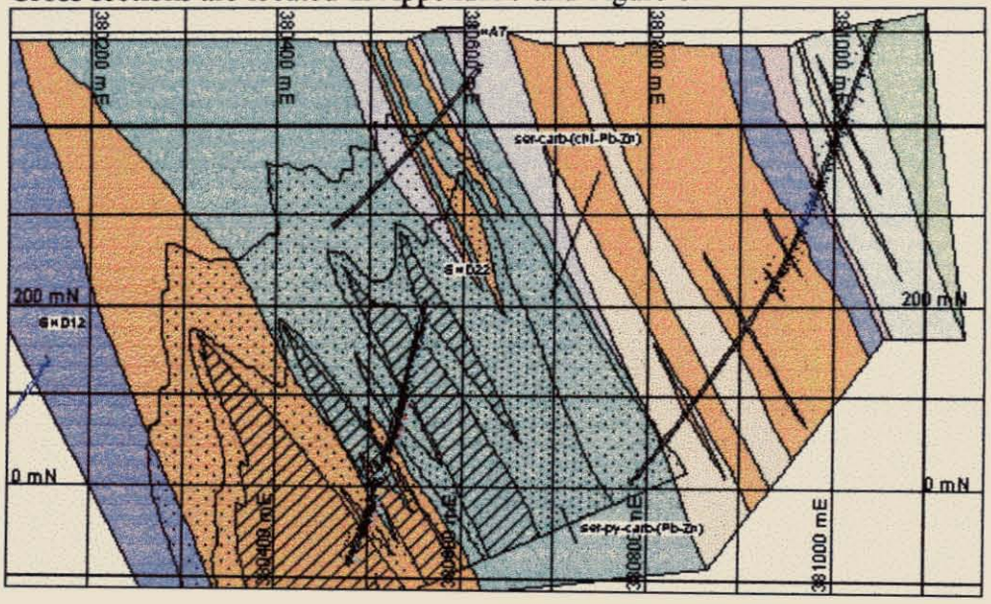


Figure 8. Section 5358500, SHD22 (Legend as for Figure 4).

A summary log of the hole is listed below:

0.0-94.5m	Quartz-feldspar-(hornblende) porphyry. Suite II Porphyry. Pervasive chlorite alteration, 2-5% jasper veins. Cp
94.5-452.8m	Massive quartz porphyry. Suite II porphyry. Intense silica-sericite-pyrite alteration with minor carbonate alteration and basemetals. Intensely foliated, sub-mylonitic. Cp
452.8-476.0m	Dacitic pumice breccia. Intense silica-sericite alteration. Disseminated pyrite (2-5%) with chlorite halos. Minor sphalerite-galena blebs and veins. Ccv

476.0-491.0m Quartz porphyry. Suite II Porphyry. Intense silica-sericite-pyrite alteration with minor carbonate alteration. Cp

491.0-519.0m Dacitic lithic volcaniclastic breccia and vitric siltstone. Intense silica-sericite-pyrite alteration. Minor chlorite and sphalerite-galena alteration. Ccv

519.0-530.9 Quartz porphyry. Suite II porphyry. Intense silica-sericite-pyrite alteration. Cp.

530.9-567.6 Massive dacitic-lithic volcaniclastic breccia. Pervasive sericite-chlorite carbonate alteration. <1% disseminated pyrite. Cvc

567.6-616 Massive, graded volcaniclastic massflows. Dacitic lithic and polymict breccias with silty tops. Intense silica-sericite-pyrite alteration with pyrite to 5%. Ccv

No ore grade intersections were returned from the alteration zone although significant zones of anomalous gold and basemetals were indicated. The following table summarises the best intersections and the associated alteration styles.

SHD22 Alteration Summary Table.

From	To	Lithology	Alteration	Best Results
138.0	146.0	Qtz porphyry	Silica-ser-py	8.0m @ 0.1 g/t Au
288.0	308.0	Qtz Porphyry	Silica-ser-py	20.0m @ 0.1 g/t Au
346.0	392.0	Qtz Porphyry	Silica-ser-py	46.0m @ 0.2 g/t Au inc. 2.0m @ 0.4 g/t Au
482.0	508.0	Qtz Porphyry & Pumice Brxx/Sslt	Silica-ser-py	26.0m @ 0.3 g/t Au inc. 8.0m @ 0.6 g/t Au
512.0	528.0	Qtz Porphyry & Pumice Brxx/Sslt	Silica-ser-py	16.0m @ 0.1 g/t Au
592.0	610.0	Qtz Porphyry & Pumice Brxx/Sslt	Silica-ser-py	18.0m @ 0.2 g/t Au

This hole confirms the continuity of the extensive Au anomalous core and low grade basemetal halo of the Lake Newton Prospect to the south. DHEM modelling of SHD22 indicates offhole conductor body 1 (Asten, 2000) lies just west of this drillhole. Alteration intensity is greatest at the bottom of the hole. A hole collared from Jasper point and drilled due west is recommended to test this zone. This hole has the potential to test the Spillway Horizon on a favourable structure as well as the Lake Newton Prospect.

SHD23

Diamond drillhole SHD23 was designed to test the Canal Prospect alteration on the South Henty EL, 200m south of MJ024. The hole intersected intensely silicified and brecciated dacitic volcanics within the target zone 200m higher than anticipated due to a flatter than expected easterly dip of the stratigraphy. The alteration was less intense than Henty silicification and was sulphur poor. No assays above detection were returned but alteration intensity has been demonstrated to increase with depth. It is possible that that the gold mineralisation continues at around the 0mRL level if the

structures controlling the South Mt Julia alteration also control the Canal prospect alteration. The hole was stopped at 559.2m after passing through the target horizon. A summary log of the hole is tabulated below. A cross section is located in Appendix 7.

0.0-353.6m	Qtz-Feld phyric rhyolite. Mt Julia Rhyolite. Autobrecciated and flow banded. Ctl
353.6-357.6	Polymict volcaniclastic breccia. Feldspar xtal rich.Pumice and Lst Clasts. Cttl
357.6-374.5	Autobrecciated feldspar phyric dacite. Ccl
374.5-377.4	Grey, vitric rich volcaniclastic siltstone. Cts
377.4-380.2	Marly volcaniclastic sandstone. Carbonate matrix. Soft sediment deformation. Ccarb
380.2-411.0	Rhyolitic to dacitic volcaniclastic sandstone. Silica-sericite alteration. Rare pyrite veins. Cttl
411.0-436.3	Pale buff to grey, intensely silicified and brecciated and silica veined dacite/massive silicification (MQ?). Mosaic breccia texture. Host Horizon? No Au. MQ
436.3-442.5	Qtz-phyric rhyolite. Strong sericite alteration. Ctl
442.5-445.1	Massive, silicified and brecciated dacite. MQ
445.1-456.0	Fine grained volcaniclastic sandstone and vitric siltstone. Ccv
456.0-470.4	Graded, basaltic lithic volcaniclastic breccia. Howard's basalt. Cb
470.4-484.0	Massive, white to pink Lst with calcareous volcaniclastic sandstone and basalt breccia. Ccarb
484.0-493.1	Basaltic lithic volcaniclastic breccia. Howard's basalt. Cb
493.1-512.0	Fine grained, well sorted volcaniclastic sandstone. Silica-sericite-pyrite alteration. Low level basemetal mineralisation to 1.4% Zn. Cvc
512.0-559.2	Massive, feldspar phyric dacite. Silica-sericite-pyrite altered. Ccl

SHD24

Diamond drillhole SHD24 was drilled on the South Henty EL Canal Prospect. The hole was designed to test the prospect 400m south of the Henty ML boundary at a depth of 0-100m RL. The target horizon was intersected earlier than anticipated due to a flatter dip of the stratigraphy than previously interpreted. The hole intersected no significant mineralisation and was stopped at 516m. This hole effectively closes off the Canal Prospect to the South near surface. A cross section is located in Appendix 7.

A summary log of the hole is as follows:

0.0-316.2	Massive qtz phyric rhyolite. Pervasive albite alteration, minor chlorite veining. Mt Julia Rhyolite. Ctl.
316.2-322.3	Volcaniclastic breccias, polymict and pumiceous. Cttl.
322.3-333.3	Massive, feld phyric dacite. Weak ser-chl-CO_3 alt. Ccl.
333.3-340.0	Fine, volcaniclastic sst/sslt. Cttl.
340.0-344.5	Massive, feld phyric dacite. Weak ser-chl-CO_3 alt. Ccl.
344.5-355.2	Massive, weakly graded dacitic volcaniclastic sst. Weak ser alt.
355.2-359.0	Coarse, feld phyric dacite with Lst peperite. Ccarb
359.0-367.0	Polymict volcaniclastic breccia. Lst intraclasts. Cttl.

367.0-380.8	Massive, feld phyric dacite. Minor hematite-albite alteration. Ccl.
380.8-387.0	Polymict volcaniclastic breccia. Dacitic sslt intraclasts. Weak ser alteration.
387.0-404.0	Laminated vitric sslt. Cts.
404.0-414.6	Graded, polymict volcaniclastic breccia. Pumice, Lst, sslt, feld xtal rich. Cttl.
414.6-422.0	Laminated calcareous volcaniclastic sst. Cttl.
422.0-430.0	Fine, graded, feld xtal dacitic volcaniclastic sst. Cttl
430.0-478.0	Massive, feld phyric andesite. Strong hematite-carbonate alteration. Ca
478.0-503.8	Massive, aphyric to feld phyric dacite. Weak ser-chl alt. Ccl
503.8-512.4	Feld xtal-pumice breccia. Sil-chl alt. Ccv
512.4-516.0	Massive, feld phyric dacite. Ccl.

SHD25

Diamond drillhole SHD25 was targeted on a prominent inverted IP target located on Line 22 of the old Mt Lyell grid at about 381000mE (Appendix 5). The anomaly lies within the Howard's basalt, a favourable potential seafloor horizon at a similar stratigraphic level to the Henty mineralisation. The target horizon occurs in the upper zone of the Lake Newton alteration system. The Howard's basalt is weakly sericite-pyrite-barite altered 1km to the north in drillholes SHD21 and SHD14 although no significant mineralisation is associated with the alteration. The two holes immediately north are weakly altered and silver mineralised (HA3 49m @ 8 g/t Ag, NC4 intersected carbonated-sericite altered dacitic volcaniclastics and intrusives at the end of the hole), consisting of abundant hematite-carbonate altered basaltic lithic breccias and associated limestones. The two holes intersecting the horizon to the south (HA4 and A6) contain anomalous silver mineralisation (HA4 35m @ 34 g/t Ag, HA6 4.1m @ 6.3 g/t Ag). The conductive zone of the target horizon was considered to be a potential high grade lens of mineralisation formed at or near the seafloor position above the extensive Lake Newton alteration zone.

Unfortunately no significant mineralisation or alteration was identified in SHD25. Very similar rocks to those of the nearby HA3 were intersected. The chargability anomaly possibly is associated with a thin, laminated pyritic vitric siltstone unit at the top of the Howard's basalt..

A summary log for the hole is as follows:

0-19.3m	Massive feldspar-quartz crystal lithic volcaniclastic breccia. Albite-chlorite altered. Comstock Formation, Mt Julia Member. "Comstock Tuff".
19.3-160.5m	Massive, graded feldspar crystal lithic volcaniclastic sandstone/breccia. Dominantly chlorite altered. Lynchford Member "Lynchford Tuff".
160.5-179.5	Massive, matrix to clast supported polymict volcaniclastic breccias. Calcite veined and Lst clast bearing. Lynchford Member.
179.5-181	White to pink fossiliferous Limestone.
181-182.4	Feldspar phyric dacite autobreccia. Chlorite altered. Newton Creek Dacites

182.4-183.8	Fine grained, ashy, basaltic vitric siltstone, minor pyrite. Howard's Basalt.
183.8-204.1	Massive, basaltic lithic volcaniclastic breccia. Strong hematite alteration. Howard's Basalt.
204.1-215.4	Mixed Basaltic lithic breccia and limestone breccia. Hematite altered. Limestone.
215.4-217.1	Broken core. Fault.
217.1-222	Massive, basaltic lithic volcaniclastic breccia. Strong hematite alteration. Carbonate clasts and bands. Howard's Basalt.
222.0-222.4	Limestone.
222.4-224.8	Massive, basaltic lithic volcaniclastic breccia. Strong hematite alteration. Carbonate clasts and bands. Howard's Basalt
224.8-226.4	Limestone.
226.4-233.2	Massive, basaltic lithic volcaniclastic breccia. Strong hematite alteration. Howard's Basalt.
233.2-234.8	Limestone.
234.8-262.3	Massive, basaltic lithic volcaniclastic breccia. Strong hematite alteration. Howard's Basalt.
262.3-263.2	Limestone.
263.2-267.4	Massive, basaltic lithic volcaniclastic breccia. Strong hematite alteration. Howard's Basalt.
267.4-269.0	Limestone.
269.0-315.0	Massive, basaltic lithic volcaniclastic breccia. Strong hematite alteration. Howard's Basalt.
315.0-315.4	Vein.
315.4-367.0	Feldspar phyric andesite. Hematite altered ferromagnesian minerals. Brecciated and calcite veined.

5.5 Sulphur Isotope Study.

Previous sulphur isotope studies (Callaghan, 1999) have defined a distinct zonation of $\delta^{34}S$ within the Lake Newton Prospect with the Cu-Au mineralised core having lighter $\delta^{34}S$ (~6) than the surrounding Pb-Zn anomalous halo (~12). The zonation is similar to that defined by basemetal geochemistry and alteration mapping (Callaghan, 198, Callaghan, 1999). All of these techniques provide vectors to the proximal alteration system. Gold anomalous alteration is associated with low $\delta^{34}S$ (Callaghan, 1999).

The zonation reflects one of two possible mechanisms for the formation of the alteration system:

1) Mixing of low $\delta^{34}S$ magmatic derived fluids with higher $\delta^{34}S$ reduced Cambrian seawater circulating through the upper volcanic pile.
2) Mixing of VHMS type, seawater dominated hydrothermal fluid with low $\delta^{34}S$ (from scavenged rock sulphur) with higher $\delta^{34}S$ reduced Cambrian seawater circulating through the upper volcanic pile.

Thirty samples of pyrite mineralisation from drillholes SHD21 and SHD22 were submitted to the CSL at the University of Tasmania for sulphur isotopic analyses. The results from this survey and a more thorough discussion of the results are located in Appendix 6.

Both holes intersected extensive alteration zones, both with the most intense silica-sericite-pyrite alteration (and anomalous Au) at the end of the hole. The $\delta^{34}S$ of both holes also decrease downhole reflecting the proximity to the centre of the alteration system at the end of the hole.

Alteration mapping, sulphur isotope analysis and DHEM surveys all suggest the proximity of mineralisation to these holes. A large DHEM conductor (section 5.2.2) is located within the inner alteration zone and should be tested with a further two diamond drillholes (see section 6).

6 DISCUSSION AND RECOMMENDATIONS

Lake Newton Prospect

Drilling of DHEM and CSAMT targets on the Lake Newton Prospect failed to identify economic mineralisation, despite intersecting extensive alteration zones with low level gold and lead-zinc mineralisation. It is becoming increasing likely that the Lake Newton Prospect is a large, zoned alteration system with only low grade disseminated base metal mineralisation and low grade gold mineralisation. However several anomalies remain untested within the Lake Newton Prospect. These lie within the 'proximal' alteration zone and may be due to higher concentrations of sulphide mineralisation.

Drillholes SHD21 and SHD22 were targeted on coincident DHEM and CSAMT anomalies. Both holes intersected significant alteration and extensive low grade gold mineralisation. Further DHEM modelling suggests they have narrowly missed more conductive bodies associated with the alteration zone. One of the conductive zones (Body 1, Asten, 2000) is located on the Spillway horizon and has a strike extent of 800m. This area still has the possibility of hosting an orebody in excess of 15Mt. Alteration zonation suggests the survey is picking up the silica-sericite-pyrite (Cu-Au) core of the alteration system, already intersected in SHD16 and the end of SHD22. Two diamond drillholes are recommended to test the anomaly. One hole should be collared from Jasper Point and drilled through the anomaly to also test the Spillway Horizon. A second hole should be collared from the SHD2 site and drilled vertically into the anomaly. This hole could be continued to also test the conductive horizon 'Body 2' (Asten, 2000) identified off the ends of drillholes SHD21 and SHD1. This is a deep anomaly, located approximately 700m below surface and may well be too deep to consider as an economic proposition considering the grade of the mineralisation identified to date. Mike Asten considers Body 2 to be the best conductor on the prospect, although the low time constant (0.5msec, Hellyer = 3msec) suggests the body contains disseminated, Mt Lyell style mineralisation.

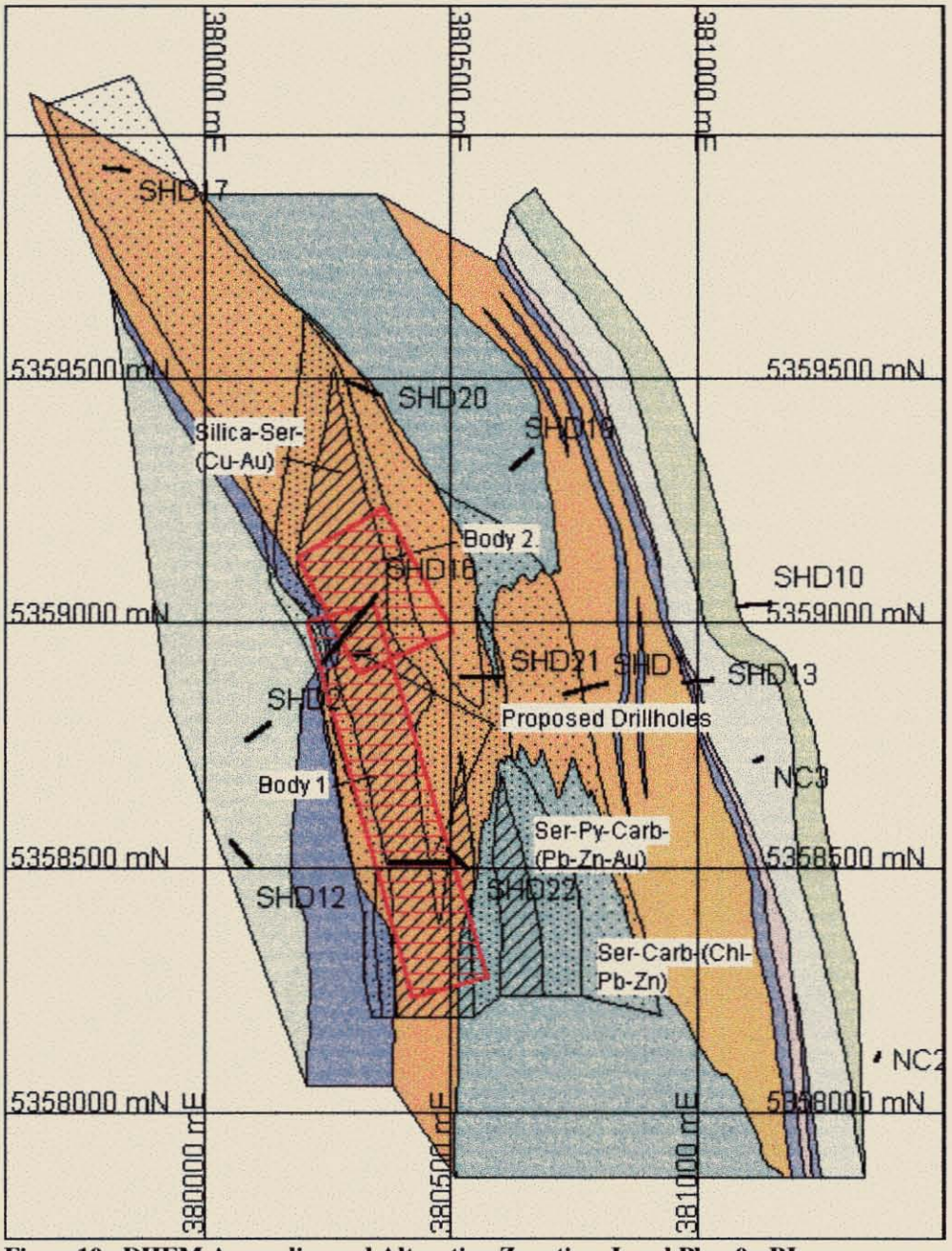


Figure10. DHEM Anomalies and Alteration Zonation, Level Plan 0mRL.

The CSAMT survey has identified the pyritic alteration zone over a strike length in excess of 2kms. The southern kilometre remains untested. This area of anomalism underlies the barite-basemetal mineralisation of Tyndall Creek and should be drill tested. A hole collared from 5358000N, 380600E will test the strongest part of the southern anomaly.

If this final phase of drilling fails to identify economic gold or base metal mineralisation within the Lake Newton Prospect, no further work is recommended.

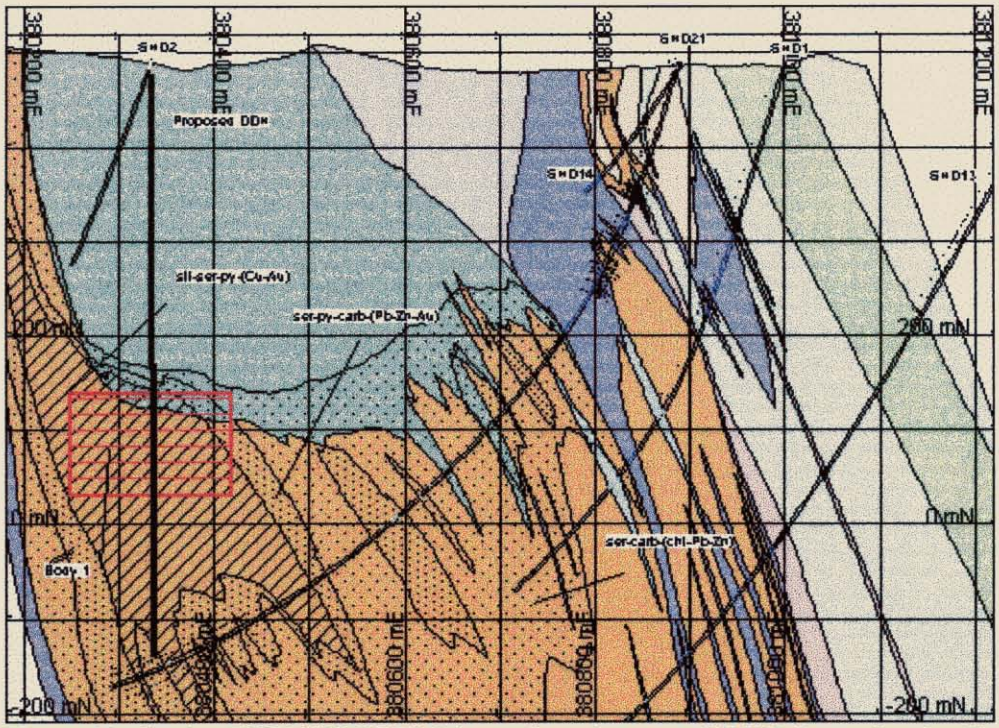


Figure 11. Section 5358900N, DHEM Anomaly and proposed DDH (Legend as for Figure 4).

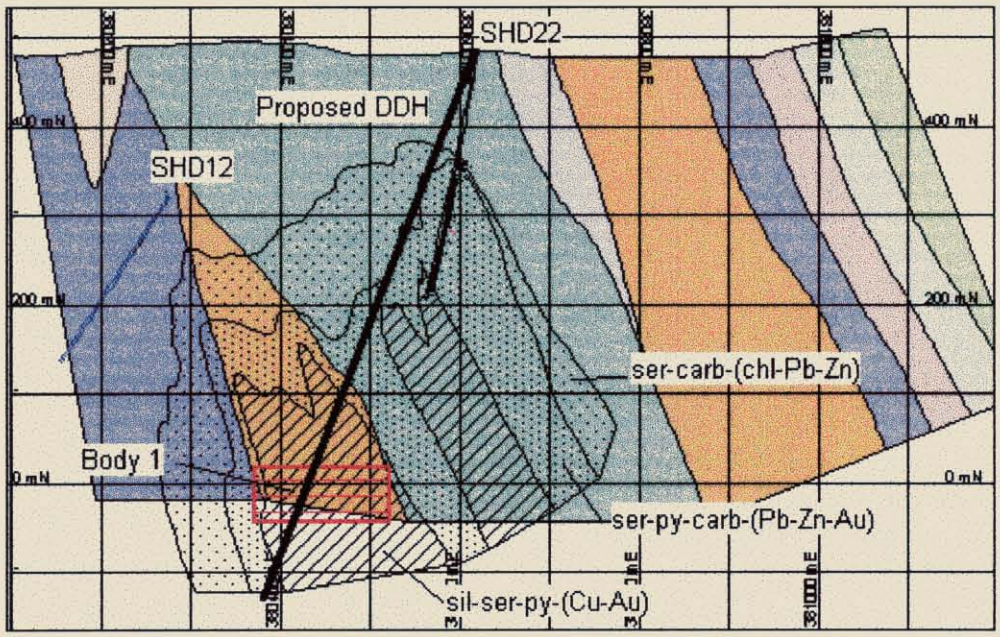


Figure 12. 5358400N, DHEM Anomaly and proposed DDH.

Canal Prospect.

The Canal Prospect alteration zone has been closed off to the south by drillhole SHD24. The alteration zone has been consistently weak with only low level gold anomalism. Although the alteration remains open down dip, no further work is recommended for this zone within the South Henty EL.

Spillway Horizon

One short 200-300m drillhole is recommended to test the coincident IP and CSAMT response located on the Spillway Horizon in the southwest of the EL at around 5357000N 380000E. This area has not been adequately drilled before, Pasminco drillholes YNC12 and YNC13 were collared too far west within the stratigraphically lower Spillway Basalt horizon.

Summary of Recommendations

1. Vertical drillhole from SHD2 collar testing Body 1 and Body 2 (?) conductive anomalies in the Lake Newton Prospect (600m+).

2. West directed drillhole from Jasper Point targeting the Lake Newton Prospect conductive Body 1 and the Spillway Horizon (600m).

3. Diamond drillhole to test Lake Newton Prospect southern CSAMT anomaly on line 5358000N. Possibly more holes if the alteration continues south (500m).

4. One short drillhole to test the coincident CSAMT and IP response on the Spillway Horizon at 5357000N 380000E (200m).

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APPENDIX 1

CSAMT and IP Surveys, consultants report.

650039

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Report 0004/1 for

GOLDFIELDS EXPLORATION

CSAMT Surveys and Re-interpretation of IP profiles, South Henty (W. Tas) EL 8/96

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26 April 2000

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CSAMT Surveys and Re-interpretation of IP profiles, South Henty (W. Tas) EL 8/96

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PLATE 7 South Henty EL 8/96
Conductive trends interpreted from CSAMT surveys

PLATE 8 South Henty EL 8/96
Conductive and IP basement anomalies and trends, interpreted from the inversion of dipole-dipole IP data.

PLATE 9 South Henty EL 8/96
Conductive trends interpreted from CSAMT surveys, with conductive and IP trends from dipole-dipole IP surveys, superimposed.

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LIST OF APPENDICES

APPENDIX 1 – set of plots of CSAMT Cagniard resitivities vs frequency, and Bostick resistivity vs depth, for each Line surveyed.

APPENDIX 2 – set of plots of 1D inversion of resistivity vs depth, for each Line surveyed (by Zonge Engineering).

APPENDIX 3 – set of plots of dipole-dipole resistivity and IP field data, and 2D inversion to depth, for each IP line surveyed by McPhar, 1967.

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DATA SUPPLIED

CSAMT data was acquired on EL 8/96 by Zonge Engineering as contractors to Goldfields Ltd, in 1999. This CSAMT data complements surveys covering the Basin Lake area (EL 19/98) to the south, reported in Asten (1999) and Hill and Vicary (1999). Data was supplied by the contractor as digital AVG files, and digital files of 1D inversions.

The re-interpretation of dipole-dipole resistivity and chargeability data uses information from surveys conducted by McPhar Geophysics (1967). The data were digitised from original pseudo-sections provided by McPhar in 1967. The resistivity and IP data was inverted using the University of British Columbia 2D inversion software (Oldenburg et al, 1994). A base map at scale 1:5000, showing locations of the Lines on the Mt Tyndall East grid, as drawn by the MLM&R in 1982, was used as the primary geographic reference.

Sketches of for selected boreholes were provided by T. Callaghan, and are included in Figures 1-8 of this report.

INTRODUCTION

The historical data and known geology is described by Dauth (1999). The new CSAMT survey (Zonge Job 426) was commissioned by Goldfields Ltd and covered 14 east-west lines, from 5356200N to 5362000N (spacing 400 m). The lines averaged 1500 m length and used 50 m receiver electric dipoles. The transmitter bipole was east-west, length 1875 m, with centre located at 380038E, 5350600N. At the southern end, the data partially overlaps earlier data acquired by Billiton on Lines 5356200N and 5357000N. Transmitter frequencies from 8192 Hz to 32 Hz were used; lower frequencies used in the earlier Billiton survey were judged to add no useful information, being clearly in the "near-field" in this resistive terrain.

Data was supplied by the contractor as AVG files, ie as Cagniard resistivities averaged in time but with no spatial filtering. The data was then converted to full AMG coordinates and filtered using the EMAP process (Torres-Verdin and Bostick, 1992) by this author. The EMAP filtering process gives a dramatic reduction in magneto-telluric static effects, which makes interpretation of the data via resistivity-frequency pseudo-sections significantly more reliable (Asten 1999).

The EMAP filtered data was then transformed to resistivity-depth parasections, using the Bostick transform (Jones, 1983). While the Bostick transform is a one-dimensional (layered-earth) transform, when coupled with EMAP filtering it gives results close to two dimensional inversion (Torres-Verdin and Bostick, 1992).

A significant constraint on interpretation of this data is that the transisition zone for the controlled source occurs at 1024Hz or 512Hz, and much of the data acquired at

frequencies 256 Hz and below is in the near field. This means that the intrinsic depth sensitivity of the CSAMT data is lost at these lower frequencies, and the Bostick transform becomes a weaker approximation for the purpose of extracting resistivity and depth data.

The CSAMT data also suffers from significant noise problems particularly (but not only) in the vicinity of a high-tension power line crossing the entire EL (north to south). Such noise sources make it necessary to delete selected frequency points from the data (via the "skip-flag" with Zonge file format). Some time was spent in discussion with Zonge personnel in order to exclude such data prior to EMAP filtering.

In addition to Bostick transformation, the EMAP-filtered data was inverted to resistivity-depth parasections by Zonge, using their proprietary 1D smooth-model inversion algorithm. This process has the advantage of retaining validity for transition-zone and near-field data, and it produces more stable resistivity estimates than the Bostick transformation. However the method appears to be poorer than the Bostick method in imaging up dipping conductors. Thus the optimum interpretation process is to view the data via both Bostick and smooth-model inversions.

Selected profiles (Lines 5358200N to 5359800N) have also been processed by Zonge using a proprietary 2D smooth-model inversion algorithm. The results of 2D inversion are limited by the fact that the 2D algorithm (like the Bostick transform) cannot process near-field data.

Plots of pseudo-sections of Cagniard resistivities, plus parasections of Bostick resistivities,were produced for each surveyed line, at scale 1:5000. These plots, reduced to A3 size, are included in this report as APPENDIX 1. Plots of 1D inversions and 2D inversions produced by the Contractor, are included in APPENDIX 2.

PLOTS PRESENTED

For each survey line, plots of EMAP-filtered resistivities, raw Bostick resistivities and depths, and Bostick resistivities interpolated over depth are presented. These are at scale 1:5000, and are included in this report as a PowerPoint file (Office 97 format). The plots are also included as hardcopy prints, reduced to A3 pages, in APPENDIX 1.

The 1D inversions produced by the contractor are also included at scale 1:5000 (digital files) and reduced to A3 pages in this report, in APPENDIX 2.

Parasections of raw Bostick resistivities show symbols giving depth estimates of resistivity solutions at each frequency. These symbols are colour-coded for resistivity using the same scale as that used for the contoured resistivity in the plots of interpolated Bostick resistivity. Some Bostick resistivities have poor confidence due to the apparent resistivity-frequency curve violating alowable slopes (+-1). This

phenomenon is usually due to noisy data; such Bostick solutions are identified on the plots by crosses or + symbols within the raw Bostick resistivity box symbol.

Two types of plan-view presentations of the data are included. Frequency slices of EMAP-filtered resistivities are a useful stable method of showing resistivities at near surface (using 8192 or 4096 Hz) or at depths in the range 300-500m (using 1024 or 512 Hz).

Depth slices of Bostick resistivities give better resolution of variation of resistivity with depth, but these products tend to be noisy, since "bad" resistivity estimates corrupted by noise give "bulls-eyes" of high or low resistivity estimates, especially in the vicinity of power lines. Depth slices are presented for depths corrected for topographic variations referred to the maximum elevation of 560 m, hence depth slices 200, 300, and 400m correspond to RLs of +360, +260, and +160m RL. (NB the maximum elevation of 560 m for this survey, differs from the maximum elevation of 660m which was used as a reference in re-processing the earlier Billiton CSASMT data, as reported in Asten, 1999).

All plan-view images and maps are presented at scale 1:10,000, as PLATES 1-9.

INTERPRETATION

The most useful map product for interpretation of near-surface geology is the top-most "depth-slice" draped on topography (PLATE 1). This is essentially the same as a frequency-slice of resistivities at 8192 Hz, with fill in from lower frequencies where 8192 Hz data does not exist.

Note that the lateral resolution of the CSAMT method is limited by the wavelength of EM radiation measured. Lateral resolution is of similar order to depth penetration; for rocks of 1000 ohm.m resistivity, such resolution is of order 120 m, 250 m and 500 m, for frequencies 8192 Hz, 2048 Hz and 512 Hz respectively. Thus we cannot expect to literally outline the margins of outcropping siltstones with tens of metres of thickness. Rather we expect the CSAMT method to show a thin good conductor as a broad zone of moderate conductivity.

Near-surface conductive trends can be identified from high-frequency CSAMT images of Cagniard resistivities, or equivalently from a depth-slice at 50 m of the Bostick resistivities – see Plate 1. These near-surface zones are marked in red on PLATE 7, and probably represent sub-cropping zones of conductive alteration or black siltstones.

Seven zones of conductors extending to depths greater than 100 m are identified.

Zones 1 and 2: This is the major geophysical feature of the prospect, being dominant on both CSAMT and IP images. The zone correlates with mapped andesitic to basaltic lavas, frequently containing significant sericite-pyrite alteration. In particular

the zone of active drilling bounded by holes SHD1, SHD2, SHD20 and SHD22 lies within this zone.

In Zone 2, there is a 400x400 m area showing consistent anomalous conductivity which extends from surface to the limit of the survey (order 500m); this zone is north of SHD2 and has been drilled by SHD16, which returned the most intense alteration and trace mineralization of any hole to date.

In the north of Zone 1, there is a very similar conductive zone which appears un-tested by drilling; this zone is centred 300 m south of the collar of SHD22.

Zone 3: Interpretation of depth slices and parasections of Bostick resistivity requires some caution, since the algorithm is affected significantly by noise (a problem with this survey, especially from power-lines) and by the transition from far to near field in CSAMT wave propagation (also a problem here, due to the high background resistivities). "Bulls eyes" are unlikely to be significant (since they are often caused by noise in the data affecting the transform maths) but conductive trends with consistency from line to line are of interest. Reference to parasections is also necessary, due to the fact that the "transition-zone notch" gives low apparent resistivities when the CSAMT data lies in the transition-zone; the presence of this notch can be misleading when interpreting conductors at depth.

Subject to this cautionary comment, it is interesting that depth slices show the zone 1 conductor displaced to the west in the vicinity of line 5357800N, marked on PLATE 7 as Zone 3. This zone has not been drill tested (other than by short holes SHD3,4,5 and 7, which encountered volcanics with weak disseminated pyrite in foliated sericitic alteration.

Zone 4: This is imaged best in depth slices of Bostick resistivity. The same cautionary note applies as with Zone 3, but the zone is significant because it may represent a conductive alteration system at 200+ m depth. The north end of this zone has been tested by hole YNC12, which showed weakly disseminated pyritic alteration. Further study of the geophysics of this zone, and a further drill testing, is recommended.

Zone 5: This zone lies at the eastern end of lines 5357800N-5358600N, and is in the vicinity of a power line. While efforts have been made in re-processing the data to remove points affected by powerline noise, it is likely that noise is still affecting this data. Given the lack of line-to-line continuity of this zone, it requires verification with further geophysics using new noise-reduction technology, before a drill target can be sited with confidence.

Zone 6: This zone is at the west end of line 5360600N, and probably off the west end of line 5361000N. The position correlates with the South Henty Fault, and with a clearly-defined conductor and basement IP response seen in inversions of the dipole-

dipole IP data. The zone is tested by holes YNC14 and YNC15; YNC14 showed strong to intense pyrite-sericite alteration on the eastern side of the fault.

Zone 7: This zone has a strike length of 1200 m and is best seen on Line 5359800N in depth slices at 200-300 m depth. The trend suffers from high noise (it runs parallel to, but 200 m distant from, a power line) which down-grades it. It has a weak, coincident IP trend, and is close to a mapped E-W fault. This locality is therefore a target for drilling and further study.

RE-INTERPRETATION OF McPHAR (1967) DIPOLE-DIPOLE IP DATA

The re-interpretation of dipole-dipole resistivity and chargeability data uses information from surveys conducted by McPhar Geophysics (1967). The data were digitised from original pseudo-sections provided by McPhar in 1967. All profiles studied used electrode spacings of a=300 ft (90 meters) and transmitter-receiver spacings in the range n=1 to n=4. The resistivity and IP data was inverted using the University of British Columbia 2D inversion software (Oldenburg et al, 1994).

The IP survey used the frequency-domain method, with the unit of IP being percent frequency effect (PFE). Conversion from PFE to chargeability (in millivolts/volt) is of order

chargeabilty = PFE*4 (Asten 1999, Appendix 1).

A base map at scale 1:5000, showing locations of the Lines on the Mt Tyndall East grid, as drawn by the MLM&R in 1982, was used as the primary geographic reference.

Pseudo-sections of field data, plus inversion sections for resistivity and IP were produced at a scale of 1:5000. The plots are included in this report in Appendix 3, reduced to A3 sheets. Note that the unit of distance in all these plots is feet.

The tracks used for the IP survey in 1967 used a highly irregular grid, in feet. The location of endpoints and the coordinate origin for each of the profile lines is shown on PLATE 8.

The lateral position and extent of all basement resistivity lows (ie conductors) and basement IP highs is shown in plan view in PLATE 8, and shown superimposed on CSAMT conductive trends, in PLATE 9. The trends of six polarisable zones, labelled P1 to P6, are identified for further discussion.

Zone P1: This is the zone of greatest interest, and is tested with holes SHD16, SHD21 and others, associated with the best drilling results on the prospect, so far.

Closely follows CSAMT Zone 1 and 2, and is widest (500 m) on 5359000N (IP Line 26N) at the locality of holes SHD1 and SHD2.

Zone P2: A northern extension of P1, along the western edge of CSAMT conductor 1.

Zone P3: A trend displaced to the east of Zone P1; seems associated with occurrences of siltstones Cts in the northern half, but may be associated with the volcaniclastics and tuffaceous unit Cttle in the south.

Zone P4: a weak IP trend, but has some significance being coincident with the CSAMT Zone 4. The IP trend does not extend north to YNC12 (whereas the CSAMT trend does).

Zone P5: This is both conductive and an IP response, and appears to be associated with Ordovician siltstones Coonsh. It is therefore not prospective.

Zone P6: This is both conductive and an IP response, and follows the South Henty Fault. It defines the fault position better than the (insufficient) CSAMT data. The zone is tested by holes YNC14 and YNC15; YNC14 showed strong to intense pyrite-sericite alteration on the eastern side of the fault.

Four drill targets are shown on PLATE 9; detailed discussion follows in discussion of results on a line by line basis.

COMMENTS ON LINE DATA

Line 5356200N and IP Line 14N

A surficial conductor exists east of 380300, to end of CSAMT line at 380600N, but conductivity in the basement is poor. The CSAMT data is noisy (due to power lines?) in this locality. The IP data also shows a surficial conductor, but without IP targets.

Line 5356600N and IP Lines 14N, 16N

CSAMT data is as for line 5356200N. There is an IP target (PFE 5) in the basement, at 380100E, depth 50 –150 m

Line 5357000N and IP Lines 16N-18N

CSAMT data has a similar character to 5356600N. IP data on 18N shows a basement target at 379950E, depth 50-200m, weaker (PFE 4) than the corresponding anomaly to the south. This IP feature represents the northern extent of the IP Zone P4; it does not extend north into any recognisable basement feature on line 20N, but hole YNC12 on line 20N is the nearest hole representing drill-testing of the trend.

This hole intersected weakly disseminated pyritic alteration. A further hole on this trend (to the south) is recommended, since it is probable that the alteration noted in YNC12 increases to the south.

Line 5357400N and IP Lines 18N-20N

The CSAMT data shows a conductive feature at 380600-381000E, depth 300-400m, dipping shallowly east. It is seen on 2048 and 1024 Hz data, and on Bostick resistivities, although the latter are broken up by noise in the data.

The CSAMT conductor coincides with a pair of IP basement conductors at 380600E-381000E (on Line 20N) and 380800E-381200E (Line 18N) forming trends labelled as Zone P1 (west) and Zone P3 (east) on Plate 8. These zones trend NNW and are consistent with geological strike.

Hole HA2 collared at 5357440N 380790E angled west, appears to have tested the Zone P1 IP anomaly exactly; the hole intersected sericite-pyrite alteration in andesitic lavas over its 259 m length (Figure 1a).

Hole HA004 collared at 5357530N 380910E angled east is too far east to test the eastern Zone P3 IP anomaly; the IP target lies vertically below the collar, and may be associated with the fault zone (intersected at 40 m depth in the hole – see Figure 1b). The hole has length of order 400 m and intersected basaltic volcaniclastics from 170 m and below. This hole is deep enough to have tested the deep CSAMT conductor labelled Zone 5 in PLATE 7.

Hole HA5 collared at 5357180N 381040E angled west, appears to have tested the Zone P2 IP anomaly ; the hole intersected volcaniclastic shale at 140 m and a fault in basaltic volcaniclastics at 200 m depth (Figure 2). The hole lies mid-way between the two IP lines 18N and 20N and thus requires about 200 m lateral projection, but it appears that either the intersected shales or the fault zone (the same fault as intersected by HA004) explain the IP response. Laboratory testing of core would be useful here, in order to determine whether the IP response is associated with shale or alteration.

Line 5357800N and IP Lines 20N-22N

As with the previous line, the CSAMT parasection data suggests presence of a deep conductor (300+ m deep) although the noisy nature of the Bostick resistivities means this conclusion cannot be definitive. The IP data again shows two anomalous zones which are interpreted as continuations of zones P1 and P3. Hole HA6 collared at 5357770N 381040E angled west, appears to have tested the Zone P2 IP anomaly ; the hole intersected basaltic volcaniclastics at 60-120 m. (Figure 3). Given the strength of the IP anomaly (PFE >=6) it is surprising that no shale or pyrite alteration was logged for the hole. The hole lies mid-way between the two IP lines 20N and 22N and thus requires about 200 m lateral projection, which leaves some uncertainty in location.

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The hole stops at 250 m, which leaves the model of a deep conductor at 300+ m untested.

Line 5358200N and IP Lines 22N-24N

The strongest CSAMT conductor is at 380600E-380700E, labelled Zone 1. It is the most prominent conductive trend on the prospect, but has not been drill tested at this latitude (hole SHD22 collared 200 m further north, is the nearest. Hole SHD 12 is clearly too far west to test this zone. The IP data shows an anomalous zone (Zone P1) in the same location, depth 50-150 m. In view of results from hole SHD22, this zone is a drilling target; intersection at 5358020N, 380590E, depth 100 m is recommended.

The CSAMT data also indicates a basement weak conductor of interest below 380900E-381100E. The conductor is imaged on all of the frequency pseudosection, Bostick resistivity parasection, 1D smooth model inversion, and 2D smooth model inversion, although the loss of several data points through noise means the shape is unclear. This weak target is at depth 200-300m and is barely evident on the Bostick resistivity depth slice.

The IP data again shows the two zones P1 and P3 of anomalous IP in the basement.

Hole HA003 collared at 380000E appears to have been drilled above both the CSAMT conductor, and the eastern IP target. Thus all the geophysical evidence indicates the need to drill a deep hole under the collar of HA003. This was done and is reported as hole SHD25. Unfortunately hole SHD25 (Figure 5) did not intersect significant alteration, a result which is difficult to explain.

Line 5358600N and IP Lines 24N-26N

CSAMT data is absent for most of this line due to existence of a hydro-power lake. In the east, the CSAMT data shows a conductive zone at depth (200+m) which is the northern-most extent of the Zone 5 conductor. As noted previously, this conductor is poorly defined due to noise problems from power lines, hence the Bostick resistivities are very noisy. Smooth model inversions (both 1D and 2D) show a conductive zone between 381300E and 381400E. The only hole penetrating the zone (HA4 1000 m to the south) failed to find alteration of interest.

IP data (pre-dating the construction of the lake) shows clear anomalies as part of Zones P1 and P3. Zone P1 is tested by SHD22 which confirms existence of a significant alteration system. Zone P3 to the east, and extending to the NNE, corresponds with the location of siltstone units Cts, which may be the source of the IP anomaly.

Line 5359000N and IP Line 26N

The CSAMT data outlines a basement conductor (Zone 1) located between holes SHD2 and SHD1. IP inversions show a coincident IP target (Zone P1), which is the strongest and laterally broadest IP target on the prospect. Drilling and borehole EM surveys show this zone to be a zone which contains sericite-pyrite alteration, and also contains significant offhole conductors which are the target of further drilling. Details are given in Asten (2000).

The CSAMT depth slice at RL 260 m (300m below ground) also suggests a deep conductor at 380800E-381000E (Zone 7). This zone is seen most clearly on lines 5359400N and 5359800N, but it is a poorly defined zone due to high noise levels and possible confusion with transition-zone effects on Bostick resistivities. This conductor is not seen at all on the 1D inversion, but it is strongly imaged on the 2D inversion, hence it cannot be disregarded since it is part of the NNW-trending Zone 7 seen to the north.

Line 5359400N and IP Line 28N

The CSAMT data images show the Zone 1 conductor on frequency slices and depth slices, at 380100E-380300E. The IP zone P1 is reduced relative to line 5359000N, and appears to have split into two discrete anomalous zones at either side of the CSAMT conductor. Holes SHD8 and SHD9 test this anomaly at shallow depths (to 50 m); both holes recorded weakly disseminated pyrite alteration. This target is tested at depth with holes SHD20 and SHD16, as discussed in more detail in borehole EM results in Asten (2000).

The CSAMT data also shows a conductor (Zone 7) between 380700E-380850E. The data is clearly noisy, but the persistence of Zone 7 from line to line gives added credence to Zone 7 as a subject for further investigation.

The eastern IP anomaly on this line at 381000E (Zone P3) does not correspond to the CSAMT anomaly; it appears to correspond in position with mapped siltstones.

Line 5359800N and IP Line 30N

This line marks the northern extent of the CSAMT conductor Zone 2. The inversions show the conductor to be thinner and surficial compared with lines further south. There is some suggestion on the 2D inversion of extension to depth at 379750-379850E. This location corresponds with mapped felsic pyroclastics drilled by holes YNC4, 7, 8, and 11. Hole YNC4 appears to have tested the zone, and found sericite-pyrite-chlorite alteration in felsic volcanics Ccvi, over an interval of 30 m (Figure 6).

The IP zone P2 is weak, outcrops at 380000E, and hence appears to correlate with a different rock unit, possibly basaltic volcanics. **This IP zone P2 remains untested by drilling.**

The most interesting anomaly on this line is a deep anomaly (200-300 m deep) extending from 380400E to 380700+E as CSAMT Zone 7. It is imaged by all of the Bostick, 1D and 2D inversions, and is the best expression on the prospect of Zone 7. It does not have an IP expression on line 30N to the north, but aligns with a significant northward extension of Zone P1 seen on line 28N to the south. Given the presence of mapped E-W faults with a sinistral displacement (possible plumbing) in the vicinity of this line 5359800N, this Zone 7 CSAMT anomaly (and the north arm of IP Zone P1 to the south) require drill-testing. This locality is the best possibility for a repetition of the conductive alteration/mineralization existing between holes SHD1 and 2.

Hole SHD6 (length 250 m, dip 40-30degrees) passes over the top of this conductor; the hole ended in basaltic volcanoclastics which leaves the possibility of favourable felsic volcanics being located nearby at greater depth (Vicary, personal communication). A new hole under hole SHD6 is recommended.

Line 5360200N and IP Lines 30N-32N

The CSAMT data suffers badly from noise at three locations on this line. There is evidence in the depth slices for continuation of the Zone 7 conductor at depths 200-300 m (380300E-380500E on a NNW trend from the drill target identified to the south).

IP data shows two anomalous zones – P2 at 380000E and P5 at 380800N. The IP zone P2 is weak (PFE 3.5) but distinct, and it lies east of the collar of hole YNC4 (Figure 6). This zone is untested by drilling, and a hole under YNC7 is recommended. Note that this line lies on the northern side of a mapped east-west fault, whereas the IP Zone P2 and drill target are on the south side of this fault.

The IP Zone P5 follows mapped Ordovian siltstones and, while strong (PFE >5.5 on Line 32N) it is not regarded as prospective.

Lines 53560600N, 5361000N, 53562000N and IP Lines 34N-36N-38N

These are short lines for the CSAMT survey, designed to look for geophysical evidence for the Mt Julia mineralization. The data quality is limited by noise, and hence no inducation of the deep Mt Julia mineralization can be seen. However the data does map the South Henty fault (at the extreme west of line 5360600N and beyond the end of 5361000N) as a surficial conductor with the high frequencies, see Plate 1.

The IP data maps the South Henty fault as a strong IP target (Zone 6) with PFE 4 to 6+, and also as a conductor. The IP response is greatest on Line 34N where basaltic

and felsic volcanics are mapped. The zone is tested with holes YNC15 and YNC14 (Figure 7) which intersected a thick shear zone corresponding to the fault, with intense sericite-pyrite alteration in volcanics on the eastern side of the fault.

RECOMMENDATION FOR FURTHER GEOPHYSICAL SURVEYS

Laboratory measurements are required on core samples from hole HA005, in order to determine whether the IP response is attributable to shales or alteration in the vicinity of the fault.

Detailed IP surveys, using new technology for the reduction of power-line noise, are recommended over the following four target areas, after drilling has tested for the presence of an alteration system.

Holes drilled should be lined with PVC pipe and surveyed with borehole EM methods.

Hole SHD25 corresponds to a recommended hole based on the geophysics in this report. The hole failed to intersect mineralization, but borehole EM surveys in SHD25 (and HA3 if accessible) are recommended as follow-up.

DRILL RECOMMENDATIONS

Zone 1/Zone P1 should be tested south of hole SHD22 with intersection at 5358020N, 380590E, depth 100 m.

Zone P4 (a trend of IP anomalies at 50-200 m depth) should be tested with a hole targetted at at 380100E, 5356700N, depth 100 m.

Zone 7 should be tested with a deep hole targetted at 5359750N, 380650E, depth 250 m (under the collar of SHD6). A collar at 380750E, angled west, dip 60 deg, and of length 400+ m would adequately test the CSAMT conductor.

Zone P2 should be tested with a hole under YNC7. The target location is 5359660N, 380060E depth 100 m. The recommended collar is at 380100E, angled west, dip 60 deg, length 200 m.

These four recommended drill targets are shown on PLATE 9.

050053

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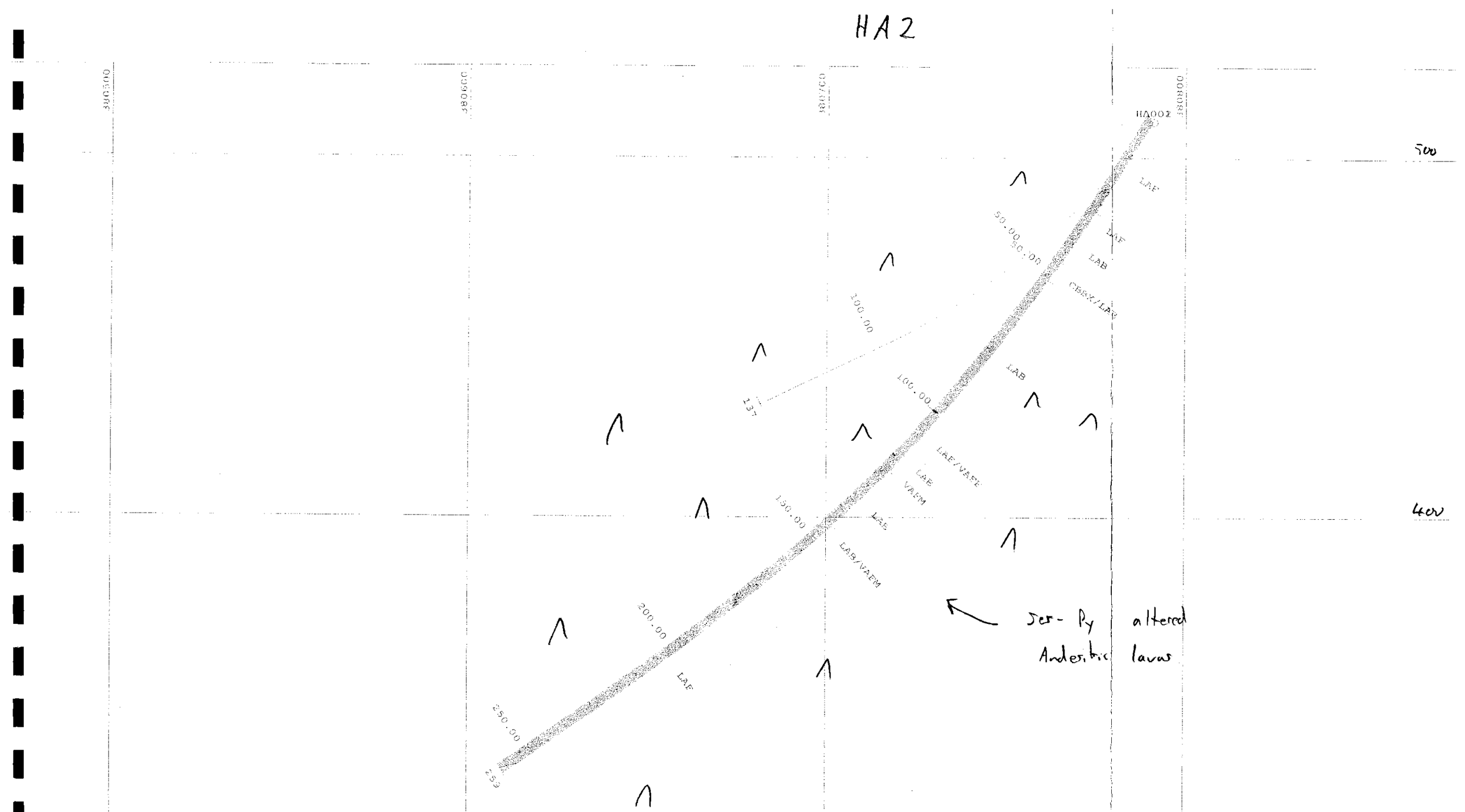
Torres-Verdin, C., and Bostick, F.X., 1992, Principles of spatial surface electric field filtering in magnetic-tellurics; electromagnetic array profiling (EMAP): Geophysics v.57, 603-622.

HA2



Ser - Py altered
Andesitic lavas

Fig. 1a
Hole HA 002

[redacted]
650054

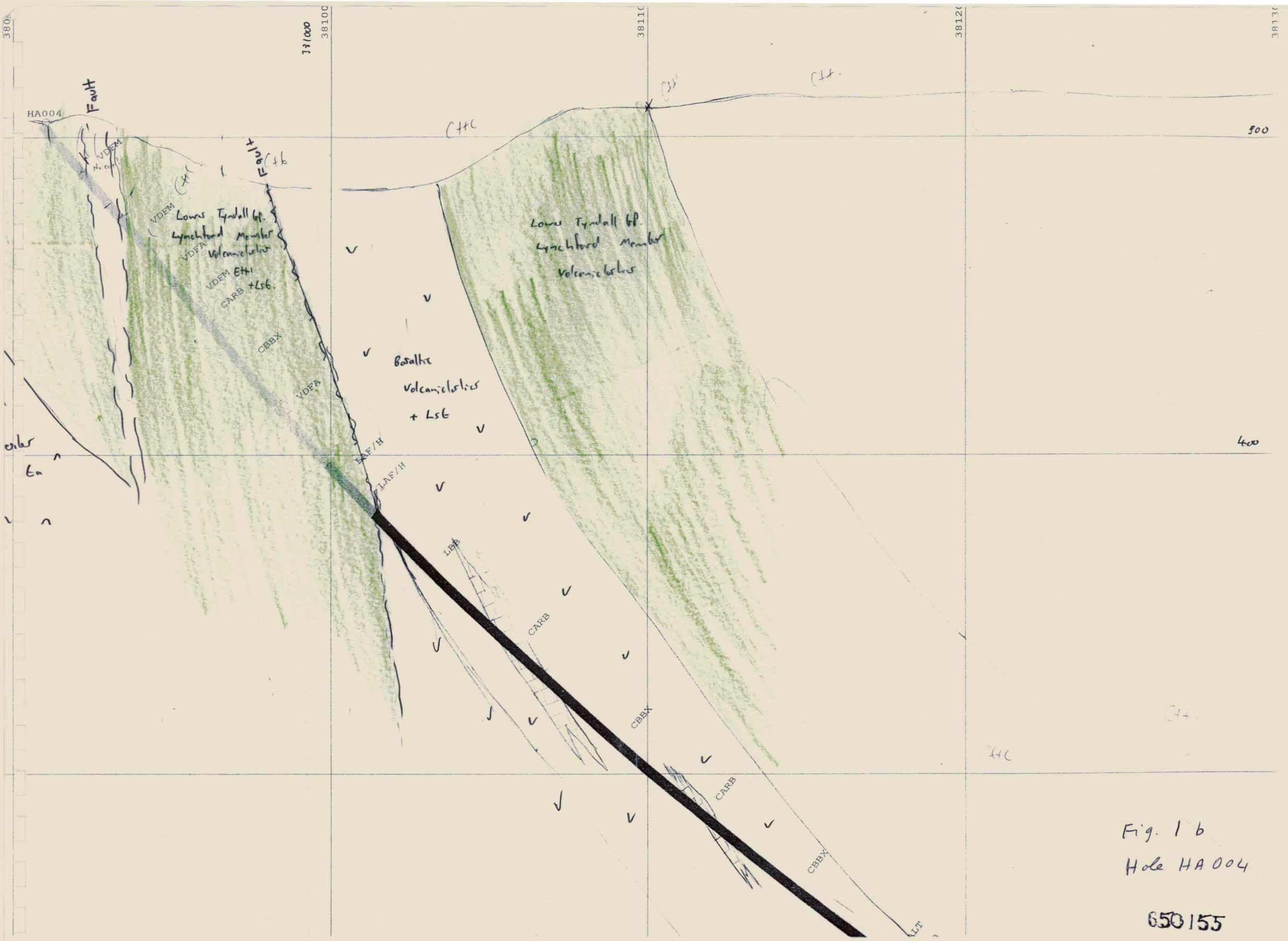
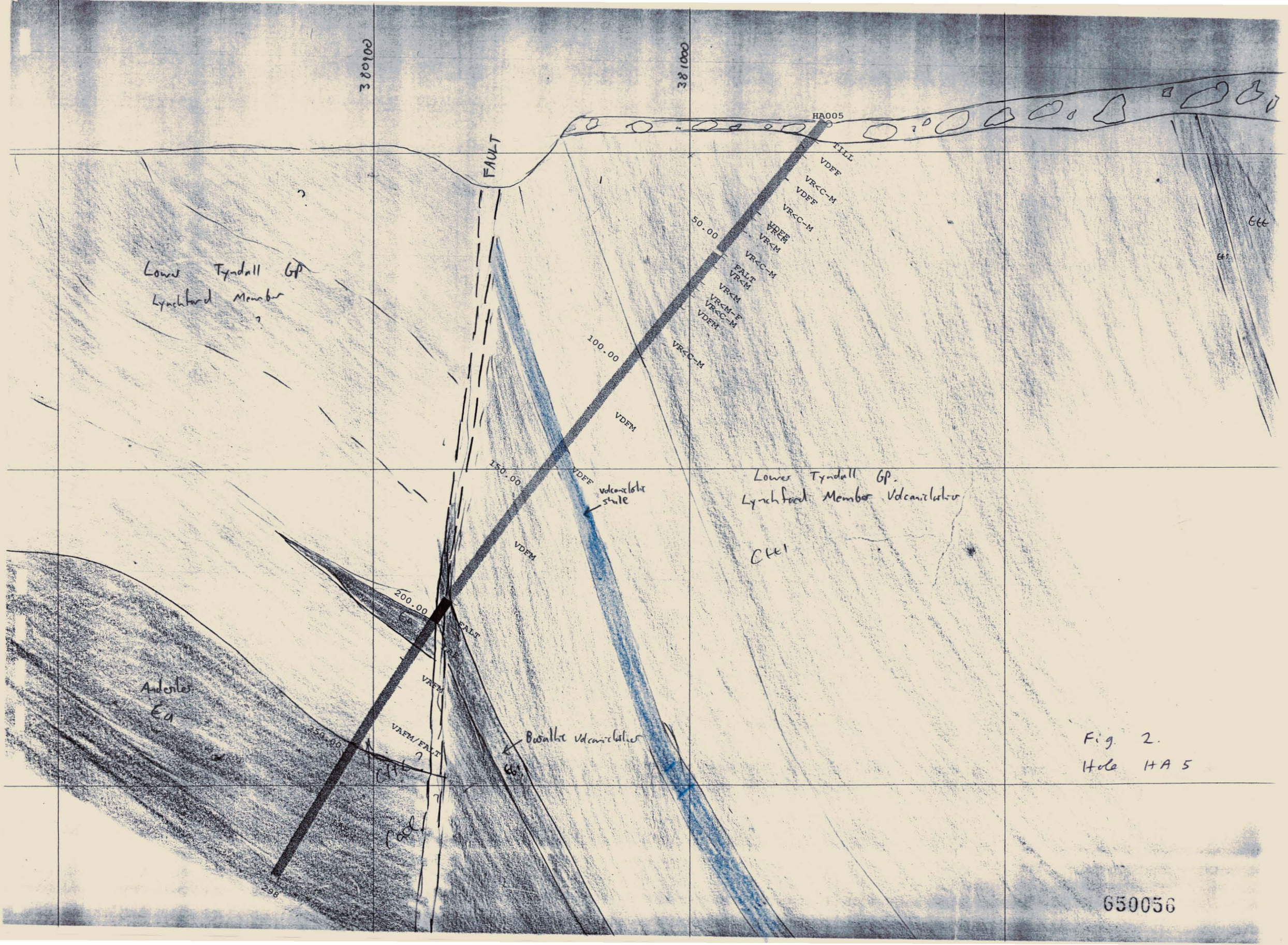


Fig. 1 b
Hole HA 004

650155


380100
381000
HA005
TILL
FAULT
Lower Tyndall GP
Lynchford Member
?
50.00
100.00
150.00
200.00
250.00
298
VDFF
VR<C-M
VR<M
VR<M-F
VDFM
FALT
VAFM
VAFM/FALT
Basaltic Volcaniclastics
Andesites
Lower Tyndall GP.
Lynchford Member Volcaniclastics
Fig. 2.
Hole HA 5
650056

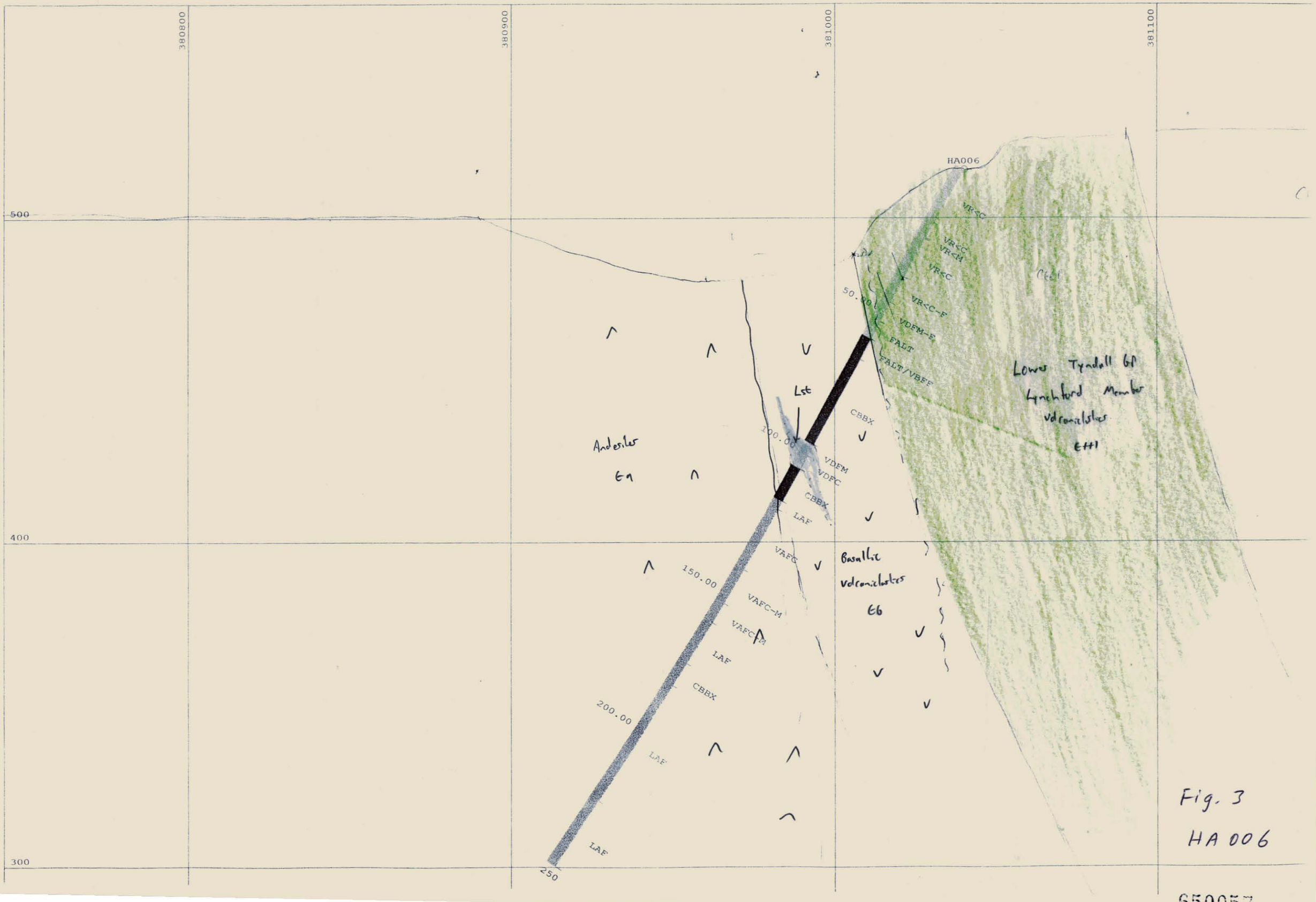


Fig. 3
HA 006

650057

380700

380800

HA003

380900

381000

500

HA003

VDFM-C

VDFM-M

VDFM-C

CBBX

VDFM-C

SILT

VDFM

Lower Tyndall Gp. Volcaniclastics

(Clyde Ford Member Em1)

LBB

VDFF-M

LBB

Basaltic Volcaniclastics.

Em1

400

calcareous basaltic

volcaniclastics + Lst.

Andesites

Em

CBBX

CARB

SAND/CARB

CBBX

CARB

LA/

CARB/LAB

244

650058

Fig. 4.
Hole
HA003

650059

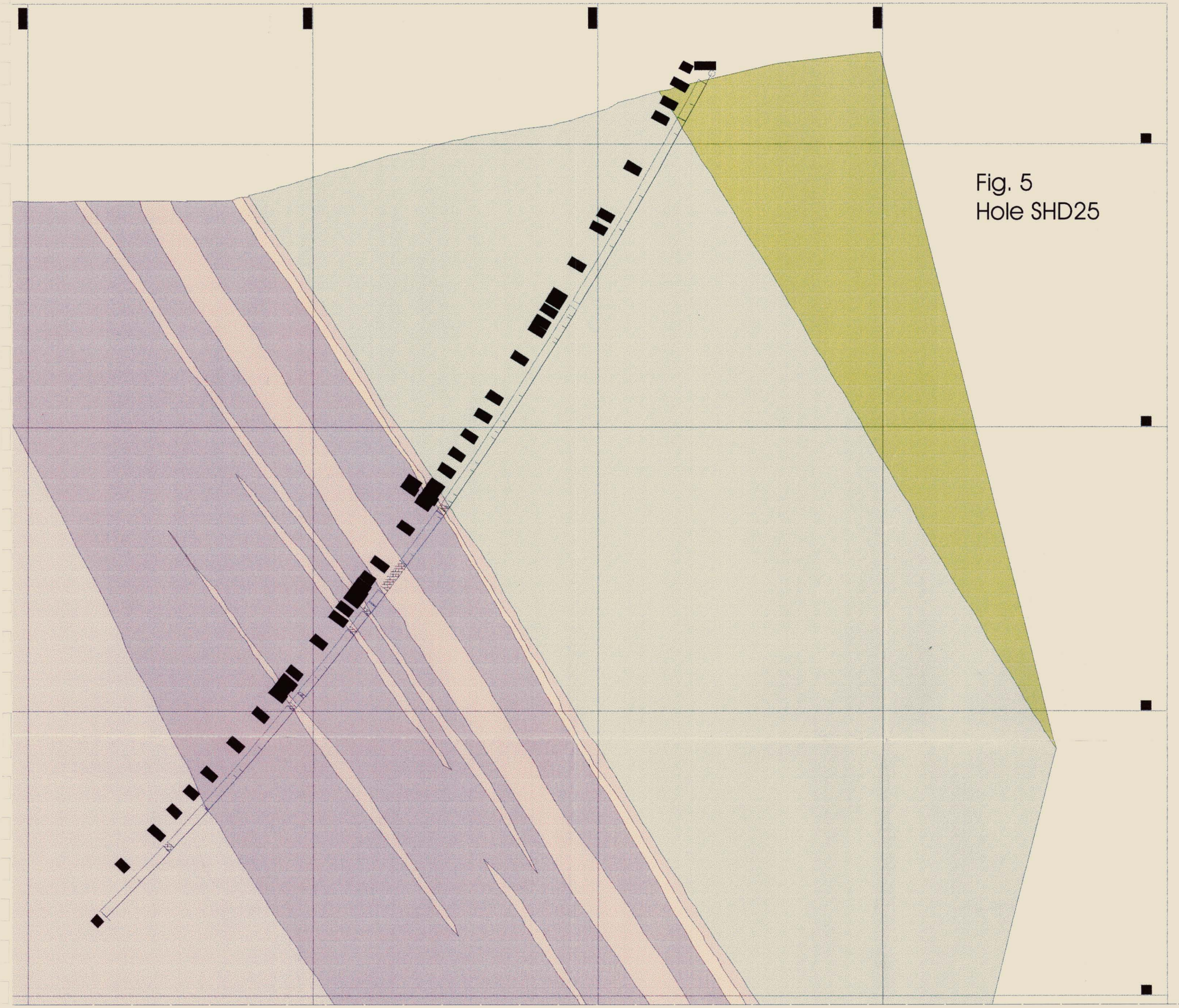


Fig. 5
Hole SHD25

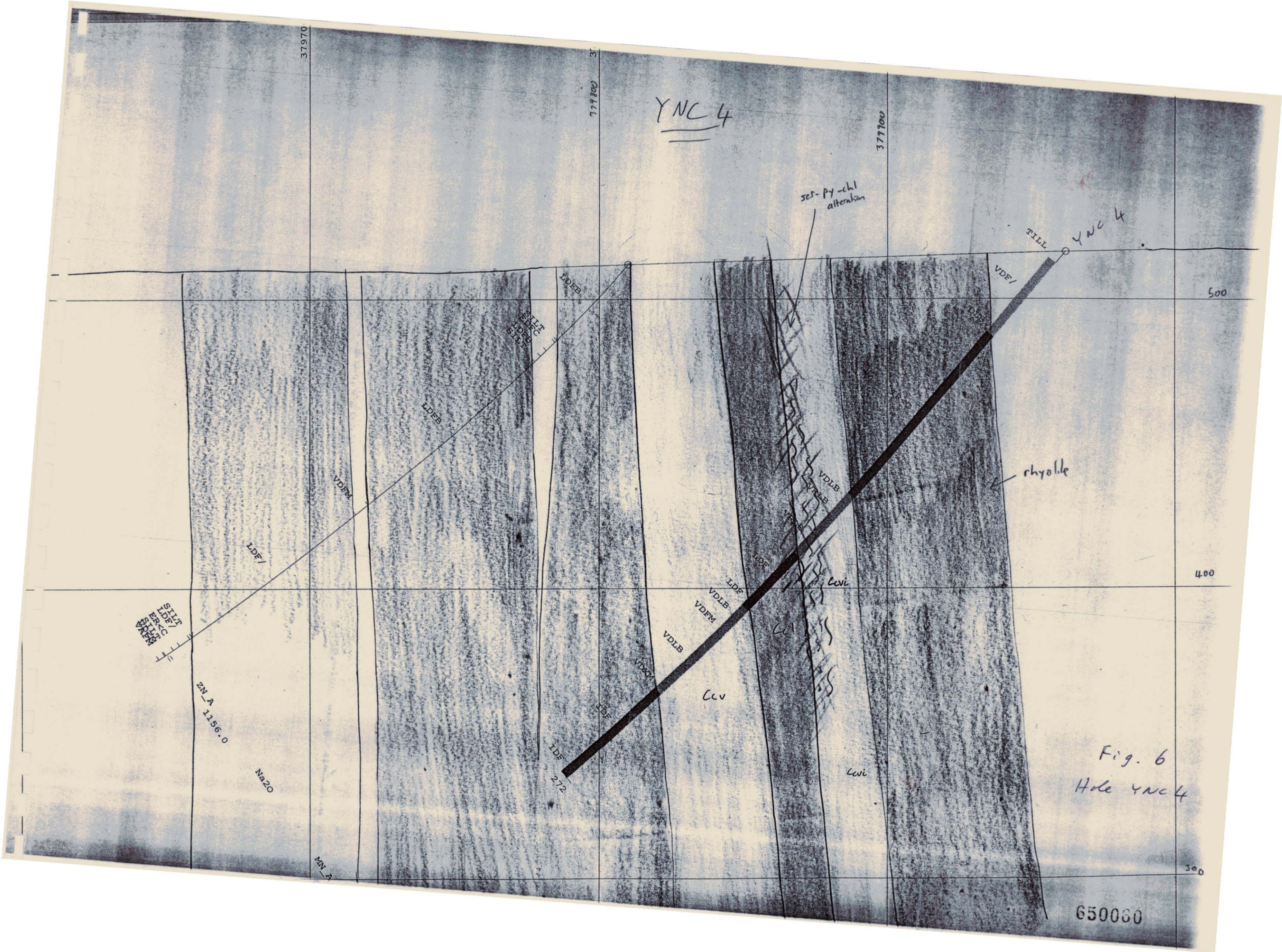


Fig. 6
Hole YNC 4

650061

Henty Canal

YNC15

YNC14

HENTY FAULT

SOUTH

S1

S1

12.7

dacite derived sandstone

massive to autoclastic dacite feldspar phyric

dacite derived sediment

massive dacite

dacite derived sediment monomict/conglomerate

autobrecciated dacite to monomict conglomerate (may be alteration effect)

massive to autobrecciated dacite minor volcaniclastic component prominent 2mm feldspar

Zone of strong to intense sericite–silica–pyrite with carbonate alteration

intermediate lava grey green porphyritic foliated amygdaloidals

deformed shear-altered green yellow foliated. qtz sericite rock with interbeds of graphitic shale

intermediate lava grey green porphyritic foliated amygdaloidals

deformed shear-altered green yellow foliated. qtz sericite rock with interbeds of graphitic shale

Fault – grey yellow sericitic pug

lava or lava breccia sil–ser–py alt

Altered dacites

zone
–pyrite
ediate lavas
iclastics and
shales

379 300mE

379 400mE

379 500mE

379 600mE

660

400

Fig. 7.

Hole YNC 15,
YNC 14.

APPENDIX 1

Set of plots of CSAMT Cagniard resitivities vs frequency, and Bostick resistivity vs depth, for each Line surveyed.

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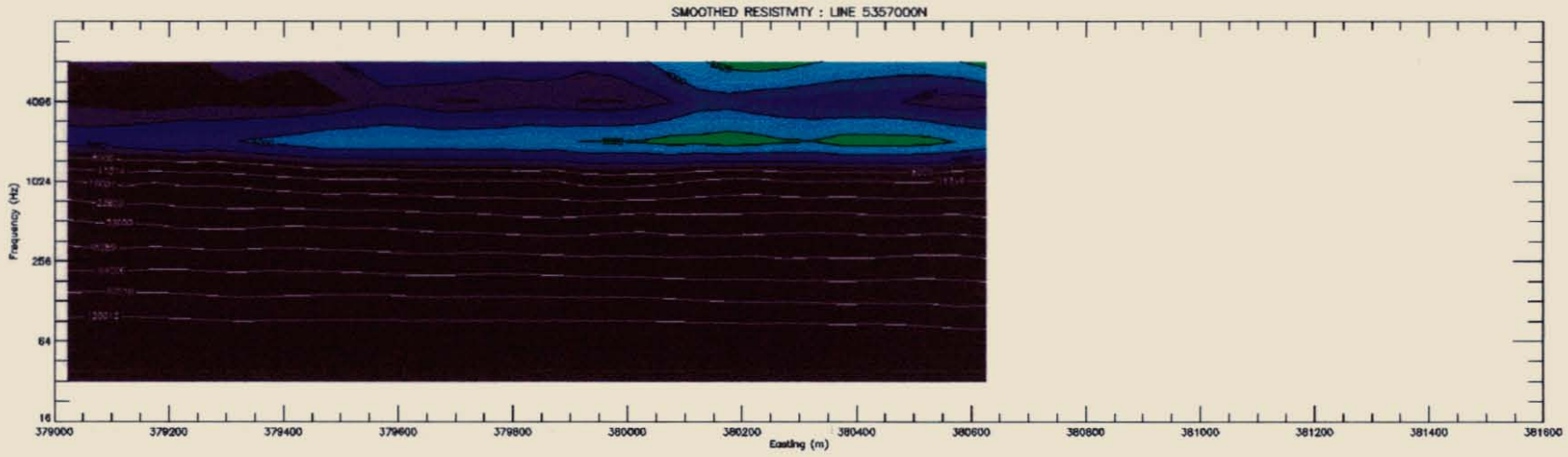
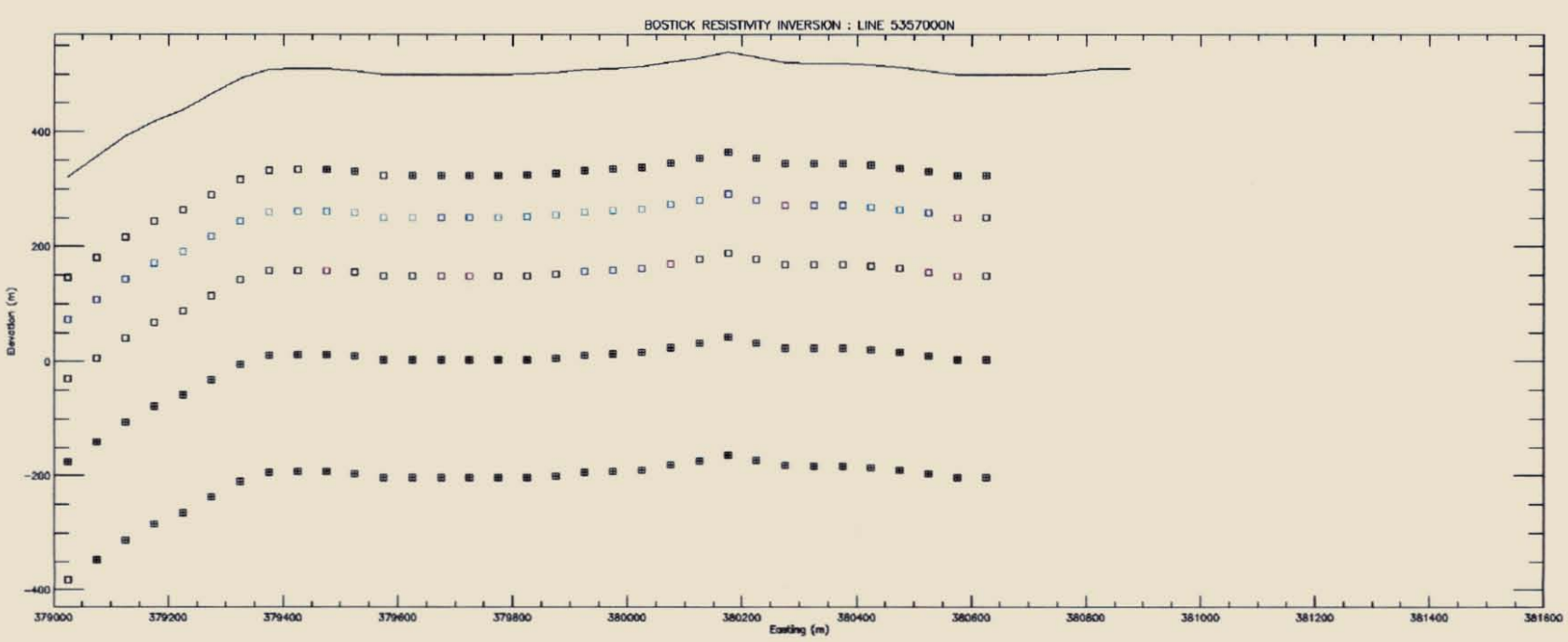
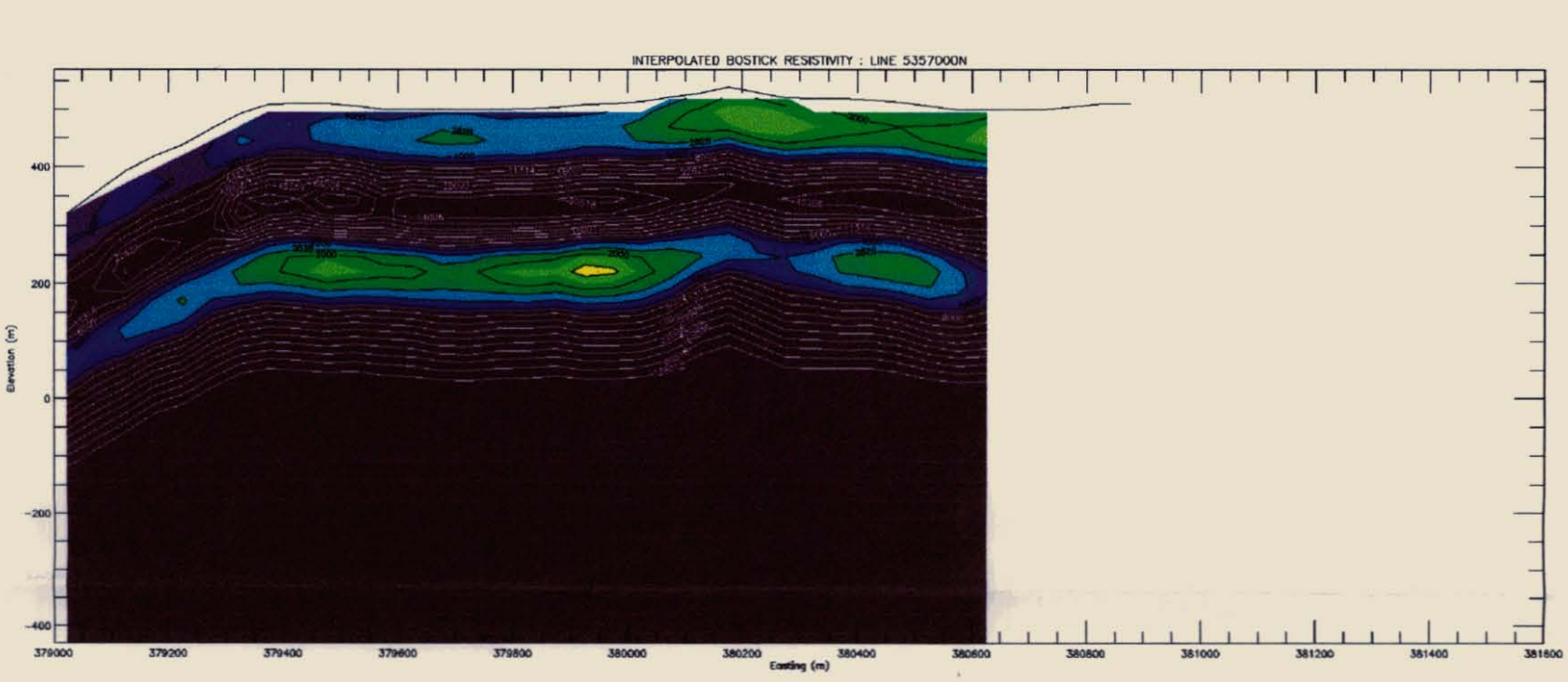
SMOOTHED RESISTIVITY : LINE 5357000N



BOSTICK RESISTIVITY INVERSION : LINE 5357000N



INTERPOLATED BOSTICK RESISTIVITY : LINE 5357000N

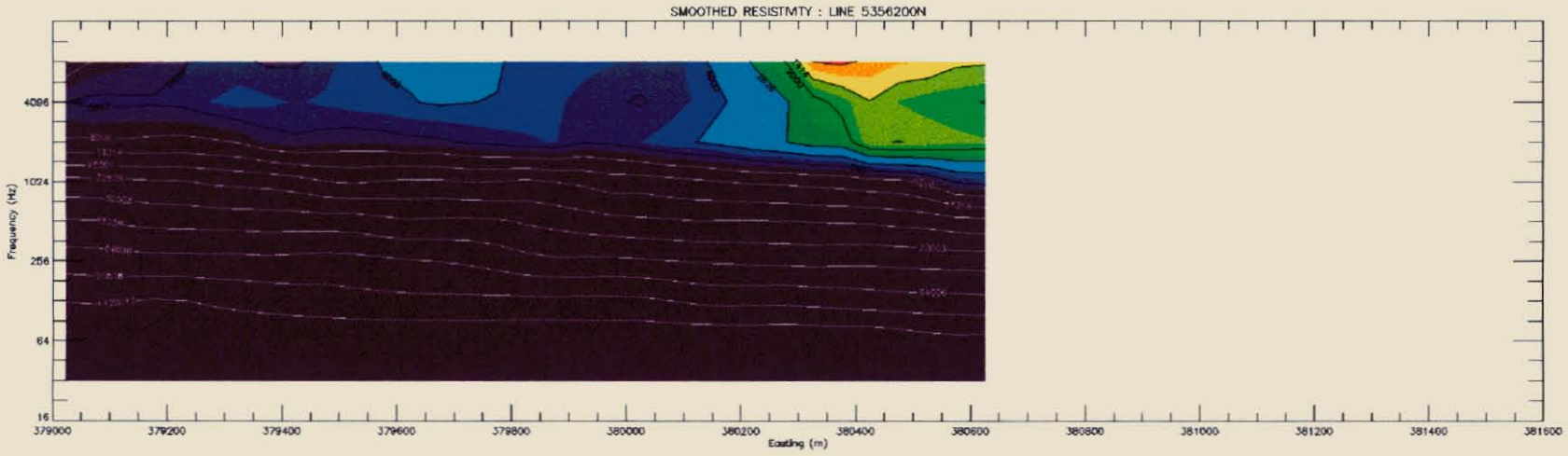


5357000N

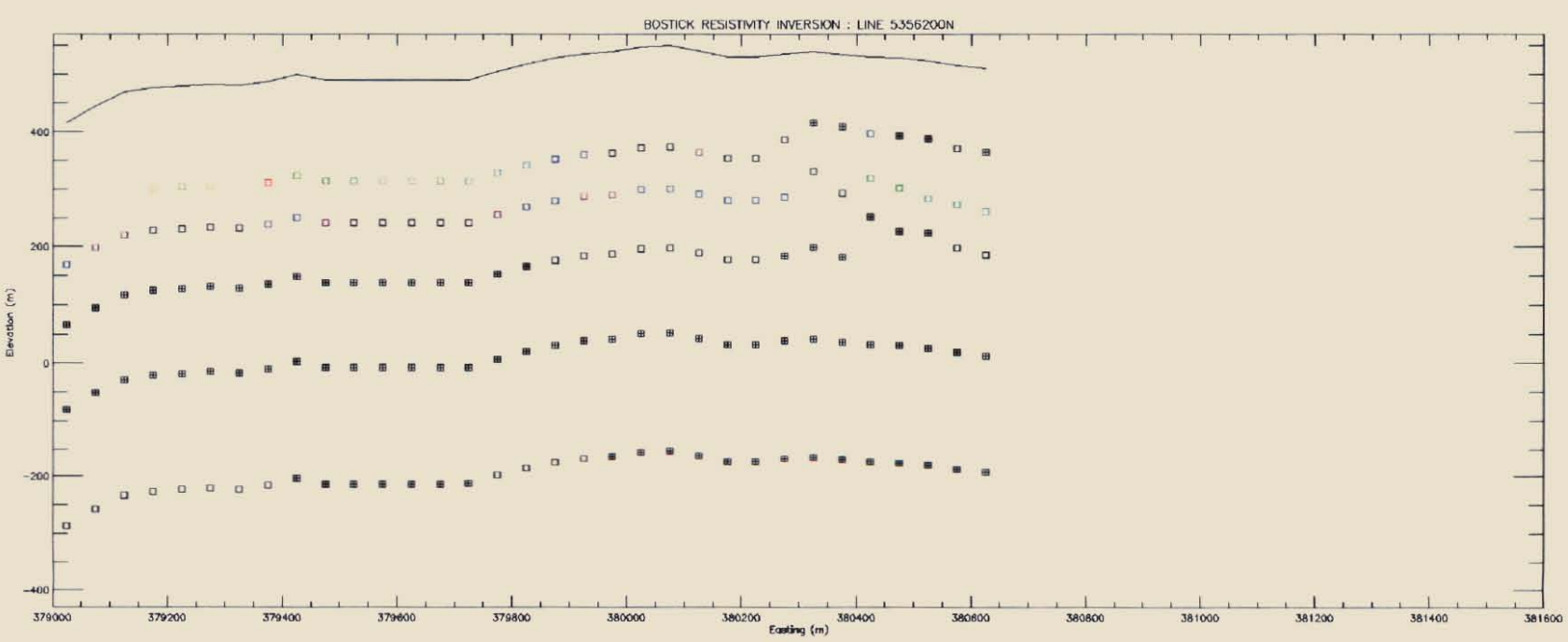
GOLDFIELDS EXPLORATION
South Henty CSAMT Data 1999. Line 5357800N.
Re-Processed with EMAP filter and Bostick inversion June 1999
Drawn by : Flagstaff Geo-Consultants 21/6/99

650063

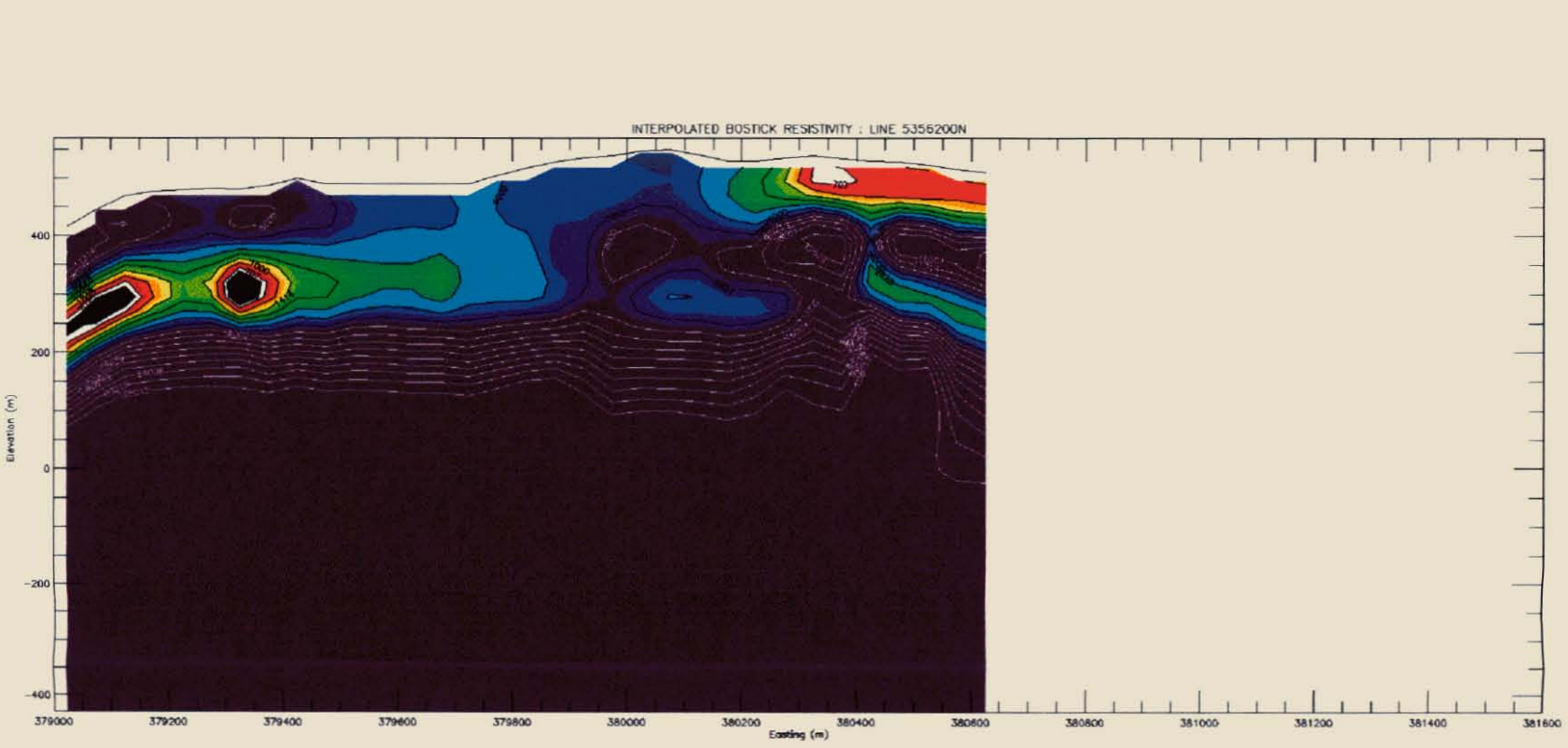
SMOOTHED RESISTMTY : LINE 5356200N



BOSTICK RESISTIVITY INVERSION : LINE 5356200N



INTERPOLATED BOSTICK RESISTIVITY : LINE 5356200N

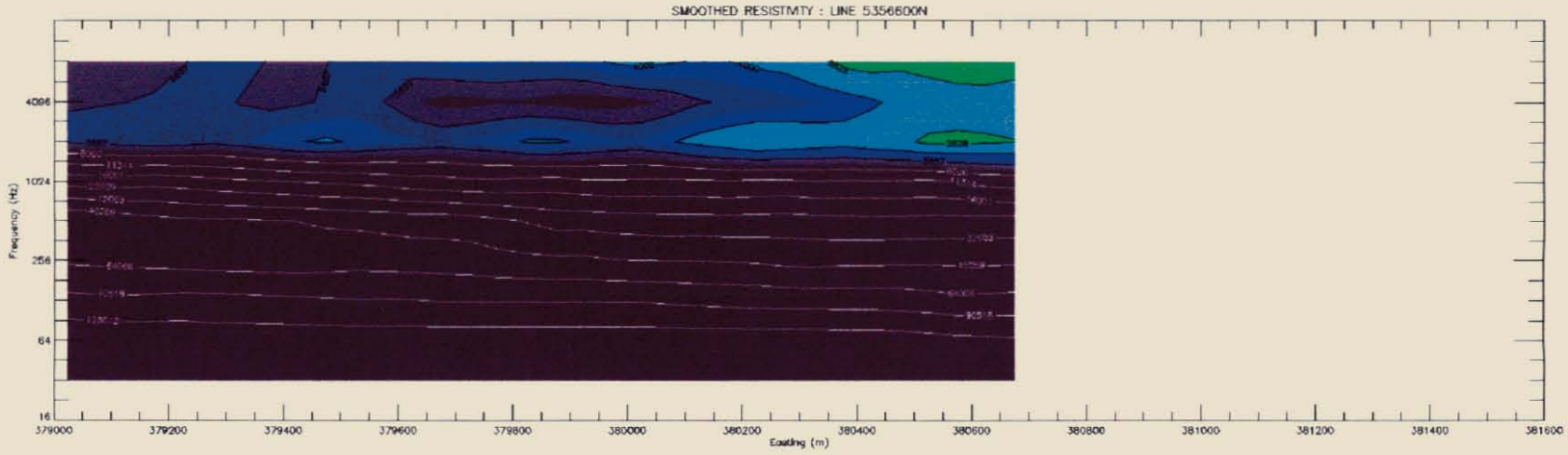


5356200N

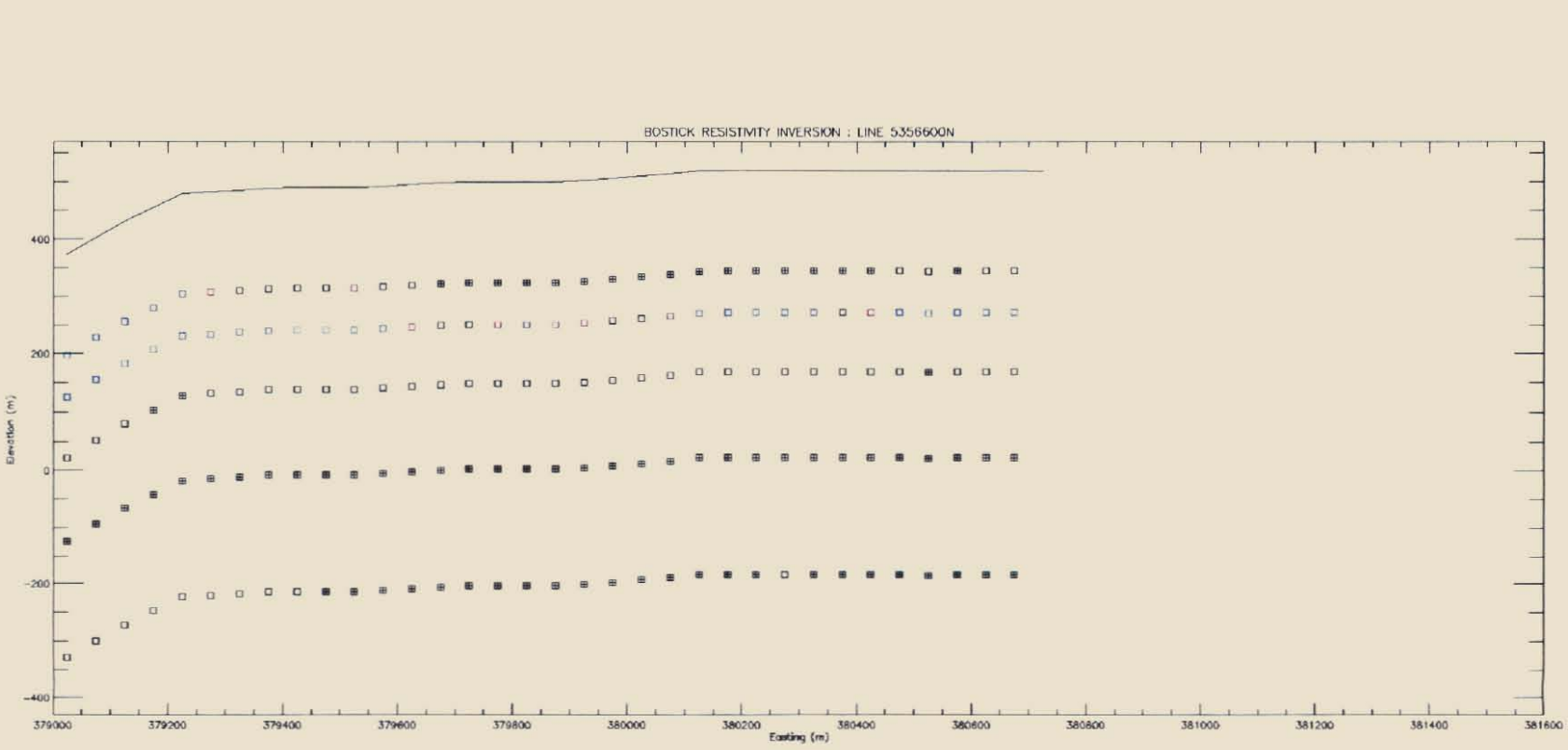
GOLDFIELDS EXPLORATION
South Henty CSAMT Data 1999. Line 5357800N.
Re-Processed with EMAP filter and Bostick inversion June 1999
Drawn by : Hagstaff Geo-Consultants 21/6/99

650034

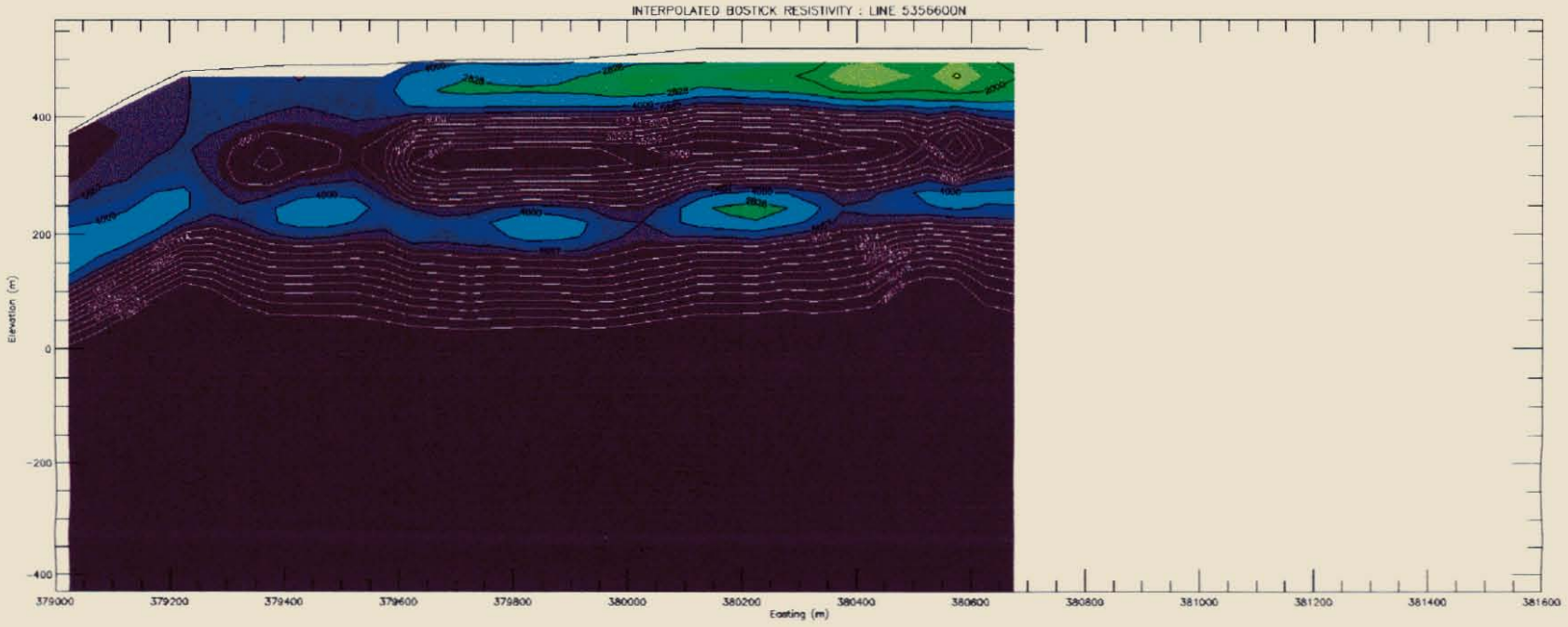
SMOOTHED RESISTIVITY : LINE 5356600N



BOSTICK RESISTIVITY INVERSION : LINE 5356600N



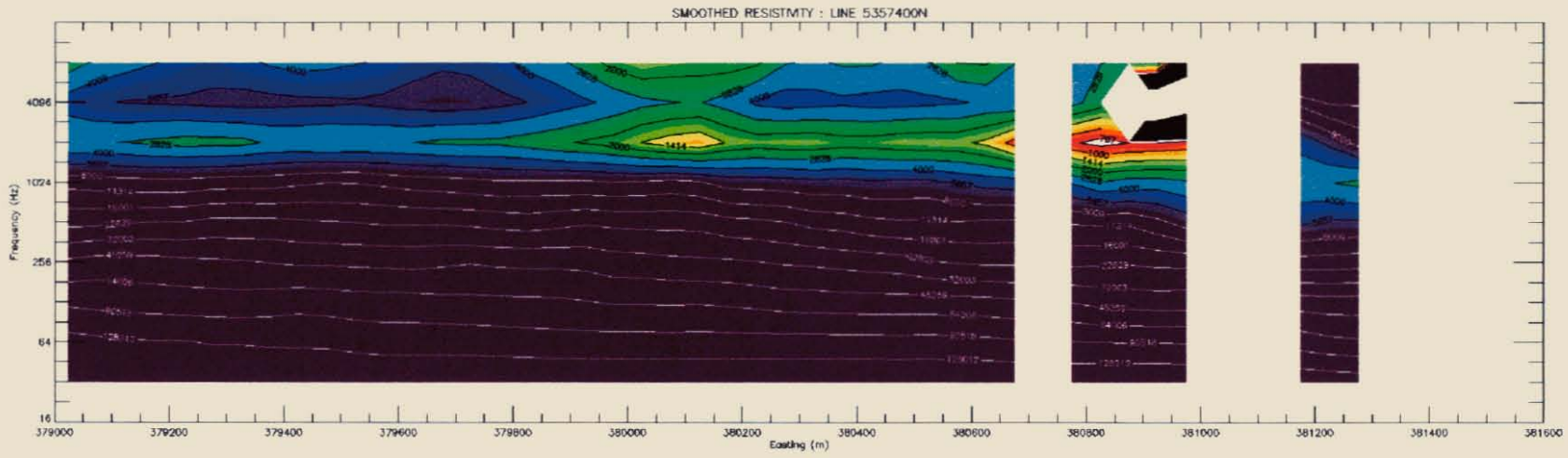
INTERPOLATED BOSTICK RESISTIVITY : LINE 5356600N



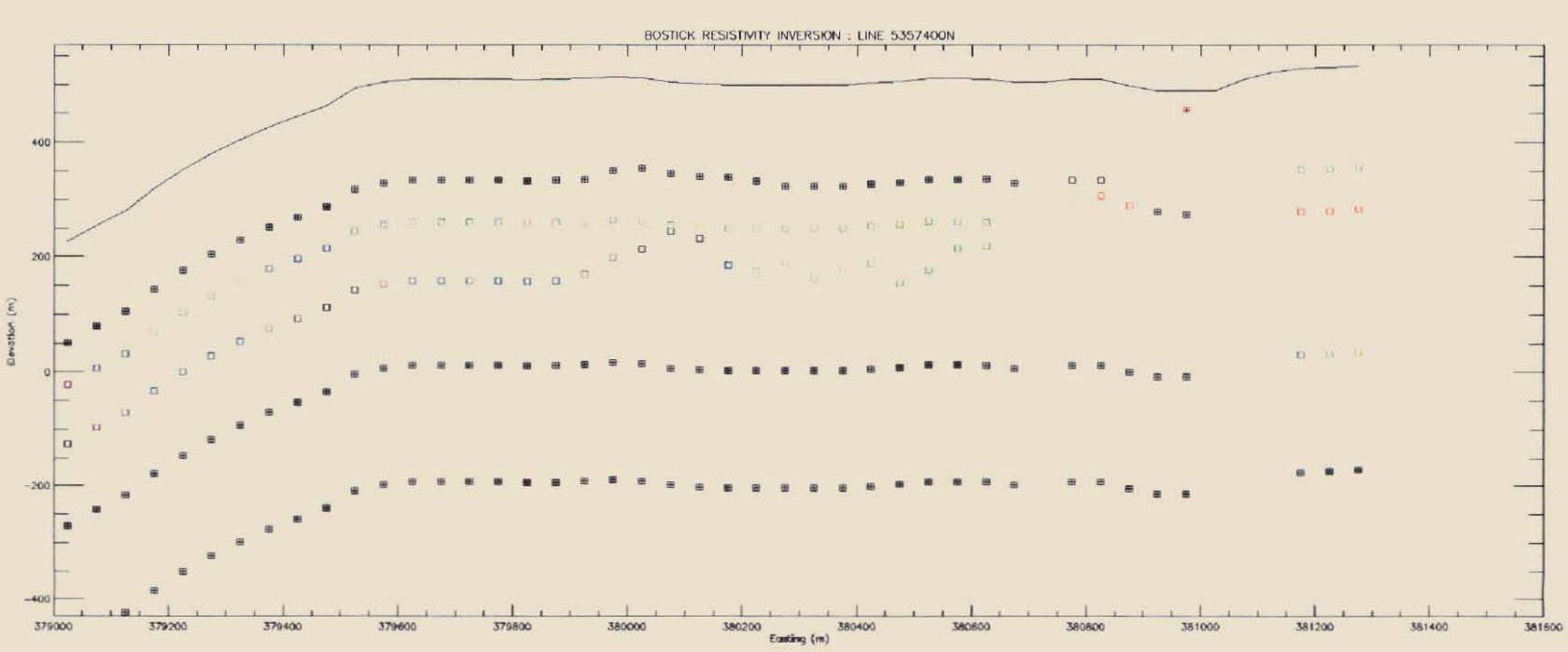
5356600N

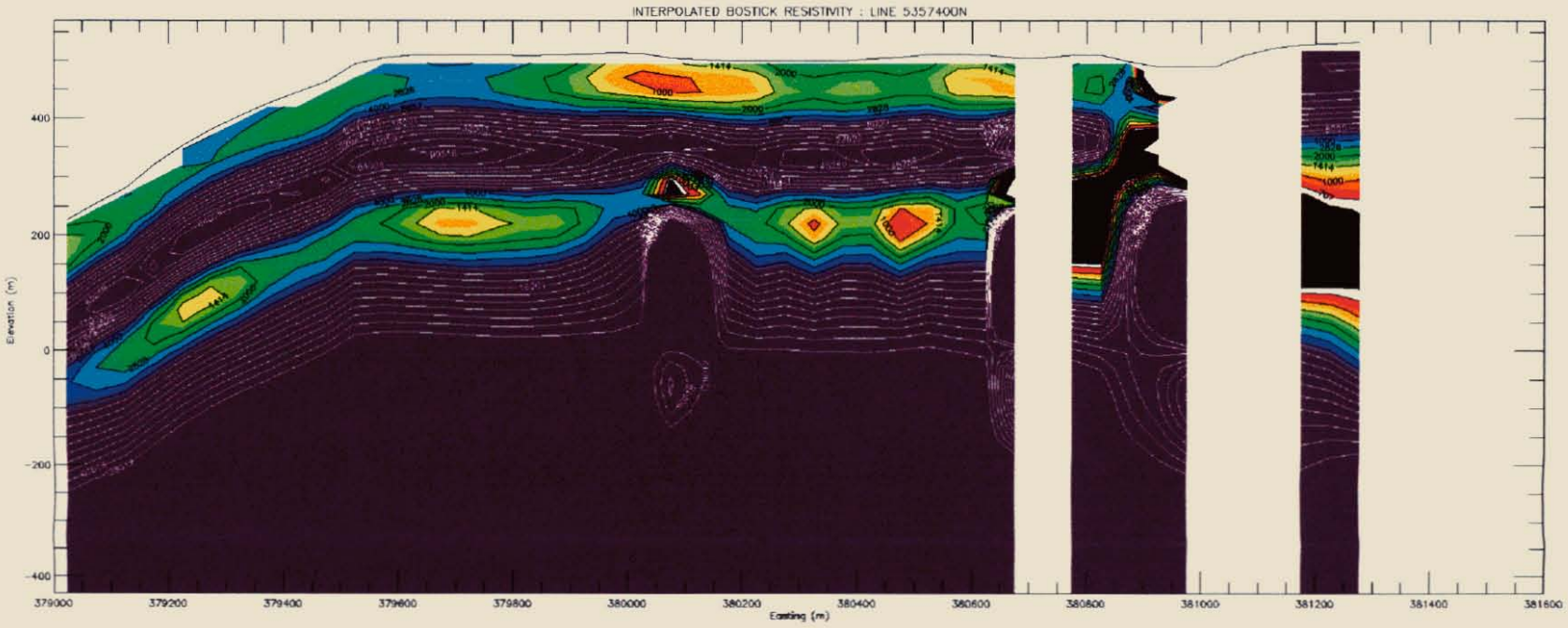
GOLDFIELDS EXPLORATION
South Henty CSAMT Data 1999 Line 5357800N Re-Processed with EMAP filter and Bostick inversion June 1999
Plotted by: Fitzgerald Geo-Consultants 23/6/99

630063



BOSTICK RESISTIVITY INVERSION : LINE 5357400N



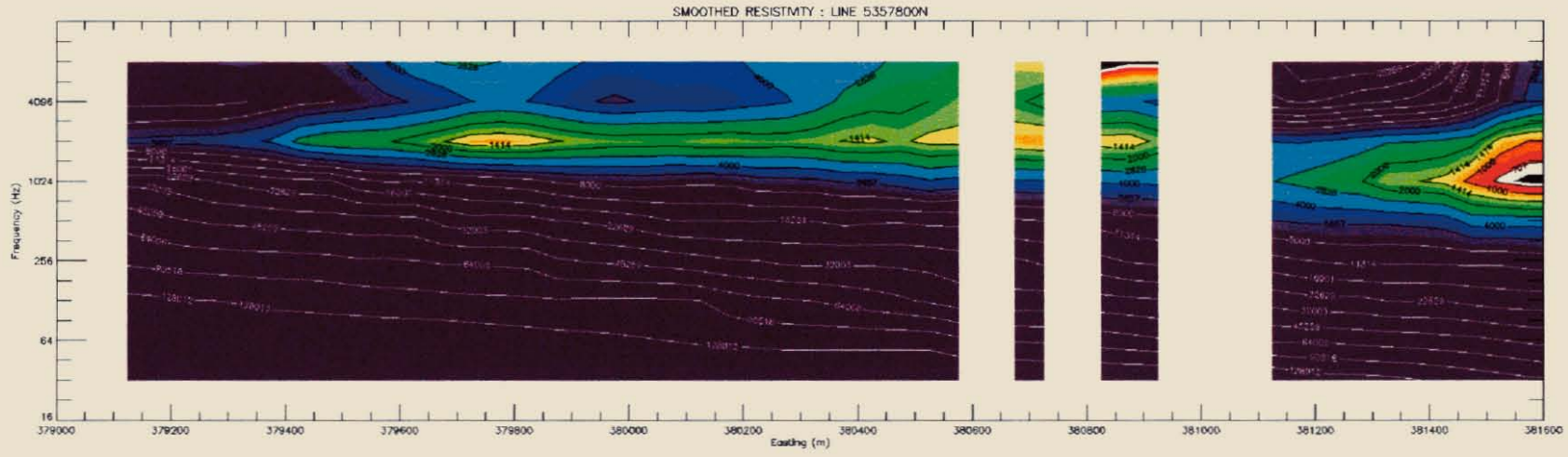


5357400N

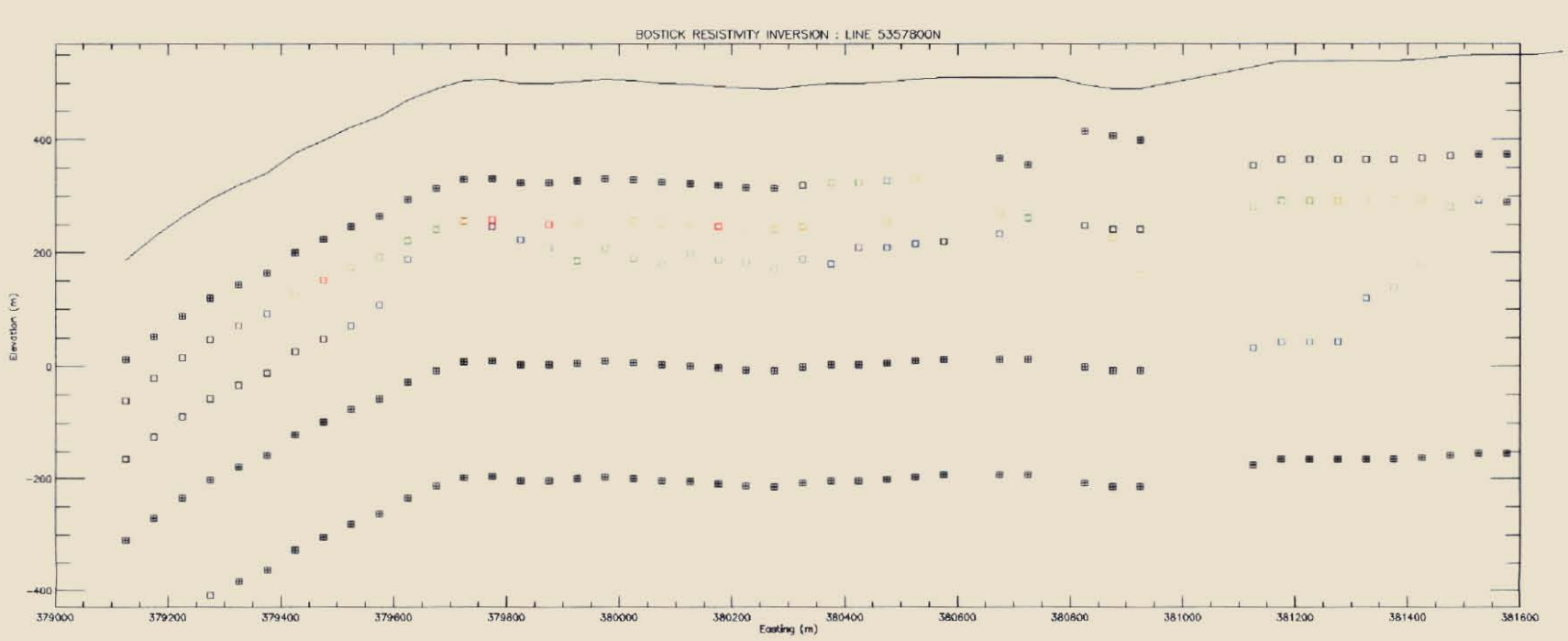
GOLDFIELDS EXPLORATION
South Henty CSAMT Data 1999. Line 5357800N.
Re-Processed with EMAP filter and Bostick inversion
June 1999
Created by : Flagstaff Geo-Consultants

630000

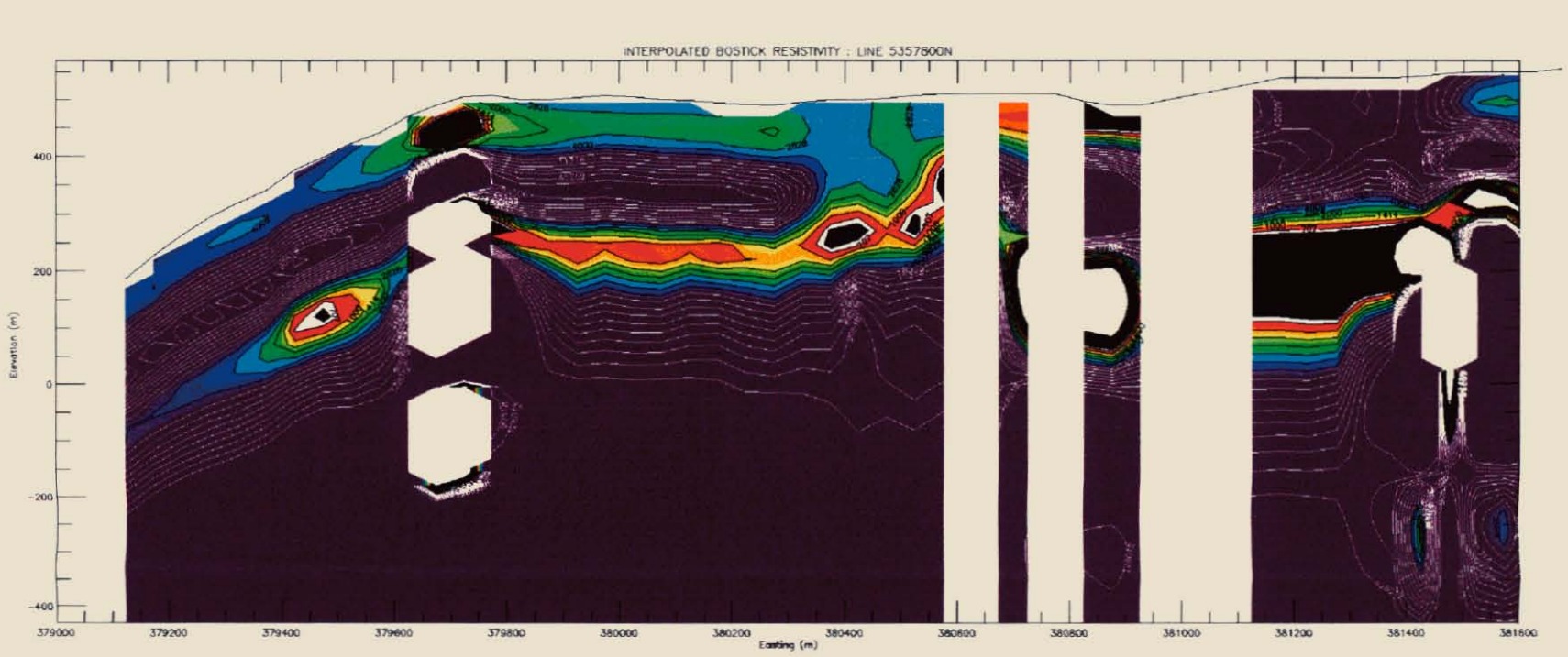
SMOOTHED RESISTMTY : LINE 5357800N



BOSTICK RESISTIVITY INVERSION : LINE 5357800N



INTERPOLATED BOSTICK RESISTMTY : LINE 5357800N

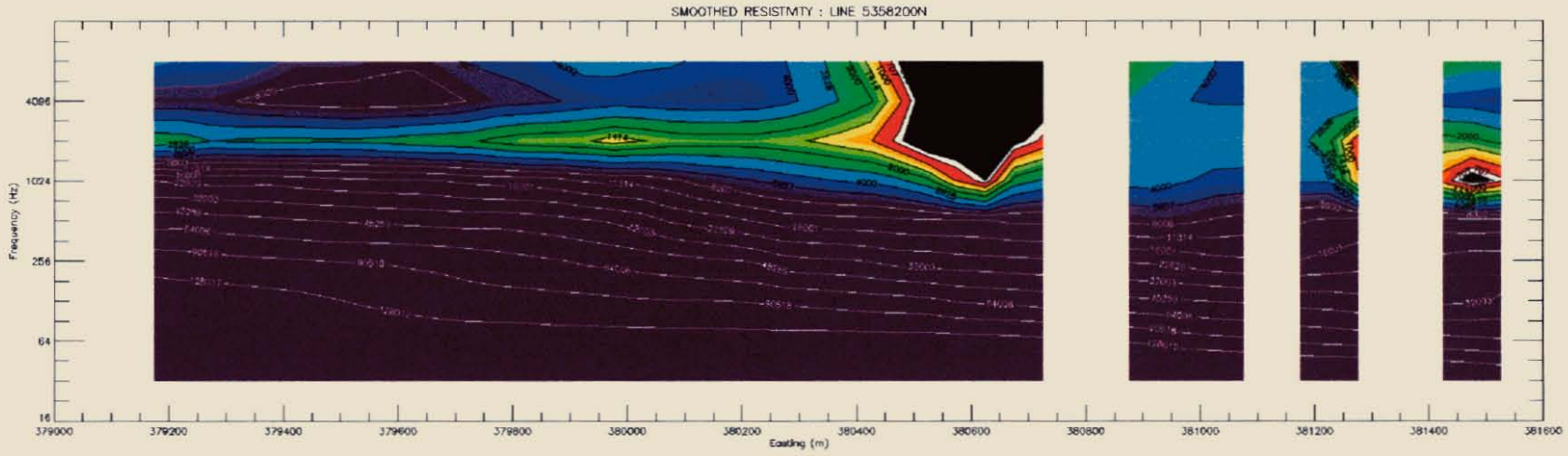


5357800N

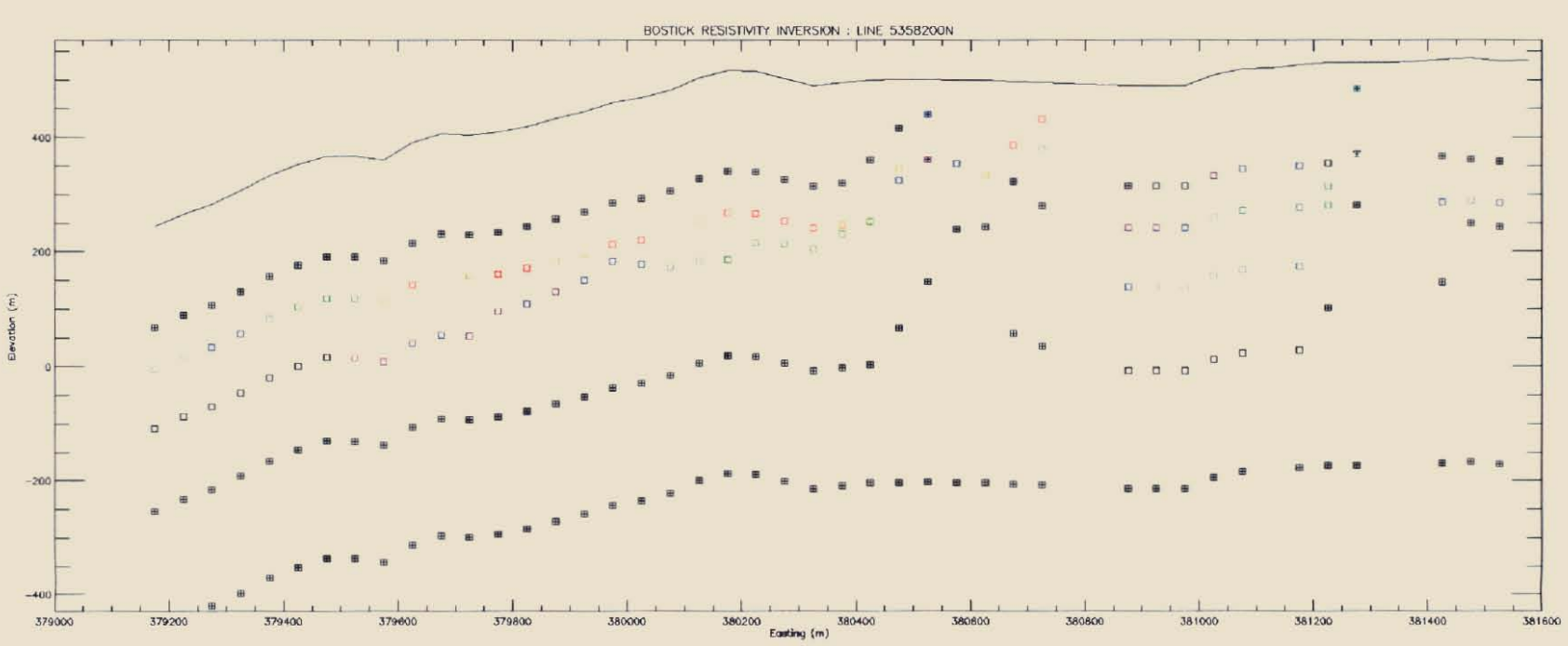
GOLDFIELDS EXPLORATION
South Henty CSAMT Data 1999. Line 5357800N. Re-Processed with EMAP filter and Bostick inversion June 1999
Drawn by: Hagstaff Geo-Consultants 21/6/99

690067

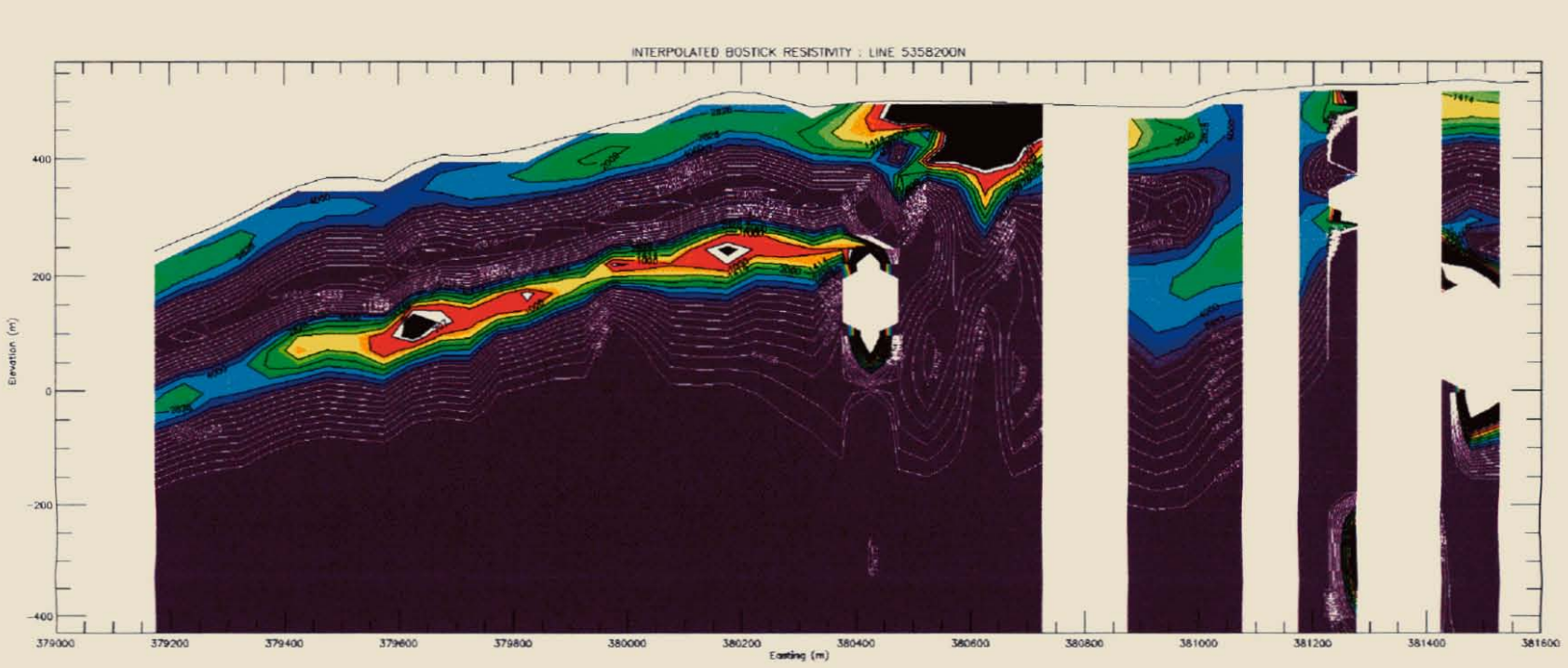
SMOOTHED RESISTIVITY : LINE 5358200N



BOSTICK RESISTIVITY INVERSION : LINE 5358200N



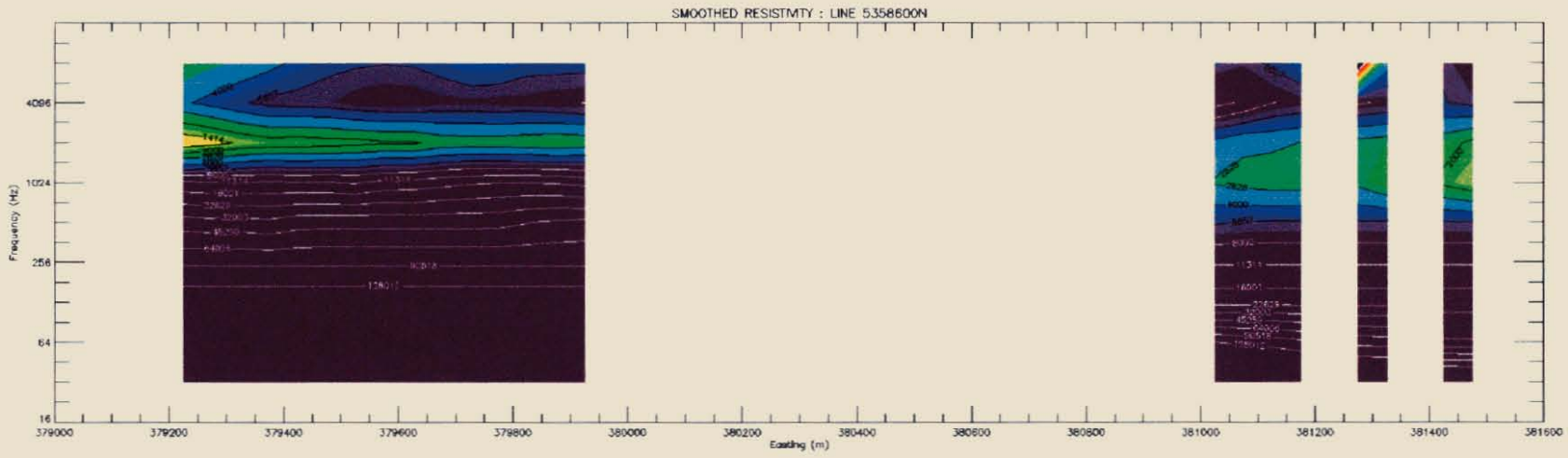
INTERPOLATED BOSTICK RESISTIVITY : LINE 5358200N

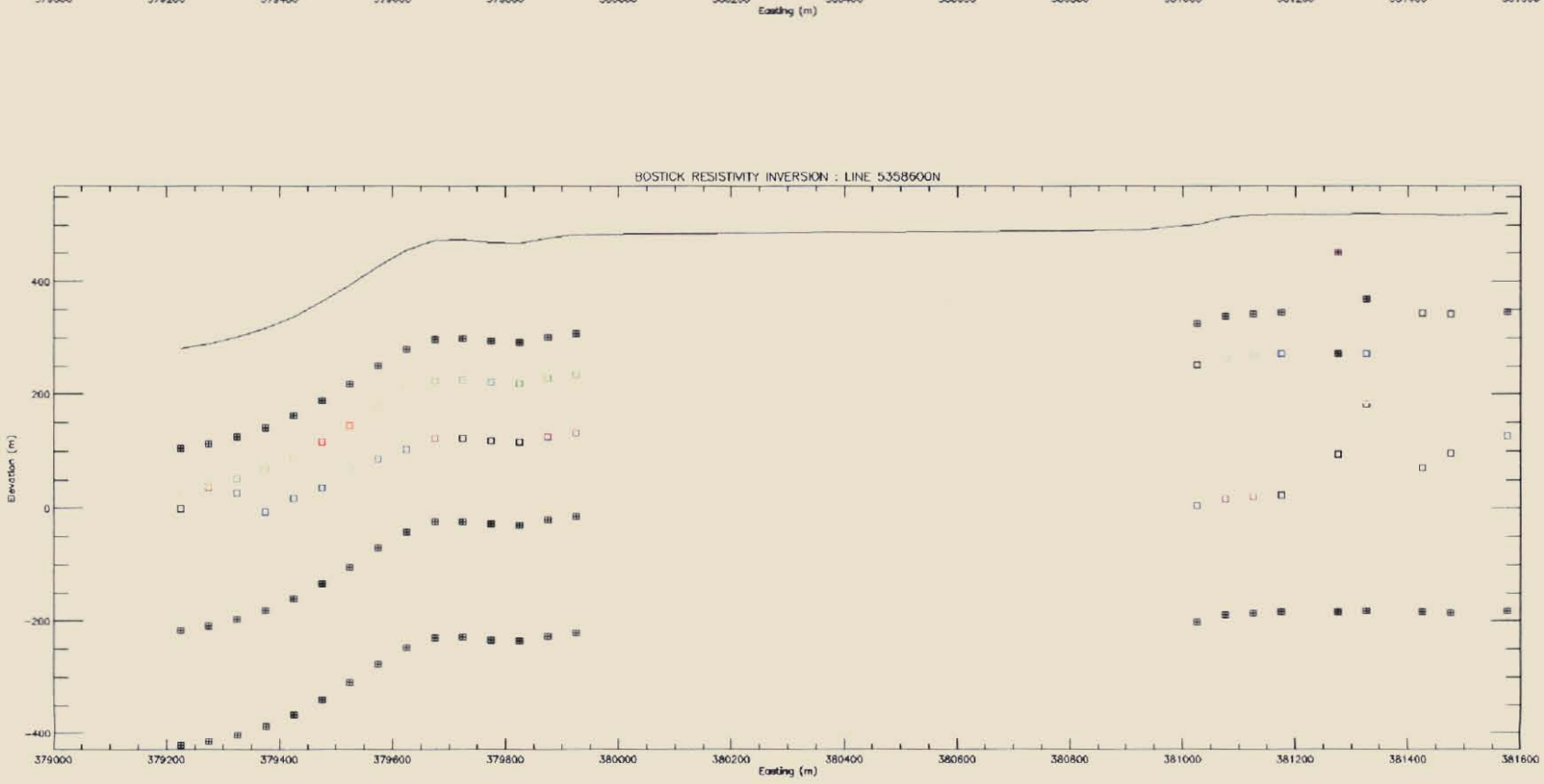


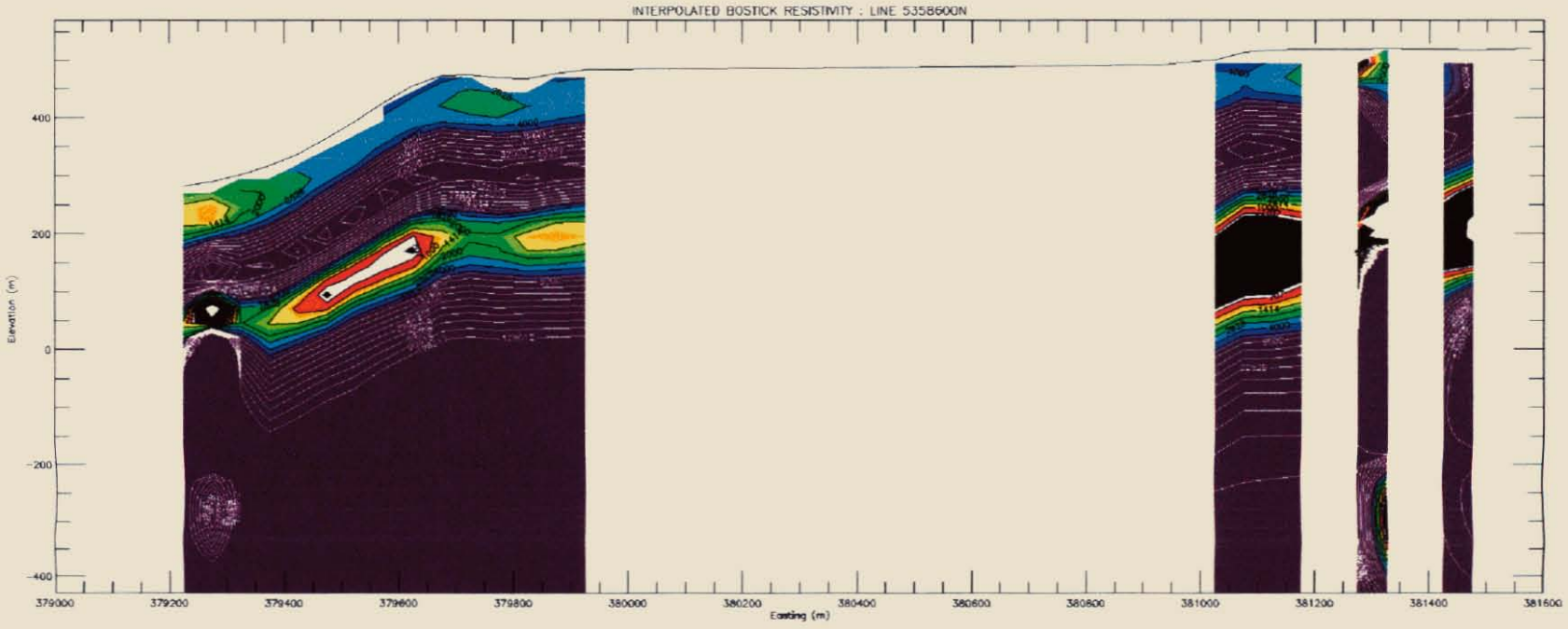
5358200N

GOLDFIELDS EXPLORATION
South Henty CSAMT Data 1999 Line 5358200N Re-Processed with EMAP filter and Bostick inversion June 1999
Drawn by : Fitzgerald Lenz Consultants 21-6-99

650068





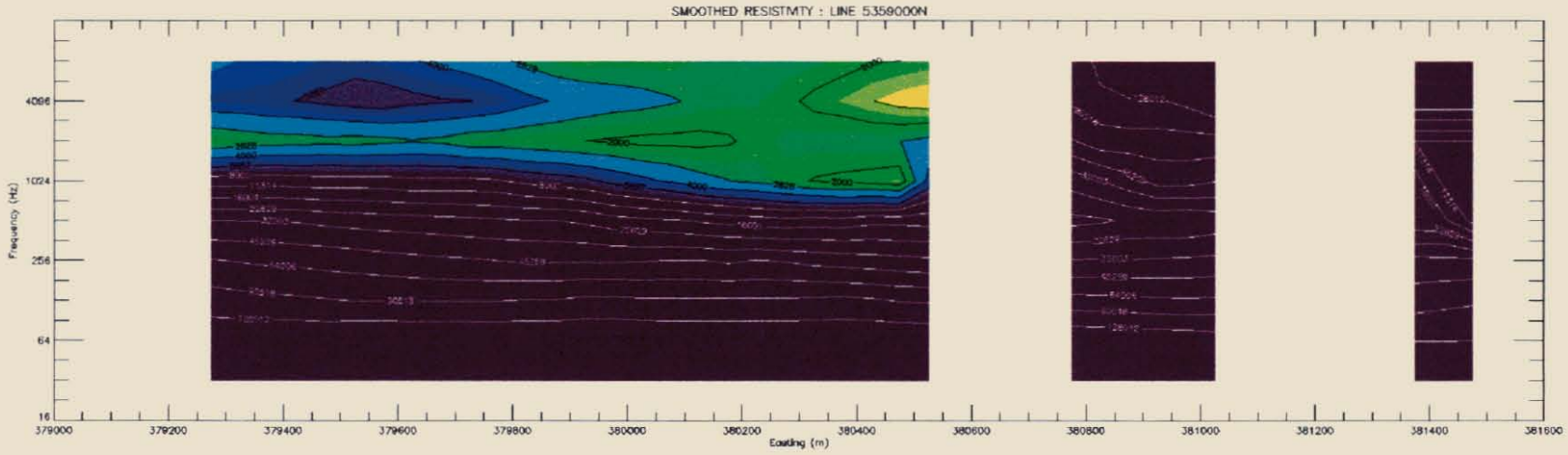


5358600N

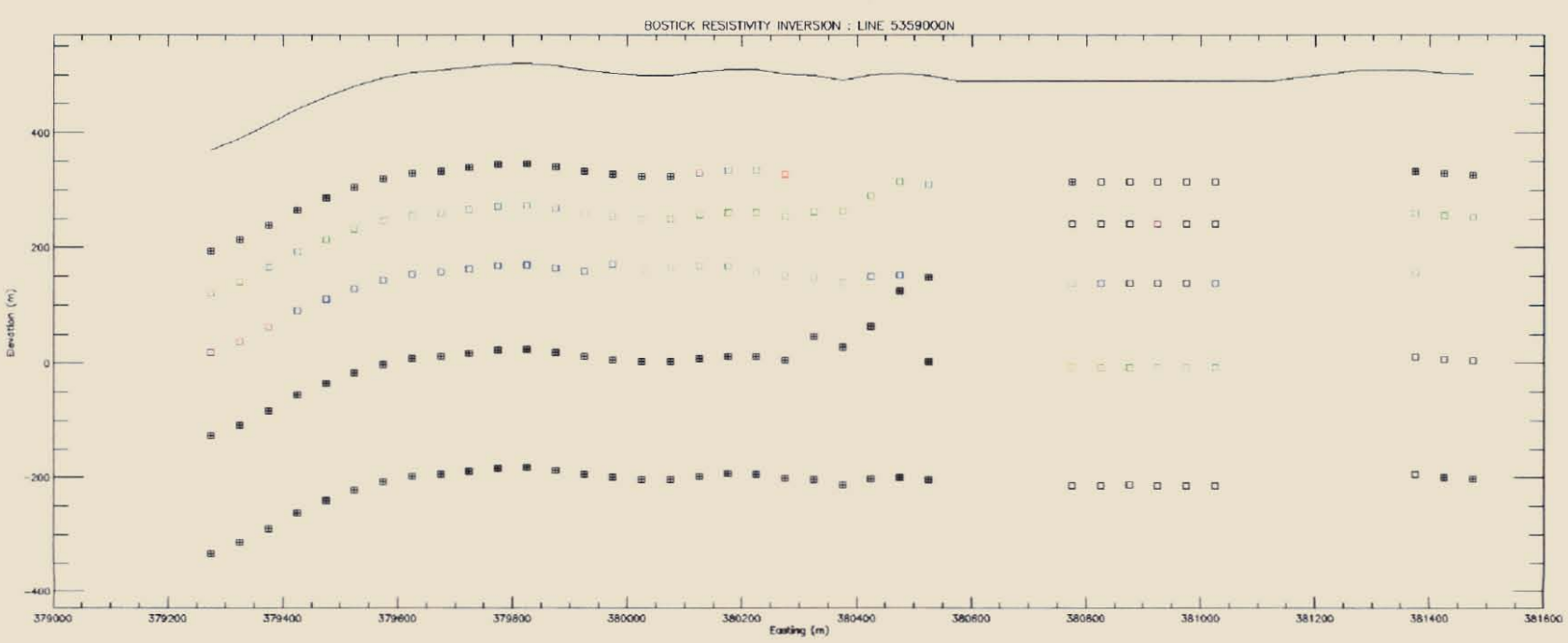
GOLDFIELDS EXPLORATION
South Henty CSAMT Data 1999. Line 5358600N Re-Processed with EMAP filter and Bostick inversion June 1999
Drawn by: Flagstaff Geo-Consultants 21-6-99

650099

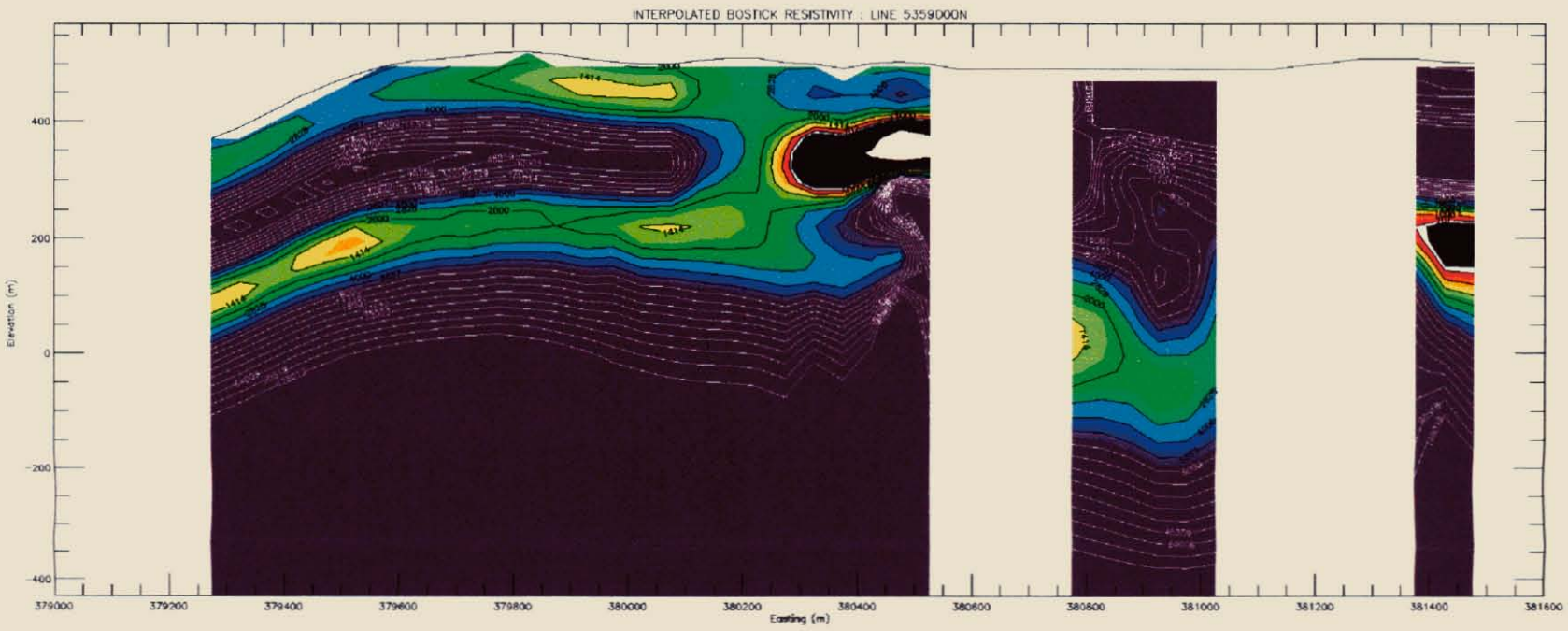
SMOOTHED RESISTMTY : LINE 5359000N



BOSTICK RESISTIVITY INVERSION : LINE 5359000N



INTERPOLATED BOSTICK RESISTIVITY : LINE 5359000N

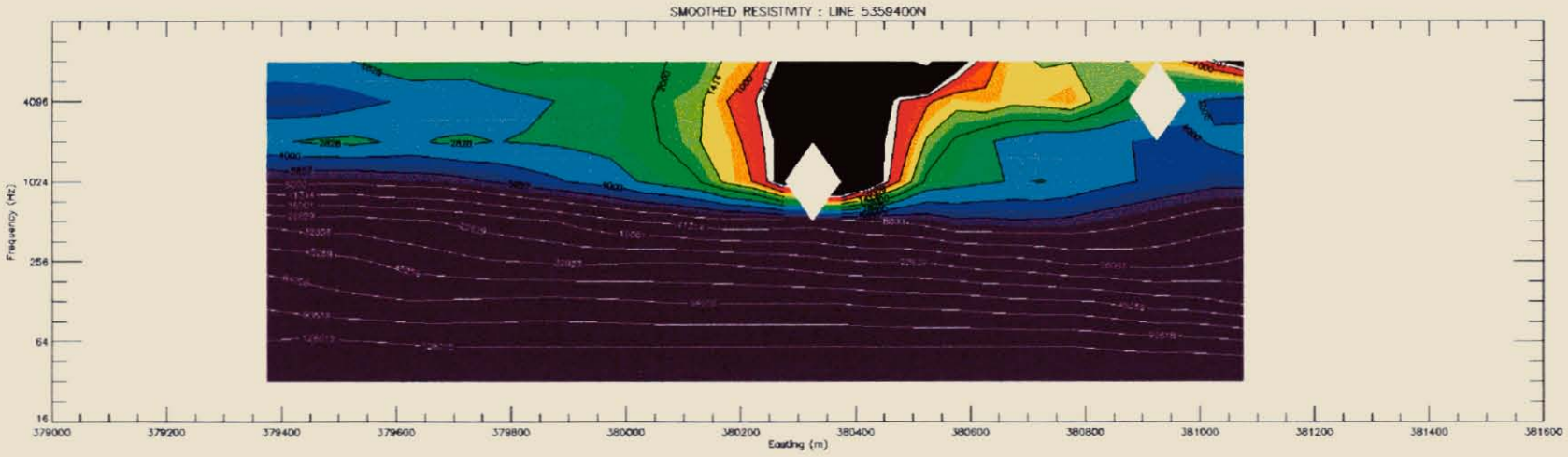


5359000N

GOLDFIELDS EXPLORATION
South Henty CSAMT Data 1999 Line 5359000N Re-Processed with EMAP filter and Bostick inversion June 1999
Drawn by: Flagstaff Geo-Consultants 21/6/99

6300070

SMOOTHED RESISTIVITY : LINE 5359400N



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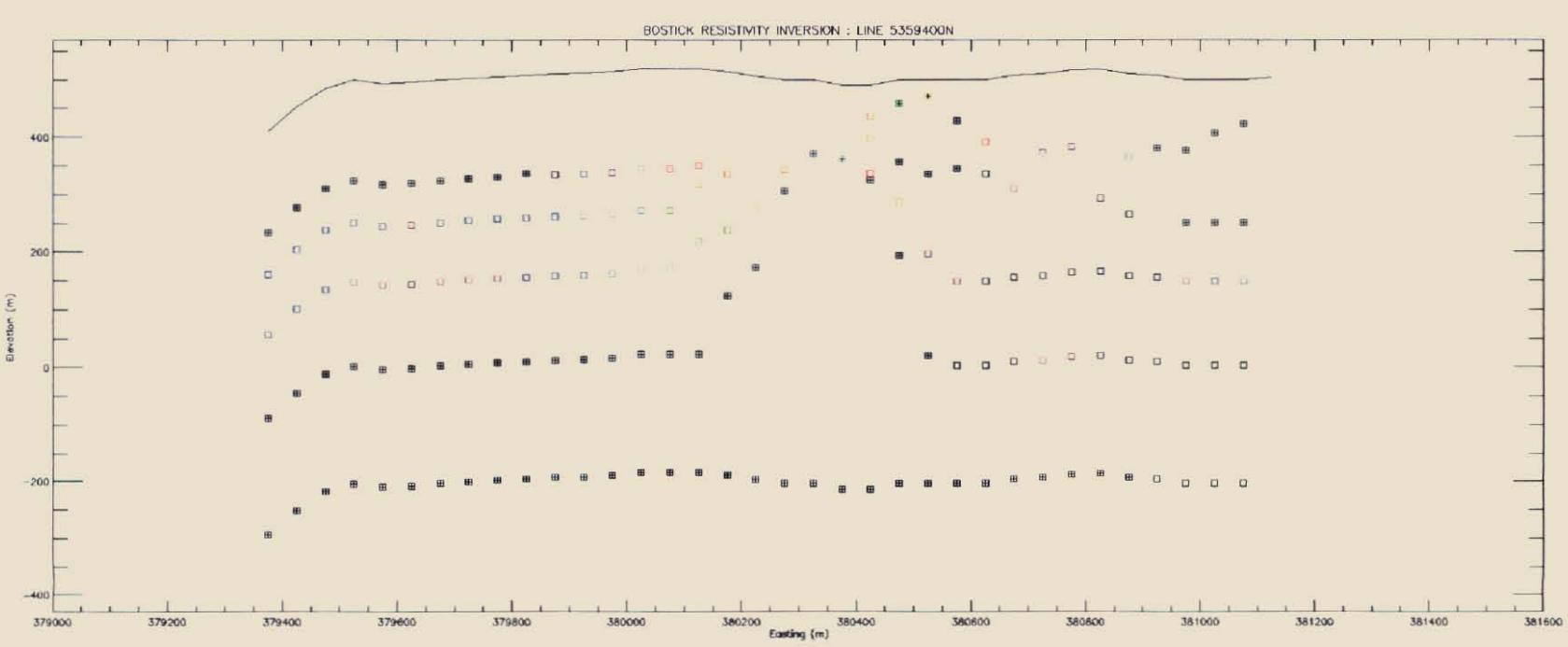

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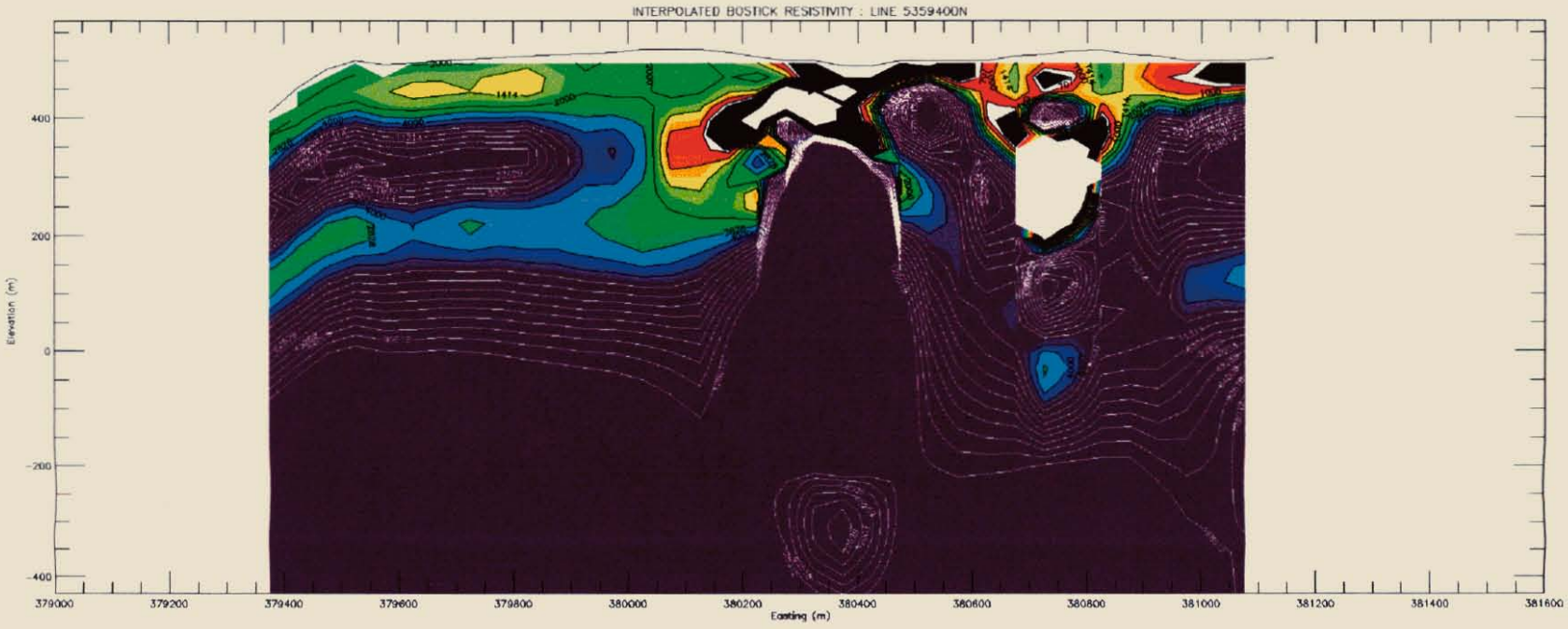
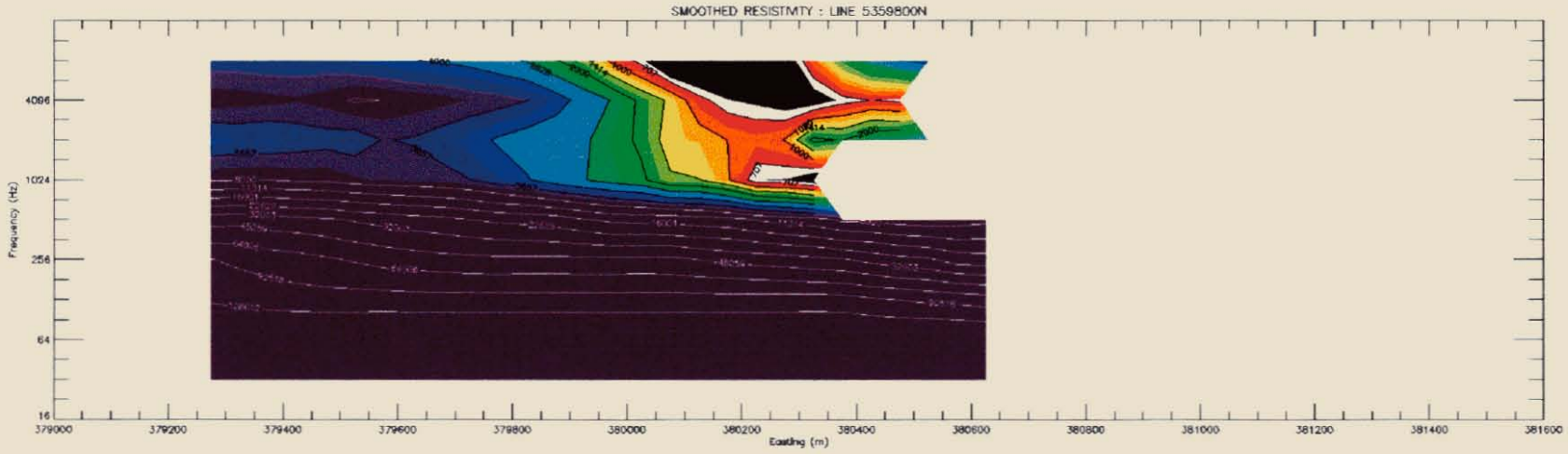


5359400N

GOLDFIELDS EXPLORATION
South Henty CSAMT Data 1999. Line 5359400N Re-Processed with EMAP filter and Bostick inversion June 1999
Drawn by: Fitzgerald Geo-Consultants 13.6.99

650071

SMOOTHED RESISTMTY : LINE 5359800N



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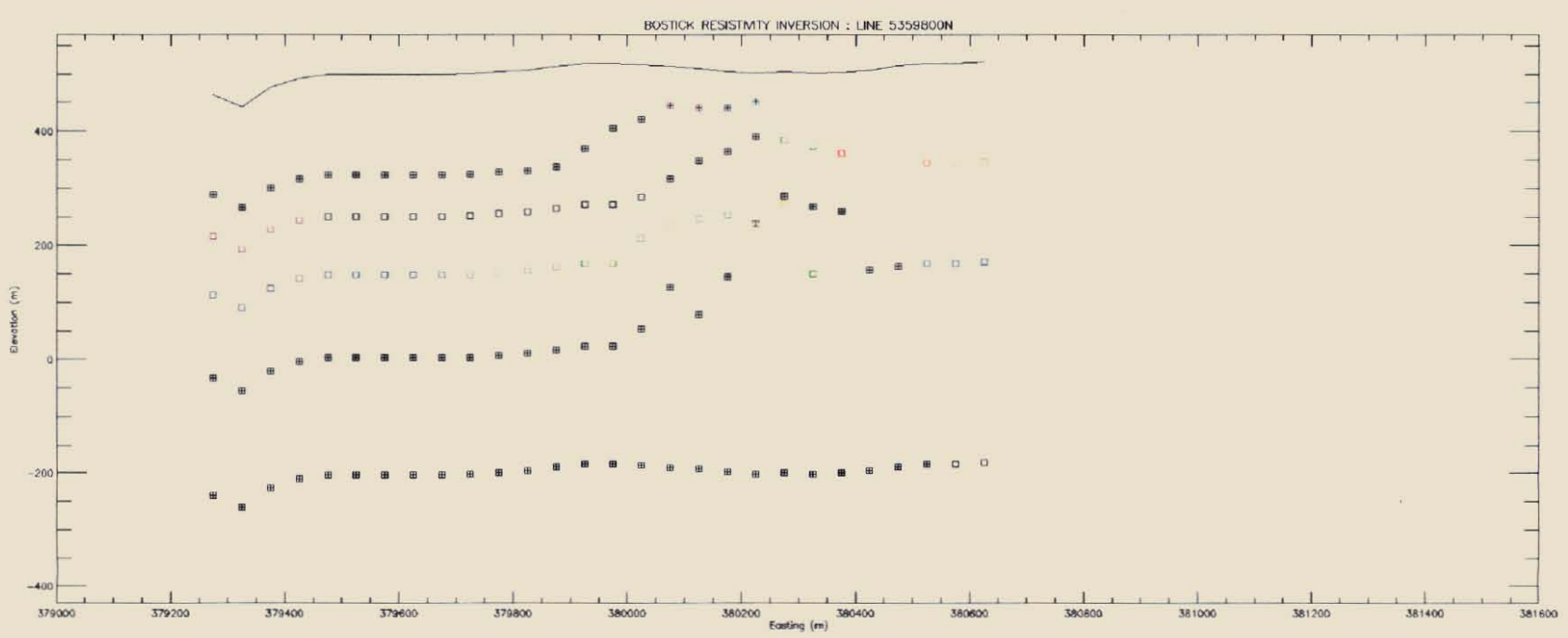
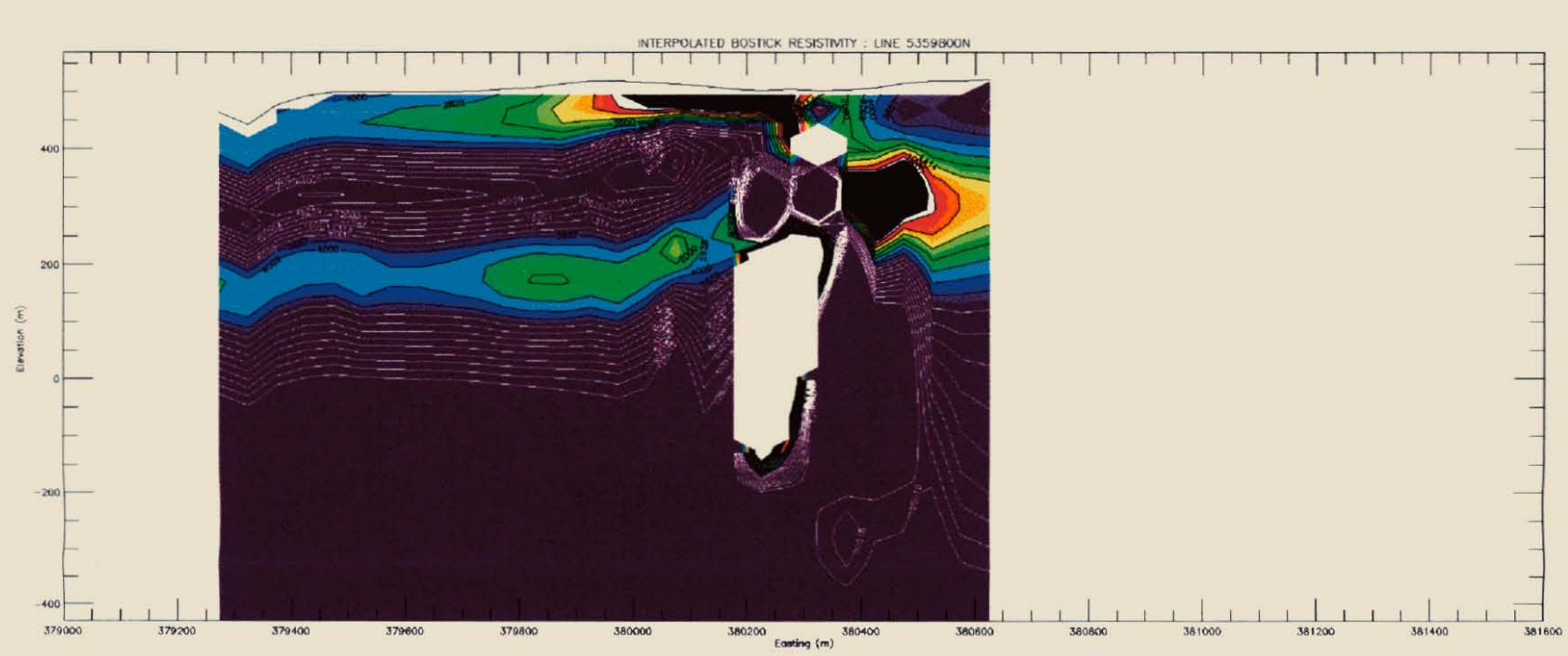


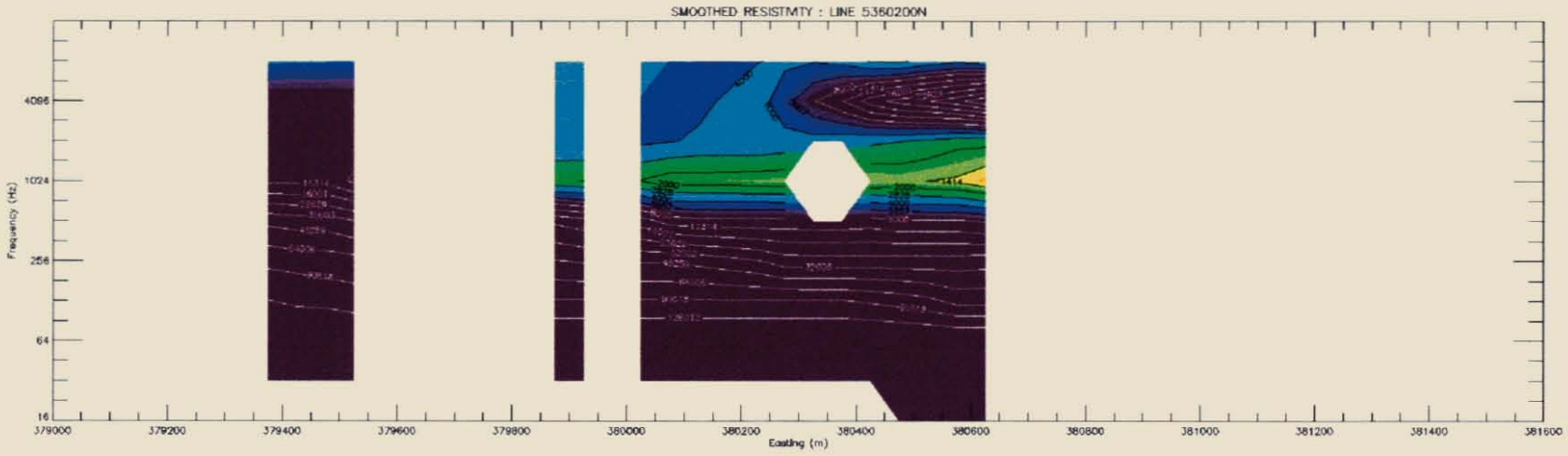
INTERPOLATED BOSTICK RESISTMTY : LINE 5359800N

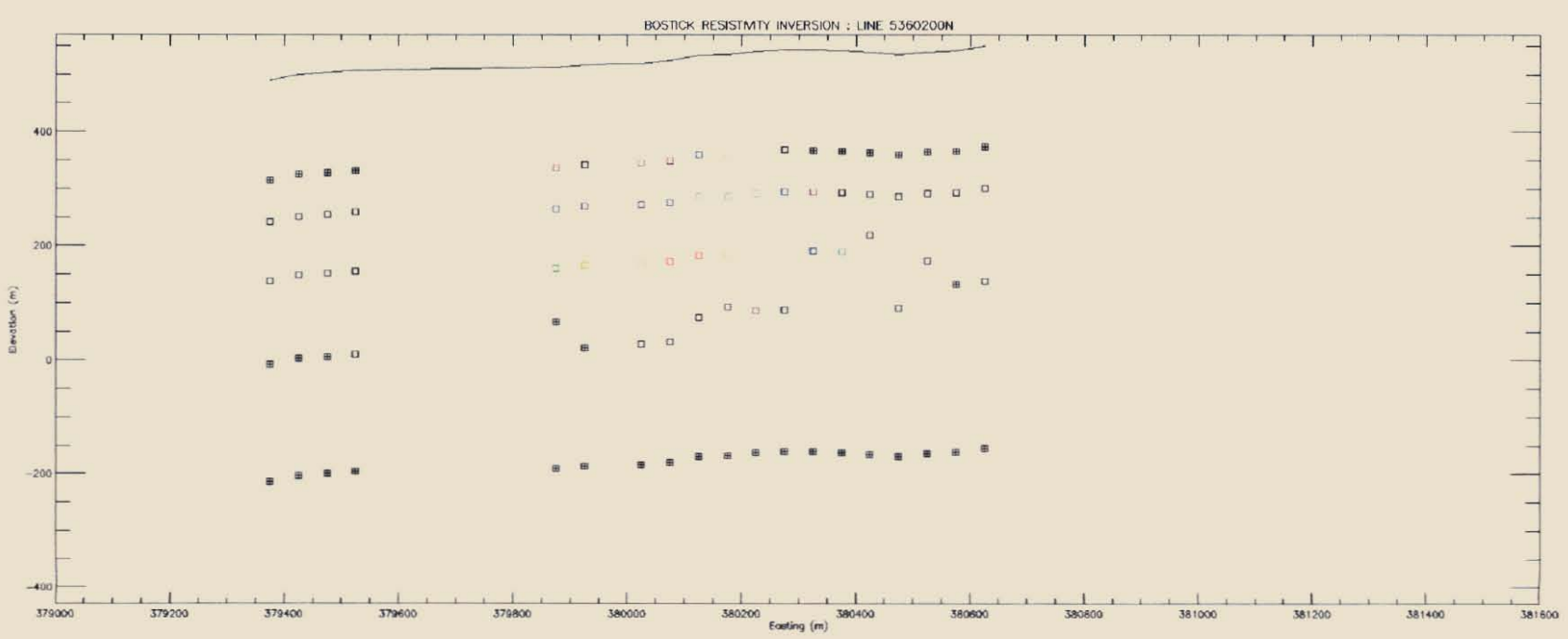


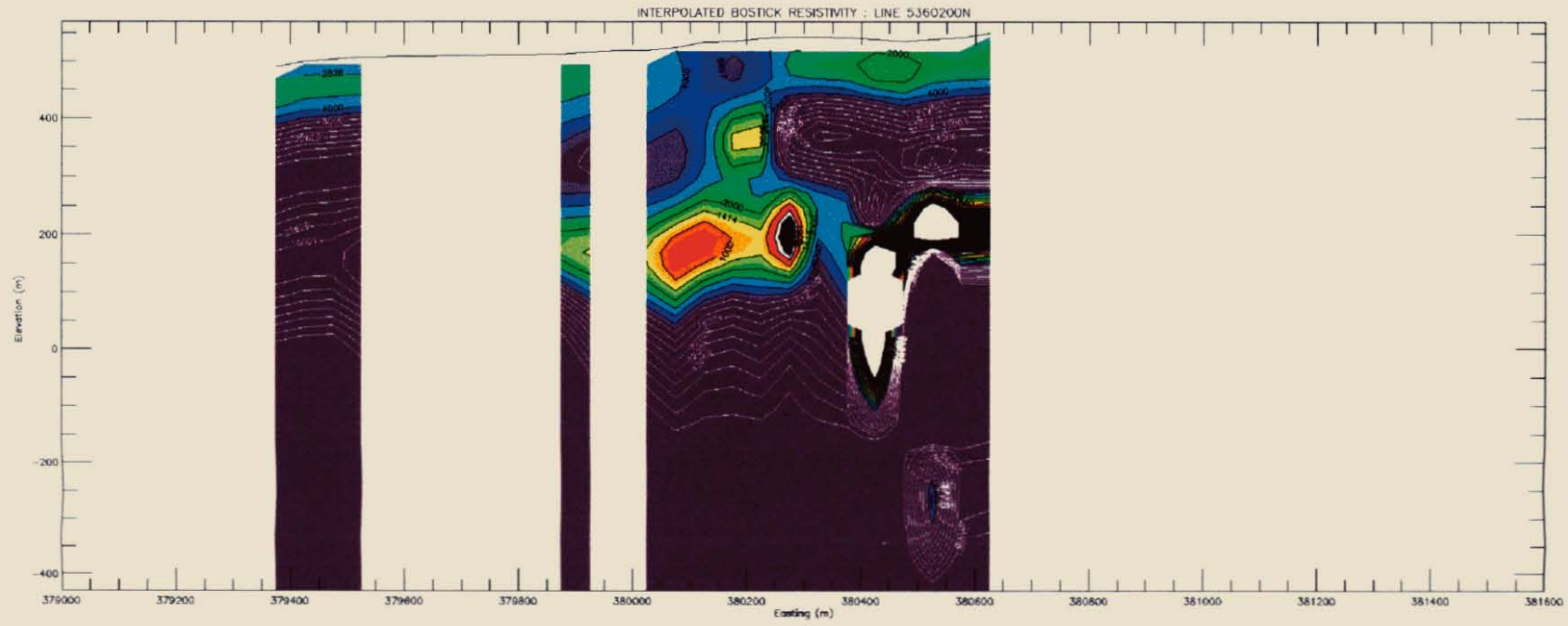
5359800N

GOLDFIELDS EXPLORATION
South Henty CSAMT Data 1999 Line 5359800N Re-Processed with EMAP filter and Bostick inversion June 1999
Drawn by Flagstaff Geo-Consultants 21-6-99

5300/3



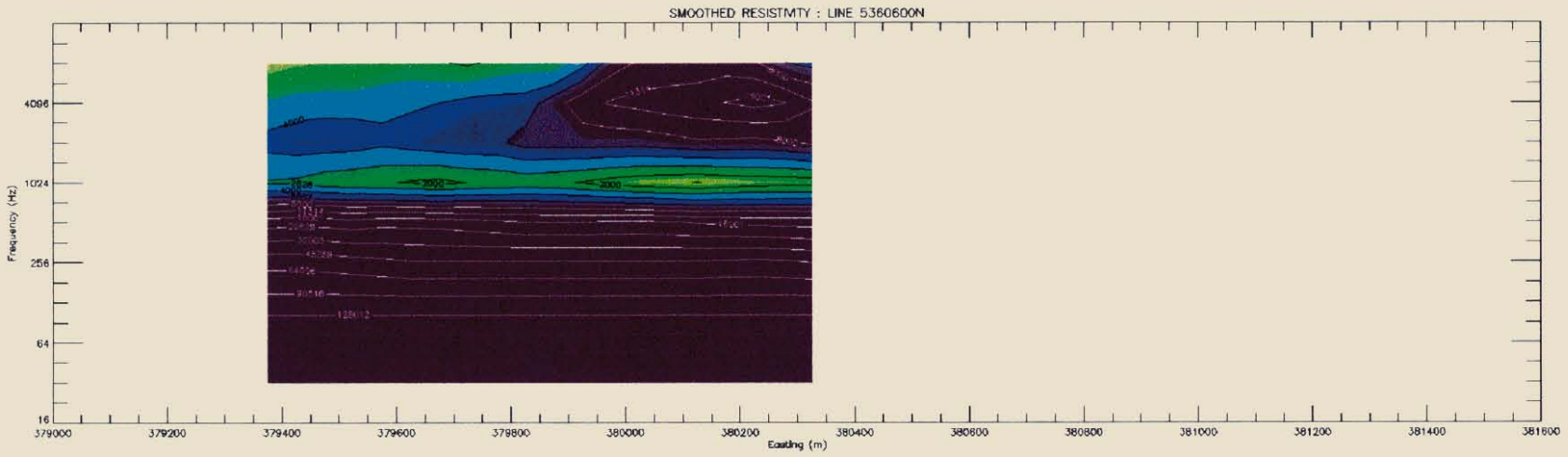




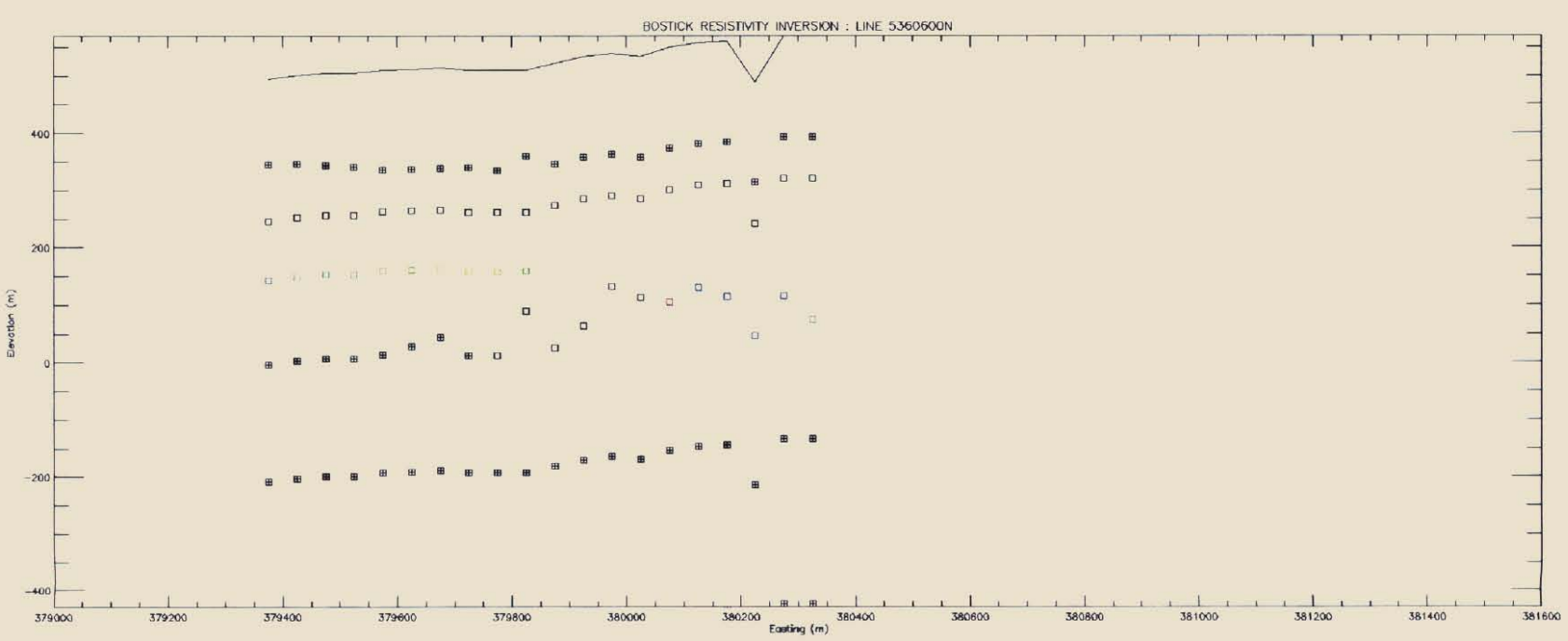
5360200N

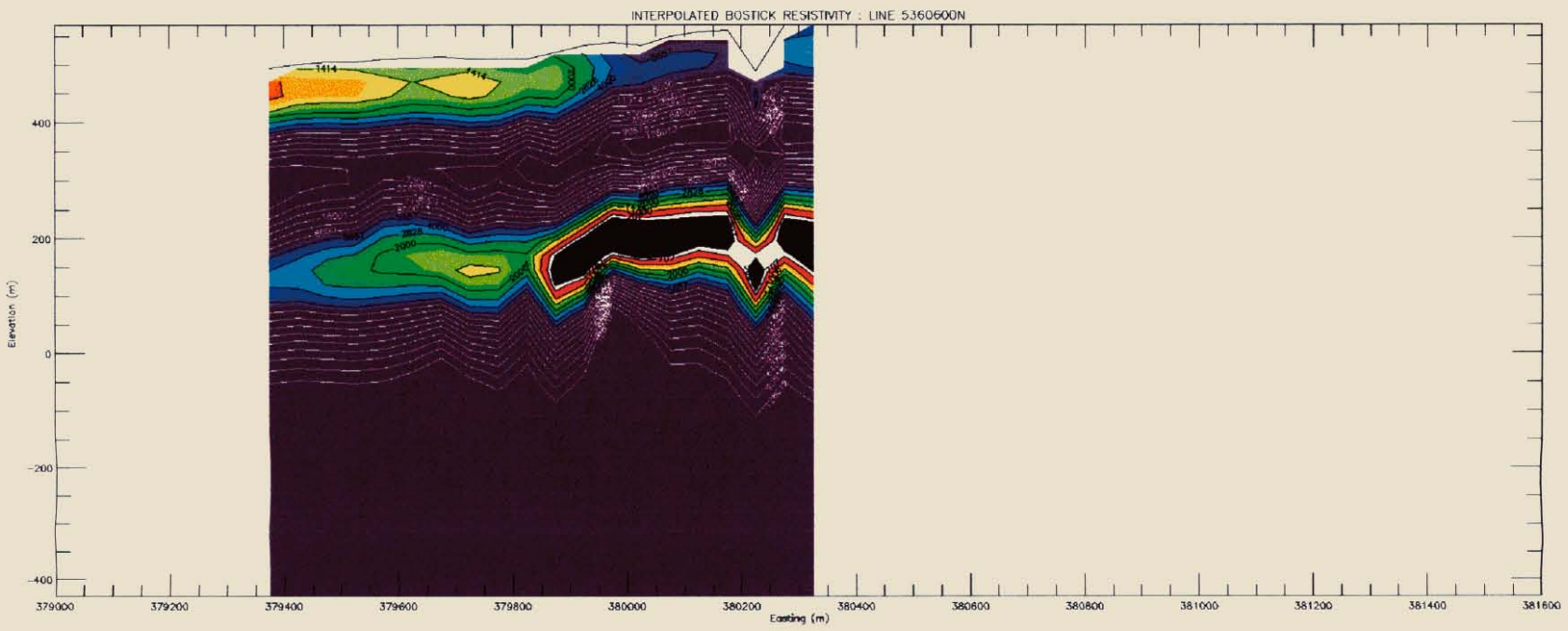
GOLDFIELDS EXPLORATION
South Henty CSAMT Data 1999. Line 5360200N Re-Processed with EMAP filter and Bostick inversion June 1999
Drawn by: Flagstaff Geo-Consultants 21/6/99

650073



BOSTICK RESISTIVITY INVERSION : LINE 5360600N

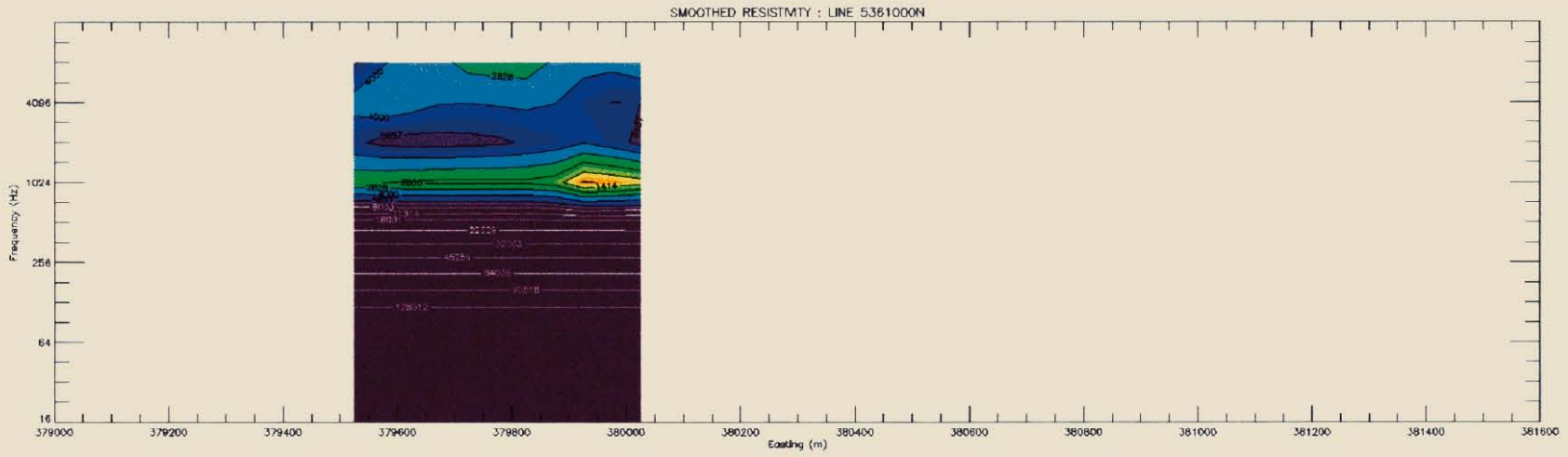


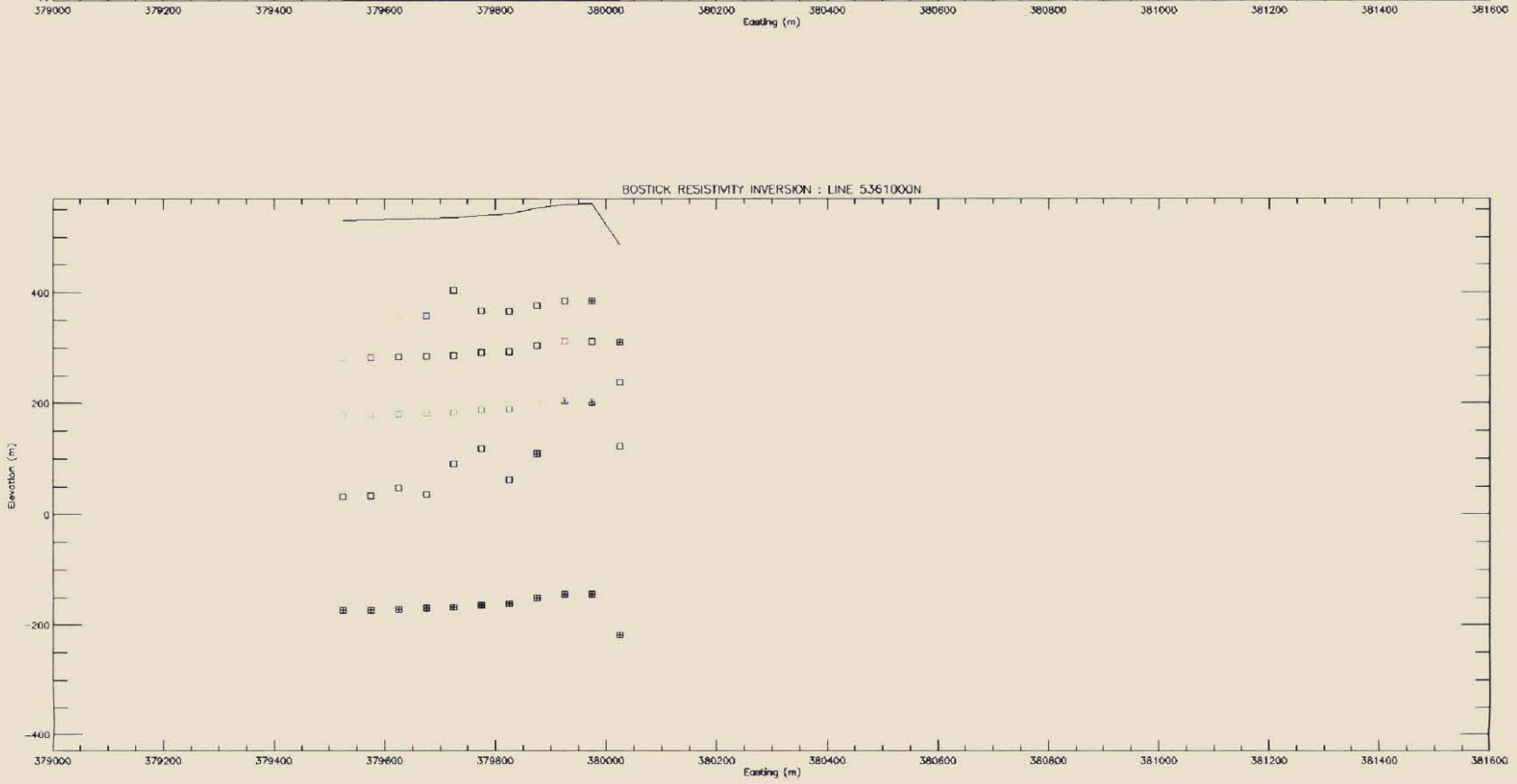


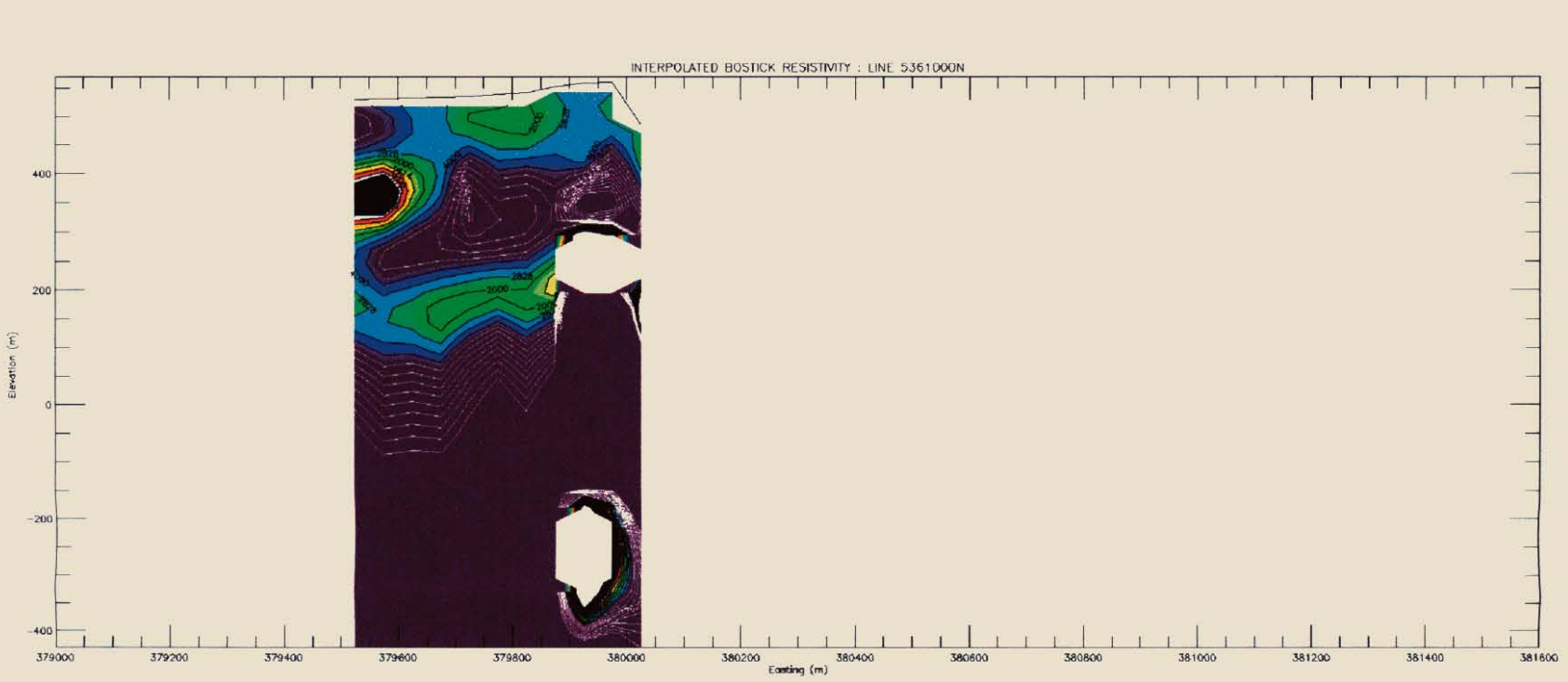
5360600N

GOLDFIELDS EXPLORATION
South Henty CSAMT Data 1999. Line 5360600N. Re-Processed with EMAP filter and Bostick inversion June 1999
Drawn by : Fugro Geo-Consultants 21-6-99

630674



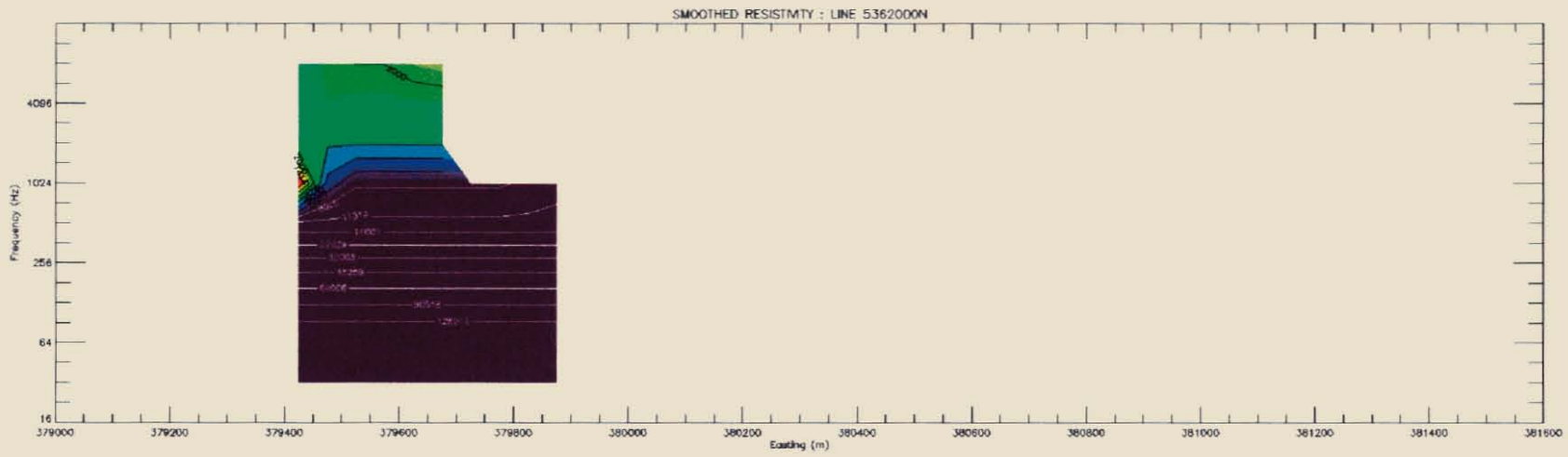


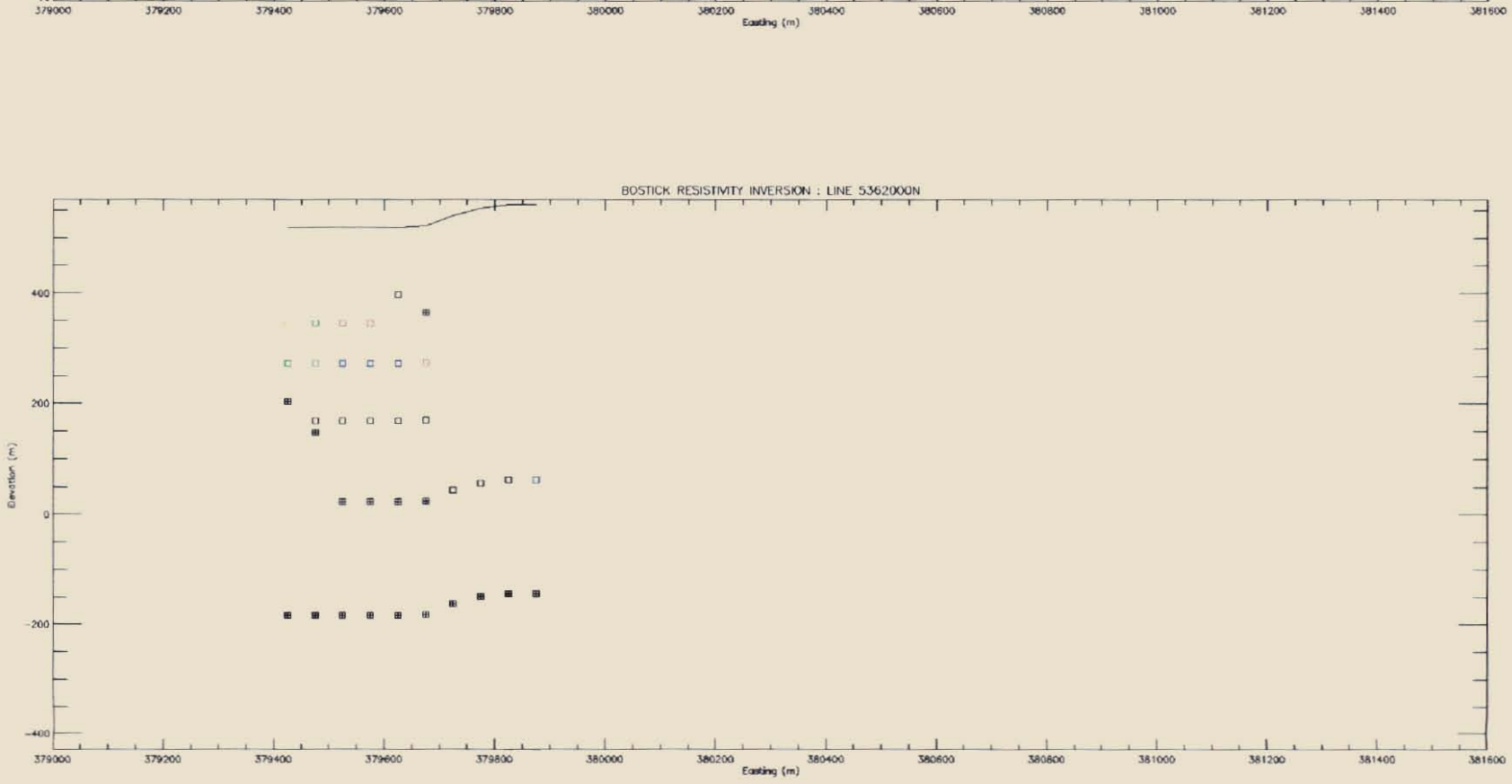


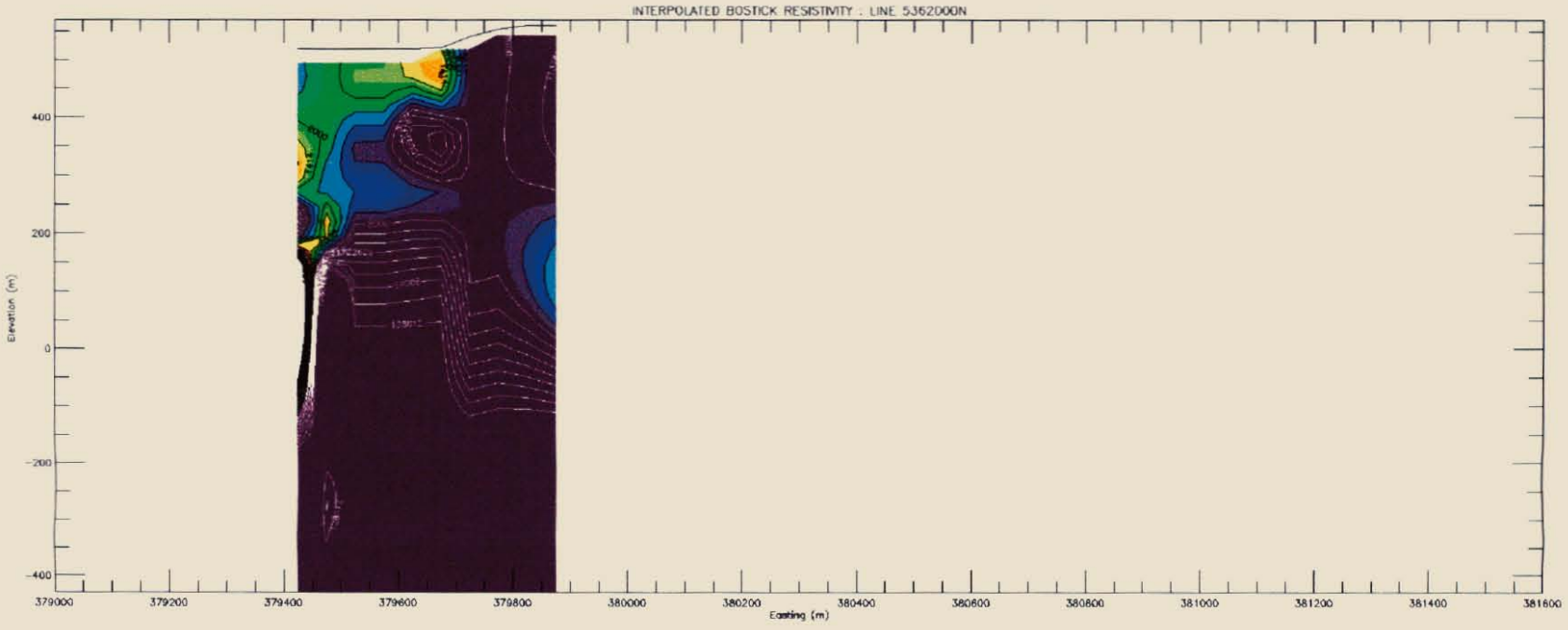
5361000N

GOLDFIELDS EXPLORATION
South Henty CSAMT Data 1999. Line 5361000N. Re-Processed with EMAP filter and Bostick inversion June 1999.
Drawn by: Fitzgerald Geo-Consultants 21/6/99

630075







5362000N

GOLDFIELDS EXPLORATION
South Henty CSAMT Data 1999. Line 5362000N.
Re-Processed with EMAP filter and Bostick inversion
June 1999
Drawn by: Flagstaff Geo-Consultants
21/6/99

630076

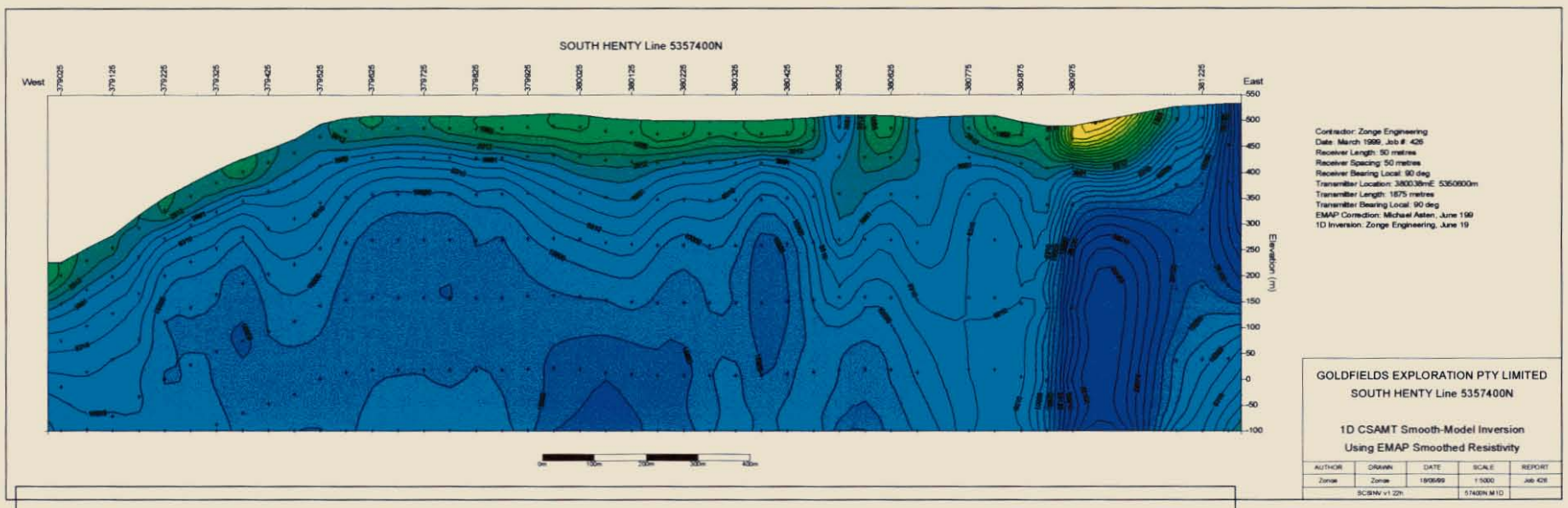
Flagstaff GeoConsultants

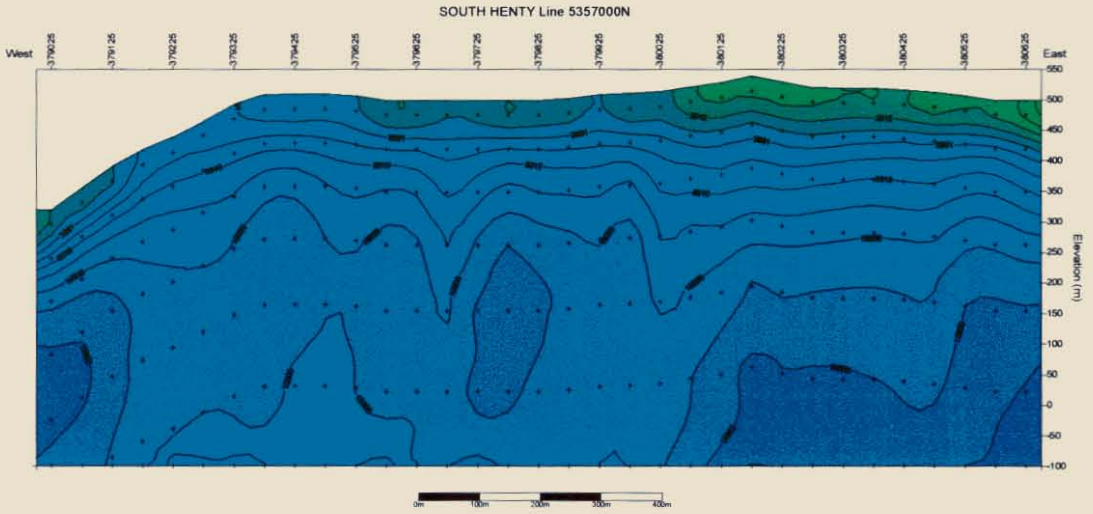
APPENDIX 2

Set of plots of 1D inversion of resistivity vs depth, for each Line surveyed (by Zonge Engineering).

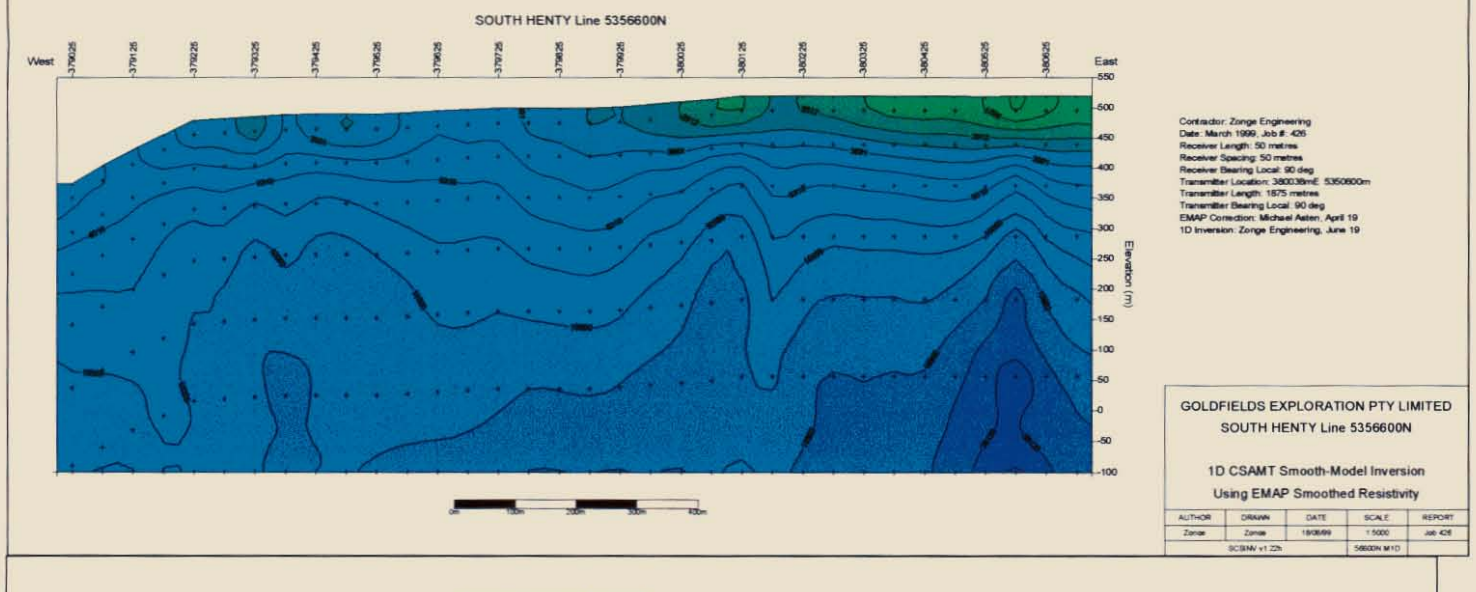
Sub-set of plots of 2D inversion of resistivity vs depth, for Lines 5358200N to 5359800N (by Zonge Engineering).

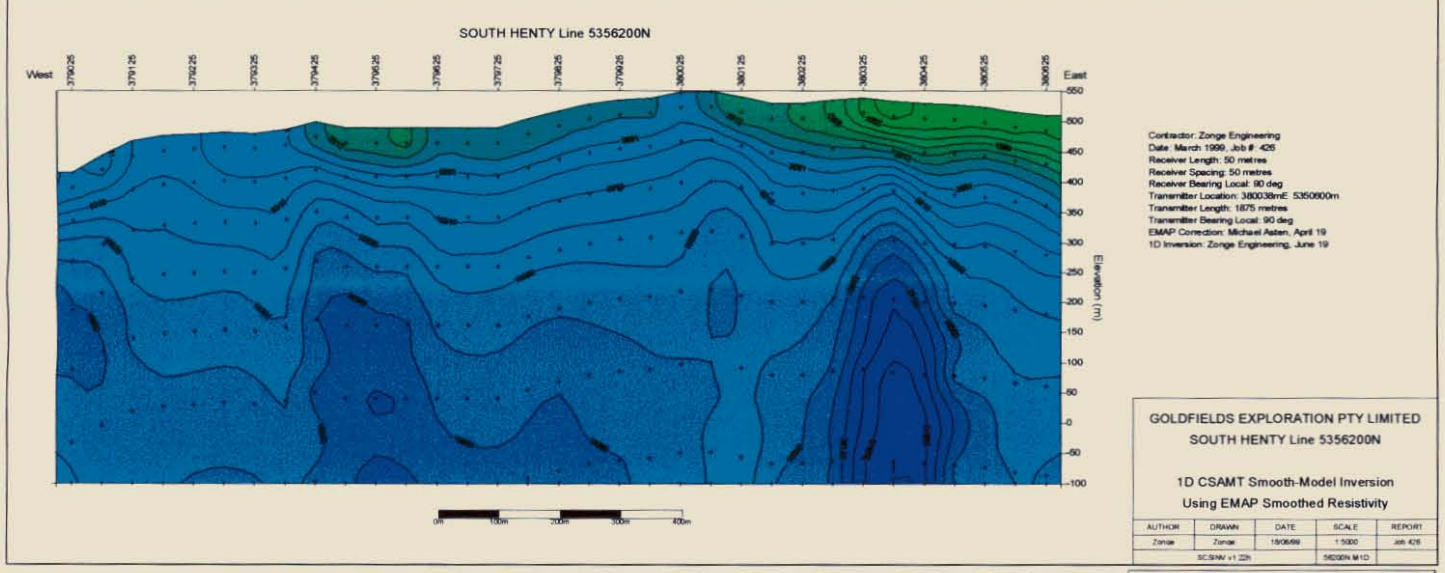
Flagstaff GeoConsultants Pty. Ltd. (ACN 074 693 637)
Suite 2, 337A Lennox Street, (PO Box 2236) Richmond South, Victoria, 3121 Australia
Phone: +61 3 9421 1000 Fax +61 3 9421 1099
Email: postman@flagstaff-geoconsultants.com.au WebSite: www.flagstaff-geoconsultants.com.au





5 cm



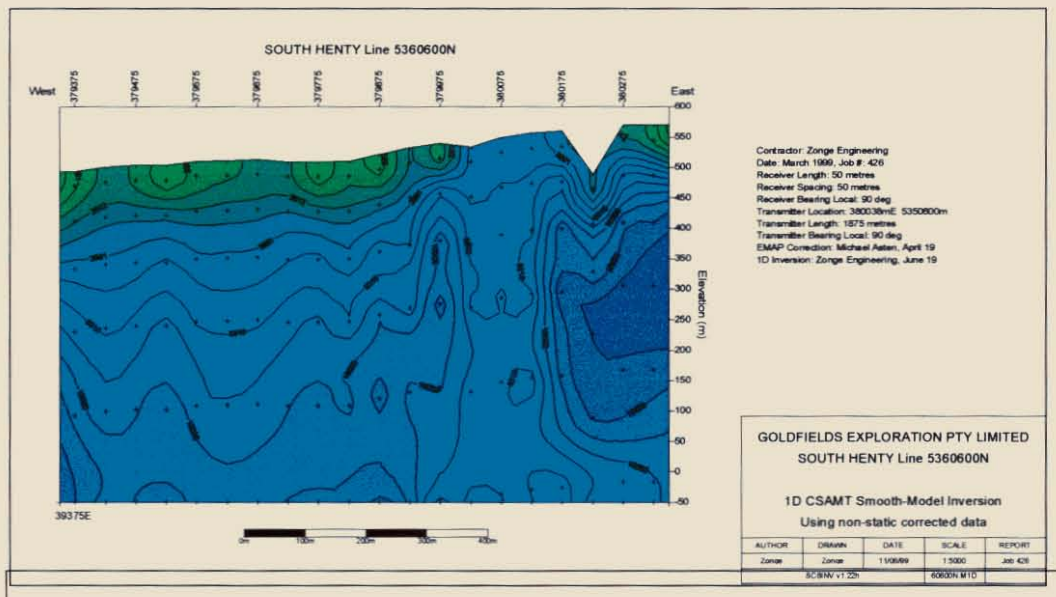


GOLDFIELDS EXPLORATION

SOUTH HENTY (TAS) - EL 8/96
CSAMT INTERPRETATION
1D Inversions by Zonge

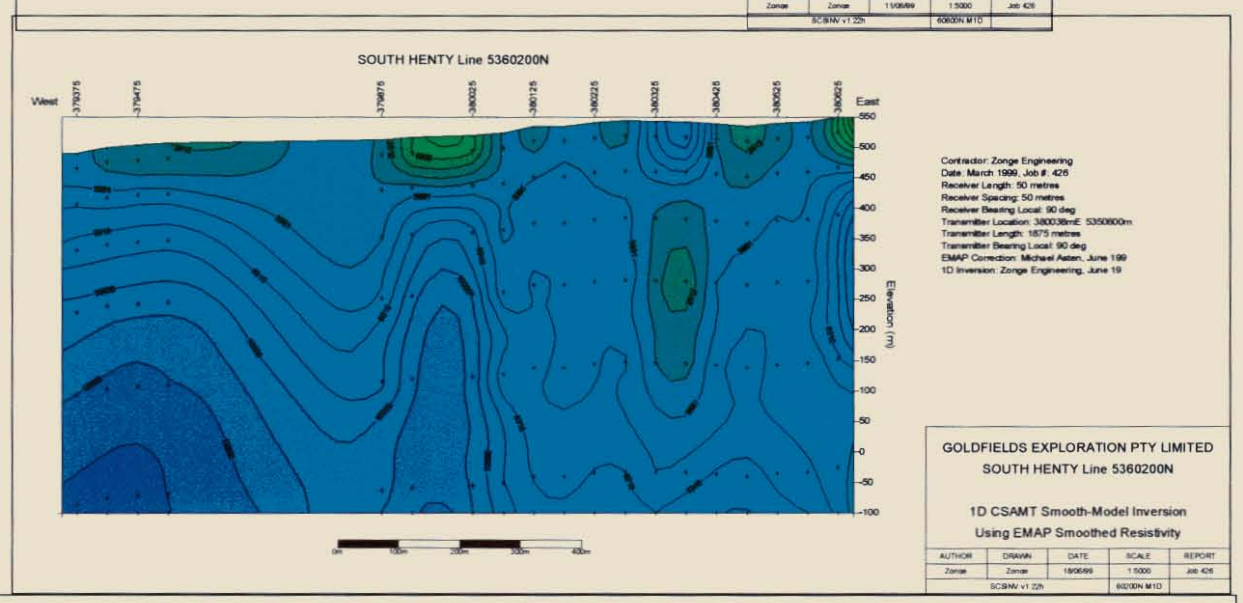
Drawn by: Flagstaff Geo-Consultants
10/4/2000

6900278

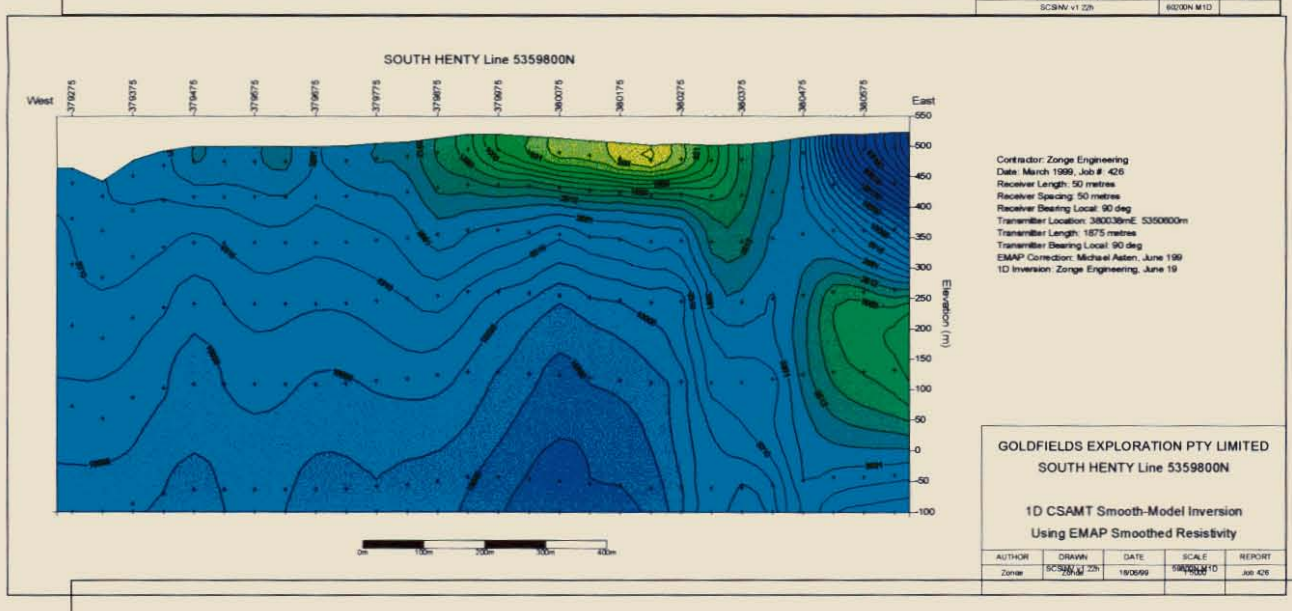


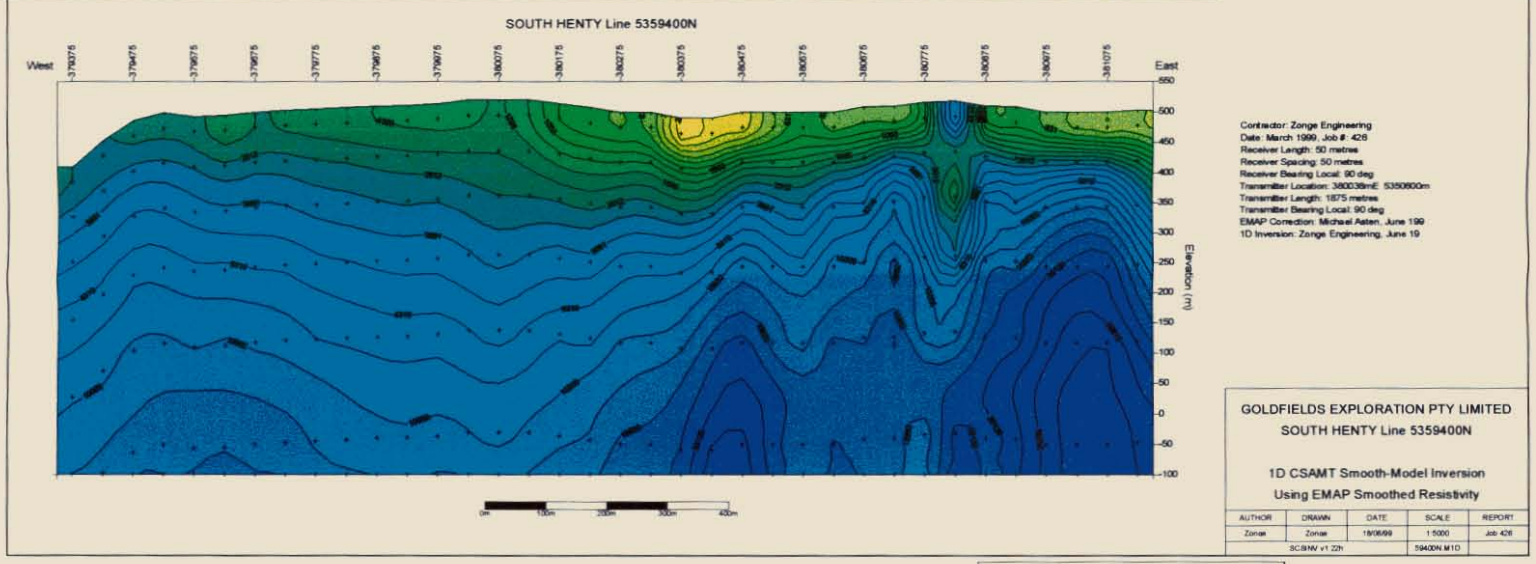
NOTES:

Line 53561000N and
Line 53562000N have too few
usuable data to permit a
1D inversion.



5 cm





GOLDFIELDS EXPLORATION

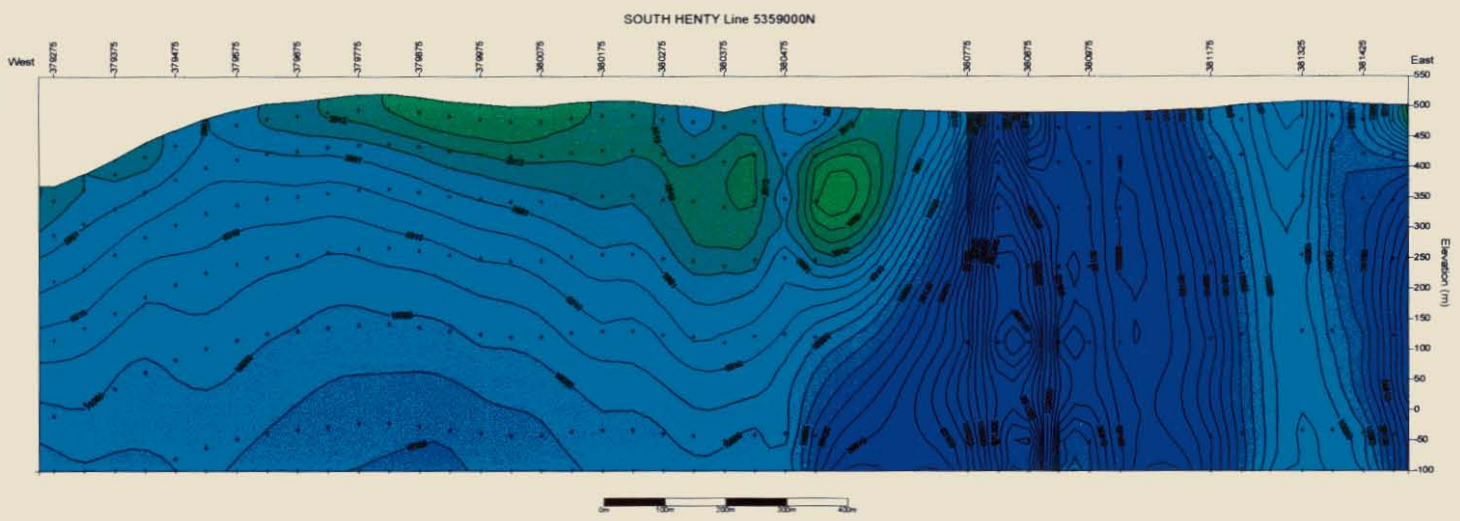
SOUTH HENTY (TAS) - EL 8/96
CSAMT INTERPRETATION
1D Inversions by Zonge

Drawn by: Flagstaff Geo-Consultants
4/6/2000

650079

5 cm

SOUTH HENTY Line 5359000N



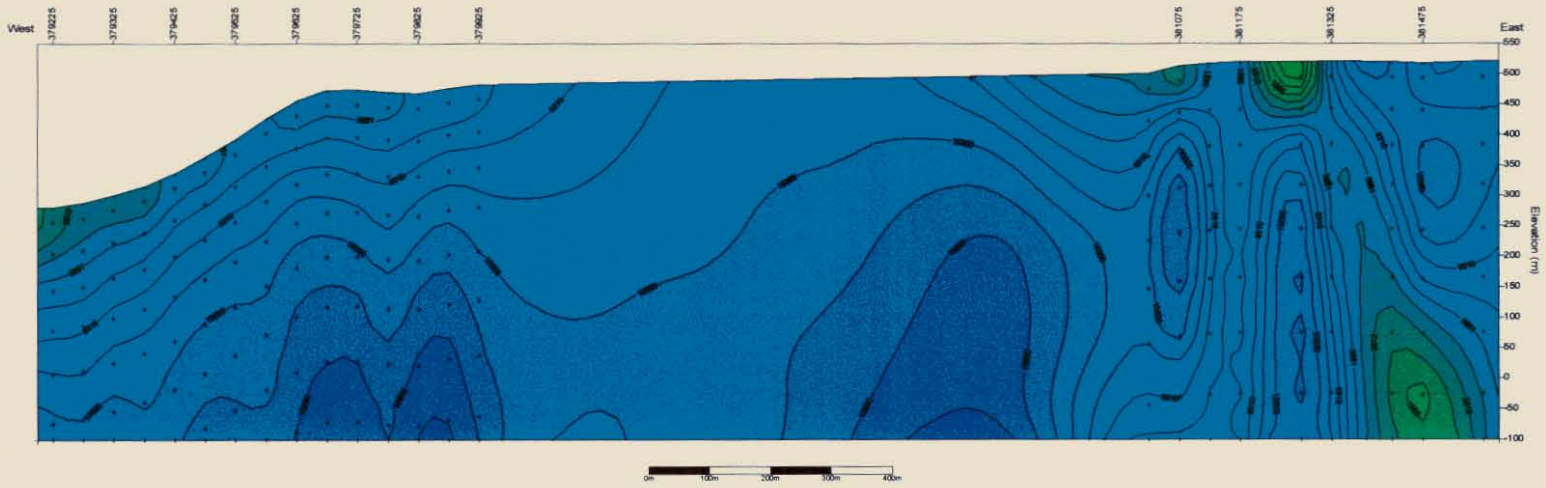
Contractor: Zonge Engineering
Date: March 1999, Job #: 426
Receiver Length: 50 metres
Receiver Spacing: 50 metres
Receiver Bearing Local: 90 deg
Transmitter Location: 380038mE 5350600m
Transmitter Length: 1875 metres
Transmitter Bearing Local: 90 deg
EMAP Correction: Michael Asten, June 199
1D Inversion: Zonge Engineering, June 19

GOLDFIELDS EXPLORATION PTY LIMITED
SOUTH HENTY Line 5359000N

1D CSAMT Smooth-Model Inversion
Using EMAP Smoothed Resistivity

AUTHOR	DRAWN	DATE	SCALE	REPORT
Zonge	Zonge	19/06/99	1:5000	Job 426
SCSINV v1.22h			59000N M1D	

SOUTH HENTY Line 5358600N



Contractor: Zonge Engineering
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Receiver Length: 50 metres
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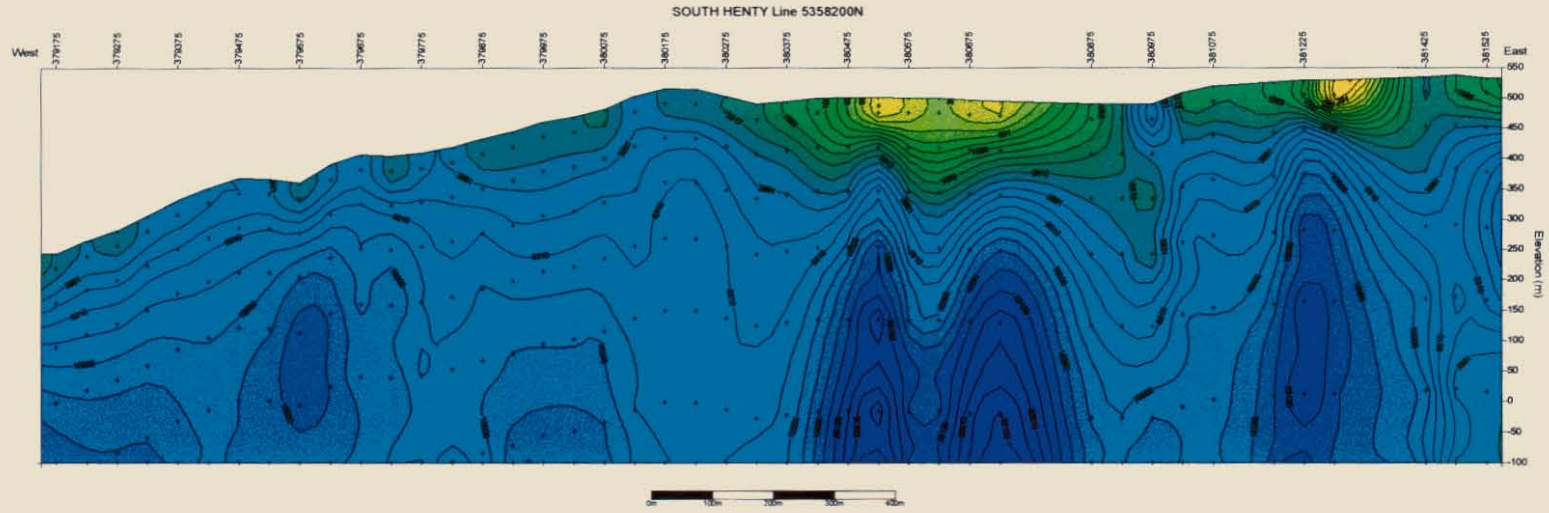
Receiver Bearing Local: 90 deg
Transmitter Location: 380038mE 5350600m
Transmitter Length: 1875 metres
Transmitter Bearing Local: 90 deg
EMAP Correction: Michael Asten, June 199
1D Inversion: Zonge Engineering, June 19

GOLDFIELDS EXPLORATION PTY LIMITED
SOUTH HENTY Line 5358600N

1D CSAMT Smooth-Model Inversion
Using EMAP Smoothed Resistivity

AUTHOR	DRAWN	DATE	SCALE	REPORT
Zonge	Zonge	19/06/99	1:5000	Job 426
SCSINV v1.22h			58600N M1D	

SOUTH HENTY Line 5358200N



Contractor: Zonge Engineering
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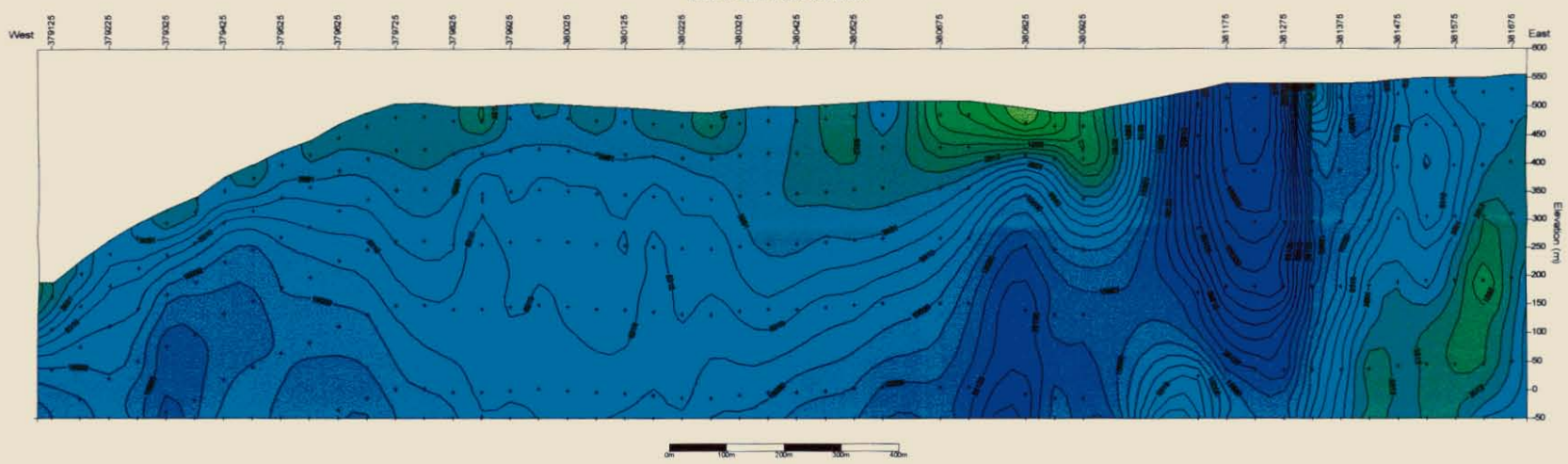
1D Inversion: Zonge Engineering, June 19

GOLDFIELDS EXPLORATION PTY LIMITED
SOUTH HENTY Line 5358200N

1D CSAMT Smooth-Model Inversion
Using EMAP Smoothed Resistivity

AUTHOR	DRAWN	DATE	SCALE	REPORT
Zonge	Zonge	19/06/99	1:5000	Job 426
SCSINV v1.22h			58200N M1D	

SOUTH HENTY Line 5357800N



Contractor: Zonge Engineering
Date: March 1999, Job #: 426
Receiver Length: 50 metres
Receiver Spacing: 50 metres
Receiver Bearing Local: 90 deg
Transmitter Location: 380038mE 5350600m
Transmitter Length: 1875 metres
Transmitter Bearing Local: 90 deg
EMAP Correction: Michael Asten, June 199
1D Inversion: Zonge Engineering, June 19

GOLDFIELDS EXPLORATION PTY LIMITED
SOUTH HENTY Line 5357800N

1D CSAMT Smooth-Model Inversion
Using EMAP Smoothed Resistivity

AUTHOR	DRAWN	DATE	SCALE	REPORT
Zonge	Zonge	19/06/99	1:5000	Job 426
SCSINV v1.22h			57800N M1D	

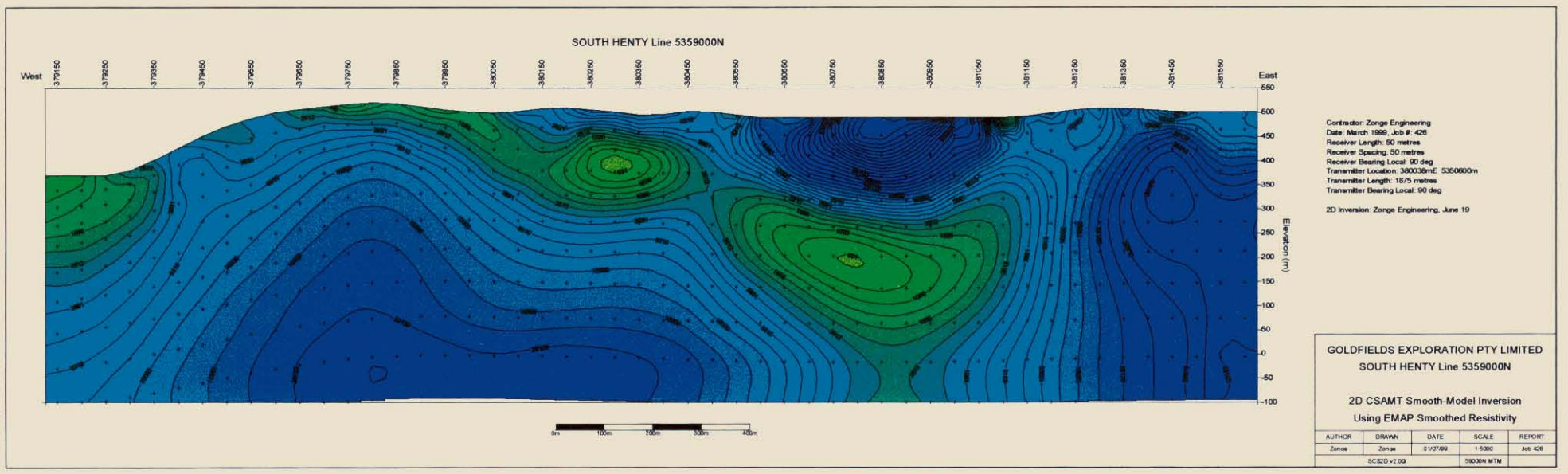
GOLDFIELDS EXPLORATION

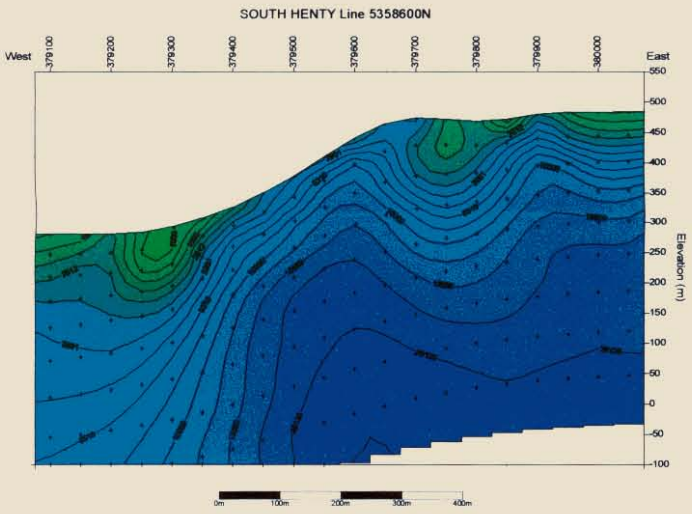
SOUTH HENTY (TAS) - EL 8/96
CSAMT INTERPRETATION
1D Inversions by Zonge

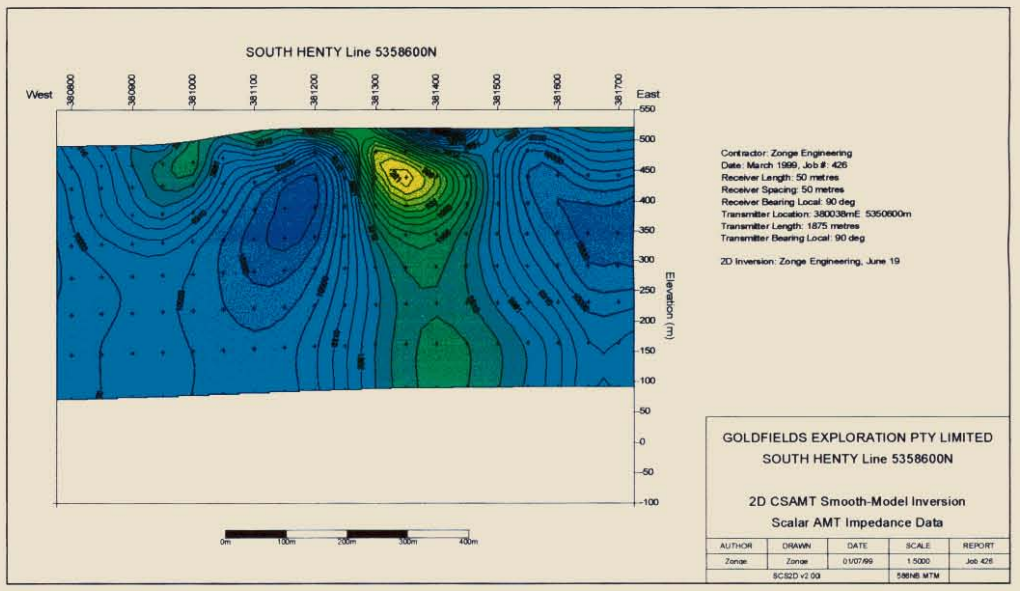
Drawn by: Hagstaff Geo-Consultants
4/4/2000

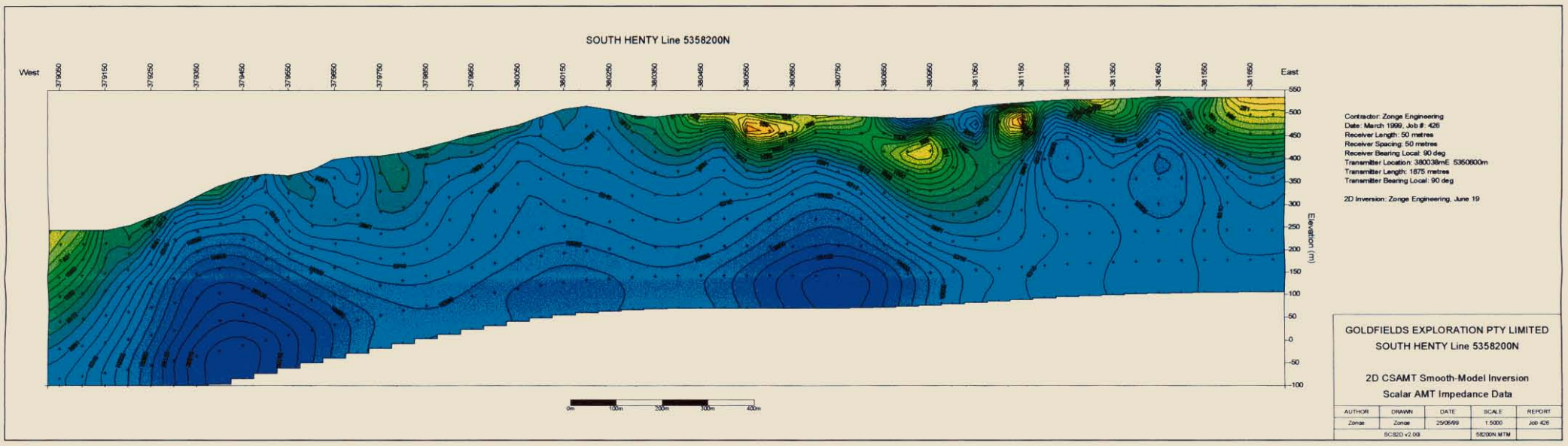
080059

5 cm







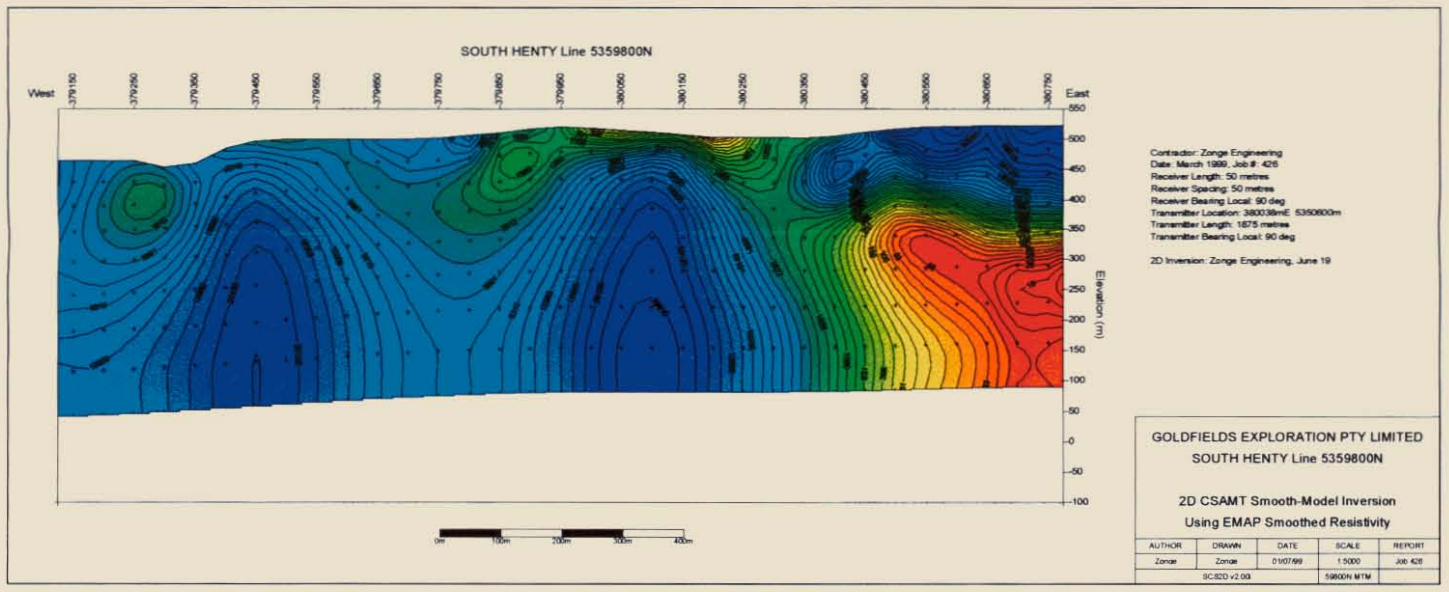


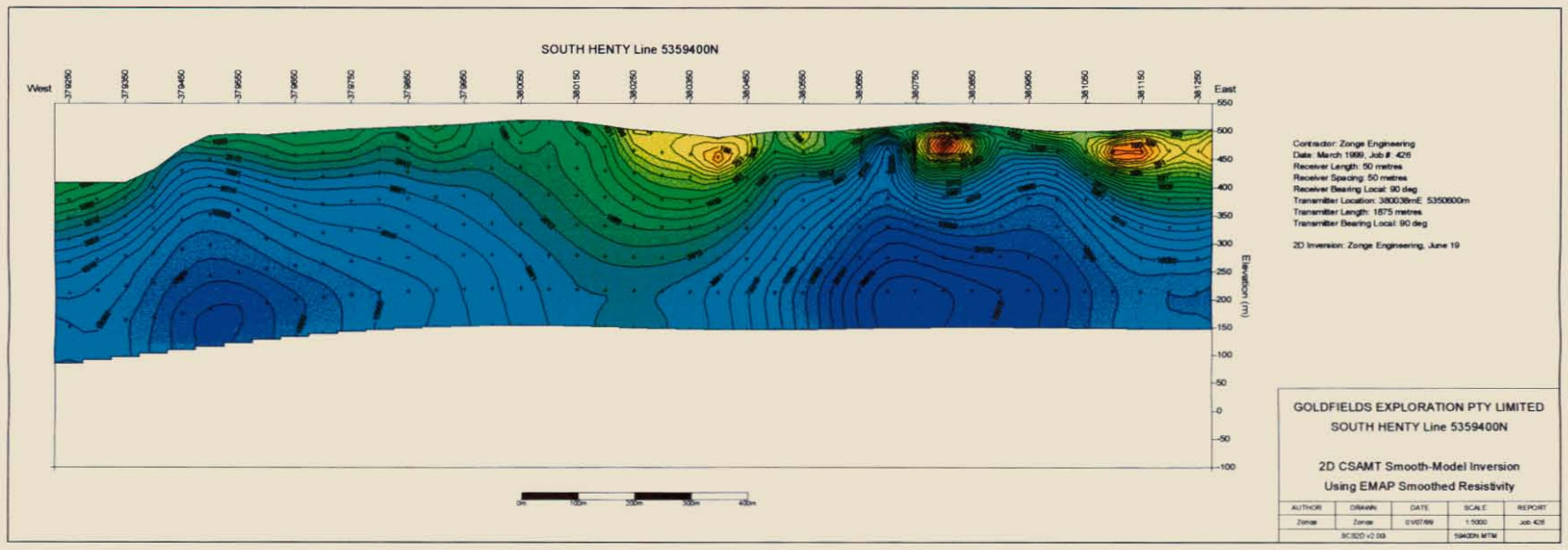
GOLDFIELDS EXPLORATION

SOUTH HENTY (TAS) - EL 8/96
CSAMT INTERPRETATION
2D Inversions by Zonge

Prepared by: Flagstaff Geo-Consultants
4/4/2000

63003





5 cm

GOLDFIELDS EXPLORATION

SOUTH HENTY (TAS) - EL 8/96
CSAMT INTERPRETATION
2D Inversions by Zonge

Drawn by: Flagstaff Geo-Consultants
4/4/2000

650032

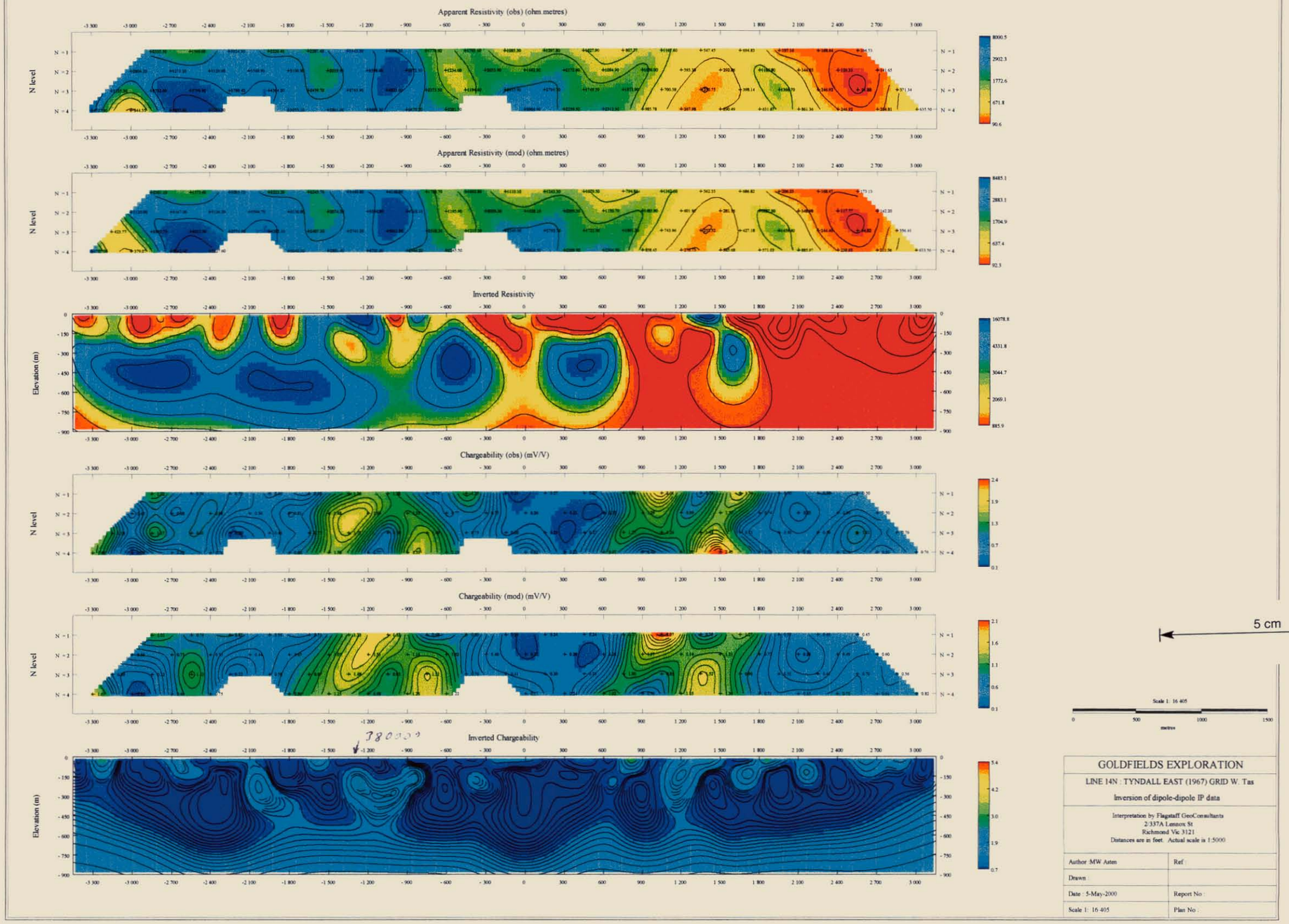
650083

APPENDIX 3

Set of plots of dipole-dipole resistivity and IP field data, and 2D inversion to depth, for each IP line surveyed by McPhar, 1967.

