

ARIS SUMMARY SHEET

District Geologist, Victoria

Off Confidential: 89.06.28

ASSESSMENT REPORT 17837

MINING DIVISION: Nanaimo

PROPERTY: Songbird  
LOCATION: LAT 49 13 18 LONG 124 13 32  
UTM 10 5452601 410756  
NTS 092F01E

CLAIM(S): Songbird 1-4  
OPERATOR(S): Mingold Res.  
AUTHOR(S): Taylor, K.J.  
REPORT YEAR: 1988, 137 Pages

COMMODITIES  
SEARCHED FOR: Gold, Silver, Copper, Zinc

GEOLOGICAL  
SUMMARY: The property is underlain by Paleozoic Sicker Group volcanics and sediments in fault contact with Upper Triassic Karmutsen Formation andesites. The main mineralization consists of gold-bearing pyrite-chalcopyrite-arsenopyrite associated with quartz-carbonate flooded breccia along the faulted contact zone.

WORK  
DONE: Geochemical, Geological, Geophysical  
EMGR 31.0 km; VLF  
Map(s) - 1; Scale(s) - 1:5000  
GEOL 400.0 ha  
Map(s) - 1; Scale(s) - 1:5000  
LINE 46.6 km  
ROCK 41 sample(s) ; CU, ZN, AU, AG  
SOIL 974 sample(s) ; CU, ZN, AG, AU  
Map(s) - 4; Scale(s) - 1:5000

RELATED  
REPORTS: 11926, 15810, 17384  
MINFILE: 092F 055

LOG NO: 1012	RD.
ACTION:	
FILE NO:	

SOIL GEOCHEMISTRY, VLF - EM SURVEYS  
AND GEOLOGICAL MAPPING  
on the  
SONGBIRD 1 - 4 MINERAL CLAIMS  
NANIAMO MINING DIVISION

by

FILMED

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SUB-RECORDER  
RECEIVED  
1 OCT 4 1988  
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VANCOUVER, B.C.

Dates of Work: April 13 to May 26, 1988  
Latitude: 49° 13'N  
Longitude: 124° 13'W  
NTS Mapsheet: 92F/1

September 27, 1988  
Vancouver, B. C.

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**17-837**

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## SUMMARY & CONCLUSIONS

The soil geochemical and VLF-EM surveys and geological mapping conducted by Mingold Resources in 1988 were successful at locating several areas of known and new areas of mineralization on the SONGBIRD claims.

The soil geochemistry accurately located the Songbird Main Zone and suggested an extension to the north along the same structure. Several other minor anomalies were detected elsewhere on the property but none appear to have the strength of the Main Zone. Although the soil grid was done on a much tighter grid spacing than previous work, anomalies still tended to be spotty.

The VLF-EM survey delineated the Main Zone Fault over some 4000 meters of strike length and detected a strong subsidiary fault. Several other fault trends were picked up in the Karmutsen rocks to the west and although not as continuous, are as strong as the Main Zone Fault. The EM does not appear to have detected any sulphide bodies as the mineralization is too disseminated to form a significant conductor.

The geological mapping effectively outlined the major rock units - the Sicker Group, Vancouver Group and Nanaimo Group on the property. It also showed that four distinct lithologies are present within the Sicker Group in this area. These appear to be part of the Myra or redefined McLaughlin Ridge Formation which has been economically productive for base and precious metals elsewhere on Vancouver Island.

In conclusion, the 1988 Songbird program has been worthwhile in pinpointing several areas of anomalous base and precious metal mineralization. The spotty nature of the anomalies indicates that the associated mineralization is either poddy or plunge-controlled shoots with limited strike extent. Drilling will be required to determine the true nature of the mineralization and its economic significance.

## INTRODUCTION

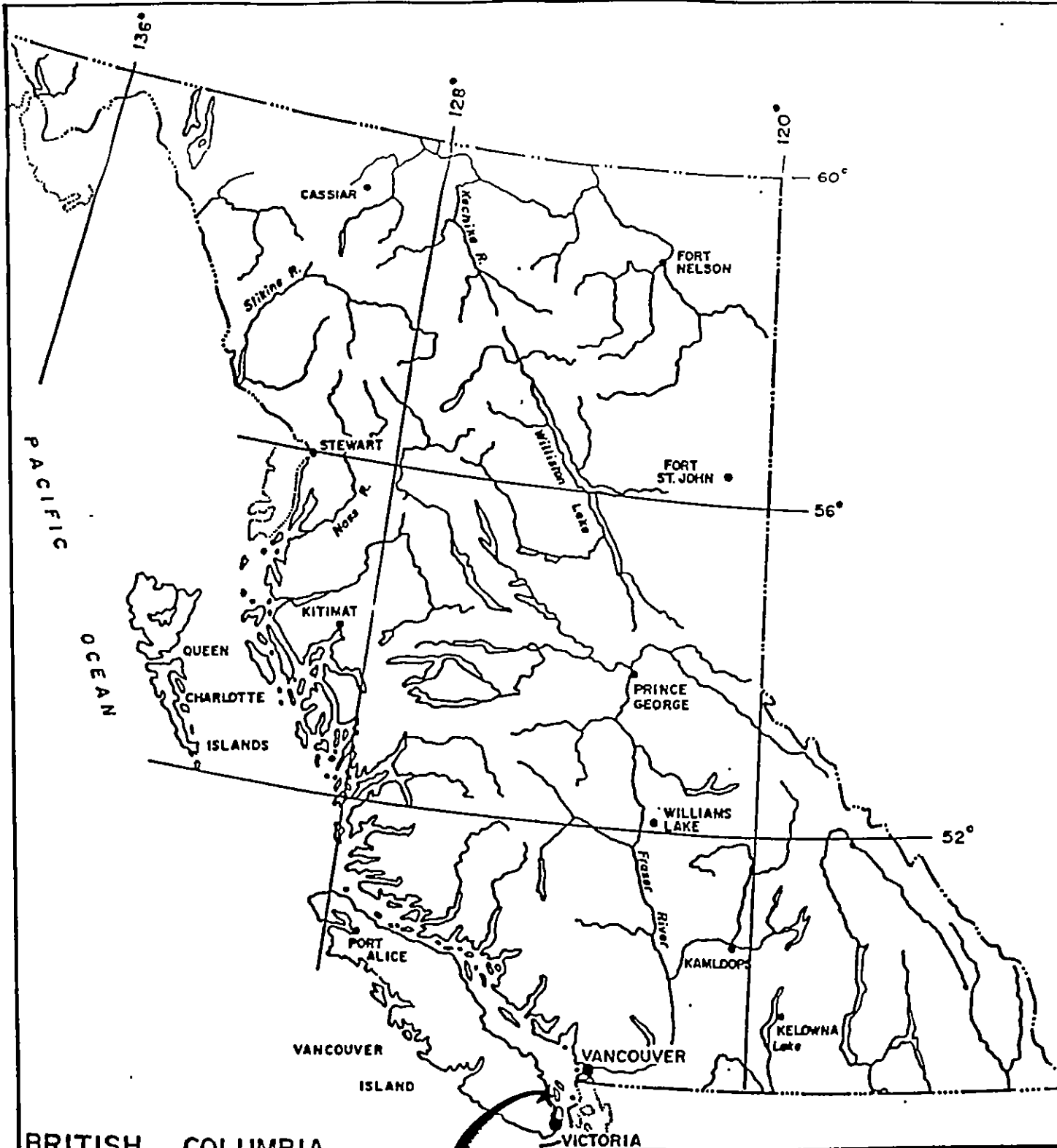
Mingold Resources personnel were retained by the Expedito Resources Group to re-evaluate the SONGBIRD 1-4 mineral claims. Work by previous companies indicated the presence of potentially economic grades of gold-silver mineralization over significant widths. Most of this work focussed on a small area on the central part of Songbird 2 referred to as the "Lily Showing" or "Songbird Main Zone".

The report which follows describes the soil geochemical and VLF-EM surveys and geological mapping carried out during the period of April 13 to May 26, 1988. The program attempted to extend the zone of mineralization on the Lily Zone fault structure and locate new areas of mineralization elsewhere on the claims.

## LOCATION AND ACCESS

The SONGBIRD 1 and 2 claims are located on the southeastern part of Vancouver Island approximately 15 kilometers south-southeast of Parksville, B. C. (see Fig. 1 & 2). Latitude  $49^{\circ} 13'N$  and Longitude  $124^{\circ} 13'W$  (NTS map-sheet 92F/1). The property lies on the northeast slopes of Okay Mountain between Englishman River and Bonell Creek. Access is via a system of MacMillan-Bloedel logging roads out of Parksville. Prior to any work in the area, a \$500.00 non-refundable payment for use of the roads and a \$10,000 bond had to be posted with MacMillan-Bloedel.

The claims occur in typical Vancouver Island style bush. The area was logged years ago but second growth spruce, balsam, fir and cedar are common.

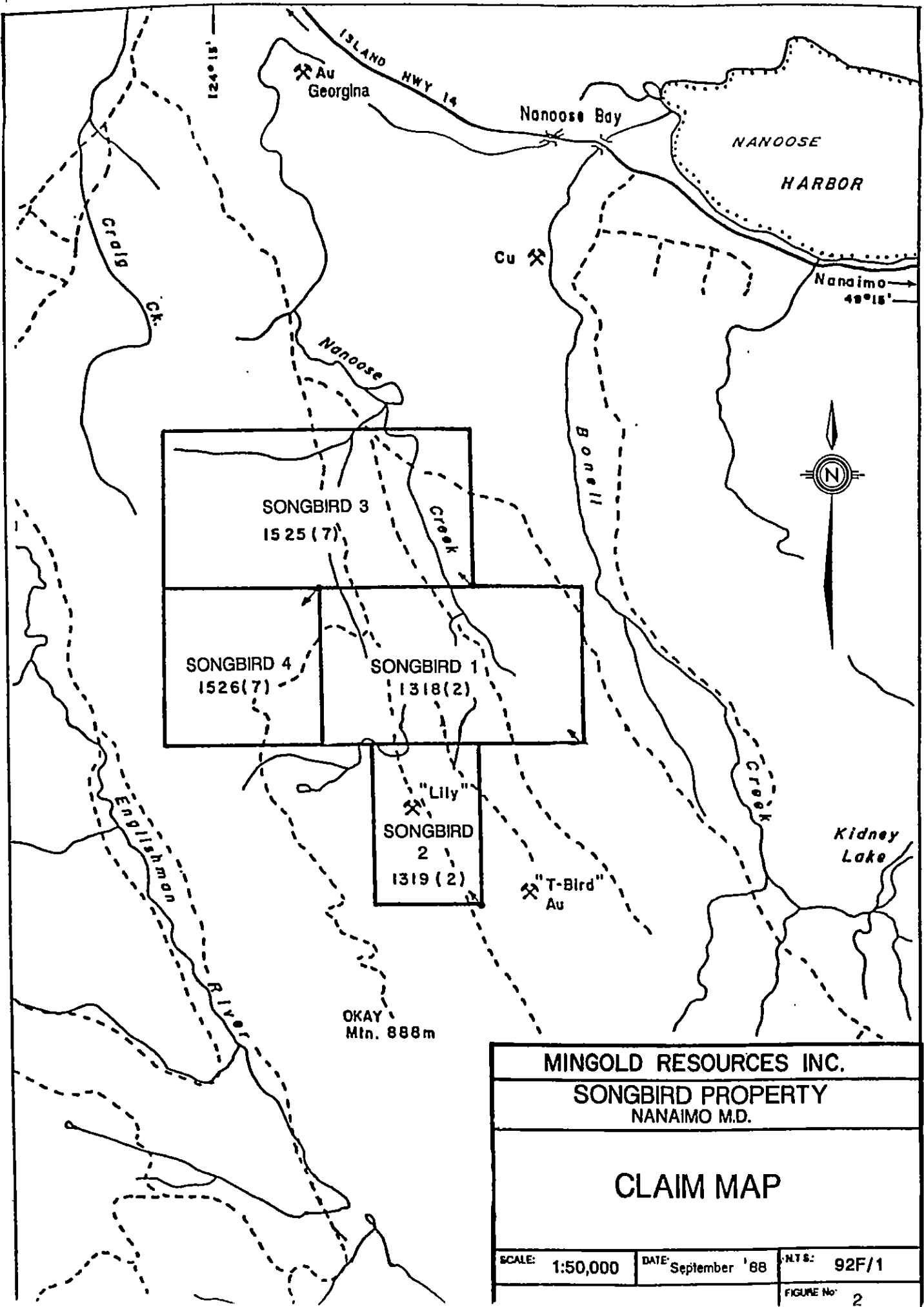


BRITISH COLUMBIA

SONGBIRD  
PROPERTY

MINGOLD RESOURCES INC.		
SONGBIRD PROPERTY NANAMO M.D.		
LOCATION MAP		
SCALE: 1:7,500,000	DATE: September '88	N.T.S.: 92F/1
		FIGURE No. 1





MINGOLD RESOURCES INC.		
SONGBIRD PROPERTY NANAIMO M.D.		
<b>CLAIM MAP</b>		
SCALE: 1:50,000	DATE: September '88	SHTS: 92F/1
		FIGURE No: 2

A thick mat of salal blankets much of the area making progress arduous and slow.

