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GEOLOGICAL, GEOPHYSICAL, GEOCHEMICAL AND DIAMOND DRILLING REPORT  
ON THE  
RAINBOW GROUP, MIDWAY, B.C.

FILMED

Greenwood Mining Division  
82E/2W

Latitude 49° 02'N, Longitude 118° 40'W

Owned By : Dentonia Resources Ltd.,  
Kettle River Resources Ltd.,  
D. Moore, and BP Resources Canada Limited

Operated By : BP Resources Canada Limited

BPVR 88-12 G E O L O G I C A L B R A N C H R. H. Wong  
A S S E S S M E N T R E P O R T S. J. Hoffman  
W. D. Harris

December, 1988.

18,381

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h)	" " - Cu " "	"
i)	" " - Pb " "	"
j)	" " - Zn " "	"
k)	" " - Fe " "	"
l)	" " - Mn " "	"
m)	" " - Co " "	"
n)	" " - Ni " "	"
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1.

1. SUMMARY

The RAINBOW claim group, owned by Dentonia Resources Ltd., Kettle River Resources Ltd., BP Resources Canada Limited, and prospector Dave Moore, is located 5 km northwest of Midway, B.C., and covers a portion of the western edge of the Tertiary Toroda Graben. Several chalcedonic, epithermal, silica veins with anomalous values in gold, silver, arsenic and antimony occur within the claims and are hosted in moderately to steeply-dipping, north-northeast-trending and shallowly, northeast to east-dipping structures within rocks of Jurassic to Eocene age.

Fieldwork completed by BP Resources Canada Limited from July 4 - November 25, 1988 consisted of geologic mapping and rock chip sampling, ground magnetometer and VLF surveys, soil geochemical sampling, and 301.8 m of diamond drilling in two drill holes.

Results of the programme indicate that while structurally-controlled epithermal silicification occurs locally, the system appears too poorly-developed to have generated potential ore-grade material. Soil sampling works well to identify areas of auriferous veining and soil values probably provide a relatively accurate reflection of the grade of the bedrock source.

Silicified zones intersected by diamond drilling yielded generally low precious metal values. Finally, the silicification does not appear to occur within sediments of the Kettle River Formation; thus the potential for bulk-tonnage replacement mineralization to occur is diminished.

2.

A total of \$46,200 has been applied as assessment on the RAINBOW Group and upon acceptance will maintain all claims to their due dates in 1993.

2. INTRODUCTIONA) Location and Access

The property is centred at 49°02' North Latitude and 118°40' West Longitude on the the south-facing slope of the Kettle River valley. The town of Midway is 5 km to the southeast (Figure 1).

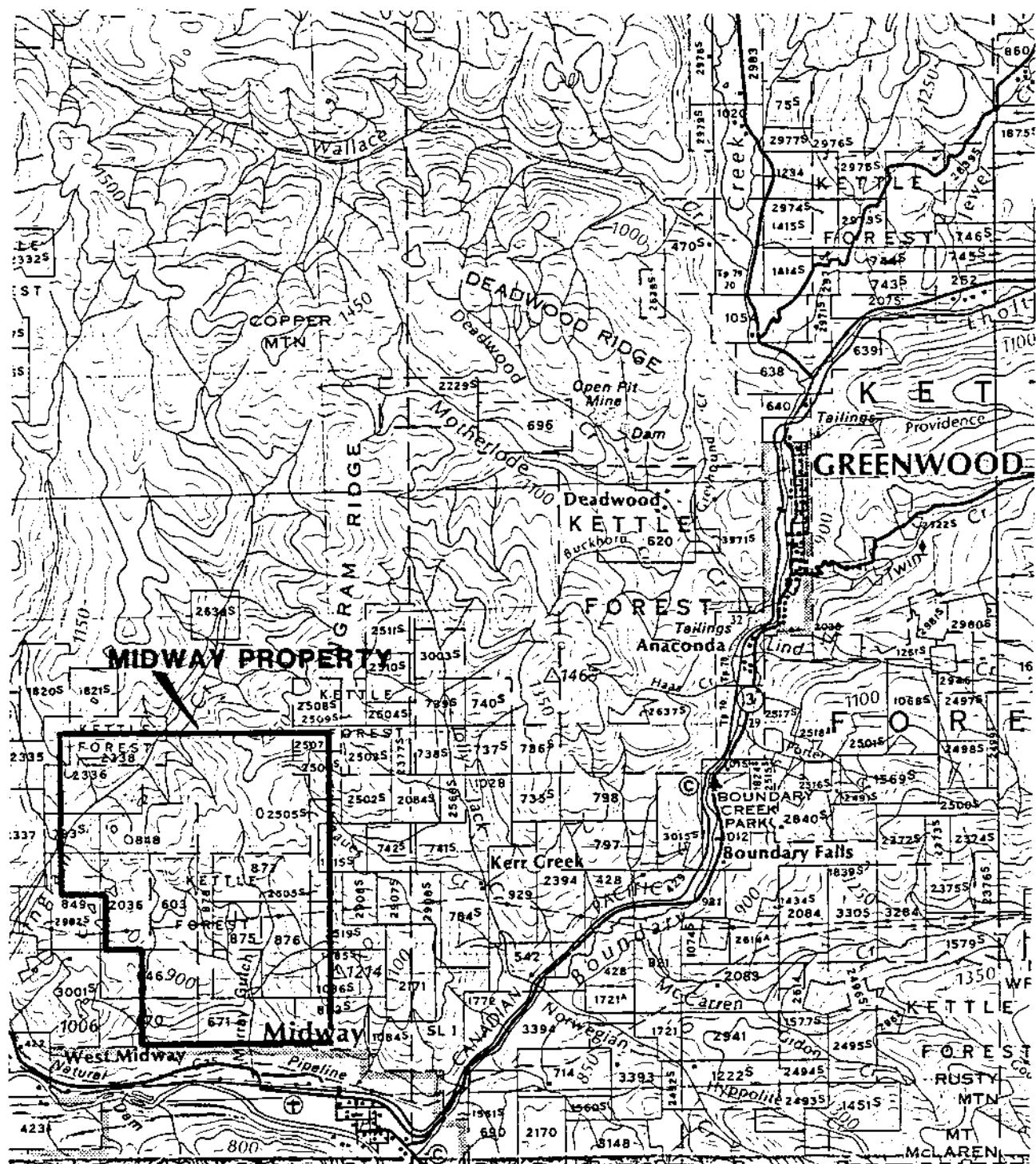
Access is via a network of two and four-wheel drive ranch roads which lead northerly from Highway 3 up Murray Gulch.

B) Land Status

The RAINBOW claim group, comprising seven mineral claims and one fractional claim totalling 92 units, is held as follows:

Claim Name	Units	Record No.	Recording Date	Owner
ANNEX	20	3402	Jan. 14	Dentonia 50%/Kettle River 50%
GRAHAM CAMP	18	3403	Jan. 14	" "
RAINBOW	20	3404	Jan. 14	" "
DOWNHILL	8	3405	Jan. 14	" "
MIDWAY	9	472	Aug. 10	D. Moore
M.F.	4	769	Aug. 10	"
MIDWAY FR.	1	3401	Jan. 14	"
TROUT	12	5206	Jul. 15	BP Resources Canada Limited

The TROUT claim was staked in July, 1988 and subsequently added to the RAINBOW group on December 16, 1988.



66

68

70

45°

74

76

78

80

To Republic - 51 km

INSET MAP of B.C.



PROJECT AREA

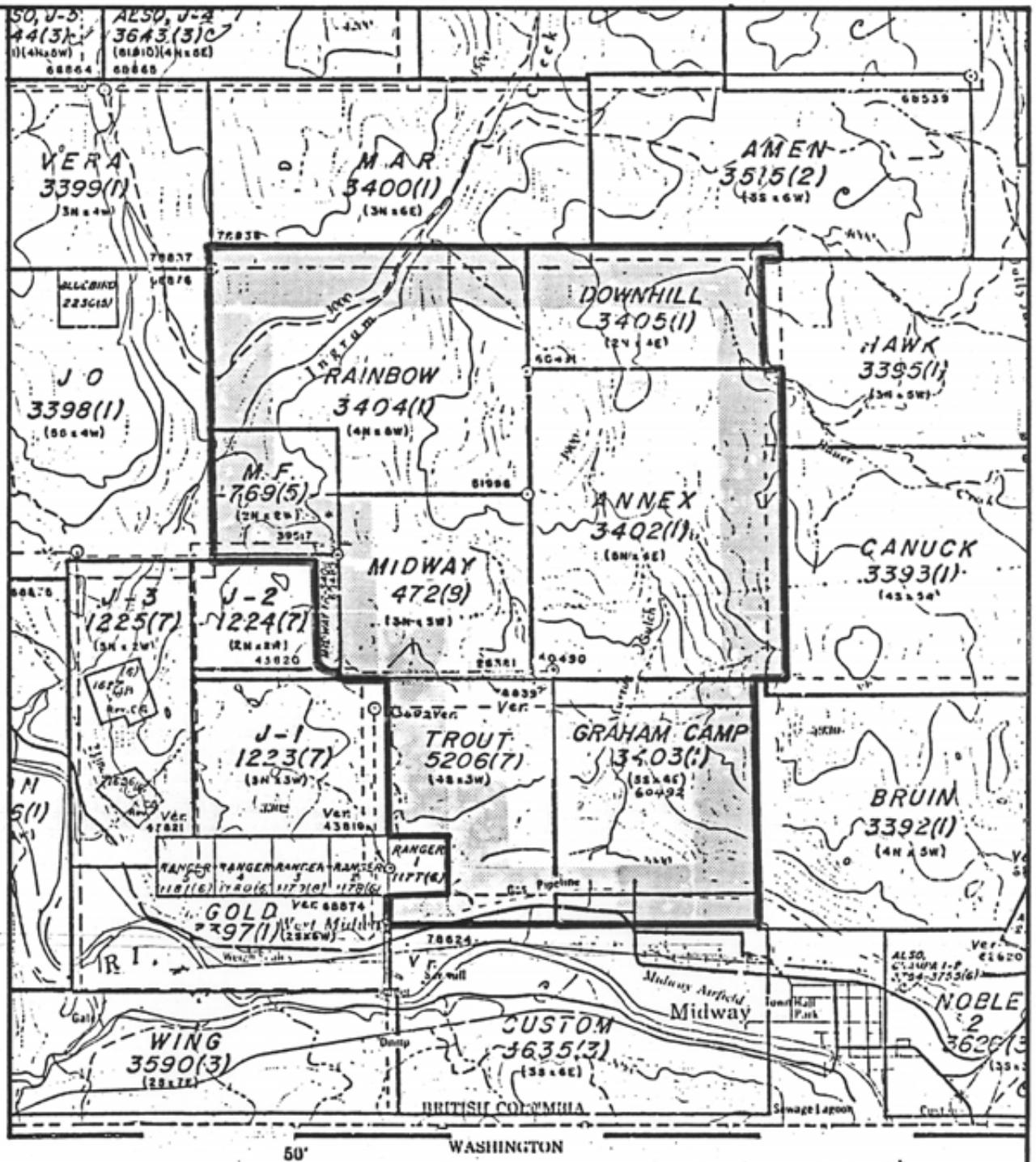
0 1 2 Km

SCALE: 1:100,000	DRAWN BY: R. WONG	FIG. 1	
DATE: JAN '89	REV.:	DRAFTED BY: CHONG	
N.T.S. B2E /2W		PROJ.: 10136	REPORT: BPVR 88-12



## MIDWAY PROPERTY LOCATION MAP

BP Resources Canada Limited  
MINING DIVISION



BP RESOURCES CANADA LIMITED  
MINING DIVISION

MIDWAY PROPERTY  
CLAIM MAP

SCALE 1:50 000	DRAWN BY: R.W.	FIG. 2
DATE JAN. 1989	DRAFTED BY: H.R.Z.	
N.T.S. 82E/2W	PROJ. 10136	BPVR 88-12

Within the MIDWAY claim, a three acre area covering what is locally known as the Picture Rock Quarry, is held under lease from D. Moore by J. Carlton. The quarried rock is utilized for lapidary purposes.

C) Topography, Climate and Vegetation

The claim area lies on the gently-rolling to moderately steep south-facing slope of the Kettle River valley at elevations between 600-1200 m a.s.l. The southwesterly and south-flowing drainages of Ingram Creek and Murray Gulch traverse the western and eastern portions of the property, respectively.

The Midway-Greenwood area is characterized by dry, hot summers and dry, cold winters. Precipitation generally averages 40-50 cm annually.

Vegetation on the property is largely grassland, consisting mainly of ponderosa pine, bitter brush, bunchgrass and sagebrush. Apart from intermittent small-scale mining, the land is used mainly for grazing.

D) Previous Work

The Toroda Graben is one of a number of Tertiary grabens in southern B.C. and northern Washington State which have localized epithermal precious metal mineralization of the low sulphur "hot-spring" type. Major deposits associated with such structures include the Cannon Mine and Republic District in Washington State.

In B.C., significant occurrences include the Huntington, Vault and Dusty Mac prospects.

The RAINBOW Group area was the site of considerable early (pre 1950's) prospecting evidenced by numerous shallow pits and diggings. During the late 1960's and early 1970's David Moore of Greenwood conducted intermittent mining operations at the MIDWAY MINE, a gold, silver and base-metal mineralized shear on the MIDWAY claim. A total of 19 tonnes of ore was shipped with recovered grades of 14 g/t Au, 1506 g/t Ag, 15% Pb and 16% Zn. In 1983, a joint venture between Dentonia Resources and Kettle River Resources completed a programme of geologic mapping, a limited ground magnetic survey, and minor rock geochemical sampling.

In 1984, Kerr-Addison conducted geologic mapping and rock geochemical sampling over an area 600 m x 1000 m. In addition, a programme of close-spaced soil sampling was conducted over an area 300 m x 200 m centred on the Picture Rock Quarry. Results of this work indicated at least two stages of chalcedonic silicification, with most of the veining localized at serpentinite contacts. As well, arsenic and antimony in soils were shown to be useful pathfinder elements for gold and silver mineralization. No drilling was conducted by Kerr-Addison (Assessment Report 13561).

BP Resources Canada Limited optioned the property in 1987 and completed geologic examination and rock chip sampling, an orientation soil geochemical survey, and 159.4 m of diamond

drilling in two drill holes (Assessment Report 17162). Results were sufficiently encouraging to warrant further testing for bonanza and/or bulk-tonnage precious metal mineralization on the claims.

### 3. REGIONAL GEOLOGY

The southwestern portion of the Greenwood map-area, within which the RAINBOW property occurs, is underlain predominantly by Middle Eocene sedimentary and volcanic rocks which have been preserved in a series of small north-northeast trending grabens (Figure 3).

Limestone, sharpstone conglomerate and minor chert, sandstone and argillite of the Middle Triassic Brooklyn Formation, and chert and greenstone of the Permian Knob Hill Group bound and locally occur within the grabens. Several small bodies of serpentinized ultramafic rock comprise a crude east-west-trending belt and are considered to be of Jurassic age. A number of high-level porphyritic diorite to quartz diorite intrusions, the largest of which lies partially within the RAINBOW claims, form a subparallel feature to the serpentinites and are of Late Cretaceous to Early Tertiary age. Feldspathic and lithic tuffaceous sandstone, and locally shale and conglomerate of the Kettle River Formation comprise the basal member of the Eocene succession, while sodic trachyte, andesite, trachyandesite, minor phonolite and tuff of the Marron Formation constitute the volcanic to subvolcanic upper member. These units are intruded by plutonic rocks (Coryell Intrusions) ranging from syenite to quartz monzonite in composition. The youngest rocks of the Middle Eocene succession are epiclastic breccias or olistostromes of the Klondike Mountain Formation. A Table of Formations is shown in Table I.

TABLE OF FORMATIONS

ERA	PERIOD OR EPOCH	GROUP OR FORMATION	MAP UNIT SYMBOL	LITHOLOGY	THICKNESS (metres)
CENOZOIC	PLEISTOCENE AND RECENT			Till, sand, gravel, silt	
	EOCENE Middle	Klondike Mountain Formation	Ekm	Heterogeneous epiclastic breccia of pre-Permian to Middle Eocene rocks	900+
		NON-EROSIONAL UNCONFORMITY WITH MARRON FORMATION			
		Coryell Intrusions	Ec	Syenite, quartz monzonite; minor granite and pegmatite	
		Intrusive equivalents of Marron Formation	Emi	Alkaline syenite, syenite, diorite, and diorite porphyry	
		INTRUSIVE CONTACT			
		Marron Formation	Emv	Soda trachyte, andesite, trachyandesite; minor phonolite and tuff	1525±
		Kettle River Formation	Eks	Feldspathic volcanic sandstone, lithic volcanic sandstone, shale, conglomerate	90 to 1200
		UNCONFORMITY			
	CRETACEOUS OR TERTIARY	Map-unit KT <sub>i</sub>	KT <sub>i</sub>	Quartz-feldspar porphyry, quartz porphyry, felsite	
		RELATIONSHIP UNKNOWN			
	CRETACEOUS (?)	Vaillala Intrusions	Kvqm	Granite and quartz monzonite, mainly porphyritic; some pegmatite	
	JURASSIC AND/OR CRETACEOUS	INTRUSIVE CONTACT			
		Nelson Intrusions	JKgd	Granodiorite; minor quartz diorite and diorite	
	MESOZOIC	INTRUSIVE CONTACT (?)			
		Ultramafic Intrusions	Jum	Peridotite, pyroxenite, dunite, serpentinite	
		INTRUSIVE CONTACT WITH MAP UNIT Jv (?)			
		Map-unit Js	Js	Siltstone; minor phyllite, sandstone, and conglomerate	300-
		Map-unit Jph	Jph	Black phyllite	500-
		Map-unit Jv	Jv	Flow breccia and massive greenstone; basal (?) conglomerate with limestone clasts; flow breccia with minor interbedded limestone	330+
	UNCONFORMITY				
PALEOZOIC	TRIASSIC Upper	Map-unit UTsv	UTsv	White limestone, black limestone, grey, black, and buff shale, limestone breccia, purple to maroon conglomerate, minor green cherty argillite	330+
		UNCONFORMITY			
		Brooklyn Formation	MTI	Limestone, containing some chert grains, skarn; minor chert and sharpstone conglomerate, siltstone, and shale	660
			MTs	Sharpstone conglomerate with mainly chert clasts; local chert sandstone; minor black argillite and green argillite	760
	INTERBEDDED WITH RAWHIDE FORMATION; UNCONFORMABLE WITH KNOB HILL GROUP				
	Middle	Rawhide Formation	MTr	Black siltstone; minor black argillite and chert sharpstone conglomerate	120-
	CARBONIFEROUS OR PERMIAN	Knob Hill Group	CPkh	Massive chert, greenstone, and amphibolite; minor limestone or marble; locally tan or black argillite, fine grained quartzite, conglomerate	?
		Attwood Formation	CPa	Black to grey bedded argillite; locally some grey chert and cherty siltstone; minor chert sharpstone conglomerate; limestone with some thin chert interbeds	1000+
		UNCONFORMITY (?)			
	PRE-CARBONIFEROUS (?)	Map-unit Pm	Pm	Quartz-chlorite schist, quartz-biotite-muscovite schist, greenstone, bedded chert with argillaceous partings; minor limestone or marble	?
		RELATIONSHIPS UNKNOWN			
		Map-unit Pa	Pa	Amphibolite; minor greenstone, and bedded chert	?
		RELATIONSHIPS UNKNOWN			
PRECAMBRIAN		Map-unit Pm	Pm	Paragneiss, migmatite; some amphibolite with pegmatite or aplite	?

TABLE I: (From Little, 1983).

#### 4. PROPERTY GEOLOGY

##### A) Introduction

Based on results of BP's 1987 programme, two areas within the claim group were selected for detailed prospecting and geologic mapping. These two areas, denoted as the 100E Grid and the 110E Grid, cover the western bounding fault of the Toroda Graben and the southern extension of the silicified structure intersected in the 1987 drilling, respectively (Figure 4).

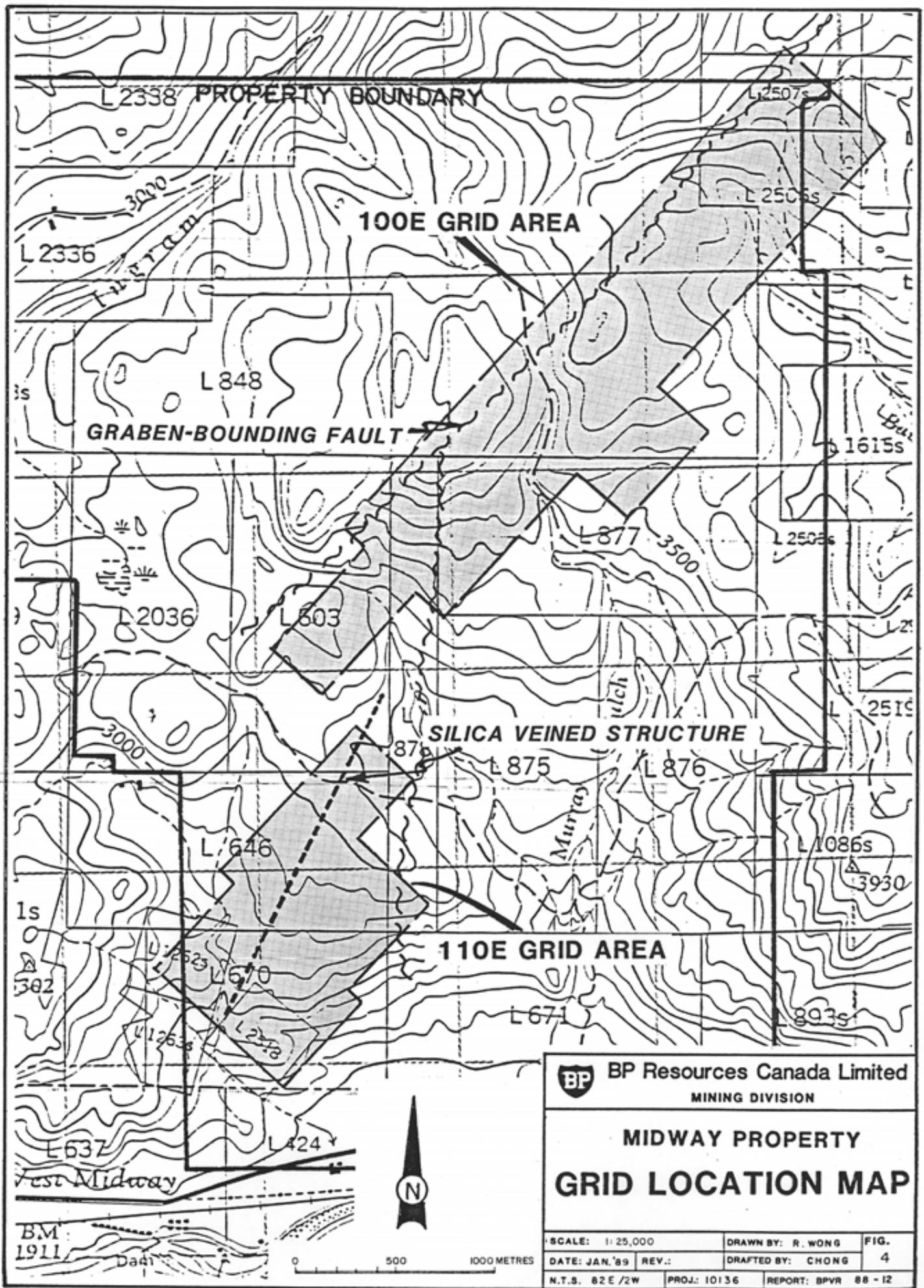
Grid lines spaced 100 m or 200 m apart were marked by red flagging tape with flagged cedar pickets at 50 m stations. Station coordinates were inscribed on aluminum tags stapled to the pickets. The 100E Grid covers approximately 2.76 square kilometres, while the 110E Grid encompasses approximately 1.24 square kilometres.

##### B) 100E Grid

###### i) Lithologies

The 100E Grid was oriented to cover the western graben-bounding structure for approximately four kilometres of its strike length. The structure is considered to be a normal fault (Little, 1983) juxtaposing Kettle River Formation sediments and Marron Formation volcanics.

The following are the major lithologies mapped and are discussed in order of their assumed relative ages from oldest to youngest (Figure 5, in pocket).



Serpentinite

Serpentinite is restricted to the southwestern end of the 100E Grid where it commonly forms resistant knobs and ledges of orange-brown weathering ankeritized serpentine. Ankerite alteration is strongest adjacent to the contact with dacite porphyry. Away from the porphyry contact, serpentinite displays the characteristic light to dark green colours, is moderately magnetic, and forms more recessive shaly outcrop. Both altered and unaltered serpentinite are moderately to strongly foliated with general dips at low angles to the north.

Dacite Porphyry

Dacite porphyry is exposed south of the serpentinite, occurring only in the southwestern corner of the grid. The porphyry is light to medium green in colour and contains 40-60% white, lath-like, commonly-aligned, plagioclase phenocrysts averaging 2-3 mm in length within a fine-grained to aphanitic matrix of hornblende, plagioclase and quartz. Round to square quartz eyes 2-3 mm in diameter comprise up to 8% of the rock and appear to be particularly common in the area of the Midway Mine.

Field relationships and evidence from drill core indicate dacite porphyry to be intrusive into serpentinite with the main contact gently north-dipping parallel to foliation in the serpentinite. Contacts between dacite porphyry and Tertiary sediments and volcanics are nowhere exposed but lack of dacite porphyry dyking and absence of obvious thermal effects suggest that the porphyry is pre-Tertiary in age.

Kettle River Formation

Non-calcareous arkosic sandstone with minor siltstone and rhyodacite comprise a north-trending belt approximately 100-200 m wide in the area from 119N-127N. This belt appears to be truncated by the major northeast-trending fault and is the only significant amount of Kettle River Formation seen within the grid.

The sediments occur along a small north-trending valley and form recessive outcrop with bedding attitudes difficult to obtain. They range from white to tan, poorly-sorted, pebbly sandstone to well-sorted interbedded sandstone/siltstone. Biotite comprises up to 10% with quartz and feldspar occurring in approximately equal amounts. Coarser clasts consist of biotite-bearing rhyodacite, which forms a small plug (?) at 123N/102+50E.

Distribution of the sediments suggest they comprise a channel fill on the pre-Marron paleosurface.

Marron Formation

Rocks of the Marron Formation are represented in the grid area by fine-grained to coarsely porphyritic trachyandesite (4a), fine to medium-grained biotite-bearing monzonite (4b), and tuffaceous greywacke and mudstone (4c).

Trachyandesites are brown to pinkish-brown weathering and commonly contain 10-20% plagioclase and leucite (?) laths up to .7 cm in length. Biotite is present in amounts up to 15%. The groundmass

is generally k-spar rich. Overall these rocks are moderately to strongly magnetic.

Monzonite occurs as numerous narrow to wide, generally north-trending dyke-like intrusions cutting all rock types. Locally, they appear to be truncated by the major northeast-trending fault. Their strongly magnetic nature, field relationships, and overall chemistry suggest that they are plutonic to subvolcanic equivalents of the trachyandesites. Alternatively, they could be finer-grained correlatives of the Coryell Intrusions.

Tuffaceous greywacke and mudstone appear to comprise narrow interbeds within trachyandesite in the southern half of the grid, and a major northward-thickening bed in the northern portion of the grid. These sediments are distinguished by being moderately to strongly calcareous, drab green to pinkish in colour, and containing abundant trachyandesite clasts and broken feldspar laths. Carbonaceous debris is present locally.

### ii) Structure

Serpentinite appears to comprise a gently dipping, sheet-like body underlain by dacite porphyry for the most part. The upper contact of the serpentinite is exposed in one locality (109N/102+40E) where a green to maroon tuffaceous conglomerate, containing heterogeneous clast types including granitic clasts, overlies the serpentinite. This unit is conformably overlain by trachyandesite of the Marron Formation. Kettle River Formation sediments appear to be absent here.

The major northeast-trending fault shown on the regional geologic map appears to exist and juxtaposes Tertiary volcanics and Tertiary sediments, although the amount of Kettle River Formation present appears to be substantially less than shown on the regional map. Displacement along this structure could not be determined. No evidence was seen to substantiate a north-trending splay of this structure shown on the regional map to extend south from approximately 100E/117N.

Trends of the major units are in a general north-south direction.

iii) Alteration and Mineralization

No evidence was seen for any alteration or mineralization of an epithermal nature within the grid area. Soil samples were collected at 50 m intervals on lines 123 N, 125 N, 127 N, and 129 N to cover the possibility that disseminated mineralization occurs within the recessive Kettle River Formation sediments in this

~~area.~~ Results of this sampling are discussed in section 6.B)ii.

C) 110E Grid

i) Lithologies

The 110E Grid was oriented to test for the strike extension of the silica-veined structure intersected in drill holes MDH 87-1 and MDH 87-2 (Figure 6, in pocket). The following units, described from oldest to youngest, are evident within the grid area.

Knob Hill Group

Greenstone with interbeds of chert clast breccia, massive chert, and minor argillite represent the Knob Hill Group and occur in the southern third of the grid area. The main "Silica Veined Structure" marks the approximate contact between Knob Hill rocks on the northwest, and Marron monzonite with inliers of Knob Hill rocks on the southeast.

The relationship between greenstone and chert clast breccia is best displayed in drill core. Dark green, fine-grained, massive, hornblende-bearing greenstone intersected in MDH 88-3 included interbeds of chert clast breccia from .5 to 5 m in estimated true thickness. Breccias are generally medium green in colour and matrix-supported with angular clasts of white, maroon or buff-coloured chert prominent. Subordinate clast types include andesite and broken feldspar crystals. Clasts range from 1-10 cm in length on average and may show weak primary alignment.

The chert clast breccia beds are not adequately exposed to obtain bedding orientations. Contacts noted in drill core are consistently at 30-45° to the core axis (-55° inclination on drill hole).

Massive grey chert with local argillaceous interbeds occurs mainly to the northwest of the "Silica Veined Structure".

Serpentinite

Serpentinite, displaying strong ankeritic alteration comprises one large (200 m long) and two small inliers within dacite porphyry and monzonite, respectively, near the centre of the grid area. The large inlier occurs subjacent to the north-trending contact with monzonite and is elongate parallel to this contact.

Dacite Porphyry

Dacite porphyry outcrops along the northern edge of the grid area in the vicinity of drill hole MDH 87-2, and in the east-central portion of the grid area where it is cut locally by monzonite dykes. Near drill hole MDH 87-2, dacite porphyry is as described on the 100E Grid; however, in the east-central zone the porphyry is locally quite crowded and quartz phenocrysts are generally lacking. Dacite porphyry is everywhere non-magnetic, a feature which is useful for distinguishing it from porphyritic varieties of monzonite.

Kettle River Formation

Sediments of the Kettle River Formation occur in the far southern corner of the grid where they are in apparent fault contact with Knob Hill Group rocks. In this area, the non-calcareous sediments are variable from grey-green siltstone with local pebbly channels to well-sorted buff arkose. Beds dip 50° to the southeast and appear to be conformably overlain by Marron volcanics.

A small zone of poorly-exposed grey to buff arkosic sandstone and finely-laminated siltstone occurs at 97N/115E adjacent to the

assumed north-south fault separating dacite porphyry from the Tertiary rocks.

Marron Formation

Weakly to moderately magnetic, fine-grained, andesitic to trachyandesitic flows and tuffs (unit 4a) comprise brownish-green weathering outcrop in the vicinity of previously-mentioned Kettle River Formation occurrences. Bedding is not evident in this unit. Biotite generally constitutes 5-10% of the rock.

Related fine to medium-grained equigranular to subporphyritic monzonite to syenite (unit 4b) comprises one large generally north-trending body extending from the east-west fault at the southern end of the grid up to and beyond the Midway Mine.

Average composition of this rock type consists of 10-15% biotite, 35% plagioclase, 50% interstitial orthoclase, and up to 3% disseminated magnetite. Fine-grained versions of this rock type comprise dykes cutting Knob Hill rocks and dacite porphyry peripheral to the main intrusion.

South of the east-west fault at the southern end of the grid is a large dyke (?) of hornblende-plagioclase porphyry monzonite with moderate to strong alignment of hornblende. Presence of hornblende, rather than biotite, distinguishes it from the main body of 4b north of the east-west fault.

ii) Structure

The 110E Grid area is bounded by a north-south fault in the east and an east-west fault in the south. Both faults juxtapose Tertiary strata with Permian to Cretaceous units cut by Tertiary intrusions. Small-scale normal faults evident in Tertiary sediments adjacent to these structures suggest that displacements on the main structures are normal. Thus, the eastern and southern portions of the grid appear to have been down-dropped relative to the central grid area. Presence of Tertiary intrusions in this central area supports the concept of a deeper level of exposure here. The main monzonite intrusion widens considerably going downhill to the south, suggesting also a deeper level of exposure with decreasing elevation in the central grid area.

The monzonite intrusion strikes approximately north-south, parallel to the fault on the east. The main Silica Veined Structure strikes north-northeast, apparently oblique to both the monzonite and this fault.

iii) Alteration and Mineralization

Chalcedonic quartz occurs as vein material comprising crudely banded white, clear and bluish silica veins, and in silica breccia veins with oxidized wall-rock clasts in a milky chalcedonic matrix. Along the main Silica Veined Structure both types of vein material are evident.

At the north end of the grid in the vicinity of MDH 87-2, the silicified structure is represented at surface by a white, banded

to vuggy chalcedonic vein approximately 0.6 m wide. It is hosted in dacite porphyry which displays strong propylitic alteration with intense chloritization and abundant calcite on fractures. Approximately 30 m below surface in drill hole MDH 87-2, the vein is more breccia-like with oxidized wallrock inclusions prominent in a matrix of non-banded, milky white chalcedonic silica.

From the northern end of the grid southward to approximately 93N very little outcrop occurs and the silicified structure is not exposed.

At 91+50N/110E the vein forms a low, apparently vertical ledge of chalcedonic breccia approximately 0.4 m wide. Further southwest along strike from 87+75N to 88+50N/111E, vein material forms the eastern lip of the gully which marks the approximate contact between Knob Hill Group rocks and the monzonite intrusion. The vein here dips moderately ( $30\text{--}50^\circ$ ) to the southeast and consists of two or more parallel 'layers' of silica up to 0.1 m wide and locally with internal banding. This veining was the target of MDH 88-3 (see section 7.B)

Discontinuous and narrow zones of chalcedonic silica were noted along the shear zone which extends northeast from 88+50N/112+50E. Similar silicification was also noted locally at contacts between monzonite and Knob Hill Group inliers.

At approximately 87+25N/112+75E, a small pit and an adit expose a silicified, pyritic zone within a small inlier of Knob Hill Group

rocks. This showing is near to the centre of former Crown Grant L2518. The rock is locally extremely pyritic (up to 35%) and has been leached to yield a boxwork within medium to dark grey, fine-grained cherty silica. This boxwork is cut in places by banded grey to white gritty silica containing pyritic clasts. The overall silicified zone trends roughly east-west, approximately parallel to the southern fault, and appears to be localized at a chert/andesite breccia contact.

Pervasive and fracture-controlled k-feldspar is evident in Knob Hill Group rocks adjacent to monzonite contacts.

## 5. GEOPHYSICAL SURVEYS

### A) Introduction - Ground Magnetometer and VLF

A ground magnetometer survey was conducted on the property in order to aid in geologic mapping and to delineate areas of magnetite-destructive alteration which are commonly associated with epithermal systems. VLF was utilized for the purpose of defining structures which may have channelled hydrothermal solutions.

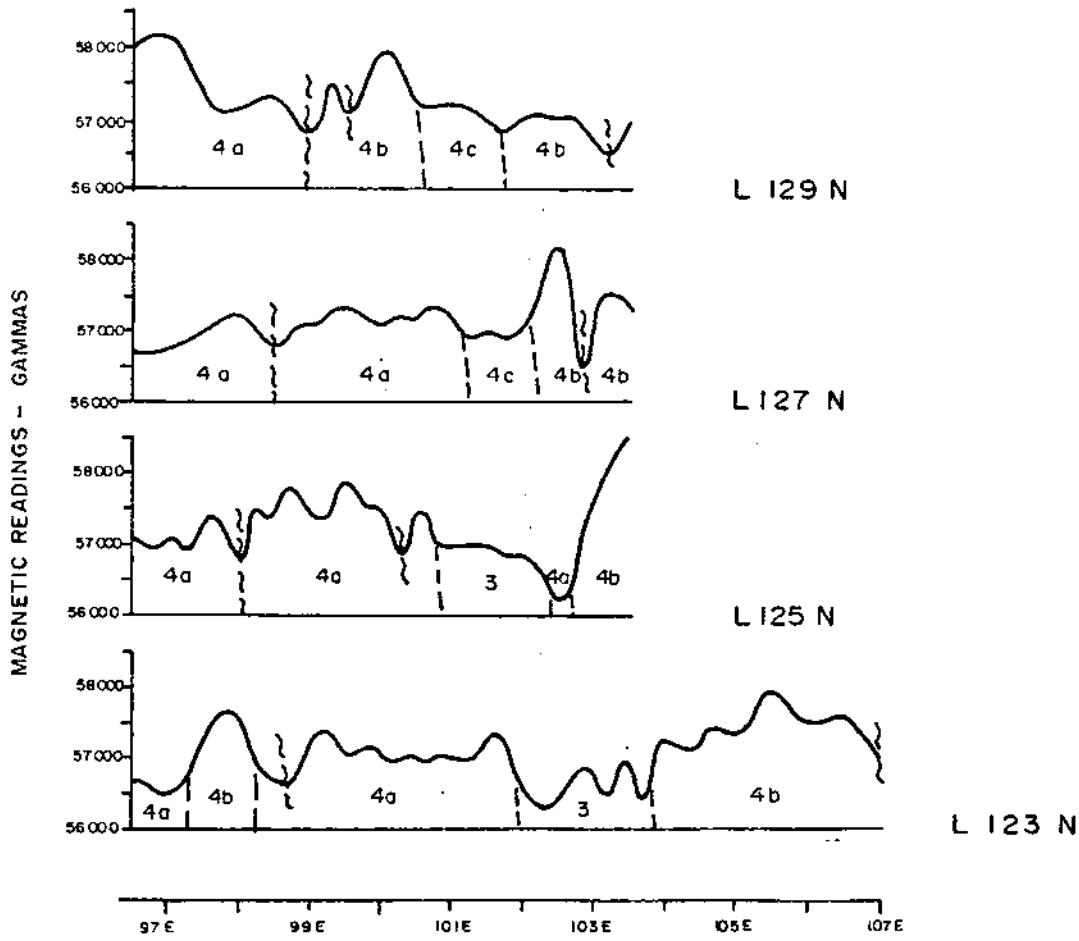
The magnetometer was a Geometrics Proton Magnetometer (model G826). Diurnal variation was monitored indirectly by looping the respective base line followed by looping cross-lines in order to obtain relative variations. The amount of diurnal variation during the course of the survey was found to be minimal (less than 20 gammas). Readings ranged from 56,510 - 58,675 gammas.

A Phoenix VLF 2 instrument was utilized for the VLF survey with both the Annapolis and Seattle stations used when possible. The Annapolis station was shut down during the 100E Grid survey.

### B) Results

#### i) 100E Grid

Magnetometer and VLF readings were taken every 25 m on lines 123N, 125N, 127N, and 129N. This area of the grid was selected to survey in order to more accurately define the major graben bounding fault and to complement soil geochemistry performed on the same lines.



#### LEGEND

##### TERTIARY (EOCENE)

- [4] Merron Fm. : a andesite & trachyandesite, minor tuffaceous sediments  
b monzonite to syenite
- [3] Kettle River Fm. : feldspathic & lithic tuffaceous sandstone & siltstone

##### CRETACEOUS

- [2] Dacite porphyry

##### JURASSIC

- [1] Serpentinite

##### PERMIAN

- [A] Knob Hill Gp. : greenstone, chert clast breccia, chert, minor argillite & limestone  
A1 andesite  
A2 \* breccia

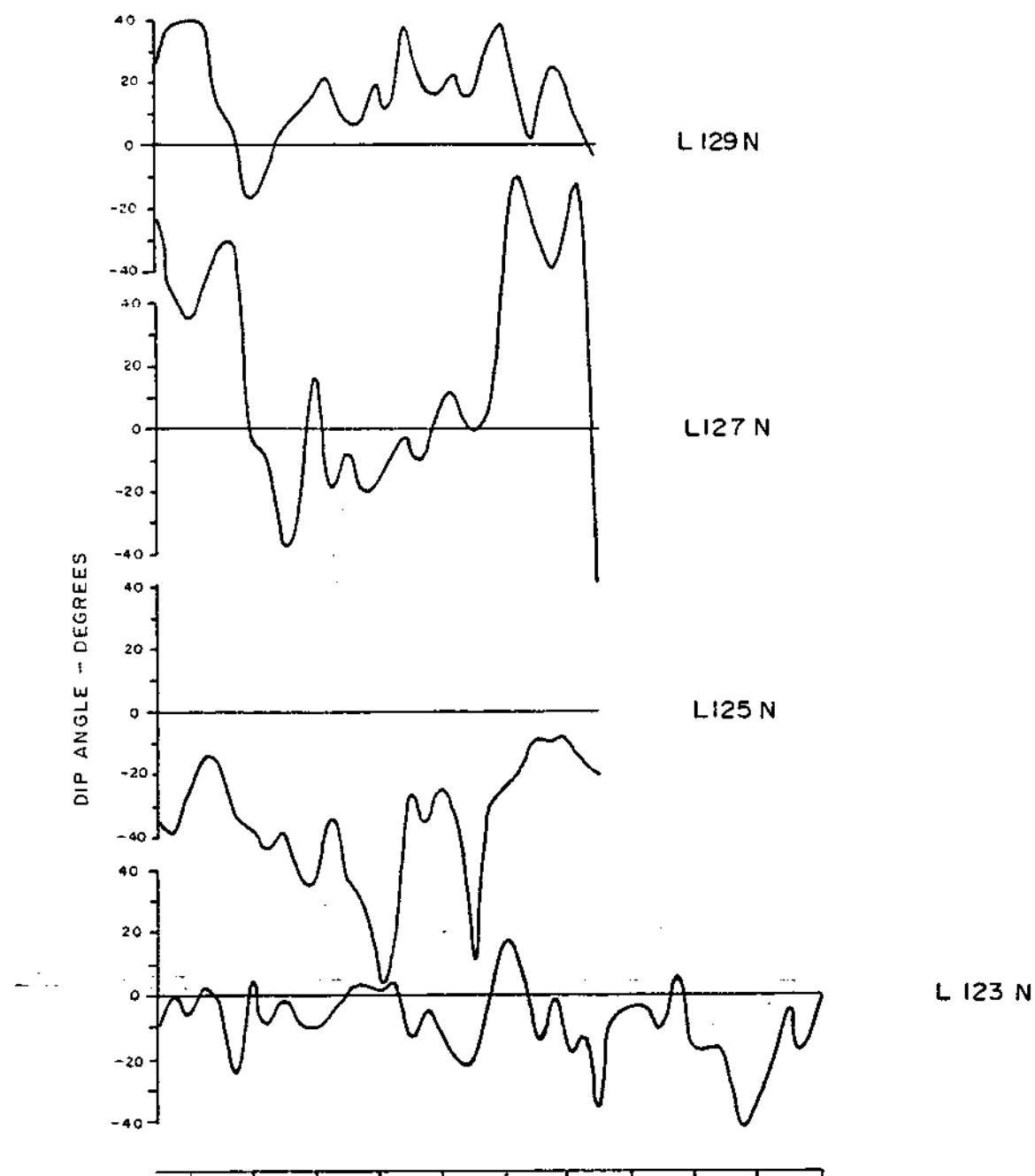
~~~~~ Shear



BP Resources Canada Limited  
MINING DIVISION

MIDWAY PROPERTY  
100E GRID  
MAGNETIC PROFILES

|                 |                   |                    |
|-----------------|-------------------|--------------------|
| SCALE: AS SHOWN | DRAWN BY: R. WONG | FIG.               |
| DATE: JAN '89   | REV.:             | DRAFTED BY: CHONG  |
| N.T.S. 82E /2W  | PROJ.: 10136      | REPORT: BPVR 88-12 |



SEATTLE STATION ONLY

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MIDWAY PROPERTY  
100E GRID

**VLF PROFILES**

|                 |                   |                    |
|-----------------|-------------------|--------------------|
| SCALE: AS SHOWN | DRAWN BY: R. WONG | FIG.               |
| DATE: JAN '89   | REV.:             | DRAFTED BY: CHONG  |
| N.T.B. 62E /2W  | PROJ.: 10136      | REPORT: BPVR 88-12 |

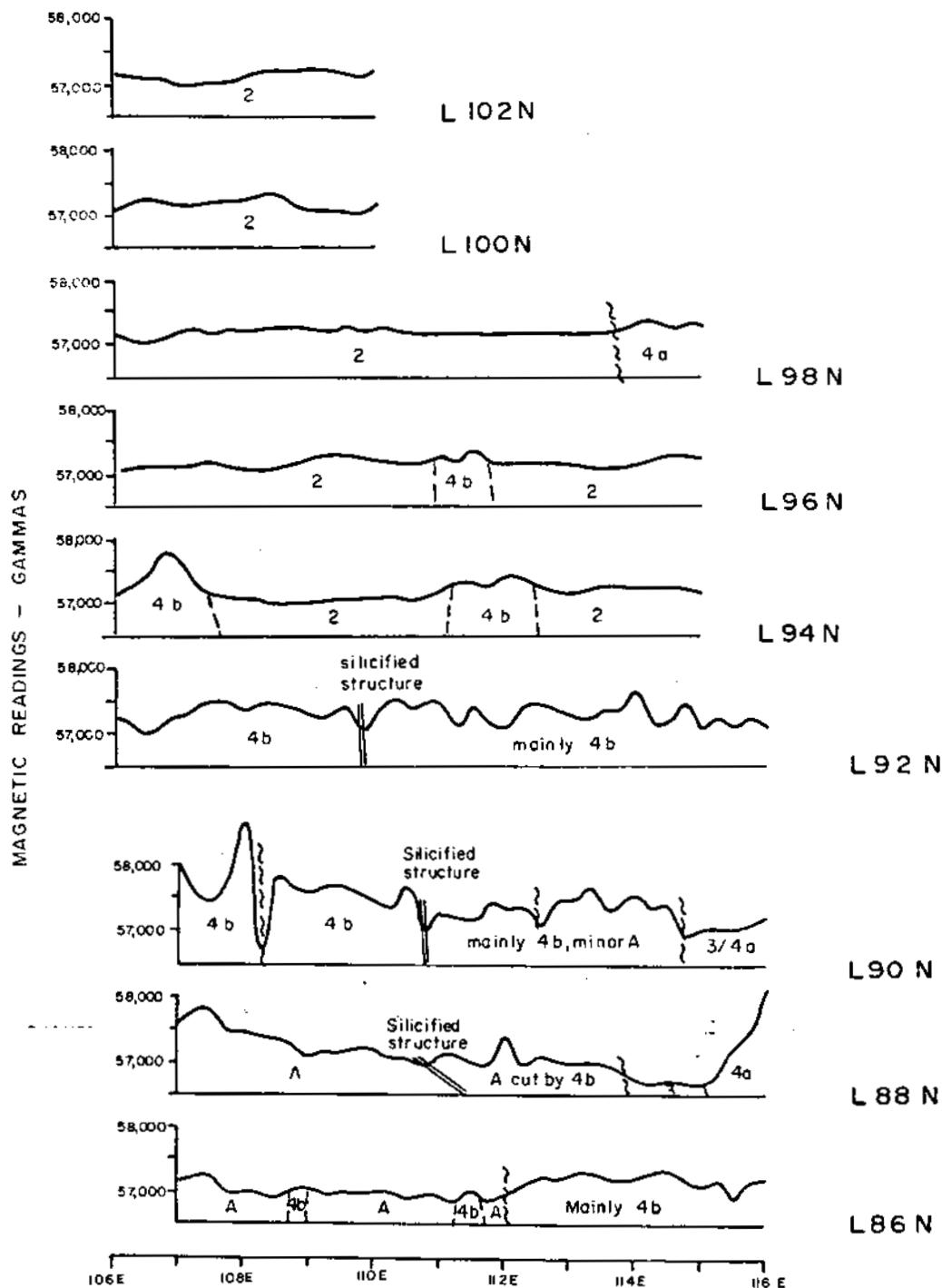
Magnetic profiles for the four lines are shown in Figure 7 with correlative and interpreted geology superimposed. The main fault is evident as a magnetic low on all four lines between 98E and 99E. On lines 123N, 125N and 127N the fault occurs within unit 4a (Marron flows) which is characterized by moderate but irregular magnetics. On line 129N, the fault separates flows from slightly more magnetic monzonite (unit 4b). Kettle River Formation sediments crossed by lines 123N and 125N show low magnetic response and are separated from monzonite on the eastern end of the lines by a fault and/or unit 4c (Marron volcanic sediments). Faults also appear to be present within this eastern monzonite judging by the discrete magnetic lows evident (e.g., 103+25E/129N, 103E/127N, 106+75E/123N).

VLF profiles, shown in Figure 8, support the location of the main fault on lines 127N and 129N but are ambiguous on lines 123N and 125N.

ii) 110E Grid

Magnetometer and VLF readings were taken at 25 m intervals on lines 200 m apart. Both Seattle and Annapolis stations were used for the VLF survey.

Fault structures (magnetic lows) are not evident on the magnetic profiles (Figure 9) in the northern portion of the grid despite the known shear zone intersected in MDH 87-2 (line 102N). The reason for this is probably related to the general non-magnetic nature of the dacite porphyry which hosts the structure in this area.



#### LEGEND

##### TERTIARY (EOCENE)

- [4] Morrin Fm. : a andesite & trochylandesite, minor tuffaceous sediments  
b monzonite to syenite
- [3] Kettle River Fm. : feldspathic & lithic tuffaceous sandstone & siltstone

##### CRETACEOUS

- [2] Dacite porphyry

##### JURASSIC

- [1] Serpentinite

##### PERMIAN

- [A] Knob Hill Gp. : greenstone, chert clast breccia, chert, minor argillite & limestone
  - A1 andesite
  - A2 = breccia

~~~~~ Shear



**BP Resources Canada Limited**  
MINING DIVISION

#### MIDWAY PROPERTY 110E GRID **MAGNETIC PROFILES**

|                 |                   |                    |
|-----------------|-------------------|--------------------|
| SCALE: AS SHOWN | DRAWN BY: R. WONG | FIG. 9             |
| DATE: JAN. 89   | REV.:             | DRAFTED BY: CHONG  |
| N.T.S. 82E /2W  | PROJ.: 10136      | REPORT: BPVR 88-12 |

## MAP UNITS

### QUATERNARY

**10** UNCONSOLIDATED SEDIMENTS

### EOCENE

**9** KLONDIKE MOUNTAIN FORMATION: OLISTOSTROME

**8** CORYELL INTRUSIONS: SYENITE TO QUARTZ MONZONITE

**7** MARRON FORMATION: TRACHYTE TO ANDESITE AND INTRUSIVE EQUIVALENTS

**6** KETTLE RIVER FORMATION: FELDSPATHIC AND LITHIC TUFFACEOUS SANDSTONE AND SILTSTONE, MINOR SHALE AND CONGLOMERATE

### CRETACEOUS OR TERTIARY

**5** QUARTZ FELDSPAR PORPHYRY: DIORITE TO DACITE

### JURASSIC

**4** NELSON INTRUSIONS: DIORITE TO GRANODIORITE

**3** SERPENTINIZED ULTRAMAFICS

### TRIASSIC

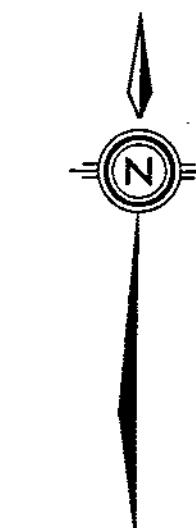
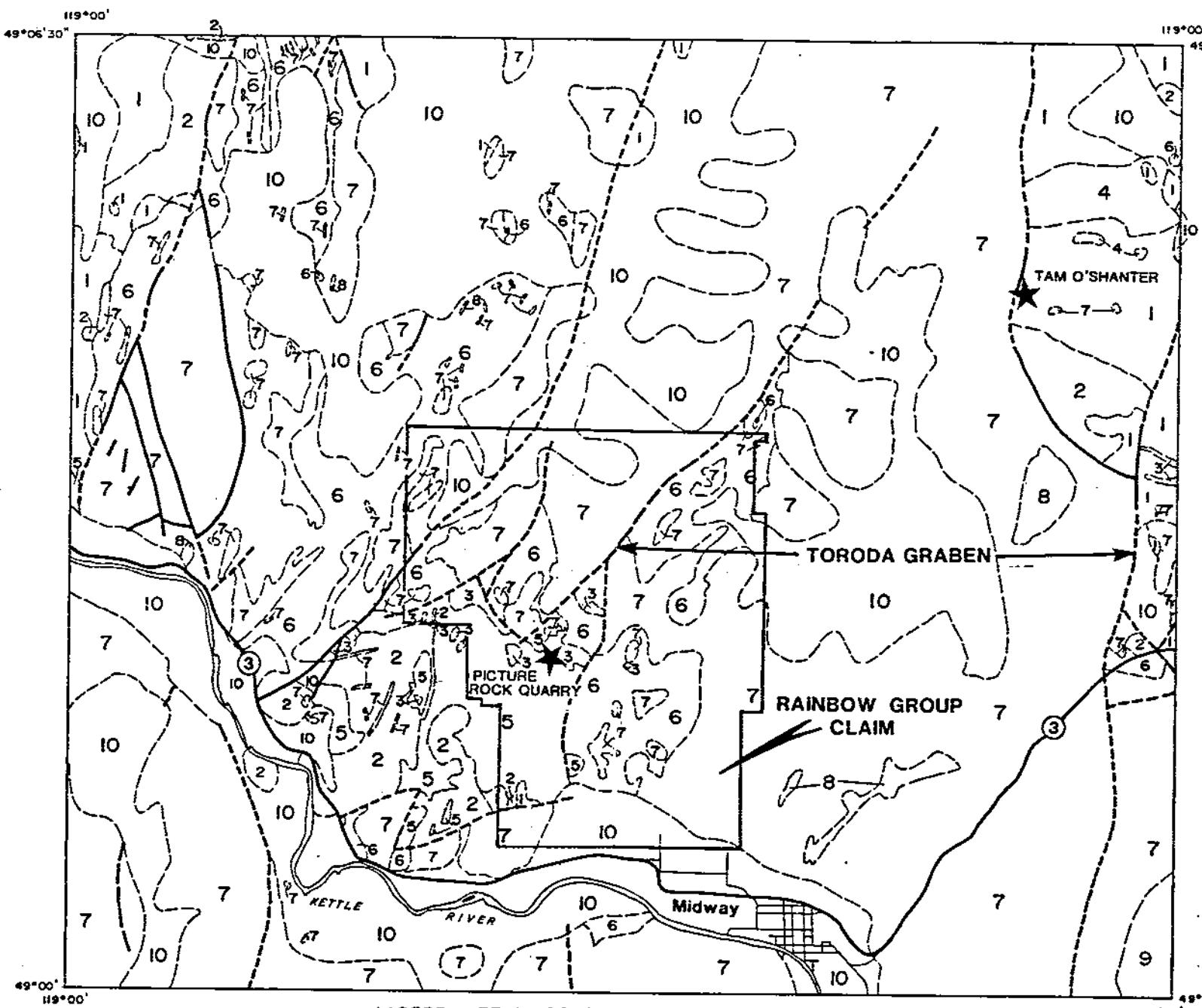
**2** BROOKLYN FORMATION: LIMESTONE, SHARPSTONE CONGLOMERATE, MINOR CHERT, SANDSTONE, ARGILLITE

### PALEOZOIC

**1** CHERT, GREENSTONE, AMPHIBOLITE

— — FAULT (DEFINED, ASSUMED)

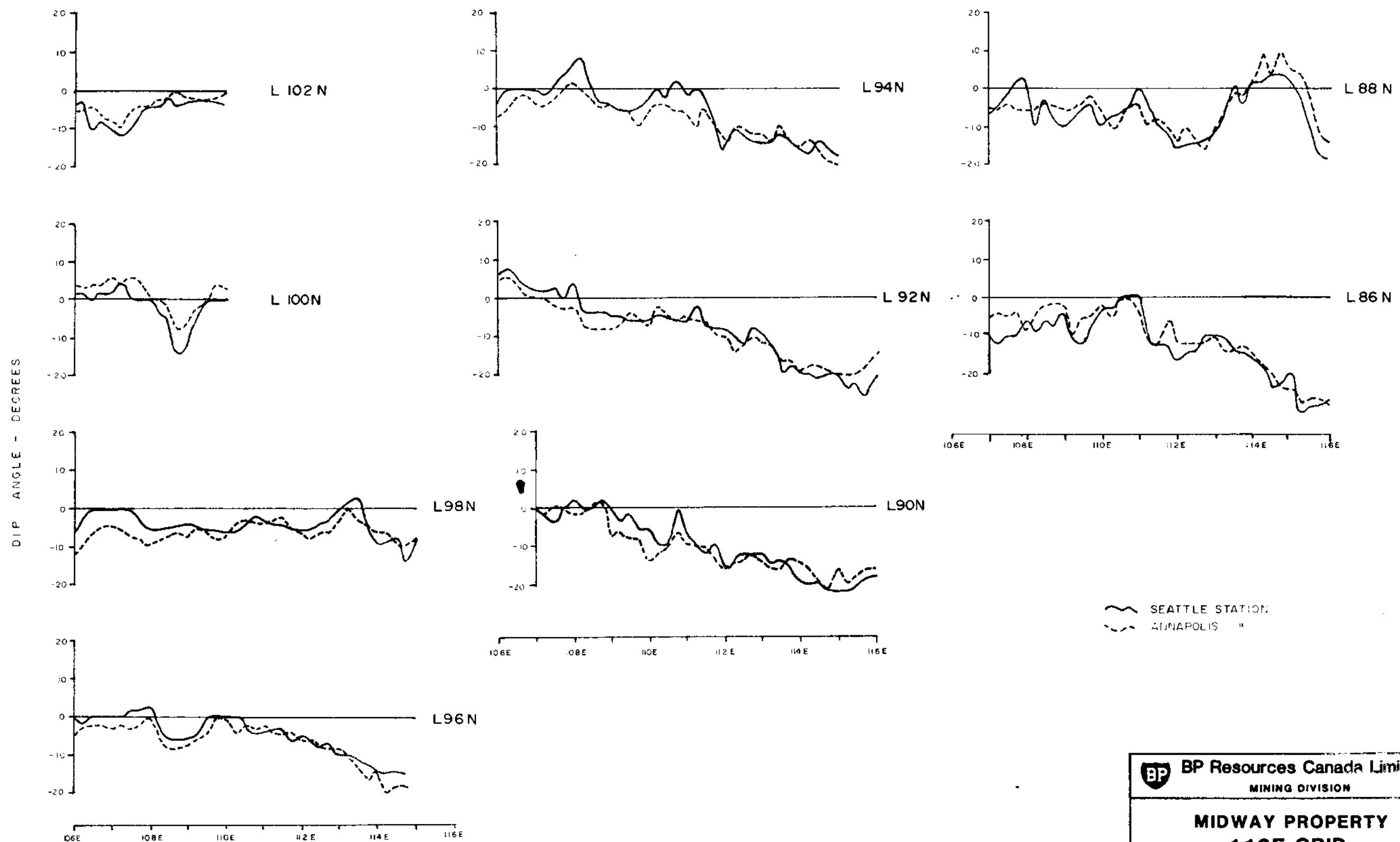
★ TERTIARY EPITHERMAL OCCURRENCES



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**MIDWAY PROPERTY  
REGIONAL GEOLOGY**  
**SOUTHWEST PORTION OF THE  
GREENWOOD MAP-AREA**

|                 |                   |                    |
|-----------------|-------------------|--------------------|
| SCALE: AS SHOWN | DRAWN BY: R. WONG | FIG. 3             |
| DATE: JAN '89   | REV.:             | DRAFTED BY: CHONG  |
| N.T.S. 82E /2W  | PROJ.: 10136      | REPORT: BPVR 88-12 |



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MINING DIVISION  
**MIDWAY PROPERTY**  
**110E GRID**  
**VLF PROFILES**

|                 |                   |                    |
|-----------------|-------------------|--------------------|
| SCALE: AS SHOWN | DRAWN BY: R. WONG | FIG. 10            |
| DATE: JAN '89   | REV.:             | DRAFTED BY: CHONG  |
| M.T.S. 62 E/2W  |                   | PROJ.: 10136       |
|                 |                   | REPORT: SPYR 88-12 |

In the southern portion of the grid where magnetite-bearing monzonite is prevalent, the magnetics are more useful in delineating structures. The most obvious fault occurs on line 90N at 108+25E and appears to have the limited strike extent shown on the geologic map as lines 88N and 92N show no correlative response. The Silica Veined Structure is evident within monzonite on lines 92N and 90N but becomes less evident on lines 88N and 86N where it is hosted within generally non-magnetic Knob Hill Group rocks. The east-west fault at the southern end of the grid is marked by relatively abrupt changes in magnetics on lines 86N, 88N and 90N.

VLF profiles (Figure 10) show that responses from the Annapolis and Seattle stations correlate well. In contrast to the magnetic survey, VLF clearly defines structures within the dacite porphyry. Both the Silica Veined Structure and the north-south fault on the eastern edge of the grid are evident on VLF profiles. The Silica Veined Structure can be traced southward to line 92N with reasonable certainty. No response is seen on line 92N where the assumed vein outcrops (109+75E), nor further south where more veining is seen. It is possible that the silica has healed the structure here to the extent that it is no longer conductive.

The east-west fault shows up best on line 88N.

## 6. GEOCHEMISTRY

### A) Rock Sampling

#### i) 100E Grid

In that very little of economic interest was seen during prospecting and geologic mapping of the 100E Grid, only five rock chip samples were collected. Of these, four were of sedimentary rock types which could conceivably host subtle disseminated mineralization.

Table II lists the samples collected and significant analytical results. All samples were analyzed by ICP. In addition, Au and F were determined geochemically following aqua regia digestion and peroxide fusion, respectively. A complete listing of results is included in Appendix III.

Samples of sediments show relatively high levels of Ba (222-401 ppm), Zn (101-128 ppm), and F (800-1050 ppm) only. Enhanced levels of elements characteristic of epithermal mineralization are not evident.

#### ii) 110E Grid

Chalcedonic vein material is relatively common within the 110E Grid area and several samples of vein material yielded clearly anomalous levels of Au, As, and Ag. Eleven of the seventeen samples collected from this area comprised vein material which ranged from 5-423 ppb Au, 8-362 ppm As, and .1-2.3 ppm Ag.