Flagstaff GeoConsultants Pty. Ltd. (ACN 074 693 637)
Suite 2, 337A Lennox Street, (PO Box 2236) Richmond South, Victoria, 3121 Australia
Phone: +61 3 9421 1000 Fax +61 3 9421 1099
Email: postman@flagstaff-geoconsultants.com.au WebSite: www.flagstaff-geoconsultants.com.au

650034



GOLDFIELDS EXPLORATION

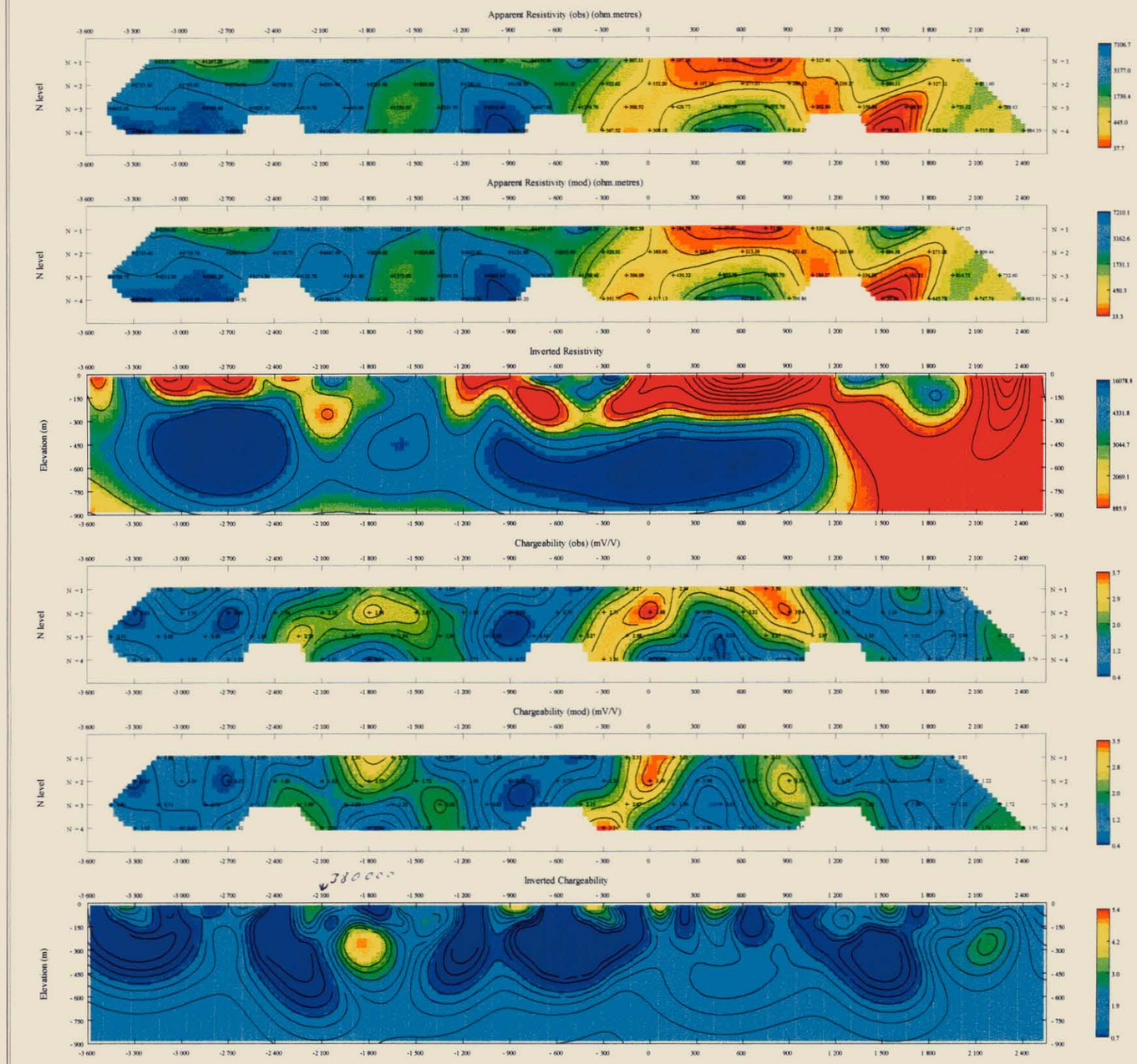
LINE 14N : TYNDALL EAST (1967) GRID W. Tas

Inversion of dipole-dipole IP data

Interpretation by Flagstaff GeoConsultants
2/337A Lennox St
Richmond Vic 3121
Distances are in feet. Actual scale is 1:5000

Author :MW Asten	Ref :
Drawn :	
Date : 5-May-2000	Report No :
Scale 1: 16 405	Plan No :

650035



5 cm

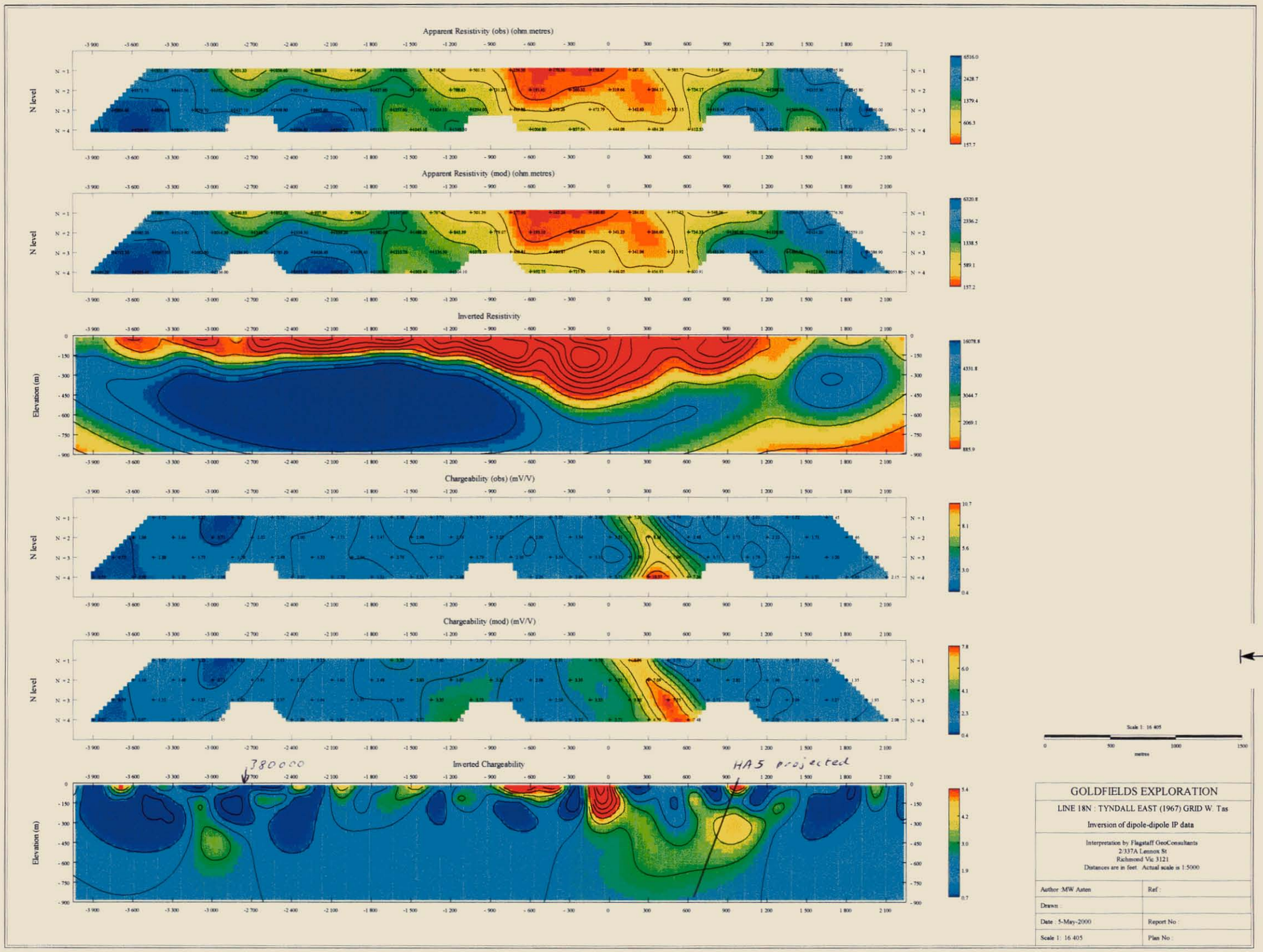
Scale 1: 16 405

0 500 1000 1500

metres

GOLDFIELDS EXPLORATION	
LINE 16N : EAST TYNDALL (1967) GRID, W. Tas	
Inversion of dipole-dipole IP survey	
Interpretation by Flagstaff GeoConsultants 2/337A Lennox St Richmond Vic 3121 Distances are in feet. Actual scale is 1:5000	
Author :MW Aaten	Ref :
Drawn :	
Date : 5-May-2000	Report No :
Scale 1: 16 405	Plan No :

650036



GOLDFIELDS EXPLORATION

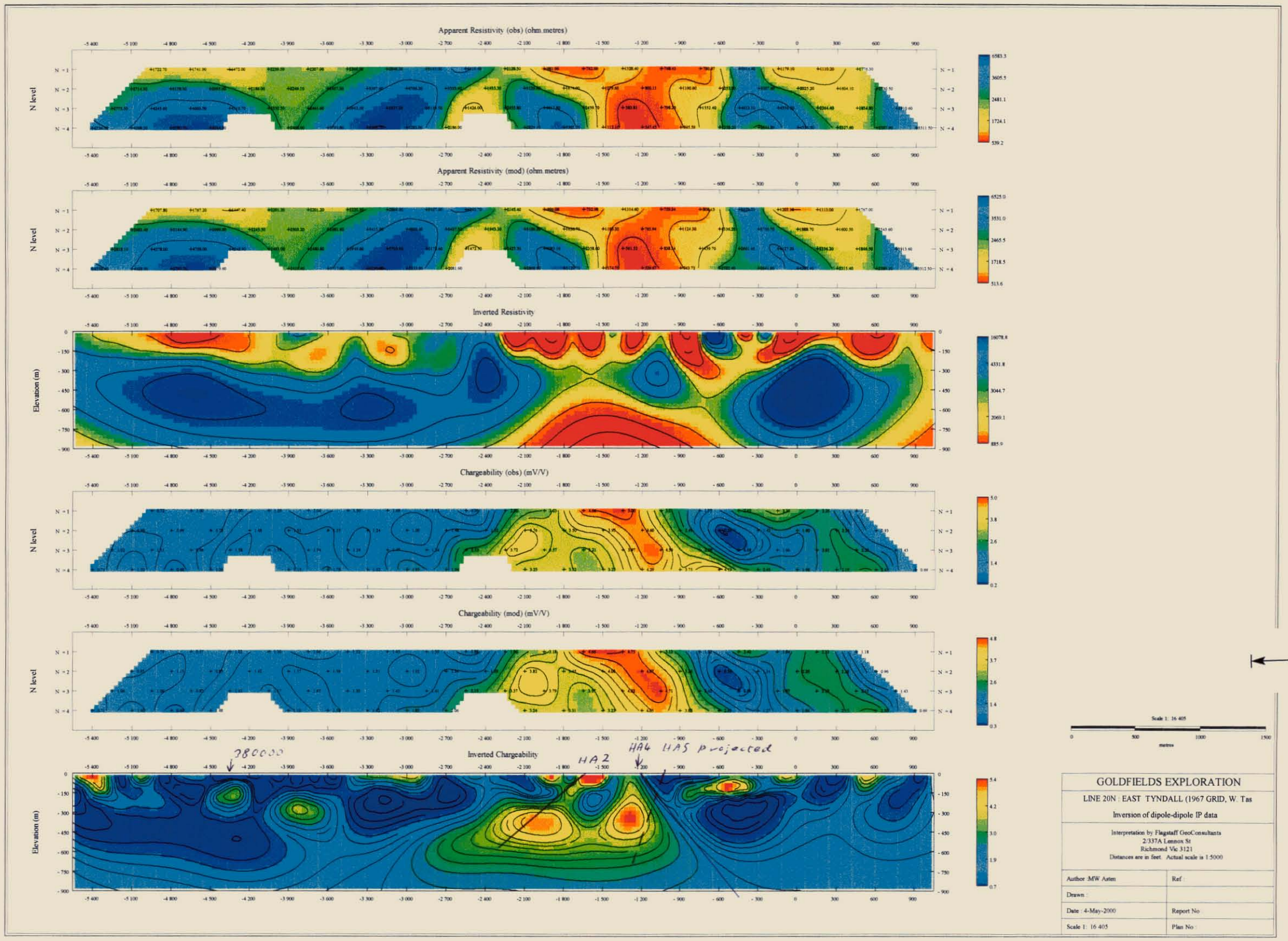
LINE 18N : TYNDALL EAST (1967) GRID W. Tas

Inversion of dipole-dipole IP data

Interpretation by Flagstaff GeoConsultants
2/337A Lennox St
Richmond Vic 3121
Distances are in feet. Actual scale is 1:5000

Author :MW Aatten	Ref :
Drawn :	
Date : 5-May-2000	Report No :
Scale 1: 16 405	Plan No :

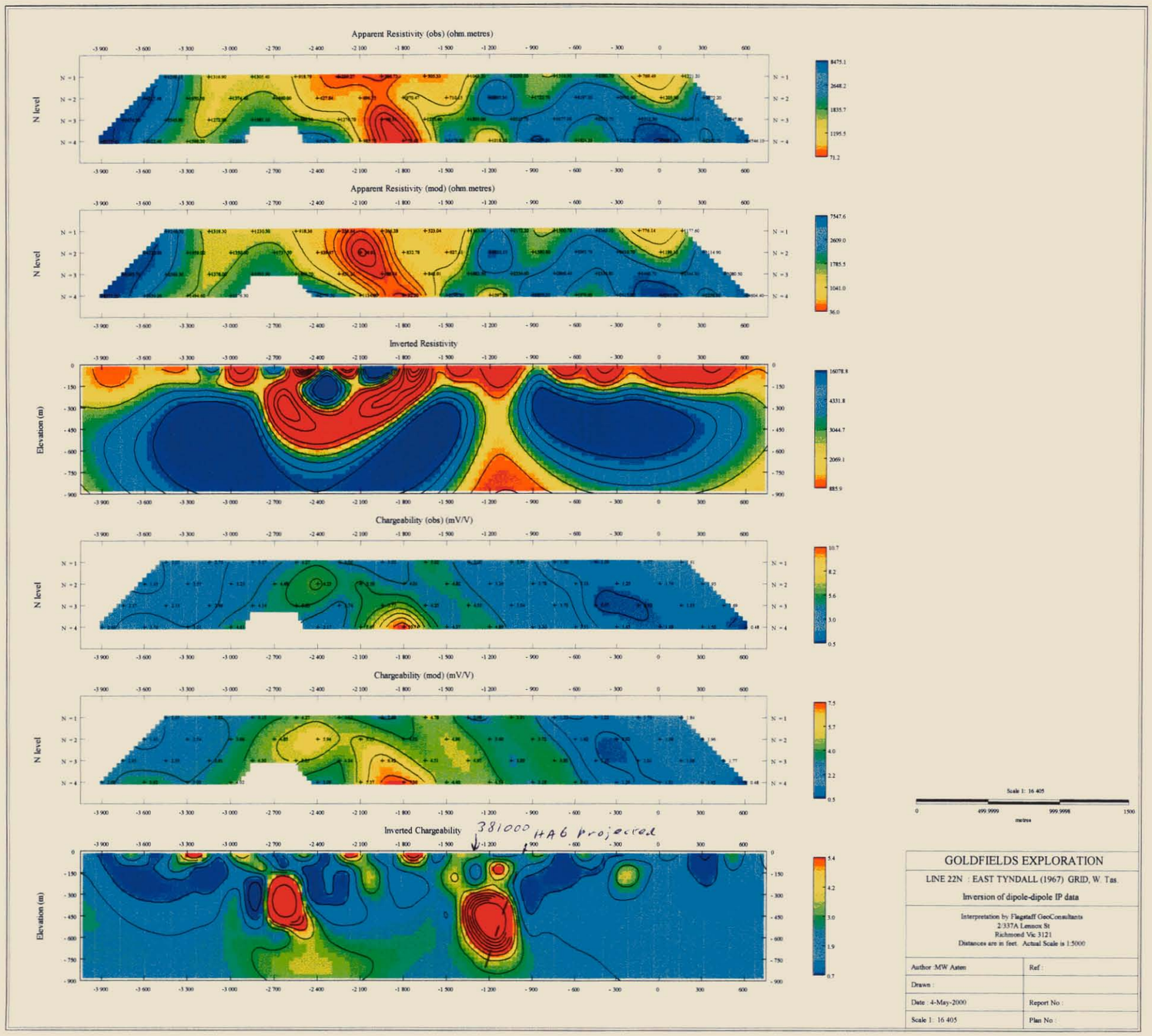
650087



Apparent Resistivity (obs) (ohm.metres)
Apparent Resistivity (mod) (ohm.metres)
Inverted Resistivity
Chargeability (obs) (mV/V)
Chargeability (mod) (mV/V)
Inverted Chargeability
N level
Elevation (m)
380000
HA2
HA4 HA5 projected
Scale 1: 16 405
metres
GOLDFIELDS EXPLORATION
LINE 20N : EAST TYNDALL (1967 GRID, W. Tas
Inversion of dipole-dipole IP data
Interpretation by Flagstaff GeoConsultants
2/337A Lennox St
Richmond Vic 3121
Distances are in feet. Actual scale is 1:5000
Author :MW Asten
Ref :
Drawn :
Date : 4-May-2000
Report No
Scale 1: 16 405
Plan No :

5 cm

650038



5 cm

GOLDFIELDS EXPLORATION

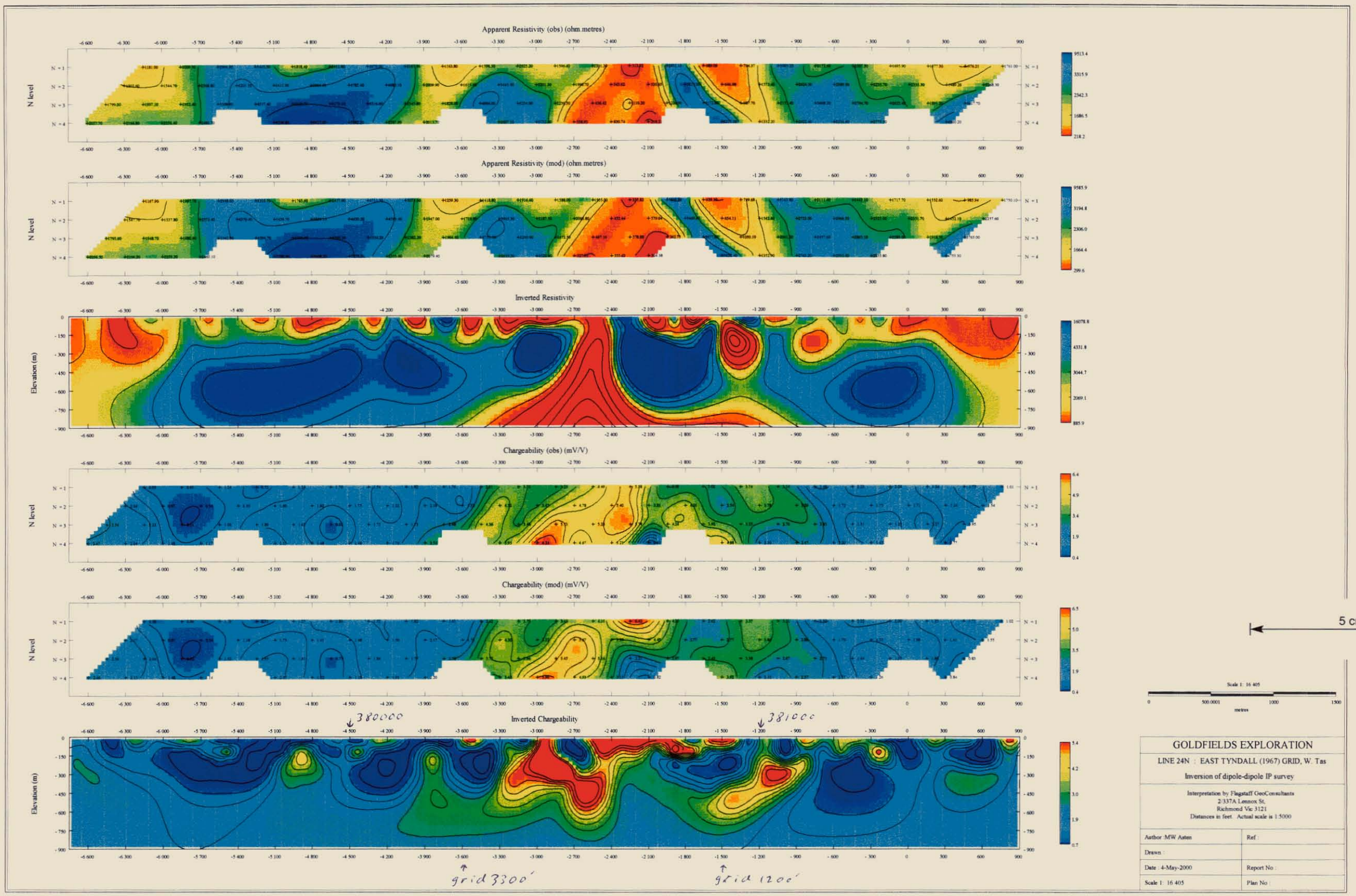
LINE 22N : EAST TYNDALL (1967) GRID, W. Tas.

Inversion of dipole-dipole IP data

Interpretation by Flagstaff GeoConsultants
2/337A Lennox St
Richmond Vic 3121
Distances are in feet. Actual Scale is 1:5000

Author :MW Asten	Ref :
Drawn :	
Date : 4-May-2000	Report No :
Scale 1: 16 405	Plan No :

650039



Apparent Resistivity (obs) (ohm.metres)
Apparent Resistivity (mod) (ohm.metres)
Inverted Resistivity
Chargeability (obs) (mV/V)
Chargeability (mod) (mV/V)
Inverted Chargeability
N level
Elevation (m)
380000
381000
grid 3300'
grid 1200'
5 cm
Scale 1: 16 405
metres
GOLDFIELDS EXPLORATION
LINE 24N : EAST TYNDALL (1967) GRID, W. Tas
Inversion of dipole-dipole IP survey
Interpretation by Flagstaff GeoConsultants
2/337A Lennox St,
Richmond Vic 3121
Distances in feet. Actual scale is 1:5000
Author :MW Asten
Ref :
Drawn :
Date : 4-May-2000
Report No :
Scale 1: 16 405
Plan No :

650030

Apparent Resistivity (obs) (ohm.metres)

Apparent Resistivity (mod) (ohm.metres)

Inverted Resistivity

Chargeability (obs) (mV/V)

Chargeability (mod) (mV/V)

Inverted Chargeability

780000

781000

5 cm

Scale 1: 16 404

0 499.9995 999.999 1499.999 metres

GOLDFIELDS EXPLORATION

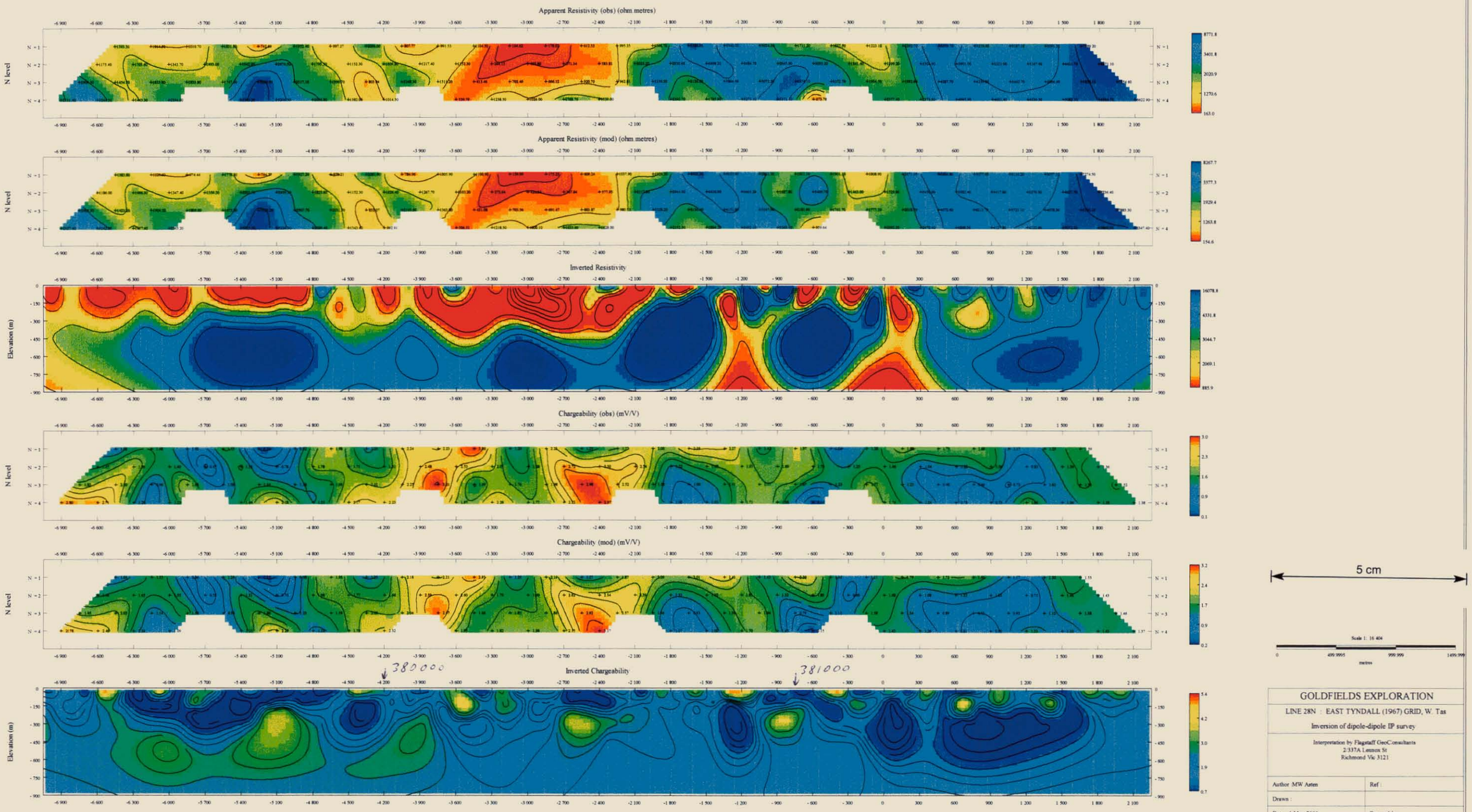
LINE 26N : EAST TYNDALL (1967) GRID, W.Tas.

Inversion of dipole-dipole IP survey

Interpretation by Flagstaff GeoConsultants
2/337A Lennox St
Richmond Vic 3121
Distances in feet. Actual Scale is 1:5000

Author :MW Asten	Ref :
Drawn :	
Date :4-May-2000	Report No :
Scale 1: 16 404	Plan No :

650091



GOLDFIELDS EXPLORATION

LINE 28N : EAST TYNDALL (1967) GRID, W. Tas

Inversion of dipole-dipole IP survey

Interpretation by Flagstaff GeoConsultants
2/337A Lennox St
Richmond Vic 3121

Author :MW Aaten	Ref :
Drawn :	
Date : 4-May-2000	Report No :
Scale 1: 16 404	Plan No :

650092

Apparent Resistivity (obs) (ohm.metres)

Apparent Resistivity (mod) (ohm.metres)

Inverted Resistivity

Chargeability (obs) (mV/V)

Chargeability (mod) (mV/V)

Inverted Chargeability

380000

5 cm

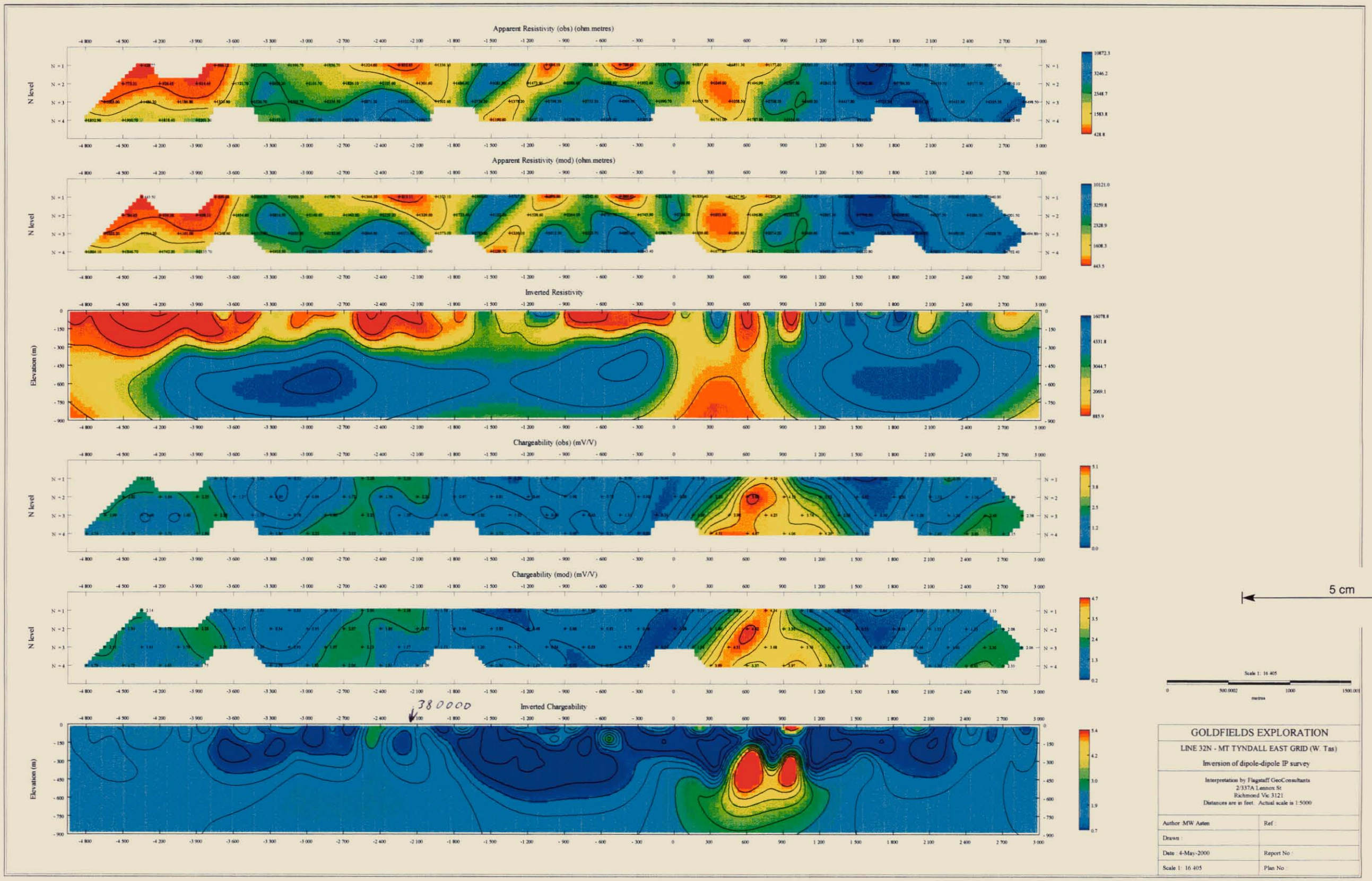
Scale 1: 16 404

0 500.0002 1000 1500.001

metres

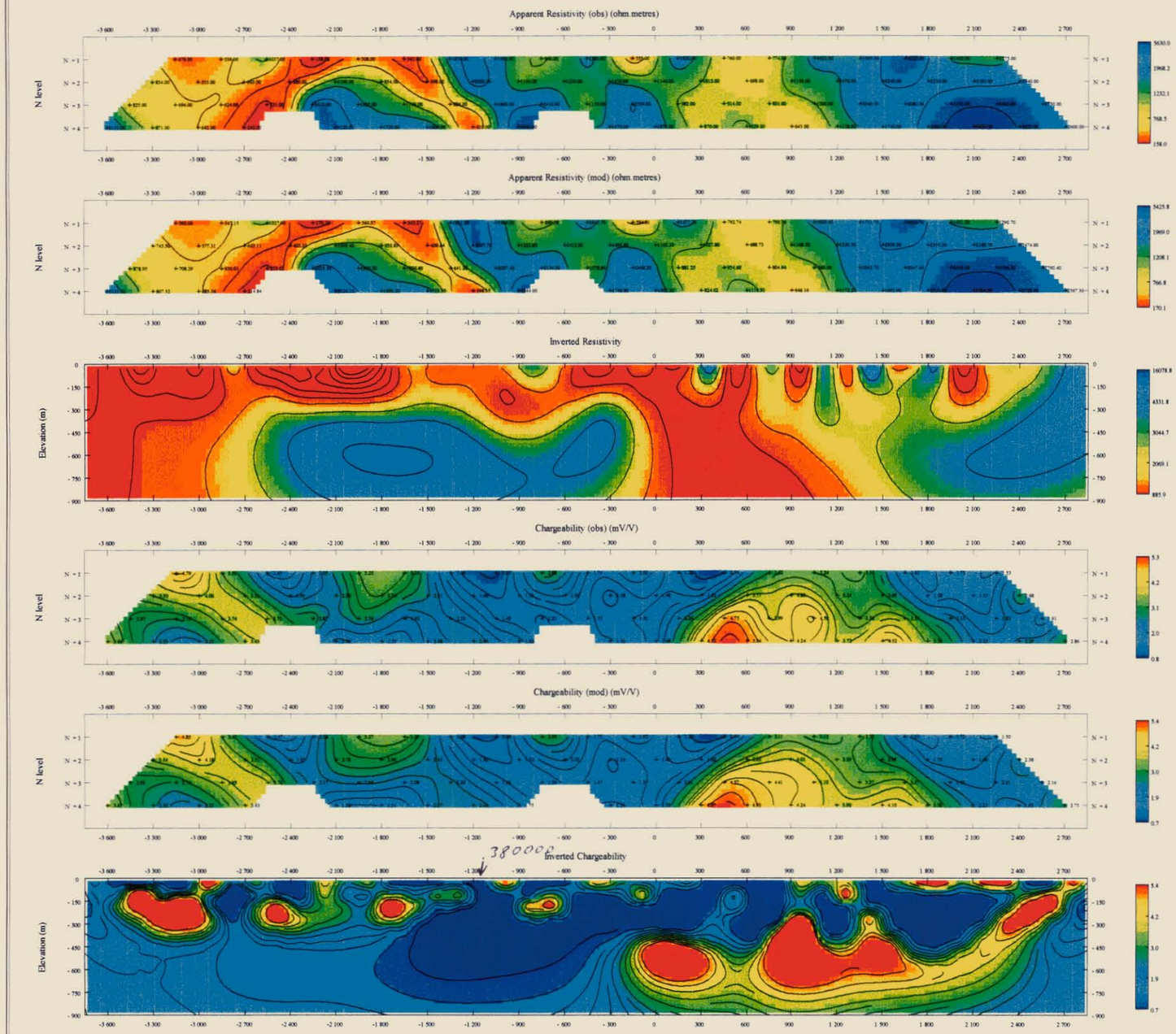
GOLDFIELDS EXPLORATION	
LINE 30N : EAST TYNDALL (1967) GRID, W. Tas	
Inversion of dipole-dipole IP survey	
Interpretation by Flagstaff GeoConsultants 2/337A Lennox St Richmond Vic 3121 Distances are in feet. Actual scale is 1:5000	
Author :MW Asten	Ref :
Drawn :	
Date : 4-May-2000	Report No :
Scale 1: 16 404	Plan No :

650093



GOLDFIELDS EXPLORATION	
LINE 32N - MT TYNDALL EAST GRID (W. Tas)	
Inversion of dipole-dipole IP survey	
Interpretation by Flagstaff GeoConsultants 2/337A Lennox St Richmond Vic 3121 Distances are in feet. Actual scale is 1:5000	
Author :MW Asten	Ref :
Drawn :	
Date : 4-May-2000	Report No :
Scale 1: 16 405	Plan No :

650094



5 cm

Scale 1: 16 405

0 500.0002 1000 1500.001

metres

GOLDFIELDS EXPLORATION	
LINE 34N - MT TYNDALL EAST GRID (W. Tas)	
Inversion of dipole-dipole IP survey	
Interpretation by Flagstaff GeoConsultants 2/337A Lennox St Richmond Vic 3121 Distances are in feet. Actual scale is 1:5000	
Author :MW Aaten	Ref :
Drawn :	
Date : 4-May-2000	Report No :
Scale 1: 16 405	Plan No :

550095

Apparent Resistivity (obs) (ohm.metres)

Apparent Resistivity (mod) (ohm.metres)

Inverted Resistivity

Chargeability (obs) (mV/V)

Chargeability (mod) (mV/V)

Inverted Chargeability

N level

Elevation (m)

780000

5 cm

Scale 1: 16 404

0 499.9998 999.9995 1499.999 metres

GOLDFIELDS EXPLORATION

LINE 36N - MT TYNDALL EAST GRID (W. Tas)

Inversion of dipole-dipole IP survey

Interpretation by Flagstaff GeoConsultants
2/337A Lennox St
Richmond Vic 3121
Distances are in feet. Actual scale is 1:5000

Author :MW Asten	Ref :
Drawn :	
Date : 4-May-2000	Report No :
Scale 1: 16 404	Plan No :

650096

Apparent Resistivity (obs) (ohm.metres)

Apparent Resistivity (mod) (ohm.metres)

Inverted Resistivity

Chargeability (obs) (mV/V)

Chargeability (mod) (mV/V)

Inverted Chargeability

380000

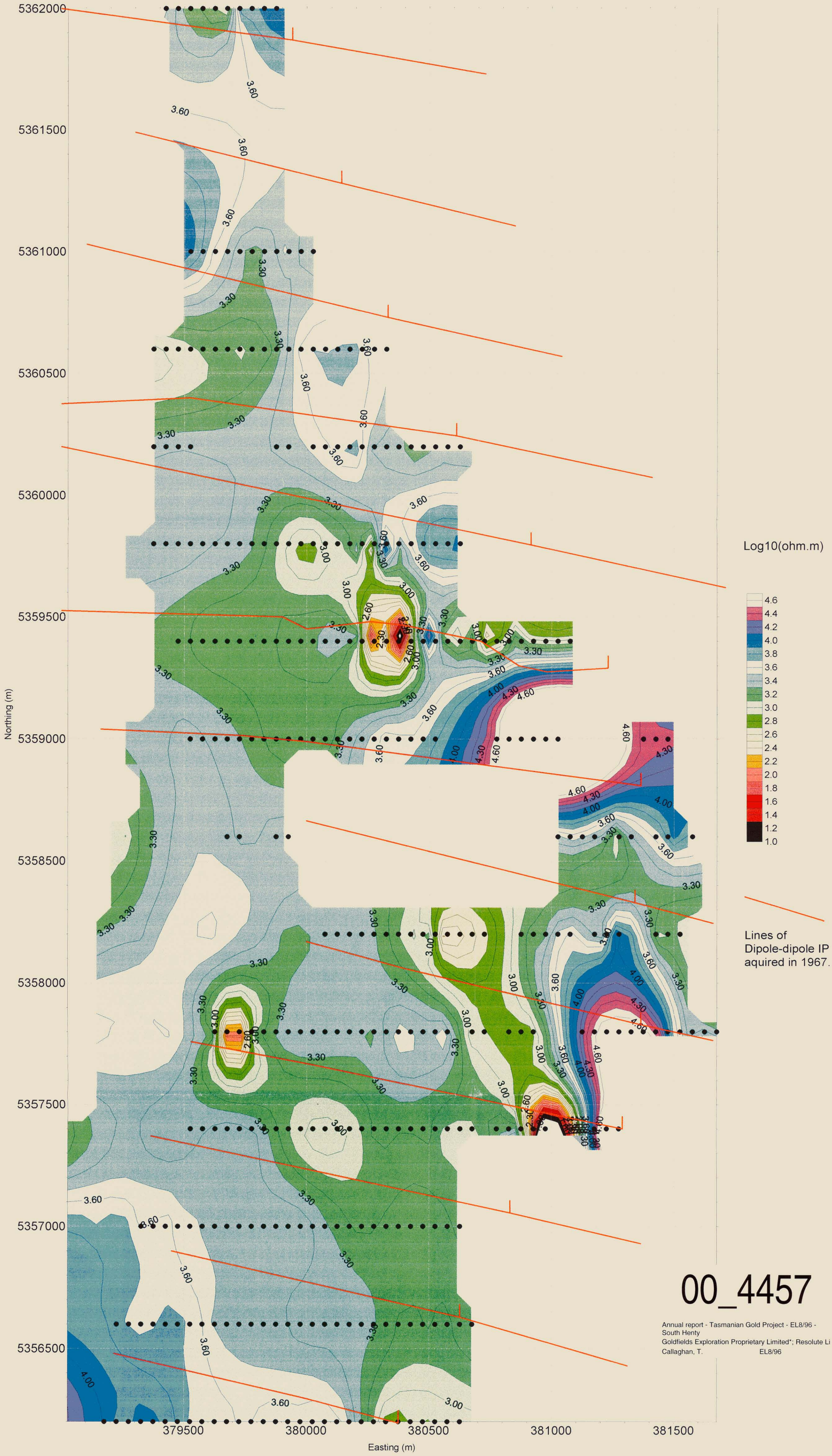
A = 379940E
5361850N

5 cm

Scale 1: 16 405

0 500.0002 1000 1500.001
metres

GOLDFIELDS EXPLORATION	
LINE 38N - MT TYNDALL EAST GRID (W. Tas)	
Inversion of dipole-dipole IP survey	
Interpretation by Flagstaff GeoConsultants 2/337A Lennox St Richmond Vic 3121 Distances are in feet. Actual scale is 1:5000	
Author :MW Asten	Ref :
Drawn :	
Date : 22-Nov-1999	Report No :
Scale 1: 16 405	Plan No :



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Annual report - Tasmanian Gold Project - EL8/96 - South Henty
Goldfields Exploration Proprietary Limited*; Resolute Li
Callaghan, T. EL8/96

0 500 1000 1500 2000

5 cm

GOLDFIELDS EXPLORATION

SOUTH HENTY - CSAMT INTERPRETATION
Bostick Resistivity
Depth Slice 50 m draped on topography

Drawn by: Flagstaff Geo-Consultants
10/4/2000

PLATE 1

650097

Flagstaff
Geo-consultants

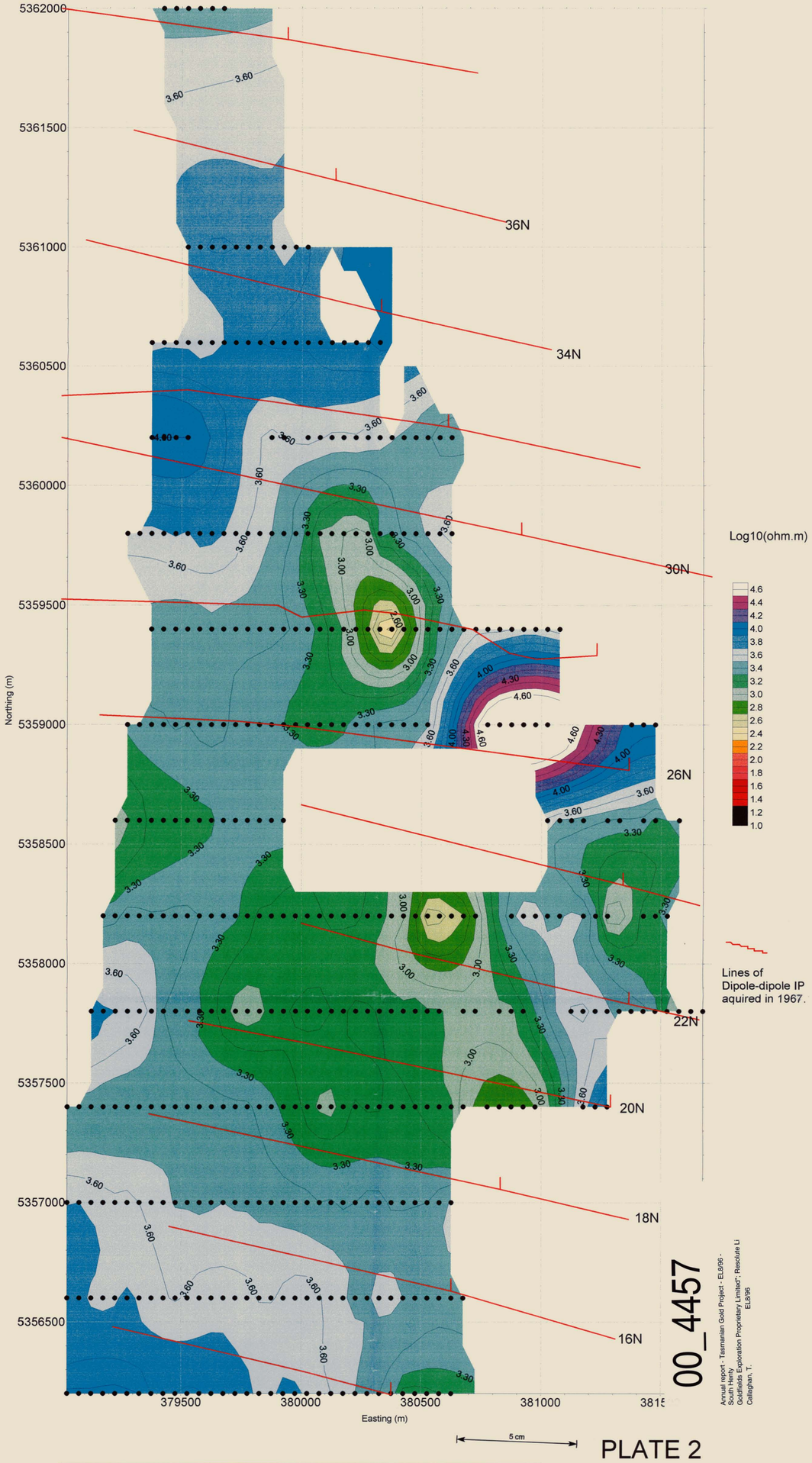

PLATE 2

00_4457

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South Henty
Goldfields Exploration Proprietary Limited'; Resolute Li
Callaghan, T.
EL8/96

GOLDFIELDS EXPLORATION

SOUTH HENTY - CSAMT INTERPRETATION
EMAP FILTERED CAGNIARD RESISTIVITY 2048 Hz
(100-300 m Depth range)

Drawn by: Flagstaff Geo-Consultants
7/4/2000

Flagstaff
Geo-consultants

650038

Northing (m)

5362000
5361500
5361000
5360500
5360000
5359500
5359000
5358500
5358000
5357500
5357000
5356500

379500
380000
380500
381000
381500

Easting (m)

Log10(ohm.m)

4.6
4.4
4.2
4.0
3.8
3.6
3.4
3.2
3.0
2.8
2.6
2.4
2.2
2.0
1.8
1.6
1.4
1.2
1.0

Lines of Dipole-dipole IP aquired in 1967.

0 500 1000 1500 2000

5 cm

PLATE 3

GOLDFIELDS EXPLORATION

SOUTH HENTY - CSAMT INTERPRETATION
EMAP FILTERED CAGNIARD RESISTIVITY 1024Hz
(depths to 500 m)

Drawn by: Flagstaff Geo-Consultants
21/6/99

Flagstaff Geo-consultants

650099

00_4457

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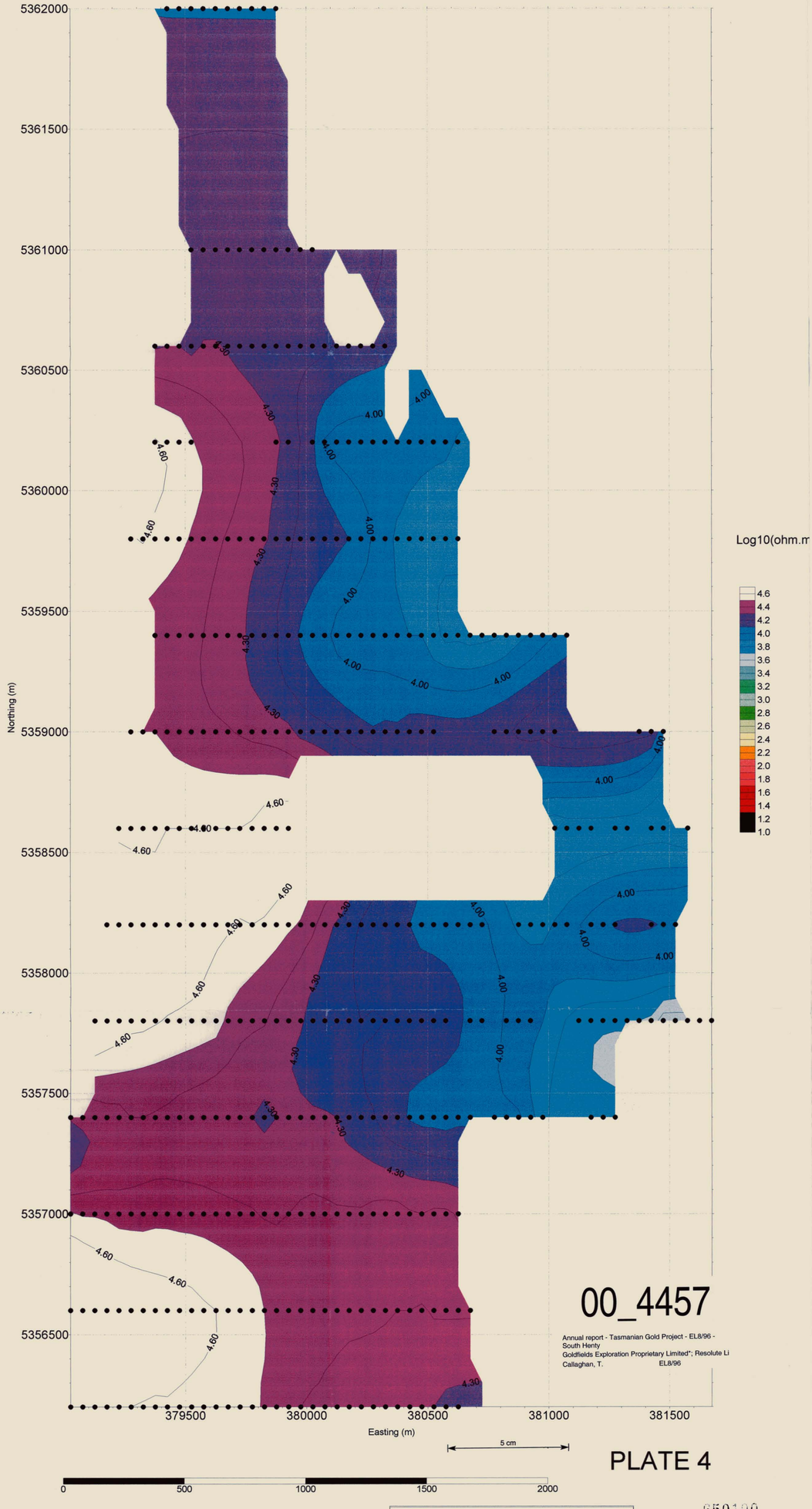
Goldfields Exploration Proprietary Limited*; Resolute Li
Callaghan, T. EL8/96



00_4457

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Goldfields Exploration Proprietary Limited*; Resolute Li
Callaghan, T. EL8/96

PLATE 4

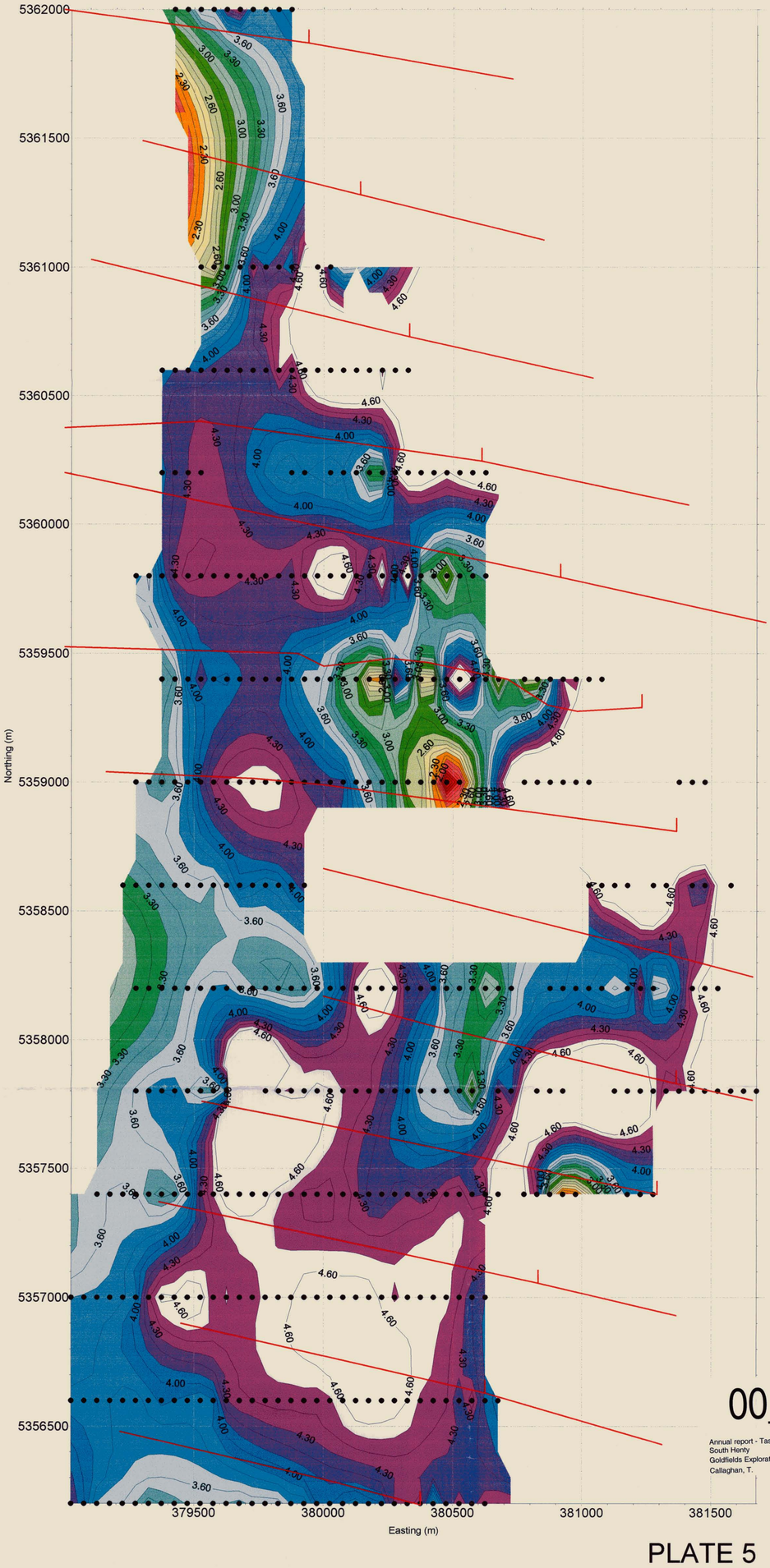
650100

GOLDFIELDS EXPLORATION

SOUTH HENTY - CSAMT INTERPRETATION
EMAP FILTERED CAGNIARD RESISTIVITY 512 Hz
(deep)

Drawn by: Flagstaff Geo-Consultants
21/6/99

Flagstaff Geo-consultants



00_4457

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Goldfields Exploration Proprietary Limited*; Resolute Li
Callaghan, T. EL8/96

550101

PLATE 5

0 500 1000 1500 2000

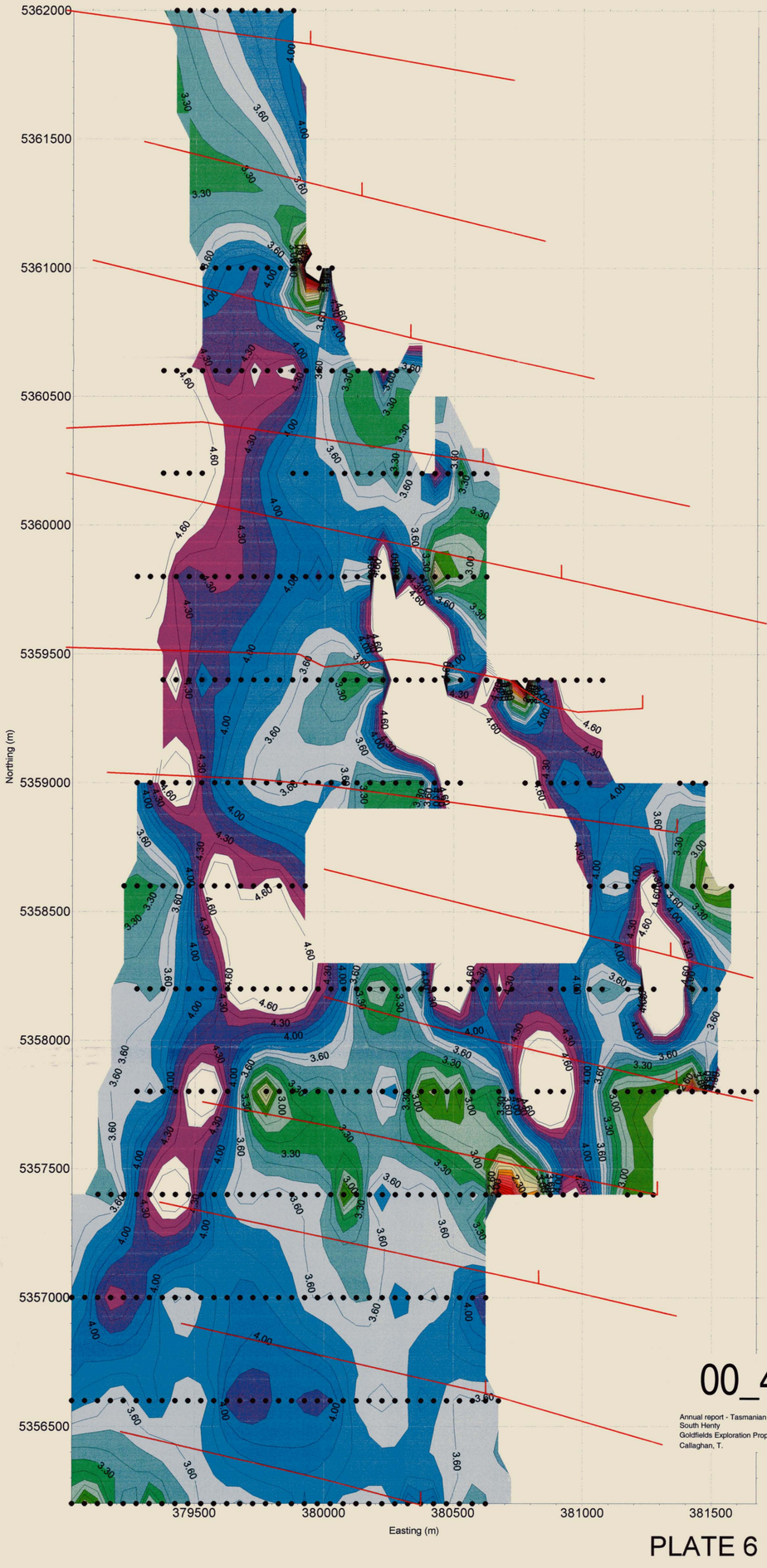
5 cm

GOLDFIELDS EXPLORATION

SOUTH HENTY - CSAMT INTERPRETATION
Bostick Resistivity
Depth Slice 200 m below maximum, ie RL=360 m

Drawn by: Flagstaff Geo-Consultants
14/4/2000

Flagstaff Geo-consultants



00_4457

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Goldfields Exploration Proprietary Limited*; Resolute Li
Callaghan, T. EL8/96

PLATE 6

0 500 1000 1500 2000

5 cm

650102

GOLDFIELDS EXPLORATION

SOUTH HENTY - CSAMT INTERPRETATION
Bostick Resistivity
Depth Slice 300 m below maximum, ie RL=260 m

Drawn by: Flagstaff Geo-Consultants
7/4/2000

Flagstaff Geo-consultants

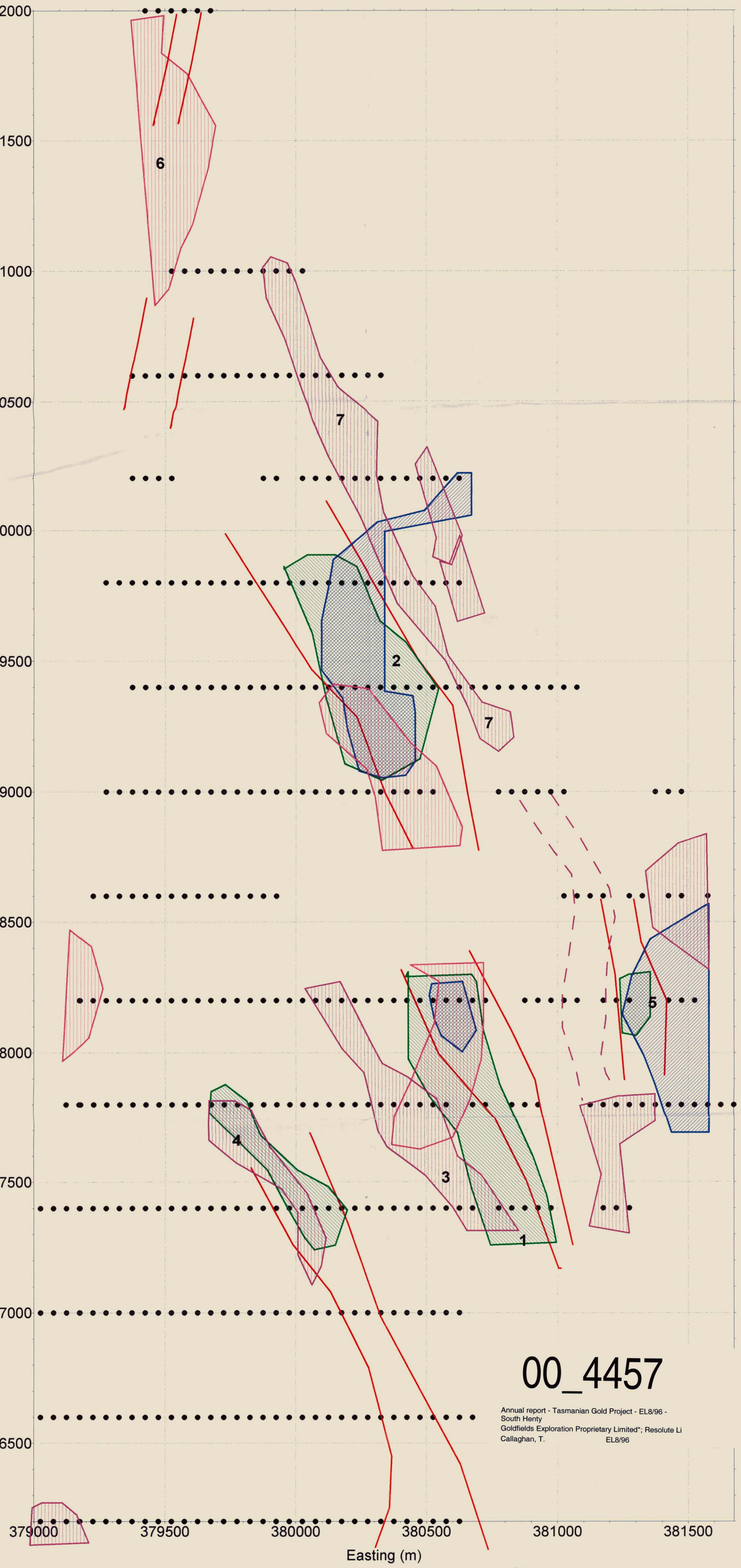

PLATE 7

KEY

- CSAMT Receiver sites 1999
- Edges of surficial conductors (top 100 m)
- Conductor at depth 100-2000 m (from 2048 Hz data)
- Conductor at depth 200-4000 m (from 1024 Hz data)
- Conductor from depthslice at RL +360 m
- Conductor from depth slice at RL +260 to 160 m
- 1B — Zone number (see text of report)

00_4457

Annual report - Tasmanian Gold Project - EL8/96 - South Henty
Goldfields Exploration Proprietary Limited*; Resolute Li
Callaghan, T. EL8/96

PLATE 7

GOLDFIELDS EXPLORATION

SOUTH HENTY (Tas) EL 8/96
CSAMT INTERPRETATION

Drawn by: Flagstaff Geo-Consultants
21/4/2000

Flagstaff Geo-consultants

650103

5362000
5361500
5361000
5360500
5360000
5359500
5359000
5358500
5358000
5357500
5357000
5356500
379000
379500
380000
380500
381000
381500
38N
34N
30N
26N
22N
18N
16N
14N
P6
P5
P2
P1
P3
P4

KEY

DIPOLE_DIPOLE IP SURVEY LINE 1967

IP ANOMALY FROM INVERSION

IP TREND FROM INVERSION

BASEMENT CONDUCTIVE ANOMALY FROM IP INVERSION

BASEMENT CONDUCTIVE TREND FROM IP INVERSION

CSAMT SURVEY POINTS 1999 (Noisy points excluded)

P3 ANOMALOUS ZONE FROM IP INVERSION

PLATE 8

GOLDFIELDS EXPLORATION

SOUTH HENTY (TAS) EL 8/96
IP 1967 DATA INVERSION AND
RE-INTERPRETATION

Drawn by: Flagstaff Geo-Consultants
21/4/2000

Flagstaff Geo-consultants

5 cm

00_4457

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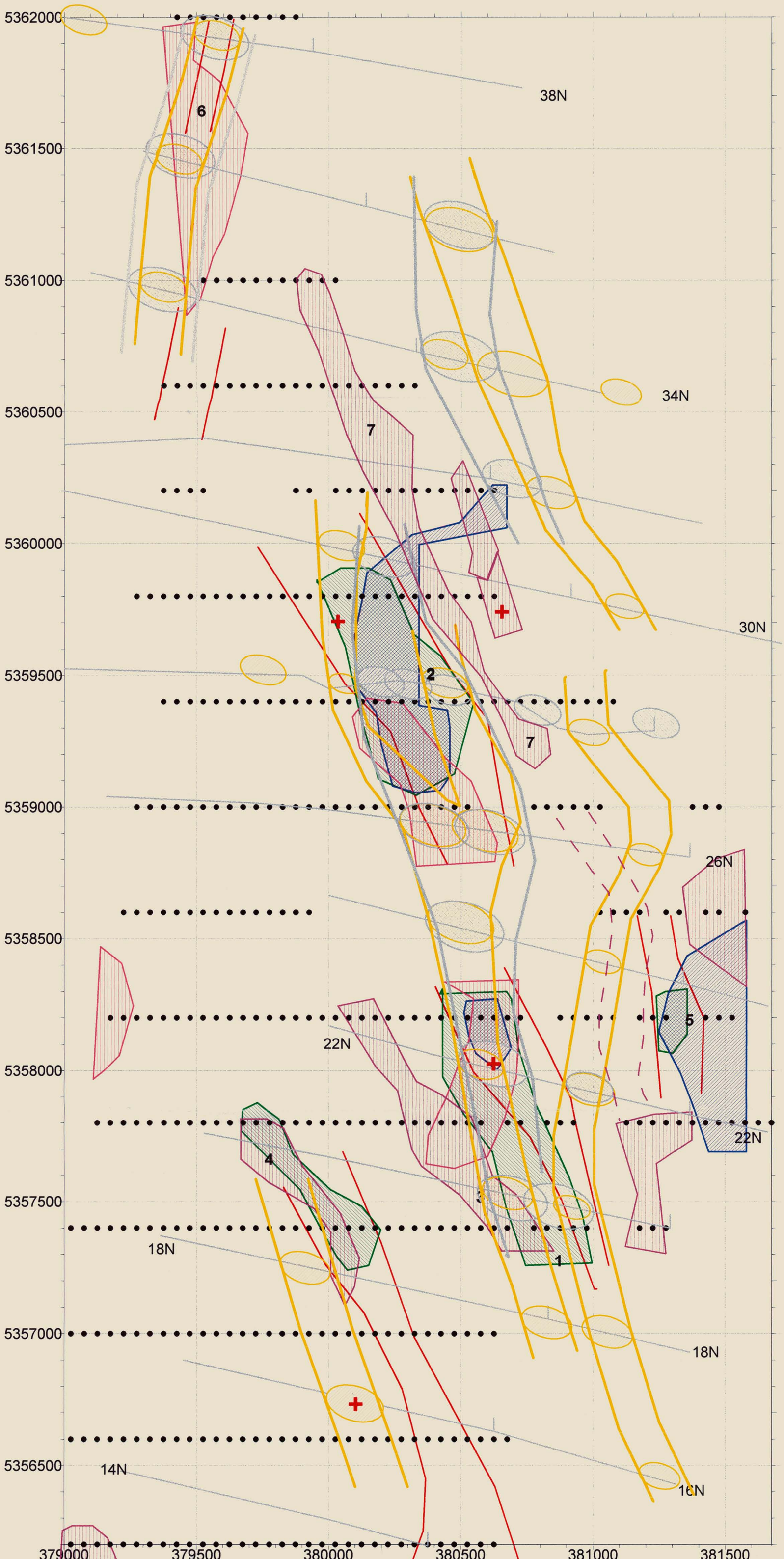
Goldfields Exploration Proprietary Limited*; Resolute Li
Callaghan, T. EL8/96

650104



KEY

- CSAMT Receiver sites 1999
- Edges of surficial conductors (top 100 m)
- Conductor at depth 100-200 m (from 2048 Hz data)
- Conductor at depth 200-400 m (from 1024 Hz data)
- Conductor from depthslice at RL +360 m
- Conductor from depth slice at RL +260 to 160 m
- **1B** CSAMT Zone number (see text of report)
- Conductor in basement, from IP survey
- IP anomaly in basement
- Trend of conductor from IP survey
- Trend of IP anomaly
- Recommended Drill target

00_4457

PLATE 9

Annual report - Tasmanian Gold Project - EL8/96 - South Henty
Goldfields Exploration Proprietary Limited*; Resolute Li
Callaghan, T. EL8/96

0 500 1000 1500 2000

5 cm

GOLDFIELDS EXPLORATION

SOUTH HENTY (Tas) - EL 8/96
CSAMT INTERPRETATION PLUS
IP INTERPRETATION

Drawn by: Flagstaff Geo-Consultants
21/4/2000

Flagstaff Geo-consultants

650105

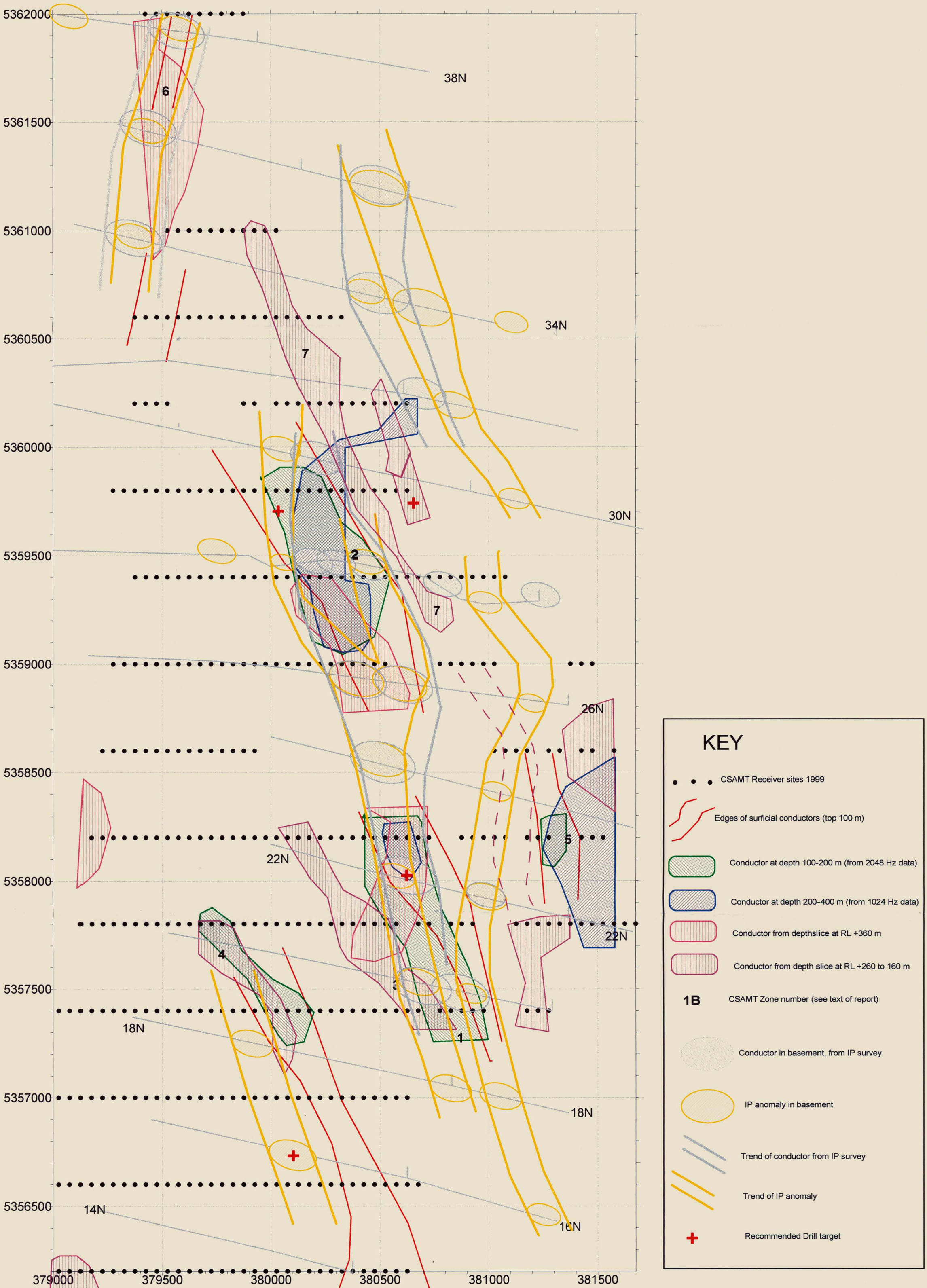


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PLATE 9

Annual report - Tasmanian Gold Project - EL8/96 - South Henty
Goldfields Exploration Proprietary Limited*; Resolute Li
Callaghan, T. EL8/96

0 500 1000 1500 2000

5 cm

GOLDFIELDS EXPLORATION

SOUTH HENTY (Tas) - EL 8/96
CSAMT INTERPRETATION PLUS
IP INTERPRETATION

Drawn by: Flagstaff Geo-Consultants
21/4/2000

Flagstaff Geo-consultants

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Appendix 2.

Outer Rim DHEM Results.

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OUTER-RIM EXPLORATION SERVICES

ACN 059 220 192

Geophysical Contracting Services

100% Australian Owned

26 Leopold Street,
(P.O. Box 1754)
AITKENVALE, QLD. 4814

Tel: 07 4725 3544
Fax: 07 4725 4805
Mob. 0412 54 9980
Email: oreserv@ozemail.com.au

Volume 1 of 1

Client	:	Goldfields Exploration Pty Ltd
Prospect	:	South Henty.
Area	:	Queenstown, Tas.
Survey	:	Borehole PEM Surveys
Survey Period	:	7th December, 1999 to 3rd February, 2000
Operator	:	Brett Rankin/Kent Honner.

DAILY LOG: Goldfields Exploration Pty Ltd - December, 1999/January, 2000

DATE	COMMENTS	CHARGES

7-12-99 Went to the Goldfields office at 8.00am, then went out to the site, laid out loop #11 and dummied SHD-20. Started to survey SHD-20 and the data looked quite noisy. I decided to take two readings at 1024 stacks to try and clean the data up and I made the client aware that it would take a little extra time - he seemed OK with this. The guys then set out loop #12 whilst I was surveying. We finished the day at 5.30pm.

SURVEY PARAMETERS:

Loop#11 :600 x 500m
381350E; 5359250N: 381350E; 5359780N:
381000E; 5359780N: 380850E; 5359700N:
Current :13Amps
Time Base :20.0 ms
Ramp Time :1.0ms
Sync :Cable

Hole No. **:SHD-20**
380580E; 5359440N
Depth :600m
Channels :31
Components :Z

1 Survey day $1250.00
1 Field Assist. day $ 180.00

8-12-99 Returned to the site by around 7.30am and completed the Z component on SHD-20 loop #11. We then read the X-Y components and finished the hole late afternoon, around 5.30pm.

SURVEY PARAMETERS:

Loop#11 :600 x 500m
381350E; 5359250N: 381350E; 5359780N:
381000E; 5359780N: 380850E; 5359700N:
Current :13Amps
Time Base :20.0 ms
Ramp Time :1.0ms
Sync :Cable

Hole No. **:SHD-20**
380580E; 5359440N
Depth :790m
Channels :31
Components :Z,X,Y

1 Survey day $1250.00
1 Field Assist. day $ 180.00

9-12-99 Returned to the site around 7.30am, set up on loop #12, SHD-20 and read the Z component. Had problems with the transmitter in the rain and the survey took a lot longer than usual, so was not completed. Finished the day around 5.00pm not a very successful day.

SURVEY PARAMETERS:

Loop#12	:600 x 500m 380300E; 5359300N: 380300E; 5359000N: 380800E; 5359000N: 380800E; 5359400N: 380520E; 5359400N.
Current	:13Amps
Time Base	:20.0 ms
Ramp Time	:1.0ms
Sync	:Cable
Hole No.	**:SHD-20** 380580E; 5359440N
Depth	:450m
Channels	:31
Components	:Z

1 Survey day $1250.00
1 Field Assist. day $ 180.00

10-12-99 Returned to the site and completed the Z on SHD-20 on loop #12 - the rain was still persisting. We then moved on to loop #14, SHD-20. We had to make a decision on pulling up loop#12 but we're unsure if the X-Y was required. Finished the day around 5.30pm.

SURVEY PARAMETERS:

Loop#12	:500 x 400m 380300E; 5359300N: 380300E; 5359000N: 380800E; 5359000N: 380800E; 5359400N: 380520E; 5359400N.
Current	:17Amps
Time Base	:20.0 ms
Ramp Time	:1.0ms
Sync	:Cable
Hole No.	**:SHD-20** 380580E; 5359440N
Depth	:790m
Channels	:31
Components	:Z
Loop#14	:400 x 400m 379900E; 5359800N: 379900E; 5359400N: 380300E; 5359400N: 380300E; 5359800N
Current	:17Amps

Time Base :20.0 ms
Ramp Time :1.0ms
Sync :Cable

Hole No. **:SHD-20**
380580E; 5359440N
Depth :500m
Channels :31
Components :Z

1 Survey day $1250.00
1 Field Assist. day $ 180.00

11-12-99 Returned to the site and completed the axial component on SHD-20, loop #14. It was decided that there was no need for the X-Y on loop #12 so it was recovered and we laid out loop #1. We then moved all the gear over to SHD-21 and re-dummied the hole. Commenced reading SHD-21 but the data was quite noisy. We continued on with the two readings at 1024 stacks but didn't complete the Z component survey. Finished the day at 5.30pm.

SURVEY PARAMETERS:

Loop#14 :400 x 400m
379900E; 5359800N: 379900E; 5359400N:
380300E; 5359400N: 380300E; 5359800N
Current :17Amps
Time Base :20.0 ms
Ramp Time :1.0ms
Sync :Cable

Hole No. **:SHD-20**
380580E; 5359440N
Depth :790m
Channels :31
Components :Z

Loop#1 :600 x 500m
380900E; 5359170N: 380900E; 5358700N:
381300E; 5358700N: 381400E; 5359170N
Current :10Amps
Time Base :20.0 ms
Ramp Time :1.0ms
Sync :Cable

Hole No. **:SHD-21**
380890E; 5358890N
Depth :850m
Channels :31
Components :Z

1 Survey day $1250.00
1 Field Assist. day $ 180.00

12-12-99 Returned to the site and continued reading the Z component. It rained heavily throughout the day. We finished the Z by 3.00pm, set up and surveyed the X-Y to 270m by 5.00pm.

SURVEY PARAMETERS:

Loop#1 :600 x 500m
380900E; 5359170N: 380900E; 5358700N:
381300E; 5358700N: 381400E; 5359170N
Current :13Amps
Time Base :20.0 ms
Ramp Time :1.0ms
Sync :Cable

Hole No. **:SHD-21**
380890E; 5358890N
Depth :850m
Channels :31
Components :Z

1 Survey day $1250.00
1 Field Assist. day $ 180.00

13-12-99 Completed reading the X-Y on loop #1, packed up the gear and returned to Zeehan by 2.30pm. (Goldfields have kindly given permission for us to go to another client to complete some urgent work and return later).

SURVEY PARAMETERS:

Loop#1 :600 x 500m
380900E; 5359170N: 380900E; 5358700N:
381300E; 5358700N: 381400E; 5359170N
Current :13Amps
Time Base :20.0 ms
Ramp Time :1.0ms
Sync :Cable

Hole No. **:SHD-21**
380890E; 5358890N
Depth :850m
Channels :31
Components :Z

½ Survey day $ 625.00
½ Field Assist. day $ 90.00
½ Mob. day N/C

22-1-00 Met up with Scott and Dale at 7.30am and drove out to South Henty. The weather today was particularly bad and we had to call it a

weather day. We returned to Zeehan.

1 Weather day $ 550.00

23-1-00 Met Scott on site at 7.30am, laid out loop #2, using the boat and floats for the wire on the section across the water - got the loop out but about 12.00pm. Set up on SHD-21, then returned to Zeehan to borrow the Stilsons to open the cap on the hole. Back to the site and we're surveying by 3.00pm. Surveyed the Z component to 260m - it was very noisy, non-repeatable data. Tested all the equipment - all OK. Left the site at 5.45pm.

SURVEY PARAMETERS:

Loop #2	:500 x 600m 380000E; 5359200N: 380170E; 5358750N 380600E; 5358700N: 380600E; 5359050N: 380515E; 5359200N: 380000E; 5359200N
Current	:13 Amps
Time Base	:20ms
Ramp Time	:0.5ms
Sync	:Clock
Hole No.	**:SHD-021** 380890E, 5358890N
Depth	:240m
Channels	:31
Components	:Z

1 Survey day $1250.00
1 Field Assist. day $ 180.00

24-1-00 We were on site by 7.15am. Retested the equipment - the cable seemed OK but decided to check and re-pack the cablehead. Back to Zeehan, repaired the cablehead and returned to site by 1.30pm. Continued the survey and the data improved slowly, as we surveyed deeper and closer to the loop (it was not a cablehead problem). Surveyed to 700m by 6.00pm.

SURVEY PARAMETERS:

Loop #2	:500 x 600m 380000E; 5359200N: 380170E; 5358750N 380600E; 5358700N: 380600E; 5359050N: 380515E; 5359200N: 380000E; 5359200N
Current	:13 Amps
Time Base	:20ms
Ramp Time	:0.5ms
Sync	:Clock
Hole No.	**:SHD-021** 380890E, 5358890N
Depth	:700m

requirements, then drove out to the site and met Heath and Scott. Continue reading the Z component for SHD-22, Loop #9. There was lots of double stacking with multiple readings. The noise was due to a pump station and powerlines in the vicinity. Packed up and returned to Zeehan by 6.00pm. Dumped and processed the data.

SURVEY PARAMETERS:

Loop #9	:500 x 600m 379500E; 5358400N: 380010E; 5358400N: 379820E; 5358800N: 379500E; 5358800N
Current	:13 Amps
Time Base	:20ms
Ramp Time	:0.5ms
Sync	:Clock
Hole No.	**:SHD-022** 380620E, 5358410N
Depth	:80-400m
Channels	:31
Components	:Z

1 Survey day $1250.00
1 Field Assist. day $ 180.00

27-1-00 Up at 6.30am, had breakfast and emailed the data. Grabbed some lunch, went to the office to discuss programme, regarding the X-Y with Tim and Bruce. Refuelled, fixed a tyre and returned to the office to await a decision from Mike Asten. Loaded the gear and drove to Queenstown for work clothes and boots. Drove to the site by 10.00am, set up the clock and transmitter and drove to the hole. Took the gear down to the site 4W motorbike. Completed the Z component on SHD-22 by 1.50pm and moved to SHD-21. Began the X-Y for loop #9. Lots of stacking etc. again today. Returned to Zeehan by 6.00pm, dumped and processed the data.

SURVEY PARAMETERS:

Loop #9	:500 x 600m 379500E; 5358400N: 380010E; 5358400N: 379820E; 5358800N: 379500E; 5358800N
Current	:13 Amps
Time Base	:20ms
Ramp Time	:0.5ms
Sync	:Clock
Hole No.	**:SHD-022** 380620E, 5358410N
Depth	:400-615m
Channels	:31
Components	:Z

Hole No. **:SHD-021**
380890E, 5358890N
Depth :50-200m
Channels :31
Components :X,Y

1 Survey day $1250.00
1 Field Assist. day $ 180.00

28-1-00 Up, had breakfast, drove out to site and continued the X-Y for SHD-21, loop #9. Once again, very noisy data, requiring lots of stacking etc. Wet and windy all day. Heath had an ear infection, so I organised a doctor's appointment and return to Zeehan by 4.30pm. Dumped, processed and transmitted the data.

SURVEY PARAMETERS:

Loop #9 :500 x 600m
379500E; 5358400N: 380010E; 5358400N:
379820E; 5358800N: 379500E; 5358800N
Current :13 Amps
Time Base :20ms
Ramp Time :0.5ms
Sync :Clock

Hole No. **:SHD-021**
380890E, 5358890N
Depth :250-560m
Channels :31
Components :X,Y

1 Survey day $1250.00
1 Field Assist. day $ 180.00

29-1-00 Up at 6.45am, had breakfast and drove out to the site. Set up and completed the X-Y on SHD-21, loop #9. Another terrible weather day. Returned to Zeehan by 5.30pm, dumped, processed and transmitted the data.

SURVEY PARAMETERS:

Loop #9 :500 x 600m
379500E; 5358400N: 380010E; 5358400N:
379820E; 5358800N: 379500E; 5358800N
Current :13 Amps
Time Base :20ms
Ramp Time :0.5ms
Sync :Clock

Hole No. **:SHD-021**
380890E, 5358890N
Depth :570-910m
Channels :31

Components :X,Y

1 Survey day $1250.00
1 Field Assist. day $ 180.00

30-1-00 Up and out to the site. Moved the transmitter to loop #2, set up and started reading the X-Y on SHD-21. Lots of stacking etc. Packed up and returned to Zeehan by 6.00pm.

SURVEY PARAMETERS:

Loop #2 :500 x 600m
380000E; 5359200N: 380170E; 5358750N
380600E; 5358700N: 380600E; 5359050N:
380515E; 5359200N: 380000E; 5359200N
Current :13 Amps
Time Base :20ms
Ramp Time :0.5ms
Sync :Clock

Hole No. **:SHD-021**
380890E, 5358890N
Depth :50-600m
Channels :31
Components :X,Y

1 Survey day $1250.00
1 Field Assist. day $ 180.00

31-1-00 Up and send the data to Townsville. Drove out to the site, set up and completed the X-Y on SHD-21, loop #2. Still waiting to hear about the possible X-Y for SHD-22. Finished, packed up and returned to Zeehan by 6.20pm. Dumped and processed the data.

SURVEY PARAMETERS:

Loop #2 :500 x 600m
380000E; 5359200N: 380170E; 5358750N
380600E; 5358700N: 380600E; 5359050N:
380515E; 5359200N: 380000E; 5359200N
Current :13 Amps
Time Base :20ms
Ramp Time :0.5ms
Sync :Clock

Hole No. **:SHD-021**
380890E, 5358890N
Depth :610-910m
Channels :31
Components :X,Y

1 Survey day $1250.00
1 Field Assist. day $ 180.00

1-2-00 Up and out to the site. (Mike Asten requested that the Z be surveyed for SHD-22, loop #13, before he decides on the X-Y). Moved the borehole gear to SHD-22. Scott and Dale assisted in recovering loop #2 and laying out loop #13. Set up and read the Z component on SHD-22, loop #13. Packed up and returned to Zeehan by 7.45pm.

SURVEY PARAMETERS:

Loop #13	:500 x 600m
	380900E; 5358100N: 381380E; 5358100N
	381300E; 5358500N: 380900E; 5358500N:
Current	:12 Amps
Time Base	:20ms
Ramp Time	:0.5ms
Sync	:Clock
Hole No.	**:SHD-022**
	380620E, 5358410N
Depth	:80-615m
Channels	:31
Components	:Z

1 Survey day $1250.00
1 Field Assist. day $ 180.00

2-2-00 Up, had breakfast and drove to the office for the decision on what X-Y's need to be surveyed. Waited until 10.30am for the decision, then drove out to the site (X-Y on SHD-22, loop #9 only). Set up on loop #9 and read the X-Y for SHD-22. Again lots of noise and stacking etc. Packed up and returned to town by 6.00pm.

SURVEY PARAMETERS:

Loop #9	:500 x 600m
	379500E; 5358400N: 380010E; 5358400N:
	379820E; 5358800N: 379500E; 5358800N
Current	:13 Amps
Time Base	:20ms
Ramp Time	:0.5ms
Sync	:Clock
Hole No.	**:SHD-022**
	380620E, 5358410N
Depth	:50-420m
Channels	:31
Components	:X,Y

1 Survey day $1250.00
1 Field Assist. day $ 180.00

3-2-00 Up and out to site, set up and completed the X-Y for SHD-22. Loaded up all borehole gear and moved it to the staging area.

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Recovered loop #9, packed all the gear onto vehicle and returned to Zeehan. Dumped and processed the data, gave the plots to Scott and emailed the data. Job completed at long last.

SURVEY PARAMETERS:

Loop #9	:500 x 600m 379500E; 5358400N: 380010E; 5358400N: 379820E; 5358800N: 379500E; 5358800N
Current	:13 Amps
Time Base	:20ms
Ramp Time	:0.5ms
Sync	:Clock
Hole No.	**:SHD-022** 380620E, 5358410N
Depth	:430-615m
Channels	:31
Components	:X,Y

1 Survey day	$1250.00
1 Field Assist. day	$ 180.00

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APPENDIX

650120

CRONE PULSE EM SYSTEM

SYSTEM DESCRIPTION

The Crone Pulse EM system is a time domain electromagnetic method (TDEM) that utilizes an alternating pulsed primary current with a controlled shut-off and measures the rate of decay of the induced secondary field across a series of time windows during the off-time. The system uses a transmit loop of any size or shape. A portable power source feeds a transmitter which provides a precise current waveform through the loop. The receiver apparatus is moved along surface lines or down boreholes.

The transmitter cycle consists of slowly increasing the current over a few milliseconds, a constant current, abrupt linear termination of the current, and finally zero current for a selected length of time in milliseconds. The EMF created by the shutting-off of the current induces eddy currents in nearby conductive material thus setting-up a secondary magnetic field. When the primary field is terminated, this magnetic field will decay with time. The amplitude of the secondary field and the decay rate are dependent on the quality and size of the conductor. The receiver, which is synchronized to the off-time of the transmitter, measures this transient magnetic field where it cuts the surface coil or borehole probe. These readings are across fixed time windows or "channels".

SYSTEM TERMINOLOGY

Ramp Time

"Ramp time" refers to the controlled shut-off of the transmitter current. Three ramp times are selectable by the operator; 0.5ms, 1.0ms, and 1.5ms. By controlling the shut-off rather than having it depend on the loop size and current ensures that the same waveform is maintained for different loops so data can be properly compared.

The 1.5ms ramp is the normally used setting for good conductors. It keeps the early channel responses on scale and decreases the chance of overload. The faster ramp times of 1.0ms and 0.5ms will enhance the early time responses. This can be useful for weak conductors when data from the higher end of the frequency spectrum is desired.

Time Base

Time base is the length of time the transmitter current is off (it includes the ramp time). This also equals the on time of the current. Eight time bases are selectable by the operator. They include the original time bases used in the analog system as well as time bases to eliminate the effects of powerline interference. The eight time bases are as follows: compatible to analog Rx: 10.89ms, 21.79ms; 60hz powerline noise reduction: 8.33ms, 16.66ms, & 33.33ms; 50hz powerline noise reduction: 10.00ms, 20.00ms, 50.00ms and 150ms.

Since readings are taken during the off cycles, the time base will have an effect on the receiver channels. Normally, a standard time base is selected for the type of system and survey being used, but this can be changed to suit a particular situation. A longer time base is preferred for conductors of greater time constants, and in surveys such as resistive soundings where more channels are desired.

Zero Time Set

The term "zero time set" or "ZTS" refers to the starting point for the receiver channel measurements. It is manually set on the receiver by the operator thus allowing adjustments for the ramp times and fine tuning for any fluctuations in the transmitter signal.

Receiver Channels

The rate of decay of the secondary field is measured across fixed time windows which occupy most of the off-time of the transmitter. These time windows are referred to as "channels". These channels are numbered in sequence with "1" being the earliest. The analog and datalogger receivers measured eight fixed channels. The digital receiver, being under software control, offers more flexibility in the channel positioning, channel width, and number of channels.

PP Channel

The PEM system monitors the primary field by taking a measurement during the current ramp and storing this information in a "PP channel". This means that data can be presented in either normalized or unnormalized formats, and additional information is available during interpretation. The PP channel data can provide useful diagnostic information and helps avoid critical errors in field polarity.

Synchronization

Since the PEM system measures the secondary field in the absence of the primary field, the receiver must be in

"sync" with the transmitter to read during the off-time. There are three synchronization methods available: cable connection, radio telemetry, and crystal clock. This flexibility enhances the operational capabilities of the system.

SURVEY METHODS

The wide frequency spectrum of data produced by a Pulse EM survey can be used to provide structural geological information as well as the direct detection of conductive or conductive associated ore deposits. The various types of survey methods, from surface and borehole, have greatly improved the chances of success in deep exploration programs. There are eight basic profiling methods as well as a resistivity sounding mode.

Moving Coil

A small, multi-turn transmitter loop (13.7m diameter) is moved for each reading while the receiver remains a fixed distance away. This method is ideal for quick reconnaissance in areas of high background conductivity.

Moving Loop

Same as Moving Coil method, but with a larger transmit loop (100 to 300 meters square). This method provides deeper penetration in areas of high background conductivity, and works best for near-vertical conductors. This method can be used in conjunction with the Moving In-loop survey for increased sensitivity to horizontal conductors.

Moving In-Loop

A transmit loop of size 100 to 300 meters square is moved for each reading while the receiver remains at the center of the loop. This method provides deep penetration in areas of very high background conductivity, and works best for near-horizontal conductors. It can be used in conjunction with the Moving Loop survey.

Large In-Loop

A very large, stationary transmit loop (800m square or more) is used, and survey lines are run inside the loop. This mode provides very deep penetration (700m or more) and couples best with shallow dip conductors (<45 deg.) under the loop.

Deepem

A large, stationary transmit loop is used, and survey lines are run outside the loop. This mode provides very deep penetration, and couples best with steeply dipping conductors (>45 deg.) outside the loop.

Borehole (Z Component only)

Isolated Borehole: A drill hole is surveyed by lowering a probe down a hole and surveying it with a number of transmit loops laid out on surface. The data from multiple loops gives directional information on the conductors.

Multiple Boreholes: One large transmit loop is used to survey a number of closely spaced holes. The change in anomaly from hole to hole provides directional information.

These methods have detected conductors to depths of 2500m from surface and up to 200m from the hole.

3-D Borehole

Drill holes are surveyed with both the Z and the XY borehole probes. The X and Y components provide accurate direction information using just one transmit loop.

Since the probe rotates as it moves down the hole a correction is required for the X-Y data. This is accomplished in one of two ways. The standard approach is to use the measurement of the primary field from the "PP" channel, apply a "cleaning" algorithm to remove most of the secondary field contamination, and compare this to theoretical values. The amount of probe rotation is then calculated, and the correction can be made. The second method involves the use of an optional orientation device for the X-Y probe which is produced in cooperation with IFG Corp. This attachment uses dipmeters to calculate the probe rotation.

Underground Borehole

Underground drill holes can be surveyed in any of the above mentioned borehole methods with one or more transmit loops on the surface. Near-horizontal holes can be surveyed using a push-rod system.

Resistivity Soundings

By reading a large number of channels in the centre of a transmit loop it is possible to preform a decay curve analysis giving a best-fit layer earth model using programs such as ARRTI or TEMIX.

EQUIPMENT

Transmit Loops

The PEM system can operate with practically any size of transmit loop, from a multi-turn circular loop 13.7m in diameter, to a 1 or 2 turn loop of any shape up to 1 or 2 kilometers square using standard insulated copper wire of 10 or 12 gauge. The multi-turn loop is made in two sections with screw connectors. The 10 or 12 gauge loop wire comes on spools in either 300m or 400m lengths.

Power Supply

The PEM system normally operates with an input voltage from 24v to 120v. The maximum current is 20 amps in a single loop but the effective current can be increased by doubling the loop wire in series. For low power surveys a 20amp/hr 24v battery can be used. The power supply requires a motor generator and a voltage regulator to control and filter the input voltage to the transmitter.

Specifications: PEM Motor Generator

- 4.5 hp Wisconsin, (2 kw)
- belt drive to D.C. alternator
- cable output to regulator
- maximum output: 120v, 20amp (2 kw);
- fuse type overload protection
- steel frame
- external gas tank
- unit weight: 33kg (2 kw); 52kg (4 kw)

Specifications: PEM Variable Voltage Regulator

- selectable voltage between 24v and 120v or 48v and 240v
- 20amp maximum current
- fuse and internal circuit breaker protection

Transmitter

The transmitter controls the bi-polar on-off waveform and linear current shut-off ramp. The latest 2000w PEM Transmitter has the following specifications:

Specifications: PEM Transmitter

- time bases: 10.89ms, 21.79ms, 8.88ms, 16.66ms, 33.33ms, 10ms, 20ms, 50ms 150ms.
- ramp times: 0.5ms, 1.0ms, 1.5ms
- operating voltage: 24v to 120v (2 kw); 48v to 240v (4 kw)
- output current: 5amp to 20amp
- monitors for input voltage, output current, shut-off ramp, tx loop continuity, instrument temperature, and overload output current
- automatic shut-off for open loop, high instrument temperature, and overload
- fuse and circuit breaker overload protection
- three sync modes: 1) built-in radio and antenna
  2) cable sync output for direct wire link to receiver or remote radio
  3) connectors for the crystal clock

Receiver

The receivers measure the rate of decay of the secondary field across several time channels. Three types of receivers are available with the PEM system: Analog Rx, Datalogger Rx, and Digital Rx. The Analog Rx and Datalogger Rx read eight fixed time channels while the Digital Rx, under software control, offers a variety of channel configurations. The Digital Rx has been used in the field for contract surveys since 1987.

Specifications: Digital PEM Receiver

- operating temperature -40°C to 50°C
- unit weight 15kg; shipping weight 25.5kg

Hardware:

- 24v rechargeable gel cell battery supply
- two CMOS microprocessors (NSC800)
- alphanumeric keyboard

- 2 x 16 character cold weather display
- 16 x 40 character (256 x 128 pixels graphic) display
- 64k byte solid state memory storage
- cable, radio or crystal clock synchronization
- RS-232 serial I/O

Sampling process features:
- 16 bit A/D conversion
- digital recording of data in nano-tesla/sec
- rejection of atmospheric noise samples based on digital threshold detection
- automatic gain control to optimize receiver signal to noise ratio

Menu driven operating software system offering the following functions:
- controls channel positions, channel widths, and number of channels using a basic slice of 4.5μsec
- time bases: 10.89ms, 21.79ms, 8.88ms, 16.66ms, 33.33ms, 10ms, 20ms, 50ms and 150ms
- ramp time selectable in 4.5μsec steps
- sample stacking from 512 to 65536
- scrolling routines for viewing data
- graphic display of decay curve and profile with various plotting options
- routines for memory management
- control of data transmission
- provides information on instrument and operating status

Sync Equipment

There are three modes of synchronization available; radio, cable, and crystal clock. The radio sync signal can be transmitted through a booster antenna from either the PEM Transmitter internal radio or through a Remote Radio.

Specifications: Sync Cable
- 2 conductor, 24awg, teflon coated
- approx. 900m per aluminum spool with connectors

Specifications: Remote Radio
- operating frequency 27.12mhz
- 12v rechargeable gel cell battery supply
- fuse protection
- sync wire link to transmitter
- coaxial link to booster antenna

Specifications: Booster Antenna
- 8m, 4 section aluminum mast
- guide rope support
- ¼ wave CB fiberglass antenna
- range up to 2km
- coaxial connection to transmitter or remote radio

Specification: Crystal Clocks
- heat stabilized crystals
- 24v rechargeable gel cell battery supply
- rx unit can be separate or housed in the receiver
- outlet for external supplementary battery supply

Surface PEM Receive Coil

The Surface PEM Receive Coil picks up the EM field to be measured by the receiver. The coil is mounted on a tripod that can be positioned to take readings of any component of the field.

Specifications: Surface PEM Receive Coil
- ferrite core antenna
- built-in preamplifier
- VLF filter
- 10khz bandwidth
- 23:1 amplifier gain
- two 9v transistor battery supply
- tripod adjustable to all planes

Borehole PEM Z Component Probe

The Z component probe measures the axial component of the EM field. The Z component data is not affected

by probe rotation so no correction are required.

Specifications: Borehole PEM Z Component Probe

- ferrite core
- built-in preamplifier
- dimensions: length - 1.6m; dia - 3.02cm (3.15cm for high pressure tested probes)
- internal rechargeable ni-cad battery supply
- replaceable heat shrink tubing for abrasion protection
- pressure tested for depths 2800m

Borehole PEM XY Component Probe

The XY probe measures two orthogonal components of the EM field perpendicular to the axis of the hole. Correction for probe rotation can be achieved by two methods. The standard approach is to use the measurement of the primary field from the "PP" channel, apply a "cleaning" algorithm to remove most of the secondary field contamination, and compare this to theoretical values. The amount of probe rotation is then calculated, and the correction can be made. The second method involves the use of an optional orientation device for the X-Y probe that uses dipmeters to calculate the probe rotation.

Specifications: Borehole PEM XY Component Probe

- ferrite core
- built-in preamplifier
- dimensions: length - 2.01m; dia - 3.02cm
- internal rechargeable ni-cad battery supply
- selection of X or Y coils by means of a swich box on surface or automatic switching with Digital receiver
- replaceable heat shrink tubing for abrasion protection
- pressure tested for depths to 2800m

Orientation Device

The orientation device is an optional attachment for the XY probe which measures the rotation of the probe using two dipmeters.

Specifications: Orientation Device

- 2 axis tilt sensors
- sensitivity +/- 0.1 deg.
- operating range -89.5 to -10 deg.
- dimensions: length - 0.94m; dia - 28.5cm

Borehole Equipment

To lower the probe down a drill hole requires a cable and spool, winch assembly frame and cable counter. Borehole surveys also require equipment to "dummy probe" the hole before doing the survey.

Specifications: Borehole Cable

- two conductor shielded cable
- kevlar strengthened
- currently 1500m but will shortly have cabability of surveying to depths of 3000m.

Specifications: Slip Ring

- attaches to side of borehole cable spool providing a connection to the receiver while allowing the spool to turn.
- VLF filter
- pure silver contacts

Specifications: Borehole Counter

- attaches to the drill hole casing
- calibrated in meters

Specifications: Dummy Probe and Cable

- solid steel or steel pipe
- same dimensions as borehole probe
- shear pin connection to dummy cable

650125

PLOTS

650126

CONTENTS

Plan No.	Plan Type	ID.	Description	Scale
1	Plan	SHD-20/22	Drillhole Location plan	1:15000
2	Section	SHD-20	Primary Field plot	1:10000
3			Primary Field plot	1:10000
4			Primary Field plot	1:10000
5		SHD-21	Primary Field plot	1:10000
6			Primary Field plot	1:10000
7			Primary Field plot	1:10000
8		SHD-22	Primary Field plot	1:10000
9			Primary Field plot	1:10000
10	Header	SHD-20	Header information	N/A
11	Profile	(SH11)	Z - Log plot	1:4000
12			- Linear, Ch1-10, 1:25	1:4000
13			- Linear, Ch10-20, 1:10	1:4000
14			- Linear, Ch20-31, 1:2	1:4000
15			X - Log plot	1:4000
16			- Linear, Ch1-10, 1:50	1:4000
17			- Linear, Ch10-20, 1:5	1:4000
18			- Linear, Ch20-31, 1:2	1:4000
19			Y - Log plot	1:4000
20			- Linear, Ch1-10, 1:50	1:4000
21			- Linear, Ch10-20, 1:5	1:4000
22			- Linear, Ch20-31, 1:2	1:4000
23			Total Field plot	1:4000
24	Header	SHD-20	Header information	N/A
25	Profile	(SH12)	Z - Log plot	1:4000
26			- Linear, Ch1-10, 1:250	1:4000
27			- Linear, Ch10-20, 1:5	1:4000
28			- Linear, Ch20-31, 1:2	1:4000
29	Header	SHD-20	Header information	N/A
30	Profile	(SH14)	Z - Log plot	1:4000
31			- Linear, Ch1-10, 1:100	1:4000
32			- Linear, Ch10-20, 1:5	1:4000
33			- Linear, Ch20-31, 1:2	1:4000
34	Header	SHD-21	Header information	N/A
35	Profile	(SH1)	Z - Log plot	1:4000
36			- Linear, Ch1-10, 1:1000	1:4000
37			- Linear, Ch10-20, 1:10	1:4000
38			- Linear, Ch20-31, 1:2	1:4000
39			X - Log plot	1:4000
40			- Linear, Ch1-10, 1:1000	1:4000
41			- Linear, Ch10-20, 1:20	1:4000
42			- Linear, Ch20-31, 1:5	1:4000
43			Y - Log plot	1:4000
44			- Linear, Ch1-10, 1:1000	1:4000
45			- Linear, Ch10-20, 1:20	1:4000

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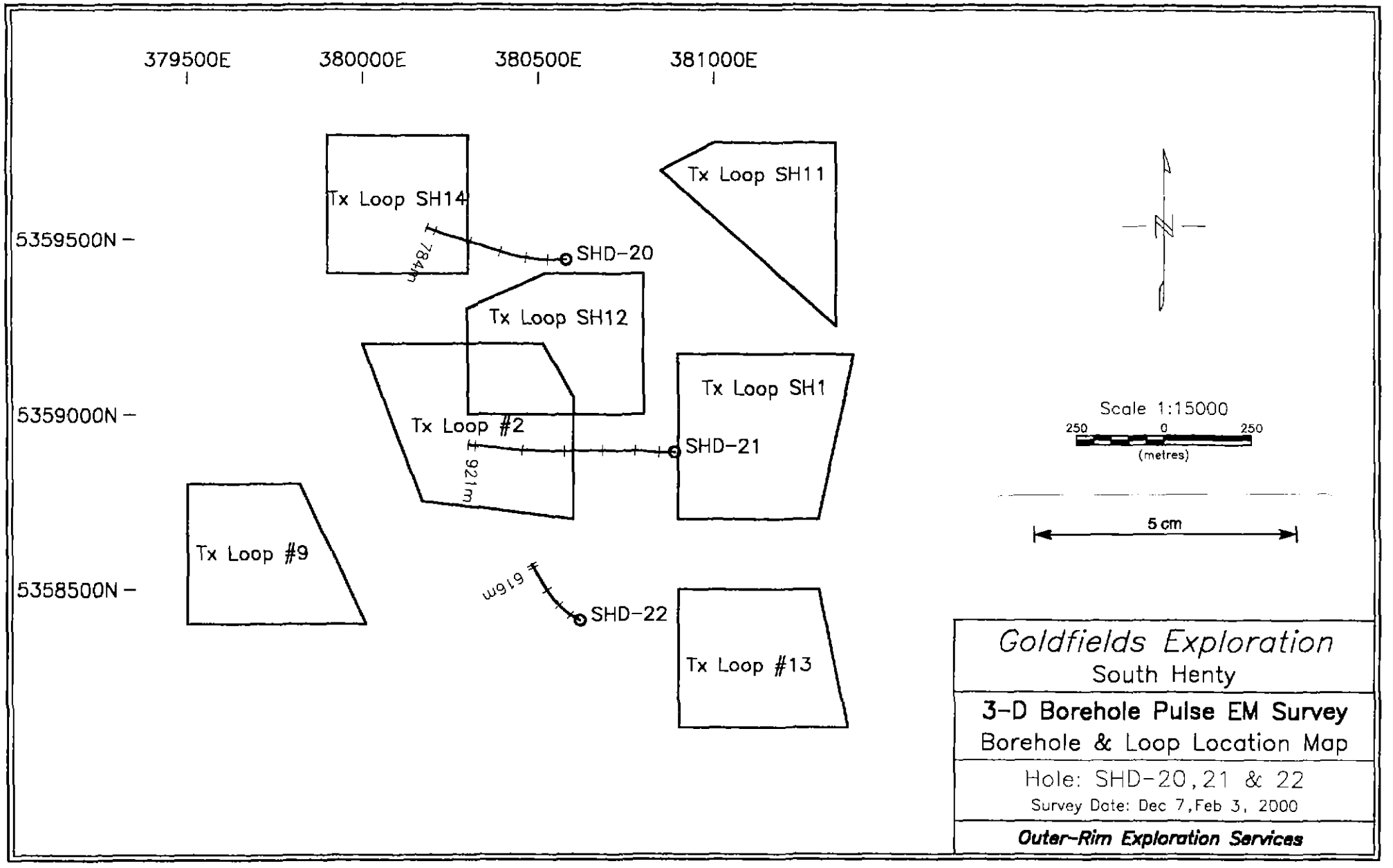
CONTENTS

Plan No.	Plan Type	ID.	Description	Scale
46	Profile	SHD-21	Y - Linear, Ch20-31, 1:5	1:4000
47		(SH1)	Total Field plot	1:4000
48	Header	SHD-21	Header information	N/A
49	Profile	(SH2)	Z - Log plot	1:4000
50			- Linear, Ch1-10, 1:250	1:4000
51			- Linear, Ch10-20, 1:10	1:4000
52			- Linear, Ch20-31, 1:2	1:4000
53			X - Log plot	1:4000
54			- Linear, Ch1-10, 1:500	1:4000
55			- Linear, Ch10-20, 1:10	1:4000
56			- Linear, Ch20-31, 1:2	1:4000
57			Y - Log plot	1:4000
58			- Linear, Ch1-10, 1:500	1:4000
59			- Linear, Ch10-20, 1:10	1:4000
60			- Linear, Ch20-31, 1:2	1:4000
61			Total Field plot	1:4000
62	Header	SHD-21	Header information	N/A
63	Profile	(SH9)	Z - Log plot	1:4000
64			- Linear, Ch1-10, 1:100	1:4000
65			- Linear, Ch10-20, 1:5	1:4000
66			- Linear, Ch20-31, 1:2	1:4000
67			X - Log plot	1:4000
68			- Linear, Ch1-10, 1:100	1:4000
69			- Linear, Ch10-20, 1:15	1:4000
70			- Linear, Ch20-31, 1:2	1:4000
71			Y - Log plot	1:4000
72			- Linear, Ch1-10, 1:100	1:4000
73			- Linear, Ch10-20, 1:15	1:4000
74			- Linear, Ch20-31, 1:2	1:4000
75			Total Field plot	1:4000
76	Header	SHD-22	Header information	N/A
77	Profile	(SH9)	Z - Log plot	1:4000
78			- Linear, Ch1-10, 1:100	1:4000
79			- Linear, Ch10-20, 1:5	1:4000
80			- Linear, Ch20-31, 1:2	1:4000
81			X - Log plot	1:4000
82			- Linear, Ch1-10, 1:100	1:4000
83			- Linear, Ch10-20, 1:10	1:4000
84			- Linear, Ch20-31, 1:2	1:4000
85			Y - Log plot	1:4000
86			- Linear, Ch1-10, 1:100	1:4000
87			- Linear, Ch10-20, 1:10	1:4000
88			- Linear, Ch20-31, 1:2	1:4000
89			Total Field plot	1:4000
90	Header	SHD-22	Header information	N/A

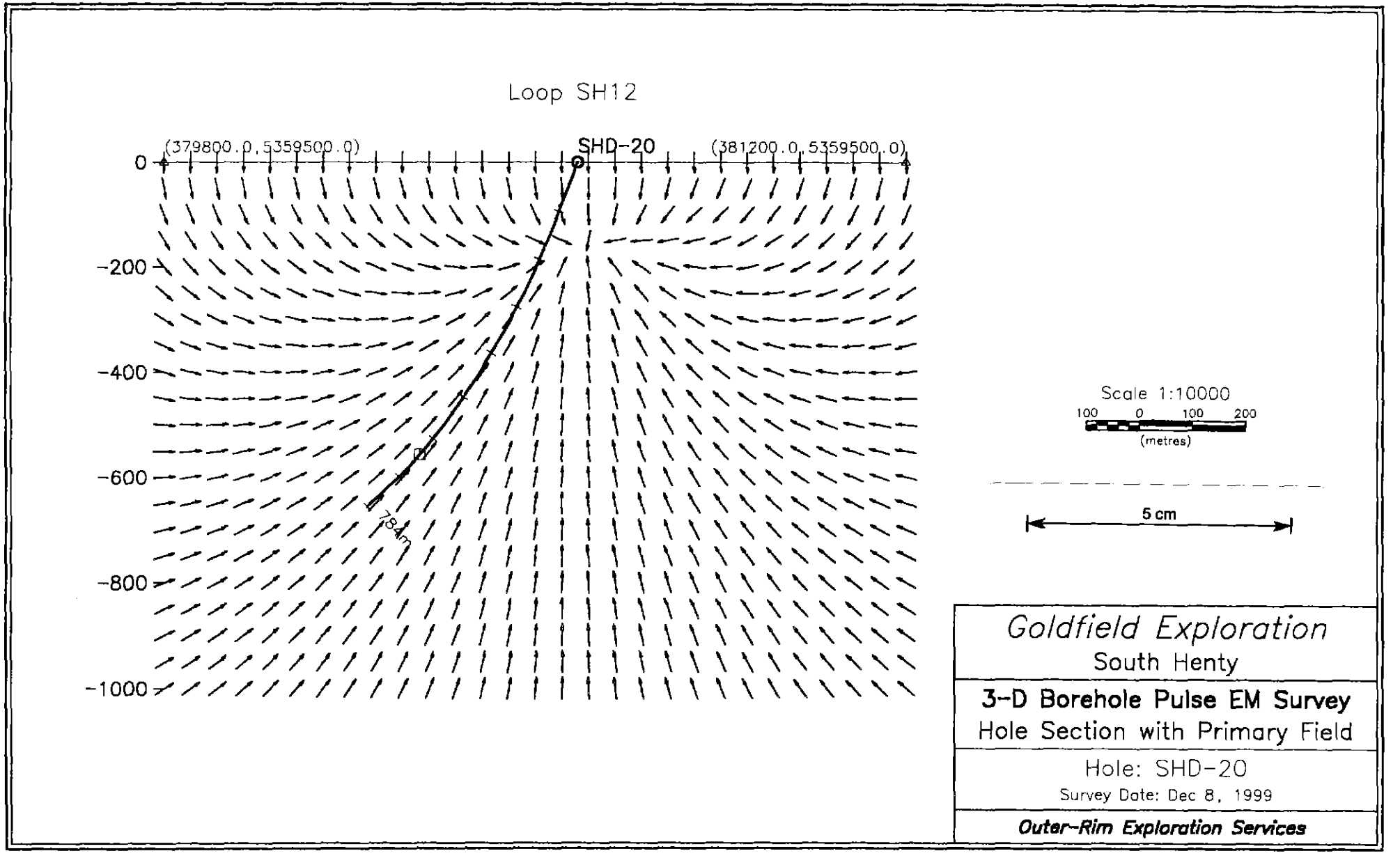
650128

CONTENTS

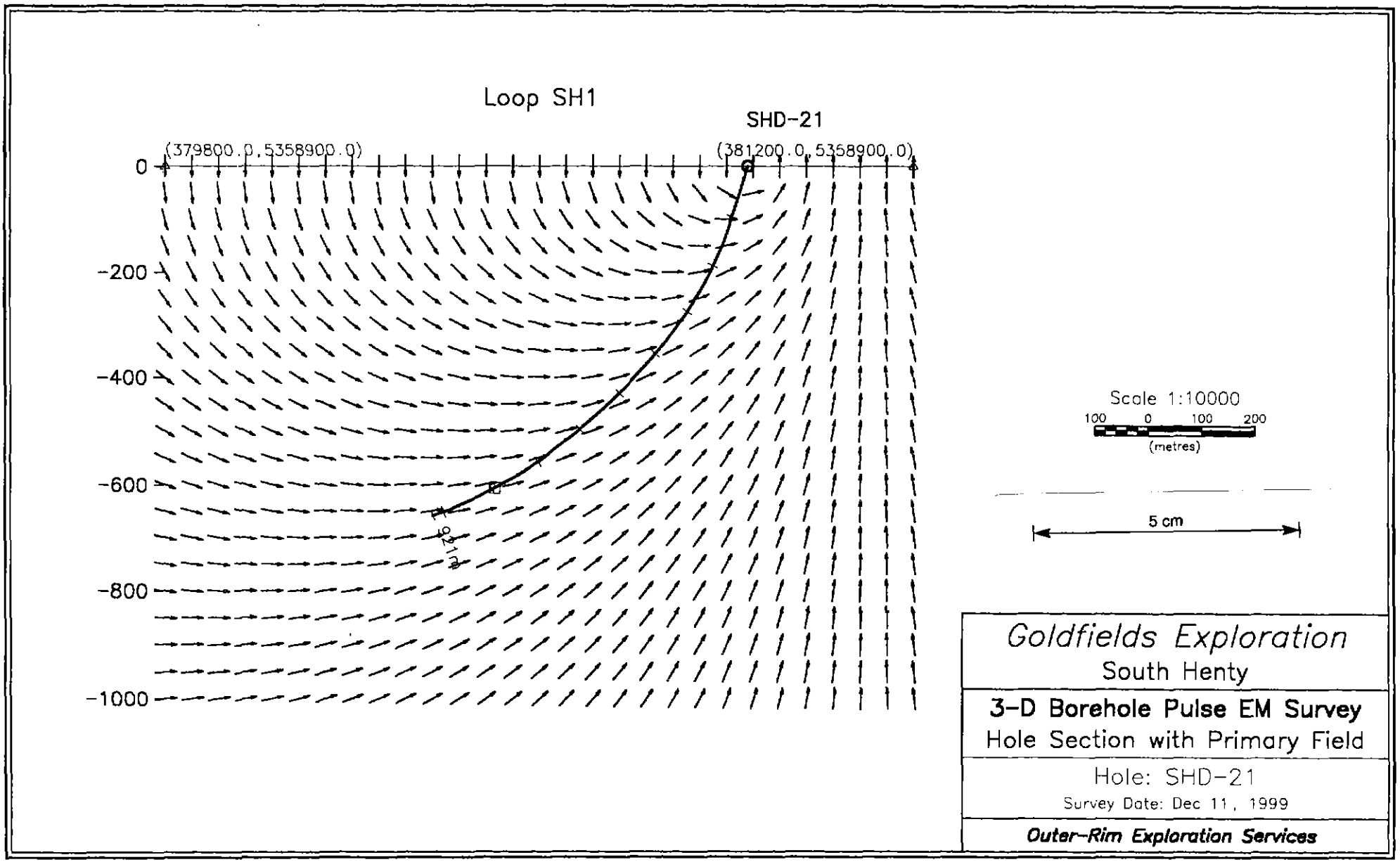
Plan No.	Plan Type	ID.		Description	Scale
91	Profile	SHD-22	Z	- Log plot	1:4000
92		(SH13)		- Linear, Ch1-10, 1:100	1:4000
93				- Linear, Ch10-20, 1:10	1:4000
94				- Linear, Ch20-31, 1:2	1:4000


379500E
380000E
380500E
381000E
5359500N
5359000N
5358500N
Tx Loop SH14
Tx Loop SH11
Tx Loop SH12
Tx Loop SH1
Tx Loop #2
Tx Loop #9
Tx Loop #13
SHD-20
SHD-21
SHD-22
784m
921m
616m
N
Scale 1:15000
250 0 250
(metres)
5 cm
Goldfields Exploration
South Henty
3-D Borehole Pulse EM Survey
Borehole & Loop Location Map
Hole: SHD-20, 21 & 22
Survey Date: Dec 7, Feb 3, 2000
Outer-Rim Exploration Services

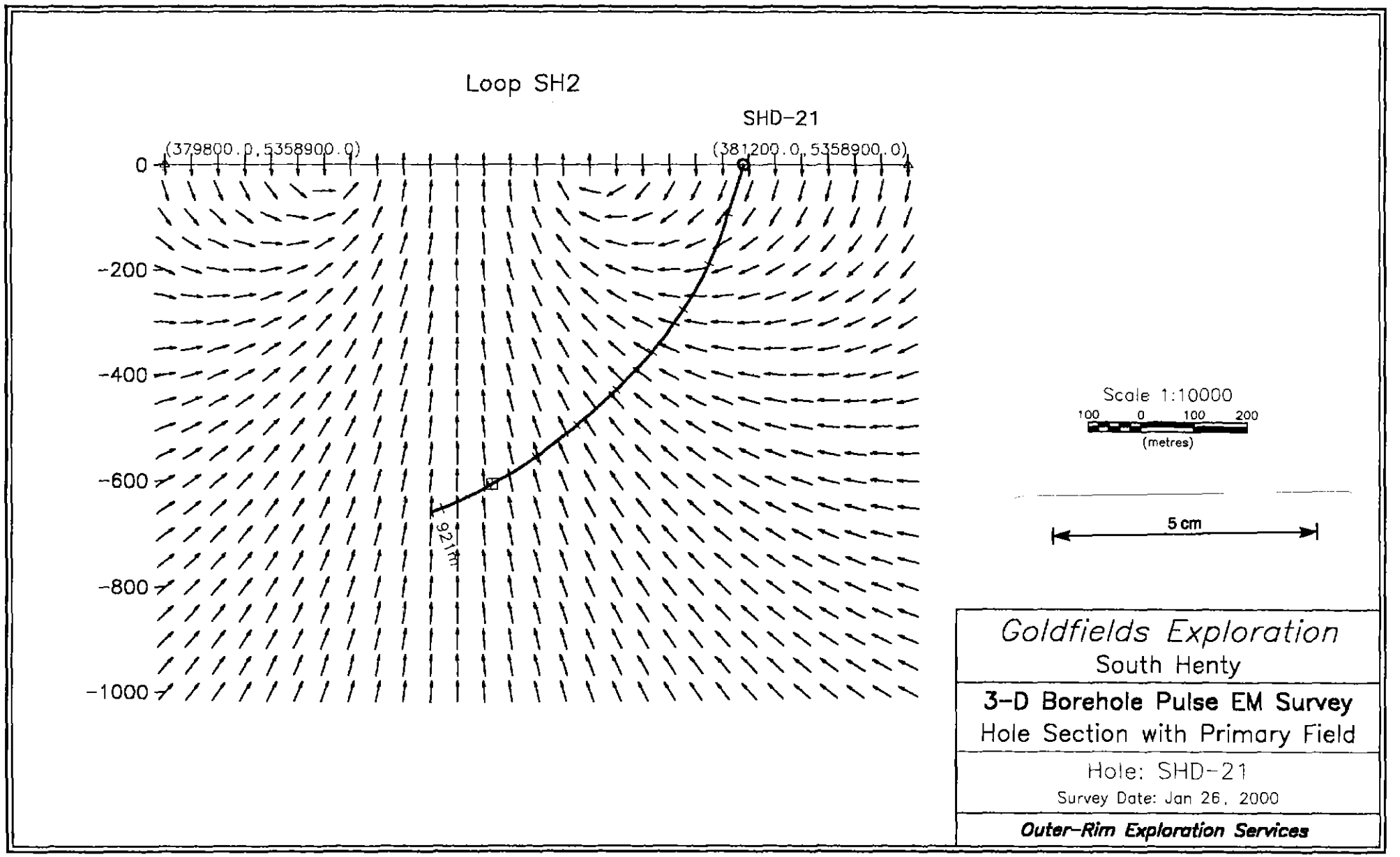
650129


Loop SH12
(379800.0, 5359500.0)
SHD-20
(381200.0, 5359500.0)
0
-200
-400
-600
-800
-1000
784m
Scale 1:10000
100 0 100 200
(metres)
5 cm
Goldfield Exploration
South Henty
3-D Borehole Pulse EM Survey
Hole Section with Primary Field
Hole: SHD-20
Survey Date: Dec 8, 1999
Outer-Rim Exploration Services

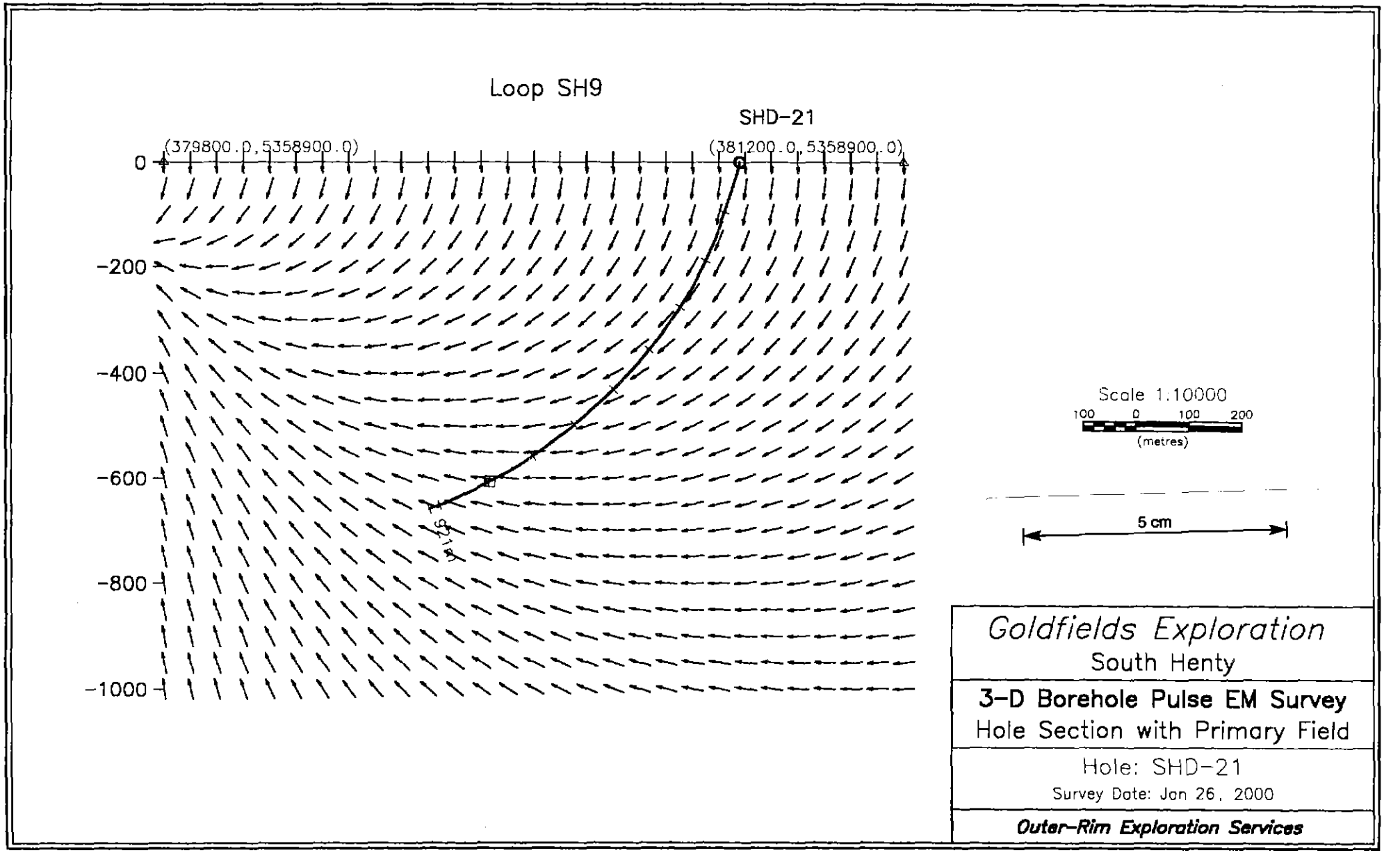
650130


Loop SH1
SHD-21
(379800.0,5358900.0)
(381200.0,5358900.0)
0
-200
-400
-600
-800
-1000
Scale 1:10000
100 0 100 200
(metres)
5 cm
Goldfields Exploration
South Henty
3-D Borehole Pulse EM Survey
Hole Section with Primary Field
Hole: SHD-21
Survey Date: Dec 11, 1999
Outer-Rim Exploration Services

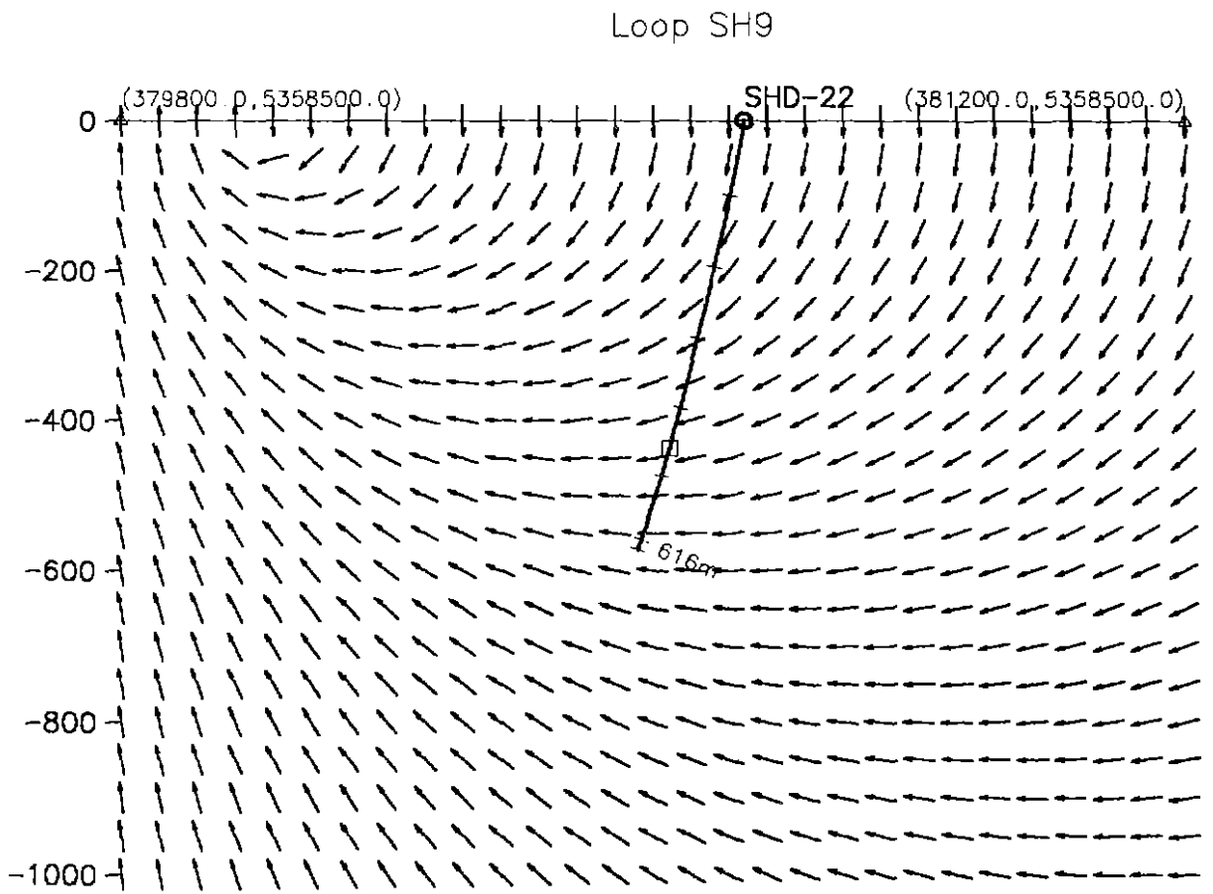
650131


Loop SH2
SHD-21
(379800.0,5358900.0)
(381200.0,5358900.0)
0
-200
-400
-600
-800
-1000
921m
Scale 1:10000
100 0 100 200
(metres)
5 cm
Goldfields Exploration
South Henty
3-D Borehole Pulse EM Survey
Hole Section with Primary Field
Hole: SHD-21
Survey Date: Jan 26, 2000
Outer-Rim Exploration Services

650132


Loop SH9
SHD-21
(379800.0,5358900.0)
(381200.0,5358900.0)
0
-200
-400
-600
-800
-1000
Scale 1:10000
100 0 100 200
(metres)
5 cm
Goldfields Exploration
South Henty
3-D Borehole Pulse EM Survey
Hole Section with Primary Field
Hole: SHD-21
Survey Date: Jan 26, 2000
Outer-Rim Exploration Services

650133



Scale 1:10000

100 0 100 200

(metres)

5 cm

Goldfields Exploration

South Henty

3-D Borehole Pulse EM Survey

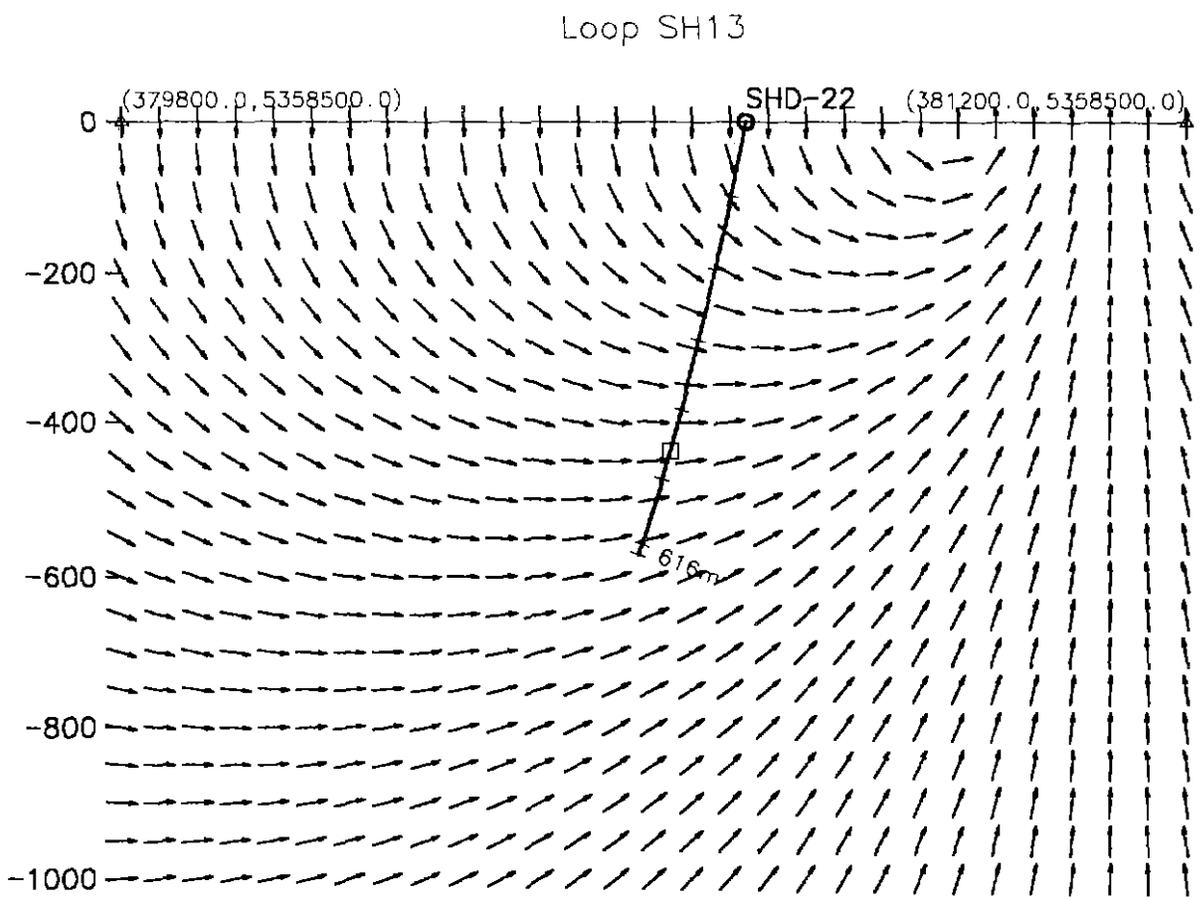
Hole Section with Primary Field

Hole: SHD-22

Survey Date: Jan 27, 2000

Outer-Rim Exploration Services

652131



Scale 1:10000

100 0 100 200

(metres)

5 cm

Goldfields Exploration

South Henty

3-D Borehole Pulse EM Survey

Hole Section with Primary Field

Hole: SHD-22

Survey Date: Feb 1, 2000

Outer-Rim Exploration Services

650135

OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: **Goldfields Exploration**	Hole	: **SHD-20**
Grid	: **South Henty**	Tx Loop	: **SH11**
Date	: Dec 7, 1999	File name	: SHD20Z11.PEM
Time Base	: 20.00 ms	# Readings	: 89
Ramp Time	: 1.00 ms	Stn Units	: Metric
# Channels	: 31	Coil Area	: 6500 sq m
Sync Type	: Cable	Polarity	: +
Loop Size	: 600m X 500m	Receiver	: Digital #105
Current	: 13 Amps	Operator	: Brett Rankin

Loop Coordinates (X,Y,Z)

1. 381350m, 5.35925e+06m, 0m
2. 381350m, 5.35978e+06m, 0m
3. 381000m, 5.35978e+06m, 0m
4. 380850m, 5.3597e+06m, 0m

Hole Coordinates (X,Y,Z) or (Azimuth,Dip,Length)

1. 380580m, 5.35944e+06m, 0m
2. 270deg, 70deg, 30m
3. 268deg, 69deg, 60m
4. 271deg, 69deg, 60m
5. 271deg, 67.5deg, 60m
6. 278deg, 65.2deg, 60m
7. 278deg, 62.3deg, 60m
8. 284deg, 60deg, 60m
9. 286deg, 58deg, 60m
10. 286.5deg, 55.5deg, 60m
11. 291deg, 53deg, 60m
12. 288deg, 50deg, 60m
13. 288deg, 46.5deg, 60m
14. 289deg, 43deg, 60m
15. 290deg, 41deg, 34m

Channel Times (usec)

Ch	Start	End	Center	Ch	Start	End	Center	Ch	Start	End	Center
PP	-198	-99	-149	1	50	58	54	2	58	72	65
3	72	86	79	4	86	104	94	5	104	126	115
6	126	153	140	7	153	185	169	8	185	225	205
9	225	270	248	10	270	328	299	11	328	396	362
12	396	482	439	13	482	580	531	14	580	702	641
15	702	850	776	16	850	1026	938	17	1026	1242	1134
18	1242	1498	1370	19	1498	1813	1656	20	1813	2187	2000
21	2187	2646	2416	22	2646	3195	2920	23	3195	3861	3528
24	3861	4666	4264	25	4666	5634	5150	26	5634	6808	6221
27	6808	8221	7514	28	8221	9936	9078	29	9936	12000	10968
30	12000	14490	13245	31	14490	17510	16000				

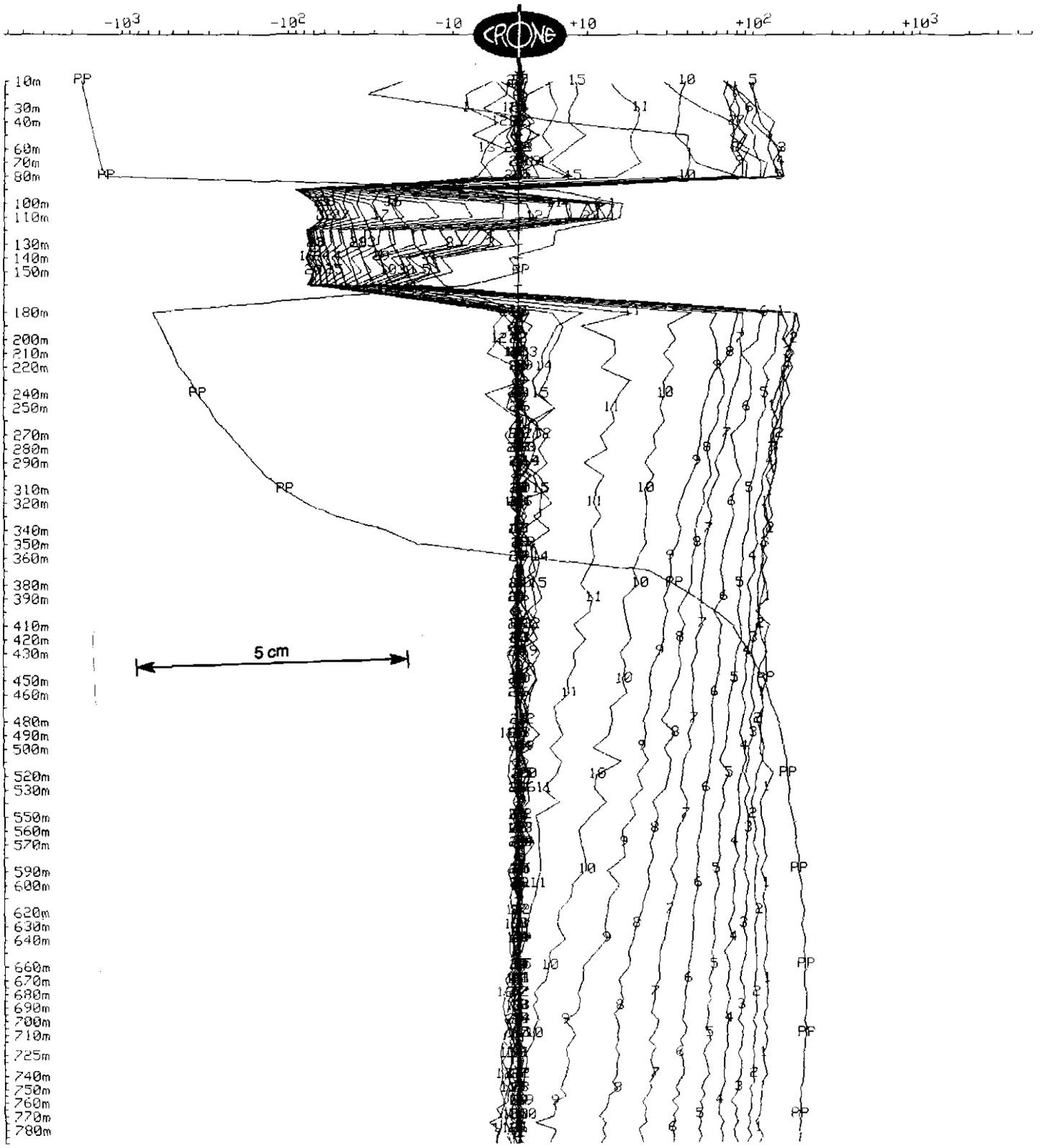
650136

OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: Goldfields Exploration	Hole	: SHD-20
Grid	: South Henty	Tx Loop	: SH11
Date	: Dec 7, 1999	File name	: SHD20Z11.PEM

Z COMPONENT dBz/dt nanoTesla/sec - 31 of 31 channels and PP

Scale: 1:4000



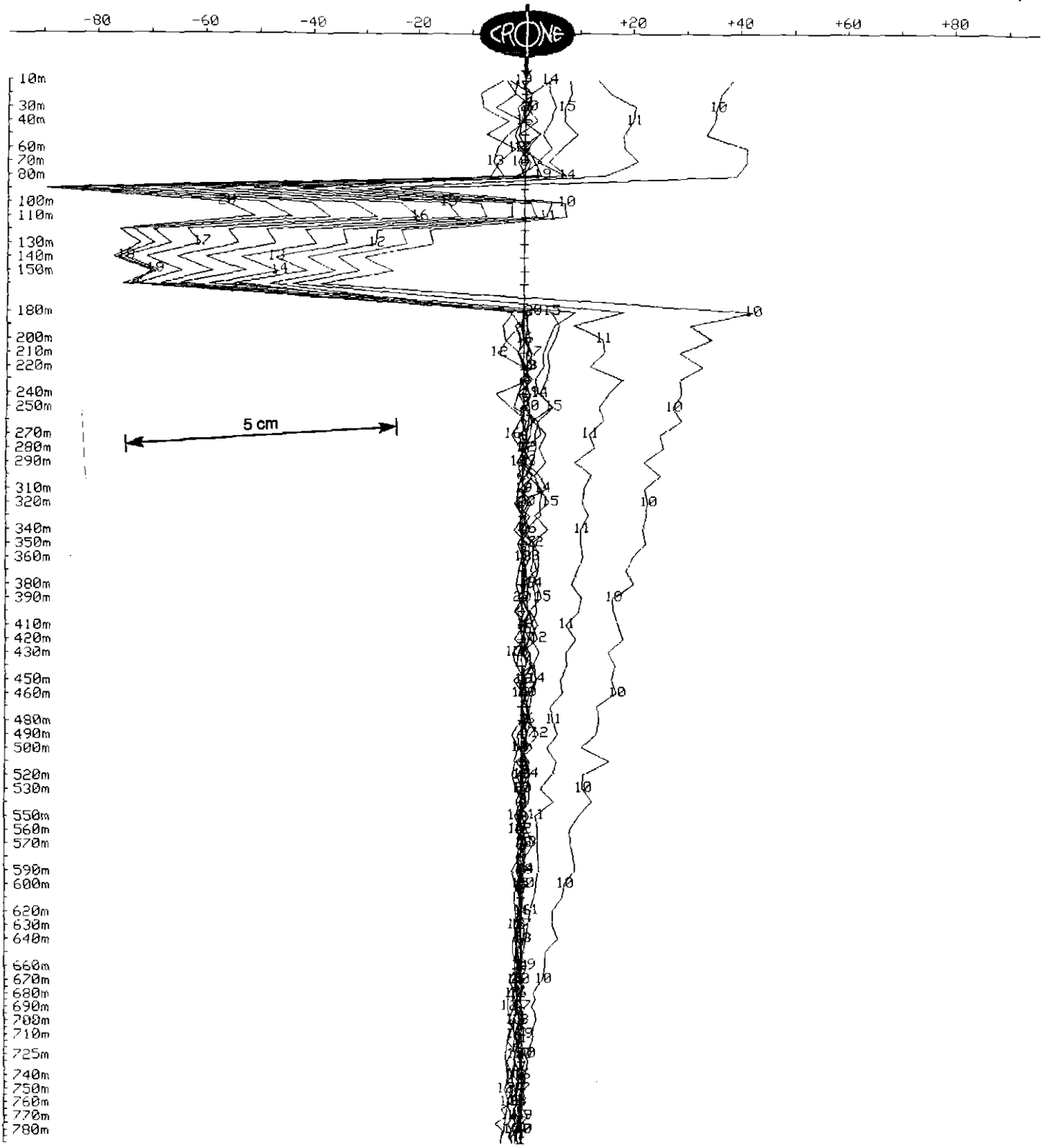
650137

OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: Goldfields Exploration	Hole	: SHD-20
Grid	: South Henty	Tx Loop	: SH11
Date	: Dec 7, 1999	File name	: SHD20Z11.PEM

Z COMPONENT dBz/dt nanoTesla/sec - 11 of 31 channels

Scale: 1:4000 Unit Scale: 1cm = 10 nT/s



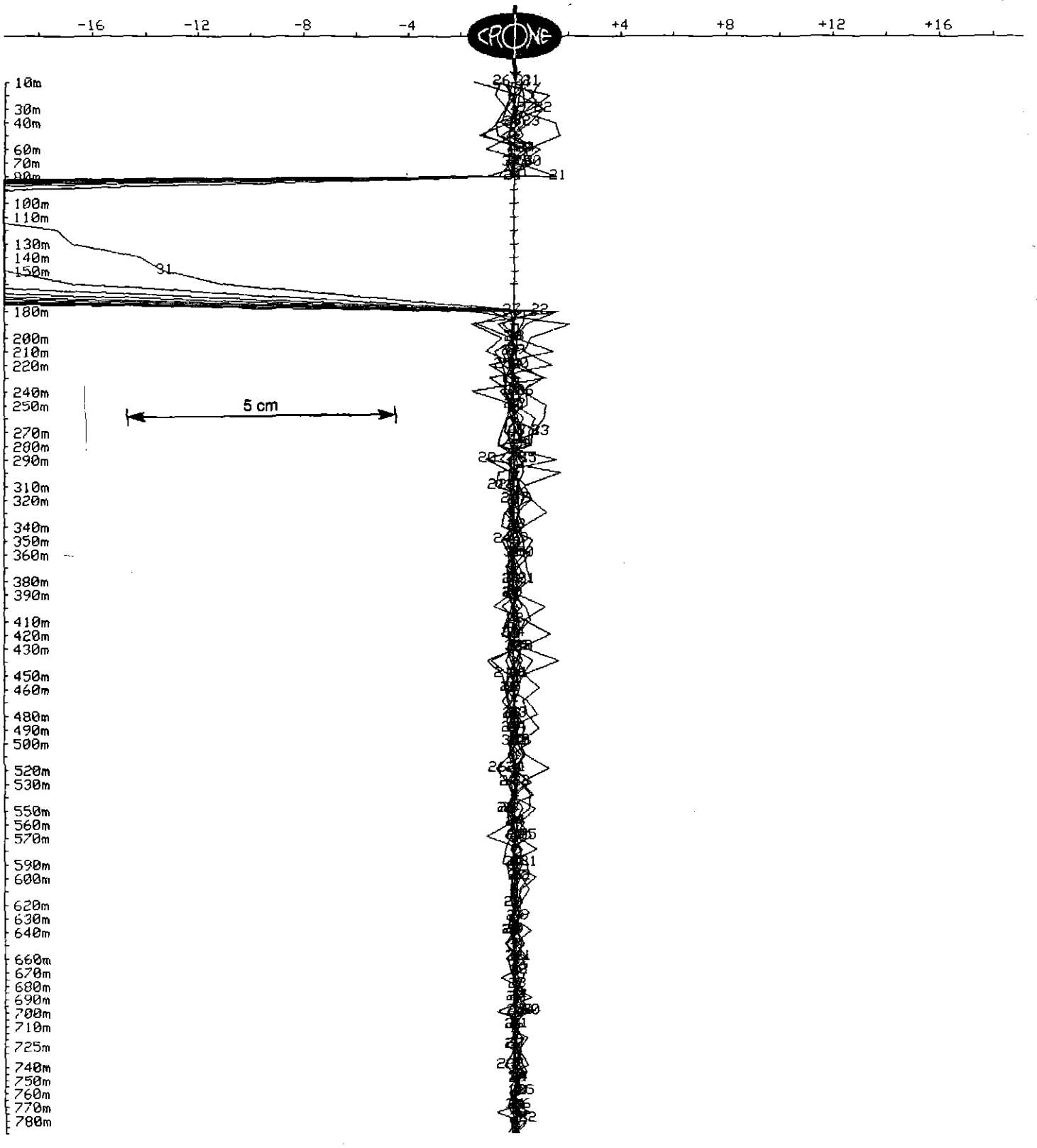
650138

OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: Goldfields Exploration	Hole	: SHD-20
Grid	: South Henty	Tx Loop	: SH11
Date	: Dec 7, 1999	File name	: SHD20Z11.PEM

Z COMPONENT dBz/dt nanoTesla/sec - 12 of 31 channels

Scale: 1:4000 Unit Scale: 1cm = 2 nT/s



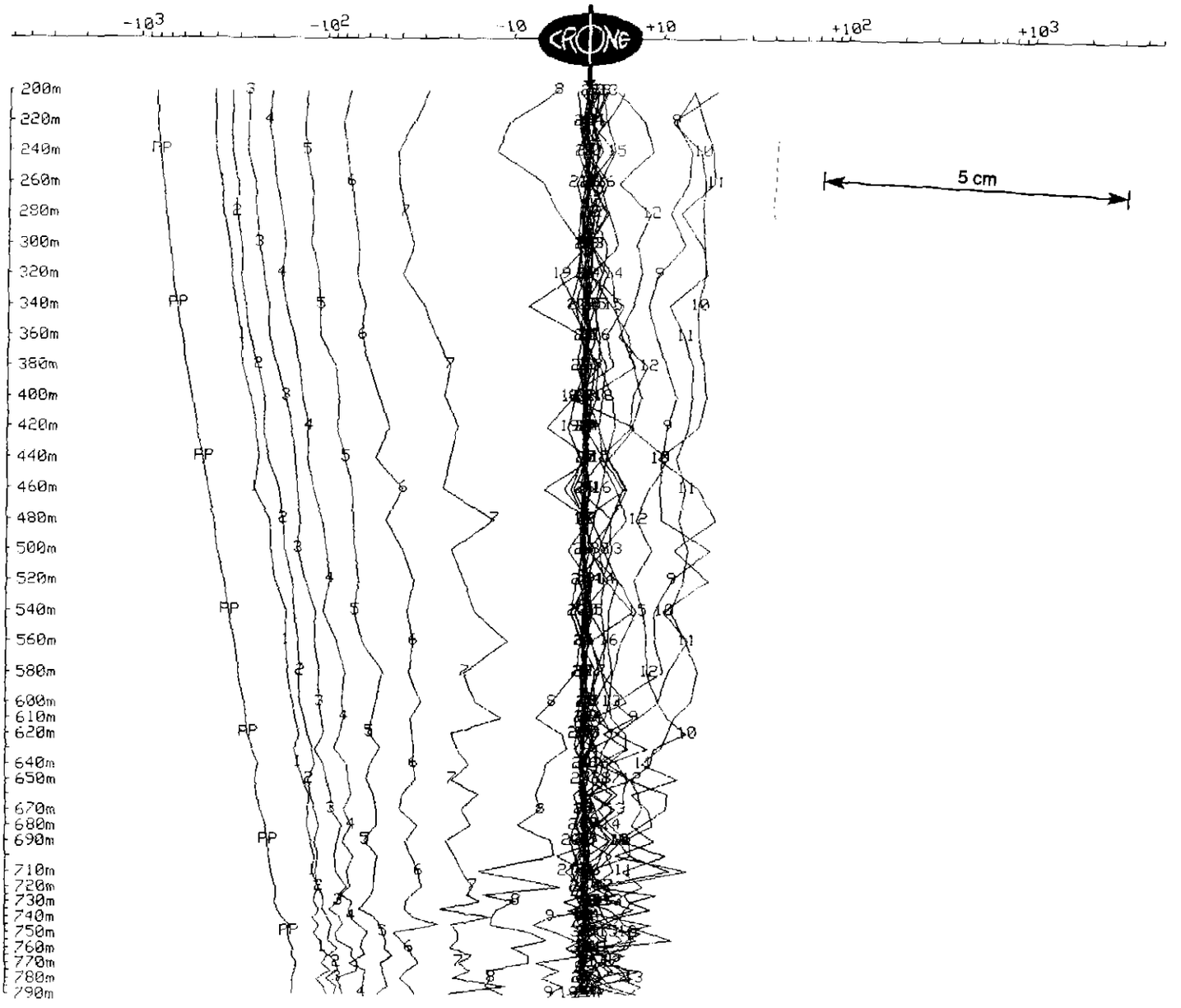
650139

OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: Goldfields Exploration	Hole	: SHD-20
Grid	: South Henty	Tx Loop	: SH11
Date	: Dec 8, 1999	File name	: SHD20X`1.PEM

Data Corrected for Probe Rotation using Orientation Tool #8
X COMPONENT dBx/dt nanoTesla/sec - 31 of 31 channels and PP

Scale: 1:4000



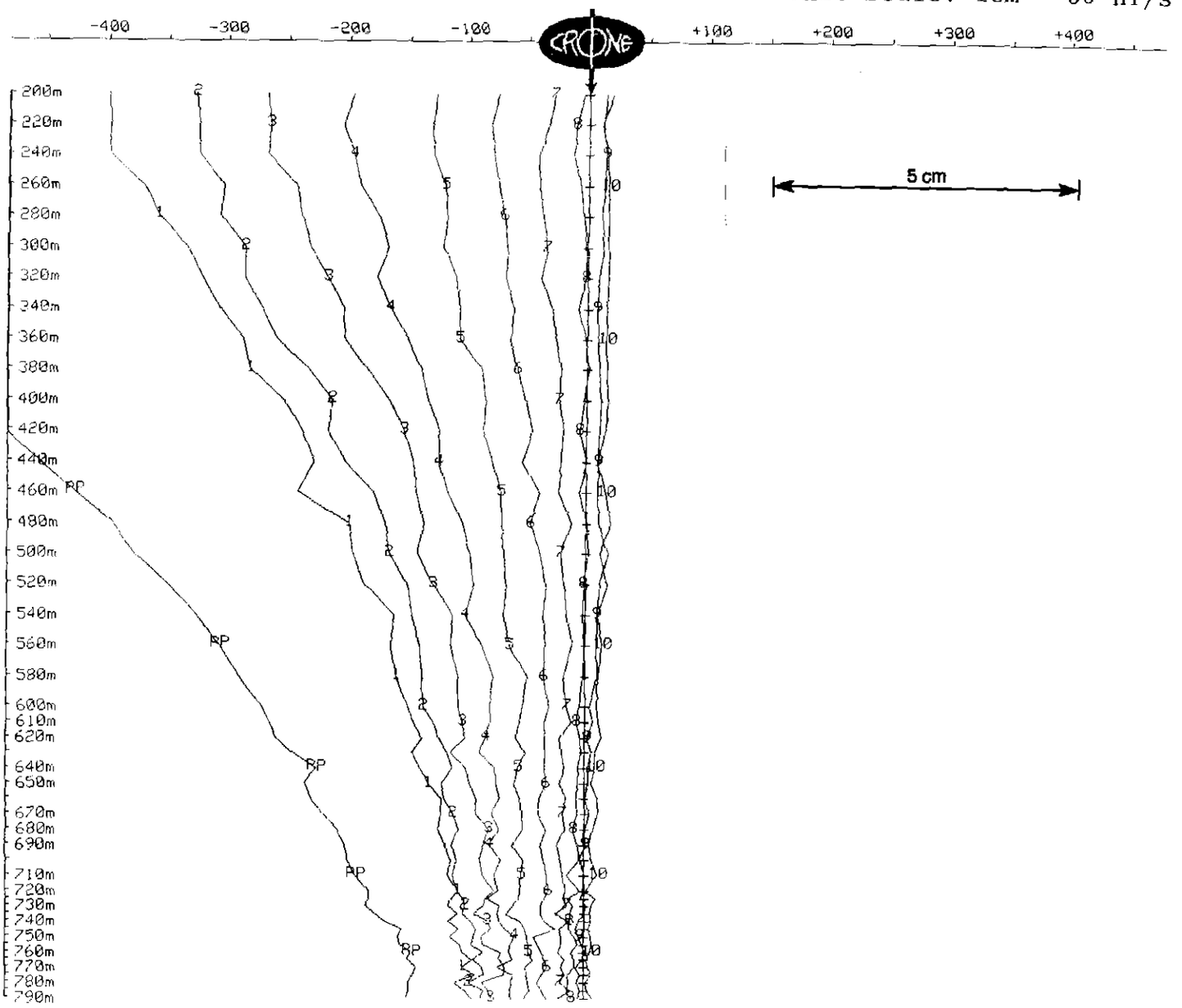
650140

OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: Goldfields Exploration	Hole	: SHD-20
Grid	: South Henty	Tx Loop	: SH11
Date	: Dec 8, 1999	File name	: SHD20X`1.PEM

Data Corrected for Probe Rotation using Orientation Tool #8
X COMPONENT dBx/dt nanoTesla/sec - 10 of 31 channels and PP

Scale: 1:4000 Unit Scale: 1cm = 50 nT/s



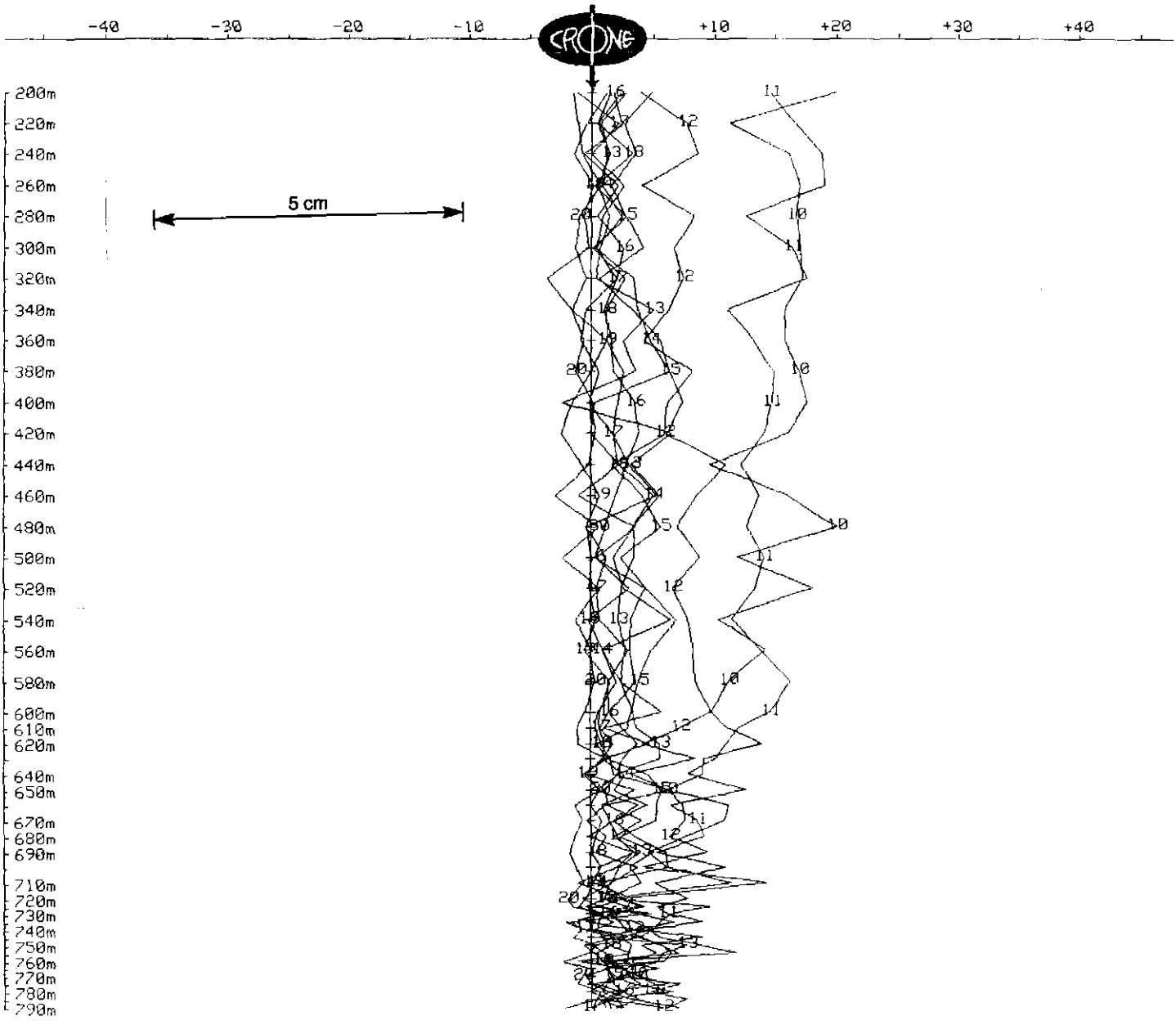
650141

OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: Goldfields Exploration	Hole	: SHD-20
Grid	: South Henty	Tx Loop	: SH11
Date	: Dec 8, 1999	File name	: SHD20X`1.PEM

Data Corrected for Probe Rotation using Orientation Tool #8
X COMPONENT dBx/dt nanoTesla/sec - 11 of 31 channels

Scale: 1:4000 Unit Scale: 1cm = 5 nT/s



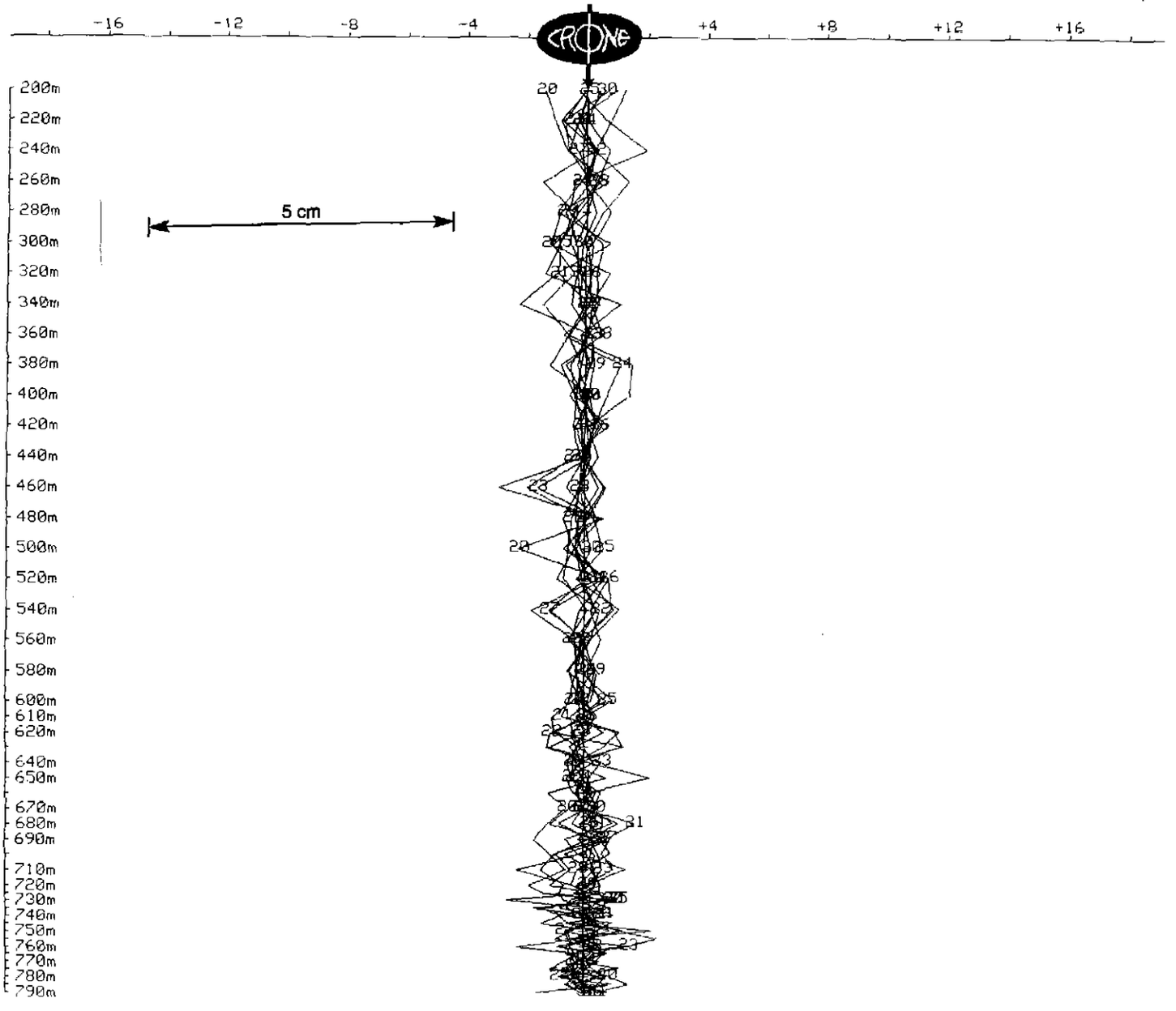
650142

OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: **Goldfields Exploration**	Hole	: **SHD-20**
Grid	: **South Henty**	Tx Loop	: **SH11**
Date	: Dec 8, 1999	File name	: SHD20X~1.PEM

Data Corrected for Probe Rotation using Orientation Tool #8
X COMPONENT dBx/dt nanoTesla/sec - 12 of 31 channels

Scale: 1:4000 Unit Scale: 1cm = 2 nT/s



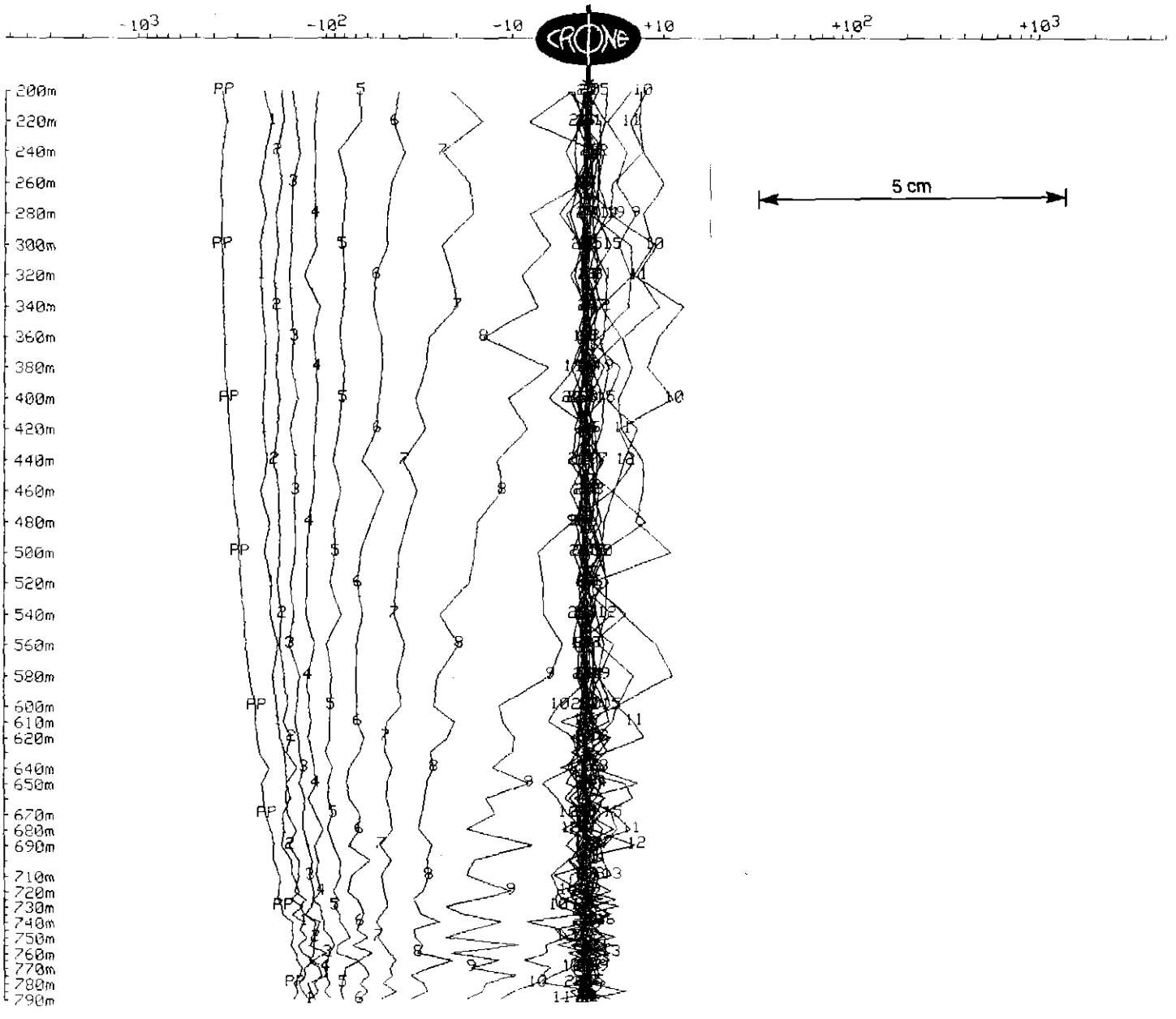
650143

OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: **Goldfields Exploration**	Hole	: **SHD-20**
Grid	: **South Henty**	Tx Loop	: **SH11**
Date	: Dec 8, 1999	File name	: SHD20X~1.PEM

Data Corrected for Probe Rotation using Orientation Tool #8
Y COMPONENT dBy/dt nanoTesla/sec - 31 of 31 channels and PP

Scale: 1:4000



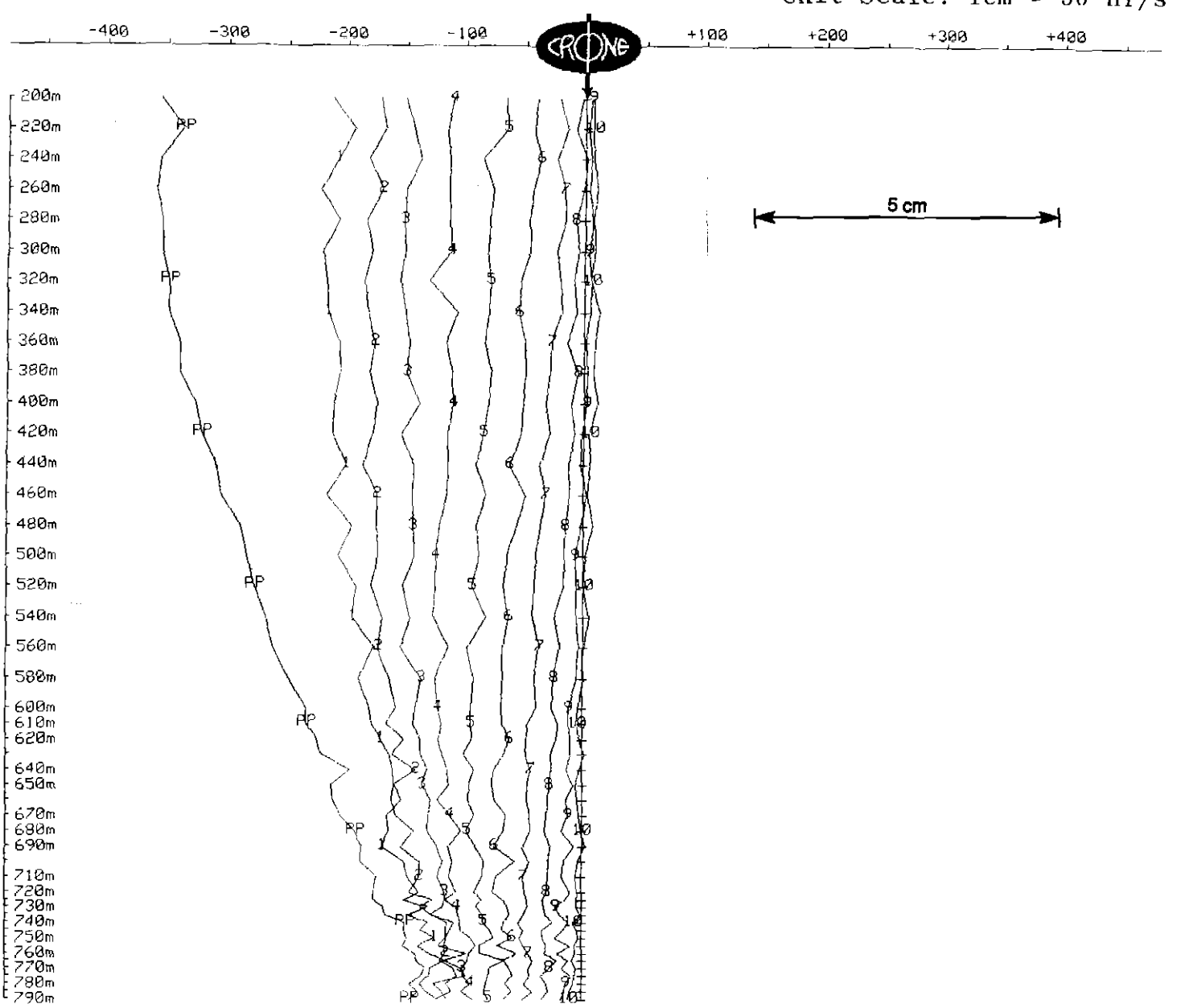
650144

OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: Goldfields Exploration	Hole	: SHD-20
Grid	: South Henty	Tx Loop	: SH11
Date	: Dec 8, 1999	File name	: SHD20X`1.PEM

Data Corrected for Probe Rotation using Orientation Tool #8
Y COMPONENT dBy/dt nanoTesla/sec - 10 of 31 channels and PP

Scale: 1:4000 Unit Scale: 1cm = 50 nT/s



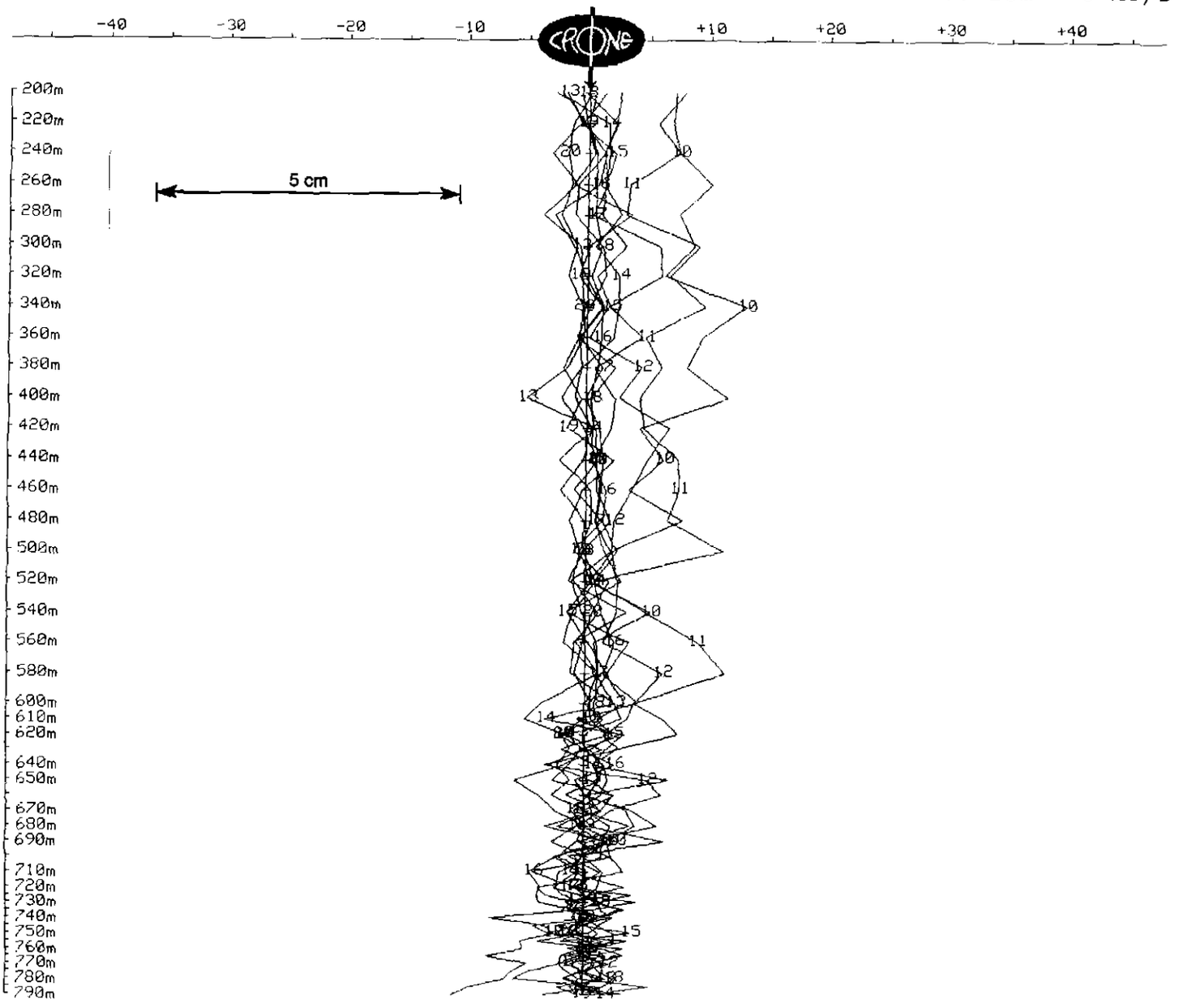
650145

OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: Goldfields Exploration	Hole	: SHD-20
Grid	: South Henty	Tx Loop	: SH11
Date	: Dec 8, 1999	File name	: SHD20X~1.PEM

Data Corrected for Probe Rotation using Orientation Tool #8
Y COMPONENT dBy/dt nanoTesla/sec - 11 of 31 channels

Scale: 1:4000 Unit Scale: 1cm = 5 nT/s



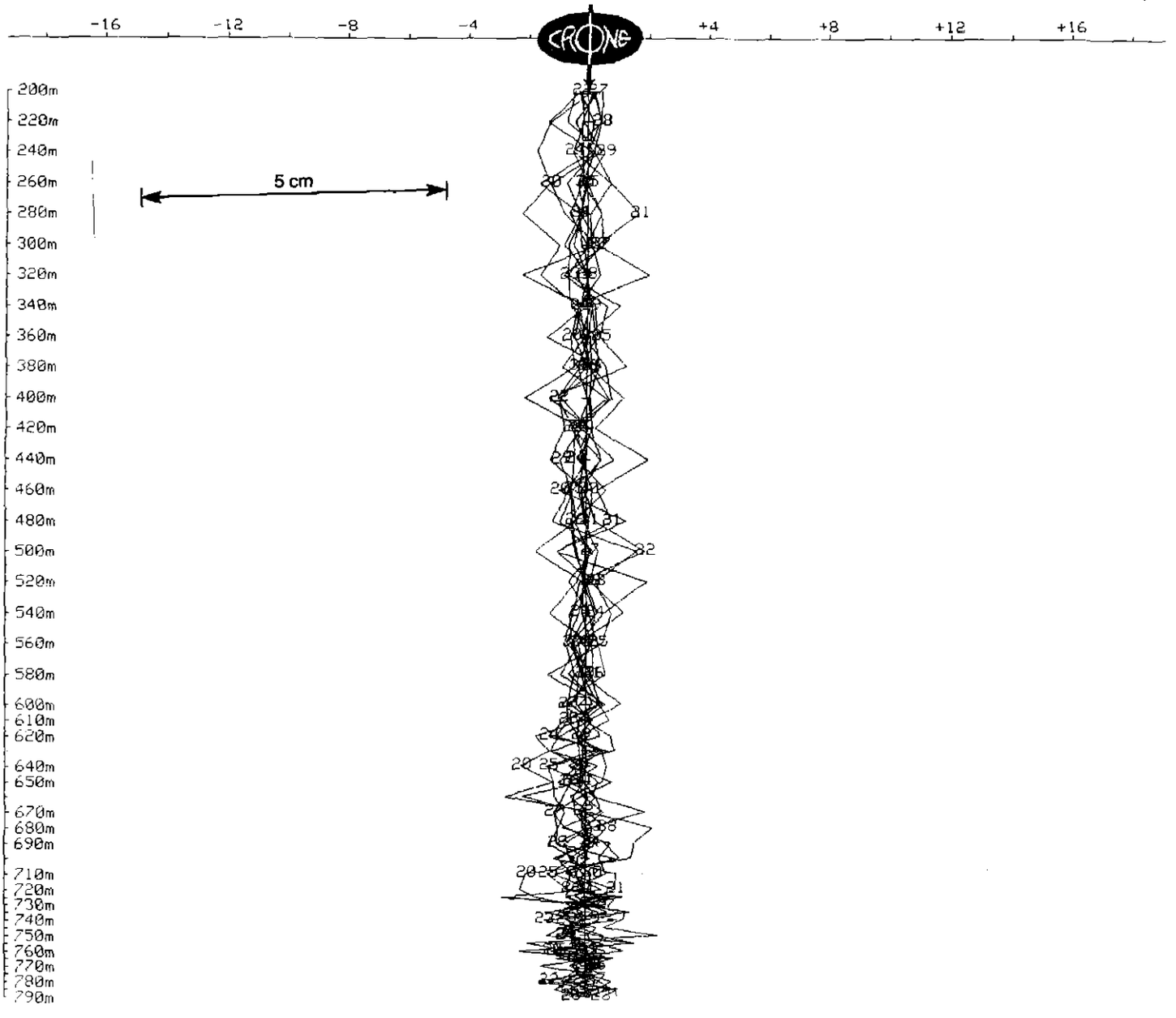
650146

OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: Goldfields Exploration	Hole	: SHD-20
Grid	: South Henty	Tx Loop	: SH11
Date	: Dec 8, 1999	File name	: SHD20X~1.PEM

Data Corrected for Probe Rotation using Orientation Tool #8
Y COMPONENT dBy/dt nanoTesla/sec - 12 of 31 channels

Scale: 1:4000 Unit Scale: 1cm = 2 nT/s



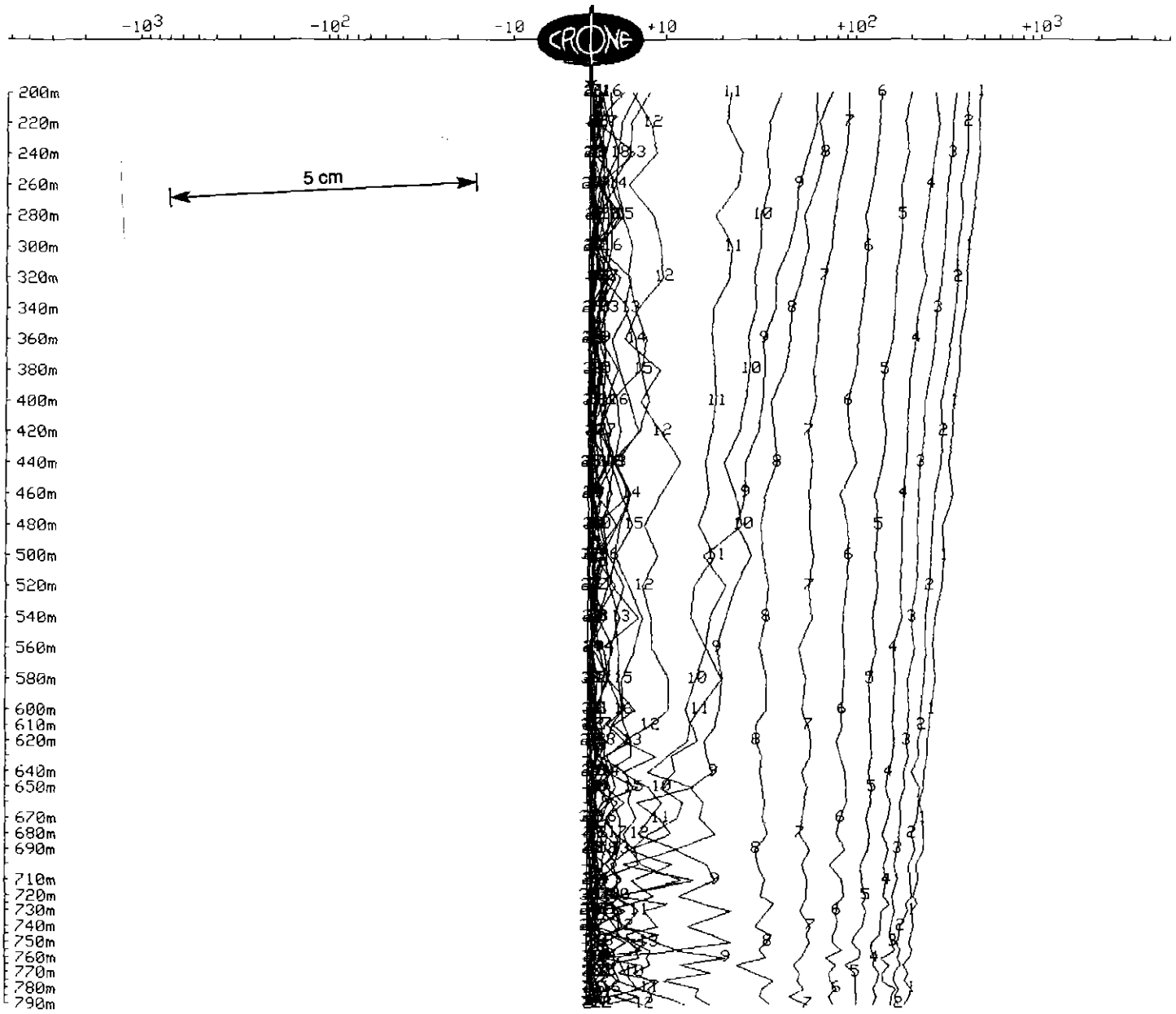
650147

OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: Goldfields Exploration	Hole	: SHD-20
Grid	: South Henty	Tx Loop	: SH11
Date	: Dec 8, 1999	File name	: S20XYZ11.PEM

TOTAL FIELD dBxyz/dt nanoTesla/sec - 31 of 31 channels

Scale: 1:4000



650148

OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: Goldfield Exploration	Hole	: SHD-20
Grid	: South Henty	Tx Loop	: SH12
Date	: Dec 8, 1999	File name	: SHD20Z12.PEM
Time Base	: 20.00 ms	# Readings	: 60
Ramp Time	: 1.00 ms	Stn Units	: Metric
# Channels	: 31	Coil Area	: 6500 sq m
Sync Type	: Cable	Polarity	: +
Loop Size	: 500m X 400m	Receiver	: Digital #105
Current	: 17 Amps	Operator	: Brett Rankin

Loop Coordinates (X,Y,Z)

1. 380300m, 5.3593e+06m, 0m
2. 380300m, 5.359e+06m, 0m
3. 380800m, 5.359e+06m, 0m
4. 380800m, 5.3594e+06m, 0m
5. 380520m, 5.3594e+06m, 0m

Hole Coordinates (X,Y,Z) or (Azimuth,Dip,Length)

1. 380580m, 5.35944e+06m, 0m
2. 270deg, 70deg, 30m
3. 268deg, 69deg, 60m
4. 271deg, 69deg, 60m
5. 271deg, 67.5deg, 60m
6. 278deg, 65.2deg, 60m
7. 278deg, 62.3deg, 60m
8. 284deg, 60deg, 60m
9. 286deg, 58deg, 60m
10. 286.5deg, 55.5deg, 60m
11. 291deg, 53deg, 60m
12. 288deg, 50deg, 60m
13. 288deg, 46.5deg, 60m
14. 289deg, 43deg, 60m
15. 290deg, 41deg, 34m

Channel Times (usec)

Ch	Start	End	Center	Ch	Start	End	Center	Ch	Start	End	Center
PP	-198	-99	-149	1	50	58	54	2	58	72	65
3	72	86	79	4	86	104	94	5	104	126	115
6	126	153	140	7	153	185	169	8	185	225	205
9	225	270	248	10	270	328	299	11	328	396	362
12	396	482	439	13	482	580	531	14	580	702	641
15	702	850	776	16	850	1026	938	17	1026	1242	1134
18	1242	1498	1370	19	1498	1813	1656	20	1813	2187	2000
21	2187	2646	2416	22	2646	3195	2920	23	3195	3861	3528
24	3861	4666	4264	25	4666	5634	5150	26	5634	6808	6221
27	6808	8221	7514	28	8221	9936	9078	29	9936	12000	10968
30	12000	14490	13245	31	14490	17510	16000				

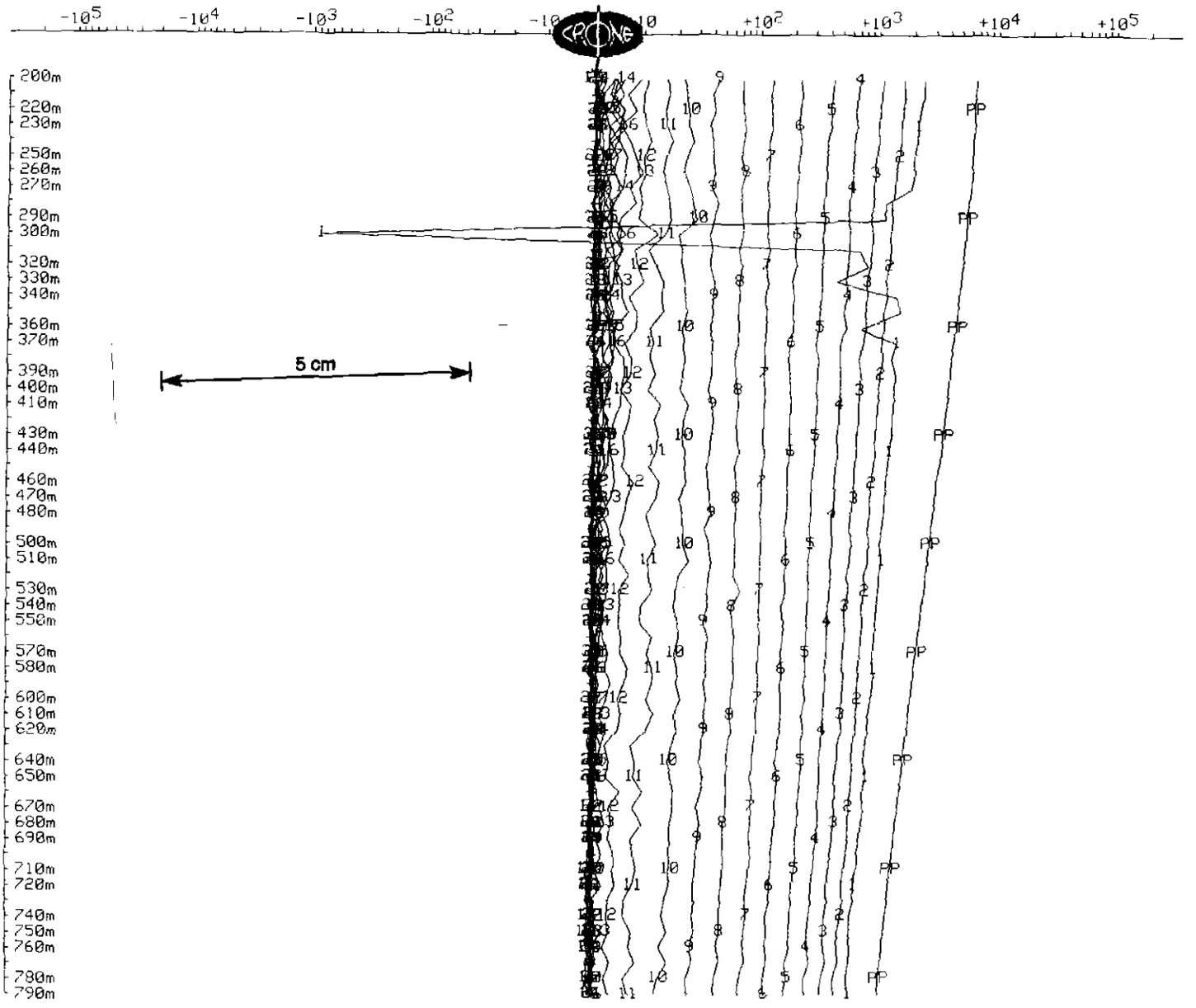
650149

OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: Goldfield Exploration	Hole	: SHD-20
Grid	: South Henty	Tx Loop	: SH12
Date	: Dec 8, 1999	File name	: SHD20Z12.PEM

Z COMPONENT dBz/dt nanoTesla/sec - 31 of 31 channels and PP

Scale: 1:4000



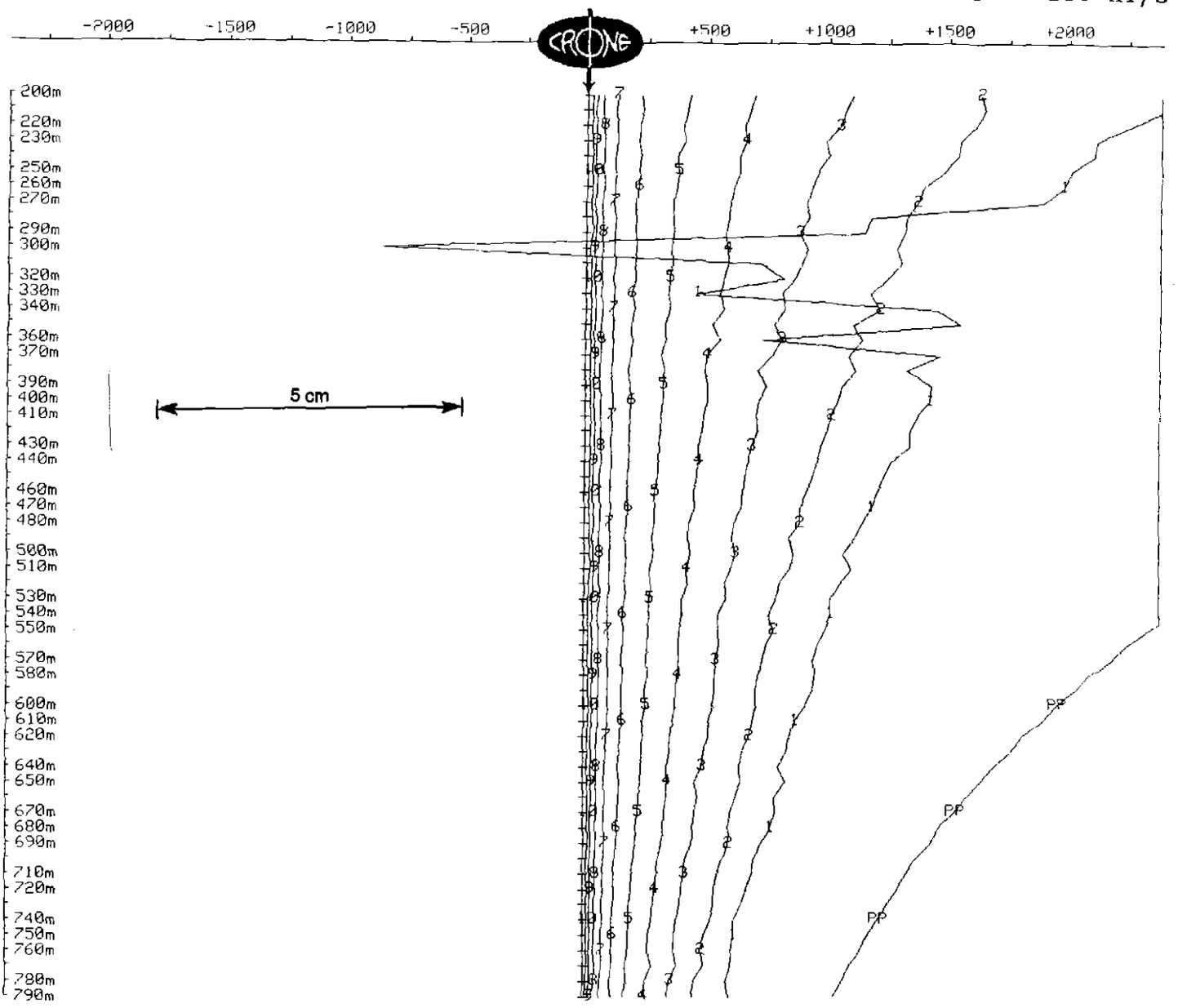
650150

OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: Goldfield Exploration	Hole	: SHD-20
Grid	: South Henty	Tx Loop	: SH12
Date	: Dec 8, 1999	File name	: SHD20Z12.PEM

Z COMPONENT dBz/dt nanoTesla/sec - 10 of 31 channels and PP

Scale: 1:4000 Unit Scale: 1cm = 250 nT/s



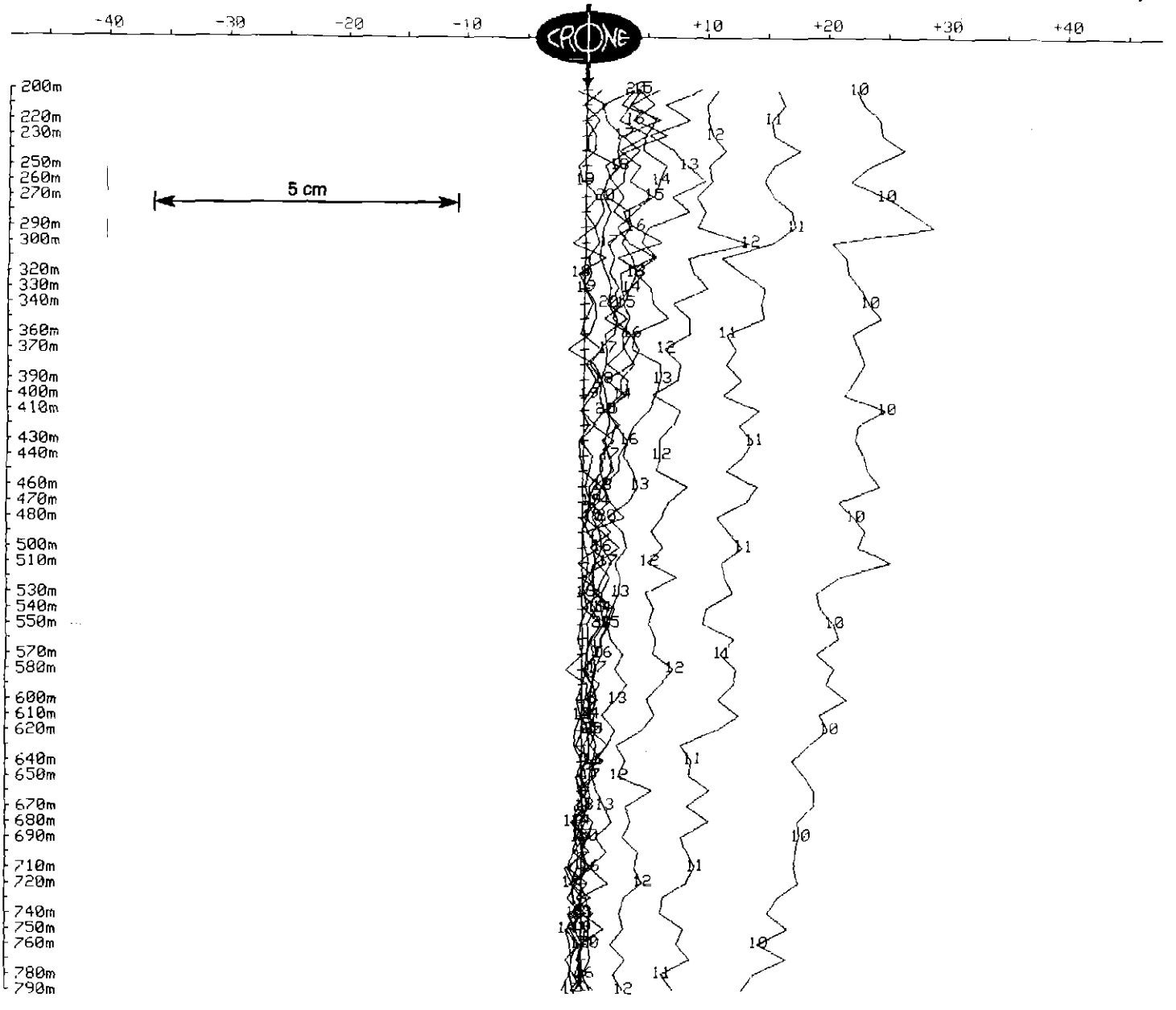
650151

OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: Goldfield Exploration	Hole	: SHD-20
Grid	: South Henty	Tx Loop	: SH12
Date	: Dec 8, 1999	File name	: SHD20Z12.PEM

Z COMPONENT dBz/dt nanoTesla/sec - 11 of 31 channels

Scale: 1:4000 Unit Scale: 1cm = 5 nT/s



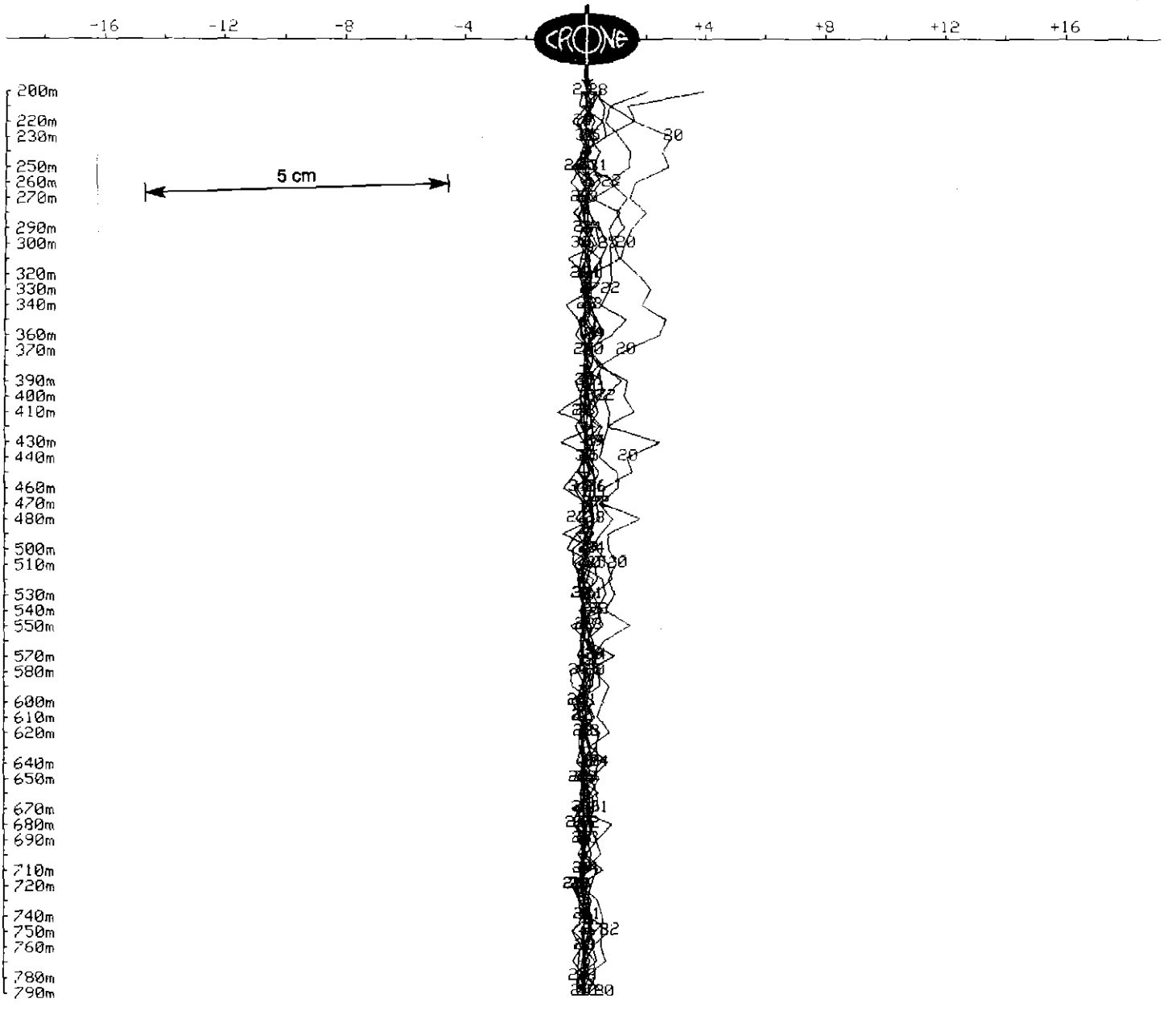
650152

OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: Goldfield Exploration	Hole	: SHD-20
Grid	: South Henty	Tx Loop	: SH12
Date	: Dec 8, 1999	File name	: SHD20Z12.PEM

Z COMPONENT dBz/dt nanoTesla/sec - 12 of 31 channels

Scale: 1:4000 Unit Scale: 1cm = 2 nT/s



650153

OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: Goldfield Explkoration	Hole	: SHD-20
Grid	: South Henty	Tx Loop	: SH14
Date	: Dec 9, 1999	File name	: SHD20Z14.PEM
Time Base	: 20.00 ms	# Readings	: 60
Ramp Time	: 1.00 ms	Stn Units	: Metric
# Channels	: 31	Coil Area	: 6500 sq m
Sync Type	: Cable	Polarity	: +
Loop Size	: 400m X 400m	Receiver	: Digital #105
Current	: 17 Amps	Operator	: Brett Rankin

Loop Coordinates (X,Y,Z)

1. 379900m, 5.3598e+06m, 0m
2. 379900m, 5.3594e+06m, 0m
3. 380300m, 5.3594e+06m, 0m
4. 380300m, 5.3598e+06m, 0m

Hole Coordinates (X,Y,Z) or (Azimuth,Dip,Length)

1. 380580m, 5.35944e+06m, 0m
2. 270deg, 70deg, 30m
3. 268deg, 69deg, 60m
4. 271deg, 69deg, 60m
5. 271deg, 67.5deg, 60m
6. 278deg, 65.2deg, 60m
7. 278deg, 62.3deg, 60m
8. 284deg, 60deg, 60m
9. 286deg, 58deg, 60m
10. 286.5deg, 55.5deg, 60m
11. 291deg, 53deg, 60m
12. 288deg, 50deg, 60m
13. 288deg, 46.5deg, 60m
14. 289deg, 43deg, 60m
15. 290deg, 41deg, 34m

Channel Times (usec)

Ch	Start	End	Center	Ch	Start	End	Center	Ch	Start	End	Center
PP	-198	-99	-149	1	50	58	54	2	58	72	65
3	72	86	79	4	86	104	94	5	104	126	115
6	126	153	140	7	153	185	169	8	185	225	205
9	225	270	248	10	270	328	299	11	328	396	362
12	396	482	439	13	482	580	531	14	580	702	641
15	702	850	776	16	850	1026	938	17	1026	1242	1134
18	1242	1498	1370	19	1498	1813	1656	20	1813	2187	2000
21	2187	2646	2416	22	2646	3195	2920	23	3195	3861	3528
24	3861	4666	4264	25	4666	5634	5150	26	5634	6808	6221
27	6808	8221	7514	28	8221	9936	9078	29	9936	12000	10968
30	12000	14490	13245	31	14490	17510	16000				

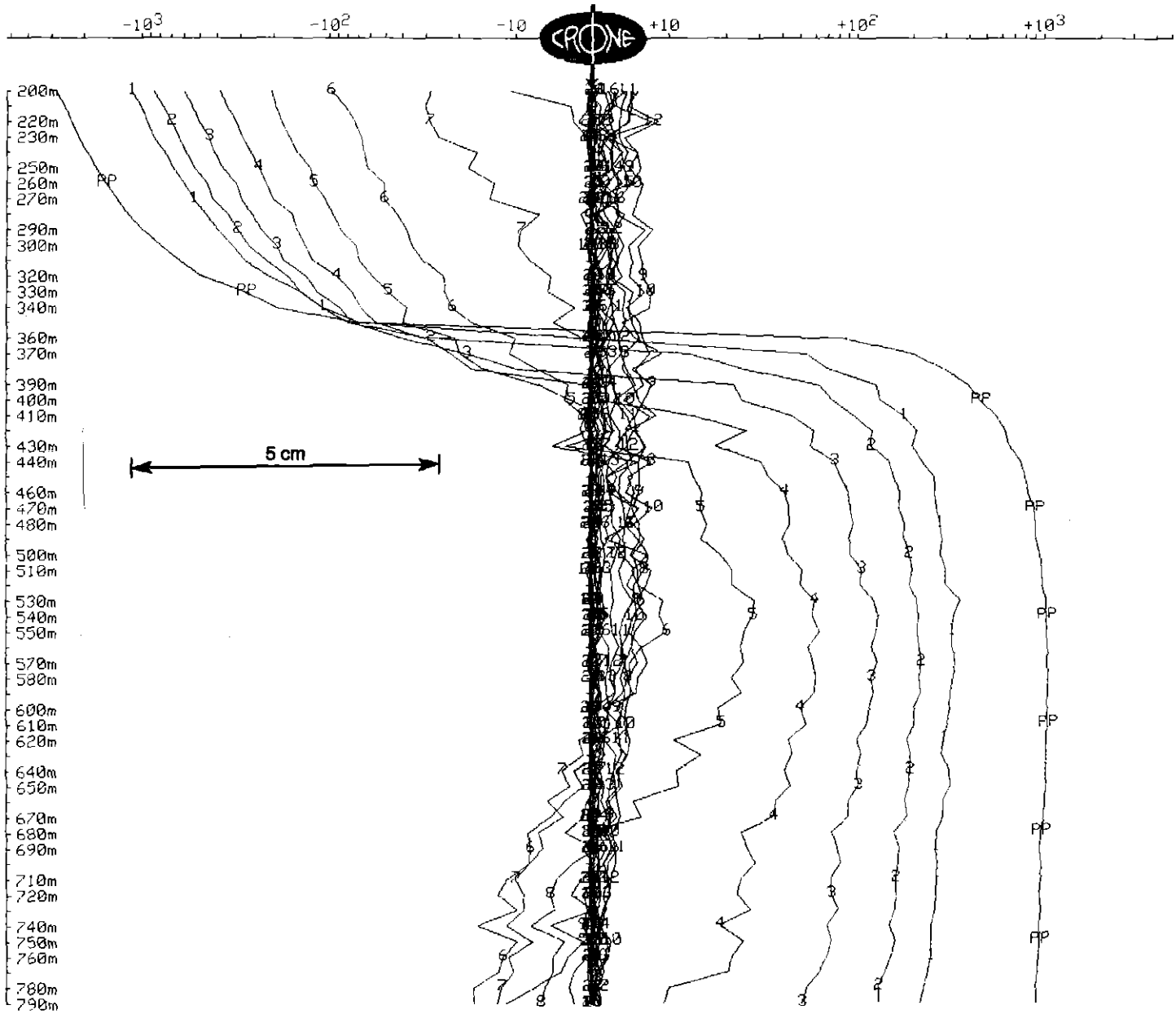
650154

OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: Goldfield Explkoration	Hole	: SHD-20
Grid	: South Henty	Tx Loop	: SH14
Date	: Dec 9, 1999	File name	: SHD20Z14.PEM

Z COMPONENT dBz/dt nanoTesla/sec - 31 of 31 channels and PP

Scale: 1:4000



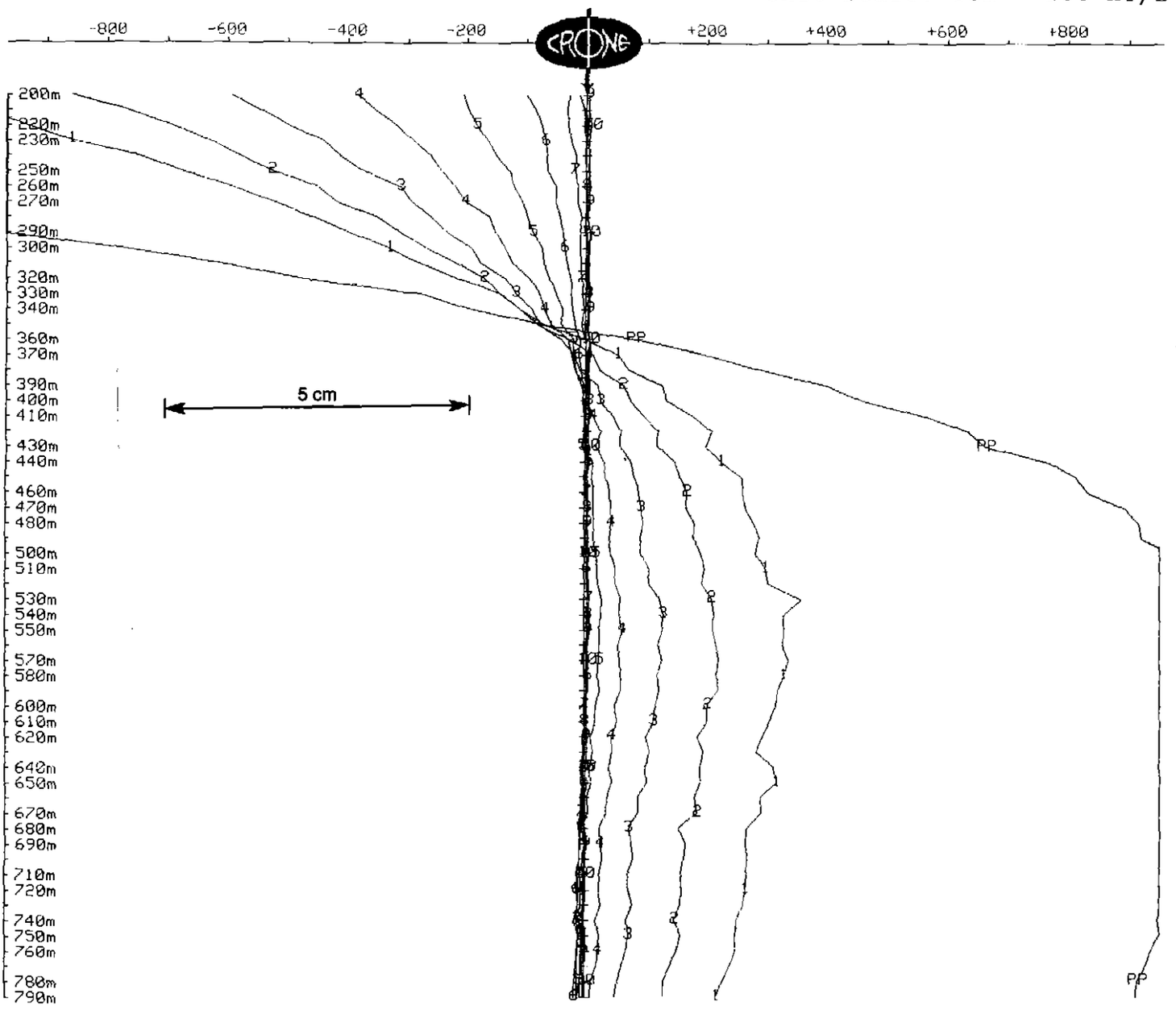
650155

OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: Goldfield Explkoration	Hole	: SHD-20
Grid	: South Henty	Tx Loop	: SH14
Date	: Dec 9, 1999	File name	: SHD20Z14.PEM

Z COMPONENT dBz/dt nanoTesla/sec - 10 of 31 channels and PP

Scale: 1:4000 Unit Scale: 1cm = 100 nT/s



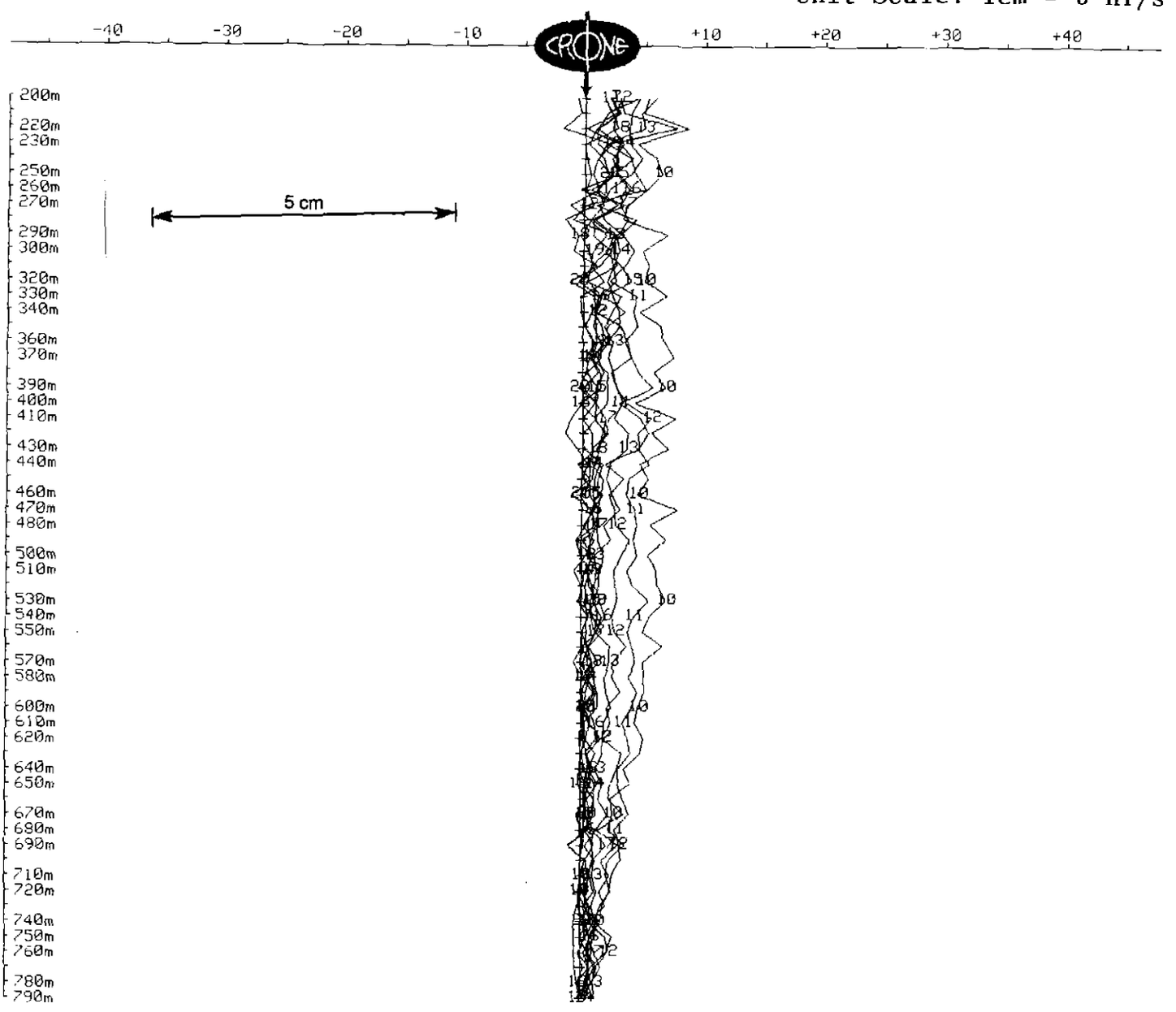
650156

OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: **Goldfield Explkoration**	Hole	: **SHD-20**
Grid	: **South Henty**	Tx Loop	: **SH14**
Date	: Dec 9, 1999	File name	: SHD20Z14.PEM

Z COMPONENT dBz/dt nanoTesla/sec - 11 of 31 channels

Scale: 1:4000 Unit Scale: 1cm = 5 nT/s



650157

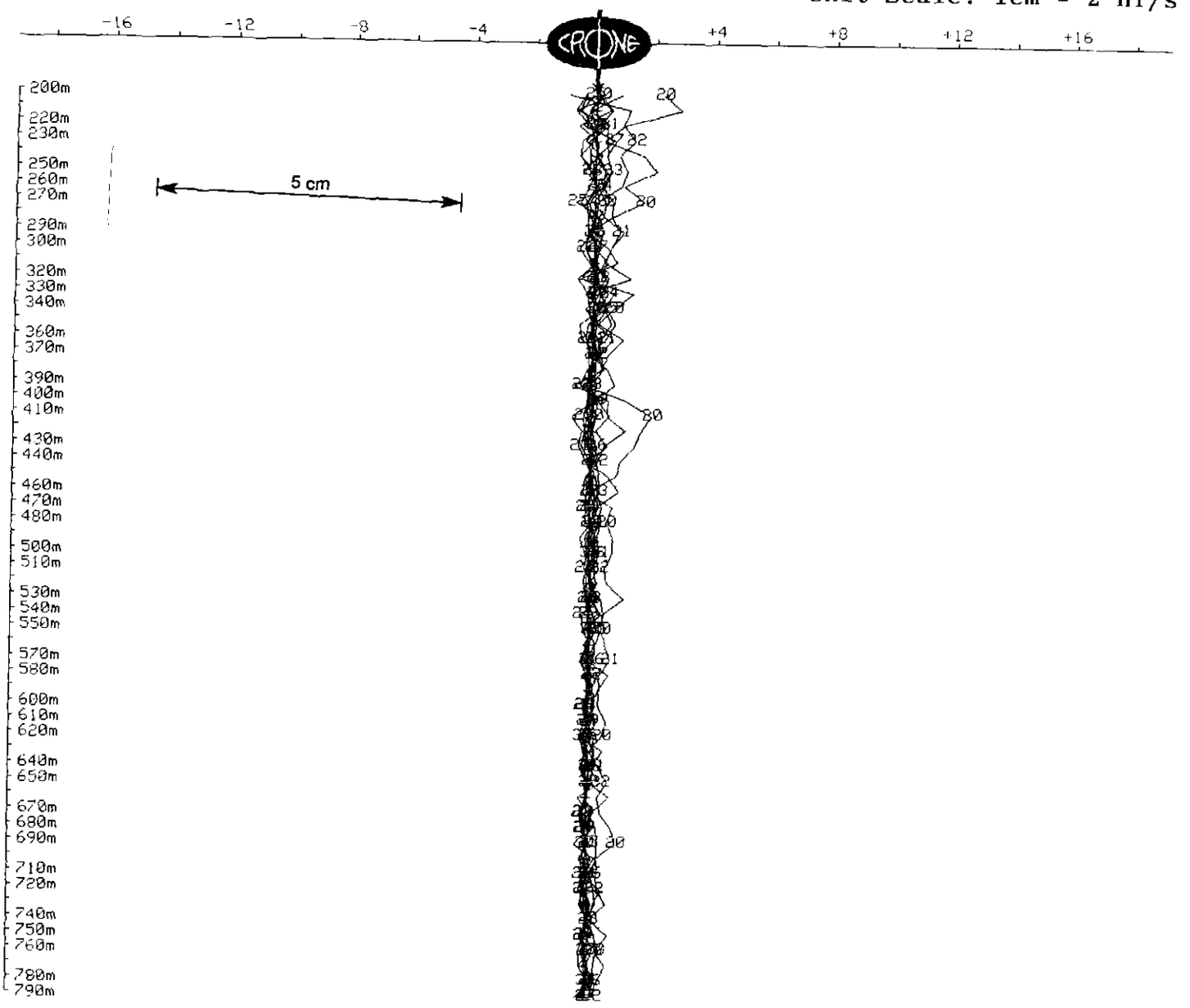
OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: Goldfield Explkoration	Hole	: SHD-20
Grid	: South Henty	Tx Loop	: SH14
Date	: Dec 9, 1999	File name	: SHD20Z14.PEM

Z COMPONENT dBz/dt nanoTesla/sec - 12 of 31 channels

Scale: 1:4000

Unit Scale: 1cm = 2 nT/s



650158

OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: Goldfields Exploration	Hole	: SHD-21
Grid	: South Henty	Tx Loop	: SH1
Date	: Dec 11, 1999	File name	: SHD21Z1.PEM
Time Base	: 20.00 ms	# Readings	: 83
Ramp Time	: 0.50 ms	Stn Units	: Metric
# Channels	: 31	Coil Area	: 6500 sq m
Sync Type	: Cable	Polarity	: +
Loop Size	: 600m X 500m	Receiver	: Digital #105
Current	: 10 Amps	Operator	: Brett Rankin

Loop Coordinates (X,Y,Z)

1. 380900m, 5.35917e+06m, 0m
2. 380900m, 5.3587e+06m, 0m
3. 381300m, 5.3587e+06m, 0m
4. 381400m, 5.35917e+06m, 0m

Hole Coordinates (X,Y,Z) or (Azimuth,Dip,Length)

1. 380890m, 5.35889e+06m, 0m
2. 270deg, 73.8deg, 30m
3. 270deg, 72.8deg, 60m
4. 270deg, 71.5deg, 60m
5. 273deg, 66.5deg, 60m
6. 275deg, 62.8deg, 50m
7. 272deg, 58deg, 50m
8. 271deg, 54.5deg, 55m
9. 271deg, 50.5deg, 55m
10. 270deg, 47.4deg, 60m
11. 269deg, 44deg, 60m
12. 268deg, 41.5deg, 70m
13. 271deg, 37.5deg, 75m
14. 273deg, 33.1deg, 65m
15. 275deg, 29deg, 70m
16. 276deg, 25deg, 65m
17. 275deg, 20deg, 36m

Channel Times (usec)

Ch	Start	End	Center	Ch	Start	End	Center	Ch	Start	End	Center
PP	-198	-99	-149	1	50	58	54	2	58	72	65
3	72	86	79	4	86	104	94	5	104	126	115
6	126	153	140	7	153	185	169	8	185	225	205
9	225	270	248	10	270	328	299	11	328	396	362
12	396	482	439	13	482	580	531	14	580	702	641
15	702	850	776	16	850	1026	938	17	1026	1242	1134
18	1242	1498	1370	19	1498	1813	1656	20	1813	2187	2000
21	2187	2646	2416	22	2646	3195	2920	23	3195	3861	3528
24	3861	4666	4264	25	4666	5634	5150	26	5634	6808	6221
27	6808	8221	7514	28	8221	9936	9078	29	9936	12000	10968
30	12000	14490	13245	31	14490	17510	16000				

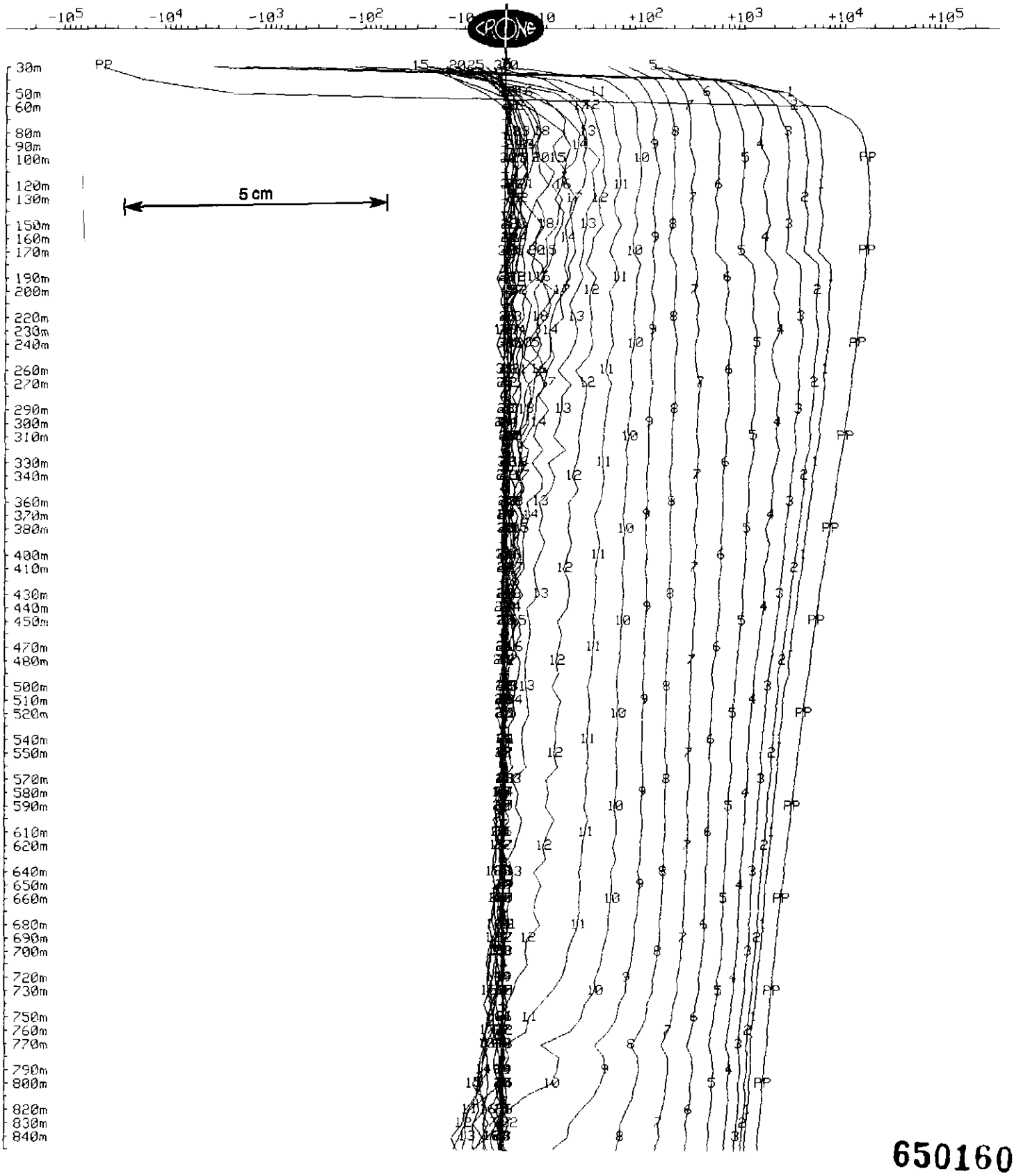
650159

OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: Goldfields Exploration	Hole	: SHD-21
Grid	: South Henty	Tx Loop	: SH1
Date	: Dec 11, 1999	File name	: SHD21Z1.PEM

Z COMPONENT dBz/dt nanoTesla/sec - 31 of 31 channels and PP

Scale: 1:4000



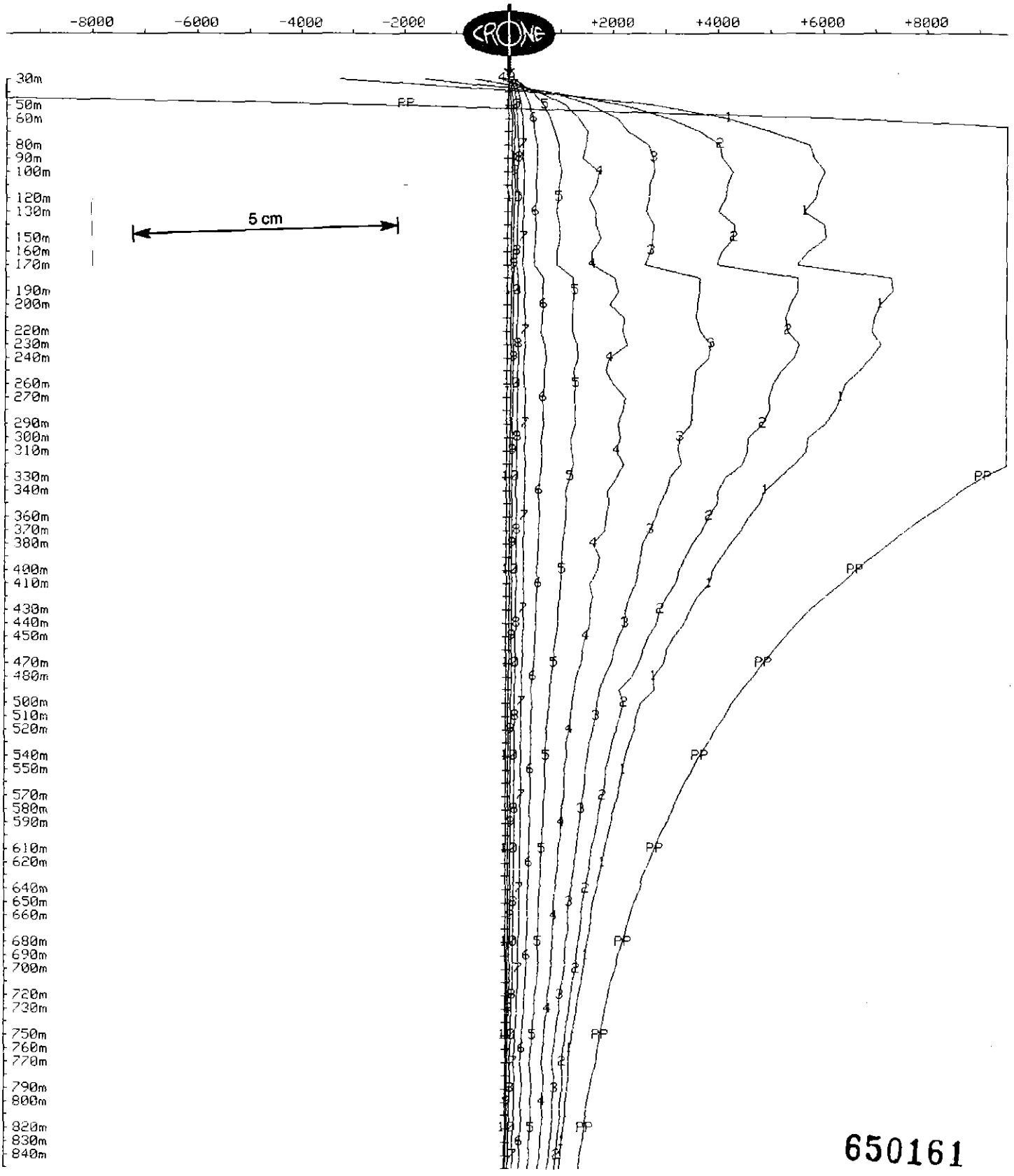
650160

OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: Goldfields Exploration	Hole	: SHD-21
Grid	: South Henty	Tx Loop	: SH1
Date	: Dec 11, 1999	File name	: SHD21Z1.PEM

