ASSESSMENT REPORT

ON THE

GEOLOGICAL MAPPING, SOIL SAMPLING, DIAMOND DRILLING AND IP SURVEY

ON THE BOOT STEELE PROPERTY,

DUCKLING CREEK AREA, NORTH CENTRAL B.C.

Omineca Mining Division
NTS: 93N/14

Latitude 55°24' Longitude 125°25'

BPVR 91-16
December, 1991

N. Humphreys, Geologist
J. Binns, Geophysicist

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF APPENDICES

APPENDIX NO.

SUMMARY

The Boot-Steele property covers an alkalic copper-gold porphyry prospect near Germansen Landing in north-central British Columbia. The property comprises 183 claim units optioned by BP Resources Canada Limited from the owners, Richard Haslinger and Larry Hewitt.

The Boot-Steele claims surround Kennecott Canada Ltd.'s Lorraine property that covers a copper-gold deposit with reported reserves of 10 million tons grading 0.7% copper and 0.34 g/t gold. In addition, the claims are adjacent to Kennecott's Dorothy property that contains significant copper showings. Both the Lorraine and Dorothy properties were the focus of major diamond drilling programmes in 1991.

The claims cover a section of the Duckling Creek Syenite Complex of the Hogem batholith. The Complex hosts the Lorraine deposit and is comprised of a complex suite of syenitic rocks and metasomatized relicts of older intrusive and possible basement rocks.

Exploration in 1991 on the Boot-Steele property included an airborne geophysical survey followed by limited geological mapping, soil sampling and a 10.5 line kilometre reconnaissance IP survey. This was followed by a small diamond drilling programme consisting of four holes for a total of 352.3m. Due to time and weather constraints, a detailed ground follow-up of many of the airborne survey target areas could not be

completed. As a result, the exploration done to-date - in particular the geological mapping - is very preliminary, and much more detailed work is required to properly assess the potential of the claims.

The most significant copper-gold showing found in 1991 on the Boot-Steele property occurs near the southeastern claim line of the Lorraine property. Disseminated chalcopyrite and rare bornite are found in leucocratic syenite exposed in sub-crop and outcrop over an area approximately 50m long by an average of 5m wide. Chip samples across the showing yielded up to 0.71% copper and 0.33 g/t gold over 8 m. Although two holes drilled here failed to intersect similar mineralization at depth, the area remains highly prospective. Similar copper showings occur nearby on the Lorraine ground where Kennecott did extensive diamond drilling in 1991. In addition, the area lies very close to the inferred easterly strike extension of the foliation zone that is probably a major control of mineralization at Lorraine.

A third diamond drill hole tested an IP anomaly south of the Duckling Creek Syenite Complex. This hole intersected fresh monzonite with minor rusty shears but no significant sulphide mineralization. The fourth hole was to have tested an airborne potassium anomaly and an inferred fault zone but had to be abandoned in overburden due to drilling problems.

The potential of the claims is enhanced by the widespread nature of the copper occurrences in the Duckling Creek Syenite Complex. Although individual showings are limited in extent, the relative abundance of showings is encouraging.

The results from the rock samples collected in 1991 reveal highly anomalous values of platinum group elements (PGE's) (up to 648 ppb Pt and 2609 ppb Pd) gold (to 19.8 g/t) and silver (to 353 ppm) in some of the showings. Considering these high values and the presence of major structures inferred from the airborne geophysical survey, the potential should be very good for a fault-hosted, high-grade precious metal deposit as well as a copper-gold porphyry deposit.

The airborne geophysical survey and the limited ground follow-up work on the Boot-Steele claims have successfully outlined highly prospective areas that require additional work. A recommended exploration program for ten targets is presented in this report. The first stage should consist of detailed geological mapping and prospecting of the large sections of the property not examined in 1991. The second stage would comprise more detailed mapping, IP surveys and soil sampling over the selected areas. A third stage diamond drilling programme is contingent upon favourable stage-two results. The estimated cost for the entire 1992 work, including 2000m of diamond drilling, is $455,900.

1. INTRODUCTION

This report summarizes the 1991 exploration results from the Boot-Steele property located in the Duckling Creek area of north-central, B.C. The claims are owned by Larry Hewitt and Richard Haslinger and are under option to BP Resources Canada Limited.

The claims are stratigraphically located, surrounding the Lorraine property of Kennecott Canada Ltd. This property hosts a 10 million ton alkalic porphyry copper-gold deposit grading 0.7% copper and 0.34 g/t gold that was delineated in the early 1970's. After a long period of inactivity, the property is again being explored by Kennecott. The Boot-Steele claims are also adjacent to Kennecott's Dorothy property that hosts significant copper showings drilled in 1991.

The initial work involved orthophoto preparation and a helicopter-borne combined magnetics-EM- radiometrics survey of 425 line kilometers flown by Aerodat Ltd. in June, 1991. The results of this survey are discussed in detail in a companion report, BPVR 91-17.

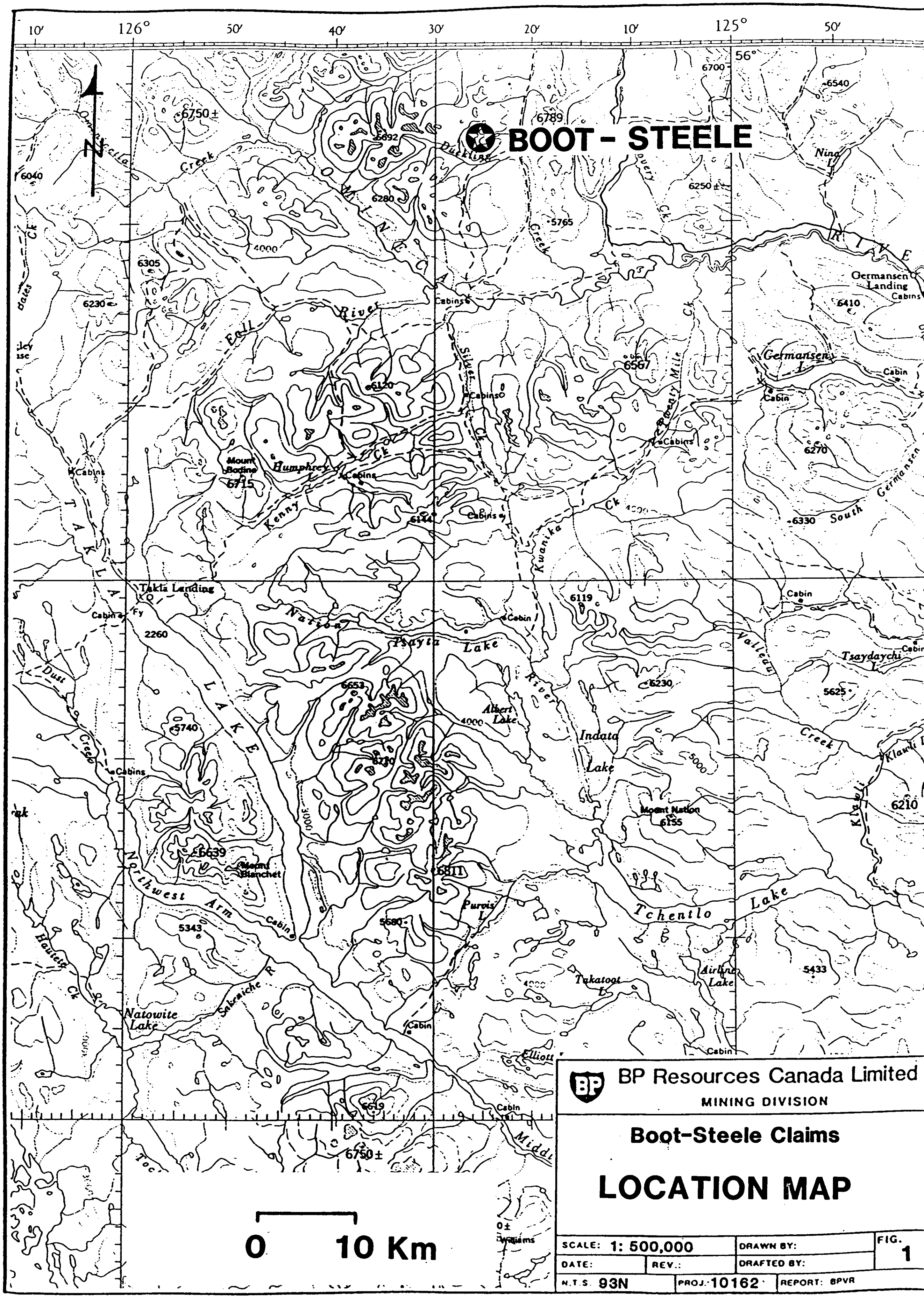
The second stage ground follow-up consisted of a reconnaissance IP survey to check targets generated by the airborne survey, geological mapping, limited soil sampling and a 352m diamond drilling program. The geological mapping was concentrated in the central part of the property where Richard Haslinger had found syenite float rich in copper, gold, silver and platinum group elements (PGEs).

The work done to-date is preliminary only and large areas of the property were mapped and prospected in a reconnaissance manner. The 1991 work has, however, provided a good framework for future exploration on the claims.

2. LOCATION AND ACCESS

The claims are about 45 km west-northwest of Germansen Landing in the Duckling Creek area of north-central B.C. The Lorraine property access road crosses the southern part of the Boot-Steele property. This road, constructed many years ago, was rehabilitated by Kennecott in 1990. It leaves the Omineca Mining Road at a point approximately 45 km north of Germansen Landing. Travelling time from the property to Germansen Landing is about two hours.

The central and northern sections of the claims require helicopter access. Machines are usually based at Germansen Landing during the summer months.



BP Resources Canada Limited

MINING DIVISION

Boot-Steele Claims

LOCATION MAP

SCALE: 1: 500,000		DRAWN BY:	FIG. 1
DATE:	REV.:	DRAFTED BY:	
N.T.S. 93N	PROJ. 10162	REPORT: BPVR	

3. CLAIM STATUS

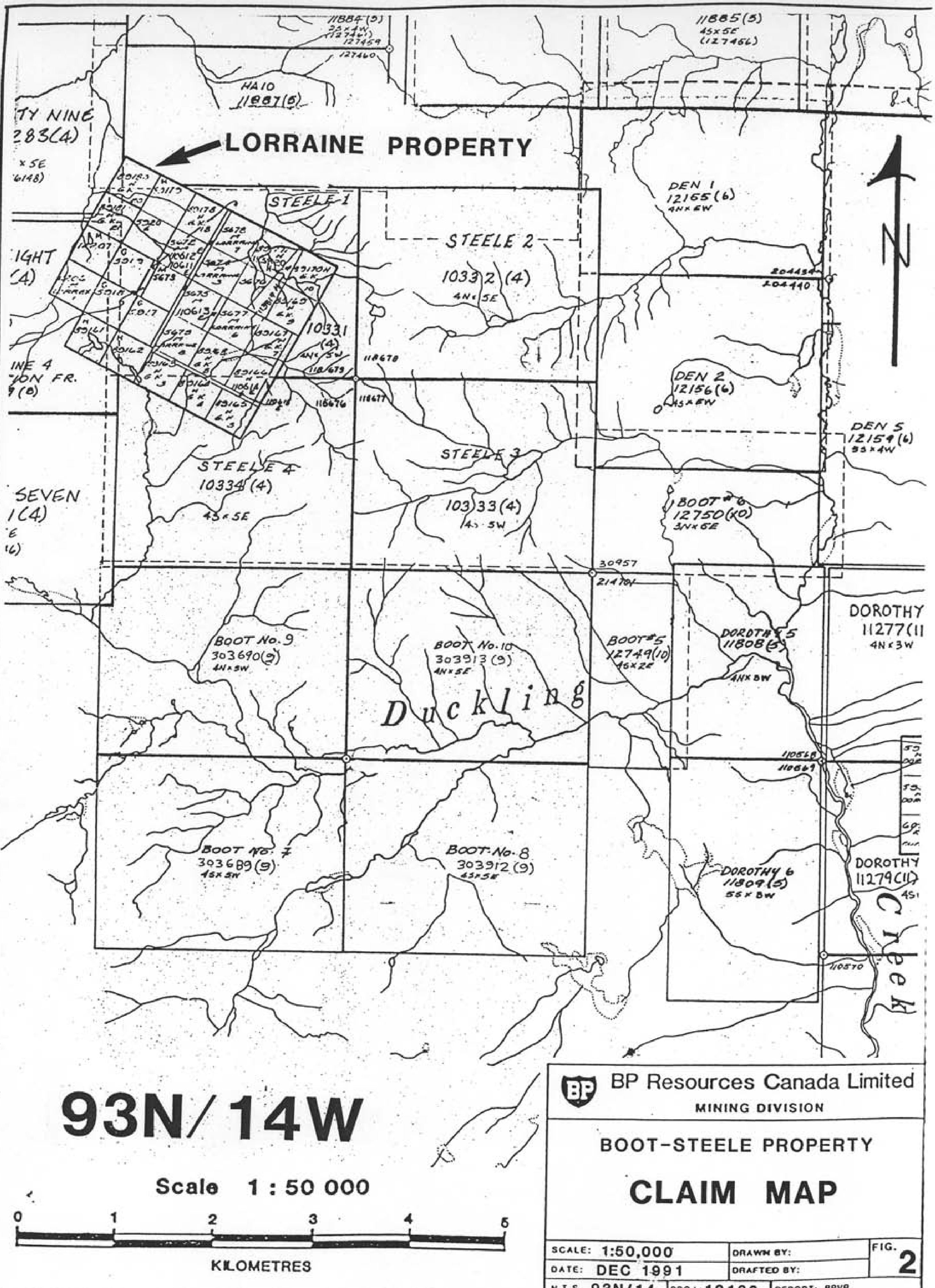
Claim	No. of Units	Record No.	Staking/Anniversary Date
BOOT 5	8	12749	Oct. 28, 1990
BOOT 6	15	12750	Oct. 30, 1990
BOOT 7	20	303689	Sept. 6, 1991
BOOT 8	20	303912	Sept. 6, 1991
BOOT 9	20	303690	Sept. 5, 1991
BOOT 10	20	303913	Sept. 5, 1991
STEELE 1	20	10331	Apr. 29, 1990
STEELE 2	20	10332	Apr. 29, 1990
STEELE 3	20	10333	Apr. 29, 1990
STEELE 4	20	10334	Apr. 29, 1990

4. PHYSIOGRAPHY AND VEGETATION

The property is located in the moderately rugged Swannell Ranges of the Omineca Mountains. Elevations on the claims range from 1250m in the Duckling Creek Valley to over 1950m on the east to southeasterly-trending ridges in the northern half of the claims. Cirques are well-developed on the north and northeast-facing ridges and as a result, these areas are rugged with local relief of up to 150m.

The main valleys have U-shaped profiles and are drift covered. South of Duckling Creek, the topography is much more subdued with rounded hills and thicker overburden.

Vegetation ranges from thick pine-dominated forests at the lower elevations to alpine grasses and shrubs on the ridges.



LORRAINE PROPERTY
STEELE 1
STEELE 2
10332 (4)
STEELE 3
10333 (4)
STEELE 4
10334 (4)
10331 (4)
DEN 1
12155 (6)
DEN 2
12156 (6)
DEN 5
12159 (6)
BOOT #6
12750 (10)
BOOT #5
12749 (10)
BOOT No. 9
303690 (9)
BOOT No. 10
303913 (9)
BOOT No. 7
303689 (9)
BOOT No. 8
303912 (9)
DOROTHY 5
11808 (5)
DOROTHY 6
11809 (5)
DOROTHY
11277 (11
DOROTHY
11279 (11
HA 10
11887 (5)
11884 (5)
11885 (5)
Duckling
Creek
93N/14W
Scale 1 : 50 000
0 1 2 3 4 5
KILOMETRES
BP Resources Canada Limited
MINING DIVISION
BOOT-STEELE PROPERTY
CLAIM MAP
SCALE: 1:50,000
DATE: DEC 1991
N.T.S. 93N/14
PROJ.: 10162
REPORT: BPVR
DRAWN BY:
DRAFTED BY:
FIG. 2

5. REGIONAL GEOLOGY

The claims cover a portion of the Hogem batholith, a northwesterly-trending, composite intrusion of Early Jurassic to Early Cretaceous age. The intrusion is 160 km long and up to 40 km wide and is bounded to the west by the Pinchi fault. To the east, the batholith intrudes volcanic rocks of the co-magmatic Takla Group of the Quesnel Trough.

In the area of the claims, the Hogem batholith can be divided into three rock suites. Of principal importance is the Duckling Creek Syenite Complex (DCSC) that hosts the Lorraine deposit. Northeast of the Complex is a group of older mafic monzonites and diorites. To the south are younger phases of quartz monzonite and granodiorite. Late dykes of mainly latitic composition cut all three rock suites and mark the youngest intrusive event.

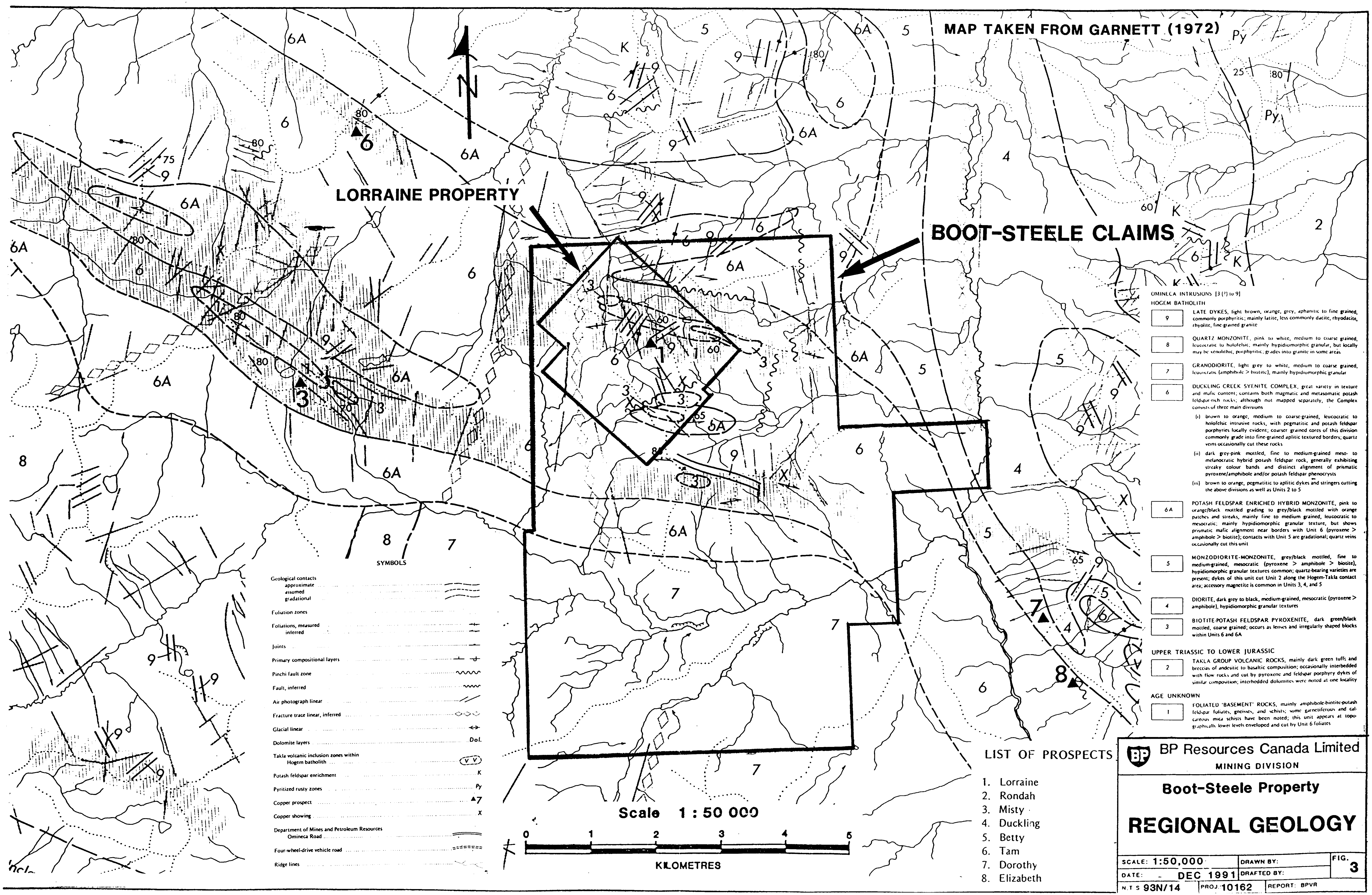
The DCSC forms a northwesterly-trending elliptical body about 5 km wide and 32 km long. The rocks within the Complex are highly variable in texture and mafic content but have been sub-divided by Wilkinson et al (1976) into two main types: 1) syenite migmatite, interpreted to have formed by a syenite magma intruding and metasomatizing layered monzonite-diorite-pyroxenite; and 2) pink leucocratic syenite, that varies in texture from aplitic to pegmatitic. A hybrid zone of variably potassium-metasomatized monzonite marks much of the contact of the DCSC.

Lenses up to 2500m long of pyroxenite and schistose 'basement' rocks are enveloped by the DCSC. The pyroxenites are not generally true ultramafic rocks but are more often gabbroic rocks composed of variable amounts of pyroxene, biotite, potassium feldspar and magnetite. Often they display large porphyroblasts of potash feldspar. The pyroxenites are thought to have formed as sill-like cumulates within the monzonites and diorites and were subsequently potassium metasomatized by the invading syenite magma.

The dominant regional structures are west to northwest foliation zones within the DCSC that parallel the general trend of the Complex. These zones contain the lenses of pyroxenite and basement schists and display structures ranging from the alignment of phenocrysts to gneissic layering and migmatitic banding.

Garnett (1973) recognized three steeply-dipping fracture patterns. The youngest and strongest pattern is at 105° and cross-cuts northeasterly-trending dykes and fractures and a northerly-trending fracture set.

Copper showings are widespread in the vicinity of the Duckling Creek Syenite Complex. The more important of these are shown on Figure 3.