TABLE II: ROCK GEOCHEMISTRY

100E Grid

| <u>Sample No.</u> | <u>Location</u> | <u>Description</u>   | <u>Significant Results</u>         |
|-------------------|-----------------|--|------------------------------------|
| 100714            | 100E/126-127N   | Subcropping arkose of Kettle River Formation.                                    | 222 ppm Ba                         |
| 100715            | 100+20E/109+50N | Argillaceous sediment with abundant carbonate.                                   | 128 ppm Zn, 401 ppm Ba, 1050 ppm F |
| 100716            | 99+75E/105+60N  | Sheared, poorly-sorted arkose with carbonaceous clasts (Kettle River Formation). | 101 ppm Zn, 229 ppm Ba, 890 ppm F  |
| 100718            | 96+50E/118+60N  | Porphyritic trachyandesite with fine chalcedonic veins and amygdules.            | 960 ppm F                          |
| 100720            | 103+30E/123N    | Sheared arkose adjacent to monzonite dyke.                                       | 800 ppm F                          |

110E Grid

| <u>Sample No.</u> | <u>Location</u> | <u>Description</u>   | <u>Significant Results</u>       |
|-------------------|-----------------|--|----------------------------------|
| 100712            | 111+15E/93+40N  | .5-.2 cm wide chalcedonic qtz vein in sheared dacite porphyry.                             | 26 ppb Au, 16 ppm As             |
| 100713            | 109+65E/92+90N  | Subcropping chalcedonic veining (grab sample).   | 47 ppb Au, 61 ppm As, .3 ppm Ag  |
| 100717            | 112+70E/87+40N  | Chip across .25 m thick slab of black chalcedonic vein in dump.                            | 70 ppb Au, 175 ppm As, .3 ppm Ag |
| 100719            | 108+87E/86N     | Grey chert locally containing fine-gr py and white to light blue chalcedonic veins.        | 33 ppb Au, 362 ppm As, 6 ppm Sb  |
| 100721            | 114+20E/97+85N  | Fine black chalcedonic veins within fractured trachyandesite.                              | 1020 ppm F, 304 ppm Ba           |
| 100722            | 114E/99N        | Subangular float of fine-bedded arkosic siltstone with local silicification along bedding. | 21 ppm As, 6 ppb Au              |

TABLE II: ROCK GEOCHEMISTRY (Continued)

110E Grid

| <u>Sample No.</u> | <u>Location</u> | <u>Description</u>  | <u>Significant Results</u>                    |
|-------------------|-----------------|---|---|
| 100723            | 113+80E/90N     | Chalcedonic silica breccia vein (grab sample).  | .2 ppm Ag, 5 ppb Au, 264 ppm Ba               |
| 100724            | 110E/91+50N     | Chalcedonic silica breccia vein .4 cm wide.   | 148 ppb Au, 1.0 ppm Ag, 77 ppm As, 798 ppm Ba |
| 100725            | 112E/90N        | Float of chalcedonic qtz stockwork in monzonite (grab sample).  | .7 ppm Ag, 55 ppm As, 1779 ppm Ba, 10 ppb Au. |
| 100726            | 114E/87+60N     | Chip across 2 m section of arkosic siltstone with minor fine chalcedonic veins. (Kettle River Formation). | -   |
| 100727            | 111+25E/88+25N  | Chip across .1 m thick moderately dipping banded chalcedonic vein.  | 120 ppb Au, .7 ppm Ag, 47 ppm As              |
| 100772            | 115E/97N        | Subcropping arkosic sandstone/siltstone (Kettle River Formation).   | .2 ppm Ag, 15 ppm As                          |
| 100773            | 113E/88N        | Grab sample of pyritic (20%) grey chalcedony (chert?).  | 75 ppb Au, 218 ppm As, .4 ppm Ag              |
| 100782            | 100+75E/87+40N  | Andesite breccia with chert clasts.   | 325 ppm Cu, 23 ppb Au                         |
| 100783            | 101+30E/87+40N  | Random chip of chalcedonic vein material on strike with 100727.   | 423 ppb Au, 2.3 ppm Ag, 47 ppm As             |
| 100784            | 102+75E/87+20N  | Chip across 10 m wide zone of silicification.   | 56 ppm As, 5 ppb Au                           |
| 100785            | 114+25E/89N     | Andesite breccia with chert clasts.   | 175 ppm Cu, 8 ppb Au                          |

FIG. II a SILVER / GOLD RATIOS

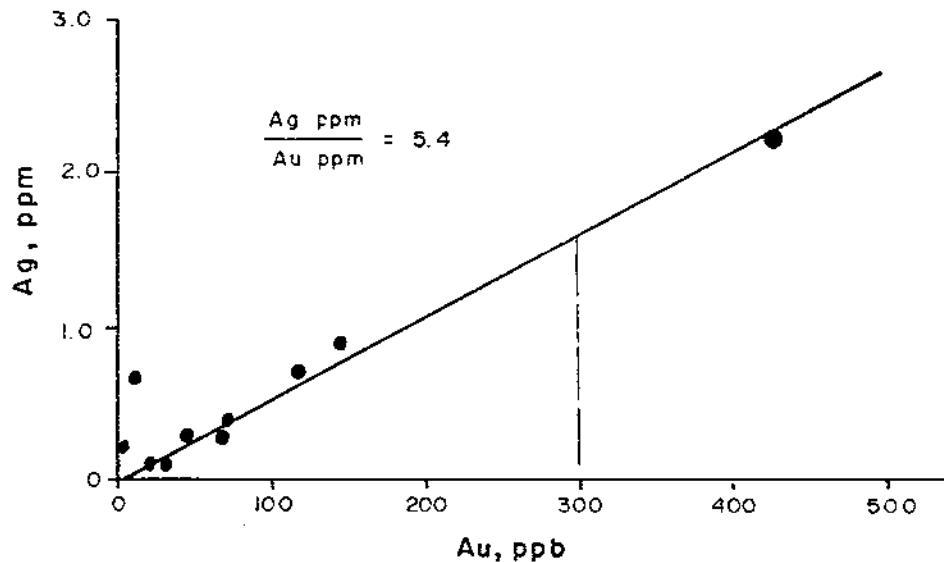
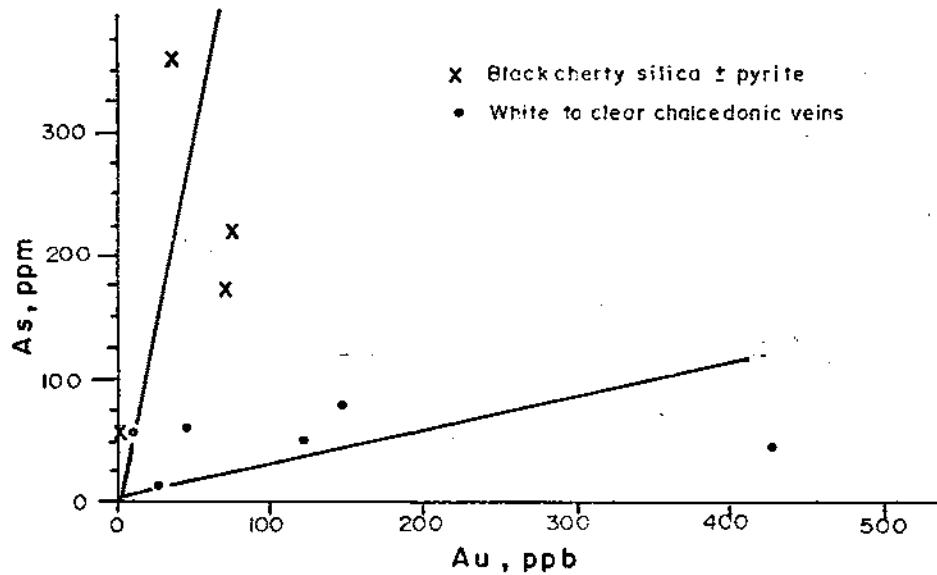


FIG. II b ARSENIC / GOLD RATIOS



BP Resources Canada Limited  
MINING DIVISION

MIDWAY PROPERTY  
110E GRID VEIN SAMPLES

|        |         |           |         |             |              |
|--------|---------|-----------|---------|-------------|--------------|
| SCALE: | —       | DRAWN BY: | R. WONG | FIG.        | II           |
| DATE:  | JAN '89 | REV.:     |         | DRAFTED BY: | CHONG        |
| N.T.S. | 82E /2W | PROJ.:    | 10136   | REPORT:     | BPVR 88 - 12 |

Silver/gold and arsenic/gold plots for the vein samples are shown in Figure 11. Silver displays a relatively linear relationship with gold with a Ag/Au ratio of approximately 5.4. In contrast, arsenic appears to display two trends with respect to gold. Samples of pyritic black cherty silica and/or chalcedonic veins hosted in chert display much higher As/Au ratios, while veins in monzonite and dacite porphyry display much lower As/Au ratios.

Two representative samples of andesite breccia with chert clasts (100782, 100785) show high backgrounds in copper (325 ppm, 175 ppm) and gold (23 ppb, 8 ppb).

Samples of Tertiary rocks (100721, 100722, 100726, 100772) yielded no significant anomalies.

B) Soil Sampling

i) Introduction

Reconnaissance sampling was conducted over a small portion of the 100E Grid (lines 123N, 125N, 127N and 129N) with samples collected at 50 m intervals. Detailed sampling was completed over the entire 110E Grid at 25 m intervals on lines 100 m and 200 m apart.

In both areas topography is gently rolling but vegetation differs markedly. The 100E Grid area is largely tree-covered, whereas the 110E Grid area is mainly open grassland.

Soils were collected from the BM horizon which varied in depth from 30-80 cm. Samples were submitted to Acme Analytical

Laboratories in Vancouver where they were dried and sieved to -80 mesh. This fraction was analyzed for Au following an aqua regia digestion, for F following a peroxide fusion, and for a suite of 30 elements (ICP) following a separate aqua regia digestion. Analytical procedures are reported in Appendix I.

Results were interpreted following procedures outlined in Appendix II. Analytical results are given in Appendix III.

ii) 100E Grid

a) Description of Results

A total of 67 samples were collected (Figure 12) and show no significant enhancements in Au, Ag, As or Sb. Weakly to moderately enhanced levels of Ni, Co, Mn, Pb, Cu, Ca, Mg, P, Ti, Sr, La, V, Cr, F, Th, and Fe occur on the eastern edge of the surveyed area and appear to correlate with the western contact of the large body of monzonite (unit 4b).

b) Discussion of Results

Soil geochemistry provides no evidence for epithermal mineralization in the surveyed area.

c) Conclusions and Recommendations

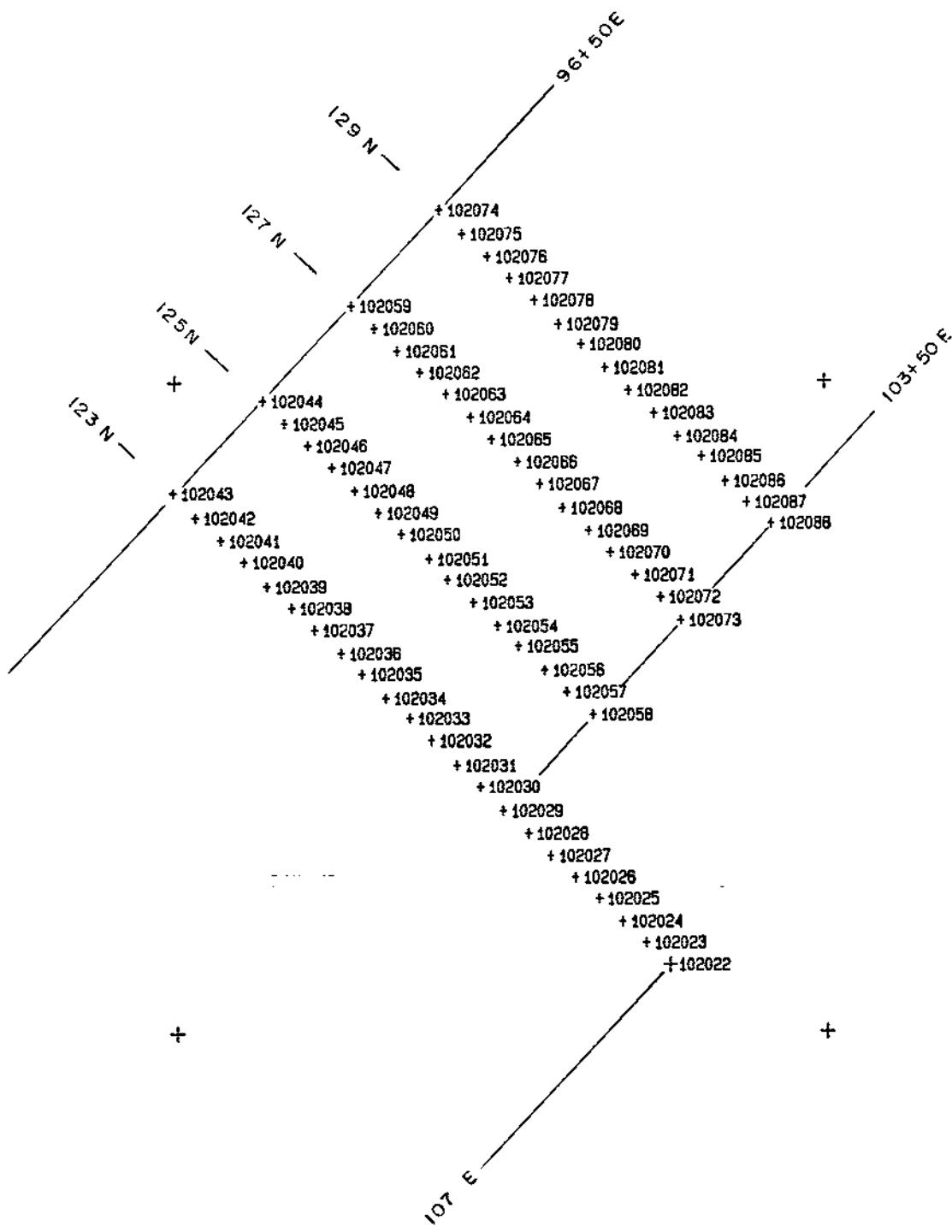
Neither the main graben-bounding fault nor adjacent Kettle River Formation sediments appear to be mineralized in the surveyed area. No further work is recommended here.

368000

369000

543500

543'4000



100E GRID

MIDWAY PROJECT - B.C.

1988 SOIL SURVEY

## SAMPLE LOCATION MAP

**100E GRID**  
**MIDWAY PROJECT - B.C.**  
**1988 SOIL SURVEY**  
**SAMPLE LOCATION MAP**

iii) 110E Grid Area

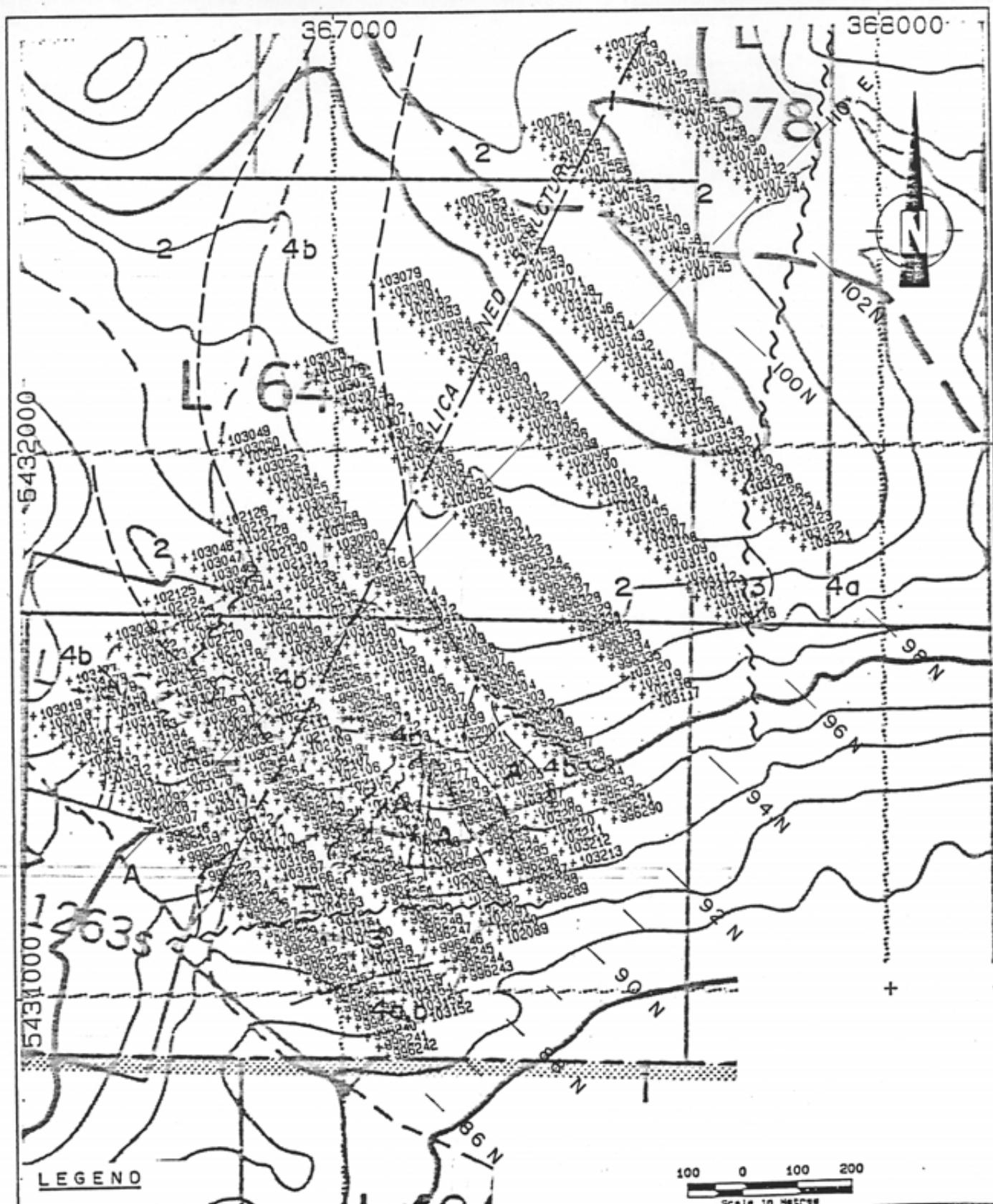
a) Description of Results

A total of 408 samples were collected (Figure 13a). Description and interpretation of results by S.J. Hoffman are as follows.

Au (Fig. 13b)

Most Au values are less than 3 ppb across the property, particularly over the northern two thirds of the grid. An anomaly threshold of 10 ppb outlines two anomalies (No. 1 and 3) having a 500+ m long dimension approximately trending northeastward parallel to the silica veined structure. Both zones vary in width from 25 m to 125 m and attain maximum Au values of 50 to 200 ppb. Anomaly 1 coincides with the silica veined structure or its immediate environs and is underlain mainly by Knob Hill Group cherts or Marron Formation monzonite/syenite. Zone 3 is underlain by similar geology and follows the trend of a fault mapped in the area. Two smaller anomalies, No. 2 and 4, are probably related to the same source as controls zones 1 and 3, respectively.

The major Au zones, and anomaly 5 in the west, a two point feature, lie within an east-west belt some 400 m wide, flanked to the south by a fault and to the north by a line along UTM 5431500 m N. The belt appears truncated in the east, but is open to the west. Only anomaly 6 and several isolated point high Au values lie outside the main Au-rich area. Zone 6 is a two point feature.



### MIDWAY PROPERTY

MIDWAY PROJECT - B.C.

1988 SOIL SURVEY

SAMPLE LOCATION MAP

|  |               |                 |
|--|---------------|-----------------|
|  | DATE: SEPT/88 | PROJECT #: 578C |
|  | NTS: 82E/2    | SCALE 1: 10000  |

BPVR 88-12

Fig. 13a

Ag (Fig. 13c)

Ag values are generally less than 0.7 ppm. One weak Ag anomaly is defined along the southernmost east-west trending fault zone.

As (Fig. 13d)

Almost all As values exceeding 5 ppm are located in the south. Some correlation is seen between As zones 4-5-6 and Au zones 1-2, as well as As zone 8 and Au zone 4, but Au zone 3 is relatively impoverished in As content, soils containing less than 10 ppm compared to anomalous levels of 14 to 30 ppm. In some respects, the previously described As anomalies can be said to halo Au zone 3, perhaps indicating it is a Au pathfinder.

As enhancement is prominent along the grid westernmost line. Here As anomalies are generally peripheral to Au-rich zones, again suggesting a pathfinder relationship. Elsewhere, As-rich zones of similar magnitude are widely separated but generally peripheral to Au. As levels south of the southernmost east-west fault are generally low.

Sb (Fig. 13e)

All Sb values are at detection limits.

Bi (Fig. 13f)

All Bi values are at detection limits.

Mo (Fig. 13g)

All Mo values are at detection limits.

Cu (Fig. 13h)

Cu exhibits an extreme range of values over the property. Lowest values of less than 35 ppm characterize the Cretaceous dacite porphyry in the north. The northernmost position of Marron monzonite to syenite are associated with similar to slightly higher backgrounds of generally less than 50 ppm Cu whereas ground south of the southernmost fault is generally overlain by soils containing less than 75 ppm Cu.

Zones of anomalous Cu values exceeding 110 ppm to maximums in the 400 to 700 ppm range define the same 400 m wide band described for Au and As. Good correspondence is seen between Cu and Au, with Cu zones being broader, suggesting their application as a pathfinder for Au, Cu displays larger anomalous patterns which are more homogeneous than those of As. Underlying bedrock appears predominately Knob Hill Group.

Pb (Fig. 13i)

Most Pb values are between 10 and 20 ppm. Pb has not accumulated to any great extent and no distinctive characteristics are noted for the Pb distribution.

Zn (Fig. 13j)

The Zn distribution is dominated by two major zones of enhancement, one lying south of the southernmost east-west fault, and the other lying over the northernmost extension of the silica veined structure. The main Au-As-Cu anomalous trend is generally Zn poor at less than 49 ppm whereas the high values are in the 80 to 100 ppm range.

Fe (Fig. 13k)

The Fe distribution complements Zn in the extreme north and south, but the metal-rich, 400 m wide east-west zone is also associated with Fe anomalies. The Fe distribution correlates closely with As, but is a little stronger southeast of Au zones 3-4. Fe appears able to act as a pathfinder for Au.

Mn (Fig. 13l)

Mn exhibits systematic variations across the grid, in part appearing to be line controlled. South of the dacite porphyry, Mn has accumulated in the 950 ppm to the 2000 ppm level peripheral to the zones of Au enhancement although Au anomalies 1 to 4 lie within an area of weaker Mn enrichment. The Mn pattern is suggestive of Mn haloing the Au anomalies, the distribution of anomalous values extending to a greater distance than As, Cu, or Fe.

Mn enrichment in the north is homogeneous and can be described as following an east-west pattern (trends B-B and C-C). An east-west trend can also be seen in the south (A-A) approximately marking the northernmost extension of anomalous Au conditions.

Co (Fig. 13m)

The Co distribution is essentially independent of that of Mn, indicating scavenging by Mn is not a factor. The Co distribution is thus controlled by other factors, such as lithology south of the southernmost east-west fault. More importantly, the Co

distribution suggests Mn is not related to spurious accumulation, but rather is due to controls exerted by underlying bedrock. Within the Au-rich, 400 m wide zone, Co contents are commonly enhanced in sympathy with As.

Ni (Fig. 13n)

Ni accumulation defines areas within the grid, but these are not restricted to areas of predominantly one lithology. For example, only about half the area south of the southernmost east-west fault is associated with high Ni concentrations of 75 to 130 ppm. The 400 m wide Au zone is Ni-poor, values generally less than 60 ppm. To the north of the Au belt, Ni levels are somewhat homogeneously enriched in a band some 300 m wide crosscutting all rock types (zones 2,3,4, and enhanced values immediately to the east of 4, over dacite porphyry). Ni values are also elevated over the northernmost portions of the dacite porphyry.

V (Fig. 13o)

V generally follows Fe. Highest values are along the easternmost portions of the 6 southern lines and are in the 80 to 100 ppm range. Lowest values are over the dacite porphyry and northern limit of the Marron monzonite/syenite at less than 40 ppm.

Cr (Fig. 13p)

Cr follows Ni.

Ba (Fig. 13g)

Ba does not display characteristics of those elements described previously. Large zones exhibit enhancement. Many of these lie in seepage or base of slope zones. By contrast, many of the areas of background values lie along ridge or hilltops. Lowest values of less than 150 ppm lie in the extreme grid southwest, in a region underlain by Knob Hill and Marron intrusions. Much of the silica veined structure is overlain by Ba-rich soils, but Au anomalies are erratic in their association with Ba.

Sr (Fig. 13r)

The Sr distribution is significantly different to that of Ba and most high values lie peripheral to high Ba contents. Three broad areas exhibit abnormal Sr concentrations in the 100 to 1000 ppm range: south of the southernmost east-west fault (zone 1), associated with a dacite porphyry unit in the west, (zones 5 to 9), and overlying the north central portion of the grid (zones 1 to 13). Two anomalous zones of comparable magnitude (No. 4, 2-3) lie within the Au-rich belt associated with creek drainage-ways. Otherwise, the Au belt is associated with lower Sr values up to 77 ppm.

Ca (Fig. 13s)

The Ca distribution is fairly similar to that of Sr. Maximum Ca contents of 2 to 15% probably indicate that the calcium carbonate C horizon has been sampled in preference to the BM zone. The soil environment at Midway is probably alkaline throughout, and sample

depth probably not a significant factor with regards to element mobility. It is a factor, however, in being an added component to the soil in diluting original metal contents. Care should be taken to avoid sampling the calcium carbonate zone, although in certain environments, such as in base of slope regions it may be present at a shallow depth making avoidance a difficult task.

Mg (Fig. 13t)

Mg exhibits a similar pattern to Sr and Ca, except that it is not elevated in content over northern portions of the grid. Correlation of Mg with geology is good in the south and associated with the dacite porphyry in the west. Anomalous Mg values are found along the southern 100 to 150 m of the Au belt. In some respects this is similar to Sr, but additionally Mg is also elevated in ridge areas, suggesting a geologic as well as, or in addition to, groundwater control.

La (Fig. 13u)

Distribution of La is more heterogeneous, although areas of enhancement characterize three portions of the grid. The area reflected by Mg enrichment is also La-rich (zones 1 to 5). The northern limit of dacite porphyry (No's. 11 and 12) and a second area in the south (No's 8 and 9) exhibit anomalous values.

Na (Fig. 13v)

Detectable Na values are rarely encountered and where Na is present, extreme evaporation is suspected. Highest values characterize a ridge in the south.

K (Fig. 13w)

The southern half of the grid is associated with elevated K contents of 0.25% to 0.75%. The Au trend is within a K-rich area. Lowest values of less than 0.17% typify the westernmost corner of the grid.

Al (Fig. 13x)

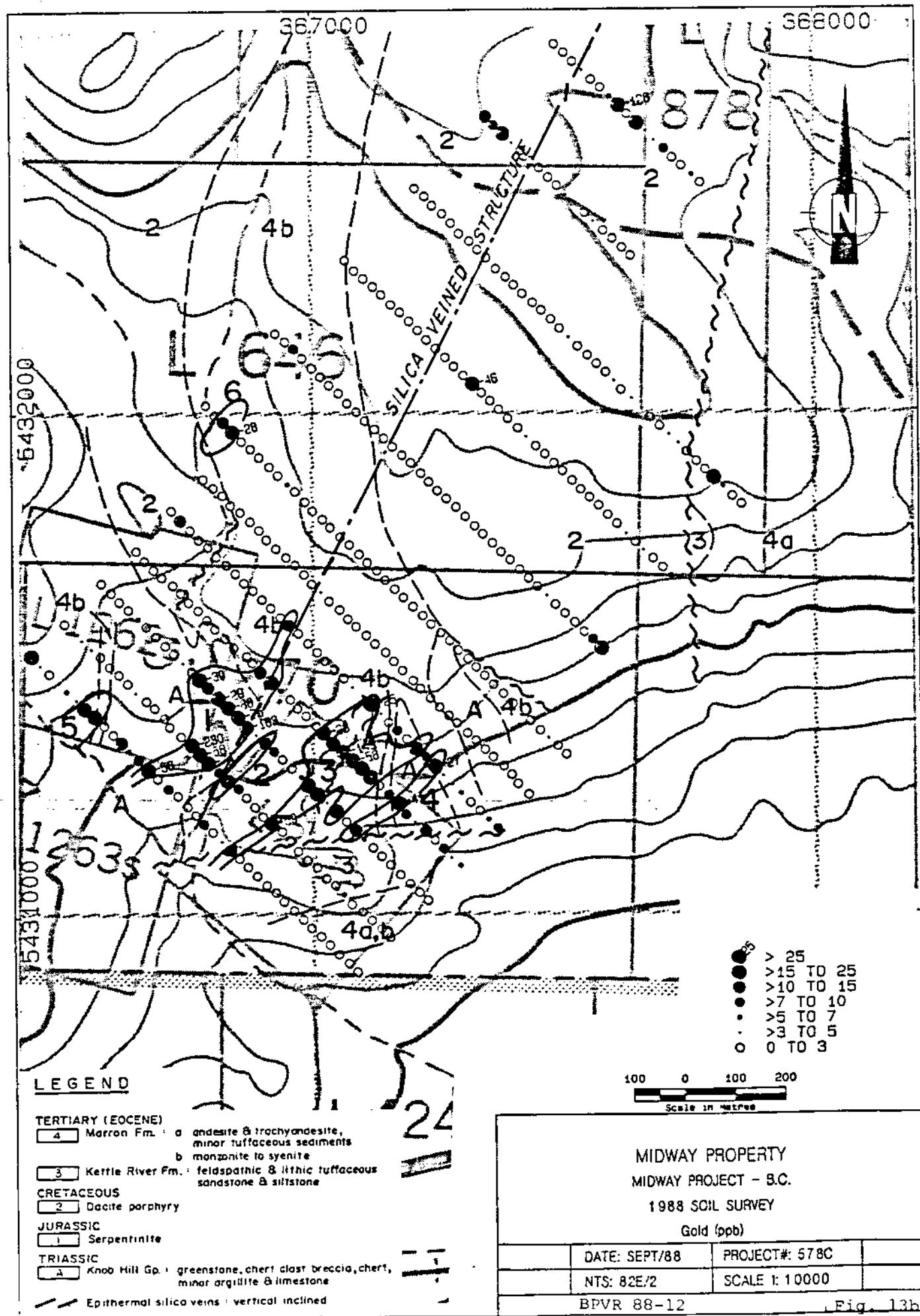
The Al distribution is homogeneous, but varies greatly across the grid. Portions of all units are either associated with enhanced or depleted values. Strongest zones of accumulation are remote from Au anomalies and appear to reflect proximity to intrusive contacts. Except for Al zone 3 which lies in the midst of Au zones 3-4, it is difficult to imagine a correlation between Al and Au.

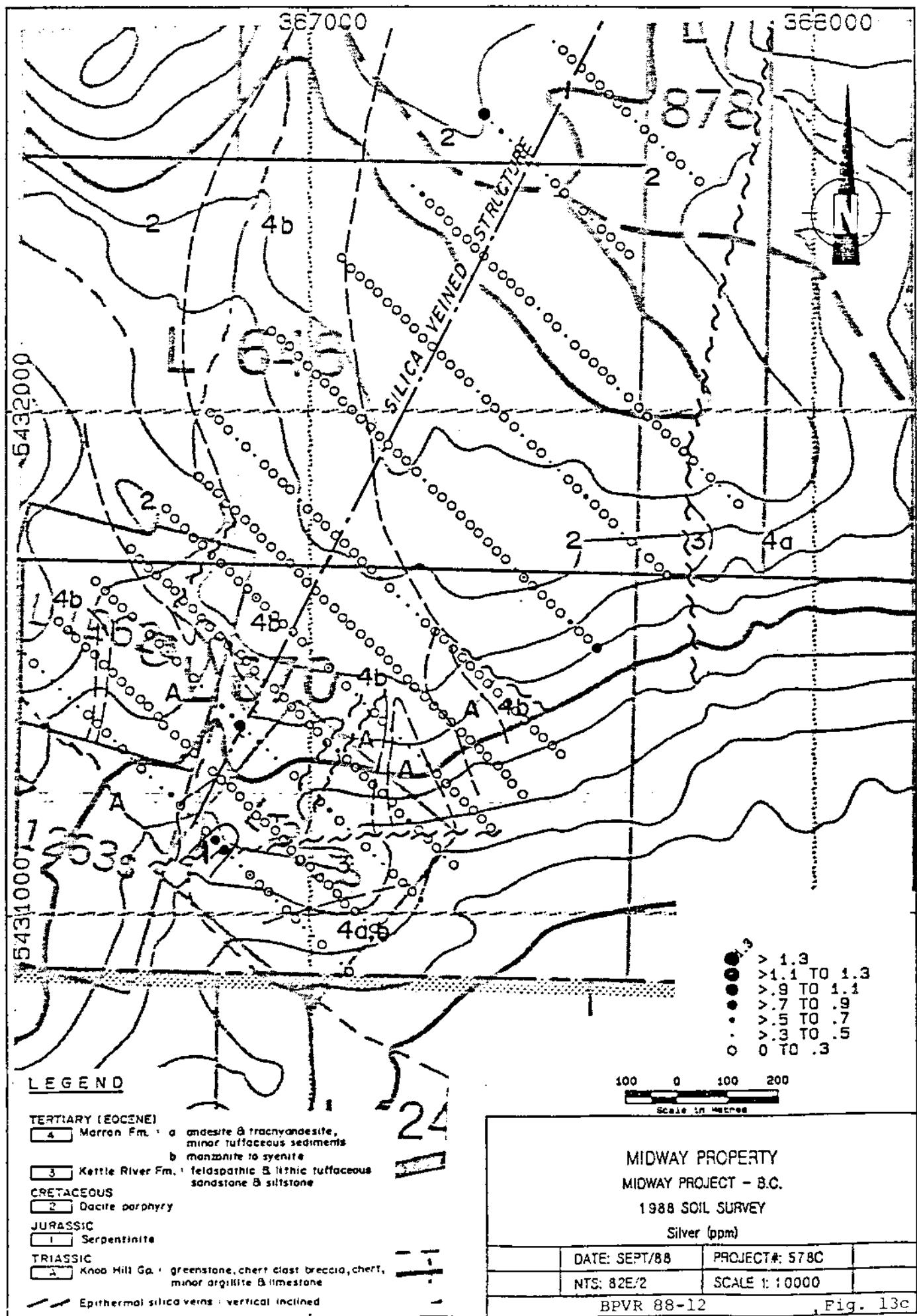
Ti (Fig. 13y)

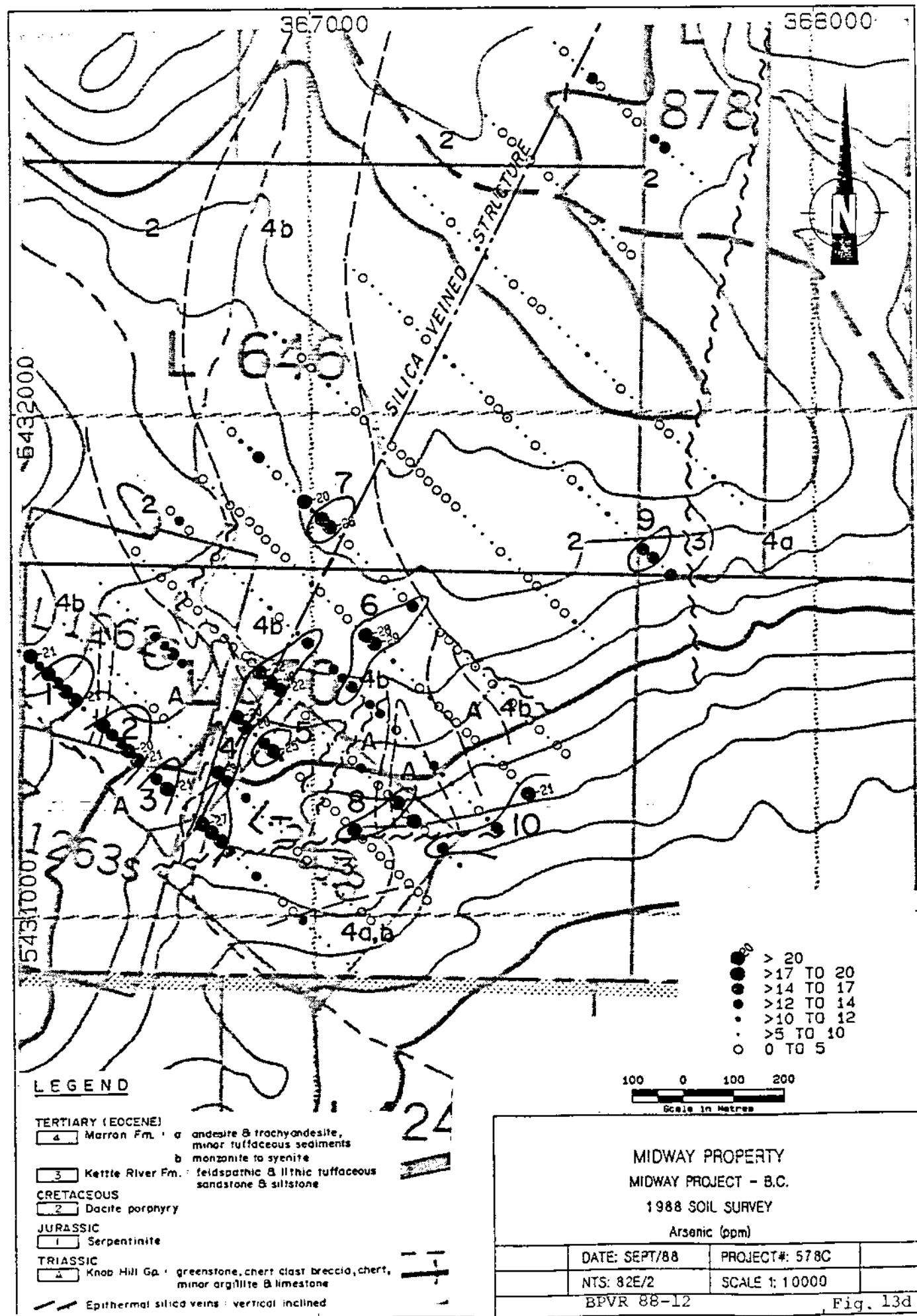
Ti-enhanced concentrations lie predominantly south of the southernmost east-west trending fault. Maximum values are 0.1 to 0.25% whereas north of the fault few values exceed 0.06% Ti.

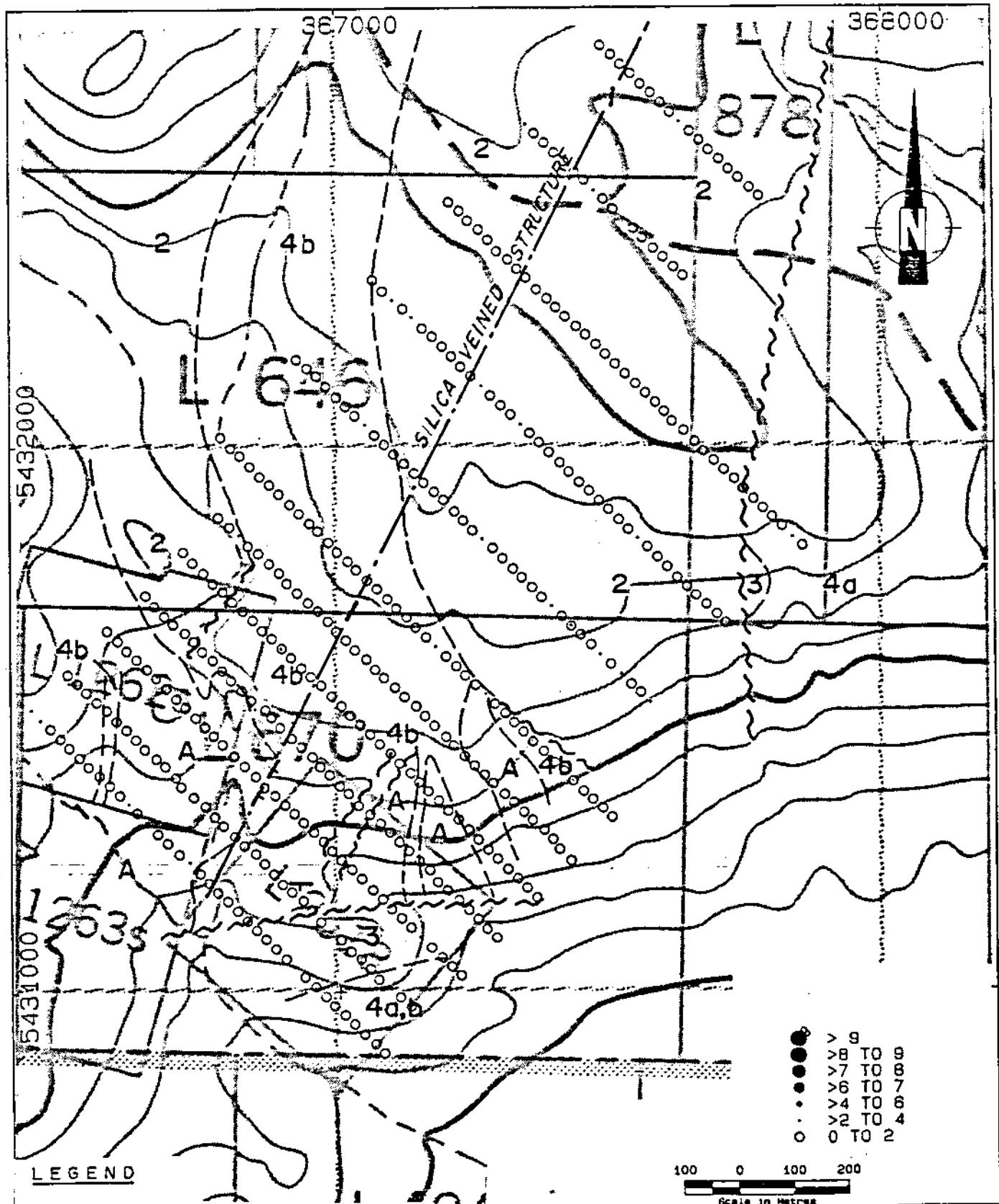
P (Fig. 13z)

P displays patterns suggesting several controls. P contents are homogeneously high in the area of the Ti anomaly. North of the fault, P correlates with Au in zones 1, 3 and 5 but also exhibits an erratic haloing relationship. In the north, central portions of the dacite porphyry are weakly P-enriched.









### **TERTIARY (EOCENE)**

- 4** Morren Fm.: a andesite & trachyandesite,  
minor tuffaceous sediments  
b monzonite to syenite

**3** Kettle River Fm.: feldspathic & lithic tuffaceous  
sandstone & siltstone

**CRETACEOUS**

**2** Dacite porphyry

**JURASSIC**

**1** Serpentinite

**TRIASSIC**

**A** Knob Hill Gp.: greenstone, chert class breccia, cherts  
minor argillite & limestone

**E** Epithermal silica veins : vertical inclined

MIDWAY PROPERTY

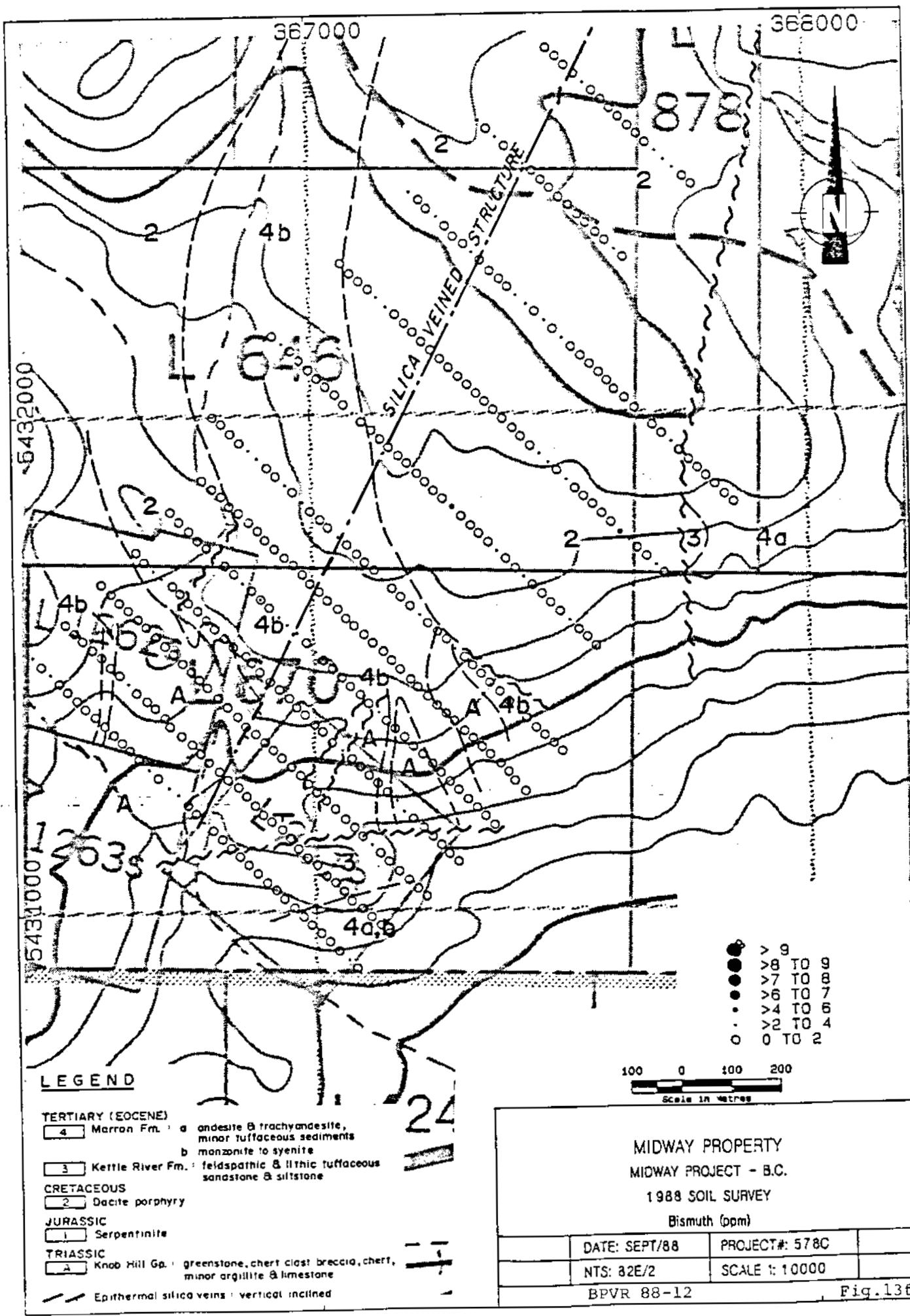
MIDWAY PROJECT - B.C.

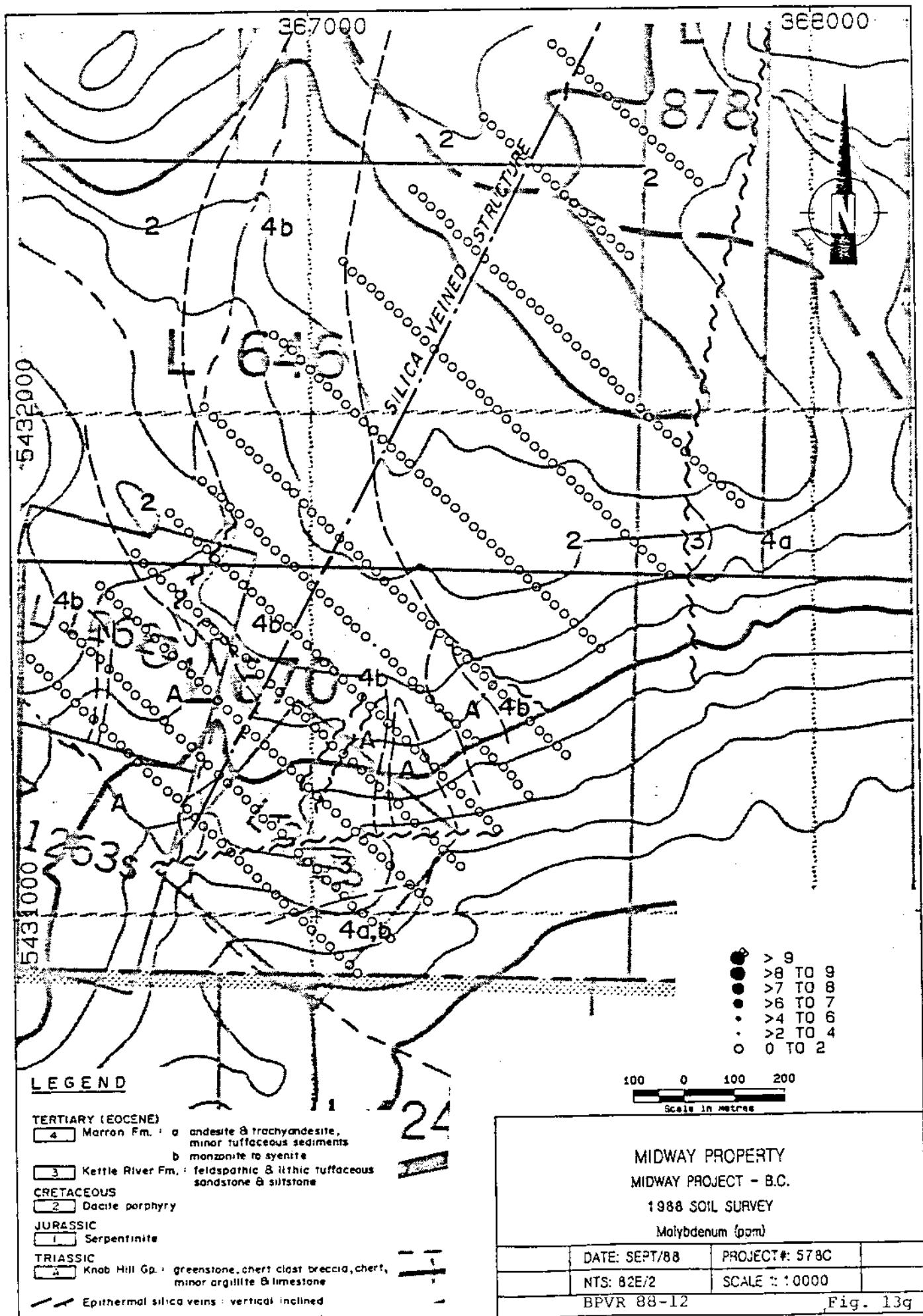
1988 SOIL SURVEY

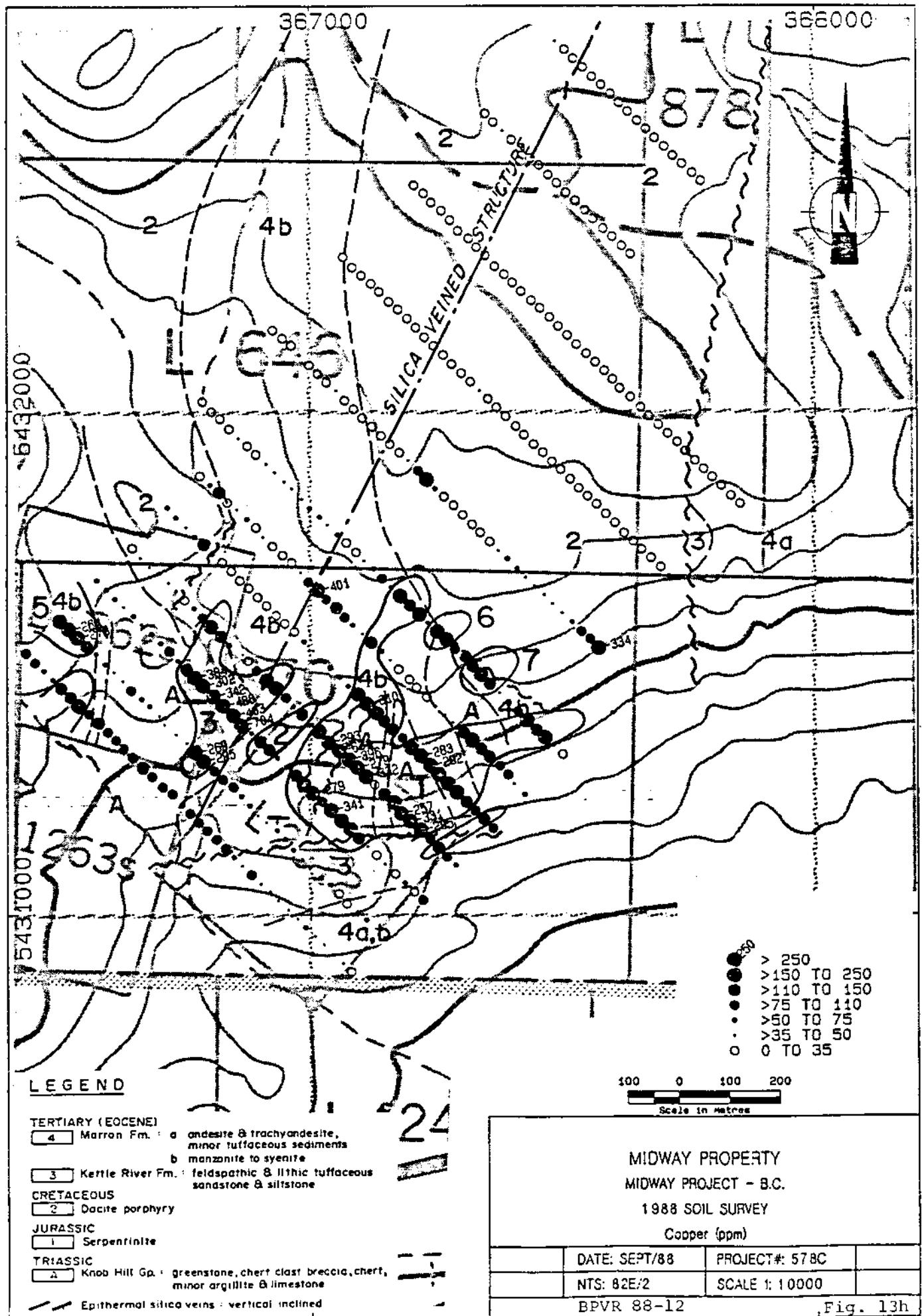
### Antimony (ppm) --

| Antimony (ppm) -- |               |                 |          |
|-------------------|---------------|-----------------|----------|
|                   | DATE: SEPT/88 | PROJECT #: 578C |          |
|                   | NTS: 82E/2    | SCALE 1: 10000  |          |
|                   | BPVR 88-12    |                 | Fig. 13e |

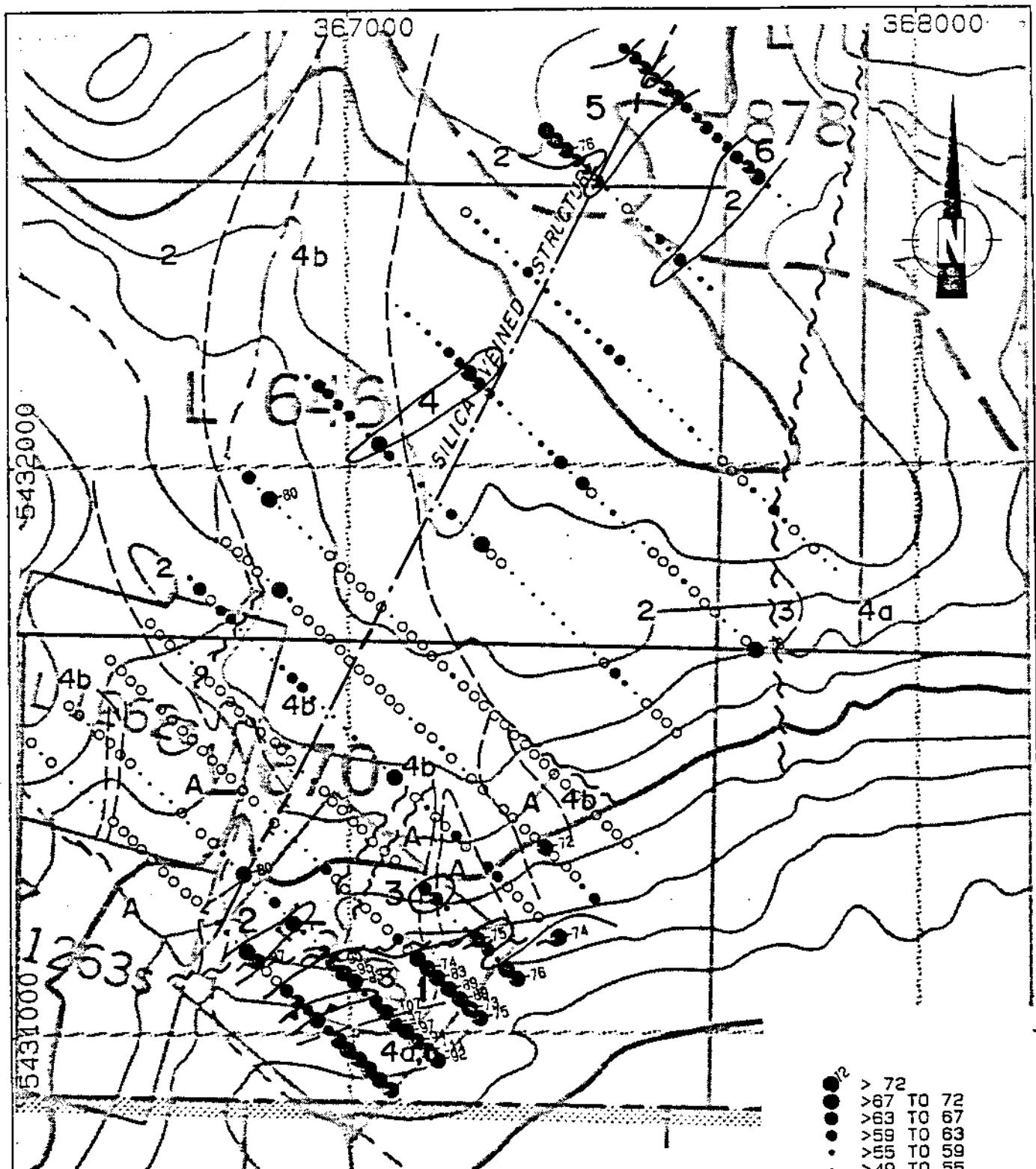
Fig. 13e











**LEGENDO**

**TERtiary (EOCENE)**

|   |            |  |
|---|------------|--|
| 4 | Marron Fm. | a andesite & trachyandesite,<br>minor tuffaceous sediments |
|   |            | b monzonite to syenite                                     |

**3 Kettle River Fm.** : feldspathic & lithic tuffaceous sandstone & siltstone  
**CRETACEOUS**

**CRETAEUS**  
3 Dacite porphyry

JURASSIC

1 5e

**TRIASSIC**  
A Knob Hill Gp.: greenstone, chert clast breccia, chert,  
minor granitite & limestone

#### Epithermal silica veins : vertical/inclined

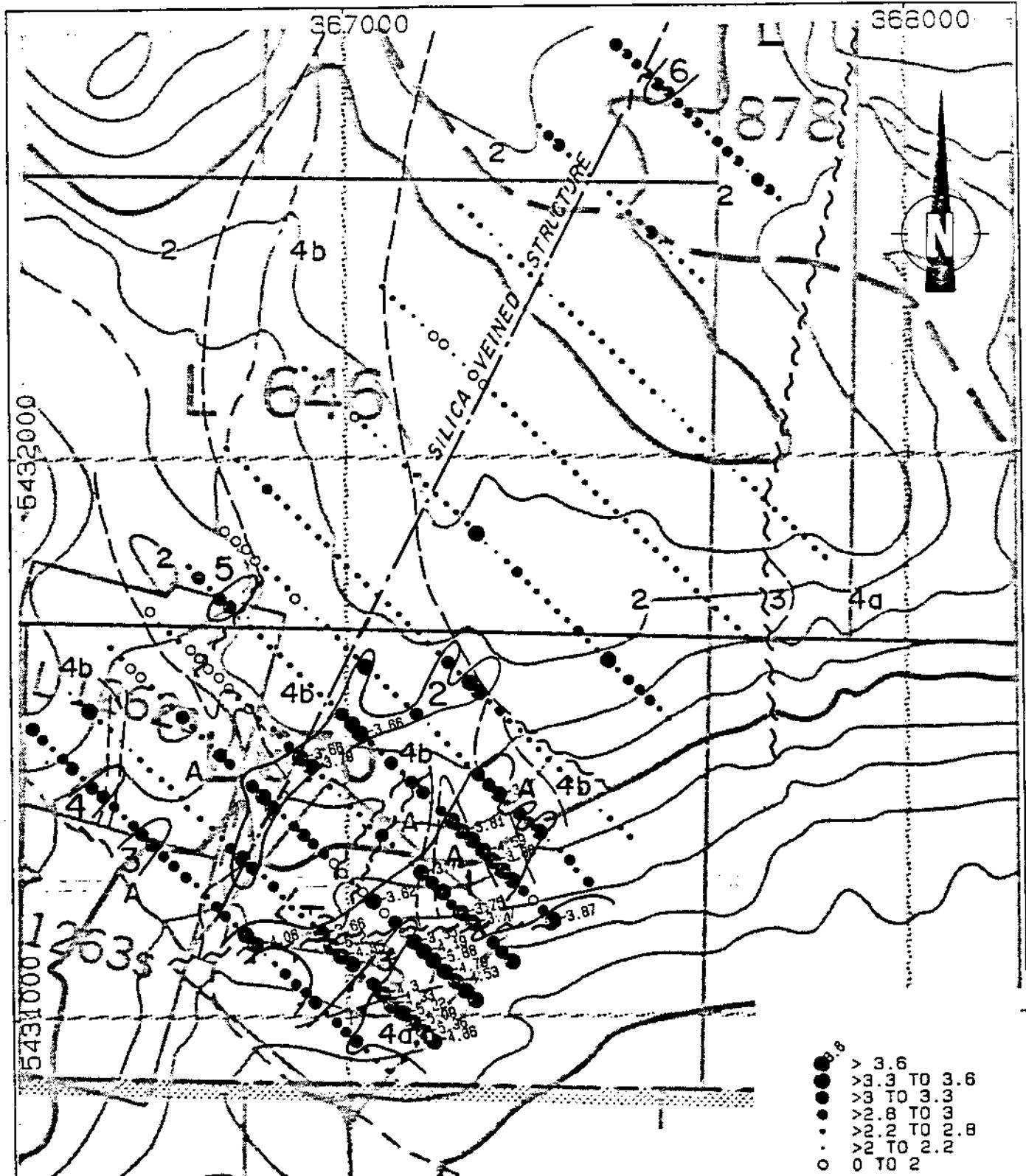
MIDWAY PROPERTY

MIDWAY PROJECT = B.C.

1988 SOIL SURVEY

**Zinc (ppm)**

Scale in Metres



4 Morron Fm.: a andesite & trachyandesite, minor tuffaceous sediments  
b monzonite to syenite

3 Kettle River Fm.: feldspathic & lithic tuffaceous sandstone & siltstone

2 Dacite porphyry

1 Serpentinite

A Knob Hill Gp.: greenstone, chert clast breccia, chert, minor argillite & limestone

Epithermal silica veins: vertical inclined

### MIDWAY PROPERTY

MIDWAY PROJECT - B.C.