Z COMPONENT dBz/dt nanoTesla/sec - 10 of 31 channels and PP

Scale: 1:4000 Unit Scale: 1cm = 1000 nT/s



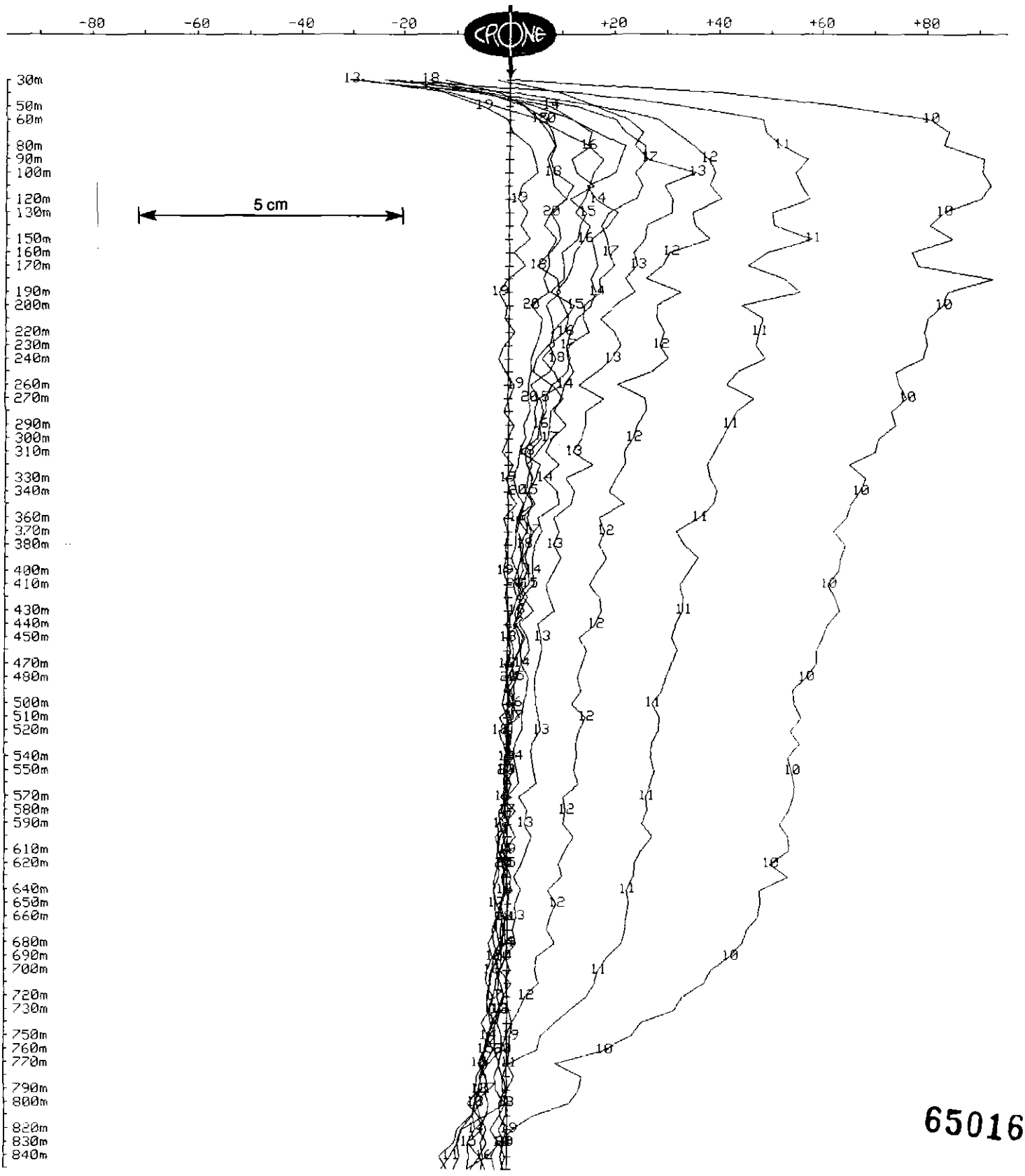
650161

OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: Goldfields Exploration	Hole	: SHD-21
Grid	: South Henty	Tx Loop	: SH1
Date	: Dec 11, 1999	File name	: SHD21Z1.PEM

Z COMPONENT dBz/dt nanoTesla/sec - 11 of 31 channels

Scale: 1:4000 Unit Scale: 1cm = 10 nT/s



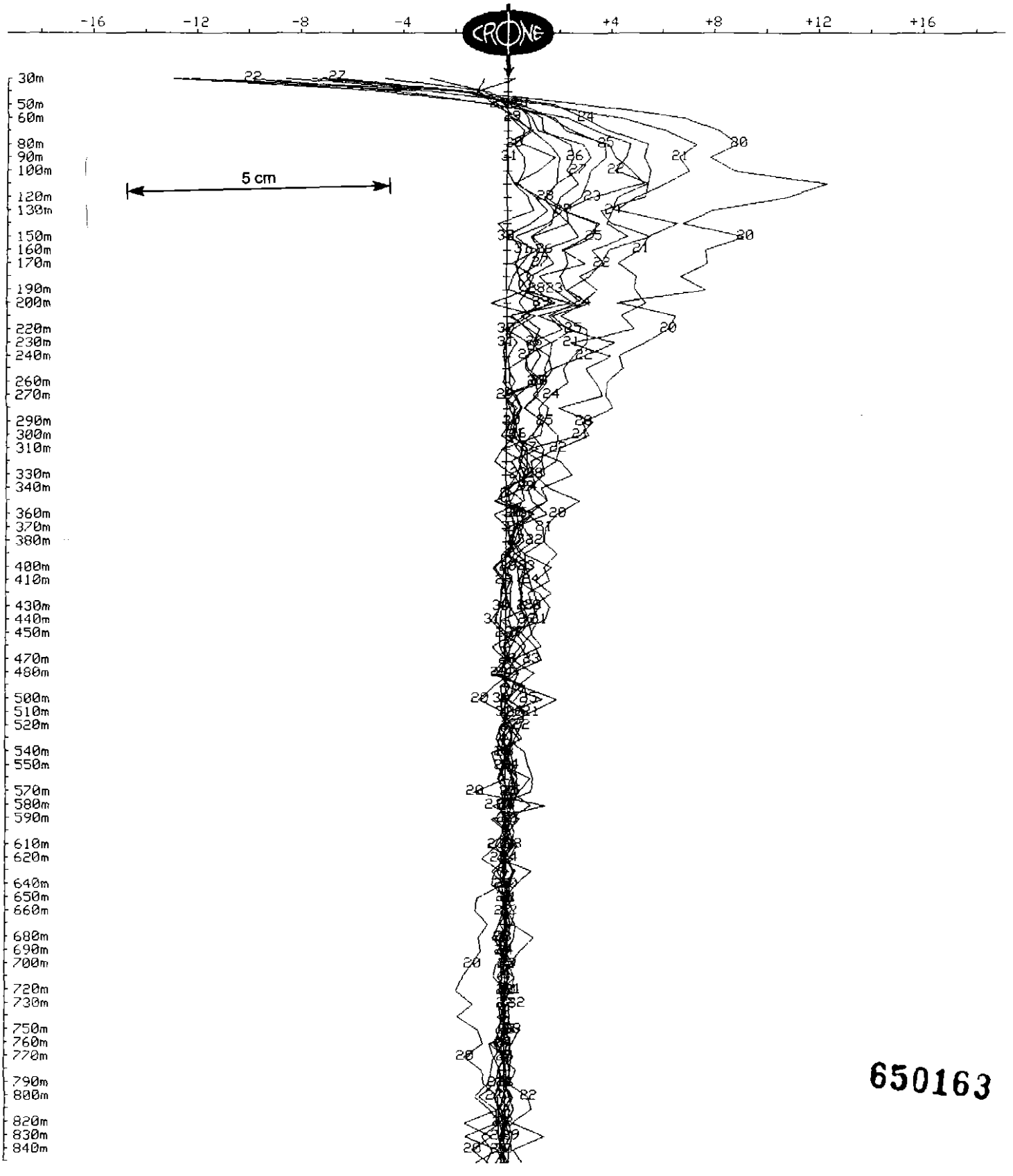
650162

OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: Goldfields Exploration	Hole	: SHD-21
Grid	: South Henty	Tx Loop	: SH1
Date	: Dec 11, 1999	File name	: SHD21Z1.PEM

Z COMPONENT dBz/dt nanoTesla/sec - 12 of 31 channels

Scale: 1:4000 Unit Scale: 1cm = 2 nT/s



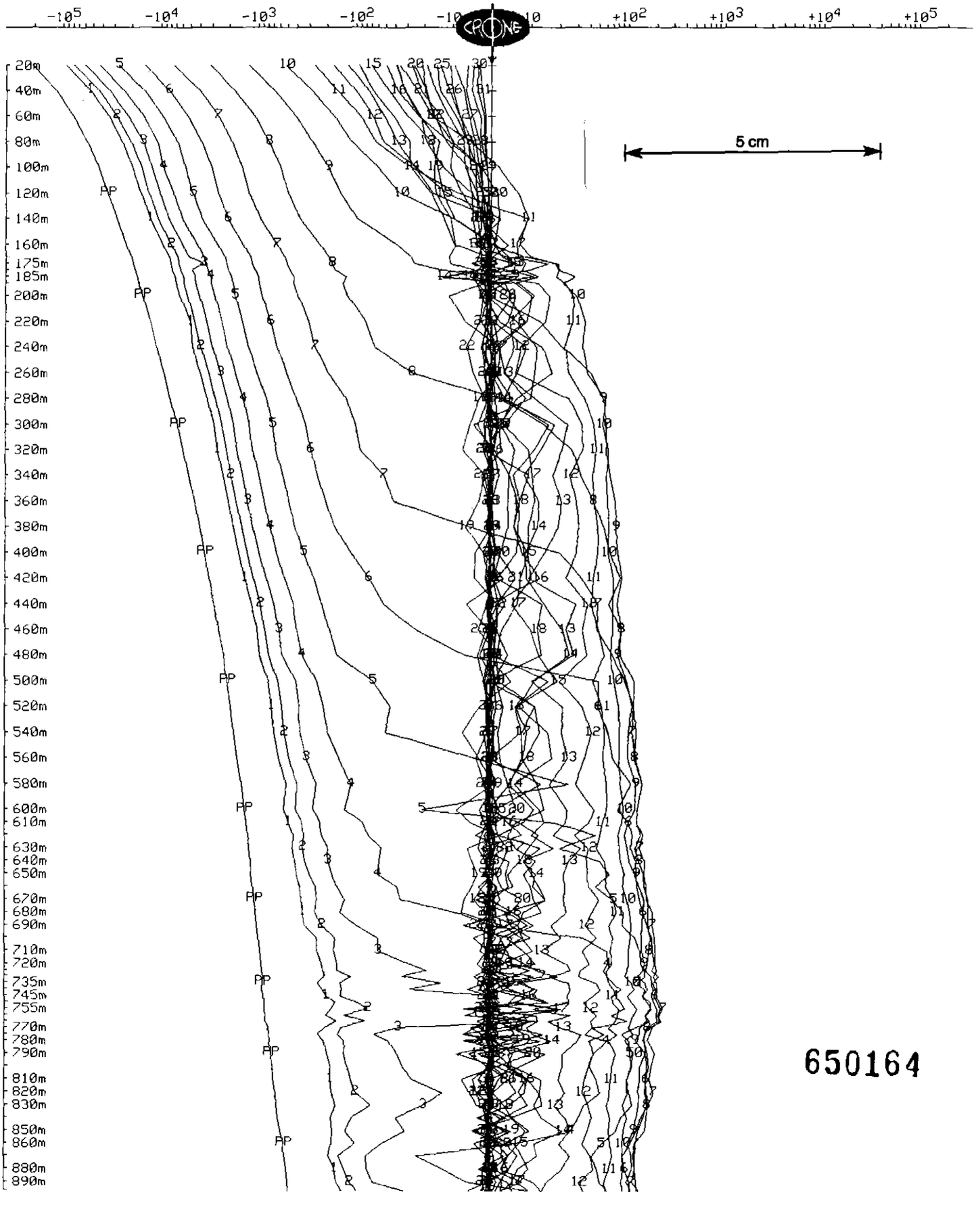
650163

OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: Goldfields Exploration	Hole	: SHD-21
Grid	: South Henty	Tx Loop	: SH1
Date	: Dec 12, 1999	File name	: SHD21XY1.PEM

Data Corrected for Probe Rotation using Orientation Tool #8
X COMPONENT dBx/dt nanoTesla/sec - 31 of 31 channels and PP

Scale: 1:4000



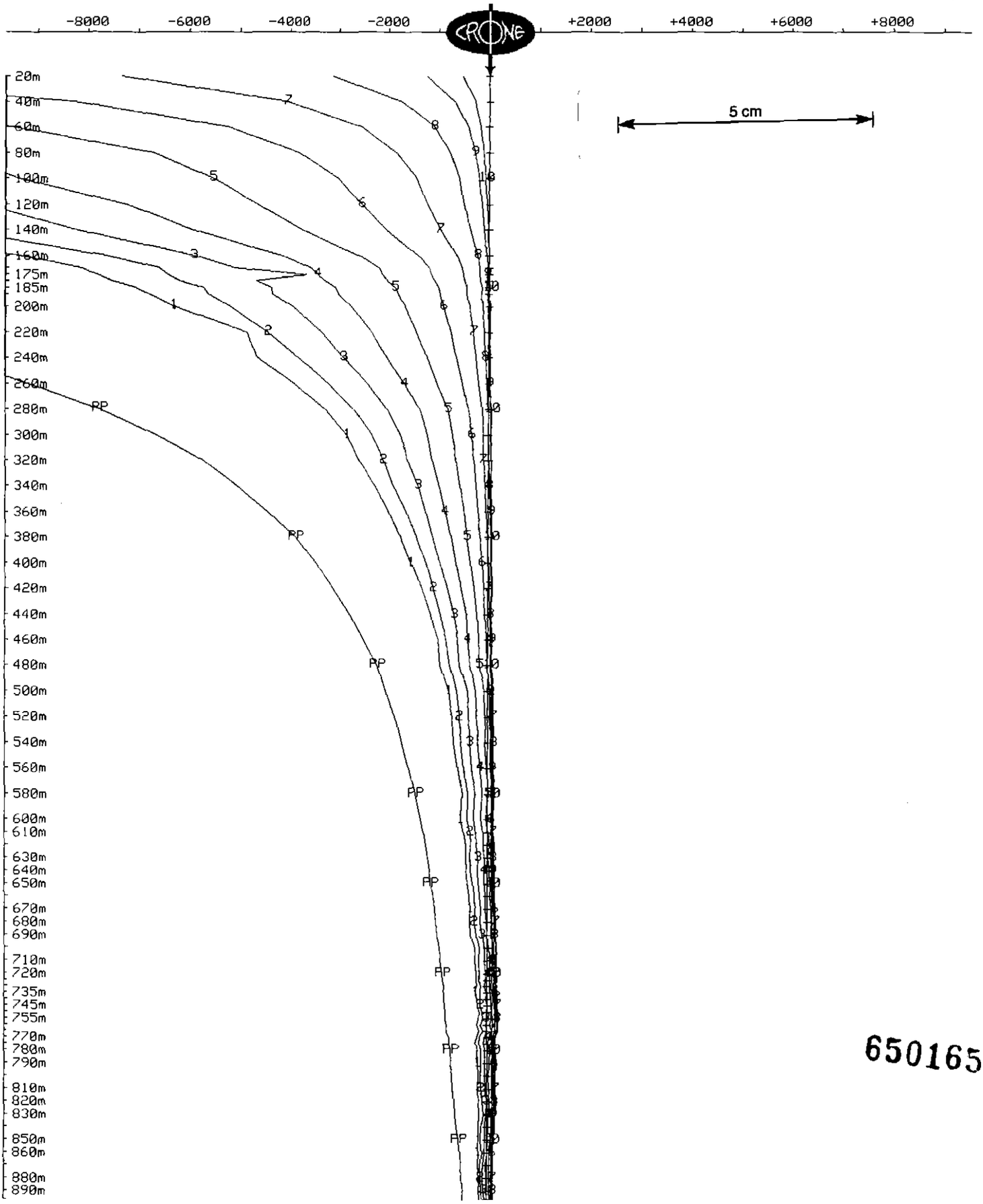
650164

OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: Goldfields Exploration	Hole	: SHD-21
Grid	: South Henty	Tx Loop	: SH1
Date	: Dec 12, 1999	File name	: SHD21XY1.PEM

Data Corrected for Probe Rotation using Orientation Tool #8
X COMPONENT dBx/dt nanoTesla/sec - 10 of 31 channels and PP

Scale: 1:4000 Unit Scale: 1cm = 1000 nT/s



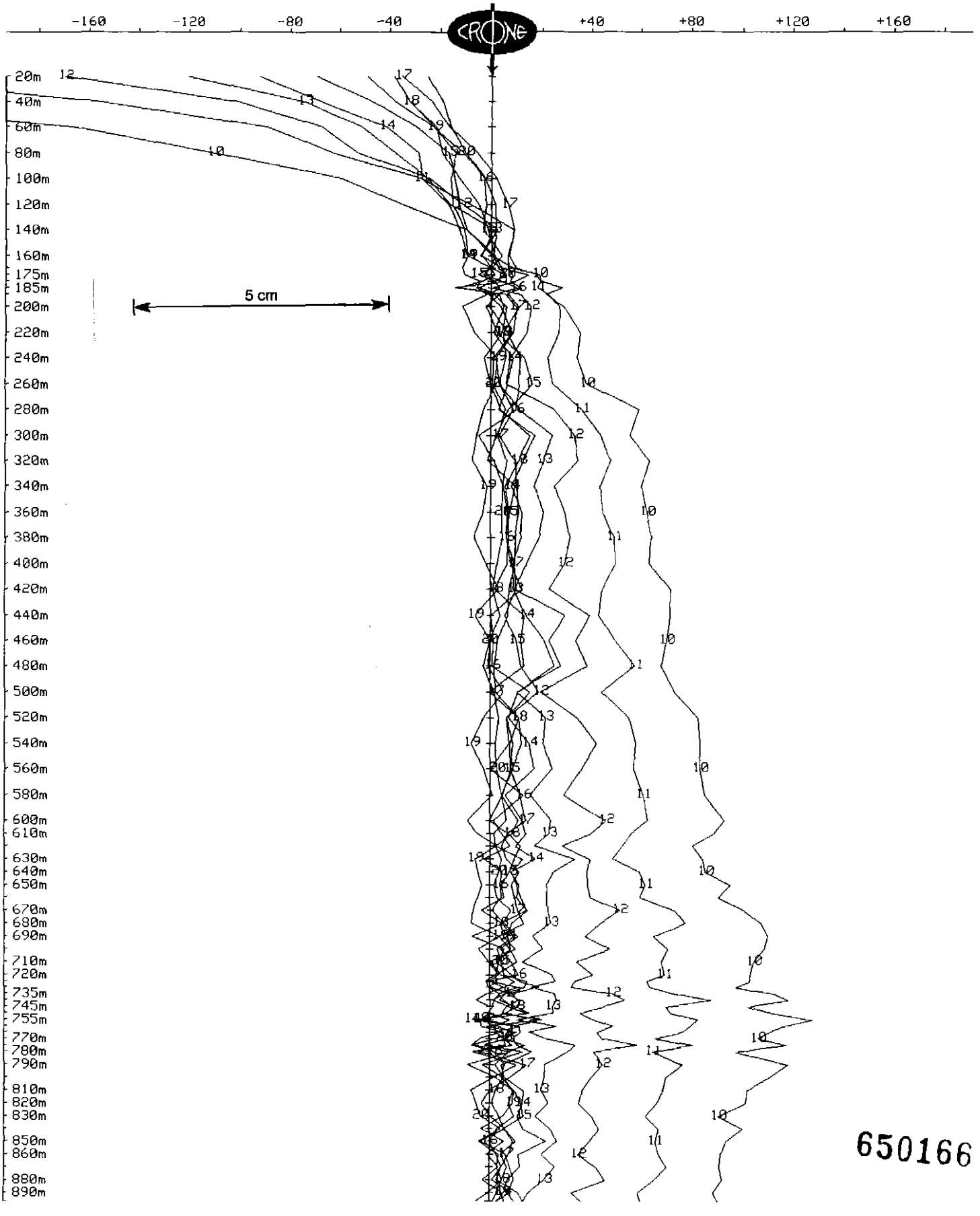
650165

OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: Goldfields Exploration	Hole	: SHD-21
Grid	: South Henty	Tx Loop	: SH1
Date	: Dec 12, 1999	File name	: SHD21XY1.PEM

Data Corrected for Probe Rotation using Orientation Tool #8
X COMPONENT dBx/dt nanoTesla/sec - 11 of 31 channels

Scale: 1:4000 Unit Scale: 1cm = 20 nT/s



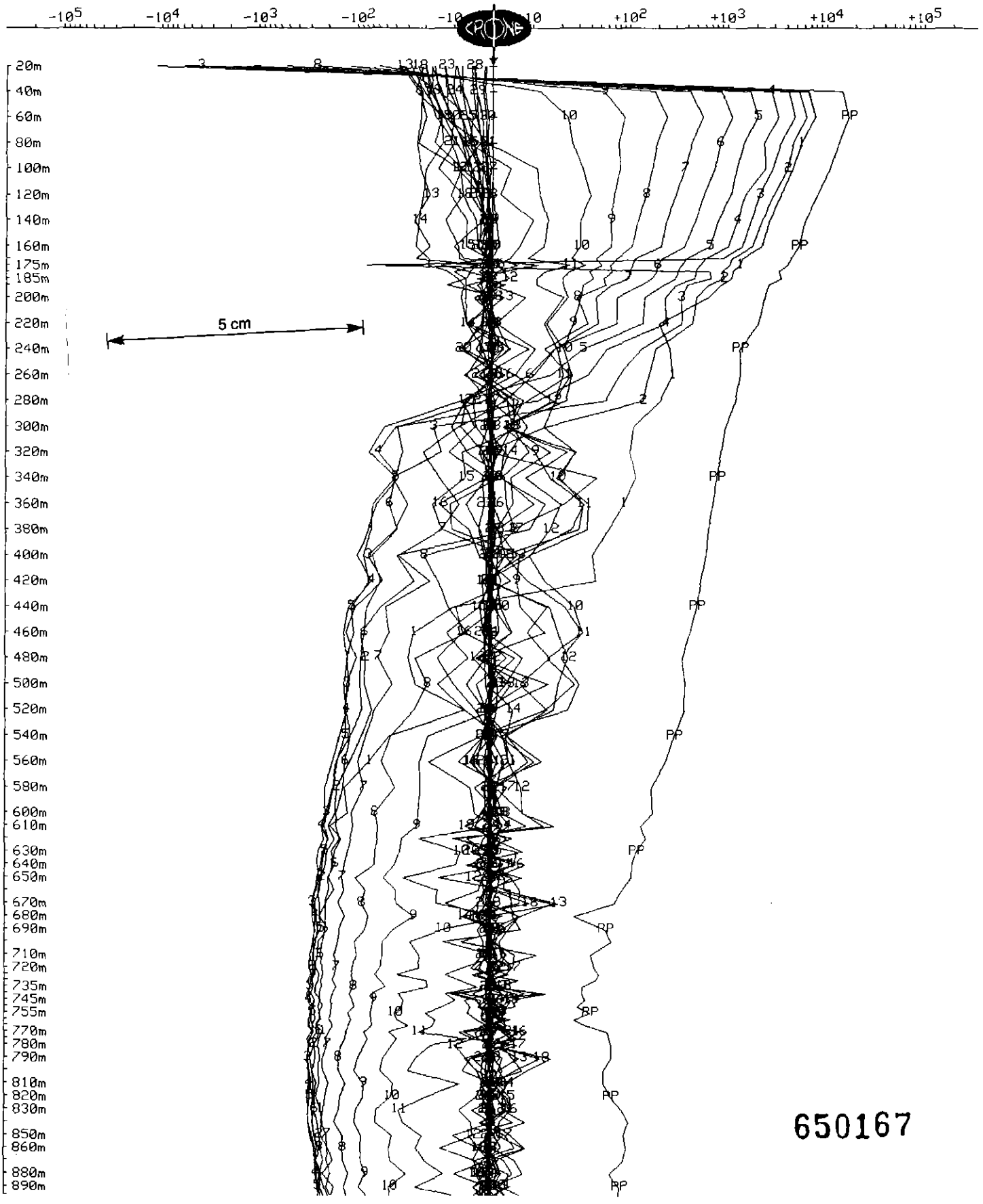
650166

OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: Goldfields Exploration	Hole	: SHD-21
Grid	: South Henty	Tx Loop	: SH1
Date	: Dec 12, 1999	File name	: SHD21XY1.PEM

Data Corrected for Probe Rotation using Orientation Tool #8
Y COMPONENT dBy/dt nanoTesla/sec - 31 of 31 channels and PP

Scale: 1:4000



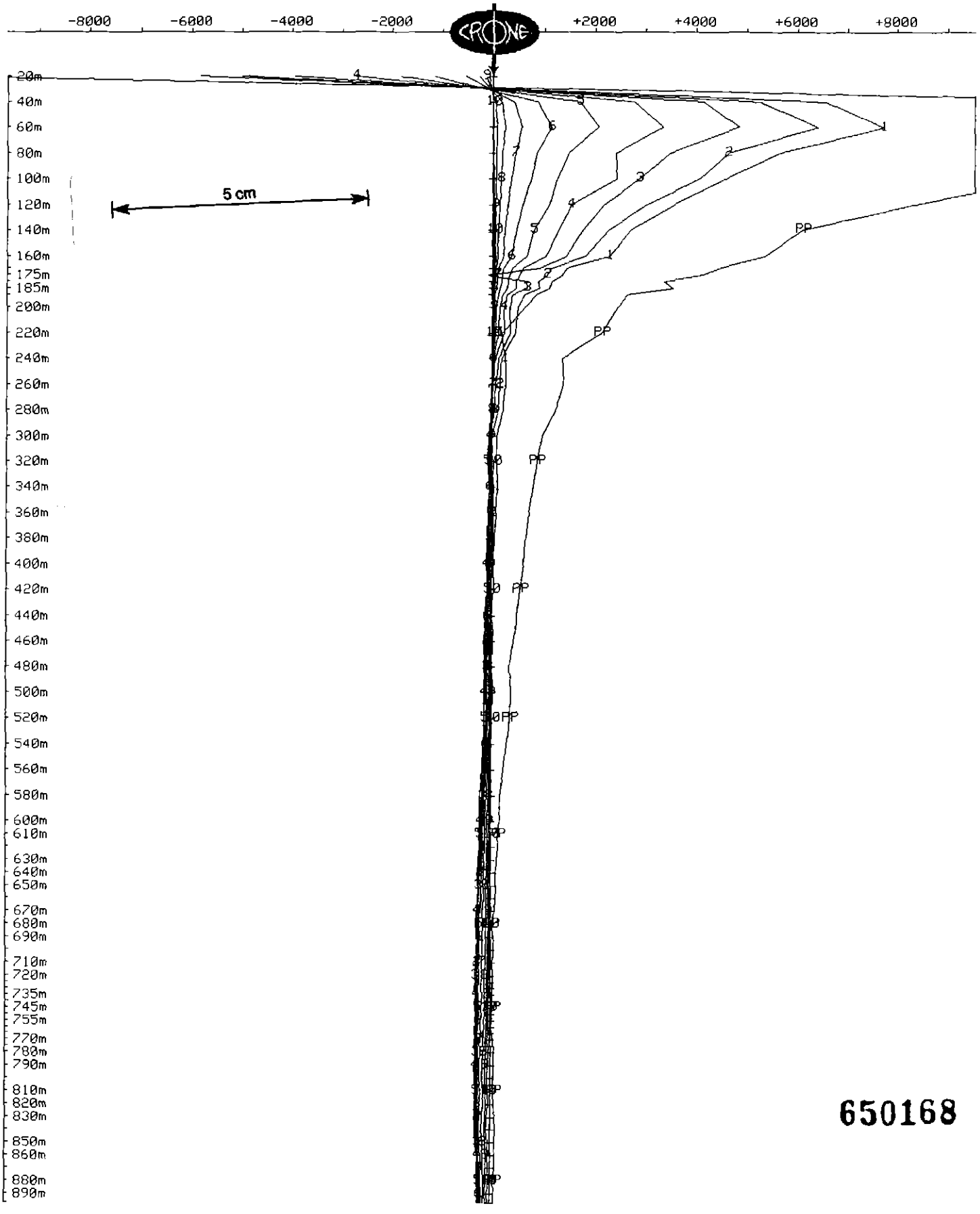
650167

OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: Goldfields Exploration	Hole	: SHD-21
Grid	: South Henty	Tx Loop	: SH1
Date	: Dec 12, 1999	File name	: SHD21XY1.PEM

Data Corrected for Probe Rotation using Orientation Tool #8
Y COMPONENT dBy/dt nanoTesla/sec - 10 of 31 channels and PP

Scale: 1:4000 Unit Scale: 1cm = 1000 nT/s



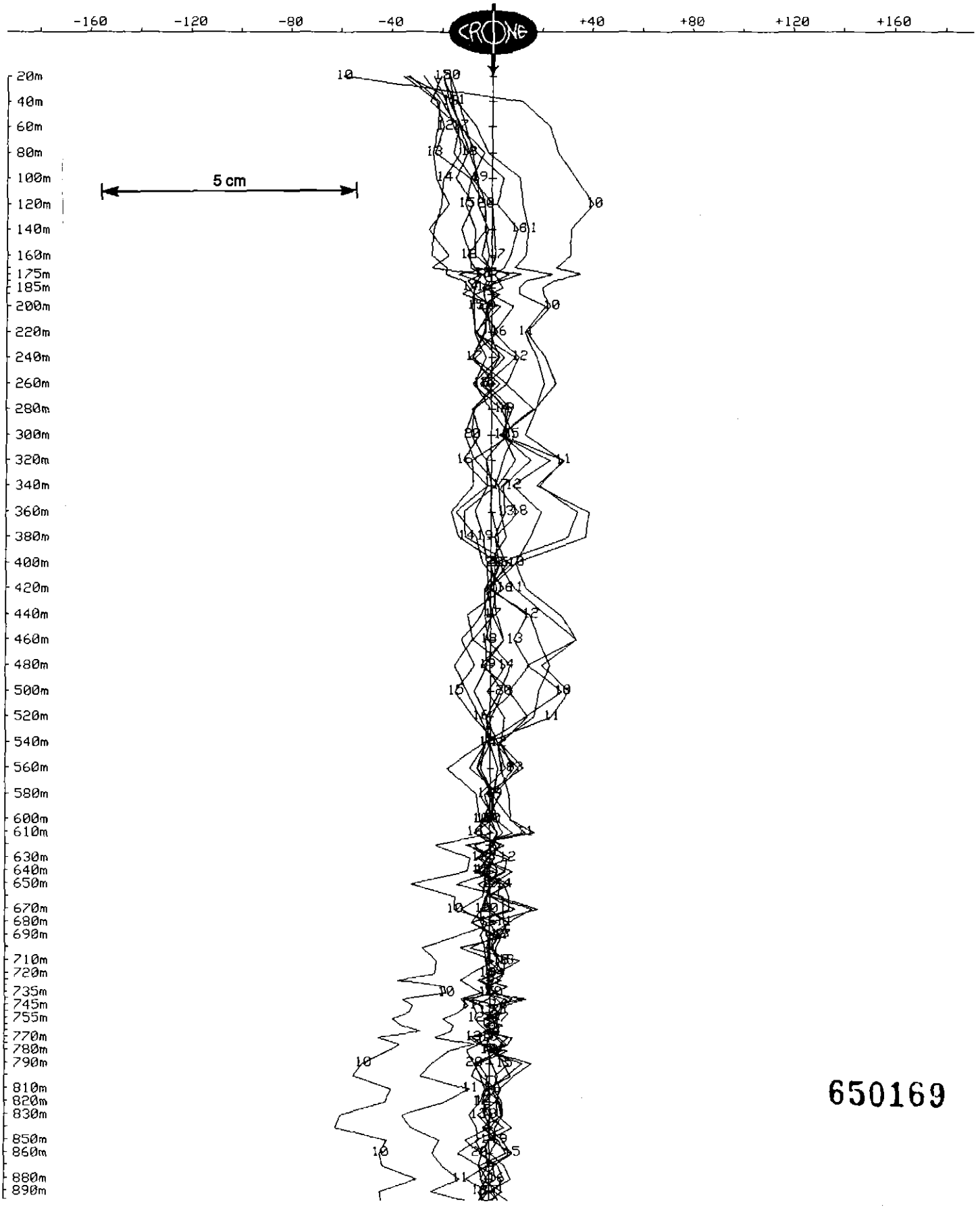
650168

OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: Goldfields Exploration	Hole	: SHD-21
Grid	: South Henty	Tx Loop	: SH1
Date	: Dec 12, 1999	File name	: SHD21XY1.PEM

Data Corrected for Probe Rotation using Orientation Tool #8
Y COMPONENT dBy/dt nanoTesla/sec - 11 of 31 channels

Scale: 1:4000 Unit Scale: 1cm = 20 nT/s



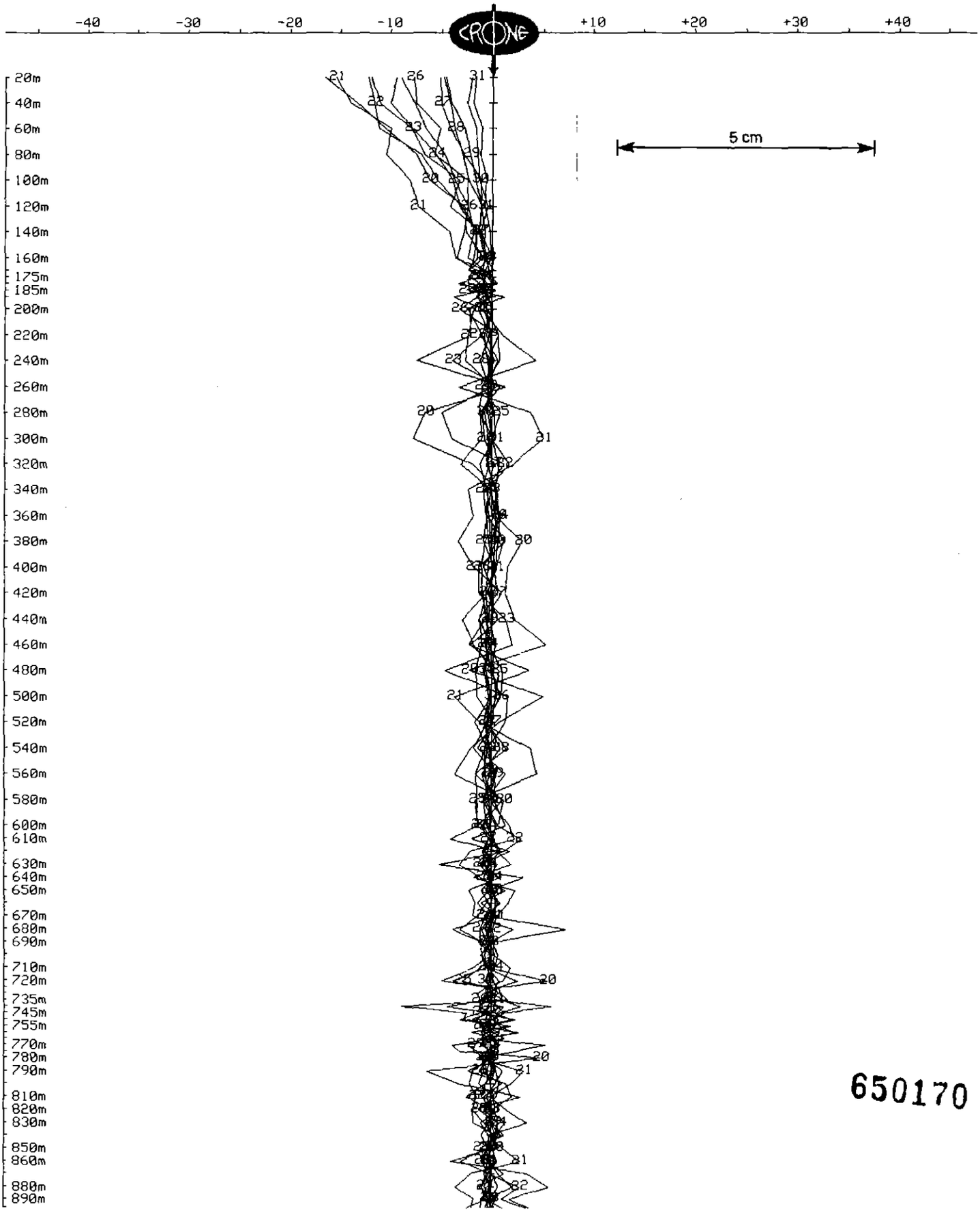
650169

OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: Goldfields Exploration	Hole	: SHD-21
Grid	: South Henty	Tx Loop	: SH1
Date	: Dec 12, 1999	File name	: SHD21XY1.PEM

Data Corrected for Probe Rotation using Orientation Tool #8
Y COMPONENT dBy/dt nanoTesla/sec - 12 of 31 channels

Scale: 1:4000 Unit Scale: 1cm = 5 nT/s



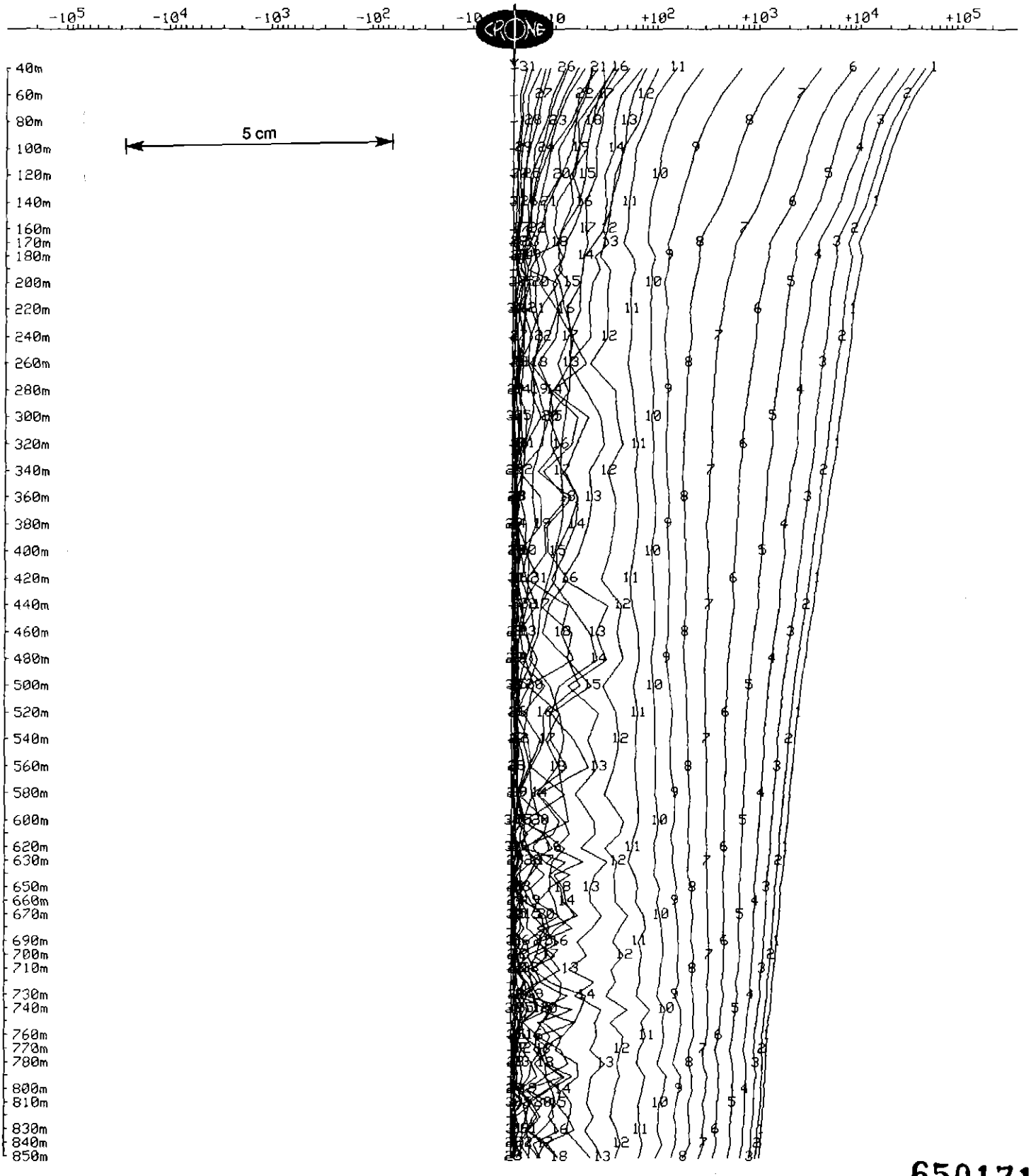
650170

OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: Goldfields Exploration	Hole	: SHD-21
Grid	: South Henty	Tx Loop	: SH1
Date	: Dec 12, 1999	File name	: S21XYZ1.PEM

TOTAL FIELD dBxyz/dt nanoTesla/sec - 31 of 31 channels

Scale: 1:4000



650171

OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: Goldfields Exploration	Hole	: SHD-21
Grid	: South Henty	Tx Loop	: #2
Date	: Jan 26, 2000	File name	: SHD21Z2.PEM
Time Base	: 20.00 ms	# Readings	: 85
Ramp Time	: 0.50 ms	Stn Units	: Metric
# Channels	: 31	Coil Area	: 6500 sq m
Sync Type	: Crystal-MASTER	Polarity	: -
Loop Size	: 500m X 600m	Receiver	: Digital #105
Current	: 12 Amps	Operator	: Brett Rankin

Loop Coordinates (X,Y,Z)

1. 380000m, 5.3592e+06m, 0m
2. 380170m, 5.35875e+06m, 0m
3. 380600m, 5.3587e+06m, 0m
4. 380600m, 5.35905e+06m, 0m
5. 380515m, 5.3592e+06m, 0m
6. 380000m, 5.3592e+06m, 0m

Hole Coordinates (X,Y,Z) or (Azimuth,Dip,Length)

1. 380890m, 5.35889e+06m, 0m
2. 270deg, 73.8deg, 30m
3. 270deg, 72.8deg, 60m
4. 270deg, 71.5deg, 60m
5. 273deg, 66.5deg, 60m
6. 275deg, 62.8deg, 50m
7. 272deg, 58deg, 50m
8. 271deg, 54.5deg, 55m
9. 271deg, 50.5deg, 55m
10. 270deg, 47.4deg, 60m
11. 269deg, 44deg, 60m
12. 268deg, 41.5deg, 70m
13. 271deg, 37.5deg, 75m
14. 273deg, 33.1deg, 65m
15. 275deg, 29deg, 70m
16. 276deg, 25deg, 65m
17. 275deg, 20deg, 36m

Channel Times (usec)

Ch	Start	End	Center	Ch	Start	End	Center	Ch	Start	End	Center
PP	-198	-99	-149	1	50	58	54	2	58	72	65
3	72	86	79	4	86	104	94	5	104	126	115
6	126	153	140	7	153	185	169	8	185	225	205
9	225	270	248	10	270	328	299	11	328	396	362
12	396	482	439	13	482	580	531	14	580	702	641
15	702	850	776	16	850	1026	938	17	1026	1242	1134
18	1242	1498	1370	19	1498	1813	1656	20	1813	2187	2000
21	2187	2646	2416	22	2646	3195	2920	23	3195	3861	3528
24	3861	4666	4264	25	4666	5634	5150	26	5634	6808	6221
27	6808	8221	7514	28	8221	9936	9078	29	9936	12000	10968
30	12000	14490	13245	31	14490	17510	16000				

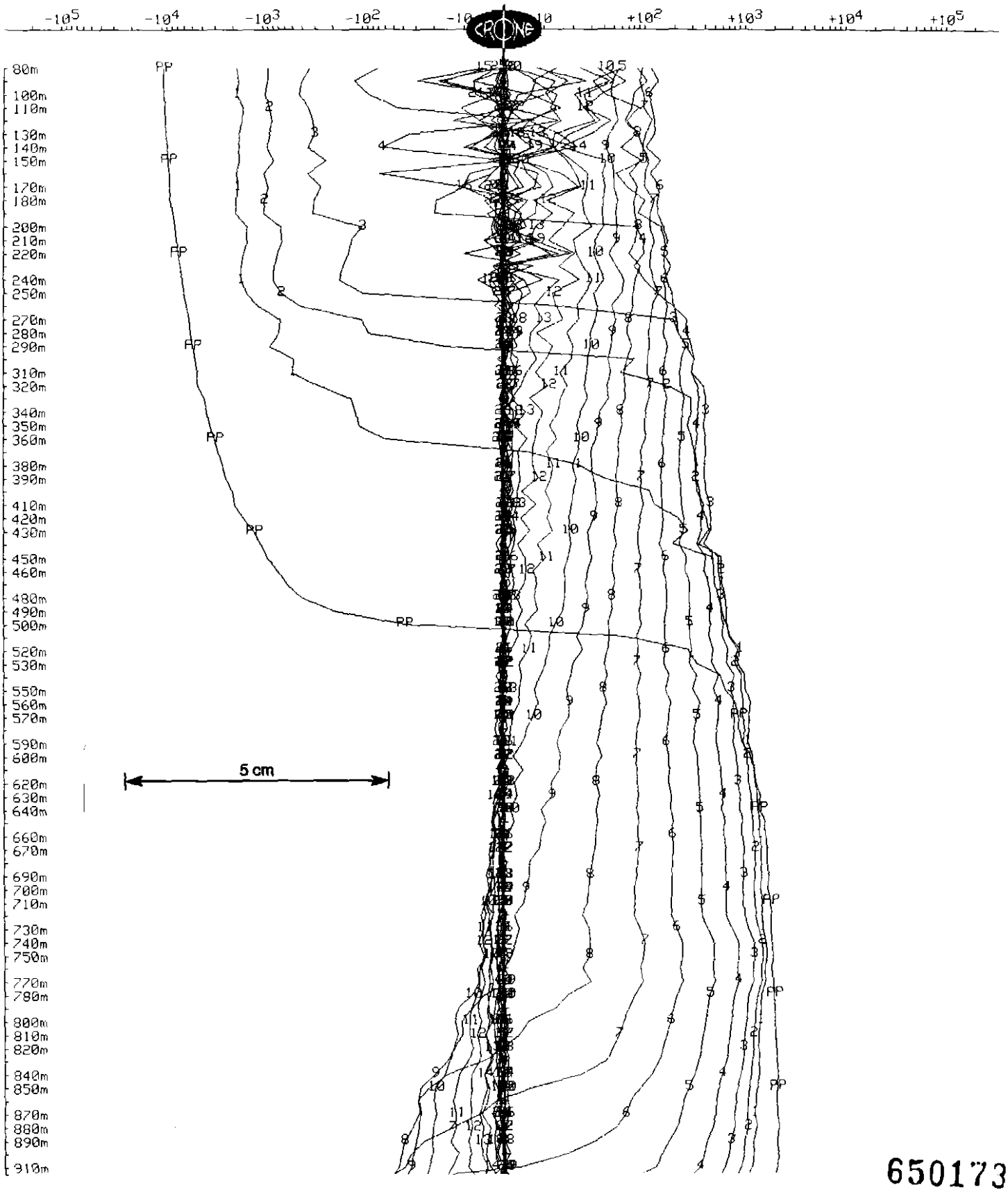
650172

OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: Goldfields Exploration	Hole	: SHD-21
Grid	: South Henty	Tx Loop	: #2
Date	: Jan 26, 2000	File name	: SHD21Z2.PEM

Z COMPONENT dBz/dt nanoTesla/sec - 31 of 31 channels and PP

Scale: 1:4000



650173

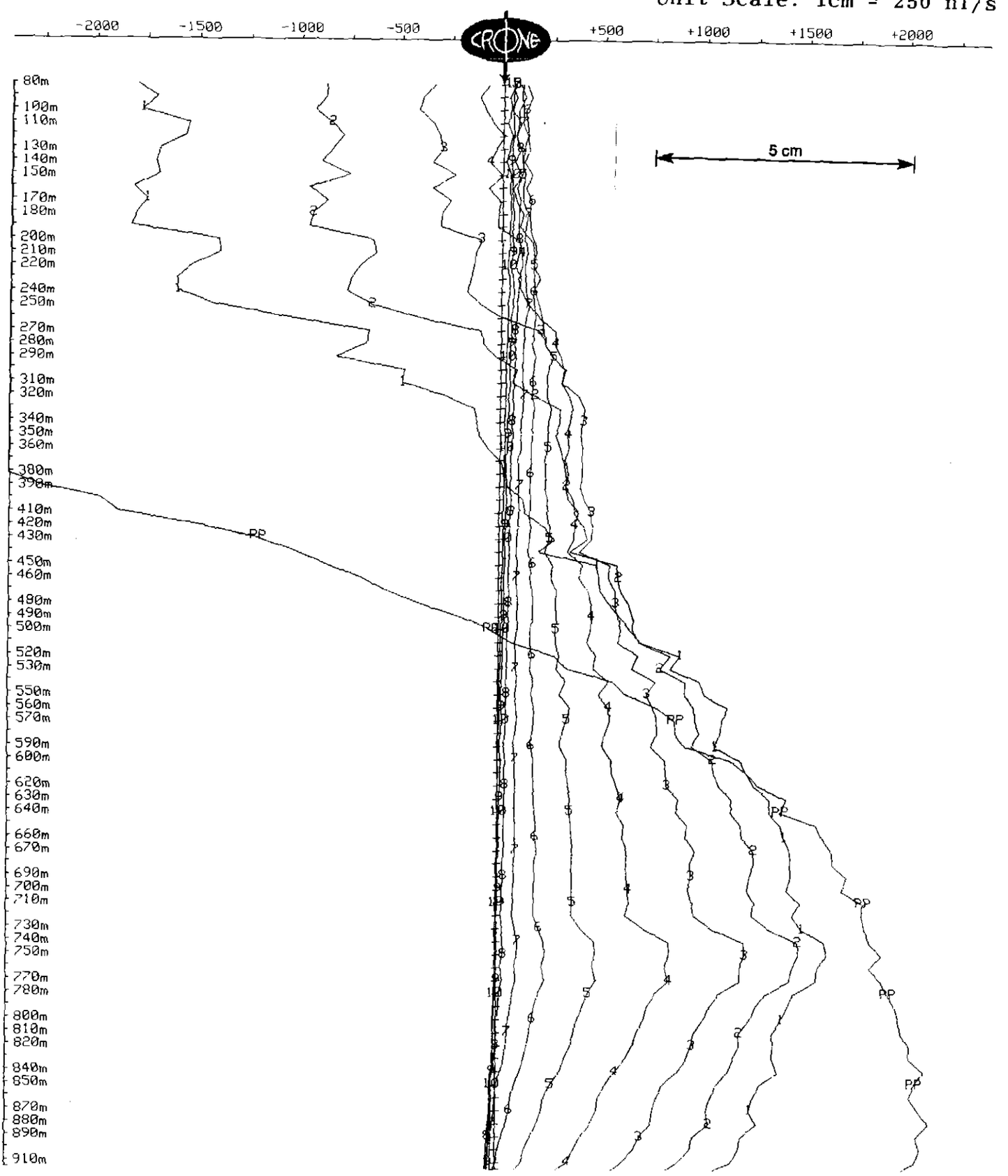
OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: Goldfields Exploration	Hole	: SHD-21
Grid	: South Henty	Tx Loop	: #2
Date	: Jan 26, 2000	File name	: SHD21Z2.PEM

Z COMPONENT dBz/dt nanoTesla/sec - 10 of 31 channels and PP

Scale: 1:4000

Unit Scale: 1cm = 250 nT/s



650174

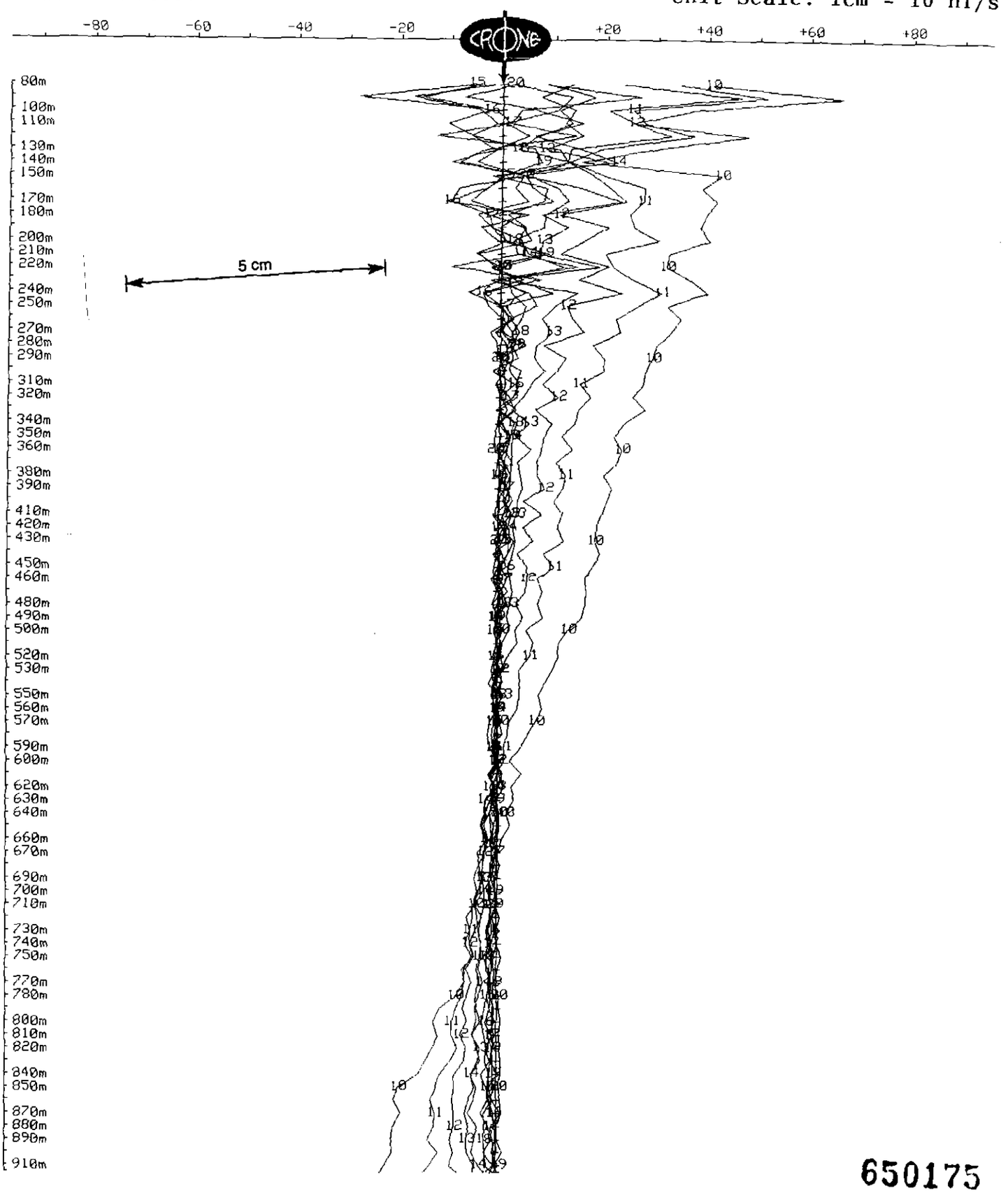
OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: Goldfields Exploration	Hole	: SHD-21
Grid	: South Henty	Tx Loop	: #2
Date	: Jan 26, 2000	File name	: SHD21Z2.PEM

Z COMPONENT dBz/dt nanoTesla/sec - 11 of 31 channels

Scale: 1:4000

Unit Scale: 1cm = 10 nT/s



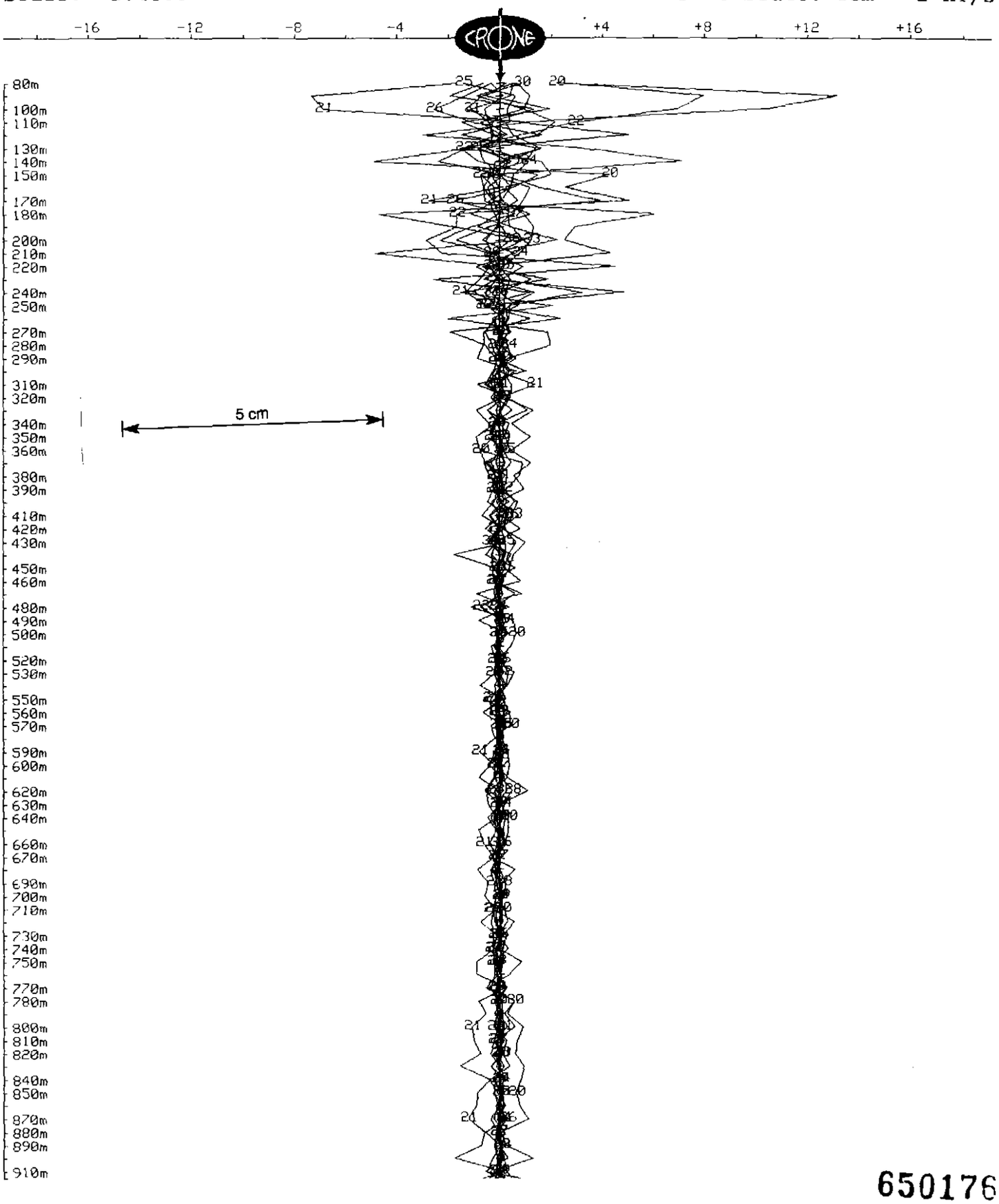
650175

OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: Goldfields Exploration	Hole	: SHD-21
Grid	: South Henty	Tx Loop	: #2
Date	: Jan 26, 2000	File name	: SHD21Z2.PEM

Z COMPONENT dBz/dt nanoTesla/sec - 12 of 31 channels

Scale: 1:4000 Unit Scale: 1cm = 2 nT/s



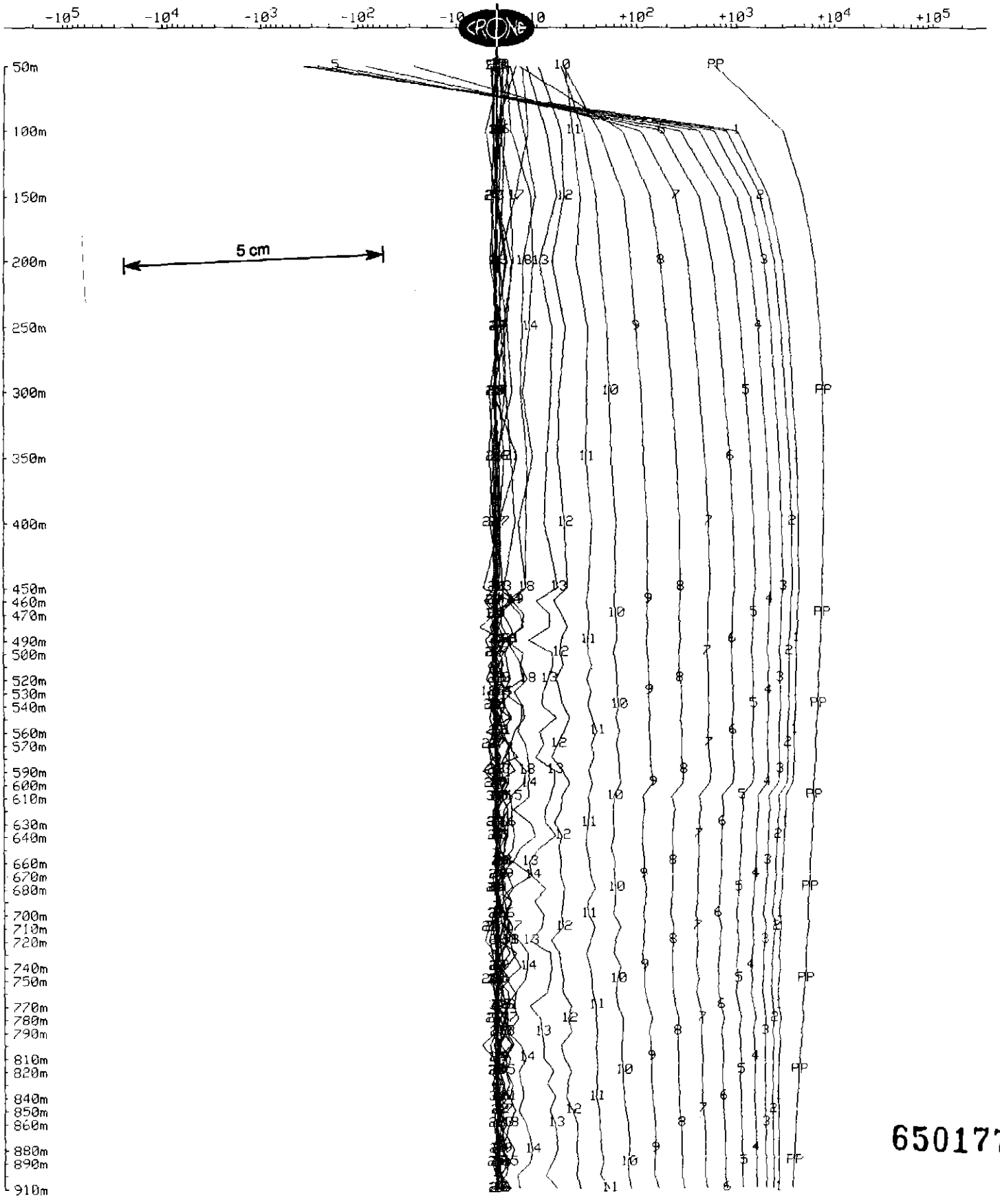
650176

OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: Goldfields Exploration	Hole	: SHD-21
Grid	: South Henty	Tx Loop	: #2
Date	: Jan 30, 2000	File name	: SHD21XY2.PEM

Data Corrected for Probe Rotation using Orientation Tool #8
X COMPONENT dBx/dt nanoTesla/sec - 31 of 31 channels and PP

Scale: 1:4000



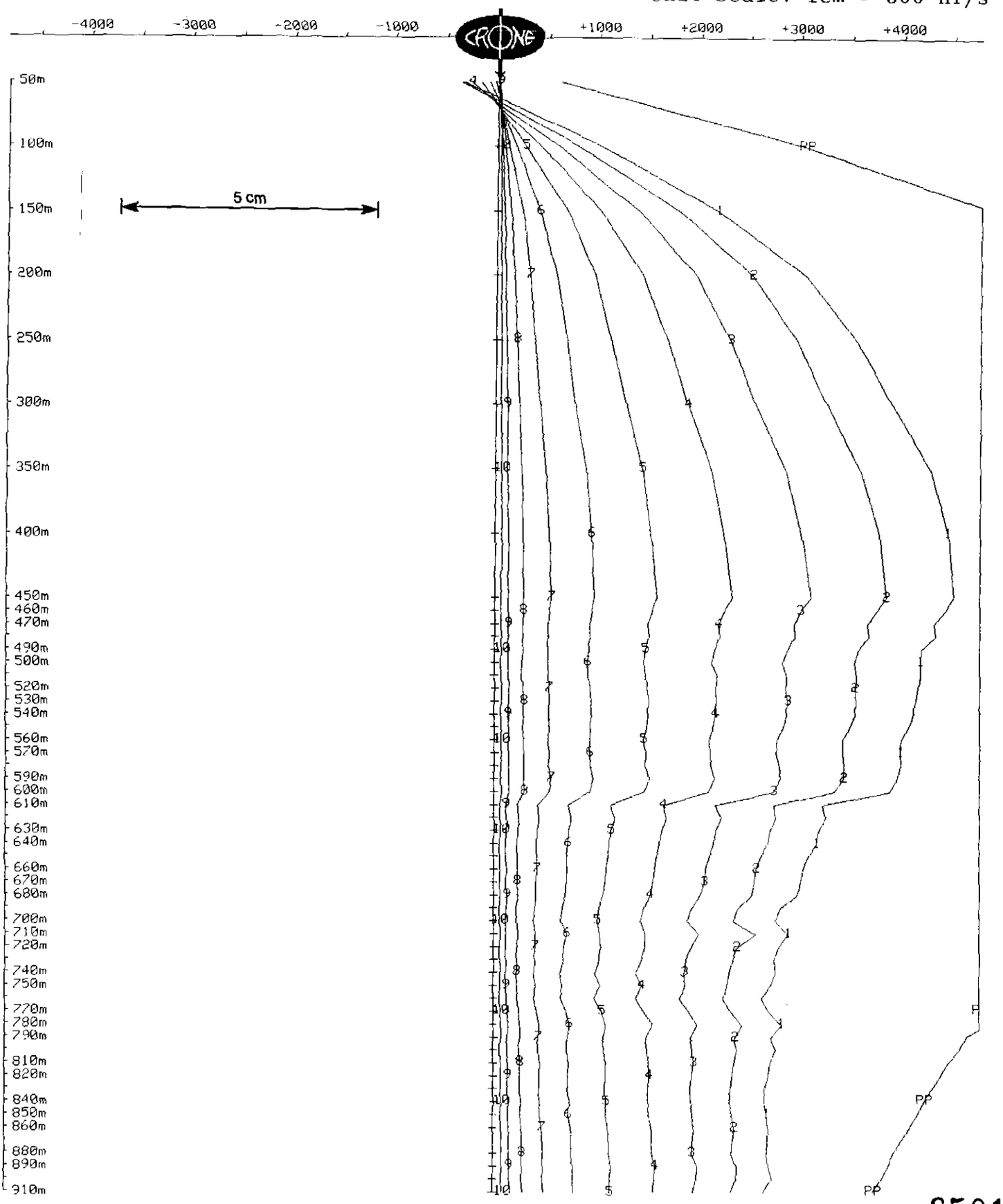
650177

OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: Goldfields Exploration	Hole	: SHD-21
Grid	: South Henty	Tx Loop	: #2
Date	: Jan 30, 2000	File name	: SHD21XY2.PEM

Data Corrected for Probe Rotation using Orientation Tool #8
X COMPONENT dBx/dt nanoTesla/sec - 10 of 31 channels and PP

Scale: 1:4000 Unit Scale: 1cm = 500 nT/s



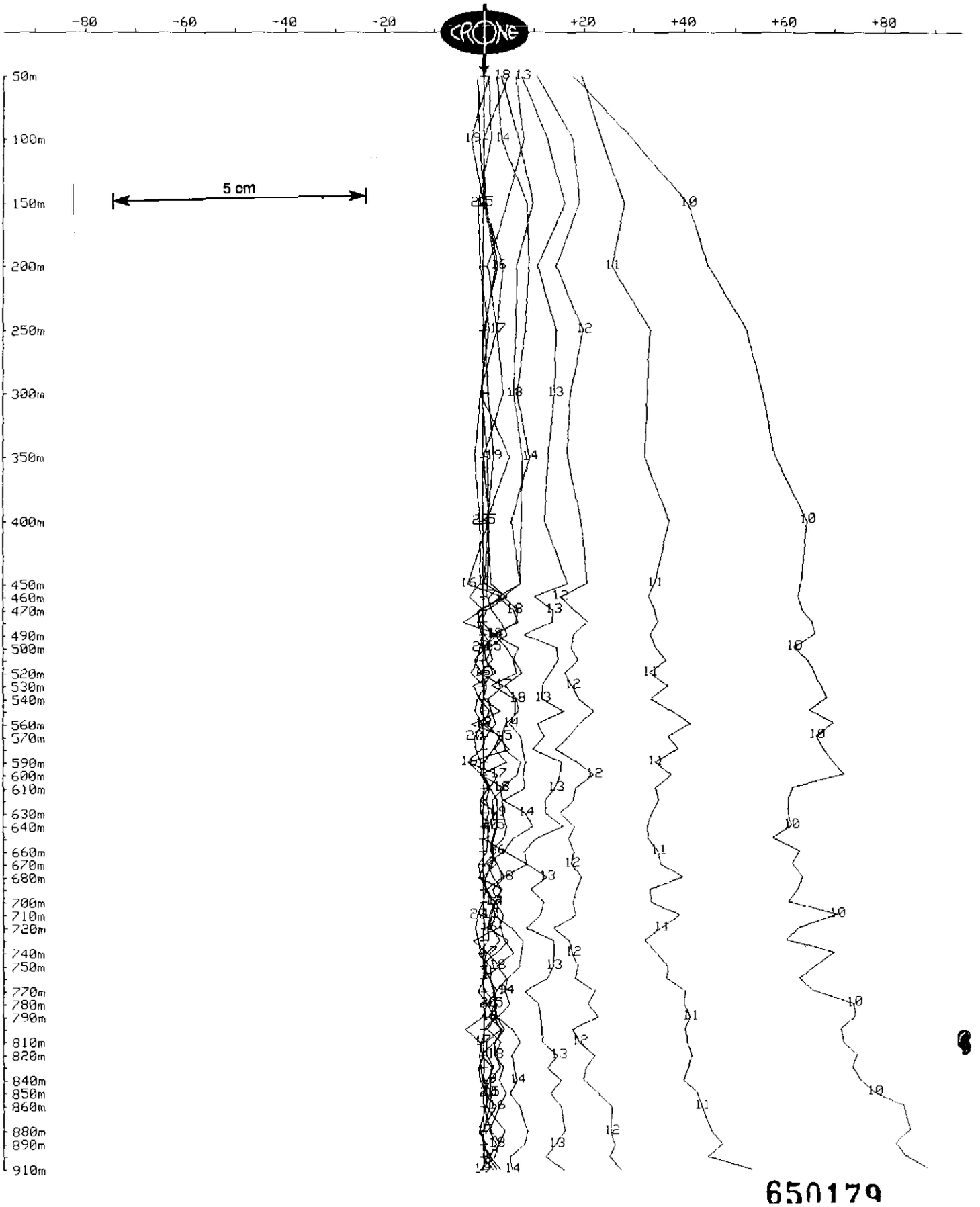
65017

OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: Goldfields Exploration	Hole	: SHD-21
Grid	: South Henty	Tx Loop	: #2
Date	: Jan 30, 2000	File name	: SHD21XY2.PEM

Data Corrected for Probe Rotation using Orientation Tool #8
X COMPONENT dBx/dt nanoTesla/sec - 11 of 31 channels

Scale: 1:4000 Unit Scale: 1cm = 10 nT/s



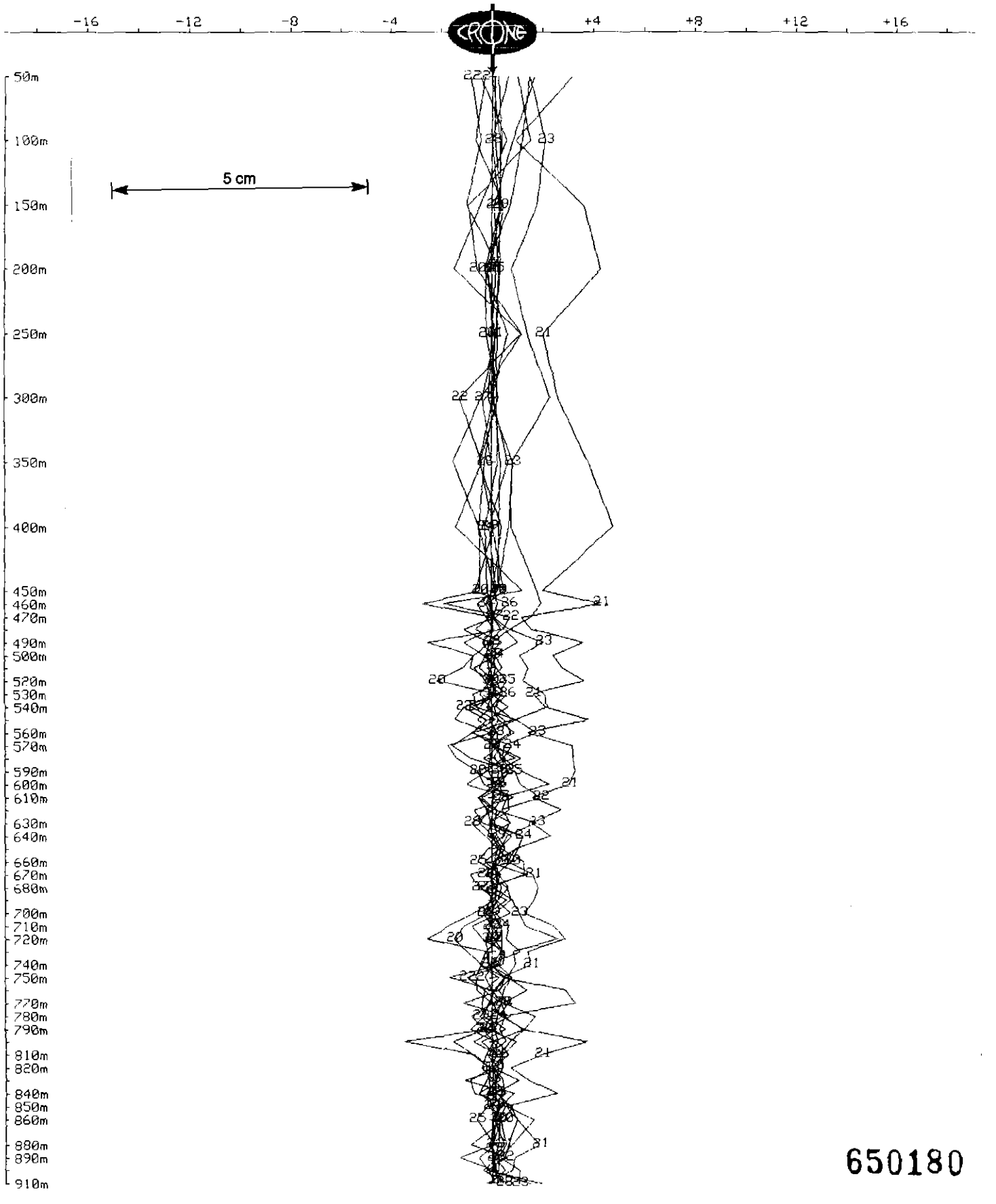
650179

OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: Goldfields Exploration	Hole	: SHD-21
Grid	: South Henty	Tx Loop	: #2
Date	: Jan 30, 2000	File name	: SHD21XY2.PEM

Data Corrected for Probe Rotation using Orientation Tool #8
X COMPONENT dBx/dt nanoTesla/sec - 12 of 31 channels

Scale: 1:4000 Unit Scale: 1cm = 2 nT/s



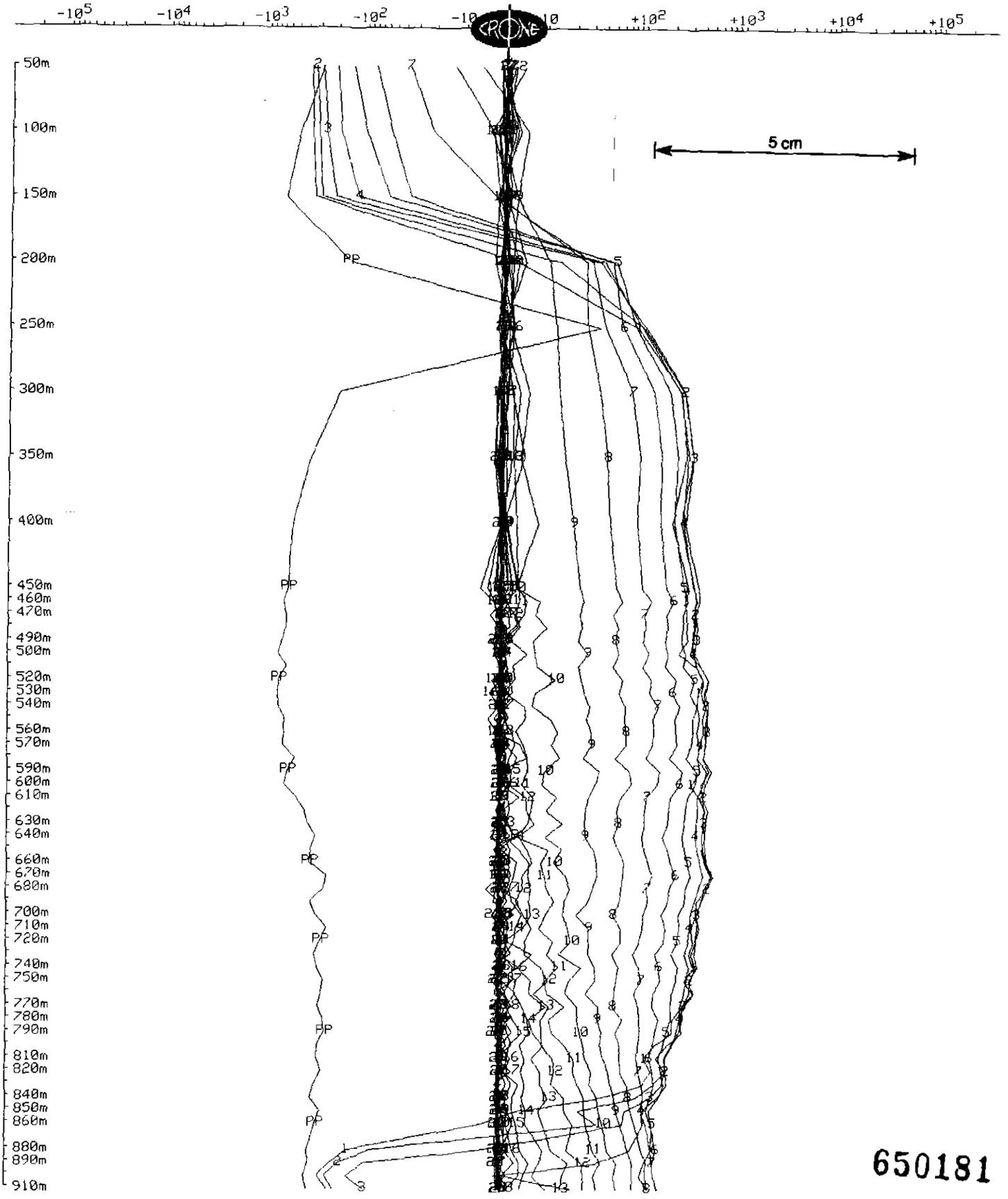
650180

OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: Goldfields Exploration	Hole	: SHD-21
Grid	: South Henty	Tx Loop	: #2
Date	: Jan 30, 2000	File name	: SHD21XY2.PEM

Data Corrected for Probe Rotation using Orientation Tool #8
Y COMPONENT dBy/dt nanoTesla/sec - 31 of 31 channels and PP

Scale: 1:4000



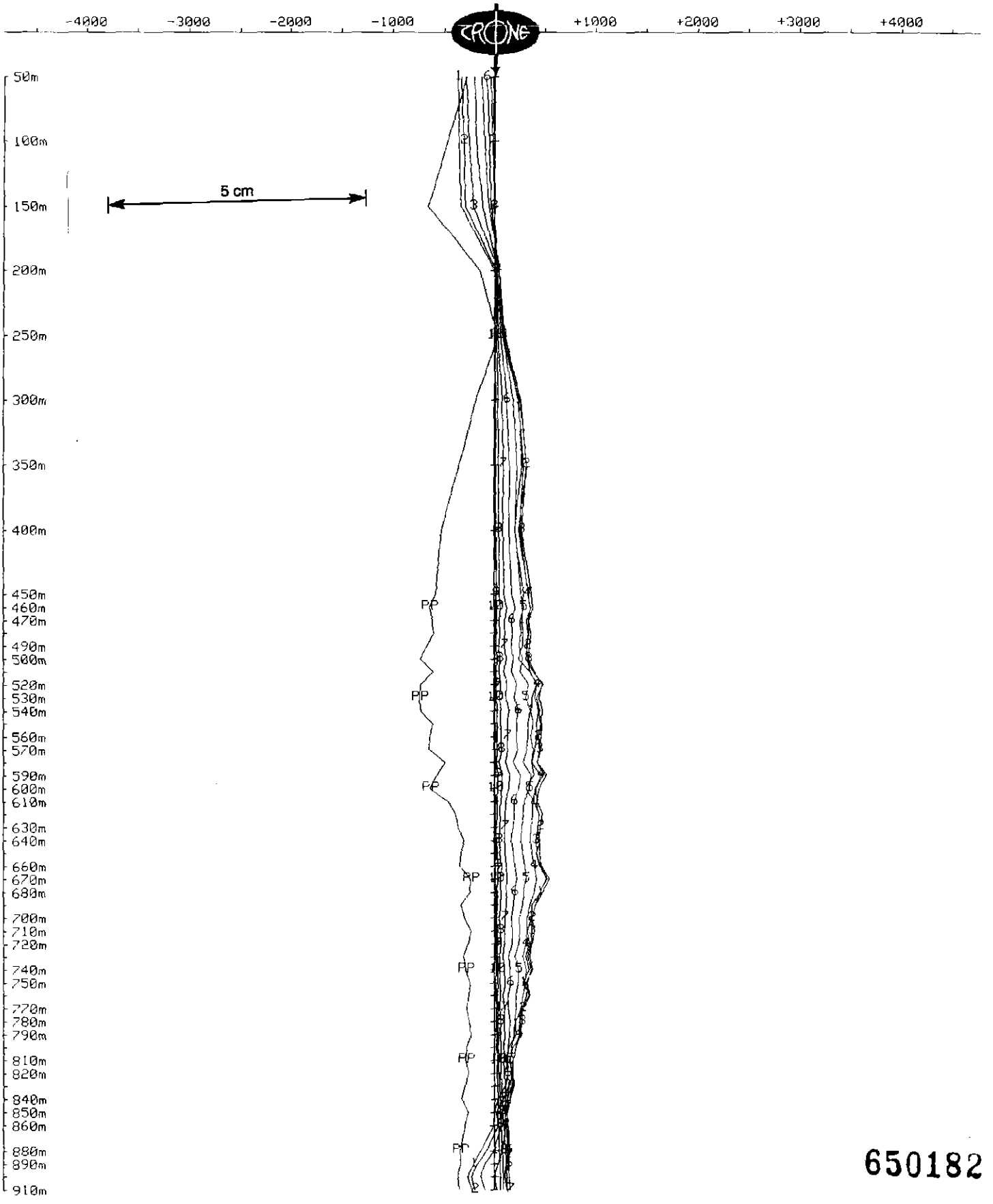
650181

OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: **Goldfields Exploration**	Hole	: **SHD-21**
Grid	: **South Henty**	Tx Loop	: **#2**
Date	: Jan 30, 2000	File name	: SHD21XY2.PEM

Data Corrected for Probe Rotation using Orientation Tool #8
Y COMPONENT dBy/dt nanoTesla/sec - 10 of 31 channels and PP

Scale: 1:4000 Unit Scale: 1cm = 500 nT/s



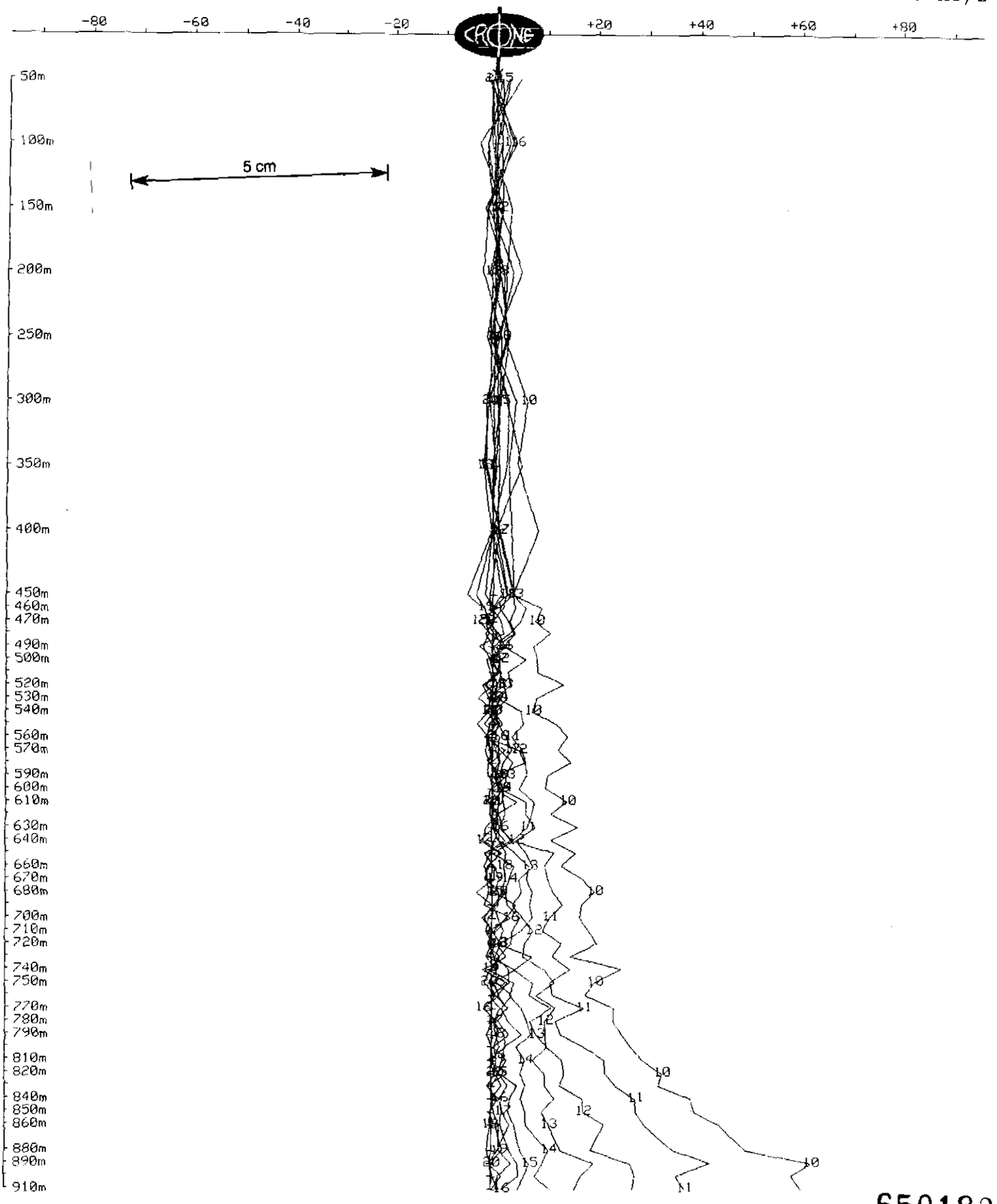
650182

OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: Goldfields Exploration	Hole	: SHD-21
Grid	: South Henty	Tx Loop	: #2
Date	: Jan 30, 2000	File name	: SHD21XY2.PEM

Data Corrected for Probe Rotation using Orientation Tool #8
Y COMPONENT dBy/dt nanoTesla/sec - 11 of 31 channels

Scale: 1:4000 Unit Scale: 1cm = 10 nT/s



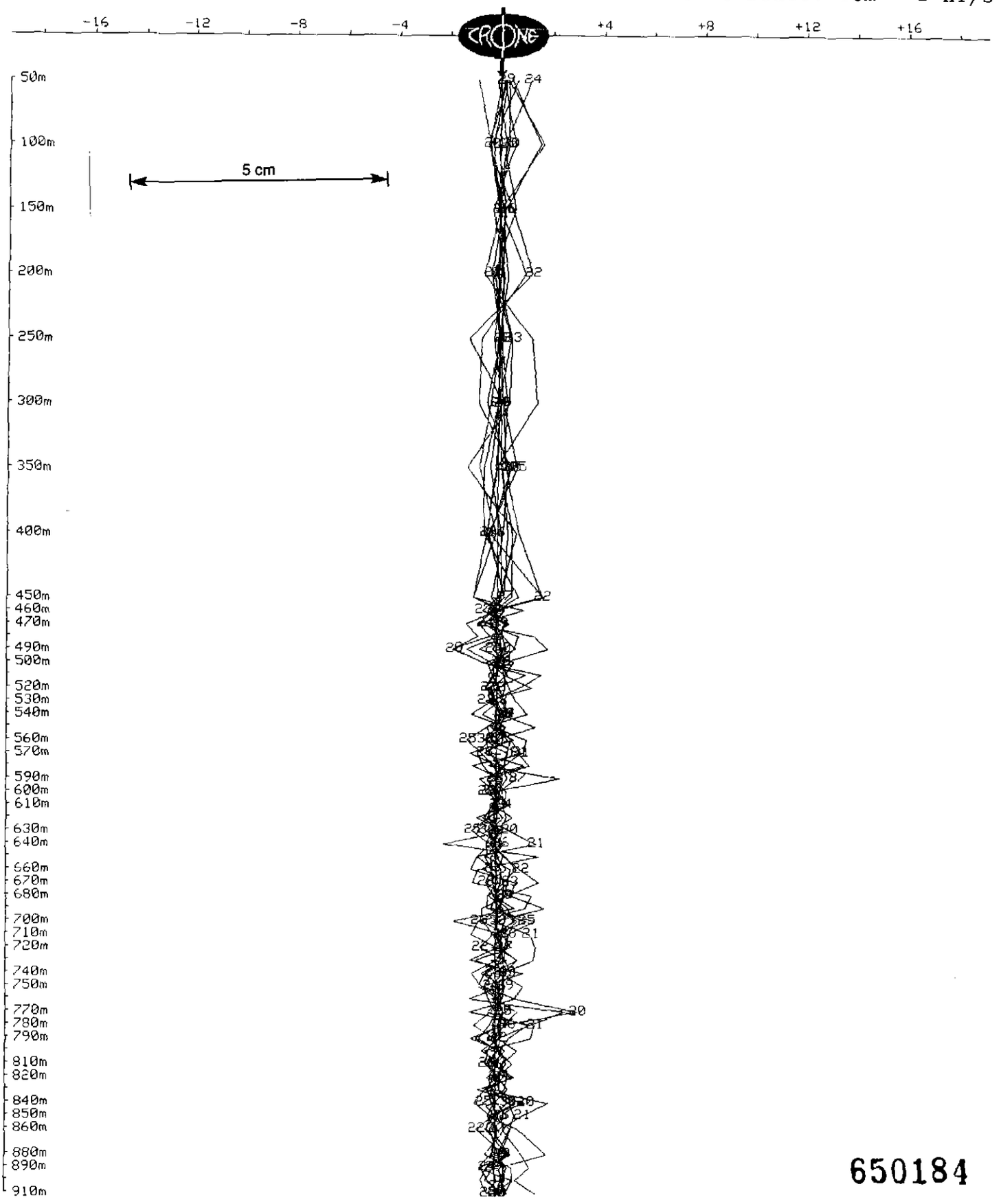
650183

OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: Goldfields Exploration	Hole	: SHD-21
Grid	: South Henty	Tx Loop	: #2
Date	: Jan 30, 2000	File name	: SHD21XY2.PEM

Data Corrected for Probe Rotation using Orientation Tool #8
Y COMPONENT dBy/dt nanoTesla/sec - 12 of 31 channels

Scale: 1:4000 Unit Scale: 1cm = 2 nT/s



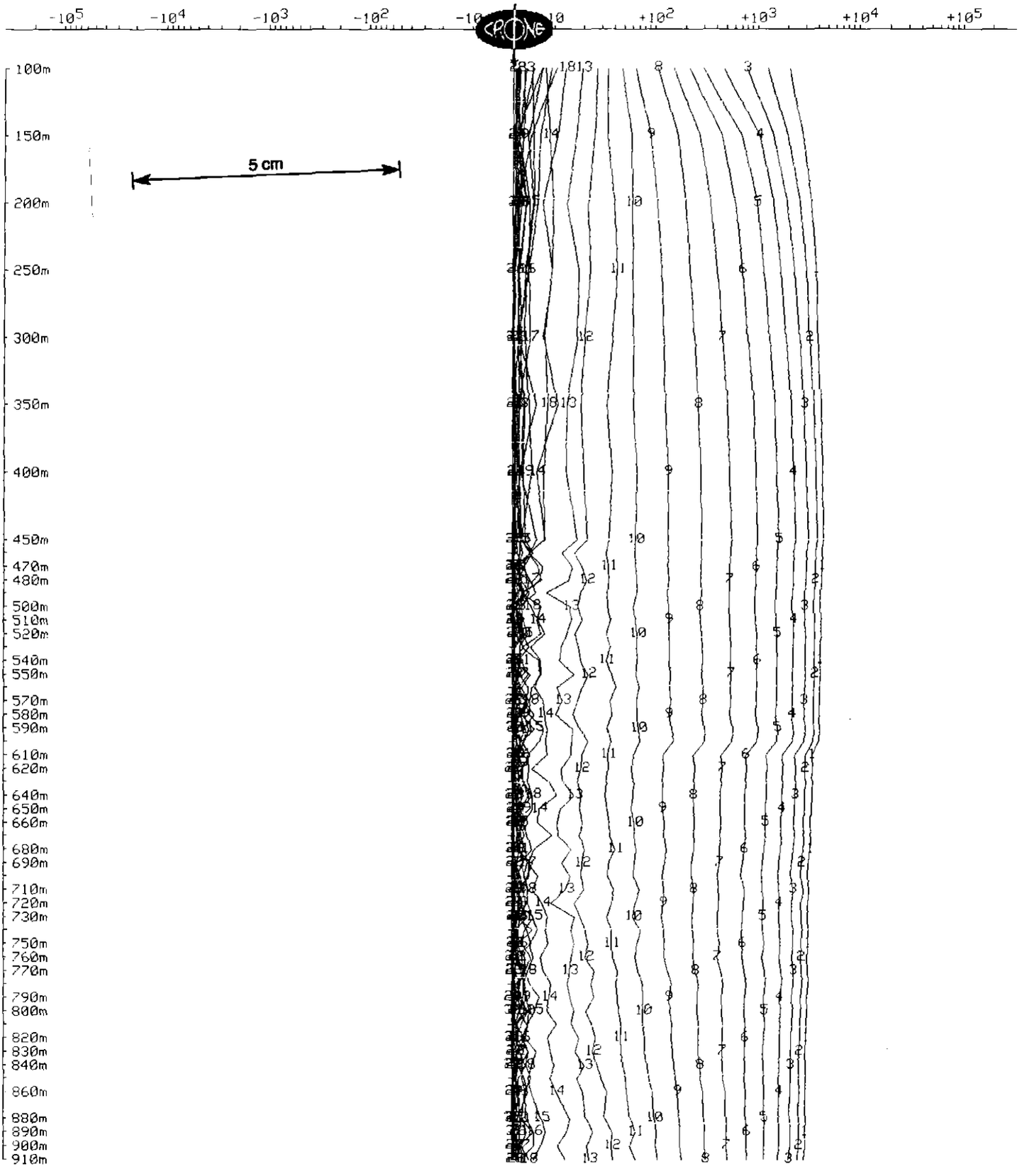
650184

OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: Goldfields Exploration	Hole	: SHD-21
Grid	: South Henty	Tx Loop	: #2
Date	: Jan 30, 2000	File name	: S21XYZ2.PEM

TOTAL FIELD dBxyz/dt nanoTesla/sec - 31 of 31 channels

Scale: 1:4000



650185

OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: **Goldfields Exploration**	Hole	: **SHD-21**
Grid	: **South Henty**	Tx Loop	: **#9**
Date	: Jan 26, 2000	File name	: SHD21Z9.PEM
Time Base	: 20.00 ms	# Readings	: 85
Ramp Time	: 0.50 ms	Stn Units	: Metric
# Channels	: 31	Coil Area	: 6500 sq m
Sync Type	: Crystal-MASTER	Polarity	: -
Loop Size	: 500m X 600m	Receiver	: Digital #105
Current	: 12 Amps	Operator	: Brett Rankin

Loop Coordinates (X,Y,Z)

1. 379500m, 5.3584e+06m, 0m
2. 380010m, 5.3584e+06m, 0m
3. 379820m, 5.3588e+06m, 0m
4. 379500m, 5.3588e+06m, 0m

Hole Coordinates (X,Y,Z) or (Azimuth,Dip,Length)

1. 380890m, 5.35889e+06m, 0m
2. 270deg, 73.8deg, 30m
3. 270deg, 72.8deg, 60m
4. 270deg, 71.5deg, 60m
5. 273deg, 66.5deg, 60m
6. 275deg, 62.8deg, 50m
7. 272deg, 58deg, 50m
8. 271deg, 54.5deg, 55m
9. 271deg, 50.5deg, 55m
10. 270deg, 47.4deg, 60m
11. 269deg, 44deg, 60m
12. 268deg, 41.5deg, 70m
13. 271deg, 37.5deg, 75m
14. 273deg, 33.1deg, 65m
15. 275deg, 29deg, 70m
16. 276deg, 25deg, 65m
17. 275deg, 20deg, 36m

Channel Times (usec)

Ch	Start	End	Center	Ch	Start	End	Center	Ch	Start	End	Center
PP	-198	-99	-149	1	50	58	54	2	58	72	65
3	72	86	79	4	86	104	94	5	104	126	115
6	126	153	140	7	153	185	169	8	185	225	205
9	225	270	248	10	270	328	299	11	328	396	362
12	396	482	439	13	482	580	531	14	580	702	641
15	702	850	776	16	850	1026	938	17	1026	1242	1134
18	1242	1498	1370	19	1498	1813	1656	20	1813	2187	2000
21	2187	2646	2416	22	2646	3195	2920	23	3195	3861	3528
24	3861	4666	4264	25	4666	5634	5150	26	5634	6808	6221
27	6808	8221	7514	28	8221	9936	9078	29	9936	12000	10968
30	12000	14490	13245	31	14490	17510	16000				

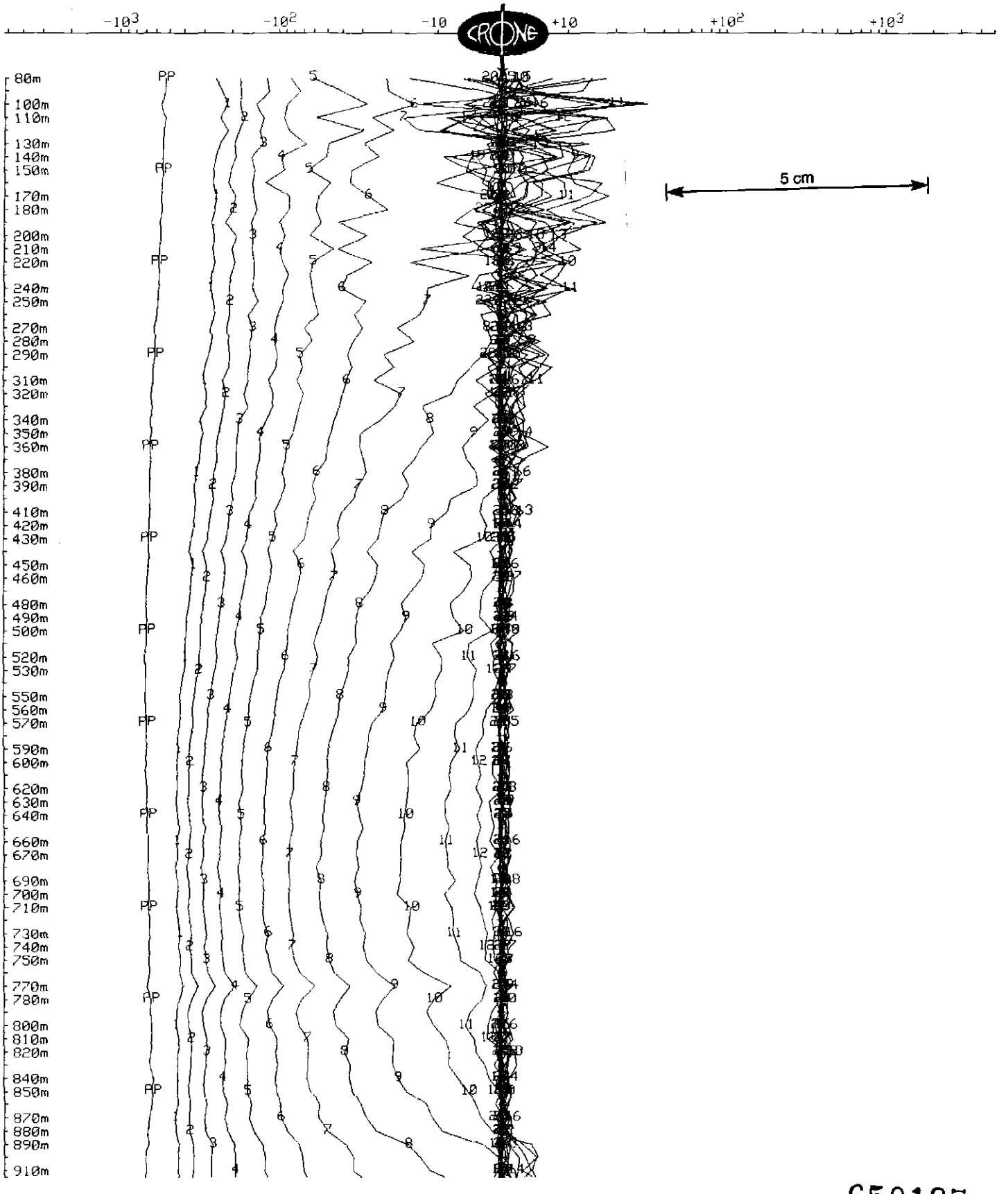
650186

OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: Goldfields Exploration	Hole	: SHD-21
Grid	: South Henty	Tx Loop	: #9
Date	: Jan 26, 2000	File name	: SHD21Z9.PEM

Z COMPONENT dBz/dt nanoTesla/sec - 31 of 31 channels and PP

Scale: 1:4000



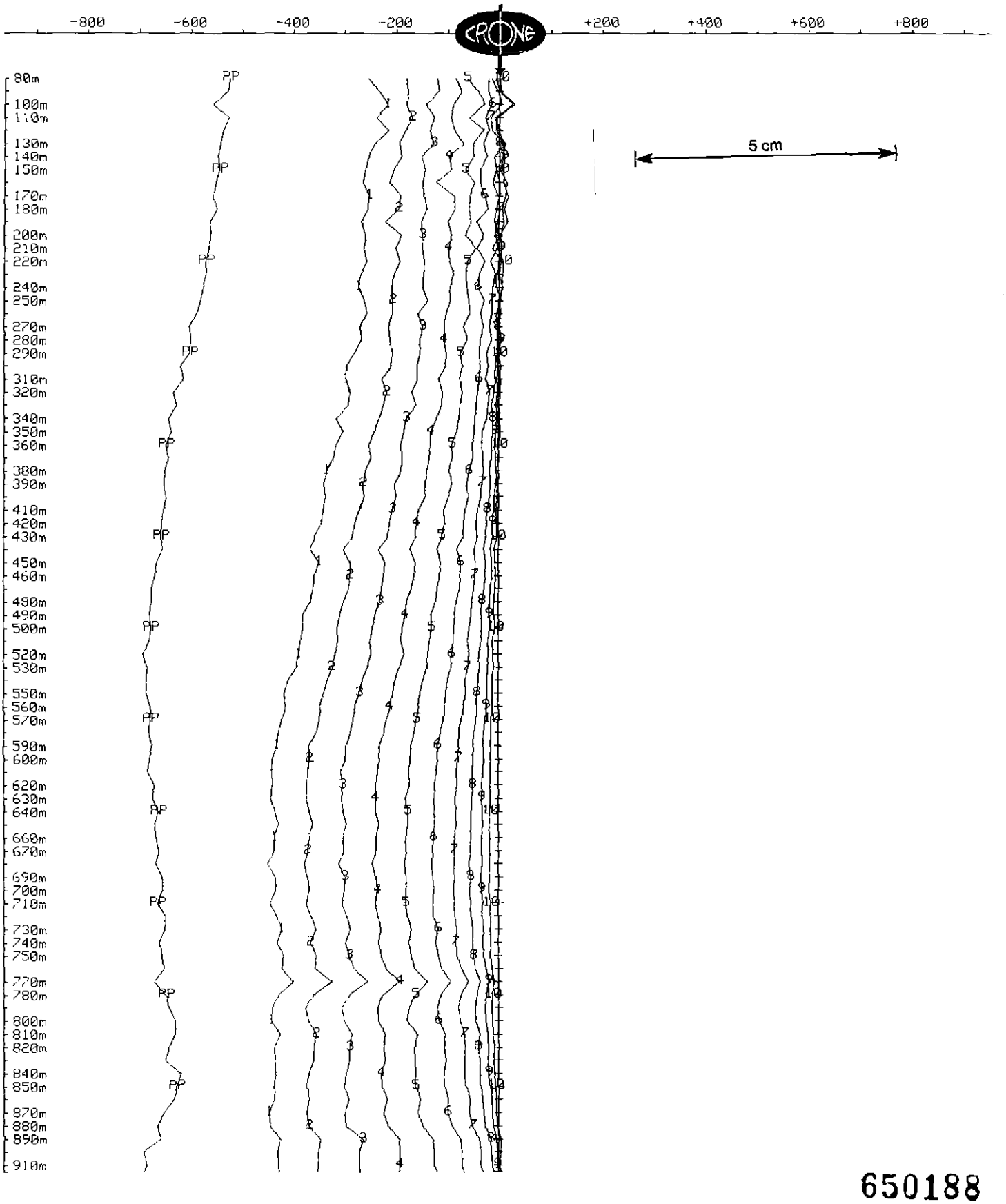
650187

OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: Goldfields Exploration	Hole	: SHD-21
Grid	: South Henty	Tx Loop	: #9
Date	: Jan 26, 2000	File name	: SHD21Z9.PEM

Z COMPONENT dBz/dt nanoTesla/sec - 10 of 31 channels and PP

Scale: 1:4000 Unit Scale: 1cm = 100 nT/s



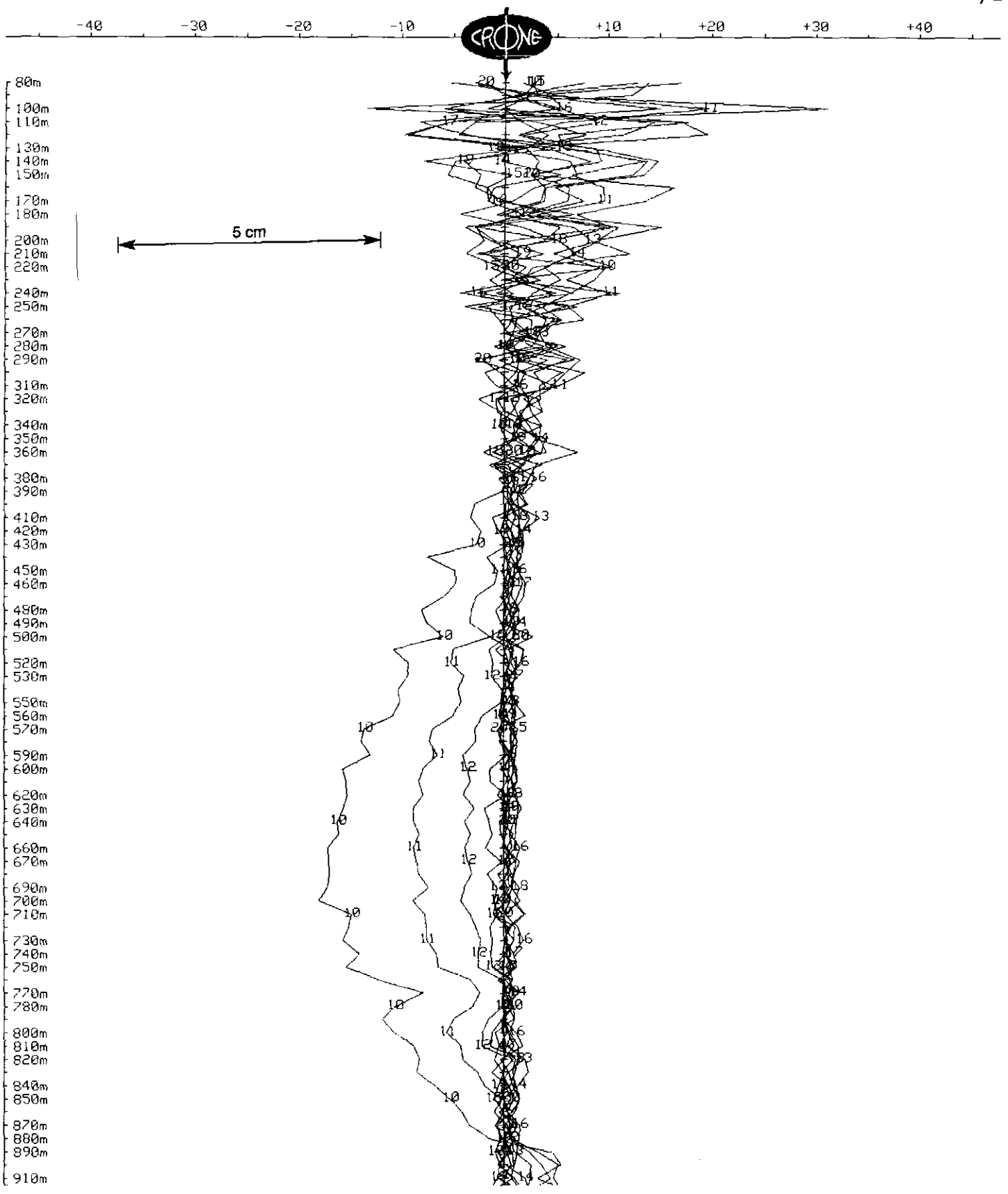
650188

OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: Goldfields Exploration	Hole	: SHD-21
Grid	: South Henty	Tx Loop	: #9
Date	: Jan 26, 2000	File name	: SHD21Z9.PEM

Z COMPONENT dBz/dt nanoTesla/sec - 11 of 31 channels

Scale: 1:4000 Unit Scale: 1cm = 5 nT/s



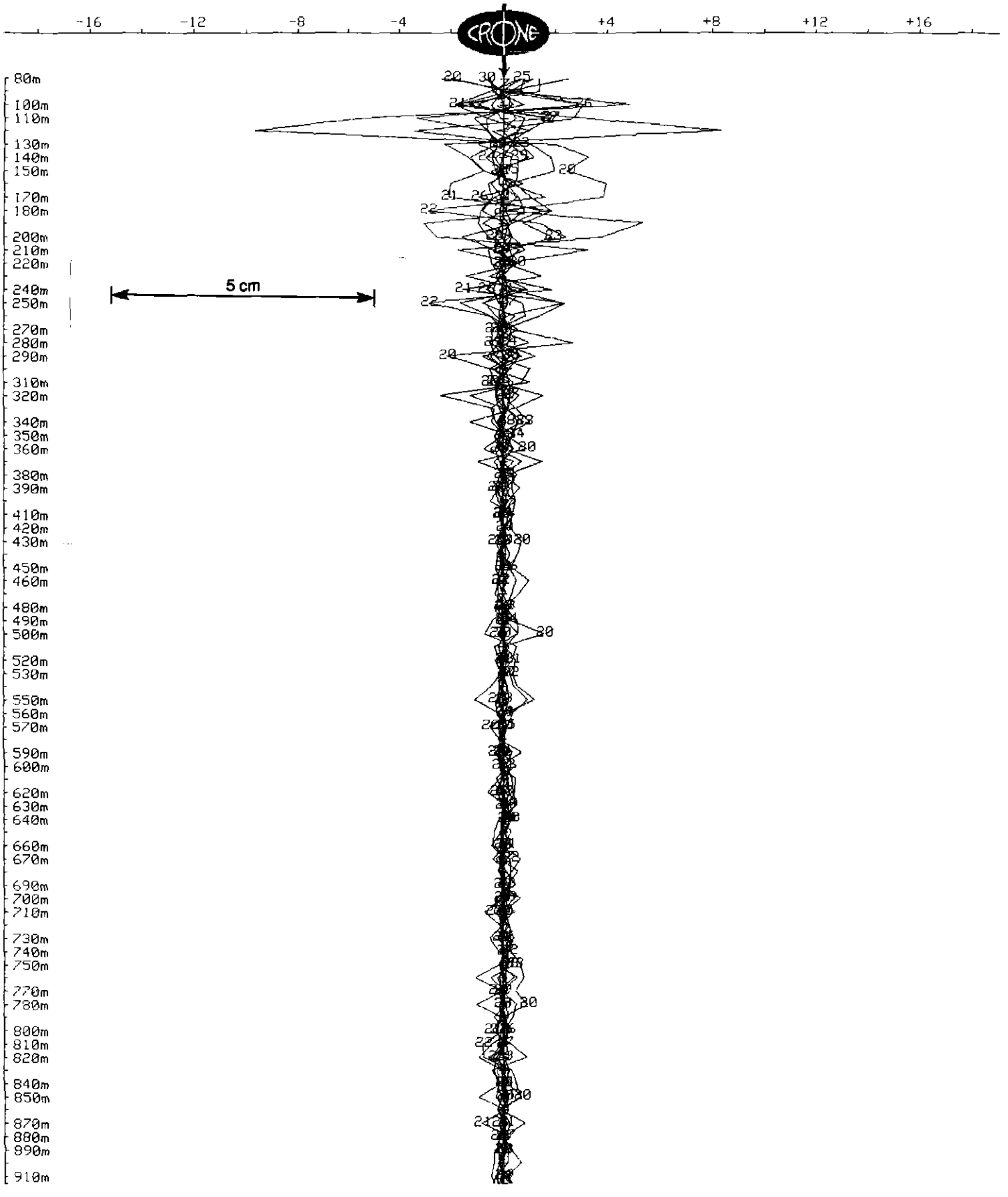
650189

OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: Goldfields Exploration	Hole	: SHD-21
Grid	: South Henty	Tx Loop	: #9
Date	: Jan 26, 2000	File name	: SHD21Z9.PEM

Z COMPONENT dBz/dt nanoTesla/sec - 12 of 31 channels

Scale: 1:4000 Unit Scale: 1cm = 2 nT/s



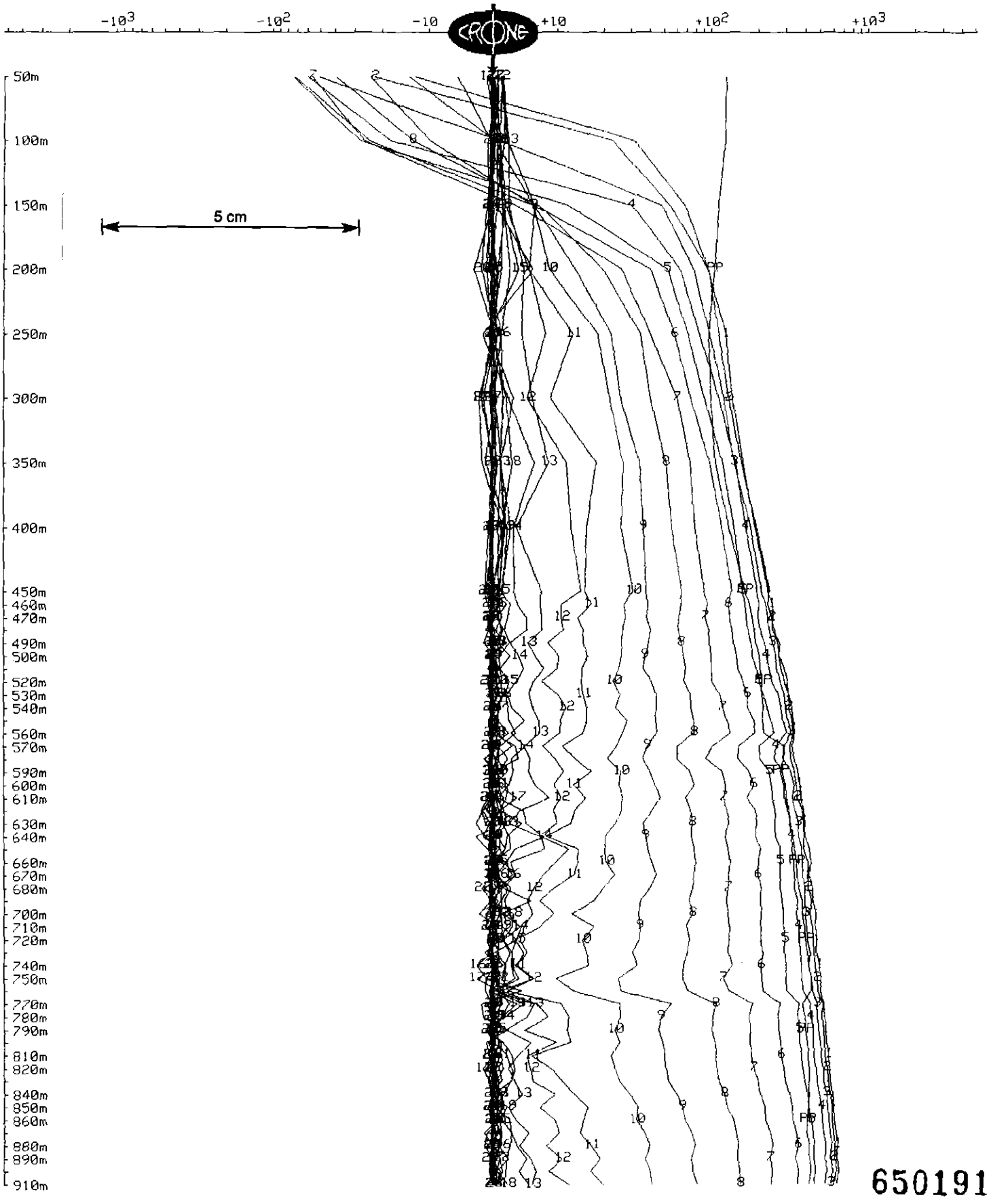
650190

OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: Goldfields Exploration	Hole	: SHD-21
Grid	: South Henty	Tx Loop	: #9
Date	: Jan 27, 1900	File name	: SHD21XY9.PEM

Data Corrected for Probe Rotation using Orientation Tool #8
X COMPONENT dBx/dt nanoTesla/sec - 31 of 31 channels and PP

Scale: 1:4000



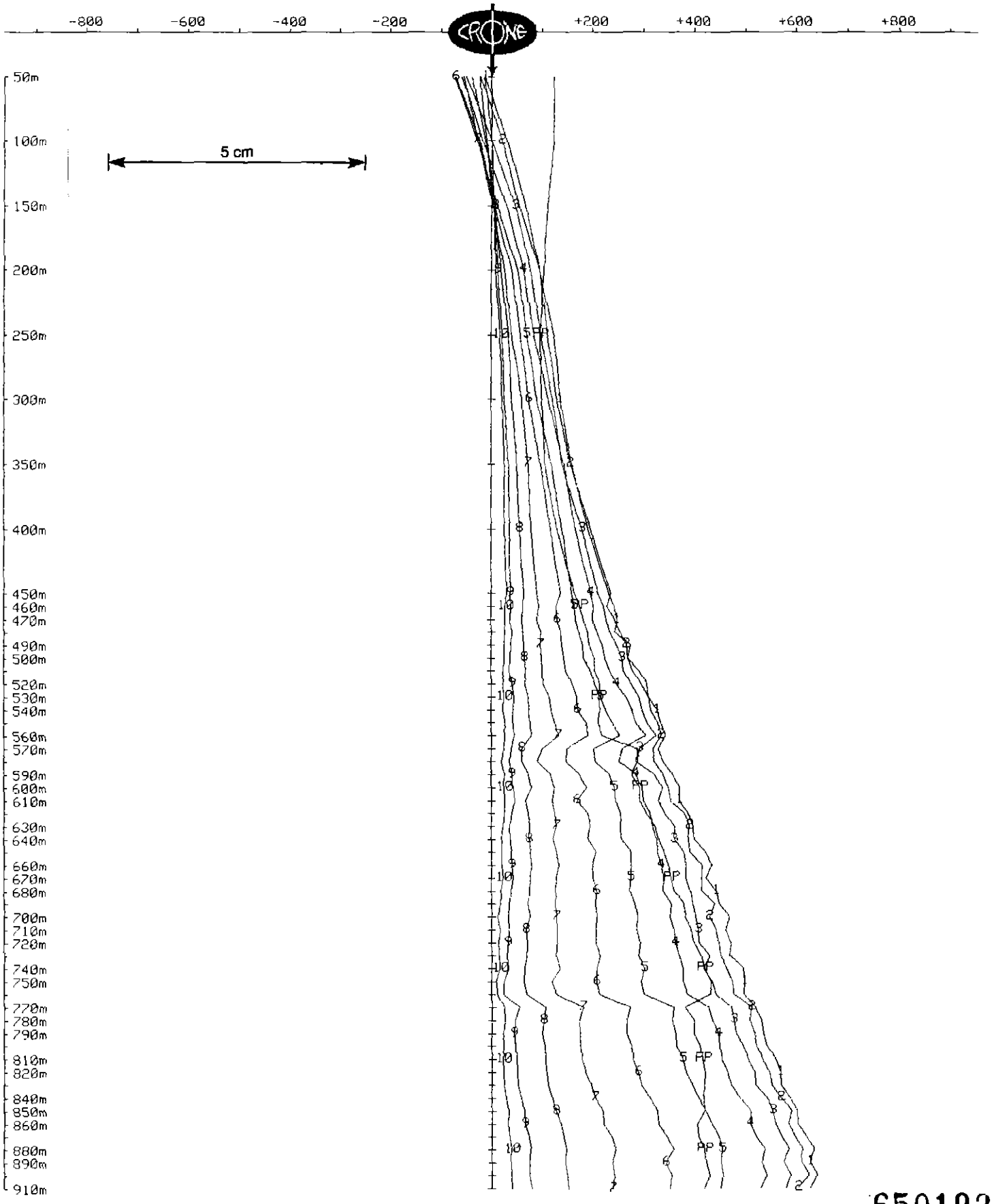
650191

OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: Goldfields Exploration	Hole	: SHD-21
Grid	: South Henty	Tx Loop	: #9
Date	: Jan 27, 1900	File name	: SHD21XY9.PEM

Data Corrected for Probe Rotation using Orientation Tool #8
X COMPONENT dBx/dt nanoTesla/sec - 10 of 31 channels and PP

Scale: 1:4000 Unit Scale: 1cm = 100 nT/s



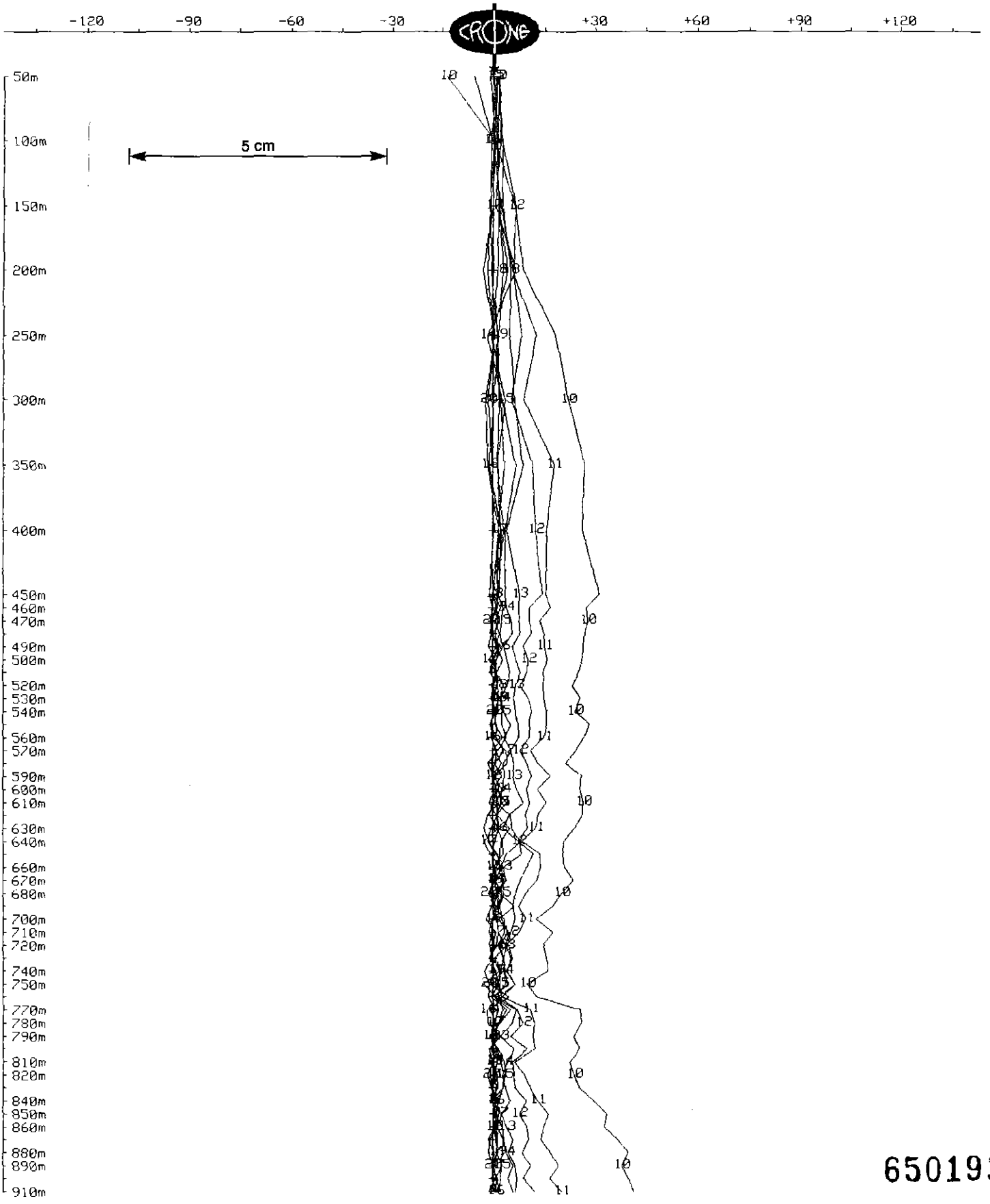
650192

OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: Goldfields Exploration	Hole	: SHD-21
Grid	: South Henty	Tx Loop	: #9
Date	: Jan 27, 1900	File name	: SHD21XY9.PEM

Data Corrected for Probe Rotation using Orientation Tool #8
X COMPONENT dBx/dt nanoTesla/sec - 11 of 31 channels

Scale: 1:4000 Unit Scale: 1cm = 15 nT/s



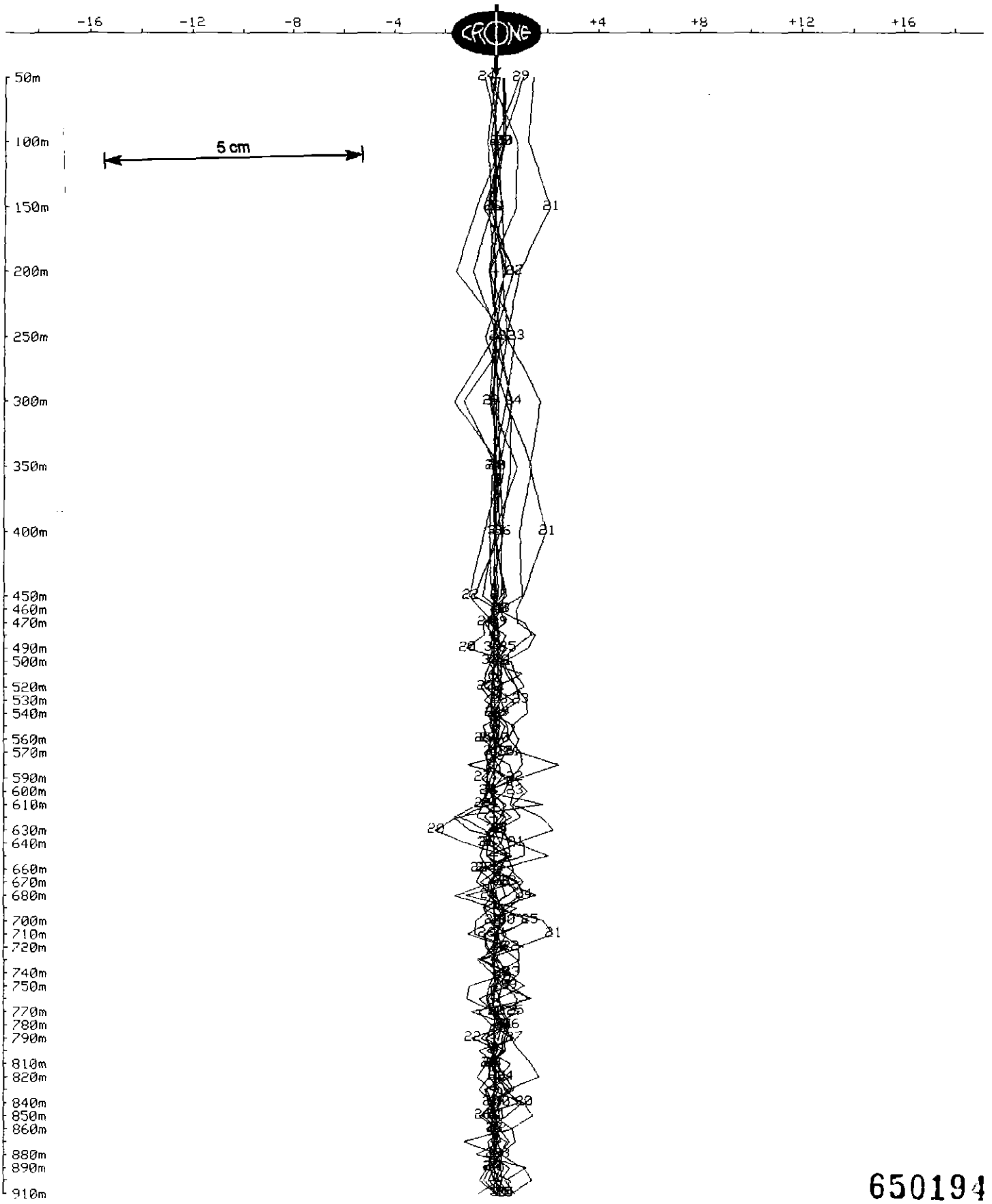
650193

OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: Goldfields Exploration	Hole	: SHD-21
Grid	: South Henty	Tx Loop	: #9
Date	: Jan 27, 1900	File name	: SHD21XY9.PEM

Data Corrected for Probe Rotation using Orientation Tool #8
X COMPONENT dBx/dt nanoTesla/sec - 12 of 31 channels

Scale: 1:4000 Unit Scale: 1cm = 2 nT/s



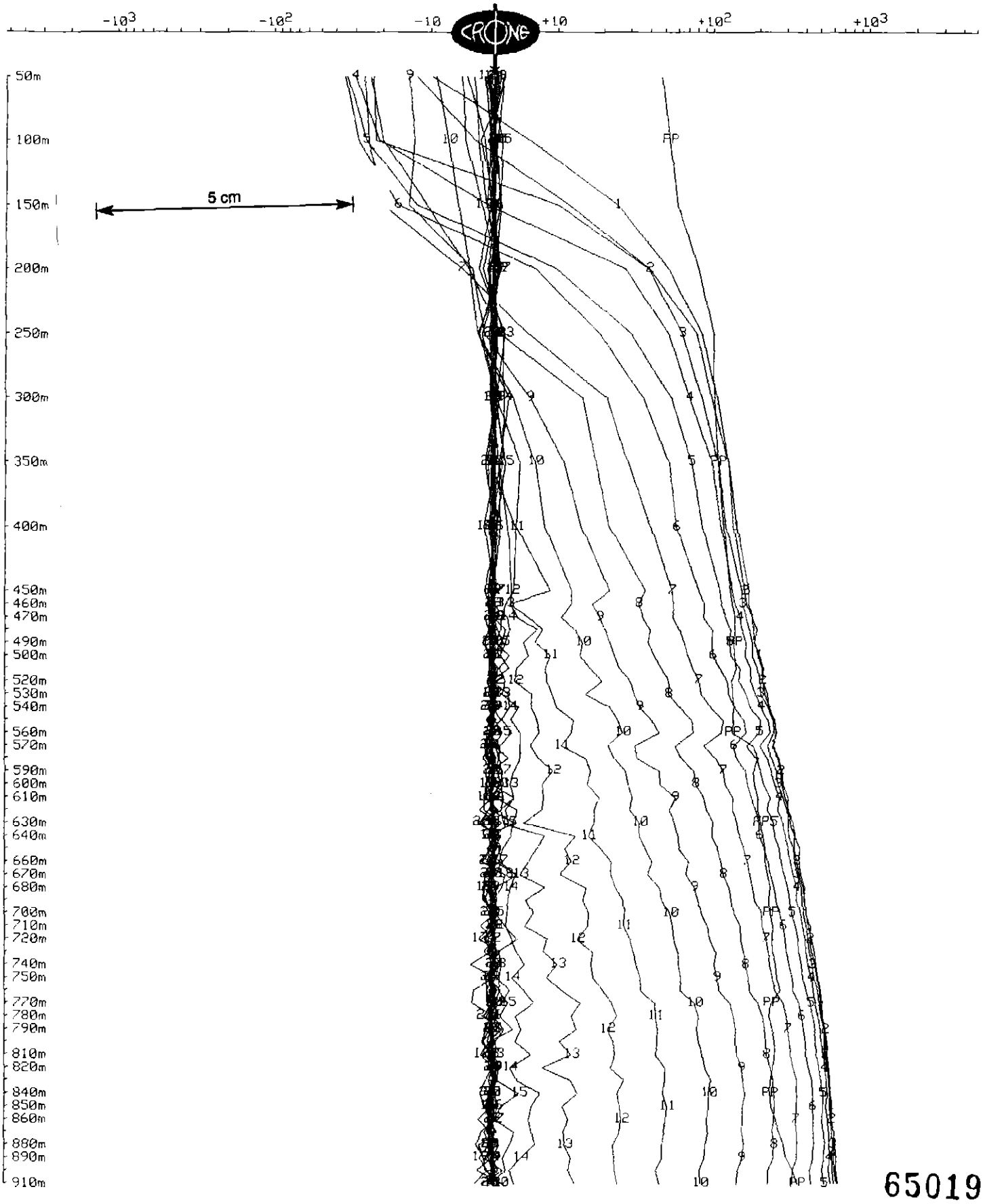
650194

OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: Goldfields Exploration	Hole	: SHD-21
Grid	: South Henty	Tx Loop	: #9
Date	: Jan 27, 1900	File name	: SHD21XY9.PEM

Data Corrected for Probe Rotation using Orientation Tool #8
Y COMPONENT dBy/dt nanoTesla/sec - 31 of 31 channels and PP

Scale: 1:4000



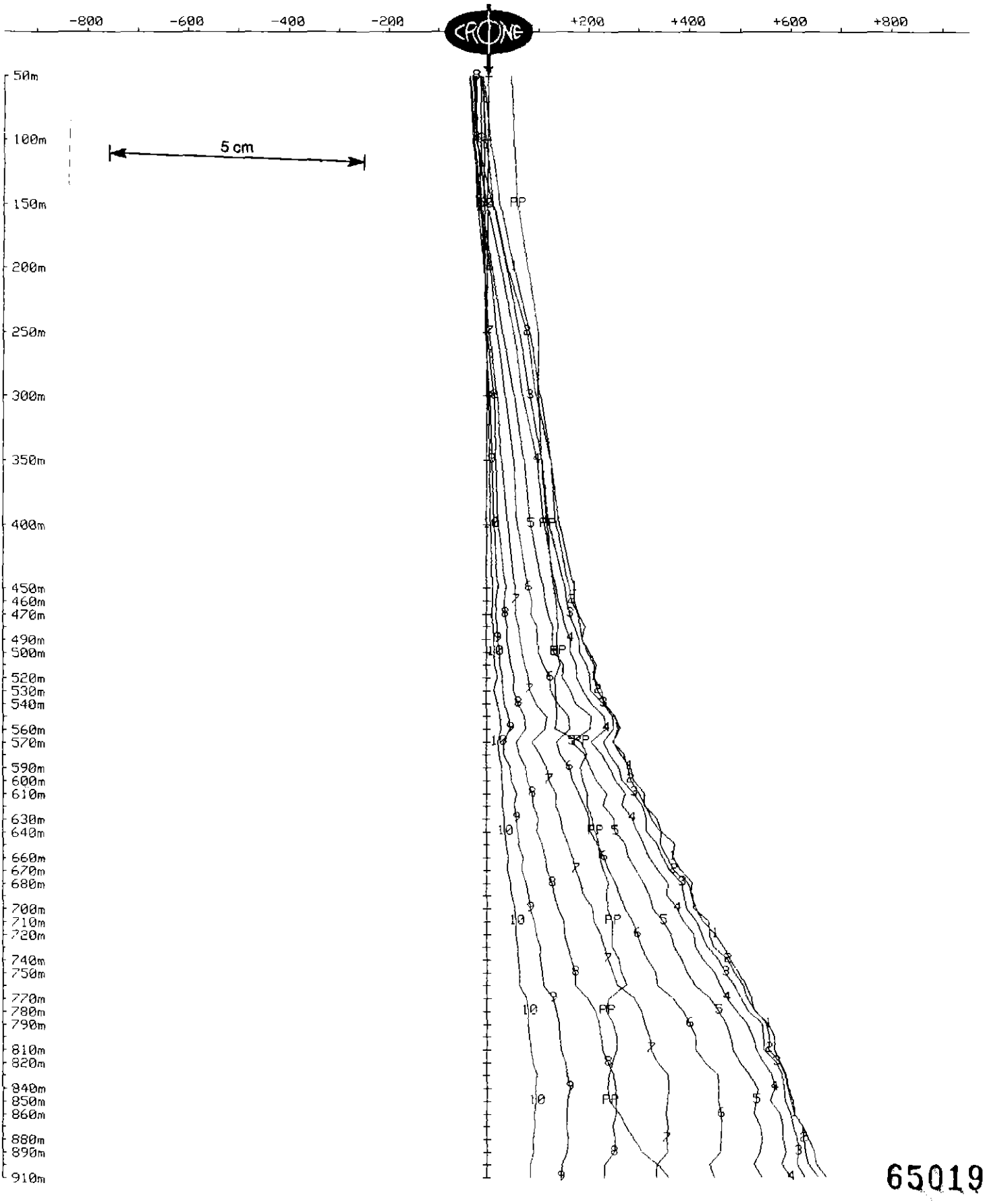
650195

OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: **Goldfields Exploration**	Hole	: **SHD-21**
Grid	: **South Henty**	Tx Loop	: **#9**
Date	: Jan 27, 1900	File name	: SHD21XY9.PEM

Data Corrected for Probe Rotation using Orientation Tool #8
Y COMPONENT dBy/dt nanoTesla/sec - 10 of 31 channels and PP

Scale: 1:4000 Unit Scale: 1cm = 100 nT/s



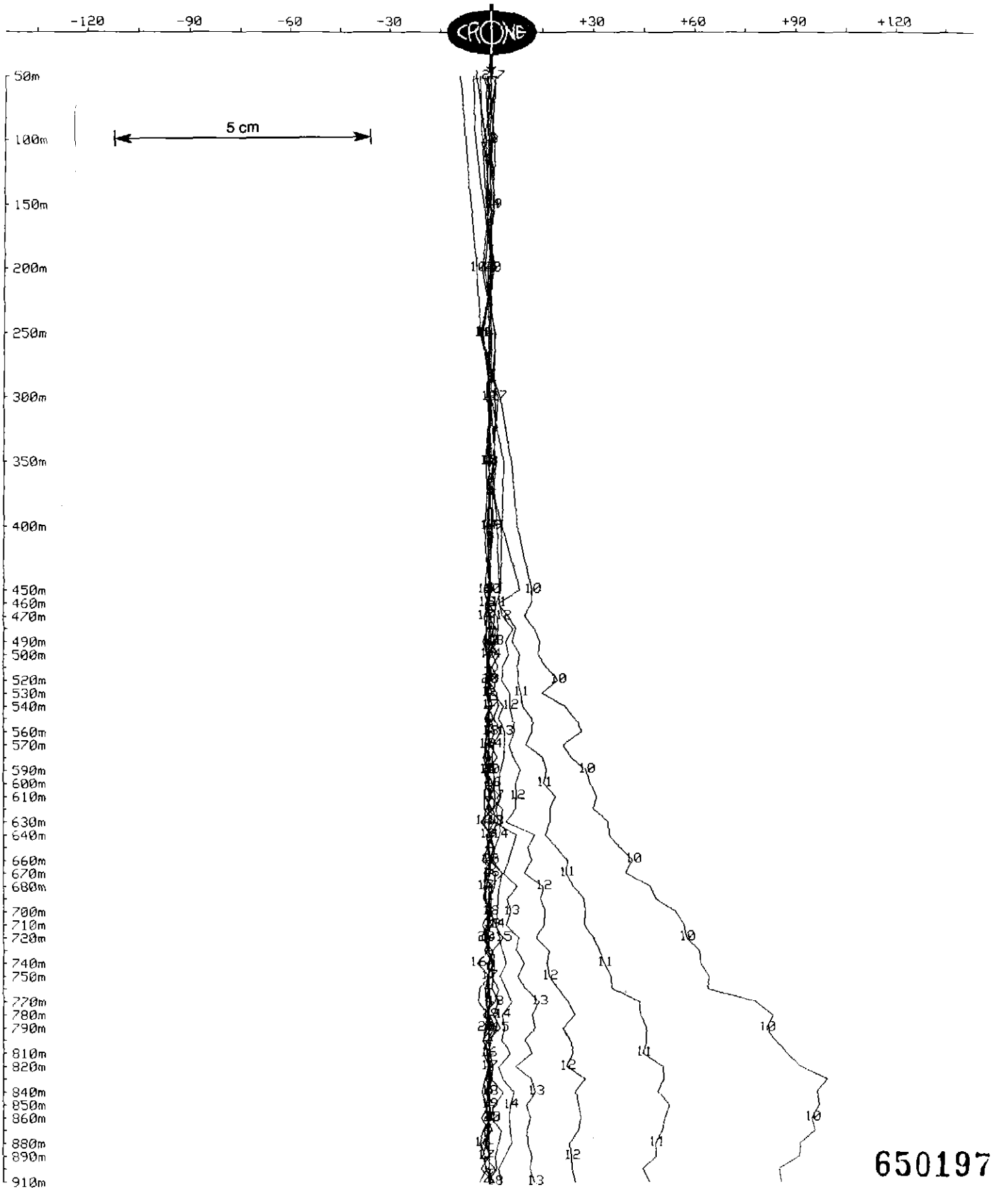
650196

OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: Goldfields Exploration	Hole	: SHD-21
Grid	: South Henty	Tx Loop	: #9
Date	: Jan 27, 1900	File name	: SHD21XY9.PEM

Data Corrected for Probe Rotation using Orientation Tool #8
Y COMPONENT dBy/dt nanoTesla/sec - 11 of 31 channels

Scale: 1:4000 Unit Scale: 1cm = 15 nT/s



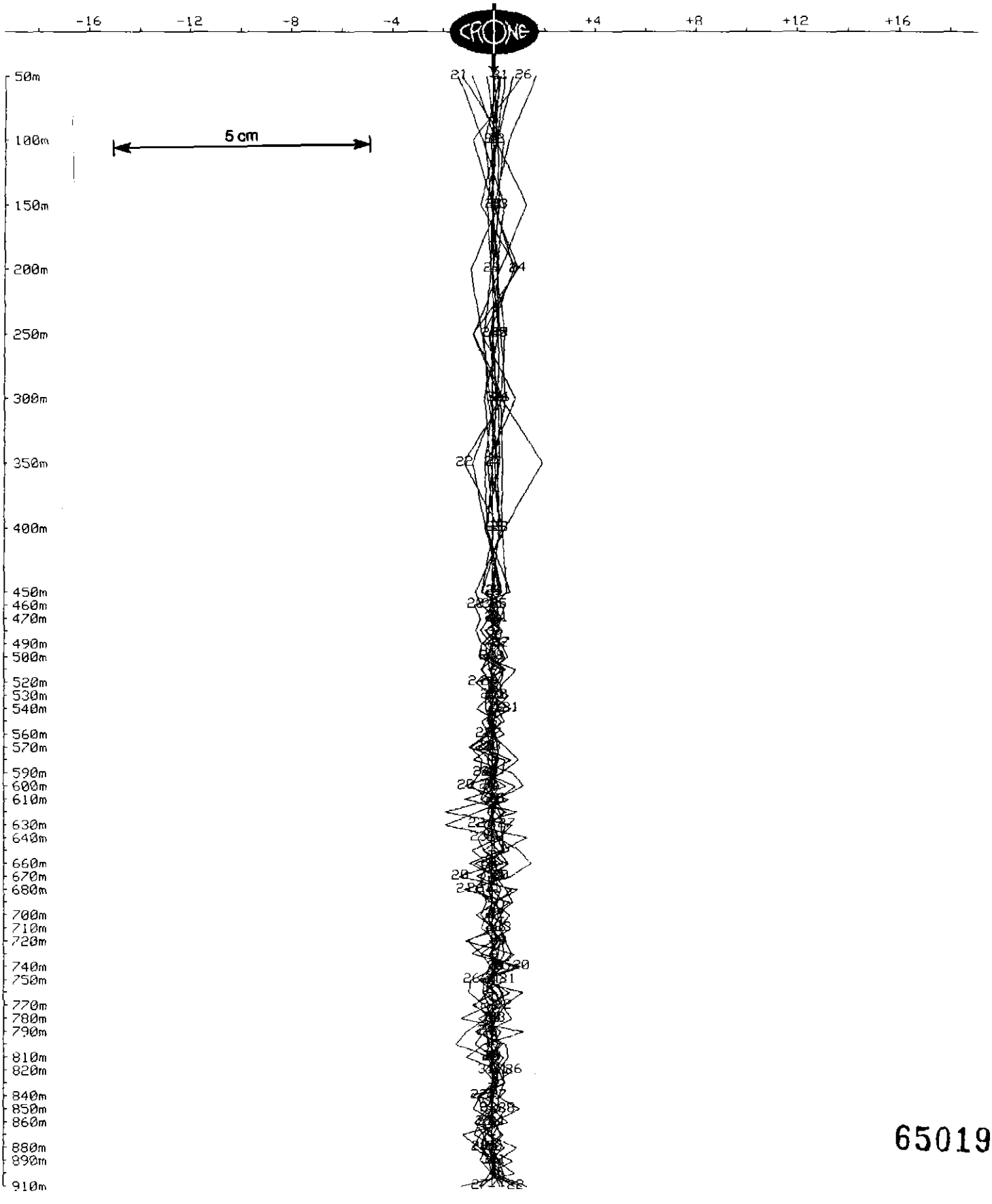
650197

OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: Goldfields Exploration	Hole	: SHD-21
Grid	: South Henty	Tx Loop	: #9
Date	: Jan 27, 1900	File name	: SHD21XY9.PEM

Data Corrected for Probe Rotation using Orientation Tool #8
Y COMPONENT dBy/dt nanoTesla/sec - 12 of 31 channels

Scale: 1:4000 Unit Scale: 1cm = 2 nT/s



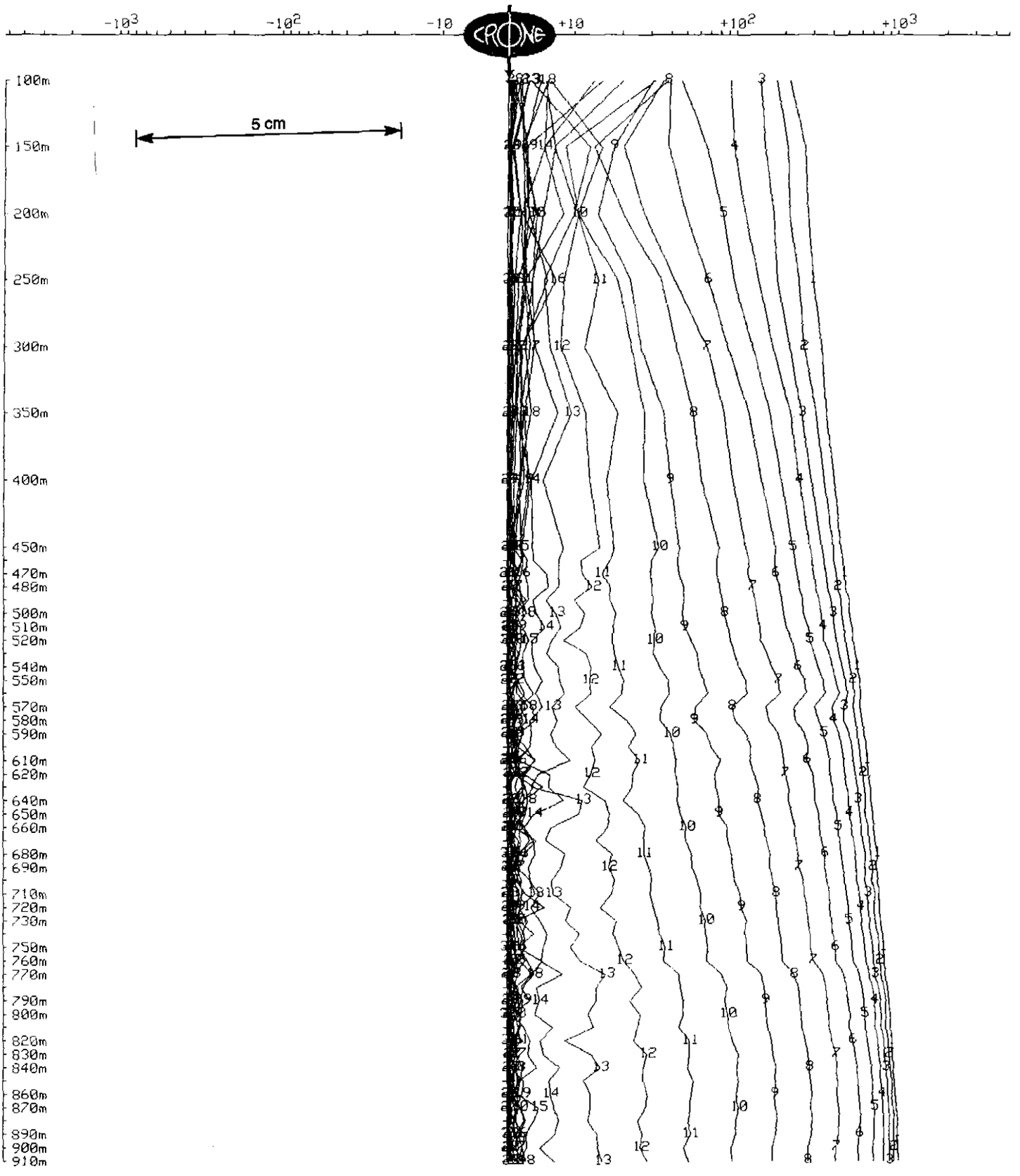
650198

OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: Goldfields Exploration	Hole	: SHD-21
Grid	: South Henty	Tx Loop	: #9
Date	: Jan 27, 1900	File name	: S21XYZ9.PEM

TOTAL FIELD dBxyz/dt nanoTesla/sec - 31 of 31 channels

Scale: 1:4000



650199

OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: Goldfields Exploration	Hole	: SHD-22
Grid	: South Henty	Tx Loop	: #9
Date	: Jan 27, 2000	File name	: SHD22Z9.PEM
Time Base	: 20.00 ms	# Readings	: 61
Ramp Time	: 0.50 ms	Stn Units	: Metric
# Channels	: 31	Coil Area	: 6500 sq m
Sync Type	: Crystal-MASTER	Polarity	: -
Loop Size	: 500m X 600m	Receiver	: Digital #105
Current	: 13 Amps	Operator	: Heath

Loop Coordinates (X,Y,Z)

1. 379500m, 5.3584e+06m, 0m
2. 380010m, 5.3584e+06m, 0m
3. 379820m, 5.3588e+06m, 0m
4. 379500m, 5.3588e+06m, 0m

Hole Coordinates (X,Y,Z) or (Azimuth,Dip,Length)

1. 380620m, 5.35841e+06m, 0m
2. 294deg, 79.8deg, 30m
3. 298deg, 78deg, 60m
4. 301deg, 76.1deg, 60m
5. 308deg, 74.8deg, 60m
6. 310deg, 73deg, 60m
7. 316deg, 71deg, 60m
8. 321deg, 69.2deg, 60m
9. 324deg, 66deg, 64m
10. 327deg, 62deg, 64m
11. 329deg, 59deg, 60m
12. 329deg, 54deg, 38m

Channel Times (usec)

Ch	Start	End	Center	Ch	Start	End	Center	Ch	Start	End	Center
PP	-198	-99	-149	1	50	58	54	2	58	72	65
3	72	86	79	4	86	104	94	5	104	126	115
6	126	153	140	7	153	185	169	8	185	225	205
9	225	270	248	10	270	328	299	11	328	396	362
12	396	482	439	13	482	580	531	14	580	702	641
15	702	850	776	16	850	1026	938	17	1026	1242	1134
18	1242	1498	1370	19	1498	1813	1656	20	1813	2187	2000
21	2187	2646	2416	22	2646	3195	2920	23	3195	3861	3528
24	3861	4666	4264	25	4666	5634	5150	26	5634	6808	6221
27	6808	8221	7514	28	8221	9936	9078	29	9936	12000	10968
30	12000	14490	13245	31	14490	17510	16000				

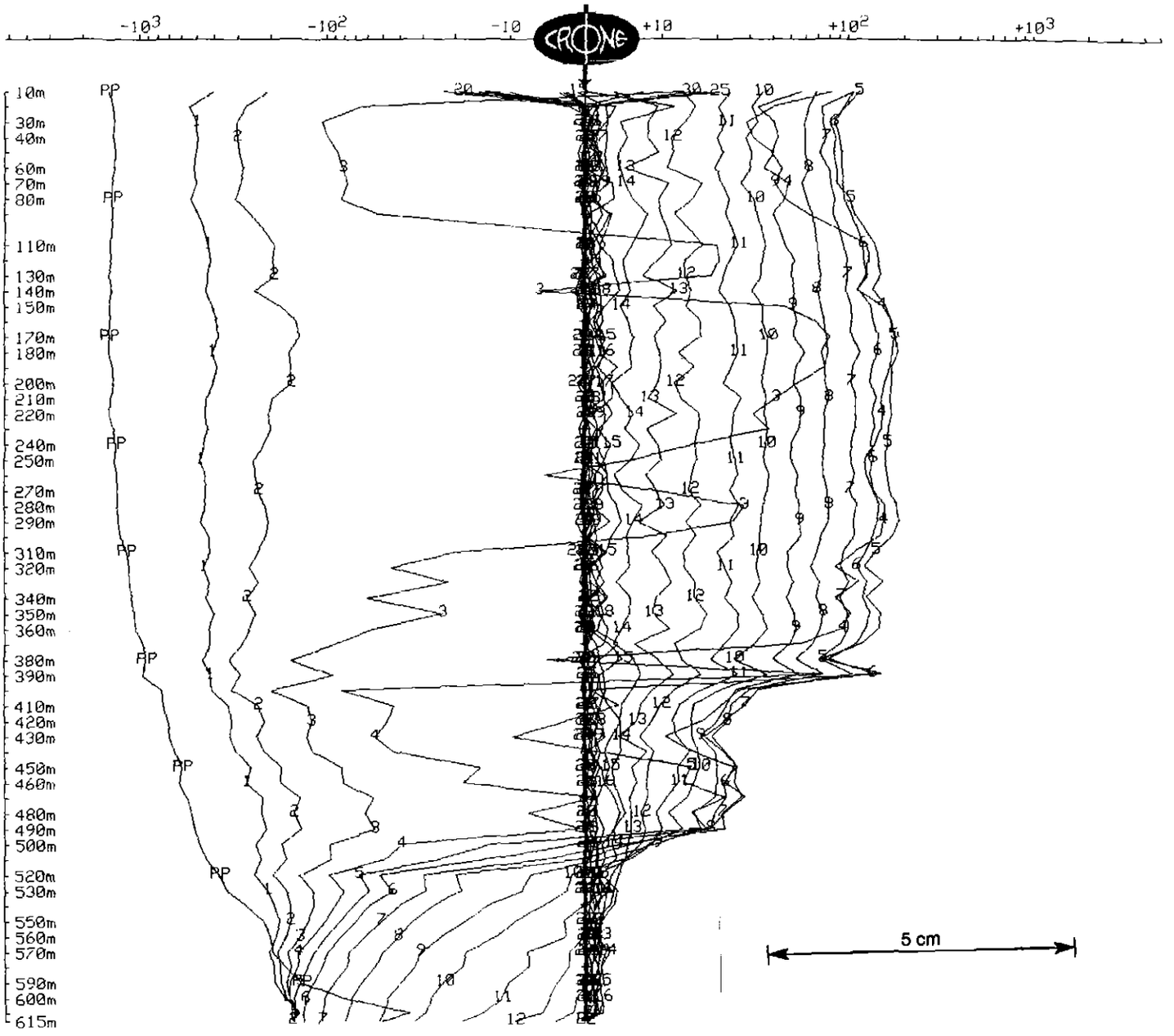
650200

OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: Goldfields Exploration	Hole	: SHD-22
Grid	: South Henty	Tx Loop	: #9
Date	: Jan 27, 2000	File name	: SHD22Z9.PEM

Z COMPONENT dBz/dt nanoTesla/sec - 31 of 31 channels and PP

Scale: 1:4000



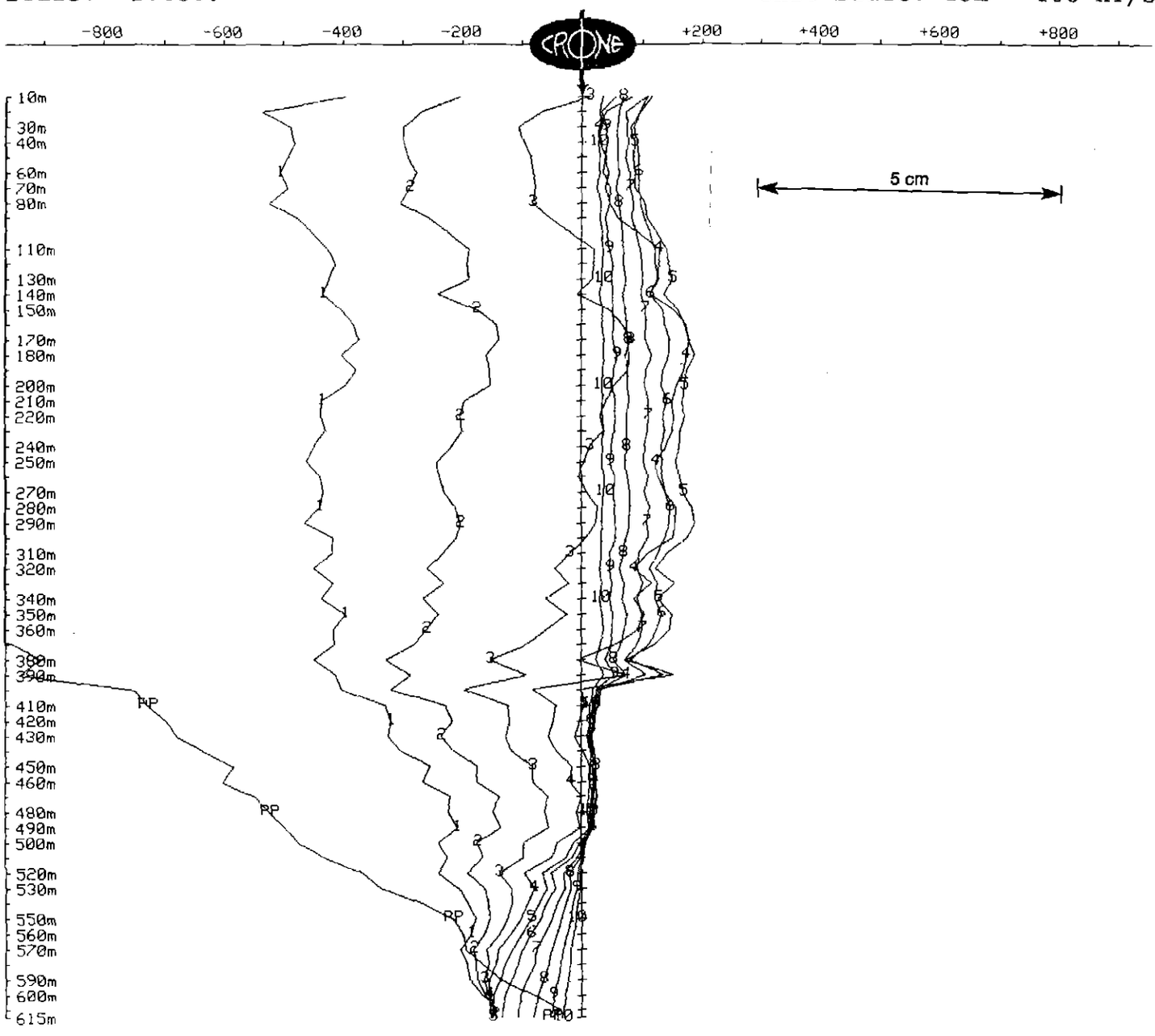
650201

OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: Goldfields Exploration	Hole	: SHD-22
Grid	: South Henty	Tx Loop	: #9
Date	: Jan 27, 2000	File name	: SHD22Z9.PEM

Z COMPONENT dBz/dt nanoTesla/sec - 10 of 31 channels and PP

Scale: 1:4000 Unit Scale: 1cm = 100 nT/s



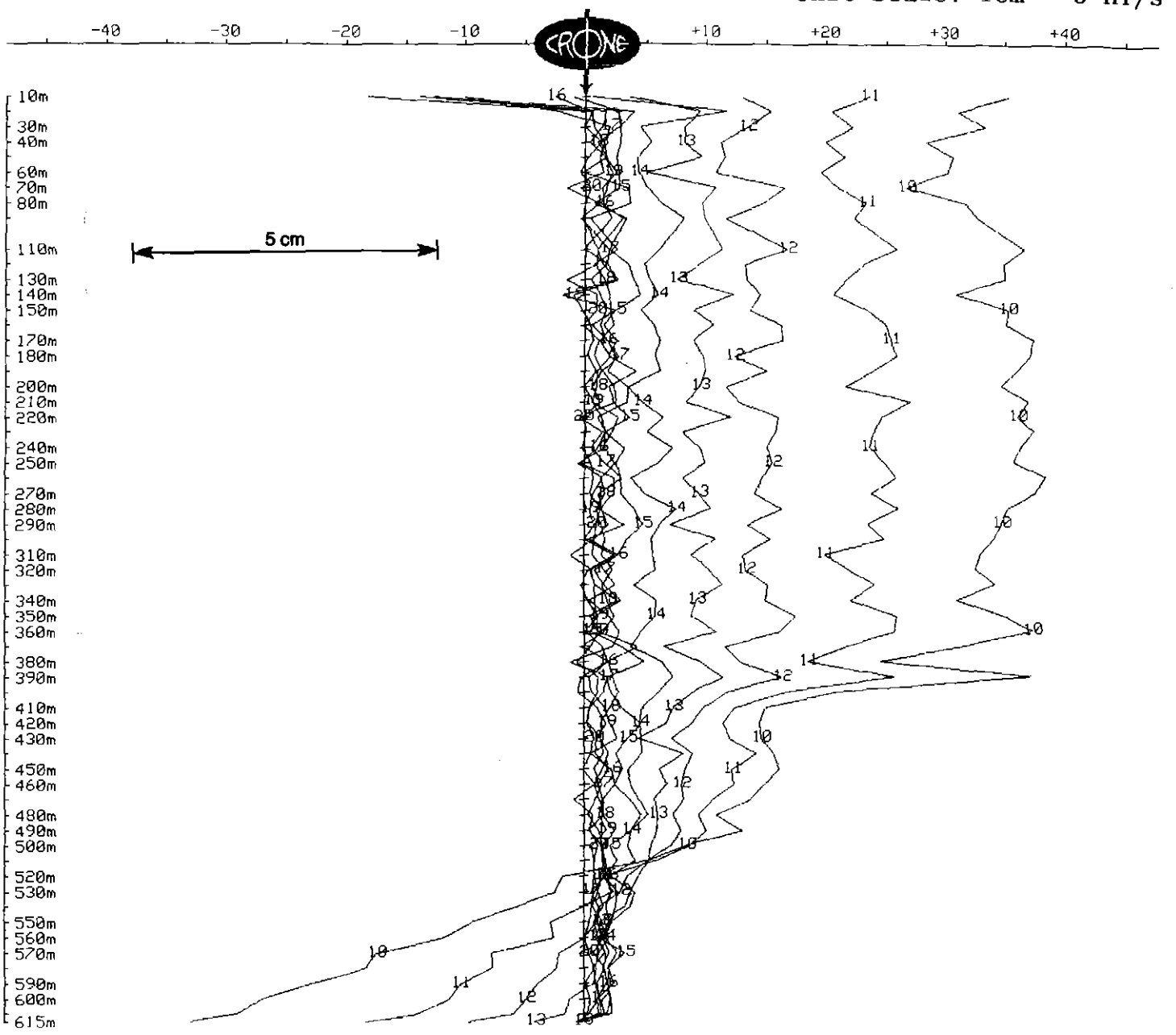
650202

OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: Goldfields Exploration	Hole	: SHD-22
Grid	: South Henty	Tx Loop	: #9
Date	: Jan 27, 2000	File name	: SHD22Z9.PEM

Z COMPONENT dBz/dt nanoTesla/sec - 11 of 31 channels

Scale: 1:4000 Unit Scale: 1cm = 5 nT/s



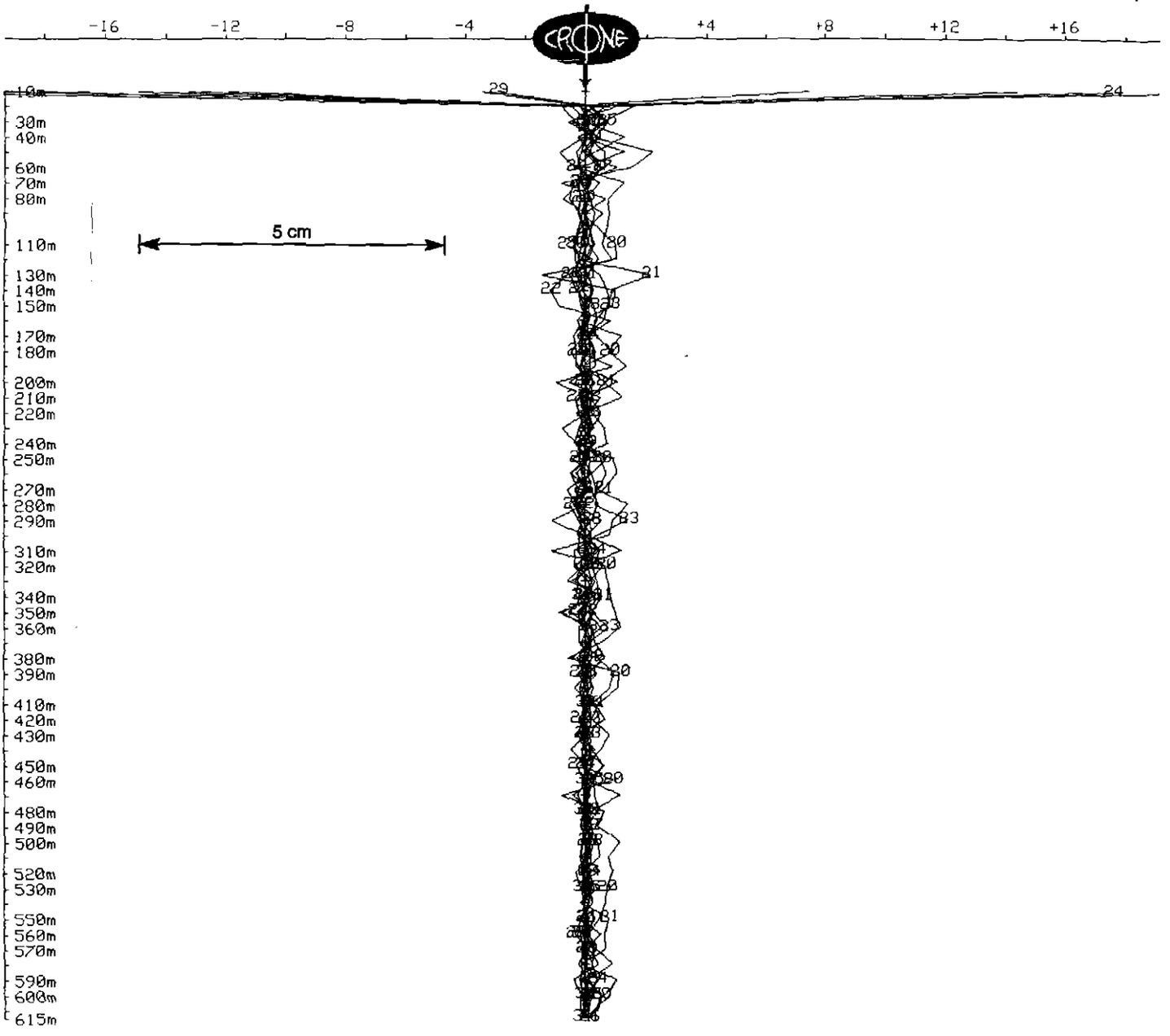
650203

OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: Goldfields Exploration	Hole	: SHD-22
Grid	: South Henty	Tx Loop	: #9
Date	: Jan 27, 2000	File name	: SHD22Z9.PEM

Z COMPONENT dBz/dt nanoTesla/sec - 12 of 31 channels

Scale: 1:4000 Unit Scale: 1cm = 2 nT/s



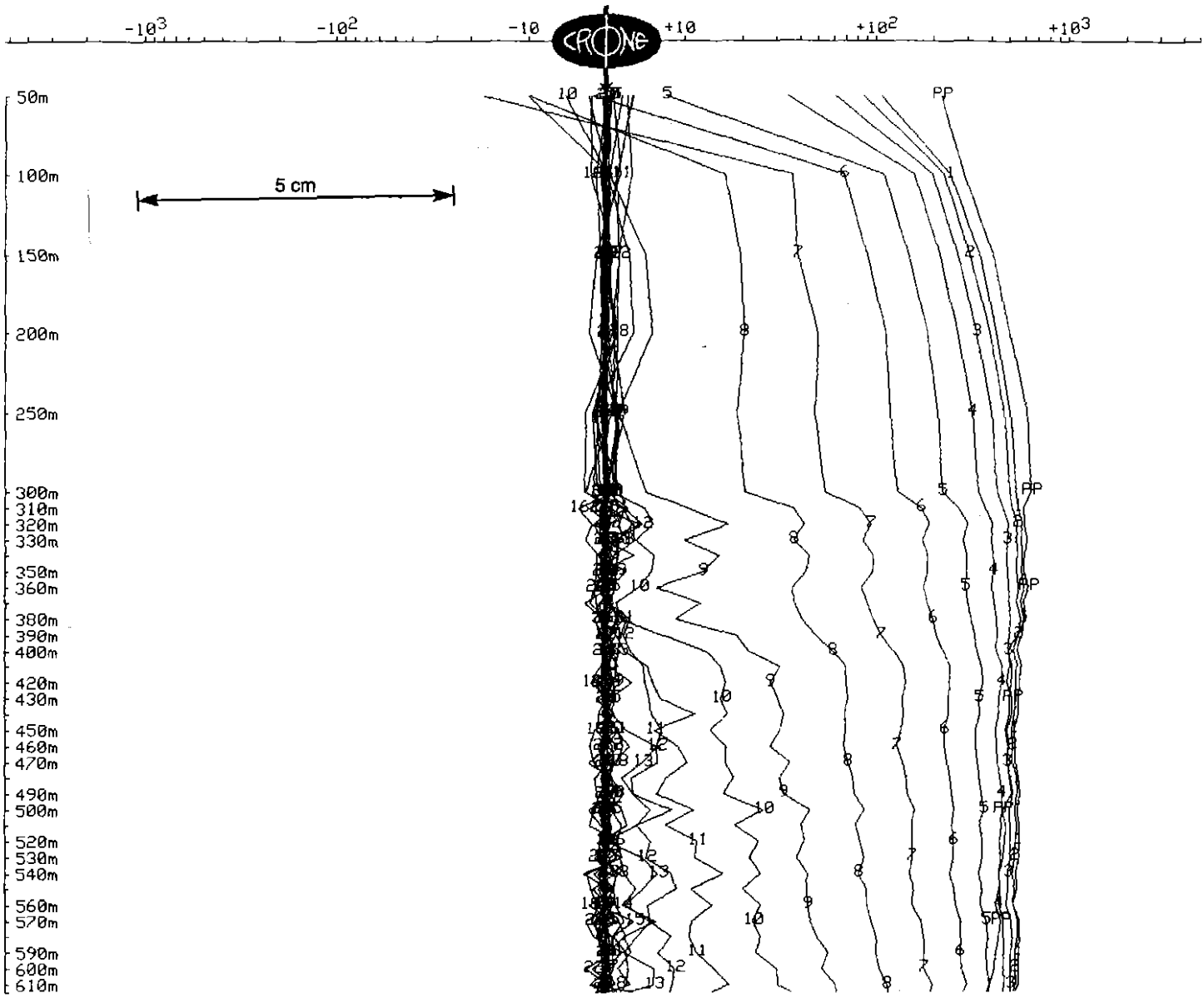
650204

OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: Goldfields Exploration	Hole	: SHD-22
Grid	: South Henty	Tx Loop	: #9
Date	: Feb 2/3, 2000	File name	: SHD22XY9.PEM

Data Corrected for Probe Rotation using Orientation Tool #8
X COMPONENT dBx/dt nanoTesla/sec - 31 of 31 channels and PP

Scale: 1:4000



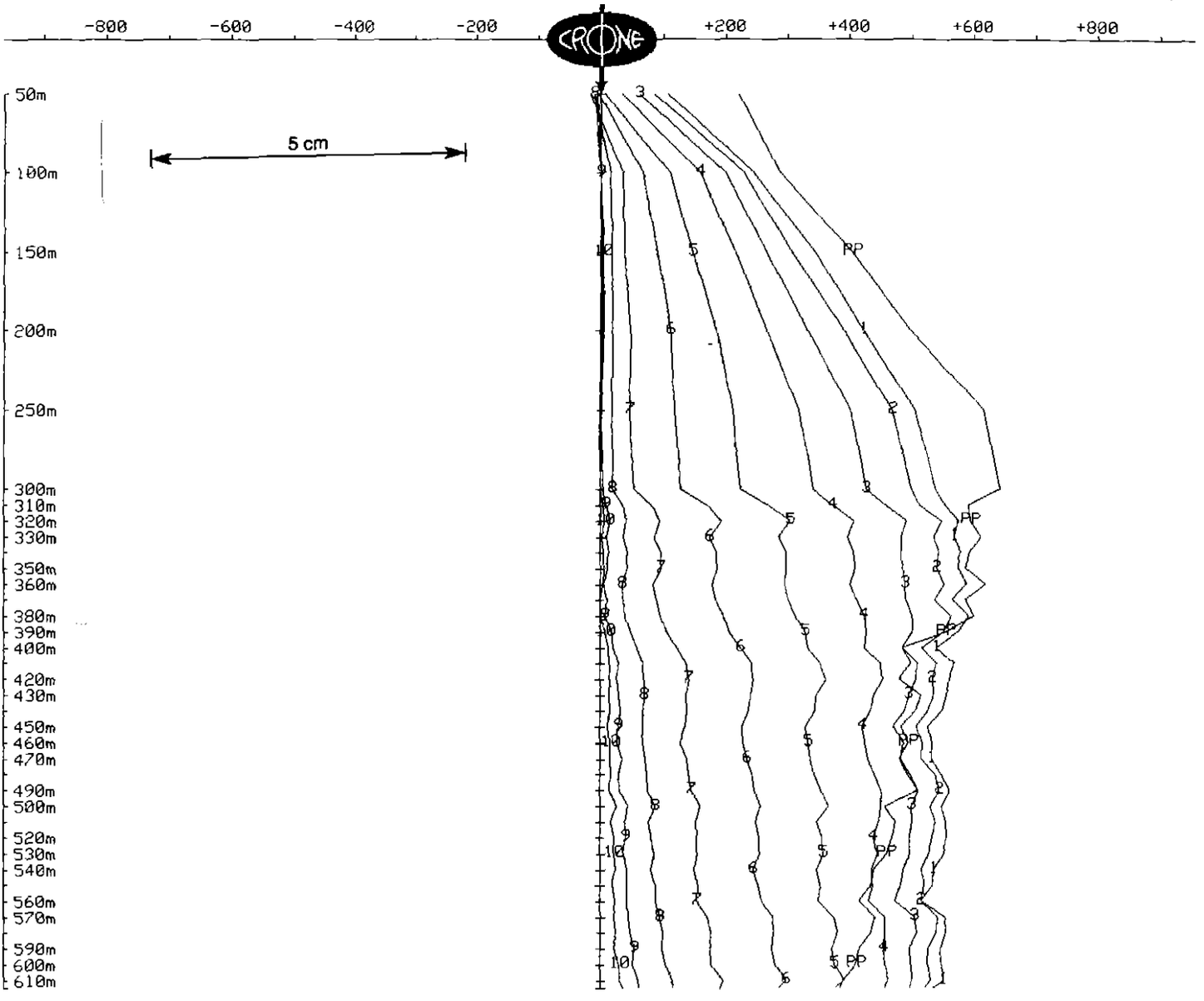
650205

OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: Goldfields Exploration	Hole	: SHD-22
Grid	: South Henty	Tx Loop	: #9
Date	: Feb 2/3, 2000	File name	: SHD22XY9.PEM

Data Corrected for Probe Rotation using Orientation Tool #8
X COMPONENT dBx/dt nanoTesla/sec - 10 of 31 channels and PP

Scale: 1:4000 Unit Scale: 1cm = 100 nT/s



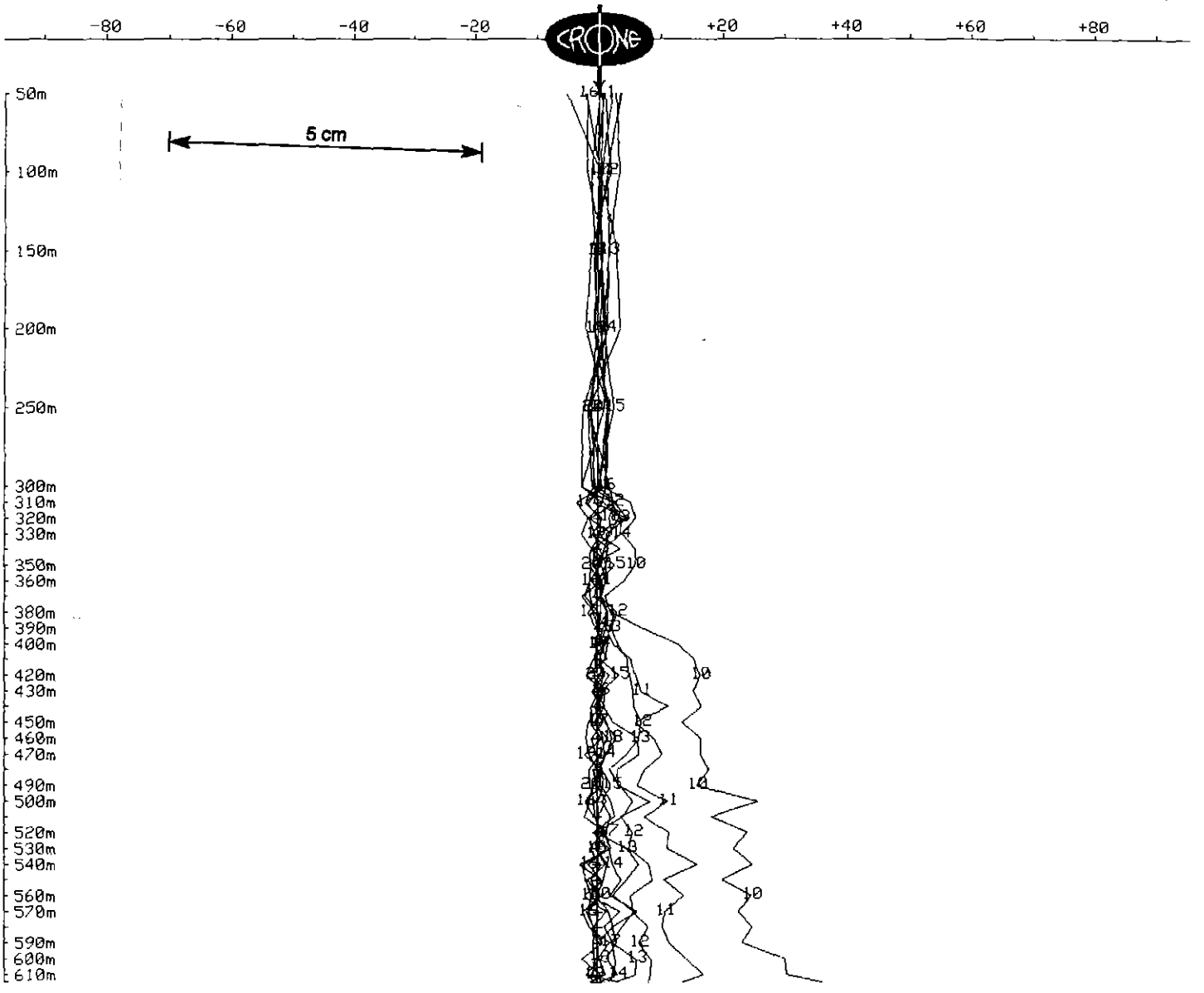
650206

OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: Goldfields Exploration	Hole	: SHD-22
Grid	: South Henty	Tx Loop	: #9
Date	: Feb 2/3, 2000	File name	: SHD22XY9.PEM

Data Corrected for Probe Rotation using Orientation Tool #8
X COMPONENT dBx/dt nanoTesla/sec - 11 of 31 channels

Scale: 1:4000 Unit Scale: 1cm = 10 nT/s



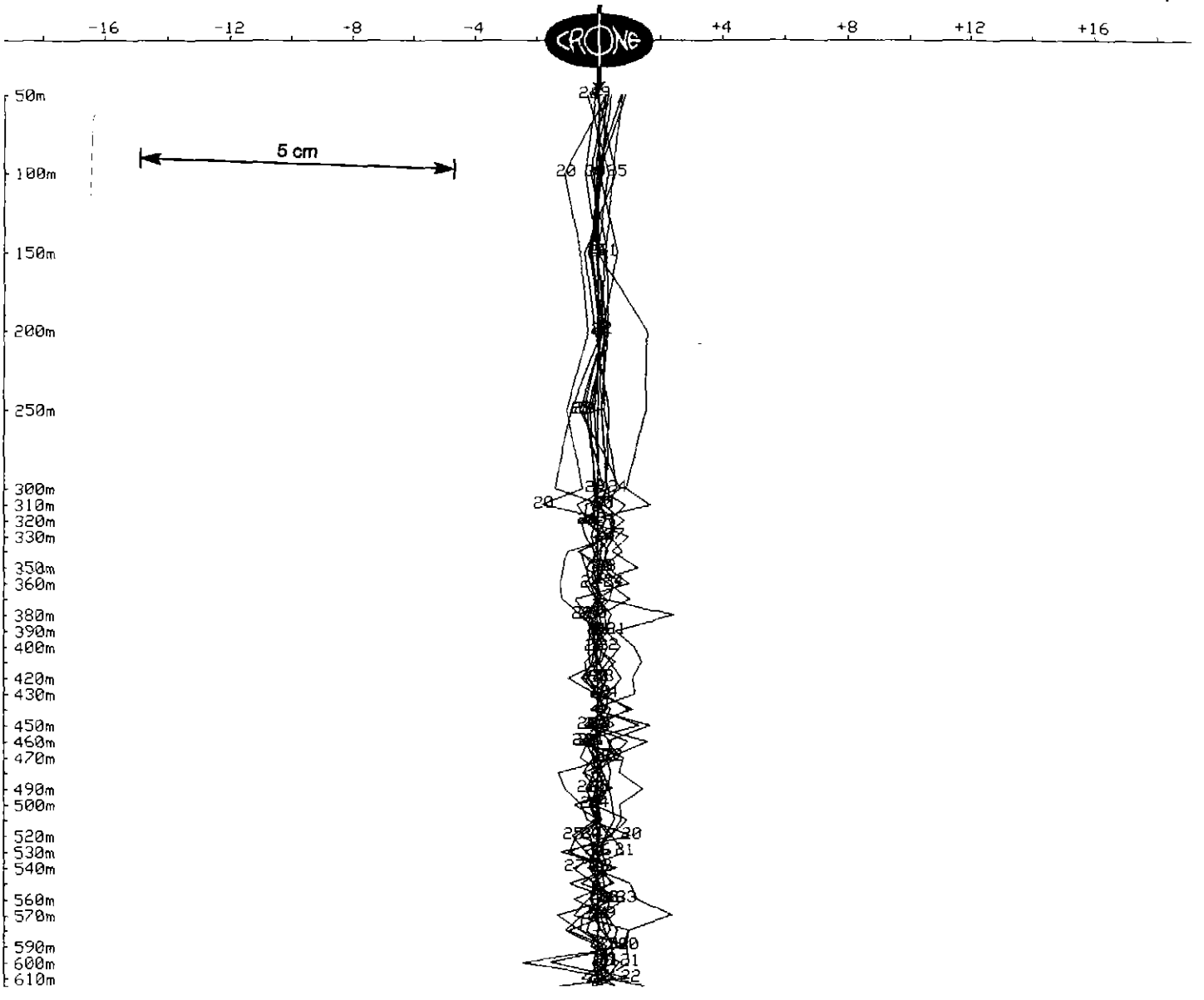
650207

OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: Goldfields Exploration	Hole	: SHD-22
Grid	: South Henty	Tx Loop	: #9
Date	: Feb 2/3, 2000	File name	: SHD22XY9.PEM

Data Corrected for Probe Rotation using Orientation Tool #8
X COMPONENT dBx/dt nanoTesla/sec - 12 of 31 channels

Scale: 1:4000 Unit Scale: 1cm = 2 nT/s



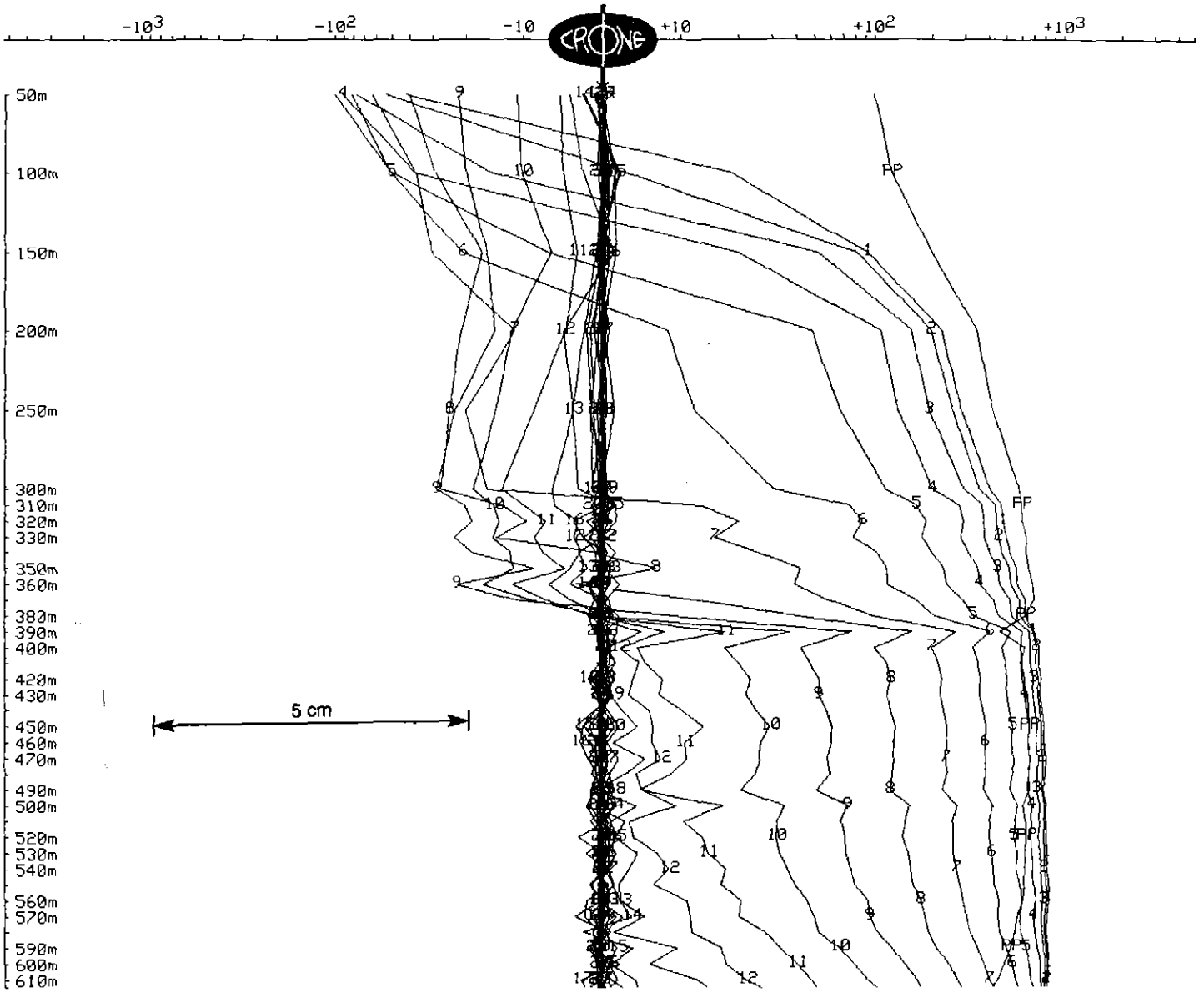
650208

OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: Goldfields Exploration	Hole	: SHD-22
Grid	: South Henty	Tx Loop	: #9
Date	: Feb 2/3, 2000	File name	: SHD22XY9.PEM

Data Corrected for Probe Rotation using Orientation Tool #8
Y COMPONENT dBy/dt nanoTesla/sec - 31 of 31 channels and PP

Scale: 1:4000



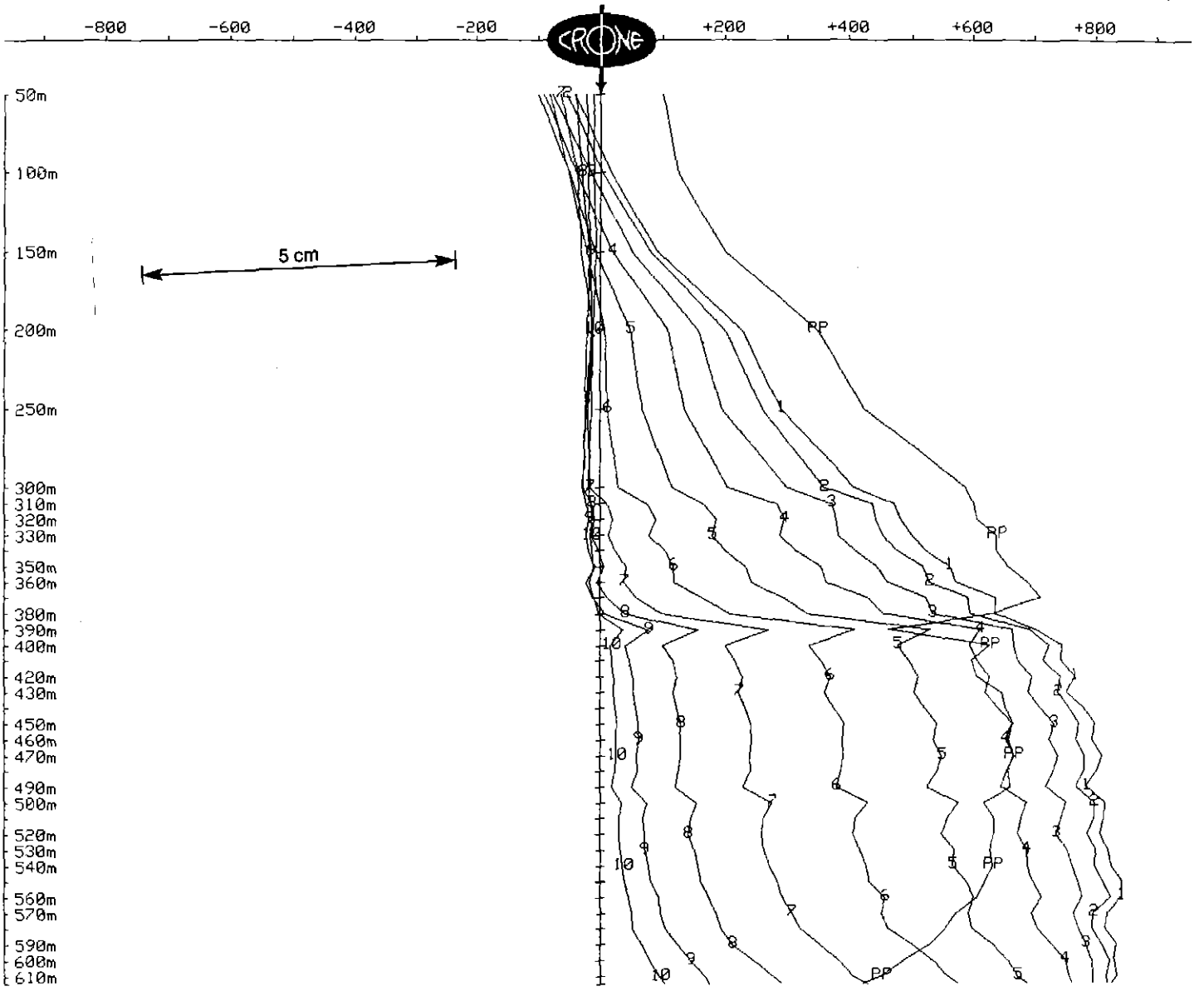
650209

OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: Goldfields Exploration	Hole	: SHD-22
Grid	: South Henty	Tx Loop	: #9
Date	: Feb 2/3, 2000	File name	: SHD22XY9.PEM

Data Corrected for Probe Rotation using Orientation Tool #8
Y COMPONENT dBy/dt nanoTesla/sec - 10 of 31 channels and PP

Scale: 1:4000 Unit Scale: 1cm = 100 nT/s



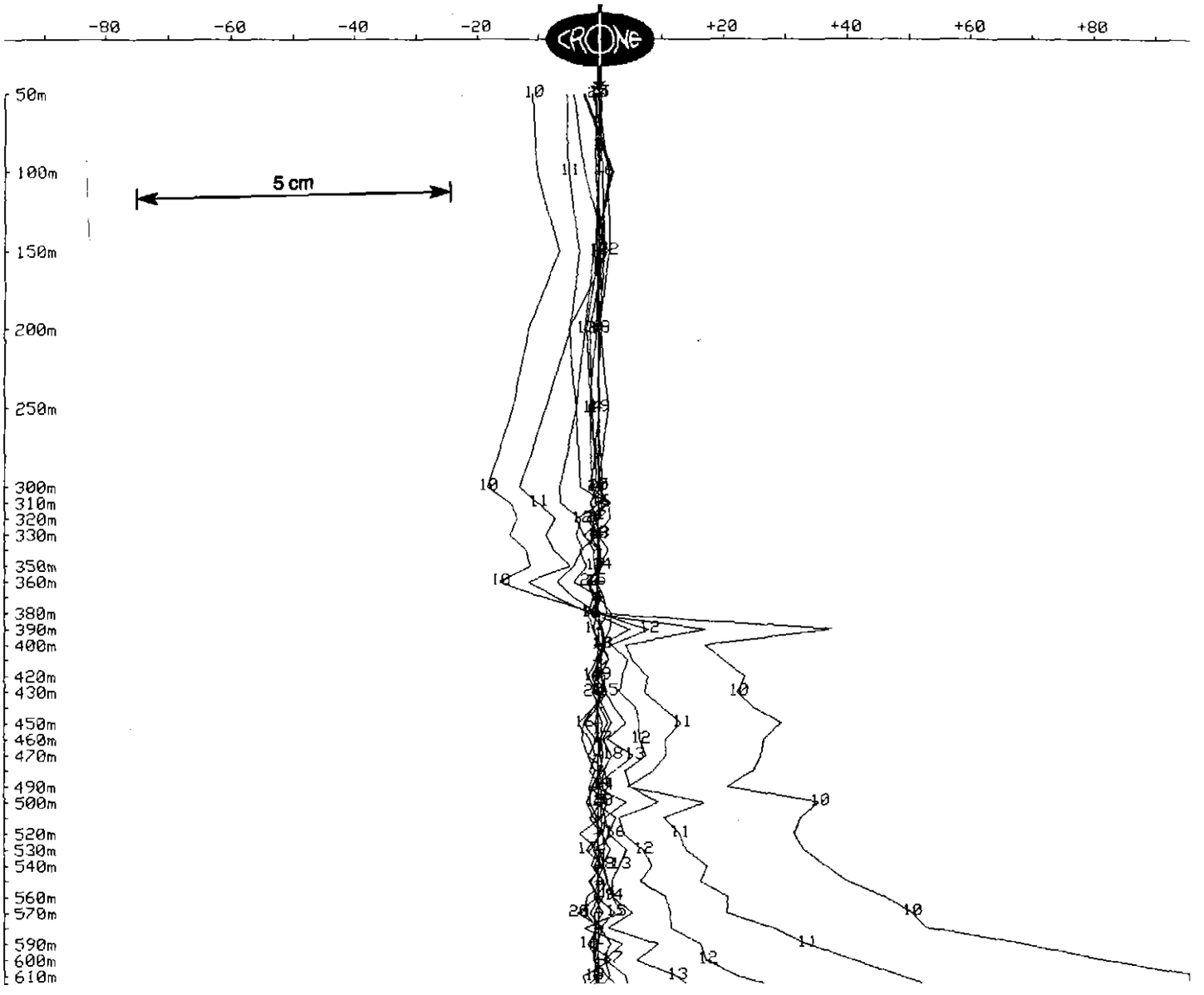
650210

OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: Goldfields Exploration	Hole	: SHD-22
Grid	: South Henty	Tx Loop	: #9
Date	: Feb 2/3, 2000	File name	: SHD22XY9.PEM

Data Corrected for Probe Rotation using Orientation Tool #8
Y COMPONENT dBy/dt nanoTesla/sec - 11 of 31 channels

Scale: 1:4000 Unit Scale: 1cm = 10 nT/s



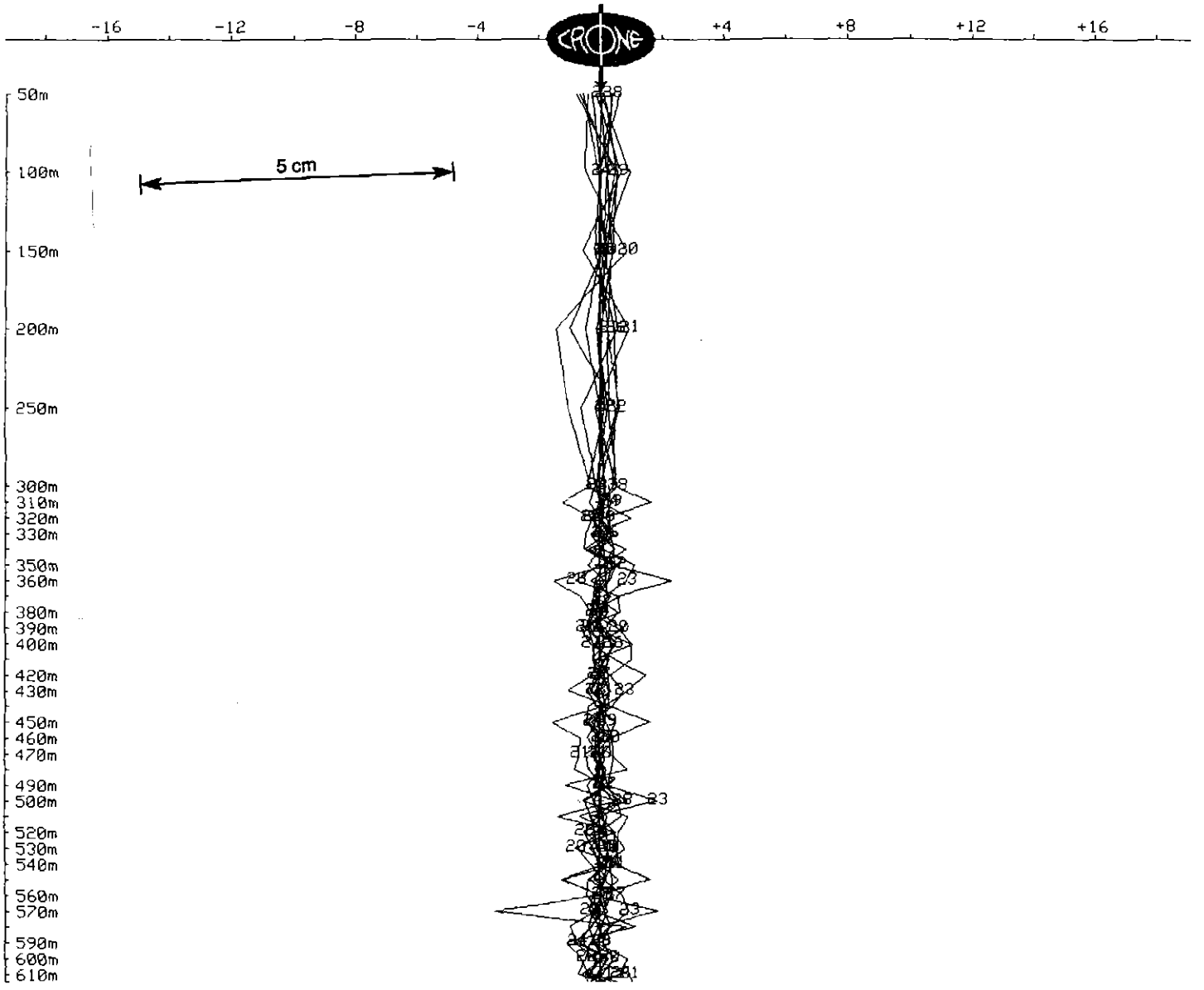
650211

OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: Goldfields Exploration	Hole	: SHD-22
Grid	: South Henty	Tx Loop	: #9
Date	: Feb 2/3, 2000	File name	: SHD22XY9.PEM

Data Corrected for Probe Rotation using Orientation Tool #8
Y COMPONENT dBy/dt nanoTesla/sec - 12 of 31 channels

Scale: 1:4000 Unit Scale: 1cm = 2 nT/s



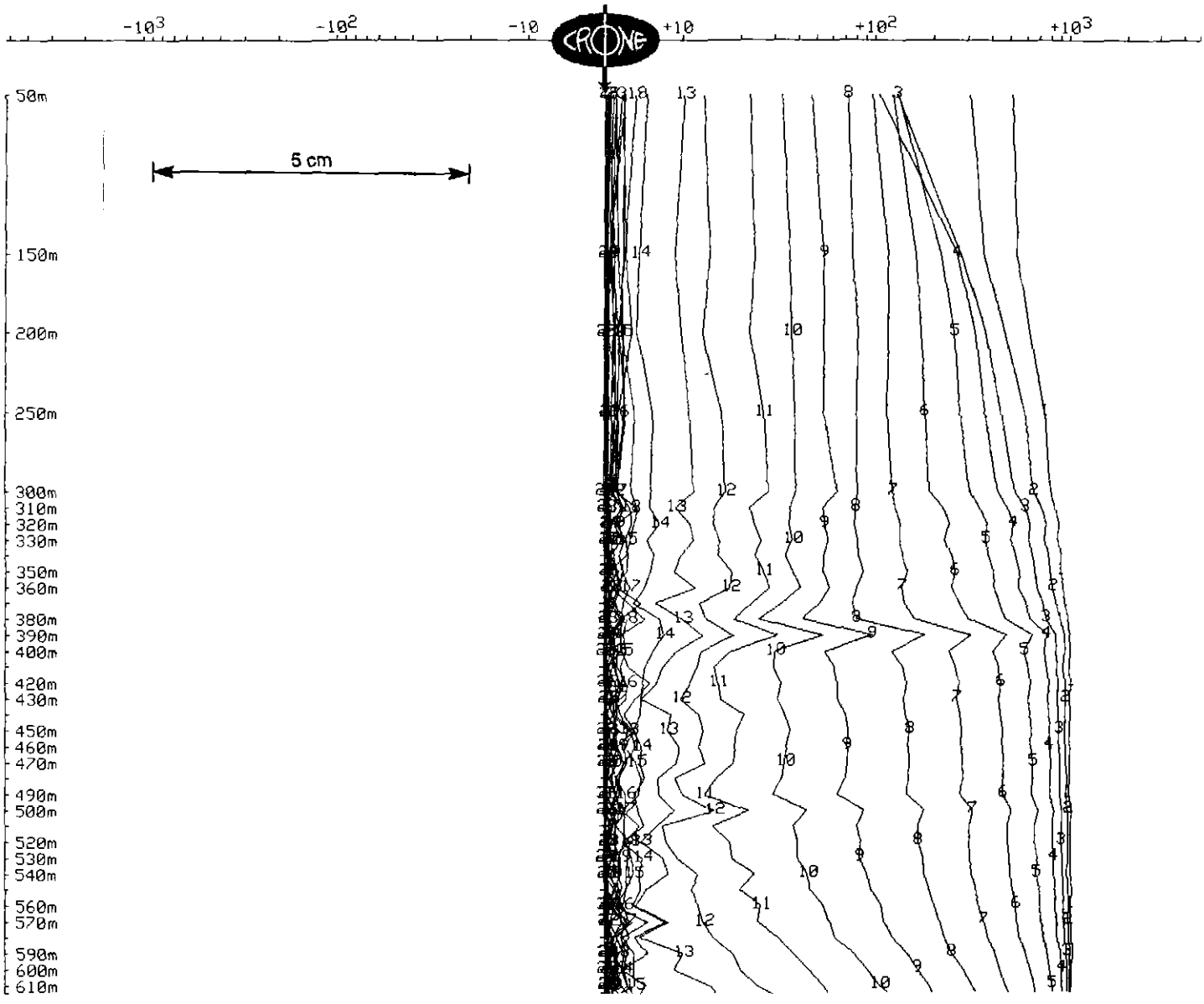
650212

OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: Goldfields Exploration	Hole	: SHD-22
Grid	: South Henty	Tx Loop	: #9
Date	: Feb 2/3, 2000	File name	: S22XYZ9.PEM

TOTAL FIELD dBxyz/dt nanoTesla/sec - 31 of 31 channels

Scale: 1:4000



650213

OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: **Goldfields Exploration**	Hole	: **SHD-22**
Grid	: **South Henty**	Tx Loop	: **#13**
Date	: Feb 1, 2000	File name	: SHD22Z13.PEM
Time Base	: 20.00 ms	# Readings	: 55
Ramp Time	: 0.50 ms	Stn Units	: Metric
# Channels	: 31	Coil Area	: 6500 sq m
Sync Type	: Crystal-MASTER	Polarity	: -
Loop Size	: 500m X 600m	Receiver	: Digital #105
Current	: 12 Amps	Operator	: Kent Honner

Loop Coordinates (X,Y,Z)

1. 380900m, 5.3581e+06m, 0m
2. 381380m, 5.3581e+06m, 0m
3. 381300m, 5.3585e+06m, 0m
4. 380900m, 5.3585e+06m, 0m

Hole Coordinates (X,Y,Z) or (Azimuth,Dip,Length)

1. 380620m, 5.35841e+06m, 0m
2. 294deg, 79.8deg, 30m
3. 298deg, 78deg, 60m
4. 301deg, 76.1deg, 60m
5. 308deg, 74.8deg, 60m
6. 310deg, 73deg, 60m
7. 316deg, 71deg, 60m
8. 321deg, 69.2deg, 60m
9. 324deg, 66deg, 64m
10. 327deg, 62deg, 64m
11. 329deg, 59deg, 60m
12. 329deg, 54deg, 38m

Channel Times (usec)

Ch	Start	End	Center	Ch	Start	End	Center	Ch	Start	End	Center
PP	-198	-99	-149	1	50	58	54	2	58	72	65
3	72	86	79	4	86	104	94	5	104	126	115
6	126	153	140	7	153	185	169	8	185	225	205
9	225	270	248	10	270	328	299	11	328	396	362
12	396	482	439	13	482	580	531	14	580	702	641
15	702	850	776	16	850	1026	938	17	1026	1242	1134
18	1242	1498	1370	19	1498	1813	1656	20	1813	2187	2000
21	2187	2646	2416	22	2646	3195	2920	23	3195	3861	3528
24	3861	4666	4264	25	4666	5634	5150	26	5634	6808	6221
27	6808	8221	7514	28	8221	9936	9078	29	9936	12000	10968
30	12000	14490	13245	31	14490	17510	16000				

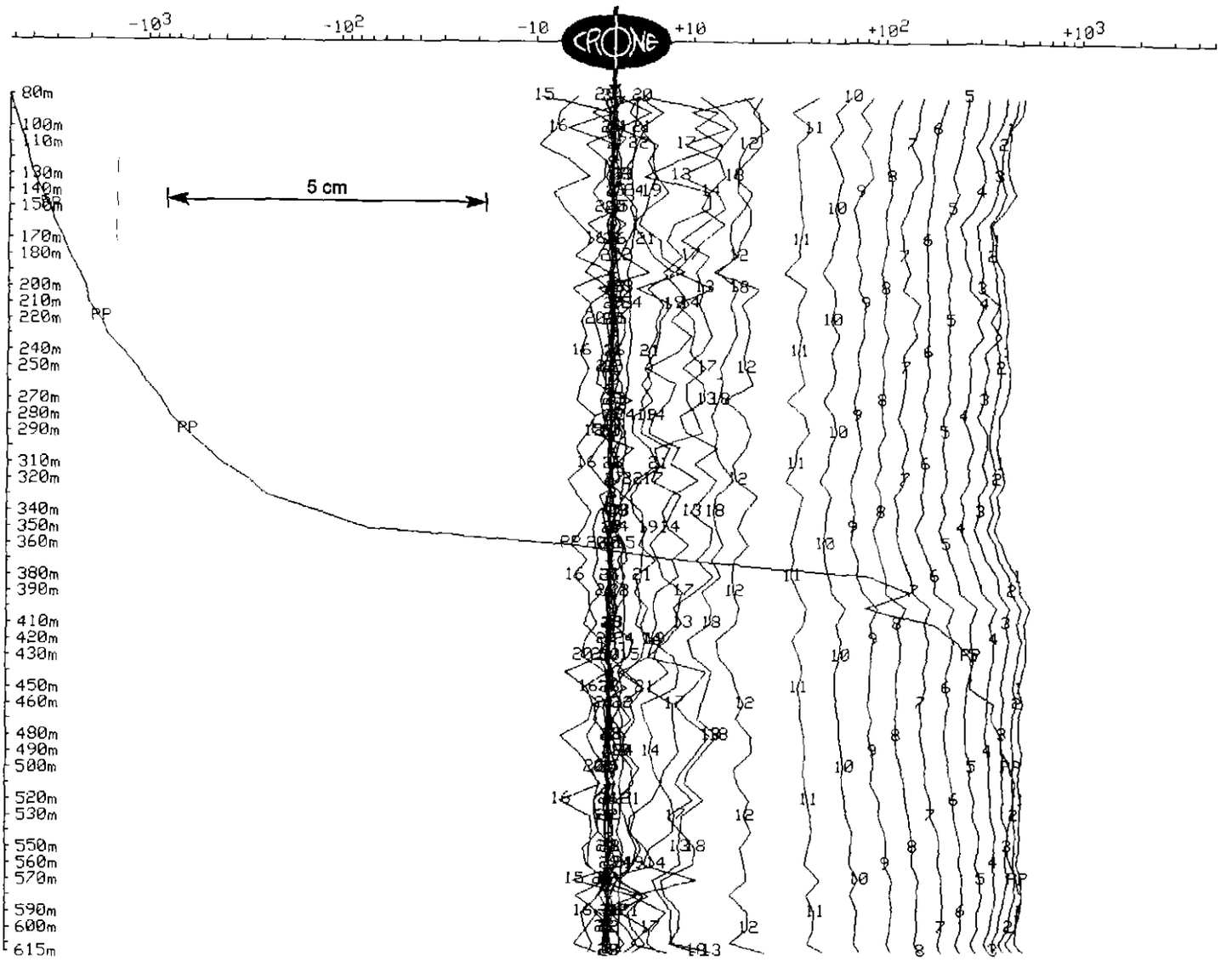
650214

OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: Goldfields Exploration	Hole	: SHD-22
Grid	: South Henty	Tx Loop	: #13
Date	: Feb 1, 2000	File name	: SHD22Z13.PEM

Z COMPONENT dBz/dt nanoTesla/sec - 31 of 31 channels and PP

Scale: 1:4000



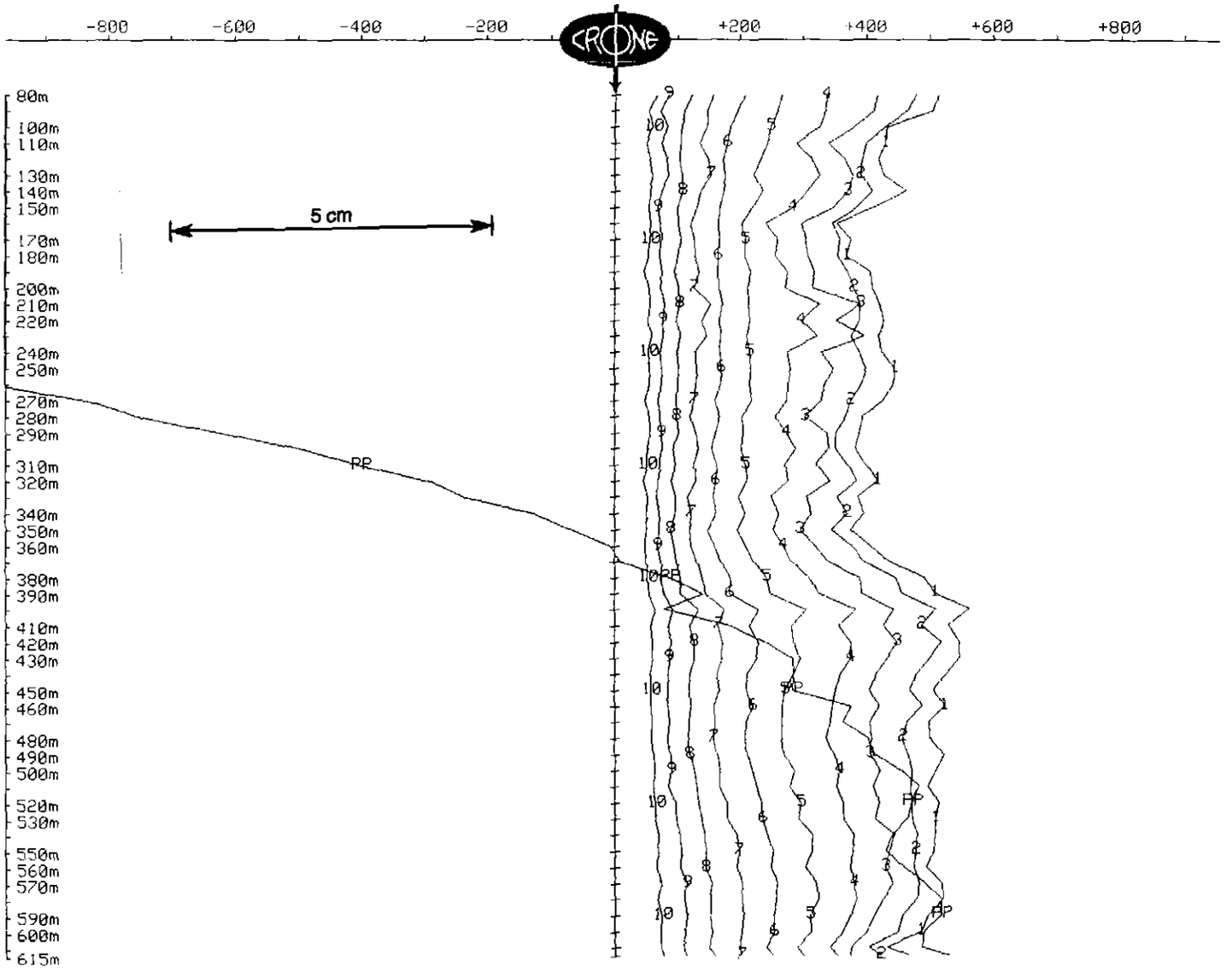
650215

OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: Goldfields Exploration	Hole	: SHD-22
Grid	: South Henty	Tx Loop	: #13
Date	: Feb 1, 2000	File name	: SHD22Z13.PEM

Z COMPONENT dBz/dt nanoTesla/sec - 10 of 31 channels and PP

Scale: 1:4000 Unit Scale: 1cm = 100 nT/s



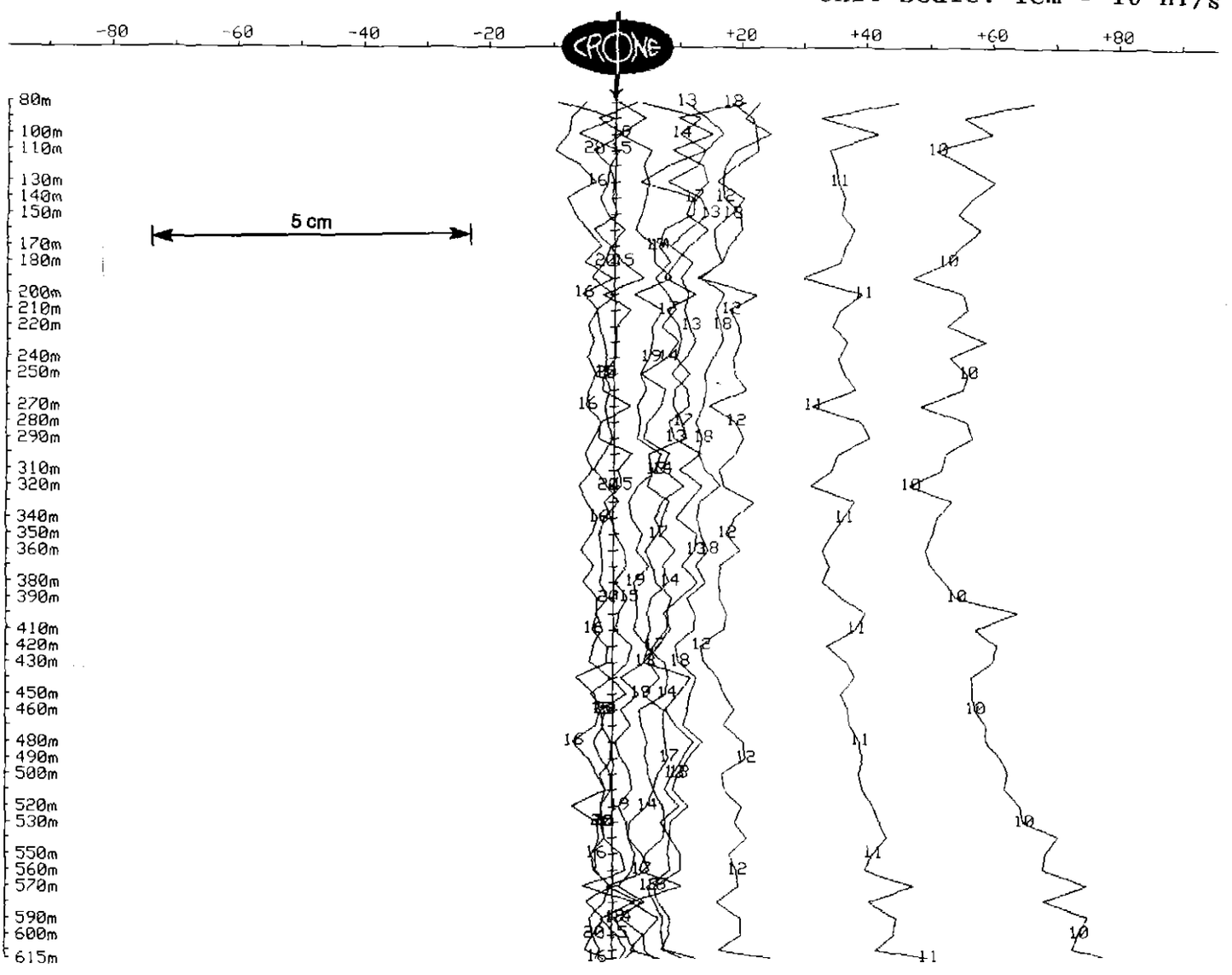
650216

OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: Goldfields Exploration	Hole	: SHD-22
Grid	: South Henty	Tx Loop	: #13
Date	: Feb 1, 2000	File name	: SHD22Z13.PEM

Z COMPONENT dBz/dt nanoTesla/sec - 11 of 31 channels

Scale: 1:4000 Unit Scale: 1cm = 10 nT/s



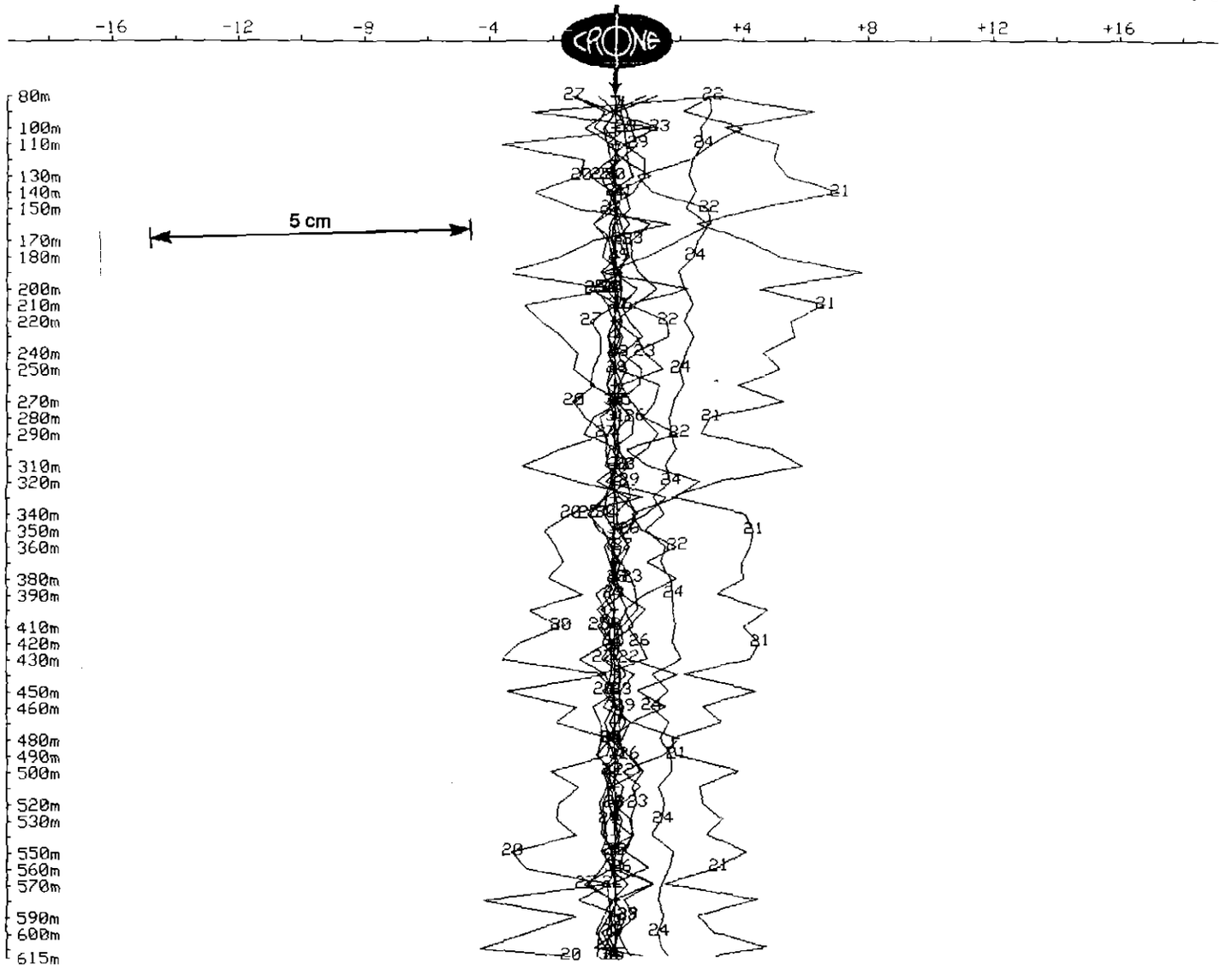
650217

OUTER-RIM EXPLORATION SERVICES
Borehole Pulse EM Survey

Client	: Goldfields Exploration	Hole	: SHD-22
Grid	: South Henty	Tx Loop	: #13
Date	: Feb 1, 2000	File name	: SHD22Z13.PEM

Z COMPONENT dBz/dt nanoTesla/sec - 12 of 31 channels

Scale: 1:4000 Unit Scale: 1cm = 2 nT/s



650218

00-4457B

Appendix 3.

DHEM Modelling, old data and additional loops.

650219

00-44578

Flagstaff GeoConsultants

Hugh Rutter	Geophysicist
Geof Fethers	Geologist
Nigel Hungerford	Geophysicist
Paul Hamlyn	Geologist
Michael Asten	Geophysicist
Ross Caughey	Geologist
Alaster Edwards	Geologist

FACSIMILE TRANSFER

To: Michael Vicary

From: M Asten

Attention:

Date: 17/8/99

Fax No.: 64 716644

No. of pages 3 (including this page)

ANY QUERY ABOUT THIS TRANSMISSION, PLEASE CALL (03) 9421 1000
OR FAX (03) 9421 1099

Modelling and Interpretation - Borehole EM South Henty

Summary

Quantitative modelling of borehole EM data for holes SHD1 and SHD2 indicates that a thick conductive zone exists between these two holes. The zone is shown as conductors A and C in the following figures, and strikes close to north-south, has a lateral width of 300 m, dips shallowly east, with a thickness up to 400 m. It appears most conductive at its base, as seen from the base of SHD2. The conductive zone is poorly detected in its northern extension in data from hole SHD16 (insufficiently logged with EM). The conductive zone in its southern extension appears to be detected weakly at a large distance west of hole NC4 and (as conductor D) east of hole SHD12. A strike length of 800+ m (open north and south) may be inferred, with the conductor probably being weaker in the south end near hole SHD12.

I recommend conductor A be tested with a hole collared at the site and azimuth of hole SHD1, but targeted to pass through conductor A at points
380700E, depth below surface 340 m, and
380450E, depth below surface 530 m.

I recommend the lower part of conductor C be tested with either a continuation of hole SHD1 (if technically possible) or with a vertical hole from the site of SHD2. This second hole should be preceded by borehole EM logging of the first hole with an associated update in the geophysical model.

Flagstaff GeoConsultants Pty. Ltd. (ACN 074 693 637)
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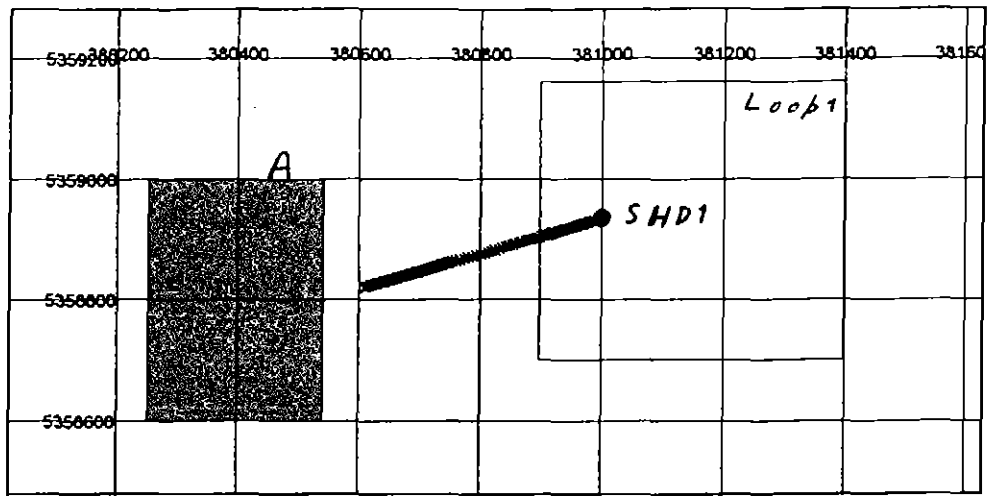
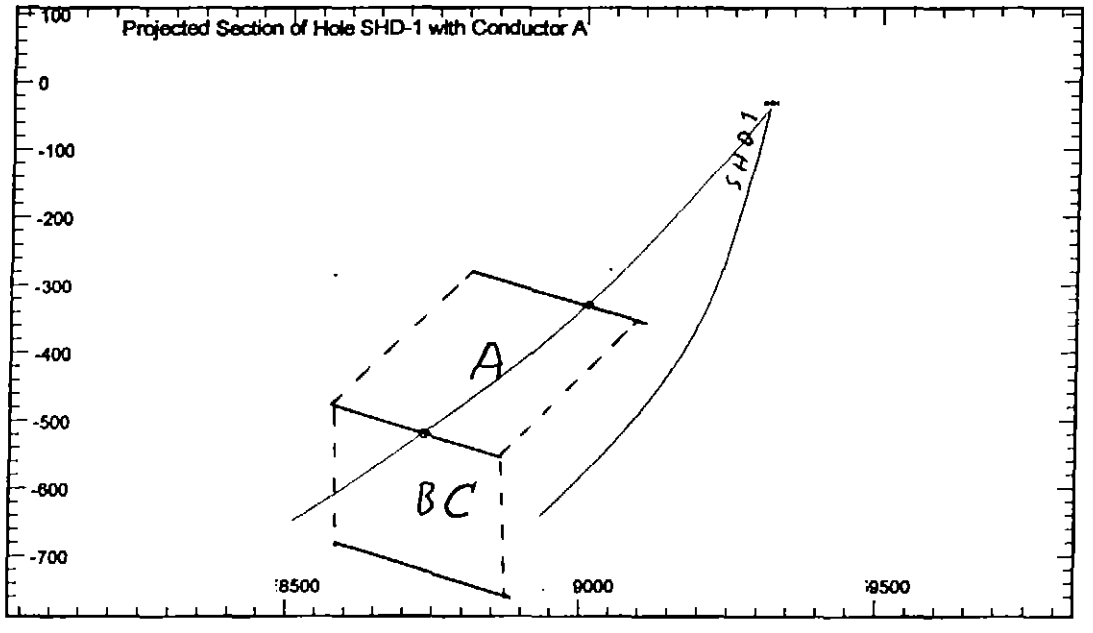
Phone: +61 3 9421 1000 Fax +61 3 9421 1099
Email: postman@flagstaff-geoconsultants.com.au WebSite. www.flagstaff-geoconsultants.com.au

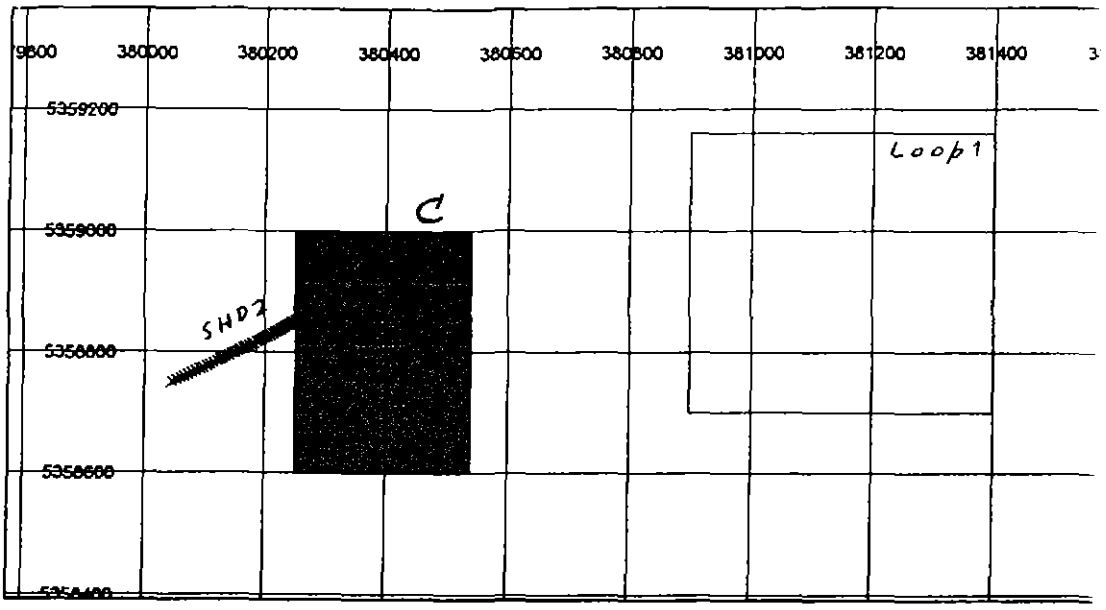
650220

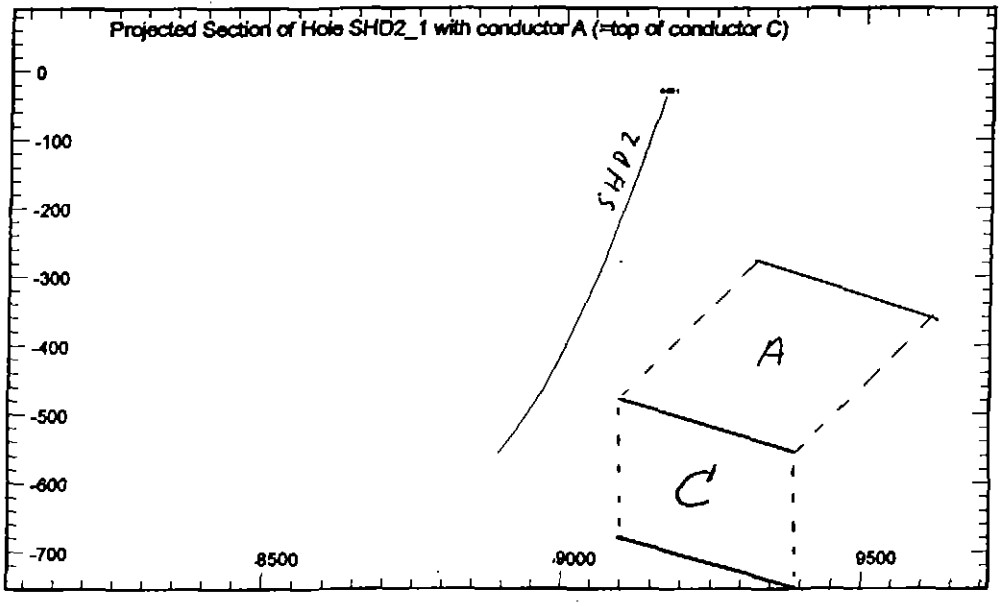




TOP: Plan view (AMG coordinates) of hole SHD1 and base of conductor A.

BOTTOM: Section west-east showing projected hole SHD1, and cross-section of conductors A and C. The recommended new drillhole is shown in red.





TOP: Plan view (AMG coordinates) of hole SHD2 and top of conductor C.

BOTTOM: Section west-east showing projected hole SHD2, and cross-section of conductors A and C.

650222

Discussion on borehole EM modelling results

Holes SHD1 and SHD2

I have performed quantitative modelling on data from holes SHD1 and SHD2, with a view to improving estimates on geometry of conductors A and C previously described (draft report of 26/6/99).

I have been unsuccessful in confirming the geometry of Conductor A using a simple flat-lying plate model. The flat-lying plate when modelled gives increased amplitudes with Loop 2 (expected from increased geometric coupling), but the field data shows the stronger anomaly with Loop1. I have also considered whether the anomalies observed at the base of holes SHD1 and 2 might be due to a conductive earth. The anomaly has some characteristics of a conductive-earth effect (moveout of the A-component crossover with time) but modelling hole SHD1 with a slightly conductive earth (500 ohm.m), and using loop 9 (which should give the strongest moveout effect) gives the result shown in Fig.17 which does not duplicate the field observation.

The model shown in Fig. 1a gives the model data shown in Fig. 2, which matches the field data at the base of the hole. A similar model 200 m further up the hole shown in Fig. 1b matches profiles in the vicinity of 400 m depth, hence a model for conductor A as a thick conductor seen from hole SHD1, is a reasonable conclusion, and is consistent with the concept of conductor A being a thick alteration zone. Additional support for the interpreted position of Conductor A lies in the positive anomaly on channels 4-12 for loop 1, and on channels 4-8 for loop 2. This anomaly sign, and its existence at later channels on loop 1, is consistent with early-time current channelling energisation of a target located as for conductor A.

Figs. 3-5 show the three components A,U and V for hole SHD1 Loop1. Note the V component is negative in the lower half of the hole (although very noisy). This is broadly consistent with the modelled V component (not shown) and supports the model geometry as interpreted.

I conclude that Conductor A modelling is unable to confirm location of edges of this target, but existence of the target as a thick weak conductor remains probable.

The geometry of Conductor C as seen from hole SHD2 is easier to model than was conductor A. The sign change between Loop 2 and Loop 9 data can be interpreted as evidence of a steeply dipping geometry, and can be replicated by modelling. The sign of A,U and V anomalies in field data at the base of the hole is replicated by the Conductor C model striking N-S.

However field data associated with conductor C shows strong migration of peaks and crossovers to increasing depth with time, which indicates Conductor C has a large depth extent, and increases in conductivity-thickness with depth. Given the "thick"

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nature deduced for conductor A as seen from SHD1, it is logical to use a similar conductor to match field data from hole SHD2.

Figs.6 and 7 show the (lower) conductor A, top at 480 m below surface, as seen from SHD2. We label this as the top of conductor C. Figs. 8 and 9 show the same conductor at a deeper depth (680 m below surface). The actual conductor C will be a thick conductor consisting of a combination of these. Figs. 10-12 show the three components A,U and V for SHD2, Loop 1. The small V/U ratio (order 0.25) seen in Figs. 11-12 indicates strike to extend both north and south of hole SHD2.

Conductivity of conductors A and B can be estimated from decay time constants, which range from 0.2 msec (channels 13-15, SHD2 loop 1) to 0.5 msec (channels 14-18, SHD2 loop 1, Fig. 10a), to order 0.8 msec (SHD1 loop1, depth 780 m). For a conductor 300 m wide, these time constants indicate conductivity-thicknesses of 6 S, 14 S, and 20 S respectively.

Hole NC4

Hole NC4 illuminated with Loops 9 and 13 (Figs. 13,14) yields profiles very similar to profiles for hole SHD1 with Loops 9 and 1 (Figs. 15,16). This suggests that Conductor A does extend south to NC4 (west of ground drilled by NC4). This conclusion is consistent with the conductive trend mapped with CSAMT, and therefore supports the proposal to drill the CSAMT anomaly south of the lake. However as noted above the difficulty of modelling such data quantitatively, and the fact that the anomalies are produced with difficulty by filtering noisy data, means that this conclusion regarding conductor A must be treated with caution.

I will study this anomaly in more detail when I have a geological section and borehole survey coordinates for NC4.

Holes SHD12 and SHD16

It is worth revisiting the data for these holes in the light of the new interpretation given above. SHD12 Loop 10 field data (Fig. 18) shows similarities to data for SHD2, loop 1. This lends support to the interpretation that the thick conductor C extends south at least as far as hole SHD12, and hence that conductor D reported in my previous interpretation is a continuation of conductor C. Note that broad negative response visible in Fig. 18 occurs first on channel 7 at 400 m depth, migrates lower in the hole with channel time, and is extinct by channel 16. This is an earlier set of channels than observed for the anomaly seen from SHD2, and suggests the conductor D (compared with C) is similarly thick, but lies further east of the hole, and is weaker in its conductivity-thickness.

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Data from hole SHD16 loop7 has a strong transmitter overprint (only one loop was used), but after smoothing the data (Fig. 19) a similarity with SHD2 loop1 (Fig. 10, especially channel 16) is observed. Thus hole SHD16 is consistent (although not definitive) with the interpretation of conductor C extending north as a thick conductor located east of and below SHD16.

Regards,

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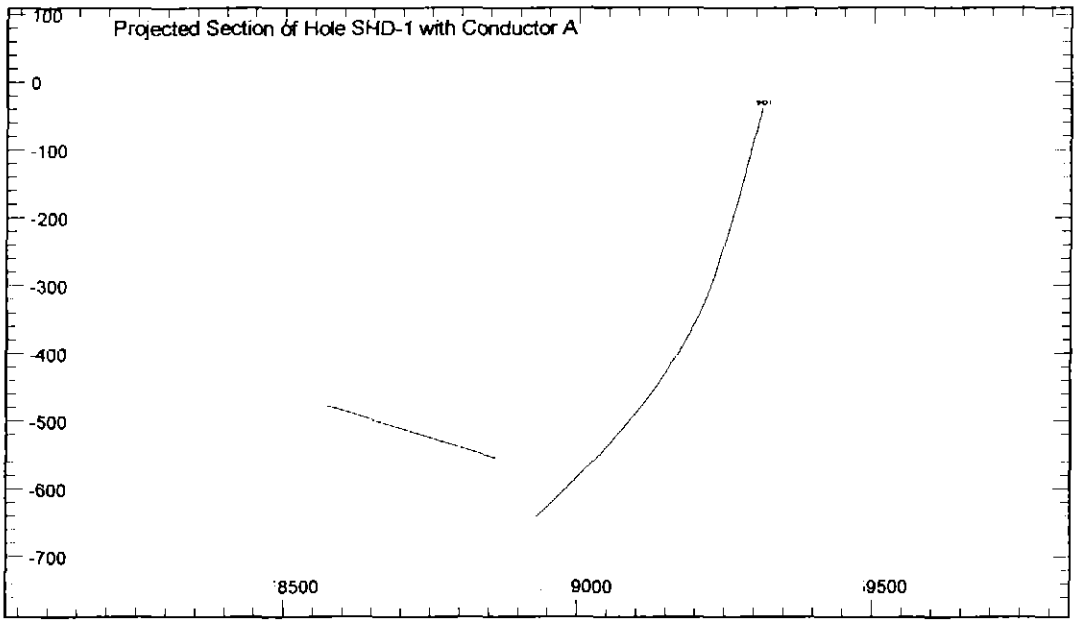

Fig. 1a. Section for Conductor A. Note that the horizontal scale is relative, not in AMG.

