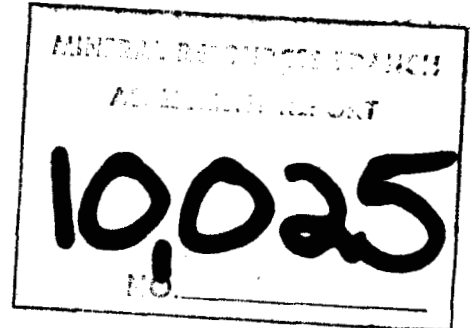


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BP Minerals Limited  
Vancouver



MORIARTY LAKE PROJECT

Report on

GEOLOGICAL MAPPING, GEOCHEMICAL and GEOPHYSICAL  
EXPLORATION, and DIAMOND DRILLING

COAL 1 and 2 Mineral Claims

Nanaimo Mining Division, Vancouver Island

N.T.S. 92 F/IW  
Latitude 49°08'N Longitude 124°22'W

Owned and Operated by: BP Minerals Limited

15 February, 1982  
Vancouver.

BPVR 81-9.

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SUMMARY CONCLUSIONS AND RECOMMENDATIONS

A programme of geological mapping, geochemical sampling, geophysical surveys and diamond drilling was undertaken to evaluate a high grade silver showing found in 1980.

On the property Jurassic biotite-hornblende granodiorite is unconformably overlain by the Cretaceous Nanaimo Group which consists of the Comox Formation (sandstone), Haslam Formation (silty mudstone) and East Wellington Formation (pebbly sandstone, siltstone, mudstone). The Nanaimo Group is intruded by thick dacite sills of Tertiary age. The sequence dips gently to the northeast and has been transected by an easterly trending fault, the Moriarty Fault.

The Moriarty Fault acted as a feeder zone for the intrusion of the dacite sills. It was the locus of several stages of dyke emplacement and brecciation, associated with locally intense hydrothermal alteration. The alteration appears to be vertically zoned within the fault zone, with propylitisation and later silicification dominating below the Cretaceous unconformity, and ankeritic carbonatisation and clay alteration above. The alteration is associated with anomalous silver, base

metal, mercury arsenic and antimony values. The Main Showing is located in the fault zone and grades up to 41 oz/ton silver. It consists of disseminated sphalerite, galena, chalcopryite and tetrahedrite in ankerite-veined intensely carbonated dacite at the base of the major sill, about 40 m vertically above the unconformity.

Nineteen kilometers of grid were cut on Coal 1 claim, over the west portion of the Moriarty Fault. Detailed soil sampling highlights the immediate area of the Main Showing and suggests that metal distributions are not homogeneous along the fault. Both soil sampling and stream sediments indicate more widespread anomalous conditions at the east end of the grid rather than the vicinity of the Main Showing. The rock chip sampling also shows an interesting distribution of high copper values in the eastern part of the grid that transects all lithological boundaries and suggests control by a buried intrusion. The eastern half of the Moriarty Fault on Coal 2 claim is unsampled.

Magnetometer and I.P. surveys were performed on the grid to locate alteration and mineralisation related to the Moriarty Fault. The magnetometer survey results show a distinct magnetic low that coincides with the fault. It can be directly related to destruction of magnetite in the altered granodiorite.

The I.P. survey shows two anomalous zones of changeability associated with the fault that may reflect sulphides, and the resistivity data shows a very subtle resistivity low coincident with the fault trace. However, the most striking results are three linear I.P. highs and resistivity lows that suggest very conductive material at the basal contact of the main dacite sill and at a median horizon within the sill. The cause is not known.

532 m of diamond drilling in 5 holes tested the Main Showing and showed that the high grade mineralisation lacks continuity at depth. Nevertheless, it revealed the relationship between the fault, intrusive activity, alteration and mineralisation.

It is recommended that detailed mapping and geochemical sampling be extended to cover the whole of the Moriarty Fault trace. The magnetic and I.P. surveys should be extended to the east and an aeromagnetic survey would assist in definition of an intrusive centre. An explanation of the strong linear I.P. and resistivity anomalies should be sought, initially by trenching.



## I. INTRODUCTION

### Introduction

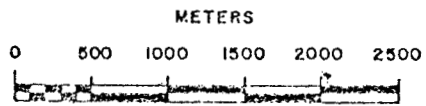
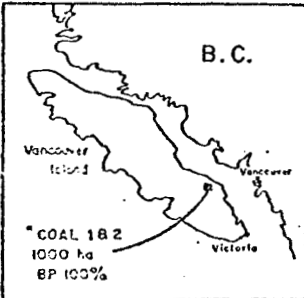
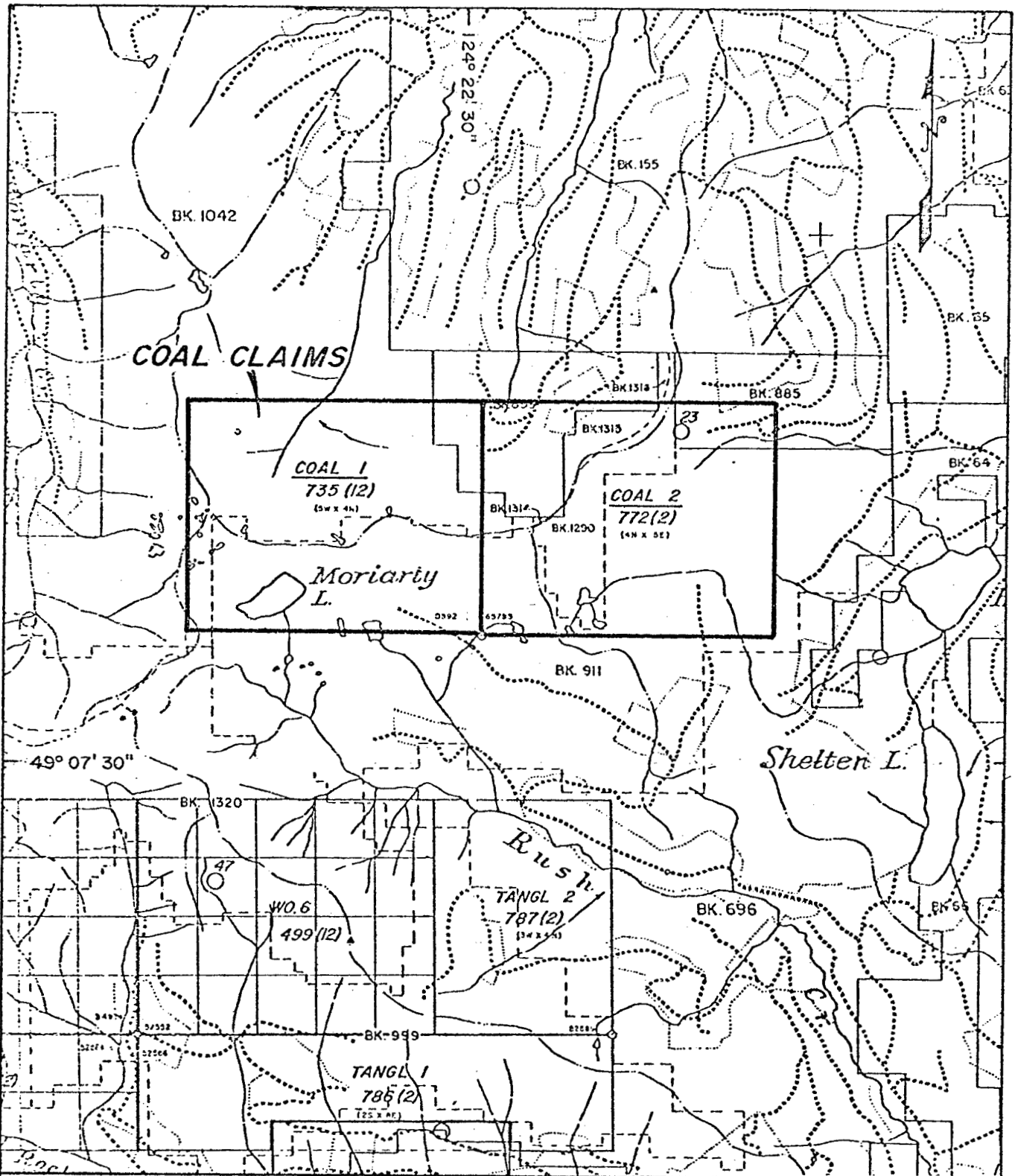
Reconnaissance exploration was carried out in the area in the fall of 1980. It was designed to test a model for precious metal mineralisation related to an inferred high level Tertiary intrusive centre cutting permeable Cretaceous sedimentary rocks. A high grade silver showing (41 oz/ton Ag, plus Pb, Zn and Cu) was found in follow up of a stream sediment anomaly, and the Coal claims were subsequently staked.

### Location and Access

The property is located 22 kms due south of Parksville on the drainage divide between the Englishman and Nanaimo Rivers, due east of Mount Moriarty. The southwest corner of the claims is on Moriarty Lake. Access is gained from Highway 19 by following MacMillan Bloedel's (Northwest Bay Division) main haulage road to "N" branch. N Main Line terminates at the main showing Creek on Coal 1. Access to Coal 2 can be gained from both F and N branch roads. Access to Coal 1 can also be gained from the south via Crown Zellerbach's Nanaimo Lakes logging road system by following branch G to G32.

### Claim Status

The Coal claims (40 units) are owned and



BP Minerals Limited			
<b>COAL CLAIMS</b>			
<b>MORIARTY LAKE, VANCOUVER ISLAND, B.C.</b>			
<b>CLAIM LOCATION MAP</b>			
SCALE	1 : 50,000	NTS 92F/1W	FIG 1
526-81-11	DATE OCT. 1981	PROJ 526	
To accompany report BPVR 81-9			

operated by BP Minerals Limited:

<u>Claim Name</u>	<u>Record #</u>	<u>Units</u>	<u>Recording Date</u>
Coal 1	735	20	10 December, 1980
Coal 2	772	20	11 February, 1981

### Physiography

Much of the property is characterised by a gently rolling terrain at an elevation of 800 - 1140 m that probably represents a remnant of a Tertiary erosion surface. It is dissected by steep v-shaped north-trending valleys. A well defined plateau with numerous small ponds occurs on the west edge of the property. Geological mapping suggests that this is an exhumed portion of the sub-Cretaceous unconformity.

The area supports a mature growth of yellow cedar, hemlock and fir, about 30% of which has been logged off. At higher elevations the growth thins to patches of alpine scrub. The plateau on the west side of the claims is an area of open alpine scrub.

Exposure is poor due to an extensive cover of glacial till and residual overburden, but outcrops of bedrock in creeks and roadcuts suggests that is is

generally thin.

### Regional Geology

The southeast portion of Vancouver Island within which the claims lie is underlain mainly by volcanic and minor sedimentary rocks of Pennsylvannian (or older) to Lower Jurassic age, the Sicker and Vancouver Groups, that were mildly folded, block faulted and intruded by granodiorite batholiths known as the Island Intrusions in Middle to Upper Jurassic time. These rocks are unconformably overlain by Cretaceous sandstone, siltstone, shale and conglomerate of the coal-bearing Nanaimo Group. The Nanaimo Group was intruded locally by dacite sills in the Tertiary, during which renewed block faulting and tilting occurred.

### Previous Work and Exploration History

The area has been mapped at a reconnaissance scale by Muller (Muller and Carson, 1969). There is no record of previous detailed exploration on the property, though the area was included in regional exploration programmes of the E and N Land Grant by Gunnex and others in the 1960's. An airborne magnetometer survey was flown as part of this activity in 1962 and was subsequently published by the GSC as Geophysics Paper 5322 (Scale 1 inch to 1 mile).

The area was investigated in October 1980 by B. Marten. Follow-up of a gold stream sediment anomaly led to the discovery of the main showing, and the Coal 1 and 2 claims were subsequently staked in November 1980 and February 1981 respectively.

#### 1981 Programme

A grid totalling 19.3 km was cut to cover the area of the main showing by Bema Industries Ltd. (16-30 June). The east end of the grid was later extended by 3.4 km of compass and topofil lines. An orthophoto at 1:10,000 scale prepared by McElhanney Ltd. was used for additional ground control.

Geological and geochemical fieldwork was carried out between 29 May - 6 June and 9-29 July. Geological mapping was performed on the grid at 1:5,000 scale and on outlying areas at 1:10,000 scale. Soil samples were collected on the grid at 25 m intervals and every second sample was analysed. Rock chip samples were routinely collected every 150 m where possible. Silt samples were taken where streams were encountered. A total of 514 soil, 57 silt, 198 rock chip and 75 drill core samples were collected and analysed.

19 km of magnetometer survey and 18 km of IP survey were completed on the grid during July and August by K. McNabb and P. Walcott and Associates

respectively.

A total of 532 m of NQ size diamond drilling in 5 holes was carried out between 19 October and 9 November by Wright Drilling Ltd. using a Boyles 25 rig.

#### References

- Muller, J.E., and Carson, D., 1969, Geology and Mineral Deposits of the Alberni Map-Area, B.C. (92F): GSC Paper 68-50.
- Carson, D., 1969, Tertiary Mineral Deposits of Vancouver Island: CIM Bull., May 1969.
- Northcote, K., and Muller, J., 1972, Volcanism, Plutonism and Mineralisation: Vancouver Island: CIM Bull., 1972.

## II. GEOLOGY

### INTRODUCTION

The Coal claims are mainly underlain by gently dipping Cretaceous sedimentary rocks of the Nanaimo Group that have been intruded by thick sills of Tertiary dacite. The Nanaimo Group rests unconformably on granodiorite of the Island Intrusions, exposed in the southwestern portion of Coal 1 claim.

The rocks are only gently tilted but are cut by one major structure, the Moriary Fault, that acted as the locus of Tertiary intrusion and alteration. The fault is associated with silicification, carbonatisation and localised pyrite, sphalerite, galena, chalcopyrite and tetrahedrite mineralisation.

### ISLAND INTRUSIONS (JURASSIC)

The granodiorite where fresh is medium grained equigranular and massive with about 15% hornblende, 5% biotite, 10% k-feldspar, 30% quartz and 40% plagioclase with accessory magnetite. Scattered dark green mafic xenoliths generally a few cm in diameter are locally common. Rarely, quartz is seen in isolated blebs up to 8 mm in diameter.

NANAIMO GROUP (UPPER CRET.)

Three formations of the Nanaimo Group are recognized on the property, the Comox, Haslam and East Wellington Formations. The Haslam mudstones and siltstones are well developed north of the property but appear to pinch out southwards. Casual observations not supported by detailed mapping suggest that the Comox sandstones are diachronous, resting on a southward rising basement high against which the Haslam onlaps.

(i) Sub-Cretaceous unconformity

Mapping indicates that the unconformity has moderate relief locally, e.g. where crossed by road N-50 (Figure 2). Mapping indicates that the plateau area with many small ponds on the west margin of the property is exhumed unconformity. However, this relatively flat surface does not appear to be typical of the unconformity.

The basement granodiorite shows variable effects of paleoweathering manifested by clay alteration of feldspars and mafic minerals. The diamond drilling suggests that the paleoweathered zone may be up to 20 m or more thick, but locally it is absent (e.g., south end of road N-64).

In many places the friable paleoweathered



granodiorite exhibits a gently dipping to subhorizontal foliation that in the field was interpreted to be a paleo-exfoliation fabric. However, examination of drill core shows that it is a tectonite fabric developed parallel to bedding in the overlying Comox Formation; it is restricted to the upper 4 m of the basement. The foliation is defined by a preferred orientation of lensoid pale grey earthy clay altered feldspar grains, diffuse dull green earthy lensoid mottles and lenticles (after mafics), and very fine hairline fractures visible with a hand lens.

The foliation is believed to have been caused by vertical compression and horizontal extension of the soft incompetent altered granodiorite beneath the more competent Comox sandstone in response to the lithostatic load of the Nanaimo Group.

ii) Comox Formation

The Comox Formation is poorly exposed, and probably has a maximum thickness of 55m on the property. Mapping and drilling indicates that the formation consists of from 0 to 13.5 m of black wacke overlain by bedded sandstone. The basal meter locally includes pebbly to conglomeratic sandstone e.g., at the south end of road N-64. Here the black wacke appears to be

absent and the conglomeratic sandstone rests directly on fresh granodiorite, suggesting fluvial channelling and erosion of weathered basement. Granite wash is also seen on the unconformity in places.

The black wacke is a highly illsorted dark grey to black gritty siltstone consisting of quartz and subordinate feldspar grains ranging up to 4 mm in diameter scattered throughout a silty carbonaceous matrix. Bedding is very poorly defined though the unit includes minor coaly partings and grey weakly calcareous sandstone beds.

The bulk of the Comox Formation consists of bedded immature grey coarse to very coarse grained sandstone. It is poorly sorted with grain size generally ranging from .25 to 3 mm, with scattered grains up to 5 mm. It is generally weakly calcareous. Bedding is on a 10-75 cm scale; parallel lamination was noted in places but cross-lamination was not seen. Interbeds of dark grey gritty siltstone 5 to 40 cm thick occur. Minor pelycypod burrows, bioturbation and slump rip-ups were noted in the drill core.

iii) Haslam Formation

This formation consists of thin bedded fissile silty mudstone, siltstone and fine sandstone, dark grey to black in colour. Minor disseminated pyrite is common

(locally in concretions) and the formation is locally calcareous. Pelycypods and worm burrows were noted. The mudstones commonly show spheroidal weathering.

iv) East Wellington Formation

The high ground in the east central part of Coal 1 is underlain by a very poorly exposed sequence of clean light grey coarse grained to pebbly sandstone, pebbly conglomerate and black pyritic silty mudstone. The clasts in the conglomerate are well rounded (up to 4 cm in diameter) and are composed of dark grey chert, argillite and white vein quartz. These rocks are tentatively assigned to the East Wellington Formation by Corey Bickford of BP's Coal Division (personal communication, 1981). The generalised map unit shown on Figure 2 may include some undifferentiated Haslam Formation, but even so it is clear that the Haslam is either thin or lacking in the south.

TERTIARY INTRUSIONS

Pale grey-green porphyritic dacite occurs as thick sills and minor dykes in the Cretaceous sedimentary rocks. The dacite is moderately altered and commonly consists of plagioclase and hornblende phenocrysts in a fine grained groundmass. Chilled contacts and local well developed flow foliated contact zones are seen in the drill core. Contacts are also characterised by

gradational zones up to 4 m thick of more extensive alteration, involving bleaching, carbonatisation and total sausseritisation of feldspars. In places the sills show large scale crude columnar jointing developed perpendicular to their contacts. Minor dykes cut basement granodiorite in the area immediately west and northwest of the main showing. The drilling indicates that the Moriarty Fault has channelled several generations of vertical dacite dykes, believed to be feeder dykes for the sills.

Three main phases of the dacite and a fourth minor one have been mapped. Units 5a and b are the chief sill formers. Unit 5b is characterised by the presence of quartz phenocrysts, and contact relationships seen in drill core suggest that it may pre-date 4a (CDH-2). Unit 5c is a variable type deficient in phenocrysts; no contact relationships were seen and it is not certain that it is in fact a separate intrusive phase. Unit 5d is similar to 5a but has a dark grey matrix, and was only seen forming a few dykes. A dark green magnetic variety seen in drill core (5m on Figure 10) is probably the same as 5d. Unit 5m may be a late phase as it includes one xenolith of silicified porphyritic dacite in the drill core.

The main sill is a composite one, with 5a

forming the basal and inferred younger part and 5b the upper part. The contact between the two is not exposed but is locally marked by a topographic bench. The IP and resistivity surveys also indicate a strongly conductive contact zone that could represent a screen of Haslam Formation between the two units. However, the conductivity is too high to be explained by pyritic Haslam mudstone alone (see Chapter IV).

The main sill splits into subsidiary units towards the north and northeast suggesting that an intrusive centre lies on the property. This is corroborated by the three stages of dyke emplacement in the Moriarty Fault and also by the localisation of unit 5c to the vicinity of the Moriarty Fault. The general conclusion is that the Moriarty Fault acted as a feeder zone for the Tertiary intrusions, and that the main centre of intrusion probably lies east of the grid. This is supported by the geochemical data (Chapter III).

Lithology:

Unit 5a consists of eudral plagioclase 20% averaging 2 mm but ranging up to 1 cm in size, and acicular to prismatic hornblende (10%) up to 5 mm long in a light grey-green very fine grained groundmass. The plagioclase is weakly to strongly sausseritised (earthy textured and chalky white) and the amphibole

is partly chloritised. The groundmass is weakly calcareous in places. Unit 5b is very similar to 5a but is characterised by up to 15% quartz phenocrysts.

Unit 5c is the most variable phase and is weakly porphyryitic with 5% or less plagioclase and hornblende phenocrysts in a grey to greenish fine grained to aplitic groundmass. In places it appears gradational with unit 5b, to which it may therefore be related.

#### Gas or diatrema breccias

Two occurrences of breccia believed to have been formed by gas streaming related to the Tertiary intrusive event were noted. The largest occurs about 1.7 km north of the property in a quarry on road F74-D, where a swarm of dacite dykes and a sill intrude Haslam Formation silty mudstone. A zone of brecciated dacite up to 10 m wide was traced for 250 m in a 30° direction. It consists of chalky altered angular dacite clasts up to a few cm long in a matrix of the same composition. The clasts show little evidence of rotation. Minor disseminate pyrite and traces of chalcopyrite occur but analytical results from a grab sample were disappointing.

A stream exposure of hard indurated breccia 4 m in width occurs in altered carbonated granodiorite close to the trace of the Moriarty Fault near line 13E, 14+75N. It consists of subangular clasts of granodiorite (?) and

quartz porphyritic dacite along with quartz and feldspar crystals in a grey-black fine grained matrix. It does not have the character of a fault breccia. Its emplacement was probably controlled by the Moriarty Fault.

### STRUCTURE

The Nanaimo Group dips north-northeast to north-east at about  $12^{\circ}$ . The strike is difficult to determine accurately because the unconformity is not planar and the dips are very shallow.

### Moriarty Fault

The Moriarty Fault forms a prominent airphoto linear and has been traced to the east edge of Coal 2 claim. It is partly exposed at the main showing and in three road cuts to the east (Figure 2). The fault appears to have been active from pre-Cretaceous to Tertiary time. Evidence for major pre-Cretaceous movement is given by the magnetometer survey which shows that in the west part of the grid the fault has juxtaposed two magnetically distinct phases of granodiorite. Post-Cretaceous reactivation was minor with little evidence for displacement of the Nanaimo Group unconformity. Additional mapping in the southern part of the property is required to clarify this. The Tertiary reactivation was however, important

because it involved several stages of dyke emplacement accompanied by hydrothermal activity and mineralisation.

Where exposed in road F74-D the fault cuts Haslam Formation and consists of a 3 m wide zone of brown limonitic, weathered, sheared gouge with ankerite and quartz-carbonate veins. At the Main Showing a wider zone (5 m) of carbonate alteration with mineralised ankerite veins exists, but only the north side of the fault appears to be exposed. Where intersected by drill holes about 70 m below the Main Showing area the fault lies within a 35 m wide zone of alteration, fracturing and silicification (Figure 10). Within this zone two main silicified fault breccias 45-60 cm wide occur, and are separated by three lithologically distinct dacite dykes whose intrusion was sequential and synchronous with the faulting and alteration.

#### Other faults

An easterly trending fault is inferred in the northwest corner of Coal 1 claim from the presence of a photolinear and localised steep dips in sandstone exposed along road N-64A. The significance of this fault is difficult to judge because the dacite sill could post-date most of the movement on it. This appears to be the case because the steep dips in the sandstone indicate major movement, yet the gently dipping sill contact is not



offset.

Other minor fault and fracture zones have been noted in outcrop. They are commonly marked by carbonate veins and slickensides. The structural significance of photolinears shown on Figure 2 is not clear; some may be important faults.

#### ALTERATION AND MINERALISATION

The Moriarty Fault is associated with extensive Tertiary alteration and sporadic sulphide mineralisation. The alteration appears to be vertically zoned, with propylitisation and silicification dominating where the fault cuts basement granodiorite, and clay-carbonate alteration above in the Nanaimo Group and sills. Limited zones of similar alteration are associated with minor faults and fracture zones elsewhere on the property. The Tertiary dacite generally shows pervasive weak sausseritisation and chloritisation of mafics that appears to be of regional extent. As noted above, sill contacts are marked by zones of more extensive bleaching and carbonatisation. Outcrops of dacite and sandstone near the main sill in particular show carbonate alteration and minor disseminated pyrite. The Moriarty Fault is associated with enhanced silver, base metal, gold, mercury, arsenic and antimony values.

Moriarty Fault

Vertical zonation of alteration within the fault zone is inferred from study of surface outcrops and drill core.

Lower structural level:

Where intersected about 30 m below the unconformity in granodiorite, the alteration zone is about 35 m wide. Here the first event was propylitisation represented by saussuritisation of plagioclase, chloritisation of mafics, destruction of magnetite, and minor carbonatization; trace disseminated pyrite occurs locally. This event appears to have been superimposed upon the pre-existing zone of paleoweathered granodiorite. The propylitisation was accompanied by development of a network or stockwork of black chloritic fractures up to 1 mm wide that grade into zones of brecciation, indicating its relationship to movement on the fault. Dacite was intruded up the fault at this time, and was locally brecciated.

Silicification followed and involved pervasive replacement of the altered plagioclase by silica and alteration of the chlorite to pale green talc or pyrophyllite. The silicified rock is consequently pale coloured. Silicification was most intense in the fault

breccias which are now represented by grey fine grained quartz in which relic clasts with faint porphyritic texture are discernible. These quartzitic zones include up to 15% pyrite and minor chalcoppyrite. Further dyke intrusion accompanied the silicification.

The last event was renewed faulting which caused local brecciation and fracturing, with veinlets of ankerite and minor calcite, quartz and barite. Traces of sphalerite and rare galena appear to have been introduced at this stage.

Unconformity level:

Alteration appears to have been laterally most pervasive at the unconformity as judged from the area west of the Main Showing. A zone of carbonatisation extends for at least 500 m westwards from the Main Showing and appears to be approximately 200 m wide. Exposure is very poor but the granodiorite in this area is weathered to a limonitic brown colour to a depth of 5 cm or more. Where fresh it is pale to whitish in colour, effervesces weakly with dilute HCl and contains a trace of fine grained disseminated pyrite. Small streams in this area have acid pH's (as low as 4) suggesting that more sulphide rich zones occur in the vicinity. This is supported by the I.P. data but geochemical results do not suggest significant

mineralisation. Exposures of the Comox are not seen in this zone, but talc veinlets and pyritic zones are seen in a sandstone quarry about 250 m north northeast of the Main Showing. The drill core suggests that clay alteration of feldspars and bleaching is important in the sandstones. The bleaching of dark grey silty beds indicates that carbonaceous matter has been oxidised. Minor silicified sandstone occurs in CDH-5.

At the Main Showing it appears that a lateral transition from propylitic to intense clay-carbonate alteration can be traced. Intensely altered sandstone is difficult to distinguish from dacite.

#### Higher structural level:

At higher structural levels to the east, alteration appears to be similar to that at the Main Showing but is more restricted, with a width in the order of 3 m. Minor silicification of silty sandstone of the East Wellington Formation was noted 600 m east of the Main Showing.

#### Main Showing

The Main Showing is exposed in a creek gully about 60 m southeast of the termination of N Main Line.

Intensely altered carbonated rock carrying trace pyrite is intermittently exposed for a distance of about 78 m in the creek. The lower 30 m of the section appears to consist of intensely altered sandstone with one outcrop of intensely altered dacite near the base. The upper part of the section is altered dacite within which the Main Showing is located just above the contact with the sandstone. The mineralised zone consists of a 12 m section of intensely altered dacite with ankeritic carbonate veins 1 cm wide. The veins carry pyrite, black sphalerite, galena, chalcopyrite and tetrahedrite. These minerals also occur in disseminated zones up to 18 cm wide in altered dacite with irregular ankeritic gashes. The veins generally strike  $025^{\circ}$  and dip  $75^{\circ}$  southeast, and die out northwards within a few meters. They appear to be tension gashes en-echelon to the Moriarty Fault which is inferred to lie on the south side of the showing. They suggest a component of left-lateral movement on the fault. Minor mineralised veins were also noted upstream of the Main Showing.

A grab sample taken in 1980 assayed 41 oz/ton Ag, 190 ppb Au, 1.7% Zn, 0.2% Cu, 0.04% Pb, 300 ppm As, 9 ppm Hg, and 115 ppm Sb. Resampling done in 1981 shows lower silver values because the I.C.P. method of analysis used underestimates silver content when it is greater than about 30 ppm.

### Other Showings

Minor disseminated pyrite and chalcopyrite occur in both silty mudstone and dacite where the Moriarty Fault juxtaposes dacite and East Wellington Formation about 600 m east of the Main Showing. A sample of siltstone from this area had 1450 ppm Cu, 5 ppm Ag and 48 ppm Sb.

Further east, pebbly sandstone of the East Wellington Formation contains minor disseminated pyrite and traces chalcopyrite associated with ankerhite veins, in road cuts located about 200 m south of the Moriarty Fault.

A chip sample from the Moriarty Fault where it is exposed in the spur road off road F74-D contained 59 ppm Ag and 15 ppb Au. Just to the east in road F74-D itself a chip sample from the fault contained 20 ppb Au.

### CONCLUSIONS

The Moriarty Fault originated in pre-Cretaceous time, but was rejuvenated in the Tertiary when it acted as a feeder zone for the intrusion of dacite sills into the Nanaimo Group. As such it was the locus of several stages of dyke emplacement and brecciation, associated with locally intense hydrothermal alteration. The alteration introduced precious and base metals as well as arsenic,

mercury and antimony. Mineralisation in the area is directly related to the fault, but though locally of high grade it has so far proved to be erratic. However, only a small portion of the fault has been tested. There are indications that the main centre of intrusion and mineralisation lies to the east of the area explored in 1981. The remainder of the fault trace should be mapped and geochemically sampled in detail. An aeromagnetic survey would be useful in delineating an intrusive centre, and consideration should be given to extending the ground geophysical surveys.

### III. GEOCHEMICAL SURVEYS

#### A. Introduction

The COAL claims were investigated by combination of stream sediment, soil, and rock chip geochemical surveys. Geochemical patterns describing the COAL claims area below refer to COAL 1 and western 20% of COAL 2.

#### B. Stream Sediment Survey

##### 1. Introduction

Selection of contour intervals on drainage survey maps (Figures 3A -31) is based on histograms prepared for the COAL claim area (Appendix 3). The claims proper may not be anomalous on a regional basis, a feature which is noted when most symbols are commonly small and the larger symbols are absent from the map. Stream sediment sample locations are shown on Figure 3A.

##### 2. Copper (Figure 3B)

The copper distribution within the claims area is highest in the east, associated with the porphyritic dacite and Haslam Formation shales and siltstone. The maximum copper content is 54 ppm at the eastern end of the base line.



3. Lead (Figure 3C)

Lead enrichment is weak, with 4 samples exceeding an anomaly threshold of 25 ppm. One of these is near the Main Showing and another is along the structure through Main Showing, on COAL 2. Two other anomalous drainages are found in the south, along the COAL 1/COAL 2 boundary.

4. Zinc (Figure 3D)

Zinc concentrations are progressively higher moving from west to east across the claim group. A maximum zinc content of 535 ppm lies along the structure through Main Showing on COAL 2.

5. Silver (Figure 3E)

The silver distribution is similar to that of zinc. A maximum silver content of 2.1 ppm coincides in location with that of the zinc anomaly. Main Showing is reflected by one weakly anomalous value. The southern half of the boundary between COAL 1 and COAL 2 is reflected by weakly anomalous silver contents.

6. Arsenic (Figure 3F)

Two arsenic anomalies are defined, one coinciding with the previously described silver-zinc anomaly (1540 ppm arsenic) and the other along L23E, 400 metres north of the baseline and 500 metres north of the structure through the

Main Showing (470 ppm). Main Showing proper is regionally weakly anomalous in its arsenic content. Similarly the south central zone along the COAL 1/COAL 2 boundary is weakly enhanced in arsenic.

7. Mercury (Figure 3G)

The maximum mercury content of 420 ppb is found near Main Showing. The second highest mercury concentration is located along the north shore of Moriarity Lake. Enhanced values are also characteristic of the western portion of COAL 1.

8. Gold

Gold values do not vary sufficiently to merit plotting a map.

9. Sediment pH (Figure 3I)

Sediment pH averages 5.5. Most alkaline conditions are found in the north, associated with the arsenic anomaly and on the northern third of COAL 2. Sediment pH is less than 5.4 around Main Showing.

C. Soils

1. Introduction

A total of 491 samples were taken within the study area (figure 4A). Samples were taken at 25 metre inter-

vals along grid lines, but only alternate samples were analyzed for purposes of this study. The number of regional soil samples is small compared to the grid survey and their trace element distribution has little impact on selection of size coded symbols.

2. Copper (Figure 4B)

The copper distribution is dominated by a marked change in regional levels from values of less than 4 ppm over most of the grid in the west, to anomalous contents of greater than 40 ppm in the east. Greatest copper levels are found in association with porphyritic dacite (unit 5), Extension-Protection formation mudstone, siltstone and sandstone (unit 4), and Haslam formation shales (unit 3). Enhanced values transect formations suggesting a genesis more complicated than that reflecting only lithology.

Superimposed as regional trends are anomalous conditions of the type exhibited at Main Showing where copper is weakly enriched relative to adjacent samples. Similarly, the area near the stream sediment arsenic anomaly is weakly copper-rich and a trend towards higher values along the structure through Main Showing is discernable. The maximum copper contents of 110 ppm and 103 ppm overlie Haslam formation shales in the northeast.

### 3. Lead (Figure 4C)

Lead accumulation characterizes many areas within the claims region. Main Showing is associated with the highest lead value of 110 ppm, but sample density is four times greater than elsewhere on the grid. Anomaly contrast elsewhere could conceivably be improved in an analogous fashion by increasing the sample density. Clusters of samples containing weakly anomalous (>13 ppm) or definitely anomalous (>17 ppm) values are found north and south of Main Showing, overlying both granodiorite (south) or Comox Formation sandstone (north). A lead anomaly north of the baseline lying between L17E and L19E accompanies zinc enrichment to be described.

A porphyritic diorite (unit 5c) along the eastern end of the baseline is reflected by elevated lead levels. Lead contents are noticeably higher in the east in association with several rock types. The structure through Main Showing by contrast is not reflected by unusually high lead concentrations.

### 4. Zinc (Figure 4D)

Main Showing is reflected by a local zinc anomaly. A zone of enhanced zinc values to 210 ppm extends north north-eastward from Main Showing, associated primarily with Comox Formation sandstone. Zinc accumulation to the 100 to 150 ppm level characterizes the eastward extension of the fault through

Main Showing. Average zinc background is greatest in the northeast. The maximum zinc content of 220 ppm is found in an isolated sample at the south end of L20E.

Zinc contents are typically less than 20 ppm on the southern and western halves of the grid. Anomalous conditions, for example northeast of Moriarity Lake, are comparable to those at Main Showing if the high sample density is discounted to the 50 metre x 100 metre sample spacing. Zinc enrichment on the claims areas is thought in general to reflect lithological controls.

#### 5. Silver (Figure 4E)

Silver contents average 0.2 ppm over the claims area and an anomaly threshold of 0.5 ppm outlines a number of anomalous conditions. Most are reflected by single points, including a high value of 7.8 ppm north of Moriarity Lake. The ten point anomalies are found associated with all geological units.

Clusters of anomalies are found in several areas, including Main Showing where a maximum value of 16 ppm is observed. An alignment of anomalous samples approximately east-west is not parallel to the structure believed to control emplacement of the prospect. That structure is the locus of several multisample silver anomalies in the east, including values of 2.3 ppm and 3.7 ppm. Other multisample anomalies

are found east of Moriarity Lake and at the southern end of the most easterly grid line. The generally higher silver background in the east confirms drainage survey results which also point to a silver potential on this portion of the claims area.

6. Arsenic (Figure 4F)

Arsenic outlines four multisample anomalies. The most outstanding zone measures 200 metres in diameter and extends 600+ metres in a northeast direction, between L18E and L25E. The anomaly, which has a maximum value of 1360 ppm, is open to the north.

Arsenic values exceeding the anomaly threshold of 67 ppm cluster around Main Showing, in a zone up to 400 metres long, averaging 50 to 100 metres wide. The maximum arsenic concentration is 675 ppm. An elongation in an east-west direction is apparent, and if this trend is extrapolated eastward, the 249 ppm value along the COAL 1/ COAL 2 boundary is coincident. Average arsenic contents are enhanced in proximity to the 249 ppm value. Regional sampling in the east outlines two anomalies, one associated with the structure through Main Showing (596 ppm) and the other 500 metres to the north (184 ppm) underlain by porphyritic dacite.

7. Mercury (Figure 4G)

Mercury is distributed in a series of anomalies exhibiting a high degree of contrast to background. Contents on the property average of 49 ppb. Superimposed on this background are anomalies exceeding a threshold level of 158 ppb, with typical anomalies having a concentration 2X this value. Main Showing lies within a cluster of samples having between 200 and 400 ppb mercury. The maximum mercury content of 1500 ppb is found in the 7.8 ppm silver sample. Other high mercury values are found in the same general area.

The distribution of mercury-rich samples is widespread and accompanies all geological units. A regional anomaly in the range of 200 to 350 ppb mercury is found on the eastern portion of the grid, associated with porphyritic dacite, unit 5c. The mineralized structure through Main Showing is not the locus of mercury accumulation.

8. Gold (Figure 4H)

Almost all gold concentrations are at the detection limit of 5 ppb. Of the 32 values exceeding 5 ppb, only 9 are greater than 15 ppb and only 1 exceeds 30 ppb (a 120 ppb value). Main Showing and the structure through Main Showing are not gold-rich.

Three clusters of gold anomalies are outlined. Apparently linear trends can be drawn along north northeast

and west northwest directions through high values on the western portion of the grid. A grouping of above background values centres within a hundred metres of L21E/14+50N and along L23E/11N. The gold potential reflected by these anomalies is not considered great.

#### 9. Soil pH (Figure 4I)

The distribution of soil pH is dominated by a large zone of near neutral values coinciding with the arsenic anomaly. A second near neutral zone of pH values, between 5.2 and 5.7, is associated with Comox formation sandstone in the northwest. More alkaline than average pH values are found along the eastern end of the baseline. The average soil pH is 4.5. Main Showing lies within an acidic environment adjacent to a small zone of more alkaline pH values.

#### D. Lithogeochemistry

##### 1. Introduction

Lithogeochemical samples (figure 5A) include both background chips and selected mineralized specimens. The latter are commonly identified by very high trace element concentrations. Regional sampling has a strong influence on selection of symbol coding intervals. Frequency distributions of Appendix 3 can be compared to histograms plotted on the claims area geochemical maps (figure 5).



2. Copper (Figure 5B)

Half of the samples taken on the COAL claims contain less than 4 ppm copper and values exceeding 63 ppm are anomalous. Six samples exceed 1000 ppm, most notably at the Main Showing and about 700 metres eastward along the main structure north to the baseline. That structure is also indicated to be mineralized by several samples exceeding 200 ppm to a maximum of 825 ppm in the east. Single point anomalies are also found along L18E and east of the northeast corner of the grid. The eastern half of the claims area is generally richer in copper than in the west.

3. Lead (Figure 5C)

The main anomalous zones for lead are the same as those for copper. Lead averages 6 ppm; anomalous values in the three zones reach 8800 ppm, 125 ppm, and 325 ppm, respectively. Lead levels average higher in the east than in the west.

4. Zinc (Figure 5D)

Zinc patterns are sympathetic with those of lead and copper. Maximum values are 1.28%, 244 ppm, and 6500 ppm, respectively. The main zinc soil anomaly north of Main Showing is associated with weakly anomalous zinc contents in bedrock, levels are about half of those in soils. A zinc lithochemical anomaly lies west of the COAL 1/COAL 2 claim boundary.

5. Silver (Figure 5E)

All anomalous silver values are found within 100 metres of the trend line of the structure through Main Showing. An anomaly threshold for silver is established at 1.7 ppm, and 13 samples exceed this value to a maximum of 67 ppm in the west and 59 ppm in the east.

6. Arsenic (Figure 5F)

Arsenic anomalies are more widely distributed than those of lead, zinc, and silver. Main Showing is arsenic-rich, but maximum arsenic concentrations are found at the eastern end of the mineralized structure (1.68%). The zinc anomaly on the central-east portion of COAL 1 is also enhanced in arsenic. By contrast, no arsenic-rich chip sample was taken within the prominent soil arsenic anomaly. Several samples weakly enriched in arsenic are located in the west and north of the grid area.

7. Mercury (Figure 5G)

Greatest concentration of mercury is found at Main Showing (3.8 ppm). the eastern end of the fault through Main Showing (960 ppb) and the mid portion between this two anomalies (680 ppb). Enhanced mercury contents also characterize a creek north and west of Main Showing.

8. Gold (Figure 5H)

Gold levels in bedrock, with the exception of Main Showing where a maximum content of 270 ppb is observed, are typically at the 5 ppb detection limit. A 60 ppb value is found along the baseline on L24E and values in the 15 to 20 ppb range are seen along the eastern end of the fault.

### Discussion of Results

The combined drainage, soil, and lithogeochemical surveys are necessary to define anomalous conditions on the COAL claims and assess their economic significance. The stream sediment survey suggests the eastern portion of the study area is more anomalous than that of the west for lead, zinc, silver, and arsenic, the Main Showing area being indicated by much weaker anomalous conditions. The large soil arsenic anomaly is also reflected by the drainage survey, whereas the zinc-rich soil zone is not distinguished by anomalous stream sediment results.

The lithogeochemical study highlights the mineralized structure through Main Showing. In part, this may be due to biased sampling around recognized mineral occurrences, as suspected for the case of copper, or near known structures which would provide channelways for hydrothermal solutions. The absence of a significant soil anomaly associated with a lithogeochemical anomaly is interpreted to indicate a restricted occurrence of mineralized bedrock in view of the relatively thin and locally derived overburden covering the landscape. The soil survey is taken to be the best representation of anomalous areas on the claim group worthy of followup.

The Main Showing area is commonly anomalous in all elements, but the dimensions of the anomalous zone are restricted. An orientation oblique to the main structure is anomalous up to 400 metres, but extensions of the Main Showing beyond the metal-rich zone are not apparent. This may be due to a very narrow mineralized zone which cannot be assessed by a 50 metre sample interval, non-mineralized sections of the fault, or dilution of mineralized material by colluvial creep of barren material derived upslope. Knowledge of lithogeochemical results can be used to interpret a positive correlation of anomalous soil geochemistry and structure, at least locally. In the absence of lithogeochemical data, such as interpretation would not be possible.

Regional sampling at the eastern end of the mineralized structure on the claims area is not of a sufficiently high density to fully outline the extent of anomalous conditions. By comparison to Main Showing, the eastern anomaly exhibits a greater degree of anomaly contrast to background and appears more extensive. The grid must be extended to cover this zone in future years. The central lithogeochemical anomaly along the structure is not reflected by outstanding soil geochemical results.

Two soil anomalies apparently unrelated to Main Showing or the mineralized structure merit an explanation. One is the large arsenic anomaly northeast of Main Showing.

An absence of coincident base metal anomalies suggests the presence arsenopyrite as an accessory mineral in Comox Formation sandstone and in porphyritic dacite. The complementary zinc anomaly lying immediately northwest in association with granodiorite also warrants further study, although this zone is probably also lithologically-controlled.

The copper distribution is unusual in exhibiting markedly higher values in the east compared to the west. The pattern is strongly indicative of lithological control, yet throughgoing geological units are rich in copper in the north compared to the south on the central portion of the grid. This feature is difficult to explain as a primary feature associated with lithology. It is more easily explained if it represents a primary halo overlying a buried intrusion, the copper being contributed to all rock types by hydrothermal processes. The centre of such an intrusion would lie on COAL 2, perhaps immediately east of area shown on the geological map (figure 2). It may also be the source of the sulphide occurrences found at Main Showing and along the mineralized structure.

A number of isolated silver anomalies should be revisited with the view to explain the source of the element. Similarly, extremely high values of base metals in bedrock should be explained to ensure a significant discovery is not missed.

Main Showing represents a silver-copper target based on chemical analysis of specimens of high grade material. The mineral occurrence is also notably rich in zinc, lead, arsenic, mercury and gold. These elements all represent potential pathfinders. Pathfinder element anomalies are not outstanding away from the Main Showing and the mineralized structure, with the exception of the previously mentioned zinc and arsenic anomalies northeast of the Main Showing. Numerous lead, zinc, and mercury anomalies are found within the grid area, as are silver anomalies. Zones of copper accumulation near the Main Showing are absent. Pathfinder element anomalies are too numerous and widespread to constitute high priority targets for future exploration.

Recommendations

1. The grid should be extended to the east to continue assessment of the main mineralized structure through anomalous zones. A sample interval of 25 metres is necessary within 100 metres of the structure.
2. Samples available at the 25 metre interval along the mineralized structure or around the isolated silver (and gold) anomalies should be submitted for analysis to determine the full extent of each anomalous zone.
3. The soil arsenic and zinc anomalies northeast of the Main Showing should be revisited and lithogeochemical samples taken to confirm a lithogeochemical origin for the high metal concentrations. If the interpretation is confirmed, the significance of the anomalies would be discounted.



#### IV. GEOPHYSICAL REPORT

##### Target

The target on the Moriarty Lake Project is an epithermal precious metal deposit association with a major structure, the Moriarty Fault. Outcrops with significant silver mineralization and intense alteration have been located along this structure.

##### Geophysical Methods

###### Magnetic Survey

A total field magnetic survey was run to locate zones of low magnetic susceptibility due to destruction of magnetite by hydrothermal alteration. Readings were taken at 25 meter intervals along lines separated by 100 meters. 19 kilometers of magnetic surveying was completed. The work was carried out by Kevin MacNabb, a geophysical technician on contract from MWH Geophysics of Saskatoon, Saskatchewan.

###### Induced Polarization and Resistivity Survey

The IP and Resistivity survey was run to determine

if significant concentrations of sulfide mineralization occur along the unexposed portions of the major structure. Significant concentrations of metallic sulfides would result in a lowering of the host rock resistivity and a significant Induced Polarization anomaly.

Hydrothermal alteration and minor introduction of sulfides associated with the structure should produce a weak IP high and associated resistivity low.

The IP and Resistivity survey was carried out by P. Walcott & Associates of Vancouver, B.C. The crew stayed in a motel in Parksville and commuted to the job-site by truck.

A pole-dipole array with 50 meter spreads read to the fourth separation was used for the entire survey. The current electrode was on the southern end of the array on all lines.

### Instrumentation

#### Magnetometers

Automatic recording field and base station proton precession magnetometers manufactured by EDA Instruments of Toronto were used for the survey. Accuracy, after diurnal corrections, was better than  $\pm 2$  gammas.

## Induced Polarization Equipment

A Hunttec Mark IV Receiver and a Phoenix IPV-1 transmitter were used for the survey.

## Results

### Magnetic Survey

The magnetic survey data is shown both as contours and profiles in Figures 6 and 7 respectively. On the contoured plan a distinct, narrow, east-northeast trending magnetic low passes through the showing and extends beyond both the western and eastern limits of the grid.

On the profile plan, Figure 7, this low is well defined from line 1,000E to line 1,700E. East of line 1,700E it is a poorly defined broad low amplitude feature. This low is interpreted to be due to the alteration of magnetite to hematite by hydrothermal solutions travelling along the Moriarty Fault.

Four zones with distinct magnetic characteristics can be identified on the magnetic profile plan map. In the southwestern portion of the grid, south of the Moriarty Fault and west of line 1,600E there are variations of

over 200 gammas on the magnetic profiles. This is an area of extensive cover with outcrops of biotite hornblende granodiorite. The magnetic data suggests that the rocks north of the fault are of a different lithology though this is not confirmed by the geological mapping which indicates identical granodiorite partly overlain by sandstone and extensive overburden. North of the Moriarty Fault from lines 1,000E to 1,500E the magnetic profiles are very smooth. Between lines 1,500E and 1,600E there is an abrupt shift of about 40 gammas. This north western corner of the grid, bounded by the 1,500N baseline and line 1,600E is interpreted to be geologically distinct from the areas to the south and to the east.

On the southern side of the fault the character of the magnetic profiles changes abruptly from line 1,500E to line 1,700E. West of line 1,600E the profiles show amplitude variations of up to 200 gammas, east of 1,600E the profiles are very smooth. This is probably due to the Comox formation sandstone and the dacite sill overlying the basement granodiorite. The cover thickens abruptly from zero at 1,500E to over 80 meters at 1,700E. This thickness of cover would have a smoothing effect on the magnetic field variations caused by variations in magnetite concentrations in the underlying basement rocks.

Along the northern edge of the grid, between

lines 1,500E and 2,500E there is an area of higher magnetic values which is probably due to a lithology with a higher magnetite content than the surrounding rocks. This does not correlate with any feature on the geologic map so it is probably due to a buried unit.

The remainder of the survey area is magnetically uniform.

#### IP and Resistivity Survey

The IP and Resistivity data is shown in Figures 8 and 9. The IP results indicate a zone of above background polarization effects coincident with or adjacent to the assumed trace of the Moriarty fault. This zone is clearly defined from line 1,000E to line 1,500E, and between lines 2,400E and 2,700E. From line 1,600E to line 2,300E there is not a well defined IP effect coincident with the structure. The two zones of anomalous IP values associated with the structure are shown as anomalies IPI and IP2 on Figure 8. These results indicate that sulfides have probably been introduced along some sections of the structure.

The resistivity data show a very subtle resistivity low, coincident with the trace of the fault, from line 1,100E to line 1,500E. This suggests that the

resistivity of the rocks adjacent to the fault have been altered by hydrothermal solutions from the fault.

Three linear zones of high Induced Polarization effects associated with anomalous low resistivity values occur in the central portion of the grid. These zones are striking roughly parallel to the lithological trends in this area suggesting that they may be due to a polarizable, conductive lithology.

None of the lithologies mapped on the Moriarty Lake grid could reasonably be expected to produce either the polarization or resistivity responses seen in these three zones. This is the type of response typically produced by a graphitic shale or a massive sulfide deposit. The occurrence of either a massive sulfide deposit or a graphitic shale is inconsistent with the known geology in the Moriarty Lake area. (B.E. Marten, Pers. Comm., 1981). These anomalies are described below.

### IP3

This is a very strong anomaly due to a zone which comes very close to surface. There is a well defined resistivity low, anomaly R3, coincident with the IP high.

None of the lithological units mapped in the project area could reasonably be considered to be the source of this anomaly. Its response is typical of a graphitic schist or a massive sulfide deposit. The anomaly occurs along the base of the dacite sill. Its source may be somehow related to the lower contact of the sill. There are arsenic and zinc geochemical anomalies downslope from this anomaly.

#### IP4 and IP5

These anomalies appear to be due to one zone which has been offset by the Moriarty Fault. The sources of these anomalies are very near surface. They probably subcrop. Both the IP anomalies have corresponding low resistivity zones, zones R4 and R5. Zone R4 shows extremely low resistivities, several values being below a 10 ohm meters.

Zone IP 4, because of the very high polarization effects and the extremely low resistivities is very similar to the response of a graphitic schist or a massive sulfide deposit. This zone appears to subcrop within the dacite sill. It may be a shallow dipping conductive units, sandwiched between two sills. Its thickness might be in the order of 20 meters.

Zone IP 4 is parallel to the lithological and

topographic trends. IP5 strikes in the same direction as IP4, however, both the indicated lithological and the topographical trends swing around to the south in this area so that anomaly IP5 cuts across them. There is poor outcrop exposure in this area so the lithological trends indicated on the geological map may not be accurate.



### Conclusions

The Magnetic and Induced polarization surveys indicate that there is a broad alteration zone associated with the Moriarty fault in which there has been some introduction of minor concentrations of metallic sulfides. No really significant concentrations of sulfides are indicated along the fault zone.

Three zones of high Induced polarization effects and very low resistivities were located. One of these is along the base of the dacite sill and the other two are within the sill. These anomalies are typical of the IP and resistivity responses of graphitic schists and massive sulfide deposits. Neither of these possibilities is considered likely by the project geologist. None of the known lithologies in the project area is considered a likely candidate as the source of these anomalies. There is an arsenic and zinc anomaly downslope from anomaly IP3.

### Recommendations

1. Magnetic and IP surveying should be continued along the Moriarty Lake fault to the east. Although no significant concentrations of sulfides were found along the portion of the fault surveyed there is a reasonable possibility that such zones may exist

along strike.

2. Unless a satisfactory geological explanation can be advanced for the IP anomalies IP3, IP4, and IP5, which can explain them in terms of a known lithological unit of no economic significance they should be trenched in at least one location. The IP survey indicates that these zones come very near to surface. An EM 31, a shallow resistivity mapping instrument, could locate portions of these zones where they are very near to surface and could be easily trenched.

## V. DIAMOND DRILLING

### Introduction

The diamond drilling (532 m) tested the Main Showing, and also attempted to test the Moriarty Fault 300 m to the east. It was hoped to intersect the fault zone where it cuts sandstone above the unconformity, on the premise that upward moving hydrothermal solutions would have cooled and deposited metals upon encountering the permeable sandstone formation. In no case was this objective achieved.

All holes were cemented upon completion at the request of MacMillan Bloedel. Drill logs are in Appendix IV.

### Results and Conclusions

The results of the drilling have already been discussed in Chapter II, and are also summarised on Figure 10. At the first set-up a short vertical hole was first drilled to locate the unconformity. This proved shallower than predicted due to a basement high, and the second hole at  $-45^{\circ}$  could not test the fault zone at the desired stratigraphic level. At the second set-up, holes 3 and 4 failed to intersect the fault because it proved to lie further south than initially predicted from the magnetometer survey. Problems with steep terrain and water saturated overburden

prevented the drilling of hole 5 at the desired elevation, and it cut the fault at approximately the same elevation as hole 2.

The drilling failed to show depth continuity of the high grade mineralisation, but was important in clarifying the relationship of the fault to the history of intrusion, hydrothermal alteration and mineralisation. The results also show that the pattern of alteration, dyking and low grade mineralisation is very uniform in basement rocks over a 50 m strike length at least. If the conclusions regarding the vertical zonation of the alteration discussed in Chapter II are correct, it suggests that the high grade mineralisation would be expected to have lateral rather than vertical continuity.

The core is stored in Vern Huntley's hanger at Qualicum Airport.

APPENDIX I

Statement of Costs

STATEMENT OF COSTS

COAL Group A

COAL 1, (20 units) Record No. 735  
COAL 2, (20 units) Record No. 772

A. Geological and Geochemical Surveys

1. BP Labour

Project Geologist:

Neil Humphreys - May 27-31, June 1-6,  
July 8-31  
- 35 days @ \$125 per day \$ 4,375

Geologist:

Jean Be'dard - May 27-31, June 1-6,  
July 8-31  
- 35 days @ \$117 per day 4,095

Geological Assistant:

Ian Fyfe - May 27-31, June 1-6,  
July 8-31  
- 35 days @ \$60 per day 2,100

Geological Assistant:

Andy Smith - May 27-31, June 1-6,  
July 8-31  
- 35 days @ \$60 per day 2,100

\$ 12,670

COAL Group A: Geological and Geochemical Surveys (Continued):

2. Accommodation

Motel costs - 140 man/days  
two rooms for 35 days - \$ 2,858

Meal costs - 140 man/days  
4 men for 35 days - 2,280

\$ 5,138

3. Transportation

Four wheel drive vehicle  
35 days @ \$34 per day - \$ 1,190

Fuel Costs - 440

1,630

4. Consumable Field Supplies

Topofil, sample bags, flagging etc. 300

5. Analysis

Acme Analytical - Vancouver, B.C.  
- 844 samples for ICP and Au,Hg, pH  
@ \$11.84 per sample 9,993

6. Report Preparation

BP Labour:

Neil Humphreys  
- 7 days @ \$125 per day - \$ 875

Dr. B. Marten  
- 10 days @ \$200 per day - 2,000

Contract Drafting - L. Glaser - 800

Data Processing (Elan Data Makers, Tetrad,  
Systems Services) - 3,150

Printing/Reproduction - 650

Orthophoto - McElhanney Surveying - 1,860

9,335

TOTAL: \$39,066

COAL Group A

B. Geophysical Survey

1. Contract Linecutting - Bema Industries Ltd. - 19.3 line km - June 16-30, 1981	\$ 10,373
2. Contract I.P. Survey - P. Walcott & Associates. - 18 line km - August, 1981	18,184
3. Contract Magnetomer Survey - MWH Geophysics Ltd. - 19 line km - August, 1981	<u>2,360</u>
TOTAL:	\$ <u>30,917</u>

C. Diamond Drill Programme

Summary - Drill Contractor - Wright Drilling Ltd.  
Equipment - Boyles BBS-25 Drill  
Period - October 17 - November 3, 1981.  
Footage - 1,744 feet/532 meters  
Cost - \$56,683

1. Indirect Drilling Cost (4 man crew)

Wright Drilling Ltd.* - mobilisation/ demobilisation	\$ 7,001
- supplies	2,368
- travel time/costs	2,280
- food/accommodation	<u>4,448</u>

\* Veasey Banks Excavating (\$662.50) and Paul Bulldozing (\$1,757) were utilised in mob/demob. \$ 16,097

2. Direct Drilling Cost (5 holes - 532 meters)

Casing (\$18.10 per foot), coring (\$17.45 per foot)  
Labour, equipment rental and dip tests 34,524

3. BP Labour

Project Geologist - B. Marten October 19-31, November 1-4,6-11,13, - 23 days @ \$200 per day	\$ 4,600
Geological Assistant - S. Friday November 12-19 - 8 days @ \$65 per day	<u>520</u>



COAL Group A

Diamond Drill Programme (continued):

4. Analysis

Acme Analytical - Vancouver, B.C.

74 samples for ICP analysis plus Au, and Hg

@ \$12.74 per sample \$ 942

TOTAL: \$56,683

GRAND TOTAL: A/B/C - \$126,666.00.

APPORTIONMENT OF EXPLORATION WORK

Record No. 735 (10 December, 1980)

3 years @ \$100/year to COAL 1 (20 units) - \$ 6,000

3 years @ \$200/year to COAL 1 (20 units) - 12,000

Record No. 772 (11 February, 1981)

3 years @ \$100/year to COAL 2 (20 units) - 6,000

3 years @ \$200/year to COAL 2 (20 units) - 12,000

TOTAL WORK APPLIED: \$36,000

The balance of the work(\$90,666) to be credited to BP Minerals Limited (244467) portable assessment credit account.

①

# INVOICE

WRIGHT DRILLING LTD.  
SITE 22-5 R.R. #2  
CHASE, B.C.  
V0E 1M0

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3<sup>rd</sup> FLOOR 900 W. PENDER ST.  
VANCOUVER, B.C.  
V6C 1K1

PARKSVILLE

DATE 12/15/81	ORDER NO.	SALESMAN	TERMS 15 DAYS	SHIPPED VIA	PPD.	COLL.
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QUANTITY	DESCRIPTION	PRICE	TOTAL
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	DIAMOND DRILLING OCT 17 - NOV 10/81		\$44,022.4
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NOV 16 1981

37 GENERALS LIMITED  
VANCOUVER, B.C.

Proj 526. AFF 80090

APPROVED FOR PAYMENT

CHARGE 80090 5304 30448

DATE NOV 27 1981 INTLS 5305 13574

\$44,022.4

PAST DUE INVOICES SUBJECT TO  
2% INTEREST PER MONTH.

\$44,022.4



FORM NO. PK103R-3  
AVAILABLE FROM BUSINESS ENVELOPE MANUFACTURERS OF CANADA, LTD., 3015 KENNEDY ROAD, UNIT NO. 8, AGINCOURT, ONTARIO M1V 1E7

LOT # 5788A

PRINTED IN U. S.

BREAKDOWN

Inv # 229

MOBILIZATION

4X4	324 MILES @ \$150	-	\$486.00	
ROBO TRANSPORT		-	\$1524.50	
LABOUR	24 HRS @ \$16.00	-	384.00	\$2394.50 -

RELOADING EQUIPMENT

26 HRS @ \$16.00				\$416.00 ✓
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MOVING FROM UNLOADING AREA + SETTING UP

51 MAN HRS @ \$16.00	-	\$816.00	
12.5 MACH HRS @ \$12.50	-	156.25	\$972.25 ✓

DRILLING HOLE #1

CASING	0-6-6' @ \$18.10	-	\$108.60	
CORING	6-136-120 @ \$17.45	-	2268.50	\$2377.10 ✓

SETTING UP ON HOLE #2

LABOUR	12 MAN HRS @ \$16.00	-	\$192.00	
EQUIP	6 HRS @ \$12.50	-	75.00	\$267.00 ✓

DRILLING HOLE #2

CASING	0-2-2' @ \$18.10	-	\$36.20	
CORING	2'-354' - 352 @ \$17.45	-	\$6142.40	\$6178.60 ✓

II

MOVING TO HOLE #3

LABOUR 46 HRS @ \$16.00 - \$736.00

EQUIP 15 HRS @ \$12.50 - 187.50

\$923.50

DRILLING HOLE #3

CASING 0-4-4' @ \$18.10 - \$72.40

CORING 4-490-486' @ \$17.45 - \$8480.70

\$8553.10

SETTING UP ON HOLE #4

LABOUR 7 MAN HRS @ \$16.00 - \$112.00

EQUIP 3.5 HRS @ 12.50 - 43.75

\$155.75

DRILLING HOLE #4

CASING 0-5-5' @ \$18.10 - \$90.50

CORING 5-360-375' @ \$17.45 - \$6343.75

\$6434.25

MOVING TO HOLE #5

LABOUR 46 MAN HRS @ 16.00 - \$736.00

EQUIP 13 HRS @ 12.50 - \$162.50

\$898.50

DRILLING HOLE #5

CASING 0-7-7' @ 18.10 - \$126.70

CORING 7-364'-377' @ \$17.45 - \$6,578.65

\$6705.35

GAS

\$271.44

DIESEL

\$256.99

MEALS

\$266.20

\$994.68

SUPPLIES USED & CONSUMED

43 N.R CORE BOXES @ \$4.90	-	\$455.70 ✓	
5 B.R CORE BOXES @ \$5.00	-	\$25.00 ✓	
20 LIDS @ \$2.00	-	\$40.00 ✓	
2 PAILS SUPER POLY @ \$166.00	-	\$330.00 ✓	
2 PAILS DDR GREASE @ \$46.62	-	\$93.24 ✓	
2 PAILS CAL-SEAL @ \$25.00	-	\$105.00	only 2 on hand
30 GALS KUTWELL @ \$4.36	-	\$130.80 ✓	
17 BAGS QUIK TROL @ \$9.75	-	\$165.75 ✓	
		\$1342.49	
B.C.S.S. TAX @ 6%		\$80.73	\$1426.22 ✓
PLUS 15% ADMIN + O.H.			\$213.93 ✓

TRAVEL TIME - 102 MAN HRS @ \$16.00 \$1632.00 ✓

TRUCK - 108 HRS @ \$6.00 \$648.00 ✓

TEAR DOWN & MOVE OUT

26 MAN HRS @ \$16.00	\$416.00	}	\$497.25 ✓
6.5 MAN HRS @ 12.50	\$81.25		

6 PCID TESTS @ \$60.25 \$361.50 ✓

DEMobilIZATION

H.A. DAVIS TRUCKING INV #8576 - \$901.00 ✓

4X4 324 MI. @ \$1.50 - \$486.00

LABOUR 24 HRS @ 16.00 - 384.00

TOTAL

\$1771.00  
 \$44,022.48

APPENDIX II

Analytical Methods

Interpretation of Results

Standard M-1 is a certified geochem standard used to monitor the results. M-1 has the following analysis.

1.	Mo	:	in ppm	M1	2.	ppm
2.	Cu	:	in ppm	M1	28.	ppm
3.	Pb	:	in ppm	M1	38.	ppm
4.	Zn	:	in ppm	M1	180.	ppm
5.	Ag	:	in ppm	M1	0.3	ppm
6.	Ni	:	in ppm	M1	32.	ppm
7.	Co	:	in ppm	M1	12.	ppm
8.	Mn	:	in ppm	M1	800.	ppm
9.	Fe	:	in %	M1	2.5	%
10.	As	:	in ppm	M1	8.	ppm
11.	U	:	in ppm	M1	3.	ppm
12.	IS	:	Internal Standard.			<i>Hi channel</i>
13.	Th	:	in ppm	M1	3.	ppm
14.	IS	:	Internal Standard.			
15.	Cd	:	in ppm	M1	2.	ppm
16.	Sb	:	in ppm	M1	3.	ppm
17.	Bi	:	in ppm	M1	2.	ppm
18.	V	:	in ppm	M1	54.	ppm
19.	Ca	:	in %	M1	0.62	%
20.	P	:	in %	M1	0.11	%
21.	La	:	in ppm	M1	8.	ppm
22.	In	:	in ppm	M1	2.	ppm
23.	Mg	:	in %	M1	0.67	%
24.	Ba	:	in %	M1	0.023	%
25.	Ti	:	in %	M1	0.07	%
26.	B	:	in ppm	M1	12.	ppm
27.	Al	:	in %	M1	1.9	%
28.	IS	:	Internal Standard.			- <i>Cr</i>
29.	IS	:	Internal Standard.			- <i>Nb</i>
30.	W	:	in ppm	M1	1.	ppm

Notes:

1. Zinc over 5000 ppm interferes on W channel.
2. Iron over 1. % interferes on In and Sb channel.

Monitoring of Results:

If analysis of standard M-1 is different than the certification, then compensate (add or subtract) samples appropriately.

Standardization:

Complete set of USGS standards, Canadian Certified Reference Materials and 72 specpure metals from Johnson Matthey.



ACME ANALYTICAL LABORATORIES LTD

Assaying & Trace Analysis

852 E. Hastings St., Vancouver, B.C. V6A 1R6

Telephone: 253-3158

Multi Element Analysis by ICP

Digestion of Sample

0.5 gram samples are digested with hot aqua regia for one hour and the sample is diluted to 10 ml. The diluted sample is aspirated by ICP and the analytical results are printed by Telex, either in percent or ppm as shown.

Please Note : This digestion is partial for Al, Ca, La, Mg, P Ti, W and very little Ba is dissolved.

Report Format

HO/22N 3850W  
EGC

BURN # 1 GE16 15:46 3FEB1981

IS  
1357

MO	CU	PB	ZN	AG	NI	CO	MN	FE%	AS
3.92	41.5	9.00	136	.332	15.3	5.70	312	3.167	5.73
U	IS	TH	IS	CD	SB	BI	V	CA%	P%
4.11	.371	.424	1073	.960	1.94	4.51	52.7	1.107	.206
LA	IN	MG%	BA%	TI%	B	AL%	IS	IS	W
22.1	3.50	.2589	.0184	.0014	-.05	1.720	0	3.06	.276

\*O/M1  
EGC

BURN # 1 GE16 15:48 3FEB1981

1358									
.563	29.3	34.6	171	.154	33.4	11.5	794	2.536	8.77
3.57	.044	2.79	765	1.08	.635	4.25	54.8	.6452	.109
6.42	2.88	.6008	.0252	.0753	-.37	1.944	0	2.32	-.61

Code :

HO, \*O, EGC  
/22N 3850 W  
/M1  
15:46 3FEB1981  
BURN # 1 GE16  
IS

Computer Instructions.  
Sample Number.  
ACME Geochem standard for quality control.  
Time and Date of Analysis.  
Geochem Computer Program.  
Internal Standard.



### Geochemical Analysis of Hg

#### Digestion

A .50 gram sample is digested with aqua regia and diluted with 20% HCl.

#### Determination

Hg in the solution is determined by cold vapour AA using F & J Scientific Hg assembly. An aliquot is added to stannous chloride-hydrochloric acid solution. The reduced Hg is swept out of the solution and passed into the Hg cell where it determined by AA.

#### Oxalic Acid Leach of Rock, Soil & Silt Samples

A .50 gram sample is digested hot with 10 mls 5% oxalic acid solution. The oxalic acid will dissolve Fe and Mn from their oxides of M - 1 fraction (but not from magnetite & ilmenite) limonites and clays. The following metals are analysed by atomic absorption : Cu, Zn, Pb, Ni, Mo, Fe & Mn.

#### Cold HCl Acid Extraction

A .50 gram sample is leached with 10 ml 5% HCl solution at room temperature for 2 hours with occasional shaking. Copper is dissolved from the organic and surface layers of clay fractions.

#### EDTA Extraction

A .50 gram sample is leached at room temperature for 4 hours with 10 mls of 2.5% EDTA solution.

## GEOCHEMICAL LABORATORY METHODOLOGY - 1981

### SAMPLE PREPARATION

1. Soil samples are dried at 60°C and sieved to -80 mesh.
2. Rock samples are pulverized to -100 mesh.

### Geochemical Analysis for Ag\*, Bi\*, Cd\*, Co, Cu, Fe, Mn, Mo, Ni, Pb, Sb\*, V, Zn

0.5 gram samples are digested hot dilute aqua regia in a boiling water bath and diluted to 10 ml with demineralized water.

All the above elements are determined in the acid solution by Atomic Absorption.

\* denotes background correction.

### Geochemical Analysis for Au

10.0 gram samples that have been ignited overnight at 600°C are digested with hot dilute aqua regia, and the clear solution obtained is extracted with Methyl Isobutyl Ketone.

Au is determined in the MIBK extract by Atomic Absorption using background correction ( Detection Limit = 5 ppb direct AA and 1 ppb graphite AA. )

### Geochemical Analysis for Au, Pd, Pt, Rh

10.0 - 30.0 gram samples are subjected to Fire assay preconcentration techniques to produce silver beads.

The silver beads are dissolved and Au, Pd, Pt, and Rh are determined in the solution by Atomic Absorption.

### Geochemical Analysis for As

0.5 gram samples are digested with hot dilute aqua regia and diluted to 10 ml.

As is determined in the solution by Graphite Furnace Atomic Absorption.