1988 SOIL SURVEY

Iron (%)

|            |               |                |
|------------|---------------|----------------|
|            | DATE: SEPT/88 | PROJECT#: 578C |
|            | NTS: 82E/2    | SCALE 1: 10000 |
| BPVR 88-12 |               | , Fig. 13k     |

367000 368000

15432000

1543100001

### LEGEND

#### TERTIARY (EOCENE)

- [4] Merton Fm. : a andesite & trachyandesite, minor tuffaceous sediments  
b monzonite to syenite
- [3] Kettle River Fm. : feldspathic & lithic tuffaceous sandstone & siltstone

#### CRETACEOUS

- [2] Dacite porphyry

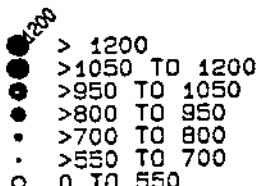
#### JURASSIC

- [1] Serpentinite

#### TRIASSIC

- [A] Knob Hill Grp. : greenstone, chert clast breccia, chert, minor argillite & limestone

- Epithermal silica veins : vertical inclined



100 0 100 200

Scale in Metres

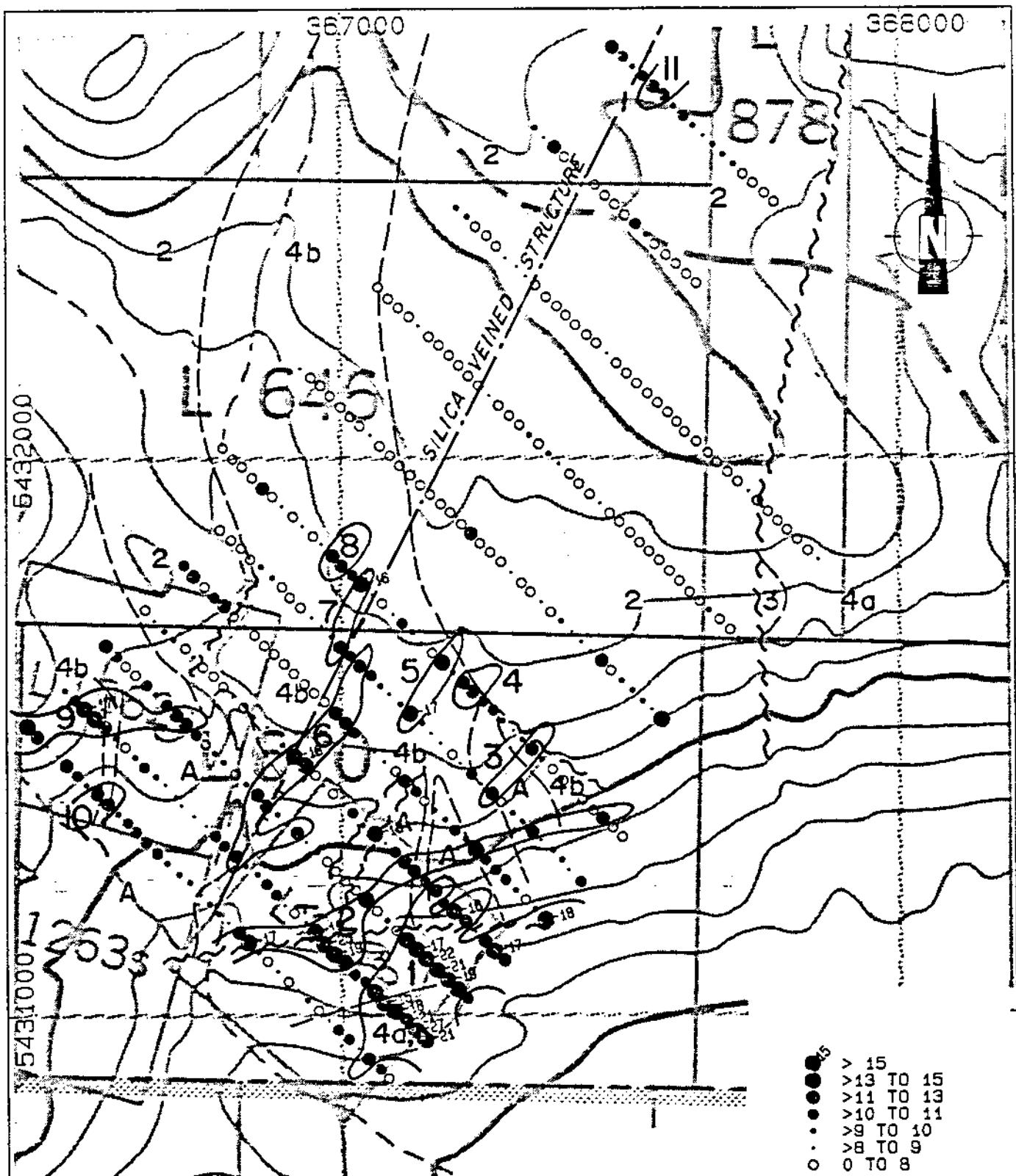
### MIDWAY PROPERTY

MIDWAY PROJECT - B.C.

1988 SOIL SURVEY

Manganese (ppm)

|  |               |                 |
|--|---------------|-----------------|
|  | DATE: SEPT/88 | PROJECT #: 578C |
|  | NTS: 82E/2    | SCALE 1:10000   |
|  | BPVR 88-12    | Fig. 131        |



**TERTIARY (EOCENE)**  
 4 Moran Fm.: a. andesite & trachyandesite,  
 minor tuffaceous sediments  
 b. monzonite to syenite

3 Kettle River Fm.: feldspathic & lithic tuffaceous  
 sandstone & siltstone

**CRETACEOUS**  
 2 Dacite porphyry

**JURASSIC**  
 1 Serpentinite

**TRIASSIC**  
 A Knob Hill Grp.: greenstone, chert clast breccia, chert,  
 minor argillite & limestone

Epithermal silica veins: vertical inclined

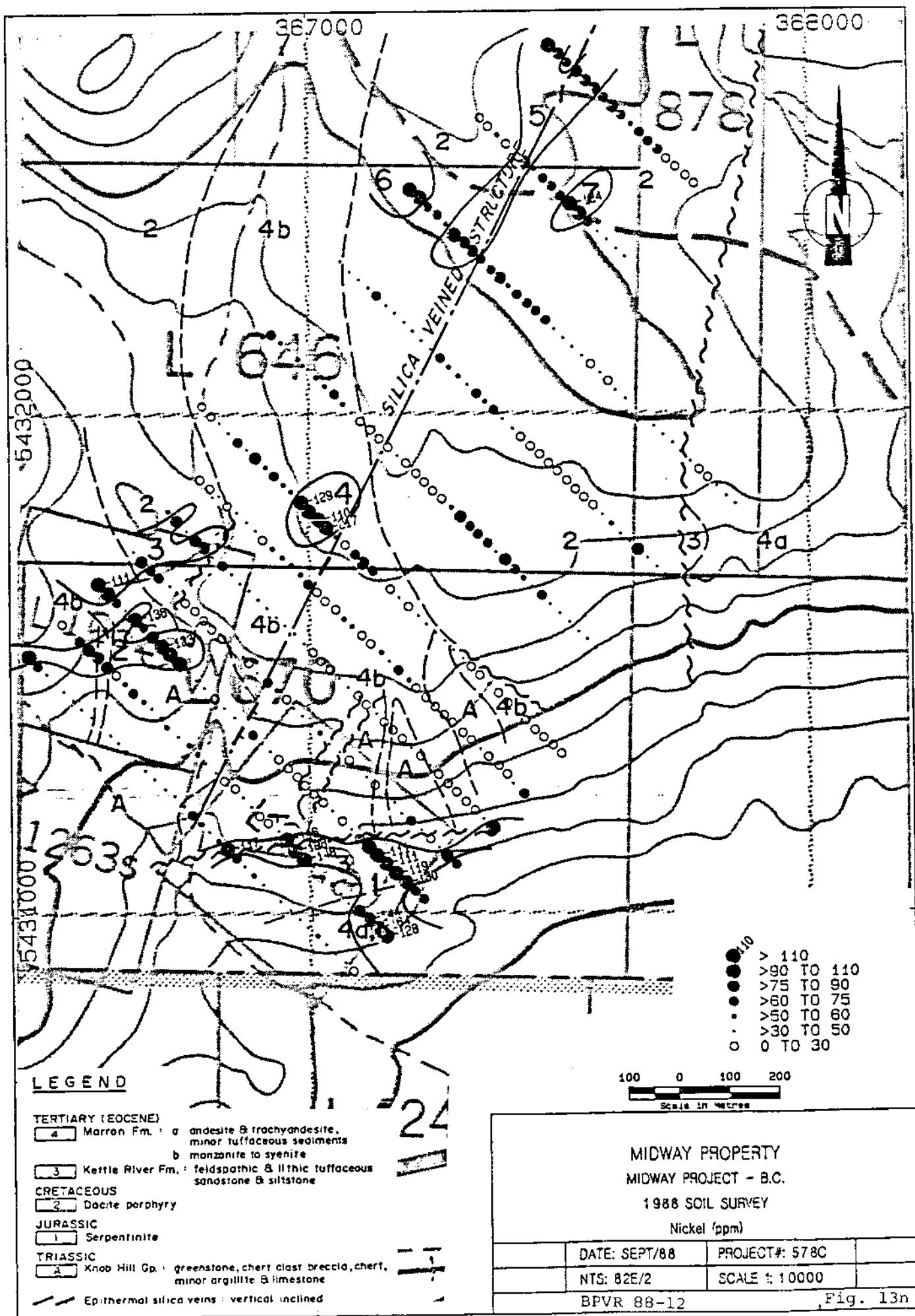
### MIDWAY PROPERTY

MIDWAY PROJECT - B.C.

1988 SOIL SURVEY

Cobalt (ppm)

|  |               |                 |
|--|---------------|-----------------|
|  | DATE: SEPT/88 | PROJECT #: 578C |
|  | NTS: 82E/2    | SCALE 1: 10000  |
|  | BPVR 88-12    | Fig. 13m        |



367000 366000

5432009

5431000

#### LEGEND

##### TERTIARY (EOCENE)

- [4] Merton Fm. : a andesite & trachyandesite, minor tuffaceous sediments  
b monzonite to syenite
- [3] Kettle River Fm. : feldspathic & lithic tuffaceous sandstone & siltstone

##### CRETACEOUS

- [2] Dacite porphyry

##### JURASSIC

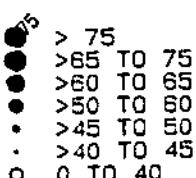
- [1] Serpentinite

##### TRIASSIC

- [A] Knob Hill Gp. : greenstone, chert clast breccia, chert, minor argillite & limestone

- Epithermal silica veins : vertical inclined

SILICA VEINED  
STRUCTURE



100 0 100 200  
Scale in Metres

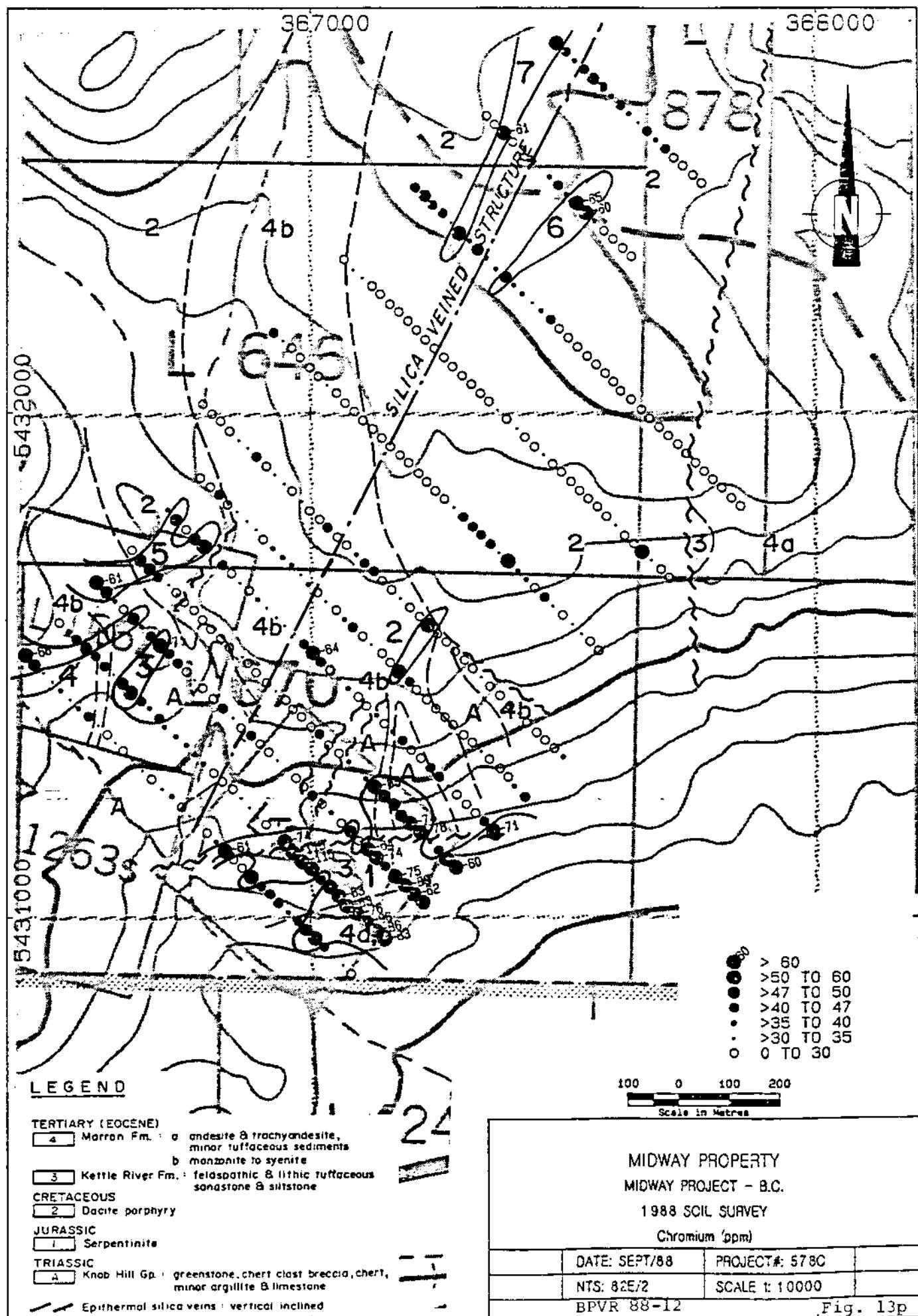
#### MIDWAY PROPERTY

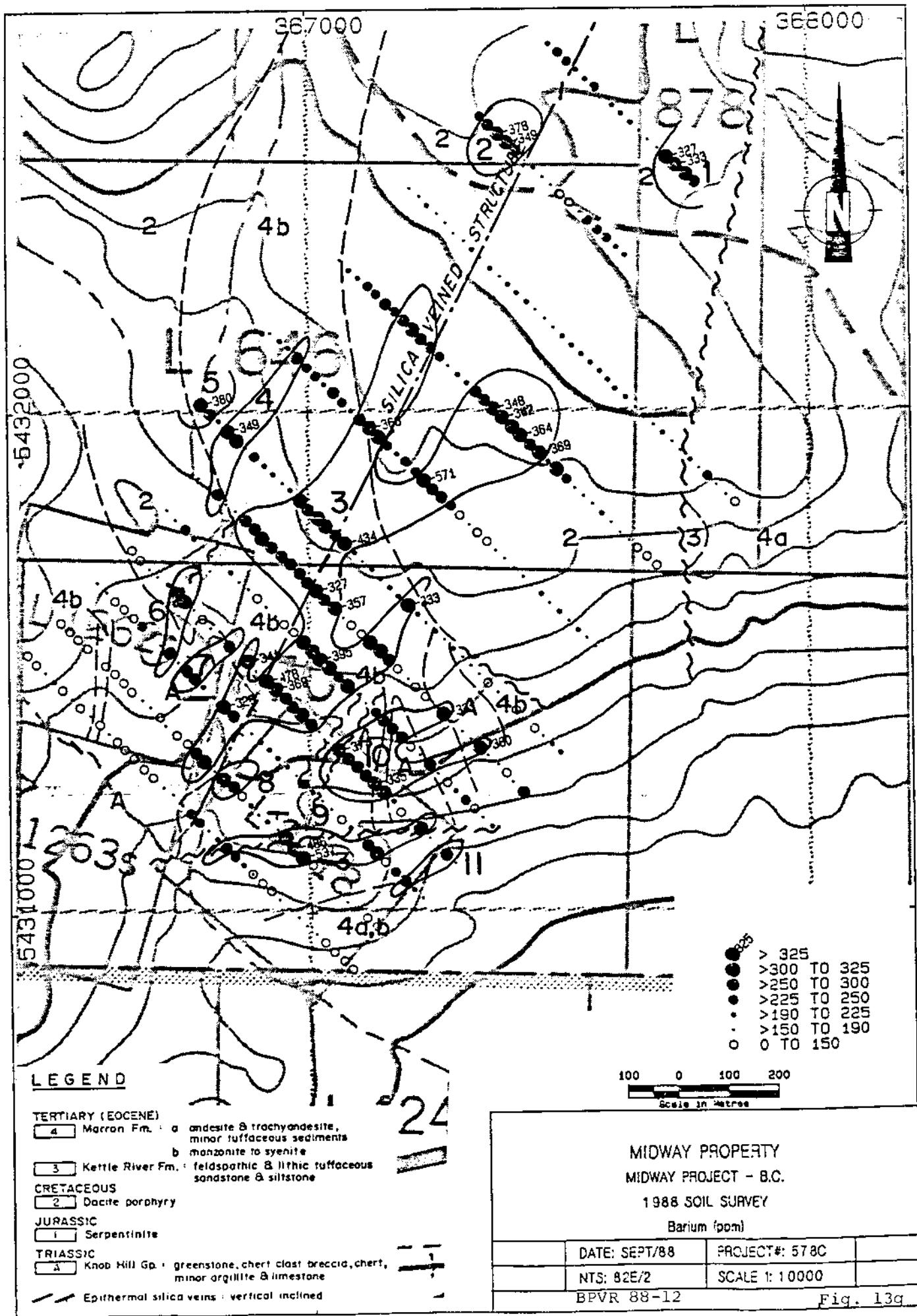
#### MIDWAY PROJECT - B.C.

1988 SOIL SURVEY

Vanadium (ppm)

|  |               |                 |
|--|---------------|-----------------|
|  | DATE: SEPT/88 | PROJECT #: 578C |
|  | NTS: 82E/2    | SCALE 1: 10000  |
|  | BPVR 88-12    | Fig. 130        |





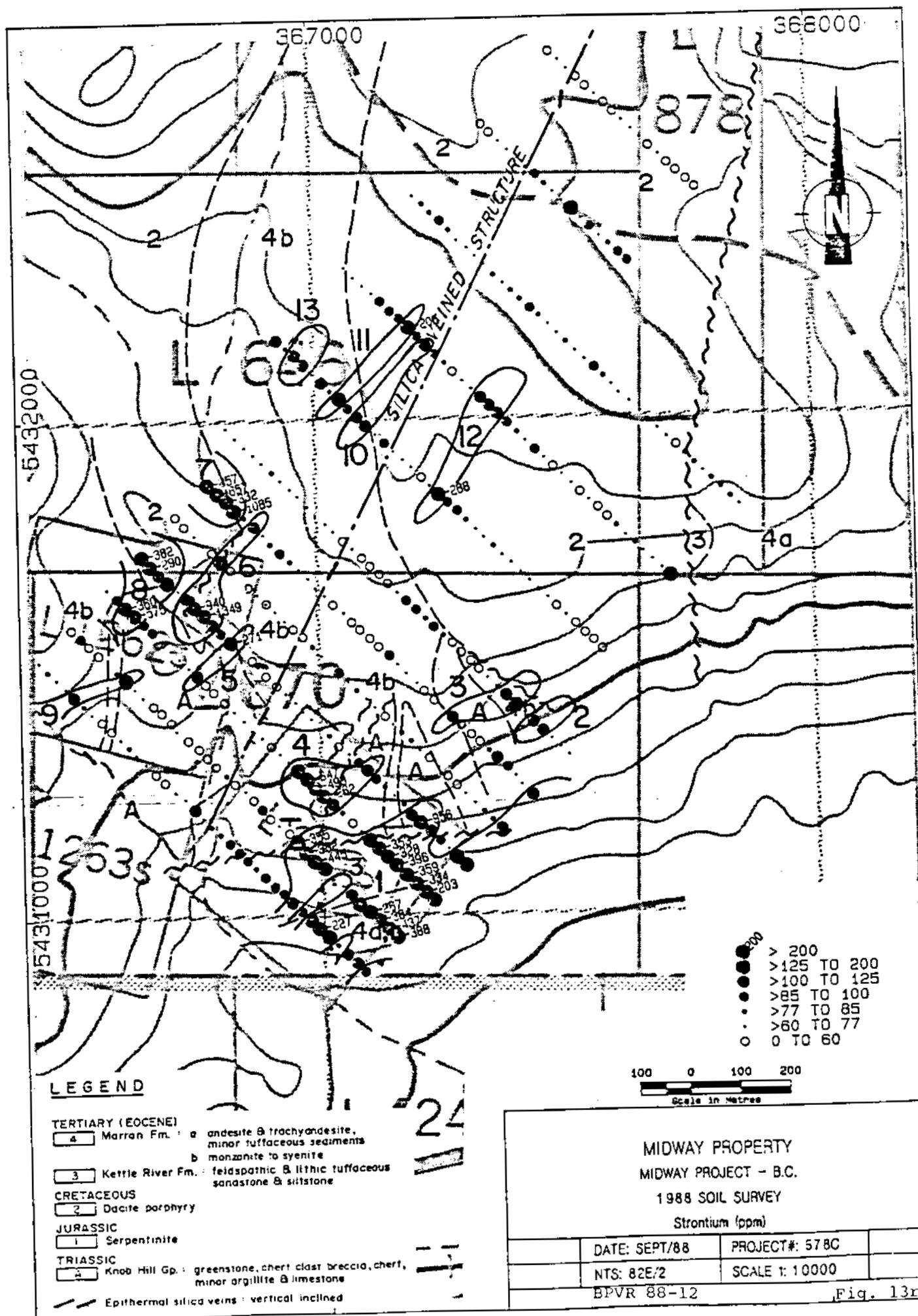
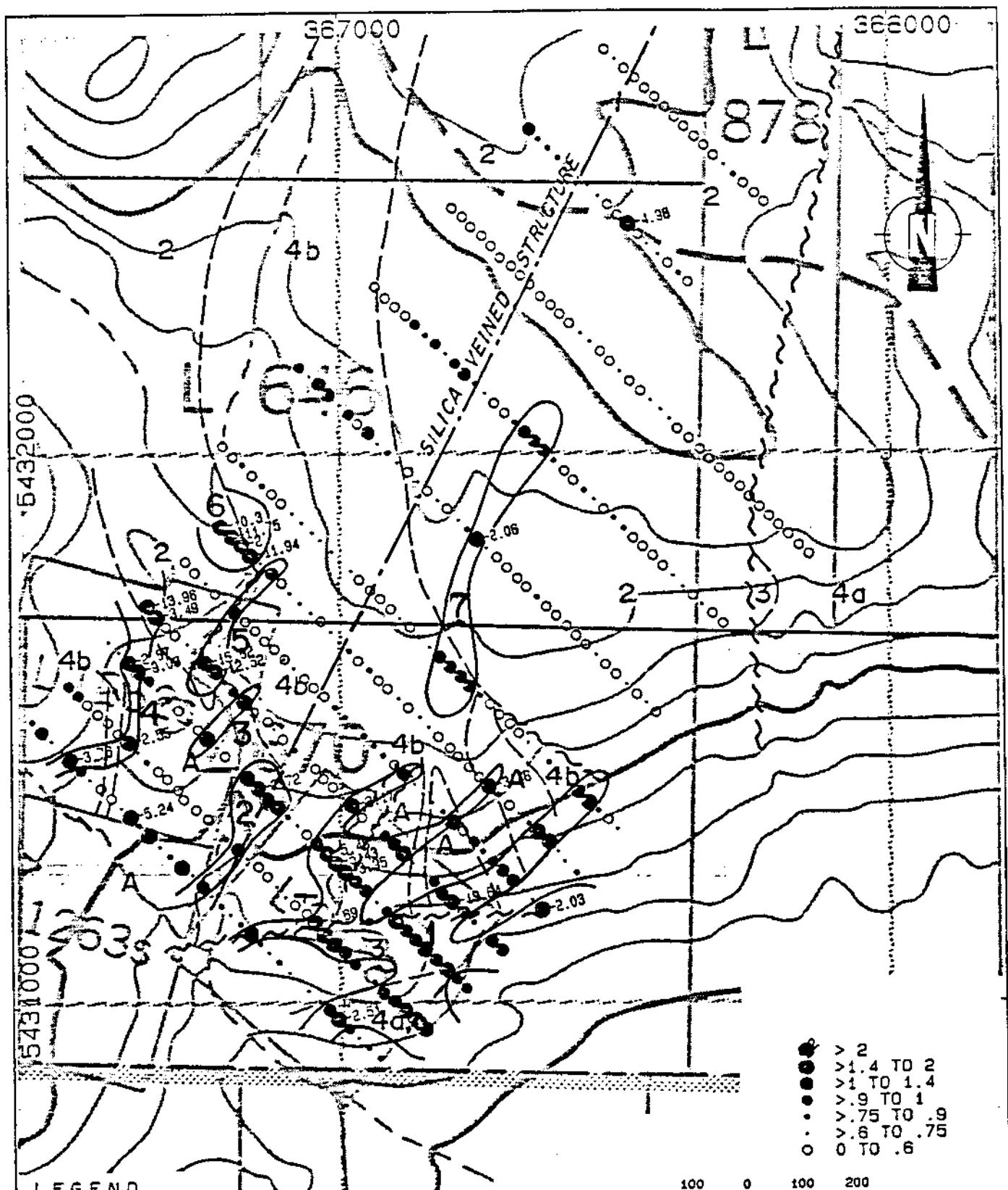


Fig. 13r



#### LEGEND

**TERTIARY (EOCENE)**  
 4 Moran Fm.: a. andesite & trachyandesite, minor tuffaceous sediments  
 b. monzonite to syenite

**CRETACEOUS**  
 3 Kettle River Fm.: feldspathic & lithic tuffaceous sandstone & siltstone

**JURASSIC**  
 2 Dacite porphyry

**TRIASSIC**  
 1 Serpentinite

**Epithermal silica veins:** Vertical inclined  
 Knob Hill Grp.: greenstone, chert clast breccia, chert, minor argillite & limestone

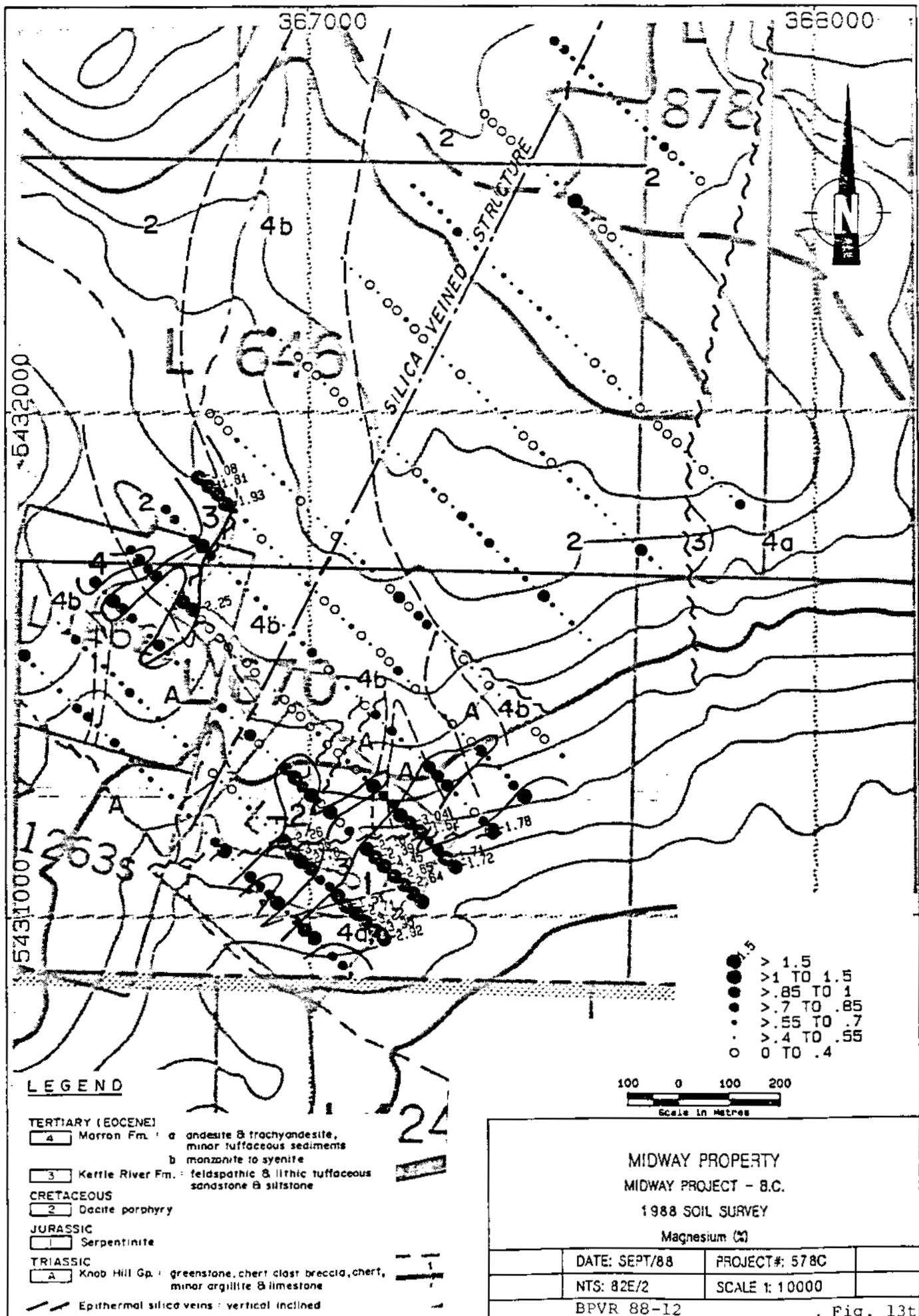
#### MIDWAY PROPERTY

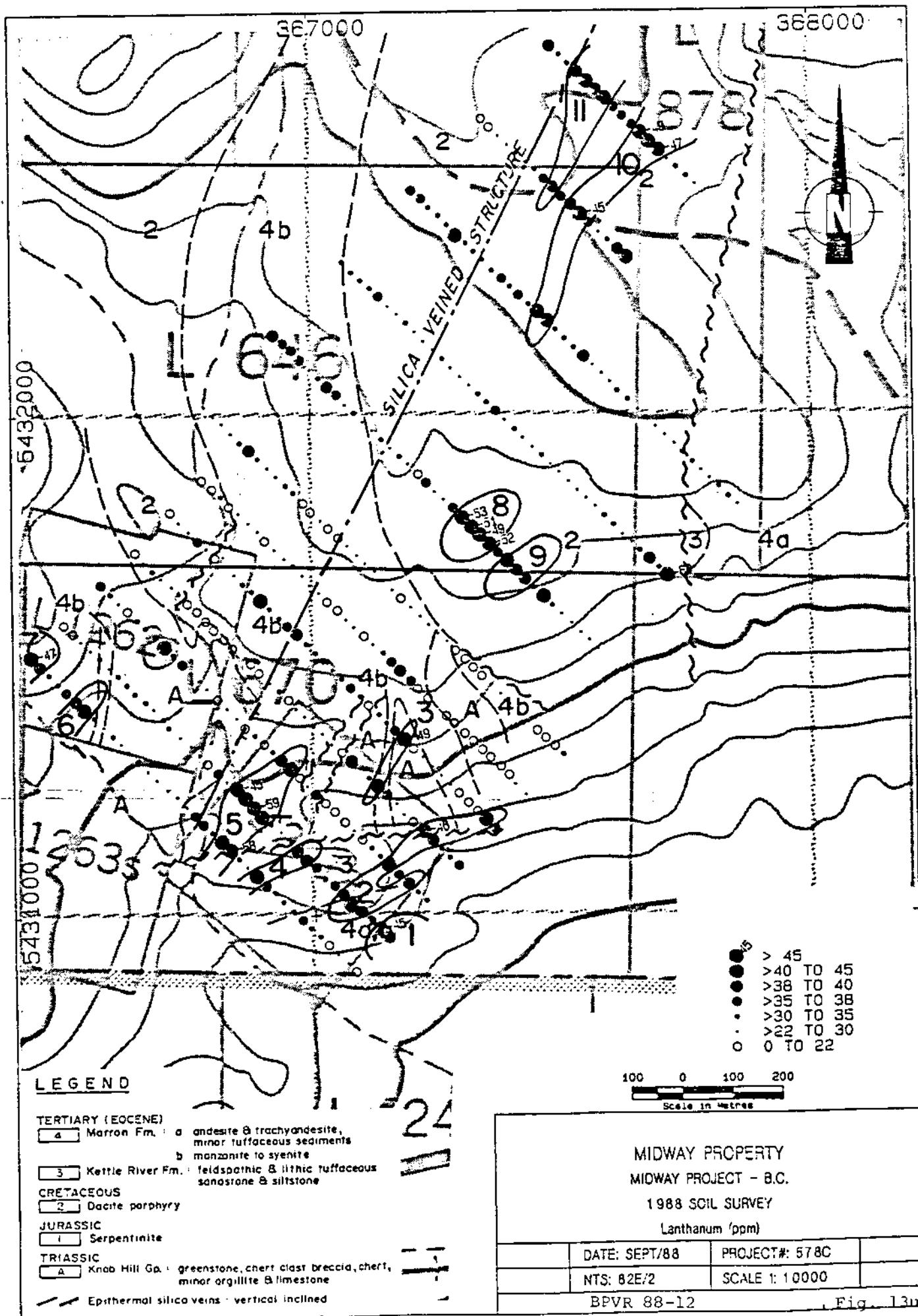
MIDWAY PROJECT - B.C.

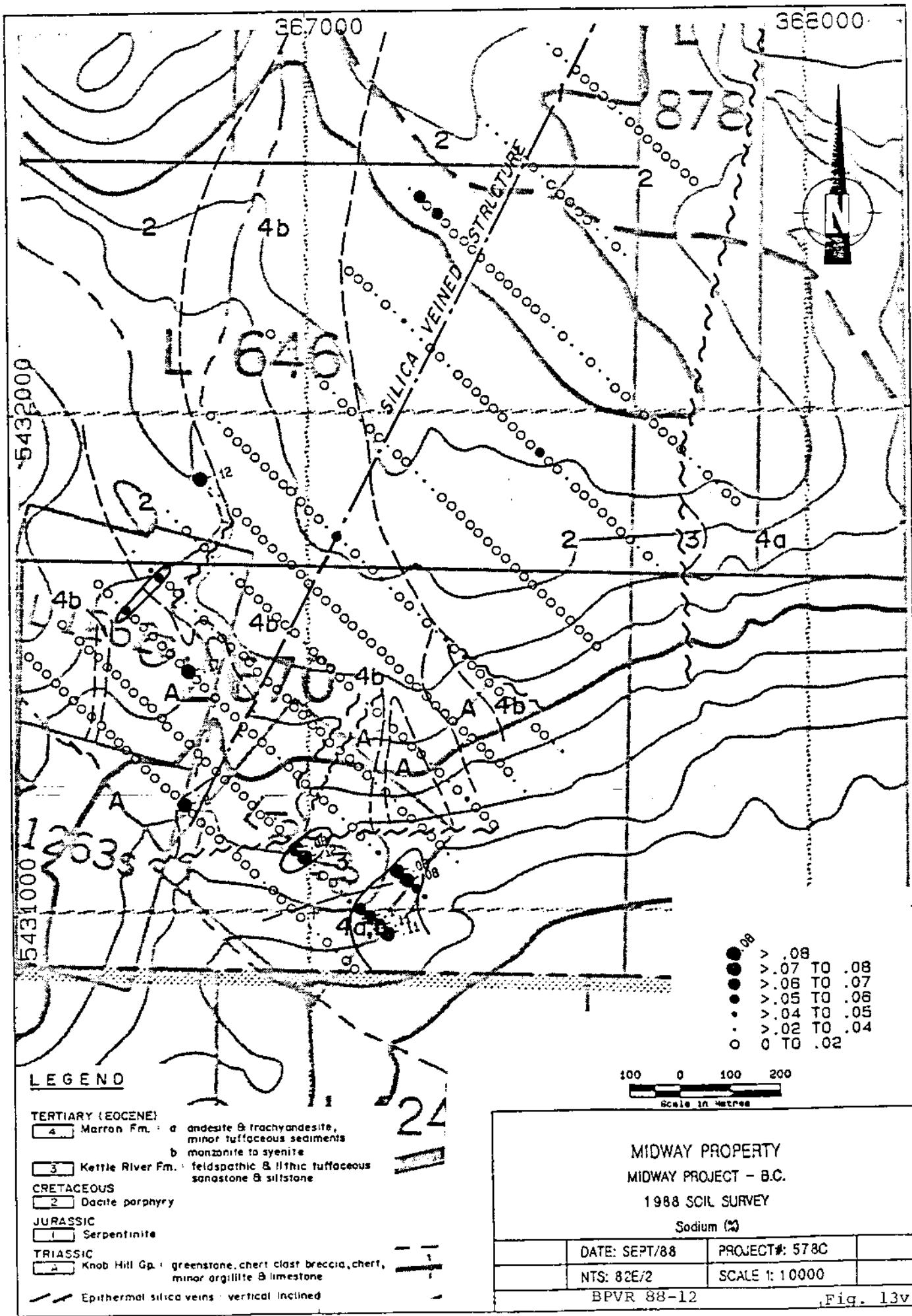
1988 SOIL SURVEY

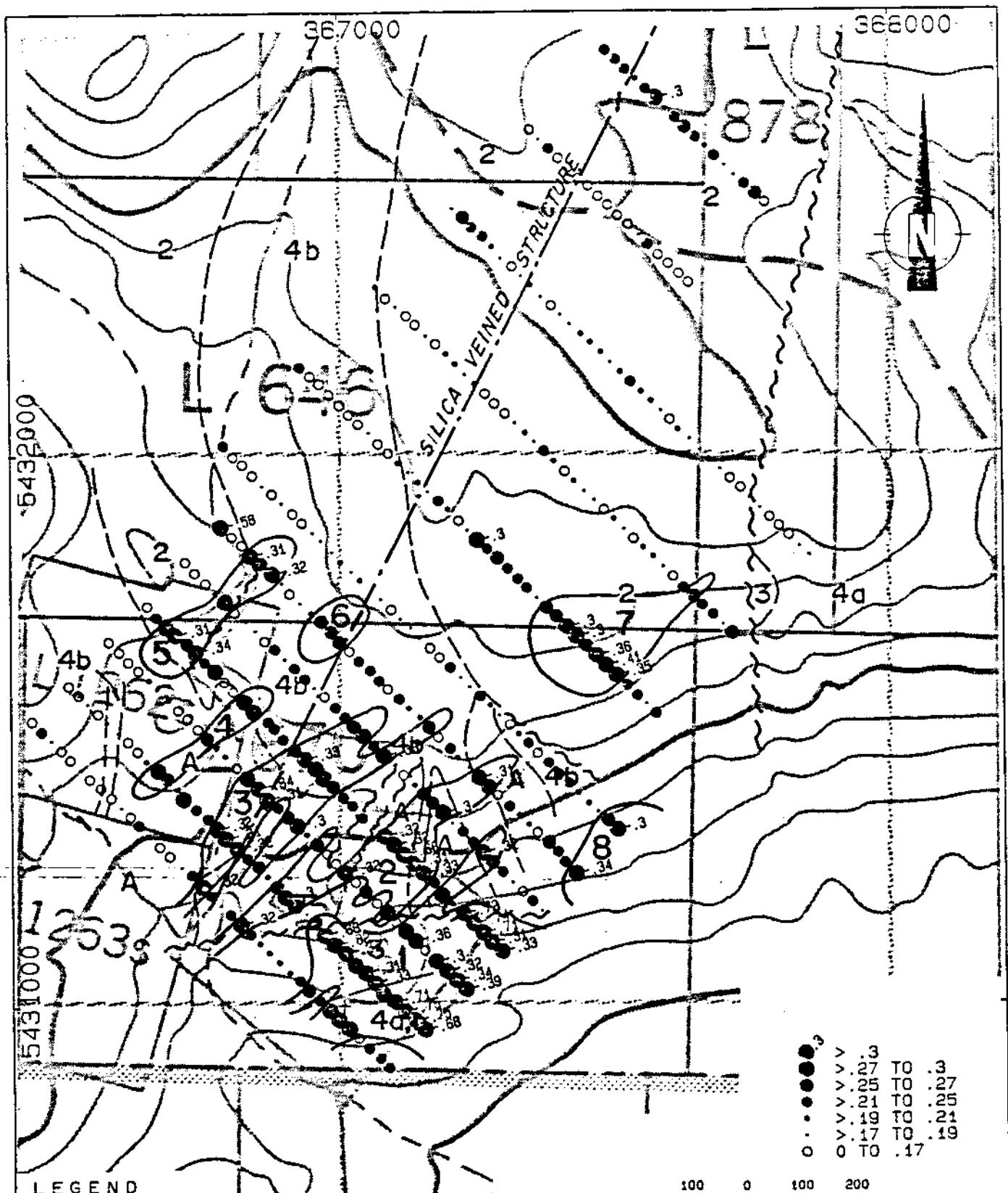
Calcium (%)

|  |               |                |          |
|--|---------------|----------------|----------|
|  | DATE: SEPT/88 | PROJECT#: 578C |          |
|  | NTS: 82E/2    | SCALE 1: 10000 |          |
|  | BPVR 88-12    |                | Fig. 13s |









**TERTIARY (EOCENE)**

[4] Merton Fm. : a andesite & trachyandesite, minor tuffaceous sediments  
b monzonite to syenite

[3] Kettle River Fm. : feldspathic & lithic tuffaceous sandstone & siltstone

**CRETACEOUS**

[2] Dacite porphyry

**JURASSIC**

[1] Serpentinite

**TRIASSIC**

[A] Knob Hill Gp. : greenstone, chert clast breccia, chert, minor argillite & limestone

— Epithermal silica veins : vertical inclined

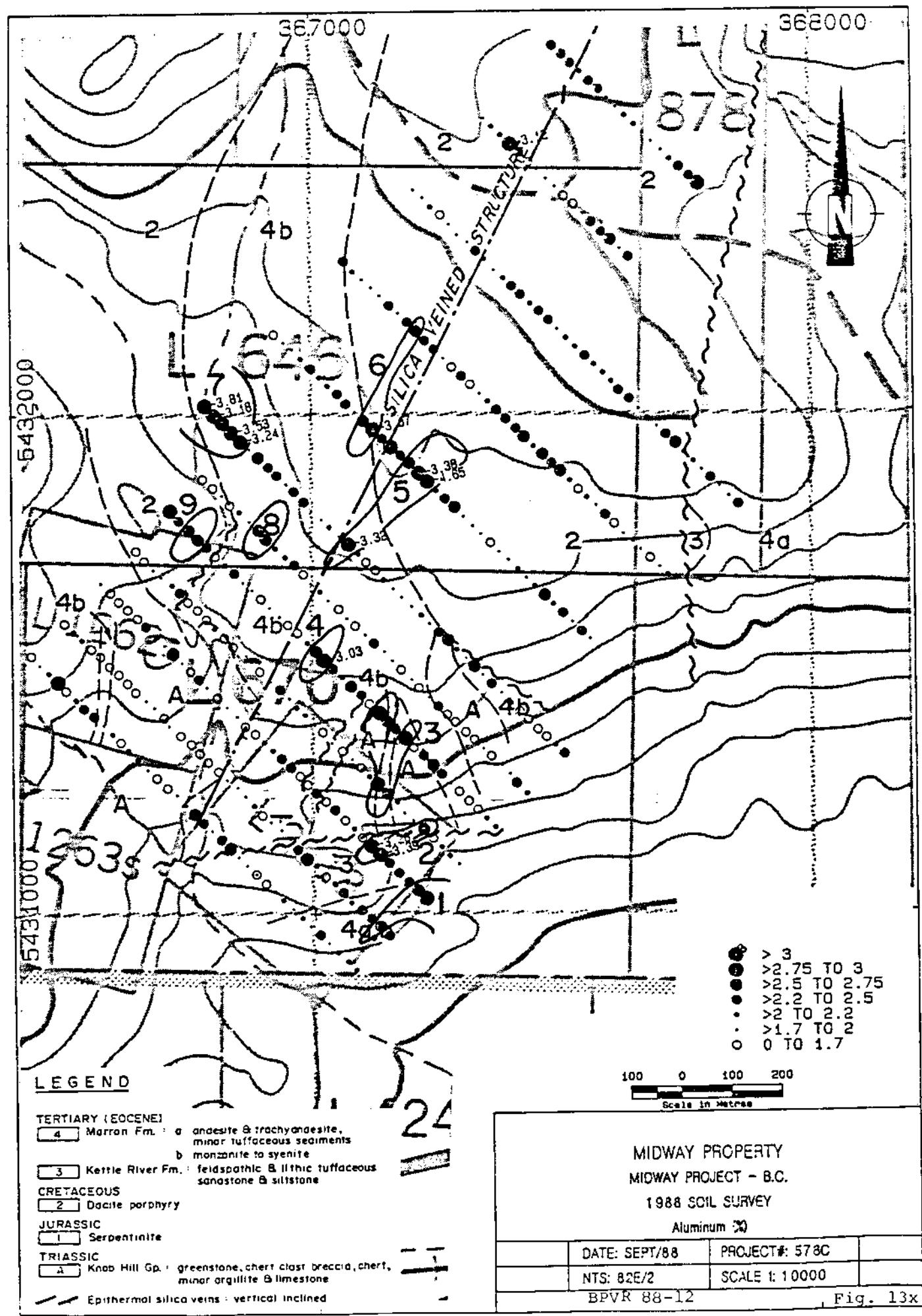
### MIDWAY PROPERTY

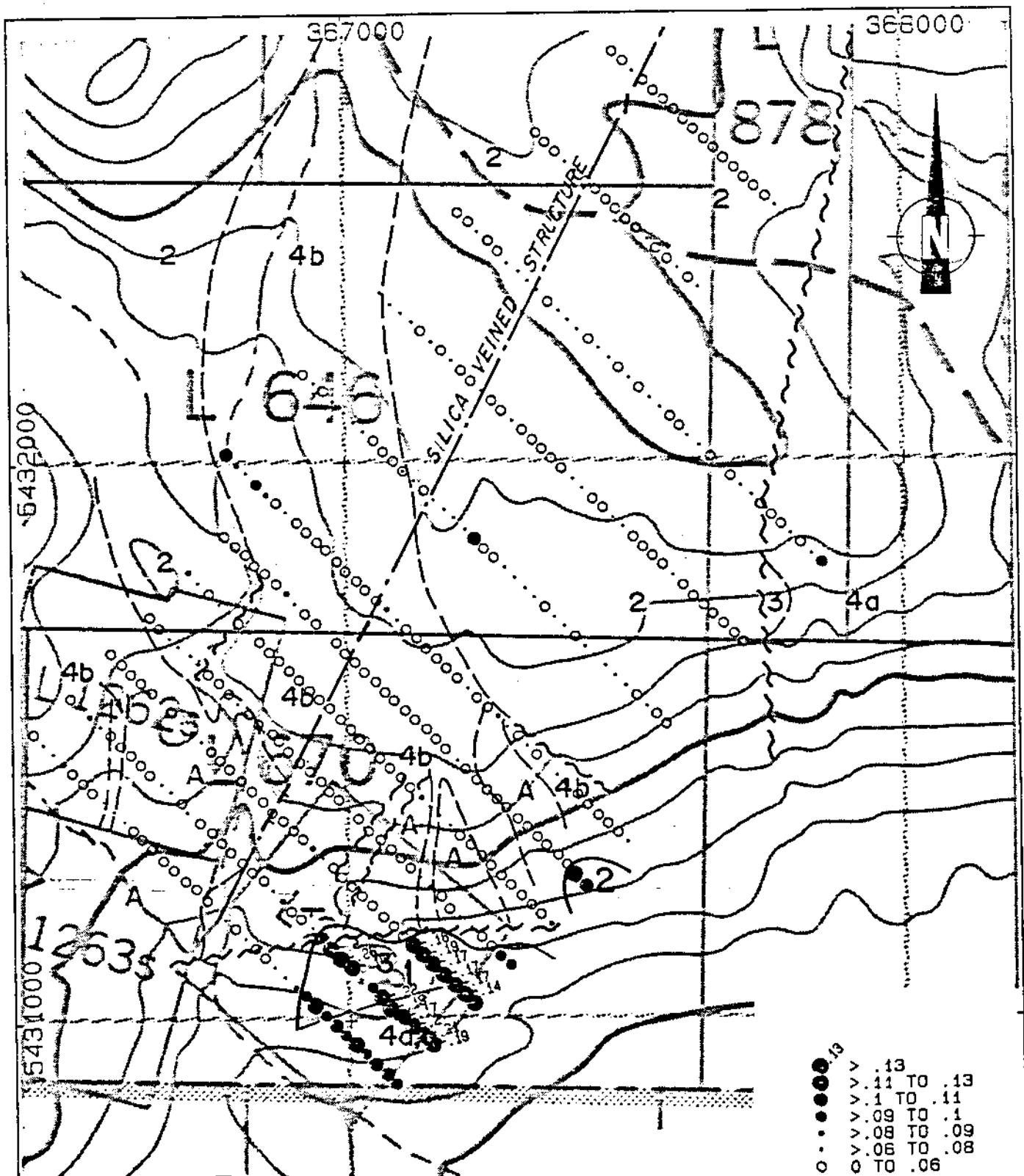
MIDWAY PROJECT - B.C.

1988 SOIL SURVEY

Potassium (%)

|  |               |                 |
|--|---------------|-----------------|
|  | DATE: SEPT/88 | PROJECT #: 578C |
|  | NTS: 82E/2    | SCALE 1: 10000  |
|  | BPVR 88-12    | Fig. 13w        |





**LEGEND**

**TERTIARY (EOCENE)**

4 Marrow Fm.: a andesite & trachyandesite, minor tuffaceous sediments  
b monzonite to syenite

3 Kettle River Fm.: feldspathic & lithic tuffaceous sandstone & siltstone

**CRETACEOUS**

2 Dacite porphyry

**JURASSIC**

1 Serpentinite

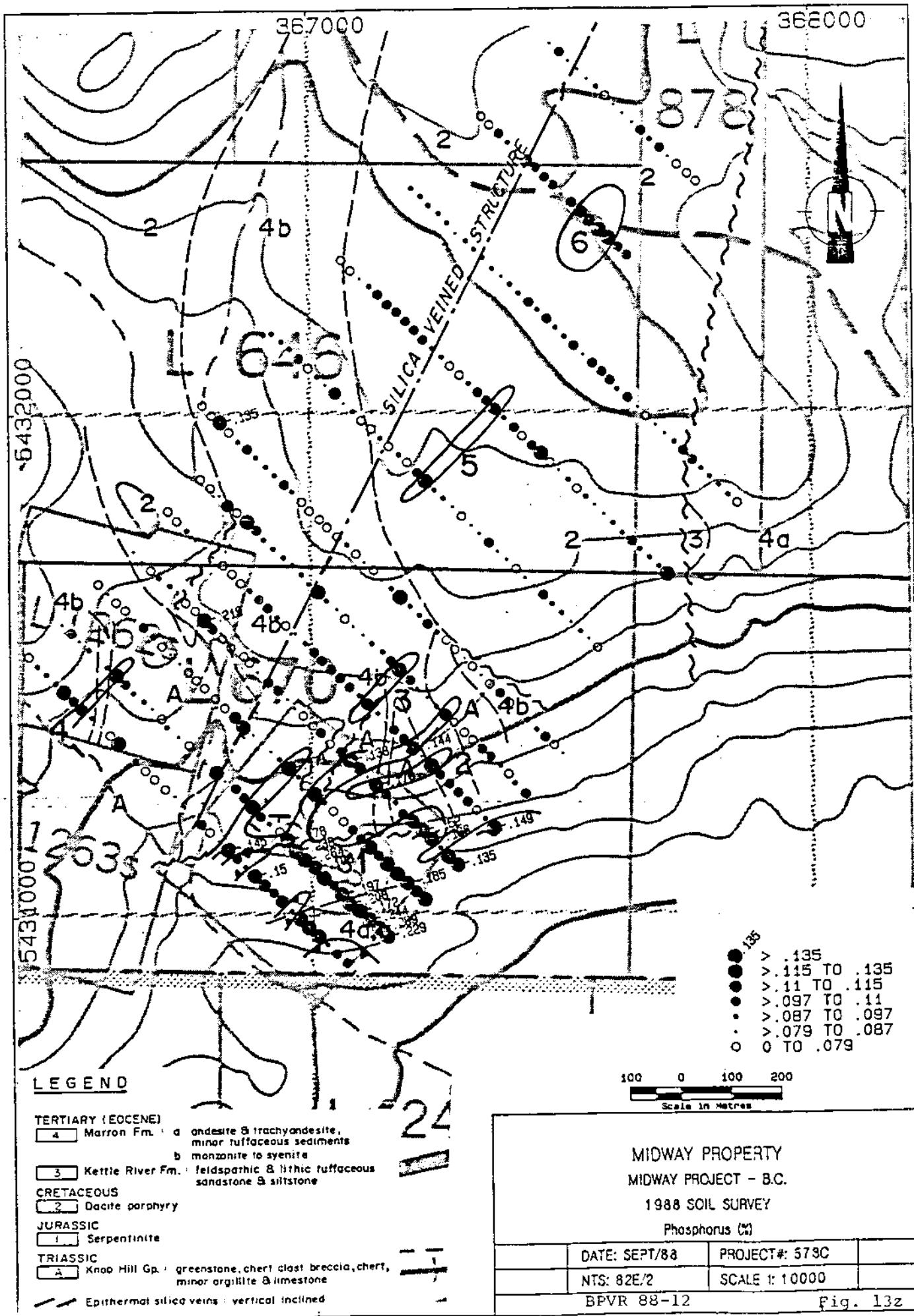
**TRIASSIC**

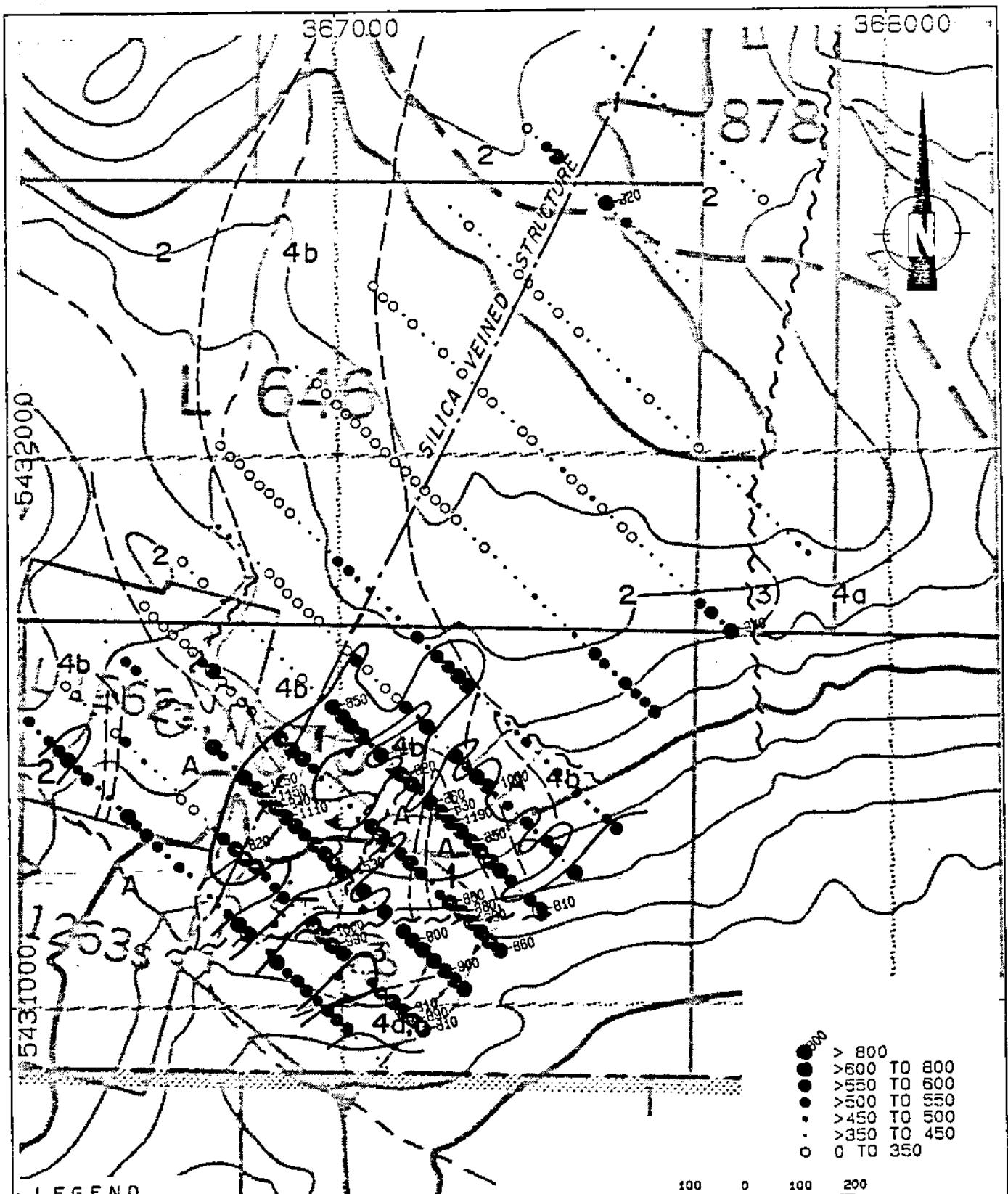
A Knob Hill Grp.: greenstone, chert clast breccia, chert, minor argillite & limestone

— Epithermal silico veins: vertical inclined

|                       |                 |  |
|-----------------------|-----------------|--|
| MIDWAY PROPERTY       |                 |  |
| MIDWAY PROJECT - B.C. |                 |  |
| 1988 SOIL SURVEY      |                 |  |
| Titanium (Ti)         |                 |  |
| DATE: SEPT/88         | PROJECT #: 578C |  |
| NTS: 82E/2            | SCALE 1:10000   |  |
| BPVR 88-12            |                 |  |

Fig. 13y





### MIDWAY PROPERTY

MIDWAY PROJECT - B.C.

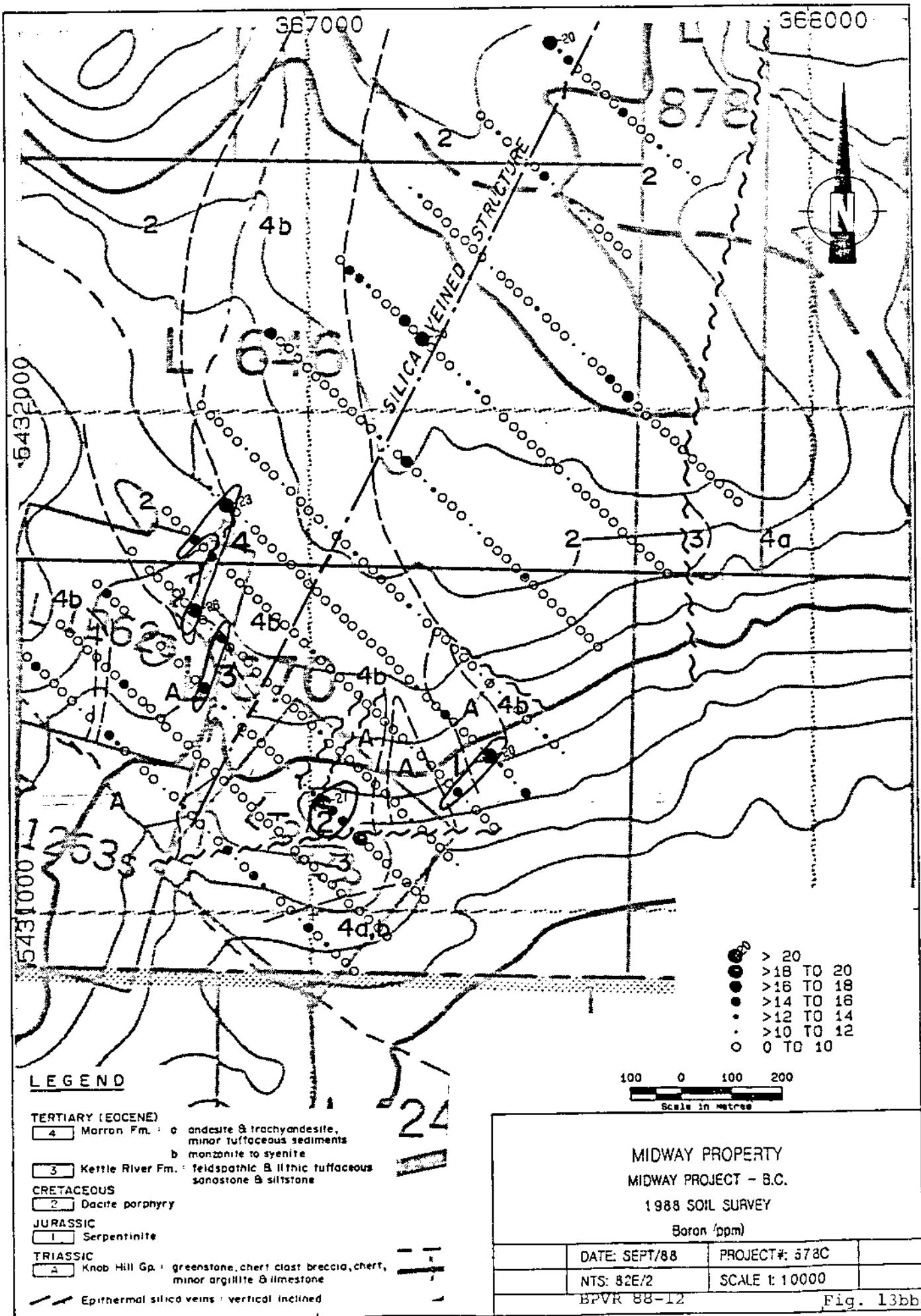
1988 SOIL SURVEY

Fluorine (ppm)

|  |               |                 |
|--|---------------|-----------------|
|  | DATE: SEPT/88 | PROJECT #: 578C |
|  | NTS: 82E/2    | SCALE 1: 10000  |

BPVR 88-12

Fig. 13aa



F (Fig. 13aa)

F most resembles the K distribution, except values are not low in the extreme western corner of the grid. Some correspondence is seen between F and Au, but most of the high F values lie adjacent to Au-rich samples. The F distribution is associated with too many rock types to consider it a pathfinder for Au.

B (Fig. bb)

Detectable B contents are erratically distributed across the grid. Many of the B anomalies are underlain by intrusive rock or their immediate contact environment.

b) Discussion of Results

The 1988 soil survey on the 110E Grid area appears to be a relatively high quality product, perhaps adversely affected over limited portions of the grid by dilution accompanying calcium carbonate accumulation. The dry, semi-arid grassland environment is probably generally alkaline in character, as suggested by unusually high backgrounds of Ba, Sr, Ca, K, Na, and B. Many of these elements can suggest where seepage zones might be located, but seepages are not promoting accumulation of metals. Other soil components, such as Fe, Mn and Al, which could indicate samples where abnormal scavenging is distorting distribution patterns, are discounted as having a significant influence. High sample quality means the geochemical distributions are faithfully reflecting the composition of the soil parent material.

Geochemical patterns suggest that overburden patterns relate directly to underlying bedrock. Although a glacial till was collected in places, and sheetwash erosion is important locally, these do not appear to have substantially distorted patterns believed inherited from underlying bedrock. Examples of bedrock controlled distributions include:

- (1) Area south of the southernmost east-west fault. Although the area is mapped as being underlain by a variety of lithologies comprising the Kettle River and Marron Formations, geochemically the region is relatively homogeneous in its signature. It can be described as exhibiting elevated levels of Co, Zn, Fe, V, (Ni), Cr, Mg, Ti, P, Sr, Ca, Na, K and F and depleted levels in Cu, As, Au, Ba and Mn.
- (2) A northern portion of Cretaceous dacite porphyry (enhanced Mn, Co, Zn, Fe, Ni, Cr, La and K).
- (3) The Cretaceous dacite porphyry (depleted in Cu, Ca and V).
- (4) The extreme western portion of the grid, underlain primarily by Knob Hill Group rocks intruded by a dike of Marron monzonite to syenite (low in Ba and K).
- (5) A western intrusion of Cretaceous dacite porphyry, including its contact zone (enhanced levels of Sr, Ca, Mg, K, and B).
- (6) A 400 m wide belt exhibiting Au anomalies, underlain either by Marron intrusive rocks or Knob Hill Group units, (generally low values of Zn, Cr, Sr, and high contents of Cu and F).

Geochemical dispersion by glacial or downslope movement is interpreted as minimal, perhaps 25 to 50 m. Geochemical patterns related to mineralization can thus be treated as relatively local, and followup methodology to evaluate bedrock source areas can be relatively direct.

Several Au anomalies, up to 500+ m long, trend oblique to a 400 m wide belt where the majority of Au anomalies are located. The

belt runs east-west, flanked to the south by a mapped fault and to the north by abrupt termination of anomalous conditions (another fault ?). Trends within the belt follow the trend of the mapped silica veined structure, but outside the belt the structure exhibits no geochemically anomalous characteristics.

Spatial relationships between Au and other elements suggest a zoned system. Weak coincident/peripheral anomalies are noted for As, P and Co. These have limited applicability to soil surveys because of their weak nature. By comparison, Fe and V exhibit larger and stronger zones generally peripheral to the Au whereas Cu exhibits the best pathfinder relationship in terms of size of anomaly and contrast to background. Also important lying at the margins and beyond the Cu-rich zone is a Mn zonation believed related to ore. Taken in combinations, the halo elements offer a much larger target for exploration than Au proper. Two other elements, K and F, are found in anomalous quantities across the Au belt, but these elements also extend well beyond the area limits defined by the other elements. Their association with many rock types in relationships not obviously related to Au (i.e., they may be related to south facing slopes and extensive groundwater evaporation) limits their applicability.