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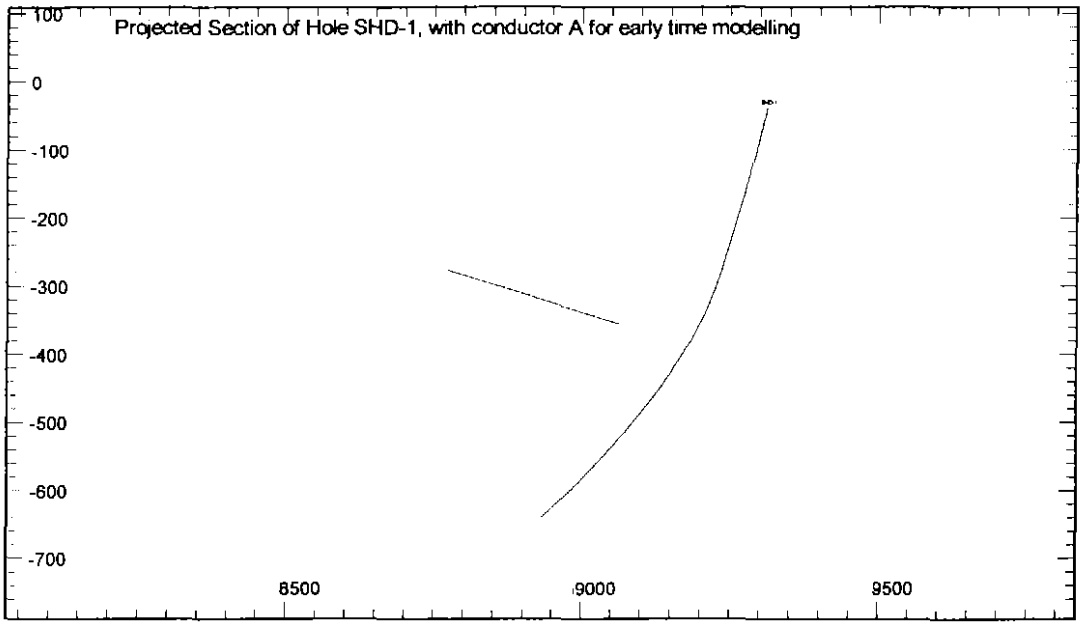


Fig. 1b. Section for Conductor A. Note that the horizontal scale is relative, not in AMG.

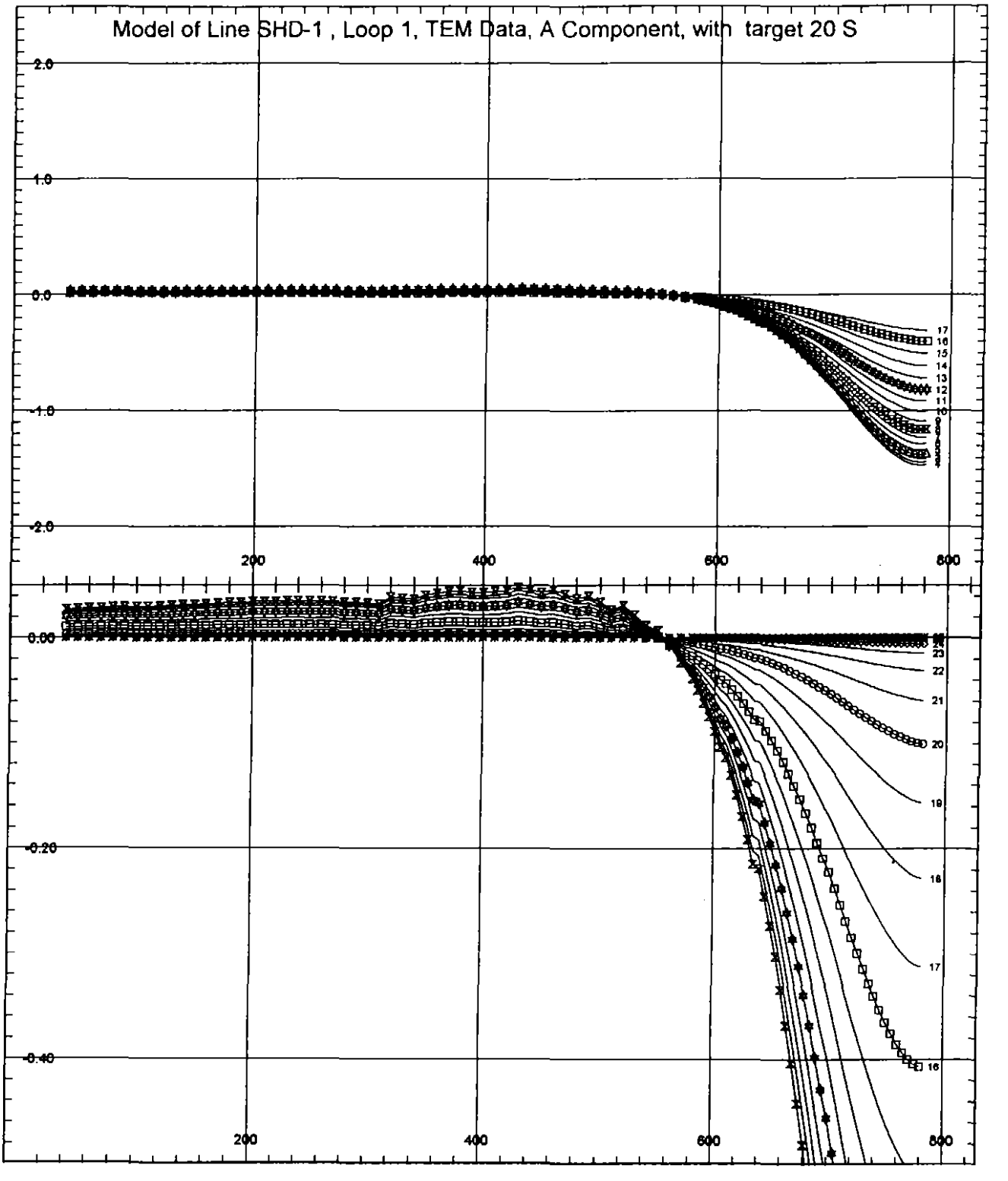
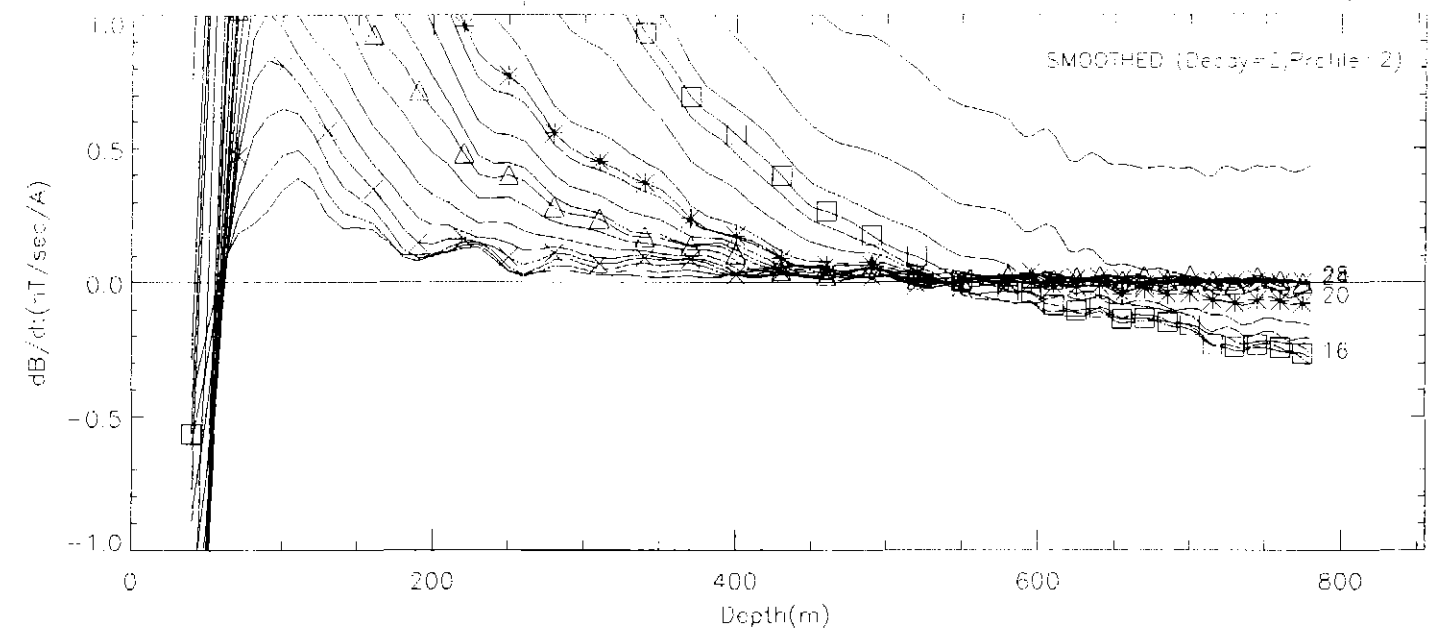

Model of Line SHD-1 , Loop 1, TEM Data, A Component, with target 20 S
2.0
1.0
0.0
-1.0
-2.0
200
400
600
800
0.00
-0.20
-0.40
200
400
600
800

Fig.2.

650228



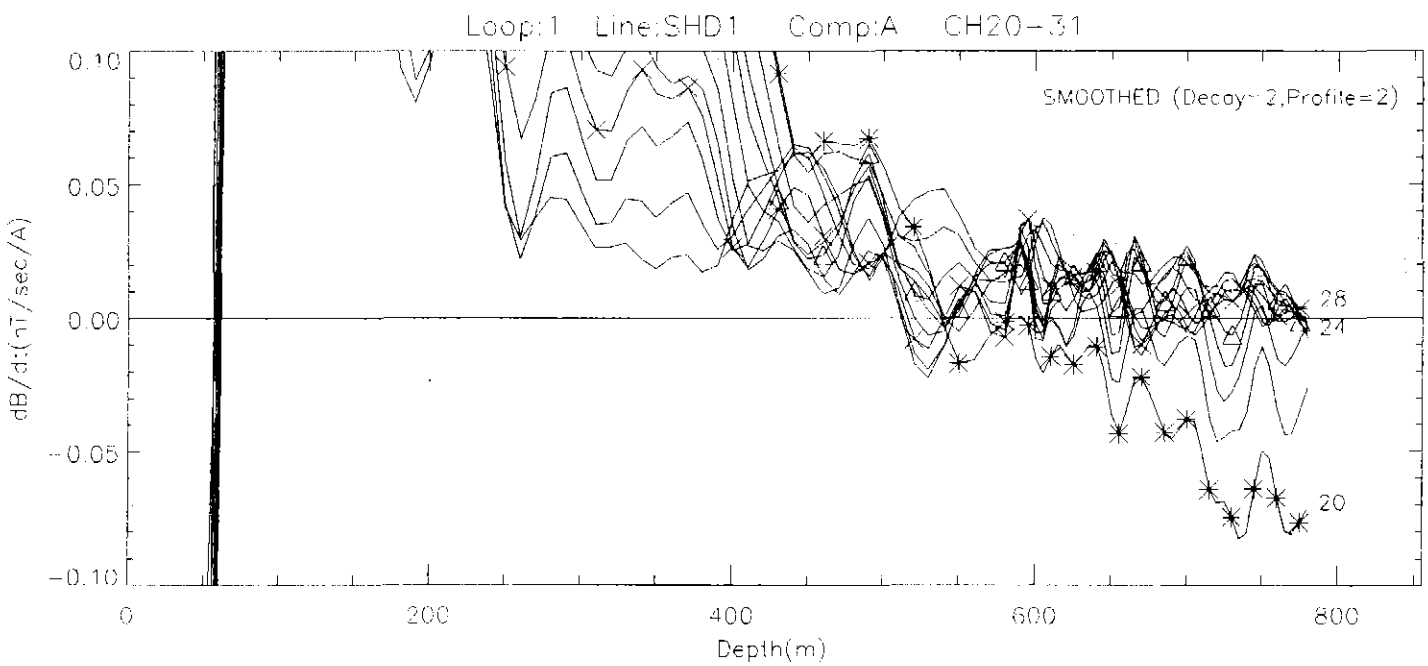
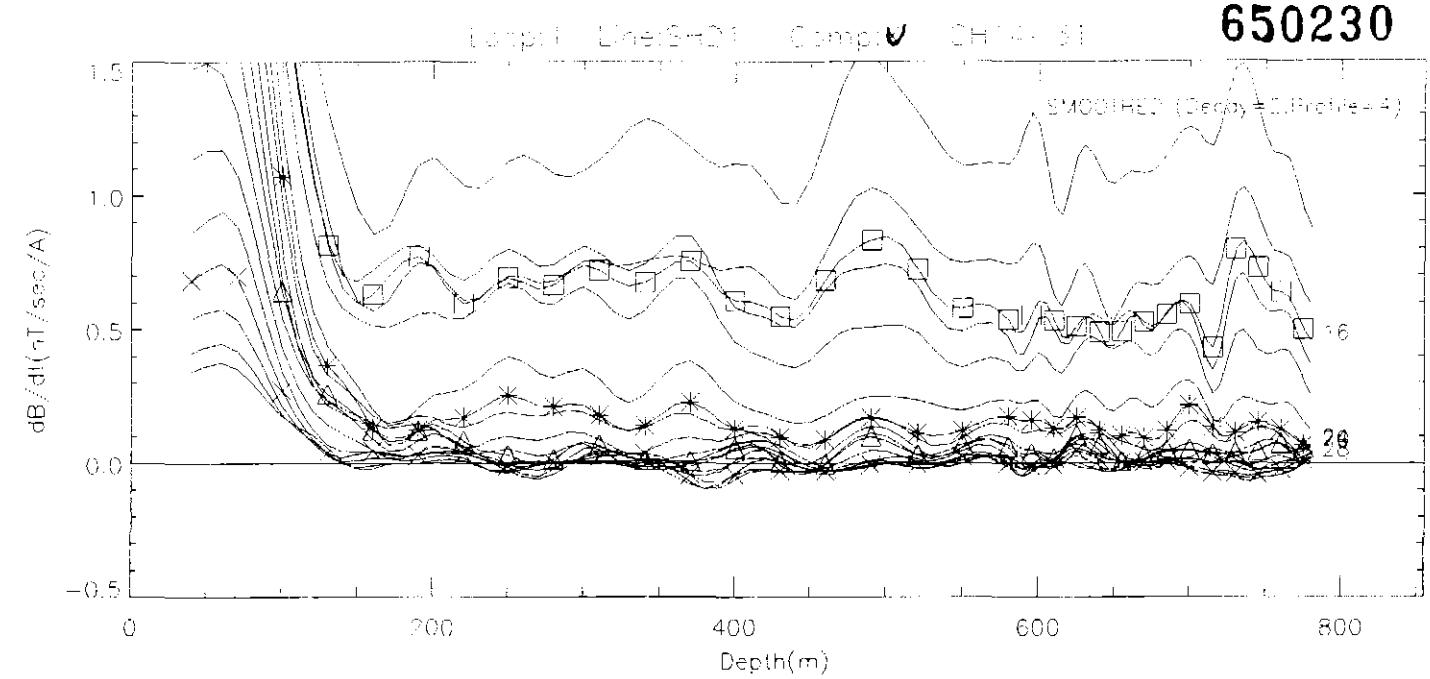


Fig.3

Goldfields Ltd	
South Henty. Borehole EM	
Crone PEM. 1x Frequency 12.5 Hz	
Window Set Ch1-31	
Drawn 18/ 8/1999	

650230



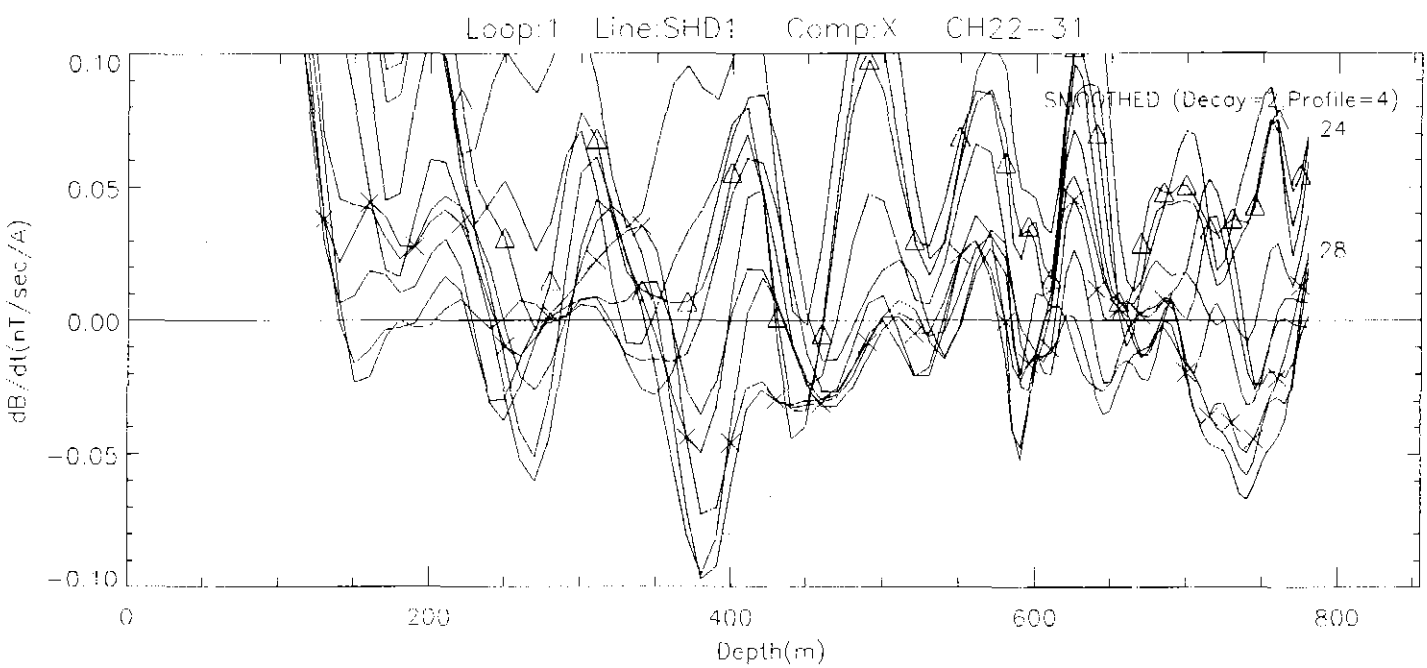


Fig. 4.

Goldfields Ltd	
South Henty. Borehole EM	
Crone PEM. Tx Frequency 12.5 Hz	
Window Set Ch1 - 31	
Drawn 18/ 8/1999	

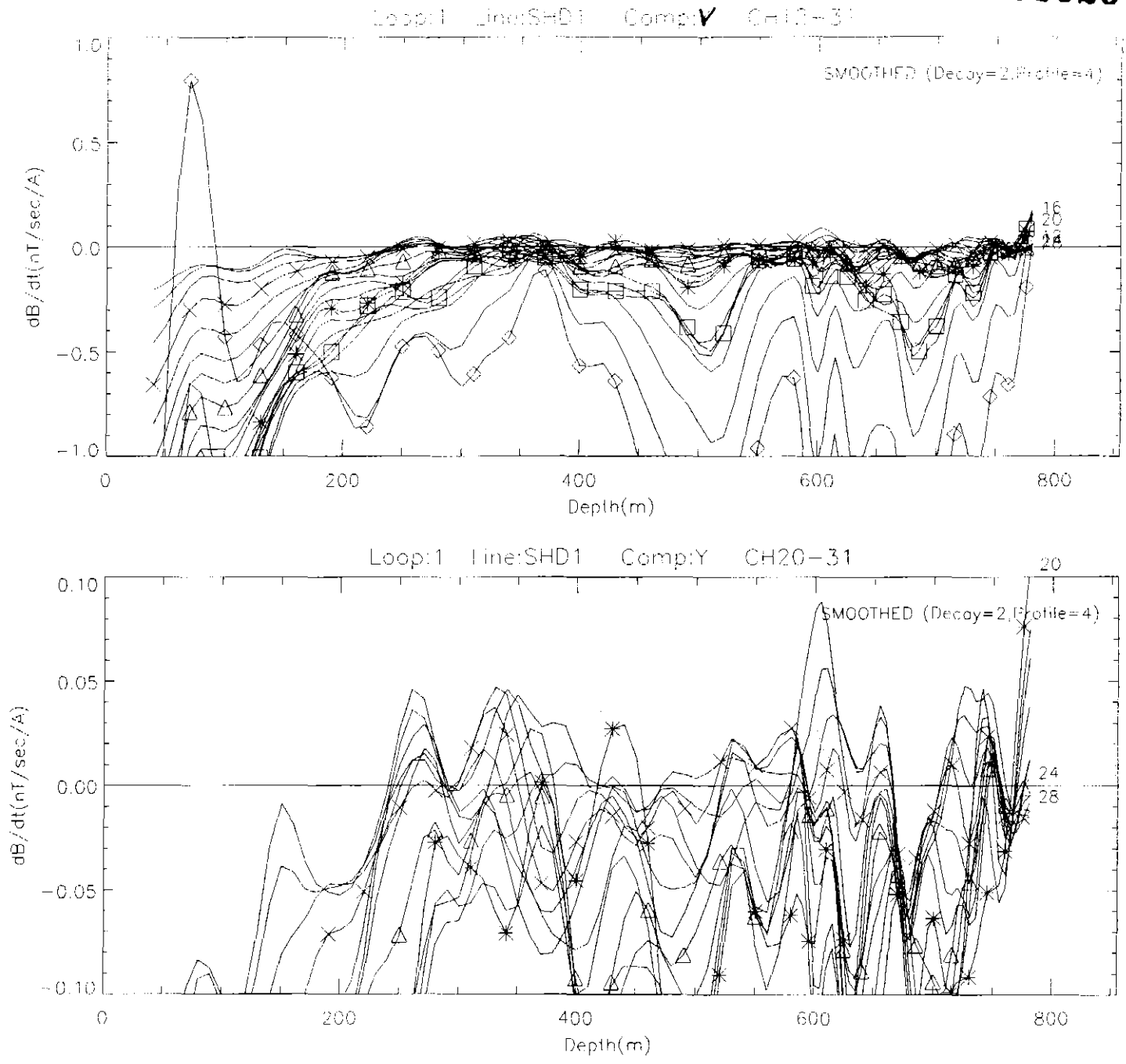


Fig. 5.

Goldfields Ltd	
South Henty. Borehole 1M	
Crone PEM. Tx Frequency 12.5 Hz	
Window Set Ch1-31	
Drawn 18/ 8/1999	

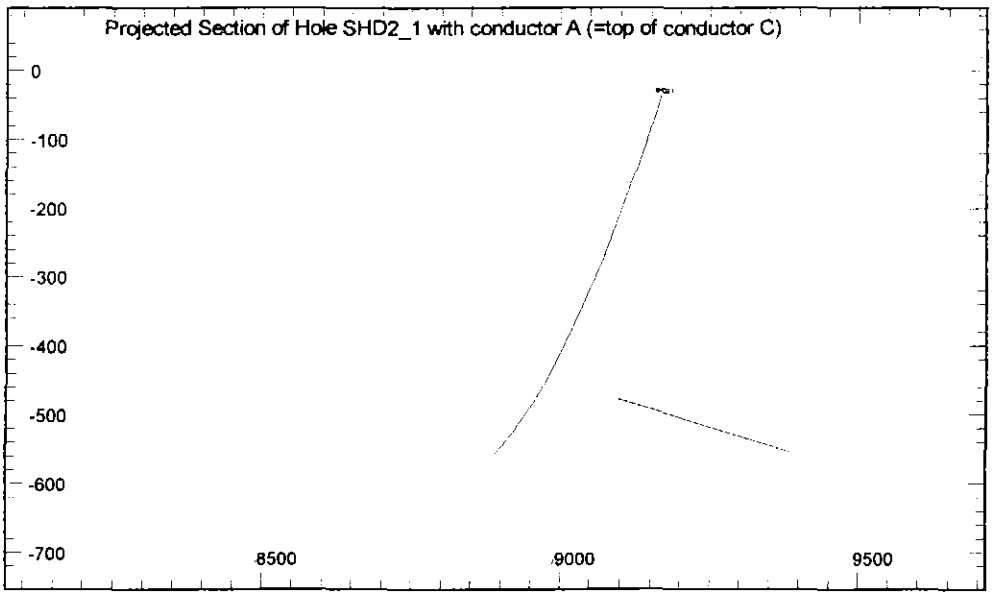


Fig. 6. Section for Conductor C. Note the horizontal scale is relative, not in AMG.

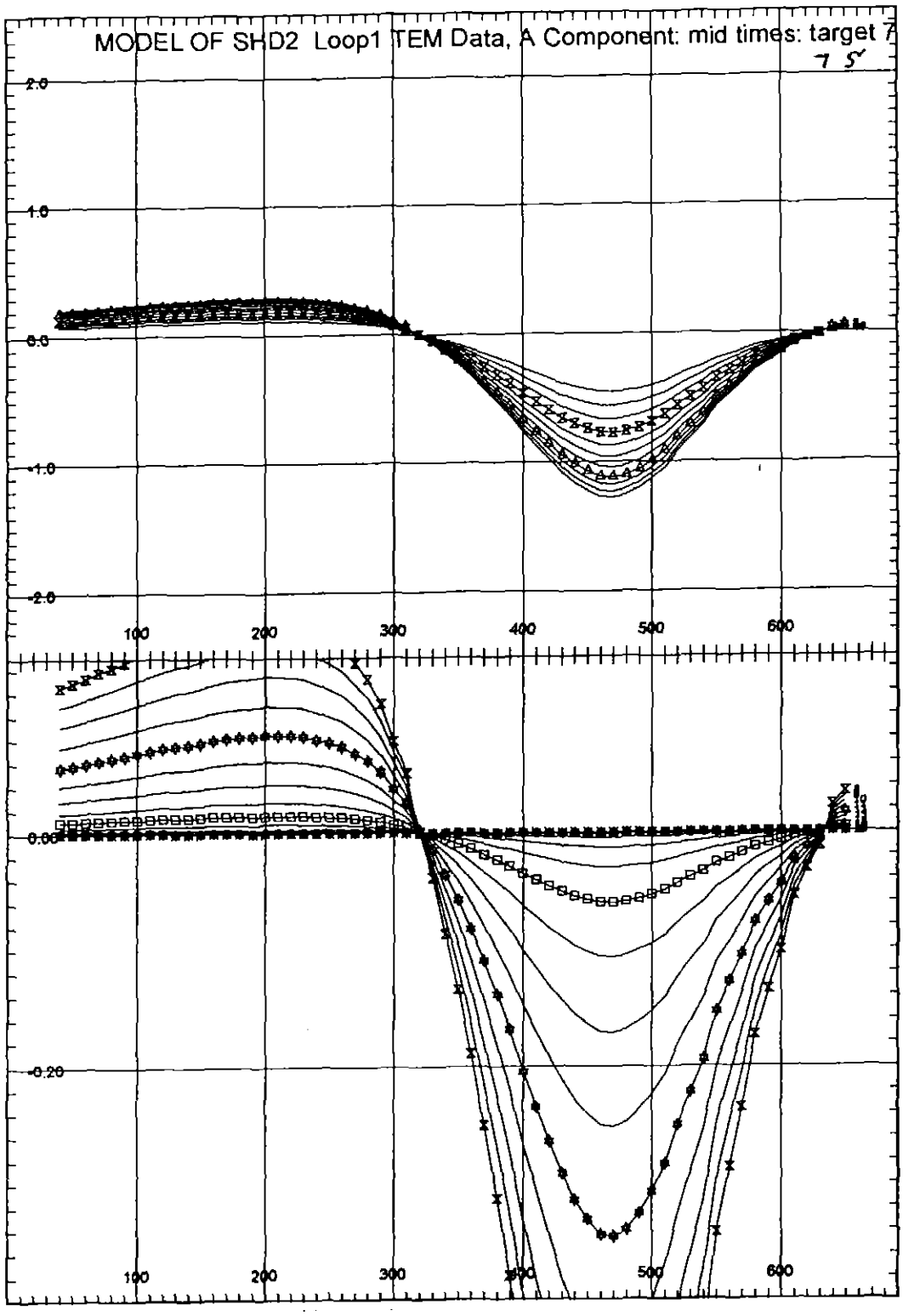


Fig. 7. Section for Conductor C. Note the horizontal scale is relative, not in AMG.

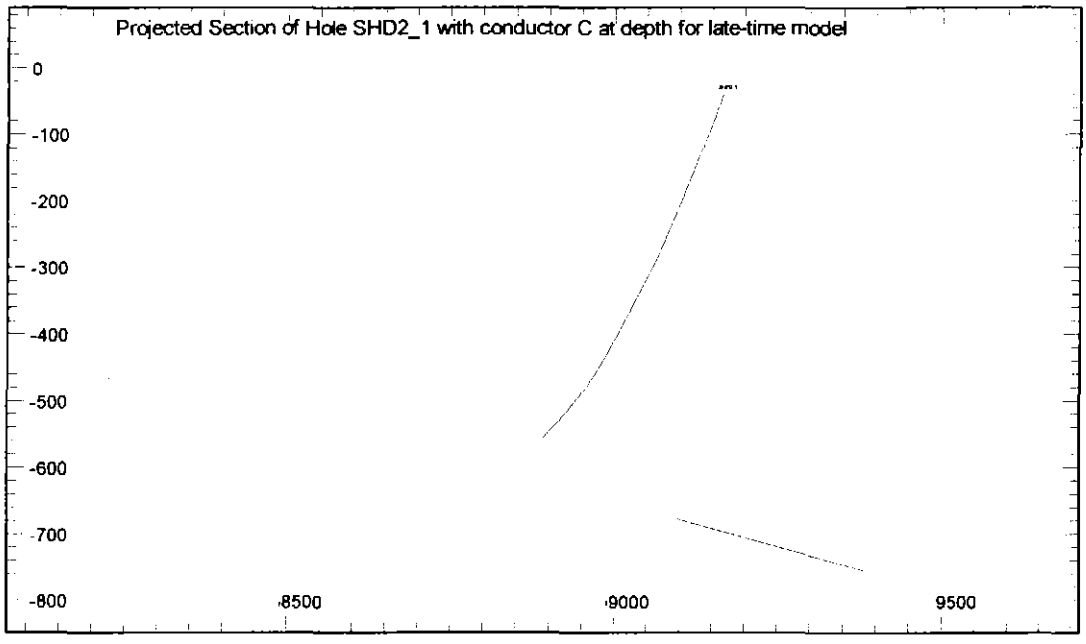

Projected Section of Hole SHD2_1 with conductor C at depth for late-time model
0
-100
-200
-300
-400
-500
-600
-700
-800
8500
9000
9500

Fig. 8.

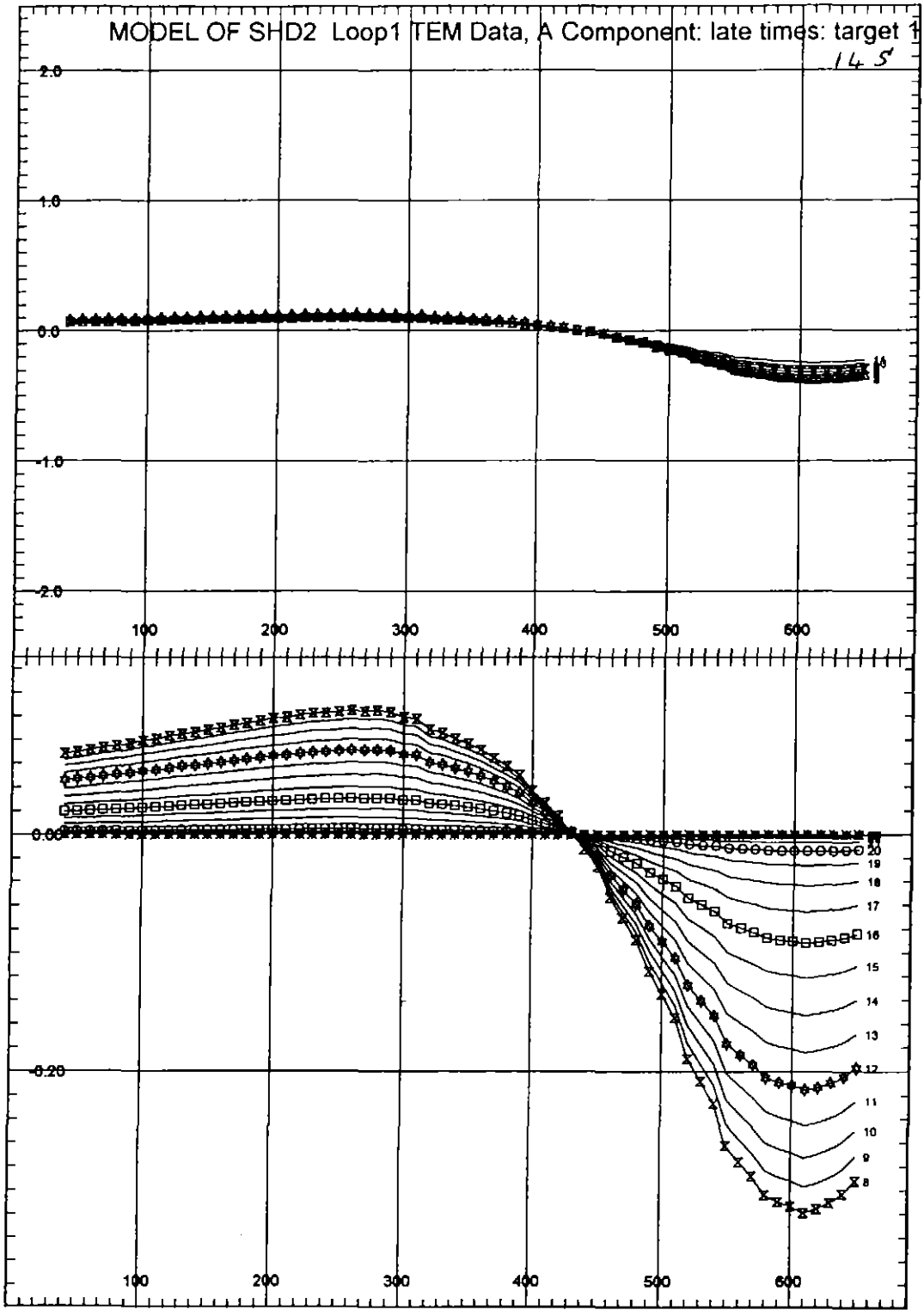
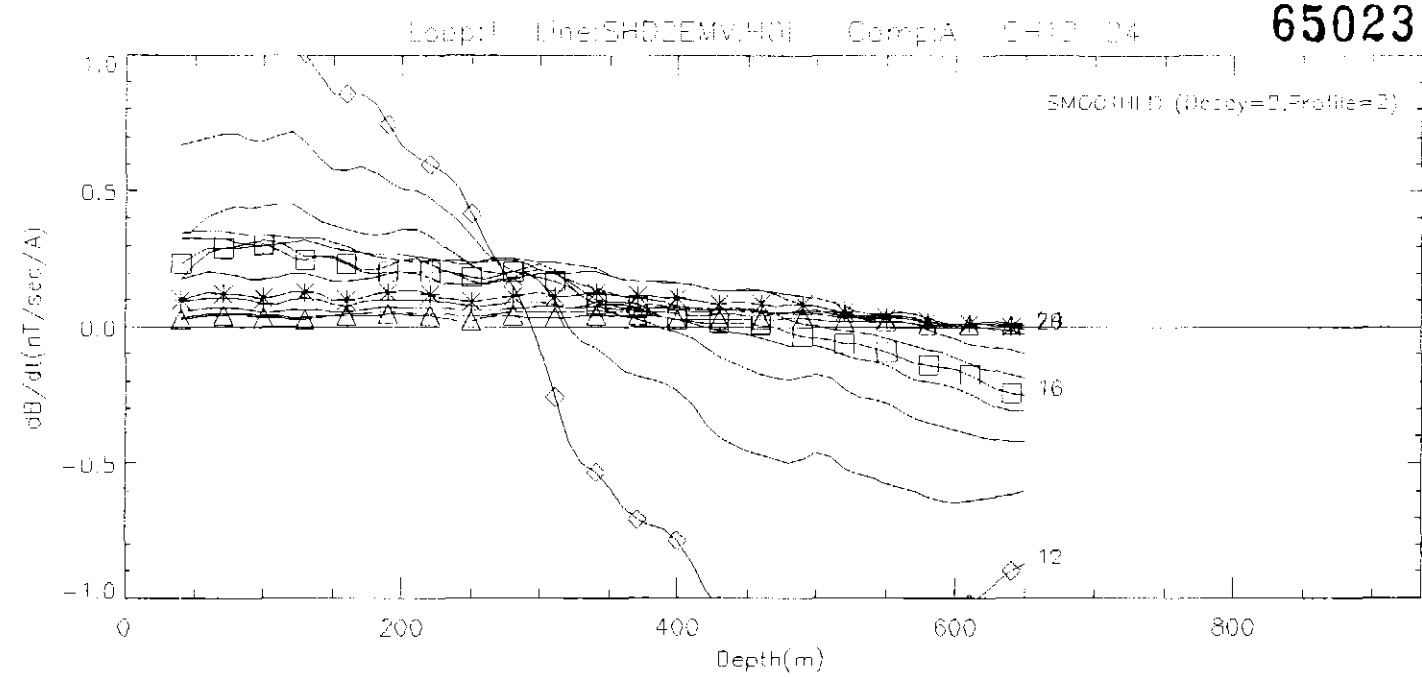

MODEL OF SHD2 Loop1 TEM Data, A Component: late times: target 1
145
2.0
1.0
0.0
-1.0
-2.0
100
200
300
400
500
600
0.00
-0.20
20
19
18
17
16
15
14
13
12
11
10
9
8

Fig.9.



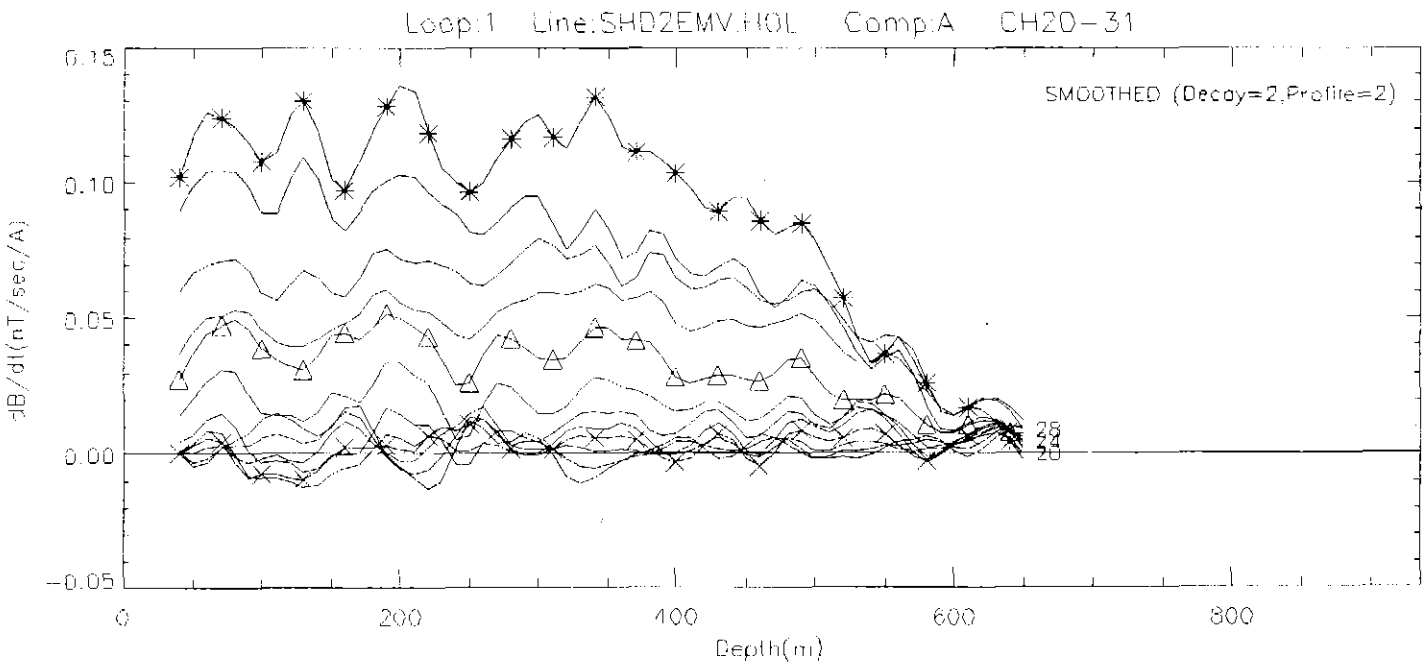


Fig.10.

Goldfields Ltd	
South Henty. Borehole EM Cross PEM. Tx Frequency 12.5 Hz Window Set Ch1-31	
Drawn 17/ 8/1999	

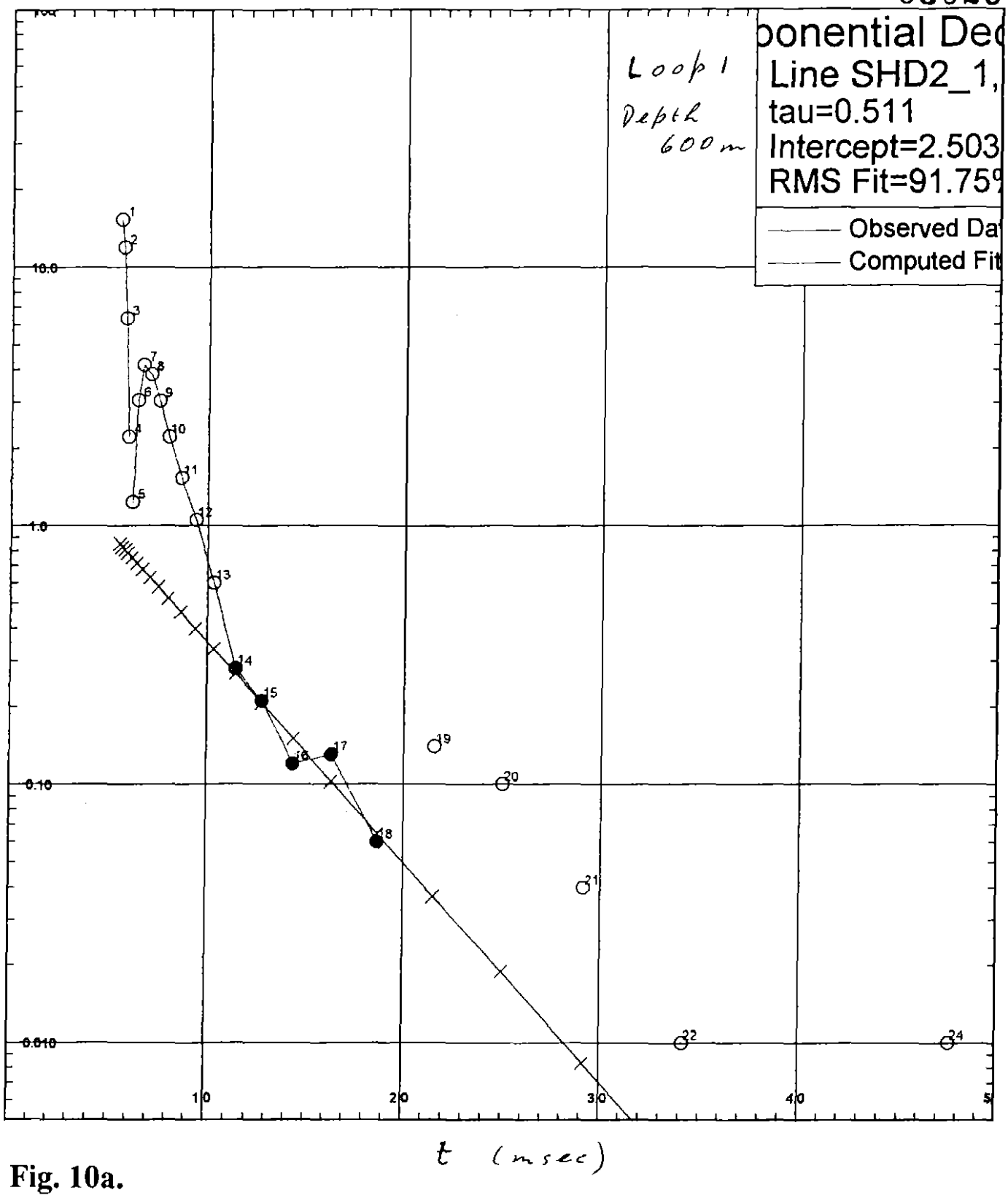


Fig. 10a.

Fig. 10a

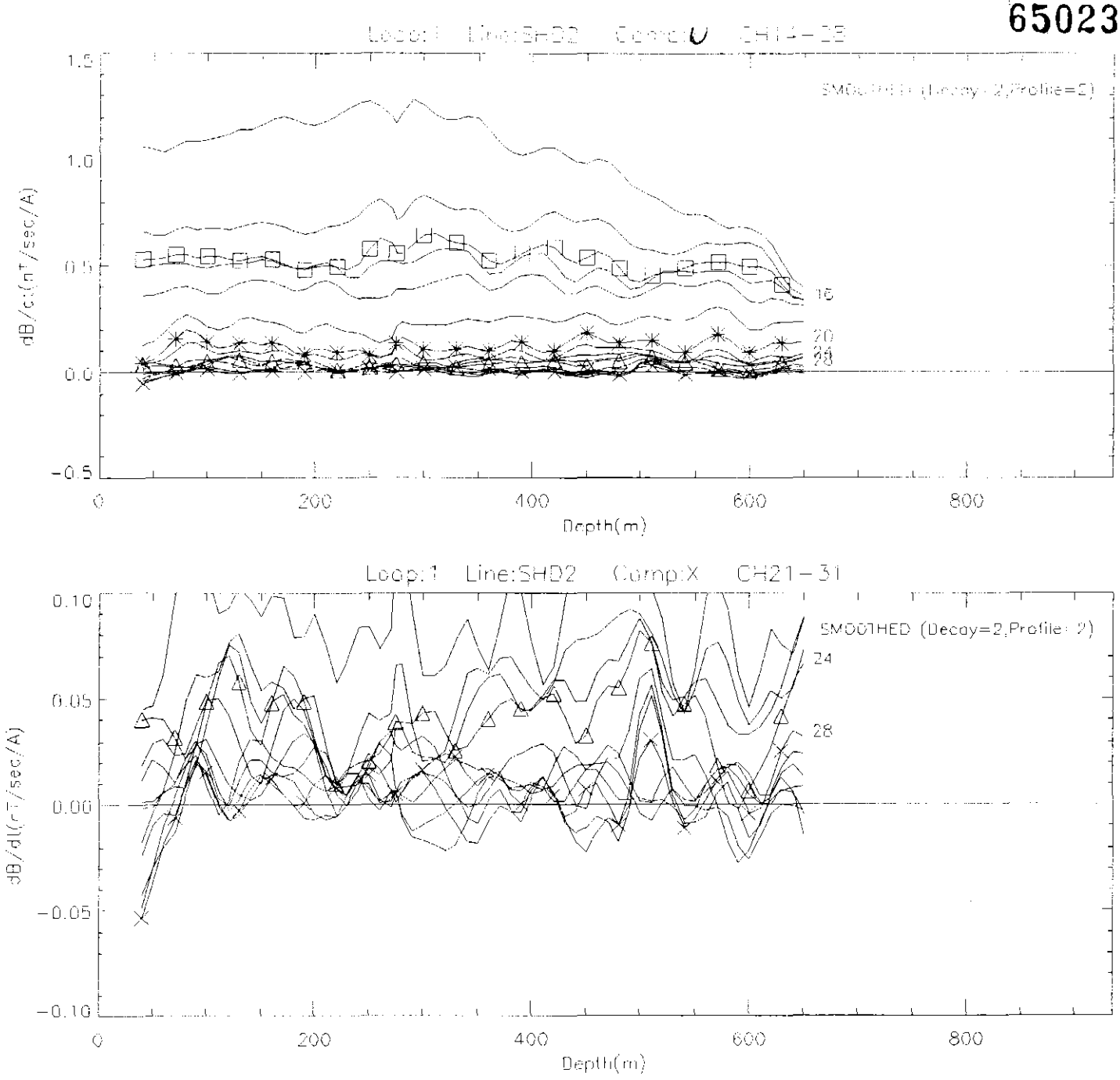


Fig. 11.

Goldfields Ltd
South Henty. Borehole EM
Crone PEM. Tx Frequency 12.5 Hz
Window Set Ch1-31
Drawn 17/ 8/1999

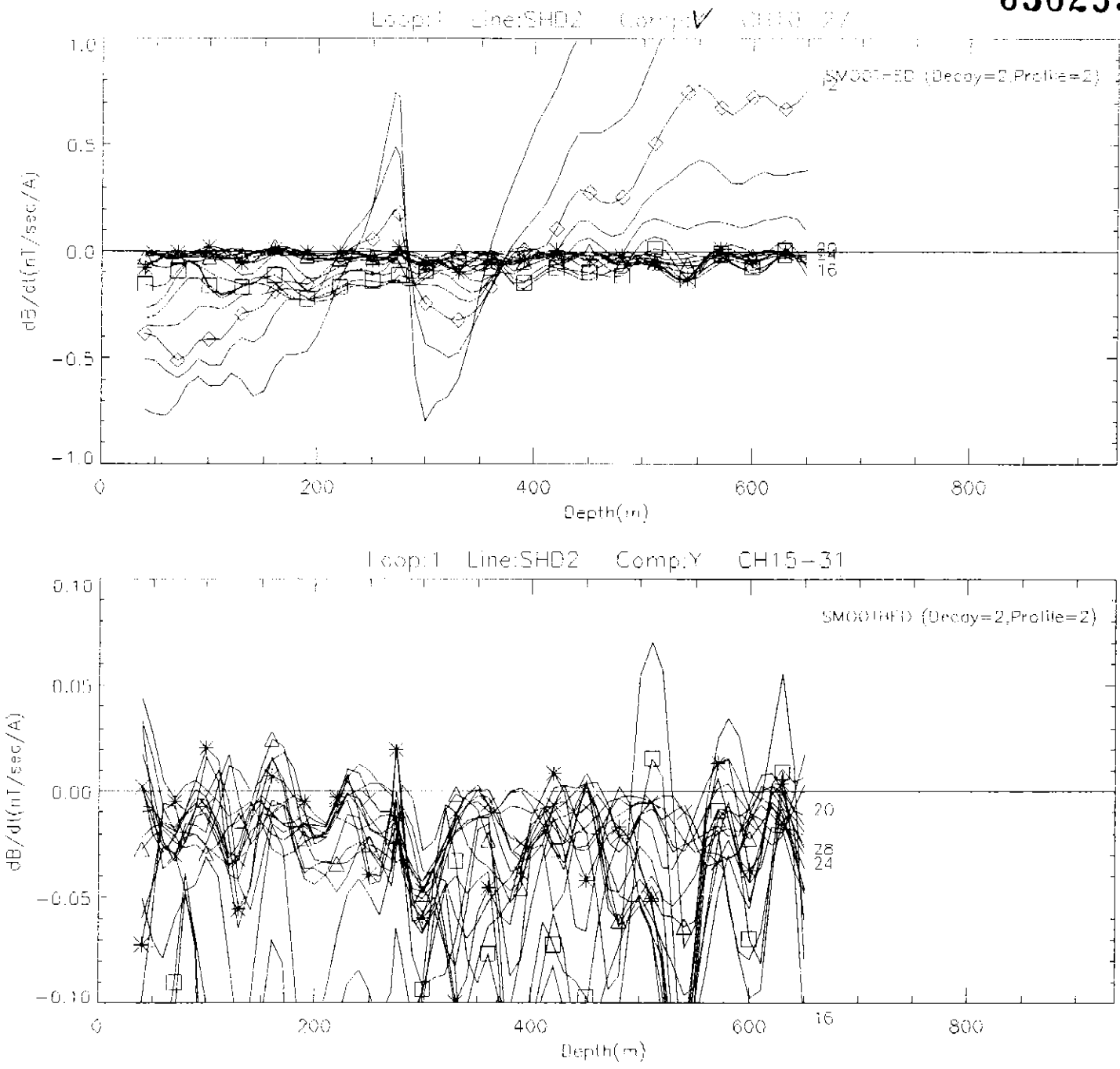


Fig. 12.

Goldfields Ltd	
South Henty. Borehole EM	
Crone PEM. Tx Frequency 12.5 Hz	
Window Sel Ch1-31	
Drawn 17/ 8/1999	

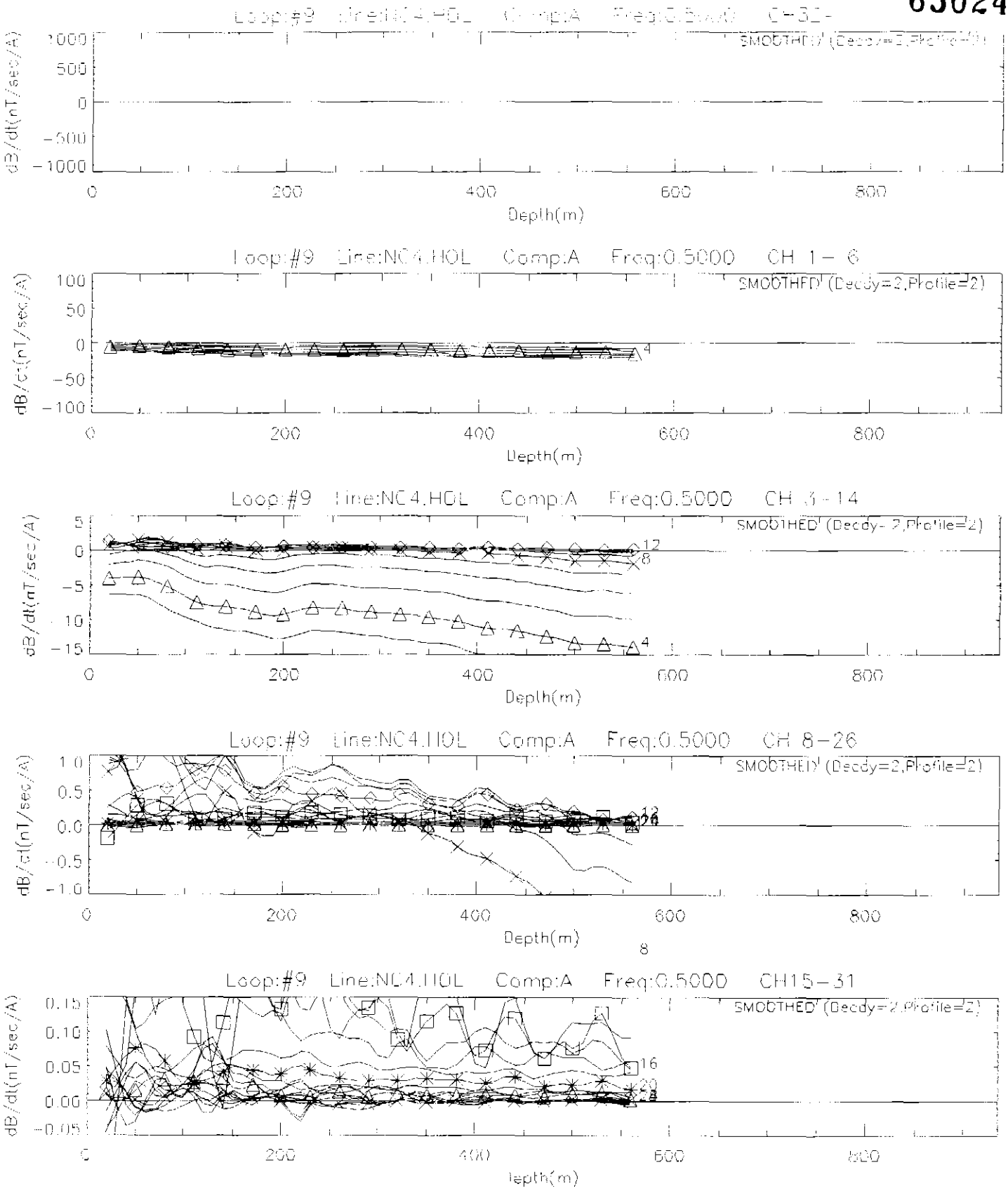


Fig. 13.

Goldfields Ltd	
South Henty. Borehole EM	
Crone PEM. Tx Frequency 12.5 Hz	
Window Set Ch1 - 31	
Drawn 17/ 8/1999	

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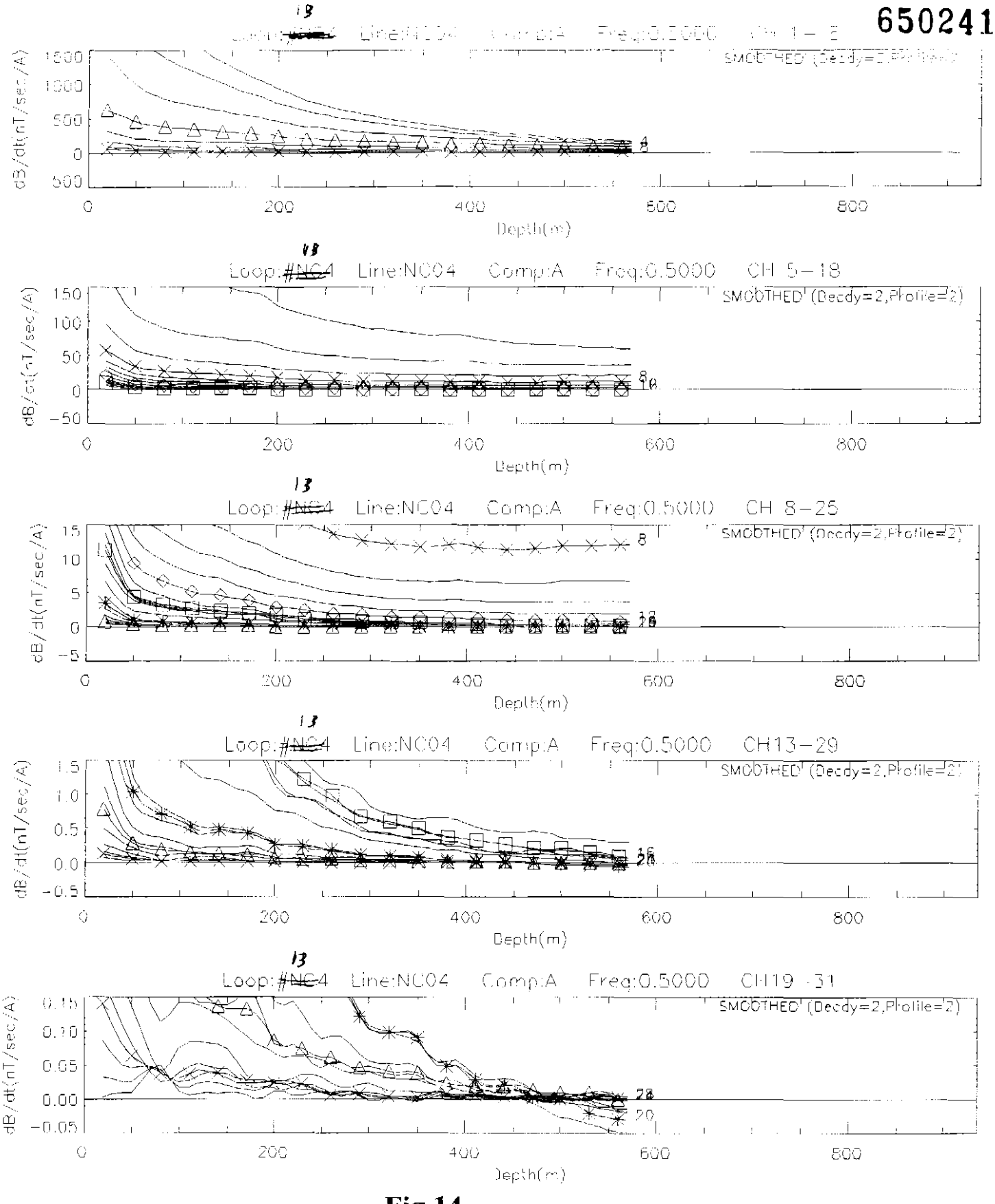


Fig.14.

Goldfields Ltd	
South Kenty Borehole EM	
Crone PEM Tx Frequency 12.5 Hz	
Window Set Ch1 – 31	
Drawn 17/ 8/1989	

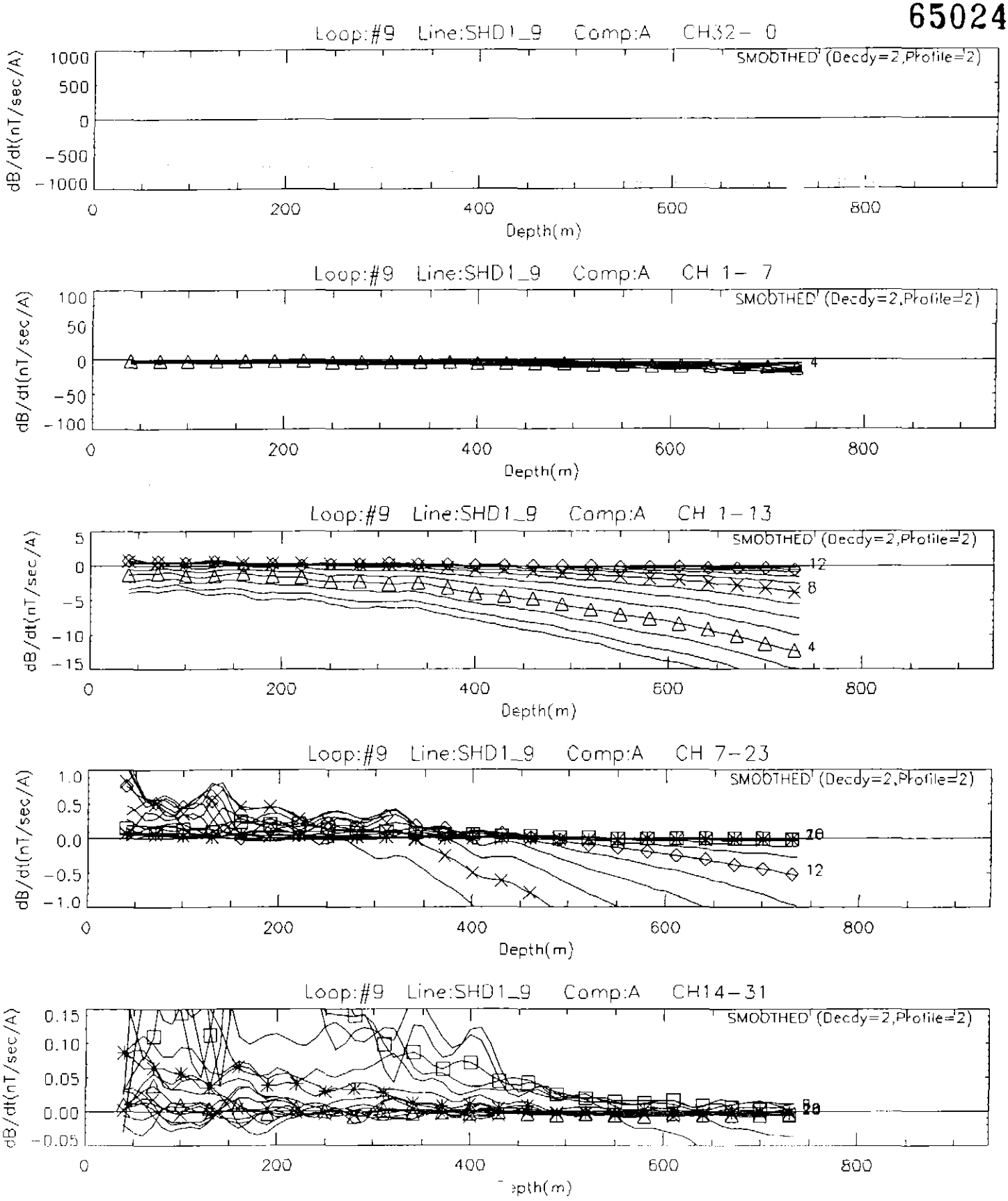
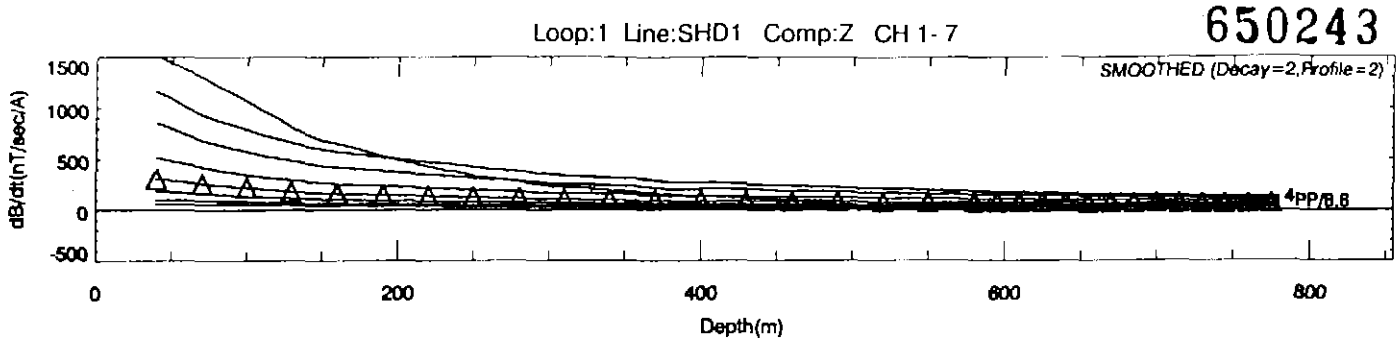
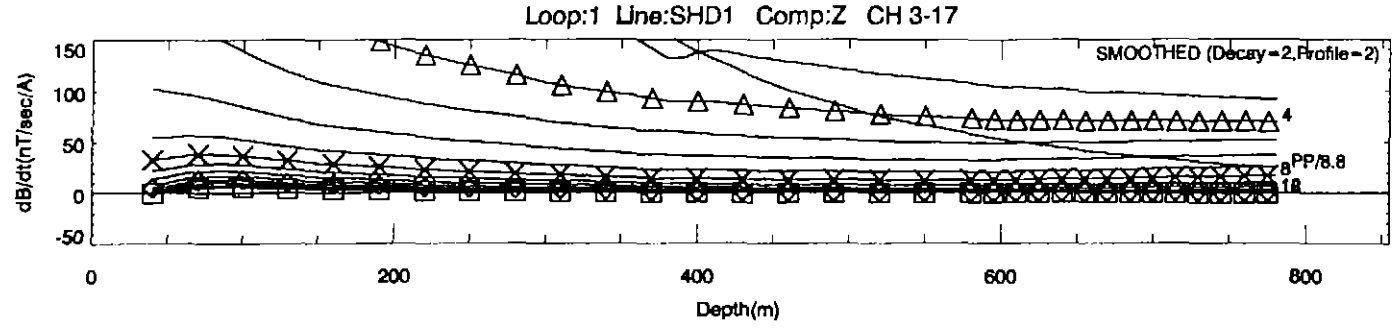


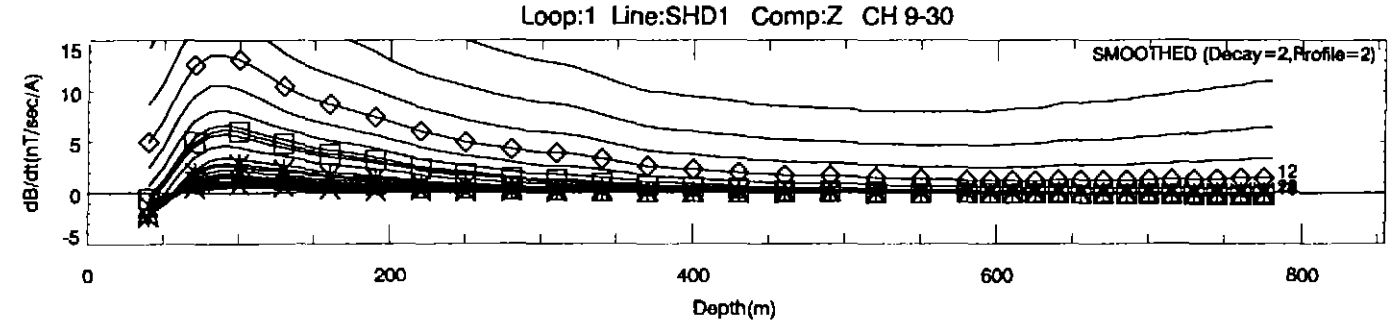
Fig. 15.

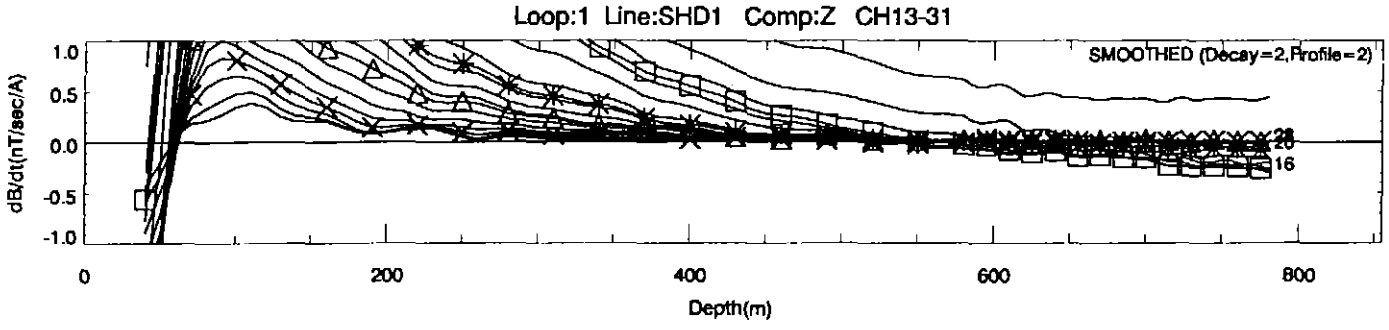
Goldfields Ltd	
South Henty. Borehole EM	
Crone PEM. Tx Frequency 12.5 Hz	
Window Set Ch1-31	
Drawn 16/ 8/1999	

650243









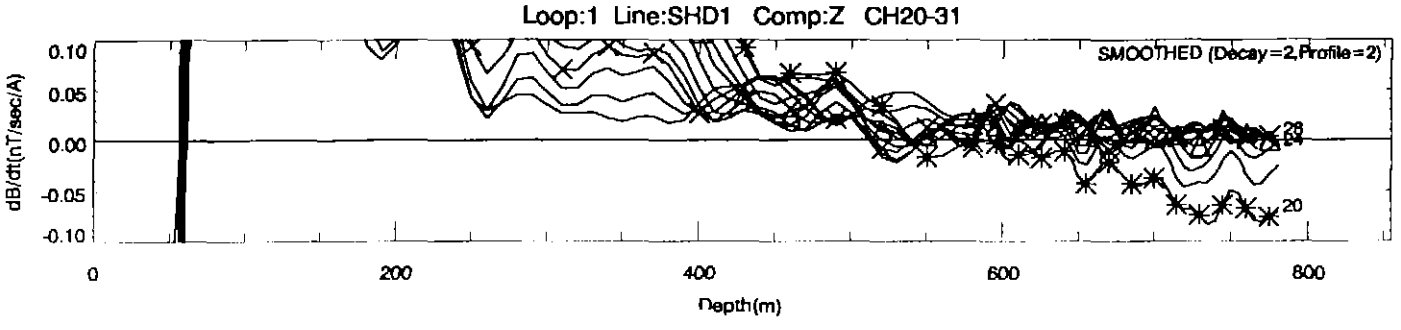


Fig. 16.

Goldfields Ltd	
South Henty. Borehole EM Crone PEM. Tx Frequency 12.5 Hz Window Set Ch1-31	
FLAGSTAFF GEOCONSULTANTS Drawn 26/ 6/1998	

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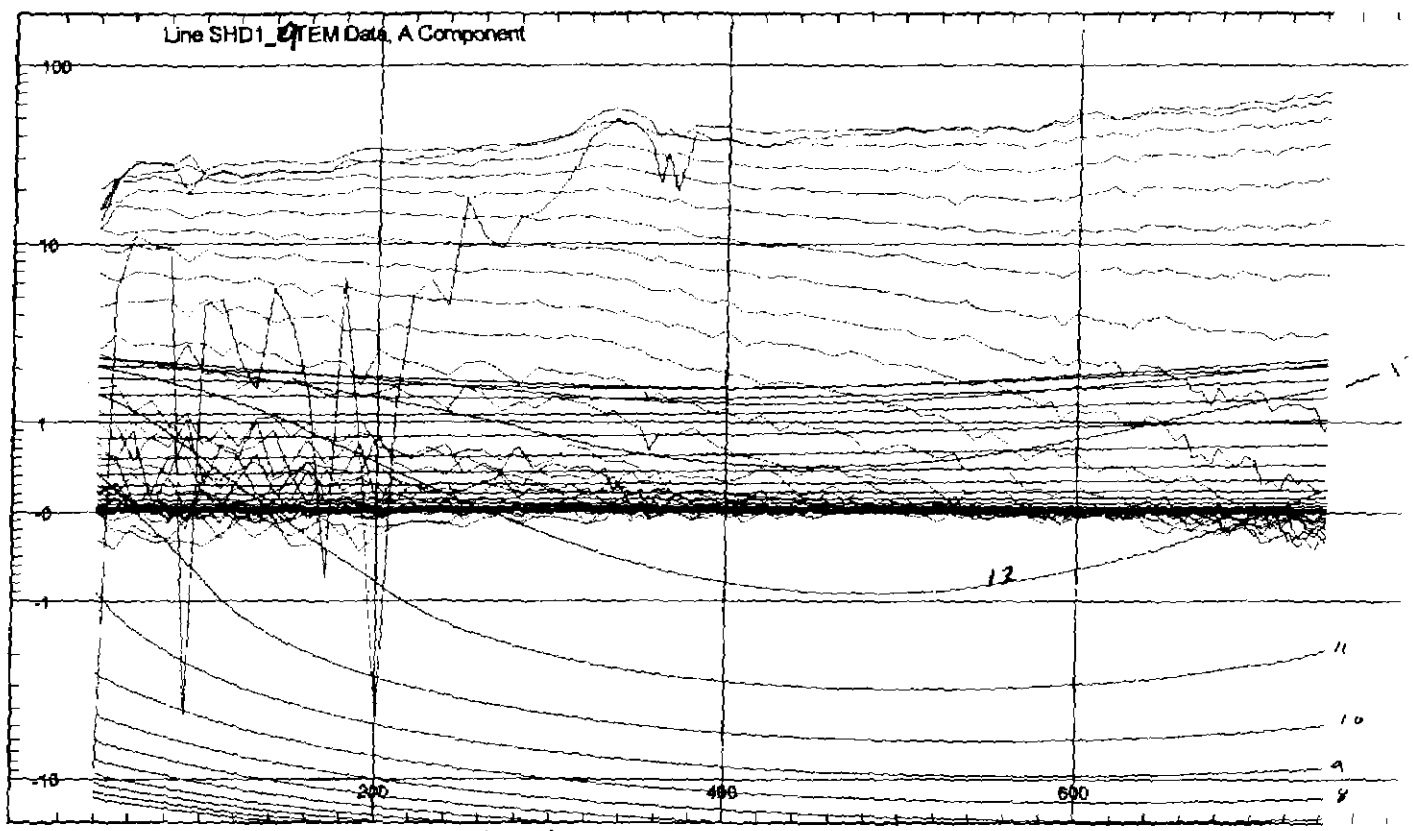

(red)

Fig. 17. Model response for hole SHD1 Loop9, with homogeneous conducting earth 500 ohm.m, and no target.

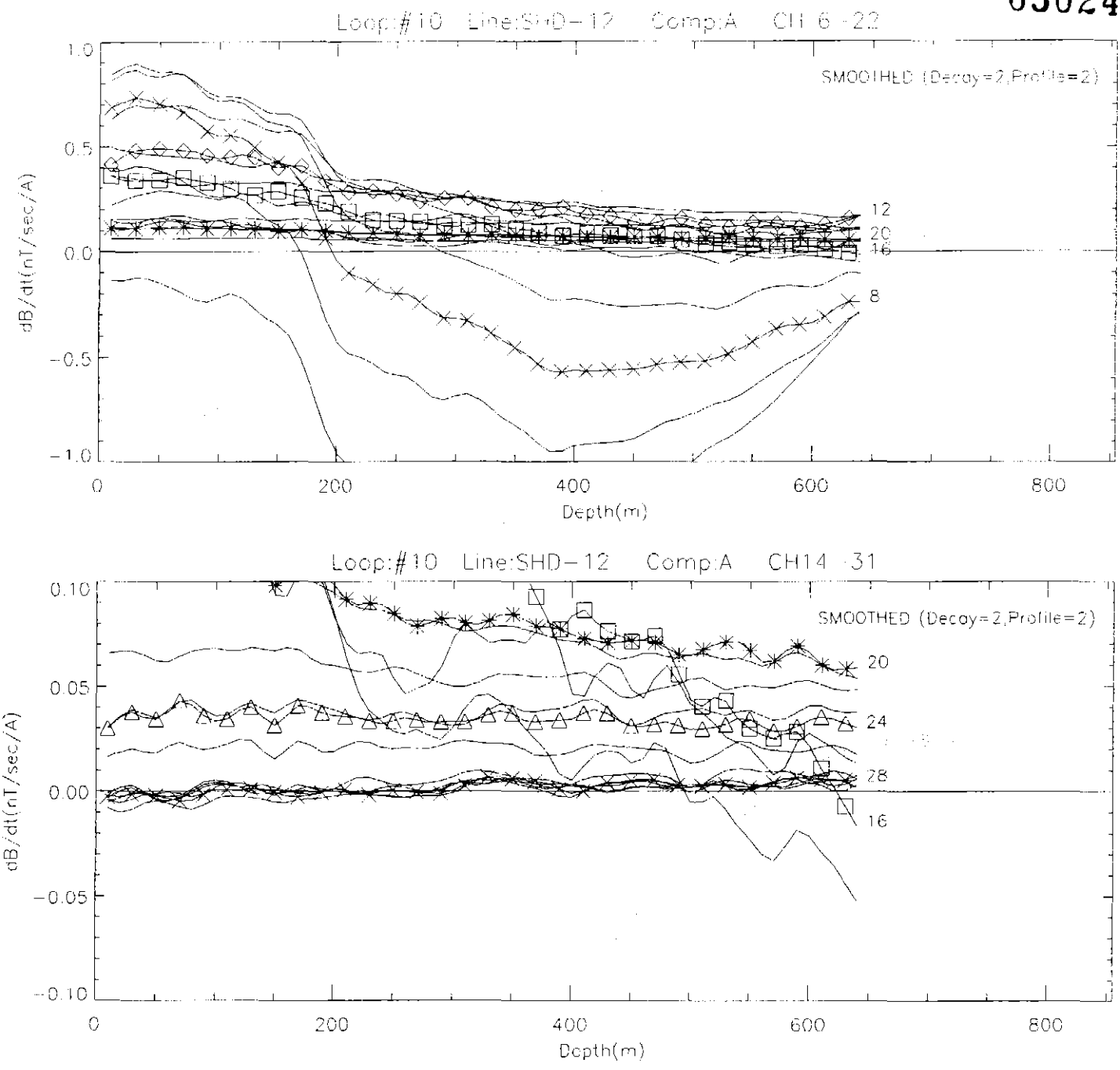

Fig. 18.

Goldfields Ltd	
South Ilenty. Borehole EM	
Crone PEM. 1x Frequency 12.5 Hz	
Window Set Ch1-31	
Drawn 19/ 8/1999	

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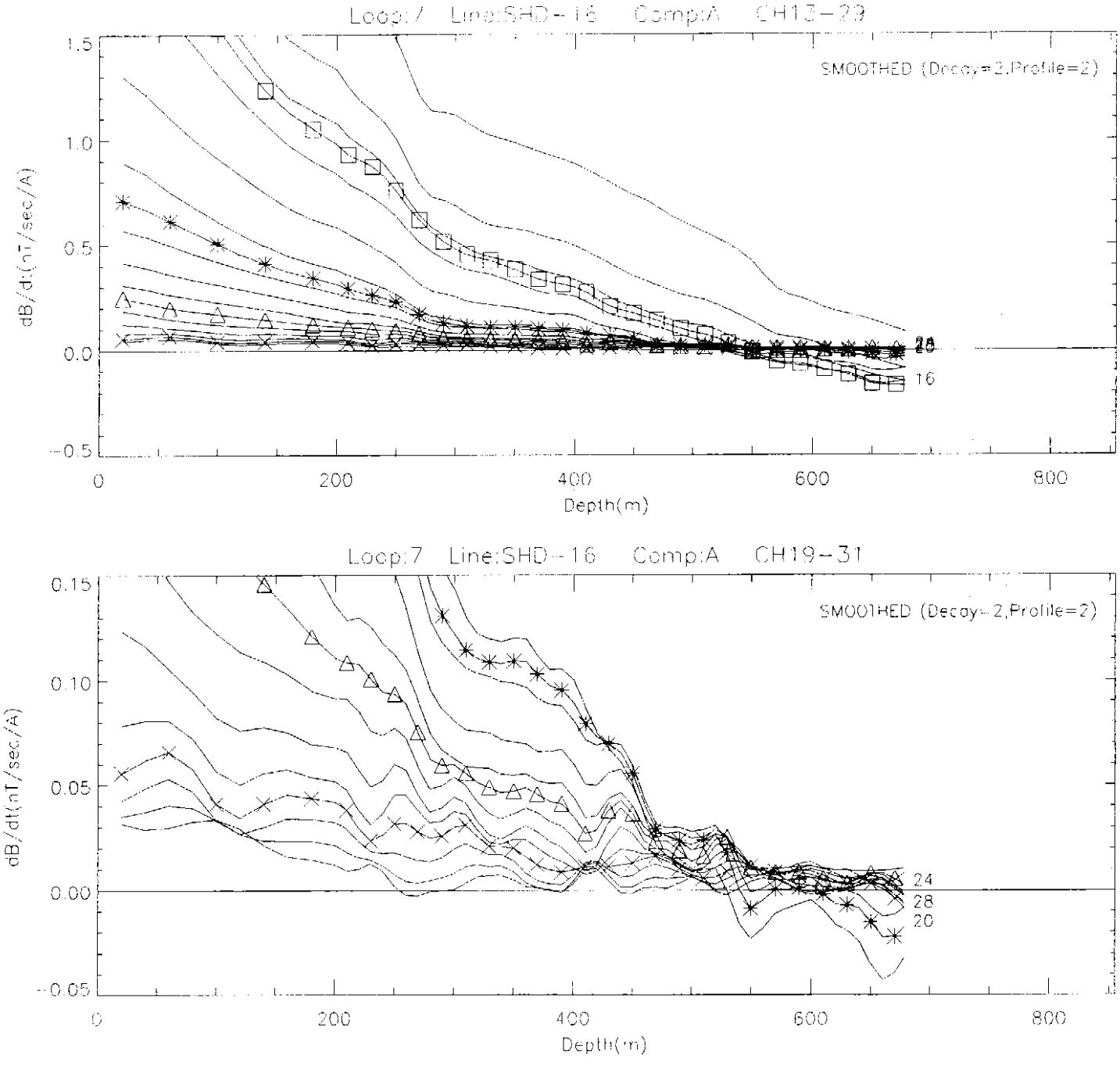

Fig. 19.

Goldfields Ltd	
South Honly. Borehole EM	
Crone PEM. Tx Frequency 12.5 Hz	
Window Set Ch1-31	
Drawn 19/ 8/1999	

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Report 9906/2

Report for Goldfields Exploration Ltd SOUTH HENTY PROSPECT, ZEEHAN, TASMANIA EL 8/96 Review of Borehole EM surveys, 1997-1999

Michael W Asten
Flagstaff GeoConsultants Pty Ltd

25 June 1999

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INTERPRETATION OF SOUTH HENTY BOREHOLE EM SURVEYS

INTRODUCTION

The history is summarised in a Goldfields Exploration Technical Note by Chris Dauth, dated 14/1/99. Holes SHD1, 2, 12 and 13 were drilled by Resolute Ltd, and logged with Crone PEM, in 1997. Holes SHD16 and 18 were drilled in 1998 by Goldfields Exploration, and logged similarly in 1998.

Hole SHD19 was drilled in 1999 by Goldfields Exploration, and logged similarly in 1999. At the same time, additional logging of holes SHD2, SHD12, SHD1 and SHD2 was completed.

This note presents an interpretation of the entire borehole EM set of data to June 1999, plus comments on conductive trends as deduced from surface CSAMT profiles (also acquired in 1998).

Plotted profiles of all historical and current data, including two-dimensionally-filtered data where applicable, are appended to this report.

Hole SHD1

Both loops 1 and 2 give borehole A-component (also called Z-component) profiles which show a broad negative anomaly at near the base of the hole. This is consistent with a flat-lying conductor. Amplitude is stronger on Loop1 (x2). Distance off-hole order 100 - 200 m? Likely position is west of base of SHD1, dipping 20-30 deg east. NB re-interpretation of intersections of Ccs in holes SHD1,SHD16,SHD13 is consistent with this shallow dip.

Additional logging with Loop 9 gives a similar signature in the A-component. The time-constant with loop 9 is 0.13 msec (Figure 1). At this loop-conductor distance, energisation by current channelling might have been expected to dominate, but the power-law decay coefficient is t^-7, which is very different from an expected current channelling response of t^-3.5.

Study of U components (also called X-components) is inconclusive; profiles of U components for both loops 1 and 2 are positive, and flat. There is possibly a negative signature superimposed on the profile Loop1 SHD1, over 500-700m depths. I doubt the XY probe was functioning correctly for this survey.

Study of the V-component (also called Y-component) is much clearer; the loop 1 SHD1 V-component shows a classic off-hole profile shape for conductor at range order 100 m, displaced along strike to north. The decay curve (Figure 2) gives tau=0.2 msec. This is consistent with a significant conductor (Conductor A) of 8 S, size order 200x200 m. (This decay constant is greater than the value of 0.13 obtained

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with Loop 9, but is probably more reliable due to the stronger inductive energisation from the closer transmitter loop).

Hole SHD13

Similar general shape on the A-component to Hole SHD1, but no anomaly visible at base of hole for Loop1. Profiles for Loop 2 show similar weak anomaly to SHD1, except anomaly is weaker and broader. This corroborates the interpretation of Conductor A placed west of the base of hole SHD1 (ie further away from the base of hole SHD13).

Hole SHD2

Profiles for Loop2 data A-component are dominated by the strong primary field profile shape. The strongest feature is an intersection anomaly between 280 and 320 m depth. The conductor located east of this hole (Conductor C - see discussion below) is poorly coupled with this loop and does not produce any measureable signature, even after filtering the data.

Loop 1 gives clear signatures of the intersecting conductor (Conductor B, at depth 280-320 m downhole) and of an off-hole conductor, Conductor C. The anomaly maximum is negative, and the peak migrates down the hole with delay time; interpretation is difficult from such data, as such a response could be due to a large, formational conductor.

Following my recommendation of 27/4/99, this hole was additionally logged with Loop 9. Loop 9 gives an A-component anomaly of opposite sign to loop 1, and allows a clear interpretation of Conductor C as being steeply dipping, and of order 300 m east of the bottom of the hole. Figures 3-5 show a computer model for Conductor C which duplicates satisfactorily the field profile shape and decay. The off-hole anomaly is best seen on channels 10-14. Examination of U and V components of the Loop 9 field data shows Conductor C to strike both north and south of the hole. Fig. 6 shows field data in the same format as Fig. 7.

The intersection anomaly is strong at early times, but decays to nothing by channel 10. It is possible that the intersection identifying Conductor B is that of a weaker conductor which is continuous with the stronger off-hole Conductor C located down-dip (shown in Figure 3). An alternative possibility is that the weak Conductor B links to the south (down plunge) with Conductor D located below hole SHD12.

Hole SHD16

This hole was unfortunately only logged with a single collar loop (Loop 7) , and the data is strongly overprinted with a primary field response. Two steps in the data occur at 240 and 560 m depths, but these look more like instrumental steps (faults in calibration) rather than responses of intersected conductors.

The A-component shows negatives near the base of the logged hole (ie at 680 m, not the full drilled depth). These are probably indicative of a real off-hole conductor. Comparison with data and interpretation from hole SHD2, Loop 1, suggests that this off-hole signature is the western edge of Conductor A. Conductor B is located below the maximum logged depth, and is probably not contributing to this anomaly in SHD16.

Examination of U and V components for hole SHD16 is indeterminate; I believe the XY probe used for the survey was probably malfunctioning, as the data is "non-physical" and lacks consistency between components.

Hole SHD12

Loop 3 (collar loop) A-component shows a strong overprint of the primary field profile, and no off-hole conductor can be discerned.

Loop 4 A-component shows a positive anomaly signature consistent with a weak (rapidly decaying) off-hole conductor (Conductor D). The shape is congruent with the primary field profile, and was regarded as questionable without corroboration.

Following my recommendation of 27/4/99, this hole was additionally logged using loop 10. The A-component profile shows a negative anomaly in channels 6-10, which confirms the interpretation available from Loop 4. The off-hole conductor appears to be located order 100 m off-hole, nearest approach 450 m down-hole. Examination of profiles of A and U-components confirms the Conductor D to lie below the hole, extending north and south of the hole, and probably striking order 30 deg west of the normal to the hole-azimuth. This is consistent with a north-south strike for the conductor. (Note that the transmitter and window times are different for the two surveys in this hole, but the difference is not significant – see Appendix B).

The A-component profiles do not contain sufficient length to allow a useful determination of dip of Conductor D, other than to note that it is steeply dipping. It is possible that Conductor D links up-plunge to the north, with Conductor B (intersecting SHD2).

The position of Conductor D needs to be plotted on a geological section (none available at present) before discussing further.

Hole SHD18

This hole was logged with one loop only (Loop 8, around the collar). The data shows a strong primary field overprint, but no anomalies.

Hole SHD19

The hole was logged with two loops (11 and 12). There is no evidence of an off-hole conductor within 200 m of this hole.

CONDUCTORS IN PLAN VIEW

The location of the four interpreted conductors A, B, C and D is plotted in plan view in Figure 3. Note correspondence with trends in conductive ground as deduced from surface CSAMT surveys on line 5358200N, 5259000N and 5359400N. CSAMT data for line 5358600N is not available (in the middle of the area of greatest interest, naturally) due to the presence of a lake.

RECOMMENDATIONS SUBJECT TO FURTHER DISCUSSION ON GEOLOGY

1) Drill conductor A, target point 200 m east of the base of hole SHD1. This hole could be extended to intersect Conductor C also.

2) Drill conductor C.

3) Drill CSAMT conductive zone on line 5358200N, along strike from and south of Conductor C.

4) Drill CSAMT conductive zone on line 5359000N, along strike from and north of Conductors A and C.

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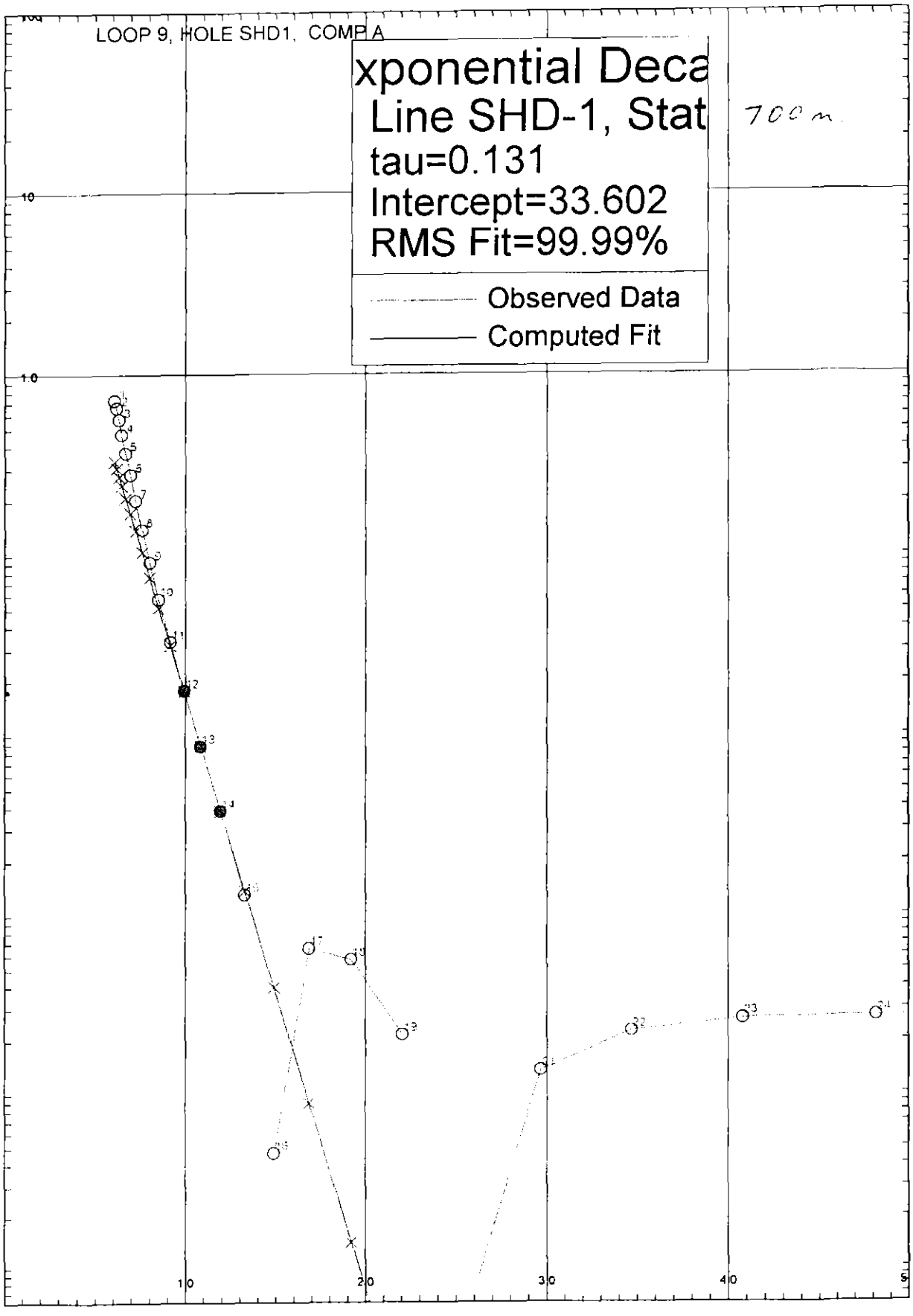
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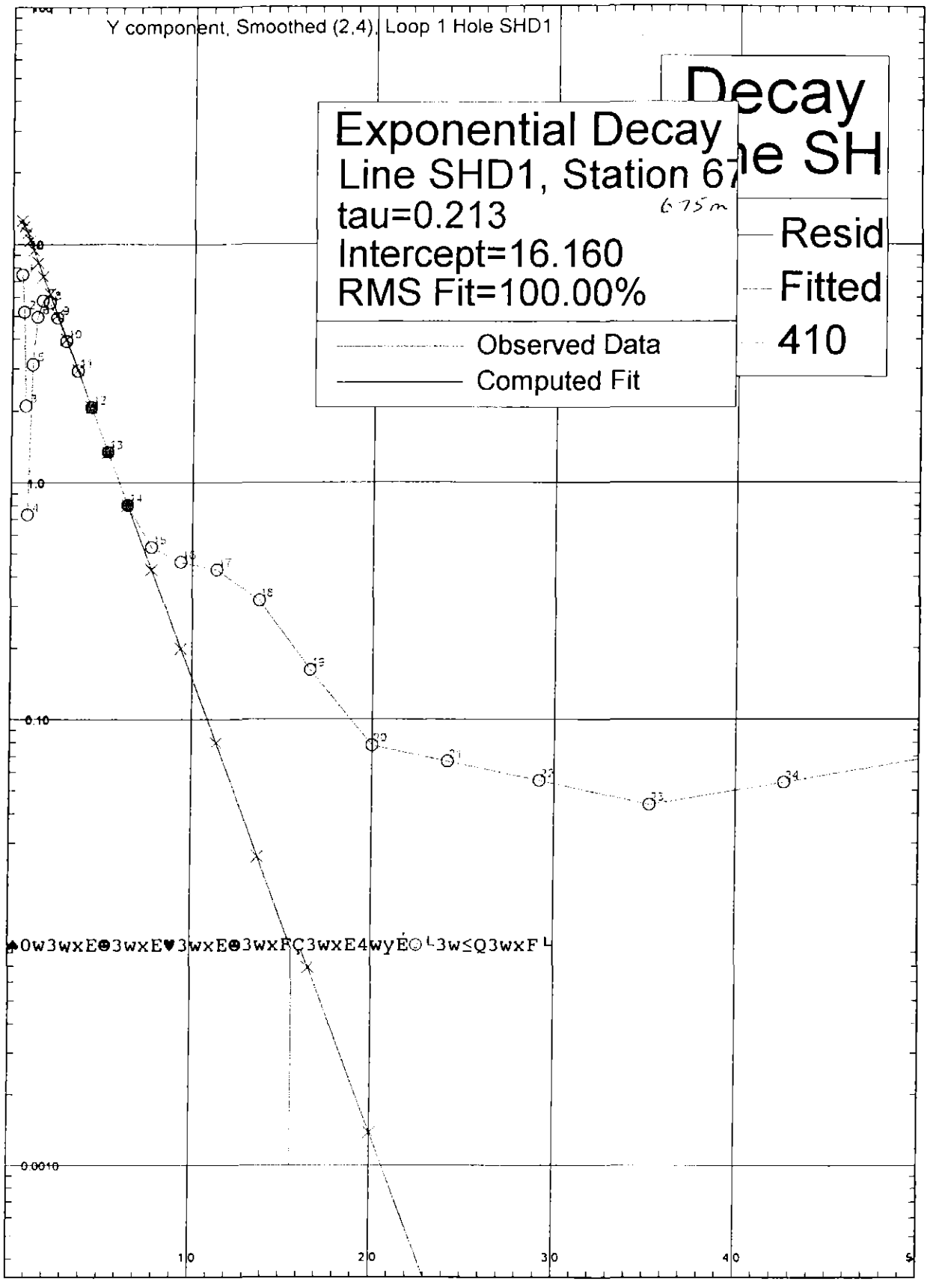
xponential Deca
Line SHD-1, Stat
tau=0.131
Intercept=33.602
RMS Fit=99.99%
Observed Data
Computed Fit
700 m.
10
1.0
10
20
30
40

Fig. 1.


Y component, Smoothed (2,4), Loop 1 Hole SHD1
Exponential Decay
Line SHD1, Station 67
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Intercept=16.160
RMS Fit=100.00%
Observed Data
Computed Fit
Decay
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Resid
Fitted
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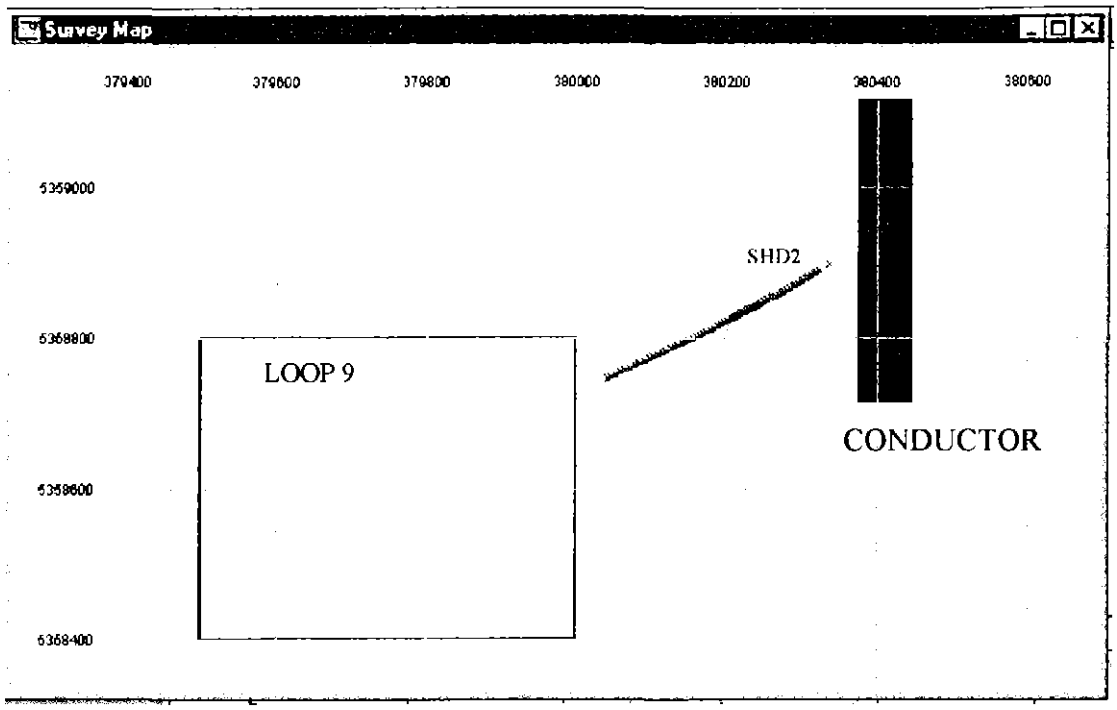
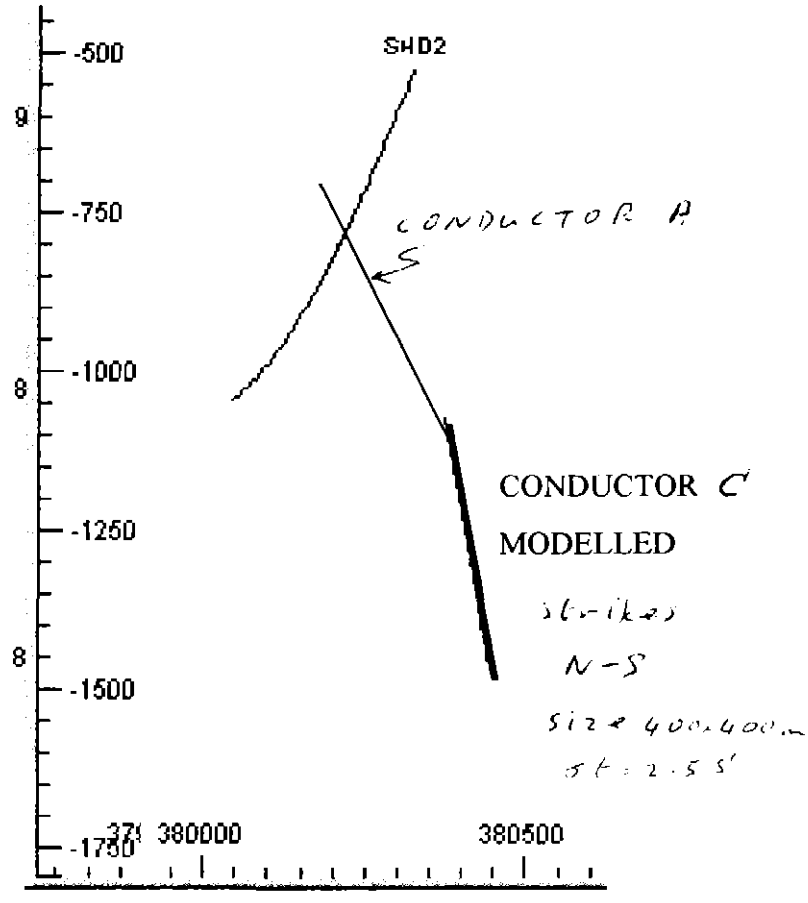
0.10
0.0010
10
20
30
40

Fig. 2.





SOUTH HENTY: CONDUCTOR MODEL BELOW HOLE SHD2

Fig. 3.

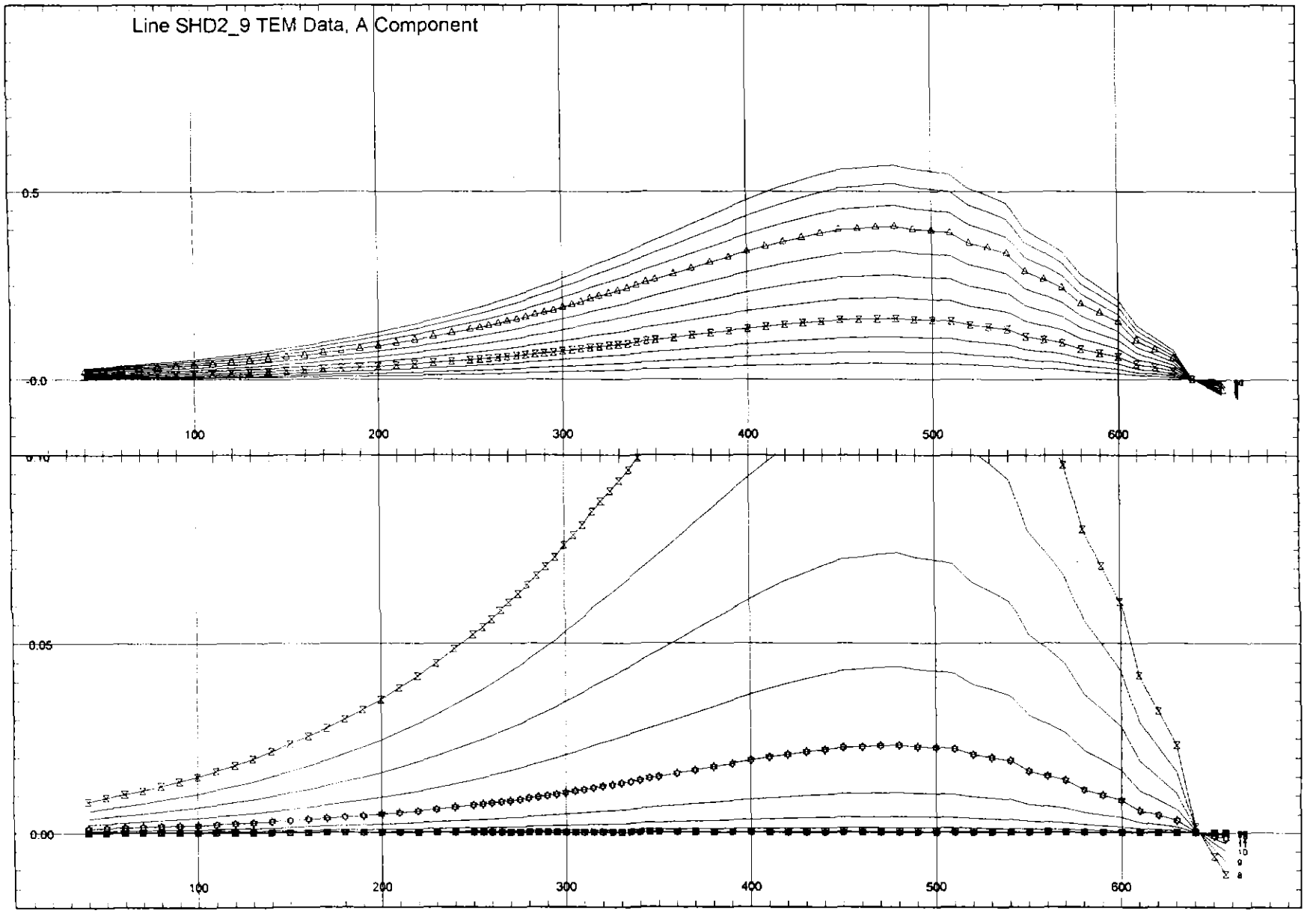


Fig. 4. Model data for Conductor C, A component.

650255

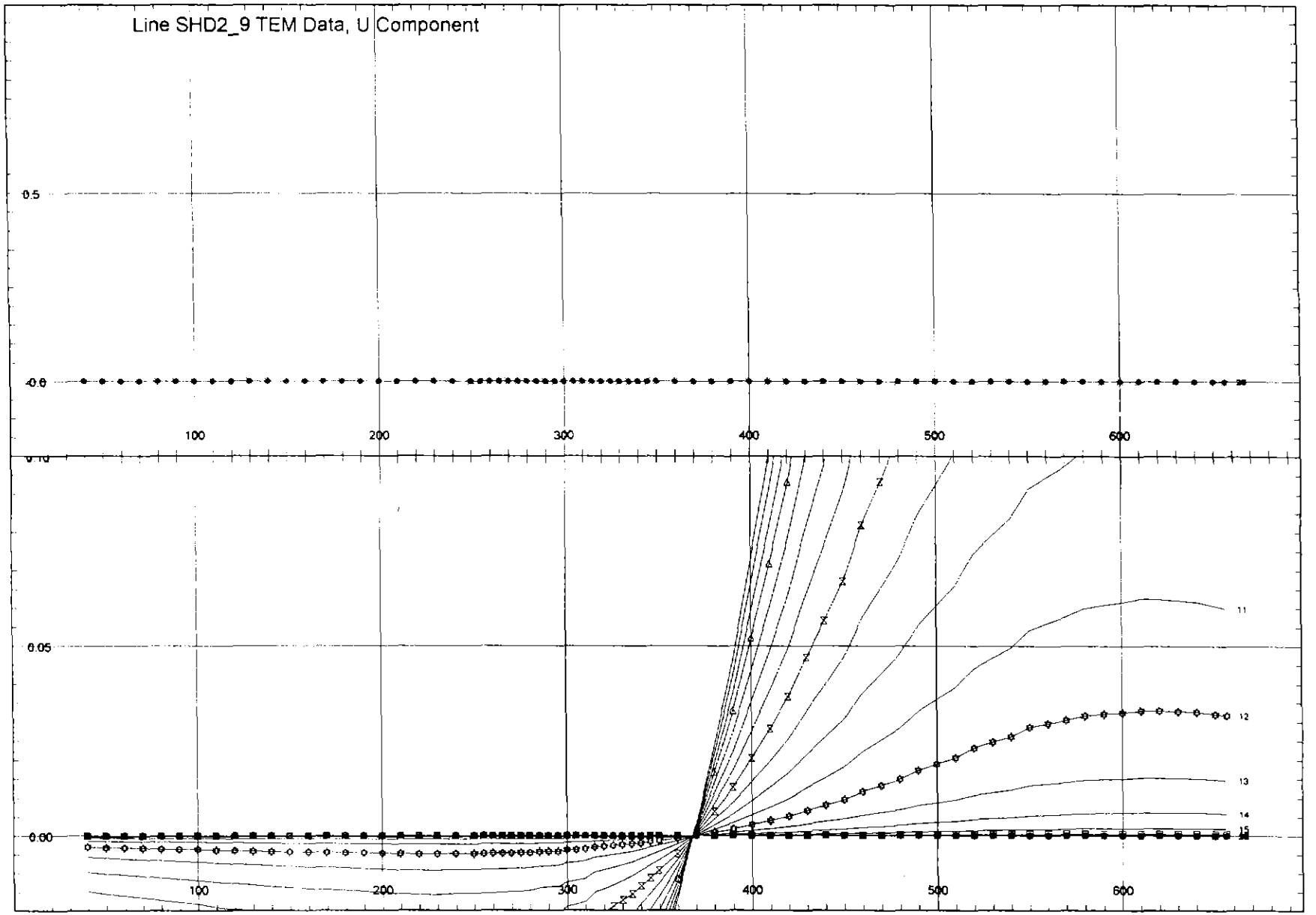


Fig. 5. Model data for Conductor C, U component.

650256

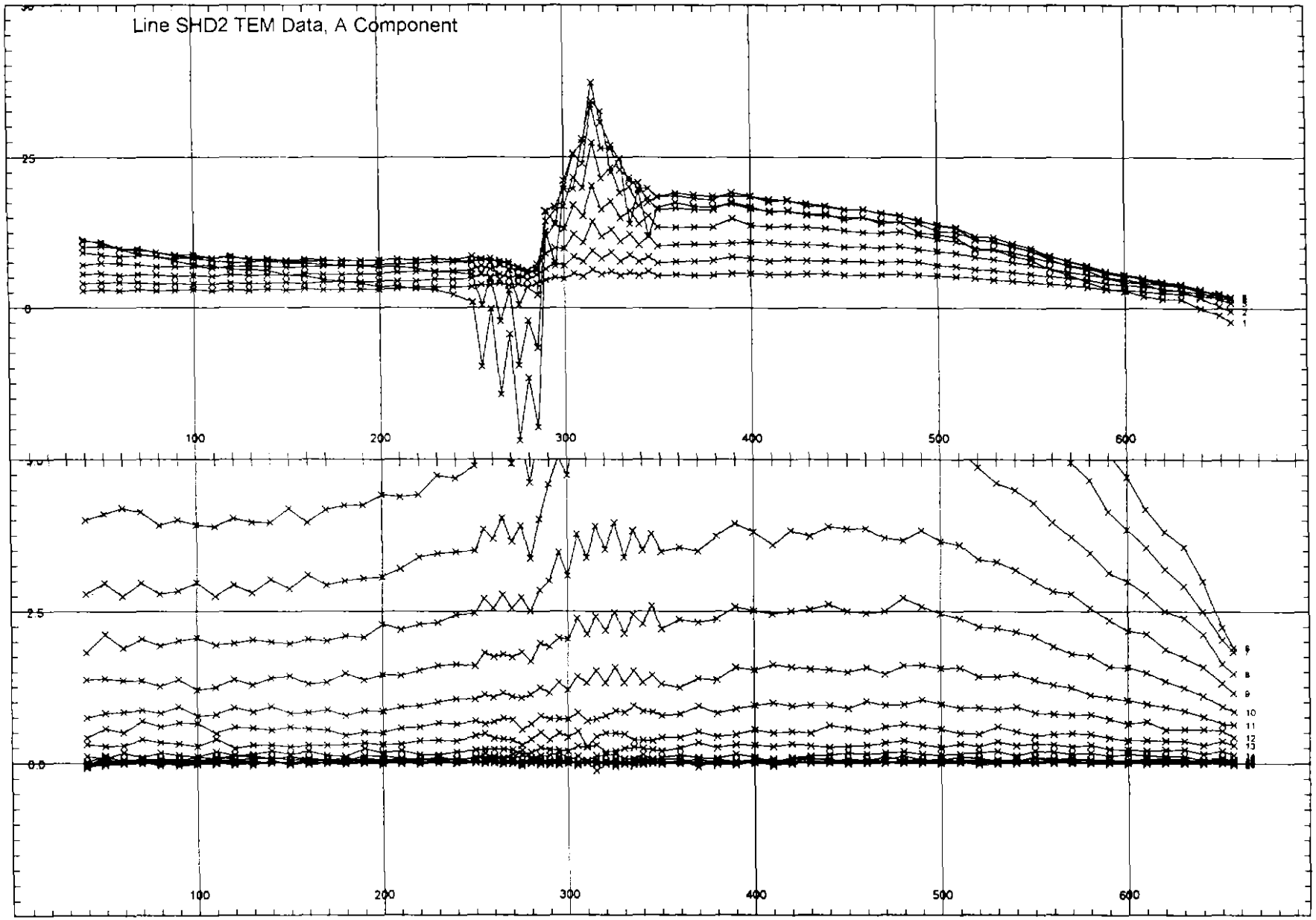


Fig. 6. Field data, A component.

650257

APPENDIX A

SOME PROCESSING ISSUES WITH SOUTH HENTY TEM DATA

Three problems arise in interpreting borehole EM data on this prospect.

1) Background resistivities are high, with the result that signal strengths are low, and the self response of the borehole probe becomes an issue in distinguishing genuine from instrumental anomalies. The probe self response is best identified by either computing the shape of the primary field profile down the borehole, or by comparing the TEM profiles with the "primary" pulse amplitude as recorded by the Crone PEM receiver. Both have been done in trials with this data, and found to give similar results. In consequence the latter technique has been applied routinely (a faster process). The importance of the comparison of profiles with the primary field pulse, when interpreting data from multiple transmitter loops, makes the plotting of absolute amplitudes of the primary pulse a necessity.

2) The low signal strengths combined with high electrical (powerline) noise in parts of the prospect, result in noisy data in late channels, which tend to obscure subtle signatures of off-hole conductors. This problem is greatly alleviated with the use of two-dimensional filtering of the data prior to plotting (a facility exclusively available to Flagstaff GeoConsultants).

3) The Crone PEM data acquired is routinely presented by the contractor in digital form, but not normalised for transmitter current. When comparing signal strengths from two or more transmitter loops (which typically use different transmitter currents), it is necessary to normalise data to units of nT/amp/sec, rather than the original nT/sec.

The effect of items (1) and (2) above is illustrated in Figures A1-A4.
Figure A1 shows profiles for Loop1, Hole SHD1, with the primary field over-plotted in red. The primary field is strong for this transmitter (encompassing the collar of the hole) and the shape of the profiles largely mirrors the primary field, ie the evidence evidence for an off-hole conductor is dubious. Figure A2 shows the same data after two-dimensional filtering. At late time windows, the profiles go negative while the primary field remains positive, thus it is possible to deduce the presence of a genuine off-hole conductor near the base of the hole. Figures A3 and A4 show similar plots for the same hole SHD1, with transmitter loop 2 (centred 700 m west of the hole collar). In this case, the shape of the profiles is quite different to the shape of the primary filed profile, and note the primary field strength is a factor of 30 smaller

(scaled at 0.2 compared with 7.4). The TEM profiles can therefore be interpreted with some confidence as due to an off-hole conductor.

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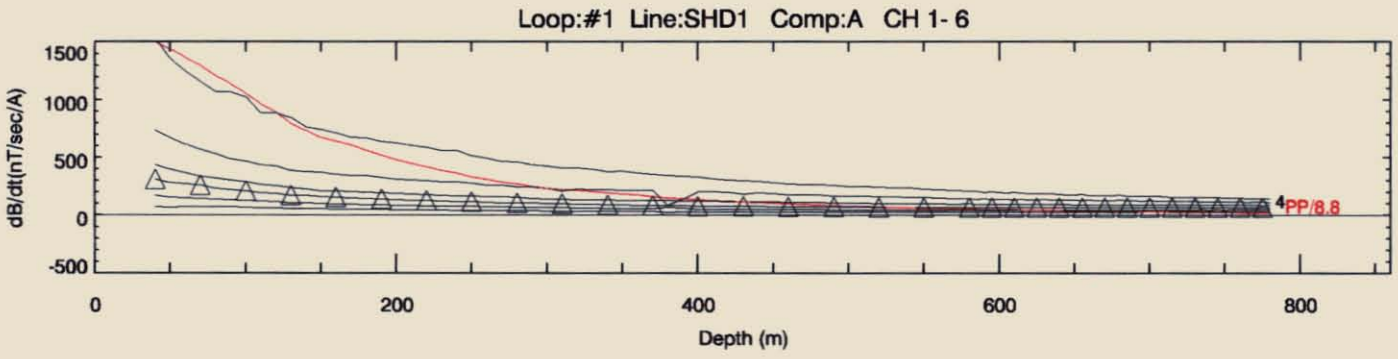
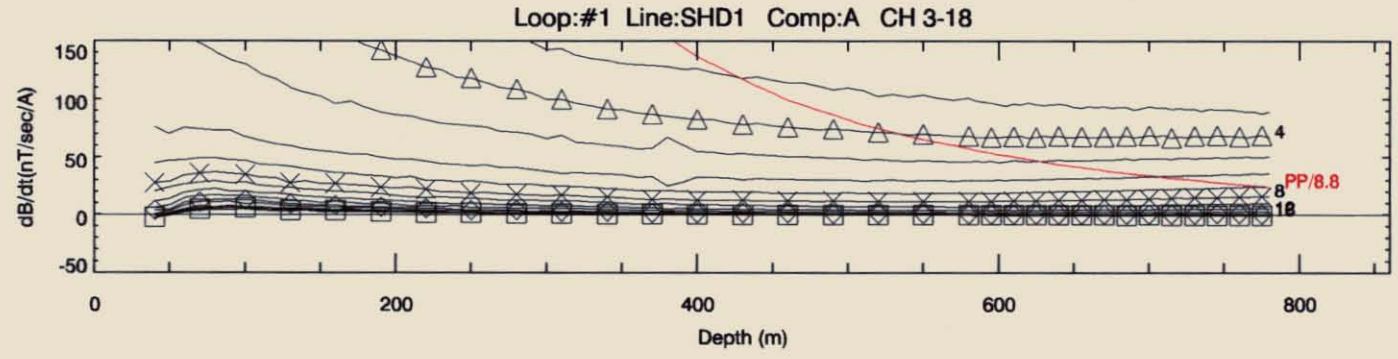
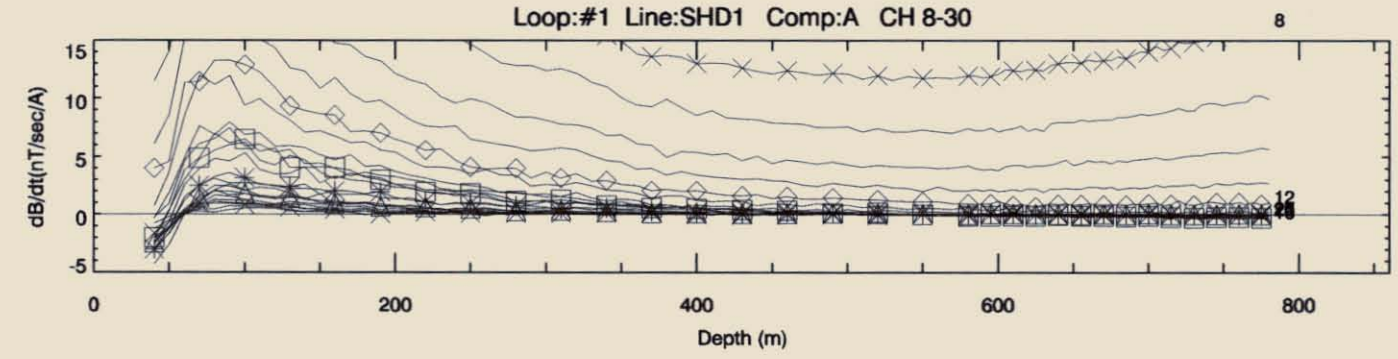
650260







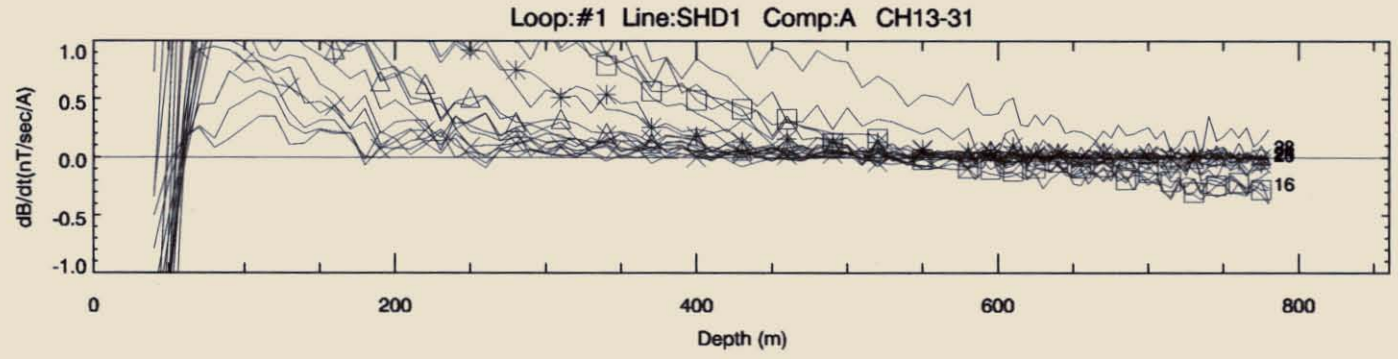


Fig. A1.

Goldfields Ltd	
South Henty EL8/96. Borehole EM.	
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Window Set Ch1-31	
FLAGSTAFF GEOCONSULTANTS Drawn 27-Apr-2000	

650261

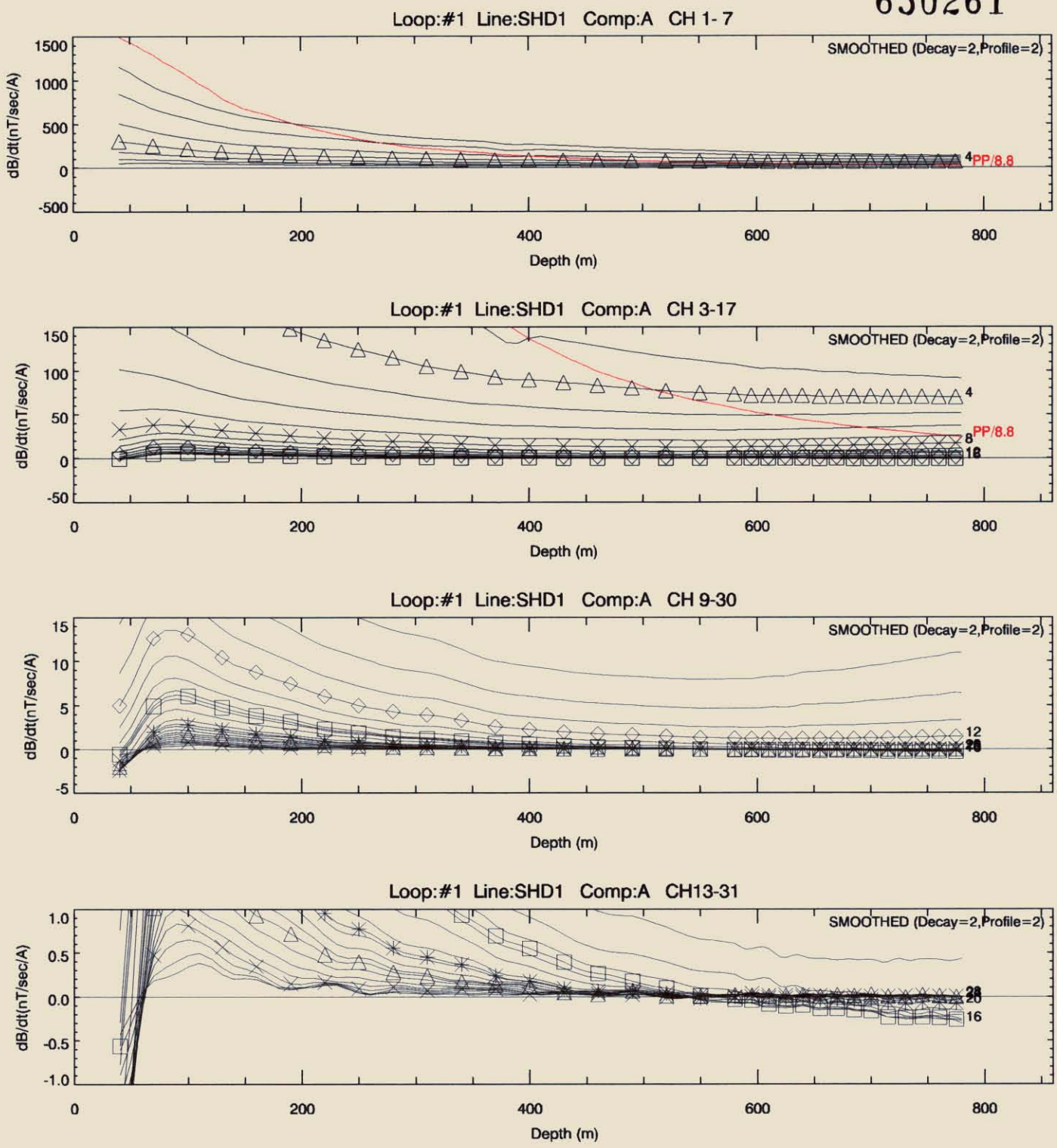

Fig. A2.

Goldfields Ltd	
South Henty EL8/96. Borehole EM.	
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Window Set Ch1-31	
FLAGSTAFF GEOCONSULTANTS	
Drawn 27-Apr-2000	

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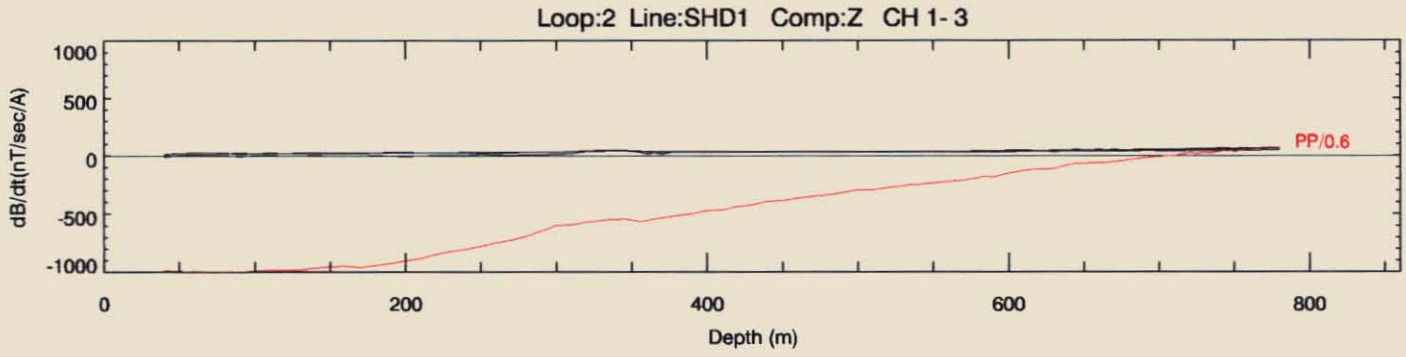

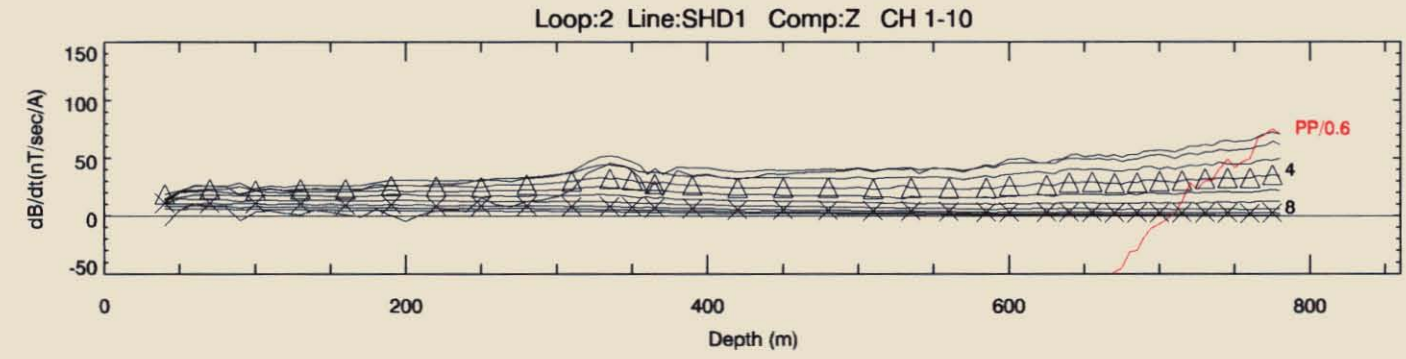

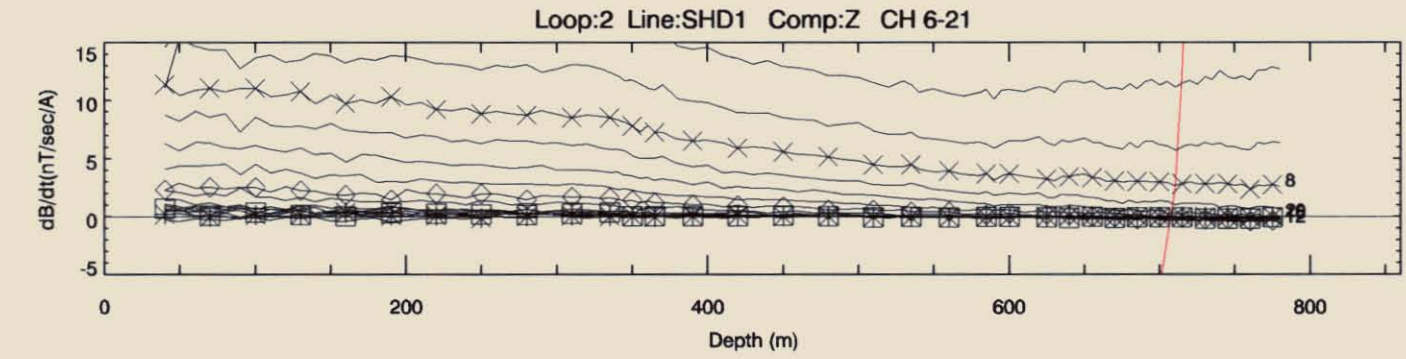

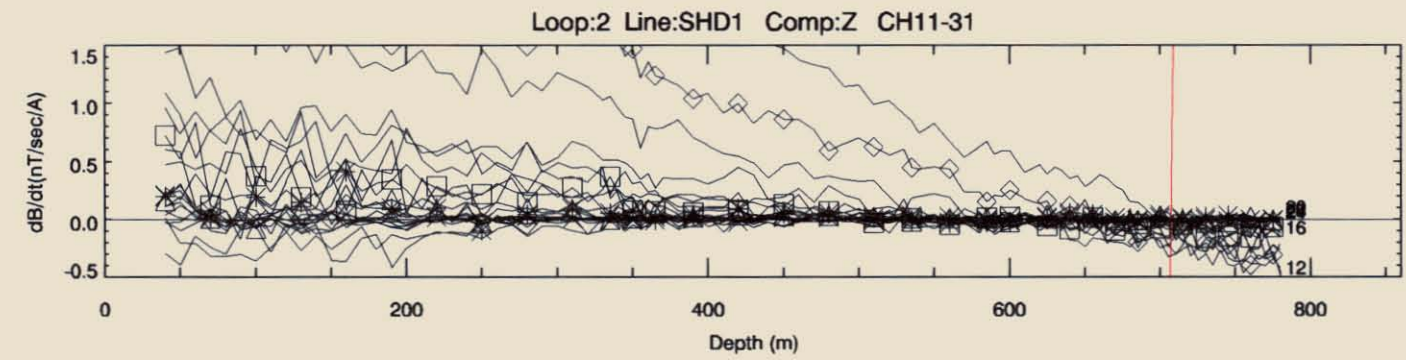

Fig. A3.

Goldfields Ltd	
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Window Set Ch1-31	
FLAGSTAFF GEOCONSULTANTS Drawn 27-Apr-2000	

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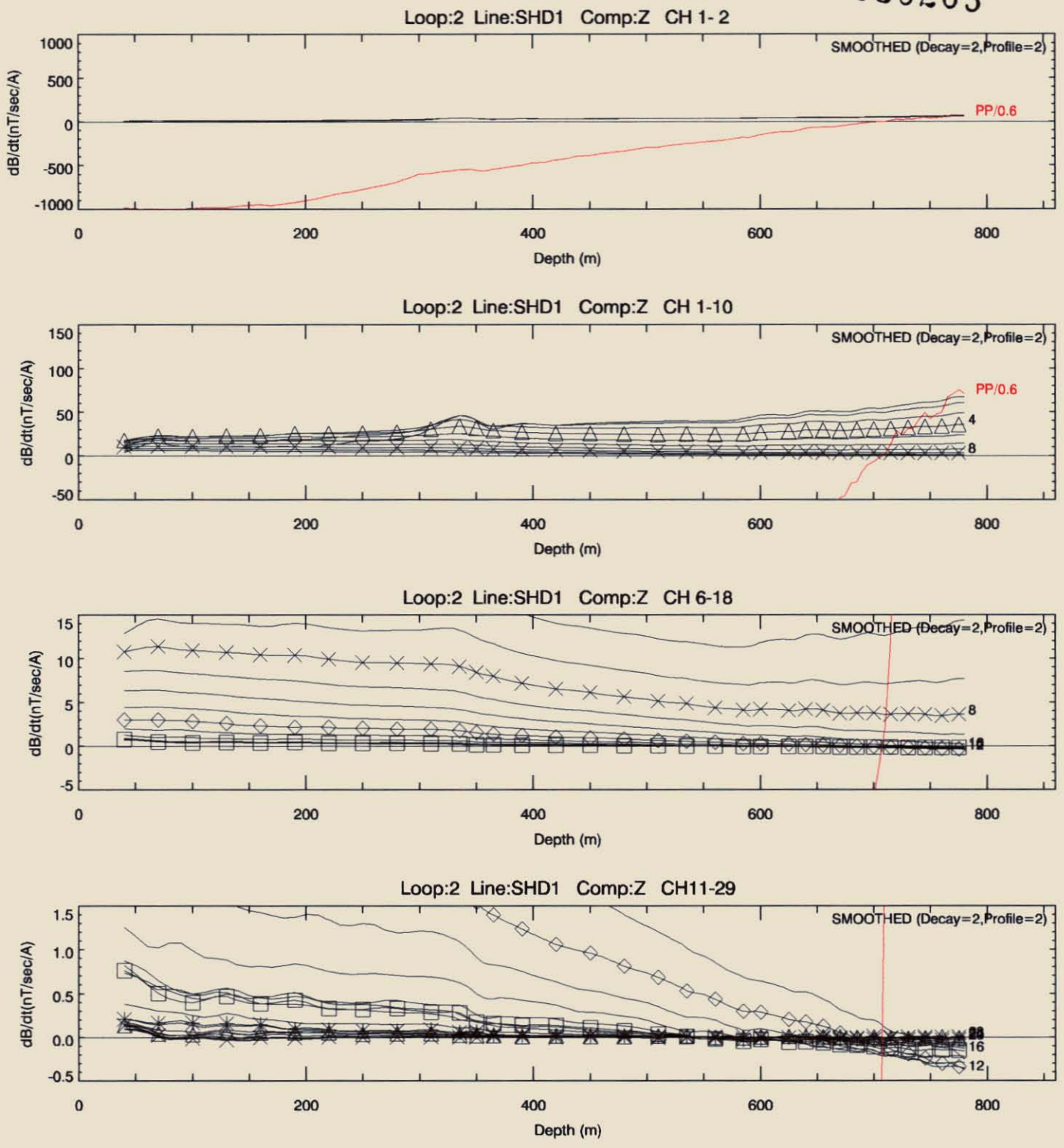

Fig. A4.

Goldfields Ltd	
South Henty EL8/96. Borehole EM.	
Crone PEM. Tx Frequency 12.5 Hz	
Window Set Ch1-31	
FLAGSTAFF GEOCONSULTANTS	
Drawn 27-Apr-2000	

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APPENDIX B

Transmitter Frequencies and time windows used in South Henty DHEM surveys

All holes were surveyed with 12.5 Hz transmitter frequency (ie 20 msec off-time), and 31 receiver time windows (channels) with the exception of

hole SHD13 (20 msec off-time, 20 time windows, where 20 wider time windows cover the same total time range as the above 31 window set), and

hole SHD12 (10 msec off-time, 17 time windows, corresponding approximately to the first 17 windows of the 20 msec off-time 31-window set).

The Crone PEM parameters are as follows:

All holes except SHD13, SHD1:

\Borehole Metric Cable 20.00 500 31 190
\#106 4.50 Jan.1,1996 SHD1XYE N 1000 2800 +
\ pri pulse is t2-t1; ch1 is t4-t3, ch2 is t5-t4 etc
\-1.982e-04 -9.900e-05 4.950e-05 5.850e-05 7.200e-05 8.550e-05 1.035e-04
\ 1.261e-04 1.531e-04 1.847e-04 2.252e-04 2.700e-04 3.284e-04 3.960e-04
\ 4.815e-04 5.804e-04 7.019e-04 8.505e-04 1.026e-03 1.242e-03 1.498e-03
\ 1.813e-03 2.187e-03 2.646e-03 3.195e-03 3.861e-03 4.666e-03 5.634e-03
\ 6.808e-03 8.221e-03 9.936e-03 1.200e-02 1.449e-02 1.751e-02

Hole SHD13:

\Borehole Metric Cable 20.00 500 20 168
\#109 4.50 Jan.1,1996 SHD13XYE N 1000 2800 +
\
\-1.982e-04 -9.900e-05 4.950e-05 6.299e-05 8.550e-05 1.125e-04 1.531e-04
\ 2.027e-04 2.700e-04 3.600e-04 4.815e-04 6.389e-04 8.505e-04 1.129e-03
\ 1.498e-03 1.993e-03 2.646e-03 3.514e-03 4.666e-03 6.192e-03 8.221e-03
\ 1.091e-02 1.449e-02

Hole SHD12:

Borehole Metric Crystal-MASTER 10.00 500 17 61
#109 4.50 Jan.1,1996 SHD12Z1 N 1000 6500 +

-1.982e-04 -9.900e-05 4.950e-05 6.299e-05 8.550e-05 1.125e-04 1.531e-04

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2.027e-04 2.700e-04 3.600e-04 4.815e-04 6.389e-04 8.505e-04 1.129e-03
1.498e-03 1.993e-03 2.646e-03 3.514e-03 4.666e-03 6.192e-03

The EMVISION channel file for all holes except SHD13, SHD12 is:

Times for the Downhole survey
NUMTIMES=31 OFFTIME=20.

DELAY	WIDTH
0.054	0.008
0.065	0.014
0.079	0.014
0.094	0.018
0.115	0.022
0.140	0.027
0.169	0.032
0.205	0.040
0.248	0.045
0.299	0.058
0.362	0.068
0.439	0.086
0.531	0.098
0.641	0.122
0.776	0.148
0.938	0.176
1.134	0.216
1.370	0.256
1.656	0.315
2.000	0.374
2.416	0.459
2.920	0.549
3.528	0.666
4.264	0.805
5.150	0.968
6.221	1.174
7.514	1.413
9.078	1.715
10.968	2.064
13.245	2.490
16.000	3.020

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650266

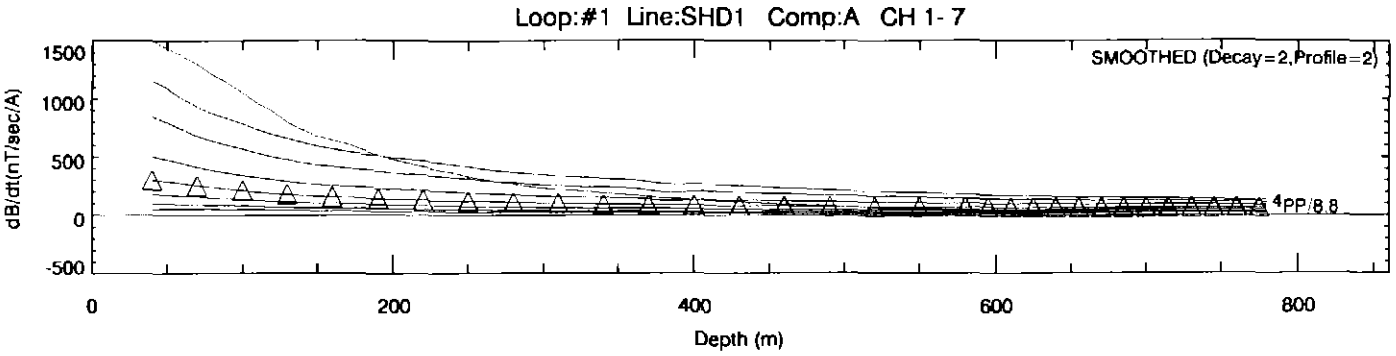
SOUTH HENTY EL 8/96

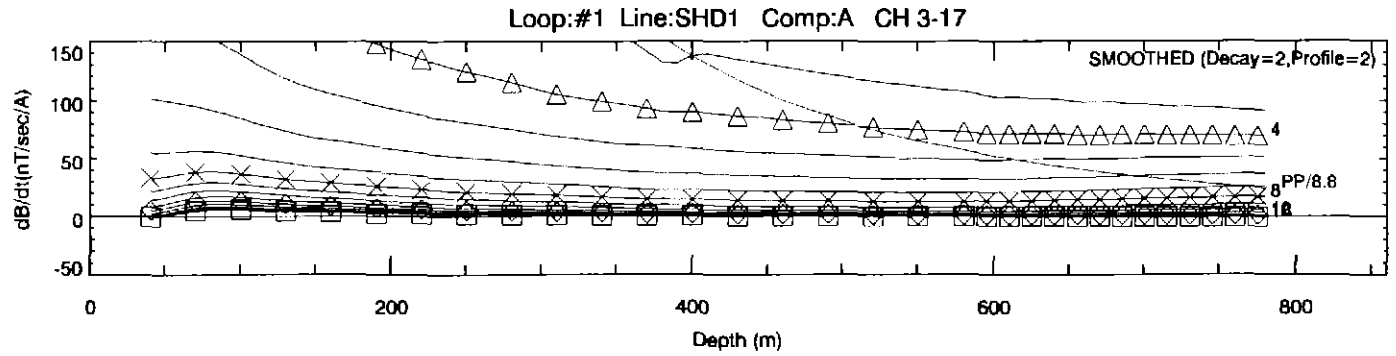
BOREHOLE EM DATA TO JUNE 1999

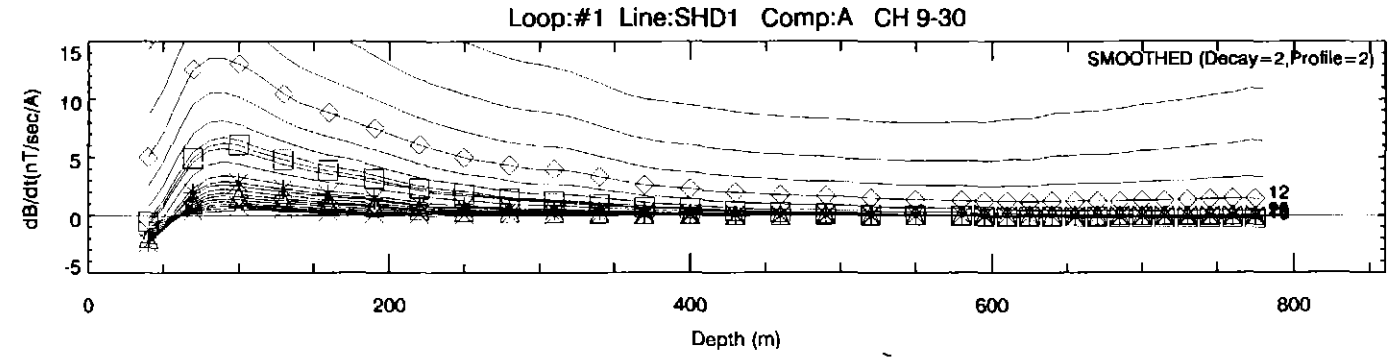
Hole	Tx Loop	Components
SHD1	1	A,U,V
	2	A,U,V
	9	A,U,V
SHD2	1	A,U,V
	2	A,U,V
	9	A,U,V
SHD12	3	A,U,V
	4	A,U,V
	10	A,U,V
SHD13	5	A,U,V
	6	A,U,V
SHD18	8	A,U,V
SHD19	11	A
	12	A

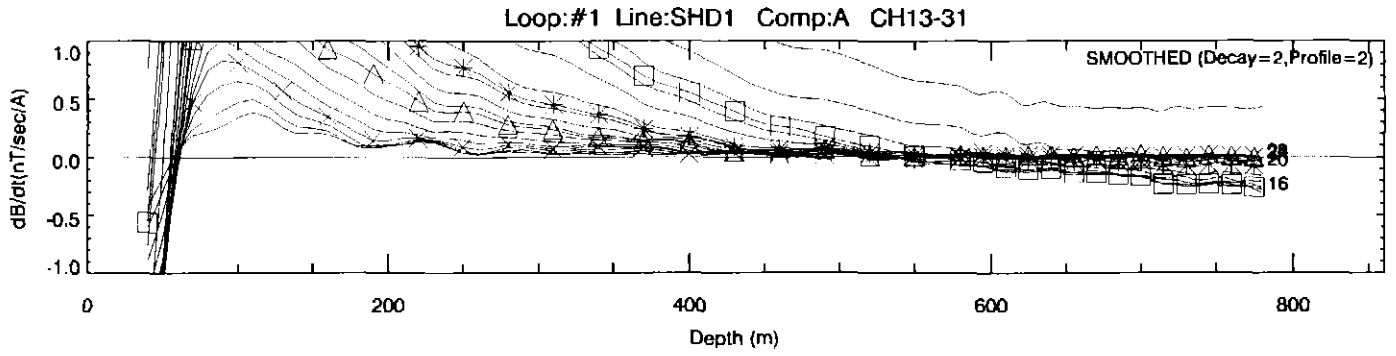
NOTE: Use of components A,U,V and Z,X,Y are synonomous; the contractor changed to industry-standard nomenclature (A,U,V) in 1999.

650267



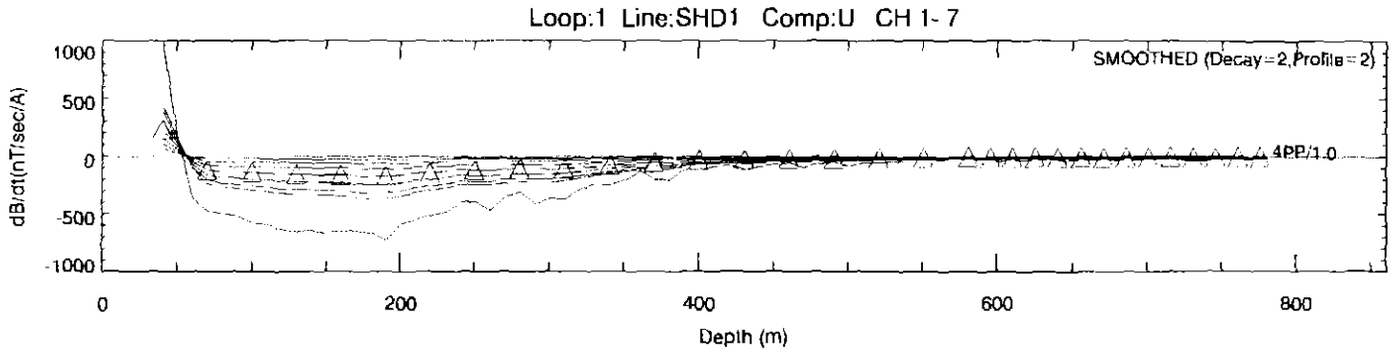


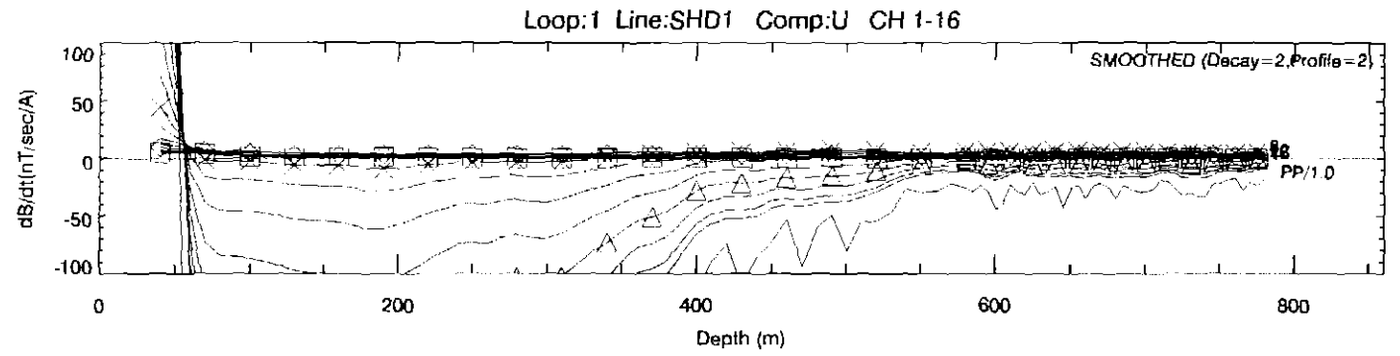


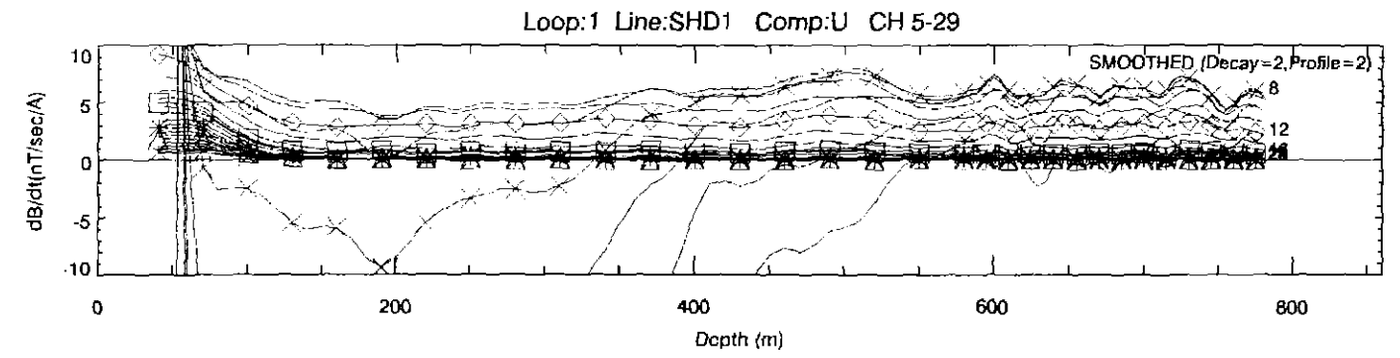


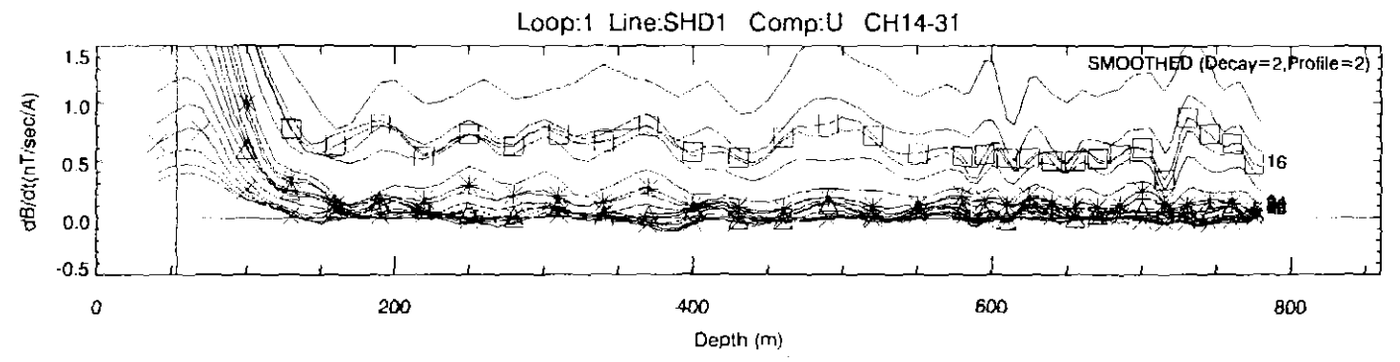
Goldfields Ltd	
South Henty. Borehole EM Jan 2000.	
Crone PEM. Tx Frequency 12.5 Hz	
Window Set Ch1-31	
FLAGSTAFF GEOCONSULTANTS	
Drawn 29-Mar-2000	

650268









Goldfields Ltd	
South Henty. Borehole EM Jan 2000.	
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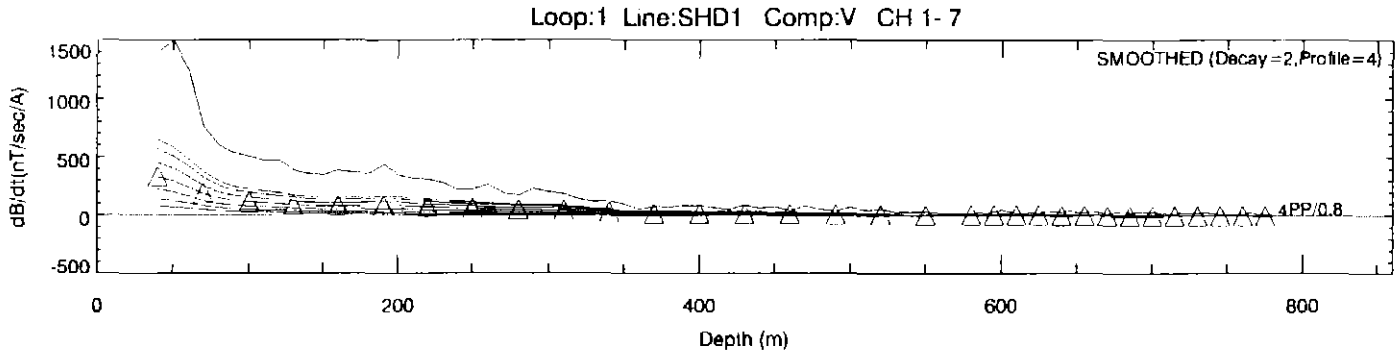
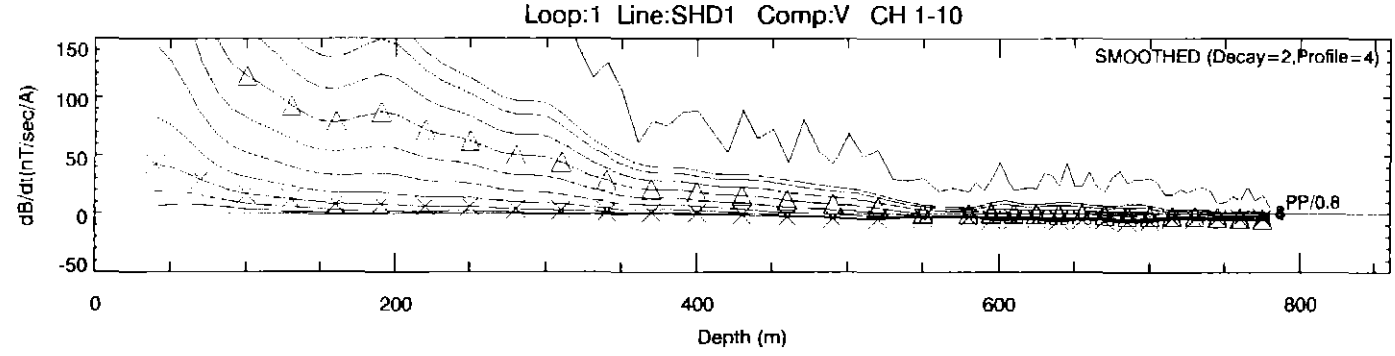
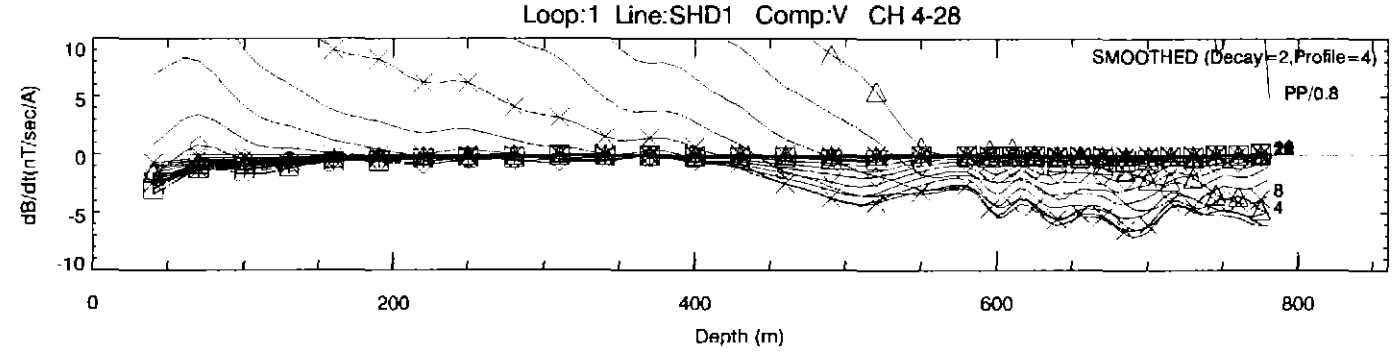
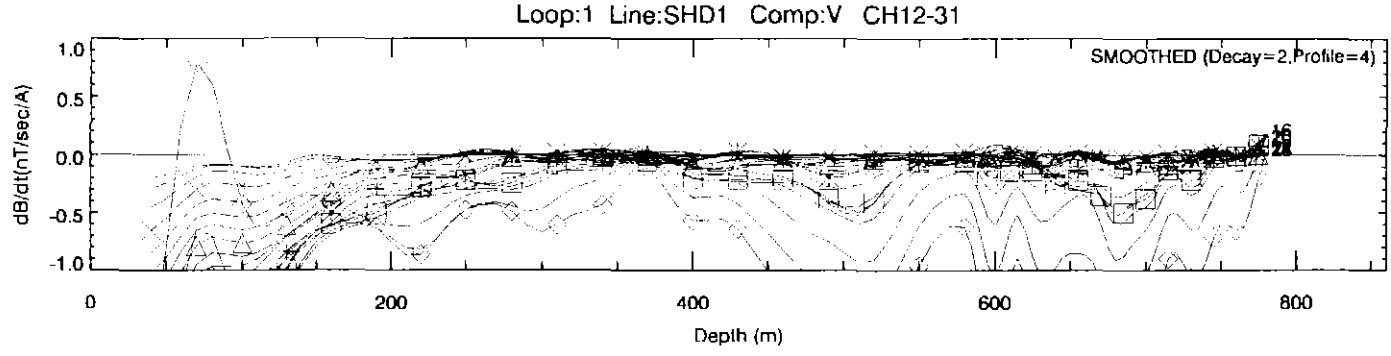
Window Set Ch1-31	
FLAGSTAFF GEOCONSULTANTS	
Drawn 15-Feb-2000	

650269



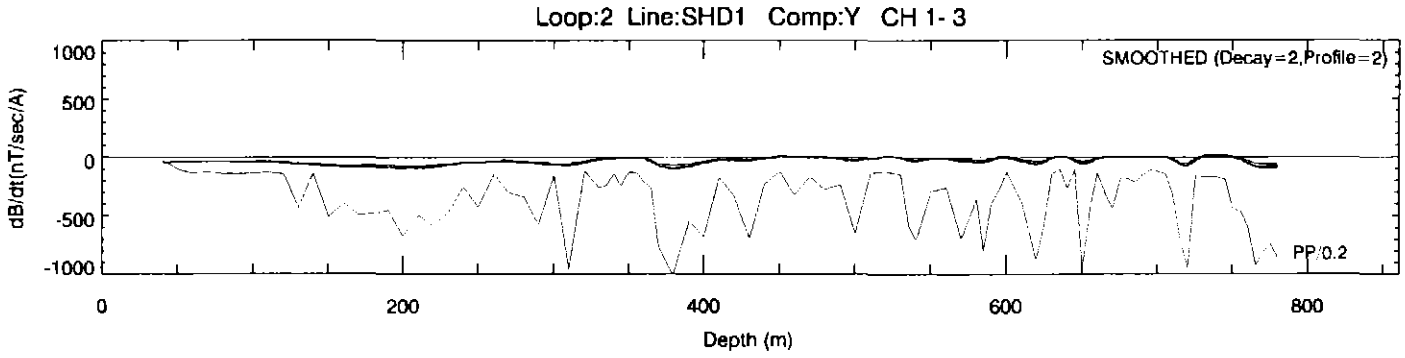


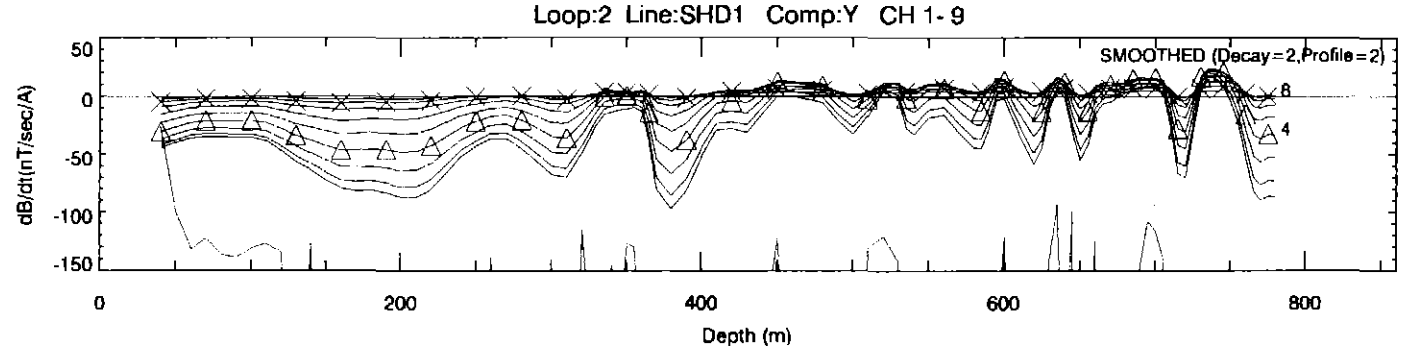


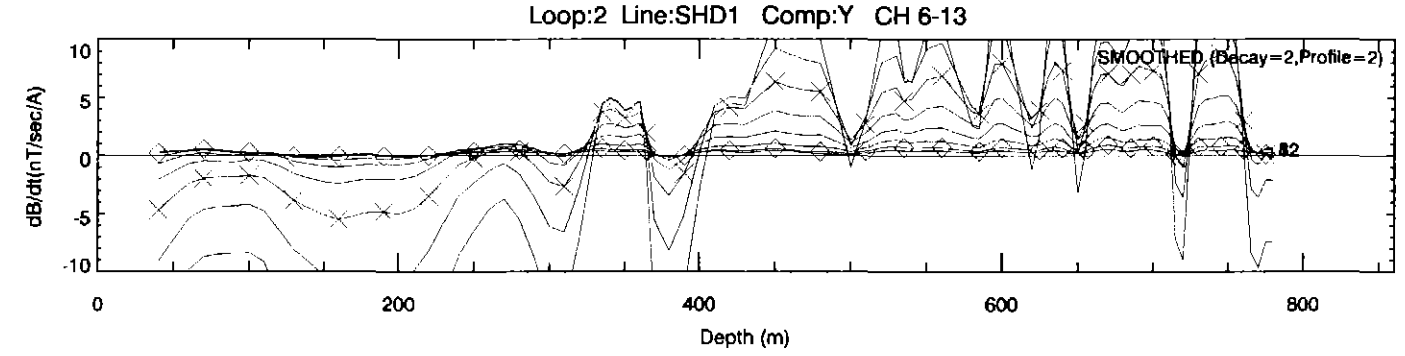


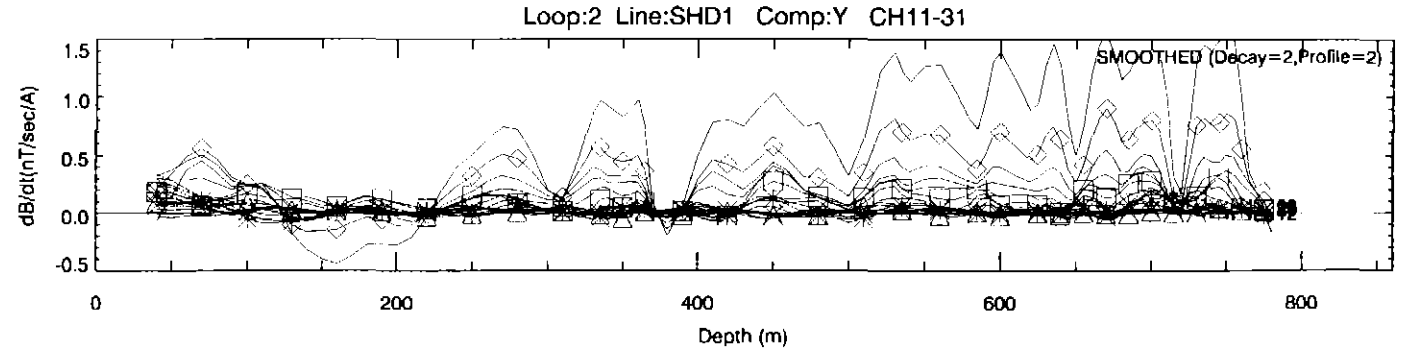
Goldfields Ltd	
South Henty. Borehole EM Jan 2000.	
Crone PEM. Tx Frequency 12.5 Hz	
Window Set Ch1-31	
FLAGSTAFF GEOCONSULTANTS	
Drawn 15-Feb-2000	

650270



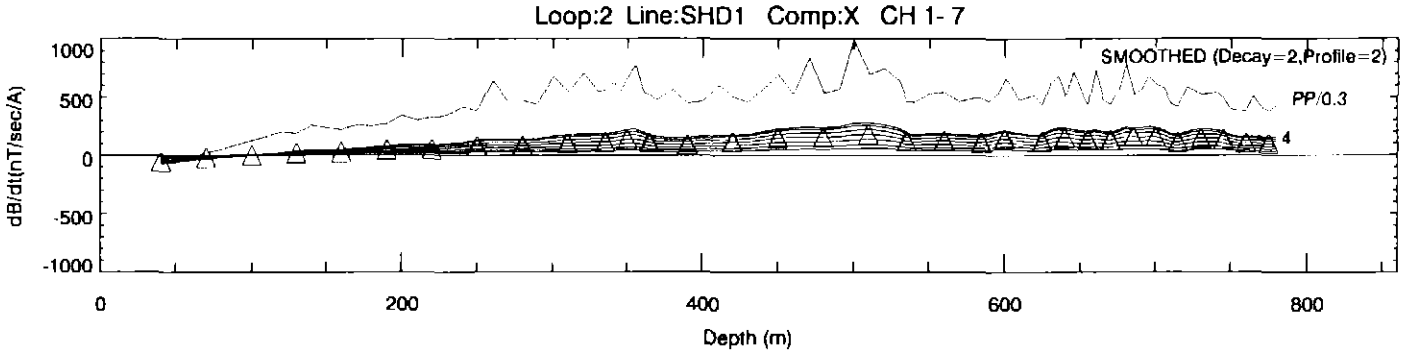


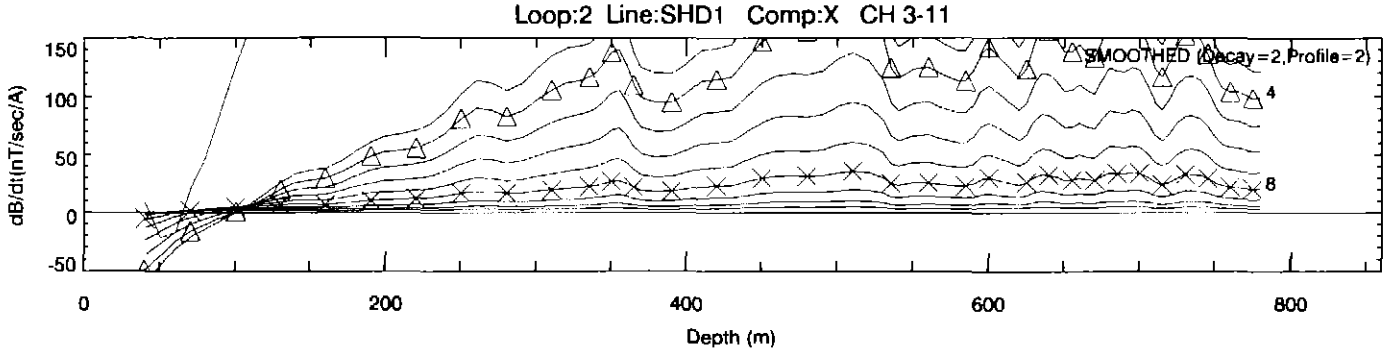


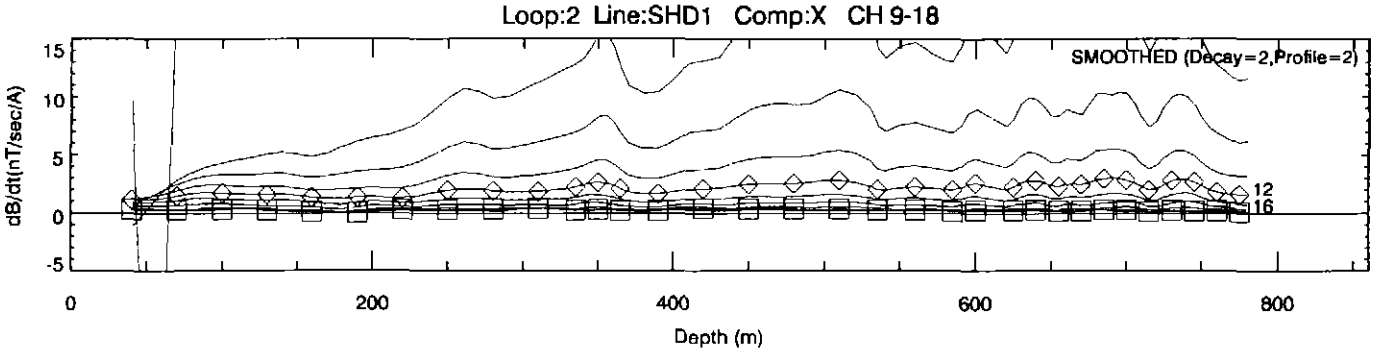


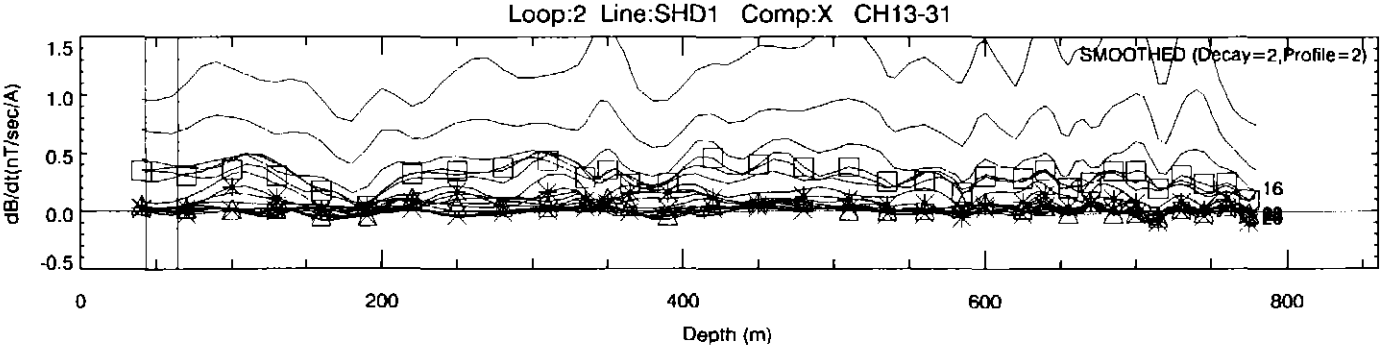
Goldfields Ltd	
South Henty. Borehole EM Jan 2000.	
Crone PEM. Tx Frequency 12.5 Hz	
Window Set Ch1-31	
FLAGSTAFF GEOCONSULTANTS	
Drawn 3-Apr-2000	

650271



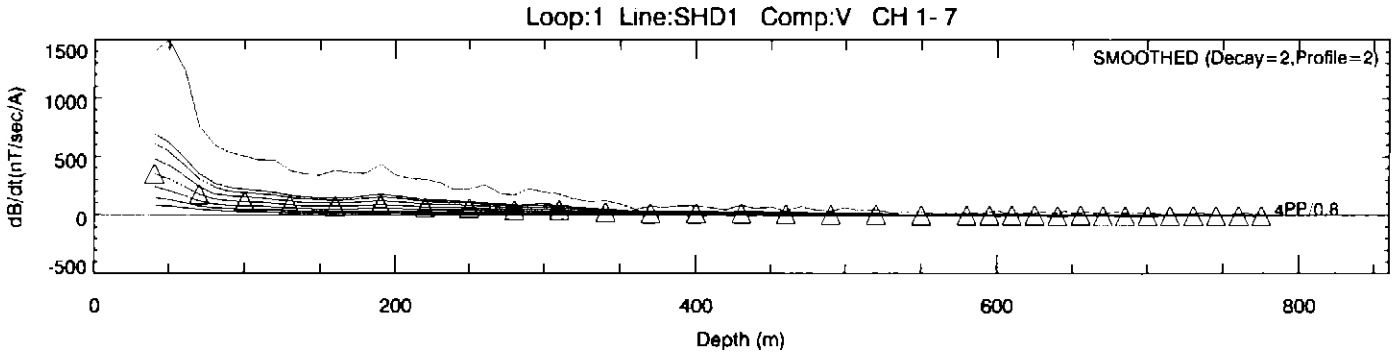


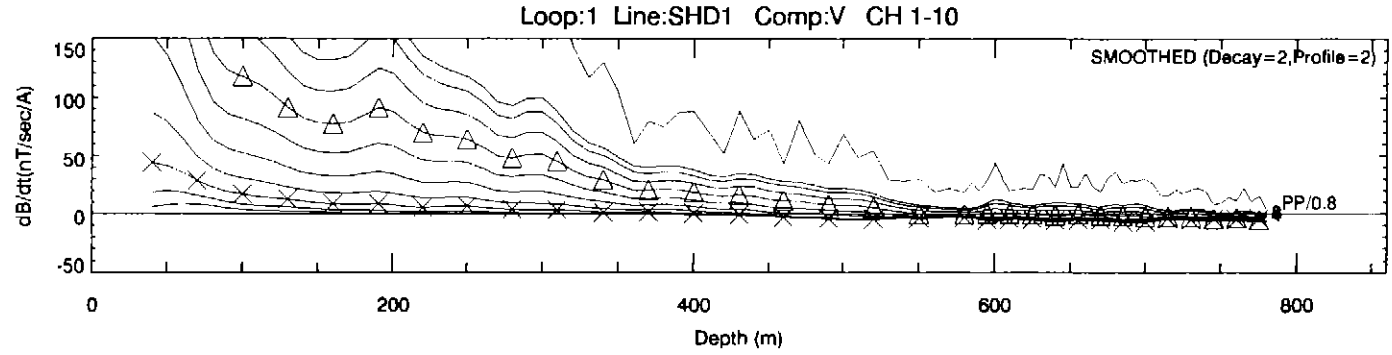


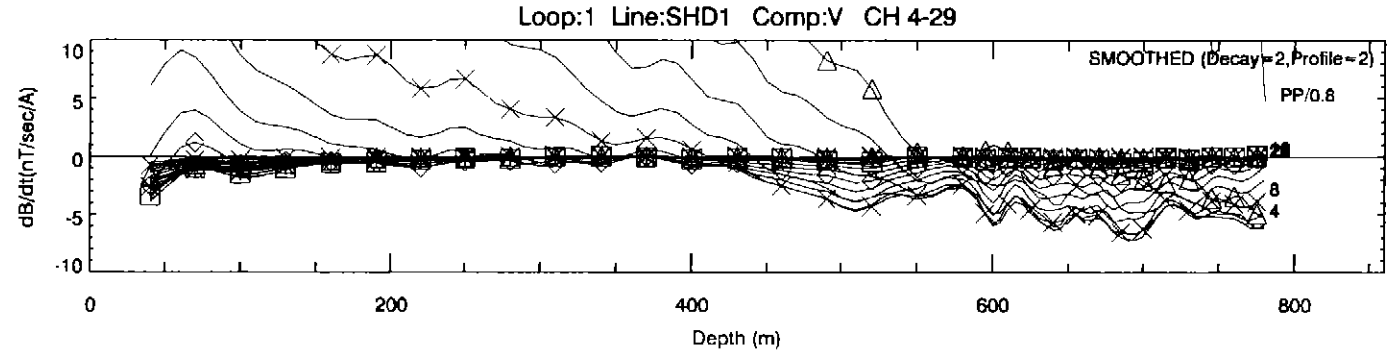


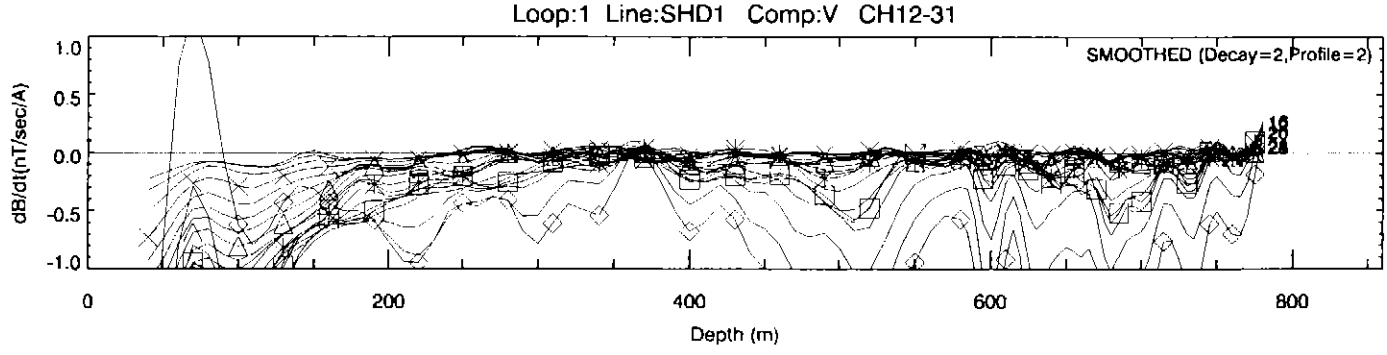
Goldfields Ltd	
South Henty. Borehole EM Jan 2000.	
Crone PEM. Tx Frequency 12.5 Hz	
Window Set Ch1-31	
FLAGSTAFF GEOCONSULTANTS	
Drawn 3-Apr-2000	

650272



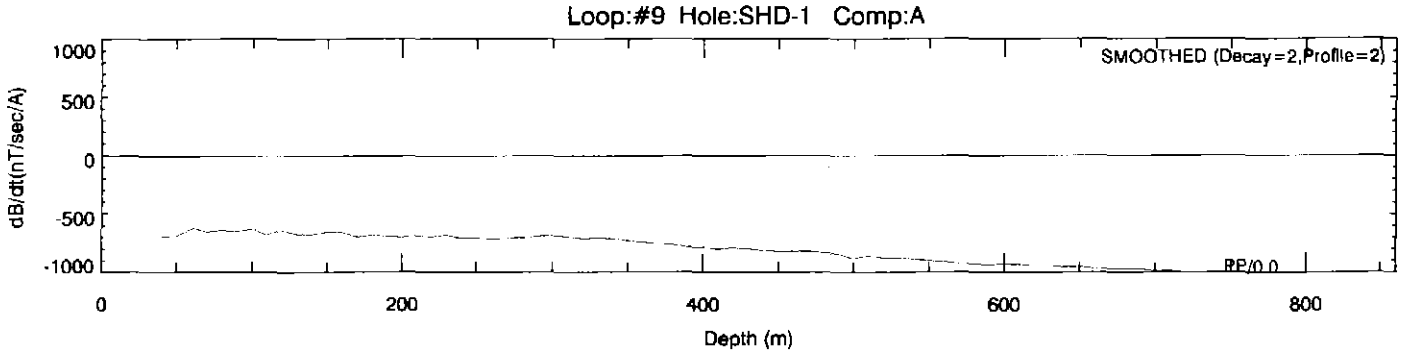


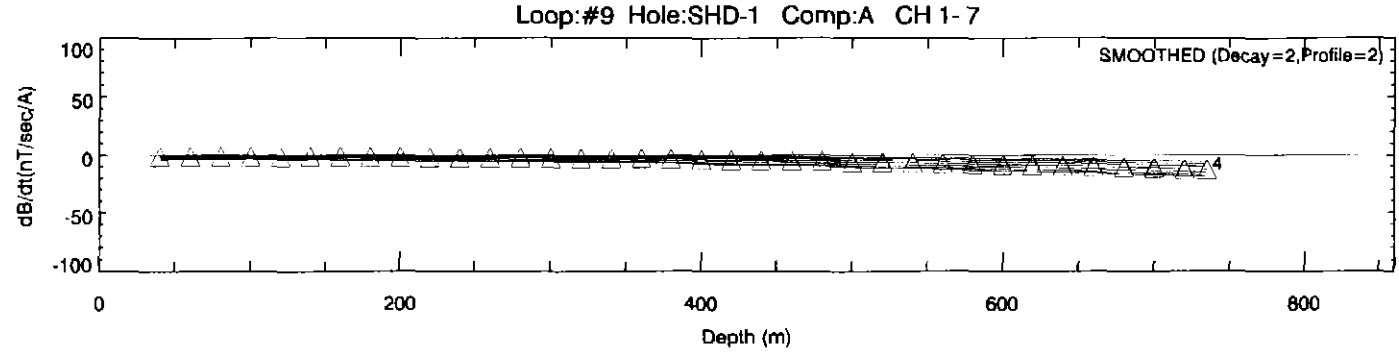


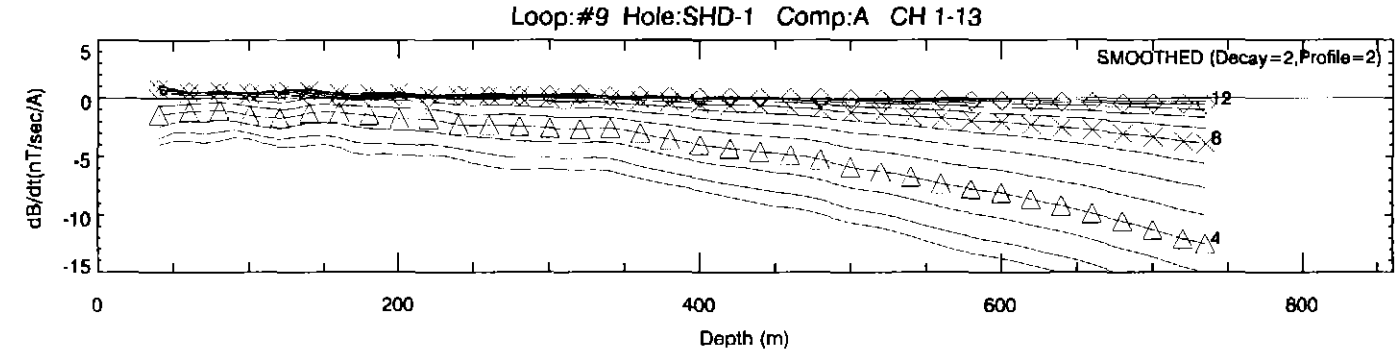


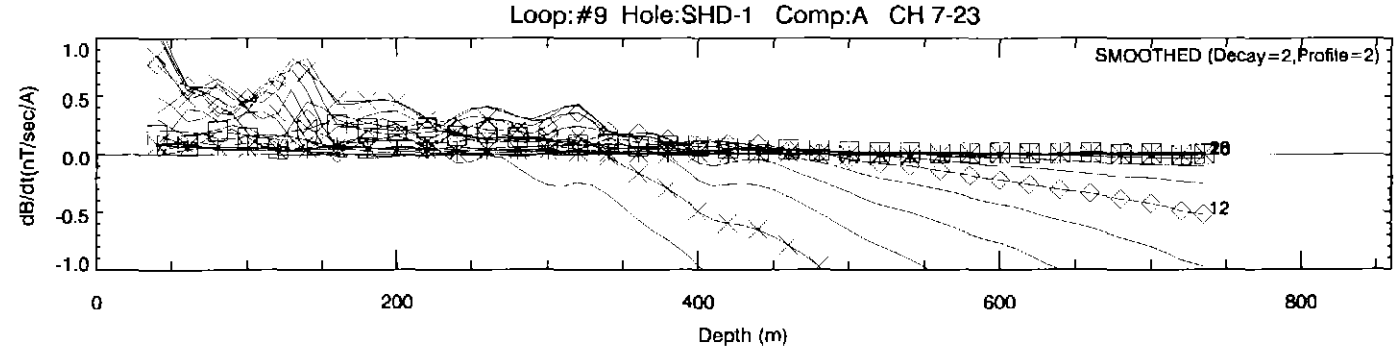
Goldfields Ltd	
South Henty. Borehole EM Jan 2000.	
Crone PEM. Tx Frequency 12.5 Hz	
Window Set Ch1-31	
FLAGSTAFF GEOCONSULTANTS	
Drawn 3-Apr-2000	

650273



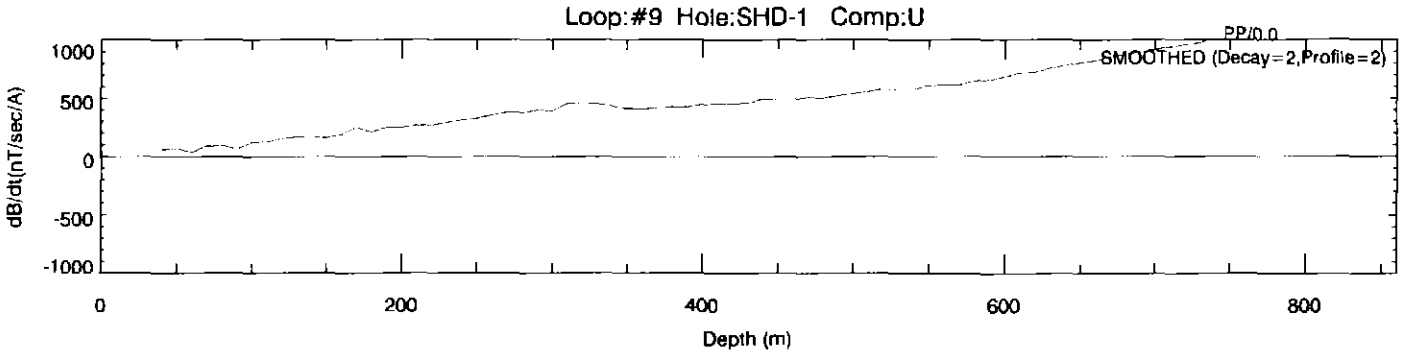


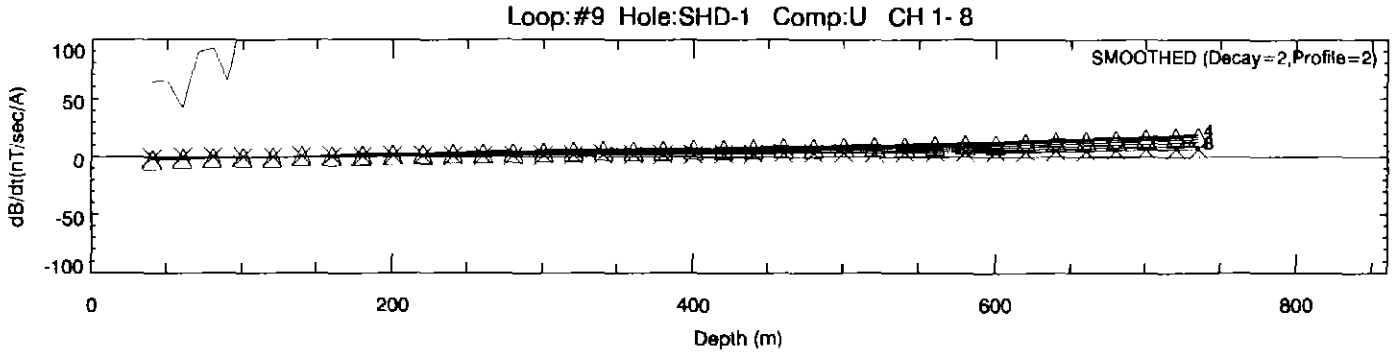


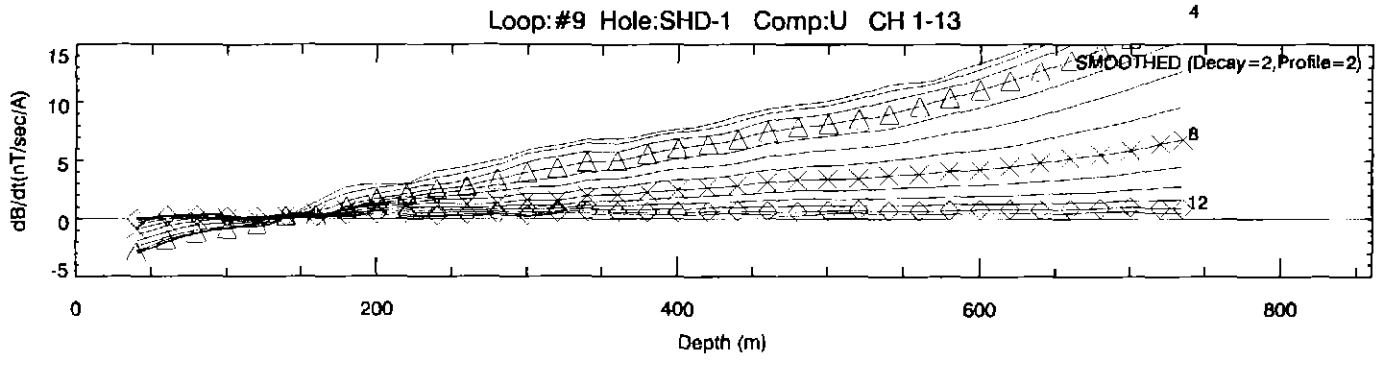


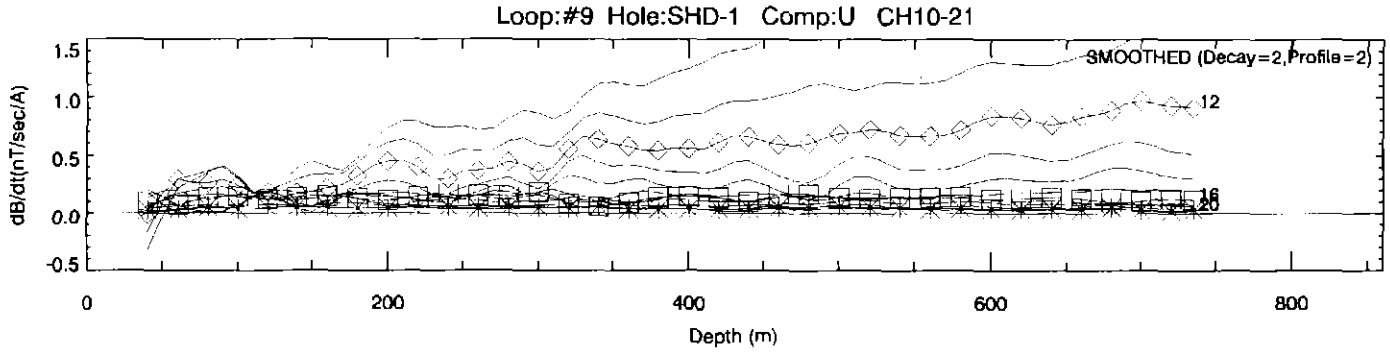
Goldfields Ltd	
South Henty. Borehole EM Jan 2000.	
Crone PEM. Tx Frequency 12.5 Hz	8
Window Set Ch1-31	
FLAGSTAFF GEOCONSULTANTS	
Drawn 3-Apr-2000	

650274



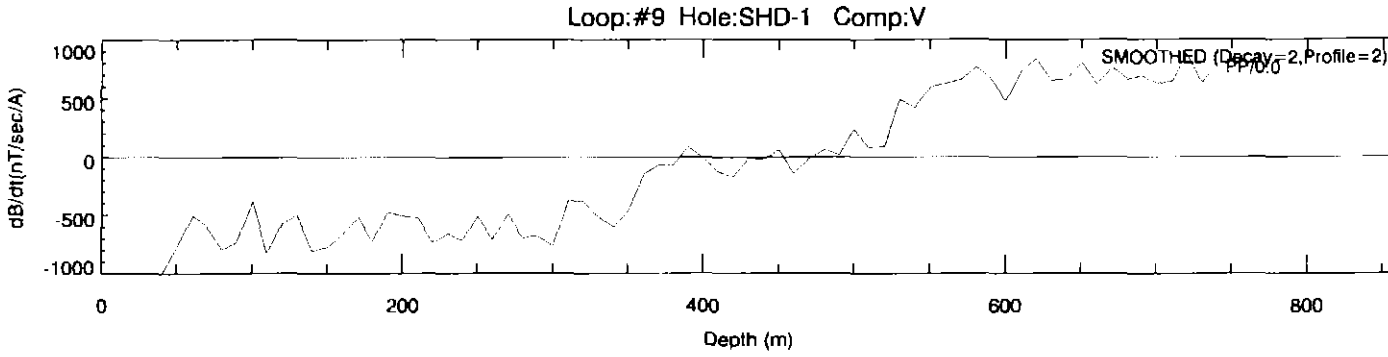


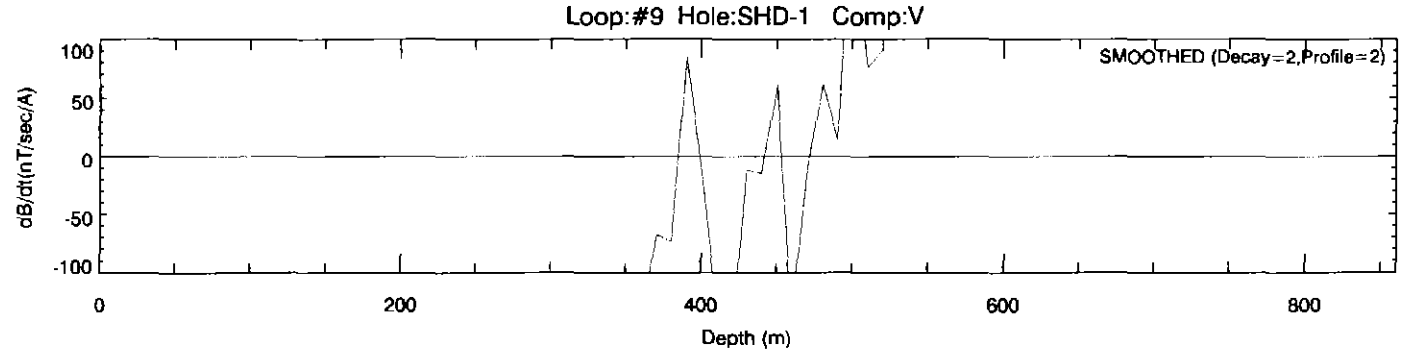


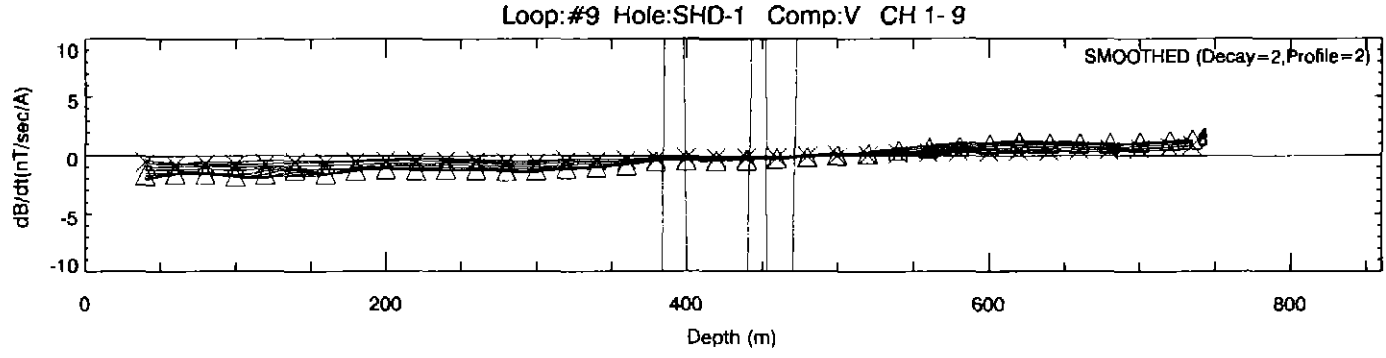


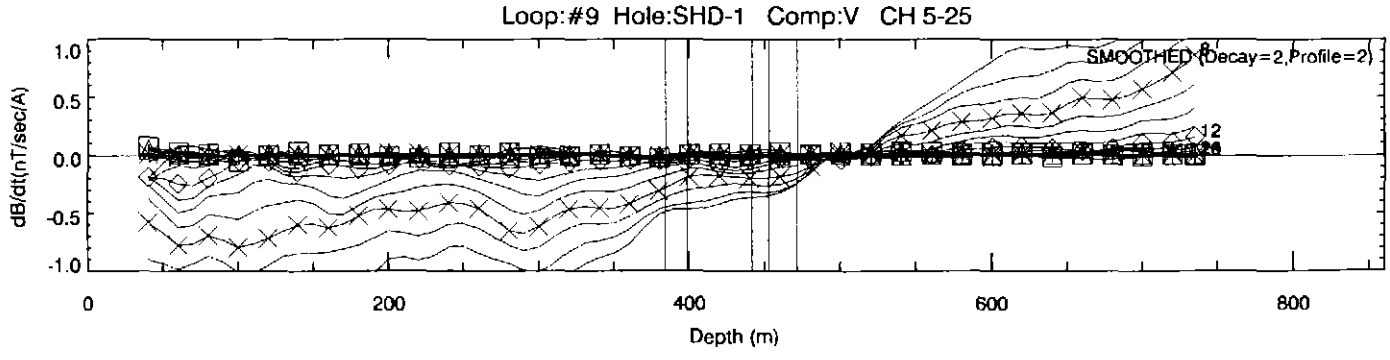
Goldfields Ltd	
South Henty. Borehole EM Jan 2000.	
Crone PEM. Tx Frequency 12.5 Hz	
Window Set Ch1-31	
FLAGSTAFF GEOCONSULTANTS	
Drawn 3-Apr-2000	

650275



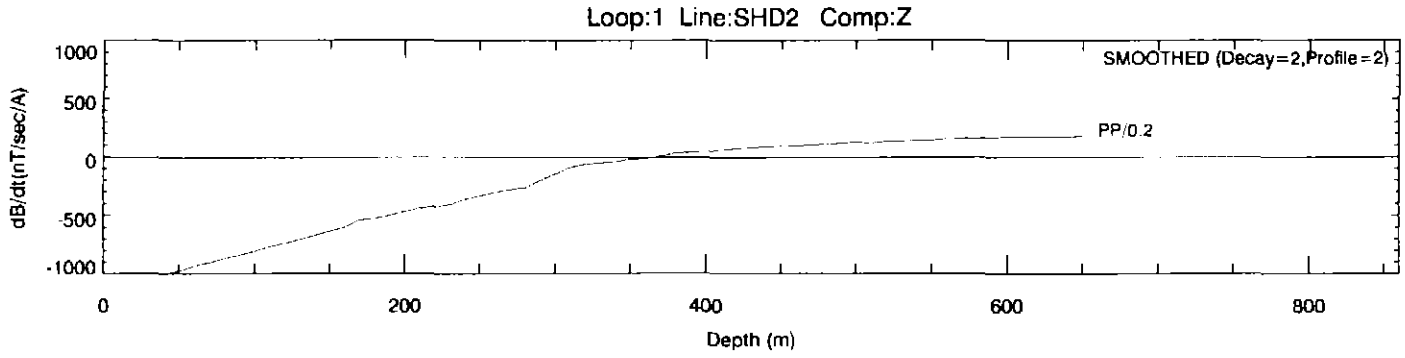


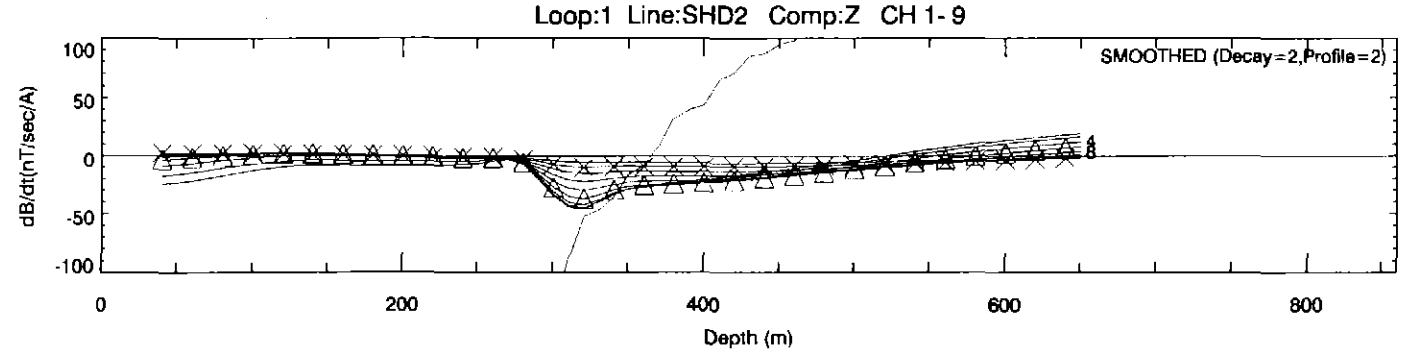


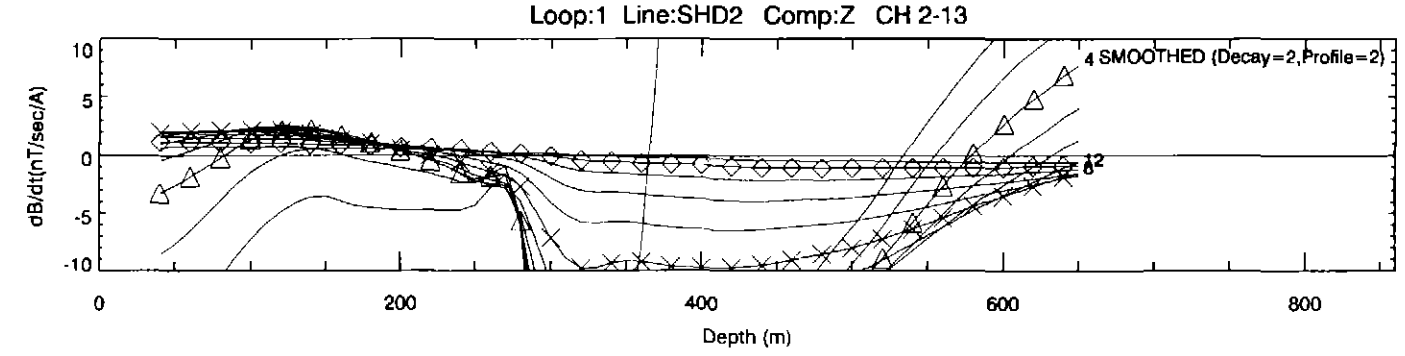


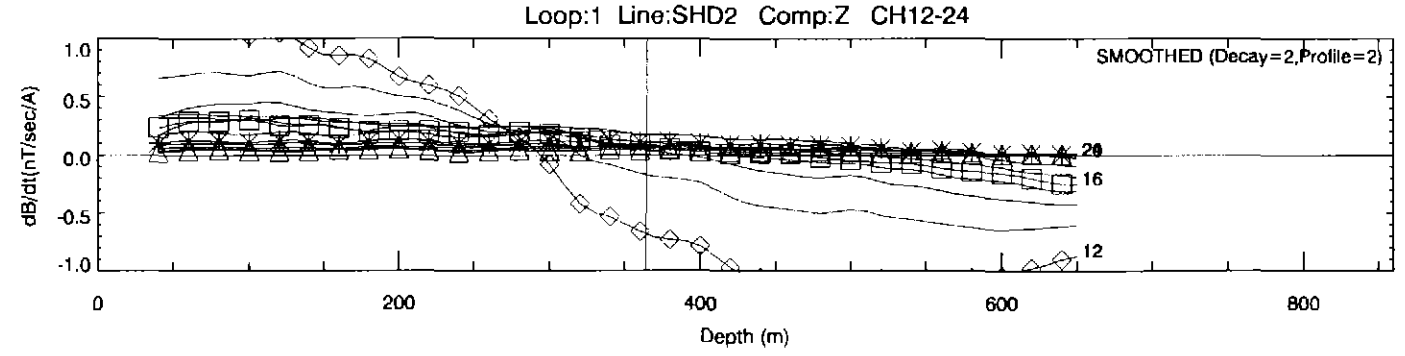
Goldfields Ltd	
South Henty. Borehole EM Jan 2000.	
Crone PEM. Tx Frequency 12.5 Hz	
Window Set Ch1-31	
FLAGSTAFF GEOCONSULTANTS	
Drawn 3-Apr-2000	

650276



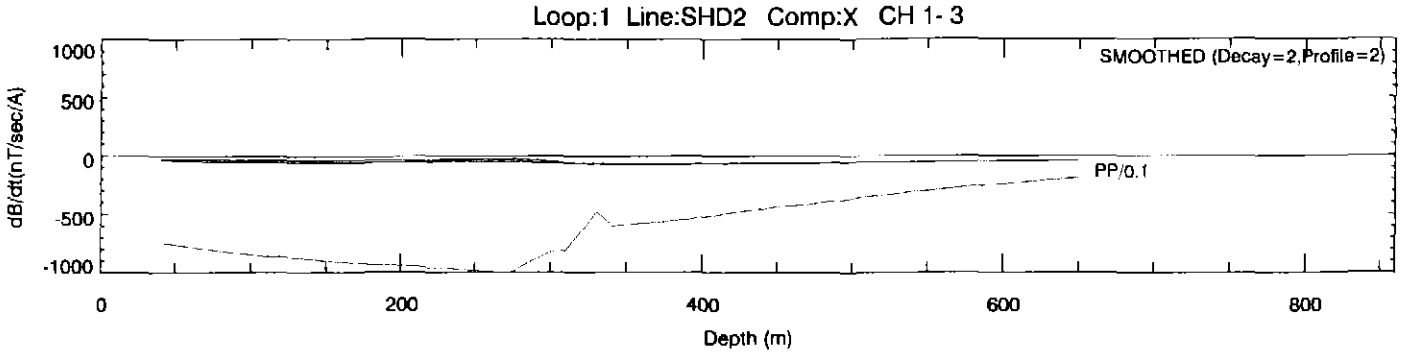


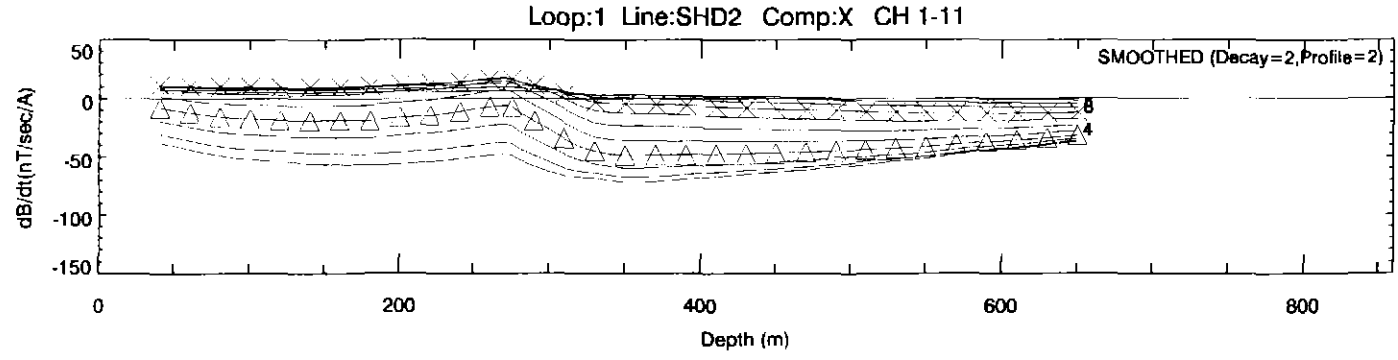


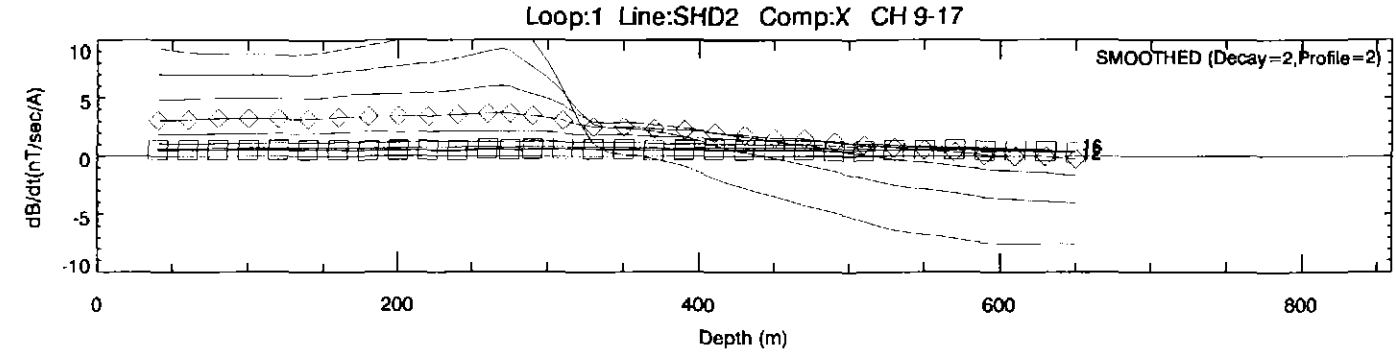


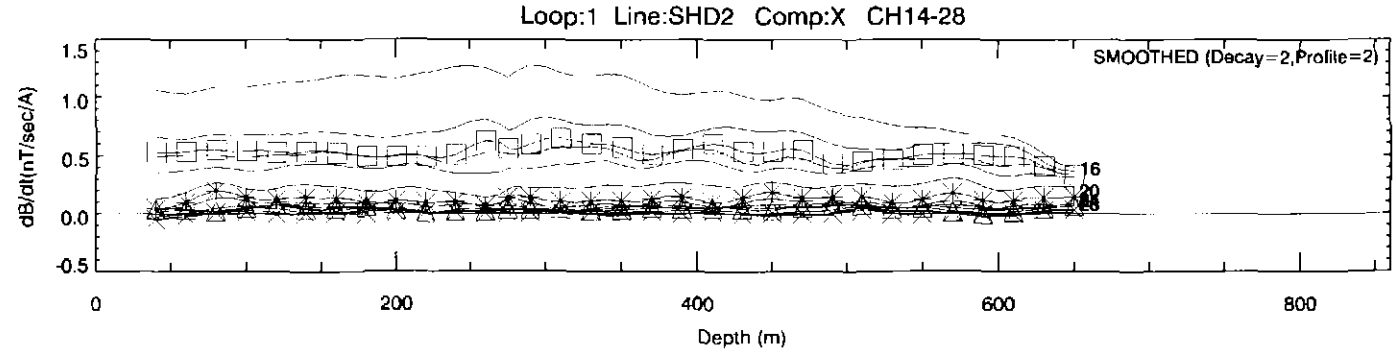
Goldfields Ltd	
South Henty. Borehole EM Jan 2000.	
Crone PEM. Tx Frequency 12.5 Hz	
Window Set Ch1-31	
FLAGSTAFF GEOCONSULTANTS Drawn 3-Apr-2000	

650277



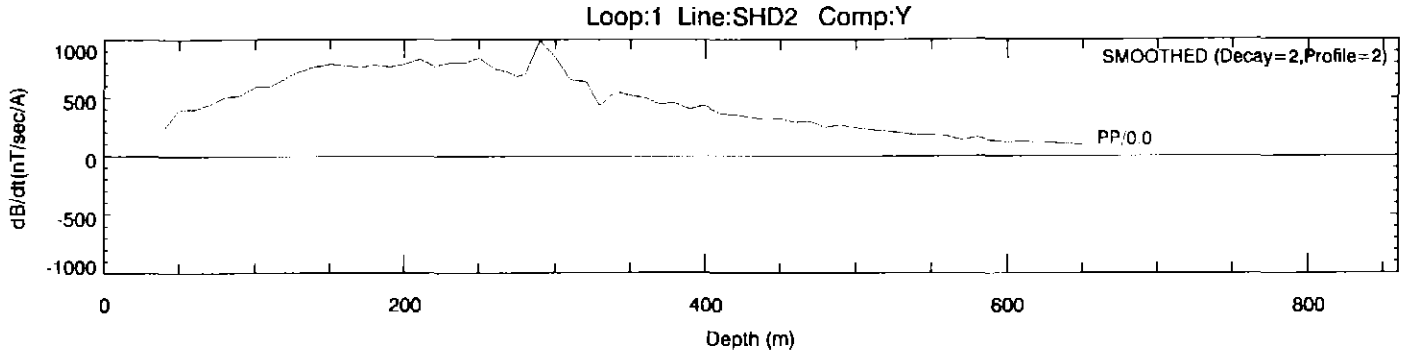


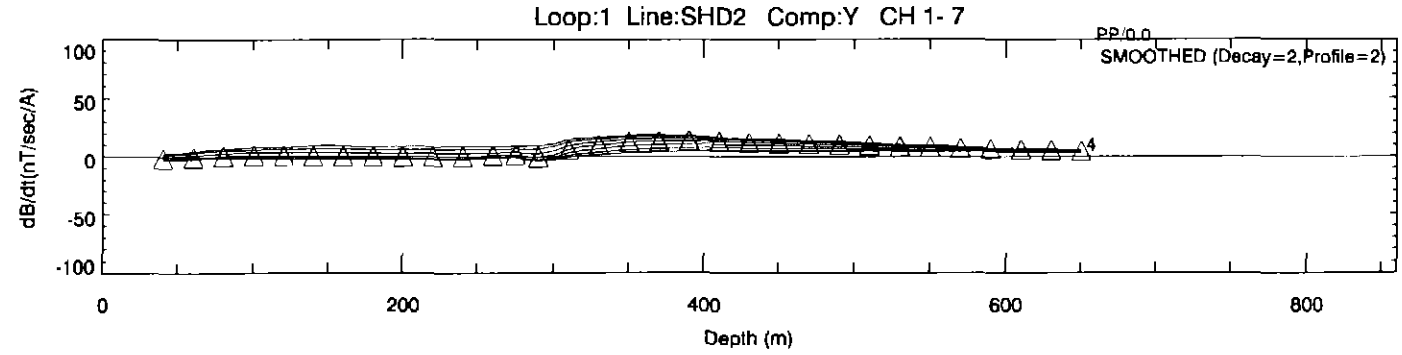


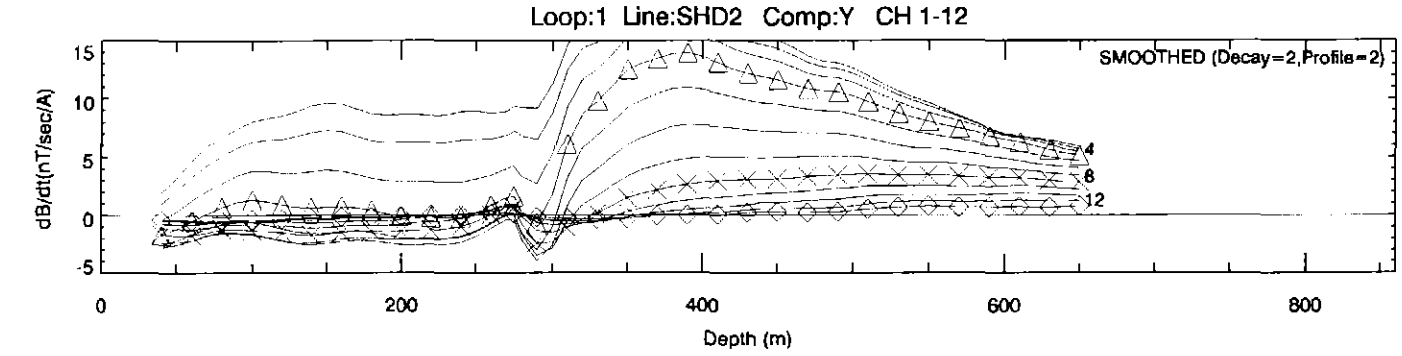


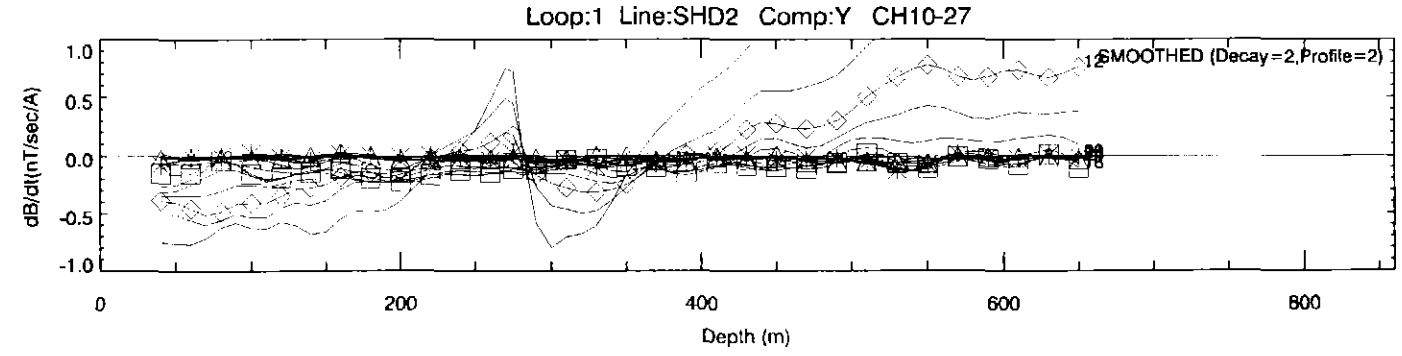
Goldfields Ltd	
South Henty. Borehole EM Jan 2000.	
Crone PEM. Tx Frequency 12.5 Hz	
Window Set Ch1-31	
FLAGSTAFF GEOCONSULTANTS	
Drawn 3-Apr-2000	

650278



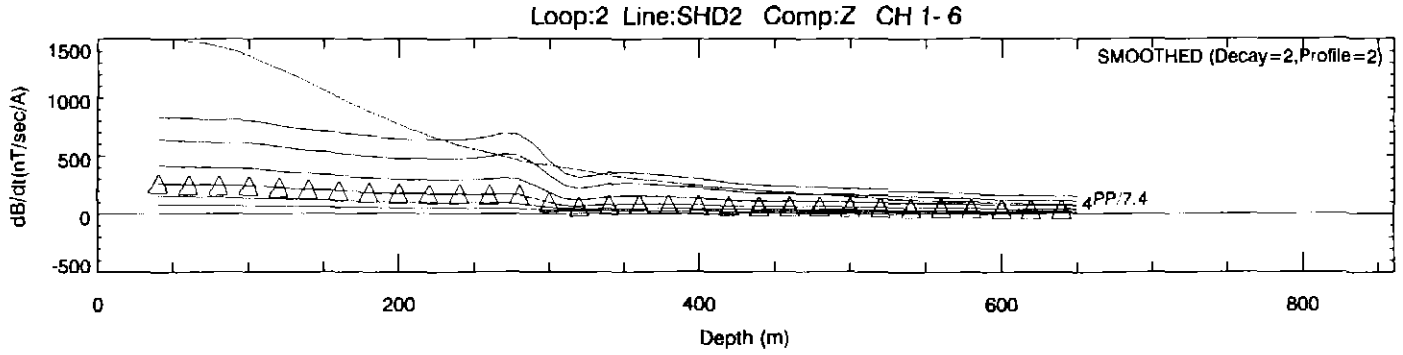


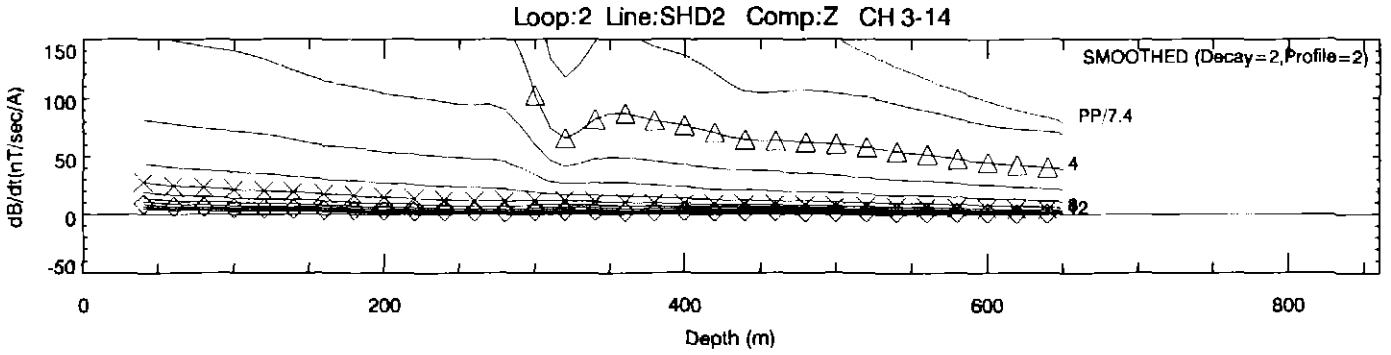


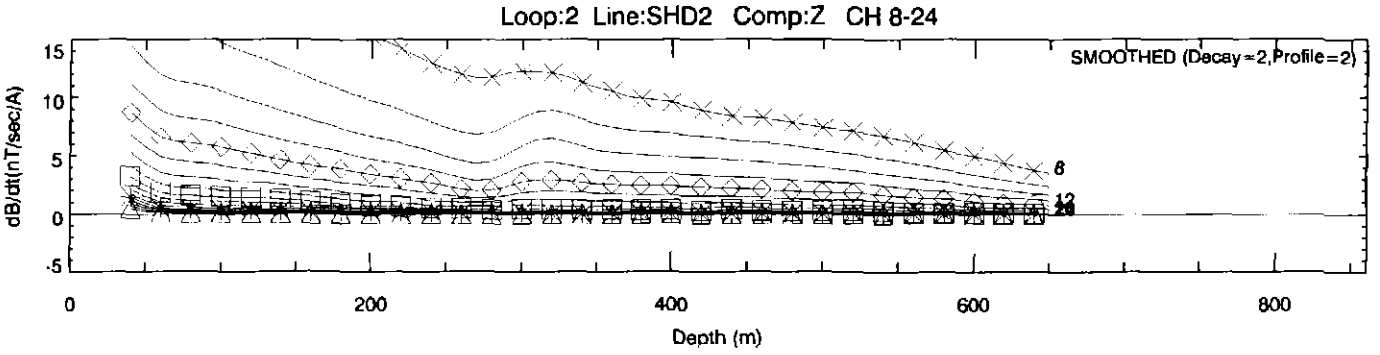


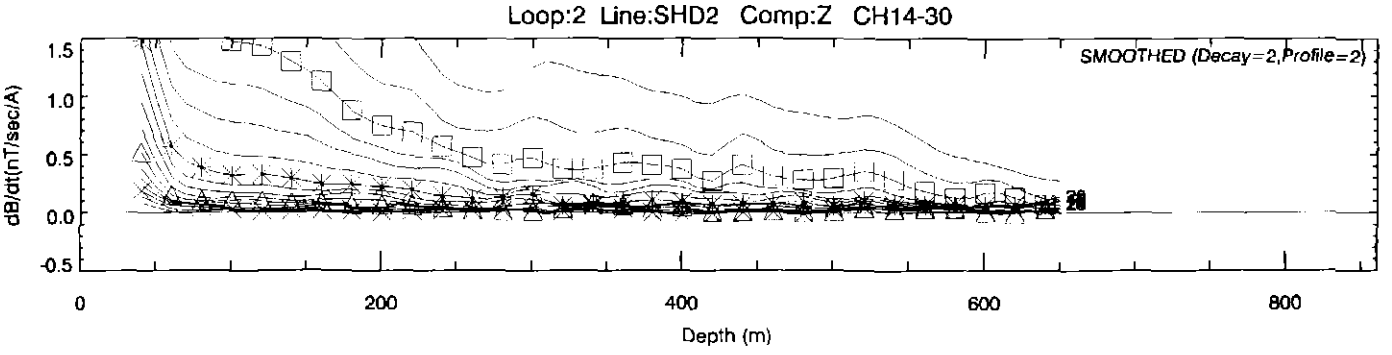
Goldfields Ltd	
South Henty. Borehole EM Jan 2000.	
Crone PEM. Tx Frequency 12.5 Hz	
Window Set Ch1-31	
FLAGSTAFF GEOCONSULTANTS	
Drawn 3-Apr-2000	

650279



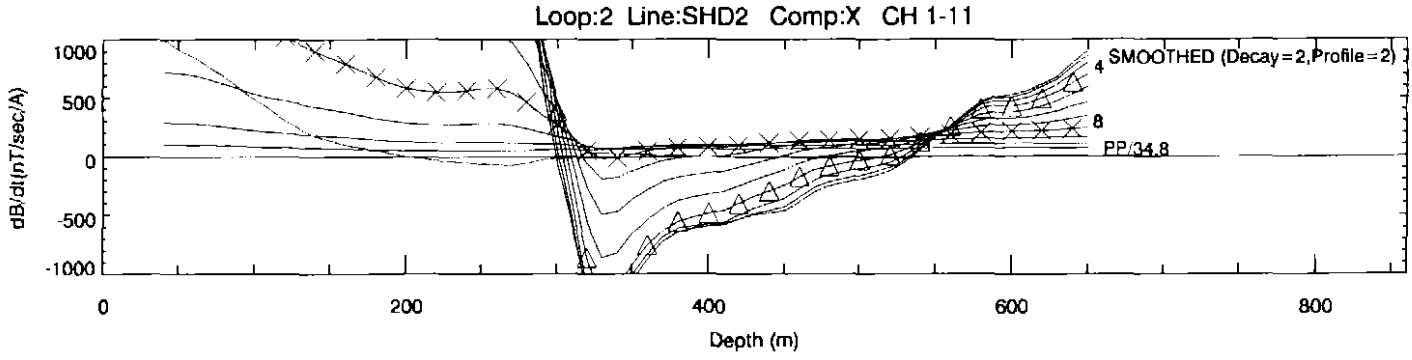


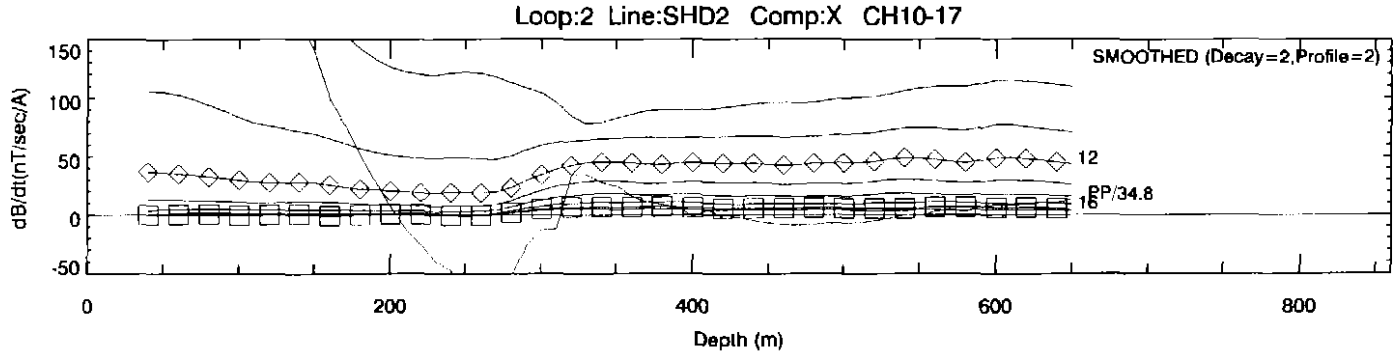


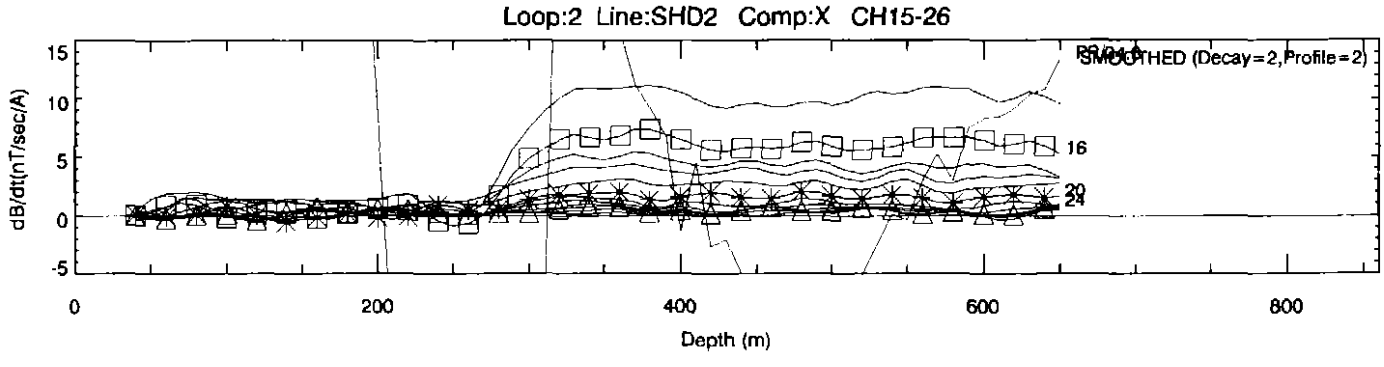


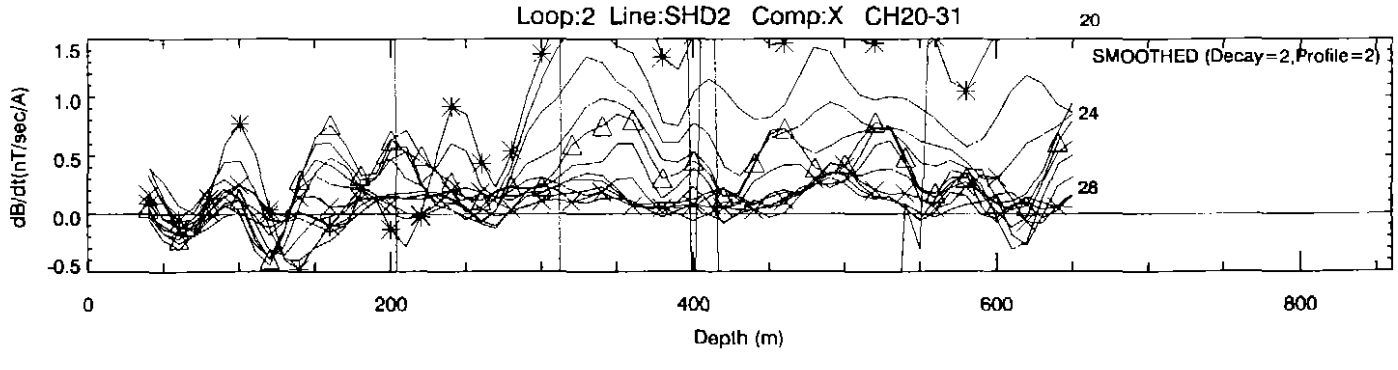
Goldfields Ltd	
South Henty. Borehole EM Jan 2000.	
Crone PEM. Tx Frequency 12.5 Hz	
Window Set Ch1-31	
FLAGSTAFF GEOCONSULTANTS	
Drawn 3-Apr-2000	

650280



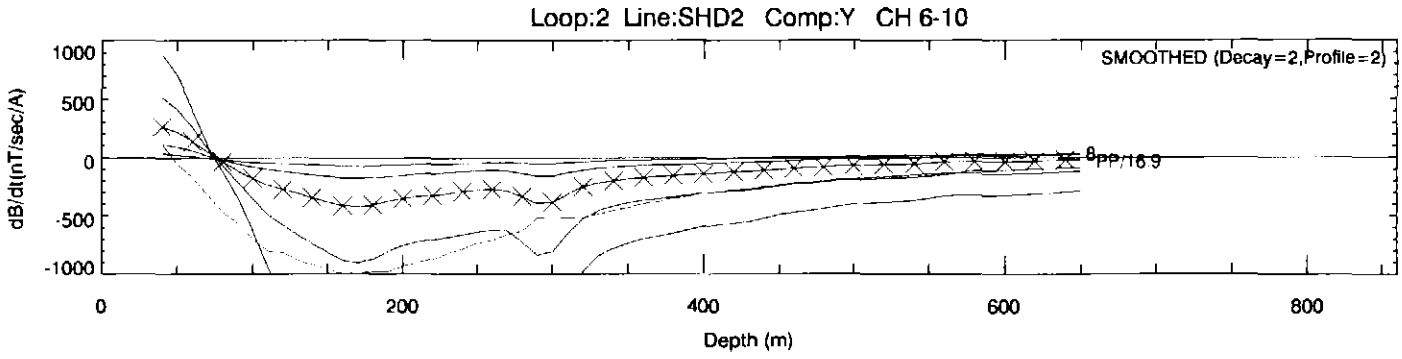


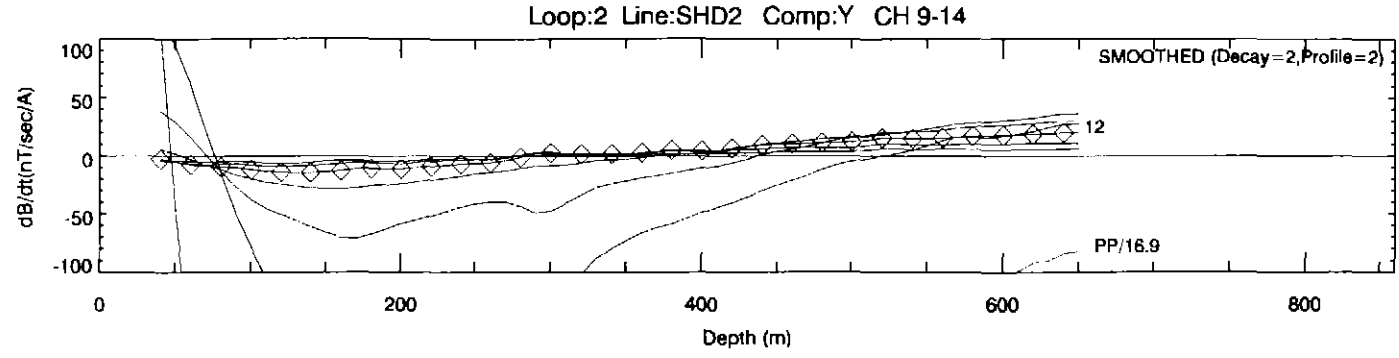


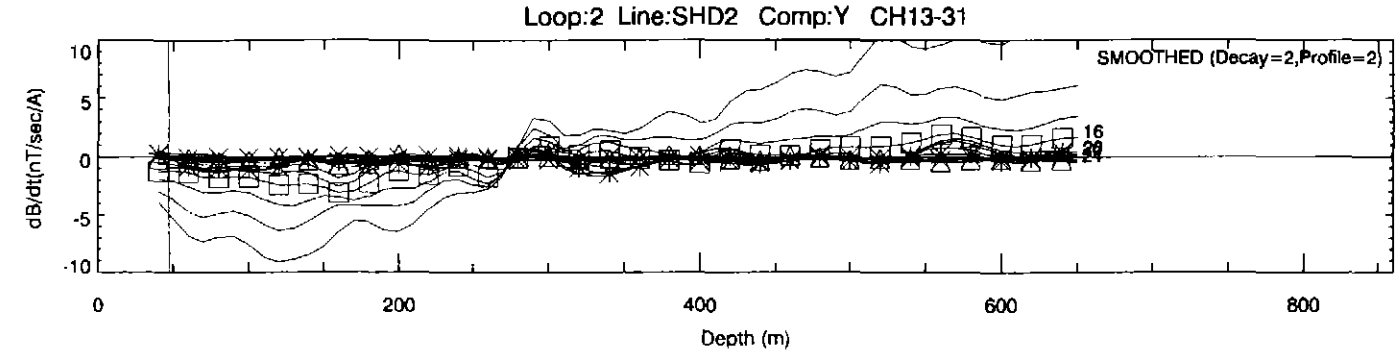


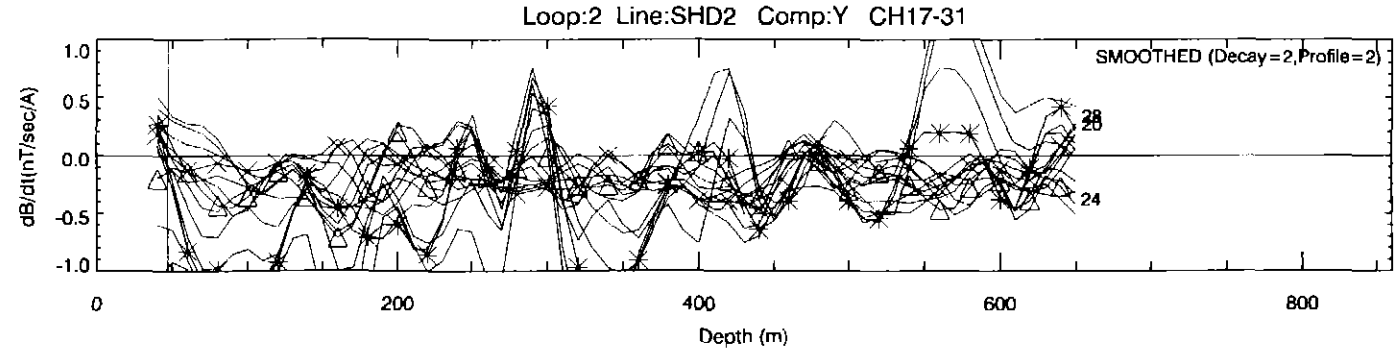
Goldfields Ltd	
South Henty. Borehole EM Jan 2000.	
Crone PEM. Tx Frequency 12.5 Hz	
Window Set Ch1-31	
FLAGSTAFF GEOCONSULTANTS	
Drawn 3-Apr-2000	

650281



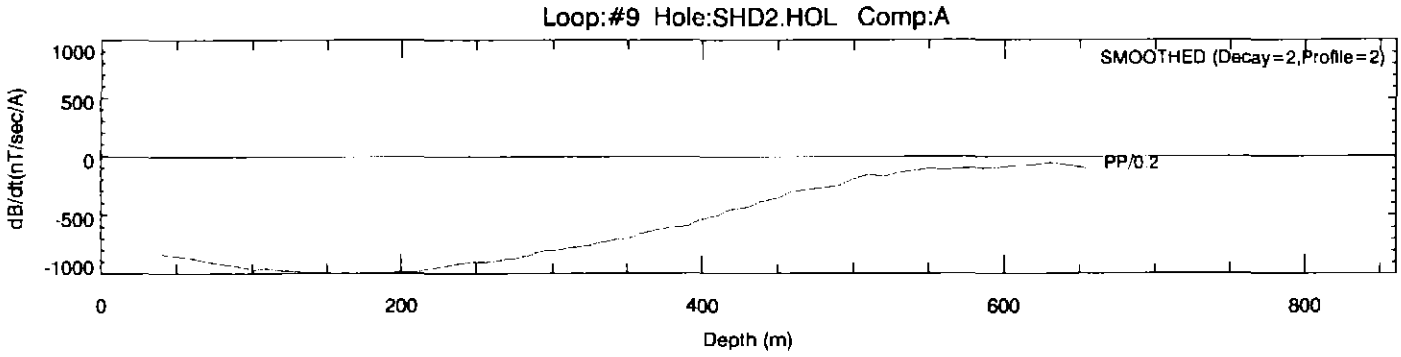


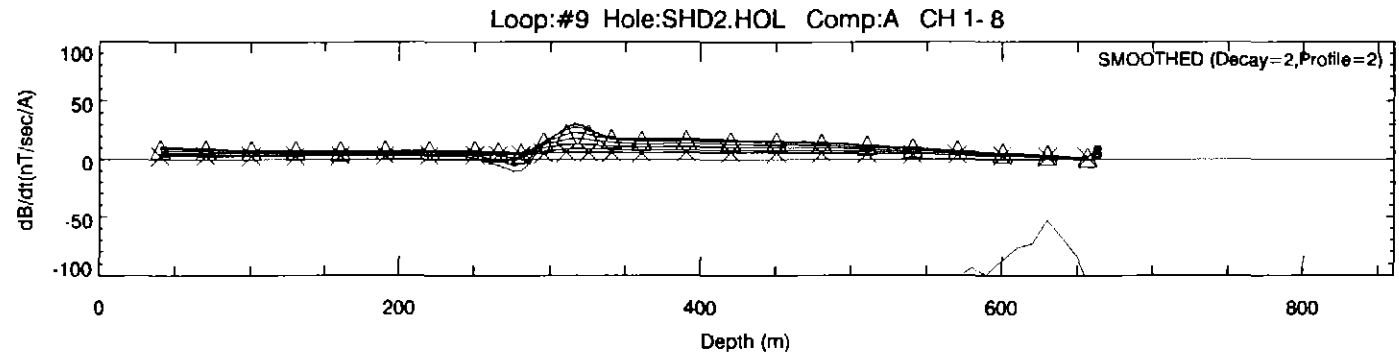


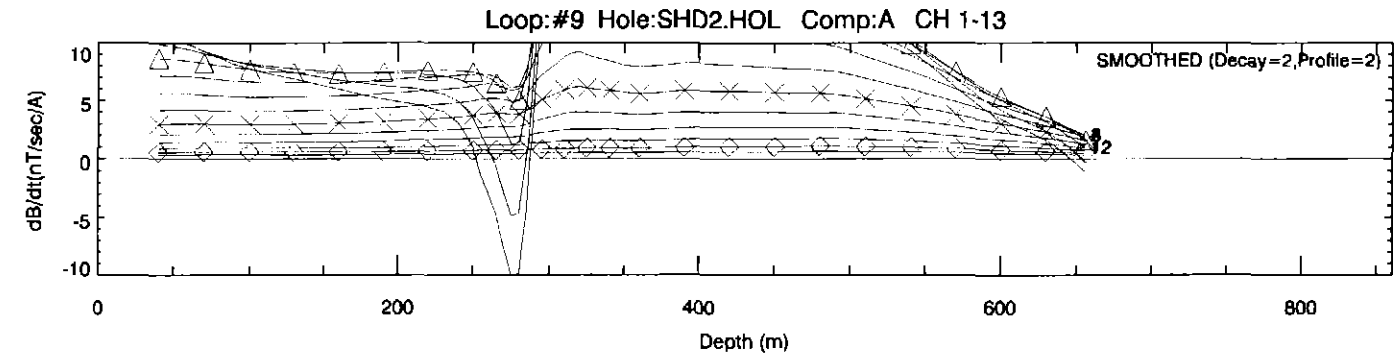


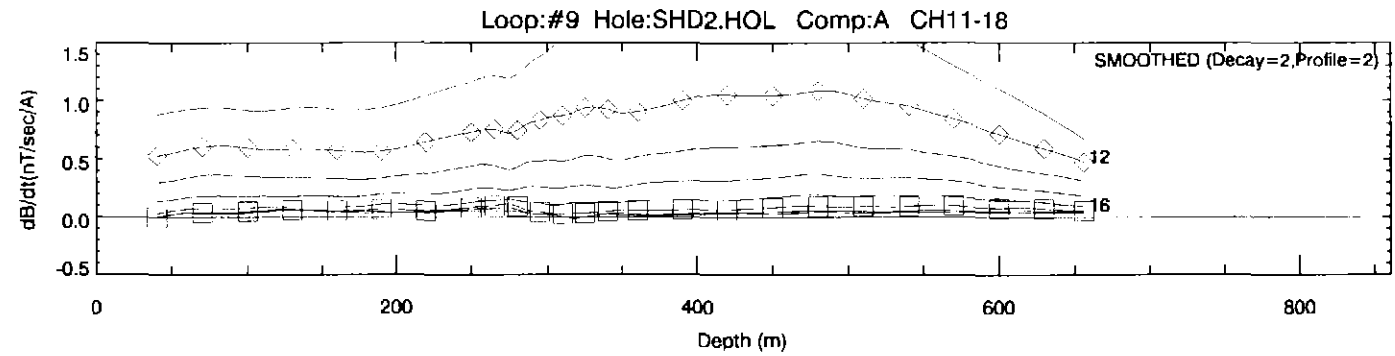
Goldfields Ltd	
South Henty. Borehole EM Jan 2000.	
Crone PEM. Tx Frequency 12.5 Hz	
Window Set Ch1-31	
FLAGSTAFF GEOCONSULTANTS	
Drawn 3-Apr-2000	