The climate is west coast temperate with generally moderate temperatures and moderate to heavy rainfall common.

### CLAIMS

The SONGBIRD property consists of four contiguous mineral claims totalling 48 units as follows:

<u>Claim Name</u>	<u>Units</u>	<u>Record No.</u>	<u>Expiry Date*</u>	<u>Mining Division</u>
SONGBIRD 1	15	1318	Feb. 16/91	Nanaimo
SONGBIRD 2	6	1319	Feb. 16/91	"
SONGBIRD 3	18	1525	July 5/91	"
SONGBIRD 4	9	1526	July 5/92	"

\* This includes the work presently being applied in this report.

The claims are owned by Mr. Doug Brownlee and Mr. Jim Bell, both of Vancouver, B. C.. The claims were grouped for assessment purposes on January 6, 1984.

The property was optioned by Expedito Resource Group Ltd. in 1988 and work was carried out by Mingold Resources Inc.

### EXPLORATION HISTORY

During the period 1960 to 1963, Gunnex Ltd. conducted a regional silt sampling program covering the E & N Land Grants on Vancouver Island. Although this project was oriented towards basemetals, they discovered a zone (now Songbird Main Zone) which ran 0.1 oz/ton (3.4 g/tonne) gold, 0.5 oz/t (17.1 g/tonne) silver and 0.1% copper over 1.5 meters. They subsequently staked this area

in 1963 and carried out preliminary prospecting, mapping and soil sampling before allowing the claims to lapse.

In 1978, Invex Resources restaked the showing area and conducted geological mapping and geochemical sampling. This work was followed up by trenching and plugger drilling (14 holes) of the Lily zone (original Gunnex discovery). Reportedly chip samples taken across the vein zone averaged 0.194 oz/t (6.7 g/tonne) gold and 1.39 oz/t (47.7 g/tonne) silver over a true width of 9.1 meters. In 1980, Invex drilled two additional short holes the results of which are not known.

In 1983, the area was again restaked as the "Songbird" claims by D. Brownlee and M. Bell.

Eureka Resources Inc. explored the property during 1983-84. Trenching of the Lily Zone exposed a steeply west dipping, brecciated and quartz flooded fault zone, 10-12 meters in width, with an apparent strike length of at least 100 meters. Eureka obtained values of up to 0.130 oz/ton gold and 0.93 oz/ton silver over 8 meters across the zone. Eight drill holes intersected the zone over a strike length of about 200 meters at about 30 meters depth, and indicated true widths of the fault zone ranged from 6 to 16 meters. The mineralized zone intersected in the drill holes was narrower and generally of lower grade than that noted on surface, possibly due to poor core recovery - only 50% in some cases. Results obtained by the drilling program included a number of anomalous values with a high of 0.085 oz/ton gold and 0.55 oz/ton silver over 0.8 meters in one hole.

In addition, Eureka conducted soil sampling and a VLF-EM survey over most of the claims. The reconnaissance VLF-EM survey traced the fault structure which hosts the Lily Zone for more than 2,000 meters to the north. Erratic and generally weak gold and silver soil geochemical anomalies accompany this structure. The erratic nature of the soil anomalies was thought to be due to the wide sample spacing used (300 x 50 meters). Eureka dropped their option in 1985.

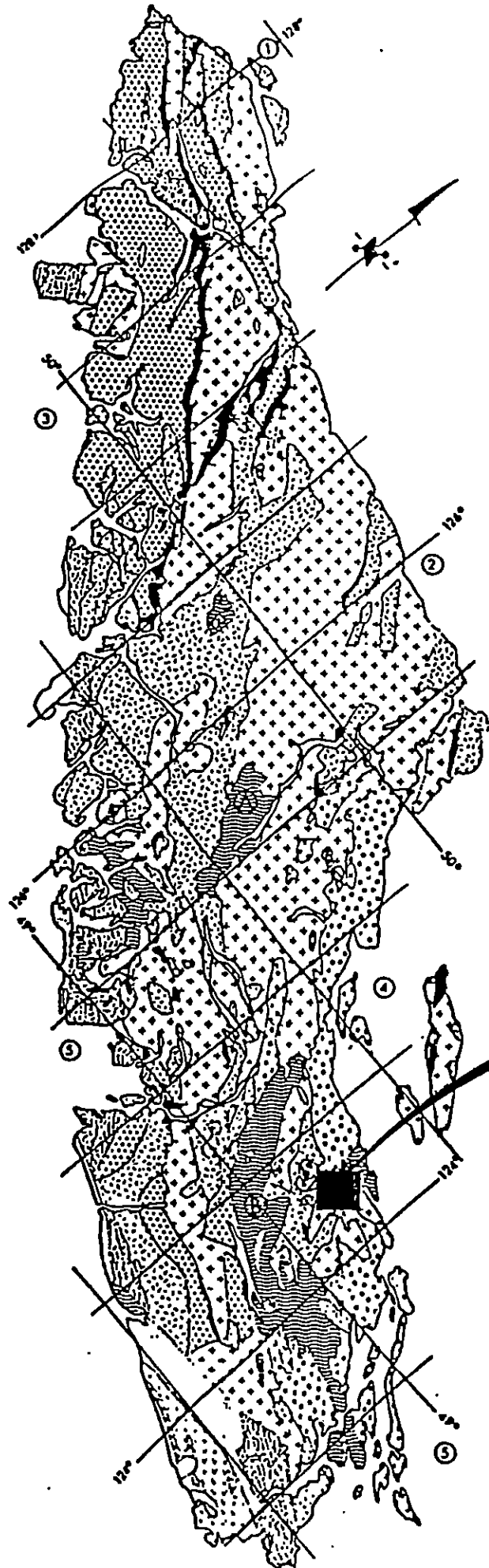
In 1986, the property was optioned by Carben Energy Ltd.. They carried out some trenching over the main northwesterly trending structure and obtained values ranging up to 0.10 oz/ton gold over a width of 10 meters in the Lily Zone.

In 1988, Expedito Resource Group Ltd. optioned the property and retained Mingold Resources Inc. to carry out the current program of soil geochem, VLF-EM and geological mapping. Details of this program are given in the report which follows.














#### REGIONAL GEOLOGY AND MINERAL DEPOSITS

The regional geology of Vancouver Island is shown on Figure 3. The oldest rocks on the Island are members of the Paleozoic Sicker Group, which hosts several massive sulfide deposits including Westmin's Buttle Lake and Debbie deposits and the Tyee/Lenora deposit near Duncan. Mineralization is closely associated with felsic volcanic rocks and centers of venting within the volcanic pile.

The members of the Sicker Group (oldest to youngest) are:



### LEGEND

-  CARMANAH GROUP MIDDLE TERTIARY
  -  CATFACE INTRUSIONS EARLY TO MIDDLE TERTIARY
  -  METCHOSIN VOLCANICS EARLY TERTIARY
  -  NANAIMO GROUP LATE CRETACEOUS
  -  QUEEN CHARLOTTE GROUP  
KYUQUOT GROUP } LATE JURASSIC TO EARLY CRETACEOUS
  -  LEECH RIVER FORMATION  
PACIFIC RIM COMPLEX } EARLY CRETACEOUS
  -  ISLAND INTRUSIONS EARLY AND (?) MIDDLE JURASSIC
  -  BONANZA GROUP EARLY JURASSIC
  -  VANCOUVER GROUP } LATE AND (?) MIDDLE TRIASSIC
  -  PARSON BAY FORMATION  
QUATSINO FORMATION } LATE AND (?) MIDDLE TRIASSIC
  -  KARMUTSEN FORMATION } LATE AND (?) MIDDLE TRIASSIC
  -  SICKER GROUP PALEOZOIC
  -  METAMORPHIC COMPLEXES JURASSIC AND OLDER
- A — BUTTLE LAKE UPLIFT  
 B — COWICHAN-HORNE LAKE UPLIFT  
 C — NANOOSE UPLIFT

SONGBIRD CLAIMS

(From Muller, G.S.C., 1980)

<b>MINGOLD RESOURCES INC.</b>		
<b>SONGBIRD PROPERTY</b> NANAIMO M.D.		
<b>GEOLOGY OF</b> <b>VANCOUVER ISLAND</b>		
SCALE: 1:2000000	DATE: September '88	NTS: 92F/1
		FIGURE No 3

1) Buttle Lake Formation: mainly limestone, locally interbedded with calcareous siltstone and chert.

2) Myra Formation: basic to felsic tuffs, breccias and flows; thinly bedded to massive argillite, siltstone and chert.

3) Nitinat Formation: locally pillowed or agglomeratic basaltic lavas; minor mafic tuff.

Sicker Group rocks are generally overlain by the Triassic Vancouver Group (represented locally mainly by volcanics of the Karmutsen Formation), and both groups are intruded by the Jurassic Island intrusions, mainly dioritic stocks, and more locally by dykes of Tertiary age. Late Cretaceous sediments of the Nanaimo Group overlie the older rocks along the east side of the Island.

The Sicker Group rocks are generally buried under a thick Mesozoic cover, but are exposed in 3 major (and some smaller) uplifted areas, or arches. The 3 major uplifts are: the Buttle Lake Uplift, in the central part of the Island; the extensive Cowichan-Horne Lake Uplift, in the south; and the smaller Nanoose Uplift, just north of Nanaimo. The subject property is situated on the western margin of the Nanoose Uplift.

The Buttle Lake Uplift hosts Westmin's H-W Mine, a producing volcanogenic massive sulfide deposit with gold and silver. Proven and probable reserves are 11.9 million tons of 2.57% copper, 5.22% zinc, 0.35% lead, 0.07 oz/ton gold, and 1.11 oz/ton silver (Westmin 1987 Annual Report).

The Cowichan-Horne Lake Uplift hosts Westmin's Debbie property, which is at present undergoing major development work with very encouraging results, and Abermin's Lara and Coronation deposits. The Coronation deposits are Kuroko type massive sulfides and occur in strongly silicified zones at the contact between fine grained rhyolite tuff and coarse grained quartz porphyry rhyolites. The exploration model is a flow-dome complex. Proven and probable reserves are 1.2 million tons of 0.67% copper, 3.59% zinc, 0.72% lead, 0.084 oz/ton gold, and 1.98 oz/ton silver (Cordilleran Roundup Snapshot Reviews, Feb. 4, 1988).

The Nanoose Uplife contains a number of old showings, such as the Lily Zone (on the subject property), the T-Bird (east of the property), the Georgina (to the north near the Island Highway), the Lower Bonell Creek copper showing, and several smaller mineralized occurrences both north and south of Nanoose Harbour (Fig. 2).

#### PROPERTY GEOLOGY

Most of the claim block was mapped at a scale of 1:5000 (see Plate No. 1). The primary rock units present are the Sicker Group, the Vancouver Group and the Nanaimo Group in ascending order by age.