Zoned geochemical relationships represent a favourable finding. They suggest a larger mineralizing system is present in underlying bedrock than might be suspected from looking at the Au distribution in isolation. They also suggest a procedure to be

followed in evaluating lithogeochemistry derived from a bedrock or drill program. Halos should be anticipated, providing a vector towards ore and following a pattern: Au to As-Co-P to Fe-V to Cu to Mn. Failure to intersect Au may nevertheless eventually lead to a Au discovery.

Follow-up of existing anomalies is warranted. In addition to looking for primary halos in bedrock of the type noted in the previous paragraph, the local origin of the overburden suggests a program of trenching or pitting would be effective. The objectives of such work would be to intersect and sample bedrock as well as basal C soil horizon material or, failing the intersection of bedrock, to profile sample the overburden. Analysis of these data should enable better prediction of bedrock sources worthy of diamond drilling.

c) Conclusions and Recommendations

The soil survey has identified a permissive 400 m wide belt trending east-west favourable for Au mineralization. The overburden environment appears essentially residual or residual-like and the pathfinder elements As, Co, P, Fe, V, Cu and Mn enable identification of a vector towards Au. Followup by pitting, trenching and diamond drilling using multi-element lithogeochemical signatures is highly recommended.

The soil survey should be extended to the west of the existing coverage to fully outline anomalous conditions using the same survey parameters as describe the present survey.

Trenching across existing Au anomalies and extending trenches 50 m upslope is needed to uncover bedrock for lithogeochemical sampling. If this is environmentally unacceptable or overburden thickness exceeds the ability of a backhoe to trench effectively, pitting by backhoe at a 25 m interval is suggested. Bedrock as well as basal overburden or profile overburden samples should be taken and submitted for routine multi-element analysis plus Au.

If trenching cannot be conducted, collection of systematic rock chip samples from all available outcrops within the Au belt is warranted, followed by multi-element analysis.

Pending a return of favourable indications from the above program and interpretation of other available geological and geophysical data, diamond drill locations will undoubtedly arise. Drilling may be commissioned if trending and/or rock chip sampling are not practical and/or possible. Multi-element analysis is mandatory to identify Au and halo element relationships.

## 7. DIAMOND DRILLING

### a) Introduction

From November 8-15, 1988, Iron Mountain Drilling of Merritt completed 301.8 m (990 ft.) of NQ drilling in two drill holes. A D-6 caterpillar was utilized to prepare drill sites and access roads, move the Longyear 38 diamond drill, and carry out site reclamation at the end of the job.

Drill core was logged, split and stored at Kettle River Resources' facility near Greenwood. Core logs completed by W.D. Harris are contained in Appendix IV, while analytical results are found in Appendix V. Split core was sampled generally in 2 m intervals continuously in zones of interest and intermittently (every third 2 m interval) in zones without obvious alteration or mineralization.

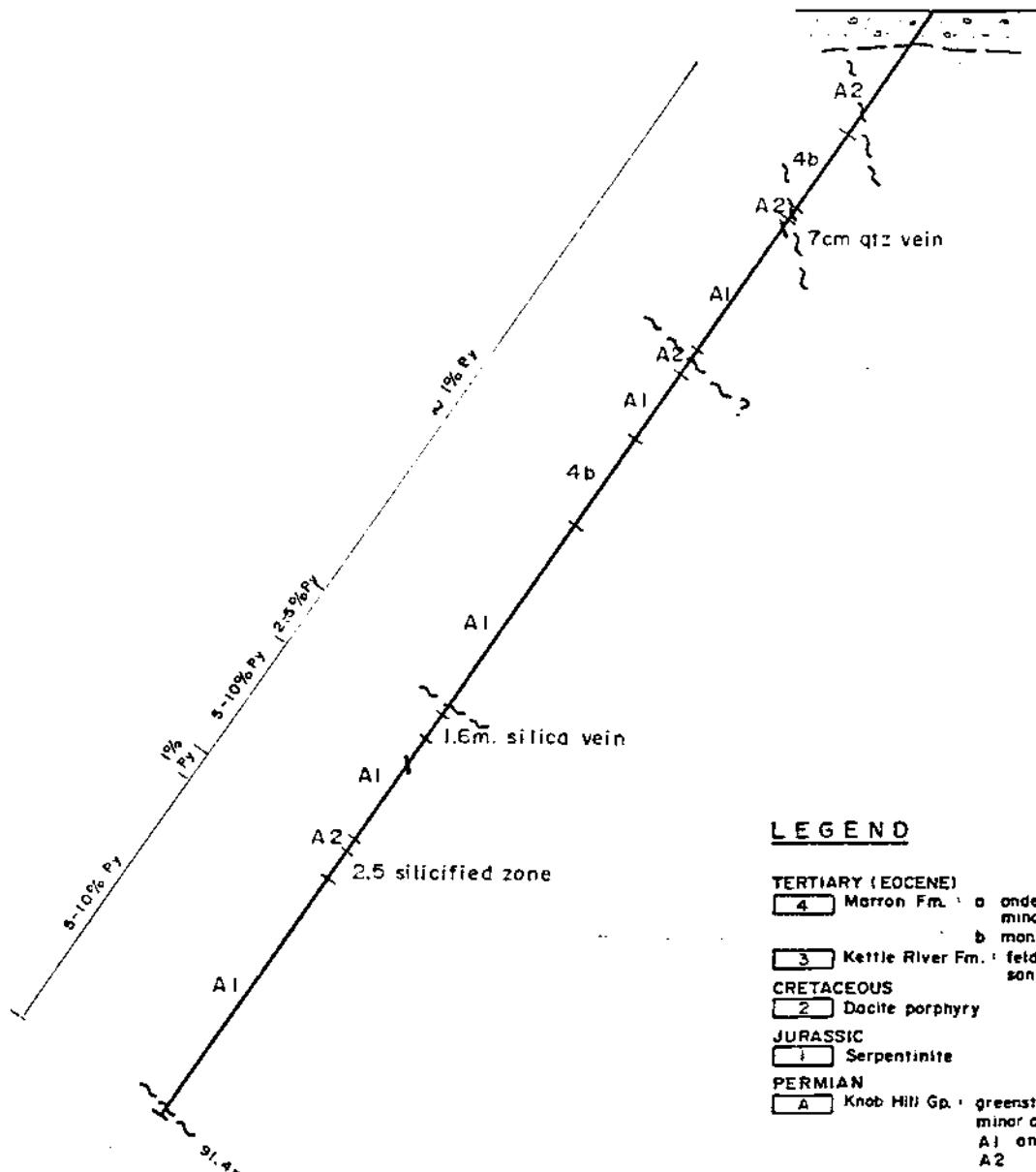
### b) Drill Hole MDH 88-3

#### i) Geology

Drill hole MDH 88-3, oriented 290° azimuth/-55° dip, was located on the 110E Grid at approximately 112+20E/88+50N. Purpose of the drill hole was to test moderately southeast-dipping chalcedonic veins approximately 50 m below surface. Surface chip samples of these veins yielded values of up to 423 ppb Au and 2.3 ppm Ag. These veins are the probable source of gold-in-soil anomaly 1.

Except for two short intervals of biotite monzonite, the drill hole intersected mainly fine-grained andesitic rocks of the Knob Hill Group locally containing interbeds of chert clast breccia (Figure 14).

MDH 88-3  
-55°, AZ. 29°



#### LEGEND

|                          |   |
|--------------------------|---|
| <b>TERTIARY (EOCENE)</b> |   |
| 4                        | Marron Fm. 1 a ondesite & trochyanodesite,<br>minor tuffaceous sediments<br>b monzonite to syenite                    |
| 3                        | Kettle River Fm. 1 feldspathic & lithic tuffaceous<br>sandstone & siltstone   |
| <b>CRETACEOUS</b>        |   |
| 2                        | Dacite porphyry   |
| <b>JURASSIC</b>          |   |
| 1                        | Serpentinite  |
| <b>PERMIAN</b>           |   |
| A                        | Knob Hill Gp. 1 greenstone, chert clast breccia, chert,<br>minor argillite & limestone<br>A1 ondesite<br>A2 = breccia |

— Shear  
— Silica vein



BP Resources Canada Limited  
MINING DIVISION

#### MIDWAY PROPERTY CROSS SECTION

MDH 88-3

0 10 20 30  
METRES

|                 |                   |                    |
|-----------------|-------------------|--------------------|
| SCALE: 1 : 500  | DRAWN BY: R. WONG | FIG.               |
| DATE: JAN '89   | REV.:             | DRAFTED BY: CHONG  |
| N.T.S. 82 E /2W | PROJ. 10136       | REPORT: BPVR 88-12 |

Two sections of chalcedonic silicification were intersected at the approximate depth anticipated. These intersections, from 58.4-60.0 m and 69.3-71.8 m, yielded disappointing precious metal values with the best value of 109 ppb Au and .6 ppm Ag from the lower interval.

Alteration appears to be localized at monzonite contacts with moderate to strong chloritization and sericitization evident in adjacent andesite. Moderate to strong chloritization and clay alteration ( dickite) also occurs as envelopes to the silicified zones with up to 10% fine-grained disseminated pyrite locally. The lower interval of silicification from 69.3 - 71.8 m is more pervasive than vein-like in nature with greyish chalcedonic silica flooding an apparently more permeable portion of a breccia bed.

Narrow shear zones in the upper portion of the hole appear to be localized within breccia interbeds.

### ii) Geochemistry

A multi-element geochemical profile for MDH 88-3 is shown in Figure 15 (in pocket). Au-enriched zones are seen to be narrow, sporadic, usually accompanied by anomalous Cu, and usually associated with chert clast breccia interbeds. As previously mentioned, the two sections of chalcedonic silicification intersected yielded low Au, Ag, and As values. Levels of other elements show no significant patterns.

c) Drill Hole MDH 88-4i) Geology

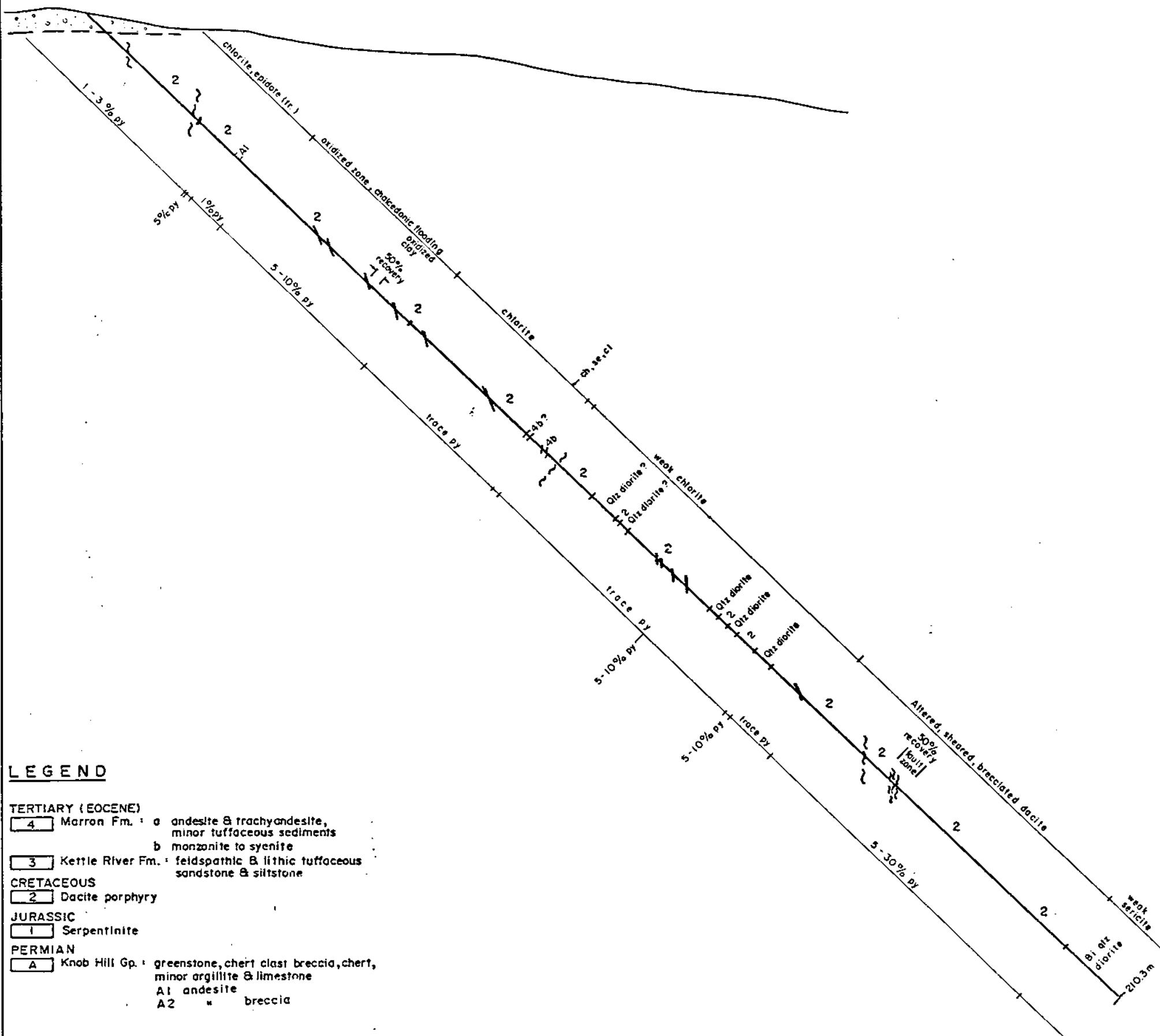
Drill hole MDH 88-4 was oriented at 110° azimuth/-45° dip and drilled to a depth of 210.3 m. The collar is located north of the 110E Grid approximately midway between the collar of MDH 87-2 and the Picture Rock Quarry. MDH 88-4 was intended to test the Silica Veined Structure approximately 125 m below surface in the area of the projected intersection of low angle and vertical veins.

The hole intersected variably-altered dacite porphyry for most of its length and bottoms in a relatively fresh equigranular quartz diorite which truncates the dacite at approximately 200 m (Figure 16). A narrow dyke of biotite monzonite cuts the dacite porphyry from 93.7 - 94.8 m. From approximately 105-144 m, a number of equigranular, hornblende-rich (20%) zones occur displaying contacts with the porphyry ranging in nature from sharp to gradational. These zones may represent coeval quartz dioritic dyke-like bodies.

Two major zones of shearing and alteration were encountered. From 36 to 66 m is a zone of strong oxidation and clay alteration containing sporadic zones of chalcedonic veining at low angles to the core axis. The second zone of shearing occurs from 150-200 m and is marked by abundant carbonate in fractures, 5-15% fine-grained disseminated pyrite, and prominent zones of tectonic breccia.

402

MDH 88-4  
-45°, Az. 110°



**LEGEND**

### TERTIARY (EOCENE)

4 Marron Fm.: a andesite & trachyandesite, minor tuffaceous sediments

b monzonite to syenite  
3 Kettle River Fm.: feldspathic B. lithic tuffaceous sandstone & gritstone

CRETACEOUS

**2 Dacite porphyry**

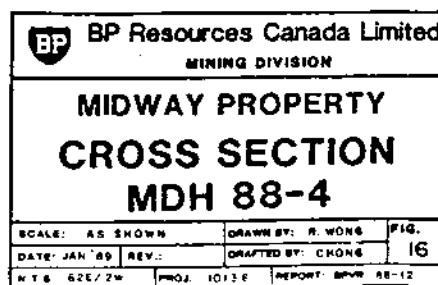
Set

**PERMIAN**  
**A Knob Hill Gp.** • greenstone, chert clast breccia, chert  
minor argillite & limestone  
• sandstone

Shear

578

A horizontal scale bar with tick marks every 10 units. The labels are '0', '10', '20', and '30 metre' at the end of the bar.



The drill hole intersected low angle auriferous zones of silicification but failed to intersect vertical veins at depth. Brecciation, shearing, and pyritization in the lower portion of the hole may be related to the intrusion encountered at the bottom of the hole.

ii) Geochemistry

Examination of the geochemical profiles for MDH 88-4 (Figure 17, in pocket) reveals the following features:

- the oxidized and veined zone from 36-66 m shows strong enrichment in Au, Ag, As and weak enrichment in Sb. This correlates with an apparent depletion in Cu, Ca and Sr. From 36-52 m, the zone averages 760 ppb Au, 1.0 ppm Ag and 132 ppm As. Included is a zone from 42-50 m which averages 1,230 ppb Au, 1.75 ppm Ag and 146 ppm As. An estimated true width for this mineralization is 2-3 m.
- a similar, but narrower and weaker, zone of Au-Ag-As enrichment/Cu-Sr-Ca depletion occurs from 118-125 m associated with chalcedonic veining.
- Fe content is high (3.7 - 5.5%) from 148-199 m reflecting the high proportion of fine-grained pyrite throughout the lower zone of shearing. The upper 8 m (148-156 m) of this zone shows weak to moderate enrichment in Au (up to 67 ppb), Ag (up to 1.2 ppm), As (up to 197 ppm), Zn (up to 277 ppm), and Pb (up to 545 ppm).

#### 8. DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

The 1988 programme focussed on two specific areas within the claim group which were considered to have potential to host epithermal gold-silver mineralization.

Work on the 100E Grid area was mainly reconnaissance in nature and investigated the possibility of mineralization localized by the main graben-bounding fault structure with permeable sediments of the Kettle River Formation as a possible host to bulk-tonnage replacement mineralization. Geologic mapping and limited ground geophysics supported the presence of the main fault but also suggested the amount of Kettle River Formation present to be much less than anticipated. Prospecting revealed no significant alteration or mineralization, while soil geochemistry provided no support for presence of disseminated mineralization in the sediments.

No further work is warranted in the 100E Grid area.

Work on the 110E Grid area was a follow-up on the silicified structure partially delineated by the 1987 programme. Grid-controlled geologic mapping, ground geophysics, and soil geochemistry southwestward along strike of the structure was intended to define a target for drill-testing. Results of the work indicated that the structure is continuous along strike for a minimum of 1400 m but that it is only sporadically veined and mineralized. Surface samples of silicification returned low to

moderately anomalous levels of gold and silver and soil geochemistry worked well to delineate areas of veining. A drill hole in the southern portion of the grid tested moderately southeast-dipping chalcedonic veins in the area of the highest contrast gold-in-soil anomaly. Results of this hole provided no evidence for higher grades of mineralization at depth. A second drill hole, collared midway between MDH 87-2 and the Picture Rock Quarry, was intended to test for a possible bonanza zone at the projected intersection of low-angle and vertical auriferous chalcedonic veins. Low angle auriferous veins were intersected but could not be followed downward to a vertical 'feeder'. A major pyritic shear zone intersected in the lower portion of the drill hole may be related to the buried intrusion in which the drill hole ends.

The auriferous silicification within the 110E Grid appears to be related to a weakly developed epithermal system possibly associated with the main monzonite intrusion. Diamond drilling has not indicated that precious metal values in the silica increase at depth. Silicification was not seen to occur within Tertiary sediments, thus the potential for bulk-tonnage replacement mineralization to occur is diminished.

Potential for the presence of economic mineralization within the 110E Grid area is considered to be low and no further work is recommended.

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- Reid, R.E. and Nielsen, P.P. (1983) : Assessment Report - Geology and Ground Magnetometer Survey of Midway Mine Area.
- Chow, F. (1985) : Geology and Geochemistry Report on the RAINBOW Group; Internal Report by Kerr Addison for the Dentonia Resources/Kettle River Resources Joint Venture (Assessment Report 13561).
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APPENDIX I

Analytical Procedures

**ACME ANALYTICAL LABORATORIES LTD.**  
**Assaying & Trace Analysis**  
**852 E. Hastings St., Vancouver, B.C. V6A 1R6**  
**Telephone: 253-3158**

**1987**

Acme Analytical continues to update with mass spectrographic analysis, which is now operational. In general, mass spec offers detection limits which are at least 100 fold lower than ICP or flame AA. These detection limits are comparable to graphite furnace AA, but the mass spec can analyze up to 60 elements simultaneously.

Acme has pioneered, low cost multi-element ICP analysis, which has better detection and precision than AA. Mass spec will further expand the range of elements and isotopes available to mineral exploration programs.

**SPACE**

Total laboratory, sample preparation and sample storage has been expanded to 12,000 square feet.

**EQUIPMENT**

1. Our ICP system has been expanded, and a fifth unit has been purchased which will allow us to determine up to 45 elements simultaneously.
2. AA spectrophotometers have been increased to 8.
3. Sample preparation, weighing and dissolution facilities have been increased.
4. A LECO induction Furnace has been installed for determining Carbon and Sulfur simultaneously in geological and metallurgical samples.
5. An UJ3 Laser Fluorometer from Scintrex is now used for determination of U in water to .01 ppb.
6. Two ICP mass spectographs.

**TECHNOLOGY**

1. Fire Assay for Ag, Au, Pt, Pd, Rh, Ru & Ir.; the precious metal bead can be analysed by gravimetric, AA, ICP or Mass spec.
2. ICP multi element packages for water, geochem and assay programs have been developed.
3. Lower detection limits for some elements have been achieved by graphite furnace AA.

**TECHNICAL ACHIEVEMENTS**

1. Background corrected Atomic Absorption analysis of Ag and Au since 1971.
2. Best proven precision, accuracy and price for MoS2 assays in North America.
3. Pioneered geochemical analysis by ICP at or to better detection limits than AA, including Ag, As, U, Th and V.
4. First to offer Mass spectrographic scan analysis.

**PROVEN PERFORMANCE**

Our logistical and technical performance for our clients has been demonstrated on the Gamble, Capoose Lake, Trout Lake, Blackdome, Red Mountain, Tatlay, Claque, Minago River, Quesnel River, Terra Swede, Musto and other major projects. We are capable of handling up to 2500 samples per day.

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**Regular Assay**

|                               |      |       |                      |        |         |
|-------------------------------|------|-------|----------------------|--------|---------|
| Aluminum                      | Al   | 0.750 | Molybdate            | (H2O)  | \$ 5.00 |
| Antimony                      | Sb   | 0.750 | Molybdenum           | (Hg)   | \$ 5.75 |
| Arsenic                       | As   | 0.750 | Molybdenum Sulfide   | (MoS2) | 10.00   |
| Barium                        | Ba   | 0.750 | Niobium              | (Nb)   | \$ 7.50 |
| Bismuth                       | Bi   | 0.750 | Nickel               | (Ni)   | \$ 5.00 |
| Boron                         | B    | 0.750 | Nickel (Non-sulfide) | (pd)   | 11.50   |
| Cadmium                       | Cd   | 0.750 | Palladium            | (Pd)   | 11.50   |
| Calcium                       | Ca   | 0.750 | Phosphorus           | (P)    | 11.50   |
| Carbon (Graphitic)*           | C    | 0.750 | Platinum             | (Pt)   | 11.50   |
| Carbon plus Sulfur (Total)*   |      | 10.00 | Potassium            | (K)    | 11.50   |
| Cerium                        | Ce   | 0.750 | Rhenium              | (Rh)   | 11.50   |
| Chromium                      | Cr   | 0.750 | Rubidium             | (Rb)   | 11.50   |
| Cesium                        | Cs   | 0.750 | Selenium             | (Se)   | 11.50   |
| Cobalt                        | Co   | 0.750 | Silica               | (SiO2) | 11.50   |
| Copper                        | Cu   | 0.750 | Silver (Fire Assay)  | (Ag)   | 11.50   |
| Copper (non-sulfide)          |      | 0.00  | Sodium               | (Na)   | 11.50   |
| Europium                      | Eu   | 10.00 | Specific Gravity*    | (SG)   | 11.50   |
| Fluorine                      | F    | 0.750 | Strontium            | (Sr)   | 11.50   |
| Gallium                       | Ga   | 0.750 | Sulfur (Total)*      | (S)    | 11.50   |
| Germanium                     | Ge   | 0.750 | Sulfur (Sulfate)     | (S)    | 11.50   |
| Gold                          | Au   | 0.750 | Tantalum             | (Ta)   | 11.50   |
| Gold (Fire Assay)             |      | 0.25  | Tellurium            | (Te)   | 10.00   |
| Gold plus Silver (Fire Assay) |      | 1.00  | Thallium             | (Tl)   | 10.00   |
| Indium                        | In   | 0.750 | Thorium              | (Th)   | 11.50   |
| Iron (Total)                  | Fe   | 0.750 | Tin                  | (Sn)   | 11.50   |
| Iron (Ferrous)*               |      | 0.00  | Titanium             | (Ti)   | 11.50   |
| Lanthanum                     | La   | 0.750 | Tungsten             | (W)    | 11.50   |
| Lithium                       | Li   | 0.750 | Uranium              | (U)    | 11.50   |
| Lead                          | Pb   | 0.750 | Vanadium             | (V)    | 11.50   |
| Loss on Ignition (LOI)        |      | 2.00  | Yttrium              | (Y)    | 10.00   |
| Magnesium                     | Mg   | 0.750 | Zinc                 | (Zn)   | 11.50   |
| Manganese                     | Mn   | 0.750 | Zirconium*           | (Zr)   | 10.00   |
| Mercury*                      | (Hg) | 0.750 | Pb Isotope Ratio     |        | 10.00   |

\* Minimum 5 samples per batch

Other elements by Mass Spec. on request.

**Multi-Element Assay Price**

Arsenic, Antimony, Bismuth, Cadmium, Cobalt, Copper, Gold, Iron, Lead, Manganese, Molybdenum, Nickel, Silver, Thorium, Uranium, Zinc.

Price : First element \$6.75 Each Additional \$3.00 All 16 elements \$20.00

**Whole Rock Assay Prices**

SiO2, Al2O3, Fe2O3, CaO, MgO, Na2O, K2O, MnO, TiO2, P2O5, Cr2O3, LOI.

Price : First oxide \$7.50 Each Additional \$3.50 All 12 \$20.00

Volume Discounts Available.

**Special Fire Assay Prices**

Gold, Silver, Platinum, Palladium, Rhodium  
Placer conc. for total precious metal

\$20.00  
\$15.00

**ACME ANALYTICAL LABORATORIES LTD.**  
**Assaying & Trace Analysis**  
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**Telephone: 253-3158**

**GEOCHEMICAL LABORATORY METHODOLOGY & PRICES - 1982**

**Sample Preparation**

|            |  |             |
|------------|--|-------------|
| 860        | Soils or silts up to 2 lbs drying at 60 deg.C and sieving 30 gms<br>>40 mesh (other size on request)   | \$ .75      |
| 87         | Saving part or all reject  | .35         |
| 82DR       | Soils or silts - drying at 60 deg.C and sieving -20 mesh & pulverizing<br>(other mesh size on request) | 2.00        |
| SP         | Soils or silts - drying at 60 deg.C pulverizing (approx. 100 gms)                                      | 1.50        |
| RP100      | Rocks or cores - crushing to -3/16" up to 10 lbs, then pulverizing<br>1/2 lb to -100 mesh (94%)        | 3.00        |
|            | Over 10 lbs  | .25/lb      |
| RP5100     | Same as RP100 except pulverizing to -100 mesh and saving +100 mesh                                     | 3.75        |
| RP5100 1/2 | Same as above except pulverizing 1/2 the reject  | 2.50/lb     |
| RP5100 A   | Same as above except pulverizing all the reject  | 2.50/lb     |
| COP        | Compositing pulps - each pulp<br>Mixing & pulverizing  | .50<br>1.50 |
| V1         | Drying vegetation and pulverizing 50 gms to -80 mesh   | 3.00        |
| V2         | Ashing up to 1 lb wet vegetation at 675 deg.C  | 2.00        |
| SH         | Special Handling   | 16.00/hr    |

**Sample Storage**

Rejects - Approx. 2 lbs of rock or total core are stored for three months and discarded unless claimed.

Pulps are retained for one year and discarded unless claimed.

**Supplies**

|                  |                       |                    |
|------------------|-----------------------|--------------------|
| Soil Envelopes   | 11" x 17"             | \$110.00/thousand  |
| Soil Envelopes   | 11" x 17" with gusset | \$130.00/thousand  |
| Plastic Bags     | 12" x 17" 1/4 mil     | \$10.00/hundred    |
| Plastic Bags     | 12" x 20" 1/4 mil     | \$10.00/hundred    |
| Ties             |                       | \$1.00/hundred     |
| Survey Tags      |                       | N/C                |
| 10% HCl          |                       | 5.00/liter         |
| Dropping bottles |                       | 1.00/each          |
| In Test          | A & B                 | \$10.00/each liter |

**Conversion Factors**

$$\begin{aligned} \text{Troy oz} &= 31.10 \text{ g} \\ \text{ppm/ton} &= 10,000 \text{ ppm} = 34.3 \text{ g/tonne} = 36,300 \text{ ppb} \end{aligned}$$

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**Telephone: 253-3158**

**GEOCHEMICAL ANALYSES - Rocks and Soils**

**Group 1 Digestion**

.50 gram sample is digested with 3 ml 3-1-2 HCl-HNO<sub>3</sub>-H<sub>2</sub>O at 95 deg.C for one hour and is diluted to 10 ml with water. This leach is near total for base metals, partial for rock forming elements and very slight for refractory elements. Solubility limits Ag, Pb, Bi, Sb, V for high grade samples.

**Group 1A - Analyses by Atomic Absorption**

| Element  | Detection | Element   | Detection | Element            | Detection |
|----------|-----------|-----------|-----------|--------------------|-----------|
| Antimony | 1 ppb     | Copper    | 0.01 ppm  | Molybdenum         | 1 ppb     |
| Bismuth  | 1 ppb     | Iron      | 0.01 ppm  | Nickel             | 1 ppb     |
| Cadmium  | 0.1 ppb   | Lead      | 0.01 ppm  | Silver             | 0.1 ppb   |
| Chromium | 1 ppb     | Lithium   | 0.01 ppm  | Vanadium           | 1 ppb     |
| Cobalt   | 1 ppb     | Manganese | 0.01 ppm  | Tin                | 1 ppb     |
|          |           |           |           |                    |           |
|          |           |           |           | First Element      | \$2.25    |
|          |           |           |           | Subsequent Element | \$1.00    |

**Group 1B - Hydride generation of volatile elements and analysis by ICP.**  
 This technique is unsuitable for sample grading over 1% Si or Cu.

| Element   | Detection                                |
|-----------|--|
| Arsenic   | 0.1 ppm                                  |
| Antimony  | 0.1 ppm                                  |
| Bismuth   | 0.1 ppm                                  |
| Germanium | 0.1 ppm                                  |
| Selenium  | 0.1 ppm                                  |
| Tellurium | 0.1 ppm                                  |
|           |  |
|           | First Element \$4.00 All Elements \$5.00 |

**Group 1C - HG** Detection limit - 5 ppb Price \$2.25

Hg in the solutions are determined by cold vapour AA using a F & J scientific Hg assembly. Aliquots of the extract are added to a stannous chloride/hydrochloric acid solution. The reduced Hg is swept out of the solution and passed into the Hg cell where it is measured by AA.

**Group 1D - ICP Analysis, same digestion**

| Element                                 | Detection |
|---|-----------|
| Ag                                      | 0.1 ppm   |
| Cd, Co, Cr, Cu, Mn, Mo, Ni, Sr, Zn      | 1 ppm     |
| As, Au, B, Ba, Bi, La, Pb, Sb, Th, V, Y | 1 ppm     |
| U                                       | 0.01 ppm  |
| Al, Ca, Fe, K, Mg, Na, P, Ti            |           |
| Any 2 elements                          | \$1.25    |
| 10 elements                             | \$1.25    |
| All 30 elements                         | \$1.00    |

**Group 1E - Analyses by ICP/MS**

| Element                       | Detection                            |
|-------------------------------|--------------------------------------|
| Ca                            | 0.1 ppm                              |
| Rh, In, Re, Os, Ir, Tl, Th, U | 0.1 ppm                              |
| First Element                 | \$4.00                               |
| Additional Element            | 2.00                                 |
| All Elements                  | 15.00 (Minimum 20 samples per batch) |

**Hydro Geochemical Analysis**

Natural water for mineral exploration

26 element ICP - Mo, Cu, Pb, In, Ag, Co, Ni, Mn, Fe, As, Sr, Cd, V, Ca, P, Li, Cr, Hg, Tl, B, Al, Ba, K, Te, Be, Si \$18.00

7 by Specific Ion Electrode - detection 20 ppb \$1.50  
 pH by VAJ - detection 0.1 ppb \$1.50

\* Minimum 20 samples or \$5.00 surcharge for ICP or AA and \$15.00 surcharge for ICP/MS.  
 All prices are in Canadian Dollars

APPENDIX II

Method of Geochemical Interpretation

## RULES FOR CHOICE OF SIZE CODING OR CONTOURING INTERVALS

- (1) Examine both arithmetic and logarithmic histograms for each geochemical survey. Choose the histogram which most closely approximates a normal (or lognormal) distribution. If several populations are present on the histogram, subjectively divide the data into a series of (overlapping ?) normal or lognormal distributions. Always avoid interpreting histograms which are strongly skewed. Portions of arithmetic or logarithmic histograms may be chosen over specific metal concentration intervals, if this allows for the best portrayal of the data in graphical form.
- (2) Choose, as two of the coding intervals, points which represent between 90% and 95%, and 95% and 97.5% of the data; two different numbers. These choices highlight from 1 in 10 to 1 in 20 samples which are considered slightly anomalous and definitely anomalous, respectively. These limits are optimistic in that the two categories are defined to be anomalous regardless of the distribution of values on the remainder of the histogram. A rigorous statistical approach would suggest that only values above the 97.5 percentile should be considered anomalous. Choice of any of the above percentiles is entirely subjective and meant to highlight the highest values of the survey.
- (3) Divide the remaining portion of the histogram into recognizable populations. The dividing point of each of these populations is chosen as a coding interval. Artifacts introduced as a consequence of detection limit considerations are ignored. These artificial breaks in the histogram can be recognized by referring to the laboratory reports and scanning data results.
- (4) For each population, choose one or two numbers which correspond to the 90% and 95% cumulative frequencies for that population (1 in 10 and 1 in 20 samples for that population). These will also be used to represent anomalous conditions for each population. Coding intervals can be no closer than 2X the detection limit for each element being considered.
- (5) A maximum of six numbers can be chosen to plot symbol maps. This number is dictated by the ability to present data in graphical form with sufficiently different symbol sizes for them to be easily distinguishable, particularly if maps are to be reduced. The seven defined concentration classes are normally sufficient to represent geochemical data on a map. More intervals can be chosen if data are to be contoured. Avoid choosing arithmetic intervals without considering rules (1) and (4).

(6) Maps plotted using the preceding instructions might result in two areas being distinguished from each other by a relatively uniform density of symbol sizes, yet only poor contrast anomalies are indicated. Difference between the two areas, A and B, might be due to underlying geology, overburden character, soils etc. Whatever the cause, the data are not well displayed. If the underlying control distinguishing A and B can be recognized, the data can be divided and re-interpreted following steps (1) to (5). Two sets of maps can be drawn, or both sets of interpreted data can be plotted on a single map. For such superimposed geochemical maps, symbol sizes lose their absolute meaning but assume a more important stance, that of reflecting anomalous conditions regardless of the underlying control. To illustrate, consider the case where A and B are areas underlain by very different geology. Anomalous conditions for low background rock types might be concentrations which are much lower than average values for the high background rock types. Nevertheless, anomalies defined in each area are considered significant. Reliance on absolute concentrations can be misleading in such cases.

APPENDIX III

**Listing of Analytical Results  
for Rock and Soil Sampling**

(prefix of '81' denotes rock sample)  
(prefix of '50' denotes soil sample)

RECEIVED

JULY 22 1988

DATE RECEIVED: JUL 18 1988  
BP RESOURCES CANADA LTD.  
PROJECT 578 LOC 10136  
SAMPLE

## GEOCHEMICAL ANALYSIS CERTIFICATE

ICP - 1,500 GRAM SAMPLE IS DIGESTED WITH 3ML 3:1:2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.

THIS LEACH IS PARTIAL FOR NH4+ Fe2+ Ba2+ Ca2+ Cr3+ K+ Na+ Ti4+ V+ AND LIMITS FOR Hg2+ AND Al3+. NO DETECTION LIMIT BY ICP IS 0 PPM.

SAMPLE TYPE: PT-PG SOIL/ROCK AND ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE. D = MAJOR FUSION + SPECIFIC ION ELECTRODE ANALYSIS.

DATE REPORT MAILED: July 28/88 ASSAYER: C. LEONG, D. TOYE OR C. LEONG, CERTIFIED B.C. ASSAYERS

BP RESOURCES CANADA LTD. PROJECT 578 LOC 10136 File # 88-2805 Page 1

|            | No     | Cu  | Pb  | Sn  | Ag  | Ni  | Co   | Mn   | Fe    | As   | V   | Al  | Ti  | Cr  | Ca   | P   | Li  | Cl  | Na   | Ba  | Tl   | S   | Al  | Zn   | K    | V   | As   | P    |     |     |   |     |      |
|------------|--------|-----|-----|-----|-----|-----|------|------|-------|------|-----|-----|-----|-----|------|-----|-----|-----|------|-----|------|-----|-----|------|------|-----|------|------|-----|-----|---|-----|------|
|            | PPM    | PPM | PPM | PPM | PPM | PPM | PPM  | PPM  | PPM   | PPM  | PPM | PPM | PPM | PPM | PPM  | PPM | PPM | PPM | PPM  | PPM | PPM  | PPM | PPM | PPM  | PPM  | PPM | PPM  | PPM  |     |     |   |     |      |
| 5088578    | 100720 | 1   | .36 | .12 | .62 | .4  | .101 | .12  | .923  | 3.27 | 9   | 5   | ND  | 0   | .50  | .1  | 2   | 2   | .41  | .56 | .001 | .10 | .51 | .79  | .207 | .06 | .20  | 2.45 | .06 | .23 | 1 | 3   | .110 |
| 5088578    | 100729 | 1   | .33 | .12 | .66 | .2  | .01  | .11  | .968  | 2.91 | 4   | 5   | ND  | 1   | .71  | .1  | 2   | 2   | .37  | .70 | .106 | .36 | .45 | .72  | .227 | .06 | .16  | 2.26 | .01 | .25 | 1 | 1   | .470 |
| 5088578    | 100730 | 1   | .30 | .11 | .65 | .3  | .06  | .10  | .970  | 2.03 | 0   | 5   | ND  | 3   | .65  | .1  | 2   | 2   | .30  | .56 | .007 | .35 | .37 | .50  | .239 | .07 | .16  | 2.02 | .03 | .24 | 1 | 2   | .410 |
| 5088578    | 100731 | 1   | .30 | .12 | .63 | .3  | .06  | .11  | .856  | 2.87 | 10  | 5   | ND  | 2   | .50  | .1  | 2   | 2   | .42  | .55 | .000 | .19 | .17 | .41  | .192 | .06 | .7   | 2.02 | .01 | .28 | 1 | 1   | .300 |
| 5088578    | 100732 | 1   | .35 | .15 | .68 | .1  | .00  | .12  | .913  | 3.28 | 17  | 5   | ND  | 1   | .57  | .1  | 2   | 3   | .44  | .55 | .003 | .03 | .10 | .63  | .221 | .05 | .9   | 2.24 | .02 | .28 | 1 | 3   | .420 |
| 5088578    | 100733 | 1   | .31 | .11 | .21 | .1  | .03  | .12  | .969  | 3.16 | 5   | 5   | ND  | 3   | .61  | .1  | 2   | 2   | .41  | .53 | .001 | .39 | .17 | .67  | .201 | .06 | .10  | 2.32 | .01 | .30 | 1 | 3   | .160 |
| 5088578    | 100734 | 1   | .20 | .12 | .60 | .3  | .66  | .10  | .897  | 2.94 | 6   | 5   | ND  | 3   | .52  | .1  | 2   | 2   | .42  | .52 | .010 | .61 | .10 | .60  | .175 | .05 | .10  | 1.81 | .02 | .19 | 1 | 7   | .410 |
| 5088578    | 100735 | 1   | .30 | .12 | .60 | .3  | .17  | .11  | .826  | 2.45 | 7   | 5   | ND  | 3   | .56  | .1  | 2   | 2   | .46  | .51 | .003 | .36 | .11 | .61  | .193 | .05 | .9   | 1.56 | .01 | .21 | 1 | 126 | .460 |
| 5088578    | 100736 | 1   | .29 | .12 | .61 | .1  | .00  | .10  | .810  | 2.02 | 5   | 5   | ND  | 2   | .63  | .1  | 3   | 2   | .38  | .57 | .005 | .30 | .10 | .57  | .212 | .05 | .15  | 2.12 | .01 | .26 | 1 | 2   | .430 |
| 5088578    | 100737 | 1   | .26 | .11 | .62 | .4  | .50  | .9   | .800  | 2.61 | 3   | 5   | ND  | 3   | .61  | .1  | 2   | 2   | .37  | .52 | .000 | .36 | .13 | .53  | .213 | .06 | 5    | 2.13 | .02 | .24 | 1 | 19  | .420 |
| 5088578    | 100738 | 1   | .29 | .11 | .62 | .3  | .71  | .10  | .751  | 2.96 | 7   | 5   | ND  | 3   | .63  | .1  | 2   | 2   | .46  | .51 | .102 | .49 | .13 | .67  | .173 | .06 | 2    | 1.97 | .01 | .21 | 1 | 1   | .150 |
| 5088578    | 100739 | 1   | .29 | .12 | .61 | .3  | .61  | .10  | .893  | 2.93 | 10  | 5   | ND  | 1   | .56  | .1  | 2   | 2   | .42  | .52 | .000 | .43 | .19 | .63  | .105 | .05 | 0    | 1.39 | .01 | .22 | 1 | 5   | .150 |
| 5088578    | 100740 | 1   | .29 | .15 | .65 | .5  | .60  | .10  | .813  | 2.93 | 16  | 5   | ND  | 0   | .67  | .1  | 2   | 3   | .45  | .68 | .105 | .47 | .16 | .72  | .102 | .06 | 10   | 1.17 | .01 | .19 | 1 | 8   | .170 |
| 5088578    | 100741 | 1   | .22 | .10 | .69 | .1  | .23  | .6   | .900  | 2.15 | 9   | 5   | ND  | 1   | .59  | .1  | 2   | 3   | .31  | .79 | .006 | .23 | .20 | .36  | .327 | .06 | 11   | 2.11 | .02 | .19 | 1 | 1   | .360 |
| 5088578    | 100742 | 1   | .22 | .11 | .56 | .3  | .22  | .7   | .1161 | 3.22 | 7   | 5   | ND  | 2   | .64  | .1  | 2   | 3   | .35  | .48 | .027 | .31 | .19 | .56  | .333 | .05 | 3    | 2.47 | .02 | .24 | 1 | 1   | .370 |
| 5088578    | 100743 | 1   | .22 | .11 | .55 | .5  | .20  | 7    | .1050 | 2.93 | 1   | 5   | ND  | 3   | .61  | .1  | 2   | 2   | .48  | .58 | .026 | .32 | .22 | .49  | .320 | .06 | 11   | 2.58 | .02 | .26 | 1 | 1   | .170 |
| 5088578    | 100744 | 1   | .22 | .15 | .55 | .3  | .37  | 7    | .1152 | 2.59 | 6   | 5   | ND  | 1   | .58  | .1  | 2   | 2   | .36  | .49 | .055 | .25 | .11 | .34  | .205 | .08 | 6    | 2.00 | .01 | .17 | 1 | 1   | .320 |
| BB 5088578 | 100749 | 1   | .21 | .10 | .55 | .2  | .60  | 8    | .730  | 2.29 | 7   | 5   | ND  | 1   | .93  | .1  | 2   | 3   | .32  | .59 | .106 | .36 | .32 | .54  | .234 | .06 | 9    | 2.39 | .03 | .23 | 1 | 4   | .350 |
| 5088578    | 100745 | 1   | .21 | .11 | .50 | .3  | .33  | 2    | .603  | 2.46 | 5   | 5   | ND  | 2   | .92  | .1  | 2   | 2   | .40  | .57 | .009 | .42 | .29 | .44  | .223 | .08 | 9    | 2.26 | .04 | .16 | 1 | 1   | .410 |
| 5088578    | 100746 | 1   | .21 | 1   | .59 | .1  | .43  | 7    | .605  | 2.29 | 2   | 5   | ND  | 1   | .95  | .1  | 2   | 3   | .35  | .78 | .105 | .39 | .30 | .47  | .203 | .06 | 7    | 2.00 | .01 | .13 | 1 | 1   | .390 |
| 5088578    | 100747 | 1   | .20 | .10 | .53 | .2  | .31  | 7    | .703  | 2.29 | 9   | 5   | ND  | 1   | .75  | .1  | 2   | 3   | .35  | .55 | .126 | .31 | .22 | .36  | .203 | .07 | 9    | 2.61 | .03 | .15 | 1 | 3   | .300 |
| 5088578    | 100748 | 1   | .25 | .10 | .67 | .2  | .31  | 7    | .917  | 2.92 | 8   | 5   | ND  | 1   | .74  | .1  | 2   | 2   | .27  | .72 | .117 | .27 | .24 | .33  | .230 | .05 | 9    | 2.37 | .03 | .12 | 1 | 1   | .360 |
| 5088578    | 100749 | 1   | .23 | .15 | .59 | .5  | .62  | 1    | .768  | 2.49 | 5   | 5   | ND  | 1   | .96  | .1  | 2   | 2   | .33  | .62 | .132 | .38 | .36 | .57  | .247 | .06 | 11   | 2.41 | .02 | .22 | 1 | 5   | .300 |
| 5088578    | 100750 | 1   | .30 | .11 | .63 | .3  | .97  | 10   | .760  | 3.63 | 7   | 5   | ND  | 5   | .73  | .1  | 2   | 2   | .46  | .54 | .111 | .45 | .60 | .70  | .159 | .07 | 11   | 1.70 | .02 | .19 | 1 | 2   | .430 |
| 5088578    | 100751 | 1   | .26 | .12 | .57 | .5  | .821 | 11   | .630  | 2.77 | 10  | 5   | ND  | 5   | .139 | .1  | 3   | 2   | .41  | .69 | .110 | .39 | .65 | .829 | .302 | .06 | 11   | 1.41 | .02 | .09 | 1 | 1   | .530 |
| 5088578    | 100752 | 1   | .23 | .12 | .51 | .3  | .66  | 1    | .673  | 2.32 | 7   | 5   | ND  | 1   | .61  | .1  | 2   | 2   | .31  | .51 | .003 | .37 | .16 | .52  | .149 | .06 | 12   | 1.61 | .02 | .11 | 1 | 5   | .170 |
| 5088578    | 100753 | 1   | .22 | .14 | .49 | .3  | .66  | 1    | .672  | 2.11 | 1   | 5   | ND  | 3   | .73  | .1  | 2   | 2   | .36  | .59 | .102 | .39 | .42 | .36  | .151 | .06 | 11   | 1.73 | .02 | .15 | 1 | 2   | .320 |
| 5088578    | 100754 | 1   | .24 | .11 | .55 | .6  | .63  | 1    | .725  | 2.26 | 4   | 5   | ND  | 1   | .60  | .1  | 2   | 3   | .32  | .76 | .103 | .36 | .37 | .49  | .105 | .06 | 16   | 1.05 | .03 | .17 | 1 | 1   | .390 |
| 5088578    | 100755 | 1   | .21 | .12 | .57 | .3  | .56  | 1    | .616  | 2.11 | 9   | 5   | ND  | 1   | .77  | .1  | 2   | 2   | .29  | .78 | .099 | .32 | .33 | .44  | .205 | .05 | 9    | 1.92 | .02 | .15 | 1 | 1   | .300 |
| 5088578    | 100756 | 1   | .25 | .10 | .65 | .3  | .77  | 1    | .643  | 2.26 | 5   | 5   | ND  | 1   | .61  | .1  | 2   | 1   | .31  | .74 | .114 | .33 | .43 | .55  | .180 | .05 | 11   | 1.61 | .02 | .15 | 1 | 2   | .370 |
| 5088578    | 100757 | 1   | .25 | .15 | .63 | .2  | .41  | 1    | .907  | 2.19 | 6   | 5   | ND  | 1   | .77  | .1  | 2   | 2   | .32  | .60 | .007 | .31 | .26 | .42  | .275 | .07 | 12   | 2.37 | .02 | .17 | 1 | 2   | .390 |
| 5088578    | 100758 | 1   | .24 | .14 | .61 | .4  | .22  | 1    | .1161 | 2.51 | 3   | 5   | ND  | 1   | .60  | .1  | 2   | 2   | .26  | .79 | .000 | .23 | .15 | .30  | .349 | .07 | 7    | 3.12 | .03 | .15 | 1 | 4   | .750 |
| 5088578    | 100759 | 1   | .38 | .13 | .76 | .7  | .58  | 13   | .1245 | 3.22 | 4   | 5   | ND  | 2   | .71  | .1  | 2   | 3   | .36  | .90 | .109 | .21 | .61 | .39  | .378 | .06 | 13   | 2.05 | .03 | .21 | 1 | 20  | .530 |
| 5088578    | 100760 | 1   | .26 | .10 | .71 | .4  | .13  | 1    | .1394 | 2.87 | 8   | 5   | ND  | 1   | .51  | .1  | 2   | 2   | .23  | .63 | .074 | .15 | .16 | .22  | .261 | .03 | 16   | 2.01 | .03 | .19 | 1 | 10  | .430 |
| 5088578    | 100761 | 1   | .33 | .10 | .79 | 1.0 | .32  | 10   | .1372 | 2.65 | 6   | 5   | ND  | 2   | .45  | 1   | 3   | 3   | .23  | .63 | .075 | 11  | .13 | .24  | .230 | .03 | 1    | 1.85 | .01 | .15 | 1 | 12  | .350 |
| 5088578    | 100762 | 1   | .22 | .12 | .46 | .4  | .107 | 10   | .691  | 2.11 | 6   | 5   | ND  | 3   | .70  | .1  | 2   | 3   | .36  | .55 | .030 | .38 | .17 | .61  | .159 | .06 | 11   | 1.80 | .04 | .19 | 1 | 1   | .410 |
| STD C      | 10     | 51  | 36  | 127 | 6.9 | .68 | 28   | 1065 | 8.00  | 40   | 23  | 7   | 35  | 17  | 11   | 21  | 56  | .07 | .000 | 37  | 50   | .30 | .27 | .176 | .06  | 37  | 1.91 | .06  | .13 | 13  | - | -   |      |
| 5088578    | 100763 | 1   | .29 | .11 | .57 | .6  | .93  | 10   | .673  | 2.59 | 7   | 5   | ND  | 4   | .60  | 1   | 2   | 2   | .36  | .51 | .009 | 36  | 50  | .20  | .176 | .06 | 11   | 1.81 | .07 | .26 | 1 | 3   | .410 |
| STD C/AV-3 | 10     | 57  | 38  | 127 | 7.2 | .67 | 27   | 1050 | 3.95  | 42   | 27  | 6   | 36  | 17  | 17   | 21  | 55  | .07 | .016 | 36  | 55   | .10 | .00 | .173 | .06  | 38  | 1.90 | .06  | .13 | 12  | 0 | -   |      |

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| SAMPLE            | No  | Cs  | Tb  | Tb  | Ag  | Al  | Co  | Mn   | Zn   | As  | U   | Ar  | Tb  | Sc  | Cr  | Si  | T   | Cs  | P    | Si   | Cr  | Mg  | Ba   | Tl  | H   | Al  | Br   | R   | U   | As  | T  |     |
|-------------------|-----|-----|-----|-----|-----|-----|-----|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|-----|-----|------|-----|-----|-----|------|-----|-----|-----|----|-----|
|                   | PPK  | PPK  | PPK | PPK | PPK | PPK | PPK | PPK | PPK | PPK | PPK | PPK  | PPK  | PPK | PPK | PPK  | PPK | PPK | PPK | PPK  | PPK | PPK | PPK |    |     |
| 5088578 100761    | 1   | 20  | 15  | 59  | .2  | 70  | 0   | 637  | 2.23 | 10  | 5   | ND  | 1   | 79  | 1   | 2   | 2   | 31  | .07  | .093 | 31  | 42  | .59  | 191 | .07 | 7   | 2.06 | .01 | .22 | 1   | 1  | 350 |
| 5088578 100765    | 1   | 19  | 12  | 57  | .2  | 66  | 0   | 609  | 2.16 | 10  | 6   | ND  | 1   | 80  | 1   | 2   | 3   | 31  | .50  | .094 | 32  | 43  | .66  | 162 | .06 | 10  | 1.57 | .07 | .24 | 1   | 1  | 360 |
| 5088578 100766    | 1   | 19  | 14  | 54  | .3  | 50  | 0   | 610  | 2.12 | 10  | 5   | ND  | 3   | 80  | 1   | 2   | 2   | 29  | .56  | .092 | 32  | 31  | .58  | 162 | .06 | 9   | 1.00 | .01 | .21 | 1   | 1  | 370 |
| 5088578 100767    | 1   | 23  | 17  | 57  | .1  | 97  | 0   | 590  | 2.64 | 10  | 5   | ND  | 3   | 65  | 1   | 2   | 2   | 40  | .50  | .093 | 43  | 56  | .73  | 361 | .07 | 1   | 1.98 | .01 | .16 | 1   | 1  | 420 |
| 5088578 100768    | 1   | 20  | 16  | 62  | .1  | 82  | 0   | 738  | 2.30 | 10  | 5   | ND  | 1   | 60  | 1   | 2   | 2   | 31  | .50  | .093 | 31  | 39  | .40  | 173 | .07 | 8   | 1.03 | .02 | .16 | 1   | 2  | 360 |
| 5088578 100769    | 1   | 21  | 17  | 57  | .1  | 87  | 0   | 661  | 2.50 | 12  | 6   | ND  | 3   | 71  | 1   | 2   | 4   | 36  | .50  | .093 | 35  | 49  | .59  | 203 | .08 | 1   | 2.25 | .01 | .15 | 1   | 1  | 350 |
| 5088578 100770    | 1   | 22  | 17  | 59  | .2  | 55  | 0   | 615  | 2.31 | 11  | 5   | ND  | 3   | 75  | 1   | 2   | 2   | 33  | .55  | .090 | 31  | 39  | .50  | 188 | .07 | 9   | 2.06 | .01 | .20 | 1   | 1  | 330 |
| STD C             | 17  | 59  | 41  | 133 | 6.1 | 70  | 29  | 1097 | 4.05 | 42  | 21  | 6   | 31  | 47  | 17  | 17  | 20  | 56  | .46  | .093 | 36  | 56  | .92  | 179 | .06 | 38  | 1.91 | .01 | .13 | -   | -  | -   |
| 5088578 100771    | 1   | 21  | 15  | 59  | .2  | 70  | 0   | 662  | 2.13 | 9   | 5   | ND  | 2   | 79  | 1   | 2   | 2   | 30  | .56  | .098 | 32  | 36  | .40  | 195 | .06 | 12  | 1.97 | .01 | .19 | 1   | 2  | 300 |
| 5088578 103001    | 1   | 105 | 12  | 45  | .5  | 40  | 11  | 622  | 3.07 | 21  | 5   | ND  | 2   | 72  | 1   | 3   | 1   | 51  | 1.05 | .096 | 33  | 33  | .67  | 120 | .05 | 14  | 2.05 | .01 | .13 | 1   | 9  | 370 |
| 5088578 103001    | 1   | 92  | 13  | 47  | .3  | 36  | 11  | 670  | 3.85 | 20  | 5   | ND  | 2   | 64  | 1   | 2   | 2   | 32  | .02  | .097 | 29  | 39  | .65  | 132 | .06 | 10  | 2.09 | .01 | .25 | 1   | 7  | 340 |
| 5088578 103003    | 1   | 105 | 14  | 43  | .5  | 43  | 11  | 572  | 2.96 | 17  | 5   | ND  | 1   | 65  | 1   | 3   | 2   | 55  | 5.28 | .116 | 27  | 36  | .79  | 105 | .03 | 14  | 1.56 | .01 | .12 | 2   | 16 | 310 |
| 5088578 103010    | 1   | 89  | 16  | 61  | .3  | 38  | 10  | 662  | 2.77 | 16  | 5   | ND  | 1   | 67  | 1   | 2   | 2   | 46  | .03  | .076 | 31  | 27  | .50  | 137 | .07 | 18  | 2.10 | .01 | .19 | 1   | 1  | 370 |
| 5088578 103011    | 1   | 111 | 13  | 47  | .3  | 43  | 12  | 724  | 2.97 | 18  | 5   | ND  | 2   | 52  | 1   | 2   | 2   | 51  | .60  | .088 | 29  | 31  | .41  | 131 | .07 | 11  | 1.90 | .01 | .16 | 1   | 1  | 340 |
| 5088578 103012    | 1   | 71  | 10  | 51  | .3  | 45  | 12  | 674  | 3.10 | 9   | 5   | ND  | 3   | 59  | 1   | 2   | 2   | 61  | .52  | .091 | 33  | 31  | .73  | 159 | .00 | 6   | 2.45 | .01 | .16 | 1   | 17 | 390 |
| 5088578 103013    | 1   | 172 | 16  | 50  | .4  | 39  | 10  | 100  | 3.35 | 31  | 5   | ND  | 2   | 66  | 1   | 2   | 2   | 70  | .73  | .114 | 42  | 36  | .74  | 145 | .06 | 12  | 2.07 | .01 | .16 | 1   | 16 | 380 |
| 5088578 103014    | 1   | 115 | 15  | 52  | .5  | 45  | 11  | 912  | 3.75 | 23  | 5   | ND  | 1   | 61  | 1   | 2   | 2   | 45  | .96  | .109 | 49  | 31  | .55  | 101 | .06 | 7   | 2.01 | .01 | .13 | 1   | 4  | 350 |
| 5088578 103015    | 1   | 135 | 10  | 50  | .5  | 43  | 12  | 705  | 3.02 | 19  | 5   | ND  | 1   | 101 | 1   | 2   | 2   | 52  | 3.76 | .126 | 30  | 37  | .66  | 122 | .05 | 1   | 1.47 | .01 | .10 | 1   | 6  | 320 |
| 5088578 103016    | 1   | 73  | 15  | 52  | .4  | 36  | 9   | 659  | 2.91 | 15  | 5   | ND  | 3   | 70  | 1   | 2   | 2   | 45  | .63  | .091 | 34  | 31  | .44  | 211 | .09 | 9   | 2.37 | .02 | .16 | 1   | 6  | 360 |
| 5088578 103017    | 1   | 63  | 13  | 49  | .4  | 43  | 9   | 659  | 2.65 | 10  | 5   | ND  | 2   | 76  | 1   | 2   | 3   | 42  | .62  | .080 | 34  | 35  | .50  | 172 | .07 | 4   | 2.06 | .01 | .19 | 1   | 3  | 310 |
| 5088578 103018    | 1   | 70  | 16  | 51  | .3  | 71  | 12  | 656  | 2.06 | 19  | 5   | ND  | 2   | 81  | 1   | 3   | 2   | 46  | 1.04 | .093 | 39  | 48  | .68  | 101 | .07 | 16  | 1.83 | .02 | .22 | 1   | 5  | 370 |
| 5088578 103019    | 1   | 107 | 15  | 48  | .5  | 102 | 14  | 537  | 3.10 | 21  | 5   | ND  | 4   | 71  | 1   | 3   | 3   | 51  | .81  | .079 | 47  | 68  | .93  | 188 | .06 | 6   | 1.52 | .02 | .15 | 1   | 23 | 350 |
| 5088578 103020    | 1   | 65  | 13  | 41  | .2  | 111 | 12  | 701  | 2.64 | 10  | 5   | ND  | 2   | 76  | 1   | 2   | 2   | 41  | .70  | .077 | 36  | 61  | .86  | 155 | .06 | 7   | 1.85 | .01 | .13 | 1   | 3  | 410 |
| RE 5088578 103017 | 1   | 63  | 11  | 43  | .2  | 43  | 10  | 649  | 2.60 | 11  | 5   | ND  | 1   | 75  | 1   | 2   | 2   | 41  | .62  | .081 | 34  | 33  | .50  | 171 | .07 | 6   | 2.02 | .02 | .18 | 1   | 2  | 318 |
| 5088578 103021    | 1   | 62  | 13  | 45  | .3  | 91  | 11  | 752  | 2.10 | 7   | 5   | ND  | 2   | 91  | 1   | 2   | 2   | 39  | .65  | .083 | 33  | 40  | .70  | 169 | .06 | 15  | 1.69 | .01 | .16 | 1   | 1  | 400 |
| 5088578 103022    | 1   | 63  | 12  | 31  | .2  | 65  | 8   | 390  | 1.89 | 7   | 5   | ND  | 1   | 360 | 1   | 1   | 2   | 30  | 2.07 | .072 | 25  | 31  | 1.31 | 109 | .06 | 10  | 1.33 | .03 | .15 | 1   | 1  | 550 |
| 5088578 103023    | 1   | 38  | 2   | 29  | .1  | 32  | 6   | 235  | 1.06 | 7   | 7   | ND  | 1   | 575 | 1   | 2   | 2   | 15  | 9.03 | .073 | 13  | 19  | .95  | 128 | .03 | 8   | .95  | .05 | .10 | 1   | 1  | 520 |
| 5088578 103024    | 1   | 55  | 21  | 32  | .3  | 134 | 11  | 595  | 2.61 | 9   | 5   | ND  | 3   | 95  | 1   | 2   | 2   | 36  | .91  | .082 | 31  | 48  | .71  | 137 | .06 | 12  | 1.43 | .01 | .20 | 1   | 6  | 430 |
| 5088578 103025    | 1   | 45  | 12  | 47  | .1  | 75  | 10  | 760  | 2.31 | 9   | 5   | ND  | 1   | 91  | 1   | 2   | 2   | 33  | .67  | .080 | 32  | 37  | .49  | 211 | .07 | 11  | 2.38 | .01 | .16 | 1   | 2  | 400 |
| 5088578 103026    | 1   | 71  | 11  | 47  | .3  | 62  | 11  | 730  | 2.44 | 13  | 5   | ND  | 2   | 77  | 1   | 2   | 2   | 38  | .83  | .096 | 31  | 47  | .66  | 183 | .06 | 13  | 1.91 | .02 | .21 | 2   | 1  | 440 |
| 5088578 103027    | 1   | 71  | 11  | 60  | .3  | 123 | 13  | 691  | 3.02 | 13  | 5   | ND  | 2   | 62  | 1   | 2   | 2   | 41  | .91  | .070 | 42  | 71  | .92  | 155 | .07 | 9   | 1.02 | .02 | .13 | 1   | 1  | 410 |
| 5088578 103028    | 1   | 91  | 16  | 49  | .4  | 99  | 12  | 656  | 2.68 | 16  | 5   | ND  | 2   | 69  | 1   | 2   | 2   | 41  | .61  | .086 | 35  | 46  | .60  | 262 | .04 | 12  | 2.51 | .02 | .14 | 1   | 2  | 460 |
| 5088578 103029    | 1   | 71  | 15  | 45  | .3  | 100 | 11  | 738  | 2.37 | 14  | 5   | ND  | 2   | 69  | 1   | 2   | 2   | 30  | .50  | .080 | 37  | 40  | .59  | 183 | .07 | 7   | 1.97 | .01 | .13 | 1   | 5  | 440 |
| 5088578 103030    | 1   | 135 | 10  | 30  | .5  | 42  | 8   | 611  | 2.07 | 11  | 6   | ND  | 1   | 105 | 1   | 2   | 2   | 33  | 1.03 | .067 | 29  | 24  | .41  | 271 | .05 | 11  | 1.70 | .11 | .27 | 1   | 3  | 450 |
| 5088578 103031    | 1   | 304 | 11  | 47  | .3  | 47  | 10  | 661  | 3.19 | 10  | 5   | ND  | 1   | 57  | 1   | 2   | 2   | 52  | .68  | .072 | 26  | 33  | .46  | 261 | .06 | 7   | 2.46 | .02 | .21 | 1   | 30 | 610 |
| 5088578 103032    | 1   | 302 | 10  | 46  | .4  | 36  | 16  | 1130 | 2.92 | 6   | 5   | ND  | 1   | 50  | 1   | 2   | 2   | 50  | .51  | .073 | 23  | 26  | .41  | 212 | .06 | 17  | 1.33 | .01 | .20 | 1   | 11 | 510 |
| 5088578 103033    | 1   | 302 | 7   | 35  | .5  | 30  | 7   | 653  | 2.16 | 7   | 6   | ND  | 1   | 41  | 1   | 2   | 2   | 43  | .66  | .066 | 20  | 28  | .55  | 173 | .04 | 11  | 1.17 | .01 | .19 | 1   | 29 | 490 |
| 5088578 103034    | 1   | 406 | 11  | 47  | .6  | 49  | 10  | 690  | 3.00 | 9   | 5   | ND  | 1   | 72  | 1   | 2   | 2   | 53  | 1.91 | .077 | 26  | 46  | .81  | 320 | .04 | 11  | 1.01 | .02 | .29 | 1   | 16 | 450 |
| STD C/AU-8        | 17  | 57  | 39  | 132 | 7.0 | 60  | 29  | 1059 | 4.07 | 00  | 26  | 6   | 36  | 47  | 17  | 17  | 17  | 30  | .40  | .069 | 37  | 51  | .93  | 115 | .06 | 39  | 1.03 | .06 | .24 | 11  | 19 | -   |