APPENDIX III

Geochemical Data

GENERAL

EXPLANATION OF CODING

LIST I

- 1,2 **SAMPLE TYPE**
  - 10. Stream sediment
  - 11. Stream water
  - 21. Seepage (spring) sediment
  - 21. Seepage (spring) water
  - 20. Lake sediment - lake center
  - 37. Lake water
  - 37. Lake sediment - near shore
  - 43. Bog-upper 100 cm
  - 41. Bog-stagnant water
  - 42. Bog-below 100 cm
  - 43. Bog-organic material at mineral horizon interface
  - 44. Bog-mineral horizon
  - 50. Soil-top of the B horizon (or top of the C horizon if B horizon absent)
  - 51. Soil-other horizons (organic-rich samples or when 2 samples taken at same hole)
  - 52. Frost boil
  - 53. Seepage boil
  - 55. Deep overburden sample
  - 56. Intermediate overburden
  - 57. Sample (depth determined in field)
  - 59. Talus fines-mid slope
  - 61. Talus fine-in gully
  - 62. Talus fines-base of slope
  - 63. Talus blocks-hand sample
  - 64. Talus blocks-chips
  - 70. Biogeochemical
  - 75. Radon-track etch
  - 76. Radon-Alpha Meters
  - 77. Radon-emanometers
  - 80. Bedrock hand sample
  - 81. Bedrock chips - hand sample
  - 82. Float hand sample
  - 83. Float chips - hand sample
  - 84. Drill core specimens
  - 85. Channel sample
  - 85. Drill sludge
  - 87. Drill chips
  - 89. High grade sample
  - 90. Special sampler-specify clearly label if high grade
- 3,4 **YEAR**
  - PROJECT NUMBER
  - PROJECT IDENTIFICATION
    - Blank reconnaissance
    - A, B, C, etc. - properties, anomalies (List 6)
  - 9 **DUPLICATE SAMPLES**
    - \*Star both samples (collect T in 30)
  - 10,11 **SAMPLER IDENTIFICATION** (List 7)
  - 12-15 **SAMPLE NUMBER**
    - or
    - 13-15 leave out all numbers ending in 00 and 50
  - 17,18 **UTM ZONE**
    - See MTS map sheets; for properties use
    - XX Property-foot
    - YY Property-meters
    - ZZ Property-other
  - 19-26 **EAST COORDINATE**
  - 25-31 **NORTH COORDINATE**
  - 34-38 **MAP SHEET NUMBER**

- 42 **PRECIPITATE**
  - 1. Record colour (report presence of precipitate in immediate vicinity in stream bed, if heavy precipitate, sample separately).
- 43 **OVERBURDEN TRANSPORT**
  - L. Local M. Mixed local
  - E. Extensive E. extensive
  - U. Unknown
- 45 **OVERBURDEN ORIGIN**
  - 1. Till-angular boulders
  - 2. Outwash-sandy, rounded boulders
  - 3. Lake sediment-sand/silt
  - 4. Alluvium-stream deposit
  - 5. Peat-bog
  - 6. Colluvium\*
  - 7. Lake sediment-clay
  - 8. Talus
  - 9. Residual
  - A. Frost boil\* \*use only if
  - B. Seepage boil\* former origin
  - C. Boulder field\* cannot be identified
  - D. Gravel\*
  - E. Soil\*
- 46 **BEDROCK**
  - M. Mineralized
  - P. Present within 100m-200m upslope
  - D. Present within 100m-200m downslope
  - B. Underlies sample site
  - G. Gossan
  - F. Fe surface stains
  - R. Radioactivity
- 47,48 **pH**
- 49 **SAMPLE TEXTURE**
  - 1. Organic-decomposed
  - 1. Clay
  - 2. Silt and fine sand
  - 3. Sand
  - 4. Gravel
  - 5. Frozen
  - 6. Cemented
  - 7. Precipitate
  - 8. Twigs or undecomposed organic matter
- 50-52 **AVERAGE WIDTH OF STREAM-M**
  - decimal point in col 51 (or col 52 if stream > 10 m wide)
- 53-55 **AVERAGE DEPTH OF STREAM-CN**
- 56 **STREAM VELOCITY**
  - 1. Dry
  - 2. Stagnant
  - 3. Slow
  - 4. Moderate
  - 5. Fast
  - 6. Turbulent
- 57 **INDICATE AS TRIBUTARY**
  - R. Stream enters on right looking down main stream
  - L. Stream enters on left looking down main stream
- 58-60 **LOCAL BEDROCK COMPOSITION**
  - Estimate-use lists 1-4
- 61 **COLOUR-STREAM SEDIMENTS**
  - 1. Colour noted in information
- 63-66 **CONDUCTIVITY-WATER**
- 67 **CONTAMINATION**
  - Blank-nona
  - P. possible
  - D. definite
- 68 **ORGANIC FRACTION**
  - 1. Minor amount of undecomposed twigs, leaves, etc.
  - 2. Large amount of undecomposed twigs, leaves, etc.
  - 3. Minor amount of well-decomposed vegetation
  - 4. Large amount of well-decomposed vegetation
  - 5. Mosses
  - 6. Some sediment grains coated in organic matter
  - 7. All sediment grains coated in organic matter
  - 8. Looks like lake sediment material

- 69 **MINERAL FRACTION**
  - 1. Primarily light coloured silicate minerals
  - 2. Primarily carbonate sand
  - 3. Minor, but notable content of mafic minerals, resuscitans etc.
  - 4. High proportion of mafics, resuscitans
- 71 **GAMMA SOLID ANGLE**
  - 1. Ridge 5. A
  - 2. Flat surface (2π) 6. B
  - 3. Base of section (3π) 7. C
  - 4. Deep gullies (4π) 8. D
- 72-75 **GAMMA COUNT AT SAMPLE SITE**
- 76 **ROCK**
  - \*if bedrock is influencing scint counts
- 77,78 **APPROXIMATE SLOPE ANGLE**
- 79,80 **APPROXIMATE SLOPE DIRECTION**

SOILS

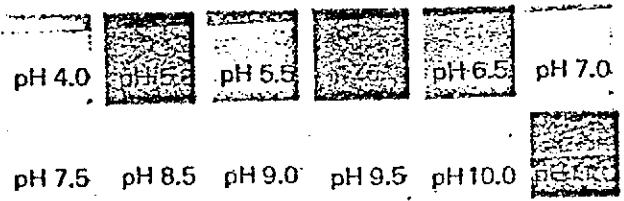
- 40 **SITE TOPOGRAPHY**
  - 1. Hill Top
  - 2. Gentle slope
  - 3. Steep slope > 20°
  - 4. Base of slope
  - 5. Valley floor
  - 6. Depression
  - 7. Level
  - 8. Rolling
  - 9. Bog
- 41 **SAMPLE ENVIRONMENT**
  - 1. Tundra-hummocky
  - 2. Tundra-dry
  - 3. Tundra-swampy
  - 4. Grassland, meadows
  - 5. Peat mounds
  - 6. Bog in depression
  - 7. Forest-coniferous
  - 8. Forest-deciduous
  - 9. Forest-mixed
  - A. Alder or willows
  - B. Cultivated land
  - C. Desert, semi-arid
  - D. Barren
  - E. Talus fan
  - F. Bank soil-stream
  - G. Bank soil-lake
  - H. Road cut
- 42 **SITE DRAINAGE**
  - 1. Dry
  - 2. Moist
  - 3. Wet
  - 4. Saturated
- 43 **OVERBURDEN TRANSPORT**
  - L. Local
  - E. Extensive
  - U. Unknown
  - M. Mixed - two sources
- 44 **WATER MOVEMENT**
  - 1. Seepage
- 45 **OVERBURDEN ORIGIN**
  - 1. Till-angular boulders
  - 2. Outwash-sandy, rounded boulders
  - 3. Lake sediment-sand/silt
  - 4. Alluvium-stream deposit
  - 5. Peat-bog
  - 6. Colluvium
  - 7. Lake sediment-clay
  - 8. Talus
  - 9. Residual
  - A. Frost boil\* \*Use only if
  - B. Seepage boil\* former origin
  - C. Boulder field\* cannot be identified
  - D. Gravel\*
- 48 **pH**

- 49 **SAMPLE TEXTURE**
  - 0 Organic muck
  - 1 Fibrous, peaty organic matter
  - 2. Very sandy
  - 3. Sandy
  - 4. Sand-silt
  - 5. Sand-silt-clay
  - 6. Silt
  - 7. Silt-clay
  - 8. Clay
  - 9. Gravel
- 50,51 **TOP OF SAMPLE INTERVAL-CN**
- 52-54 **BOTTOM OF SAMPLE INTERVAL-CN**
- 55,56 **SOIL HORIZON**
  - LH. Leaf, humus layer, undecomposed vegetation lying on the ground surface (do not sample)
  - AH. Dark gray to black, organic-rich mineral horizon usually no deeper than 15 cm from the surface (do not sample)
  - AE. Gray to white (occasionally brown) leached mineral horizon near ground surface, usually sandy; accompanied by BF or BT horizon at depth (no not sample)
  - BH. Black, organic-rich mineral horizon at depths greater than 15 cm (do not sample)
  - BF. Red brown, iron-rich horizon
  - BT. Brown, clay-rich horizon
  - BG. Horizon which is water-saturated most of the year, identified by red brown mottles
  - BM. Brown horizon which is only slightly different in appearance from underlying parent material
  - CI, C2, C3, etc.-Parent material for soil
  - CA. White calcium carbonate precipitate in C horizon
  - B1, B2, B3 etc.-Bog samples at various depths
  - TF. Talus fines
- 57 **SOIL TYPE**
  - C. Chernozem-prairie soil usually under grassland or meadow, thick Ah 30cm, CA horizon at depth
  - S. Solonchek-saline soil, high content of NaCl
  - L. Luvisol-BF horizon diagnostic
  - P. Podzol-BF horizon diagnostic
  - B. Brunisol-BF horizon is only B horizon of profile
  - R. Regosol-little or no soil development. No B soil horizon, only LH (maybe) and C horizon
  - G. Gleysol-BG horizon diagnostic
  - A. Organic soil-bog vegetation-no mineral matter
- 50-60 **LOCAL BEDROCK COMPOSITION**
  - Estimate-use lists 1-4
- 61-66 **COLOUR**
  - Munsell notation or abbreviation
- 67 **CONTAMINATION**
  - Blank-nona
  - P. possible
  - D. definite
- 68-69 **COARSE FRAGMENTS**
- 70 **SHAPE OF COARSE FRAGMENTS**
  - A. Angular
  - B. Rounded
  - S. Subrounded, subangular
  - M. Mixed above types
- 71 **GAMMA SOLID ANGLE**
  - 1. Ridge 5. A
  - 2. Flat surface (2π) 6. B
  - 3. Base of section (3π) 7. C
  - 4. Deep gullies (4π) 8. D
- 72-75 **GAMMA COUNT AT SAMPLE SITE**
  - Scint reading at ground level over hole
- 76 **ROCK**
  - \*if bedrock is influencing scint counts
- 77,78 **APPROXIMATE SLOPE ANGLE**
- 79,80 **APPROXIMATE SLOPE DIRECTION**

- 1-- **INTRUSIVE ROCKS**
  - 1 QUARTZ RICH
  - 1 Granite
  - 2 Quartz Monzonite
  - 3 Granodiorite
  - 4 Quartz diorite
  - 2 INTERMEDIATE
  - 1 Syenite
  - 2 Monzonite
  - 3 Diorite
  - 4 Gabbro
  - 3 FELDSPATHOID RICH
  - 1 Nepheline syenite
  - 2 Nepheline monzonite
  - 40 NEPLASIBASIC
  - 50 CARBONATITES
  - 60 SPECIAL TYPES
  - 1 Pegmatite
  - 2 Aplite
  - 3 Lamprophyre
  - 4 Trap
  - 5 Felsite
  - 6 Intrusion breccia
  - 7 Diabase
- 2-- **LIST 2**
- 2-- **VOLCANIC ROCKS**
  - 0 UNDIFFERENTIATED
  - 1 BASALT
  - 2 ANDESITE
  - 3 DACITE
  - 4 ANHYLITE
  - 5 QUARTZ LATITE
  - 6 LATITE
  - 7 TRACHYTE
  - 8 PHONOILITE
  - 9-10 NEPHELINE LATITE
  - 1 Fine grained flows
  - 2 Prophyritic flows
  - 3 Crystal tufts
  - 4 Ash tufts
  - 5 Lapilli tufts
  - 6 Agglonerate
  - 7 Lapilli breccia
  - 8 Block breccia
  - 9 Turbidite
- 3-- **LIST 3**
- 3-- **SEDIMENTARY ROCKS**
  - 1 ARENACEOUS
  - 1 Silstone
  - 2 Mudstone
  - 3 Greywacke
  - 4 Sandstone
  - 5 Quartzite
  - 6 Conglomerate
  - 2 ARGILLACEOUS
  - 1 Shale
  - 2 Argillite
  - 3 CALCAREOUS
  - 1 Limestone
  - 2 Dolomite
  - 4 CHEMICAL PRECIPITATE
  - 1 Chert
  - 2 Marble
  - 3 Iron formation
- 4-- **LIST 4**
- 4-- **METAMORPHIC ROCKS**
  - 1 FINE GRAINED CONTACT
  - 2 PHANERITIC
  - 1 Meta quartzite
  - 2 Marble
  - 3 Soapstone
  - 4 Hornfels
  - 5 Serpentine
  - 6 Schist
  - 7 Amphibolite
  - 8 Eclogite
  - 3 MECHANICAL
  - 1 Nylonite
  - 2 Flaser
  - 3 Augen
  - 4 Ultramylonite
  - 40 SLATE
  - 50 PHYLLITE
  - 60 SCHIST
  - 7-8 GNEISS
  - 8 MICHAELITE
  - 1 Granite
  - 2 Monzonite
  - 3 Granodiorite
  - 4 Conglomerate
  - 5 Sandstone
  - 6 Augen
  - 7 Granulite
  - 8 Quartz diorite
  - 9 Diorite
  - 0 Amphibolite

STREAM SEDIMENTS

- 40 **SAMPLE ENVIRONMENT**
  - 1. Next to bank
  - 2. Behind boulders
  - 3. Among rocks below stream bank
  - 4. Middle of stream
  - 5. Among grass or reeds of creek bed
  - 6. 8yr in creek
  - 7. Middle-very wide, shallow creek
  - 8. Base of slope
  - 9. Composite across stream
  - A. Soil



STREAM & SEEPAGE SEDIMENT SAMPLE CODING KEY

RECORD NUMBER	SAMPLE TYPE	YEAR	PROJECT CODE	PROPERTY CODE 1 <small>(PRECIPITATE ORIGIN)</small>	SAMPLE NUMBER	ZONE	UTM EAST	UTM NORTH	NTS MAP SHEET	PROPERTY CODE 2	SAMPLE ENVIRONMENT	PRECIPITATE	OVERBURDEN TRANSPORT	OVERBURDEN ORIGIN	GEOROCK	pH	SAMPLE TEXTURE	AVERAGE WIDTH OF STREAM-M	AVERAGE DEPTH OF STREAM-CM	STREAM VELOCITY	INDICATE AS TRIBUTARY	GEOLOGY	LOLOUX-STREAM SEDIMENTS	CONDUCTIVITY-WATER	CONTAMINATION	ORGANIC FRACTION	MINERAL FRACTION	GAMMA SOLID ANGLE	SCINTILLOMETER READING-CPS	CUTCROP	DIRECTION AND SLOPE OF STREAM FLOW	ppm Mo	ppm Cu	ppm Pb	ppm Co	ppm Ni	ppm U	ppm Mn	% Fe
1	1G794126	235202	YY57356677164379	YY57356677164379	235202	YY57356677164379	86J1409	86J1409	06J1201	06J1201	06J1201	06J1201	06J1201	06J1201	06J1201	7.45	06J1201	14	14	14	14	1111R	1111R	43	43	43	43	120	25W	25W	10.5	152	110	35	70	72	80	85	64
2	1G794126	235203	YY57356677164379	YY57356677164379	235203	YY57356677164379	86J1409	86J1409	06J1201	06J1201	06J1201	06J1201	06J1201	06J1201	06J1201	7.45	06J1201	14	14	14	14	1111R	1111R	43	43	43	43	120	25W	25W	10.5	170	140	43	72	72	80	85	64
3	1G794126	235204	YY57356677164379	YY57356677164379	235204	YY57356677164379	86J1409	86J1409	06J1201	06J1201	06J1201	06J1201	06J1201	06J1201	06J1201	7.45	06J1201	14	14	14	14	1111R	1111R	43	43	43	43	120	25W	25W	10.5	185	65	43	72	72	80	85	64
4	1G794126	235204	YY57356677164379	YY57356677164379	235204	YY57356677164379	86J1409	86J1409	06J1201	06J1201	06J1201	06J1201	06J1201	06J1201	06J1201	7.45	06J1201	14	14	14	14	1111R	1111R	43	43	43	43	120	25W	25W	10.5	220	120	43	72	72	80	85	64
5	1G794126	235204	YY57356677164379	YY57356677164379	235204	YY57356677164379	86J1409	86J1409	06J1201	06J1201	06J1201	06J1201	06J1201	06J1201	06J1201	7.45	06J1201	14	14	14	14	1111R	1111R	43	43	43	43	120	25W	25W	10.5	175	120	43	72	72	80	85	64
6	1G794126	235204	YY57356677164379	YY57356677164379	235204	YY57356677164379	86J1409	86J1409	06J1201	06J1201	06J1201	06J1201	06J1201	06J1201	06J1201	7.45	06J1201	14	14	14	14	1111R	1111R	43	43	43	43	120	25W	25W	10.5	175	120	43	72	72	80	85	64

SOIL SAMPLE CODING KEY

RECORD NUMBER	SAMPLE TYPE	YEAR	PROJECT CODE	PROPERTY CODE 1 <small>(PRECIPITATE ORIGIN)</small>	SAMPLE NUMBER	ZONE	UTM EAST	UTM NORTH	NTS MAP SHEET	PROPERTY CODE 2	SAMPLE ENVIRONMENT	PRECIPITATE	OVERBURDEN TRANSPORT	OVERBURDEN ORIGIN	GEOROCK	pH	SAMPLE TEXTURE	TOP OF SAMPLE INTERVAL-CM	BOTTOM OF SAMPLE INTERVAL-CM	SOIL HORIZON	SOIL TYPE	GEOLOGY	SOIL COLOUR	CONTAMINATION	% COARSE FRAGMENTS	SHAPE OF COARSE FRAGMENTS	GAMMA SOLID ANGLE	SCINTILLOMETER READING-CPS	CUTCROP	SLOPE ANGLE & DIRECTION	ppm Mo	ppm Cu	ppm Pb	ppm Co	ppm Ni	ppm U	ppm Mn	% Fe				
1537	5C754127	221290	YY546690730039C	YY546690730039C	221290	YY546690730039C	86J1201	86J1201	06J1201	06J1201	06J1201	06J1201	06J1201	06J1201	06J1201	7.75	06J1201	30	30	30	30	110	110	40	40	40	40	110	100	100	10.5	30	25	25	25	25	25	25	25	25	25	
1538	5C754127	221291	YY546690730039C	YY546690730039C	221291	YY546690730039C	86J1201	86J1201	06J1201	06J1201	06J1201	06J1201	06J1201	06J1201	06J1201	7.75	06J1201	30	30	30	30	110	110	40	40	40	40	110	100	100	10.5	30	25	25	25	25	25	25	25	25	25	25
1539	5C754127	221292	YY546690730039C	YY546690730039C	221292	YY546690730039C	86J1201	86J1201	06J1201	06J1201	06J1201	06J1201	06J1201	06J1201	06J1201	7.75	06J1201	30	30	30	30	110	110	40	40	40	40	110	100	100	10.5	30	25	25	25	25	25	25	25	25	25	25
1540	5C754127	221293	YY546690730039C	YY546690730039C	221293	YY546690730039C	86J1201	86J1201	06J1201	06J1201	06J1201	06J1201	06J1201	06J1201	06J1201	7.75	06J1201	30	30	30	30	110	110	40	40	40	40	110	100	100	10.5	30	25	25	25	25	25	25	25	25	25	25
1541	5C754127	221294	YY546690730039C	YY546690730039C	221294	YY546690730039C	86J1201	86J1201	06J1201	06J1201	06J1201	06J1201	06J1201	06J1201	06J1201	7.75	06J1201	30	30	30	30	110	110	40	40	40	40	110	100	100	10.5	30	25	25	25	25	25	25	25	25	25	25
1542	5C754127	221295	YY546690730039C	YY546690730039C	221295	YY546690730039C	86J1201	86J1201	06J1201	06J1201	06J1201	06J1201	06J1201	06J1201	06J1201	7.75	06J1201	30	30	30	30	110	110	40	40	40	40	110	100	100	10.5	30	25	25	25	25	25	25	25	25	25	25
1543	5C754127	221296	YY546690730039C	YY546690730039C	221296	YY546690730039C	86J1201	86J1201	06J1201	06J1201	06J1201	06J1201	06J1201	06J1201	06J1201	7.75	06J1201	30	30	30	30	110	110	40	40	40	40	110	100	100	10.5	30	25	25	25	25	25	25	25	25	25	25



											Mo	Cu	Pb	Zn	Ni	U	Mn							
59	81	81	526	B	611224	398489	5444292	92FO1			23	0	0	4	29	3	0	319						
60	81	81	526	B	611225	398496	5444289	92FO1			23	0	1	28	71	3	0	476						
61	89	81	526	B	611226	398472	5444281	92FO1			23	4	4405	8187	12892	10	0	993						
62	89	81	526	B	611227	398478	5444291	92FO1			23	4	2121	8833	7631	6	0	1338						
63	81	81	526	B	611228	398490	5444315	92FO1			23	1	26	120	179	6	0	662						
64	81	81	526	B	611229	398489	5444321	92FO1			23	1	9	34	89	4	0	565						
65	81	81	526	B	611230	398492	5444327	92FO1			23	0	3	11	69	5	0	587						
66	10	81	526	C	611231	400670	5445585	92FO1W		5.6		2	50	15	93	34	2	443						
67	10	81	526	C	611232	400690	5445600	92FO1W		5.4		1	28	13	104	27	2	340						
68	50	81	526	A	611233	400343	5445100	92FO1		5.5		3	21	14	51	15	2	129						
69	50	81	526	A	611234	400198	5445003	92FO1		5.3		5	47	17	109	51	1	253						
70	50	81	526	A	611235	400095	5445020	92FO1		4.7		2	38	16	46	17	2	117						
71	81	81	526	B	611236	400092	5444995	92FO1			114	1	3	10	36	11	0	451						
72	50	81	526	A	611237	399973	5445105	92FO1		4.4		4	24	20	62	18	2	138						
73	50	81	526	A	611238	399990	5445240	92FO1		5.0		2	6	10	38	10	2	221						
74	50	81	526	A	611239	399895	5445428	92FO1		5.0		0	11	10	28	8	1	89						
75	50	81	526	C	611240	399850	5445555	92FO1W		5.7		2	68	13	77	34	0	554						
76	50	81	526	C	611241	399870	5445680	92FO1W		5.4		2	26	12	60	24	3	289						
77	50	81	526	A	611242	400258	5444944	92FO1		4.8		2	37	16	59	23	2	185						
78	10	81	526	A	611243	400224	5444914	92FO1		6.2		2	50	13	131	39	0	459						
79	50	81	526	A	611244	400068	5444778	92FO1		5.0		2	61	14	70	28	2	231						
80	10	81	526	A	611245	400060	5443880	92FO1	2	L	9	5.420.5	103	114	B	11	5SE	1	18	30	172	21	8	3324
81	10	81	526	A	611246	399838	5444591	92FO1	2	L	9P5	840.5	104	114	B	11	10NE	1	28	12	130	29	3	2030
82	10	81	526	A	611247	399705	5444599	92FO1	2	L	9	5.740.5	5	114	B	11	5NE	1	18	14	103	27	2	1339
83	50	81	526	A	611248	399110	5445000	92FO1	271L	9B4	7430	40BFP114	BR	15S	20NE	1	28	13	60	17	1	194		
84	50	81	526	A	611249	390690	5444853	92FO1	271L	9R4	9420	25BFP23	OR	30S	15NE	0	17	21	49	11	1	120		
85	50	81	526	A	611250	390880	5444818	92FO1	271L	9	4.5435	40BFP114	OR	20	10NE	1	24	17	55	20	1	203		
86	10	81	526	A	611251	399975	5444785	92FO1	2	L	9	5.831.0	103	114	BR	11	5 N	0	19	11	92	25	1	863
87	10	81	526	C	611255	402700	5446175	92FO1	2	L	9	5.331.5	104	114	B	11	20 E	0	61	22	102	43	1	557
88	10	81	526	C	611256	401980	5444900	92FO1	4	L	9	5.431.0	053R	B	11	5 E	1	76	20	122	32	0	611	
89	10	81	526	C	611257	401980	5444920	92FO1	4	L	9	5.430.5	053L	B	11	5 E	2	56	17	123	52	3	574	
90	50	81	526	A	611268	400176	5444268	92FO1	271L	9	4.2410	15BFP312	BR	10S	5 N	3	21	14	20	8	3	87		
91	50	81	526	A	611269	400382	5444237	92FO1	271L	9	4.4410	15BFP312	BR	10S	0	4	75	13	56	19	1	98		
92	50	81	526	C	611270	400590	5444240	92FO1	271L	9	4.4410	15BFP312	BR	10S	5SW	2	22	15	24	9	1	88		
93	50	81	526	C	611271	400820	5444135	92FO1	271L	9R4	9430	40BFP311	OR	10S	5 S	2	42	21	137	41	3	270		
94	50	81	526	C	611272	400980	5444190	92FO1	271L	9R4	6440	45BFP312	OR	5S	5 S	2	72	16	103	31	0	287		
95	50	81	526	C	611273	401150	5444220	92FO1	271L	9B4	6480	100BFP312	OR	20S	5 S	3	89	18	116	40	2	277		
96	50	81	526	C	611274	401330	5444190	92FO1	271L	9R4	.54	BFP	BR	10S	5 S	1	31	14	75	24	2	243		
97	50	81	526	C	611275	401410	5443990	92FO1	271L	9	4.5530	40BFP23	OR	5	5 S	0	4	7	12	3	0	29		
98	13	81	526	C	611276	401430	5443920	92FO1	2	L	9	5.621.0	054	23	B	11	3 E	0	28	10	60	18	1	313
99	50	81	526	C	611277	401560	5443940	92FO1	271L	9R4	8260	70BF	113	OR	50S	5S	2	8	29	72	8	1	352	
100	81	81	526	C	611278	401830	5444025	92FO1W								0	116	7	46	16	0	402		
101	81	81	526	C	611279	401800	5444020	92FO1W								2	79	15	130	39	0	666		
102	81	81	526	C	611280	401330	5443900	92FO1W								0	5	6	37	21	0	369		
103	50	81	526	C	611281	401145	5443930	92FO1	271L	9B4	8520	30BFP23	OR	20	5 S	2	65	26	111	24	2	183		
104	50	81	526	C	611282	400880	5443895	92FO1	271L	4	6530	40BFP23	OR	15	5 S	3	27	21	94	17	3	163		
105	81	81	526	C	611283	400750	5444070	92FO1W								0	2	7	48	18	1	599		
106	50	81	526	C	611284	400750	5444070	92FO1	271L	9	4.6540	50BFP23	OR	10	5 S	2	48	28	117	39	1	270		
107	81	81	526	C	611285	400780	5444090	92FO1W								0	5	2	20	12	0	318		
108	81	81	526	C	611286	400760	5444110	92FO1W								1	37	28	22	13	0	540		
109	50	81	526	C	611287	401380	5444090	92FO1	271L	9R4	6540	50BFP23	OR	10S	3NE	3	25	16	55	20	2	198		
110	81	81	526	C	611288	401350	5445300	92FO1W								0	11	14	54	9	0	341		
111	50	81	526	C	611289	401260	5445210	92FO1	271L	9B4	3510	20BFP23	OR	5S	5NW	2	23	16	43	16	1	148		
112	50	81	526	C	611290	401090	5445130	92FO1	271L	9R4	.55	23	OR	10S	3NW	2	20	13	29	11	1	125		
113	50	81	526	C	611291	400950	5445040	92FO1	271L	9	4.57	23	OR	10S	3NW	2	25	16	39	14	1	146		
114	50	81	526	C	611292	400820	5444980	92FO1	171L	9	4.37	5	10BFP23	OR	10S	0	3	18	16	27	10	2	118	
115	50	81	526	C	611293	400700	5444900	92FO1	271L	9	4.6515	20BFP23	OR	5S	5NW	2	38	15	53	20	2	177		
116	81	81	526	C	611294	400670	5444900	92FO1W								0	16	9	48	10	0	435		

Listing of COALLIST1 at 12:15:13 on OCT 8, 1981 for CCid=BPOG

												Mo	Cu	Pb	Zn	Ni	U	Mn				
117	81	81	526	C	611295	400600	5444700	92F01W				1	1502	412	1006	13	0	677				
118	50	81	526	A	611296	400600	5444710	92F01	271L	9B4.6515	20BFP23	DR	5S	5NW	2	283	69	194	18	2	196	
119	81	81	526	C	611297	400590	5444700	92F01W				0	224	27	262	12	0	558				
120	81	81	526	C	611298	400580	5444690	92F01W				3	78	6	36	72	3	572				
121	50	81	526	C	611299	400575	5444690	92F01	271L	9B5.2520	30BFP311	DR	5NW	3	91	23	124	40	1	298		
122	60	81	526	C	611300	400550	5444560	92F01	271L	9B4.6		311	DR	15NW	4	111	36	163	45	1	450	
123	50	81	526	A	611301	400470	5444448	92F01	271L	9B4.5550	60BFP311	DR	5S	10 N	5	83	19	93	30	3	836	
124	50	81	526	A	611302	400328	5444362	92F01	271L	9B4.3560	70BFP312	DR	10S	10 N	5	69	18	63	19	4	751	
125	81	81	526	B	611303	400300	5444350	92F01W				3	88	10	117	58	3	385				
126	50	81	526	A	611304	400135	5444382	92F01	271L	9R4.6		312	DR	10S	10NW	2	32	15	53	27	1	180
127	50	81	526	A	611305	400254	5444533	92F01	271L	9	4.5530	40BFP312	DR	15	10 N	3	56	15	113	37	1	348
128	81	81	526	B	611306	400240	5444510	92F01W				4	92	16	99	55	2	283				
129	50	81	526	C	611307	400580	5445035	92F01	271L	9	5.4540	55BFP312	DR	20S	20NW	1	47	22	107	29	1	165
130	50	81	526	C	611308	400700	5445100	92F01	271L	9	5.2540	50BFP312	DR	10	15NW	8	75	25	110	30	3	1469
131	50	81	526	C	611309	400830	5445170	92F01	272L	9	5.3540	50BFP312	DR	5S	15NW	1	36	12	63	20	2	155
132	83	81	526	C	611310	401980	5444870	92F01W				1	20	5	71	25	0	737				
133	83	81	526	C	611311	401980	5444870	92F01W				0	2	5	41	7	0	382				
134	81	81	526	B	611800	398357	5444248	92F01			23	0	2	7	37	16	3	349				
135	81	81	526	B	612265	398423	5444354	92F01			12	0	0	3	78	14	4	439				
136	81	81	526	B	612266	398417	5444438	92F01			334	1	4	5	39	1	1	152				
137	81	81	526	B	612267	398335	5444816	92F01			316	0	1	5	24	1	0	592				
138	81	81	526	B	612268	398324	5444797	92F01			316	0	2	13	21	1	5	2752				
139	81	81	526	B	612270	398222	5444759	92F01			316	0	1	4	25	1	0	343				
140	81	81	526	B	612272	398230	5444789	92F01			314	0	4	10	15	1	1	189				
141	81	81	526	B	612273	398453	5444600	92F01			314	1	6	11	60	2	3	833				
142	81	81	526	B	612274	398484	5444469	92F01				1	14	5	23	1	1	140				
143	81	81	526	B	612275	398495	5444395	92F01			12	0	0	6	50	5	3	367				
144	81	81	526	B	612276	398503	5444341	92F01			12	0	0	7	54	5	0	417				
145	81	81	526	B	612277	398598	5444480	92F01			12	0	0	8	46	4	0	365				
146	81	81	526	B	612278	398587	5444507	92F01			12	0	0	6	46	4	0	371				
147	81	81	526	B	612279	398575	5444545	92F01			314	15	1621	12	69	14	2	574				
148	81	81	526	B	612280	398438	5444847	92F01			122	0	8	5	22	2	2	469				
149	81	81	526	B	612282	398493	5444820	92F01			316	0	20	10	57	2	1	756				
150	81	81	526	B	612283	398633	5444800	92F01			314	2	36	4	76	4	6	693				
151	81	81	526	B	612284	398622	5444671	92F01			314	0	4	6	46	2	2	455				
152	81	81	526	B	612285	398669	5444554	92F01			12	0	0	6	48	4	1	484				
153	81	81	526	B	612287	398781	5444583	92F01			12	0	1	5	49	5	1	391				
154	81	81	526	B	612288	398726	5444678	92F01			12	1	0	4	52	5	1	420				
155	81	81	526	B	612289	398686	5444810	92F01			314	1	31	10	53	4	5	1402				
156	81	81	526	B	612290	398611	5444884	92F01			314	1	15	10	34	6	1	725				
157	81	81	526	B	612292	398705	5444970	92F01			314	0	11	6	54	3	4	437				
158	81	81	526	B	612293	398662	5444888	92F01			314	0	1	8	35	2	2	394				
159	81	81	526	B	612294	400670	5444900	92F01			12	0	0	5	43	4	0	376				
160	81	81	526	B	612295	398868	5444685	92F01			12	0	0	3	48	5	1	388				
161	81	81	526	B	612296	398880	5444598	92F01			12	0	0	3	37	16	0	372				
162	81	81	526	B	612298	398823	5444486	92F01			12	0	0	4	46	15	3	475				
163	81	81	526	B	612299	398836	5444639	92F01			12	3	12	4	44	4	0	399				
164	81	81	526	B	612300	398955	5444637	92F01			12	0	3	4	26	10	2	280				
165	81	81	526	B	612302	399042	5444555	92F01			12	0	0	3	34	15	4	496				
166	81	81	526	B	612303	399068	5444589	92F01			12	0	0	3	42	15	3	467				
167	81	81	526	B	612304	399076	5444604	92F01			12	0	0	5	30	13	2	530				
168	81	81	526	B	612305	399032	5444711	92F01			12	0	4	3	29	10	2	322				
169	81	81	526	B	612306	399006	5444738	92F01			12	1	5	7	31	10	0	283				
170	81	81	526	B	612307	398910	5444751	92F01			12	1	0	3	49	4	0	370				
171	81	81	526	B	612308	398854	5444846	92F01			12	1	0	4	53	5	1	479				
172	81	81	526	B	612310	398946	5444979	92F01			23	1	0	4	56	6	0	430				
173	81	81	526	B	612311	398981	5444990	92F01			23	1	0	4	51	8	0	360				
174	81	81	526	B	612312	399107	5444851	92F01			23	1	8	3	108	11	2	532				



Listing of COALLIST at 12:15:13 on OCT 8, 1981 for ccd-BPOG

											Mo	Cu	Pb	Zn	Ni	U	Mn				
175	81	81	526	B	612314	399069	5444842	92F01			23	1	2	6	25	10	1	298			
176	81	81	526	B	612315	399111	5444794	92F01			23	0	3	2	25	8	0	308			
177	81	81	526	B	612316	399364	5444746	92F01			23	1	2	2	20	11	0	324			
178	81	81	526	B	612317	399291	5444834	92F01			23	1	7	5	24	14	0	298			
179	81	81	526	B	612318	399168	5445152	92F01			23	1	4	5	31	13	0	284			
180	81	81	526	B	612319	399109	5445069	92F01			23	1	1	3	32	9	0	298			
181	81	81	526	B	612320	399168	5444962	92F01			23	1	2	1	25	10	0	330			
182	81	81	526	B	612321	399200	5444883	92F01			23	1	1	2	26	11	0	314			
183	81	81	526	B	612322	399189	5444779	92F01			23	1	1	3	28	13	0	345			
184	81	81	526	B	612323	399176	5444628	92F01			23	3	263	43	244	14	3	485			
185	81	81	526	B	612325	399225	5444669	92F01			23	1	3	0	31	15	2	316			
186	81	81	526	B	612330	399417	5444878	92F01			23	1	10	11	53	20	2	628			
187	81	81	526	B	612331	399349	5444976	92F01			23	1	1	5	37	18	0	453			
188	81	81	526	B	612332	399343	5445047	92F01			23	1	0	2	21	7	0	402			
189	81	81	526	B	612333	399259	5445234	92F01			23	0	2	2	27	12	0	315			
190	81	81	526	B	612334	399272	5445039	92F01			23	1	8	10	18	6	0	152			
191	81	81	526	B	612335	399350	5444881	92F01			23	1	2	6	36	18	1	602			
192	81	81	526	B	612336	399456	5444462	92F01			23	1	0	3	29	12	0	422			
193	81	81	526	B	612337	399544	5444235	92F01			314	1	2	1	15	9	0	230			
194	81	81	526	B	612338	399473	5444188	92F01			314	2	17	2	28	12	4	393			
195	81	81	526	B	612339	399301	5444569	92F01			23	0	6	1	26	13	1	246			
196	81	81	526	B	612341	398300	5444363	92F01			314	0	3	4	27	1	0	468			
197	81	81	526	B	612342	399346	5444199	92F01			424	0	0	2	35	24	0	547			
198	81	81	526	B	612343	398298	5444402	92F01			314	1	9	4	43	1	0	885			
199	81	81	526	B	612344	398301	5444427	92F01			314	0	2	5	13	1	0	150			
200	81	81	526	B	612345	398304	5444449	92F01			314	0	1	5	15	2	0	257			
201	81	81	526	B	612346	398289	5444512	92F01			22	0	5	8	26	8	2	475			
202	81	81	526	B	612347	398264	5444561	92F01			314	0	8	13	28	2	0	285			
203	81	81	526	B	612348	398206	5444610	92F01			314	0	2	4	16	2	1	254			
204	81	81	526	B	612352	398100	5444585	92F01			314	0	1	5	23	2	1	441			
205	81	81	526	B	612353	397993	5444337	92F01			314	1	1	4	20	2	1	179			
206	81	81	526	B	612354	397960	5444463	92F01			314	1	1	3	22	1	1	231			
207	81	81	526	B	612355	397846	5444435	92F01			23	1	1	5	52	4	1	449			
208	10	81	526	C	612356	397940	5444125	92F01W4	L5	5.231.0	503	R	11	5NF	1	1	10	15	2	2	711
209	81	81	526	B	612357	397963	5444152	92F01			314	1	29	8	62	4	0	1135			
210	81	81	526	B	612358	397680	5444535	92F01			314	0	3	5	26	2	1	445			
211	81	81	526	B	612359	397676	5444537	92F01			314	0	8	9	37	3	2	640			
212	81	81	526	B	612360	397980	5443810	92F01			114	0	2	5	16	2	0	262			
213	81	81	526	B	612361	398070	5443710	92F01			114	0	4	4	15	2	1	349			
214	81	81	526	B	612364	398267	5444329	92F01			22	0	5	13	53	7	1	1877			
215	81	81	526	B	612366	398287	5444346	92F01			314	0	1	7	23	2	0	694			
216	81	81	526	B	612367	398302	5444478	92F01				0	1	7	11	1	0	349			
217	81	81	526	B	612368	398242	5444649	92F01				0	1	7	8	2	0	651			
218	81	81	526	C	612369	400660	5445670	92F01W				6	73	16	108	45	2	501			
219	50	81	526	C	612370	400640	5445640	92F01W271E	2P4.8515	20RFP311	RDBRW	10B	5NW	2	28	12	46	16	3	96	
220	50	81	526	C	612371	400500	5445550	92F01W271E	9R4.9410	20RFP311	MOR	30S	5NW	3	43	14	76	23	3	378	
221	81	81	526	B	612372	400480	5445480	92F01			311	6	82	12	115	43	3	514			
222	50	81	526	A	612373	400433	5445373	92F01		5.3	3	103	26	170	71	3	283				
223	89	81	526	B	612374	400410	5445350	92F01W				0	20	7	37	26	0	391			
224	81	81	526	B	612375	400325	5445060	92F01			23	0	3	22	58	12	0	332			
225	10	81	526	A	612376	400225	5445008	92F01		5.5	1	42	13	76	32	2	475				
226	10	81	526	A	612378	400025	5445010	92F01		5.6	0	18	13	58	16	0	356				
227	10	81	526	A	612379	399970	5445090	92F01		5.6	2	13	16	62	21	1	223				
228	81	81	526	B	612380	399979	5445249	92F01				0	1	7	30	11	0	314			
229	81	81	526	B	612381	400225	5444915	92F01			23	0	3	9	40	14	0	365			
230	50	81	526	A	612382	400165	5444863	92F01		4.1	2	27	14	43	16	2	136				
231	81	81	526	B	612383	400130	5444840	92F01			23	0	1	11	28	14	0	301			
232	81	81	526	B	612384	399900	5444810	92F01			23	2	4	22	45	14	3	649			

Listing of COALLIST1 at 12:15:13 on OCT 8, 1981 for CCId-BPOG

Mo	Cu	Pb	Zn	Ni	U	Mn	
4	42	10	67	16	3	470	
2	109	5	17	50	0	293	
6	50	16	36	41	0	372	
0	3	7	58	12	0	461	
0	1	5	27	14	0	330	
0	1	7	29	15	0	278	
0	3	13	37	12	0	366	
2	37	15	68	9	4	437	
0	3	11	52	21	0	470	
0	1	12	19	8	0	384	
2	23	11	95	30	3	1068	
4	39	18	45	28	0	389	
6	81	11	113	40	2	173	
4	35	9	44	21	1	1284	
6	70	16	113	36	2	226	
4	37	7	15	23	1	616	
2	92	203	282	31	1	541	
3	52	15	98	29	2	152	
0	3	11	25	11	0	600	
4	54	223	1148	27	0	858	
2	49	20	146	35	0	319	
1	26	13	75	18	3	105	
0	2	10	27	7	0	231	
3	55	19	72	12	2	315	
2	97	13	78	23	1	310	
8	59	12	81	22	2	1574	
10	86	16	39	20	0	232	
0	1	6	24	10	0	305	
0	3	5	29	14	0	367	
0	1	11	35	17	0	404	
2	4	7	23	10	2	127	
3	50	23	113	27	2	1219	
1	0	8	43	20	1	522	
2	758	3256	6513	18	0	521	
4	42	194	535	72	2	1507	
5	62	22	134	27	2	220	
10	321	77	38	40	15	221	
5	32	16	60	15	2	154	
4	64	196	584	20	7	686	
15	825	30	153	51	1	815	
3	110	18	98	34	2	212	
13	141	13	62	32	1	357	
0	3	7	42	19	0	383	
4	39	26	97	17	2	432	
0	28	10	54	21	1	358	
2	20	17	200	82	8	3343	
3	33	19	946	63	13	5475	
0	8	2	19	3	1	262	
0	3	4	16	1	2	266	
0	33	13	71	30	1	535	
0	50	14	93	45	0	353	
0	38	19	91	40	1	374	
5	0	16	27	131	20	7	3400
5	1	8	21	89	12	6	2428
5	0	12	19	105	10	5	2834
5	2	22	12	87	17	3	1357
5	0	8	4	16	4	0	231
0	2	2	14	1	3	280	

233	81	81	526	B	612385	399890	5444364	92F01	311												
234	89	81	526	B	612386	399949	5444309	92F01	311												
235	89	81	526	B	612387	399996	5444194	92F01	311												
236	81	81	526	B	612388	400060	5443900	92F01	23												
237	81	81	526	B	612389	399834	5444591	92F01	23												
238	81	81	526	B	612390	399689	5444610	92F01	23												
239	81	81	526	B	612398	399936	5443837	92F01	23												
240	81	81	526	B	612399	399722	5444306	92F01	311												
241	81	81	526	B	612400	399600	5445020	92F01	23												
242	81	81	526	B	612406	399912	5444803	92F01	23												
243	10	81	526	A	612407	400023	5444778	92F01		6.0											
244	81	81	526	C	612409	402250	5444880														
245	50	81	526	C	612410	402045	5444895	92F01W2H1L	GD4.97	B	12BFP311	DBR	10S	10	N						
246	81	81	526	C	612411	402040	5444850	92F01W													
247	50	81	526	C	612412	402120	5444810	92F01W2H1L	GD5.37	B	12BFP311	RBR	10S	3	N						
248	81	81	526	C	612413	402150	5444880														
249	81	81	526	C	612414	402350	5444825	92F01W													
250	50	81	526	C	612415	402360	5444760	92F01W2H1L	GD5.57	B	12BFP311	RBR	10S	5	N						
251	81	81	526	C	612416	402550	5444750	92F01W													
252	81	81	526	C	612417	402560	5444740	92F01W													
253	81	81	526	C	612418	402590	5444730	92F01W													
254	50	81	526	C	612421	402650	5444650	92F01W2H1L	GD5.37	B	12BFP311	RBR	10S	17	NF						
255	81	81	526	C	612422	402650	5444600	92F01W													
256	81	81	526	C	612423	402650	5444440	92F01W													
257	81	81	526	C	612424	400840	5444150	92F01W													
258	81	81	526	C	612425	400910	5444180	92F01W													
259	81	81	526	C	612426	401050	5444200	92F01W													
260	81	81	526	C	612428	401450	5443900	92F01W													
261	81	81	526	C	612429	401200	5443950	92F01W													
262	81	81	526	B	612430	399995	5444595	92F01W													
263	50	81	526	A	612431	400026	5444590	92F01		4.5											
264	10	81	526	A	612432	400062	5444587	92F01		5.8											
265	81	81	526	B	612434	400080	5444595	92F01W													
266	89	81	526	B	612435	400150	5444590	92F01W													
267	10	81	526	A	612436	400169	5444590	92F01		5.5											
268	50	81	526	A	612437	400210	5444580	92F01		4.6											
269	89	81	526	B	612440	400220	5444605	92F01W						10							
270	50	81	526	A	612442	400310	5444645	92F01		4.5											
271	89	81	526	B	612446	400280	5444600	92F01W													
272	89	81	526	B	612447	400300	5444680	92F01W						15							
273	50	81	526	A	612448	400410	5444820	92F01		5.2											
274	81	81	526	B	612449	400420	5444860	92F01W						13							
275	81	81	526	C	612450	400950	5444525	92F01W													
276	50	81	526	C	612451	400480	5444980	92F01W592L	9D4.9720	25BFP311	DBR	30A	35	W							
277	10	81	526	C	613001	400420	5446540	92F01W2	M 2	5.534.0	154	122	R	11	05	N					
278	10	81	526	C	613002	400800	5444250	92F01W4	M 9	5.430.5	103		R	31	12	S					
279	10	81	526	C	613003	400850	5444650	92F01W4	M 9	5.330.5	53		R	41	07	SC					
280	10	81	526	C	613004	396080	5446950	92F01W4	E 1	5.30.8	204R113	B	11	08	W	0					
281	10	81	526	C	613005	396700	5443400	92F01W4	E 1	5.221.0	104R112	B	11	03	W	0					
282	10	81	526	C	613006	403050	5447600	92F01W4	E 1	5.231.0	155R312	BR	11	05	NE	0					
283	10	81	526	C	613007	403150	5447110	92F01W4	E 1	5.230.3	104R312	B	11	05	E	0					
284	10	81	526	C	613008	402700	5446220	92F01W4	E 1	5.332.5	155R122	B	11	03	NE	0					
285	10	81	526	A	614001	399652	5443670		4	M2	P5.210.50043	26	B	41	5	S	0				
286	10	81	526	A	614002	399678	5443785	92F01W4	M	2D5.210.50043	26	B	P41	5	S	1					
287	10	81	526	A	614003	399900	5439000	92F01W4	M	2P5.301.00109	26	B	P41	5	S	0					
288	10	81	526	A	614004	399555	5443758	92F01W4	M	2D5.310030043	26	B	P41	5	S	2					
289	10	81	526	C	614005	396310	5446145	92F01W4	E	2	30.50104R113	B	11	5	W	0					
290	10	81	526	C	614006	396280	5445490	92F01W4	E	1	5.4	1.0	101	112	B	11	5	W	0		

													Mo	Cu	Pb	Zn	Ni	U	Mn					
291	10	81	526	C	614007	403050	5447660	92F01W4	E	2	5.5	0.5	104R312	R	11	5	E	0	38	12	61	28	0	387
292	10	81	526	C	614008	403170	5447225	92F01W	E	2	5.3	0.5	0053R312	B	31	5NF	1	83	12	57	27	1	1	385
293	10	81	526	C	614009	403200	5447090	92F01W4	E	1	5.432	0.00155R312	B	11	3	N	1	52	17	82	37	0	536	
294	10	81	526	C	614010	402675	5447270	92F01W4	E	2	5.420	0.5	305R312	B	11	3NF	1	68	17	115	32	2	0	560
295	50	81	526	C	614011	398450	5444275	92F01W372L	9F4.7502050RFP	123	R	80A	48	S	2	3	38	307	2	0	0	429		
296	50	81	526	C	614012	398440	5444285	92F01	372M	1	4.8525	35RFP	123	YBR	30S	36	S	1	21	16	49	2	1	106
297	50	81	526	C	614013	398430	5444300	92F01	272M	9	4.2525	45RFP	123	ORR	10S	17	S	1	9	11	22	3	0	79
298	50	81	526	A	614308	398431	5444327	94F01	372L	6P3.9515	30RFP		YORR	L25S	30W	1	12	6	17	2	2	0	59	
299	50	81	526	A	614309	398411	5444374	94F01	272L	6P4.245	15	RFP	ORRR	L35S	16	W	1	8	8	39	4	2	128	
300	50	81	526	A	614310	398394	5444420	94F01	272L	6	4.2510	20RFP	RBR	L15S	16	W	1	6	6	40	1	1	79	
301	50	81	526	A	614311	398375	5444465	94F01	272L	6	4.8720	25BTL	BR	5S	12NW	3	7	13	195	4	2	836		
302	50	81	526	A	614312	398357	5444513	94F01	272L	6	4.9820	25C1R	GR	20S	14NW	7	5	13	121	3	4	1519		
303	50	81	526	A	614313	398339	5444558	94F01	272L	6	5.0735	40C1R	GR	15S	10NW	7	7	12	79	4	3	564		
304	50	81	526	A	614314	398318	5444608	94F01	272L	6	4.1550	60C1R	GR	30S	16NW	0	1	7	10	1	0	46		
305	50	81	526	A	614315	398303	5444650	94F01	272L	6	4.3730	40C1R	GR	3S	10NW	3	1	7	18	1	3	108		
306	50	81	526	A	614316	398282	5444699	94F01	272L	6	4.2530	40C1R	GR	75S	10NW	0	1	4	12	1	1	47		
307	50	81	526	A	614317	398264	5444747	94F01	272L	6	4.0410	25RFP	ORRR	L	5S	17NW	1	4	3	8	1	3	33	
308	50	81	526	A	614318	398244	5444793	94F01	272L	6	4.6520	30RFP	RBD	L15S	20NW	0	2	9	13	2	1	106		
309	50	81	526	A	614319	398338	5444830	94F01	272L	6	4.2565	70RMB	BR	L40S	17NW	0	4	6	17	2	1	72		
310	50	81	526	A	614320	398362	5444778	94F01	272L	6	3.9545	55RMB	YBR	L35A	12NW	0	4	5	14	2	2	66		
311	50	81	526	A	614321	398378	5444737	94F01	272L	6	3.8525	35C1R	GR	40S	12NW	0	1	1	8	0	0	27		
312	50	81	526	A	614322	398399	5444685	94F01	272L	6	3.9530	40C1R	GR	25S	12NW	0	0	3	2	0	0	23		
313	50	81	526	A	614323	398415	5444643	94F01	473L	6	5.1815	25C1R	GR	L15S	0	20	10	27	159	6	7	2680		
314	50	81	526	A	614324	398434	5444593	94F01	372L	6P4.4530	40BTL	YFGR	L20S	22NW	3	2	2	17	0	0	0	31		
315	50	81	526	A	614325	398451	5444548	94F01	372L	6P4.2530	40BTL	YFBR	L20S	22NW	0	4	8	16	1	1	47			
316	50	81	526	A	614326	398472	5444502	94F01	372L	6P4.0525	35BTL	YERR	L10S	30W	1	13	5	33	3	2	138			
317	50	81	526	A	614327	398489	5444455	94F01	272L	6P4.6450	60RFP	ORRR	L10S	30	W	0	8	9	41	4	0	191		
318	50	81	526	A	614328	398506	5444408	94F01	372L	6P4.4530	40RFP	ORRR	L	30W	0	4	8	11	1	2	43			
319	50	81	526	A	614329	398526	5444362	94F01	272L	6P4.0515	25RFP	ORRR	L20S	16	W	0	4	3	11	2	1	52		
320	50	81	526	A	614330	398620	5444400	94F01	174L	GD3.9160	70020	BR		0	1	3	12	1	0	0	28			
321	50	81	526	A	614331	398598	5444450	94F01	172L	D3.9445	50RFP	ORRR	20S	0	2	2	11	1	1	1	46			
322	50	81	526	A	614332	398581	5444494	94F01	372L	6B4.145	10RFP	ORRR	L20S	28W	0	1	6	14	1	1	72			
323	50	81	526	A	614333	398564	5444538	94F01	372L	6P4.9420	25RFP	ORRR	L	38	W	1	8	7	44	4	2	417		
324	50	81	526	A	614334	398546	5444585	94F01	372L	6P4.7418	25RFP	ORRR	L15S	38	W	3	16	10	88	9	5	1518		
325	50	81	526	A	614335	398529	5444632	94F01	372L	6P4.7415	20RFP	YERR	L15S	32	W	2	6	6	35	2	2	134		
326	50	81	526	A	614336	398510	5444680	94F01	272L	6P5.7060	70010	BL	L	32	W	8	8	3	16	1	4	392		
327	50	81	526	A	614337	398493	5444724	94F01	372L	6P5.4436	45C1R	GR	20S	20	W	2	6	6	111	5	1	208		
328	50	81	526	A	614338	398473	5444775	94F01	272L	6P4.4545	55C1R	GR	40S	10	W	4	10	19	52	8	3	137		
329	50	81	526	A	614339	398457	5444817	94F01	372L	6P4.1550	60C2R	GR	L40S	25N	0	2	1	9	0	0	84			
330	50	81	526	A	614340	398437	5444864	94F01	372L	6	4.1540	50RFP	ORRR	L20S	24N	2	5	6	17	2	2	67		
331	50	81	526	A	614341	398710	5444436	94F01	272L	6P4.1530	40RFP	ORRR	5S	16SW	2	5	6	17	2	3	59			
332	50	81	526	A	614342	398694	5444480	94F01	372L	6P4.6530	40RFP	ORRR	10S	22NW	1	6	8	29	3	1	110			
333	50	81	526	A	614343	398675	5444529	94F01	272L	6P4.1530	40RFP	ORRR	L10S	16NW	1	6	5	24	3	3	128			
334	50	81	526	A	614344	398657	5444575	94F01	372L	6P4.5436	46RFP	ORRR	L	5S	30NW	1	5	4	20	2	3	103		
335	50	81	526	A	614345	398639	5444624	94F01	372L	6P4.8435	45RFP	ORRR	L20S	30NW	3	9	9	38	3	2	165			
336	50	81	526	A	614346	398619	5444667	94F01	372L	6B4.5420	30RFP	ORRR	L10S	24NW	4	10	9	66	6	4	168			
337	50	81	526	A	614347	398601	5444718	94F01	374L	6P5.5040	50020	GR	L	2S	24NW	9	10	16	210	7	3	442		
338	50	81	526	A	614348	398584	5444763	94F01	272L	6P5.4520	25RFP	RR	L20S	18NW	1	5	3	60	3	2	185			
339	50	81	526	A	614349	398565	5444809	94F01	273L	6P5.7010	20020	GR	L	2S	18NW	6	21	18	153	7	4	1244		
340	50	81	526	A	614350	398550	5444855	94F01	372L	6	5.4420	30RFP	ORRR	L20S	22NW	3	14	5	94	8	2	200		
341	50	81	526	A	614351	398529	5444903	94F01	372L	6P5.345	15	RFP	ORRR	L20S	24NW	1	7	7	85	4	1	273		
342	10	81	526	A	614352	398608	5444940	94F01	4	L	9P6.120.3	54	RFD	L	26NW	4	16	11	74	6	3	451		
343	50	81	526	A	614353	398619	5444937	94F01	372L	6P5.8415	20RFP	ORRR	L15S	26NW	3	14	9	65	5	3	291			
344	50	81	526	A	614354	398638	5444890	94F01	372L	6B5.9460	70RFP	ORRR	L25S	22NW	4	18	13	84	8	2	164			
345	50	81	526	A	614355	398655	5444846	94F01	374L	6B6.1435	45RFP	BR	L	60A	22N	2	30	7	54	6	0	383		
346	50	81	526	A	614356	398675	5444797	94F01	372L	6	6.1425	35RFP	ORRR	L15S	22	N	2	11	6	43	4	0	131	
347	50	81	526	A	614357	398691	5444754	94F01	372L	6B4.3435	45RFP	ORRR	L20S	24NW	3	11	4	31	3	2	98			
348	50	81	526	A	614358	398711	5444708	94F01	372L	6P5.6440	50RFP	RR	L20S	24NW	1	6	7	35	5	1	254			

Listing of COALITION at 12:15:13 on OCT 8, 1981 for CdId=RPOG

											Mo	Cu	Pb	Zn	Ni-	U_ Mn					
349	50	81	526	A	614359	398725	5444667	94FO1	372L	GB5.340	10BFP	ORBR	L40S	24NW	1	5	7	16	1	2	114
350	50	81	526	A	614360	398749	5444612	94FO1	372L	GB4.6520	30BFP	ORBR	L20S	24NW	1	4	8	15	2	2	135
351	50	81	526	A	614361	398765	5444566	94FO1	372L	GB4.5435	40BFP	ORBR	L25S	24NW	1	5	3	8	2	2	52
352	50	81	526	A	614362	398786	5444520	94FO1	372L	6 5.0460	70BFP	ORBR	L20S	30NW	2	27	9	77	28	3	327
353	50	81	526	A	614363	398803	5444471	94FO1	372L	6 4.9430	40BFP	ORBR	L20S	36NW	1	4	9	31	5	3	97
354	50	81	526	A	614364	398897	5444512	94FO1	372L	GB5.0460	70BFP	ORBR	L20S	26NW	5	25	9	42	16	3	187
355	50	81	526	A	614365	398877	5444563	94FO1	372L	GB4.74 5	10BFP	ORBR	L15S	30NW	2	10	4	15	6	4	62
356	50	81	526	A	614366	398861	5444604	94FO1	372L	GP4.94 5	15BFP	ORBR	L15S	44NW	2	20	6	47	12	4	183
357	50	81	526	A	614367	398844	5444650	94FO1	372L	GB5.1440	50BFP	ORBR	L 5S	30NW	3	10	8	37	6	3	124
358	50	81	526	A	614368	398823	5444701	94FO1	372L	GP4.84 0	10BFP	ORBR	L 5S	25SW	2	9	9	41	7	1	170
359	50	81	526	A	614369	398807	5444742	94FO1	372L	GP5.1430	40BFP	ORBR	L10S	24NW	2	24	7	52	14	2	173
360	50	81	526	A	614370	398788	5444789	94FO1	372L	GP6.0430	40BFP	BR	L10S	24NW	2	19	5	50	9	2	136
361	50	81	526	A	614371	398770	5444837	94FO1	372L	GP5.5450	60BFP	ORBR	L20S	24NW	1	9	6	39	7	2	711
362	50	81	526	A	614372	398751	5444883	94FO1	272L	GP5.14 5	10BFP	ORBR	L15S	18NW	3	11	8	39	5	3	74
363	50	81	526	A	614373	398733	5444929	94FO1	272L	GP4.3535	45BFP	BR	L10S	18NW	2	8	5	44	6	3	184
364	50	81	526	A	614374	398714	5444976	94FO1	272L	GP5.0435	40BFP	ORBR	L20S	18NW	1	6	3	23	3	2	72
365	50	81	526	A	614375	398808	5445011	94FO1	272L	GP4.9525	30BFP	ORBR	L40A	18NW	1	6	3	43	4	2	162
366	50	81	526	A	614376	398828	5444962	94FO1	272L	2P5.9450	60BFP	ORBR	L20S	18NW	1	8	6	39	7	3	716
367	50	81	526	A	614377	398845	5444916	94FO1	372L	GP5.6420	30BFP	ORBR	L25S	22NW	1	8	7	38	7	4	747
368	10	81	526	A	614378	398860	5444875	94FO1	4 L	GP6.800.5	104		L21	22NW	1	17	16	116	12	0	1140
369	50	81	526	A	614379	398864	5444871	94FO1	372L	GP6.3410	15BFP	ORBR	L10S	24NW	1	11	3	26	7	2	97
370	50	81	526	A	614380	398882	5444826	94FO1	372L	GP5.343	10BFP	ORBR	L20S	28NW	3	20	4	44	12	3	127
371	50	81	526	A	614381	398901	5444778	94FO1	372L	GP5.4445	55BFP	ORBR	L20S	36NW	3	16	8	42	9	4	141
372	50	81	526	A	614382	398918	5444732	94FO1	372L	GP5.8420	30BFP	ORBR	L20S	18NW	5	15	8	51	10	2	180
373	50	81	526	A	614383	398937	5444687	94FO1	372L	GP5.145 10	BFP	ORBR	L20S	30NW	2	16	10	69	11	3	192
374	50	81	526	A	614384	398955	5444641	94FO1	372L	GB5.44 5	10BFP	ORBR	L25S	42NW	2	14	16	37	17	2	197
375	50	81	526	A	614385	398975	5444590	94FO1	372L	GB5.1445	55BFP	ORBR	L25S	30NW	1	7	5	22	6	3	89
376	50	81	526	A	614386	398993	5444547	94FO1	372L	GP4.1440	50BFP	BR	20S	42NW	0	2	5	5	1	1	28
377	50	81	526	A	614387	399086	5444580	94FO1	372L	GB4.4410	20BFP	ORBR	L	48 W	1	6	6	25	5	4	105
378	50	81	526	A	614388	399064	5444633	94FO1	372L	GB4.2545	55BMB	GRBR	30S	48 W	0	3	3	13	2	1	64
379	50	81	526	A	614389	399049	5444674	94FO1	372L	GB4.2435	40BFP	ORBR	L15S	28W	0	4	3	12	2	2	40
380	50	81	526	A	614390	399028	5444722	94FO1	372L	GP4.9435	45BFP	ORBR	L15S	50W	4	13	6	47	13	3	109
381	50	81	526	A	614391	399009	5444769	94FO1	372L	GP4.6425	30BFP	ORBR	L20S	44NW	5	14	4	27	6	4	93
382	50	81	526	A	614392	398992	5444819	94FO1	372L	GP4.7410	15BFP	ORBR	L15S	38NW	4	39	8	69	24	3	229
383	50	81	526	A	614393	398972	5444866	94FO1	272L	GP5.04 3	5BFP	ORBR	L10S	16LW	4	23	6	43	12	4	141
384	50	81	526	A	614394	398954	5444913	94FO1	372L	GP5.04 5	15BFP	ORBR	L20S	16NW	3	36	6	65	18	4	141
385	50	81	526	A	614395	398936	5444953	94FO1	372L	GP5.5410	20BFP	ORBR	L25S	28SW	3	23	6	68	19	3	136
386	10	81	526	A	614396	398944	5444954	94FO1	4 L	GP6.221.0	1		L21	28SW	2	29	11	87	25	2	740
387	50	81	526	A	614397	398920	5445001	94FO1	372L	GP6.3415	25BFP	ORBR	L 5S	28SW	2	13	9	63	18	4	396
388	50	81	526	A	614398	398900	5445050	94FO1	372L	GP5.9040	55020	BL	L 2S		1	8	5	7	3	0	345
389	50	81	526	A	*614399	398998	5445087	94FO1	372L	GP6.0820	30BGG	GR	L 5S	20SW	5	16	7	58	16	3	272
390	50	81	526	A	*614400	398998	5445087	94FO1	372L	GP6.2820	30BGG	GR	L 5S	20SW	4	12	7	50	15	4	187
391	50	81	526	A	614401	399015	5445042	94FO1	372L	GP7.0820	30BFP		L15S	22W	1	44	35	183	21	11	2989
392	50	81	526	A	614402	399033	5444996	94FO1	372L	GP5.5810	30BGG	ORGR	L10S	22 W	2	14	9	72	16	4	379
393	50	81	526	A	614403	399051	5444951	94FO1	372L	GP4.2425	35BFP	ORBR	L15S	32 W	0	3	3	10	3	1	39
394	50	81	526	A	614404	399069	5444905	94FO1	372L	GP6.0440	50BMB	BLBR	L20S	30W	0	24	9	65	13	2	637
395	10	81	526	A	614405	399073	5444905	94FO1	372L	GP5.520.3	54		L21	30 W	0	31	13	54	17	3	294
396	50	81	526	A	614406	399089	5444854	94FO1	372L	GB5.3425	30BFP	ORRR	L10S	30NW	1	18	12	42	11	5	111
397	50	81	526	A	614407	399107	5444809	94FO1	372L	GB5.3415	25BFP	ORBR	L15S	48NW	0	12	12	27	7	4	80
398	50	81	526	A	614408	399126	5444763	94FO1	372L	GB5.0410	15BFP	ORRR	L20S	32NW	0	15	13	45	8	4	122
399	50	81	526	A	614409	399143	5444718	94FO1	372L	GB4.5420	25BFP	ORRR	L25S	34NW	0	5	7	21	5	4	102
400	50	81	526	A	614410	399159	5444676	94FO1	372L	GP5.2415	25BFP	ORRR	20S	24N	0	23	24	141	13	5	726
401	50	81	526	A	614411	399181	5444618	94FO1	372L	GP4.7415	20BFP	ORBR	L20S	28NW	0	9	10	24	3	4	63
402	50	81	526	A	614412	399271	5444656	94FO1	372L	6 4.8475	85BFP	ORRR	10S	23N	0	7	8	12	4	2	76
403	50	81	526	A	614413	399253	5444705	94FO1	372L	6 4.2425	30BFP	ORBR	L20S	10 N	0	6	6	9	3	5	47
404	50	81	526	A	614414	399234	5444751	94FO1	372L	GB4.1425	30BFP	ORBR	25S	26N	0	2	7	13	3	4	75
405	50	81	526	A	614415	399217	5444797	94FO1	372L	GB4.2425	30BFP	ORBR	L	40W	0	3	7	15	4	3	70
406	50	81	526	A	614416	399198	5444844	94FO1	372L	GB4.940	5BFP	ORBR	L25S	38W	0	15	8	34	8	3	98

Listing of COALLIST1 at 12:15:13 on OCT 8, 1981 for CCID-BPOG

Mo	Cu	Pb	Zn	Ni	U	Mn									
407	50 81 526 A	614417	399179	5444893	94F01 372L	6P4.84 5 10BFP	ORBR L20S	40W	0	14	7	29	10	4	99
408	50 81 526 A	614418	399162	5444938	94F01 372L	6P5.14 5 10BFP	ORBR L25S	35W	1	35	11	52	24	4	258
409	50 81 526 A	614419	399142	5444986	94F01 372L	6P5.1420 25BFP	ORBR L20S	30W	0	5	4	14	4	2	106
410	50 81 526 A	614420	399124	5445031	94F01 372L	6P5.04 5 15BFP	ORBR L20S	30W	0	9	6	36	7	3	443
411	50 81 526 A	614421	399107	5445075	94F01 372L	6B4.9410 15BFP	ORBR L20S	30 W	4	31	7	84	32	4	198
412	50 81 526 A	614422	399088	5445126	94F01 372L	6B4.6420 30BFP	ORBR L20S	30W	2	16	4	38	14	4	156
413	50 81 526 A	614423	399088	5445127	94F01 372L	6 4.1410 15BFP	ORBR 25S	28W	2	20	5	39	14	4	143
414	50 81 526 A	614424	399204	5445105	94F01 372L	6 4.3420 30BFP	ORBR 20S	28W	1	13	5	26	9	4	97
415	50 81 526 A	614425	399220	5445065	94F01 372L	6 4.6425 30BFP	ORBR 20S	28W	1	12	6	31	11	2	113
416	50 81 526 A	614426	399237	5445017	94F01 372L	6 4.4415 30BFP	ORBR 25S	26W	3	24	8	31	13	5	144
417	50 81 526 A	614427	399256	5444972	94F01 372L	6 4.7410 25BFP	ORBR 20S	26W	3	55	11	40	19	4	166
418	50 81 526 A	614428	399275	5444921	94F01 372L	6 4.2425 35BFP	ORBR 25S	26W	2	25	3	23	12	5	135
419	50 81 526 A	614429	399291	5444878	94F01 372L	6B4.6450 55BH	BL 20S	26W	0	12	8	9	2	0	26
420	50 81 526 A	614430	399311	5444830	94F01 372L	6 4.7410 25BFP	ORBR 20S	24NW	5	24	7	35	12	3	132
421	50 81 526 A	614431	399327	5444784	94F01 172L	6 4.0415 30BFP	ORBR 20S		1	9	2	13	4	4	96
422	50 81 526 A	614432	399344	5444739	94F01 372L	6 4.7410 25BFP	ORBR 25S	13NE	4	26	6	42	15	5	112
423	50 81 526 A	614433	399364	5444691	94F01 372L	6 4.2415 25BFP	ORBR 20S	10NE	1	7	2	23	8	3	108
424	10 81 526 A	614434	399360	5444715	94F01 4 L	6 5.300.5 1		21							
425	50 81 526 A	614435	399459	5444729	94F01 372L	6 5.1440 45BFP	ORBR 20S	26N	3	11	7	40	11	5	141
426	50 81 526 A	614436	399445	5444772	94F01 372L	6 4.0430 40BFP	ORBR 25S	20NE	1	3	5	12	3	4	61
427	50 81 526 A	614437	399423	5444823	94F01 372L	6 4.6470 80BFP	ORBR 25S	20NE	5	22	7	51	15	5	161
428	50 81 526 A	614438	399408	5444863	94F01 372L	6 4.6480 90BFP	ORBR 20S	20NE	4	18	5	26	10	5	106
429	50 81 526 A	614439	399389	5444915	94F01 372L	6 4.2415 25BFP	ORBR 25S	20NE	3	16	6	24	9	4	91
430	50 81 526 A	614440	399368	5444959	94F01 372L	6 4.7415 30BFP	ORBR 20S	20NE	3	33	10	59	23	4	180
431	50 81 526 A	614441	399351	5445009	94F01 272L	6 5.1415 20BFP	ORBR 25S	12N	1	36	10	44	15	6	153
432	50 81 526 A	614442	399332	5445055	94F01 272L	6 4.6415 25BFP	ORBR 20S	10NE	1	16	9	24	10	6	145
433	50 81 526 A	614443	399313	5445103	94F01 272L	6 4.1415 20BFP	ORBR 20S	10NW	0	2	6	6	2	3	45
434	50 81 526 A	614444	399296	5445146	94F01 272L	6 4.2415 25BFP	ORBR 25S	12NW	1	9	7	14	5	5	104
435	50 81 526 A	614445	399275	5445195	94F01 272L	6 4.3410 20BFP	ORBR 25S	15N	1	11	7	25	9	4	121
436	50 81 526 A	614446	398336	5444290	94F01 272L	6 4.1415 25BFP	ORBR 20S	16NW	0	3	6	14	1	1	53
437	10 81 526 A	614447	398337	5444307	94F01 4 L	6 5.841.0 104		11							
438	50 81 526 A	614448	398315	5444343	94F01 272L	6 5.7820 30BTL	BR 15S	10E	6	6	44	80	4	8	3349
439	50 81 526 A	614449	398301	5444382	94F01 272L	6 5.0420 30BFP	ORBR 85A	18W	0	1	5	17	1	1	53
440	50 81 526 A	614450	398281	5444430	94F01 272L	6 4.0235 40AE	GR 90A	28NE	0	0	3	22	0	0	176
441	50 81 526 A	614451	398263	5444475	94F01 372L	6 4.1415 25BFP	ORBR 60A	30NE	0	0	6	27	0	2	185
442	50 81 526 A	614452	398244	5444520	94F01 372L	6 3.8440 50AF	GR 80S	25NE	0	3	4	21	0	0	92
443	50 81 526 A	614453	398225	5444567	94F01 272L	6 4.1415 25BFP	ORBR 55S	18NE	0	1	4	9	0	1	37
444	50 81 526 A	614454	398205	5444618	94F01 372L	6 4.6425 35BFP	ORGR 45S	20N	2	4	6	29	1	2	172
445	50 81 526 A	614455	398188	5444661	94F01 272L	6 5.0430 45BGG	GR 80S	18NW	10	4	11	53	8	10	2598
446	50 81 526 A	614456	398170	5444707	94F01 372L	6 4.4530 35BFP	ORBR 40S	22NW	1	3	6	25	4	1	112
447	50 81 526 A	614457	398151	5444754	94F01 272L	6 4.8425 30BMB	BR 15S	10NW	3	3	26	37	4	19	8251
448	50 81 526 A	614458	398036	5444754	94F01 4 L	6 5.700.5 1		21							
449	50 81 526 A	614459	398058	5444716	94F01 372L	6 5.0420 30BMB	BR 15S	22N	1	3	22	42	3	7	2643
450	50 81 526 A	614460	398076	5444666	94F01 372L	6 4.3415 25BMB	BR 25S	22N	1	2	7	18	1	2	83
451	10 81 526 A	614461	398101	5444629	94F01 4 L	6 5.620.5 104		21							
452	50 81 526 A	614462	398093	5444624	94F01 372L	6 5.34 0 15BMB	BR 10S	24 N	0	2	13	36	2	1	678
453	50 81 526 A	614463	398243	5444251	94F01 272L	6 4.3415 25BFP	ORBR 20S	18N	0	2	19	15	1	0	122
454	50 81 526 A	614464	398225	5444302	94F01 272L	6 4.9420 25BMB	BR 20S	8 N	0	2	42	28	2	12	5316
455	10 81 526 A	614465	398234	5444307	94F01 4 L	6 5.2 0.5 103		21							
456	50 81 526 A	614466	398207	5444343	94F01 272L	6 4.2415 25BMB	BR 35S	G N	0	1	13	21	0	0	49
457	50 81 526 A	614467	398188	5444392	94F01 272L	6 4.3440 45BFP	ORBR 40S	12N	0	3	10	16	2	1	65
458	50 81 526 A	614468	398169	5444437	94F01 272L	6 4.1430 40BMB	GRBR 60S	12N	0	0	5	25	1	0	167
459	50 81 526 A	*614469	398151	5444482	94F01 272L	6 4.1425 30BFP	ORBR 40S	8 NW	0	5	8	17	2	1	80
460	50 81 526 A	*614470	398151	5444482	94F01 272L	6 4.3425 30BFP	ORBR 40S	6 NW	0	5	7	14	3	2	63
461	50 81 526 A	614471	398133	5444531	94F01 272L	6 4.9415 25BFP	ORBR 25S	18NW	1	12	18	40	5	1	146
462	50 81 526 A	614472	398114	5444578	94F01 372L	6 4.6420 25BFP	ORBR 24NW	0	3	15	32	1	1	81	
463	50 81 526 A	614473	397969	5444680	94F01 372L	6 5.4425 30BMB	BR 20S	20N	0	6	20	59	4	7	4244
464	50 81 526 A	614474	397990	5444634	94F01 372L	6 4.1455 60C1R	BLGR 40S	18N	0	0	4	17	0	0	90

Listing of COALLIST1 at 12:15:13 on OCT 8, 1981 for CC14-BPOG

													Mo	Cu	Pb	Zn	Ni	U	Mn				
465	50	81	526	A	614475	398006	5444588	94F01	372L	G	4.3450	60BF P	BR	20S	20W	0	2	5	14	1	1	66	
466	50	81	526	A	614476	398023	5444543	94F01	372L	G	4.9420	30BF P	ORRR	10S	14N	0	2	9	25	1	1	157	
467	50	81	526	A	614477	398040	5444495	94F01	272L	G	4.4450	60BF P	ORRR	30S	12N	0	6	13	22	3	1	86	
468	50	81	526	A	614478	398061	5444444	94F01	372L	G	4.4425	25BF P	ORRR	25S	20NF	0	2	13	20	2	0	139	
469	50	81	526	A	614479	398077	5444401	94F01	372L	G	4.74	2	10BF P	ORRR	20S	28N	1	8	10	35	3	1	106
470	50	81	526	A	614480	398096	5444356	94F01	372L	G	4.3425	30BF P	ORRR	25S	30F	0	2	6	11	1	1	33	
471	50	81	526	A	614481	398114	5444310	94F01	372L	G	4.4420	30BF P	ORRR	30S	28NE	0	2	4	14	1	0	32	
472	50	81	526	A	614482	398134	5444264	94F01	372L	G	4.1415	25BF P	ORRR	20S	30NE	2	5	7	58	5	4	588	
473	50	81	526	A	614483	398151	5444217	94F01	372L	G	4.0415	20BF P	ORRR	20S	20NE	0	3	4	14	1	1	54	
474	10	81	526	A	614485	398070	5444180	94F01	4	L	G	5.541	020	2	21	10NE	0	2	8	19	3	0	220
475	50	81	526	A	614486	398070	5444180	94F01	272L	G	5.0415	20BMB	BR	75A	10NE	0	2	19	13	2	0	111	
476	50	81	526	A	614487	398038	5444228	94F01	372L	G	4.6415	20BF P	ORRR	25S	20SW	0	2	8	10	2	1	45	
477	50	81	526	A	614488	398022	5444267	94F01	272L	G	4.1425	30BF P	ORRR	20S	16SE	0	1	6	5	0	1	24	
478	50	81	526	A	614489	398001	5444317	94F01	272L	G	4.2420	25BF P	ORRR	25S	10NW	0	2	8	12	1	0	47	
479	50	81	526	A	614490	397985	5444364	94F01	372L	G	4.4415	35C1R	GR	45S	22NW	0	0	5	10	0	0	57	
480	50	81	526	A	614491	397965	5444413	94F01	272L	G	4.3430	35BF P	ORRR	30S	18N	0	3	16	33	2	2	105	
481	50	81	526	A	614492	397946	5444460	94F01	372L	G	4.3420	25BF P	ORRR	25S	32N	0	1	6	9	1	1	88	
482	50	81	526	A	614493	397928	5444501	94F01	372L	G	5.3470	80BF P	ORRR	28S	20N	0	9	14	33	5	1	184	
483	50	81	526	A	614494	397910	5444552	94F01	372L	G	4.9480	90BF P	ORRR	10S	22N	0	1	7	22	2	0	75	
484	50	81	526	A	614495	397893	5444594	94F01	372L	G	5.3415	20BGG	ORGR	40S	14N	0	1	10	24	1	0	299	
485	50	81	526	A	614496	397873	5444644	94F01	272L	G	5.4415	25BF P	ORRR	25S	18N	0	3	31	70	3	5	3266	
486	50	81	526	A	614497	397784	5444611	94F01	272L	G	5.3425	30BF P	ORRR		10N	0	1	5	25	1	0	966	
487	50	81	526	A	614498	397804	5444559	94F01	272L	G	4.5840	50C1R	GR	5S	10N	0	1	14	46	1	1	326	
488	50	81	526	A	614499	397823	5444515	94F01	272L	G	4.3415	30C1R	GR	30S	10N	0	1	1	8	0	0	25	
489	50	81	526	A	614500	397839	5444470	94F01	272L	G	5.3035	45020	BR	5S	18N	0	10	9	31	6	1	1393	
490	50	81	526	A	*614501	397859	5444423	94F01	272L	G	5.4440	50BF P	ORRR	25S	22N	0	4	15	36	2	1	488	
491	50	81	526	A	*614502	397859	5444423	94F01	272L	G	5.4440	50BF P	ORRR	25S	22N	0	3	13	36	1	1	717	
492	50	81	526	A	614503	397877	5444375	94F01	372L	G	4.3820	30C1R	GR	5S	24N	0	2	15	17	1	0	98	
493	50	81	526	A	614504	397896	5444329	94F01	372L	G	5.3				23N	0	4	17	84	5	1	569	
494	50	81	526	A	614505	397916	5444282	94F01	272L	G	4.2440	45BF P	ORRR	30S	12W	0	3	7	15	1	1	50	
495	50	81	526	A	614506	397933	5444235	94F01	272L	G	4.7450	60BF P	ORRR	30S	10SE	0	2	7	21	0	1	49	
496	10	81	526	A	614507	397954	5444196	94F01	4	L	G	4.300	.5	1	21	18SE	0	2	17	17	3	1	135
497	50	81	526	A	614508	397949	5444193	94F01	372L	G	4.2445	55BF P	ORRR	40S	15SE	0	0	9	9	1	1	156	
498	10	81	526	A	614509	397965	5444155	94F01	4	L	G	5.440	.2	84	21	12N	0	7	14	34	4	4	3111
499	50	81	526	A	614510	397967	5444146	94F01	272L	G	4.6425	35BF P	ORRR		10N	0	2	9	52	2	0	172	
500	50	81	526	A	614511	397684	5444569	94F01	372L	G	4.640	5BF P	ORRR	40S	38N	0	5	10	38	2	1	126	
501	50	81	526	A	614512	397703	5444524	94F01	372L	G	5.5410	20BF P	ORRO	20S	30N	2	5	17	45	2	0	610	
502	50	81	526	A	614513	397721	5444477	94F01	372L	G	4.3415	20BF P	ORRR	20S	30NE	0	3	12	46	2	1	306	
503	50	81	526	A	614514	397741	5444432	94F01	372L	G	4.1415	20BF P	ORRR	20S	30NE	0	2	8	22	1	1	91	
504	50	81	526	A	614515	397757	5444385	94F01	372L	G	4.3415	20BF P	ORRR	30S	30N	0	1	8	11	1	1	89	
505	50	81	526	A	614516	397777	5444342	94F01	372L	G	4.4415	20BF P	ORRR	20S	36N	0	2	7	16	0	0	93	
506	50	81	526	A	614517	397798	5444293	94F01	372L	G	4.34	BFP	ORRR	20S	30N	0	2	9	19	1	0	105	
507	50	81	526	A	614518	397818	5444245	94F01	272L	G	4.6415	20BF P	ORRR	20S	10SE	0	3	10	19	2	1	68	
508	50	81	526	A	614519	397835	5444196	94F01	372L	G	4.7445	50C2R	BRGR	30S	22SE	0	1	4	20	0	0	64	
509	50	81	526	A	614520	397855	5444154	94F01	372L	G	4.2420	25BF P	ORRR	*	10SE	0	1	5	15	1	2	80	
510	50	81	526	A	614521	397872	5444110	94F01	272L	G	4.4115	25020	BL	5S	10NE	0	2	4	7	1	0	5	
511	50	81	526	A	614523	397890	5444064	94F01	774L	G	4.5115	25020	BL	5S		0	3	12	20	1	0	11	
512	50	81	526	A	614524	397912	5444014	94F01	774L	G	4.0115	25020	BR	5S		0	2	3	10	1	0	4	
513	50	81	526	A	614525	397928	5443971	94F01	272L	G	4.0435	40BF P	ORRR	20S	10S	0	1	5	7	1	1	45	
514	50	81	526	A	614526	397948	5443921	94F01	372L	G	4.6420	25BMB	BR	25S	12S	0	5	9	25	3	1	82	
515	50	81	526	A	614527	397969	5443871	94F01	372L	G	4.0420	25BF P	ORRR	20S	22SE	0	1	5	13	1	0	44	
516	50	81	526	A	614528	397985	5443829	94F01	472L	G	4.0425	30BF P	ORRR	20S	10SE	1	5	11	17	2	2	69	
517	50	81	526	A	614529	398008	5443775	94F01	472L	G	4.0440	50C1R	GR	25S	4	SE	0	3	6	10	1	2	38
518	10	81	526	A	614530	398109	5443787	94F01	4	L	G	4.900	.5	104	5		0	6	17	24	3	5	2288
519	50	81	526	A	614531	398115	5443771	94F01	372L	G	4.4450	60020	BL	5S	5SF	0	2	5	9	2	0	48	
520	50	81	526	A	614532	398099	5443815	94F01	372L	G	4.6450	60C1R	GR	10S	30SE	0	2	13	31	3	1	207	
521	50	81	526	A	*614533	398078	5443864	94F01	372L	G	4.4420	25BF P	ORRR	20S	22SE	0	9	11	24	3	1	64	
522	50	81	526	A	*614534	398078	5443864	94F01	372L	G	4.74	2025BF P	ORRR	20S	22SE	1	11	12	35	4	2	75	

Listing of COALLISF at 12:15:13 on OCT 8, 1981 for CCID-BPOG

												Mo	Cu	Pb	Zn	Ni	U	Mn				
523	50	81	526	A	614535	398063	5443907	94FO1	372L	G	4.1415	20BFP	ORBR	20S	22SE	1	6	7	21	2	1	66
524	50	81	526	A	614536	398042	5443958	94FO1	272L	G	4.0450	55BFP	ORBR	20S	12SE	0	2	9	20	1	1	58
525	50	81	526	A	614537	398026	5444001	94FO1	272L	G	4.0420	25BFP	ORBR	20S	10NF	1	6	9	16	2	0	59
526	50	81	526	A	614538	398007	5444049	94FO1	272L	G	4.4415	20BFP	ORBR	15S	10NF	1	4	9	23	2	1	84
527	50	81	526	A	614539	397988	5444097	94FO1	272L	G	4.2420	25BFP	ORBR	20S	18N	0	1	6	5	1	0	33
528	50	81	526	A	614540	398075	5444134	94FO1	272L	G	4.6420	25BFP	ORBR	15S	18N	0	3	10	15	2	2	53
529	50	81	526	A	614541	398093	5444086	94FO1	272L	G	5.2415	20BFP	ORBR	25S	18N	0	4	12	12	2	0	623
530	50	81	526	A	614543	398113	5444036	94FO1	272L	G	4.1415	25BFP	ORBR	20S	10N	0	3	6	13	1	1	47
531	50	81	526	A	614544	398129	5443993	94FO1	272L	G	4.3420	25BFP	ORBR	20S	5N	0	4	5	12	2	2	54
532	50	81	526	A	614545	398150	5443946	94FO1	272L	G	4.6415	25BFP	ORBR	20S	10SE	1	22	19	35	6	1	108
533	50	81	526	A	614546	398165	5443903	94FO1	372L	G	4.245	15BFP	ORBR	20S	28SE	0	4	7	18	2	2	44
534	50	81	526	A	614547	398184	5443857	94FO1	372L	G	4.2410	15BFP	ORBR	20S	25SE	1	7	11	23	3	1	79
535	50	81	526	A	614548	398203	5443806	94FO1	372L	G	4.4420	30BFP	ORBR	20S	52SE	0	4	5	22	2	0	51
536	50	81	526	A	614549	398169	5444174	94FO1	272L	G	4.1415	25C1R	GR	20S	10NE	0	0	4	4	0	0	19
537	10	81	526	A	614551	398215	5444065	94FO1	4 L	G	4.400.5	1		21	15NE	0	2	15	16	2	1	229
538	50	81	526	A	614552	398209	5444077	94FO1	272L	G	4.6440	50BFP	ORBR	20S	15NE	0	2	12	17	2	2	187
539	50	81	526	A	614553	398224	5444031	94FO1	272L	G	4.8415	20BFP	ORBR	25S	16N	0	4	12	23	2	3	876
540	50	81	526	A	614554	398244	5443988	94FO1	272L	G	4.9410	15BFP	ORBR	25S	5 N	0	7	12	27	4	2	95
541	50	81	526	A	614555	398262	5443941	94FO1	372L	G	4.5415	20BFP	ORBR	20S	22SE	0	6	8	21	3	2	66
542	50	81	526	A	614556	398280	5443894	94FO1	372L	G	5.2425	30BFP	ORBR	25S	20SE	0	6	12	54	5	1	272
543	50	81	526	A	614557	398299	5443846	94FO1	372L	G	4.3445	50C2R	BRGR	25S	22SE	0	1	3	7	0	0	22
544	50	81	526	A	614558	398318	5443802	94FO1	372L	G	4.2430	35C1R	GR	30S	28SE	0	0	1	6	0	0	8
545	50	81	526	A	614559	398434	5443790	94FO1	372L	G	4.5445	50BFP	ORBR	20S	20SW	2	8	17	20	2	1	549
546	50	81	526	A	614560	398414	5443835	94FO1	372L	G	4.3460	70BMB	BR	20S	30SE	0	2	5	10	0	0	40
547	50	81	526	A	614561	398396	5443883	94FO1	372L	G	4.9415	25BFP	ORBR	25S	30SE	0	8	17	40	4	1	130
548	50	81	526	A	614562	398378	5443927	94FO1	372L	G	4.2420	25BFP	ORBR	20S	20SE	0	4	9	13	2	1	63
549	50	81	526	A	614563	399479	5444685	94FO1	272L	G	5.3020	25020	BL	5S	12NE	0	6	20	19	3	0	778
550	50	81	526	A	614564	399498	5444639	94FO1	372L	G	4.6515	25BFP	ORBR	20S	22N	0	3	7	11	3	3	41
551	50	81	526	A	614565	399515	5444595	94FO1	372L	G	4.9480	90BFP	ORBR	20S	22N	1	26	13	61	22	3	214
552	50	81	526	A	614566	399536	5444546	94FO1	372L	G	4.6525	35BFP	ORBR	25S	20E	0	5	6	14	4	3	36
553	50	81	526	A	614567	399553	5444500	94FO1	272L	G	4.9420	25BFP	ORBR	20S	20NE	7	44	20	152	32	3	415
554	50	81	526	A	614568	399573	5444452	94FO1	272L	G	4.9460	70BFP	ORBR	25S	16N	5	69	11	41	18	3	159
555	50	81	526	A	614569	399592	5444402	94FO1	272L	G	5.0450	60BFP	ORBR		10N	3	51	11	53	16	2	181
556	50	81	526	A	614570	399609	5444359	94FO1	372L	G	4.6420	25BFP	ORBR	25S	20N	0	47	13	62	20	4	198
557	50	81	526	A	614571	399627	5444314	94FO1	372L	G	4.6415	20BFP	ORBR	20S	20N	0	12	11	33	7	2	577
558	50	81	526	A	614572	399647	5444266	94FO1	172L	G	4.9440	50BFP	ORBR	30S	20N	2	49	14	64	26	2	251
559	50	81	526	A	614573	399663	5444224	94FO1	272L	G	4.545	10BFP	ORBR	25S	10N	2	37	8	27	17	2	110
560	50	81	526	A	614574	399681	5444181	94FO1	272L	G	4.6520	25BFP	ORBR	25S	10SE	1	18	7	21	9	3	70
561	50	81	526	A	614575	399700	5444137	94FO1	272L	G	4.5525	35BFP	ORBR	25S	10N	0	10	6	16	7	3	68
562	50	81	526	A	*614576	399719	5444084	94FO1	272L	G	5.44 3	10BFP	ORBR	20S	5NW	0	13	13	40	9	2	68
563	50	81	526	A	*614577	399719	5444084	94FO1	272L	G	5.54 3	10BFP	ORBR	20S	5NW	1	13	9	39	9	0	67
564	50	81	526	A	614578	399738	5444040	94FO1	272L	G	4.6420	25BFP	ORBR	20S	15SE	1	30	18	41	14	2	131
565	50	81	526	A	614579	399758	5443990	94FO1	372L	G	4.3420	25BFP	ORBR	20S	20SE	0	6	5	12	6	3	51
566	50	81	526	A	614580	399773	5443948	94FO1	372L	G	4.245	10BFP	ORBR	20S	22SE	0	6	7	21	5	2	40
567	50	81	526	A	614581	399794	5443898	94FO1	672L	G	5.3430	35BFP	ORBR	20S	16NE	0	20	14	73	17	1	206
568	50	81	526	A	614582	399812	5443853	94FO1	272L	G	5.2440	50BFP	ORBR	20S	18SE	1	32	13	51	17	2	177
569	50	81	526	A	614583	399832	5443803	94FO1	272L	G	5.2440	50BFP	ORBR	20S	18SE	2	26	13	45	13	2	165
570	50	81	526	A	614584	399882	5444646	94FO1	272L	G	5.1410	15BFP	ORBR	25S	10NW	0	7	9	36	8	3	100
571	50	81	526	A	614585	399400	5444600	94FO1	272L	G	5.7480	100BFP	ORBR	30S	10NW	1	15	13	76	15	1	411
572	50	81	526	A	614586	399419	5444553	94FO1	272L	G	5.6450	60BFP	ORBR	20S	10NW	1	13	12	38	5	1	388
573	50	81	526	A	614587	399437	5444506	94FO1	272L	G	5.4480	100BFP	RBR	30S	10NW	2	51	15	57	12	4	1031
574	50	81	526	A	614588	399455	5444459	94FO1	372L	G	4.3425	30BFP	ORBR	25S	30N	0	4	7	18	5	4	75
575	50	81	526	A	614589	399471	5444413	94FO1	372L	G	4.5415	20BFP	ORBR	40S	20N	3	46	8	35	15	3	160
576	50	81	526	A	614590	399490	5444364	94FO1	272L	G	4.1420	25BFP	ORBR	25S	18NE	0	19	3	8	4	3	20
577	50	81	526	A	614591	399509	5444317	94FO1	272L	G	4.3425	30BFP	ORBR	25S	18NE	0	15	5	11	7	4	43
578	50	81	526	A	614592	399525	5444278	94FO1	372L	G	4.2430	35BFP	ORBR	20S	22N	3	21	9	23	7	3	77
579	50	81	526	A	614593	399543	5444230	94FO1	372L	G	4.5415	20BFP	ORBR	25S	22N	0	13	8	26	6	2	63
580	50	81	526	A	614594	399451	5444194	94FO1	372L	G	4.6415	20BFP	ORBR	20S	20N	1	20	8	20	7	4	63