The Up. Paleozoic Sicker Group rocks are represented by a lower phyllite unit, an intermediate dacite to andesite unit and an upper quartz-sericite schist unit. The lower phyllite unit (2, 2a, 2b, 2c) is predominantly a meta-argillite sequence which is locally cherty and near faults becomes quite graphitic. The unit occurs along the eastern part of the map area partially

overlain unconformably by younger Nanaimo Group sediments. The phyllite unit is overlain apparently conformably by a grey-green fine-grained dacitic to andesitic tuff (unit 3, 3a, 3b). The rock typically weathers a rusty brown and contains minor amounts of finely disseminated pyrite. This tuff sequence is often, but not always, overlain by more phyllite the same as the underlying unit. Contacts are apparently conformable suggesting that the argillite-phyllite unit was still being deposited when a short volcanic episode deposited the tuff sequence. Overlying all these sequences is a creamy white to buff quartz-sericite schist. It often contains thin bands of chert and local lenses of massive pyrite. The original rock was likely a rhyolite or dacite which has undergone strong metamorphism. This appears to be correlative with the felsic volcanic member of the Myra Formation which hosts the massive sulphide deposits at Buttle Lake and Mt. Sicker. The entire package of argillaceous sediments and volcanics follows Muller's (1980) and Massey's (1988) descriptions of the Myra and McLaughlin Ridge Formations respectively. The Nitinat and Buttle Lake Formations appear to be absent in this area probably due to faulting as well as cover by the younger Nanaimo Group sediments.

The Vancouver Group rocks occur along the western edge of the map-area and are typical of the Triassic Karmutsen Formation. Massive dark green andesite forms the bulk of the unit with occurrences of porphyritic and cherty varieties being quite localized. All contacts with the underlying Sicker Group rocks where exposed were faulted.

The Cretaceous Nanaimo Group sediments occur along the eastern edge of the map-area. They consist of fossiliferous sandstone with local conglomerate



lying unconformably on Sicker Group rocks.

#### MINERALIZATION

Scattered pyrite occurs in most of the Sicker and Karmutsen rocks and generally has little significant mineralization associated with it. Three areas of mineralization were observed: the Songbird Main (Lily) Zone, the Bear Zone and the Waterfall Zone.

(i) Songbird Main (Lily) Zone

The Songbird Main Zone occurs on the southern portion of the claim block and has been the primary area of interest in the past. The zone lies along the faulted contact between Karmutsen andesite on the west and Sicker argillite on the east. A brecciated core zone appears to pinch out to the north and remains open to the south. A gold geochem anomaly to the north suggests that the zone may open up again. The brecciated material consists of an orangy brown weathering cherty argillite which has been flooded with quartz-carbonate stringers and veinlets. Only minor sulphides in the form of disseminated pyrite and chalcopyrite are noted. The zone has been exposed by a series of trenches suggesting a strike length in excess of 100 meters. Trench assays ran as high as 0.194 oz/t (6.7 g/tonne) gold and 1.39 oz/t (47.7 g/tonne) silver over a true width of 9.1 meters (Invex Resources, 1978). Subsequent drilling investigated approximately 200 meters of strike length. Although the fault zone was found to be present, the mineralized zone was much narrower and lower grade than surface sampling. It was hoped that the soil geochemical survey would show con-

tinuity in the zone along strike however gold anomalies are sporadic and often single station anomalies. This indicates that the mineralization is either very erratically distributed in the fault zone or in a series of small plunge-controlled shoots. Future drilling will attempt to investigate these anomalies.

The parallels between this showing and Westmin's new Debbie deposit suggest that the faulting and quartz-carbonate may be of more importance than lithology. Westmin feels the mineralization is likely Tertiary in age and unrelated to the Sicker Group rocks.

(ii) Bear Zone

This zone is not of any economic interest but does show minor copper values with very weak gold. The rock consists of massive Karmutsen andesite which has been brecciated and infilled by quartz-carbonate. The quartz-carbonate has been rebrecciated and infilled. The best copper value was 574 ppm and the best gold value was 13 ppb.

(iii) Waterfall Zone

The Waterfall Zone is also not of economic significance although it occurs in a similar environment as that on the Songbird Main Zone. The showing consists of Sicker graphitic argillite cut by quartz veins up to 0.5 meters over a zone 4.2 meters wide. Sulphides occur as fine disseminations and blebs of pyrite (1-2%), arsenopyrite (tr-1%) and chalcopyrite (tr-1%) within the veins. The zone is associated with the sheared

contact between Karmutsen andesites and Sicker argillites.

### SOIL GEOCHEMISTRY

A total of 974 soil samples were collected on the SONGBIRD claims. Initial coverage of most of the claim block was done using 50 meter stations on lines 100 meters apart. Where any significant anomalies were obtained, further detailing was done at 25 meter stations on lines 25 or 50 meters apart. Values were plotted at a scale of 1:5000 and contoured using a statistical analysis by Michael Choi of Acme Analytical Labs (see Appendix III ). Contour intervals were chose at mean + one, mean + two and mean + three standard deviations. Contour values were rounded to the nearest logical interval as shown below:

<u>Element</u>	<u>Mean (m)</u>	<u>Stand. Dev. (s)</u>	<u>m + s*</u>	<u>m + 2s*</u>	<u>m + 3s*</u>
Copper	33	62	95 (100)	157 (150)	219 (200)
Zinc	90	90	180 (150)	270 (250)	360 (350)
Silver	0.1	0.4	0.5 (0.5)	0.9 (1.0)	1.3 (1.5)
Gold	5	34	39 ( 50)	73 ( 75)	107 (100)

\* Number in brackets used for contour interval. All values are in ppm except gold which is in ppb.

### Sampling Technique

Samples were taken at a depth of 10-25 cm. using a grubhoe then placed in gusseted Kraft bags. Wherever possible samples were collected from the "B" horizon however some "A" and "C" horizon samples were also taken. Samples were air-dried and then shipped to Acme Analytical Labs in Vancouver for analysis.

### Analytical Technique

All samples were analysed for copper, zinc, silver and gold.

The copper, zinc and silver analysis were done by ICP while gold was by standard AA.

ICP analysis involves the digestion of a 0.5 gram sample with 3 mls. of 3-1-2 HCL-HNO<sub>3</sub>-H<sub>2</sub>O at 95<sup>0</sup>C for one hour. This is then diluted to 10 mls. with water and analysed by the ICP unit. Detection limits are 1 ppm for copper, 2 ppm for zinc and 0.1 ppm for silver. Gold analysis by AA uses a 10 gram sample which is ignited at 600<sup>0</sup>C. This is then digested with hot aqua regia, extracted by MIBK and analysed by a graphite furnace AA unit. Detection limit for gold is 1 ppb.

### Interpretation

As the main focus of the program was locating potential gold mineralization, a comparison was done relating gold anomalies to those of the other elements. Gold is typically accompanied by silver anomalies but the reverse is not always true. Only 40% of the gold anomalies have corresponding copper anomalies so copper is not a good pathfinder for gold in this area. All but one of the gold anomalies have zinc anomalies either coincident with or immediately adjacent to them. Zinc, however, is quite widespread in the area and often has no gold anomalies with it. It is possible that the gold is erratically mineralized within the same system which brought in the zinc and may be present at depth. This would have to be tested with further drilling.

Gold anomalies lie along two lineal trends. The first and strongest trend coincides with the Lily Zone fault running north-northwest and indicates the zone could be as much as 500 meters long. The second trend parallels the first and is coincident with a belt of Sicker phyllite. A creek linear in this area suggests a fault, however, the VLF does not show anything definite.

The best target remains the Lily Zone area.

The silver, copper and zinc anomalies also seem to coincide with faults delineated by the VLF-EM. Silver and copper are fairly limited in extent while zinc is widespread. Even zinc, however, occurs as bull's eye type anomalies rather than long lineal trends. This suggests that the mineralization is either poddy or plunge-controlled with short strike extent.

#### Rock Geochemistry

A total of 41 rock samples were taken and submitted for analysis for a 30 - element ICP package with A.A. for gold. Samples are described in Appendix IV . Grab samples consist of a single specimen of rock. Random chip samples are self explanatory with small chips of rock taken randomly over an area of interest. Continuous chip samples consist of a series of chips taken much as a channel sample would be generally where sulphides are observed. Widths given are the length of the samples and may or may not be the true width of mineralization. Samples are typically 15 to 75 grams.

#### Analytical Technique

Samples are collected in poly bags and sent to Acme Analytical Labs in Vancouver for analysis. Samples are pulverized in preparation for the appropriate analytical process.

The 30 - element ICP package uses a 0.5 gram sample which is digested with 3-1-2 HCl-HNO<sub>3</sub>-H<sub>2</sub>O at 95°C for one hour. This is then diluted to 10 ml. with water and analyzed by a standard ICP unit. The detection limit for silver is 0.1 ppm. For the metallic elements it is 2 ppm or better and for the gangue minerals it is 0.01%.

Gold is analysed by atomic absorption from a 10 gram sample. The sample is ignited at 600°C, digested with hot aqua regia and extracted by MIBK. Analysis is then done using a graphite furnace A.A. unit. Detection limit for gold is 1 ppb.

#### Discussion of Results

The results of the rock samples were generally disappointing, however, this is partially due to the limited outcrop available for sampling. Most samples were anomalous in only one or two elements and gold was very low except for one sample. Sample 88NS033 was taken on the Waterfall Zone on the northern end of the property. It was a continuous chip sample of phyllitic argillite cut by a 10 cm. wide quartz vein. The rock was sili-cified either side of the vein. The sample ran 560 ppb (0.56 gm/tonne or 0.016 oz/ton) gold over 1.0 meter. No other metals were anomalous sug-gesting it was free gold within the quartz vein.

Sample 88NS032 was taken from an outcrop of quartz-sericite schist which contained a pod of massive sulphides 5 - 10 cm wide. A grab of this massive material ran 206 ppm copper, 338 ppm zinc and 3.6 ppm (3.6 gm/tonne or 0.11 oz/ton) silver. Gold only ran 27 ppb which is above background but not significant.

Sample 88NS018 was a random chip taken from a rusty quartz-sericite schist outcrop and ran 743 ppm zinc and 2.1 ppm (2.1 gm/tonne or 0.06 oz/ton) silver.

Other samples (88NS020, 23, 24, 25, 39) had minor anomalous copper values with no supporting elements.

The Songbird Main or Lily Zone was not resampled as previous companies verified the gold and base metal anomalies in this area.

### VLF-EM Survey

A total of 31 kilometers of VLF-EM surveying was conducted using 25 meter stations on lines 100 meters apart. A Geonics EM-16 was used for the survey. The operation and theory of this instrument is well documented and will not be elaborated on in this report.

Results were smoothed using the Fraser filtering technique which yields contourable results. Only the positive values are contoured and therefore the negative values are left off of Plate No. 6 for clarity. The raw and filtered data is included as Appendix V at the end of the report. Results were contoured every 20 units (i.e. 0, 20, 40, 60 ....).

### Interpretation of Results

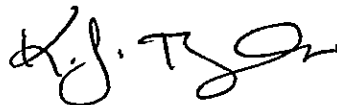
Referring to Plate No. 6, four major anomalous trends are apparent. The strongest trend consists of two parallel anomalies running north-north-west from one end of the property to the other, a distance of approximately 4 kilometers. This is interpreted as two parallel fault zones, the westernmost of which is associated with the Songbird Main Zone. The eastern anomaly is likely a fault splay of the Main Zone Fault and locally merges with it.

In the southern part of the survey area, two additional faults are apparent to the west and paralleling the Main Zone Fault. These faults tend

to disappear in the central portion of the survey area and then reappear less distinctly to the north. The erratic nature of these faults suggests that east-west crossfaulting may be occurring. These crossfaults would result in a large area of positive in-phase values which would tend to suppress response to any north-south conductors.