650282



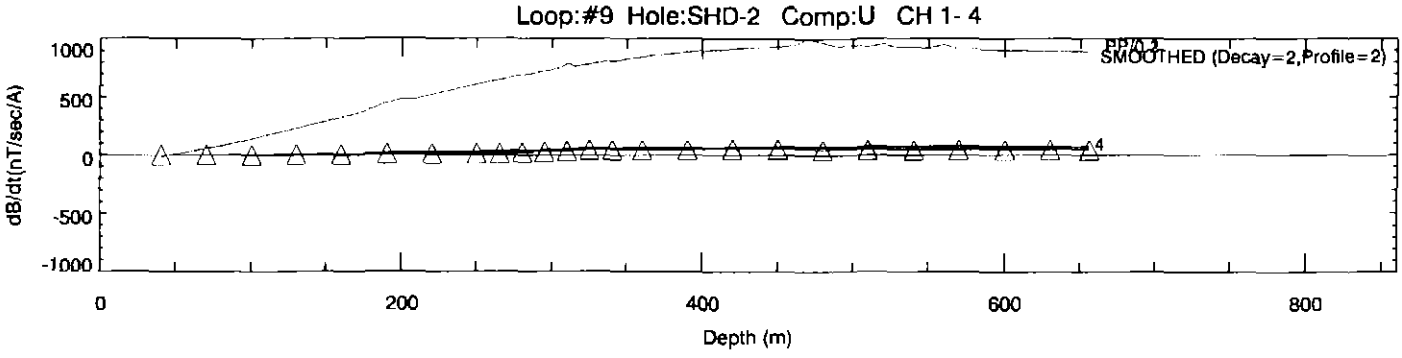


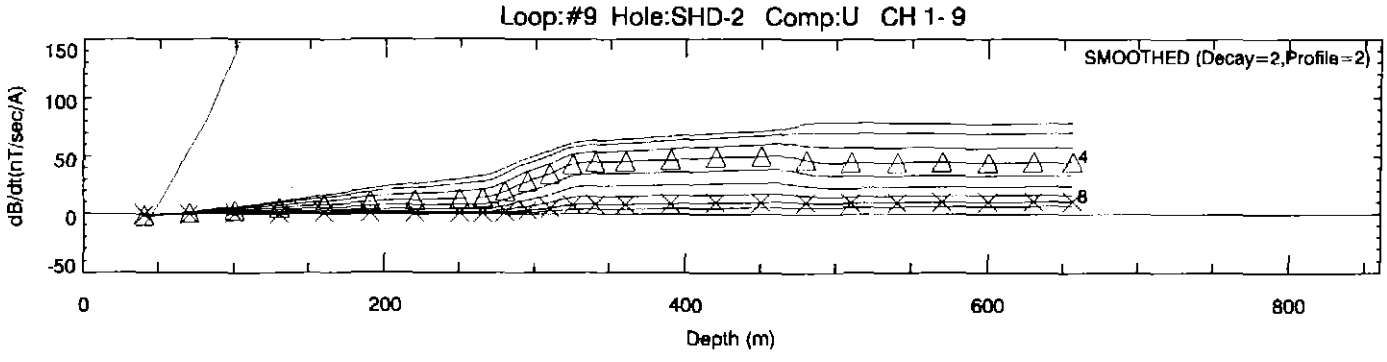


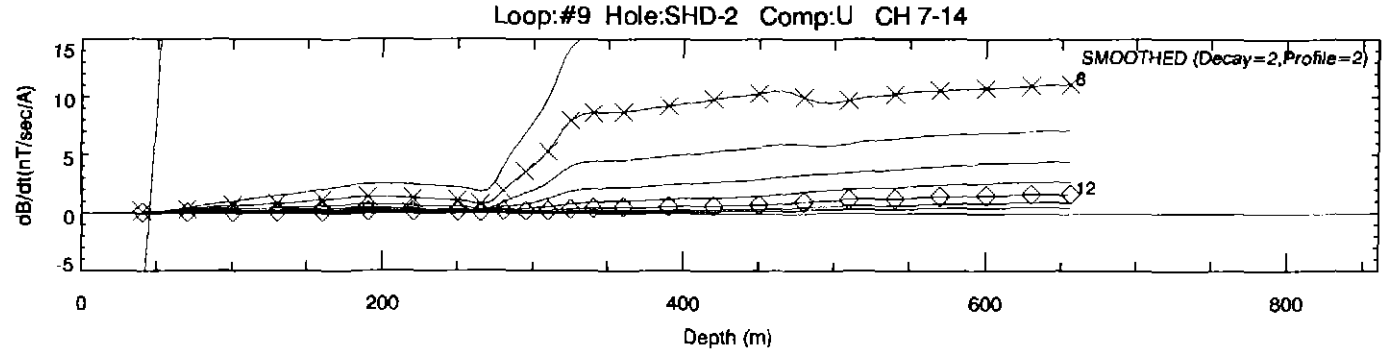


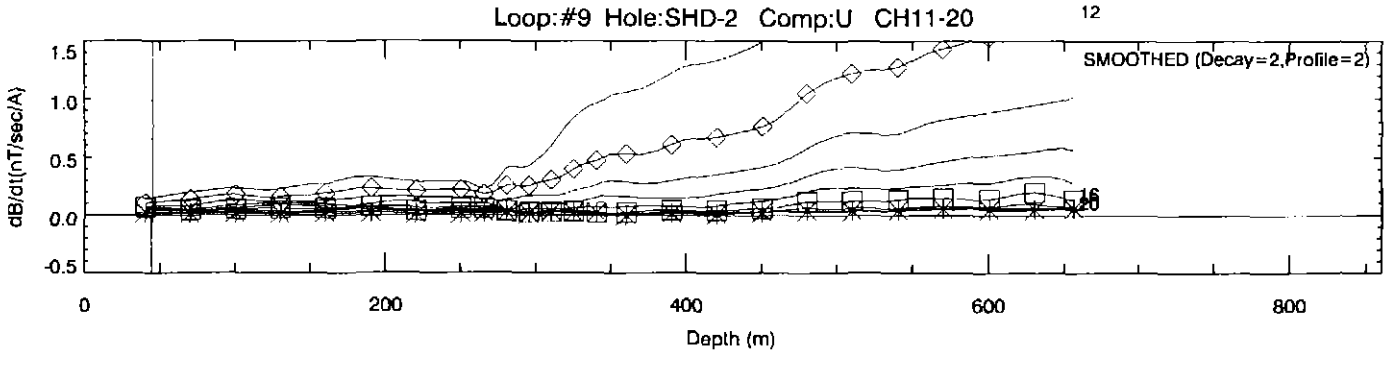
Goldfields Ltd	
South Henty. Borehole EM Jan 2000.	
Crone PEM. Tx Frequency 12.5 Hz	
Window Set Ch1-31	
FLAGSTAFF GEOCONSULTANTS	
Drawn 3-Apr-2000	

650283



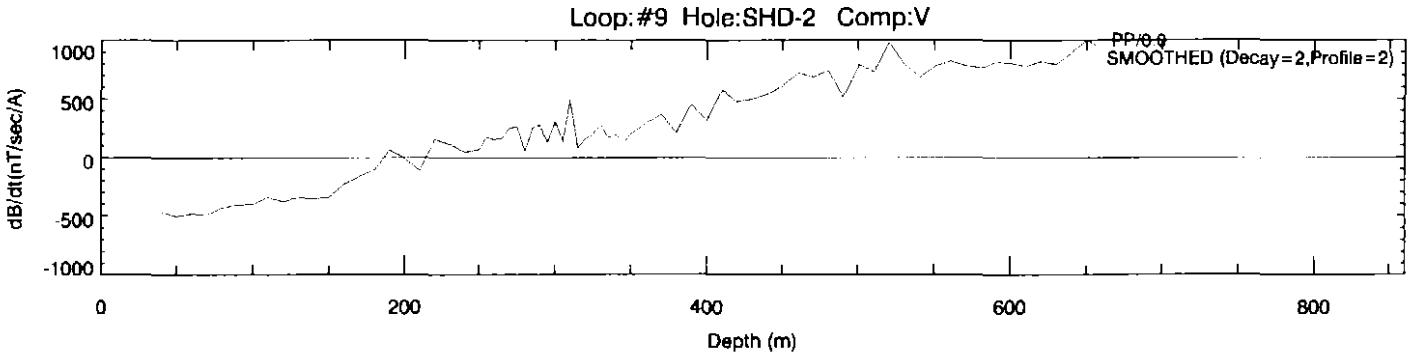


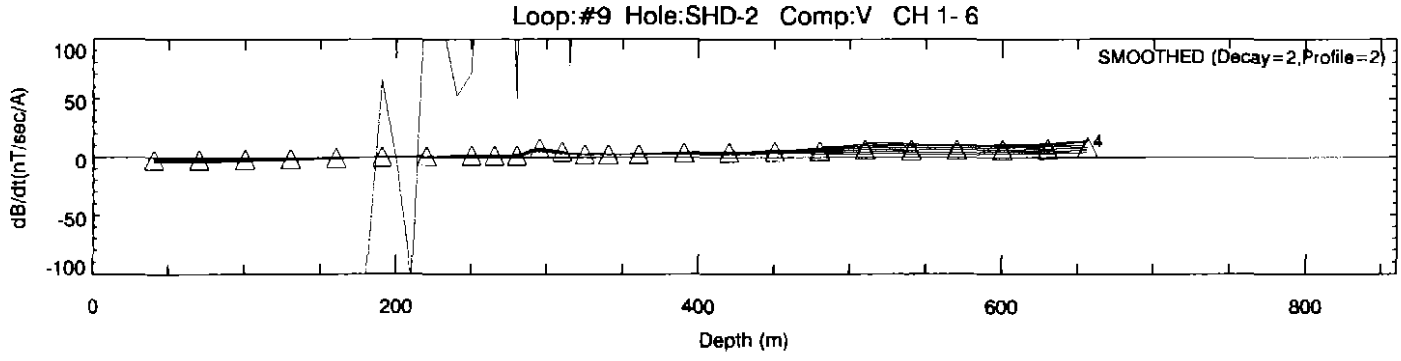


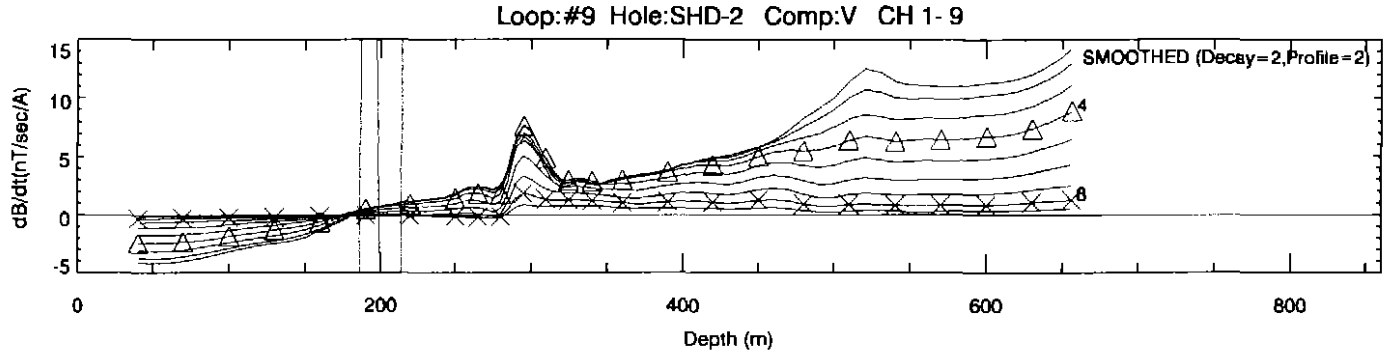


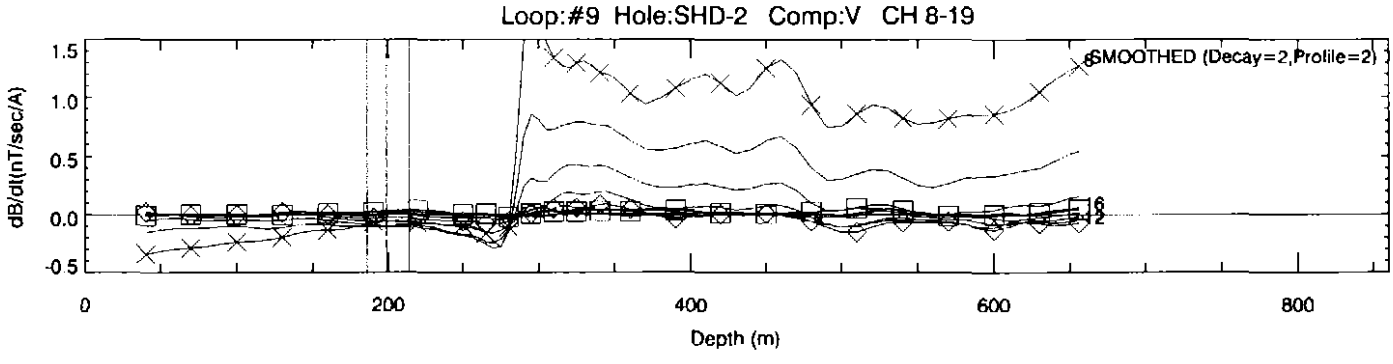
Goldfields Ltd	
South Henty. Borehole EM Jan 2000.	
Crone PEM. Tx Frequency 12.5 Hz	
Window Set Ch1-31	
FLAGSTAFF GEOCONSULTANTS	
Drawn 3-Apr-2000	

650284



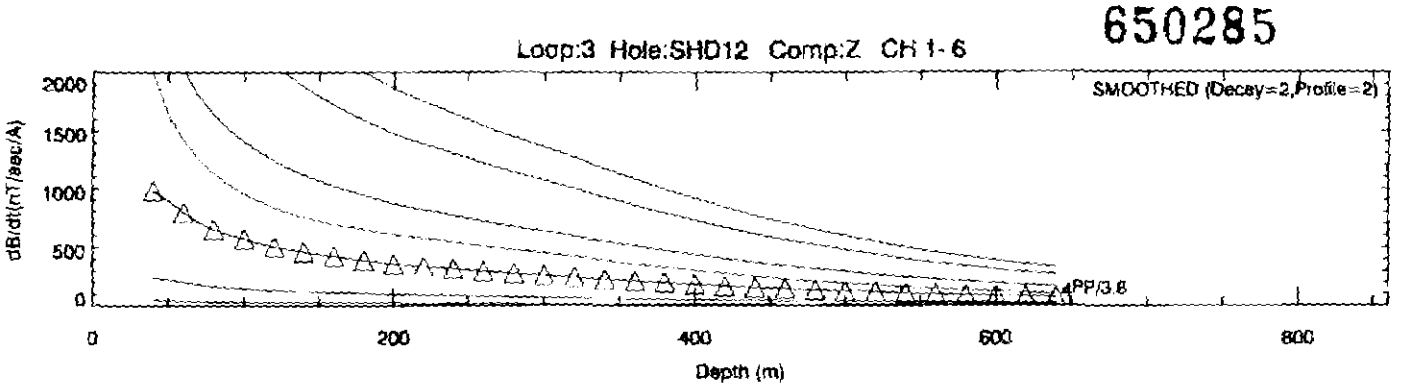


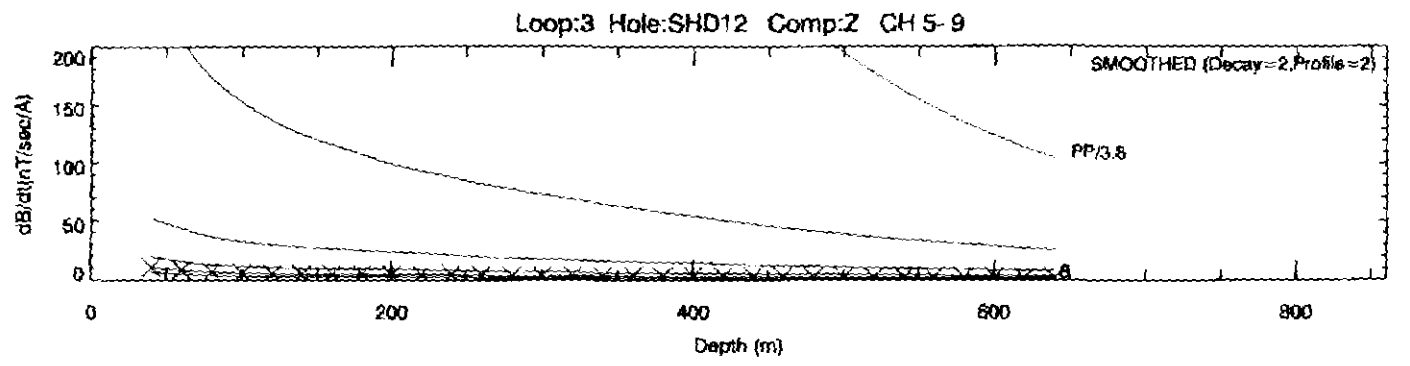


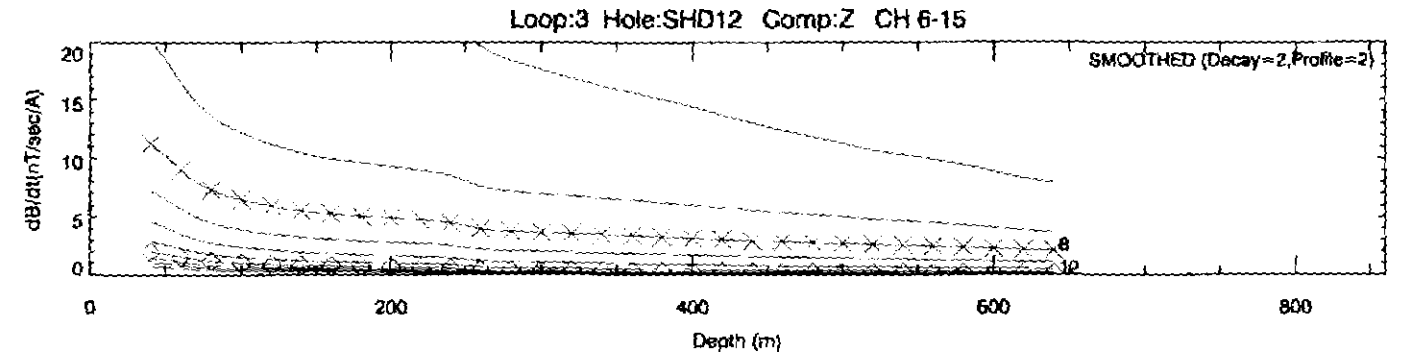


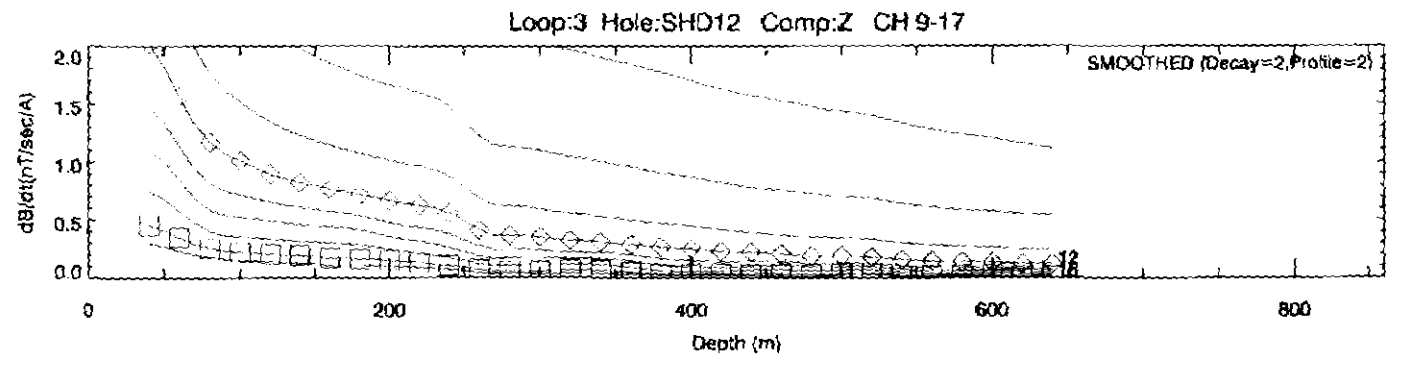
Goldfields Ltd	
South Henty. Borehole EM Jan 2000.	
Crone PEM. Tx Frequency 12.5 Hz	
Window Set Ch1-31	
FLAGSTAFF GEOCONSULTANTS	
Drawn 3-Apr-2000	

650285



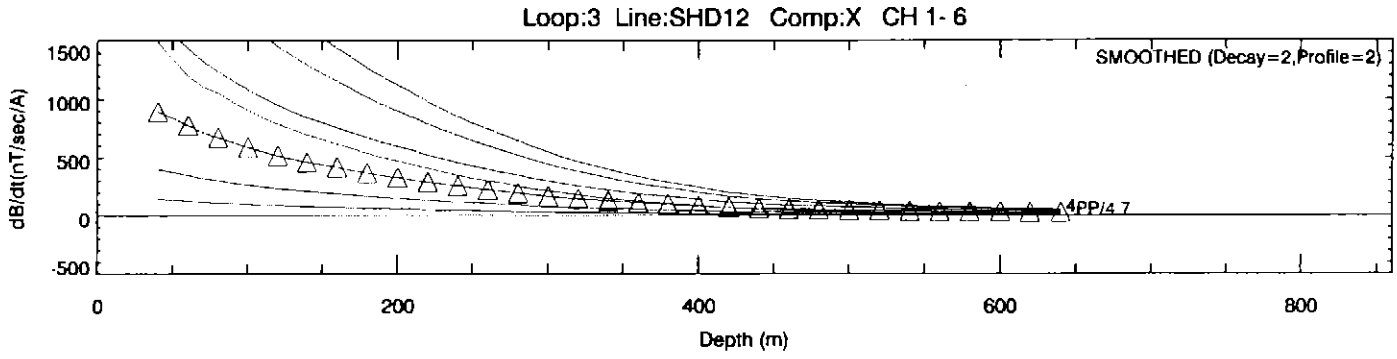


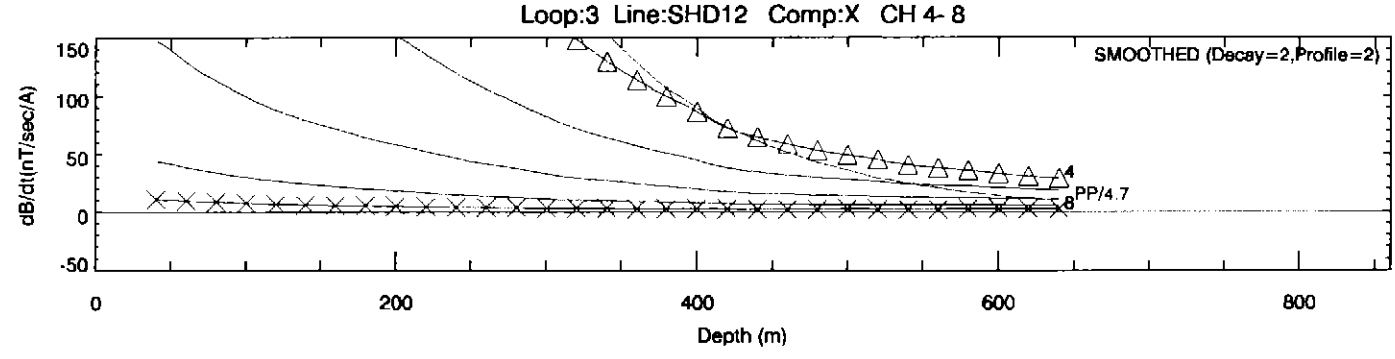


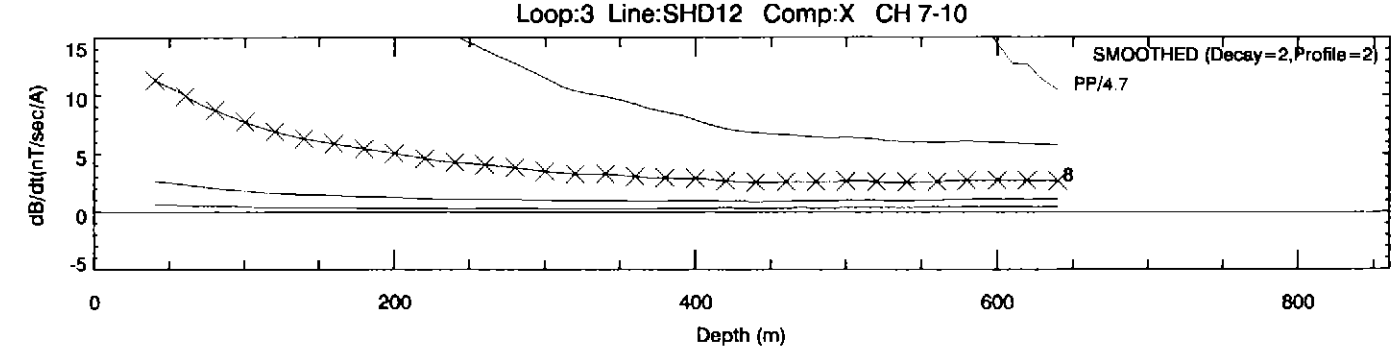


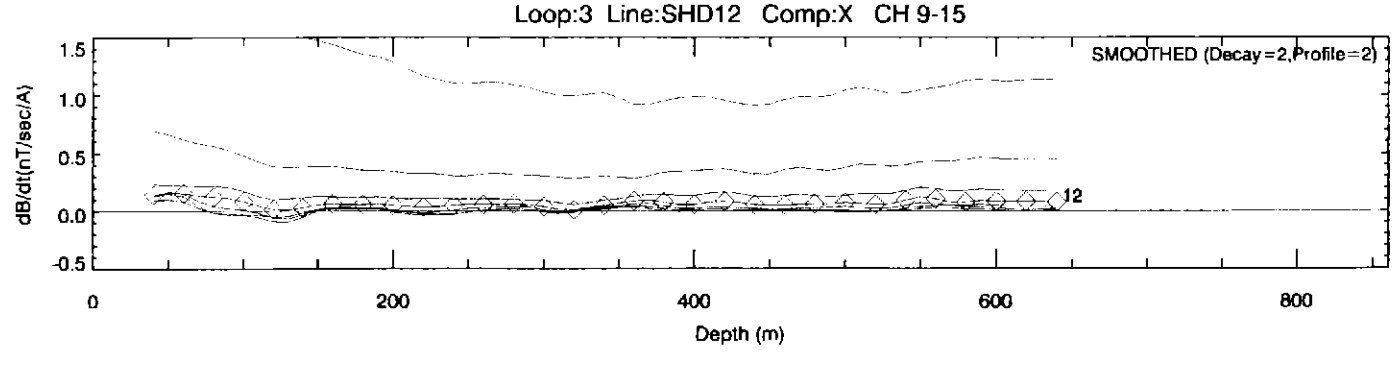
Goldfields Ltd	
South Henty EL8/96. Borehole EM.	
Crone PEM. Tx Frequency ~~12.5~~ 25 Hz	
Window Set Ch1;~~31~~ 17	
FLAGSTAFF GEOCONSULTANTS Drawn 27-Apr-2000	

650286



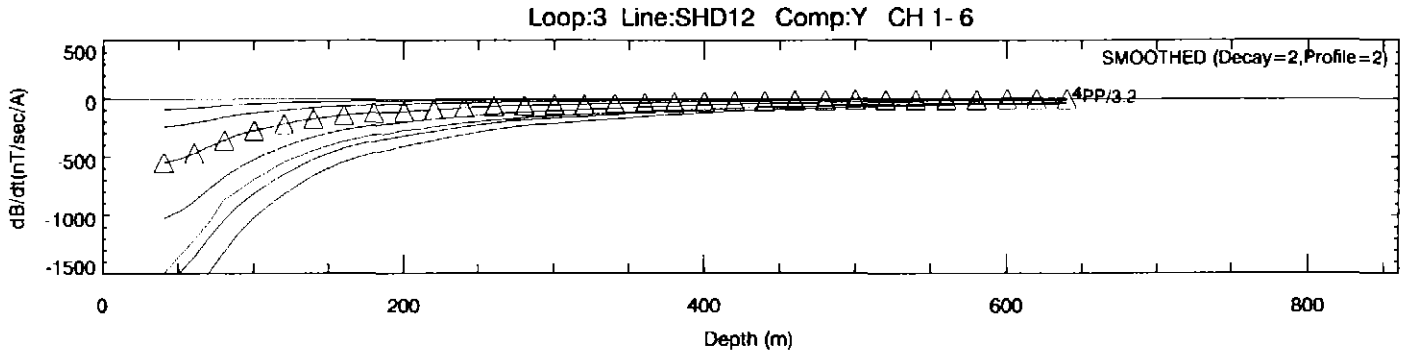


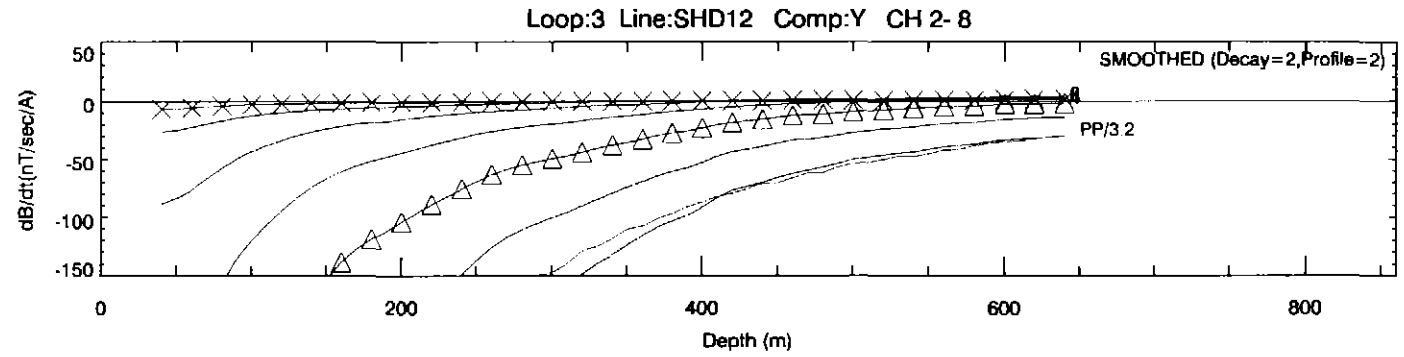


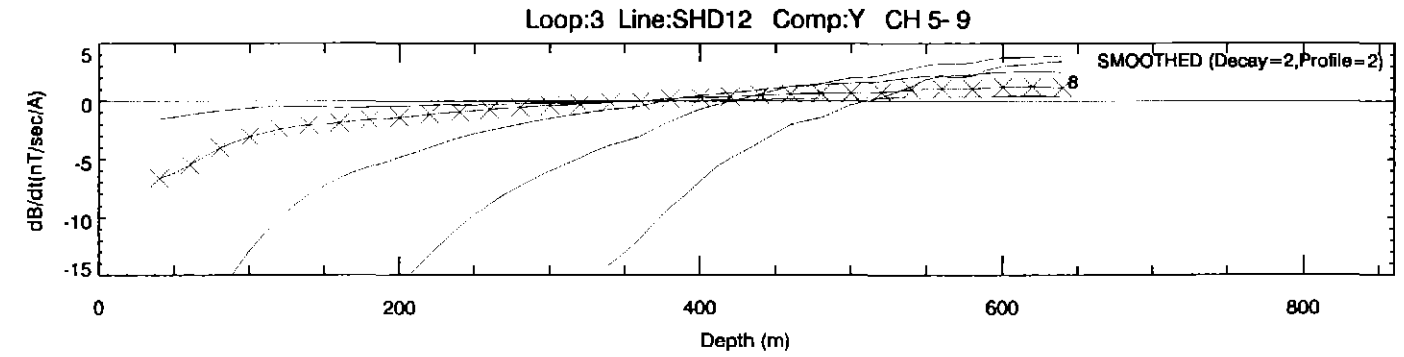


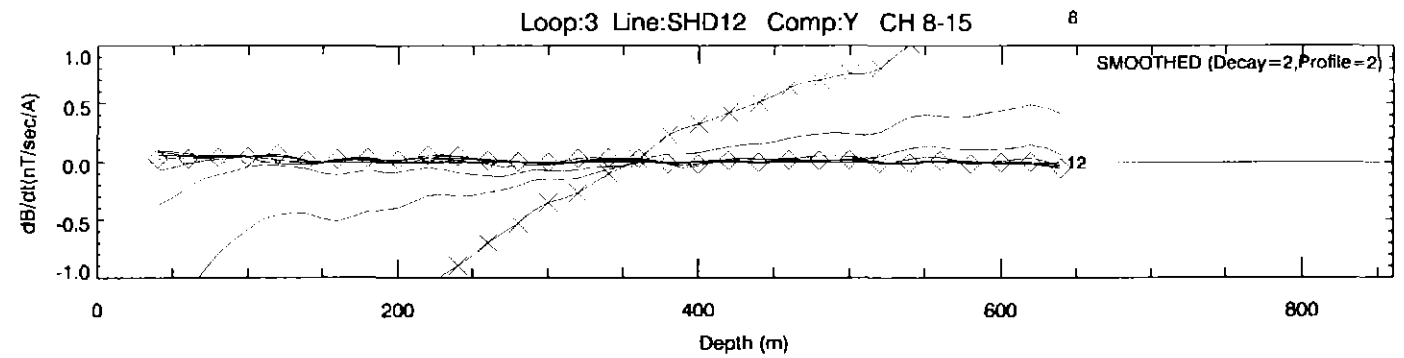
Goldfields Ltd	
South Henty EL8/96. Borehole EM.	
Crone PEM. Tx Frequency ~~12.5~~ 25 Hz	
Window Set Ch1-~~31~~ 27	
FLAGSTAFF GEOCONSULTANTS	
Drawn 27-Apr-2000	

650287



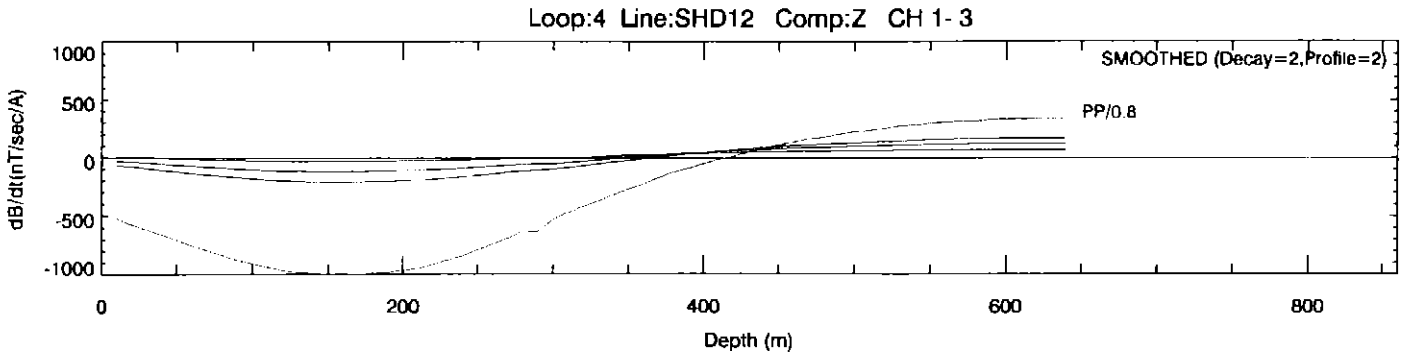


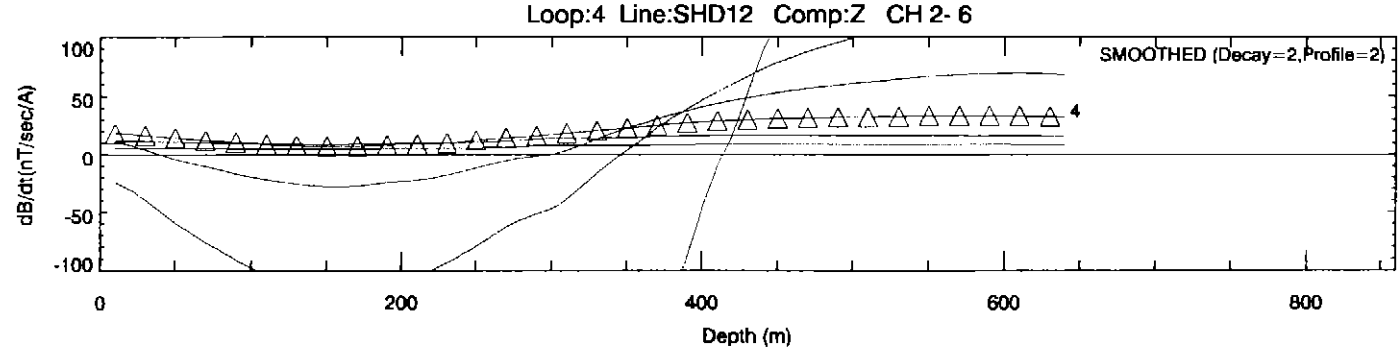


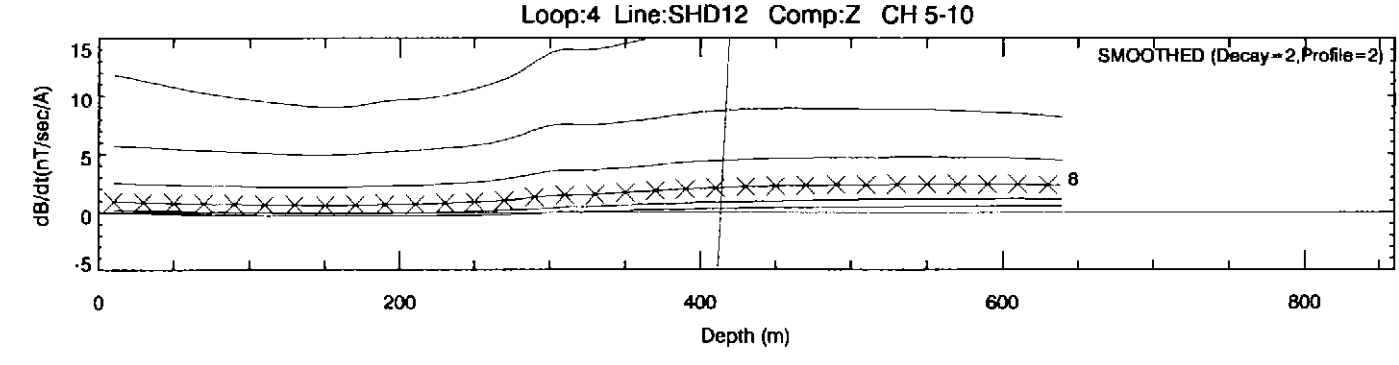


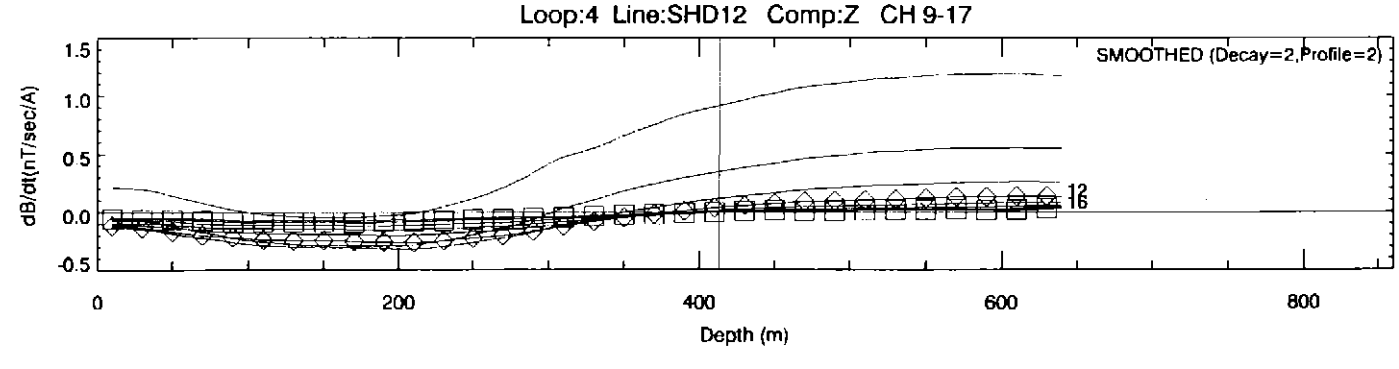
Goldfields Ltd	
South Henty EL8/96. Borehole EM.	
Crone PEM. Tx Frequency ~~12.5~~ 25 Hz	
Window Set Ch1-~~31~~ 17	
FLAGSTAFF GEOCONSULTANTS Drawn 27-Apr-2000	

650288



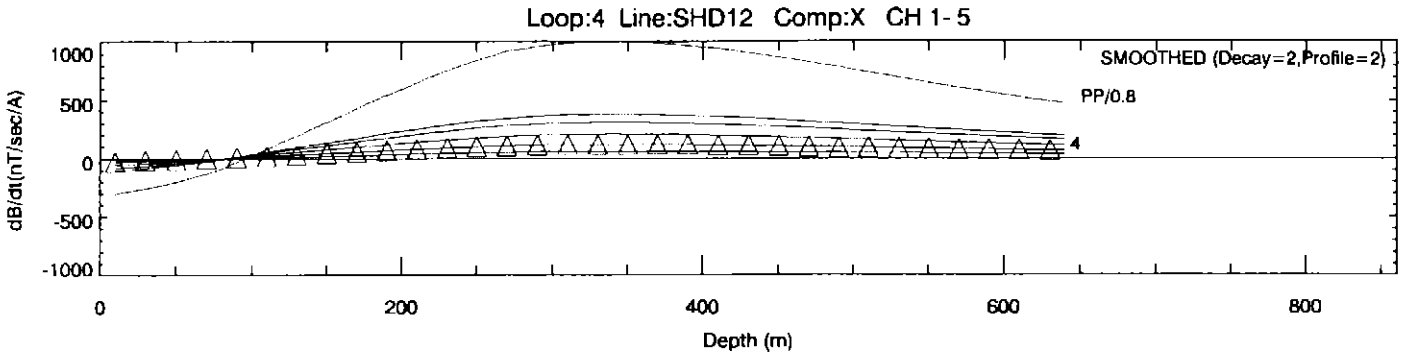


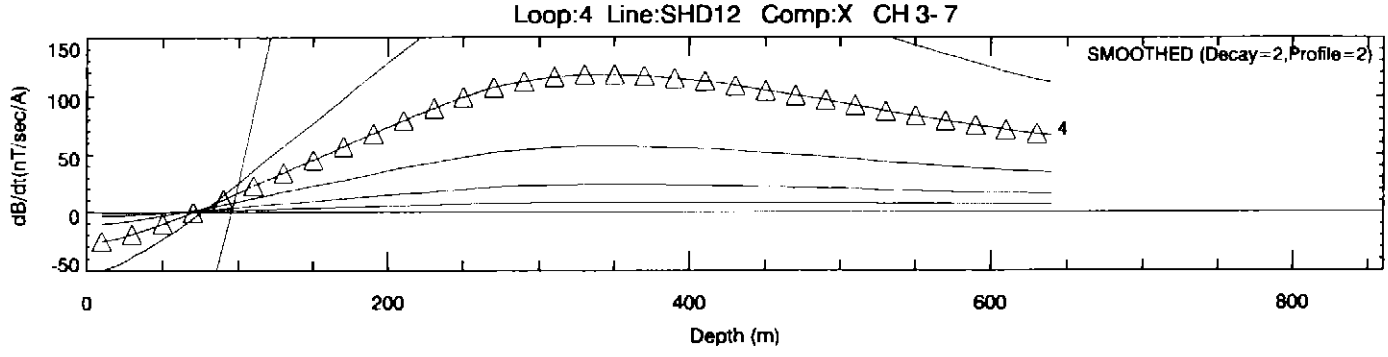


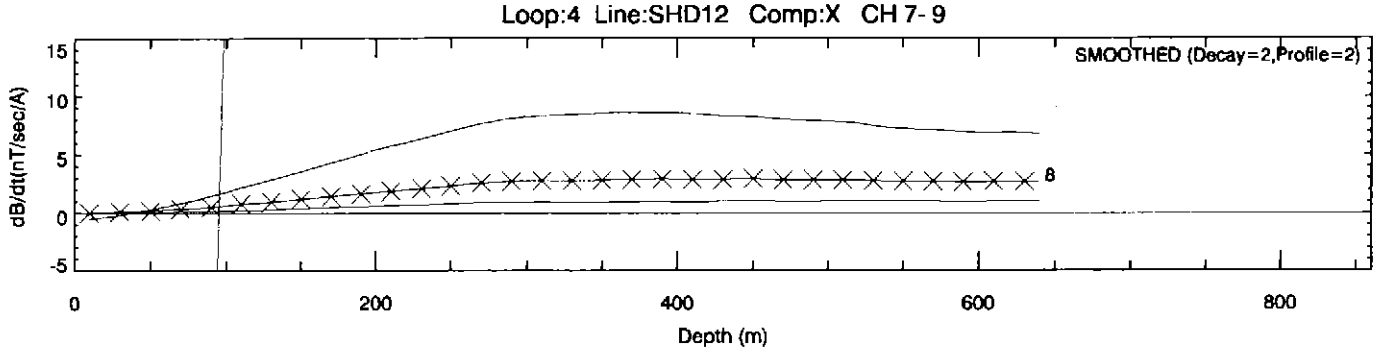


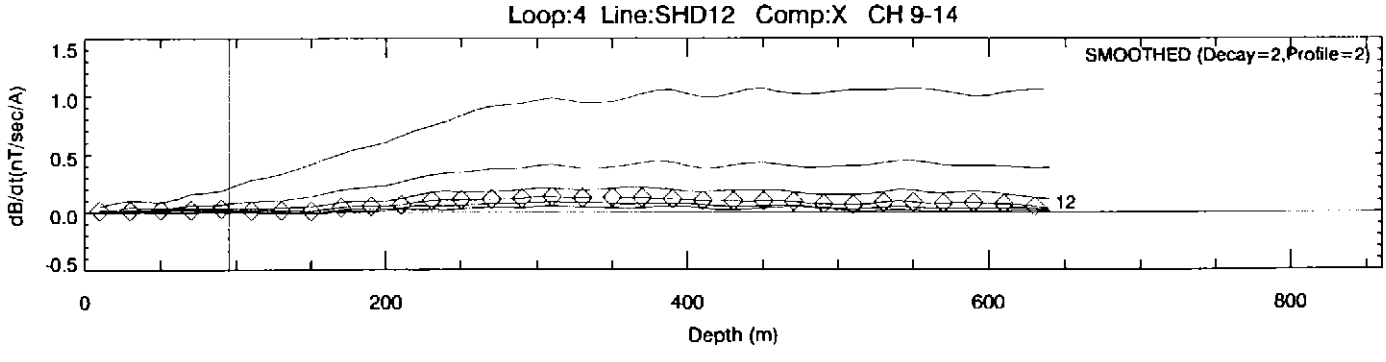
Goldfields Ltd	
South Henty EL8/96. Borehole EM.	
Crone PEM. Tx Frequency ~~12.5~~ 25 Hz	
Window Set Ch1-~~31~~ 17	
FLAGSTAFF GEOCONSULTANTS Drawn 27-Apr-2000	

650289



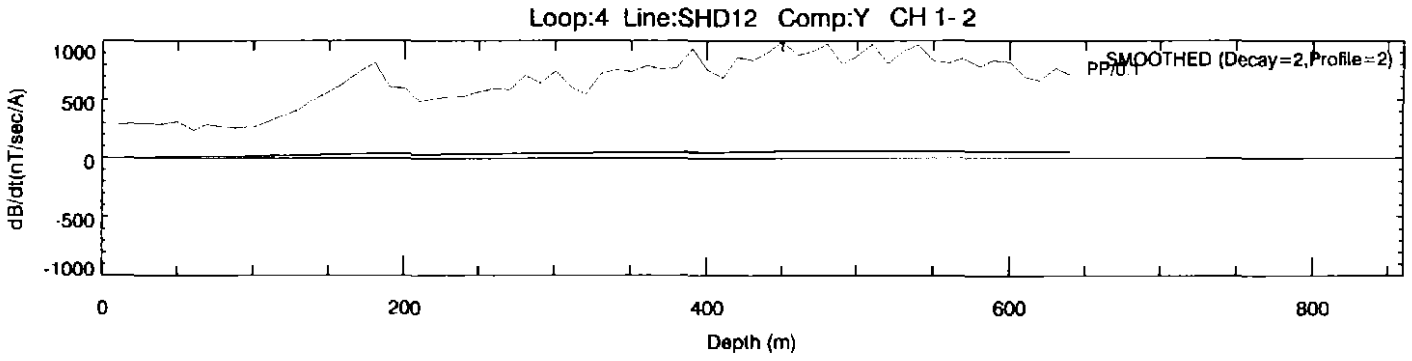


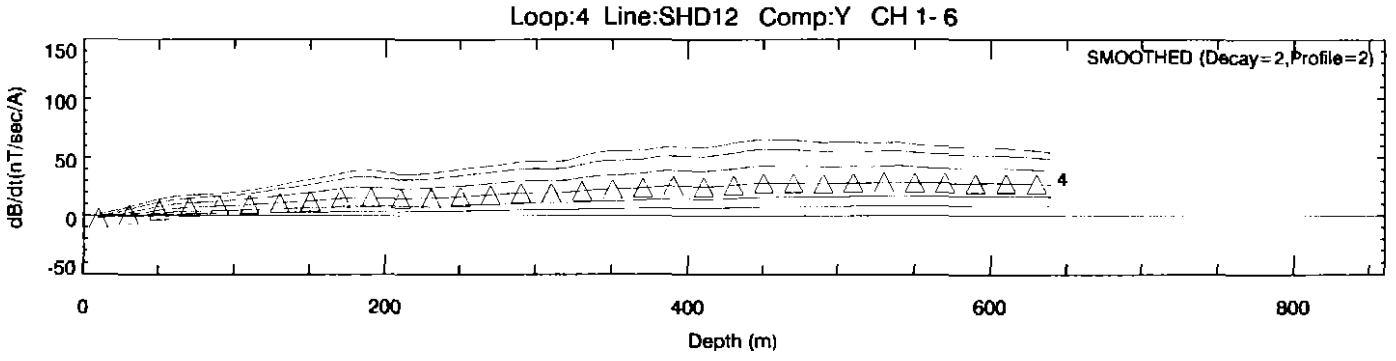


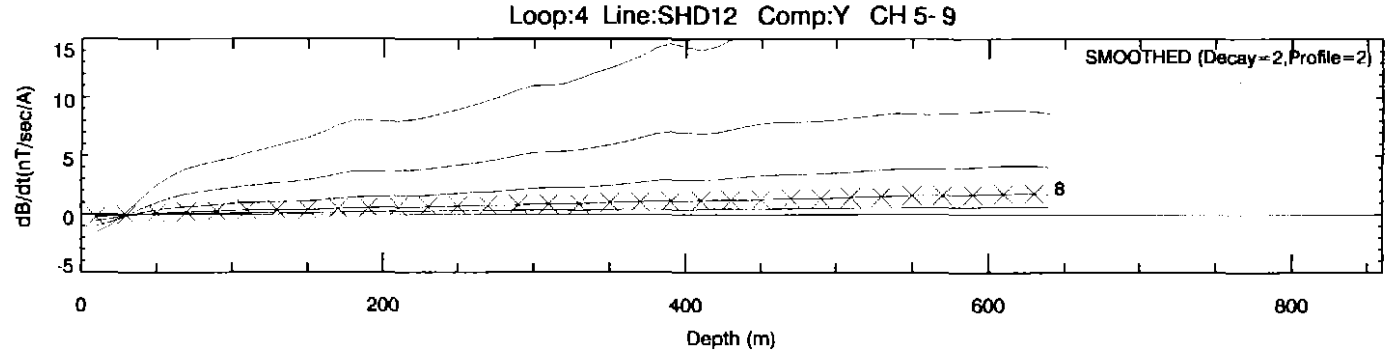


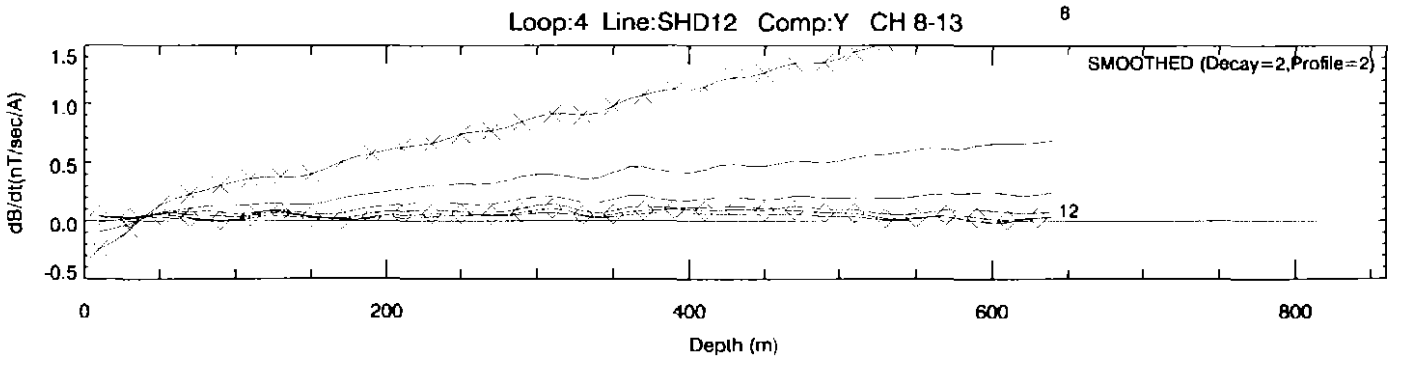
Goldfields Ltd	
South Henty EL8/96. Borehole EM. Crone PEM. Tx Frequency ~~12.5~~ 25 Hz Window Set Ch1-~~31~~ 17	
FLAGSTAFF GEOCONSULTANTS Drawn 27-Apr-2000	

650290



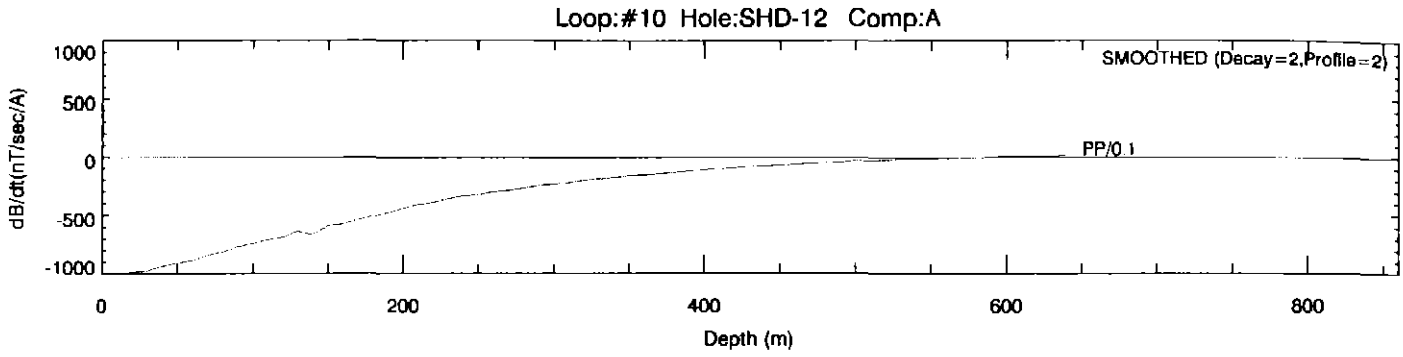


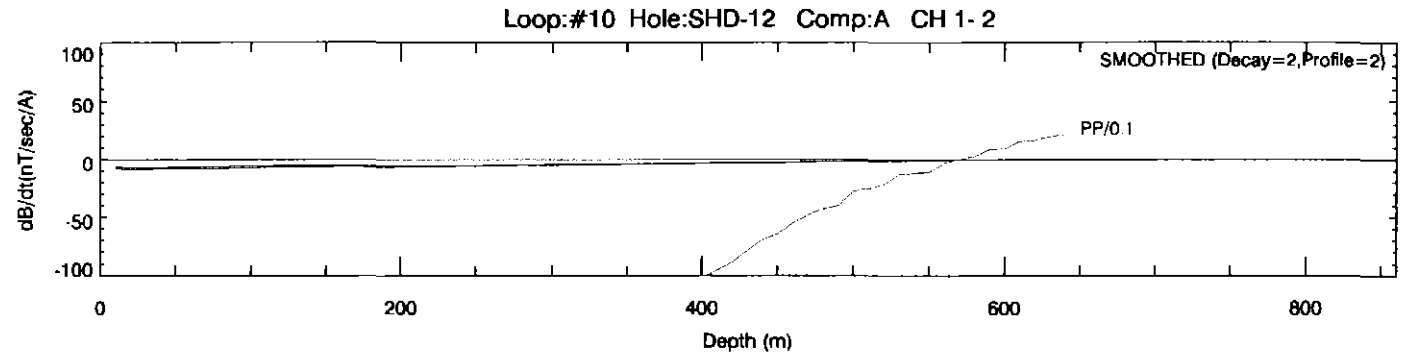


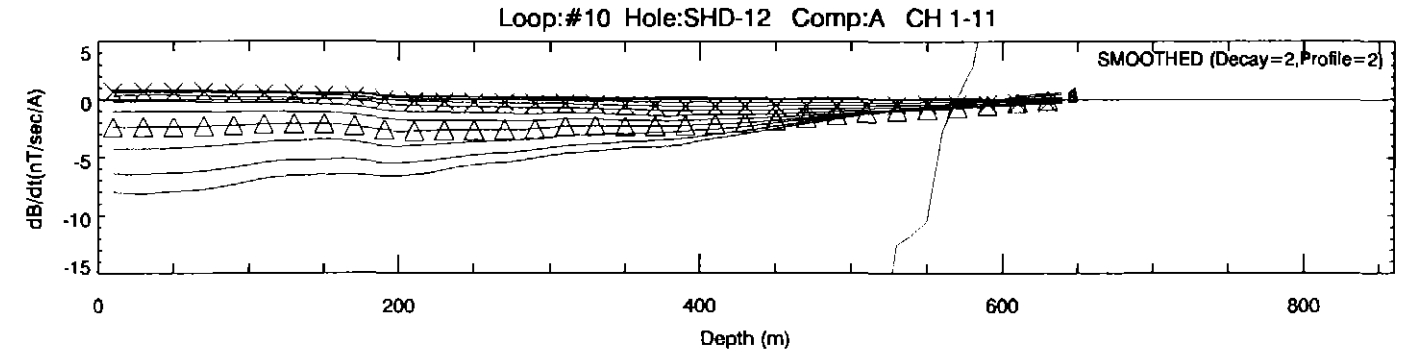


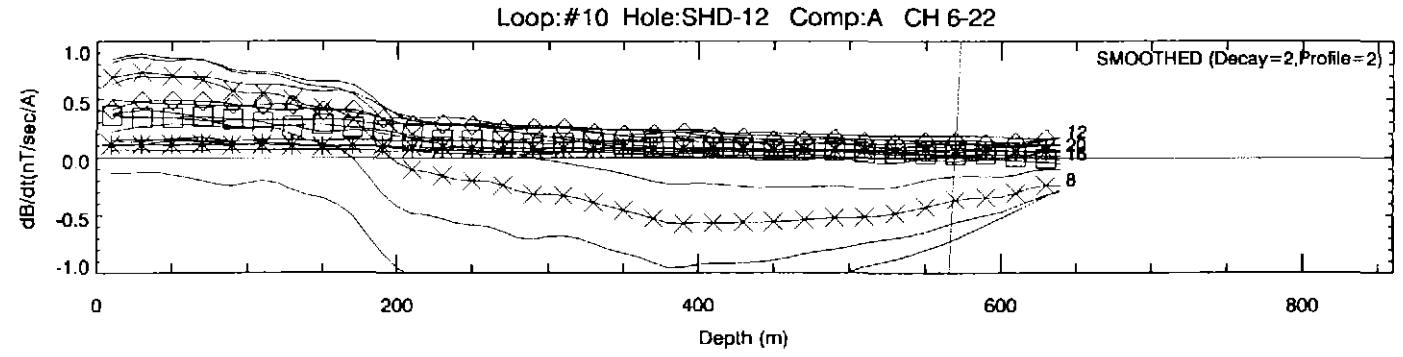
Goldfields Ltd	
South Henty EL8/96. Borehole EM.	
Crone PEM. Tx Frequency ~~12.5~~ 25 Hz	
Window Set Ch1-~~31~~ 17	
FLAGSTAFF GEOCONSULTANTS	
Drawn 27-Apr-2000	

650291



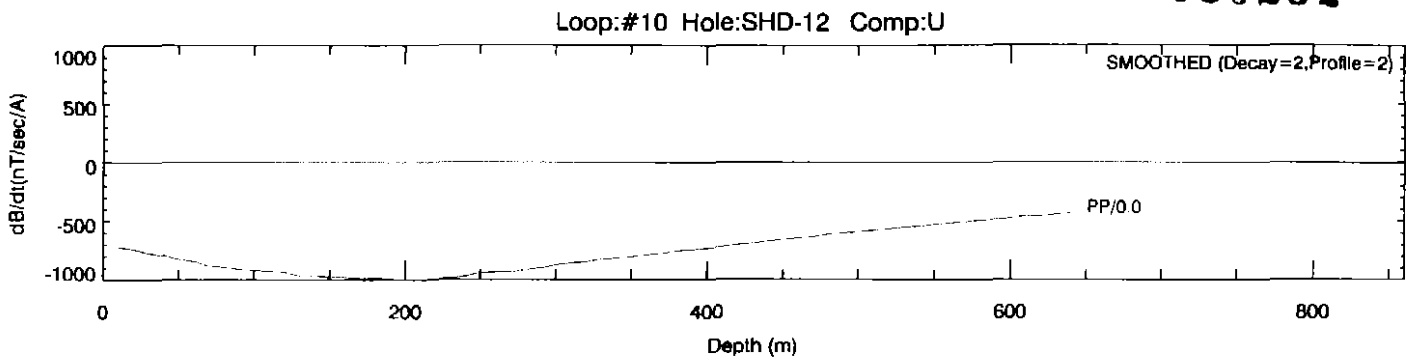


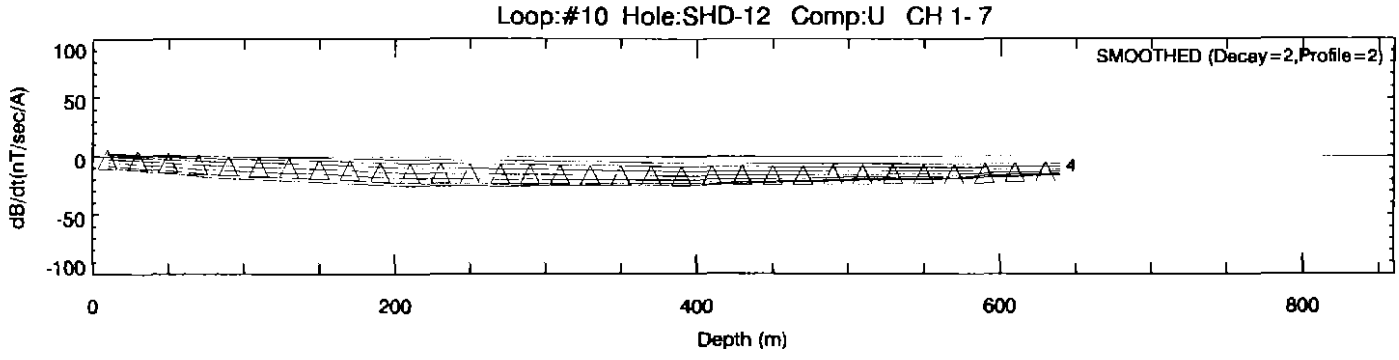


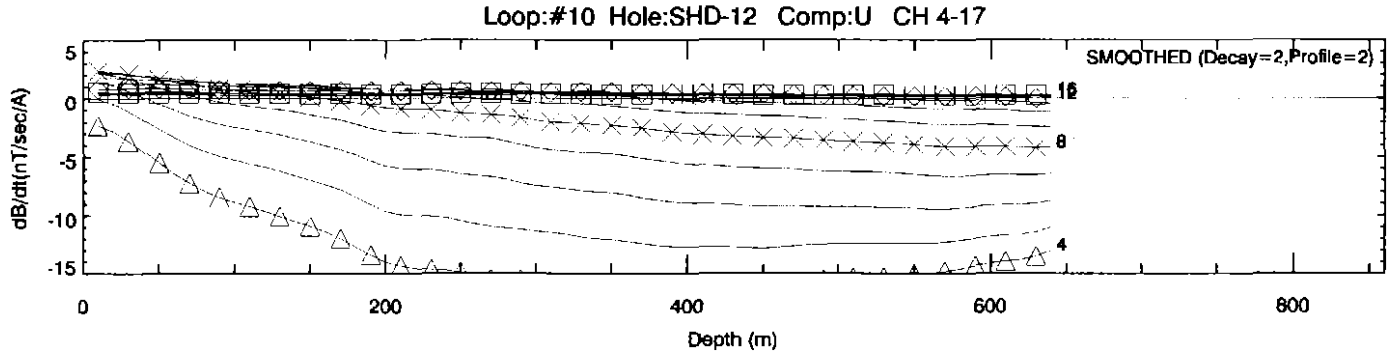


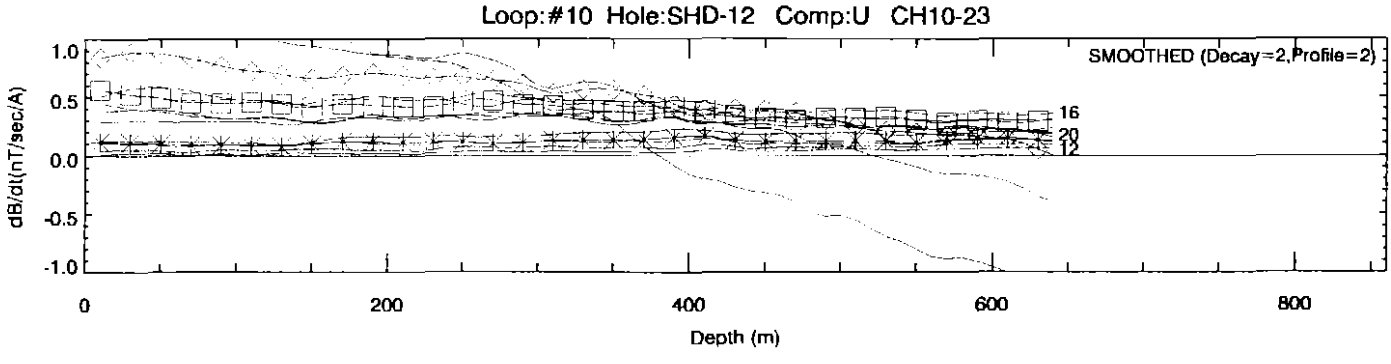
Goldfields Ltd	
South Henty EL8/96. Borehole EM.	
Crone PEM. Tx Frequency ~~12.5~~ 25 Hz	
Window Set Ch1-~~31~~ 1 / 7	
FLAGSTAFF GEOCONSULTANTS	
Drawn 27-Apr-2000	

650292



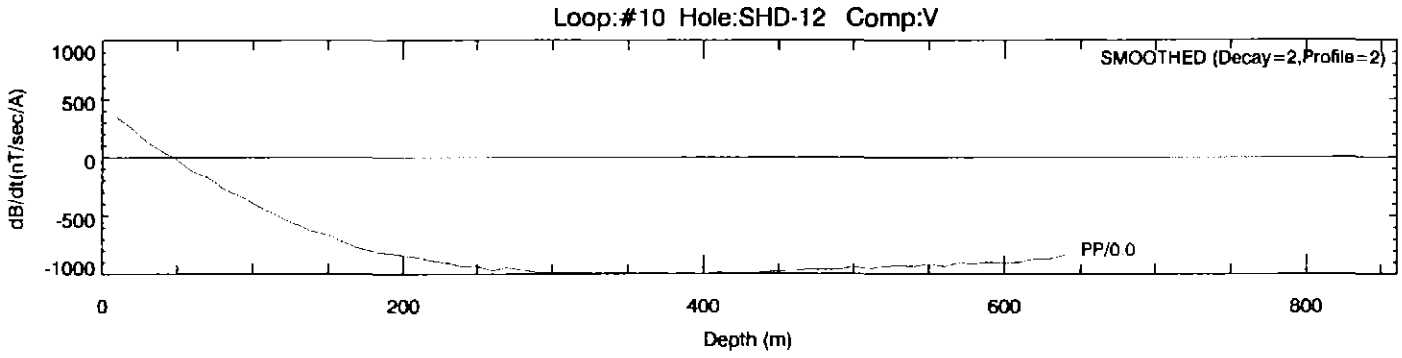


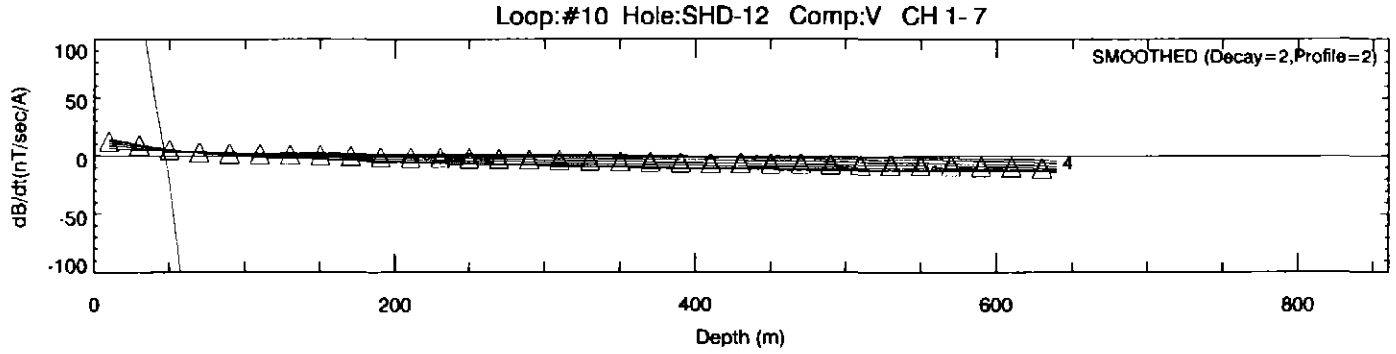


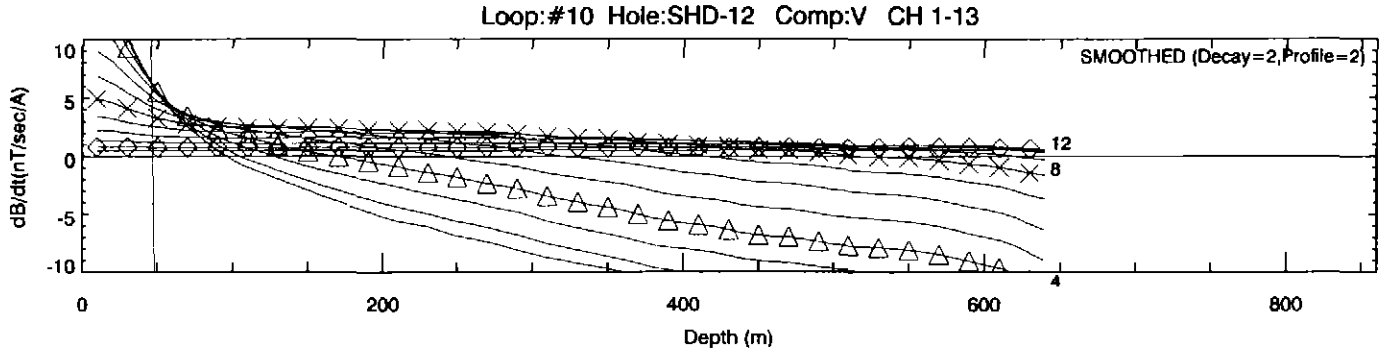


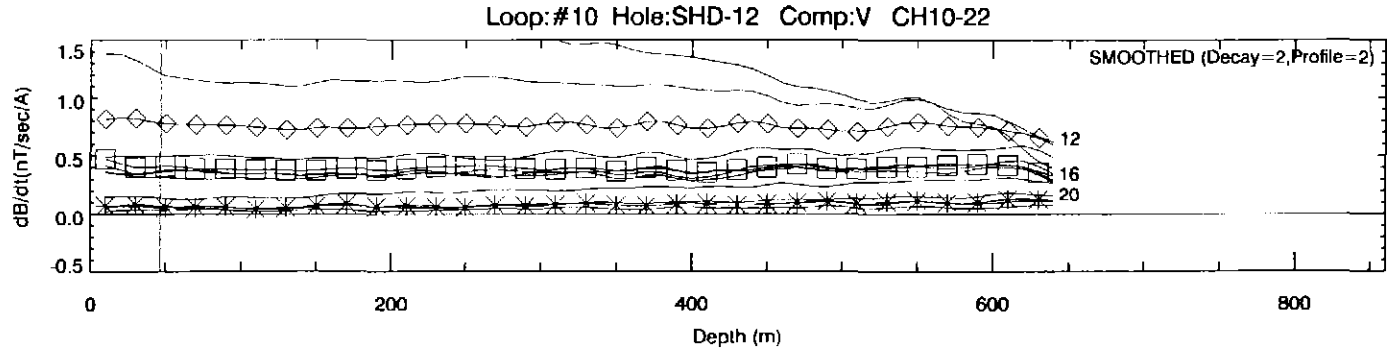
Goldfields Ltd	
South Henty EL8/96. Borehole EM.	
Crone PEM. Tx Frequency ~~12.5~~ 25 Hz	
Window Set Ch1:~~31~~ 17	
FLAGSTAFF GEOCONSULTANTS	
Drawn 27-Apr-2000	

650293



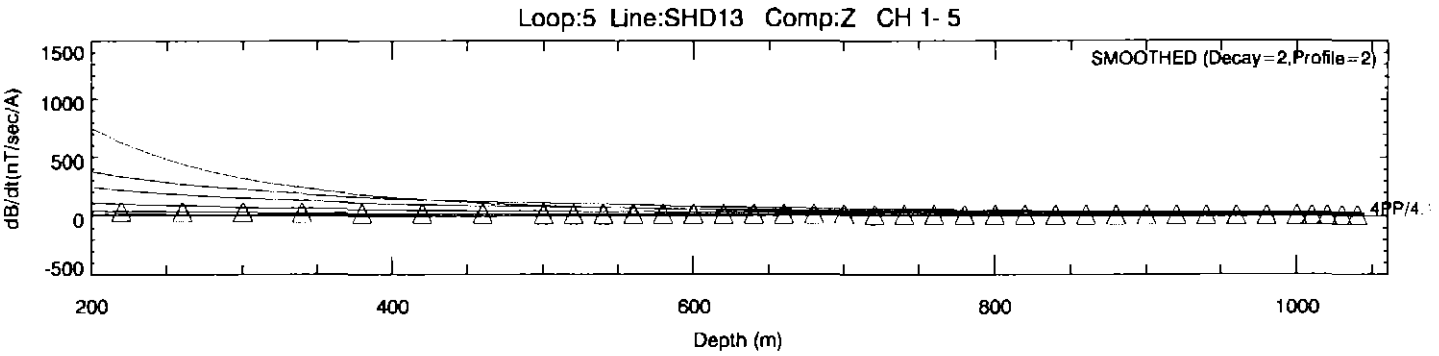


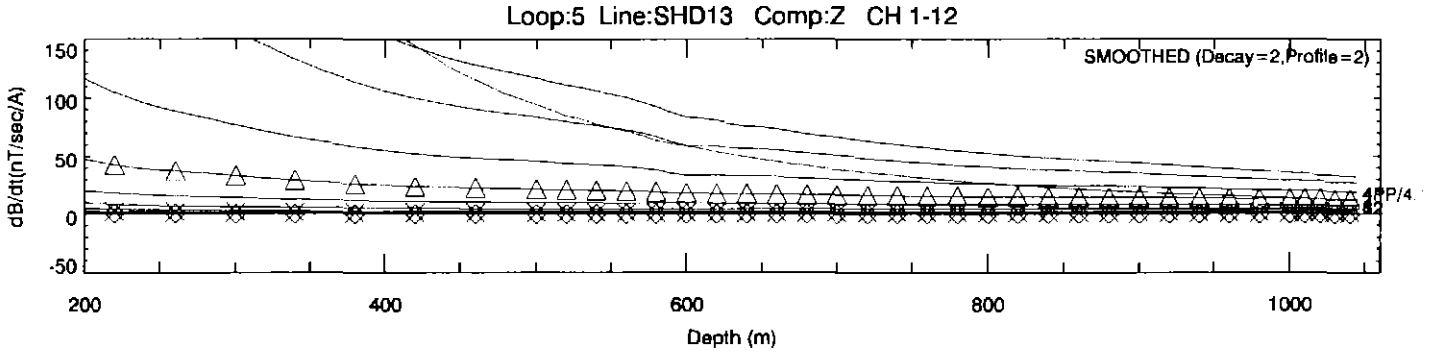


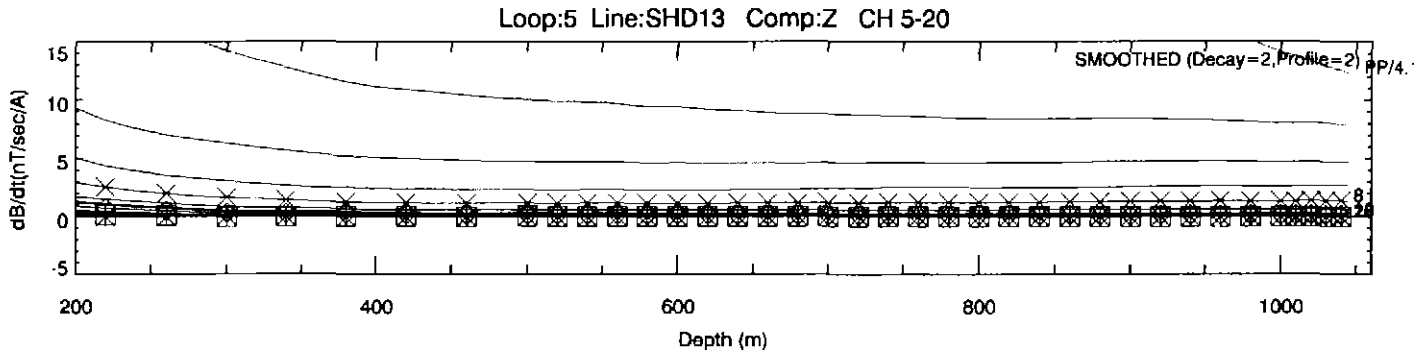


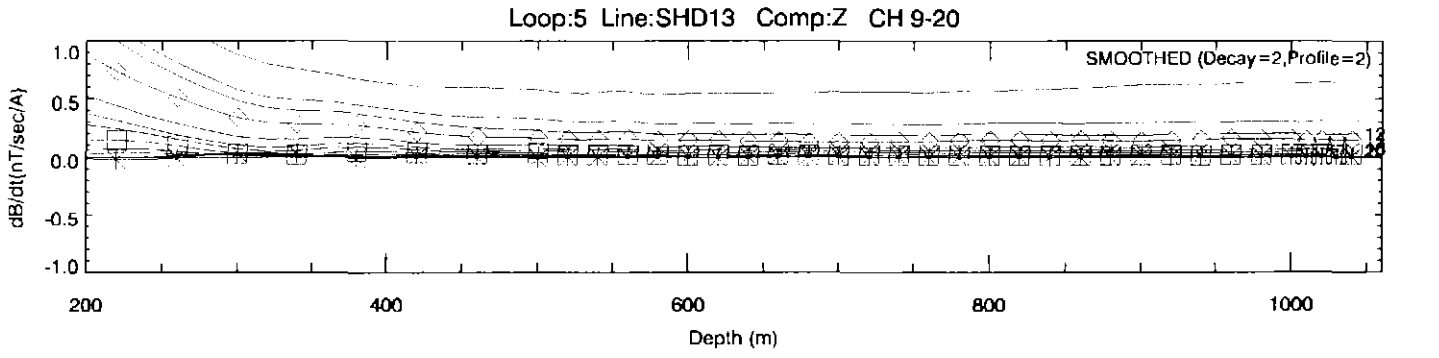
Goldfields Ltd	
South Henty EL8/96. Borehole EM.	
Crone PEM. Tx Frequency ~~12.5~~ 25 Hz	
Window Set Ch1-~~31~~ 17	
FLAGSTAFF GEOCONSULTANTS	
Drawn 27-Apr-2000	

650294



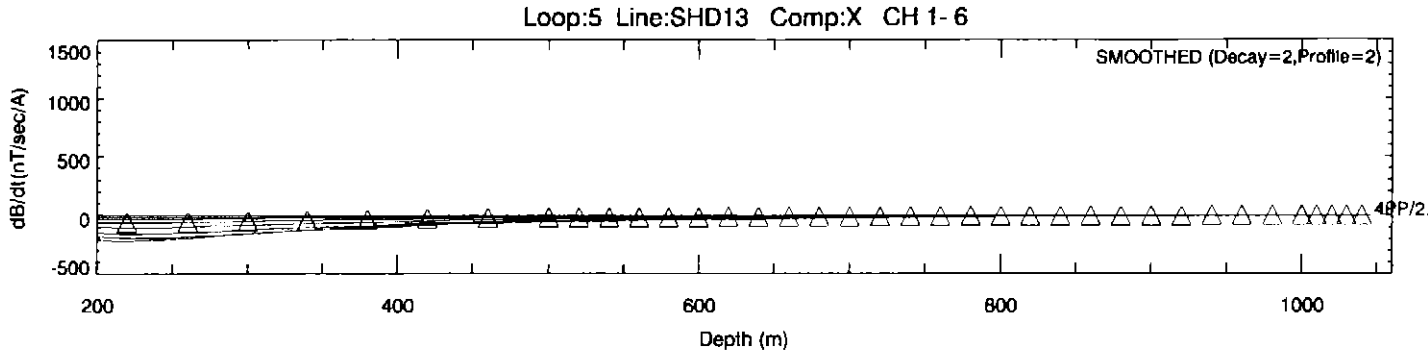


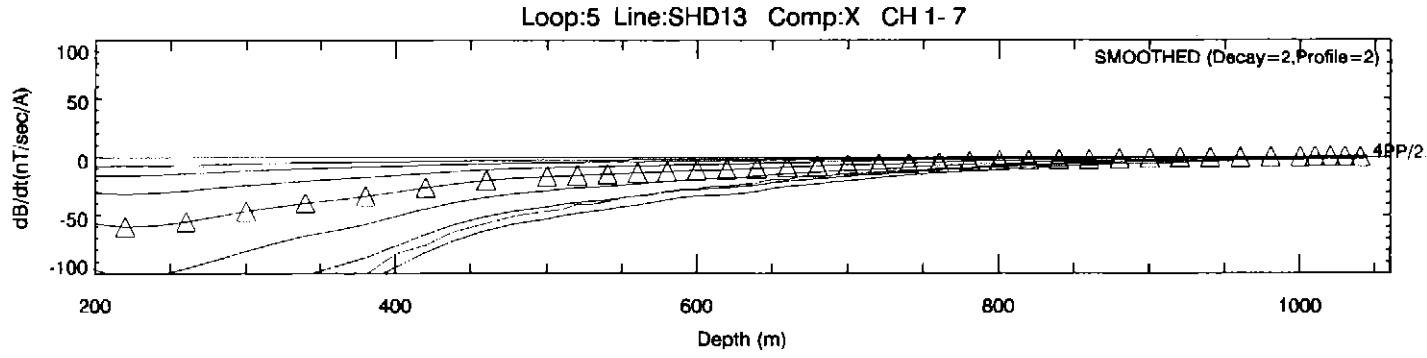


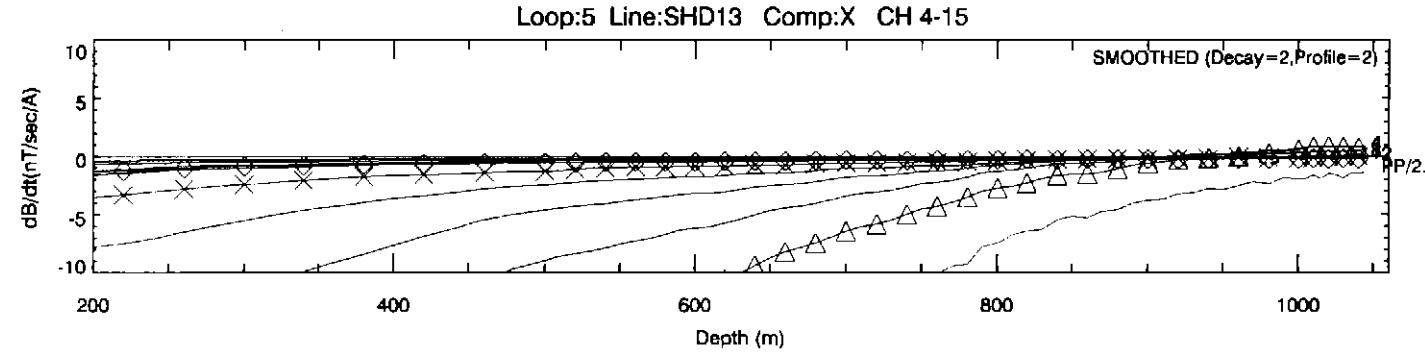


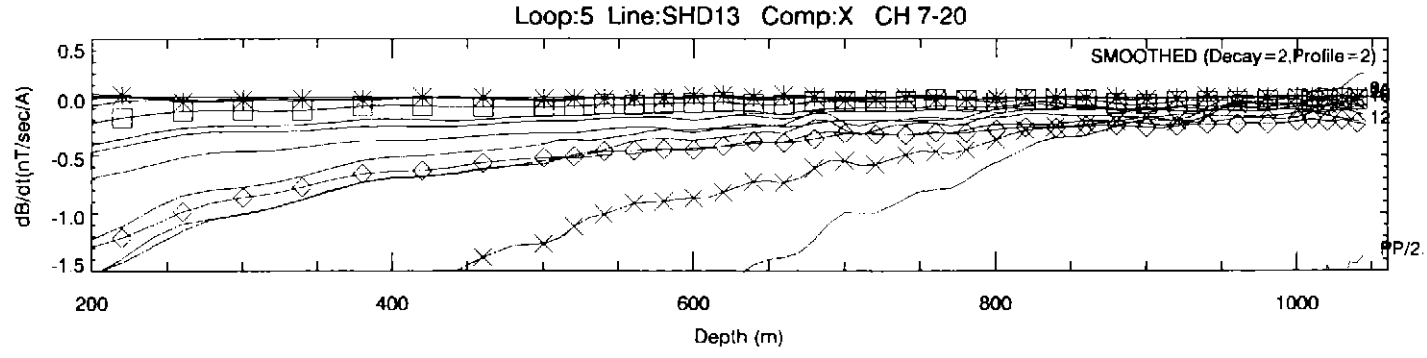
Goldfields Ltd	
South Henty. Borehole EM Jan 2000.	
Crone PEM. Tx Frequency 12.5 Hz	
Window Set Ch1-31 2 0	
FLAGSTAFF GEOCONSULTANTS	
Drawn 3-Apr-2000	

650295



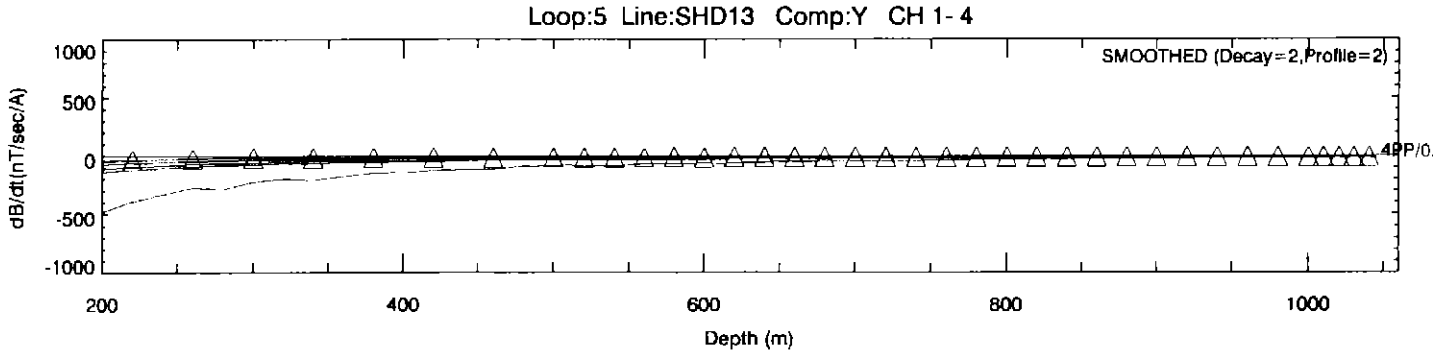


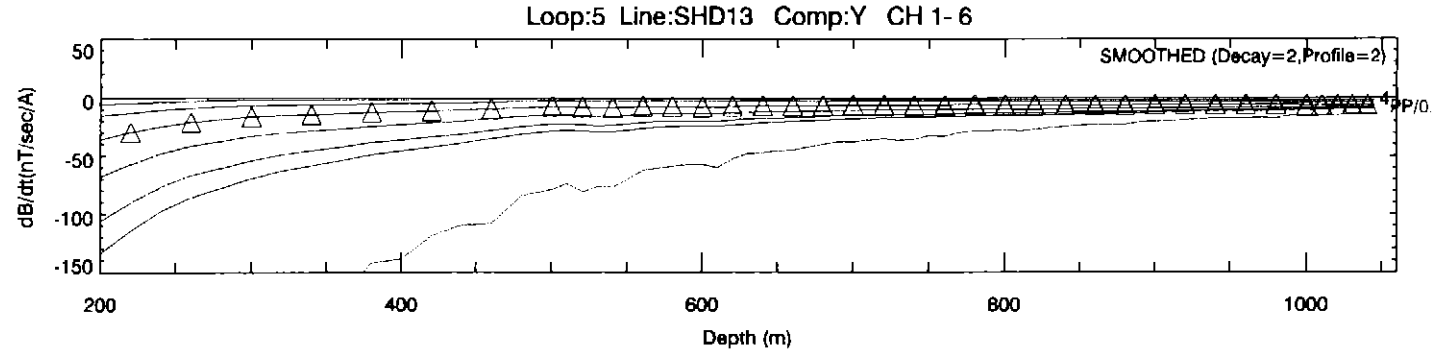


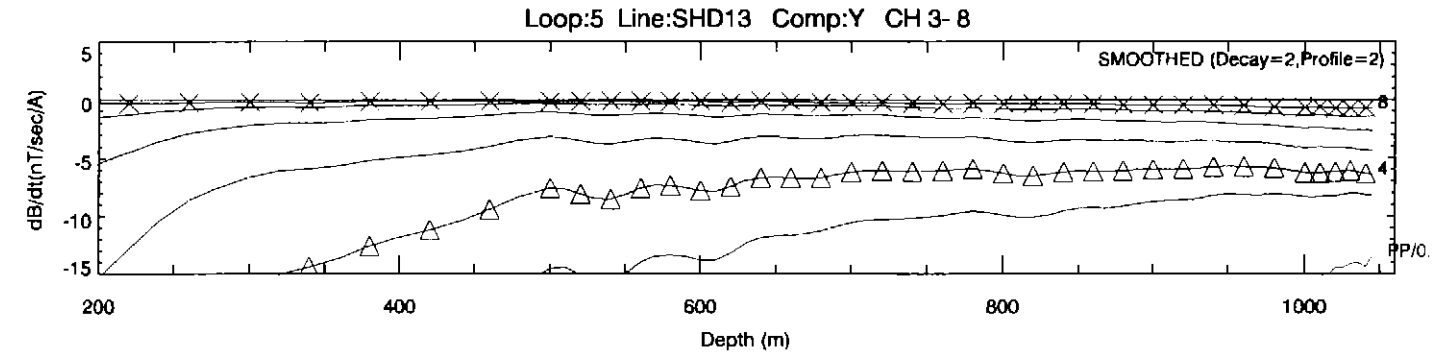


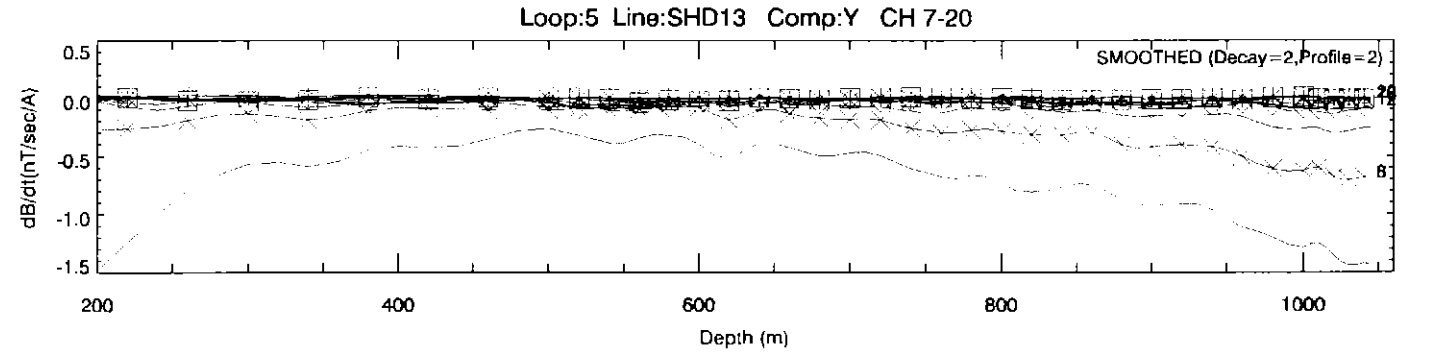
Goldfields Ltd	
South Henty. Borehole EM Jan 2000.	
Crone PEM. Tx Frequency 12.5 Hz	
Window Set Ch1-31 2 o	
FLAGSTAFF GEOCONSULTANTS	
Drawn 3-Apr-2000	

650296



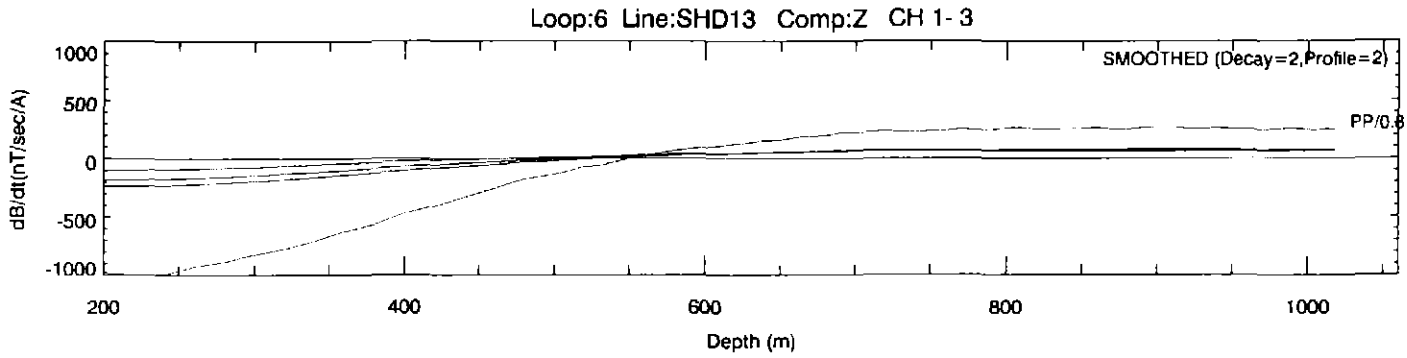


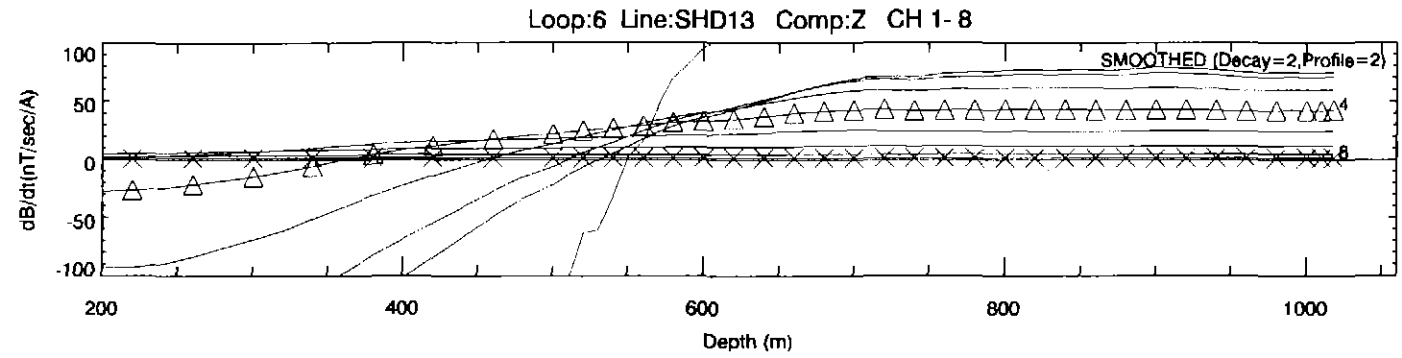


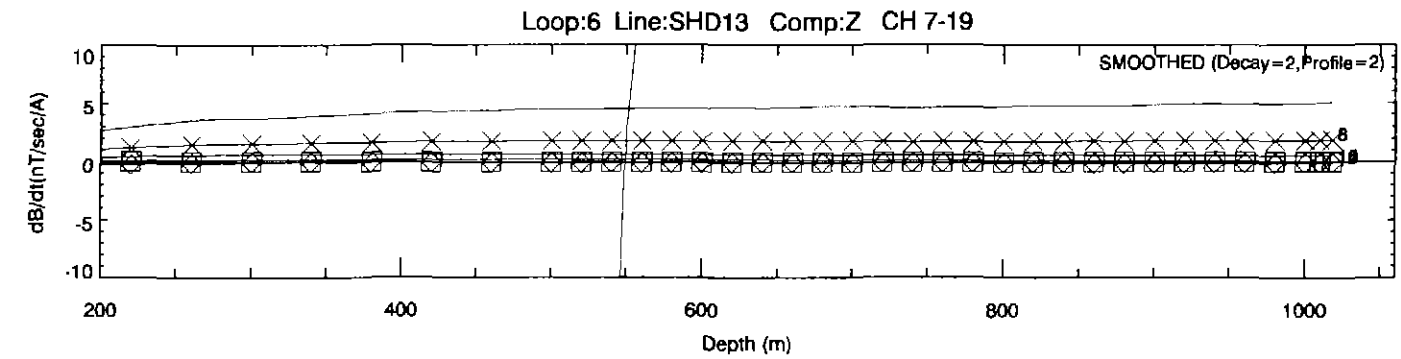


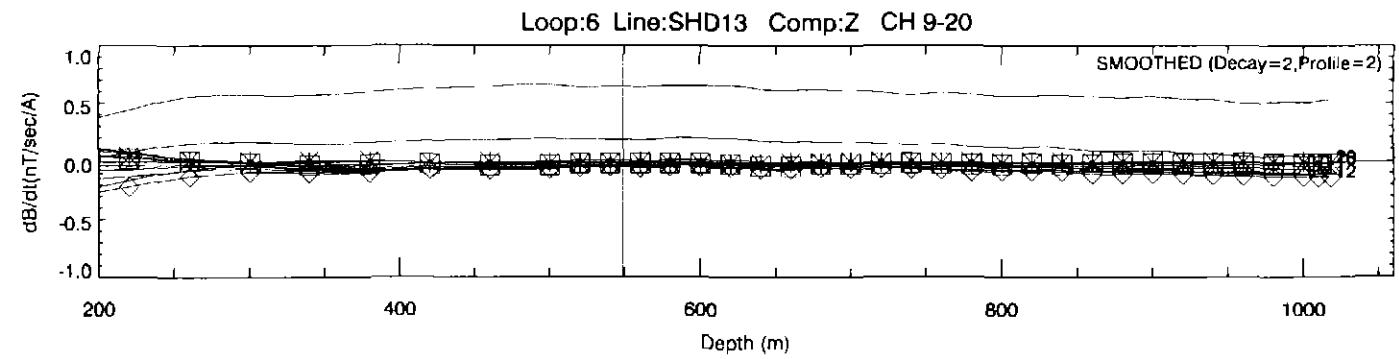
Goldfields Ltd	
South Henty. Borehole EM Jan 2000.	
Crone PEM. Tx Frequency 12.5 Hz	
Window Set Ch1-31 2.0	
FLAGSTAFF GEOCONSULTANTS	
Drawn 3-Apr-2000	

650297



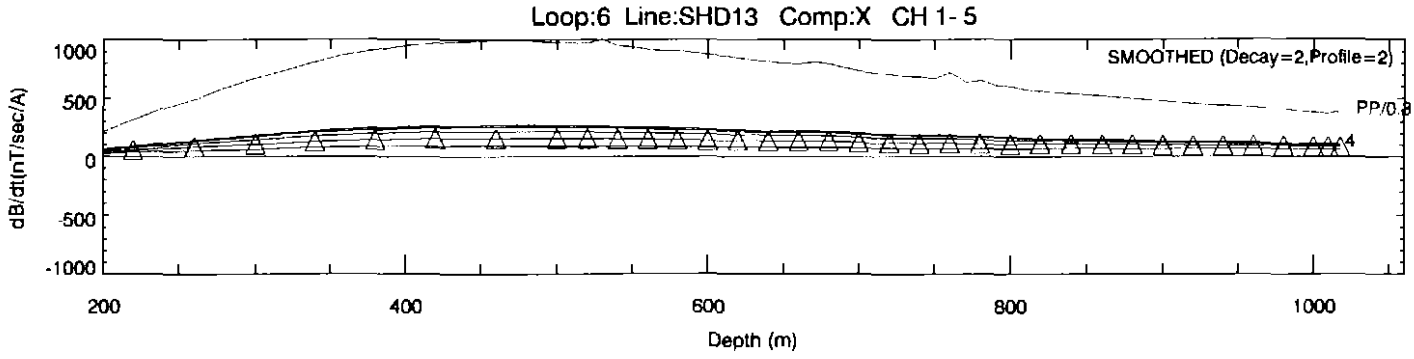


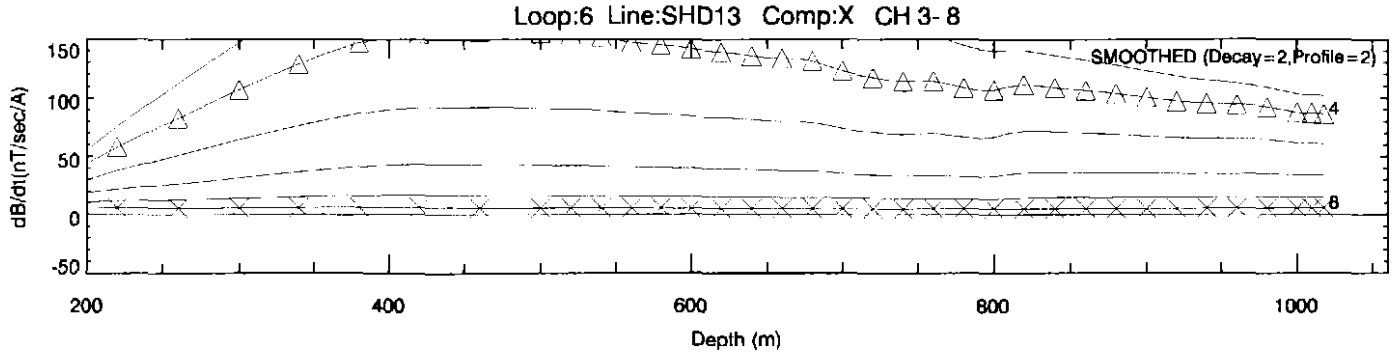


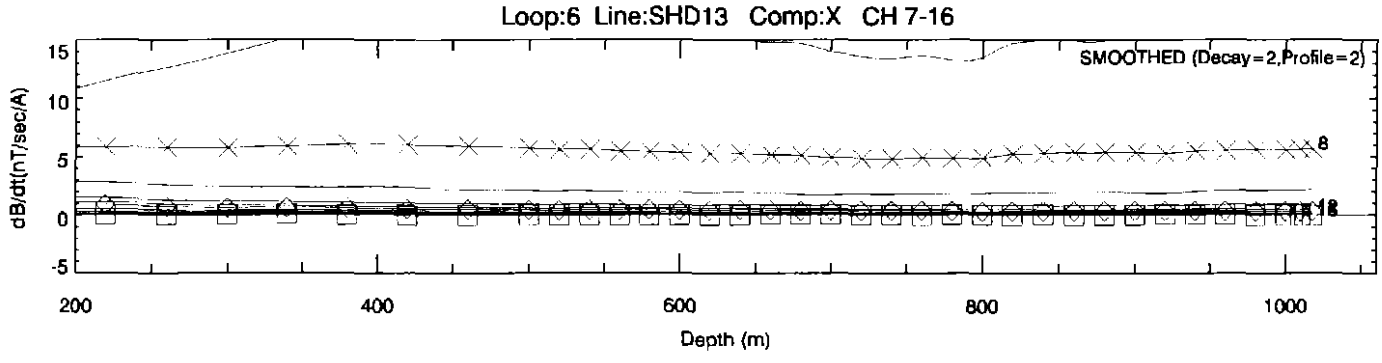


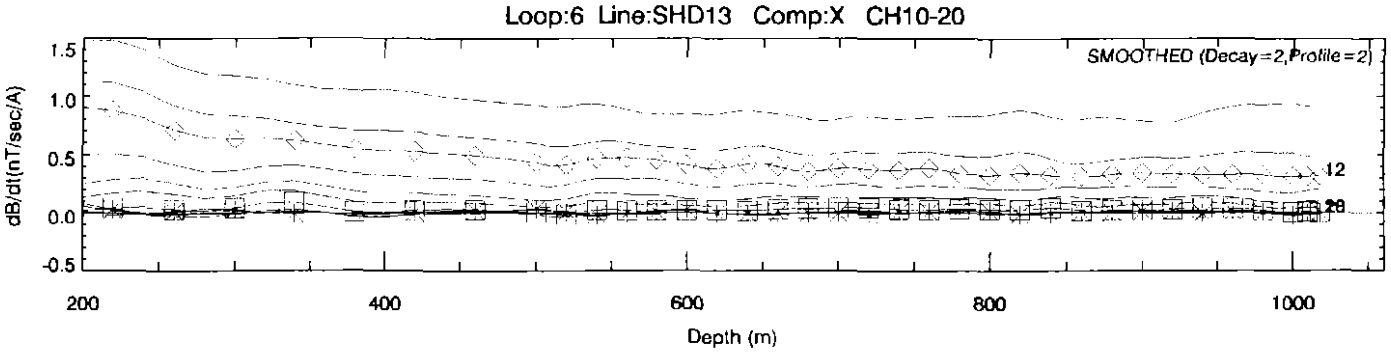
Goldfields Ltd	
South Henty. Borehole EM Jan 2000.	
Crone PEM. Tx Frequency 12.5 Hz	
Window Set Ch1-~~31~~ ~~20~~ ~~31~~ 20	
FLAGSTAFF GEOCONSULTANTS	
Drawn 3-Apr-2000	

650298



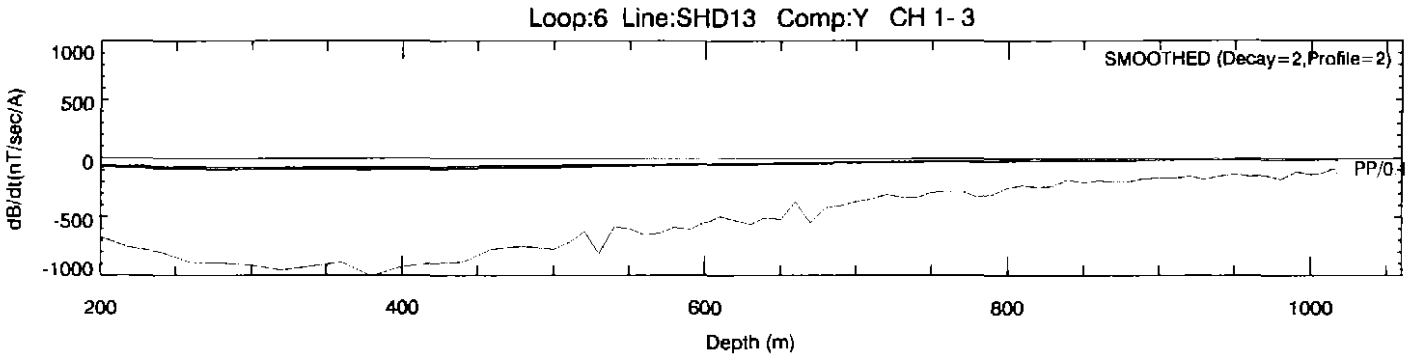


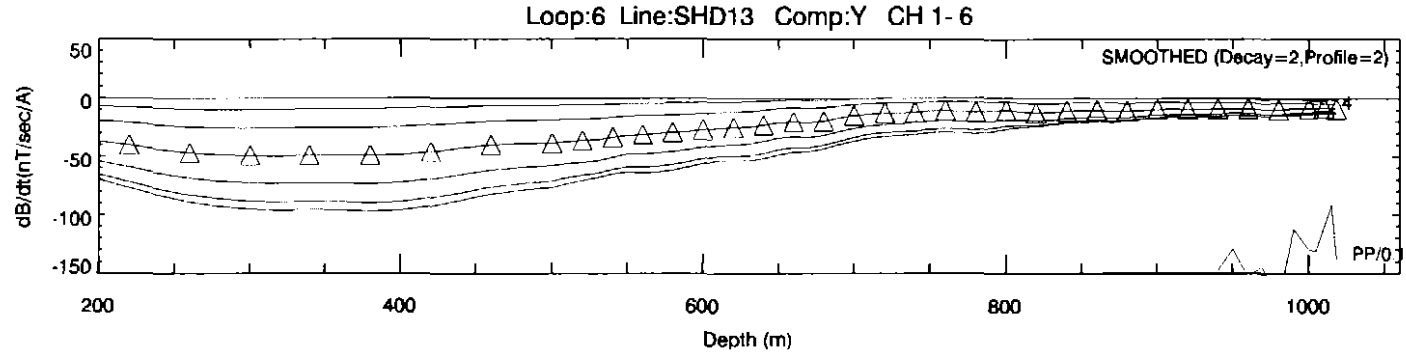


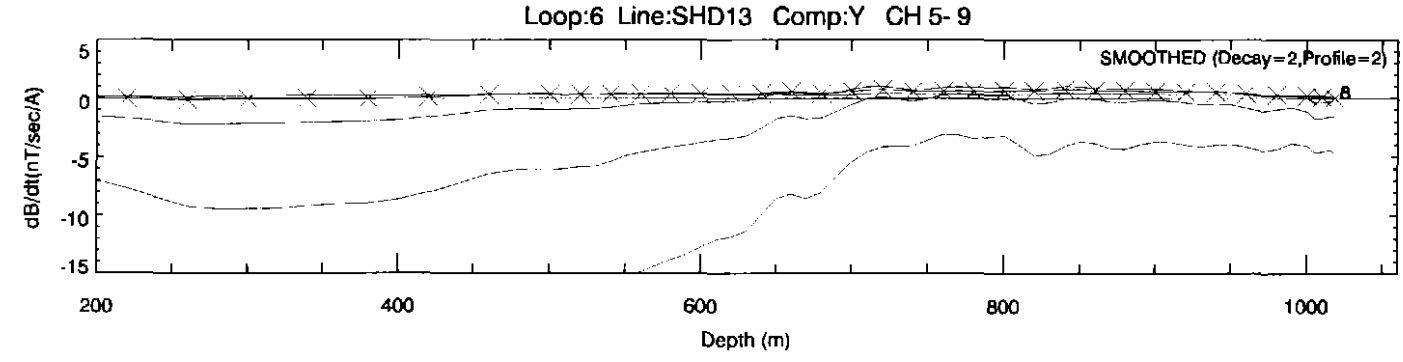


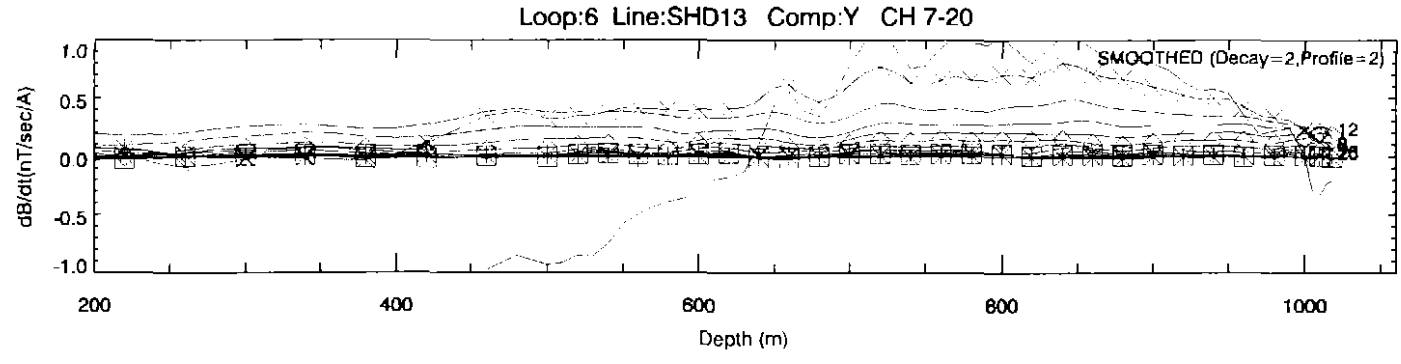
Goldfields Ltd	
South Henty. Borehole EM Jan 2000.	
Crone PEM. Tx Frequency 12.5 Hz	
Window Set Ch1-31 2 0	
FLAGSTAFF GEOCONSULTANTS	
Drawn 3-Apr-2000	

650299



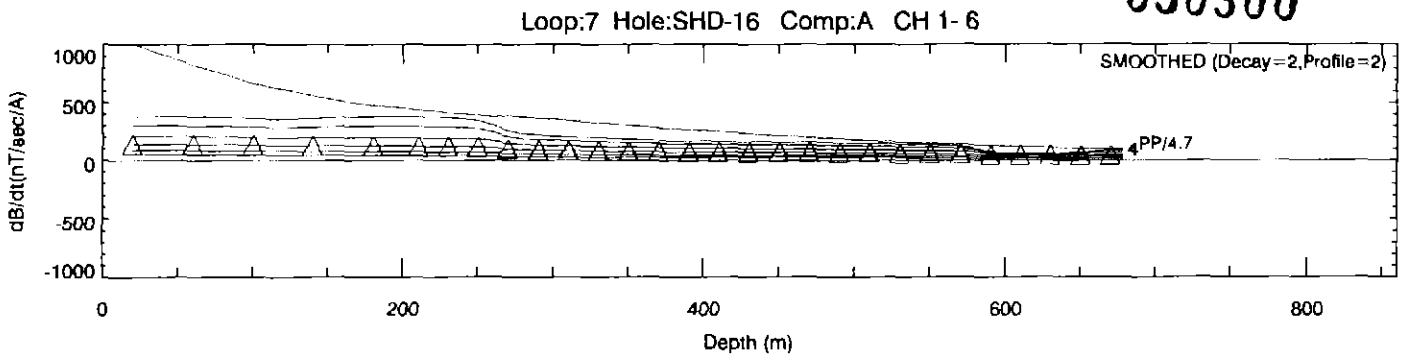


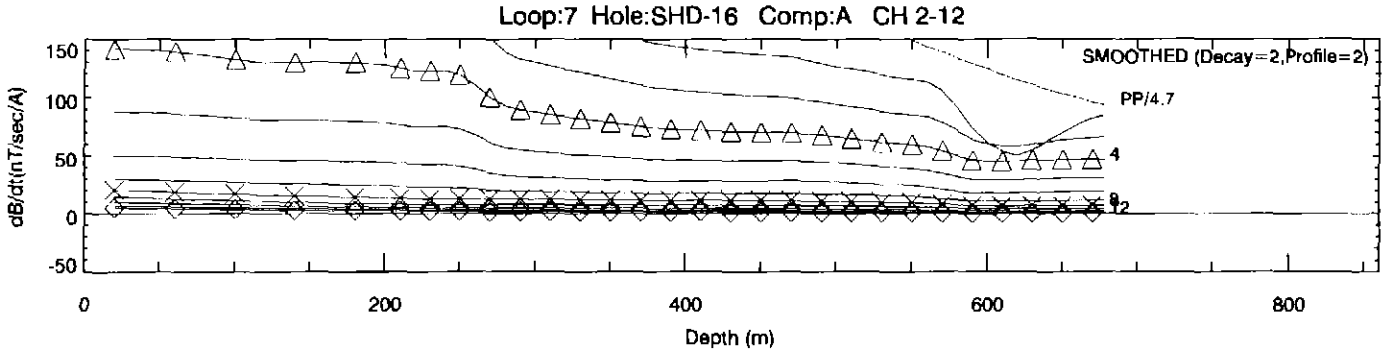


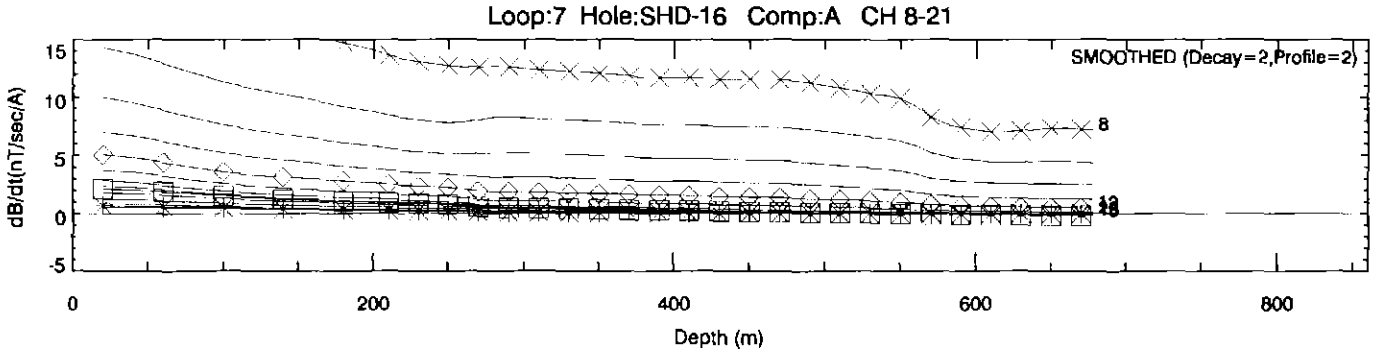


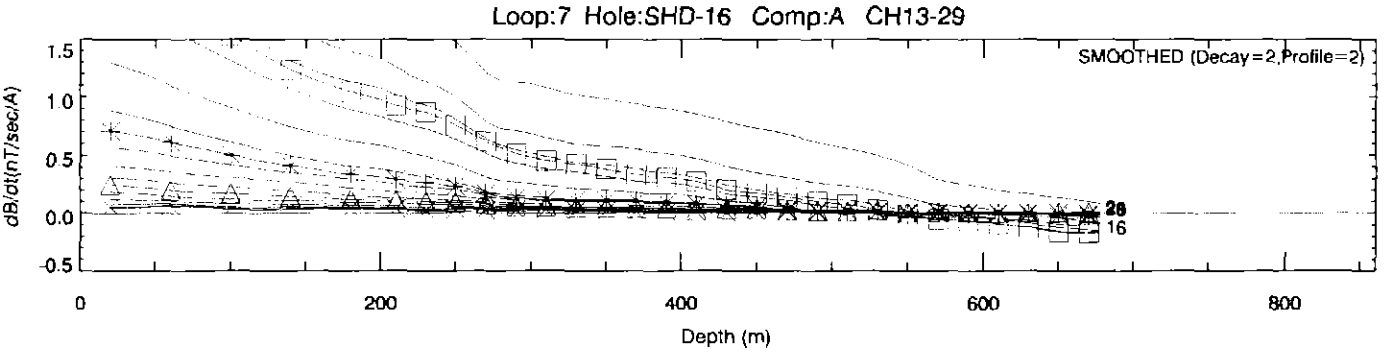
Goldfields Ltd	
South Henty. Borehole EM Jan 2000.	
Crone PEM. Tx Frequency 12.5 Hz	
Window Set Ch1-~~31~~ 2 0	
FLAGSTAFF GEOCONSULTANTS	
Drawn 3-Apr-2000	

650300



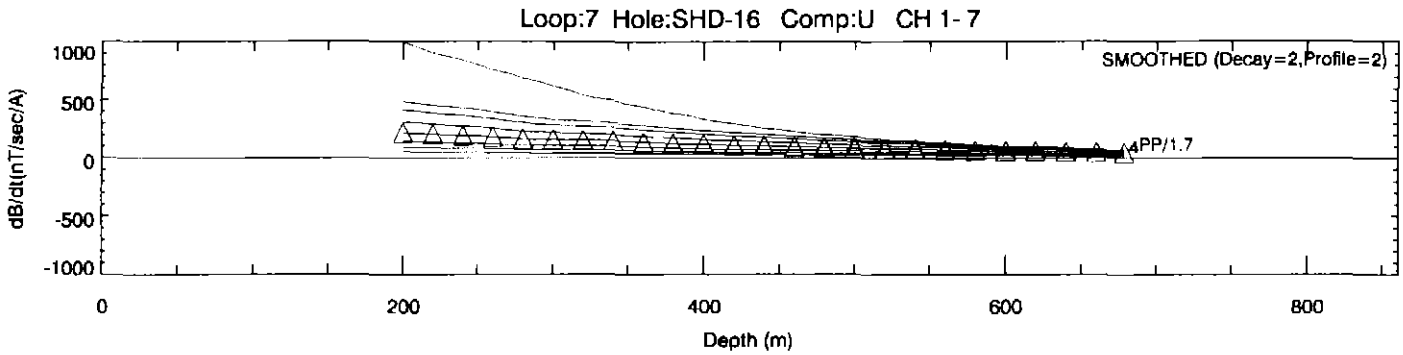


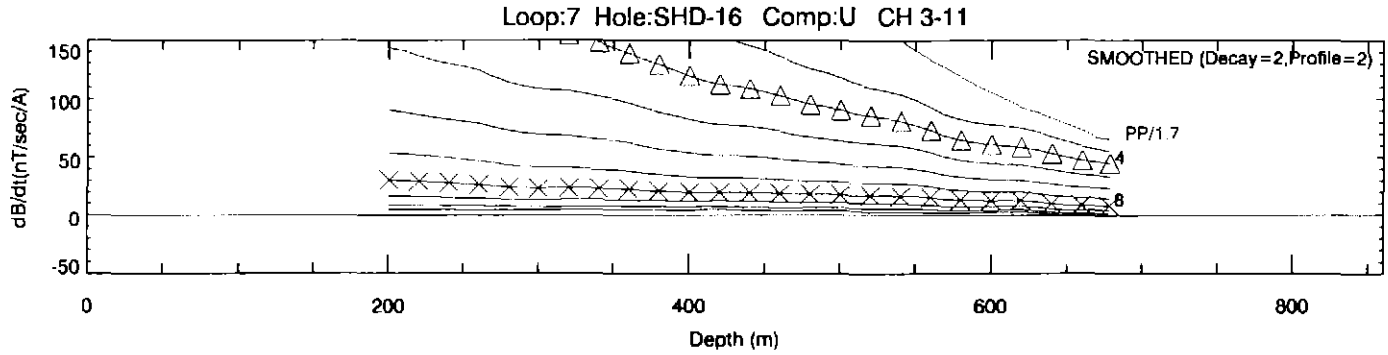


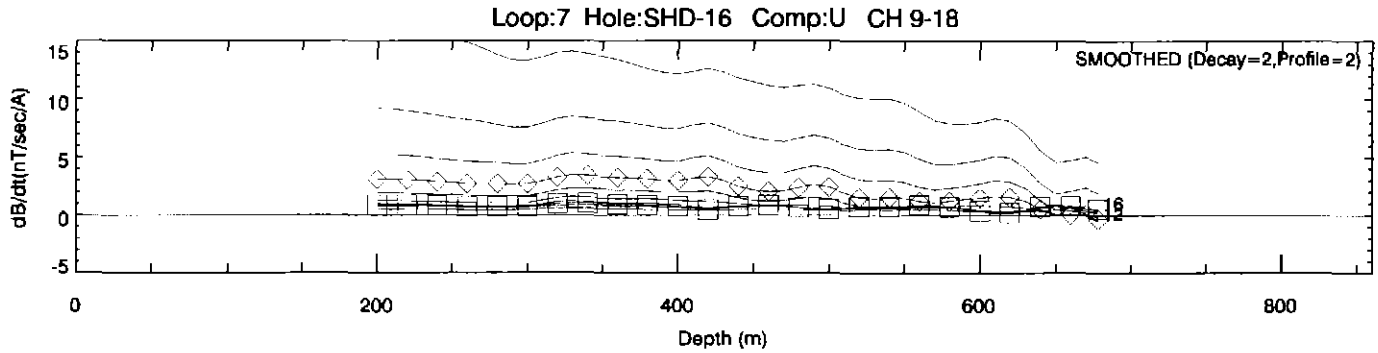


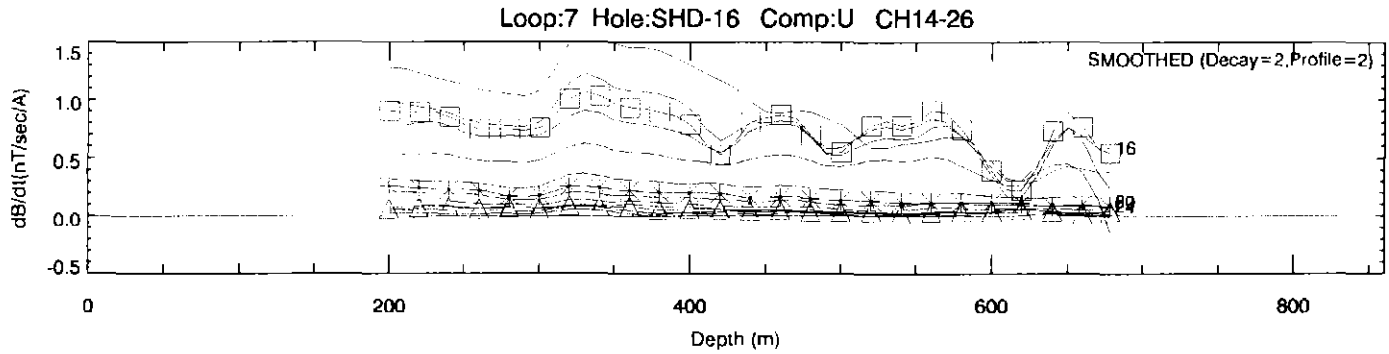
Goldfields Ltd	
South Henty. Borehole EM Apr 1999.	
Crone PEM. Tx Frequency 12.5 Hz	
Window Set Ch1-31	
FLAGSTAFF GEOCONSULTANTS	
Drawn 2/ 2/2000	

650301



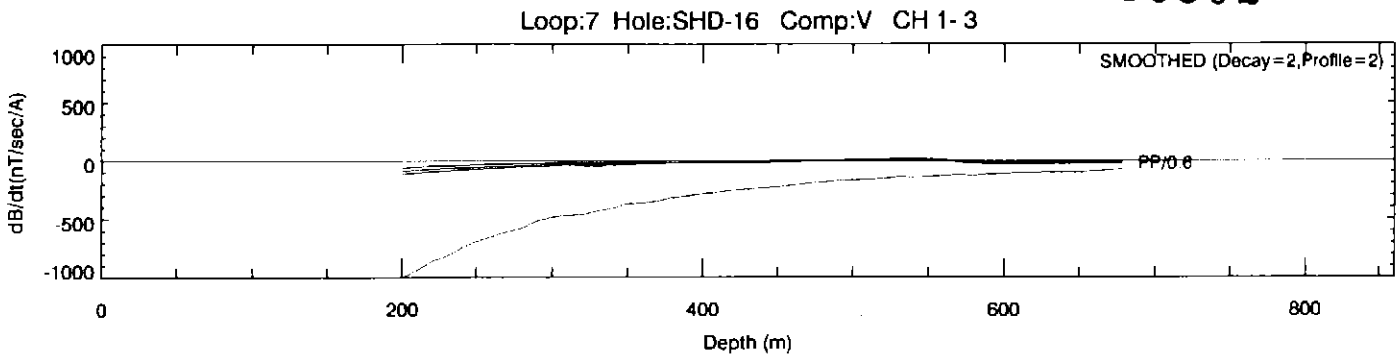


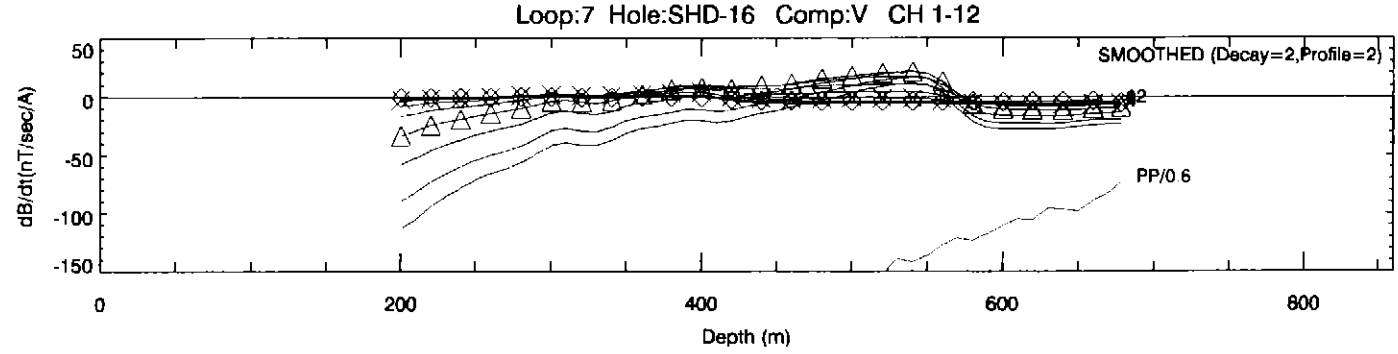


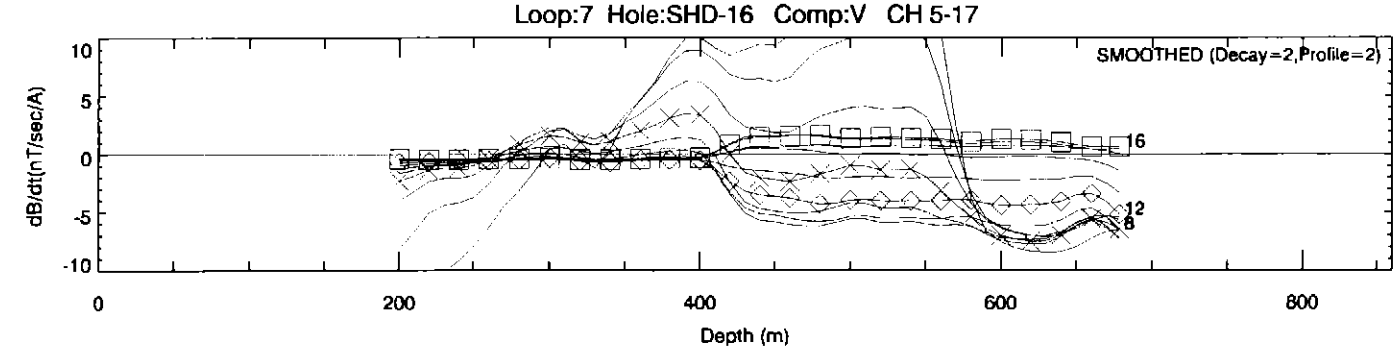


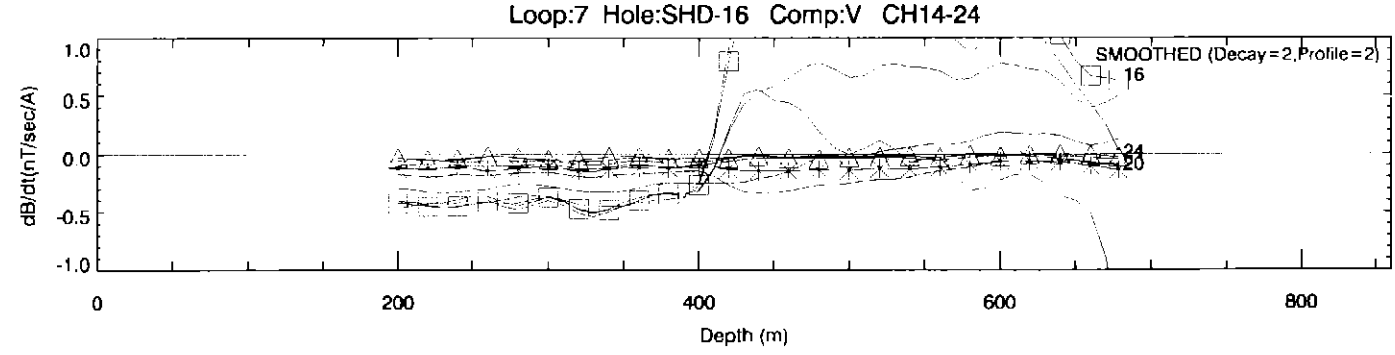
Goldfields Ltd	
South Henty. Borehole EM Jan 2000.	
Crone PEM. Tx Frequency 12.5 Hz	
Window Set Ch1-31	
FLAGSTAFF GEOCONSULTANTS	
Drawn 3-Apr-2000	

650302



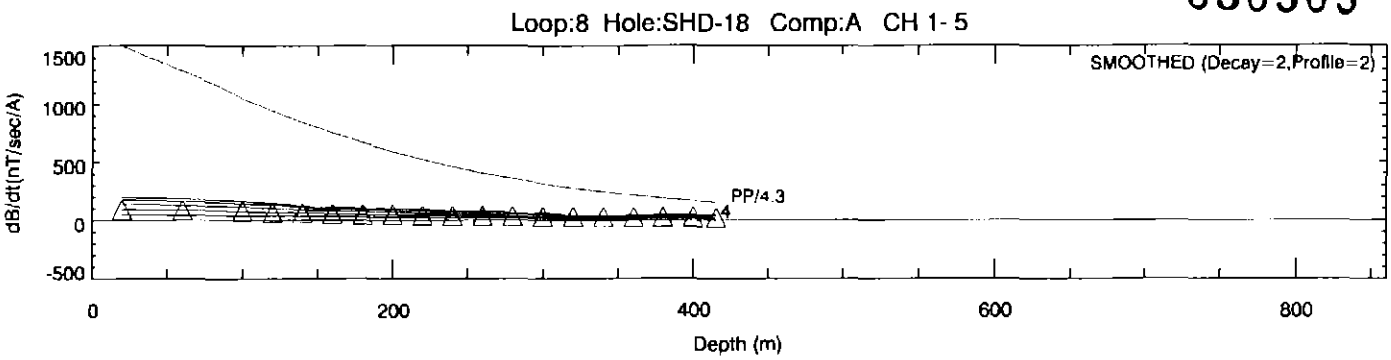


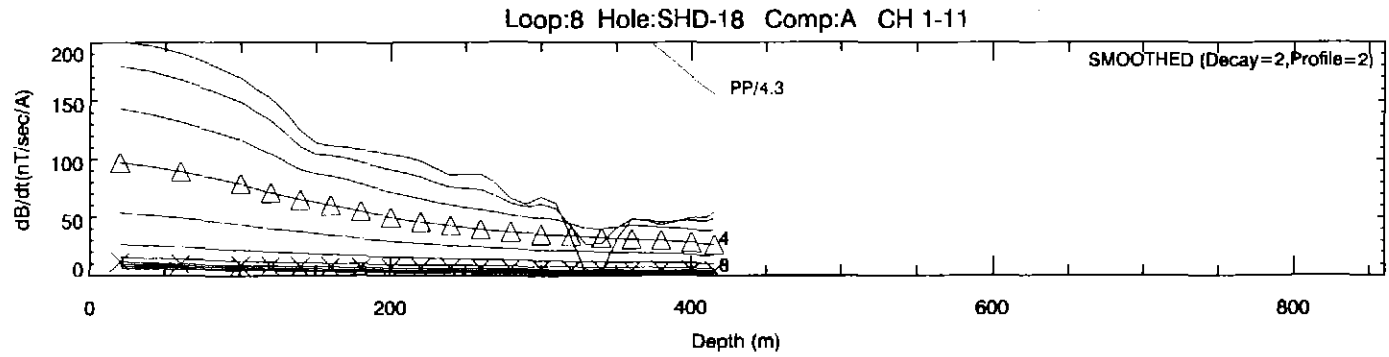


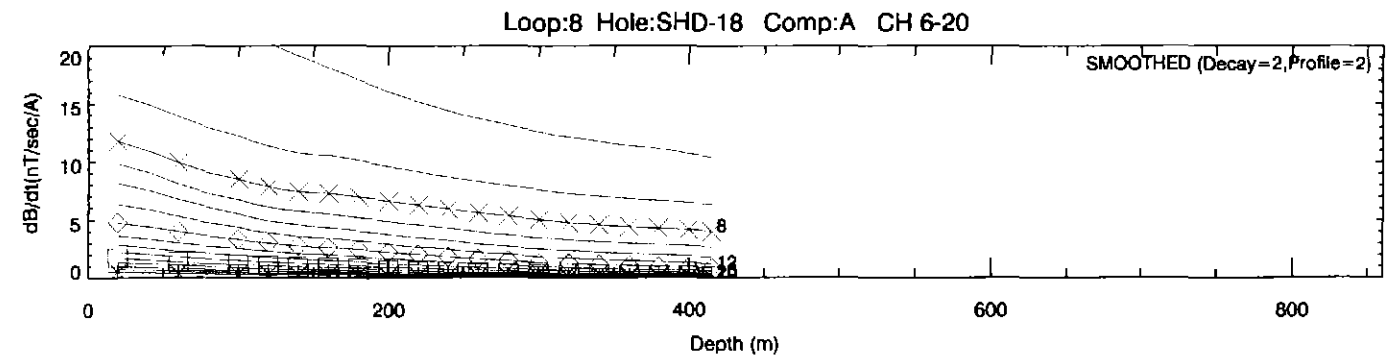


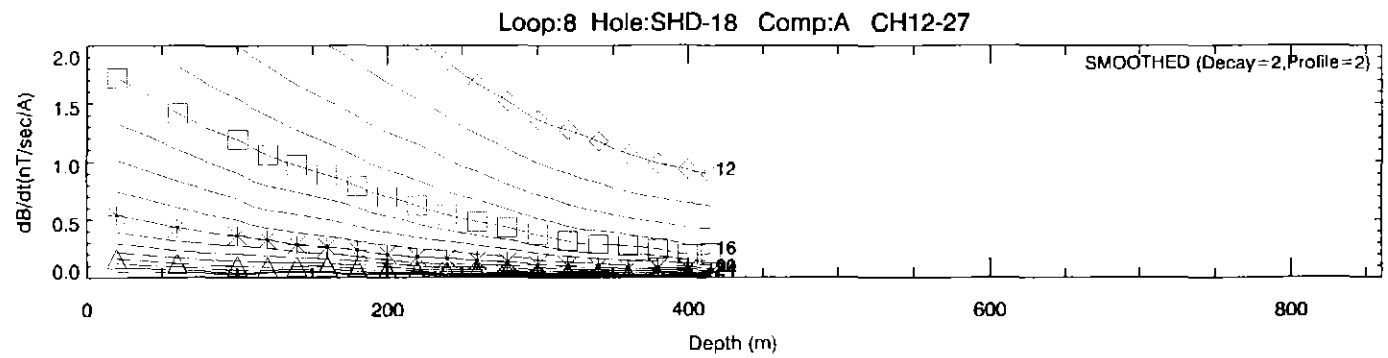
Goldfields Ltd	
South Henty. Borehole EM Jan 2000.	
Crone PEM. Tx Frequency 12.5 Hz	
Window Set Ch1-31	
FLAGSTAFF GEOCONSULTANTS	
Drawn 3-Apr-2000	

650303



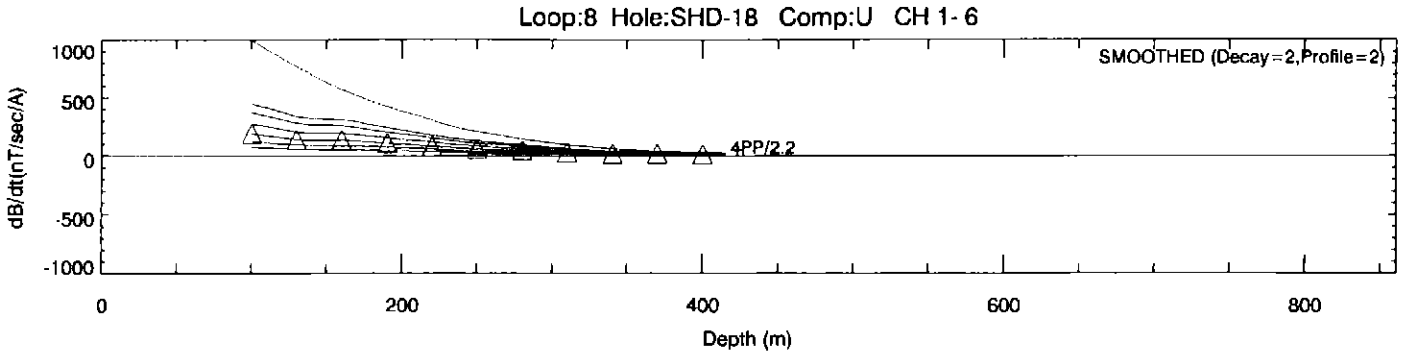


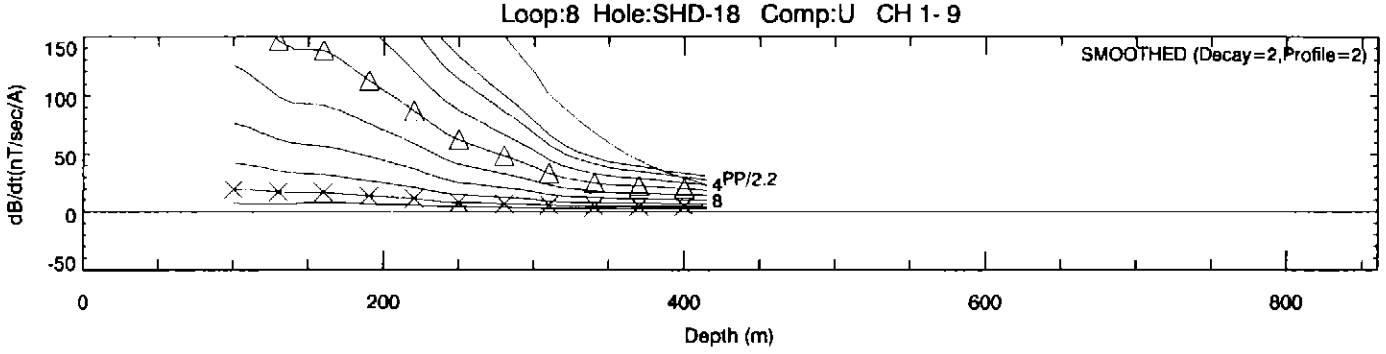


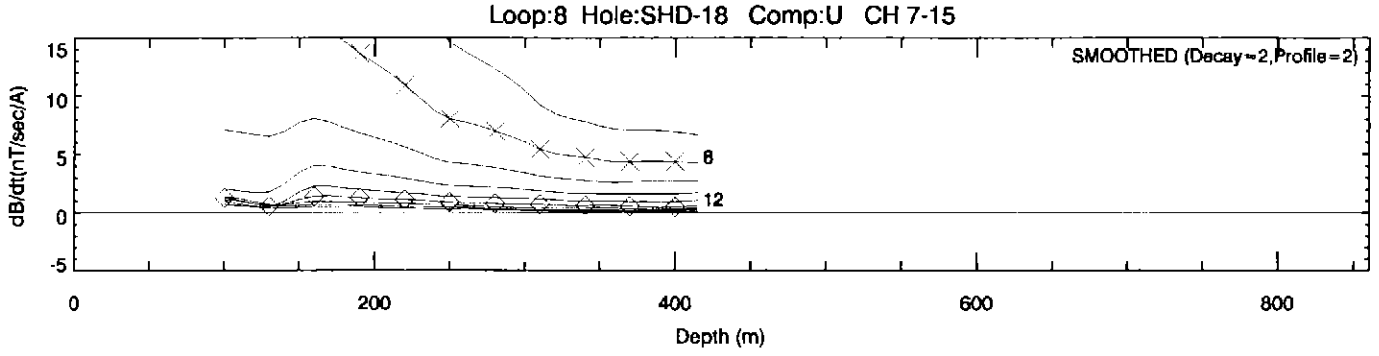


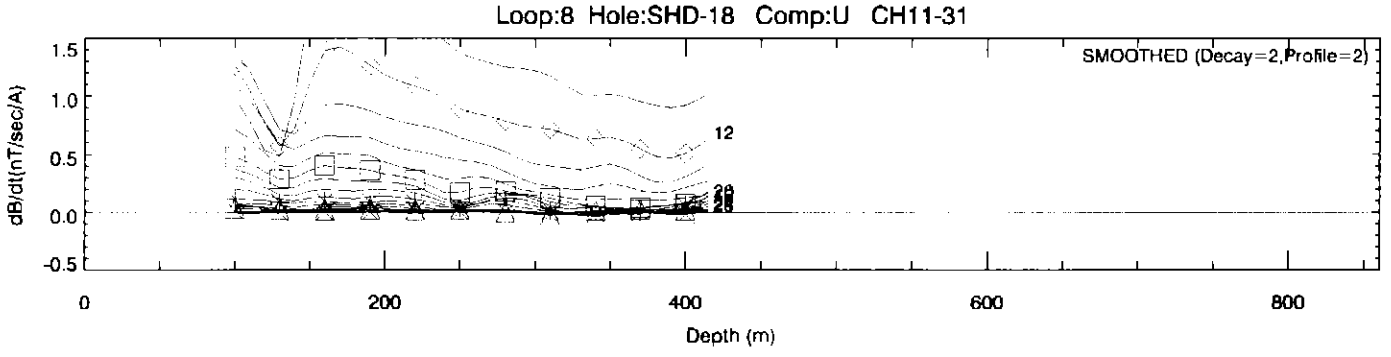
Goldfields Ltd	
South Henty. Borehole EM Jan 2000.	
Crone PEM. Tx Frequency 12.5 Hz	
Window Set Ch1-31	
FLAGSTAFF GEOCONSULTANTS	
Drawn 3-Apr-2000	

650304



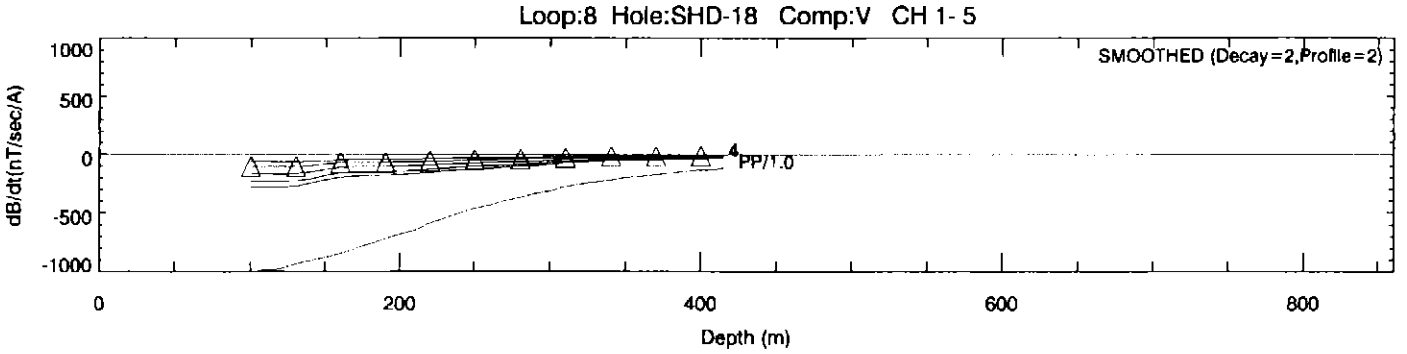


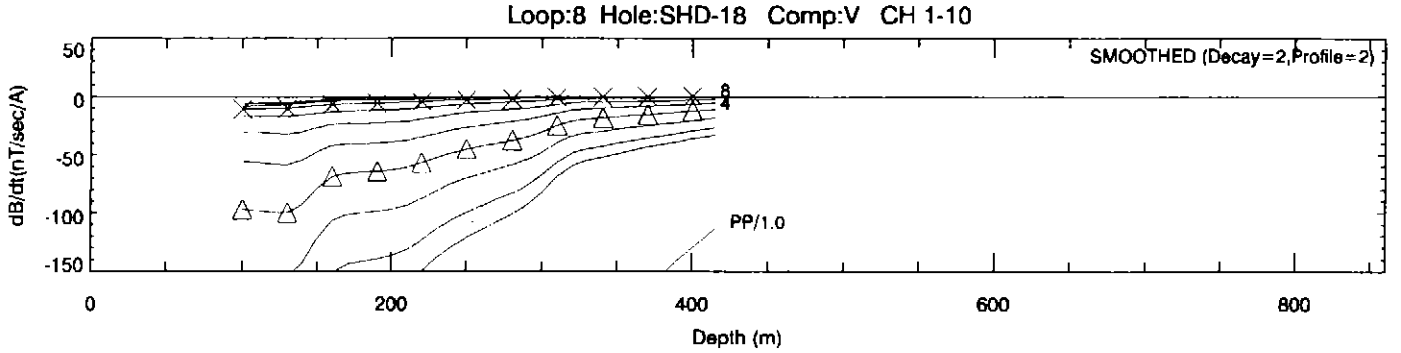


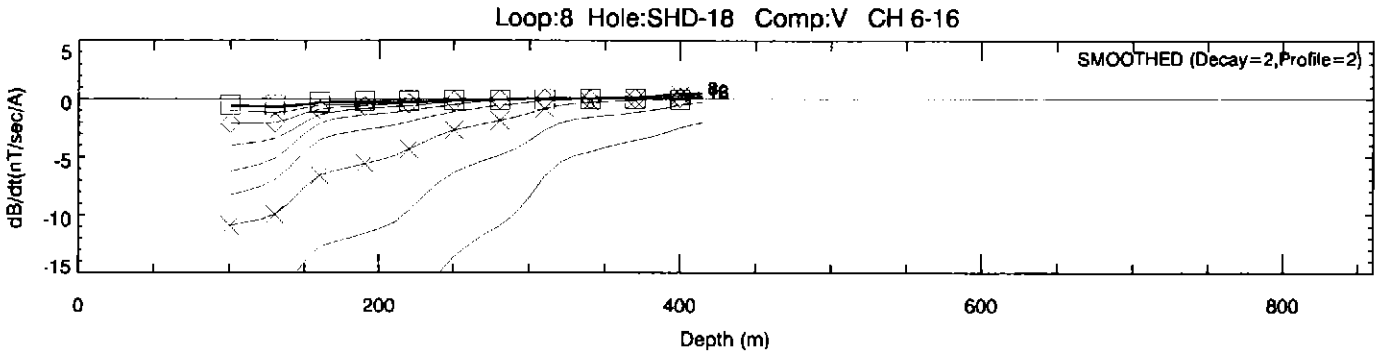


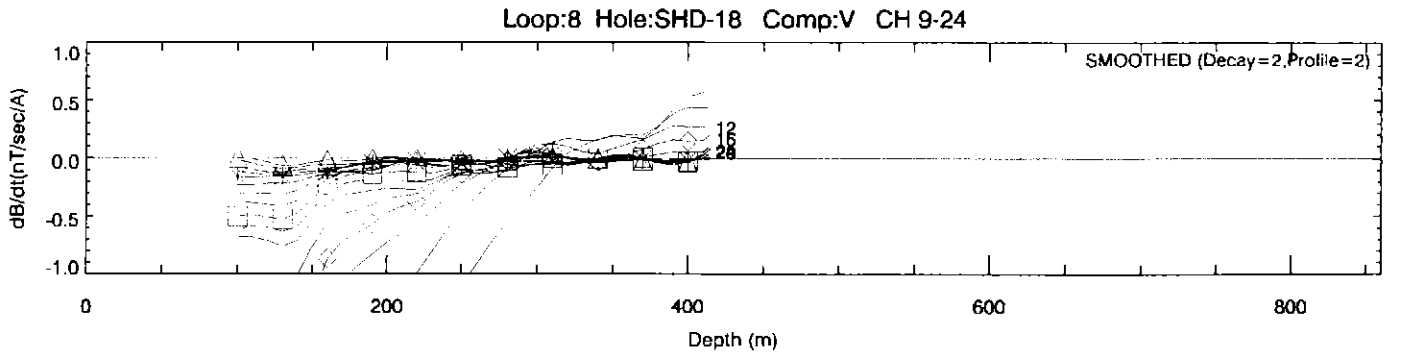
Goldfields Ltd	
South Henty. Borehole EM Jan 2000.	
Crone PEM. Tx Frequency 12.5 Hz	
Window Set Ch1-31	
FLAGSTAFF GEOCONSULTANTS	
Drawn 3-Apr-2000	

650305



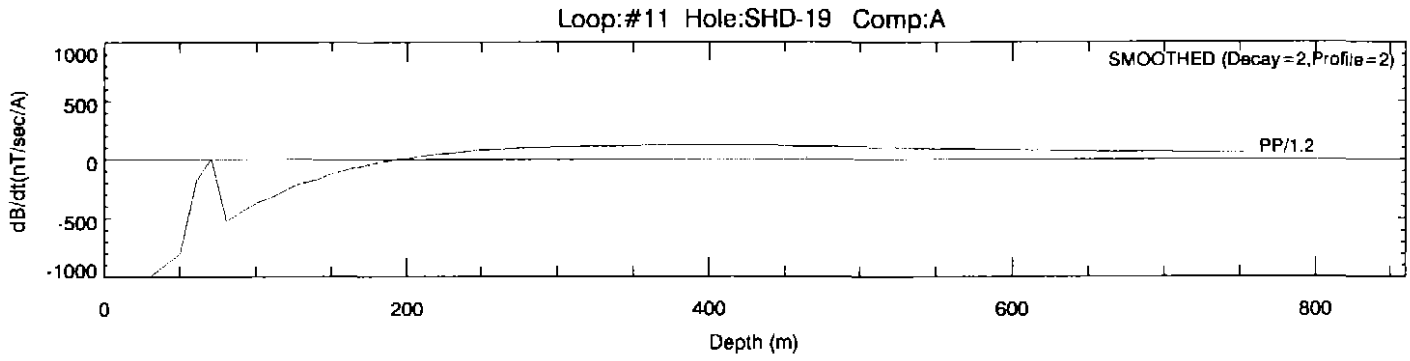


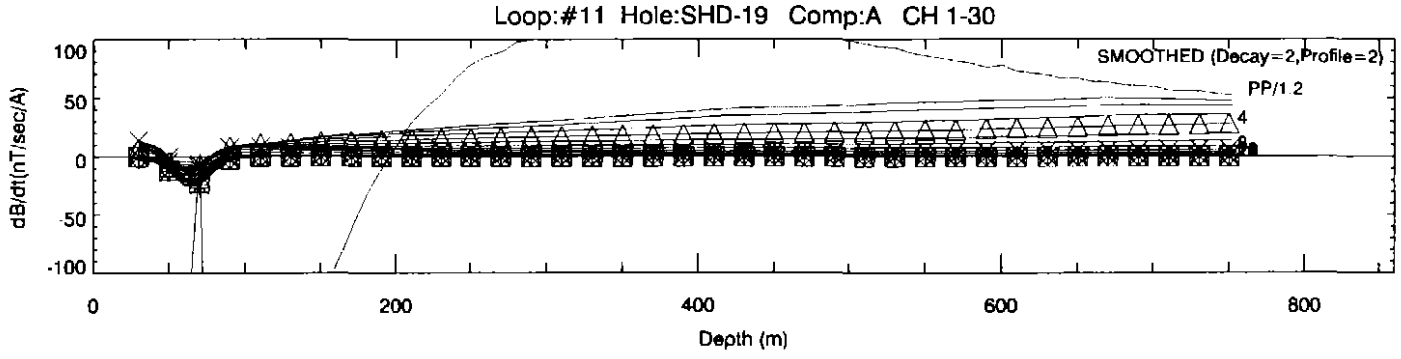


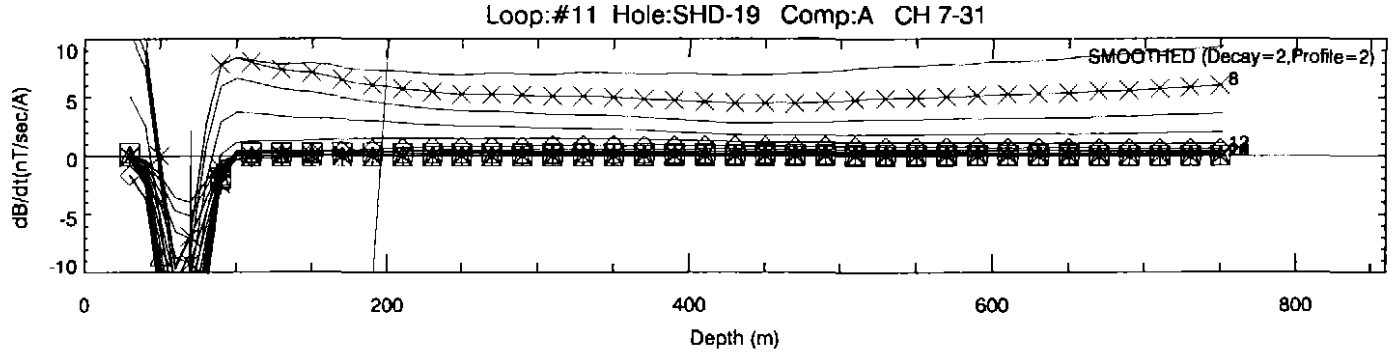


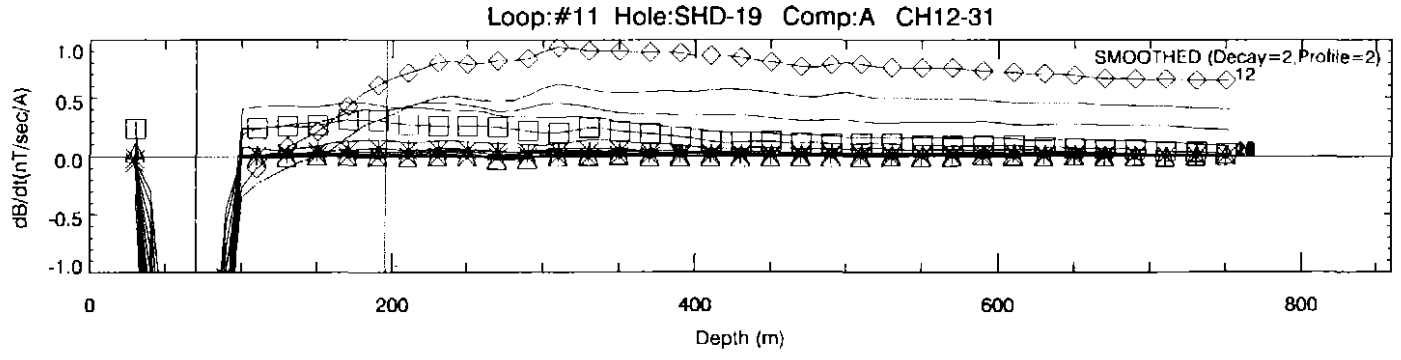
Goldfields Ltd	
South Henty. Borehole EM Jan 2000. Crone PEM. Tx Frequency 12.5 Hz Window Set Ch1-31	
FLAGSTAFF GEOCONSULTANTS Drawn 3-Apr-2000	

650306



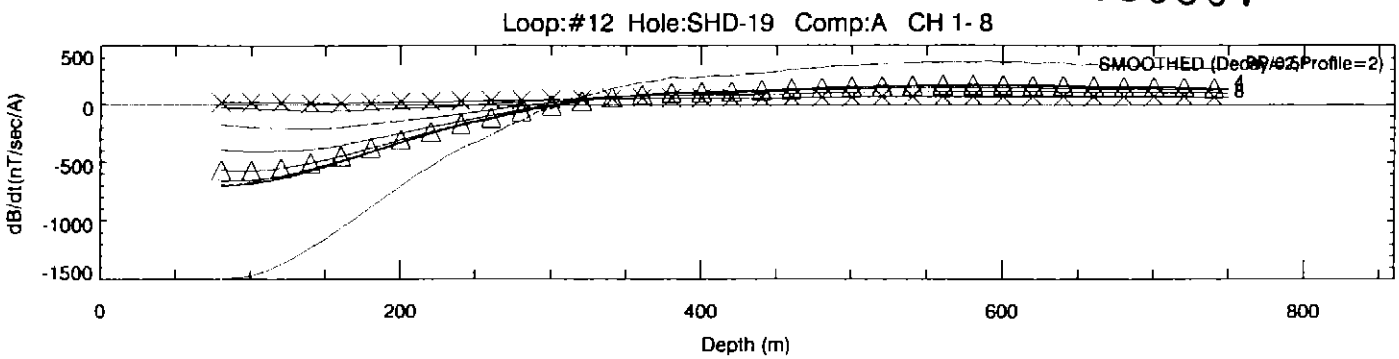


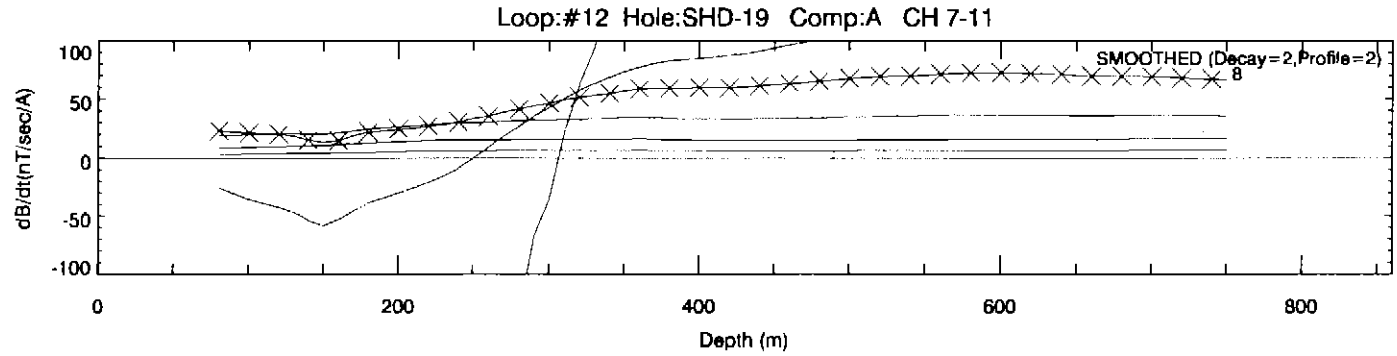


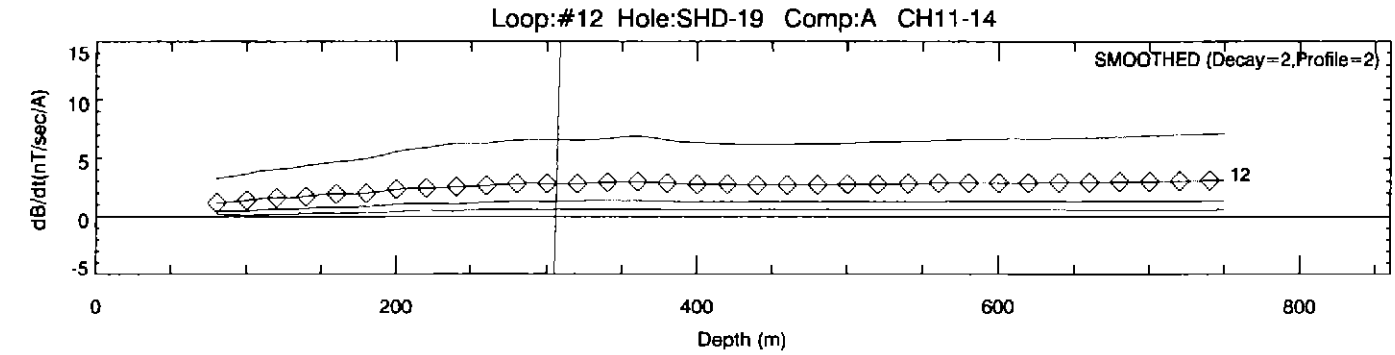


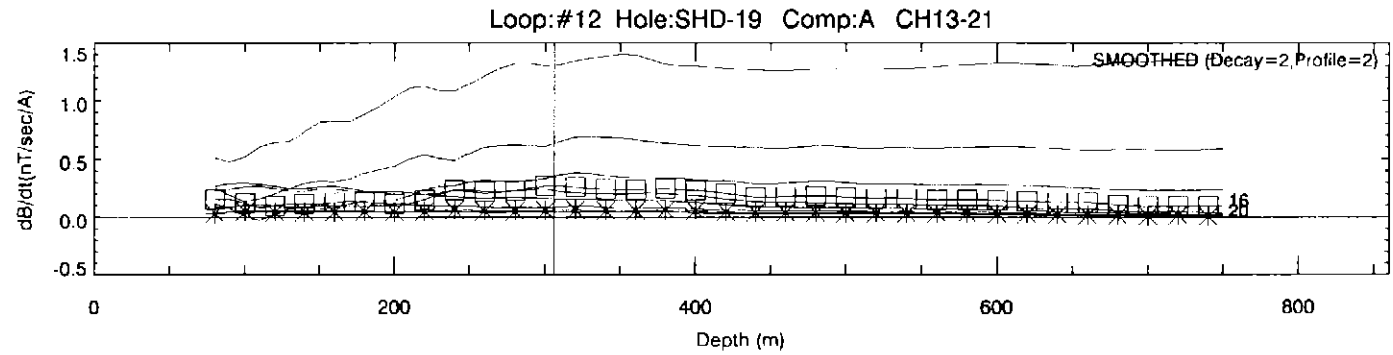
Goldfields Ltd	
South Henty. Borehole EM Apr 1999.	
Crone PEM. Tx Frequency 12.5 Hz	
Window Set Ch1-31	
FLAGSTAFF GEOCONSULTANTS	
Drawn 2/ 2/2000	

650307

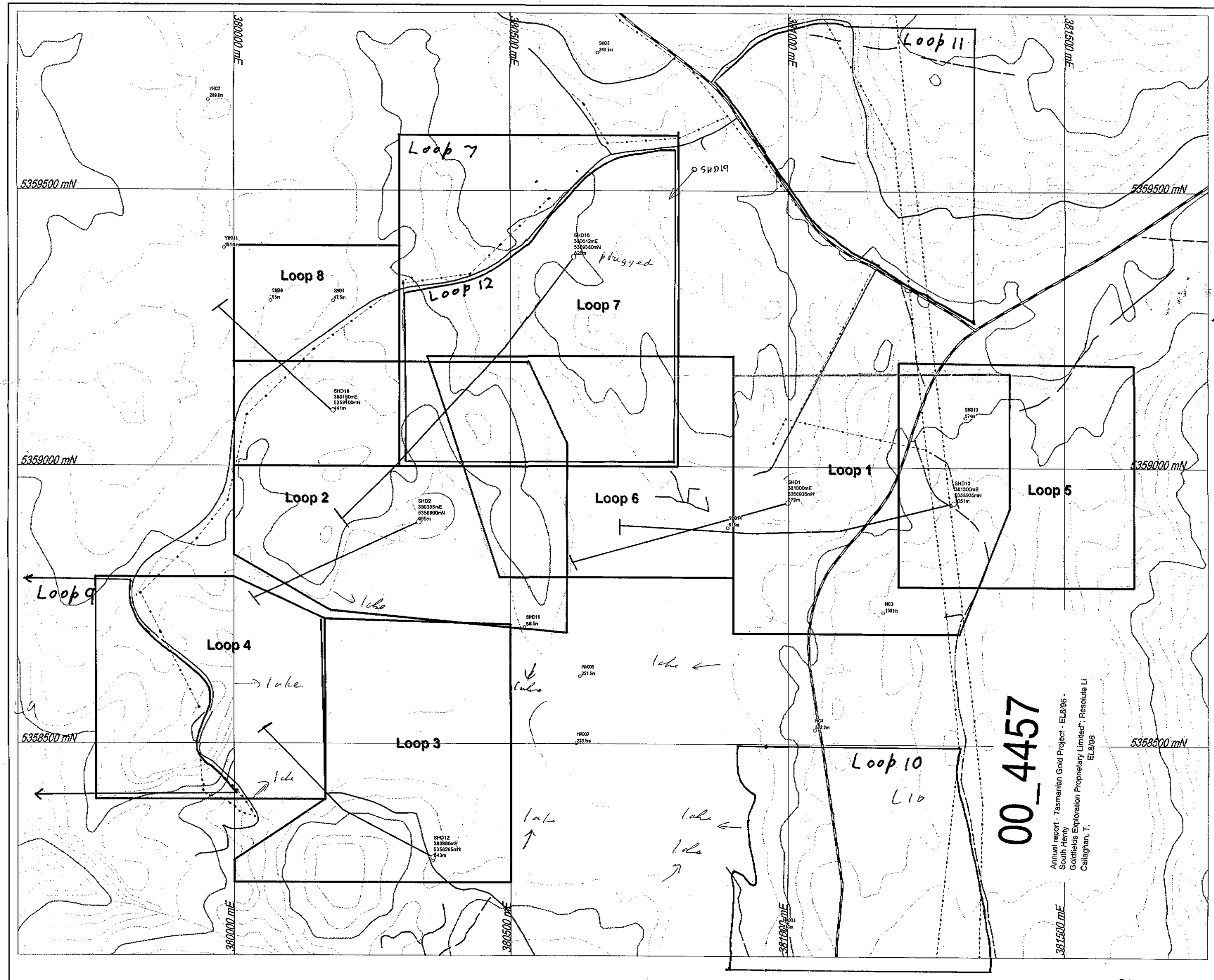








Goldfields Ltd	
South Henty. Borehole EM Apr 1999.	
Crone PEM. Tx Frequency 12.5 Hz	
Window Set Ch1-31	
FLAGSTAFF GEOCONSULTANTS	
Drawn 2/ 2/2000	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380500 mE
381000 mE
381500 mE
5359500 mN
5359000 mN
5358500 mN
Loop 7
Loop 11
Loop 8
Loop 12
Loop 7
Loop 1
Loop 2
Loop 6
Loop 5
Loop 9
Loop 4
Loop 3
Loop 10
SHD19
SHD16
plugged
SHD18
SHD10
SHD1
SHD13
SHD2
SHD11
SHD12
lake
00_4457
Annual report - Tasmanian Gold Project - EL8/96 - South Henty
Goldfields Exploration Proprietary Limited*; Resolute Li
Callaghan, T.
EL8/96
650308
DHEM Transmitter Loop
5 cm
Scale 1:5,000
0 50 100 250 500m
Distances in metres
Projection: UTM
Datum: AGD84
Zone: 55
Additions:
N. Asten June 1999
Plan 1.
South Henty Project
Tyndall Mine Region
Down-hole EM Surveys 1997-99
Transmitter Loop Layout
Topography and Cultural Effects
Compiled by C Dauth January 1999

00_4457

GOLDFIELDS EXPLORATION

ACN 008 560 978

VOL 2 of 3

ANNUAL REPORT

650309

MINERAL RESOURCES
19 MAY 2000
TASMANIA

TASMANIAN GOLD PROJECT

EL 8/96

SOUTH HENTY

Vol 2 of 3
Appendices 4, 5 and 6.

HELD BY: RESOLUTE LTD.

MANAGER & OPERATOR: GOLDFIELDS EXPLORATION LTD.

AUTHOR(s):Tim Callaghan

MICROFILMED
FICHE No. -

10 May 2000

PROSPECTS: Lake Newton prospect, Howard's Anomaly, Spillway Horizon, Canal Zone.

MAP SHEETS:	**1:25,000: Tyndall, Oceana Dundas**	**1:100,000: Sophia**
GEOGRAPHIC COORDS	**Min East: 379,000mE** **Min North: 5,356,000mN**	**Max East:382,000mE** **Max North: 5,352,000mN**

COMMODITY(s): Au, Cu, Pb, Zn, Ag

RDS: Central Volcanic Complex, Tyndall Group, Yolande River Sequence, Henty Gold Mine,

on:

GC Exploration Information Centre Reference:
oldfields Exploration Zeehan
epartment of Mineral Resources, Tasmania
esolute Ltd, Perth.

00_4457

Annual report - Tasmanian Gold Project - EL8/96 - South Henty
Goldfields Exploration Proprietary Limited"; Resolute Li
Callaghan, T.
EL8/96 VOL 2 of 3

TCR 00-44576

650310

APPENDIX 4

DHEM Modelling, SHD20, SHD21 and SHD22.

650311

Flagstaff GeoConsultants

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Alaster Edwards	Geologist

Report 0003/3 for

GOLDFIELDS EXPLORATION
Interpretation of Borehole EM Data
South Henty
EL 8/96

Michael W Asten
Flagstaff GeoConsultants Pty Ltd

27 Mar 2000

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INTERPRETATION OF BOREHOLE EM DATA, SOUTH HENTY (W. TAS)

LIST OF PLATES AND FIGURES

Plate 1. Transmitter loops and hole positions, South Henty Project, 1:5000

Fig. 1. Anomaly signature of Body 1.

Fig. 2. Anomaly signature of Body 1.

Fig. 3. TEM decay for Body 1.

Fig. 4. Anomaly signature of Body 2

Fig. 5. Field and A-component model data for Body 2, Loop 2.
EM coupling is best with Loop2.

Fig. 6a. Field and A-component model data for Body 2, Loop1.

Fig. 6b. U-V components of model data for Body 2, Loop1.

Fig. 7. TEM decay for Body 2.

Fig. 8. Anomaly signature of Body 3.

Fig. 9. TEM decay for Body 3.

Fig. 10a. Field and A-component model data for Body 3,
Loop 14. EM coupling is best with Loop 12.

Fig. 10b. Field and A-component model data for Body 3,
Loop 12.

Fig. 11. Anomaly signature of Body 1 at hole SHD22.

Fig. 12. TEM decay for Body 1 at hole SHD22.

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DATA SUPPLIED

Logging in the period Dec 99 to Feb 2000 included the following:

Hole NC04:	Loop 9	A,U and V components
	Loop 13	A,U and V components

(This hole is a historical hole which pre-dates the joint-venture, but it was only logged with borehole EM in 1999)

Hole SHD20:	Loop 14	A-component only
	Loop 12	A-component only
	Loop 11	A,U and V components
Hole SHD21:	Loop 1	A-component only
	Loop 2	A,U and V components
	Loop 9	A,U and V components
Hole SHD22	Loop 13	A-component only
	Loop 9	A,U and V components

(Existence of a lake directly over the trace of this borehole made use of a central loop logistically difficult).

All surveys used a timebase of 20 msec, transmitter frequency 12.5 Hz, and 31 time channels (Crone PulsEM). Hole SHD20 used a 1 msec transmitter ramp. Holes SHD21 and 22 used a 0.5 msec ramp.

The Contractor was Outer Rim Exploration Services, using a Crone PEM transmitter and receiver, with an axial borehole probe (all holes), and an XY borehole probe (selected holes).

Goldfields Exploration provided interpreted geological sections for each borehole.

HISTORICAL DATA

This interpretation also includes some re-interpretation of data acquired in 1999, and acquired in earlier years (Dauth, 1999; Asten, 1999a; Asten, 1999b). Asten (1999a) summarises the historical data and gives a first-pass interpretation of a conductor located between holes SHD1 and SHD2. Asten (1999b) gives a more detailed interpretation of this conductor, plus other anomalies visible in the historical holes up to SHD19.

PROCESSING OF DATA

Plotted data presented here has been smoothed with a two-dimensional filter (Asten, 1999a) due to the subtle nature of anomalies, and the difficulty of identifying these anomalies against background noise.

SUMMARY OF INTERPRETATION

Figures for this summary of interpretation are provided as two PowerPoint presentation files enclosed with this report. The most important results are obtained from interpretation of data from SHD21.

SHD21

This hole did not intersect the conductors A,B,C predicted in Asten (1999b) to lie between holes SHD1 and SHD2, but it provides vital new data which allows much improved resolution of the two predicted conductors. The hole was sited in part to investigate existence of conductors previously interpreted to lie between holes SHD1 and SHD2. The hole intersected a thick zone of sericite-pyrite alteration, with sub-economic levels of Cu, Au, Pb and Zn geochemistry.

SHD22

EM data from this hole shows a weak conductor intersected at depth 400 m, with a significant off-hole anomaly at the base of the hole. There is no obvious correlation between the EM data and the logged alteration type. The off-hole anomaly at the base of the hole is incomplete (extends beyond the base of hole).

The character of the anomaly is very similar to that for Body 1 as seen from SHD21, and its location is consistent with the strike direction inferred from SHD21. Accordingly, this anomaly is interpreted to be a southerly extension of Body 1.

Note added in proof: The SHD22 anomaly is similar (but opposite sign) to that observed for hole SHD12, reported in Asten, 1999a. It is probable that the same conductor (Body 1) located between hole SHD12 and SHD22 accounts for anomalies in both holes.

Findings from the borehole EM interpretation are as follows.

Two distinct conductors are identified, labelled Body 1 and Body 2.

Body 1

- lies above hole 21, between SHD21 and SHD2.
- top is at RL –50m, or 550 m below ground level in the vicinity of holes SHD21, SHD2
- has a long strike length (up to 800 m) probably extending from hole SHD16 (north) to SHD22 (south).
- strikes NW-SE in vicinity of hole SHD21
- has width of order 150 m and near-horizontal dip
- thickness is not well resolved but may be of order 50 m
- by assuming connection to alteration logged in SHD16, and to EM anomalies logged at base of SHD22 and SHD12, a plunge of 25 degrees south is obtained.

Body 2

- lies below and beyond the end of holes SHD21 and SHD1
- top is at RL -270 m, or 770 m below ground level
- is the best conductor identified on the prospect (time constant of 0.6 msec is small by standards of massive sulfide bodies – Hellyer is 3 msec) but could still be very significant in the context of Cu-Au Mt Lyell or Henty-style mineralisation.
- strikes 330 degrees
- probably dips steeply east, order 75 degrees, but interpretation is limited by an incomplete EM profile which would extend beyond the end of the hole
- size is difficult to constrain but a minimum of 300 m strike by 200 m vertical extent is likely.

SHD20

An off-hole EM anomaly is detected at the base of the hole, when using the western transmitter loop. The conductor is weak (time-constant of 0.05 msec) but still distinct in this resistive environment. The modelled conductor is labelled Body 3.

Body 3

The characteristics are

- consistent with large areal extent of 400 m by 200 m.
- dips shallowly, eg up to15 degrees east or west
- strikes NE-SW or north-south (not well resolved)
- located east of hole SHD20
- at depth RL –336 m, ie similar depth to Body 2
- the weakest conductor on the prospect – possibly important for its large surface area rather than its conductivity.

SOUTH HENTY TEM INTERPRETATION

Body 1 and Body 2

28 Feb 2000

Michael Asten
Flagstaff GeoConsultants

650316

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SOUTH HENTY BOREHOLE EM INTERPRETATION : FEB 2000

Body Type:Body 1
CURR DENSITY=
STRIKE = -15.0
DIP = 90.0
PLUNGE = 25.0
LENGTH = 800.
DIP-WIDTH = 50.
THICKNESS = 150.
X_REF POINT = 380400.
Y_REF POINT = 5358630.
Z_REF POINT = -50.

Body Type:Body 2
CURR DENSITY=
STRIKE = -30.
DIP = 75.
PLUNGE = 0.0
LENGTH = 300.
DIP-WIDTH = 200.
THICKNESS = 50.
X_REF POINT = 380353.
Y_REF POINT = 5359060.
Z_REF POINT = -270.

Body Type:Body 3
CURR DENSITY=
STRIKE = 45.0000
DIP = -15.0000
PLUNGE = 0.000000
LENGTH = 400.000
DIP-WIDTH = 200.000
THICKNESS = 25.0000
X_REF POINT = 380289.
Y_REF POINT = 5359410.
Z_REF POINT = -336.000

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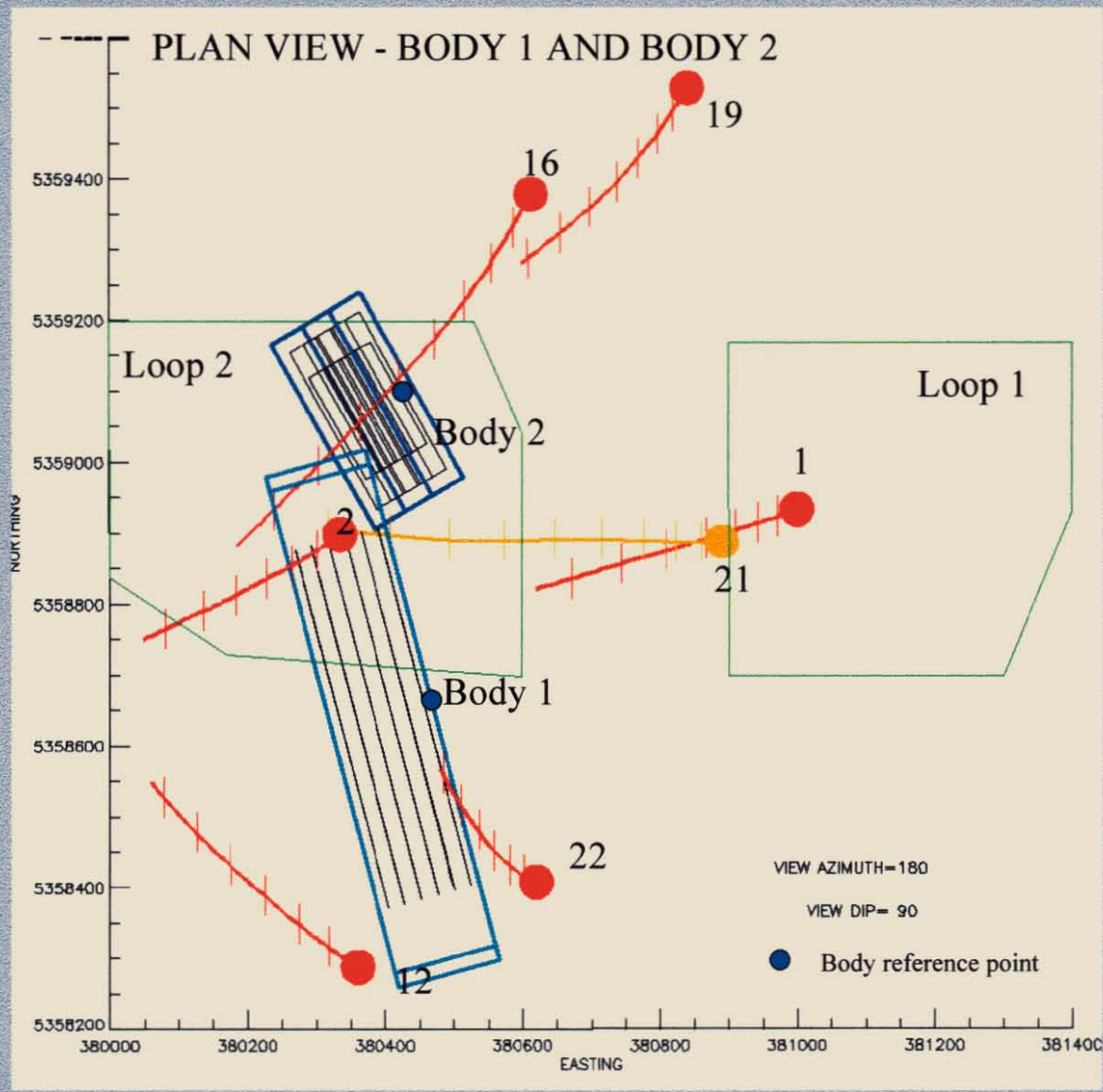
SOUTH HENTY BOREHOLE EM INTERPRETATION : FEB 2000



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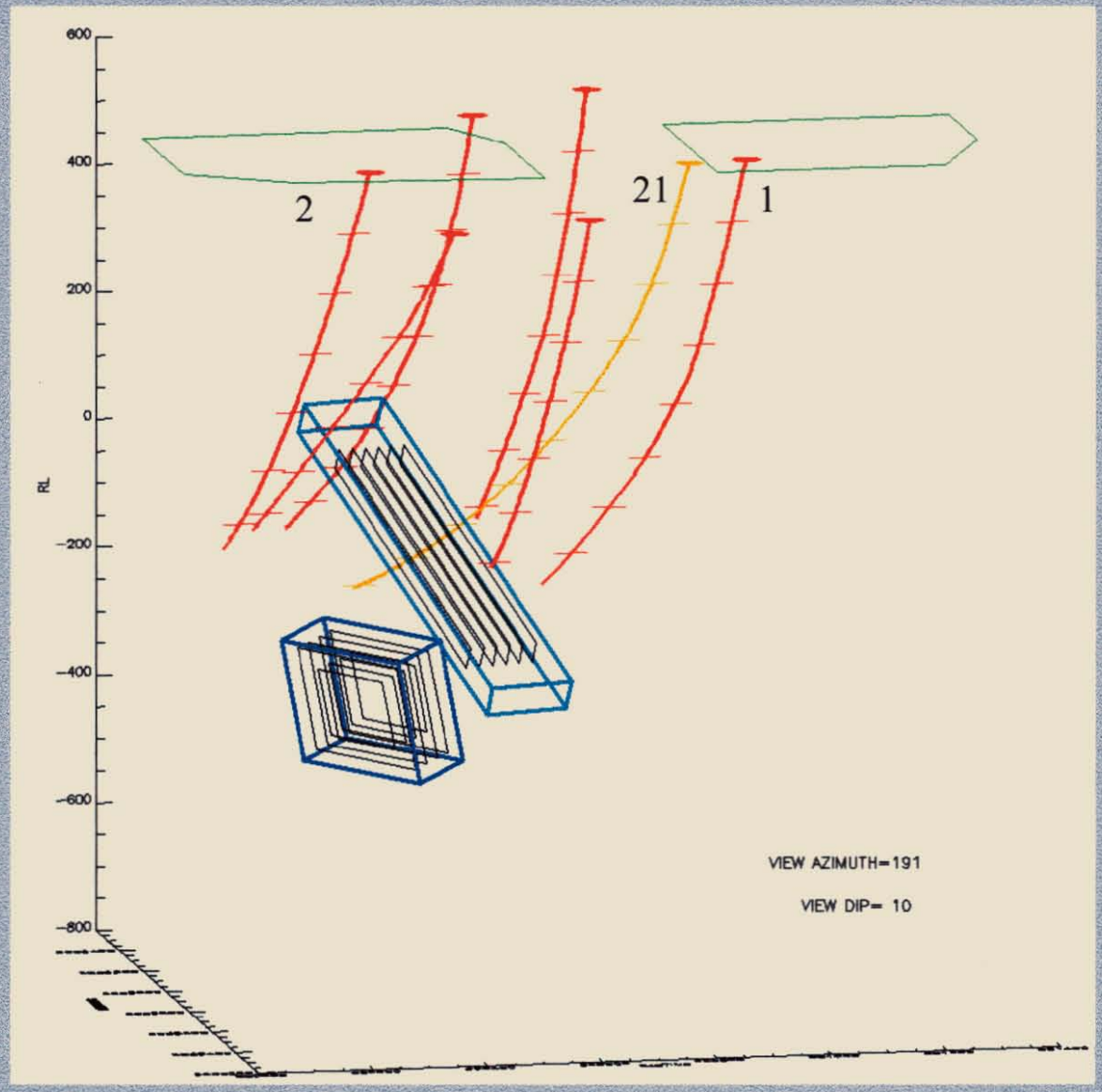
SOUTH HENTY BOREHOLE EM INTERPRETATION : FEB 2000



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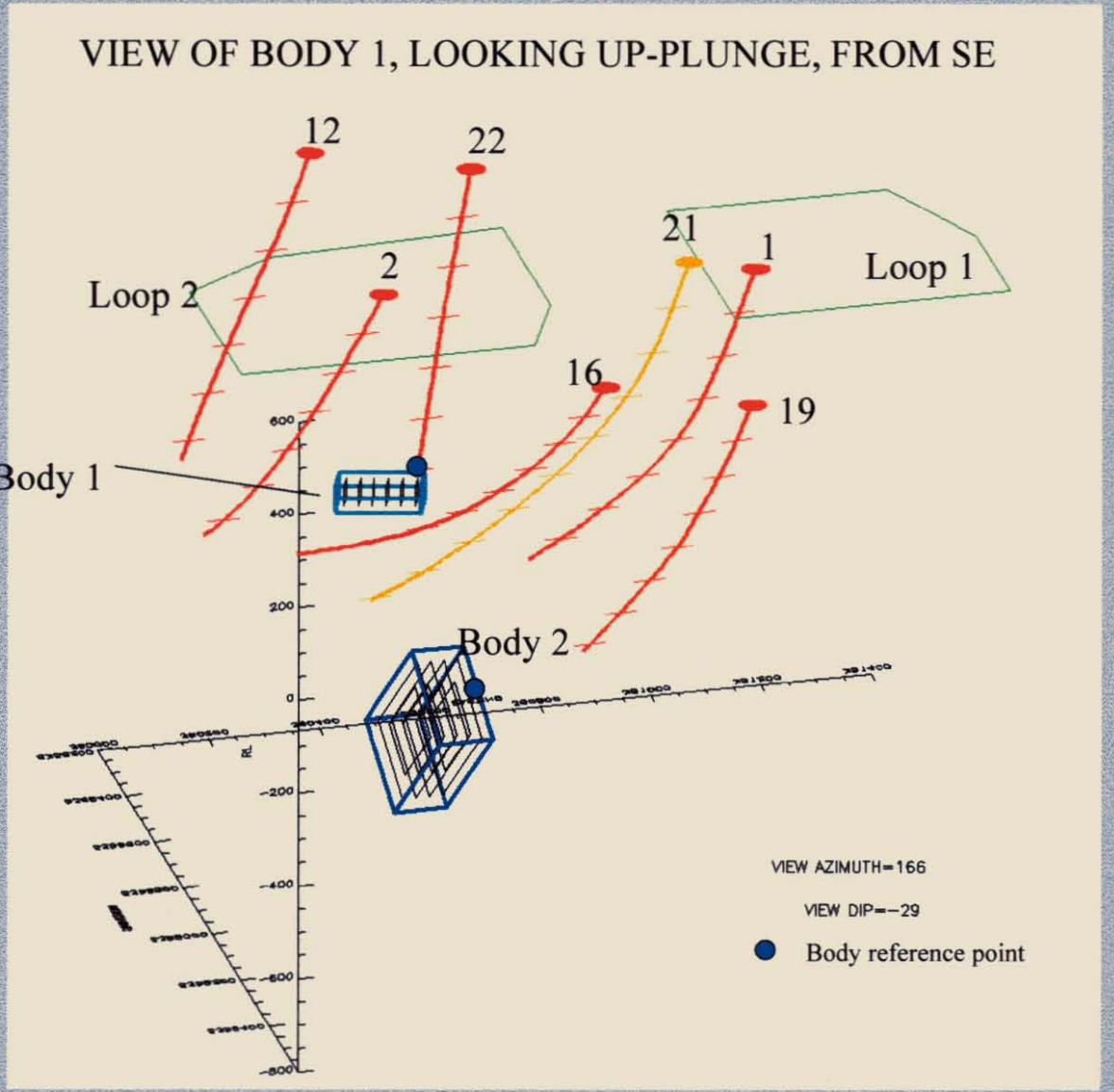
SOUTH HENTY BOREHOLE EM INTERPRETATION : FEB 2000



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SOUTH HENTY TEM INTERPRETATION

Body 2 and Body 3

28 Feb 2000

Michael Asten
Flagstaff GeoConsultants

650321

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SOUTH HENTY BOREHOLE EM INTERPRETATION : FEB 2000

Body Type:Body 1
CURR DENSITY=
STRIKE = -15.0
DIP = 90.0
PLUNGE = 25.0
LENGTH = 800.
DIP-WIDTH = 50.
THICKNESS = 150.
X_REF POINT = 380400.
Y_REF POINT = 5358630.
Z_REF POINT = -50.

Body Type:Body 3
CURR DENSITY=
STRIKE = 45.0000
DIP = -15.0000
PLUNGE = 0.000000
LENGTH = 400.000
DIP-WIDTH = 200.000
THICKNESS = 25.0000
X_REF POINT = 380289.
Y_REF POINT = 5359410.
Z_REF POINT = -336.000

Body Type:Body 2
CURR DENSITY=
STRIKE = -30.
DIP = 75.
PLUNGE = 0.0
LENGTH = 300.
DIP-WIDTH = 200.
THICKNESS = 50.
X_REF POINT = 380353.
Y_REF POINT = 5359060.
Z_REF POINT = -270.

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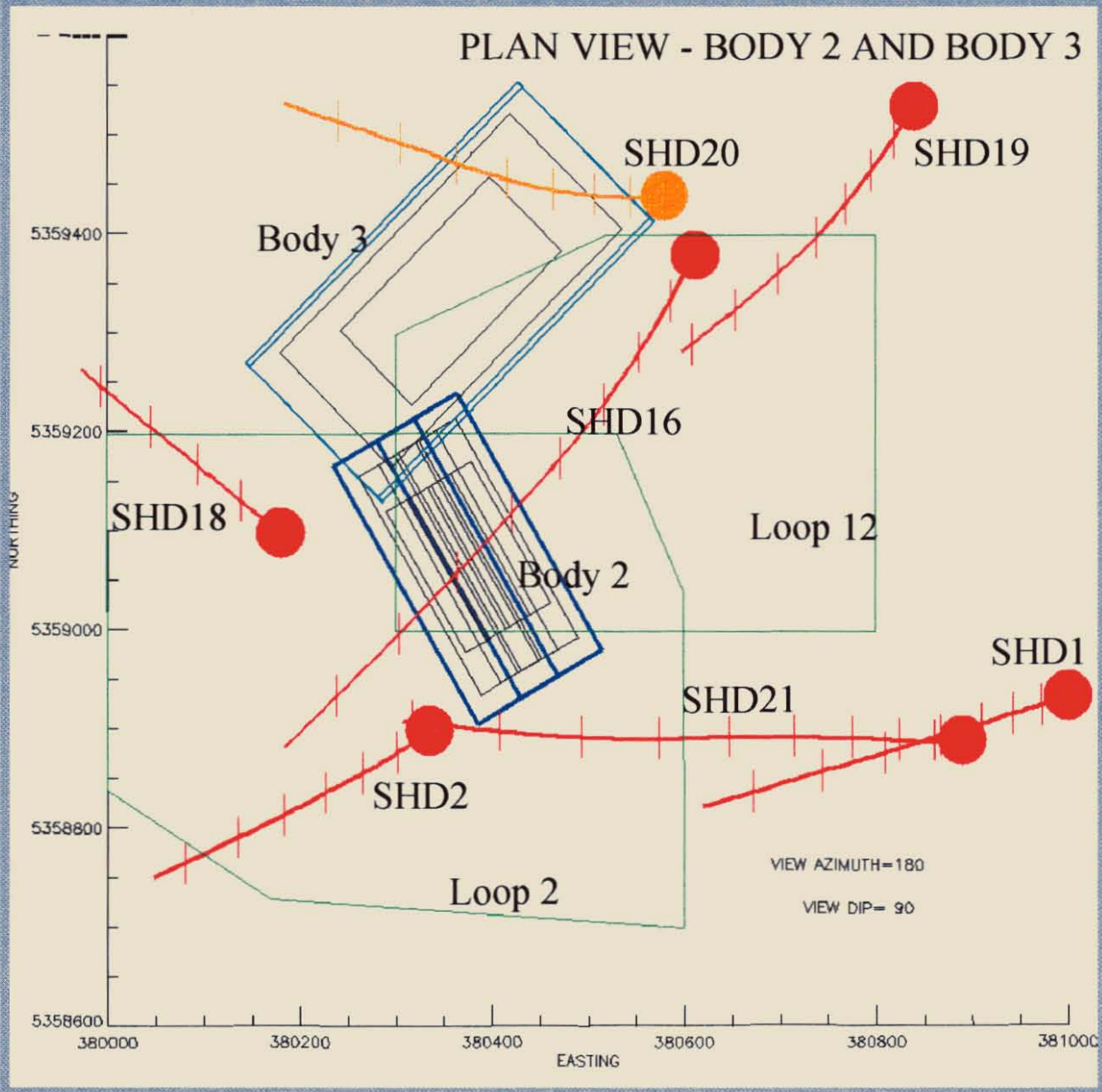
SOUTH HENTY BOREHOLE EM INTERPRETATION : FEB 2000



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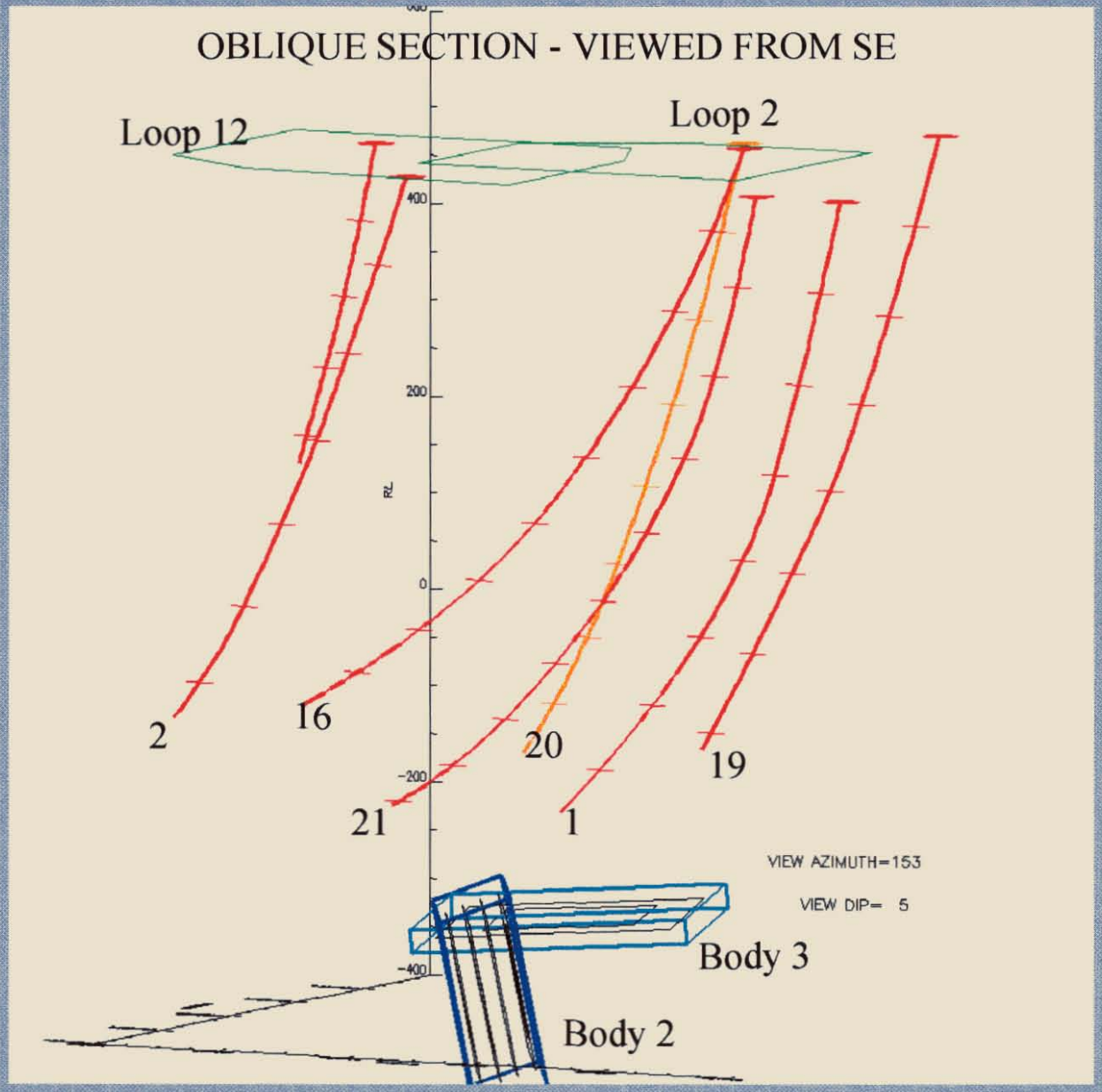
SOUTH HENTY BOREHOLE EM INTERPRETATION : FEB 2000



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DISCUSSION ON CONDUCTORS AS DRILL TARGETS

Body 1 is an attractive target due to its large strike length, and its depth range, which is within that of current drilling. The geometry of the target invites comparison with the Henty zone of Au-Cu mineralisation. Body 1 is a well-defined target between holes SHD21 and SHD2 and I regard it as the first priority for further drilling.

Body 2 is the strongest conductor, and is an attractive target except for its depth (below depths achieved by exploration drill-holes to date, on this prospect). Hole SHD19 is on target to intersect this conductor; if the PVC pipe in hole SHD19 can be removed (not a trivial task) then an additional 400 m drilling will intersect the best conductor yet detected on the prospect.

The weakness of Body 3 as a conductor makes it likely to be a zone of alteration rather than sulfide mineralisation. Since this body is the weakest conductor of the three, and is located at a depth beyond current drill-holes, it is ranked as the lowest priority for further investigations.

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EM INTERPRETATION – SHD21 – Body 1 and Body 2

A previous borehole EM interpretation (Asten,1999) suggested that a conductor lies between holes SHD1 and SHD2. Hole SHD21 was sited to test for this conductor. Three transmitter loops were used in conjunction with this hole (Loops 1,2 and 9, shown on Plate 1), and the conclusion drawn from the data is that ther are in fact two separate conductors in the vicinity of this hole, labelled Body 1 and Body 2 in the previous section.

Evidence for Body 1 is best shown on profiles for holes SHD2, Loop 9, and SHD21, Loop 9 (Figures 1 and 2). The signature of an offhole conductor is clear, about 100m offhole from 670m downhole in SHD21, and 50 to 80 m offhole from 470m downhole in SHD2. The decay rate of this anomaly is shown in Figure 3; it is close to a t^-3.6 decay consistent with a current channelling response. This type of response is expected in view of the large offset of loop 9 from the holes.

Body 1 may have connection with a small electrical conductor which intersects SHD21 at 780m. However the bulk of the conductor is clearly offhole, and has a cross-section geometry constrained by the estimated distances from the two boreholes.

The strike direction of Body 1 is estimated from the U and V components of SHD21, Loop 9. The minimum in U and maximum in V at ~800m implies strike towards north-west with Body 1 located south-west of hole SHD21. Interpretation is complicated by the fact that the signature of Body 2 overlaps the signature of Body 1, over the interval 750m to 900m.

Evidence for Body 2 is best shown on profiles for hole SHD21 Loop1 (Figure 4) , but it is also visible on SHD21 Loop2 (reduced amplitude) and SHD1 Loops 1 and 2. Modelling SHD21 Loops 1 and 2 with an inductive plate target indicates that the body must dip steeply east in order to decouple with Loop2 and thus show the x2 reduction in amplitude observed in field data. The smooth slopes on the anomaly profile, the rate of decay place constraints on size, conductance and distance to the body. Figures 5 and 6 show field and model data for SHD21 Loops 1 and 2, where the model is a plate below the hole, dipping 75 deg east, size 300m (strike) by 200 m, and conductance 25 Siemens. This is an acceptable match in the A-component, but is not satisfactory in the U and V components. Unfortunately, U and V components were not acquired for the better-coupled Loop 1 since the existence of Body 2 was not recognised until later. U and V data for the poorly-coupled Loop 2 are ambiguous and noisy. The U and V components on the older SHD1 Loop 1 and 2 data are not helpful either, since they are excessively noisy. Without U and V data for SHD21 Loop1, the strike angle and strike length of Body 2 are poorly constrained, but the independent knowledge of geological strike, and the existence of significant alteration and mineralisation in hole SHD16 to the north-west, favour the model of a strike to 330 deg. This strike direction produces the geometry for Body 2 as described in the Summary of Interpretation above.

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Body 2 is the strongest conductor located so far on the prospect; it has a TEM decay constant of 0.6 msec (Figure 7).

EM INTERPRETATION – SHD20 – Body 3

The signature of Body 3 is best observed on the profiles for SHD20 Loop 14 (west loop) shown in Figure 8. The anomaly is broad, indicating a large conductor at the base of the hole, at a distance offhole of order 100 to 150 m, and it decays to background by Channel 12, indicating a weak conductor.

The decay of the anomaly at depth 790 m is shown in Figure 9. The time constant is very small (.046 msec), but the sign of the anomaly indicates that an inductive response is the correct interpretation (a current-channelling response would give a positive anomaly).

The anomaly profile is difficult to see on SHD20 with Loop 12 because it is masked by a larger background response. This background response is probably due to the fact that loop 12 was laid on more conductive sediment cover near the lake, whereas loop 14 was laid over hills west of the lake. When the data for the 2 loops are plotted on enlarged and similar scales (Figure 10) it is seen that the anomaly on Loop 12 is similar to, or possibly 30% larger in amplitude than that on Loop 14 (depending on where the background trend is drawn). Modelling to compare coupling between loops 12 and 14 for varying dips, indicates that the dip of Body 3 is in the range zero to 15 deg either direction (ie dipping shallowly north-west or south-east).

Figures 10a,10b show comparisons of field and model data for SHD20 Loop 14, and SHD20, Loop12. The modelled conductor is a 400x200m rectangular plate of 2.4S conductance, striking NE-SW, located east of and below hole SHD20 (see previous Section).

Loop 11 (east) also produces an anomaly indicating existence of a weakly conducting target off the end of the hole. Three-component data is available, but since the anomaly signature is both weak and extending beyond the end of the hole, it is not possible to deduce clear strike information. There is a suggestion in the V-component data that a NE-SW strike may be indicated, but a north-south strike direction is also possible within the ambiguities of the U-V component data at the low-signal levels which apply here.

The most important point about Body 3 is that it is a large flat-lying weak conductor, with sufficient area to allow inductive current circulation, as distinct from the linear pencil-like conductor described for Body 1.

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EM INTERPRETATION – SHD22 – Body 1 down-plunge?

EM data from this hole shows a weak conductor intersected at depth 400 m, with a significant off-hole anomaly at the base of the hole. The intersection at 400 m has a small expression extending off-hole at 425 m depth, consistent with minor mineralisation, flat-lying, extending west from the hole a few tens of meters. There is no obvious correlation between this EM data and the logged alteration type.
The more-significant anomaly, off-hole beyond the base of the hole, is incomplete (extends beyond the base of hole). The character of the anomaly is very similar to that for Body 1 as seen from SHD21, and its location is consistent with the strike direction inferred from SHD21. Figures 11 and 12 show the profile and decay curve for SHD22, Loop 9. The decay has a fitted t^-3.5 decay consistent with current-channelling excitation as deduced for Body 1, seen from hole SHD21 (Figures 2,3). Accordingly, this anomaly is interpreted from axial-component data to be a southerly extension of Body 1, where Body 1 is at depth of order 700 m, at a distance (very roughly) of order 100 m west of the hole; these estimates are very approximate, since we are dealing with an incomplete anomaly extending below the base of the logged hole. This interpretation is supported by the fact that Loop 13 (east) gives corresponding but opposite-sign and lower-amplitude anomalies compared with Loop 9.

The conclusions re SHD22 are however additionally uncertain, since I cannot reconcile the sign of the U and V components acquired with Loop9, with this model. What is clear however is that there is a weak conductor off-hole, beyond the base of the hole. I cannot devise any credible model which does give consistency with signs of the observed partial U and V-component anomalies. In view of the incomplete nature of these anomalies I believe it is not cost-effective to strive further with interpretation of this off-hole anomaly. However if Body 1 is drilled between holes SHD21 and SHD2, and proves of sufficient interest to justify further drilling along strike, then further borehole EM in Hole SHD22, using a central loop over the lake and double-checking of borehole probe sign conventions, would be advisable.

Note added in proof: The anomalies observed for Hole SHD12 Loops 4 and 10, are similar (but opposite in sign) to those observed for SHD22. It is probable that Body 1 as a long linear conductor extends further west (towards the base of Hole SHD12, within 100-200 m of the hole) than is shown in the models in the Summary above. The information from SHD12 reinforces the view that the Body 1 conductor lies west of SHD22, despite the conflicting information apparently given by the U-V components for hole SHD22.

EM INTERPRETATION – NC4 – Body 2 along strike?

EM data from this hole (reported in Asten 1999b) shows a hint of an anomaly signature at the base of the hole, which is similar to that obtained for SHD21 Loop1 (Figure 4), and SHD1 Loop1. The anomaly is incomplete, and one must resist

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temptation to model in detail the non-existent parts of the anomaly. This partial anomaly might be consistent with a conductor along strike (south) from Body 2. However the dubious anomaly could also be explainable by EM diffusion effects in a (slightly) conductive half-space, hence any further investigation of Body 2 should be confined to the vicinity of holes SHD19 and 21.

However the likely location of a conductor off-hole and below/beyond the end of the hole, does lie along strike from the plotted position of Body 2. It is possible therefore that Body 2 has strike extent to the south, although study of (poor) U and V-component data on SHD21 suggested that the body extends north rather than south of hole 21.

RECOMMENDATIONS

1) Drill Body 1 between holes SHD21 and SHD2, at location shown on Summary Interpretation, Section 5359400N.
2) Log SHD21 with Loop 2, 3-component, using a Geonics DHEM system, in order to tie down location of Body 2 more precisely.
3) Re-Log SHD22 Loop9 with the Geonics DHEM 3-component system, in order to resolve ambiguities which appear to exist in the 3-component data acquired with the Crone system.
4) Drill Body 1 at 200 m intervals along strike (two additional holes) on Sections 5359200N and 5359000N.
5) Drill Body 2 via an extension of hole SHD19.

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Hill, R., and Vicary, M., 1999, 1998-1999 Annual report, Tasmanian gold project, Anthony EL 19/98, Part 1, Anthony Road Area: TCR 99-nnnn.

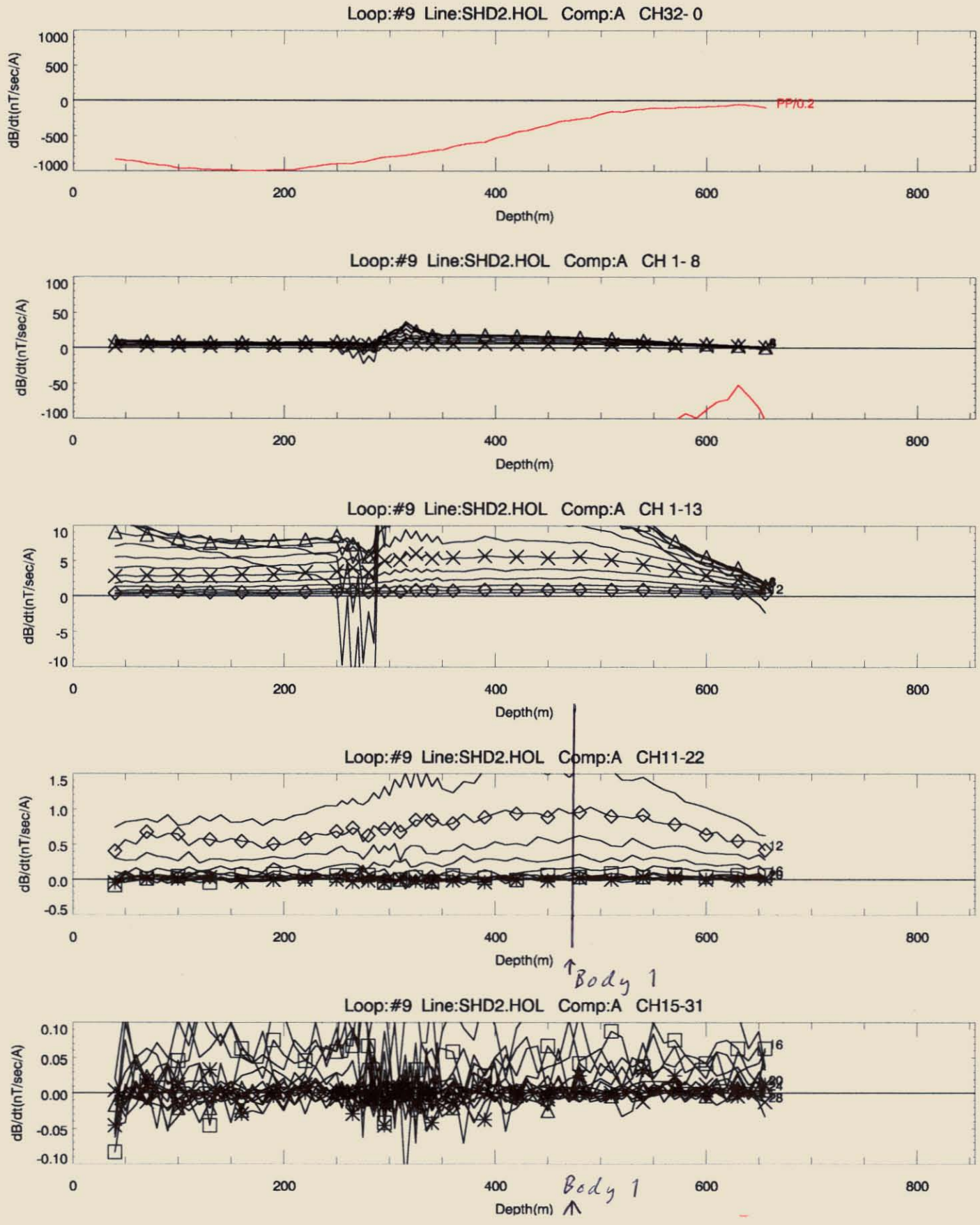

Fig. 1. Anomaly signature of Body 1.

650331

Goldfields Ltd	
South Henty. Borehole EM	
Crone PEM. Tx Frequency 12.5 Hz	
Window Set Ch1-31	
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Drawn 26/ 6/1999	

650332

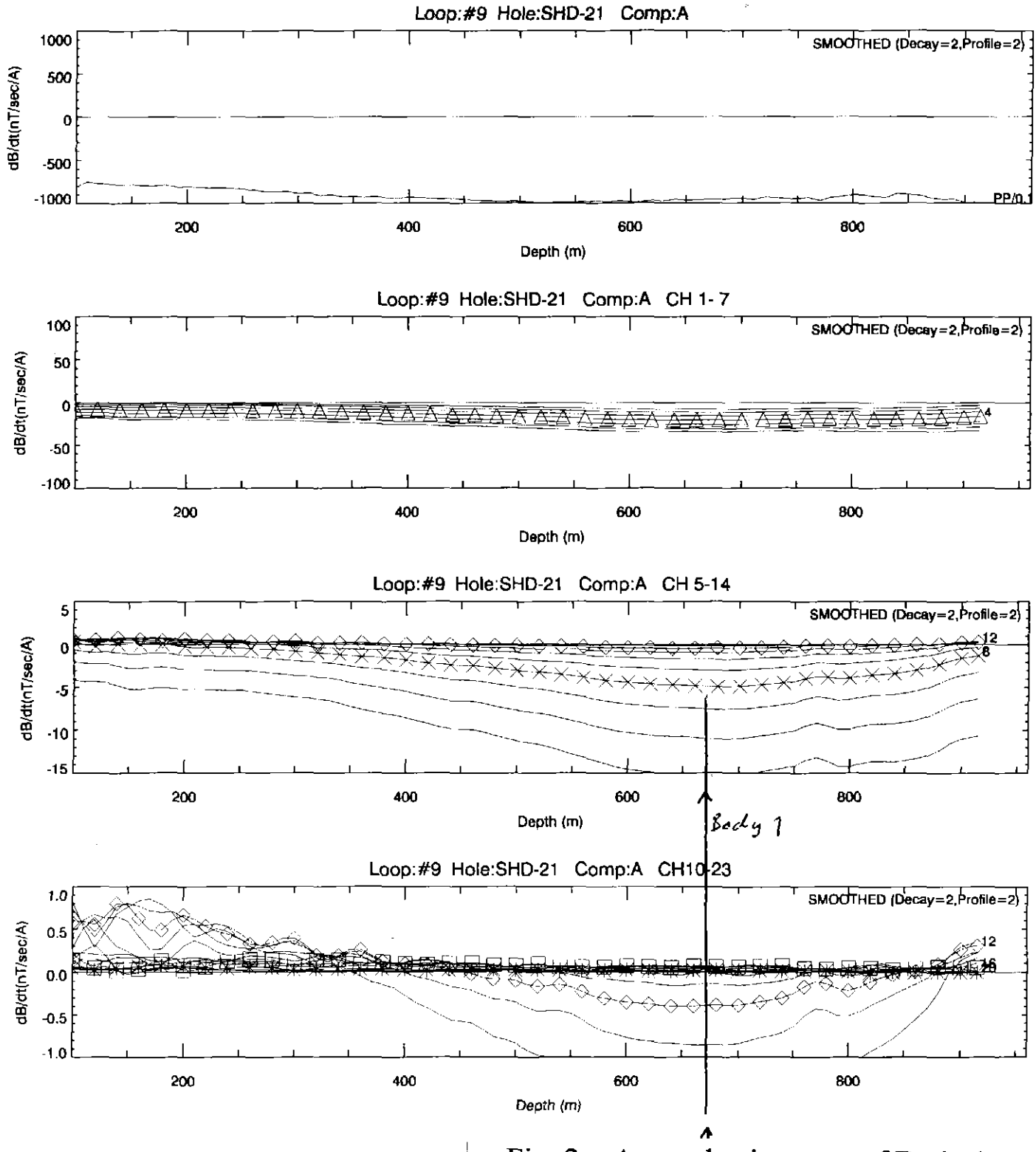


Fig. 2. Anomaly signature of Body 1.

Goldfields Ltd	
South Henty. Borehole EM Apr 1999.	
Crone PEM. Tx Frequency 12.5 Hz	
Window Set Ch1-31	
FLAGSTAFF GEOCONSULTANTS	
Drawn 2/ 2/2000	

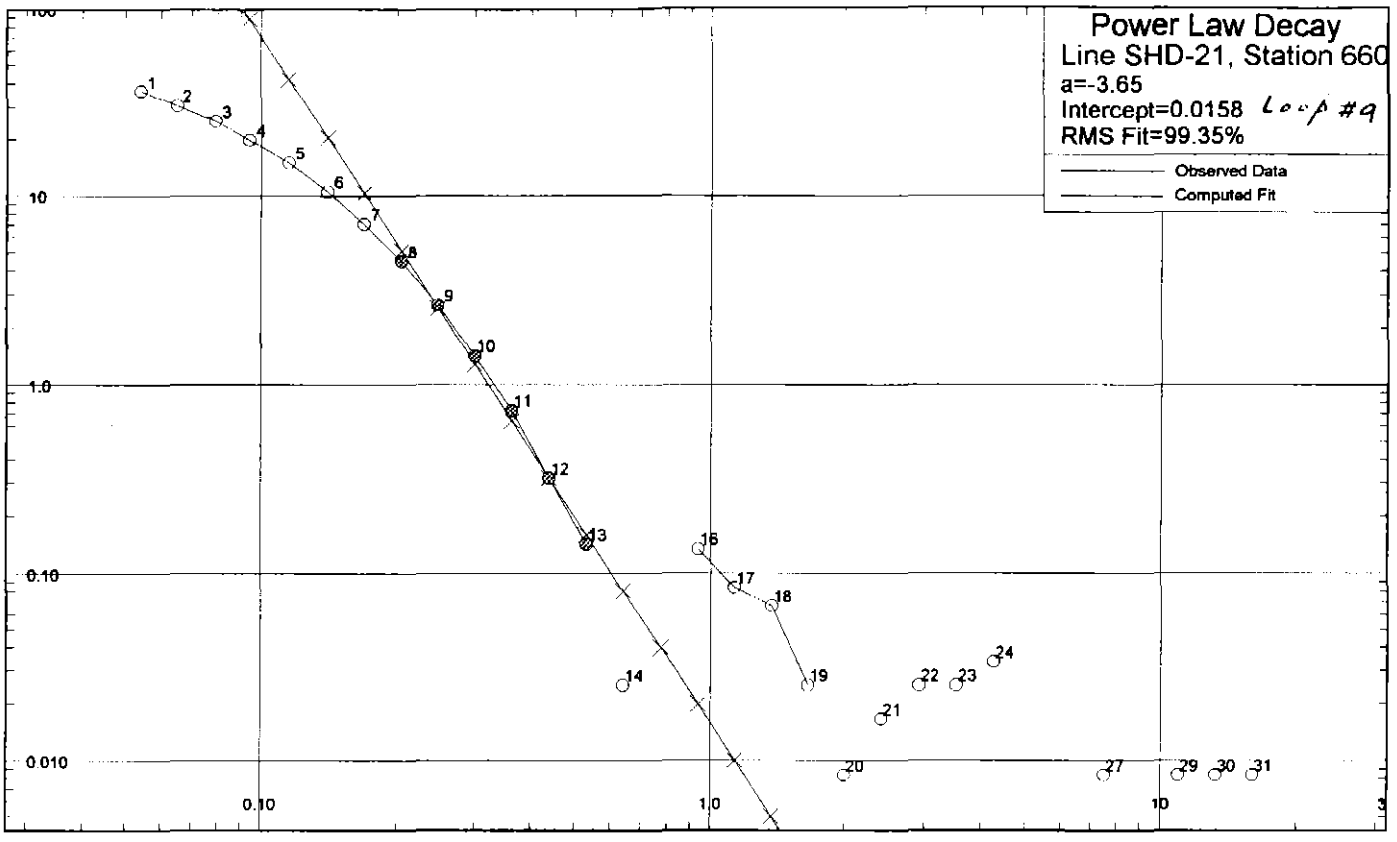
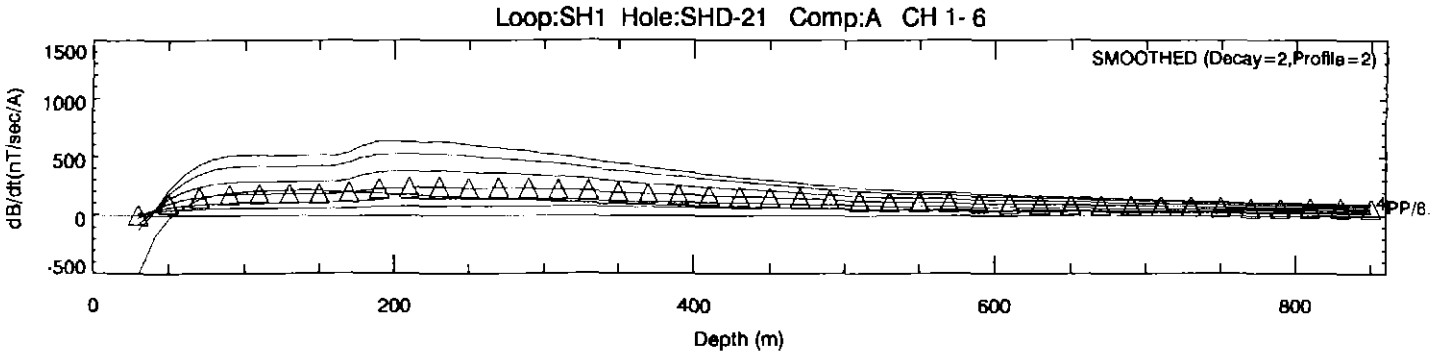
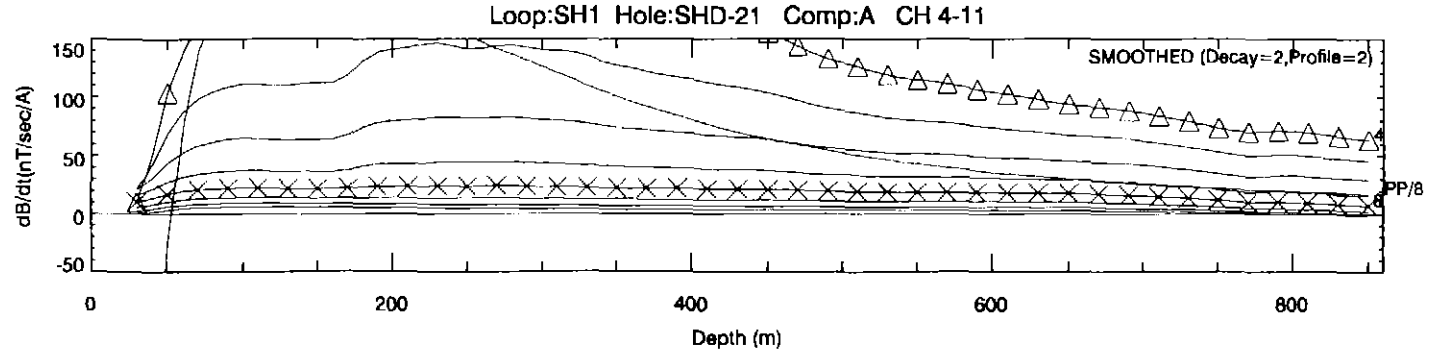
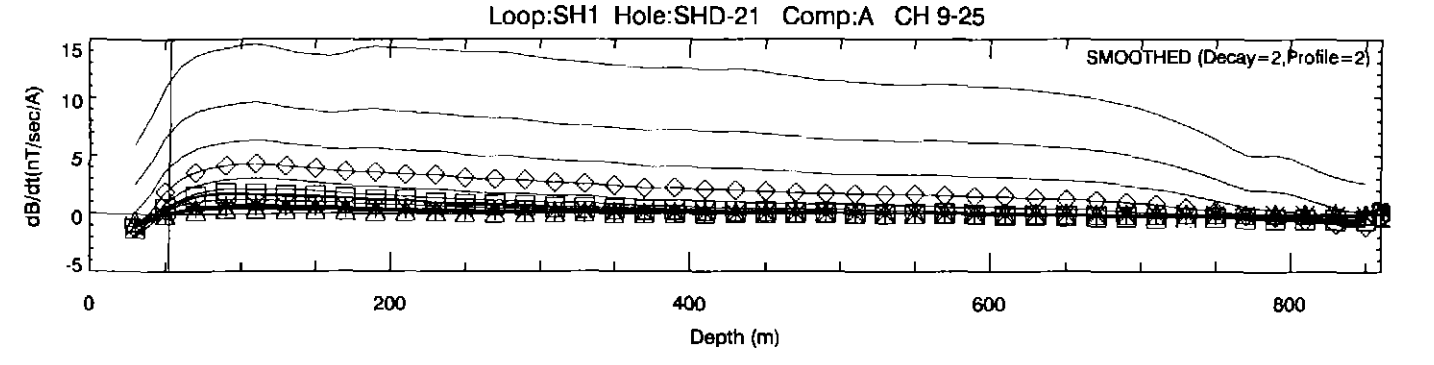


Fig. 3. TEM decay for Body 1.

650334







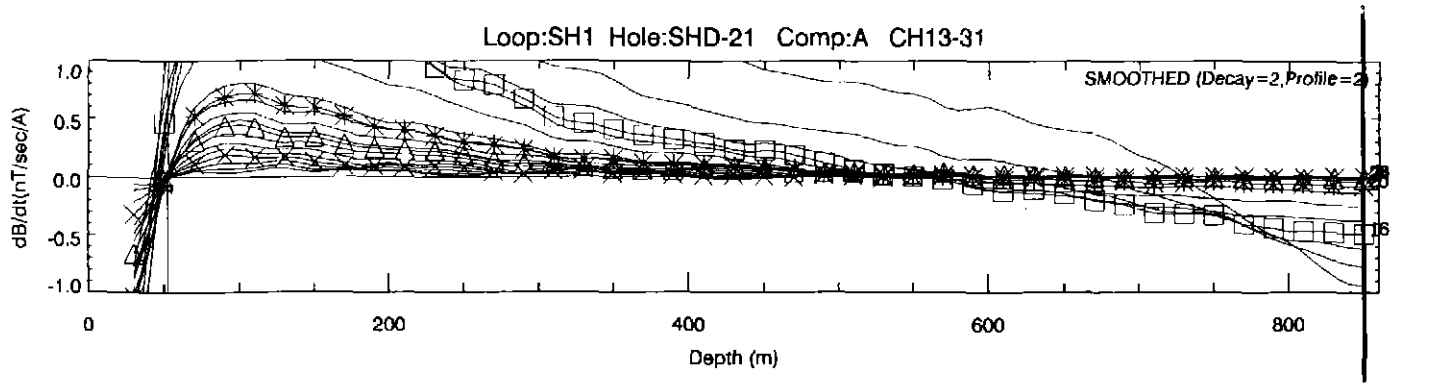


Fig. 4. Anomaly signature of Body 2

Body 2

Goldfields Ltd	
South Henty. Borehole EM Apr 1999.	
Crone PEM. Tx Frequency 12.5 Hz	
Window Set Ch1-31	
FLAGSTAFF GEOCONSULTANTS	
Drawn 2/ 2/2000	

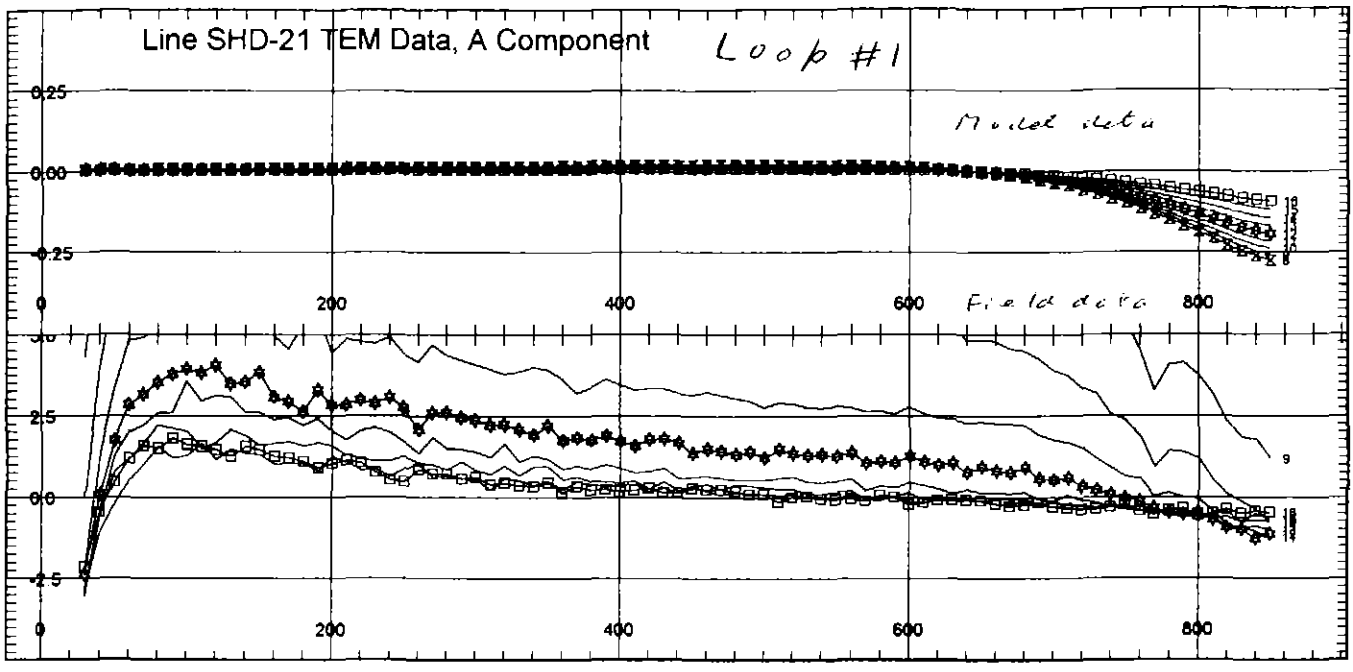


Fig. 5. Field and A-component model data for Body 2, Loop 2. EM coupling is best with Loop2.

650335

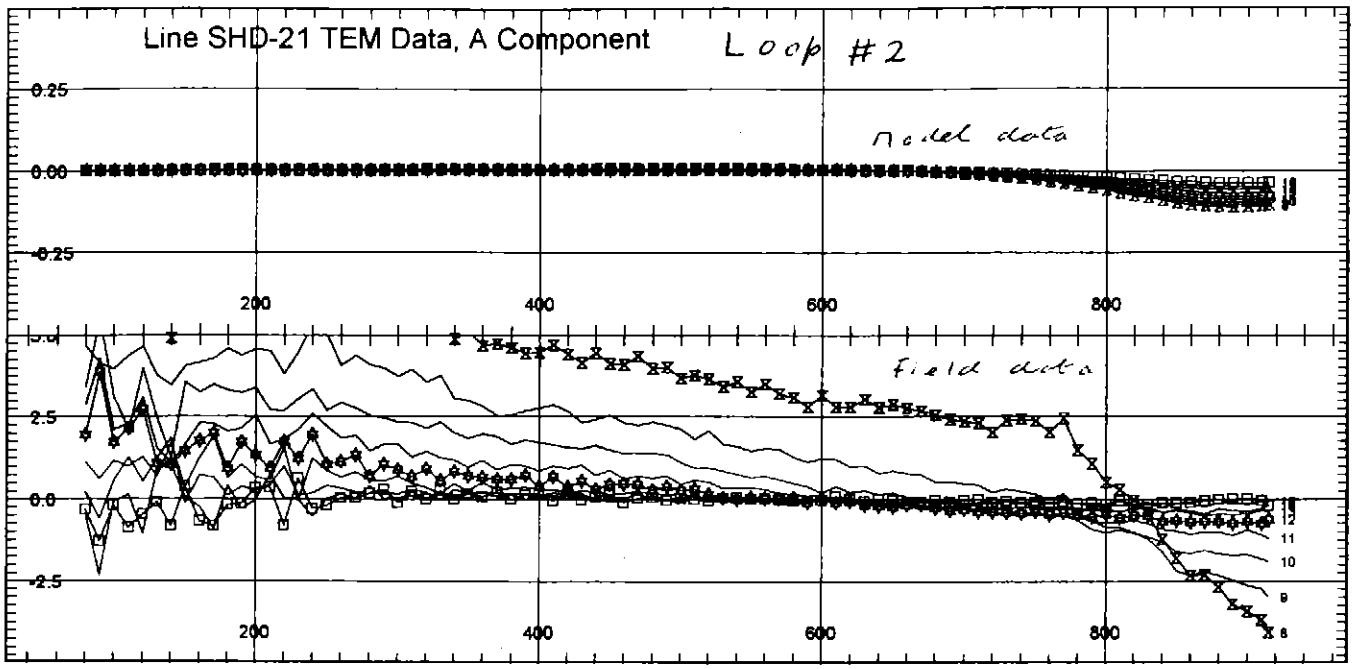
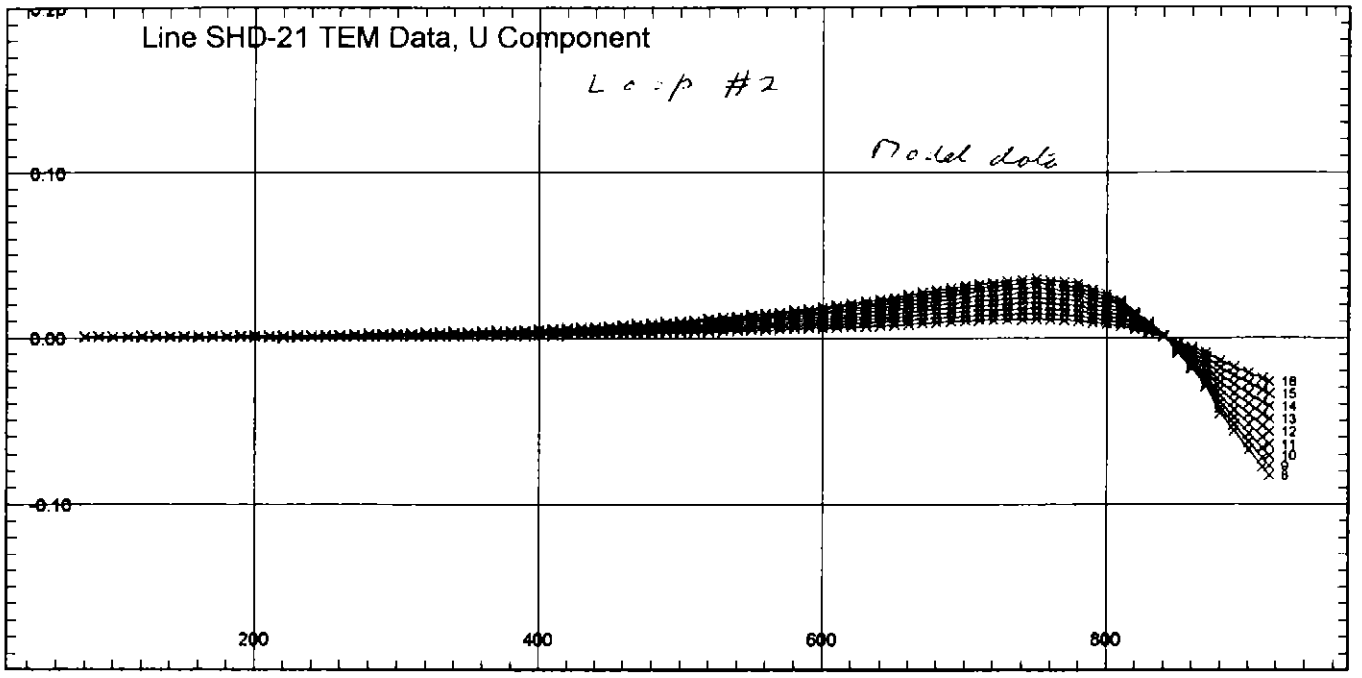


Fig. 6a. Field and A-component model data for Body 2, Loop1.

650336



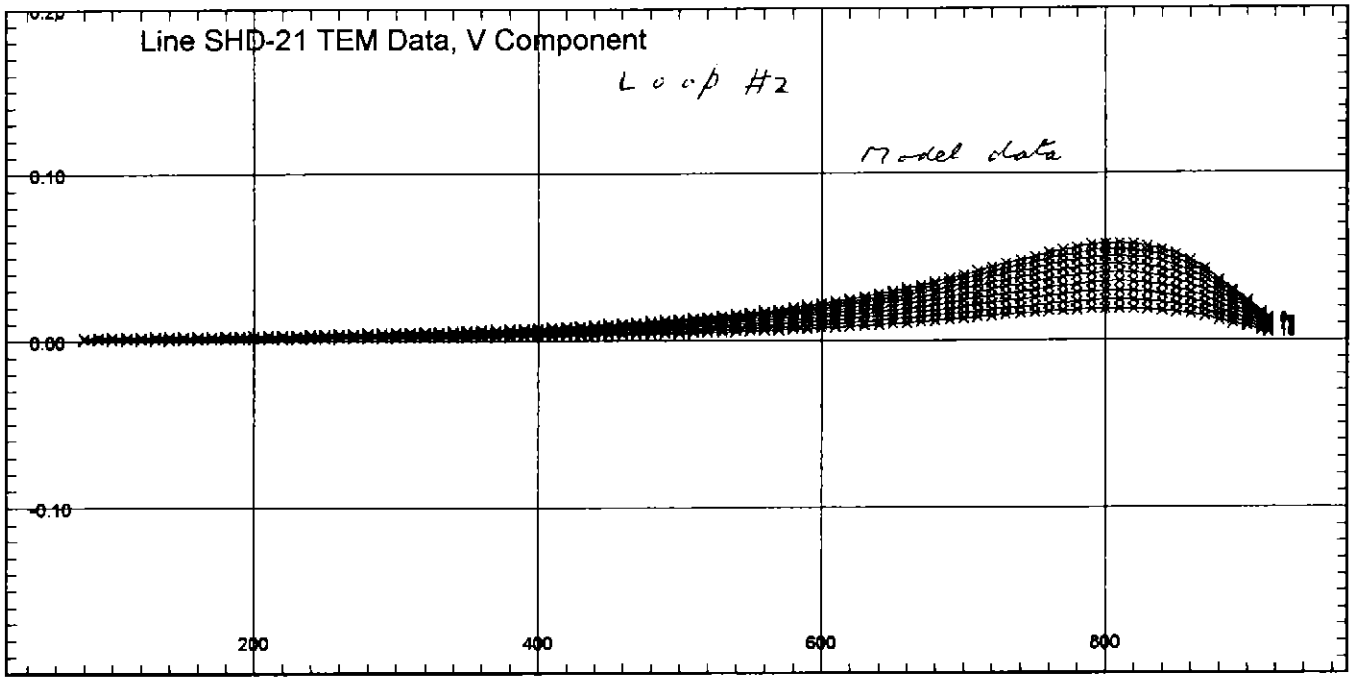


Fig. 6b. U-V components of model data for Body 2, Loop1.

650337

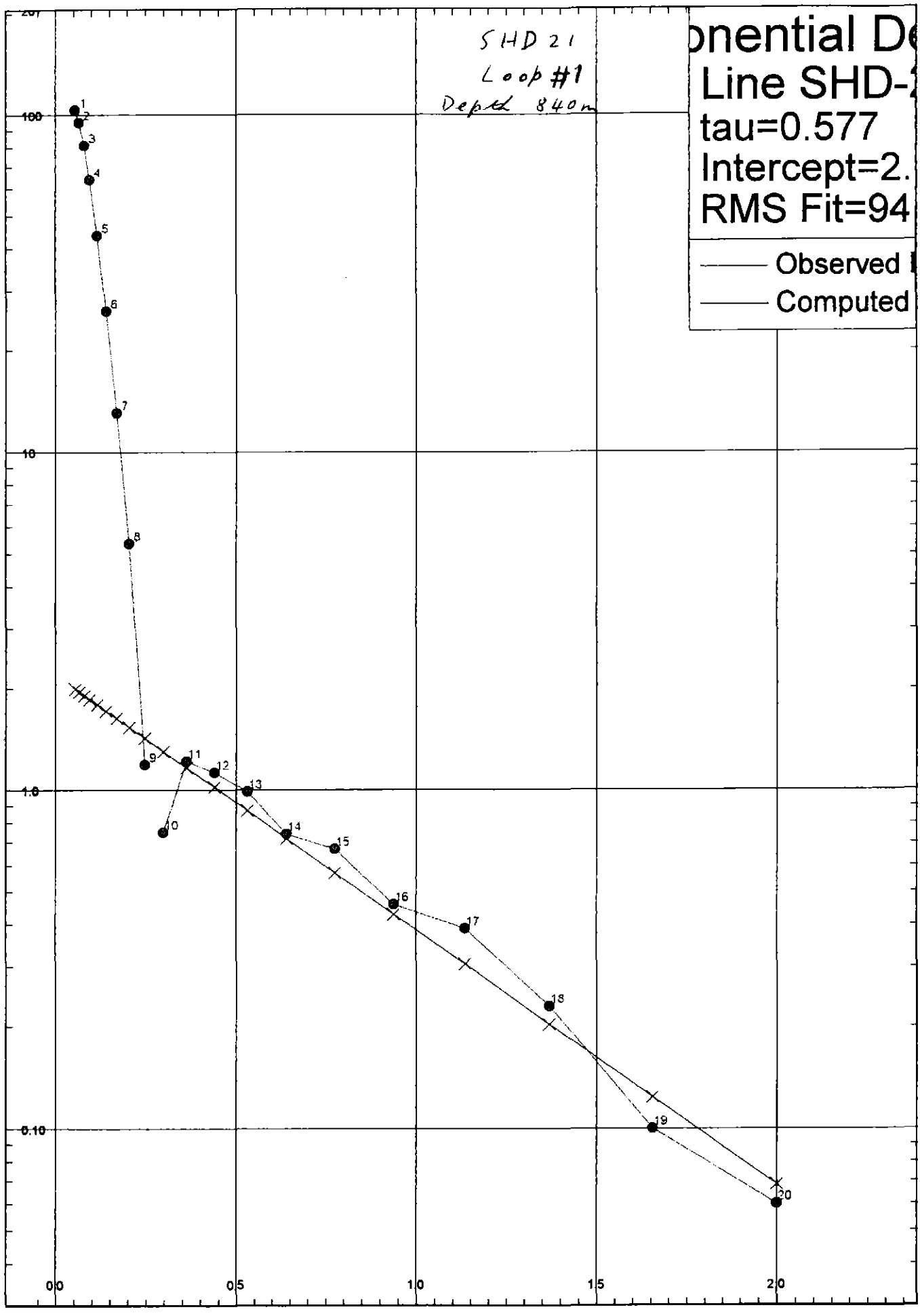


Fig. 7. TEM decay for Body 2.