Listing of COALLIST1 at 12:15:13 on OCT 8, 1981 for CCId=BPOG

												Mo	Cu	Pb	Zn	Ni	U	Mn				
581	50	81	526	A	614595	399434	5444241	94F01	372L	6	4.6425	35BFP	ORRR	25S	20N	0	6	6	8	3	3	75
582	50	81	526	A	614596	399415	5444284	94F01	272L	6	4.6430	35BFP	ORRR	40A	10N	0	3	7	11	12	2	78
583	50	81	526	A	614597	399399	5444330	94F01	272L	6	4.6525	30BGG	ORGR	25A	10N	0	1	6	6	2	1	19
584	50	81	526	A	614598	399381	5444377	94F01	272L	6	4.3420	30BFP	ORRR	25S	10N	0	2	5	10	4	2	53
585	50	81	526	A	614599	399362	5444422	94F01	372L	6	4.4415	20BFP	ORRR	20S	20NW	0	6	9	13	5	3	59
586	50	81	526	A	*614600	399345	5444471	94F01	372L	6	4.9420	25BFP	ORRR	25A	20NW	1	19	10	46	16	2	178
587	50	81	526	A	*614601	399345	5444471	94F01	372L	6	5.0420	25BFP	ORRR	25A	20NW	1	14	11	41	13	3	171
588	50	81	526	A	614602	399326	5444515	94F01	272L	6	5.5415	20BFP	ORRR	20S	15N	0	21	18	79	11	0	819
589	50	81	526	A	614603	399308	5444560	94F01	272L	6	4.3410	20BFP	ORRR	25S	18E	0	14	9	14	4	1	31
590	50	81	526	A	614604	399290	5444605	94F01	372L	6	4.3415	10BFP	ORRR	20S	30NE	1	10	10	23	6	4	83
591	50	81	526	A	614605	399202	5444570	94F01	272L	6	4.3415	20BFP	ORRR	25S	12N	0	6	9	16	4	3	75
592	50	81	526	A	614606	399218	5444527	94F01	272L	6	4.3410	15BFP	ORRR	25S	14W	0	9	16	18	7	3	88
593	50	81	526	A	614607	399235	5444481	94F01	272L	6	4.9425	30BFP	ORRR	25S	10N	1	52	17	43	19	3	171
594	50	81	526	A	614608	399254	5444433	94F01	372L	6	4.1415	20BFP	ORRR	25S	20NE	0	5	6	6	3	2	28
595	50	81	526	A	614609	399271	5444390	94F01	272L	6	4.3410	15BFP	ORRR	25S	10N	0	5	12	11	6	1	55
596	50	81	526	A	614610	399291	5444342	94F01	272L	6	4.1410	15BFP	YFBR	25S	5N	0	2	8	15	13	2	141
597	50	81	526	A	614611	399306	5444300	94F01	272L	6	4.3410	15BFP	ORRR	35A	10N	0	5	7	11	7	1	70
598	50	81	526	A	614612	399324	5444251	94F01	272L	6	4.0420	25C1R	YFGR	40S	5N	0	2	4	4	1	0	8
599	50	81	526	A	614613	399343	5444206	94F01	272L	6	4.2415	25C1R	YFGR	40S	5N	0	2	4	10	6	0	64
600	50	81	526	A	614614	399362	5444155	94F01	272L	6	4.3415	25BFP	ORRR	25S	15N	1	13	7	12	5	2	72
601	50	81	526	A	614615	399266	5444121	94F01	272L	6	4.4415	25BMB	BR	25S	5N	1	7	12	12	5	1	49
602	50	81	526	A	614616	399250	5444163	94F01	272L	6	4.5415	20BMB	BR	25S	5N	0	7	14	23	9	2	88
603	50	81	526	A	614617	399232	5444209	94F01	272L	6	4.5415	25BMB	BR	25S	5N	0	3	10	12	4	0	44
604	50	81	526	A	614618	399217	5444249	94F01	272L	6	4.5410	15BFP	ORBR	25S	5N	0	2	9	14	8	2	82
605	50	81	526	A	614619	399198	5444296	94F01	272L	6	4.2410	15BFP	ORRR	25S	10N	0	2	6	7	4	2	45
606	50	81	526	A	614620	399177	5444348	94F01	272L	6	4.3410	15BFP	ORBR	25S	10NW	0	7	10	70	6	1	48
607	50	81	526	A	614621	399159	5444396	94F01	272L	6	4.0415	25BFP	ORRR	30S	20NW	0	25	7	22	7	1	78
608	50	81	526	A	614622	399140	5444444	94F01	272L	6	4.3425	35BFP	ORRR	30S	20NW	3	48	11	27	8	4	91
609	50	81	526	A	614623	399123	5444486	94F01	272L	6	4.3415	20BFP	ORRR	25S	20NW	4	59	11	37	14	4	174
610	50	81	526	A	614624	399105	5444532	94F01	372L	6	4.6425	30BFP	ORRR	20S	40NW	1	13	11	34	6	3	134
611	50	81	526	A	614625	399007	5444504	94F01	372L	6	4.5425	30BMB	BR	L35S	4GNW	0	2	4	14	3	1	120
612	50	81	526	A	614626	399029	5444456	94F01	372L	6	4.5435	40BFP	ORRR	25S	34NW	0	4	5	8	1	1	671
613	50	81	526	A	614627	399044	5444415	94F01	172L	6	4.3415	20BFP	ORRR	30S	0	1	2	7	1	1	1	29
614	50	81	526	A	614628	399808	5444311	94F01	272L	6	4.2410	15BFP	ORRR	25S	10E	3	22	6	43	9	3	161
615	50	81	526	A	614629	399827	5444267	94F01	272L	6	4.2410	15BFP	ORRR	25S	5N	6	45	9	38	13	2	106
616	50	81	526	A	614630	399848	5444220	94F01	272L	6	4.2410	15BFP	ORRR	25S	5N	0	12	8	24	9	2	108
617	10	81	526	A	614631	399854	5444225	94F01	4	L	6	4.700.5	1	21	5N	2	16	18	38	10	3	489
618	50	81	526	A	614632	399873	5444171	94F01	272L	6	4.0425	30C1R	GR	40S	5N	0	3	10	14	1	0	14
619	50	81	526	A	614633	399895	5444120	94F01	272L	6	4.3415	20BFP	ORRR	25S	10E	1	9	6	13	4	3	41
620	50	81	526	A	614634	399922	5444061	94F01	372L	6	4.6420	25BFP	ORRR	30S	10SE	2	40	15	57	21	2	287
621	50	81	526	A	614635	399946	5444010	94F01	272L	6	4.0410	15BMB	BR	25S	20SE	0	2	11	13	1	0	9
622	50	81	526	A	614636	399970	5443952	94F01	472L	6	5.1015	25020	BR	25S	0	3	4	3	2	0	0	8
623	50	81	526	A	614637	399995	5443895	94F01	372L	6	4.1415	20BMB	BR	25S	30SE	0	3	23	15	1	0	55
624	50	81	526	A	614638	400009	5443868	94F01	372L	6	5.2440	50BFP	ORRR	25S	30SE	1	31	12	39	13	1	180
625	10	81	526	A	614639	400061	5443889	94F01	4	L	5.401.0	1	21	15SE	2	5	21	95	12	10	5431	
626	50	81	526	A	614640	400111	5443911	94F01	372L	6	5.2415	20BMB	BR	20S	20SE	1	14	28	76	7	1	1088
627	50	81	526	A	614641	400094	5443957	94F01	372L	6	4.0410	15BMB	BR	20S	20SE	0	2	14	39	1	0	21
628	50	81	526	A	614642	400076	5444003	94F01	372L	6	4.3415	25BFP	ORRR	20S	20SE	0	1	6	10	1	0	23
629	50	81	526	A	614643	400057	5444051	94F01	372L	6	4.0410	15C1R	GR	35S	20SE	0	2	11	18	1	0	38
630	50	81	526	A	614644	400037	5444099	94F01	272L	6	5.2435	45BFP	ORRR	20S	15NE	1	44	12	49	17	2	194
631	50	81	526	A	614645	400019	5444143	94F01	272L	6	4.2415	25C1R	GR	30S	5SE	0	1	4	6	1	0	18
632	50	81	526	A	*614646	400001	5444190	94F01	272L	6	4.8440	50BFP	ORRR	25S	5N	4	43	11	76	23	2	226
633	50	81	526	A	*614647	400001	5444189	94F01	272L	6	4.8440	50BFP	ORRR	25S	5N	3	41	9	74	22	2	239
634	50	81	526	A	614648	399981	5444237	94F01	272L	6	4.645	15BFP	ORRR	20S	5NW	2	17	15	41	8	2	147
635	50	81	526	A	614649	399962	5444284	94F01	372L	6	4.5460	70BFP	ORRR	30S	30N	0	21	21	40	8	2	64
636	10	81	526	A	614650	399951	5444302	94F01	4	L	5.601.0	1	21	30N	3	46	13	154	32	6	3250	
637	50	81	526	A	614651	399943	5444333	94F01	372L	6	4.6425	30BFP	ORRR	25S	30N	2	31	1	48	15	1	94
638	50	81	526	A	614652	399922	5444379	94F01	372L	6	4.5430	40BFP	ORRR	25S	35N	1	35	5	32	16	2	124



Listing of COALITION at 12:15:13 on OCT 8, 1981 for CCID-BPOG

													Mo	Cu	Pb	Zn	Ni	U	Mn			
639	50	81	526	A	614653	399903	5444427	94FO1	372L	G	4.5420	25BFP	ORRR	25S	3ON	2	28	7	24	8	2	67
640	50	81	526	A	614654	399885	5444471	94FO1	372L	G	4.840	5 BFP	ORRR	20S	3OW	6	58	6	55	20	3	243
641	50	81	526	A	614655	399865	5444517	94FO1	372L	G	4.6420	30BFP	RORRR	25S	4GN	4	23	5	45	13	4	164
642	10	81	526	A	614656	399861	5444534	94FO1	4 L		5.440.5	1		21		3	25	7	84	24	8	3292
643	50	81	526	A	614657	399848	5444562	94FO1	372L	G	4.7425	35BFP	ORRR	25S	3OS	3	47	11	101	30	2	353
644	50	81	526	A	614658	399829	5444614	94FO1	372L	G	5.1010	15020	RI	25S	5N	0	20	16	23	6	0	694
645	50	81	526	A	614659	399810	5444659	94FO1	372L	G	4.9420	30BFP	ORRR	30S	1ON	3	25	7	83	14	3	211
646	10	81	526	A	614660	399695	5444610	94FO1	4 L		5.800.5	103		21	10N	3	16	3	51	15	2	1081
647	50	81	526	A	614661	399695	5444610	94FO1	272L	G	5.2430	40BFP	ORRR	25		2	22	5	64	18	1	213
648	50	81	526	A	614662	399714	5444565	94FO1	372L	G	4.6415	20MORRR	ORRR	20S	2ON	4	48	9	99	35	3	283
649	50	81	526	A	614663	399732	5444520	94FO1	372L	G	5.243040	BFP	ORRR	25S	2ON	21	21	11	38	10	3	781
650	50	81	526	A	614664	399748	5444472	94FO1			4.8					17	39	2	70	27	2	241
651	50	81	526	A	614665	399764	5444425	94FO1	572L	G	4.645	15BFP	RR	25S	1ON	7	25	9	45	12	3	113990
652	50	81	526	A	614666	399781	5444380	94FO1	372L	G	4.840	10BFP	ORRR	25S	3ONW	21	34	5	65	24	3	287
653	50	81	526	A	614667	399798	5444330	94FO1	272L	G	5.2420	30				2	79	6	55	18	0	146
654	50	81	526	A	614668	399713	5444356	94FO1	372L	G	5.2415	25BFP	ORRR	30S	34NW	2	21	6	57	17	1	210
655	50	81	526	A	614669	399695	5444404	94FO1	372L	G	5.1420	30BFP	ORRR	20S	3ONW	10	16	10	34	8	2	313
656	50	81	526	A	614670	399670	5444457	94FO1	372L	G	4.8425	30BFP	ORRR	20S	3ONW	11	38	7	68	26	2	246
657	50	81	526	A	614671	399648	5444511	94FO1	372L	G	5.2420	30BFP	ORRR	25S	28NW	5	34	6	71	16	3	212
658	50	81	526	A	614672	399628	5444560	94FO1	372L	G	5.4425	30BFP	ORRR	25S	3ONW	3	20	2	59	18	2	225
659	50	81	526	A	614673	399606	5444608	94FO1	372L	G	4.2430	40BFP	ORRR	20S	28NW	3	14	5	40	10	4	159
660	50	81	526	A	614674	399728	5444298	94FO1	372L	G	4.3415	20C1R	GR	20S	15N	0	3	2	10	4	1	21
661	50	81	526	A	614675	399746	5444256	94FO1	272L	G	4.3415	20BFP	ORRR	20S	5 N	2	13	8	24	8	3	94
662	50	81	526	A	614676	399761	5444215	94FO1	272L	G	4.345	10BFP	ORRR	5S	5N	1	8	4	16	5	4	75
663	50	81	526	A	614677	399784	5444165	94FO1	272L	G	4.3415	20BFP	ORRR	20S	5N	0	8	4	14	6	2	70
664	50	81	526	A	614678	399804	5444117	94FO1	372L	G	4.5420	30BFP	ORRR	25S	25E	1	22	4	38	14	2	173
665	50	81	526	A	614679	398510	5444333	94FO1	272L	G	4.0415	20BFP	ORRR	20S	E	0	3	2	10	1	1	34
666	50	81	526	A	614680	398487	5444323	94FO1	372L	G	4.3410	15BFP	ORRR	20S	30SE	0	2	1	32	3	1	130
667	50	81	526	A	614681	398462	5444312	94FO1	372L	G	4.0415	20BFP	ORRR	25S	40W	0	4	3	19	1	0	68
668	50	81	526	A	614682	398418	5444295	94FO1	372L	G	4.040	10BFP	ORRR	25S	65S	0	11	30	45	1	0	42
669	50	81	526	A	614683	398394	5444286	94FO1	272L	G	4.94	BIL	BRGR	5S	20W	11	15	115	103	4	2	997
670	50	81	526	A	614684	398371	5444278	94FO1	272L	G	5.4	15	25020	BL	5N	13	13	18	69	3	5	3144
671	50	81	526	A	614685	398381	5444253	94FO1	272L	G	4.0410	20BMB	BR	20S	18NW	3	3	17	29	2	0	363
672	50	81	526	A	614686	398401	5444264	94FO1	372L	G	5.1420	30C1R	GR	25S	20W	5	11	27	76	7	2	483
673	50	81	526	A	614687	398424	5444273	94FO1	372L	G	4.2420	30BFP	ORRR	30S	30W	1	2	3	10	0	1	21
674	50	81	526	A	614688	398436	5444250	94FO1	372L	G	4.0415	20C1R	GR	25S	35W	1	3	5	44	0	0	339
675	50	81	526	A	614689	398409	5444240	94FO1	372L	G	4.2410	20BFP	ORRR	20S	20W	1	1	5	21	3	0	169
676	50	81	526	A	614690	398390	5444229	94FO1	372L	G	4.2510	15BGG	GRBR	40A	10NW	0	2	7	33	1	0	51
677	50	81	526	A	614691	398398	5444206	94FO1	272L	G	4.1410	15BFP	ORRR	25S	15NW	0	2	3	15	1	0	86
678	10	81	526	A	614692	398408	5444210	94FO1	4 L		5.440	5	103		5 NW	1	6	5	73	4	6	2729
679	50	81	526	A	614693	398420	5444217	94FO1	272L	G	4.6010	15020	BL		18NW	1	6	14	27	3	0	314
680	50	81	526	A	614694	398442	5444224	94FO1	372L	G	4.8410	15BFP	ORRR	25S	22NW	2	3	14	48	6	3	1388
681	50	81	526	A	614695	398519	5444308	94FO1	372L	G	4.2415	25BFP	ORRR	L25S	27NW	0	1	6	16	1	0	62
682	50	81	526	A	614696	398496	5444298	94FO1	272L	G	4.2530	40BFP	ORRR	10S	13 S	0	3	1	13	2	1	52
683	50	81	526	A	614697	398470	5444289	94FO1	372L	G	4.6415	25BFP	ORRR		15NW	1	6	53	82	5	1	187
684	50	81	526	A	614698	398479	5444265	94FO1	372L	G	4.4510	20BFP	ORRR	20A	23NW	2	8	5	29	2	1	79
685	50	81	526	A	614699	398505	5444276	94FO1	272		4.5410	20BFP	RDRR		10W	0	11	4	35	6	2	313
686	50	81	526	A	614700	398528	5444285	94FO1	272		4.3410	20BFP	RDRR		10W	0	5	8	22	4	0	78
687	50	81	526	A	614701	398537	5444262	94FO1	272L	G	4.2515	35BFP	RORRR	12S	23NW	1	6	5	22	4	2	77
688	50	81	526	A	614702	398513	5444252	94FO1	272		4.2415	25BFP	RDRR		12N	1	3	7	11	2	0	51
689	50	81	526	A	623593	399318	5444674	94FO1	272U		5.2425	35BFP	DRR	0	25E	3	42	0	79	29	3	253
690	50	81	526	A	623599	399134	5444601	94FO1	272U		4.8425	35BFP	DRR	10S	3NE	1	21	13	68	14	3	181
691	50	81	526	A	623602	399038	5444565	94FO1	272U		4.5430	35BFP	DRR	10S	17N	0	1	5	19	3	2	435
692	50	81	526	A	623605	398941	5444529	94FO1	272U		4.5425	30BFP	RR	05S	12E	0	10	4	27	7	2	187
693	50	81	526	A	623608	398849	5444490	94FO1	272U		4.6420	25BFP	RDRR	10S	7E	2	14	5	35	8	2	129
694	50	81	526	A	623611	398755	5444454	94FO1	272U		5.4420	35BFP	RR	5S	14NE	0	25	6	61	19	0	491
695	50	81	526	A	623614	398663	5444418	94FO1	272U		4.0425	30	LBR	0	6N	0	3	4	16	2	0	57
696	50	81	526	A	623617	398570	5444381	94FO1	272U		4.2420	30BFP	RR	05S	3W	0	2	1	9	1	0	41

Listing of COALITION at 12:15:13 on OCT 8, 1981 for CCID-BPOG

											Mo	Cu	Pb	Zn	Ni	U	Mn				
697	50	81	526	A	623620	398474	5444345	94F01	272U	4.3425	35BFP	DBR	05S	20NF	0	1	2	18	1	0	67
698	50	81	526	A	623623	398379	5444308	94F01	272U	5.4425	30BFP	R		5N	1	14	33	118	5	1	657
699	50	81	526	A	623626	398290	5444274	94F01	272U	4.1520	35BFP	GYBR	10S	5NF	0	0	2	24	1	1	154
700	50	81	526	A	623630	398100	5444199	94F01	272U	4.3425	35BMB	YBR	05	3W	0	5	11	26	4	0	52
701	50	81	526	A	623633	397913	5444124	94F01	272U	5.2320	25BFP	R	10S	2W	1	2	8	10	2	0	810
702	50	81	526	A	624500	399061	5444372	94F01	272	4.1410	20BFP	RDBR		5NF	0	14	1	19	4	0	44
703	50	81	526	A	624501	399084	5444315	94F01	272	4.2420	30BFP	BR		9NE	0	1	0	3	0	0	12
704	50	81	526	A	624502	399104	5444267	94F01	372	4.6420	30BFP	RDBR		22N	2	10	2	32	12	3	178
705	50	81	526	A	624503	399122	5444220	94F01	272	4.5425	35BFP	RDBR		8N	1	5	7	13	6	1	75
706	50	81	526	A	624504	399140	5444174	94F01	272	4.3410	20BFP	RDBR	60A	5S	0	2	4	10	5	2	76
707	50	81	526	A	624505	399157	5444128	94F01	272	4.1425	35BFP	GY		7S	0	1	0	4	1	0	74
708	50	81	526	A	624506	399174	5444080	94F01	272	4.4525	35BFP	RDBR		18SW	2	9	7	27	9	2	97
709	50	81	526	A	624507	399063	5444091	94F01	272	4.3420	30BFP	RDBR		4W	2	8	6	40	9	3	82
710	50	81	526	A	624508	399046	5444137	94F01	272	4.1420	30BFP	RDBR		15SW	2	7	5	16	4	3	72
711	50	81	526	A	624509	399028	5444181	94F01	271	4.1410	20BFP	GYBR		10SW	0	1	1	5	1	0	31
712	50	81	526	A	624510	399008	5444227	94F01	372	4.0420	30BFP	RDBR	10S	25W	0	1	4	12	4	3	86
713	50	81	526	A	624511	398991	5444276	94F01	372	4.3420	30BFP	GYBR	35S	30SE	0	2	1	4	1	1	18
714	50	81	526	A	624512	398970	5444328	94F01	272	4.2420	30BFP	RDBR		10W	0	4	2	7	2	2	30
715	50	81	526	A	624513	398952	5444375	94F01	272	4.2420	30BFP	RDBR		10NW	1	6	4	13	5	1	56
716	50	81	526	A	624514	398934	5444420	94F01	372	4.2415	25BFP	GYBR		30NW	0	4	3	10	4	3	109
717	50	81	526	A	624515	398919	5444463	94F01	372	4.6415	25BFP	KRDBR		30NW	2	9	3	18	5	2	113
718	50	81	526	A	624516	398899	5444506	94F01	372	4.3510	20BFP	RDBR		25NW	1	9	3	12	4	2	77
719	50	81	526	A	624517	398880	5444431	94F01	372	4.6415	25BFP	RDBR		32W	0	4	3	9	2	1	30
720	50	81	526	A	624518	398841	5444380	94F01	372	4.1415	25BFP	GYBR		28W	0	6	3	10	12	2	79
721	50	81	526	A	624519	398858	5444335	94F01	372	4.2415	25BFP	RDBR		23W	4	7	1	17	6	1	110
722	50	81	526	A	624520	398878	5444287	94F01	372	4.2415	25BFP	GYBR	40S	30W	0	4	2	11	3	1	52
723	50	81	526	A	624521	398895	5444243	94F01	272	4.1420	30BFP	GYBR		18W	0	2	1	5	1	0	45
724	50	81	526	A	624522	398915	5444194	94F01	272	4.1410	20BFP	BR		18W	0	2	3	3	1	1	12
725	50	81	526	A	624523	398936	5444145	94F01	272	4.0415	25BFP	GY		12SW	0	1	0	5	1	0	27
726	50	81	526	A	624524	398952	5444099	94F01	272	4.1420	3 BFP	GY		15SW	0	1	3	8	3	0	42
727	50	81	526	A	624525	398971	5444056	94F01	272	5.4425	35BFP	KRDBR	5S	7S	2	12	8	220	18	3	1107
728	50	81	526	A	624526	398984	5444007	94F01	372	4.2425	35BFP	TRDGY		35SW	0	0	0	5	1	1	26
729	50	81	526	A	624527	398897	5443973	94F01	272	4.2415	25BFP	YGYBR		10SW	0	3	1	7	3	1	32
730	50	81	526	A	624528	398859	5444066	94F01	372	4.5420	30BFP	RDBR		30SW	1	10	3	28	4	2	47
731	50	81	526	A	624529	398842	5444110	94F01	272	4.2415	25BFP	RDBR		8SW	1	5	3	29	4	1	135
732	50	81	526	A	624530	398821	5444159	94F01	272	4.2420	30BFP	RDBR		4W	2	4	3	22	2	1	192
733	50	81	526	A	624531	398805	5444202	94F01	272	4.6430	40BFP	KRDBR		8W	0	8	5	34	4	0	101
734	50	81	526	A	624532	398785	5444250	94F01	371	4.6410	20BFP	TRR		21W	1	15	2	53	12	2	259
735	50	81	526	A	624533	398768	5444297	94F01	372	4.5420	30BFP	RDBR		20W	0	7	7	22	5	2	97
736	50	81	526	A	624534	398729	5444389	94F01	272	4.0415	25BFP	IGYBR		16NW	1	1	1	14	1	0	29
737	50	81	526	A	624535	398746	5444347	94F01	272	5.4520	30BFP	IGYBR		18NW	0	4	3	17	2	0	157
738	50	81	526	A	624536	398635	5444353	94F01	272	5.2410	20BFP	TRDBR		2W	1	5	3	52	5	0	155
739	50	81	526	A	624537	398652	5444310	94F01	372	5.4415	25BFP	BR		25W	3	8	2	59	5	2	1118
740	50	81	526	A	624538	398671	5444262	94F01	272	4.1415	25BFP	TRDGY		10NW	0	4	7	37	1	1	50
741	50	81	526	A	624539	398690	5444214	94F01	271	4.1410	20BFP	TRDBR		8NW	0	3	8	16	1	1	74
742	50	81	526	A	624540	398708	5444168	94F01	272	4.6410	20BFP	TRDBR		15W	0	3	5	38	1	0	80
743	50	81	526	A	624541	398727	5444124	94F01	372	5.1415	25BFP	RDBR		35W	0	4	7	29	2	0	108
744	50	81	526	A	624542	398743	5444080	94F01	372	4.1410	20BFP	RDBR		35NW	0	2	2	18	1	1	48
745	50	81	526	A	624543	398760	5444032	94F01	372	4.5420	30BFP	IGYBR		22NW	0	2	12	22	1	0	321
746	50	81	526	A	624544	398781	5443982	94F01	372	4.2415	25BFP	RDBR		22NW	0	7	5	28	2	0	99
747	50	81	526	A	624545	398798	5443935	94F01	272	4.2420	30BFP	IGYBR		5NW	0	3	11	6	0	0	23
748	50	81	526	A	624546	398708	5443903	94F01	272	4.2415	25BFP	RDBR		16SW	0	6	11	23	3	1	84
749	50	81	526	A	624547	398690	5443949	94F01	272	4.2420	30BFP	RDBR		15SW	1	6	10	19	3	1	74
750	50	81	526	A	624548	398673	5443992	94F01	772	4.2415	25BFP	GYRD			0	1	11	7	0	0	45
751	50	81	526	A	624549	398657	5444034	94F01	772	4.3425	35BFP	RDGY			0	1	19	4	0	1	29
752	50	81	526	A	624550	398636	5444085	94F01	772	4.0420	30BFP	GY			0	0	7	2	0	0	11
753	50	81	526	A	624551	398619	5444128	94F01	272	4.2415	25BFP	RDGY		7SW	0	3	4	13	2	2	62
754	50	81	526	A	624552	398598	5444174	94F01	772	4.2420	30BFP	GY			0	0	10	2	0	0	9

Listing of COALLIST1 at 12:15:13 on OCT 8, 1981 for CCID-BPOG

												Mo	Cu	Pb	Zn	Ni	U	Mn		
755	50	81	526	A	624553	398584	5444219	94FO1	372	4.4420	30BFP	KRDBR	30NW	0	5	6	24	3	1	107
756	50	81	526	A	624554	398564	5444266	94FO1	272	4.4415	25BFP	RDBR	18NW	0	4	13	15	2	2	65
757	50	81	526	A	624555	398543	5444317	94FO1	272	4.6520	30BFP	RDBR	5SW	1	8	7	63	5	3	61
758	50	81	526	A	624556	398464	5444229	94FO1	372	4.0425	35BFP	BRGY	25W	2	2	9	9	0	0	44
759	50	81	526	A	624557	398487	5444183	94FO1	372	4.0415	25BFP	KRD	35W	0	1	5	9	0	0	18
760	50	81	526	A	624558	398506	5444139	94FO1	372	4.0415	25BFP	RDGY	25W	0	2	2	5	0	0	10
761	50	81	526	A	624559	398526	5444089	94FO1	372	4.1410	20BFP	RDBR	30W	2	7	6	50	3	1	255
762	50	81	526	A	624560	398540	5444050	94FO1	372	4.0430	40BFP	GYBR	40W	0	0	1	2	0	0	8
763	50	81	526	A	624561	398559	5444005	94FO1	372	4.1420	30BFP	GYRD	35W	0	2	6	7	1	1	33
764	50	81	526	A	624562	398577	5443956	94FO1	372	4.2425	35BFP	GYRD	25SW	0	0	2	4	0	0	24
765	50	81	526	A	624563	398596	5443910	94FO1	372	5.6520	30BFP	GY	22SW	1	3	6	37	5	6	197
766	50	81	526	A	624564	398613	5443866	94FO1	272	5.4525	35BFP	GY	12SW	1	1	8	20	2	2	100
767	50	81	526	A	624565	398521	5443827	94FO1	272	5.4520	30BFP	GYBR	8SW	26	4	15	122	8	5	2563
768	50	81	526	A	624566	398503	5443873	94FO1	272	4.1420	30BFP	RDGY	4SW	0	2	10	9	1	1	39
769	50	81	526	A	624567	398485	5443916	94FO1	272	4.7410	20BFP	RDBR	10SW	2	10	4	91	8	1	229
770	50	81	526	A	624568	398470	5443961	94FO1	272	4.0415	25BFP	GYRD	5SW	0	4	7	11	1	1	44
771	50	81	526	A	624569	398431	5444054	94FO1	272	4.5420	30BFP	GYRD	4W	1	2	21	29	1	0	123
772	50	81	526	A	624570	398412	5444103	94FO1	272	4.0415	25BFP	GYBR	9SW	0	4	12	11	0	0	29
773	50	81	526	A	624571	398397	5444144	94FO1	272	4.4520	30BFP	GYRD	GN	0	3	11	8	1	0	21
774	50	81	526	A	624572	398377	5444194	94FO1	272	4.3420	30BFP	GYRD	15N	0	1	6	5	0	0	22
775	50	81	526	A	624573	398353	5444244	94FO1	272	4.9415	25BFP	RDBR	10N	2	4	8	56	2	0	149
776	50	81	526	A	624574	398265	5444206	94FO1	272	4.5420	30BFP	GYRD	10N	0	1	13	9	0	1	24
777	50	81	526	A	624575	398283	5444161	94FO1	272	4.1420	30BFP	GYBR	10N	0	0	6	7	0	0	21
778	50	81	526	A	624576	398303	5444113	94FO1	272	4.1320	30BFP	GYRD	5N	0	1	16	12	0	0	98
779	50	81	526	A	624577	398321	5444069	94FO1	272	4.3415	25BFP	RDBR	4N	0	3	19	7	0	1	32
780	50	81	526	A	624578	398341	5444019	94FO1	272	4.2415	25BFP	RDGY	10N	0	1	20	7	0	0	93
781	50	81	526	A	624579	398358	5443977	94FO1	772	4.2425	35BFP	GYBR		0	0	4	3	0	0	17
782	50	81	526	A	624580	398448	5444279	94FO1	372	4.4410	20BFP	GYRD	35A 45NF	1	15	16	45	4	0	252
783	50	81	526	A	624581	398202	5444237	94FO1	272	4.1415	25BFP	GYBR	10N	0	2	11	27	1	0	107

Listing of	COALIST		PROJECT		ID	Fe%		Ag		Co		Au(ppb)		As		Hg	Sb	W	Th	Cd	Bi	Y	Ba	Al%	Fe%
	TYPE	YEAR	PROJECT	PROPERTY		Fe%	Ag	Co	Au(ppb)	As	Hg	Sb													
1	81	81	526	C	611001	5.4	4.6	5	35				5300	60	19	2	0	4	15	2	13		.15	5.4	
2	10	81	526	A	611002	2.2	.0	9					25		0	1	1	0	6	22	63		1.31	2.2	
3	89	81	526	C	611003	3.2	.4	9	35				28	10	0	0	0	2	9	42	101		3.96	3.2	
4	10	81	526	A	611004	2.2	.1	10					30		0	0	1	0	6	26	72		1.34	2.2	
5	81	81	526	C	611005	3.4	.3	14	35				14	45	0	0	0	1	9	50	19		2.15	3.4	
6	81	81	526	B	611170	2.0	.1	8	5				5	10	0	0	1	0	2	30	32		1.68	2.0	
7	81	81	526	B	611171	2.3	.0	10	5				2	10	0	0	0	0	2	28	70		1.48	2.3	
8	81	81	526	B	611172	2.3	.2	9	5				4	5	0	1	0	0	2	36	247		1.37	2.3	
9	81	81	526	B	611173	2.6	.1	10	5				2	10	0	0	0	0	2	30	52		1.42	2.6	
10	81	81	526	B	611174	2.2	.2	9	5				1	20	0	0	0	0	2	29	39		1.02	2.2	
11	83	81	526	B	611175	2.4	.2	9	5				1	10	0	1	0	0	2	34	57		1.41	2.4	
12	81	81	526	B	611176	2.5	0.	10	5				3	10	0	0	0	0	2	31	51		1.38	2.5	
13	81	81	526	B	611177	2.4	0.	9	5				0	20	0	0	0	0	2	31	33		1.79	2.4	
14	81	81	526	B	611178	2.1	0.	8	5				0	5	0	0	0	0	2	26	26		1.55	2.1	
15	81	81	526	B	611179	2.5	0.	9	5				5	10	0	1	0	0	2	37	107		1.70	2.5	
16	81	81	526	B	611180	2.7	.1	10	5				11	5	0	0	0	0	2	32	42		1.27	2.7	
17	81	81	526	B	611181	2.5	0.	9	5				4	10	0	0	0	0	2	34	36		1.82	2.5	
18	81	81	526	B	611182	2.2	0.	10	5				5	5	0	0	0	0	2	57	40		1.83	2.2	
19	10	81	526	A	611183	2.0	.3	23	5				11	90	1	0	0	1	1	34	68		1.90	2.0	
20	81	81	526	B	611185	2.8	0.	10	5				15	5	1	0	0	0	1	42	20		1.10	2.8	
21	81	81	526	B	611186	2.2	0.	12	5				4	5	0	1	0	0	2	63	101		2.12	2.2	
22	81	81	526	B	611187	1.9	0.	8	5				3	5	0	0	0	0	1	39	23		1.71	1.9	
23	81	81	526	B	611188	2.0	0.	10	5				6	5	0	0	0	0	1	49	103		1.52	2.0	
24	81	81	526	B	611189	2.1	0.	10	5				6	5	0	0	0	0	1	46	28		1.82	2.1	
25	81	81	526	B	611190	2.1	0.	10	5				5	5	0	0	0	0	2	48	33		1.91	2.1	
26	81	81	526	B	611191	1.9	0.	9	5				6	10	0	0	0	0	2	49	25		1.95	1.9	
27	81	81	526	B	611192	2.3	.0	12	5				5	10	0	1	0	0	2	59	25		2.04	2.3	
28	81	81	526	B	611193	2.1	0.	10	5				6	10	0	0	0	1	1	50	17		2.25	2.1	
29	81	81	526	B	611194	2.6	.1	14	5				3	10	0	0	0	0	2	63	42		1.92	2.6	
30	81	81	526	B	611195	2.8	.0	13	5				5	10	0	0	0	0	3	79	62		2.12	2.8	
31	81	81	526	B	611196	7.0	.7	54	5				6	15	2	2	1	0	0	42	51		1.47	7.0	
32	81	81	526	B	611197	15.2	4.8	73	5				21	15	3	6	1	0	0	90	60		2.74	15.2	
33	81	81	526	B	611198	5.2	1.1	36	5				14	20	2	1	1	0	1	69	52		1.54	5.2	
34	81	81	526	B	611199	7.0	2.1	32	5				18	15	2	4	1	1	0	91	88		3.13	7.0	
35	81	81	526	B	611200	2.8	.2	19	5				5	20	0	0	0	1	2	93	26		2.05	2.8	
36	81	81	526	B	611201	3.0	.1	12	5				2	5	0	0	0	0	2	75	42		1.98	3.0	
37	81	81	526	B	611202	2.0	.0	11	5				5	15	0	0	0	0	2	60	172		2.42	2.0	
38	81	81	526	B	611203	2.2	.2	12	5				10	25	0	0	1	0	1	26	31		.49	2.2	
39	81	81	526	B	611204	5.7	.3	41	5				19	20	2	1	1	0	1	65	62		1.87	5.7	
40	81	81	526	B	611205	2.4	0.	11	5				12	15	0	0	0	0	2	54	95		1.75	2.4	
41	81	81	526	B	611206	1.3	.0	6	5				0	5	0	0	0	0	0	36	20		.40	1.3	
42	81	81	526	B	611207	5.4	.1	27	10				18	50	6	0	0	0	0	83	60		2.17	5.4	
43	81	81	526	B	611208	2.4	.1	11	5				11	15	0	0	1	0	1	28	82		.34	2.4	
44	81	81	526	B	611209	2.2	.1	11	5				2	5	0	1	0	1	1	59	22		2.12	2.2	
45	81	81	526	B	611210	2.6	.0	13	5				5	10	0	0	0	0	2	69	42		2.20	2.6	
46	83	81	526	B	611211	12.6	4.5	97	5				16	10	2	4	2	2	0	71	26		3.41	12.6	
47	81	81	526	B	611212	3.1	.2	19	5				9	20	3	0	1	0	1	56	34		2.15	3.1	
48	81	81	526	B	611213	2.8	.2	14	5				6	5	0	1	0	0	2	82	147		2.60	2.8	
49	81	81	526	B	611214	1.9	.1	8	5				2	5	0	0	0	0	2	30	623		.47	1.9	
50	81	81	526	B	611215	1.3	0.	5	5				1	5	0	0	1	0	0	6	123		.61	1.3	
51	81	81	526	B	611216	.5	1.9	2	5				4	80	2	0	1	0	0	1	45		.19	.5	
52	81	81	526	B	611217	1.7	0.	4	5				4	20	0	0	4	0	0	6	66		.32	1.7	
53	81	81	526	B	611218	4.9	.5	18	5				50	45	4	2	1	2	1	105	116		4.37	4.9	
54	81	81	526	B	611219	10.5	1.4	105	5				7	15	2	4	0	1	0	115	28		2.74	10.5	
55	81	81	526	B	611220	1.5	0.	4	5				1	10	0	0	3	0	0	11	60		.77	1.5	
56	81	81	526	B	611221	.8	1.0	3	5				8	140	0	0	2	0	0	1	77		.42	.8	
57	81	81	526	B	611222	2.3	2.8	9	5				24	60	0	0	0	1	0	26	55		.40	2.3	
58	81	81	526	B	611223	2.3	11.7	9	5				8	230	2	0	0	2	0	13	232		.63	2.3	

Listing of COALLIST2 at 12:15:15 on OCT 8, 1981 for CCID-RP06

					Fe%	Ag	Co	Au (ppb)	As (ppb)	Hg (ppb)	Sb	W	Th	Cd	Bi	V	Ba	Al%	Fe%
59	81	81	526	B	611224	1.9	.5	9	5	5	10	0	0	0	0	31	687	.47	1.9
60	81	81	526	B	611225	2.1	1.0	7	5	14	55	0	0	2	1	3	66	.36	2.1
61	89	81	526	B	611226	4.2	60.1	18	270	27983000	1377	53	0	339	1	3	82	.17	4.2
62	89	81	526	B	611227	5.2	67.0	13	115	15736000	639	9	0	196	0	5	176	.22	5.2
63	81	81	526	B	611228	2.7	14.3	11	10	3	340	2	0	3	0	29	64	1.58	2.7
64	81	81	526	B	611229	2.5	5.4	9	5	3	120	0	0	2	1	25	237	1.42	2.5
65	81	81	526	B	611230	2.5	1.2	9	5	4	40	0	0	1	1	32	69	1.94	2.5
66	10	81	526	C	611231	3.9	.3	20	5	24	90	1	0	1	0	72	70	2.50	3.9
67	10	81	526	C	611232	3.1	.2	13	5	26	50	0	0	1	1	63	56	1.98	3.1
68	50	81	526	A	611233	4.4	.2	8	5	35	90	2	1	0	0	86	35	2.48	4.4
69	50	81	526	A	611234	5.6	.5	20	5	126	110	2	1	1	0	85	83	3.05	5.6
70	50	81	526	A	611235	4.0	.2	7	5	22	150	2	2	1	0	70	32	4.21	4.0
71	81	81	526	B	611236	2.2	.2	11	5	4	10	0	0	1	1	54	106	2.12	2.2
72	50	81	526	A	611237	4.3	.2	10	5	33	220	2	3	1	0	69	48	3.88	4.3
73	50	81	526	A	611238	2.4	.0	8	5	2	10	0	0	0	0	66	50	1.63	2.4
74	50	81	526	A	611239	2.2	.0	4	5	6	40	0	0	0	0	65	32	1.90	2.2
75	50	81	526	C	611240	4.5	.2	22	5	14	60	0	0	1	1	73	100	2.38	4.5
76	50	81	526	C	611241	2.9	.3	12	10	2	55	0	1	1	0	78	89	2.63	2.9
77	50	81	526	A	611242	4.8	.2	10	5	184	65	2	1	1	0	91	60	2.61	4.8
78	10	81	526	A	611243	3.5	.2	21	5	40	40	1	0	1	1	61	90	2.14	3.5
79	50	81	526	A	611244	3.8	.3	17	5	20	260	1	2	1	1	57	53	3.24	3.8
80	10	81	526	A	611245	3.6	.6	27	5	44	80	0	0	3	0	50	112	2.70	3.6
81	10	81	526	A	611246	2.8	.2	43	5	16	60	0	0	1	0	49	86	2.30	2.8
82	10	81	526	A	611247	4.0	.3	21	5	19	20	0	0	1	0	70	67	2.74	4.0
83	50	81	526	A	611248	4.4	.3	9	5	7	120	0	0	1	0	86	39	3.82	4.4
84	50	81	526	A	611249	3.6	.2	6	5	18	90	0	1	1	0	72	36	4.96	3.6
85	50	81	526	A	611250	4.2	.2	10	15	13	120	0	1	0	0	72	35	3.68	4.2
86	10	81	526	A	611251	3.3	.2	19	5	19	30	0	0	0	0	53	64	2.71	3.3
87	10	81	526	C	611255	5.0	.3	27	5	23	40	0	1	1	0	82	64	3.38	5.0
88	10	81	526	C	611256	5.0	.2	26	5	776	460	28	1	0	0	64	55	1.59	5.0
89	10	81	526	C	611257	5.3	.4	26	5	45	30	1	1	1	0	85	72	3.68	5.3
90	50	81	526	A	611268	5.7	.2	3	5	15	80	2	0	0	0	131	20	1.84	5.7
91	50	81	526	A	611269	7.5	.4	6	5	93	65	2	1	0	1	113	18	1.91	7.5
92	50	81	526	C	611270	5.8	.2	4	5	23	50	1	1	0	0	105	19	1.84	5.8
93	50	81	526	C	611271	5.8	.6	16	5	27	75	2	0	1	0	93	62	3.48	5.8
94	50	81	526	C	611272	6.5	.5	14	5	24	90	1	1	1	0	103	47	3.33	6.5
95	50	81	526	C	611273	6.4	.4	12	5	21	80	2	0	1	0	103	49	4.12	6.4
96	50	81	526	C	611274	4.2	.2	13	5	8	35	0	0	0	0	84	44	2.91	4.2
97	50	81	526	C	611275	1.2	.1	1	5	13	5	0	0	0	0	41	18	.72	1.2
98	13	81	526	C	611276	3.2	.1	14	5	31	40	0	0	1	0	59	36	1.82	3.2
99	50	81	526	C	611277	4.5	.1	10	5	292	120	1	0	1	0	33	45	2.22	4.5
100	81	81	526	C	611278	2.3	.2	15	5	12	60	0	0	0	0	33	155	.87	2.3
101	81	81	526	C	611279	5.8	.7	28	5	20	60	1	1	2	0	133	57	2.94	5.8
102	81	81	526	C	611280	2.2	0.	16	5	5	10	1	0	1	1	39	41	1.83	2.2
103	50	81	526	C	611281	5.6	.4	10	5	39	120	1	1	1	0	86	37	4.64	5.6
104	50	81	526	C	611282	5.9	.4	9	5	56	60	1	1	0	0	114	49	3.34	5.9
105	81	81	526	C	611283	2.7	.1	16	5	27	15	0	0	0	0	43	53	1.77	2.7
106	50	81	526	C	611284	5.2	1.3	15	5	251	110	0	1	1	0	84	62	3.73	5.2
107	81	81	526	C	611285	1.6	.1	9	5	22	10	0	0	1	0	12	37	.38	1.6
108	81	81	526	C	611286	4.4	.4	15	5	61	25	2	0	1	0	22	28	.30	4.4
109	50	81	526	C	611287	6.0	.2	8	5	13	120	2	1	1	0	85	24	3.51	6.0
110	81	81	526	C	611288	1.9	.1	8	10	5	20	1	1	2	1	26	33	2.62	1.9
111	50	81	526	C	611289	5.4	.2	6	5	12	170	1	1	1	0	102	29	3.11	5.4
112	50	81	526	C	611290	5.5	.2	5	5	17	95	1	1	1	0	110	22	3.12	5.5
113	50	81	526	C	611291	5.2	.1	6	5	10	80	1	0	1	0	99	38	3.20	5.2
114	50	81	526	C	611292	5.7	.1	5	5	13	90	4	1	0	0	131	24	2.53	5.7
115	50	81	526	C	611293	5.8	.2	9	15	13	160	1	0	1	0	107	39	3.51	5.8
116	81	81	526	C	611294	2.8	.1	11	5	8	10	1	1	2	1	55	24	2.73	2.8





Listing of COALLIS12 at 12:15:15 on OCT 8, 1981 for CCID=BPOG

Hg

	Fe%	Ag	Co	Au(ppb)	As	Hg	Sb	W	Th	Cd	Bi	V	Ba	Al%	Fe%		
233	81 81 526 B	612385	5.9	.2	11	5	25	50	2	1	1	2	0	78	74	2.62	5.9
234	89 81 526 B	612386	5.7	.5	33	5	5	20	2	2	1	1	0	94	63	1.88	5.7
235	89 81 526 B	612387	6.3	.6	29	5	11	5	2	2	1	1	0	57	83	1.59	6.3
236	81 81 526 B	612388	2.3	.2	11	5	11	15	0	0	0	1	1	61	61	1.76	2.3
237	81 81 526 B	612389	2.1	.0	11	5	7	5	0	0	1	0	1	49	35	1.61	2.1
238	81 81 526 B	612390	2.2	0.	12	5	4	10	0	0	1	1	0	46	200	1.91	2.2
239	81 81 526 B	612398	2.1	.0	10	5	3	5	0	0	0	1	1	42	39	2.02	2.1
240	81 81 526 B	612399	5.9	.1	11	5	16	5	2	1	2	2	0	85	45	2.47	5.9
241	81 81 526 B	612400	2.7	.1	14	5	6	50	0	0	0	1	1	62	14	2.51	2.7
242	81 81 526 B	612406	1.4	.5	6	5	6	15	0	1	1	2	3	30	22	3.50	1.4
243	10 81 526 A	612407	3.7	.2	27	5	18	35	0	0	1	1	0	68	61	1.90	3.7
244	81 81 526 C	612409	7.8	1.0	17	5	40	90	2	1	0	2	0	55	85	1.27	7.8
245	50 81 526 C	612410	8.5	.2	28	5	119	150	19	1	1	0	0	120	26	.79	8.5
246	81 81 526 C	612411	7.0	1.5	15	5	73	290	2	2	1	6	2	70	63	.88	7.0
247	50 81 526 C	612412	6.9	.5	12	5	27	50	2	1	2	1	0	111	44	3.69	6.9
248	81 81 526 C	612413	4.8	.3	19	5	77	150	2	0	0	0	0	36	79	.29	4.8
249	81 81 526 C	612414	3.5	.7	33	15	370	1200	21	0	0	0	0	35	2197	.49	3.5
250	50 81 526 C	612415	5.5	.5	15	5	67	130	2	2	1	1	0	104	53	4.11	5.5
251	81 81 526 C	612416	1.9	.2	10	5	19	120	0	1	0	0	1	21	145	1.86	1.9
252	81 81 526 C	612417	6.8	2.8	19	65	15406	1050	131	1	0	13	0	32	117	.86	6.8
253	81 81 526 C	612418	4.7	.4	27	5	129	230	2	1	0	1	0	54	85	1.38	4.7
254	50 81 526 C	612421	4.4	.4	13	5	29	140	2	0	1	1	0	109	63	3.21	4.4
255	81 81 526 C	612422	1.6	.0	6	5	107	175	0	0	0	1	0	32	231	1.70	1.6
256	81 81 526 C	612423	6.1	.4	11	10	46	60	2	0	1	0	0	82	77	2.13	6.1
257	81 81 526 C	612424	4.9	.2	13	5	14	55	0	1	0	1	0	79	64	3.02	4.9
258	81 81 526 C	612425	11.0	2.0	24	5	61	110	2	2	1	7	1	72	29	1.68	11.0
259	81 81 526 C	612426	12.3	1.5	30	5	68	420	3	2	0	.3	1	73	28	2.20	12.3
260	81 81 526 C	612428	1.9	.1	11	5	0	20	1	0	0	1	1	35	43	2.57	1.9
261	81 81 526 C	612429	1.8	.0	16	25	23	45	1	0	0	0	0	28	43	1.74	1.8
262	81 81 526 B	612430	2.3	.1	13	5	7	15	1	0	0	1	0	52	80	2.83	2.3
263	50 81 526 A	612431	4.6	.2	6	10	10	50	1	0	0	0	0	126	36	2.12	4.6
264	10 81 526 A	612432	4.3	.5	25	5	180	60	0	0	0	1	0	73	65	2.75	4.3
265	81 81 526 B	612434	2.8	.1	17	5	3	10	0	0	0	1	1	52	31	1.78	2.8
266	89 81 526 B	612435	6.3	59.7	9	15	29726	960	309	15	0	70	0	7	55	.24	6.3
267	10 81 526 A	612436	5.6	2.1	41	5	1545	80	23	1	0	4	0	26	86	.69	5.6
268	50 81 526 A	612437	7.4	3.7	11	5	591	90	2	0	1	0	0	97	50	2.92	7.4
269	89 81 526 B	612440	20.0	0.	48	20	192	60	2	3	1	15	0	25	18	.97	20.0
270	50 81 526 A	612442	6.9	.6	10	5	295	20	6	2	1	1	0	109	50	2.42	6.9
271	89 81 526 B	612446	7.2	3.3	9	5	16847	140	356	4	0	14	3	27	15	.43	7.2
272	89 81 526 B	612447	14.9	2.9	133	10	238	160	2	4	1	8	1	62	38	1.86	14.9
273	50 81 526 A	612448	6.1	.5	20	5	57	110	0	2	1	1	0	91	58	4.24	6.1
274	81 81 526 B	612449	13.1	1.0	42	5	80	110	2	1	0	1	1	69	23	1.95	13.1
275	81 81 526 C	612450	2.2	.1	12	5	14	5	0	1	0	1	1	31	30	1.99	2.2
276	50 81 526 C	612451	7.0	.8	10	5	17	120	2	1	1	1	0	123	54	4.07	7.0
277	10 81 526 C	613001	3.1	.3	14	5	18	65	1	1	1	0	5	57	50	1.73	3.1
278	10 81 526 C	613002	6.3	.8	112	5	45	70	8	0	0	1	11	71	82	1.96	6.3
279	10 81 526 C	613003	4.2	.8	88	5	637	40	4	0	0	5	10	65	105	2.04	4.2
280	10 81 526 C	613004	1.0	.0	3	5	9	20	0	0	2	0	1	21	56	.62	1.0
281	10 81 526 C	613005	1.0	0.	3	5	2	25	0	0	3	0	1	12	50	.74	1.0
282	10 81 526 C	613006	3.6	.4	20	5	18	70	4	0	1	0	7	67	105	2.54	3.6
283	10 81 526 C	613007	5.0	.6	15	10	52	40	4	1	1	1	9	81	78	2.99	5.0
284	10 81 526 C	613008	4.6	.5	15	5	26	35	5	1	1	1	9	78	78	2.92	4.6
285	10 81 526 A	614001	2.6	.6	18	5	12	120	2	0	0	2	7	41	94	2.76	2.6
286	10 81 526 A	614002	1.2	1.0	13	5	7	190	2	0	0	2	4	22	69	2.62	1.2
287	10 81 526 A	614003	1.3	.3	11	5	11	180	2	0	0	1	3	21	86	2.16	1.3
288	10 81 526 A	614004	2.6	.9	27	5	21	180	3	0	0	1	6	47	107	4.42	2.6
289	10 81 526 C	614005	1.0	0.	4	5	3	10	0	0	2	0	0	17	51	.74	1.0
290	10 81 526 C	614006	.8	.0	3	5	0	25	0	0	2	0	1	11	69	.81	.8



Listing of COALLIST2 at 12:15:15 on OCT 8, 1981 for CCId=BP06

					Fe%	Ag	Co	Au(ppb)	As	Hg (ppb)	Sb	W	Th	Cd	Bi	V	Ba	Al%	Fe%	
291	10	81	526	C	614007	3.5	.4	17	5	13	40	3	0	1	0	6	64	89	1.83	3.5
292	10	81	526	C	614008	3.6	.4	18	10	22	35	4	0	1	1	7	66	85	2.23	3.6
293	10	81	526	C	614009	4.1	.5	24	5	23	55	3	0	1	1	8	69	95	2.47	4.1
294	10	81	526	C	614010	4.2	.6	24	5	29	60	4	0	1	1	8	72	66	2.64	4.2
295	50	81	526	C	614011	3.2	.7	5	5	33	820	4	0	0	2	4	10	127	1.03	3.2
296	50	81	526	C	614012	2.3	.4	4	5	21	55	1	0	3	0	4	19	78	2.32	2.3
297	50	81	526	C	614013	3.6	.3	2	5	9	35	5	1	1	0	6	46	32	2.09	3.6
298	50	81	526	A	614308	2.0	0.	2	5	7	10	1	0	0	0	0	45	12	.89	2.0
299	50	81	526	A	614309	3.4	.2	4	5	6	10	5	1	1	0	0	49	33	1.79	3.4
300	50	81	526	A	614310	1.0	.0	1	5	10	20	0	0	1	0	0	22	27	.80	1.0
301	50	81	526	A	614311	1.6	.0	6	5	1	25	1	0	1	0	0	29	128	1.44	1.6
302	50	81	526	A	614312	2.4	.2	24	5	4	30	1	0	1	0	0	41	120	1.69	2.4
303	50	81	526	A	614313	2.4	.1	23	5	0	15	1	0	2	0	0	45	179	1.90	2.4
304	50	81	526	A	614314	.5	0.	1	5	0	10	0	0	0	0	0	23	22	.84	.5
305	50	81	526	A	614315	2.0	0.	3	5	2	10	1	1	1	0	0	56	65	1.61	2.0
306	50	81	526	A	614316	.7	0.	1	5	0	10	0	0	0	0	0	29	25	1.14	.7
307	50	81	526	A	614317	2.6	0.	0	5	5	25	3	0	1	0	0	39	12	.92	2.6
308	50	81	526	A	614318	1.3	0.	1	5	0	40	0	1	1	0	0	33	33	1.63	1.3
309	50	81	526	A	614319	1.7	.0	2	5	1	40	1	0	1	0	0	38	30	1.29	1.7
310	50	81	526	A	614320	1.7	0.	1	5	3	30	1	0	1	0	0	39	18	1.16	1.7
311	50	81	526	A	614321	.2	0.	0	5	0	20	0	0	0	0	0	11	5	.23	.2
312	50	81	526	A	614322	.0	0.	0	5	0	15	0	0	0	0	0	10	9	.68	.0
313	50	81	526	A	614323	5.0	.7	32	5	14	60	9	1	1	0	0	61	174	2.57	5.0
314	50	81	526	A	614324	.6	0.	0	5	0	10	0	0	0	0	0	19	49	.87	.6
315	50	81	526	A	614325	1.1	.0	1	5	1	20	1	0	1	0	0	32	30	1.42	1.1
316	50	81	526	A	614326	3.0	.2	3	5	6	30	4	0	1	0	0	51	28	1.51	3.0
317	50	81	526	A	614327	2.4	.0	3	5	2	60	1	0	1	0	0	33	33	1.73	2.4
318	50	81	526	A	614328	1.3	.1	1	5	4	35	1	0	1	0	0	33	10	1.18	1.3
319	50	81	526	A	614329	1.7	0.	1	5	4	20	1	0	0	0	0	57	10	.87	1.7
320	50	81	526	A	614330	.1	.0	0	5	0	60	0	0	0	0	0	1	30	.19	.1
321	50	81	526	A	614331	1.3	0.	1	5	3	15	0	0	0	0	0	42	11	.95	1.3
322	50	81	526	A	614332	1.4	0.	1	5	0	20	0	0	0	0	0	30	14	1.04	1.4
323	50	81	526	A	614333	2.5	.1	6	5	7	40	2	0	1	0	0	40	72	1.78	2.5
324	50	81	526	A	614334	3.4	.3	14	5	37	60	4	0	1	0	0	43	84	2.24	3.4
325	50	81	526	A	614335	1.8	.0	3	5	12	15	1	1	0	0	0	32	43	1.35	1.8
326	50	81	526	A	614336	.4	.1	0	5	35	110	1	0	0	0	0	7	158	.26	.4
327	50	81	526	A	614337	1.3	0.	6	5	33	10	0	0	1	0	0	27	118	1.24	1.3
328	50	81	526	A	614338	2.4	0.	5	5	10	50	2	0	1	0	0	49	53	2.12	2.4
329	50	81	526	A	614339	.8	0.	0	5	0	10	0	0	1	0	0	25	10	.98	.8
330	50	81	526	A	614340	2.8	.1	1	5	5	35	3	1	1	0	0	47	19	1.61	2.8
331	50	81	526	A	614341	4.4	.2	1	5	11	130	5	1	1	0	0	63	16	1.54	4.4
332	50	81	526	A	614342	3.1	.2	3	5	7	100	3	1	1	0	0	45	32	2.77	3.1
333	50	81	526	A	614343	2.8	0.	4	5	9	30	3	0	1	0	0	53	33	1.46	2.8
334	50	81	526	A	614344	3.0	.1	2	5	6	60	3	0	1	0	0	63	32	1.84	3.0
335	50	81	526	A	614345	4.3	.3	3	5	7	120	2	0	2	0	0	51	44	3.28	4.3
336	50	81	526	A	614346	4.2	.2	6	5	8	50	2	1	1	0	0	48	56	2.42	4.2
337	50	81	526	A	614347	2.0	.5	29	15	23	150	2	0	1	0	0	32	121	3.25	2.0
338	50	81	526	A	614348	1.8	.0	5	5	24	10	1	0	1	0	0	36	106	1.70	1.8
339	50	81	526	A	614349	3.5	.5	12	5	112	60	2	0	2	0	0	50	150	2.66	3.5
340	50	81	526	A	614350	2.9	.2	9	5	29	30	2	0	1	0	0	49	100	1.96	2.9
341	50	81	526	A	614351	1.9	.1	7	5	25	25	1	0	1	0	0	33	120	1.69	1.9
342	10	81	526	A	614352	4.2	.4	10	5	14	60	4	1	1	0	0	54	101	2.76	4.2
343	50	81	526	A	614353	3.4	.2	11	5	8	35	2	0	1	0	0	47	77	2.29	3.4
344	50	81	526	A	614354	4.2	.4	7	5	19	40	4	2	1	0	0	58	95	3.46	4.2
345	50	81	526	A	614355	2.4	.1	7	5	99	40	2	0	1	0	1	32	71	1.66	2.4
346	50	81	526	A	614356	1.9	.2	4	5	180	35	2	1	0	0	0	31	66	1.77	1.9
347	50	81	526	A	614357	3.6	.3	3	5	8	130	2	1	1	0	0	42	30	1.92	3.6
348	50	81	526	A	614358	2.0	.1	7	5	149	30	0	0	1	0	0	32	100	1.76	2.0

Listing of COALLIST2 at 12:15:15 on OCT 8, 1981 for CCID-RP06 Hg																				
					Fe%	Ag	Co	Au(ppb)	As (ppb)	Sb	W	Th	Cd	Bi	V	Ba	Al%	Fe%		
349	50	81	526	A	614359	2.5	.1	2	5	6	160	3	0	1	0	41	14	2.51	2.5	
350	50	81	526	A	614360	2.9	.1	2	5	5	80	3	1	1	0	44	19	1.71	2.9	
351	50	81	526	A	614361	2.1	.0	1	5	10	40	2	0	0	0	59	17	1.20	2.1	
352	50	81	526	A	614362	3.2	.4	43	5	3	100	3	0	1	0	0	49	56	2.58	3.2
353	50	81	526	A	614363	3.0	.2	2	5	2	100	3	0	1	0	0	54	24	3.13	3.0
354	50	81	526	A	614364	5.7	.3	8	5	17	150	3	1	1	0	0	80	26	2.88	5.7
355	50	81	526	A	614365	3.7	.1	2	5	7	40	2	0	0	0	0	93	22	1.62	3.7
356	50	81	526	A	614366	4.4	.2	6	5	8	50	3	0	1	0	0	90	32	3.21	4.4
357	50	81	526	A	614367	4.5	.4	3	5	10	150	2	0	1	0	0	63	31	2.62	4.5
358	50	81	526	A	614368	2.8	.1	5	5	129	50	2	0	1	0	0	45	56	2.03	2.8
359	50	81	526	A	614369	4.1	.4	7	5	9	90	3	0	1	0	0	61	49	2.75	4.1
360	50	81	526	A	614370	3.5	.2	6	5	13	80	3	0	2	0	0	52	34	3.56	3.5
361	50	81	526	A	614371	2.0	.2	8	5	156	20	1	0	1	0	1	30	85	1.77	2.0
362	50	81	526	A	614372	4.0	.3	3	5	87	120	4	0	1	0	0	66	29	3.10	4.0
363	50	81	526	A	614373	2.8	.1	6	5	78	30	3	0	1	0	0	48	43	1.67	2.8
364	50	81	526	A	614374	2.3	.0	2	5	140	30	2	0	0	0	0	41	22	1.16	2.3
365	50	81	526	A	614375	2.1	.1	6	5	37	70	1	0	1	0	0	39	60	1.75	2.1
366	50	81	526	A	614376	2.3	.2	8	5	80	50	1	0	0	0	0	52	50	2.02	2.3
367	50	81	526	A	614377	2.4	.2	8	5	78	50	2	0	0	0	0	55	49	2.00	2.4
368	10	81	526	A	614378	1.9	.3	10	5	47	100	3	1	0	0	1	33	74	2.38	1.9
369	50	81	526	A	614379	3.0	.1	3	5	24	30	2	0	0	0	0	62	42	1.47	3.0
370	50	81	526	A	614380	4.0	.3	6	25	25	30	4	1	1	0	0	66	29	2.53	4.0
371	50	81	526	A	614381	4.6	.4	5	5	13	100	5	3	1	0	0	60	37	3.88	4.6
372	50	81	526	A	614382	5.5	.4	7	5	149	80	3	2	1	0	0	88	55	2.78	5.5
373	50	81	526	A	614383	3.6	.6	10	5	78	85	2	0	1	0	0	61	78	2.57	3.6
374	50	81	526	A	614384	2.9	.4	11	5	156	65	3	2	1	0	0	53	69	3.70	2.9
375	50	81	526	A	614385	2.5	.2	3	5	4	60	2	0	1	0	0	63	22	1.83	2.5
376	50	81	526	A	614386	.6	0.	0	5	1	20	0	0	0	0	0	35	11	.63	.6
377	50	81	526	A	614387	2.7	.2	5	5	8	20	2	0	0	0	0	78	19	1.72	2.7
378	50	81	526	A	614388	1.0	.1	2	5	0	15	0	0	0	0	0	30	22	.77	1.0
379	50	81	526	A	614389	1.4	.0	2	5	4	10	0	0	0	0	0	50	7	.76	1.4
380	50	81	526	A	614390	3.6	.4	9	5	8	140	4	1	1	0	0	73	43	4.36	3.6
381	50	81	526	A	614391	6.3	.4	3	5	13	50	4	1	1	0	0	92	22	2.07	6.3
382	50	81	526	A	614392	5.0	.3	11	5	11	60	2	0	1	0	0	88	48	2.91	5.0
383	50	81	526	A	614393	4.8	.2	6	5	8	80	2	1	1	0	0	93	26	2.15	4.8
384	50	81	526	A	614394	4.3	.4	8	5	17	140	4	1	1	0	0	78	36	3.26	4.3
385	50	81	526	A	614395	4.2	.3	10	5	715	40	3	0	0	0	0	75	58	2.71	4.2
386	10	81	526	A	614396	3.4	.3	17	5	466	60	4	1	0	0	0	60	70	2.34	3.4
387	50	81	526	A	614397	3.8	.4	11	5	1367	50	3	1	1	0	0	59	56	2.67	3.8
388	50	81	526	A	614398	.6	.2	2	5	63	110	4	0	0	0	0	7	32	.40	.6
389	50	81	526	A	*614399	5.0	.2	18	5	165	15	2	0	1	0	0	77	58	2.11	5.0
390	50	81	526	A	*614400	3.6	.2	12	5	127	10	2	1	0	0	0	77	50	1.97	3.6
391	50	81	526	A	614401	3.4	1.0	18	5	219	20	0	0	0	2	4	86	274	3.65	3.4
392	50	81	526	A	614402	3.7	.2	15	5	5	10	2	0	1	0	1	78	65	2.10	3.7
393	50	81	526	A	614403	1.3	0.	1	5	4	5	0	0	0	0	0	64	6	.63	1.3
394	50	81	526	A	614404	1.9	.2	11	5	80	60	0	1	0	1	1	40	42	2.36	1.9
395	10	81	526	A	614405	3.0	.2	12	5	64	30	2	1	1	0	1	61	56	2.27	3.0
396	50	81	526	A	614406	3.7	.1	5	5	64	55	3	1	1	0	0	84	38	2.54	3.7
397	50	81	526	A	614407	2.8	.1	4	5	10	120	1	0	1	0	0	62	31	3.01	2.8
398	50	81	526	A	614408	4.4	.1	4	5	16	50	2	0	1	0	0	68	22	3.23	4.4
399	50	81	526	A	614409	2.6	.0	3	5	17	20	2	0	0	0	0	61	17	1.10	2.6
400	50	81	526	A	614410	2.5	.5	47	5	35	70	1	0	1	0	1	65	40	2.64	2.5
401	50	81	526	A	614411	2.6	.2	2	5	11	70	3	1	0	0	0	67	15	1.60	2.6
402	50	81	526	A	614412	2.0	0.	2	5	2	110	1	0	0	0	0	45	14	1.90	2.0
403	50	81	526	A	614413	2.9	0.	1	5	10	10	1	0	0	0	0	117	6	.89	2.9
404	50	81	526	A	614414	2.2	0.	2	5	6	5	0	0	0	0	0	75	12	.99	2.2
405	50	81	526	A	614415	1.6	0.	3	5	4	15	0	0	0	0	1	54	17	1.17	1.6
406	50	81	526	A	614416	3.0	.0	4	5	5	50	2	0	1	0	1	74	26	2.68	3.0

Listing of COALLIST2 at 12:15:15 on OCT 8, 1981 for CCID-BPOG Hg

	Fe%	Ag	Co	Au(ppb)	As (ppb)	Sb	W	Th	Cd	Bi	V	Ba	Al%	Fe%			
407	50 81 526 A	614417	2.6	.0	5	5	5	25	2	0	1	0	1	67	26	1.84	2.6
408	50 81 526 A	614418	3.8	.2	12	5	12	35	2	1	1	0	1	80	37	2.64	3.8
409	50 81 526 A	614419	1.6	.0	3	5	4	10	0	0	0	0	0	48	27	.86	1.6
410	50 81 526 A	614420	1.9	0.	9	5	4	25	0	1	0	0	0	47	33	1.26	1.9
411	50 81 526 A	614421	4.2	.4	27	10	92	85	2	2	1	0	0	87	69	3.48	4.2
412	50 81 526 A	614422	3.3	.1	8	5	12	15	2	0	0	0	0	72	26	1.78	3.3
413	50 81 526 A	614423	3.7	.1	6	5	7	50	2	1	0	0	0	88	25	2.07	3.7
414	50 81 526 A	614424	2.6	.1	4	5	4	20	2	0	0	0	0	69	21	1.46	2.6
415	50 81 526 A	614425	2.8	.1	5	5	4	15	2	1	0	0	0	73	29	1.58	2.8
416	50 81 526 A	614426	4.3	.3	6	5	3	130	2	2	1	0	0	102	31	2.37	4.3
417	50 81 526 A	614427	4.6	.4	8	5	5	80	3	2	1	0	0	103	44	2.89	4.6
418	50 81 526 A	614428	3.9	.2	6	5	4	70	2	1	0	0	0	102	29	2.00	3.9
419	50 81 526 A	614429	.8	.0	0	5	1	220	1	0	0	0	0	14	19	4.58	.8
420	50 81 526 A	614430	6.2	.2	4	5	6	180	3	0	1	0	0	103	25	3.08	6.2
421	50 81 526 A	614431	3.5	0.	2	5	7	15	2	0	0	0	0	93	12	.97	3.5
422	50 81 526 A	614432	5.2	.3	5	5	7	100	3	1	0	0	0	104	38	2.92	5.2
423	50 81 526 A	614433	2.5	.0	4	5	5	20	2	0	0	0	0	86	21	1.59	2.5
424	10 81 526 A	614434	4.2	.3	27	5	6	70	2	0	1	0	0	76	72	2.90	4.2
425	50 81 526 A	614435	4.0	.3	5	5	5	120	2	1	0	0	0	89	30	2.50	4.0
426	50 81 526 A	614436	2.0	0.	2	5	2	25	1	1	0	0	0	77	12	1.03	2.0
427	50 81 526 A	614437	5.9	.5	8	5	4	320	3	1	1	0	0	114	34	3.52	5.9
428	50 81 526 A	614438	4.6	.2	4	5	4	100	3	2	1	0	0	115	24	2.26	4.6
429	50 81 526 A	614439	4.1	.1	3	5	6	90	3	1	1	0	0	98	19	2.04	4.1
430	50 81 526 A	614440	4.0	.3	10	5	4	30	3	1	0	0	0	85	64	2.86	4.0
431	50 81 526 A	614441	5.0	.1	7	5	10	120	2	1	1	0	1	99	24	3.11	5.0
432	50 81 526 A	614442	4.2	.0	5	5	11	25	2	1	1	0	0	107	19	1.70	4.2
433	50 81 526 A	614443	1.1	0.	1	5	4	10	0	0	0	1	1	55	10	.64	1.1
434	50 81 526 A	614444	4.4	0.	3	5	9	25	2	1	0	0	0	125	14	1.27	4.4
435	50 81 526 A	614445	3.6	.0	5	5	4	30	2	0	0	0	1	101	23	1.71	3.6
436	50 81 526 A	614446	2.3	0.	1	5	5	10	1	0	1	0	0	43	13	.99	2.3
437	10 81 526 A	614447	2.0	.9	9	5	67	20	1	0	1	0	1	19	74	.90	2.0
438	50 81 526 A	614448	4.1	1.4	17	5	175	100	2	0	1	1	1	47	162	2.34	4.1
439	50 81 526 A	614449	.9	.1	1	5	10	5	0	0	0	0	0	20	54	.69	.9
440	50 81 526 A	614450	1.7	0.	2	5	0	5	0	0	2	0	0	41	9	1.04	1.7
441	50 81 526 A	614451	2.5	0.	2	5	3	10	1	0	2	0	0	30	24	1.48	2.5
442	50 81 526 A	614452	1.1	.0	1	5	4	15	0	0	1	0	0	15	16	.72	1.1
443	50 81 526 A	614453	1.6	.0	0	5	1	15	1	0	2	0	0	28	22	1.97	1.6
444	50 81 526 A	614454	1.7	0.	2	5	8	30	0	0	0	1	1	30	30	.66	1.7
445	50 81 526 A	614455	3.4	.2	9	5	23	30	3	0	1	0	2	53	116	2.15	3.4
446	50 81 526 A	614456	1.7	0.	3	5	4	25	0	0	1	0	1	35	36	1.25	1.7
447	50 81 526 A	614457	3.2	.7	72	5	10	85	3	0	0	0	3	32	72	1.92	3.2
448	50 81 526 A	614458	1.8	.2	10	5	6	80	1	0	0	0	1	22	286	1.60	1.8
449	50 81 526 A	614459	2.4	.2	33	5	4	60	2	0	1	0	1	28	162	1.76	2.4
450	50 81 526 A	614460	2.3	.0	2	5	3	20	2	0	1	0	1	31	21	1.10	2.3
451	10 81 526 A	614461	3.5	.5	25	5	18	100	2	0	1	0	1	25	120	1.70	3.5
452	50 81 526 A	614462	2.2	.1	8	5	5	120	0	0	1	0	0	29	123	2.11	2.2
453	50 81 526 A	614463	1.3	.1	2	5	3	20	0	0	1	0	0	30	31	1.22	1.3
454	50 81 526 A	614464	4.3	.6	65	5	13	210	2	0	1	0	0	34	114	1.86	4.3
455	10 81 526 A	614465	.4	.2	5	5	0	420	0	0	0	0	0	5	96	1.67	.4
456	50 81 526 A	614466	1.0	.1	1	5	1	20	0	0	2	0	0	12	34	.89	1.0
457	50 81 526 A	614467	1.8	0.	1	5	6	15	0	0	1	0	0	44	13	.92	1.8
458	50 81 526 A	614468	1.4	.0	3	5	1	15	0	0	2	0	0	35	14	.86	1.4
459	50 81 526 A	*614469	3.1	.1	2	5	9	20	2	0	1	0	0	55	14	1.27	3.1
460	50 81 526 A	*614470	3.4	.0	1	5	7	20	1	1	1	0	0	59	12	1.33	3.4
461	50 81 526 A	614471	3.9	.3	3	5	21	180	2	1	4	1	0	37	36	4.07	3.9
462	50 81 526 A	614472	2.6	.2	2	5	4	120	0	0	1	0	0	31	80	2.26	2.6
463	50 81 526 A	614473	2.0	.5	8	5	8	170	0	0	1	1	1	26	433	2.11	2.0
464	50 81 526 A	614474	1.1	.0	2	5	2	20	0	0	1	0	0	13	35	.51	1.1