MAP TAKEN FROM GARNETT (1972)
N
LORRAINE PROPERTY
BOOT-STEELE CLAIMS
OMINECA INTRUSIONS [3 (?) to 9]
HOGEM BATHOLITH
9 LATE DYKES, light brown, orange, grey, aphanitic to fine grained, commonly porphyritic; mainly latite, less commonly dacite, rhyodacite, rhyolite, fine-grained granite
8 QUARTZ MONZONITE, pink to white, medium to coarse grained, leucocratic to hololelsic; mainly hypidiomorphic granular, but locally may be xenolithic, porphyritic; grades into granite in some areas
7 GRANODIORITE, light grey to white, medium to coarse grained, leucocratic (amphibole > biotite), mainly hypidiomorphic granular
6 DUCKLING CREEK SYENITE COMPLEX, great variety in texture and mafic content; contains both magmatic and metasomatic potash feldspar-rich rocks; although not mapped separately, the Complex consists of three main divisions
(i) brown to orange, medium to coarse-grained, leucocratic to holofelsic intrusive rocks, with pegmatitic and potash feldspar porphyries locally evident; coarser grained cores of this division commonly grade into fine-grained aplitic textured borders; quartz veins occasionally cut these rocks
(ii) dark grey-pink mottled, fine to medium-grained meso- to melanocratic hybrid potash feldspar rock, generally exhibiting streaky colour bands and distinct alignment of prismatic pyroxene/amphibole and/or potash feldspar phenocrysts
(iii) brown to orange, pegmatitic to aplitic dykes and stringers cutting the above divisions as well as Units 2 to 5
6A POTASH FELDSPAR ENRICHED HYBRID MONZONITE, pink to orange/black mottled grading to grey/black mottled with orange patches and streaks, mainly fine to medium grained, leucocratic to mesocratic; mainly hypidiomorphic granular texture, but shows prismatic mafic alignment near borders with Unit 6 (pyroxene > amphibole > biotite); contacts with Unit 5 are gradational; quartz veins occasionally cut this unit
5 MONZODIORITE-MONZONITE, grey/black mottled, fine to medium-grained, mesocratic (pyroxene > amphibole > biotite), hypidiomorphic granular textures common; quartz-bearing varieties are present; dykes of this unit cut Unit 2 along the Hogem-Takla contact area; accessory magnetite is common in Units 3, 4, and 5
4 DIORITE, dark grey to black, medium-grained, mesocratic (pyroxene > amphibole), hypidiomorphic granular textures
3 BIOTITE-POTASH FELDSPAR PYROXENITE, dark green/black mottled, coarse grained; occurs as lenses and irregularly shaped blocks within Units 6 and 6A
UPPER TRIASSIC TO LOWER JURASSIC
2 TAKLA GROUP VOLCANIC ROCKS, mainly dark green tuffs and breccias of andesitic to basaltic composition; occasionally interbedded with flow rocks and cut by pyroxene and feldspar porphyry dykes of similar composition; interbedded dolomites were noted at one locality
AGE UNKNOWN
1 FOLIATED 'BASEMENT' ROCKS, mainly amphibole-biotite-potash feldspar foliates, gneisses, and schists; some garnetiferous and calcareous mica schists have been noted; this unit appears at topographically lower levels enveloped and cut by Unit 6 foliates
SYMBOLS
Geological contacts
approximate
assumed
gradational
Foliation zones
Foliations, measured
inferred
Joints
Primary compositional layers
Pinchi fault zone
Fault, inferred
Air photograph linear
Fracture trace linear, inferred
Glacial linear
Dolomite layers Dol.
Takla volcanic inclusion zones within Hogem batholith V V
Potash feldspar enrichment K
Pyritized rusty zones Py
Copper prospect ▲7
Copper showing X
Department of Mines and Petroleum Resources Omineca Road
Four-wheel-drive vehicle road
Ridge lines
Scale 1 : 50 000
0 1 2 3 4 5
KILOMETRES
LIST OF PROSPECTS
1. Lorraine
2. Rondah
3. Misty
4. Duckling
5. Betty
6. Tam
7. Dorothy
8. Elizabeth
BP Resources Canada Limited
MINING DIVISION
Boot-Steele Property
REGIONAL GEOLOGY
SCALE: 1:50,000
DRAWN BY:
FIG. 3
DATE: - DEC 1991
DRAFTED BY:
N.T.S 93N/14
PROJ. 10162
REPORT: BPVR

6. THE LORRAINE DEPOSIT

The geology and exploration history of the Lorraine deposit are summarized in papers by Wilkinson et.al. (1976) and Garnett (1978). The deposit has published reserves of approximately 10 million tons averaging 0.7% copper and 0.1 to 0.34 ppm gold. The reserves are contained in two fault-bounded blocks, referred to as the Upper and Lower zones, covering an area about 900m long by 250m wide.

The mineralized zones occur in syenite migmatite adjacent to the northeastern contact of the DCSC. The migmatite contains metasomatized relicts of pyroxenite, diorite, monzonite and possible metavolcanic basement rocks. The Upper Zone is exposed on surface and is marked by prominent malachite staining while the Lower Zone is concealed by overburden.

The deposits consist of erratic lenses containing disseminated chalcopyrite and bornite in sub-equal amounts. Fracture-filling mineralization is reported to be relatively minor. The copper sulphides are associated with strong biotite, chlorite, potassium feldspar and sericite alteration. Magnetite is ubiquitous in and near the deposit but the pyrite content is low.

The principal ore control at Lorraine appears to be the west-northwest, steeply-dipping gneissic foliation. The best mineralization occurs in the mafic-rich portions of the migmatite. It seems clear that the sulphides are related to the migmatite emplacement. A K-Ar age date of 175 $\pm$ 5 my from a sample of pyroxenite collected by Garnett (1978) is considered to indicate the minimum age of the syenitic intrusion and the maximum age of sulphide mineralization.

The Lorraine deposit has syngenetic characteristics and probably formed at a greater depth than the "typical" alkalic porphyry copper-gold porphyries elsewhere within the Quesnel Trough.

7. EXPLORATION HISTORY

Compared to the extensive exploration carried out on the Lorraine property, little work appears to have been done on what is now the Boot-Steele claims. The earliest work probably was done on the Jeno showing. The exact location of the showing is not known but according to a map in the 1949 BCDM Annual Report it is located on what is called the Jeno Ridge in this report.

A description of the Jeno showing is given in an undated report (probably circa. 1949) provided by Sandra Bishop of Kennecott Canada. The report notes that chalcopyrite, bornite and malachite occur in fine-grained, pink syenite or monzonite exposed in a northwesterly-trending outcrop 30m long by up to 8m wide. A chip sample yielded 3.24% copper over a 2.1m width. The outcrop is found on the south side of the ridge and mention is made of small high-grade bornite showings. One of these is quite likely the bornite showing found this year in the north-facing cliff face on Jeno Ridge (see Figure 4).

According to the BCDM Minfile description of the Jeno Showing, copper mineralization occurs over a 150m by 550m area in specks and stringers parallel to a north-striking gneissosity.

In 1966 Belcarra Explorations Ltd. did a reconnaissance soil survey southeast of Jeno Ridge (BCDM assessment report 1012). An area with enhanced copper values (to 280 ppm) was outlined over what is now the northeastern corner of BOOT 10. This area is 700m long, up to 250m wide and open to the east and west.

In 1972, Noranda explored the PIK claim group immediately west of the Lorraine property (assessment report 4522). They found a northwesterly-trending copper soil anomaly (Cu >357 ppm) that is 1280m long, open to the northwest and southeast and up to 500m wide. The highest copper value is 3300 ppm and a weak Mo soil anomaly occurs within the copper zone. The anomaly is located in the northwestern corner of the STEELE claims, northwest of the present Lorraine property boundary.

Exploration on the Ted claim group for Tupco Mines Ltd. in 1972 (assessment reports 4151, 4152) included work on the eastern edge of what is now the STEELE 2 and 3 claims. Numerous small copper showings with areas of potassium feldspar alteration were found on "Ted Ridge" and spotty copper soil anomalies (values to 790 ppm) were outlined on this ridge and in the valleys to the north and south. An IP survey over the same area showed some weak to moderate IP responses that were recommended for drilling.

The Col claim group, explored in 1972 by the LUC syndicate, (assessment reports 3610, 3995), straddled what is now the northern boundary of the STEELE claims. Bornite and chalcopyrite showings were mapped on the ridges within and adjacent to the STEELE claims. Extensive copper and molybdenum soil anomalies extend into the valley northeast of the Lorraine property. In assessment report 3610, the molybdenum anomaly is described as covering an area 360m by 700m that averages 17 ppm Mo.

Also includes in assessment report #3995 is a legal survey map of the Col claims and the adjacent Lorraine property. This is useful in determining the exact location of the northeastern and southeastern boundaries of the present Lorraine claims.

8. PROPERTY GEOLOGY

As can be seen in Figure 4, only a limited amount of reconnaissance mapping was completed on the claims and as a result, large areas remain unmapped. The mapping was concentrated in the area underlain by the DCSC between the "Jeno" and "Ted" Ridges. The Jeno Ridge area has prominent aeromagnetic and K/Ur anomalies and a bornite showing. Because of this, it was chosen to be the focus of the reconnaissance IP survey.

8a) Lithologies

The DCSC comprises a complex variety of syenites that have been be divided into four main units. The syenites enclose, and in places are possibly cut by, the so-called pyroxenites. These rocks appear to be concentrated in the valleys, although some lenses are found along ridge-tops. Late stage leucocratic dykes are common in all rock types and are presumably the youngest intrusions in this part of the Hogem batholith.

The **Medium-Grained Syenite**, unit SY_1, crops out on the southern slope of Ted Ridge and near Cliff Lake in the valley to the south. This unit is buff-coloured and leucocratic. It has a medium grained, equi-granular texture in outcrops near the lake but contains variable amounts of large K-feldspar phenocrysts towards the contact with the Megacrystic Syenite, unit SY_3. The contact thus appears to be gradational between the two units. The Medium-Grained Syenite is commonly cut by quartz veins and has traces of pyrite but is otherwise fresh and massive.

Equi-Granular Syenite, unit SY_2, does not appear to be widespread but instead occurs as isolated dykes and sills. It is the probable equivalent of Garnett's Holofelsic Syenite on the Lorraine property. This syenite is light grey, leucocratic and fine to medium-grained with an equi-granular to weakly porphyritic texture. Mafic minerals, primarily pyroxene, make up 5-10% of the rock. This unit hosts the best copper-gold mineralization found on the Boot-Steele property - a showing located near the Lorraine property's southeastern claim boundary, south of Ted Ridge. Similarly mineralized SY_2 syenites are known to occur on the Lorraine ground to the west and northwest of this showing.

Megacrystic Syenite, map SY_3, is well exposed around the highest peak on Jeno Ridge and on the spur leading to the north. It is a distinctive, light grey rock containing weakly to strongly foliated K-feldspar phenocrysts up to 8 cm long in a medium-grained groundmass. About 5-10% pyroxene is found in the groundmass. These syenites are generally fresh except for minor narrow fracture zones that contain copper or FeOx stains.

The Mafic Syenite, SY_4, is the likely equivalent of Garnett's Syenite migmatite at Lorraine. On the Boot-Steele claims, this rock is weakly to strongly foliated and locally gneissic but is nowhere migmatitic. The Mafic Syenites are medium-grained, dark grey in colour and contain 40% mafics, mainly pyroxene but also minor biotite. The remainder of the rock is mostly all potassium feldspar except for a few percent magnetite. This unit is generally equi-granular although near the contact with the Megacrystic Syenite on Jeno Ridge, the textures are more complex. Here, contacts between the two units can be gradational with large phenocrysts of potassium feldspar occurring in the Mafic Syenite over 10-20m sections. In other places nearby, the contacts are relatively sharp.

The Mafic Syenites are well exposed on the Jeno and Ted Ridges and considering the distribution of these rocks on the Lorraine property, they may underlie a good portion of the area south of Ted Ridge towards Cliff Lake.

The magnetite content of the DCSC rocks increases with the mafic content and varies from perhaps 1% in the leucocratic rocks to about 3% in the Mafic Syenite. Because most of the magnetite is disseminated, it is difficult to distinguish primary from hydrothermal magnetite; most, however, is probably primary in the rocks mapped to-date.

Float of **Feldspar Porphyry**, unit DY, is found in talus along the base of the ridge located about 400m south of drill hole BD-91-2. It is light grey in colour, medium-grained and weakly porphyritic. The porphyry contains virtually no mafic minerals and is composed almost entirely of potassium feldspar. This unit probably occurs as dykes or sills within the Syenite Complex. It is potentially a very significant rock type as many of the talus blocks found of this unit contain considerable disseminated chalcopyrite. These dykes have also been mapped near the Lorraine deposit.

The so-called **Pyroxenites** are concentrated in the valleys to the north and south of Ted Ridge. They are dark green in colour and often weather to distinctive piles of coarse green sand. Map unit PYX_1 pyroxenites are medium-grained and contain on average 40-50% pyroxene, 30-40% feldspar (mostly potassium feldspar) and 10-15% biotite. Biotite and to a lesser extent, pyroxene, is often porphyroblastic. Magnetite contents averages 5%.

The 'spotted pyroxenites', unit PYX_2, are similar to the PYX_1 variety except that they have up to 40% porphyroblasts of potassium feldspar or microperthite. In drill holes BD-91-2 and BD91-4 the contacts between the two types is clearly gradational.

Both varieties of pyroxenite are foliated and show a variable amount of potassium metasomatism. Potassium feldspar occurs as irregular veinlets, clots or bands. Where the metasomatism has been intense, the pyroxenite has a geneissic or hydrid appearance. Biotite forms fine disseminations or coarser clots and porphyroblasts.

The rocks that underlie the areas north and south of the Syenite Complex were examined only briefly. The ridge to the north of the Ted Ridge and the valley beyond are underlain by quartz monzonites and monzonites. The amount of patchy potassium feldspar in these rocks increases noticeably towards the contact of the Syenite Complex. Trace amounts of disseminated pyrite appear to be widespread but not enough mapping was done to determine if this is evidence of any pyrite halo.

To the south of the syenites, the only area to be examined in detail lies along the IP line 1800E. Here, medium-grained equigranular monzonite predominates.

This rock is moderately magnetic but is unaltered and contains only traces of sulphides. A wide variety of late dykes, map unit DY_2, cut all other rock types. A concentration of these is seen on Jeno Ridge, west of the highest peak. The dykes are typically less than 5m wide and appear, in the areas mapped, to have random orientations, although (Garnett (1973) notes a northeast preferred orientation for the dykes.

The dykes are generally white or various shades of pink or grey. They are leucocratic, fine-grained and can be equigranular or porphyritic. Most probably have latitic compositions.

Some of the late dykes cutting the syenites on the Jeno Ridge have up to 2% disseminated pyrite. Traces of chalcopyrite, malachite, or rarely chalcocite, can also be seen. Overall, however, the dykes are not significantly altered or mineralized.

8b) <u>Structure</u>

The most prominent structures on the claims are east-southeasterly-trending foliation zones within the DCSC. According to Garnett's (1972) mapping these zones are concentrated at, and parallel to, the borders of the Complex. On the Boot-Steele property the zones are centred on the Jeno and Ted Ridges. The latter zone is an extension of the one associated with the Lorraine deposit.

The foliations are displayed in a variety of ways. In the Megacrystic Syenite, unit SY_3, there is a strong alignment of the potassium feldspar phenocrysts. The Mafic Syenite, SY_4, on Jeno Ridge exhibits light and dark compositional banding. The mafic minerals in the pyroxenites usually show some degree of foliation.

Figures 4 and 5 show faults inferred from the airborne geophysical survey data. There is a strong preferred northeast direction for the faults. Other common orientations are northwest-southeast and north-south.

A prominent northeast structural corridor cuts through the centre of the map area. Field evidence to support the structure is seen in the warps in the regional west-northwest foliation zones seen in outcrop 300m north of the Jeno Ridge and on top of the small plateau near the southern end of IP line 1800E. It is also noteworthy that in the BCDM Minfile note on the Jeno showing, the gneissosity is described as northerly-trending.

There is good exploration potential for this structure. A K/U airborne anomaly coincides with the inferred faults near Cliff Lake. This area is also at the intersection of inferred northeast and north-south faults and the major west-northwest foliation zone - a structural setting similar to that at the Lorraine deposit (see Figure 5). In addition, the structural corridor includes a bornite showing on Jeno Ridge and possibly the Jeno showing. Drill hole BD-91-3 was to have tested this structure near Cliff Lake but had to abandoned in overburden.

8c) Mineralization and Alteration

Trace amounts of copper mineralization are widespread in rocks of the DCSC and adjacent units. Chalcopyrite, and to a lesser extent bornite and chalcocite, typically occur as fracture coatings. Malachite almost always accompanies the sulphides or oxides. The copper mineralization can occur in unaltered rocks or syenites that show strong K-metasomatism or alteration.

The most impressive copper showing is located near the southeastern claim line of the Lorraine property. An area of buff-grey coloured Equi-Granular syenite (SY_2) extends from the claim line in a direction of about 160° for approximately 50m. The syenite is exposed as abundant angular sub-crop boulders and massive ledges of almost certain outcrop up to 8m across.

The syenite is variably fine to medium grained with an average 5% mafics. Some places have coarser grained patches richer in K-feldspar and fine-grained secondary biotite but overall the syenite is not strongly altered. A weak foliation striking approximately 110° is present locally.

The syenite is well mineralized with fine-grained chalcopyrite and rare bornite that is quite uniformly distributed in the exposed rocks. Malachite is common along fractures and pyrite is sparse.

Samples collected from this showing yielded good copper and gold results. Two lines comprising 2m chip samples were done. Outcrop near the claim line had 0.71% Cu and 0.33 ppm Au over 8m. Samples taken about 20m to the southeast had 0.55% Cu and 0.28 ppm Au over 6m.

The control of the disseminated mineralization at the showing is not obvious but two possibilities seem most likely. The first is that the chalcopyrite is disseminated within a syenite dyke trending 160° -- the orientation suggested by the surface exposures. The second possibility is that the sulphides are controlled by the east-southeast foliation as is reported to be the case at the Lorraine deposit.

Both of the possible controls should have been tested by holes BD-91-2 and BD-91-4 drilled near the showing. However, neither hole intersected the mineralized syenite. The reason for this is not clear. It may be due to as yet unidentified faults. Or, if the mineralized dyke hypothesis is correct, the dip of the dyke may be so shallow that the drill holes passed underneath the structure.

A small but high-grade copper showing occurs in the north-facing cliff face on the Jeno Ridge. Copper-rich pods up to 15 cm thick occur in a vertically-dipping east-west fracture near the contact of the Mafic and Megacrystic Syenites. The pods contain semi-massive bornite, lesser chalcopyrite and abundant malachite stains. Although it was not possible to gain complete access to the showing, the mineralization appears restricted to about a 10-15m strike-length. Irregular malachite stains extend down-dip in the cliff face for perhaps 10-20m.

A grab sample from outcrop had 14.4 ppm Au, 276 ppm Ag, 1865 ppb Pd and 75 ppb Pt along with almost 10% Cu. Float samples that almost certainly came from this showing (including some collected by Richard Haslinger) were collected from talus on the north side of the cliff. These samples had up to 19.8 ppm Au, 221 ppm Ag, 2609 ppb Pd, 648 ppb Pt and 10% Cu.

This bornite showing appears to be quite small, a conclusion supported by the limited extent of mineralized float at the base of the cliff. It may be, however, that this mineralization is related to the Jeno showing that is probably nearby, on the southern slope of Jeno Ridge.

IP line 3000N crossed this area and showed a moderate chargeability high for about 200m both to the west and east of the bornite showing. As little sulphide is present in the syenites here, the IP high is likely caused by disseminated magnetite.

Hydrothermal alteration is widespread and locally strong in the map area but well-defined patterns could not be determined. Potassium feldspar is the most obvious alteration and is seen as pink fracture envelopes and pervasive patches. Secondary biotite occurs as disseminated fine to coarse grained flakes or less commonly, as fracture fillings. Potassic alteration appears to be best developed on Ted Ridge.

Porphylitic alteration is generally weakly developed and shows as pervasive or fracture-filling epidote and chlorite. This alteration is displayed well in the core from BD-91-2 and BD-91-4.

Other, less common secondary minerals include calcite, sericite, quartz and riebeckite. This latter mineral occurs as fracture-fillings and is most abundant in the north-facing cliffs on the Jeno and Ted Ridges. It is probably a late-stage mineral.

8d) Diamond Drilling

The diamond drilling program consisted of one NQ and three BQ thinwall holes for a total of 352.3m. One hole (BD-91-1) had road access and was drilled using a Longyear 38 machine. The other holes required a helicopter-supported Craellus drill.

Selected 2m sections of core were split and half the core sent to Acme Analytical Laboratories in Vancouver. Samples were analysed for geochemical gold and 30 other elements by ICP.

BD-91-1 tested an area near the Lorraine access road with coincident airborne magnetic and K/U anomalies and a chargeability high. The hole intersected mainly fresh, medium-grained monzonite to the end of the hole at 96.0 m. Minor narrow, weakly FeOx-stained shear zones near the top gave the only evidence of hydrothermal activity. The highest copper and gold values from BD-91-1 are 721 ppm and 13 ppb respectively.

The cause of the magnetic and IP anomalies is almost certainly the disseminated magnetite in the monzonite. Tests done on BD-91-1 core containing only traces of sulphides gave chargeability readings of 7.7 and 8.1 msec. - comparable readings to those found on the IP survey line near the drill hole.

BD-91-2 and **BD-91-4** were drilled to test the area of disseminated chalcopyrite mineralization near the southeastern claim line of the Lorraine property.

BD-91-2 intersected the so-called pyroxenite from the end of the casing at 3m to the end of the hole at 133.8m. To 112.3m, the pyroxenite has 10-15% biotite porphyroblasts and common clots, stringers and gneissic bands of potassium feldspar or syenite. From 112.3m to the end of the hole at 133.8m the pyroxenite contains 15-20% potassium feldspar and perthite porphyroblasts. The entire core is strongly magnetic, averaging 3-5% disseminated magnetite.

The pyroxenite displays weak pervasive and fracture-filling epidote-chlorite alteration with local sericite patches. The core has traces of pyrite and chalcopyrite throughout but in only one section, from 18-20m, is there an increase in sulphides. This section had 1829 ppm Cu but only 6 ppb Au. Few other 2m intervals had greater than 100 ppm Cu.

Hole **BD-91-4**, collared northeast of BD-91-2, intersected similar pyroxenite for most of the hole to its end at 100.5m. A bladed pyroxene syenite porphyry occurs from 45.7m to 58.7m. This unit has gradational contacts with the pyroxenite and is genetically related to it. This syenite is definitely a different rock type than the mineralized syenite found at surface.

The pyroxenite in BD-91-4 has weak chlorite, epidote and potassium feldspar alteration. No significant sulphide zones are present and the highest geochemical results are 254 ppm Cu and 26 ppb Au over 2m intervals.

As noted previously, it is not clear why the two drill holes failed to intersect the extension of the surface mineralization. It may be that the mineralized syenite has been off-set by as yet, unrecognized faults. Another possibility is that the dyke(?) that hosts the mineralization is very shallowly-dipping and thus was missed by the drill holes.

BD-91-3 was to have tested the inferred major northeasterly-trending fault zone and the K/U anomaly about 700m southeast of BD-91-2. The hole was abandoned in overburden at 22m due to mechanical problems and thus the target remains untested.

9. GEOPHYSICS

The results of Aerodat's helicopter-borne magnetic, electromagnetic and radiometric survey over the property are presented in a separate report (BPVR 91-17). A compilation of anomalies and Aerodat's recommended target areas are presented in this report in Figure 5. Aeordat choose the targets based on similar geophysical characteristics as those associated with the Lorraine deposit. These characteristics are as follows:

- Moderate to high (59,000 to 60,500) total magnetic field values and an anomalous trend which coincides with that of the deposit.
- A coincident VLF conductor axis over most of the axis of the largest zone of the deposit.
- High radioactive potassium count rates and a high K/U ratio over all or part of the deposit.

Aerodat concluded that apparent resistivity, EM conductors (with or without magnetite) and the apparent weight percent magnetite seem to bear no special relationship to the Lorraine deposit.

Included in Figure 5 are linears (faults?) inferred from the geophysical data. As noted in Section 8d, there is field evidence to support the strongest structure - a corridor of northeasterly-trending faults across the central part of the map area.

Five IP-resistivity traverses were made with Line O along the southern claim boundary of the Lorraine block and the other four in areas accessible without line-cutting on Jeno Ridge. L3000N follows elevation from the claim boundary to Jeno Ridge where it follows the east-west crest of the ridge. Line 2700N takes a parallel line but 100m lower on the south-facing slope. Lines 1800E and 2300E follow north-south spurs which join the line along the crest of Jeno Ridge at 1800E and 2300E, respectively. Great credit is due to the geophysical crew who completed the traverses with no helicopter or logistical support.

The IP array used was pole-dipole, a=50m, n=1-3 with the C_1 current electrode to the west of L O, L3000N and L2700N and to the north on L1800E and L2300E. A 6-point filter has been calculated for both chargeability and resistivity values. Because of the extreme topography, the resistivity results are to be interpreted with great caution.

The Lorraine mineralization is reported to be pyrite deficient but contains magnetite as an alteration product. In addition, the Lorraine intrusive suite contains syngenetic magnetite with an indistinguishable chargeability exposure.

On Line O the elevated chargeability anomaly extends from 21+50E to 27+00E with an average chargeability of 8 msec. The peak of the zone can be found at 27+00E where there is an associated narrow dyke-type high resistivity anomaly.

On L3000N and L2700N the only zone of significant size extends from 16+00 to 22+00 on both lines with the strongest response being between 20+00E and 22+00E. No interpretation has been attempted of the resistivity data because of the topographic effects. The narrow zone centred at 36+00E on L2700E lies immediately down-slope from the anomaly at 28+00E and is probably related.

On L1800E a chargeability anomaly is open at the south end of the line extending to 10+50N with the maximum amplitude of 18 msec. at 9+50N in a zone of elevated K/U ratio. This zone has been tested by a drill hole BD-91-1 about 150m west of the line which encountered fresh intrusive with ±1% syngenetic magnetite eliminating the possibility of a sulphide system.