A series of less conductive and erratic responses occur on the eastern side of the Main Zone Fault and likely result from contacts between different rock types. As expected, areas of Sicker graphitic argillite show up as strong anomalies locally. In addition, the dacite-andesite tuff member of the Sicker seems to incite a response in the VLF-EM. Shifts in conductivity in this area also suggest the presence of crossfaulting.

There is no indication that the VLF-EM is responding to mineralized bodies. Mineralization appears to be too finely disseminated to elicit such a response. The strong response of associated fault zones likely masks any conductivity resulting from any mineralized zones.



K. J. TAYLOR,  
Project Supervisor.



BIBLIOGRAPHY

- Grond, H. C. "Report on Expeditors Songbird Property - Parksville Area, Vancouver Island" In House Report by J. P. Sorbarra & Assoc. for Expeditor Resource Group, July 20, 1988
- Taylor, K. J. "Report on Linecutting and VLF-EM Surveys on the Songbird 1 & 2 Mineral Claims" Report for Assessment by Mingold Resources Inc. April 15, 1988.
- Laanela, H. "Summary Report on the Songbird 1-4 Claims" In House Report for Hi-Tec Resource Management Ltd., March 21, 1986.
- Muller, J. E. "The Paleozoic Sicker Group of Vancouver Island, British Columbia" Geological Survey of Canada, Paper 79-30, 1980.
- Massey, N.W.D. et al "Geology of the Cowichan Lake Area, Vancouver Island" in Geological Fieldwork 1986, B. C. Geological Survey, Paper 1987-1, January 1987.
- "Geology of the Chemainus River-Duncan Area, Vancouver Island" in Geological Fieldwork 1987, B. C. Geological Survey, Paper 1988-1, January 1988.

APPENDIX I

## STATEMENT OF COSTS

1988 - SONGBIRD PROJECT (#626)

### Personnel

John Nicholson	- Project Geologist	\$ 125/day
Joel Thomlinson	- Fieldman	100/day
Dan Cosgrove	- Fieldman	100/day
Neil McLeod	- Fieldman	100/day
K. Taylor	- Project Supervisor	175/day

### Dates

Soil geochem survey	- Neil McLeod, April 25-30, May 1-20 (26 mandays)	
	- Dan Cosgrove, May 25, 26 (2 mandays)	
Rock geochem	- John Nicholson - see Geological Mapping	
VLF-EM	- Dan Cosgrove, April 20-May 20 (31 mandays)	
Geological Mapping	- John Nicholson, April 15-27, May 3-24 (35 mandays)	
Report	- Ken Taylor, Sept 23, 26-29 (5 days)	

### Cost Breakdown

Soil geochem	- 974 assays @ \$10.85/sample	10567.90
	- 28 mandays @ \$100/manday	2800.00
	- Room/board - 28 mandays @ \$45/manday	1260.00
	- Truck Rental - 28 days @ \$40/day incl. fuel	1120.00
	- Supplies (bags, flagging etc.)	150.00
		15897.90
Rock geochem	- 41 assays @ \$16/sample	656.00
	- Supplies (bags, ties)	15.00
	- Labour - see Geological Mapping	-
		671.00
VLF-EM (31.0 km.)	- 31 mandays @ \$100/manday	3100.00
	- Room/board - 31 mandays @ \$45/manday	1395.00
	- Truck rental - 31 days @ \$40/day incl. fuel	1240.00
	- 2 days plotting @ \$100/day	200.00
		5935.00
Geological Mapping	- 35 mandays @ \$125/manday	4375.00
	- Room/board - 35 mandays @ \$5/manday	1575.00
		5950.00
Report	- 5 days writing and compiling report @ \$175/day	875.00
	- 26 hr. drafting @ \$15/hr	390.00
		1265.00
	TOTAL	\$ 29,718.90
	Physical Work - already filed	8,930.00
	GRAND TOTAL	\$ 38,648.90

APPENDIX II

STATEMENT OF QUALIFICATIONS

I, KENNETH J. TAYLOR, residing at 15732-92 B Avenue, Surrey, B.C., do hereby certify that:

1. I am an employee of the Vancouver office of Mingold Resources Inc.
2. I am a graduate of the University of British Columbia in 1973 with a B.Sc. in Geology.
3. I am a Fellow, in good standing, of the Geological Association of Canada.
4. I have practised my profession as an Exploration Geologist for over 15 years.
5. I was partially responsible for supervision of this program and received timely reports on the progress and data obtained.
6. I do not have, nor do I expect to receive any direct or indirect interest in the SONGBIRD property or the Expedito Resource Group.

Dated at Vancouver, British Columbia, this 28th day of April, 1988.

*K. J. Taylor*

June 23, 1988

HISTOGRAM/STATISTICAL SUMMARY

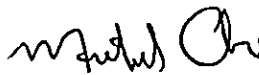
To : Mingold Resources  
Project : #626 Songbird

<u>FILE NUMBER</u>	<u>NO. PAGES</u>	<u>SAMPLE TYPE</u>	<u>NO. SAMPLES</u>
88-1235	1-5	SOIL	164
88-1364	1-10	SOIL	333
88-1494	1-8	SOIL	277
88-1540	3-7	SOIL	168
88-1549	1-2	SOIL	48
TOTAL SOIL SAMPLES			- 990

As requested on June 23, 1988, all files under the project name - songbird were combined and histograms were done on the elements analyzed for including:

Cu, Zn, Ag and Au\*

Sincerely yours,

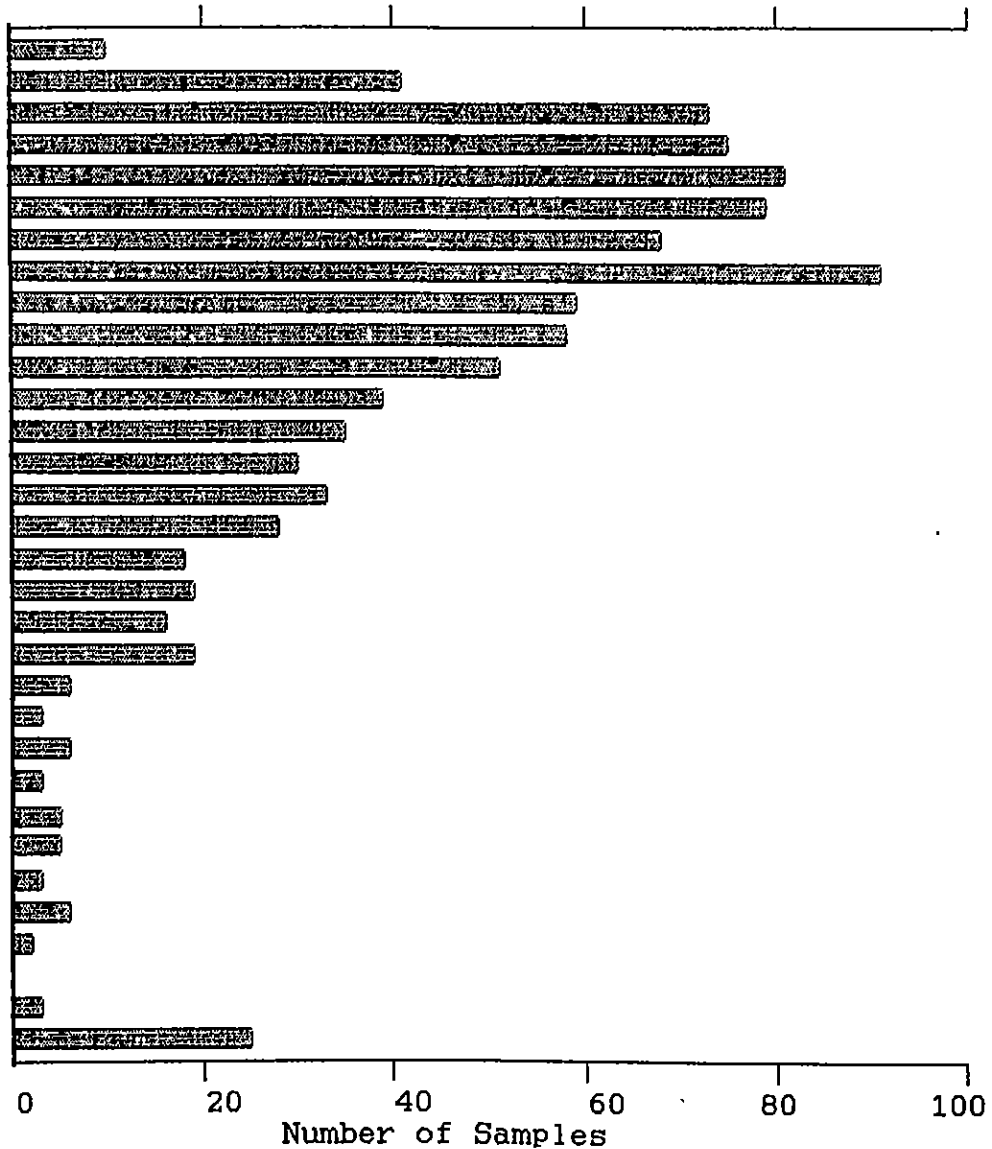


Michael Choi

MINGOLD RES. (#626 SONGBIRD)

Cu  
(PPM)

3 ( 10)  
 6 ( 41)  
 9 ( 73)  
 12 ( 75)  
 15 ( 81)  
 18 ( 79)  
 21 ( 68)  
 24 ( 91)  
 27 ( 59)  
 30 ( 58)  
 33 ( 51)  
 36 ( 39)  
 39 ( 35)  
 42 ( 30)  
 45 ( 33)  
 48 ( 28)  
 51 ( 18)  
 54 ( 19)  
 57 ( 16)  
 60 ( 19)  
 63 ( 6)  
 66 ( 3)  
 69 ( 6)  
 72 ( 3)  
 75 ( 5)  
 78 ( 5)  
 81 ( 3)  
 84 ( 6)  
 87 ( 2)  
 90 ( 0)  
 93 ( 3)  
 Over ( 25)

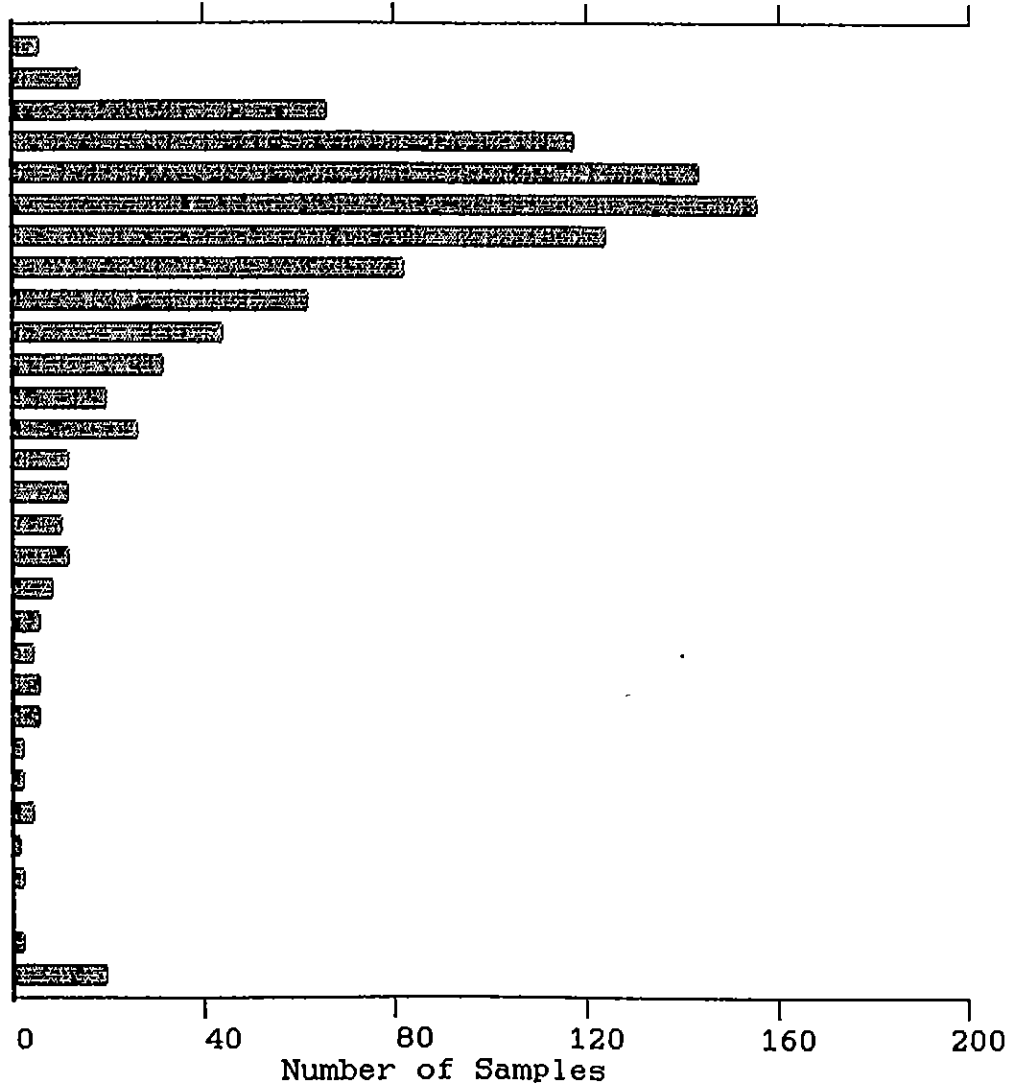


990 Samples      Maximum:    1612      Mean:        33  
 Minimum:        1            Median:      24  
 Standard Deviation:                                  62