Listing of COALIS12 at 12:15:15 on OCT 8, 1981 for CC1d-BPOG Hq

					Fe%	Ag	Co	Au(ppb)	As (ppb)	Sb	W	Th	Cd	Bi	V	Ba	Al%	Fe%	
465	50	81	526	A	G14475	1.2	.0	1	5	2	20	0	0	1	0	40	16	.91	1.2
466	50	81	526	A	G14476	1.8	.1	2	5	3	40	0	0	1	0	32	19	1.43	1.8
467	50	81	526	A	G14477	2.7	.2	2	5	6	70	0	0	1	0	49	42	2.12	2.7
468	50	81	526	A	G14478	1.5	.0	2	5	2	20	0	0	1	0	35	26	1.49	1.5
469	50	81	526	A	G14479	2.9	.2	3	5	7	40	0	0	2	0	40	37	2.06	2.9
470	50	81	526	A	G14480	1.3	.0	0	5	2	25	0	0	1	0	35	18	.86	1.3
471	50	81	526	A	G14481	.8	.0	0	5	1	15	0	0	1	0	29	10	.78	.8
472	50	81	526	A	G14482	5.8	.2	16	5	12	50	2	1	0	0	112	33	1.26	5.8
473	50	81	526	A	G14483	1.2	.0	1	10	3	5	0	0	1	0	35	6	.74	1.2
474	10	81	526	A	G14485	1.6	.0	4	15	6	30	0	0	2	0	18	46	.62	1.6
475	50	81	526	A	G14486	1.4	.0	3	5	6	80	0	0	1	0	17	46	.80	1.4
476	50	81	526	A	G14487	1.0	.1	1	10	1	10	0	0	0	0	26	32	.71	1.0
477	50	81	526	A	G14488	.6	.0	0	20	1	15	0	0	0	0	28	10	.61	.6
478	50	81	526	A	G14489	.9	.0	1	5	3	20	0	0	1	0	31	16	1.12	.9
479	50	81	526	A	G14490	.6	.0	1	5	2	15	0	0	1	0	25	16	.71	.6
480	50	81	526	A	G14491	1.9	0.	3	5	4	50	0	0	1	0	31	20	1.19	1.9
481	50	81	526	A	G14492	.8	.0	0	5	2	20	0	0	0	0	32	8	.63	.8
482	50	81	526	A	G14493	2.6	.1	4	5	8	250	0	0	2	0	27	32	2.23	2.6
483	50	81	526	A	G14494	1.2	.0	3	5	2	15	0	0	1	0	28	68	1.18	1.2
484	50	81	526	A	G14495	1.3	.1	3	5	2	15	0	0	1	0	28	157	1.45	1.3
485	50	81	526	A	G14496	2.6	.4	14	5	3	35	0	0	1	0	32	323	2.03	2.6
486	50	81	526	A	G14497	.6	.1	1	5	0	25	0	0	1	0	10	152	.91	.6
487	50	81	526	A	G14498	.8	.2	3	5	3	100	0	0	1	0	12	138	1.69	.8
488	50	81	526	A	G14499	.4	.0	0	5	1	5	0	0	1	0	16	12	.36	.4
489	50	81	526	A	G14500	.9	.5	3	5	1	290	0	0	0	1	9	454	1.35	.9
490	50	81	526	A	*G14501	1.8	.2	3	5	5	75	0	1	1	0	29	221	1.92	1.8
491	50	81	526	A	*G14502	1.7	.2	3	5	4	75	0	0	1	0	28	231	1.89	1.7
492	50	81	526	A	G14503	.1	.2	0	5	0	260	0	0	0	0	2	14	.08	.1
493	50	81	526	A	G14504	2.2	.2	13	5	2	40	0	0	1	0	28	310	2.02	2.2
494	50	81	526	A	G14505	2.3	0.	1	5	8	60	1	0	1	0	40	14	1.02	2.3
495	50	81	526	A	G14506	1.6	.0	1	5	0	30	0	0	2	0	38	27	1.20	1.6
496	10	81	526	A	G14507	1.2	.3	3	5	5	130	1	0	0	0	26	109	.88	1.2
497	50	81	526	A	G14508	1.3	.0	2	5	2	10	0	0	2	0	38	54	1.15	1.3
498	10	81	526	A	G14509	4.0	.3	27	5	19	45	2	0	1	0	14	48	.59	4.0
499	50	81	526	A	G14510	2.1	.0	4	10	12	15	2	0	1	0	22	18	.50	2.1
500	50	81	526	A	G14511	3.1	.1	1	5	4	100	1	1	2	0	25	48	2.47	3.1
501	50	81	526	A	G14512	1.6	.1	6	5	13	45	0	0	2	0	21	125	1.11	1.6
502	50	81	526	A	G14513	1.6	.1	2	5	5	20	0	0	2	0	41	97	1.71	1.6
503	50	81	526	A	G14514	1.9	.0	1	5	4	20	0	0	2	0	24	34	1.66	1.9
504	50	81	526	A	G14515	1.7	.1	1	5	2	20	0	0	2	0	28	40	1.60	1.7
505	50	81	526	A	G14516	1.1	.0	1	5	3	20	0	0	1	0	27	10	.86	1.1
506	50	81	526	A	G14517	1.6	.0	2	5	6	30	0	0	1	0	34	17	1.13	1.6
507	50	81	526	A	G14518	2.2	.1	2	5	4	40	0	0	1	0	32	28	1.47	2.2
508	50	81	526	A	G14519	1.2	.0	1	5	0	20	0	0	1	0	17	61	1.03	1.2
509	50	81	526	A	G14520	1.8	0.	2	5	2	20	0	0	1	0	63	11	.95	1.8
510	50	81	526	A	G14521	.1	.1	1	5	0	130	0	0	0	0	1	73	.42	.1
511	50	81	526	A	G14523	.1	0.	1	15	1	140	0	0	0	0	1	102	.37	.1
512	50	81	526	A	G14524	.0	.0	0	5	1	170	0	0	0	0	0	21	.05	.0
513	50	81	526	A	G14525	1.2	.0	1	10	2	15	0	0	1	0	53	8	.69	1.2
514	50	81	526	A	G14526	2.0	.1	2	5	7	90	0	0	1	0	29	46	1.89	2.0
515	50	81	526	A	G14527	1.0	0.	0	5	2	15	0	0	1	0	30	10	.84	1.0
516	50	81	526	A	G14528	3.0	.1	2	5	5	60	0	0	1	0	45	18	1.59	3.0
517	50	81	526	A	G14529	2.1	0.	1	10	5	40	0	0	1	0	46	8	.90	2.1
518	10	81	526	A	G14530	2.2	.3	70	5	2	260	0	0	0	0	25	46	1.97	2.2
519	50	81	526	A	G14531	1.1	.1	1	5	0	50	0	0	0	0	27	18	.78	1.1
520	50	81	526	A	G14532	1.3	.1	34	5	2	40	0	0	1	0	25	61	1.58	1.3
521	50	81	526	A	*G14533	2.8	.2	2	5	5	100	2	0	1	0	47	23	1.87	2.8
522	50	81	526	A	*G14534	3.1	.3	3	5	8	160	1	1	2	0	48	30	2.62	3.1

Listing of COALLIST2 at 12:15:15 on OCT 9, 1981 for CCID-R00G											Hg									
					Fe%	Ag	Co	Au(ppb)	As	(ppb)	Sb	W	Th	Cd	Bi	V	Ba	Al%	Fe%	
523	50	81	526	A	614535	4.1	.0	2	5	12	40	2	1	1	0	0	53	13	1.36	4.1
524	50	81	526	A	614536	1.8	0.	1	5	0	80	0	0	1	0	0	36	20	1.26	1.8
525	50	81	526	A	614537	3.3	.0	1	5	7	40	2	1	1	0	0	44	13	1.24	3.3
526	50	81	526	A	614538	2.6	.1	3	5	3	25	1	0	1	0	0	50	51	1.50	2.6
527	50	81	526	A	614539	.6	.1	0	5	0	30	0	0	0	0	0	14	9	.81	.6
528	50	81	526	A	614540	2.3	.1	1	5	3	50	0	0	1	0	0	52	38	1.40	2.3
529	50	81	526	A	614541	.2	.1	21	5	0	220	0	0	0	0	0	2	120	1.18	.2
530	50	81	526	A	614543	1.2	.1	1	5	1	60	0	0	0	0	0	28	14	.78	1.2
531	50	81	526	A	614544	1.7	.0	1	5	8	30	0	0	1	0	0	57	9	.65	1.7
532	50	81	526	A	614545	5.0	7.8	4	5	18	1520	2	1	3	1	0	47	33	3.14	5.0
533	50	81	526	A	614546	1.8	.0	1	5	6	30	0	0	1	0	0	31	18	1.14	1.8
534	50	81	526	A	614547	3.3	.2	2	5	5	70	2	0	1	0	0	48	30	1.57	3.3
535	50	81	526	A	614548	1.8	.1	2	5	3	60	0	0	1	0	0	30	16	1.23	1.8
536	50	81	526	A	614549	.2	.0	0	5	0	30	0	0	0	0	0	9	7	.49	.2
537	10	81	526	A	614551	1.2	.1	5	5	1	150	0	0	0	0	0	28	44	1.40	1.2
538	50	81	526	A	614552	2.2	.2	4	5	5	80	0	0	1	0	0	48	35	1.41	2.2
539	50	81	526	A	614553	2.5	.2	23	5	2	65	0	0	1	0	0	39	94	1.99	2.5
540	50	81	526	A	614554	3.4	.1	3	5	10	210	2	1	2	0	0	42	26	2.39	3.4
541	50	81	526	A	614555	2.8	.1	2	5	5	70	1	0	1	0	0	43	19	1.44	2.8
542	50	81	526	A	614556	1.9	.1	10	5	4	35	0	1	1	0	0	31	72	1.54	1.9
543	50	81	526	A	614557	.3	.0	0	5	0	45	0	0	0	0	0	16	11	.49	.3
544	50	81	526	A	614558	.2	.1	0	5	0	5	0	0	0	0	0	8	13	.34	.2
545	50	81	526	A	614559	5.8	.9	7	5	8	250	4	1	1	0	0	18	38	1.80	5.8
546	50	81	526	A	614560	.1	.2	0	5	0	120	0	0	0	0	0	1	17	.09	.1
547	50	81	526	A	614561	2.9	.2	7	5	6	130	2	0	1	0	0	36	45	2.06	2.9
548	50	81	526	A	614562	2.2	.1	1	5	7	70	0	0	1	0	0	43	11	1.35	2.2
549	50	81	526	A	614563	.2	.1	2	5	0	230	0	0	0	0	0	7	38	.51	.2
550	50	81	526	A	614564	1.8	0.	1	5	4	5	0	0	0	0	0	86	17	.90	1.8
551	50	81	526	A	614565	5.3	.1	9	5	16	120	2	1	1	0	0	101	36	3.10	5.3
552	50	81	526	A	614566	2.1	0.	2	5	4	45	0	2	0	0	0	81	11	1.09	2.1
553	50	81	526	A	614567	3.3	.3	151	5	11	100	2	0	1	0	0	57	47	3.53	3.3
554	50	81	526	A	614568	5.9	.3	9	5	21	150	2	1	1	0	0	86	25	2.96	5.9
555	50	81	526	A	614569	3.9	.1	9	5	11	35	1	0	0	0	0	83	41	2.20	3.9
556	50	81	526	A	614570	4.8	.2	11	5	74	35	2	1	0	0	0	95	36	2.04	4.8
557	50	81	526	A	614571	2.2	.2	35	5	27	100	0	1	0	0	0	41	35	1.67	2.2
558	50	81	526	A	614572	6.0	.4	10	5	21	280	2	2	1	1	0	81	31	3.13	6.0
559	50	81	526	A	614573	5.3	.2	8	5	65	45	3	1	0	0	0	104	32	1.47	5.3
560	50	81	526	A	614574	4.2	.1	4	5	15	30	2	1	0	0	0	98	12	1.34	4.2
561	50	81	526	A	614575	3.2	.0	3	5	13	30	2	1	0	0	0	102	13	1.05	3.2
562	50	81	526	A	*614576	4.6	.3	3	5	6	130	2	1	1	1	0	83	27	4.39	4.6
563	50	81	526	A	*614577	4.5	.3	3	5	15	120	2	2	1	1	0	79	29	4.57	4.5
564	50	81	526	A	614578	5.6	.2	6	5	18	120	2	1	1	0	0	89	35	2.73	5.6
565	50	81	526	A	614579	2.4	0.	2	5	6	30	1	1	0	0	0	85	10	.92	2.4
566	50	81	526	A	614580	2.3	.0	2	5	13	20	0	0	0	0	0	67	14	.86	2.3
567	50	81	526	A	614581	3.5	.4	10	10	12	55	2	1	0	0	0	63	72	2.05	3.5
568	50	81	526	A	614582	6.2	.4	8	5	22	75	2	0	2	1	0	95	38	3.54	6.2
569	50	81	526	A	614583	6.3	.3	6	5	19	300	2	2	1	0	0	109	37	3.32	6.3
570	50	81	526	A	614584	3.2	.1	4	5	7	20	1	0	0	0	0	92	38	1.65	3.2
571	50	81	526	A	614585	3.9	.3	11	5	15	90	1	1	0	1	0	76	63	2.82	3.9
572	50	81	526	A	614586	2.9	.3	29	5	7	200	1	0	0	1	0	37	31	3.44	2.9
573	50	81	526	A	614587	3.3	.5	18	5	18	260	0	0	1	1	0	44	27	5.01	3.3
574	50	81	526	A	614588	3.6	.1	3	5	13	65	2	1	0	0	0	107	13	1.34	3.6
575	50	81	526	A	614589	4.1	.1	9	5	18	20	2	0	0	0	0	108	24	1.95	4.1
576	50	81	526	A	614590	1.4	.0	3	5	11	5	0	0	0	0	0	81	9	.67	1.4
577	50	81	526	A	614591	1.6	0.	4	5	4	10	0	0	0	0	0	101	13	1.02	1.6
578	50	81	526	A	614592	6.3	.3	3	5	11	140	2	1	0	0	0	111	21	1.81	6.3
579	50	81	526	A	614593	3.2	.1	3	5	27	70	2	0	0	0	0	78	20	1.21	3.2
580	50	81	526	A	614594	2.1	0.	3	5	3	20	0	0	0	0	0	115	16	1.23	2.1

Listing of COALLIS12 at 12:15:15 on OCT 8, 1981 for CC1d-BPOG

			Fe%	Ag	Co	Au (ppb)	As (ppb)	Sb	W	Th	Cd	Bi	V	Ba	Al%	Fe%				
581	50	81	526	A	614595	1.3	.0	2	5	2	20	0	0	83	12	.68	1.3			
582	50	81	526	A	614596	1.4	.1	5	5	8	30	0	0	59	6	1.08	1.4			
583	50	81	526	A	614597	.5	0.	0	5	0	20	0	0	35	8	.81	.5			
584	50	81	526	A	614598	1.3	.0	2	5	3	15	0	0	85	10	.99	1.3			
585	50	81	526	A	614599	2.8	.1	2	5	10	45	2	1	0	0	103	19	1.17	2.8	
586	50	81	526	A	*614600	4.8	.2	7	5	15	50	2	2	1	0	99	27	2.71	4.8	
587	50	81	526	A	614601	4.4	.2	6	5	7	50	2	1	0	0	93	25	2.57	4.4	
588	50	81	526	A	614602	2.6	.6	28	5	9	100	0	1	0	1	51	67	2.71	2.6	
589	50	81	526	A	614603	1.4	.1	1	5	4	50	0	0	0	0	38	17	1.30	1.4	
590	50	81	526	A	614604	3.7	.1	2	5	11	50	0	0	0	0	108	14	1.54	3.7	
591	50	81	526	A	614605	2.1	.1	2	5	16	25	0	1	0	0	100	12	1.26	2.1	
592	50	81	526	A	614606	2.2	.0	3	5	10	40	0	0	0	0	87	15	1.65	2.2	
593	50	81	526	A	614607	4.2	.3	9	5	29	160	0	1	0	0	66	24	4.00	4.2	
594	50	81	526	A	614608	.4	.1	1	5	2	20	0	0	0	0	22	10	.41	.4	
595	50	81	526	A	614609	.8	.0	2	5	2	40	0	0	0	0	32	18	.83	.8	
596	50	81	526	A	614610	1.0	.0	4	5	3	20	0	0	0	1	40	21	1.18	1.0	
597	50	81	526	A	614611	1.2	0.	3	5	1	40	0	0	0	0	28	9	1.02	1.2	
598	50	81	526	A	614612	.2	.0	0	5	1	5	0	0	0	0	10	3	.38	.2	
599	50	81	526	A	614613	.8	.0	2	5	6	20	0	0	0	0	34	6	1.12	.8	
600	50	81	526	A	614614	2.1	.0	4	5	5	5	0	0	0	1	91	6	1.09	2.1	
601	50	81	526	A	614615	1.6	0.	2	5	3	50	0	0	0	0	64	14	1.54	1.6	
602	50	81	526	A	614616	1.7	0.	3	5	6	65	0	0	0	1	53	18	2.35	1.7	
603	50	81	526	A	614617	1.2	.0	1	5	3	60	0	0	0	0	32	10	1.42	1.2	
604	50	81	526	A	614618	1.6	0.	2	5	4	35	0	0	0	0	84	12	1.23	1.6	
605	50	81	526	A	614619	.9	0.	1	5	3	10	0	0	0	0	58	8	.98	.9	
606	50	81	526	A	614620	.7	0.	2	5	4	20	0	0	0	0	46	6	.53	.7	
607	50	81	526	A	614621	2.0	.1	5	5	20	10	0	0	0	0	57	7	.91	2.0	
608	50	81	526	A	614622	5.7	.7	4	5	30	100	3	1	1	0	82	21	2.49	5.7	
609	50	81	526	A	614623	5.9	.3	7	5	28	180	11	0	1	2	0	113	38	1.90	5.9
610	50	81	526	A	614624	3.7	.2	4	5	9	100	4	0	1	2	0	88	48	1.89	3.7
611	50	81	526	A	614625	.9	0.	1	5	1	35	0	0	0	0	36	38	.90	.9	
612	50	81	526	A	614626	.7	.0	1	5	1	30	0	0	0	0	25	12	.50	.7	
613	50	81	526	A	614627	.6	0.	0	5	0	20	0	0	0	0	27	13	.39	.6	
614	50	81	526	A	614628	5.3	.1	5	5	23	50	8	1	0	2	0	108	28	1.51	5.3
615	50	81	526	A	614629	8.7	.1	6	5	35	140	22	1	1	2	0	104	32	1.39	8.7
616	50	81	526	A	614630	3.0	.1	4	5	9	70	4	0	0	1	0	98	17	1.20	3.0
617	10	81	526	A	614631	3.2	.6	21	5	57	170	4	0	0	1	0	64	40	1.45	3.2
618	50	81	526	A	614632	.1	.1	0	5	0	200	0	0	0	0	3	21	.09	.1	
619	50	81	526	A	614633	3.7	0.	2	5	9	50	5	0	0	1	0	111	11	.77	3.7
620	50	81	526	A	614634	3.5	.2	10	5	17	80	4	1	0	2	0	78	33	1.88	3.5
621	50	81	526	A	614635	.1	.1	0	5	1	160	0	0	0	0	2	50	.09	.1	
622	50	81	526	A	614636	.3	.1	2	10	6	50	0	0	0	0	3	16	.18	.3	
623	50	81	526	A	614637	.1	.3	0	5	1	180	0	0	0	0	1	25	.06	.1	
624	50	81	526	A	614638	2.9	.2	6	5	8	150	3	0	0	2	0	70	40	2.21	2.9
625	10	81	526	A	614639	2.9	.6	55	10	44	110	2	0	0	3	2	38	84	1.34	2.9
626	50	81	526	A	614640	2.3	1.3	54	5	41	190	2	0	0	4	0	39	78	1.64	2.3
627	50	81	526	A	614641	.1	.6	0	10	2	220	0	0	0	0	1	16	.07	.1	
628	50	81	526	A	614642	1.4	.6	1	5	4	20	0	0	0	0	37	9	.65	1.4	
629	50	81	526	A	614643	.1	.4	0	5	1	170	0	0	0	0	2	35	.13	.1	
630	50	81	526	A	614644	3.5	.5	9	5	18	170	1	0	1	2	0	78	34	2.56	3.5
631	50	81	526	A	614645	.3	.1	0	5	0	20	0	0	0	0	18	18	.68	.3	
632	50	81	526	A	*614646	5.4	.9	10	5	27	270	2	0	1	3	0	80	28	2.47	5.4
633	50	81	526	A	*614647	5.3	.8	10	5	23	260	2	1	1	2	0	80	29	2.50	5.3
634	50	81	526	A	614648	4.0	.2	4	5	87	180	1	0	1	1	0	81	15	1.88	4.0
635	50	81	526	A	614649	2.2	2.6	4	5	249	250	5	0	0	1	0	51	16	1.31	2.2
636	10	81	526	A	614650	3.6	.9	45	5	73	160	2	1	0	3	1	70	76	2.69	3.6
637	50	81	526	A	614651	4.4	.2	6	5	9	250	2	2	1	3	0	44	12	3.91	4.4
638	50	81	526	A	614652	3.6	.1	8	5	30	300	1	0	0	1	0	64	17	1.96	3.6

Listing of COALLIST2 at 12:15:15 on OCT 0, 1981 for CC1d-BP06

						Fe%	Ag	Co	Au (ppb)	As	Hg (ppb)	Sb	W	Th	Cd	Ri	Y	Ba	Al%	Fe%
639	50	81	526	A	614653	3.3	.0	6	5	31	50	2	0	1	1	0	91	17	1.01	3.3
640	50	81	526	A	614654	7.2	.3	10	5	26	120	1	1	1	2	0	119	31	2.15	7.2
641	50	81	526	A	614655	7.2	.2	8	5	21	60	1	0	1	3	0	132	34	1.86	7.2
642	10	81	526	A	614656	5.6	.4	52	5	17	40	1	0	0	3	0	80	68	1.46	5.6
643	50	81	526	A	614657	4.7	.3	12	5	28	180	2	0	1	2	0	79	34	2.36	4.7
644	50	81	526	A	614658	.6	.6	20	5	1	350	1	0	0	0	0	11	53	.99	.6
645	50	81	526	A	614659	6.0	.1	8	5	19	120	1	0	0	3	0	115	44	2.13	6.0
646	10	81	526	A	614660	3.7	.1	17	5	11	40	3	0	0	2	0	49	52	1.40	3.7
647	50	81	526	A	614661	3.6	.1	11	5	19	30	1	0	0	1	0	82	59	1.60	3.6
648	50	81	526	A	614662	5.4	.2	10	10	21	190	1	0	1	3	0	91	38	2.24	5.4
649	50	81	526	A	614663	8.0	1.1	12	5	53	300	1	0	1	5	0	109	38	2.82	8.0
650	50	81	526	A	614664	4.9	.1	12	5	19	120	1	0	1	2	0	85	58	2.13	4.9
651	50	81	526	A	614665	5.8	2.3	1009	10	14	540	2	0	0	4	6	8	1007	1.64	5.8
652	50	81	526	A	614666	4.6	.1	13	15	21	80	1	0	1	2	0	83	54	1.89	4.6
653	50	81	526	A	614667	5.8	.3	10	10	26	150	1	1	1	3	0	66	54	2.45	5.8
654	50	81	526	A	614668	3.3	.1	12	5	17	25	2	0	0	2	0	74	54	1.46	3.3
655	50	81	526	A	614669	4.3	.6	8	10	25	270	1	0	0	2	0	77	32	2.14	4.3
656	50	81	526	A	614670	4.6	.2	12	5	21	90	1	0	1	2	0	82	57	2.04	4.6
657	50	81	526	A	614671	6.2	.1	9	5	23	190	1	0	0	3	0	99	38	2.35	6.2
658	50	81	526	A	614672	3.5	.1	12	5	15	25	2	0	0	2	0	77	55	1.53	3.5
659	50	81	526	A	614673	5.5	0.	6	10	15	70	1	0	0	2	0	111	24	1.47	5.5
660	50	81	526	A	614674	.9	.0	4	5	1	20	0	0	0	0	0	34	9	.19	.9
661	50	81	526	A	614675	4.0	0.	4	5	9	50	1	0	0	1	0	98	13	1.07	4.0
662	50	81	526	A	614676	3.7	.0	3	5	10	40	1	0	0	1	0	120	18	.81	3.7
663	50	81	526	A	614677	2.5	0.	4	5	11	15	2	0	0	1	0	91	10	.75	2.5
664	50	81	526	A	614678	4.2	.0	7	10	36	100	1	0	0	1	0	90	21	1.49	4.2
665	50	81	526	A	614679	.9	.0	1	5	2	15	0	0	0	0	0	38	5	.48	.9
666	50	81	526	A	614680	2.7	0.	5	5	4	20	2	0	0	1	0	36	21	1.19	2.7
667	50	81	526	A	614681	1.0	.0	2	5	13	20	0	0	0	0	1	21	9	.46	1.0
668	50	81	526	A	614682	1.3	5.1	2	5	51	140	2	0	2	0	0	15	50	.83	1.3
669	50	81	526	A	614683	4.5	.5	16	5	100	70	1	0	2	2	0	59	218	1.73	4.5
670	50	81	526	A	614684	6.9	.5	13	5	675	380	13	0	0	3	0	16	301	.85	6.9
671	50	81	526	A	614685	1.3	.1	3	5	80	310	2	0	0	0	0	24	100	.50	1.3
672	50	81	526	A	614686	2.6	.3	9	5	61	55	1	0	1	1	0	45	169	1.35	2.6
673	50	81	526	A	614687	.8	.0	0	5	4	5	0	0	0	0	0	38	20	.45	.8
674	50	81	526	A	614688	2.3	.1	5	5	8	45	3	0	2	1	0	26	48	.70	2.3
675	50	81	526	A	614689	.9	0.	3	5	11	90	0	0	0	0	0	14	59	.66	.9
676	50	81	526	A	614690	1.2	.0	2	5	10	20	1	0	1	0	0	31	72	1.59	1.2
677	50	81	526	A	614691	1.1	.0	1	5	0	10	0	0	1	0	0	38	59	.76	1.1
678	10	81	526	A	614692	2.9	.2	16	5	20	15	2	0	2	1	1	26	106	.98	2.9
679	50	81	526	A	614693	.6	.1	2	5	14	250	0	0	0	0	0	13	151	.75	.6
680	50	81	526	A	614694	1.9	.1	9	5	69	280	1	0	1	1	1	38	207	1.83	1.9
681	50	81	526	A	614695	1.0	.0	1	5	3	15	0	0	1	0	0	34	32	.96	1.0
682	50	81	526	A	614696	1.5	.2	1	5	2	30	1	0	0	0	0	49	13	.81	1.5
683	50	81	526	A	614697	2.6	1.6	6	5	46	150	3	1	1	1	0	40	68	1.29	2.6
684	50	81	526	A	614698	3.1	.1	2	5	11	120	3	0	1	1	0	55	39	1.92	3.1
685	50	81	526	A	614699	3.0	.1	4	5	16	60	3	0	1	1	0	51	33	1.61	3.0
686	50	81	526	A	614700	1.7	.1	2	5	12	50	0	0	1	0	0	38	45	1.19	1.7
687	50	81	526	A	614701	3.1	.1	3	5	8	60	3	0	1	1	0	57	28	1.16	3.1
688	50	81	526	A	614702	1.8	.0	1	5	24	20	1	0	1	0	0	55	12	.90	1.8
689	50	81	526	A	623593	6.1	.5	12	10	13	160	1	0	1	4	0	122	55	2.90	6.1
690	50	81	526	A	623599	3.0	.1	7	5	13	90	1	0	1	1	0	68	30	1.91	3.0
691	50	81	526	A	623602	2.1	.0	2	5	1	130	0	0	0	1	0	57	46	1.20	2.1
692	50	81	526	A	623605	2.7	.2	6	10	30	190	2	0	0	1	0	54	36	1.60	2.7
693	50	81	526	A	623608	3.6	.2	5	5	10	110	3	0	1	2	0	72	42	2.38	3.6
694	50	81	526	A	623611	2.3	.2	17	5	11	55	0	0	1	1	0	37	85	1.71	2.3
695	50	81	526	A	623614	.9	.1	2	5	1	60	0	0	1	0	0	27	46	1.12	.9
696	50	81	526	A	623617	.9	.1	1	5	3	15	0	0	1	0	0	37	9	.49	.9

Listing of COALLIS12 at 12:15:15 on Oct 8, 1981 for CC1d-BPOG					Fe%	Ag	Co	Au (ppb)	As (ppb)	Hg (ppb)	Sb	W	Th	Cd	Bi	V	Ba	Al%	Fe%	
697	50	81	526	A	623620	2.5	.2	1	5	3	80	2	0	0	1	0	41	25	1.87	2.5
698	50	81	526	A	623623	2.4	3.3	12	5	165	190	1	0	2	2	0	35	126	2.31	2.4
699	50	81	526	A	623626	2.0	.0	3	5	7	20	1	0	1	0	0	52	19	.66	2.0
700	50	81	526	A	623630	.6	.4	3	5	1	80	0	0	1	0	0	33	147	2.19	.6
701	50	81	526	A	623633	1.0	.0	6	120	9	90	0	0	1	0	0	7	54	.42	1.0
702	50	81	526	A	624500	2.1	.0	6	10	18	15	2	0	0	0	0	60	7	.59	2.1
703	50	81	526	A	624501	.3	.4	0	5	0	15	0	0	0	0	0	20	7	.27	.3
704	50	81	526	A	624502	4.2	.1	7	5	11	80	1	0	0	0	0	75	19	1.64	4.2
705	50	81	526	A	624503	3.1	.1	3	5	0	45	1	0	0	0	0	56	22	1.31	3.1
706	50	81	526	A	624504	1.9	0.	2	5	2	20	0	0	0	0	1	94	8	.82	1.9
707	50	81	526	A	624505	.3	0.	0	5	0	20	0	0	0	0	1	22	7	.23	.3
708	50	81	526	A	624506	3.8	.1	4	5	3	55	1	0	1	0	0	71	35	1.62	3.8
709	50	81	526	A	624507	4.0	.0	4	5	12	25	1	1	0	0	0	101	38	1.45	4.0
710	50	81	526	A	624508	3.2	0.	2	5	4	65	1	0	0	0	0	114	16	.90	3.2
711	50	81	526	A	624509	.4	0.	0	5	0	5	0	0	0	0	0	33	9	.50	.4
712	50	81	526	A	624510	1.9	0.	3	5	2	25	0	0	0	0	0	101	10	.84	1.9
713	50	81	526	A	624511	.6	.0	1	15	2	5	0	0	0	0	0	34	8	.32	.6
714	50	81	526	A	624512	2.3	0.	1	5	4	20	1	0	0	0	0	70	7	.58	2.3
715	50	81	526	A	624513	3.0	.0	2	5	6	60	3	0	0	0	0	89	18	1.08	3.0
716	50	81	526	A	624514	2.1	0.	3	5	0	40	1	0	0	0	0	83	20	.85	2.1
717	50	81	526	A	624515	4.6	.0	3	5	4	260	1	0	0	0	0	67	37	1.96	4.6
718	50	81	526	A	624516	3.0	0.	2	5	6	25	3	1	0	0	0	102	15	.88	3.0
719	50	81	526	A	624517	1.3	0.	1	10	2	80	1	0	0	0	0	29	18	.97	1.3
720	50	81	526	A	624518	1.2	0.	4	15	1	35	0	0	0	0	0	58	54	.93	1.2
721	50	81	526	A	624519	4.7	0.	3	5	4	60	1	1	0	0	0	83	17	1.30	4.7
722	50	81	526	A	624520	1.8	.0	2	5	2	20	1	0	0	0	0	64	16	.87	1.8
723	50	81	526	A	624521	.5	.0	1	5	0	20	0	0	0	0	0	28	10	.48	.5
724	50	81	526	A	624522	.5	.0	0	5	0	20	0	0	0	0	0	34	5	.21	.5
725	50	81	526	A	624523	.3	.0	0	5	0	10	0	0	0	0	0	23	9	.44	.3
726	50	81	526	A	624524	.7	.0	2	5	0	25	0	0	0	0	0	24	10	.48	.7
727	50	81	526	A	624525	2.8	.8	27	5	5	200	2	0	1	1	0	46	74	3.98	2.8
728	50	81	526	A	624526	.5	.1	0	5	0	5	0	0	0	0	0	26	12	.60	.5
729	50	81	526	A	624527	.9	.0	2	5	2	10	1	0	0	0	0	56	8	.56	.9
730	50	81	526	A	624528	2.3	.4	3	5	5	120	2	0	0	0	0	59	30	1.47	2.3
731	50	81	526	A	624529	2.1	.1	3	5	0	55	2	0	1	0	0	49	40	1.29	2.1
732	50	81	526	A	624530	4.0	.0	2	5	2	45	6	0	1	0	0	75	22	1.28	4.0
733	50	81	526	A	624531	2.8	.1	3	5	8	180	4	0	2	0	0	34	44	2.15	2.8
734	50	81	526	A	624532	3.5	.1	9	5	2	60	4	0	1	0	0	58	68	1.87	3.5
735	50	81	526	A	624533	2.2	.2	3	5	1	160	2	0	1	0	0	52	50	1.56	2.2
736	50	81	526	A	624534	.9	.0	2	5	0	5	1	0	0	0	0	38	8	.33	.9
737	50	81	526	A	624535	1.2	.0	2	5	3	15	0	0	0	0	0	34	42	.90	1.2
738	50	81	526	A	624536	1.5	.1	10	5	15	100	1	0	1	0	0	25	68	1.58	1.5
739	50	81	526	A	624537	2.1	.3	8	5	439	210	1	0	0	0	1	32	110	2.11	2.1
740	50	81	526	A	624538	1.0	.0	2	5	8	10	0	0	0	0	0	39	11	.52	1.0
741	50	81	526	A	624539	2.3	.0	1	5	7	10	3	1	1	0	0	58	22	1.14	2.3
742	50	81	526	A	624540	1.7	.0	3	5	0	20	1	0	1	0	0	31	97	1.42	1.7
743	50	81	526	A	624541	1.3	.1	3	5	2	20	1	0	1	0	0	29	53	.85	1.3
744	50	81	526	A	624542	1.1	.0	1	5	0	10	1	0	0	0	0	29	21	.86	1.1
745	50	81	526	A	624543	1.0	.1	12	5	0	40	1	0	0	0	0	21	59	.80	1.0
746	50	81	526	A	624544	2.7	.0	3	5	3	50	4	0	1	0	0	39	32	1.32	2.7
747	50	81	526	A	624545	.4	.1	0	5	0	5	0	0	0	0	0	17	9	.27	.4
748	50	81	526	A	624546	3.7	0.	2	5	8	70	1	0	1	0	0	58	30	1.28	3.7
749	50	81	526	A	624547	2.9	.0	2	5	3	80	1	0	1	0	0	51	31	1.15	2.9
750	50	81	526	A	624548	.7	0.	0	5	0	20	0	0	1	0	0	34	12	.63	.7
751	50	81	526	A	624549	.5	.0	0	5	0	15	0	0	0	0	0	26	9	.43	.5
752	50	81	526	A	624550	.1	.0	0	5	0	40	0	0	0	0	0	6	10	.38	.1
753	50	81	526	A	624551	2.5	0.	1	5	5	40	2	0	1	0	0	52	16	.92	2.5
754	50	81	526	A	624552	.2	.0	0	5	1	55	0	0	0	0	0	8	15	.58	.2



Listing of COALLIST2 at 12:15:15 on DCI 8, 1981 for CCID-BPOG

					Fe%	Ag	Co	Au(ppb)	As	Hg (ppb)	Sb	W	Th	Cd	Bi	V	Ba	Al%	Fe%	
755	50	81	526	A	624553	4.4	0.	3	5	5	180	3	0	2	0	0	47	28	1.63	4.4
756	50	81	526	A	624554	2.2	.1	3	5	9	80	2	0	1	0	0	43	42	1.28	2.2
757	50	81	526	A	624555	1.2	.3	6	5	175	200	2	0	1	0	1	43	45	3.66	1.2
758	50	81	526	A	624556	.7	.0	1	5	13	60	0	0	0	0	0	22	40	.38	.7
759	50	81	526	A	624557	.0	.1	0	5	0	130	0	0	0	0	0	0	19	.06	.0
760	50	81	526	A	624558	.3	.1	0	5	0	20	0	0	0	0	0	10	47	.47	.3
761	50	81	526	A	624559	4.5	.0	6	5	5	50	3	0	0	0	0	47	38	1.41	4.5
762	50	81	526	A	624560	.2	.0	0	5	0	10	0	0	0	0	0	9	7	.29	.2
763	50	81	526	A	624561	.9	.0	0	5	0	10	1	0	1	0	0	36	11	.53	.9
764	50	81	526	A	624562	.6	.1	0	5	0	15	0	0	1	0	0	26	9	.28	.6
765	50	81	526	A	624563	1.3	.2	6	5	15	110	1	0	1	0	1	26	293	1.62	1.3
766	50	81	526	A	624564	.9	.1	4	5	3	45	1	0	1	0	1	21	184	1.10	.9
767	50	81	526	A	624565	7.9	.7	64	5	39	150	1	0	2	1	1	91	198	2.77	7.9
768	50	81	526	A	624566	1.1	0.	1	5	2	20	1	0	1	0	0	35	15	.47	1.1
769	50	81	526	A	624567	3.8	.2	9	5	1	150	2	1	2	0	0	52	139	2.30	3.8
770	50	81	526	A	624568	1.3	.0	1	5	1	25	1	0	1	0	0	55	12	.57	1.3
771	50	81	526	A	624569	2.0	0.	3	5	0	170	1	0	1	0	0	28	154	.66	2.0
772	50	81	526	A	624570	.1	.2	0	10	0	200	0	0	0	0	0	1	89	.08	.1
773	50	81	526	A	624571	.5	.0	0	5	1	40	1	0	0	0	0	26	44	.90	.5
774	50	81	526	A	624572	.8	.0	0	5	0	20	1	0	0	0	0	31	17	.56	.8
775	50	81	526	A	624573	3.1	.1	4	5	16	70	1	0	2	0	0	31	73	1.60	3.1
776	50	81	526	A	624574	.8	.1	0	5	0	60	0	0	1	0	0	33	47	.99	.8
777	50	81	526	A	624575	.3	.1	0	15	0	45	1	0	1	0	0	12	60	1.12	.3
778	50	81	526	A	624576	1.0	.0	1	5	0	30	1	0	3	0	0	20	38	.71	1.0
779	50	81	526	A	624577	1.9	.0	0	5	2	100	3	0	1	0	0	42	23	1.07	1.9
780	50	81	526	A	624578	1.1	.0	1	5	0	25	0	0	2	0	0	23	26	.78	1.1
781	50	81	526	A	624579	.3	.1	0	10	0	10	0	0	0	0	0	13	6	.32	.3
782	50	81	526	A	624580	1.4	.9	9	5	73	45	1	0	2	0	0	7	80	.42	1.4
783	50	81	526	A	624581	1.6	.0	3	5	6	45	0	0	1	0	0	32	25	.58	1.6

Listing of COALLIST3 at 12:15:18 on OCT 8, 1981 for CCID-RPOG

					Mg%	Ca%	Ti%	P%	Mn	La	In	B	Cr	Nb		
1	81	81	526	C	611001	2.55	15.33	.00	.01	1143	15	1	8	2	11	0
2	10	81	526	A	611002	.38	.22	.00	.03	883	7	0	6	7	2	0
3	89	81	526	C	611003	.94	1.71	.05	.04	285	5	0	4	21	3	0
4	10	81	526	A	611004	.40	.25	.00	.02	884	7	0	6	9	2	0
5	81	81	526	C	611005	1.19	.66	.00	.04	331	8	0	7	17	3	0
6	81	81	526	B	611170	.77	.78	.10	.07	429	7	1	4	12	3	0
7	81	81	526	B	611171	.98	.43	.08	.07	421	7	1	4	13	3	0
8	81	81	526	B	611172	.89	2.44	.00	.07	498	12	1	7	12	4	0
9	81	81	526	B	611173	.90	1.28	.00	.07	686	12	0	6	11	4	0
10	81	81	526	B	611174	.69	2.57	.00	.07	454	11	0	8	9	4	0
11	83	81	526	B	611175	.88	1.72	.00	.06	498	13	0	5	10	4	0
12	81	81	526	B	611176	.94	.54	.05	.07	470	8	0	4	12	3	0
13	81	81	526	B	611177	.99	.59	.10	.05	480	8	0	5	13	3	0
14	81	81	526	B	611178	.93	.61	.08	.07	473	7	1	4	12	3	0
15	81	81	526	B	611179	1.02	.61	.11	.07	596	8	1	5	15	3	0
16	81	81	526	B	611180	.79	1.02	.00	.07	385	13	0	8	10	3	0
17	81	81	526	B	611181	.98	.75	.10	.07	442	8	0	7	14	3	0
18	81	81	526	B	611182	.92	.76	.13	.04	368	6	0	6	15	3	0
19	10	81	526	A	611183	.40	.44	.01	.06	2526	10	1	5	14	3	0
20	81	81	526	B	611185	.54	.13	.00	.07	360	10	0	8	13	3	0
21	81	81	526	B	611186	1.26	.58	.08	.05	341	5	0	5	23	3	0
22	81	81	526	B	611187	.87	.88	.13	.04	319	7	0	7	17	3	0
23	81	81	526	B	611188	1.02	.53	.14	.05	379	7	1	6	17	2	0
24	81	81	526	B	611189	.97	.95	.12	.06	297	7	1	5	15	3	0
25	81	81	526	B	611190	.91	.91	.13	.04	331	7	1	6	15	3	0
26	81	81	526	B	611191	.86	1.16	.14	.06	344	6	0	7	13	3	0
27	81	81	526	B	611192	.98	1.22	.09	.06	354	7	0	5	15	3	0
28	81	81	526	B	611193	1.01	1.35	.16	.05	325	7	1	9	16	3	0
29	81	81	526	B	611194	1.23	.63	.04	.06	410	10	0	6	15	3	0
30	81	81	526	B	611195	1.45	.42	.08	.06	532	7	0	5	29	3	0
31	81	81	526	B	611196	.53	.09	.07	.02	227	15	0	9	18	4	0
32	81	81	526	B	611197	.56	.50	.11	.16	623	31	0	2	34	8	0
33	81	81	526	B	611198	.52	.27	.15	.04	268	11	0	9	31	4	0
34	81	81	526	B	611199	.38	1.70	.09	.05	356	16	0	7	27	6	0
35	81	81	526	B	611200	1.67	.32	.10	.05	468	7	0	7	44	3	0
36	81	81	526	B	611201	1.10	.59	.09	.05	416	7	1	5	18	3	0
37	81	81	526	B	611202	1.25	1.00	.09	.05	368	6	1	6	24	3	0
38	81	81	526	B	611203	.35	.77	.00	.02	213	8	0	4	8	3	0
39	81	81	526	B	611204	.97	.05	.07	.03	229	15	0	7	36	4	0
40	81	81	526	B	611205	1.19	.29	.09	.05	428	8	1	5	27	3	0
41	81	81	526	B	611206	.22	.22	.00	.01	124	4	0	3	7	2	0
42	81	81	526	B	611207	.98	.21	.17	.13	325	14	0	7	58	4	0
43	81	81	526	B	611208	.49	.95	.00	.01	287	8	0	5	7	3	0
44	81	81	526	B	611209	1.10	1.55	.09	.05	298	7	0	6	20	3	0
45	81	81	526	B	611210	1.26	.85	.18	.06	520	8	1	5	17	3	0
46	83	81	526	B	611211	.36	2.44	.09	.48	666	48	0	3	21	9	0
47	81	81	526	B	611212	.82	.09	.00	.06	358	8	0	4	20	3	0
48	81	81	526	B	611213	1.49	.82	.12	.05	516	7	1	9	31	3	0
49	81	81	526	B	611214	.52	2.24	.00	.07	410	11	2	8	3	4	0
50	81	81	526	B	611215	.10	.07	.00	.00	680	11	0	4	4	1	0
51	81	81	526	B	611216	.01	.03	.00	.01	71	6	0	5	2	1	0
52	81	81	526	B	611217	.12	.41	.00	.05	324	17	0	13	4	2	0
53	81	81	526	B	611218	.91	1.78	.17	.05	363	13	0	8	56	5	0
54	81	81	526	B	611219	.75	1.36	.10	.29	223	22	0	3	53	7	0
55	81	81	526	B	611220	.17	.13	.08	.03	243	8	0	3	6	1	0
56	81	81	526	B	611221	.02	.03	.00	.01	217	12	0	3	6	0	0
57	81	81	526	B	611222	.41	2.16	.00	.07	565	10	1	6	11	3	0
58	81	81	526	B	611223	.51	1.94	.00	.07	418	10	1	5	13	3	0

Listing of COALFLEX at 12:15:18 on Oct 8, 1981 for CCD-BPOG

					Mg%	Ca%	Ti%	P%	Mn	La	In	B	Cr	Nb		
59	81	81	526	B	611224	.54	1.87	.00	.08	319	10	2	7	5	3	0
60	81	81	526	B	611225	.34	1.66	.00	.08	476	12	1	7	8	3	0
61	89	81	526	B	611226	.41	1.51	.00	.04	993	6	0	7	388	3	0
62	89	81	526	B	611227	.27	1.26	.00	.05	1338	8	0	8	454	3	0
63	81	81	526	B	611228	.87	.71	.00	.07	662	11	1	5	25	2	0
64	81	81	526	B	611229	.87	1.44	.00	.07	565	11	2	5	16	3	0
65	81	81	526	B	611230	.96	.69	.10	.08	587	7	1	5	18	2	0
66	10	81	526	C	611231	.62	.24	.01	.06	443	9	0	4	47	3	0
67	10	81	526	C	611232	.59	.21	.01	.04	340	8	0	4	45	2	0
68	50	81	526	A	611233	.22	.08	.02	.06	129	7	0	4	32	3	0
69	50	81	526	A	611234	.53	.16	.00	.05	253	11	0	2	53	4	0
70	50	81	526	A	611235	.29	.03	.03	.06	117	8	0	5	34	4	0
71	81	81	526	B	611236	1.01	.79	.15	.05	451	5	2	5	17	2	0
72	50	81	526	A	611237	.28	.04	.01	.04	138	7	0	4	35	4	0
73	50	81	526	A	611238	.36	.16	.01	.02	221	6	0	3	21	2	0
74	50	81	526	A	611239	.24	.04	.02	.02	89	5	0	3	19	2	0
75	50	81	526	C	611240	.66	.41	.03	.05	554	11	0	6	43	3	0
76	50	81	526	C	611241	.79	.32	.03	.01	289	11	1	3	48	3	0
77	50	81	526	A	611242	.36	.15	.01	.04	185	11	0	4	36	3	0
78	10	81	526	A	611243	.68	.22	.05	.05	459	9	0	5	42	2	0
79	50	81	526	A	611244	.47	.04	.05	.03	231	8	1	5	33	3	0
80	10	81	526	A	611245	.50	.34	.02	.05	3324	5	2	4	40	5	0
81	10	81	526	A	611246	.45	.36	.02	.05	2030	6	1	5	36	4	0
82	10	81	526	A	611247	.73	.23	.05	.03	1339	4	1	3	42	4	0
83	50	81	526	A	611248	.38	.04	.02	.05	194	6	0	2	37	5	0
84	50	81	526	A	611249	.27	.03	.02	.04	120	5	0	2	33	5	0
85	50	81	526	A	611250	.51	.03	.02	.04	203	5	0	3	41	5	0
86	10	81	526	A	611251	.63	.32	.03	.05	863	4	1	5	33	4	0
87	10	81	526	C	611255	.84	.27	.05	.07	557	7	1	3	62	5	0
88	10	81	526	C	611256	.25	.17	.00	.07	611	8	0	4	41	4	0
89	10	81	526	C	611257	.88	.26	.02	.07	574	7	0	4	69	5	0
90	50	81	526	A	611268	.13	.03	.01	.07	87	4	0	1	34	5	0
91	50	81	526	A	611269	.21	.01	.00	.09	98	9	0	0	48	5	0
92	50	81	526	C	611270	.13	.01	.01	.05	88	6	0	1	36	5	0
93	50	81	526	C	611271	.37	.06	.01	.07	270	7	0	1	61	5	0
94	50	81	526	C	611272	.65	.02	.00	.06	287	11	0	1	76	5	0
95	50	81	526	C	611273	.70	.03	.00	.05	277	9	0	1	74	5	0
96	50	81	526	C	611274	.56	.03	.01	.03	243	8	0	2	47	4	0
97	50	81	526	C	611275	.03	.02	.02	.01	29	5	0	3	7	2	0
98	13	81	526	C	611276	.58	.09	.03	.04	313	6	0	4	32	3	0
99	50	81	526	C	611277	.33	.16	.00	.05	352	7	0	3	17	4	0
100	81	81	526	C	611278	.55	1.75	.00	.08	402	11	2	6	18	5	0
101	81	81	526	C	611279	1.08	1.55	.03	.04	666	10	0	6	85	7	0
102	81	81	526	C	611280	.96	.38	.08	.05	369	5	1	7	22	3	0
103	50	81	526	C	611281	.47	.03	.01	.08	183	8	0	3	53	5	0
104	50	81	526	C	611282	.37	.07	.01	.05	163	8	0	2	41	5	0
105	81	81	526	C	611283	.58	.06	.00	.05	599	6	0	5	20	3	0
106	50	81	526	C	611284	.58	.06	.01	.04	270	8	0	4	53	5	0
107	81	81	526	C	611285	.24	.75	.00	.01	318	8	0	6	5	3	0
108	81	81	526	C	611286	.66	2.11	.00	.01	540	6	2	7	6	6	0
109	50	81	526	C	611287	.44	.04	.04	.06	198	9	0	5	41	6	0
110	81	81	526	C	611288	.56	.89	.07	.12	341	10	1	7	17	4	0
111	50	81	526	C	611289	.34	.04	.01	.06	148	9	0	4	37	5	0
112	50	81	526	C	611290	.23	.03	.01	.07	125	8	0	3	30	5	0
113	50	81	526	C	611291	.32	.02	.01	.04	146	7	0	6	35	5	0
114	50	81	526	C	611292	.21	.02	.01	.06	118	6	0	3	34	5	0
115	50	81	526	C	611293	.41	.02	.01	.06	177	8	0	4	45	5	0
116	81	81	526	C	611294	.73	.87	.10	.10	435	10	1	8	23	4	0

Listing of COALFIS13 at 12:15:18 on OCT 8, 1981 for GCID-BPOG

					Mg%	Ca%	Ti%	P%	Mn	La	In	B	Cr	Nb		
117	81	81	526	C	611295	.87	.42	.00	.05	677	10	1	10	83	4	0
118	50	81	526	A	611296	.38	.03	.01	.08	196	8	0	4	61	5	0
119	81	81	526	C	611297	.03	.03	.00	.05	558	6	0	6	23	3	0
120	81	81	526	C	611298	.55	.02	.00	.04	572	11	0	7	55	5	0
121	50	81	526	C	611299	.63	.02	.01	.06	298	8	0	4	73	5	0
122	60	81	526	C	611300	.80	.01	.00	.10	450	14	0	3	102	5	0
123	50	81	526	A	611301	.55	.01	.00	.12	836	11	0	3	78	5	0
124	50	81	526	A	611302	.31	.01	.00	.11	751	13	0	2	58	5	0
125	81	81	526	B	611303	1.10	.04	.00	.04	385	14	0	5	59	5	0
126	50	81	526	A	611304	.33	.06	.02	.06	180	7	0	4	35	4	0
127	50	81	526	A	611305	.70	.07	.00	.06	348	13	0	3	65	5	0
128	81	81	526	B	611306	1.13	.07	.01	.05	283	16	0	5	72	6	0
129	50	81	526	C	611307	.37	.04	.04	.06	165	6	0	5	49	4	0
130	50	81	526	C	611308	.38	.04	.01	.07	1469	18	0	4	49	7	0
131	50	81	526	C	611309	.43	.05	.03	.02	155	6	1	4	31	3	0
132	83	81	526	C	611310	1.00	2.69	.00	.16	737	19	2	9	20	7	0
133	83	81	526	C	611311	.40	1.12	.00	.05	382	8	1	8	10	4	0
134	81	81	526	B	611800	1.01	.41	.15	.04	340	6	1	7	24	3	0
135	81	81	526	B	612265	.53	.09	.00	.05	439	10	0	4	15	2	0
136	81	81	526	B	612266	.03	.01	.00	.01	152	18	0	4	3	1	0
137	81	81	526	B	612267	.20	.80	.00	.01	592	16	0	4	3	2	0
138	81	81	526	B	612268	.09	.03	.00	.01	2752	18	1	5	3	2	0
139	81	81	526	B	612270	.08	.05	.00	.02	343	14	0	6	2	1	0
140	81	81	526	B	612272	.01	.04	.00	.02	189	13	0	4	2	1	0
141	81	81	526	B	612273	.30	.07	.00	.01	833	9	0	5	4	2	0
142	81	81	526	B	612274	.07	.01	.00	.01	140	13	0	3	3	1	0
143	81	81	526	B	612275	.94	.37	.14	.07	367	9	1	5	12	2	0
144	81	81	526	B	612276	.99	1.02	.12	.07	417	10	1	7	14	3	0
145	81	81	526	B	612277	.86	.89	.13	.07	365	8	0	6	11	3	0
146	81	81	526	B	612278	.91	.88	.12	.07	371	9	1	6	12	3	0
147	81	81	526	B	612279	.93	.98	.00	.64	574	53	0	2	5	9	0
148	81	81	526	B	612280	.21	.37	.11	.04	469	10	1	6	3	2	0
149	81	81	526	B	612282	.12	.21	.00	.01	756	20	0	5	4	2	0
150	81	81	526	B	612283	.64	.17	.01	.03	693	17	0	6	10	3	0
151	81	81	526	B	612284	.45	.09	.07	.01	455	11	0	4	6	2	0
152	81	81	526	B	612285	.78	.67	.13	.07	484	8	1	4	12	3	0
153	81	81	526	B	612287	.92	.82	.14	.07	391	9	1	6	13	3	0
154	81	81	526	B	612288	.96	.64	.14	.07	420	9	1	6	13	3	0
155	81	81	526	B	612289	.58	.13	.02	.02	1402	12	0	5	6	3	0
156	81	81	526	B	612290	.39	1.82	.00	.03	725	14	2	5	8	4	0
157	81	81	526	B	612292	.46	.18	.01	.01	437	11	0	6	5	3	0
158	81	81	526	B	612293	.16	.10	.00	.01	394	25	0	4	3	3	0
159	81	81	526	B	612294	.78	.62	.12	.06	376	7	0	5	11	3	0
160	81	81	526	B	612295	.94	.67	.09	.07	388	7	0	9	13	3	0
161	81	81	526	B	612296	1.41	.99	.09	.05	372	6	0	6	21	3	0
162	81	81	526	B	612298	1.25	.87	.09	.05	475	7	0	4	27	3	0
163	81	81	526	B	612299	.93	2.06	.00	.07	399	19	0	11	13	4	0
164	81	81	526	B	612300	1.01	.43	.14	.04	280	6	0	6	13	3	0
165	81	81	526	B	612302	1.04	.17	.00	.05	496	7	0	5	18	3	0
166	81	81	526	B	612303	1.12	.29	.11	.05	467	7	0	5	18	3	0
167	81	81	526	B	612304	1.21	.59	.05	.06	530	9	0	6	16	3	0
168	81	81	526	B	612305	.89	.81	.13	.05	322	7	1	6	14	3	0
169	81	81	526	B	612306	.89	.81	.13	.04	283	7	0	5	14	3	0
170	81	81	526	B	612307	.89	.75	.11	.07	370	8	1	6	12	3	0
171	81	81	526	B	612308	.95	1.18	.08	.07	479	9	1	4	13	3	0
172	81	81	526	B	612310	1.01	.70	.10	.07	430	9	1	4	14	3	0
173	81	81	526	B	612311	.98	.84	.10	.08	360	9	0	7	16	3	0
174	81	81	526	B	612312	.92	.24	.00	.05	532	7	0	5	17	2	0

Listing of COALLIST3 at 12:15:18 on DC1 H, 1981 for CC1d-BPOG

					Mg%	Ca%	Ti%	P%	Mn	La	In	B	Cr	Nb		
175	81	81	526	B	612314	.89	.88	.08	.05	298	6	0	5	15	3	0
176	81	81	526	B	612315	.71	1.00	.10	.05	308	7	0	5	11	3	0
177	81	81	526	B	612316	1.01	.46	.08	.04	324	7	0	4	14	2	0
178	81	81	526	B	612317	1.03	.57	.12	.05	298	7	0	5	18	3	0
179	81	81	526	B	612318	.98	1.01	.13	.05	284	7	1	6	19	3	0
180	81	81	526	B	612319	.90	.90	.14	.04	298	7	0	5	14	3	0
181	81	81	526	B	612320	.95	.60	.12	.05	330	8	0	3	15	3	0
182	81	81	526	B	612321	.87	.97	.12	.05	314	7	1	7	15	3	0
183	81	81	526	B	612322	.98	1.30	.12	.05	345	8	0	5	16	3	0
184	81	81	526	B	612323	.93	.19	.03	.06	485	11	1	5	26	3	0
185	81	81	526	B	612325	.77	.13	.01	.05	316	9	0	4	15	2	0
186	81	81	526	B	612330	1.61	.68	.07	.05	628	8	1	6	30	3	0
187	81	81	526	B	612331	1.44	1.13	.06	.05	453	6	0	3	25	3	0
188	81	81	526	B	612332	.56	.26	.00	.04	402	9	0	3	10	2	0
189	81	81	526	B	612333	.96	.82	.12	.04	315	6	0	10	16	3	0
190	81	81	526	B	612334	.18	.33	.00	.03	152	12	0	5	5	2	0
191	81	81	526	B	612335	1.36	1.19	.09	.05	602	6	0	5	26	3	0
192	81	81	526	B	612336	1.17	.78	.08	.04	422	6	0	8	18	3	0
193	81	81	526	B	612337	.34	.08	.00	.01	230	10	0	3	10	2	0
194	81	81	526	B	612338	.56	.19	.20	.02	393	7	0	6	30	3	0
195	81	81	526	B	612339	.92	.92	.09	.05	246	6	0	4	20	3	0
196	81	81	526	B	612341	.10	.31	.00	.01	468	19	0	6	3	2	0
197	81	81	526	B	612342	1.45	1.20	.05	.04	547	8	0	4	39	3	0
198	81	81	526	B	612343	.28	1.42	.00	.05	885	19	0	5	3	4	0
199	81	81	526	B	612344	.02	.05	.00	.02	150	16	0	4	3	2	0
200	81	81	526	B	612345	.04	.07	.00	.00	257	23	0	7	3	2	0
201	81	81	526	B	612346	.61	1.71	.00	.04	475	12	2	5	11	4	0
202	81	81	526	B	612347	.13	.93	.00	.04	285	15	0	6	3	2	0
203	81	81	526	B	612348	.10	.05	.00	.02	254	13	0	3	2	2	0
204	81	81	526	B	612352	.12	.08	.00	.03	441	15	0	4	3	2	0
205	81	81	526	B	612353	.03	.01	.00	.01	179	17	0	5	3	2	0
206	81	81	526	B	612354	.12	.01	.00	.01	231	6	0	7	2	2	0
207	81	81	526	B	612355	.84	.86	.14	.07	449	8	1	8	12	3	0
208	10	81	526	C	612356	.10	.05	.00	.02	711	12	0	1	3	2	0
209	81	81	526	B	612357	.23	1.34	.00	.07	1135	11	0	9	5	3	0
210	81	81	526	B	612358	.02	.05	.00	.04	445	14	0	7	5	1	0
211	81	81	526	B	612359	.20	.07	.00	.02	640	12	1	5	7	1	0
212	81	81	526	B	612360	.22	.29	.10	.02	262	9	1	3	5	1	0
213	81	81	526	B	612361	.13	.17	.07	.01	349	14	0	3	4	2	0
214	81	81	526	B	612364	.04	.32	.00	.06	1877	11	1	5	9	1	0
215	81	81	526	B	612366	.01	.02	.00	.00	694	17	0	5	4	1	0
216	81	81	526	B	612367	.04	2.01	.00	.02	349	12	0	4	4	2	0
217	81	81	526	B	612368	.02	1.46	.00	.02	651	12	0	6	3	2	0
218	81	81	526	C	612369	1.14	.15	.02	.05	501	15	0	1	91	5	0
219	50	81	526	C	612370	.24	.03	.01	.04	96	7	0	3	38	3	0
220	50	81	526	C	612371	.36	.03	.01	.09	378	8	0	3	52	3	0
221	81	81	526	B	612372	1.26	.11	.12	.03	514	10	0	3	98	4	0
222	50	81	526	A	612373	.52	.07	.01	.05	283	10	0	3	57	4	0
223	89	81	526	B	612374	1.35	.77	.00	.06	391	5	1	6	38	2	0
224	81	81	526	B	612375	1.03	1.00	.10	.04	332	5	1	4	22	2	0
225	10	81	526	A	612376	.62	.17	.04	.04	475	8	1	4	43	2	0
226	10	81	526	A	612378	.36	.31	.01	.01	356	5	0	4	28	2	0
227	10	81	526	A	612379	.42	.18	.01	.03	223	5	0	3	33	2	0
228	81	81	526	B	612380	.90	.92	.16	.05	314	5	1	6	16	2	0
229	81	81	526	B	612381	1.05	1.06	.16	.05	365	5	2	4	20	2	0
230	50	81	526	A	612382	.29	.04	.03	.06	136	8	0	3	33	4	0
231	81	81	526	B	612383	.96	.68	.13	.05	301	5	1	4	19	2	0
232	81	81	526	B	612384	.69	.04	.00	.04	649	5	0	4	16	2	0

Listing of COALLIST3 at 12:15:18 on OCT 8, 1981 for CCID-BPOG

						Mg%	Ca%		Ti%	P%	Mn	La	In	B	Cr	Nb	
233	81	81	526	B	612385	1.12	.05		.16	.03	470	8	0	7	61	3	0
234	89	81	526	B	612386	1.19	.70		.00	.04	293	9	0	4	55	4	0
235	89	81	526	B	612387	.82	.40		.00	.03	372	10	0	3	34	3	0
236	81	81	526	B	612388	1.09	.61		.13	.05	461	4	1	5	20	2	0
237	81	81	526	B	612389	1.01	.50		.10	.05	330	5	0	5	20	2	0
238	81	81	526	B	612390	1.11	.74		.15	.05	278	4	1	6	22	2	0
239	81	81	526	B	612398	.96	.82		.11	.05	366	4	1	5	20	2	0
240	81	81	526	B	612399	1.09	.07		.31	.04	437	9	0	5	49	3	0
241	81	81	526	B	612400	1.45	.80		.10	.05	470	5	1	6	34	2	0
242	81	81	526	B	612406	.44	10.74		.02	.01	384	9	1	3	9	8	0
243	10	81	526	A	612407	.75	.25		.06	.06	1068	7	1	6	41	3	0
244	81	81	526	C	612409	.41	2.46		.00	.65	389	22	0	5	40	6	0
245	50	81	526	C	612410	.06	.09		.00	.10	173	15	0	2	47	4	0
246	81	81	526	C	612411	1.79	7.91		.00	1.69	1284	23	4	10	35	10	0
247	50	81	526	C	612412	.59	.05		.01	.07	226	11	0	3	72	4	0
248	81	81	526	C	612413	.04	.11		.00	.04	616	6	0	9	12	2	0
249	81	81	526	C	612414	.04	.12		.00	.04	541	8	5	9	32	2	0
250	50	81	526	C	612415	.39	.03		.01	.09	152	8	0	4	54	4	0
251	81	81	526	C	612416	.70	.67		.00	.04	600	6	1	10	10	2	0
252	81	81	526	C	612417	1.34	3.95		.00	.02	858	12	1	9	120	7	0
253	81	81	526	C	612418	.56	1.09		.00	.03	319	10	1	11	30	3	0
254	50	81	526	C	612421	.15	.03		.00	.05	105	9	0	3	37	2	0
255	81	81	526	C	612422	.66	.33		.20	.04	231	7	2	6	11	1	0
256	81	81	526	C	612423	.71	.02		.01	.04	315	12	0	6	52	3	0
257	81	81	526	C	612424	.72	.09		.00	.04	310	15	1	5	69	4	0
258	81	81	526	C	612425	.49	5.66		.00	.55	1574	27	1	2	56	14	0
259	81	81	526	C	612426	.37	2.63		.00	2.30	232	40	0	0	52	14	0
260	81	81	526	C	612428	.89	2.82		.01	.06	305	7	2	5	15	6	0
261	81	81	526	C	612429	.37	.11		.00	.04	367	6	1	6	12	2	0
262	81	81	526	B	612430	1.20	.95		.10	.05	404	4	1	9	26	4	0
263	50	81	526	A	612431	.46	.05		.03	.08	127	5	0	4	26	5	0
264	10	81	526	A	612432	.50	.25		.00	.06	1219	10	1	5	41	4	0
265	81	81	526	B	612434	.87	.19		.00	.05	522	6	0	8	25	3	0
266	89	81	526	B	612435	.71	2.12		.00	.04	521	8	3	9	405	7	0
267	10	81	526	A	612436	.14	.21		.00	.05	1507	12	0	9	44	4	0
268	50	81	526	A	612437	.39	.08		.01	.08	220	10	0	5	53	6	0
269	89	81	526	B	612440	.12	.03		.00	.10	221	32	4	17	24	12	3
270	50	81	526	A	612442	.34	.14		.01	.04	154	11	0	5	51	6	0
271	89	81	526	B	612446	1.68	8.63		.00	.04	686	14	5	8	67	15	1
272	89	81	526	B	612447	.68	4.61		.01	.04	815	22	0	0	34	14	1
273	50	81	526	A	612448	.26	.04		.01	.06	212	11	0	4	58	5	0
274	81	81	526	B	612449	.79	.27		.02	.29	357	16	0	0	48	8	0
275	81	81	526	C	612450	.95	.31		.01	.05	383	7	1	4	18	3	0
276	50	81	526	C	612451	.42	.03		.06	.12	432	9	0	5	89	6	0
277	10	81	526	C	613001	.52	.26		.01	.04	358	7	0	2	25	2	0
278	10	81	526	C	613002	.55	.38		.01	.06	3343	12	0	0	36	4	0
279	10	81	526	C	613003	.57	.44		.04	.06	5475	11	0	2	36	3	0
280	10	81	526	C	613004	.18	.22		.06	.02	262	7	0	1	14	1	0
281	10	81	526	C	613005	.15	.09		.01	.02	266	9	0	1	1	1	0
282	10	81	526	C	613006	.65	.42		.01	.07	535	12	0	1	34	3	0
283	10	81	526	C	613007	.99	.19		.02	.04	353	13	0	2	50	3	0
284	10	81	526	C	613008	1.02	.39		.05	.06	374	12	0	2	47	3	0
285	10	81	526	A	614001	.38	.57		.01	.08	3400	10	0	2	22	3	0
286	10	81	526	A	614002	.14	.70		.00	.11	2428	10	0	2	13	2	0
287	10	81	526	A	614003	.19	.78		.00	.08	2834	8	0	4	11	2	0
288	10	81	526	A	614004	.28	.46		.01	.17	1357	13	0	1	32	3	0
289	10	81	526	C	614005	.15	.16		.02	.01	231	8	0	2	11	1	0
290	10	81	526	C	614006	.09	.13		.01	.01	280	7	0	3	10	1	0

Listing of COALLIST3 at 12:15:18 on OCT 8, 1981 for CCID=BPOG

					Mg%	Ca%	Ti%	P%	Mn	La	In	B	Cr	Nb		
291	10	81	526	C	614007	.60	.44	.03	.06	387	12	0	3	30	3	0
292	10	81	526	C	614008	.70	.41	.06	.05	385	11	0	3	30	3	0
293	10	81	526	C	614009	.75	.54	.02	.06	536	14	0	8	38	3	0
294	10	81	526	C	614010	.72	.53	.04	.06	560	14	0	3	39	4	0
295	50	81	526	C	614011	.04	.14	.00	.04	429	13	0	1	0	2	0
296	50	81	526	C	614012	.14	.01	.00	.02	106	13	0	1	4	2	0
297	50	81	526	C	614013	.13	.02	.00	.02	79	13	0	0	6	3	0
298	50	81	526	A	614308	.08	.04	.01	.02	59	9	0	3	4	2	0
299	50	81	526	A	614309	.16	.02	.00	.03	128	11	0	3	10	3	0
300	50	81	526	A	614310	.03	.03	.00	.01	79	10	0	2	3	1	0
301	50	81	526	A	614311	.19	.13	.00	.03	836	9	0	2	14	2	0
302	50	81	526	A	614312	.15	.15	.00	.04	1519	11	0	3	10	2	0
303	50	81	526	A	614313	.18	.32	.00	.04	564	12	0	3	11	3	0
304	50	81	526	A	614314	.12	.03	.01	.01	46	7	0	1	3	1	0
305	50	81	526	A	614315	.06	.07	.00	.02	108	11	0	3	6	2	0
306	50	81	526	A	614316	.10	.03	.00	.01	47	7	0	2	4	1	0
307	50	81	526	A	614317	.02	.01	.02	.02	33	9	0	3	4	3	0
308	50	81	526	A	614318	.04	.06	.00	.02	106	9	0	2	4	2	0
309	50	81	526	A	614319	.07	.04	.00	.04	72	9	0	3	5	2	0
310	50	81	526	A	614320	.07	.02	.00	.03	66	10	0	3	4	2	0
311	50	81	526	A	614321	.01	.03	.01	.01	27	8	0	4	1	1	0
312	50	81	526	A	614322	.01	.02	.00	.01	23	8	0	2	1	1	0
313	50	81	526	A	614323	.21	.22	.00	.04	2680	16	0	3	18	4	0
314	50	81	526	A	614324	.03	.15	.00	.01	31	7	0	2	1	1	0
315	50	81	526	A	614325	.04	.02	.00	.02	47	9	0	2	3	1	0
316	50	81	526	A	614326	.13	.03	.01	.03	138	10	0	3	7	3	0
317	50	81	526	A	614327	.17	.07	.00	.05	191	9	0	3	8	2	0
318	50	81	526	A	614328	.04	.03	.00	.02	43	7	0	2	3	1	0
319	50	81	526	A	614329	.03	.02	.01	.02	52	9	0	3	4	2	0
320	50	81	526	A	614330	.03	.14	.00	.09	28	1	0	2	1	0	0
321	50	81	526	A	614331	.03	.01	.01	.03	46	8	0	2	2	2	0
322	50	81	526	A	614332	.10	.02	.00	.03	72	6	0	2	3	1	0
323	50	81	526	A	614333	.21	.10	.00	.04	417	10	0	2	9	2	0
324	50	81	526	A	614334	.33	.07	.00	.05	1518	11	0	3	15	3	0
325	50	81	526	A	614335	.14	.11	.00	.02	134	8	0	2	5	2	0
326	50	81	526	A	614336	.06	2.24	.00	.06	392	2	0	9	2	2	0
327	50	81	526	A	614337	.12	.23	.00	.02	208	9	0	2	8	2	0
328	50	81	526	A	614338	.31	.02	.00	.02	137	10	0	3	14	2	0
329	50	81	526	A	614339	.02	.03	.00	.01	84	14	0	2	1	2	0
330	50	81	526	A	614340	.06	.01	.00	.02	67	11	0	2	6	2	0
331	50	81	526	A	614341	.09	.02	.01	.06	59	10	0	3	8	4	0
332	50	81	526	A	614342	.18	.02	.00	.06	110	8	0	3	9	3	0
333	50	81	526	A	614343	.20	.03	.01	.03	128	10	0	3	6	3	0
334	50	81	526	A	614344	.09	.03	.01	.04	103	10	0	3	5	3	0
335	50	81	526	A	614345	.14	.02	.00	.03	165	13	0	3	10	3	0
336	50	81	526	A	614346	.27	.03	.00	.03	168	12	0	3	14	3	0
337	50	81	526	A	614347	.18	.33	.00	.08	442	13	0	3	18	3	0
338	50	81	526	A	614348	.22	.22	.00	.01	185	11	0	2	8	2	0
339	50	81	526	A	614349	.23	.37	.00	.07	1244	17	0	3	18	4	0
340	50	81	526	A	614350	.36	.18	.00	.02	200	12	0	3	16	3	0
341	50	81	526	A	614351	.20	.20	.00	.02	273	13	0	2	9	2	0
342	10	81	526	A	614352	.20	.40	.00	.05	451	15	0	3	12	4	0
343	50	81	526	A	614353	.19	.18	.00	.04	291	13	0	3	10	3	0
344	50	81	526	A	614354	.27	.13	.00	.04	164	14	0	3	14	3	0
345	50	81	526	A	614355	.33	.30	.00	.05	383	13	0	3	11	3	0
346	50	81	526	A	614356	.11	.42	.00	.03	131	14	0	2	7	2	0
347	50	81	526	A	614357	.16	.04	.01	.04	98	10	0	3	9	4	0
348	50	81	526	A	614358	.30	.24	.00	.02	254	10	0	2	10	2	0

Listing of COALLIST3 at 12:15:18 on OCT 8, 1981 for CCID-BPOG

						Mg%	Ca%		Ti%	P%	Mn	La	In	B	Cr	Nb	
349	50	81	526	A	614359	.06	.02		.01	.06	114	9	0	2	6	3	0
350	50	81	526	A	614360	.11	.02		.01	.05	135	8	0	3	7	3	0
351	50	81	526	A	614361	.05	.02		.01	.03	52	8	0	3	5	3	0
352	50	81	526	A	614362	.32	.06		.00	.05	327	11	0	3	17	3	0
353	50	81	526	A	614363	.16	.04		.01	.04	97	8	0	2	13	3	0
354	50	81	526	A	614364	.46	.03		.02	.07	187	13	0	3	31	5	0
355	50	81	526	A	614365	.10	.02		.01	.03	62	9	0	3	14	3	0
356	50	81	526	A	614366	.28	.07		.01	.05	183	10	0	3	28	4	0
357	50	81	526	A	614367	.18	.06		.01	.09	124	12	0	3	16	4	0
358	50	81	526	A	614368	.21	.24		.00	.03	170	8	0	3	13	3	0
359	50	81	526	A	614369	.38	.01		.00	.03	173	9	0	3	25	3	0
360	50	81	526	A	614370	.21	.02		.01	.04	136	10	0	3	17	3	0
361	50	81	526	A	614371	.36	.27		.00	.02	711	10	0	2	17	2	0
362	50	81	526	A	614372	.15	.03		.01	.03	74	11	0	3	12	4	0
363	50	81	526	A	614373	.30	.06		.01	.03	184	9	0	3	11	3	0
364	50	81	526	A	614374	.14	.05		.00	.02	72	8	0	2	9	2	0
365	50	81	526	A	614375	.25	.05		.00	.01	162	9	0	2	8	2	0
366	50	81	526	A	614376	.19	.22		.01	.03	716	8	0	3	12	3	0
367	50	81	526	A	614377	.19	.21		.01	.03	747	9	0	3	12	3	0
368	10	81	526	A	614378	.28	.98		.00	.09	1140	10	0	4	19	3	0
369	50	81	526	A	614379	.15	.30		.01	.03	97	8	0	2	11	3	0
370	50	81	526	A	614380	.30	.02		.01	.04	127	9	0	3	22	3	0
371	50	81	526	A	614381	.26	.04		.01	.07	141	11	0	3	22	4	0
372	50	81	526	A	614382	.33	.24		.01	.04	180	13	0	3	22	4	0
373	50	81	526	A	614383	.36	.10		.01	.03	192	12	0	3	21	4	0
374	50	81	526	A	614384	.25	.19		.00	.04	197	14	0	4	19	4	0
375	50	81	526	A	614385	.22	.02		.01	.03	89	7	0	2	11	3	0
376	50	81	526	A	614386	.03	.02		.03	.02	28	3	0	1	2	1	0
377	50	81	526	A	614387	.26	.03		.00	.04	105	6	0	3	9	2	0
378	50	81	526	A	614388	.11	.08		.00	.01	64	4	0	2	5	1	0
379	50	81	526	A	614389	.06	.02		.00	.02	40	5	0	3	4	1	0
380	50	81	526	A	614390	.24	.04		.01	.05	109	9	0	4	23	3	0
381	50	81	526	A	614391	.18	.02		.01	.04	93	12	0	3	22	4	0
382	50	81	526	A	614392	.60	.02		.00	.03	229	12	0	3	42	4	0
383	50	81	526	A	614393	.27	.03		.01	.05	141	12	0	4	24	4	0
384	50	81	526	A	614394	.36	.02		.01	.05	141	11	0	4	32	4	0
385	50	81	526	A	614395	.39	.18		.01	.03	136	10	0	4	26	3	0
386	10	81	526	A	614396	.47	.57		.01	.08	740	11	0	4	30	4	0
387	50	81	526	A	614397	.30	.36		.01	.04	396	12	0	3	25	4	0
388	50	81	526	A	614398	.06	.04		.00	.06	345	4	0	6	3	2	0
389	50	81	526	A	*614399	.52	.27		.00	.02	272	13	0	4	32	4	0
390	50	81	526	A	*614400	.50	.26		.00	.01	187	12	0	3	29	3	0
391	50	81	526	A	614401	.53	.66		.01	.28	2989	23	2	14	44	7	0
392	50	81	526	A	614402	.57	.22		.00	.02	379	10	0	4	32	3	0
393	50	81	526	A	614403	.08	.03		.06	.01	39	4	0	3	5	2	0
394	50	81	526	A	614404	.35	.63		.01	.06	637	9	0	6	20	3	0
395	10	81	526	A	614405	.48	.39		.02	.04	294	10	0	5	25	3	0
396	50	81	526	A	614406	.27	.04		.01	.03	111	9	0	4	18	4	0
397	50	81	526	A	614407	.18	.04		.01	.03	80	9	0	4	14	3	0
398	50	81	526	A	614408	.26	.03		.01	.05	122	9	0	3	22	4	0
399	50	81	526	A	614409	.18	.05		.02	.03	102	6	0	5	8	2	0
400	50	81	526	A	614410	.35	.15		.02	.05	726	7	0	4	19	3	0
401	50	81	526	A	614411	.15	.03		.02	.05	63	6	0	3	10	3	0
402	50	81	526	A	614412	.18	.03		.04	.05	76	5	0	4	11	2	0
403	50	81	526	A	614413	.07	.01		.07	.03	47	6	0	4	10	3	0
404	50	81	526	A	614414	.22	.03		.05	.03	75	5	0	4	8	3	0
405	50	81	526	A	614415	.24	.04		.02	.02	70	4	0	3	9	2	0
406	50	81	526	A	614416	.22	.04		.02	.04	98	7	0	4	17	3	0



Listing of COALLIST3 at 12:15:18 on OCT 8, 1981 for CCid-RPOG

					Mg%	Ca%	Ti%	P%	Mn	La	In	B	Cr	Nb		
407	50	81	526	A	614417	.24	.04	.01	.03	99	6	0	4	16	3	0
408	50	81	526	A	614418	.49	.05	.01	.04	258	9	0	5	30	3	0
409	50	81	526	A	614419	.12	.09	.01	.02	106	6	0	3	9	2	0
410	50	81	526	A	614420	.21	.06	.01	.02	443	7	0	3	13	2	0
411	50	81	526	A	614421	.48	.07	.01	.03	198	12	0	4	37	4	0
412	50	81	526	A	614422	.47	.05	.01	.02	156	9	0	5	24	3	0
413	50	81	526	A	614423	.34	.03	.01	.03	143	10	0	3	25	3	0
414	50	81	526	A	614424	.27	.05	.01	.03	97	8	0	3	19	2	0
415	50	81	526	A	614425	.33	.07	.01	.02	113	9	0	4	19	3	0
416	50	81	526	A	614426	.34	.03	.03	.03	144	11	0	4	28	3	0
417	50	81	526	A	614427	.41	.04	.04	.03	166	11	0	5	33	4	0
418	50	81	526	A	614428	.36	.04	.04	.04	135	9	0	4	26	4	0
419	50	81	526	A	614429	.05	.04	.03	.16	26	15	0	2	12	2	0
420	50	81	526	A	614430	.27	.02	.03	.07	132	13	0	4	36	5	0
421	50	81	526	A	614431	.16	.06	.10	.06	96	7	0	6	13	4	0
422	50	81	526	A	614432	.27	.03	.02	.06	112	13	0	4	31	4	0
423	50	81	526	A	614433	.29	.04	.02	.03	108	7	0	3	15	3	0
424	10	81	526	A	614434	.74	.17	.03	.06	804	12	0	5	38	4	0
425	50	81	526	A	614435	.37	.12	.03	.05	141	11	0	5	23	4	0
426	50	81	526	A	614436	.14	.04	.02	.02	61	6	0	3	9	2	0
427	50	81	526	A	614437	.33	.03	.02	.06	161	15	0	5	30	5	0
428	50	81	526	A	614438	.24	.03	.02	.06	106	11	0	4	24	4	0
429	50	81	526	A	614439	.18	.03	.02	.05	91	11	0	4	23	4	0
430	50	81	526	A	614440	.51	.08	.01	.03	180	11	0	4	34	3	0
431	50	81	526	A	614441	.35	.02	.02	.07	153	11	0	5	35	4	0
432	50	81	526	A	614442	.28	.02	.05	.09	145	9	0	5	22	4	0
433	50	81	526	A	614443	.06	.02	.07	.02	45	4	0	2	5	2	0
434	50	81	526	A	614444	.20	.02	.06	.07	104	9	0	4	13	4	0
435	50	81	526	A	614445	.32	.03	.02	.04	121	8	0	4	18	4	0
436	50	81	526	A	614446	.04	.01	.01	.02	53	10	0	3	3	3	0
437	10	81	526	A	614447	.14	.17	.00	.03	1053	10	1	4	7	2	0
438	50	81	526	A	614448	.13	.47	.00	.06	3349	16	0	5	11	4	0
439	50	81	526	A	614449	.05	.09	.00	.01	53	7	0	2	2	2	0
440	50	81	526	A	614450	.03	.02	.00	.02	176	19	0	3	1	3	0
441	50	81	526	A	614451	.05	.01	.00	.02	185	12	0	4	2	2	0
442	50	81	526	A	614452	.02	.05	.00	.02	92	22	0	6	1	2	0
443	50	81	526	A	614453	.03	.01	.00	.02	37	19	0	3	2	2	0
444	50	81	526	A	614454	.04	.05	.00	.03	172	7	0	3	3	2	0
445	50	81	526	A	614455	.26	.09	.00	.03	2598	10	0	5	14	3	0
446	50	81	526	A	614456	.21	.03	.00	.02	112	9	0	3	6	2	0
447	50	81	526	A	614457	.11	.10	.00	.09	8251	10	1	5	7	4	0
448	50	81	526	A	614458	.14	.45	.00	.08	1872	10	1	4	6	3	0
449	50	81	526	A	614459	.09	.13	.00	.04	2643	12	1	4	6	3	0
450	50	81	526	A	614460	.09	.02	.01	.02	83	8	0	4	5	3	0
451	10	81	526	A	614461	.25	.15	.01	.04	3964	9	0	4	13	3	0
452	50	81	526	A	614462	.07	.13	.00	.03	678	9	0	2	7	2	0
453	50	81	526	A	614463	.07	.02	.01	.01	122	8	0	2	5	1	0
454	50	81	526	A	614464	.07	.06	.00	.11	5316	8	0	4	8	3	0
455	10	81	526	A	614465	.03	.20	.00	.15	299	9	0	3	3	0	0
456	50	81	526	A	614466	.02	.03	.00	.02	49	17	0	3	3	1	0
457	50	81	526	A	614467	.06	.02	.01	.02	65	9	0	3	5	2	0
458	50	81	526	A	614468	.04	.04	.00	.02	167	19	0	3	4	1	0
459	50	81	526	A	*614469	.09	.02	.02	.05	80	7	0	4	8	3	0
460	50	81	526	A	*614470	.06	.02	.02	.05	63	7	0	4	8	3	0
461	50	81	526	A	614471	.14	.03	.00	.06	146	9	0	4	16	3	0
462	50	81	526	A	614472	.06	.05	.00	.04	81	9	0	2	7	2	0
463	50	81	526	A	614473	.12	.64	.00	.13	4244	9	1	3	11	3	0
464	50	81	526	A	614474	.02	.03	.00	.02	90	14	0	2	2	1	0