On L2300E a similar anomaly type exists but without the K/U anomaly association. The amplitude is lower with a peak chargeability of 10 msec.

The IP parameter suffers from the ambiguity between polarizable chalcopyrite and magnetite. Parameter test work has shows that core from DDH BD-91-1 (barren intrusive with magnetite) gave a chargeability of 8 mesc. whereas mineralized float containing up to 2% chalcopyrite gave a response of 11 msec.

Field checks and geochemical sampling are recommended of the geophysical anomalies before any drilling.

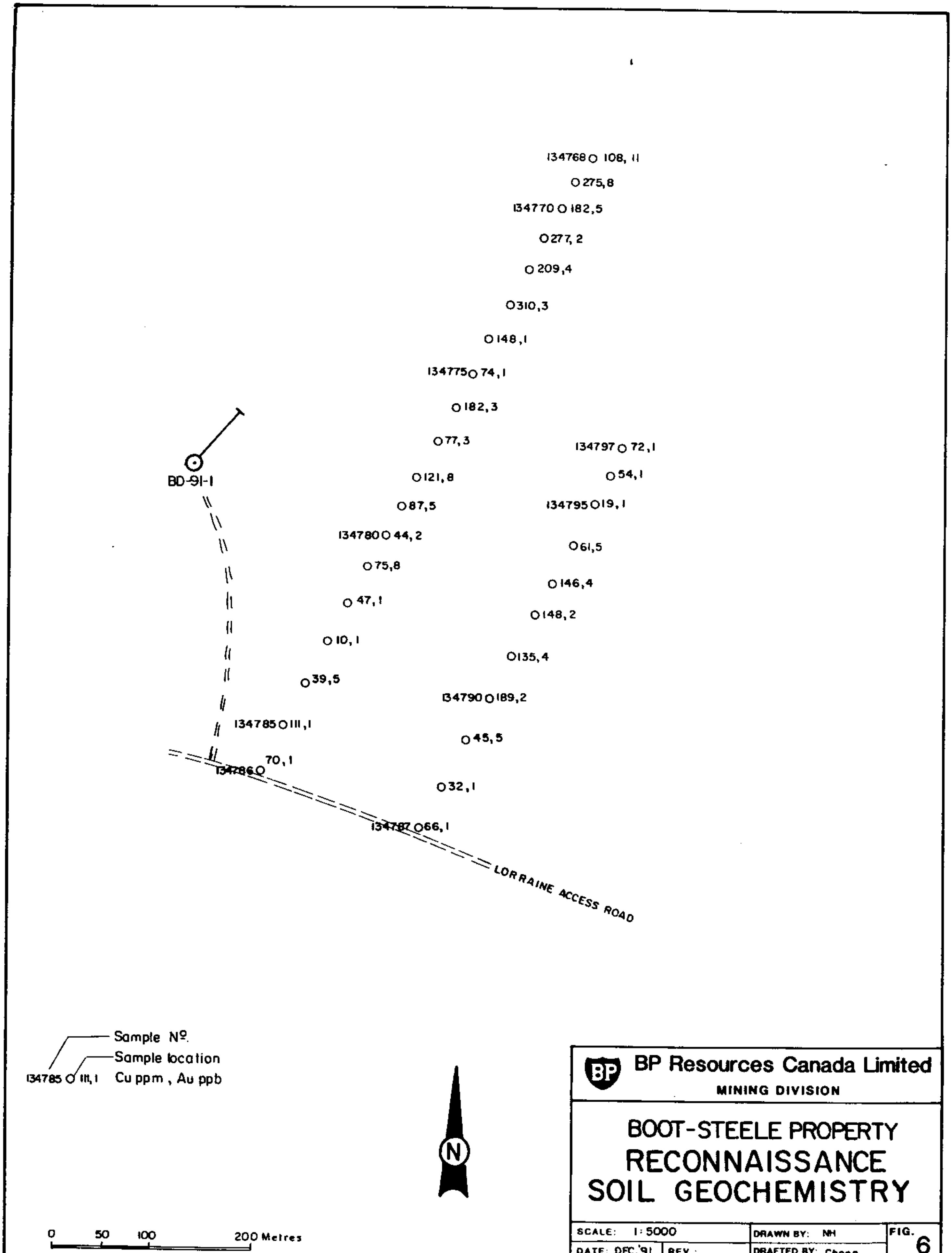
10. GEOCHEMISTRY

a) Soil and Stream Sediment Sampling

Two soil lines comprising 30 samples were put in near the southern end of IP line 1800E. Figure 4 shows the location of the samples. The samples were collected from the "B" soil horizon and shipped to Acme Analytical Laboratories in Vancouver, B.C. where they were analyzed for gold, platinum, palladium and 30 other elements by ICP.

The results for copper and gold are shown in Figure 6. Some weakly anomalous copper values to 310 ppm come from samples at the top of the small hill. One sample here (134768) is also weakly anomalous in gold (11 ppb), platinum (10 ppb) and palladium (12 ppb). The source of these weak anomalies is puzzling as the abundant outcrop near the anomaly is of fresh, barren monzonite.

The locations of five stream sediment samples collected in the valley north of Jeno Ridge are shown in Figure 4. These samples contain up to 355 ppm copper



BP Resources Canada Limited
MINING DIVISION

BOOT-STEELE PROPERTY
RECONNAISSANCE SOIL GEOCHEMISTRY

SCALE: 1:5000		DRAWN BY: NH	FIG. 6
DATE: DEC.'91	REV.:	DRAFTED BY: Chong	
N.T.S. 93N-14	PROJ.: 10162	REPORT: BPVR 91-13	

CHONG

and 73 ppb gold. The likely source for the metal is mineralized talus from the showings on Jeno Ridge; however, the possibility of another, more significant source in the valley cannot be discounted.

b) **Rock Geochemistry**

A total of 20 rock chip samples were collected by BP and analyzed for the same suite of elements as for the soil samples. Sample descriptions are given in Appendix 1. Included in Appendix 4 with the list of geochemical results is a sketch showing the location of rock samples collected by Richard Haslinger.

The results for the samples from the most significant showings have already been discussed. A further interesting discovery from the rock sampling results is the high level of gold and PGEs from showings on the property. Silver values are also strongly elevated in samples of both "porphyry-style" and "vein" type mineralization.

11. CONCLUSIONS

The Boot-Steele property is strategically located, surrounding the Lorraine property and covering the same favourable geological units that host the copper-gold deposit. The edge of the Lorraine deposit is within 1000m of the Boot-Steele ground.

Due to time and weather constraints, a detailed follow-up of many of the target areas could not be completed. As a result, the exploration done-to-date - in particular the geological mapping - is very preliminary, and much more detailed work is required to properly assess the copper-gold-PGE potential of the claims.

The airborne survey was successful in identifying numerous areas of interest on the property. Although the ground follow-up work was insufficient to adequately assess the airborne targets or much of the claim block, some comments can be made on the exploration potential on the claims:

- Copper showings are common in rocks of the DCSC. Most showings are very limited in size but the widespread nature of the occurrences enhances the potential of the areas underlain by the DCSC on the Boot-Steele claims.

- Magnetite is abundant in many of the rocks examined and is apparently more abundant in the mafic units. However, the relationship of magnetite to copper and gold mineralization is unclear. Regionally, the Lorraine deposit occurs within a prominent magnetic high but it seems likely that the richest copper-gold zones do not necessarily contain the most magnetite. One problem in assessing the significance of the magnetite distribution is that much of the magnetite is disseminated and it is therefore difficult to distinguish the more significant hydrothermal magnetite from the syngenetic variety. An additional compilation in interpreting the magnetic survey data results from the presence of numerous highly magnetic pyroxenite bodies.

- Pyrite is sparse in the syenites examined in the map area. This observation is consistent with the literature descriptions of the Lorraine property. Slightly more pyrite was seen in the monzonites on the ridge north of the Ted Ridge. This paucity of pyrite means that the interpretation of IP surveys can be especially difficult. An added complication is that disseminated magnetite can be responsible for moderate IP responses - the drilling results of BD-91-1 is an example of this. In this case, the chargeability anomaly (in the 7-12 msec range) tested by BD-91-1 is similar to that reported by Wilkinson (1976) over the Lorraine deposit. Perhaps soil geochemistry will be valuable in differentiating IP anomalies resulting from copper sulphides from those caused by magnetite and/or pyrite.

- The role, if any, of the pyroxenites in the genesis of the Lorraine deposit is not clear from the papers published on the deposit. Mapping on the Boot-Steele claims did not yield much information to help solve the problem. Small copper showings occur in the pyroxenites but no one area can be called more prospective on the basis of these showings. The pyroxenites intersected in BD91-2 and BD-91-4 were not well mineralized despite a proximity to relatively copper and gold-rich syenites.

- Garnett's (1971) view that pyroxenites are more abundant in the valleys is supported by this years' mapping. This appears to be the case for the valleys on either side of Ted Ridge.

- The results of the rock sampling show surprisingly high values of PGEs and silver in some showings in the Duckling Creek syenites. The elevated PGE levels may be the result of the abundant pyroxenite present; if so, the apparent abundance of these bodies on the Boot-Steele claims is encouraging. These metals could significantly 'sweeten' a porphyry or shear-hosted copper-gold deposit.

Based on the results of the 1991 work, ten areas are recommended for additional exploration. The locations of these are shown on the Geology map, Figure 4.

The highest priority target, Target 1, lies in the valley between the Jeno and Ted Ridges and coincides with Aerodat's target A-3. In the valley, ore-grade copper and gold mineralization over significant widths occurs near the Lorraine claim boundary.

Although the drill holes here did not intersect the extension of the surface mineralization, the disseminated nature of the sulphides and the presence of abundant mineralized float in a nearby drainage indicate that the mineralization could be widespread. Similar mineralization is known on the Lorraine side of the claim boundary and was probably the target of extensive drilling by Kennecott in 1991 (see Figure 4 for location of these holes).

The showings in the valley may be related to the same structure(s) that apparently controlled the Lorraine mineralization. The Lorraine deposits are elongated in an east-southeast direction, parallel to the regional foliation zone. Allowing for a small jog (right lateral offset along the northeast faults mapped by Garnett (1973) near the claim line?) the trend of the Lorraine mineralization would extend into the Cliff Lake valley. There is ample room in the overburden covered valley southeast of the mineralized outcrops near the Lorraine claim line for a 100^{+} million ton porphyry deposit.

Targets 2 to 5 lie within the northeast structural corridor that transects the claims. The principal area of interest along this structure, Target 2, is just north and northwest of Cliff Lake where there is an inferred intersection of northeast and north-south faults and the east-southeast Lorraine foliation zone. A K/U anomaly also overlaps part of the structures and Aerodat's target A-4 is located here. Target 3 nearby is the area of the IP anomalies found by Tupco Mines in 1972 and includes an isolated magnetic high.

Two other areas of interest lie along the northeast structure. One extends from the Jeno Ridge to the southwest. This zone, Target 4, contains the possible location of the Jeno showings, an IP anomaly along IP line 2700 North, a K/U anomaly and the intersection of inferred northwest and northeast structures. It also lies within the large magnetic high lobe that extends from the Lorraine property and near numerous small copper showings. Target 5 lies farther to the southeast, south of Duckling Creek. Here, the inferred northeast structure intersects a major airborne EM conductor axis and a magnetic anomaly probably related to a pyroxenite body.

For all of the targets located along the inferred major northeast structure, the potential is for both a large porphyry deposit and shear-hosted, high grade precious metal deposits.

Target 6 is immediately southwest of the Lorraine property. It covers the flank of the large magnetic anomaly, and IP anomaly along Line O, Aerodat's area of interest A-5 and a zone of enhanced potassium found by the airborne survey.

Target 7 lies southeast of Jeno Ridge. It is a broad area near the eastern end of the regional magnetic high and a large K/U anomaly. The soil anomaly reported in assessment report 1012, an IP anomaly at the end of Line 2300E and possibly the Jeno showing are nearby. This is Aerodat's recommended area A-6.

Three target areas are located near the Boot-Steele property boundaries. Target 8 is in the northwestern corner of the property and coincides with Aerodat's target A-2. The extensive soil anomaly found by Noranda in 1972 coincides with an isolated magnetic anomaly near the intersection of an inferred northeast fault and the extension of the Lorraine foliation zone.

Target 9 lies along the northern claim boundary north of the Lorraine property. This area includes part of the copper-molybdenum soil anomaly on the old Col claims as well as an isolated magnetic high and a K/U anomaly.

Target 10 is near the western claim boundary near Aerodat's target A-5. The intersection of an inferred north and northeast faults is near a K/U anomaly that is open to the west.

12. RECOMMENDATIONS

The number and quality of the targets found by the 1991 surveys justifies a major follow-up program for 1992. The initial work should concentrate on geological mapping and prospecting over the entire claim block. With this completed, a much clearer picture will emerge of the geology on the claims and the relative merits of the targets listed in the previous section.

A recommended second-stage programme is outlined below. The emphasis is on soil geochemistry and IP surveys although detailed mapping may prove to be very important for some targets.

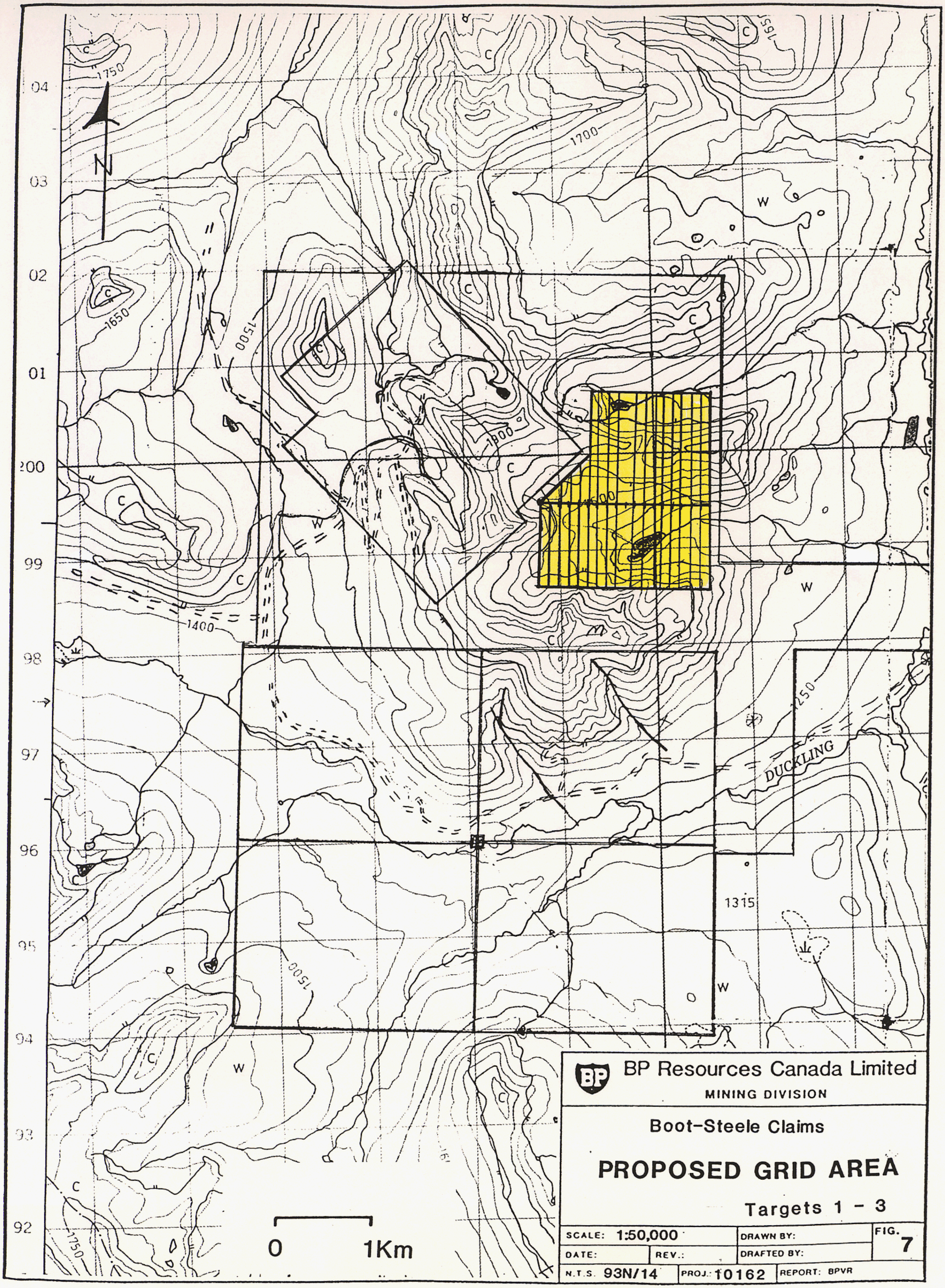
Targets 1-3- Cliff Lake Valley

Cut-Line Grid/Geological Mapping and Prospecting

- The approximate position of the recommended grid is shown on Figure 7. The base line should trend 90° so that the survey lines will cross both the strike of the Lorraine foliation zone and the inferred northeast structures at reasonable angles. Stations are to be established at 25m intervals on lines 100m apart.

IP/Resistivity Survey

- All lines should be surveyed using a pole-dipole array, a spacing of a = 50m and separations of n = 1-4.



BP Resources Canada Limited
MINING DIVISION

Boot-Steele Claims

PROPOSED GRID AREA

Targets 1 - 3

SCALE: 1:50,000		DRAWN BY:	FIG. 7
DATE:	REV.:	DRAFTED BY:	
N.T.S. 93N/14	PROJ.: 10162	REPORT: BPVR	

- Soil Geochemistry

Samples should be collected at 25m intervals. Initially, every second sample could be analysed for geochemical gold, platinum, palladium and 30 element ICP. The remaining samples can be analysed later, if necessary, to improve anomaly definition.

Target 4 - Jeno Ridge

Detailed Mapping/Prospecting

- The Jeno, and probably other showings will likely be located and mapped. The significance of the chargeability high on Line 2700N can be assessed: is it due to disseminated magnetite as appears to be the case on Line 3000N ?
- Additional mapping can help determine the potential of the inferred major northeast faults.

Soil and Talus Fines Geochemistry

- Sampling along reconnaissance contour lines should be effective on the southern slope of Jeno Ridge. Lines approximately 1 km long, 200m apart and centred roughly on the inferred fault zone are recommended. Samples should be collected every 50m and analysed for the same elements as for Targets 1-3. A grid of six lines would cover the area from near the top of the ridge to the flat-topped hill crossed by IP Line 1800E.

Target 5 - South of Duckling Creek

Cut-line Grid and IP Survey

- The principal target is the intersection of the inferred northeast fault and the coincident linear magnetic high and EM conductors. The grid should have eight 1000m long lines spaced 200m apart. A grid with a baseline trending 320° could be centred on the small hill, elevation 1381.6 m, located near the inferred intersection. The IP survey procedures can be the same as for Targets 1-3 above.
- A grid of this orientation has a problem in that the survey lines are almost parallel to the northeast fault. An IP survey line done along the baseline would provide some additional information. As well, if the results of the soil sampling suggest that the fault is prospective, additional IP and perhaps VLF survey lines could be run parallel to the baseline.

Soil Geochemistry, Geological Mapping

- The sampling and analytical procedures will be the same as for Targets 1-3. As with the IP survey, care must be taken in interpreting the soil survey results in light of the potential of the northeast structure. Additional fill-in sampling may be warranted.
- It is unlikely that much, if any, outcrop exists in this area but the creeks and the 1381.6 knob would be good places to check.

Targets 6 and 10

Prospecting and Mapping

- This area was not examined in 1991. Outcrop is probably present on the steep slopes near the IP anomaly on Line 00.

Soil and Talus Fines Geochemistry

- Samples should be collected in the triangle-shaped area between the Lorraine and Steele property boundaries. Recommended here are topofil and compass lines trending 230° from the Lorraine claim boundary. The lines should be 200m apart and 1500m or less long. An initial sample spacing of 100m is recommended.

Target 7 - Southeast of Jeno Ridge

Soil Geochemistry, Prospecting and Mapping

- Mapping and sampling along topofil contour lines should be done from the drainage west of the target (see Figure 4) to the northeast for at least 1000m. Six lines spaced 200m apart with a sample interval of 50m should adequately cover the target area.

Targets 8 and 9 - Northern Edge of Steele Claims

Mapping and Prospecting

- These targets have excellent geological potential but are constrained by the claim boundaries. If significant showings or areas of hydrothermal alteration are found, additional work would be warranted. This would involve IP surveys that could perhaps be done jointly with Kennecott.

The third stage of the proposed programme is contingent upon favourable results from stage two. It would involve mostly diamond drilling, preceded in some cases by additional IP surveys and soil sampling (e.g., for Targets 4 and 6).

A budget for the proposed three-stage programme is presented on the following page. It is assumed that most drill holes are likely to be in areas that require helicopter-support.

1992 Budget Estimate

<u>Linecutting</u>		$34,700
<u>Geochemistry</u>		
- Soil Sample Collection	$ 6,800	
- Soil Sample Analysis/Shipping	14,300	
- Data Processing	2,000	
- Rock Sample Analysis/ Shipping	1,600	
	24,700	24,700
<u>Geophysics</u> - Initial IP Surveys		36,000
- Contingency Linecutting and IP Surveys		32,000
<u>Geology and Support</u>		
- Wages: 2 Geologists, 1 Assistant (includes report prep.)	$44,500	
- Camp costs	13,000	
- Vehicles	7,500	
- Equipment/Miscellaneous	2,000	
- Transportation	2,000	
- Telephone, Radio Rentals, Computer Rentals	2,000	
- Supervision	2,000	
	73,000	73,000
Helicopters - 70 hrs. @ $700/hr.		49,000
Draughting, Secretarial		5,000
Diamond Drilling - 2000m @ $80/metre		160,000
	Subtotal	414,400
	Contingencies 10%	**41,500**
	TOTAL	**$455,900**

13. REFERENCES

BCDM Assessment Reports 1012, 4522, 4151, 4152, 3610, 3995.

1949 BCDM Annual Report, Duckling Creek Area; p. A28.

Garnett, J.A.(1971): Duckling Creek area, Hogem batholith, in BCDM 1971 GEM pp. 203-210

Garnett, J.A. (1972): Preliminary geological map of Duckling Creek area, BCDM Prel. Map No. 9

Garnett, J.A. (1973): Lorraine, Lorrex; from the BCDM 1973 GEM Report, pp. 370-378.

Wilkinson, W.J. et al (1976): Lorraine, from the CIM Special Volume No. 15, Porphyry Deposits of the Canadian Cordillera.

APPENDIX 1

Rock Chip Sample Descriptions

Rock Chip Sample Descriptions

Sample No.	Location	Interval	Description
114300 with	Jeno Ridge Top	Grab	Syenite with 1 cm feldspar veinlet 5% chalcopyrite.
114301	" " "	Grab	Semi-massive bornite in a pod in fracture.
114302	Talus slope north of Jeno Ridge	Grab	Float: Syenite with 5% bornite, 5% chalcopyrite, abundant malachite. probably from same zone as for 114301.
114303	Along IP Line 1800E	Grab	Float: Aplitic syenite with 10% FeOx spots.
114304	" "	Grab	Float: As above but with trace chalcopyrite.
114305	In Cliff Lake Valley	Grab	Ankerite - silica veins, trace pyrite.
114306	Jeno Ridge	Grab	Float: Syenite porphyry (dyke?) with moderate chlorite alteration trace pyrite, chalcopyrite.
114500-502	Near BD-91-2	Each a 2 m chip sample	Sample line across fine-medium grained leucocratic syenite with disseminated chalcopyrite.
114503-506	" "	" "	As above.
138001	Base of Ridge in Cliff Lake Valley	Grab over 10m in talus	Leucocratic feldspar porphyry syenite (dyke?) with clotty disseminated chalcopyrite, minor secondary biotite.
138002	Near BD-91-2	Grab	Similar rock as for 114500-506.
138003	" "	Grab	Similar rock as for 114500-506.

Rock Chip Sample Descriptions

Sample No.	Location	Interval	Description
LORRAINE 1-3	Lorraine property	Grabs	- Samples collected by Richard Haslinger
STEELE 3 1-4	Talus on north side of Jeno Ridge	Grabs	- The source of the Steele samples is probably the bornite showing sampled by 114301.