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| SAMPLE         | No  | Cu  | Pb  | Sn  | Ag  | Bi  | Co  | Mn   | Tc   | As  | V   | Alu | Pb  | Fr  | Cd  | Sb  | B1  | V  | Cd   | P    | La  | Cr  | Ng   | Sn  | Tl  | S   | Al   | Na  | K   | V   | PbB | PbR |
|----------------|-----|-----|-----|-----|-----|-----|-----|------|------|-----|-----|-----|-----|-----|-----|-----|-----|----|------|------|-----|-----|------|-----|-----|-----|------|-----|-----|-----|-----|-----|
|                | PPM  | %    | PPM | %  | PPM  | PPM  | PPM | PPM | PPM  | PPM | PPM | PPM | PPM  | PPM | PPM | PPM |     |     |
| 5088578 103035 | 1   | 23  | 13  | 53  | .1  | 40  | 7   | 631  | 2.50 | 6   | 5   | ND  | 1   | 66  | 1   | 2   | 3   | 31 | .51  | .096 | 33  | 33  | .51  | 150 | .06 | 10  | 1.02 | .02 | .23 | 1   | 1   | 350 |
| 5088578 103036 | 1   | 21  | 11  | 60  | .1  | 45  | 8   | 670  | 2.56 | 12  | 5   | ND  | 1   | 71  | 1   | 2   | 2   | 39 | .61  | .093 | 34  | 33  | .57  | 164 | .06 | 7   | 1.01 | .01 | .25 | 1   | 1   | 330 |
| 5088578 103037 | 1   | 26  | 12  | 60  | .1  | 46  | 8   | 576  | 2.62 | 9   | 5   | ND  | 1   | 68  | 1   | 3   | 3   | 42 | .63  | .092 | 31  | 36  | .69  | 134 | .06 | 6   | 1.01 | .02 | .19 | 1   | 1   | 410 |
| STD C          | 17  | 57  | 36  | 135 | 6.6 | 67  | 21  | 1069 | 4.06 | 38  | 11  | 6   | 30  | 66  | 17  | 11  | 21  | 56 | .49  | .087 | 36  | 56  | .95  | 177 | .06 | 32  | 2.01 | .06 | .38 | 13  | 1   | -   |
| 5088578 103038 | 1   | 25  | 10  | 56  | .2  | 45  | 8   | 503  | 2.56 | 10  | 5   | ND  | 1   | 59  | 1   | 2   | 2   | 40 | .52  | .079 | 40  | 31  | .61  | 133 | .06 | 8   | 1.67 | .02 | .19 | 1   | 1   | 330 |
| 5088578 103039 | 1   | 20  | 11  | 58  | .1  | 41  | 8   | 702  | 2.06 | 9   | 5   | ND  | 1   | 65  | 1   | 2   | 2   | 36 | .55  | .092 | 31  | 30  | .53  | 165 | .06 | 3   | 1.98 | .02 | .23 | 1   | 1   | 390 |
| 5088578 103040 | 1   | 22  | 15  | 54  | .3  | 40  | 7   | 631  | 2.55 | 7   | 5   | ND  | 1   | 53  | 1   | 2   | 3   | 37 | .51  | .079 | 33  | 33  | .57  | 156 | .06 | 4   | 1.36 | .02 | .17 | 1   | 3   | 600 |
| 5088578 103041 | 1   | 21  | 11  | 52  | .2  | 41  | 7   | 602  | 2.20 | 9   | 5   | ND  | 1   | 65  | 1   | 2   | 2   | 32 | .50  | .066 | 26  | 20  | .49  | 192 | .06 | 5   | 2.21 | .03 | .19 | 1   | 2   | 420 |
| 5088578 103042 | 1   | 36  | 13  | 53  | .3  | 61  | 9   | 623  | 2.65 | 7   | 5   | ND  | 1   | 57  | 1   | 2   | 2   | 37 | .47  | .062 | 30  | 41  | .70  | 167 | .07 | 11  | 2.07 | .08 | .19 | 1   | 1   | 310 |
| 5088578 103043 | 1   | 51  | 9   | 55  | .3  | 43  | 6   | 1338 | 2.16 | 6   | 5   | ND  | 1   | 106 | 1   | 2   | 3   | 34 | 1.05 | .083 | 39  | 31  | .73  | 161 | .05 | 16  | 1.39 | .04 | .15 | 1   | 1   | 400 |
| 5088578 103044 | 1   | 124 | 11  | 61  | .2  | 39  | 13  | 603  | 3.23 | 6   | 5   | ND  | 1   | 51  | 1   | 2   | 2   | 55 | .61  | .088 | 30  | 57  | 1.20 | 188 | .08 | 8   | 2.29 | .01 | .28 | 1   | 1   | 478 |
| 5088578 103045 | 1   | 52  | 12  | 62  | .1  | 27  | 11  | 639  | 3.20 | 9   | 5   | ND  | 1   | 61  | 1   | 2   | 2   | 46 | .52  | .085 | 36  | 49  | .75  | 197 | .07 | 15  | 2.56 | .03 | .21 | 1   | 1   | 388 |
| 5088578 103050 | 1   | 23  | 12  | 59  | .1  | 25  | 7   | 717  | 2.26 | 8   | 5   | ND  | 1   | 62  | 1   | 2   | 2   | 32 | .53  | .058 | 23  | 19  | .38  | 296 | .09 | 5   | 3.28 | .02 | .16 | 1   | 1   | 320 |
| 5088578 103046 | 1   | 44  | 12  | 50  | .3  | 45  | 1   | 829  | 2.41 | 3   | 5   | ND  | 1   | 75  | 1   | 2   | 2   | 31 | .60  | .092 | 24  | 20  | .51  | 250 | .06 | 3   | 2.67 | .01 | .17 | 1   | 1   | 350 |
| 5088578 103047 | 1   | 67  | 14  | 55  | .2  | 27  | 12  | 912  | 3.11 | 11  | 5   | ND  | 1   | 52  | 1   | 2   | 2   | 43 | .49  | .079 | 30  | 49  | .76  | 184 | .08 | 8   | 2.32 | .00 | .16 | 1   | 1   | 390 |
| 5088578 103048 | 1   | 65  | 10  | 58  | .2  | 56  | 21  | 3119 | 2.60 | 2   | 5   | ND  | 1   | 36  | 1   | 2   | 2   | 51 | .46  | .069 | 16  | 40  | .72  | 164 | .09 | 7   | 2.07 | .04 | .13 | 1   | 1   | 350 |
| 5088578 103049 | 1   | 21  | 13  | 55  | .1  | 26  | 7   | 700  | 2.46 | 1   | 5   | ND  | 1   | 71  | 1   | 2   | 1   | 34 | .52  | .061 | 26  | 20  | .41  | 380 | .11 | 5   | 3.03 | .03 | .22 | 1   | 1   | 300 |
| 5088578 103050 | 1   | 22  | 12  | 52  | .1  | 25  | 7   | 701  | 2.23 | 10  | 5   | ND  | 1   | 61  | 1   | 2   | 2   | 31 | .53  | .057 | 23  | 20  | .37  | 296 | .09 | 5   | 3.18 | .02 | .15 | 1   | 1   | 310 |
| 5088578 103051 | 1   | 28  | 16  | 63  | .2  | 36  | 7   | 896  | 2.26 | 8   | 5   | ND  | 1   | 66  | 1   | 2   | 2   | 27 | .32  | .035 | 25  | 19  | .30  | 220 | .07 | 7   | 2.37 | .03 | .13 | 1   | 1   | 340 |
| 5088578 103052 | 1   | 21  | 15  | 51  | .3  | 32  | 7   | 632  | 2.27 | 3   | 5   | ND  | 1   | 65  | 1   | 2   | 2   | 29 | .42  | .053 | 24  | 19  | .38  | 319 | .10 | 7   | 3.53 | .02 | .11 | 1   | 28  | 300 |
| 5088578 103053 | 1   | 95  | 19  | 60  | .4  | 65  | 12  | 1445 | 2.96 | 11  | 5   | ND  | 1   | 77  | 1   | 2   | 2   | 39 | .70  | .089 | 31  | 30  | .51  | 316 | .09 | 7   | 3.21 | .01 | .18 | 1   | 2   | 290 |
| 5088578 103054 | 1   | 22  | 13  | 54  | .2  | 30  | 7   | 610  | 2.60 | 12  | 5   | ND  | 1   | 63  | 1   | 2   | 3   | 41 | .56  | .081 | 40  | 33  | .53  | 166 | .06 | 12  | 1.87 | .02 | .16 | 1   | 1   | 330 |
| 5088578 103055 | 1   | 30  | 12  | 53  | .0  | 30  | 3   | 630  | 2.60 | 15  | 5   | ND  | 1   | 74  | 1   | 2   | 3   | 39 | .55  | .082 | 31  | 43  | .69  | 230 | .07 | 6   | 2.53 | .02 | .18 | 1   | 1   | 320 |
| 5088578 103056 | 1   | 36  | 10  | 53  | .2  | 57  | 8   | 719  | 2.36 | 6   | 5   | ND  | 1   | 60  | 1   | 2   | 2   | 35 | .45  | .095 | 29  | 20  | .47  | 205 | .06 | 10  | 2.20 | .02 | .15 | 1   | 1   | 290 |
| 5088578 103057 | 1   | 39  | 12  | 52  | .3  | 68  | 9   | 826  | 2.66 | 4   | 5   | ND  | 1   | 77  | 1   | 2   | 2   | 35 | .71  | .083 | 30  | 31  | .46  | 213 | .06 | 10  | 2.22 | .02 | .15 | 1   | 1   | 350 |
| 5088578 103058 | 8   | 40  | 13  | 54  | .2  | 52  | 1   | 693  | 2.60 | 8   | 5   | ND  | 1   | 71  | 1   | 2   | 3   | 40 | .70  | .098 | 31  | 35  | .59  | 170 | .06 | 11  | 1.90 | .02 | .19 | 1   | 6   | 420 |
| 5088578 103059 | 1   | 50  | 1   | 19  | .2  | 55  | 3   | 743  | 2.62 | 8   | 5   | ND  | 1   | 73  | 1   | 2   | 2   | 37 | .64  | .083 | 31  | 30  | .53  | 221 | .06 | 6   | 2.25 | .01 | .18 | 1   | 2   | 300 |
| 5088578 103060 | 1   | 43  | 10  | 41  | .4  | 129 | 12  | 761  | 2.67 | 20  | 5   | ND  | 1   | 70  | 1   | 2   | 4   | 30 | .66  | .074 | 10  | 34  | .39  | 319 | .06 | 5   | 2.43 | .02 | .10 | 1   | 2   | 420 |
| 5088578 103061 | 1   | 62  | 13  | 53  | .0  | 20  | 7   | 922  | 2.44 | 2   | 5   | ND  | 1   | 56  | 1   | 2   | 2   | 43 | .65  | .100 | 19  | 10  | .39  | 216 | .03 | 6   | 3.38 | .03 | .10 | 2   | 1   | 330 |
| 5088578 103062 | 1   | 47  | 9   | 53  | .1  | 22  | 7   | 732  | 2.44 | 3   | 5   | ND  | 1   | 63  | 1   | 2   | 2   | 31 | .55  | .070 | 26  | 22  | .41  | 232 | .07 | 17  | 2.61 | .01 | .20 | 1   | 1   | 340 |
| 5088578 103063 | 1   | 24  | 10  | 62  | .2  | 31  | 7   | 691  | 2.50 | 5   | 5   | ND  | 1   | 75  | 1   | 2   | 2   | 39 | .43  | .091 | 33  | 29  | .53  | 217 | .07 | 10  | 2.02 | .02 | .22 | 1   | 1   | 350 |
| 5088578 103064 | 1   | 21  | 11  | 56  | .2  | 24  | 7   | 661  | 2.50 | 2   | 5   | ND  | 1   | 73  | 1   | 2   | 2   | 30 | .47  | .074 | 30  | 23  | .52  | 210 | .08 | 12  | 2.03 | .01 | .19 | 1   | 1   | 260 |
| 5088578 103065 | 1   | 38  | 10  | 58  | .2  | 27  | 7   | 680  | 2.57 | 7   | 5   | ND  | 1   | 66  | 1   | 2   | 2   | 39 | .72  | .089 | 32  | 24  | .51  | 306 | .06 | 13  | 2.09 | .02 | .20 | 1   | 2   | 330 |
| 5088578 103066 | 1   | 19  | 11  | 59  | .2  | 19  | 7   | 681  | 2.60 | 7   | 5   | ND  | 1   | 76  | 1   | 2   | 2   | 36 | .50  | .075 | 20  | 20  | .42  | 360 | .01 | 7   | 3.07 | .01 | .10 | 1   | 1   | 340 |
| 5088578 103067 | 1   | 20  | 11  | 52  | .3  | 20  | 6   | 592  | 2.25 | 0   | 5   | ND  | 1   | 100 | 1   | 2   | 2   | 30 | .69  | .076 | 26  | 20  | .52  | 268 | .07 | 7   | 2.58 | .03 | .21 | 1   | 2   | 330 |
| 5088578 103068 | 1   | 20  | 10  | 52  | .3  | 22  | 6   | 593  | 2.10 | 4   | 5   | ND  | 1   | 100 | 1   | 2   | 2   | 30 | .67  | .071 | 26  | 19  | .51  | 232 | .06 | 10  | 2.30 | .03 | .19 | 1   | 1   | 250 |
| 5088578 103069 | 1   | 27  | 10  | 50  | .3  | 19  | 7   | 591  | 2.06 | 4   | 5   | ND  | 1   | 104 | 1   | 2   | 3   | 20 | .76  | .097 | 32  | 22  | .44  | 206 | .05 | 9   | 1.90 | .01 | .17 | 1   | 2   | 340 |
| 5088578 103070 | 1   | 26  | 15  | 60  | .2  | 53  | 8   | 592  | 2.06 | 7   | 5   | ND  | 1   | 66  | 1   | 2   | 2   | 20 | .72  | .067 | 30  | 22  | .36  | 238 | .05 | 7   | 2.29 | .02 | .13 | 1   | 1   | 260 |
| STD C/AU-S     | 18  | 58  | 36  | 133 | 7.8 | 67  | 27  | 1088 | 0.01 | 37  | 22  | 6   | 30  | 03  | 17  | 17  | 20  | 35 | .49  | .096 | 35  | 55  | .92  | 178 | .06 | 31  | 1.94 | .06 | .11 | 11  | 48  | *   |

BP RESOURCES PROJECT | LOC 10136 FILE # 88-2805

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| SAMP#             | Xe | Cu | Pb | Sb  | Ag  | Wt | Co | Ni   | Fe   | As | U  | Au | Th | Sr  | Cd | Sb | Bl | V  | Cr   | P    | Zn | Cr  | Ng  | Be  | Tl  | B  | Al   | Ra  | R   | V  | Av <sup>a</sup> | F   |
|-------------------|----|----|----|-----|-----|----|----|------|------|----|----|----|----|-----|----|----|----|----|------|------|----|-----|-----|-----|-----|----|------|-----|-----|----|-----------------|-----|
|                   |    |    |    |     |     |    |    |      |      |    |    |    |    |     |    |    |    |    |      |      |    |     |     |     |     |    |      |     |     |    |                 |     |
| 5088570 103071    | 1  | 31 | 10 | 71  | .3  | 61 | 9  | 1173 | 2.05 | 0  | 5  | ND | 1  | 120 | 1  | 3  | 2  | 29 | 1.23 | .115 | 38 | .26 | .37 | 275 | .06 | 9  | 2.26 | .03 | .10 | 1  | 1               | 290 |
| 5088570 103072    | 1  | 29 | 18 | 57  | .1  | 55 | 8  | 735  | 2.32 | 11 | 5  | ND | 2  | 82  | 1  | 2  | 2  | 36 | .52  | .095 | 39 | .31 | .45 | 190 | .07 | 6  | 2.05 | .01 | .17 | 1  | 1               | 350 |
| 5088570 103073    | 1  | 32 | 13 | 59  | .1  | 52 | 0  | 983  | 2.00 | 7  | 5  | ND | 1  | 100 | 1  | 2  | 2  | 30 | .93  | .096 | 35 | .23 | .35 | 249 | .07 | 6  | 2.01 | .03 | .17 | 1  | 1               | 230 |
| 5088570 103074    | 1  | 30 | 13 | 63  | .1  | 50 | 8  | 962  | 2.03 | 5  | 5  | ND | 2  | 67  | 1  | 2  | 2  | 31 | .61  | .076 | 38 | .22 | .33 | 236 | .06 | 5  | 2.21 | .03 | .15 | 1  | 1               | 350 |
| RE 5088570 103073 | 1  | 22 | 11 | 55  | .2  | 48 | 7  | 651  | 2.51 | 11 | 5  | ND | 3  | 70  | 1  | 2  | 3  | 38 | .58  | .075 | 35 | .31 | .49 | 191 | .08 | 5  | 2.29 | .01 | .20 | 1  | 1               | 320 |
| 5088570 103075    | 1  | 36 | 10 | 63  | .3  | 52 | 0  | 1066 | 2.02 | 5  | 5  | ND | 1  | 110 | 1  | 2  | 2  | 30 | 1.15 | .102 | 36 | .23 | .30 | 271 | .07 | 7  | 2.10 | .04 | .17 | 1  | 2               | 320 |
| 5088570 103076    | 1  | 33 | 13 | 60  | .2  | 49 | 1  | 959  | 2.16 | 0  | 5  | ND | 1  | 102 | 1  | 2  | 2  | 33 | 1.07 | .096 | 37 | .26 | .47 | 224 | .06 | 7  | 1.97 | .04 | .17 | 1  | 1               | 350 |
| 5088570 103077    | 1  | 30 | 10 | 65  | .2  | 57 | 0  | 776  | 2.26 | 11 | 5  | ND | 1  | 78  | 1  | 2  | 3  | 35 | .70  | .090 | 30 | .31 | .44 | 199 | .07 | 7  | 1.93 | .03 | .17 | 1  | 2               | 370 |
| 5088570 103078    | 1  | 28 | 12 | 59  | .3  | 71 | 9  | 748  | 2.65 | 11 | 5  | ND | 2  | 110 | 1  | 2  | 2  | 40 | 1.00 | .093 | 40 | .46 | .82 | 179 | .06 | 17 | 1.62 | .01 | .24 | 1  | 1               | 390 |
| 5088570 103079    | 1  | 21 | 12 | 58  | .1  | 39 | 7  | 622  | 2.44 | 0  | 6  | ND | 3  | 69  | 1  | 2  | 2  | 36 | .56  | .072 | 33 | .23 | .47 | 166 | .08 | 8  | 2.24 | .03 | .20 | 1  | 1               | 320 |
| 5088570 103080    | 1  | 21 | 10 | 52  | .1  | 39 | 7  | 636  | 2.35 | 16 | 6  | ND | 2  | 65  | 1  | 2  | 2  | 36 | .43  | .072 | 31 | .34 | .44 | 190 | .08 | 15 | 2.17 | .01 | .17 | 1  | 1               | 290 |
| 5088570 103081    | 1  | 23 | 10 | 56  | .1  | 41 | 7  | 643  | 2.25 | 5  | 6  | ND | 2  | 70  | 1  | 2  | 2  | 35 | .50  | .085 | 34 | .33 | .43 | 210 | .07 | 16 | 1.80 | .02 | .18 | 1  | 1               | 350 |
| 5088570 103082    | 1  | 21 | 11 | 53  | .3  | 37 | 7  | 671  | 2.15 | 6  | 5  | ND | 2  | 71  | 1  | 2  | 2  | 33 | .60  | .091 | 32 | .26 | .37 | 212 | .07 | 14 | 1.91 | .02 | .15 | 1  | 1               | 380 |
| 5088570 103083    | 1  | 21 | 12 | 59  | .2  | 63 | 9  | 908  | 2.14 | 0  | 5  | ND | 1  | 51  | 1  | 3  | 3  | 32 | .91  | .108 | 37 | .29 | .42 | 237 | .06 | 9  | 1.83 | .04 | .16 | 1  | 2               | 320 |
| 5088570 103084    | 1  | 22 | 11 | 59  | .3  | 39 | 7  | 601  | 1.99 | 1  | 6  | ND | 1  | 91  | 1  | 2  | 3  | 30 | .80  | .105 | 29 | .21 | .35 | 294 | .07 | 8  | 2.31 | .01 | .20 | 1  | 1               | 360 |
| 5088570 103085    | 1  | 25 | 10 | 62  | .2  | 41 | 7  | 651  | 1.69 | 9  | 5  | ND | 1  | 92  | 1  | 2  | 2  | 25 | .99  | .107 | 25 | .18 | .27 | 245 | .06 | 9  | 1.75 | .04 | .15 | 1  | 1               | 360 |
| 5088570 103086    | 1  | 25 | 16 | 63  | .1  | 40 | 7  | 606  | 2.01 | 4  | 5  | ND | 1  | 205 | 1  | 2  | 2  | 29 | .73  | .101 | 31 | .22 | .60 | 260 | .07 | 17 | 2.30 | .05 | .21 | 1  | 1               | 310 |
| 5088570 103087    | 1  | 27 | 15 | 70  | .3  | 31 | 7  | 1066 | 2.13 | 9  | 5  | ND | 1  | 90  | 1  | 2  | 2  | 27 | .91  | .105 | 26 | .16 | .36 | 313 | .06 | 9  | 2.52 | .03 | .20 | 1  | 2               | 370 |
| 5088570 103088    | 1  | 25 | 11 | 67  | .2  | 36 | 7  | 922  | 1.80 | 2  | 5  | ND | 1  | 100 | 1  | 2  | 2  | 26 | 1.20 | .109 | 26 | .19 | .35 | 219 | .06 | 20 | 2.29 | .08 | .19 | 1  | 2               | 260 |
| 5088570 103089    | 1  | 21 | 10 | 62  | .3  | 40 | 1  | 733  | 1.94 | 1  | 6  | ND | 2  | 91  | 1  | 2  | 2  | 28 | .81  | .096 | 26 | .23 | .41 | 255 | .07 | 8  | 2.22 | .01 | .20 | 1  | 1               | 380 |
| 5088570 103090    | 1  | 28 | 13 | 58  | .2  | 60 | 9  | 944  | 2.34 | 12 | 5  | ND | 2  | 81  | 1  | 3  | 2  | 35 | .72  | .094 | 35 | .30 | .48 | 233 | .06 | 9  | 1.91 | .01 | .17 | 1  | 1               | 330 |
| 5088570 103091    | 1  | 25 | 12 | 51  | .1  | 52 | 8  | 839  | 2.24 | 11 | 5  | ND | 1  | 52  | 1  | 2  | 2  | 33 | .50  | .071 | 29 | .27 | .43 | 180 | .05 | 7  | 1.57 | .03 | .16 | 1  | 1               | 320 |
| 5088570 103092    | 1  | 24 | 13 | 55  | .3  | 32 | 0  | 805  | 2.27 | 9  | 5  | ND | 2  | 63  | 1  | 2  | 2  | 30 | .49  | .078 | 21 | .29 | .37 | 225 | .07 | 11 | 2.23 | .02 | .17 | 1  | 1               | 410 |
| 5088570 103093    | 1  | 29 | 9  | 52  | .2  | 41 | 0  | 812  | 2.28 | 10 | 5  | ND | 1  | 75  | 1  | 2  | 2  | 31 | .83  | .097 | 29 | .26 | .41 | 283 | .05 | 13 | 1.51 | .02 | .10 | 1  | 46              | 400 |
| 5088570 103094    | 1  | 39 | 12 | 58  | .1  | 63 | 10 | 1026 | 2.29 | 7  | 5  | ND | 1  | 124 | 1  | 3  | 2  | 33 | 1.28 | .106 | 33 | .27 | .47 | 259 | .05 | 13 | 1.78 | .01 | .20 | 1  | 2               | 310 |
| 5088570 103095    | 1  | 30 | 13 | 58  | .2  | 55 | 0  | 871  | 2.01 | 5  | 5  | ND | 1  | 116 | 1  | 2  | 2  | 29 | 1.18 | .106 | 31 | .23 | .45 | 275 | .06 | 7  | 2.10 | .02 | .19 | 1  | 2               | 330 |
| 5088570 103096    | 1  | 35 | 14 | 64  | .2  | 34 | 10 | 1036 | 2.44 | 5  | 5  | ND | 1  | 110 | 1  | 2  | 2  | 36 | 1.02 | .113 | 30 | .32 | .43 | 310 | .06 | 12 | 2.43 | .02 | .23 | 1  | 1               | 380 |
| 5088570 103097    | 1  | 29 | 12 | 55  | .2  | 42 | 5  | 917  | 2.39 | 5  | 5  | ND | 1  | 97  | 1  | 2  | 2  | 36 | .85  | .096 | 27 | .20 | .43 | 317 | .06 | 4  | 2.25 | .01 | .21 | 1  | 1               | 390 |
| 5088570 103098    | 1  | 30 | 10 | 53  | .2  | 45 | 9  | 926  | 2.31 | 7  | 5  | ND | 1  | 86  | 1  | 2  | 2  | 35 | .85  | .093 | 29 | .20 | .41 | 362 | .06 | 8  | 2.29 | .01 | .21 | 1  | 1               | 380 |
| 5088570 103099    | 1  | 20 | 14 | 65  | .2  | 43 | 0  | 946  | 2.54 | 10 | 5  | ND | 1  | 70  | 1  | 2  | 2  | 36 | .60  | .102 | 34 | .33 | .46 | 308 | .07 | 7  | 2.50 | .02 | .17 | 1  | 1               | 470 |
| 5088570 103100    | 1  | 21 | 13 | 51  | .1  | 20 | 7  | 967  | 2.53 | 7  | 5  | ND | 3  | 63  | 1  | 2  | 2  | 41 | .53  | .071 | 27 | .21 | .35 | 361 | .08 | 10 | 2.60 | .02 | .20 | 1  | 1               | 380 |
| 5088570 103101    | 1  | 24 | 10 | 51  | .3  | 21 | 7  | 889  | 2.24 | 2  | 5  | ND | 2  | 68  | 1  | 2  | 2  | 35 | .90  | .107 | 25 | .19 | .39 | 297 | .06 | 7  | 2.13 | .01 | .19 | 1  | 1               | 320 |
| 5088570 103102    | 1  | 25 | 12 | 57  | .3  | 17 | 9  | 1000 | 2.69 | 7  | 5  | ND | 1  | 62  | 1  | 2  | 3  | 50 | .62  | .123 | 33 | .32 | .61 | 369 | .08 | 6  | 2.62 | .06 | .10 | 1  | 1               | 470 |
| 5088570 103103    | 1  | 21 | 13 | 51  | .1  | 12 | 6  | 862  | 2.26 | 9  | 5  | ND | 3  | 45  | 1  | 2  | 4  | 38 | .41  | .071 | 23 | .16 | .33 | 217 | .08 | 4  | 2.19 | .02 | .17 | 1  | 1               | 350 |
| 5088570 103104    | 1  | 22 | 15 | 54  | .1  | 23 | 7  | 889  | 2.47 | 6  | 5  | ND | 2  | 65  | 1  | 2  | 2  | 44 | .70  | .093 | 25 | .26 | .53 | 311 | .07 | 7  | 2.35 | .02 | .21 | 1  | 1               | 410 |
| 5088570 103105    | 1  | 29 | 11 | 53  | .2  | 25 | 8  | 968  | 2.56 | 5  | 5  | ND | 3  | 71  | 1  | 2  | 3  | 42 | .82  | .091 | 28 | .21 | .56 | 235 | .05 | 11 | 2.20 | .03 | .19 | 1  | 1               | 350 |
| STD C             | 10 | 39 | 37 | 136 | 6.0 | 72 | 29 | 1090 | 3.95 | 43 | 23 | 7  | 39 | 49  | 18 | 16 | 22 | 59 | .48  | .092 | 39 | .50 | .87 | 175 | .06 | 36 | 1.85 | .05 | .14 | 13 | -               | -   |
| 5088570 103106    | 1  | 27 | 13 | 54  | .3  | 22 | 7  | 837  | 2.30 | 11 | 5  | ND | 1  | 68  | 1  | 2  | 2  | 39 | .56  | .075 | 27 | .20 | .51 | 175 | .05 | 8  | 1.64 | .01 | .12 | 1  | 2               | 270 |
| STD C/AU-6        | 17 | 50 | 61 | 132 | 6.7 | 68 | 20 | 1059 | 3.02 | 42 | 20 | 7  | 37 | 48  | 18 | 17 | 21 | 56 | .46  | .090 | 31 | .57 | .85 | 176 | .06 | 34 | 1.73 | .05 | .10 | 11 | 51              | -   |

## BP RESOURCES PROJECT 57

DC 10136 FILE # 88-2805

| SAMPLE            | No  | Cu  | Pb  | Zn  | Ag  | WE  | Co  | Mn   | Fe   | Ni  | Cr  | Tb  | St  | Cd  | Sp  | Dl  | V   | Cu  | P   | Li   | Cz  | Ny  | Ba  | Tl  | B   | A1  | Na   | E   | H   | Ar | T  |     |
|-------------------|-----|-----|-----|-----|-----|-----|-----|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|-----|------|-----|-----|----|----|-----|
|                   | PPM  | PPM  | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM  | PPM | PPM | PPM | PPM | PPM | PPM | PPM  | PPM | PPM |    |    |     |
| 5088578 103107    | 1   | 28  | 12  | 47  | .6  | 27  | 8   | 774  | 2.75 | 10  | 5   | ND  | 3   | 82  | 1   | 3   | 2   | .01 | .60 | .089 | 29  | .25 | .62 | 179 | .05 | 0   | 2.05 | .03 | .21 | 1  | 1  | 410 |
| 5088578 103108    | 1   | 22  | 9   | 47  | .3  | 22  | 7   | 668  | 2.51 | 7   | 5   | ND  | 2   | 49  | 1   | 2   | 2   | .39 | .50 | .084 | 27  | .22 | .49 | 155 | .06 | 0   | 1.06 | .02 | .20 | 1  | 2  | 430 |
| 5088578 103109    | 1   | 27  | 11  | 59  | .3  | 31  | 8   | 905  | 2.71 | 11  | 5   | ND  | 2   | 59  | 1   | 2   | 2   | .42 | .52 | .086 | 32  | .27 | .48 | 213 | .07 | 0   | 2.21 | .03 | .19 | 1  | 1  | 420 |
| 5088578 103110    | 1   | 24  | 10  | 46  | .3  | 51  | 1   | 701  | 2.45 | 6   | 5   | ND  | 2   | 40  | 1   | 2   | 2   | .30 | .61 | .097 | 35  | .33 | .51 | 162 | .06 | 0   | 1.62 | .01 | .15 | 1  | 1  | 430 |
| 5088578 103111    | 1   | 26  | 10  | 67  | .5  | 32  | 8   | 715  | 2.56 | 7   | 7   | ND  | 2   | 73  | 1   | 2   | 3   | .30 | .60 | .093 | 28  | .25 | .53 | 181 | .06 | 0   | 3.35 | .01 | .25 | 1  | 1  | 400 |
| 5088578 103112    | 1   | 32  | 11  | 60  | .3  | 31  | 9   | 706  | 2.61 | 8   | 5   | ND  | 1   | 81  | 1   | 2   | 3   | .39 | .55 | .104 | 29  | .25 | .53 | 182 | .06 | 0   | 2.00 | .02 | .27 | 1  | 2  | 430 |
| 5088578 103113    | 1   | 28  | 12  | 51  | .4  | 87  | 10  | 702  | 2.79 | 16  | 5   | ND  | 3   | 63  | 1   | 2   | 2   | .42 | .66 | .095 | 33  | .56 | .92 | 136 | .05 | 0   | 1.70 | .03 | .23 | 1  | 1  | 550 |
| 5088578 103114    | 1   | 28  | 15  | 50  | .2  | 42  | 9   | 576  | 2.50 | 16  | 5   | ND  | 3   | 77  | 1   | 2   | 2   | .61 | .58 | .091 | 39  | .31 | .63 | 131 | .06 | 0   | 1.64 | .02 | .23 | 1  | 2  | 510 |
| 5088578 103115    | 1   | 29  | 10  | 46  | .2  | 37  | 8   | 668  | 2.61 | 19  | 5   | ND  | 1   | 72  | 1   | 2   | 3   | .40 | .56 | .088 | 31  | .20 | .55 | 118 | .05 | 0   | 1.71 | .03 | .19 | 1  | 1  | 490 |
| 5088578 103116    | 1   | 40  | 10  | 76  | .3  | 30  | 9   | 686  | 2.66 | 15  | 6   | ND  | 6   | 130 | 1   | 2   | 2   | .38 | .66 | .093 | 60  | .20 | .51 | 176 | .05 | 0   | 2.01 | .04 | .21 | 1  | 6  | 540 |
| 5088578 103117    | 1   | 334 | 10  | 38  | .8  | 41  | 11  | 755  | 2.78 | 9   | 5   | ND  | 1   | 47  | 1   | 3   | 2   | .40 | .56 | .074 | 25  | .20 | .50 | 172 | .04 | 0   | 1.71 | .02 | .22 | 1  | 20 | 600 |
| 5088578 103118    | 1   | 108 | 1   | 41  | .2  | 43  | 9   | 703  | 2.51 | 10  | 5   | ND  | 1   | 60  | 1   | 2   | 2   | .40 | .61 | .082 | 26  | .27 | .49 | 107 | .06 | 0   | 1.44 | .01 | .18 | 1  | 9  | 520 |
| 5088578 103119    | 1   | 91  | 10  | 48  | .2  | 47  | 10  | 761  | 2.90 | 1   | 5   | ND  | 1   | 60  | 1   | 2   | 2   | .45 | .53 | .080 | 27  | .31 | .53 | 206 | .07 | 0   | 2.29 | .02 | .23 | 1  | 3  | 510 |
| 5088578 103120    | 1   | 50  | 11  | 43  | .6  | 46  | 10  | 670  | 2.93 | 11  | 5   | ND  | 2   | 59  | 1   | 3   | 1   | .65 | .68 | .084 | 26  | .31 | .57 | 163 | .05 | 0   | 1.37 | .01 | .22 | 1  | 3  | 530 |
| 5088578 103121    | 1   | 22  | 10  | 52  | .2  | 30  | 9   | 659  | 2.72 | 8   | 5   | ND  | 1   | 75  | 1   | 2   | 2   | .62 | .51 | .078 | 28  | .26 | .72 | 116 | .10 | 0   | 2.35 | .02 | .18 | 2  | 2  | 500 |
| 5088578 103122    | 1   | 23  | 11  | 58  | .3  | 39  | 7   | 610  | 2.80 | 10  | 7   | ND  | 3   | 70  | 1   | 3   | 2   | .36 | .53 | .089 | 33  | .29 | .51 | 178 | .07 | 0   | 1.05 | .02 | .19 | 1  | 2  | 450 |
| RE 5088578 103127 | 1   | 23  | 10  | 51  | .3  | 35  | 7   | 673  | 2.20 | 11  | 5   | ND  | 2   | 71  | 1   | 2   | 2   | .32 | .52 | .090 | 30  | .21 | .49 | 170 | .06 | 0   | 1.83 | .02 | .16 | 1  | 3  | 450 |
| 5088578 103123    | 1   | 21  | 12  | 42  | .4  | 33  | 7   | 644  | 2.30 | 8   | 5   | ND  | 1   | 62  | 1   | 2   | 2   | .34 | .56 | .092 | 32  | .25 | .54 | 177 | .06 | 0   | 1.41 | .03 | .17 | 1  | 2  | 430 |
| 5088578 103124    | 1   | 21  | 12  | 52  | .2  | 28  | 6   | 669  | 2.43 | 11  | 5   | ND  | 1   | 75  | 1   | 2   | 2   | .31 | .52 | .093 | 30  | .24 | .41 | 239 | .08 | 0   | 2.47 | .01 | .15 | 1  | 19 | 390 |
| 5088578 103125    | 1   | 23  | 10  | 47  | .5  | 30  | 7   | 607  | 2.30 | 10  | 6   | ND  | 2   | 66  | 1   | 2   | 2   | .33 | .55 | .089 | 29  | .23 | .39 | 181 | .06 | 0   | 1.46 | .03 | .17 | 1  | 3  | 450 |
| 5088578 103126    | 1   | 27  | 10  | 57  | .1  | 33  | 7   | 754  | 2.51 | 9   | 5   | ND  | 1   | 76  | 1   | 2   | 2   | .36 | .55 | .110 | 33  | .25 | .42 | 194 | .05 | 0   | 2.00 | .03 | .19 | 1  | 1  | 460 |
| 5088578 103127    | 1   | 23  | 11  | 57  | .2  | 36  | 7   | 692  | 2.36 | 8   | 5   | ND  | 2   | 76  | 1   | 2   | 2   | .33 | .55 | .094 | 32  | .26 | .43 | 176 | .06 | 0   | 1.30 | .03 | .19 | 1  | 1  | 450 |
| 5088578 103128    | 1   | 28  | 15  | 60  | .3  | 38  | 7   | 713  | 2.19 | 11  | 5   | ND  | 2   | 78  | 1   | 2   | 2   | .35 | .55 | .089 | 33  | .27 | .43 | 101 | .06 | 0   | 2.02 | .02 | .19 | 1  | 2  | 470 |
| 5088578 103129    | 1   | 30  | 10  | 58  | .2  | 31  | 9   | 610  | 2.55 | 9   | 5   | ND  | 1   | 68  | 1   | 2   | 3   | .35 | .60 | .091 | 26  | .22 | .35 | 171 | .07 | 0   | 2.62 | .02 | .12 | 1  | 5  | 410 |
| 5088578 103130    | 1   | 21  | 9   | 56  | .2  | 32  | 7   | 715  | 2.32 | 3   | 5   | ND  | 1   | 76  | 1   | 2   | 2   | .32 | .54 | .093 | 28  | .21 | .40 | 213 | .07 | 0   | 2.35 | .02 | .17 | 1  | 6  | 370 |
| 5088578 103131    | 1   | 19  | 9   | 60  | .2  | 33  | 6   | 610  | 2.08 | 5   | 5   | ND  | 1   | 66  | 1   | 2   | 2   | .38 | .56 | .086 | 27  | .23 | .38 | 185 | .06 | 0   | 1.05 | .02 | .19 | 1  | 2  | 380 |
| 5088578 103132    | 1   | 20  | 10  | 49  | .3  | 37  | 6   | 606  | 2.32 | 10  | 5   | ND  | 2   | 81  | 1   | 2   | 3   | .33 | .51 | .077 | 32  | .25 | .43 | 200 | .07 | 0   | 2.20 | .02 | .20 | 1  | 3  | 360 |
| 5088578 103133    | 1   | 19  | 11  | 49  | .2  | 32  | 6   | 631  | 2.00 | 8   | 5   | ND  | 1   | 69  | 1   | 2   | 2   | .38 | .56 | .085 | 27  | .21 | .36 | 102 | .06 | 0   | 1.89 | .03 | .18 | 1  | 4  | 350 |
| 5088578 103134    | 1   | 21  | 11  | 54  | .2  | 39  | 7   | 661  | 2.41 | 8   | 5   | ND  | 1   | 72  | 1   | 2   | 2   | .31 | .56 | .100 | 33  | .20 | .43 | 213 | .07 | 0   | 2.45 | .01 | .19 | 1  | 4  | 370 |
| 5088578 103135    | 1   | 20  | 11  | 54  | .1  | 38  | 7   | 619  | 2.43 | 5   | 5   | ND  | 1   | 69  | 1   | 2   | 2   | .35 | .56 | .086 | 32  | .27 | .43 | 190 | .07 | 0   | 2.26 | .01 | .20 | 1  | 3  | 390 |
| 5088578 103136    | 1   | 20  | 12  | 56  | .2  | 30  | 6   | 655  | 2.01 | 1   | 5   | ND  | 1   | 75  | 1   | 2   | 2   | .29 | .43 | .106 | 26  | .21 | .35 | 197 | .06 | 0   | 2.01 | .03 | .17 | 1  | 1  | 460 |
| 5088578 103137    | 1   | 21  | 13  | 55  | .1  | 31  | 6   | 661  | 2.10 | 4   | 5   | ND  | 1   | 61  | 1   | 2   | 2   | .31 | .56 | .105 | 30  | .21 | .41 | 201 | .06 | 0   | 2.07 | .04 | .16 | 1  | 3  | 430 |
| STD C             | 17  | 56  | 30  | 129 | 6.8 | 66  | 21  | 1023 | 3.36 | 42  | 23  | 7   | 36  | 46  | 17  | 18  | 20  | 31  | .40 | .088 | 36  | .35 | .32 | 184 | .06 | 0   | 3.30 | .06 | .13 | 13 | -  | -   |
| 5088578 103138    | 1   | 22  | 9   | 51  | .2  | 30  | 6   | 643  | 2.07 | 9   | 5   | ND  | 1   | 90  | 1   | 2   | 2   | .30 | .61 | .099 | 30  | .21 | .39 | 210 | .07 | 0   | 2.03 | .02 | .21 | 1  | 1  | 310 |
| 5088578 103139    | 1   | 20  | 11  | 55  | .1  | 40  | 7   | 645  | 2.58 | 21  | 5   | ND  | 1   | 77  | 1   | 2   | 2   | .38 | .51 | .080 | 39  | .30 | .51 | 194 | .07 | 0   | 2.28 | .03 | .20 | 1  | 2  | 430 |
| 5088578 103140    | 1   | 22  | 11  | 53  | .3  | 41  | 7   | 662  | 2.36 | 1   | 5   | ND  | 1   | 77  | 1   | 2   | 2   | .35 | .40 | .101 | 31  | .29 | .38 | 193 | .06 | 0   | 2.03 | .04 | .22 | 1  | 1  | 470 |
| 5088578 103141    | 1   | 21  | 13  | 52  | .4  | 43  | 7   | 662  | 2.30 | 6   | 5   | ND  | 2   | 80  | 1   | 2   | 3   | .33 | .61 | .097 | 38  | .27 | .44 | 197 | .07 | 0   | 2.14 | .01 | .21 | 1  | 6  | 460 |
| 5088578 103142    | 1   | 22  | 10  | 51  | .1  | 46  | 7   | 624  | 2.32 | 6   | 5   | ND  | 1   | 61  | 1   | 2   | 2   | .31 | .55 | .089 | 35  | .30 | .44 | 162 | .06 | 0   | 1.79 | .04 | .19 | 2  | 3  | 430 |
| STD C/AU-S        | 17  | 57  | 38  | 132 | 6.7 | 61  | 28  | 1089 | 4.05 | 39  | 19  | 8   | 36  | 87  | 17  | 17  | 19  | 55  | .49 | .089 | 31  | .55 | .34 | 176 | .05 | 0   | 3.92 | .06 | .14 | 21 | 33 | -   |

## BP RESOURCES PROJECT 57 LOC 10136 FILE # 88-2005

Page 6

| SAMPLE            | No  | Cu  | Zn  | Sn  | Ag  | Bi  | Co  | Ni   | Pt   | Fe  | As  | B   | As  | Tb  | Re  | Cd  | Se  | Si  | P    | Li   | Cr   | Hg  | Po   | Tl  | B   | Al  | W    | K    | T   | Av% | T      |       |
|-------------------|-----|-----|-----|-----|-----|-----|-----|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|-----|------|-----|-----|-----|------|------|-----|-----|--------|-------|
|                   | PPM  | PPM  | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM  | PPM  | PPM  | PPM | PPM  | PPM | PPM | PPM | PPM  | PPM  | PPM |     |        |       |
| 5088570 103143    | 1   | 24  | 13  | 63  | .3  | 65  | 9   | 672  | 2.79 | 6   | 6   | ND  | 1   | 70  | 1   | 2   | 3   | 40  | .60  | .093 | 43   | .43 | .50  | 181 | .02 | 16  | 2.36 | .02  | .20 | 1   | 1 300  |       |
| 5088570 103144    | 1   | 26  | 12  | 60  | .4  | 62  | 1   | 615  | 2.72 | 1   | 5   | ND  | 1   | 82  | 1   | 2   | 2   | 40  | .66  | .093 | 41   | .39 | .61  | 188 | .02 | 13  | 2.22 | .01  | .21 | 1   | 1 310  |       |
| 5088570 103145    | 1   | 23  | 10  | 58  | .2  | 67  | 0   | 690  | 2.20 | 2   | 5   | ND  | 1   | 94  | 1   | 2   | 1   | 31  | .66  | .105 | 35   | .32 | .54  | 208 | .06 | 8   | 2.19 | .01  | .20 | 1   | 1 310  |       |
| 5088570 103146    | 1   | 22  | 11  | 56  | .3  | 62  | 0   | 660  | 2.51 | 6   | 5   | ND  | 1   | 82  | 1   | 2   | 3   | 31  | .55  | .088 | 38   | .30 | .56  | 201 | .07 | 9   | 2.33 | .01  | .19 | 1   | 2 360  |       |
| 5088570 103147    | 1   | 20  | 10  | 56  | .3  | 53  | 7   | 611  | 2.38 | 3   | 5   | ND  | 1   | 85  | 1   | 2   | 2   | 34  | .51  | .088 | 31   | .36 | .50  | 222 | .07 | 9   | 2.41 | .01  | .19 | 1   | 1 310  |       |
| 5088570 103148    | 1   | 20  | 11  | 57  | .2  | 70  | 0   | 537  | 2.01 | 6   | 5   | ND  | 1   | 76  | 1   | 2   | 2   | 35  | .55  | .087 | 36   | .43 | .59  | 190 | .02 | 10  | 2.20 | .01  | .17 | 1   | 1 300  |       |
| 5088570 996217    | 1   | 21  | 10  | 58  | .3  | 19  | 6   | 723  | 2.43 | 2   | 5   | ND  | 1   | 77  | 1   | 2   | 2   | 36  | .60  | .092 | 27   | .25 | .46  | 138 | .09 | 4   | 3.32 | .03  | .19 | 1   | 1 650  |       |
| STD C             | 16  | 50  | 30  | 126 | 6.5 | 66  | 27  | 1007 | 3.05 | 10  | 22  | 6   | 35  | 45  | 17  | 17  | 21  | 53  | .47  | .016 | 36   | .55 | .50  | 165 | .06 | 32  | 1.94 | .06  | .13 | 11  | -      |       |
| 5088570 996218    | 1   | 131 | 18  | 45  | .3  | 35  | 31  | 625  | 2.36 | 8   | 5   | ND  | 1   | 97  | 1   | 2   | 4   | 31  | .75  | .070 | 29   | .34 | .54  | 138 | .05 | 9   | 1.85 | .01  | .16 | 1   | 56 510 |       |
| 5088570 996219    | 1   | 96  | 8   | 44  | .4  | 36  | 18  | 612  | 2.01 | 16  | 5   | ND  | 1   | 56  | 1   | 2   | 2   | 47  | .10  | .013 | 26   | .38 | .56  | 103 | .05 | 9   | 1.65 | .01  | .16 | 1   | 3 690  |       |
| RE 5088570 996220 | 1   | 97  | 13  | 55  | .5  | 40  | 9   | 820  | 2.91 | 24  | 5   | ND  | -   | 1   | 63  | 1   | 2   | 2   | 42   | .81  | .109 | 37  | .32  | .32 | 230 | .07 | 9    | 2.44 | .02 | .17 | 1      | 2 470 |
| 5088570 996220    | 1   | 103 | 9   | 62  | .4  | 63  | 10  | 693  | 2.02 | 21  | 5   | ND  | 1   | 81  | 1   | 2   | 1   | 46  | 1.57 | .076 | 27   | .31 | .55  | 166 | .05 | 12  | 1.63 | .01  | .19 | 1   | 1 530  |       |
| 5088570 996221    | 1   | 29  | 10  | 46  | .4  | 48  | 10  | 635  | 2.71 | 9   | 10  | ND  | 1   | 65  | 1   | 3   | 1   | 44  | .66  | .082 | 38   | .37 | .60  | 156 | .06 | 10  | 1.80 | .01  | .21 | 1   | 2 500  |       |
| 5088570 996222    | 1   | 63  | 10  | 51  | .2  | 41  | 3   | 811  | 2.02 | 7   | 5   | ND  | 1   | 119 | 1   | 2   | 2   | 36  | 1.13 | .083 | 28   | .30 | .62  | 108 | .06 | 11  | 1.90 | .20  | .32 | 2   | 3 440  |       |
| 5088570 996223    | 1   | 61  | 11  | 58  | .4  | 62  | 10  | 876  | 2.92 | 11  | 5   | ND  | 1   | 72  | 1   | 2   | 2   | 43  | .75  | .047 | 37   | .38 | .15  | 285 | .07 | 7   | 2.64 | .01  | .22 | 1   | 2 480  |       |
| 5088570 996224    | 1   | 97  | 11  | 56  | .5  | 51  | 10  | 850  | 2.55 | 27  | 5   | ND  | 1   | 63  | 1   | 2   | 3   | 45  | .83  | .192 | 38   | .33 | .53  | 236 | .07 | 7   | 2.36 | .02  | .19 | 1   | 0 460  |       |
| 5088570 996225    | 1   | 89  | 12  | 52  | .3  | 45  | 9   | 715  | 2.67 | 19  | 5   | ND  | 1   | 70  | 1   | 2   | 2   | 39  | .72  | .077 | 32   | .30 | .50  | 160 | .06 | 11  | 2.00 | .01  | .22 | 1   | 3 520  |       |
| 5088570 996226    | 1   | 81  | 17  | 71  | .0  | 55  | 12  | 880  | 3.31 | 19  | 6   | ND  | 1   | 90  | 1   | 2   | 2   | 40  | .05  | .086 | 44   | .37 | .44  | 211 | .07 | 8   | 2.37 | .01  | .32 | 1   | 5 660  |       |
| 5088570 996227    | 1   | 100 | 23  | 81  | .3  | 113 | 17  | 1279 | 4.06 | 13  | 5   | ND  | 1   | 95  | 1   | 2   | 2   | 61  | 1.63 | .185 | 58   | .61 | 1.30 | 239 | .06 | 15  | 2.57 | .03  | .25 | 1   | 11 760 |       |
| 5088570 996228    | 1   | 66  | 14  | 40  | .4  | 62  | 10  | 966  | 2.15 | 10  | 5   | ND  | 1   | 94  | 1   | 2   | 2   | 36  | .00  | .100 | 38   | .27 | .51  | 243 | .05 | 11  | 2.00 | .01  | .21 | 1   | 1 430  |       |
| 5088570 996229    | 1   | 42  | 11  | 40  | .4  | 63  | 7   | 619  | 2.22 | 7   | 5   | ND  | 1   | 80  | 1   | 2   | 2   | 32  | .61  | .096 | 29   | .20 | .40  | 198 | .07 | 9   | 1.97 | .01  | .20 | 1   | 1 620  |       |
| 5088570 996230    | 1   | 90  | 13  | 65  | .4  | 50  | 9   | 621  | 2.07 | 13  | 6   | ND  | 1   | 89  | 1   | 2   | 2   | 47  | .74  | .130 | 42   | .41 | .49  | 176 | .06 | 9   | 1.95 | .01  | .21 | 1   | 1 390  |       |
| 5088570 996231    | 1   | 40  | 12  | 67  | .2  | 52  | 9   | 519  | 2.95 | 11  | 5   | ND  | 1   | 98  | 1   | 2   | 2   | 58  | .00  | .150 | 43   | .53 | .50  | 123 | .06 | 13  | 1.10 | .01  | .20 | 1   | 2 660  |       |
| 5088570 996232    | 1   | 37  | 10  | 61  | .2  | 39  | 8   | 497  | 2.06 | 6   | 5   | ND  | 1   | 100 | 1   | 2   | 2   | 53  | .70  | .112 | 39   | .45 | .76  | 133 | .05 | 14  | 1.67 | .03  | .21 | 1   | 1 550  |       |
| 5088570 996233    | 1   | 37  | 11  | 63  | .3  | 39  | 9   | 191  | 2.01 | 8   | 5   | ND  | 1   | 97  | 1   | 3   | 2   | 53  | .66  | .163 | 34   | .41 | .73  | 100 | .10 | 12  | 1.77 | .02  | .21 | 2   | 1 370  |       |
| 5088570 996234    | 1   | 36  | 13  | 71  | .4  | 67  | 10  | 100  | 3.21 | 2   | 5   | ND  | 1   | 115 | 1   | 2   | 2   | 39  | .75  | .113 | 31   | .41 | 1.03 | 153 | .12 | 7   | 2.07 | .02  | .21 | 1   | 1 600  |       |
| 5088570 996235    | 1   | 36  | 12  | 63  | .3  | 33  | 8   | 511  | 2.65 | 3   | 5   | ND  | -   | 1   | 10  | 1   | 2   | 2   | 40   | .65  | .093 | 31  | .34  | .66 | 159 | .10 | 6    | 1.97 | .01 | .22 | 1      | 3 510 |
| 5088570 996236    | 1   | 49  | 11  | 69  | .1  | 36  | 9   | 519  | 2.97 | 13  | 5   | ND  | 1   | 128 | 1   | 2   | 2   | 54  | 1.16 | .125 | 36   | .43 | .63  | 156 | .11 | 11  | 2.04 | .02  | .24 | 3   | 2 590  |       |
| 5088570 996237    | 1   | 58  | 12  | 59  | .5  | 49  | 11  | 578  | 2.92 | 9   | 8   | ND  | 1   | 227 | 1   | 2   | 2   | 56  | 2.51 | .125 | 33   | .50 | 3.11 | 177 | .10 | 16  | 1.92 | .01  | .29 | 1   | 1 570  |       |
| 5088570 996238    | 1   | 42  | 14  | 70  | .4  | 57  | 11  | 501  | 3.20 | 8   | 5   | ND  | 1   | 113 | 1   | 2   | 2   | 50  | .92  | .127 | 32   | .52 | 1.35 | 170 | .12 | 9   | 2.21 | .03  | .21 | 1   | 1 510  |       |
| 5088570 996239    | 1   | 36  | 13  | 71  | .2  | 31  | 9   | 753  | 2.40 | 7   | 5   | ND  | 1   | 81  | 1   | 2   | 2   | 41  | .69  | .093 | 18   | .45 | .63  | 95  | .10 | 13  | 1.97 | .01  | .14 | 1   | 2 360  |       |
| 5088570 996240    | 1   | 45  | 17  | 70  | .5  | 38  | 12  | 500  | 2.75 | 5   | 5   | ND  | 1   | 110 | 1   | 2   | 2   | 46  | .92  | .100 | 25   | .32 | .03  | 113 | .11 | 9   | 2.20 | .03  | .21 | 1   | 1 430  |       |
| 5088570 996241    | 1   | 43  | 11  | 69  | .3  | 38  | 11  | 565  | 2.73 | 8   | 5   | ND  | 1   | 111 | 1   | 2   | 3   | 47  | .91  | .101 | 21   | .32 | .44  | 114 | .11 | 9   | 2.15 | .02  | .23 | 1   | 2 400  |       |
| 5088570 996242    | 1   | 39  | 16  | 52  | .1  | 27  | 8   | 516  | 2.16 | 8   | 5   | ND  | 1   | 87  | 1   | 2   | 2   | 37  | .71  | .093 | 19   | .30 | .61  | 142 | .10 | 7   | 2.10 | .02  | .23 | 1   | 1 310  |       |
| 5088570 996243    | 1   | 36  | 16  | 75  | .6  | 66  | 11  | 539  | 3.51 | 5   | 7   | ND  | 1   | 164 | 1   | 2   | 2   | 62  | .91  | .122 | 31   | .57 | 1.32 | 150 | .12 | 9   | 2.85 | .05  | .39 | 1   | 1 710  |       |
| 5088570 996244    | 1   | 35  | 11  | 73  | .2  | 76  | 11  | 651  | 3.10 | 3   | 5   | ND  | 1   | 203 | 1   | 2   | 2   | 59  | .91  | .112 | 31   | .62 | 1.11 | 223 | .14 | 8   | 2.59 | .06  | .34 | 1   | 1 660  |       |
| 5088570 996245    | 1   | 61  | 12  | 69  | .3  | 130 | 19  | 457  | 1.53 | 3   | 5   | ND  | 1   | 338 | 1   | 2   | 2   | 44  | 1.50 | .105 | 39   | .49 | 2.03 | 283 | .17 | 6   | 2.36 | .08  | .32 | 1   | 1 300  |       |
| 5088570 996246    | 1   | 31  | 12  | 69  | .3  | 119 | 21  | 460  | 1.39 | 6   | 5   | ND  | 1   | 359 | 1   | 2   | 2   | 42  | 1.18 | .117 | 37   | .75 | 2.65 | 220 | .17 | 7   | 2.10 | .08  | .30 | 1   | 2 750  |       |
| STD C/AD-B        | 20  | 57  | 39  | 132 | 6.5 | 58  | 20  | 1013 | 0.01 | 61  | 22  | 7   | 35  | 47  | 17  | 17  | 20  | 55  | .49  | .089 | 37   | .55 | .92  | 176 | .06 | 31  | 1.98 | .06  | .14 | 11  | 47     |       |