Listing of COALITIONS at 12:15:18 on OCT 8, 1981 for CCID-RPOG

					Mg%	Ca%		Ti%	P%	Mn	La	In	B	Cr	Nb	
465	50	81	526	A	614475	.09	.04	.02	.01	66	7	0	2	4	1	0
466	50	81	526	A	614476	.07	.04	.00	.02	157	10	0	2	4	1	0
467	50	81	526	A	614477	.09	.02	.00	.04	86	10	0	3	7	3	0
468	50	81	526	A	614478	.05	.04	.00	.02	139	10	0	3	5	1	0
469	50	81	526	A	614479	.13	.01	.00	.03	106	11	0	4	9	2	0
470	50	81	526	A	614480	.02	.01	.01	.01	33	8	0	2	3	1	0
471	50	81	526	A	614481	.02	.01	.01	.01	32	7	0	2	3	1	0
472	50	81	526	A	614482	.07	.02	.00	.06	588	8	0	4	11	3	0
473	50	81	526	A	614483	.03	.02	.01	.01	54	9	0	3	3	1	0
474	10	81	526	A	614485	.09	.03	.00	.02	220	8	0	3	11	1	0
475	50	81	526	A	614486	.07	.03	.00	.05	111	7	0	3	10	1	0
476	50	81	526	A	614487	.05	.02	.00	.02	45	5	0	2	4	1	0
477	50	81	526	A	614488	.02	.01	.02	.01	24	6	0	1	2	1	0
478	50	81	526	A	614489	.02	.01	.01	.02	47	12	0	1	3	1	0
479	50	81	526	A	614490	.02	.02	.00	.01	57	7	0	2	2	1	0
480	50	81	526	A	614491	.07	.04	.00	.03	105	10	0	4	6	2	0
481	50	81	526	A	614492	.02	.02	.01	.01	88	6	0	3	3	1	0
482	50	81	526	A	614493	.23	.02	.00	.05	184	8	0	3	12	2	0
483	50	81	526	A	614494	.13	.04	.00	.01	75	9	0	2	4	1	0
484	50	81	526	A	614495	.15	.16	.00	.01	299	9	0	2	7	1	0
485	50	81	526	A	614496	.14	.19	.00	.03	3266	11	1	3	12	2	0
486	50	81	526	A	614497	.04	.27	.00	.02	966	15	0	1	3	1	0
487	50	81	526	A	614498	.05	.05	.00	.01	326	12	0	1	6	1	0
488	50	81	526	A	614499	.01	.02	.00	.01	25	9	0	2	2	1	0
489	50	81	526	A	614500	.06	.74	.00	.17	1393	19	1	2	7	1	0
490	50	81	526	A	*614501	.08	.19	.00	.04	488	9	0	2	7	2	0
491	50	81	526	A	*614502	.08	.21	.00	.04	717	9	1	2	6	2	0
492	50	81	526	A	614503	.02	.12	.00	.06	99	0	0	2	3	0	0
493	50	81	526	A	614504	.25	.08	.00	.05	569	9	0	3	16	2	0
494	50	81	526	A	614505	.05	.01	.01	.03	50	9	0	3	6	2	0
495	50	81	526	A	614506	.03	.01	.01	.02	49	13	0	2	4	2	0
496	10	81	526	A	614507	.03	.11	.00	.11	135	5	0	3	3	1	0
497	50	81	526	A	614508	.05	.02	.01	.01	156	13	0	3	3	1	0
498	10	81	526	A	614509	.24	.21	.01	.04	3111	7	0	5	12	3	0
499	50	81	526	A	614510	.02	.04	.00	.03	172	15	0	6	5	1	0
500	50	81	526	A	614511	.06	.01	.00	.02	126	10	0	3	5	2	0
501	50	81	526	A	614512	.04	.25	.00	.02	610	15	1	2	5	1	0
502	50	81	526	A	614513	.05	.03	.00	.01	306	12	0	2	6	1	0
503	50	81	526	A	614514	.07	.02	.00	.01	91	12	0	3	5	2	0
504	50	81	526	A	614515	.03	.01	.00	.01	89	12	0	2	3	2	0
505	50	81	526	A	614516	.02	.02	.00	.02	93	10	0	4	3	1	0
506	50	81	526	A	614517	.07	.01	.01	.01	105	10	0	2	4	2	0
507	50	81	526	A	614518	.08	.01	.01	.02	68	9	0	3	5	2	0
508	50	81	526	A	614519	.02	.04	.00	.01	64	15	0	2	2	1	0
509	50	81	526	A	614520	.16	.02	.07	.01	80	5	0	3	6	2	0
510	50	81	526	A	614521	.02	.19	.00	.10	5	2	0	1	2	0	0
511	50	81	526	A	614523	.03	.32	.00	.12	11	1	0	4	2	0	0
512	50	81	526	A	614524	.02	.17	.00	.06	4	0	0	3	1	0	0
513	50	81	526	A	614525	.03	.02	.01	.02	45	7	0	2	3	1	0
514	50	81	526	A	614526	.14	.02	.00	.03	82	9	0	2	7	1	0
515	50	81	526	A	614527	.04	.02	.01	.01	44	6	0	2	3	1	0
516	50	81	526	A	614528	.10	.01	.01	.03	69	7	0	2	8	3	0
517	50	81	526	A	614529	.04	.01	.02	.03	38	6	0	2	5	2	0
518	10	81	526	A	614530	.10	.07	.00	.10	2288	7	0	3	8	2	0
519	50	81	526	A	614531	.05	.02	.01	.02	48	5	0	2	3	1	0
520	50	81	526	A	614532	.11	.04	.00	.02	207	8	0	2	8	1	0
521	50	81	526	A	*614533	.08	.02	.00	.02	64	7	0	3	9	2	0
522	50	81	526	A	*614534	.11	.01	.00	.02	75	7	0	3	13	2	0

Listing of COALLIST3 at 12:15:18 on OCT 8, 1981 for CCID-BPOG

					Mg%	Ca%	Ti%	P%	Mn	La	In	B	Cr	Nb		
523	50	81	526	A	614535	.06	.01	.01	.03	66	7	0	4	9	3	0
524	50	81	526	A	614536	.08	.03	.01	.03	58	6	0	2	5	2	0
525	50	81	526	A	614537	.05	.01	.01	.04	59	8	0	3	8	3	0
526	50	81	526	A	614538	.09	.07	.00	.02	84	6	0	2	7	2	0
527	50	81	526	A	614539	.04	.02	.01	.02	33	6	0	1	3	1	0
528	50	81	526	A	614540	.10	.04	.01	.02	53	6	0	2	5	2	0
529	50	81	526	A	614541	.03	.36	.00	.06	623	5	0	3	3	0	0
530	50	81	526	A	614543	.05	.01	.01	.02	47	5	0	2	4	1	0
531	50	81	526	A	614544	.01	.02	.01	.03	54	5	0	7	4	2	0
532	50	81	526	A	614545	.19	.02	.01	.06	108	10	0	4	22	4	0
533	50	81	526	A	614546	.07	.01	.01	.01	44	6	0	2	6	1	0
534	50	81	526	A	614547	.11	.03	.01	.03	79	6	0	4	10	3	0
535	50	81	526	A	614548	.08	.01	.00	.01	51	6	0	2	6	1	0
536	50	81	526	A	614549	.01	.02	.01	.01	19	5	0	0	1	0	0
537	10	81	526	A	614551	.08	.05	.00	.07	229	5	0	1	5	1	0
538	50	81	526	A	614552	.15	.05	.00	.05	187	7	0	2	7	2	0
539	50	81	526	A	614553	.11	.11	.00	.06	876	7	0	3	6	2	0
540	50	81	526	A	614554	.13	.01	.01	.05	95	7	0	3	12	3	0
541	50	81	526	A	614555	.08	.01	.01	.04	66	6	0	3	7	2	0
542	50	81	526	A	614556	.23	.05	.00	.02	272	7	0	2	11	1	0
543	50	81	526	A	614557	.01	.01	.01	.01	22	6	0	1	2	0	0
544	50	81	526	A	614558	.01	.00	.01	.01	8	6	0	1	1	0	0
545	50	81	526	A	614559	.02	.07	.01	.08	549	7	0	1	6	3	0
546	50	81	526	A	614560	.04	.24	.00	.03	40	0	0	1	1	0	0
547	50	81	526	A	614561	.16	.02	.01	.03	130	7	0	2	11	2	0
548	50	81	526	A	614562	.04	.03	.01	.03	63	7	0	3	5	2	0
549	50	81	526	A	614563	.05	1.03	.00	.12	778	1	0	5	4	0	0
550	50	81	526	A	614564	.09	.02	.03	.01	41	2	0	2	9	1	0
551	50	81	526	A	614565	.60	.02	.02	.04	214	6	0	3	44	4	0
552	50	81	526	A	614566	.08	.02	.03	.02	36	3	0	3	9	2	0
553	50	81	526	A	614567	.36	.05	.01	.04	415	6	0	3	39	3	0
554	50	81	526	A	614568	.40	.02	.01	.07	159	7	0	3	34	4	0
555	50	81	526	A	614569	.47	.10	.01	.04	181	6	0	2	31	3	0
556	50	81	526	A	614570	.40	.03	.01	.05	198	5	0	3	34	3	0
557	50	81	526	A	614571	.12	.06	.00	.07	577	5	0	2	14	2	0
558	50	81	526	A	614572	.55	.03	.02	.07	251	8	0	3	46	5	0
559	50	81	526	A	614573	.14	.01	.01	.04	110	7	0	3	32	3	0
560	50	81	526	A	614574	.15	.01	.04	.04	70	3	0	4	21	3	0
561	50	81	526	A	614575	.15	.02	.04	.03	68	4	0	4	15	3	0
562	50	81	526	A	*614576	.14	.02	.02	.07	68	7	0	3	37	4	0
563	50	81	526	A	*614577	.14	.02	.02	.07	67	7	0	3	37	4	0
564	50	81	526	A	614578	.31	.01	.02	.06	131	5	0	3	40	4	0
565	50	81	526	A	614579	.08	.02	.04	.02	51	3	0	3	11	2	0
566	50	81	526	A	614580	.08	.02	.02	.02	40	4	0	3	10	2	0
567	50	81	526	A	614581	.50	.13	.01	.04	206	5	0	3	31	3	0
568	50	81	526	A	614582	.43	.02	.01	.05	177	7	0	3	43	4	0
569	50	81	526	A	614583	.32	.02	.01	.08	165	9	0	2	32	4	0
570	50	81	526	A	614584	.24	.18	.01	.04	100	5	0	3	19	3	0
571	50	81	526	A	614585	.45	.27	.02	.08	411	5	0	4	32	4	0
572	50	81	526	A	614586	.08	.14	.02	.09	388	6	0	4	17	2	0
573	50	81	526	A	614587	.22	.05	.02	.15	1031	8	0	3	41	3	0
574	50	81	526	A	614588	.14	.02	.01	.04	75	3	0	3	18	2	0
575	50	81	526	A	614589	.51	.06	.01	.03	160	5	0	3	36	3	0
576	50	81	526	A	614590	.02	.02	.01	.02	20	3	0	3	6	1	0
577	50	81	526	A	614591	.11	.02	.02	.01	43	5	0	2	11	1	0
578	50	81	526	A	614592	.14	.01	.02	.11	77	5	0	2	26	4	0
579	50	81	526	A	614593	.11	.02	.01	.03	63	4	0	3	16	2	0
580	50	81	526	A	614594	.18	.02	.05	.03	63	4	0	3	13	2	0

Listing of COALLIST3 at 12:15:18 on OCT 8, 1981 for CCId-BPOG

					Mg%	Ca%	Ti%	P%	Mn	La	In	B	Cr	Nb		
581	50	81	526	A	614595	.06	.02	.05	.02	75	4	0	4	8	1	0
582	50	81	526	A	614596	.49	.00	.00	.03	78	1	0	1	22	1	0
583	50	81	526	A	614597	.06	.01	.00	.01	19	2	0	0	5	0	0
584	50	81	526	A	614598	.16	.01	.01	.02	53	2	0	1	10	1	0
585	50	81	526	A	614599	.17	.02	.06	.04	59	3	0	3	14	3	0
586	50	81	526	A	*614600	.47	.02	.04	.05	178	5	0	3	35	4	0
587	50	81	526	A	*614601	.42	.02	.03	.05	171	5	0	3	31	4	0
588	50	81	526	A	614602	.17	.52	.02	.07	819	6	0	3	24	3	0
589	50	81	526	A	614603	.04	.02	.01	.04	31	3	0	3	8	4	0
590	50	81	526	A	614604	.17	.03	.06	.06	83	3	0	5	18	6	0
591	50	81	526	A	614605	.12	.02	.03	.03	75	3	0	4	10	5	0
592	50	81	526	A	614606	.30	.02	.05	.03	88	3	0	3	17	5	0
593	50	81	526	A	614607	.48	.03	.01	.05	171	4	0	5	38	7	0
594	50	81	526	A	614608	.10	.03	.06	.01	28	1	0	1	6	4	0
595	50	81	526	A	614609	.20	.02	.06	.03	55	2	0	2	12	4	0
596	50	81	526	A	614610	.57	.09	.03	.03	141	1	0	2	26	4	0
597	50	81	526	A	614611	.36	.02	.05	.03	70	2	0	3	14	4	0
598	50	81	526	A	614612	.03	.02	.00	.01	8	1	0	1	2	3	0
599	50	81	526	A	614613	.23	.01	.01	.01	64	2	0	1	13	4	0
600	50	81	526	A	614614	.21	.01	.02	.02	72	2	0	3	12	5	0
601	50	81	526	A	614615	.16	.01	.02	.02	49	4	0	3	14	5	0
602	50	81	526	A	614616	.33	.02	.01	.03	88	3	0	2	21	5	0
603	50	81	526	A	614617	.15	.01	.01	.03	44	3	0	2	10	4	0
604	50	81	526	A	614618	.34	.01	.14	.01	82	2	0	3	20	5	0
605	50	81	526	A	614619	.15	.01	.04	.02	45	1	0	2	10	4	0
606	50	81	526	A	614620	.18	.02	.11	.02	48	1	0	2	11	4	0
607	50	81	526	A	614621	.12	.01	.00	.04	78	2	0	4	15	4	0
608	50	81	526	A	614622	.15	.02	.01	.09	91	4	0	5	25	7	0
609	50	81	526	A	614623	.29	.04	.04	.07	174	6	0	1	30	4	0
610	50	81	526	A	614624	.21	.04	.04	.03	134	6	0	2	15	3	0
611	50	81	526	A	614625	.18	.07	.09	.02	120	2	1	1	5	1	0
612	50	81	526	A	614626	.06	.06	.06	.02	671	2	0	2	3	0	0
613	50	81	526	A	614627	.06	.03	.07	.01	29	2	1	1	3	0	0
614	50	81	526	A	614628	.42	.03	.06	.04	161	6	0	1	40	3	0
615	50	81	526	A	614629	.21	.01	.02	.09	106	8	0	0	39	5	0
616	50	81	526	A	614630	.32	.03	.05	.05	108	4	0	3	18	2	0
617	10	81	526	A	614631	.28	.11	.01	.12	489	6	0	2	21	2	0
618	50	81	526	A	614632	.03	.13	.01	.06	14	0	0	1	4	0	0
619	50	81	526	A	614633	.05	.03	.04	.05	41	4	0	3	15	3	0
620	50	81	526	A	614634	.77	.08	.02	.04	287	5	1	3	44	3	0
621	50	81	526	A	614635	.04	.16	.00	.06	9	0	0	2	2	0	0
622	50	81	526	A	614636	.02	.40	.00	.06	8	1	0	2	2	0	0
623	50	81	526	A	614637	.03	.27	.00	.07	55	0	0	1	2	0	0
624	50	81	526	A	614638	.50	.07	.02	.06	180	5	0	2	32	2	0
625	10	81	526	A	614639	.39	.32	.00	.09	5431	7	1	3	31	2	0
626	50	81	526	A	614640	.12	.48	.01	.11	1088	10	0	2	19	2	0
627	50	81	526	A	614641	.03	.17	.00	.06	21	0	0	3	3	0	0
628	50	81	526	A	614642	.04	.01	.01	.01	23	5	0	1	4	0	0
629	50	81	526	A	614643	.03	.03	.01	.08	38	0	0	1	4	0	0
630	50	81	526	A	614644	.44	.04	.02	.05	194	7	0	2	32	3	0
631	50	81	526	A	614645	.03	.02	.01	.02	18	4	0	0	3	0	0
632	50	81	526	A	*614646	.37	.02	.01	.08	226	7	0	2	46	4	0
633	50	81	526	A	*614647	.39	.03	.01	.07	239	8	0	2	45	4	0
634	50	81	526	A	614648	.22	.03	.01	.05	147	7	0	2	22	3	0
635	50	81	526	A	614649	.07	.01	.00	.04	64	4	0	2	14	1	0
636	10	81	526	A	614650	.52	.48	.01	.13	3250	9	1	4	51	3	0
637	50	81	526	A	614651	.21	.03	.02	.07	94	12	0	2	24	3	0
638	50	81	526	A	614652	.23	.02	.01	.07	124	8	0	1	19	3	0

Listing of COALFISH at 12:15:18 on OCT 8, 1981 for CCID-BPOG

						Mg%	Ca%		Ti%	P%	Mn	La	In	B	Cr	Nb	
639	50	81	526	A	614653	.03	.01		.00	.03	67	9	0	2	11	2	0
640	50	81	526	A	614654	.21	.03		.01	.04	243	10	0	0	51	4	0
641	50	81	526	A	614655	.23	.06		.03	.04	164	9	0	0	41	5	0
642	10	81	526	A	614656	.71	.13		.06	.04	3292	9	0	2	42	3	0
643	50	81	526	A	614657	.47	.05		.01	.06	353	7	0	2	48	3	0
644	50	81	526	A	614658	.06	.52		.01	.17	694	6	0	3	14	1	0
645	50	81	526	A	614659	.42	.08		.02	.07	211	9	0	1	37	4	0
646	10	81	526	A	614660	.72	.23		.06	.04	1081	6	0	3	32	3	0
647	50	81	526	A	614661	.55	.20		.01	.03	213	5	0	2	33	2	0
648	50	81	526	A	614662	.36	.07		.02	.07	283	9	0	2	43	4	0
649	50	81	526	A	614663	.14	.22		.02	.08	781	17	0	0	22	5	0
650	50	81	526	A	614664	.56	.03		.02	.03	241	8	0	2	40	3	0
651	50	81	526	A	614665	.06	.03		.01	.13	13990	31	2	2	16	6	0
652	50	81	526	A	614666	.56	.03		.02	.03	287	7	0	2	39	3	0
653	50	81	526	A	614667	.24	.01		.00	.05	146	9	0	1	37	3	0
654	50	81	526	A	614668	.52	.17		.01	.03	210	5	0	2	30	2	0
655	50	81	526	A	614669	.16	.18		.01	.07	313	12	0	2	19	3	0
656	50	81	526	A	614670	.59	.03		.02	.03	246	6	0	2	39	3	0
657	50	81	526	A	614671	.32	.07		.02	.08	212	10	0	0	37	4	0
658	50	81	526	A	614672	.59	.19		.01	.03	225	6	0	2	31	2	0
659	50	81	526	A	614673	.30	.04		.02	.05	159	7	0	1	27	4	0
660	50	81	526	A	614674	.02	.02		.00	.01	21	5	0	3	3	0	0
661	50	81	526	A	614675	.22	.02		.04	.05	94	6	0	2	19	3	0
662	50	81	526	A	614676	.07	.01		.04	.04	75	5	0	2	14	3	0
663	50	81	526	A	614677	.23	.01		.04	.02	70	3	0	2	13	1	0
664	50	81	526	A	614678	.39	.03		.01	.06	173	5	0	2	27	3	0
665	50	81	526	A	614679	.02	.01		.01	.01	34	7	0	1	3	0	0
666	50	81	526	A	614680	.32	.01		.00	.02	130	6	0	2	10	1	0
667	50	81	526	A	614681	.09	.03		.00	.02	68	5	0	2	4	0	0
668	50	81	526	A	614682	.03	.03		.00	.02	42	11	0	2	5	0	0
669	50	81	526	A	614683	.19	.19		.00	.04	997	12	0	2	18	3	0
670	50	81	526	A	614684	.06	1.08		.00	.21	3144	15	0	4	11	4	0
671	50	81	526	A	614685	.05	.37		.00	.07	363	2	0	2	5	0	0
672	50	81	526	A	614686	.27	.13		.00	.03	483	9	0	3	17	1	0
673	50	81	526	A	614687	.02	.03		.00	.01	21	7	0	2	2	0	0
674	50	81	526	A	614688	.10	.05		.00	.03	339	15	0	5	5	1	0
675	50	81	526	A	614689	.27	.41		.02	.03	169	2	0	3	13	1	0
676	50	81	526	A	614690	.07	.03		.00	.01	51	12	0	1	7	1	0
677	50	81	526	A	614691	.07	.11		.01	.01	86	11	0	1	4	1	0
678	10	81	526	A	614692	.31	.12		.00	.03	2729	12	0	4	12	2	0
679	50	81	526	A	614693	.08	.88		.00	.14	314	7	0	3	9	1	0
680	50	81	526	A	614694	.20	.55		.00	.04	1388	10	1	2	14	2	0
681	50	81	526	A	614695	.15	.03		.01	.01	62	8	0	2	5	0	0
682	50	81	526	A	614696	.08	.01		.00	.01	52	8	0	1	4	1	0
683	50	81	526	A	614697	.14	.07		.00	.04	187	9	0	3	15	1	0
684	50	81	526	A	614698	.11	.01		.01	.03	79	9	0	2	9	2	0
685	50	81	526	A	614699	.21	.02		.01	.03	313	9	0	3	14	2	0
686	50	81	526	A	614700	.15	.03		.01	.01	78	9	0	2	9	1	0
687	50	81	526	A	614701	.14	.02		.01	.03	77	8	0	3	12	2	0
688	50	81	526	A	614702	.03	.01		.01	.02	51	10	0	2	5	1	0
689	50	81	526	A	623593	.60	.03		.03	.06	253	10	0	3	49	4	0
690	50	81	526	A	623599	.50	.05		.04	.04	181	8	0	4	27	2	0
691	50	81	526	A	623602	.16	.13		.02	.04	435	3	0	4	8	1	0
692	50	81	526	A	623605	.22	.04		.01	.08	187	7	0	3	13	2	0
693	50	81	526	A	623608	.25	.03		.01	.04	129	10	0	3	19	2	0
694	50	81	526	A	623611	.36	.15		.01	.03	491	11	0	3	16	2	0
695	50	81	526	A	623614	.09	.04		.01	.01	57	8	0	2	4	1	0
696	50	81	526	A	623617	.03	.02		.01	.02	41	10	0	2	2	1	0

Listing of COALLIST3 at 12:15:18 on OCT 8, 1981 for CC1d-BPOG

					Mg%	Ca%	Ti%	P%	Mn	La	In	B	Cr	Nb		
697	50	81	526	A	623620	.13	.03	.00	.03	67	6	0	3	7	2	0
698	50	81	526	A	623623	.12	.21	.00	.03	657	12	0	4	17	2	0
699	50	81	526	A	623626	.03	.00	.00	.03	154	17	0	4	3	1	0
700	50	81	526	A	623630	.11	.06	.00	.05	52	9	0	1	10	1	0
701	50	81	526	A	623633	.05	.06	.00	.03	810	6	0	5	13	0	0
702	50	81	526	A	624500	.02	.00	.00	.02	44	4	0	3	6	1	0
703	50	81	526	A	624501	.02	.00	.01	.01	12	4	0	2	2	0	0
704	50	81	526	A	624502	.56	.03	.04	.04	178	7	0	3	21	4	0
705	50	81	526	A	624503	.24	.03	.03	.03	75	5	0	2	15	3	0
706	50	81	526	A	624504	.26	.04	.14	.02	76	3	1	3	10	2	0
707	50	81	526	A	624505	.03	.03	.04	.01	74	2	0	1	3	0	0
708	50	81	526	A	624506	.23	.02	.02	.04	97	7	0	2	21	3	0
709	50	81	526	A	624507	.25	.05	.01	.03	82	6	0	1	21	3	0
710	50	81	526	A	624508	.09	.03	.05	.06	72	4	0	2	10	3	0
711	50	81	526	A	624509	.12	.09	.12	.01	31	1	1	0	2	1	0
712	50	81	526	A	624510	.28	.08	.16	.03	86	3	1	3	9	3	0
713	50	81	526	A	624511	.02	.02	.03	.01	18	3	0	1	3	1	0
714	50	81	526	A	624512	.05	.02	.04	.03	30	5	0	2	7	2	0
715	50	81	526	A	624513	.12	.02	.03	.06	56	6	0	1	11	2	0
716	50	81	526	A	624514	.16	.02	.02	.03	109	4	0	2	8	2	0
717	50	81	526	A	624515	.19	.03	.02	.07	113	6	0	1	16	4	0
718	50	81	526	A	624516	.09	.02	.04	.03	77	6	0	2	11	2	0
719	50	81	526	A	624517	.05	.02	.01	.03	30	5	0	2	5	1	0
720	50	81	526	A	624518	.35	.07	.02	.02	79	3	0	2	19	1	0
721	50	81	526	A	624519	.19	.02	.02	.05	110	5	0	2	16	4	0
722	50	81	526	A	624520	.13	.02	.01	.02	52	5	0	2	8	1	0
723	50	81	526	A	624521	.05	.02	.01	.01	45	2	0	1	3	0	0
724	50	81	526	A	624522	.01	.02	.01	.01	12	3	0	1	3	0	0
725	50	81	526	A	624523	.09	.03	.02	.01	27	1	0	1	3	0	0
726	50	81	526	A	624524	.17	.04	.03	.01	42	2	0	2	5	1	0
727	50	81	526	A	624525	.28	.22	.02	.07	1107	7	0	2	34	3	0
728	50	81	526	A	624526	.04	.02	.00	.01	26	1	0	0	2	0	0
729	50	81	526	A	624527	.02	.01	.02	.01	32	6	0	1	3	1	0
730	50	81	526	A	624528	.10	.05	.01	.04	47	6	0	2	10	2	0
731	50	81	526	A	624529	.11	.02	.01	.03	135	8	0	1	10	2	0
732	50	81	526	A	624530	.11	.02	.02	.04	192	10	0	2	8	4	0
733	50	81	526	A	624531	.12	.02	.00	.04	101	8	0	2	13	3	0
734	50	81	526	A	624532	.57	.03	.01	.02	259	8	0	3	22	3	0
735	50	81	526	A	624533	.20	.05	.01	.03	97	7	0	1	10	2	0
736	50	81	526	A	624534	.01	.05	0.	.02	29	4	0	2	2	0	0
737	50	81	526	A	624535	.11	.32	.00	.02	157	7	0	1	7	2	0
738	50	81	526	A	624536	.27	.07	.00	.02	155	6	0	2	12	2	0
739	50	81	526	A	624537	.19	.36	.00	.06	1118	12	0	2	15	3	0
740	50	81	526	A	624538	.01	.02	.01	.01	50	4	0	2	4	1	0
741	50	81	526	A	624539	.10	.02	.01	.02	74	6	0	1	6	2	0
742	50	81	526	A	624540	.16	.21	.00	.02	80	7	0	1	6	2	0
743	50	81	526	A	624541	.13	.25	.00	.01	108	6	0	1	6	1	0
744	50	81	526	A	624542	.06	.02	.00	.01	48	4	0	1	4	1	0
745	50	81	526	A	624543	.09	.08	.00	.01	321	6	0	0	4	1	0
746	50	81	526	A	624544	.15	.01	.00	.02	99	6	0	1	8	2	0
747	50	81	526	A	624545	.01	.02	.00	.01	23	5	0	2	2	0	0
748	50	81	526	A	624546	.11	.02	.00	.03	84	6	0	1	10	3	0
749	50	81	526	A	624547	.10	.02	.00	.06	74	7	0	2	9	3	0
750	50	81	526	A	624548	.06	.02	.01	.01	45	8	0	1	3	1	0
751	50	81	526	A	624549	.05	.02	.03	.01	29	6	0	0	3	1	0
752	50	81	526	A	624550	.02	.01	.02	.01	11	4	0	0	2	1	0
753	50	81	526	A	624551	.10	.02	.02	.03	62	6	0	1	7	2	0
754	50	81	526	A	624552	.03	.01	.01	.02	9	5	0	0	2	1	0

Listing of COALLIST3 at 12:15:18 on OCT 8, 1981 for CCID-BPOG

					Mg%	Ca%	Ti%	P%	Mn	La	In	B	Cr	Nb		
755	50	81	526	A	624553	.15	.01	.01	.04	107	6	0	1	10	4	0
756	50	81	526	A	624554	.06	.02	.00	.05	65	6	0	1	5	2	0
757	50	81	526	A	624555	.11	.03	.00	.08	61	23	0	0	21	3	0
758	50	81	526	A	624556	.03	.17	.01	.03	44	4	0	2	2	1	0
759	50	81	526	A	624557	.03	.13	.00	.04	18	0	0	2	1	0	0
760	50	81	526	A	624558	.02	.03	.00	.01	10	3	0	1	1	0	0
761	50	81	526	A	624559	.27	.03	.00	.03	255	4	0	1	12	3	0
762	50	81	526	A	624560	.01	.02	.00	.01	8	4	0	2	1	0	0
763	50	81	526	A	624561	.03	.02	.01	.01	33	7	0	2	3	1	0
764	50	81	526	A	624562	.02	.05	.01	.01	24	9	0	2	1	1	0
765	50	81	526	A	624563	.23	.58	.00	.04	197	12	0	2	13	3	0
766	50	81	526	A	624564	.18	.23	.00	.01	100	10	0	1	7	2	0
767	50	81	526	A	624565	.17	.30	.01	.14	2563	14	0	1	23	6	0
768	50	81	526	A	624566	.02	.05	.01	.01	39	7	0	3	3	1	0
769	50	81	526	A	624567	.30	.03	.00	.03	229	11	0	3	21	3	0
770	50	81	526	A	624568	.02	.03	.01	.02	44	8	0	3	4	2	0
771	50	81	526	A	624569	.05	.44	.00	.07	123	13	0	2	4	2	0
772	50	81	526	A	624570	.03	.10	.00	.06	29	0	0	1	2	0	0
773	50	81	526	A	624571	.04	.03	.00	.02	21	8	0	0	5	1	0
774	50	81	526	A	624572	.03	.02	.01	.01	22	8	0	1	2	1	0
775	50	81	526	A	624573	.12	.10	.00	.02	149	9	0	3	8	2	0
776	50	81	526	A	624574	.05	.01	.00	.01	24	10	0	1	3	1	0
777	50	81	526	A	624575	.03	.02	.00	.03	21	10	0	1	1	1	0
778	50	81	526	A	624576	.04	.01	.00	.03	98	12	0	2	1	1	0
779	50	81	526	A	624577	.02	.01	.02	.04	32	7	0	2	3	3	0
780	50	81	526	A	624578	.04	.01	.00	.02	93	14	0	3	2	1	0
781	50	81	526	A	624579	.01	.02	.01	.01	17	6	0	1	1	0	0
782	50	81	526	A	624580	.04	.04	.00	.02	252	14	0	5	6	1	0
783	50	81	526	A	624581	.03	.05	.00	.03	107	16	0	6	4	1	0

	ID	Mo	Cu	Pb	Zn	Ni	U	Mn	Fe	Ag	Co	Ag(AA)	As	Hg	Sb	Au	W	Th	Cd	Bi
62	23051	1	1	4	38	3	3	373	2.1	0.	8	.1	9	80	0	5	0	3	0	0
63	23052	2	15	4	68	2	0	1617	7.7	0.	9	.1	30	50	0	5	1	4	0	0
64	23053	0	26	2	36	1	2	499	1.2	0.	7	.1	4	20	0	5	0	2	0	0
65	23054	1	17	0	61	3	1	451	2.0	0.	11	.1	11	35	0	5	1	3	0	1
66	23055	4	38	4	27	5	1	251	1.4	.3	9	.3	12	30	0	5	0	1	0	1
67	23056	5	15	4	21	1	4	128	.6	.2	3	.2	31	30	0	5	0	5	0	0
68	23057	3	9	86	103	1	0	1320	4.3	2.7	4	2.6	12	60	3	5	1	5	0	1
69	23058	0	0	6	13	0	5	474	1.3	0.	3	.1	3	20	0	5	1	6	0	1
70	23059	1	13	4	26	1	7	370	1.3	.1	3	.2	3	20	0	5	0	5	0	0
71	23060	0	39	6	18	1	7	339	1.1	.6	4	.6	3	35	0	5	0	6	0	0
72	23060	1	41	7	17	1	7	352	1.1	.6	4	.6	4	3	0	5	0	6	0	0
73	23061	1	6	5	19	1	6	257	1.1	.5	3	.5	1	30	0	5	0	6	0	0
74	23062	1	4	3	13	0	5	253	1.1	.1	3	.1	1	20	0	5	0	6	0	0
75	23063	1	9	1	20	1	5	292	1.2	.3	3	.4	1	85	0	5	0	7	0	0
76	23064	1	8	6	26	0	4	233	1.1	.4	2	.3	12	20	0	5	0	6	0	0
77	23065	3	47	130	234	0	3	206	1.3	7.5	4	6.4	47	110	6	20	1	6	0	0
78	23066	2	51	46	47	1	3	262	1.2	2.8	3	2.5	23	30	2	0	0	5	1	0
79	23067	5	93	108	184	0	3	352	1.5	3.3	6	3.0	40	100	4	1	5	3	0	0
80	23068	2	57	20	38	1	5	201	1.2	1.4	3	1.4	17	60	1	0	5	0	0	0
81	23069	6	80	29	43	0	6	62	.6	2.2	2	1.8	19	160	2	0	0	0	0	0
82	23070	7	200	299	761	4	5	220	1.3	6.0	8	5.2	121	880	10	4	1	1	1	0
83	23071	6	184	4	21	6	2	177	1.5	.9	12	.8	16	60	1	5	1	1	1	0
84	23072	0	11	18	61	3	6	419	2.0	.3	8	.3	12	25	0	5	1	0	1	0
85	23073	26	1347	77	437	2	0	438	5.4	14.2	45	12.8	413	100	8	110	3	3	0	0
86	23074	5	25	90	61	1	9	333	1.4	5.1	4	4.8	14	50	2	5	3	5	0	0
87	23075	1	5	68	49	1	7	403	1.2	1.6	3	1.5	3	60	0	5	6	1	0	0
88	23076	0	9	123	115	0	3	404	1.0	10.1	3	8.6	6	160	1	5	6	2	0	0
89	23077	0	2	2	16	1	5	467	1.0	.1	3	.2	3	110	0	0	0	0	0	0
90	23078	0	0	0	20	1	5	398	1.2	0.	3	.1	2	20	0	5	0	0	0	0
91	27453	0	11	3	45	2	3	425	1.8	0.	9	.1	3	20	0	5	0	0	0	0
92	27453	1	11	2	45	3	1	432	1.8	0.	9	.1	0	20	1	5	1	0	0	0
93	27454	1	31	0	63	3	4	316	2.1	0.	13	.1	3	30	1	5	4	0	0	0
94	27455	1	15	0	43	2	2	356	1.7	0.	8	.1	4	15	0	0	3	0	0	0
95	27456	0	43	0	55	3	3	302	1.7	0.	12	.1	5	30	0	5	3	0	0	0
96	27457	1	73	0	58	2	3	288	1.9	.1	11	.1	7	40	1	5	4	0	0	0
97	27458	1	48	4	61	3	1	370	1.8	.1	11	.1	31	40	1	5	4	0	0	0
98	27459	1	31	3	47	2	2	555	2.2	0.	7	.1	2	35	0	0	3	0	0	0
99	27460	1	13	6	87	3	3	446	2.3	0.	12	.1	0	40	1	5	4	0	0	0
100	27461	1	35	0	34	4	0	514	2.8	.3	12	.3	2	20	1	5	3	0	0	0
101	27462	1	10	0	40	2	2	358	1.8	0.	8	.1	2	20	1	5	3	0	0	0
102	27463	0	5	0	37	1	3	0	0	0.	0	.1	0	5	0	0	4	0	0	0
103	27464	1	29	3	60	2	2	480	2.0	.1	9	.1	7	20	1	5	4	0	0	0
104	27465	0	29	0	43	2	2	390	1.8	.1	7	.1	4	20	0	0	4	0	0	0
105	27466	0	0	0	33	5	3	454	1.7	0.	5	.2	3	20	0	0	2	0	0	0
106	27467	0	8	0	41	2	1	371	2.0	.1	8	.2	4	30	1	5	5	0	0	0
107	27468	1	0	3	12	1	6	245	1.0	0.	2	.1	2	20	0	0	6	0	0	0
108	27469	0	1	2	3	1	5	109	.3	0.	0	.1	2	15	0	0	12	0	0	0
109	27470	0	1	4	14	1	4	303	1.0	0.	2	.1	1	20	0	0	7	0	0	0
110	27471	0	0	2	14	1	5	316	1.0	0.	2	.1	1	20	0	0	6	0	0	0



	ID	V	Ba	Al%	Fe%	Mg%	Ca%	Ti%	P%	Mn	La	In	B	Cr	Nb	Zr
62	23051	33	199	1.99	2.1	.51	1.00	.03	.01	373	5	6	7	5	4	2
63	23052	58	99	4.20	1.7	.82	3.70	.05	.33	1617	12	10	6	5	12	7
64	23053	16	199	1.10	1.2	.35	1.70	0.	.01	499	10	3	6	2	5	1
65	23054	16	199	1.50	2.0	.40	1.40	0.	.02	451	16	4	7	4	5	2
66	23055	14	1099	.55	1.4	.55	1.70	0.	.03	251	9	4	7	6	5	1
67	23056	2	99	.37	.6	.05	.44	0.	.01	128	18	1	5	4	3	0
68	23057	6	299	.25	4.3	.24	.15	0.	.01	1320	5	8	8	3	3	2
69	23058	4	399	.31	1.3	.11	1.30	0.	.01	474	29	2	9	2	5	1
70	23059	3	799	.32	1.3	.14	.65	0.	0.	370	16	5	8	4	3	1
71	23060	3	799	.30	1.1	.13	.59	0.	.02	339	16	4	6	4	3	1
72	23060	3	799	.31	1.1	.14	.62	0.	.02	352	16	4	6	4	3	0
73	23061	4	399	.33	1.1	.14	.56	0.	.03	257	16	3	7	5	3	1
74	23062	3	299	.31	1.1	.14	.66	0.	.03	253	17	2	6	4	3	1
75	23063	5	299	.34	1.2	.12	.57	0.	.03	292	19	2	6	5	3	1
76	23064	3	99	.28	1.1	.14	.58	0.	.02	233	16	2	5	3	3	0
77	23065	2	399	.29	1.3	.13	.67	0.	.03	206	14	3	6	7	3	1
78	23066	3	99	.30	1.2	.18	.80	0.	.02	262	17	2	5	4	3	1
79	23067	3	799	.33	1.5	.22	.96	0.	.03	352	15	5	5	8	4	1
80	23068	3	99	.40	1.2	.17	.86	0.	.03	201	13	1	5	4	3	1
81	23069	1	199	.30	.6	.06	.31	0.	.01	62	19	1	6	5	2	0
82	23070	4	199	.49	1.3	.25	1.40	0.	.02	220	7	3	7	25	4	1
83	23071	6	699	.34	1.5	.63	1.50	0.	.03	177	6	4	5	3	4	1
84	23072	9	499	.44	2.0	.74	1.90	0.	.05	419	8	5	4	7	5	1
85	23073	14	0	.54	5.4	.57	1.70	0.	.01	438	6	7	2	32	6	5
86	23074	4	399	.47	1.4	.18	2.00	0.	.02	333	11	3	3	7	5	1
87	23075	3	499	.28	1.2	.23	1.70	0.	.02	403	15	2	4	6	4	0
88	23076	3	199	.26	1.0	.23	1.10	0.	.02	404	15	3	4	10	3	0
89	23077	4	399	.26	1.0	.22	1.10	0.	.02	467	16	1	4	4	3	0
90	23078	23	199	.54	1.2	.30	.50	.05	.02	398	14	2	4	5	2	1
91	27453	29	99	1.10	1.8	.48	.74	.01	.02	425	9	3	4	7	3	1
92	27453	30	99	1.20	1.8	.49	.75	.01	.02	432	9	2	4	9	3	1
93	27454	21	199	1.40	2.1	.57	.19	0.	.01	316	6	4	5	6	2	2
94	27455	20	99	1.00	1.7	.43	.44	0.	.02	356	10	1	3	8	2	1
95	27456	20	199	1.30	1.7	.52	.77	0.	.01	302	10	3	4	7	3	1
96	27457	22	99	1.30	1.9	.52	.36	0.	.01	288	11	3	3	7	2	1
97	27458	27	199	1.10	1.8	.48	.66	0.	.01	370	14	4	3	9	3	1
98	27459	47	99	1.30	2.2	.55	.59	0.	.01	555	13	2	3	9	3	2
99	27460	25	199	1.40	2.3	.56	.26	0.	.01	446	12	3	4	9	2	2
100	27461	21	99	.85	2.8	.25	.07	0.	.02	514	11	3	2	8	2	2
101	27462	17	199	1.00	1.8	.25	.17	0.	.01	358	15	2	3	6	2	1
102	27463	18	99	.94	0	.30	.45	0.	.01	0	13	2	2	5	2	1
103	27464	19	199	.97	2.0	.26	.23	0.	.01	480	13	3	3	7	2	1
104	27465	16	199	1.00	1.8	.29	.32	0.	.01	390	14	3	2	5	1	1
105	27466	21	99	1.10	1.7	.52	.96	0.	.02	454	11	2	4	10	3	1
106	27467	19	199	1.20	2.0	.32	.36	0.	.01	371	16	2	3	6	2	2
107	27468	3	99	.37	1.0	.10	.44	0.	0.	245	11	2	5	7	1	1
108	27469	0	99	.23	.3	.03	.56	0.	0.	109	23	1	5	4	2	0
109	27470	3	199	.27	1.0	.10	.46	0.	0.	303	17	2	5	5	1	0
110	27471	4	299	.27	1.0	.10	.61	0.	.02	316	16	2	12	5	2	0

ID	Mo	Cu	Pb	Zn	Ni	U	Mn	Fe%	Ag	Co	Ag(AA)	As	Hg	Sb	Au	W	Th	Cd	Bi	
111	27472	1	0	4	20	1	6	329	1.1	0.	3	.1	3	30	0	5	0	6	0	0
112	27473	1	0	6	18	1	14	339	1.1	0.	3	.1	24	40	0	5	0	5	0	0
113	27473	1	0	6	18	0	15	335	1.1	0.	3	.1	26		1	0	6	0	0	
114	27474	0	0	3	7	0	7	220	.8	0.	2	.1	3	20	0	5	5	0	0	
115	27475	0	1	2	3	1	7	144	.5	0.	1	.1	4	20	0	5	0	7	0	
116	27476	0	0	0	13	1	5	227	1.0	0.	2	.1	4	35	0	5	0	7	0	
117	27477	0	4	4	12	1	9	264	1.0	0.	3	.1	1	20	0	5	0	5	0	
118	27478	0	3	2	10	0	5	296	1.1	0.	3	.1	4	25	0	5	0	4	0	
119	27479	0	3	0	14	0	7	227	1.1	0.	3	.1	2	20	0	10	0	5	0	
120	27480	0	2	3	19	0	6	259	1.1	0.	3	.1	2	30	0	5	0	4	0	
121	27481	0	4	7	28	1	6	283	1.1	0.	3	.1	11	90	0	5	0	6	0	
122	27482	0	209	80	171	3	6	258	1.9	5.0	12	4.5	72	55	1	5	1	4	1	
123	27483	0	206	18	64	5	6	293	2.2	6.1	12	5.7	29	150	1	5	1	0	0	
124	27484	1	329	151	501	6	4	314	2.3	8.8	17	7.9	51	380	2	5	2	1	6	
125	27485	0	97	41	100	1	6	204	1.8	1.8	8	1.5	183	120	2	5	1	4	0	
126	27486	5	607	11	153	1	5	209	1.7	6.4	6	5.7	43	260	3	5	5	2	1	
127	27487	0	11	5	65	3	5	400	1.9	.2	8	.2	10	50	0	5	0	1	0	
128	27488	0	3	4	48	3	3	391	1.8	.1	8	.1	4	20	0	5	0	1	0	
129	27489	8	346	5	144	2	8	216	1.5	3.4	6	2.9	38	220	0	15	3	1	1	
130	27490	1	118	16	30	1	4	245	1.5	1.1	4	.9	27	40	0	15	0	5	0	
131	27491	1	55	64	62	2	5	249	1.4	1.4	6	1.2	18	60	0	10	0	4	0	
132	27492	0	11	0	25	4	3	274	1.7	0.	9	.1	4	15	0	5	0	1	0	
133	27493	0	17	0	35	1	3	440	1.4	.1	5	.1	5	15	0	5	0	4	0	
134	27493	0	17	0	36	1	2	443	1.4	.1	5	.1	3	3	0	5	0	5	0	
135	27494	0	4	1	58	1	2	553	1.3	.1	4	.1	8	45	0	5	0	5	0	
136	27495	0	4	2	143	1	3	624	1.4	.4	6	.3	21	150	0	5	1	4	0	
137	27496	1	28	5	130	1	5	589	1.4	.5	6	.4	12	140	0	5	1	5	0	
138	27497	0	1	1	50	0	3	453	1.0	1.3	3	1.1	1	60	0	5	0	6	0	
139	27498	0	3	1	35	1	1	517	1.3	.1	4	.1	2	20	0	5	0	4	0	
140	27499	6	70	10	34	1	4	126	.5	1.1	5	1.0	27	15	0	5	1	4	0	
141	27500	1	2	28	81	1	0	431	2.2	0.	3	.1	1	20	2	5	0	3	0	

CDH-5

CDH-1

	ID	V	Ba	Al%	Fe%	Mg%	Ca%	Ti%	P%	Mn	La	In	B	Cr	Nb
111	27472	4	299	.27	1.1	.11	.62	0.	.02	329	13	1	6	4	2
112	27473	4	399	.27	1.1	.11	1.30	0.	.02	339	12	3	7	4	3
113	27473	4	399	.27	1.1	.11	1.30	0.	.02	335	12	3	7	4	3
114	27474	2	499	.27	.8	.08	.73	0.	.01	220	10	2	7	4	2
115	27475	1	299	.22	.5	.05	.73	0.	0.	144	11	2	5	4	2
116	27476	4	299	.26	1.0	.09	.51	0.	.02	227	16	2	6	4	2
117	27477	4	399	.28	1.0	.12	1.00	0.	.02	264	11	2	7	4	2
118	27478	3	699	.32	1.1	.10	.96	0.	.02	296	15	2	7	2	3
119	27479	5	599	.28	1.1	.11	.69	0.	.02	227	11	2	6	3	2
120	27480	5	899	.27	1.1	.13	.82	0.	.02	259	11	3	6	3	2
121	27481	4	599	.30	1.1	.17	1.00	0.	.03	283	15	2	7	5	3
122	27482	5	599	.32	1.9	.25	.65	0.	.02	258	12	4	5	15	2
123	27483	11	299	.33	2.2	.75	1.80	0.	.03	293	4	4	5	7	4
124	27484	7	599	.33	2.3	.61	1.30	0.	.03	314	6	4	6	40	4
125	27485	5	499	.30	1.8	.28	.47	0.	.03	204	14	4	6	9	2
126	27486	5	99	.18	1.7	.18	1.10	0.	.01	209	4	3	3	14	3
127	27487	12	699	.38	1.9	.78	1.80	0.	.05	400	9	4	5	8	5
128	27488	13	899	.51	1.8	.76	1.80	0.	.05	391	9	4	4	7	5
129	27489	6	199	.32	1.5	.22	.70	0.	.01	216	5	2	4	13	2
130	27490	7	699	.58	1.5	.25	.64	0.	.03	245	13	3	4	5	2
131	27491	14	599	.84	1.4	.40	.98	0.	.03	249	16	2	4	8	3
132	27492	34	1699	.86	1.7	.77	1.30	.01	.06	274	12	5	4	7	4
133	27493	13	899	.80	1.4	.33	1.00	0.	.03	440	13	4	4	4	3
134	27493	14	899	.81	1.4	.33	1.00	0.	.03	443	13	4	4	5	3
135	27494	7	599	.51	1.3	.26	1.00	0.	.03	553	14	3	5	6	3
136	27495	5	699	.34	1.4	.26	1.20	0.	.03	624	15	3	5	13	3
137	27496	6	499	.29	1.4	.33	1.00	0.	.03	589	13	4	11	12	3
138	27497	6	499	.27	1.0	.29	.84	0.	.02	453	16	3	4	6	2
139	27498	12	599	.79	1.3	.34	.90	0.	.03	517	12	4	3	6	3
140	27499	2	199	.31	.5	.06	.38	0.	0.	126	13	1	3	4	1
141	27500	5	299	.28	2.2	.13	.06	0.	0.	431	7	4	4	9	1

CDH-5

CDH-1

APPENDIX IV

Diamond Drill Logs

**BP DRILL LOG**

PROJECT <u>MORIARTY LAKE</u>		U.T.M. CO-ORDS <u>54 44 365</u> N <u>398 450</u> E		SURVEYS	DEPTH	AZIMUTH	DIP	DDH NO. <u>CDH-1</u>		
PROPERTY <u>COAL 1 CLAIM</u>		GRID CO-ORDS <u>15 + 03</u> N <u>16 + 25</u> E							COLLAR	-
		N.T.S. <u>92F/W</u> COLLAR ELEVATION <u>950 m</u>						LOGGED BY <u>B. Marten</u>		
CORE SIZE <u>NQ</u>		DATE STARTED <u>20 Oct./81</u>		CONTRACTOR <u>Wright Drilling</u>						
FINAL DEPTH <u>41.48 m</u>		DATE COMPLETED <u>22 Oct./81</u>		DRILL MODEL <u>Boyles 25</u>						
DEPTH		CORE		LITHOLOGY				ALTERATION	MINERALISATION	STRUCTURE
From	To	Length	%Rcy							
0	1.83m	1.83		Casing - overburden						
1.83	17.53	15.70	95	<p><u>PORPHYRITIC DACITE</u></p> <p>Phenocrysts: white earthy sausseritised plagioclase 1-3 mm, but up to 6 mm in lower portion, subhedral; subordinate dark green prismatic and acicular chloritised amphibole 1-3 mm long, sparse ovoid quartz grains 2mm diameter. Groundmass is dull pale grey-green fine grained granular altered slightly calcareous feldspathic material with scattered diffuse greenish chloritic specks and trace disseminated specks of pyrite.</p> <ul style="list-style-type: none"> <li>- At 6.55m: 60 cm of quartz porphyry - crowded quartz and plagioclase phenocrysts (1-3mm), in groundmass similar to but coarser grained than the porphyritic dacite. Probably a xenolith (contents not preserved).</li> <li>- At 15.85 mm: top of gradual downward colour gradation into whitish bleached more altered basal contact zone. 5 cm thick bleached chill zone at knife sharp basal contact.</li> </ul>				sausserite, chlorite calcite	tr. py	Basal contact 87° to CA
17.53	28.00	10.47	95	<u>COMOX FORMATION:</u> bedded coarse grained illsorted sandstone/arkose, with dark silty carbonaceous units. Subdivided as follows:						
		(2.13)		17.53-19.66m: Grey sandstone.V.coarse grained, illsorted and immature (<1-3m), with scattered black carbonaceous grains and specks, weakly calcareous. Faint bedding defined by grey carbonaceous laminae and diffuse bands. A 10 cm thick silty bed at 19.05 m has irregular inclusions of sandstone, indicative of soft-sediment disruption. Pelycypod burrows at 19.5 m.					17.53-18.60: several hair-line to 1mm carbonate veinlets with minor cpy & sparser subparallel to CA.	Bedding 87° to CA.
		(1.21)		19.67-20.88m: Illsorted v coarse grained grey sandstone bedded on 10-20 cm scale with 1-20 cm intercalations of black carbonaceous siltstone, mudstone and carbonaceous silty "wacke" (gritty illsorted siltstone with scattered sand grains and granules). Irregular sub-vertical ankeritic hairline to 1mm wide veinlets; one per core width.						

PROJECT MORIARTY LAKE PROPERTY COAL 1

**BP** DRILL LOG

D.D.H. NO. CDH-1 SHEET 2 OF 2

DEPTH		CORE		LITHOLOGY	ALTERATION	MINERALISATION	STRUCTURE
From	To	Length	%Rcy				
		(7.12)		<p>20.88-28.00m: Dark grey to black coarse grained carbonaceous grit or "wacke"; illsorted quartz and subordinate feldspar grains, &lt;1-4 mm, scattered in black fine grained sandy-silty matrix. Minor black coaly partings, otherwise bedding defined by gradational darker more silty bands and irregular wavy laminae, less carbonaceous grey beds are calcareous. 5 cm of granite wash at base.</p> <p>- 73.15 to 73.40 m: calcite tension gashes up 3 mm width, at 155° to CA.</p>			Bedding 80-88° to CA
28.00	41.48	13.48	96	<u>ALTERED GRANODIORITE</u>			
		(3.7)		<p>28.00-31.70 Foliated clay-altered: soft mottled grey rock consisting of 1-4 mm quartz grains, pale grey earthy clay altered lensoid feldspar grains and diffuse dull drak green earthy lensoid mottles and lenticules up to 6mm long presumably after mafics. The foliation is parallel to bedding in the overlying sandstones and is defined by a preferred orientation of the lensoid grains and very fine hairline fractures visible with a hand lens. Includes scattered lenticular chloritised fine grained dark green mafic xenoliths 3-4 cm long aligned in the phase of foliation. The foliation diminishes in intensity downwards and is barely discernible at 31.70 m.</p> <p>- At 30.45 m: black diffuse chloritic fracture up to 2mm wide, locally splaying, some related microfaulting.</p> <p>- 30.80 to 31.10m: Core broken, soft, fractured and veined with quartz and minor barite, carbonate subparallel to C.A. veinlets 2-8mm wide, show cockscomb texture with cores of soft black material (chlorite?); some slickensides.</p>	Clay-chlorite		<p>Foliation 78-85° to CA.</p> <p>Fracture at 3045m to 146° to C.A.</p>
		(0.63)		<p>31.70-32.33m: Softish clay-altered granodiorite, identical to above but non-foliated, equant granitoid texture.</p>	Clay-chlorite		
		(9.15)		<p>32.33-41.48m: Altered granodiorite; massive, tougher than above, av. grain size 3 mm, plagioclase altered to pale greenish tinged waxy textured sausserite, mafics represented by blackish to dark green chloritic blebs. A few sparse black fractures.</p> <p>- 36.06 to 36.17m: irregular pod (xenolith?) of 0.5 mm gr size quartz-rich aplite, cut by network of black hairline fractures, and some irregular 4 mm wide breccia zones which encroach into adjacent granodiorite. Below is 1 cm wide shear zone with quartz veinlets.</p> <p>- 34.50m to bottom of hole, rock is weakly calcareous</p> <p>- 40.7m broken core</p> <p>bottom 1.5 m show network of hairline chloritic fractures.</p> <p>END OF HOLE</p>	Sausserite-Chlorite (calcite)		Shear zone 165° to CA

**BP DRILL LOG**

PROJECT <u>MORIARTY LAKE</u>	U.T.M. CO-ORDS <u>5444 365</u> N <u>398 450</u> E	SURVEYS	DEPTH	AZIMUTH	DIP	DDH NO. <u>CDH-2</u>
PROPERTY <u>COAL 1 CLAIM</u>	GRID CO-ORDS <u>15 + 03</u> N <u>16 + 25</u> E	Acid Test	COLLAR	<u>160</u>	<u>-45</u>	
	N.T.S. <u>92F/1W</u> COLLAR ELEVATION <u>950m</u>		94.5m			<u>-53</u>
CORE SIZE <u>NQ</u>	DATE STARTED <u>22 Oct./81</u>	CONTRACTOR <u>Wright Drilling</u>				
FINAL DEPTH <u>107.9m</u>	DATE COMPLETED <u>25 Oct./81</u>	DRILL MODEL <u>Boyles 25</u>				

DEPTH		CORE		LITHOLOGY	ALTERATION	MINERALISATION	STRUCTURE
From	To	Length	%Rcy				
0	1.27m	1.27m		Overburden - casing			
1.27	23.66	22.39	98%	<p>PORPHYRITIC DACITE - as in CDH-1 Subhedral sausseritised plagioclase phenocrysts, chloritised amphiboles 1-3mm, and sparse quartz eyes (2 mm) in a fine grained earthy textured pale slightly calcareous groundmass with trace disseminated pyrite. Rare ovoid quartz-rimmed amygdales to 1 cm, fine grained zeolite(?) in cores.</p> <p>4.9 m: 14 cm xenolith of softish altered green fine grained feldspathic rock with irregular dark chloritic fractures, contains one quartz eye; a phase of the dacite?</p> <p>4.68-4.90 and 4.27-4.70: brown weathered zones</p> <p>5.80m: bleached ground core</p> <p>7.22 : xenolith of fine grained diorite, 9 cm</p> <p>7.71 : xenolith of medium grained pale green dacite cut by ankeritic veinlets with dark selvadges.</p> <p>11.56 : scattered subangular pale f.gr. felsitic xenoliths 1-2 cm.</p> <p>12.0-14.43: Quartz porphyritic granodiorite: quartz phenocrysts 1-6 mm altered plagioclase (2 mm) in a pale green-grey slightly calcareous quartz-feldspathic groundmass, 0.5 mm grain size with 2 mm chloritic blebs.</p> <p>14.43-16.45: Xenolithic pophyritic dacite: scattered xenoliths subangular to subrounded, &lt; 1-4 cm, fine grained feldspathic, pale green-grey to buff; a few have scattered quartz phenocrysts 1-2 mm, and some have dark green mottles &lt; 1 mm (some cored by zeolite) that appear to be amygdales. One 1 cm xenolith of coarse gr. diorite. The dacite shows irregular color and some textural variation suggestive of brecciation.</p> <p>18.06m: 10 cm xenolith, similar to that at 7.71m.</p> <p><u>Basal contact zone:</u></p> <p>22.35-23.15m: Gradation to softer paler more altered calcareous porphyritic dacite, minor dissem py, two 1 mm calcite-chlorite veinlets; core breaks uniformly at 60° to C.A.</p>	<p>Sausserite, chlorite, calcite</p>	<p>Tr. py.</p> <p>18.5-19.0 and 21.0-21.8: about .5% py.</p>	<p>Sparse joints var. angles, spaced 30- 60 cm or more</p> <p>Fractures 60° to CA.</p>

PROJECT		PROPERTY		LITHOLOGY		ALTERATION		MINERALISATION		STRUCTURE	
MORIARTY LAKE		COAL 1 CLAIM									
DEPTH		CORE									
From	To	Length	%Rcy								
				23.15-23.66: gradation to whitish f. gr. porphyritic chill zone, altered but tougher than section above, less calcareous. Has a planar flow fabric parallel to knife-sharp basal contact. Rock weathered to limonite-brown in 2 cm wide zones bordering joints.						Flow fabric 60° to CA.	
23.66	43.00	19.34	95	COMOX FORMATION: Coarse grained, illsorted grey sandstone with interbeds of dark carbonaceous silty sandstone and silty 'wacke'. Bedding 5 cm - 1 m scale. Subdivided as follows:							
		(2.68)		23.66-26.34m: Grey coarse to v. coarse gr. (<1-6 mm) illsorted sandstone grains are of quartz and minor plagioclase, with from 2-10% of grains composed of black carbonaceous matter, max. 1mm diam. Weakly to moderately calcareous. Weakly bedded. Several wisps and irregular lobed inclusions of pale soft bleached and clay altered siltstone-mudstone- interpreted as rip-ups (show soft-sediment features). - top 60 cm at sill contact shows limonitic brown weathering.		minor clay		Tr. PY		Bedding 60° to CA.	
		(4.16)		26.34-30.50m: Sandstone, as above, with interbeds of dark carbonaceous sandstone and dark grey to black carbonaceous wacke 5.45 cm thick, beds not sharply defined. The wacke consists of non-calcareous black carbonaceous siltstone with scattered grains of quartz and minor plagioclase up to 6 mm diam; the proportion of sand grain varies from 5% to 60%.				29.6m: 15% py in one 7cm sandstone bed 29.87m: 5mm py-carb vein.		Bedding 75° to CA.	
		(4.77)		30.50-35.77: Dominantly dark grey carbonaceous wacke as above, with subordinate ill-defined dark sandy calcareous beds 10-30 cm thick with irregular black silt wisps.							
		(0.85)		35.27-36.12: Bed of clean grey illsorted coarse gr. pebbly sandstone (up to 8 mm) non-calcareous; faint regular parallel bedding laminations.							Bedding 54° to CA.
		(0.41)		36.12-36.53: Fault breccia; grey sandstone fragments with veinlets of barite minor calcite, seams of py. possibly some f.gr. black sp. with, below, 28cm of fractured, brecciated soft black wacke with several 1-3 mm creamy barite veinlets.				Barite, py (? sp)		Fault 122° to CA.	
		(2.67)		36.53-39.20: Black wacke; massive, unbedded; 1-3 mm creamy barite veinlets at 36.80, with minor fault brecciation (?).							
		(0.52)		39.20-39.72: Massive grey sandstone, gradational contacts.							
		(2.56)		39.72-42.28: Black to grey wacke, grading imperceptibly to grey sandstone at base 8 mm wide zone of -echelon baritic tension gashes at 39.23m				vein barite		Hairline fractures, 4 per cm 120° to CA.	



DEPTH		CORE		LITHOLOGY	ALTERATION	MINERALISATION	STRUCTURE
From	To	Length	%Rcy				
		(0.72)		42.28-43.00m: Clean white coarse grained moderately well sorted sandstone, faintly bedded. Includes scattered subangular clasts (< 1 cm) of pale siliceous aplite; one irregular microfaulted cobble near base. UNCONFORMITY			
43.00	53.95	10.95	99	SOFT ALTERED GRANODIORITE Mottled grey, med-coarse grained, qtz 1-5 mm, plag (1-4 mm) is altered to waxy pale green sausserite, hornblende represented by diffuse dark grey to black blebs chloritic material, and biotite is replaced by creamy clay material showing fine folia that pseudomorph the cleavage. Top metre shows faint regular close-spaced hairline fractures parallel to overlying beds. Some sparse quartz blebs are up to 12 mm diam. 46.95-47.33m: <u>veined section</u> ; 1cm gouge zone at 166° to CA; below is calcite vein system 7 cm time thickness; calcite veins cut earlier black chloritic fractures. 47.73-48.40: <u>fractured zone</u> ; irregular stockwork of black chloritic hairline fractures, cut by two calcite-qtz veinlets at 162° to CA. 48.40-53.60: black chloritic fractures spaced at 3 - 15 cm intervals with some barren sections, commonly oriented 135-150° to CA. At 53.60m fractures cut a faint foliation at steep angle, fol. at 55° to CA.	clay, sausserite, chlorite carbonite		
53.95	55.95	2.0	110*	MOTTLED WEAKLY SILICIFIED GRANODIORITE Altered plagioclase and mafics are silicified in zones that encroach from fractures leaving mottled darker patches of non-silicified rock. The silicified rock is very pale grey, due to destruction of the black chloritic blebs and fractures. 55.17-55.33: pink silicified aplite (.2 mm gr size) with network of pale and dark hairline fractures showing some microfaulting.	Clay-sausserite chlorite superimposed silicification		
55.95	57.62	1.67	99	GREY ALTERED FRACTURED GRANODIORITE Regular and irregular dark hairline chloritic fractures, some with seams of fine grained pyrite; a few 1 mm veinlets of pale green soapy pyrophyllite or talc. Particularly intense fracturing with microfaulting (incipient brecciation) 55.33-56.90, and 57.33-57.62.	chlorite pyrophyllite-talc	tr. py	dense chlorite fracturing microfaulting
57.62	63.00	5.38	99	----- gradational contact ----- MOTTLED SILICIFIED GRANODIORITE Granitoid texture obscured but relic quartz and what appear to be pinkish K feldspars visible. Network of pale diffuse fractures with seams of pyrophyllite (?) up to 1 mm thick. The silicification appears to postdate the black chloritic fractures in the unit above. Rock weakly calcareous. Minor f gr py disseminated in some of the greenish fractures. 57.62-60.70 upper part pale pinkish tinged 60.70-63.00 lower part pale greenish more intensely silicified.	Silicification more intense in lower part (+pyrophyllite)	tr. py, and f gr black sulphide	Pale greenish fracture network 59.63-59.72 breccia-fracture zone

\*source of error on drillers blocks not ascertained

PROJECT		PROPERTY		D.D.H. NO.		SHEET		OF	
MORIARTY LAKE		COAL 1 CLAIM		CDH-2		4		6	
DEPTH		CORE		LITHOLOGY	ALTERATION	MINERALISATION	STRUCTURE		
From	To	Length	%Rcy						
63.00	64.21	1.49	97	<p>FRACTURED CLAY-ALTERED CALCAREOUS GRANODIORITE</p> <p>Soft, whitish grey, with anastomosing network of dark grey to black chlorite fractures, hairline up to 2 mm width with some seams f gr py up to 2 mm wide (plus some v f grained black sulphide-sp?); some blebs and seams of pyrophyllite(?)</p> <p>Upper contact: probable minor fault. 5 cm true width zone(145° to CA) of dark incipiently brecciated fractured rock with some carbonate-pyrite veins, some grains black sphalerite(?).</p>	chlorite-clay-calcite pyrophyllite(?)	py (sp?)	Chloritic fractures av. spacing 2cm. Dom. orientation 150° to CA		
64.21	65.70	1.49	99	<p>FRACTURED WEAKLY SILICIFIED GRANODIORITE</p> <p>Pale mottled relic coarse granitoid texture, whitish altered feldspar, anastomosing chloritic fractures with bordering zones with black chloritic blebs; fractures have a fairly uniform orientation. Cut by later subparallel quartz-calcite veinlets at 65.23, with 2 grains sp visible.</p> <p>N.B. Black fractures locally fade where altered to pale green pyrophyllite:</p>	weak silicification. chlorite (pyrophyllite)	(tr.sp)	Chloritic fractures av. spacing 0.7 cm 145° to CA.		
65.70	65.90	.20	150*	<p>MINOR FAULT?</p> <p>Broken core; soft whitish clay altered granodiorite, locally brecciated, chloritic fractures with seams py.</p>		tr.py			
65.90	68.18	2.28	98	<p>WEAKLY SILICIFIED INCIPIENTLY BRECCIATED GRANODIORITE</p> <p>Pale mottled, relic coarse quartz and pale cream to earthy pale green altered feldspars; faint breccia texture traversed by dark and pale greenish diffuse fractures, later fractures with silica (envelopes and seams of py indicated sequence: 1) incipient brecciation 2) chloritic fractures 3) silicification that healed breccia, chlorite altered to pale green pyrophyllite.</p>	Sausserite, chlorite, weak silicification	.7% dissem. py	Early frac. dom 142° to CA		
68.18	68.62	.44	98	<p>GREY QUARTZ</p> <p>Fine grained grainy texture; mottled due to irregular patches of pale green soft earthy material suggestive of relic granodiorite texture (silica flooding?) fractured and broken.</p>	Silica flooding	1% py dissem and on fractures			
68.62	69.19	.57	70	<p>FAULT BRECCIA</p> <p>Subangular clasts of f gr pale green-grey dacite up to 1-5 cm in soft gritty grey gouge matrix; some clasts of grey quartz at top. Pyrite (.5 mm) disseminated in matrix and clasts.</p> <p>Knife sharp, fracture</p>	Clay	1% dissem. py	Fault Basal contact 130° to CA		
69.19	73.00	3.81	98	<p>SPARSELY PORPHYRITIC DACITE</p> <p>Soft, altered, pale grey-greenish. Scattered euhedral plagioclase phenocryst (up to 3 mm) altered to soft white material, v sparsely scattered rounded quartz phenocrysts; f gr soft groundmass with 2% disseminated py (up to .5 mm)</p> <p>- Top 51 cm has streaky faint penetrative flow fabric</p> <p>- At Basal contact is a gradation over 3 cm into grey silicified dacite with faint outlines of relic phenocrysts and a faint relic flow fabric.</p> <p>Knife sharp, intrusive</p>	Clay, sausserite local silicification	2% dissem. py	Top flow fabric 148° to CA Base flow fabric 150° to CA		

\*Source of error on drillers blocks not ascertained.

DEPTH		CORE		LITHOLOGY	ALTERATION	MINERALISATION	STRUCTURE
From	To	Length	%Rcy				
73.00	76.80	3.8	98	<p>PORPHYRITIC DACITE</p> <p>Cuts and thus post dates the silicified sparsely porphyritic phase above. Mottled, pale greenish; sausseritised plagioclase phenocrysts 1-3mm, a few to 1 cm; sparse dark chloritised mafic blebs &lt; 1 mm, some prismatic forms to 4 mm. Matrix is f gr. softish weakly calcareous granular material. disseminated fine gr. pyrite, locally up to 1%.</p> <p>- Top 40 cm has streaky flow fabric.</p> <p style="text-align: center;">----- gradation -----</p>	Sausserite, chlorite	Up to 1% disseminated pyrite	Flow fabric 35° to CA.
76.80	78.14	1.34	97	<p>STRONGLY ALTERED PORPHYRITIC DACITE</p> <p>Matrix paler more uniform in colour, slightly silicified, phenocryst outlines blurred, indistinct. Sparse f gr. disseminated pyrite as above; a few sparse white quartz veinlets up to 2 mm width (.5 mm wide)</p> <p>- Bottom 50 cm contains approx. 13 quartz healed fractures with some seams of pyrite, oriented parallel to a streaky flow fabric, itself parallel to the basal contact. Includes a 4 cm xenolith of the "sparsely porphyritic dacite".</p>	very weak silicification	up to 1% disseminated pyrite	Flow fabric & contact 45° to CA
78.14	78.84	.70	100	<p>SILICIFIED BRECCIA WITH PYRITIC VUGS</p> <p>Fine grained pale grainy quartz with relic plagioclase phenocrysts pseudomorphs composed of soft creamy white material, and disseminated pyrite grains (av. 1mm); cut by irregular network of dark chlorite pyrite fractures that locally merge into pockets of mottled soft creamy material and chlorite blebs; these pockets (av. 1cm) serve to outline relic breccia texture, and locally enclose clasts of quartz; scattered pockets of massive pyrite up to 1.5 cm across, some cored by calcite open space fill, some contain pyrite crystal-lined vugs.</p> <p>- Top 10 cm is brecciated with late carbonate gashes and veinlets containing sparsely disseminated sphalerite (dark brown to black).</p> <p>- sparse grains of sphalerite scattered throughout</p> <p>- a few blebs of chalcopyrite</p> <p>The unit appears to be dacite that was brecciated incipiently, then intensely silicified, subsequently re-brecciated and healed by carbonate.</p> <p style="text-align: center;">----- sharp fractured contact -----</p>	Intense silicification	5% py .3% sp tr cp	
78.84	86.30	7.46	98	<p>PORPHYRITIC DACITE (MAGNETIC)</p> <p>Mid green, even textured with sausseritised plagioclase phenocrysts (1-2mm); groundmass f gr. granular, weakly calcareous with scattered dark green flecks. Trace disseminated pyrite; moderately magnetic. Massive, v poorly jointed, a few carbonate veinlets.</p> <p>- Top 24 cm bleached to grey colour</p> <p>- Bottom: v gradational colour change to dark grey basal section 35 cm thick with streaky flow fabric and scattered xenoliths (1.5 cm) of fine grained grey rock with dark green pseudomorphs after feldspar phenocrysts(?); includes one xenolith of grey silicified porphyritic dacite.</p> <p style="text-align: center;">----- sharp intrusive -----</p>	Sausserite	tr.py	Flow fabric 35° to CA Basal contact 53° to CA.