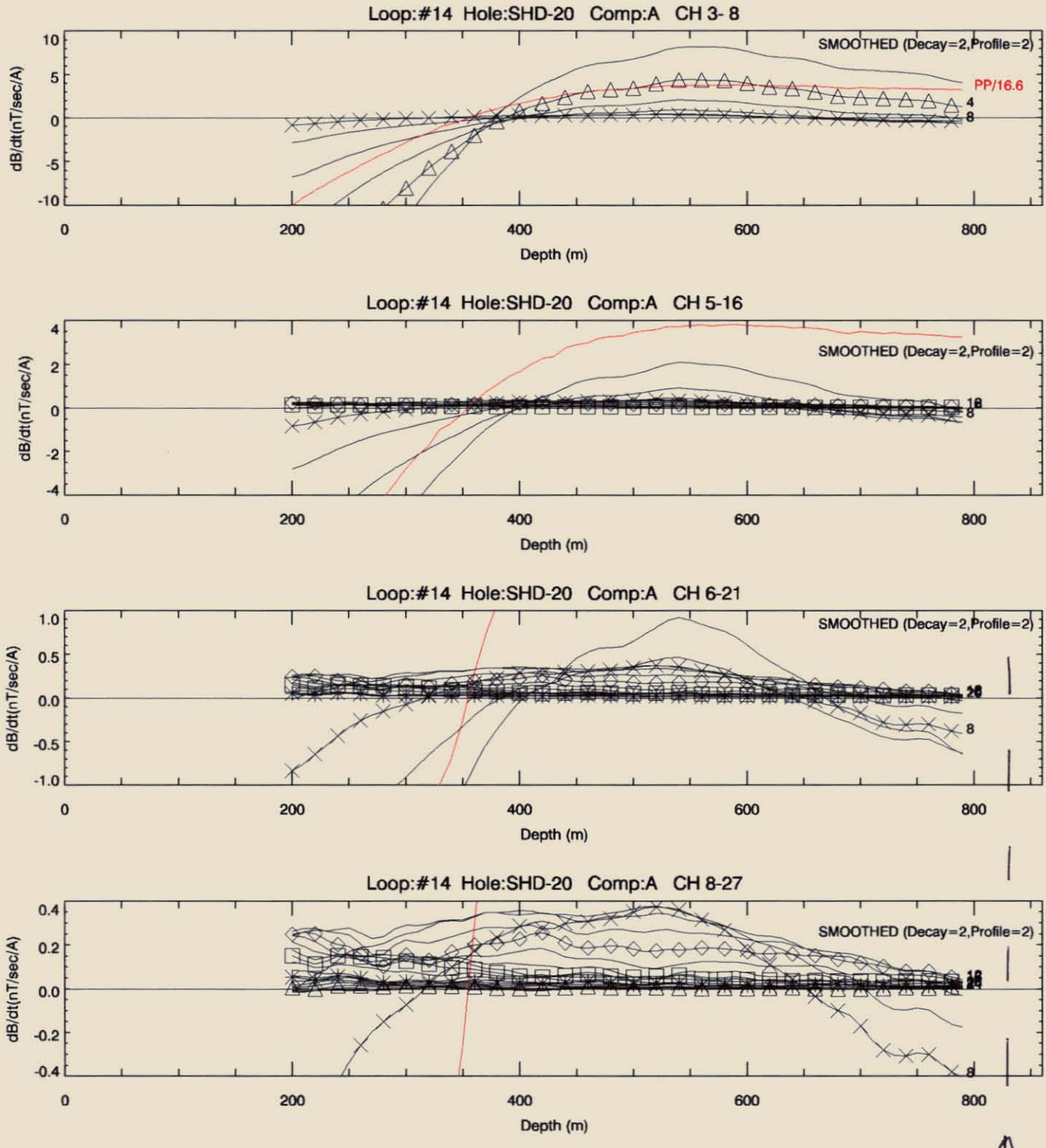


Fig. 8. Anomaly signature of Body 3.

Body 3

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FLAGSTAFF GEOCONSULTANTS Drawn 30-Mar-2000	

650339

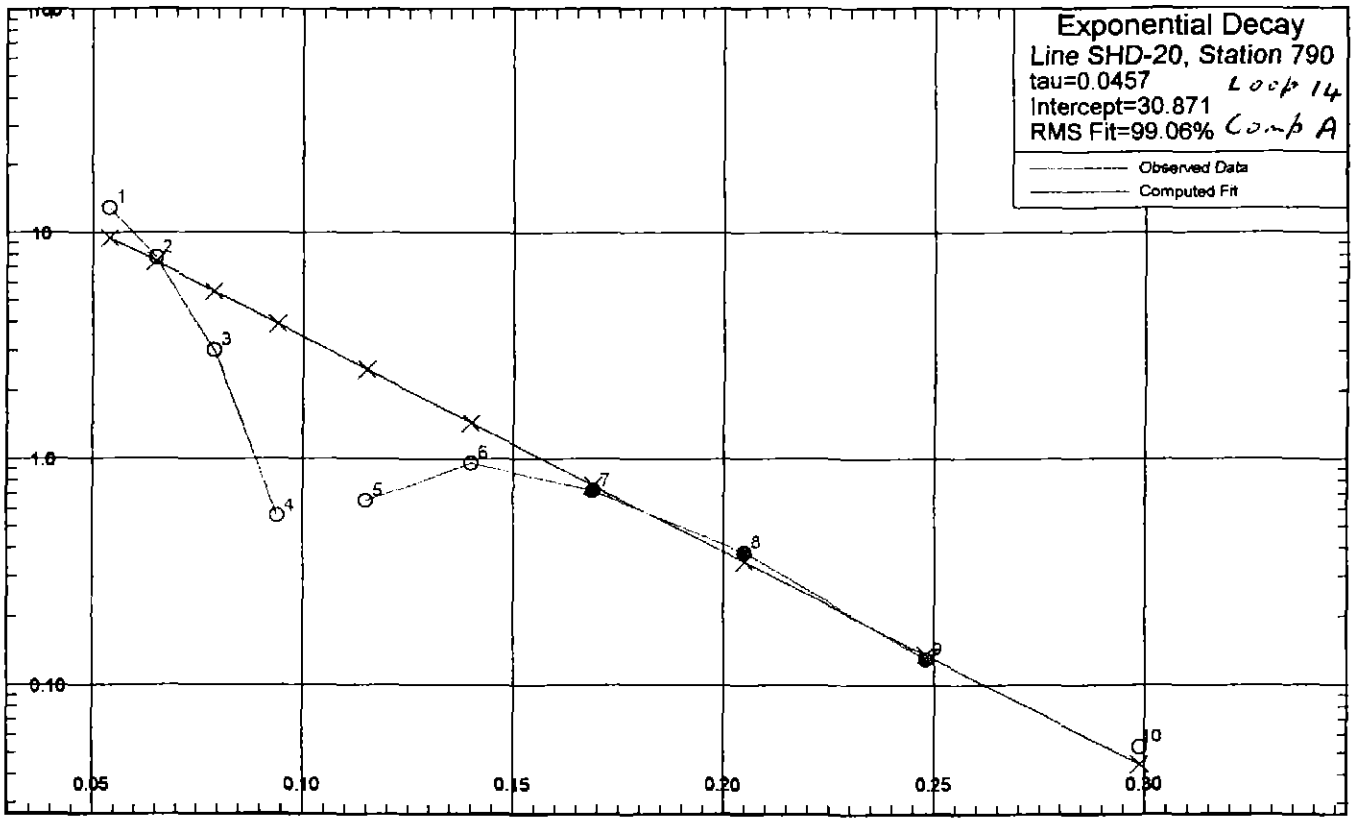

Fig. 9. TEM decay for Body 3.

650340

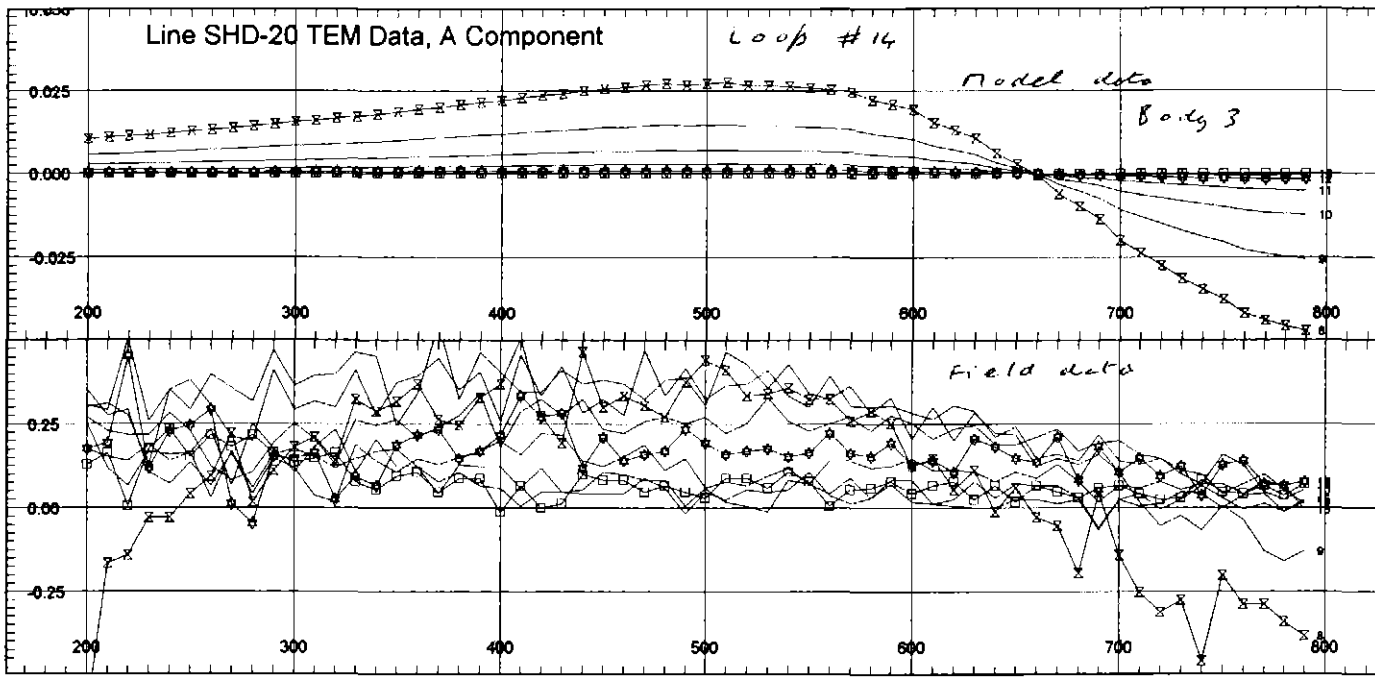

Fig. 10a. Field and A-component model data for Body 3, Loop 14. EM coupling is best with Loop 12.

650341

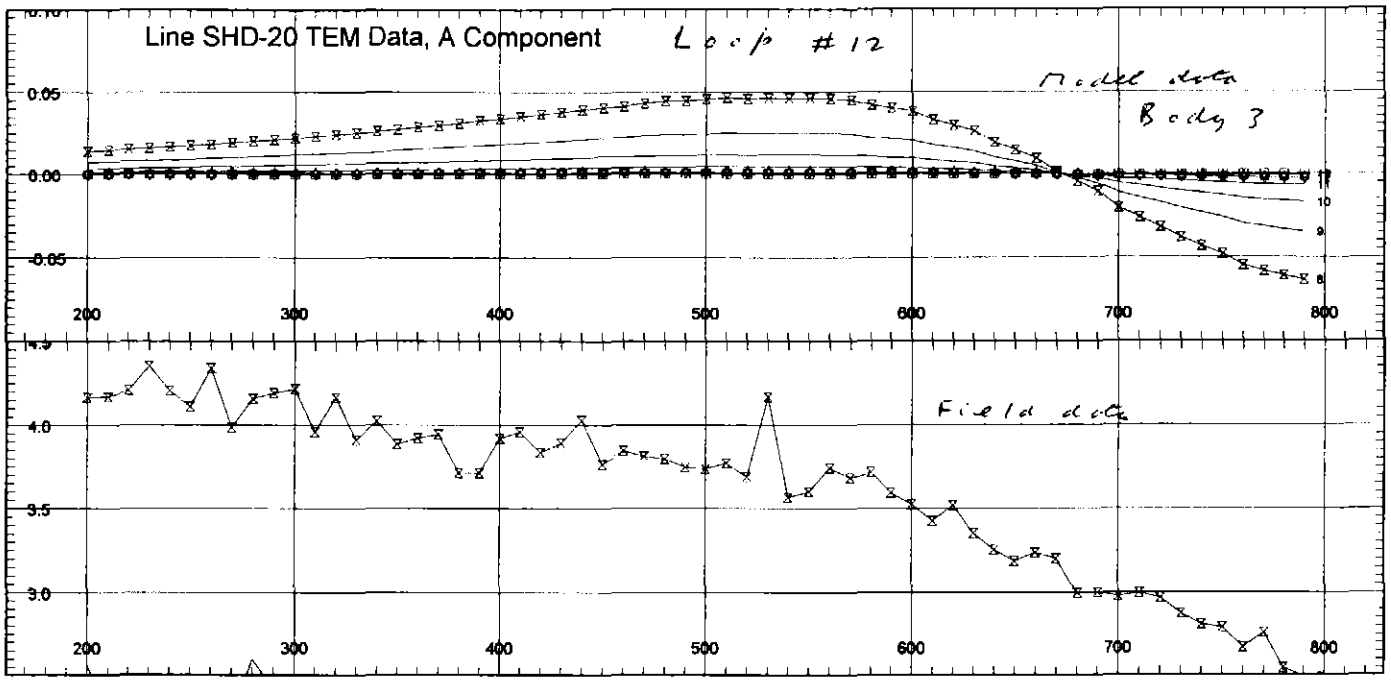

Fig. 10b. Field and A-component model data for Body 3, Loop 12.

650342

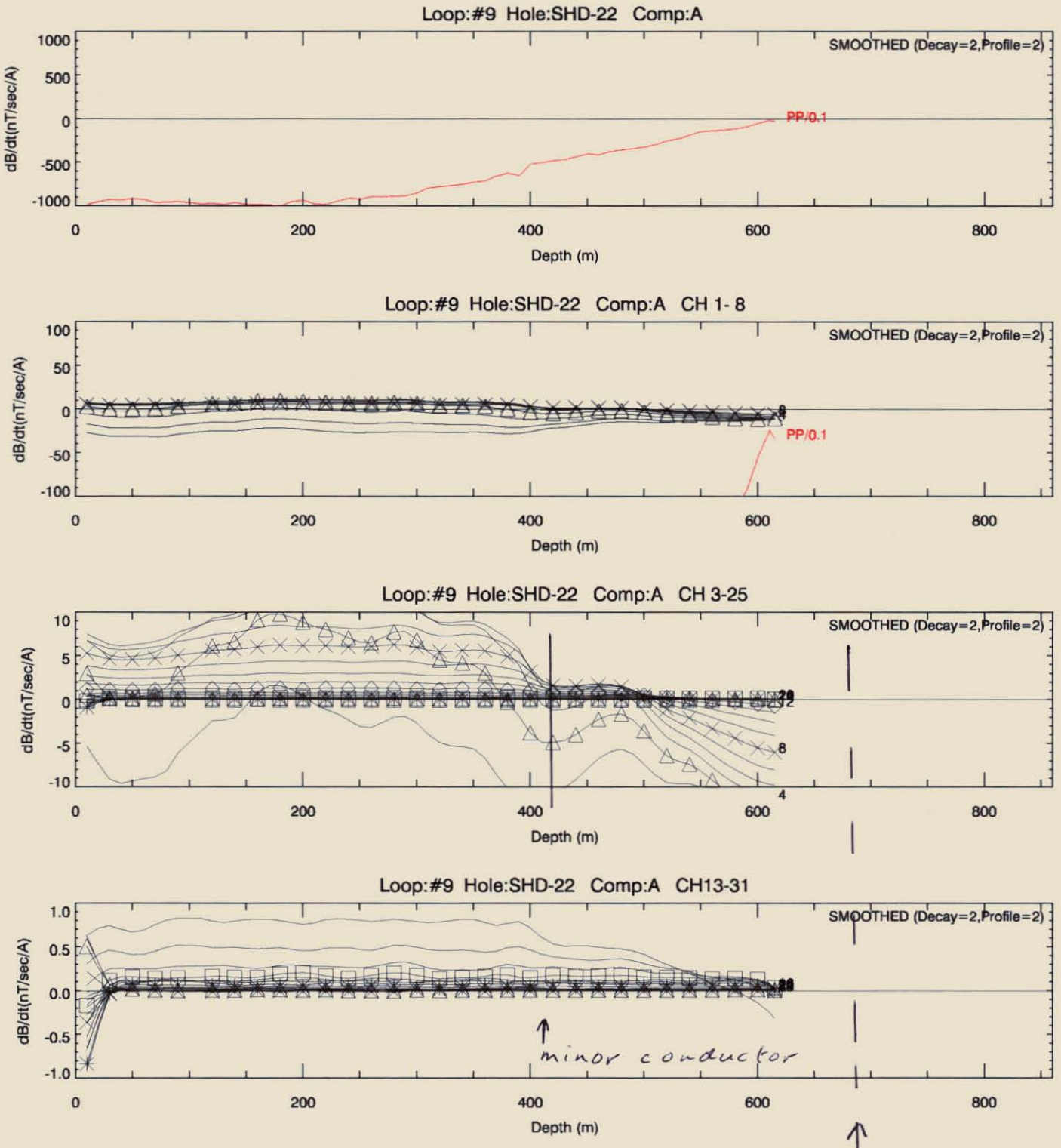

Fig. 11. Anomaly signature of Body 1 at hole SHD22.

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South Henty. Borehole EM Apr 1999.	
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650343

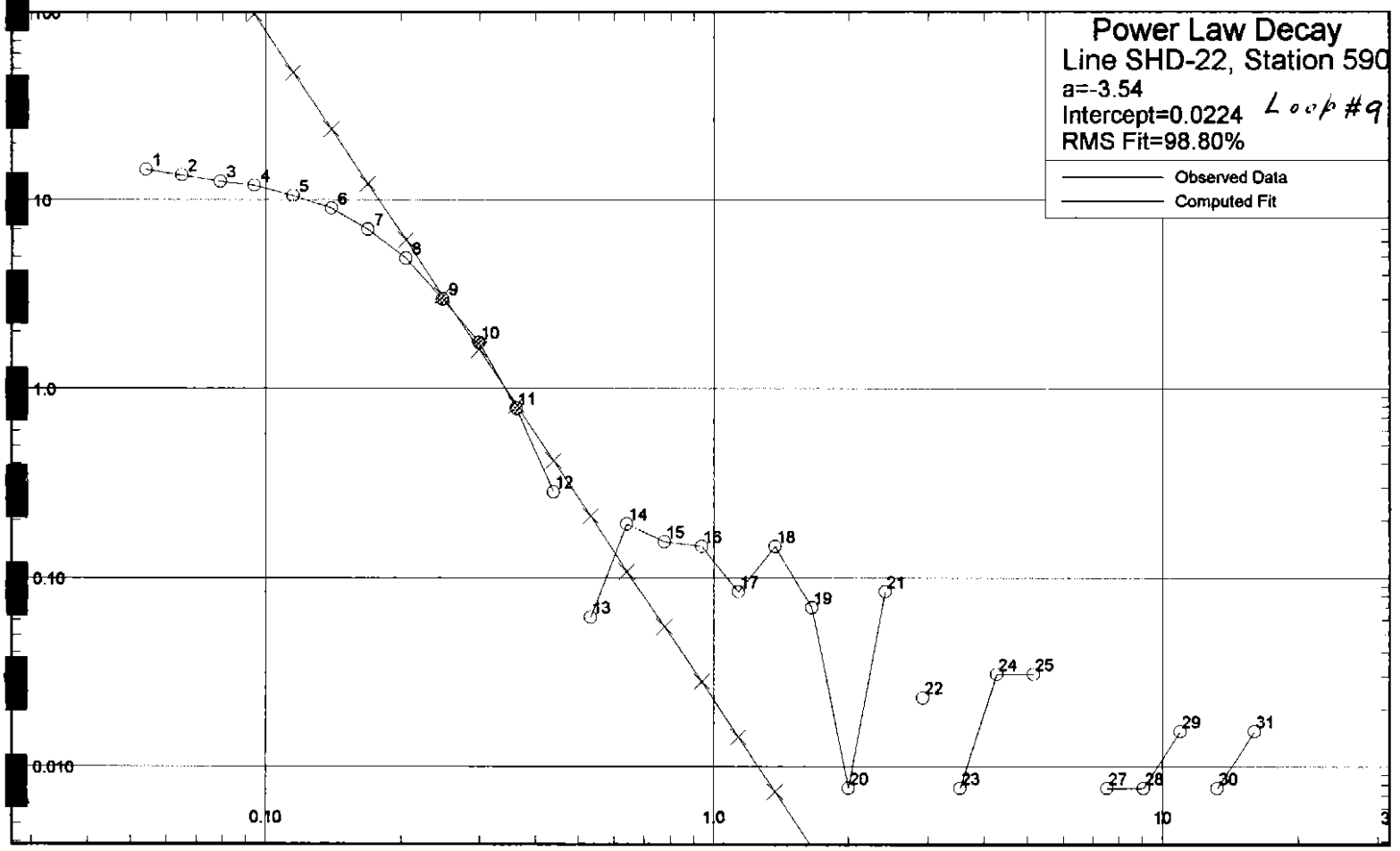


Fig. 12. TEM decay for Body 1 at hole SHD22.

650344

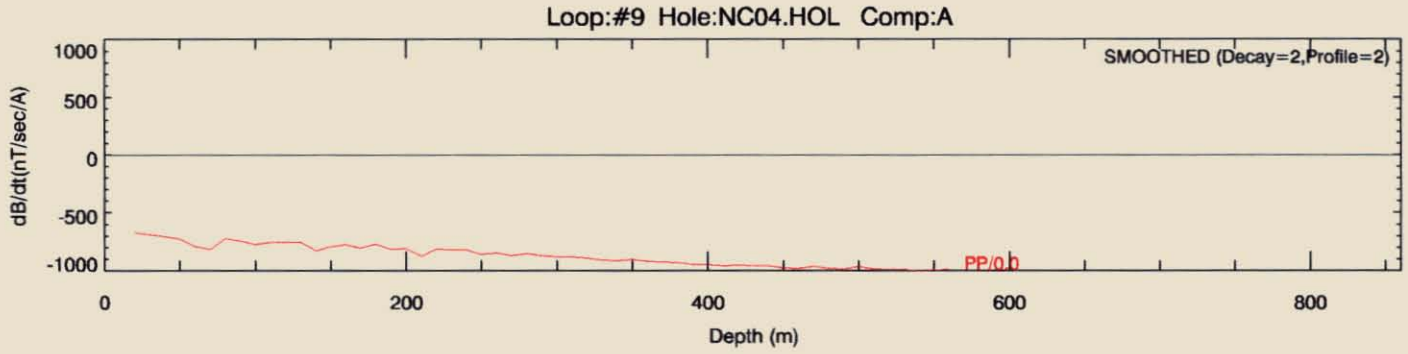
Flagstaff GeoConsultants

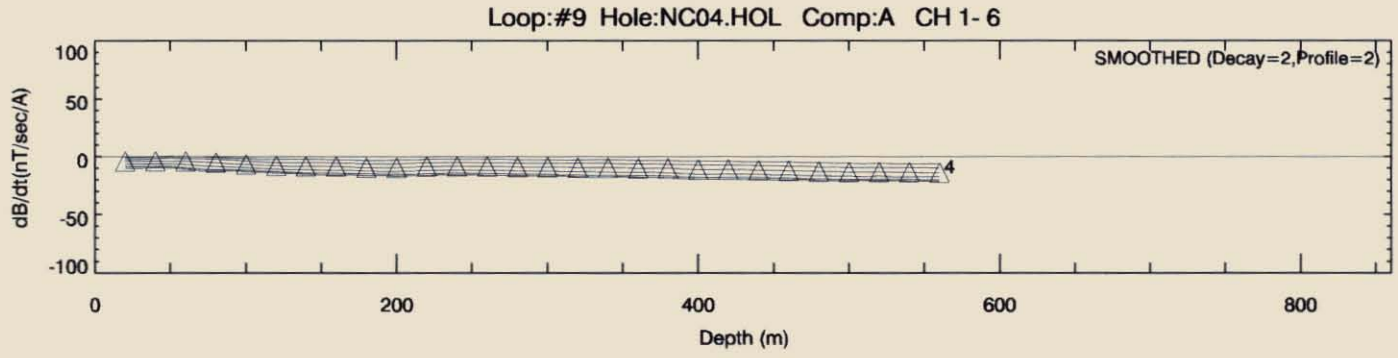
APPENDIX

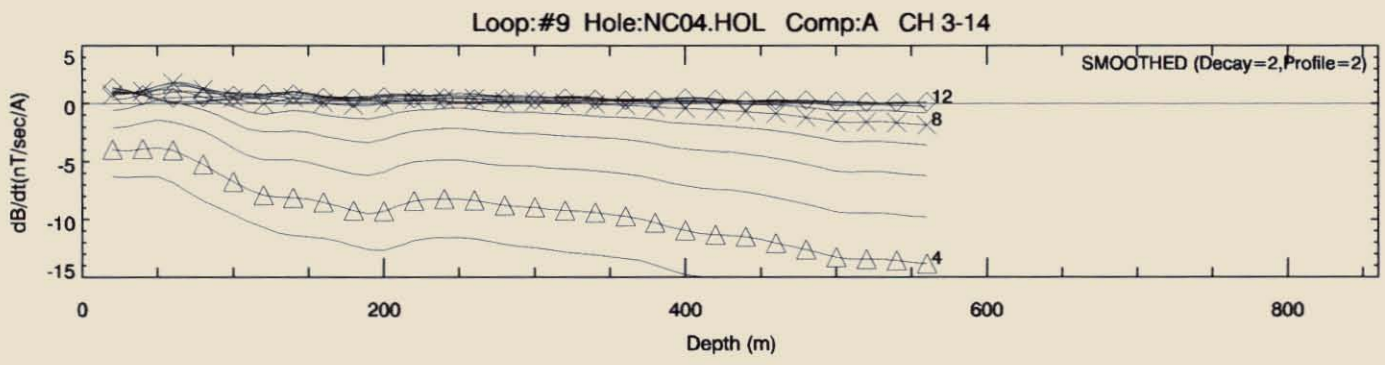
DHEM DATA 2000

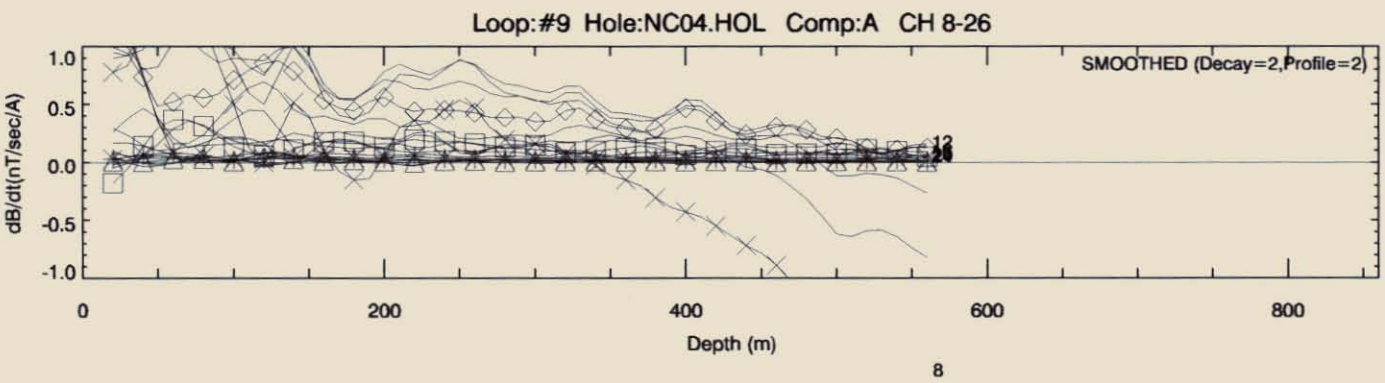
Flagstaff GeoConsultants Pty. Ltd. (ACN 074 693 637)
Suite 2, 337A Lennox Street, (PO Box 2236) Richmond South, Victoria, 3121 Australia
Phone: +61 3 9421 1000 Fax +61 3 9421 1099
Email: postman@flagstaff-geoconsultants.com.au WebSite: www.flagstaff-geoconsultants.com.au

650346









8

Goldfields Ltd	
South Henty. Borehole EM Jan 2000.	
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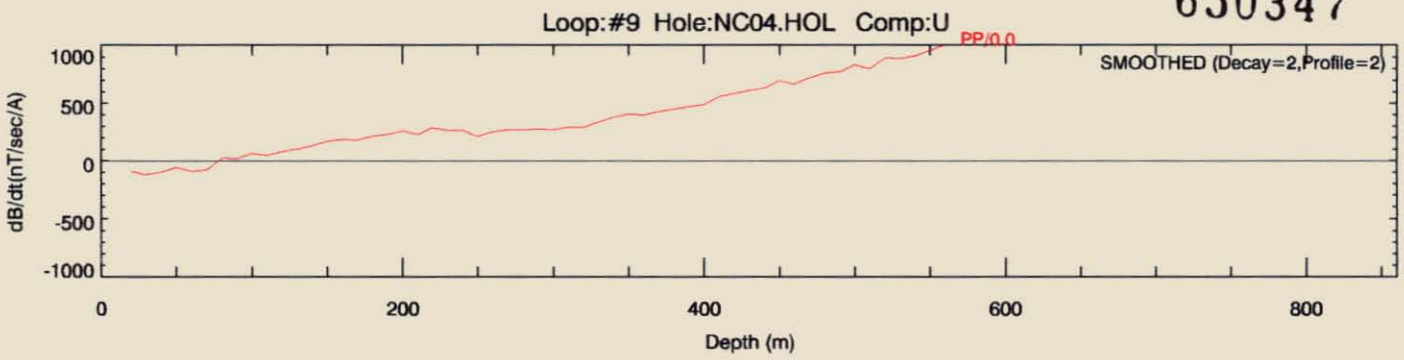
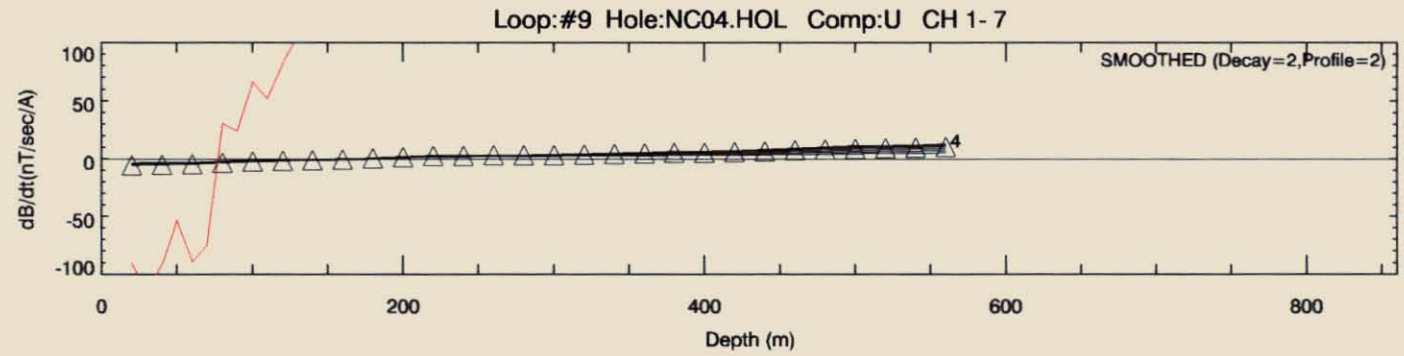
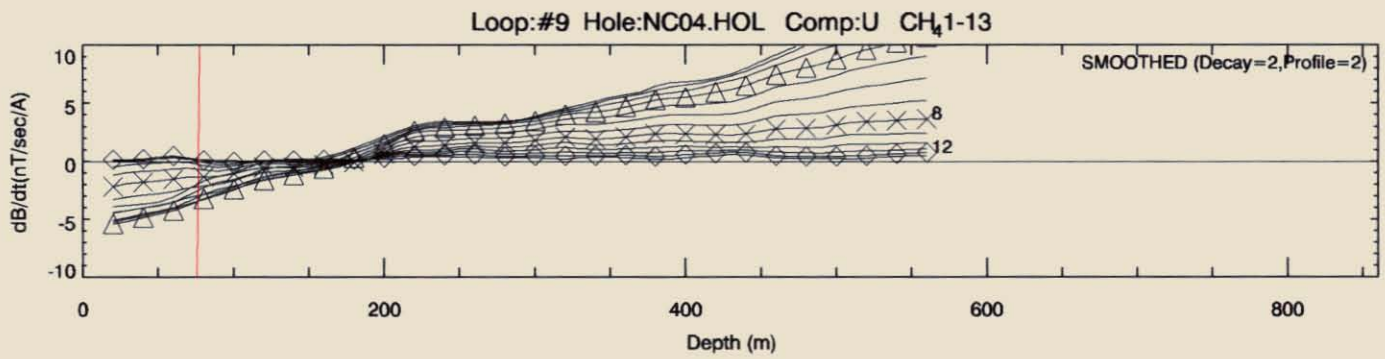
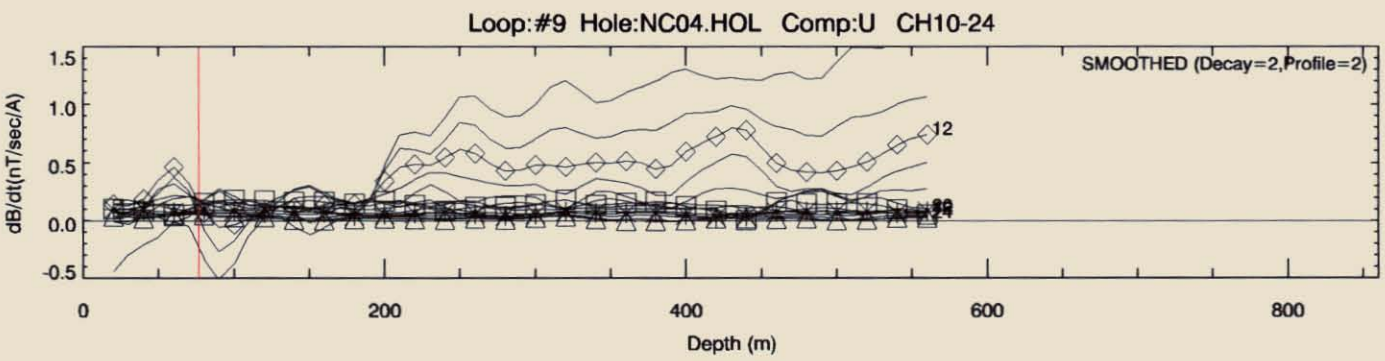
Window Set Ch1-31	
FLAGSTAFF GEOCONSULTANTS	
Drawn 4-Apr-2000	

650347



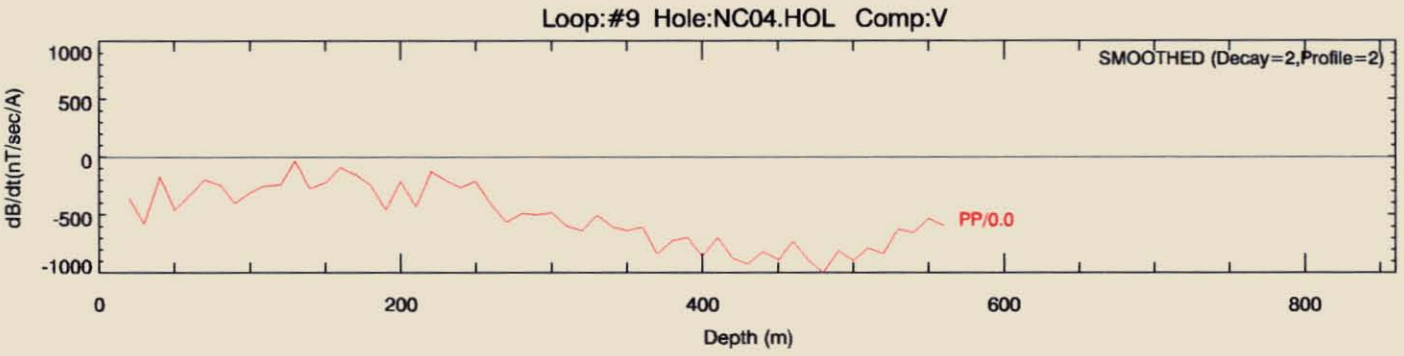


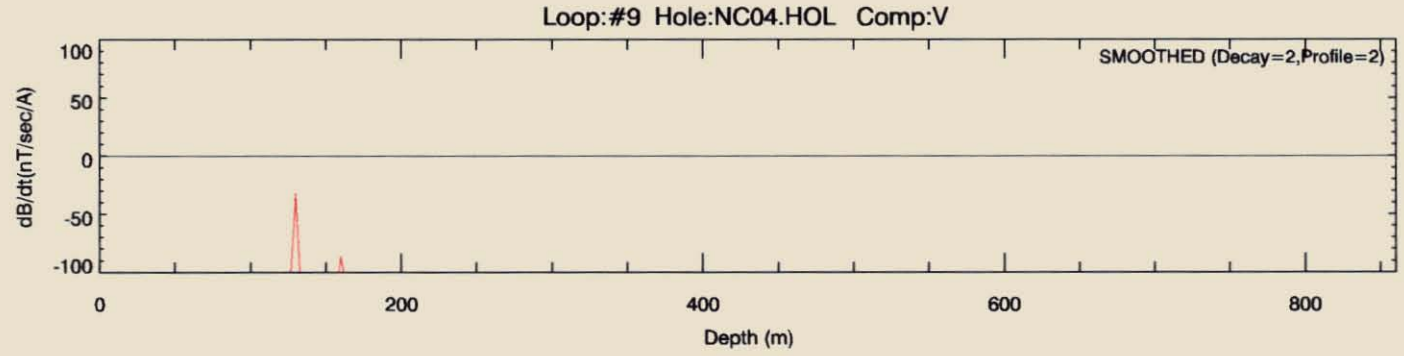


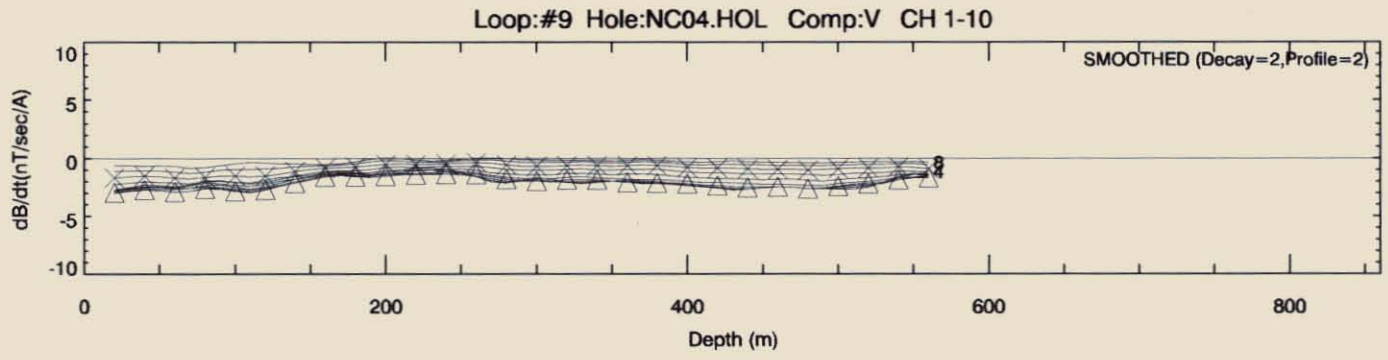


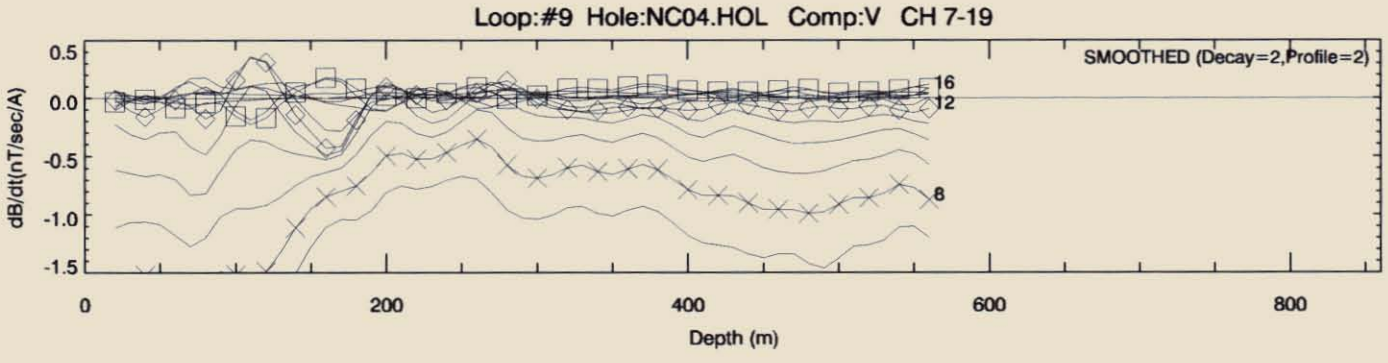
Goldfields Ltd	
South Henty. Borehole EM Jan 2000.	
Crone PEM. Tx Frequency 12.5 Hz	
Window Set Ch1-31	
FLAGSTAFF GEOCONSULTANTS	
Drawn 4-Apr-2000	

650348



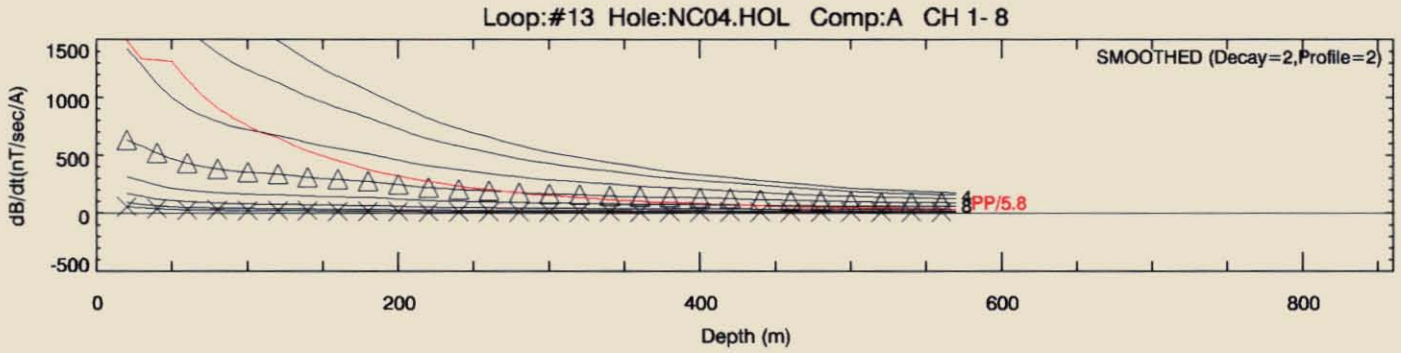


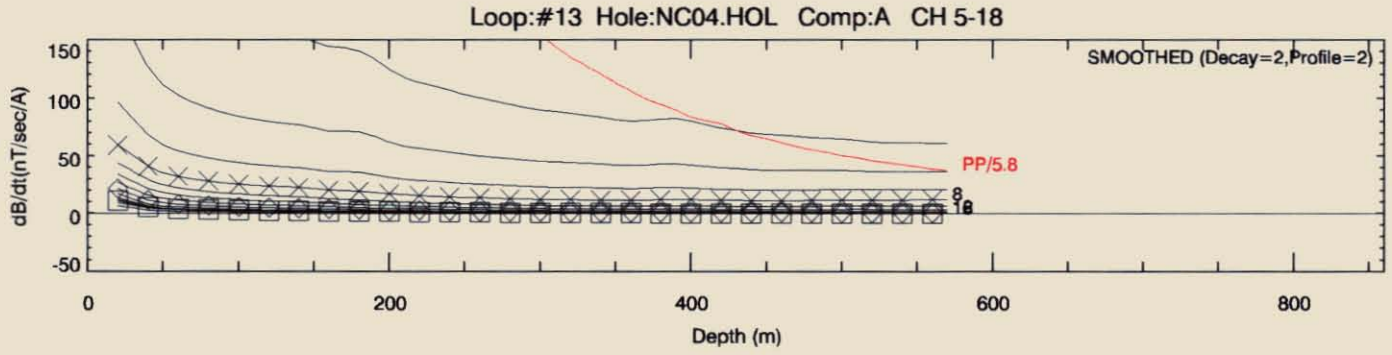


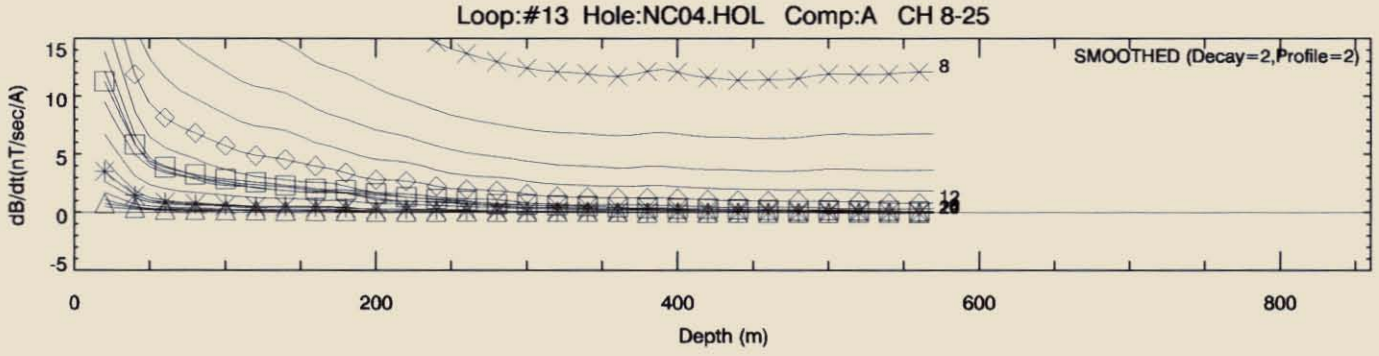


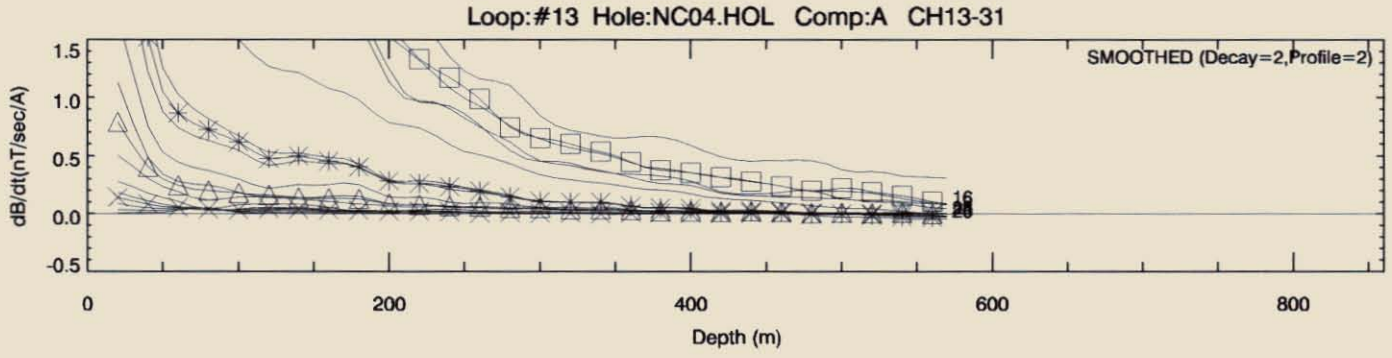
Goldfields Ltd	
South Henty. Borehole EM Jan 2000.	
Crone PEM. Tx Frequency 12.5 Hz	
Window Set Ch1-31	
FLAGSTAFF GEOCONSULTANTS	
Drawn 4-Apr-2000	

650349



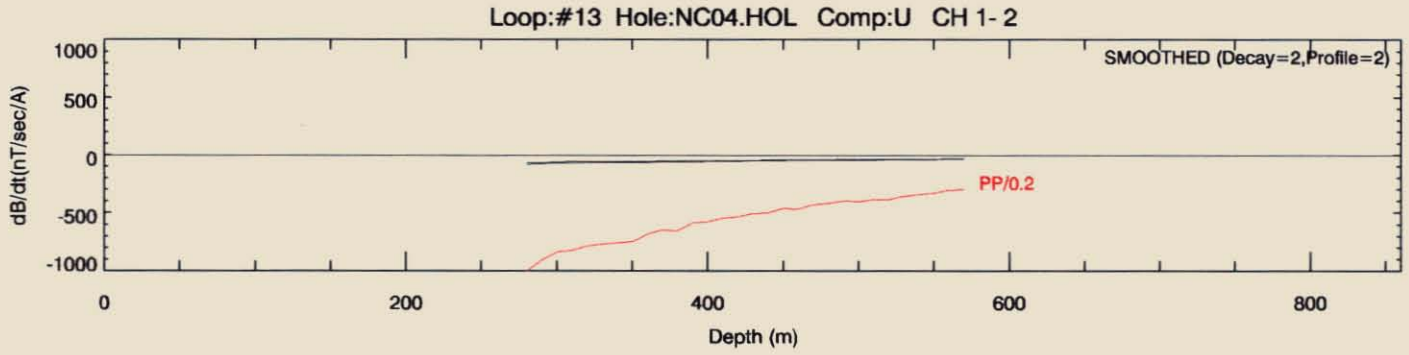


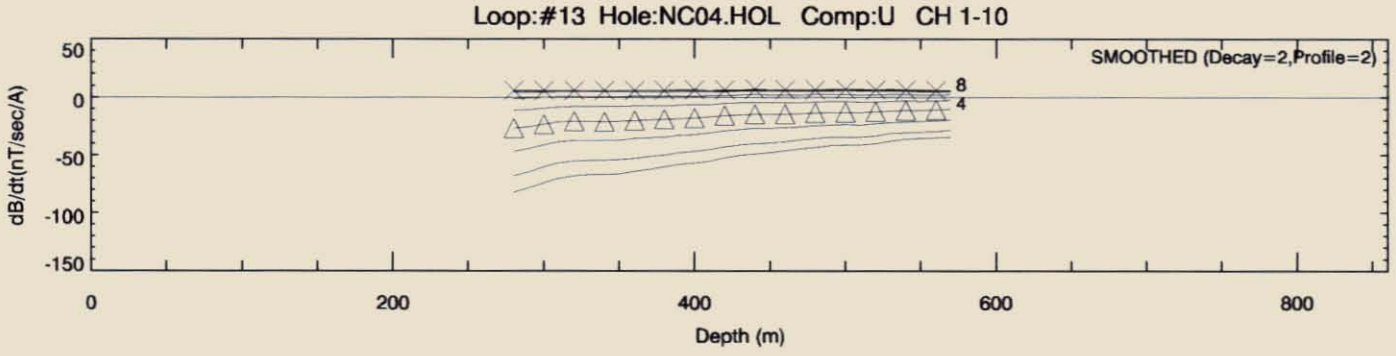


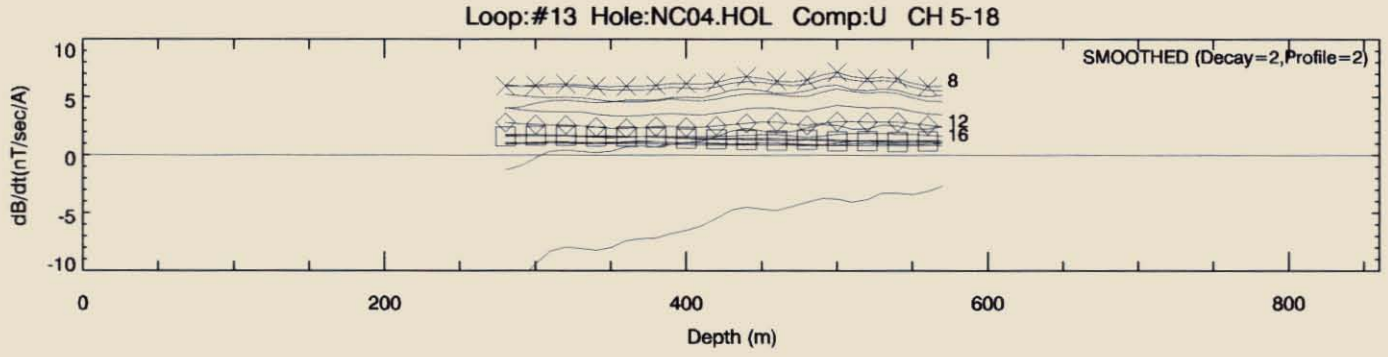


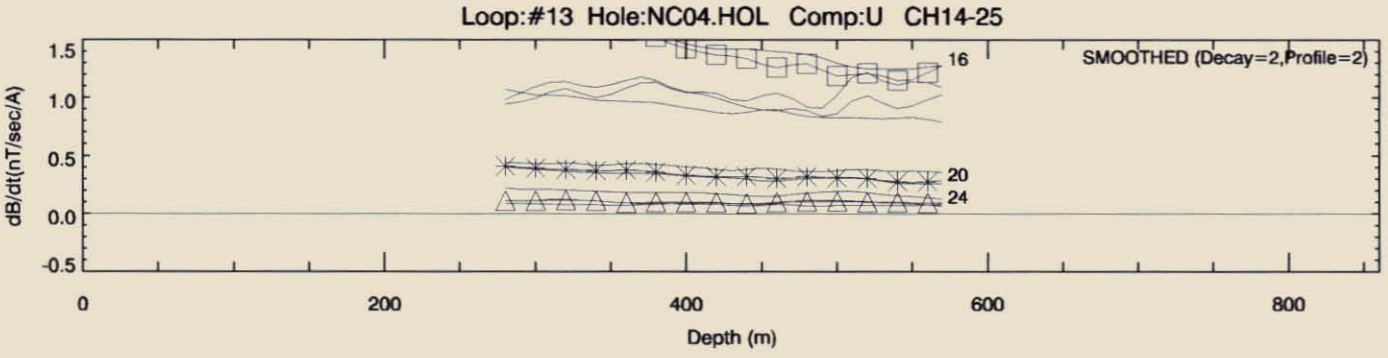
Goldfields Ltd	
South Henty. Borehole EM Jan 2000.	
Crone PEM. Tx Frequency 12.5 Hz	
Window Set Ch1-31	
FLAGSTAFF GEOCONSULTANTS	
Drawn 4-Apr-2000	

650350









Goldfields Ltd	
South Henty. Borehole EM Jan 2000.	
Crone PEM. Tx Frequency 12.5 Hz	
Window Set Ch1-31	
FLAGSTAFF GEOCONSULTANTS	
Drawn 4-Apr-2000	

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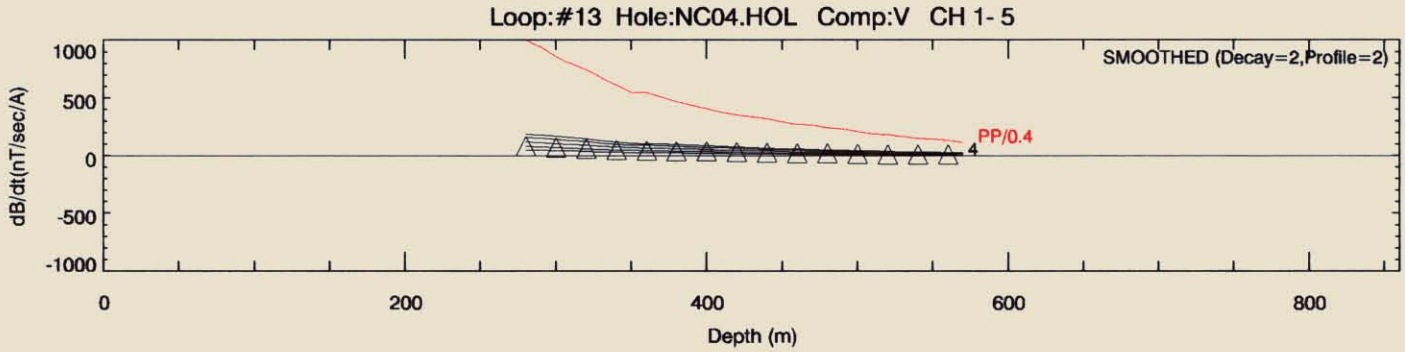
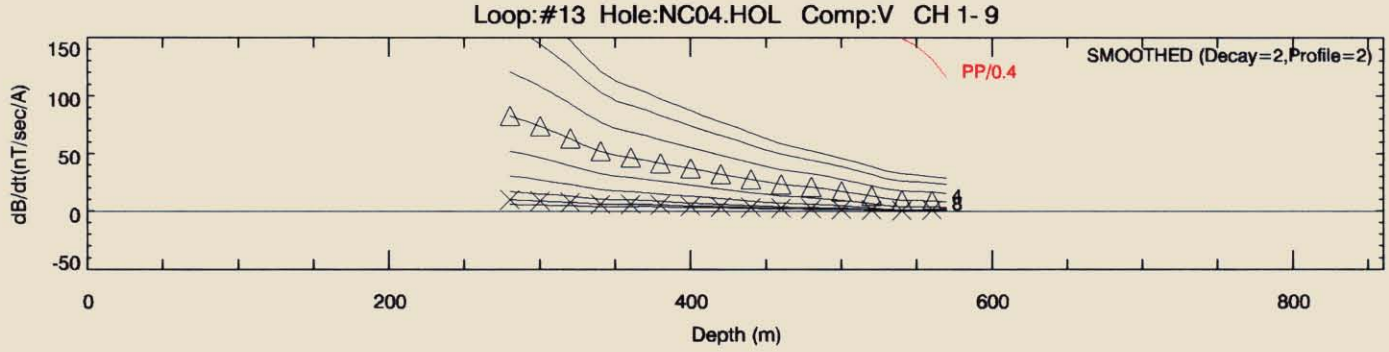
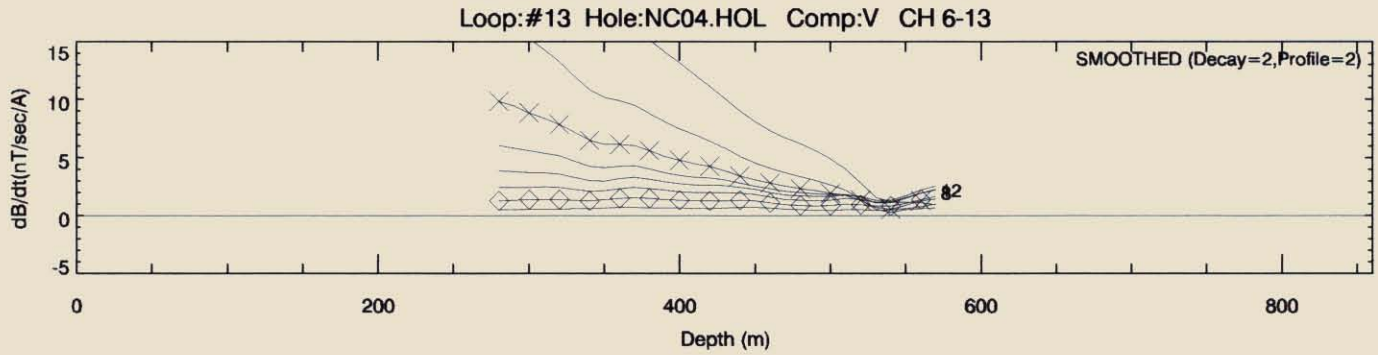
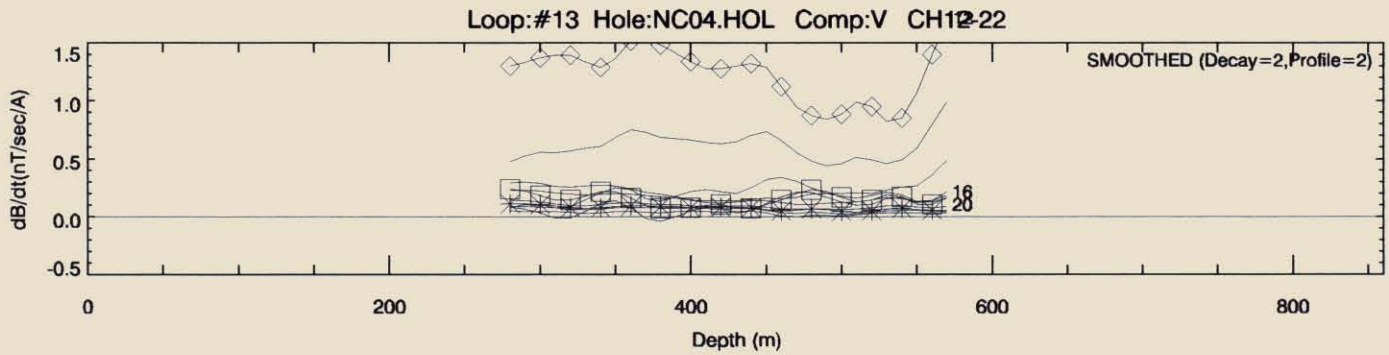


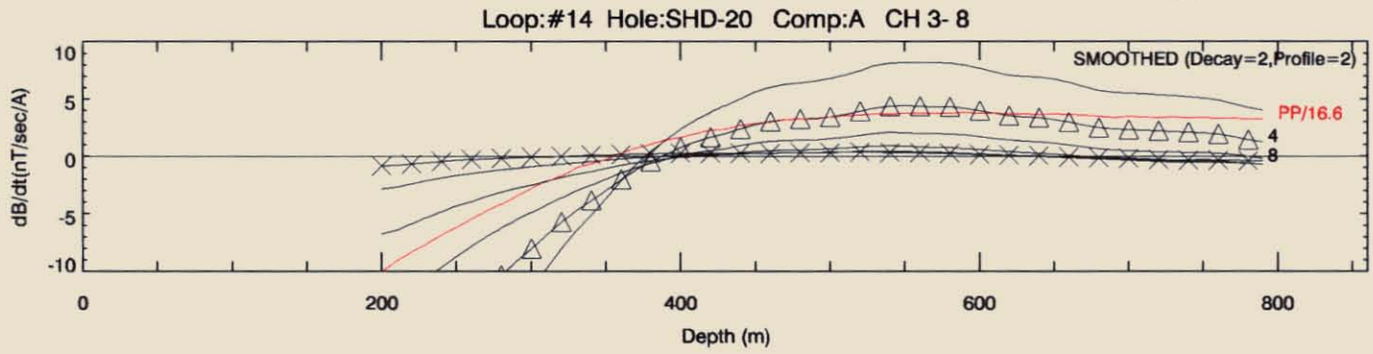


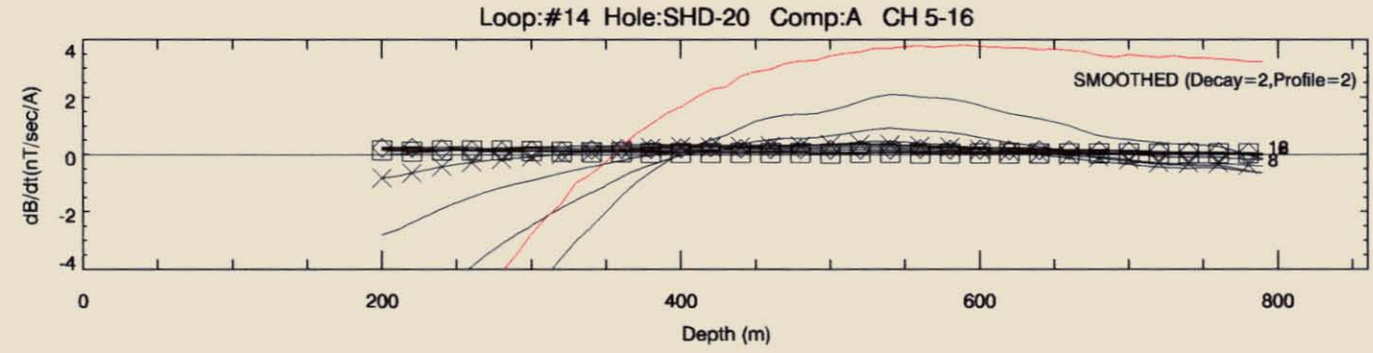


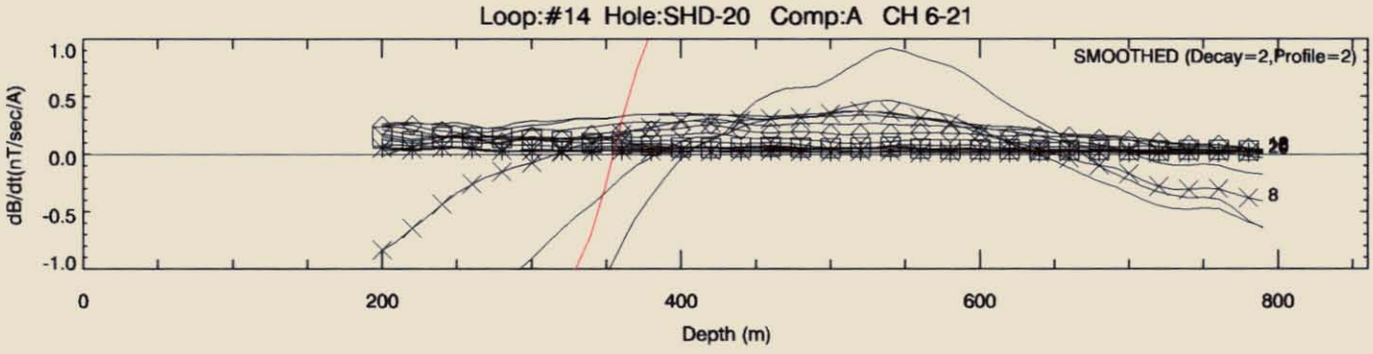


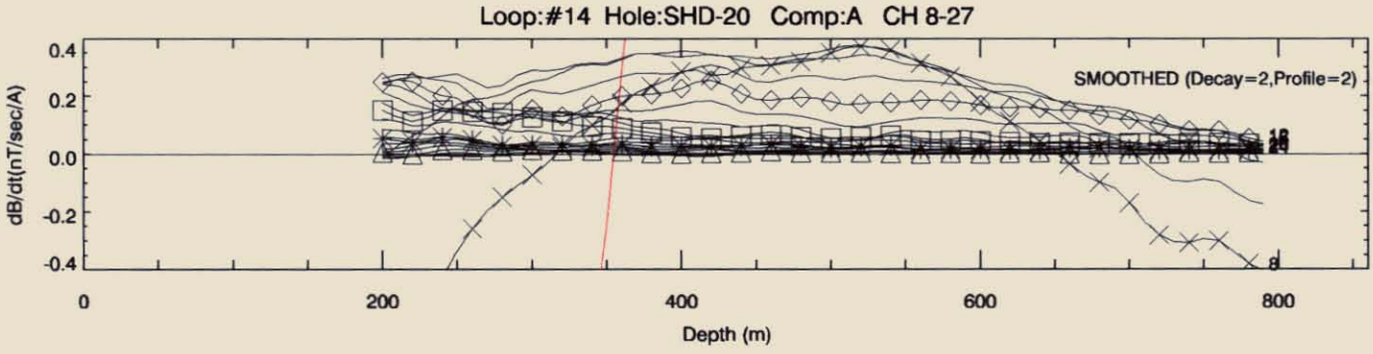
Goldfields Ltd	
South Henty. Borehole EM Jan 2000.	
Crone PEM. Tx Frequency 12.5 Hz	
Window Set Ch1-31	
FLAGSTAFF GEOCONSULTANTS	
Drawn 4-Apr-2000	

650352









Goldfields Ltd	
South Henty. Borehole EM Apr 1999.	
Crone PEM. Tx Frequency 12.5 Hz	
Window Set Ch1-31	
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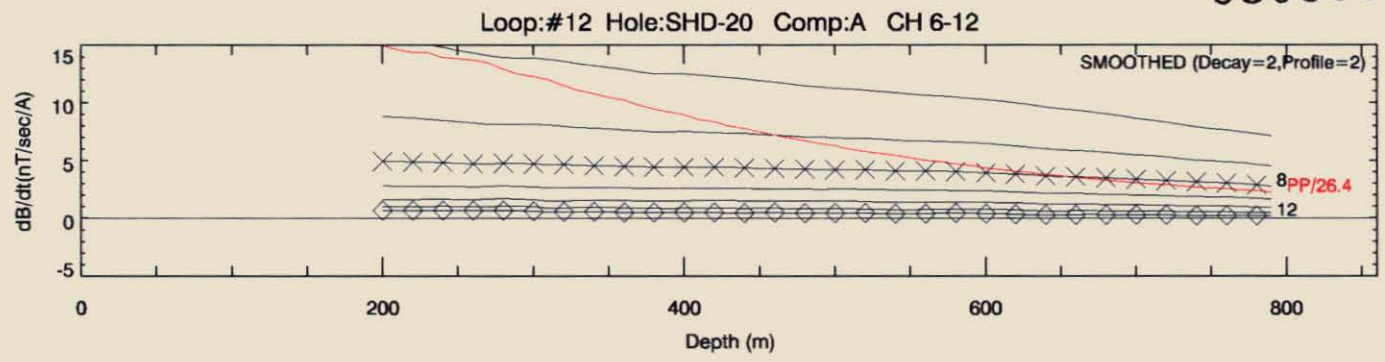

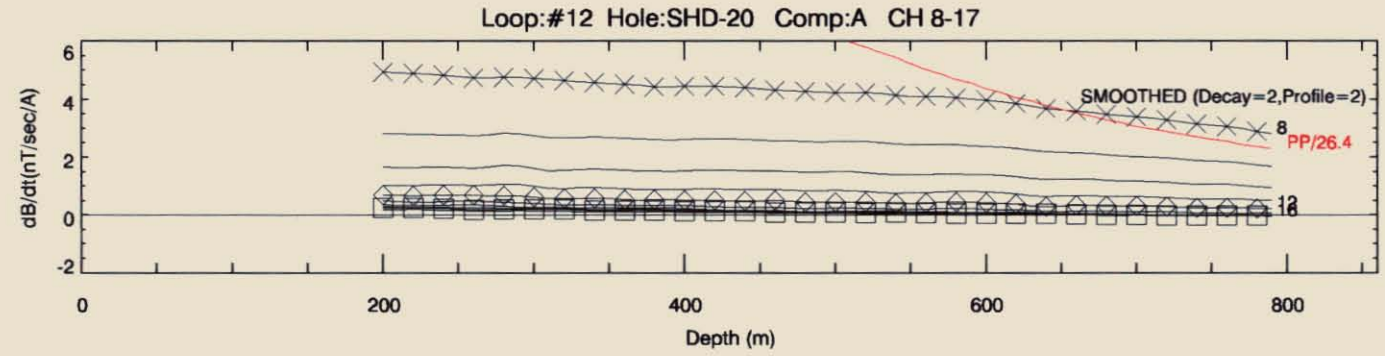

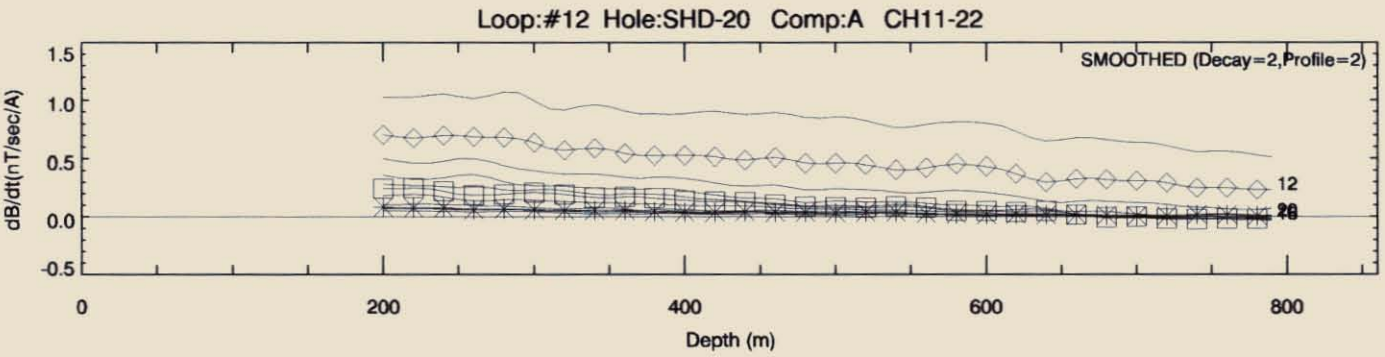

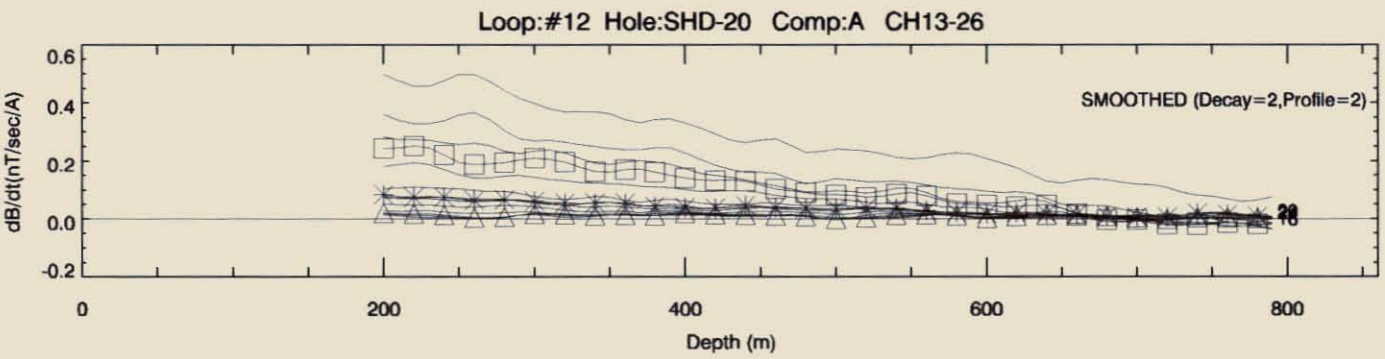

Goldfields Ltd	
South Henty. Borehole EM Apr 1999.	
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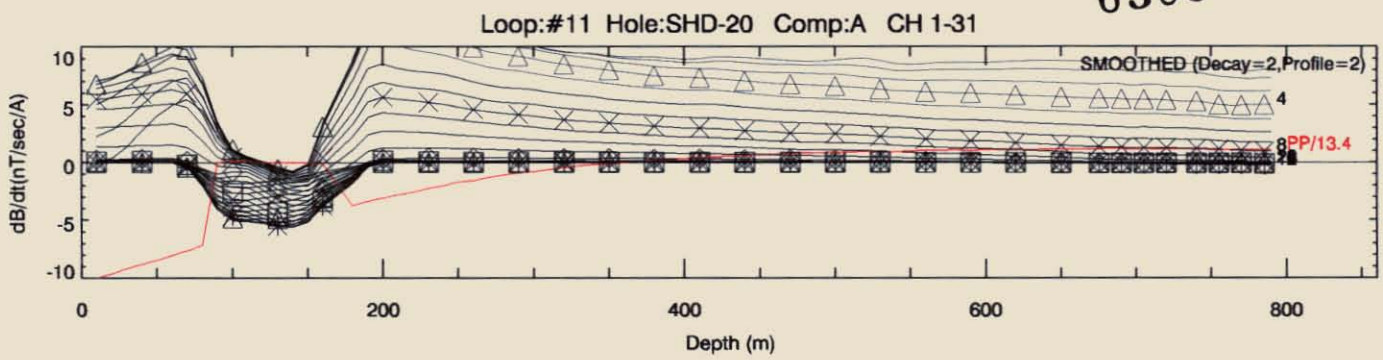
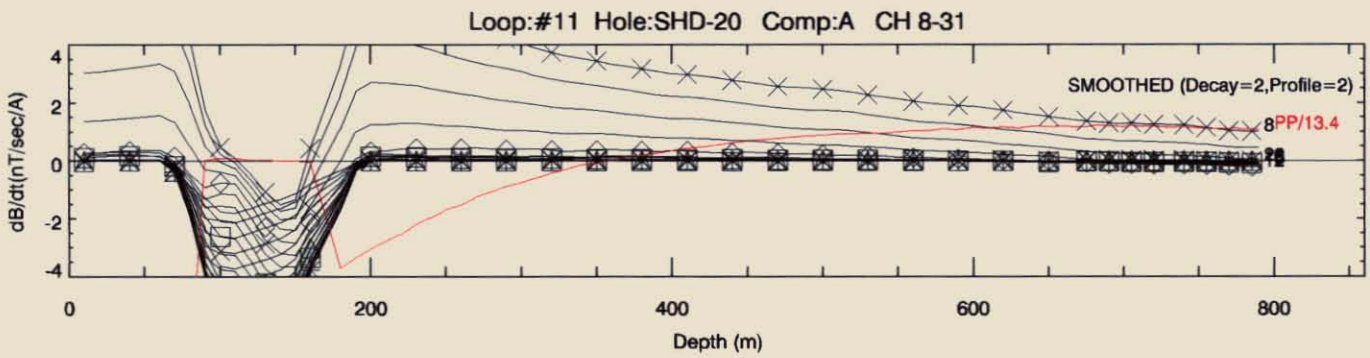
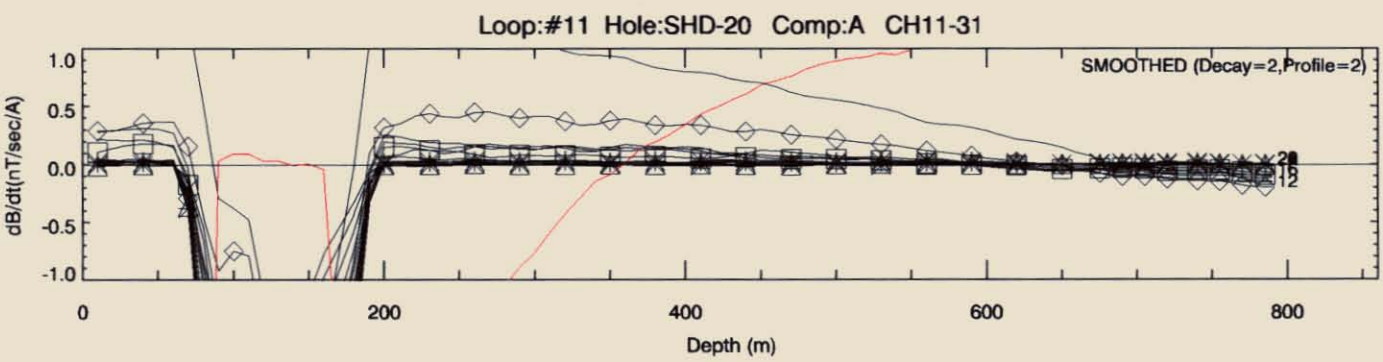
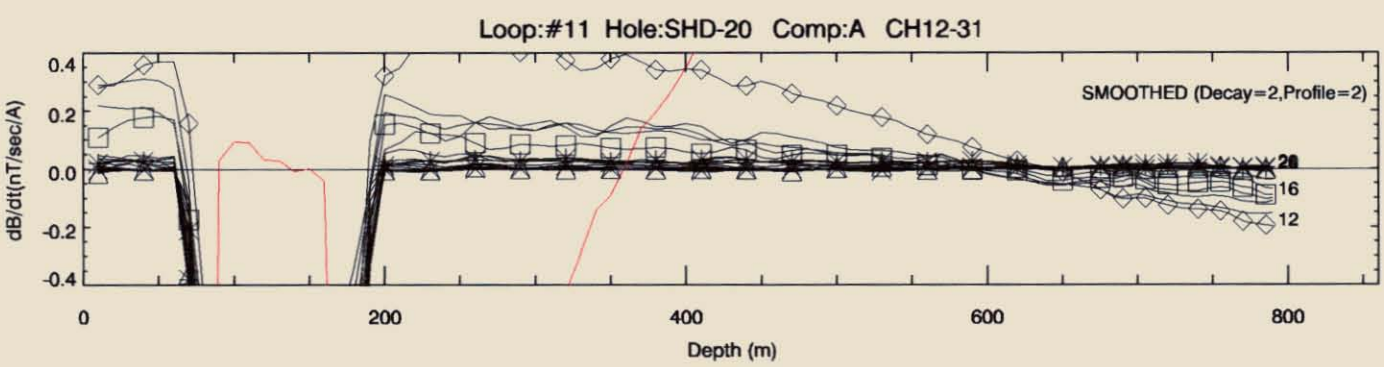


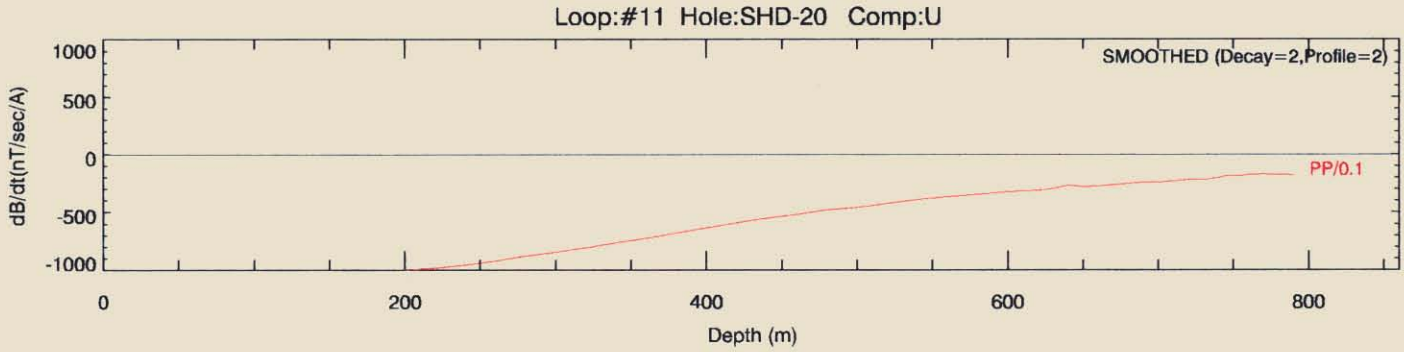


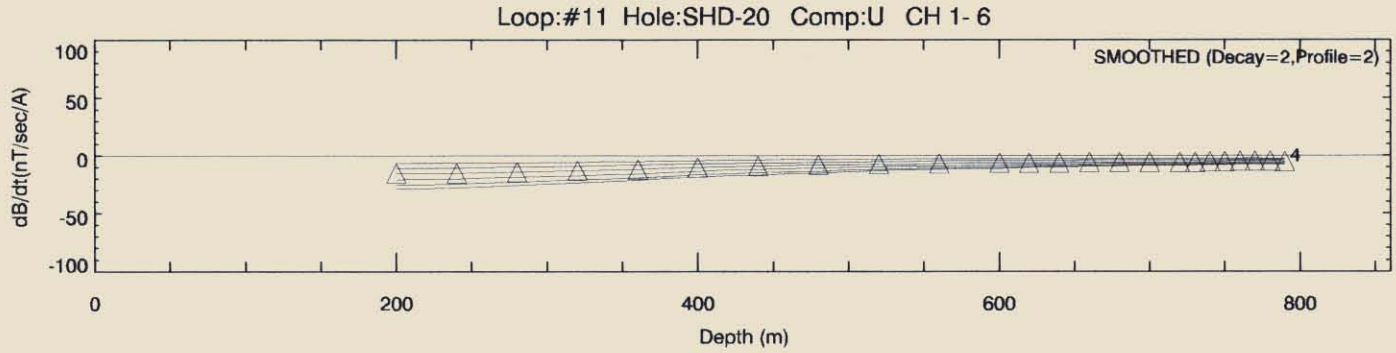


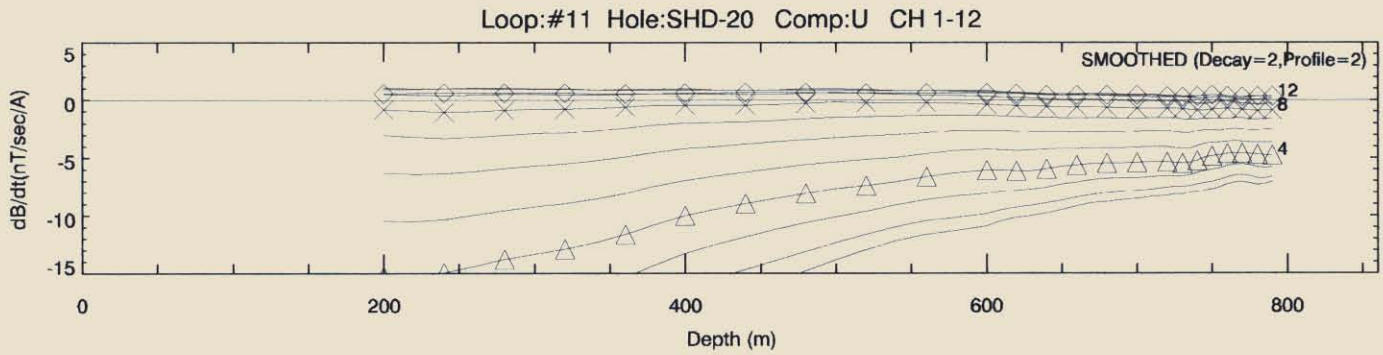


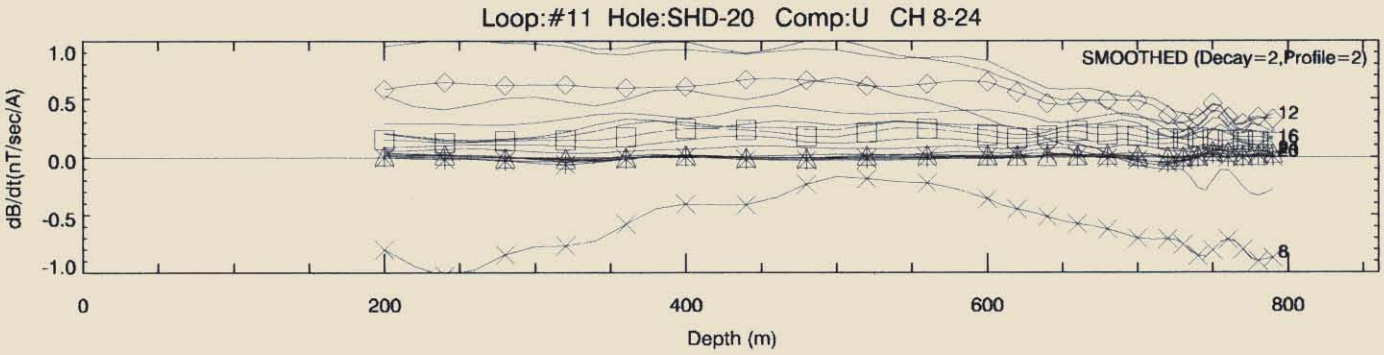
Goldfields Ltd	
South Henty. Borehole EM Apr 1999.	
Crone PEM. Tx Frequency 12.5 Hz	
Window Set Ch1-31	
FLAGSTAFF GEOCONSULTANTS Drawn 30-Mar-2000	

650355



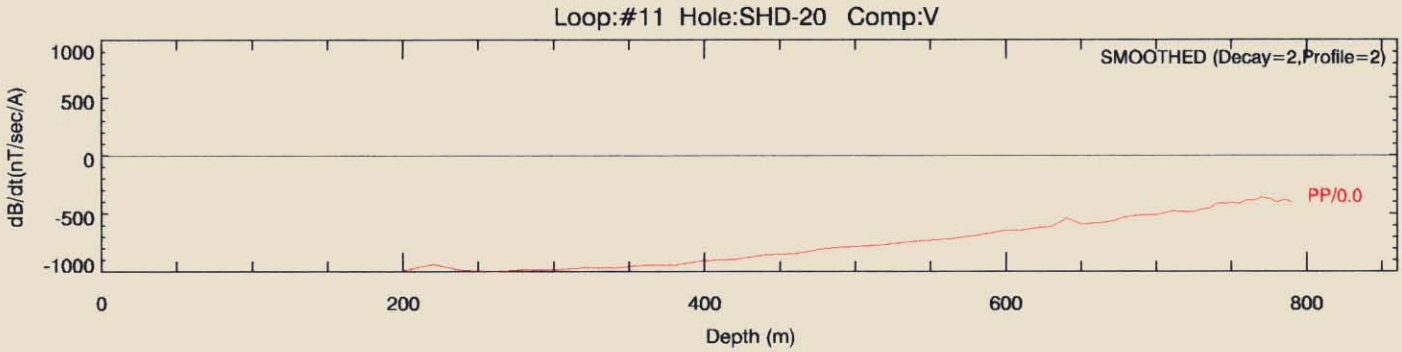


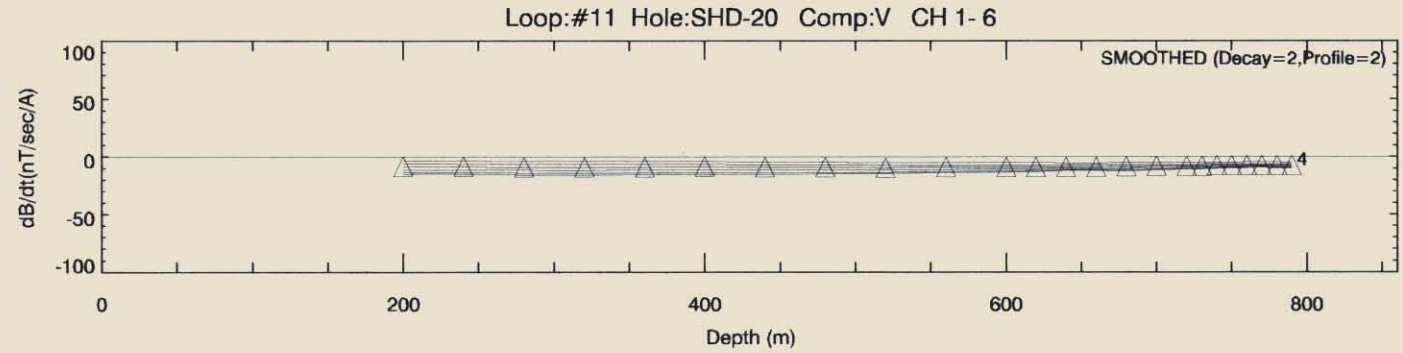


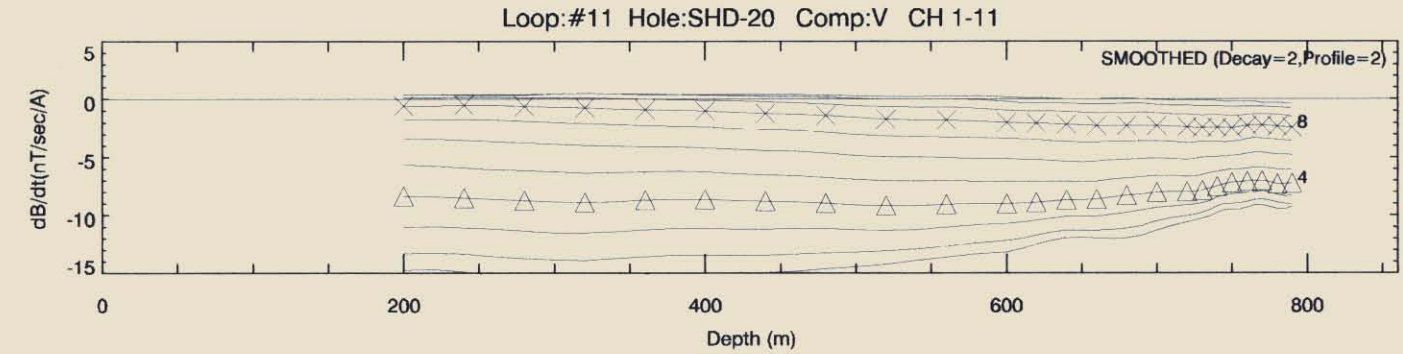


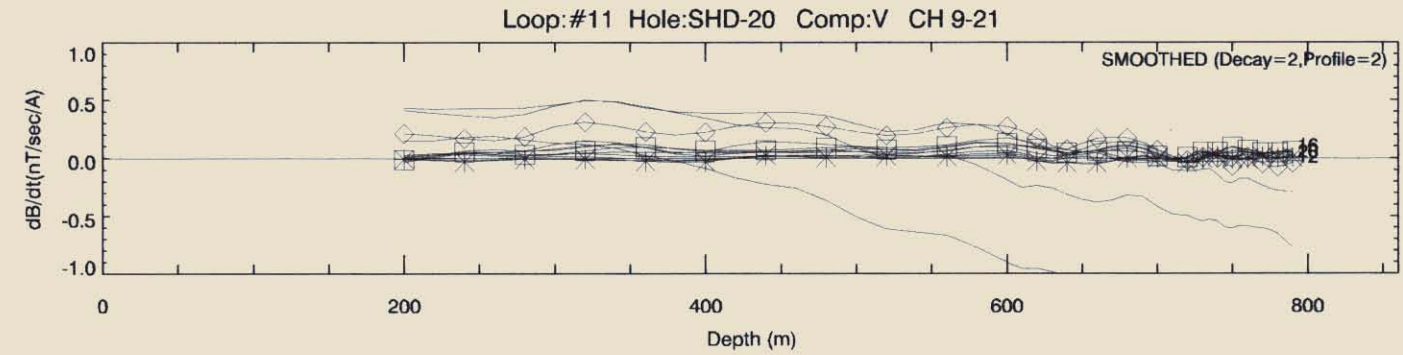
Goldfields Ltd	
South Henty. Borehole EM Jan 2000.	
Crone PEM. Tx Frequency 12.5 Hz	
Window Set Ch1-31	
FLAGSTAFF GEOCONSULTANTS	
Drawn 21-Feb-2000	

650356



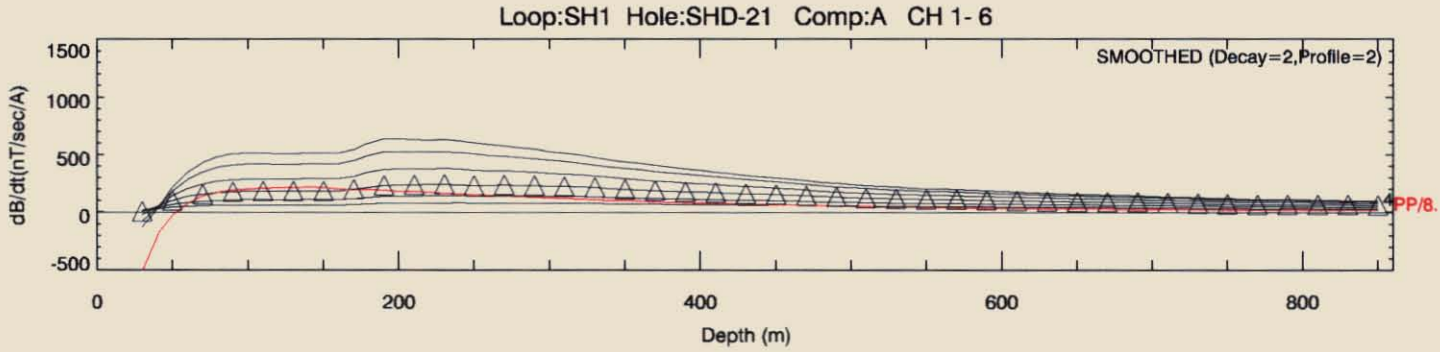


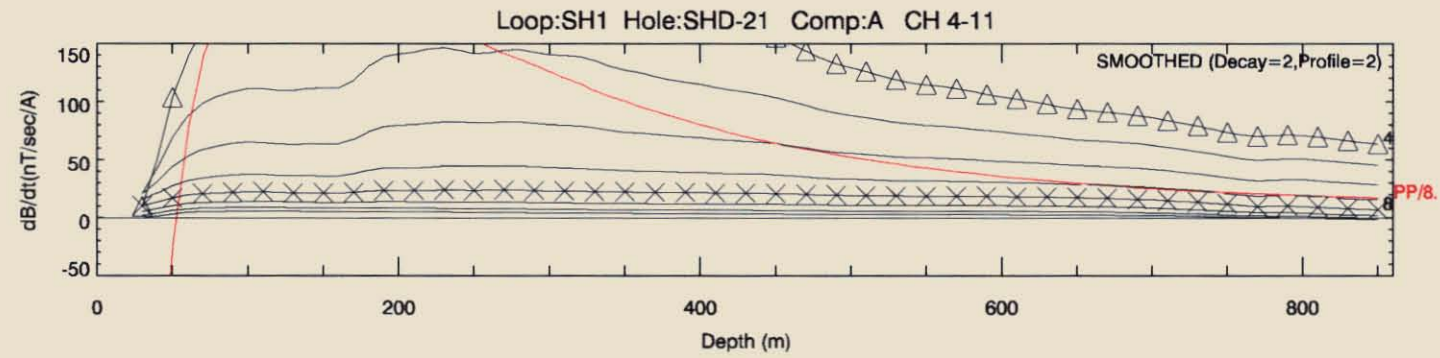


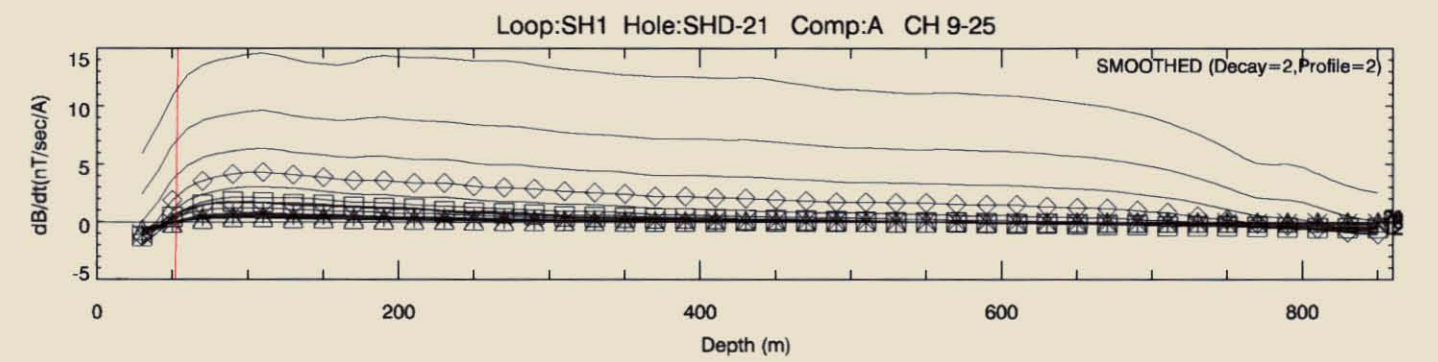


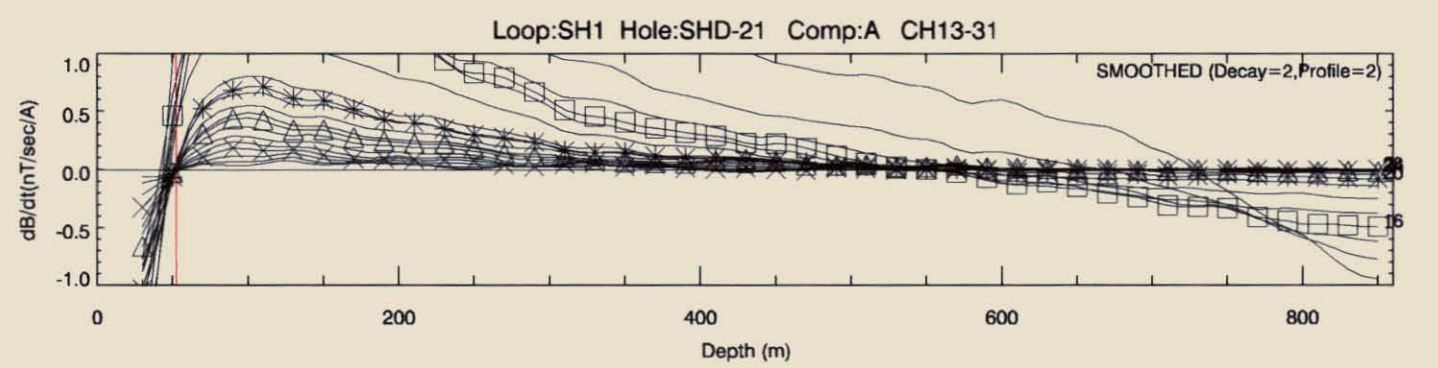
Goldfields Ltd	
South Henty. Borehole EM Jan 2000.	
Crone PEM. Tx Frequency 12.5 Hz	
Window Set Ch1-31	
FLAGSTAFF GEOCONSULTANTS	
Drawn 21-Feb-2000	

650357



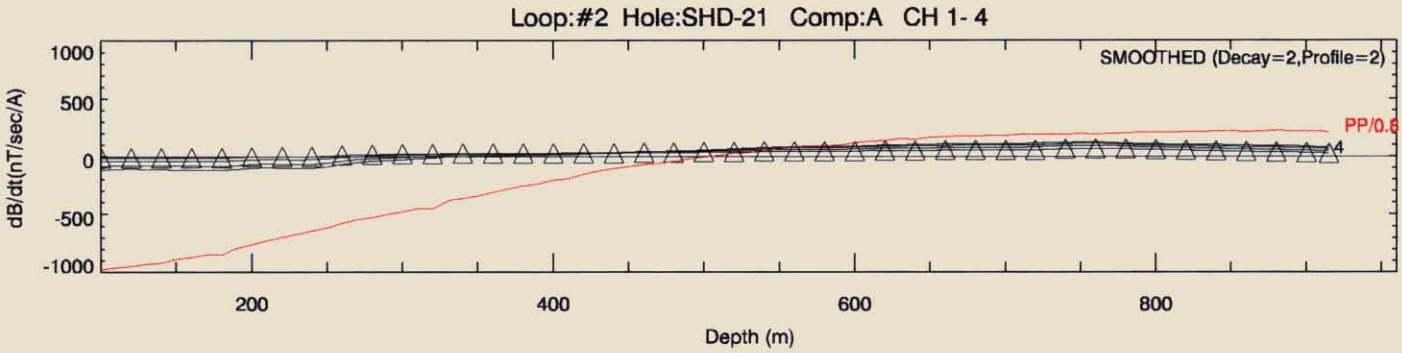


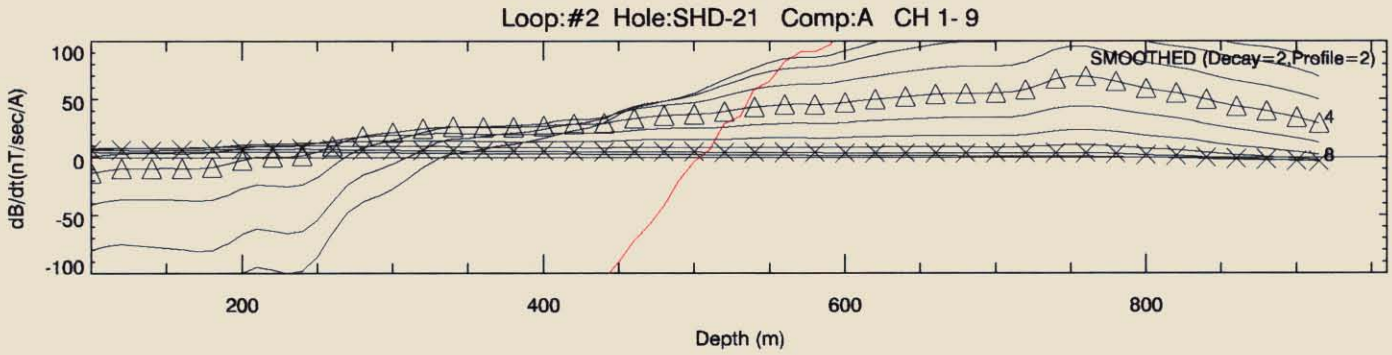


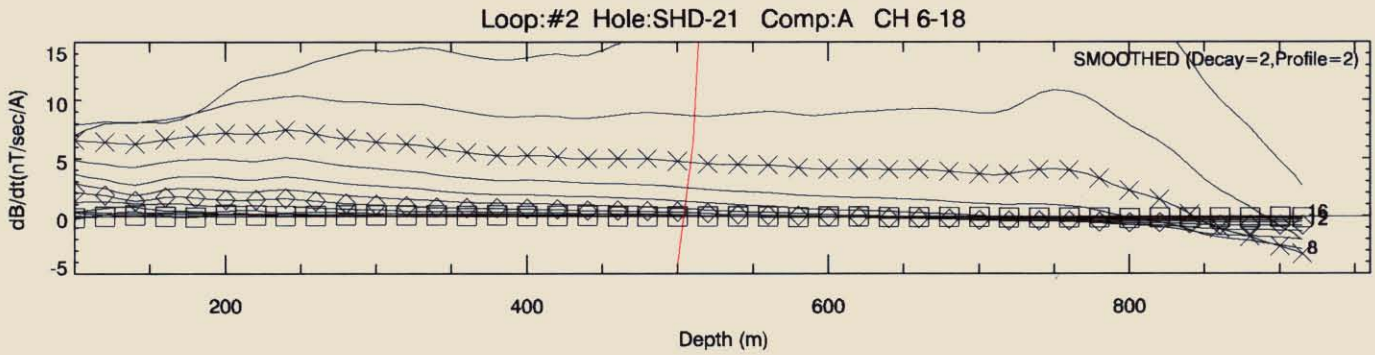


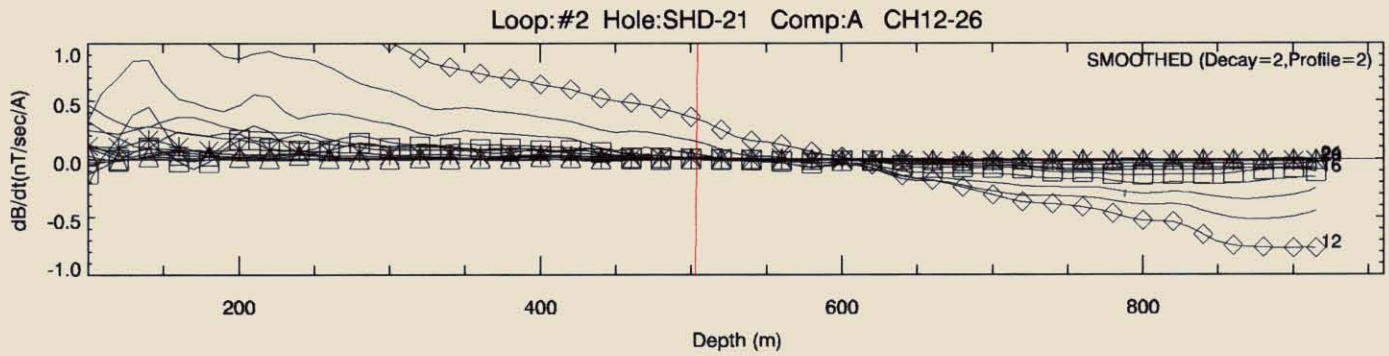
Goldfields Ltd	
South Henty. Borehole EM Apr 1999.	
Crone PEM. Tx Frequency 12.5 Hz	
Window Set Ch1-31	
FLAGSTAFF GEOCONSULTANTS Drawn 2/ 2/2000	

650358



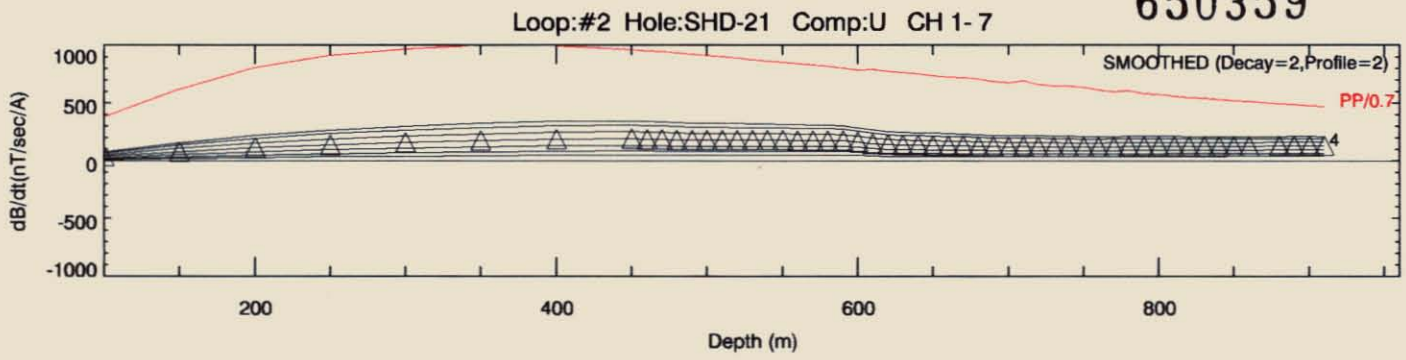


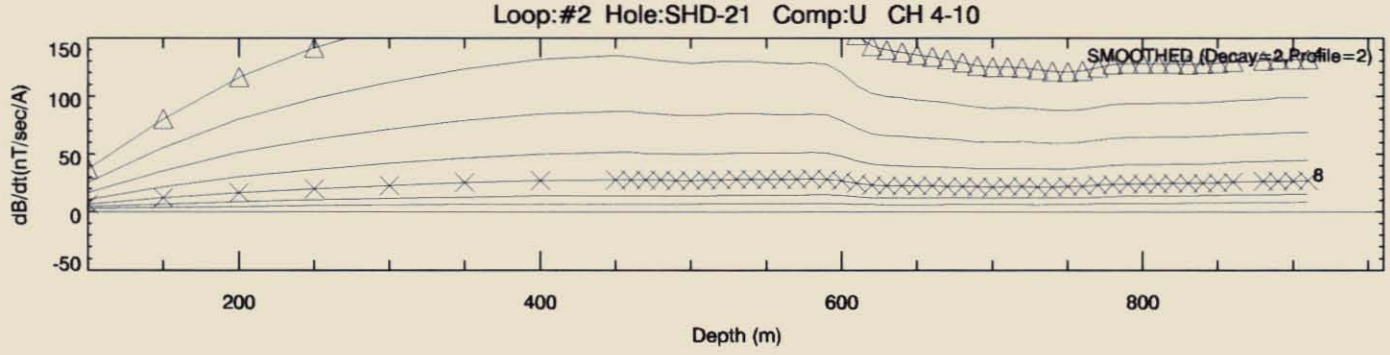


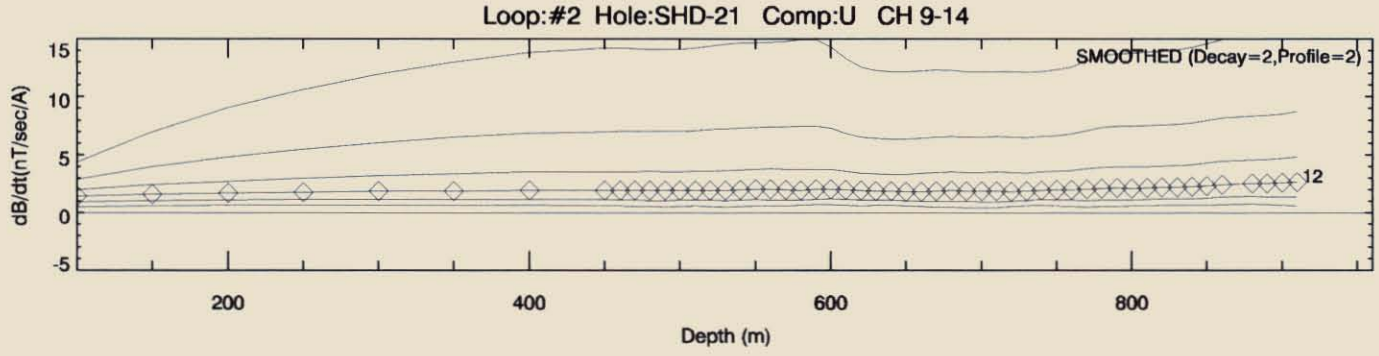


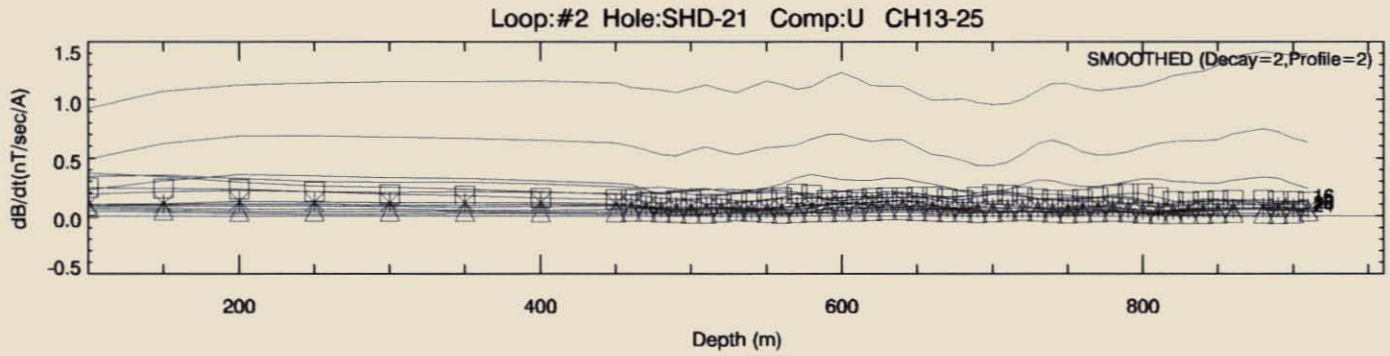
Goldfields Ltd	
South Henty. Borehole EM Apr 1999.	
Crone PEM. Tx Frequency 12.5 Hz	
Window Set Ch1-31	
FLAGSTAFF GEOCONSULTANTS	
Drawn 2/ 2/2000	

650359



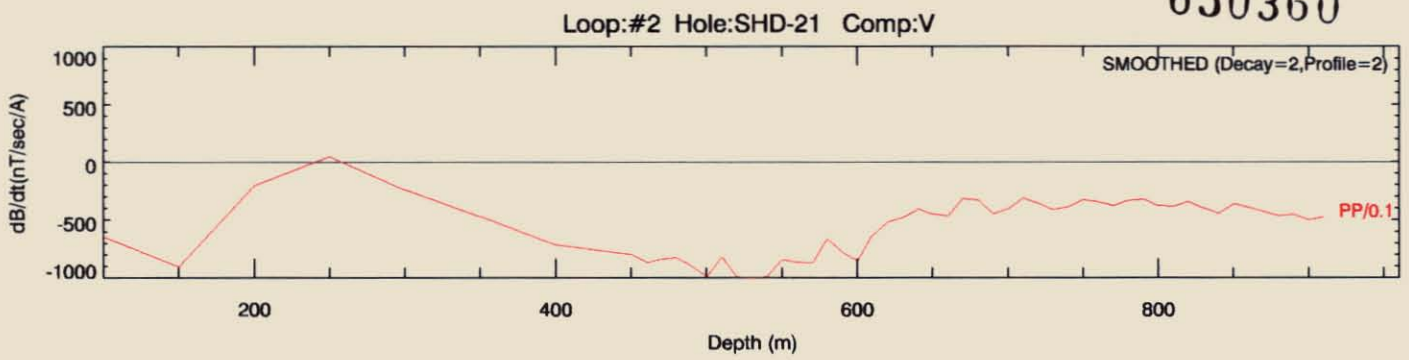


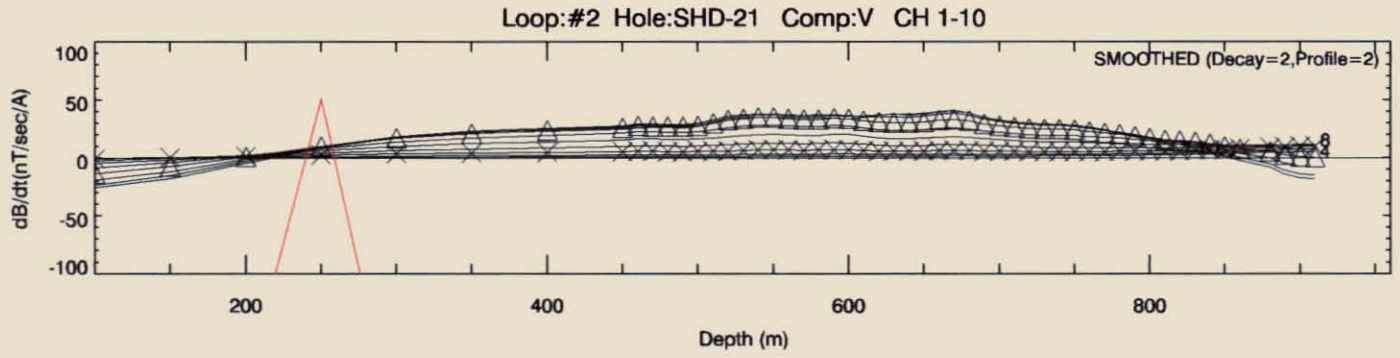


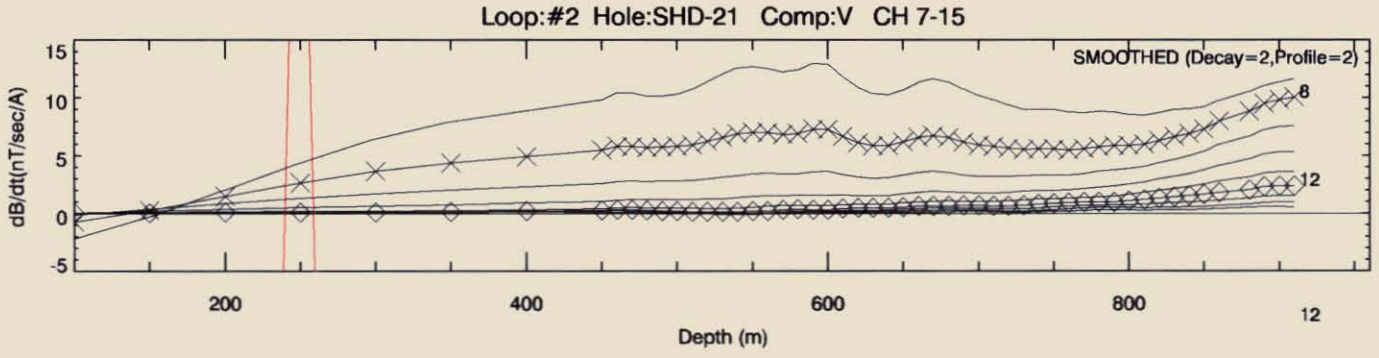


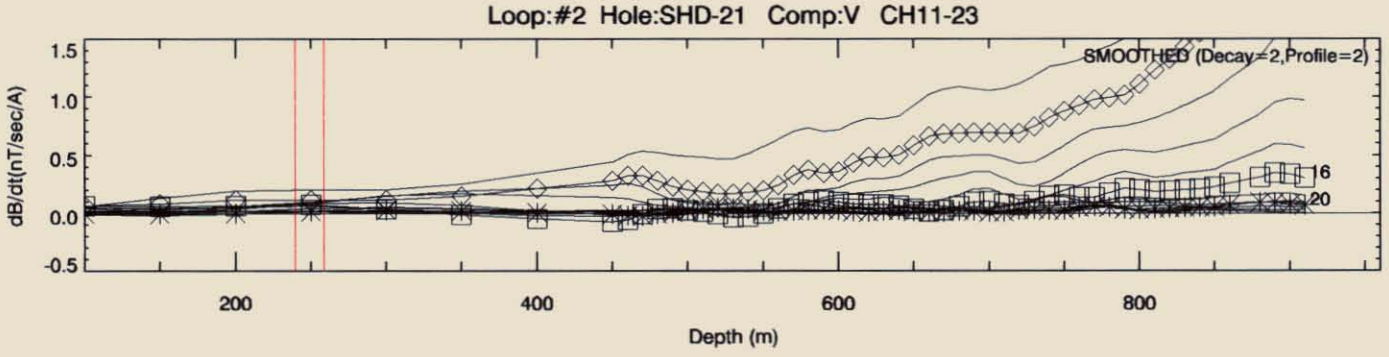
Goldfields Ltd	
South Henty. Borehole EM Jan 2000. Crone PEM. Tx Frequency 12.5 Hz Window Set Ch1-31	
FLAGSTAFF GEOCONSULTANTS Drawn 29-Mar-2000	

650360



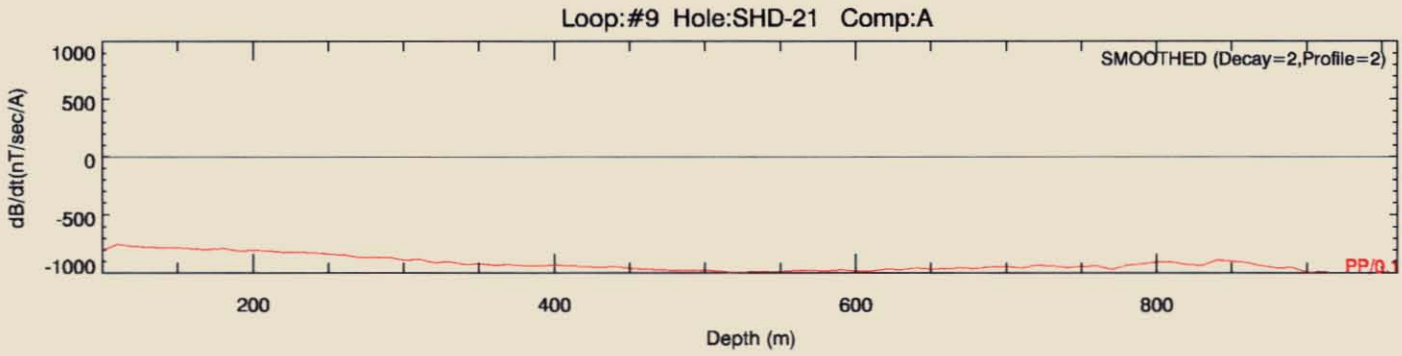


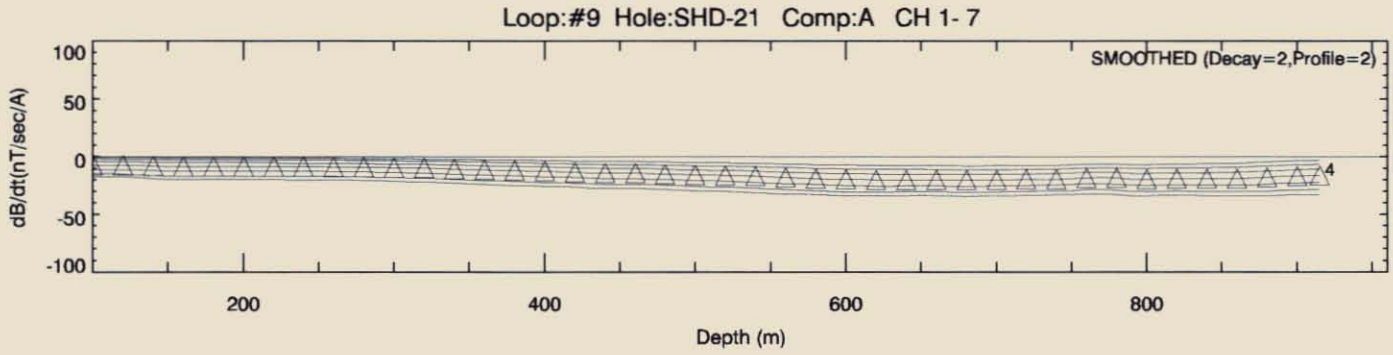


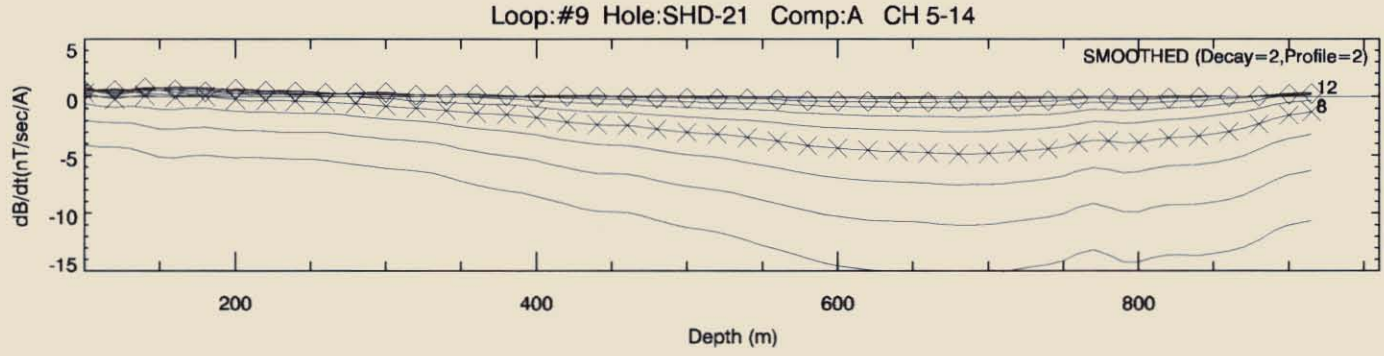


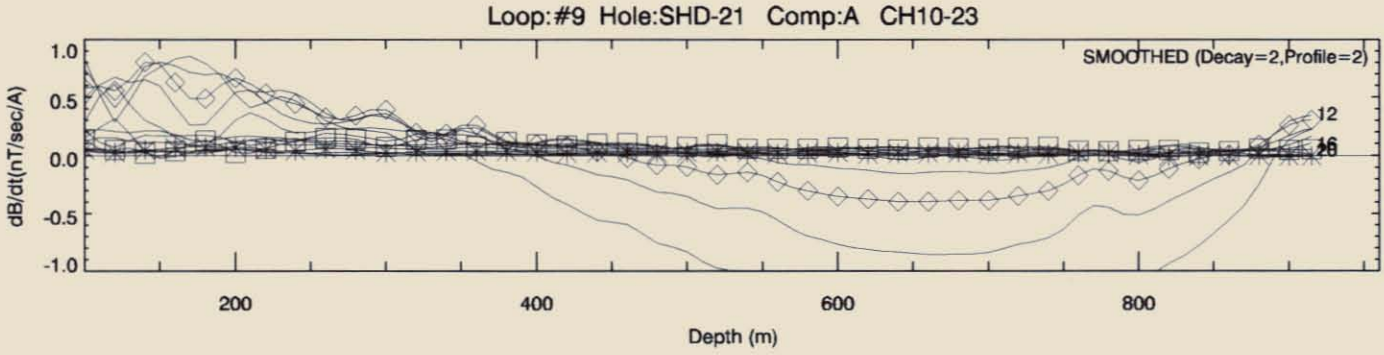
Goldfields Ltd	
South Henty. Borehole EM Jan 2000.	
Crone PEM. Tx Frequency 12.5 Hz	
Window Set Ch1-31	
FLAGSTAFF GEOCONSULTANTS	
Drawn 29-Mar-2000	

650361



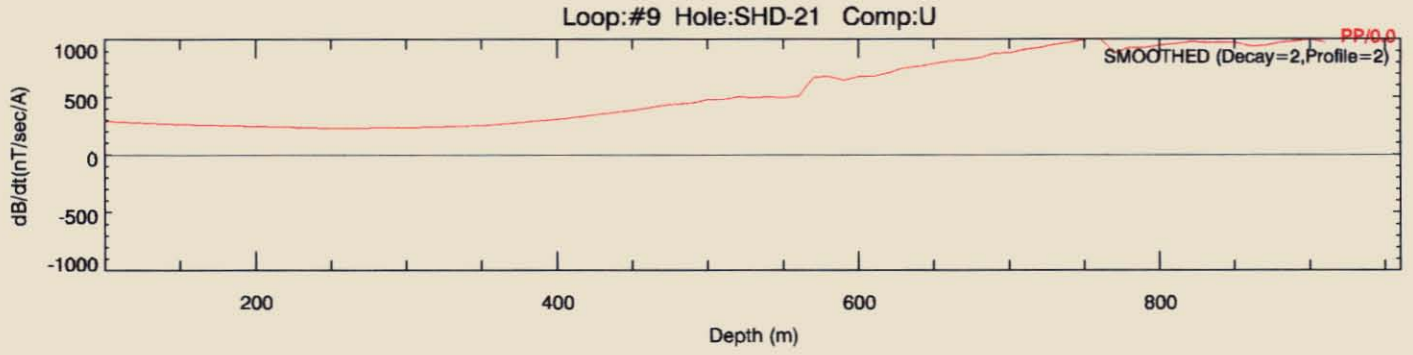


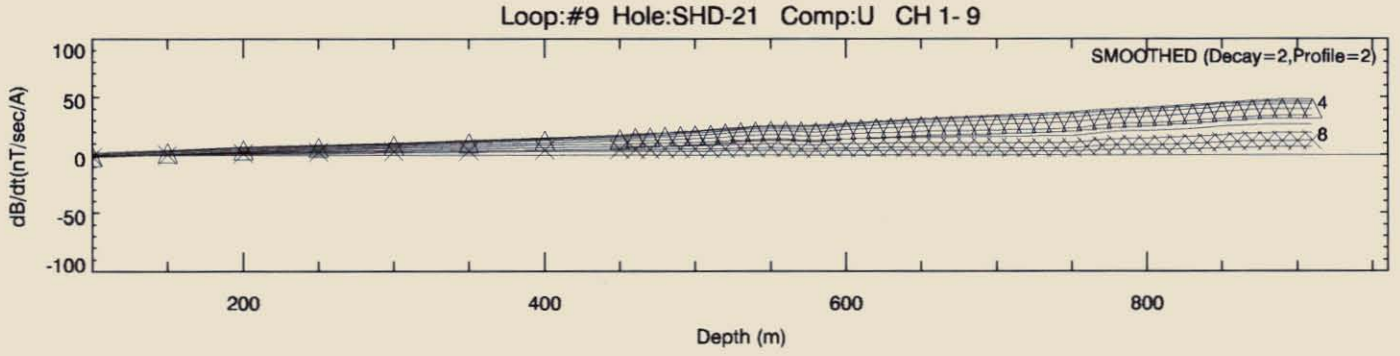


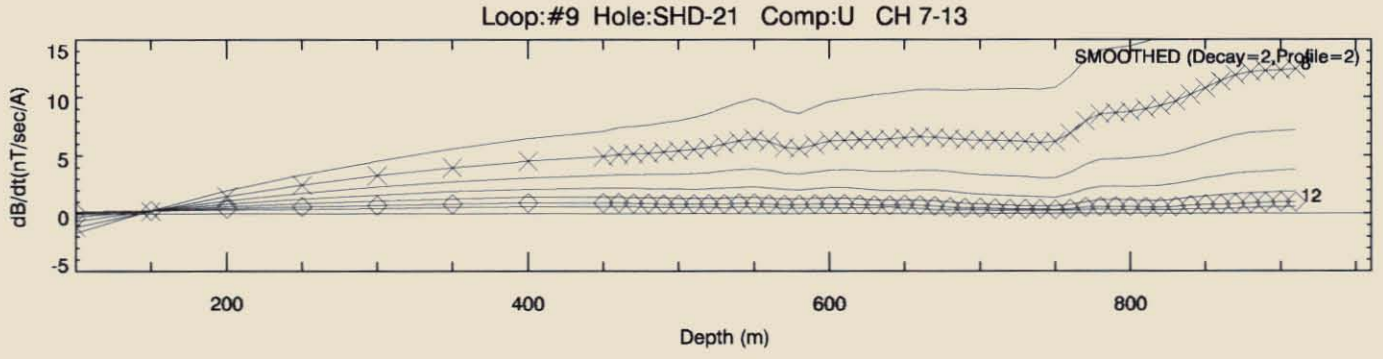


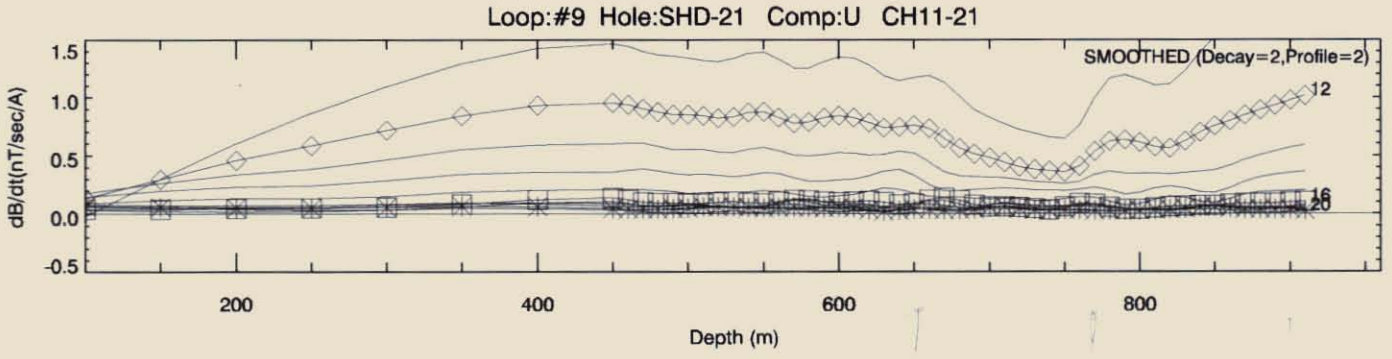
Goldfields Ltd	
South Henty. Borehole EM Apr 1999. Crone PEM. Tx Frequency 12.5 Hz Window Set Ch1-31	
FLAGSTAFF GEOCONSULTANTS Drawn 2/ 2/2000	

650362



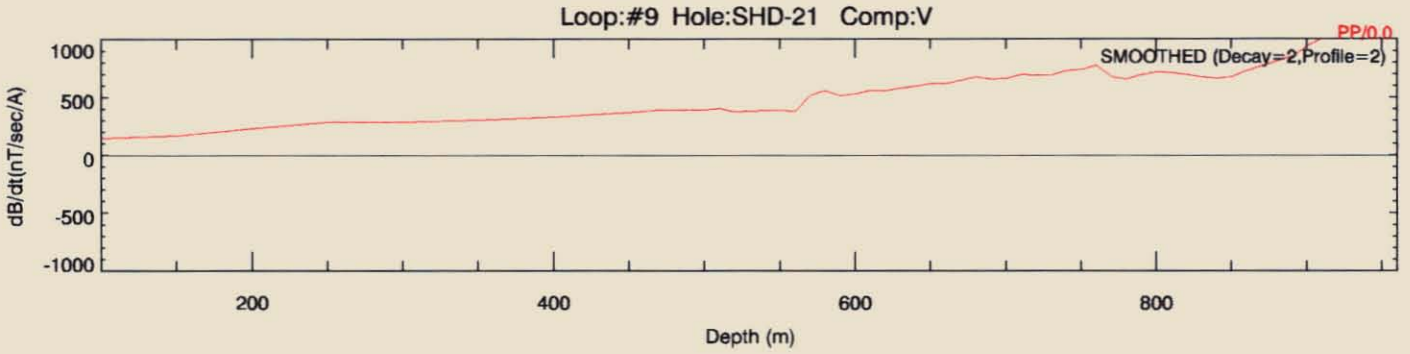


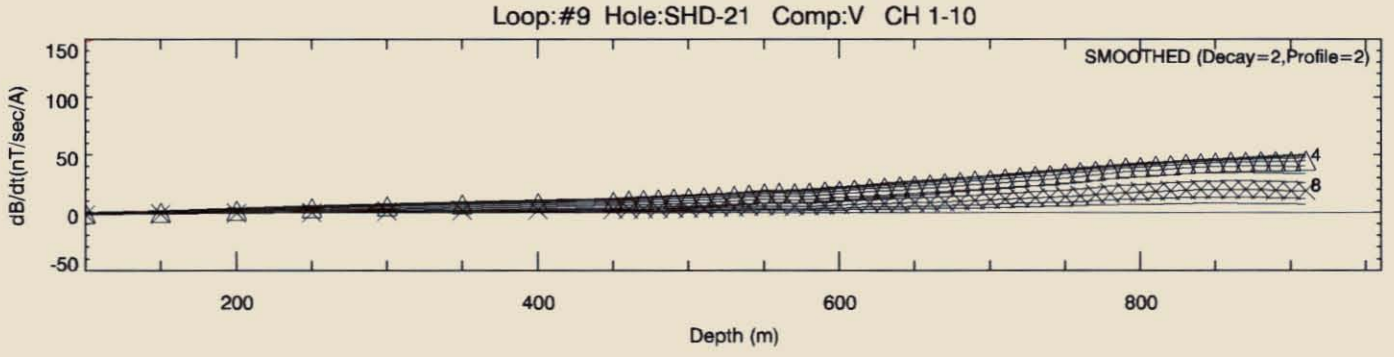




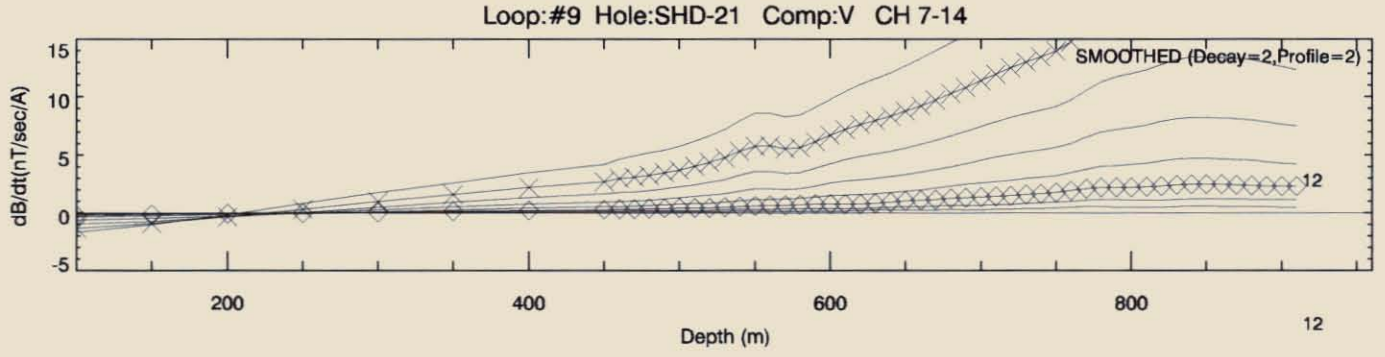
Goldfields Ltd	
South Henty. Borehole EM Jan 2000.	
Crone PEM. Tx Frequency 12.5 Hz	
Window Set Ch1-31	
FLAGSTAFF GEOCONSULTANTS	
Drawn 3/ 2/2000	

650363

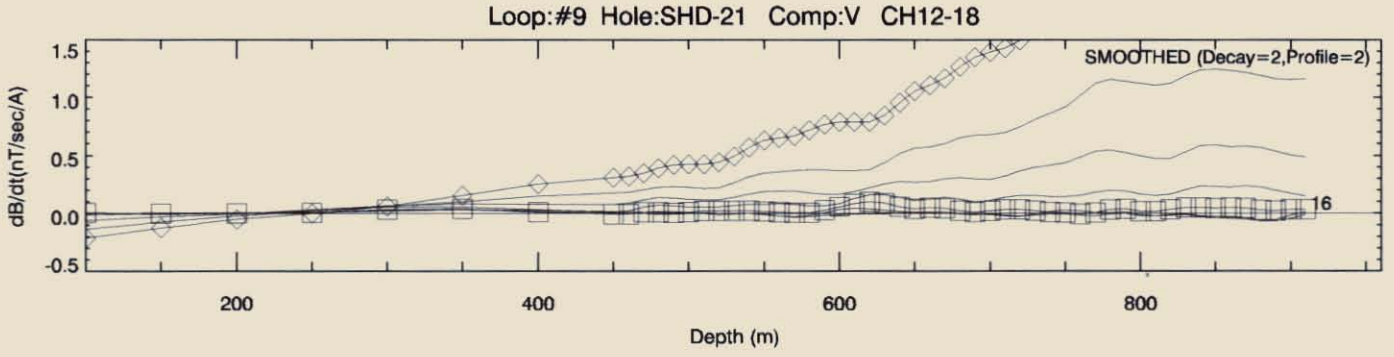




8

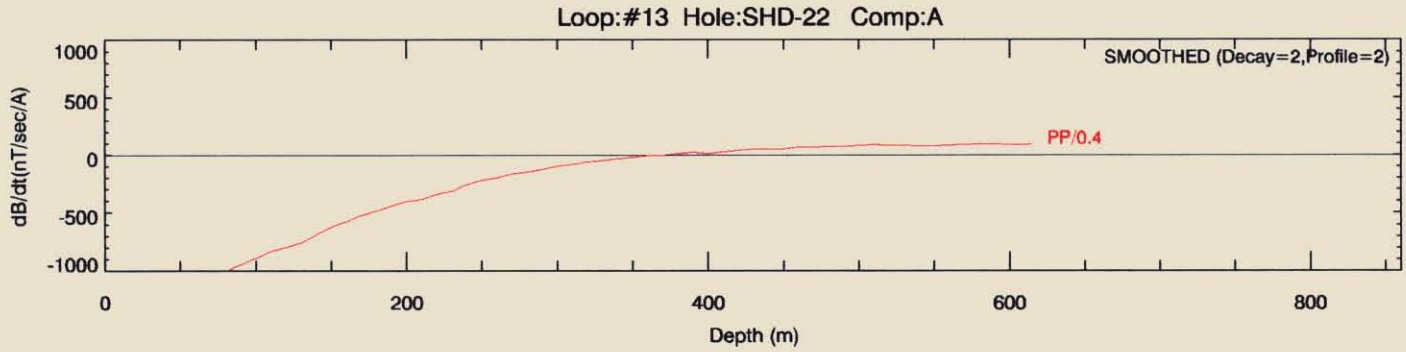


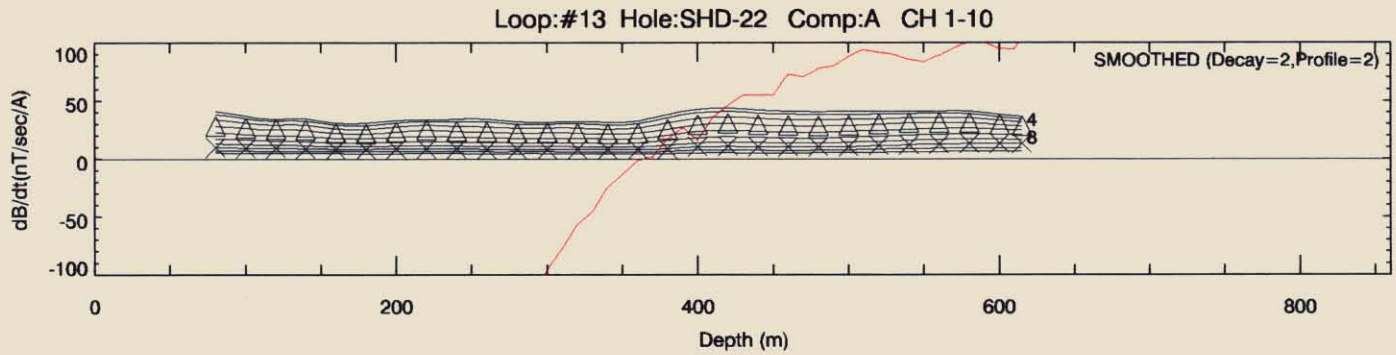
12

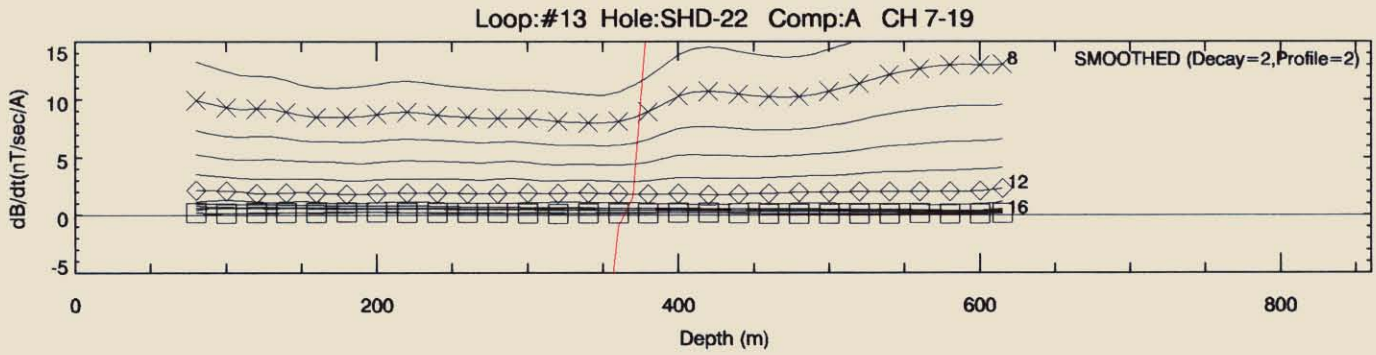


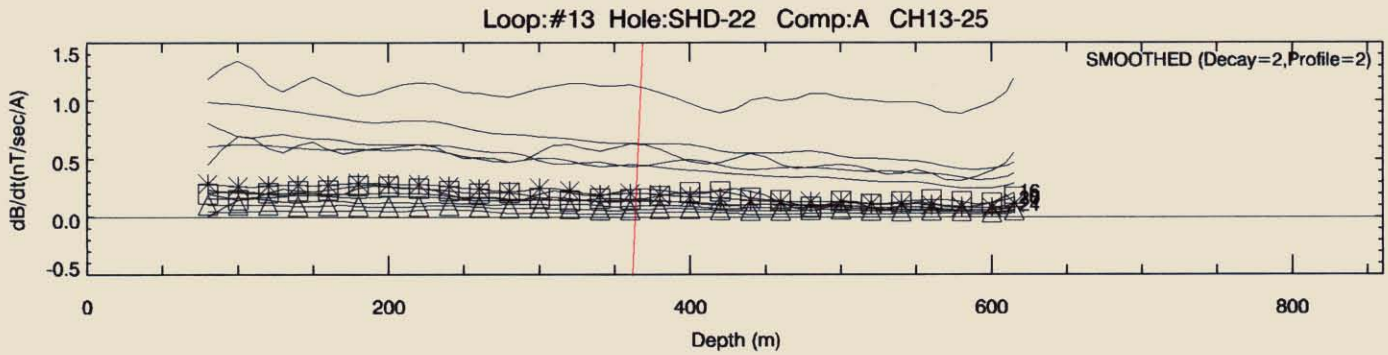
Goldfields Ltd	
South Henty. Borehole EM Jan 2000.	
Crone PEM. Tx Frequency 12.5 Hz	
Window Set Ch1-31	
FLAGSTAFF GEOCONSULTANTS	
Drawn 3/ 2/2000	

650364



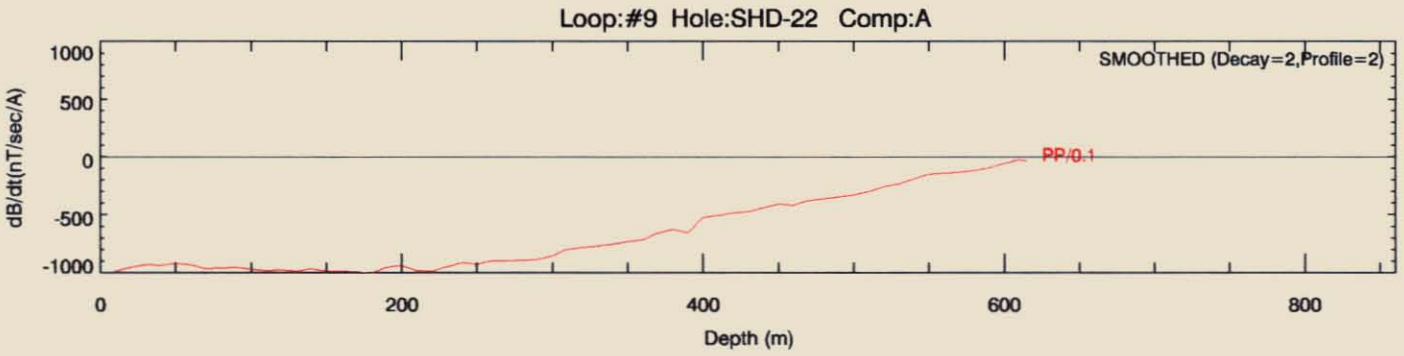


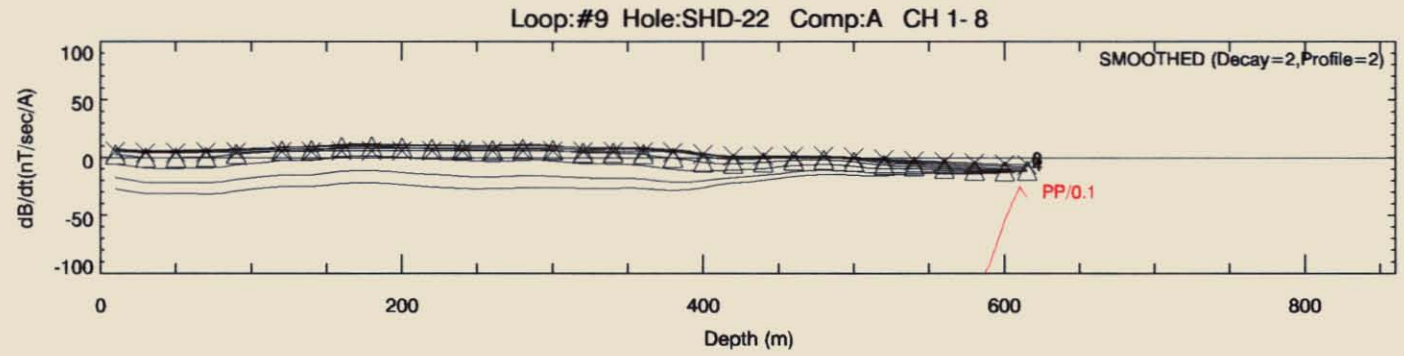


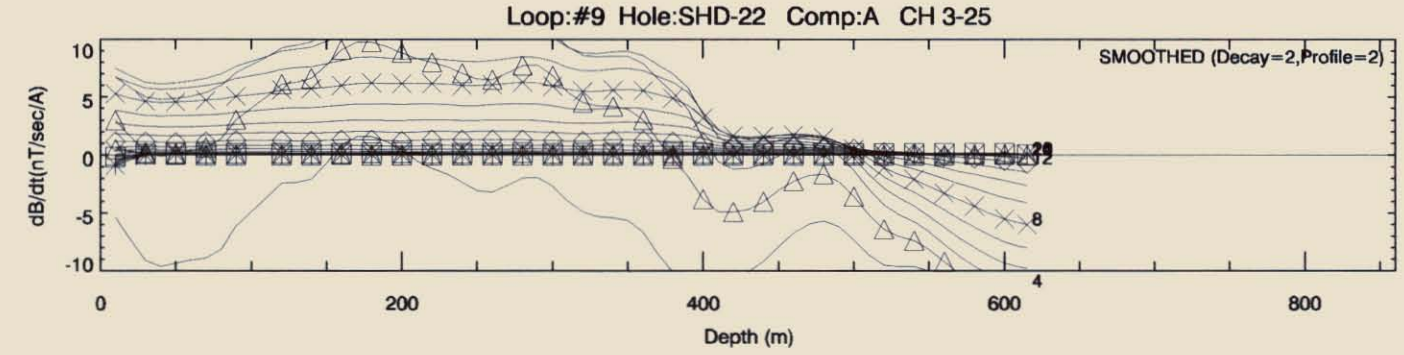


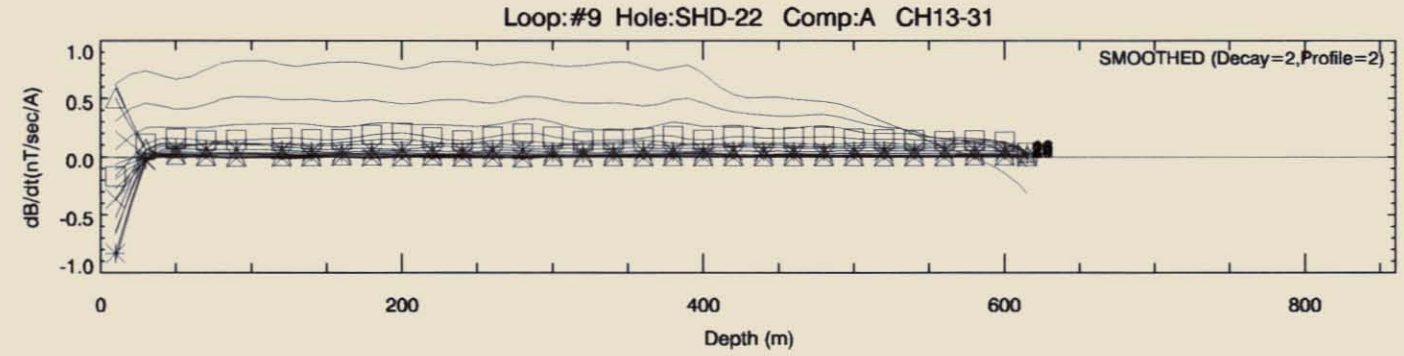
Goldfields Ltd	
South Henty. Borehole EM Jan 2000.	
Crone PEM. Tx Frequency 12.5 Hz	
Window Set Ch1-31	
FLAGSTAFF GEOCONSULTANTS	
Drawn 27-Apr-2000	

650365



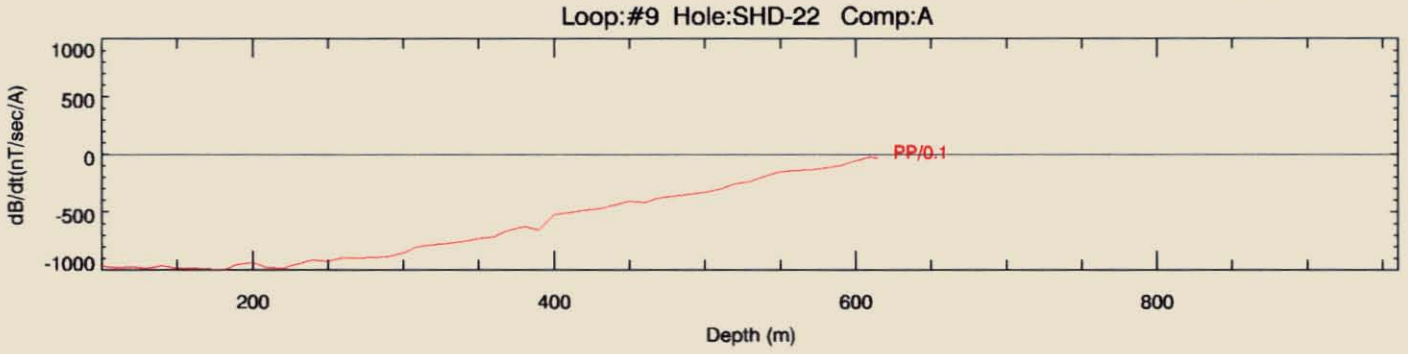


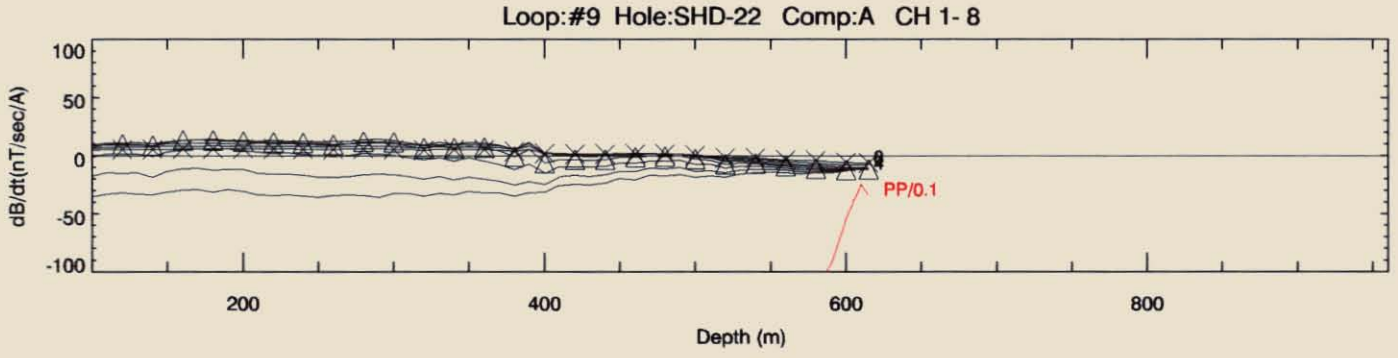


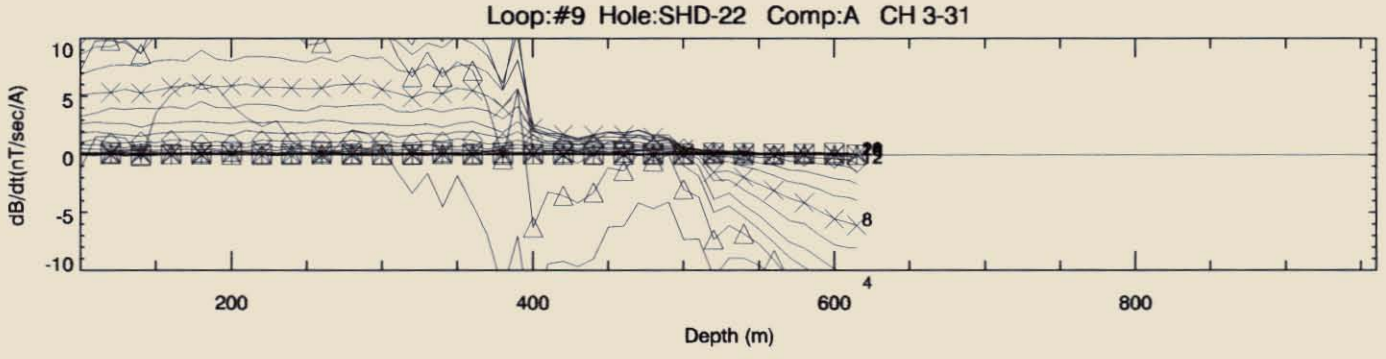


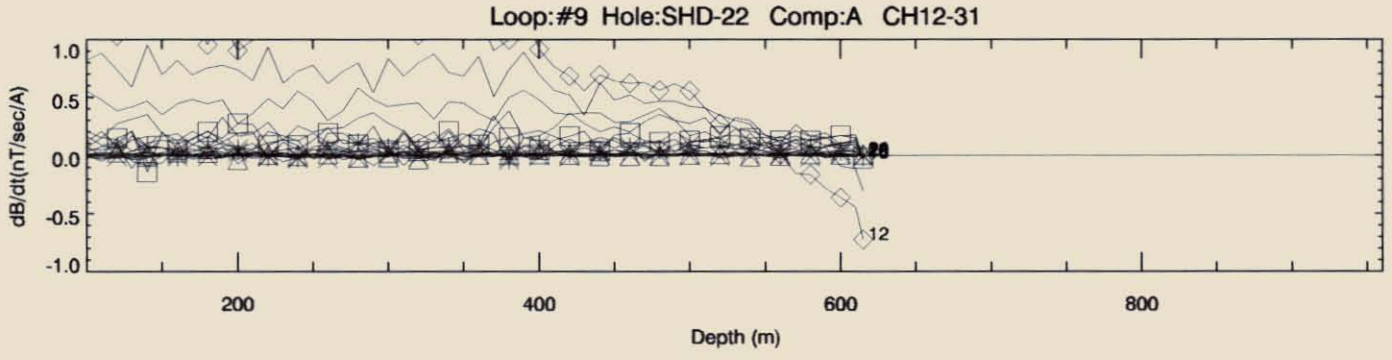
Goldfields Ltd	
South Henty. Borehole EM Jan 2000.	
Crone PEM. Tx Frequency 12.5 Hz	
Window Set Ch1-31	
FLAGSTAFF GEOCONSULTANTS	
Drawn 27-Apr-2000	

650366



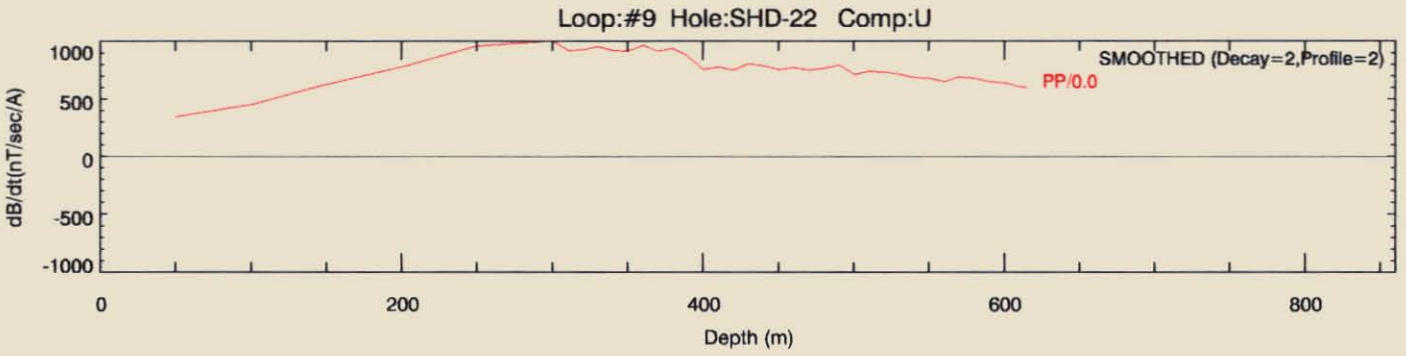


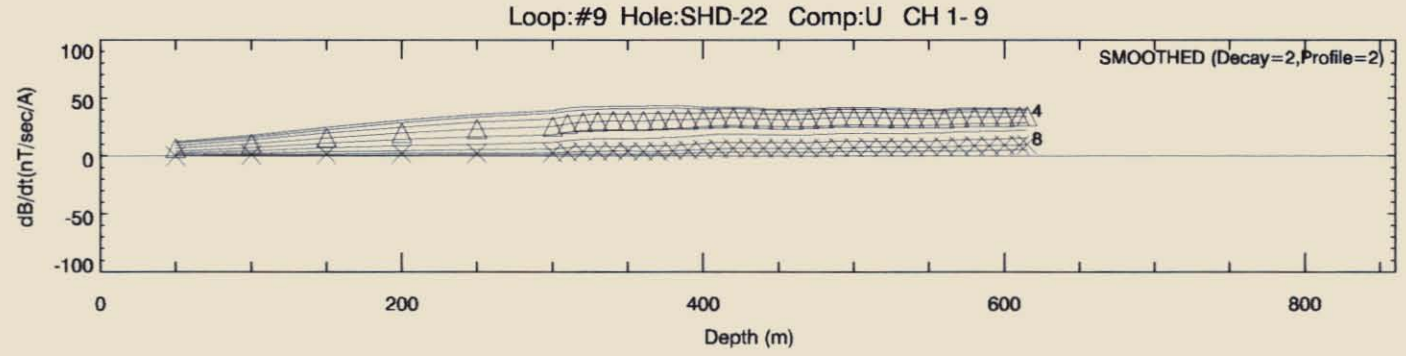


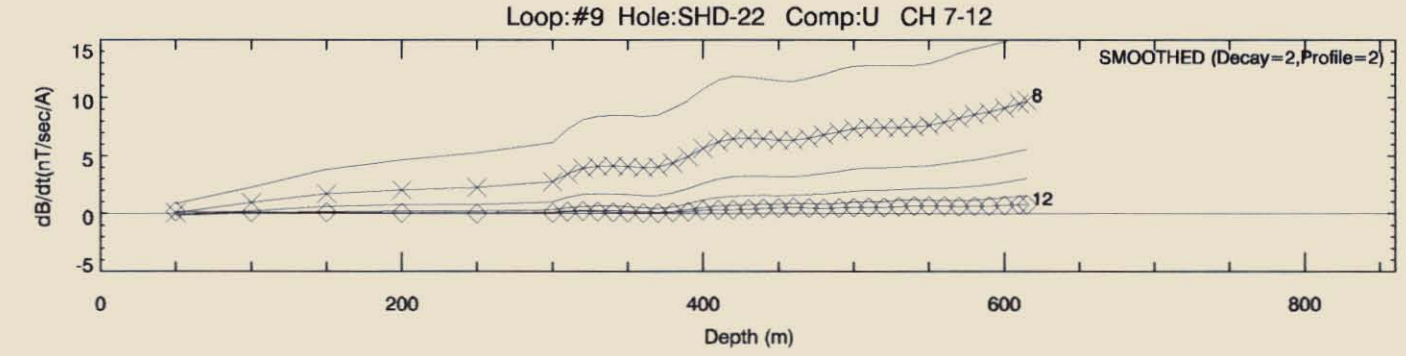


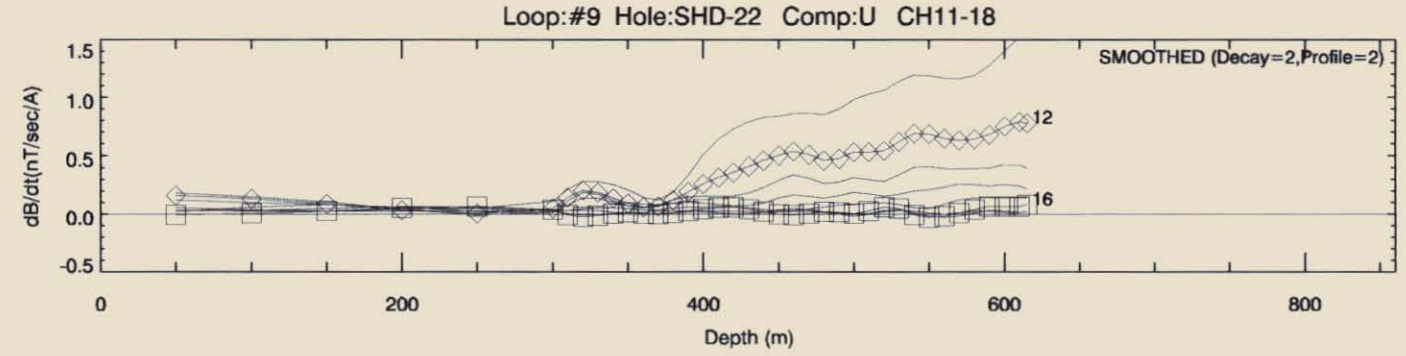
Goldfields Ltd	
South Henty. Borehole EM Jan 2000.	
Crone PEM. Tx Frequency 12.5 Hz	
Window Set Ch1-31	
FLAGSTAFF GEOCONSULTANTS Drawn 3-Apr-2000	

650367



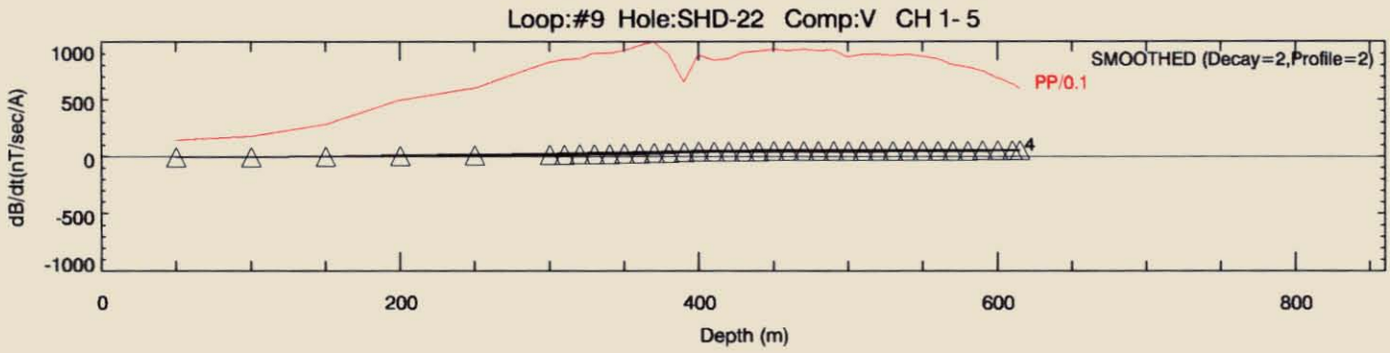


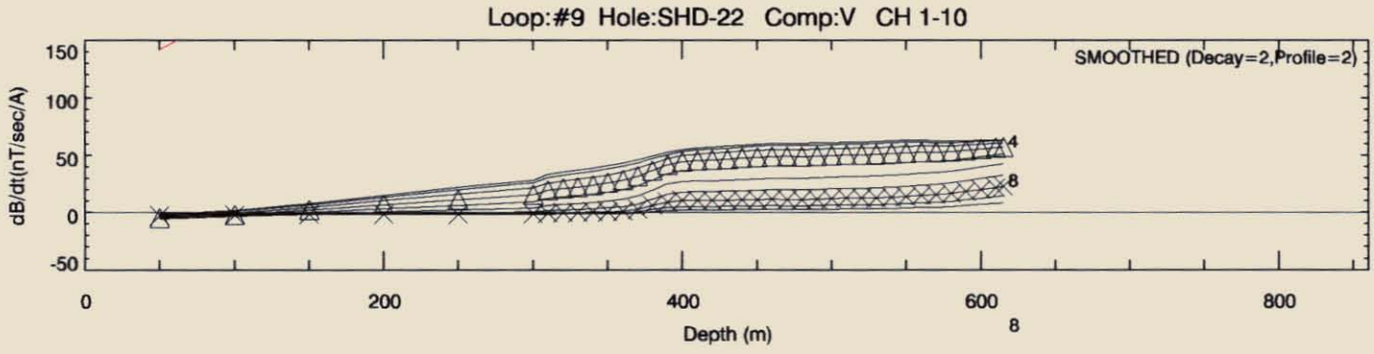


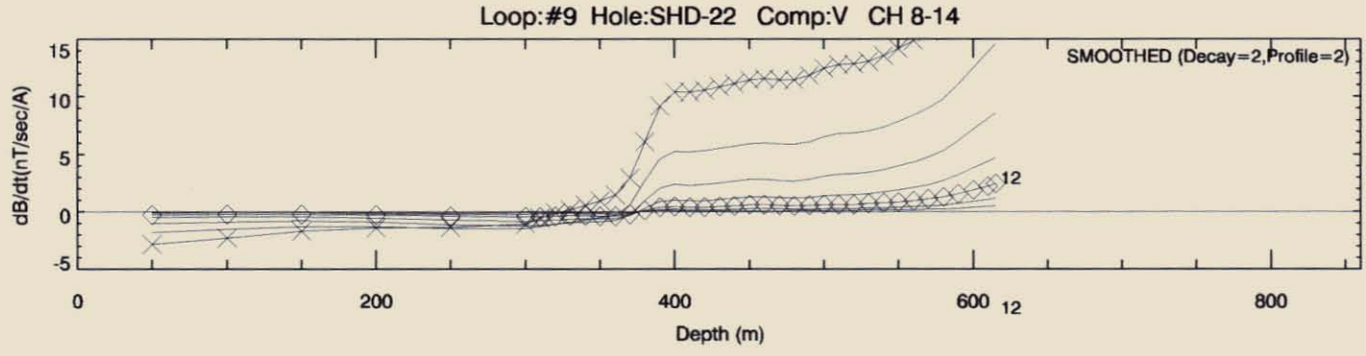


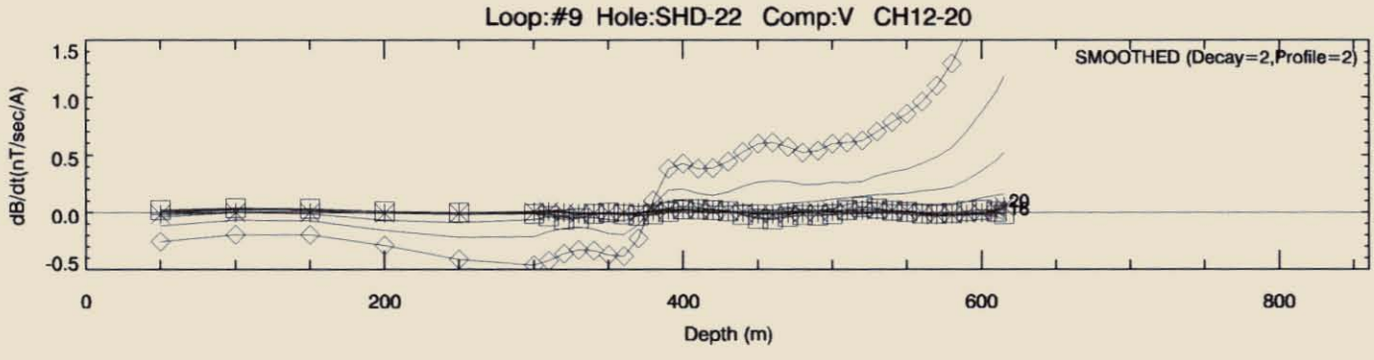
Goldfields Ltd	
South Henty. Borehole EM Jan 2000.	
Crone PEM. Tx Frequency 12.5 Hz	
Window Set Ch1-31	
FLAGSTAFF GEOCONSULTANTS	
Drawn 11-Feb-2000	

650368

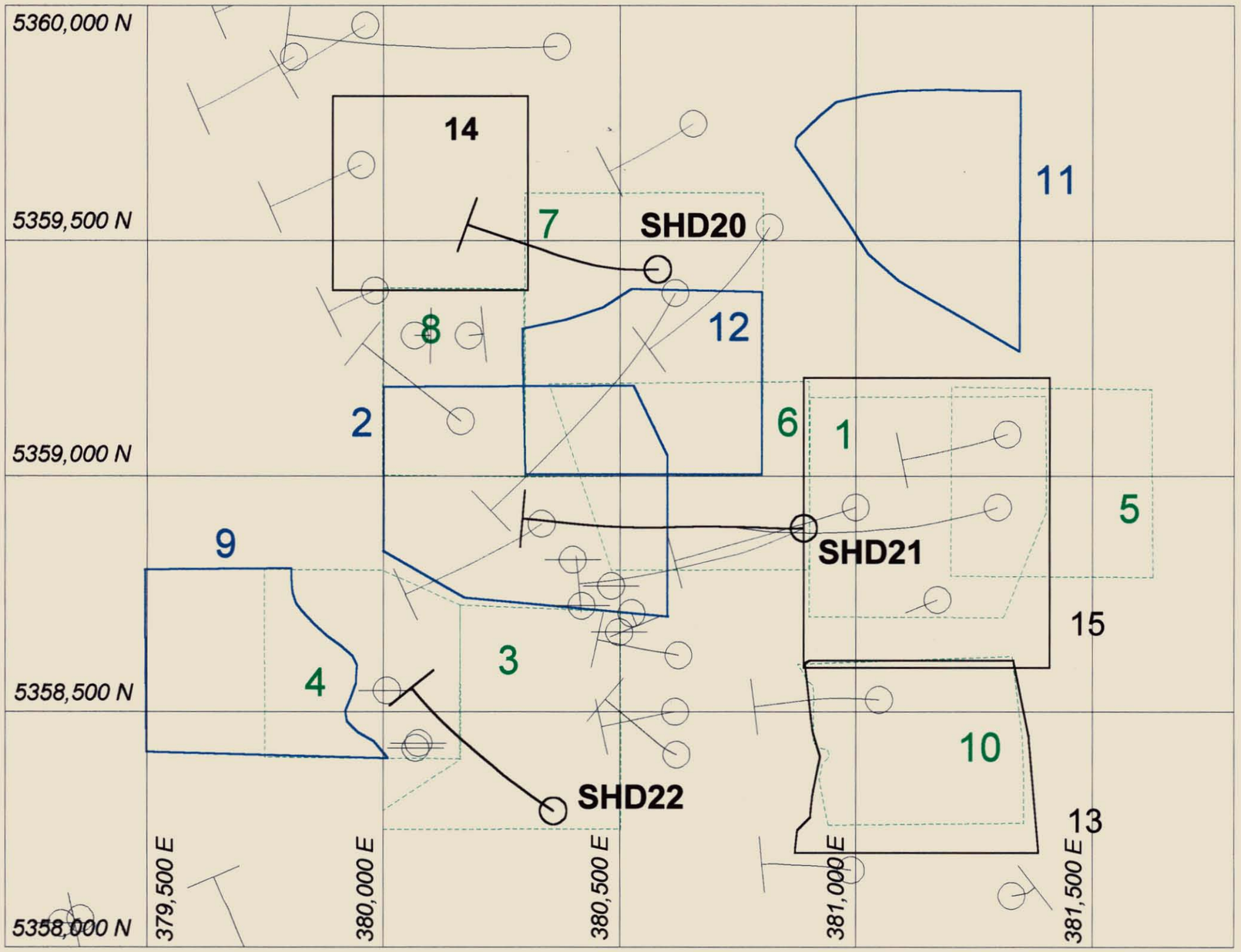








Goldfields Ltd	
South Henty. Borehole EM Jan 2000.	
Crone PEM. Tx Frequency 12.5 Hz	
Window Set Ch1-31	
FLAGSTAFF GEOCONSULTANTS	
Drawn 3-Apr-2000	



0 0.25 0.5
Kilometers

5 cm

GOLDFIELDS EXPLORATION

EL 8/96

DHEM SURVEYS 2000
TRANSMITTER LOOP POSITIONS
(WITH DRILLHOLES)

File:	goldex-1.wor	Date:	May 2000
Plot File:	goldex-1.pm	Scale:	1:10,000
M. ASTEN		Drawn:	ARC
Flagstaff GeoConsultants			

00_4457

Annual report - Tasmanian Gold Project - EL8/96 - South Henty
Goldfields Exploration Proprietary Limited*; Resolute Li
Callaghan, T. EL8/96

650369

650370

Appendix 5

Diamond drillhole collar coordinates, downhole surveys, assay data and drill logs.

650371

Hole_Id	AMG East	AMG North	AMG RL	Total Depth
SHD20	380580.00	5359440.00	495.00	793.00

Hole_Id	Depth	final (AMG) Az	Dip
SHD20	0.00	270.00	-70
SHD20	15.00	268.00	-69.3
SHD20	30.00	268.00	-69
SHD20	60.00	268.00	-69
SHD20	91.00	270.00	-69
SHD20	120.00	271.00	-69
SHD20	152.00	273.00	-68.9
SHD20	180.00	271.00	-67.5
SHD20	211.00	274.00	-66
SHD20	241.00	278.00	-65.2
SHD20	271.00	278.00	-63.2
SHD20	301.00	278.00	-62.3
SHD20	331.00	281.50	-61.3
SHD20	361.00	284.00	-60
SHD20	391.00	284.50	-59
SHD20	421.00	286.00	-58
SHD20	451.00	286.00	-56.8
SHD20	481.00	286.50	-55.5
SHD20	511.00	290.00	-54.5
SHD20	541.00	291.00	-53
SHD20	571.00	288.00	-51.8
SHD20	601.00	288.00	-50
SHD20	631.00	289.00	-48.5
SHD20	661.00	288.00	-46.5
SHD20	691.00	288.00	-44.8
SHD20	721.00	289.00	-43
SHD20	751.00	288.00	-42
SHD20	784.00	290.00	-41

SHD20 Assay Results

Samp_No	D_From	D_To	AG_A	AS_A	AU_G1	AUR_G	BI_A	CU_A	PB_A	ZN_A
1021801	545.00	546.00	-1	-50	0.03		-10	46	33	141
1021802	546.00	547.00	-1	-50	-0.01		-10	11	257	910
1021803	547.00	548.00	-1	-50	0.01		-10	12	1490	3480
1021804	548.00	549.00	-1	-50	-0.01		-10	21	437	731
1021805	549.00	550.00	-1	-50	0.02		-10	9	541	791
1021806	550.00	551.00	-1	-50	-0.01	-0.01	-10	7	164	308
1021807	551.00	552.00	-1	-50	-0.01		-10	5	167	413
1021808	552.00	553.00	-1	-50	-0.01		-10	5	160	392
1021809	553.00	554.00	-1	-50	-0.01		-10	5	446	642
1021810	554.00	555.00	-1	-50	0.05	0.06	-10	18	1800	3990
1021811	555.00	556.00	-1	-50	0.02		-10	34	1635	3140
1021812	556.00	557.00	-1	-50	0.03		-10	33	333	1035
1021813	557.00	558.00	-1	-50	-0.01		-10	18	91	296
1021814	558.00	559.00	-1	-50	-0.01		-10	22	218	457
1021815	559.00	560.00	-1	-50	-0.01		-10	44	167	372
1021816	560.00	561.00	-1	-50	0.01		-10	31	272	302
1021817	561.00	562.00	-1	-50	0.02		-10	70	1610	5100
1021818	562.00	563.00	-1	-50	0.05	0.04	-10	94	404	3980
1021819	563.00	564.00	-1	-50	0.05		-10	72	1790	4560
1021820	564.00	565.00	-1	-50	-0.01		-10	156	165	404
1021822	565.00	566.00	-1	-50	0.03		-10	34	223	234
1021823	566.00	567.00	-1	-50	0.06		-10	47	3050	6100
1021824	567.00	568.00	-1	-50	0.09		-10	16	4040	10100
1021825	568.00	569.00	-1	-50	0.02		-10	79	2340	5100
1021826	569.00	570.00	-1	-50	0.02		-10	19	1900	2950
1021827	590.00	591.00	-1	-50	-0.01		-10	40	372	672
1021828	591.00	592.00	-1	-50	-0.01		-10	43	1485	2250
1021829	592.00	593.00	-1	-50	0.01		-10	23	1300	5800
1021830	593.00	594.00	-1	-50	-0.01		-10	26	1495	4420
1021831	594.00	595.00	-1	-50	-0.01		-10	14	2540	5200
1021832	595.00	596.00	-1	-50	0.01		-10	102	254	2600
1021833	596.00	597.00	-1	65	0.02		-10	10	212	146
1021834	597.00	598.00	-1	-50	-0.01		-10	122	1200	4230
1021835	598.00	599.00	-1	-50	-0.01	-0.01	-10	192	21	179
1021836	599.00	600.00	-1	50	0.04		-10	785	36	211
1021837	600.00	601.00	-1	-50	-0.01	-0.01	-10	9	38	215
1021838	601.00	602.00	-1	-50	0.05	0.07	-10	464	34	213
1021839	602.00	603.00	-1	-50	0.03		-10	120	1550	4910
1021840	603.00	604.00	-1	-50	-0.01	-0.01	-10	25	2100	5600
1021842	604.00	605.00	-1	-50	0.07		-10	90	666	1710
1021843	605.00	606.00	-1	-50	0.07		-10	57	32	156
1021844	606.00	607.00	-1	-50	0.03		-10	48	50	150
1021845	607.00	608.00	-1	-50	0.09	0.1	-10	36	115	185
1021846	608.00	609.00	-1	55	0.13	0.13	-10	172	209	337
1021847	609.00	610.00	-1	-50	0.08		-10	46	223	1560
1021848	610.00	611.00	-1	-50	0.06		-10	15	209	608
1021849	611.00	612.00	-1	50	0.05		-10	15	383	854
1021850	612.00	613.00	-1	55	0.05		-10	13	239	703
1021851	613.00	614.00	-1	-50	-0.01		-10	17	535	1650
1021852	614.00	615.00	-1	-50	0.02		-10	34	690	2340
1021853	615.00	616.00	-1	-50	0.02		-10	52	514	3110
1021854	616.00	617.00	-1	-50	0.07		-10	327	328	2710
1021855	617.00	618.00	-1	-50	0.03		-10	213	366	4190

1021856	618.00	619.00	-1	60	0.16	0.19	-10	115	206	309
1021857	619.00	620.00	-1	-50	0.04		-10	108	405	1640
1021858	620.00	621.00	1	-50	0.05		-10	103	2320	7700
1021859	621.00	622.00	-1	-50	0.03		-10	18	292	1020
1021860	622.00	623.00	-1	-50	-0.01	-0.01	-10	14	57	163
1021862	623.00	624.00	-1	-50	0.01		-10	15	34	143
1021863	624.00	625.00	-1	-50	0.01		-10	15	23	180
1021864	625.00	626.00	-1	-50	-0.01		-10	17	28	196
1021865	626.00	627.00	-1	-50	-0.01		-10	24	29	257
1021866	627.00	628.00	-1	-50	0.01		-10	11	113	314
1021867	628.00	629.00	-1	-50	-0.01		-10	96	356	1340
1021868	629.00	630.00	-1	-50	-0.01		-10	173	470	464
1021869	630.00	631.00	-1	-50	-0.01		-10	13	156	237
1021870	631.00	632.00	-1	-50	-0.01		-10	13	105	171
1021871	632.00	633.00	-1	-50	-0.01		-10	8	64	106
1021872	633.00	634.00	-1	-50	0.01		-10	6	77	120
1021873	634.00	635.00	-1	-50	0.01		-10	6	110	241
1021874	635.00	636.00	-1	-50	-0.01		-10	6	314	336
1021875	636.00	637.00	-1	-50	-0.01		-10	55	1180	3960
1021876	637.00	638.00	-1	-50	-0.01		-10	36	713	2810
1021877	638.00	639.00	-1	-50	-0.01		-10	35	981	308
1021878	639.00	640.00	-1	-50	-0.01		-10	5	169	236
1021879	640.00	641.00	-1	-50	-0.01		-10	6	141	126
1021880	641.00	642.00	-1	-50	-0.01		-10	4	68	186
1021882	642.00	643.00	-1	-50	-0.01		-10	6	107	263
1021883	643.00	644.00	-1	-50	-0.01		-10	9	71	141
1021884	644.00	645.00	-1	-50	-0.01		-10	9	81	173
1021885	645.00	646.00	-1	-50	-0.01	-0.01	-10	12	1630	2530
1021886	676.00	677.00	-1	-50	-0.01		-10	11	959	1990
1021887	677.00	678.00	-1	-50	-0.01		-10	7	126	310
1021888	685.00	686.00	-1	-50	-0.01		-10	7	60	117
1021889	686.00	687.00	-1	-50	-0.01	-0.01	-10	5	61	108
1021890	687.00	688.00	-1	-50	-0.01		-10	3	52	76
1021891	688.00	689.00	-1	-50	-0.01		-10	5	237	274
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1021893	690.00	691.00	-1	-50	-0.01		-10	4	31	86
1021894	691.00	692.00	-1	-50	-0.01		-10	3	41	143
1021895	692.00	693.00	-1	-50	-0.01		-10	4	38	115
1021896	702.00	703.00	-1	-50	-0.01		-10	21	659	1240
1021897	703.00	704.00	-1	-50	0.07		-10	112	1760	4220
1021898	704.00	705.00	-1	-50	0.05		-10	95	1090	3860
1021899	705.00	706.00	-1	-50	0.05		-10	61	2590	4910
1021900	706.00	707.00	-1	-50	0.12	0.15	-10	39	2280	4710
1021901	707.00	708.00	-1	-50	0.05		-10	42	2250	3860
1021902	708.00	709.00	-1	-50	0.04		-10	35	2580	3460
1021903	709.00	710.00	-1	-50	0.03		-10	34	2340	4760
1021904	710.00	711.00	-1	-50	-0.01		-10	3	165	214
1021905	711.00	712.00	-1	-50	-0.01		-10	4	112	82
1021906	720.00	721.00	-1	-50	-0.01		-10	5	336	506
1021907	721.00	722.00	-1	-50	-0.01		-10	4	285	685
1021908	722.00	723.00	-1	-50	-0.01		-10	3	373	968
1021909	723.00	724.00	-1	-50	-0.01		-10	3	366	1100
1021910	724.00	725.00	-1	-50	-0.01	-0.01	-10	5	657	1345
1021911	725.00	726.00	-1	-50	-0.01		-10	5	256	1015
1021912	726.00	727.00	-1	-50	0.01		-10	5	1395	2680

RGC EXPLORATION PTY LTD

650374

DRILL HOLE No SHD20 (SUMMARY)

SHEET 1 **OF**

Bedding	Disseminated
Cleavage	Massive
Foliation	Pervasive
Fault, Shear	Narrow vein
Breccia	* Visible gold
Broken core	

PROJECT	: SOUTH HENTY EL 8/96
PROSPECT	:
DATE	: JULY - AUGUST 1999
LOGGED BY	: M VICARY

HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG (1/16, 1/4, 1, 4, 16, 32)	ALTERATION (SIL., SER., PY., CARB)	GEOLOGY NOTES	SUMMARY	ROCK	ALTERATION
						0-5.4 Till/Landfill			
10									
20									
30									
40									
50									
60						5.4-125.4 Qtz-feldspar phyric Rhyolite lava	ETI	LR>	
70									
80									
90									
100									
110									
120									
130				F VEIN		125.4-132.3 Zone of major faulting and Qtz-(carb) veining	CTTI	FALT	VR>M
						132.3-135.8 Rhyolitic volcaniclastic sst			
140									
150						135.8-166.2 Qtz-feldspar phyric Porphyry	CP	IR<	
160									
165.6 HQ/NQ				F		166.2-167.7 Fault Zone			
170									
180						167.7-211.2 Interbedded rhyolitic volcaniclastic sediments and carbonates with hyaloclastic to peperitic Qtz-feldspar phyric porphyry intrusions.	CTTI/CP	VR>M/CARB/IR<B	
190									
200									

SCALE 1:1000

REMARKS

RGC EXPLORATION PTY LTD

650375

DRILL HOLE No SHD 20 (SUMMARY)

SHEET 2 **OF**

Bedding	Disseminated
Cleavage	Massive
Foliation	Pervasive
Fault, Shear	Narrow vein
Breccia	* Visible gold
Broken core	

PROJECT	:
PROSPECT	:
DATE	:
LOGGED BY	:

HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG (1/16, 1/4, 1, 4, 16, 32)	ALTERATION (SIL., SER., PY., CARB)	GEOLOGY NOTES	SUMMARY	ROCK	ALTERATION
200							CTT/Cp	VR>M CARB IR<B	
10						211.2-220.2 Dacitic (pumiceous?) Volcaniclastic sst	Cor?	VDFM	
20									
30									
40									
50						220.2-352.0 Qtz-feldspar phyric Porphyry			
60									
70									
80									
90							Cp	IR<	
300									
10									
20									
30									
40									
50						352.0-361 Interbedded Volcaniclastic conglomerate and Qtz-feldspar phyric Porphyry breccia	Cp/CTT	IR<B VCLC	
60									
70						361.0-410 Qtz-feldspar phyric Porphyry			
80							Cp	IR<	
90									
400									

REMARKS

RGC EXPLORATION PTY LTD

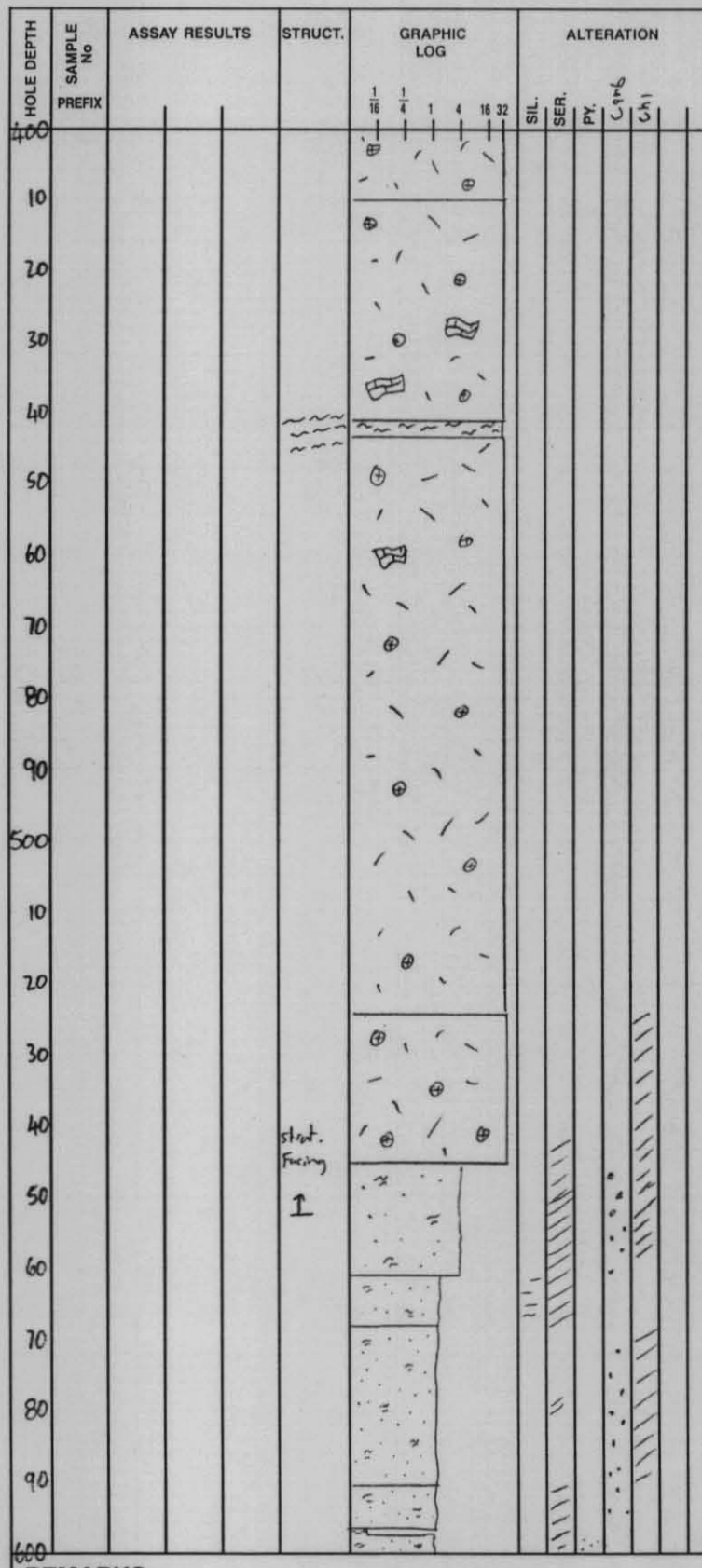
DRILL HOLE No SH020 (Summary)

SHEET _____ **OF** _____

6503766

Bedding	Disseminated
Cleavage	Massive
Foliation	Pervasive
Fault, Shear	Narrow vein
Breccia	* Visible gold
Broken core	

PROJECT	: South Henty EL 8/96
PROSPECT	:
DATE	: July - August 1991
LOGGED BY	: T. Callaghan



GEOLOGY NOTES

410 - 441
Qtz-feld ± Hbl phyric Porphyry pervasive Ke-Alb alteration. Lst inclusions + calcite veins.

441 - 443.4 Faulted porphyry.

443.4 - 524.5
Qtz-feld ± Hbl porphyry. pervasive Ke-Alb alteration.

524.5 - 545.5
Qtz-feld porphyry. Pervasive chlorite alteration. Foliated Altered contact.

545.5 - 581.0
dacite - pumice-lithic vc mass flow Breccia. graded. strong ser-CO_3 alt. Minor sphalerite

581 - 568.4 Dacitic - pumiceous vc sst Fe-Mncg - ser-chl alt. Minor sphal

568.4 - 590.5
Monomict, dacitic - lithic - pumiceous vc sst. Pervasive chl alt ± large CO_3 blebs

590.5 - 996.4
Dacitic - lithic sst. ser-chl. alteration

SUMMARY

	ROCK	ALTERATION
Cp	IR<C	H7A5
Cp	IR<C	H7A5
Cp	IR<C	08
Ccv	VDLP	S7C7
Ccv	VDLP	S7C7
Ccv	VDLP	07C7

REMARKS

650377

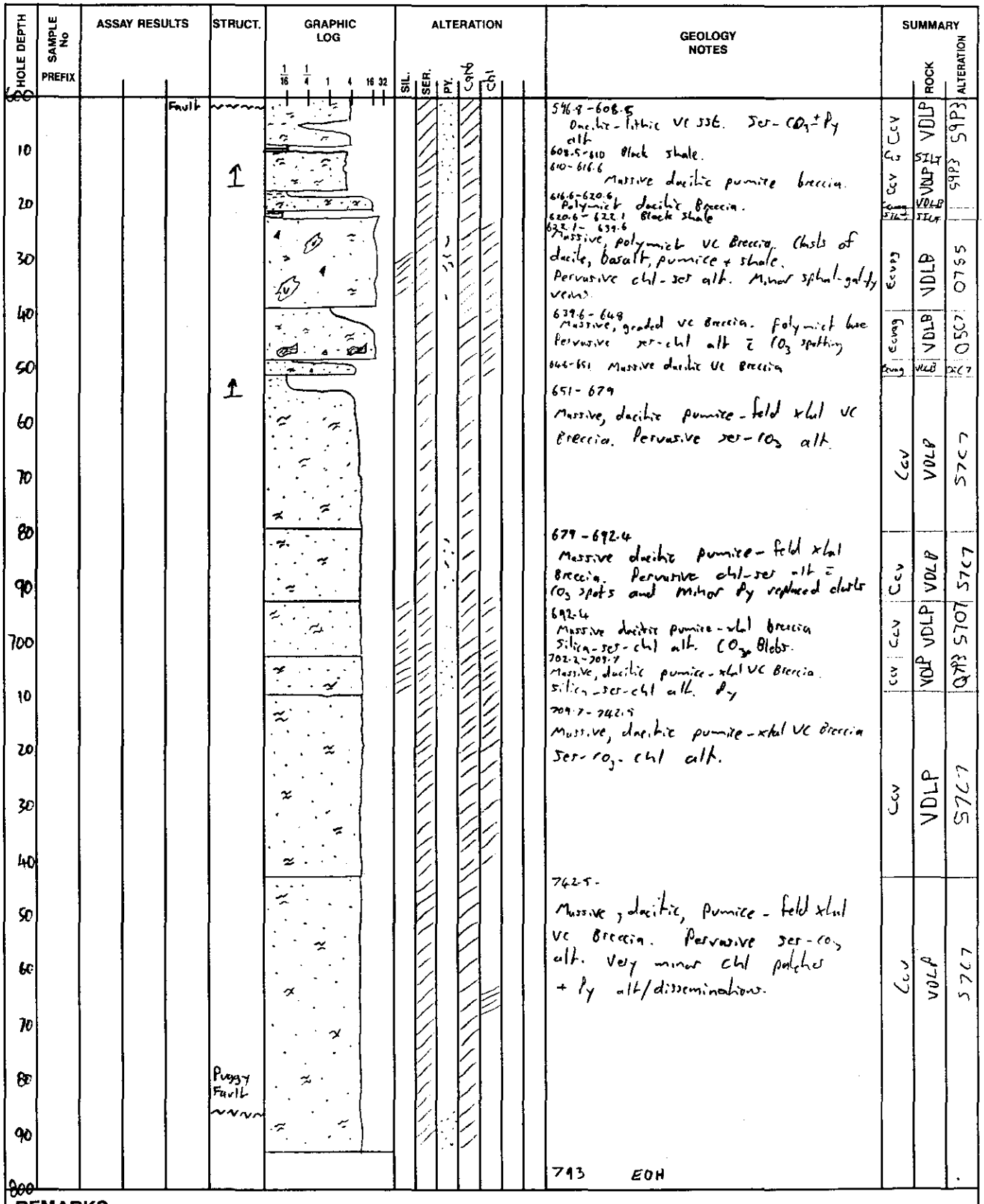
RGC EXPLORATION PTY LTD

DRILL HOLE No SH020 (Summary)

SHEET _____ **OF** _____

Bedding	Disseminated
Cleavage	Massive
Foliation	Pervasive
Fault, Shear	Narrow vein
Breccia	* Visible gold
Broken core	

PROJECT	: South Henty EL 8/96
PROSPECT	:
DATE	: July - August 1999
LOGGED BY	: T. Callaghan



HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG	ALTERATION (SIL. SER. PY. CaCO3 Chl)	GEOLOGY NOTES	SUMMARY	ROCK	ALTERATION
600		Fault				596.8-608.5 Dacitic-lithic VC sst. Ser-CO_3 ± Py alt	Ccv	VDLP	S9P3
10						608.5-610 Black shale.	Ccs	SILT	
						610-616.6 Massive dacitic pumice breccia.	Ccv	VDLP	S9P3
20						616.6-620.6 Polymict dacitic Breccia.	Ccvg	VDLB	
						620.6-622.1 Black shale	SILT	SILT	
30						622.1-639.6 Massive, polymict VC Breccia. Clasts of dacite, basalt, pumice + shale. Pervasive chl-ser alt. Minor sphal-gal-py veins.	Ccvg	VDLB	0755
40						639.6-648 Massive, graded VC Breccia. Polymict base Pervasive ser-chl alt c̄ CO_3 spotting	Ccvg	VDLB	05C7
50						648-651 Massive dacitic VC Breccia	Ccvg	VDLB	05C7
60						651-679 Massive, dacitic pumice-feld xtal VC Breccia. Pervasive ser-CO_3 alt.	Ccv	VDLB	S7C7
70									
80						679-692.4 Massive dacitic pumice-feld xtal Breccia. Pervasive chl-ser alt c̄ CO_3 spots and minor Py replaced clasts	Ccv	VDLB	S7C7
90									
700						692.4 Massive dacitic pumice-xtal breccia Silica-ser-chl alt. CO_3 Blebs.	Ccv	VDLP	S7C7
						702.2-709.7 Massive, dacitic pumice-xtal VC Breccia. Silica-ser-chl alt. Py	Ccv	VDLP	Q7P3
10						709.7-742.5 Massive, dacitic pumice-xtal VC Breccia Ser-CO_3-chl alt.	Ccv	VDLP	S7C7
20									
30									
40									
50						742.5- Massive, dacitic, pumice-feld xtal VC Breccia. Pervasive ser-CO_3 alt. Very minor chl patches + Py alt/disseminations.	Ccv	VDLP	S7C7
60									
70									
80			Puggy Fault						
90									
800						793 EOH			

REMARKS

RGC EXPLORATION PTY LTD

650378

DRILL HOLE No SHD20

SHEET 1 **OF**

Bedding	Disseminated
Cleavage	Massive
Foliation	Pervasive
Fault, Shear	Narrow vein
Breccia	* Visible gold
Broken core	

PROJECT	: SOUTH HENTY EL 8/96
PROSPECT	:
DATE	: JULY - AUGUST 1999
LOGGED BY	: M VICARY

HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG (1/16, 1/4, 1, 4, 16, 32)	ALTERATION (SIL., SER., PY., Chl, Carb, Alb)	GEOLOGY NOTES	SUMMARY ROCK	SUMMARY ALTERATION
1								
2						Till/LANDFILL		
3							Qu	
4								
5						4.7 rhyolite clast ? 5.2 hole collapse ? 5.4		
6								
7						Strongly broken Pale Orange IR> (bleached/weathered)		
8								
9								A--8
10						9.8 hole collapse		
11						10.9 11.0 hole collapse		
12								
13						Maroon-orange Albite altered	CTL	LR>
14						Qtz phyric rhyolite		
15						Carb veining commonly leached		
16						Minor chl veining and chl on joint surfaces		AD-7
17						Moderately to wkly broken.		
18								
19								
20								

SCALE 1:100

REMARKS

650379

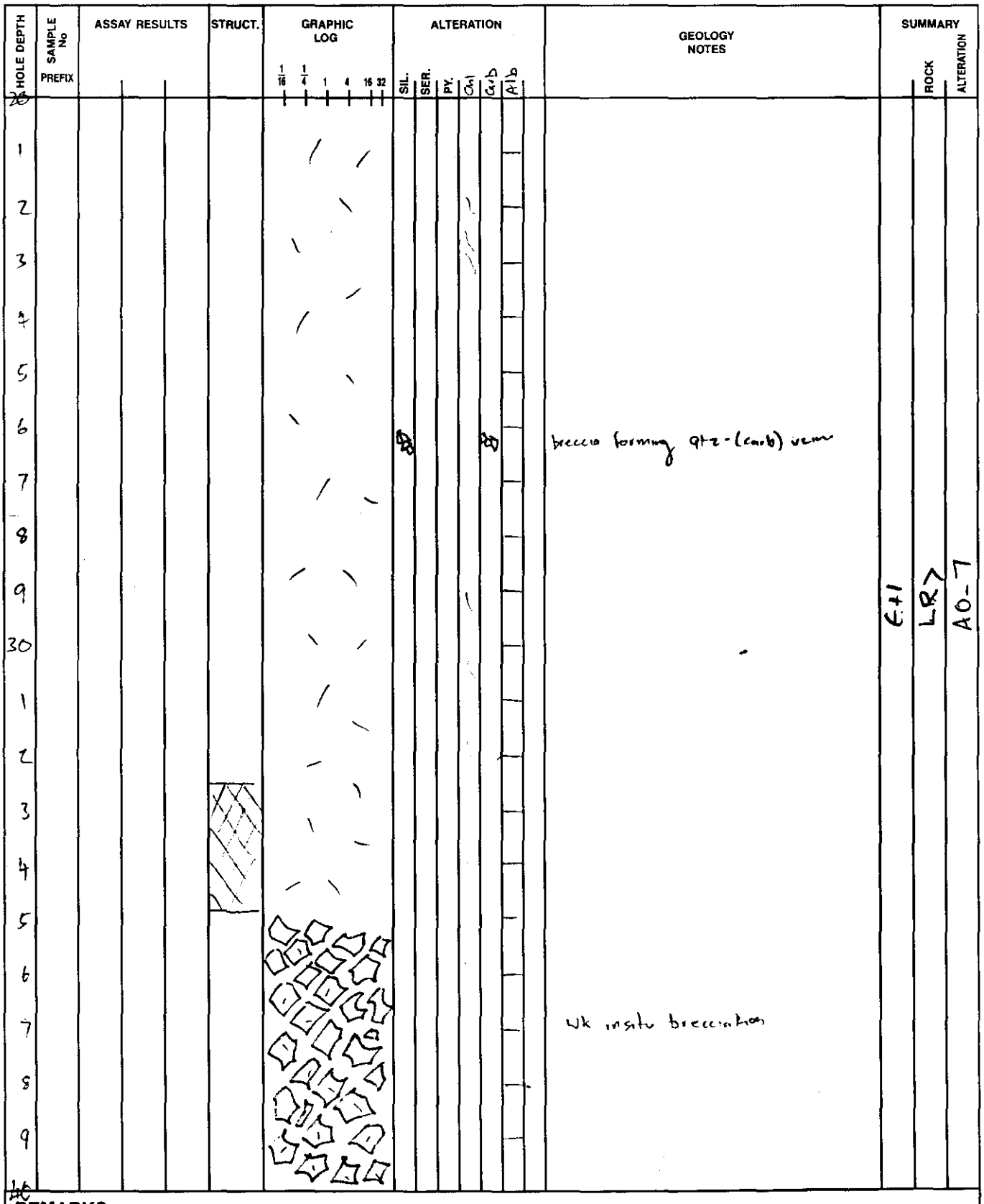
RGC EXPLORATION PTY LTD

DRILL HOLE No SHD20

SHEET 2 OF

Bedding	Disseminated
Cleavage	Massive
Foliation	Pervasive
Fault, Shear	Narrow vein
Breccia	* Visible gold
Broken core	

PROJECT	:
PROSPECT	:
DATE	:
LOGGED BY	:



REMARKS

RGC EXPLORATION PTY LTD

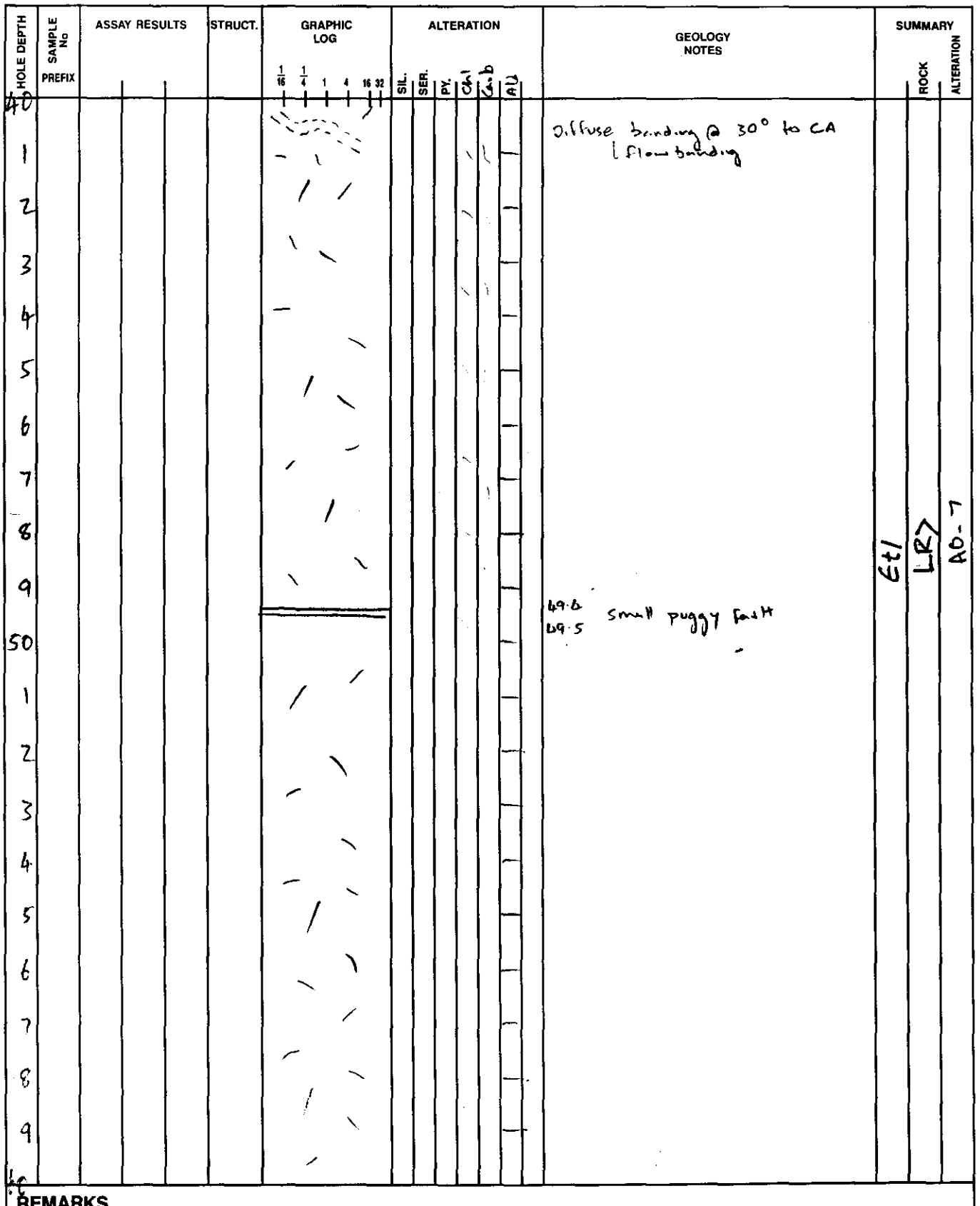
DRILL HOLE No SHD20

SHEET 3 OF

650380

— Bedding
⌊ Cleavage
— Foliation
~ Fault, Shear
Breccia
Broken core
Disseminated
Massive
Pervasive
Narrow vein
* Visible gold

PROJECT	:
PROSPECT	:
DATE	:
LOGGED BY	:



REMARKS

RGC EXPLORATION PTY LTD

650381

DRILL HOLE No SHD20

SHEET 4 OF

Bedding	Disseminated
Cleavage	Massive
Foliation	Pervasive
Fault, Shear	Narrow vein
Breccia	* Visible gold
Broken core	

PROJECT	:
PROSPECT	:
DATE	:
LOGGED BY	:

HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG (1/16, 1/4, 1, 4, 16, 32)	ALTERATION (SIL., SER., PY., Chl, Carb, Alb)	GEOLOGY NOTES	SUMMARY ROCK	SUMMARY ALTERATION
0								
1								
2								
3						wk insitu breccia development		
4								
5								
6								
7								
8								
9							Et1 LR>	AO_7
70						Qtz Carb vein c̄ Alb halo		
1								
2								
3								
4								
5								
6						insitu halo clastite minor clast rotation carb matrix		
7								
8								AO_8
9								
80								

REMARKS

RGC EXPLORATION PTY LTD

DRILL HOLE No SHD20

SHEET 5 OF

6503822

Bedding	Disseminated
Cleavage	Massive
Foliation	Pervasive
Fault, Shear	Narrow vein
Breccia	* Visible gold
Broken core	

PROJECT	:
PROSPECT	:
DATE	:
LOGGED BY	:

HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG (1/16, 1/4, 1, 4, 16, 32)	ALTERATION (SIL., SER., PY., Chl, Carb, Alb)	GEOLOGY NOTES	SUMMARY ROCK	SUMMARY ALTERATION
0								
1								
2								
3								AO-8
4								
5								
6								
7								
8						0.5m Qtz vein		
9								
90							Chl LR7	
1								
2								
3								AO-7
4								
5								
6								
7								
8								
9								
100								

REMARKS

RGC EXPLORATION PTY LTD

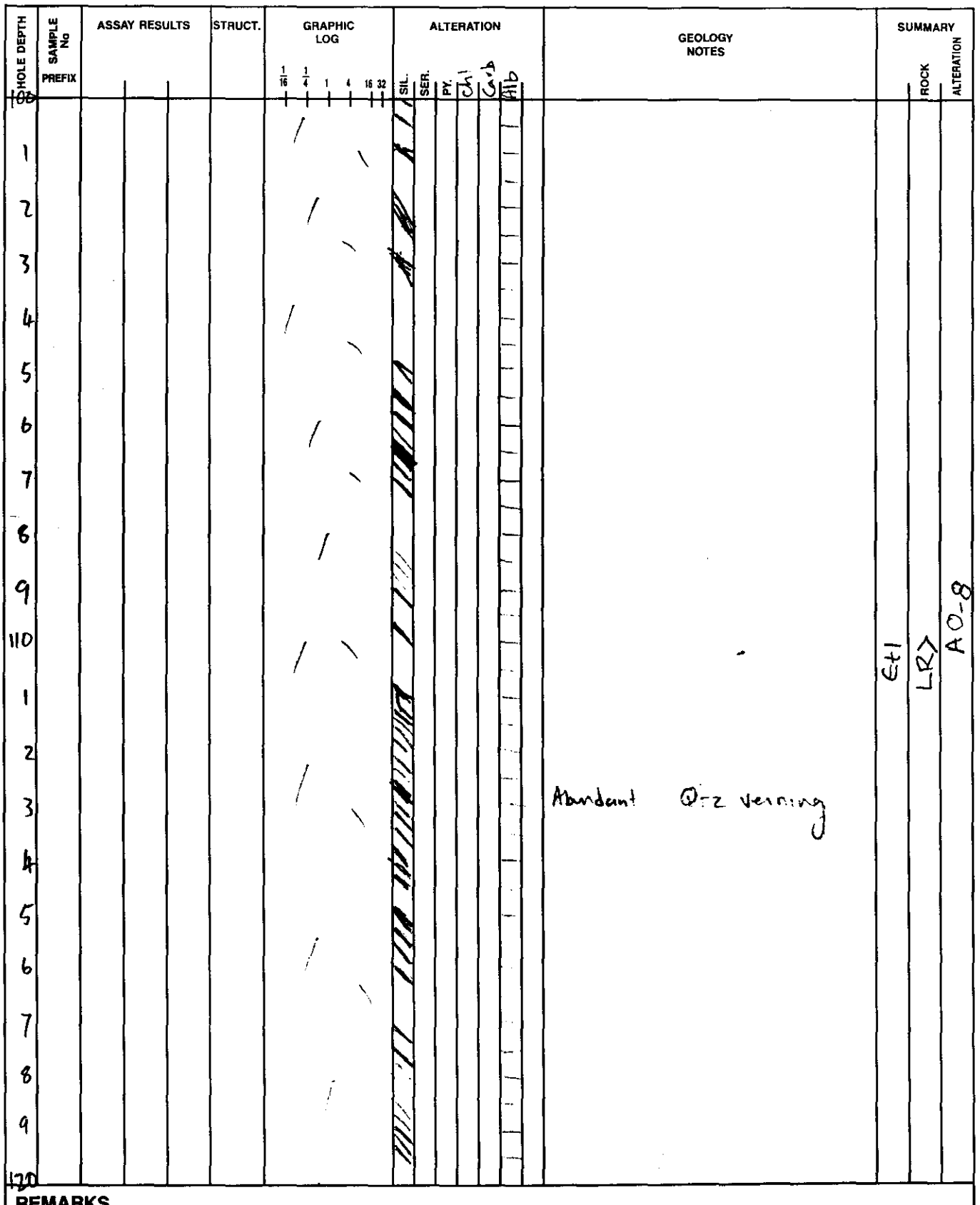
DRILL HOLE No SHD20

SHEET 6 OF

650383

Bedding		Disseminated	
Cleavage		Massive	
Foliation		Pervasive	
Fault, Shear		Narrow vein	
Breccia	*	Visible gold	
Broken core			

PROJECT	:
PROSPECT	:
DATE	:
LOGGED BY	:



REMARKS

RGC EXPLORATION PTY LTD

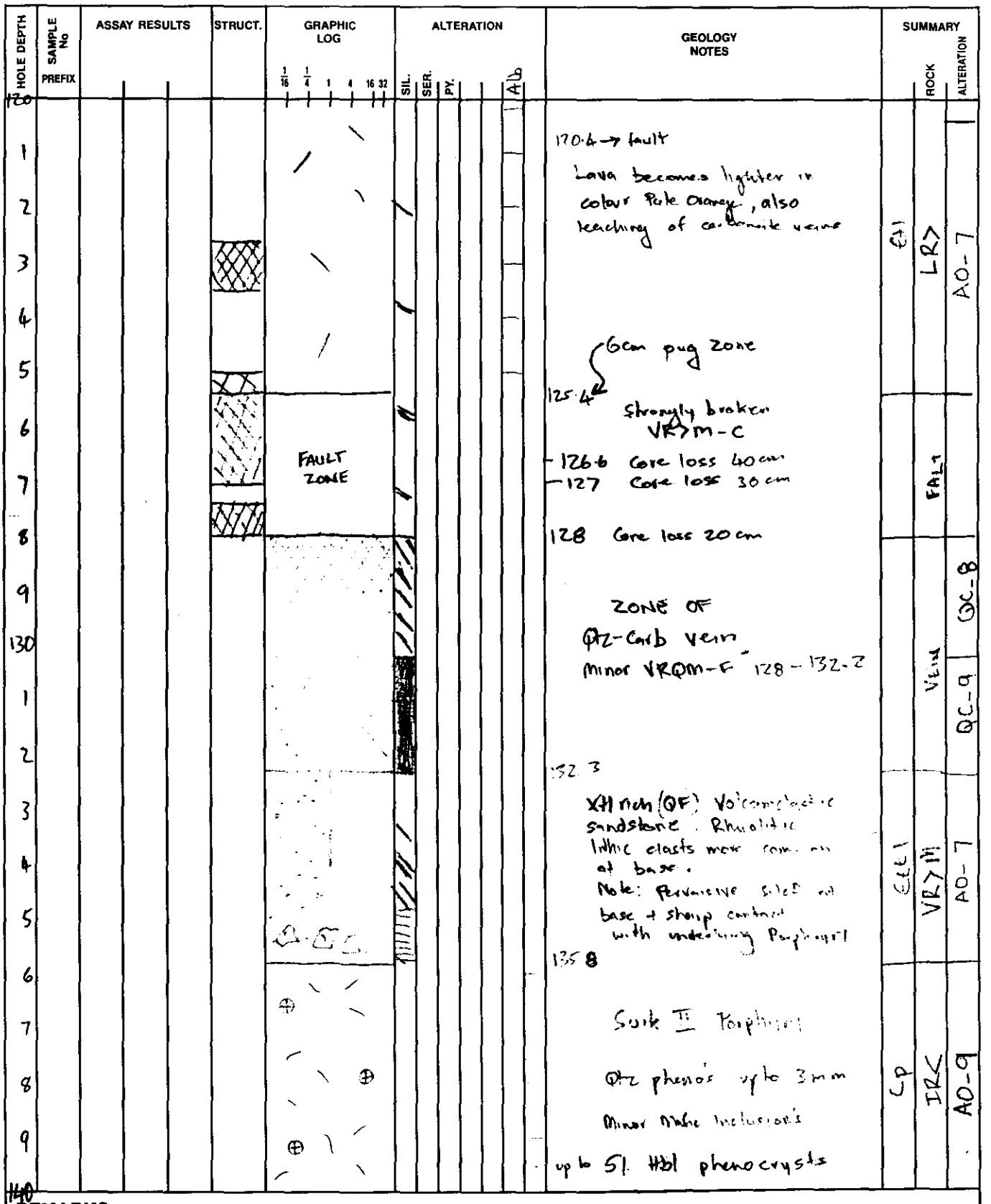
650384

DRILL HOLE No SHD20

SHEET 7 OF

PROJECT	:
PROSPECT	:
DATE	:
LOGGED BY	:

Bedding
Cleavage
Foliation
Fault, Shear
Breccia
Broken core
Disseminated
Massive
Pervasive
Narrow vein
* Visible gold



REMARKS

RGC EXPLORATION PTY LTD

650385

DRILL HOLE No SHD20

SHEET 8 OF

Bedding	Disseminated
Cleavage	Massive
Foliation	Pervasive
Fault, Shear	Narrow vein
Breccia	* Visible gold
Broken core	

PROJECT	:
PROSPECT	:
DATE	:
LOGGED BY	:

HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG (1/16, 1/4, 1, 4, 16, 32)	ALTERATION: SIL.	SER.	PY.	Chl	Carb	Alb	GEOLOGY NOTES	SUMMARY: ROCK	ALTERATION
140													
1													
2													
3													
4													
5													
6													
7													
8													
9													
150											2cm mafic inclusion	CP	
1											3cm mafic inclusion	IRL	
2											1cm felsic inclusion		AQ-Q
3													
4													
5													
6													
7													
8													
9													
160													

REMARKS

RGC EXPLORATION PTY LTD

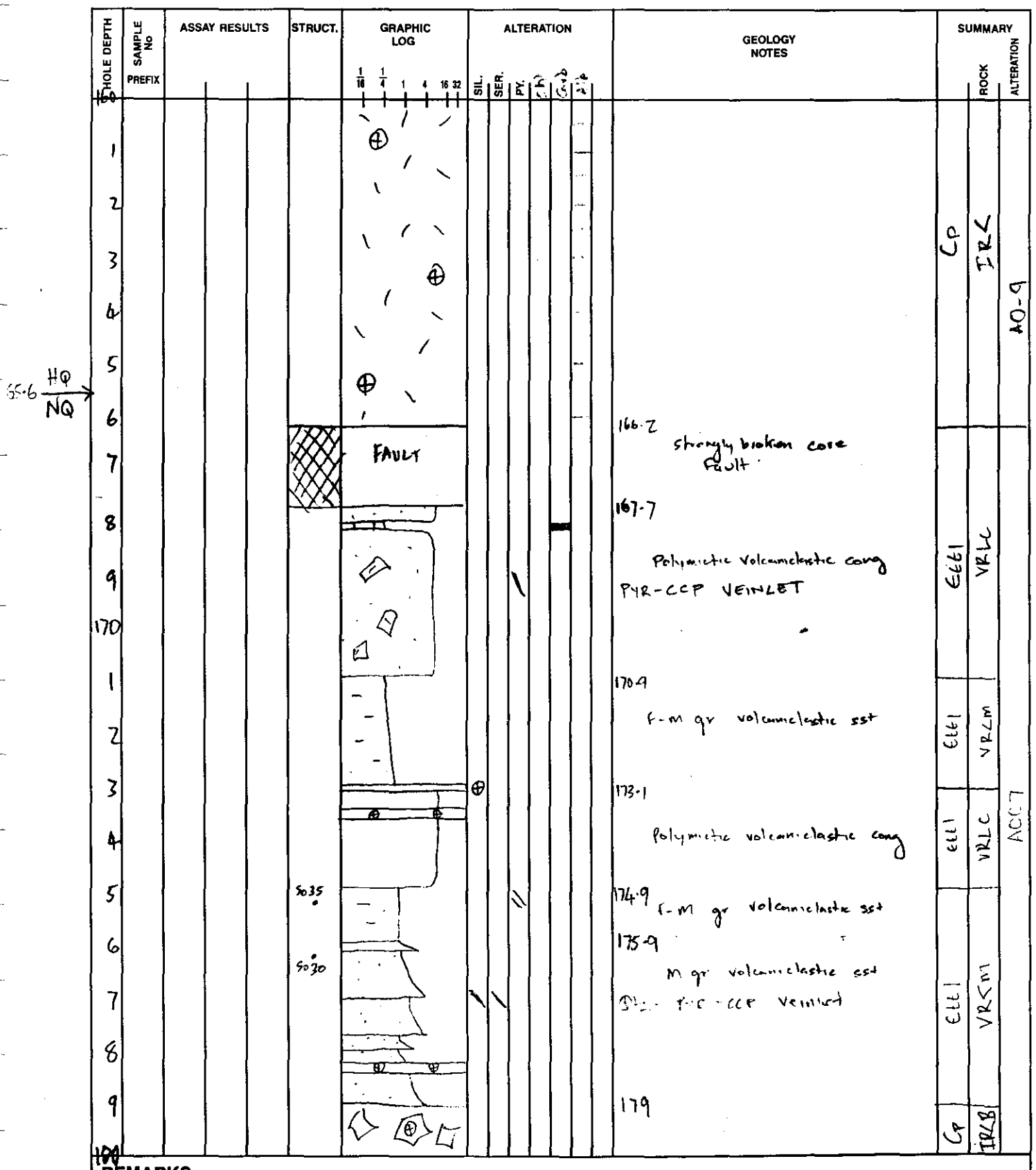
650386

DRILL HOLE No SHD20

SHEET 9 OF

PROJECT	:
PROSPECT	:
DATE	:
LOGGED BY	:

- Bedding
- Cleavage
- Foliation
- Fault, Shear
- Breccia
- Broken core
- Disseminated
- Massive
- Pervasive
- Narrow vein
- * Visible gold



REMARKS

RGC EXPLORATION PTY LTD

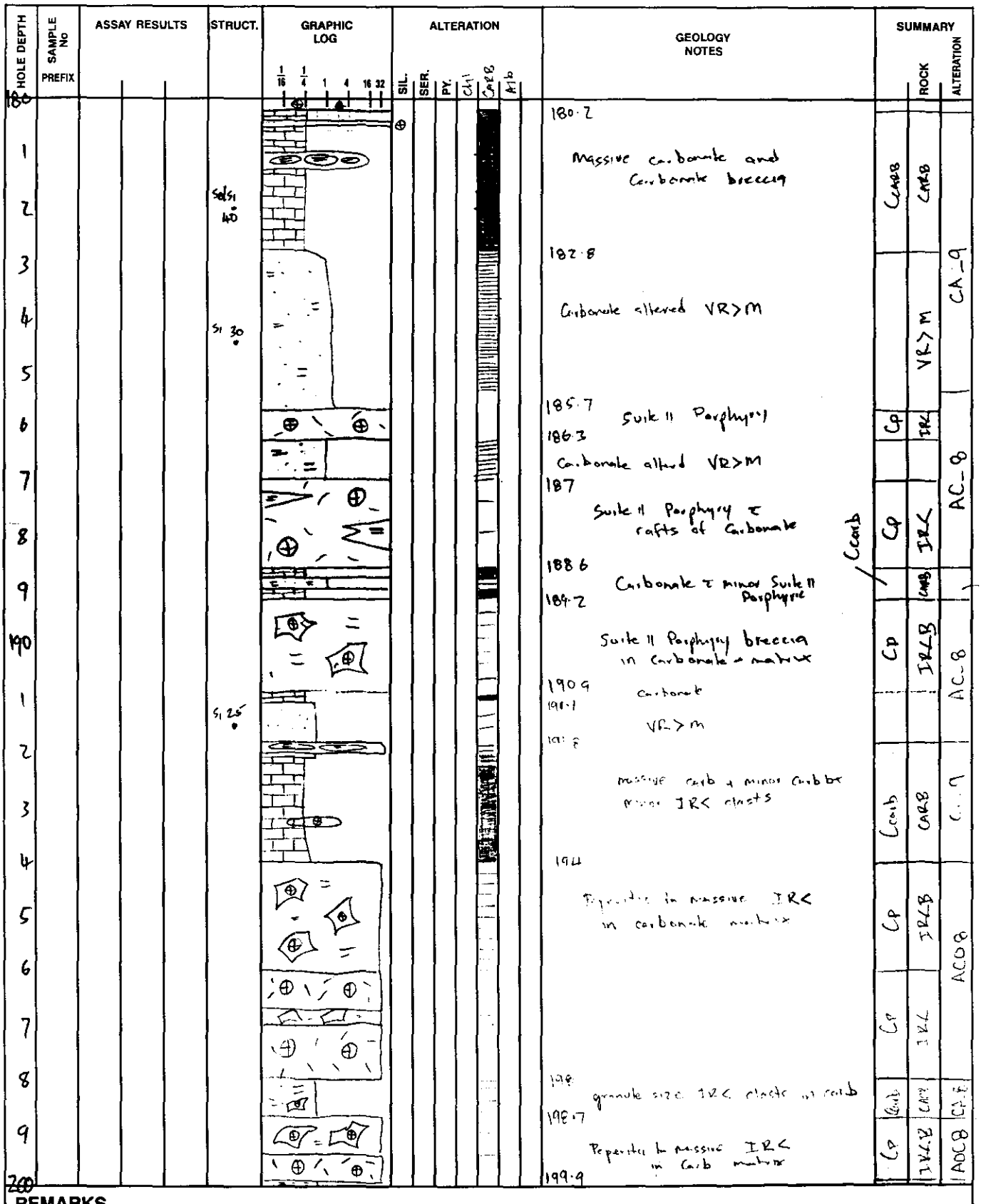
650387

DRILL HOLE No SHD20

SHEET 10 OF

PROJECT	:
PROSPECT	:
DATE	:
LOGGED BY	:

- Bedding
- Cleavage
- Foliation
- Fault, Shear
- Breccia
- Broken core
- Disseminated
- Massive
- Pervasive
- Narrow vein
- * Visible gold



REMARKS

RGC EXPLORATION PTY LTD

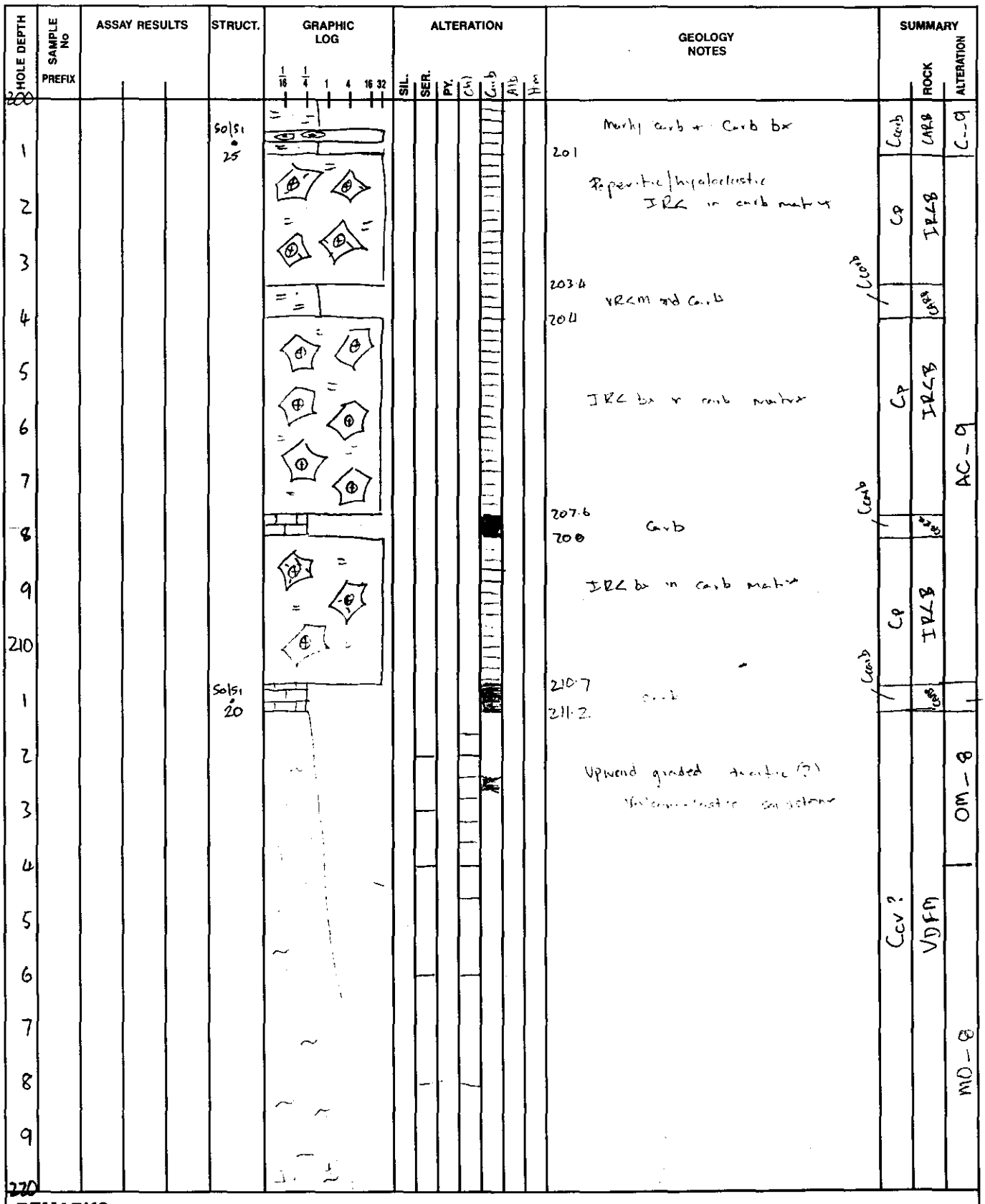
DRILL HOLE No SHD20

SHEET 11 OF

650388

Bedding	Disseminated
Cleavage	Massive
Foliation	Pervasive
Fault, Shear	Narrow vein
Breccia	* Visible gold
Broken core	

PROJECT	:
PROSPECT	:
DATE	:
LOGGED BY	:



REMARKS

RGC EXPLORATION PTY LTD

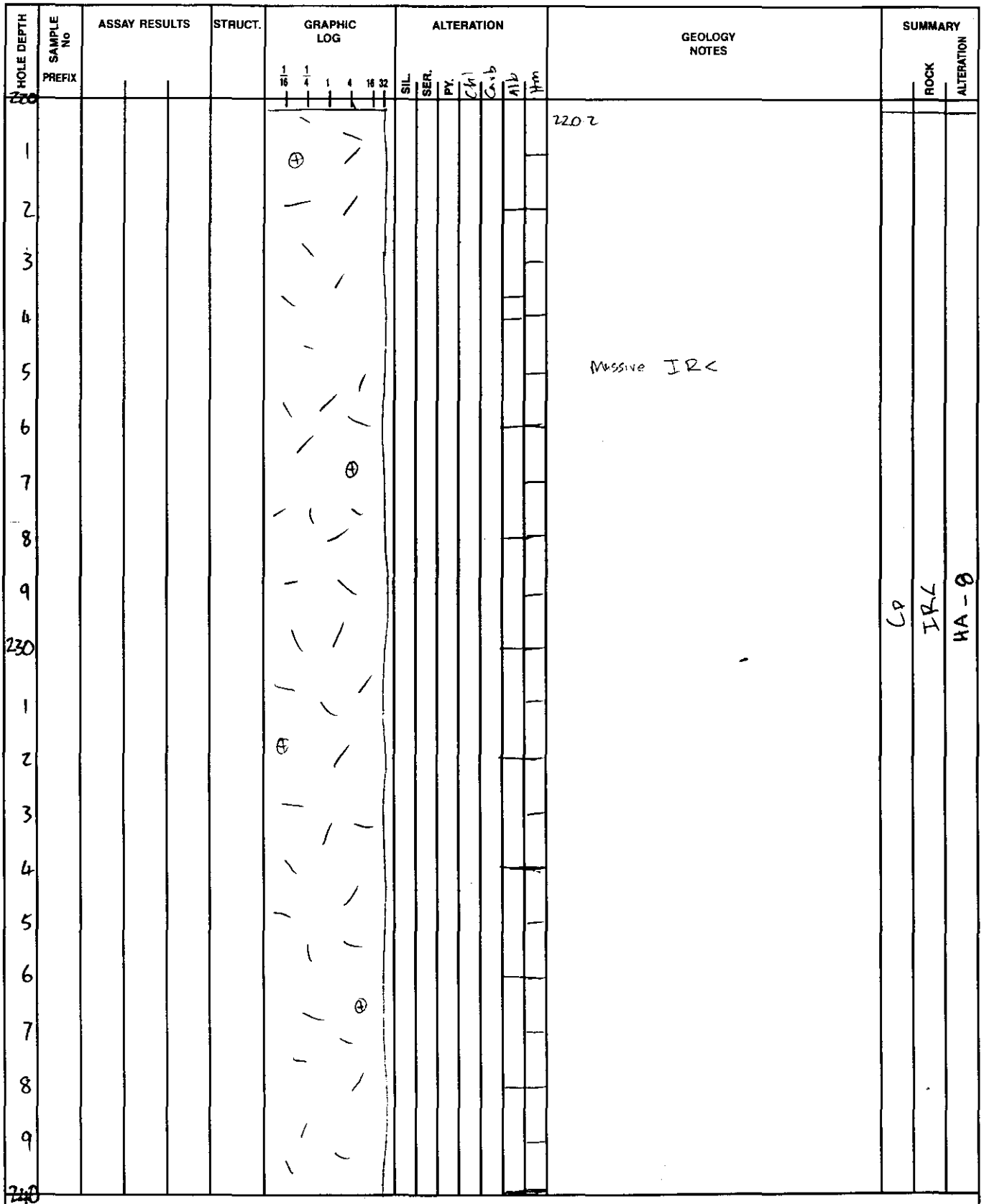
650389

DRILL HOLE No SHD20

SHEET 12 OF

— Bedding	Disseminated
⌊ Cleavage	Massive
▲ Foliation	Pervasive
~ Fault, Shear	Narrow vein
Breccia	* Visible gold
Broken core	

PROJECT	:
PROSPECT	:
DATE	:
LOGGED BY	:



REMARKS

RGC EXPLORATION PTY LTD

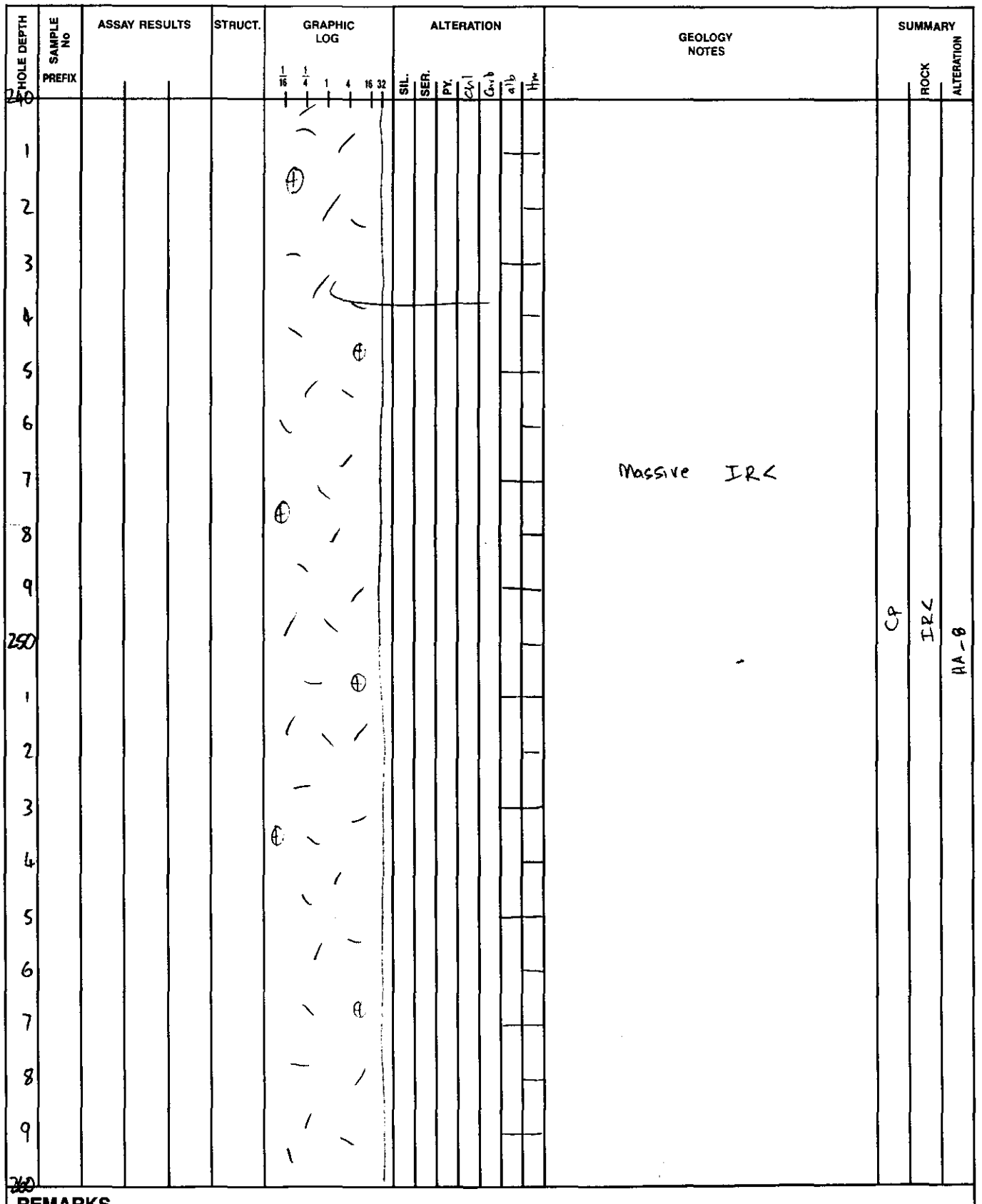
650390

DRILL HOLE No SHD20

SHEET 13 OF

PROJECT	:
PROSPECT	:
DATE	:
LOGGED BY	:

- Bedding
- Cleavage
- Foliation
- Fault, Shear
- Breccia
- Broken core
- Disseminated
- Massive
- Pervasive
- Narrow vein
- * Visible gold