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| SAHP#,         | No  | Cu  | Zn  | 2b  | 2n  | Ag  | Wt  | Co   | Nb   | Fe  | As  | D   | Mn  | Th  | U   | Ed  | Sb  | Bi  | V    | Ca   | P   | Li  | Cr   | Ng  | Ba  | Tl  | B    | Al  | Xa  | Xt  | Y   | 2PK | Au | Z |
|----------------|-----|-----|-----|-----|-----|-----|-----|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|-----|-----|------|-----|-----|-----|------|-----|-----|-----|-----|-----|----|---|
|                | PPK  | PPK  | PPK | PPK | PPK | PPK | PPK | PPK | PPK | PPK | PPK | PPK  | PPK  | PPK | PPK | PPK  | PPK | PPK | PPK | PPK  | PPK | PPK | PPK | PPK | PPK |    |   |
| 5088578 996283 | 1   | 200 | 13  | 60  | .3  | 25  | 11  | 897  | 3.06 | 12  | 5   | ND  | 2   | 54  | 1   | 2   | 2   | 87  | .77  | .109 | 28  | 45  | .91  | 187 | .06 | 9   | 2.36 | .02 | .32 | 1   | 5   | 690 |    |   |
| 5088578 996284 | 1   | 226 | 9   | 16  | .3  | 19  | 11  | 709  | 3.33 | 11  | 5   | ND  | 1   | 51  | 1   | 2   | 2   | 82  | .93  | .100 | 26  | 35  | .01  | 115 | .04 | 7   | 1.92 | .03 | .27 | 1   | 5   | 700 |    |   |
| 5088578 996285 | 1   | 170 | 9   | 17  | .2  | 19  | 11  | 3114 | 3.35 | 1   | 5   | ND  | 1   | 70  | 1   | 2   | 2   | 84  | 3.30 | .101 | 18  | 21  | .70  | 193 | .03 | 16  | 3.10 | .01 | .23 | 1   | 2   | 740 |    |   |
| 5088578 996286 | 1   | 119 | 16  | 46  | .2  | 26  | 10  | 1316 | 2.03 | 7   | 5   | ND  | 1   | 74  | 1   | 2   | 2   | 63  | 1.09 | .103 | 15  | 20  | .58  | 216 | .03 | 11  | 1.28 | .05 | .19 | 1   | 1   | 560 |    |   |
| 5088578 996291 | 1   | 43  | 6   | 43  | .2  | 16  | 7   | 560  | 2.15 | 3   | 3   | ND  | 1   | 62  | 1   | 2   | 2   | 35  | .54  | .068 | 22  | 24  | .53  | 195 | .06 | 14  | 2.03 | .03 | .25 | 3   | 1   | 550 |    |   |
| 5088578 996287 | 1   | 79  | 2   | 23  | .1  | 11  | 5   | 560  | 1.31 | 5   | 5   | ND  | 1   | 80  | 1   | 2   | 2   | 28  | .71  | .072 | 12  | 11  | .27  | 129 | .01 | 8   | 1.43 | .01 | .16 | 1   | 1   | 450 |    |   |
| 5088578 996288 | 1   | 112 | 13  | 55  | .3  | 15  | 10  | 613  | 2.90 | 11  | 6   | ND  | 3   | 29  | 1   | 2   | 2   | 30  | .69  | .093 | 62  | 43  | .73  | 164 | .06 | 10  | 2.02 | .01 | .23 | 1   | 6   | 560 |    |   |
| 5088578 996289 | 1   | 101 | 10  | 74  | .2  | 91  | 10  | 750  | 3.07 | 15  | 5   | ND  | 1   | 115 | 1   | 2   | 2   | 65  | 2.03 | .119 | 37  | 71  | 1.76 | 205 | .09 | 5   | 2.84 | .01 | .18 | 1   | 8   | 810 |    |   |
| 5088578 996290 | 1   | 32  | 11  | 54  | .1  | 23  | 8   | 621  | 2.65 | 2   | 5   | ND  | 2   | 60  | 1   | 2   | 2   | 44  | .61  | .087 | 33  | 39  | .61  | 199 | .07 | 12  | 2.42 | .03 | .30 | 1   | 3   | 600 |    |   |
| 5088578 996291 | 1   | 49  | 1   | 44  | .3  | 16  | 7   | 577  | 2.25 | 4   | 5   | ND  | 2   | 63  | 1   | 2   | 2   | 37  | .56  | .071 | 22  | 27  | .51  | 197 | .06 | 10  | 2.13 | .04 | .26 | 3   | 1   | 550 |    |   |
| 5088578 996292 | 1   | 163 | 11  | 41  | .2  | 19  | 13  | 1017 | 2.71 | 0   | 5   | ND  | 1   | 81  | 1   | 2   | 2   | 41  | .68  | .090 | 18  | 11  | .33  | 170 | .03 | 14  | 1.15 | .02 | .19 | 1   | 1   | 460 |    |   |
| 5088578 996293 | 1   | 133 | 1   | 33  | .3  | 12  | 7   | 993  | 2.12 | 4   | 5   | ND  | 1   | 103 | 1   | 2   | 2   | 41  | 1.58 | .092 | 11  | 8   | .36  | 117 | .03 | 12  | 1.18 | .02 | .20 | 1   | 1   | 480 |    |   |
| 5088578 996294 | 1   | 159 | 1   | 32  | .3  | 20  | 8   | 1003 | 2.31 | 2   | 5   | ND  | 1   | 111 | 1   | 2   | 2   | 43  | 3.23 | .095 | 23  | 15  | .47  | 121 | .03 | 8   | 1.39 | .03 | .20 | 1   | 1   | 510 |    |   |
| 5088578 996295 | 1   | 105 | 12  | 41  | .3  | 42  | 9   | 781  | 2.70 | 0   | 5   | ND  | 1   | 73  | 1   | 2   | 3   | 49  | .75  | .081 | 27  | 31  | .67  | 183 | .05 | 10  | 1.61 | .01 | .23 | 1   | 5   | 480 |    |   |
| 5088578 996296 | 1   | 62  | 11  | 49  | .3  | 23  | 8   | 759  | 2.37 | 2   | 5   | ND  | 2   | 117 | 1   | 2   | 2   | 42  | .67  | .072 | 23  | 27  | .58  | 166 | .07 | 11  | 2.11 | .02 | .25 | 1   | 1   | 510 |    |   |
| 5088578 996297 | 1   | 47  | 18  | 48  | .1  | 23  | 7   | 706  | 2.24 | 6   | 5   | ND  | 1   | 117 | 1   | 2   | 2   | 39  | .77  | .103 | 24  | 27  | .49  | 188 | .07 | 11  | 1.30 | .01 | .25 | 1   | 1   | 470 |    |   |
| 5088578 996298 | 1   | 136 | 9   | 37  | .3  | 30  | 10  | 763  | 2.22 | 3   | 5   | ND  | 1   | 60  | 1   | 2   | 2   | 43  | .63  | .076 | 23  | 39  | .40  | 136 | .07 | 8   | 2.23 | .02 | .15 | 1   | 1   | 430 |    |   |
| 5088578 996299 | 1   | 151 | 18  | 46  | .1  | 21  | 12  | 865  | 2.59 | 1   | 5   | ND  | 1   | 62  | 1   | 2   | 2   | 47  | .63  | .083 | 20  | 33  | .47  | 167 | .05 | 11  | 1.35 | .02 | .23 | 1   | 1   | 510 |    |   |
| 5088578 996300 | 1   | 136 | 11  | 45  | .1  | 20  | 10  | 1029 | 2.67 | 0   | 5   | ND  | 1   | 55  | 1   | 2   | 2   | 39  | .45  | .076 | 22  | 29  | .46  | 168 | .08 | 5   | 2.63 | .01 | .20 | 1   | 1   | 480 |    |   |
| STD C          | 17  | 56  | 36  | 126 | 6.7 | 65  | 20  | 1027 | 3.99 | 37  | 19  | 0   | 37  | 46  | 11  | 10  | 19  | 56  | .47  | .009 | 30  | 55  | .87  | 161 | .06 | 39  | 1.07 | .06 | .13 | 12  | -   | -   |    |   |
| 5088578 996301 | 1   | 130 | 7   | 42  | .2  | 18  | 10  | 1009 | 2.50 | 6   | 5   | ND  | 2   | 37  | 3   | 2   | 2   | 45  | .47  | .070 | 21  | 24  | .42  | 163 | .07 | 6   | 2.57 | .01 | .20 | 1   | 1   | 500 |    |   |
| 5088578 996302 | 1   | 81  | 8   | 41  | .2  | 33  | 9   | 1062 | 2.21 | 16  | 5   | ND  | 1   | 53  | 1   | 2   | 2   | 38  | .55  | .080 | 15  | 22  | .38  | 160 | .06 | 6   | 1.80 | .05 | .15 | 1   | 1   | 460 |    |   |
| 5088578 996303 | 1   | 99  | 9   | 11  | .1  | 30  | 10  | 761  | 2.19 | 2   | 5   | ND  | 2   | 33  | 1   | 2   | 3   | 35  | .50  | .070 | 17  | 10  | .55  | 210 | .07 | 7   | 2.10 | .01 | .18 | 1   | 1   | 480 |    |   |
| 5088578 996304 | 1   | 105 | 11  | 45  | .2  | 43  | 11  | 910  | 2.36 | 2   | 5   | ND  | 3   | 48  | 1   | 3   | 2   | 47  | .41  | .060 | 26  | 25  | .47  | 176 | .09 | 5   | 2.67 | .05 | .20 | 1   | 1   | 410 |    |   |
| 5088578 996305 | 1   | 179 | 11  | 42  | .3  | 47  | 13  | 1087 | 2.73 | 12  | 5   | ND  | 1   | 81  | 1   | 2   | 2   | 53  | .81  | .095 | 29  | 30  | .61  | 223 | .06 | 8   | 2.36 | .03 | .23 | 1   | 2   | 590 |    |   |
| 5088578 996306 | 1   | 75  | 11  | 40  | .2  | 31  | 13  | 1396 | 3.37 | 6   | 5   | ND  | 1   | 86  | 1   | 2   | 2   | 62  | 1.02 | .101 | 28  | 51  | .71  | 174 | .03 | 10  | 1.03 | .01 | .18 | 1   | 1   | 630 |    |   |
| 5088578 996307 | 1   | 152 | 11  | 47  | .1  | 36  | 13  | 1333 | 3.31 | 1   | 5   | ND  | 1   | 79  | 1   | 2   | 3   | 70  | 1.06 | .090 | 24  | 28  | .73  | 220 | .02 | 11  | 2.05 | .04 | .19 | 2   | 1   | 650 |    |   |
| 5088578 996308 | 1   | 103 | 12  | 42  | .4  | 22  | 10  | 801  | 2.67 | 16  | 5   | ND  | 1   | 96  | 1   | 2   | 2   | 40  | 1.15 | .095 | 27  | 16  | .33  | 333 | .04 | 13  | 1.01 | .01 | .25 | 1   | 1   | 580 |    |   |
| 5088578 996309 | 1   | 169 | 9   | 56  | .4  | 40  | 18  | 2005 | 3.12 | 1   | 5   | ND  | 1   | 100 | 1   | 3   | 2   | 63  | 1.04 | .131 | 10  | 34  | .93  | 206 | .05 | 7   | 1.94 | .01 | .14 | 1   | 1   | 570 |    |   |
| 5088578 996310 | 1   | 55  | 10  | 43  | .1  | 25  | 7   | 816  | 2.25 | 9   | 5   | ND  | 3   | 70  | 1   | 2   | 2   | 36  | .60  | .009 | 23  | 20  | .33  | 220 | .05 | 2   | 1.81 | .03 | .12 | 1   | 1   | 500 |    |   |
| 5088578 996311 | 1   | 91  | 12  | 48  | .6  | 11  | 9   | 998  | 2.55 | 5   | 5   | ND  | 1   | 69  | 1   | 2   | 1   | 49  | .70  | .082 | 23  | 28  | .50  | 222 | .06 | 3   | 2.10 | .05 | .18 | 1   | 1   | 580 |    |   |
| 5088578 996312 | 1   | 55  | 8   | 44  | .2  | 74  | 10  | 681  | 2.55 | 8   | 5   | ND  | 2   | 59  | 1   | 2   | 2   | 43  | .53  | .077 | 25  | 42  | .64  | 196 | .06 | 5   | 1.68 | .01 | .19 | 1   | 1   | 500 |    |   |
| 5088578 996313 | 1   | 68  | 11  | 47  | .1  | 82  | 11  | 611  | 2.81 | 6   | 5   | ND  | 3   | 58  | 1   | 2   | 2   | 38  | .62  | .080 | 26  | 41  | .63  | 188 | .05 | 8   | 1.59 | .03 | .19 | 1   | 2   | 420 |    |   |
| 5088578 996314 | 1   | 30  | 9   | 46  | .1  | 71  | 9   | 599  | 2.37 | 1   | 5   | ND  | 2   | 54  | 1   | 2   | 2   | 36  | .43  | .077 | 24  | 39  | .52  | 213 | .07 | 14  | 2.04 | .01 | .15 | 2   | 1   | 460 |    |   |
| 5088578 996315 | 1   | 61  | 8   | 41  | .2  | 55  | 9   | 700  | 2.51 | 9   | 5   | ND  | 1   | 56  | 1   | 2   | 3   | 34  | .60  | .065 | 18  | 23  | .30  | 256 | .06 | 6   | 1.07 | .06 | .18 | 1   | 1   | 490 |    |   |
| 5088578 996316 | 1   | 47  | 10  | 46  | .2  | 217 | 16  | 755  | 2.43 | 26  | 5   | ND  | 2   | 61  | 1   | 2   | 2   | 31  | .69  | .085 | 20  | 46  | .45  | 314 | .05 | 11  | 2.13 | .03 | .20 | 1   | 1   | 470 |    |   |
| 5088578 996317 | 1   | 69  | 11  | 41  | .1  | 210 | 21  | 676  | 2.50 | 39  | 5   | ND  | 1   | 67  | 1   | 2   | 2   | 32  | .63  | .071 | 23  | 38  | .42  | 320 | .05 | 10  | 1.77 | .01 | .19 | 1   | 1   | 520 |    |   |
| 5088578 996318 | 1   | 70  | 10  | 41  | .2  | 96  | 12  | 720  | 2.50 | 12  | 5   | ND  | 1   | 71  | 1   | 2   | 2   | 26  | .70  | .073 | 19  | 30  | .45  | 298 | .05 | 6   | 1.83 | .01 | .20 | 1   | 3   | 530 |    |   |
| STD C/AU-S     | 10  | 50  | 39  | 132 | 6.7 | 69  | 23  | 1073 | 4.12 | 46  | 19  | 7   | 37  | 48  | 10  | 17  | 21  | 50  | .50  | .092 | 39  | 50  | .91  | 173 | .06 | 39  | 1.94 | .07 | .16 | 12  | 49  | -   |    |   |

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| S/N.              | No  | Cu  | Pb  | Sn  | Ag  | Bi  | Co  | Mn   | Zr   | As  | B   | Al  | Tl  | Ge  | Cd  | Sb  | Ni  | V   | Cr   | Mo   | Re  | Ti  | B   | Al  | Fe  | N   | As   | Pt  |     |    |     |     |
|-------------------|-----|-----|-----|-----|-----|-----|-----|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|-----|-----|-----|-----|-----|-----|------|-----|-----|----|-----|-----|
|                   | PPM  | PPM  | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM  | PPM  | PPM | PPM | PPM | PPM | PPM | PPM | PPM  |     |     |    |     |     |
| 5088578 996319    | 1   | 102 | 19  | .60 | .1  | 25  | 13  | 1926 | 3.37 | 2   | 3   | ND  | 2   | 72  | 1   | 2   | 2   | 70  | .87  | .130 | 36  | 26  | .58 | 571 | .11 | 12  | 4.65 | .03 | .19 | 1  | 1   | 370 |
| RE 5088578 996323 | 1   | 21  | 12  | .54 | .2  | 76  | 9   | 629  | 2.14 | 7   | 5   | ND  | 4   | 77  | 1   | 2   | 2   | 43  | .30  | .071 | 52  | 45  | .75 | 143 | .07 | 6   | 1.47 | .02 | .24 | 1  | 1   | 420 |
| 5088578 996320    | 1   | 13  | 13  | .39 | .3  | 10  | 8   | 904  | 2.00 | 2   | 3   | ND  | 1   | 280 | 1   | 2   | 2   | 38  | 2.06 | .098 | 25  | 11  | .60 | 281 | .08 | 13  | 2.06 | .03 | .30 | 1  | 1   | 380 |
| 5088578 996321    | 1   | 25  | 6   | .45 | .1  | 20  | 7   | 775  | 2.13 | 2   | 5   | ND  | 1   | 96  | 1   | 1   | 2   | 32  | .66  | .088 | 27  | 17  | .38 | 292 | .06 | 2   | 2.22 | .02 | .23 | 1  | 1   | 350 |
| STD C             | 10  | 60  | 43  | 133 | 6.8 | 70  | 30  | 1119 | 4.07 | 40  | 18  | 8   | 37  | 60  | 18  | 18  | 22  | 60  | .40  | .089 | 81  | 57  | .94 | 170 | .07 | 31  | 2.05 | .06 | .16 | 13 | -   | -   |
| 5088578 996322    | 1   | 21  | 11  | .53 | .3  | 53  | 8   | 706  | 2.51 | 5   | 5   | ND  | 3   | 85  | 1   | 2   | 5   | 38  | .87  | .080 | 37  | 31  | .53 | 226 | .08 | 7   | 2.51 | .02 | .27 | 1  | 1   | 390 |
| 5088578 996323    | 1   | 27  | 16  | .55 | .2  | 77  | 3   | 610  | 2.01 | 8   | 5   | ND  | 4   | 80  | 1   | 2   | 2   | 60  | .52  | .070 | 53  | 47  | .77 | 119 | .08 | 8   | 1.95 | .02 | .21 | 1  | 1   | 410 |
| 5088578 996321    | 1   | 24  | 10  | .50 | .2  | 65  | 1   | 578  | 2.61 | 7   | 5   | ND  | 3   | 75  | 1   | 2   | 2   | 43  | .51  | .085 | 51  | 42  | .66 | 152 | .07 | 11  | 1.33 | .02 | .23 | 1  | 1   | 430 |
| 5088578 996325    | 1   | 22  | 17  | .51 | .2  | 52  | 1   | 561  | 2.65 | 6   | 5   | ND  | 3   | 75  | 1   | 2   | 2   | 44  | .40  | .084 | 49  | 42  | .62 | 144 | .08 | 13  | 1.81 | .02 | .25 | 1  | 1   | 400 |
| 5088578 996326    | 1   | 33  | 12  | .52 | .1  | 70  | 9   | 597  | 2.60 | 6   | 5   | ND  | 3   | 70  | 1   | 2   | 2   | 45  | .03  | .106 | 52  | 43  | .77 | 112 | .06 | 7   | 1.50 | .02 | .18 | 1  | 3   | 460 |
| 5088578 996327    | 1   | 43  | 14  | .51 | .1  | 48  | 0   | 672  | 2.44 | 2   | 5   | ND  | 3   | 70  | 1   | 2   | 3   | 38  | .49  | .087 | 38  | 31  | .49 | 188 | .07 | 3   | 2.00 | .01 | .27 | 1  | 1   | 390 |
| 5088578 996328    | 1   | 51  | 10  | .50 | .3  | 76  | 10  | 725  | 2.76 | 8   | 5   | ND  | 3   | 65  | 1   | 1   | 2   | 44  | .54  | .084 | 44  | 51  | .50 | 161 | .07 | 7   | 1.50 | .02 | .26 | 1  | 1   | 430 |
| 5088578 996329    | 1   | 35  | 16  | .52 | .1  | 66  | 9   | 616  | 2.01 | 2   | 5   | ND  | 4   | 68  | 1   | 2   | 2   | 43  | .55  | .075 | 39  | 36  | .62 | 167 | .06 | 3   | 2.12 | .01 | .30 | 1  | 1   | 420 |
| 5088578 996330    | 1   | 48  | 16  | .54 | .1  | 59  | 9   | 636  | 2.66 | 3   | 5   | ND  | 5   | 65  | 1   | 3   | 3   | 42  | .54  | .087 | 39  | 36  | .53 | 163 | .07 | 11  | 1.83 | .02 | .30 | 1  | 1   | 470 |
| 5088578 996331    | 1   | 48  | 14  | .51 | .2  | 68  | 9   | 603  | 2.68 | 4   | 5   | ND  | 4   | 66  | 1   | 2   | 4   | 41  | .53  | .081 | 40  | 35  | .59 | 168 | .07 | 6   | 1.95 | .02 | .30 | 1  | 1   | 460 |
| 5088578 996332    | 1   | 36  | 13  | .48 | .1  | 50  | 9   | 664  | 2.36 | 5   | 5   | ND  | 2   | 67  | 1   | 2   | 2   | 36  | .50  | .086 | 31  | 27  | .49 | 186 | .07 | 1   | 2.01 | .02 | .27 | 1  | 1   | 430 |
| 5088578 996333    | 1   | 44  | 14  | .62 | .1  | 72  | 12  | 736  | 3.54 | 6   | 5   | ND  | 2   | 68  | 1   | 2   | 2   | 56  | .63  | .100 | 42  | 45  | .31 | 191 | .07 | 3   | 2.57 | .02 | .36 | 1  | 3   | 560 |
| 5088578 996334    | 1   | 38  | 13  | .57 | .1  | 60  | 8   | 674  | 2.73 | 4   | 5   | ND  | 3   | 60  | 1   | 3   | 2   | 43  | .58  | .099 | 31  | 33  | .61 | 198 | .07 | 10  | 2.19 | .02 | .11 | 1  | 3   | 520 |
| 5088578 996335    | 1   | 45  | 10  | .53 | .1  | 39  | 10  | 816  | 2.82 | 2   | 5   | ND  | 2   | 67  | 1   | 2   | 2   | 40  | .57  | .088 | 27  | 20  | .50 | 213 | .08 | 5   | 2.47 | .02 | .35 | 1  | 1   | 490 |
| STD C/AU-S        | 10  | 57  | 39  | 120 | 1.1 | 67  | 20  | 1075 | 3.91 | 37  | 20  | 0   | 36  | 45  | 17  | 31  | 21  | 56  | .15  | .084 | 30  | 55  | .50 | 174 | .06 | 32  | 1.92 | .06 | .13 | 12 | \$1 | -   |

## BP RESOURCES PROJECT 5

LOC 10136

FILE # 88-2805

Page 10

| SAMPLE         | No  | Cu  | Pb  | Zn  | Ag  | WE  | Cd  | No   | Fe   | As  | V   | Au  | Tb  | St  | Co  | Sb  | Be  | V   | Ca   | F    | Si  | Cr  | Mg   | Br   | Tl  | B   | Al   | Na  | I   | V   | As  | P    |
|----------------|-----|-----|-----|-----|-----|-----|-----|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|-----|-----|------|------|-----|-----|------|-----|-----|-----|-----|------|
|                | PPM  | PPM  | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM  | PPM  | PPM | PPM | PPM  | PPM  | PPM | PPM | PPM  | PPM | PPM | PPM |     |      |
| 8100570 100712 | 1   | 24  | 3   | 31  | .1  | 16  | 7   | 351  | 1.91 | 16  | 5   | ND  | 1   | 3   | 1   | 2   | 2   | 14  | .12  | .016 | 2   | 6   | .06  | .11  | .01 | 1   | .33  | .03 | .07 | 1   | 26  | 870  |
| 8100570 100713 | 1   | 35  | 3   | 21  | .3  | 26  | 4   | 195  | 2.00 | 61  | 5   | ND  | 2   | 15  | 1   | 2   | 2   | 23  | .24  | .060 | 0   | 13  | .07  | .32  | .01 | 3   | .42  | .04 | .13 | 1   | 47  | 500  |
| STD-C          | 10  | 30  | 10  | 333 | 6.7 | 69  | 20  | 1048 | 1.11 | 63  | 10  | 6   | 36  | 18  | 18  | 10  | 20  | 57  | .49  | .082 | 39  | 56  | .93  | 180  | .07 | 39  | 2.06 | .06 | .13 | 12  | 2   | *    |
| 8100570 100714 | 1   | 0   | 17  | 71  | .1  | 9   | 3   | 333  | 1.01 | 11  | 5   | ND  | 1   | 213 | 1   | 2   | 2   | 22  | .29  | .063 | 31  | 7   | .43  | 222  | .02 | 3   | 2.03 | .30 | .27 | 1   | 1   | 680  |
| 8100570 100715 | 6   | 53  | 30  | 128 | .1  | 21  | 9   | 521  | 3.27 | 8   | 5   | ND  | 29  | 209 | 1   | 2   | 2   | 62  | 1.31 | .189 | 116 | 24  | 1.73 | 491  | .01 | 6   | 2.26 | .07 | .31 | 1   | 1   | 1050 |
| 8100570 100716 | 1   | 19  | 19  | 101 | .1  | 22  | 0   | 585  | 2.00 | 6   | 5   | ND  | 11  | 80  | 3   | 2   | 2   | 49  | .59  | .126 | 70  | 26  | 1.11 | 229  | .02 | 5   | 1.66 | .10 | .21 | 1   | 1   | 890  |
| 8100570 100717 | 2   | 13  | 3   | 16  | .3  | 10  | 2   | 108  | 1.51 | 175 | 5   | ND  | 1   | 14  | 1   | 3   | 2   | 16  | .19  | .065 | 7   | 12  | .03  | 10   | .01 | 6   | .20  | .07 | .06 | 1   | 20  | 440  |
| 8100570 100718 | 1   | 18  | 16  | 81  | .2  | 15  | 7   | 519  | 3.19 | 7   | 5   | ND  | 12  | 167 | 1   | 2   | 2   | 16  | .33  | .136 | 50  | 10  | .05  | 137  | .10 | 3   | .30  | .12 | .17 | 1   | 1   | 960  |
| 8100570 100722 | 2   | 15  | 38  | 56  | .2  | 12  | 3   | 289  | 1.48 | 20  | 7   | ND  | 20  | 35  | 1   | 2   | 2   | 26  | .18  | .103 | 116 | 15  | .40  | 396  | .01 | 2   | .65  | .07 | .16 | 1   | 1   | 520  |
| 8100570 100723 | 6   | 19  | 5   | 10  | .1  | 11  | 2   | 165  | 2.32 | 362 | 5   | ND  | 1   | 16  | 1   | 6   | 2   | 17  | .24  | .082 | 7   | 13  | .03  | 27   | .01 | 6   | .22  | .02 | .03 | 1   | 33  | 560  |
| 8100570 100724 | 1   | 11  | 11  | 61  | .1  | 23  | 3   | 616  | 2.76 | 7   | 5   | ND  | 12  | 151 | 1   | 2   | 2   | 50  | 1.32 | .131 | 86  | 32  | 1.32 | 147  | .02 | 2   | 1.41 | .07 | .14 | 1   | 1   | 800  |
| 8100570 100721 | 3   | 13  | 19  | 72  | .2  | 17  | 0   | 829  | 2.59 | 10  | 5   | ND  | 19  | 523 | 1   | 2   | 2   | 19  | 2.33 | .167 | 133 | 15  | .06  | 206  | .06 | 13  | 1.21 | .12 | .29 | 1   | 1   | 1820 |
| 8100570 100722 | 2   | 14  | 32  | 53  | .1  | 13  | 3   | 200  | 1.44 | 21  | 9   | ND  | 21  | 93  | 1   | 2   | 2   | 26  | .49  | .103 | 116 | 15  | .40  | 193  | .01 | 2   | .65  | .01 | .10 | 1   | 0   | 500  |
| 8100570 100723 | 4   | 50  | 5   | 13  | .2  | 0   | 2   | 330  | .95  | 8   | 5   | ND  | 1   | 29  | 1   | 2   | 2   | 13  | .62  | .019 | 3   | 3   | .14  | 261  | .01 | 9   | .25  | .01 | .03 | 1   | 5   | 100  |
| 8100570 100726 | 7   | 33  | 6   | 32  | 2.0 | 7   | 3   | 91   | 1.27 | 77  | 5   | ND  | 1   | 43  | 1   | 2   | 2   | 9   | .08  | .021 | 6   | 6   | .02  | 298  | .01 | 2   | .35  | .01 | .06 | 1   | 118 | 300  |
| 8100570 100725 | 3   | 19  | 13  | 39  | .7  | 11  | 5   | 316  | 2.01 | 55  | 5   | ND  | 3   | 35  | 1   | 2   | 2   | 10  | .29  | .050 | 21  | 8   | .06  | 2779 | .01 | 2   | .30  | .01 | .07 | 1   | 19  | 450  |
| 8100570 100726 | 3   | 39  | 16  | 61  | .1  | 27  | 3   | 322  | 3.22 | 10  | 5   | ND  | 11  | 59  | 1   | 2   | 2   | 16  | .47  | .211 | 65  | 30  | 1.02 | 61   | .05 | 2   | 1.51 | .06 | .10 | 1   | 1   | 680  |
| 8100570 100727 | 1   | 55  | 3   | 9   | .7  | 36  | 4   | 210  | .79  | 47  | 5   | ND  | 1   | 9   | 1   | 2   | 2   | 18  | .49  | .021 | 2   | 5   | .06  | 32   | .01 | 3   | .23  | .01 | .04 | 1   | 120 | 410  |
| 8100570 100722 | 1   | 16  | 19  | 61  | .2  | 13  | 5   | 617  | 1.97 | 15  | 5   | ND  | 11  | 86  | 1   | 2   | 2   | 29  | .66  | .079 | 65  | 11  | .51  | 193  | .01 | 5   | 1.06 | .05 | .23 | 1   | 1   | 200  |
| 8100570 100723 | 11  | 7   | 3   | 20  | .1  | 20  | 3   | 55   | 9.00 | 210 | 9   | ND  | 1   | 13  | 1   | 2   | 2   | 6   | .31  | .025 | 5   | 7   | .02  | 18   | .01 | 3   | .09  | .03 | .02 | 1   | 75  | 300  |
| STD-C/AV-R     | 17  | 59  | 31  | 133 | 7.0 | 60  | 29  | 1001 | 6.10 | 43  | 20  | 6   | 31  | 11  | 10  | 16  | 22  | 57  | .50  | .081 | 39  | 37  | .94  | 171  | .06 | 40  | 2.07 | .06 | .13 | 11  | 310 | *    |

## GEOCHEMICAL ANALYSIS CERTIFICATE

ICP - 1.500 GRAM SAMPLE IS DIGESTED WITH 3NL 3-1-2 HCl-HNO<sub>3</sub>-H<sub>2</sub>O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.  
THIS LEACH IS PARTIAL FOR K, NH<sub>4</sub>, Fe, Sr, Ca, P, Li, Cr, Mg, Ba, Ti, B, V AND LIMITED FOR Na, K AND Al. NO DETECTION LIMIT BY ICP IS 3 PPM.

SAMPLE TYPE: PI-P5 SOIL P6 STREAM SED. Au\* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE. B = NaOH FUSION - SPECIFIC ION ELECTRODE ANALYSIS.

DATE RECEIVED: AUG 22 1988 DATE REPORT MAILED: Aug 30/88 ASSAYER: C. LEONG, D. TOYE OR C. LEONG, CERTIFIED B.C. ASSAYERS

SEP 1-1988

MAPPING

BP RESOURCES CANADA LTD., PROJECT 578-10136 File # 88-3793 Page 1

| SAMPLE#        | Mo  | X   | Cu  | Pb  | Zn  | Ni  | Co  | Mn   | Fe   | As  | U   | Au  | Tb  | St  | Cd  | Sb  | Bi  | V   | Cr   | P    | Li  | Ce  | Mg   | Ba  | Tl  | B   | Al   | Hg   | I   | N   | Au* | B    |
|----------------|-----|-----|-----|-----|-----|-----|-----|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|-----|-----|------|-----|-----|-----|------|------|-----|-----|-----|------|
|                | PPM  | PPM  | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM  | PPM  | PPM | PPM | PPM  | PPM | PPM | PPM | PPM  | PPM  | PPB | PPB |     |      |
| 5088578 102023 | 1   | 20  | 10  | 63  | .1  | 10  | 6   | 450  | 2.26 | 4   | 5   | ND  | 5   | 201 | 1   | 2   | 2   | 43  | .58  | .141 | 75  | 19  | .42  | 169 | .12 | 2   | 2.16 | .02  | .30 | 1   | 1   | 550  |
| 5088578 102023 | 1   | 17  | 13  | 59  | .1  | 10  | 5   | 440  | 2.00 | 3   | 5   | ND  | 2   | 194 | 1   | 2   | 2   | 38  | .56  | .100 | 49  | 17  | .34  | 175 | .12 | 2   | 2.14 | .03  | .23 | 1   | 1   | 426  |
| 5088578 102023 | 1   | 15  | 15  | 60  | .1  | 10  | 6   | 528  | 2.02 | 3   | 5   | ND  | 4   | 156 | 1   | 2   | 2   | 39  | .52  | .096 | 76  | 16  | .43  | 295 | .14 | 2   | 3.62 | .03  | .27 | 1   | 1   | 610  |
| 5088578 102025 | 1   | 17  | 11  | 64  | .1  | 21  | 9   | 543  | 2.66 | 3   | 5   | ND  | 6   | 93  | 1   | 2   | 2   | 50  | .17  | .066 | 42  | 30  | .64  | 161 | .15 | 4   | 2.78 | .02  | .20 | 1   | 1   | 480  |
| S70 C          | 18  | 60  | 38  | 135 | 7.3 | 23  | 33  | 1022 | 4.11 | 41  | 17  | 17  | 37  | 43  | 19  | 16  | 17  | 60  | .48  | .097 | 40  | 62  | .94  | 171 | .07 | 33  | 2.00 | .06  | .15 | 12  | -   | -    |
| 5088578 102026 | 1   | 19  | 13  | 63  | .1  | 15  | 9   | 488  | 2.54 | 3   | 5   | ND  | 1   | 110 | 2   | 2   | 2   | 46  | .55  | .110 | 37  | 35  | .72  | 276 | .12 | 3   | 2.55 | .02  | .27 | 1   | 1   | 500  |
| 5088578 102027 | 1   | 19  | 13  | 102 | .1  | 25  | 13  | 683  | 4.51 | 2   | 5   | ND  | 2   | 110 | 1   | 2   | 2   | 93  | .76  | .177 | 39  | 96  | 1.07 | 133 | .15 | 3   | 2.81 | .02  | .31 | 1   | 1   | 660  |
| 5088578 102025 | 1   | 19  | 21  | 86  | .1  | 16  | 10  | 1064 | 2.96 | 4   | 5   | ND  | 6   | 194 | 2   | 2   | 2   | 50  | .53  | .073 | 60  | 31  | .65  | 270 | .12 | 4   | 2.76 | .02  | .31 | 1   | 1   | 530  |
| 5088578 102029 | 1   | 13  | 23  | 111 | .2  | 36  | 13  | 781  | 3.64 | 3   | 5   | ND  | 16  | 310 | 2   | 2   | 2   | 71  | .93  | .313 | 137 | 55  | .99  | 148 | .23 | 5   | 2.06 | .03  | .30 | 1   | 1   | 1200 |
| 5088578 102031 | 1   | 17  | 10  | 67  | .2  | 13  | 5   | 246  | 1.86 | 4   | 5   | ND  | 5   | 81  | 2   | 2   | 2   | 36  | .31  | .139 | 29  | 19  | .33  | 93  | .11 | 4   | 2.28 | .02  | .11 | 1   | 1   | 440  |
| 5088578 102030 | 1   | 38  | 23  | 122 | .1  | 50  | 14  | 531  | 4.53 | 2   | 5   | ND  | 20  | 253 | 2   | 2   | 2   | 81  | .97  | .219 | 166 | 73  | 1.32 | 86  | .30 | 5   | 2.22 | *.02 | .36 | 1   | 1   | 1400 |
| 5088578 102031 | 1   | 16  | 12  | 67  | .1  | 8   | 5   | 247  | 1.97 | 2   | 5   | ND  | 10  | 175 | 1   | 2   | 2   | 22  | .42  | .017 | 62  | 10  | .35  | 99  | .08 | 5   | 2.78 | .03  | .33 | 1   | 2   | 540  |
| 5088578 102032 | 1   | 23  | 14  | 78  | .1  | 12  | 6   | 279  | 2.66 | 2   | 5   | ND  | 17  | 176 | 2   | 2   | 2   | 46  | .61  | .122 | 107 | 18  | .32  | 125 | .10 | 2   | 2.45 | .02  | .23 | 1   | 1   | 750  |
| 5088578 102033 | 1   | 19  | 12  | 63  | .1  | 16  | 6   | 299  | 2.33 | 4   | 5   | ND  | 5   | 193 | 1   | 2   | 2   | 41  | .43  | .049 | 40  | 25  | .44  | 110 | .12 | 3   | 2.80 | .02  | .12 | 1   | 1   | 410  |
| 5088578 102034 | 1   | 16  | 13  | 71  | .1  | 14  | 6   | 255  | 1.97 | 5   | 7   | ND  | 5   | 81  | 2   | 2   | 2   | 37  | .31  | .147 | 29  | 19  | .34  | 97  | .11 | 5   | 2.39 | .03  | .12 | 1   | 1   | 440  |
| 5088578 102035 | 1   | 27  | 13  | 76  | .2  | 16  | 6   | 220  | 2.22 | 6   | 5   | ND  | 9   | 106 | 1   | 2   | 2   | 49  | .61  | .125 | 55  | 22  | .45  | 140 | .09 | 2   | 2.24 | .02  | .19 | 1   | 1   | 610  |
| 5088578 102036 | 1   | 21  | 13  | 78  | .1  | 16  | 6   | 225  | 2.31 | 7   | 5   | ND  | 6   | 117 | 1   | 2   | 2   | 43  | .37  | .117 | 45  | 23  | .43  | 154 | .11 | 2   | 2.52 | .03  | .13 | 1   | 1   | 650  |
| 5088578 102037 | 1   | 17  | 9   | 62  | .1  | 15  | 5   | 272  | 1.85 | 5   | 5   | ND  | 1   | 103 | 1   | 2   | 2   | 34  | .31  | .104 | 28  | 19  | .36  | 110 | .11 | 2   | 2.32 | .03  | .11 | 1   | 1   | 380  |
| 5088578 102038 | 1   | 11  | 10  | 62  | .1  | 13  | 5   | 196  | 1.81 | 3   | 5   | ND  | 3   | 137 | 1   | 2   | 2   | 32  | .29  | .058 | 22  | 23  | .35  | 116 | .10 | 3   | 1.90 | .03  | .12 | 1   | 1   | 290  |
| 5088578 102039 | 1   | 13  | 7   | 55  | .1  | 15  | 5   | 220  | 2.03 | 2   | 5   | ND  | 3   | 71  | 1   | 2   | 2   | 37  | .29  | .112 | 21  | 24  | .39  | 150 | .13 | 2   | 2.76 | .03  | .08 | 1   | 1   | 410  |
| 5088578 102040 | 1   | 15  | 8   | 72  | .2  | 15  | 6   | 455  | 2.38 | 3   | 5   | ND  | 3   | 172 | 1   | 2   | 3   | 44  | .49  | .152 | 24  | 28  | .46  | 161 | .13 | 4   | 3.22 | .02  | .11 | 1   | 1   | 360  |
| 5088578 102041 | 1   | 13  | 10  | 63  | .2  | 12  | 5   | 405  | 1.97 | 2   | 5   | ND  | 4   | 103 | 2   | 2   | 2   | 36  | .31  | .115 | 29  | 20  | .32  | 153 | .12 | 3   | 2.11 | .02  | .14 | 1   | 1   | 360  |
| 5088578 102042 | 1   | 14  | 13  | 53  | .2  | 15  | 5   | 200  | 1.97 | 2   | 5   | ND  | 5   | 143 | 1   | 2   | 2   | 30  | .31  | .028 | 26  | 21  | .39  | 98  | .12 | 6   | 2.28 | .03  | .11 | 2   | 1   | 330  |
| 5088578 102043 | 1   | 12  | 8   | 52  | .3  | 17  | 5   | 131  | 1.60 | 2   | 5   | ND  | 5   | 85  | 1   | 2   | 2   | 29  | .32  | .090 | 19  | 19  | .33  | 75  | .10 | 4   | 1.83 | .03  | .10 | 2   | 1   | 360  |
| 5088578 102044 | 1   | 16  | 9   | 63  | .1  | 16  | 5   | 322  | 1.87 | 3   | 5   | ND  | 6   | 78  | 1   | 2   | 2   | 33  | .35  | .075 | 25  | 20  | .44  | 130 | .11 | 3   | 2.09 | .02  | .13 | 1   | 1   | 340  |
| 5088578 102045 | 1   | 16  | 10  | 57  | .1  | 17  | 5   | 237  | 1.94 | 3   | 5   | ND  | 5   | 70  | 1   | 3   | 2   | 34  | .31  | .160 | 23  | 25  | .43  | 110 | .12 | 5   | 2.43 | .02  | .12 | 1   | 2   | 340  |
| 5088578 102046 | 1   | 16  | 9   | 65  | .1  | 17  | 5   | 247  | 1.64 | 2   | 5   | ND  | 2   | 72  | 1   | 2   | 2   | 27  | .32  | .127 | 20  | 18  | .37  | 104 | .11 | 2   | 2.30 | .03  | .12 | 1   | 1   | 280  |
| 5088578 102047 | 1   | 13  | 14  | 72  | .1  | 11  | 5   | 233  | 1.80 | 3   | 5   | ND  | 2   | 74  | 1   | 2   | 2   | 26  | .29  | .121 | 21  | 13  | .31  | 154 | .10 | 2   | 2.52 | .02  | .13 | 1   | 1   | 290  |
| 5088578 102048 | 1   | 14  | 7   | 16  | .2  | 16  | 6   | 420  | 1.81 | 3   | 5   | ND  | 4   | 91  | 2   | 2   | 2   | 27  | .36  | .106 | 23  | 20  | .42  | 153 | .11 | 6   | 2.14 | .02  | .15 | 1   | 1   | 310  |
| 5088578 102049 | 1   | 16  | 11  | 63  | .2  | 16  | 5   | 290  | 1.81 | 2   | 5   | ND  | 5   | 119 | 1   | 2   | 2   | 27  | .31  | .126 | 27  | 16  | .36  | 150 | .11 | 5   | 2.51 | .02  | .16 | 1   | 1   | 340  |
| 5088578 102050 | 1   | 23  | 14  | 71  | .1  | 14  | 8   | 563  | 2.21 | 2   | 5   | ND  | 5   | 209 | 2   | 2   | 2   | 31  | .41  | .196 | 52  | 15  | .73  | 191 | .10 | 7   | 3.36 | .03  | .13 | 1   | 1   | 380  |
| 5088578 102051 | 1   | 28  | 23  | 114 | .1  | 21  | 14  | 697  | 3.54 | 5   | 5   | ND  | 9   | 233 | 2   | 3   | 2   | 53  | .60  | .181 | 101 | 25  | 1.08 | 261 | .12 | 5   | 1.78 | .03  | .18 | 2   | 1   | 510  |
| 5088578 102052 | 1   | 14  | 13  | 77  | .1  | 13  | 6   | 413  | 2.33 | 3   | 5   | ND  | 9   | 137 | 1   | 2   | 2   | 53  | .52  | .107 | 52  | 26  | .44  | 123 | .17 | 3   | 1.31 | .02  | .17 | 1   | 2   | 500  |
| 5088578 102053 | 1   | 20  | 21  | 59  | .2  | 16  | 6   | 138  | 2.46 | 5   | 5   | ND  | 11  | 106 | 2   | 2   | 2   | 37  | .40  | .072 | 89  | 18  | .54  | 192 | .08 | 7   | 2.64 | .02  | .36 | 1   | 1   | 700  |
| 5088578 102054 | 1   | 20  | 18  | 94  | .2  | 13  | 6   | 109  | 2.49 | 4   | 5   | ND  | 9   | 99  | 1   | 2   | 3   | 36  | .43  | .069 | 63  | 17  | .40  | 164 | .12 | 8   | 2.67 | .02  | .29 | 2   | 26  | 630  |
| 5088578 102055 | 1   | 16  | 17  | 76  | .1  | 13  | 6   | 383  | 2.36 | 2   | 5   | ND  | 9   | 103 | 1   | 2   | 2   | 43  | .61  | .050 | 54  | 22  | .38  | 120 | .15 | 3   | 2.00 | .02  | .26 | 1   | 1   | 470  |
| 5088578 102056 | 1   | 33  | 17  | 126 | .2  | 47  | 15  | 715  | 4.06 | 3   | 5   | ND  | 17  | 179 | 3   | 2   | 2   | 61  | 1.08 | .373 | 131 | 61  | 1.21 | 123 | .29 | 8   | 2.51 | .03  | .49 | 1   | 1   | 1210 |
| STD C/AU-S     | 18  | 57  | 36  | 132 | 6.8 | 67  | 28  | 936  | 3.84 | 40  | 17  | 7   | 36  | 47  | 17  | 27  | 18  | 55  | .46  | .090 | 38  | 57  | .87  | 175 | .06 | 34  | 1.05 | .06  | .15 | 12  | 51  | *    |

## BP RESOURCES CANADA LTD. PROJEC

78-10136 FILE # 88-3793

je 2

| SAMPLE#           | No  | Cu  | Zn  | Ag  | Wt  | Co  | Mn  | Fe   | As   | U   | Au  | Tb  | St  | Cd  | Sb  | Be  | V   | Ca  | P    | Si   | Cr  | Ng  | Ba   | Tl  | B   | Al   | Na   | I   | V   | Au <sup>b</sup> | P   |     |
|-------------------|-----|-----|-----|-----|-----|-----|-----|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|-----|-----|------|-----|-----|------|------|-----|-----|-----------------|-----|-----|
|                   | PPM  | PPM  | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM | %   | %    | PPM  | PPM | PPM | PPM  | PPM | PPM | PPM  | PPM  | PPM | PPM |                 |     |     |
| 5088578 102057    | 1   | 26  | 31  | .85 | .1  | 33  | 11  | 842  | 3.08 | 3   | 5   | ND  | 11  | 159 | 3   | 2   | 2   | .56 | .310 | 102  | 44  | .95 | 110  | .22 | 6   | 2.76 | .03  | .22 | 1   | 1               | 860 |     |
| 5088578 102058    | 1   | 30  | 21  | .74 | .1  | 25  | 9   | 532  | 2.95 | 4   | 5   | ND  | 9   | 170 | 1   | 2   | 2   | .54 | .32  | .225 | 44  | .33 | .76  | 149 | .19 | 4    | 2.76 | .03 | .29 | 1               | 1   | 820 |
| 5088578 102059    | 1   | 17  | 13  | .71 | .1  | 19  | 5   | 360  | 2.71 | 2   | 5   | ND  | 8   | 96  | 1   | 2   | 2   | .41 | .35  | .048 | 44  | .28 | .53  | 155 | .19 | 7    | 3.04 | .02 | .27 | 1               | 1   | 840 |
| 5088578 102060    | 1   | 16  | 10  | .77 | .2  | 16  | 6   | 448  | 2.53 | 2   | 5   | ND  | 6   | 85  | 2   | 2   | 2   | .39 | .41  | .049 | 38  | .26 | .51  | 152 | .15 | 12   | 2.73 | .02 | .31 | 1               | 2   | 830 |
| 5088578 102061    | 1   | 20  | 9   | .90 | .1  | 13  | 7   | 647  | 2.41 | 3   | 5   | ND  | 6   | 116 | 1   | 2   | 2   | .43 | .60  | .074 | 41  | .23 | .52  | 150 | .12 | 8    | 1.69 | .02 | .28 | 1               | 1   | 840 |
| 5088578 102062    | 1   | 15  | 20  | .69 | .1  | 12  | 8   | 763  | 2.33 | 2   | 5   | ND  | 5   | 75  | 1   | 2   | 2   | .36 | .32  | .067 | 39  | .16 | .38  | 193 | .12 | 4    | 3.69 | .02 | .13 | 1               | 1   | 350 |
| 5088578 102063    | 1   | 16  | 23  | .89 | .2  | 11  | 5   | 405  | 2.22 | 5   | 5   | ND  | 4   | 250 | 1   | 2   | 2   | .31 | .33  | .049 | 37  | .18 | .41  | 280 | .09 | 2    | 2.79 | .02 | .16 | 1               | 1   | 470 |
| 5088578 102064    | 1   | 15  | 22  | 102 | .3  | 16  | 6   | 321  | 2.55 | 4   | 5   | ND  | 6   | 437 | 2   | 2   | 2   | .43 | .35  | .077 | 30  | .23 | .45  | 318 | .16 | 5    | 2.56 | .02 | .20 | 1               | 1   | 410 |
| 5088578 102065    | 1   | 19  | 11  | .72 | .1  | 11  | 5   | 307  | 1.86 | 2   | 5   | ND  | 6   | 82  | 1   | 2   | 2   | .29 | .34  | .062 | 33  | .15 | .34  | 146 | .11 | 4    | 2.59 | .02 | .15 | 1               | 1   | 460 |
| 5088578 102066    | 1   | 13  | 8   | .76 | .2  | 11  | 5   | 238  | 1.94 | 3   | 5   | ND  | 6   | 77  | 2   | 2   | 2   | .31 | .26  | .121 | 27  | .17 | .33  | 129 | .12 | 7    | 2.27 | .02 | .12 | 1               | 1   | 360 |
| 5088578 102067    | 1   | 22  | 11  | .71 | .2  | 14  | 6   | 627  | 2.47 | 5   | 5   | ND  | 10  | 126 | 2   | 2   | 2   | .62 | .53  | .077 | 54  | .27 | .45  | 165 | .16 | 2    | 2.30 | .02 | .21 | 1               | 1   | 430 |
| 5088578 102068    | 1   | 15  | 10  | .67 | .2  | 10  | 5   | 431  | 1.92 | 4   | 5   | ND  | 6   | 111 | 1   | 2   | 2   | .35 | .34  | .118 | 32  | .18 | .31  | 141 | .11 | 6    | 1.97 | .02 | .16 | 1               | 1   | 320 |
| 5088578 102069    | 1   | 15  | 17  | .93 | .1  | 15  | 7   | 684  | 2.34 | 4   | 5   | ND  | 5   | 134 | 1   | 2   | 2   | .44 | .40  | .188 | 43  | .23 | .37  | 111 | .14 | 2    | 2.63 | .02 | .12 | 1               | 1   | 320 |
| 5088578 102070    | 1   | 24  | 20  | .94 | .2  | 29  | 10  | 415  | 2.95 | 2   | 5   | ND  | 15  | 125 | 3   | 2   | 2   | .51 | .60  | .178 | 03  | .34 | .36  | 119 | .21 | 7    | 3.31 | .03 | .15 | 1               | 1   | 610 |
| 5088578 102071    | 1   | 28  | 10  | .96 | .2  | 39  | 12  | 672  | 3.41 | 6   | 5   | ND  | 13  | 154 | 2   | 2   | 2   | .64 | .91  | .320 | 97  | .49 | 1.00 | 119 | .22 | 5    | 2.88 | .02 | .16 | 1               | 1   | 610 |
| 5088578 102072    | 1   | 46  | 25  | .95 | .1  | 48  | 13  | 631  | 3.10 | 3   | 5   | ND  | 12  | 231 | 3   | 2   | 2   | .56 | 1.26 | .348 | 138 | .46 | 1.20 | 164 | .22 | 2    | 3.01 | .03 | .28 | 1               | 1   | 820 |
| STD C             | 10  | 50  | 37  | 137 | 6.9 | 68  | 29  | 1087 | 0.11 | 40  | 22  | 7   | 60  | 46  | 19  | 16  | 19  | .56 | .52  | .088 | 39  | .59 | .92  | 177 | .06 | 34   | 1.98 | .06 | .15 | 12              | -   | -   |
| 5088578 102073    | 1   | 20  | 12  | .64 | .1  | 12  | 6   | 452  | 2.20 | 5   | 5   | ND  | 2   | 139 | 1   | 2   | 2   | .46 | .57  | .280 | 55  | .24 | .35  | 131 | .12 | 3    | 1.82 | .02 | .15 | 1               | 1   | 410 |
| 5088578 102074    | 1   | 22  | 9   | .69 | .1  | 17  | 9   | 722  | 2.65 | 2   | 5   | ND  | 1   | 71  | 2   | 2   | 2   | .44 | .49  | .060 | 43  | .23 | .49  | 172 | .15 | 5    | 2.70 | .02 | .28 | 1               | 1   | 440 |
| 5088578 102075    | 1   | 21  | 14  | .54 | .1  | 14  | 8   | 696  | 2.42 | 5   | 5   | ND  | 5   | 90  | 1   | 2   | 2   | .41 | .58  | .060 | 36  | .19 | .45  | 119 | .15 | 9    | 2.46 | .03 | .23 | 1               | 2   | 610 |
| 5088578 102076    | 1   | 17  | 10  | .46 | .2  | 12  | 6   | 375  | 1.96 | 2   | 5   | ND  | 3   | 70  | 1   | 2   | 2   | .33 | .30  | .180 | 30  | .19 | .39  | 132 | .12 | 2    | 2.10 | .02 | .13 | 1               | 1   | 360 |
| 5088578 102077    | 1   | 15  | 8   | .57 | .1  | 11  | 5   | 403  | 2.00 | 4   | 5   | ND  | 6   | 98  | 1   | 2   | 2   | .40 | .45  | .176 | 39  | .18 | .33  | 131 | .13 | 6    | 2.14 | .02 | .14 | 1               | 1   | 350 |
| 5088578 102078    | 1   | 14  | 11  | .59 | .1  | 10  | 5   | 676  | 1.94 | 2   | 5   | ND  | 2   | 65  | 1   | 2   | 2   | .36 | .38  | .013 | 40  | .18 | .30  | 130 | .10 | 3    | 2.17 | .02 | .13 | 1               | 1   | 330 |
| 5088578 102079    | 1   | 13  | 8   | .58 | .1  | 12  | 6   | 425  | 2.12 | 4   | 5   | ND  | 3   | 63  | 1   | 2   | 2   | .41 | .28  | .056 | 39  | .25 | .43  | 117 | .14 | 3    | 2.01 | .02 | .15 | 1               | 1   | 390 |
| 5088578 102080    | 1   | 15  | 11  | .75 | .2  | 12  | 6   | 630  | 2.17 | 2   | 5   | ND  | 4   | 62  | 1   | 2   | 2   | .39 | .34  | .061 | 25  | .24 | .40  | 241 | .12 | 6    | 2.49 | .02 | .14 | 1               | 1   | 500 |
| 5088578 102081    | 1   | 16  | 15  | .50 | .1  | 16  | 8   | 646  | 3.06 | 2   | 5   | ND  | 4   | 53  | 1   | 2   | 2   | .57 | .43  | .095 | 25  | .68 | .92  | 140 | .18 | 8    | 2.91 | .02 | .17 | 1               | 1   | 510 |
| 5088578 102082    | 1   | 27  | 14  | 117 | .2  | 24  | 14  | 1117 | 4.06 | 4   | 5   | ND  | 4   | 135 | 2   | 2   | 2   | .82 | 1.01 | .225 | 56  | .72 | 1.37 | 326 | .23 | 8    | 2.75 | .02 | .32 | 1               | 1   | 850 |
| 5088578 102083    | 1   | 16  | 14  | .73 | .1  | 16  | 6   | 567  | 2.31 | 2   | 5   | ND  | 4   | 120 | 2   | 2   | 2   | .41 | .39  | .063 | 40  | .29 | .46  | 143 | .13 | 5    | 2.56 | .02 | .16 | 1               | 1   | 510 |
| 5088578 102084    | 1   | 18  | 10  | .56 | .1  | 9   | 8   | 300  | 1.60 | 5   | 5   | ND  | 3   | 63  | 1   | 2   | 2   | .29 | .29  | .105 | 22  | .14 | .24  | 95  | .10 | 2    | 2.19 | .02 | .11 | 1               | 1   | 510 |
| 5088578 102085    | 1   | 14  | 9   | .77 | .1  | 13  | 5   | 361  | 2.07 | 4   | 5   | ND  | 5   | 85  | 1   | 2   | 2   | .38 | .32  | .132 | 26  | .20 | .34  | 153 | .13 | 5    | 2.44 | .02 | .09 | 1               | 1   | 790 |
| 5088578 102086    | 1   | 12  | 8   | .65 | .2  | 12  | 5   | 361  | 1.95 | 8   | 5   | ND  | 4   | 90  | 1   | 2   | 2   | .36 | .34  | .141 | 25  | .19 | .29  | 131 | .12 | 7    | 1.36 | .02 | .12 | 1               | 1   | 510 |
| 5088578 102087    | 1   | 16  | 11  | .57 | .2  | 11  | 4   | 285  | 1.64 | 2   | 5   | ND  | 5   | 88  | 2   | 2   | 2   | .30 | .41  | .119 | 28  | .16 | .20  | 108 | .11 | 6    | 2.01 | .02 | .10 | 1               | 2   | 330 |
| 5088578 102088    | 1   | 24  | 14  | .87 | .1  | 24  | 8   | 596  | 2.40 | 5   | 5   | ND  | 8   | 138 | 1   | 2   | 2   | .44 | .74  | .337 | 59  | .28 | .69  | 179 | .15 | 5    | 2.14 | .02 | .13 | 1               | 1   | 890 |
| 5088578 102089    | 1   | 74  | 10  | .76 | .3  | 75  | 13  | 537  | 3.41 | 11  | 5   | ND  | 3   | 139 | 1   | 2   | 2   | .58 | 1.15 | .135 | 36  | .60 | 1.72 | 144 | .10 | 11   | 1.91 | .08 | .33 | 1               | 6   | 860 |
| 5088578 102090    | 1   | 85  | 13  | .68 | .4  | 86  | 17  | 598  | 3.25 | 10  | 5   | ND  | 1   | 134 | 2   | 2   | 2   | .52 | 1.22 | .134 | 35  | .54 | 1.71 | 275 | .10 | 9    | 2.01 | .04 | .31 | 1               | 6   | 770 |
| 5088578 102091    | 1   | 147 | 12  | .59 | .3  | 50  | 12  | 669  | 3.28 | 16  | 5   | ND  | 4   | 61  | 1   | 2   | 2   | .58 | .72  | .092 | 31  | .67 | .86  | 158 | .06 | 9    | 2.10 | .02 | .71 | 1               | 9   | 730 |
| 38 5088578 102087 | 1   | 15  | 11  | .56 | .2  | 11  | 4   | 280  | 1.61 | 3   | 5   | ND  | 6   | 87  | 1   | 2   | 2   | .30 | .60  | .163 | 28  | .15 | .27  | 107 | .11 | 6    | 1.97 | .02 | .09 | 1               | 1   | 350 |
| 5088578 102092    | 1   | 47  | 11  | .67 | .2  | 22  | 9   | 557  | 2.43 | 7   | 5   | ND  | 2   | 68  | 1   | 2   | 2   | .41 | .87  | .136 | 40  | .40 | .63  | 155 | .04 | 7    | 1.70 | .02 | .74 | 1               | 2   | 890 |
| STD C/AU-3        | 17  | 57  | 37  | 132 | 7.3 | 67  | 28  | 1024 | 4.00 | 39  | 21  | 7   | 36  | 46  | 17  | 16  | 18  | 55  | .50  | .088 | 38  | .50 | .96  | 175 | .06 | 34   | 1.90 | .06 | .15 | 12              | 52  | -   |

## BP RESOURCES CANADA LTD. PROJECT

178-10136 FILE # 88-3793

ge 3

| SAMPLE#        | No  | Cu  | Pb  | Zn  | Ag  | Ni  | Co  | Na   | Fe   | As  | U   | Ag  | Tl  | Se   | Cd  | Sb  | Bi  | V   | Cr    | La   | Ct  | Xg  | Ba   | Tl  | B   | Al  | Na   | K   | V   | Au* | F   |     |
|----------------|-----|-----|-----|-----|-----|-----|-----|------|------|-----|-----|-----|-----|------|-----|-----|-----|-----|-------|------|-----|-----|------|-----|-----|-----|------|-----|-----|-----|-----|-----|
|                | PPM  | PPM  | PPM | PPM | PPM | PPM | PPM  | PPM | PPM | PPM | PPM | PPM   | PPM  | PPM | PPM | PPM  | PPM | PPM | PPM | PPM  | PPM | PPM |     |     |     |
| 5088573 102093 | 1   | 295 | 10  | 75  | .2  | 40  | 13  | 974  | 3.77 | 3   | 5   | ND  | 2   | 117  | 1   | 2   | 2   | 76  | 1.01  | .152 | 46  | 78  | 1.92 | 315 | .08 | 10  | 2.56 | .02 | .72 | 1   | 11  | 880 |
| 5066573 102094 | 1   | 331 | 10  | 58  | .6  | 73  | 16  | 742  | 3.75 | 19  | 5   | ND  | 1   | 956  | 1   | 2   | 2   | 90  | 19.64 | .134 | 16  | 71  | 3.01 | 172 | .07 | 14  | 1.98 | .02 | .21 | 3   | 5   | 360 |
| 5088573 102095 | 1   | 257 | 13  | 52  | .1  | 32  | 11  | 916  | 2.89 | 5   | 5   | ND  | 1   | 111  | 1   | 2   | 3   | 68  | 1.27  | .107 | 23  | 48  | 1.05 | 150 | .05 | 7   | 1.75 | .02 | .28 | 1   | 9   | 550 |
| 5088573 102096 | 1   | 176 | 10  | 57  | .3  | 40  | 12  | 1203 | 3.33 | 19  | 5   | ND  | 1   | 83   | 1   | 2   | 3   | 65  | .92   | .093 | 26  | 50  | .01  | 214 | .06 | 7   | 2.09 | .03 | .22 | 1   | 41  | 500 |
| 5088573 102097 | 1   | 138 | 15  | 64  | .1  | 34  | 11  | 819  | 3.10 | 5   | 5   | ND  | 7   | 74   | 1   | 2   | 2   | 60  | .64   | .101 | 39  | 48  | .78  | 315 | .09 | 3   | 2.55 | .02 | .33 | 1   | 8   | 510 |
| 5088573 102098 | 1   | 35  | 15  | 67  | .2  | 25  | 12  | 839  | 3.72 | 4   | 5   | ND  | 2   | 85   | 1   | 2   | 2   | 72  | .75   | .176 | 42  | 83  | 1.31 | 335 | .08 | 5   | 2.96 | .03 | .31 | 1   | 1   | 710 |
| 5066573 102099 | 1   | 332 | 18  | 50  | .1  | 35  | 12  | 869  | 2.66 | 10  | 5   | ND  | 1   | 96   | 1   | 2   | 2   | 41  | 1.14  | .082 | 32  | 37  | .67  | 284 | .04 | 7   | 2.04 | .02 | .68 | 1   | 17  | 600 |
| 5088573 102100 | 1   | 279 | 12  | 54  | .2  | 31  | 11  | 896  | 2.77 | 13  | 5   | ND  | 1   | 105  | 1   | 2   | 2   | 49  | 1.10  | .112 | 28  | 34  | .60  | 278 | .02 | 9   | 1.21 | .02 | .32 | 1   | 18  | 490 |
| 5088573 102101 | 1   | 396 | 19  | 48  | .3  | 18  | 9   | 899  | 2.60 | 5   | 5   | ND  | 1   | 80   | 1   | 2   | 2   | 49  | 1.00  | .138 | 10  | 36  | .61  | 294 | .02 | 9   | 1.95 | .02 | .32 | 1   | 58  | 760 |
| 5088573 102102 | 1   | 631 | 6   | 46  | .7  | 35  | 18  | 917  | 3.26 | 9   | 5   | ND  | 1   | 68   | 1   | 2   | 3   | 55  | .08   | .099 | 10  | 27  | .38  | 374 | .03 | 7   | 1.59 | .02 | .20 | 1   | 165 | 620 |
| 5088573 102103 | 1   | 293 | 7   | 41  | .1  | 33  | 10  | 710  | 2.35 | 7   | 5   | ND  | 1   | 55   | 1   | 2   | 2   | 40  | .51   | .072 | 24  | 25  | .35  | 190 | .06 | 3   | 1.84 | .02 | .23 | 1   | 20  | 380 |
| 5066573 102104 | 1   | 214 | 12  | 47  | .3  | 57  | 11  | 616  | 2.74 | 8   | 5   | ND  | 1   | 61   | 1   | 2   | 2   | 46  | 1.17  | .108 | 30  | 43  | .67  | 162 | .04 | 13  | 1.54 | .02 | .22 | 1   | 28  | 490 |
| 5066573 102105 | 1   | 73  | 14  | 48  | .1  | 40  | 9   | 710  | 2.25 | 10  | 5   | ND  | 1   | 66   | 1   | 2   | 2   | 35  | .62   | .077 | 20  | 26  | .35  | 298 | .07 | 2   | 1.96 | .02 | .25 | 1   | 1   | 370 |
| 5088573 102106 | 1   | 126 | 8   | 44  | .1  | 32  | 8   | 676  | 2.13 | 5   | 5   | ND  | 1   | 70   | 1   | 2   | 2   | 35  | .51   | .075 | 25  | 23  | .32  | 307 | .06 | 2   | 2.07 | .02 | .27 | 1   | 1   | 380 |
| 5088573 102107 | 1   | 65  | 14  | 45  | .2  | 37  | 9   | 649  | 2.35 | 8   | 5   | ND  | 2   | 70   | 1   | 2   | 2   | 36  | .53   | .083 | 27  | 24  | .36  | 284 | .06 | 7   | 2.05 | .02 | .28 | 1   | 1   | 460 |
| 5088573 102108 | 1   | 79  | 7   | 41  | .1  | 25  | 9   | 600  | 2.39 | 10  | 5   | ND  | 1   | 63   | 1   | 2   | 2   | 36  | .58   | .080 | 22  | 17  | .30  | 284 | .05 | 4   | 1.92 | .02 | .25 | 1   | 1   | 580 |
| 5038572 102109 | 1   | 162 | 13  | 55  | .1  | 58  | 11  | 755  | 3.79 | 22  | 5   | ND  | 2   | 65   | 1   | 2   | 2   | 58  | .72   | .103 | 31  | 31  | .49  | 369 | .04 | 4   | 2.38 | .02 | .33 | 1   | 6   | 730 |
| 5038578 102110 | 1   | 235 | 14  | 50  | .6  | 65  | 16  | 826  | 3.66 | 40  | 5   | ND  | 1   | 53   | 1   | 2   | 2   | 58  | .85   | .106 | 24  | 30  | .48  | 476 | .03 | 6   | 1.54 | .02 | .26 | 2   | 21  | 750 |
| 5088573 102111 | 1   | 77  | 9   | 43  | .3  | 23  | 10  | 615  | 2.85 | 32  | 5   | ND  | 1   | 60   | 1   | 2   | 2   | 43  | .92   | .083 | 19  | 17  | .27  | 186 | .03 | 4   | 1.65 | .02 | .25 | 1   | 13  | 730 |
| 5088573 102112 | 1   | 31  | 7   | 41  | .1  | 22  | 9   | 748  | 2.43 | 3   | 5   | ND  | 1   | 63   | 1   | 2   | 2   | 42  | .64   | .064 | 22  | 21  | .40  | 391 | .05 | 9   | 1.85 | .02 | .24 | 1   | 1   | 430 |
| 5088578 102113 | 1   | 16  | 12  | 47  | .1  | 15  | 5   | 715  | 2.34 | 5   | 5   | ND  | 2   | 52   | 1   | 2   | 2   | 42  | .48   | .069 | 27  | 34  | .45  | 189 | .06 | 4   | 1.83 | .02 | .22 | 1   | 1   | 380 |
| 5088578 102114 | 1   | 73  | 11  | 47  | .1  | 31  | 10  | 890  | 2.40 | 5   | 5   | ND  | 1   | 75   | 1   | 2   | 2   | 43  | .58   | .075 | 21  | 23  | .39  | 271 | .05 | 6   | 1.65 | .02 | .26 | 1   | 1   | 340 |
| 5088578 102115 | 1   | 139 | 7   | 31  | .1  | 19  | 7   | 707  | 1.94 | 2   | 5   | ND  | 1   | 271  | 1   | 2   | 2   | 34  | 1.78  | .058 | 15  | 15  | .35  | 171 | .04 | 16  | 1.46 | .02 | .28 | 1   | 1   | 320 |
| 5088578 102116 | 1   | 170 | 8   | 41  | .2  | 25  | 9   | 1264 | 2.30 | 3   | 5   | ND  | 2   | 91   | 1   | 2   | 2   | 47  | .39   | .107 | 21  | 19  | .36  | 181 | .07 | 11  | 2.20 | .03 | .17 | 1   | 1   | 250 |
| STD C          | 18  | 58  | 38  | 134 | 7.0 | 70  | 30  | 1015 | 4.03 | 43  | 17  | 7   | 36  | 40   | 18  | 17  | 20  | 50  | .47   | .096 | 60  | 62  | .92  | 177 | .06 | 33  | 1.96 | .06 | .15 | 12  | -   | -   |
| 5088573 102117 | 1   | 90  | 6   | 48  | .1  | 13  | 6   | 1135 | 1.63 | 7   | 5   | ND  | 1   | 112  | 1   | 2   | 2   | 38  | .04   | .219 | 8   | 12  | .35  | 113 | .04 | 4   | 1.00 | .02 | .09 | 1   | 1   | 190 |
| 5088578 102118 | 1   | 68  | 5   | 40  | .1  | 12  | 4   | 254  | 1.00 | 2   | 5   | ND  | 1   | 1349 | 1   | 2   | 2   | 19  | 12.52 | .057 | 10  | 15  | 2.25 | 160 | .03 | 26  | 1.19 | .04 | .29 | 2   | 1   | 620 |
| 5088578 102119 | 1   | 111 | 6   | 32  | .1  | 19  | 7   | 718  | 1.97 | 3   | 5   | ND  | 1   | 277  | 1   | 2   | 3   | 35  | 1.80  | .061 | 15  | 15  | .37  | 173 | .04 | 16  | 1.52 | .02 | .29 | 1   | 1   | 310 |
| 5088573 102119 | 1   | 29  | 8   | 35  | .1  | 17  | 5   | 289  | 1.28 | 3   | 6   | ND  | 1   | 940  | 1   | 2   | 2   | 21  | 15.82 | .045 | 20  | 24  | 1.31 | 317 | .05 | 8   | 1.14 | .04 | .23 | 3   | 1   | 540 |
| 5088573 102120 | 1   | 44  | 14  | 47  | .1  | 40  | 9   | 631  | 2.00 | 6   | 5   | ND  | 2   | 103  | 1   | 2   | 2   | 31  | .70   | .086 | 25  | 30  | .49  | 207 | .07 | 6   | 2.24 | .02 | .34 | 1   | 1   | 310 |
| 5088578 102121 | 1   | 40  | 9   | 52  | .1  | 46  | 8   | 696  | 1.96 | 3   | 5   | ND  | 2   | 77   | 1   | 2   | 2   | 31  | .66   | .090 | 23  | 32  | .42  | 216 | .07 | 8   | 2.05 | .02 | .23 | 1   | 1   | 300 |
| 5088578 102122 | 1   | 44  | 12  | 51  | .1  | 62  | 10  | 494  | 2.32 | 4   | 5   | ND  | 1   | 138  | 1   | 2   | 3   | 35  | .55   | .091 | 29  | 45  | .66  | 162 | .07 | 7   | 1.81 | .06 | .31 | 1   | 2   | 330 |
| 5088578 102123 | 1   | 43  | 9   | 47  | .1  | 72  | 10  | 571  | 2.33 | 6   | 5   | ND  | 2   | 109  | 1   | 2   | 3   | 35  | .55   | .065 | 31  | 49  | .76  | 179 | .07 | 5   | 1.94 | .05 | .29 | 1   | 1   | 290 |
| 5088578 102124 | 1   | 44  | 7   | 43  | .2  | 78  | 9   | 471  | 2.08 | 6   | 5   | ND  | 1   | 290  | 1   | 2   | 2   | 34  | 3.43  | .085 | 28  | 50  | .94  | 122 | .06 | 12  | 1.17 | .03 | .22 | 1   | 1   | 310 |
| 5088578 102125 | 1   | 32  | 8   | 35  | .1  | 50  | 6   | 332  | 1.12 | 5   | 5   | ND  | 1   | 302  | 1   | 2   | 2   | 18  | 13.96 | .087 | 17  | 29  | .78  | 123 | .03 | 7   | 1.01 | .03 | .16 | 2   | 1   | 320 |
| 5088578 102126 | 1   | 19  | 8   | 39  | .1  | 19  | 4   | 301  | 1.06 | 4   | 5   | ND  | 1   | 857  | 1   | 2   | 2   | 16  | 10.30 | .063 | 15  | 18  | 3.08 | 162 | .03 | 11  | 1.19 | .12 | .58 | 3   | 2   | 490 |
| 5088578 102127 | 1   | 56  | 9   | 36  | .1  | 23  | 4   | 177  | 1.34 | 6   | 5   | ND  | 1   | 657  | 1   | 2   | 2   | 16  | 11.75 | .075 | 18  | 29  | 1.81 | 108 | .04 | 13  | 1.18 | .04 | .15 | 2   | 1   | 460 |
| 5088578 102128 | 1   | 143 | 12  | 36  | .1  | 31  | 4   | 117  | 1.39 | 7   | 5   | ND  | 1   | 532  | 1   | 3   | 2   | 15  | 2.00  | .082 | 33  | 44  | 1.36 | 205 | .05 | 12  | 1.97 | .04 | .14 | 1   | 1   | 420 |
| STD C/AW-S     | 18  | 58  | 36  | 132 | 7.0 | 68  | 29  | 1020 | 4.00 | 40  | 19  | 8   | 37  | 47   | 17  | 16  | 18  | 57  | .47   | .092 | 40  | 60  | .90  | 177 | .06 | 34  | 1.92 | .06 | .15 | 12  | 40  | -   |