PROJECT MORIARTY LAKE PROPERTY COAL 1

**BP DRILL LOG**

D.D.H. NO. CDH-2 SHEET 6 OF 6

DEPTH		CORE		LITHOLOGY	ALTERATION	MINERALISATION	STRUCTURE
From	To	Length	%Rcy				
86.30	88.60	2.3	97	<p>ALTERED FRACTURED MICROFAULTED GRANODIORITE</p> <p>Coarse grained, pale greenish-mottled, blebby quartz grains 2-8mm plagioclase sausseritised, biotite and hornblende pseudomorphed by soft pale buff material (relic biotite cleavage visible). Weakly calcareous. Disseminated fine gr. pyrite. Pervasive fracturing with evidence of much microfaulting, three generations apparent:</p> <ol style="list-style-type: none"> <li>1) Thin pyritic dark greenish hairline fractures and seams, offset by 2.</li> <li>2) Pale green anastomosing veinlets, av. 1 mm width, of softish translucent material; some bordered by py; offset by 3:</li> <li>3) Carbonate-minor quartz veinlets, hairline to 3 mm width, tension gash style.</li> </ol> <p>Some of the fractures are composite showing the three generations.</p> <ul style="list-style-type: none"> <li>- a few <u>sphalerite</u> grains at 86.42</li> <li>- a few <u>sphalerite</u> grains and minor galena bordering a 1.5 mm carb-qtz vein at 87.83</li> </ul> <p>----- gradational(10cm) -----</p>	<p>clay, sausserite, chlorite soft green</p>	<p>2% py tr. sp tr. gn</p>	<p>3 generations of fracture-veins, micro-faults. Mod, to shallow angle to CA. Spacing av. 5 cm, locally more intense.</p>
88.60	92.70	4.1	98	<p>SILICIFIED GRANODIORITE</p> <p>Pale mottled, the sausserite and altered mafics are moderately to well silicified. Some diffuse patches with irregular black chlorite flecks and tendrilly fractures. Includes non-silicified section from 88.41 - 88.70</p> <p>----- gradational(10cm) -----</p>	<p>Silicification</p>		
92.70	107.90	15.2	99	<p>BIOTITE-HORNBLLENDE GRANODIORITE</p> <p>Grain size 2-7 mm, fresh, massive and unfoliated, homogenous, mod. magnetic. Plagioclase is v. slightly altered; salmon pink K feldspar (15%) occurs in 1-3mm grains interstitial to the plag; subhedral biotite and hornblende av. 2 mm (15%) in subequal proportions. Disseminated magnetite grains are associated with the mafics. <u>N.B.</u> change from non-magnetic altered granodiorite to magnetic fresh granodiorite at contact. Rare 1.3 cm mafic xenolith.</p> <ul style="list-style-type: none"> <li>- 97.65 to 98.30: slightly altered greenish section (sausseritised, chloritised, non-magnetic).</li> <li>- several minor-greenish alteration zones 2-10 cm width followed by carbonate veinlets, 40° to CA.</li> </ul> <p>----- END OF HOLE -----</p>			

**BP DRILL LOG**

PROJECT <u>MORIARTY LAKE</u>	U.T.M. CO-ORDS <u>5444 490</u> N <u>398755</u> E	SURVEYS	DEPTH	AZIMUTH	DIP	DDH NO. <u>CDH-3</u>
	GRID CO-ORDS <u>15 + 00</u> N <u>19 + 44</u> E					
PROPERTY <u>COAL 1 CLAIM</u>	N.T.S. <u>92F/1W</u> COLLAR ELEVATION <u>1020m</u>	Acid test	97m		73	SHEET <u>1</u> OF <u>2</u>
		" "	146m		75	
CORE SIZE <u>NQ</u>	DATE STARTED <u>26 Oct./81</u>	CONTRACTOR <u>Wright Drilling</u>	LOGGED BY <u>B.E. Marten</u>			
FINAL DEPTH <u>149.35m</u>	DATE COMPLETED <u>30 Oct./81</u>	DRILL MODEL <u>Boyles 25</u>				

DEPTH		CORE		LITHOLOGY	ALTERATION	MINERALISATION	STRUCTURE
From	To	Length	%Rcy				
0	0.91m	0.91m		Casing - overburden			
0.91	65.07	64.16	99	<p>PORPHYRITIC DACITE</p> <p>Homogeneous pale grey green, fine grained granular groundmass v. weakly calcareous; no internal contacts seen. Plagioclase phenocrysts weakly sausseritised (earthy), av. 1-2 mm euhedral, some scattered glomeroporphyritic crystals up to 1 cm. Amphibole prismatic up to 5 mm long, display a v. weak flow orientation 70-80° to CA; the smaller ones are chloritised. Sparse calcite veinlets, av. spacing 3m.</p> <ul style="list-style-type: none"> <li>- 24.4 to 28.4: gradational slightly darker green zone</li> <li>- at 10m above base becomes calcareous</li> <li>- Basal contact zone: basal 1.4m is distinctly paler more carbonated, phenocrysts more altered with their outlines blurred.</li> </ul>	(sausserite-chlorite)		
65.07	125.04	59.97	98	<p>COMOX FORMATION: bedded grey coarse gr. sandstone and subordinate dark grey fine grained sandstone, with black silty wacke dominant in basal portion; includes minor zones of bleaching and clay alteration with associated disseminated pyrite. One thin dacite dyke. Sparse carbonate veinlets, some associated with minor slips and faults.</p>			
		(37.04)		<p>65.07 - 102.11: Bedded grey and v. coarse grained poorly sorted sandstone, some dark laminations, with interbeds 5-75 cm thick of fine grained dark grey sandstone and illsorted gritty fine grain sandstone (scattered grains up to 5mm); a few thin beds up to 20 cm thick of black siltstone with disseminated pyrite.</p> <ul style="list-style-type: none"> <li>- 80.42 - 80.55: bed of fine grain dark grey gritty sandstone cut by 6 pale veinlets 1-2 mm width containing 1% f.gr. disseminated py (some cpy?)</li> <li>- 81.59 - 81.93: grey coarse gr. sandstone and 5 cm bed of f. gr. dark grey sandstone cut by stockwork of pale bleached zones, some cored by lenses of coarse ankerite; contains minor v.f.gr. py (some cpy?). The bleached zones are soft; soapy powder when scraped-talc.</li> <li>-81.93 - 82.38: V. coarse sandstone with a few bleached zones</li> <li>-82.38 - 82.56: Dark f.gr. sandstone with stockwork of bleached zones carrying f.gr. disseminated py.</li> <li>-84.7 - 85.5 : Irregularly bleached and slightly silicified bedded sandstone. the beds are pale grey with some discrete bleached slightly</li> </ul>	Clay-talc in local bleached zones.	bleached zone; tr to 0.5% Py, some po	<p>Bedding at 74 m 76° to CA</p> <p>74.9m:1cm fault 147° to CA bedding 116° to CA</p> <p>80m bedding 73° to CA.</p> <p>84.0: bedding 110° to CA</p>

PROJECT MORIARTY LAKE

PROPERTY

COAL 1



## DRILL LOG

D.D.H. NO. CDII-3

SHEET 2 OF 2

DEPTH		CORE		LITHOLOGY	ALTERATION	MINERALISATION	STRUCTURE
From	To	Length	%Rcy				
				<p>silicified zones cored by seams of f.gr. py and po up to .5mm width.</p> <p>- At 85.67, 85.96 and 88.40m: 8 to 15cm dark grey beds with stockworks of pale bleached pyritic zones as above.</p> <p>88.7 - 92.70: gradational zone of pale bleached v. coarse gr. illsorted sandstone with scattered subangular clasts of f. gr. sandstone at 89.0m showing unbleached dary grey ovoid cores.</p>			94 m: bedding 62° to CA.
		(0.87)	100	102.11 - 102.98: Grey green porphyritic dacite; 2 mm sausseritised greenish plagioclase phenocrysts; groundmass altered, 0.5% disseminated pyrite; rock magnetic. Top 6 cm shows flowbanding.			
		( 8.42)		102.98 - 111.40: Bedded sandstone as above with 5-30 cm thick beds of dark grey to black wacke common below 108 m.			
		(13.64)		<p>----- v. gradational contact -----</p> <p>111.40 - 125.04: Dark grey to black silty wacke with subordinate grey v. coarse gr. sandstone beds. The wacke is v. illsorted with scattered sand grains ranging up to 4 mm; silt is dominant towards base.</p> <p>- 119.16 to 119.26: soft altered buff siltstone bed, sheared along contacts, carbonate veinlets (tensional) in underlying bed.</p> <p>- 119.26 to base: lobes of v. coarse pale grey sandstone occur in the gritty black siltstone; soft-sediment features.</p>			<p>112m:bedding 107° to CA.</p> <p>102m:bedding 105° to CA</p> <p>Fault 123-32-123.5m, gritty, sandy fault gouge slip zone at 124.3</p>
				----- sharp unconformity -----			
125.04	149.35	24.31	99	ALTERED GRANODIORITE			
		(3.96)	98	125.04 - 129.00: Green-grey, coarse grained, massive unfoliated, calcareous and soft. Plagioclase soft, clay-sausserite alteration; mafics pseudomorphed by indistinct f. gr. green-grey material.	clay, sausserite		
		(11.96)	100	<p>----- v. gradual transition -----</p> <p>129.00 - 140.96: Altered but harder; plagioclase strongly sausseritised but not so soft, dark green chloritic mafic grains sharply defined; Scattered dark mafic xenoliths 1-5 cm.</p>	sausserite chlorite		
		(8.39)	100	140.96-149.35 : Similar to preceding section but with vague palish mottles due to local bleaching of the chloritised mafics, and sparse indistinct greenish features.	sausserite, chlorite local bleaching		141.1m: 2.5cm wide carbonate veined shear
				----- END OF HOLE -----			

**BP DRILL LOG**

PROJECT <u>MORIARTY LAKE</u>	U.T.M. CO-ORDS <u>54 44 490</u> N <u>398755</u> E	SURVEYS	DEPTH	AZIMUTH	DIP	DDH NO. <u>CDH-4</u> SHEET <u>1</u> OF <u>2</u>
PROPERTY <u>COAL I CLAIM</u>	GRID CO-ORDS <u>15 + 00</u> N <u>19 + 44</u> E	Acid Test	COLLAR	<u>160</u>	<u>-50</u>	
	N.T.S. <u>92F/1W</u> COLLAR ELEVATION <u>1020m</u>		113m		<u>-56</u>	
CORE SIZE <u>NQ</u>	DATE STARTED <u>31 Oct. 1981</u>	CONTRACTOR <u>Wright Drilling</u>		LOGGED BY <u>B.E. Marten</u>		
FINAL DEPTH <u>115.82m</u>	DATE COMPLETED <u>3 Nov. 1981</u>	DRILL MODEL <u>Boyles 25</u>				

DEPTH		CORE		LITHOLOGY	ALTERATION	MINERALISATION	STRUCTURE
From	To	Length	%Rcy				
0	1.2m			Casing - overburden			
1.2	74.75	73.55	98	<p>PORPHYRITIC DACITE</p> <p>Homogeneous pale grey green, fine grained granular groundmass v. weakly calcareous, no internal contacts seen. Plagioclase phenocrysts weakly sausseritised (earthy), av. 1-2 mm euhedral, some scattered glomeroporphyritic crystals up to 1cm. Amphibole prismatic up to 5 mm long, display a v. weak flow orientation 70-80° to CA; the smaller ones are chloritised. Sparse calcite veinlets, av. spacing 3m.</p> <ul style="list-style-type: none"> <li>- top 1.4m is pale grey more altered and carbonated, with about 0.5% dissem. PY.</li> <li>- locally well jointed, some joints bordered by weathered brownish zones in upper portion.</li> <li>- sparse carbonate veinlets (spaced 2-3m av.)</li> <li>- rare xenoliths (diorite, fine-medium grained grey quartzfeldspathic rock (sandstone?).</li> <li>- 70.70-74.75: <u>basal contact zone</u>; flow foliated, basal 15 cm is grey highly altered with irregular chips of black mudstone.</li> </ul>	Sausserite, chlorite, calcite	tr.py (65.9m: 2mm vein barite)	
74.75	78.96	4.21	99	<p style="text-align: center;">— intrusive —</p> <p>COMOX FORMATION</p> <p>Bedded grey coarse to very coarse grained sandstone, illsorted, av. .25-3mm with scattered granules up 5mm, greyish fine grained material in matrix consisting of altered feldspar and quartz with dark carbonaceous flecks. Grades locally to beds of dark grey carbonaceous gritty siltstone. Bedded 10-30 cm scale; weakly calcareous.</p> <ul style="list-style-type: none"> <li>- 78.77: 14 cm with en-echelon carbonate-filled tension gashes, 1 cm minor fault (gouge) at base.</li> </ul>			<p>Bedding 125° to CA</p> <p>78.84: 1cm gouge, 40° to CA</p>
78.96	79.27	0.31	100	<p style="text-align: center;">— intrusive —</p> <p>PORPHYRITIC DACITE</p> <p>Dark grey, magnetic; altered plagioclase phenocrysts (1mm) in dark grey fine grained groundmass with 1-2mm blebs of pyrrhotite and pyrite.</p>		.5% po & py	
				— intrusive —			

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PROJECT MORIARTY LAKE PROPERTY COAL 1

**BP** DRILL LOG

D.D.H. NO. CDH-4 SHEET 2 OF 2

DEPTH		CORE		LITHOLOGY	ALTERATION	MINERALISATION	STRUCTURE
From	To	Length	%Rcy				
79.27	112.54	33.27	99	<p>COMOX FORMATION</p> <p>Bedded grey illsorted coarse grained sandstone as above; with interbeds of dark grey fine grained silty sandstone and black silty mudstone.</p> <ul style="list-style-type: none"> <li>- 84.65: a few scattered illsorted chips</li> <li>- 90.00-90.38: fining upward unit; at base very coarse illsorted sandstone with mottles suggesting pelecypod burrows, grading up into 17 cm well sorted medium grained dark grey sandstone, passing up into 11cm of slumped mixed black gritty siltstone and gritty wacke; grades up into 1 cm of laminated siltstone with sharp upper contact.</li> <li>- 90.38-92.40: grey very coarse grained sandstone with dark grey mottles suggesting bioturbation; some irregular pockets of dark grey fine grained sandstone suggest slumping.</li> <li>- 93.00-112.54: <u>Interbedded member</u>: very coarse grained grey sandstone, illsorted beds 5 to 40 cm thick with some dark silty bands, interbedded with black gritty siltstone to mudstone beds that generally have gradational bases passing up to muddy tops with sharp contacts; a few cm up to 40 cm thick. The grey sandstone incorporates irregular blotches of black siltstone, and some sandy inclusions occur at base of silty beds.</li> <li>- 93.40-93.75: <u>FAULT</u> - fractured, carbonate-veined gouge zone, sharp upper contact cuts bedding at about 90°.</li> <li>- sparse lency calcite veinlets</li> <li>- 101.20: <u>Micro fault</u>, 6 cm fracture-breccia zone.</li> <li>- 112.38-112.54: <u>Micro fault?</u>, incipiently brecciated microfaulted black fine grained sandstone, siltstone, carbonate veinlets.</li> </ul>			<p>Bedding to CA 82.5m: 134° 84 m : 135° 90 m : 132°</p> <p>Bedding 93m 135° to CA</p> <p>Fault 55° to CA</p> <p>Bedding to CA 97.5m: 140° 106m : 128° 111m : 128°</p>
112.54	112.84	0.30	100	<p>ALTERED DACITE</p> <p>Pale, strongly altered, carbonated, scattered 2 mm quartz phenocrysts and faint 1 mm relics of altered plagioclase phenocrysts. Upper contact irregular, lower contact parallel to bedding (at 135° to CA) in underlying fissile black siltstone.</p> <p style="text-align: center;">— intrusive —</p>			
112.84	115.82	2.98	100	<p>COMOX FORMATION</p> <p>Coarse grained sandstone, with 60 cm of fissile black carbonaceous siltstone at top, and 55 cm bed of dark grey fine grained laminated sandstone near base.</p> <ul style="list-style-type: none"> <li>- 113.43-115.06: graded very coarse grained unit; at base is 15 cm of granule conglomerate, overlain by 80 cm faintly bedded very coarse sandstone grading up into dark grey silty illsorted sandstone</li> <li>- hole bottoms in grey illsorted very coarse sandstone.</li> </ul> <p style="text-align: center;">— END OF HOLE —</p>			<p>Bedding 114m 120° to CA</p>



**BP DRILL LOG**

PROJECT <u>MORIARTY LAKE</u>	U.T.M. CO-ORDS <u>5444 380</u> N <u>398482</u> E	SURVEYS	DEPTH	AZIMUTH	DIP	DDH NO. <u>CDH-5</u>
	GRID CO-ORDS <u>15 + 19</u> N <u>16 + 72</u> E					
PROPERTY <u>COAL 1 CLAIM</u>	N.T.S. <u>92F/1W</u> COLLAR ELEVATION <u>958 m</u>	Acid Test	COLLAR	<u>160</u>	<u>-45</u>	
CORE SIZE <u>NQ</u>	DATE STARTED <u>5 Nov. 1981</u>	" "	76 m		<u>-52</u>	
FINAL DEPTH <u>117m</u>	DATE COMPLETED <u>8 Nov. 1982</u>		114 m		<u>-52</u>	LOGGED BY <u>B.E. Marten</u>
	CONTRACTOR <u>Wright Drilling</u>					
	DRILL MODEL <u>Boyles 25</u>					

DEPTH		CORE		LITHOLOGY	ALTERATION	MINERALISATION	STRUCTURE
From	To	Length	%Rcy				
0	1.98m			Overburden (Casing set to 2.74m)			
1.98	2.20	0.22	98	COMOX FORMATION: Very coarse grained sandstone; weathered and soft, brownish; very illsorted; feldspars altered to earthy material; scattered limonitic brown blebs. Jointed, broken.	Weathered		
2.20	2.70	0.50	98	PORPHYRITIC DACITE: Soft weathered, weakly calcareous, matrix green and earthy; feldspars totally altered, replaced by limonitic brown material; quartz phenocrysts 10%. Sharp chilled basal contact.	Weathered		
2.70	20.20	17.5	97	COMOX FORMATION			
		(0.34)		2.70-3.04: Coarse grain illsorted, mostly weathered to brownish as above, but some fresh pale green grey weakly calcareous. Jointed broken.	Partial weathering.		
		(0.76)		3.04-3.80: Fine to medium grained, greenish altered, illsorted, weakly calcareous trace py. Brown-weathered at top and bottom. Broken core at 3.05.	Partial weathering		
		(1.8)		3.80-5.60: Well bedded and laminated medium grained, with some very coarse grain beds av. 20 cm thick. Pale green to pale grey where fresh, but 70% is weathered to brownish bordering joints on which is some pyrolusite. Trace disseminated py, and py in dark fractures at 4.25. Plagioclase altered to soft earthy material. Core broken, locally ground, especially 4.27-5.50m. Interbeds of soft drab-olive clay-altered siltstone at 5.1, 5.50 (10cm clayey soft fine grained speckled with quartz grains; shows relic streaky bedding.	Partial weathering superimposed on clay alteration	tr. py	Bedding 137° to CA
		(9.4)		5.60-15.00: Mainly very coarse greenish grained sandstone, 60% weathered to brownish, grading to altered illsorted 'wacke' - silty matrix altered to soft green slightly mauvish clayey material in which are scattered fine to very coarse quartz grains and altered feldspars. Pyrite finely disseminated where sandstone fresh. Five beds, 10 to 70cm thick, of pale olive clayey beds (altered sandstone). - 13.35-13.60 and 14.23-14.50: partly silicified pebbly and very coarse grained sandstone, trace py mostly weathered to brownish flecks.	Clay; (2 minor patches silicification)	1.5% py	Bedding 138° to CA

PROJECT MORIARTY LAKE

PROPERTY COAL 1



## DRILL LOG

D.D.H. NO. CDH-5 SHEET 2 OF 7

DEPTH		CORE		LITHOLOGY	ALTERATION	MINERALISATION	STRUCTURE
From	To	Length	%Rcy				
		(5.2)	89	15.00-20.20: <u>Silicified sandstone</u> , mostly very coarse grained with two fine grained beds 50 cm thick. Mid green colour where unweathered, with pale hard silicified altered plagioclase grains; about 0.5 - 1% fine grained disseminated py. Generally is partly weathered to green-grey with interstitial pinky-brown flecks after pyrite. - 16.15-16.40 and 19.90-20.00: zones of pale, more intense silicification.	Silicification	Dissem py 0.5-1%	Bedding 130° to CA
20.20	30.00	9.8	99.5	PORPHYRITIC DACITE: Altered earthy textured euhedral plagioclase phenocrysts (1-4mm) and minor quartz eyes (2mm) in fine grained calcareous pale to mid grey-green granular groundmass with dark green chloritised mafics up to 1mm; trace disseminated py. Minor magnetite occurs in dark patches in irregular fractures, but rock not generally magnetic. Minor carbonate veinlets, tension gashes (1-2mm) two with sparse cpy. - 22.56 - 22.70: Five planar sharp tabular mylonite bands, 1-2cm wide - Upper and basal contact zones: 20 cm thick, paler bleached and more altered, more calcareous. Good flow fabric in basal zone - 20.20-21.38: later intrusion of sparsely porphyritic phase ( has drill zone): trace py, some specks magnetite  —— sharp intrusive ——	sausserite, chlorite	Tr. py (tr. magnetite)	Mylonite bands 64° to CA 26.00 Minor fault zone, gouges. Basal flow fabric 132° to CA
30.00	47.36	17.36	100	COMOX FORMATION			
		(1.7)		30.00-31.70: Bleached and altered med. to very coarse grained sandstone with interbeds of soft clay altered siltstone; pale grey, mauvish-green cast (dark grey to black colour of underlying beds has been destroyed)	Bleaching, clay		
		(7.62)		31.70-39.32: Very coarse grained grey sandstone and dark grey very coarse gritty sandstone, with interbedded silty sandstone and siltstone with black partings, bedding 20-50 cm scale. - 15 cm fault zone at 35 m, cuts bedding at high angle, inferred sub-vertical. (Top metre slightly altered and bleached)			Bedding: 34.5m-135° 36 m -120° 37 m -139° to CA FAULT: at 35m, 72° to CA
		(0.46)		39.32-39.78: Bed of bleached pale grey soft clay-altered fine grained silty sandstone, with scattered diffuse black wisps, lookd like relics of weathered siltstone.	bleaching, clay		Bedding fissility 122° to CA.
		(0.6)		39.78-40.38: Grey sandstone, very coarse grain, illsorted, faintly bedded, pebbly near middle (4-9mm), plagioclase relatively fresh.			
		(6.27)		40.38-46.65: Black carbonaceous wacke; mostly massive, illsorted grains up to 5 mm scattered in gritty silt to sand grade matrix.			

PROJECT MORIARTY LAKE PROPERTY COAL 1

**BP** DRILL LOG

D.D.H. NO. CDH-5 SHEET 3 OF 7

DEPTH		CORE		LITHOLOGY	ALTERATION	MINERALISATION	STRUCTURE
From	To	Length	%Rcy				
		(0.71)		46.65-47.36: Pale grey wacke; texturally as above, but colour pale grey with darker mottles: looks like a bleached equivalent of the black wacke. Faintly bedded - Fine anastomosing veinlets; hairline to 1mm thick, soft cream material H>24), cut bedding at shallow angle, spaced 3 cm. Basal contact knife sharp, at 134° to CA.	Bleaching, clay		Bedding 130° to CA
----- UNCONFORMITY -----							
47.36	65.93	18.57	98	ALTERED GRANODIORITE			
		(3.94)		47.36-51.30: Pale altered foliated granodiorite; 4 mm av. grain size, consists of quartz grains and lenses of pale grey green soft earthy material after plagioclase with scattered diffuse dark flecks. representing altered mafics; cut by anastomosing cream coloured hairline folia spaced 4 mm average that transect mineral grains. The altered plag lenses and hairline fractures together define a foliation parallel to the unconformity, strongest in top metre; very weak in basal metre. Several fine granular aplitic veins show boudinage.	clay-sausserite (chlorite)		Foliation 134° to CA
		(4.5)		51.30-55.80: Non-foliated, otherwise similar to above in top metre. Plagioclase altered to pale green earthy talcy material. - At 52m: pseudomorphs of mafics from here down are darker grey, chloritic. - 54.85-55.35: zone of diffuse irregular black chloritic impregnation as discrete black blebs (15%), with some irregular veinlets of soft creamy barite(?) and minor quartz.	clay, (talc?) chlorite	(tr. barite?)	Several black chloritic fractures.
----- imperceptible gradation -----							
		(10.13)		55.80-65.93: Slightly harder, less altered. Sausseritised plagioclase, biotite replaced by softy creamy material. - 56.60-56.90: zone of paler, softer more altered granodiorite, minor dark chloritic fractures. - 57.80-58.00, and 58.25: minor diffuse chloritisation related to fractures; 2 mm of soft green pyrophyllite-talc(?) in one fracture. - 65.56-65.93: <u>slightly silicified</u> , pale, trace pyrite, with local mottling caused by black chloritic cusped interstitial flecks.	Sausserite chlorite (pyrophyllite-talc?)		
65.93	88.54	22.61	99	SILICIFIED GRANODIORITE			
		(0.89)		65.93-66.82: Intensely silicified: very pale grey mottled fine grained grainy quartz with faint relic granodiorite texture (vague relic quartz grains, and dark grey cusped blebs 1-2mm). Has network of dark hairline fractures. Contacts fairly sharp.	Intense silicification		

PROJECT MORIARTY LAKE PROPERTY COAL 1

BP DRILL LOG

D.D.H. NO. CDH-5 SHEET 4 OF 7

DEPTH		CORE		LITHOLOGY	ALTERATION	MINERALISATION	STRUCTURE
From	To	Length	%Rcy				
		10.38		66.82-77.20: <u>Weakly to moderately silicified</u> , mottled; greenish sausseritised plagioclase still common in places, but a variable portion of it has been silicified. More intensely silicified sections are paler coloured eg 71.05-71.30m Local patches with diffuse black fine grained interstitial chloritic (?) material occur, commonly appear to encroach dendritically from dark chloritic fractures.	Weak to moderate silicification		
		2.20		72.20-74.40: <u>Intensely silicified fractured granodiorite</u> : Pale grey, relic quartz grains in fine grained granular quartzitic matrix with scattered soft cream relic grains (after biotite?), some less silicified remnants having interstitial black chloritic blebs. Cut by irregular net of dark fractures, up to 1 mm wide, many altered to soft pale green material, evidence of microfaulting incipient brecciation on them. Some rare quartz veinlets and later carbonate veinlets.	Early Chloritisation late silicification (some rare specks py).		Pervasive fracturing, microfaulting, some incipient brecciation. 72.85: 2cm gouge. 74.30: 5cm chloritic shear 46° to CA.
		0.77		74.4-75.17 <u>Homogeneous intensely silicified</u> ; similar to above but with very few fractures.	" "		
		0.33		75.17-75.50: Pink fine grained granular silicified aplite incipiently brecciated by network of pale green fractures. Basal contact is 8mm vein of carbonate + barite (?) + fine grained disseminated pyrrhotite, at 80° to CA.	" "		
		1.42		75.50-76.92: <u>Incipiently brecciated pink - mottled silicified granodiorite</u> Plagioclase altered to hard salmon pink earthy textured material (silicified sausserite?), mafics pseudomorphed by soft cream alteration product. Rock cut by stockwork of dark grey to black fractures up to 1mm thick that locally merge toward base of unit into angular pockets of breccia (fine grained dark silicic rock with clasts of silicified granodiorite). Sharp basal contact, planar at 42° to CA. Minor late 1mm carbonate veinlets with some minor fine grained py, otherwise rock sulphide poor.			Intense fracture stockwork local brecciation
		0.5		76.92-77.42: Homogeneous; strongly silicified. Very pale slightly pinkish, some faint pale green soft irregular veinlets.			
		0.45		77.42-77.65: <u>Silicified chloritic crush zone</u> : silicified pale granodiorite with irregular dark grey chloritic patches cut by veins of fine grained grey silicic rock grading into silicic crush breccia; microfaulted on planar fractures which also form lower contact.			Brecciation microfaults at 38° to CA.
		1.75		77.65-79.40: <u>Strongly silicified granodiorite</u> : Pale, with faint pale green fracture network in which local and very minor remanant black hair-line streaks occur. Weakly calcareous.			

PROJECT MORIARTY LAKE

PROPERTY COAL 1



## DRILL LOG

D.D.H. NO. CDH-5 SHEET 5 OF 7

DEPTH		CORE		LITHOLOGY	ALTERATION	MINERALISATION	STRUCTURE
From	To	Length	%Rcy				
				97.95-98.10 - zone of 1 cm spaced black fractures, planar. ----- 30 cm gradation -----			
		(9.14)		79.40-88.54: <u>Altered weakly silicified, fractured granodiorite</u> ; grey; sausseritised plagioclase partly silicified; mafics (biotite?) replaced by soft creamy material; calcareous; rare specks pyrite. Cut by network of black, dark grey and minor pale green fractures, hairline to 1mm wide; locally define pockets of brecciation at intersections. Some fractures are microfaults, or small shear zones. Irregular diffuse zones of interstitial black chloritisation border the fractures in places, are altered to pale green in paler more silicified patches. Rare late carbonate veinlets.  - 80.14-80.21: Grey fine grained grainy quartz - with faint shadowy relics of fracture network, indicating zone of intense silicification. Contact relatively sharp.  - 86.00-88.00: Paler more silicified section, minor dark fractures.	Sausserite, chlorite  minor silicification.	tr.py.  One speck cpy at 80.43m  f. gr. dissem. black sulphide(?) from 80.21-80-65	Fractures dominantly 46° to CA.
88.54	88.68	0.14	100	FAULT BRECCIA: Comminuted granodiorite; quartz grains up to 5 mm in soft gritty calcareous matrix; one 1 cm clast of ribbon-banded (3mm) scale vein quartz. Pyrite disseminated and in strings of fine grains.  ----- knife sharp intrusive -----		2% pyrite	
88.68	93.85	5.17	99	ALTERED PORPHRITIC DACITE Very pale greenish grey, bleached, sparsely porphyritic with altered euhedral plagioclase (2.5 mm) and minor quartz phenocrysts in fine grained slightly calcareous groundmass with faint cream coloured pseudomorphs after mafics. Sparse dark fractures (5 mm) with seams of fine grained pyrite; pyrite also finely disseminated, locally in aggregates up to 3 mm diam. Flow fabric in bottom 40 cm.  - in top 35 cm and bottom 40 cm, diffuse darker silicified zones border pyritic fractures, up to 3% py, some in aggregates up to 1 mm diam.  - 91.30-91.65 Fault breccia  - 91.65-92.25 - fractured and incipiently brecciated, several gouge zones.  - basal contact is sharp planar fault, but flow fabric indicates it lies close to original dyke contact.  ----- sharp fault -----	Sausserite, chlorite	0.5% py	Fault 91.5m   Flow fabric 142° to CA
93.85	95.92	2.07	98	CRUSHED SILICIFIED GRANODIORITE  Grey with intense stockwork of black fractures that as a whole indicate incipient brecciation and locally outline pockets of breccia that appear healed by silicification. There appears to be at least two generations of micro-faulting. Aggregates of fine to coarse grained py. common in top 30cm in which there is a 5 cm band of grey fine grained quartz.	chlorite silicification	.5% py	Brecciated

PROJECT MORIARTY LAKE PROPERTY COAL 1

**BP** DRILL LOG

D.D.H. NO. CDH-5 SHEET 6 OF 7

DEPTH		CORE		LITHOLOGY	ALTERATION	MINERALISATION	STRUCTURE
From	To	Length	%Rcy				
95.92	96.65		98	<p>FINE GRAINED GREY QUARTZ (silicified breccia)</p> <p>Pale grey, mottled, with local remanants of intensely silicified breccia and faint irregular dark zones and fractures. Irregular blebs and seams of py.</p> <p>- few specks of cpy near top - at 96.5 - irregular veinlet of cpy with po and py</p> <p>----- sharp intrusive -----</p>	Intense silicification	1.5% py tr. cpy, po	Relic fractures 45° to CA
96.65	100.24	3.59	98	ALTERED PORPHYRITIC DACITE			
		(1.53)		96.65-98.18: Pale, bleached, buff-grey, scattered altered plag. phenocrysts up to 7 mm, (no quartz), acicular mafics pseudomorphed by pale creamy material, fine grained granular weakly calcareous groundmass	sausserite, chlorite	tr.py.	
		(1.72)		98.18-99.90: Less altered, pale greenish; mafics are replaced by greenish chloritic material.		tr.py.	
		(0.34)		99.90-100.24: Weakly silicified mottled darker green, feldspars pseudomorphed by dark green granular material. Sharp irregular intrusive contact at base.		tr.py.	
				----- gradation ----- ----- intrusive -----			
100.24	100.90	0.66	100	<p>FINE GRAINED GREY QUARTZ ( silicified breccia)</p> <p>Pale grey, with grey and greenish mottles showing relic outlines of clasts and fractures; disseminated py in discrete grains and aggregates up to 1cm diam; some po. Cpy: few specks near top, scattered blebs near base.</p> <p>----- sharp -----</p>	Intense silicification	2% py tr.po, cpy	Basal contact 43° to CA
100.90	101.22	0.32	100	<p>WEAKLY SILICIFIED GRANODIORITE</p> <p>Greenish sausseritised plagioclase, mafics altered to dark green blebs. Transected by minor irregular 1-2mm quartz veinlets with sparse dark grains (sulphide?). Dissem. py with blebs of cpy near base. Fracture (20° to CA) forms basal contact.</p>	sausserite chlorite weak silicification	At base .5% py, tr. cpy	
101.22	101.38	0.16	100	<p>PORPHYRITIC DACITE (MAGNETIC)</p> <p>Dark grey-green.</p> <p>----- intrusive -----</p>			
101.38	102.23	0.85	100	<p>BRECCIATED WEAKLY SILICIFIED GRANODIORITE</p> <p>Comminuted altered and weakly silicified granodiorite, with clasts up to 15 cm of mottled green weakly silicified granodiorite, some clasts of veined, mottled fine quartz. Minor late irregular 1 mm qtz veinlets with py; minor dissem. py.</p>	as above	.5% py.	

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PROJECT MORIARTY LAKE PROPERTY COAL 1

**BP** DRILL LOG

D.D.H. NO. CDH-5 SHEET 7 OF 7

DEPTH		CORE		LITHOLOGY	ALTERATION	MINERALISATION	STRUCTURE
From	To	Length	%Rcy				
102.23	106.70	4.47	100	<p>PORPHYRITIC DACITE (MAGNETIC)</p> <p>Grey-green, with scattered partly sausseritised plagioclase phenocrysts (1.5mm) in weakly calcareous fine grained granular groundmass with dark green flecks. A few carbonate fractures with tr.py. A 3m section in middle is paler, grey colour.</p> <p>----- intrusive 140° CA -----</p>			
106.70	113.45	6.75	96	SILICIFIED GRANODIORITE			
		(0.30)		106.70-107.00: Partly silicified, mottled green, green sausseritised plag., dark green altered mafics, a few lmm quartz veinlets with tr.py.			
		(4.2)		<p>107.00-111.20: Strongly silicified; very pale, sausseritised plagioclase is silicified, mafics are not, are pseudomorphed by soft white material. Sparse irregular fractures with soft green material up to 1 mm wide, include minor very fine grained dark sulphide (?) and py.</p> <ul style="list-style-type: none"> <li>- 5 cm quartz-vein at 109.65 and 110.15, broken core.</li> <li>- minor films of fine grained po and black coatings (sulphide?) on some fractures</li> <li>- in lower metre, the silicified plag are locally coloured salmon pink, causes pinkish mottling that increases downwards in gradational contact zones.</li> </ul> <p>----- gradation -----</p>		tr. py, po (sp)	107.60m: 25cm of sheared & crushed rock 35° to CA
(2.25)		<p>111.20-113.45: Mottled pink silicified granodiorite (pink altered plagioclase) Local microfaulting on pale fractures. Some late quartz veinlets (1-2mm) cut pale green fractures and carry minor fine grained dark sulphide (sphalerite?) on margins.</p> <ul style="list-style-type: none"> <li>- from 11.87 down, disseminated magnetite appears, with local dark green blebs (chloritised mafics).</li> </ul>					
113.45	116.91	3.46	96	<p>PINK GRANODIORITE</p> <p>----- fairly sharp transition -----</p> <p>Av. grain size 5 mm, slightly altered plagioclase is stained pink, about 15% chloritised subhedral amphiboles, rock moderately magnetic, disseminated magnetite grains. Sparse 1-2 cm mafic xenoliths. Cut by soft pale green shear zones up to 5mm wide with some minor films of po.</p> <ul style="list-style-type: none"> <li>- 115.85-116.82: silicified pink granodiorite and sheared crush zone. Upper 56 cm is pale pink silicified rock with bleached mafics, passes down into pale silicified shear zone with about 5 cm of silicified breccia.</li> <li>- hole bottoms in pale pink granodiorite (13 cm of lost core at bottom)</li> </ul> <p>----- END OF HOLE -----</p>			Shear zone 35° to CA

- 131 -

APPENDIX V

Statement of Qualifications:



STATEMENT OF QUALIFICATIONS - B.E. MARTEN

- B.A. (Hons.) Geology 1965 - Trinity College, Dublin,  
Ireland.
- MSc. Geology 1971 - Memorial University of  
Newfoundland.
- PhD. Geology 1977 - Memorial University of  
Newfoundland.

Fellow of the Geological Society (1966).

Fellow of the Geological Association of Canada (1970).

I have practised my profession continuously since graduation in 1965, in field mapping projects (Geological Survey of Zambia 1965-69; Manitoba Mines Branch 1973-74; Newfoundland Department of Mines and Energy 1974-1975), in research applied to mineral exploration (1969-77) and in mineral exploration (1975 to present).

February, 1982.

Statement of Qualifications - S.J. Hoffman

BSc 1969 - McGill University (Hons Geology and Geochemistry)  
MSc 1972 - The Univeristy of British Columbia (Geochemistry)  
PhD 1976 - The University of British Columbia (Geochemistry)

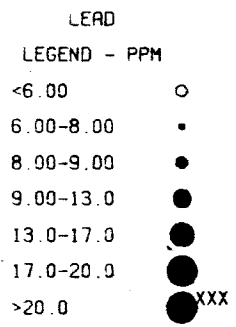
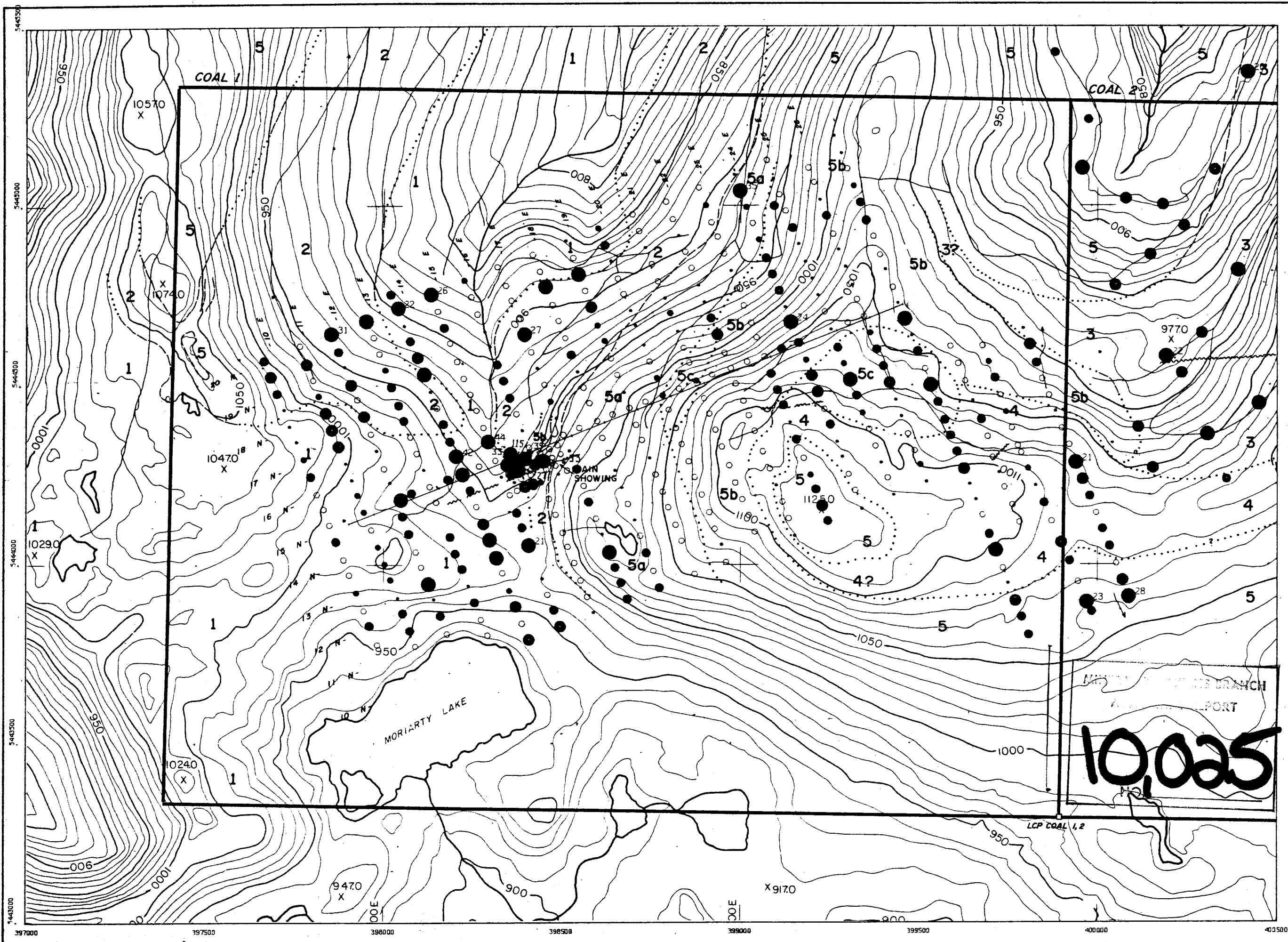
Memberships

1. Geological Association of Canada, since 1967.
2. Canadian Institute of Mining and Metallurgy, since 1973.
3. Association of Exploration Geochemists, since 1973.
4. American Society of Agronomy, since 1973.

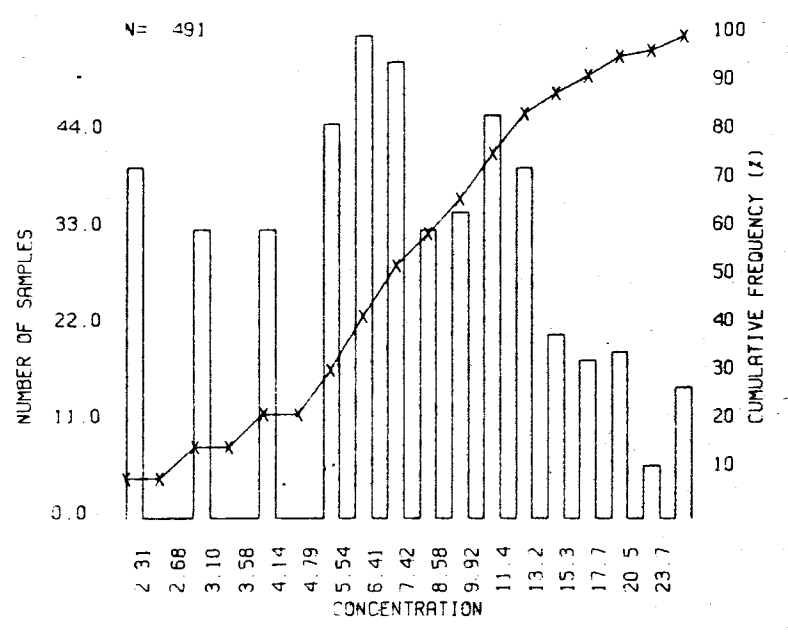
I have practised my profession continually since graduation in mineral exploration projects in all regions of Canada.

STATEMENT OF QUALIFICATIONS - G.G. Mitchell

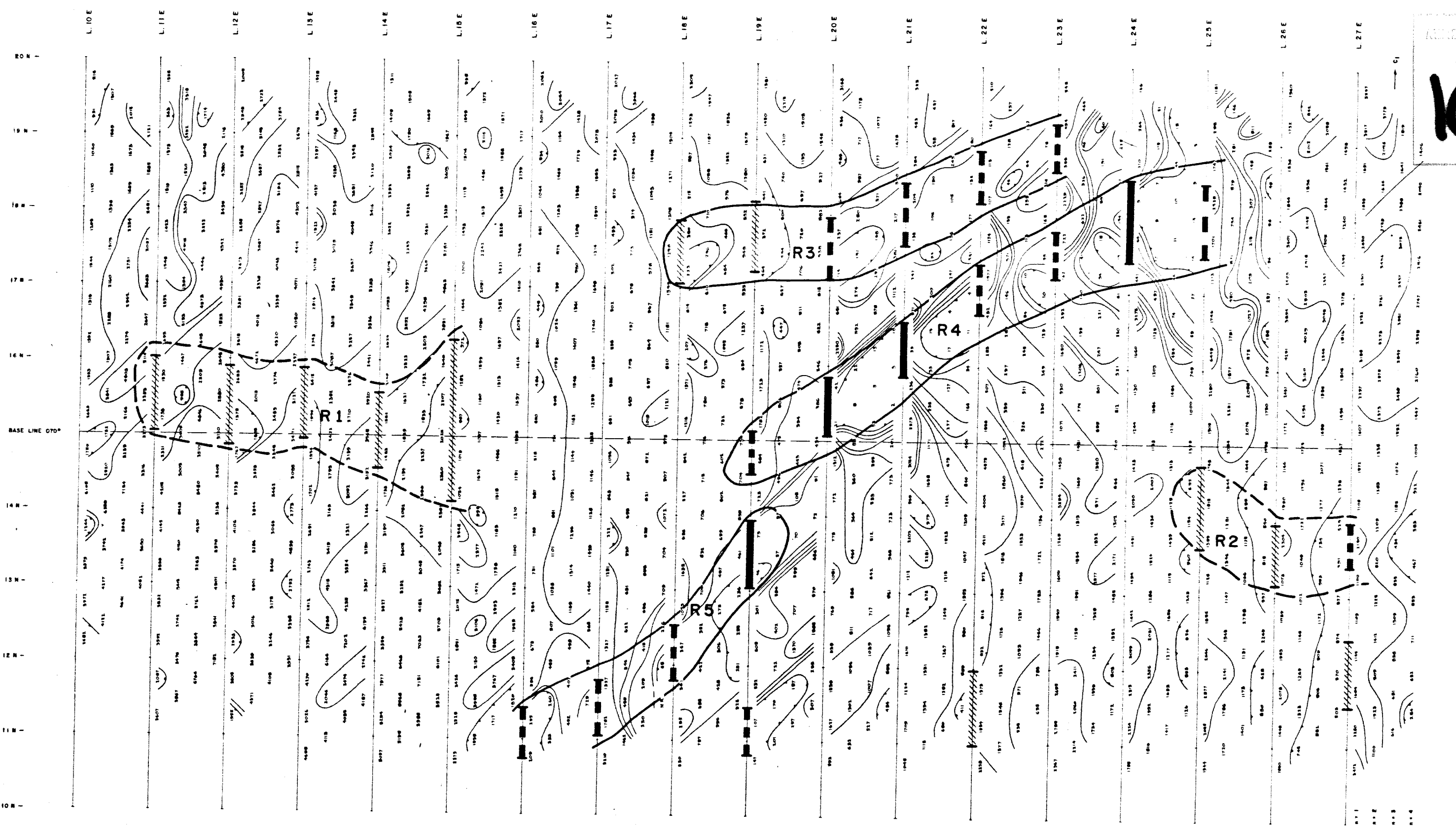
- B.Sc. Geology and Geophysics 1974 - University of British Columbia, Vancouver, B.C.
- M.Sc. Geophysics 1978 - University of British Columbia, Vancouver, B.C.
- 1966 - 1977 - 9 field seasons - mining exploration experience, Geology and Geophysics.
- 1977 - 1981 - Senior Geophysicist in Mineral Exploration projects across Canada.



- LEGEND**
- TERTIARY**
- 5 PORPHYRITIC DACITE
- NANAIMO GROUP**
- 4 EXTENSION-PROTECTION FM. - MUDSTONE, SILTSTONE, SANDSTONE
  - 3 HASLAM FORMATION - BLACK SHALE, SILTSTONE
  - 2 COMOX FORMATION - SANDSTONE
- Unconformity
  - 1 GRANODIORITE
- Contacts; defined, approximate, assumed
- Fault

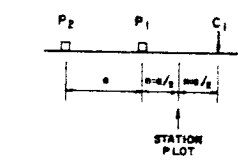


<b>BP Minerals Limited</b>			
<b>COAL CLAIMS</b>			
MORIARTY LAKE, VANCOUVER ISLAND, BC			
LEAD (PPM) IN SOIL SAMPLES			
DWG NO. 526-81-4	DATE AUGUST 1981	PROJECT S26	<b>FIG. 4C</b>
REPORT NO. BPVR81-9	NTS 92F/1W SCALE 1 CM=100METRES		
TO ACCOMPANY REPORT:			



10,025  
NO.

POLE-DIPOLE ARRAY  $a = 50$  metres



- RESISTIVITY LOWS
- Definite
  - Probable
  - Possible

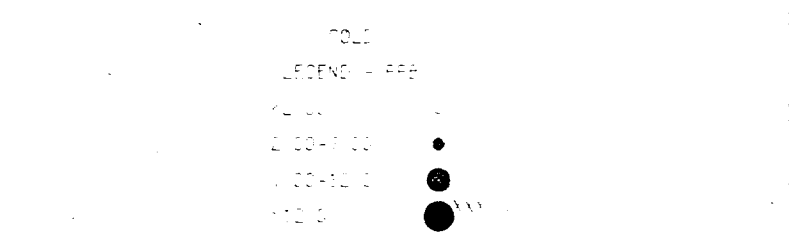
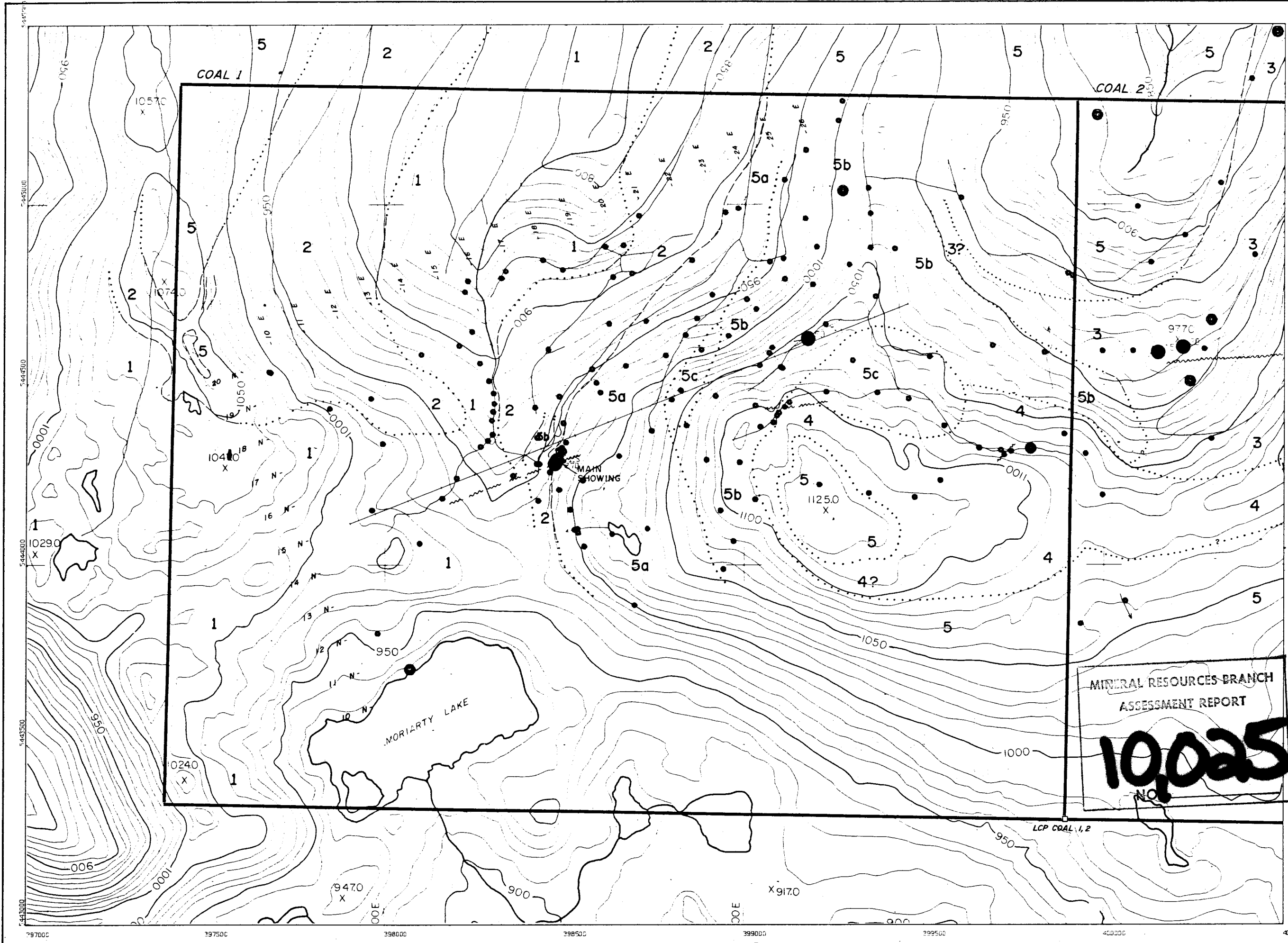
FIG. 9

**B.P. MINERALS LIMITED**  
 MORIARTY LAKE GRID, PARKSVILLE, B.C.

**INDUCED POLARIZATION SURVEY**  
 PSEUDO SECTIONS OF APPARENT RESISTIVITY  
 (ohm-metres)  
 $a = 50$  metres  
 SCALE 1:2500

MAP No W-304-2

PETER E. MALCOTT & ASSOC. LTD.  
 AUGUST - SEPTEMBER 1981



**LEGEND**

**TERTIARY**

**5** PORPHYRITIC DACITE

**NANAIMO GROUP**

**4** EXTENSION-PROTECTION FM. - MUDSTONE, SILTSTONE, SANDSTONE

**3** HASLAM FORMATION - BLACK SHALE, SILTSTONE

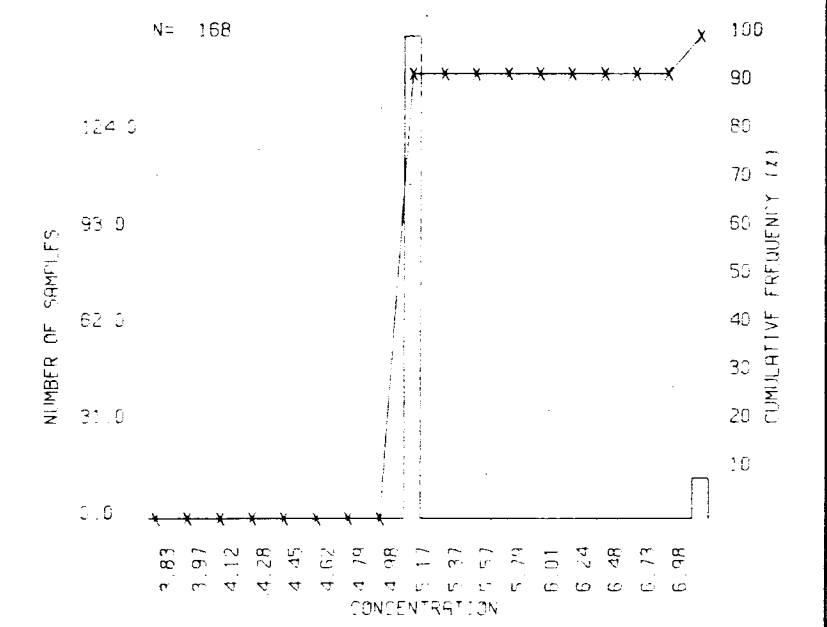
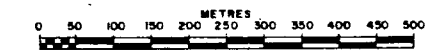
**2** COMOX FORMATION - SANDSTONE

**1** GRANODIORITE

Unconformity

Fault

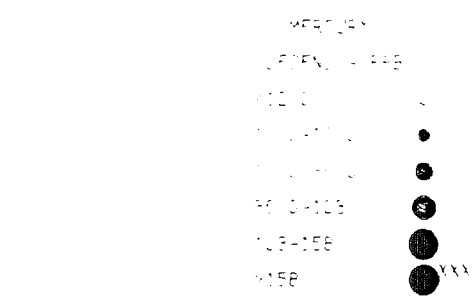
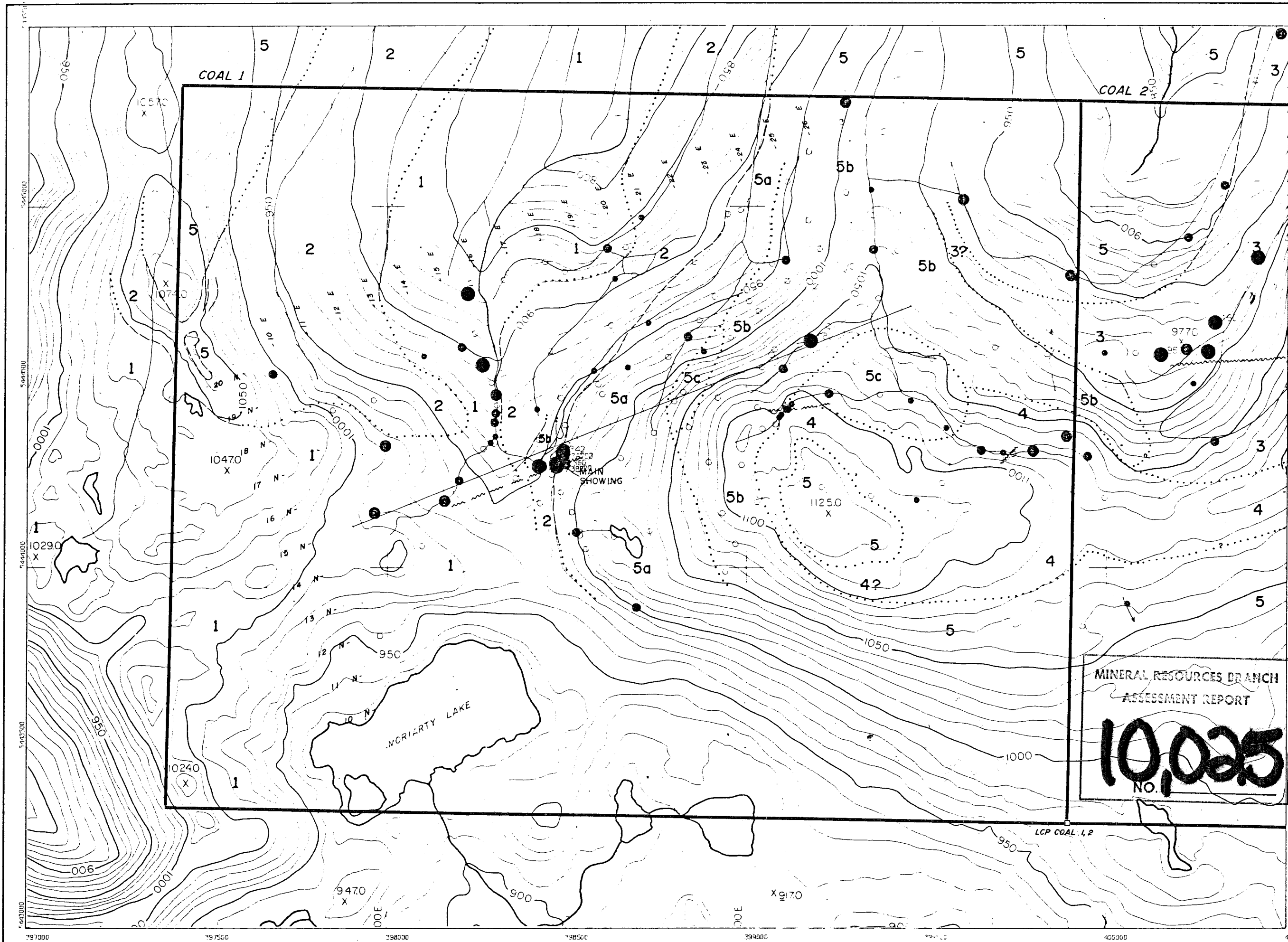
Contacts; defined, approximate, assumed



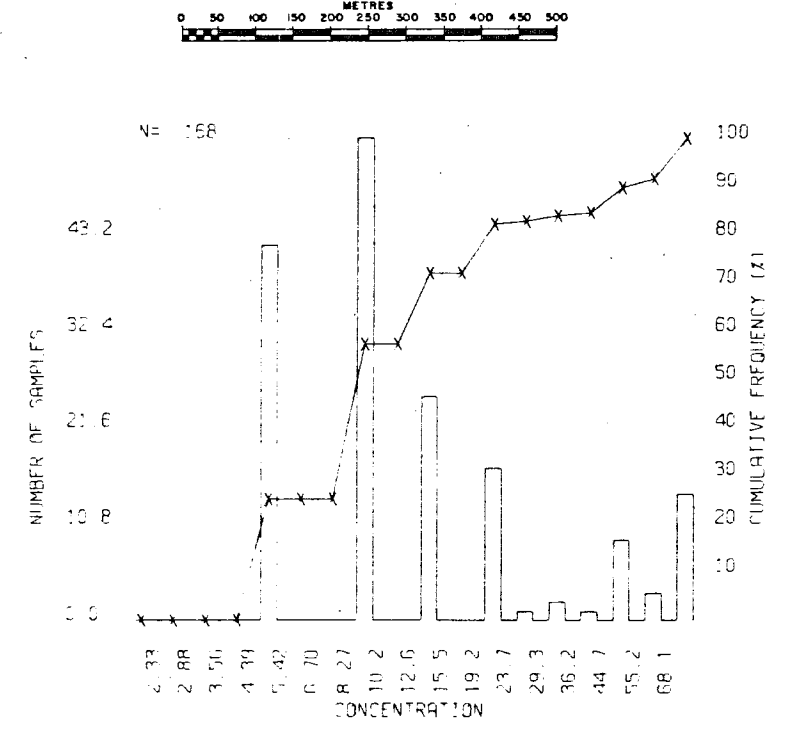
MINERAL RESOURCES BRANCH  
ASSESSMENT REPORT

**10,025**  
NO.

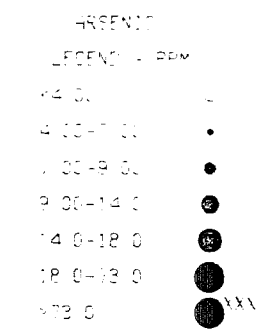
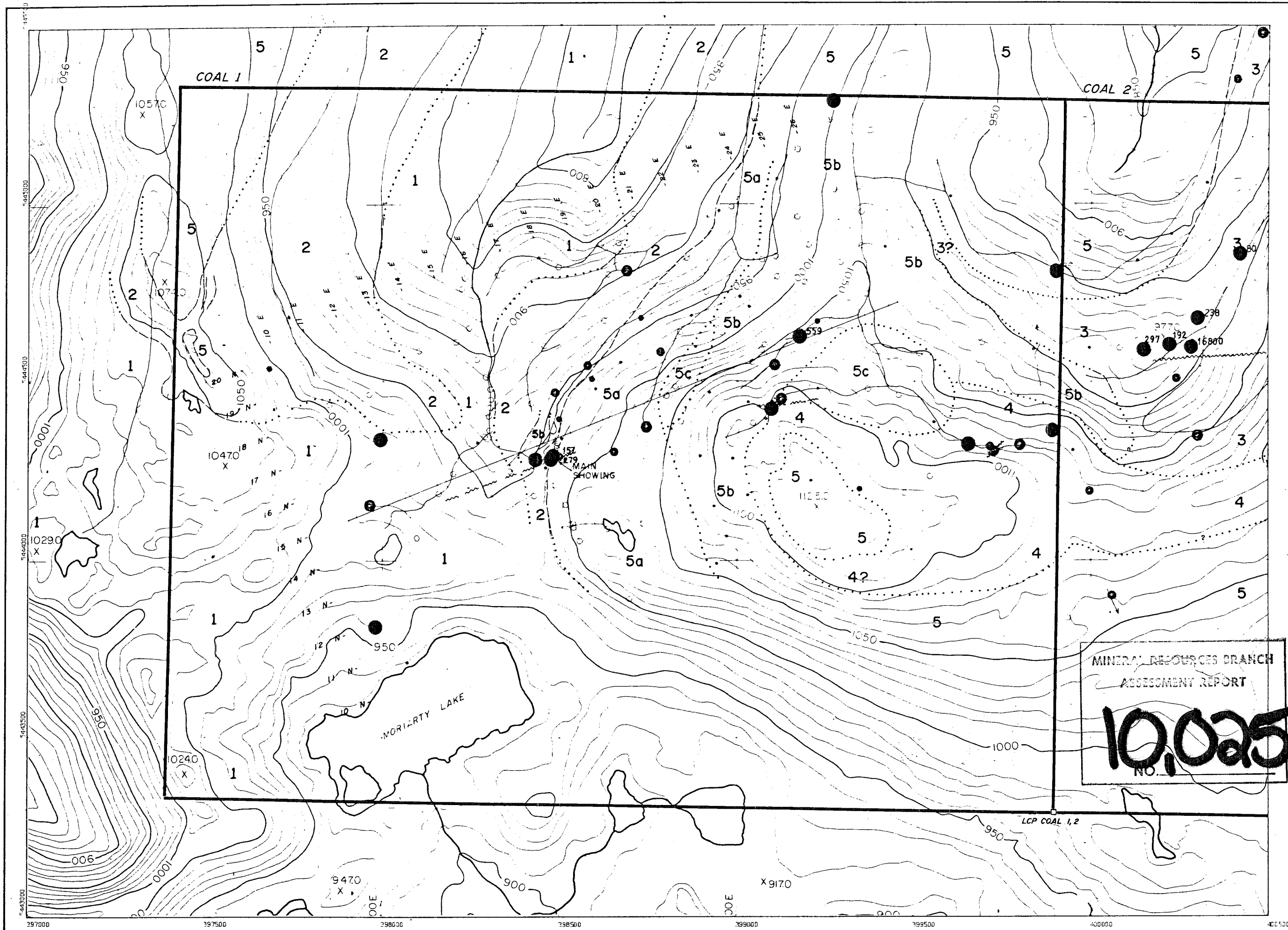
BP Minerals Limited		
COAL CLAIMS		
MORIARTY LAKE, VANCOUVER ISLAND, BC		
COLD (PPB) IN ROCK CHIP SAMPLES		
DWG NO. 526-81-4	DATE AUGUST 1981	PROJECT 526
REPORT NO. BPVR81-9	NTS 22.5/11.25	SCALE 1 CM=100 METRES
TO ACCOMPANY REPORT		FIG 5H



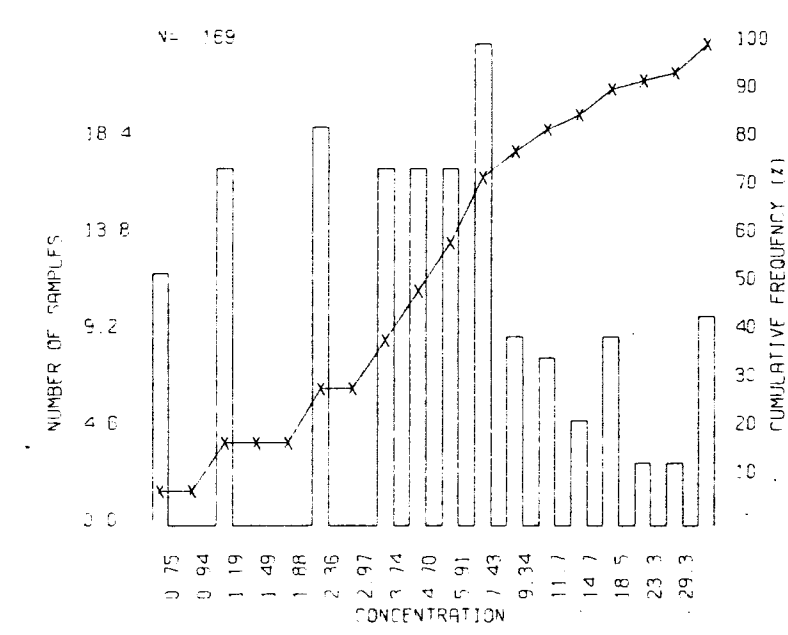
- LEGEND**
- TERTIARY**
- 5 PORPHYRITIC DACITE
- NANAIMO GROUP**
- 4 EXTENSION-PROTECTION FM. - MUDSTONE, SILTSTONE, SANDSTONE
  - 3 HASLAM FORMATION - BLACK SHALE, SILTSTONE
  - 2 COMOX FORMATION - SANDSTONE
- Unconformity
  - 1 GRANODIORITE
- Contacts; defined, approximate, assumed
- Fault



<b>BP Minerals Limited</b>		
COAL CLAIMS		
MORIARTY LAKE, VANCOUVER ISLAND, BC		
MERCURY (PPB) IN ROCK CHIP SAMPLES		
DWG NO 526-81-4	DATE AUGUST 1981	PROJECT S2E
REPORT NO BPVR81-9	NTS 92% N.W.	SCALE 1 CM: 100 METRES
TO ACCOMPANY REPORT		<b>FIG. 5G</b>

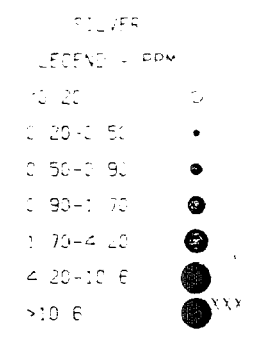
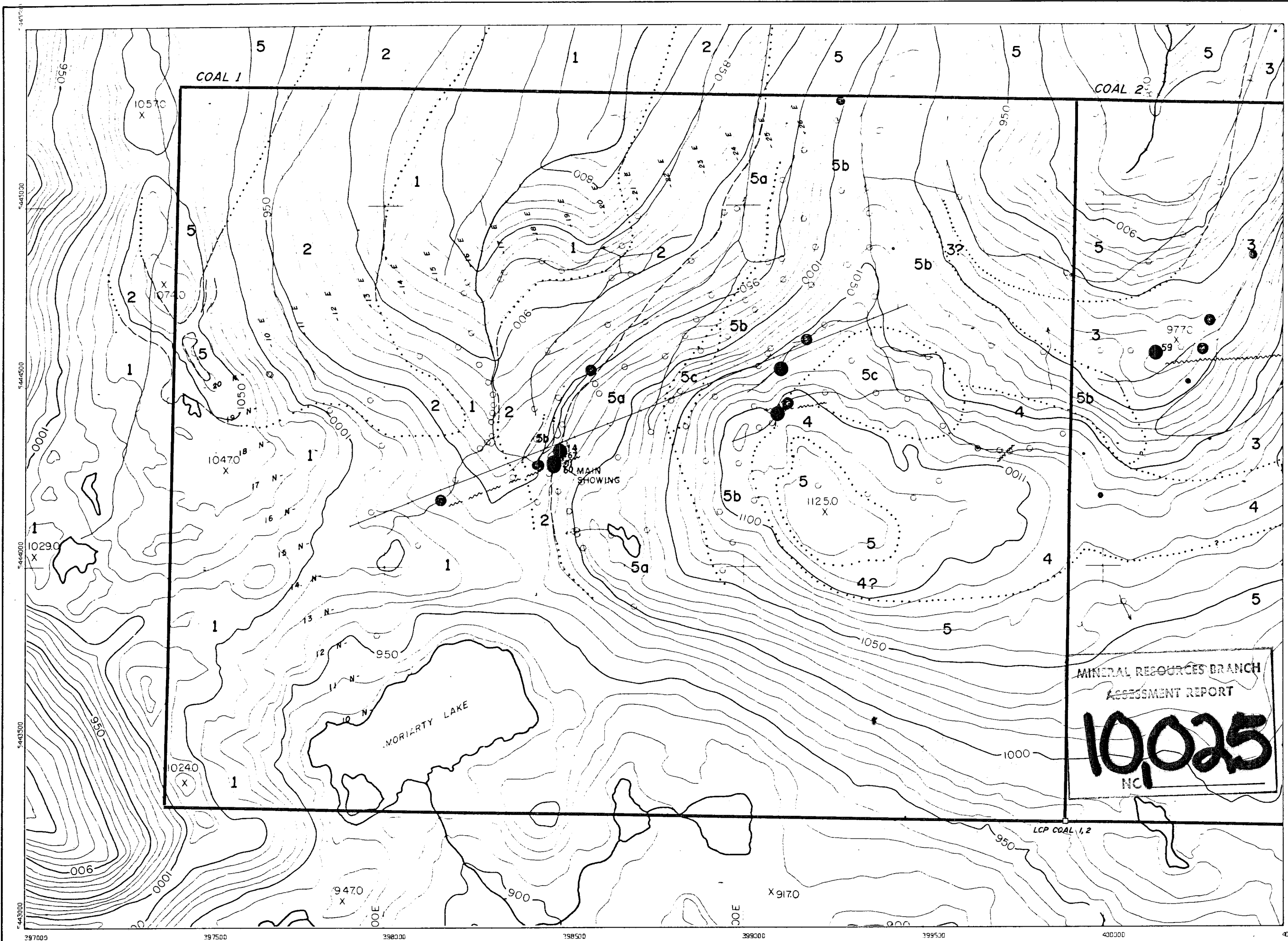


- LEGEND**
- TERTIARY**
- 5 PORPHYRITIC DACITE
- NANAIMO GROUP**
- 4 EXTENSION-PROTECTION FM. - MUDSTONE, SILTSTONE, SANDSTONE
  - 3 HASLAM FORMATION - BLACK SHALE, SILTSTONE
  - 2 COMOX FORMATION - SANDSTONE
- Unconformity
  - 1 GRANODIORITE
- Contacts; defined, approximate, assumed
  - Fault

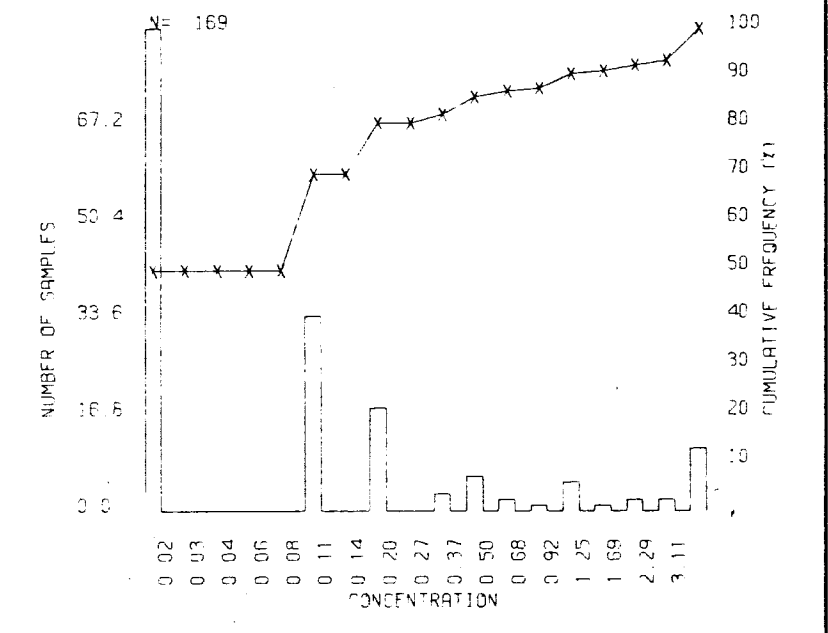


<b>BP Minerals Limited</b>		
COAL CLAIMS		
MORIARTY LAKE, VANCOUVER ISLAND, BC		
ARSENIC (PPM) IN ROCK CHIP SAMPLES		
DWG NO. 526-81-4	DATE AUGUST 1981	PROJECT 526
REPORT NO. BPVR81-9	NTS 32F/1W	SCALE 1 CM=100 METRES
TD ACCOMPANY REPORT		FIG. 5F



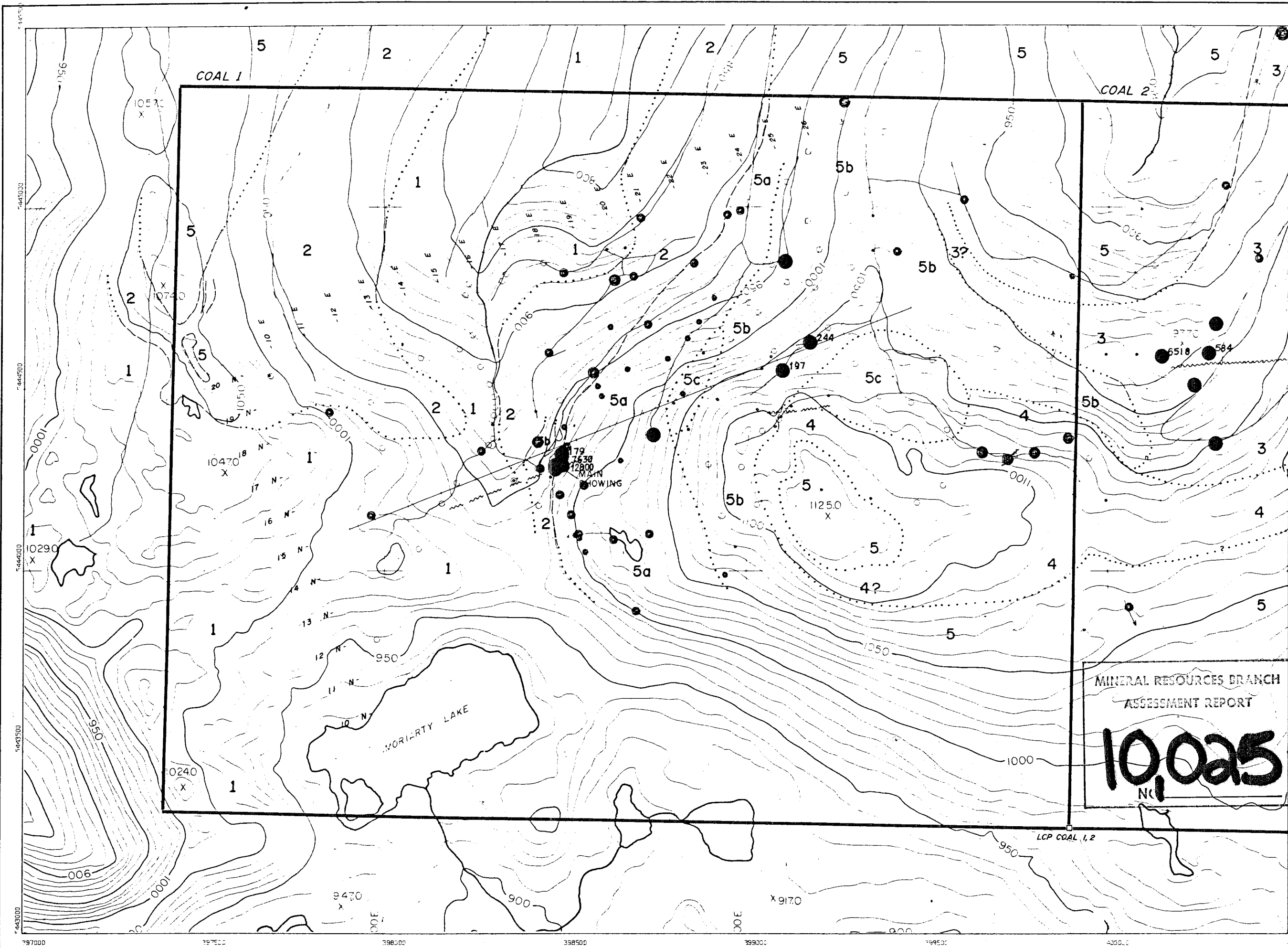


- LEGEND**
- TERTIARY**
- 5 PORPHYRITIC DACITE
- NANAIMO GROUP**
- 4 EXTENSION-PROTECTION FM. - MUDSTONE, SILTSTONE, SANDSTONE
  - 3 HASLAM FORMATION - BLACK SHALE, SILTSTONE
  - 2 COMOX FORMATION - SANDSTONE
- Unconformity
  - 1 GRANODIORITE
- Contacts; defined, approximate, assumed
  - Fault

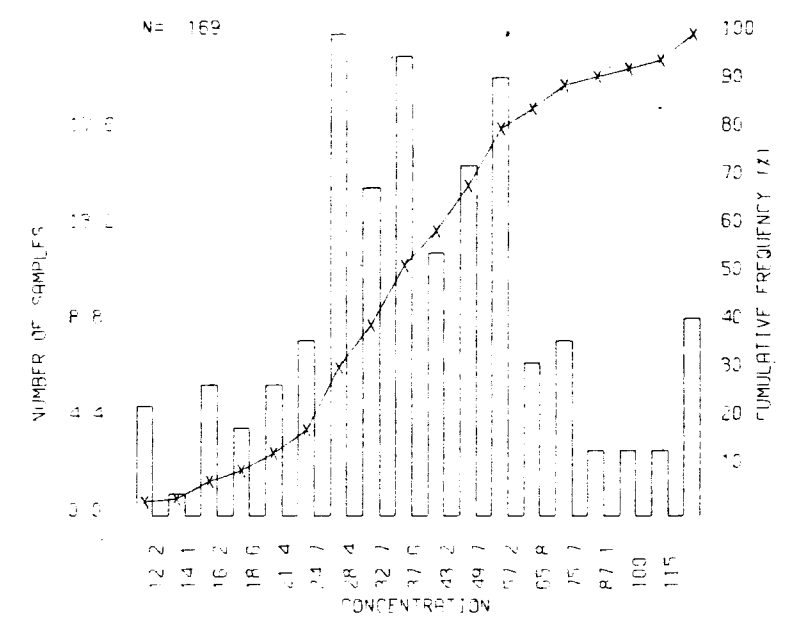


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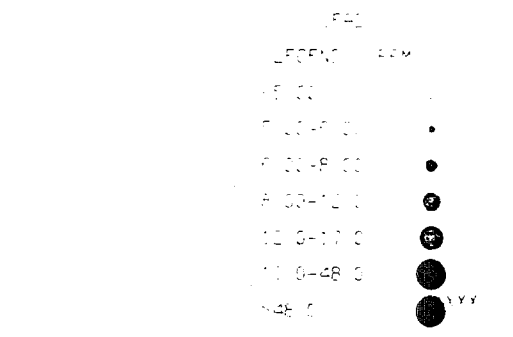
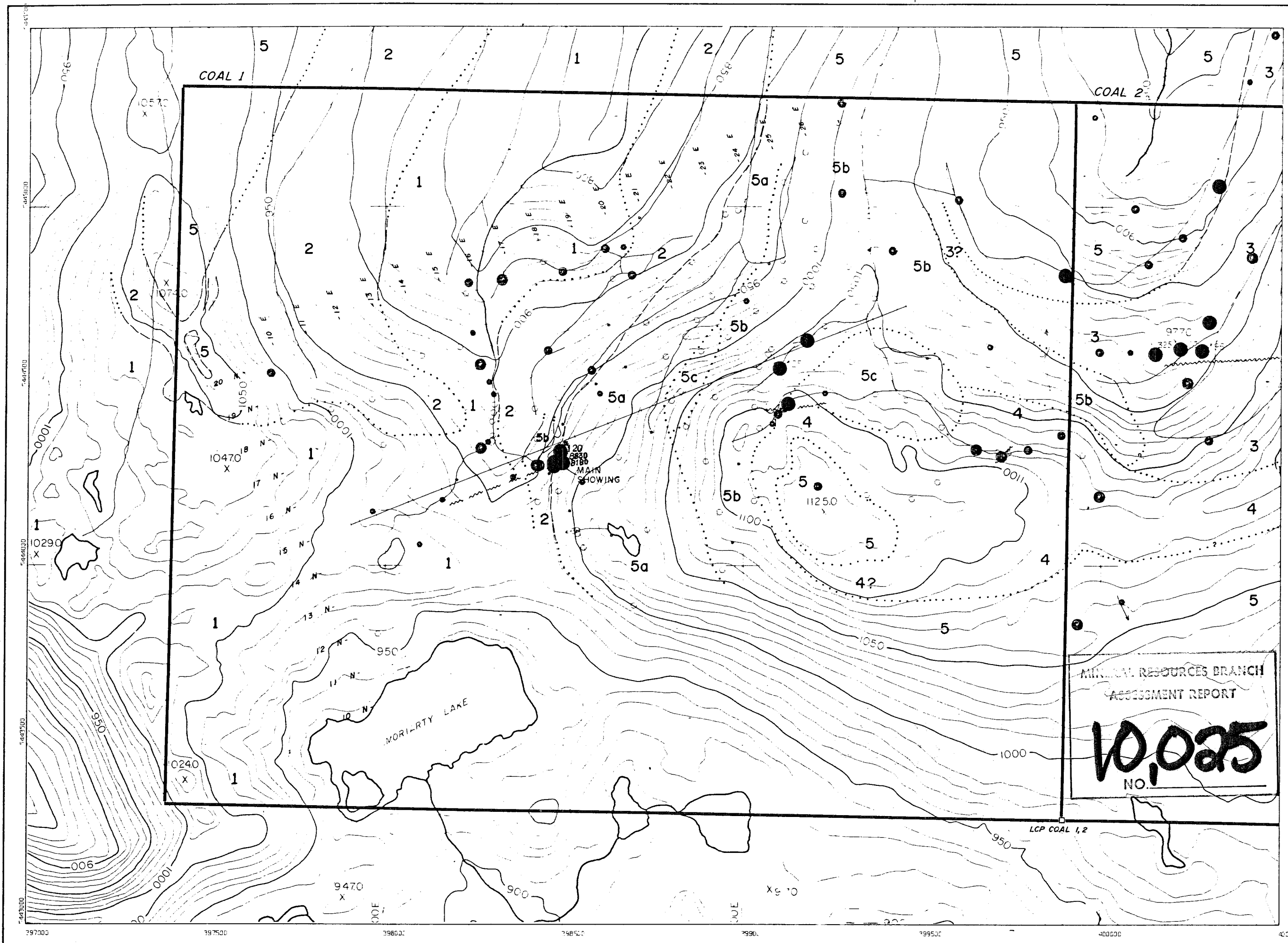
BP Minerals Limited		
COAL CLAIMS		
MORIARTY LAKE, VANCOUVER ISLAND, BC		
SILVER (PPM) IN ROCK CHIP SAMPLES		
DWG NO. 526-81-4	DATE AUGUST 1983	PROJECT 526
REPORT NO. BPVR 81-9	NTS 92F/1W	SCALE 1 CM: 100 METRES
TO ACCOMPANY REPORT		FIG 5E