APPENDIX 2

Diamond Drill Hole Summary Logs and Cross Sections

BD-91-1

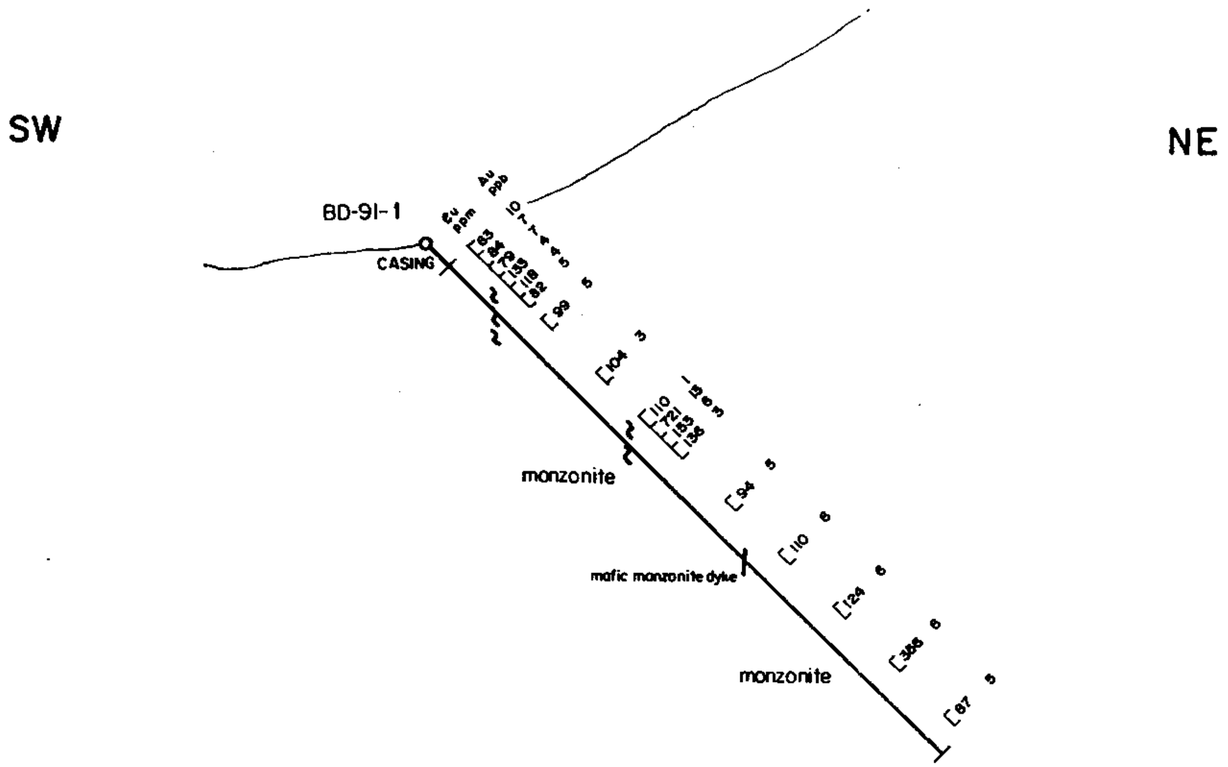
Location	:	UTM 6196680N / 347250E
Elevation	:	1320m
Azimuth	:	040°
Dip	:	-45°
Depth	:	96.0m

Metres

0 - 4.0 CASING

4.0-96.0 MONZONITE:
- moderately foliated, 1-2% disseminated magnetite
- very weak propyllitic alteration
- some FeOx in narrow shears near top of hole
- rare traces of pyrite, chalocpyrite

96.9 END OF HOLE.



Looking NW (az. 310°)

0 10 20 40 metres

BP Resources Canada Limited
MINING DIVISION

BOOT - STEELE PROPERTY

CROSS SECTION BD-91-1

SCALE: 1:1000	DRAWN BY: NH	FIG. 8
DATE: DEC. '91 REV.:	DRAFTED BY: Chong	
N.T.S. 93N-14 PROJ.: 10162	REPORT: BPVR 91-13	

CHONG

BD-91-2

Location	:	UTM 6199800N / 348775E
Elevation	:	1650m
Azimuth	:	050°
Dip	:	-45°
Depth	:	133.8m

Metres

0 - 3.0 CASING

3.0 - 112.3 PYROXENITE

- abundant k-feldspar as clots, stringers, gneissic bands; strongly magnetic
- very weak propyllitic alteration
- very local minor disseminated chalcopyrite, pyrite
- minor narrow pink syenite dyke.

112.3-133.8 SPOTTED PYROXENITE

- similar to unit above but with 10-20% porphyro-blasts of k-feldspar and perthite
- very weak propyllitic alteration, trace pyrite

133.8 END OF HOLE.

BD-91-3

Location	:	UTM 6199485N / 349345E
Elevation	:	1535m
Azimuth	:	130°
Dip	:	-45°
Depth	:	22m

Metres

0 - 22.0 CASING

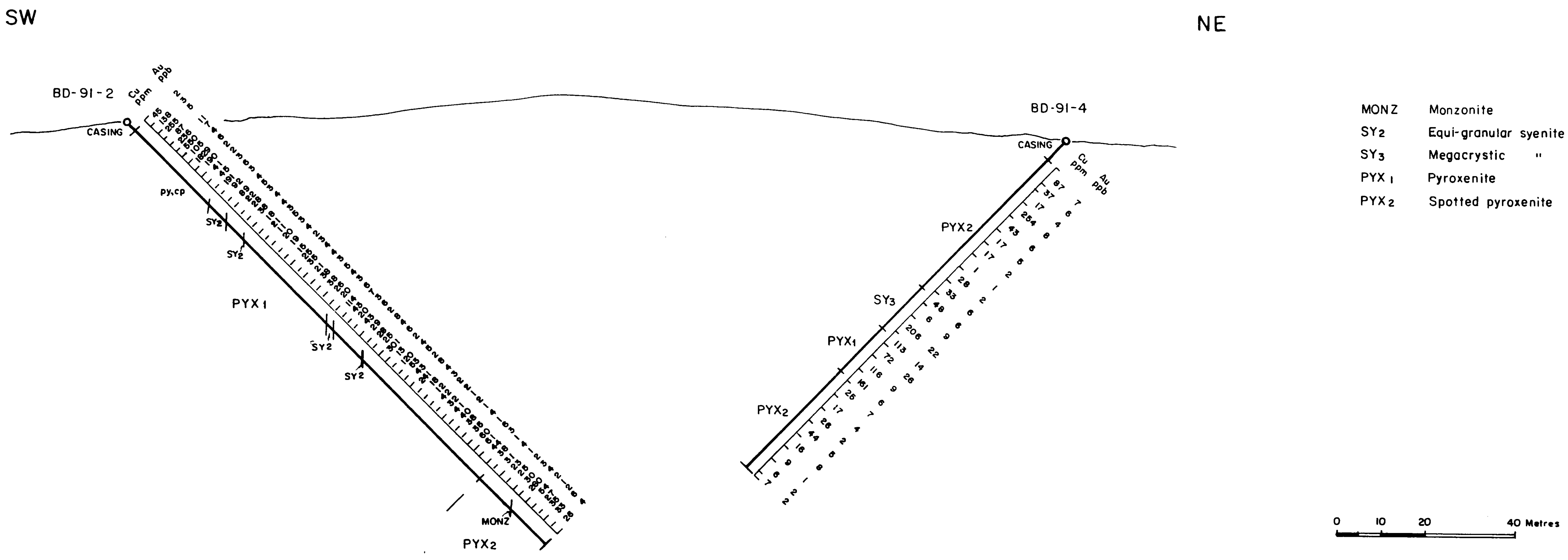
- Hole abandoned due to deep overburden and drilling difficulties.

BD-91-4

Location	:	UTM 6199935N / 348960E
Elevation	:	1660m
Azimuth	:	230°
Dip	:	-45°
Depth	:	100.5m

Metres

0 - 6.1	CASING	
6.1-45.7	SPOTTED PYROXENITE	- up to 40% k-feldspar/perthite porphyroblasts - weak propyllitic, k-feldspar alteration - traces of pyrite, chalcopyrite
45.7-58.5	SYENITE BLADED PORPHYRY	- weak propyllitic alteration, 5% magnetite - traces of disseminated pyrite, chalcopyrite
58.5-72.0	PYROXENITE	- very irregular textured gabbroic rock - weak k-feldspar, epidote alteration - traces of disseminated pyrite, chalcopyrite
72.0-100.5	SPOTTED PYROXENITE	- as at top of hole
100.5	END OF HOLE.	



Looking NW (az. 320°)

BP Resources Canada Limited
MINING DIVISION

BOOT-STEELE PROPERTY
CROSS-SECTION BD-91-2 & 4

SCALE: 1:1000	DRAWN BY: N H	FIG. 9
DATE: DEC.'91 REV.:	DRAFTED BY: Chong	
N.T.S. 93N-14 PROJ.: 10162	REPORT: BPVR 91-3	

CHONG

APPENDIX 3

Diamond Drill Hole Logs

PCXPLORE DRILL LOG CODING

ALTERATION (Mineral/Habit/Intensity)

A: prominent
B: subordinate
C: minor

Intensity 1=weak 5=moderate 10=extremely intense

Minerals		Habit	
AB	albite	**D**	disseminated
BL	bleaching	**DB**	dissem. blebs
BT	biotite	**FE**	fracture envelope
CA	calcite	**FF**	fracture fill
CB	carbonate	**HF**	hornfels
CH	chlorite	**P**	pervasive
EP	epidote	**PA**	patchy
FeOx	iron oxide	**PP**	patchy pervasive
K	kspar	**V**	vein
SER	sericite		
SI	silicification		
ZE	zeolite		

** eg. A: K+EP/FE/6 **

MINERALIZATION (Mineral/Habit/Intensity)

A: prominent
B: subordinate
C: minor

Minerals

PY	pyrite
CP	chalcopyrite
HEM	hematite
PO	pyrrhotite
MAL	malachite
MnO_2	manganese oxide (WAD)
MoS_2	molybdenite
MT	magnetite

** eg. A: CP/FF/2% **

STRUCTURE (Type/Angle/Development)

Type **FLT** fault **BD** bedding **FR** fracture **SHR** shear
UCTC upper contact **LCTC** lower contact **VN** vein

Angle in degrees to core axis

Development 1=weak 2=moderate 3=well

** eg. FLT/45/3 **

BP

HOLE NO. BD-91-1

DRILLING CO. Britton Bros	LOCATION SKETCH	DEPTH	TESTS DIP ANGLE	AZIMUTH				
	-N-	COLLAR	-45°	040°	DATE STARTED:	27 SEPT. 1991	PROJECT:	BOOT- STEELE
		84m	-46°	—	DATE COMPLETED:	28 SEPT 1991	N.T.S.:	93N/14W
					COLLAR ELEV.:	1320m	LOCATION:	~ 200 M WEST OF IP LINE
					NORTHING:			1800 E
					EASTING:			UTM : NORTH 6196680
					AZIMUTH:	040°		EAST 347250
					DEPTH:	96.0	DATE LOGGED:	29 SEPT. 1991
HOLE TYPE					CORE SIZE:	NQ	LOGGED BY:	N. HUMPHREYS

INTERVAL FROM	INTERVAL TO	ROCK TYPE (composition, colour, texture, grain size)	ALTERATION	MINERALIZATION	Fr/m	STRUCTURE (fractures, faults, folding, bedding, etc.)	REMARKS Mineralization, type, age relations
0	4.0	CASING					
4.0	96.0	MONZONITE : Med grey		mag/diss/1		foliation 45° C/A	
		med grained, mod. foliated	chl/diss/~~5~~/				
		weakly porphy. texture w/					
		larger fspar Xls. 15-20%	gyp/v/1				
		mafics : pyx ~ hbld, <5% biot					
		- 1-2% diss mag, usually w/ mafics	calc/v/1				
		- tr yellowish-brownish sphene(?)	hem/ff/1				
		- some pinker sections may be	epid/diss/2				
		syeno-monzonite					
		- 4.0 ~ 15.0m pinker rock					
		prob. due to K metasom.					

DRILL HOLE NO. BD-91-1

BP 88-1

HOLE NO. BD-91-1

INTERVAL FROM	TO	ROCK TYPE (composition, colour, texture, grain size)	ALTERATION	MINERALIZATION	Fr/m	STRUCTURE (Fractures, faults, folding, bedding, etc.)	Mineralization, type, age, relations
4.0	96.0 (con't)	~7.0 – 15.5 Common rubbly zones w/ mod. hem., minor clay and greenish gouge (after epid(?)) +/- sericite (?)					
		37.5 – 41.3 Shear w/ gouge, strong chl and hem in fract; 1-3mm "Xls" of pale greenish gypsum or anhyd					
		From 41.3-62.0 Stronger foliation finer gr. mafics, more distinctly porphyritic, minor pegm veinlets to 2cm					
		52.0 – 53.0 Slight increase in pink colour, minor chl in fract. w/ tr. py.		py / tr			
		59.0 – 59.7. dk grey. f.gr. dyke, weakly porph, prob similar comp. but not magnetic				45° lower contact, X-cuts foliation	

PAGE 2 OF 5

DRILL HOLE NO. BD-91-1

HOLE NO. BD-91-1

INTERVAL		ROCK TYPE (composition, colour, texture, grain size)	ALTERATION	MINERALIZATION	Fr/m	STRUCTURE (Fractures, faults, folding, bedding, etc.)	Mineralization, type, age, relations
FROM	TO						
4.0	96.0	(con't)					
		72.9 – 82.8 As for 41.3–62.0: Strongly foliated more porphy monz. Upper contact is over ~ 2cm, Lower is ~ 30cm. These units are separate phases – dyke-like bodies					
96.0		END OF HOLE					

PAGE 3 OF 5

DRILL HOLE NO. BD-91-1

BP

DRILL LOG sample data

SAMPLE					CORE RECOVERY		VISUAL ESTIMATES (% ORE MINERALS)	ASSAY RESULTS						
NUMBER	FROM	TO	TOTAL METRES	M.S.	%	AMT. LOST								
107001	4.0	6.0	2.0	1.2	69%									
107002	6.0	8.0	2.0	0.9	70%									
107003	8	10		0.4	97%									
107004	10	12		0.6	92%									
107005	12	14		1.0	83%									
107006.	14	16		0.8	90%									
N/S	[16	18		0.5	92%									
107007.	18	20		0.9	98%									
N/S	20	22		1.4	98%									
N/S	22	24		0.7	98%									
N/S	24	26		0.3	98%									
N/S	26	28		0.4	98%									
107008.	28	30		0.3	98%									
N/S	30	32		0.4	98%									
N/S	32	34		0.4	99%									
N/S	34	36		0.4	91%									
107009	36	38		0.3	85%									
107010	38	40		0.3	66%									
107011	40	42		0.3	75%									
107012	42	44		0.4	98%									
N/S	44	46		0.9	98%									
N/S	46	48		1.7	98%									
N/S	48	50		1.1	98%									
N/S	50	52		1.0	98%									
107013	52	54		0.6	98%									
N/S	54	56		0.4	98%									

BP 86-1

DRILL HOLE NO. BD-91-1

BP

DRILL LOG sample data

SAMPLE					CORE RECOVERY		VISUAL ESTIMATES (% ORE MINERALS)	ASSAY RESULTS						
NUMBER	FROM	TO	TOTAL METRES	M.S.	%	AMT. LOST								
N/S	56	58		0.5	99%									
N/S	58	60		0.3	99%									
N/S	60	62		1.1	97%									
107014	62	64		1.3	98%									
N/S	64	66		0.6	99%									
N/S	66	68		0.9	99%									
N/S	68	70		1.3	95%									
N/S	70	72		1.5	90%									
107015	72	74		0.9	99%									
N/S	74	76		0.9	99%									
N/S	76	78		1.0	98%									
N/S	78	80		0.7	98%									
N/S	80	82		0.9	98%									
107016	82	84		0.8	98%									
N/S	84	86		0.8	99%									
N/S	86	88		0.6	98%									
N/S	88	90		0.8	98%									
N/S	90	92		0.6	99%									
107017	92	94		0.7	99%									
N/S	94	96		0.7	98%									

BP88-3

DRILL HOLE NO. BD-91-1

BP

HOLE NO. BD-91-2

DRILLING CO.	LOCATION SKETCH	DEPTH	TESTS DIP ANGLE	AZIMUTH			
B. Hos. Bros	N	COLLAR	-45°	050°	DATE STARTED: 3 OCT '91	PROJECT:	BOOT - STEELE
		133.8	-46°		DATE COMPLETED: 4 OCT '91	N.T.S.:	93N/14W
					COLLAR ELEV.: 1650m	LOCATION:	50m from LORRAINE PROPERTY CLAIM LINE
					NORTHING: UTM 6199800		
					EASTING: UTM 348775		
					AZIMUTH: 050°		
					DEPTH: 133.8m	DATE LOGGED:	5 OCT, 1991
HOLE TYPE					CORE SIZE: BQ THINWALL	LOGGED BY:	N. HUMPHREYS

INTERVAL FROM	INTERVAL TO	ROCK TYPE (composition, colour, texture, grain size)	ALTERATION	MINERALIZATION	Fr/m	STRUCTURE (fractures, faults, folding, bedding, etc.)	REMARKS Mineralization, type, age relations
0	3.0	CASING					
3.0	112.3	PYROXENITE	chl/perv/2	py/diss/tr			
		fine - med. gr.				fol. 70°/CA	
		- actually a biotite gabbro		cp/diss/tr			
		med - dk green w/	ep.d/ff/1				
		av. 40-50% green		mag/diss/3-5			
		pyroxene, 10-15%					
		black biot. - usually					
		as porphyro-blasts or					
		p-crysts					
		- 30-40% f-spar prob.					
		mostly k-spar, 3-5%					
		diss mag.					
		- k-spars occurs as					
		clots, stringers, gneissic					
		bands					
		- common syenitic or					

BP 88-1

HOLE NO. BD-91-2

INTERVAL FROM	INTERVAL TO	ROCK TYPE (composition, colour, texture, grain size)	ALTERATION	MINERALIZATION	Fr/m	STRUCTURE (Fractures, faults, folding, bedding, etc.)	REMARKS Mineralization, type, age, relations
3.0	112.3	(cont)					
		monzonitic irreg.					
		segregations, veinlets					
		and diffuse bands					
		18.1-18.5 Str. hybridized					
		zone w/ small shear	epid/diss/3	cp/diss/tr			
		5% py, tr cp, epid		py/diss/5			
		18.8-19.5 gneissic, syenitic	epid/perv/3	bo/diss/tr		~45° c/a dyke border	
		'dyke'-rich section		py/diss/3			
		w/ local 5% cp over	chl/perv/1	cp/diss/1			
		10 cm, rare bo					
		23.5 Minor blue riebeckite					
		fract fill w/ tr py					
		FROM ~18.0-26.5					
		grad. increase in					
		epid., chl, mag,					
		feldspathic material					
		26.5-22.0 pink syen					
		dyke: med gr.					
		equi-gran w/ 10%					
		mafics-mostly pyx.					

HOLE NO. BD-91-2

INTERVAL FROM	INTERVAL TO	ROCK TYPE (composition, colour, texture, grain size)	ALTERATION	MINERALIZATION	Fr/m	STRUCTURE (Fractures, faults, folding, bedding, etc.)	REMARKS Mineralization, type, age, relations
3.0	112.3	(con't)					
		weakly magnetic					
		- upper contact is grad	chl/perv/1				
		over 30 cm, lower is				Lower contact 45°/CA	
		sharp, sheared and					
		chlorite					
		27.0 - 27.8 Str. chl					
		& sheared "pyroxenite"??					
		w/ tr. py, riebeckite					
		veinlets.					
		27.8 - 32.0 Pink syen					
		dyke as from 26.5-27.0	chl/perv/3	cp/diss/tr			
		but w/ 5% biot	seric/perv/1	py/diss/tr			
		- lower contact grad.					
		over 30 cm w/ tr					
		cp, py					
		37.3 - 37.6 pink f.gr.					
		leuco, equi-gran. syen	k-spar/perv/4	mag/diss/tr		45°/CA contact	
		dyke w/ 1-2% mafics					
		sharp contacts, pinker					
		k-spar alt'n at contacts					
		41.2 - 41.6 pink leuco	seric/perv/3	mag/diss/tr			
		syen dyke 2% mafics		py/diss/tr			

HOLE NO. BD-91-2

INTERVAL FROM	INTERVAL TO	ROCK TYPE (composition, colour, texture, grain size)	ALTERATION	MINERALIZATION	Fr/m	STRUCTURE (Fractures, faults, folding, bedding, etc.)	REMARKS Mineralization, type, age, relations
3.0	112.3	(cont)					
		54.4 10 cm pegm. syen dyke, near contact a few specks of bronzy native Cu ?					
		63.6-65.1 pinkish-grey leuco-syen or syeno-monz w/ pinker k-spar richer areas and inclusions of pyrox <5% mafics				sharp contacts 45°/CA	
		~69.0-75.0 increased syenitic porphyro-blasts				75°/CA foliation	
		74.7-75.3 irreg. fine gr. syen dykes w/ a 1cm aphanitic grey Q.V. w/ 3% py					

BP 88-2

PAGE 4 OF 8

DRILL HOLE NO. BD-91-2

BP

HOLE NO. BD-91-2

INTERVAL FROM	INTERVAL TO	ROCK TYPE (composition, colour, texture, grain size)	ALTERATION	MINERALIZATION	Fr/m	STRUCTURE (Fractures, faults, folding, bedding, etc.)	REMARKS Mineralization, type, age, relations
112.3	133.8	Spotted Pyroxenite					
		- as rock type above	chl/perc-/1	py/diss/tr			
		but w/ 10-20%	calc/v/2			70°/CA Foliation - weak to moderate	
		generally sub-rounded	qtz/v/1	mag/diss/4			
		porph-blasts(?) up					
		to 2cm of K-spar,					
		plag, perthite					
		122.4 - 123.4 f.gr.					
		l. grey monz. dyke					
		w/ up to 2cm				45°/CA contacts, sharp	
		frags. of qtz-feld					
		aphanitic material,					
		also veins of this					
		cut the dyke					
	133.8	End of Hole.					