## BP RESOURCES CANADA LTD. PROJECT

8-10136 FILE # 88-3793

F 3 4

| SAMPLE#           | No  | Co  | Pb  | Zn  | Ag  | Ni  | Co  | Mn   | Zr   | As  | O   | Au  | Tb  | Se   | Cd  | SB  | B1  | V   | Cr    | P    | Li  | Cr  | Hg   | B4  | Tl  | B   | Al   | Na  | I   | N   | As% | P    |
|-------------------|-----|-----|-----|-----|-----|-----|-----|------|------|-----|-----|-----|-----|------|-----|-----|-----|-----|-------|------|-----|-----|------|-----|-----|-----|------|-----|-----|-----|-----|------|
|                   | PPM  | PPM  | PPM | PPM | PPM | PPM | PPM  | PPM | PPM | PPM | PPM | PPM   | PPM  | PPM | PPM | PPM  | PPM | PPM | PPM | PPM  | PPM | PPM | PPM |     |      |
| 5088578 102129    | 1   | 27  | 9   | 38  | .1  | 16  | 8   | 327  | .80  | 6   | 5   | ND  | 1   | 1085 | 3   | 2   | 2   | 14  | 11.98 | .111 | 9   | 16  | 1.93 | 170 | .02 | 23  | .93  | .03 | .31 | 4   | 1   | .650 |
| 5088578 102130    | 1   | 46  | 17  | 50  | .1  | 33  | 19  | 1082 | 2.57 | 4   | 5   | ND  | 1   | 68   | 1   | 2   | 2   | 45  | .61   | .054 | 27  | 31  | .64  | 175 | .06 | 9   | 2.14 | .02 | .26 | 1   | 1   | .420 |
| 5088578 102131    | 1   | 51  | 17  | 68  | .1  | 33  | 10  | 1085 | 2.29 | 5   | 5   | ND  | 2   | 112  | 1   | 2   | 2   | 38  | 1.01  | .118 | 29  | 31  | .58  | 289 | .06 | 12  | 2.00 | .02 | .32 | 1   | 2   | .270 |
| 5088578 102132    | 1   | 25  | 12  | 58  | .1  | 32  | 8   | 837  | 2.37 | 2   | 5   | ND  | 3   | 68   | 2   | 2   | 2   | 61  | .60   | .101 | 27  | 32  | .53  | 284 | .09 | 7   | 2.56 | .02 | .19 | 1   | 1   | .260 |
| 5088578 102133    | 1   | 39  | 16  | 46  | .1  | 29  | 7   | 706  | 1.90 | 2   | 5   | ND  | 1   | 82   | 1   | 2   | 2   | 32  | .62   | .093 | 20  | 22  | .37  | 313 | .07 | 8   | 2.68 | .02 | .16 | 1   | 3   | .230 |
| 5088578 102134    | 1   | 29  | 13  | 48  | .2  | 51  | 8   | 676  | 2.17 | 4   | 5   | ND  | 2   | 90   | 1   | 2   | 2   | 35  | .67   | .093 | 27  | 36  | .50  | 281 | .06 | 8   | 2.14 | .02 | .19 | 1   | 1   | .240 |
| 5088578 102135    | 1   | 29  | 15  | 49  | .1  | 53  | 9   | 679  | 2.19 | 4   | 5   | ND  | 1   | 80   | 1   | 2   | 2   | 35  | .64   | .092 | 27  | 37  | .49  | 270 | .06 | 5   | 2.10 | .02 | .20 | 1   | 1   | .230 |
| 5088578 102136    | 1   | 31  | 16  | 47  | .2  | 58  | 9   | 675  | 2.36 | 6   | 5   | ND  | 2   | 68   | 2   | 2   | 2   | 36  | .51   | .095 | 31  | 38  | .48  | 300 | .07 | 7   | 2.33 | .02 | .26 | 1   | 1   | .250 |
| 5088578 102137    | 1   | 41  | 10  | 46  | .1  | 51  | 10  | 708  | 2.29 | 8   | 5   | ND  | 2   | 66   | 1   | 2   | 2   | 33  | .73   | .050 | 26  | 32  | .45  | 292 | .05 | 6   | 1.68 | .01 | .26 | 1   | 1   | .360 |
| 5088578 102152    | 1   | 39  | 14  | 92  | .1  | 126 | 21  | 502  | 4.66 | 3   | 5   | ND  | 4   | 388  | 1   | 3   | 2   | 89  | 1.51  | .229 | 10  | 63  | 2.32 | 167 | .19 | 3   | 2.39 | .11 | .68 | 1   | 1   | .810 |
| 5088578 102153    | 1   | 46  | 16  | 111 | .2  | 164 | 27  | 532  | 5.86 | 6   | 5   | ND  | 5   | 437  | 1   | 2   | 2   | 100 | 1.62  | .289 | 45  | 86  | 3.95 | 128 | .21 | 5   | 2.52 | .11 | .75 | 1   | 1   | .890 |
| 5088578 102154    | 1   | 60  | 15  | 94  | .1  | 114 | 21  | 462  | 5.09 | 2   | 5   | ND  | 5   | 388  | 1   | 2   | 2   | 87  | 1.59  | .214 | 39  | 96  | 3.22 | 130 | .20 | 8   | 2.44 | .10 | .75 | 1   | 2   | .910 |
| 5088578 102155    | 1   | 48  | 13  | 97  | .2  | 90  | 18  | 526  | 5.22 | 2   | 5   | ND  | 4   | 267  | 1   | 3   | 2   | 86  | 1.26  | .172 | 39  | 76  | 2.71 | 155 | .17 | 2   | 2.50 | .07 | .71 | 1   | 1   | .650 |
| 5088578 102156    | 1   | 31  | 16  | 97  | .2  | 40  | 15  | 722  | 4.33 | 8   | 5   | ND  | 5   | 131  | 1   | 2   | 2   | 94  | 1.06  | .208 | 43  | 63  | 1.51 | 165 | .19 | 5   | 2.02 | .05 | .29 | 1   | 1   | .600 |
| 5088578 102157    | 1   | 31  | 21  | 107 | .2  | 39  | 14  | 802  | 4.30 | 7   | 5   | ND  | 5   | 106  | 1   | 2   | 2   | 88  | .90   | .197 | 40  | 63  | 1.10 | 180 | .22 | 4   | 2.32 | .04 | .33 | 1   | 6   | .540 |
| 5088578 102158    | 1   | 53  | 16  | 65  | .1  | 55  | 11  | 613  | 3.01 | 12  | 5   | ND  | 3   | 77   | 1   | 2   | 2   | 55  | .72   | .107 | 37  | 51  | .79  | 177 | .10 | 6   | 2.06 | .02 | .31 | 1   | 1   | .420 |
| 5088578 102159    | 1   | 53  | 13  | 59  | .1  | 52  | 11  | 661  | 2.73 | 10  | 5   | ND  | 2   | 77   | 1   | 2   | 2   | 49  | .93   | .120 | 32  | 45  | .72  | 173 | .08 | 6   | 1.67 | .02 | .29 | 1   | 1   | .410 |
| 5088578 102160    | 1   | 36  | 12  | 93  | .1  | 42  | 14  | 822  | 4.02 | 7   | 5   | ND  | 5   | 126  | 2   | 2   | 2   | 72  | 1.01  | .181 | 30  | 53  | 1.45 | 180 | .15 | 6   | 2.01 | .04 | .31 | 1   | 1   | .610 |
| 5088578 102161    | 1   | 36  | 16  | 95  | .1  | 146 | 19  | 536  | 4.65 | 2   | 5   | ND  | 3   | 445  | 1   | 3   | 2   | 101 | 1.52  | .261 | 39  | 115 | 2.76 | 537 | .26 | 2   | 2.69 | .12 | .82 | 1   | 1   | .990 |
| 5088578 102162    | 1   | 55  | 17  | 90  | .3  | 198 | 25  | 550  | 5.20 | 3   | 5   | ND  | 4   | 382  | 1   | 2   | 2   | 88  | 1.58  | .238 | 39  | 115 | 3.56 | 486 | .20 | 2   | 2.50 | .08 | .68 | 1   | 1   | 1000 |
| 5088578 102163    | 1   | 60  | 13  | 62  | .3  | 116 | 19  | 498  | 3.66 | 8   | 5   | ND  | 2   | 355  | 1   | 2   | 2   | 63  | <6.68 | .178 | 33  | 76  | 2.26 | 323 | .10 | 6   | 1.90 | .05 | .27 | 1   | 3   | .760 |
| RK 5088578 102159 | 1   | 54  | 13  | 59  | .1  | 52  | 11  | 660  | 2.74 | 12  | 5   | ND  | 1   | 77   | 1   | 2   | 2   | 40  | .92   | .115 | 32  | 46  | .72  | 178 | .08 | 5   | 1.68 | .02 | .29 | 1   | 1   | .500 |
| 5088578 102164    | 1   | 61  | 11  | 50  | .1  | 42  | 9   | 695  | 2.35 | 9   | 5   | ND  | 2   | 58   | 1   | 2   | 2   | 40  | .54   | .072 | 28  | 33  | .43  | 162 | .08 | 5   | 1.83 | .02 | .19 | 1   | 1   | .390 |
| 5088578 102165    | 1   | 38  | 14  | 59  | .1  | 28  | 8   | 650  | 2.29 | 12  | 5   | ND  | 2   | 66   | 1   | 2   | 2   | 37  | .56   | .092 | 34  | 29  | .42  | 210 | .06 | 3   | 1.76 | .02 | .28 | 1   | 59  | .430 |
| 5088578 102166    | 1   | 38  | 18  | 70  | .1  | 27  | 9   | 704  | 2.63 | 9   | 5   | ND  | 3   | 59   | 1   | 2   | 2   | 41  | .61   | .109 | 42  | 34  | .52  | 174 | .06 | 3   | 1.66 | .02 | .30 | 1   | 1   | .580 |
| 5088578 102167    | 1   | 70  | 14  | 55  | .1  | 44  | 11  | 685  | 2.79 | 8   | 5   | ND  | 4   | 93   | 1   | 2   | 2   | 47  | .73   | .131 | 59  | 38  | .70  | 151 | .09 | 6   | 2.27 | .02 | .27 | 1   | 1   | .530 |
| 5088578 102168    | 1   | 61  | 18  | 61  | .2  | 35  | 11  | 777  | 2.02 | 14  | 5   | ND  | 4   | 54   | 1   | 2   | 2   | 49  | .44   | .109 | 42  | 35  | .50  | 150 | .08 | 5   | 1.84 | .02 | .21 | 1   | 3   | .520 |
| 5088578 102169    | 1   | 91  | 15  | 55  | .1  | 26  | 10  | 688  | 2.56 | 9   | 5   | ND  | 3   | 70   | 1   | 2   | 2   | 42  | .60   | .109 | 45  | 22  | .40  | 171 | .05 | 6   | 1.79 | .02 | .21 | 1   | 10  | .620 |
| STD C             | 18  | 59  | 11  | 135 | 6.8 | 69  | 29  | 1082 | 4.05 | 41  | 17  | 7   | 36  | 46   | 17  | 17  | 18  | 56  | .45   | .091 | 38  | 58  | .91  | 183 | .06 | 33  | 1.89 | .06 | .34 | 13  | -   | -    |
| 5088578 102170    | 1   | 89  | 14  | 55  | .3  | 26  | 10  | 828  | 3.22 | 16  | 5   | ND  | 2   | 42   | 1   | 2   | 2   | 51  | .61   | .081 | 29  | 20  | .43  | 309 | .02 | 4   | 1.77 | .01 | .25 | 1   | 16  | .730 |
| 5088578 102171    | 1   | 97  | 17  | 80  | .1  | 34  | 12  | 713  | 3.37 | 31  | 5   | ND  | 1   | 79   | 1   | 2   | 2   | 43  | 1.01  | .125 | 37  | 21  | .40  | 182 | .01 | 4   | 1.32 | .01 | .32 | 3   | 0   | .820 |
| 5088578 102172    | 1   | 295 | 12  | 53  | .4  | 50  | 11  | 833  | 2.84 | 9   | 5   | ND  | 2   | 55   | 1   | 2   | 2   | 42  | .85   | .042 | 21  | 30  | .53  | 312 | .03 | 10  | 1.39 | .01 | .31 | 1   | 74  | .560 |
| 5088578 102173    | 1   | 269 | 20  | 58  | .3  | 52  | 11  | 916  | 2.75 | 10  | 5   | ND  | 1   | 51   | 1   | 2   | 2   | 42  | .70   | .043 | 23  | 39  | .55  | 294 | .03 | 6   | 1.39 | .01 | .32 | 1   | 58  | .490 |
| 5088578 102174    | 1   | 49  | 8   | 49  | .1  | 55  | 9   | 623  | 2.36 | 6   | 5   | ND  | 3   | 54   | 1   | 2   | 2   | 39  | .50   | .069 | 30  | 39  | .60  | 126 | .06 | 5   | 1.51 | .02 | .23 | 1   | 230 | .160 |
| 5088578 102175    | 1   | 67  | 9   | 47  | .1  | 50  | 5   | 635  | 2.30 | 6   | 5   | ND  | 3   | 57   | 1   | 2   | 2   | 38  | .55   | .081 | 29  | 36  | .50  | 149 | .06 | 7   | 1.68 | .02 | .22 | 1   | 1   | .320 |
| 5088578 102176    | 1   | 38  | 12  | 54  | .1  | 54  | 9   | 671  | 2.60 | 8   | 5   | ND  | 2   | 68   | 1   | 2   | 2   | 38  | .49   | .095 | 32  | 39  | .54  | 177 | .07 | 9   | 1.82 | .02 | .28 | 1   | 2   | .340 |
| 5088578 102177    | 1   | 195 | 11  | 46  | .1  | 26  | 10  | 1802 | 2.15 | 7   | 5   | ND  | 1   | 56   | 1   | 2   | 2   | 45  | .95   | .085 | 18  | 29  | .52  | 119 | .05 | 7   | 1.56 | .02 | .16 | 1   | 2   | .270 |
| 5088578 102178    | 1   | 264 | 16  | 47  | .1  | 42  | 11  | 1224 | 2.71 | 9   | 5   | ND  | 1   | 86   | 1   | 2   | 2   | 56  | .98   | .075 | 20  | 39  | .68  | 129 | .08 | 6   | 2.18 | .03 | .15 | 1   | 4   | .320 |
| STD C/AU-S        | 17  | 58  | 38  | 132 | 7.2 | 67  | 20  | 1046 | 3.97 | 38  | 17  | 7   | 36  | 47   | 16  | 16  | 19  | 56  | .46   | .090 | 38  | 59  | .89  | 174 | .06 | 33  | 1.92 | .06 | .15 | 12  | 47  | -    |

## BP RESOURCES CANADA LTD. PROJEC

178-10136 FILE # 88-3793

ge 5

| SAMPLE            | No  | Cu  | Pb  | Zn  | Ag  | Wt  | Co  | Mo   | Fe   | As  | U   | Au  | Th  | Sc  | Cd  | Sb  | Bi  | V   | Cr   | P    | La  | Ce  | Mg   | Ba  | Tl  | B   | Al   | Na  | K   | V   | As% | Z    |
|-------------------|-----|-----|-----|-----|-----|-----|-----|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|-----|-----|------|-----|-----|-----|------|-----|-----|-----|-----|------|
|                   | PPM  | PPM  | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM  | PPM  | PPM | PPM | PPM  | PPM | PPM | PPM | PPM  | PPM | PPM | PPM |     |      |
| 5088578 102179    | 1   | 273 | 13  | 51  | .1  | 69  | 17  | 1074 | 3.37 | 9   | 5   | ND  | 4   | 47  | 1   | 2   | 2   | 61  | .50  | .081 | 27  | 47  | .81  | 110 | .09 | 8   | 2.12 | .02 | .19 | 1   | 4   | 410  |
| STD C             | 18  | 58  | 36  | 134 | 7.0 | 67  | 26  | 1058 | 4.20 | 39  | 18  | .8  | 35  | 46  | 16  | 17  | 20  | 56  | .47  | .093 | 38  | 61  | .93  | 105 | .06 | 34  | 1.97 | .06 | .15 | 12  | -   | -    |
| 5088578 102180    | 1   | 117 | 10  | 47  | .3  | 89  | 14  | 874  | 2.73 | 8   | 5   | ND  | 4   | 51  | 1   | 2   | 2   | 41  | .51  | .092 | 30  | 49  | .69  | 133 | .07 | 9   | 1.67 | .02 | .17 | 1   | 4   | 390  |
| 5088578 102181    | 1   | 74  | 15  | 44  | .3  | 85  | 12  | 809  | 2.43 | 7   | 5   | ND  | 3   | 61  | 1   | 2   | 2   | 39  | .57  | .083 | 32  | 47  | .60  | 164 | .06 | 6   | 1.53 | .02 | .19 | 1   | 2   | 370  |
| AS 5088578 102186 | 1   | 65  | 7   | 50  | .1  | 49  | 9   | 566  | 2.64 | 6   | 5   | ND  | 3   | 54  | 1   | 2   | 2   | 40  | .53  | .079 | 30  | 39  | .56  | 143 | .07 | 7   | 1.02 | .02 | .26 | 1   | 1   | 380  |
| 5088578 102182    | 1   | 62  | 6   | 40  | .2  | 76  | 10  | 581  | 2.12 | 7   | 5   | ND  | 2   | 63  | 1   | 2   | 2   | 31  | .57  | .090 | 28  | 43  | .56  | 139 | .05 | 6   | 1.34 | .02 | .18 | 1   | 1   | 280  |
| 5088578 102183    | 1   | 45  | 3   | 48  | .1  | 29  | 7   | 464  | 2.13 | 8   | 5   | ND  | 1   | 193 | 1   | 2   | 2   | 39  | 2.55 | .131 | 33  | 33  | .57  | 106 | .04 | 10  | 1.00 | .02 | .17 | 1   | 1   | 530  |
| 5088578 102184    | 1   | 43  | 7   | 51  | .2  | 56  | 10  | 534  | 2.63 | 8   | 5   | ND  | 4   | 65  | 2   | 2   | 3   | 47  | .67  | .101 | 34  | 40  | .60  | 120 | .06 | 15  | 1.43 | .02 | .16 | 1   | 3   | 410  |
| 5238578 102185    | 1   | 88  | 12  | 51  | .2  | 67  | 11  | 650  | 2.70 | 7   | 5   | ND  | 3   | 62  | 1   | 2   | 2   | 46  | .61  | .093 | 32  | 53  | .17  | 162 | .06 | 9   | 1.57 | .02 | .21 | 1   | 4   | 460  |
| 5088578 102186    | 1   | 69  | 8   | 52  | .1  | 52  | 10  | 596  | 2.59 | 6   | 5   | ND  | 4   | 56  | 1   | 2   | 2   | 42  | .56  | .088 | 31  | 41  | .59  | 151 | .08 | 9   | 1.96 | .02 | .28 | 1   | 1   | 410  |
| 5088578 102187    | 1   | 52  | 8   | 51  | .1  | 44  | 9   | 569  | 2.89 | 5   | 5   | ND  | 3   | 56  | 1   | 2   | 2   | 41  | .53  | .081 | 29  | 39  | .54  | 162 | .08 | 5   | 1.98 | .02 | .27 | 1   | 1   | 430  |
| 5268578 102188    | 1   | 64  | 8   | 46  | .2  | 60  | 9   | 515  | 2.66 | 5   | 5   | ND  | 6   | 51  | 1   | 2   | 2   | 39  | .59  | .079 | 32  | 42  | .65  | 138 | .06 | 3   | 1.66 | .01 | .20 | 1   | 2   | 410  |
| 5088578 102189    | 2   | 87  | 9   | 48  | .1  | 68  | 13  | 726  | 2.62 | 11  | 5   | ND  | 1   | 68  | 1   | 2   | 2   | 30  | .62  | .096 | 29  | 40  | .57  | 287 | .05 | 6   | 1.93 | .02 | .27 | 1   | 2   | 390  |
| 5088578 102190    | 1   | 401 | 10  | 42  | .1  | 19  | 11  | 1260 | 2.85 | 2   | 5   | ND  | 1   | 68  | 1   | 2   | 2   | 46  | .70  | .117 | 27  | 17  | .67  | 327 | .05 | 4   | 2.12 | .02 | .17 | 1   | 5   | 350  |
| 5088578 102191    | 1   | 109 | 11  | 48  | .1  | 28  | 12  | 664  | 3.54 | 9   | 5   | ND  | 2   | 45  | 1   | 2   | 2   | 52  | .59  | .088 | 21  | 32  | .38  | 273 | .03 | 4   | 1.73 | .02 | .24 | 1   | 1   | 600  |
| 5088578 102192    | 1   | 138 | 8   | 36  | .1  | 22  | 11  | 609  | 2.39 | 4   | 5   | ND  | 1   | 70  | 1   | 2   | 2   | 53  | .63  | .080 | 12  | 16  | .31  | 157 | .02 | 9   | 1.16 | .02 | .23 | 1   | 3   | 80   |
| 5088578 102193    | 1   | 102 | 8   | 43  | .1  | 55  | 10  | 656  | 2.60 | 4   | 5   | ND  | 2   | 56  | 1   | 2   | 2   | 40  | .52  | .076 | 29  | 36  | .53  | 185 | .06 | 6   | 1.96 | .02 | .23 | 1   | 1   | 370  |
| 5088578 102194    | 1   | 54  | 11  | 49  | .2  | 60  | 9   | 702  | 2.56 | 7   | 5   | ND  | 3   | 42  | 1   | 2   | 2   | 41  | .46  | .082 | 30  | 43  | .57  | 144 | .06 | 3   | 1.51 | .02 | .16 | 1   | 1   | 330  |
| 5268578 102195    | 2   | 43  | 12  | 51  | .1  | 22  | 10  | 357  | 2.47 | 28  | 5   | ND  | 1   | 50  | 1   | 2   | 2   | 41  | .61  | .081 | 21  | 16  | .35  | 135 | .05 | 5   | 1.98 | .02 | .22 | 1   | 1   | 290  |
| 5088578 102196    | 3   | 111 | 16  | 49  | .1  | 28  | 17  | 1132 | 3.13 | 29  | 5   | ND  | 3   | 49  | 1   | 2   | 2   | 53  | .47  | .088 | 20  | 31  | .48  | 323 | .01 | 3   | 2.27 | .02 | .21 | 1   | 1   | 560  |
| 5088578 102197    | 1   | 59  | 12  | 47  | .1  | 56  | 10  | 812  | 2.13 | 9   | 5   | ND  | 2   | 91  | 1   | 2   | 2   | 31  | .70  | .093 | 33  | 20  | .38  | 310 | .06 | 7   | 1.99 | .02 | .21 | 1   | 2   | 500  |
| 5088578 102198    | 1   | 41  | 9   | 56  | .1  | 40  | 9   | 706  | 2.58 | 11  | 5   | ND  | 2   | 75  | 1   | 2   | 2   | 33  | .78  | .102 | 37  | 27  | .37  | 293 | .04 | 10  | 1.95 | .02 | .27 | 1   | 1   | 630  |
| 5088578 102199    | 1   | 38  | 11  | 49  | .1  | 66  | 9   | 561  | 2.56 | 9   | 5   | ND  | 3   | 63  | 1   | 2   | 2   | 42  | .68  | .118 | 39  | 51  | .76  | 134 | .05 | 10  | 1.23 | .02 | .14 | 1   | 1   | 430  |
| 5088578 102200    | 1   | 31  | 11  | 52  | .1  | 52  | 8   | 600  | 2.60 | 7   | 5   | ND  | 3   | 62  | 1   | 2   | 2   | 41  | .45  | .098 | 36  | 45  | .53  | 172 | .07 | 6   | 1.90 | .02 | .23 | 1   | 1   | 400  |
| 5088578 102201    | 1   | 32  | 8   | 40  | .3  | 20  | 9   | 773  | 2.55 | 3   | 5   | ND  | 3   | 39  | 2   | 2   | 2   | 41  | .55  | .084 | 21  | 20  | .36  | 131 | .04 | 14  | 1.56 | .02 | .21 | 1   | 1   | 660  |
| 5088578 102202    | 1   | 35  | 10  | 42  | .1  | 16  | 11  | 1040 | 3.11 | 11  | 5   | ND  | 2   | 38  | 1   | 2   | 2   | 56  | .55  | .083 | 15  | 17  | .46  | 94  | .03 | 5   | 1.92 | .02 | .19 | 1   | 1   | 520  |
| 5088578 102203    | 1   | 37  | 10  | 54  | .2  | 23  | 9   | 952  | 3.04 | 5   | 5   | ND  | 3   | 63  | 1   | 2   | 2   | 47  | .57  | .090 | 25  | 22  | .47  | 167 | .06 | 10  | 2.28 | .02 | .31 | 1   | 2   | 630  |
| 5088578 102204    | 1   | 37  | 9   | 48  | .2  | 14  | 12  | 1047 | 3.10 | 6   | 5   | ND  | 1   | 105 | 1   | 2   | 2   | 57  | 1.46 | .113 | 15  | 18  | .56  | 331 | .02 | 16  | 1.66 | .01 | .31 | 1   | 1   | 1000 |
| 5088578 102205    | 1   | 69  | 4   | 32  | .1  | 12  | 8   | 1033 | 2.28 | 2   | 5   | ND  | 1   | 53  | 1   | 2   | 2   | 41  | .45  | .066 | 13  | 14  | .36  | 159 | .03 | 7   | 1.22 | .02 | .17 | 1   | 2   | 470  |
| 5088578 102206    | 1   | 125 | 7   | 47  | .2  | 19  | 10  | 1085 | 3.08 | 4   | 5   | ND  | 2   | 55  | 2   | 2   | 2   | 63  | .59  | .065 | 16  | 19  | .43  | 177 | .05 | 8   | 1.58 | .02 | .24 | 1   | 1   | 560  |
| 5088578 102207    | 1   | 179 | 7   | 44  | .2  | 20  | 10  | 1129 | 2.92 | 3   | 5   | ND  | 2   | 57  | 1   | 2   | 2   | 59  | .67  | .075 | 16  | 18  | .36  | 168 | .04 | 8   | 1.50 | .02 | .21 | 1   | 1   | 430  |
| 5088578 102208    | 1   | 124 | 13  | 72  | .1  | 38  | 13  | 2653 | 3.35 | 7   | 5   | ND  | 1   | 29  | 1   | 2   | 2   | 75  | .05  | .101 | 14  | 33  | .99  | 380 | .05 | 12  | 1.97 | .02 | .20 | 1   | 1   | 570  |
| 5088578 102209    | 1   | 128 | 13  | 42  | .2  | 25  | 9   | 1245 | 2.05 | 6   | 5   | ND  | 1   | 111 | 1   | 2   | 2   | 50  | 1.59 | .108 | 11  | 25  | .66  | 156 | .02 | 20  | 1.18 | .02 | .13 | 1   | 2   | 490  |
| 5088578 102210    | 1   | 107 | 4   | 37  | .3  | 27  | 10  | 1042 | 2.41 | 2   | 5   | ND  | 1   | 97  | 1   | 2   | 2   | 58  | 1.41 | .091 | 17  | 25  | .61  | 158 | .05 | 18  | 1.79 | .02 | .26 | 1   | 1   | 580  |
| 5088578 102211    | 1   | 102 | 8   | 46  | .1  | 28  | 10  | 902  | 2.85 | 4   | 5   | ND  | 2   | 65  | 1   | 2   | 2   | 62  | .61  | .076 | 22  | 25  | .58  | 147 | .06 | 8   | 1.04 | .02 | .23 | 1   | 1   | 570  |
| 5088578 102212    | 1   | 81  | 9   | 59  | .3  | 43  | 9   | 530  | 2.72 | 10  | 5   | ND  | 3   | 76  | 2   | 2   | 2   | 47  | .66  | .090 | 26  | 36  | .83  | 183 | .12 | 12  | 2.34 | .03 | .25 | 1   | 2   | 450  |
| 5088578 102213    | 1   | 71  | 8   | 63  | .2  | 67  | 11  | 709  | 3.00 | 21  | 5   | ND  | 4   | 107 | 2   | 2   | 2   | 50  | .90  | .101 | 30  | 44  | 1.03 | 300 | .11 | 15  | 2.15 | .04 | .38 | 1   | 1   | 710  |
| STD C/AU-S        | 18  | 57  | 39  | 132 | 6.9 | 67  | 28  | 1022 | 4.07 | 38  | 17  | 8   | 36  | 45  | 17  | 17  | 20  | 55  | .47  | .090 | 37  | 58  | .90  | 175 | .06 | 34  | 1.91 | .06 | .14 | 12  | 51  | -    |

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| SAMPLE#       | No  | Cu  | Pb  | Ta  | Ag  | Ni  | Co  | No   | Fe   | As  | U   | As  | Tb  | Se  | Cd  | SD  | Bi  | V   | Cr  | P    | Zn  | Ge  | Ng   | Ba  | Tl  | B   | Al   | Na  | K   | R   | As+ |
|---------------|-----|-----|-----|-----|-----|-----|-----|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|-----|-----|------|-----|-----|-----|------|-----|-----|-----|-----|
|               | PPM  | PPM  | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM  | PPM | PPM | PPM  | PPM | PPM | PPM | PPM  | PPM | PPM | PPM |     |
| 1088578103149 | 7   | .82 | 13  | 299 | .7  | 57  | 17  | 101  | 4.76 | 18  | 5   | ND  | 3   | 44  | 6   | 2   | 2   | 51  | .60 | .095 | 12  | 27  | 1.08 | 90  | .11 | 6   | 1.65 | .01 | .05 | 1   | 3   |
| 1088578103150 | 1   | .55 | 14  | 178 | .2  | 32  | 26  | 908  | 4.20 | 25  | 5   | ND  | 1   | 39  | 2   | 2   | 2   | 63  | .51 | .069 | 9   | 34  | 1.03 | 48  | .09 | 2   | 2.12 | .01 | .05 | 1   | 1   |
| 1088578103151 | 2   | .68 | 14  | 160 | .2  | 39  | 19  | 1023 | 4.86 | 16  | 5   | ND  | 3   | 39  | 2   | 2   | 2   | 73  | .53 | .065 | 1   | 36  | 1.02 | 53  | .15 | 5   | 2.24 | .01 | .07 | 1   | 1   |
| STD C/AU-S    | 17  | .58 | 43  | 132 | 7.1 | 68  | 28  | 1084 | 4.01 | 37  | 17  | 7   | 16  | 47  | 18  | 20  | 19  | 57  | .46 | .084 | 39  | 51  | .90  | 176 | .06 | 34  | 1.92 | .06 | .13 | 12  | 49  |

**GEOCHEMICAL ANALYSIS CERTIFICATE**

-TCP - 1.500 GRAM SAMPLE IS DIGESTED WITH 3XL 3-1-2 MCL-HNO3-N70 AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER. THIS REACH IS PARTIAL FOR XV II SR CA P LA CE NG BA TE J V AND LIMITED FOR HA E AND AL. AN DETECTION LIMIT AT ICP IS 3 PPM.

- SAMPLE TYPE: BOCK      AUT ANALYSIS BY ACID LEACH/IR THERM TO GR SAMPLE. NO ANALYSIS BY FLAMELESS AA. E - NaOH FUSION - SPECIFIC ION ELECTRODE ANALYSIS

DATE RECEIVED: AUG 22 1988 DATE REPORT MAILED: Aug 30/88 ASSAYER: L.H. LEONG D.TOE OR C.LEONG, CERTIFIED B.C. ASSAYERS  
SEP 1-1988

BP RESOURCES CANADA LTD. PROJECT 573-10113 File # 88-3794

| EXPERID | OP |
|---------|----|
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APPENDIX IV

Drill Hole Logs

# DRILL LOG

HOLE NO. MDH-88-3

| DRILLING CO.                   | LOCATION SKETCH | DEPTH            | TESTS<br>DIP ANGLE  | AZIMUTH  | DATE STARTED   | NOV 9, 1988                                    | PROJECT             | MIDWAY OPTION                              |                                     |
|--------------------------------|-----------------|------------------|---|--|--|--|---------------------|--|-------------------------------------|
| IRON MOUNTAIN DRILLING COMPANY |                 | COLLAR           | -55°  | 290°   | DATE COMPLETED   | NOV 11, 1988                                   | N.T.S.              | 82 E / 2W                                  |                                     |
|                                |                 | 91.44 m          | -52°  | 290°   | COLLAR ELEV.   | 785 m  | LOCATION            | 4 Km northwest of Midway, B.C.             |                                     |
|                                |                 |                  |   |  | NORTHING   | 88 + 50 N                                      |                     |  |                                     |
|                                |                 |                  |   |  | EASTING  | 112 + 20 E                                     |                     |  |                                     |
|                                |                 |                  |   |  | AZIMUTH  | 290°   |                     |  |                                     |
|                                |                 |                  |   |  | DEPTH  | 91.44 m / 300 ft                               | DATE LOGGED         | NOV 10-12, 1988                            |                                     |
| HOLE TYPE D.D.H.               |                 |                  |   |  | CORE SIZE  | NQ   | LOGGED BY           | W.D. HARRIS                                |                                     |
| INTERVAL                       | ROCK TYPE       | DESCRIPTION      |   |  |  |  | STRUCTURE           | REMARKS                                    |                                     |
| FROM                           | TO              | COLOUR           | GRAIN SIZE  | TEXTURE  | ALTERATION   | ORE MINERALS                                   | FRACTURES PER METRE | (FRACTURES, FAULTS, FOLDING, BEDDING, ETC) | MINERALIZATION, TYPE, AGE RELATIONS |
| 0                              | 3.05            | CASING           |   |  |  |  |                     |  |                                     |
| 3.05                           | 10.06           | Andesite BRECCIA | lt green to dk green variation with lt purple chalcedonic veinlets (<10mm) @ 10° C.A. | Frags. are generally subangular ranging from 1 to 20 mm in length.   | From 3.05 to approx 4.0 m diss. py has oxidized (rust stains). Chloritization is apparent throughout section which has been cut-off and broken during brecciation. |  |                     |  |                                     |
|                                |                 |                  |   | Composition of fragments range from white and purple chalcedonic clasts, lt green andesite clasts and feldspar clasts which have been silicified. Disseminated fine ground pyrite (1%) throughout. | 5.18 post-brecciation Calcite vein 10 mm wide @ 80° C.A.   |  |                     |  |                                     |
|                                |                 |                  |   | 4.26 to 4.50 A foliolar porphyry dyke which has been brecciated within the unit  | 9.50 to 9.60 hematite stained (deep red oxidation)   | At 9.50 lt brown clay - fault gauge @ 30° C.A. |                     |  |                                     |
|                                |                 |                  |   |  |  |  |                     |  |                                     |
|                                |                 |                  |   |  |  |  |                     |  |                                     |
|                                |                 |                  |   |  |  |  |                     |  |                                     |
|                                |                 |                  |   |  |  |  |                     |  |                                     |

## **DRILL LOG**

HOLE NO. MDH-88-3

# DRILL LOG

HOLE NO. MDH-88-3

| INTERVAL<br>FROM | TO    | ROCK TYPE  | DESCRIPTION  |            |         |   |              | STRUCTURE<br>(FRACTURES, FAULTS, FOLDING, BEDDING,<br>ETC.)                                      | REMARKS<br>MINERALIZATION, TYPE, AGE RELATIONS |
|------------------|-------|--|--|------------|---------|---|--------------|--|--|
|                  |       |  | COLOUR   | GRAIN SIZE | TEXTURE | ALTERATION  | ORE MINERALS |  |  |
| 17.03            | 17.10 | Clear to milky white,<br>vuggy quartz vein with large<br>30 mm) black fragments of wall rock within<br>Non-magnetic (chalcedonic).   |  |            |         | Qtz with talcose<br>bands / lenses.   |              | Sharp contact @ 45° C.A.   |  |
| 17.10            | 28.25 | andesite   | lt grey, very fine<br>grained (subvolcanic) with fine<br>grained hornblende crystals being replaced<br>by pyrite. (In some areas pyrite 1/2 (inf.g)) |            |         | Strongly bleached with<br>pervasive sericitic and/or<br>chlorite alteration   |              |  |  |
|                  |       |  |  |            |         | 18.90 to 19.05 intense<br>chloritization  |              |  |  |
|                  |       |  | 19.5 to 19.8 bleached Andesite breccia<br>(sedimentary volcanic breccia)   |            |         | 19.5 to 19.8 slightly<br>hematized staining in<br>the pinkish andesite breccia  |              |  |  |
|                  |       |  |  |            |         |   |              |  |  |
| 20.70            | 28.25 | dk grey, very fine grained<br>andesite   | Intergrowth contact from<br>a lower unit. Non-magnetic   |            |         | Intense bleaching from<br>26.40 to 26.90 due to center<br>of chlorite fracture envelope   |              | Very few fractures - no faults. Fractures are talc.  |  |
| 28.25            | 30.40 | Breccia interbedded med green, coarse<br>grained breccia with fragments composed<br>of dk. green andesite and white to<br>pink pink gte. Fragment size<br>from 1 to 20 mm.<br>Non-magnetic |  |            |         | Silicification<br>Intense bleaching at<br>29.40 to 29.50 (heated<br>fault?) with hematitic<br>staining. Oxidation along fault zone. |              | Upper contact fairly sharp at ~40° C.R., lower<br>contact at 30.4 is extremely sharp @ 35° C.A.. |  |

# DRILL LOG

HOLE NO. MDH-88-3

| INTERVAL |       | ROCK TYPE                 | DESCRIPTION  |            |   |   |              |                     | STRUCTURE<br>(FRACTURES, FAULTS, FOLDING, BEDDING,<br>ETC.) | REMARKS<br>MINERALIZATION, TYPE, AGE RELATIONS |
|----------|-------|---------------------------|--|------------|---|---|--------------|---------------------|---|--|
| FROM     | TO    |                           | COLOUR   | GRAIN SIZE | TEXTURE   | ALTERATION                                      | ORE MINERALS | FRACTURES PER METRE |   |  |
| 30.40    | 31.50 | ANDESITE                  | DK green, very fine grained  |            |   |   |              |                     | Contact @ 35° c/a.  |  |
|          |       |                           | Same as 30.70 to 28.25   |            |   |   |              |                     |   |  |
| 32.70    | 34.50 | Andesite                  | Lt grey, very fine grained   |            | Bleach alteration   |   |              |                     | Gradational Contact   |  |
|          |       |                           | med-st bleached envelope with 3 cm wide grey chalcedonic vein at 33.53 (center of envelope), submassive fine grained pyrite replacing along fractures in this bleached envelope. |            |   | 33.80 to 34.50 Sericite and chlorite alteration |              |                     |   |  |
| 34.50    | 42.67 | BIOTITE MONZONITE         | 34.50 to 36.30 Altered biotite monzonite, 10% - 5 to 1mm biotite crystals<br>3 mm amygdaloids filled with blue banded chalcedonic silica<br>36.30 to 42.67                       |            |   | Feldspar altered to Kadiite                     |              |                     | Contact @ 90° to bleaching zone                             |  |
|          |       |                           |  |            |   |   |              |                     |   |  |
|          |       |                           | Biotite monzonite, dk green, medium grained with 2 to 3 mm tabular phenocrysts of feldspar (plagioclase)   |            |   |   |              |                     |   |  |
|          |       |                           | Same as 10.00 to 15.84   |            |   |   |              |                     |   |  |
|          |       |                           | Magnetic   |            |   |   |              |                     |   |  |
| 37.35    | 40.50 | Altered Biotite monzonite | Med grey, med grained with 2 to 4 mm tabular feldspar crystals same as 15.84 to 16.40  |            | Rust fractures oxidized pyrite @ 10° c/a. Calcite fractures @ 45° c/a (sporadic) Bleached with destruction of magnetite |   |              | Gradational Contact |   |  |

# DRILL LOG

HOLE NO. MDH-88-3

| INTERVAL<br>FROM | TO    | ROCK TYPE        | DESCRIPTION   |            |         |            |   |                     | STRUCTURE<br>(FRACTURES, FAULTS, FOLDING, BEDDING,<br>ETC.)   | REMARKS<br>MINERALIZATION, TYPE, AGE RELATIONS |
|------------------|-------|------------------|---|------------|---------|------------|---|---------------------|---|--|
|                  |       |                  | COLOUR  | GRAIN SIZE | TEXTURE | ALTERATION | ORE MINERALS  | FRACTURES PER METRE |   |  |
| 42.67            | 58.42 | ANDESITE         | DK green, fine grained with 1% fine grained disseminated pyrite, hematite staining along fractures. Few fine grained pyrite stringers from 1 to 2 mm wide - in section there may be 5 stringers/meter - some may contain pyrrhotite within as slight magnetism is noticed |            |         |            |   |                     | Contact @ 45° C.A.<br>Few fractures - calcite mainly<br>4 cm white, coarse grained, vuggy calcite vein<br>@ 45° C.A. at 47.60 |  |
| 51.35 to 52.65   |       | ALTERED ANDESITE | Lt green, fine to medium grained, mottled texture. Large feldspar crystals are bleached (clay altered) and are being replaced by pyrite.  |            |         |            | Mainly chloritic alteration (possible trace sericite)   |                     | Gradational contact from above unit   |  |
| 52.65 to 55.10   |       | ANDESITE         | Same as 42.67 to 51.35  |            |         |            | Red brown (hematitic) stained contact                   |                     | Contact @ 30° C.A. - some brecciated andesite at contact  |  |
| 55.10 to 58.42   |       | ALTERED ANDESITE | Lt green, fine grained same as 51.35 to 52.65<br>Fine grained pyrite 2 to 5%  |            |         |            | Bleached, chlorite with some slight sericite alteration |                     | Gradational contact<br>58.37 Fault gouge @ 80° to C.A.  |  |



 BP Resources Canada Limited  
MINING DIVISION

## **DRILL LOG**

HOLE NO. MDH-88-3

| INTERVAL |       | ROCK TYPE        | DESCRIPTION   |            |         |   |              |                     | STRUCTURE<br>(FRACTURES, FAULTS, FOLDING, BEDDING, ETC.)   | REMARKS<br>MINERALIZATION, TYPE, AGE RELATIONS |
|----------|-------|------------------|---|------------|---------|---|--------------|---------------------|--|--|
| FROM     | TO    |                  | COLOUR  | GRAIN SIZE | TEXTURE | ALTERATION  | ORE MINERALS | FRACTURES PER METRE |  |  |
| 58.42    | 60.00 | CHALCEDONIC VEIN | Clear to cloudy with abundant orange rust stain (oxidized pyrite) throughout. In places pyrite (trace hematite?) disseminated. Fragments vary from 1 to 30 mm in length - subrounded to subangular. Late stage calcite fractures. |            |         | Pervasive Silicified chalcedony                           |              |                     | Contact @ 90° to C.A.<br>58.40 - Fault gouge @ 70° C.A.  |  |
| 60.00    | 69.30 | ANDESITE         | 60.00 to 63.22 Lt pink, very fine grained, ALTERED ANDESITE with 5 to 10% disseminated fine grained pyrite. Small (1 to 3 mm) fragments?/crystals of chlorite, pyrite fracture filled and disseminated 5 to 10%                   |            |         | Hydrothermal Alteration to dickite.                       |              |                     | Contact @ 45° to C.A.  |  |
| 63.22    | 68.00 | ANDESITE         | 63.22 to 68.00 Lt pink to lt green, very fine grained, some quartz feldspar (swelling?) pyrite replacement and oxidation, some hematite staining (mainly along fractures)   |            |         | Hydrothermal Alteration Chloritic and bleached alteration |              |                     | Contact @ 20° C.A.<br>Mainly quartz fractures @ 45° C.A.<br>Few calcite fractures                  |  |
|          |       |                  |   |            |         |   |              |                     | 66.80 - vuggy 3 to 5 mm quartz veinlet<br>67.00 - Lt purple chalcedonic barrois vein @ 25° to C.A. |  |

# DRILL LOG

HOLE NO. MDH-88-3

| INTERVAL |       | ROCK TYPE                        | DESCRIPTION   |            |         |  |              |                     | STRUCTURE<br>(FRACTURES, FAULTS, FOLDING, BEDDING,<br>ETC.) | REMARKS<br>MINERALIZATION, TYPE, AGE RELATIONS |
|----------|-------|----------------------------------|---|------------|---------|--|--------------|---------------------|---|--|
| FROM     | TO    |                                  | COLOUR  | GRAIN SIZE | TEXTURE | ALTERATION   | ORE MINERALS | FRACTURES PER METRE |   |  |
| 68.00    | 71.80 | ALTERED ANDESITE                 | Lt pink to Lt brown,  |            |         | Bleached and silicified -                                    |              |                     | Contact @ 45° to C.A. (broken core - estimated)             |  |
|          |       | BRECCIA                          | medium to coarse grained.   |            |         | Hydrothermal   |              |                     |   |  |
|          |       |                                  | relatively well sorted breccia,                                     |            |         | Some pervasive chalcedonic                                   |              |                     |   |  |
|          |       |                                  | disseminated vs fine grained pyrite, trace                          |            |         | silicification and veining with                              |              |                     |   |  |
|          |       |                                  | fuscosite   |            |         | Hematitic staining around dissem. pyrite, some drusy silicon |              |                     |   |  |
|          |       |                                  | feldspars giving  |            |         | pinkish coloration.  |              |                     |   |  |
| 69.30    | 71.80 | CHALCEDONIC BRECCIA AND FLOODING | Lt brown colored  |            |         |  |              |                     | Contact Gradational?  |  |
|          |       |                                  | bleached section. Entire  |            |         |  |              |                     | 69.70 - Lt green, 4cm Chalcedonic vein - Lt brown fragments |  |
|          |       |                                  | section has chalcedonic   |            |         |  |              |                     | 70.00 - 1cm cloudy, ruggy, drusy quartz vein                |  |
|          |       |                                  | and ruggy drusy quartz veining. Angular                             |            |         |  |              |                     |   |  |
|          |       |                                  | to subangular fragments. Secondary                                  |            |         |  |              |                     |   |  |
|          |       |                                  | late stage coarse calcite veining                                   |            |         |  |              |                     |   |  |
|          |       |                                  | @ 55° to C.A. 71.45 (13cm wide) aridal 708                          |            |         |  |              |                     |   |  |
| 71.80    | 91.44 | ANDESITE                         |   |            |         |  |              |                     |   |  |
|          |       | 71.80 to 72.82                   | Dk green andesite with minor  |            |         |  |              |                     |   |  |
|          |       | ANDESITE                         | narrow breccia beds and local bleached envelopes.                   |            |         |  |              |                     | Contact @ 35° C.A.  |  |
|          |       |                                  | fine grained. 1 to 4% disseminated pyrite                           |            |         |  |              |                     |   |  |
|          |       | 73.55 - 73.85                    | Bleached soil w. with quartz velets @ 30° & 90° to C.A.             |            |         |  |              |                     |   |  |
|          |       |                                  | 2-3 pyritic, 1-2 wt. scoriae, 1-2 wt. thin silicification           |            |         |  |              |                     |   |  |
|          |       | 74.20 to 74.35                   | same as 73.55 & 73.85   |            |         |  |              |                     |   |  |
|          |       | 76.30 to 76.45                   | Less bleached with upto 15% disseminated                            |            |         |  |              |                     |   |  |
|          |       |                                  | pyrite and hematitic staining associated with narrow fragmental bed |            |         |  |              |                     |   |  |

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| INTERVAL<br>FROM | TO             | ROCK TYPE  | DESCRIPTION |            |         |                         |              |                     | STRUCTURE<br>(FRACTURES, FAULTS, FOLDING, BEDDING,<br>ETC.)       | REMARKS<br>MINERALIZATION, TYPE, AGE RELATIONS |  |
|------------------|----------------|--|-------------|------------|---------|-------------------------|--------------|---------------------|---|--|--|
|                  |                |  | COLOUR      | GRAIN SIZE | TEXTURE | ALTERATION              | ORE MINERALS | FRACTURES PER METRE |   |  |  |
| 77.82            | 80.00          | LT pink to Lt brown, very<br>ALTERED ANDESITE fine grained - Bleached<br>zone with 5 to 10% very fine grained<br>disseminated pyrite and 10 to 15 mm blebs of pyrite.  |             |            |         | Hydrothermal alteration |              |                     | Gradational Contact   |  |  |
| 79.25            | 79.80          | Breccia zone - Tectonic - contact @ 20°C A<br>5 to 10% pyrite.   |             |            |         |                         |              |                     |   |  |  |
| 80.00            | 91.44          | LT green to Lt grey to<br>ALTERED ANDESITE Lt brown to bleached<br>sections. Section goes from chloric alteration to an intense clay<br>alteration (~100% clay) 82.0m to end of hole. and pyrite fracture filling. |             |            |         |                         |              |                     | Gradational Contact<br>83.00 - 3 cm section of shakeline breccia. |  |  |
| 87.70            | 87.50          | 15% disseminated v.f.g. pyrite   |             |            |         |                         |              |                     |   |  |  |
| 90.75            | 91.10          | Breccia zone subangular to subrounded<br>slightly silicified Andesite Breccia - Tectonic   |             |            |         |                         |              |                     | 90.75 possible fault (4 cm gauge) contact.                        |  |  |
| 91.10            | 91.44 (E.D.H.) | slight silicification.   |             |            |         |                         |              |                     |   |  |  |
| END OF HOLE.     |                |  |             |            |         |                         |              |                     |   |  |  |

**DRILL LOG**

**sample data**

| NUMBER | SAMPLE |    |              | CORE RECOVERY |   | VISUAL ESTIMATES<br>(% ORE MINERALS) | ASSAY RESULTS |         |         |        |                             |
|--------|--------|----|--------------|---------------|---|--------------------------------------|---------------|---------|---------|--------|-----------------------------|
|        | FROM   | TO | TOTAL METRES | Sp. Gr        | % |                                      | Au(ppm)       | Ag(ppm) | As(ppm) | F(ppm) | Cu(%)                       |
| 51101  | 4      | 6  | 2            |               |   |                                      | 92            | .3      | 2       | 640    | 979 Cu                      |
| 02     | 10     | 12 | 2            |               |   |                                      | 9             | .1      | 3       | 1480   | 744 Ba                      |
| 03     | 16     | 18 | 2            |               |   |                                      | 101           | .1      | 23      | 700    | 293 Cu                      |
| 04     | 18     | 20 | 2            |               |   |                                      | 27            | .1      | 23      | 830    | 341 Cu                      |
| 05     | 24     | 26 | 2            |               |   |                                      | 12            | .1      | 5       | 600    | 113 Cu                      |
| 06     | 28     | 30 | 2            |               |   |                                      | 7             | .1      | 14      | 590    |                             |
| 07     | 33     | 34 | 1            |               |   |                                      | 63            | .2      | 153     | 810    | 104 Cu, 16 Sb               |
| 08     | 34     | 35 | 1            |               |   |                                      | 6             | .2      | 72      | 950    | 170 Ni, 338 S, 105 b, 147 G |
| 09     | 38     | 40 | 2            |               |   |                                      | 4             | .1      | 51      | 830    |                             |
| 10     | 44     | 46 | 2            |               |   |                                      | 5             | .1      | 6       | 630    |                             |
| 11     | 50     | 52 | 2            |               |   |                                      | 8             | .1      | 30      | 680    |                             |
| 12     | 56     | 58 | 2            |               |   |                                      | 4             | .1      | 22      | 840    |                             |
| 13     | 58     | 60 | 2            |               |   |                                      | 16            | .1      | 45      | 610    |                             |
| 14     | 60     | 62 | 2            |               |   |                                      | 11            | .1      | 10      | 830    | 100 Cu                      |
| 15     | 62     | 64 | 2            |               |   |                                      | 22            | .1      | 27      | 660    |                             |
| 16     | 64     | 66 | 2            |               |   |                                      | 15            | .1      | 31      | 640    | 113 Cu                      |
| 17     | 66     | 68 | 2            |               |   |                                      | 6             | .1      | 26      | 690    | 142 Cu                      |
| 18     | 68     | 70 | 2            |               |   |                                      | 109           | .6      | 32      | 430    | 171 Cu                      |
| 19     | 70     | 72 | 2            |               |   |                                      | 35            | .3      | 60      | 590    | 101 Cu                      |
| 20     | 76     | 78 | 2            |               |   |                                      | 17            | .1      | 14      | 660    |                             |
| 21     | 78     | 80 | 2            |               |   |                                      | 11            | .1      | 44      | 790    | 113 Cu                      |
| 22     | 80     | 82 | 2            |               |   |                                      | 14            | .1      | 27      | 950    |                             |
| 23     | 82     | 84 | 2            |               |   |                                      | 9             | .1      | 87      | 1120   |                             |
| 24     | 84     | 86 | 2            |               |   |                                      | 2             | .1      | 81      | 710    |                             |
| 25     | 86     | 88 | 2            |               |   |                                      | 3             | .1      | 54      | 880    |                             |
| 26     | 88     | 90 | 2            |               |   |                                      | 8             | .1      | 48      | 960    |                             |



**BP Resources Canada Limited**  
MINING DIVISION

## **DRILL LOG**

## sample data



**BP Resources Canada Limited**  
MINING DIVISION

# **BRILL LOG**

HOLE NO. MDH-88-14



**BP Resources Canada Limited**  
**Mining Division**

## DRILL LOG

HOLE NO. MDH-8B-4

## **DRILL LOG**

HOLE NO. M DH-88-4

| INTERVAL        |                | ROCK TYPE  | DESCRIPTION                 |            |   |  |   | STRUCTURE<br>(FRACTURES, FAULTS, FOLDING, BEDDING,<br>ETC) | REMARKS<br>MINERALIZATION, TYPE, AGE RELATIONS |
|-----------------|----------------|--|-----------------------------|------------|---|--|---|--|--|
| FROM            | TO             |  | COLOUR                      | GRAIN SIZE | TEXTURE                                       | ALTERATION                                 | ORE MINERALS  |  |  |
|                 |                | 35.20 to 36.80   | Lt green, fine grained      |            |   | Slight kaolinite altered of feldspar       |   | Gradational Contact  |  |
|                 |                | DACITE   | very crowded subporphyritic |            |   | (small < 5mm blebs)                        |   |  |  |
|                 |                | Trace of very fine grained pyrite  |                             |            |   | Moderately chlorite altered                |   |  |  |
| OXIDIZED/VEINED | 36.80 to 67.20 | Lt green, fine to med  |                             |            |   |  |   | Contact @ 30° to C.A.                                      |  |
| SHEAR ZONE      | ALTERED DACE   | grained very crowded dacite (at 35.20 to 36.80) which has undergone hydrothermal alteration to produce an orange oxidized altered rock. (iron oxidation) |                             |            | 39.00 to 40.00 locally heavy                  | Pyrite replacement along fractures         | 48.00 to 48.46 chalcedonic (banded?) vein with brecciated fragments of dacite - contact @ 10° to C.A. true width may be 5 to 10 cm - Fragments have been altered to chlorite. |  |  |
|                 |                | Abundant quartz and chalcedonic flooding / sweating and/or veining.  |                             |            | 50.60 to 53.00 alteration (oxidation)         | only along fractures                       | 49.60 to 50.50 chalcedonic banded vein contact @ 10° C.A. true width 10-15 cm   |  |  |
|                 |                | Mafics have been extensively oxidized to give a light orange-brown coloration.   |                             |            | 53.00 to 54.30 oxidized alteration            | due to hydrothermal acid chalcedonic veins |   |  |  |
|                 |                | Oxidation and clay alteration → badly broken core  |                             |            | veinlets (@ 50° to 90°C & 10 to 20° C.A.)     | 58.00 to 59.50 ~ 50% recovery              |   |  |  |
|                 |                | 54.30 to 56.40 Lt green - Feldspars are slightly altered to clay - loss of tabular euhedral fabric   |                             |            |   |  |   |  |  |
|                 |                | 56.40 to 62.65 - Orange oxidation, iron stained clay and abundant chalcedonic flooding + veining (@ 10 to 30° C.A.) - badly broken core.                 |                             |            |   |  |   |  |  |
|                 |                | 62.65 to 63.90 - Lt green - unaltered feldspar porphyry - Tabular feldspars are increasing in size (up to 6mm)   |                             |            |   |  |   |  |  |
|                 |                | 63.90 to 65.00 - Orange oxidation (iron)   |                             |            | - no weathering -                             |  |   |  |  |
|                 |                | 65.00 to 66.56 - Lt green feldspar porphyry - unaltered - 6mm tabular feldspars  |                             |            |   |  |   |  |  |
|                 |                | 66.56 to 67.20 - Iron oxidation - (iron)   |                             |            | - 5mm chalcedonic veins @ 10° C.A. (at 66.66) |  |   |  |  |

# DRILL LOG

HOLE NO. MDH-88-4

| INTERVAL<br>FROM | ROCK TYPE  | DESCRIPTION   |                  |         |            |              |                     | STRUCTURE<br>(FRACTURES, FAULTS, FOLDING, BEDDING,<br>ETC.) | REMARKS<br>MINERALIZATION, TYPE, AGE RELATIONS |
|------------------|--|---|------------------|---------|------------|--------------|---------------------|---|--|
|                  |  | COLOUR  | GRAIN SIZE       | TEXTURE | ALTERATION | ORE MINERALS | FRACTURES PER METRE |   |  |
| 67.20 to 73.70   | Dacite porphyry  | Med green, med grained crowded  |                  |         |            |              |                     |   | Gradational Contact                            |
|                  |  | porphyry (up to 6mm Feldspar crystals)  |                  |         |            |              |                     |   |  |
|                  |  | slight oxidation 1 to 2cm on either side of fractures.  |                  |         |            |              |                     |   |  |
|                  |  | Feldspars aligned   | W 70° N 20° C.A. |         |            |              |                     |   |  |
| 69.90 to 70.00   | Chalcocite vein @ 80° C.A.   | orange alteration   |                  |         |            |              |                     |   |  |
| 70.00 to 70.35   | Feldspar quartz is silicified  | wiggly, drusy, 10mm qtz vein @ 10° C.A. cuts through section - orange stained on drusy crystals |                  |         |            |              |                     |   |  |
| 70.35 to 71.16   | Orange oxidation of Dacite   |   |                  |         |            |              |                     |   |  |
| 71.16 to 72.60   | lt green - more intense chloritic alteration   |   |                  |         |            |              |                     |   |  |
| 72.30 to 72.35   | lt brownish - pinkish coloration (alteration)  |   |                  |         |            |              |                     |   |  |
| 72.35 to 72.25   | Orange oxidation - few chalcocite veined at various C.A.   |   |                  |         |            |              |                     |   |  |
| 84.00 to 84.40   | Chalcocite veined 7mm wide with orange oxidation associated  |   |                  |         |            |              |                     |   |  |
| 84.40 to 89.50   | Feldspars are not aligned  |   |                  |         |            |              |                     |   |  |
| 89.50 to 91.00   | Feldspar @ 70° C.A. - lt pinkish - brownish alteration   |   |                  |         |            |              |                     |   |  |
| 91.00 to 91.34   | Intrinsic chlorite-sericitic alteration. Feldspar altered to clay  |   |                  |         |            |              |                     |   |  |
| 91.34 to 92.10   | Feldspars @ 70° C.A. - med green medium grained  |   |                  |         |            |              |                     |   |  |
| 92.10 to 92.40   | Finer grained feldspar - re-alignment of crystals - increasing bleaching alteration in center of section       |   |                  |         |            |              |                     |   |  |
|                  | Feldspars going to clay - slight sub-turbation - Trace v.fg. pyrite blabs with nematite stringers within blabs |   |                  |         |            |              |                     |   |  |
| 92.40 to 92.70   | Porphyry is more intensely chloritic altered - Fabric lost - blabs of chlorite up to 10mm long                 |   |                  |         |            |              |                     |   |  |
| 92.70 to 93.70   | Dacite, occasional low angle (10°) qtz veins - no more large oxidized envelopes                                |   |                  |         |            |              |                     |   |  |
| 93.70 to 94.80   | Biotite Mtnz   | dk green, fine grained  |                  |         |            |              |                     | Contact @ 50° C.A.  |  |
|                  |  | magnetite. Biotite crystals   |                  |         |            |              |                     |   |  |
|                  |  | 10% (up to 1mm long) Unaltered.   |                  |         |            |              |                     |   |  |