MINGOLD RES. (#626 SONGBIRD)

Zn  
(PPM)

20 ( 5)  
 30 ( 14)  
 40 ( 66)  
 50 (117)  
 60 (143)  
 70 (155)  
 80 (124)  
 90 ( 82)  
 100 ( 62)  
 110 ( 44)  
 120 ( 31)  
 130 ( 19)  
 140 ( 26)  
 150 ( 11)  
 160 ( 11)  
 170 ( 10)  
 180 ( 11)  
 190 ( 8)  
 200 ( 5)  
 210 ( 4)  
 220 ( 5)  
 230 ( 5)  
 240 ( 2)  
 250 ( 2)  
 260 ( 4)  
 270 ( 1)  
 280 ( 2)  
 290 ( 0)  
 300 ( 2)  
 Over ( 19)



990 Samples

Maximum: 1361  
 Minimum: 14

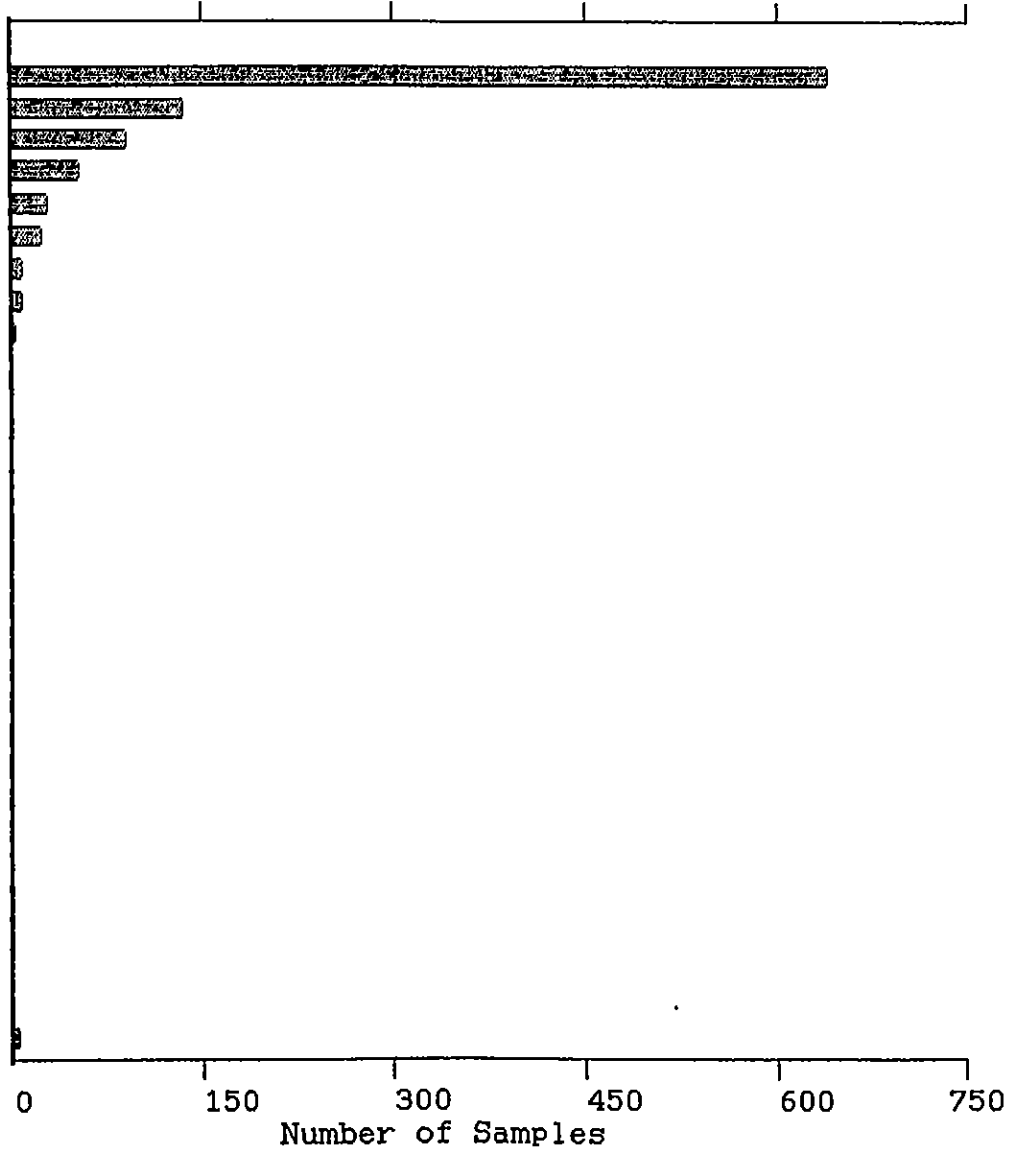
Mean: 90  
 Median: 70  
 Standard Deviation: 90

MINGOLD RES. (#626 SONGBRID)

---

Ag  
(PPM)

0.0 ( 0)  
 0.1 ( 640)  
 0.2 ( 134)  
 0.3 ( 89)  
 0.4 ( 52)  
 0.5 ( 27)  
 0.6 ( 22)  
 0.7 ( 7)  
 0.8 ( 7)  
 0.9 ( 3)  
 1.0 ( 0)  
 1.1 ( 0)  
 1.2 ( 0)  
 1.3 ( 1)  
 1.4 ( 0)  
 1.5 ( 0)  
 1.6 ( 0)  
 1.7 ( 0)  
 1.8 ( 0)  
 1.9 ( 0)  
 2.0 ( 0)  
 2.1 ( 0)  
 2.2 ( 0)  
 2.3 ( 0)  
 2.4 ( 1)  
 2.5 ( 0)  
 2.6 ( 0)  
 2.7 ( 1)  
 2.8 ( 0)  
 2.9 ( 0)  
 3.0 ( 0)  
 Over ( 6)



990 Samples

Maximum: 6.0

Mean: 0.0

Minimum: 0.0

Median: 0.0

Standard Deviation: 0.4

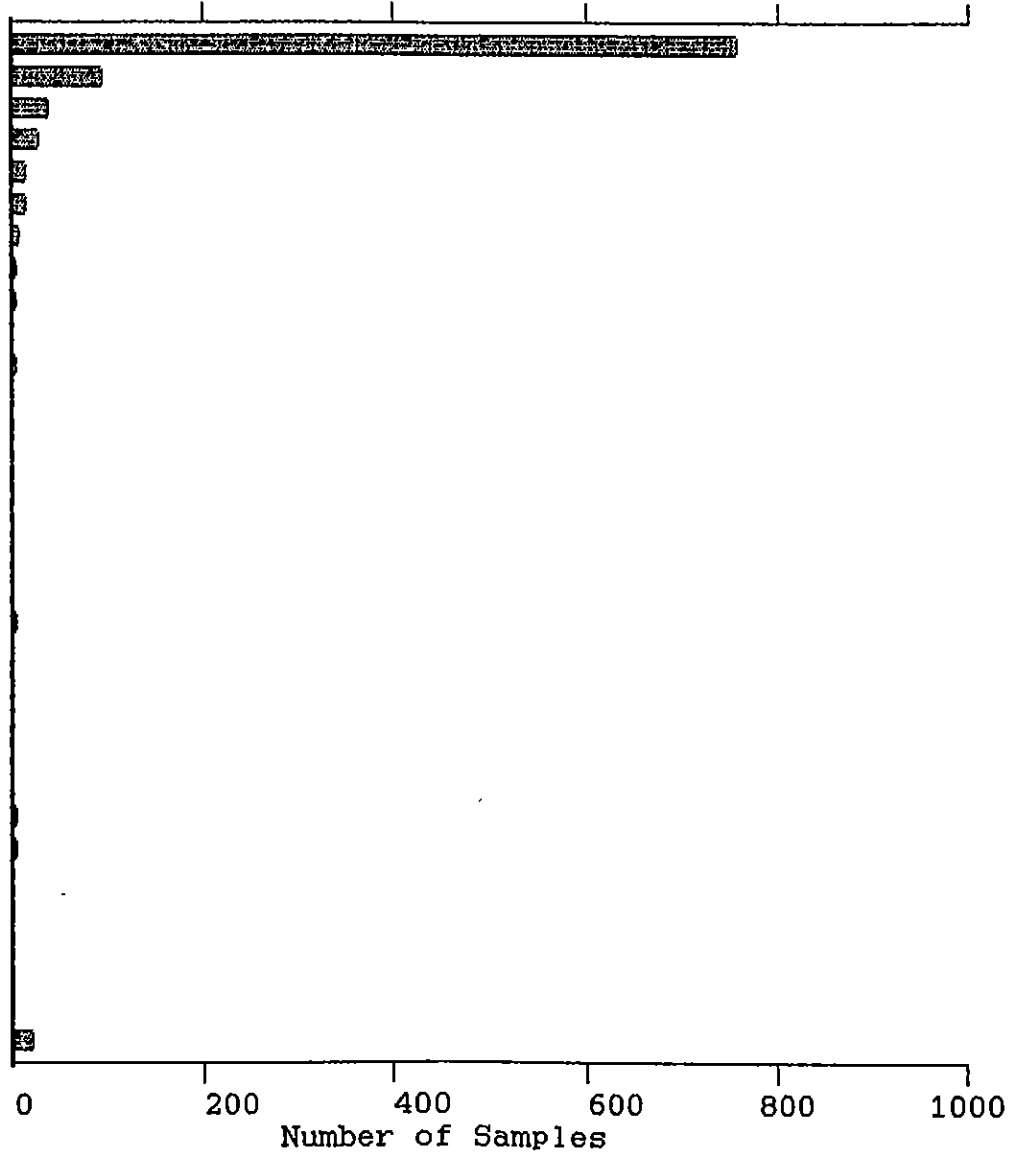


MINGOLD RES. (#626 SONGBIRD)

---

AU\*  
(PPB)

1 ( 757)  
 2 ( 93)  
 3 ( 35)  
 4 ( 28)  
 5 ( 14)  
 6 ( 12)  
 7 ( 7)  
 8 ( 4)  
 9 ( 3)  
 10 ( 0)  
 11 ( 3)  
 12 ( 1)  
 13 ( 0)  
 14 ( 1)  
 15 ( 0)  
 16 ( 1)  
 17 ( 0)  
 18 ( 1)  
 19 ( 3)  
 20 ( 0)  
 21 ( 0)  
 22 ( 0)  
 23 ( 1)  
 24 ( 0)  
 25 ( 3)  
 26 ( 2)  
 27 ( 0)  
 28 ( 0)  
 29 ( 0)  
 30 ( 0)  
 31 ( 0)  
 Over ( 21)



990 Samples

Maximum: 640  
 Minimum: 1

Mean: 5  
 Median: 1  
 Standard Deviation: 34

ACME ANALYTICAL LABORATORIES LTD.