BP 88-2

DRILL HOLE NO. BD-91-2

DRILL LOG — sample data

SAMPLE					CORE RECOVERY		VISUAL ESTIMATES (% ORE MINERALS)	ASSAY RESULTS						
NUMBER	FROM	TO	TOTAL METRES	M.S.	%	AMT. LOST								
107018	3.0	6	3	9.0	79%									
	6	8	2	7.	97%									
	8	10	2	6.0	90%									
	10	12		6.0	84%									
	12	14		10.0	81%									
	14	16		7.0	88%									
	16	18		6.0	90%									
25	18	20		6.0	98%									
	20	22		8.0	99%									
	22	24		9.0	99%									
	24	26		5.0	98%									
	26	28		3.0	99%									
	28	30		2.0	82%									
	30	32		2.0	98%									
	32	34		7.0	97%									
	34	36		7.0	97%									
	36	38		7.0	99%									
	38	40		9.0	99%									
	40	42		5.0	99%									
	42	44		6.0	99%									
	44	46		7.0	97%									
	46	48		7.0	94%									
	48	50		8.0	99%									
	50	52		9.0	99%									
	52	54		6.0	98%									
107043	54	56.		7.0	99%									

PAGE 6 OF 8

DRILL HOLE NO. BD-91-2

BP 88-3

BP

DRILL LOG sample data

SAMPLE					CORE RECOVERY		VISUAL ESTIMATES (% ORE MINERALS)	ASSAY RESULTS						
NUMBER	FROM	TO	TOTAL METRES	M.S.	%	AMT. LOST								
107 044	56	58	2	8.0	99%									
	58	60		9.0	99%									
	60	62		10.0	99%									
	62	64		9.0	99%									
	64	66		8.0	98%									
	66	68		11.0										
	68	70		7.0										
	70	72		5.0										
	72	74		9.0										
	74	76		6.0										
	76	78		8.0										
	78	80		7.0										
	80	82		8.0										
	82	84		6.0.										
	84	86		5.0										
	86	88		6.0										
	88	90		6.0										
	90	92		6.0.										
	92	94		4.0.										
	94	96		5.0										
	96	98		5.0										
	98	100		5.0										
	100	102		5.0										
	102	104		6.0										
	104	106		5.0										
107 069	106	108		6.0										

BP 88-3

DRILL HOLE NO. BD-91-2

DRILL LOG sample data

SAMPLE					CORE RECOVERY		VISUAL ESTIMATES (% ORE MINERALS)	ASSAY RESULTS						
NUMBER	FROM	TO	TOTAL METRES	M.S.	%	AMT. LOST								
107 070	108	110	2	5.0										
	110	112		5.0										
	112	114		4.0										
	114	116		4.0										
	116	118		4.0										
	118	120		4.0										
	120	122		3.0										
	122	124		2.0										
	124	126		3.0										
	126	128		6.0										
	128	130		5.0										
	130	132		4.0										
107082	132	133.8		5.0										

BP 88-3

DRILL HOLE NO. BD-91-2

BP

HOLE NO. BD-91-3

DRILLING CO. Britten Bros	LOCATION SKETCH · N ·
HOLE TYPE	

DEPTH	TESTS DIP ANGLE	AZIMUTH
COLLAR	-45°	130°

DATE STARTED:	5 Oct, 1991
DATE COMPLETED:	5 Oct, 1991
COLLAR ELEV.:	1535m
NORTHING:	UTM 6159485
EASTING:	UTM 349345
AZIMUTH:	130°
DEPTH:	22m
CORE SIZE:	BQ Thinwall

PROJECT:	3007 - STEELE
N.T.S.:	93N/14W
LOCATION:	In creek draining northwest of Lake North of JENO RIDGE
DATE LOGGED:	
LOGGED BY:	

INTERVAL FROM	INTERVAL TO	ROCK TYPE (composition, colour, texture, grain size)	ALTERATION	MINERALIZATION	Fr/m	STRUCTURE (fractures, faults, folding, bedding, etc.)	REMARKS Mineralization, type, age relations
0	22.0m	CASING					
						* Hole was abandoned due to deep overburden and drilling problems	

PAGE 1 OF 1

DRILL HOLE NO. BD-91-3

BP 88

BP

HOLE NO. BD-91-4

DRILLING CO.	LOCATION SKETCH	DEPTH	TESTS DIP ANGLE	AZIMUTH				
Britten Bros	N	COLLAR	-45°	230°	DATE STARTED:	6 OCT, 1991	PROJECT:	BOOT - STEELE
		100m	-45°		DATE COMPLETED:	6 OCT, 1991	N.T.S.:	93 N/14W
					COLLAR ELEV.:	1660 m	LOCATION:	~ 50m FROM
					NORTHING:	UTM 6199935		LORRAINE CLAIM LINE
					EASTING:	UTM 348960		
					AZIMUTH:	230°		
					DEPTH:	100.5m	DATE LOGGED:	7 OCT, 1991
HOLE TYPE					CORE SIZE:	BQ Thinwall	LOGGED BY:	NEIL HUMPHREYS

INTERVAL FROM	INTERVAL TO	ROCK TYPE (composition, colour, texture, grain size)	ALTERATION	MINERALIZATION	Fr/m	STRUCTURE (fractures, faults, folding, bedding, etc.)	REMARKS Mineralization, type, age relations
0	6.1	CASING					
6.1	45.7	Spotted Pyroxenite					
		- med green, gabbroic porphyritic - looking w/ up to 40% irreg. white-pink syen. clots/porphyroblasts/phenos in a pyx-rich "g-mass." w/ biotite clots, av. 40% pyx, 55% k-spar or syen clots, 5-10% biot, 1-2% mag.	chl/perv/2 epid/ff/1 k-spar/perv./1 calc/v/1	cp/v/tr. hem/ff/tr py/ff/tr.		- tr cp, mal in syen. veinlets - weak foliation 50°/CA pink colour after some porphyroblasts - alt'n or metasom. (?)	
		- common syen. veinlets					

DRILL HOLE NO. BD-91-4

HOLE NO. BD-91-4

INTERVAL FROM	INTERVAL TO	ROCK TYPE (composition, colour, texture, grain size)	ALTERATION	MINERALIZATION	Fr/m	STRUCTURE (Fractures, faults, folding, bedding, etc.)	REMARKS Mineralization, type, age, relations
6.1	45.7	(cont'd)					
		-6.1-8.0, 9.3-9.6, 10.5-11.4					
		broken core, weak					
		FeOx					
		-12.1 tr mal, chalcocite?					
		in 1cm spar					
		veinlet.					
		- 37.0 - 45.7 influx of					
		coarse, irreg k-spar					
		blotches to 8cm					
		giving a pegm-look					
		also white plag(?)					
		blotches to 2cm,					
		biotite flakes to 1cm,					
		the f.g. matrix is					
		more pyx-rich					
45.7	58.5	SYENITE BLADED PORPHYRY					
		-50% k-spar laths to	chl/perv/1	mag/diss/5			
		1cm in a crowded texture	epid/perv/1			foliation 80°/CA	
		of merging phenos to		py/diss/tr			
		give a bird's nest look					
		-groundmass is pyx-		cp/diss/tr			
		-rich and this rock is					

HOLE NO. BD-91-4

INTERVAL FROM	TO	ROCK TYPE (composition, colour, texture, grain size)	ALTERATION	MINERALIZATION	Fr/m	STRUCTURE (Fractures, faults, folding, bedding, etc.)	REMARKS Mineralization, type, age, relations
45.7 -	58.5	(con't)					
		a variety of the					
		a variety of the					
		'spotted-pyroxenite -					
		grad. contact over					
		~ 20 cm; 5% coarse					
		biotite clots, increase					
		in magnetite, epidote					
58.5	72.0	PYROXENITE					
		very irreg. textured	k-spar/perv/2	py/diss/tr			
		gabbroic, dk green rock w/	epid/perv/2	cp/diss/tr			
		wide variations in k-spar		mag/diss/tr			
		content; k-spar as clots,					
		veinlets, diffuse patches, pegm.					
		blotches					
		- often looks like a hybridized					
		syen., common pink syen					
		veinlets.					
72.0	100.5	SPOTTED PYROXENITE	epid./ff/1	py/diss/tr			
		- As at top of hole	calc/v/1				
		- grad. contact w/ unit above		hem/ff/tr			
	100.5	END OF HOLE					

DRILL HOLE NO. BD-91-4

BP 86-2

DRILL LOG sample data

SAMPLE NUMBER	FROM	TO	TOTAL METRES	M.S.	CORE RECOVERY %	AMT. LOST	VISUAL ESTIMATES (% ORE MINERALS)	ASSAY RESULTS
107083	6.1	10	3.9	4.8	56			
107084	10	12	2.0	3.7	68			
107085	12	14		2.8	86			
N/S	14	16		4.2	93			
107086	16	18		2.2	96			
N/S	18	20		2.0	95			
107087	20	22		2.9	98			
N/S	22	24		3.9	93			
107088	24	26		1.0	92			
N/S	26	28		1.2	89			
107089	28	30		1.5	96			
N/S	30	32		3.3	94			
107090.	32	34		3.2	92			
N/S	34	36		4.8	95			
107091	36	38		4.4	96			
N/S	38	40		4.8	96			
107092	40	42		2.3	92			
N/S	42	44		2.9	95			
107093	44	46		2.0	96			
N/S	46	48		4.2	97			
107094	48	50		3.1	97			
N/S	50	52		4.3	96			
107095	52	54		8.3	95			
N/S	54	56		7.3	94			
107096.	56	58		8.2	88			
N/S	58	60		5.5	89			

BP 88-3

DRILL HOLE NO. BD-91-4

DRILL LOG sample data

SAMPLE					CORE RECOVERY		VISUAL ESTIMATES (% ORE MINERALS)	ASSAY RESULTS						
NUMBER	FROM	TO	TOTAL METRES	M.S.	%	AMT. LOST								
107097	60	62	2.0	8.3	96									
N/S	62	64		6.2	97									
107098	64	66		1.6	96									
N/S	66	68		3.2	95									
107099	68	70		7.5	96									
N/S	70	72		4.8	95									
107100	72	74		6.3	94									
N/S	74	76		4.0	93									
107101	76	78		4.8	93									
N/S	78	80		5.1	96									
107102	80	82		5.8	96									
N/S	82	84		4.1	97									
107103	84	86		3.2	96									
N/S	86	88		5.2	94									
107104	88	90		5.5	95									
N/S	90	92		8.3	95									
107105	92	94		7.3	95									
N/S	94	96		7.3	96									
107106	96	98		7.8	96									
N/S	98	100		8.2	97									
107107	100	101.5		8.0	95									

BP 88-1

PAGE 5 OF 5

DRILL HOLE NO. BD-91-4

APPENDIX 4

List of Geochemical Results

ACME ANALYT[illegible] L LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUV[illegible] B.C. V6A 1R6 PHONE(604)253-3158 FAX(604[illegible] 3-1716

GEOCHEMICAL ANALYSIS CERTIFICATE

BP Resources Canada Ltd. PROJECT LOC-10162 File # 91-4209 Page 1

700 - 890 W. Pender St., Vancouver BC V6B 4W3

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au** ppb	Pt** ppb	Pd** ppb
114230	1	109	11	53	.3	26	18	480	3.62	4	5	ND	1	48	.2	2	2	91	1.76	.046	2	44	1.01	24	.38	6	2.46	.15	.08	1	1	1	2
114231	1	64	12	53	.3	25	16	469	3.45	5	5	ND	1	28	.2	2	2	88	1.18	.044	2	46	1.27	19	.38	3	2.25	.08	.08	1	1	1	2
114232	1	68	16	88	.2	88	23	921	4.73	74	5	ND	1	145	.3	2	2	103	10.06	.021	2	89	2.93	17	.01	2	.48	.01	.01	1	1	4	4
114300	2	1867	57	73	1.7	5	3	339	.98	10	5	ND	1	20	.9	2	6	12	.10	.006	3	2	.02	132	.01	2	.18	.05	.12	1	229	1	1
114301	19	95734	79	445	276.8	68	39	902	6.76	6	5	8	1	163	27.0	2	2	175	.78	.368	15	46	1.42	31	.22	2	1.19	.04	1.19	1	14422	75	1865
114302	9	77087	108	330	152.9	35	28	719	5.45	4	5	4	1	201	14.8	2	62	65	1.82	.405	14	19	.91	26	.11	3	1.30	.03	1.30	1	5807	301	1488
114303	1	856	34	77	1.6	4	7	1001	2.28	3	5	ND	3	89	.4	2	3	36	.14	.052	15	1	.06	690	.03	2	.47	.02	.26	1	174	5	42
114304	1	234	21	55	.3	4	5	735	2.00	2	5	ND	2	160	.3	2	2	27	1.26	.033	14	1	.05	589	.01	2	.42	.04	.22	1	12	10	8
114305	1	128	23	108	.5	40	27	1525	5.49	5	5	ND	1	299	.4	2	2	109	9.14	.193	11	51	3.13	176	.03	4	.50	.01	.55	1	45	1	11
114306	4	649	30	111	1.1	14	15	1026	4.04	4	5	ND	1	420	.4	2	2	139	4.24	.190	15	14	1.04	405	.10	2	.86	.06	.72	1	51	1	20
138001	3	1776	24	25	1.8	8	4	142	1.39	3	5	ND	10	180	.3	2	6	72	.29	.044	5	7	.11	72	.05	5	.38	.09	.18	1	121	1	18
RE 114304	1	233	22	56	.6	3	5	741	2.00	2	5	ND	2	162	.2	2	2	27	1.27	.032	14	1	.05	590	.01	2	.44	.04	.23	1	10	5	4
138002	3	10446	38	95	17.6	19	14	379	3.91	5	5	2	6	152	1.9	2	16	132	.74	.200	13	20	.18	86	.09	2	.60	.05	.19	1	667	1	11
138003	4	5630	135	143	10.5	22	15	731	4.87	6	5	ND	5	127	1.9	2	14	157	.93	.188	18	23	.30	88	.17	2	.63	.04	.22	1	312	3	7
STANDARD C/FA-10R	18	59	42	132	7.1	70	33	1038	3.98	41	15	6	41	53	18.6	16	19	57	.48	.090	39	59	.88	179	.09	33	1.88	.07	.15	11	462	459	476

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.
ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB
- SAMPLE TYPE: P1 ROCK P2 SOIL AU** PT** & PD** BY FIRE ASSAY & ANALYSIS BY ICP/GRAPHITE FURNACE.
Samples beginning 'RE' are duplicate samples.

DATE RECEIVED: SEP 8 1991 DATE REPORT MAILED: Sept 17/91 SIGNED BY C. L[illegible]...D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

Rock Chips

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716

GEOCHEMICAL ANALYSIS CERTIFICATE

BP Resources Canada Ltd. PROJECT LOC-10162 File # 91-4850

700 - 890 W. Pender St., Vancouver BC V6B 4W3

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
114500	1	5301	23	124	14.2	17	22	913	8.46	3	5	ND	3	76	.6	2	12	410	.38	.029	4	15	.25	90	.15	2	.58	.04	.23	1	264
114501	1	3219	10	123	10.5	15	18	961	7.36	5	5	ND	5	61	.9	2	7	346	.52	.034	4	17	.25	85	.16	3	.71	.04	.22	1	319
114502	1	7836	17	139	10.7	16	20	869	7.70	3	5	ND	3	80	1.0	2	6	339	.61	.095	10	14	.22	147	.13	2	.50	.03	.29	1	264
114503	1	5116	19	199	8.7	20	31	772	9.58	9	5	ND	17	92	2.1	2	8	456	1.11	.313	22	16	.21	74	.11	3	.56	.05	.23	1	253
114504	1	4322	28	78	21.4	25	27	613	8.12	13	5	ND	32	104	1.1	2	8	344	1.93	.765	44	16	.24	111	.10	2	.55	.03	.17	1	462
RE 114503	1	4907	15	194	8.8	20	31	756	9.43	7	5	ND	19	91	1.8	2	8	438	1.13	.321	22	15	.22	72	.11	2	.56	.05	.23	1	253
114505	1	6903	28	88	14.0	18	27	649	9.00	16	5	ND	39	92	.8	2	11	440	2.12	.878	47	13	.13	109	.11	2	.41	.04	.22	1	275
114506	1	11989	32	177	18.5	19	19	881	7.29	3	5	ND	5	79	.9	4	13	346	.44	.049	6	16	.35	78	.13	3	.53	.04	.26	1	341
STANDARD C/AU-R	19	64	35	128	6.8	74	34	1075	3.96	40	23	6	39	51	17.0	14	18	59	.50	.086	39	56	.92	180	.08	33	1.93	.06	.16	11	462
STANDARD C	19	64	42	132	6.8	75	33	1044	3.96	41	15	6	41	53	17.1	16	19	60	.47	.089	40	55	.87	178	.09	33	1.90	.06	.14	11	-

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.
ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB
- SAMPLE TYPE: ROCK AU* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE. Samples beginning 'RE' are duplicate samples.

DATE RECEIVED: OCT 2 1991 **DATE REPORT MAILED:** Oct 7/91. **SIGNED BY** .... D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

Rock Chips

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au** ppb	Pt** ppb	Pd** ppb
134768	1	108	18	189	.4	12	17	1161	6.37	3	5	ND	1	54	.2	2	2	144	1.52	.244	17	23	1.12	72	.19	2	2.56	.02	.35	1	11	10	12
RE 134772	1	206	7	142	.4	18	18	790	6.08	2	5	ND	1	45	.2	2	2	126	.95	.170	10	40	.80	80	.13	2	2.96	.03	.13	1	2	3	2
134769	1	275	6	184	.4	13	24	1387	7.46	3	5	ND	1	56	.2	2	2	172	2.48	.279	16	20	1.54	55	.22	2	3.37	.03	.64	1	8	1	1
134770	1	182	8	92	.2	20	16	592	6.68	2	5	ND	1	62	.2	2	3	138	.85	.328	11	56	.68	58	.11	2	2.38	.02	.08	1	5	2	1
134771	1	277	10	180	.3	17	21	1227	7.21	2	5	ND	1	68	.2	2	3	151	1.63	.195	14	30	1.37	65	.20	2	3.22	.05	.53	1	2	5	1
134772	1	209	12	141	.4	18	18	793	6.29	2	5	ND	1	46	.2	2	2	130	.95	.175	10	41	.80	80	.12	2	2.94	.03	.13	1	4	1	1
134773	1	310	5	168	.7	21	22	995	6.24	3	5	ND	2	63	.2	2	4	136	1.50	.275	15	32	1.14	82	.19	4	3.13	.03	.35	1	3	1	1
134774	1	148	8	178	.3	12	17	988	5.98	2	5	ND	1	43	.2	2	4	134	1.47	.223	11	22	.99	62	.20	2	2.54	.03	.19	1	1	1	1
134775	1	74	5	126	.5	13	12	633	5.59	2	5	ND	2	45	.2	2	4	123	.96	.181	8	36	.61	58	.17	5	1.78	.02	.11	1	1	3	1
134776	1	182	4	136	.3	18	16	711	6.59	2	5	ND	1	57	.2	2	2	139	1.16	.302	11	51	.68	68	.12	2	2.27	.02	.12	1	3	1	1
34777	1	77	3	76	.2	18	13	448	5.50	3	5	ND	1	53	.2	2	2	112	.64	.361	10	51	.45	80	.09	4	2.46	.02	.06	1	3	1	1
4778	1	121	5	82	.4	26	14	482	8.13	2	5	ND	1	73	.2	2	3	188	.79	.598	11	85	.57	81	.19	2	1.70	.02	.06	1	8	1	1
134779	1	87	4	57	.2	16	12	442	4.76	2	5	ND	1	61	.2	2	2	106	.52	.061	7	38	.45	79	.10	2	1.67	.02	.07	1	5	1	1
134780	1	44	2	45	.1	13	9	356	4.70	2	5	ND	1	50	.2	2	2	106	.67	.212	10	42	.31	61	.07	2	1.63	.02	.05	1	2	2	1
134781	1	75	2	48	.1	13	9	426	4.56	2	5	ND	1	98	.2	2	2	97	.56	.065	8	33	.31	106	.06	2	1.36	.01	.06	1	8	1	1
134782	1	47	2	46	.2	9	7	366	3.03	2	5	ND	1	118	.2	2	2	68	.56	.054	6	21	.34	96	.05	4	1.34	.02	.05	1	1	1	1
134783	1	10	2	25	.1	3	4	221	3.54	2	5	ND	1	35	.2	2	2	66	.22	.120	5	11	.11	59	.04	2	2.14	.01	.02	1	1	1	1
134784	1	39	2	93	.1	10	13	671	7.31	2	5	ND	1	55	.2	2	2	155	1.25	.506	8	36	.58	77	.13	2	2.37	.02	.07	1	5	1	1
134785	1	111	2	73	.1	12	12	605	5.94	2	5	ND	3	71	.2	2	2	114	.74	.596	10	39	.56	83	.09	5	2.79	.02	.07	1	1	1	1
134786	1	70	7	50	.4	8	9	480	6.97	2	5	ND	3	132	.2	2	3	135	.40	.576	7	27	.29	78	.06	4	3.78	.01	.04	1	1	1	1
134787	1	66	3	85	.3	11	10	501	5.88	2	5	ND	1	145	.2	2	2	111	.43	.208	6	25	.40	134	.07	3	2.88	.02	.05	1	1	1	1
134788	1	32	3	45	.1	10	11	484	9.96	2	5	ND	8	47	.2	2	2	207	.30	.317	5	37	.14	52	.06	2	2.94	.01	.02	1	1	1	1
134789	1	45	3	64	.3	15	11	480	6.88	2	5	ND	2	43	.2	2	2	145	.51	.456	9	50	.42	50	.08	3	2.60	.02	.05	1	5	1	1
134790	2	189	5	71	.5	14	13	624	6.42	3	5	ND	1	162	.3	2	3	151	.91	.176	17	40	.57	162	.07	5	1.72	.02	.08	1	2	1	5
134791	1	135	4	84	.4	14	15	745	4.98	6	5	ND	1	199	.2	2	2	115	1.13	.143	15	38	.53	186	.06	3	1.65	.03	.10	1	4	5	1
134792	1	148	4	107	.3	17	20	809	5.71	5	5	ND	1	201	.2	2	2	129	1.33	.271	19	41	.72	178	.05	2	2.07	.04	.12	1	2	1	6
134793	1	146	3	51	.2	22	15	481	5.03	3	5	ND	1	108	.2	2	2	102	.74	.174	10	47	.55	129	.07	3	1.76	.01	.11	1	4	1	1
134794	1	61	3	56	.4	16	12	371	5.98	3	5	ND	2	56	.2	2	2	128	.62	.257	10	57	.38	59	.09	4	1.69	.02	.05	1	5	1	1
134795	1	19	2	53	.3	9	7	299	4.46	2	5	ND	1	25	.2	2	2	102	.40	.181	5	39	.16	34	.07	3	1.22	.01	.03	1	1	1	1
34796	1	54	6	70	.3	9	10	530	5.77	3	5	ND	3	29	.2	2	2	144	.87	.164	7	30	.40	41	.12	3	1.83	.03	.06	1	1	1	1
134797	1	72	2	81	.3	8	10	536	5.36	4	5	ND	1	33	.2	2	2	129	.82	.249	10	22	.47	46	.11	4	1.98	.02	.06	1	1	1	1
134798	1	17	2	27	.1	7	7	455	2.75	3	5	ND	1	121	.2	2	2	88	.55	.093	9	16	.22	108	.06	3	.70	.10	.13	1	5	1	2
134799	1	29	5	68	.7	18	21	1095	9.56	5	5	ND	1	128	.2	2	2	307	1.59	.584	41	56	.69	61	.07	2	1.20	.03	.08	1	73	5	1
134800	3	224	4	124	.3	51	36	1568	8.38	7	5	ND	1	269	.3	2	3	191	1.67	.580	24	113	1.72	177	.19	2	1.67	.03	.49	1	14	2	1
134801	1	153	3	85	.3	48	32	1093	11.92	6	5	ND	1	283	.3	2	2	257	2.12	.582	34	181	1.14	113	.11	3	1.13	.02	.23	1	10	5	15
134802	6	355	14	173	.4	35	38	2360	6.84	9	5	ND	1	322	.4	2	3	155	1.48	.560	25	37	1.81	281	.19	2	2.03	.05	.56	1	21	2	15
STANDARD C/FA-100S	18	58	39	136	6.9	73	33	1095	4.05	37	19	7	37	54	18.4	15	19	55	.50	.100	37	59	.90	177	.09	34	1.91	.06	.16	11	46	45	45
STANDARD C	17	57	39	132	6.8	70	33	1041	3.95	39	17	6	37	53	18.4	16	18	54	.49	.089	37	58	.89	176	.09	33	1.89	.06	.15	13	-	-	-

Samples beginning 'RE' are duplicate samples.