- LEGEND**
- TERTIARY**
- 5 PORPHYRITIC DACITE
- NANAIMO GROUP**
- 4 EXTENSION-PROTECTION FM. - MUDSTONE, SILTSTONE, SANDSTONE
  - 3 HASLAM FORMATION - BLACK SHALE, SILTSTONE
  - 2 COMOX FORMATION - SANDSTONE
- ~ Unconformity
  - 1 GRANODIORITE
- Contacts; defined, approximate, assumed
  - Fault



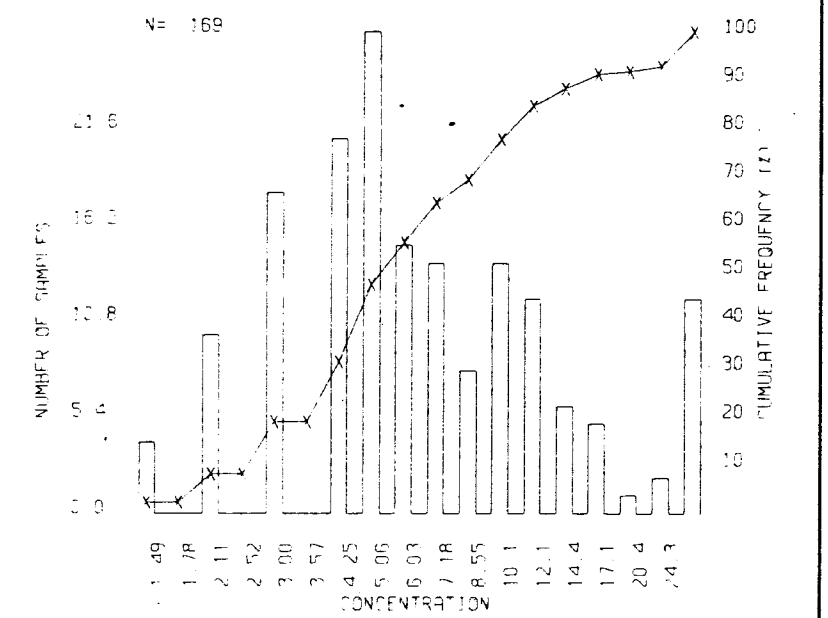
<b>BP Minerals Limited</b>		
COAL CLAIMS		
MORIARTY LAKE, VANCOUVER ISLAND, BC		
ZINC (PPM) IN ROCK CHIP SAMPLES		
DWG NO. 526-81-4	DATE AUGUST 1981	PROJECT EEB
REPORT NO. BPVR 81-9	N.T.S. 92'x110'	SCALE 1" = 100 METRES
TO ACCOMPANY REPORT		FIG. 5D



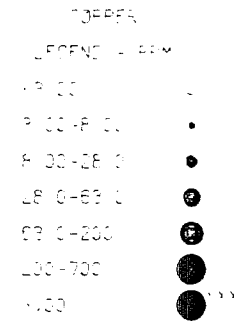
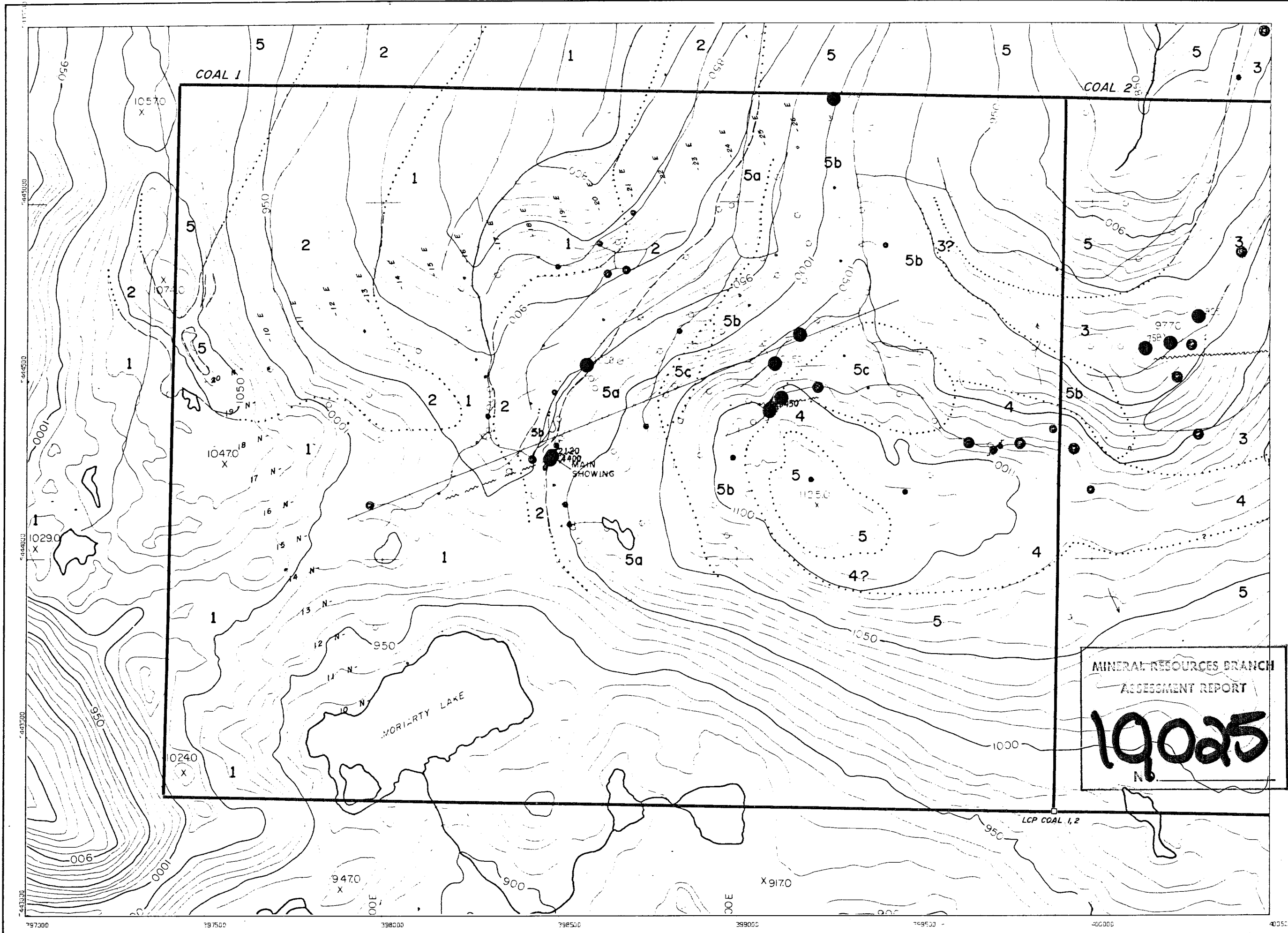
- LEGEND**
- TERTIARY**
- 5 PORPHYRITIC DACITE
- NANAIMO GROUP**
- 4 EXTENSION-PROTECTION FM. - MUDSTONE, SILTSTONE, SANDSTONE
  - 3 HASLAM FORMATION - BLACK SHALE, SILTSTONE
  - 2 COMOX FORMATION - SANDSTONE
- Unconformity
- 1 GRANODIORITE

Contacts; defined, approximate, assumed

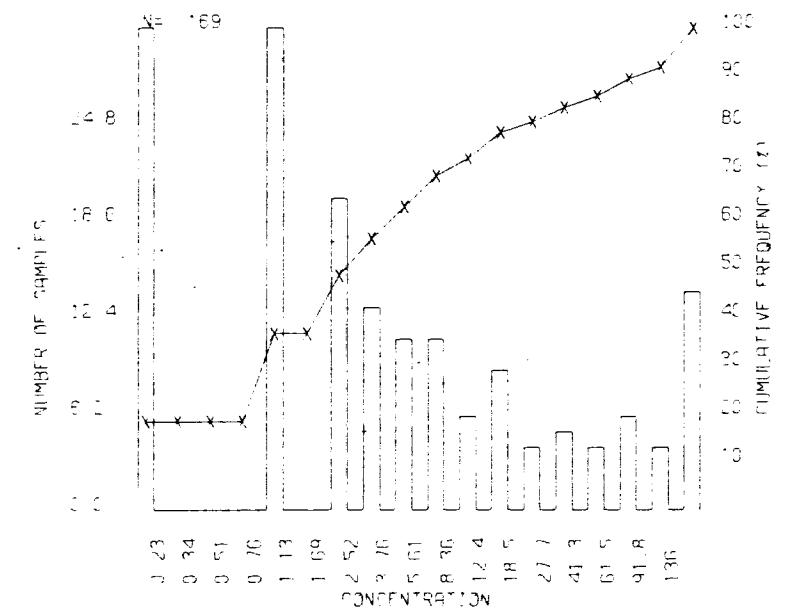
Fault



<b>BP Minerals Limited</b>		
COAL CLAIMS		
MORIARTY LAKE, VANCOUVER ISLAND, BC		
LEAD (PPM) IN ROCK CHIP SAMPLES		
DWG NO 526-81-4	DATE AUGUST 1981	PROJECT 526
REPORT NO BPVR81-9	NTS REF. W.	SCALE 1 CM = 100 METRES
TO ACCOMPANY REPORT		FIG <b>5C</b>



- LEGEND**
- TERTIARY**
- 5 PORPHYRITIC DACITE
- NANAIMO GROUP**
- 4 EXTENSION-PROTECTION FM. - MUDSTONE, SILTSTONE, SANDSTONE
  - 3 HASLAM FORMATION - BLACK SHALE, SILTSTONE
  - 2 COMOX FORMATION - SANDSTONE
- Unconformity  
 1 GRANODIORITE
- Contacts; defined, approximate, assumed  
 Fault

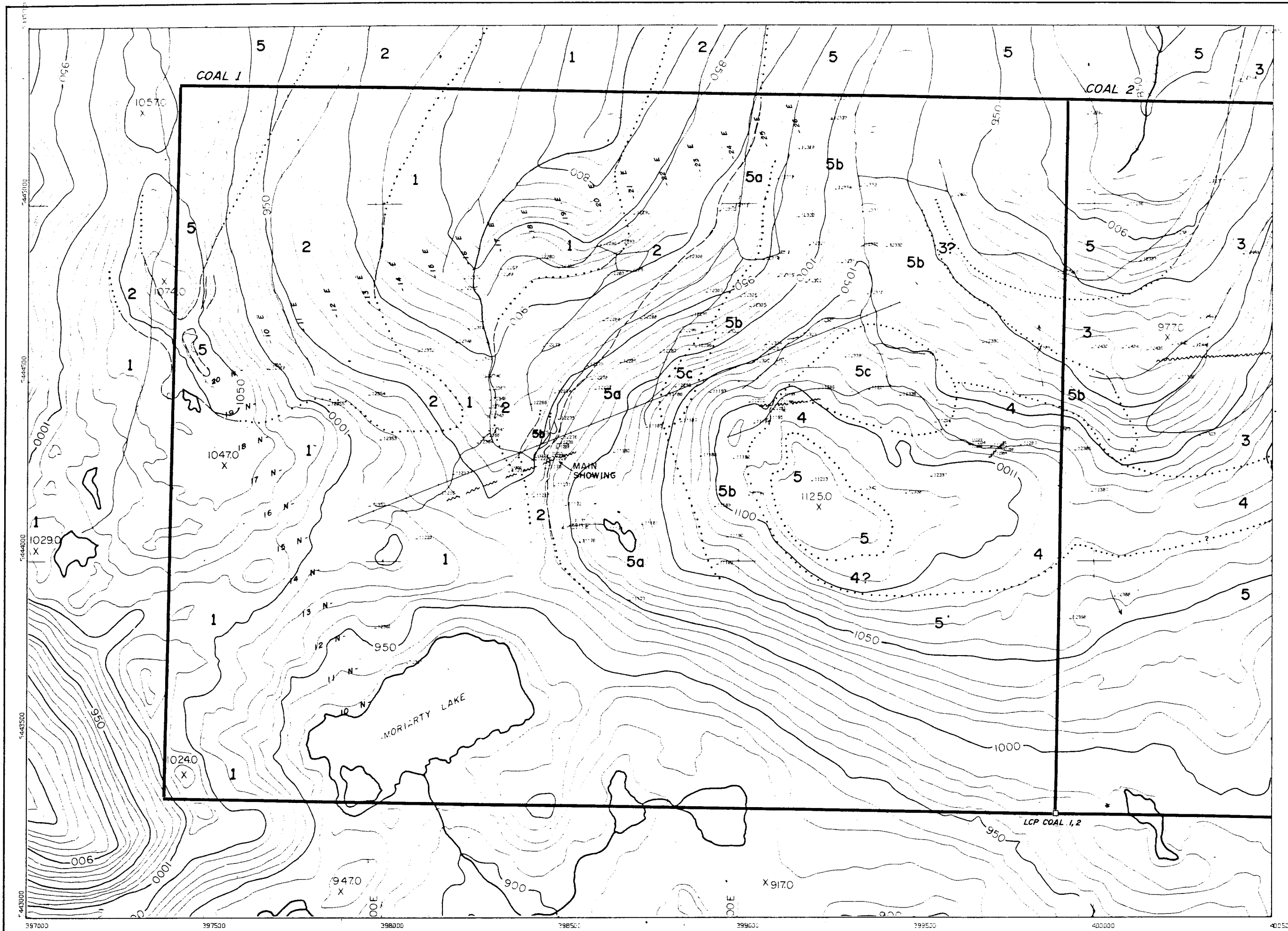


**BP Minerals Limited**

**COAL CLAIMS**  
 MORIARTY LAKE VANCOUVER ISLAND B.C.  
 COPPER FORM. IN ROCK CHIP SAMPLES

DWG NO. 526-81-4	DATE AUGUST 1981	PROJECT 526	FIG. 5B
REPORT NO. BPVR/81-9	TITLE N.T.S. 300/114 SCALE 1 CM: 100 METRES		

TO ACCOMPANY REPORT



ALL SAMPLE NUMBERS ARE PREFIXED BY E-

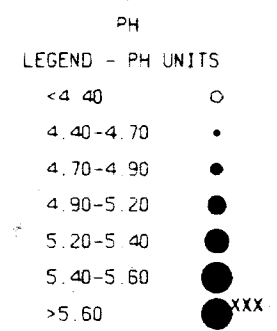
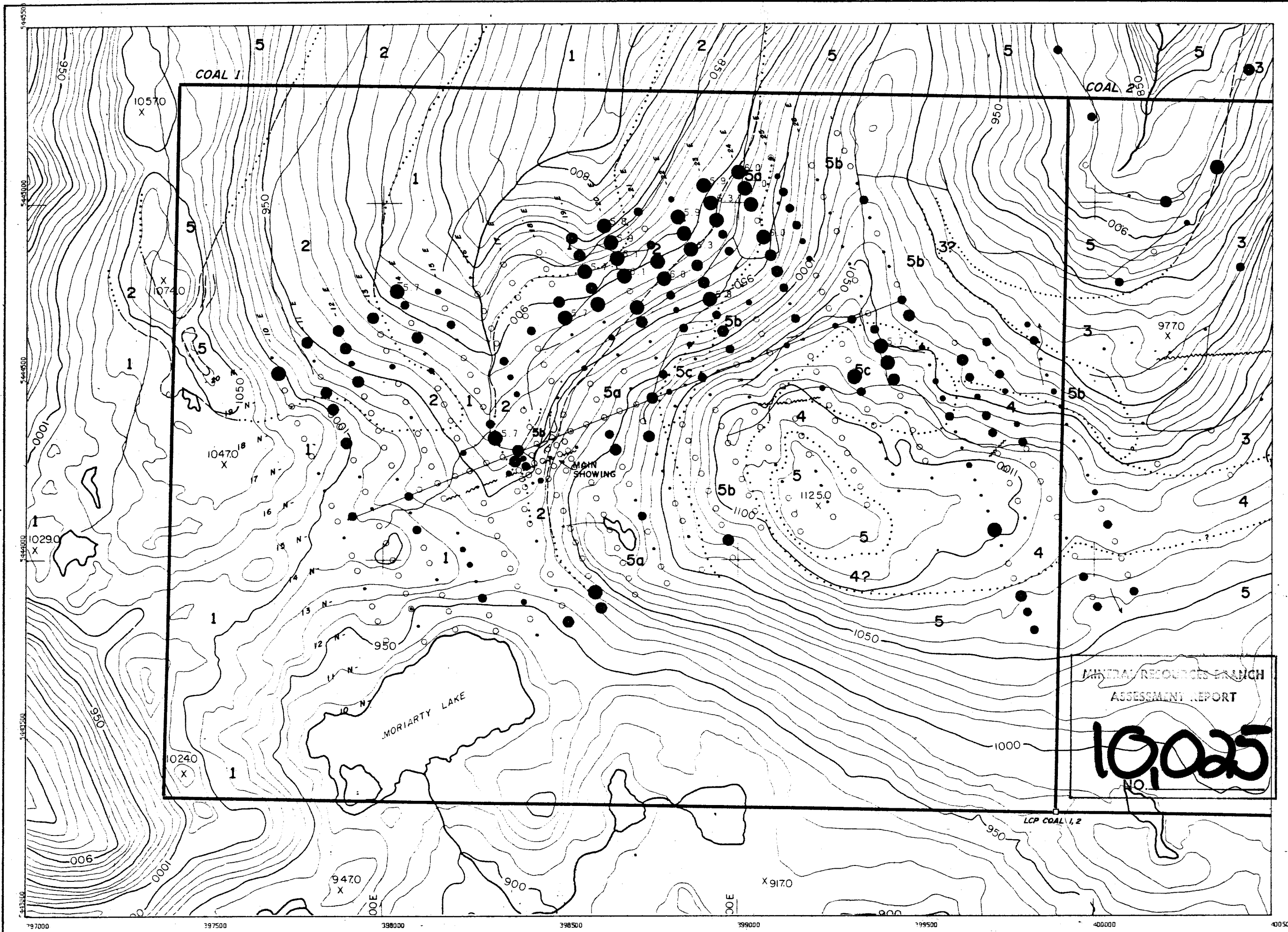
- LEGEND**
- TERTIARY**
- 5 PORPHYRITIC DACITE
- NANAIMO GROUP**
- 4 EXTENSION-PROTECTION FM. - MUDSTONE, SILTSTONE, SANDSTONE
  - 3 HASLAM FORMATION - BLACK SHALE, SILTSTONE
  - 2 COMOX FORMATION - SANDSTONE
- Unconformity
- 1 GRANODIORITE
- Contacts; defined, approximate, assumed
- Fault



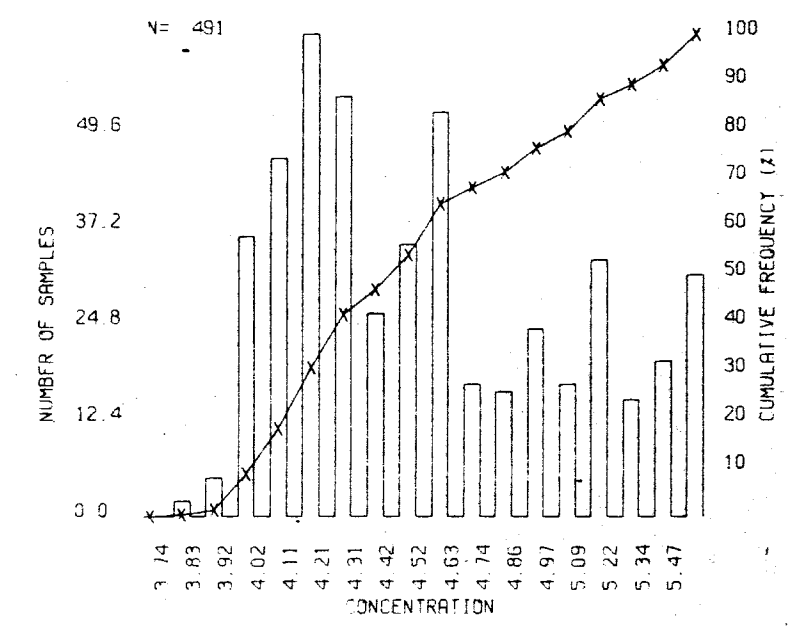
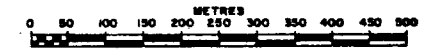
MINERAL RESOURCES BRANCH  
ASSESSMENT REPORT

**10,025**  
NO.

<b>BP Minerals Limited</b>		
COAL CLAIMS		
MORIARTY LAKE, VANCOUVER ISLAND, BC		
ROCK CHIP SAMPLE LOCATIONS		
DWG NO 526-81-4	DATE AUGUST 1981	PROJECT E26
REPORT NO BPVR81-9	NTS 92F/1W	SCALE 1 CM=100 METRES
TO ACCOMPANY REPORT		FIG. 5A

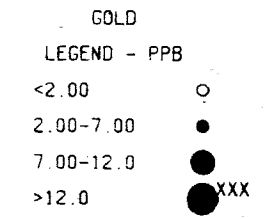
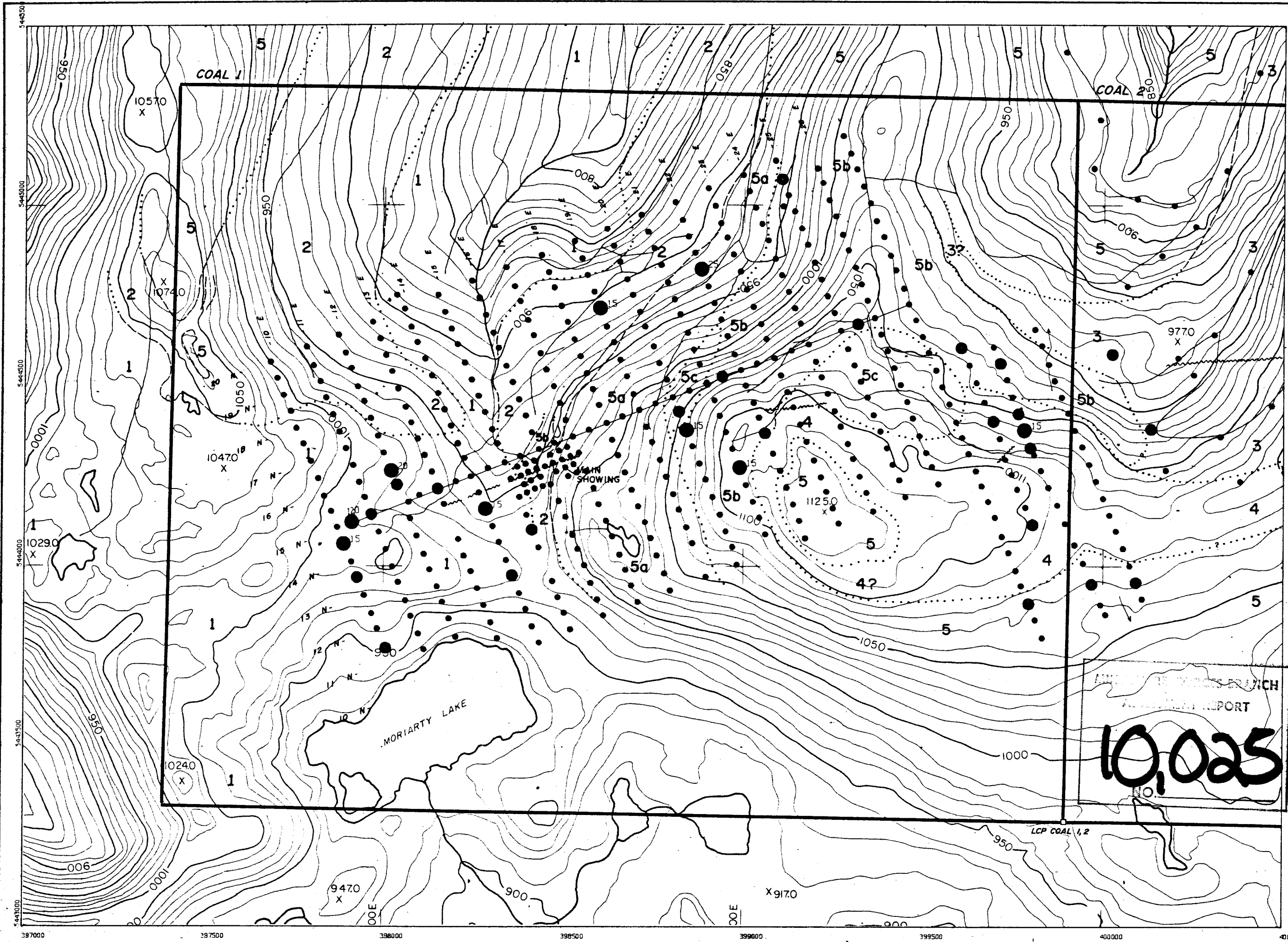


- LEGEND**
- TERTIARY**
- 5 PORPHYRITIC DACITE
- NANAIMO GROUP**
- 4 EXTENSION-PROTECTION FM. - MUDSTONE, SILTSTONE, SANDSTONE
  - 3 HASLAM FORMATION - BLACK SHALE, SILTSTONE
  - 2 COMOX FORMATION - SANDSTONE
- Unconformity
  - 1 GRANODIORITE
- Contacts; defined, approximate, assumed
  - Fault

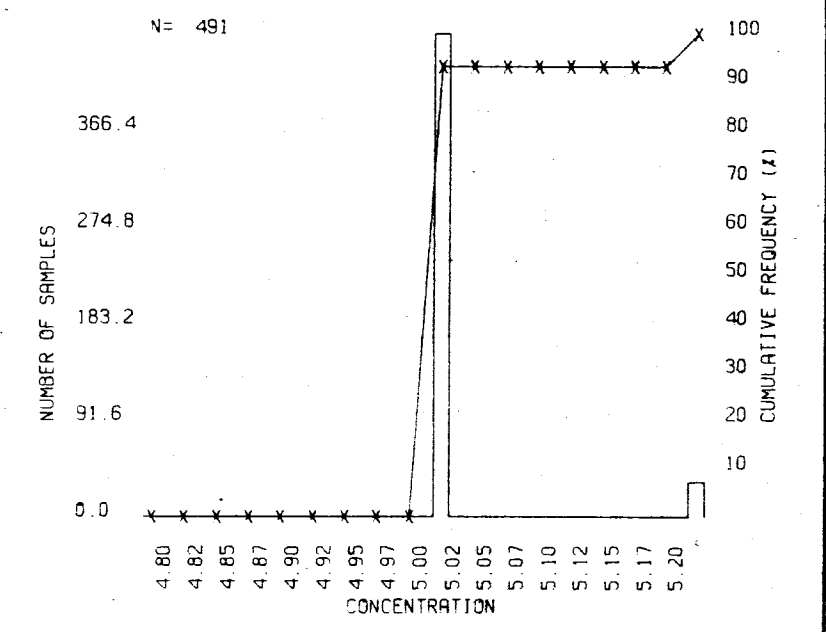


MINERAL RESOURCES BRANCH  
ASSESSMENT REPORT  
**10,025**  
NO.

BP Minerals Limited		
COAL CLAIMS		
MORIARTY LAKE, VANCOUVER ISLAND, BC		
PH (PH UNITS) OF SOIL SAMPLES		
DWG NO. 526-81-4	DATE AUGUST 1981 PROJECT 526	FIG. 41
REPORT NO. BPVR81-9	NTS 92F/1W SCALE 1 CM=100METRES	
TO ACCOMPANY REPORT:		

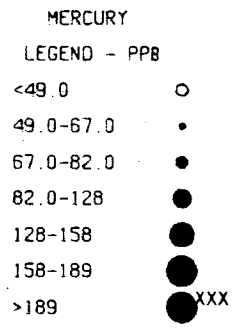
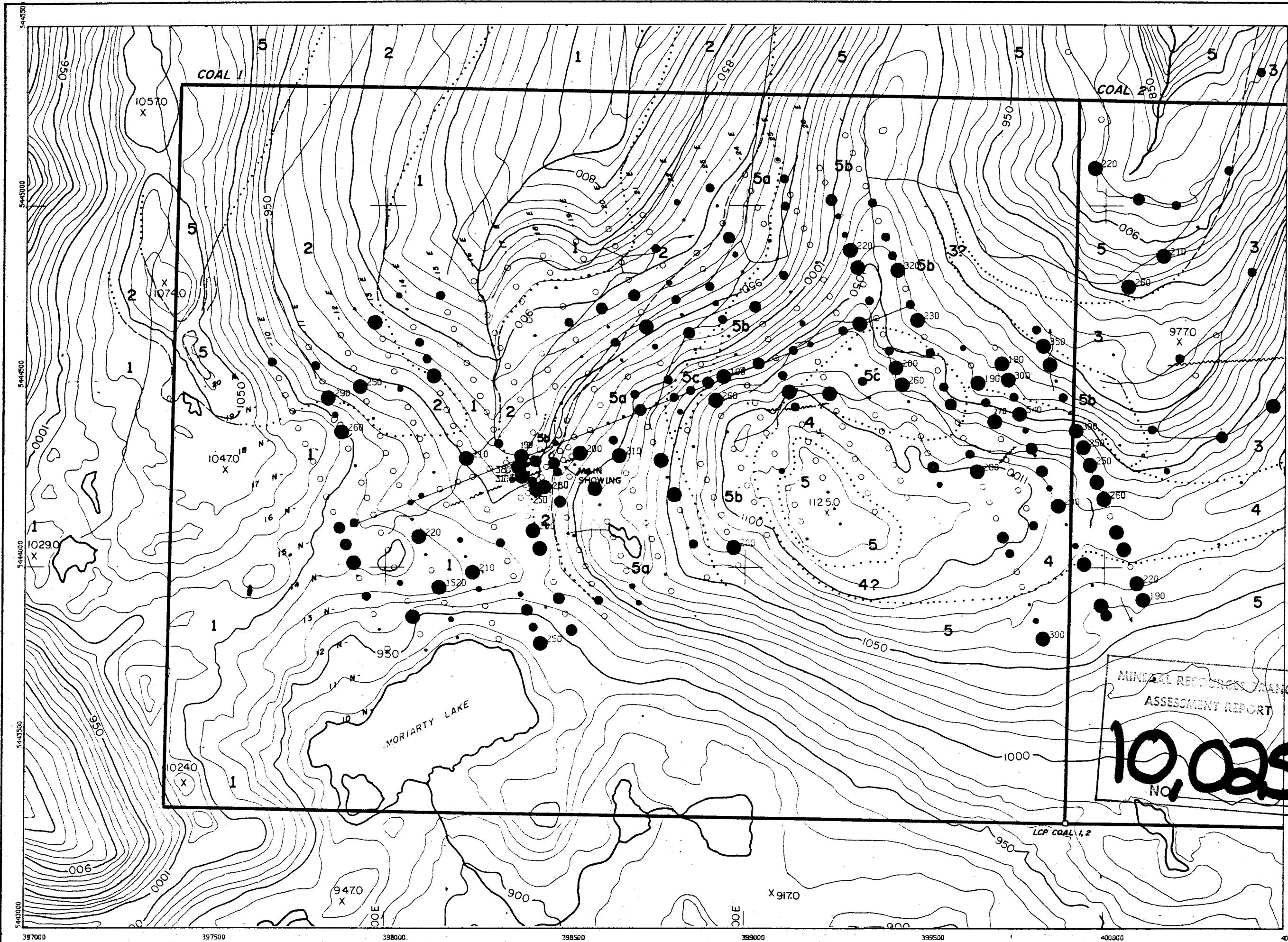


- LEGEND**
- TERTIARY**
- 5 PORPHYRITIC DACITE
- NANAIMO GROUP**
- 4 EXTENSION-PROTECTION FM. - MUDSTONE, SILTSTONE, SANDSTONE
  - 3 HASLAM FORMATION - BLACK SHALE, SILTSTONE
  - 2 COMOX FORMATION - SANDSTONE
- Unconformity
- 1 GRANODIORITE
- Contacts; defined, approximate, assumed
- Fault



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ANALYSIS REPORT  
**10,025**  
NO.

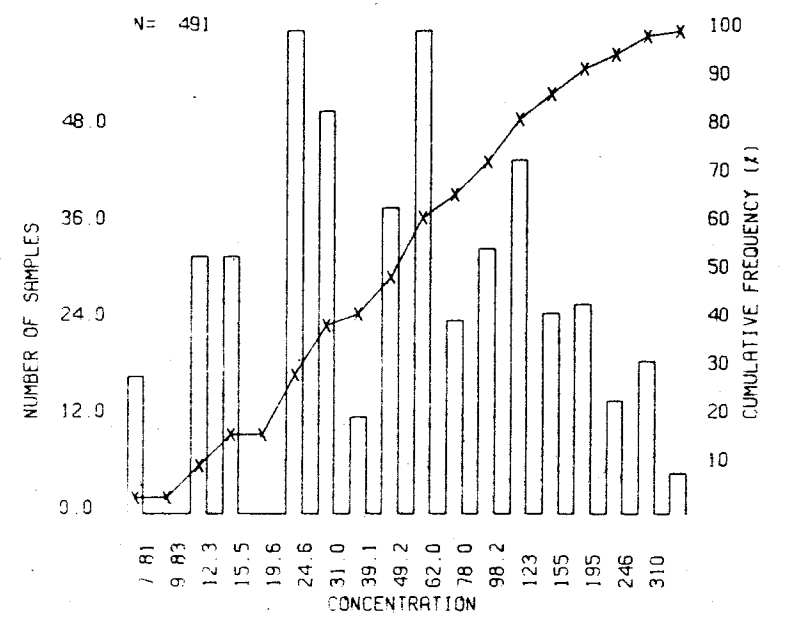
<b>BP Minerals Limited</b>		
<b>COAL CLAIMS</b>		
MORIARTY LAKE, VANCOUVER ISLAND, BC		
GOLD (PPB) IN SOIL SAMPLES		
DWG NO. 526-81-4	DATE AUGUST 1981	PROJECT 526
REPORT NO. BPVR 81-9	NTS 92F/1W	SCALE 1 CM=100METRES
TO ACCOMPANY REPORT		FIG. 4H



- LEGEND**
- TERTIARY**
- 5 PORPHYRITIC DACITE
- NANAIMO GROUP**
- 4 EXTENSION-PROTECTION FM. - MUDSTONE, SILTSTONE, SANDSTONE
  - 3 HASLAM FORMATION - BLACK SHALE, SILTSTONE
  - 2 COMOX FORMATION - SANDSTONE
- Unconformity
- 1 GRANODIORITE

Contacts; defined, approximate, assumed

Fault

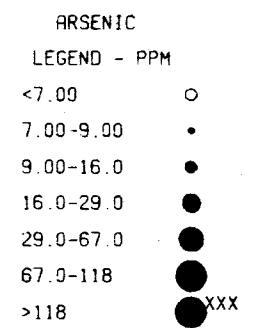
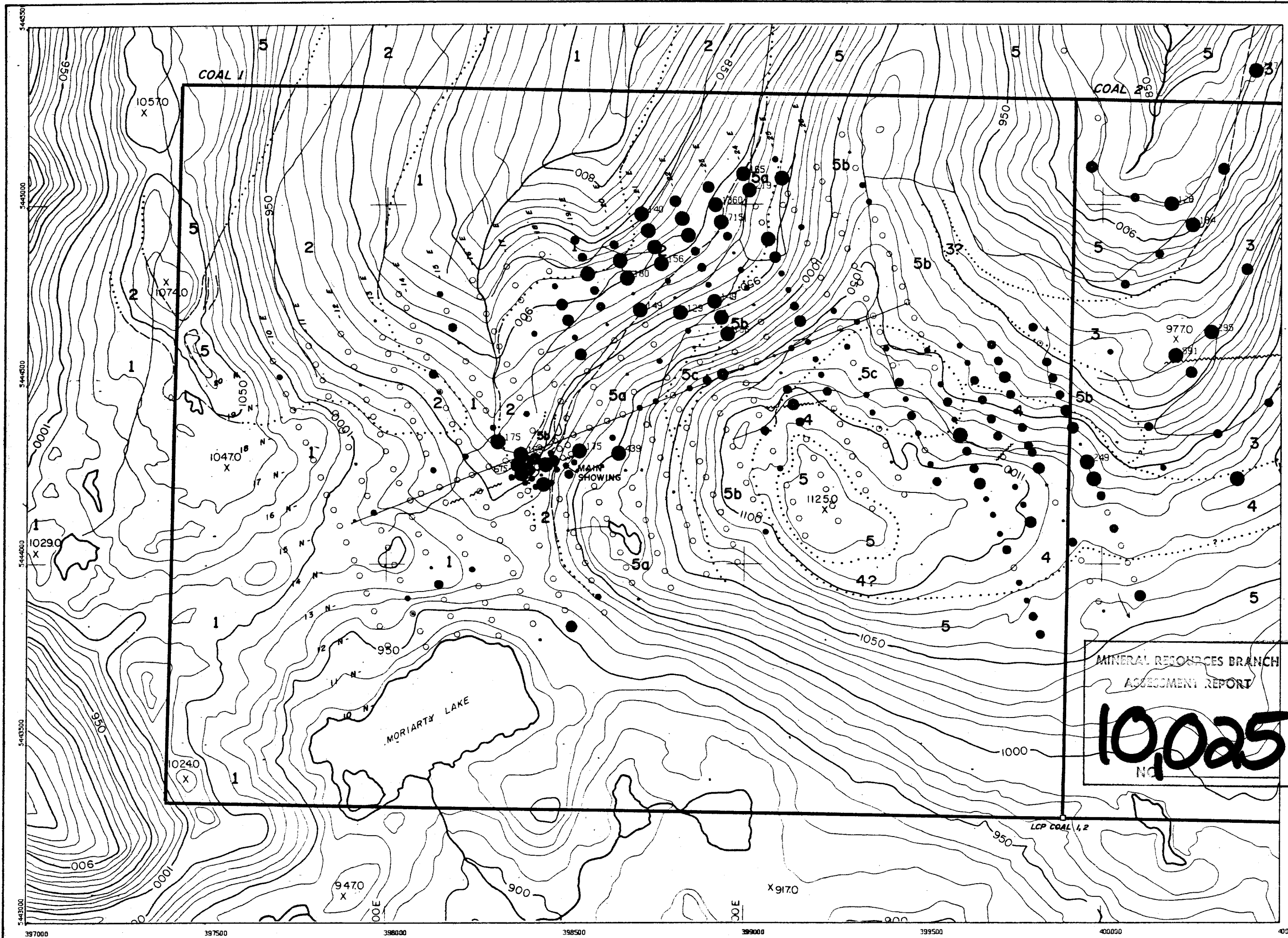


MINERAL RESOURCES BRANCH  
ASSESSMENT REPORT

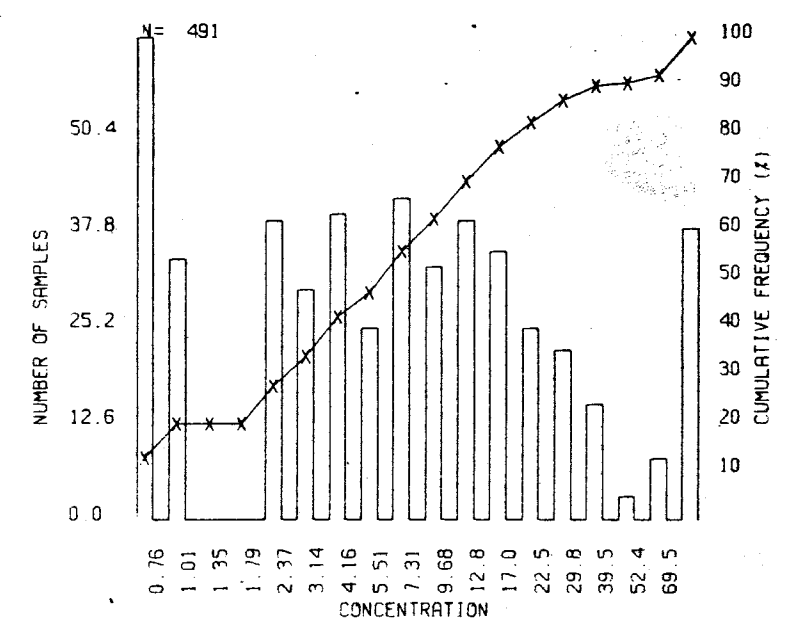
**10,025**  
No.

BP Minerals Limited		
COAL CLAIMS		
MORIARTY LAKE, VANCOUVER ISLAND, BC		
MERCURY (PPB) IN SOIL SAMPLES		
DWG NO. 526-81-4	DATE AUGUST 1981	PROJECT 526
REPORT NO. BPVR81-9	NTS 92F/1W	SCALE 1 CM=100METRES
TO ACCOMPANY REPORT:		FIG. 4G





- LEGEND**
- TERTIARY**
- 5 PORPHYRITIC DACITE
- NANAIMO GROUP**
- 4 EXTENSION-PROTECTION FM. - MUDSTONE, SILTSTONE, SANDSTONE
  - 3 HASLAM FORMATION - BLACK SHALE, SILTSTONE
  - 2 COMOX FORMATION - SANDSTONE
- ~ Unconformity
  - 1 GRANODIORITE
- Contacts; defined, approximate, assumed
- Fault

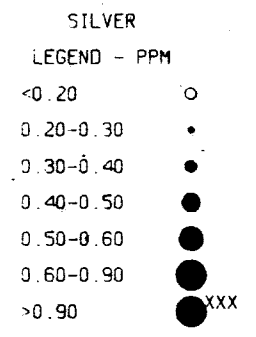
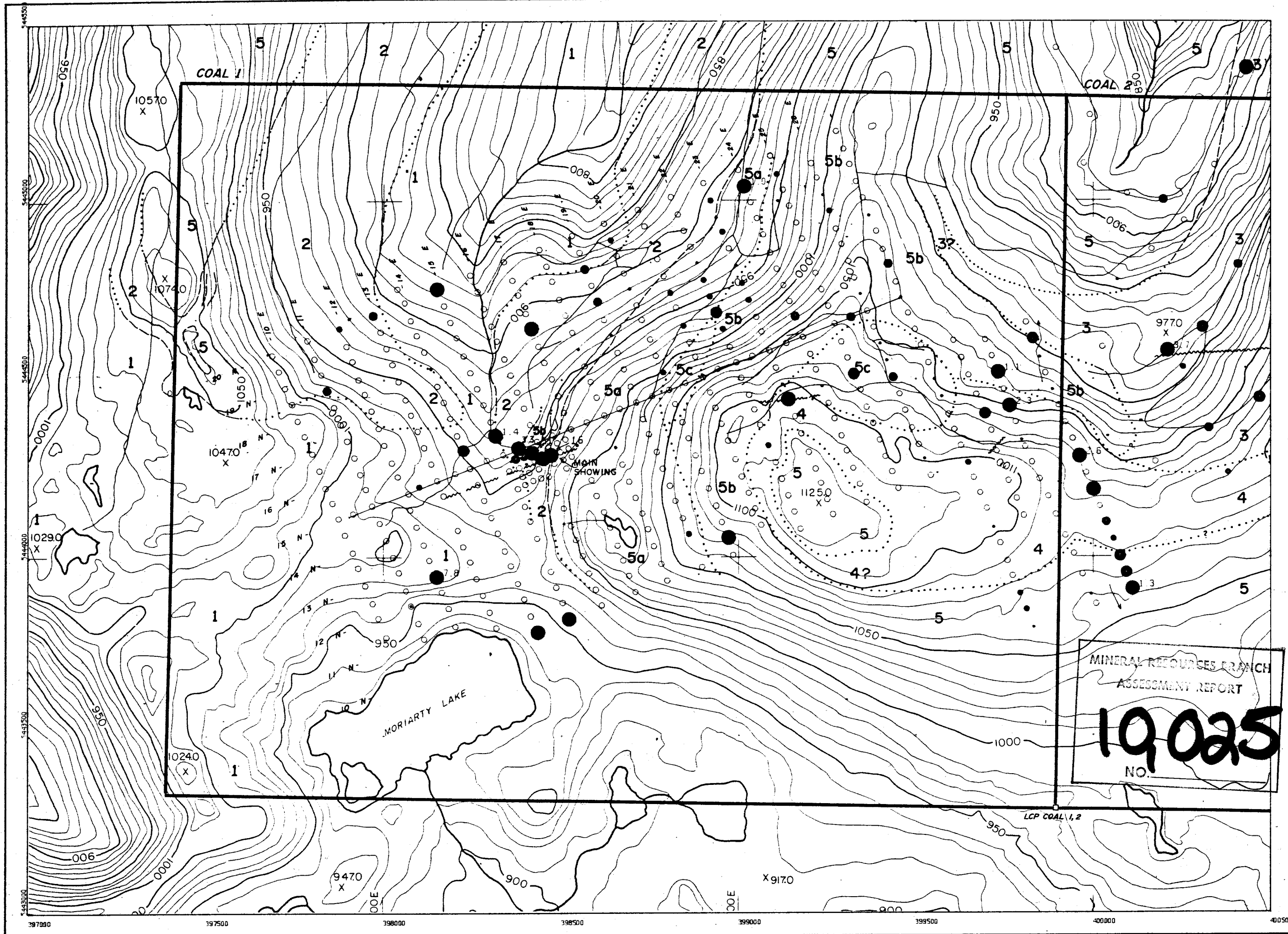


MINERAL RESOURCES BRANCH  
ASSESSMENT REPORT  
**10,025**

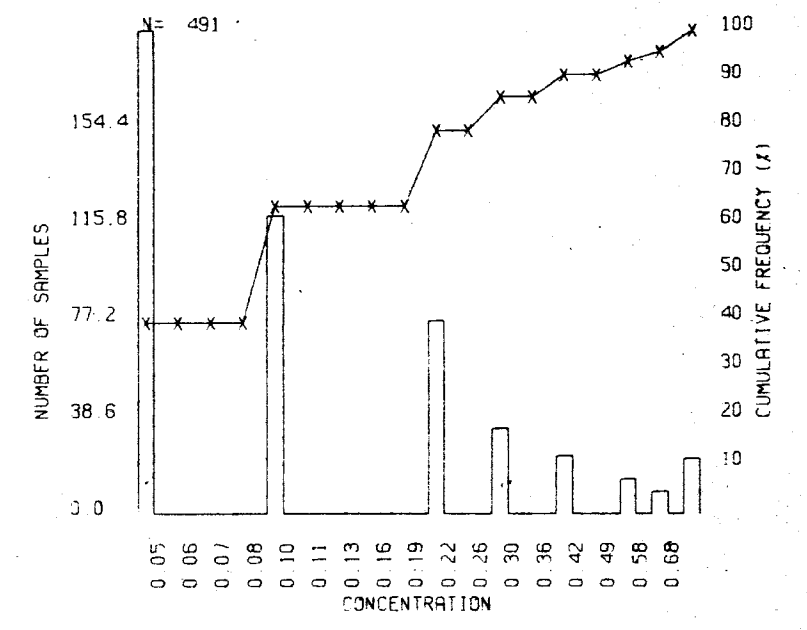
**BP Minerals Limited**

**COAL CLAIMS**  
MORIARTY LAKE, VANCOUVER ISLAND, BC  
ARSENIC (PPM) IN SOIL SAMPLES

DWG NO. 526-81-4	DATE AUGUST 1981	PROJECT 526	FIG. 4F
REPORT NO. BPVR81-9	NTS 92F/1W SCALE 1 CM=100METRES		
TO ACCOMPANY REPORT:			

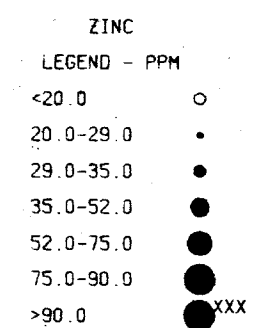
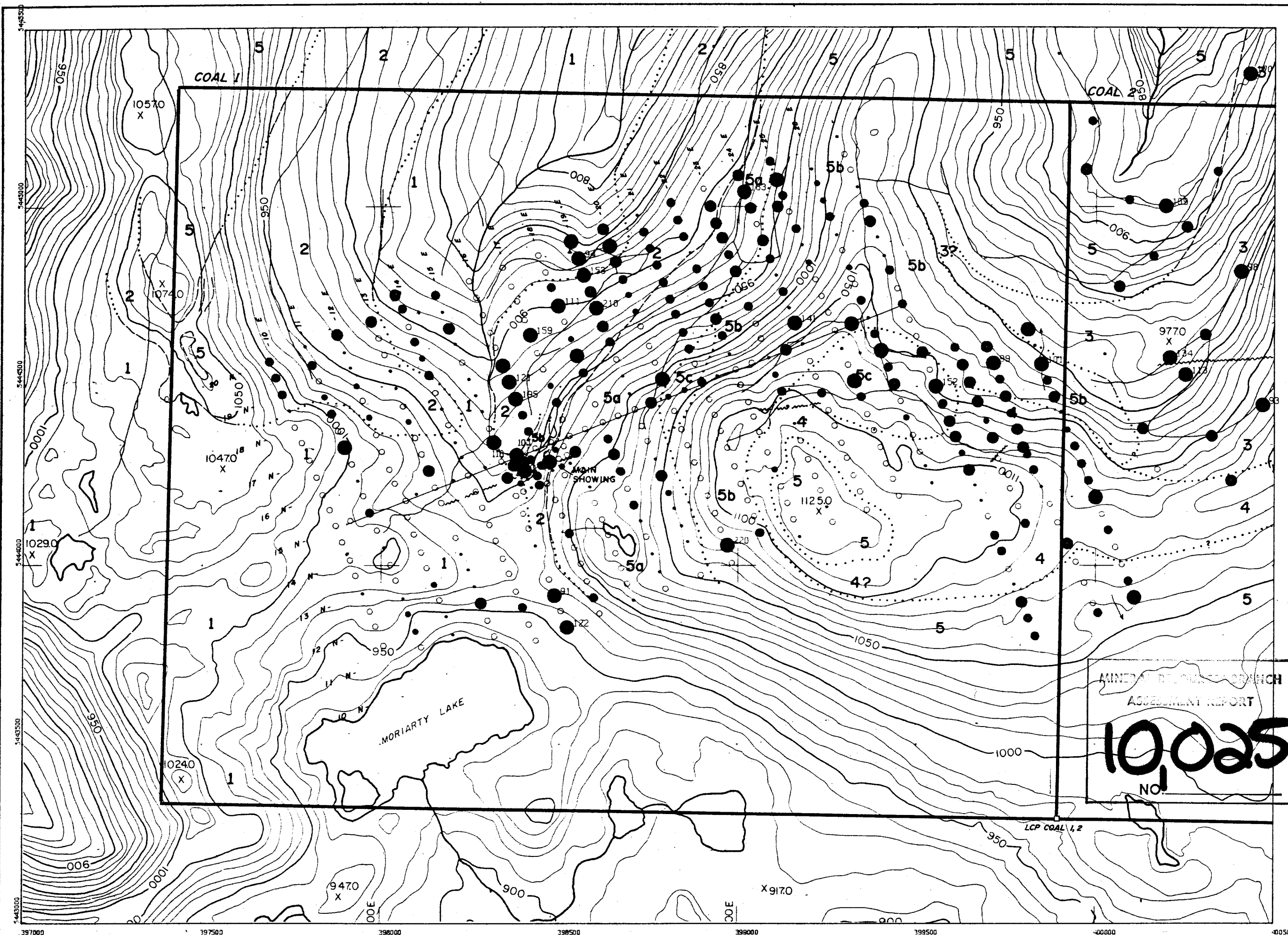


- LEGEND**
- TERTIARY**
- 5 PORPHYRITIC DACITE
- NANAIMO GROUP**
- 4 EXTENSION-PROTECTION FM. - MUDSTONE, SILTSTONE, SANDSTONE
  - 3 HASLAM FORMATION - BLACK SHALE, SILTSTONE
  - 2 COMOX FORMATION - SANDSTONE
- ~ Unconformity
  - 1 GRANODIORITE
- Contacts; defined, approximate, assumed
  - Fault

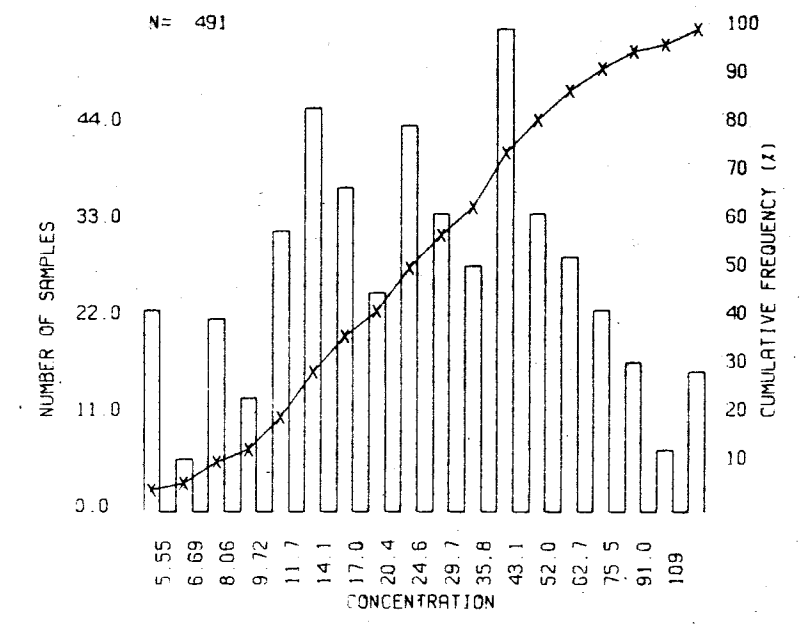


MINERAL RESOURCES BRANCH  
ASSESSMENT REPORT  
**19025**  
NO.

<b>BP Minerals Limited</b>		
COAL CLAIMS MORIARTY LAKE, VANCOUVER ISLAND, BC SILVER (PPM) IN SOIL SAMPLES		
DWG NO. 526-81-4	DATE AUGUST 1981	PROJECT 526
REPORT NO. BPV81-9	NTS 92F/1W SCALE 1 CM: 100 METRES	FIG. <b>4E</b>
TO ACCOMPANY REPORT:		



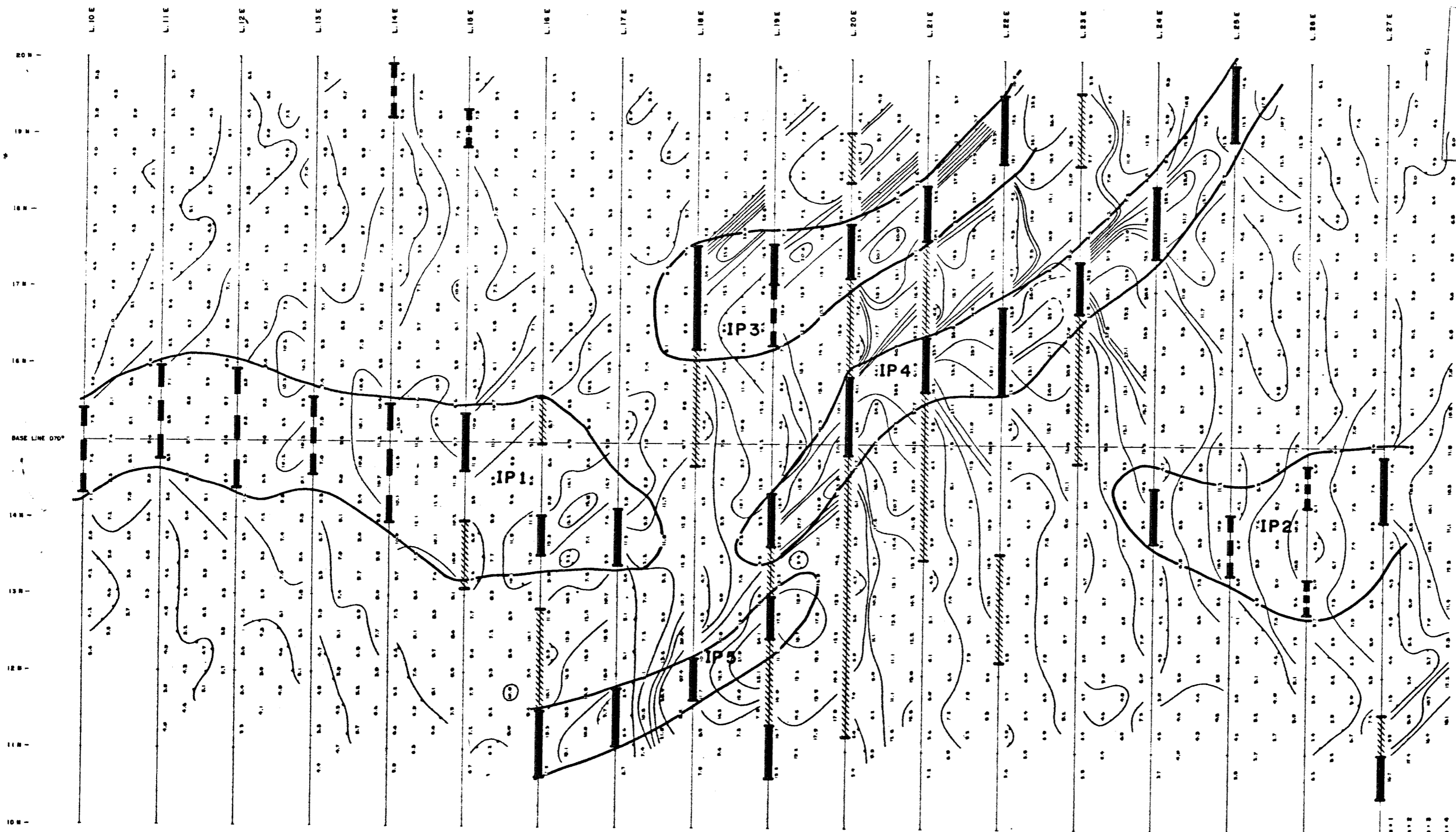
- LEGEND**
- TERTIARY**
- 5 PORPHYRITIC DACITE
- NANAIMO GROUP**
- 4 EXTENSION-PROTECTION FM. - MUDSTONE, SILTSTONE, SANDSTONE
  - 3 HASLAM FORMATION - BLACK SHALE, SILTSTONE
  - 2 COMOX FORMATION - SANDSTONE
- Unconformity
  - 1 GRANODIORITE
- Contacts; defined, approximate, assumed
  - Fault



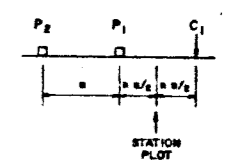
MINERAL RESOURCES BRANCH  
ASSESSMENT REPORT  
**10,025**  
NO.

<b>BP Minerals Limited</b>		
COAL CLAIMS MORIARTY LAKE, VANCOUVER ISLAND, BC ZINC (PPM) IN SOIL SAMPLES		
DWG NO. 526-81-4	DATE AUGUST 1981	PROJECT 526
REPORT NO. BPVR 81-9	NTS 92F/1W	SCALE 1 CM=100METRES
TO ACCOMPANY REPORT		FIG. 4D

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NO.



POLE - DIPOLE ARRAY  $a = 50$  metres



- IP ANOMALIES**
- Definite
  - Probable
  - Possible

FIG. 8

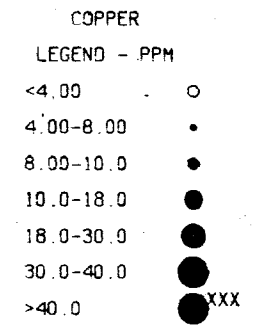
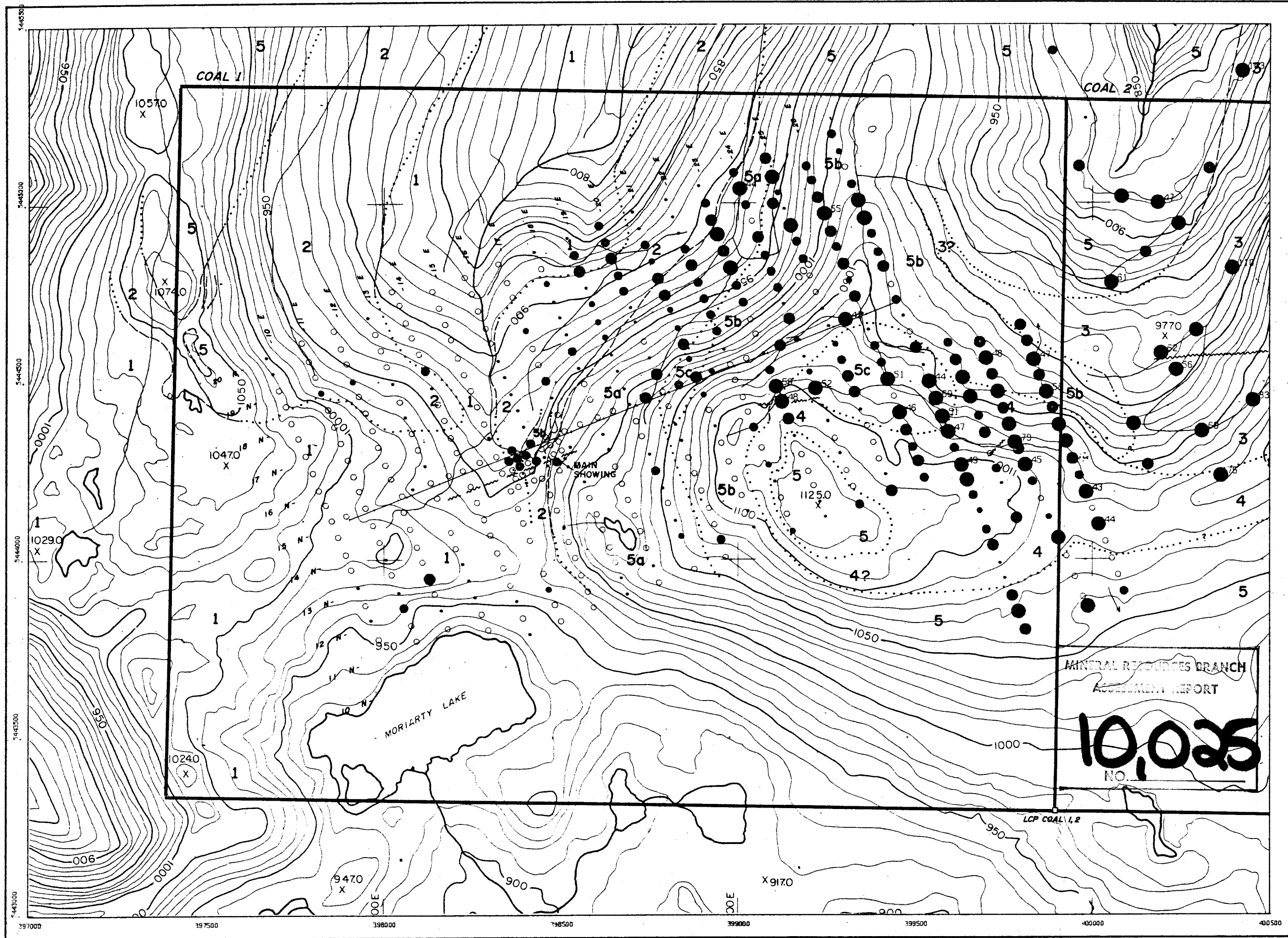
**B. P. MINERALS LIMITED**  
MORIARTY LAKE GRID, PARKSVILLE, B.C.

**INDUCED POLARIZATION SURVEY**  
PSEUDO SECTIONS OF APPARENT CHARGEABILITY  
(milliseconds)  
 $a = 50$  metres  
SCALE 1:2500

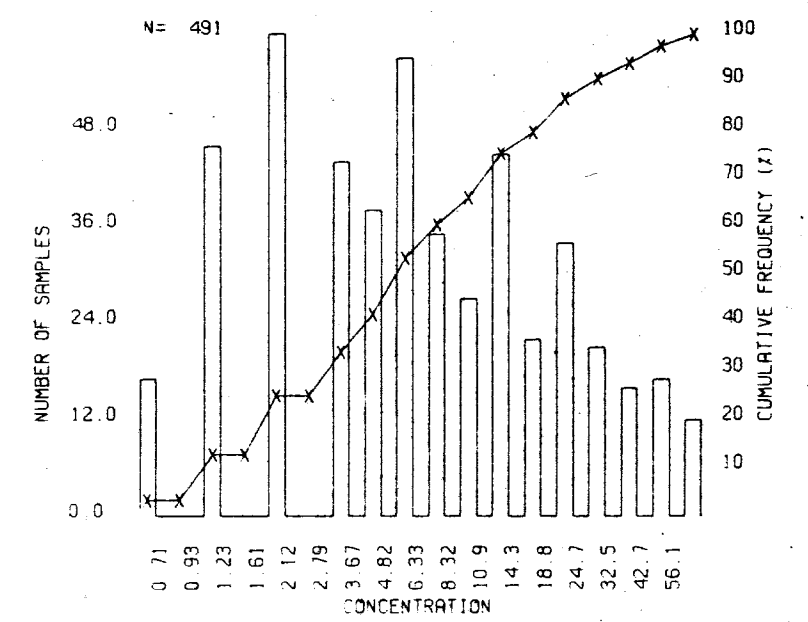
METRES 50 100 200 400 METRES

MAP No. W-304-1

PETER E. WALCOTT & ASSOC. LTD.  
AUGUST - SEPTEMBER 1981

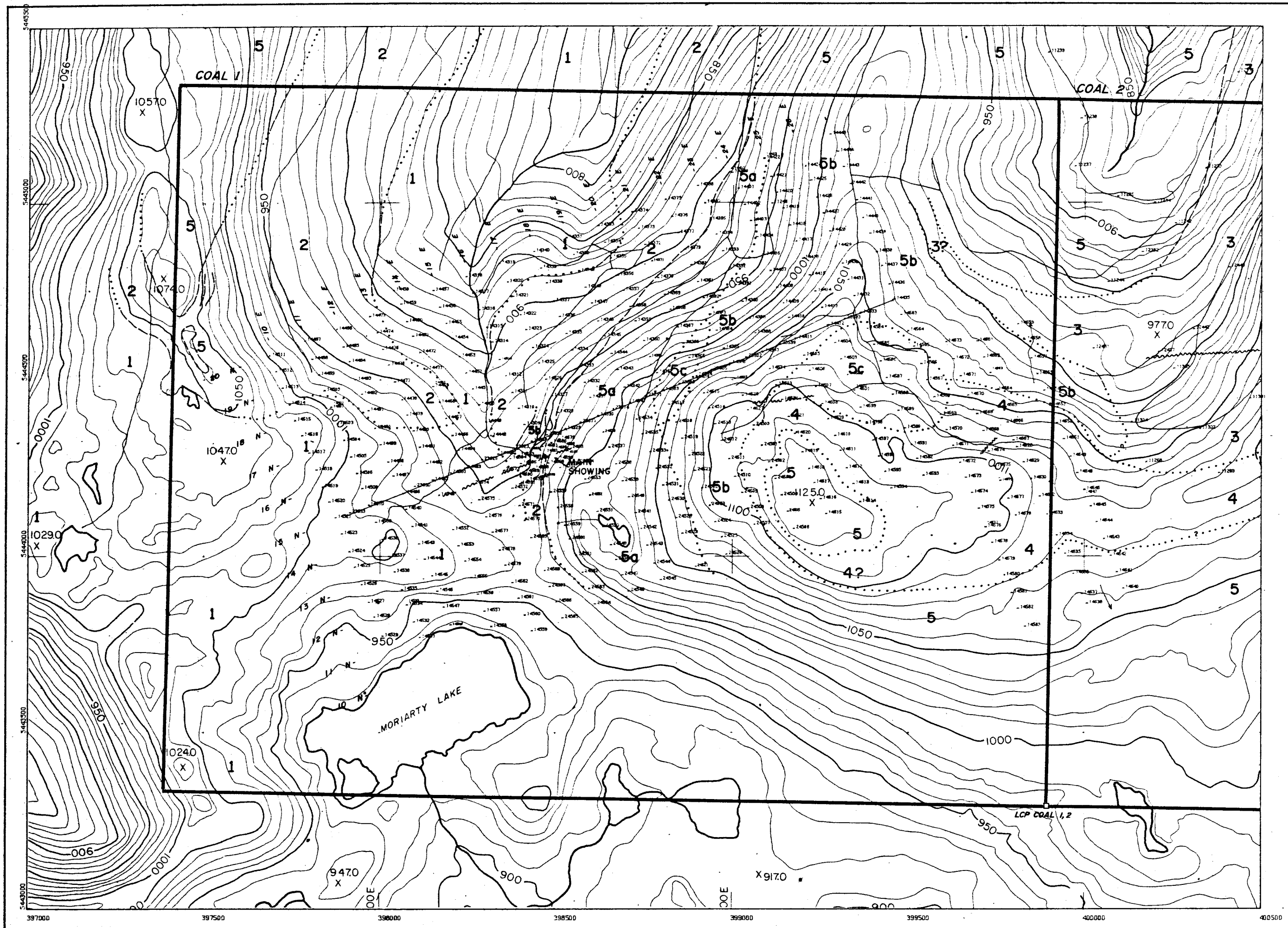


- LEGEND**
- TERTIARY**
- 5 PORPHYRITIC DACITE
  - 4 EXTENSION-PROTECTION FM. - MUDSTONE, SILTSTONE, SANDSTONE
  - 3 HASLAM FORMATION - BLACK SHALE, SILTSTONE
  - 2 COMOX FORMATION - SANDSTONE
- Unconformity
- 1 GRANODIORITE
- Contacts; defined, approximate, assumed
- Fault



MINERAL RESOURCES BRANCH  
ASSESSMENT REPORT  
**10,025**  
NO.

<b>BP Minerals Limited</b>		
COAL CLAIMS		
MORIARTY LAKE, VANCOUVER ISLAND, BC		
COPPER (PPM) IN SOIL SAMPLES		
DWG. NO. 526-81-4	DATE AUGUST 1981	PROJECT 526
REPORT NO. BPVR81-9	NTS 92F/1W	SCALE 1 CM=100 METRES
TO ACCOMPANY REPORT:		<b>FIG. 4B</b>



ALL SAMPLE NUMBERS ARE PREFIXED BY 6-

**LEGEND**

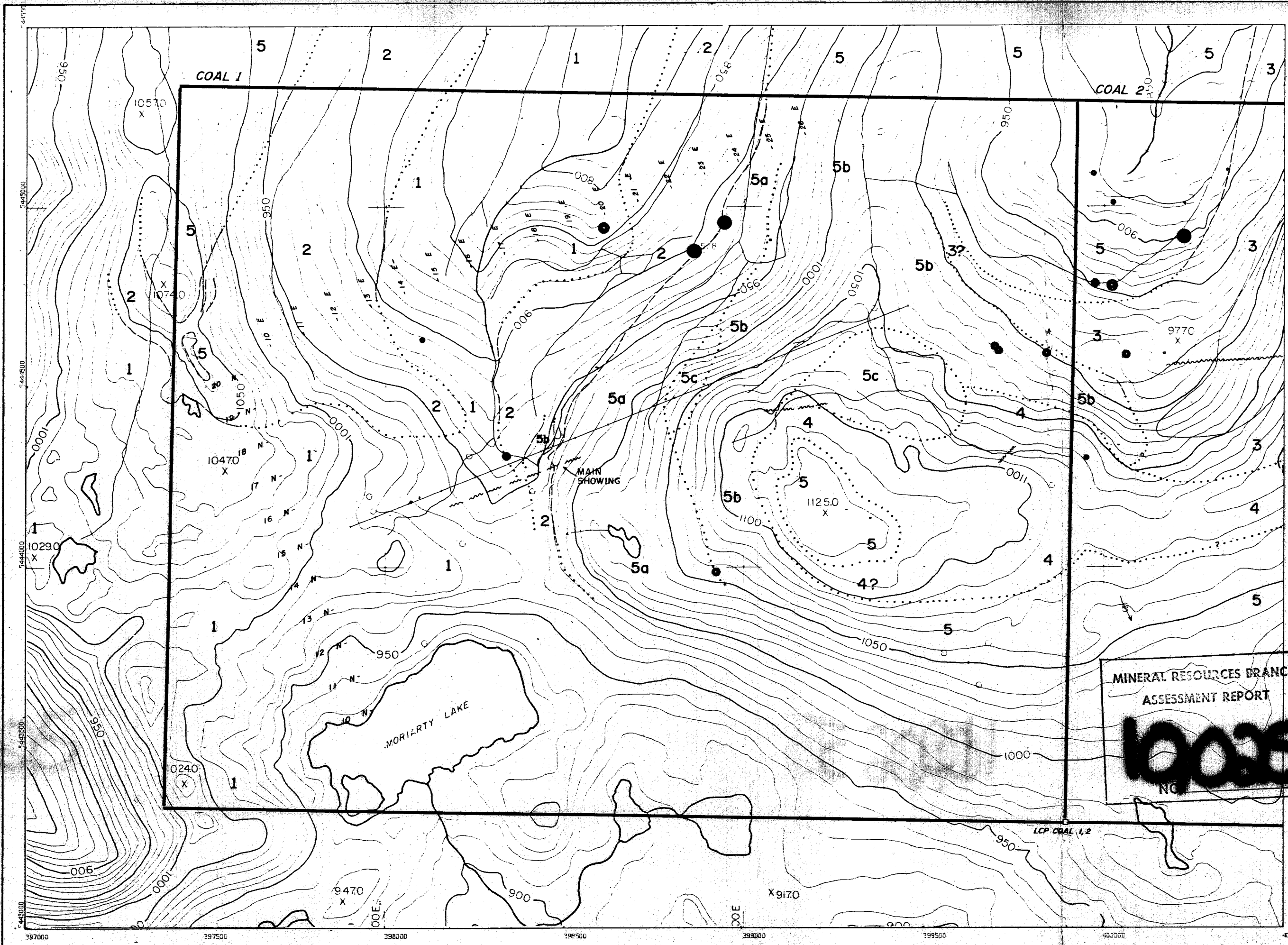
- TERTIARY**
- 5 PORPHYRITIC DACITE
- NANAIMO GROUP**
- 4 EXTENSION-PROTECTION FM. - MUDSTONE, SILTSTONE, SANDSTONE
  - 3 HASLAM FORMATION - BLACK SHALE, SILTSTONE
  - 2 COMOX FORMATION - SANDSTONE
- Unconformity
- 1 GRANODIORITE

Contacts; defined, approximate, assumed  
 Fault



MINERAL RESOURCES BRANCH  
 ASSESSMENT REPORT  
**19025**  
 NO.