# DRILL LOG

HOLE NO. MDH-88-4

| INTERVAL<br>FROM   | TO     | ROCK TYPE  | DESCRIPTION  |            |         |            |              |                     | STRUCTURE<br>(FRACTURES, FAULTS, FOLDING, BEDDING,<br>ETC.) | REMARKS<br>MINERALIZATION, TYPE, AGE RELATIONS |
|--------------------|--------|--|--|------------|---------|------------|--------------|---------------------|---|--|
|                    |        |  | COLOUR   | GRAIN SIZE | TEXTURE | ALTERATION | ORE MINERALS | FRACTURES PER METRE |   |  |
| 94.80              | 148.75 | DACITE   | lt to dk green, fine grained<br>to med grained dacite<br><br>which has undergone different alteration at<br>different levels Gradational contact except where noted. |            |         |            |              |                     |   |  |
| 94.80 to 101.80    |        | DK green, fine grained equigranular dacite   |  |            |         |            |              |                     |   |  |
| 92.30 to 92.55     |        | Bleached altered shear zone (?) sheared Contact @ 40° C.A.   |  |            |         |            |              |                     |   |  |
| 101.40 to 102.75   |        | 35 cm breccia zone with approx 25 cm of bleached (lt green) dacite on either side. Tectonic breccia, 10% clastify  |  |            |         |            |              |                     |   |  |
| 102.75 to 103.80   |        | lt green, fine grained crowded feldspar dacite porphyry  |  |            |         |            |              |                     |   |  |
| 103.80 to 108.80   |        | dk green, fine grained equigranular dacite. with feldspars being hematite stained  |  |            |         |            |              |                     |   |  |
| 108.80 to 109.50   |        | DACITE lt green, fine grained  |  |            |         |            |              |                     | 107.90 to 108.15 lt green + hematite                        |  |
| 109.50 to 111.00   |        | dk green, fine grained equigranular dacite   |  |            |         |            |              |                     | 109.25 - 15mm coarse grained white dacite vein @ 45° C.A.   |  |
| 111.00 to 115.70   |        | dk green to dk purple, medium grained crowded feldspar porphyry - not aligned Tabular feldspars up to 5mm long   |  |            |         |            |              |                     |   |  |
| 115.70 to 117.15   |        | dk green fine to medium grained equigranular dacite. Roxanish - granular feldspars 1.5 mm long and gradually decreasing in % with depth  |  |            |         |            |              |                     |   |  |
| 117.15 to 127.50   |        | lt med green feldspar subporphyry, med grained semicircular to rounded (1 to 3mm tabular feldspar crystals) Gradational / Contact<br>118.50 - tabular vein (10cm wide) @ 45° C.A. iron oxidation alteration. |  |            |         |            |              |                     |   |  |
| 118.75             |        | 1 cm white wugg, drusy quartz vein @ 45° C.A.  |  |            |         |            |              |                     |   |  |
| 119.10 -           |        | 3 cm quartz pyrite stringer @ 20° C.A. (very fine grained pyrite in blebs up to 50mm long 119 to 123.  |  |            |         |            |              |                     |   |  |
| 120.25 -           |        | 15 cm tabular vein @ 10° C.A. with iron oxidation alteration   |  |            |         |            |              |                     |   |  |
| 122.80 to 123.00 - |        | Oxidation of dacite  |  |            |         |            |              |                     |   |  |
| 123.25 to 124.15   |        | Clear to white, wugg, drusy quartz vein @ 45° C.A. with 5 to 10% pyrite  |  |            |         |            |              |                     |   |  |
| 124.61             |        | 1cm quartz-pyrite stringer @ 45° C.A.  |  |            |         |            |              |                     |   |  |
| 127.50 to 129.30   |        | Med to dk green dacite (not scored) some hematite staining to feldspar crystals - bedded and Contact   |  |            |         |            |              |                     |   |  |

# DRILL LOG

HOLE NO. MDH-88-4...

| INTERVAL<br>FROM | TO        | ROCK TYPE  | DESCRIPTION |  |         |            |              | STRUCTURE<br>(FRACTURES, FAULTS, FOLDING, BEDDING,<br>ETC.)                                   | REMARKS<br>MINERALIZATION, TYPE, AGE RELATIONS |
|------------------|-----------|--|-------------|--|---------|------------|--------------|---|--|
|                  |           |  | COLOUR      | GRAIN SIZE   | TEXTURE | ALTERATION | ORE MINERALS |   |  |
| 129.30           | to 130.90 | Med green, crowded dacite feldspar porphyry  |             |  |         |            |              | Contact @ 70° C.A.  |  |
| 130.90           | to 132.90 | DK green, fine grained, equigranular dacite  |             |  |         |            |              |   |  |
| 132.90           | to 136.90 | Med green, crowded dacite feldspar porphyry (tabular feldspars 1 to 3 mm long) 4 cm blobs of v.f.g. pyrite occurring in 3 areas. Gradational contact.  |             |  |         |            |              |   |  |
| 136.90           | to 140.20 | DK green, fine grained, equigranular dacite  |             |  |         |            |              |   |  |
| 140.20           | to 143.60 | Med green, med grained, crowded (1 to 3 mm tabular) feldspar porphyry dacite.  |             |  |         |            |              |   |  |
| 140.60           | to 141.70 | - quartz stringer @ 10° S.E. carrying a li. green, silicified vein - 5% pyrite   |             |  |         |            |              |   |  |
| 143.60           | to 147.50 | DK green, dacite - feldspar porphyry (not crowded)   |             |  |         |            |              |   |  |
| 147.50           | to 149.75 | lt green (clay altered) dacite - slightly silicified in sections   |             |  |         |            |              | Fault gauge at 147.50 @ 45° C.A.  |  |
| 149.75           | 199.65    | ALTERED SHEARED DACEITE  |             |  |         |            |              | Contact @ 45° C.A.  |  |
|                  |           | Grey to black, fine grained, hydrothermally altered  |             |  |         |            |              | Strong fracturing, abundant carbonate, little primary texture evident, local tectonic breccia |  |
|                  |           | Dacite to schist, calcite, talc, trace of epidote along fractures, from 5 to 30% very fine grained disseminated pyrite (some may be crushed giving a black matrix). Feldspar altered to clay. Some pervasive silicification in areas. Non-magnetic. Calcite veins are discontinuous (cut off) within shear zone. |             |  |         |            |              |   |  |
|                  |           | 158.00   | to 159.70   | lt green, fine to medium grained unsheared of subporphyritic Dacite. |         |            |              |   |  |
|                  |           | 159.70   |             | Fault gauge @ 45° C.A.   |         |            |              |   |  |
|                  |           | 164.55   | to 166.75   | Orange (iron stained) Clay - Fault gauge contact @ 30° C.A. (?)      |         |            |              | 122 m   | 50% RECOVERY                                   |
|                  |           | 167.7  |             | tectonic breccia zone  |         |            |              |   |  |



**BP Resources Canada Limited**  
MINING DIVISION

# **DRILL LOG**

HOLE NO. MDH-88-4

| INTERVAL    |           | ROCK TYPE  | DESCRIPTION   |            |         |            |                 |                        | STRUCTURE<br>(FRACTURES, FAULTS, FOLDING, BEDDING,<br>ETC.) | REMARKS<br>MINERALIZATION, TYPE, AGE RELATIONS |
|-------------|-----------|--|---|------------|---------|------------|-----------------|------------------------|---|--|
| FROM        | TO        |  | COLOUR  | GRAIN SIZE | TEXTURE | ALTERATION | DRE<br>MINERALS | FRACTURES<br>PER METRE |   |  |
| 166.75      | to 171.50 | Lt green, medium grained silicified Dacite   |   |            |         |            |                 |                        |   |  |
|             |           | Subporphyritic to crowded porphyry in center of section  |   |            |         |            |                 |                        |   |  |
| 169.16      |           | Fault - gauge broken core - no orientation   |   |            |         |            |                 |                        |   |  |
| 169.90      | to 179.90 | Orange stained (iron) dacite with chlorite alteration relatively unsheared dacite.             |   |            |         |            |                 |                        |   |  |
| 179.65      | to 180.10 | Lt green Dacite dyke @ 80° C.A sharp contacts  |   |            |         |            |                 |                        |   |  |
| 192.05      | to 192.20 | 11p to 46% very fine grained pyrite  |   |            |         |            |                 |                        |   |  |
| 192.60      | to 197.90 | Breccia zone Tectonic  |   |            |         |            |                 |                        |   |  |
| 197.90      | to 199.00 | Lt green very fine grained, ilorite-sericitic altered 5% to 10% very fine grained diss. pyrite |   |            |         |            |                 |                        |   |  |
| 199.00      | to 199.10 | 10 cm of mod sheared fg. qte diorite (?) - sharp contact with minor gauge                      |   |            |         |            |                 |                        |   |  |
| 199.10      | to 199.65 | Med green, pyritic, sericitized dacite   |   |            |         |            |                 |                        |   |  |
| 1.5         | 210.31    | QUARTZ-DIORITE   | Lt green, leucocratic mod grained, intrusive Feldspar 75%, Quartz 5%, Biotite 7 to 10% (altering to iron) non magnetic. |            |         |            |                 |                        | Fault contact (Scars) . . . . .                             |  |
| END OF HOLE |           |  | Subporphyritic, brownish biotite, from 5 to 10 long weak sericitic alteration of plagioclase.                           |            |         |            |                 |                        |   |  |

**DRILL LOG**

**sample data**

| NUMBER | SAMPLE |     |              | CORE RECOVERY |   | VISUAL ESTIMATES<br>(% ORE MINERALS) | ASSAY RESULTS |         |         |        |       |
|--------|--------|-----|--------------|---------------|---|--------------------------------------|---------------|---------|---------|--------|-------|
|        | FROM   | TO  | TOTAL METRES | Sp. Gr        | % |                                      | Au(ppb)       | Ag(ppm) | As(ppm) | F(ppm) | OTHER |
| 51128  | 10     | 12  | 2            |               |   |                                      | 1             | .1      | 9       | 500    |       |
| 29     | 16     | 18  | 2            |               |   |                                      | 2             | .1      | 3       | 460    | 219Ba |
| 30     | 22     | 24  | 2            |               |   |                                      | 1             | .1      | 5       | 430    |       |
| 31     | 28     | 30  | 2            |               |   |                                      | 13            | .2      | 2       | 410    |       |
| 32     | 36     | 38  | 2            |               |   |                                      | 300           | .1      | 39      | 650    |       |
| 33     | 38     | 40  | 2            |               |   |                                      | 188           | 1.1     | 300     | 800    |       |
| 34     | 40     | 42  | 2            |               |   |                                      | 52            | .2      | 24      | 940    |       |
| 35     | 42     | 44  | 2            |               |   |                                      | 1910          | 1.0     | 47      | 570    |       |
| 36     | 44     | 46  | 2            |               |   |                                      | 470           | 3.0     | 162     | 680    | 284Ba |
| 37     | 46     | 48  | 2            |               |   |                                      | 260           | 1.8     | 301     | 610    | 115b  |
| 38     | 48     | 50  | 2            |               |   |                                      | 2780          | 1.2     | 74      | 570    |       |
| 39     | 50     | 52  | 2            |               |   |                                      | 640           | .2      | 106     | 580    |       |
| 40     | 54     | 56  | 2            |               |   |                                      | 25            | .3      | 39      | 940    |       |
| 41     | 58     | 60  | 2            |               |   |                                      | 159           | .6      | 66      | 700    |       |
| 42     | 60     | 62  | 2            |               |   |                                      | 260           | 1.4     | 143     | 810    |       |
| 43     | 66     | 68  | 2            |               |   |                                      | 28            | .1      | 12      | 950    |       |
| 44     | 72     | 74  | 2            |               |   |                                      | 43            | .4      | 64      | 780    |       |
| 45     | 78     | 80  | 2            |               |   |                                      | 38            | .3      | 53      | 920    | 222Ba |
| 46     | 84     | 86  | 2            |               |   |                                      | 30            | .4      | 43      | 980    |       |
| 47     | 90     | 92  | 2            |               |   |                                      | 11            | .1      | 12      | 610    |       |
| 48     | 96     | 98  | 2            |               |   |                                      | 7             | .1      | 2       | 550    |       |
| 49     | 102    | 104 | 2            |               |   |                                      | 5             | .1      | 22      | 460    |       |
| 50     | 106    | 108 | 2            |               |   |                                      | 22            | .1      | 3       | 390    |       |
| 51     | 114    | 116 | 2            |               |   |                                      | 19            | .1      | 10      | 540    |       |
| 52     | 118    | 120 | 2            |               |   |                                      | 75            | .2      | 59      | 710    |       |
| 53     | 120    | 122 | 2            |               |   |                                      | 112           | .3      | 102     | 610    |       |

**DRILL LOG**

**sample data**

| NUMBER | SAMPLE |             |              |        | CORE RECOVERY      |           | VISUAL ESTIMATES<br>(% ORE MINERALS) | ASSAY RESULTS |         |         |        |         |        |
|--------|--------|-------------|--------------|--------|--------------------|-----------|--------------------------------------|---------------|---------|---------|--------|---------|--------|
|        | FROM   | TO          | TOTAL METRES | Sp. Gr | %                  | AMT. LOST |                                      | Au(ppb)       | Ag(ppm) | As(ppm) | F(ppm) | OTHER   |        |
| 51154  | 123    | 125         | 2            |        |                    |           |                                      | 98            | .8      | 70      | 630    |         |        |
| 55     | 126    | 128         | 2            |        |                    |           |                                      | 8             | .3      | 5       | 450    |         |        |
| 56     | 132    | 134         | 2            |        |                    |           |                                      | 32            | .1      | 52      | 700    |         |        |
| 57     | 134    | 136         | 2            |        |                    |           |                                      | 57            | .2      | 69      | 660    |         |        |
| 58     | 140    | 142         | 2            |        |                    |           |                                      | 9             | .1      | 12      | 620    |         |        |
| 59     | 146    | 148         | 2            |        |                    |           |                                      | 22            | .1      | 32      | 690    |         |        |
| 60     | 148    | 150         | 2            |        |                    |           |                                      | 67            | .7      | 163     | 1050   | 239 Pb, | 217 Zn |
| 61     | 150    | 152         | 2            |        |                    |           |                                      | 52            | 1.2     | 144     | 860    | 545 Pb, | 217 Zn |
| 62     | 152    | 154         | 2            |        |                    |           |                                      | 22            | .7      | 191     | 890    |         |        |
| 63     | 154    | 156         | 2            |        |                    |           |                                      | 62            | .9      | 197     | 660    |         |        |
| 64     | 156    | 158         | 2            |        |                    |           |                                      | 24            | .7      | 56      | 710    |         |        |
| 65     | 158    | 160         | 2            |        |                    |           |                                      | 21            | .3      | 73      | 541    |         |        |
| 66     | 160    | 162         | 2            |        |                    |           |                                      | 7             | .1      | 29      | 780    |         |        |
| 67     | 162    | 164         | 2            |        | 97%                |           |                                      | 10            | .1      | 40      | 750    |         |        |
| 68     | 165    | GRAB SAMPLE |              |        | 50% - 164-168m     |           | Clay gouge                           | 30            | .1      | 152     | 1020   |         |        |
| 69     | 168    | 170         | 2            |        | (92.5% - 166-168m) |           |                                      | 14            | .1      | 33      | 730    |         |        |
| 70     | 170    | 172         | 2            |        |                    |           |                                      | 8             | .1      | 28      | 580    |         |        |
| 71     | 172    | 174         | 2            |        |                    |           |                                      | 12            | .2      | 39      | 500    |         |        |
| 72     | 174    | 176         | 2            |        |                    |           |                                      | 16            | .1      | 92      | 420    |         |        |
| 73     | 180    | 182         | 2            |        |                    |           |                                      | 7             | .3      | 24      | 510    |         |        |
| 74     | 186    | 188         | 2            |        |                    |           |                                      | 1             | .3      | 45      | 530    |         |        |
| 75     | 191    | 193         | 2            |        |                    |           |                                      | 9             | .2      | 18      | 370    |         |        |
| 76     | 196    | 198         | 2            |        |                    |           |                                      | 1             | .1      | 18      | 360    |         |        |
| 77     | 198    | 199         | 1            |        |                    |           |                                      | 1             | .2      | 15      | 350    |         |        |
| 78     | 200    | 202         | 2            |        |                    |           |                                      | 1             | .2      | 4       | 630    |         |        |
| 79     | 206    | 208         | 2            |        |                    |           |                                      | 1             | .2      | 2       | 560    |         |        |

APPENDIX V

Listing of Analytical Results for Drill Core

## GEOCHEMICAL ANALYSIS CERTIFICATE

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCl-HNO<sub>3</sub>-H<sub>2</sub>O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.  
 THIS LEACH IS PARTIAL FOR Mn Fe Se Ca P La Cr Mg Ba Ti B W AND LIMITED FOR Na K AND Al. Au DETECTION LIMIT BY ICP IS 3 PPM.  
 - SAMPLE TYPE: Core Au\* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE. Y - NaOH FUSION • SPECIFIC ION ELECTRODE ANALYSIS.

DATE RECEIVED: NOV 25 1988 DATE REPORT MAILED: Nov 29/88

SIGNED BY: C. Long, D. Tote, C. Leong, B. Chan, J. Wang; CERTIFIED B.C. ASSAYERS

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| SAMPLE#    | No | Cu  | Pb  | Zn  | Ag  | Mn  | Co  | Mo   | Ti   | As  | U   | Al  | Th  | St  | Cd  | Sb  | B1  | V   | Ca   | P    | La  | Cr  | Mg   | Ba  | Tl  | B   | Al   | Na  | K   | W   | Au*  | Y    |
|------------|----|-----|-----|-----|-----|-----|-----|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|-----|-----|------|-----|-----|-----|------|-----|-----|-----|------|------|
|            |    | PPM  | %    | PPM | %    | PPM  | PPM | PPM | %    | PPM | PPM | PPM | %    | PPM | PPB | PPM |      |      |
| 51101      | 1  | 979 | 4   | 25  | .3  | 74  | 16  | \$74 | 3.42 | 2   | 5   | ND  | 1   | 194 | 1   | 2   | 3   | 124 | 4.74 | .051 | 11  | 101 | 1.33 | .96 | .01 | 4   | 1.33 | .01 | .06 | 1   | 92   | 640  |
| 51102      | 1  | 40  | 12  | 69  | .1  | 22  | 13  | 614  | 3.28 | 3   | 5   | ND  | 4   | 275 | 1   | 2   | 2   | 46  | 4.19 | .147 | 47  | 52  | 1.67 | 744 | .11 | 2   | 1.20 | .02 | .39 | 1   | 9    | 1480 |
| 51103      | 1  | 293 | 6   | 37  | .1  | 53  | 14  | 472  | 3.41 | 23  | 5   | ND  | 1   | 84  | 1   | 2   | 4   | 46  | 1.83 | .058 | 13  | 47  | .97  | 46  | .01 | 8   | .49  | .01 | .09 | 1   | 101  | 700  |
| 51104      | 1  | 341 | 4   | 27  | .1  | 70  | 16  | 526  | 3.58 | 23  | 5   | ND  | 1   | 183 | 1   | 2   | 2   | 53  | 3.92 | .068 | 9   | 29  | 1.57 | 48  | .01 | 5   | .52  | .01 | .10 | 1   | 27   | 830  |
| 51105      | 1  | 113 | 11  | 27  | .1  | 18  | 17  | 473  | 4.85 | 5   | 5   | ND  | 1   | 145 | 1   | 2   | 2   | 99  | 3.12 | .061 | 11  | 12  | 2.39 | 91  | .01 | 2   | 2.48 | .02 | .13 | 1   | 12   | 600  |
| 51106      | 2  | 82  | 2   | 24  | .1  | 61  | 19  | 455  | 3.93 | 14  | 5   | ND  | 1   | 105 | 1   | 2   | 2   | 88  | 3.03 | .044 | 9   | 70  | 2.00 | 45  | .01 | 6   | 1.95 | .01 | .08 | 1   | 7    | 590  |
| 51107      | 1  | 164 | 4   | 38  | .2  | 69  | 24  | 304  | 5.91 | 153 | 5   | ND  | 1   | 139 | 1   | 16  | 2   | 78  | 4.34 | .056 | 8   | 26  | 1.66 | 19  | .01 | 2   | .50  | .01 | .11 | 2   | 63   | 810  |
| 51108      | 1  | 52  | 8   | 56  | .2  | 170 | 30  | 956  | 4.18 | 72  | 5   | ND  | 2   | 338 | 1   | 10  | 2   | 66  | 8.70 | .065 | 15  | 147 | 3.88 | 119 | .01 | 4   | 1.32 | .01 | .09 | 1   | 6    | 950  |
| 51109      | 2  | 13  | 16  | 108 | .1  | 34  | 14  | 455  | 3.09 | 51  | 5   | ND  | 5   | 116 | 1   | 2   | 2   | 36  | 3.62 | .158 | 45  | 27  | .65  | 248 | .01 | 2   | .60  | .01 | .09 | 1   | 4    | 830  |
| 51110      | 1  | 72  | 3   | 23  | .1  | 13  | 20  | 516  | 4.83 | 6   | 5   | ND  | 1   | 130 | 1   | 2   | 2   | 132 | 3.48 | .056 | 9   | 25  | 2.36 | 53  | .01 | 6   | 2.44 | .01 | .08 | 1   | 5    | 630  |
| 51111      | 1  | 41  | 11  | 22  | .1  | 13  | 28  | 457  | 4.35 | 30  | 5   | ND  | 1   | 91  | 1   | 2   | 2   | 95  | 2.33 | .062 | 10  | 14  | 2.34 | 141 | .01 | 6   | 2.56 | .02 | .12 | 1   | 8    | 680  |
| 51112      | 1  | 59  | 5   | 29  | .1  | 10  | 19  | 564  | 4.67 | 22  | 5   | ND  | 1   | 106 | 1   | 2   | 2   | 63  | 3.05 | .059 | 9   | 9   | 1.46 | 16  | .01 | 4   | .33  | .01 | .14 | 2   | 4    | 840  |
| 51113      | 3  | 72  | 3   | 24  | .1  | 39  | 29  | 429  | 3.21 | 45  | 5   | ND  | 1   | 67  | 1   | 2   | 2   | 31  | 1.67 | .037 | 7   | 29  | .55  | 68  | .01 | 4   | .42  | .01 | .11 | 1   | 16   | 610  |
| 51114      | 1  | 100 | 2   | 19  | .1  | 13  | 20  | 492  | 3.87 | 10  | 5   | ND  | 1   | 239 | 1   | 2   | 2   | 67  | 6.23 | .086 | 9   | 9   | 1.57 | 11  | .01 | 2   | .55  | .01 | .12 | 1   | 11   | 930  |
| 51115      | 1  | 63  | 5   | 21  | .1  | 46  | 22  | 364  | 3.51 | 27  | 5   | ND  | 1   | 158 | 1   | 2   | 2   | 45  | 3.81 | .070 | 7   | 24  | 1.23 | 9   | .01 | 4   | .48  | .01 | .10 | 1   | 22   | 660  |
| 51116      | 1  | 113 | 2   | 26  | .1  | 80  | 19  | 479  | 3.12 | 31  | 5   | ND  | 1   | 231 | 1   | 2   | 2   | 58  | 4.39 | .043 | 9   | 42  | 1.62 | 43  | .01 | 3   | .52  | .01 | .11 | 1   | 15   | 640  |
| 51117      | 2  | 142 | 2   | 27  | .1  | 80  | 33  | 392  | 3.54 | 26  | 5   | ND  | 1   | 216 | 1   | 2   | 2   | 61  | 3.91 | .048 | 7   | 44  | 1.68 | 22  | .01 | 2   | .53  | .01 | .11 | 1   | 6    | 690  |
| 51118      | 7  | 171 | 3   | 20  | .6  | 61  | 16  | 386  | 2.47 | 32  | 5   | ND  | 1   | 66  | 1   | 2   | 2   | 44  | 2.28 | .029 | 4   | 30  | .90  | 3   | .01 | 3   | .34  | .01 | .05 | 1   | 109  | 430  |
| 51119      | 2  | 101 | 2   | 28  | .1  | 66  | 15  | 360  | 3.15 | 60  | 5   | ND  | 1   | 89  | 1   | 2   | 2   | 36  | 3.35 | .036 | 6   | 27  | .90  | 14  | .01 | 2   | .46  | .01 | .08 | 1   | 35   | 590  |
| 51120      | 2  | 81  | 5   | 21  | .1  | 79  | 20  | 337  | 3.63 | 14  | 5   | ND  | 1   | 155 | 1   | 2   | 2   | 76  | 3.36 | .050 | 7   | 74  | 1.91 | 62  | .01 | 2   | 1.36 | .02 | .15 | 1   | 17   | 660  |
| 51121      | 2  | 113 | 5   | 29  | .1  | 64  | 20  | 316  | 4.41 | 44  | 5   | ND  | 1   | 132 | 1   | 2   | 2   | 58  | 2.41 | .056 | 7   | 18  | 1.33 | 42  | .01 | 2   | .58  | .01 | .11 | 1   | 11   | 790  |
| 51122      | 3  | 26  | 6   | 27  | .1  | 44  | 19  | 428  | 5.03 | 27  | 5   | ND  | 1   | 190 | 1   | 2   | 2   | 78  | 3.71 | .068 | 8   | 43  | 1.92 | 10  | .01 | 2   | 1.23 | .01 | .12 | 1   | 14   | 950  |
| 51123      | 3  | 82  | 2   | 26  | .1  | 86  | 21  | 233  | 2.80 | 87  | 5   | ND  | 1   | 121 | 1   | 2   | 2   | 41  | 1.74 | .040 | 10  | 35  | 1.30 | 9   | .01 | 3   | 1.13 | .01 | .14 | 1   | 9    | 1120 |
| 51124      | 5  | 45  | 4   | 18  | .1  | 97  | 23  | 222  | 3.50 | 81  | 5   | ND  | 1   | 209 | 1   | 5   | 2   | 63  | 3.61 | .044 | 10  | 84  | 1.79 | 11  | .01 | 2   | 1.44 | .01 | .11 | 1   | 2    | 710  |
| 51125      | 2  | 85  | 8   | 25  | .1  | 92  | 25  | 263  | 4.92 | 56  | 5   | ND  | 1   | 171 | 1   | 5   | 2   | 73  | 3.03 | .041 | 9   | 78  | 1.91 | 18  | .01 | 2   | 2.11 | .01 | .16 | 1   | 3    | 880  |
| 51126      | 3  | 61  | 7   | 25  | .1  | 77  | 20  | 305  | 4.62 | 48  | 5   | ND  | 1   | 258 | 1   | 2   | 2   | 64  | 3.31 | .039 | 11  | 60  | 2.46 | 13  | .01 | 3   | 2.12 | .01 | .14 | 1   | 8    | 960  |
| 51127      | 11 | 12  | 2   | 24  | .1  | 42  | 8   | 331  | 2.55 | 51  | 5   | ND  | 1   | 159 | 1   | 2   | 2   | 89  | 2.48 | .064 | 8   | 45  | 2.07 | 7   | .01 | 4   | 1.56 | .01 | .07 | 1   | 2    | 600  |
| 51128      | 1  | 3   | 9   | 80  | .1  | 10  | 9   | 843  | 3.09 | 9   | 5   | ND  | 1   | 102 | 1   | 2   | 2   | 27  | 8.37 | .049 | 10  | 7   | 1.53 | 146 | .01 | 4   | 1.80 | .02 | .13 | 1   | 1    | 500  |
| RE 51125   | 2  | 85  | 11  | 25  | .1  | 94  | 25  | 276  | 5.05 | 52  | 5   | ND  | 1   | 177 | 1   | 7   | 2   | 75  | 3.07 | .042 | 9   | 81  | 1.95 | 20  | .01 | 3   | 2.18 | .01 | .17 | 1   | 1    | 910  |
| 51129      | 1  | 8   | 5   | 74  | .1  | 12  | 10  | 698  | 3.07 | 3   | 5   | ND  | 1   | 93  | 1   | 2   | 4   | 29  | 3.55 | .052 | 10  | 16  | 1.18 | 219 | .01 | 5   | 1.73 | .02 | .12 | 1   | 2    | 460  |
| 51130      | 1  | 6   | 6   | 65  | .1  | 10  | 9   | 784  | 2.76 | 5   | 5   | ND  | 1   | 108 | 1   | 2   | 2   | 24  | 3.96 | .052 | 10  | 8   | 1.32 | 93  | .01 | 2   | .95  | .01 | .12 | 1   | 1    | 430  |
| 51131      | 1  | 15  | 10  | 33  | .2  | 5   | 9   | 839  | 3.12 | 2   | 5   | ND  | 1   | 103 | 1   | 2   | 2   | 23  | 4.02 | .054 | 9   | 5   | 1.26 | 72  | .01 | 3   | 1.50 | .01 | .13 | 1   | 13   | 410  |
| 51132      | 1  | 7   | 4   | 48  | .1  | 7   | 8   | 476  | 2.55 | 39  | 5   | ND  | 1   | 62  | 1   | 2   | 2   | 14  | .99  | .046 | 8   | 5   | .72  | 174 | .01 | 3   | 1.08 | .01 | .15 | 1   | 300  | 650  |
| 51133      | 1  | 16  | 11  | 69  | 1.1 | 7   | 9   | 177  | 3.19 | 300 | 5   | ND  | 1   | 37  | 1   | 4   | 3   | 11  | .20  | .048 | 6   | 8   | .26  | 52  | .01 | 3   | .73  | .01 | .12 | 1   | 188  | 800  |
| 51134      | 2  | 3   | 3   | 62  | .2  | 10  | 7   | 672  | 2.04 | 24  | 5   | ND  | 1   | 51  | 1   | 2   | 3   | 15  | .60  | .049 | 7   | 6   | .46  | 126 | .01 | 5   | .96  | .01 | .17 | 1   | 52   | 940  |
| 51135      | 2  | 5   | 6   | 52  | 1.0 | 10  | 5   | 217  | 1.55 | 47  | 5   | ND  | 1   | 30  | 1   | 2   | 3   | 10  | .11  | .030 | 5   | 8   | .31  | 114 | .01 | 2   | .64  | .01 | .09 | 1   | 1910 | 570  |
| STD C      | 18 | 57  | 41  | 127 | 7.0 | 66  | 27  | 991  | 3.71 | 36  | 19  | 8   | 37  | 47  | 17  | 18  | 19  | 56  | .46  | .082 | 35  | 58  | .84  | 169 | .05 | 34  | 1.77 | .06 | .14 | 12  | -    | -    |
| 51136      | 3  | 4   | 6   | 44  | 3.0 | 21  | 6   | 450  | 1.99 | 162 | 5   | ND  | 1   | 44  | 1   | 2   | 3   | 8   | .22  | .033 | 6   | 9   | .23  | 284 | .01 | 4   | .55  | .01 | .12 | 2   | 470  | 680  |
| STD C/AU-Z | 18 | 59  | 41  | 133 | 5.7 | 68  | 31  | 1036 | 4.22 | 40  | 17  | 8   | 38  | 48  | 19  | 19  | 22  | 59  | .50  | .092 | 40  | 55  | .97  | 180 | .07 | 35  | 1.97 | .06 | .14 | 11  | 510  | -    |

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| SAMPLE#    | No  | Cu  | Pb  | Zn  | Ag  | Ni  | Co  | Mn   | Fe   | As  | U   | Al  | Tb  | St  | Cd  | Sb  | Bi  | V   | Ca   | P    | La  | Ct  | Mg    | Ba  | Tl  | B   | Al   | Na  | I   | V   | Au <sup>#</sup> | Z    |
|------------|-----|-----|-----|-----|-----|-----|-----|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|-----|-----|-------|-----|-----|-----|------|-----|-----|-----|-----------------|------|
|            | PPM  | %    | PPM | %    | PPM  | PPM | PPM | PPM   | PPM | PPM | PPM | PPM  | PPM | PPM | PPM |                 |      |
| S1137      | 2   | 7   | 7   | 41  | 1.8 | 15  | 10  | 424  | 2.91 | 301 | 5   | ND  | 1   | 52  | 1   | 11  | 2   | 6   | 1.13 | .037 | 5   | 7   | .20   | 113 | .01 | 2   | .43  | .01 | .10 | 3   | 260             | 610  |
| S1139      | 1   | 4   | 2   | 58  | 1.2 | 6   | 8   | 553  | 2.17 | 74  | 5   | ND  | 1   | 41  | 1   | 2   | 2   | 13  | 1.18 | .039 | 5   | 4   | .70   | 42  | .01 | 2   | .84  | .01 | .11 | 1   | 2280            | 570  |
| S1139      | 1   | 5   | 6   | 43  | .2  | 8   | 9   | 416  | 2.62 | 106 | 5   | ND  | 1   | 38  | 1   | 2   | 2   | 14  | 1.09 | .040 | 5   | 4   | .85   | 35  | .01 | 3   | 1.04 | .01 | .09 | 2   | 640             | 580  |
| S1140      | 1   | 8   | 7   | 69  | .3  | 22  | 13  | 1001 | 3.24 | 39  | 5   | ND  | 1   | 57  | 1   | 4   | 2   | 22  | 2.03 | .075 | 7   | 8   | 1.54  | 68  | .01 | 2   | 1.63 | .01 | .17 | 1   | 25              | 940  |
| S1141      | 2   | 20  | 5   | 40  | .6  | 30  | 8   | 564  | 1.46 | 66  | 5   | ND  | 1   | 33  | 1   | 5   | 2   | 11  | .41  | .046 | 4   | 11  | .29   | 181 | .01 | 2   | .53  | .01 | .13 | 3   | 159             | 700  |
| S1142      | 2   | 28  | 14  | 48  | 1.4 | 50  | 11  | 662  | 2.37 | 143 | 5   | ND  | 1   | 34  | 1   | 6   | 3   | 15  | .27  | .064 | 4   | 20  | .31   | 134 | .01 | 2   | .62  | .01 | .15 | 4   | 260             | 810  |
| S1143      | 1   | 16  | 5   | 45  | .1  | 14  | 12  | 605  | 2.89 | 12  | 5   | ND  | 1   | 93  | 1   | 2   | 4   | 20  | 3.89 | .087 | 4   | 15  | 1.63  | 97  | .01 | 2   | .88  | .01 | .18 | 2   | 28              | 950  |
| S1144      | 1   | 19  | 11  | 38  | .4  | 13  | 13  | 860  | 2.88 | 64  | 5   | ND  | 1   | 119 | 1   | 3   | 4   | 13  | 4.65 | .079 | 3   | 9   | 1.65  | 50  | .01 | 2   | .48  | .01 | .19 | 1   | 43              | 780  |
| S1145      | 1   | 15  | 7   | 45  | .3  | 19  | 12  | 860  | 2.57 | 53  | 5   | ND  | 1   | 104 | 1   | 2   | 2   | 13  | 4.01 | .077 | 3   | 10  | 1.05  | 222 | .01 | 2   | .35  | .01 | .17 | 2   | 38              | 920  |
| S1146      | 1   | 35  | 7   | 72  | .4  | 15  | 12  | 779  | 2.56 | 43  | 5   | ND  | 1   | 95  | 1   | 2   | 2   | 15  | 3.54 | .086 | 3   | 10  | 1.10  | 141 | .01 | 3   | .52  | .01 | .16 | 1   | 30              | 980  |
| S1147      | 1   | 37  | 8   | 49  | .1  | 30  | 13  | 831  | 2.91 | 12  | 5   | ND  | 1   | 182 | 1   | 2   | 2   | 25  | 4.40 | .080 | 5   | 23  | 1.88  | 185 | .01 | 2   | .72  | .01 | .16 | 1   | 11              | 610  |
| S1148      | 1   | 24  | 3   | 77  | .1  | 4   | 12  | 1599 | 3.26 | 2   | 5   | ND  | 2   | 109 | 1   | 2   | 2   | 15  | 4.27 | .053 | 10  | 2   | 1.09  | 38  | .01 | 2   | .98  | .01 | .17 | 1   | 7               | 550  |
| S1149      | 1   | 26  | 11  | 73  | .1  | 19  | 10  | 1462 | 3.81 | 22  | 5   | ND  | 2   | 121 | 1   | 2   | 2   | 21  | 3.23 | .054 | 8   | 5   | 1.12  | 45  | .01 | 2   | .96  | .01 | .13 | 1   | 5               | 460  |
| RB S1154   | 3   | 64  | 8   | 54  | .9  | 6   | 10  | 479  | 2.99 | 74  | 5   | ND  | 1   | 15  | 1   | 2   | 2   | 17  | .27  | .054 | 6   | 4   | .77   | 124 | .01 | 5   | 1.48 | .01 | .19 | 1   | 92              | 610  |
| S1150      | 1   | 19  | 9   | 64  | .1  | 8   | 10  | 1502 | 2.95 | 3   | 5   | ND  | 3   | 143 | 1   | 2   | 2   | 26  | 3.91 | .057 | 13  | 5   | -1.32 | 77  | .01 | 2   | 1.75 | .01 | .14 | 1   | 22              | 390  |
| S1151      | 1   | 26  | 9   | 68  | .1  | 13  | 13  | 1224 | 3.39 | 10  | 5   | ND  | 2   | 131 | 1   | 2   | 2   | 49  | 4.55 | .094 | 9   | 6   | 1.10  | 134 | .01 | 2   | 1.47 | .02 | .13 | 1   | 19              | 540  |
| S1152      | 1   | 24  | 10  | 57  | .2  | 7   | 10  | 1122 | 3.37 | 59  | 5   | ND  | 1   | 55  | 1   | 2   | 2   | 20  | 1.71 | .058 | 8   | 4   | 1.25  | 39  | .01 | 2   | 1.59 | .01 | .17 | 1   | 75              | 710  |
| S1153      | 1   | 4   | 10  | 81  | .3  | 6   | 11  | 1010 | 3.31 | 102 | 5   | ND  | 2   | 34  | 1   | 2   | 2   | 19  | .39  | .053 | 9   | 6   | 1.19  | 63  | .01 | 3   | 1.48 | .01 | .15 | 1   | 112             | 610  |
| S1154      | 2   | 61  | 8   | 53  | .8  | 6   | 10  | 462  | 2.88 | 70  | 5   | ND  | 1   | 14  | 1   | 4   | 2   | 17  | .26  | .053 | 6   | 5   | .74   | 120 | .01 | 4   | 1.44 | .01 | .20 | 1   | 98              | 630  |
| STD C      | 19  | 61  | 39  | 128 | 6.5 | 70  | 31  | 1011 | 4.04 | 44  | 18  | 7   | 37  | 45  | 19  | 19  | 21  | 56  | .45  | .091 | 18  | 54  | .89   | 159 | .06 | 34  | 1.84 | .06 | .13 | -   | -               | -    |
| S1155      | 1   | 48  | 8   | 64  | .3  | 8   | 9   | 1525 | 3.07 | 5   | 5   | ND  | 2   | 121 | 1   | 2   | 2   | 23  | 3.38 | .053 | 10  | 7   | 1.11  | 166 | .01 | 7   | 1.87 | .01 | .17 | 1   | 8               | 450  |
| S1156      | 1   | 5   | 12  | 67  | .1  | 10  | 10  | 1299 | 3.50 | 52  | 5   | ND  | 1   | 55  | 1   | 2   | 2   | 22  | 1.68 | .056 | 10  | 4   | 1.39  | 34  | .01 | 2   | 1.78 | .01 | .13 | 1   | 32              | 700  |
| S1157      | 1   | 42  | 4   | 68  | .2  | 13  | 10  | 987  | 3.38 | 69  | 5   | ND  | 1   | 27  | 1   | 6   | 2   | 21  | .78  | .050 | 10  | 6   | 1.13  | 55  | .01 | 4   | 1.79 | .01 | .19 | 1   | 57              | 660  |
| S1158      | 1   | 20  | 8   | 53  | .1  | 6   | 10  | 1150 | 3.11 | 12  | 5   | ND  | 1   | 199 | 1   | 2   | 2   | 16  | 3.79 | .063 | 6   | 3   | .79   | 85  | .01 | 4   | 1.21 | .01 | .17 | 1   | 9               | 620  |
| S1159      | 1   | 18  | 11  | 75  | .1  | 12  | 10  | 1006 | 3.53 | 32  | 5   | ND  | 3   | 130 | 1   | 2   | 2   | 22  | 3.38 | .085 | 16  | 8   | 1.37  | 37  | .01 | 2   | 1.34 | .01 | .16 | 1   | 22              | 690  |
| S1160      | 1   | 27  | 239 | 277 | .7  | 17  | 14  | 892  | 3.71 | 163 | 5   | ND  | 2   | 189 | 3   | 2   | 2   | 16  | 4.20 | .102 | 16  | 7   | 1.37  | 25  | .01 | 3   | .42  | .01 | .15 | 1   | 67              | 1050 |
| S1161      | 1   | 43  | 545 | 217 | 1.2 | 8   | 16  | 935  | 5.14 | 144 | 5   | ND  | 2   | 107 | 1   | 2   | 2   | 34  | 3.76 | .057 | 5   | 4   | 1.73  | 31  | .01 | 4   | 1.17 | .01 | .15 | 1   | 52              | 860  |
| S1162      | 1   | 28  | 14  | 90  | .7  | 7   | 17  | 614  | 5.29 | 191 | 5   | ND  | 1   | 60  | 1   | 4   | 2   | 38  | 1.64 | .058 | 5   | 6   | 1.32  | 22  | .01 | 2   | 1.40 | .01 | .13 | 1   | 22              | 890  |
| S1163      | 2   | 27  | 21  | 95  | .9  | 6   | 13  | 909  | 4.38 | 197 | 5   | ND  | 1   | 91  | 1   | 4   | 2   | 21  | 3.19 | .049 | 4   | 4   | 1.33  | 23  | .01 | 5   | .66  | .01 | .11 | 1   | 62              | 660  |
| S1164      | 1   | 27  | 18  | 86  | .7  | 10  | 14  | 1095 | 4.23 | 56  | 5   | ND  | 2   | 217 | 1   | 2   | 2   | 23  | 6.02 | .054 | 5   | 4   | 1.31  | 28  | .01 | 2   | .77  | .01 | .12 | 1   | 24              | 710  |
| S1165      | 1   | 22  | 11  | 96  | .3  | 9   | 16  | 834  | 4.95 | 73  | 5   | ND  | 1   | 103 | 1   | 3   | 2   | 52  | 2.46 | .057 | 5   | 9   | 1.92  | 31  | .01 | 4   | 2.00 | .02 | .11 | 1   | 21              | 540  |
| S1166      | 1   | 23  | 10  | 112 | .1  | 7   | 17  | 429  | 4.94 | 29  | 5   | ND  | 1   | 34  | 1   | 2   | 2   | 76  | .89  | .054 | 6   | 10  | 1.92  | 25  | .01 | 5   | 2.50 | .01 | .09 | 1   | 7               | 780  |
| S1167      | 1   | 25  | 10  | 101 | .1  | 8   | 15  | 821  | 4.61 | 40  | 5   | ND  | 1   | 87  | 1   | 2   | 2   | 62  | 2.94 | .052 | 7   | 10  | 1.69  | 22  | .01 | 2   | 1.91 | .01 | .08 | 1   | 10              | 750  |
| S1168      | 2   | 27  | 11  | 157 | .1  | 47  | 16  | 1141 | 5.37 | 152 | 5   | ND  | 1   | 85  | 1   | 5   | 2   | 44  | 2.19 | .066 | 11  | 13  | 1.40  | 97  | .01 | 2   | 1.76 | .01 | .12 | 6   | 30              | 1020 |
| S1169      | 1   | 27  | 11  | 95  | .1  | 12  | 17  | 684  | 5.50 | 33  | 5   | ND  | 1   | 42  | 1   | 2   | 2   | 74  | 1.01 | .060 | 8   | 15  | 2.43  | 61  | .01 | 6   | 2.87 | .01 | .10 | 1   | 14              | 730  |
| S1170      | 1   | 25  | 13  | 91  | .1  | 6   | 16  | 854  | 4.99 | 28  | 5   | ND  | 1   | 109 | 1   | 5   | 2   | 69  | 3.53 | .058 | 7   | 11  | 2.11  | 41  | .01 | 4   | 2.84 | .02 | .10 | 1   | 8               | 580  |
| S1171      | 1   | 22  | 12  | 93  | .2  | 6   | 15  | 991  | 4.84 | 39  | 5   | ND  | 1   | 171 | 1   | 2   | 2   | 65  | 5.07 | .051 | 5   | 10  | 2.01  | 28  | .01 | 4   | 2.45 | .01 | .06 | 1   | 12              | 500  |
| S1172      | 1   | 20  | 7   | 101 | .1  | 7   | 14  | 913  | 4.57 | 92  | 5   | ND  | 1   | 173 | 1   | 2   | 2   | 57  | 4.98 | .049 | 4   | 8   | 2.06  | 63  | .01 | 3   | 2.37 | .02 | .09 | 1   | 16              | 420  |
| STD C/AU-R | 18  | 57  | 39  | 132 | 7.2 | 68  | 30  | 1022 | 4.07 | 42  | 18  | 7   | 37  | 47  | 18  | 18  | 20  | 58  | .48  | .091 | 39  | 52  | .93   | 173 | .06 | 35  | 1.99 | .06 | .14 | 11  | 470             | -    |

## BP RESOURCES CANADA LTD. PROJECT 10136 FILE # 88-6030

page 3

| SAMPLE#    | No  | Cd  | Pb  | Zn  | Ag  | Ni  | Co  | Mn   | Fe   | As  | U   | Au  | Th  | St  | Cd  | Sb  | Bi  | V    | Ca   | P    | Ta  | Cr   | Mg   | Ba  | Tl  | B    | Al   | Na  | K   | R  | Au* | F   |
|------------|-----|-----|-----|-----|-----|-----|-----|------|------|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|-----|------|------|-----|-----|------|------|-----|-----|----|-----|-----|
|            | PPM  | PPM  | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM | PPM  | PPM  | PPM  | PPM | PPM  | PPM  | PPM | PPM | PPM  | PPM  | PPB | PPM |    |     |     |
| 51173      | 1   | 27  | 11  | 169 | .3  | 9   | 16  | 819  | 5.09 | 24  | 5   | ND  | 2   | 164 | 2   | 2   | 65  | 4.17 | .054 | 6    | 10  | 2.05 | 55   | .01 | 6   | 2.63 | .02  | .10 | 1   | 7  | 510 |     |
| 51174      | 1   | 43  | 13  | 122 | .3  | 16  | 19  | 671  | 5.56 | 45  | 5   | ND  | 2   | 154 | 1   | 2   | 97  | 3.53 | .049 | 7    | 44  | 2.41 | 39   | .01 | 2   | 3.37 | .01  | .10 | 1   | 1  | 530 |     |
| 51175      | 2   | 21  | 13  | 67  | .2  | 7   | 15  | 910  | 4.38 | 18  | 5   | ND  | 3   | 136 | 1   | 2   | 2   | 53   | 3.95 | .047 | 6   | 13   | 1.65 | 49  | .01 | 3    | 1.97 | .03 | .10 | 1  | 9   | 370 |
| 51176      | 1   | 22  | 9   | 71  | .1  | 6   | 16  | 798  | 4.53 | 18  | 5   | ND  | 3   | 138 | 1   | 2   | 2   | 67   | 3.51 | .048 | 9   | 12   | 1.51 | 41  | .01 | 5    | 2.42 | .03 | .09 | 1  | 1   | 360 |
| 51177      | 1   | 21  | 7   | 72  | .2  | 9   | 14  | 1112 | 4.22 | 15  | 5   | ND  | 4   | 261 | 1   | 2   | 2   | 51   | 5.98 | .042 | 7   | 12   | 1.19 | 54  | .01 | 3    | 2.02 | .02 | .11 | 1  | 1   | 350 |
| 51178      | 1   | 4   | 16  | 83  | .2  | 16  | 6   | 236  | 1.35 | 6   | 5   | ND  | 9   | 183 | 1   | 2   | 2   | 11   | 1.94 | .035 | 26  | 28   | .65  | 59  | .01 | 4    | .85  | .02 | .19 | 1  | 1   | 630 |
| 51179      | 1   | 16  | 27  | 66  | .2  | 20  | 6   | 251  | 1.46 | 2   | 5   | ND  | 10  | 230 | 1   | 2   | 2   | 12   | 1.81 | .040 | 26  | 18   | .69  | 54  | .01 | 3    | .89  | .02 | .18 | 1  | 1   | 560 |
| STD C/AU-R | 19  | 62  | 35  | 132 | 6.8 | 59  | 31  | 1034 | 4.18 | 43  | 22  | 8   | 40  | 48  | 18  | 16  | 23  | 60   | .49  | .093 | 40  | 55   | .95  | 180 | .07 | 38   | 1.95 | .06 | .14 | 13 | 490 | -   |

APPENDIX VI

Statement of Costs

STATEMENT OF COSTS

**1. LABOUR**

|   |             |
|---|-------------|
| R. Wong, project geologist: 31 days @ \$220/day<br>(July 4 - December 21, 1988) | \$ 6,820.00 |
| W. Harris, geologist: 45 days @ \$110/day<br>(July 4 - December 9, 1988)        | 4,950.00    |
| V. Malo, technician: 4 days @ \$80/day<br>(July 14-17, 1988)                    | 320.00      |
| S. Hoffman, geochemist: 4 days @ \$300/day<br>(July 14,15; December 7,8)        | 1,200.00    |
|   | <hr/>       |
|   | \$13,290.00 |

**2. ACCOMMODATION**

|                        |             |
|------------------------|-------------|
| 52 man-days @ \$35/day | \$ 1,820.00 |
|------------------------|-------------|

**3. VEHICLE**

|                                      |             |
|--------------------------------------|-------------|
| Four-wheel drive: 34 days @ \$36/day | \$ 1,224.00 |
|--------------------------------------|-------------|

**4. GEOCHEMICAL ANALYSIS**

|                                  |              |
|----------------------------------|--------------|
| 79 Core samples for ICP + Au, F  | \$ 1,300.00  |
| 519 Soil samples for ICP + Au, F | 7,320.00     |
| 22 Rock samples for ICP + Au, F  | <hr/> 330.00 |
|                                  | <hr/>        |
|                                  | \$ 8,950.00  |

**5. DIAMOND DRILLING (including road and site preparation  
and reclamation)**

|                     |             |
|---------------------|-------------|
| 301.8 m NQ drilling | \$27,030.00 |
|---------------------|-------------|

**6. FUEL, SUPPLIES**

|           |
|-----------|
| \$ 500.00 |
|-----------|

**7. DRAFTING/TYPING**

|           |
|-----------|
| \$ 500.00 |
|-----------|

**TOTAL:** \$53,314.00

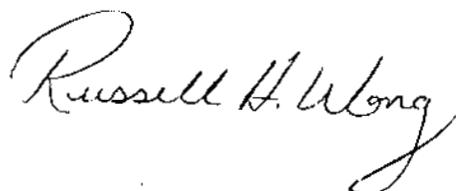
APPENDIX VII

Statement of Qualifications

STATEMENT OF QUALIFICATIONS

I, Russell H. Wong of #700 - 890 West Pender Street, in Vancouver, in the Province of British Columbia, do hereby state:

1. That I am a graduate of the University of British Columbia, Vancouver, B.C., where I obtained a B.Sc. in Geology in 1975.
2. That I have been active in mineral exploration since 1973.
3. That I am a member, in good standing, of the Geological Association of Canada and Association of Exploration Geochemists.
4. That I have practised my profession continuously as a staff geologist for BP Resources Canada Limited since 1979.
5. That I have no interest in the properties or securities of Dentonia Resources Ltd. or Kettle River Resources Ltd., nor do I expect to receive any.
6. That I supervised the programme of work described in this report.



Russell H. Wong  
Project Geologist

January, 1989.  
Vancouver, B.C.

## CERTIFICATE OF AUTHOR

### List of Qualifications - S.J. Hoffman

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

### List of Publications (to January 1989)

- 2 - Theses (unpublished)  
14 - Scientific papers in referred journals (3 in the last 3 years)  
1 - Published Geochemical Manual (report writing)  
1 - Unpublished Manual - Organization of a Geochemical Symposium  
2 - Book (Reviews in Economic Geology - Volume 3, Writing Geochemical Reports)  
2 - Scientific papers in unrefereed journals  
1 - Scientific paper in preparation

### List of Memberships

1. Member Geological Association of Canada, since 1967; Fellow since 1986
2. Canadian Institute of Mining and Metallurgy, since 1973
3. Association of Exploration Geochemists, since 1973
4. American Society of Agronomy, since 1973
5. Geochemical Society, since 1983
6. International Association of Geochemistry and Cosmochemistry, since 1986

### Other Organizations

1. Association of Exploration Geochemists council member of symposium committee chairman, 1980-1986, 1988-1990 president (1987-1988)
2. Lecturer, B.C. Department of Mines Prospecting Course, (1977-1987), B.C. & Yukon Chamber of Mines (1987, 1988), Northwest Mining Association (1979, 1985, 1988), Brokers Course (1984, 1985)
3. Chairman, GOLD-81 and GEOEXPO/86 Symposia

STATEMENT OF QUALIFICATIONS

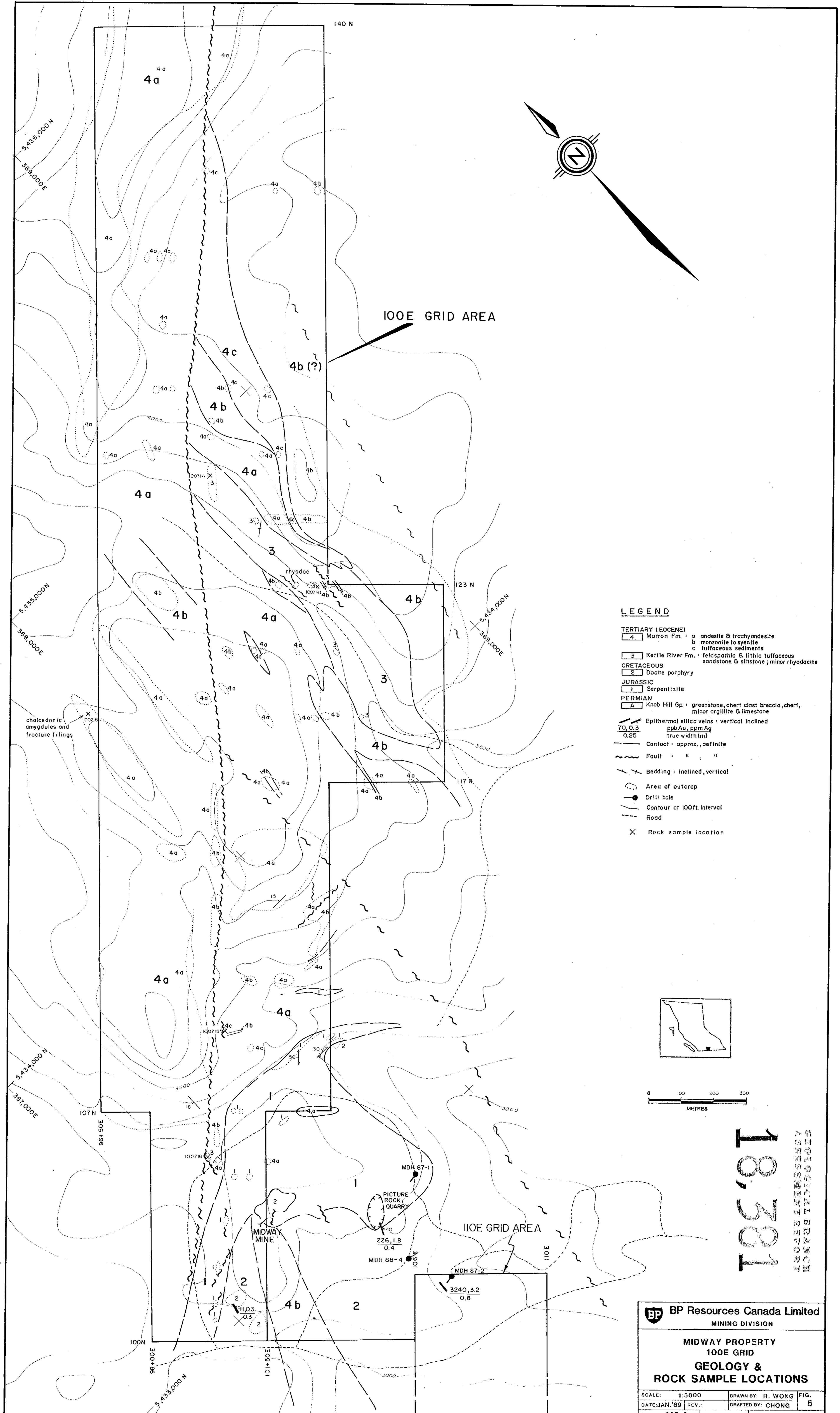
I, Wade D. Harris of 5756 - 120th Street, in Surrey, in the Province of British Columbia, do hereby state:

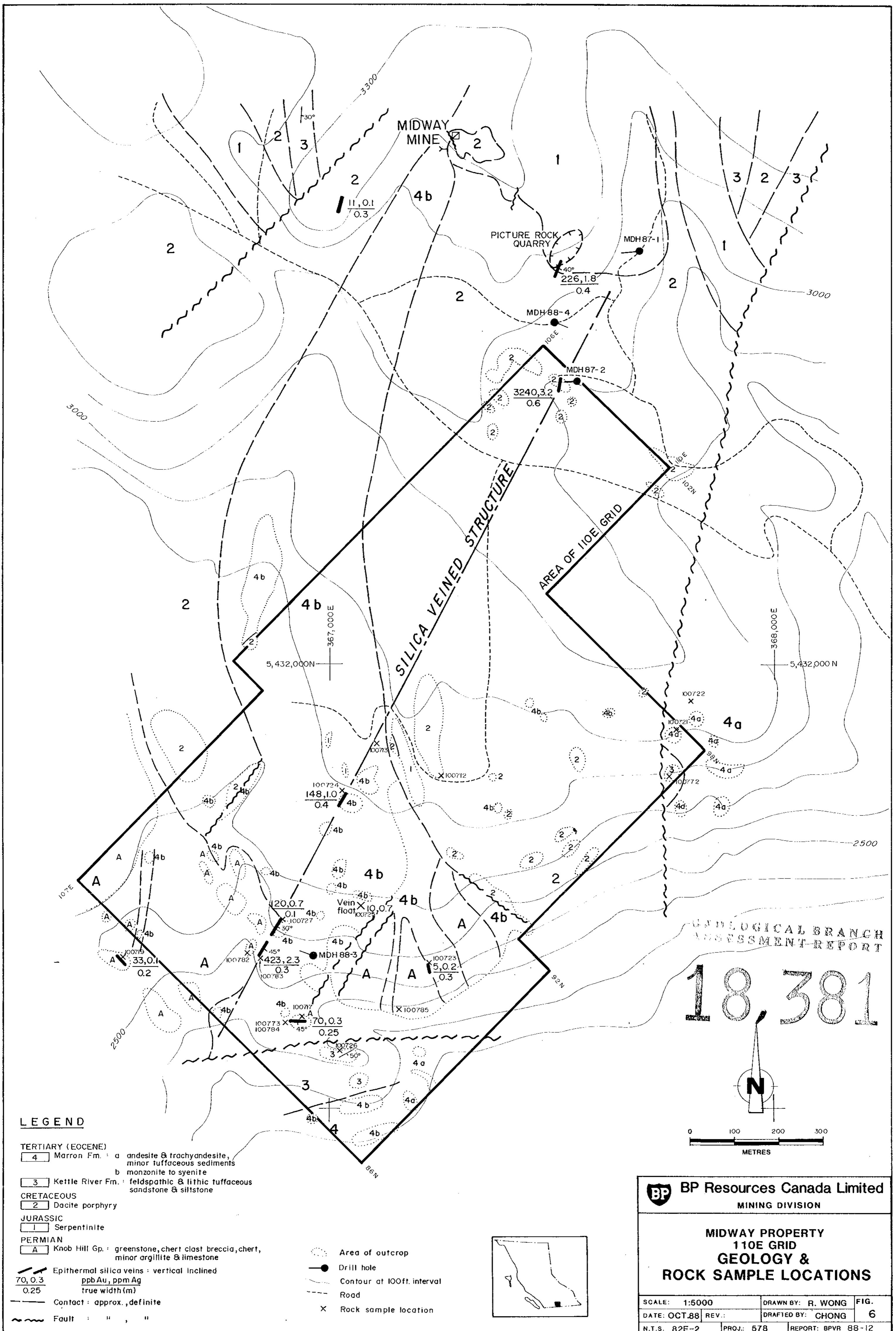
1. That I am a graduate of the University of British Columbia, Vancouver, B.C., where I obtained a B.Sc. in Geology in 1987.
2. That I have been active in mineral exploration since 1984.
3. That I have no interest in the properties or securities of Dentonia Resources Ltd. or Kettle River Resources Ltd., nor do I expect to receive any.

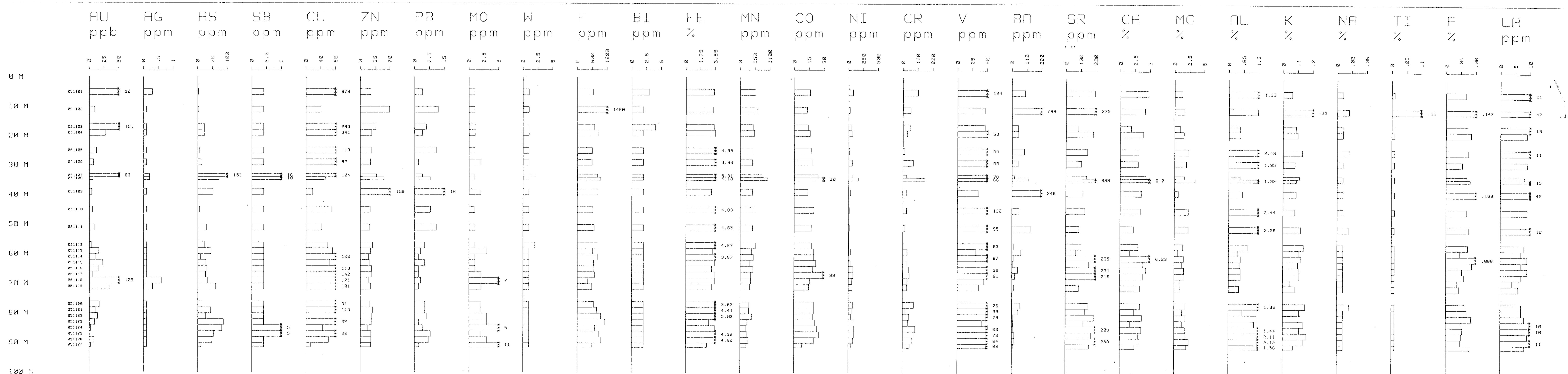
Wade Harris  
Geologist

January, 1989.  
Vancouver, B.C.

*Wade D. Harris.*







GEOLOGICAL BRANCH  
ASSESSMENT REPORT

18,381

| DRAWING NUMBER | DATE   | PROJECT NUMBER | ANALYSIS 1   | ANALYSIS 2   | ANALYSIS 3   | ANALYSIS 4   |
|----------------|--------|----------------|--------------|--------------|--------------|--------------|
|                | DEC/88 | 578            | MULTIELEMENT | GOLD         | FLUORINE     |              |
| DRAWN BY       | SCALE  | NTS            | LAB METHOD 1 | LAB METHOD 2 | LAB METHOD 3 | LAB METHOD 4 |
| SHJ            | 1:500  | 82E/2          | AQUA REGIA   | AQUA REGIA   | FUSION       |              |

MINING DIVISION  
BP RESOURCES CANADA LIMITED

PROJECT NAME  
MIDWAY CLAIMS  
FIGURE NUMBER  
15  
REPORT NUMBER  
GPVR 88-12



GEOLOGICAL BRANCH  
ASSESSMENT REPORT

| DRAWING NUMBER | DATE   | PROJECT NUMBER | ANALYSIS 1   | ANALYSIS 2   | ANALYSIS 3   | ANALYSIS 4   | MINING DIVISION             |
|----------------|--------|----------------|--------------|--------------|--------------|--------------|-----------------------------|
| DRAWN BY       | DEC/88 | 528            | MULTIELEMENT | GOLD         | FLUORINE     | LBB METHOD 4 | BP RESOURCES CANADA LIMITED |
| SCALE          | 1:500  | 82E/2          | LBB METHOD 1 | LBB METHOD 2 | LBB METHOD 3 |              |                             |

18,391

PROJECT NAME  
MIDWAY CLAIMS  
GEOCHEMICAL PROFILE - MDH 88-4  
FIGURE NUMBER  
17  
REPORT NUMBER  
BPVR 88-12