Soils

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716

GEOCHEMICAL ANALYSIS CERTIFICATE

BP Resources Canada Ltd. PROJECT LOC-10162 File # 91-5118 Page 1

700 - 890 W. Pender St., Vancouver BC V6B 4W3

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
A 107001	6	63	9	58	.1	11	9	676	3.24	3	5	ND	1	164	.2	2	2	100	1.75	.058	10	31	.37	123	.15	3	.91	.19	.33	1	10
A 107002	6	84	20	79	.7	11	13	682	3.52	4	5	ND	1	240	.6	2	2	100	1.69	.071	11	34	.44	139	.14	2	1.00	.13	.38	1	7
A 107003	1	79	4	62	.1	5	11	590	2.86	4	5	ND	1	280	.3	2	2	90	1.52	.074	13	9	.45	111	.09	2	.88	.09	.37	1	7
A 107004	1	133	4	59	.1	4	11	636	2.60	3	5	ND	1	358	.3	2	2	95	1.75	.058	11	7	.41	98	.09	2	.75	.06	.36	1	4
A 107005	6	118	2	59	.1	12	12	813	3.50	2	5	ND	1	419	.4	2	2	104	2.17	.080	11	32	.53	94	.14	4	.97	.13	.35	1	4
A 107006	4	82	4	67	.1	10	13	851	3.55	3	5	ND	1	447	.3	2	2	106	2.57	.094	11	26	.64	67	.12	2	1.08	.13	.35	1	5
A 107007	1	99	6	59	.1	4	10	727	2.82	2	5	ND	1	674	.2	2	2	93	2.56	.087	11	7	.57	44	.10	5	1.15	.11	.28	1	5
A 107008	1	104	5	62	.1	5	12	797	2.98	2	5	ND	1	527	.4	2	2	106	2.56	.097	12	8	.67	62	.15	4	1.44	.31	.39	1	3
A 107009	4	110	4	85	.1	10	17	1168	4.38	4	5	ND	1	634	.7	2	2	129	2.79	.130	17	25	.75	141	.14	2	1.50	.25	.54	1	1
A 107010	2	721	6	101	.6	8	21	1509	5.28	10	5	ND	2	1162	.6	2	2	145	.76	.206	23	12	.61	74	.05	5	1.27	.04	.54	1	13
A 107011	1	153	2	82	.1	4	16	907	3.84	8	5	ND	1	880	.7	2	2	123	1.79	.128	18	5	.63	50	.09	3	1.24	.08	.50	1	6
A 107012	1	136	5	84	.1	6	16	1664	3.71	6	5	ND	1	653	.8	2	2	122	4.34	.127	17	8	.86	68	.16	3	1.46	.13	.79	1	3
A 107013	5	94	3	72	.1	11	15	861	3.91	3	5	ND	1	792	.7	2	2	114	2.78	.119	13	26	.71	107	.14	3	1.93	.63	.70	1	5
A 107014	4	110	4	66	.1	9	12	846	3.68	5	6	ND	1	958	.4	2	2	124	2.63	.095	11	23	.61	43	.20	6	1.70	.55	.62	1	6
A 107015	1	124	5	71	.1	3	11	818	3.02	4	5	ND	1	1250	.6	2	2	101	2.27	.078	12	8	.62	64	.16	5	1.86	.59	.67	1	6
A 107016	1	356	4	60	.3	5	11	731	2.78	2	5	ND	1	910	.7	2	2	90	2.19	.086	11	6	.58	47	.15	3	1.73	.69	.55	1	6
A 107017	5	87	2	79	.1	12	16	1030	4.36	6	5	ND	1	669	.5	2	2	148	3.23	.138	15	29	.87	102	.22	4	1.94	.59	.80	1	5
A 107018	2	45	2	69	.1	33	31	655	6.93	2	5	ND	1	319	.9	2	2	188	1.93	.422	17	46	1.19	140	.17	3	1.62	.26	1.04	1	2
A 107019	1	138	2	76	.1	33	33	657	7.05	4	5	ND	2	539	1.0	2	2	191	1.96	.432	18	30	1.19	165	.17	2	2.37	.68	1.10	1	3
A 107020	1	255	2	70	.1	40	27	555	5.69	5	5	ND	2	745	1.1	2	2	148	1.95	.428	19	59	1.17	180	.16	5	2.30	.67	1.03	1	5
A 107021	3	87	5	71	.1	34	28	603	6.67	4	5	ND	2	702	.9	2	2	181	1.96	.304	14	54	1.11	77	.19	3	2.49	.68	.95	1	1
RE A 107017	5	86	2	77	.1	13	15	1003	4.30	6	5	ND	1	644	.8	2	2	145	3.15	.139	14	29	.86	97	.22	2	1.87	.57	.77	1	3
A 107022	5	236	10	82	.1	35	26	593	6.05	2	5	ND	1	475	.8	2	2	170	1.93	.311	15	67	1.16	82	.19	12	2.05	.62	.91	1	11
A 107023	2	550	23	187	.4	43	22	599	5.61	4	5	ND	1	388	1.6	2	2	182	1.96	.384	18	99	1.36	134	.16	4	1.96	.45	1.04	1	7
A 107024	3	105	3	86	.1	39	22	549	5.64	2	5	ND	2	477	1.0	2	2	196	2.14	.435	19	110	1.25	194	.14	5	1.96	.48	.89	1	4
A 107025	7	1829	26	88	.8	44	36	695	6.38	4	5	ND	2	479	1.3	2	8	170	2.38	.330	14	79	2.02	192	.24	4	2.39	.33	1.30	1	6
A 107026	3	190	4	85	.1	52	33	760	7.53	2	6	ND	4	317	1.0	2	2	181	2.44	.343	17	80	1.62	118	.17	4	1.76	.23	1.21	1	2
A 107027	4	41	20	77	.1	58	32	717	6.34	4	5	ND	1	332	.8	2	2	143	2.47	.251	13	99	1.93	174	.23	4	1.60	.16	1.32	1	2
A 107028	1	45	2	63	.1	52	27	632	4.31	4	5	ND	2	321	.8	2	2	103	2.36	.118	9	136	2.13	238	.25	6	1.58	.14	1.34	1	3
A 107029	3	191	4	80	.1	43	24	743	4.27	2	5	ND	3	393	.7	2	2	94	3.41	.184	12	98	2.12	105	.18	3	1.36	.12	.85	1	6
A 107030	7	92	6	43	.2	36	15	610	3.43	3	5	ND	1	162	.6	2	2	80	2.98	.095	7	82	1.08	87	.11	3	.88	.05	.57	1	3
A 107031	5	89	4	33	.1	29	13	399	2.86	2	5	ND	1	238	.3	2	2	55	1.65	.078	5	62	.87	134	.11	2	.87	.06	.62	1	4
A 107032	1	22	2	64	.1	63	33	594	6.66	3	5	ND	3	136	1.0	2	2	156	1.48	.281	15	131	1.40	46	.22	8	1.08	.06	.97	1	5
A 107033	1	28	4	59	.1	67	33	589	6.85	5	5	ND	2	105	.8	2	2	166	1.30	.265	14	147	1.35	43	.24	8	1.02	.08	.90	1	3
A 107034	3	30	6	62	.1	59	31	623	6.80	2	5	ND	2	124	.8	2	2	155	1.51	.231	13	154	1.32	58	.21	5	1.01	.09	.87	1	4
A 107035	2	18	2	69	.1	69	34	657	7.23	4	5	ND	2	133	.9	2	2	162	1.51	.257	14	164	1.51	55	.23	3	1.09	.08	.97	1	4
A 107036	2	21	7	66	.1	57	29	648	5.82	2	5	ND	1	166	.4	2	2	130	1.85	.236	13	129	1.49	54	.22	6	1.03	.06	.87	1	3
STANDARD C/AU-R	19	62	39	132	7.6	74	32	1080	4.04	40	18	7	40	54	19.0	15	22	59	.49	.093	41	59	.91	185	.09	35	1.90	.07	.17	12	470
STANDARD C	19	59	45	134	7.3	70	31	1051	4.01	40	20	7	39	52	18.2	15	18	55	.48	.091	39	58	.90	179	.09	32	1.92	.06	.15	11	-

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.
ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB
- SAMPLE TYPE: CORE AU* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE. Samples beginning 'RE' are duplicate samples.

DATE RECEIVED: OCT 17 1991 **DATE REPORT MAILED:** Oct 22/91. **SIGNED BY**..........D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

Drill Core

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
A 107037	1	11	2	68	.2	64	30	640	6.65	5	5	ND	2	166	.6	2	2	150	1.53	.211	15	145	1.60	58	.25	2	1.35	.08	.66	1	5
A 107038	2	20	2	62	.1	67	30	637	7.09	6	5	ND	2	150	.7	2	2	161	1.35	.205	15	167	1.47	103	.26	3	1.11	.08	.79	1	3
A 107039	1	19	2	61	.1	61	29	631	6.59	5	5	ND	2	202	.4	2	2	153	1.20	.210	15	141	1.30	204	.25	4	1.21	.14	.77	1	4
A 107040	1	15	2	72	.2	59	28	653	6.02	4	5	ND	2	166	.6	2	2	139	1.50	.202	15	133	1.34	231	.25	2	1.17	.09	.73	1	2
A 107041	2	25	2	69	.2	66	30	727	7.26	4	5	ND	2	245	.8	2	2	180	1.64	.207	14	167	1.45	217	.25	2	1.35	.17	.69	1	3
RE A 107041	2	25	2	64	.1	62	28	679	6.67	6	5	ND	2	226	.5	2	2	167	1.56	.193	12	157	1.36	196	.25	2	1.28	.15	.65	1	2
A 107042	2	35	2	69	.1	67	30	713	7.22	6	5	ND	2	203	.8	2	2	181	1.53	.208	14	163	1.47	242	.26	2	1.42	.20	.89	1	4
A 107043	1	21	2	66	.1	60	29	666	6.44	5	5	ND	1	267	.6	2	2	148	1.50	.203	14	139	1.42	220	.24	2	1.42	.23	.85	1	4
A 107044	1	38	2	64	.2	60	29	680	6.51	5	5	ND	2	281	.5	2	2	152	2.33	.208	14	139	1.34	167	.23	2	1.38	.15	.65	1	3
STANDARD C/AU-R	19	59	40	130	7.2	70	33	1041	3.91	44	22	6	40	52	18.7	16	20	55	.47	.085	39	59	.87	173	.09	33	1.89	.06	.14	11	480

Sample type: CORE. Samples beginning 'RE' are duplicate samples.

DRILL CORE

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716

GEOCHEMICAL ANALYSIS CERTIFICATE

Boot

BP Resources Canada Ltd. PROJECT LOC-10162 File # 91-5016 Page 1

700 - 890 W. Pender St., Vancouver BC V6B 4W3

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
A 107045	1	38	6	80	.1	72	31	774	8.28	2	5	ND	1	243	.2	2	3	206	2.06	.306	12	161	1.49	130	.27	6	1.30	.24	1.25	1	5
A 107046	1	26	2	75	.1	67	30	712	7.81	2	5	ND	1	230	.2	2	2	203	1.66	.297	11	147	1.35	107	.26	5	1.33	.27	1.14	1	4
A 107047	1	20	2	75	.1	66	30	730	7.66	2	5	ND	1	170	.2	2	2	202	1.55	.303	12	146	1.37	154	.28	5	1.21	.22	1.30	1	3
A 107048	4	114	2	46	.1	44	20	518	5.13	2	5	ND	1	348	.2	2	2	134	1.43	.148	8	110	.91	158	.19	11	1.52	.43	.82	1	6
A 107049	1	43	2	73	.2	72	35	799	8.81	2	5	ND	1	352	.2	2	2	233	2.06	.305	9	163	1.89	388	.32	10	1.68	.41	1.51	1	7
A 107050	1	20	2	72	.1	64	31	759	7.92	2	5	ND	1	538	.2	2	2	200	1.89	.310	9	143	1.72	291	.27	5	1.46	.34	1.41	1	3
A 107051	2	43	2	68	.1	67	33	859	8.34	2	5	ND	1	323	.2	2	2	206	3.28	.309	9	152	1.97	283	.30	10	1.45	.24	1.65	1	6
A 107052	1	29	2	58	.2	58	30	785	7.48	3	5	ND	1	303	.2	2	2	210	2.45	.312	9	131	1.74	210	.28	9	1.27	.19	1.40	1	2
A 107053	4	28	2	63	.1	57	30	847	7.30	73	5	ND	1	269	.2	2	2	195	2.95	.298	8	125	1.67	272	.26	9	1.32	.22	1.43	1	8
A 107054	1	25	2	67	.1	69	32	790	8.73	2	5	ND	1	307	.2	2	2	190	2.20	.343	9	150	1.72	297	.27	9	1.52	.31	1.68	1	4
A 107055	1	301	2	60	.3	71	29	694	7.13	3	5	ND	1	342	.2	2	2	157	2.17	.319	9	141	1.61	368	.25	2	1.70	.52	1.42	1	6
A 107056	2	13	5	66	.1	62	32	719	8.62	2	5	ND	1	237	.2	2	2	180	1.88	.395	11	137	1.48	201	.26	6	1.31	.29	1.32	1	2
A 107057	1	120	2	65	.1	81	34	745	8.62	2	5	ND	1	405	.2	2	2	177	2.25	.419	10	134	1.74	376	.26	6	1.61	.38	1.40	1	4
RE A 107062	1	12	2	59	.1	81	30	666	6.39	2	5	ND	1	256	.2	2	2	130	2.86	.233	9	208	2.22	216	.30	5	1.80	.33	1.85	1	4
A 107058	1	53	2	60	.1	83	32	644	5.74	2	5	ND	1	241	.2	2	2	124	2.36	.299	9	168	2.39	529	.32	11	1.65	.17	2.13	1	5
A 107059	1	43	2	49	.1	82	30	542	6.04	2	5	ND	1	278	.2	2	2	135	1.51	.278	8	185	1.81	441	.32	10	1.80	.35	1.78	1	2
A 107060	1	241	2	39	.4	70	26	475	5.84	2	5	ND	1	409	.2	2	2	131	1.73	.202	6	189	1.54	336	.27	8	2.20	.78	1.25	1	8
A 107061	1	18	6	46	.2	78	29	538	6.32	4	5	ND	1	254	.2	2	4	145	1.52	.252	9	202	1.87	296	.33	10	1.79	.45	1.57	1	4
A 107062	1	12	2	58	.1	81	30	670	6.37	2	5	ND	1	259	.2	2	2	131	2.84	.237	9	208	2.22	226	.31	5	1.81	.33	1.87	1	3
A 107063	1	42	2	46	.1	77	29	577	6.08	2	5	ND	1	306	.2	2	2	139	2.28	.235	9	202	1.86	295	.33	9	1.78	.41	1.72	1	2
A 107064	1	32	2	37	.2	70	28	484	5.88	3	5	ND	1	407	.2	2	2	138	1.38	.232	7	196	1.65	336	.32	15	1.94	.53	1.69	1	2
A 107065	1	41	2	36	.1	65	27	499	6.35	2	5	ND	1	369	.2	2	2	147	2.06	.221	7	194	1.47	195	.30	10	1.71	.40	1.28	1	1
A 107066	1	40	2	40	.2	66	28	508	7.20	3	5	ND	1	339	.2	2	3	176	1.87	.266	10	174	1.38	124	.29	10	1.57	.49	1.14	1	2
A 107067	1	38	3	38	.1	72	27	459	6.32	3	5	ND	1	364	.2	2	2	161	1.57	.241	10	179	1.47	257	.31	10	1.78	.54	1.28	1	1
A 107068	1	35	2	41	.2	72	26	495	5.62	2	5	ND	1	330	.2	2	2	142	1.85	.211	10	184	1.89	409	.32	10	1.70	.34	1.46	1	4
A 107069	1	60	2	49	.2	75	27	558	6.20	4	5	ND	1	355	.2	2	2	116	1.67	.228	12	198	1.72	161	.31	10	1.50	.31	1.24	1	1
A 107070	2	61	4	46	.2	80	28	593	6.93	3	5	ND	1	390	.2	2	2	148	1.56	.242	13	222	1.50	75	.29	13	1.70	.45	1.23	1	6
A 107071	1	44	2	41	.2	66	25	531	6.17	3	5	ND	1	359	.2	2	2	150	1.55	.222	12	176	1.20	89	.27	8	1.58	.44	1.15	1	3
A 107072	1	38	2	43	.1	52	22	580	5.38	2	5	ND	1	401	.2	2	2	140	2.15	.152	10	145	1.05	75	.26	9	1.82	.49	1.21	1	1
A 107073	1	31	2	46	.2	50	21	562	5.12	2	5	ND	1	312	.2	2	2	136	1.96	.130	9	134	1.07	65	.25	7	1.86	.47	1.22	1	4
A 107074	1	23	2	47	.2	47	21	585	5.38	3	5	ND	1	368	.2	2	2	139	2.56	.140	9	133	.99	50	.23	8	1.79	.22	.89	1	1
A 107075	1	25	2	46	.1	43	19	565	5.24	2	5	ND	1	462	.2	2	3	140	2.60	.135	8	122	1.20	50	.24	8	1.93	.20	1.02	1	2
A 107076	1	30	2	48	.2	43	20	552	4.74	2	5	ND	1	338	.2	2	2	125	1.98	.123	7	113	1.08	45	.23	6	1.71	.31	1.32	1	3
A 107077	2	260	2	40	.3	32	15	510	3.48	11	5	ND	1	129	.2	2	2	96	2.52	.093	6	85	.92	57	.16	6	1.32	.08	1.79	1	4
A 107078	1	54	2	47	.1	33	19	549	4.82	6	5	ND	1	398	.2	2	2	137	2.81	.150	8	82	.93	38	.19	6	1.96	.24	.97	1	2
A 107079	1	27	2	49	.2	33	19	572	5.15	4	5	ND	1	393	.2	2	2	146	2.78	.157	9	82	.97	43	.20	5	1.93	.39	.88	1	1
A 107080	2	35	2	52	.1	35	21	630	5.43	4	5	ND	1	240	.2	2	2	150	3.24	.176	9	90	1.21	58	.23	4	1.78	.07	1.24	1	2
STANDARD C/AU-R	20	64	44	138	7.4	75	31	1086	3.94	42	24	8	40	52	18.0	18	19	61	.49	.094	40	60	.90	182	.10	38	1.86	.09	.16	11	504
STANDARD C	20	63	42	138	7.4	73	31	1146	4.03	42	20	7	39	51	18.7	14	21	61	.49	.095	39	60	.88	186	.09	40	1.91	.07	.16	13	-

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.
ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB
- SAMPLE TYPE: CORE AU* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE. Samples beginning 'RE' are duplicate samples.

DATE RECEIVED: OCT 10 1991 DATE REPORT MAILED: Oct 15/91 SIGNED BY .... D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

ACME ANALYTICAL

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
A 107081	2	33	2	42	.4	30	20	508	4.18	2	5	ND	3	510	.2	2	2	117	2.81	.164	9	54	.82	37	.18	4	1.82	.23	.63	2	6
A 107082	2	26	2	36	.2	28	20	451	4.59	2	5	ND	1	675	.3	2	2	129	1.81	.183	9	65	.57	39	.17	2	2.48	.61	.66	1	4
A 107083	3	87	2	54	.4	33	24	644	4.92	4	5	ND	2	432	.4	2	2	130	2.55	.160	9	75	1.11	59	.19	6	2.06	.46	.79	1	7
A 107084	1	37	2	62	.1	33	24	728	5.03	2	5	ND	1	233	.4	2	2	137	3.11	.182	9	73	1.45	59	.22	2	1.86	.19	1.02	1	6
A 107085	2	17	2	60	.1	35	25	728	5.05	2	5	ND	2	324	.2	2	2	136	2.95	.177	9	76	1.45	73	.22	4	1.75	.16	.99	1	4
A 107086	3	254	2	66	.4	36	25	729	4.81	3	5	ND	2	485	.6	2	2	127	2.88	.170	10	79	1.41	52	.21	2	2.76	.72	1.28	1	8
A 107087	2	43	2	55	.1	32	21	624	4.30	2	5	ND	2	803	.4	2	2	116	2.75	.129	8	80	1.19	54	.20	2	3.28	1.06	.95	1	6
A 107088	1	17	2	57	.1	37	25	718	4.52	2	5	ND	1	546	.3	2	2	126	3.48	.134	9	81	1.64	54	.23	5	2.13	.25	1.30	1	5
A 107089	3	17	2	57	.1	34	24	693	4.41	4	5	ND	1	495	.6	2	2	115	3.18	.127	8	84	1.47	47	.21	2	2.16	.26	.85	1	2
A 107090	1	1	2	56	.1	35	25	596	4.45	2	5	ND	2	377	.2	2	2	117	1.96	.220	10	64	1.24	78	.21	2	1.70	.19	.77	1	1
A 107091	2	28	4	64	.2	35	24	580	5.03	4	5	ND	3	477	.5	2	2	135	1.84	.213	12	66	1.10	73	.22	2	2.20	.44	.72	1	2
A 107092	2	33	2	55	.1	36	20	514	3.65	2	5	ND	3	387	.2	2	2	95	1.77	.204	11	85	1.14	88	.21	4	1.55	.23	.60	1	6
A 107093	2	48	5	51	.1	25	18	499	3.61	4	5	ND	4	473	.2	2	2	97	1.84	.249	13	37	.87	129	.16	4	2.01	.68	.58	1	6
A 107094	2	65	2	60	.1	16	23	732	4.73	2	5	ND	3	539	.2	2	2	143	2.47	.243	13	25	1.05	281	.16	4	1.54	.30	.61	1	9
A 107095	6	206	2	66	.1	17	21	649	5.96	2	5	ND	3	666	.2	2	2	224	1.82	.253	16	39	.55	150	.17	2	1.44	.29	.36	1	22
A 107096	3	113	2	82	.2	18	21	807	5.93	2	5	ND	3	417	.3	2	2	237	1.78	.290	17	35	.81	222	.21	6	1.02	.15	.53	2	14
A 107097	5	72	2	80	.1	15	23	900	5.98	95	5	ND	3	304	.2	2	2	221	2.97	.325	17	27	1.00	155	.20	4	.94	.10	.61	2	26
A 107098	2	116	2	59	.1	17	18	673	4.01	4	5	ND	3	321	.2	2	2	170	1.67	.378	18	35	.95	282	.26	4	.99	.14	.81	2	9
A 107099	2	161	2	48	.1	14	21	531	4.91	5	5	ND	2	704	.2	2	2	151	1.70	.273	15	25	.54	176	.16	3	1.45	.26	.41	2	6
A 107100	2	25	2	53	.1	40	24	587	4.91	2	5	ND	2	494	.3	2	2	125	3.27	.209	11	70	1.00	77	.19	2	1.99	.27	.77	1	7
A 107101	2	17	2	54	.4	47	27	630	5.33	6	5	ND	2	465	.5	2	2	133	2.13	.182	10	116	1.15	85	.22	8	1.89	.32	.91	1	4
A 107102	1	26	2	50	.2	42	24	588	4.95	2	5	ND	2	459	.2	2	2	126	1.84	.163	9	111	1.07	74	.21	6	2.28	.62	1.06	1	2
RE A 107098	2	113	2	56	.1	17	18	638	3.84	3	5	ND	2	325	.2	2	2	165	1.59	.366	18	34	.91	289	.27	6	1.00	.15	.84	2	8
A 107103	2	44	3	61	.1	49	26	734	4.85	50	5	ND	2	343	.2	2	2	115	3.21	.160	9	114	1.71	90	.22	6	1.55	.12	1.04	1	5
A 107104	1	16	2	51	.1	53	27	601	5.55	2	5	ND	1	327	.2	2	2	143	1.66	.196	10	138	1.12	150	.24	2	1.43	.21	.80	1	8
A 107105	2	9	2	56	.3	63	33	638	6.66	5	5	ND	2	306	.2	2	2	166	1.63	.226	11	218	1.33	178	.29	4	1.14	.12	.84	1	1
A 107106	1	6	2	60	.1	60	32	677	6.56	2	5	ND	2	344	.2	2	2	159	1.37	.217	10	187	1.30	196	.28	4	1.43	.26	.89	1	2
A 107107	2	7	3	61	.1	59	32	656	6.37	3	5	ND	2	399	.2	2	2	152	1.38	.218	10	156	1.31	208	.26	4	1.52	.30	.85	1	2
STANDARD C/AU-R	20	61	39	141	7.4	74	33	1097	3.97	44	17	8	40	49	19.0	18	17	60	.50	.098	40	59	.91	183	.10	35	1.90	.07	.16	11	510
STANDARD C	20	58	38	131	7.3	71	32	1052	3.94	43	21	7	39	52	18.4	16	17	57	.48	.090	39	58	.88	175	.09	33	1.86	.06	.15	11	-

Sample type: CORE. Samples beginning 'RE' are duplicate samples.

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716

GEOCHEMICAL ANALYSIS CERTIFICATE

Richard Haslinger File # 90-5976
Box 335, Fort St. James BC V0J 1P0

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm
LORRAINE-1	1	13737 ✓	10	177	10.9	15	16	560	4.33	10	5	ND	5	54	3.3	2
LORRAINE-2	9	27753 ✓	5	283	19.9	82	29	1876	4.21	14	6	ND	3	73	3.9	2
LORRAINE-3	5	1095	42	179	.7	10	11	2000	3.18	49	6	ND	3	100	1.8	69

SAMPLE#	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au** ppb	Pt** ppb	Pd** ppb
LORRAINE-1	2	149	.66	.188	12	13	.50	42	.12	6	.57	.03	.25	1	1465	10	13
LORRAINE-2	2	142	5.93	.498	51	48	2.62	16	.12	6	2.84	.03	.31	1	1753	20	29
LORRAINE-3	2	37	7.82	.183	17	7	1.22	89	.01	9	.48	.01	.26	1	31	3	8

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: ROCK AU** PT** PD** BY FIRE ASSAY & ANALYSIS BY ICP.