REMARKS

RGC EXPLORATION PTY LTD

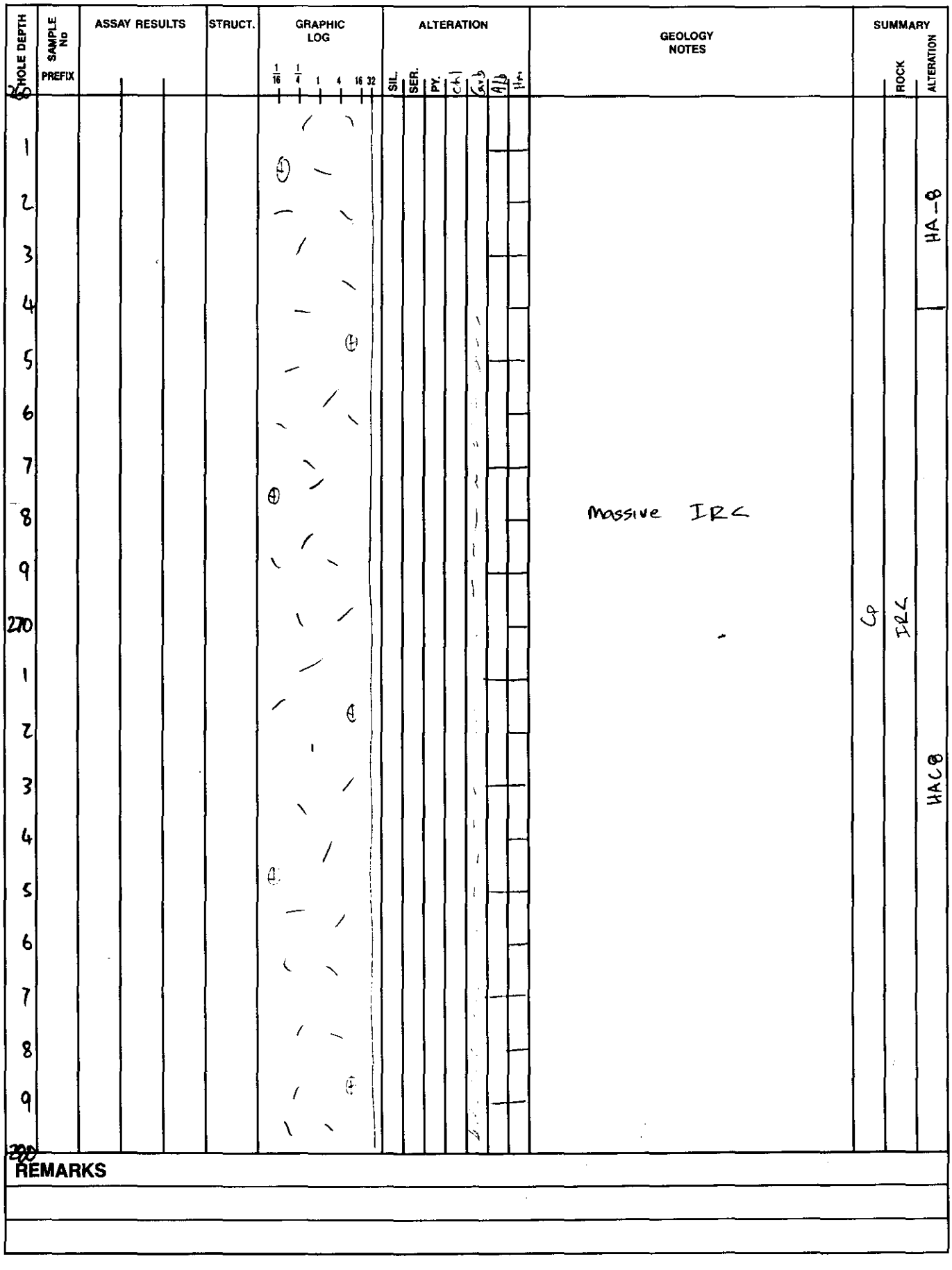
650391

DRILL HOLE No SHD20

SHEET 14 OF

PROJECT	:
PROSPECT	:
DATE	:
LOGGED BY	:

- Bedding
- Cleavage
- Foliation
- Fault, Shear
- Breccia
- Broken core
- Disseminated
- Massive
- Pervasive
- Narrow vein
- * Visible gold



REMARKS

RGC EXPLORATION PTY LTD

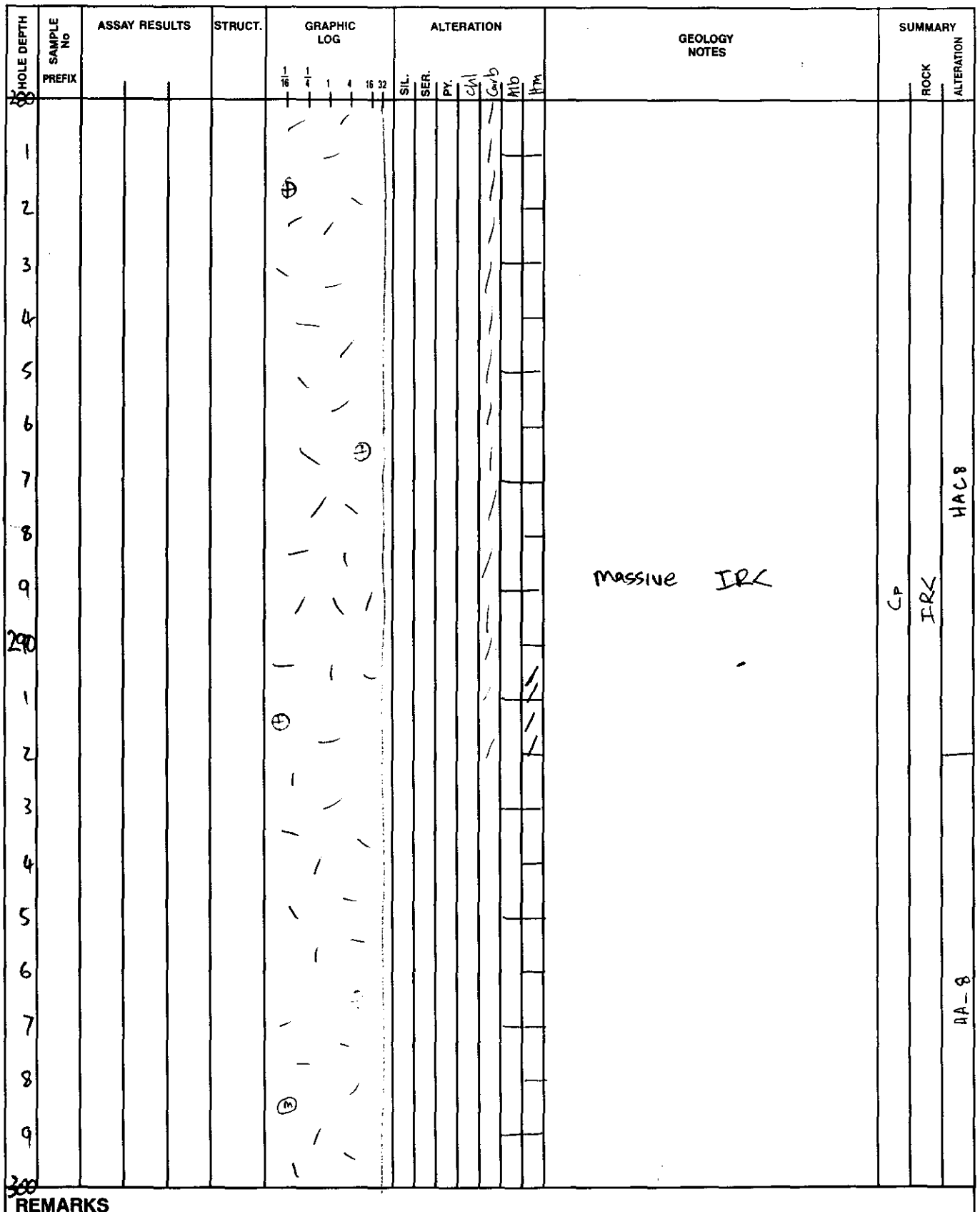
650392

DRILL HOLE No SHD20

SHEET 15 OF

PROJECT	:
PROSPECT	:
DATE	:
LOGGED BY	:

- Bedding
- Cleavage
- Foliation
- Fault, Shear
- Breccia
- Broken core
- Disseminated
- Massive
- Pervasive
- Narrow vein
- * Visible gold



REMARKS

650393

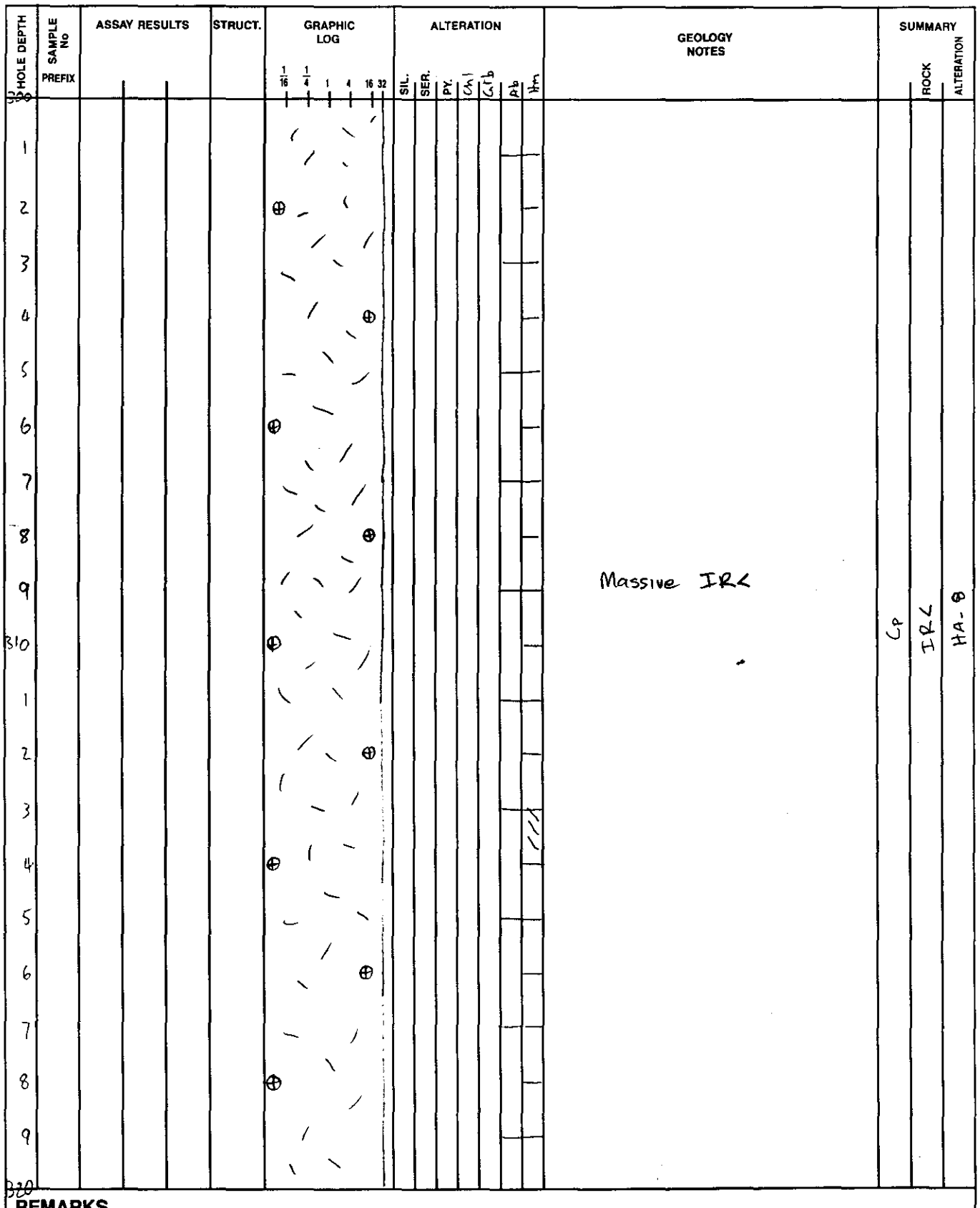
RGC EXPLORATION PTY LTD

DRILL HOLE No SHD20

SHEET 16 OF

PROJECT	:
PROSPECT	:
DATE	:
LOGGED BY	:

- Bedding
- Cleavage
- Foliation
- Fault, Shear
- Breccia
- Broken core
- Disseminated
- Massive
- Pervasive
- Narrow vein
- * Visible gold



REMARKS

RGC EXPLORATION PTY LTD

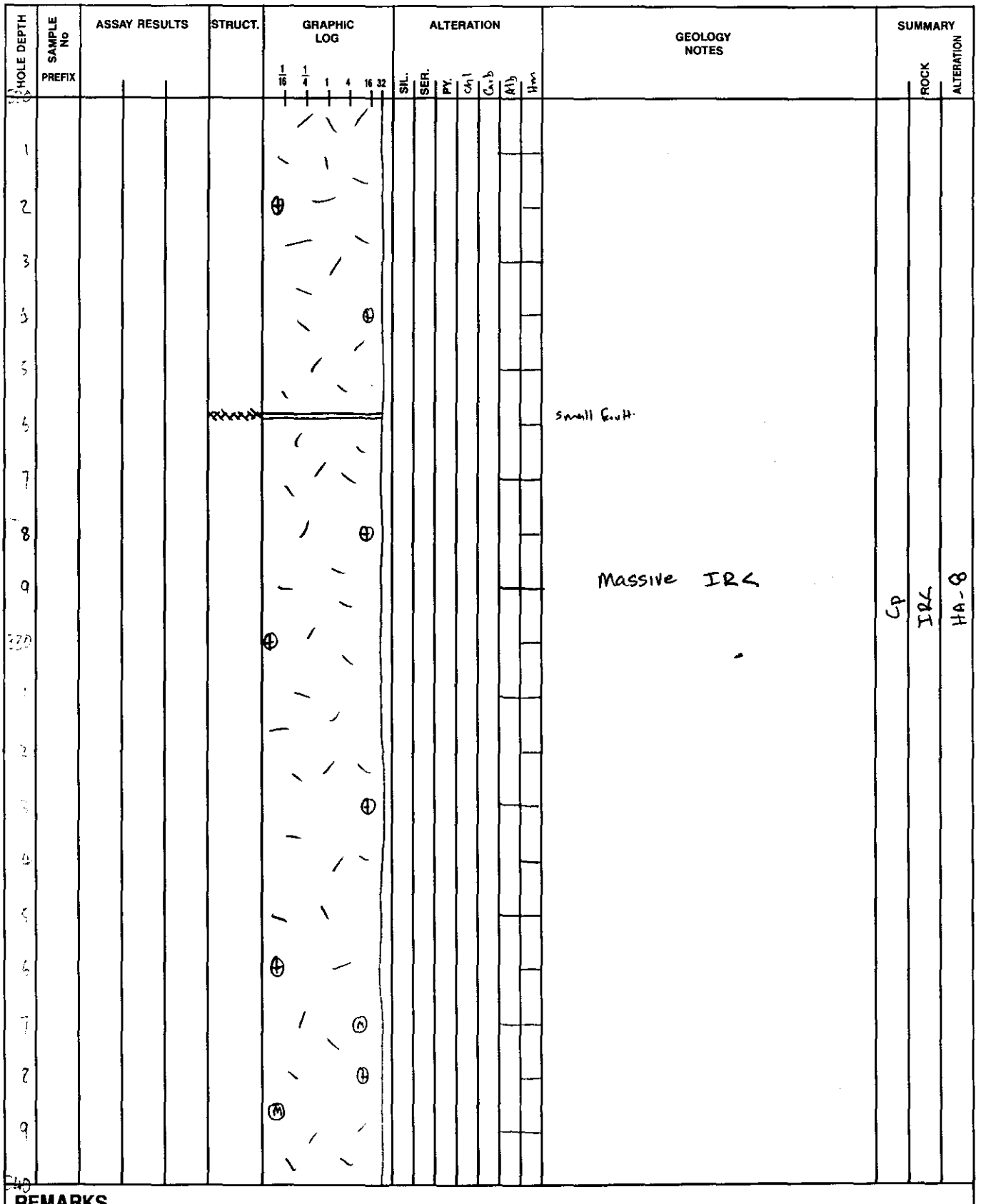
650394

DRILL HOLE No SHD 20

SHEET 17 OF

PROJECT	:
PROSPECT	:
DATE	:
LOGGED BY	:

- Bedding
- Cleavage
- Foliation
- Fault, Shear
- Breccia
- Broken core
- Disseminated
- Massive
- Pervasive
- Narrow vein
- * Visible gold



REMARKS

RGC EXPLORATION PTY LTD

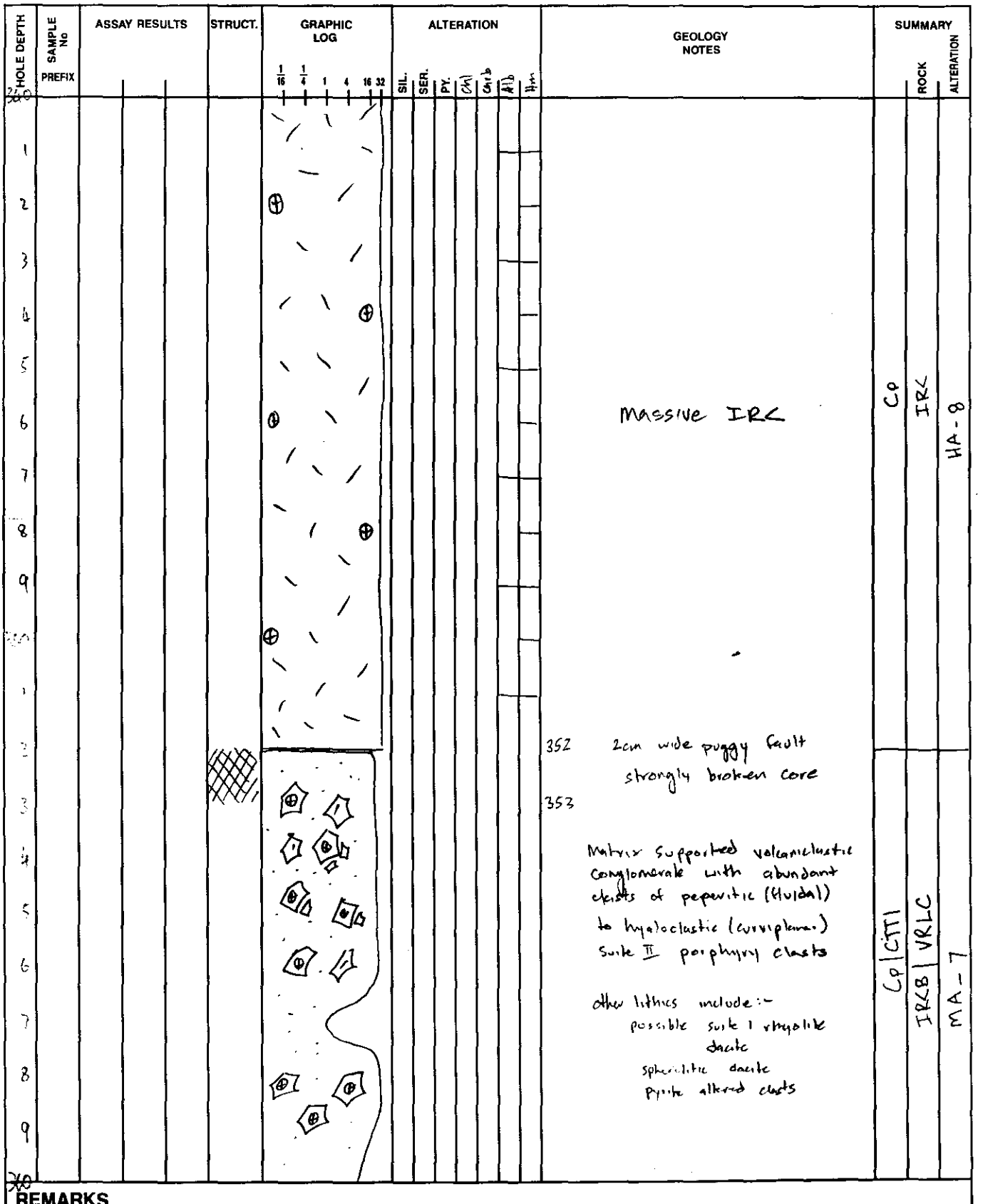
650395

DRILL HOLE No SHD20

SHEET 18 OF

PROJECT	:
PROSPECT	:
DATE	:
LOGGED BY	:

- Bedding
- Cleavage
- Foliation
- Fault, Shear
- Breccia
- Broken core
- Disseminated
- Massive
- Pervasive
- Narrow vein
- * Visible gold



REMARKS

RGC EXPLORATION PTY LTD

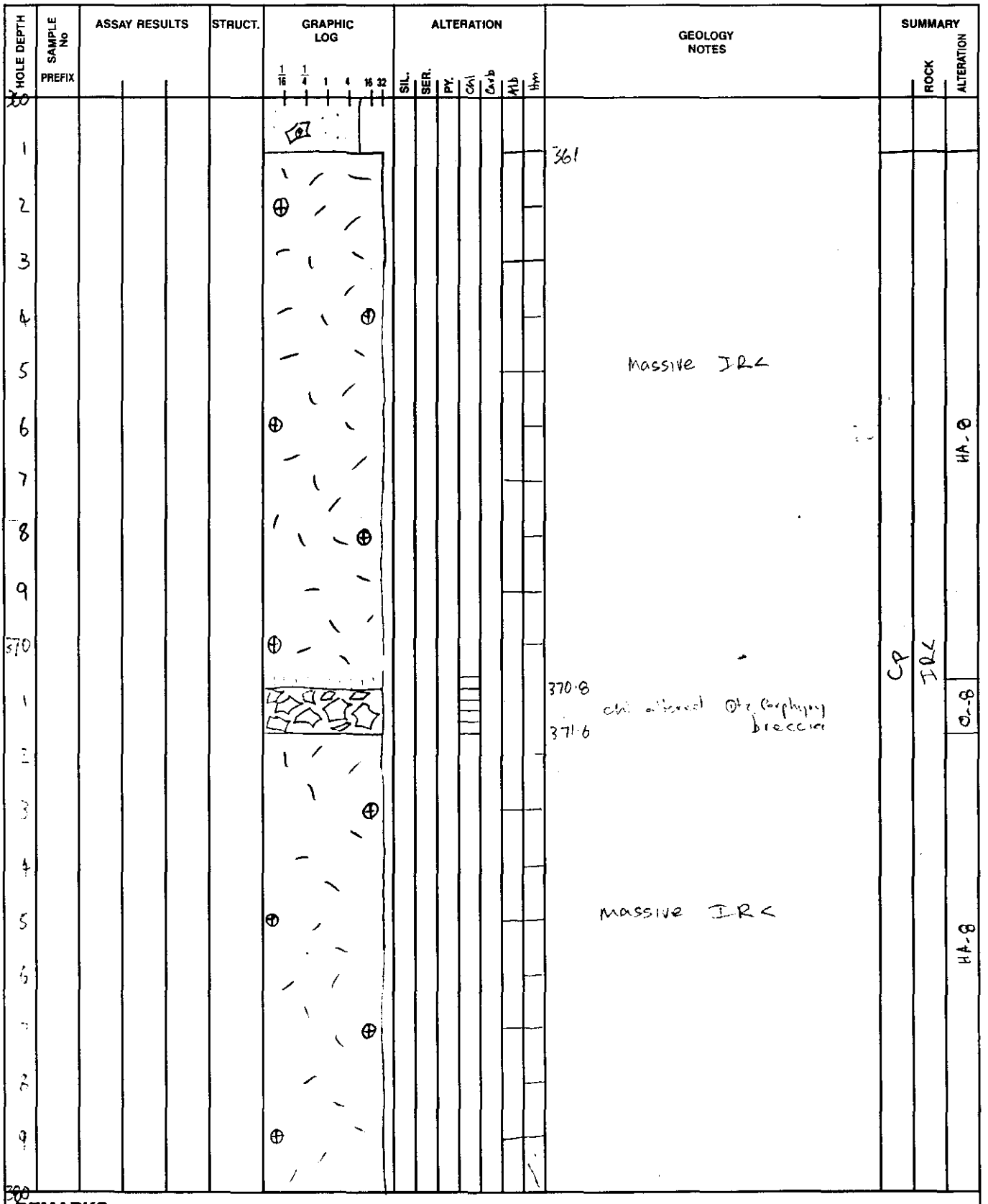
DRILL HOLE No S4D20

SHEET 19 OF

650396

- Bedding
- Cleavage
- Foliation
- Fault, Shear
- Breccia
- Broken core
- Disseminated
- Massive
- Pervasive
- Narrow vein
- * Visible gold

PROJECT	:
PROSPECT	:
DATE	:
LOGGED BY	:



REMARKS

RGC EXPLORATION PTY LTD

650397

DRILL HOLE No SHD 20

SHEET 20 OF

PROJECT	:
PROSPECT	:
DATE	:
LOGGED BY	:

- Bedding
- Cleavage
- Foliation
- Fault, Shear
- Breccia
- Broken core
- Disseminated
- Massive
- Pervasive
- Narrow vein
- * Visible gold

HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG (1/16, 1/4, 1, 4, 16, 32)	ALTERATION: SIL.	SER.	PY.	Chl	Carb	Hb	Hm	GEOLOGY NOTES	SUMMARY: ROCK	SUMMARY: ALTERATION
390												massive IRC	Cp IRC	HA-B
400												sparse hm veinlets + stockworks		

REMARKS

RGC EXPLORATION PTY LTD

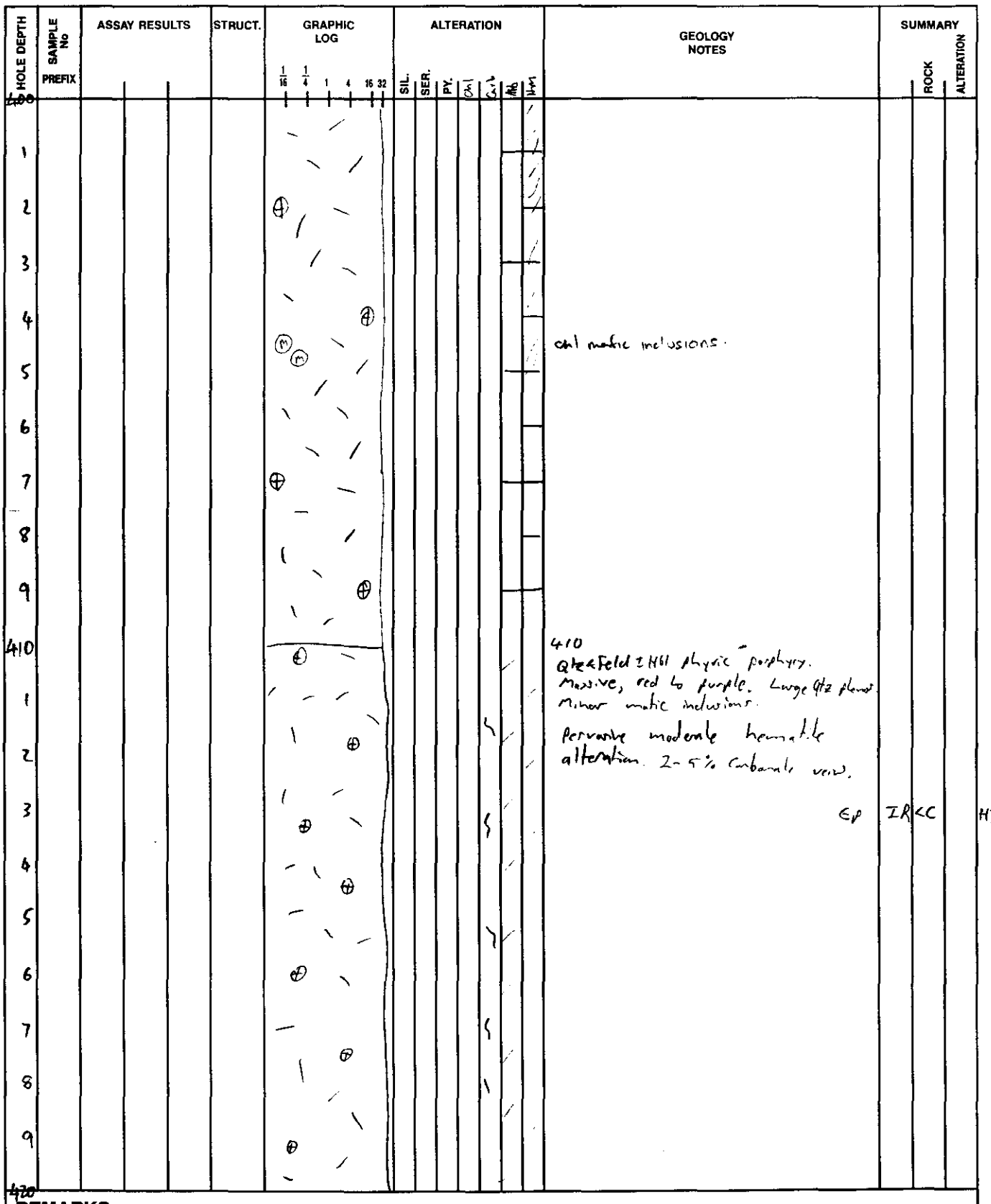
650398

DRILL HOLE No SHD20

SHEET 21 OF

— Bedding	Disseminated
⌊ Cleavage	Massive
▲ Foliation	Pervasive
~ Fault, Shear	Narrow vein
Breccia	* Visible gold
Broken core	

PROJECT	:
PROSPECT	:
DATE	:
LOGGED BY	:



REMARKS

RGC EXPLORATION PTY LTD

650399

DRILL HOLE No SHD20

SHEET 22 OF

PROJECT	:
PROSPECT	:
DATE	:
LOGGED BY	: T. Callaghan

- Bedding
- Cleavage
- Foliation
- Fault, Shear
- Breccia
- Broken core
- Disseminated
- Massive
- Pervasive
- Narrow vein
- * Visible gold

HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG (1/16, 1/4, 1, 4, 16, 32)	ALTERATION: SIL.	SER.	PY.	Chl	Cmb	Alb	He	GEOLOGY NOTES	SUMMARY: ROCK	ALTERATION
430												IRCC		
440												calcite inclusions and hematite veins		

REMARKS

RGC EXPLORATION PTY LTD

650400

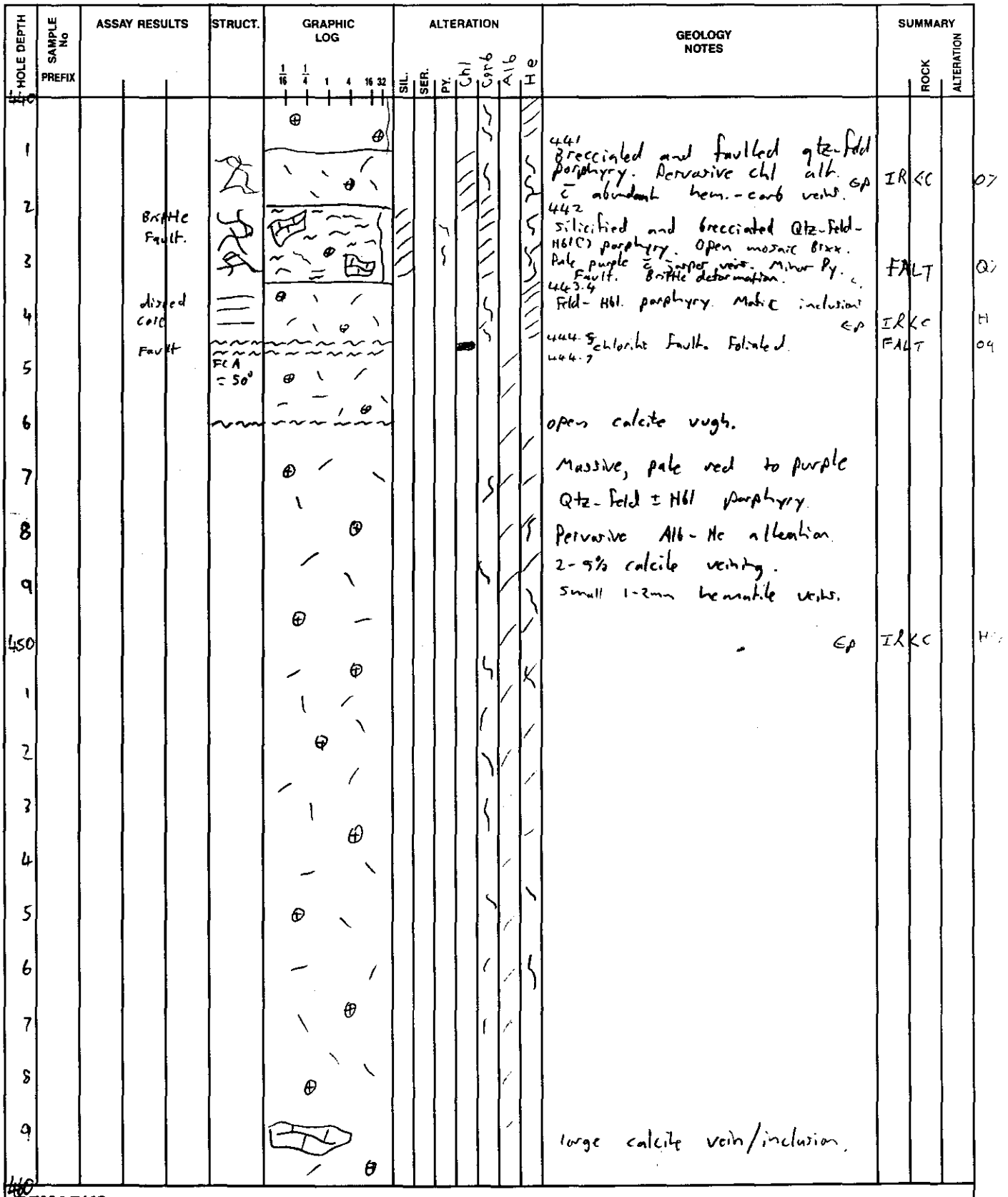
DRILL HOLE No SHD20

SHEET 23 **OF**

Bedding	Disseminated
Cleavage	Massive
Foliation	Pervasive
Fault, Shear	Narrow vein
Breccia	* Visible gold
Broken core	

PROJECT	:
PROSPECT	:
DATE	:
LOGGED BY	:

HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG (1/16, 1/4, 1, 4, 16, 32)	ALTERATION (SIL., SER., PY., Chl, Carb, Alb, He)	GEOLOGY NOTES	SUMMARY ROCK	SUMMARY ALTERATION
440								
1						441 Brecciated and faulted qtz-feld porphyry. Pervasive chl alt. c̄ abundant hem.-carb veins. Ep	IR<C	07
2		Brittle Fault.				442 Silicified and brecciated Qtz-Feld-Hbl(?) porphyry. Open mosaic Brxx. Pale purple c̄ jasper veins. Minor Py. Fault. Brittle deformation.		
3							FALT	Q7
4		disced core				443.4 Feld-Hbl. porphyry. Mafic inclusions Ep	IR<C	H
5		Fault	FCA ≈ 50°			444.5 Chlorite Fault. Foliated. 444.7	FALT	09
6						open calcite vugh.		
7						Massive, pale red to purple Qtz-Feld ± Hbl porphyry.		
8						Pervasive Alb-He alteration. 2-5% calcite veining.		
9						Small 1-2mm hematite veins.		
450						Ep	IR<C	H
1								
2								
3								
4								
5								
6								
7								
8								
9						large calcite vein/inclusion.		
460								



REMARKS

RGC EXPLORATION PTY LTD

650401

DRILL HOLE No SHD20

SHEET 24 OF

PROJECT	:
PROSPECT	:
DATE	:
LOGGED BY	:

- Bedding
- Cleavage
- Foliation
- Fault, Shear
- Breccia
- Broken core
- Disseminated
- Massive
- Pervasive
- Narrow vein
- * Visible gold

HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG (1/16, 1/4, 1, 4, 16, 32)	ALTERATION: SIL.	SER.	PY.	Alb	Chl	Carb	Hm	GEOLOGY NOTES	SUMMARY: ROCK	SUMMARY: ALTERATION
400														
1												decrease in calcite veining.		
2														
3														
6														
5														
6														
7														
8														
9														
479														
1														
2														
3														
4														
5														
6														
7														
8														
9												Minor mafic inclusion.		
480														

REMARKS

RGC EXPLORATION PTY LTD

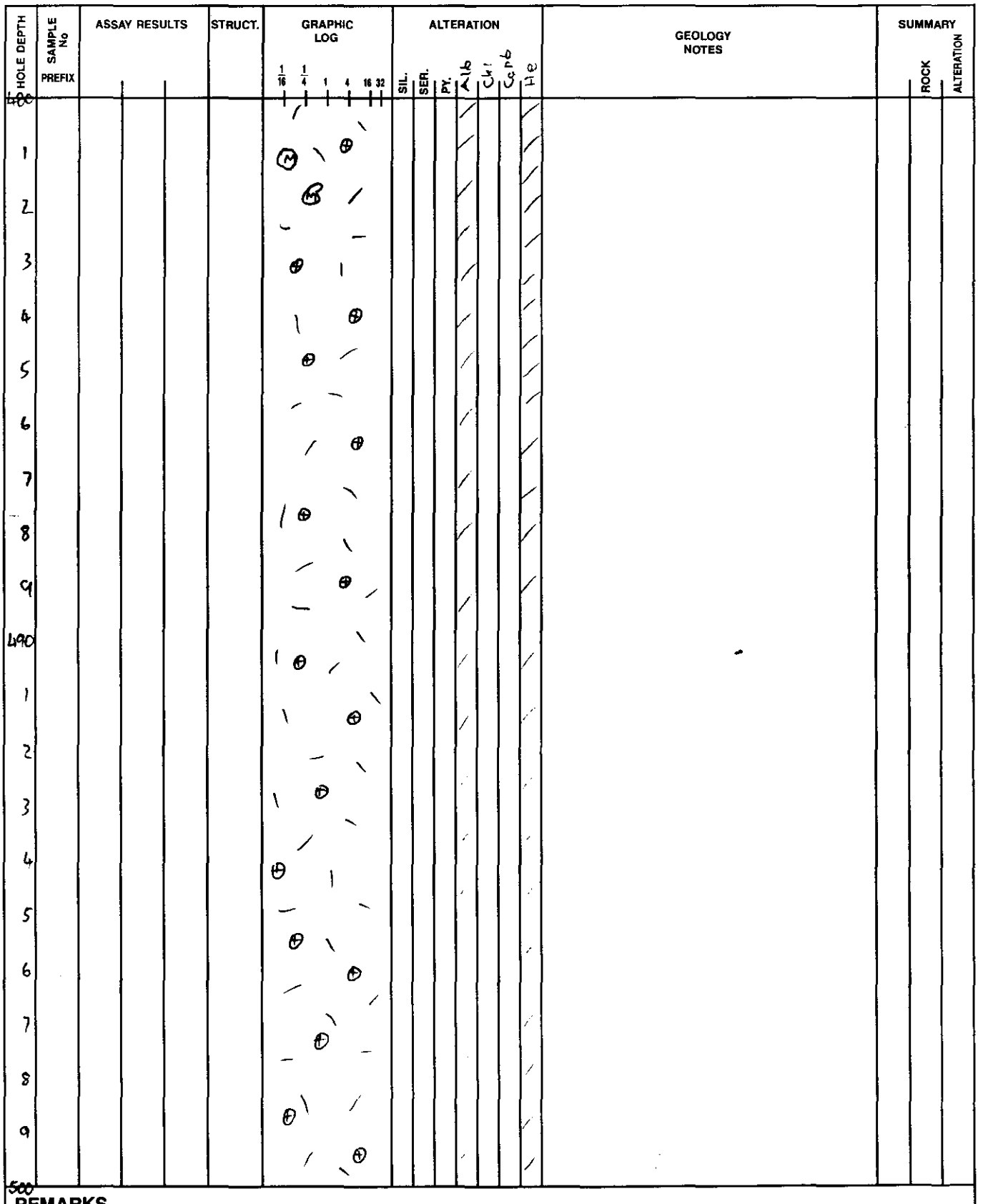
650402

DRILL HOLE No SHD20

SHEET 25 OF

Bedding	Disseminated
Cleavage	Massive
Foliation	Pervasive
Fault, Shear	Narrow vein
Breccia	* Visible gold
Broken core	

PROJECT	:
PROSPECT	:
DATE	:
LOGGED BY	:



REMARKS

RGC EXPLORATION PTY LTD

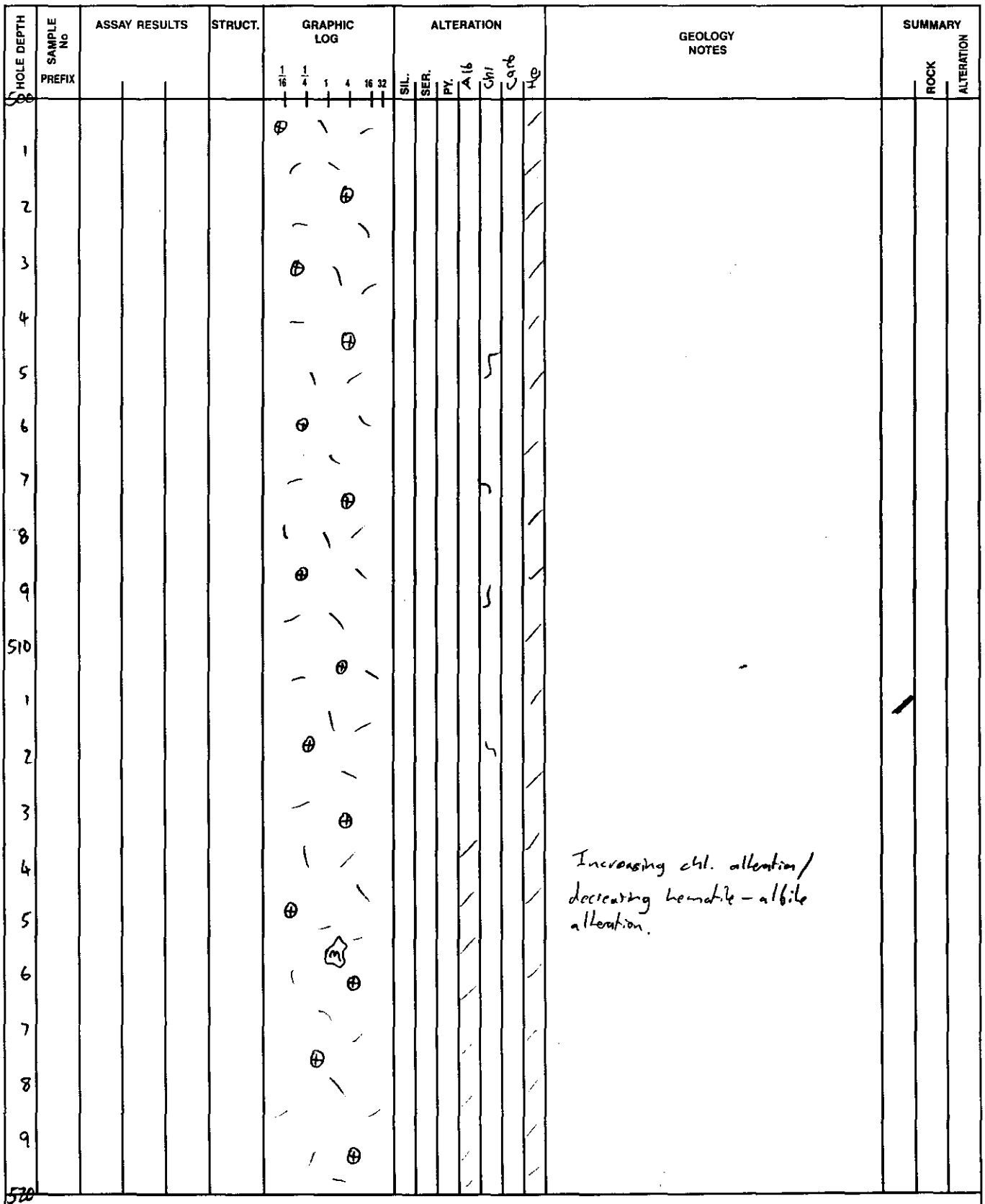
650403

DRILL HOLE No SHD20

SHEET 26 OF

— Bedding	Disseminated
Cleavage	Massive
Foliation	Pervasive
Fault, Shear	Narrow vein
Breccia	* Visible gold
Broken core	

PROJECT	:
PROSPECT	:
DATE	:
LOGGED BY	:



REMARKS

650404

RGC EXPLORATION PTY LTD

DRILL HOLE No SHD20

SHEET 27 OF

Bedding	Disseminated
Cleavage	Massive
Foliation	Pervasive
Fault, Shear	Narrow vein
Breccia	* Visible gold
Broken core	

PROJECT	:
PROSPECT	:
DATE	:
LOGGED BY	:

HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG (1/16, 1/4, 1, 4, 16, 32)	ALTERATION: SIL.	SER.	PY.	Alb	Chl	Carb	He	GEOLOGY NOTES	SUMMARY: ROCK	ALTERATION
520														
1														
2														
3														
4														
5												524.5 Moderately foliated, pervasively chl. altered Qtz-Feld ± Hbl porphyry. Hematite altered Qtz phenos. Matrix pervasively chl. altered. Pale green		
6														
7														
8														
9												Ep	IR	LC
530														
1														
2														
3														
4														
5														
6														
7														
8														
9														
540														

REMARKS

RGC EXPLORATION PTY LTD

650405

DRILL HOLE No SHD20

SHEET 28 OF

Bedding	Disseminated
Cleavage	Massive
Foliation	Pervasive
Fault, Shear	Narrow vein
Breccia	* Visible gold
Broken core	

PROJECT	:
PROSPECT	:
DATE	:
LOGGED BY	:

HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG (1/16, 1/4, 1, 4, 16, 32)	ALTERATION (SIL., SER., PY., Chl, Alb, Carb, He)	GEOLOGY NOTES	SUMMARY ROCK	SUMMARY ALTERATION
540								
1								
2								
3								
4						543.5 Qtz-feld Porphyry. Foliated. chl-ser altered matrix. Altered contact	Cp	IR<C	05
5								
6			30° contact			545.5 Massive Py blebs on contact. Ductile pumice Breccia? Foliated. pervasive, domainal chl-ser alteration. 1-3% Fe-Mn CO_3 blebs.			
7								
8						← 447.7 minor sphal-ser alt. occasional sphal blebs c̄ ser alteration.		
9							Ccu	VOLP	07
550								
1						550.6 strongly altered and foliated ductile pumice breccia. 5-10% Fe-Mn CO_3 blebs strong sericite alteration. Minor sphalerite blebs.		
2								
3							Ccu	VOLP	57
4								
5			sphal →			556.4 graded, pumice lithic VC massflow breccia. Vitric rich top. Alteration increases c̄ grain size. Pervasive ser-CO_3 blebs. Foliated. Minor Py + sphal blebs		
6			Facing					
7							Ccu	VOLP	57
8								
9								
560								

REMARKS

650406

RGC EXPLORATION PTY LTD

DRILL HOLE No SHD20

SHEET 29 **OF**

Bedding	Disseminated
Cleavage	Massive
Foliation	Pervasive
Fault, Shear	Narrow vein
Breccia	* Visible gold
Broken core	

PROJECT	: 5th Henty
PROSPECT	:
DATE	:
LOGGED BY	: T. Callaghan

HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG (1/16, 1/4, 1, 4, 16, 32)	ALTERATION (SIL., SER., PY., Carb, Chl)	GEOLOGY NOTES	SUMMARY ROCK	SUMMARY ALTERATION
560								
1						561.0 Broken contact. Foliated dacitic pumice VC sandstone. Monomict.		
2			FCA ≈ 30°			dominant pervasive chl-ser alteration c̄ minor sphal-gal. blebs		
3						Minor Fe-Mn CO_3 blebs to 5%		
4						Strongly foliated + broken.		
5						Ccu	VOLM	0:
6						566.1 Intensely ser altered dacitic VC sandstone. Foliated CO_3 clots + silicified patches.		
7			sphal/gal			0.5-1% sphal-galena blebs c̄ silicification.		
8						Ccu	VOLM	59
9						568.4 Monomict, dacitic-lithic-pumiceous? Sandstone. Foliated.		
570						Pervasive chl alteration c̄ 5-10% large Fe-Mn CO_3 clots to 3cm.		
1								
2						Ccu	VOLM	67
3								
4								
5								
6								
7								
8								
9								
580						580		

REMARKS

RGC EXPLORATION PTY LTD

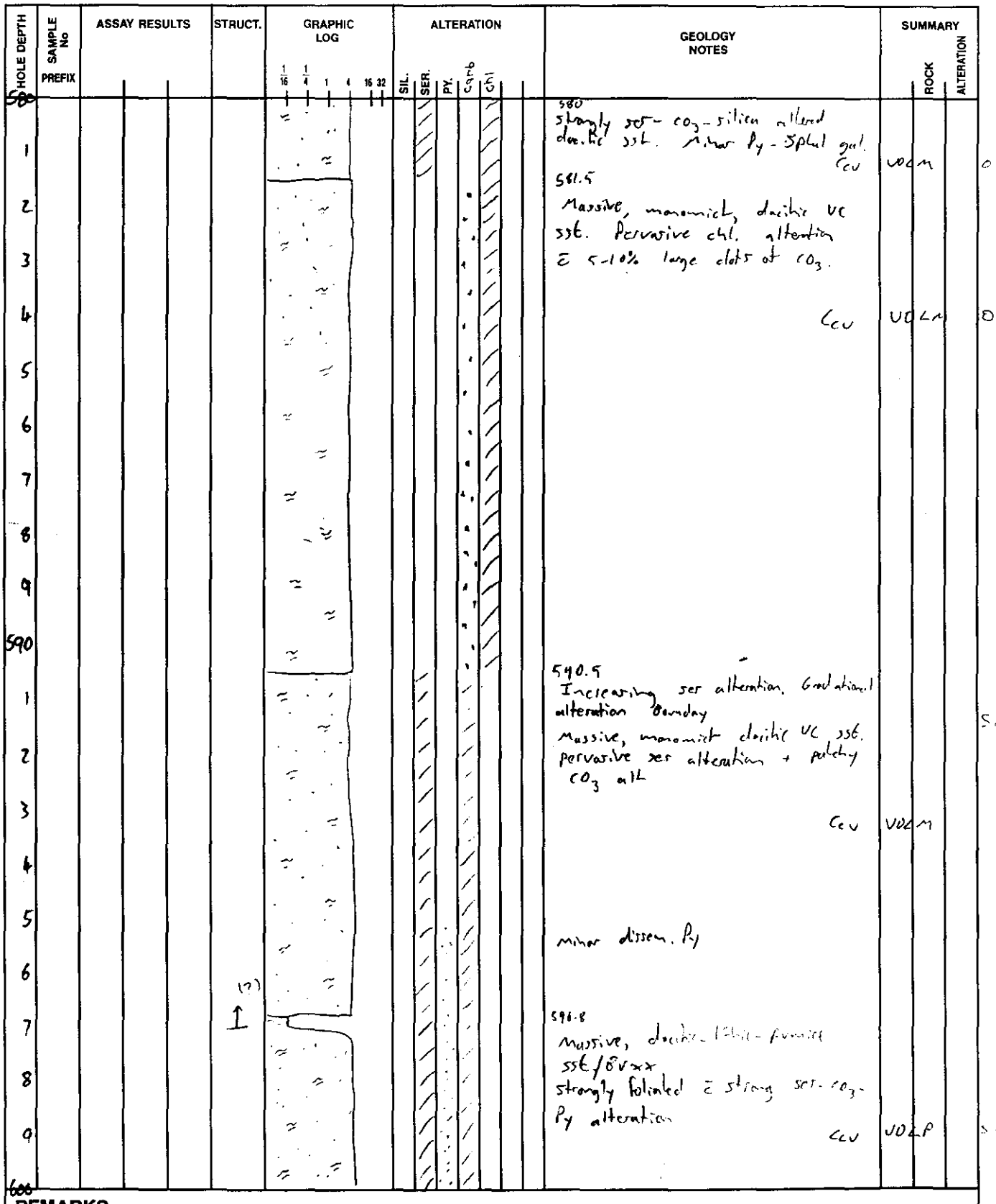
650407

DRILL HOLE No SHD20

SHEET 30 OF

PROJECT	: 5th Hourly
PROSPECT	:
DATE	:
LOGGED BY	: T Callaghan

— Bedding
⌊ Cleavage
— Foliation
~ Fault, Shear
Breccia
Broken core
Disseminated
Massive
Pervasive
Narrow vein
* Visible gold



REMARKS

RGC EXPLORATION PTY LTD

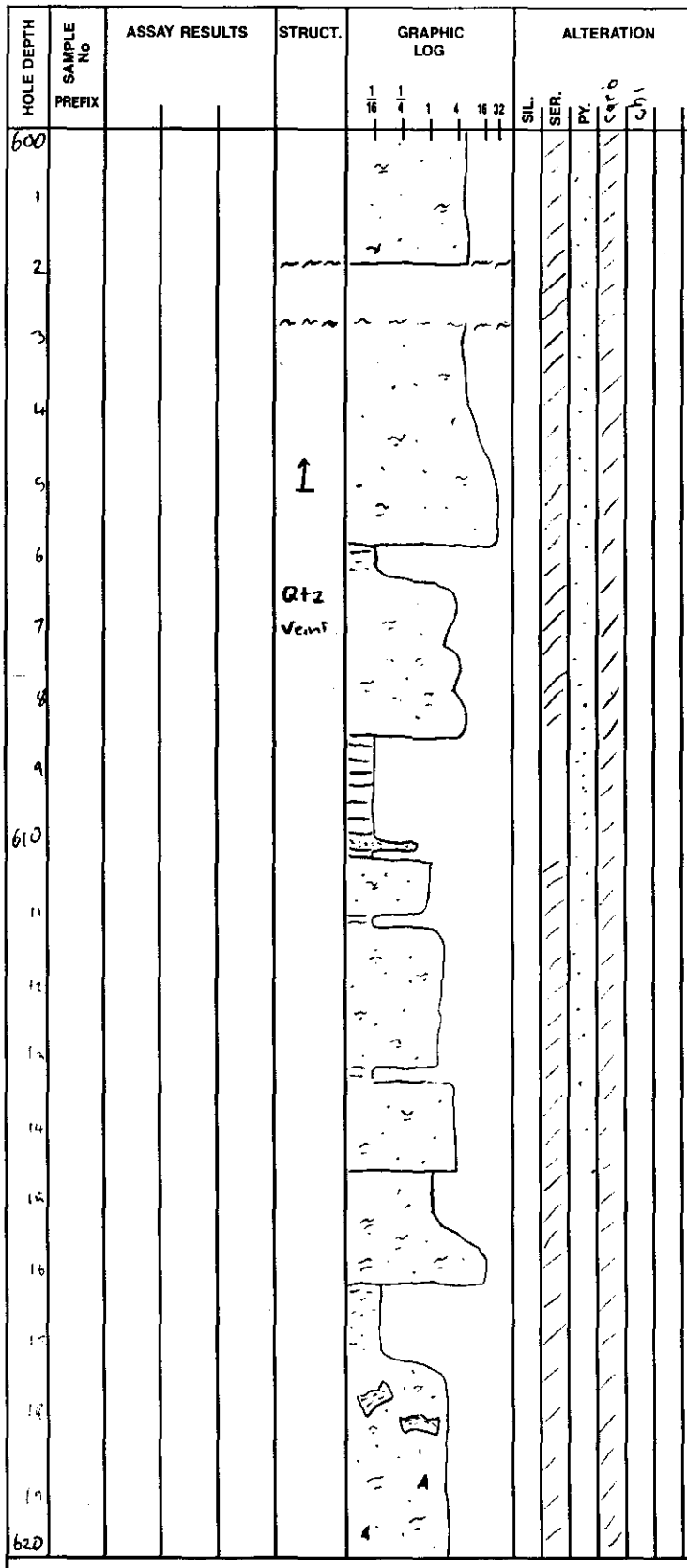
650408

DRILL HOLE No SH020

SHEET _____ **OF** _____

Bedding	Disseminated
Cleavage	Massive
Foliation	Pervasive
Fault, Shear	Narrow vein
Breccia	* Visible gold
Broken core	

PROJECT	: 5th Henry
PROSPECT	:
DATE	:
LOGGED BY	: T. Callaghan.



HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG (1/16, 1/4, 1, 4, 16, 32)	ALTERATION (SIL. SER. PY. carb chl)	GEOLOGY NOTES	SUMMARY ROCK	SUMMARY ALTERATION
600								
1								
2						601.9 Fault. Foliated, brecciated + Qtz veined, dacitic VC SSG. ser-py-carb alt.	FALT	S9C
3						602.7 Massive, graded dacitic pumice breccia. Strong ser-CO_3-Py alteration.		
4								
5			↑			Ccv	VOLP	S
6						605.8 Dacitic-pumice breccia. Pervasive ser alt c̄ CO_3 spots patchy dissem Py.		
7			Qtz Veins			massive qtz veining (late) disrupted. Ccv	VOLP	S9
8								
9						608.5 Black shale. Minor Py clots + CO_3 clots.		
610						Ccs	SILT	C3
11						610.2 Dacitic-pumice-lithic Breccia. Black shale intraclasts pervasive CO_3-Py-ser alteration.		
12								
13						Ccv	VOLP	C
14								
15						614.6 Dacitic pumice breccia Pervasive moderate ser-CO_3 alteration. Ccv	VOLP	C
16								
17						616.6 Graded, polymict VC Breccia. Dominantly dacitic pumice SSG c̄ black shale intraclasts.		
18						Pervasive CO_3 alteration Weak ser alteration.		
19						Ccvag	VOLB	C
620								

REMARKS

RGC EXPLORATION PTY LTD

650409

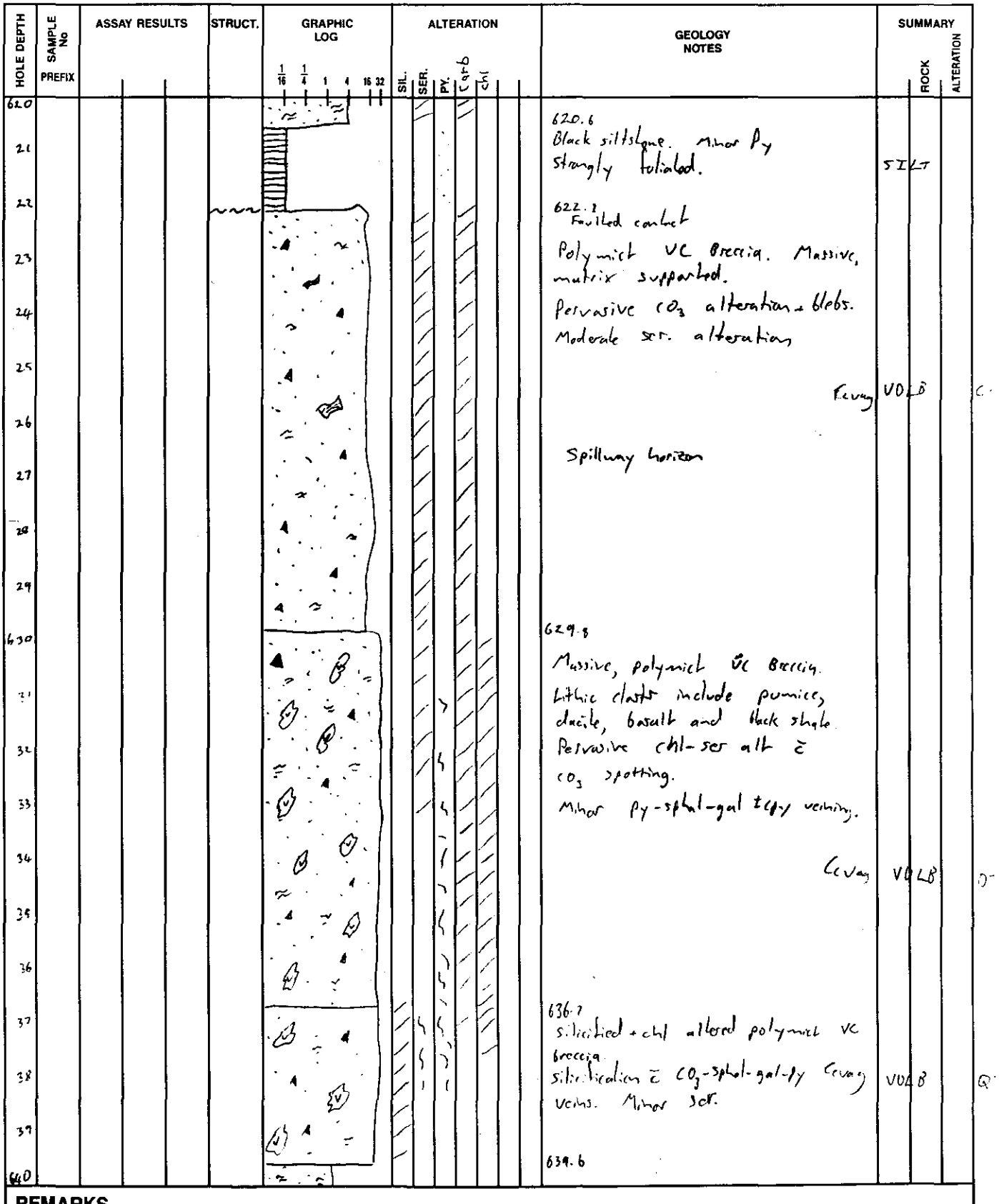
DRILL HOLE No SHD20

SHEET _____ **OF** _____

Bedding	Disseminated
Cleavage	Massive
Foliation	Pervasive
Fault, Shear	Narrow vein
Breccia	* Visible gold
Broken core	

PROJECT	: 5th Henty
PROSPECT	:
DATE	:
LOGGED BY	: T. Callaghan

HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG (1/16, 1/4, 1, 4, 16, 32)	ALTERATION (SIL., SER., PY., carb, chl)	GEOLOGY NOTES	SUMMARY ROCK	SUMMARY ALTERATION
620						620.6 Black siltstone. Minor Py strongly foliated.	SILT	
21								
22						622.1 Faulted contact		
23						Polymict VC Breccia. Massive, matrix supported.		
24						Pervasive CO_3 alteration + blebs. Moderate ser. alteration		
25						Ccvag	VOLB	C
26								
27						Spillway horizon		
28								
29								
630						629.8 Massive, polymict VC Breccia. Lithic clasts include pumice, dacite, basalt and black shale. Pervasive chl-ser alt c̄ CO_3 spotting. Minor py-sphal-gal ± cpy veining.		
31								
32								
33								
34						Ccvag	VOLB	D
35								
36								
37						636.7 silicified + chl altered polymict VC breccia.		
38						silicification c̄ CO_3-sphal-gal-py Ccvag veins. Minor ser.	VOLB	Q
39								
640						639.6		



REMARKS

RGC EXPLORATION PTY LTD

650410

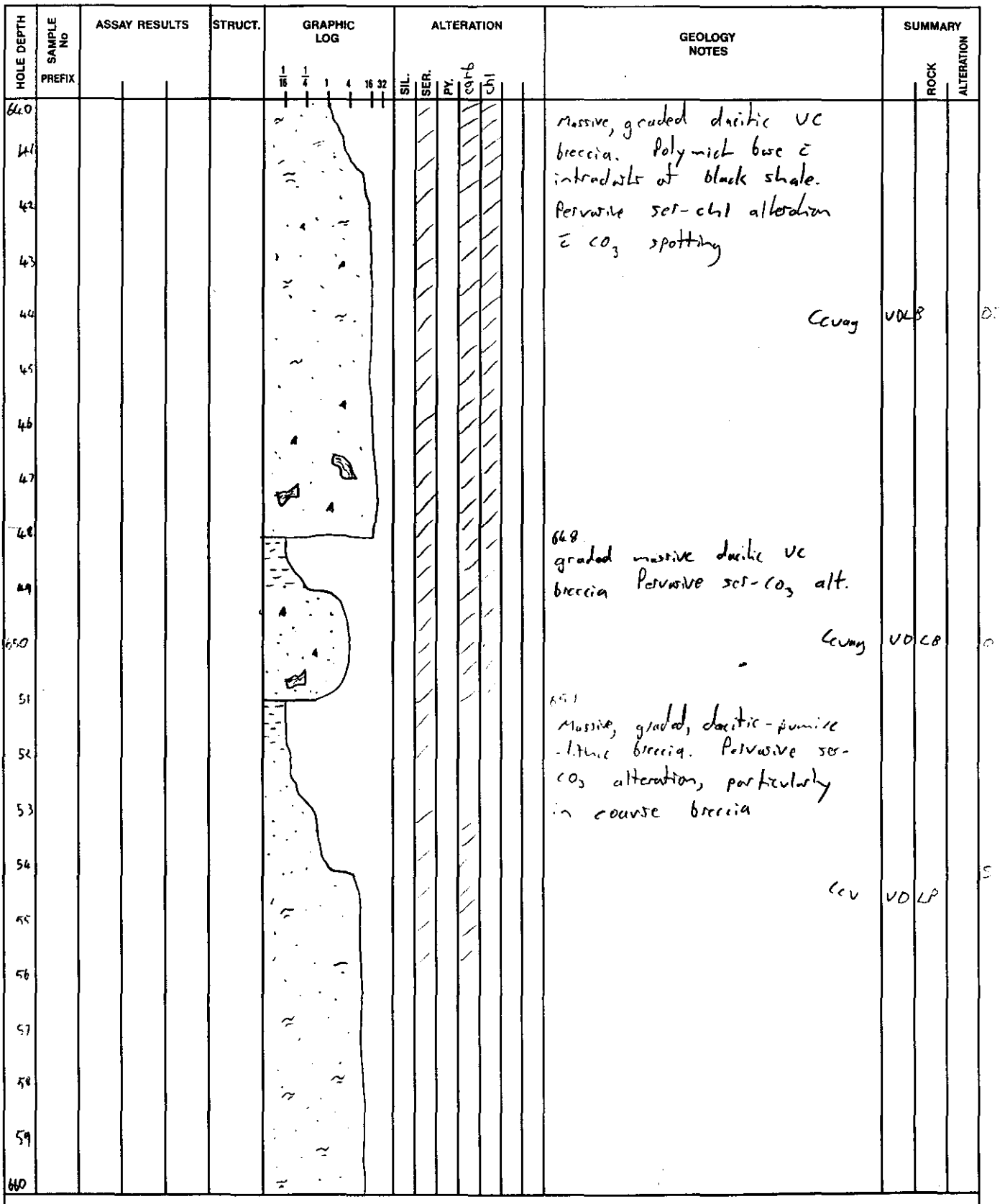
DRILL HOLE No SH020

SHEET _____ **OF** _____

Bedding	Disseminated
Cleavage	Massive
Foliation	Pervasive
Fault, Shear	Narrow vein
Breccia	* Visible gold
Broken core	

PROJECT	: 5th Henty
PROSPECT	:
DATE	:
LOGGED BY	: T. Callaghan

HOLE DEPTH	SAMPLE No / PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG (1/16, 1/4, 1, 4, 16, 32)	ALTERATION (SIL., SER., PY., carb, chl)	GEOLOGY NOTES	SUMMARY ROCK	SUMMARY ALTERATION
640						Massive, graded dacitic VC breccia. Polymict base c̄ intradasts of black shale. Pervasive ser-chl alteration c̄ CO_3 spotting		
41								
42								
43								
44						Ccvag	VDLB	
45								
46								
47								
48						648 graded massive dacitic VC breccia Pervasive ser-CO_3 alt.		
49								
650						Ccvag	VDCB	
51						651 Massive, graded, dacitic-pumice-lithic breccia. Pervasive ser-CO_3 alteration, particularly in coarse breccia		
52								
53								
54						Ccv	VDLP	
55								
56								
57								
58								
59								
660								



REMARKS

RGC EXPLORATION PTY LTD

650411

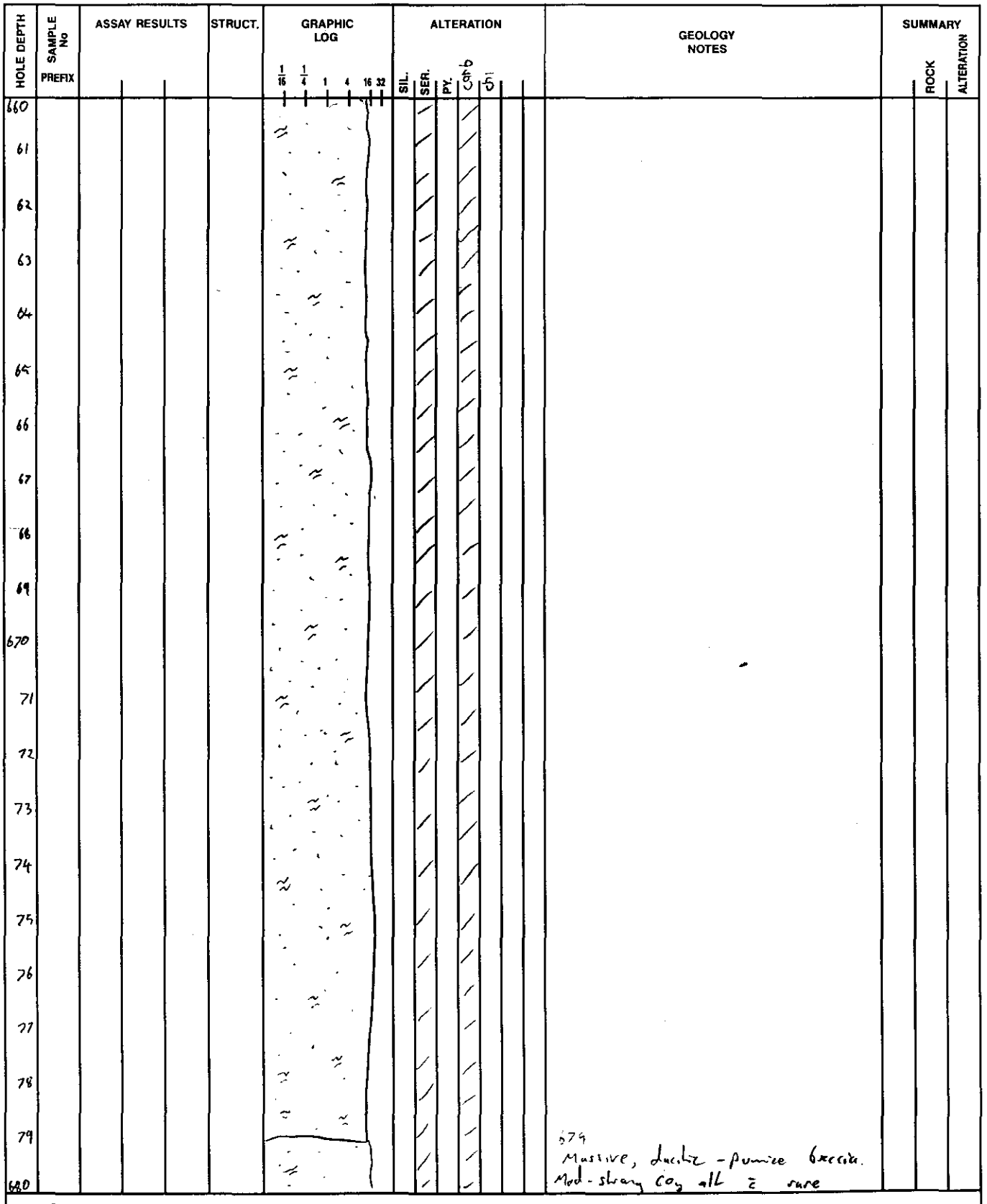
DRILL HOLE No JHD20

SHEET _____ OF _____

Bedding	Disseminated
Cleavage	Massive
Foliation	Pervasive
Fault, Shear	Narrow vein
Breccia	* Visible gold
Broken core	

PROJECT	: 5th Henty
PROSPECT	:
DATE	:
LOGGED BY	: T. Callaghan

HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG (1/16, 1/4, 1, 4, 16, 32)	ALTERATION: SIL.	SER.	PY.	carb	chl	GEOLOGY NOTES	SUMMARY: ROCK	ALTERATION
660												
61												
62												
63												
64												
65												
66												
67												
68												
69												
670												
71												
72												
73												
74												
75												
76												
77												
78												
79										679 Massive, ductile - pumice breccia. Mod - strong CO_2 alt c̄ rare		
680												



REMARKS

RGC EXPLORATION PTY LTD

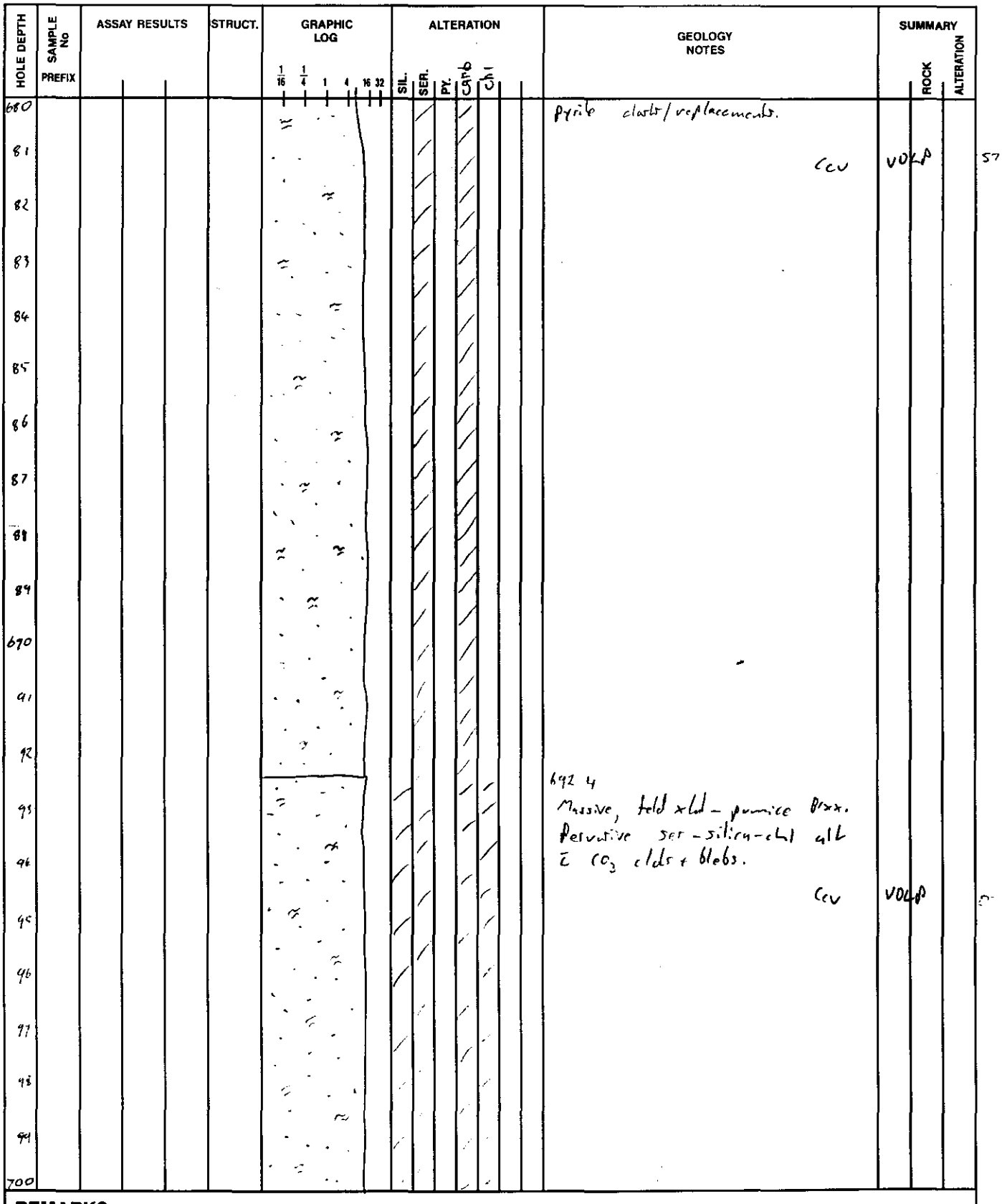
650412

DRILL HOLE No SHD20

SHEET _____ OF _____

PROJECT	: 5th Henty
PROSPECT	:
DATE	:
LOGGED BY	: T. Callaghan.

- Bedding
- Cleavage
- Foliation
- Fault, Shear
- Breccia
- Broken core
- Disseminated
- Massive
- Pervasive
- Narrow vein
- * Visible gold



REMARKS

RGC EXPLORATION PTY LTD

650413

DRILL HOLE No SH020

SHEET _____ **OF** _____

PROJECT	: 5th Henty
PROSPECT	:
DATE	:
LOGGED BY	: T. Callaghan

- Bedding
- Cleavage
- Foliation
- Fault, Shear
- Breccia
- Broken core
- Disseminated
- Massive
- Pervasive
- Narrow vein
- * Visible gold

HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG (1/16, 1/4, 1, 4, 16, 32)	ALTERATION: SIL.	SER.	PY.	carb	chl	GEOLOGY NOTES	SUMMARY: ROCK	ALTERATION
700										702.2 Massive, dacitic-lithic breccia. Pervasive silicification, ser-chl alt. Dissem + vein Py, carbonate spots. Pale green color. Ccv	VO	LP
710										709.7 Cream, massive dacitic, pumice-fld. breccia. Pervasive ser-CO3 alteration. Minor Py clots/ replacements to 3cm. Ccv	VO	LP

REMARKS

P46

C

RGC EXPLORATION PTY LTD

6504144

DRILL HOLE No SH020

SHEET _____ OF _____

PROJECT	: 5th Henty
PROSPECT	:
DATE	:
LOGGED BY	: T. Callaghan

- Bedding
- Cleavage
- Foliation
- Fault, Shear
- Breccia
- Broken core
- Disseminated
- Massive
- Pervasive
- Narrow vein
- * Visible gold

HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG (1/16, 1/4, 1, 4, 16, 32)	ALTERATION: SIL.	SER.	PY.	Carb	chl	GEOLOGY NOTES	SUMMARY: ROCK	ALTERATION
720												
21												
22												
23												
24												
25												
26												
27										727 Increasing ser. alt, decreased chl. Pumice-feld x-tal VC Breccia. Massive, monomict		
28												
29												
730										Ccv	VOLP	5%
731												
32												
33												
34										733.7 Dacitic fumice-feld x-tal dust tuff Massive, monomict. Pervasive ser-chl alt. CO_3 blebs + feld. replacements Ccv	VOLP	0%
35												
36												
37												
38												
39												
740												

REMARKS

RGC EXPLORATION PTY LTD

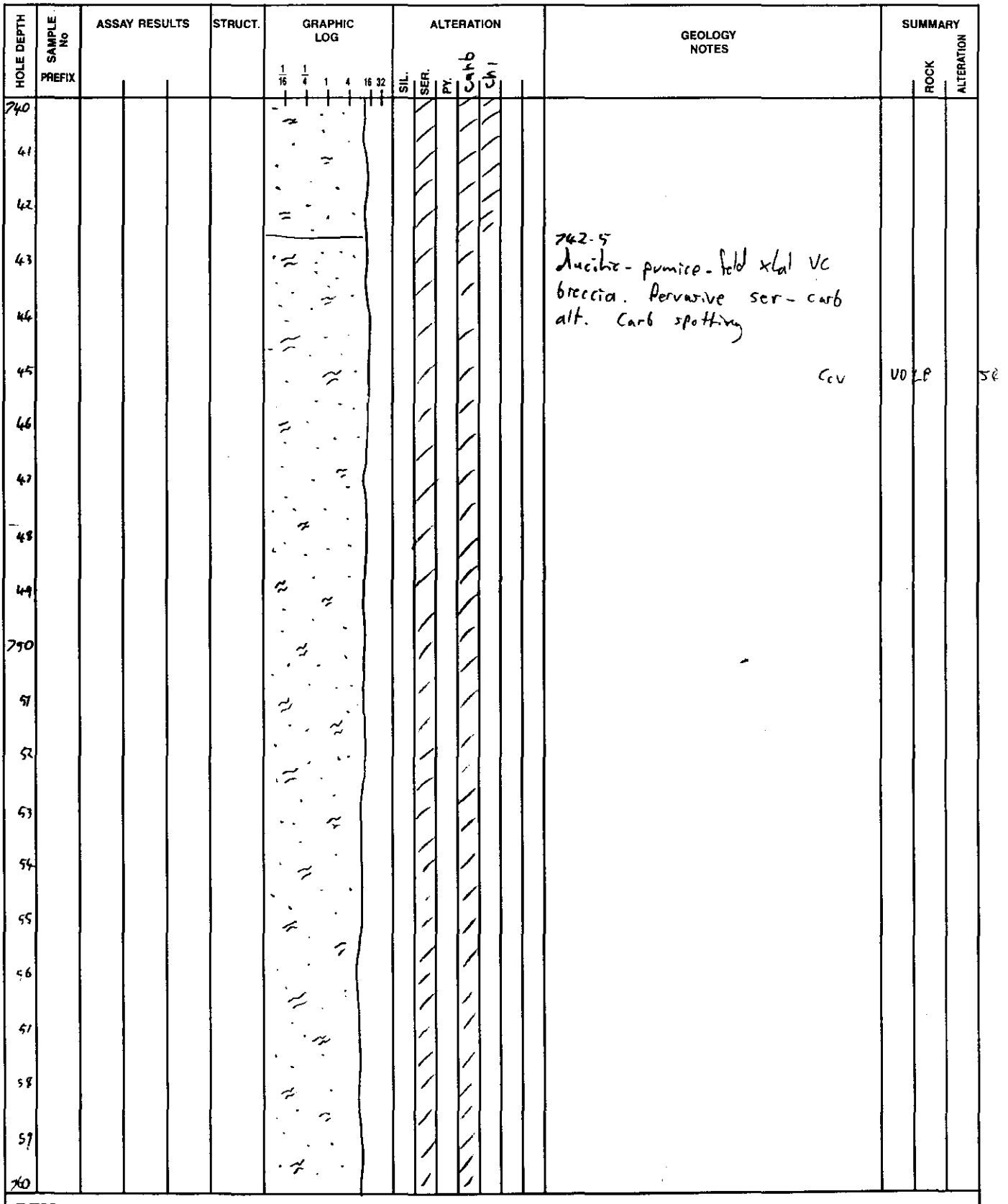
DRILL HOLE No SH020

SHEET _____ **OF** _____

650415

Bedding	Disseminated
Cleavage	Massive
Foliation	Pervasive
Fault, Shear	Narrow vein
Breccia	* Visible gold
Broken core	

PROJECT	: 5th Heaty
PROSPECT	:
DATE	:
LOGGED BY	: T. Callaghan



REMARKS

RGC EXPLORATION PTY LTD

650416

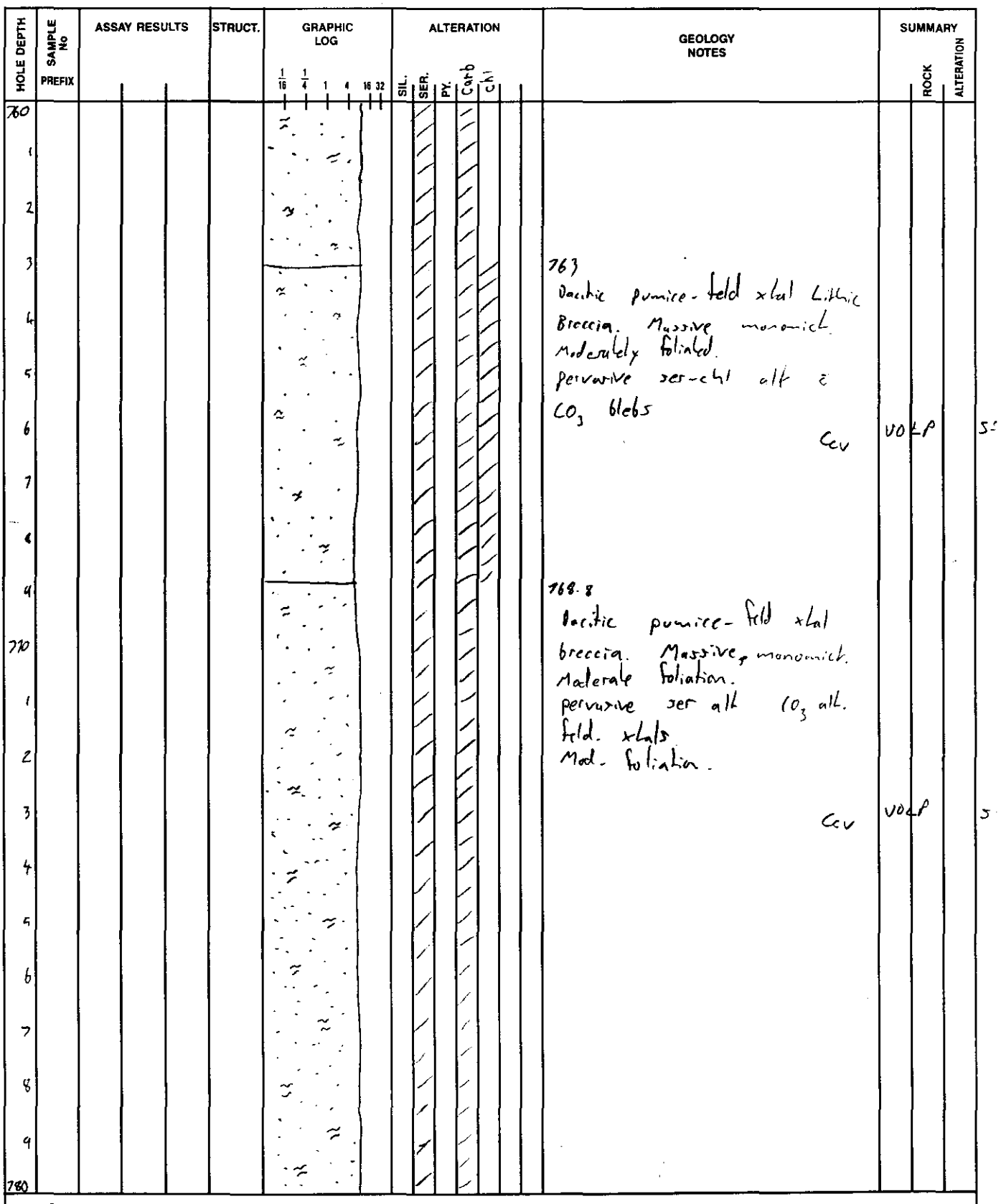
DRILL HOLE No SHD20

SHEET _____ **OF** _____

Bedding	Disseminated
Cleavage	Massive
Foliation	Pervasive
Fault, Shear	Narrow vein
Breccia	* Visible gold
Broken core	

PROJECT	: 5th Henty
PROSPECT	:
DATE	:
LOGGED BY	: T. Callaghan

HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG (1/16, 1/4, 1, 4, 16, 32)	ALTERATION (SIL., SER., PY., Carb, chl)	GEOLOGY NOTES	SUMMARY ROCK	SUMMARY ALTERATION
760								
1								
2								
3						763 Dacitic pumice-feld xtal Lithic Breccia. Massive monomict. Moderately foliated. pervasive ser-chl alt c̄ CO_3 blebs		
4								
5								
6						Ccv	VOLP	S
7								
8								
9						768.8 Dacitic pumice-feld xtal breccia. Massive, monomict. Moderate foliation. pervasive ser alt CO_3 alt. feld. xtals Mod. foliation.		
770								
1								
2								
3						Ccv	VOLP	S
4								
5								
6								
7								
8								
9								
780								



REMARKS

RGC EXPLORATION PTY LTD

DRILL HOLE No SND 20

SHEET _____ **OF** _____

6504417

Bedding		Disseminated	
Cleavage		Massive	
Foliation		Pervasive	
Fault, Shear		Narrow vein	
Breccia	*	Visible gold	
Broken core			

PROJECT	: 5th Henty
PROSPECT	:
DATE	:
LOGGED BY	: T. Callaghan

HOLE DEPTH | SAMPLE No PREFIX | ASSAY RESULTS | STRUCT. | GRAPHIC LOG (1/16, 1/4, 1, 4, 16, 32) | ALTERATION (SIL., SER., PY., Carb, Chl) | GEOLOGY NOTES | SUMMARY (ROCK, ALTERATION)

790 1 2 3 4 5 6 7 8 9 800 1 2 3 4 5 6 7 8 9

6 — puggy fault.

800 — very minor py spots.

3 — ? 793. core block missing at 660m. 3m out.

6 — ?

REMARKS

650418

Hole_Id	AMG East	AMG North	AMG RL	Total Depth
SHD21	380885.00	5358895.00	485.00	928.00

Hole_Id	Depth	Final (AMG) Az	Dip
SHD21	0.00	270.00	-73.8
SHD21	15.00	270.00	-73.8
SHD21	30.00	268.00	-73.1
SHD21	64.00	270.00	-72.8
SHD21	90.00	270.00	-72
SHD21	120.00	270.00	-71.5
SHD21	151.00	270.00	-69
SHD21	184.00	273.00	-66.5
SHD21	211.00	270.00	-65
SHD21	238.00	275.00	-62.8
SHD21	246.00	273.00	-62
SHD21	265.00	272.50	-60.7
SHD21	280.00	272.00	-58
SHD21	310.00	271.00	-56
SHD21	334.00	271.00	-54.5
SHD21	360.00	271.00	-52
SHD21	391.00	271.00	-50.5
SHD21	421.00	270.00	-49
SHD21	451.00	270.00	-47.4
SHD21	481.00	270.00	-46
SHD21	511.00	269.00	-44
SHD21	541.00	268.00	-43
SHD21	571.00	268.00	-41.5
SHD21	616.00	270.00	-39
SHD21	649.00	271.00	-37.5
SHD21	688.00	272.00	-35.5
SHD21	718.00	273.00	-33.1
SHD21	751.00	274.00	-31
SHD21	784.00	275.00	-29
SHD21	817.00	276.00	-27
SHD21	850.00	276.00	-25
SHD21	880.00	276.00	-23
SHD21	916.00	275.00	-20

SHD21 Assay Data

Hole_Id	D_From	D_To	AG_A	AS_A	AU_G	BI_A	CU_A	PB_A	ZN_A
SHD21	205.00	206.00	3	130	-0.01	-10	79	1575	12400
SHD21	206.00	207.00	2	90	-0.01	-10	122	508	2520
SHD21	207.00	208.00	2	-50	-0.01	-10	176	1325	834
SHD21	223.00	224.00	-1	-50	-0.01	-10	28	63	307
SHD21	224.00	225.00	1	-50	-0.01	-10	31	41	251
SHD21	225.00	226.00	-1	-50	-0.01	-10	27	102	298
SHD21	226.00	227.00	1	-50	-0.01	-10	37	154	725
SHD21	231.00	232.00	-1	-50	-0.01	-10	24	135	153
SHD21	232.00	233.00	-1	-50	-0.01	-10	34	364	1355
SHD21	233.00	234.00	-1	-50	-0.01	-10	24	835	1915
SHD21	234.00	235.00	-1	-50	-0.01	-10	64	169	576
SHD21	235.00	236.00	1	-50	-0.01	-10	40	298	1165
SHD21	236.00	237.00	1	-50	-0.01	-10	208	180	799
SHD21	240.00	241.00	-1	-50	-0.01	-10	47	123	295
SHD21	241.00	242.00	-1	-50	-0.01	-10	56	140	496
SHD21	242.00	243.00	-1	-50	-0.01	-10	59	123	531
SHD21	243.00	244.00	-1	-50	-0.01	-10	63	167	476
SHD21	244.00	245.00	-1	-50	-0.01	-10	77	61	299
SHD21	245.00	246.00	-1	-50	-0.01	-10	65	180	367
SHD21	249.00	250.00	-1	-50	-0.01	-10	48	150	673
SHD21	250.00	251.00	-1	-50	-0.01	-10	46	69	431
SHD21	251.00	252.00	-1	-50	-0.01	-10	50	157	396
SHD21	253.00	254.00	-1	-50	0.04	-10	42	69	1035
SHD21	254.00	255.00	-1	-50	-0.01	-10	44	107	981
SHD21	255.00	256.00	-1	-50	-0.01	-10	55	87	657
SHD21	256.00	257.00	-1	-50	-0.01	-10	45	80	410
SHD21	257.00	258.00	-1	-50	-0.01	-10	30	53	335
SHD21	258.00	259.00	-1	-50	-0.01	-10	40	94	905
SHD21	259.00	260.00	-1	-50	-0.01	-10	38	295	1100
SHD21	260.00	261.00	-1	-50	-0.01	-10	60	462	1730
SHD21	261.00	262.00	-1	-50	-0.01	-10	120	663	462
SHD21	262.00	263.00	-1	-50	-0.01	-10	79	443	407
SHD21	263.00	264.00	-1	-50	-0.01	-10	64	120	456
SHD21	264.00	265.00	-1	-50	-0.01	-10	101	229	170
SHD21	278.00	279.00	-1	-50	-0.01	-10	37	29	193
SHD21	279.00	280.00	-1	-50	-0.01	-10	11	13	97
SHD21	280.00	281.00	-1	-50	-0.01	-10	38	18	203
SHD21	281.00	282.00	-1	-50	-0.01	-10	53	17	247
SHD21	282.00	283.00	1	-50	-0.01	-10	109	23	408
SHD21	283.00	284.00	-1	-50	-0.01	-10	17	13	225
SHD21	284.00	285.00	-1	-50	-0.01	-10	37	25	199
SHD21	285.00	286.00	-1	-50	-0.01	-10	47	259	173
SHD21	286.00	287.00	3	-50	-0.01	-10	129	261	1010
SHD21	287.00	288.00	1	-50	-0.01	-10	100	59	411
SHD21	288.00	289.00	2	-50	-0.01	-10	118	251	320
SHD21	289.00	290.00	1	-50	-0.01	-10	40	47	420
SHD21	290.00	291.00	-1	-50	-0.01	-10	33	40	448
SHD21	291.00	292.00	-1	-50	-0.01	-10	51	72	283
SHD21	292.00	293.00	-1	-50	-0.01	-10	83	104	314
SHD21	293.00	294.00	-1	-50	-0.01	-10	57	69	295
SHD21	294.00	295.00	-1	-50	-0.01	-10	56	127	301
SHD21	295.00	296.00	-1	-50	-0.01	-10	40	92	356
SHD21	296.00	297.00	-1	-50	-0.01	-10	41	78	314

SHD21	297.00	298.00	-1	-50	-0.01	-10	25	64	435
SHD21	298.00	299.00	-1	-50	-0.01	-10	26	73	498
SHD21	299.00	300.00	-1	-50	-0.01	-10	32	60	341
SHD21	300.00	301.00	-1	-50	-0.01	-10	44	68	377
SHD21	301.00	302.00	-1	-50	-0.01	-10	37	150	883
SHD21	302.00	303.00	-1	-50	-0.01	-10	31	40	471
SHD21	303.00	304.00	-1	-50	-0.01	-10	32	93	409
SHD21	304.00	305.00	-1	-50	-0.01	-10	25	36	336
SHD21	305.00	306.00	-1	-50	-0.01	-10	25	44	417
SHD21	306.00	307.00	-1	-50	-0.01	-10	25	28	450
SHD21	307.00	308.00	-1	-50	-0.01	-10	20	38	413
SHD21	308.00	309.00	-1	-50	-0.01	-10	29	40	366
SHD21	309.00	310.00	-1	-50	-0.01	-10	28	90	362
SHD21	310.00	311.00	-1	-50	-0.01	-10	20	36	371
SHD21	311.00	312.00	-1	-50	-0.01	-10	20	71	374
SHD21	312.00	313.00	-1	-50	-0.01	-10	22	34	408
SHD21	313.00	314.00	-1	-50	-0.01	-10	23	175	385
SHD21	314.00	315.00	-1	-50	-0.01	-10	38	29	321
SHD21	315.00	316.00	-1	-50	-0.01	-10	45	33	248
SHD21	316.00	317.00	-1	-50	-0.01	-10	31	50	215
SHD21	317.00	318.00	1	85	-0.01	-10	40	89	167
SHD21	318.00	319.00	3	80	-0.01	-10	30	197	79
SHD21	319.00	319.80	4	65	-0.01	-10	38	240	202
SHD21	319.80	321.00	15	140	-0.01	-10	224	1405	5400
SHD21	321.00	322.30	17	190	0.04	-10	264	4500	13600
SHD21	322.30	323.00	3	-50	-0.01	-10	32	366	308
SHD21	323.00	324.00	-1	-50	-0.01	-10	13	117	477
SHD21	324.00	325.00	-1	-50	-0.01	-10	9	178	133
SHD21	325.00	326.00	1	-50	-0.01	-10	28	230	257
SHD21	326.00	327.00	-1	-50	-0.01	-10	24	82	139
SHD21	327.00	328.00	1	-50	-0.01	-10	35	119	226
SHD21	328.00	329.00	1	-50	-0.01	-10	17	203	399
SHD21	329.00	330.00	-1	-50	-0.01	-10	18	169	1035
SHD21	330.00	331.00	-1	-50	-0.01	-10	37	139	993
SHD21	331.00	332.00	-1	-50	-0.01	-10	23	170	494
SHD21	332.00	333.00	-1	-50	-0.01	-10	22	163	107
SHD21	333.00	334.00	-1	-50	-0.01	-10	22	126	201
SHD21	334.00	335.00	-1	-50	-0.01	-10	12	89	141
SHD21	335.00	336.00	-1	-50	-0.01	-10	13	152	207
SHD21	336.00	337.00	1	-50	-0.01	-10	14	323	696
SHD21	337.00	338.00	-1	-50	-0.01	-10	7	150	223
SHD21	338.00	339.00	-1	-50	-0.01	-10	13	261	953
SHD21	339.00	340.00	-1	-50	-0.01	-10	10	211	488
SHD21	340.00	341.00	-1	-50	-0.01	-10	6	106	337
SHD21	341.00	342.00	-1	-50	-0.01	-10	7	74	267
SHD21	342.00	343.00	-1	-50	-0.01	-10	7	99	481
SHD21	343.00	344.00	-1	-50	-0.01	-10	6	93	666
SHD21	344.00	345.00	-1	-50	-0.01	-10	9	130	882
SHD21	345.00	346.00	-1	-50	-0.01	-10	10	131	1130
SHD21	346.00	347.00	22	-50	-0.01	20	131	1050	1665
SHD21	347.00	348.00	1	120	-0.01	-10	14	266	263
SHD21	348.00	349.00	-1	-50	-0.01	-10	11	79	92
SHD21	349.00	350.00	-1	-50	-0.01	-10	19	72	90
SHD21	350.00	351.00	-1	90	-0.01	-10	22	165	171
SHD21	351.00	352.00	-1	-50	-0.01	-10	18	170	101

SHD21	352.00	353.00	-1	-50	-0.01	-10	17	193	462
SHD21	353.00	354.00	-1	-50	-0.01	-10	14	160	364
SHD21	354.00	355.00	-1	-50	-0.01	-10	6	119	204
SHD21	355.00	356.00	-1	-50	-0.01	-10	8	134	720
SHD21	356.00	357.00	-1	-50	-0.01	-10	12	198	454
SHD21	357.00	358.00	2	-50	-0.01	-10	15	286	417
SHD21	358.00	359.00	1	-50	-0.01	-10	16	278	351
SHD21	359.00	360.00	2	50	-0.01	-10	18	380	925
SHD21	360.00	361.00	3	95	-0.01	-10	49	356	1205
SHD21	361.00	362.00	19	320	0.05	-10	334	692	2240
SHD21	362.00	363.00	1	120	-0.01	-10	73	257	300
SHD21	363.00	364.00	1	-50	-0.01	-10	42	143	368
SHD21	364.00	365.00	1	60	-0.01	-10	58	206	792
SHD21	365.00	366.00	-1	-50	-0.01	-10	34	276	418
SHD21	366.00	367.00	-1	-50	-0.01	-10	70	123	327
SHD21	367.00	368.00	-1	-50	-0.01	-10	58	144	333
SHD21	368.00	369.00	1	-50	-0.01	-10	39	127	815
SHD21	369.00	370.00	-1	-50	-0.01	-10	15	231	401
SHD21	370.00	371.00	1	55	-0.01	-10	10	250	465
SHD21	371.00	372.00	-1	85	-0.01	-10	33	119	207
SHD21	372.00	373.00	2	185	-0.01	-10	42	133	218
SHD21	373.00	374.00	4	50	-0.01	-10	53	267	957
SHD21	374.00	375.00	3	95	-0.01	-10	71	113	301
SHD21	375.00	376.00	-1	435	-0.01	-10	69	107	215
SHD21	376.00	377.00	-1	570	-0.01	-10	118	107	492
SHD21	377.00	378.00	3	85	-0.01	-10	36	357	1000
SHD21	378.00	379.00	2	55	-0.01	-10	20	351	1030
SHD21	379.00	380.00	1	65	-0.01	-10	30	242	669
SHD21	380.00	381.00	4	95	0.02	-10	74	522	1085
SHD21	381.00	382.00	2	410	0.02	-10	28	418	1355
SHD21	382.00	383.00	2	210	0.03	-10	15	476	1465
SHD21	383.00	384.00	2	180	0.04	-10	32	535	1340
SHD21	384.00	385.00	1	455	0.02	-10	22	232	740
SHD21	385.00	386.00	-1	295	-0.01	-10	13	118	121
SHD21	386.00	387.00	-1	170	-0.01	-10	13	106	134
SHD21	387.00	388.00	-1	60	-0.01	-10	8	25	94
SHD21	388.00	389.00	-1	-50	-0.01	-10	17	17	94
SHD21	389.00	390.00	-1	-50	-0.01	-10	84	10	751
SHD21	395.00	396.00	-1	85	-0.01	-10	15	38	174
SHD21	399.00	400.00	3	60	-0.01	-10	184	493	1215
SHD21	400.00	401.00	3	425	-0.01	-10	149	541	2540
SHD21	412.00	413.00	1	60	-0.01	-10	32	732	1465
SHD21	413.00	414.00	-1	-50	-0.01	-10	27	250	242
SHD21	414.00	415.00	-1	-50	-0.01	-10	51	38	210
SHD21	415.00	416.00	-1	80	-0.01	-10	44	461	1785
SHD21	416.00	417.00	-1	-50	-0.01	-10	24	230	445
SHD21	417.00	418.00	-1	-50	-0.01	-10	11	268	1105
SHD21	418.00	419.00	-1	-50	-0.01	-10	13	220	489
SHD21	419.00	420.00	-1	-50	-0.01	-10	16	142	186
SHD21	420.00	421.00	-1	-50	-0.01	-10	12	115	408
SHD21	421.00	422.00	-1	-50	-0.01	-10	8	83	275
SHD21	422.00	423.00	-1	115	-0.01	-10	13	160	618
SHD21	423.00	424.00	-1	185	-0.01	-10	13	251	426
SHD21	424.00	425.00	-1	495	-0.01	-10	23	225	492
SHD21	425.00	426.00	-1	50	-0.01	-10	25	465	1095

SHD21	426.00	427.00	1	70	-0.01	-10	28	433	1060
SHD21	427.00	428.00	-1	-50	-0.01	-10	18	53	659
SHD21	428.00	429.00	1	-50	-0.01	-10	42	984	1285
SHD21	429.00	430.00	1	-50	-0.01	-10	42	899	216
SHD21	430.00	431.00	-1	-50	-0.01	-10	44	1025	166
SHD21	431.00	432.00	2	-50	-0.01	-10	55	1245	446
SHD21	432.00	433.00	1	-50	-0.01	-10	44	423	737
SHD21	433.00	434.00	2	-50	0.1	-10	32	544	1280
SHD21	434.00	435.00	1	-50	-0.01	-10	24	386	683
SHD21	435.00	436.00	1	50	-0.01	-10	34	439	1710
SHD21	436.00	437.00	-1	-50	-0.01	-10	32	457	862
SHD21	437.00	438.00	1	-50	-0.01	-10	83	1135	3180
SHD21	438.00	439.00	3	-50	0.14	-10	82	4300	6800
SHD21	439.00	440.00	12	-50	0.29	-10	440	10200	28200
SHD21	440.00	441.00	15	-50	0.25	-10	491	9100	14200
SHD21	441.00	442.00	2	-50	0.07	-10	80	3550	4990
SHD21	442.00	443.00	3	-50	0.13	-10	80	3500	5600
SHD21	443.00	444.00	4	-50	1.84	-10	474	33400	68100
SHD21	444.00	445.00	4	-50	0.19	-10	203	7500	6600
SHD21	445.00	446.00	1	-50	0.02	-10	104	892	2920
SHD21	446.00	447.00	-1	-50	-0.01	-10	22	471	1475
SHD21	447.00	448.00	-1	-50	-0.01	-10	26	435	826
SHD21	448.00	449.00	-1	-50	-0.01	-10	30	233	1180
SHD21	459.00	460.00	-1	-50	-0.01	-10	93	860	2520
SHD21	460.00	461.00	-1	-50	-0.01	-10	24	72	271
SHD21	461.00	462.00	-1	-50	-0.01	-10	32	92	69
SHD21	462.00	463.00	-1	-50	-0.01	-10	48	48	72
SHD21	463.00	464.00	-1	-50	-0.01	-10	55	15	62
SHD21	464.00	465.00	-1	-50	-0.01	-10	29	33	129
SHD21	465.00	466.00	-1	-50	-0.01	-10	27	65	70
SHD21	466.00	467.00	-1	-50	-0.01	-10	17	55	97
SHD21	467.00	468.00	-1	-50	-0.01	-10	18	16	58
SHD21	468.00	469.00	-1	-50	-0.01	-10	35	-3	56
SHD21	469.00	470.00	-1	-50	-0.01	-10	17	5	43
SHD21	470.00	471.00	-1	-50	-0.01	-10	14	3	57
SHD21	471.00	472.00	-1	-50	-0.01	-10	12	-3	47
SHD21	472.00	473.00	-1	-50	-0.01	-10	22	-3	70
SHD21	473.00	474.00	-1	-50	-0.01	-10	16	9	76
SHD21	500.00	501.00	-1	-50	0.02	-10	23	401	376
SHD21	501.00	502.00	1	-50	-0.01	-10	99	730	5300
SHD21	502.00	503.00	2	60	-0.01	-10	54	808	1750
SHD21	503.00	504.00	3	-50	-0.01	-10	117	1365	4530
SHD21	504.00	505.00	-1	-50	-0.01	-10	33	198	537
SHD21	505.00	506.00	-1	-50	-0.01	-10	16	122	353
SHD21	506.00	507.00	-1	-50	-0.01	-10	53	215	996
SHD21	507.00	508.00	-1	-50	-0.01	-10	22	160	431
SHD21	508.00	509.00	1	-50	-0.01	-10	80	350	1590
SHD21	509.00	510.00	4	-50	-0.01	-10	138	727	2600
SHD21	510.00	511.00	2	-50	-0.01	-10	65	390	1980
SHD21	511.00	512.00	1	-50	-0.01	-10	68	167	706
SHD21	512.00	513.00	1	-50	-0.01	-10	35	131	893
SHD21	513.00	514.00	1	110	-0.01	-10	68	258	1375
SHD21	514.00	515.00	3	50	-0.01	-10	100	737	2540
SHD21	515.00	516.00	1	-50	-0.01	-10	39	246	985
SHD21	516.00	517.00	1	-50	-0.01	-10	32	177	825

SHD21	682.00	683.00	-1	-50	-0.01	-10	10	18	98
SHD21	683.00	684.00	-1	-50	-0.01	-10	10	33	83
SHD21	684.00	685.00	-1	-50	-0.01	-10	16	48	74
SHD21	685.00	686.00	-1	-50	-0.01	-10	12	69	69
SHD21	686.00	687.00	-1	-50	-0.01	-10	8	69	71
SHD21	687.00	688.00	-1	-50	-0.01	-10	8	147	81
SHD21	688.00	689.00	-1	-50	-0.01	-10	12	137	233
SHD21	689.00	690.00	-1	-50	-0.01	-10	33	172	849
SHD21	690.00	691.00	-1	-50	-0.01	-10	10	112	152
SHD21	691.00	692.00	-1	-50	-0.01	-10	7	82	150
SHD21	692.00	693.00	-1	-50	-0.01	-10	6	58	122
SHD21	693.00	694.00	-1	70	-0.01	-10	9	88	247
SHD21	694.00	695.00	-1	-50	0.03	-10	17	205	214
SHD21	695.00	696.00	-1	-50	-0.01	-10	10	265	164
SHD21	696.00	697.00	-1	-50	-0.01	-10	16	149	125
SHD21	697.00	698.00	-1	65	-0.01	-10	12	59	436
SHD21	698.00	699.00	-1	215	0.02	-10	47	128	782
SHD21	699.00	700.00	-1	60	-0.01	-10	27	115	463
SHD21	700.00	701.00	1	70	-0.01	-10	14	203	241
SHD21	701.00	702.00	-1	55	-0.01	-10	10	213	647
SHD21	702.00	703.00	-1	-50	-0.01	-10	13	118	182
SHD21	703.00	704.00	-1	-50	-0.01	-10	10	62	230
SHD21	704.00	705.00	1	-50	-0.01	-10	13	257	399
SHD21	705.00	706.00	-1	-50	-0.01	-10	14	280	435
SHD21	706.00	707.00	1	-50	-0.01	-10	12	419	386
SHD21	707.00	708.00	1	-50	-0.01	-10	15	224	255
SHD21	708.00	709.00	-1	-50	-0.01	-10	20	378	262
SHD21	709.00	710.00	-1	-50	-0.01	-10	19	336	239
SHD21	710.00	711.00	-1	-50	-0.01	-10	22	206	391
SHD21	711.00	712.00	-1	-50	-0.01	-10	24	333	332
SHD21	712.00	713.00	-1	-50	-0.01	-10	85	201	1620
SHD21	713.00	714.00	3	95	0.03	-10	488	242	2680
SHD21	714.00	715.00	8	200	-0.01	-10	1555	415	459
SHD21	715.00	716.00	11	100	0.03	-10	293	956	815
SHD21	716.00	717.00	5	110	0.02	-10	389	1080	2640
SHD21	717.00	718.00	1	-50	-0.01	-10	33	410	319
SHD21	718.00	719.00	1	-50	-0.01	-10	27	419	1190
SHD21	719.00	720.00	-1	-50	-0.01	-10	20	386	362
SHD21	720.00	721.00	1	-50	-0.01	-10	15	436	308
SHD21	721.00	722.00	-1	-50	-0.01	-10	12	397	183
SHD21	722.00	723.00	1	-50	-0.01	-10	12	415	214
SHD21	723.00	724.00	1	-50	-0.01	-10	13	348	241
SHD21	724.00	725.00	-1	-50	-0.01	-10	21	691	464
SHD21	725.00	726.00	-1	-50	-0.01	-10	22	423	492
SHD21	726.00	727.00	1	-50	-0.01	-10	25	560	339
SHD21	727.00	728.00	1	-50	0.05	-10	25	361	757
SHD21	728.00	729.00	1	-50	0.02	-10	13	288	958
SHD21	729.00	730.00	1	55	0.06	-10	29	349	133
SHD21	730.00	731.00	1	-50	0.02	-10	55	171	61
SHD21	731.00	732.00	1	90	0.03	-10	250	139	4830
SHD21	732.00	733.00	1	-50	0.05	-10	34	387	3200
SHD21	733.00	734.00	1	-50	-0.01	-10	36	592	2110
SHD21	734.00	735.00	-1	-50	-0.01	-10	12	339	426
SHD21	735.00	736.00	-1	-50	-0.01	-10	12	298	197
SHD21	736.00	737.00	-1	-50	-0.01	-10	19	332	201

SHD21	737.00	738.00	-1	-50	-0.01	-10	14	167	125
SHD21	738.00	739.00	-1	-50	-0.01	-10	14	158	225
SHD21	739.00	740.00	-1	-50	-0.01	-10	21	186	216
SHD21	740.00	741.00	-1	-50	-0.01	-10	8	148	226
SHD21	741.00	742.00	-1	-50	-0.01	-10	8	12	142
SHD21	742.00	743.00	-1	-50	-0.01	-10	8	84	170
SHD21	743.00	744.00	-1	-50	-0.01	-10	21	159	349
SHD21	744.00	745.00	-1	-50	-0.01	-10	6	83	130
SHD21	745.00	746.00	-1	-50	-0.01	-10	6	86	106
SHD21	746.00	747.00	-1	-50	-0.01	-10	5	82	185
SHD21	747.00	748.00	-1	-50	-0.01	-10	6	122	279
SHD21	748.00	749.00	1	-50	-0.01	-10	9	210	189
SHD21	749.00	750.00	-1	-50	-0.01	-10	8	333	223
SHD21	750.00	751.00	1	-50	-0.01	-10	11	668	416
SHD21	751.00	752.00	2	-50	0.1	-10	63	562	2920
SHD21	752.00	753.00	-1	-50	-0.01	-10	31	473	2280
SHD21	753.00	754.00	-1	-50	-0.01	-10	46	549	2820
SHD21	754.00	755.00	-1	-50	-0.01	-10	20	247	1905
SHD21	755.00	756.00	1	-50	-0.01	-10	48	220	3400
SHD21	756.00	757.00	1	-50	-0.01	-10	24	303	1340
SHD21	757.00	758.00	1	-50	-0.01	-10	40	2190	2620
SHD21	762.00	763.00	1	-50	-0.01	-10	47	487	1225
SHD21	763.00	764.00	1	-50	-0.01	-10	36	683	1365
SHD21	764.00	765.00	1	-50	-0.01	-10	46	557	2990
SHD21	765.00	766.00	7	-50	0.04	-10	102	1540	915
SHD21	766.00	767.00	4	-50	-0.01	-10	120	2090	4480
SHD21	767.00	768.00	1	-50	-0.01	-10	33	425	2750
SHD21	768.00	769.00	1	-50	-0.01	-10	28	630	1785
SHD21	769.00	770.00	13	235	0.18	-10	1000	2120	15000
SHD21	770.00	771.00	4	-50	0.1	-10	71	716	391
SHD21	771.00	772.00	3	-50	0.04	-10	109	719	2340
SHD21	772.00	773.00	1	-50	-0.01	-10	43	218	4780
SHD21	773.00	774.00	-1	-50	-0.01	-10	16	295	1225
SHD21	783.00	784.00	1	-50	-0.01	-10	34	1570	4120
SHD21	786.00	787.00	2	-50	0.03	-10	86	2600	6000
SHD21	787.00	788.00	3	-50	0.05	-10	79	4430	6200
SHD21	788.00	789.00	2	-50	0.05	-10	55	2070	6500
SHD21	789.00	790.00	2	-50	0.03	-10	59	1590	8300
SHD21	790.00	791.00	1	-50	0.01	-10	32	625	3090
SHD21	791.00	792.00	2	-50	0.04	-10	151	1280	6300
SHD21	792.00	793.00	2	-50	0.03	-10	39	1965	4370
SHD21	793.00	794.00	2	-50	0.02	-10	58	1765	3720
SHD21	794.00	795.00	2	-50	0.01	-10	45	4130	5200
SHD21	795.00	796.00	5	-50	0.04	-10	55	8300	5800
SHD21	801.00	802.00	1	-50	0.02	-10	131	1330	6400
SHD21	802.00	803.00	1	-50	0.02	-10	104	550	6400
SHD21	803.00	804.00	1	-50	0.06	-10	72	2570	10900
SHD21	804.00	805.00	4	75	0.12	-10	156	5500	14300
SHD21	811.00	812.00	3	55	0.09	-10	327	3520	13700
SHD21	812.00	813.00	2	-50	0.06	-10	235	1145	7800
SHD21	813.00	814.00	2	50	0.12	-10	84	1075	1200
SHD21	814.00	815.00	1	55	0.07	-10	37	540	2800
SHD21	815.00	816.00	2	-50	0.09	-10	126	1280	15500
SHD21	816.00	817.00	-1	-50	0.07	-10	70	288	6100
SHD21	821.00	822.00	-1	-50	-0.01	-10	58	872	6300

SHD21	822.00	823.00	1	-50	0.03	-10	430	1750	8000
SHD21	823.00	824.00	1	-50	0.08	-10	420	624	2620
SHD21	824.00	825.00	3	-50	0.08	-10	889	640	5400
SHD21	825.00	826.00	4	-50	0.14	-10	1195	295	145
SHD21	826.00	827.00	-1	-50	-0.01	-10	124	126	624
SHD21	833.00	834.00	1	-50	-0.01	-10	143	2880	5700
SHD21	834.00	835.00	3	-50	0.05	-10	166	4860	6700
SHD21	835.00	836.00	-1	-50	0.03	-10	153	1625	4150
SHD21	840.00	841.00	-1	-50	0.04	-10	63	877	3400
SHD21	841.00	842.00	-1	-50	0.2	-10	1170	86	49
SHD21	842.00	843.00	1	-50	0.29	-10	1240	33	35
SHD21	843.00	844.00	-1	-50	0.1	-10	639	45	146
SHD21	849.00	850.00	-1	-50	-0.01	-10	151	28	127
SHD21	850.00	851.00	-1	-50	0.03	-10	214	22	99
SHD21	851.00	852.00	4	-50	0.21	11	5000	26	49
SHD21	852.00	853.00	1	-50	0.56	-10	84	20	17
SHD21	853.00	854.00	1	-50	0.38	-10	50	18	78
SHD21	854.00	855.00	1	-50	0.21	-10	167	34	89
SHD21	855.00	856.00	2	-50	0.2	-10	51	116	77
SHD21	856.00	857.00	3	-50	0.25	-10	174	543	246
SHD21	857.00	858.00	1	-50	0.25	-10	126	47	16
SHD21	858.00	859.00	1	-50	0.23	-10	106	66	13
SHD21	859.00	860.00	1	-50	0.25	-10	135	79	16
SHD21	860.00	861.00	1	-50	0.11	-10	55	57	18
SHD21	861.00	862.00	2	-50	0.37	-10	100	136	15
SHD21	862.00	863.00	2	-50	0.38	-10	98	205	80
SHD21	863.00	864.00	3	-50	0.19	-10	192	401	208
SHD21	864.00	865.00	4	-50	0.16	-10	485	1055	6100
SHD21	865.00	866.00	1	-50	0.12	-10	2780	693	1790
SHD21	866.00	867.00	1	-50	0.03	-10	93	149	166
SHD21	867.00	868.00	6	-50	-0.01	10	81	1510	132
SHD21	868.00	869.00	-1	-50	-0.01	-10	55	60	50
SHD21	869.00	870.00	-1	-50	-0.01	-10	10	8	17
SHD21	870.00	871.00	-1	-50	-0.01	-10	6	15	72
SHD21	871.00	872.00	-1	-50	-0.01	-10	6	153	170
SHD21	872.00	873.00	-1	-50	-0.01	-10	8	19	14
SHD21	873.00	874.00	-1	-50	0.05	-10	48	103	83
SHD21	874.00	875.00	-1	-50	0.03	-10	42	37	38
SHD21	875.00	876.00	1	-50	0.03	-10	42	39	17
SHD21	876.00	877.00	1	-50	-0.01	-10	46	24	9
SHD21	877.00	878.00	2	-50	-0.01	-10	54	96	13
SHD21	878.00	879.00	2	-50	-0.01	-10	367	633	4160
SHD21	879.00	880.00	1	-50	-0.01	-10	64	1385	4680
SHD21	880.00	881.00	-1	-50	-0.01	-10	27	1625	3330
SHD21	881.00	882.00	-1	-50	-0.01	-10	33	413	1685
SHD21	882.00	883.00	-1	-50	-0.01	-10	50	260	902
SHD21	883.00	884.00	2	-50	0.27	-10	182	367	181
SHD21	884.00	885.00	1	-50	0.04	-10	55	56	14
SHD21	885.00	886.00	1	-50	-0.01	-10	45	77	21
SHD21	886.00	887.00	2	-50	0.03	-10	91	217	31
SHD21	887.00	888.00	2	-50	0.02	-10	516	244	1895
SHD21	888.00	889.00	2	-50	-0.01	-10	307	895	2880
SHD21	889.00	890.00	2	-50	-0.01	-10	87	1025	2600
SHD21	890.00	891.00	1	-50	-0.01	-10	74	1435	1600
SHD21	891.00	892.00	1	-50	-0.01	-10	34	1315	2330

650426

SHD21	892.00	893.00	1	-50	-0.01	-10	64	817	2170
SHD21	893.00	894.00	3	-50	0.03	-10	483	467	1395
SHD21	894.00	895.00	2	-50	-0.01	-10	129	850	2040
SHD21	895.00	896.00	4	-50	0.19	-10	136	1045	732
SHD21	896.00	897.00	2	-50	0.06	-10	69	287	123
SHD21	897.00	898.00	1	-50	0.05	-10	47	255	86
SHD21	898.00	899.00	4	-50	0.14	-10	110	2640	1395
SHD21	899.00	900.00	1	-50	-0.01	-10	22	218	663
SHD21	900.00	901.00	-1	-50	-0.01	-10	24	262	1015
SHD21	901.00	902.00	1	-50	-0.01	-10	172	172	627
SHD21	902.00	903.00	-1	-50	-0.01	-10	28	399	993
SHD21	903.00	904.00	1	-50	-0.01	-10	30	551	1015
SHD21	904.00	905.00	1	-50	-0.01	-10	26	1565	1785
SHD21	905.00	906.00	1	-50	-0.01	-10	16	692	702
SHD21	906.00	907.00	1	-50	-0.01	-10	9	572	791
SHD21	907.00	908.00	1	-50	-0.01	-10	7	435	350
SHD21	908.00	909.00	1	-50	-0.01	-10	6	481	284
SHD21	909.00	910.00	-1	-50	-0.01	-10	7	398	734
SHD21	910.00	911.00	-1	-50	-0.01	-10	12	466	431
SHD21	911.00	912.00	-1	-50	-0.01	-10	12	646	923
SHD21	912.00	913.00	-1	-50	-0.01	-10	21	636	1205
SHD21	913.00	914.00	1	-50	-0.01	-10	14	867	1020
SHD21	914.00	915.00	1	-50	-0.01	-10	19	988	1060
SHD21	915.00	916.00	1	-50	-0.01	-10	190	1025	1470
SHD21	916.00	917.00	-1	-50	-0.01	-10	17	648	1370
SHD21	917.00	918.00	-1	-50	-0.01	-10	109	487	1100
SHD21	918.00	919.00	1	60	0.04	-10	262	893	916
SHD21	919.00	920.00	-1	-50	-0.01	-10	7	13	9
SHD21	920.00	921.00	2	-50	0.04	-10	39	69	71
SHD21	921.00	922.00	4	-50	0.04	11	781	251	870
SHD21	922.00	923.00	1	-50	-0.01	-10	48	347	9100
SHD21	923.00	924.00	1	-50	-0.01	-10	55	152	7600
SHD21	924.00	925.00	5	-50	0.12	-10	927	34	1245
SHD21	925.00	926.00	1	-50	0.02	-10	52	304	554
SHD21	926.00	927.00	-1	-50	-0.01	-10	9	385	188
SHD21	927.00	928.00	1	-50	-0.01	-10	73	114	3410

RGC EXPLORATION PTY LTD

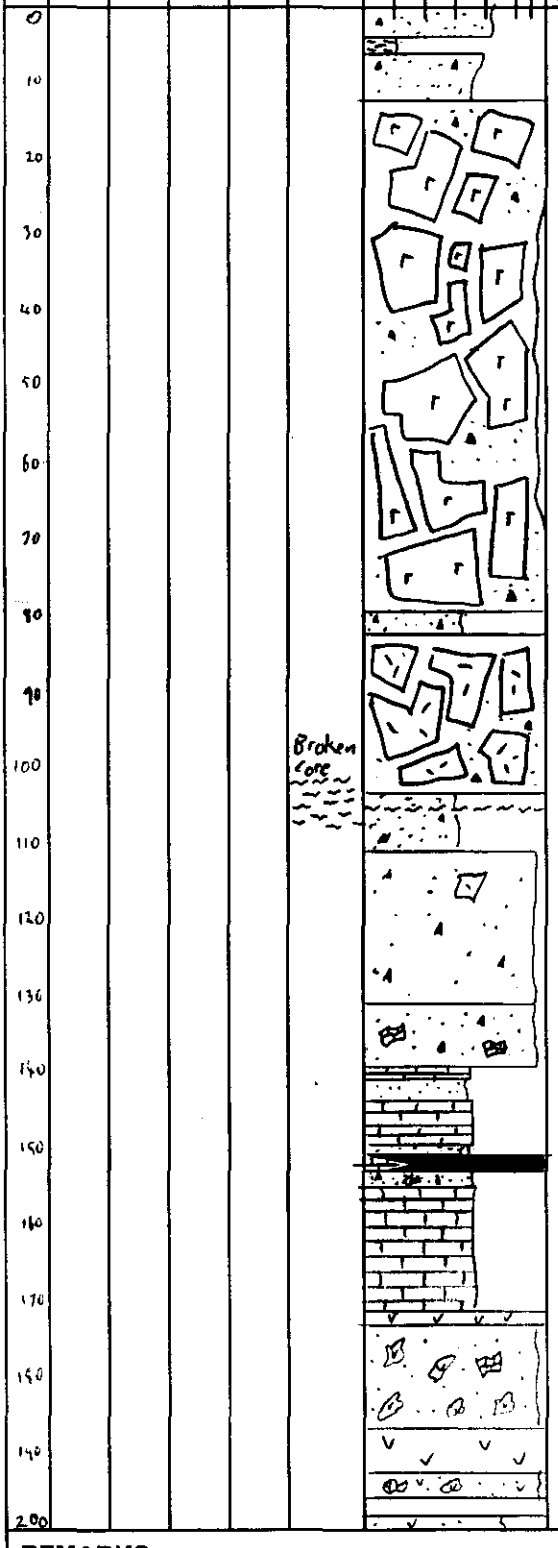
650427

DRILL HOLE No SHD21

SHEET _____ **OF** _____

Bedding	Disseminated
Cleavage	Massive
Foliation	Pervasive
Fault, Shear	Narrow vein
Breccia	* Visible gold
Broken core	

PROJECT	: 5th Henty
PROSPECT	: 1:1000 Summary Log
DATE	:
LOGGED BY	: T. Callaghan



HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG (1/16, 1/4, 1, 4, 16, 32)	ALTERATION (SIL., SER., PY.)	GEOLOGY NOTES		SUMMARY ROCK	SUMMARY ALTERATION	
0						0-4.2 Feld xtal, lithic vc sst.	Ettl	VR	XM	O
						4.2-6.3 vitric siltstone.	Ets	VA	A	O
10						6.3-12.5 Feld xtal-lithic vc breccia minor jasper clasts.	Ettl	VR	XM	O
						12.5-79.9 Feld phyric dacite lava. Autoclastic breccia c̄ minor peperite + hyaloclastite				
20										
30										
40										
50							Ccl	LD	FM	O
60										
70										
80						79.9-82.6 dacitic hyaloclastic sst.	Ccv	VD	LB	O4
						82.6-103.8 orange, albitised. Feld >qtz phyric rhyolite breccia. Mt Julia rhyolite ??	CH	LR	LB	AS
90										
100			Broken core							
						103.8-105.7 Monomict, dacitic vc sst/hyaloclastite	Ccv	VD	LM	O4
110						105.7-131 Massive, feld xtal-lithic vc Breccia.				
120							Ccv	VD	LB	Q
130						131-139.4 Polymict, vc Breccia	Ettl	VA	LB	O
						Lynchford Member.	Ecarb	CAR	B	Cq
140						carbonate 139.4-140.7	Ccv	VD	LM	
						140.7-143.8 dacitic sst				
						143.8-149.3 Carbonate	Ecarb	CAR	B	Cq
150						149.3-153.4 Massive, haematite vein. 153.4-155.5 Polymict vc Brxx, dacitic	Ccv	VD	LB	O
160						155.5-171.3 Massive, white-purple carbonate c̄ minor Haem clasts + replacements.	Ecarb	CAR	B	Cq
170						171.3-172.6 Heam, alt basalt.	Eb	LB		Hic
						172.6-187 Basaltic lithic breccia c̄ carbonate intraclasts	Eb	VB	LB	C
180						187-192.3 Massive basaltic lava.	Eb	LB	A	C
						192.3-196 Basaltic lithic breccia.	Eb	VB	LB	
						196-198.1 Basaltic lava	Eb	LB	A	AS
200										

REMARKS

RGC EXPLORATION PTY LTD

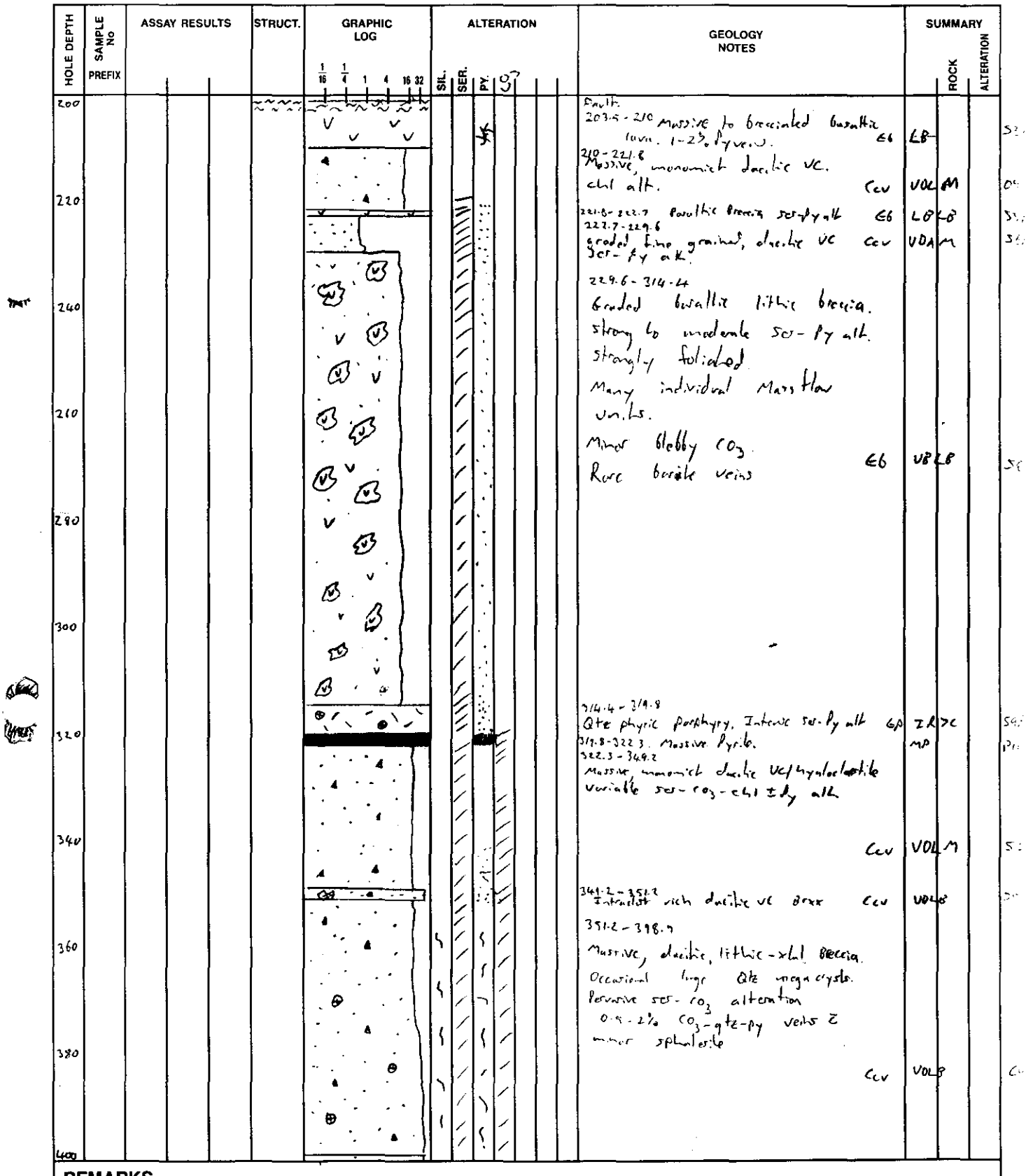
DRILL HOLE No SH021

SHEET _____ **OF** _____

650428

- Bedding
- Cleavage
- Foliation
- Fault, Shear
- Breccia
- Broken core
- Disseminated
- Massive
- Pervasive
- Narrow vein
- * Visible gold

PROJECT	5th Heath
PROSPECT	1:1000 Summary Log
DATE	
LOGGED BY	T. Callaghan



REMARKS

RGC EXPLORATION PTY LTD

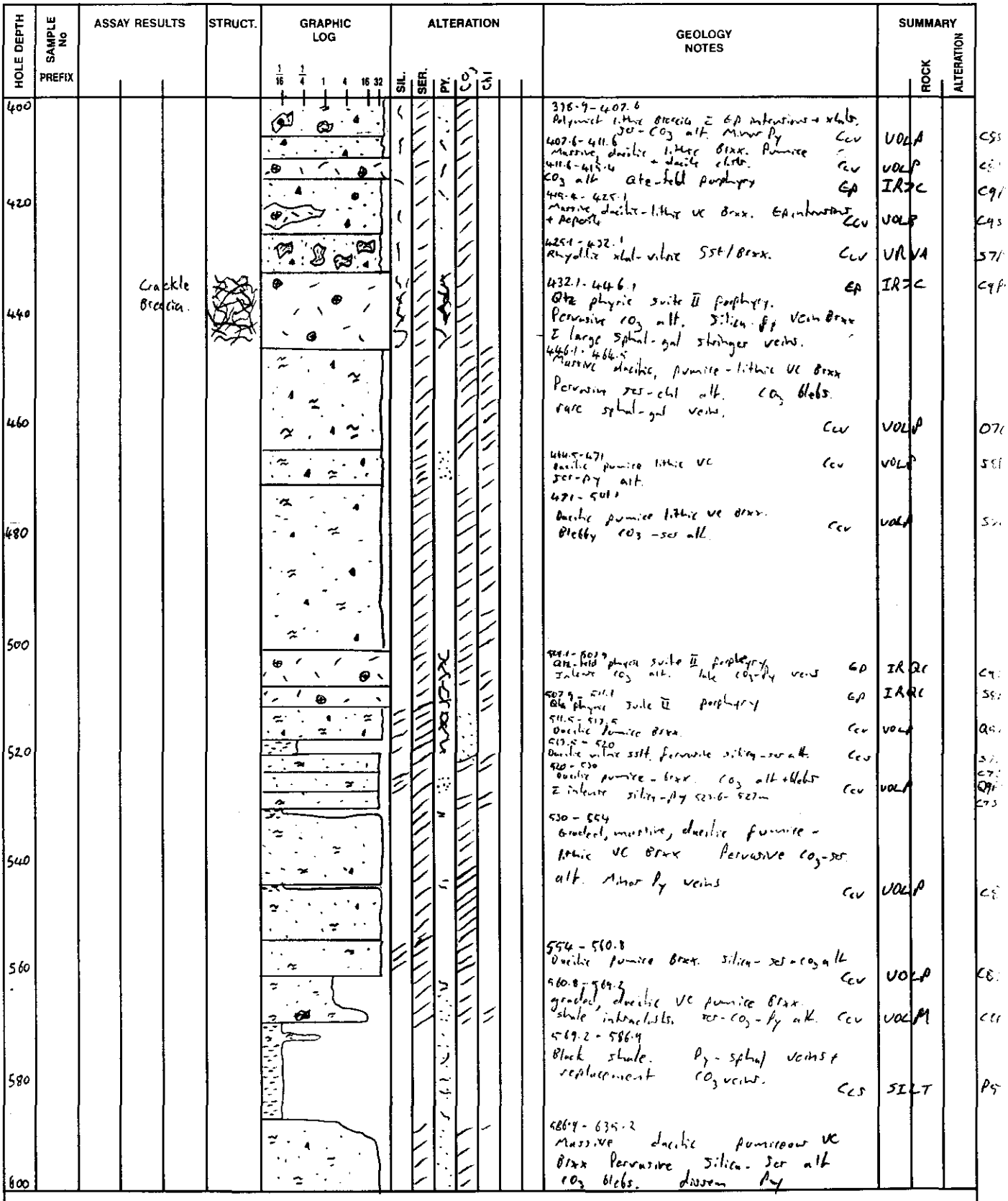
650429

DRILL HOLE No SHD21

SHEET _____ OF _____

PROJECT	: 5th Henty
PROSPECT	: 1:1000 Summary log
DATE	:
LOGGED BY	: T. Callaghan

Bedding
Cleavage
Foliation
Fault, Shear
Breccia
Broken core
Disseminated
Massive
Pervasive
Narrow vein
* Visible gold



REMARKS

RGC EXPLORATION PTY LTD

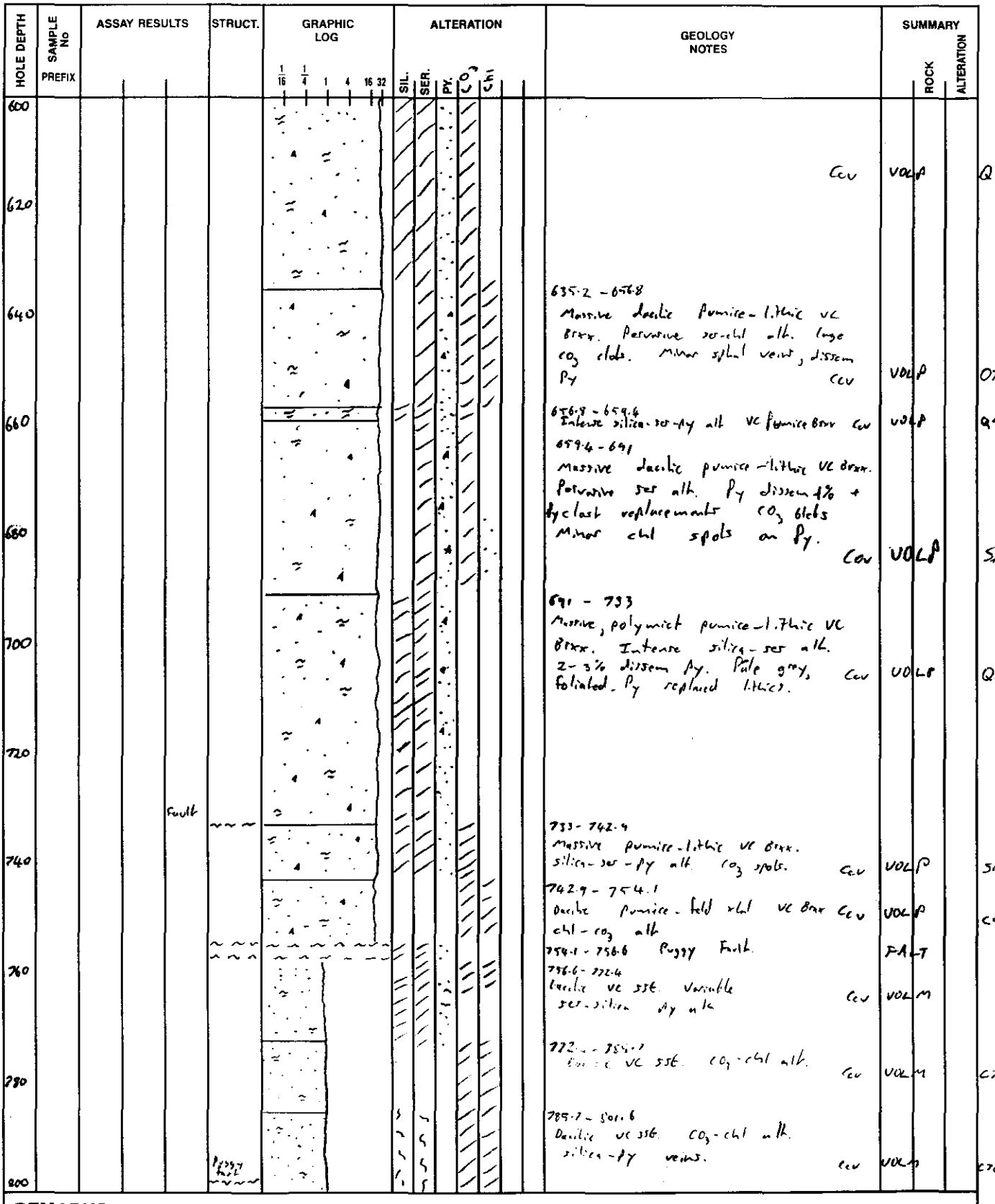
650430

DRILL HOLE No 5HD21

SHEET _____ OF _____

PROJECT	: 5th Henty
PROSPECT	: 1:1000 Summary Log
DATE	:
LOGGED BY	: T Callaghan

Bedding
Cleavage
Foliation
Fault, Shear
Breccia
Broken core
Disseminated
Massive
Pervasive
Narrow vein
* Visible gold



REMARKS

RGC EXPLORATION PTY LTD

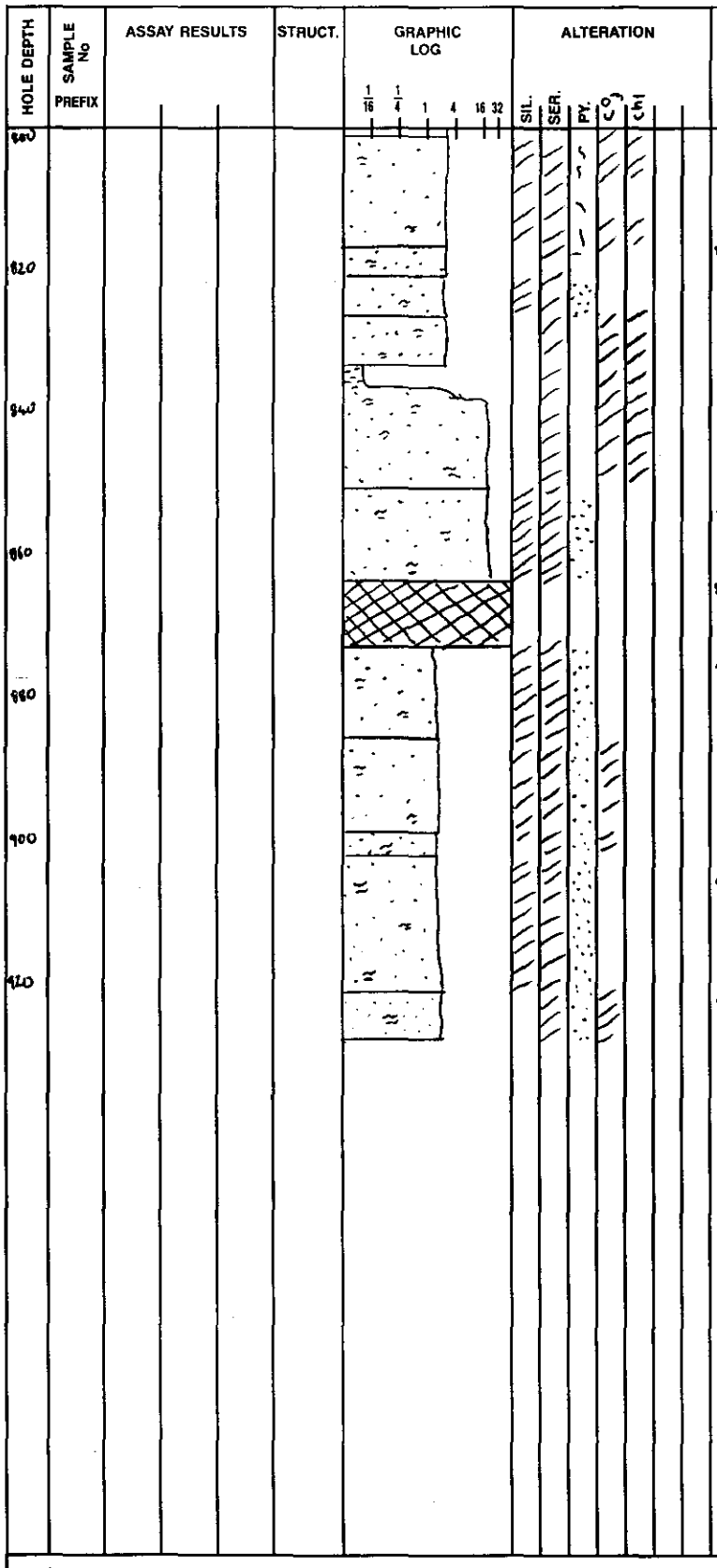
650431

DRILL HOLE No SH021

SHEET _____ OF _____

PROJECT	: Sth Monty
PROSPECT	: 1:1000 Summary Log
DATE	:
LOGGED BY	: T. Callaghan

Bedding
Cleavage
Foliation
Fault, Shear
Breccia
Broken core
Disseminated
Massive
Pervasive
Narrow vein
* Visible gold



REMARKS

650432

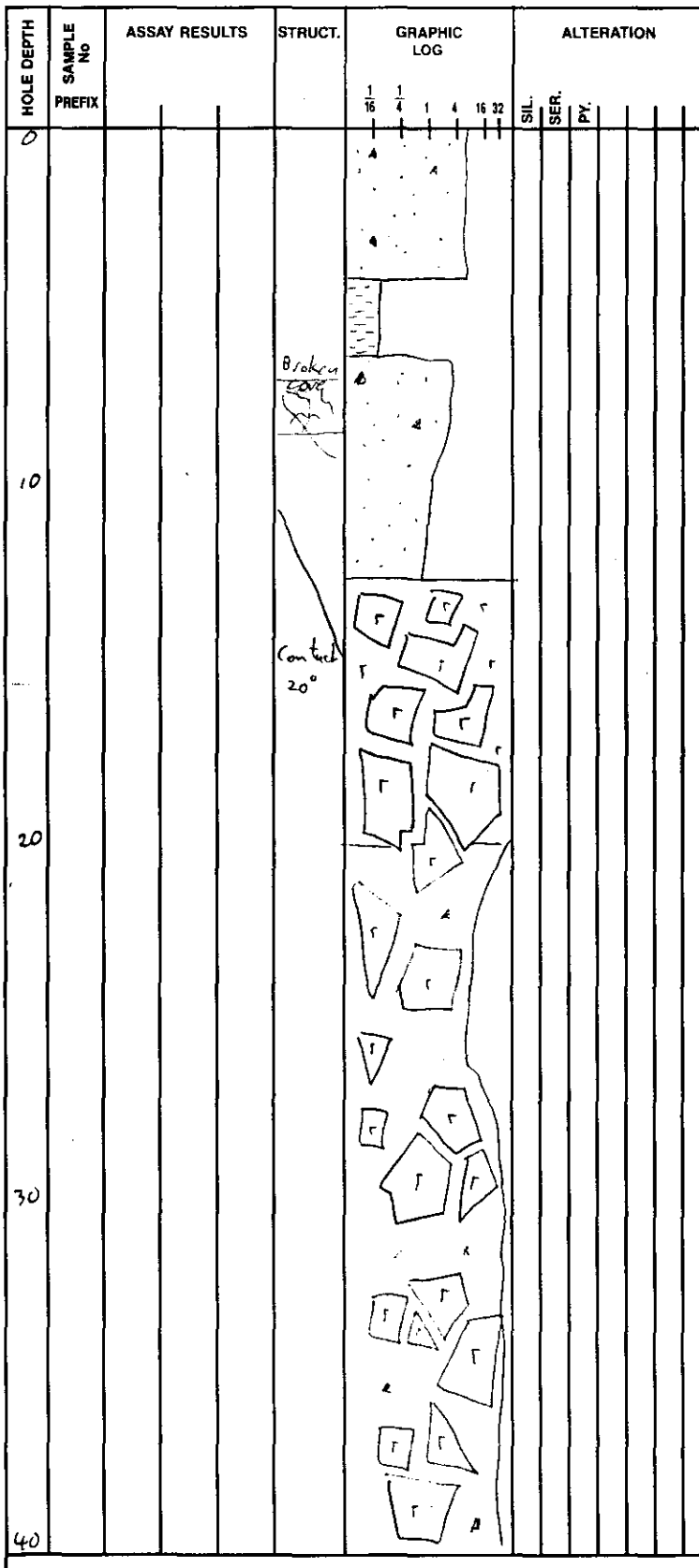
RGC EXPLORATION PTY LTD

DRILL HOLE No SH021

SHEET _____ **OF** _____

Bedding	Disseminated
Cleavage	Massive
Foliation	Pervasive
Fault, Shear	Narrow vein
Breccia	* Visible gold
Broken core	

PROJECT	: 5th Henty
PROSPECT	:
DATE	:
LOGGED BY	: T. Callaghan



HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG (1/16, 1/4, 1, 4, 16, 32)	ALTERATION (SIL., SER., PY.)	GEOLOGY NOTES	SUMMARY ROCK	SUMMARY ALTERATION
0						0 green, feld xtal - lithic vc sst. Minor qtz xtals, lithic fragments + feld xtals. Lynchford Member. Ett1	VR×M	0
						4.2m pale gray vitric siltstone. Devitrification spots Ets	VA×A	0
			Broken core			6.3 Feld xtal - lithic vc breccia grading into fine vc sst pervasive chlorite alteration. Minor jasper clasts. Ett1	VR×M	C
10						12.5 Feld-phyric dacite autobreccia Feld phenocrysts to 3mm - 10% Ccl	LD×LB	
			Contact 20°					
20						20 Fluidised dacite breccia/pepsite. Flow banded, lithic clasts c̄ abundant dacite lava autobreccia clasts. Pervasive, weak chlorite - silica alteration. Ccl	LD×LB	
30								
40								

REMARKS

RGC EXPLORATION PTY LTD

650433

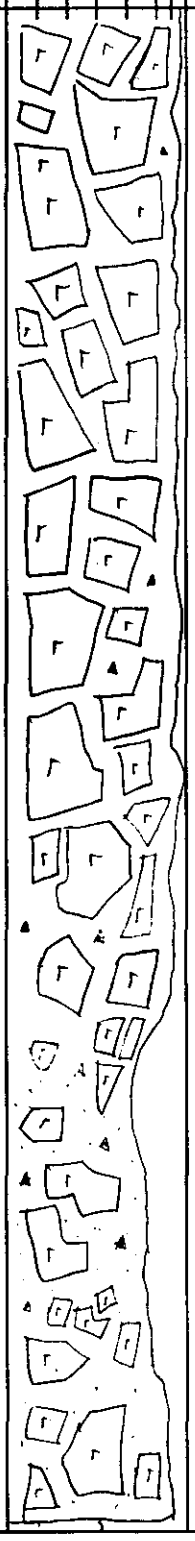
DRILL HOLE No SH021

SHEET _____ **OF** _____

Bedding	Disseminated
Cleavage	Massive
Foliation	Pervasive
Fault, Shear	Narrow vein
Breccia	* Visible gold
Broken core	

PROJECT	: 5th Henty
PROSPECT	:
DATE	:
LOGGED BY	: T. Callaghan

HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG (1/16, 1/4, 1, 4, 16, 32)	ALTERATION (SIL., SER., PY.)	GEOLOGY NOTES	SUMMARY (ROCK, ALTERATION)
40							
						← Minor Py. replacement of clasts.	
50							
60							
70						Auto brecciated drill ? pepperite inclusion of vitric siltstone + ssb. pervasive weak chl. alteration	
80						79.9	



REMARKS

650434

RGC EXPLORATION PTY LTD

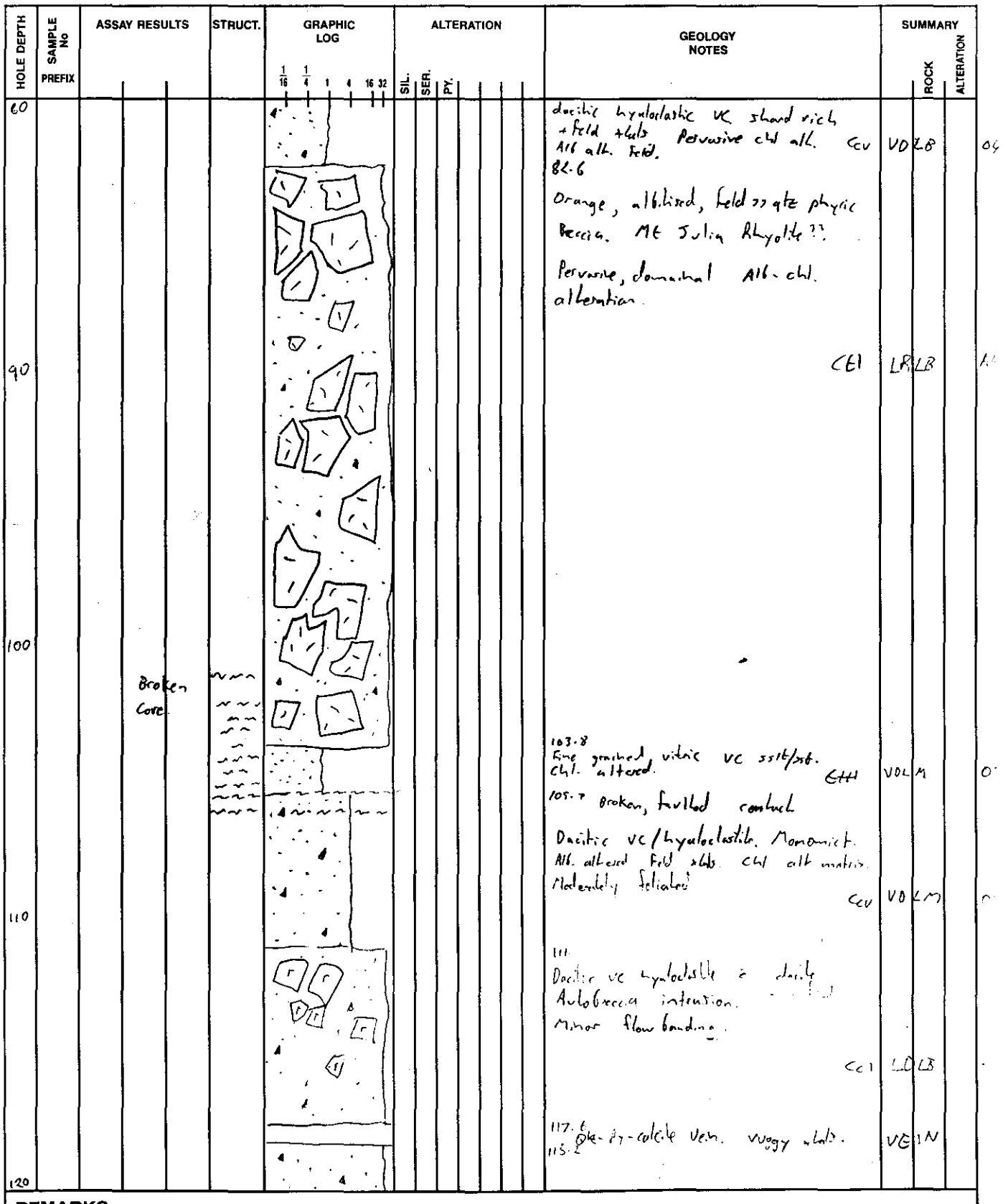
DRILL HOLE No SHD21

SHEET _____ **OF** _____

Bedding	Disseminated
Cleavage	Massive
Foliation	Pervasive
Fault, Shear	Narrow vein
Breccia	* Visible gold
Broken core	

PROJECT	: 5th Henty
PROSPECT	:
DATE	:
LOGGED BY	: T. Callaghan

HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG (1/16, 1/4, 1, 4, 16, 32)	ALTERATION (SIL., SER., PY.)	GEOLOGY NOTES	SUMMARY ROCK	SUMMARY ALTERATION
60						dacitic hyaloclastic VC shard rich + feld xtals Pervasive chl alt. Alb alt. feld. Ccv	VD LB	04
						82.6 Orange, albitised, feld >> qtz phyric Breccia. Mt Julia Rhyolite ?? Pervasive, dominant Alb-chl. alteration.		
90						CEl	LR LB	A
100		Broken Core						
						103.8 Fine grained, vitric VC sslt/sst. Chl. altered. EHl	VDL M	0
						105.7 Broken, faulted contact Dacitic VC/hyaloclastite. Monomict. Alb. altered feld xtals. Chl alt matrix. Moderately foliated Ccv	VD LM	0
110						111 Dacitic VC hyaloclastite & dacite Autobreccia intrusion. Minor flow banding. Ccl	LD LB	
						117.6 115.2 Qtz-Py-calcite Vein. vuggy xtals.	VE IN	
120								



REMARKS

650435

RGC EXPLORATION PTY LTD

DRILL HOLE No SH021

SHEET _____ **OF** _____

Bedding	Disseminated
Cleavage	Massive
Foliation	Pervasive
Fault, Shear	Narrow vein
Breccia	* Visible gold
Broken core	

PROJECT :	5th Henty
PROSPECT :	
DATE :	
LOGGED BY :	T. Callaghan

HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG (1/16, 1/4, 1, 4, 16, 32)	ALTERATION (SIL., SER., PY.)	GEOLOGY NOTES	SUMMARY ROCK	SUMMARY ALTERATION
120						Dacitic, feld-lithic vc breccia. Monomict, reworked dacitic hyaloclastite. Foliated. Weak silica-chl-alb alt. Ccv	VOLB	
130						131 Dominantly feld xtal ssb c̄ clasts of qtz-phyric rhyolite and carbonate. Polymict, matrix supported breccia. Weak Alb-chl alt. Ettl	VALB	
140						139.4 Massive, white-purple stylolitic carbonate. Minor jasper fragments. Ecarb	CARB	
						140.7 Massive, well sorted, feld xtal rich vc ssb, chl alt. Minor lithic and mafic xtals. Ettl	VAXM	
						143.8 Massive, white carbonate. Ecarb	CARB	
						145 Polymict, vc breccia. clasts of rhyolite carb Ettl	VALB	
						146.3 Massive, stylolitic carb breccia. Purple to white. Minor jasper/haematite clasts Ecarb	CARB	
150						149.3 dacitic vc breccia Minor CO_3 clasts Ccv	VOLM	
						150.1 graded, dacitic vc ssb.		
						151 Massive, red, jasper/heamatite vein c̄ minor carbonate matrix. Granular	[illegible]	
						153.4 Massive, dacitic, lithic breccia. clast to matrix supported. Weak Alb. alt. Ccv	VOLB	
						155.5 Massive, white to purple carbonate. stylolitic c̄ abundant jasper fragments. Heam alt. echinoderm spicules? Ecarb	CARB	
160								

REMARKS

650436

RGC EXPLORATION PTY LTD

DRILL HOLE No SH021

SHEET _____ **OF** _____

Bedding	Disseminated
Cleavage	Massive
Foliation	Pervasive
Fault, Shear	Narrow vein
Breccia	* Visible gold
Broken core	

PROJECT	: 5th Henty
PROSPECT	:
DATE	:
LOGGED BY	: T. Callaghan

HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG (1/16, 1/4, 1, 4, 16, 32)	ALTERATION (SIL., SER., PY.)	GEOLOGY NOTES	SUMMARY ROCK	SUMMARY ALTERATION
160								
170						171.3 massive, heam alt. Basalt? sea floor weathering. Eb	LB	A
						172.6 Intense heam alt. Red. Basaltic lithic breccia ± CO_2 intraclasts. Eb	VBL	B
						Pervasive chl alteration.		
180								
						185.8 massive, late qtz-carb vein.	VE	IN
						187 Massive, amygdaloidal basalt. Calcite filled amygdales. pervasive [illegible] Eb	LB	
190						192.3 foliated, [illegible] vc breccia. Basalt, [illegible] Eb	VBL	[illegible]
						194.5 [illegible], hyaloclastic vc sst. Ccu	VBL	[illegible]
						196 massive, feld phyric ductile dyke [illegible] Ccl	[illegible]	[illegible]
200						198.1 Purple, heam alt, seafloor weathered? basalt breccia. Eb	VB	LB

REMARKS

RGC EXPLORATION PTY LTD

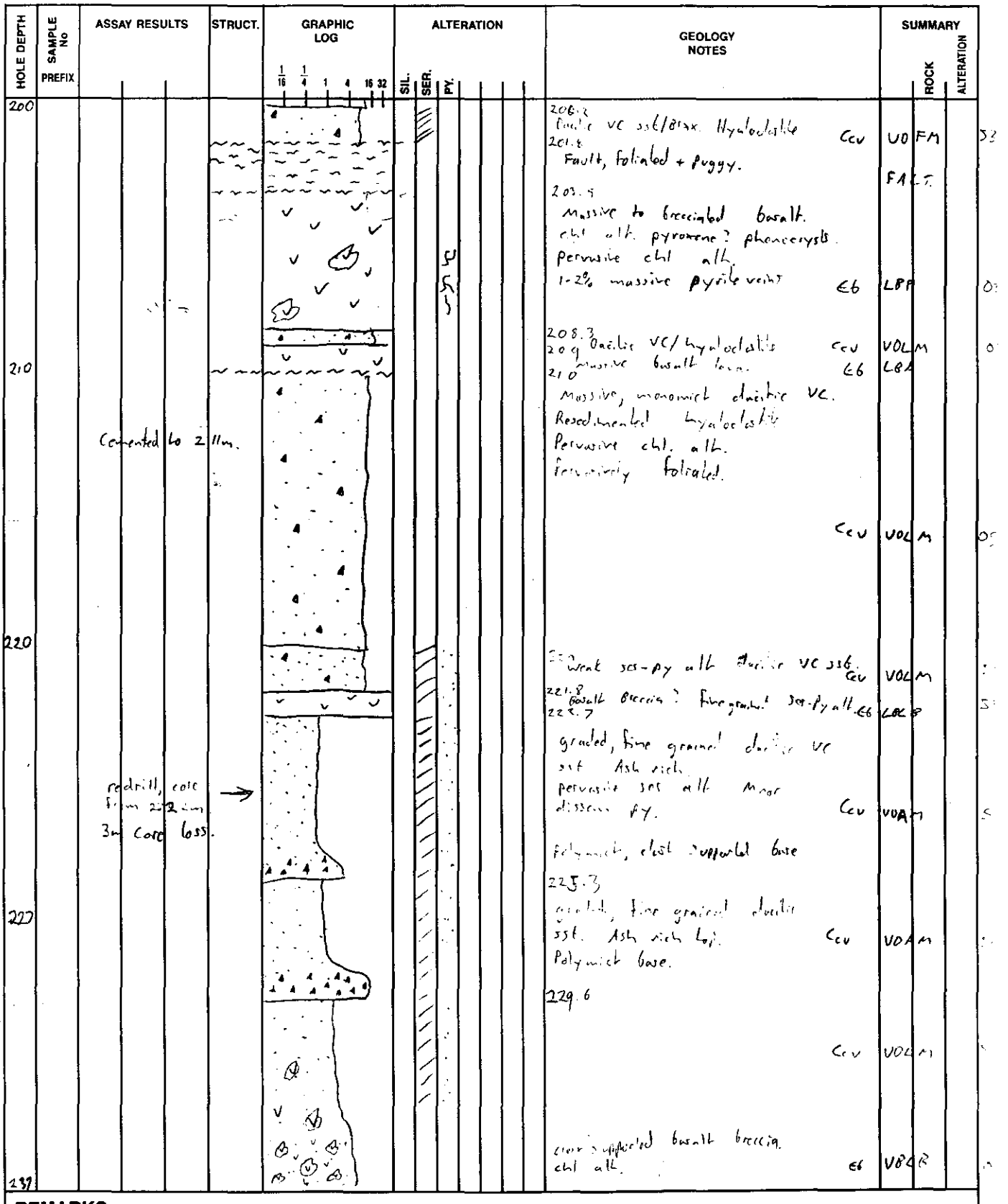
DRILL HOLE No SH021

SHEET _____ **OF** _____

650437

Bedding	Disseminated
Cleavage	Massive
Foliation	Pervasive
Fault, Shear	Narrow vein
Breccia	* Visible gold
Broken core	

PROJECT	: 5th Henty
PROSPECT	:
DATE	:
LOGGED BY	: T. Callaghan



REMARKS

650438

RGC EXPLORATION PTY LTD

DRILL HOLE No SN021

SHEET _____ **OF** _____

Bedding	Disseminated
Cleavage	Massive
Foliation	Pervasive
Fault, Shear	Narrow vein
Breccia	* Visible gold
Broken core	

PROJECT	: 5th Henty
PROSPECT	:
DATE	:
LOGGED BY	: T. Callaghan

HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG (1/16, 1/4, 1, 4, 16, 32)	ALTERATION (SIL., SER., PY.)	GEOLOGY NOTES	SUMMARY ROCK	SUMMARY ALTERATION
237						[illegible] py alt. basaltic lithic breccia. Chl-ser alt. py veins + disseminated. E6	VBLB	07
						241.8 graded, clast supported basaltic lithic breccia. weak py alt. pervasive chl-ser. Foliated, flattened clasts. E6	VBLB	07
247						247.7 graded, basaltic [illegible] breccia py-ser alt [illegible] lithic [illegible]. chl altered [illegible] E6	VBLB	05
						Minor Barite veins + fine, pale brown CO_3 veins. weak patchy disseminated py.		
257								
						263.7 graded, basaltic VC sst. Foliated, pervasive ser-chl alt. Minor Barite veins		
267						E6	VBLB	0
						270 clast supported, basaltic lithic VC breccia chl altered. Foliated. E6	VBLB	0
277								

REMARKS

650439

RGC EXPLORATION PTY LTD

DRILL HOLE No ~~MJ07~~ SH021

SHEET _____ **OF** _____

Bedding	Disseminated
Cleavage	Massive
Foliation	Pervasive
Fault, Shear	Narrow vein
Breccia	* Visible gold
Broken core	

PROJECT	: 5th Henty
PROSPECT	:
DATE	:
LOGGED BY	: T. Callaghan

HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG	ALTERATION	GEOLOGY NOTES	SUMMARY ROCK	SUMMARY ALTERATION
277		Ti/Zr				278.1 Ser alt. basaltic lithic VC breccia. Barite clasts from deformed veins. Eb	VBL B	S81
						280.4 Ba-chl-CO_3-ser alt basaltic lithic VC breccia. strongly foliated. Eb	VBL B	S80
287						← strong ser-py altered VC lithic breccia. Basaltic.		
						289.4 Basaltic-lithic VC breccia. Polymict? chl alt. Eb	VBL B	05
						291 Basaltic(?) lithic VC breccia. strong ser-py alt. Intensely foliated. Eb	VBL B	S81
						294.6 Basaltic? ultric tuff. Strong pyrite sericite alteration Eb	VBL A	S81
297						296 Basaltic lithic VC breccia. Strong py-ser alt. Flattened clasts. Eb	VBL B	S81
307		38.8				305.2 Basaltic lithic breccia. Some polymict clasts of dacite VC ssb. Pervasive chl alt. patchy blebby to pervasive carbonate alt. Possibly clasts of dacite. dacite VC ssb. Dominantly basaltic lithic fragments. Eb	VBL B	C5
311						314.4 Intensely ser-py altered Qtz porphyry breccia. Ep		

REMARKS

RGC EXPLORATION PTY LTD

650440

DRILL HOLE No SHD21

SHEET _____ **OF** _____

Bedding	Disseminated
Cleavage	Massive
Foliation	Pervasive
Fault, Shear	Narrow vein
Breccia	* Visible gold
Broken core	

PROJECT	: 5th Henty
PROSPECT	:
DATE	:
LOGGED BY	: T. Callaghan

HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS T/Zn	STRUCT.	GRAPHIC LOG (1/16, 1/4, 1, 4, 16, 32)	ALTERATION SIL.	SER.	PY.	Cl	CO3	Al	GEOLOGY NOTES	SUMMARY ROCK	ALTERATION
317		33.9									Fragmental or pseudo fragmental? Intense foliation. Texture destructive. ~10% Py alt. Relict Qtz phenos. Ep	IR LB	S9
											319.8 Massive Py - minor CO_3 sulphide	VEIN 2nd	P1
											320.2 Fine dacitic vc ssb. Ccv	VOL M	O5
											324-324.1 Massive Py		
											324.5 Massive Py alt. Fine grained. Replacing dacitic ssb?? sulphide	MP	P1
											328.3 dacitic vc ssb/lithic breccia. Pale grey. Mod-strong ser. alt. Ccv	VOL M	S7
											327.8 silica-ser-chl altered dacitic, lithic vc ssb. Pervasive alteration. strongly foliated Ccv	VOL M	
327		10.8											
											333.4 Pervasive, moderate sericite - CO_3 (FeMn) altered massive dacites. Monomict dacitic hyaloclastites.		
337											Ccv	VOL M	S3
											← large, ser alt pumice rafts.		
											340.7 Pink, albite altered dacitic [illegible] massive hyaloclastite Ccv	VOL M	A
											342.7 ser-CO_3 altered dacitic hyaloclastite Massive, Foliated. Pinkish green Minor silica-py veins < 0.5% Ccv	VOL M	C6
347											346.6 Dacitic vc ssb/ssb. strong Py veins ~10% Ccv	VOL M	P
											347.1 Massive dacitic vc ssb. Ser. CO alt	VOL M	S5
											349.2 Polymict dacitic breccia. Dacitic clasts and dacitic ssb intraclasts. Ccv	VOL B	S5
											351.2 Massive, hyaloclastic dacitic vc/lava. Strong pervasive CO_3 alt + veining c̄ patchy silica-py microveins and CO_3-Py mosaic breccia Ccv	VOL B	C
357													

REMARKS

360

650441

RGC EXPLORATION PTY LTD

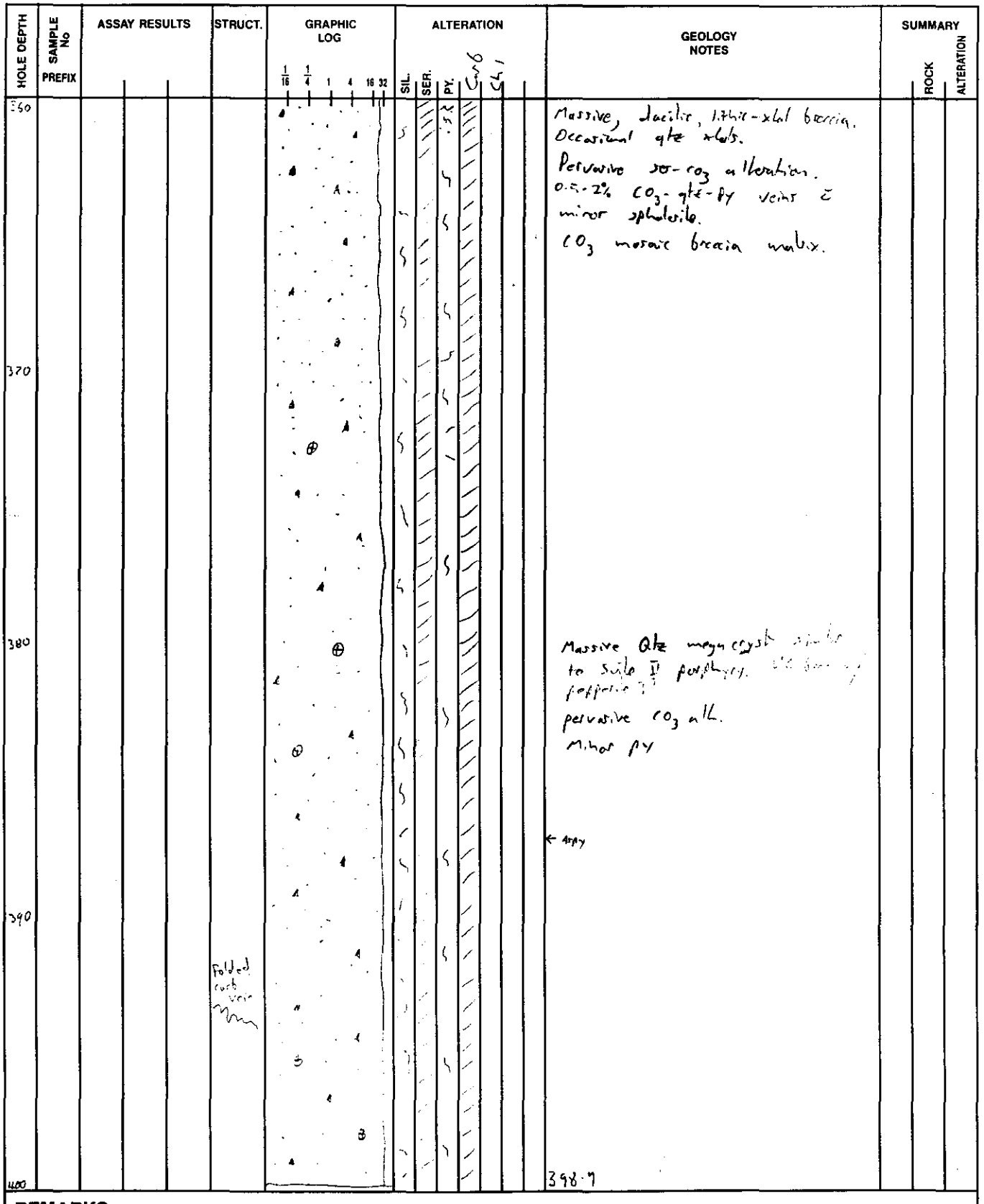
DRILL HOLE No SH021

SHEET _____ **OF** _____

Bedding	Disseminated
Cleavage	Massive
Foliation	Pervasive
Fault, Shear	Narrow vein
Breccia	* Visible gold
Broken core	

PROJECT	: 5th Hunter
PROSPECT	:
DATE	:
LOGGED BY	: [illegible]

HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG (1/16, 1/4, 1, 4, 16, 32)	ALTERATION: SIL.	SER.	PY.	Carb	Chl	GEOLOGY NOTES	SUMMARY: ROCK	ALTERATION
360										Massive, dacitic, lithic-xtal breccia. Occasional qtz xtals. Pervasive ser-CO_3 alteration. 0.5-2% CO_3-qtz-py veins c̄ minor sphalerite. CO_3 mosaic breccia matrix.		
370												
380										Massive Qtz megacryst similar to Suite II porphyry. [illegible] pepperite ?? pervasive CO_3 alt. Minor py		
										← Aspy		
390			Folded carb vein									
400										398.7		



REMARKS

RGC EXPLORATION PTY LTD

650442

Bedding	Disseminated
Cleavage	Massive
Foliation	Pervasive
Fault, Shear	Narrow vein
Breccia	* Visible gold
Broken core	

DRILL HOLE No SH021

SHEET _____ **OF** _____

PROJECT	: 5th Hanky
PROSPECT	: Lake Newton.
DATE	:
LOGGED BY	: T. Callaghan

HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG (1/16, 1/4, 1, 4, 16, 32)	ALTERATION: SIL.	SER.	PY.	CO3	GEOLOGY NOTES	SUMMARY: ROCK	ALTERATION
400									Massive, ductile? lithic VC breccia. polymict clasts of pumice, vc sst, vitric siltstone and suite II porphyry? breccia. Pervasive CO_3 alt. Mod ser alt. Minor Py to 1%. Ccv	VOLP	cs
410									402.6 Massive, ductile lithic breccia pumice / clastic sst clasts pervasive strong ser- CO_3 alt. Ccv	VOLP	c
									411.6 CO_3 altered qtz-feld: porphyry suite II porphyry. Cont fabric Amygdales. Ep Minor Py alt.	IR>C	c
420									415.4 Massive, ductile lithic breccia, Intrusive ± pegmatitic suite II porphyry. pervasive CO_3 alt. Mod pervasive ser alt.		
									←Assay Ccv	VOLB	cs
									425.1 Rhyolitic, xtal-vitric siltstone breccia. fine qtz xtals ± abundant vitric rich matrix. brecciated and altered ± devitrified margin to clasts. Minor pervasive ser- CO_3 alt. Bleached. 429.6 Ccv	VRVA	
430									As above but grey 2-5% disseminated Py- ser Ccv	VRVA	
		Crackle Breccia.							432.1 qtz phyric suite II porphyry. feld totally destroyed pervasive CO_3 alteration. Intense crackle breccia of silica-py overprint ± several large cpy-sphal-gal veins/shockworks. All veins deformed. Ep ← Base metal vein.	IR>C	c
440											

REMARKS

RGC EXPLORATION PTY LTD

650443

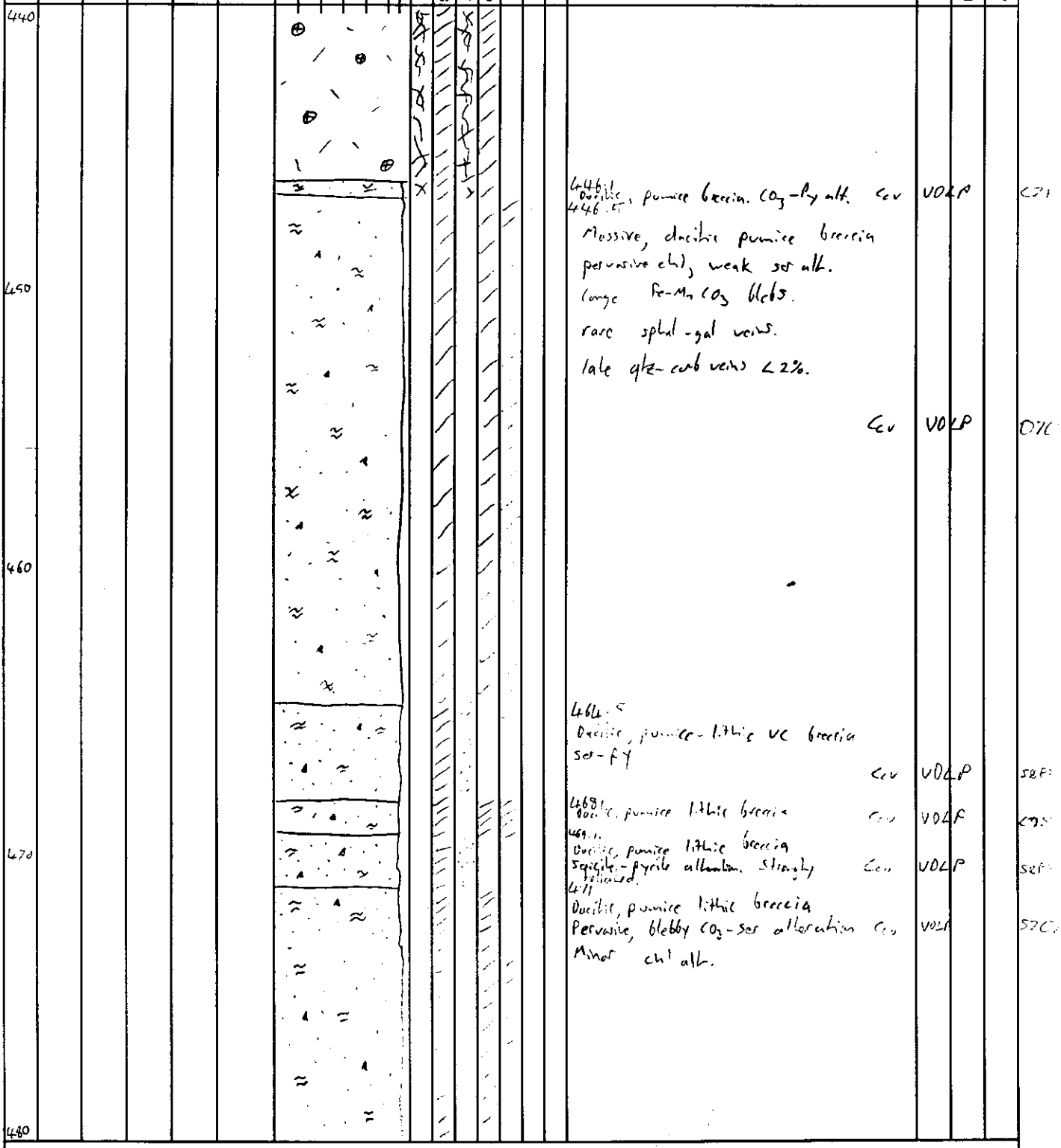
DRILL HOLE No SH021

SHEET _____ **OF** _____

Bedding	Disseminated
Cleavage	Massive
Foliation	Pervasive
Fault, Shear	Narrow vein
Breccia	* Visible gold
Broken core	

PROJECT	: 5th Henty
PROSPECT	:
DATE	:
LOGGED BY	: T. Callaghan.

HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG (1/16, 1/4, 1, 4, 16, 32)	ALTERATION (SIL., SER., PY., CO_3, Chl)	GEOLOGY NOTES	SUMMARY ROCK	SUMMARY ALTERATION
440								
						446.1 Dacitic, pumice breccia. CO_3-Py alt. Ccv	VOLP	C7
						446.5 Massive, dacitic pumice breccia pervasive chl, weak ser alt.		
450						Large Fe-Mn CO_3 blebs. rare sphal-gal veins. late qtz-carb veins < 2%.		
						Ccv	VOLP	D7C
460								
						464.5 Dacitic, pumice-lithic VC breccia ser-Py Ccv	VOLP	S8F
						468.1 Dacitic, pumice lithic breccia Ccv	VOLP	C7S
470						469.1 Dacitic, pumice lithic breccia Sericite-pyrite alteration. Strongly foliated. Ccv	VOLP	S8F
						471 Dacitic, pumice lithic breccia Pervasive, blebby CO_3-ser alteration Ccv Minor chl alt.	VOLP	S7C
480								



REMARKS

RGC EXPLORATION PTY LTD

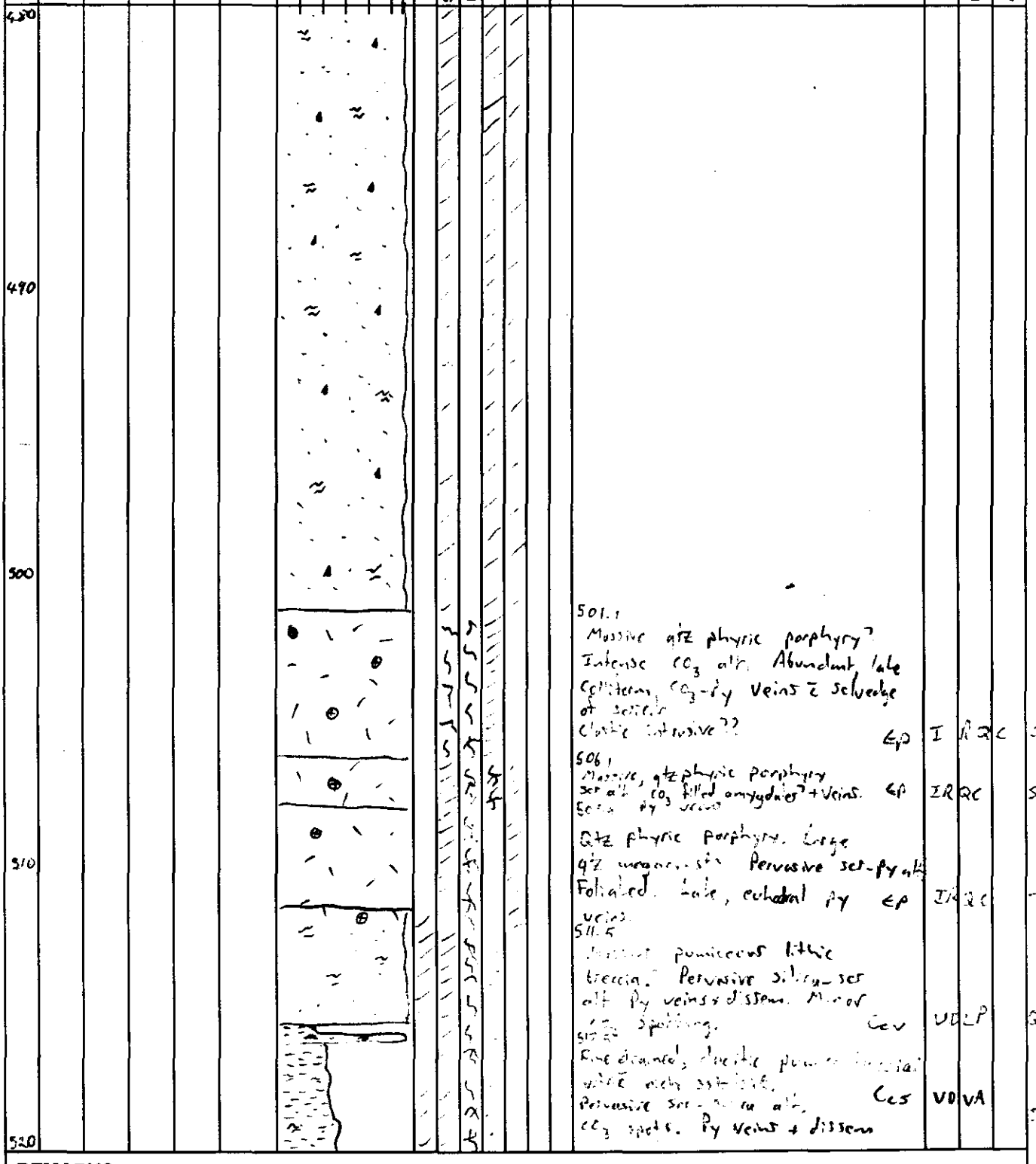
650444

DRILL HOLE No SH021

SHEET _____ OF _____

PROJECT	:
PROSPECT	:
DATE	:
LOGGED BY	: T Callaghan

— Bedding
└ Cleavage
— Foliation
~ Fault, Shear
Breccia
Broken core
Disseminated
Massive
Pervasive
Narrow vein
* Visible gold



REMARKS

RGC EXPLORATION PTY LTD

650445

DRILL HOLE No SHD21 a

SHEET _____ OF _____

Bedding	Disseminated
Cleavage	Massive
Foliation	Pervasive
Fault, Shear	Narrow vein
Breccia	* Visible gold
Broken core	

PROJECT	:
PROSPECT	:
DATE	:
LOGGED BY	: T. Callaghan

HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG (1/16, 1/4, 1, 4, 16, 32)	ALTERATION (SIL., SER., PY., CO_3, Chl.)	GEOLOGY NOTES	SUMMARY ROCK	SUMMARY ALTERATION
520						520.0 Dacitic pumice breccia. Feld xlals CO_3 alt + blebs. Pervasive ser-chl alt. Ccv	VOLP	C7.
						523.6 VC dacitic, pumice breccia. Intense silica-ser-py alt. Folded, euhedral veins of py. Ccv	VOLP	Q9
						527 Massive, dacitic pumice brxx. CO_3 spots + Feld replacement. Ccv	VOLP	C85
530						530 Vitric rich VC siltstone Pervasive CO_3-ser alt late py veins + blebs. Ccs	VOVA	C755
						531.5 Massive, dacitic VC pumice brxx. CO_3 spots + blebs, pervasive ser alt. Ccv	VOLP	C8.
						536 Dacitic VC brxx. Strong ser-CO_3 alt. Ccv	VOLP	C8.
						536.5 Massive, dacitic, pumiceous brxx strong CO_3 spotting. Pervasive ser alt. Rare py replaced clasts + fine dissem. Ccv	VOLP	C85
540						544 Fine, vitric rich VC sslt and fine pumiceous sst. Pervasive CO_3 alt. Late py - silica veins. Minor sphal Ccs	VOVA	C8.
						547.2 Massive, dacitic, pumiceous breccia. CO_3 spotting + replacement. Pervasive ser alt. Ccv	VOLP	C85
550						554 Massive, dacitic pumice brxx. Pervasive ser-silica-CO_3 alt. V. minor py Ccv	VOLP	C85
560								

REMARKS

RGC EXPLORATION PTY LTD

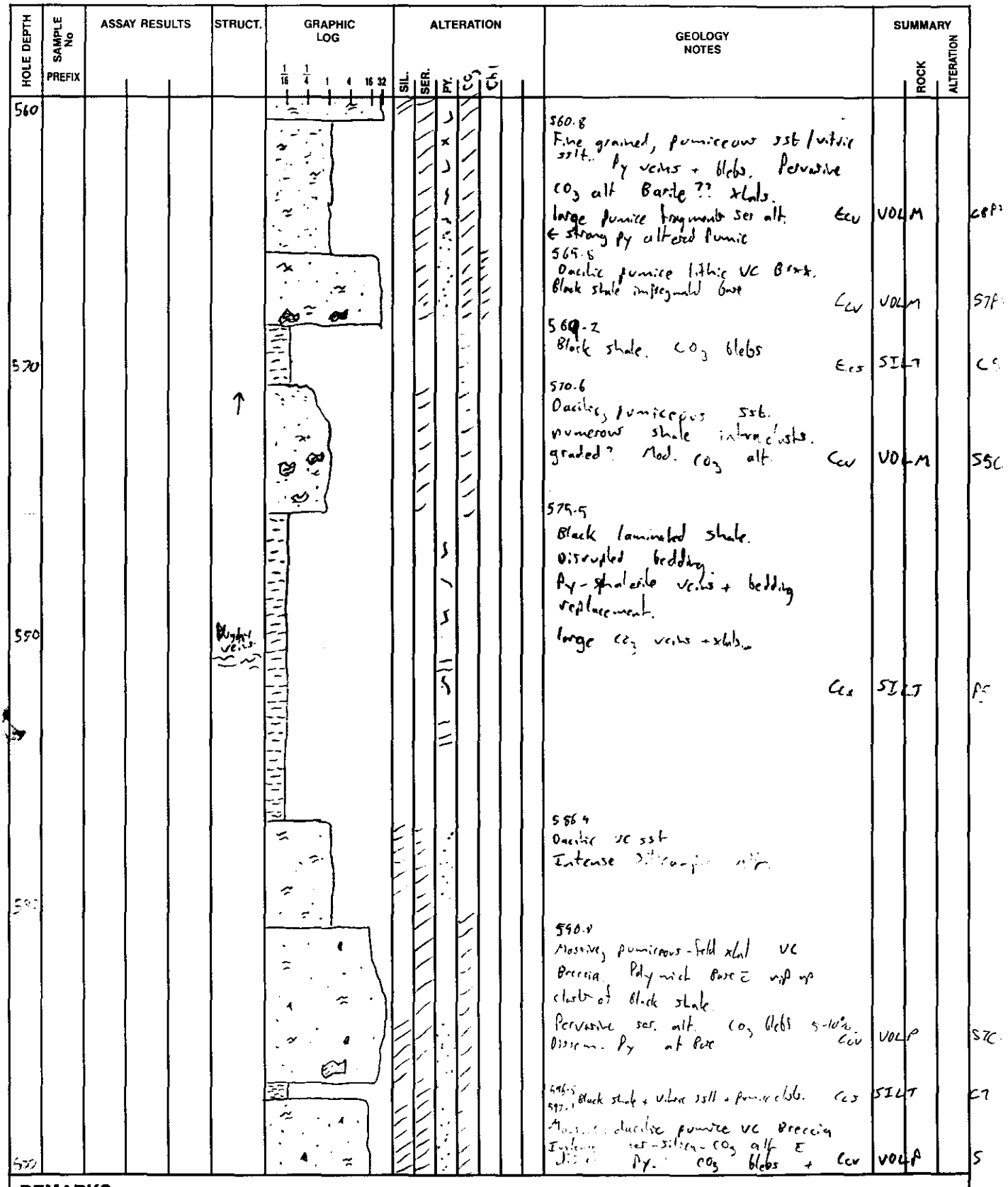
650446

DRILL HOLE No SH021

SHEET _____ OF _____

PROJECT	: 5th Monty
PROSPECT	:
DATE	:
LOGGED BY	: T. Callaghan

- Bedding
- Cleavage
- Foliation
- Fault, Shear
- Breccia
- Broken core
- Disseminated
- Massive
- Pervasive
- Narrow vein
- * Visible gold



REMARKS

RGC EXPLORATION PTY LTD

DRILL HOLE No SH021

SHEET _____ **OF** _____

65044

Bedding	Disseminated
Cleavage	Massive
Foliation	Pervasive
Fault, Shear	Narrow vein
Breccia	* Visible gold
Broken core	

PROJECT	: 5th Henty
PROSPECT	:
DATE	:
LOGGED BY	: T. Callaghan

HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG (1/16, 1/4, 1, 4, 16, 32)	ALTERATION (SIL. SER. PY. CO_3 chl)	GEOLOGY NOTES	SUMMARY ROCK	SUMMARY ALTERATION
600						feldspar replacements. occasional polymict clasts, dissem py alt.		
610								
620						619 Massive ductile pumiceous vc Breccia. Intense ser-silica-py alt. Cav	VOLP	Q7P?
						622.4 Massive, ductile pumiceous vc Breccia. Pervasive silica-ser alt. CO_3 blebs + feld xhl replacements. Minor dissem py Cav	VOLP	S7C?
630						628.7 massive ductile pumice Brxx. Intense silica-ser-py alt. Cav	VOLP	Q9?
						631.1 Massive ductile pumiceous vc Brxx. large CO_3 clots. Pervasive ser alt. Cav	VOLP	S7C
640						635.2 Massive, ductile [illegible] vc Brxx. Polymict clasts [illegible] py replaced. Large CO_3 clots. Pervasive ser-chl alt Minor dissem py Cav	VOLP	C85?

REMARKS

RGC EXPLORATION PTY LTD

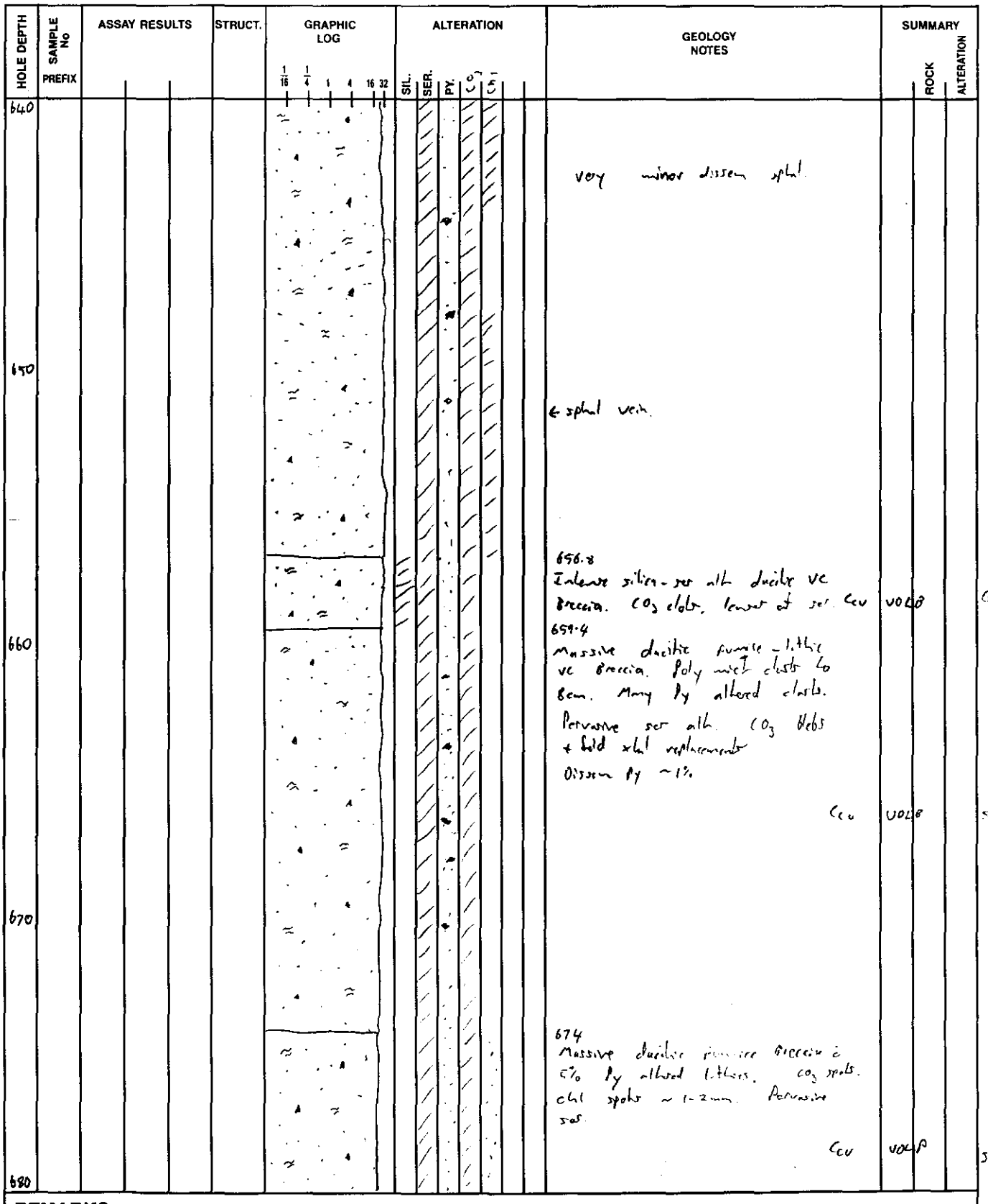
DRILL HOLE No SH021

SHEET _____ **OF** _____

6504488

Bedding	Disseminated
Cleavage	Massive
Foliation	Pervasive
Fault, Shear	Narrow vein
Breccia	* Visible gold
Broken core	

PROJECT	: 5th Heaty
PROSPECT	:
DATE	:
LOGGED BY	: T. Callaghan



ROCK	ALTERATION
VOLB	G
VOLB	SS
VOLP	ST

REMARKS

RGC EXPLORATION PTY LTD

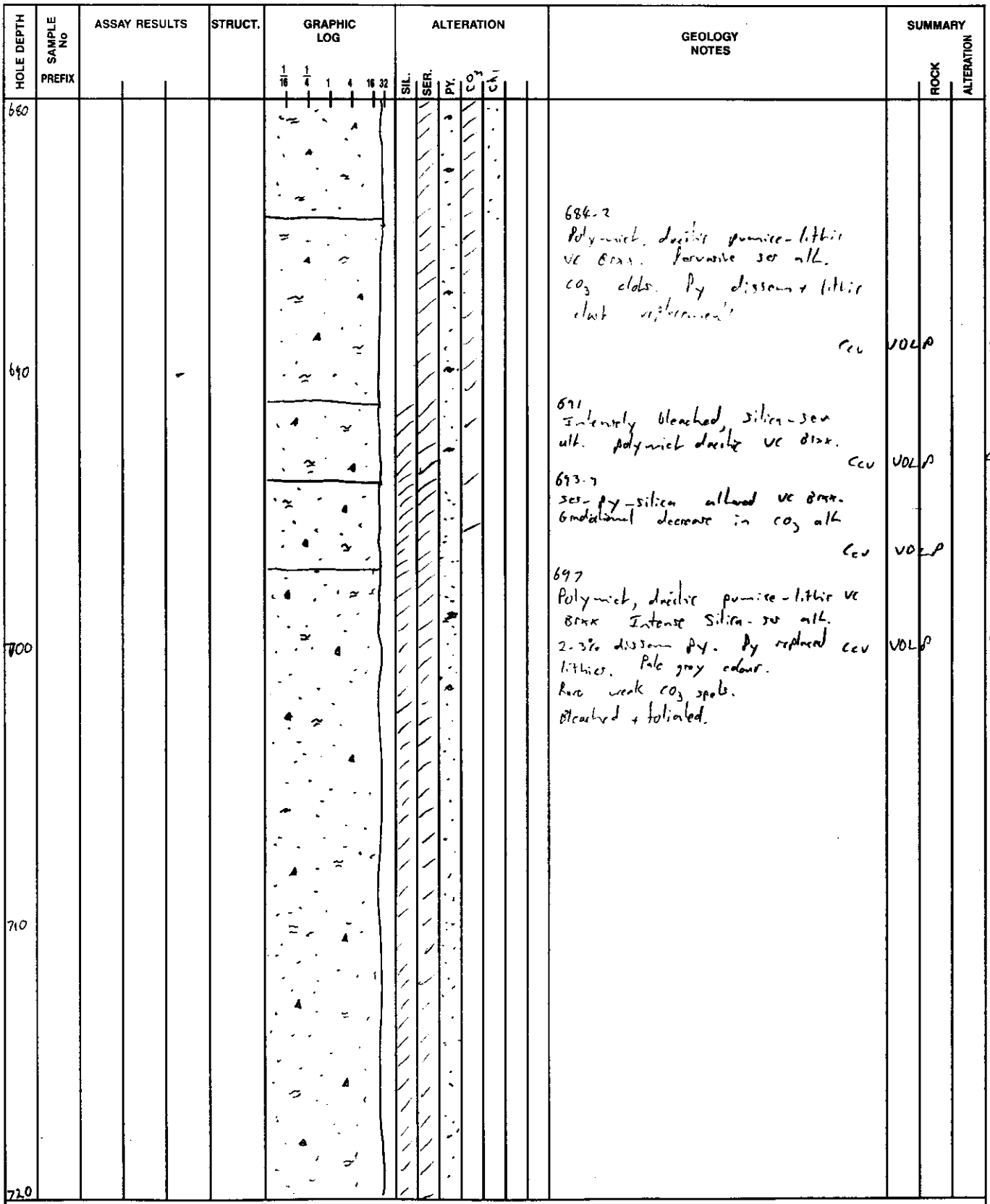
DRILL HOLE No 5K021

SHEET _____ **OF** _____

650449

Bedding		Disseminated	
Cleavage		Massive	
Foliation		Pervasive	
Fault, Shear		Narrow vein	
Breccia	*	Visible gold	
Broken core			

PROJECT	: Sth Henty
PROSPECT	:
DATE	:
LOGGED BY	: T. Callaghan



REMARKS

RGC EXPLORATION PTY LTD

650450

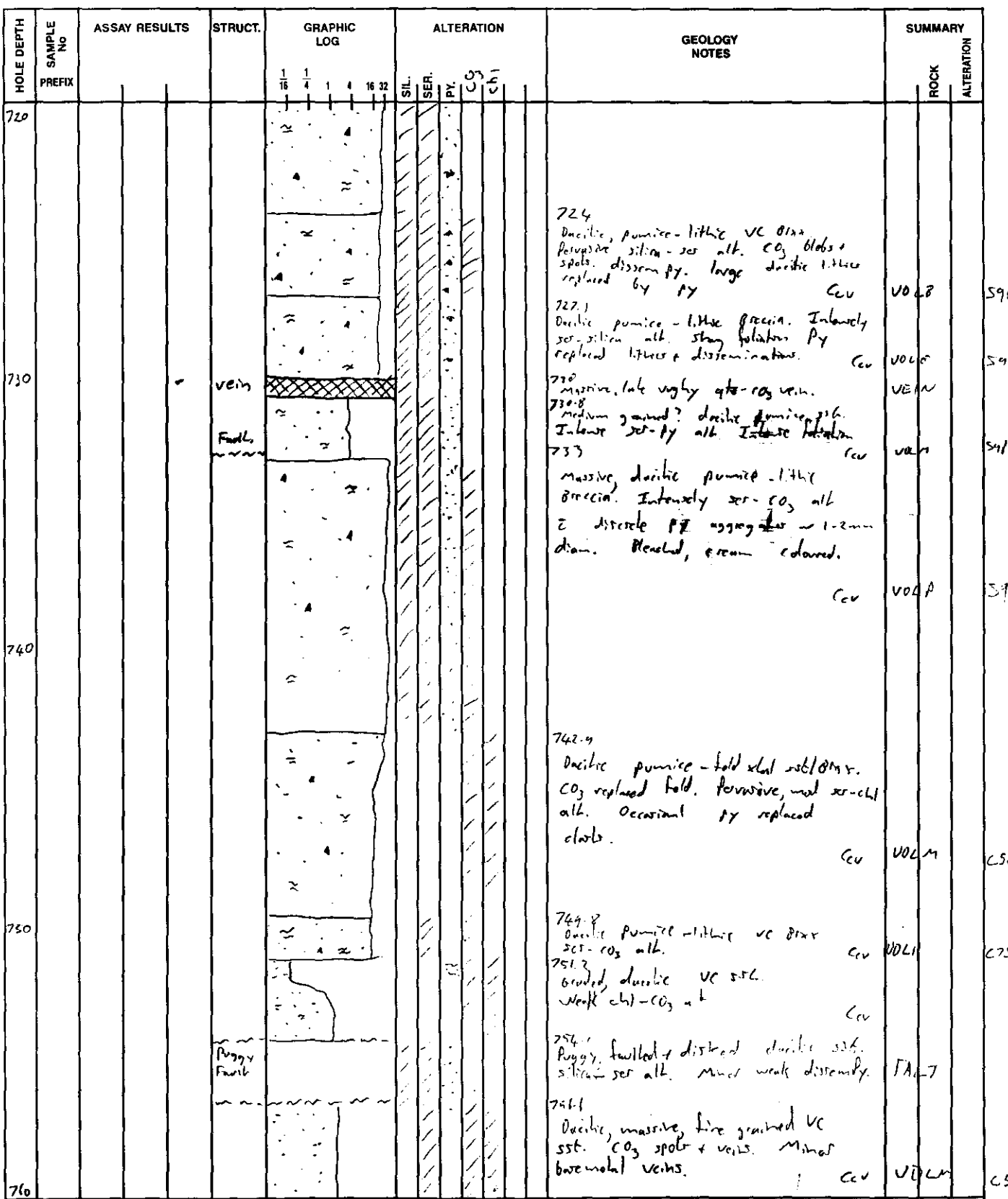
DRILL HOLE No SH021

SHEET _____ **OF** _____

Bedding	Disseminated
Cleavage	Massive
Foliation	Pervasive
Fault, Shear	Narrow vein
Breccia	* Visible gold
Broken core	

PROJECT	: 5th Henty.
PROSPECT	:
DATE	:
LOGGED BY	: T. Callaghan

HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG (1/16, 1/4, 1, 4, 16, 32)	ALTERATION (SIL., SER., PY., CO3, CHL)	GEOLOGY NOTES	SUMMARY ROCK	SUMMARY ALTERATION
720								
						724 Dacitic, pumice-lithic VC Brxx Pervasive silica-ser alt. CO_3 blebs + spots. dissem py. large dacitic lithics replaced by py Ccv	VOLB	S9P5
						727.1 Dacitic pumice-lithic Breccia. Intensely ser-silica alt. Strong foliation Py replaced lithics + disseminations. Ccv	VOLE	S9P7
730			vein			730 Massive, late vughy qtz-CO_3 vein.	VEIN	
			Fault			730.8 Medium grained? dacitic pumice ssb. Intense ser-py alt. Intense foliation Ccv	VOLM	S9P9
						733 Massive, dacitic pumice-lithic Breccia. Intensely ser-CO_3 alt c̄ discrete py aggregates ~1-2mm diam. Bleached, cream coloured. Ccv	VOLP	S9P5
740								
						742.9 Dacitic pumice-fold xtal sst/Brxx. CO_3 replaced fold. Pervasive, mod ser-chl alt. Occasional py replaced clasts. Ccv	VOLM	C505
750						749.8 Dacitic pumice-lithic VC Brxx ser-CO_3 alt. Ccv	VOLI	C757
						751.2 Graded, dacitic VC sst. Weak chl-CO_3 alt Ccv		
			Puggy Fault			754.1 Puggy, faulted + distorted dacitic sst. silica-ser alt. Minor weak dissem py.	FAL7	
						756.1 Dacitic, massive, fine grained VC sst. CO_3 spots + veins. Minor base metal veins. Ccv	VOLM	C5
760								



REMARKS

RGC EXPLORATION PTY LTD

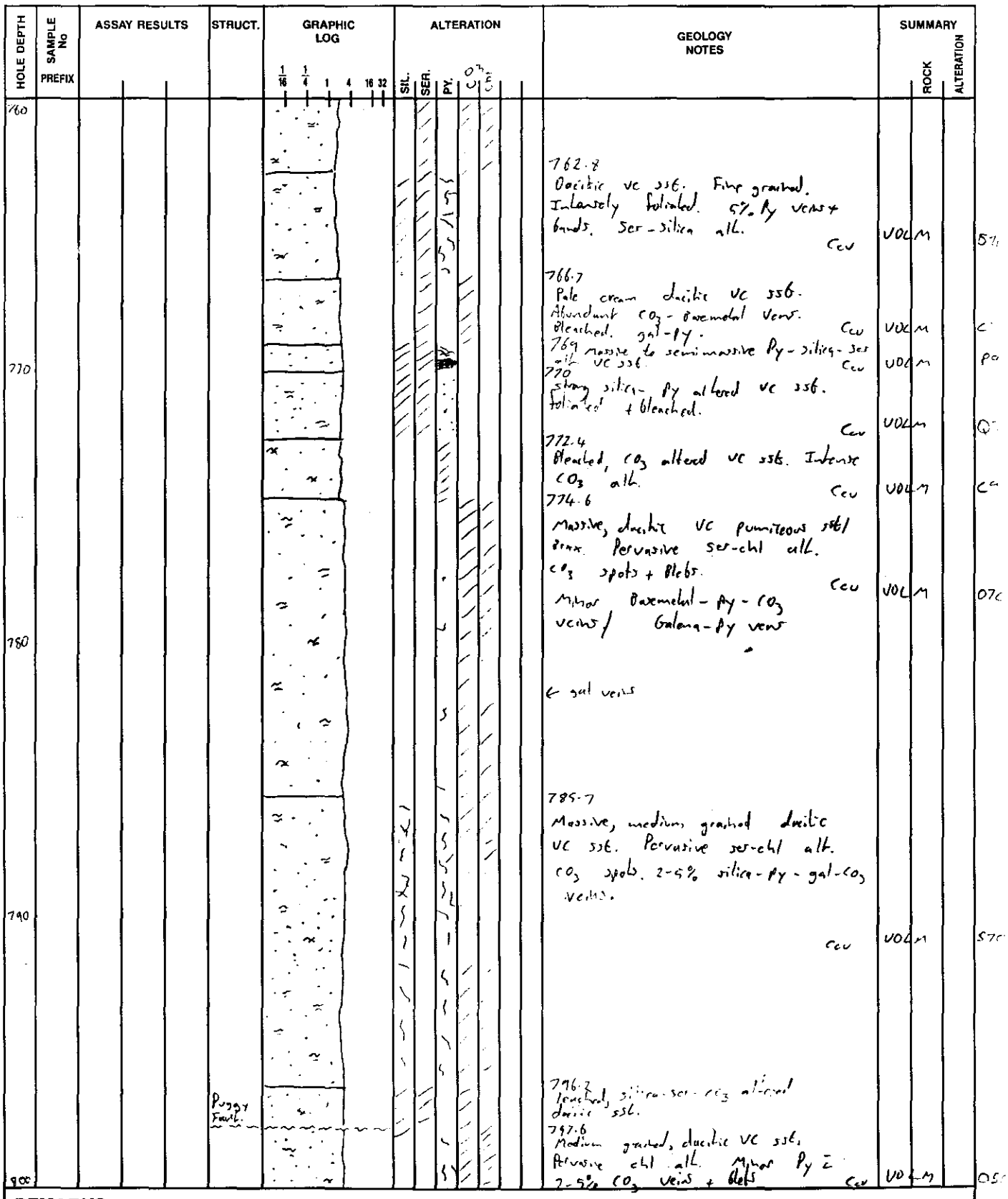
650451

DRILL HOLE No 5H021

SHEET _____ OF _____

PROJECT	: 5th Henty
PROSPECT	:
DATE	:
LOGGED BY	: T. Callaghan

Bedding
Cleavage
Foliation
Fault, Shear
Breccia
Broken core
Disseminated
Massive
Pervasive
Narrow vein
* Visible gold



REMARKS

RGC EXPLORATION PTY LTD

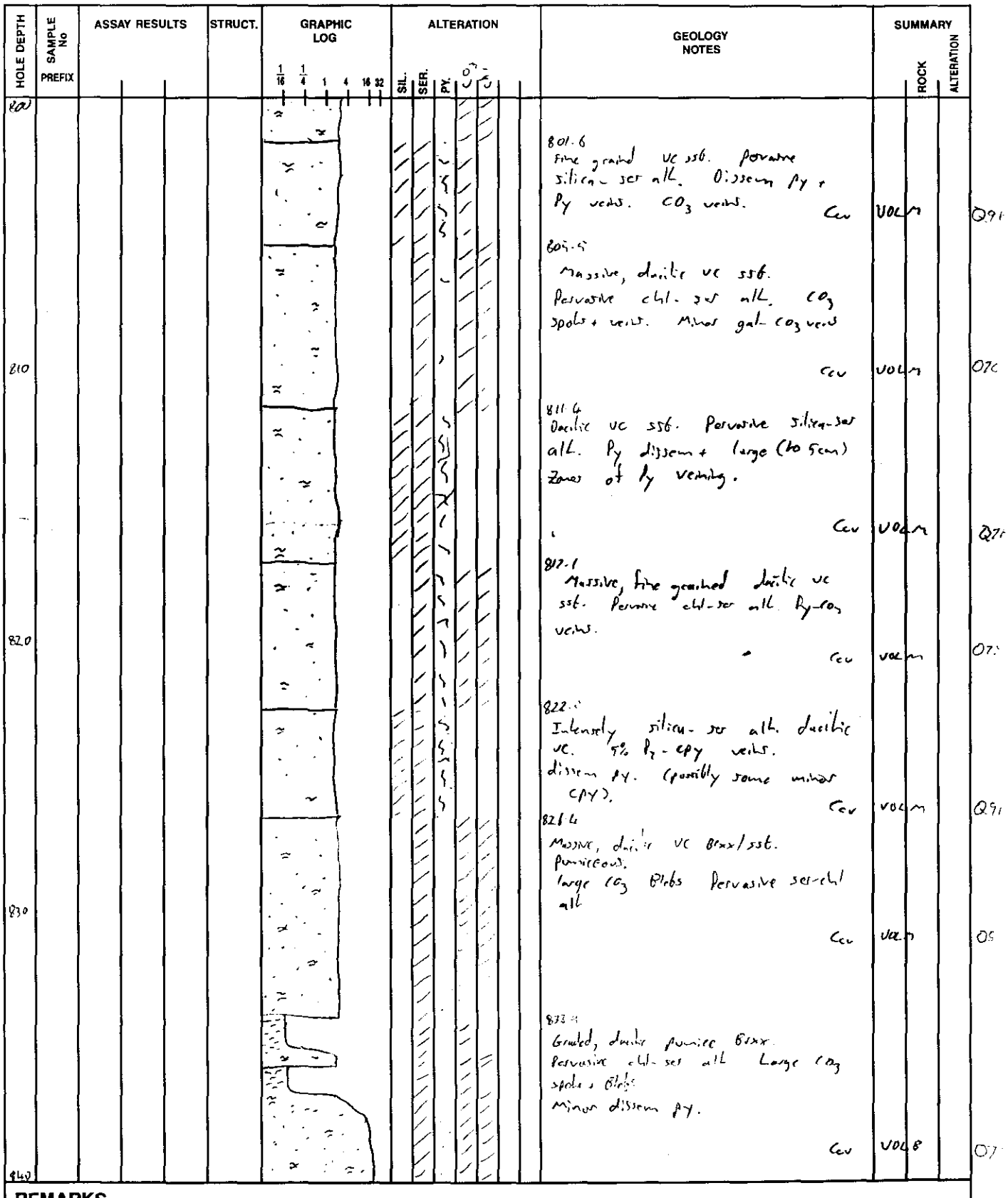
650452

DRILL HOLE No SHD21

SHEET _____ OF _____

PROJECT	: 5th Henty
PROSPECT	:
DATE	:
LOGGED BY	: T. Callaghan

Bedding
Cleavage
Foliation
Fault, Shear
Breccia
Broken core
Disseminated
Massive
Pervasive
Narrow vein
* Visible gold



REMARKS

RGC EXPLORATION PTY LTD

650453

DRILL HOLE No SH021

SHEET _____ OF _____

PROJECT :	5th Henty
PROSPECT :	
DATE :	
LOGGED BY :	T Callaghan

- Bedding
- Cleavage
- Foliation
- Fault, Shear
- Breccia
- Broken core
- Disseminated
- Massive
- Pervasive
- Narrow vein
- * Visible gold

HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG (1/16, 1/4, 1, 4, 16, 32)	ALTERATION: SIL.	SER.	PY.	CO_3	Chl	GEOLOGY NOTES	SUMMARY: ROCK	ALTERATION	
840										840.4 Fine, dacitic vc sst. Pervasive ser-py alt. foliated. Ccv	VOLM		S7F
										843.7 Massive, dacitic pumice-lithic Brax. Pervasive ser-chl alt, Large CO_3 Blebs. <1% dissem. Py. Ccv	VOLB		C7S
850										850.8 Intensely silica-ser-py altered dacitic pumice(?) Brax. Pale grey, strongly foliated. 2-5% Py. Possibly some Qtz. Ccv	VOLB		Q9A
860										863.4 Dacitic vc sst. ser-py alt. foliated. Ccv 864 Massive, vuggy white qtz vein. Broken + Puggy sections. Qtz vughs. Py-Cpy xtals to 5cm.	VOVA		S9FC
											VEIN		Q-
870										873 Intensely ser-silica-py altered dacitic vc Brax. 60% silica - <20% ser 2-5% Py as euhedral cubes. Ccv	VOLB		Q9I
880										878 Intensely ser-silica-py altered dacitic vc(?) 70% silica 30% ser 2-5% Py. Chl spots around Py dissem. Ccv	VOLB		Q5I

REMARKS

RGC EXPLORATION PTY LTD

650454

DRILL HOLE No SN021

SHEET _____ **OF** _____

Bedding	Disseminated
Cleavage	Massive
Foliation	Pervasive
Fault, Shear	Narrow vein
Breccia	* Visible gold
Broken core	

PROJECT	: 5th Henty
PROSPECT	:
DATE	:
LOGGED BY	: T Callaghan

HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG (1/16, 1/4, 1, 4, 16, 32)	ALTERATION (SIL., SER., PY., CO3, CH3)	GEOLOGY NOTES	SUMMARY ROCK	SUMMARY ALTERATION
880						Pale green colour. Minor Fe-MnCO3 clov		
			Py vein →			883.7 Intense silica-ser-py alt. dacitic VC. Pale grey. Ccv	VOL P	Q9P
						885.9 Massive, dacitic-pumice Brxx Intense ser-silica-py-CO3 alt. Pale green colour CO3 clots, feld replacements. Ccv	VOL P	S8C
890								
						894.6 Intense silica-ser-py alt. dacitic pumice Brxx. 50-60% silica. Ccv	VOL P	Q9P
900						898.8 Intensely ser-CO3-py altered dacitic pumice VC Brxx. 1-3% dissem py. Pale green colour. Ccv	VOL P	S7C
						902.3 Dacitic VC pumice Brxx. Intense silica-ser-py alt c̄ occasional CO3 spots Pale grey. Ccv	VOL P	Q8
910								
						912.1 Dacitic pumice VC Brxx. Intense silica-ser-dissem py alt c̄ 10-15% CO3 blebs Buff coloured. Minor galena. Ccv	VOL P	S9C
			Massive py →			917.4 Dacitic VC Brxx. Intense silica-ser-py alt. Ccv	VOL P	Q9
920						918.9		

REMARKS

RGC EXPLORATION PTY LTD

650455

DRILL HOLE No SH021

SHEET _____ **OF** _____

Bedding	Disseminated
Cleavage	Massive
Foliation	Pervasive
Fault, Shear	Narrow vein
Breccia	* Visible gold
Broken core	

PROJECT	: 5th Henty
PROSPECT	:
DATE	:
LOGGED BY	: T. Callaghan

HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG (1/16, 1/4, 1, 4, 16, 32)	ALTERATION (SIL., SER., PY., CO3, CHL)	GEOLOGY NOTES	SUMMARY ROCK	SUMMARY ALTERATION	
920						Buff coloured silica-ser-py alt. Ccv	VOLP		Q9S
						920.4 Intense, silica-ser-py alt. dacitic Ccv	VOLP		Q9P
						921.7 Dacitic pumice VC Brxx. ser-chl-py-CO_3 alt. CO_3 as blebs. dissem py. Minor vughy Basemetal veins. Ccv	VOLP		S7C5
						924.7 silica-ser-py alt dacitic VC BRXX Ccv	VOLP		Q9
						925.8 ser-CO_3-py alt dacitic pumice Brxx Ccv	VOLP		S7C5
						928 EOH			
930									
940									
950									
960									

REMARKS

650456

SHD22 Collar and survey data

AMG East	AMG North	AMG RL	Total Depth
380602.00	5358439.00	482.00	616.00

Depth	Azm AMG	Dip
0.00	294.00	-79.8
16.00	294.00	-79.8
31.00	295.00	-79.0
61.00	298.00	-78.0
88.00	299.00	-77.0
121.00	301.00	-76.1
151.00	304.00	-75.7
181.00	308.00	-74.8
211.00	310.00	-74.0
244.00	310.00	-73.0
271.00	313.00	-72.0
300.00	316.00	-71.0
330.00	318.00	-69.8
361.00	321.00	-69.2
391.00	324.00	-67.8
421.00	324.00	-66.0
488.00	327.00	-62.0
518.00	329.00	-60.0
548.00	329.00	-59.0
583.00	328.00	-56.0
616.00	329.00	-54.0

SHD22 Assay Data										
Hole_Id	Samp_Id	D_From	D_To	AG_A	AU_G	AUR_G	BI_A	CU_A	PB_A	ZN_A
SHD22	1081611	125	126	-1	-0.01		-10	59	32	32
SHD22	1081612	126	127	-1	-0.01		-10	57	26	14
SHD22	1081613	127	128	4	0.16	0.17	-10	136	57	721
SHD22	1081614	128	129	-1	-0.01		-10	83	53	415
SHD22	1081615	129	130	1	-0.01		-10	93	146	72
SHD22	1081616	130	131	3	0.01		-10	364	783	771
SHD22	1081617	131	132	3	0.01		-10	925	66	186
SHD22	1081618	132	133	2	0.01	0.01	-10	664	261	898
SHD22	1081619	133	134	1	-0.01		-10	256	1555	2090
SHD22	1081621	134	136	-1	0.03		-10	375	1020	300
SHD22	1081622	136	138	-1	0.03		-10	62	481	304
SHD22	1081623	138	140	-1	0.12		-10	117	799	208
SHD22	1081624	140	142	1	0.12	0.1	-10	172	2170	1205
SHD22	1081625	142	144	-1	0.09		-10	118	469	114
SHD22	1081626	144	146	-1	0.1		-10	145	326	319
SHD22	1081627	146	148	-1	0.06		-10	50	170	78
SHD22	1081628	148	150	-1	0.03		-10	72	167	129
SHD22	1081629	150	152	-1	-0.01		-10	85	204	96
SHD22	1081630	152	154	-1	0.02		-10	195	84	89
SHD22	1081631	154	156	-1	0.03		-10	53	148	71
SHD22	1081632	156	158	-1	0.06		-10	58	144	41
SHD22	1081633	158	160	-1	0.05		-10	54	140	23
SHD22	1081634	160	162	-1	0.05		-10	410	141	143
SHD22	1081635	162	164	-1	0.03		-10	775	73	154
SHD22	1081636	164	166	-1	-0.01		-10	128	47	65
SHD22	1081637	166	168	-1	0.01		-10	111	200	1350
SHD22	1081638	168	170	-1	-0.01	-0.01	-10	35	806	1775
SHD22	1081639	170	172	-1	0.08	0.1	-10	50	1065	2080
SHD22	1081641	172	174	-1	-0.01		-10	28	1190	2250
SHD22	1081642	174	176	1	-0.01		-10	60	1290	2850
SHD22	1081643	176	178	4	-0.01		-10	277	985	2290
SHD22	1081644	178	180	1	-0.01		-10	70	252	2080
SHD22	1081645	180	182	3	0.02	0.02	-10	180	355	3240
SHD22	1081646	182	184	3	0.04		-10	125	525	954
SHD22	1081647	184	186	1	0.01		-10	100	510	1635
SHD22	1081648	186	188	-1	-0.01		-10	46	335	748
SHD22	1081649	188	190	-1	-0.01		-10	45	296	720
SHD22	1081650	190	192	-1	-0.01		-10	51	400	892
SHD22	1081651	192	194	1	-0.01		-10	53	717	1425
SHD22	1081652	194	196	-1	-0.01		-10	44	423	886
SHD22	1081653	196	198	6	0.03		-10	525	129	130
SHD22	1081654	198	200	2	0.02		-10	169	166	1115
SHD22	1081655	200	202	3	0.02		-10	206	491	1025
SHD22	1081656	202	204	3	-0.01		-10	224	739	1115
SHD22	1081657	204	206	3	0.02		-10	298	474	186
SHD22	1081658	206	208	3	-0.01		-10	134	1320	5900
SHD22	1081659	208	210	2	-0.01		-10	66	931	2830
SHD22	1081661	210	212	1	-0.01		-10	49	486	1230
SHD22	1081662	212	214	3	0.02		-10	87	1895	3960
SHD22	1081663	214	216	2	-0.01		-10	124	850	2180
SHD22	1081664	216	218	10	0.03		-10	748	1510	1125
SHD22	1081665	218	220	6	0.08	0.08	-10	184	606	301

SHD22	1081666	220	222	9	0.02		-10	678	270	212
SHD22	1081667	222	224	2	-0.01	-0.01	-10	72	1030	2810
SHD22	1081668	224	226	1	0.02		-10	58	1425	3500
SHD22	1081669	226	228	1	-0.01		-10	64	965	1850
SHD22	1081670	228	230	2	0.02	0.02	-10	69	834	2020
SHD22	1081671	230	232	3	0.02		-10	102	424	1145
SHD22	1081672	232	234	1	-0.01		-10	44	334	895
SHD22	1081673	234	236	-1	-0.01		-10	40	322	1365
SHD22	1081674	236	238	1	-0.01		-10	107	613	1130
SHD22	1081675	238	240	4	0.01		-10	193	1060	2260
SHD22	1081676	240	242	1	0.01		-10	43	146	761
SHD22	1081677	242	244	1	-0.01		-10	31	769	2630
SHD22	1081678	244	246	1	-0.01		-10	40	1030	2990
SHD22	1081679	246	248	1	-0.01		-10	42	409	1075
SHD22	1081681	248	250	1	-0.01		-10	44	252	1080
SHD22	1081682	250	252	4	0.01		-10	364	308	1270
SHD22	1081683	252	254	5	0.02		-10	371	1900	4730
SHD22	1081684	254	256	2	-0.01		-10	111	1425	4360
SHD22	1081685	256	258	1	-0.01		-10	98	704	2480
SHD22	1081686	258	260	1	-0.01		-10	71	774	2990
SHD22	1081687	260	262	5	0.02		-10	501	440	1265
SHD22	1081688	262	264	5	0.03		-10	503	409	1555
SHD22	1081689	264	266	11	0.03	0.02	-10	1305	498	1325
SHD22	1081690	266	268	7	0.03		-10	953	298	1340
SHD22	1081691	268	270	2	0.01		-10	182	190	1055
SHD22	1081692	270	272	3	-0.01		-10	379	165	663
SHD22	1081693	272	274	4	-0.01		-10	395	236	722
SHD22	1081694	274	276	4	0.01		-10	334	178	779
SHD22	1081695	276	278	3	0.03	0.04	-10	156	458	2280
SHD22	1081696	278	280	1	-0.01		-10	35	97	26
SHD22	1081697	280	282	18	0.1	0.09	-10	2040	398	1465
SHD22	1081698	282	284	1	0.04		-10	60	159	106
SHD22	1081699	284	286	2	0.05		-10	72	201	246
SHD22	1081701	286	288	3	0.07		-10	501	210	813
SHD22	1081702	288	290	3	0.11	0.11	-10	838	212	887
SHD22	1081703	290	292	3	0.12		-10	706	327	359
SHD22	1081704	292	294	2	0.11		-10	348	220	771
SHD22	1081705	294	296	7	0.18		-10	1935	287	739
SHD22	1081706	296	298	6	0.2	0.19	-10	980	770	1290
SHD22	1081707	298	300	3	0.08		-10	233	424	837
SHD22	1081708	300	302	5	0.14		-10	1565	1475	3050
SHD22	1081709	302	304	2	0.12		-10	1205	382	2570
SHD22	1081710	304	306	1	0.14		-10	341	299	757
SHD22	1081711	306	308	1	0.11		-10	148	510	1340
SHD22	1081712	308	310	1	0.06	0.07	-10	177	766	2530
SHD22	1081713	310	312	2	0.06		-10	115	1310	3360
SHD22	1081714	312	314	2	0.04		-10	132	855	2780
SHD22	1081715	314	316	6	0.07		-10	922	1260	4870
SHD22	1081716	316	318	5	0.08		-10	819	235	181
SHD22	1081717	318	320	4	0.05		-10	306	1725	3200
SHD22	1081718	320	322	2	0.03		-10	226	1125	4890
SHD22	1081719	322	324	1	0.02		-10	151	1480	4300
SHD22	1081721	324	326	5	0.09		-10	455	661	791
SHD22	1081722	326	328	4	0.05		-10	401	151	105
SHD22	1081723	328	330	10	0.09		-10	672	6900	1815

SHD22	1081724	330	332	13	0.13		-10	988	2300	1780
SHD22	1081725	332	334	4	0.07		-10	199	1565	3450
SHD22	1081726	334	336	5	0.24	0.27	-10	572	923	3400
SHD22	1081727	336	338	6	0.2	0.23	-10	643	1055	3580
SHD22	1081728	338	340	6	0.1		-10	508	450	1650
SHD22	1081729	340	342	4	0.05		-10	121	1220	4350
SHD22	1081730	342	344	3	0.02		-10	111	1340	6300
SHD22	1081731	344	346	2	0.03		-10	90	1230	4590
SHD22	1081732	346	348	4	0.14		-10	407	1020	2770
SHD22	1081733	348	350	12	0.12		-10	482	1025	4210
SHD22	1081734	350	352	6	0.12		-10	75	374	1490
SHD22	1081735	352	354	6	0.05		-10	812	1650	3880
SHD22	1081736	354	356	7	0.1		-10	668	398	852
SHD22	1081737	356	358	5	0.12		-10	867	516	1525
SHD22	1081738	358	360	4	0.16		-10	492	677	685
SHD22	1081739	360	362	2	0.2		-10	94	303	663
SHD22	1081741	362	364	1	0.16		-10	136	110	2390
SHD22	1081742	364	366	3	0.2		-10	477	989	2260
SHD22	1081743	366	368	4	0.18		-10	754	719	955
SHD22	1081744	368	370	4	0.19	0.19	-10	1130	540	1070
SHD22	1081745	370	372	1	0.18	0.18	-10	507	172	662
SHD22	1081746	372	374	5	0.23		13	873	424	578
SHD22	1081747	374	376	3	0.14		-10	715	659	1570
SHD22	1081748	376	378	1	0.08		-10	157	700	2150
SHD22	1081749	378	380	8	0.43	0.38	-10	406	479	821
SHD22	1081750	380	382	3	0.1		10	1060	387	597
SHD22	1081751	382	384	1	0.1		-10	1040	91	854
SHD22	1081752	384	386	1	0.05		-10	639	76	403
SHD22	1081753	386	388	4	0.28	0.23	-10	249	401	368
SHD22	1081754	388	390	2	0.13		-10	96	482	260
SHD22	1081755	390	392	6	0.28	0.28	11	381	264	598
SHD22	1081756	392	394	1	0.02		-10	274	703	626
SHD22	1081757	398	400	1	0.05		-10	239	742	1220
SHD22	1081758	400	402	1	0.02		-10	171	501	2060
SHD22	1081759	404	406	1	0.01		-10	466	940	3690
SHD22	1081761	406	408	1	-0.01		-10	78	2750	5800
SHD22	1081762	408	410	1	-0.01		-10	68	1650	2560
SHD22	1081763	410	412	4	-0.01		-10	271	6700	7500
SHD22	1081764	412	414	2	-0.01		-10	156	2510	4500
SHD22	1081765	414	416	2	-0.01		-10	113	2240	3720
SHD22	1081766	416	418	1	-0.01		-10	60	1100	2890
SHD22	1081767	418	420	-1	-0.01		-10	37	400	1195
SHD22	1081768	420	422	-1	-0.01		-10	30	302	742
SHD22	1081769	422	424	1	-0.01		-10	37	408	928
SHD22	1081770	424	426	1	-0.01		-10	103	2420	5700
SHD22	1081771	426	428	2	-0.01		-10	135	2740	6100
SHD22	1081772	428	430	4	0.02		-10	173	4250	1490
SHD22	1081773	430	432	4	0.07		-10	347	938	1250
SHD22	1081774	432	434	4	0.04		-10	977	2070	2620
SHD22	1081775	434	436	3	0.03		-10	131	2760	6100
SHD22	1081776	436	438	3	0.14	0.1	-10	107	2320	4860
SHD22	1081777	438	440	4	0.05		-10	850	2990	5300
SHD22	1081778	440	442	2	-0.01		-10	130	2530	8600
SHD22	1081779	442	444	1	-0.01		-10	95	974	3750
SHD22	1081781	444	446	2	-0.01		-10	140	2190	6700

SHD22	1081782	446	448	3	-0.01		-10	165	3630	10700
SHD22	1081783	448	450	2	-0.01		-10	147	1040	2640
SHD22	1081784	450	452	3	0.03		-10	738	2050	7100
SHD22	1081785	452	454	2	0.02		-10	116	1610	4490
SHD22	1081786	454	456	1	-0.01	-0.01	-10	38	351	693
SHD22	1081787	456	458	1	0.03		-10	30	172	185
SHD22	1081788	458	460	1	-0.01		-10	62	178	341
SHD22	1081789	460	462	1	-0.01		-10	24	114	415
SHD22	1081790	462	464	1	-0.01		-10	24	118	236
SHD22	1081791	464	466	1	-0.01	-0.01	-10	22	114	144
SHD22	1081792	466	468	1	0.02		-10	26	147	112
SHD22	1081793	468	470	-1	-0.01		-10	24	376	647
SHD22	1081794	470	472	-1	-0.01		-10	28	282	1220
SHD22	1081795	472	474	-1	0.16	0.1	-10	54	169	701
SHD22	1081796	474	476	-1	0.13		-10	208	222	1620
SHD22	1081797	476	478	1	0.09		-10	392	494	870
SHD22	1081798	478	480	1	0.02		-10	370	397	725
SHD22	1081799	480	482	-1	0.02		-10	101	153	414
SHD22	1081801	482	484	2	0.13		-10	1295	443	399
SHD22	1081802	484	486	3	0.19		-10	1470	220	528
SHD22	1081803	486	488	5	0.7		18	4930	328	168
SHD22	1081804	488	490	3	0.34		-10	2040	273	122
SHD22	1081805	490	492	2	0.56	0.62	13	1965	116	32
SHD22	1081806	492	494	2	0.6		12	1275	147	18
SHD22	1081807	494	496	1	0.26	0.28	-10	44	416	400
SHD22	1081808	496	498	2	0.26		-10	68	557	2240
SHD22	1081809	498	500	-1	0.12		-10	48	108	268
SHD22	1081810	500	502	-1	0.12		-10	60	126	55
SHD22	1081811	502	504	2	0.16		-10	184	459	978
SHD22	1081812	504	506	3	0.63		24	303	693	251
SHD22	1081813	506	508	1	0.1		-10	431	1240	2580
SHD22	1081814	508	510	1	0.02		-10	182	2050	4240
SHD22	1081815	510	512	-1	0.02		-10	76	1080	1245
SHD22	1081816	512	514	-1	0.1		-10	72	454	338
SHD22	1081817	514	516	-1	0.28		-10	52	62	14
SHD22	1081818	516	518	-1	0.08		-10	680	67	1155
SHD22	1081819	518	520	2	0.13		-10	836	698	3180
SHD22	1081821	520	522	1	0.2		-10	496	756	1430
SHD22	1081822	522	524	-1	0.1		-10	499	104	2800
SHD22	1081823	524	526	-1	0.08		-10	287	39	1335
SHD22	1081824	526	528	-1	0.11		-10	427	193	1915
SHD22	1081825	528	530	1	0.07	0.07	-10	334	134	2430
SHD22	1081826	530	532	-1	0.05		-10	171	134	1620
SHD22	1081827	532	534	-1	0.02		-10	42	174	776
SHD22	1081828	534	536	-1	0.03		-10	54	2360	6700
SHD22	1081829	536	538	-1	0.02		-10	40	1195	2660
SHD22	1081830	538	540	-1	0.05		-10	118	1780	2620
SHD22	1081831	540	542	-1	0.02		-10	33	1355	1675
SHD22	1081832	542	544	-1	0.02	0.01	-10	47	623	776
SHD22	1081833	544	546	-1	0.02		-10	69	786	2310
SHD22	1081834	546	548	-1	0.01		-10	34	1100	1100
SHD22	1081835	548	550	-1	0.01		-10	37	1235	1150
SHD22	1081836	550	552	-1	0.01		-10	48	458	1715
SHD22	1081837	552	554	-1	0.12		-10	207	1355	11400
SHD22	1081838	554	556	-1	0.03		-10	90	1170	2670

SHD22	1081839	556	558	-1	-0.01		-10	26	449	948
SHD22	1081841	558	560	-1	-0.01		-10	148	1680	4200
SHD22	1081842	560	562	-1	-0.01		-10	116	3380	11700
SHD22	1081843	562	564	-1	-0.01		-10	111	1300	7200
SHD22	1081844	564	566	-1	-0.01		-10	57	1195	4860
SHD22	1081845	566	568	-1	0.01		-10	107	2160	6400
SHD22	1081846	568	570	-1	0.02		-10	188	96	3400
SHD22	1081847	570	572	-1	0.03		-10	68	67	68
SHD22	1081848	572	574	-1	0.03		-10	93	47	76
SHD22	1081849	574	576	-1	0.03		-10	98	35	14
SHD22	1081850	576	578	-1	0.04		-10	96	32	18
SHD22	1081851	578	580	-1	0.05		-10	56	63	20
SHD22	1081852	580	582	-1	0.06		-10	60	51	21
SHD22	1081853	582	584	-1	0.18		-10	45	66	22
SHD22	1081854	584	586	-1	0.03		-10	59	19	17
SHD22	1081855	586	588	-1	0.1	0.09	-10	67	39	15
SHD22	1081856	588	590	-1	0.08		-10	93	43	16
SHD22	1081857	590	592	-1	0.07	0.07	-10	64	44	12
SHD22	1081858	592	594	-1	0.14		-10	1220	55	26
SHD22	1081859	594	596	-1	0.12		-10	1880	27	28
SHD22	1081861	596	598	-1	0.08		-10	82	47	51
SHD22	1081862	598	600	-1	0.05		-10	1270	33	18
SHD22	1081863	600	602	3	0.1		13	2190	463	33
SHD22	1081864	602	604	4	0.3	0.27	15	198	544	22
SHD22	1081865	604	606	4	0.17		12	1400	1680	1495
SHD22	1081866	606	608	4	0.24		-10	1055	2160	1070
SHD22	1081867	608	610	2	0.21		-10	499	416	1530
SHD22	1081868	610	612	-1	0.06		-10	271	1940	4350
SHD22	1081869	612	614	-1	0.03		-10	908	1575	942
SHD22	1081870	614	616	2	0.15		-10	113	213	87

RGC EXPLORATION PTY LTD

DRILL HOLE No SHD22

SHEET _____ **OF** _____

650462

Bedding	Disseminated
Cleavage	Massive
Foliation	Pervasive
Fault, Shear	Narrow vein
Breccia	* Visible gold
Broken core	

PROJECT	: 5th Henty
PROSPECT	: 1:1000 Summary log
DATE	:
LOGGED BY	: T. Callaghan

HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG (1/16, 1/4, 1, 4, 16, 32)	ALTERATION (SIL. SER. PY. Chl Ne)	GEOLOGY NOTES	SUMMARY ROCK	SUMMARY ALTERATION	
0						0-18.5 Qtz-feld-Hbl Suite II porphyry. 2-5% Jasper Veins. Chlorite alteration. Ep	IR	<C	04
20						18.5-94.5 Qtz-feld± Hbl suite II porphyry. pervasive chlorite alteration 2-5% Jasper Veins.			
40						Ep	IR	<C	0[illegible]
60									
80			FCA ≈10° mylonitic						
100						94.5-105.5 Qtz-feld Suite II porphyry. Sericite-Py alteration. Mylonitic textures. Ep	IR	<C	57[illegible]
						105.5-115 Dacitic vc sst. Qtz porphyry peperite + Qtz phenos ser-chl alt Cev	VOL	M	57[illegible]
120						115-127.2 Qtz porphyry. Large Qtz phenos in pale grey/green intense ser-Chl altered matrix. Strongly foliated Ep	IR	>C	5[illegible]
140						127.2-240 Ep Qtz porphyry. Intensely foliated. Intense ser alt. 1-5% dissem Py + Py veinlets. Silica-Py veinlets. Minor peperitic [illegible] vitric siltstone	IR	QC	59
160									
180									
200									

REMARKS

RGC EXPLORATION PTY LTD

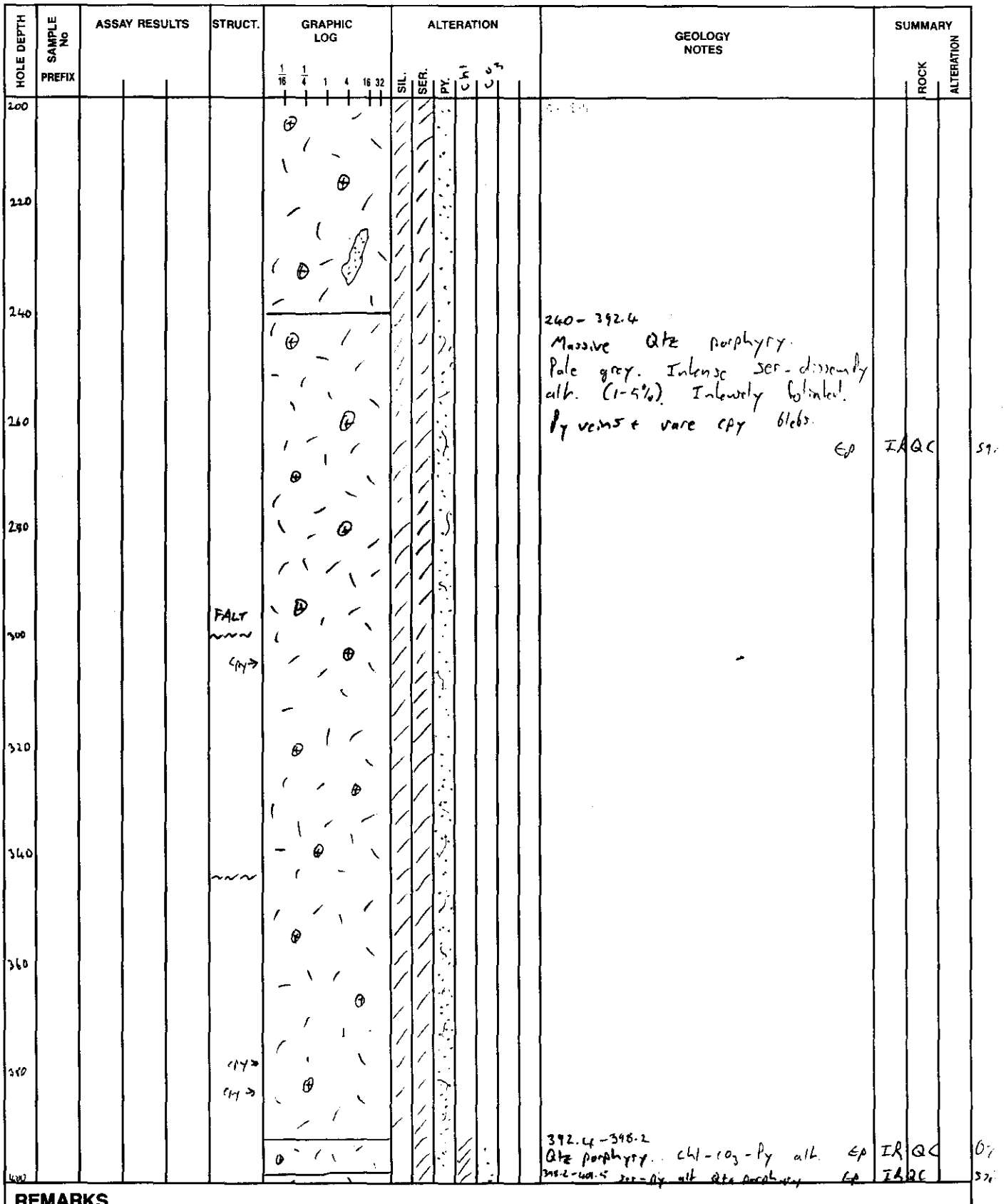
650463

DRILL HOLE No SHD22

SHEET _____ **OF** _____

PROJECT	: 5th Henty
PROSPECT	: 1:1000 Summary log
DATE	:
LOGGED BY	: T. Cullingham

- Bedding
- Cleavage
- Foliation
- Fault, Shear
- Breccia
- Broken core
- Disseminated
- Massive
- Pervasive
- Narrow vein
- * Visible gold



REMARKS

RGC EXPLORATION PTY LTD

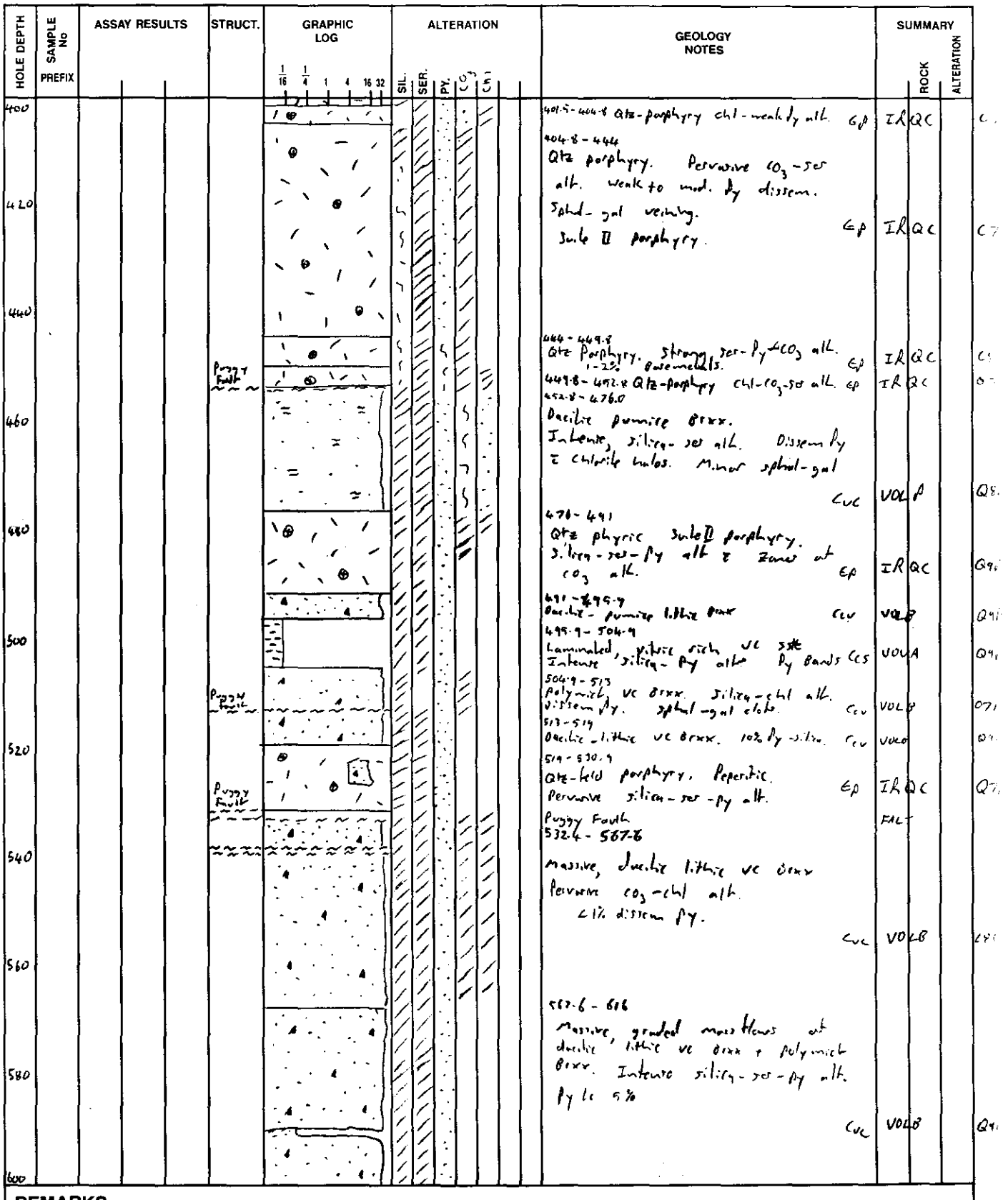
650464

DRILL HOLE No SHD22

SHEET _____ OF _____

PROJECT	: South Healy
PROSPECT	: 1:1000 Summary log
DATE	:
LOGGED BY	: T. Cullingford