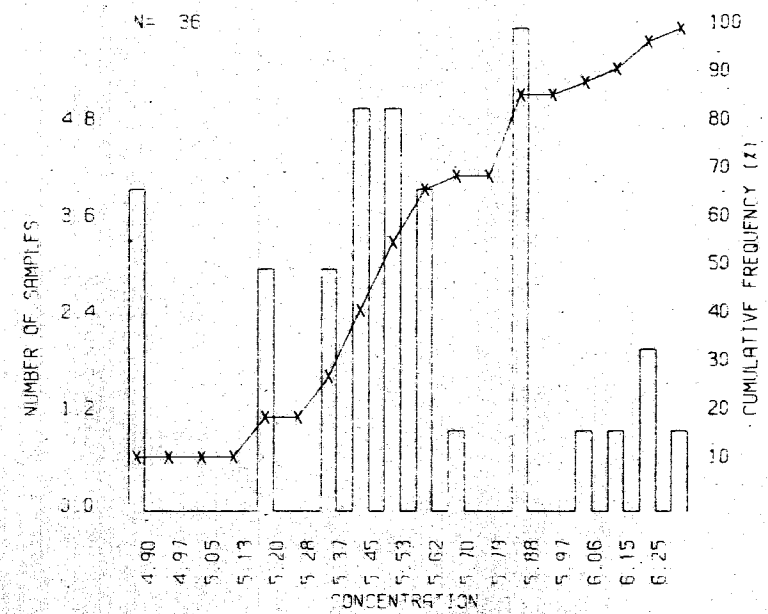
BP Minerals Limited		
COAL CLAIMS		
MORIARTY LAKE, VANCOUVER ISLAND, BC		
SOIL SAMPLE LOCATIONS		
DWS NO 526-81-4	DATE AUGUST 1981	PROJECT 526
REPORT NO BPVR81-9	NTS 92F/1W	SCALE 1 CM=100METRES
TO ACCOMPANY REPORT		FIG. <b>4A</b>



- LEGEND**
- TERTIARY**
- 5 PORPHYRITIC DACITE
- NANAIMO GROUP**
- 4 EXTENSION-PROTECTION FM. - MUDSTONE, SILTSTONE, SANDSTONE
  - 3 HASLAM FORMATION - BLACK SHALE, SILTSTONE
  - 2 COMOX FORMATION - SANDSTONE
- Unconformity
- 1 GRANODIORITE

Contacts; defined, approximate, assumed

Fault

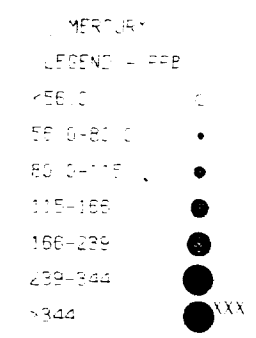
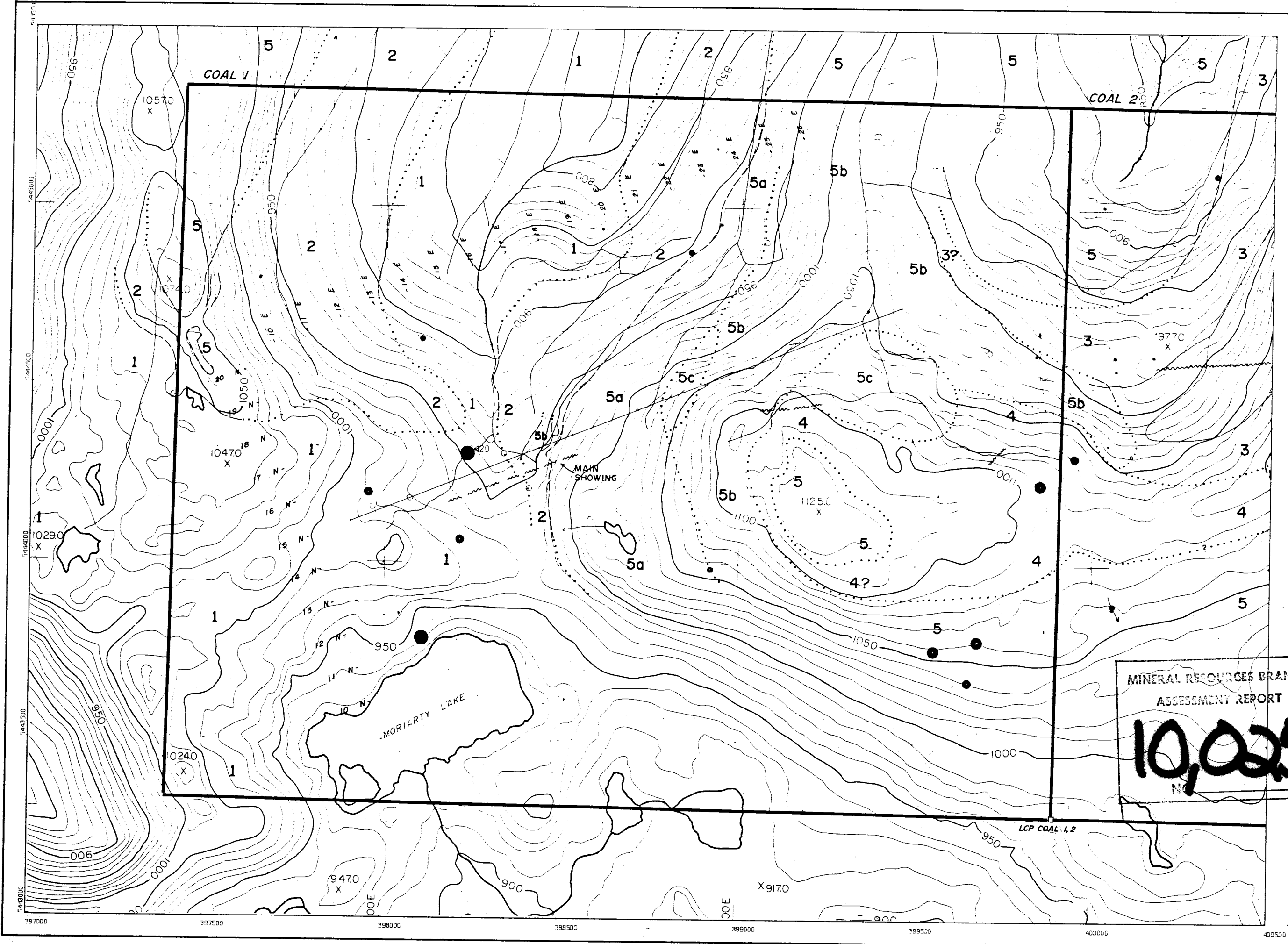


MINERAL RESOURCES BRANCH  
ASSESSMENT REPORT  
**10025**  
NO

**BP Minerals Limited**

COAL CLAIMS  
MORIARTY LAKE, VANCOUVER ISLAND, BC  
24 (24 UNITS) OF STREAM SEDIMENT SAMPLES

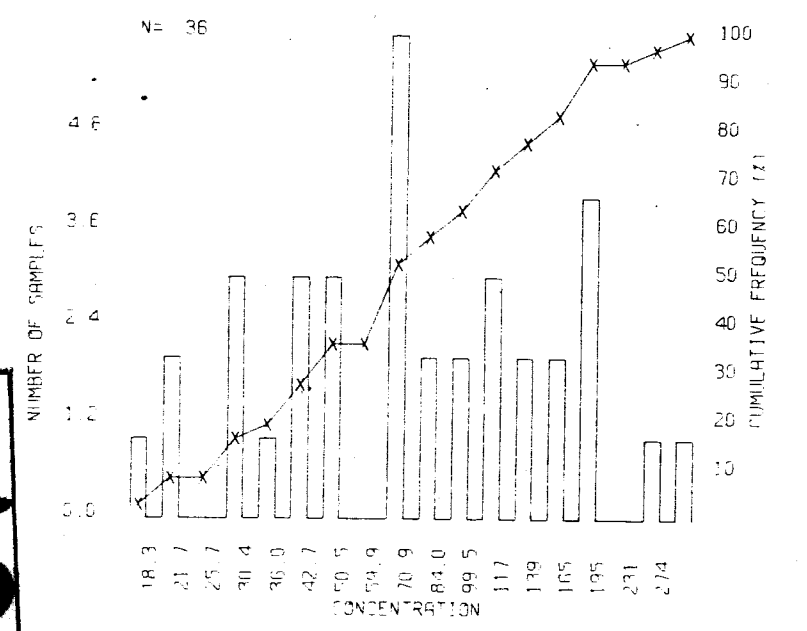
DWG NO 526-81-4	DATE AUGUST 1981	PROJECT S26	FIG. 31
REPORT NO BPVR81-9	NTS 92% 1/4" SCALE: 1 CM = 100 METRES		
TO ACCOMPANY REPORT			



- LEGEND**
- TERTIARY**
- 5 PORPHYRITIC DACITE
- NANAIMO GROUP**
- 4 EXTENSION-PROTECTION FM. - MUDSTONE, SILTSTONE, SANDSTONE
  - 3 HASLAM FORMATION - BLACK SHALE, SILTSTONE
  - 2 COMOX FORMATION - SANDSTONE
- Unconformity
- 1 GRANODIORITE

Contacts; defined, approximate, assumed

Fault

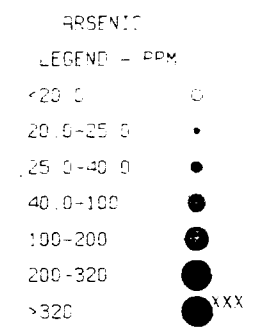
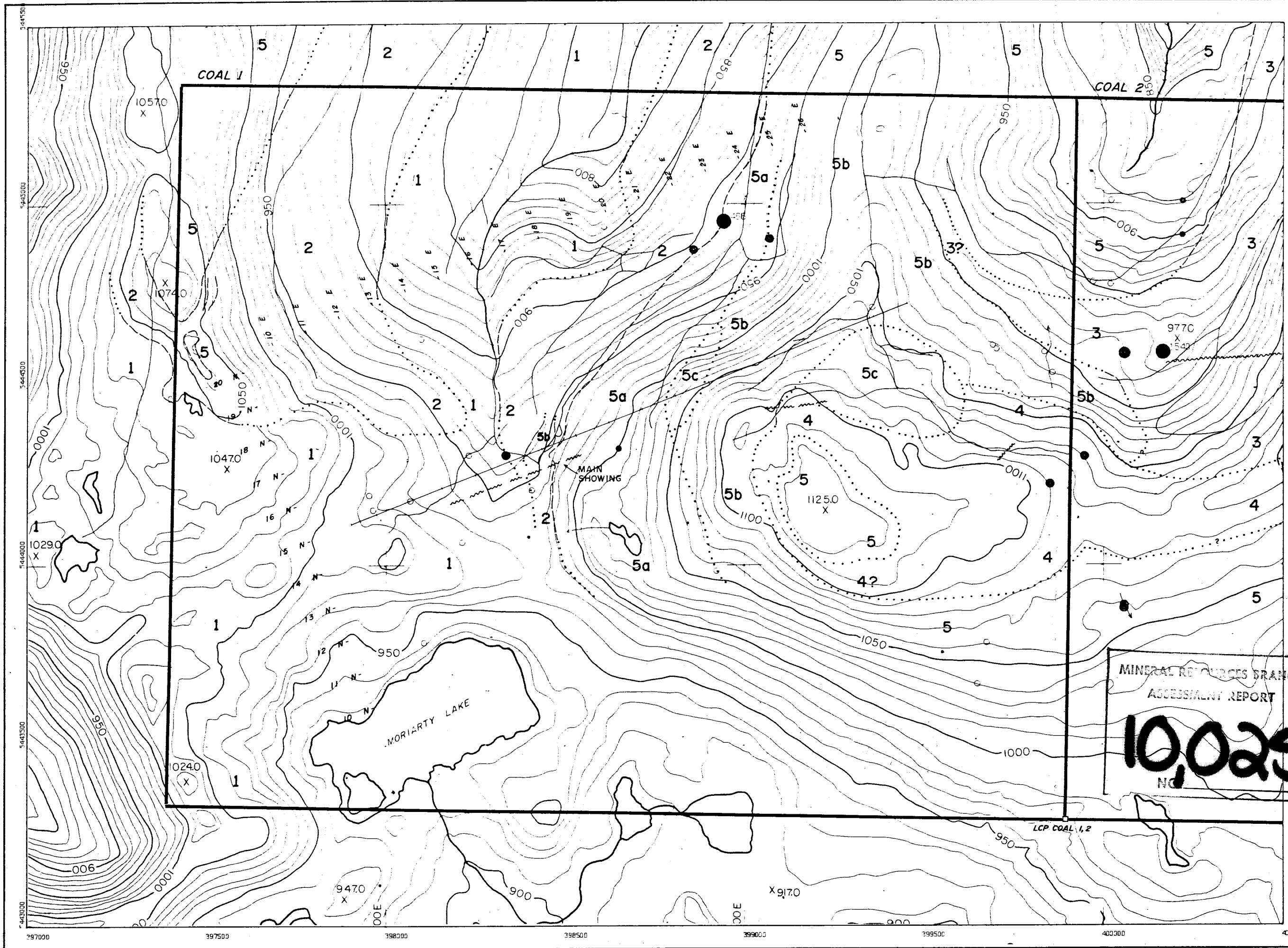


MINERAL RESOURCES BRANCH  
ASSESSMENT REPORT

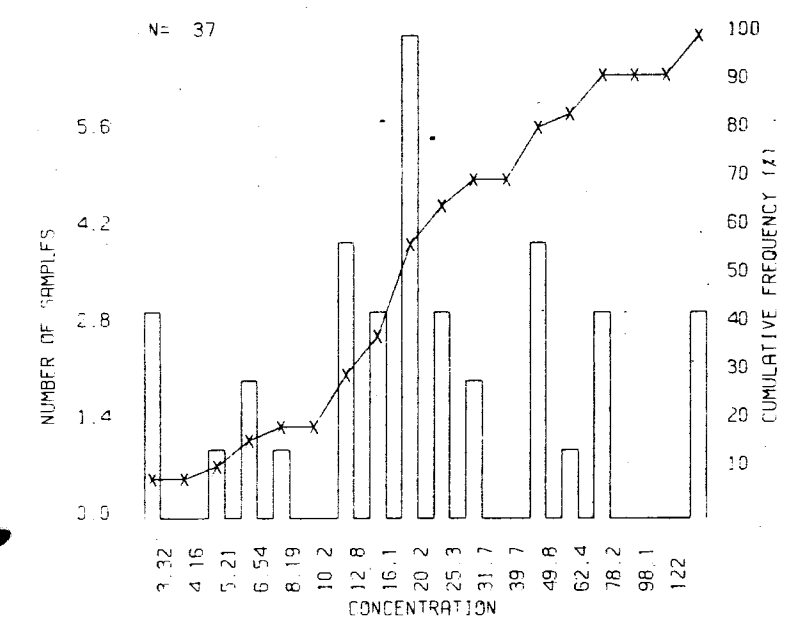
**10,025**

BP Minerals Limited		
COAL CLAIMS		
MORIARTY LAKE, VANCOUVER ISLAND, BC		
MERCURY (PPB) IN STREAM SEDIMENT SAMPLES		
DWG NO 526-81-4	DATE AUGUST 1981	PROJECT 526
REPORT NO BPVR81-9	NTS 92% IN SCALE 1 CM=100 METRES	FIG. 3G
TO ACCOMPANY REPORT		



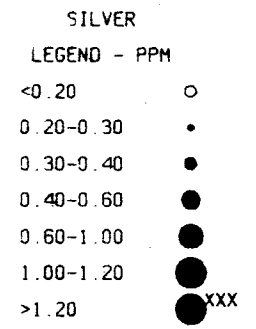
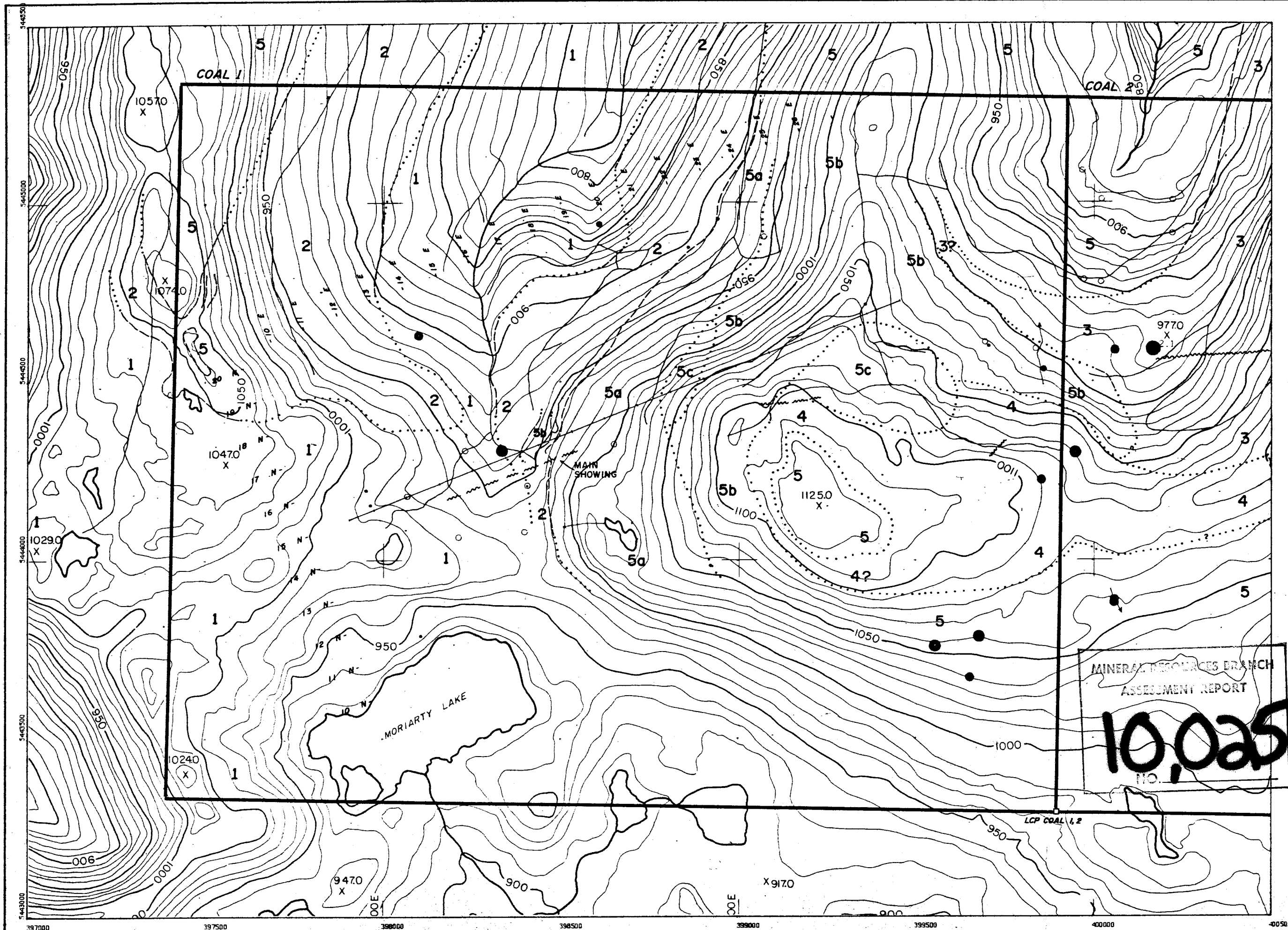


- LEGEND**
- TERTIARY**
- 5 PORPHYRITIC DACITE
- NANAIMO GROUP**
- 4 EXTENSION-PROTECTION FM. - MUDSTONE, SILTSTONE, SANDSTONE
  - 3 HASLAM FORMATION - BLACK SHALE, SILTSTONE
  - 2 COMOX FORMATION - SANDSTONE
- Unconformity
  - 1 GRANODIORITE
- Contacts; defined, approximate, assumed
  - Fault

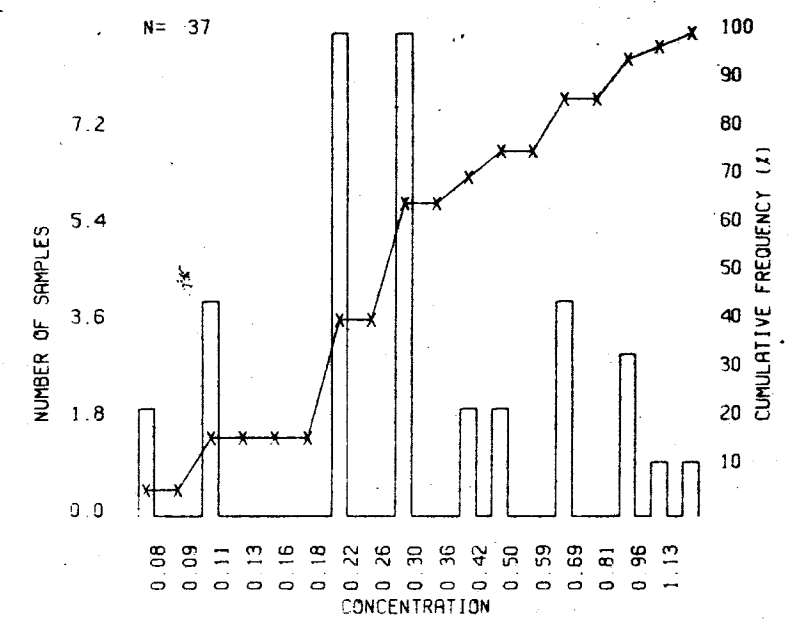
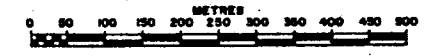


MINERAL RESOURCES BRANCH  
ASSESSMENT REPORT  
**10,025**  
NO.

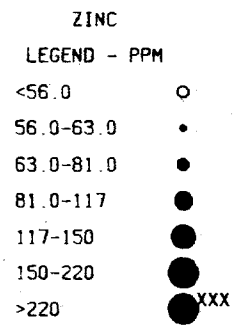
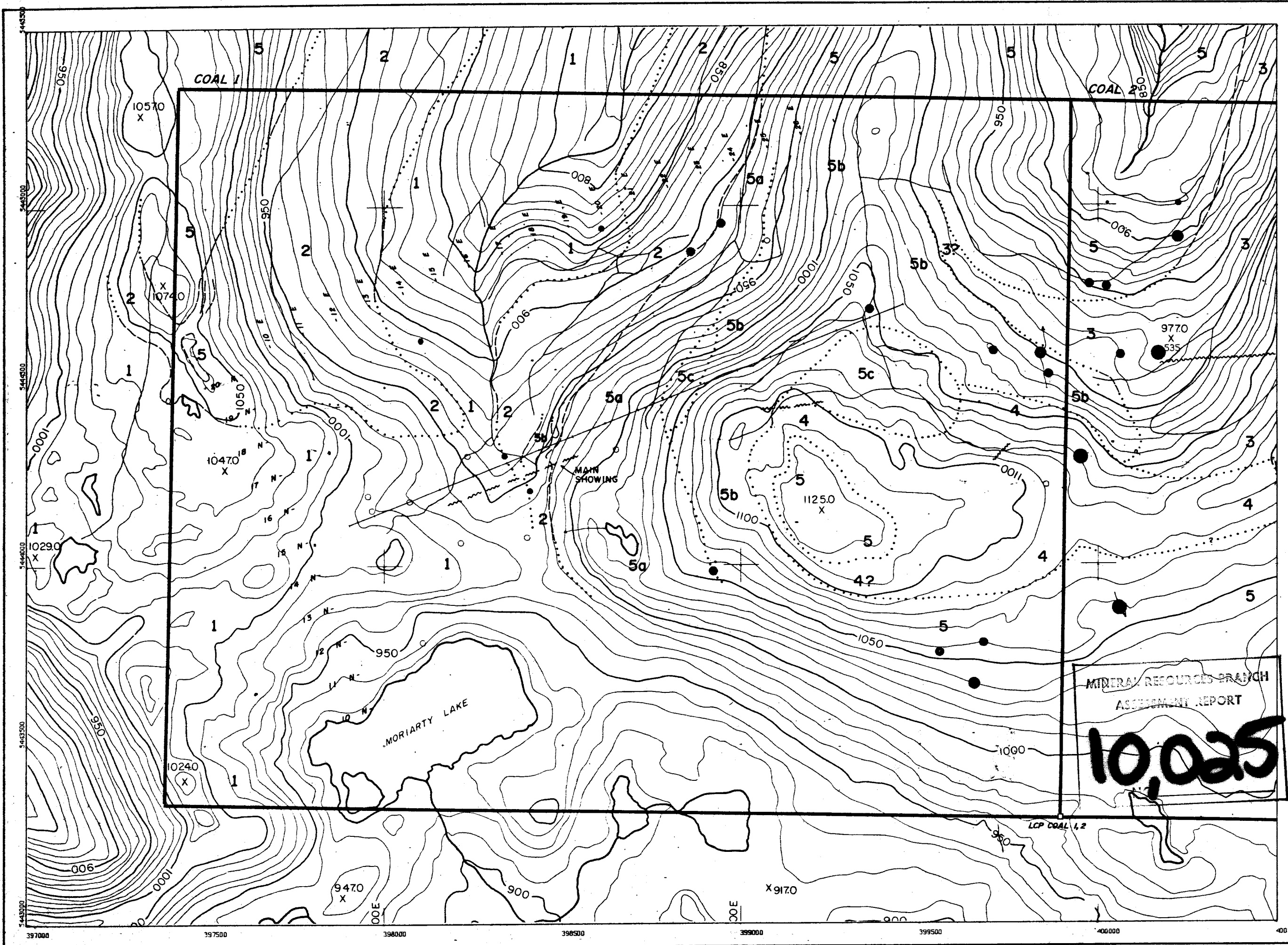
<b>BP Minerals Limited</b>		
COAL CLAIMS		
MORIARTY LAKE, VANCOUVER ISLAND, BC		
ARSENIC (PPM) IN SILT SAMPLES		
DWG NO 526-81-4	DATE AUGUST 1981	PROJECT 526
REPORT NO BPVR81-9	NTS 92F/1W	SCALE 1 CM = 100 METRES
TO ACCOMPANY REPORT		FIG <b>3F</b>



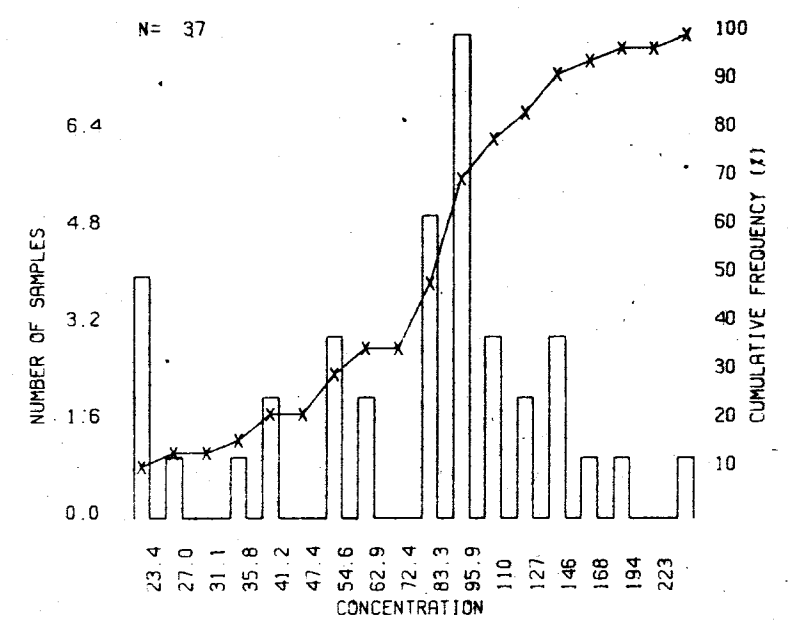
- LEGEND**
- TERTIARY**
- 5 PORPHYRITIC DACITE
- NANAIMO GROUP**
- 4 EXTENSION - PROTECTION FM. - MUDSTONE, SILTSTONE, SANDSTONE
  - 3 HASLAM FORMATION - BLACK SHALE, SILTSTONE
  - 2 COMOX FORMATION - SANDSTONE
- Unconformity
  - 1 GRANODIORITE
- Contacts; defined, approximate, assumed
  - Fault



<b>BP Minerals Limited</b>		
COAL CLAIMS		
MORIARTY LAKE, VANCOUVER ISLAND, BC		
SILVER (PPM) IN SILT SAMPLES		
DWG. NO. 526-81-4	DATE AUGUST 1981	PROJECT 526
REPORT NO. BPVR 81-9	NTS 92F/1W	SCALE 1 CM=100METRES
TO ACCOMPANY REPORT:		<b>FIG. 3E</b>



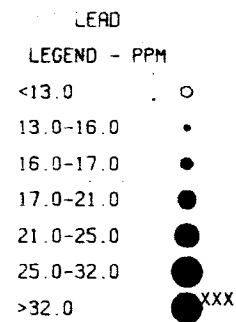
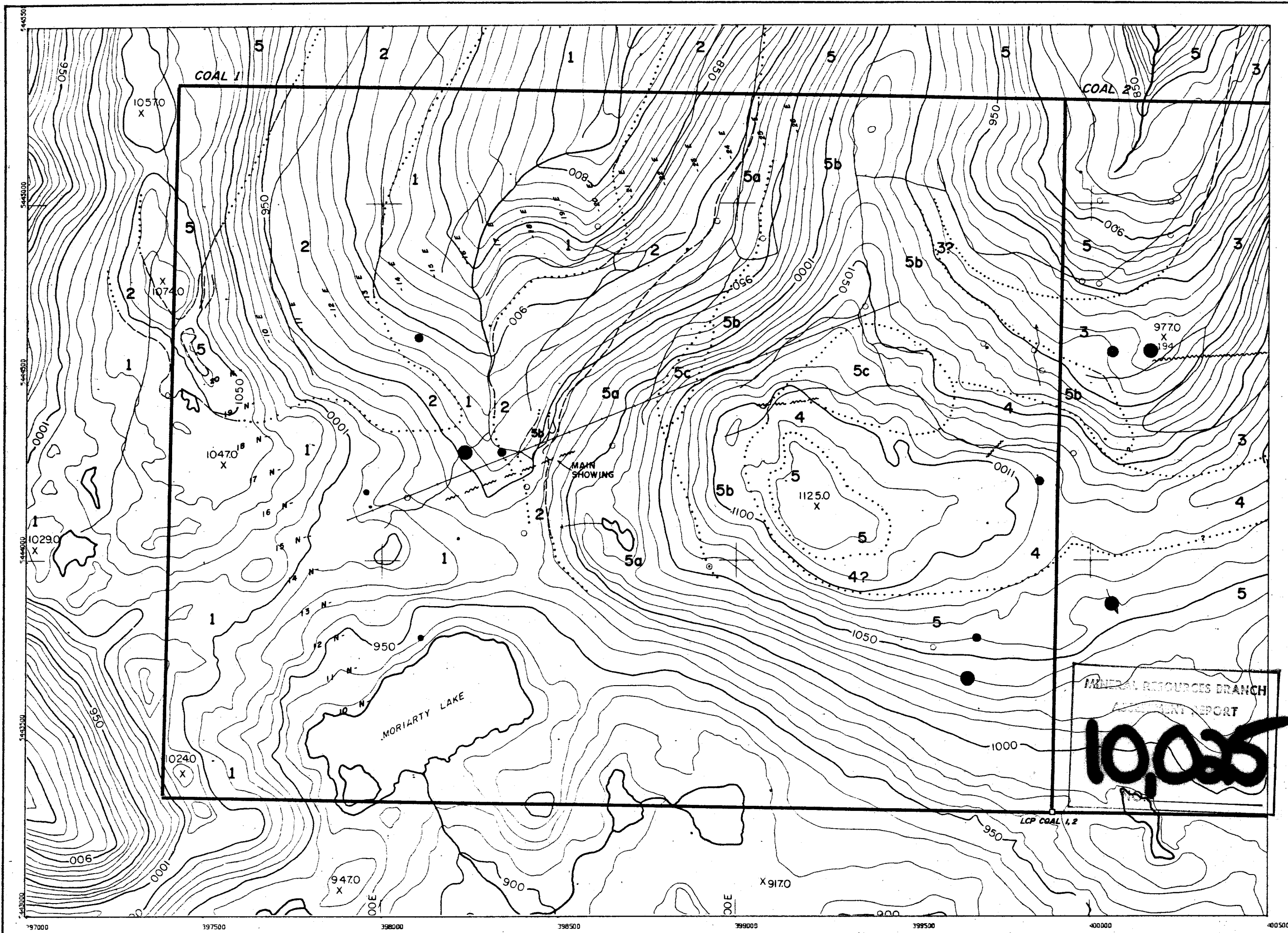
- LEGEND**
- TERTIARY**
- 5 PORPHYRITIC DACITE
- NANAIMO GROUP**
- 4 EXTENSION-PROTECTION FM. - MUDSTONE, SILTSTONE, SANDSTONE
  - 3 HASLAM FORMATION - BLACK SHALE, SILTSTONE
  - 2 COMOX FORMATION - SANDSTONE
- Unconformity
  - 1 GRANODIORITE
- Contacts; defined, approximate, assumed
- Fault



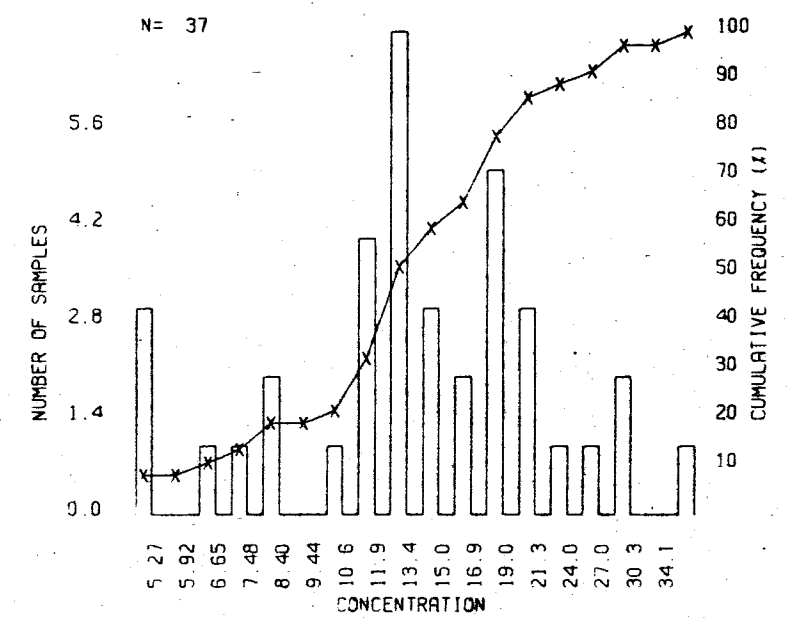
MINERAL RESOURCES BRANCH  
ASSESSMENT REPORT

**10,025**

<b>BP Minerals Limited</b>		
COAL CLAIMS		
MORIARTY LAKE, VANCOUVER ISLAND, BC		
ZINC (PPM) IN SILT SAMPLES		
DWS NO. 526-81-4	DATE AUGUST 1981	PROJECT 526
REPORT NO. BPVR81-9	NTS 92E/1W	SCALE 1 CM:100METRES
TO ACCOMPANY REPORT:		FIG. 3D



- LEGEND**
- TERTIARY**
- 5 PORPHYRITIC DACITE
- NANAIMO GROUP**
- 4 EXTENSION-PROTECTION FM. - MUDSTONE, SILTSTONE, SANDSTONE
  - 3 HASLAM FORMATION - BLACK SHALE, SILTSTONE
  - 2 COMOX FORMATION - SANDSTONE
- Unconformity
  - 1 GRANODIORITE
- Contacts: defined, approximate, assumed
- Fault

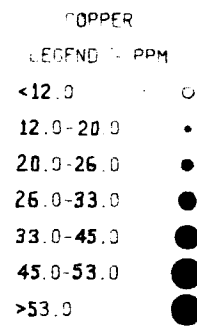
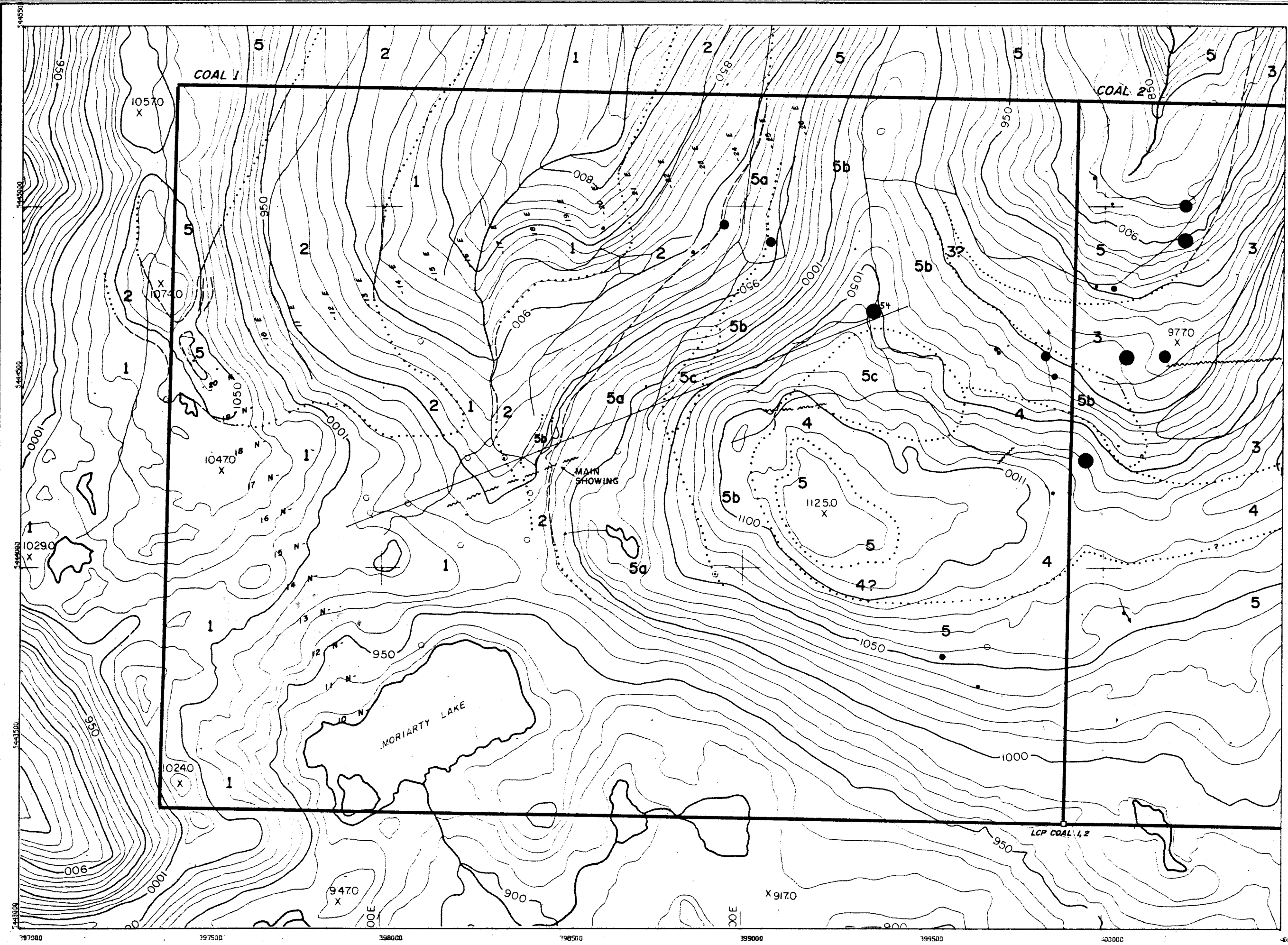


MINERAL RESOURCES BRANCH  
ASSESSMENT REPORT  
**10,035**

**BP Minerals Limited**

COAL CLAIMS  
MORIARTY LAKE, VANCOUVER ISLAND, BC  
LEAD (PPM) IN SILT SAMPLES

DWG NO. 526-81-4	DATE AUGUST 1981	PROJECT 526	FIG. 3C
REPORT NO. BPVR81-9	NTS 92F/1W SCALE 1 CM=100METRES		
TO ACCOMPANY REPORT:			



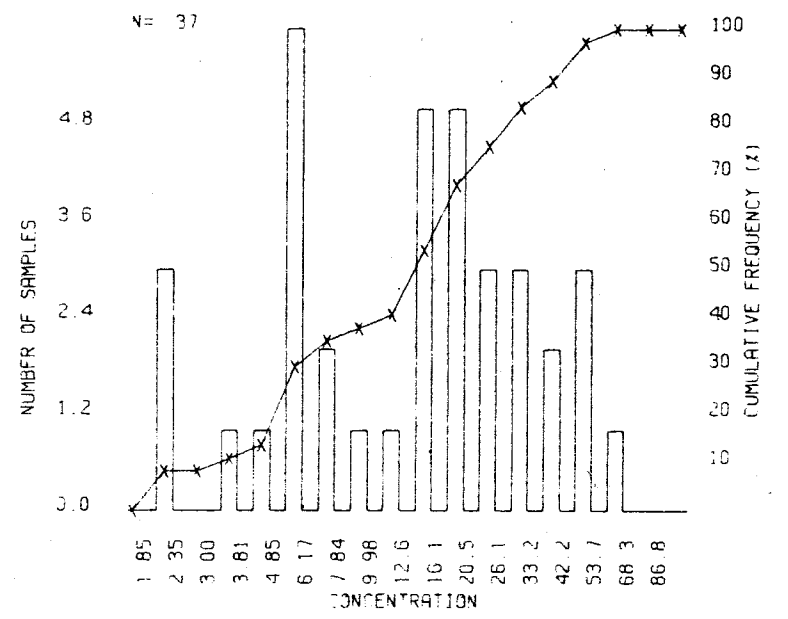
19025

NO.

- LEGEND**
- TERTIARY**
- 5** PORPHYRITIC DACITE
- NANAIMO GROUP**
- 4** EXTENSION - PROTECTION FM. - MUDSTONE, SILTSTONE, SANDSTONE
  - 3** HASLAM FORMATION - BLACK SHALE, SILTSTONE
  - 2** COMOX FORMATION - SANDSTONE
- Unconformity
- 1** GRANODIORITE

Contacts; defined, approximate, assumed

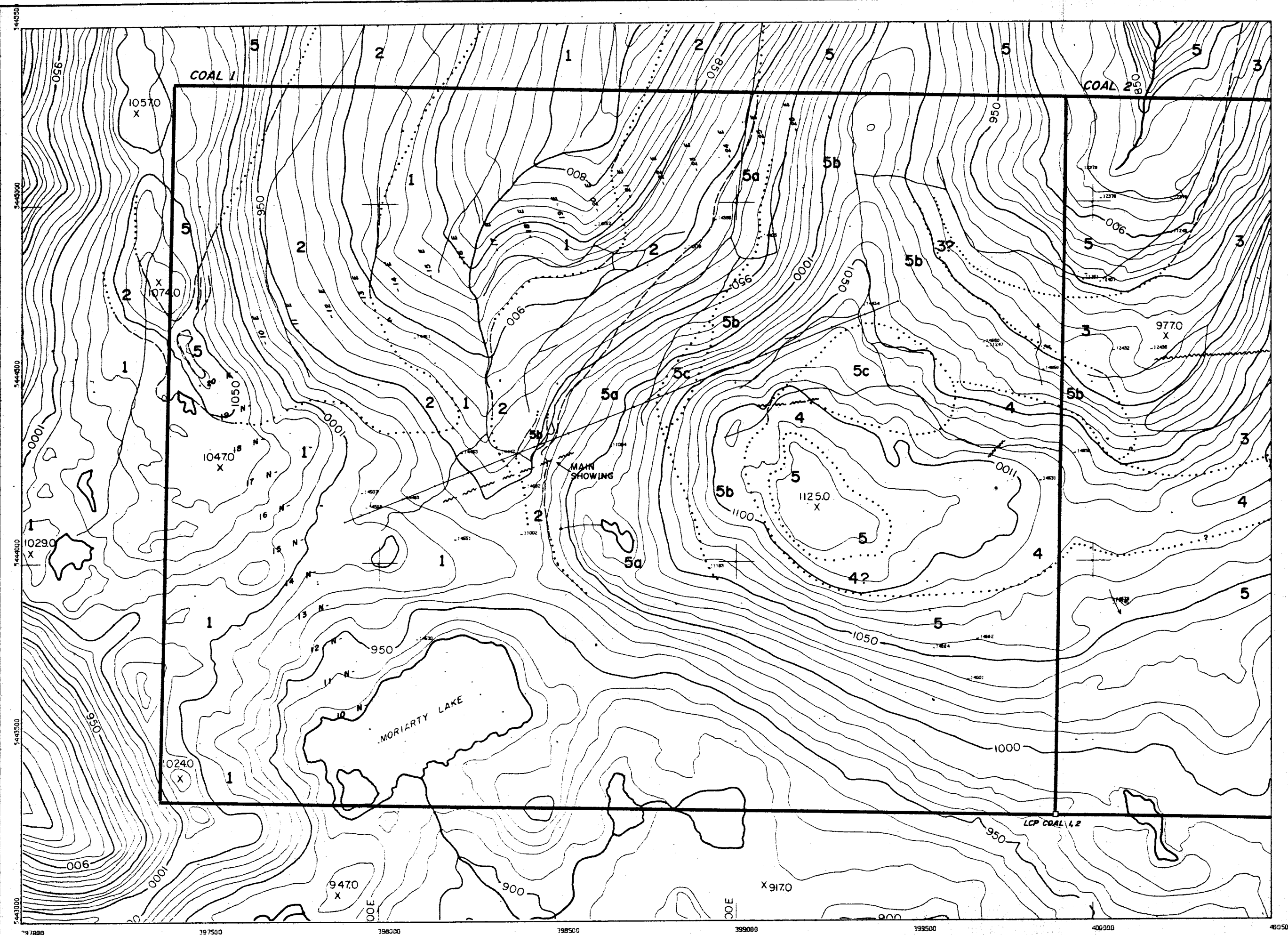
Fault



**BP Minerals Limited**

COAL CLAIMS  
MORIARTY LAKE, VANCOUVER ISLAND, BC  
COPPER (PPM) IN SILT SAMPLES

DWG NO. 526-81-4	DATE AUGUST 1981	PROJECT 526	FIG. 3B
REPORT NO. BPVR81-9	NIS 92F/1W SCALE 1 CM=100METRES		
TO ACCOMPANY REPORT:			



ALL SAMPLE NUMBERS ARE PREFIXED BY 6-

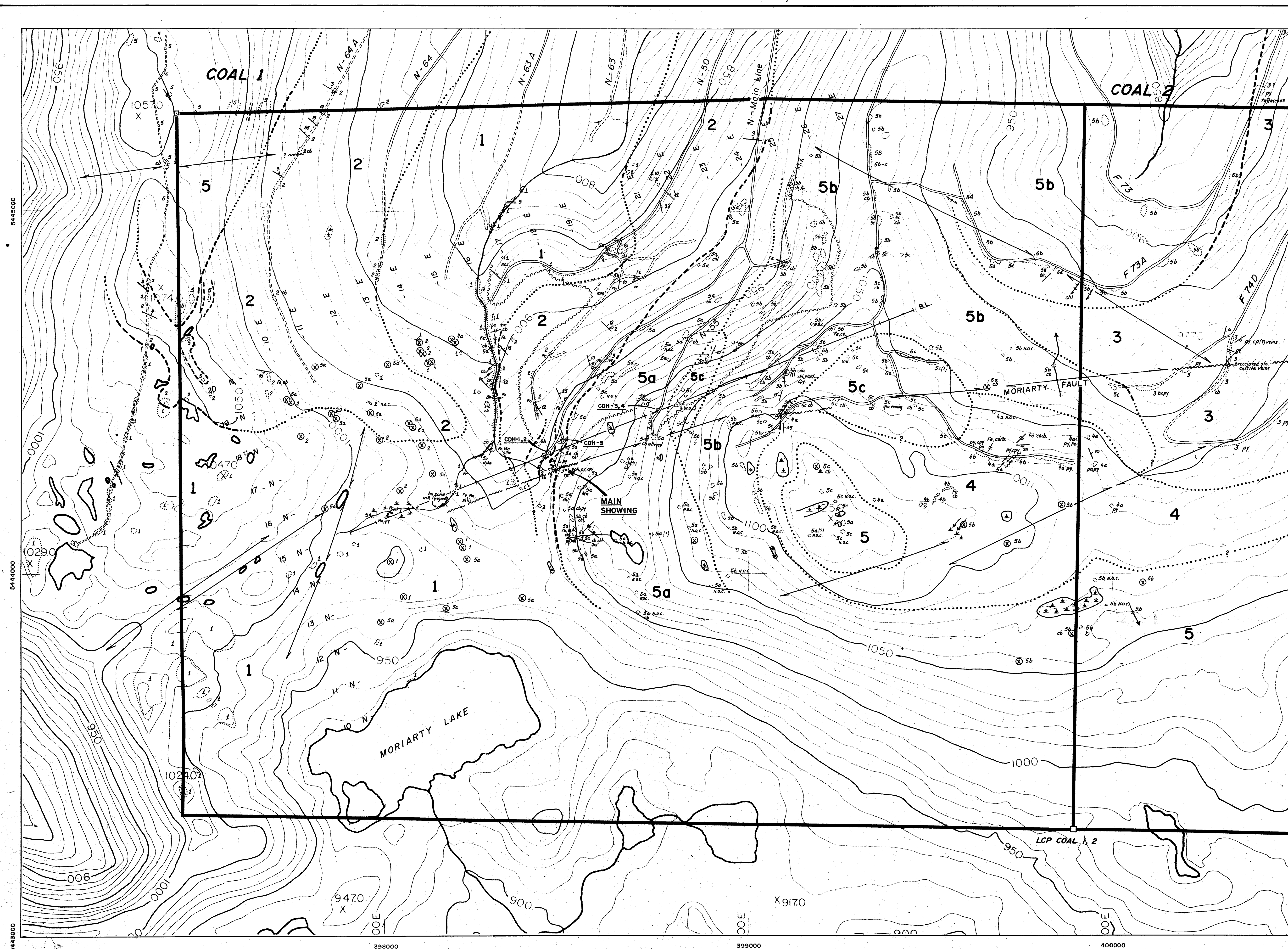
**LEGEND**

- TERTIARY**
- 5** PORPHYRITIC DACITE
- NANAIMO GROUP**
- 4** EXTENSION-PROTECTION FM. - MUDSTONE, SILTSTONE, SANDSTONE
  - 3** HASLAM FORMATION - BLACK SHALE, SILTSTONE
  - 2** COMOX FORMATION - SANDSTONE
- ~ Unconformity
  - 1 GRANODIORITE
- /// Contacts; defined, approximate, assumed
- Fault



MINERAL RESOURCES BRANCH  
ASSESSMENT REPORT  
**19025**

<b>COAL CLAIMS</b> MORIARTY LAKE, VANCOUVER ISLAND, BC STREAM SEDIMENT SAMPLE LOCATIONS		
DWG NO. 526-81-4	DATE AUGUST 1981 PROJECT 526	<b>FIG. 3A</b>
REPORT NO. BPVR81-9	NTS 92F/1W SCALE 1 CM=100METRES	
<small>TO ACCOMPANY REPORT</small>		



### LEGEND

#### TERTIARY INTRUSIONS

- 5 Undifferentiated dacite, quartz diorite
- 5(a) Feldspar - hornblende porphyry
- 5(b) 'Quartz-rich' feldspar porphyry
- 5(c) Equigranular to weakly porphyritic dacite
- 5(d) Feldspar porphyry; dark matrix

#### UPPER CRETACEOUS

##### NANAIMO GROUP

- 4 EAST WELLINGTON FORMATION
  - 4(a) Mudstone, siltstone
  - 4(b) Pebbly sandstone, conglomerate
- 3 HASLAM FORMATION - Mudstone, siltstone, fine sandstone
- 2 COMOX FORMATION - Immature sandstone, carbonaceous wacke

#### MIDDLE JURASSIC

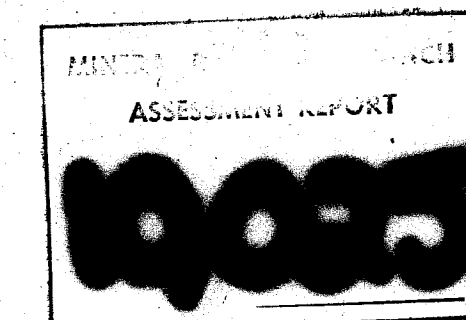
- 1 ISLAND INTRUSIONS - Biotite-hornblende granodiorite

#### GEOLOGICAL SYMBOLS

- |       |                             |       |   |
|-------|-----------------------------|-------|---|
| / /   | BEDDING; inclined, vertical | / /   | DYKES with orientation                  |
| - - - | SHEARS; inclined vertical   | ○     | OUTCROP                                 |
| - - - | FAULTS                      | - - - | AIR PHOTO LINEAR                        |
| - - - | VEINS; inclined, vertical   | - - - | CONTACTS; Defined, approximate, assumed |
| - - - | JOINTS; inclined, vertical  | ⊗     | LARGE BOULDER                           |

#### ABBREVIATIONS

- |       |            |       |              |        |              |
|-------|------------|-------|--------------|--------|--------------|
| cb    | Carbonate  | epy   | Chalcopyrite | qtz    | Quartz       |
| bx    | Breccia    | Mn    | Manganese    | N.O.C. | Near outcrop |
| seric | Sericite   | Fe    | Iron stained | sph    | Sphalerite   |
| py    | Pyrite     | chl   | Chlorite     | gal    | Galena       |
| po    | Pyrrhotite | silic | Silicified   |        |              |

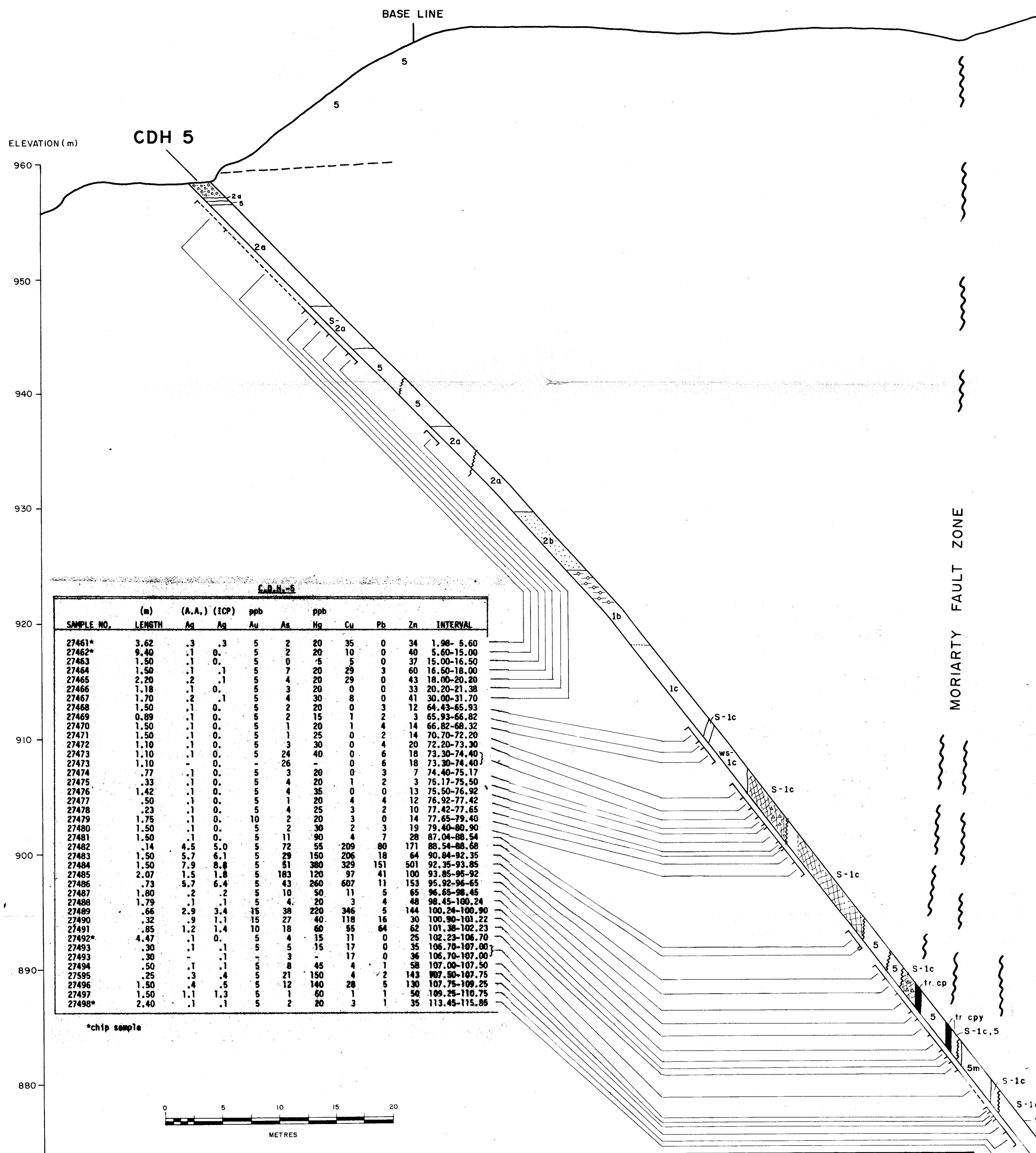


**BP Minerals Limited**

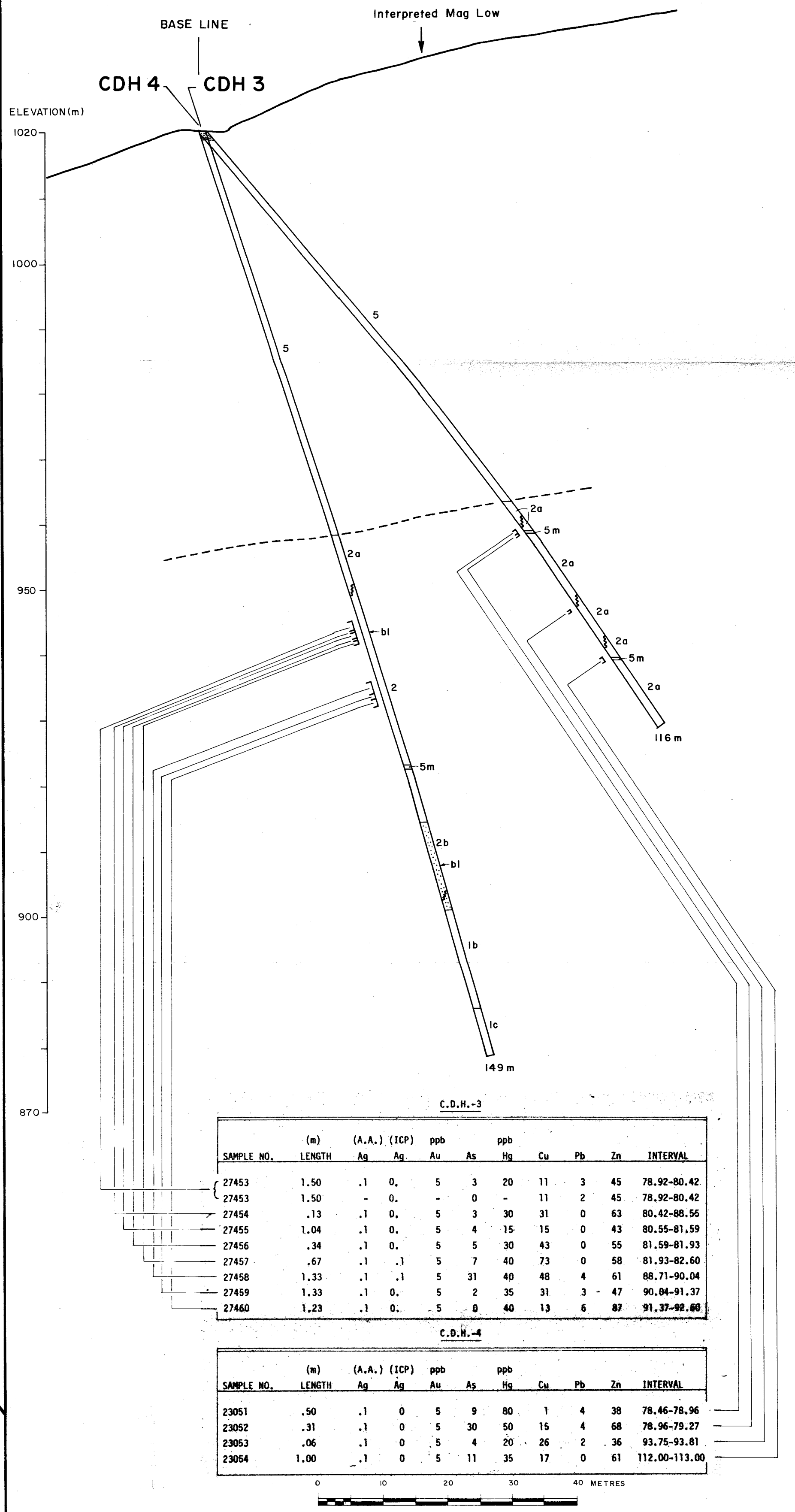
**COAL CLAIMS  
MORIARTY LAKE, VANCOUVER ISLAND, B.C.  
GEOLOGY**

SCALE 1:5,000	NTS 92 F/1	FIG. 2
526-81-5	DATE SEPT. 1981	
To accompany report: BPR 81-9		PROJ. 526

**SECTION 16+72 E**



**SECTION 19+44 E**



C.D.H.-5

SAMPLE NO.	LENGTH (m)	(A.A.) (ICP)	ppb	ppb	ppb	ppb	ppb	ppb	ppb	INTERVAL
		Ag	As	Au	As	Hg	Cu	Pb	Zn	
27461*	3.62	.3	.3	5	2	20	35	0	34	1.96-5.60
27462*	5.40	.1	0.	5	2	20	10	0	40	5.60-15.00
27463	1.50	.1	0.	5	0	5	5	0	37	15.00-16.50
27464	1.50	.1	.1	5	7	20	29	3	60	16.50-18.00
27465	2.20	.2	.1	5	4	20	29	0	43	18.00-20.20
27466	1.18	.1	0.	5	3	20	0	0	33	20.20-21.38
27467	1.70	.2	.1	5	3	20	0	0	41	20.00-21.70
27468	1.50	.1	0.	5	2	20	0	3	12	64.43-65.93
27469	0.89	.1	0.	5	2	15	1	2	3	65.93-66.82
27470	1.50	.1	0.	5	1	20	1	4	14	66.82-68.32
27471	1.50	.1	0.	5	1	25	0	2	14	70.70-72.20
27472	1.10	.1	0.	5	3	30	0	4	20	72.20-73.30
27473	1.10	.1	0.	5	24	40	0	6	18	73.30-74.40
27474	.77	.1	0.	5	3	20	0	3	7	74.40-75.17
27475	.33	.1	0.	5	4	20	1	2	3	75.17-75.50
27476	1.42	.1	0.	5	4	35	0	0	13	75.50-76.92
27477	.50	.1	0.	5	1	20	4	4	12	76.92-77.42
27478	.23	.1	0.	5	4	25	3	2	10	77.42-77.65
27479	1.75	.1	0.	10	2	20	3	0	14	77.65-79.40
27480	1.50	.1	0.	5	2	30	2	3	19	79.40-80.90
27481	1.50	.1	0.	5	11	90	4	7	28	87.04-88.54
27482	1.14	4.5	5.0	5	72	55	209	80	171	86.54-88.68
27483	1.50	5.7	6.1	5	29	150	206	18	64	88.68-92.35
27484	1.50	7.9	8.8	5	51	380	323	151	501	92.35-93.85
27485	2.07	1.5	1.8	5	183	120	41	100	93.85-99.92	
27486	.73	5.7	6.4	5	43	260	607	11	153	95.92-98.65
27487	1.80	.2	.2	5	10	50	11	5	65	96.65-98.45
27488	1.79	.1	.1	5	4	20	1	4	45	98.45-100.24
27489	.66	2.9	3.4	15	38	220	346	5	144	100.24-100.90
27490	.32	.9	1.1	15	27	40	118	16	30	100.90-101.22
27491	.85	1.2	1.4	10	18	60	85	64	62	101.22-102.23
27492*	4.47	.1	0.	5	4	15	11	0	25	102.23-106.70
27493	.30	.1	.1	5	15	17	0	35	106.70-107.00	
27494	.50	.1	.1	5	8	45	4	1	58	107.00-107.50
27495	.25	.1	.4	5	21	150	4	143	107.50-107.75	
27496	1.50	.4	.5	5	12	140	28	5	130	107.75-109.25
27497	1.50	1.1	1.3	5	1	60	1	1	36	109.25-110.75
27498*	2.40	.1	.1	5	2	20	3	1	35	113.45-115.85

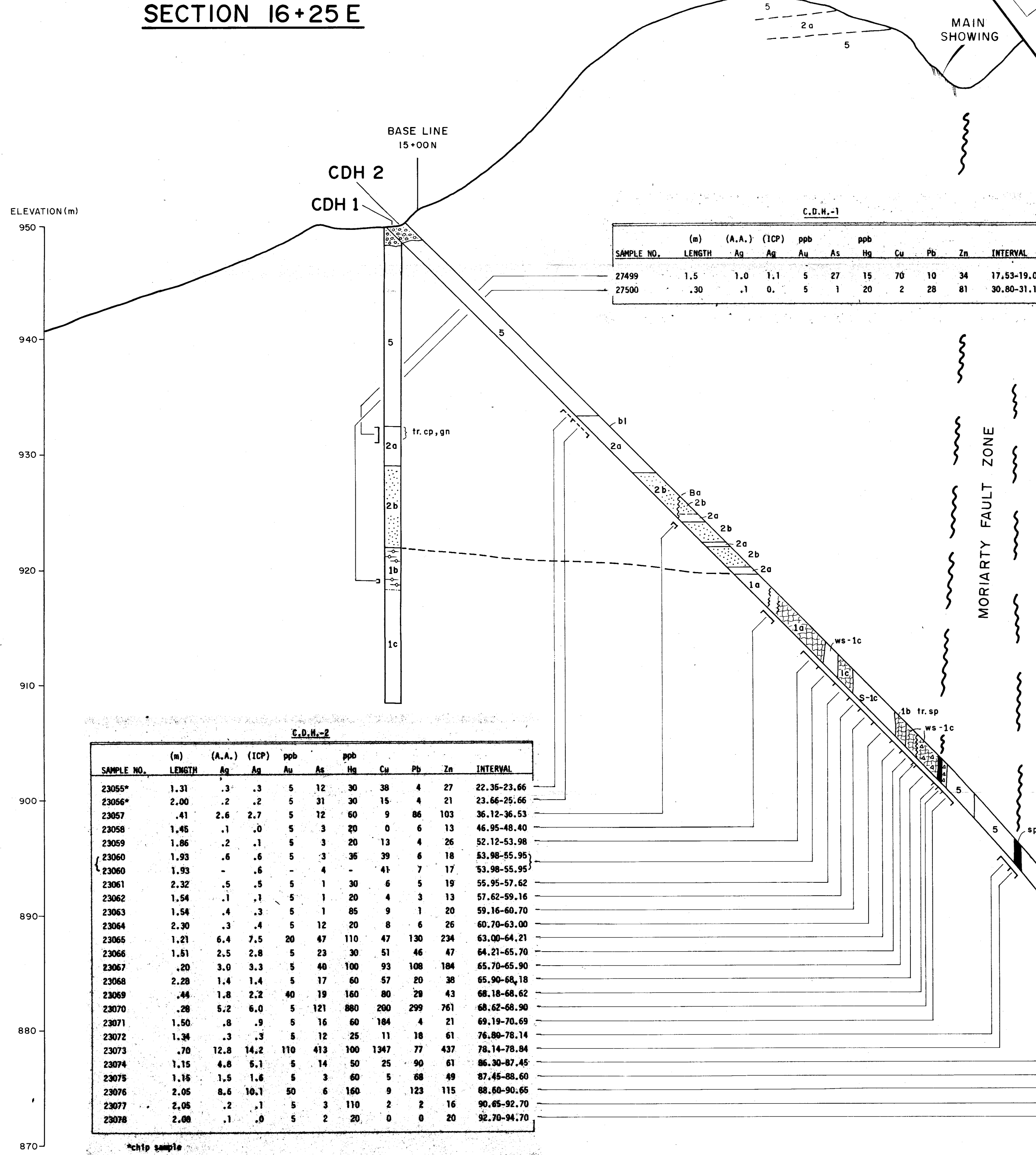
C.D.H.-3

SAMPLE NO.	LENGTH (m)	(A.A.) (ICP)	ppb	ppb	ppb	ppb	ppb	ppb	ppb	INTERVAL
		Ag	As	Au	As	Hg	Cu	Pb	Zn	
27453	1.50	.1	0.	5	3	20	11	3	45	78.92-80.42
27454	1.50	.1	0.	5	0	0	11	2	45	78.92-80.42
27454	.13	.1	0.	5	3	30	31	0	63	80.42-88.56
27455	1.04	.1	0.	5	4	15	15	0	43	80.55-81.59
27456	.34	.1	0.	5	5	30	43	0	55	81.59-81.93
27457	.67	.1	.1	5	7	40	73	0	58	81.93-82.60
27458	1.33	.1	.1	5	31	40	48	4	61	88.71-90.04
27459	1.33	.1	0.	5	2	35	31	3	47	90.04-91.37
27460	1.23	.1	0.	5	0	40	13	6	87	91.37-92.60

C.D.H.-4

SAMPLE NO.	LENGTH (m)	(A.A.) (ICP)	ppb	ppb	ppb	ppb	ppb	ppb	ppb	INTERVAL
		Ag	As	Au	As	Hg	Cu	Pb	Zn	
23051	.50	.1	0	5	9	80	1	4	38	78.46-78.96
23052	.31	.1	0	5	30	50	15	4	68	78.96-79.27
23053	.06	.1	0	5	4	20	26	2	36	93.75-93.81
23054	1.00	.1	0	5	11	35	17	0	61	112.00-113.00

**SECTION 16+25 E**



C.D.H.-1

SAMPLE NO.	LENGTH (m)	(A.A.) (ICP)	ppb	ppb	ppb	ppb	ppb	ppb	ppb	INTERVAL
		Ag	As	Au	As	Hg	Cu	Pb	Zn	
27499	1.5	1.0	1.1	5	27	15	70	10	34	17.53-19.03
27500	.30	.1	0.	5	1	20	2	28	81	30.80-31.10

C.D.H.-2

SAMPLE NO.	LENGTH (m)	(A.A.) (ICP)	ppb	ppb	ppb	ppb	ppb	ppb	ppb	INTERVAL
		Ag	As	Au	As	Hg	Cu	Pb	Zn	
23055*	1.31	.3	.3	5	12	30	38	4	27	22.35-23.66
23056*	2.00	.2	.2	5	31	30	15	4	21	23.66-25.66
23057	.41	2.6	2.7	5	12	40	9	06	103	36.12-36.53
23058	1.45	.1	0.	5	3	20	0	6	13	46.95-48.40
23059	1.86	.2	.1	5	3	20	13	4	26	52.12-53.98
23060	1.93	.6	.6	5	3	35	39	6	18	53.98-55.95
23060	1.93	.6	.6	5	4	41	7	17	17	53.98-55.95
23061	2.32	.5	.5	5	1	30	6	5	19	55.95-57.62
23062	1.54	.1	.1	5	1	20	4	3	13	57.62-59.16
23063	1.54	.4	.3	5	1	85	9	1	20	59.16-60.70
23064	2.30	.3	.4	5	12	20	8	6	26	60.70-63.00
23065	1.21	6.4	7.5	20	47	110	47	130	234	63.00-64.21
23066	1.51	2.5	2.8	5	23	30	51	46	47	64.21-65.70
23067	.20	3.0	3.3	5	48	100	93	108	184	65.70-65.90
23068	2.28	1.4	1.4	5	17	60	57	20	30	65.90-68.18
23069	.44	1.8	2.2	40	19	160	80	28	43	68.18-68.62
23070	.08	5.2	6.0	5	121	880	200	299	761	68.62-68.90
23071	1.50	.8	.9	5	16	60	184	4	21	69.19-70.69
23072	1.24	.3	.3	5	12	25	11	18	61	76.80-78.14
23073	.70	12.8	14.2	110	413	100	1347	77	437	78.14-78.84
23074	1.15	4.8	5.1	5	14	50	25	90	61	86.30-87.45
23075	1.16	1.5	1.6	5	3	60	5	68	49	87.45-88.60
23076	2.05	8.6	10.1	50	6	160	9	123	115	88.60-90.65
23077	2.05	.2	.1	5	3	110	2	2	16	90.65-92.70
23078	2.08	.1	.0	5	2	20	0	0	20	92.70-94.70

**LEGEND**

- TERTIARY
  - 5 PORPHYRIC DACITE (5m-MAGNETIC)
- NANAIMO GROUP
  - COMOX FORMATION
    - 2a BEDDED IMMATURE SANDSTONE
    - 2b BLACK, DARK GREY 'WACKE'
  - ISLAND INTRUSIONS
    - BIOTITE - HORNBLENDE GRANODIORITE
      - 1a FRESH, MASSIVE
      - 1b CLAY ALTERED
      - 1c SAUSSURITISED, CHLORITISED
    - FINE GRAINED GREY QUARTZ, LOCALLY VUGGY: INTENSELY SILICIFIED BRECCIA
    - S- SILICIFIED; ws - WEAKLY SILICIFIED
    - BLACK CHLORITIC FRACTURES, FRACTURE NETWORK
    - INCIPENT BRECCIATION
- FAULT
- FOLIATION, FLOW FABRIC
- CORE SAMPLE: SPLIT
- CORE SAMPLE: CHIP
- bl - BLEACHED, CLAY ALTERED
- ba - BARITE
- cp - CHALCOPYRITE
- sp - SPHALERITE
- gn - GALENA
- tr. - TRACE AMOUNT

NOTE: ALL SECTIONS FACE EAST

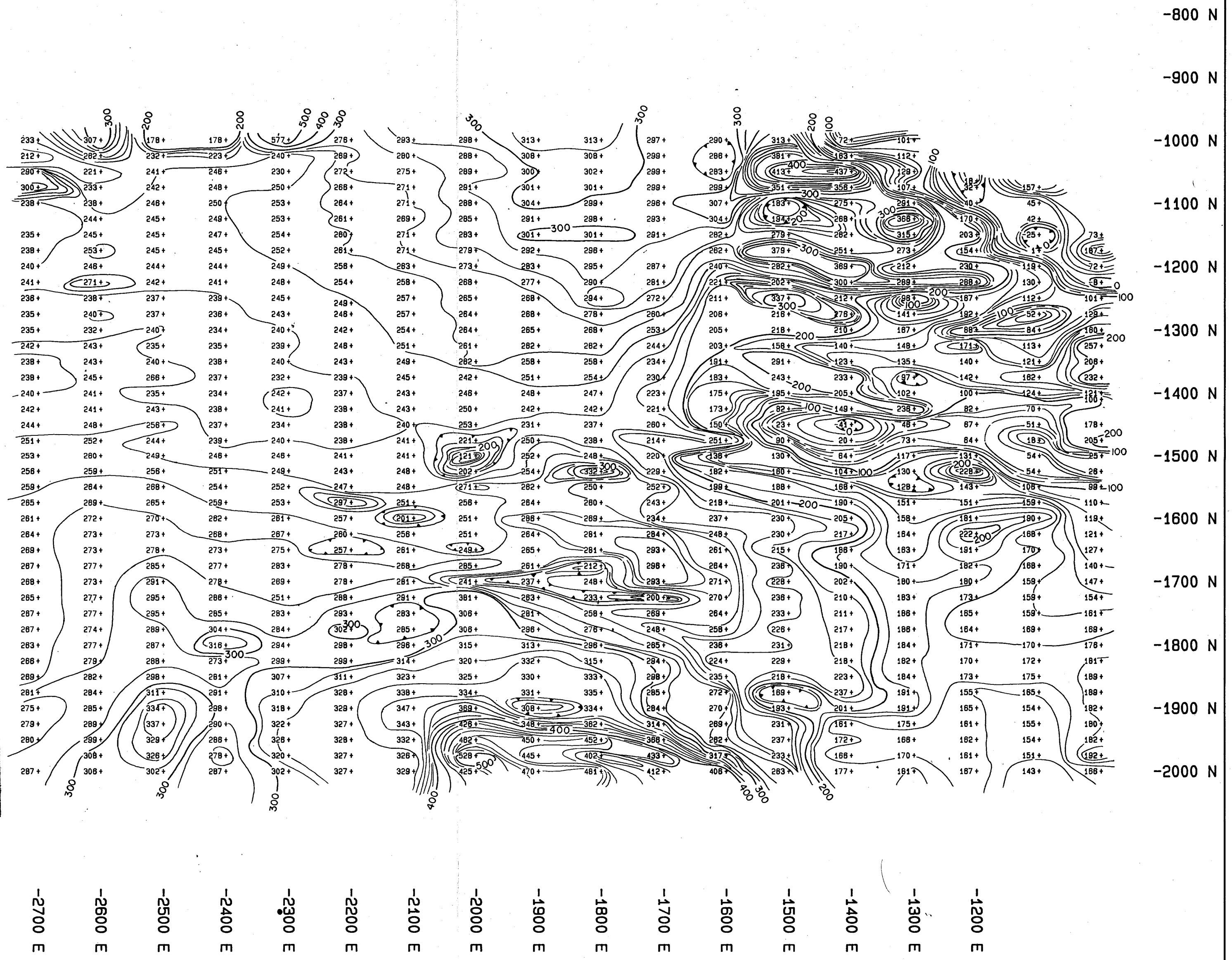
MINERAL RESOURCES BRANCH  
ASSESSMENT REPORT  
**10075**  
NO.

BP Minerals Limited

**MORIARTY LAKE PROJECT  
VANCOUVER ISLAND, B.C.  
1981 DRILL SECTIONS  
COAL 1 CLAIM**

SCALE SEE BARS	NTS 92 F/1W	FIG. 10
526-81-18	DATE JAN. 1982	PROJ. 526
To accompany report: BPRV 81-9		

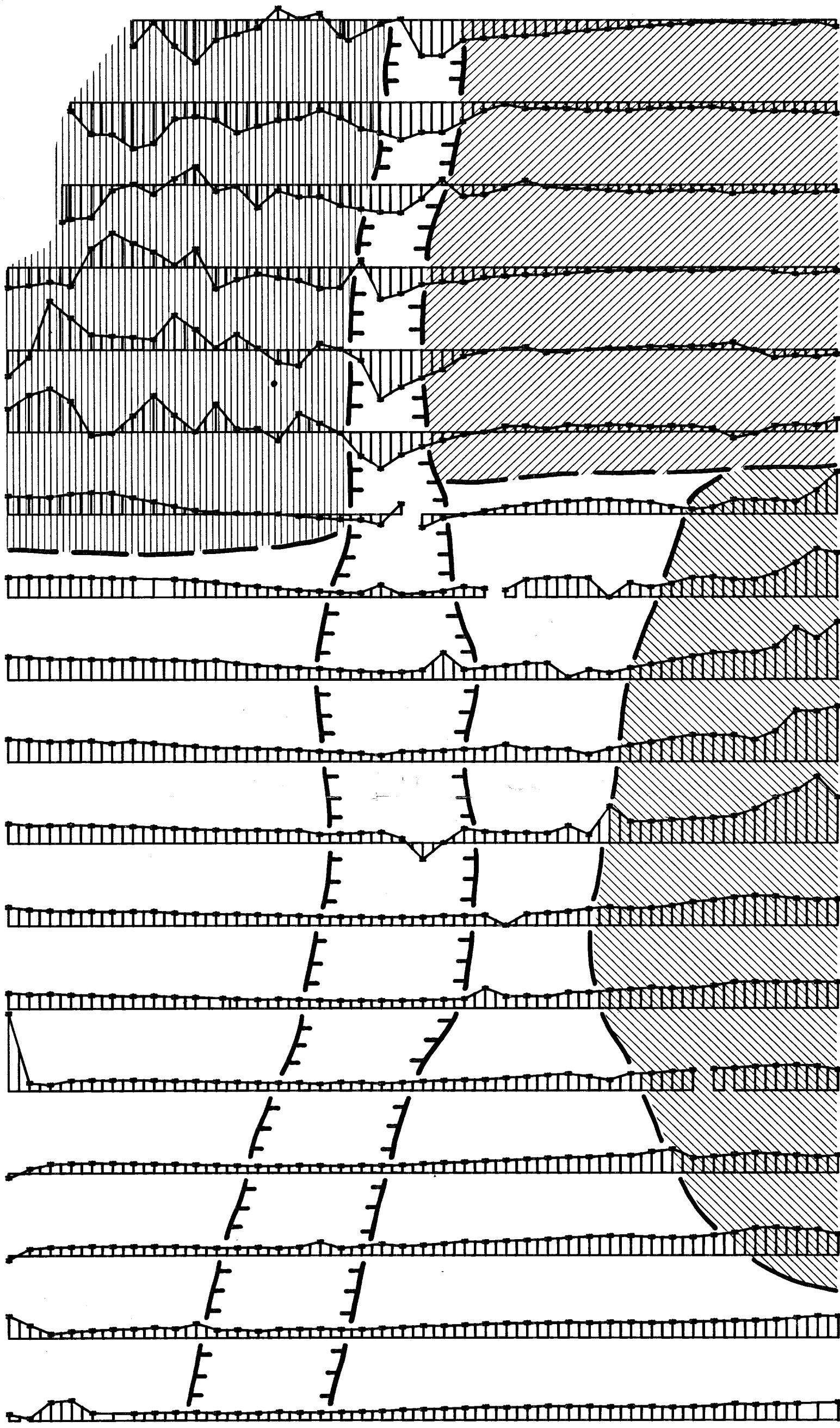




MINERAL RESOURCES BRANCH  
ASSESSMENT REPORT  
**19035**  
NO

BP MINERALS  
MORIARTY LAKE GRID  
MAGNETIC SURVEY  
MAGNETIC BASE 56800 gammas  
OCTOBER 1981 BPVR 81-9  
FIG. 6




-800 N    -900 N    -1000 N    -1100 N    -1200 N    -1300 N    -1400 N    -1500 N    -1600 N    -1700 N    -1800 N    -1900 N    -2000 N



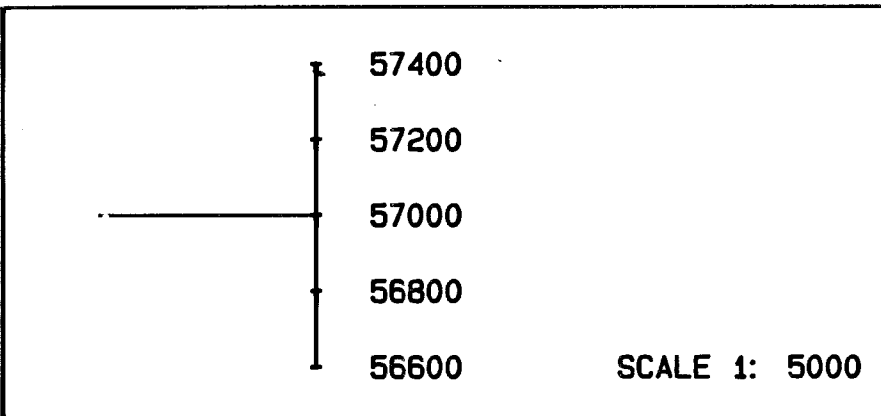
-1200 E  
-1300 E  
-1400 E  
-1500 E  
-1600 E  
-1700 E  
-1800 E  
-1900 E  
-2000 E  
-2100 E  
-2200 E  
-2300 E  
-2400 E  
-2500 E  
-2600 E  
-2700 E  
-2800 E  
-2900 E

**LEGEND**

 **MAGNETIC LOW**  
Moriarty Fault

 **MAGNETICALLY**  
 **DISTINCT**  
 **LITHOLOGIES**

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ASSESSMENT REPORT  
**10025**  
NO



BP MINERALS  
MORIARTY LAKE GRID  
MAGNETIC SURVEY  
OCTOBER 1981  
BPVR 81-9  
FIG. 7