DATE RECEIVED: NOV 19 1990 DATE REPORT MAILED: Nov 22/90 SIGNED BY C. Leong D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

✓ ASSAY RECOMMENDED

Richard Haslinger's Samples

- ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716

GEOCHEMICAL ANA SIS CERTIFICATE

Richard Haslinger File # 90-5243

Box 335, Fort St. James BC V0J 1P0

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au** ppb	Pt** ppb	Pd** ppb
Number 1 STEELE #3 (no 2)	4	99999	135	268	353.1	42	28	551	6.48	9	5	14	2	142	24.4	2	2	51	.68	.342	21	28	.87	59	.14	3	.76	.03	.58	21	13395	648	1176

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: ROCK AU** PT** PD** BY FIRE ASSAY & ANALYSIS BY ICP/GRAPHITE FURNACE.

DATE RECEIVED: OCT 11 1990 DATE REPORT MAILED: Oct 19/90 SIGNED BY..........D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

Assay in Progress for Cu

Richard Haslinger's Samples

ACME ANAL[illegible]ICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716

GEOCHEMICAL AN[illegible]SIS CERTIFICATE

Richard Haslinger File # 90-5568

Box 335, Fort St. James BC V0J 1P0

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm
STEELE #3 SAMPLE #2	1	41905	19	89	43.9	26	20	624	4.51	6	5	3	1	205	8.1	2	14	130
STEELE #3 SAMPLE #3	1	196	6	36	.2	16	27	383	11.18	11	5	ND	1	138	.9	2	2	457
STEELE #3 SAMPLE #4	14	99999	69	237	221.9	45	31	768	4.91	2	5	18	1	176	40.9	4	15	72

SAMPLE#	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au** ppb	Pt** ppb	Pd** ppb	Rh** ppb
STEELE #3 SAMPLE #2	1.01	.253	15	34	.99	142	.14	3	.89	.06	.64	1	3227	47	480	2
STEELE #3 SAMPLE #3	2.33	.499	7	27	1.16	80	.13	2	1.51	.16	.07	1	27	8	13	2
STEELE #3 SAMPLE #4	.47	.199	8	28	1.36	47	.14	2	1.29	.04	.86	3	19814	76	2609	4

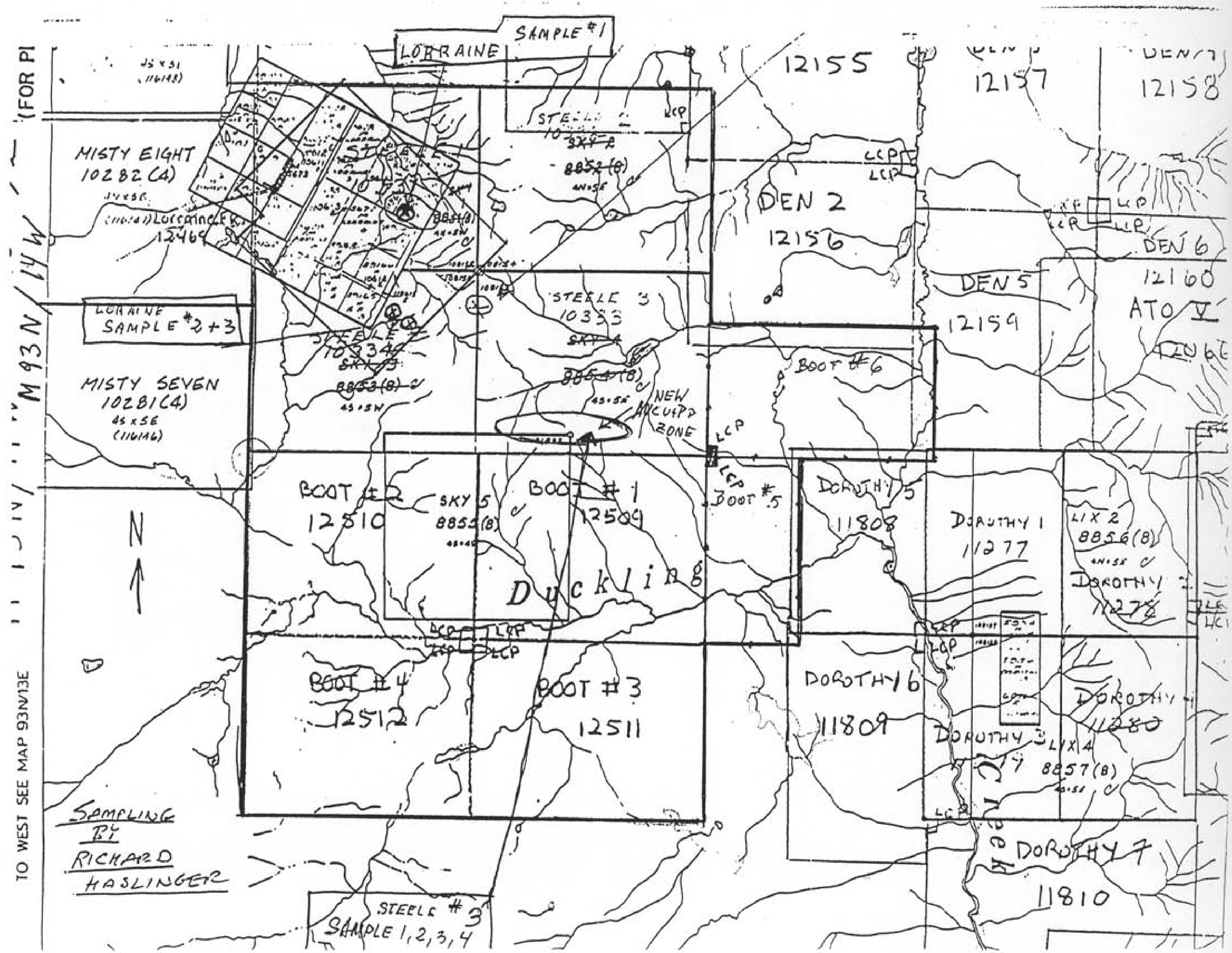
ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: ROCK AU** PT** PD** RH** BY FIRE ASSAY & ANALYSIS BY ICP/GRAPHITE FURNACE.

DATE RECEIVED: OCT 26 1990 DATE REPORT MAILED: Nov 2/90 . SIGNED BY C Leong ...D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

✓ ASSAY RECOMMENDED

Richard Haslinger's Samples

RICHARD HASLINGER
BOX 335
FORT ST JAMES BC
V0J 1P0



SAMPLE #1
LORRAINE
12155
12157
12158
MISTY EIGHT
10282 (4)
12469
STEELE 2
SKY 2
8852 (8)
DEN 2
12156
DEN 6
12160
DEN 5
12159
ATO V
LORAINE
SAMPLE #2+3
STEELE 3
10333
SKY 4
8854 (8)
STEELE
10334
SKY 3
8853 (8)
MISTY SEVEN
10281 (4)
BOOT #6
NEW
ZONE
LCP
BOOT #2
12510
SKY 5
8855 (8)
BOOT #1
12509
BOOT #5
DOROTHY 5
11808
DOROTHY 1
11277
LIX 2
8856 (8)
DOROTHY 2
11278
N
Duckling
BOOT #4
12512
BOOT #3
12511
DOROTHY 6
11809
DOROTHY 3
LIX 4
8857 (8)
DOROTHY 4
11280
SAMPLING BY RICHARD HASLINGER
STEELE #3
SAMPLE 1, 2, 3, 4
DOROTHY 7
11810
TO WEST SEE MAP 93N/13E
M93N/14W
(FOR PI

APPENDIX 5

Statement of Qualifications

Statement of Qualifications

I, Neil Humphreys of 3028 West 14th Avenue, in Vancouver in the province of British Columbia, do hereby state:

1. That I have received a B.Sc degree in geology from the University of Saskatchewan in 1976 and an M.Sc degree in mineral exploration from Queen's University in 1982.

2. That I have been active in mineral exploration since 1975 in Canada and the United States.

3. That I have been employed by major mining companies until 1988. From 1988 until the present I have been a consulting geologist directing exploration projects in British Columbia.

Neil Humphreys

Neil Humphreys

Vancouver, B.C.
December, 1991

STATEMENT OF QUALIFICATIONS

I, John B. Binns, of the district of West Vancouver, in the province of British Columbia, do hereby certify:

1. I am a consultant geophysicist residing at 2370 Marine Drive, West Vancouver, B.C. V7V 1K8

2. I am a graduate of the University of Newcastle Upon Tyne, England with B.Sc. degree in Mining Engineering (1969).

3. I am a graduate of the Imperial College, University of London with an M.Sc. degree in Applied Geophysics (1981).

4. I am a licenced professional engineer in the province of Ontario.

5. I have been practising my profession for 22 years.

John B. Binns

December, 1991
Vancouver, B.C.

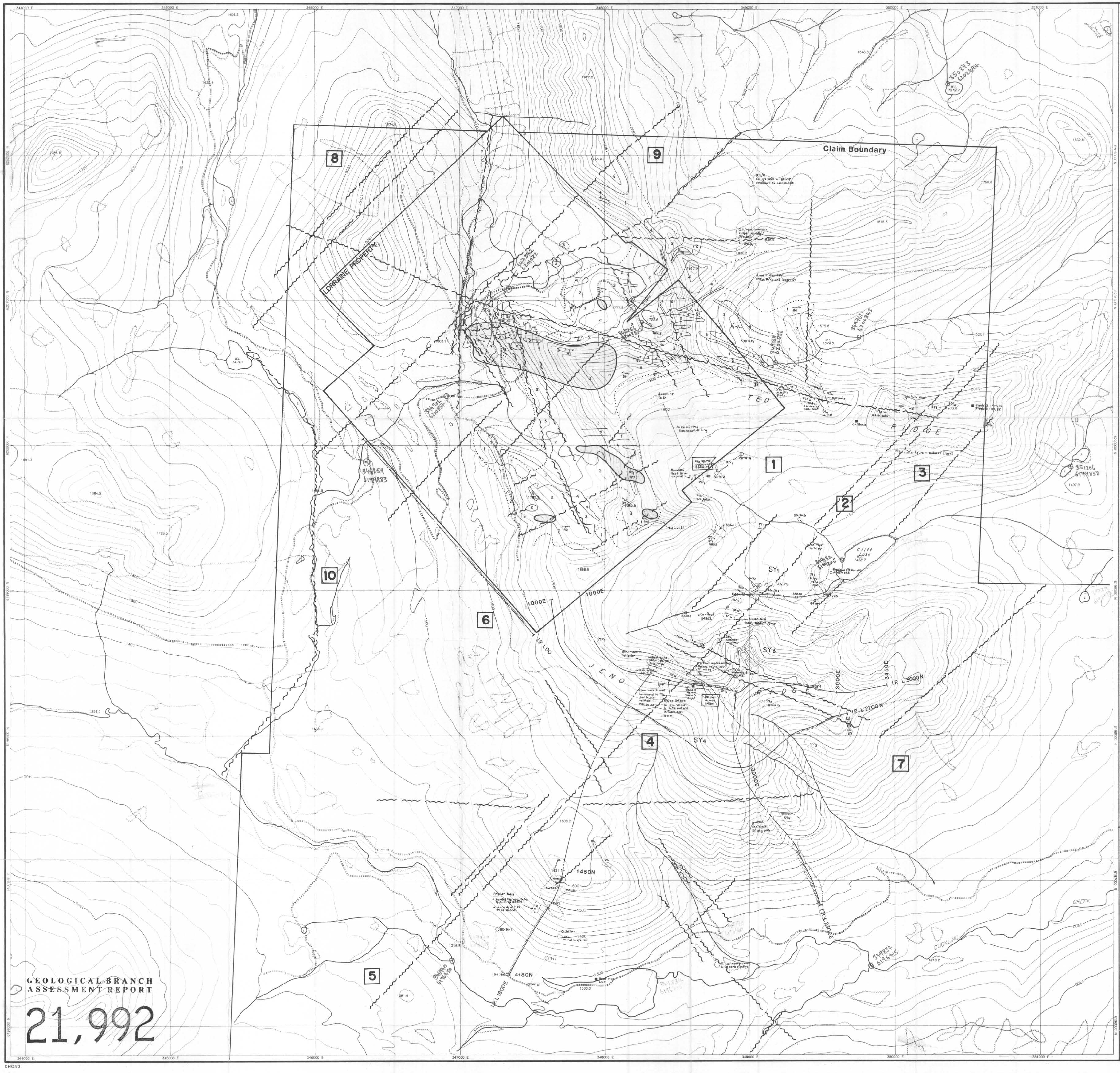
APPENDIX 6

Statement of Costs

Statement of Costs

Steele 1-4, Boot 6 Claims

Salaries:	Neil Humphreys, Geologist: June 6,7,10-14; August 27-31; September 1-3,24; October 1-10 26 days @ $275 per day		$ 7,150
	Russ Barnes, Geologist: September 24,25 2 days @ $170 per day		340
	Bill Paterson, Geologist: August 28-31, September 1 5 days @ $170 per day		850
	J.P. Loiselle, Field Assistant: September 21,23,24; October 1-10; 13 days @ $110 per day		1,430
Camp Costs:	(Drillers and BP Personnel)		4,324
Transport:	Truck Rentals 11 days x 2 trucks x $50 per day		1,100
	Helicopter support, geology and drilling 23.4 hours @ $700 per hour		16,380
Geochemical Costs:	Core Samples: 90 @ $12.33	$1,109	
	Rock Samples: 17 @ $12.33	209	
	Shipping Costs:	152	
		$1,470	1,470
IP Survey:	Portion done on STEELE 3 and 4 claims		6,646
Diamond Drilling:	Holes BD-91-2,3,4		20,909
Report Writing and Drafting:			6,300
	TOTAL EXPENDITURES:		**$66,899**



GEOLOGICAL BRANCH
ASSESSMENT REPORT

21,992

CHONG

LEGEND FOR SIMPLIFIED LORRAINE GEOLOGY
(TAKEN FROM GARNETT, 1973 BCDM GEM, P 370)

GARNETT'S UNITS		PROBABLE BOOT CLAIM EQUIVALENTS
4	HOLOFELSIC SYENITE DYKES, SILLS	SY_2
3	SYENITE MIGMATITE	SY_4
2	PYROXENITE AND PYROXENITE PORPHYRY	PYX_1, PYX_2
1	MONZONITE, DIORITE	QM/MONZ

LIMITS OF MAPPING

LEGEND

LOWER JURASSIC TO LOWER CRETACEOUS

HOGEM BATHOLITH

DY_2	LATE DYKES	various colours, leucocratic, aphanitic to fine-grained, mainly latites
MONZ	MONZONITE	white, medium-grained, equi-granular, 10% pyroxene, <5% biotite, moderately magnetic

Duckling Creek Syenite Complex

DY_1	FELDSPAR PORPHYRY	light grey, medium grained, leucocratic, occurs as dykes/sills probably related to the Syenite Complex
SY	UNDIFFERENTIATED SYENITE	
SY_1	MEDIUM-GRAINED SYENITE	buff coloured, leucocratic, weakly porphyritic, probably a variety of SY_3
SY_2	EQUI-GRANULAR SYENITE	light grey, leucocratic, fine to medium grained, equi-granular to weakly porphyritic
SY_3	MEGACRYSTIC SYENITE	white, leucocratic, medium grained groundmass with K-feldspar phenocrysts to 8 cm
SY_4	MAFIC SYENITE	medium grey, medium grained, equi-granular to weakly porphyritic, contains up to 40% mafics, ± gneissic texture
PYX_1	"PYROXENITE"	dark grey, medium grained, average 50% pyroxene, 35% K-feldspar, 10% biotite as porphyroblasts, strongly magnetic
PYX_2	SPOTTED "PYROXENITE"	similar to PYX_1, but with up to 30% porphyroblasts of K-feldspar-plagioclase, strongly magnetic
QM/M	QUARTZ MONZONITE /MONZONITE	medium grey, medium grained, equi-granular, 5-10% mafics

APPROXIMATE LIMIT OF AREAS MAPPED

FLOAT, SUBCROP

114213 ROCK CHIP SAMPLE LOCATION

FOLIATION

PROMINENT FRACTURES

GEOLOGICAL CONTACTS

SOIL SAMPLE

SILT SAMPLE

PY	PYRITE	QTZ	QUARTZ	CP	CHALCOPYRITE
ANK	ANKERITE	MAL	MALACHITE	Q.V.	QUARTZ VEIN
CC	CHALCOCITE	BO	BORNITE	GAL	GALENA

CLAIM POSTS

DIAMOND DRILL HOLES

FAULTS INFERRED FROM AIRBORNE SURVEY:

IP LINES WITH CHARGEABILITY ANOMALIES

3 - AREAS RECOMMENDED FOR FUTURE EXPLORATION

MINERALIZED ZONE

UTM N.

TRUE N.

200 100 0 200 400 600 800

METRES

CONTOUR AT 20 m. INTERVAL

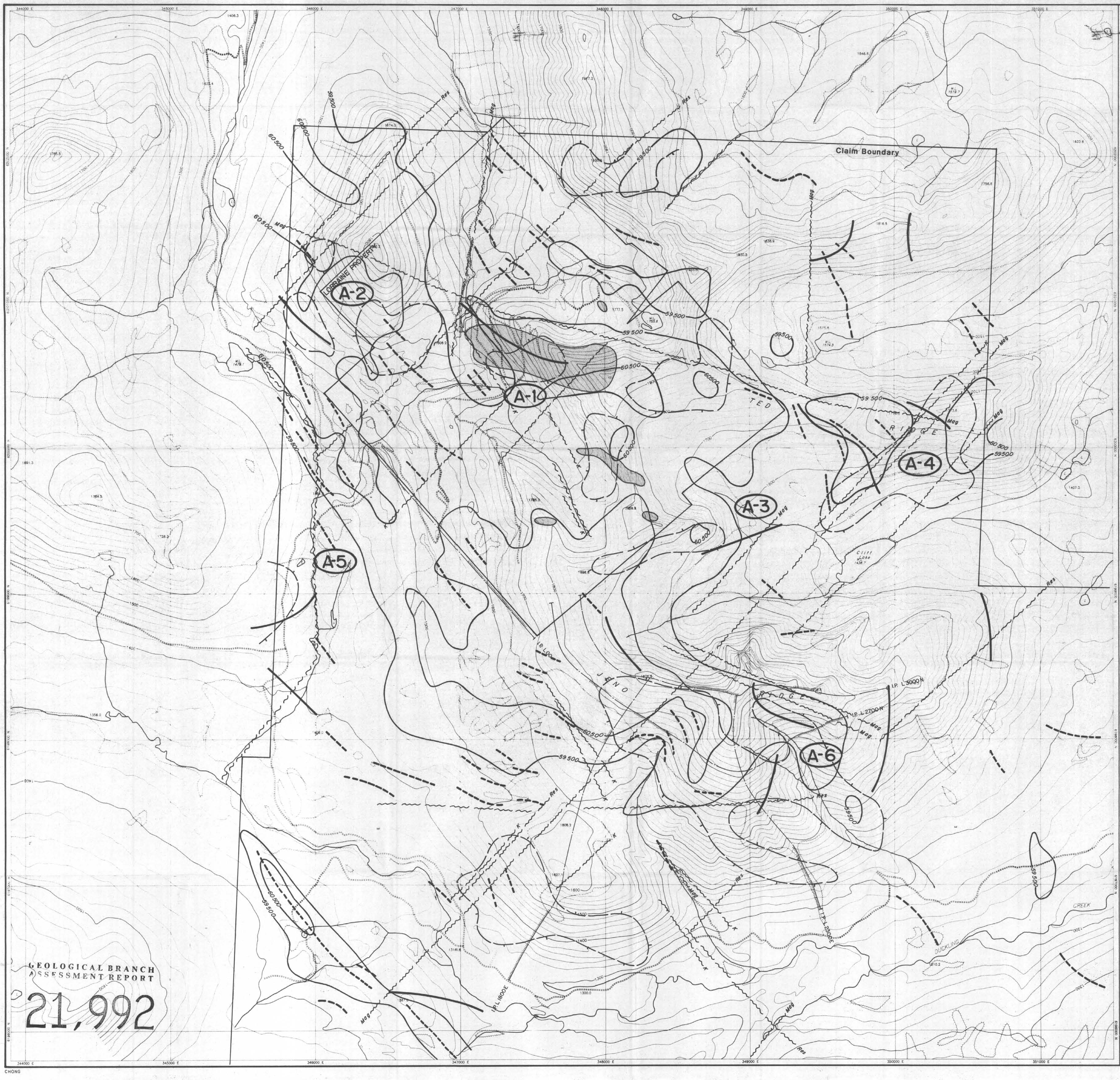
BP Resources Canada Limited

MINING DIVISION

BOOT - STEELE PROPERTY

GEOLOGY

SCALE: 1:10,000		DRAWN BY: N.H.	FIG. 4
DATE: DEC. 91	REV.:	DRAFTED BY: Chong	
N.T.S. 93N/14	PROJ.: 10162	REPORT: BPVR 91-13	



N

TRUE N.