DATE RECEIVED: MAY 02 1988

852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6

PHONE(604)253-3158 FAX(604)253-1716 DATE REPORT MAILED: *May. 31/88.*

### GEOCHEMICAL ANALYSIS CERTIFICATE

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

ASSAYER: *C. Leong* D. TOYE OR C. LEONG, CERTIFIED B.C. ASSAYERS

MINGOLD RESOURCES PROJECT-#626 SONGBIRD File # 88-1235 *R* Page 1

SAMPLE#	Cu PPM	Zn PPM	Ag PPM	Au* PPB
53+00N 47+00E	17	37	.1	1
53+00N 48+00E	31	50	.1	1
53+00N 48+50E	11	67	.1	2
53+00N 49+50E	33	58	.1	1
53+00N 50+50E	38	75	.1	1
53+00N 51+00E	29	104	.1	1
53+00N 52+00E	27	85	.1	1
53+00N 52+50E	28	66	.1	2
53+00N 53+00E	31	62	.2	1
53+00N 53+50E	27	60	.1	1
53+00N 54+00E	34	95	.1	1
53+00N 54+50E	22	88	.1	1
53+00N 55+00E	18	56	.1	1
53+00N 55+50E	12	51	.1	1
53+00N 56+50E	28	97	.1	1
52+00N 47+50E	46	48	.1	1
52+00N 48+50E	10	37	.1	2
52+00N 50+50E	6	36	.1	1
52+00N 51+00E	7	60	.1	1
52+00N 51+50E	14	67	.1	1
52+00N 52+00E	18	62	.1	3
52+00N 52+50E	30	96	.1	1
52+00N 53+00E	16	147	.1	1
52+00N 53+50E	21	70	.1	2
52+00N 54+00E	12	56	.1	3
52+00N 54+50E	22	66	.1	1
52+00N 55+50E	18	72	.1	1
52+00N 56+00E	12	27	.1	6
52+00N 56+50E	31	74	.1	1
51+00N 47+00E	91	66	.1	1
51+00N 47+50E	31	64	.1	4
51+00N 48+00E	31	54	.1	1
51+00N 48+50E	10	61	.1	1
51+00N 49+50E	17	71	.1	1
51+00N 50+00E	24	81	.1	1
51+00N 50+50E	30	85	.1	1
STD C/AU-S	62	102	7 ?	53

SAMPLE#	Cu PPM	Zn PPM	Ag PPM	Au* PPB
51+00N 51+00E	83	105	.1	1
51+00N 51+50E	45	72	.1	1
51+00N 52+00E	43	68	.1	2
51+00N 52+50E	22	134	.1	1
51+00N 53+00E	40	88	.1	1
51+00N 53+50E	87	106	.1	1
51+00N 54+00E	24	70	.1	1
51+00N 54+50E	18	36	.1	1
51+00N 55+00E	37	51	.1	2
51+00N 55+50E	16	64	.1	1
51+00N 56+00E	45	81	.1	2
51+00N 56+50E	58	119	.1	1
51+00N 57+00E	45	250	.5	1
51+00N 57+50E	27	88	.1	1
51+00N 58+00E	17	57	.1	1
50+00N 47+00E	29	72	.1	1
50+00N 47+50E	20	31	.1	1
50+00N 48+00E	32	30	.1	3
50+00N 48+50E	41	38	.1	1
50+00N 49+00E	23	70	.1	1
50+00N 49+50E	17	47	.1	1
50+00N 50+50E	41	91	.3	1
50+00N 51+00E	22	79	.1	1
50+00N 52+00E	19	65	.1	1
50+00N 52+50E	14	83	.3	1
50+00N 53+00E	77	47	.1	4
50+00N 53+50E	14	38	.1	2
50+00N 54+00E	23	60	.1	1
50+00N 55+00E	10	74	.1	1
50+00N 55+50E	34	63	.1	1
50+00N 56+00E	44	48	.3	1
50+00N 56+50E	57	98	.3	1
50+00N 57+00E	430	385	1.3	116
50+00N 57+50E	20	69	.1	1
50+00N 58+00E	56	79	.3	1
49+00N 47+50E	36	56	.1	1
STD C/AU-S	63	132	7.5	51

SAMPLE#	Cu PPM	Zn PPM	Ag PPM	Au* PPB
49+00N 48+50E	22	74	.1	1
49+00N 49+00E	24	63	.1	1
49+00N 49+50E	16	38	.1	2
49+00N 51+00E	18	58	.1	1
49+00N 51+50E	131	608	3.1	55
49+00N 52+00E	28	75	.1	1
49+00N 52+50E	27	51	.1	1
49+00N 53+00E	38	108	.5	1
49+00N 53+50E	42	75	.1	1
49+00N 54+00E	28	61	.1	1
49+00N 54+50E	37	103	.1	1
49+00N 55+00E	20	98	.1	2
49+00N 55+50E	33	81	.1	1
49+00N 56+00E	24	56	.1	6
49+00N 56+50E	26	79	.1	1
49+00N 57+00E	24	93	.2	1
49+00N 57+50E	21	91	.3	1
49+00N 58+00E	14	83	.1	1
48+00N 47+50E	20	65	.1	3
48+00N 48+00E	20	58	.1	1
48+00N 49+00E	10	33	.1	1
48+00N 49+50E	30	49	.1	1
48+00N 50+00E	62	71	.6	1
48+00N 50+50E	31	43	.1	1
48+00N 51+00E	47	71	.2	6
48+00N 51+50E	32	145	.6	7
48+00N 52+00E	40	127	.7	1
48+00N 52+50E	10	43	.1	1
48+00N 53+00E	24	68	.1	1
48+00N 53+50E	16	48	.1	1
48+00N 54+00E	26	66	.1	4
48+00N 54+50E	15	160	.3	2
48+00N 55+00E	27	70	.2	1
48+00N 55+50E	34	65	.2	1
48+00N 56+00E	34	69	.1	1
48+00N 56+50E	11	87	.1	1
STD C/AU-S	62	133	7.5	47

SAMPLE#	Cu PPM	Zn PPM	Ag PPM	Au* PPB
48+00N 57+00E	17	108	.2	2
48+00N 57+50E	21	200	.1	3
48+00N 58+00E	33	171	.2	1
47+00N 47+00E	25	161	.2	1
47+00N 47+50E	54	107	.1	1
47+00N 48+00E	18	48	.1	4
47+00N 48+50E	31	48	.1	3
47+00N 49+50E	19	71	.1	1
47+00N 50+00E	46	88	.1	1
47+00N 50+50E	18	50	.1	1
47+00N 51+50E	24	84	.1	4
47+00N 52+00E	30	116	.2	1
47+00N 52+50E	22	79	.1	1
47+00N 53+00E	8	69	.1	1
47+00N 53+50E	6	50	.1	1
47+00N 54+00E	28	103	.1	1
47+00N 54+50E	18	97	.3	1
47+00N 55+00E	12	67	.1	1
47+00N 55+50E	45	58	.1	1
47+00N 56+50E	10	57	.1	2
47+00N 57+00E	12	59	.1	1
46+00N 47+50E	10	48	.1	25
46+00N 48+00E	30	74	.1	1
46+00N 48+50E	9	42	.1	3
46+00N 49+00E	58	56	.1	1
46+00N 49+50E	41	89	.1	2
46+00N 50+00E	34	83	.1	1
46+00N 50+50E	13	71	.1	4
46+00N 51+00E	53	80	.1	6
46+00N 51+50E	69	640	.7	11
46+00N 52+00E	23	107	.1	1
46+00N 52+50E	15	70	.1	1
46+00N 53+00E	24	57	.1	2
46+00N 53+50E	40	69	.2	5
46+00N 54+00E	17	108	.1	5
46+00N 54+50E	18	126	.2	2
STD C/AU-S	61	132	7.2	47

SAMPLE#	Cu PPM	Zn PPM	Ag PPM	Au* PPB
46+00N 55+00E	34	60	.1	1
46+00N 55+50E	58	175	.3	5
46+00N 56+50E	23	37	.1	1
46+00N 57+00E	31	66	.1	1
46+00N 57+50E	45	59	.1	1
45+00N 50+00E	54	452	.3	1
45+00N 50+50E	32	78	.1	1
45+00N 51+00E	57	39	.1	1
45+00N 51+50E	51	67	.1	2
45+00N 52+00E	23	78	.1	7
45+00N 52+50E	28	77	.1	1
45+00N 53+00E	25	87	.1	1
45+00N 53+50E	39	64	.1	2
45+00N 54+00E	23	87	.1	1
45+00N 54+50E	13	76	.1	1
45+00N 55+00E	16	41	.1	1
45+00N 55+50E	19	72	.1	2
45+00N 56+00E	11	54	.1	1
45+00N 56+50E	11	94	.1	2
45+00N 57+00E	69	632	.7	1
STD C/AU-S	63	132	7.6	48

ACME ANALYTICAL LABORATORIES LTD.

DATE RECEIVED: MAY 09 1988

852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6

PHONE (604) 253-3158 FAX (604) 253-1716 DATE REPORT MAILED:

*May 31/88*

GEOCHEMICAL ANALYSIS CERTIFICATE

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER. THIS LEACH IS PARTIAL FOR MN FE 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: P1-P10 SOIL P11 ROCK AU\* ANALYSIS BY AA FROM 10 GRAM SAMPLE.

ASSAYER: *C. Leong* D. TOYE OR C. LEONG, CERTIFIED B.C. ASSAYERS

MINGOLD RESOURCES PROJECT-#626 SONGBIRD File # 88-1364R Page 1

SAMPLE#	Cu PPM	Zn PPM	Ag PPM	Au* PPB
L62N 45+00E	20	68	.1	1
L62N 45+50E	14	48	.1	1
L62N 46+00E	20	147	.1	1
L62N 46+50E	15	115	.1	1
L62N 47+00E	15	88	.1	1
L62N 48+00E	52	143	.1	1
L62N 48+50E	38	82	.1	1
L62N 49+00E	11	70	.4	1
L62N 49+50E	15	76	.2	1
L62N 50+00E	38	76	.1	2
L62N 50+50E	20	89	.8	1
L62N 51+00E	115	108	.4	4
L62N 51+50E	9	34	.1	1
L62N 52+00E	22	93	.3	1
L62N 52+50E	14	56	.7	1
L62N 53+00E	28	62	.1	1
L62N 53+50E	141	213	.1	1
L62N 54+00E	27	118	.2	1
L62N 54+50E	18	152	.3	1
L62N 55+00E	15	91	.2	1
L62N 55+50E	16	80	.3	2
L62N 56+00E	21	80	.2	1
L62N 56+50E	21	106	.1	1
L62N 57+00E	53	105	.6	1
L61N 45+00E	26	63	.1	1
L61N 45+50E	21	66	.1	1
L61N 46+00E	32	40	.1	1
L61N 46+50E	23	59	.2	1
L61N 47+00E	12	82	.1	1
L61N 47+50E	39	75	.1	5
L61N 48+00E	23	80	.3	6
L61N 48+50E	58	111	.1	1
L61N 49+00E	34	104	.1	1
L61N 49+50E	22	64	.1	1
L61N 50+00E	22	95	.1	1
L61N 50+50E	16	57	.1	1
CPD 511-2	60	131	6 7	5J