- Bedding
- Cleavage
- Foliation
- Fault, Shear
- Breccia
- Broken core
- Disseminated
- Massive
- Pervasive
- Narrow vein
- * Visible gold



REMARKS

RGC EXPLORATION PTY LTD

650465

DRILL HOLE No SHD22

SHEET _____ OF _____

PROJECT	: South Henty
PROSPECT	: 1:1000 Summary Log
DATE	:
LOGGED BY	: T. Cullingham

- Bedding
- Cleavage
- Foliation
- Fault, Shear
- Breccia
- Broken core
- Disseminated
- Massive
- Pervasive
- Narrow vein
- * Visible gold

HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG (1/16, 1/4, 1, 4, 16, 32)	ALTERATION: SIL.	SER.	PY.	GEOLOGY NOTES	SUMMARY: ROCK	ALTERATION
600										
620								EOH 616.0m		
640										

REMARKS

RGC EXPLORATION PTY LTD

DRILL HOLE No SH022

SHEET _____ OF _____

650466

Bedding	Disseminated
Cleavage	Massive
Foliation	Pervasive
Fault, Shear	Narrow vein
Breccia	* Visible gold
Broken core	

PROJECT	: 5th Henty
PROSPECT	:
DATE	:
LOGGED BY	: T. Callaghan

HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG (1/16, 1/4, 1, 4, 16, 32)	ALTERATION (SIL., SER., PY.)	GEOLOGY NOTES	SUMMARY ROCK	SUMMARY ALTERATION
0						Qtz - feld - Hbl porphyry. Massive. 2-5% large jasper veins. Weathered. Suite II porphyry		
						Ep	IR	< C
10								
						18.5 Massive Qtz - feld ± Hbl phyric porphyry. 5-10% jasper and calcite veins. Pervasive chl. alteration		
20						Ep	IR	< C
30								
40								

REMARKS

RGC EXPLORATION PTY LTD

DRILL HOLE No SH022

SHEET _____ **OF** _____

650467

Bedding	Disseminated
Cleavage	Massive
Foliation	Pervasive
Fault, Shear	Narrow vein
Breccia	* Visible gold
Broken core	

PROJECT	: 5th Henty
PROSPECT	:
DATE	:
LOGGED BY	: T. Callaghan

HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG (1/16, 1/4, 1, 4, 16, 32)	ALTERATION: SIL.	SER.	PY.	GEOLOGY NOTES	SUMMARY: ROCK	ALTERATION
40								42 Qtz - fold - HBl phyric porphyry Pervasive chlorite alteration. Chl - weak hematite veins. Suite II porphyry GP	IR	>C
50										
60										
70		HQ/NQ 70.3m	→							
80										

REMARKS

RGC EXPLORATION PTY LTD

650468

DRILL HOLE No SH022

SHEET _____ **OF** _____

Bedding	Disseminated
Cleavage	Massive
Foliation	Pervasive
Fault, Shear	Narrow vein
Breccia	* Visible gold
Broken core	

PROJECT	: 5th Henry
PROSPECT	:
DATE	:
LOGGED BY	: T. Callaghan

HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG (1/16, 1/4, 1, 4, 16, 32)	ALTERATION (SIL., SER., PY., CHL)	GEOLOGY NOTES	SUMMARY ROCK	SUMMARY ALTERATION
80								
90			FCA = 10°			Increasing foliation		
						96.5 Intensely foliated + broken Qtz-feld porphyry. Mylonitic texture. Strong sericite-chl - weak py alteration. Fault/Qtz-feld porphyry	FAULT	S7P
100						100.2 Massive Qtz-feld porphyry. Suite II porphyry. ser-Alb. alteration. Buff-orange colour. Ep	IR LC	A55
110						105.5 Fine grained dacitic VC sst. Qtz-feld porphyry peperite + large inclusion rich qtz phenos. Pervasive ser-chl alt. Cev	VOLM	S7C
120						115 Qtz-feld porphyry. Strong ser-chl alteration. Mod to strong foliation. Pale grey-green colour Ep	IR LC	S7C

REMARKS

RGC EXPLORATION PTY LTD

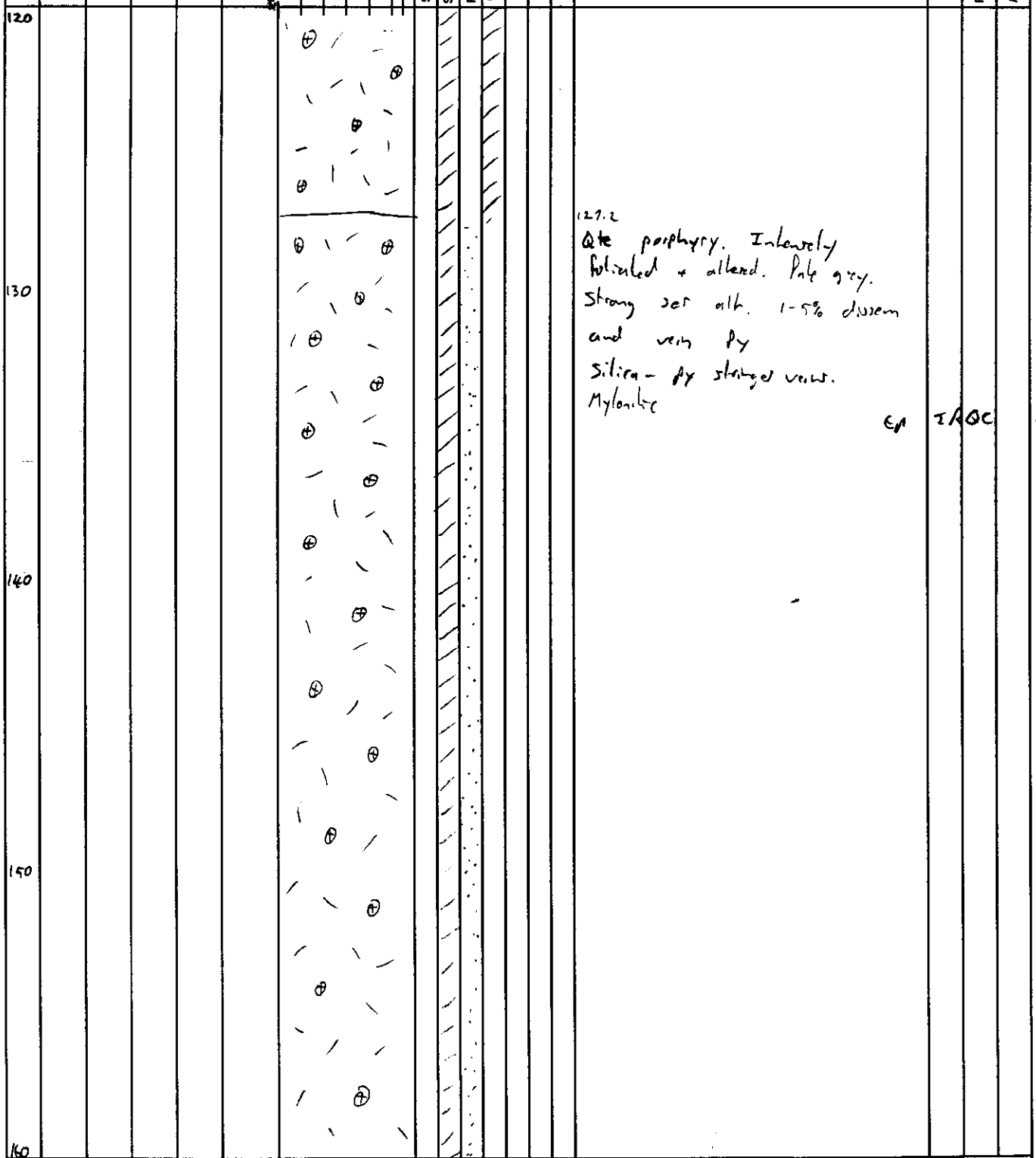
650469

DRILL HOLE No SH022

SHEET _____ OF _____

PROJECT	: 5th Hendy
PROSPECT	:
DATE	:
LOGGED BY	: T. Callaghan

— Bedding
⌴ Cleavage
— Foliation
~ Fault, Shear
Breccia
Broken core
Disseminated
Massive
Pervasive
Narrow vein
* Visible gold



REMARKS

RGC EXPLORATION PTY LTD

DRILL HOLE No SHD22

SHEET _____ **OF** _____

650470

Bedding	Disseminated
Cleavage	Massive
Foliation	Pervasive
Fault, Shear	Narrow vein
Breccia	* Visible gold
Broken core	

PROJECT	: 5th Henty
PROSPECT	:
DATE	:
LOGGED BY	: T. Callaghan

HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG (1/16, 1/4, 1, 4, 16, 32)	ALTERATION (SIL., SER., PY.)	GEOLOGY NOTES	SUMMARY ROCK	SUMMARY ALTERATION
160								
						2% dissem py. Py stringers w.		
170		FCA = 10 -15°						
						Finer grained qtz phenos		
180						179.5 Qtz porphyry + dacitic? feldspar-lithic vc brx. Aspirite possible. Intensely foliated + altered. Qtz-ser-dissem py. alt. Ep	IR QC	59f
						185.0 Qtz porphyry. Intense ser-py-silica alteration. Mylonitic. Occasional peperite (dacitic vc?).		
190						Ep	IR QC	59f
						Coarse qtz phenos		
200								

REMARKS

RGC EXPLORATION PTY LTD

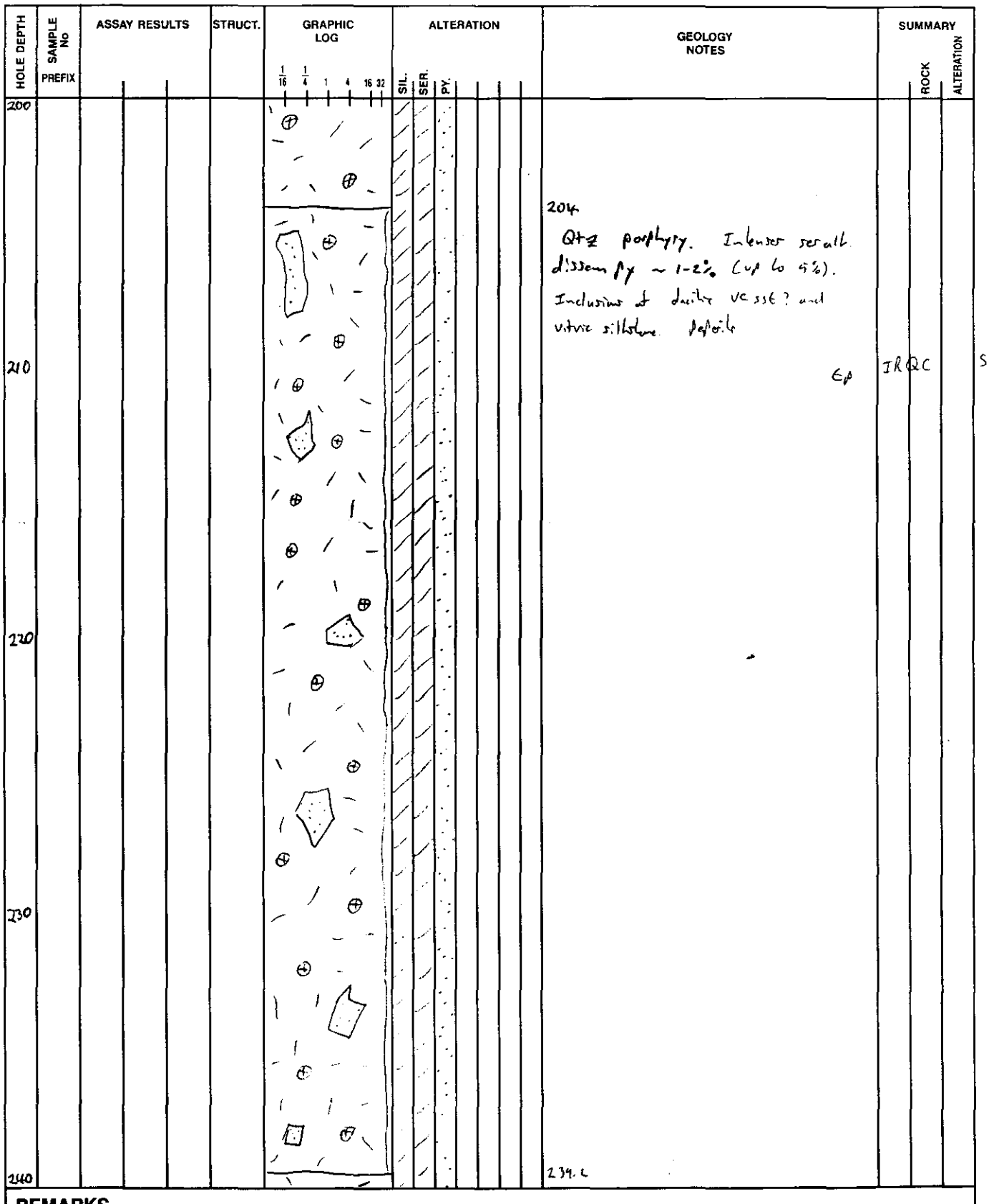
DRILL HOLE No SH022

SHEET _____ **OF** _____

650471

Bedding	Disseminated
Cleavage	Massive
Foliation	Pervasive
Fault, Shear	Narrow vein
Breccia	* Visible gold
Broken core	

PROJECT	: 5th Henty
PROSPECT	:
DATE	:
LOGGED BY	: T. Callaghan



REMARKS

RGC EXPLORATION PTY LTD

DRILL HOLE No SH022

SHEET _____ **OF** _____

650472

- Bedding
- Cleavage
- Foliation
- Fault, Shear
- Breccia
- Broken core
- Disseminated
- Massive
- Pervasive
- Narrow vein
- * Visible gold

PROJECT	: 5th Henty
PROSPECT	:
DATE	:
LOGGED BY	: T. Callaghan

HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG (1/16, 1/4, 1, 4, 16, 32)	ALTERATION (SIL., SER., PY.)	GEOLOGY NOTES	SUMMARY ROCK	SUMMARY ALTERATION
240						Qtz porphyry. Large qtz phenos in matrix of intense ser-disseminated PY all. Strongly foliated. Bleached and silicified. Calcite veins. Ep	IRQC	Sqf
						248.2 Qtz porphyry. Large qtz phenos in matrix of intense ser-disseminated py all. Strongly foliated. Py veins. Ep	IRQC	Sqf
250								
260								
270								
280								

REMARKS

RGC EXPLORATION PTY LTD

650473

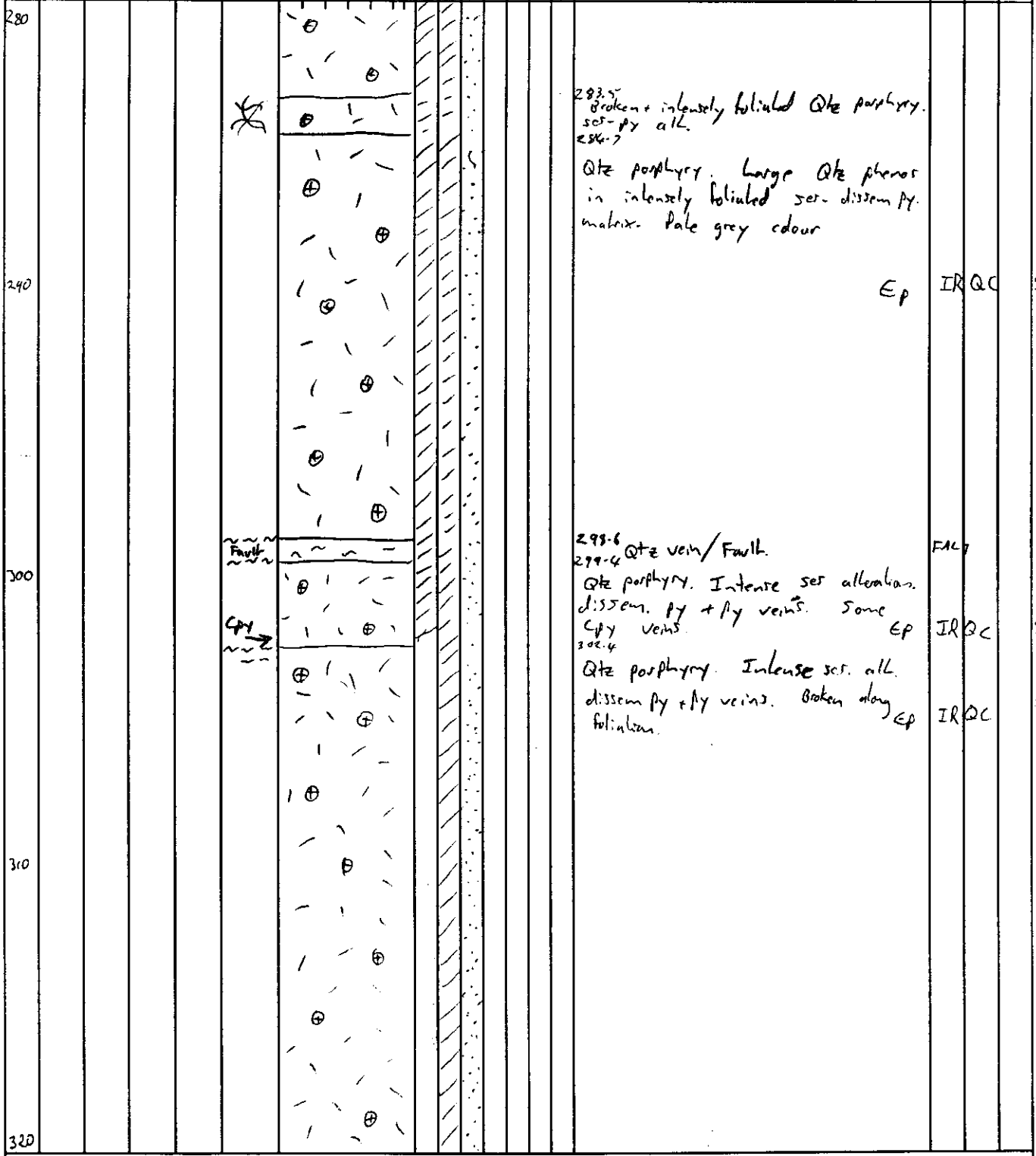
DRILL HOLE No 5H022

SHEET _____ OF _____

Bedding	Disseminated
Cleavage	Massive
Foliation	Pervasive
Fault, Shear	Narrow vein
Breccia	* Visible gold
Broken core	

PROJECT	: 5th Henty
PROSPECT	:
DATE	:
LOGGED BY	: T. Callaghan

HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG (1/16, 1/4, 1, 4, 16, 32)	ALTERATION (SIL., SER., PY.)	GEOLOGY NOTES	SUMMARY ROCK	SUMMARY ALTERATION
280								
						283.5 Broken + intensely foliated Qtz porphyry. ser-py alt.		
						284.7 Qtz porphyry. Large Qtz phenos in intensely foliated ser-dissem py. matrix. Pale grey colour		
290						Ep	IR QC	59F
			Fault			298.6 Qtz vein/Fault.	FAL	
300						299.4 Qtz porphyry. Intense ser alteration. dissem. py + py veins. Some Cpy veins. Ep	IR QC	59F
			Cpy			302.4 Qtz porphyry. Intense ser. alt. dissem py + py veins. Broken along foliation. Ep	IR QC	59F
310								
320								



REMARKS

RGC EXPLORATION PTY LTD

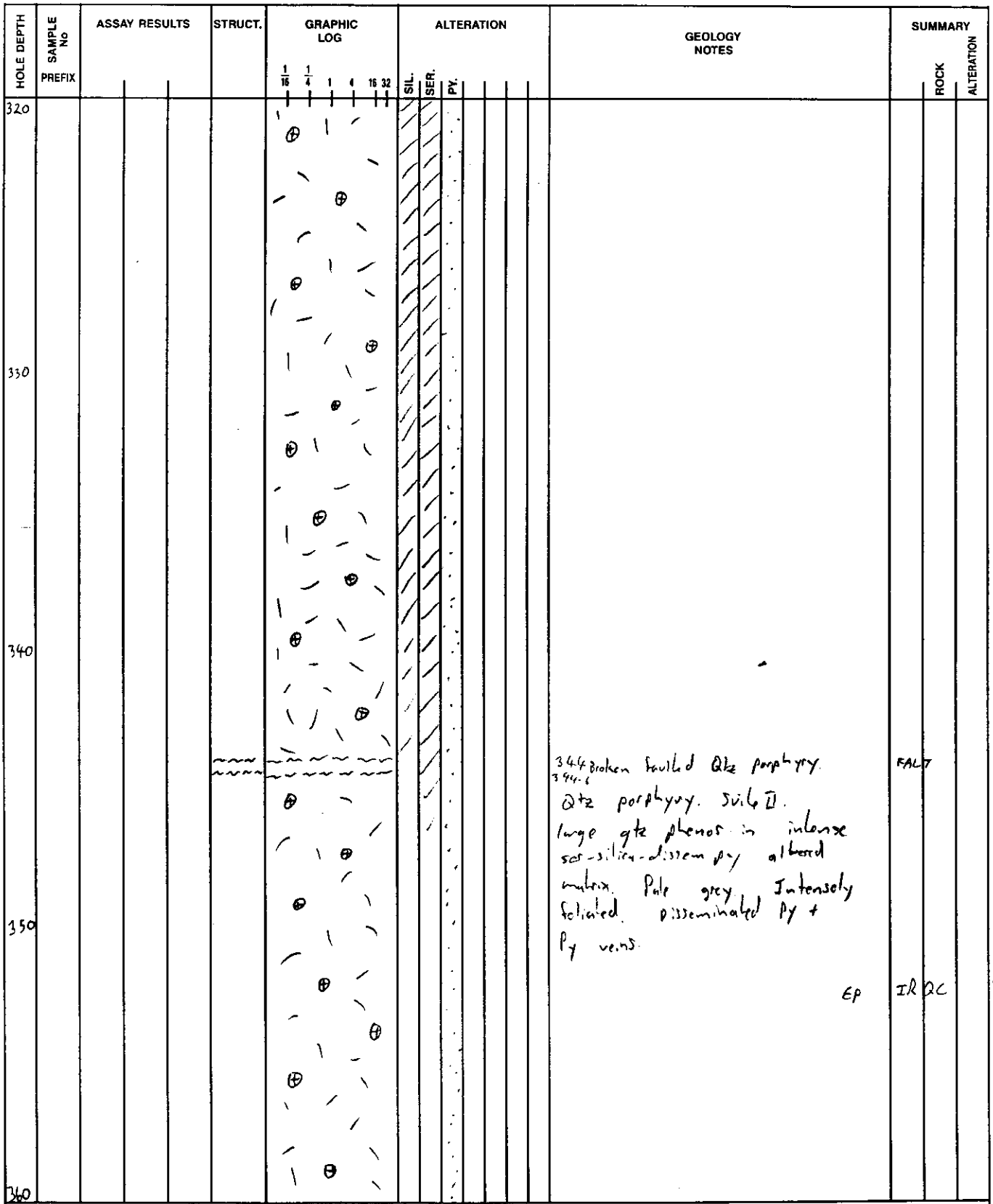
DRILL HOLE No SN022

SHEET _____ **OF** _____

6504744

Bedding	Disseminated
Cleavage	Massive
Foliation	Pervasive
Fault, Shear	Narrow vein
Breccia	* Visible gold
Broken core	

PROJECT	: 5th Henty
PROSPECT	:
DATE	:
LOGGED BY	: T. Callaghan



REMARKS

RGC EXPLORATION PTY LTD

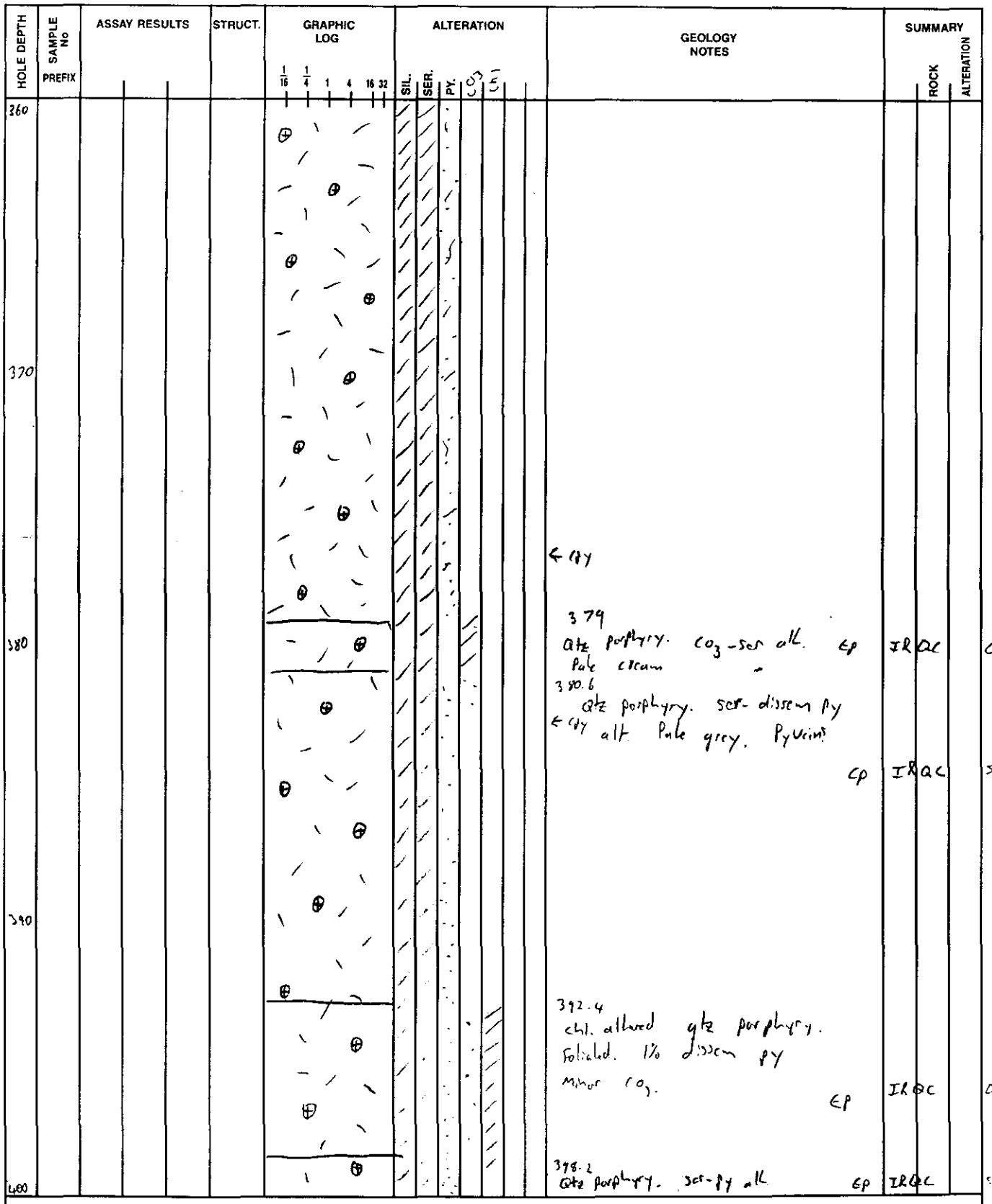
650475

DRILL HOLE No SHD22

SHEET _____ OF _____

PROJECT	: 5th Henty
PROSPECT	:
DATE	:
LOGGED BY	: T. Callaghan

Bedding
Cleavage
Foliation
Fault, Shear
Breccia
Broken core
Disseminated
Massive
Pervasive
Narrow vein
* Visible gold



REMARKS

RGC EXPLORATION PTY LTD

DRILL HOLE No SH022

SHEET _____ **OF** _____

650476

- Bedding
- Cleavage
- Foliation
- Fault, Shear
- Breccia
- Broken core
- Disseminated
- Massive
- Pervasive
- Narrow vein
- * Visible gold

PROJECT	: S^th Hearty
PROSPECT	:
DATE	:
LOGGED BY	: T. Cullingham

HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG (1/16, 1/4, 1, 4, 16, 32)	ALTERATION: SIL.	SER.	PY.	CO3	Chl	GEOLOGY NOTES	SUMMARY: ROCK	ALTERATION
400										401.6 Qtz porphyry. chl - distrm Py(1%) alt. Minor CO3 alt. Ep	IR	QC
										404.8 Qtz porphyry. Pervasive CO3 - ser alt. Weak - mod Py. Mod. foliation. Base metal veining Ep	IR	QC
410										← sph - gal veins. Minor zones of silica - Py. veining.		
420												
430												
440												

REMARKS

RGC EXPLORATION PTY LTD

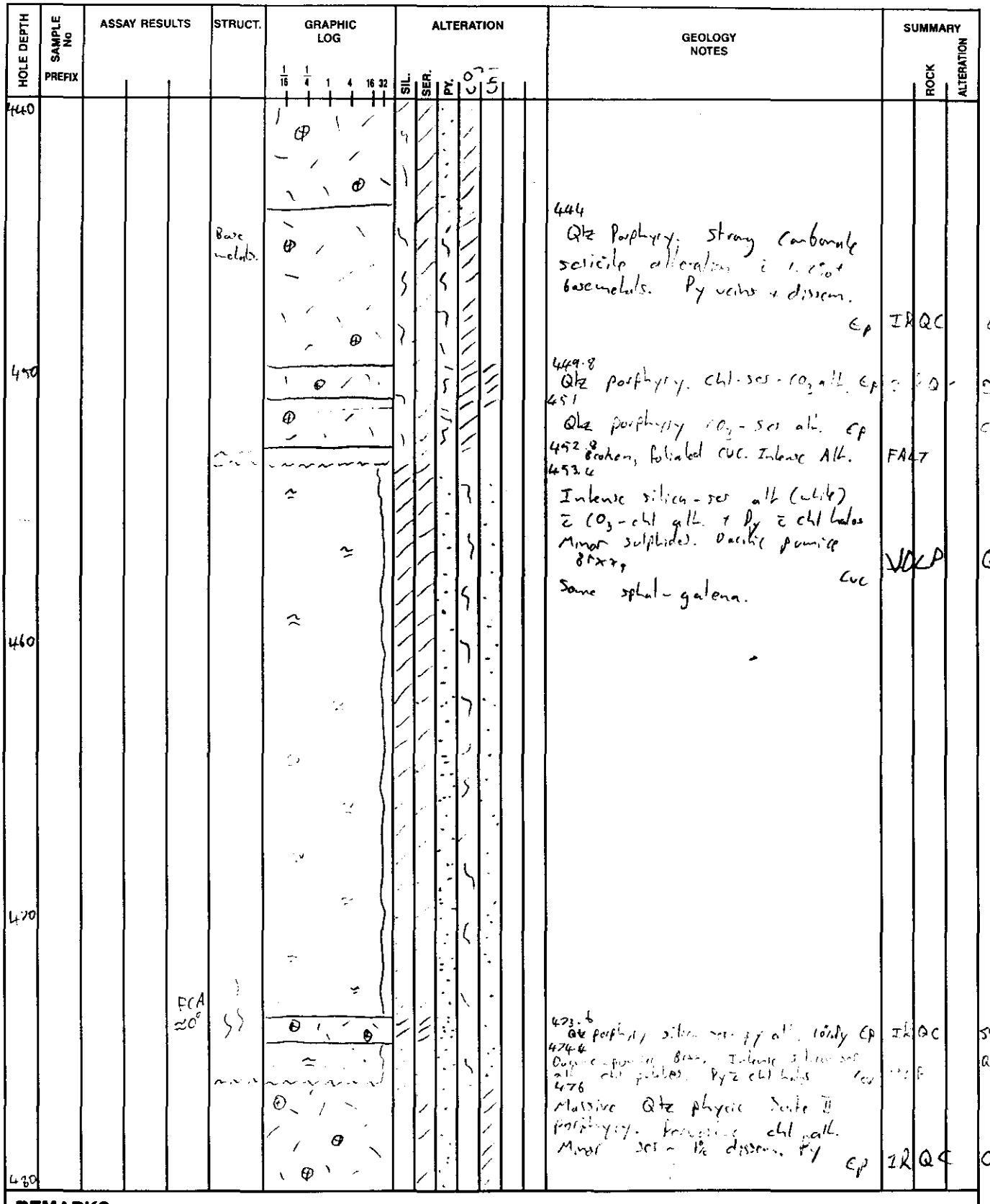
6504777

DRILL HOLE No SH022

SHEET _____ OF _____

PROJECT	: Sth Hosty
PROSPECT	:
DATE	:
LOGGED BY	: T Callaghan

- Bedding
- Cleavage
- Foliation
- Fault, Shear
- Breccia
- Broken core
- Disseminated
- Massive
- Pervasive
- Narrow vein
- * Visible gold



REMARKS

RGC EXPLORATION PTY LTD

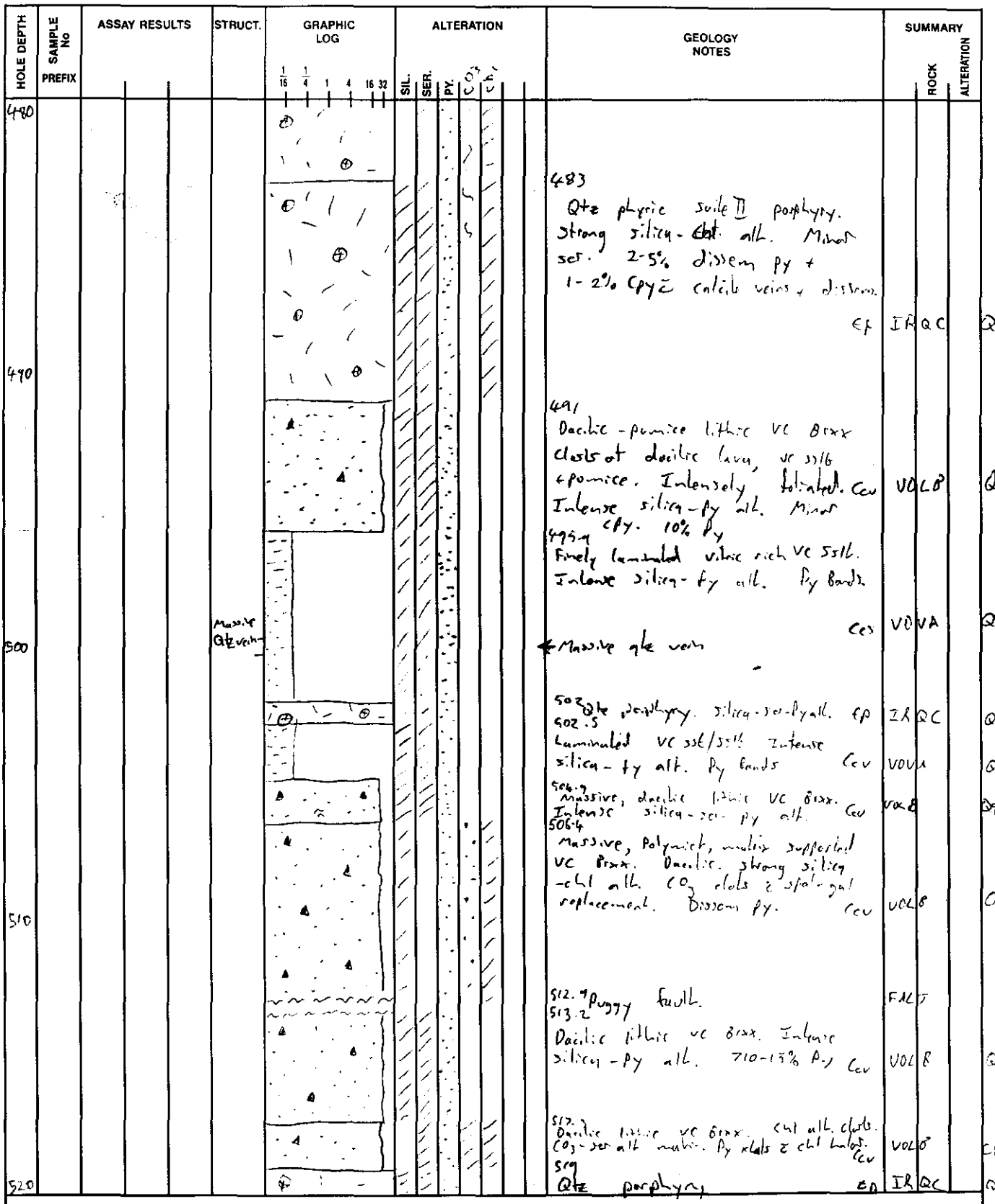
650478

DRILL HOLE No SH022

SHEET _____ **OF** _____

Bedding	Disseminated
Cleavage	Massive
Foliation	Pervasive
Fault, Shear	Narrow vein
Breccia	* Visible gold
Broken core	

PROJECT	:
PROSPECT	:
DATE	:
LOGGED BY	:



HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG (1/16, 1/4, 1, 4, 16, 32)	ALTERATION (SIL., SER., PY., CO_3, chl)	GEOLOGY NOTES	SUMMARY ROCK	SUMMARY ALTERATION
480						483 Qtz phyric suite II porphyry. Strong silica-chl alt. Minor ser. 2-5% dissem py + 1-2% Cpy c̄ calcite veins + dissem. Ep	IR QC	Q9F
490						491 Dacitic-pumice lithic VC Brxx clasts of dacitic lava, vc sslt + pumice. Intensely foliated. Ccv Intense silica-py alt. Minor cpy. 10% Py	VOLB	Q9F
						495.9 Finely laminated vitric rich VC Sslt. Intense silica-py alt. Py Bands. Ces	VOVA	Q9PC
500			Massive Qtz vein			← Massive qtz vein		
						502 Qtz porphyry. Silica-ser-Py alt. Ep	IR QC	Q9
						502.5 Laminated VC sst/sslt Intense silica-py alt. Py bands Ccv	VOVA	Q9
						504.9 Massive, dacitic lithic VC Brxx. Intense silica-ser-py alt. Ccv	VOLB	Q9
						506.4 Massive, Polymict, matrix supported VC Brxx. Dacitic. Strong silica-chl alt. CO_3 clots c̄ spot-gal replacement. Dissem py. Ccv	VOLB	Q11
510						512.9 Puggy fault.	FALT	
						513.2 Dacitic lithic VC Brxx. Intense silica-py alt. 710-15% Py Ccv	VOLB	Q9
						517.3 Dacitic lithic VC Brxx. Chl alt. clasts. CO_3-ser alt matrix. Py xlals c̄ chl halos. Ccv	VOLB	C81
520						519 Qtz porphyry Ep	IR QC	Q9

REMARKS

RGC EXPLORATION PTY LTD

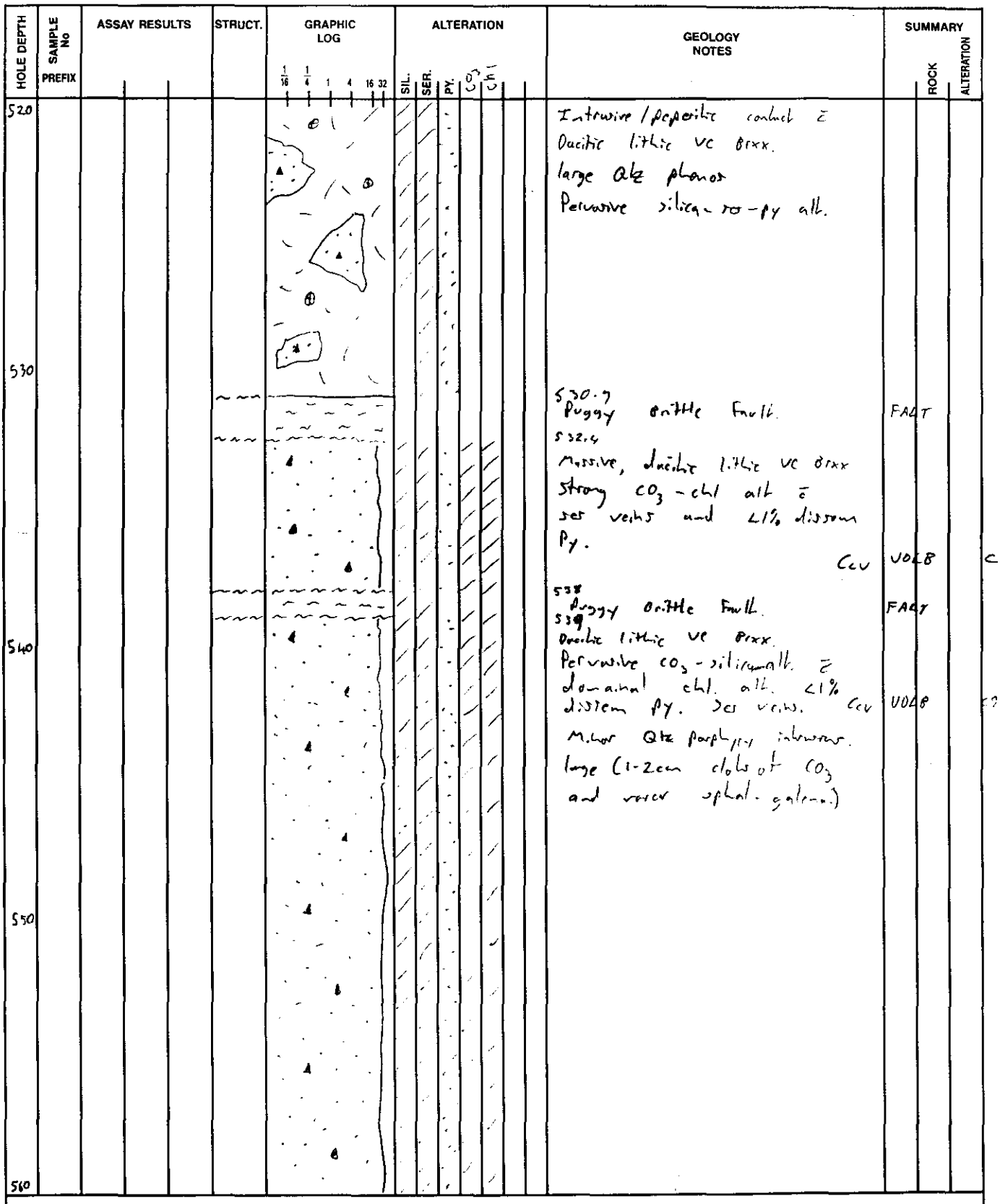
650479

DRILL HOLE No SH022

SHEET _____ OF _____

PROJECT	: 5th Henty
PROSPECT	:
DATE	:
LOGGED BY	: T. Callaghan

— Bedding
└ Cleavage
— Foliation
~ Fault, Shear
Breccia
Broken core
Disseminated
Massive
Pervasive
Narrow vein
* Visible gold



REMARKS

RGC EXPLORATION PTY LTD

DRILL HOLE No SHD22

SHEET _____ **OF** _____

650480

Bedding	Disseminated
Cleavage	Massive
Foliation	Pervasive
Fault, Shear	Narrow vein
Breccia	* Visible gold
Broken core	

PROJECT	: 5th Henty
PROSPECT	:
DATE	:
LOGGED BY	: T. Callaghan

HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG (1/16, 1/4, 1, 4, 16, 32)	ALTERATION (SIL., SER., PY., CB, CB)	GEOLOGY NOTES	SUMMARY ROCK	SUMMARY ALTERATION
560								
570						567.6 Intense, texture destructive silica-ser-py alteration 3-10% Py Possibly ductile lithic Breccia protolith?? Ccv	VOLB	Q9F
580						578.3 Ductile-lithic VC sst c clasts to 1cm. Intense ser-py alt. Some MP. Ccv	VOLM	S9F
						580.6 Intensely silicified, py veined + disseminated (5-10%) Ductile lithic VC Brxx. Ccv	VOLB	Q9F
590						588.8 Clast supported, ductile lithic VC Brxx. Rounded clasts of feld phyric ductile. ser-py alt. Ccv	VOLB	Q8F
						590.3 Massive, graded, ductile Mass flow Brxx. Ductile lithic clasts. Intense silica-ser-py alt. Coarser base most silicified. Top more ser-py alt. Ccv	VOLB	Q8F
600								

REMARKS

650481

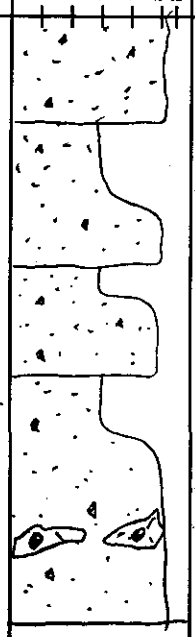
RGC EXPLORATION PTY LTD

DRILL HOLE No SHD22

SHEET _____ **OF** _____

Bedding	Disseminated
Cleavage	Massive
Foliation	Pervasive
Fault, Shear	Narrow vein
Breccia	* Visible gold
Broken core	

PROJECT	: 5th Henty
PROSPECT	:
DATE	:
LOGGED BY	: T. Callaghan

HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG (1/16, 1/4, 1, 4, 16, 32)	ALTERATION (SIL., SER., PY.)	GEOLOGY NOTES	SUMMARY ROCK	SUMMARY ALTERATION
600						602.8 massive graded dacitic mass flow. Intense silica-ser-py alt. More silica at base. Ccv	VOL	Q
						606.4 massive graded dacitic lithic VC Brxx. Intense silica-ser-py alt. Ccv	VO	Q
610						609.3 Massive, graded, dacitic lithic VC Brxx. less intense silica, ser-py alt. Minor Qtz porphyry intrusion. Minor, localised CO_3 spotting. Ccv	VO	Q
						EOH = 616		
620								

REMARKS

650482

Hole_Id	AMG East	AMG North	AMG RL	Total Depth
SHD23	380070.00	5360840.00	560.00	559.30

Hole_Id	Depth	Azm (AMG)	Dip
SHD23	0.00	270.00	-64
SHD23	30.00	270.00	-63.5
SHD23	60.00	270.00	-63
SHD23	90.00	272.50	-63
SHD23	120.00	270.00	-62
SHD23	150.00	274.00	-61
SHD23	180.00	274.00	-60.5
SHD23	210.00	277.00	-59.3
SHD23	240.00	273.00	-58.7
SHD23	270.00	275.00	-58.7
SHD23	300.00	275.00	-57.5
SHD23	330.00	273.00	-56
SHD23	360.00	273.00	-55
SHD23	394.00	274.00	-51.8
SHD23	428.00	273.00	-49
SHD23	460.00	275.00	-47.5
SHD23	491.00	270.00	-45
SHD23	522.00	276.00	-42
SHD23	555.00	273.00	-40

650483

SHD23 Assay Data

Hole_Id	Spl_No	D_From	D_To	AG_A	AS_A	AU_G	AUR_G	BI_A	CU_A	PB_A	ZN_A
SHD23	1081537	395.00	396.00	3	-50	-0.01		-10	35	87	143
SHD23	1081538	396.00	397.00	8	-50	-0.01		-10	56	119	634
SHD23	1081539	397.00	398.00	13	-50	-0.01	-0.01	-10	58	188	276
SHD23	1081540	398.00	399.00	9	-50	-0.01		-10	37	185	211
SHD23	1081541	399.00	400.00	5	-50	-0.01		-10	33	95	253
SHD23	1081542	400.00	401.00	9	-50	-0.01		-10	53	346	3420
SHD23	1081543	401.00	402.00	2	-50	-0.01		-10	20	111	82
SHD23	1081544	402.00	403.00	2	-50	-0.01		-10	25	95	141
SHD23	1081545	403.00	404.00	8	-50	-0.01		-10	53	152	513
SHD23	1081546	404.00	405.00	10	-50	-0.01	-0.01	-10	39	370	1080
SHD23	1081547	405.00	406.00	2	-50	-0.01		-10	24	133	259
SHD23	1081548	406.00	407.00	1	-50	-0.01		-10	17	103	401
SHD23	1081549	407.00	408.00	-1	-50	-0.01		-10	10	69	262
SHD23	1081550	408.00	409.00	-1	-50	-0.01		-10	14	26	133
SHD23	1081551	409.00	410.00	-1	-50	-0.01		-10	14	18	62
SHD23	1081552	410.00	411.00	3	-50	-0.01		-10	39	255	2800
SHD23	1081553	411.00	412.00	1	-50	-0.01		-10	21	208	129
SHD23	1081554	412.00	413.00	-1	-50	-0.01		-10	13	45	63
SHD23	1081555	413.00	414.00	-1	-50	-0.01		-10	7	32	68
SHD23	1081556	414.00	415.00	-1	-50	-0.01		-10	11	53	149
SHD23	1081557	415.00	416.00	-1	-50	-0.01		-10	11	20	21
SHD23	1081558	416.00	417.00	-1	-50	-0.01		-10	10	21	61
SHD23	1081559	417.00	418.00	-1	-50	-0.01		-10	14	45	158
SHD23	1081560	418.00	419.00	-1	-50	-0.01		-10	7	31	34
SHD23	1081561	419.00	420.00	-1	-50	-0.01		-10	7	58	21
SHD23	1081562	420.00	421.00	-1	-50	-0.01		-10	10	42	37
SHD23	1081563	421.00	422.00	-1	-50	-0.01		-10	12	30	62
SHD23	1081564	422.00	423.00	-1	-50	-0.01		-10	10	78	79
SHD23	1081565	423.00	424.00	-1	-50	-0.01		-10	41	40	73
SHD23	1081566	424.00	425.00	-1	80	-0.01	-0.01	-10	13	32	43
SHD23	1081567	425.00	426.00	-1	-50	-0.01		-10	7	15	13
SHD23	1081568	426.00	427.00	-1	-50	-0.01		-10	10	10	38
SHD23	1081569	427.00	428.00	-1	75	-0.01		-10	9	14	81
SHD23	1081570	428.00	429.00	-1	-50	-0.01		-10	13	25	70
SHD23	1081571	429.00	430.00	-1	-50	-0.01	-0.01	-10	9	24	129
SHD23	1081572	430.00	431.00	-1	-50	-0.01		-10	10	17	56
SHD23	1081573	431.00	432.00	1	-50	-0.01		-10	1080	19	29
SHD23	1081574	432.00	433.00	-1	-50	-0.01		-10	106	44	15
SHD23	1081575	433.00	434.00	-1	-50	-0.01		-10	11	34	9
SHD23	1081576	434.00	435.00	-1	-50	-0.01		-10	15	30	7
SHD23	1081577	435.00	436.00	-1	-50	-0.01		-10	463	43	31
SHD23	1081578	436.00	437.00	4	-50	0.04		-10	71	183	114
SHD23	1081579	437.00	438.00	11	-50	-0.01		-10	74	197	144
SHD23	1081581	438.00	439.00	48	-50	-0.01		-10	104	734	64
SHD23	1081582	439.00	440.00	31	-50	-0.01		-10	76	458	1885
SHD23	1081583	440.00	441.00	6	-50	-0.01		-10	38	123	157
SHD23	1081584	441.00	442.00	4	-50	-0.01		-10	40	131	85
SHD23	1081585	442.00	443.00	5	-50	-0.01		-10	62	158	66
SHD23	1081586	443.00	444.00	5	-50	-0.01		-10	55	174	76
SHD23	1081587	444.00	445.00	3	-50	-0.01		-10	89	116	66
SHD23	1081588	445.00	446.00	2	-50	-0.01		-10	24	214	517
SHD23	1081589	493.00	494.00	3	-50	-0.01		-10	72	409	466

SHD23	1081590	494.00	495.00	7	-50	-0.01		-10	272	497	1150
SHD23	1081591	495.00	496.00	7	-50	-0.01		-10	78	1540	1190
SHD23	1081592	496.00	497.00	17	-50	-0.01	-0.01	-10	199	3250	13800
SHD23	1081593	497.00	498.00	13	-50	-0.01		-10	236	1485	3700
SHD23	1081594	498.00	499.00	22	-50	-0.01		-10	235	1355	4400
SHD23	1081595	499.00	500.00	18	-50	-0.01		-10	163	1450	3290
SHD23	1081596	500.00	501.00	37	-50	-0.01	-0.01	-10	348	2820	10000
SHD23	1081597	501.00	502.00	15	-50	-0.01		-10	138	2430	8800
SHD23	1081598	502.00	503.00	5	-50	-0.01		-10	46	867	5200
SHD23	1081599	503.00	504.00	4	-50	-0.01		-10	46	789	1980
SHD23	1081601	512.00	513.00	1	-50	-0.01		-10	12	76	88
SHD23	1081602	513.00	514.00	-1	-50	-0.01		-10	9	21	20
SHD23	1081603	514.00	515.00	-1	-50	-0.01		-10	11	22	52
SHD23	1081604	515.00	516.00	-1	-50	-0.01		-10	10	52	463
SHD23	1081605	516.00	517.00	-1	-50	-0.01		-10	11	39	28
SHD23	1081606	517.00	518.00	-1	-50	-0.01		-10	11	28	26
SHD23	1081607	528.00	529.00	-1	-50	-0.01		-10	9	34	87
SHD23	1081608	529.00	530.00	-1	-50	-0.01		-10	9	27	76
SHD23	1081609	540.00	541.00	1	-50	-0.01		-10	28	25	98
SHD23	1081610	541.00	542.00	1	-50	-0.01		-10	12	22	87

RGC EXPLORATION PTY LTD

650485

DRILL HOLE No SH023

SHEET _____ OF _____

PROJECT	: 5th Henty
PROSPECT	: 1:1000 Summary Log
DATE	:
LOGGED BY	: T. Callaghan

— Bedding
⌊ Cleavage
— Foliation
~ Fault, Shear
Breccia
Broken core
Disseminated
Massive
Pervasive
Narrow vein
* Visible gold

HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG (1/16, 1/4, 1, 4, 16, 32)	ALTERATION (SIL., SER., PY.)	GEOLOGY NOTES	SUMMARY ROCK	SUMMARY ALTERATION
0						0-353.6m Qtz phyric to Qtz-feld phyric rhyolite. Mod-Strong Albite alteration and domainal chl alteration Mt Julia Rhyolite		
20								
40							E+I	Z/R>C
60								
80								
100								
120								
140								
160								
180								
200								

REMARKS

RGC EXPLORATION PTY LTD

650486

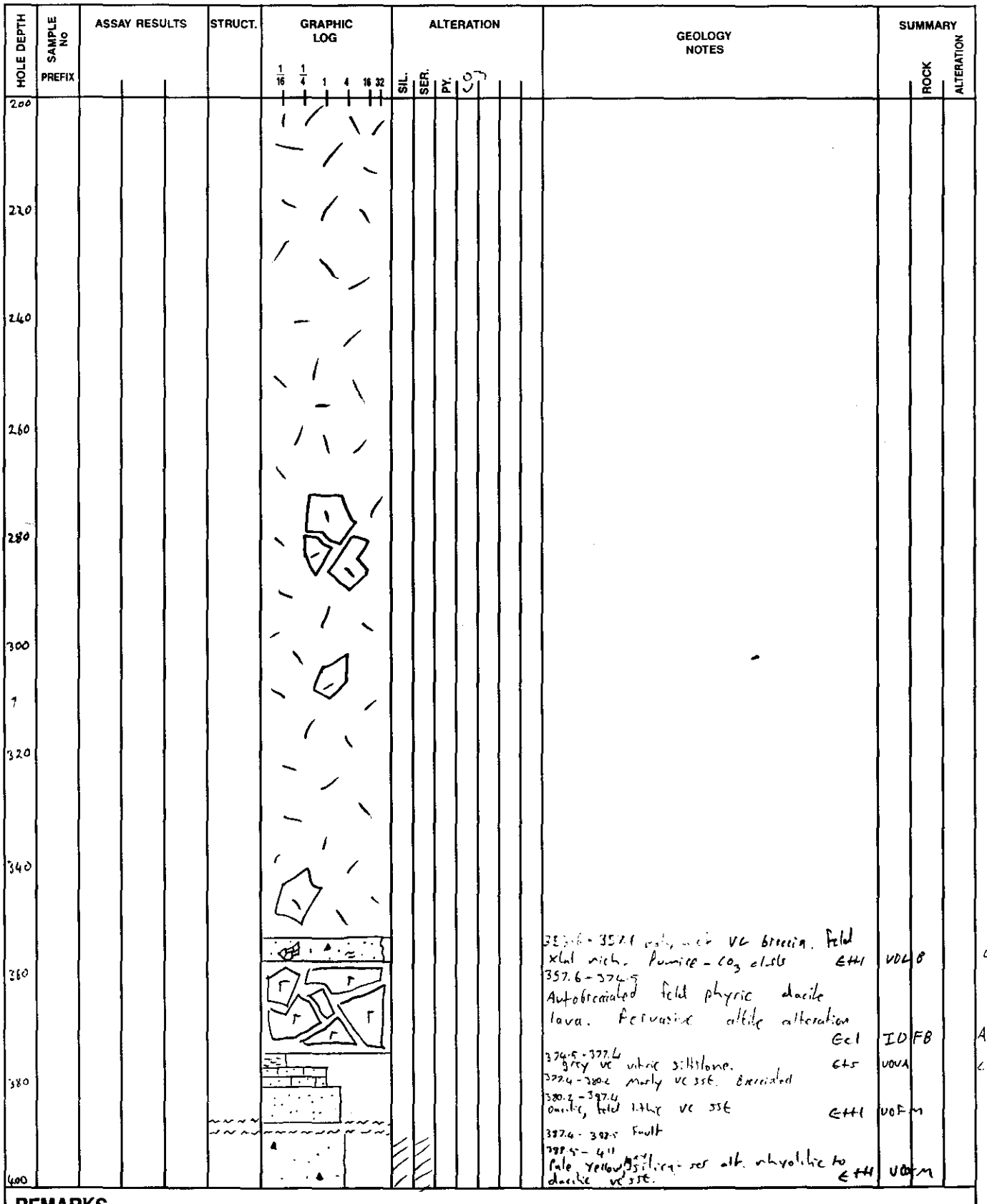
DRILL HOLE No SHD23

SHEET _____ **OF** _____

Bedding	Disseminated
Cleavage	Massive
Foliation	Pervasive
Fault, Shear	Narrow vein
Breccia	* Visible gold
Broken core	

PROJECT	: 5th Henty
PROSPECT	: 1:1000 Summary Log
DATE	:
LOGGED BY	: T. Callaghan

HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG (1/16, 1/4, 1, 4, 16, 32)	ALTERATION (SIL., SER., PY., CO3)	GEOLOGY NOTES	SUMMARY ROCK	SUMMARY ALTERATION
200								
220								
240								
260								
280								
300								
320								
340								
360						353.6 - 357.1 poly mick VC breccia. Feld xtal rich. Pumice - CO_3 clasts E+H	VOL B	08
						357.6 - 374.5 Autobrecciated feld phyric dacite lava. Pervasive altite alteration Ec1	ID FB	A7C4
380						374.5 - 377.4 grey VC vitric siltstone. E+S	VOVA	47
						377.4 - 380.2 Marly VC SSt. Brecciated		
						380.2 - 387.4 Dacitic, feld lithic VC SSt E+H	VOF M	
						387.4 - 388.5 Fault		
400						388.5 - 411 Pale yellow grey silica - ser alt. rhyolitic to dacitic VC SSt. E+H	VOF M	



REMARKS

RGC EXPLORATION PTY LTD

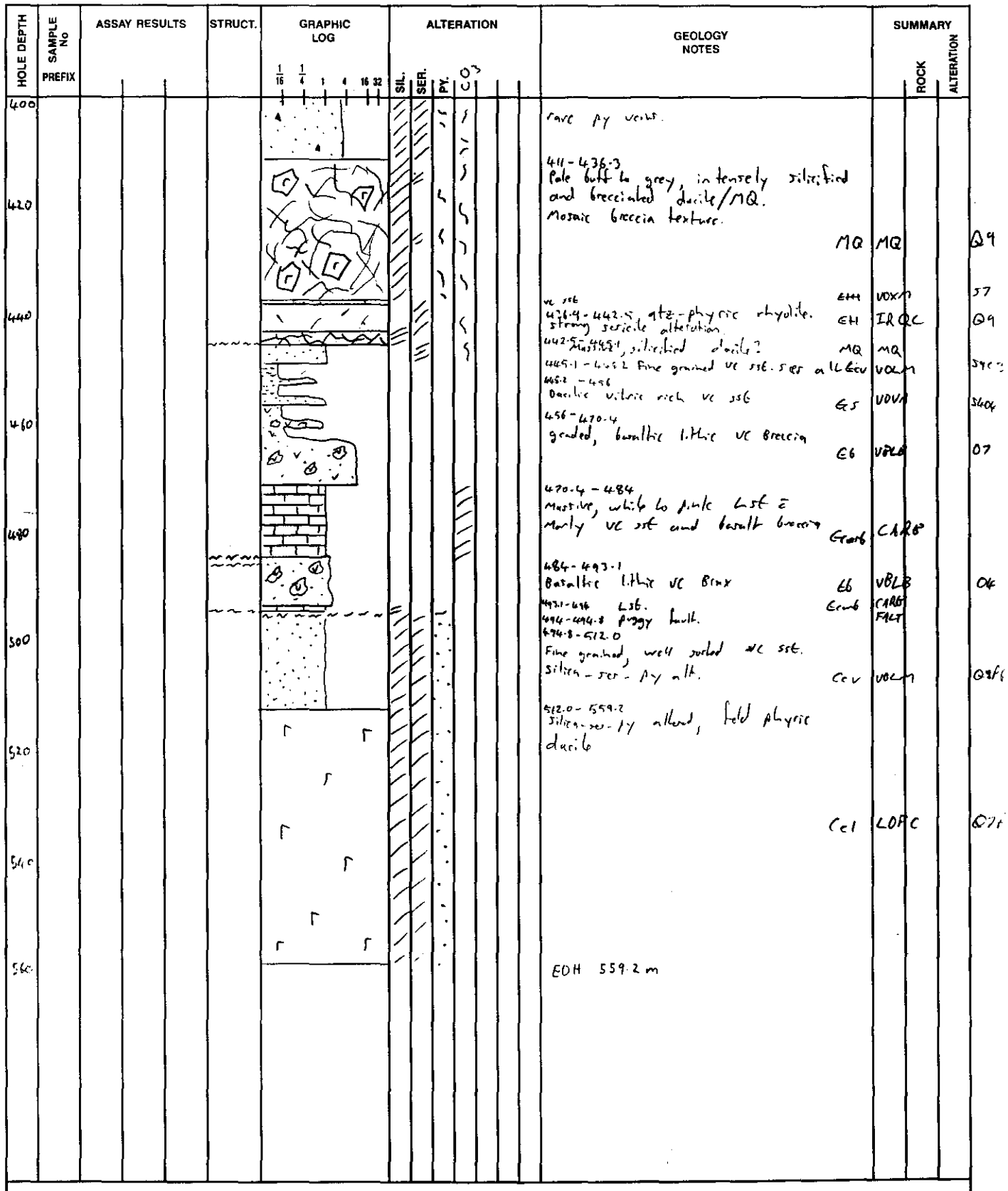
650487

DRILL HOLE No SH023

SHEET _____ OF _____

PROJECT	: 5th Henty
PROSPECT	: 1:1000 Summary Log
DATE	:
LOGGED BY	: T. Callaghan

Bedding
Cleavage
Foliation
Fault, Shear
Breccia
Broken core
Disseminated
Massive
Pervasive
Narrow vein
* Visible gold



REMARKS

RGC EXPLORATION PTY LTD

DRILL HOLE No SH023

SHEET _____ OF _____

6504888

Bedding	Disseminated
Cleavage	Massive
Foliation	Pervasive
Fault, Shear	Narrow vein
Breccia	* Visible gold
Broken core	

PROJECT	: 5th Henty
PROSPECT	:
DATE	:
LOGGED BY	: T. Callaghan

HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG (1/16, 1/4, 1, 4, 16, 32)	ALTERATION (SIL. SER. PY.)	GEOLOGY NOTES	SUMMARY ROCK	SUMMARY ALTERATION
0						0 weathered + Broken, qtz-fold phyric rhyolite, mt Julia rhyolite. Mod. albitisation	E+I	IRQC AS
						Brecciated, moderately albitised, orange coloured qtz-fold phyric rhyolite late CO_3 veins.	E+I	IRQC A7
10								
20								
30								
40								

REMARKS

RGC EXPLORATION PTY LTD

650489

DRILL HOLE No SH023

SHEET _____ **OF** _____

Bedding	Disseminated
Cleavage	Massive
Foliation	Pervasive
Fault, Shear	Narrow vein
Breccia	* Visible gold
Broken core	

PROJECT	: 5th Henty
PROSPECT	:
DATE	:
LOGGED BY	: T. Callaghan

HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG (1/16, 1/4, 1, 4, 16, 32)	ALTERATION (SIL., SER., PY.)	GEOLOGY NOTES	SUMMARY ROCK	SUMMARY ALTERATION
40								
						weak chl veining + late brecciation.		
50								
60								
						68 qtz-feld phyric Mt Julia rhyolite. Pervasive orange Alb alt. Dominantly coherent flow banded. 5% chl veins in brxx matrix. Ctl	IR	>C
70								
80								

REMARKS

RGC EXPLORATION PTY LTD

650490

DRILL HOLE No SH023

SHEET _____ **OF** _____

Bedding	Disseminated
Cleavage	Massive
Foliation	Pervasive
Fault, Shear	Narrow vein
Breccia	* Visible gold
Broken core	

PROJECT	: 5th Henty
PROSPECT	:
DATE	:
LOGGED BY	: T. Callaghan

HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG (1/16, 1/4, 1, 4, 16, 32)	ALTERATION (SIL., SER., PY.)	GEOLOGY NOTES	SUMMARY ROCK	SUMMARY ALTERATION
80						Flow banding		
90								
100						99 Massive, coherent, qtz-feld phyric rhyolite. Mt Julia Rhyolite. late chl. veins late calcite veins ~1-3%. Pervasive, orange alb. alt.		
						Et1	IR>C	A7
110								
120								

REMARKS

RGC EXPLORATION PTY LTD

650491

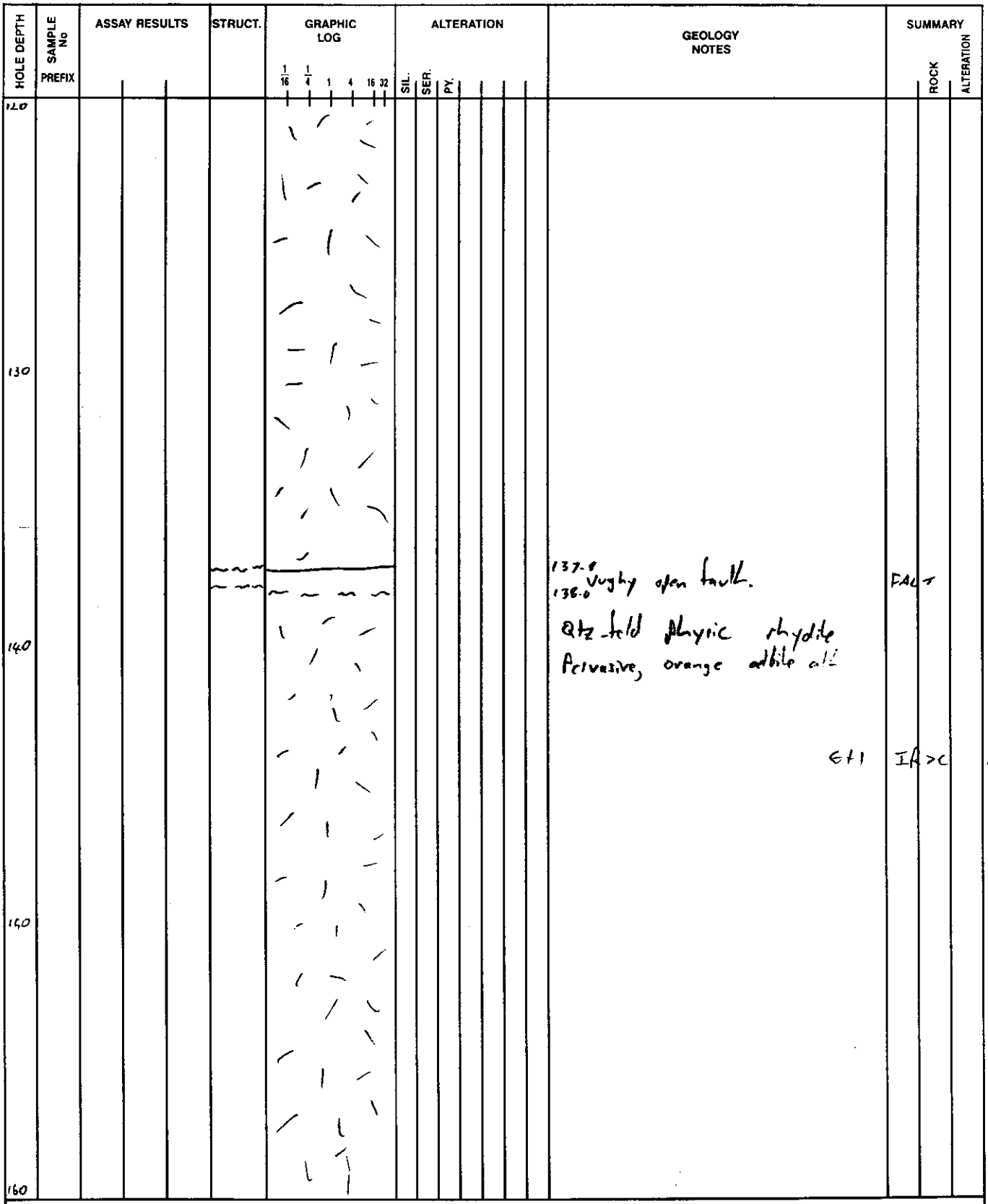
DRILL HOLE No SH023

SHEET _____ **OF** _____

Bedding	Disseminated
Cleavage	Massive
Foliation	Pervasive
Fault, Shear	Narrow vein
Breccia	* Visible gold
Broken core	

PROJECT	: 5th Henty
PROSPECT	:
DATE	:
LOGGED BY	: T Callaghan

HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG (1/16, 1/4, 1, 4, 16, 32)	ALTERATION (SIL., SER., PY.)	GEOLOGY NOTES	SUMMARY ROCK	SUMMARY ALTERATION
120								
130								
						137.8 Vughy open fault. 138.0	FAL	T
140						Qtz-feld phyric rhyolite Pervasive, orange albite alt		
						EH	IR	>C A7
150								
160								



REMARKS

RGC EXPLORATION PTY LTD

650492

DRILL HOLE No 5H023

SHEET _____ OF _____

Bedding	Disseminated
Cleavage	Massive
Foliation	Pervasive
Fault, Shear	Narrow vein
Breccia	* Visible gold
Broken core	

PROJECT	: 5th Henty
PROSPECT	:
DATE	:
LOGGED BY	: T. Callaghan

HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG (1/16, 1/4, 1, 4, 16, 32)	ALTERATION (SIL., SER., PY.)	GEOLOGY NOTES	SUMMARY (ROCK, ALTERATION)
160							
170							
180							
190							
200						198 Qtz-feld phyric rhyolite. A16 at. cnl veinlets. E+1	IR > C A8

REMARKS

RGC EXPLORATION PTY LTD

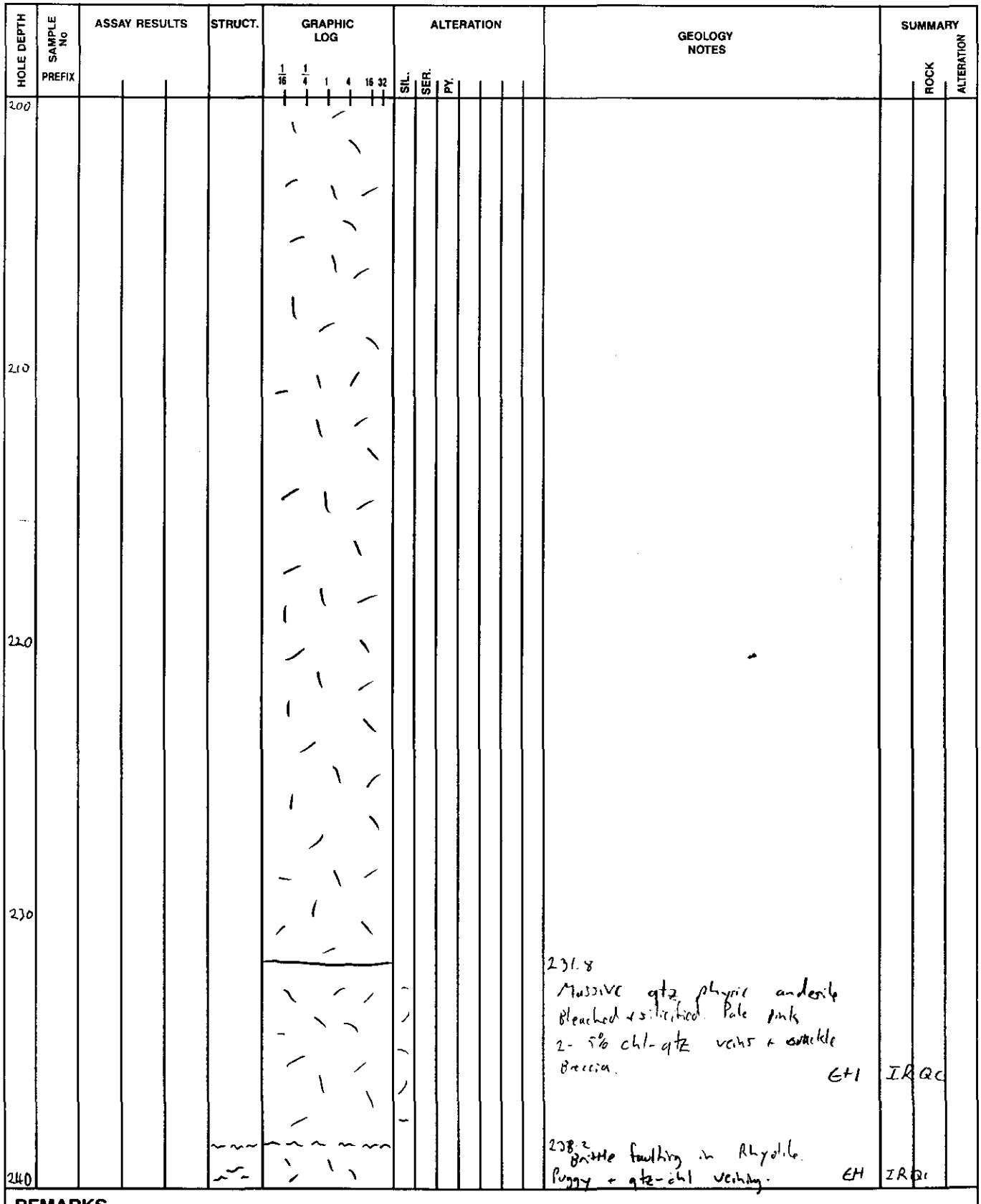
650493

DRILL HOLE No SH023

SHEET _____ OF _____

PROJECT	: 5th Henty
PROSPECT	:
DATE	:
LOGGED BY	: T. Callaghan

Bedding
Cleavage
Foliation
Fault, Shear
Breccia
Broken core
Disseminated
Massive
Pervasive
Narrow vein
* Visible gold



REMARKS

RGC EXPLORATION PTY LTD

650494

DRILL HOLE No SH023

SHEET _____ **OF** _____

Bedding	Disseminated
Cleavage	Massive
Foliation	Pervasive
Fault, Shear	Narrow vein
Breccia	* Visible gold
Broken core	

PROJECT	: 5th Henty
PROSPECT	:
DATE	:
LOGGED BY	: T. Callaghan

HOLE DEPTH	SAMPLE No / PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG (1/16, 1/4, 1, 4, 16, 32)	ALTERATION (SIL., SER., PY.)	GEOLOGY NOTES	SUMMARY ROCK	SUMMARY ALTERATION
240						242 Massive, qtz-feld phyric rhyolite. Hyaloclastic Brxx Orange alb. alt. c̄ chlorite Vns		
						EH	IR>C	A70
250								
260								
						267.6 Qtz phyric rhyolite intrusion into monomict dacitic VC. Peperitic + Autobreccia textures. rhyolite orange alb at dacitic vc = chl alt.		
270						EH	IR>C	A7
						275.3 Late Vughy Brittle Fault.	FALT	
						276. Massive, qtz phyric rhyolite. Orange alb. alt.		
280								

REMARKS

RGC EXPLORATION PTY LTD

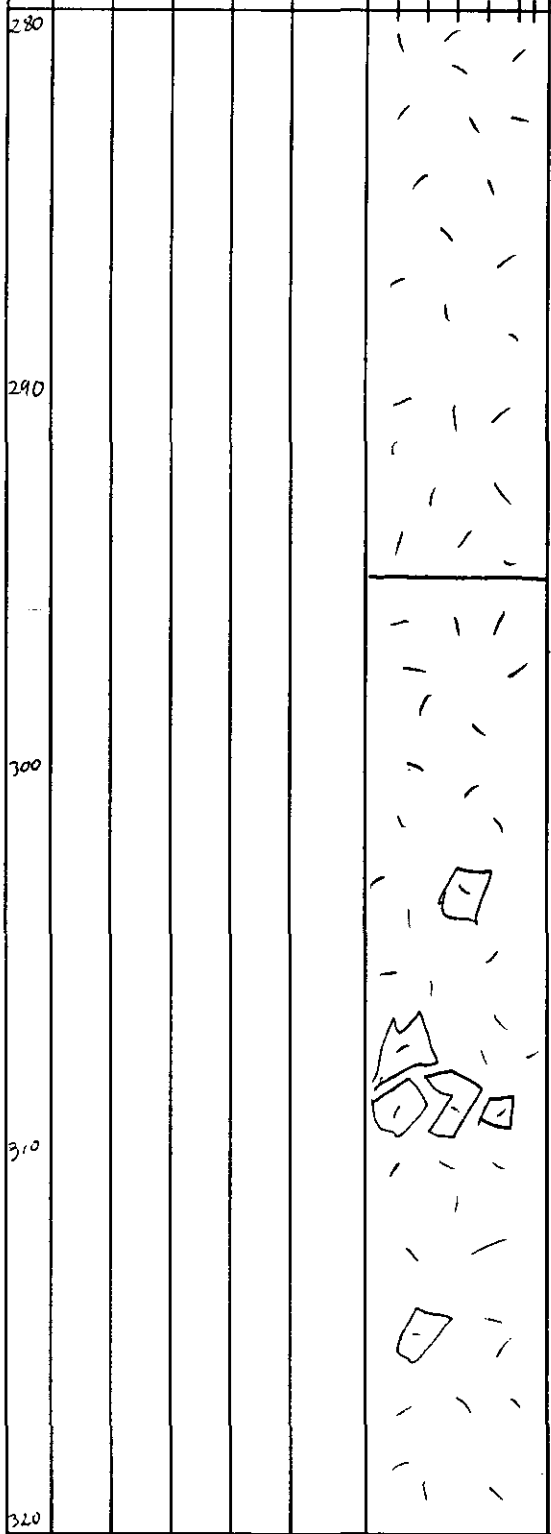
650495

DRILL HOLE No SH023

SHEET _____ OF _____

PROJECT	: 5th Hanky
PROSPECT	:
DATE	:
LOGGED BY	: T. Callaghan

— Bedding
⌴ Cleavage
— Foliation
~ Fault, Shear
Breccia
Broken core
Disseminated
Massive
Pervasive
Narrow vein
* Visible gold



GEOLOGY NOTES

Pale pink, qtz-phyric rhyolite.
Strong albite alteration
2-5% silica veining.
Mt Sulia rhyolite

E+I

294.8
Massive, orange to red qtz-feld phyric rhyolite.
chlorite veins, particularly around hyaloclastic breccia.

E+I

SUMMARY

ROCK	ALTERATION
IR QC	A7
IR >C	A7

REMARKS

RGC EXPLORATION PTY LTD

650496

DRILL HOLE No SH023

SHEET _____ **OF** _____

Bedding	Disseminated
Cleavage	Massive
Foliation	Pervasive
Fault, Shear	Narrow vein
Breccia	* Visible gold
Broken core	

PROJECT	: 5th Henry
PROSPECT	:
DATE	:
LOGGED BY	: T. Callaghan

HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG (1/16, 1/4, 1, 4, 16, 32)	ALTERATION (SIL., SER., PY., CO3)	GEOLOGY NOTES	SUMMARY ROCK	SUMMARY ALTERATION
320								
		Broken core.				326 Qtz phyric rhyolite. Pale pink. Broken core. Autobrecciated c̄ chl veining in intra clast boundaries		
330						E+1	IRQC	A70
						336.4 Orange, albitised qtz-feld phyric rhyolite		
340						E+1	IRQC	A7
						341.4 Pale pink qtz phyric rhyolite. Strongly albite altered. Late CO_3 veins + alteration ~ 5% CO_3 replaced feldspars		
						E+1	IRQC	A70
350								
						353.6 Feld xtal - pumice? breccia. Possibly feld xtal rich dacite. Strong chl. alteration		
						E+1	VOLF	08
		Fault				356.2 Qtz phyric rhyolite. Alb alt		
						E+1	IRQC	A7
						357 Polymict VC breccia. Massive.		
						E+1	VOLF	07
360						357.6		

REMARKS

RGC EXPLORATION PTY LTD

650497

DRILL HOLE No SH023

SHEET _____ **OF** _____

Bedding	Disseminated
Cleavage	Massive
Foliation	Pervasive
Fault, Shear	Narrow vein
Breccia	* Visible gold
Broken core	

PROJECT	: 5th Henty
PROSPECT	:
DATE	:
LOGGED BY	: T. Callaghan

HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG (1/16, 1/4, 1, 4, 16, 32)	ALTERATION (SIL., SER., PY., CO3)	GEOLOGY NOTES	SUMMARY ROCK	SUMMARY ALTERATION
360						Autobrecciated, feld phyric dacite lava. Pervasive Alb alt. Ccl	IO FB	A7C4
370						368.5 Pale grey, coarse, feld phyric dacite lava. Strong CO_3 alt. CO_3 replaced feldspars. Ccl	ID FC	C8
						374.5 Dark grey, laminated Volcaniclastic, vitric siltstone. CO_3 veins. Minor PY. Ets	VOV A	C7
380						377.4 Marly VC sst. Brecciated and disrupted. Pale grey. Feld xtal rich. Gcarb	CB BX	C9
						380.2 Feld xtal rich VC sst. CO_3 alt. Feld xtals. chl altered groundmass. Possibly pumiceous ?? Ett	VOX M	O7C
						383.0 VC vitric siltstone. Ets	VOV A	
						383.7 Dacitic, Feld-lithic VC sandstone. Fine to medium grained. chlorite-CO_3 alt. Ett	VOF M	O5C
			Fault			387.4 Broken, puggy fault ser alt	FAL T	
390						388.5 Pale yellow, ser-silica altered rhyolitic VC Breccia clasts of qtz phyric rhyolite + VC sst intra-clasts. M ser py. Ett	VR LB	S6C
						393.6 Pale yellow-grey dominant ser-CO_3 to grey silica altered feld xtal sst. Outer halo of Henty style alteration. Sulphur poor. Ett	VOX M	S7C
400								

REMARKS

RGC EXPLORATION PTY LTD

650498

DRILL HOLE No SHD23

SHEET _____ OF _____

PROJECT	: 5th Heaty
PROSPECT	:
DATE	:
LOGGED BY	: T. Callaghan

Bedding
Cleavage
Foliation
Fault, Shear
Breccia
Broken core
Disseminated
Massive
Pervasive
Narrow vein
* Visible gold

HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG (1/16, 1/4, 1, 4, 16, 32)	ALTERATION: SIL.	SER.	PY.	(CY)	GEOLOGY NOTES	SUMMARY: ROCK	ALTERATION	
400									402.1 Pale yellow, strong ser-silica altered feld xtal-qtz xtal vc sst. Intense silica-ser alt. Very minor Py veins. Approaching MV EHI	VDx M		Q75E
410									408.2 Fine grained dacitic vc sst-sltst. Pervasive ser. alt. CO_3 veins. EHI	VDx M		57C
420									411.0 Pale buff to grey, intensely silicified and brecciated dacite/ "MQ". Probable "MQ". Mosaic breccia texture & massive silica flooding. Coherent dacite clasts. silica altered feldspar phenos. Very minor sulphides. Occasional ser altered clasts.	MX	MQ	Q9
430									436.3 Quartz vc sst. sericite altered. EHI 436.9 Qtz phyric rhyolite / ser qtz replaced dacite feld phenos. Coherent, porphyritic volcanic. Pervasive silica-ser alt.	VDx M		57
440												

REMARKS

RGC EXPLORATION PTY LTD

650499

Bedding	Disseminated
Cleavage	Massive
Foliation	Pervasive
Fault, Shear	Narrow vein
Breccia	* Visible gold
Broken core	

DRILL HOLE No SH023

SHEET _____ **OF** _____

PROJECT	: 5th Henty
PROSPECT	:
DATE	:
LOGGED BY	: T. Callaghan

HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG	ALTERATION (SIL. SER. PY. CO3)	GEOLOGY NOTES	SUMMARY ROCK	SUMMARY ALTERATION	
440						late CO_3 veins. EH	IR QC		Q9
						442.5 Massive, brecciated, intensely silicified coherent volcanic. Dacite or rhyolite? MQ	MQ		Q9
						445.1 445.2 FAULT, ser alt. puggy. Fine grained, VC sst. Intense sericite alteration. CO_3 veins. Ccv	FAL T VOL M		S9C
450			BCA =70°			448.2 Dacitic vitric rich siltstone c pumice-feld xtal base. weak ser-chl. alt. foliated Ecs	VOL A		S40
						450.6 graded dacitic vitric rich VC sst. weak ser-chl alteration Rare py veins + CO_3 veins. Ecs	VOL A		S4
						456 graded, dominantly basaltic clast rich VC sst. Chl-CO_3 alteration. Eb	VBL M		O7
460						459.6 Massive, graded, basaltic lithic VC Breccia. Pervasive chl. alt. Eb	VBL B		O7
470						470.4 Basaltic lithic Breccia c̄ CO_3 matrix Eb	VBL B		C5
						471.8 Pale grey Limestone + Marly sst. stylolitic Ecarb	CAR B		C1
						474.4 Hematised basaltic Breccia. CO_3 veins + matrix Eb	VBL B		H9C
						474.9 Calcareous sst. Ecarb	CBB		
						476.5 white to pink limestone. Hematised bands Minor basaltic Breccia Bands Ecarb	CAR B		C9
480									

REMARKS

RGC EXPLORATION PTY LTD

650500

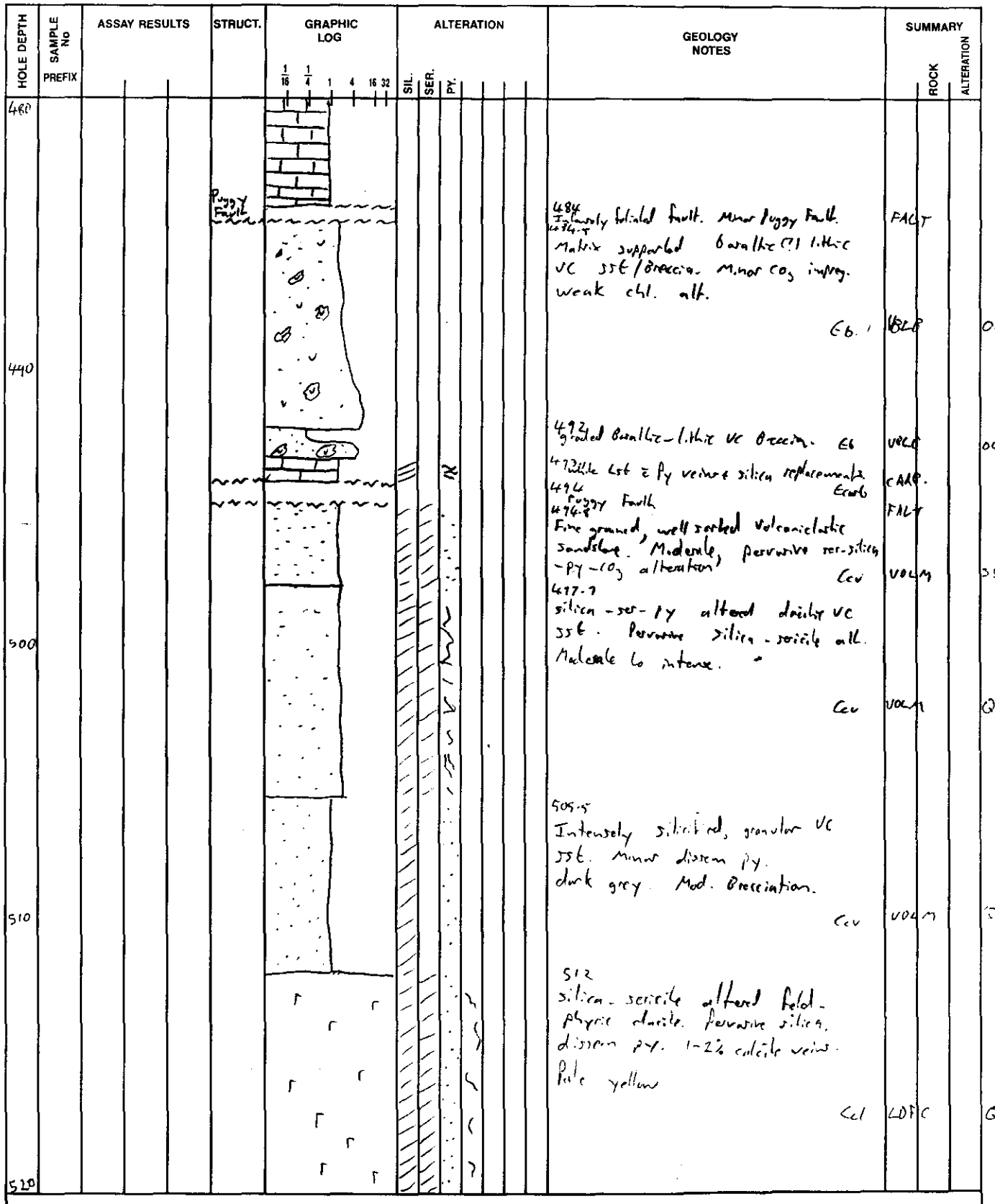
DRILL HOLE No SH023

SHEET _____ **OF** _____

Bedding	Disseminated
Cleavage	Massive
Foliation	Pervasive
Fault, Shear	Narrow vein
Breccia	* Visible gold
Broken core	

PROJECT	: 5th Henry
PROSPECT	:
DATE	:
LOGGED BY	: T. Callaghan

HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG (1/16, 1/4, 1, 4, 16, 32)	ALTERATION (SIL., SER., PY.)	GEOLOGY NOTES	SUMMARY ROCK	SUMMARY ALTERATION
480			Puggy Fault			484 Intensely foliated fault. Minor Puggy Fault. 484.5 Matrix supported basaltic (?) lithic VC sst/Breccia. Minor CO_3 impreg. weak chl. alt.	FALT	
						Eb.	VBLB	04
490						492 graded Basaltic-lithic VC Breccia. Eb	VBLB	04
						493 white Lst c̄ Py veins & silica replacements. Ecarb	CARB.	
						494 Puggy Fault 494.8 Fine grained, well sorted Volcaniclastic sandstone. Moderate, pervasive ser-silica-Py-CO_3 alteration	FALT	
						Ccv	VOLM	SER
500						497.7 silica-ser-py altered dacitic VC sst. Pervasive silica-sericite alt. Moderate to intense.		
						Ccv	VOLM	QS
						505.5 Intensely silicified, granular VC sst. Minor dissem py. dark grey. Mod. Brecciation.		
510						Ccv	VOLM	[illegible]
						512 silica-sericite altered feldphyric dacite. Pervasive silica, dissem py. 1-2% calcite veins. Pale yellow		
						Ccl	LDFC	QCL
520								



REMARKS

RGC EXPLORATION PTY LTD

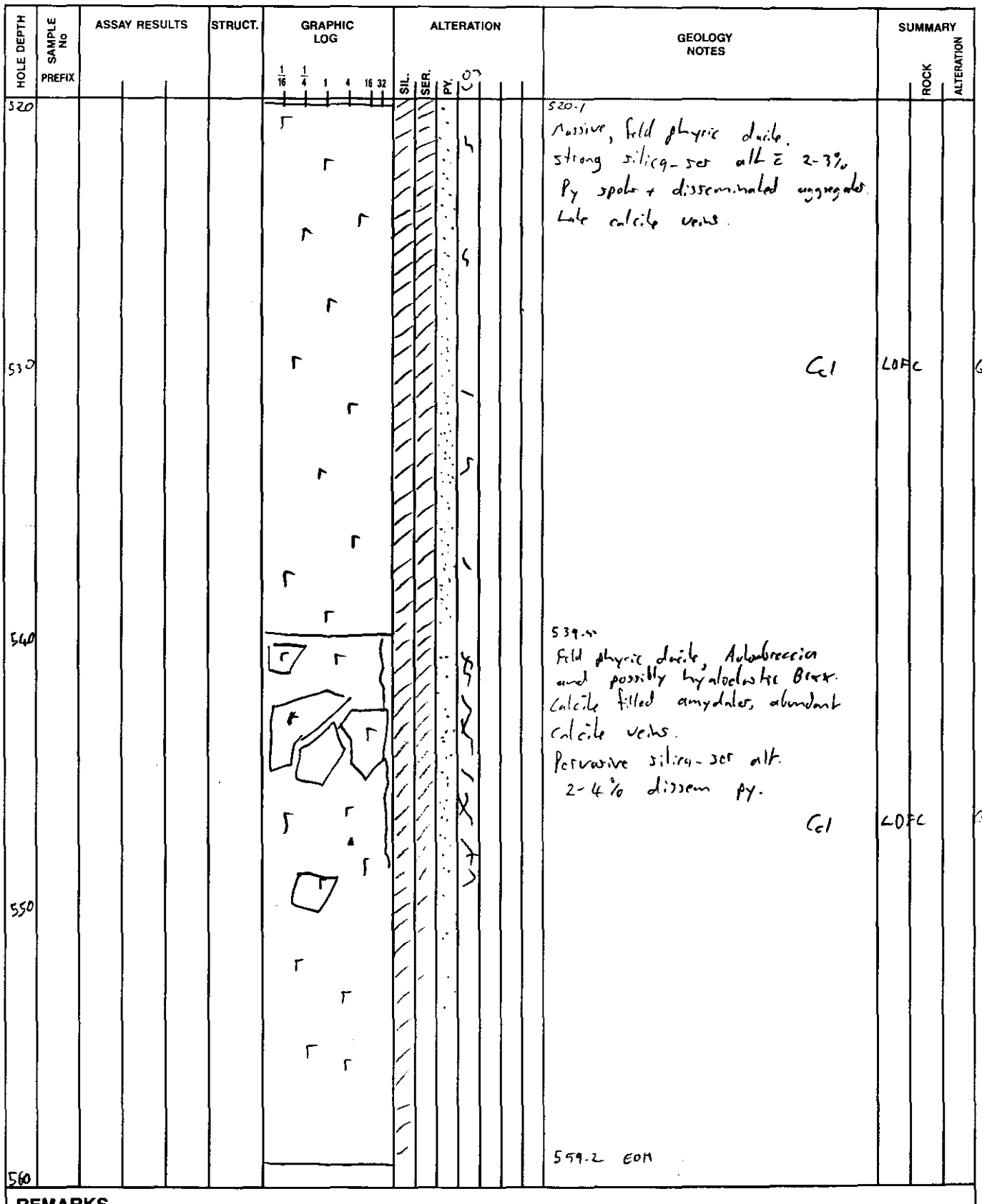
650501

DRILL HOLE No SH021

SHEET _____ OF _____

PROJECT	: 5th Hook
PROSPECT	:
DATE	:
LOGGED BY	: T. Callaghan

- Bedding
- Cleavage
- Foliation
- Fault, Shear
- Breccia
- Broken core
- Disseminated
- Massive
- Pervasive
- Narrow vein
- * Visible gold



REMARKS

650502

Hole_Id	AMG East	AMG North	AMG Rl	Total Depth
SHD24	380100.00	5360640.00	550.00	516.00

Hole_Id	Depth	Azm (AMG)	Dip
SHD24	0.00	268.00	-77
SHD24	30.00	268.00	-77
SHD24	60.00	267.00	-77
SHD24	96.00	268.00	-76
SHD24	125.00	265.00	-76
SHD24	152.00	266.00	-75.8
SHD24	183.00	270.00	-75.5
SHD24	213.00	268.00	-75.5
SHD24	240.00	271.00	-75.3
SHD24	273.00	268.00	-75
SHD24	294.00	270.00	-74.5
SHD24	311.00	272.00	-74.4
SHD24	326.00	274.00	-74.3
SHD24	335.00	271.00	-74.2
SHD24	350.00	274.00	-73.5
SHD24	366.00	270.00	-72
SHD24	381.00	271.00	-70
SHD24	390.00	268.00	-67.2
SHD24	426.00	272.00	-64.5
SHD24	450.00	271.00	-64
SHD24	486.00	270.00	-63.1
SHD24	510.00	268.00	-62.3

SHD24 Assay Data

Hole_Id	Depth From	Depth To	AG_A	AS_A	AU_G	AUR_G	BI_A	CU_A	PB_A	ZN_A
SHD24	340.00	341.00	2	-50	-0.01	-0.01	-10	23	114	1930
SHD24	341.00	342.00	1	-50	-0.01		-10	53	120	972
SHD24	342.00	343.00	2	-50	-0.01		-10	39	67	583
SHD24	343.00	344.00	1	-50	-0.01		-10	29	59	337
SHD24	344.00	345.00	1	-50	-0.01		-10	19	45	100
SHD24	345.00	346.00	1	-50	-0.01		-10	14	21	67

RGC EXPLORATION PTY LTD

650504

DRILL HOLE No SHDZ4

SHEET _____ OF _____

Bedding		Disseminated	
Cleavage		Massive	
Foliation		Pervasive	
Fault, Shear		Narrow vein	
Breccia	*	Visible gold	
Broken core			

PROJECT	: 5th Henty
PROSPECT	: 1:1000 Summary Log
DATE	:
LOGGED BY	: T. Cullingham

HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG (1/16, 1/4, 1, 4, 16, 32)	ALTERATION (SIL., SER., PY.)	GEOLOGY NOTES	SUMMARY ROCK	SUMMARY ALTERATION
0						0-316.2m Massive, qtz phyric rhyolite. Pervasive albite alteration. Chl veins. Autobrecciated and flow banded. Mt Julia Rhyolite.		
20								
40							G+I	IRQC A60
60								
80								
100								
120								
140								
160								
180								
200								

REMARKS

RGC EXPLORATION PTY LTD

650505

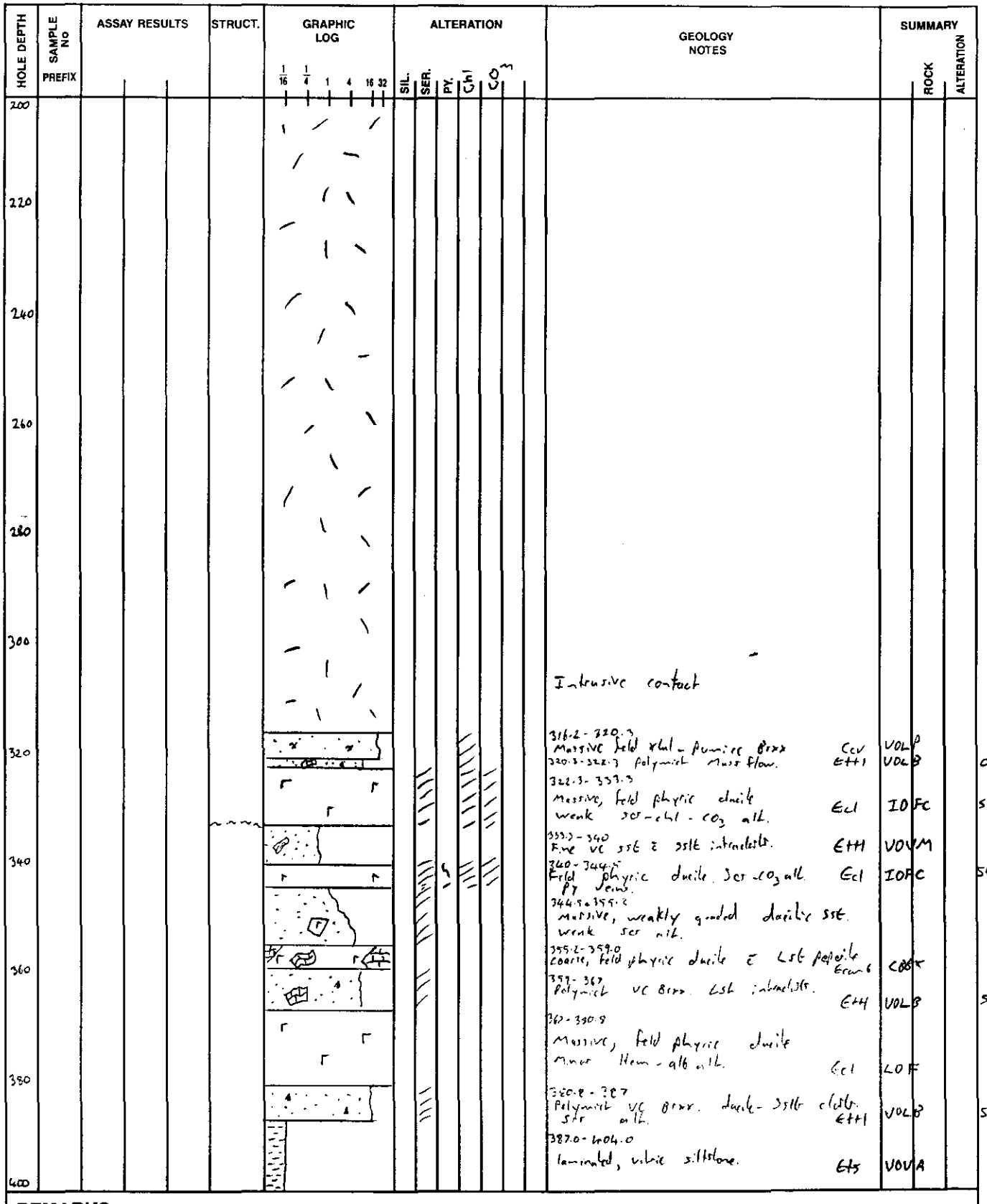
DRILL HOLE No SH024

SHEET _____ **OF** _____

Bedding	Disseminated
Cleavage	Massive
Foliation	Pervasive
Fault, Shear	Narrow vein
Breccia	* Visible gold
Broken core	

PROJECT	: South Henty
PROSPECT	: 17000 Summary Log
DATE	:
LOGGED BY	: T. Callaghan

HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG (1/16, 1/4, 1, 4, 16, 32)	ALTERATION (SIL., SER., PY., Chl, CO3)	GEOLOGY NOTES	SUMMARY ROCK	SUMMARY ALTERATION
200								
220								
240								
260								
280								
300						Intrusive contact		
320						316.2 - 320.3 Massive feld xtal - Pumice Brxx Ccv 320.3 - 322.3 Polymict Mass flow. Ett1	VOL P VOL B	07
						322.3 - 333.3 Massive, feld phyric ductile weak ser - chl - CO_3 alt. Ecl	IO FC	55C
						333.3 - 340 Fine VC sst c̄ sslt intraclasts. Ett1	VOV M	
340						340 - 344.5 Feld phyric ductile. Ser - CO_3 alt. Py veins. Ecl	IO FC	55C
						344.5 - 355.2 Massive, weakly graded ductile sst. weak ser alt.		
360						355.2 - 359.0 Coarse, feld phyric ductile c̄ Lst peperite Ecm6	CBB K	
						359 - 367 Polymict VC Brxx. Lst intraclasts. Ett1	VOL B	53
						367 - 380.8 Massive, feld phyric ductile Minor Hem - alb alt. Ecl	LO F	
380						380.8 - 387 Polymict VC Brxx. ductile - Sslt clasts. Ser alt. Ett1	VOL B	54
						387.0 - 404.0 laminated, vitric siltstone. Ets	VOV A	
400								



REMARKS

RGC EXPLORATION PTY LTD

650506

DRILL HOLE No SH024

SHEET _____ **OF** _____

Bedding	Disseminated
Cleavage	Massive
Foliation	Pervasive
Fault, Shear	Narrow vein
Breccia	* Visible gold
Broken core	

PROJECT	: 5th Henty
PROSPECT	: 1:1000 Summary Log
DATE	:
LOGGED BY	: T. Callaghan

HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG (1/16, 1/4, 1, 4, 16, 32)	ALTERATION (SIL., SER., PY.)	GEOLOGY NOTES	SUMMARY ROCK	SUMMARY ALTERATION
400			BCA =70°			404.0-414.6 graded, feld xtal - pumice - Lst clast rich VC. Ettl	VOLB	O4
420			Puggy Fault			414.6-422.0 Fine, laminated VC sst c Lst interbeds Ettl	CBBX	C7
						422.0-430.0 Fine, graded dacitic VC sst. Ettl	VOFM	C3
440						430.0-478.0 Massive, feld xtal rich andesite. Strong hematite alteration and hematite altered mafics. Minor Lst (basalt?) peperite Eq	IAFC	H7
460								
480			Mylonite FCA=50°			478.0-503.8 Massive, aphyric to feld phyric dacite. weak ser-chl alt. Ccl	LOFF	S20?
500						503.8-512.4 Feld xtal - pumice Blxx. silica-chl alt. Ccv	VOLP	Q50
						512.4-516.0 Massive, dacite Ccl		S3
520						EOH 516m		

REMARKS

RGC EXPLORATION PTY LTD

650507

Bedding	Disseminated
Cleavage	Massive
Foliation	Pervasive
Fault, Shear	Narrow vein
Breccia	* Visible gold
Broken core	

DRILL HOLE No SHD24

SHEET _____ **OF** _____

PROJECT	: 5th Henty
PROSPECT	: Canal Prospect
DATE	:
LOGGED BY	: T. Callaghan

HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG (1/16, 1/4, 1, 4, 16, 32)	ALTERATION (SIL., SER., PY.)	GEOLOGY NOTES	SUMMARY ROCK	SUMMARY ALTERATION
0						Massive qtz-fold phyric rhyolite. Pervasive red to cream albite alteration c̄ 2-5%, fine chlorite veins. ME Solin Rhyolite. Occasional autobreccia + flow banding. E+1	IR QC	AS
10								
						Minor calcite veins.		
20								
30								
40								

REMARKS

RGC EXPLORATION PTY LTD

650508

DRILL HOLE No SH024

SHEET _____ **OF** _____

Bedding	Disseminated
Cleavage	Massive
Foliation	Pervasive
Fault, Shear	Narrow vein
Breccia	* Visible gold
Broken core	

PROJECT	:
PROSPECT	:
DATE	:
LOGGED BY	: T. Callaghan

HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG (1/16, 1/4, 1, 4, 16, 32)	ALTERATION (SIL., SER., PY.)	GEOLOGY NOTES	SUMMARY ROCK	SUMMARY ALTERATION
40								
50								
60								
70								
			NQ					
			NQ			744 Massive, fe'd > qtz phyr [illegible] Red Albite [illegible] chl veins + patches flow banded. Minor calcite veins	EL1	IK<C
80								

REMARKS

RGC EXPLORATION PTY LTD

650509

DRILL HOLE No 514024

SHEET _____ OF _____

PROJECT	: South Henty
PROSPECT	:
DATE	:
LOGGED BY	: T. Callaghan

Bedding
Cleavage
Foliation
Fault, Shear
Breccia
Broken core
Disseminated
Massive
Pervasive
Narrow vein
* Visible gold

HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG (1/16, 1/4, 1, 4, 16, 32)	ALTERATION: SIL.	SER.	PY.	GEOLOGY NOTES	SUMMARY: ROCK	ALTERATION	
80											
90											
100											
110								110.5 Pale orange, qtz-feld phyric rhyolite. Strong, pervasive albitic alteration. Mt Julia Rhyolite.	GH	IRPC	A7
120								116.0 Qtz-feld phyric rhyolite. Pervasive, red/purple albitic alteration. Mt Julia rhyolite	GH	IRPC	A7

REMARKS

RGC EXPLORATION PTY LTD

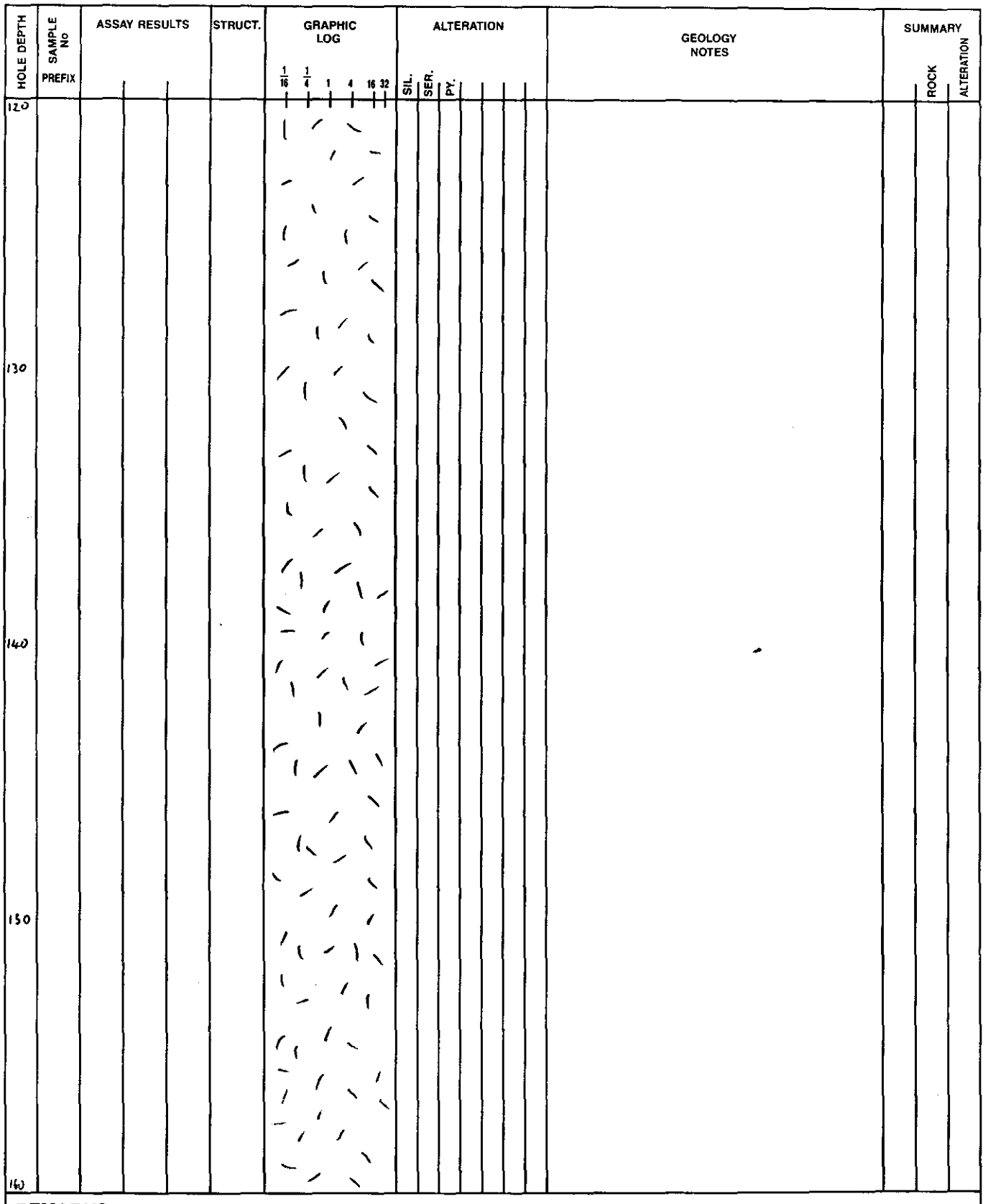
650510

DRILL HOLE No SN024

SHEET _____ OF _____

PROJECT	: 5th Henty.
PROSPECT	:
DATE	:
LOGGED BY	: T. Callaghan

- Bedding
- Cleavage
- Foliation
- Fault, Shear
- Breccia
- Broken core
- Disseminated
- Massive
- Pervasive
- Narrow vein
- * Visible gold



REMARKS

RGC EXPLORATION PTY LTD

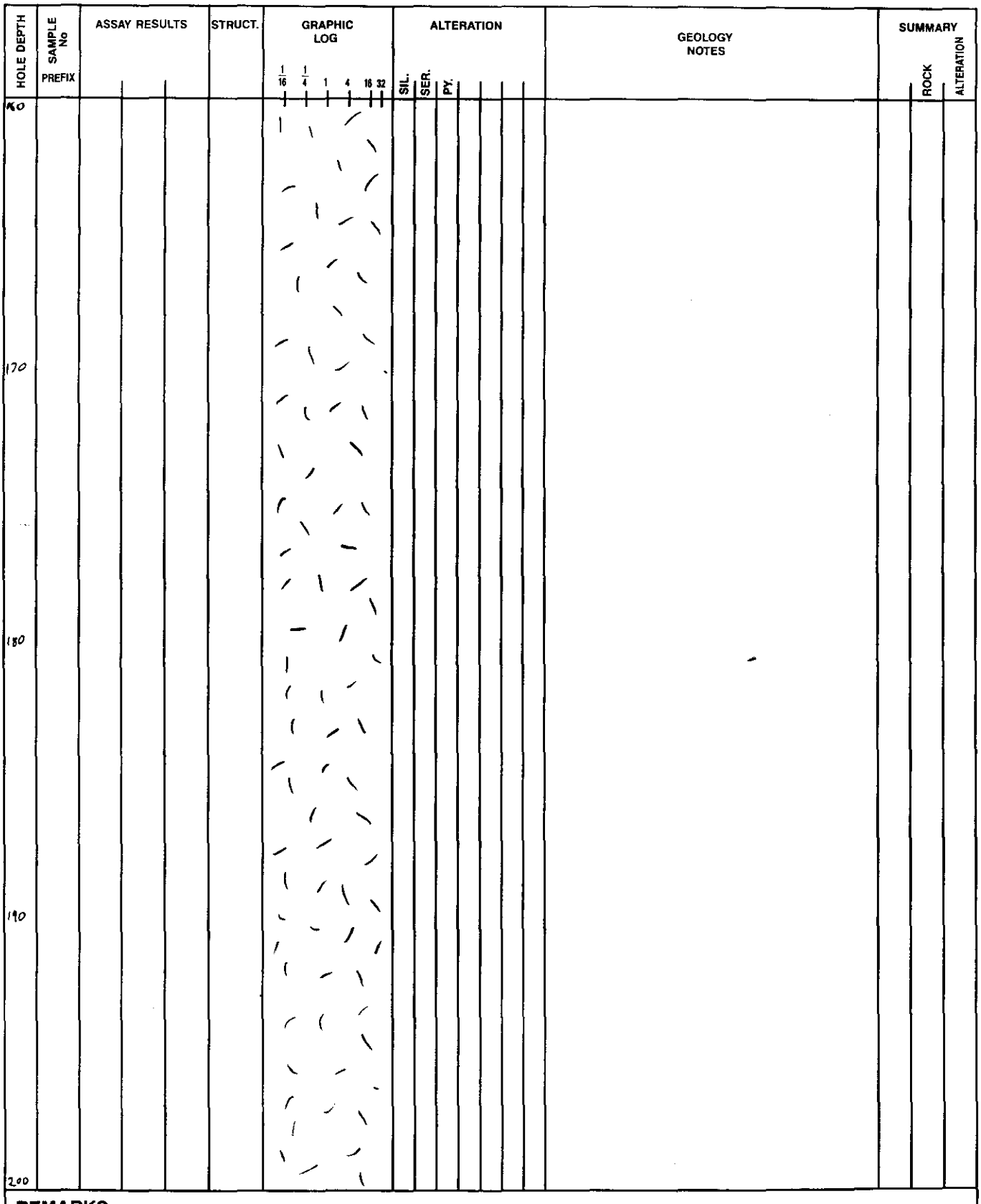
650511

DRILL HOLE No SH024

SHEET _____ OF _____

PROJECT	: 5th Heaty
PROSPECT	:
DATE	:
LOGGED BY	: T. Cullingham

- Bedding
- Cleavage
- Foliation
- Fault, Shear
- Breccia
- Broken core
- Disseminated
- Massive
- Pervasive
- Narrow vein
- * Visible gold



REMARKS

RGC EXPLORATION PTY LTD

650512

DRILL HOLE No SHD24

SHEET _____ **OF** _____

Bedding	Disseminated
Cleavage	Massive
Foliation	Pervasive
Fault, Shear	Narrow vein
Breccia	* Visible gold
Broken core	

PROJECT	: 5th Henty.
PROSPECT	:
DATE	:
LOGGED BY	: T. Callaghan

HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG (1/16, 1/4, 1, 4, 16, 32)	ALTERATION (SIL., SER., PY.)	GEOLOGY NOTES	SUMMARY ROCK	SUMMARY ALTERATION
200								
						207.0 Massive, fine qtz phenocryst rich, flow banded rhyolite Pale pink to orange albite alteration. Minor carbonate veins.		
210								
						EH	IRQF	A7
220								
						221.5 Qtz-feld phyric rhyolite Flow banded c̄ domainal albite/chlorite altered bands. Minor carbonate veins.		
						EH	IAQC	A70
230								
240								

REMARKS

650513

RGC EXPLORATION PTY LTD

DRILL HOLE No SH024

SHEET _____ **OF** _____

Bedding	Disseminated
Cleavage	Massive
Foliation	Pervasive
Fault, Shear	Narrow vein
Breccia	* Visible gold
Broken core	

PROJECT	: 5th Henry
PROSPECT	:
DATE	:
LOGGED BY	: T. Callaghan

HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG (1/16, 1/4, 1, 4, 16, 32)	ALTERATION (SIL., SER., PY.)	GEOLOGY NOTES	SUMMARY ROCK	SUMMARY ALTERATION
240								
250						249 Flow banded, qtz phyric rhyolite. Pervasive, pale orange albite alteration. Fine chl veins. Minor late qtz-carb veins.		
						E+1	IRQC	A>
			Puggy Fault.					
260						261 Massive, qtz-feld phyric rhyolite. Dominant orange albite - green chlorite alteration.		
						E+1	IRQC	A>
270								
280								

REMARKS

650514

RGC EXPLORATION PTY LTD

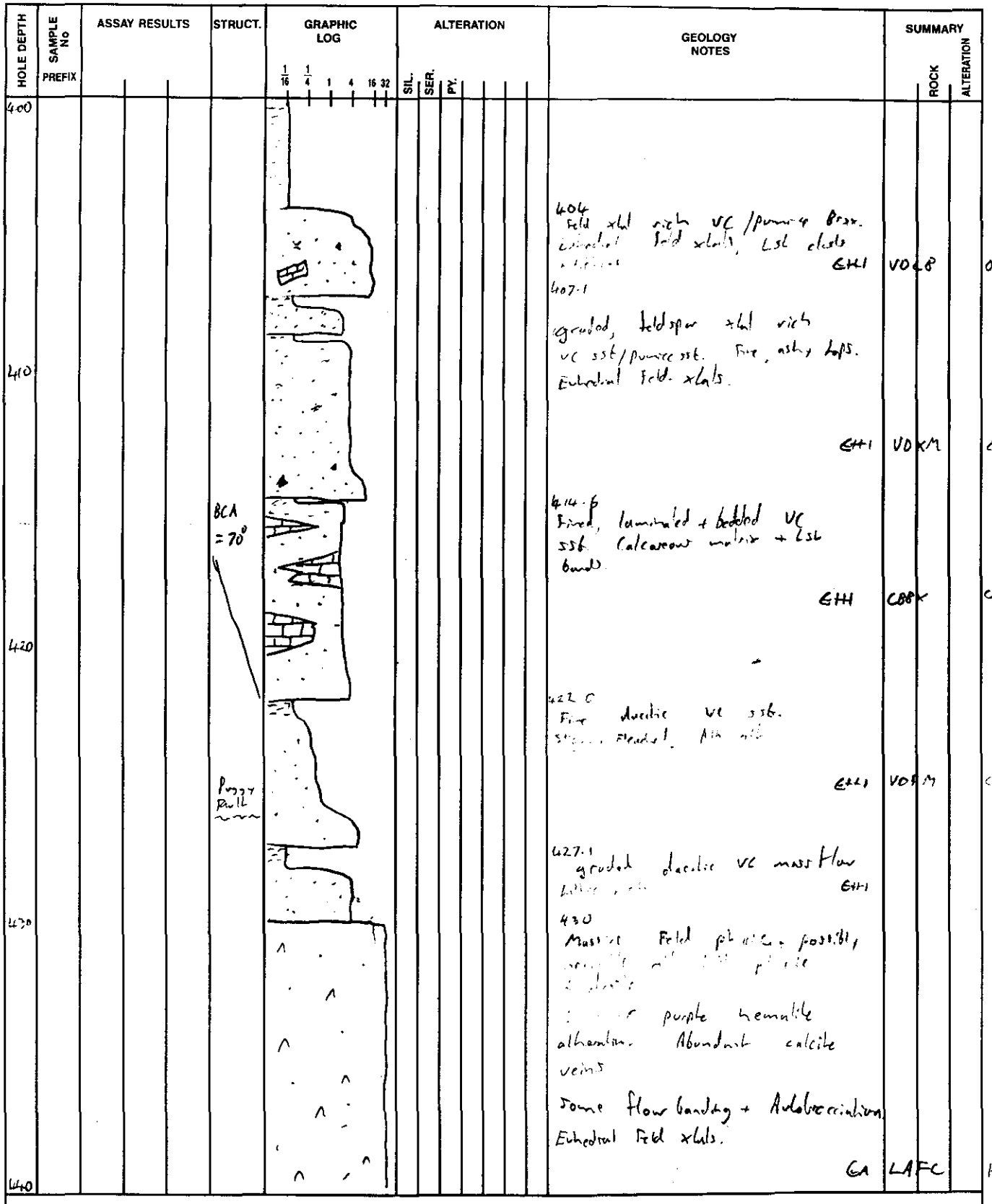
DRILL HOLE No SH024

SHEET _____ **OF** _____

Bedding	Disseminated
Cleavage	Massive
Foliation	Pervasive
Fault, Shear	Narrow vein
Breccia	* Visible gold
Broken core	

PROJECT	:
PROSPECT	:
DATE	:
LOGGED BY	: T. Callaghan

HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG (1/16, 1/4, 1, 4, 16, 32)	ALTERATION (SIL., SER., PY.)	GEOLOGY NOTES	SUMMARY ROCK	SUMMARY ALTERATION
400								
						404 Feld xtal rich VC/pumice Brxx. Euhedral feld xtals, LSL clasts [illegible] EHI	VOLB	04
						407.1 graded, feldspar xtal rich VC sst/pumice sst. Fine, ashy tops. Euhedral feld. xtals.		
410						EHI	VOXM	04
			BCA = 70°			414.6 Fined, laminated + bedded VC sst. Calcareous matrix + LSL bands. EHI	CBBX	C7
420						422.0 Fine ductile VC sst. [illegible] Fleached. [illegible] EHI	VOFM	[illegible]
			Puggy fault			427.1 graded ductile VC mass flow [illegible] EHI		
430						430 Massive Feld [illegible] possibly [illegible] purple hematite alteration. Abundant calcite veins. Some flow banding + Autobrecciation. Euhedral feld xtals.		
440						GA	LAFC	H7



REMARKS

RGC EXPLORATION PTY LTD

650515

DRILL HOLE No SN024

SHEET _____ **OF** _____

Bedding	Disseminated
Cleavage	Massive
Foliation	Pervasive
Fault, Shear	Narrow vein
Breccia	* Visible gold
Broken core	

PROJECT	:
PROSPECT	:
DATE	:
LOGGED BY	: T. Callaghan

HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG (1/16, 1/4, 1, 4, 16, 32)	ALTERATION (SIL., SER., PY.)	GEOLOGY NOTES	SUMMARY ROCK	SUMMARY ALTERATION
280								
290								
300								
			Broken core.			305 Bleached, pale cream to white, qtz phyric rhyolite. Minor peperite + autobrecciation. Fine chlorite veins. chilled, intrusive margin of Mt Julia rhyolite Etl	IRGC	AS
310								
						316.2 Massive, coarse grained pumice breccia. Strong chlorite altered clasts. Minor lithics. Feld xtal rich. Ccv	VDCP	D7
320								

REMARKS

650516

RGC EXPLORATION PTY LTD

DRILL HOLE No SN024

SHEET _____ **OF** _____

Bedding	Disseminated
Cleavage	Massive
Foliation	Pervasive
Fault, Shear	Narrow vein
Breccia	* Visible gold
Broken core	

PROJECT	: 5th Henty
PROSPECT	:
DATE	:
LOGGED BY	: T. Callaghan

HOLE DEPTH	SAMPLE No / PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG (1/16, 1/4, 1, 4, 16, 32)	ALTERATION (SIL., SER., PY.)	GEOLOGY NOTES	SUMMARY ROCK	SUMMARY ALTERATION
320						320.3 graded, polymict VC mass flow. chl. alt. clasts of dacite, shale + CO_3. Ett1	VDLG	0%
						322.3 Massive, feld phyric dacite. Coarse, euhedral feld phenos. CO_3 altered. Pervasive weak to moderate chl-ser alt matrix. Peperitic inclusions of vitric siltstone. Ccl	IOFC	560
330			Small Puggy Fault.					
						333.3 Fine grained, VC sslt/sandstone. vitric rich matrix c̄ abundant vitric sslt intraclasts. Ett1	VDVM	
340						340 Coarse, feld phyric dacite. Pervasive ser alt. CO_3 veins. Minor Py veins. Ccl	IOFC	5[illegible]
						344.5 Massive, weakly graded dacitic sandstone to lithic breccia. Weak sericite alteration.		
350						Ett1	VDLM	54
						355.2 Dacite intrusive c̄ Lst peperite white calcite veins. Ecrb	CBBX	
360						359		

REMARKS

650517

RGC EXPLORATION PTY LTD

DRILL HOLE No SH024

SHEET _____ **OF** _____

Bedding	Disseminated
Cleavage	Massive
Foliation	Pervasive
Fault, Shear	Narrow vein
Breccia	* Visible gold
Broken core	

PROJECT	:
PROSPECT	:
DATE	:
LOGGED BY	:

HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG (1/16, 1/4, 1, 4, 16, 32)	ALTERATION (SIL., SER., PY.)	GEOLOGY NOTES	SUMMARY ROCK	SUMMARY ALTERATION
360						Massive to laminar, polymict vc Breccia. Abundant reworked Carbonate clasts. weak ser alt. Ett1	VOLB	03
						364-3 Feld phyric dacite? Alb alt. Cc1	LDA	A
						365-6 Massive, dacitic vc sst. Ett1	VOLB	03
						367 Feld phyric to aphyric dacite?/Andesite. Heam - Alb alt. Minor purple heam alt. Mafic minerals. Abundant Carb veins. Cc1	LDA	HS
370								
380						380-8 Polymict volcaniclastic breccia. Abundant dacite - vc sslt clasts. weak ser alt Ett1	VOLB	54
						386.4 387.0 Autobrecciated dacite Cc1	IOFC	
						Fine grained, pale grey vitric rich vc sslt. Ets	VOVA	
390								
400								

REMARKS

RGC EXPLORATION PTY LTD

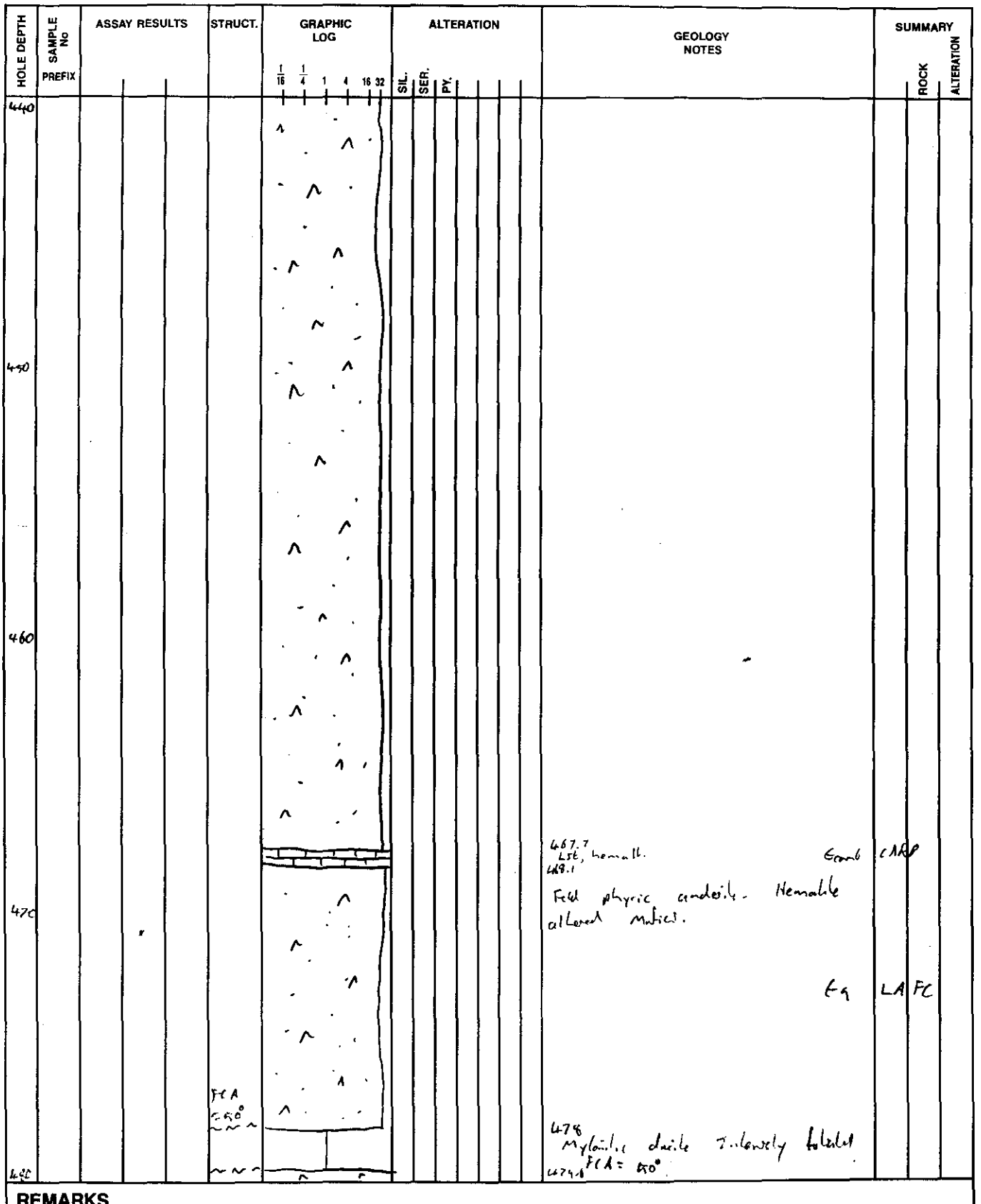
650518

DRILL HOLE No SH024

SHEET _____ OF _____

PROJECT	:
PROSPECT	:
DATE	:
LOGGED BY	: T. Callaghan

- Bedding
- Cleavage
- Foliation
- Fault, Shear
- Breccia
- Broken core
- Disseminated
- Massive
- Pervasive
- Narrow vein
- * Visible gold



REMARKS

RGC EXPLORATION PTY LTD

650519

DRILL HOLE No 340024

SHEET _____ OF _____

PROJECT	:
PROSPECT	:
DATE	:
LOGGED BY	: T. Callaghan

— Bedding
└ Cleavage
Foliation
Fault, Shear
Breccia
Broken core
Disseminated
Massive
Pervasive
Narrow vein
* Visible gold

HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG (1/16, 1/4, 1, 4, 16, 32)	ALTERATION (SIL., SER., PY.)	GEOLOGY NOTES	SUMMARY ROCK	SUMMARY ALTERATION
480						Massive, Aphyric to weakly feld phyric dacite/hyaloclastite. Weak ser-chl alt.		
							Col	LO FF
490								
500								
						503.8 Feldspar xtl - pumice lithic VC Brxx. Silicified + chlorite altered.		
							Cuc	VO LP Q5
510								
						512.4 Dacitic hyaloclastite. fragmental intensity? weak ser-alb alt.	Col	ID FB 53
						516		
520								

REMARKS

650520

Hole_id	AMG East	AMG North	AMG RL	Total Depth
SHD25	381168.00	5357931.00	525.00	367.00

Hole_id	Depth	Azm_AMG	Dip
SHD25	0.00	273.00	-61.2
SHD25	31.00	273.00	-61.2
SHD25	61.00	271.00	-60
SHD25	91.00	272.00	-59
SHD25	121.00	274.00	-58
SHD25	151.00	274.00	-57
SHD25	181.00	269.00	-54.5
SHD25	211.00	270.00	-53.1
SHD25	241.00	270.00	-52
SHD25	271.00	273.00	-51
SHD25	301.00	271.00	-48.8
SHD25	331.00	273.00	-47
SHD25	361.00	276.00	-46

650521

SHD25 Assay Data

Hole_Id	Sample No	D_From	D_To	AG_A	AS_A	AU_G	AUR_G	CU_A	PB_A	ZN_A
SHD25	1081877	182.00	185.00	2	-50	-0.01		96	599	140
SHD25	1081878	185.00	187.00	1	-50	-0.01		16	3	210
SHD25	1081879	187.00	189.00	-1	-50	-0.01		10	8	189
SHD25	1081881	201.00	203.00	1	-50	-0.01		4	28	188
SHD25	1081882	203.00	205.00	1	-50	-0.01		6	25	156
SHD25	1081883	205.00	207.00	1	-50	-0.01		56	26	127
SHD25	1081884	207.00	209.00	-1	-50	-0.01		49	29	68
SHD25	1081885	209.00	211.00	-1	-50	-0.01		12	27	87
SHD25	1081886	220.00	222.00	-1	-50	-0.01	-0.01	63	18	87
SHD25	1081887	254.00	256.00	1	-50	-0.01		10	14	69
SHD25	1081888	256.00	258.00	1	-50	-0.01		62	10	76
SHD25	1081889	258.00	260.00	1	-50	-0.01		56	-3	65
SHD25	1081890	260.00	262.00	1	-50	-0.01		17	6	54
SHD25	1081891	262.00	264.00	-1	-50	-0.01		23	8	56
SHD25	1081892	275.00	277.00	-1	-50	-0.01		38	10	94
SHD25	1081893	322.00	324.00	1	-50	-0.01	-0.01	6	12	80
SHD25	1081894	324.00	326.00	1	-50	-0.01		5	3	69

RGC EXPLORATION PTY LTD

650522

DRILL HOLE No 5H025

SHEET _____ OF _____

PROJECT	: 5th Heaty
PROSPECT	:
DATE	: 18-1-00
LOGGED BY	: T. Callaghan

— Bedding
⌊ Cleavage
—▲— Foliation
~~~ Fault, Shear
Breccia
Broken core
Disseminated
Massive
Pervasive
Narrow vein
* Visible gold

HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG (1/16, 1/4, 1, 4, 16, 32)	ALTERATION (SIL. SER. PY.)	GEOLOGY NOTES	SUMMARY ROCK	SUMMARY ALTERATION
0			No core.			No core recovery.		
			very poor core recovery to 13m			4.2 Weathered and broken Feld - qtz xtal lithic VC Breccia. Dominant pink albitic alteration & chloritised bands + lithics. Comstock tuff EH1	VR	XB A70
10						13.0m Massive, matrix supported Feld - qtz xtal - lithic VC Brxx. Large, fine grained cherty lithics. Dominant Alb - chl alt. Alb halo around chl alt. lithics. comstock tuff. EH1	VR	LB A70
20						19.3m Massive, feld xtal rich - lithic VC Brxx. Pervasive chl alt. & chl alt lithics + minor mafic xtals. Alb halos around lithics. EH1 Lynchford Member	VA	XB 062
						24.9 Dark green, feld xtal rich VC stk. Minor lithics and 5% chl altered mafics. Pervasive chloritic alteration. EH1	VA	XM 06
30								
40								

REMARKS
~~~

RGC EXPLORATION PTY LTD

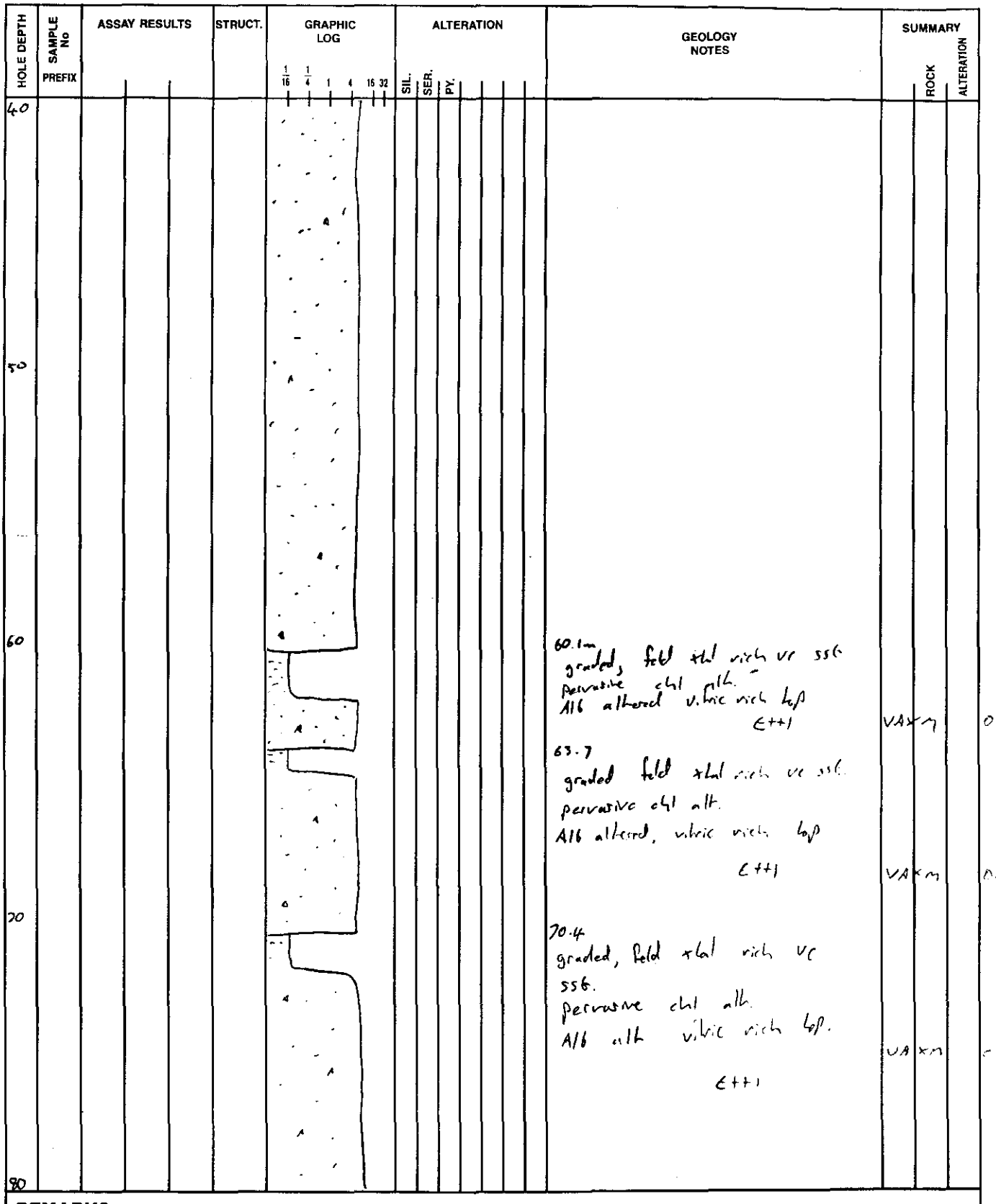
650523

DRILL HOLE No SH025

SHEET _____ OF _____

PROJECT	: 5th Henty
PROSPECT	:
DATE	: 18-1-00
LOGGED BY	: T. Callaghan

— Bedding
⌊ Cleavage
Foliation
Fault, Shear
Breccia
Broken core
Disseminated
Massive
Pervasive
Narrow vein
* Visible gold



REMARKS

650524

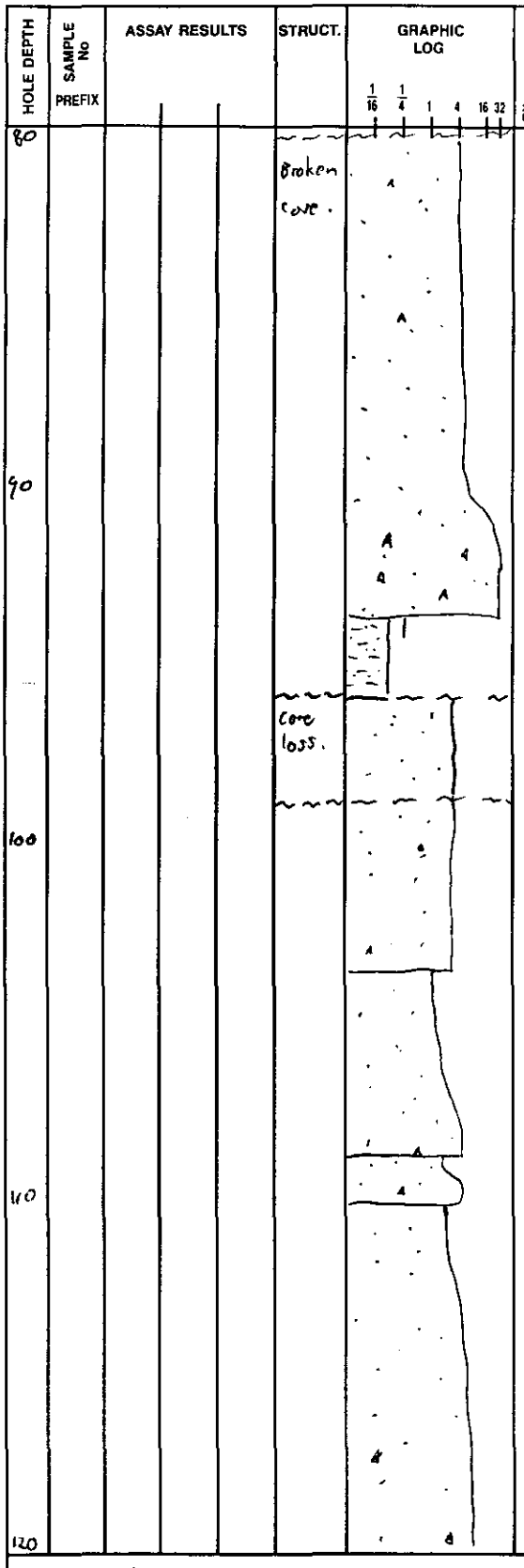
RGC EXPLORATION PTY LTD

DRILL HOLE No SH025

SHEET _____ **OF** _____

Bedding	Disseminated
Cleavage	Massive
Foliation	Pervasive
Fault, Shear	Narrow vein
Breccia	* Visible gold
Broken core	

PROJECT	: 5th Henry
PROSPECT	:
DATE	: 18-1-00
LOGGED BY	: T. Cullagh



HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG (1/16, 1/4, 1, 4, 16, 32)	ALTERATION (SIL., SER., PY.)	GEOLOGY NOTES	SUMMARY ROCK	SUMMARY ALTERATION
80			Broken core.			80.2 Feld xtal rich VC sst. pervasive chl alt. Broken core. Large, albite altered rhyolite clasts at base.		
90						93.4 fine grained vitric rich VC siltstone / sst. Et5	VA VM	0[illegible]
			core loss.			96.0 Feld xtal rich VC sst. Very poor core recovery Et+1	VA VM	06
100						99.0 massive, feld xtal rich VC sst. Albite-chl banding. Et+1	VA [illegible]	0[illegible]
						103.6 graded, feld xtal rich VC sst Alb-chl banding Et+1	VA VM	[illegible]
110						109.6 graded feld xtal rich VC sst. Et+1	VA [illegible]	[illegible]
						110.2 Massive, graded, feldspar xtal rich VC sst. Lithic rich base. Alb-chl banding. Alb halos around lithics. Et+1	[illegible]	[illegible]
120								

REMARKS

RGC EXPLORATION PTY LTD

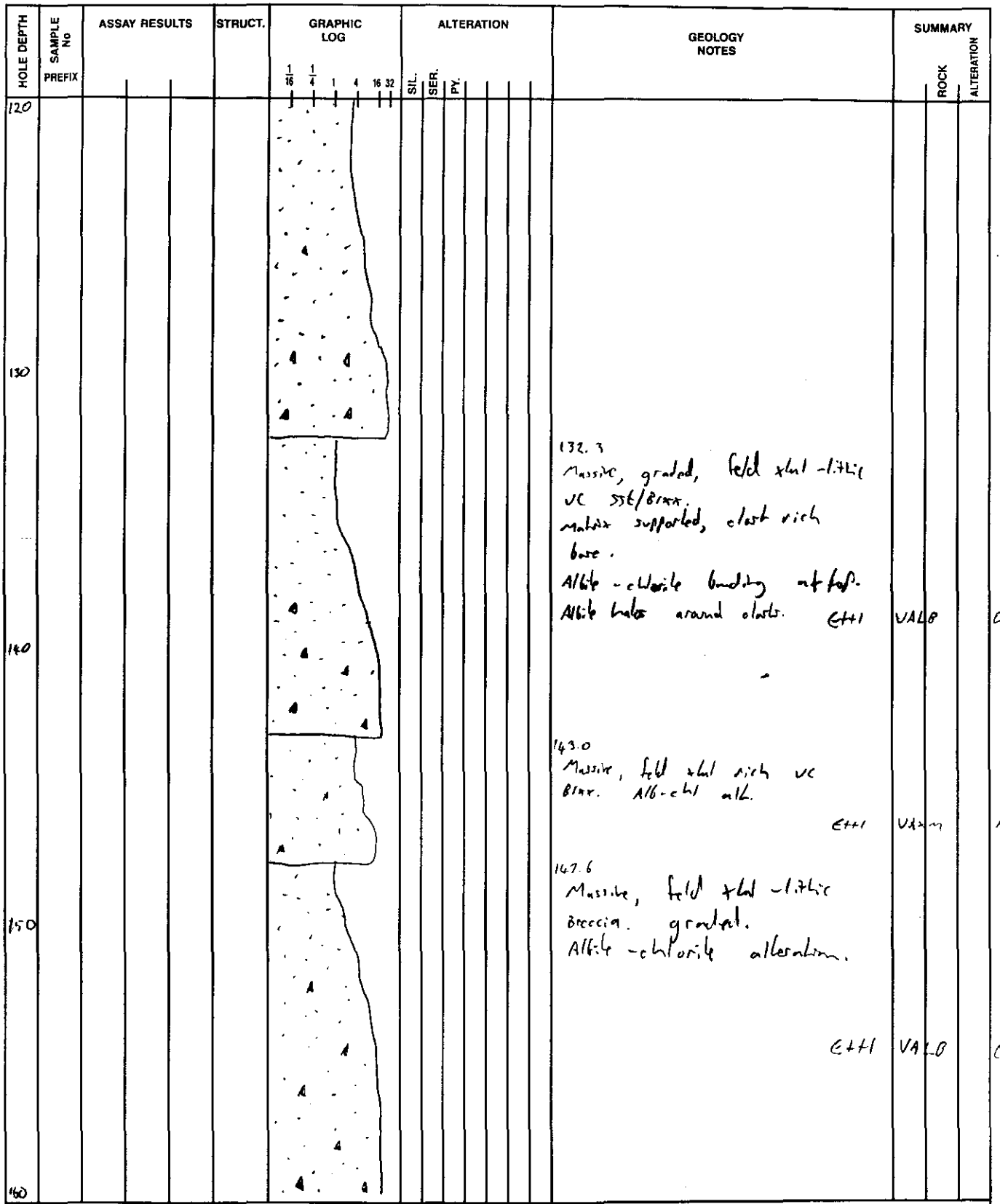
650525

DRILL HOLE No SH025

SHEET _____ OF _____

PROJECT	: 5th Henty
PROSPECT	:
DATE	:
LOGGED BY	: T. Callaghan

- Bedding
- Cleavage
- Foliation
- Fault, Shear
- Breccia
- Broken core
- Disseminated
- Massive
- Pervasive
- Narrow vein
- * Visible gold



REMARKS

RGC EXPLORATION PTY LTD

650526

DRILL HOLE No SH025

SHEET _____ **OF** _____

Bedding	Disseminated
Cleavage	Massive
Foliation	Pervasive
Fault, Shear	Narrow vein
Breccia	* Visible gold
Broken core	

PROJECT	: 5th Henty
PROSPECT	:
DATE	:
LOGGED BY	: T. Callaghan

HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG (1/16, 1/4, 1, 4, 16, 32)	ALTERATION SIL.	SER.	PY.	GEOLOGY NOTES	SUMMARY ROCK	ALTERATION
160								160.5 Massive, feld xtal rich VC Brxx. Abundant rhyolite clasts. E++1	VALB	A40
								163.7 Massive, matrix to clast supported, polymict VC Brxx. Clasts of rhyolite - dacite - Lst in feld xtal / Lst. Matrix. chl. alt. Matrix. Pervasive calcite veining - alt. E++1	VDLB	C5
170								174 Massive, lithic VC Brxx. Massflow. Abundant rhyolite clasts. E++1	VALB	05
								177 Massive VC Brxx. dissmembered Lst clasts in sandy matrix. E++1	VALB	C5
								179 Polymict VC Brxx. E++1	VALB	[illegible]
180								179.4 white - pink fossiliferous Lst. Ecmb	CARB	C80
								181 feld phyric dacite, Autobreccia. chl. alt. Ecl	LOFC	06
								182.4 fine grained, barathic vitric sslt Py on foliation surface. E6	VBLA	07
								183.8 Massive, barathic lithic breccia. Patchy strong hematite alteration. Minor Lst + feld xtal VC sst interbeds. Purple - red colour. Strongly foliated.	VBLB	H50
190								E6		
200										

REMARKS

RGC EXPLORATION PTY LTD

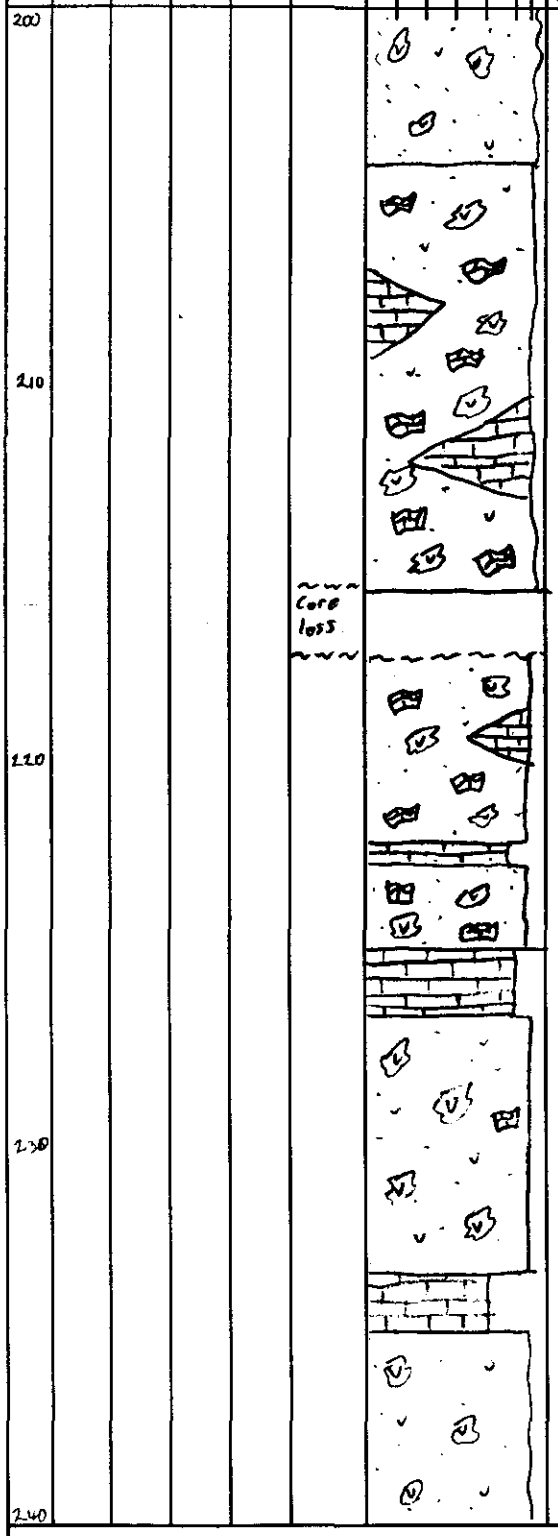
650527

DRILL HOLE No SH025

SHEET _____ **OF** _____

Bedding	Disseminated
Cleavage	Massive
Foliation	Pervasive
Fault, Shear	Narrow vein
Breccia	* Visible gold
Broken core	

PROJECT	: 5th Henty
PROSPECT	:
DATE	:
LOGGED BY	: T. Callaghan



HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG (1/16, 1/4, 1, 4, 16, 32)	ALTERATION (SIL., SER., PY.)	GEOLOGY NOTES	SUMMARY ROCK	SUMMARY ALTERATION	
200						Eb	VBLB		H50
						204.1 Carbonate - basaltic lithic breccia + Lst. Dominantly carbonate clasts. Pink, purple white. Hematite - calcite altered. Some fossiliferous clasts. Possibly some Barite veins ??			
210						Ecarb	CBBX		H7
			Core loss			215.4 Broken core. Core loss.	FALT		
						217.1 Massive, purple basaltic lithic breccia c̄ white Lst clasts and bands. Hematite alt. Eb	VBLB		H50
220						222.2 222.6 Lst/basaltic ssb. Ecarb	CARB		C
						Massive basaltic lithic Brxx c̄ CO_3 clasts. Hematite alt. Eb	VBLB		
						224.8 white stylolitic limestone. Minor hematised basalt Ecarb	CARB		C
						226.4 Purple + green basaltic lithic VC Breccia. Occasional Lst clasts. Hematite + chl. alteration. Eb	VBLB		H5
230						233.2 Calcareous volcaniclastic ssb. Lst. impregnated basaltic VC. Ecarb	CARB		
						234.5 Massive purple and green basaltic lithic VC Brxx 5% calcite veins + Impregnations. Hematite alteration. Eb	VBLB		H7
240									

REMARKS

RGC EXPLORATION PTY LTD

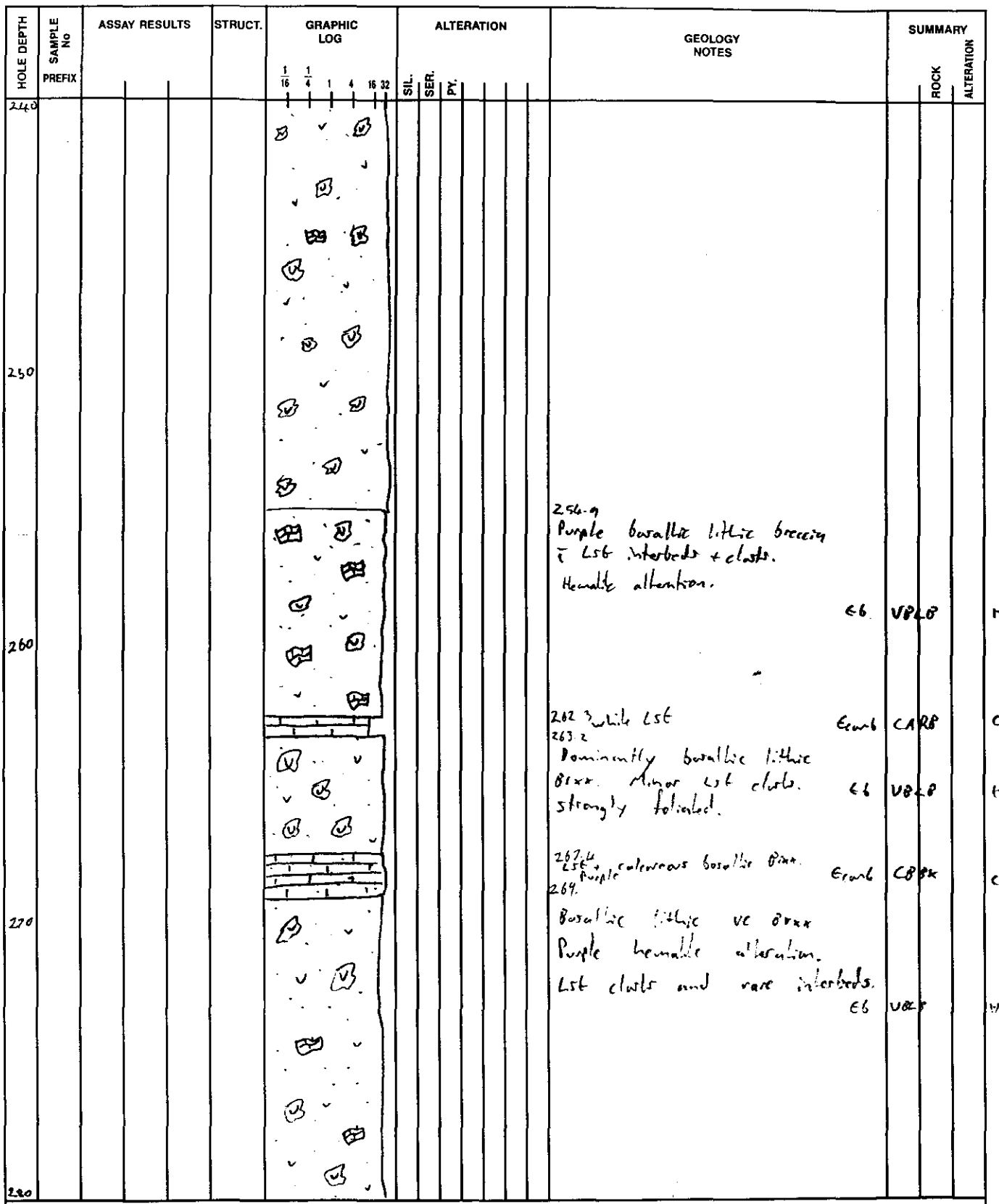
650528

DRILL HOLE No SH025

SHEET _____ OF _____

PROJECT	: 5th Henty
PROSPECT	:
DATE	:
LOGGED BY	: T. Callaghan

— Bedding
⌊ Cleavage
▲ Foliation
~ Fault, Shear
Breccia
Broken core
Disseminated
Massive
Pervasive
Narrow vein
* Visible gold



REMARKS

650529

RGC EXPLORATION PTY LTD

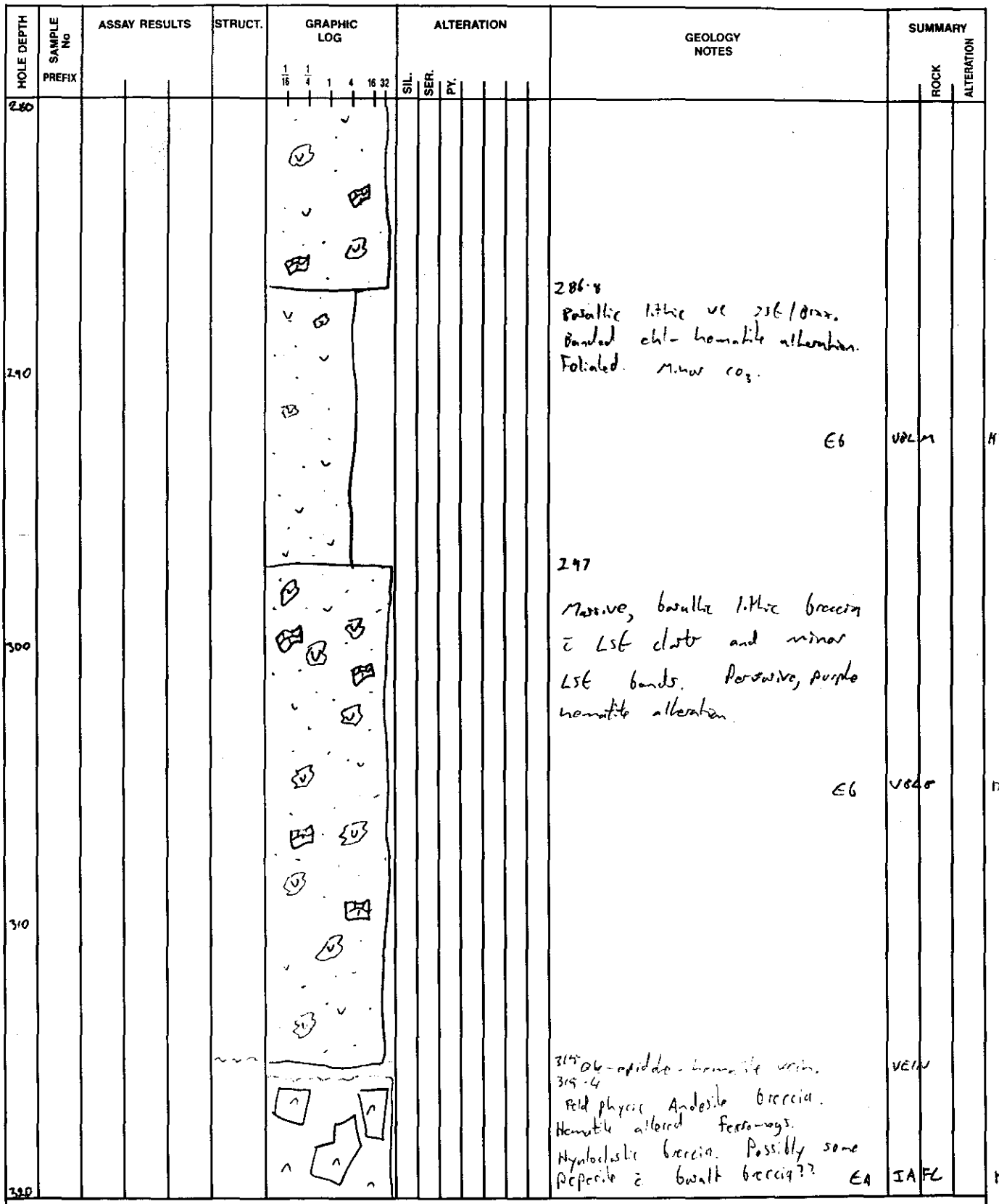
DRILL HOLE No SH025

SHEET _____ **OF** _____

Bedding	Disseminated
Cleavage	Massive
Foliation	Pervasive
Fault, Shear	Narrow vein
Breccia	* Visible gold
Broken core	

PROJECT	: 5th Henty
PROSPECT	:
DATE	:
LOGGED BY	: T. Callaghan

HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG (1/16, 1/4, 1, 4, 16, 32)	ALTERATION (SIL., SER., PY.)	GEOLOGY NOTES	SUMMARY ROCK	SUMMARY ALTERATION
280								
						286.8 Basaltic lithic vc 2st/Brxx. Banded chl- hematite alteration. Foliated. Minor CO_3.		
290								
						E6	VBLM	H70
						297 Massive, basaltic lithic breccia c̄ Lst clasts and minor Lst bands. Pervasive, purple hematite alteration.		
300								
						E6	VBLP	H7
310								
						319 Qtz-epidote-hematite vein.	VEIN	
						319.4 Feld phyric Andesite breccia. Hematite altered ferromags. Hyaloclastic breccia. Possibly some peperite c̄ basalt breccia??		
320						EA	IAFL	H7



REMARKS

RGC EXPLORATION PTY LTD

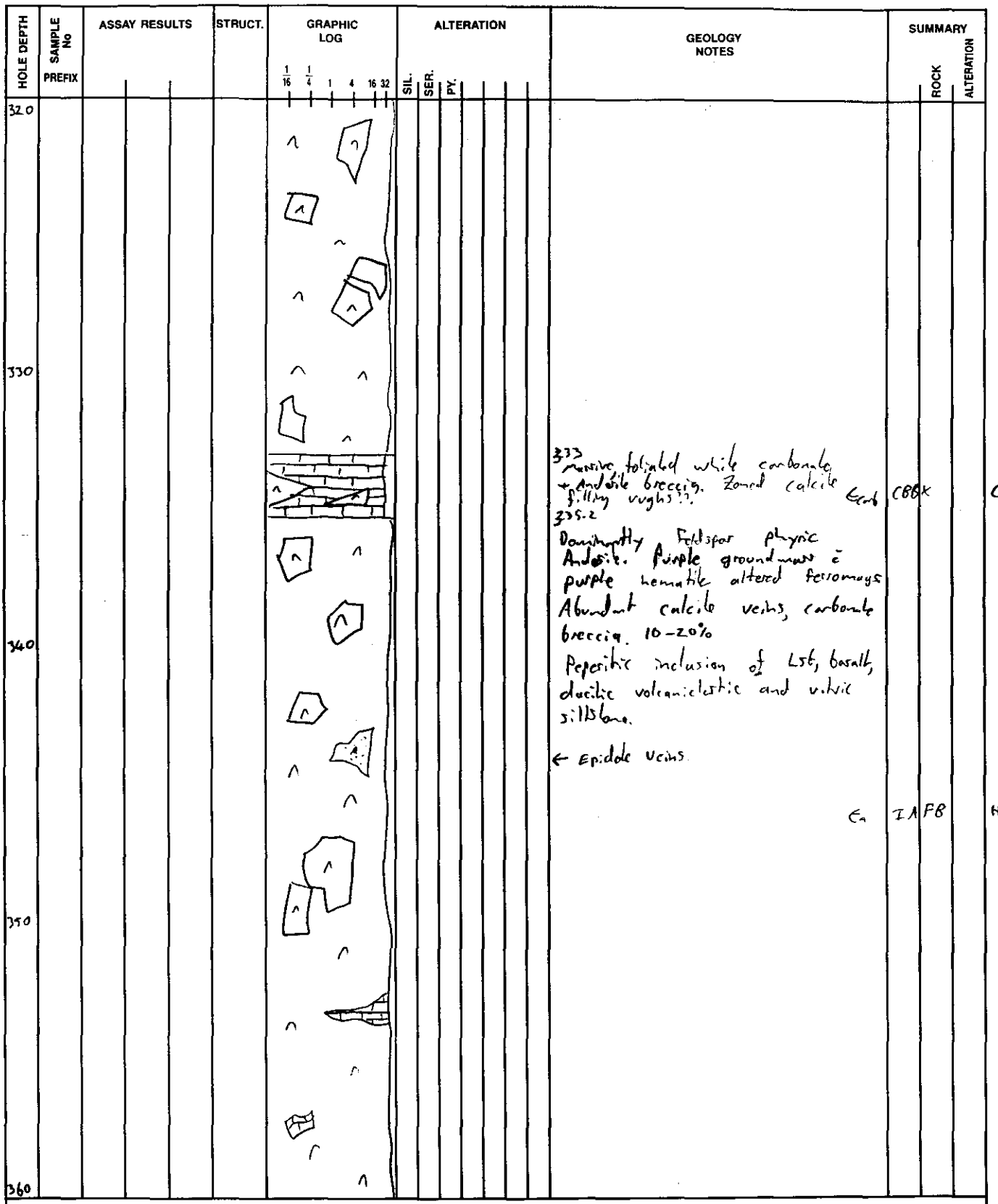
650530

DRILL HOLE No SH025

SHEET _____ OF _____

PROJECT	: 5th Henty
PROSPECT	:
DATE	:
LOGGED BY	: T. Callaghan

— Bedding
└ Cleavage
— Foliation
~ Fault, Shear
Breccia
Broken core
Disseminated
Massive
Pervasive
Narrow vein
* Visible gold



REMARKS

RGC EXPLORATION PTY LTD

650531

DRILL HOLE No SH025

SHEET _____ OF _____

Bedding	Disseminated
Cleavage	Massive
Foliation	Pervasive
Fault, Shear	Narrow vein
Breccia	* Visible gold
Broken core	

PROJECT	: 5th Henty
PROSPECT	:
DATE	:
LOGGED BY	: T. Callaghan

HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG (1/16, 1/4, 1, 4, 16, 32)	ALTERATION (SIL., SER., PY.)	GEOLOGY NOTES	SUMMARY (ROCK, ALTERATION)
360						367.0 EOH	
370							

REMARKS

00_4457D

Annual report - Tasmanian Gold Project - EL8/96 - South Henty
Goldfields Exploration Proprietary Limited*; Resolute Li
Callaghan, T. EL8/96

650532

APPENDIX 6

Sulphur Isotope Analyses

650533

GOLDFIELDS EXPLORATION
GOLDFIELDS EXPLORATION PTY LTD
ACN 057 613 932
Cnr Main & Gellibrand Streets P.O. Box 62 Zeehan Tas 7469
Telephone: (004) 716 444 Facsimile: (004) 716 644

TECHNICAL NOTE

sulphur1.doc

To : Mike Vicary, Scott Halley, Rob Taylor

cc : RGC Exploration Information Centre Reference:

From : Tim Callaghan

Date : 20 April, 2000

Subject : South Henty and Mt Julia Sulphur Isotopes

INTRODUCTION

During January 1999 thirty samples from the recent Sth Henty Lake Newton Prospect drilling program were submitted to the University of Tasmania CSL for analysis of stable isotopes of sulphur. The aims of the investigation were to identify zonation patterns that may provide useful vectors to aid exploration for high grade parts of the system.

The Lake Newton Prospect is a well zoned, epigenetic, low grade, disseminated copper-gold system with an extensive low grade base metal halo. It is of considerable size and has many similarities with the Mt Lyell and Henty-Mt Julia copper-gold deposits of the district (Callaghan, 1998, Callaghan, 1999). The entire alteration zone extends over a strike length of at least 2kms, varies between 30m to over 400m in width and is open at depth. The alteration is well zoned (Figure 1) from the outer halo moving inwards in the following order:

carbonate-chlorite halo
carbonate-sericite-(chlorite-sphalerite-galena)
sericite-pyrite-carbonate (Au-galena-sphalerite)
sericite-silica-pyrite±chalcopyrite±gold

The top of the alteration system is characterised by either:

sericite-pyrite-barite-jasper-(sphalerite-galena)
hematite-carbonate-chlorite-jasper-(Ag)

Previous sulphur isotope studies (Callaghan, 1999) have defined a distinct zonation of $\delta^{34}S$ within the Lake Newton Prospect with the silica-sericite-pyrite Cu-Au mineralised core having lighter $\delta^{34}S$ (~6) than the surrounding carbonate-sericite-chlorite Pb-Zn anomalous halo (~12). The zonation is similar to that defined by basemetal geochemistry and alteration mapping (Callaghan, 1998, Callaghan, 1999).

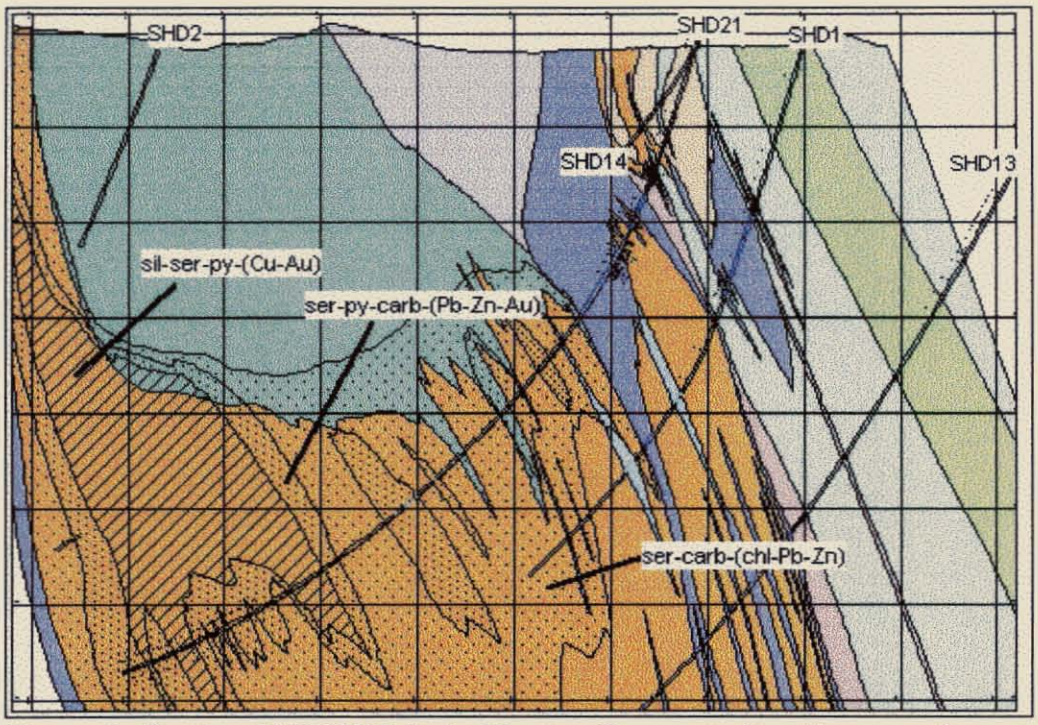


Figure 1. Section 5358900N, Lake Newton Prospect alteration zonation.

It was concluded that the zonation reflects one of two possible mechanisms for the formation of the system:

1) Mixing of low $\delta^{34}S$ magmatic derived fluids with higher $\delta^{34}S$ reduced Cambrian seawater circulating through the upper volcanic pile.
2) Mixing of deeply circulating, seawater dominated hydrothermal fluid with low $\delta^{34}S$ (from scavenged rock sulphur) with higher $\delta^{34}S$ reduced Cambrian seawater circulating through the upper volcanic pile.

Regional setting, mineralogy, metal ratios and similarities with nearby deposits favor the first possibility (Callaghan, 1998, Callaghan, 1999).

University of Tasmania Honours student Mathew Street (1999) completed infill sampling of the Lake Newton Prospect holes and came up with similar numbers and conclusions. The Howard's anomaly and Tyndall Creek areas located at the top of the Lake Newton alteration system have both negative $\delta^{34}S$, and high $\delta^{34}S$ associated with typical Lake Newton $\delta^{34}S$ (Figure 4, Sharpe, 1992). These values are associated with carbonate-barite-hematite alteration and minor sphalerite and galena mineralisation. This area represents a high level zone of mixing of hydrothermal fluid with Cambrian seawater. Negative $\delta^{34}S$ result from partioning of heavy sulphur into the oxidised sulphate phase during partial leaching of rock sulphur by low temperature, oxidised waters (Solomon et al., 1988).

A brief description of each sample, its location, sulphide type and $\delta^{34}S$ (reported in ‰ CDT) are summarised in Table 1.

Samples were selected from drillcore intersections of SHD21 and SHD22 and the sulphides for analysis marked before despatch.

Table 1. Sth Henty Sulphur Isotopes, 1999

DDH	Spl_No	From	34S	Mineral	Remarks
SHD21	1080105	286.4	5.76	py	Basaltic lithic breccia, ser-py alt.
SHD21	1080106	315.8	3.45	py	Suite II porphyry, ser-py alt.
SHD21	1080107	321	6.99	py	Massive pyrite
SHD21	1080108	372.2	30.71	py	Cvc dacitic volcaniclastic breccia, ser-CO3 alt, minor py vns.
SHD21	1080109	439	25.64	py	Suite II porphyry, CO3 alt, silica-py vns, BM stringers.
SHD21	1080110	502.4	10.01	py	Suite II porphyry, CO3 alt, carb-py vns.
SHD21	1080111	609.2	8.21	py	Cvc dacitic pumice brxx. ser-py-carb alt.
SHD21	1080112	646	7.01	py	Cvc dacitic pumice brxx. ser-py-carb-chl alt. BM vns.
SHD21	1080113	674.5	4.45	py	Cvc dacitic pumice brxx. ser-py-carb alt.
SHD21	1080114	703	4.39	py	Cvc dacitic pumice brxx. sil-ser-py alt.
SHD21	1080115	726.8	3.92	py	Cvc dacitic pumice brxx. sil-ser-py alt.
SHD21	1080116	769.4	7.98	py	Cvc dacitic VC sst. sil-ser-py alt.
SHD21	1080117	812.6	4.87	py	Cvc dacitic VC sst. carb-ser-py alt.
SHD21	1080118	825.9	5.04	py	Cvc dacitic VC sst. sil-ser-py alt.
SHD21	1080119	855.9	3.94	py	Cvc dacitic pumice brxx. sil-ser-py alt.
SHD21	1080120	876.9	3.3	py	Cvc dacitic pumice brxx. sil-ser-py alt.
SHD21	1080121	911.1	4.43	py	Cvc dacitic pumice brxx. sil-ser-py alt.
SHD22	1080122	127.4	5.8	py	Suite II porphyry, ser-py alt.
SHD22	1080123	179	5.1	py	Suite II porphyry, ser-py alt.
SHD22	1080124	224	5.72	py	Suite II porphyry, sil-ser-py alt.
SHD22	1080125	285	5.04	py	Suite II porphyry, sil-ser-py alt.
SHD22	1080126	328	7.24	py	Suite II porphyry, sil-ser-py alt.
SHD22	1080127	375	6.16	py	Suite II porphyry, sil-ser-py alt.
SHD22	1080128	413.9	5.83	py	Suite II porphyry, carb-ser-py alt.
SHD22	1080129	440.9	5.17	py	Suite II porphyry, carb-ser-py alt.
SHD22	1081031	469.2	9.94	py	Cvc pumice brxx. Ser-py-carb-chl alt.
SHD22	1081032	495.9	6.78	py	Cvc pumice brxx. sil-ser-py alt.
SHD22	1081033	513.8	5.97	py	Cvc pumice brxx. sil-ser-py alt.
SHD22	1081034	572.9	5.43	py	Cvc pumice brxx. sil-ser-py alt.
SHD22	1081035	600	2.77	py	Cvc pumice brxx. sil-ser-py alt.

RESULTS

The samples vary from a $\delta^{34}S$ of 2.77 to 30.71. The silica-sericite-pyrite zone has distinctly lighter $\delta^{34}S$ of approximately 6‰ (Figure 2) than the outer carbonate-basemetal zone with of approximately 8‰ (Figure 3).

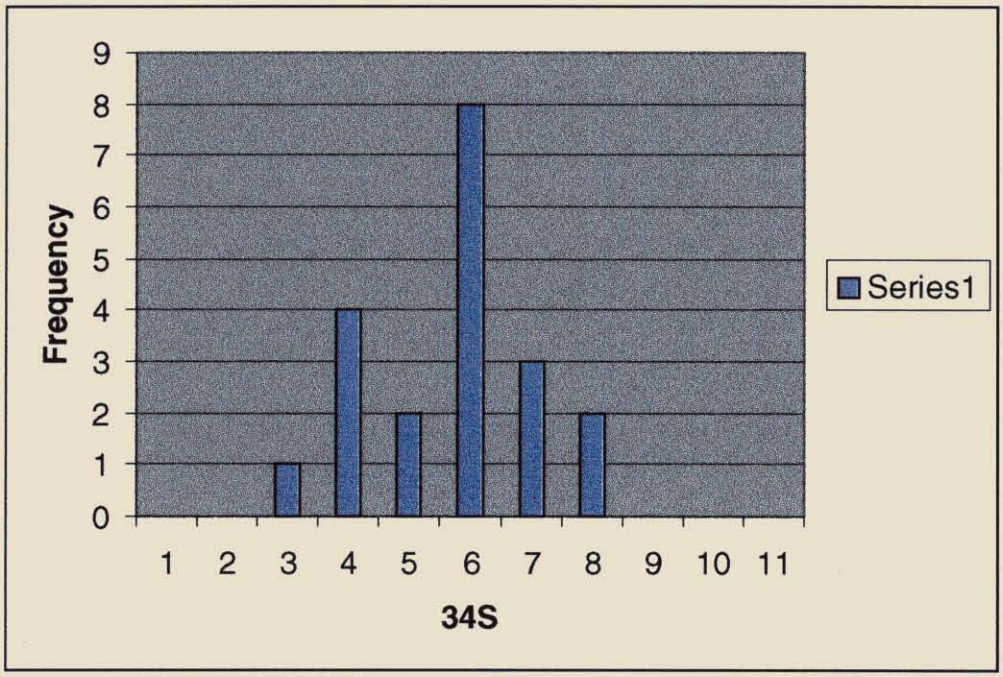


Figure 2. Histogram of $\delta^{34}S$ for silica-sericite-pyrite alteration.

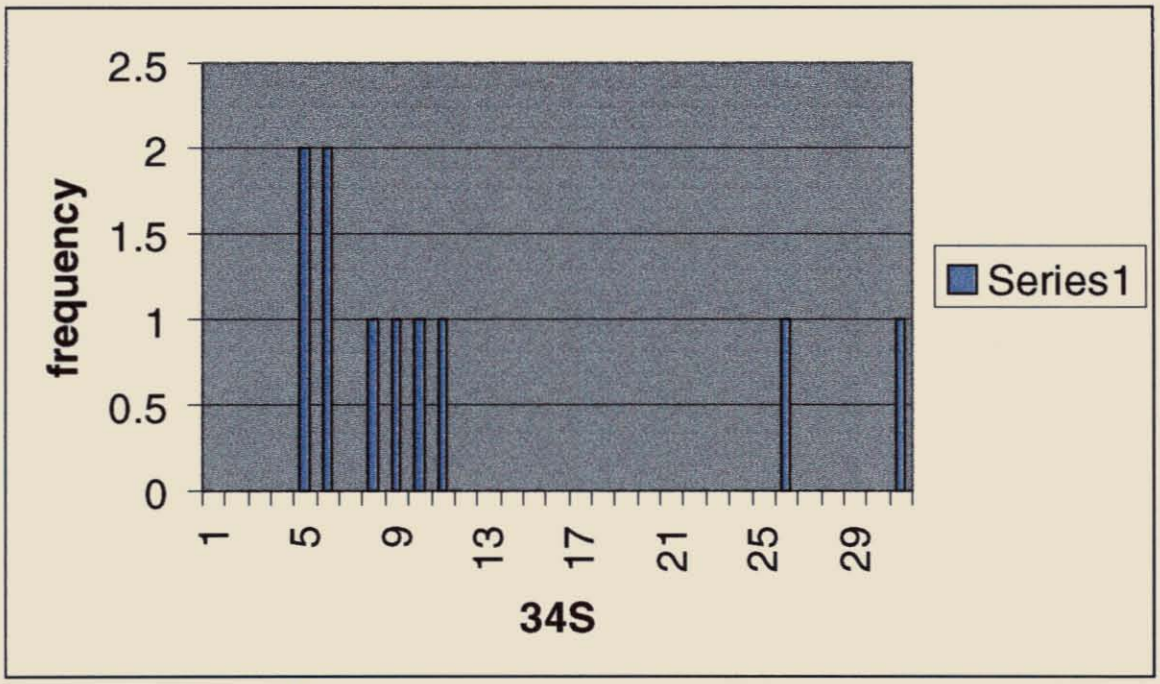


Figure 3. Histogram of $\delta^{34}S$ for carbonate alteration zone.

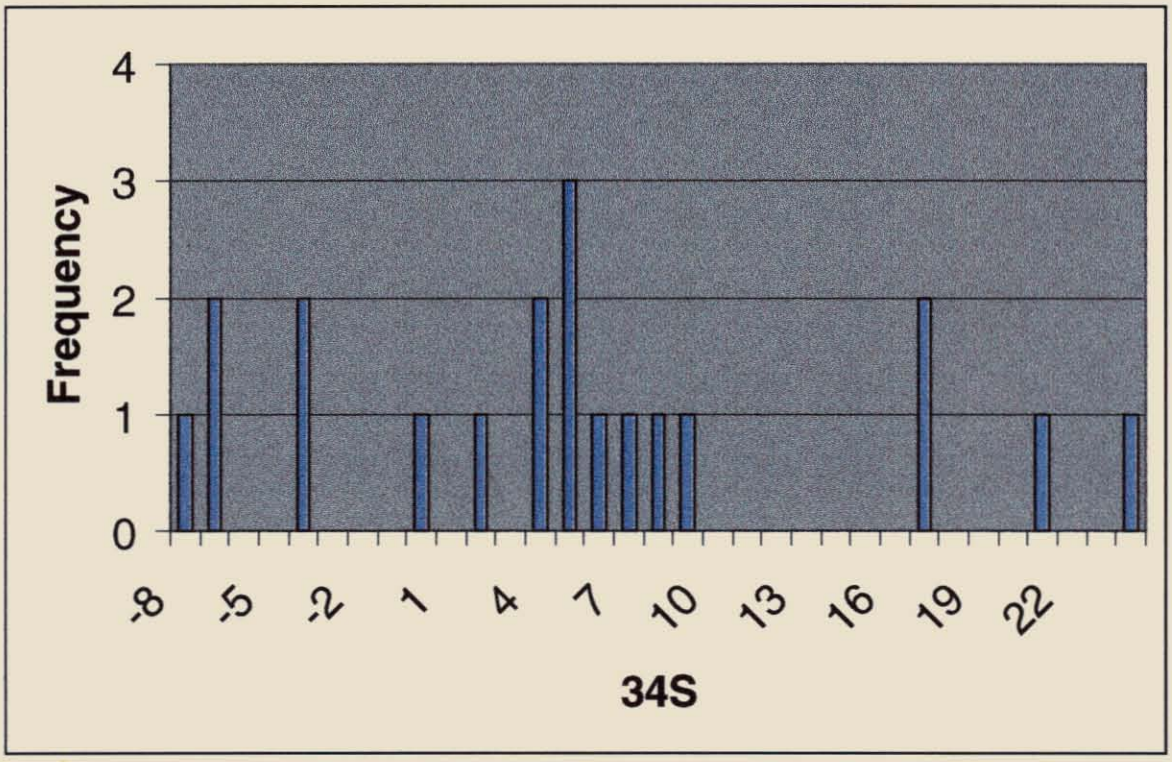


Figure 4. Howards Anomaly-Tyndall Creek $\delta^{34}S$ Histogram, (Sharpe, 1992).

There is some overlap in the values from the two groupings. Samples from the carbonate alteration zone with low $\delta^{34}S$ were taken from the sericite-carbonate-pyrite zone immediately adjacent to the inner silica-sericite-pyrite zone. Samples with higher $\delta^{34}S$ of approximaely 10-12‰ are associated with the outer carbonate-sericite-chlorite zone. Two samples have very high $\delta^{34}S$ of around 30‰. Values of this type occur around the margins of very large massive sulphide deposits such as Rosbery or Hellyer or in the upper zone of Cambrian growth faults due to complete insitu Cambrian seawater sulphate reduction (Davidson & Kitto, 1997).

Both holes intersected extensive alteration zones, both with the most intense silica-sericite-pyrite alteration (and anomalous Au) at the end of the hole. The $\delta^{34}S$ of both holes also decrease downhole reflecting the proximity to the centre of the alteration system at the end of the hole.

Alteration mapping, sulphur isotope analysis and DHEM surveys all suggest the proximity of the centre of the mineralisation system to these holes. Further drilling is recommended. Targets should include coincident geophysical and geochemical vectors.

REFERENCES

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vol 3 of 3

GOLDFIELDS EXPLORATION

ACN 008 560 978

650538

ANNUAL REPORT

MINERAL RESOURCES
19 MAY 2000
TASMANIA

TASMANIAN GOLD PROJECT

EL 8/96

SOUTH HENTY

Vol 3 of 3
Enclosures 1, 2 and 3.

HELD BY: RESOLUTE LTD.

MANAGER & OPERATOR: GOLDFIELDS EXPLORATION LTD.

MICROFILMED
FICHE No. -

AUTHOR(s):Tim Callaghan

10 May 2000

PROSPECTS: Lake Newton prospect, Howard's Anomaly, Spillway Horizon, Canal Zone.

MAP SHEETS:	**1:25,000: Tyndall, Oceana Dundas**	**1:100,000: Sophia**
GEOGRAPHIC COORDS	**Min East: 379,000mE** **Min North: 5,356,000mN**	**Max East:382,000mE** **Max North: 5,352,000mN**

DITY(s): Au, Cu, Pb, Zn, Ag

RDS: Central Volcanic Complex, Tyndall Group, Yolande River Sequence, Henty Gold Mine,

on:

GC Exploration Information Centre Reference:
oldfields Exploration Zeehan
epartment of Mineral Resources, Tasmania
esolute Ltd, Perth.

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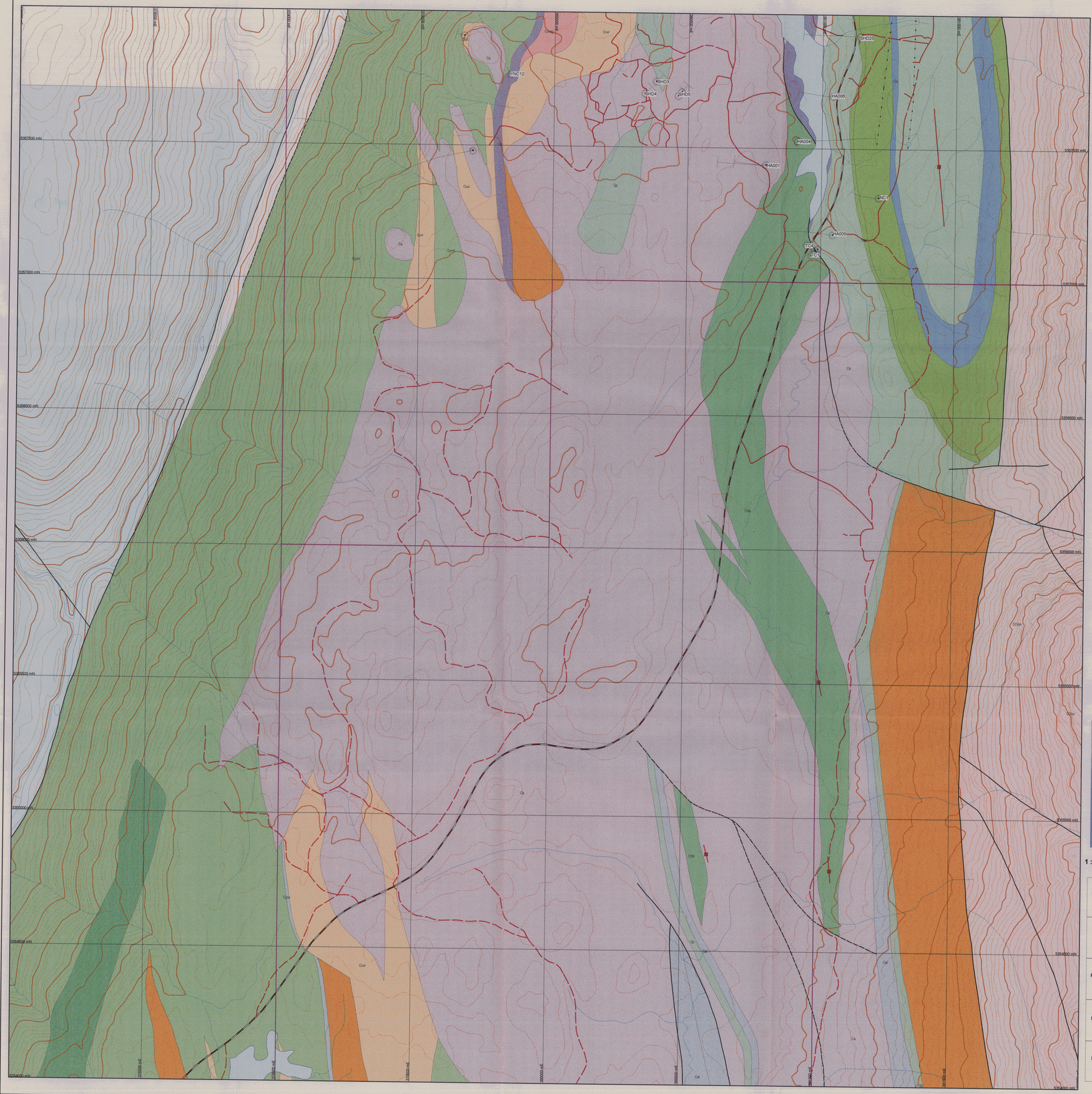
Annual report - Tasmanian Gold Project - EL8/96 - South Henty
Goldfields Exploration Proprietary Limited"; Resolute Li
Callaghan, T. EL8/96 vol 3 of 3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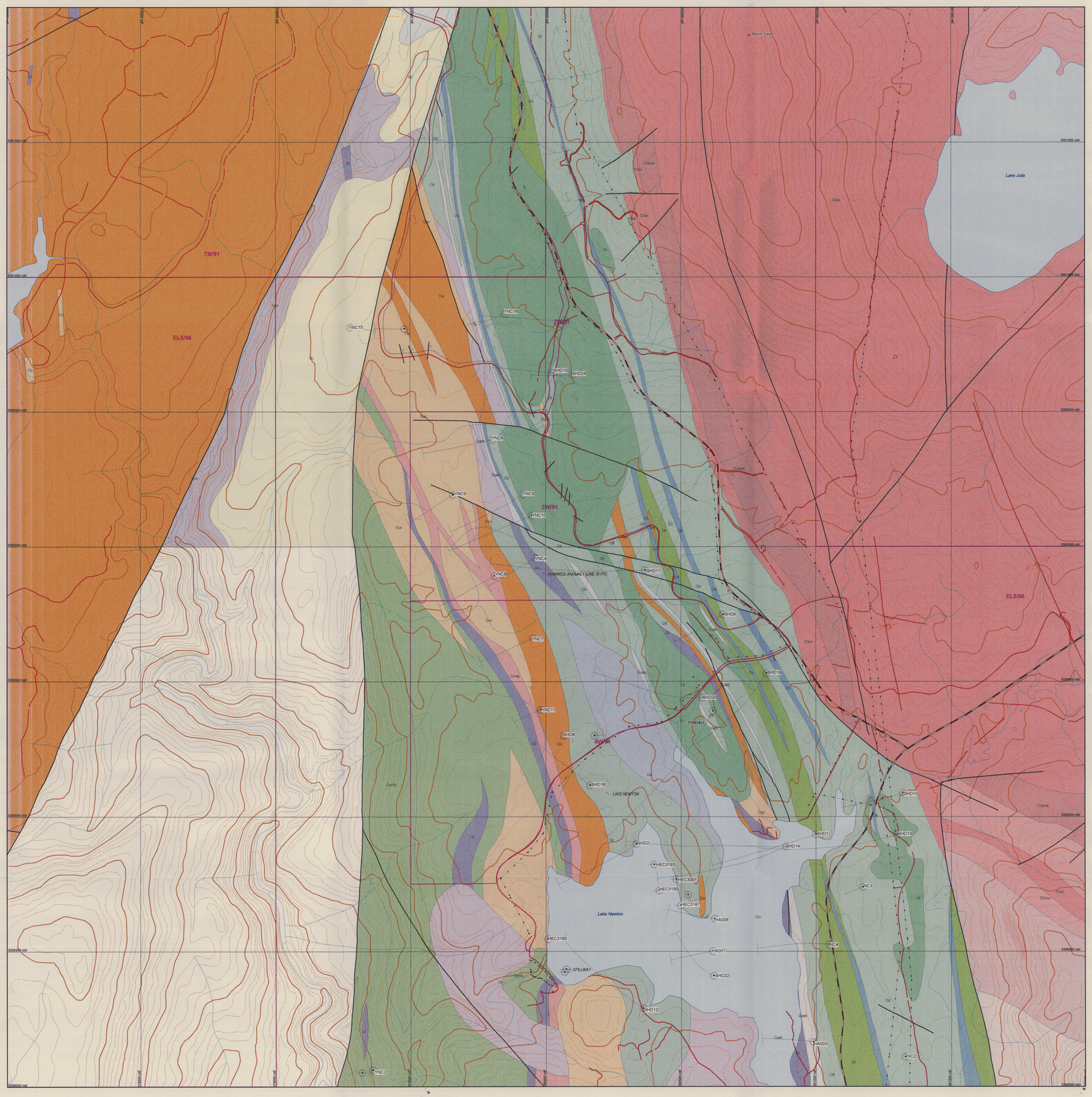

Qu Undifferentiated Quaternary sediments

Qgl Mainly limestone commonly decomposed to black clay "pug"

COou Upper Owen correlates in Tyndall Range - Mt Murchison area. Predominately pink sandstone & granite - pebble conglomerate, includes granule - pebble conglomerate (COouc) & grey sandstone and conglomerate (COoug).

COoug Upper Owen correlates in Tyndall Range - Mt Murchison area. Predominately pink sandstone and granule - pebble conglomerate, includes granule - pebble conglomerate (COouc) & grey sandstone and conglomerate (COoug).

COom Mainly pink to cream coloured, thickly bedded pebble-cobble to cobble-boulder conglomerate. Includes a lower unit of interbedded conglomerate & sandstones (COomcs).

COomcs Mainly pink to cream coloured, thickly bedded pebble-cobble to cobble-boulder conglomerate. Includes a lower unit of interbedded conglomerate & sandstones (COomcs)

COon Mainly thinly bedded quartzitic sandstone & pebbly sandstone with bands of pebble conglomerate - Newton Creek Sandstone.

COonsh Mainly thinly bedded siltstone, quartzitic sandstone & pebbly sandstone with bands of pebble conglomerate - Newton Creek Sandstone.

COonc Mainly pebble conglomerate with minor thinly bedded quartzitic sandstone & pebbly sandstone - Newton Creek Sandstone.

Clc Mainly volcaniclastic conglomerate with minor siltstone and volcaniclastic sandstone.

Clla Bedded sandstone - siltstone units

Cll Mainly crystal - rich volcanic sandstone (quartz-feldspar phyric). Comstock Tuff and correlates.

Chpl Cheirt rich mass flow horizon. Basal unit to Comstock Tuff.

Clll Crystal - rich volcanic sandstone (feldspar-pyroxene phyric), lithic-rich bases with minor ash, sandstone & limestone. Lynchford Tuff & correlates.

Clv Quartz phyric lava & tuff. Possibly equivalent to Lower Tyndall Group.

Cll Quartz-feldspar phyric lava

Clfe

Clfe Graded crystal-rich volcanic sandstone (feldspar-quartz phyric) with interbedded black siltstone (Lynchford Tuff correlate)

Sulphide Lenses

Cla Andesitic to basaltic intrusive bodies with lavas & clastic units. Includes feldspar-hornblende-pyroxene-phyric & feldspar-pyroxene phyric types & small chlorite altered dykes.

Cas Thinly bedded black pyrite siltstone

Cav Andesitic to basaltic clastic units

Cb Basalt, Hanty Dyke Swarm

Cbs Interbedded basaltic lava & volcaniclastic sediments

Cal Interbedded basaltic lava & volcaniclastic sediments

Cad

Cdv Interbedded dacitic volcaniclastic sandstone and siltstone

Ccv Mainly felsic pyroclastic rocks, dominantly feldspar phyric, including pumice bearing tuff & breccia, crystal vitric tuff, vitric tuff & minor shale & sandstone

Cavl Mainly felsic feldspar phyric lava & intrusives; massive to flow banded or autobrecciated, with rare columnar jointing

Cvvu

Cvl Mainly felsic felspar phyric lava and intrusives; massive to flow banded or autobrecciated, with rare colmnar jointing

Cca Units of bedded siltstone, sandstone, tuff & agglomerate

Cy Undifferentiated massflows, sandstones & black siltstones

Cya Ashy siltstone

Cyl Felsic porphyry bodies, intrusive & partly extrusive.

Cys Units of bedded siltstone, sandstone

Cyas Black siltstone

Cyg Dominantly greywacke & mudstone with some interbedded vitric tuff, crystal tuff & crystal-lithic tuff

Cyt Interbedded vitric tuff, crystal tuff, silstone, slate, sandstone & agglomerate.

Cyv Volcaniclastics

Cyh Undifferentiated Lower White Spur Formation

Cyx Crystal rich volcaniclastics sandstone

Cha Siltstone & sandstone

No Window



5 cm

0 250 500 1000

Scale 1 : 5 000

Distances in Metres
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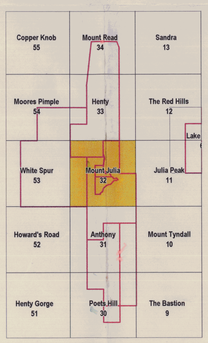
Minor Contour Interval 10m
AMG Zone 55

1 : 5 000 Sheet Index



GOLDFIELDS EXPLORATION
ACN 063 813 932
Cnr Main & Gellibrand St Zeehan TAS. 7469 ph: (03) 6471 6444

Mt Read Volcanics Belt Tasmania

SHEET 32
Mount Julia

GEOLOGICAL INTERPRETATION

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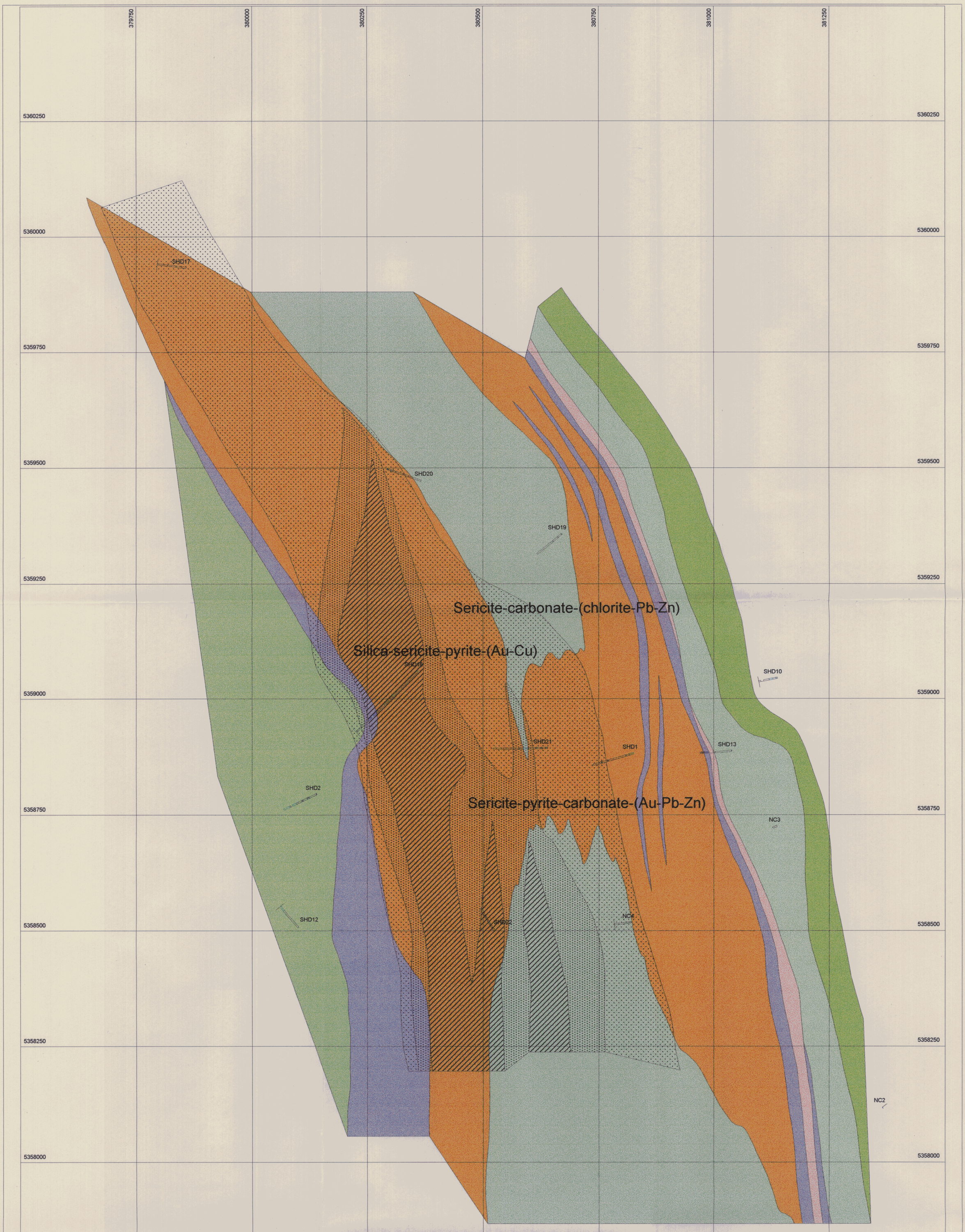
EL8/96



COon	Undifferentiated. - Newton Creek Sandstone
COonc	Mainly pebble conglomerate with minor thinly bedded quartzitic sandstone and pebble sandstone - Newton Creek Sandstone
COonsh	Mainly thinly bedded siltstone, quartzitic sandstone with bands of pebble conglomerate - Newton Creek Sandstone
Ctc	Mainly volcaniclastic conglomerate with minor siltstone and volcaniclastic sandstone. - Upper Tyndall Group / Zig Zag Hill Formation
Cts	Bedded sandstone - siltstone units
Ctt	Mainly crystal - rich volcanic sandstone (quartz-feldspar phyric). - Comstock Tuff and correlates.
Ctl	Quartz-feldspar phyric lava and intrusives
Cttl	Crystal - rich volcanic sandstone (feldspar-pyroxene phyric), lithic-rich bases with minor ash, sandstone and limestone. - Lynchford Member and correlates.
Ctb	Basalt - commonly hematitic and carbonate altered. - Howards Basalt
Ca	Andestitic to basaltic intrusive bodies with lavas & clastic units. Includes feldspar-hornblende-pyroxene phyric types & small chlorite altered dykes. - Anthony Road Andesite
Ccv	Mainly felsic pyroclastic rocks, dominantly feldspar phyric, including pumice bearing tuff & breccia , cyrstal vitric tuff, vitric tuff & minor shale & sandstone
Ccvl	Mainly felsic felspar phyric lava and intrusives; massive to flow banded or autobrecciated, with rare colmnar jointing
Cb	Basalt lava and breccias
Cymf	Rhyolitic-dacitic massflows, commonly graded. - Yolande River Sequence
Cys	Units of bedded siltstone, sandstone. - Yolande River Sequence
Cp	Quartz-feldspar hornblende porphyry
Chf	Undifferentiated Henty Fault Wedge sequence
Ccarb	Exhalitive carbonate horizon
MZ	Silica - sericite - pyrite - chlorite alteration
MV	Silica - sericite alteration
MS	Silica - sulphide alteration
MA	Sericite - pyrite - carbonate alteration
AS	Intense albite - silica alteration
fault	Fault

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Annual report - Tasmanian Gold Project - EL8/96 - South Henty
Goldfields Exploration Proprietary Limited*; Resolute Li
Callaghan, T. EL8/96

South Henty EL 8/96. Lake Newton Prospect. Level Plan 0m RL.

Scale 1:5000. T. Callaghan. 24/01/00.

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YNC6

YNC10

SHD17

SHD20

SHD19

SHD16

Sericite-carbonate-(chlorite-Pb-Zn)

Silica-sericite-pyrite-(Au-Cu)

Sericite-pyrite-carbonate-(Au-Pb-Zn)

SHD10

SHD21

SHD1

SHD13

SHD2

SHD14

NC3

NC4

SHD22

SHD12

YNC12

NC2

NC1

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Goldfields Exploration Proprietary Limited*; Resolute Li
Callaghan, T. EL8/96

5 cm

South Henty EL 8/96. Lake Newton Prospect.

Level Plan 100m RL.

Scale 1:1000. T. Callaghan. 24/01/00

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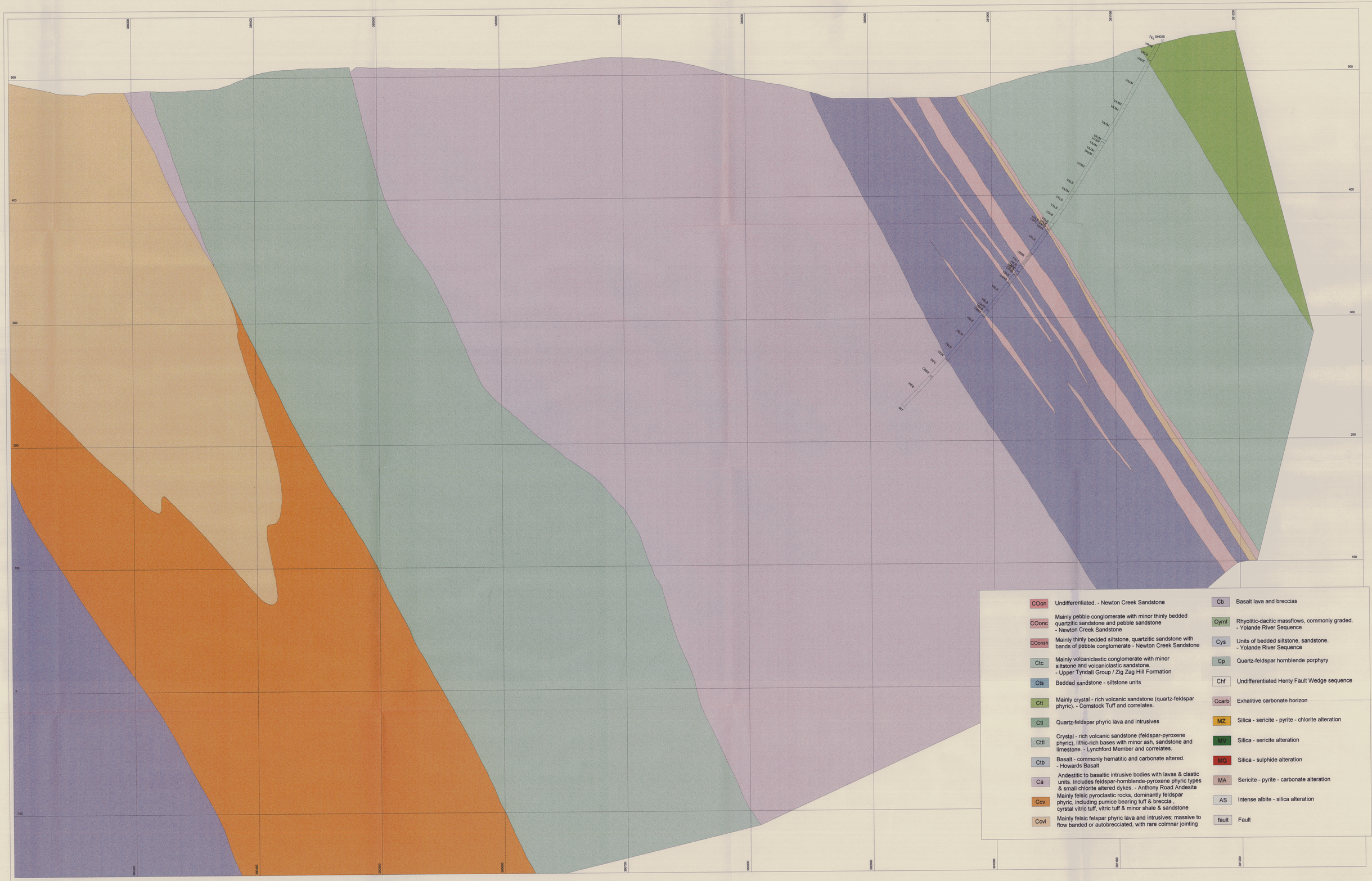
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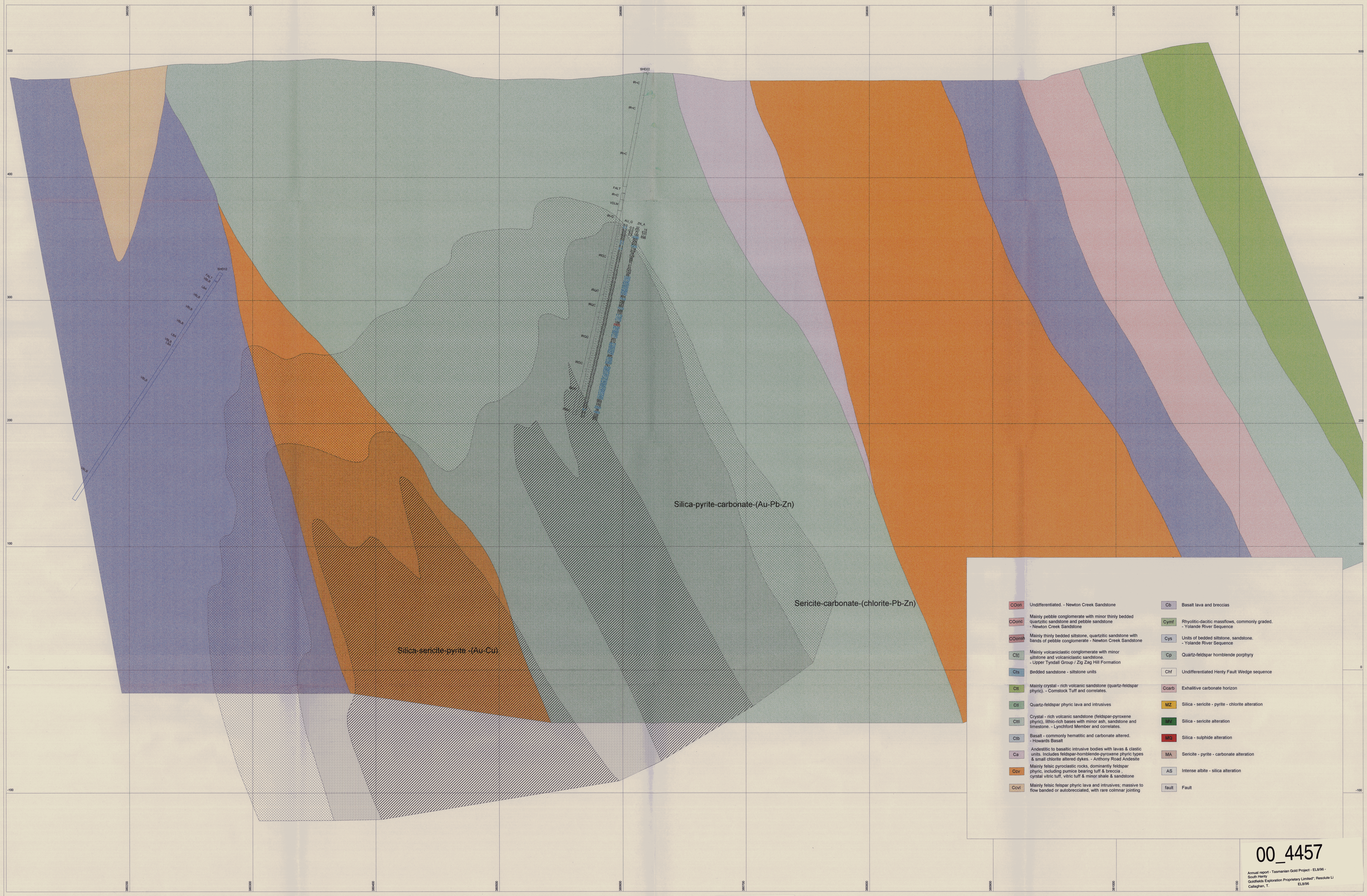

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Cts	Bedded sandstone - siltstone units	Chf	Undifferentiated Henty Fault Wedge sequence
Ctt	Mainly crystal - rich volcanic sandstone (quartz-feldspar phyric). - Comstock Tuff and correlates.	Ccarb	Exhalitive carbonate horizon
Ctl	Quartz-feldspar phyric lava and intrusives	MZ	Silica - sericite - pyrite - chlorite alteration
Cttl	Crystal - rich volcanic sandstone (feldspar-pyroxene phyric), lithic-rich bases with minor ash, sandstone and limestone. - Lynchford Member and correlates.	MSI	Silica - sericite alteration
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Ccvl	Mainly felsic felspar phyric lava and intrusives; massive to flow banded or autobrecciated, with rare colmnar jointing	fault	Fault

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Goldfields Exploration Proprietary Limited"; Resolute Li
Callaghan, T.
EL8/96

South Henty EL 8/96. Lake Newton Prospect. 5358400N

5 cm

Scale 1:1000. T. Callaghan. 21/01/00

5358400

650544

South Henty EL 8/96. Lake Newton Prospect. Section 5358800N

Scale 1:1000. T. Callaghan. 24/01/00

5 cm

5358800

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Goldfields Exploration Proprietary Limited"; Resolute Li
Callaghan, T. ELB/96

Silica-sericite-pyrite-(Au-Cu)

Sericite-pyrite-carbonate-(Au-Pb-Zn)

Sericite-carbonate-(chlorite-Pb-Zn))

COsn	Undifferentiated. - Newton Creek Sandstone	Cb	Basalt lava and breccias
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Cli	Quartz-feldspar phyric lava and intrusives	MZ	Silica - sericite - pyrite - chlorite alteration
Clfl	Crystal - rich volcanic sandstone (feldspar-pyroxene phyric), lithic-rich bases with minor ash, sandstone and limestone. - Lynchford Member and correlates.	MV	Silica - sericite alteration
Ctb	Basalt - commonly hematitic and carbonate altered. - Howards Basalt	MQ	Silica - sulphide alteration
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Ccvl	Mainly felsic felspar phyric lava and intrusives, massive to flow banded or autobrecciated, with rare colmnar jointing	fault	Fault

050545

Sericite-carbonate-(chlorite-Pb-Zn)

Sericite-pyrite-carbonate-(Au-Pb-Zn)

Silica-sericite-pyrite-(Au-Cu)

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Cbb	Basalt - commonly hematitic and carbonate altered. - Howards Basalt	MSi	Silica - sulphide alteration
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South Henty EL 8/96. Lake Newton Prospect. Section 5358500N

Scale 1:1000. T. Callaghan. 21/01/00

5 cm

5358500

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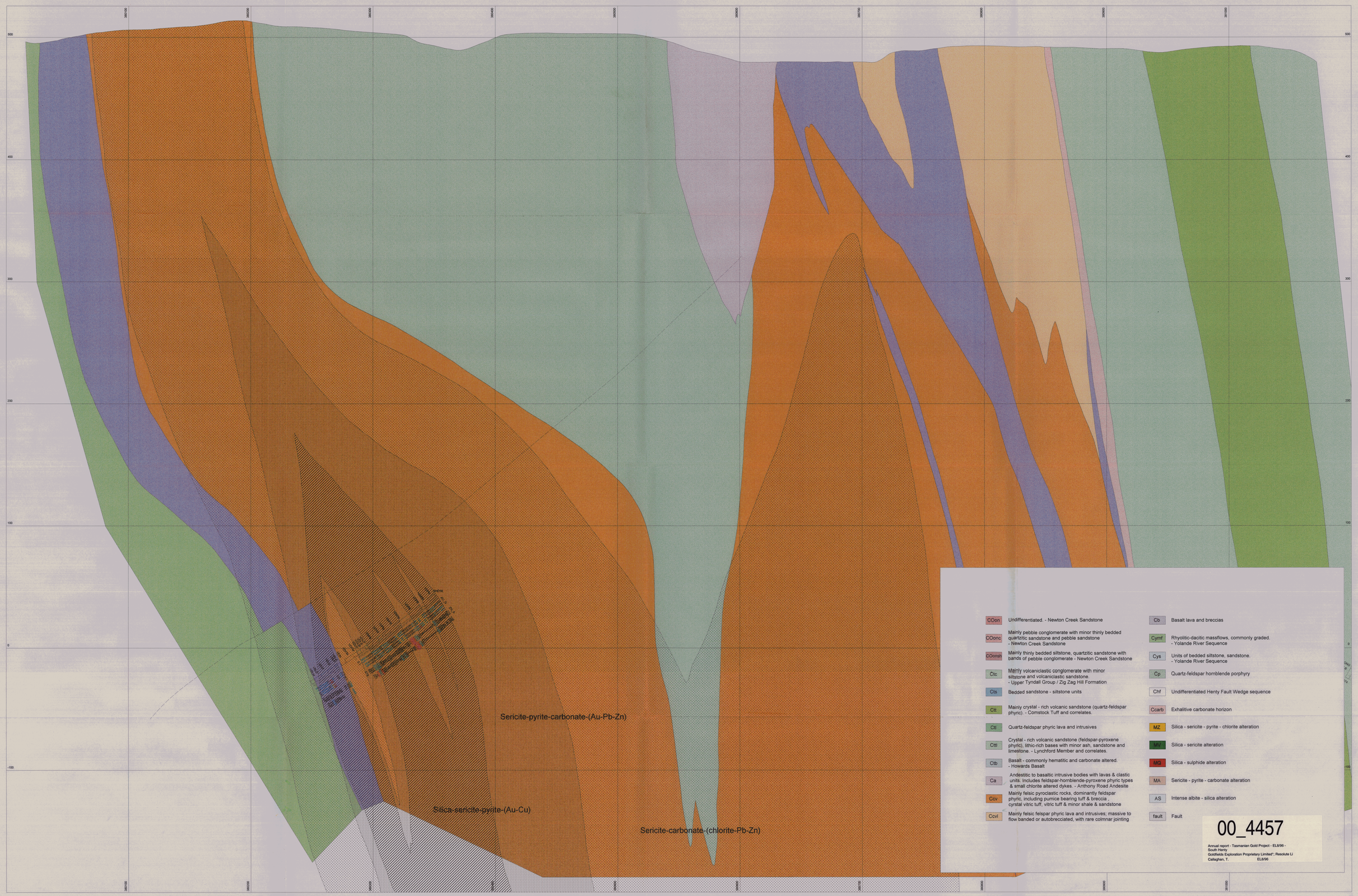
Annual report - Tasmanian Gold Project - EL8/96 -
South Henty
Goldfields Exploration Proprietary Limited*; Resolute Li
Callaghan, T. EL8/96

650546



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Annual report - Tasmanian Gold Project - EL8/96 - South Henty
Goldfields Exploration Proprietary Limited"; Resolute Li
Callaghan, T. EL8/96

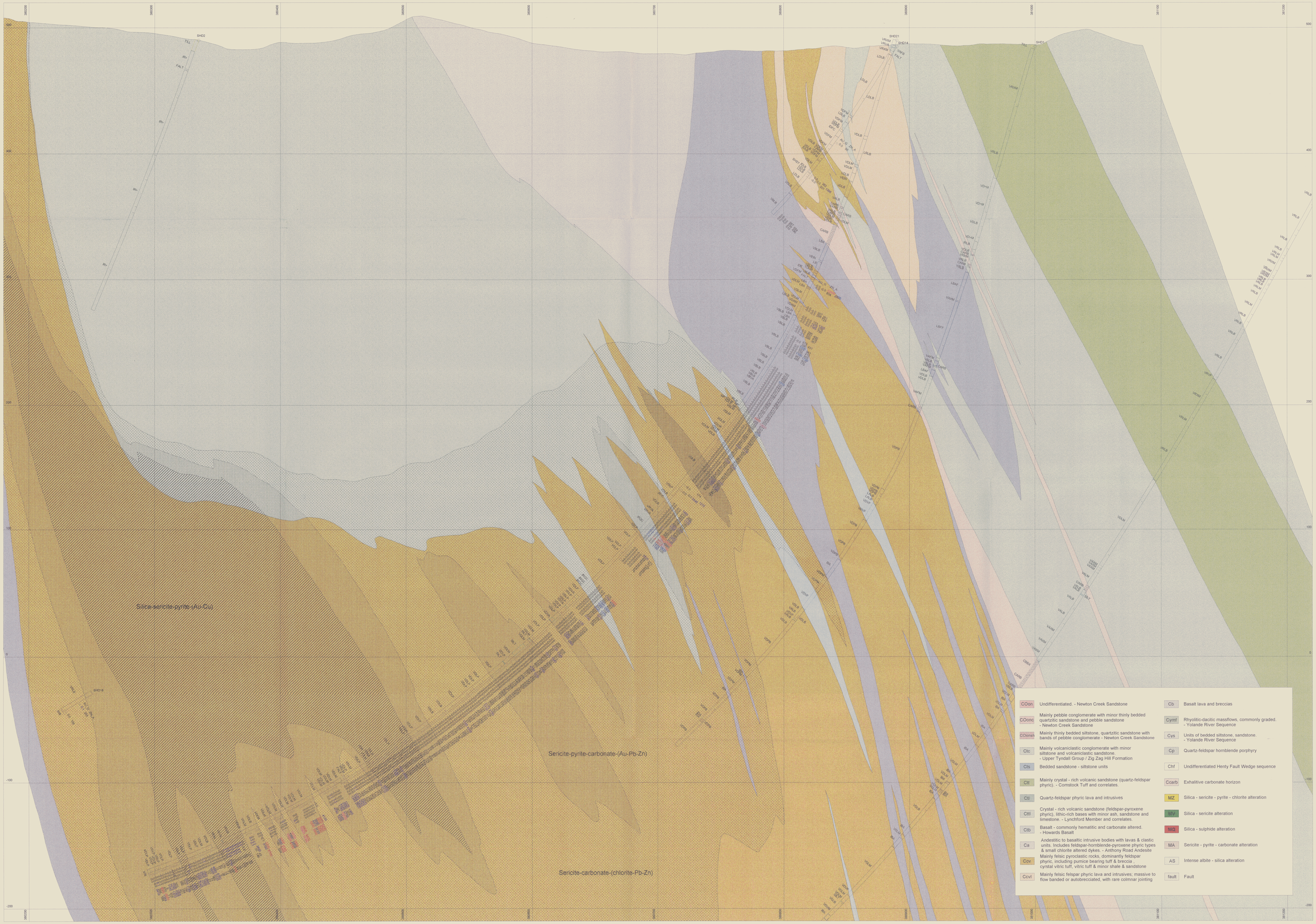
5 cm

5359000

650547

South Henty EL 8/96. Lake Newton Prospect. Section 5359000N

Scale 1:1000. T. Callaghan. 24/01/00



South Henty EL 8/96. Lake Newton Prospect. Section 5358900N

5 cm

Scale 1:1000. T. Callaghan. 2/12/99

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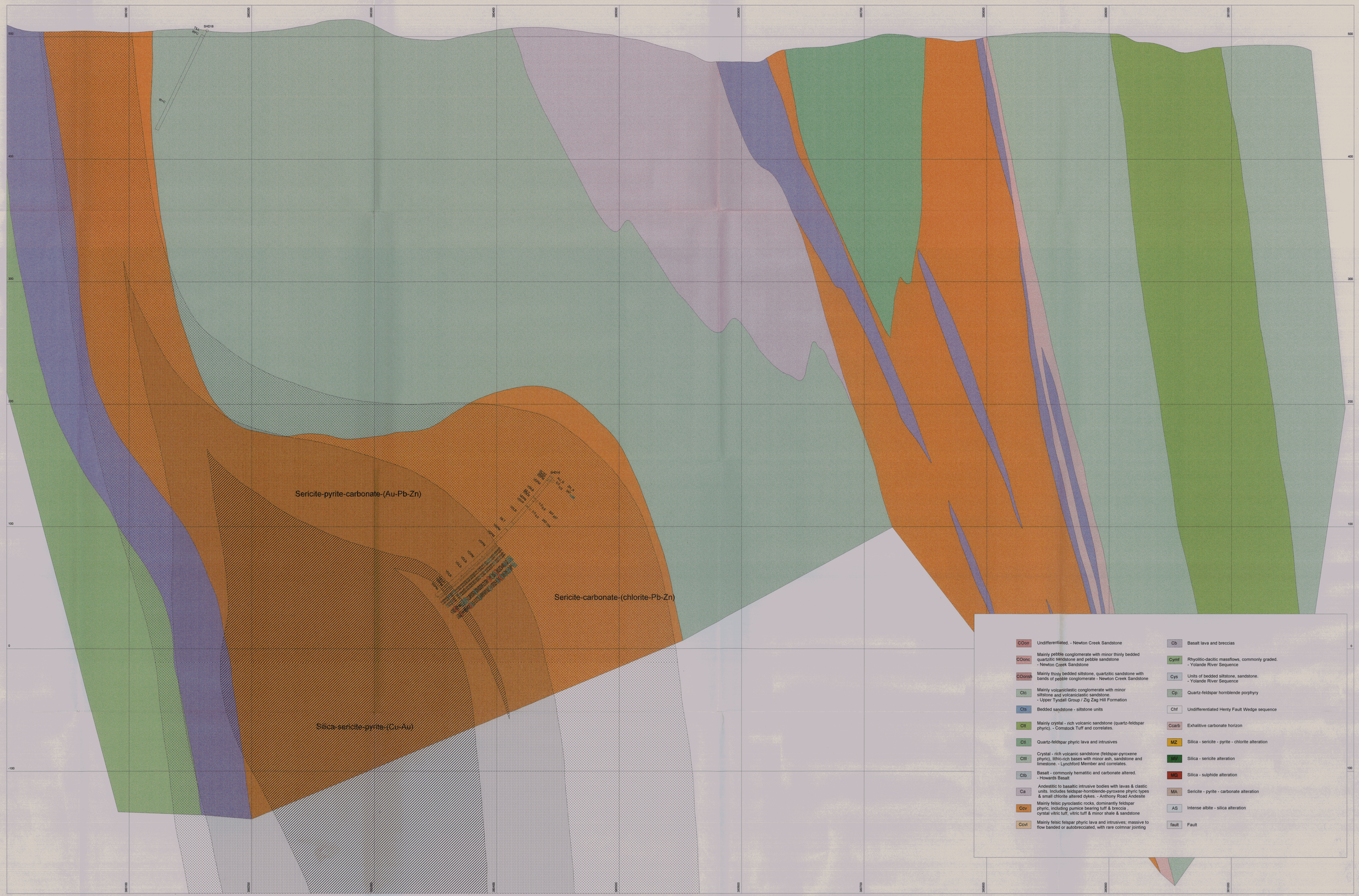
Goldfields Exploration Proprietary Limited"; Resolute Li
Callaghan, T. EL8/96

5358900

650548



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South Henty EL 8/96. Lake Newton Prospect. Section 5359100N

Scale 1:1000. T. Callaghan. 24/01/00

5359100 N

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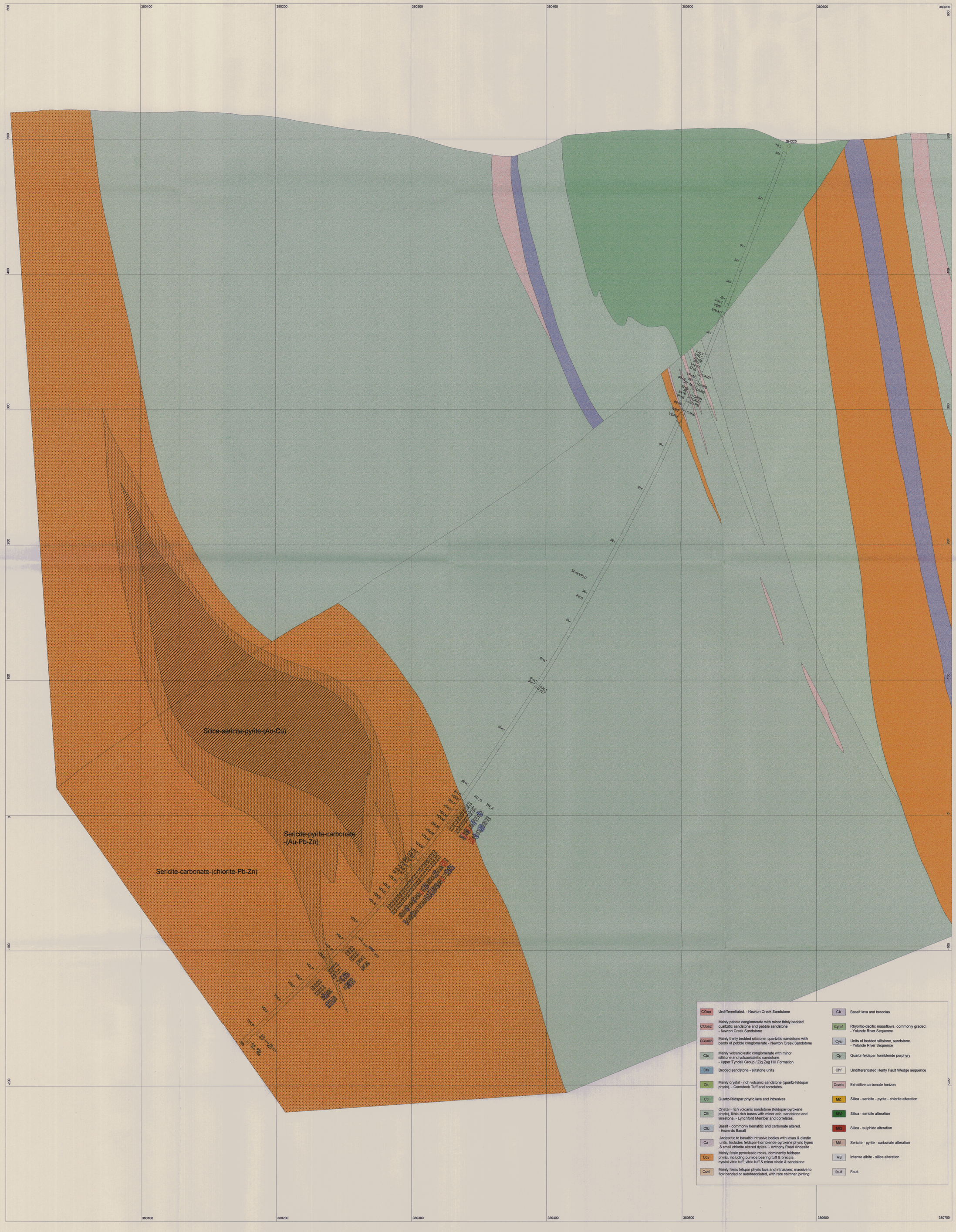
Goldfields Exploration Proprietary Limited"; Resolute Li
Callaghan, T. EL8/96

650549



South Henty EL8/96, Lake Newton Prospect. Section 5359480N

5 cm

Scale 1:1000. T. Callaghan. 2/12/99

650550

5359480

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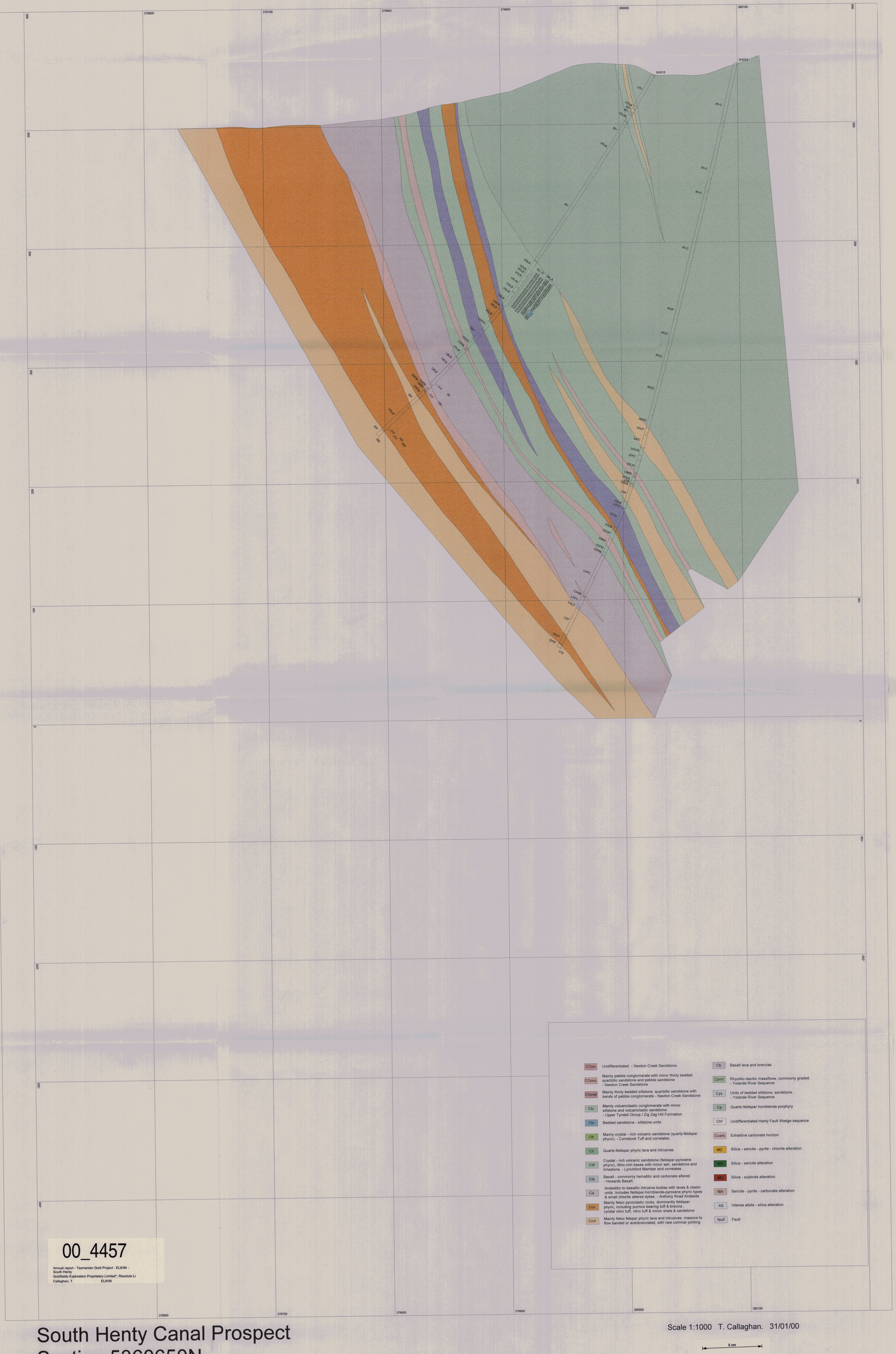
Goldfields Exploration Proprietary Limited*; Resolute Li
Callaghan, T. EL8/96



COon	Undifferentiated. - Newton Creek Sandstone	Cb	Basalt lava and breccias
COonc	Mainly pebble conglomerate with minor thinly bedded quartzitic sandstone and pebble sandstone - Newton Creek Sandstone	Cymf	Rhyolitic-dacitic massflows, commonly graded. - Yolande River Sequence
COonsh	Mainly thinly bedded siltstone, quartzitic sandstone with bands of pebble conglomerate - Newton Creek Sandstone	Cys	Units of bedded siltstone, sandstone. - Yolande River Sequence
Ctc	Mainly volcaniclastic conglomerate with minor siltstone and volcaniclastic sandstone. - Upper Tyndall Group / Zig Zag Hill Formation	Cp	Quartz-feldspar hornblende porphyry
Cts	Bedded sandstone - siltstone units	Chf	Undifferentiated Henty Fault Wedge sequence
Ctt	Mainly crystal - rich volcanic sandstone (quartz-feldspar phyric). - Comstock Tuff and correlates.	Ccarb	Exhalitive carbonate horizon
Ctl	Quartz-feldspar phyric lava and intrusives	MZ	Silica - sericite - pyrite - chlorite alteration
Cttl	Crystal - rich volcanic sandstone (feldspar-pyroxene phyric), lithic-rich bases with minor ash, sandstone and limestone. - Lynchford Member and correlates.	MV	Silica - sericite alteration
Ctb	Basalt - commonly hematitic and carbonate altered. - Howards Basalt	MQ	Silica - sulphide alteration
Ca	Andestitic to basaltic intrusive bodies with lavas & clastic units. Includes feldspar-hornblende-pyroxene phyric types & small chlorite altered dykes. - Anthony Road Andesite	MA	Sericite - pyrite - carbonate alteration
Ccv	Mainly felsic pyroclastic rocks, dominantly feldspar phyric, including pumice bearing tuff & breccia , cyrstal vitric tuff, vitric tuff & minor shale & sandstone	AS	Intense albite - silica alteration
Ccvl	Mainly felsic felspar phyric lava and intrusives; massive to flow banded or autobrecciated, with rare colmnar jointing	fault	Fault

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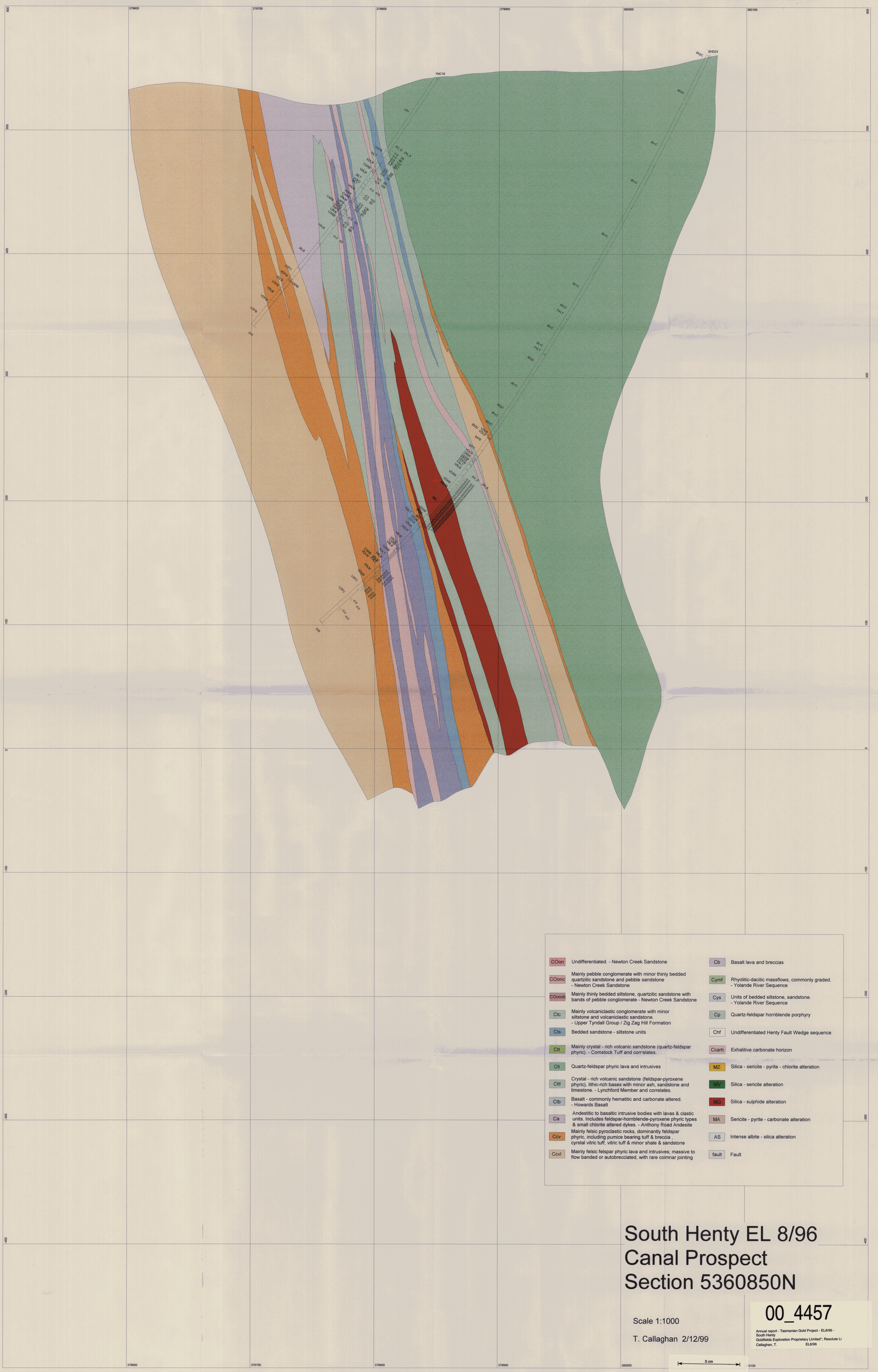
South Henty Canal Prospect
Section 5360650N

650551

Scale 1:1000 T. Callaghan. 31/01/00

5 cm



South Henty EL 8/96
Canal Prospect
Section 5360850N

Scale 1:1000

T. Callaghan 2/12/99

5 cm

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Goldfields Exploration Proprietary Limited*; Resolute Li
Callaghan, T. EL8/96

650552