LEGEND

59 500	MAGNETIC ANOMALY CONTOURS
	K/U RATIO >6
	EM CONDUCTOR AXIS
	VLF CONDUCTORS
K	INFERRED FAULTS SHOWING THE SOURCE SURVEY FOR THE INTERPRETATION:
	MAG — MAGNETICS
	RES — RESISTIVITY
	K — POTASSIUM RADIOMETRICS
	FAULTS NOT LABELLED ARE TOPOGRAPHIC LINEARS
	IP LINES WITH CHARGEABILITY ANOMALIES
	OUTLINE OF LORRAINE DEPOSITS
A-1	TARGETS RECOMMENDED BY AERODAT FOR FUTURE EXPLORATION

200 100 0 200 400 600 800

METRES

CONTOUR AT 20 m. INTERVAL

BP Resources Canada Limited

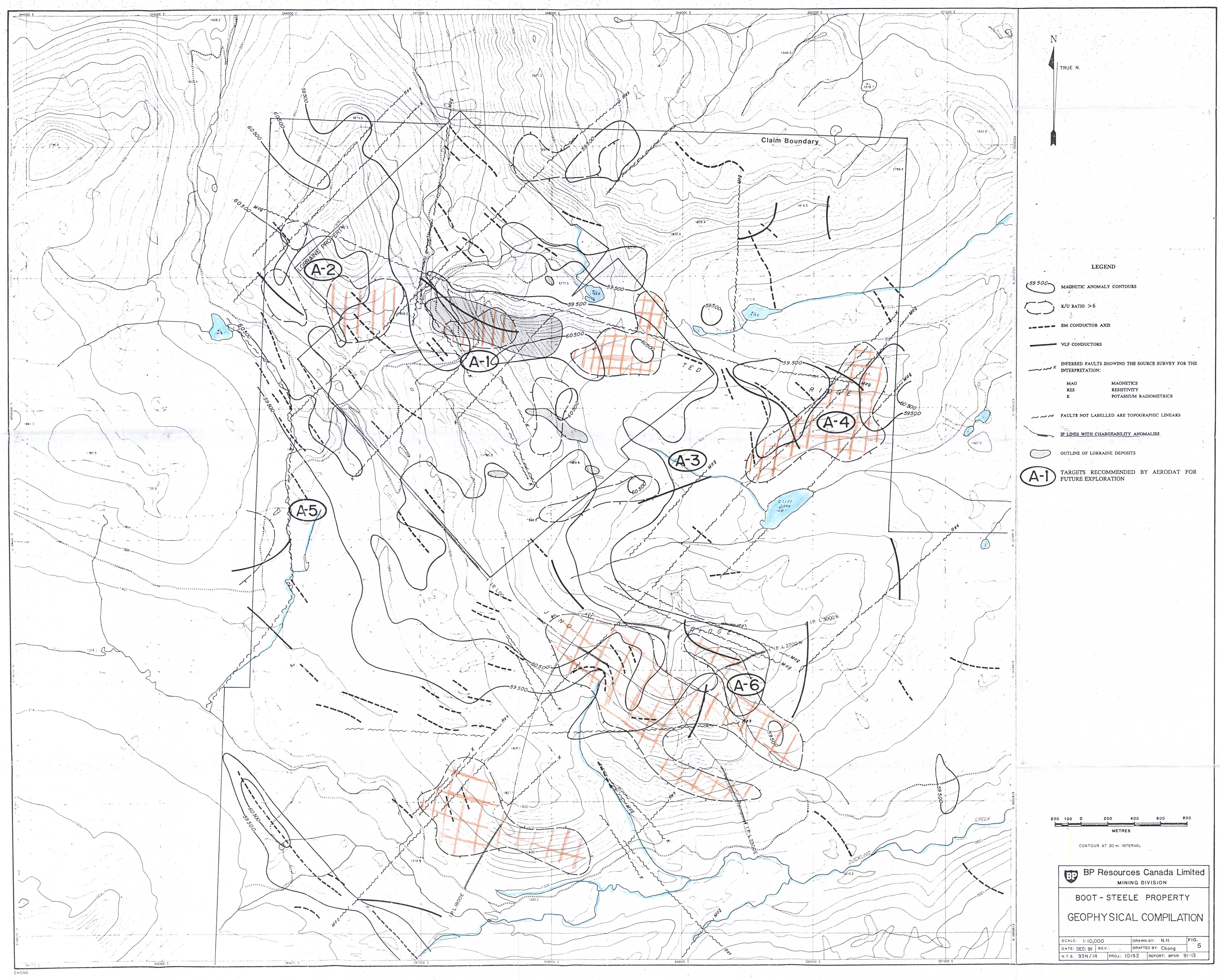
MINING DIVISION

BOOT - STEELE PROPERTY

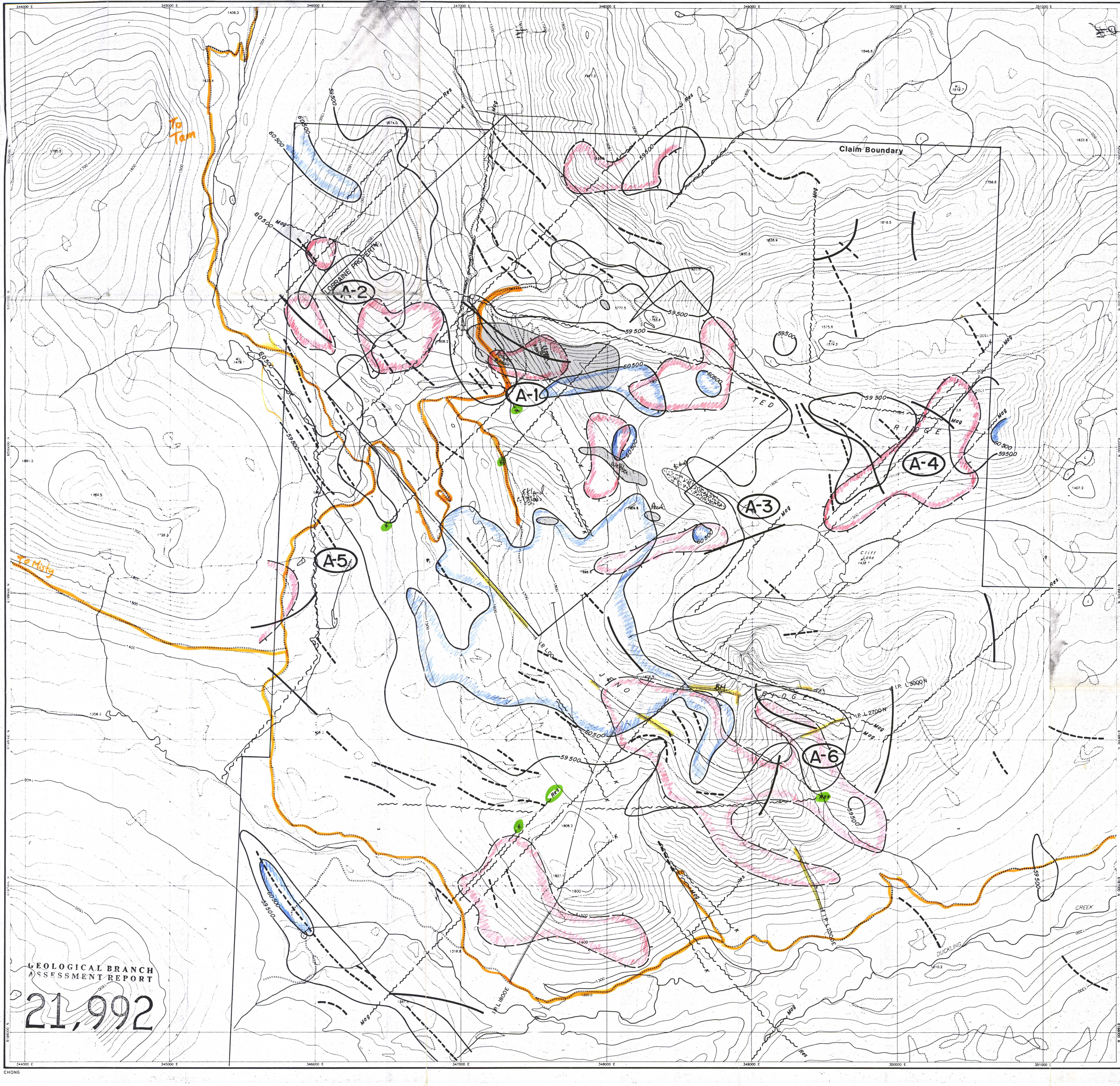
GEOPHYSICAL COMPILATION

SCALE: 1:10,000	DRAWN BY: N.H.	FIG. 5
DATE: DEC. 91 REV.:	DRAFTED BY: Chong	
N.T.S. 93N/14 PROJ.: 10162	REPORT: BPVR 91-13	

CHONG



TRUE N.
Claim Boundary
LORRAINE PROPERTY
A-1
A-2
A-3
A-4
A-5
A-6
TED
RIDGE
JENO
Cliff Lake
DUCKLING
CREEK
LEGEND
59 500
MAGNETIC ANOMALY CONTOURS
K/U RATIO >6
EM CONDUCTOR AXIS
VLF CONDUCTORS
INFERRED FAULTS SHOWING THE SOURCE SURVEY FOR THE INTERPRETATION:
MAG MAGNETICS
RES RESISTIVITY
K POTASSIUM RADIOMETRICS
FAULTS NOT LABELLED ARE TOPOGRAPHIC LINEARS
IP LINES WITH CHARGEABILITY ANOMALIES
OUTLINE OF LORRAINE DEPOSITS
A-1
TARGETS RECOMMENDED BY AERODAT FOR FUTURE EXPLORATION
200 100 0 200 400 600 800
METRES
CONTOUR AT 20 m. INTERVAL
BP Resources Canada Limited
MINING DIVISION
BOOT - STEELE PROPERTY
GEOPHYSICAL COMPILATION
SCALE: 1:10,000
DRAWN BY: N.H.
FIG. 5
DATE: DEC. 91
REV.:
DRAFTED BY: Chong
N.T.S. 93N/14
PROJ.: 10162
REPORT: BPVR 91-13



N

TRUE N.

60500

LEGEND

59 500 MAGNETIC ANOMALY CONTOURS

K/U RATIO >6

EM CONDUCTOR AXIS

VLF CONDUCTORS

INFERRED FAULTS SHOWING THE SOURCE SURVEY FOR THE INTERPRETATION:

MAG	MAGNETICS
RES	RESISTIVITY
K	POTASSIUM RADIOMETRICS

FAULTS NOT LABELLED ARE TOPOGRAPHIC LINEARS

IP LINES WITH CHARGEABILITY ANOMALIES

OUTLINE OF LORRAINE DEPOSITS

A-1 TARGETS RECOMMENDED BY AERODAT FOR FUTURE EXPLORATION

200 100 0 200 400 600 800

METRES

CONTOUR AT 20 m. INTERVAL

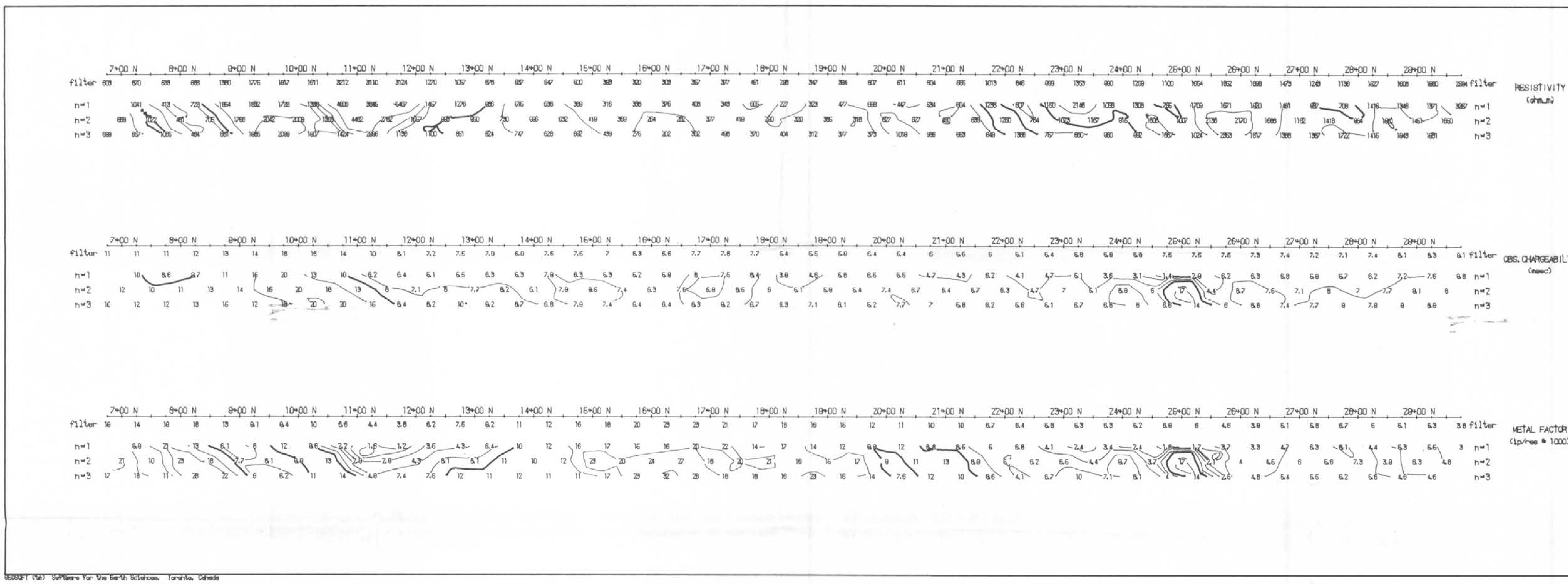
BP Resources Canada Limited
MINING DIVISION

BOOT - STEELE PROPERTY

GEOPHYSICAL COMPILATION

SCALE: 1:10,000		DRAWN BY: N.H.	FIG. 5
DATE: DEC. 91	REV.:	DRAFTED BY: Chong	
N.T.S. 93N/14	PROJ.: 10162	REPORT: BPVR 91-13	

CHONG



Line 1800 E

Dipole-Pole Array

a = 50 m
n = 1,2,3
plot point

Logarithmic Contours 1, 1.5, 2, 3, 5, 7.5, 10,...

Instrument : EDA IP-6
Frequency : 2s ON / 2s OFF
Operators : GDL

INTERPRETATION

Strong increase in polarization
Moderate increase in polarization
Weak increase in polarization

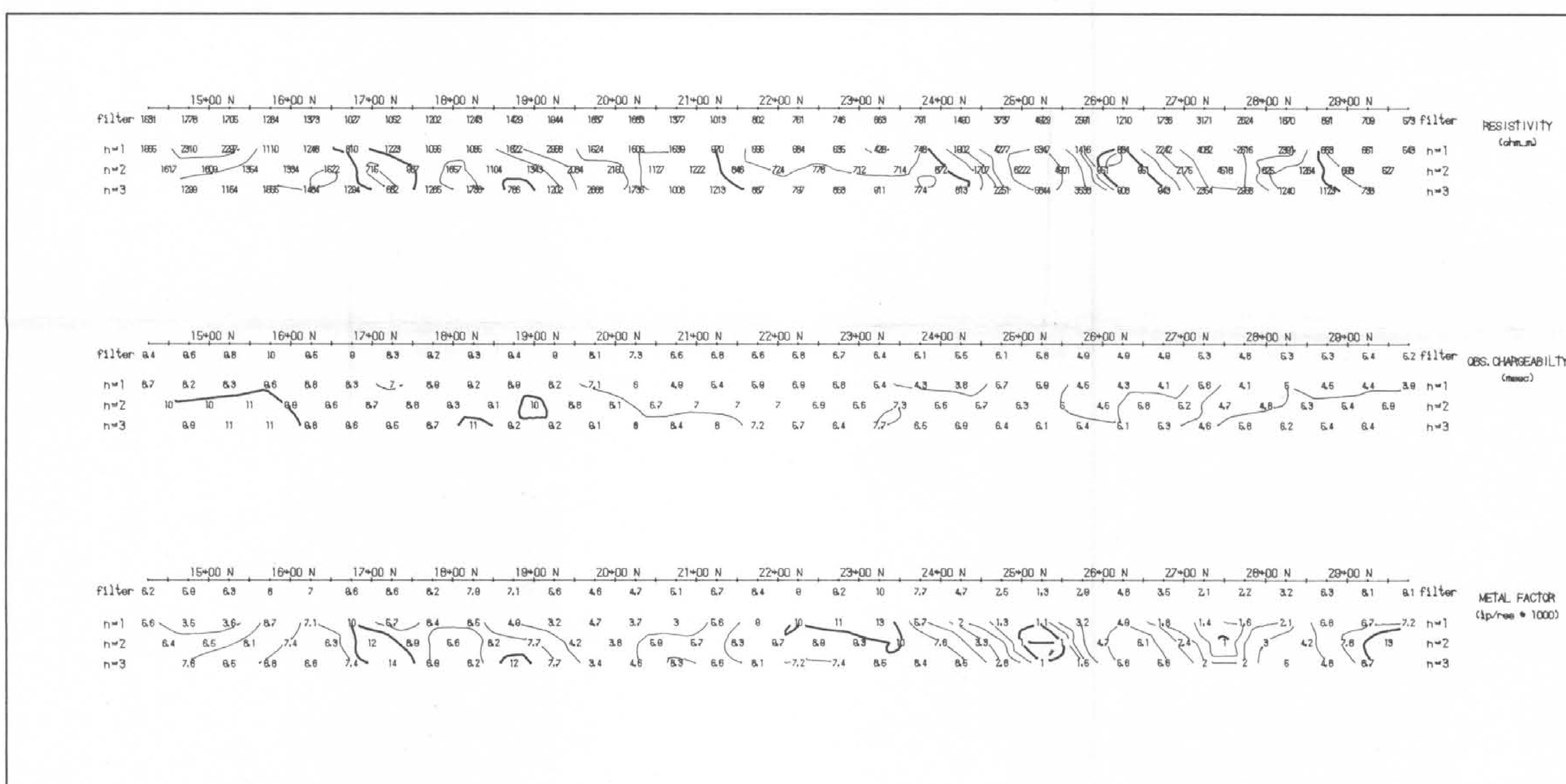
BP RESOURCES CANADA LIMITED

INDUCED POLARIZATION SURVEY
DUCKLING CREEK PROJECT
OMINECA M.D., B.C.

Date: August 1991 NTS: 93N/14
Interpretation by: Scale 1:5000

Pacific Geophysical

GEOSOFT (tm) Software for the Earth Sciences. Toronto, Canada



Line 2300 E

Dipole-Pole Array

a = 50 m
n = 1,2,3
plot point

Logarithmic Contours 1, 1.5, 2, 3, 5, 7.5, 10,...

Instrument : EDA IP-6
Frequency : 2s ON / 2s OFF
Operators : GDL

INTERPRETATION

Strong increase in polarization
Moderate increase in polarization
Weak increase in polarization

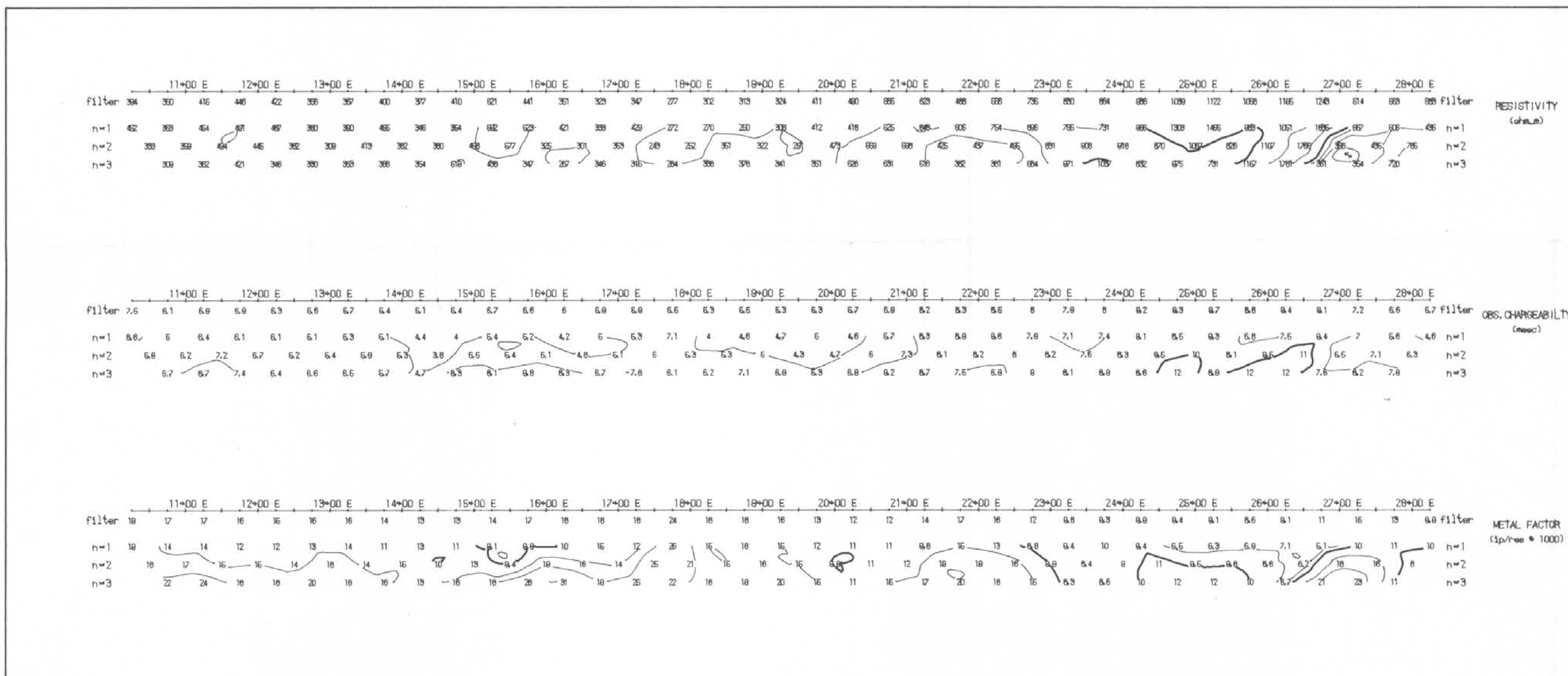
BP RESOURCES CANADA LIMITED

INDUCED POLARIZATION SURVEY
DUCKLING CREEK PROJECT
OMINECA M.D., B.C.

Date: August 1991 NTS: 93N/14
Interpretation by: Scale 1:5000

Pacific Geophysical

GEOSOFT (tm) Software for the Earth Sciences. Toronto, Canada



Line 0

Pole-Dipole Array

a = 50 m
n = 1,2,3
plot point

Logarithmic Contours 1, 1.5, 2, 3, 5, 7.5, 10,...

Instrument : EDA IP-6
Frequency : 2s ON / 2s OFF
Operators : GDL

INTERPRETATION

Strong increase in polarization
Moderate increase in polarization
Weak increase in polarization

BP RESOURCES CANADA LIMITED

INDUCED POLARIZATION SURVEY
DUCKLING CREEK PROJECT
OMINECA M.D., B.C.

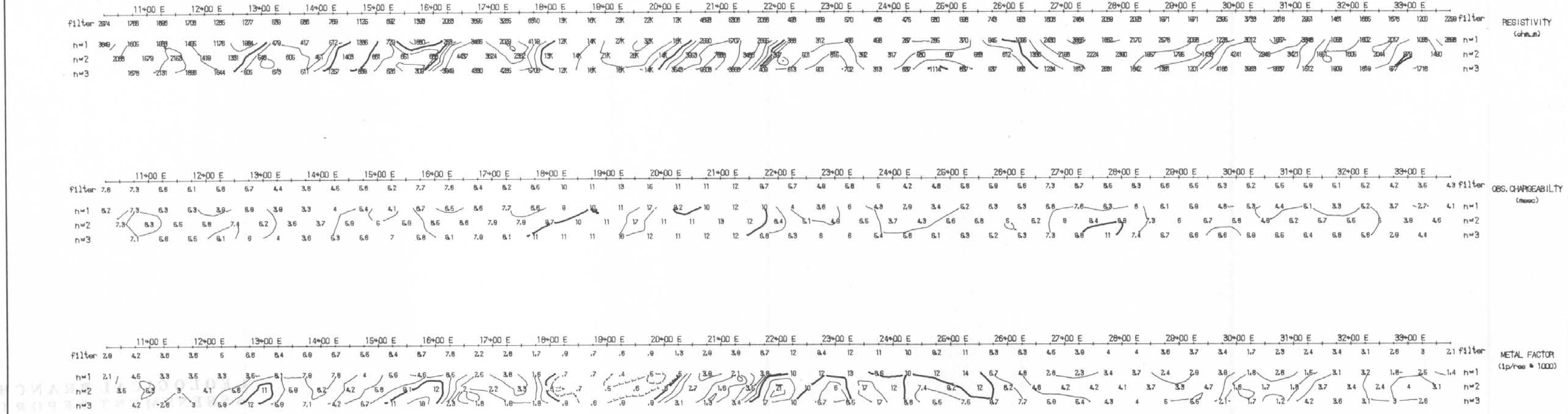
Date: August 1991 NTS: 93N/14
Interpretation by: Scale 1:5000

Pacific Geophysical

GEOSOFT (tm) Software for the Earth Sciences. Toronto, Canada

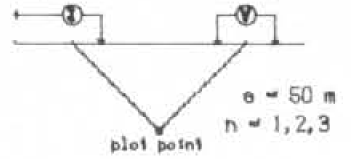
Figure 102

Line 2700 N
Pole-Dipole Array
a = 50 m
n = 1,2,3
plot point
RESISTIVITY (ohm_m)
OBS. CHARGEABILITY (msec)
METAL FACTOR (ip/res * 1000)
Logarithmic Contours 1, 1.5, 2, 3, 5, 7.5, 10,...
Instrument : EDA IP-6
Frequency : 2s ON / 2s OFF
Operators : GDL
INTERPRETATION
Strong increase in polarization
Moderate increase in polarization
Weak increase in polarization
A.R. 21992
BP RESOURCES CANADA LIMITED
INDUCED POLARIZATION SURVEY
DUCKLING CREEK PROJECT
OMINECA M.D., B.C.
Date: August 1991
NTS: 93N/14
Interpretation by:
Scale 1:5000
Pacific Geophysical
Figure 10b



Line 3000 N

Pole-Dipole Array



Logarithmic Contours 1, 1.5, 2, 3, 5, 7.5, 10,...

Instrument : EDA IP-6
Frequency : 2s ON / 2s OFF
Operators : GDL

INTERPRETATION

Strong increase in polarization

Moderate increase in polarization

Weak increase in polarization

A.R. 21992

BP RESOURCES CANADA LIMITED

INDUCED POLARIZATION SURVEY
DUCKLING CREEK PROJECT
OMINECA M.D., B.C.

Date: August 1991 NTS: 93N/14

Interpretation by: Scale 1:5000

Pacific Geophysical

Figure 10c