SAMPLE#	Cu PPM	Zn PPM	Ag PPM	Au* PPB
L61N 51+00E	21	86	.1	1
L61N 51+50E	22	53	.1	1
L61N 52+00E	16	53	.1	1
L61N 52+50E	25	70	.6	230
L61N 53+50E	18	65	.1	2
L61N 54+00E	22	57	.1	1
L61N 54+50E	20	83	.3	1
L61N 55+00E	9	35	.1	3
L61N 55+50E	41	84	.1	1
L61N 56+00E	23	71	.1	1
L61N 56+50E	12	39	.1	1
L61N 57+00E	77	133	.6	2
L60N 45+00E	24	62	.2	1
L60N 45+50E	60	910	.3	3
L60N 46+00E	43	73	.1	2
L60N 46+50E	32	84	.1	1
L60N 47+00E	34	55	.1	1
L60N 47+50E	43	73	.1	1
L60N 48+00E	26	68	.1	1
L60N 48+50E	13	44	.4	1
L60N 49+00E	7	33	.1	2
L60N 49+50E	22	44	.3	1
L60N 50+00E	14	62	.1	1
L60N 50+50E	12	39	.2	1
L60N 51+00E	28	68	.1	1
L60N 51+50E	35	44	.1	7
L60N 52+00E	32	61	.1	9
L60N 52+50E	23	80	.1	1
L60N 53+00E	49	138	.6	1
L60N 53+50E	10	51	.3	1
L60N 54+00E	20	34	.4	1
L60N 54+50E	24	50	.1	6
L60N 55+00E	12	29	.1	1
L60N 55+50E	13	86	.2	1
L60N 56+50E	58	73	.1	2
L60N 57+00E	23	68	.1	1
STD C/AU-S	62	132	7.1	53



SAMPLE#	Cu PPM	Zn PPM	Ag PPM	Au* PPB
59+00N 45+50E	34	58	.1	1
59+00N 46+00E	30	64	.2	25
59+00N 47+00E	47	64	.1	1
59+00N 47+50E	26	57	.1	1
59+00N 49+50E	9	50	.1	1
59+00N 50+00E	29	56	.1	1
59+00N 50+50E	31	43	.4	1
59+00N 51+00E	19	33	.2	1
59+00N 51+50E	9	72	.4	1
59+00N 52+00E	8	130	.1	1
59+00N 52+50E	23	53	.1	1
59+00N 53+00E	15	44	.1	1
59+00N 53+50E	18	50	.1	1
59+00N 54+00E	25	63	.1	1
59+00N 54+50E	21	24	.1	49
59+00N 55+00E	26	42	.1	3
59+00N 55+50E	27	52	.1	5
59+00N 56+00E	24	78	.3	1
59+00N 56+50E	56	129	.4	1
59+00N 57+00E	34	91	.4	1
58+00N 45+00E	41	49	.1	1
58+00N 45+50E	27	65	.1	3
58+00N 46+00E	27	170	.4	9
58+00N 46+50E	31	104	.1	2
58+00N 47+00E	48	59	.1	1
58+00N 47+50E	7	62	.4	1
58+00N 48+00E	47	132	.4	1
58+00N 48+50E	19	135	.2	1
58+00N 49+00E	26	84	.3	1
58+00N 49+50E	49	97	.6	1
58+00N 50+00E	17	88	.1	1
58+00N 50+50E	39	55	.1	1
58+00N 51+00E	18	62	.1	1
58+00N 51+50E	16	74	.3	3
58+00N 52+00E	30	41	.2	1
58+00N 52+50E	36	56	.1	1
STD C/AU-S	63	132	7.4	48

SAMPLE#	Cu PPM	Zn PPM	Ag PPM	Au* PPB
58+00N 53+00E	45	95	.1	1
58+00N 53+50E	7	34	.1	1
58+00N 54+00E	10	36	.2	1
58+00N 54+50E	10	37	.1	1
58+00N 55+00E	9	46	.1	1
58+00N 55+50E	30	50	.1	1
58+00N 56+00E	16	39	.1	1
58+00N 56+50E	84	158	.1	1
58+00N 57+00E	22	61	.1	1
57+00N 45+50E	79	54	.1	1
57+00N 46+00E	39	88	.3	1
57+00N 46+50E	41	432	.8	3
57+00N 47+00E	12	45	.2	1
57+00N 47+50E	26	51	.1	1
57+00N 48+00E	34	107	.2	1
57+00N 48+50E	24	123	.1	1
57+00N 49+00E	7	90	.1	1
57+00N 49+50E	42	97	.3	1
57+00N 50+00E	45	51	.2	1
57+00N 50+50E	18	47	.3	1
57+00N 51+00E	13	65	.1	1
57+00N 51+50E	19	103	.1	8
57+00N 52+00E	22	51	.1	83
57+00N 52+50E	27	59	.2	19
57+00N 53+00E	14	162	.6	4
57+00N 53+50E	11	83	.1	25
57+00N 54+00E	16	79	.4	1
57+00N 54+50E	120	99	.5	1
57+00N 55+00E	18	54	.4	1
57+00N 55+50E	17	53	.1	1
57+00N 56+00E	29	67	.1	1
57+00N 56+50E	8	52	.2	1
57+00N 57+00E	21	56	.1	1
56+00N 45+00E	69	64	.1	1
56+00N 46+00E	82	143	.4	2
56+00N 46+50E	17	74	.1	1
STD C/AU-S	63	132	8.0	48

SAMPLE#	Cu PPM	Zn PPM	Ag PPM	Au* PPB
56+00N 47+00E	26	55	.1	1
56+00N 47+50E	16	49	.3	1
56+00N 48+00E	80	50	.6	1
56+00N 48+50E	21	66	.5	1
56+00N 49+00E	18	57	.6	1
56+00N 49+50E	25	63	.4	1
56+00N 50+00E	14	54	.1	1
56+00N 50+50E	9	38	.3	1
56+00N 51+50E	44	91	.5	1
56+00N 52+50E	21	75	.1	1
56+00N 53+00E	28	129	.4	1
56+00N 53+50E	11	68	.1	1
56+00N 54+00E	33	127	.8	1
56+00N 54+50E	29	67	.1	1
56+00N 55+50E	29	82	.5	1
56+00N 56+00E	4	23	.5	1
55+00N 45+50E	46	94	.3	1
55+00N 46+00E	33	125	.1	2
55+00N 46+50E	41	57	.1	1
55+00N 47+50E	43	52	.3	1
55+00N 48+00E	10	18	.1	4
55+00N 48+50E	34	61	.3	1
55+00N 49+00E	7	58	.1	1
55+00N 49+50E	17	56	.2	2
55+00N 50+00E	17	60	.1	1
55+00N 50+50E	24	52	.1	2
55+00N 51+00E	55	41	.1	1
55+00N 51+50E	47	91	.1	1
55+00N 52+00E	28	142	.1	1
55+00N 52+50E	55	75	.5	2
55+00N 53+00E	29	90	.1	1
55+00N 53+50E	35	59	.1	1
55+00N 54+00E	26	83	.1	1
55+00N 54+50E	20	111	.4	1
55+00N 55+00E	39	68	.1	3
55+00N 55+50E	12	89	.1	1
STD C/AU-S	63	132	7.0	47

SAMPLE#	Cu PPM	Zn PPM	Ag PPM	Au* PPB
55+00N 56+00E	43	122	.1	1
55+00N 56+50E	22	65	.1	2
55+00N 57+00E	22	62	.1	1
54+00N 45+00E	39	71	.3	1
54+00N 46+00E	35	58	.2	1
54+00N 46+50E	62	66	.1	1
54+00N 47+00E	40	69	.2	4
54+00N 47+50E	58	61	.1	2
54+00N 48+00E	34	52	.1	1
54+00N 48+50E	52	60	.1	1
54+00N 49+00E	31	71	.4	1
54+00N 49+50E	39	93	.1	1
54+00N 50+00E	36	61	.5	2
54+00N 50+50E	28	102	.1	1
54+00N 51+00E	20	44	.1	1
54+00N 52+50E	12	53	.2	1
54+00N 53+00E	30	71	.5	1
54+00N 53+50E	6	35	.3	1
54+00N 54+00E	14	67	.1	1
54+00N 54+50E	11	91	.1	1
54+00N 55+00E	7	47	.1	1
54+00N 55+50E	76	110	.1	1
54+00N 56+00E	7	54	.1	1
54+00N 56+50E	17	87	.1	1
54+00N 57+00E	12	59	.1	1
50+00N 48+50E	30	83	.1	1
50+00N 49+00E	28	214	.1	1
45+00N 48+00E	29	58	.2	19
45+00N 48+50E	33	45	.2	1
45+00N 49+00E	14	31	.1	1
45+00N 49+50E	14	34	.2	1
44+00N 48+00E	23	53	.1	1
44+00N 48+50E	22	55	.3	1
44+00N 49+00E	15	31	.2	1
44+00N 49+50E	27	42	.6	1
44+00N 50+00E	31	189	.1	1
STD C/AU-S	62	132	7.3	50

SAMPLE#	Cu PPM	Zn PPM	Ag PPM	Au* PPB
44+00N 50+50E	55	363	.5	1
44+00N 51+00E	52	51	.1	3
44+00N 51+50E	96	37	.2	5
44+00N 52+50E	126	1066	2.4	26
44+00N 53+00E	48	118	.4	3
44+00N 53+50E	24	109	.4	1
44+00N 54+00E	22	120	.5	5
44+00N 54+50E	9	38	.1	2
44+00N 55+00E	20	81	.1	1
44+00N 55+50E	18	68	.3	1
44+00N 56+00E	75	187	.3	1
44+00N 56+50E	25	190	.4	1
44+00N 57+00E	10	99	.4	1
43+00N 48+00E	44	43	.1	2
43+00N 48+50E	18	87	.1	11
43+00N 49+00E	20	39	.1	23
43+00N 49+50E	36	38	.4	14
43+00N 50+00E	23	74	.1	1
43+00N 50+50E	21	115	.1	1
43+00N 51+00E	16	88	.1	1
43+00N 51+50E	32	66	.1	2
43+00N 52+00E	47	69	.1	1
43+00N 52+50E	24	73	.1	1
43+00N 53+00E	93	114	.9	50
43+00N 53+50E	37	228	.2	3
43+00N 54+00E	36	85	.1	1
43+00N 54+50E	4	22	.1	2
43+00N 55+00E	18	79	.1	1
43+00N 55+50E	52	106	.1	1
43+00N 56+00E	37	111	.4	1
43+00N 56+50E	25	74	.4	1
43+00N 57+00E	26	102	.2	1
42+00N 48+00E	30	67	.1	1
42+00N 49+00E	57	54	.1	1
42+00N 49+50E	37	65	.1	1
42+00N 50+00E	43	41	.1	1
STD C/AU-S	63	132	7.6	49

SAMPLE#	Cu PPM	Zn PPM	Ag PPM	Au* PPB
42+00N 50+50E	60	40	.2	1
42+00N 51+00E	35	77	.2	4
42+00N 51+50E	52	47	.1	1
42+00N 52+00E	47	45	.1	1
42+00N 52+50E	35	89	.1	1
42+00N 53+50E	26	76	.2	5
42+00N 54+00E	27	62	.1	1
42+00N 54+50E	45	42	.1	2
42+00N 55+00E	55	67	.1	4
42+00N 55+50E	47	220	.5	2
42+00N 56+00E	45	139	.6	1
42+00N 56+50E	25	41	.3	1
42+00N 57+00E	62	169	.3	1
41+00N 48+50E	71	76	.1	2
41+00N 49+50E	22	68	.1	1
41+00N 50+00E	57	92	.4	1
41+00N 50+50E	50	35	.3	5
41+00N 51+00E	73	88	.5	1
41+00N 51+50E	39	64	.1	4
41+00N 52+00E	101	52	.1	1
41+00N 52+50E	41	69	.1	1
41+00N 53+00E	55	55	.4	2
41+00N 53+50E	64	109	.6	1
41+00N 54+00E	22	157	.6	1
41+00N 54+50E	51	50	.1	1
41+00N 55+00E	38	80	.1	2
41+00N 55+50E	11	34	.1	1
41+00N 56+00E	31	65	.2	1
41+00N 56+50E	29	101	.1	1
41+00N 57+00E	13	51	.3	2
41+00N 57+50E	27	76	.1	1
41+00N 58+00E	74	199	.4	1
40+00N 48+00E	50	63	.1	1
40+00N 49+00E	22	32	.4	1
40+00N 49+50E	108	360	.3	1
40+00N 50+00E	78	55	.1	1
STD C/AU-S	64	132	7.5	49

SAMPLE#	Cu PPM	Zn PPM	Ag PPM	AU* PPB
40+00N 50+50E	33	66	.3	1
40+00N 51+00E	30	46	.1	1
40+00N 51+50E	14	69	.1	1
40+00N 52+00E	12	59	.3	1
40+00N 52+50E	39	68	.4	1
40+00N 53+00E	47	47	.3	1
40+00N 53+50E	55	41	.1	1
40+00N 54+00E	43	41	.1	4
40+00N 54+50E	33	73	.1	1
40+00N 55+00E	58	228	.2	1
40+00N 55+50E	34	86	.6	1
40+00N 56+00E	32	65	.5	3
40+00N 56+50E	24	79	.1	1
40+00N 57+00E	17	35	.1	1
40+00N 58+00E	55	104	.7	1
39+00N 50+00E	11	125	.1	8
39+00N 50+50E	57	64	.1	1
39+00N 51+00E	23	54	.1	1
39+00N 51+50E	35	136	.1	1
39+00N 52+00E	47	117	.5	87
39+00N 52+50E	50	55	.1	2
39+00N 53+00E	46	56	.1	1
39+00N 53+50E	14	88	.1	3
39+00N 54+00E	87	46	.1	1
39+00N 54+50E	40	91	.1	1
39+00N 55+00E	29	54	.1	1
39+00N 55+50E	24	73	.3	16
39+00N 56+00E	36	45	.3	1
39+00N 56+50E	83	112	.3	1
39+00N 57+00E	47	91	.1	3
38+00N 50+00E	129	98	.1	2
38+00N 50+50E	71	78	.6	1
38+00N 51+00E	23	273	.3	1
38+00N 51+50E	33	90	.1	1
38+00N 52+00E	54	77	.4	1
38+00N 52+50E	31	172	.1	1
STD C/AU-S	64	133	7.6	49

SAMPLE#	Cu PPM	Zn PPM	Ag PPM	Au* PPB
38+00N 53+00E	61	68	.1	1
38+00N 53+50E	24	64	.1	1
38+00N 54+00E	28	75	.1	1
38+00N 54+50E	48	58	.1	1
38+00N 55+00E	42	67	.4	1
38+00N 55+50E	33	117	.3	1
38+00N 56+00E	44	79	.1	1
38+00N 56+50E	41	163	.2	1
38+00N 57+00E	16	71	.1	1
STD C/AU-S	59	135	7.0	49



SAMPLE#	Cu PPM	Zn PPM	Ag PPM	Au* PPB
GOLDEN CROWN 1	16638	135	33.6	20940
GOLDEN CROWN 2	351	45	.5	270
GOLDEN CROWN 3	651	34	2.1	205
GOLDEN CROWN 4	627	83	.5	36
GOLDEN CROWN 5	2028	36	2.9	1920

ACME ANALYTICAL LABORATORIES LTD.

DATE RECEIVED: MAY 18 1988

852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6

PHONE(604)253-3158 FAX(604)253-1716 DATE REPORT MAILED:

May 31/88.

GEOCHEMICAL ANALYSIS CERTIFICATE

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

ASSAYER: C. Leong, D. TOYE OR C. LEONG, CERTIFIED B.C. ASSAYERS

MINGOLD RESOURCES PROJECT-#626 SONGBIRD File # 88-1494R Page 1

SAMPLE#	Cu PPM	Zn PPM	Ag PPM	Au* PPB
75N 44+00E	7	45	.1	1
75N 44+50E	8	65	.1	2
75N 45+00E	36	124	.1	1
75N 45+50E	22	54	.1	1
75N 46+00E	13	62	.1	1
75N 46+50E	14	99	.1	5
75N 47+00E	2	93	.1	1
75N 47+50E	13	28	.1	4
75N 48+00E	8	88	.1	2
75N 48+50E	26	81	.1	1
75N 49+00E	28	63	.1	2
75N 49+50E	9	77	.1	1
75N 50+00E	24	60	.1	1
75N 50+50E	15	87	.1	1
75N 51+00E	20	122	.1	1
75N 51+50E	24	55	.2	2
75N 52+00E	59	115	.1	1
75N 52+50E	36	65	.1	1
75N 53+00E	17	61	.1	1
74N 44+00E	14	68	.1	3
74N 44+50E	8	64	.1	2
74N 45+00N	10	77	.3	1
74N 45+50N	10	95	.1	1
74N 46+00N	19	92	.2	1
74N 46+50N	12	41	.1	1
74N 47+00N	3	42	.1	2
74N 47+50N	11	91	.1	2
74N 48+00N	4	66	.1	1
74N 48+50N	54	233	.4	1
74N 49+00N	84	190	.6	2
74N 49+50N	15	73	.1	1
74N 50+00N	13	103	.2	2
74N 50+50N	23	98	.1	1
74N 51+00N	8	43	.1	1
74N 51+50N	62	339	.4	1
74N 52+00N	13	57	.2	2
STD C/AU-S	59	130	7.5	47

SAMPLE#	Cu PPM	Zn PPM	Ag PPM	Au* PPB
74N 52+50E	59	97	.2	1
74N 53+00E	19	68	.1	1
74N 53+50E	14	70	.1	1
73N 44+00E	14	101	.1	2
73N 44+50E	19	134	.1	1
73N 45+00E	5	51	.1	1
73N 45+50E	16	69	.1	1
73N 46+00E	10	54	.1	1
73N 46+50E	8	70	.2	1
73N 47+50E	22	76	.1	2
73N 48+00E	12	115	.1	1
73N 48+50E	14	136	.1	1
73N 49+00E	10	60	.1	1
73N 49+50E	4	68	.1	1
73N 50+00E	36	101	.4	1
72+50N 43+50E	31	50	.1	1
72+50N 43+75E	30	66	.1	1
72+50N 44+00E	39	55	.1	1
72+50N 44+25E	13	76	.1	2
72+50N 44+50E	9	99	.1	1
72+50N 44+75E	8	53	.1	1
72+50N 45+00E	27	79	.1	2
72+50N 45+25E	13	59	.1	1
72+50N 45+50E	29	97	.1	1
72+50N 45+75E	15	61	.1	2
72N 44+00E	44	73	.1	1
72N 44+25E	24	60	.1	1
72N 44+50E	56	117	.1	1
72N 44+75E	47	99	.1	1
72N 45+00E	58	147	.1	1
72N 45+25E	68	198	.1	1
72N 45+50E	27	126	.1	1
72N 45+75E	28	136	.1	1
72N 46+00E	21	142	.1	43
72N 47+00E	19	59	.1	41
72N 47+50E	6	59	.1	1
STD C/AU-S	62	132	7.2	50

SAMPLE#	Cu PPM	Zn PPM	Ag PPM	Au* PPB
72N 48+50E	7	82	.1	1
72N 49+00E	22	92	.1	1
72N 49+50E	40	67	.1	1
72N 50+00E	19	80	.2	1
71+50N 44+00E	24	94	.1	1
71+50N 44+25E	19	72	.1	1
71+50N 44+50E	35	66	.1	1
71+50N 44+75E	22	116	.1	1
71+50N 45+00E	10	41	.1	1
71+50N 45+25E	20	70	.1	1
71+50N 45+50E	8	70	.1	2
71+50N 45+75E	25	33	.1	1
71+50N 46+00E	4	68	.1	1
71N 42+00E	34	57	.1	2
71N 42+50E	43	112	.3	1
71N 43+00E	12	256	.1	1
71N 43+50E	10	68	.1	2
71N 44+00E	83	204	.1	1
71N 44+25E	73	128	.1	1
71N 44+75E	6	48	.1	1
71N 45+00E	5	57	.1	1
71N 45+25E	13	49	.1	1
71N 45+50E	8	35	.1	1
71N 45+75E	9	58	.1	1
71N 46+00E	6	75	.1	2
71N 46+50E	13	49	.1	1
71N 47+00E	3	68	.1	1
71N 47+50E	28	73	.2	1
71N 48+00E	18	93	.1	2
71N 48+50E	5	56	.1	2
71N 49+00E	3	135	.1	1
71N 49+50E	30	76	.1	1
71N 50+00E	55	171	.2	1
70+50N 44+00E	13	77	.1	1
70+50N 44+25E	22	62	.1	1
70+50N 44+50E	103	46	.2	1
STD C/AU-S	63	132	7.7	49

SAMPLE#	Cu PPM	Zn PPM	Ag PPM	AU* PPB
70+50N 44+75E	13	33	.1	1
70+50N 45+00E	7	80	.1	1
70+50N 45+50E	10	52	.1	1
70+50N 45+75E	11	46	.1	2
70+50N 46+00E	1	40	.1	1
70N 41+00E	15	43	.1	1
70N 41+50E	12	39	.1	6
70N 42+00E	44	69	.1	1
70N 42+50E	60	74	.1	1
70N 43+00E	26	87	.1	4
70N 43+50E	35	230	.1	1
70N 44+00E	60	183	.1	1
70N 44+25E	41	132	.2	1
70N 44+50E	10	52	.1	1
70N 44+75E	13	73	.1	3
70N 45+00E	28	83	.1	4
70N 45+25E	39	41	.1	1
70N 45+50E	14	132	.1	1
70N 45+75E	19	129	.3	32
70N 46+00E	11	79	.1	2
70N 46+50E	5	78	.1	1
70N 47+00E	20	72	.1	1
70N 47+50E	9	36	.1	1
70N 48+00E	26	73	.1	1
70N 48+50E	22	50	.1	5
70N 49+00E	3	14	.1	1
70N 49+50E	16	58	.1	1
70N 50+00E	8	32	.1	1
69N 41+00E	11	33	.1	26
69N 41+50E	23	34	.1	7
69N 42+00E	13	94	.1	1
69N 42+50E	14	68	.1	1
69N 43+00E	13	89	.1	1
69N 43+50E	33	124	.1	1
69N 44+00E	42	50	.1	3
69N 44+50E	48	37	.1	1
STD C/AU-S	62	131	7.8	50

SAMPLE#	Cu PPM	Zn PPM	Ag PPM	Au* PPB
69N 45+00E	5	16	.2	8
69N 45+50E	33	45	.1	1
69N 46+00E	26	50	.2	1
69N 46+50E	14	48	.1	1
69N 47+00E	28	36	.1	1
69N 47+50E	15	61	.4	2
69N 48+00E	5	48	.1	1
69N 48+50E	15	78	.2	1
69N 49+00E	19	57	.1	1
69N 49+50E	14	45	.2	1
69N 50+00E	6	43	.1	1
68N 41+00E	7	36	.1	4
68N 41+50E	6	23	.1	1
68N 42+00E	19	47	.1	1
68N 42+50E	6	32	.1	1
68N 43+00E	11	41	.2	1
68N 43+50E	15	72	.1	1
68N 44+00E	7	55	.1	1
68N 44+50E	1	19	.1	1
68N 45+00E	19	106	.2	12
68N 45+50E	10	64	.1	6
68N 46+00E	9	58	.1	1
68N 46+50E	7	34	.1	1
68N 47+00E	18	46	.1	1
68N 47+50E	94	55	.1	1
68N 48+00E	54	41	.2	3
68N 48+50E	3	23	.2	1
68N 49+00E	14	97	.1	1
68N 49+50E	16	64	.1	1
68N 50+00E	8	44	.1	1
67N 42+00E	25	80	.1	1
67N 42+50E	26	73	.1	1
67N 43+00E	31	51	.2	1
67N 43+50E	67	245	.1	1
67N 44+00E	70	134	.2	1
67N 44+50E	8	56	.1	3
STD C/AU-S	62	132	7.5	51

SAMPLE#	Cu PPM	Zn PPM	Ag PPM	Au* PPB
67N 45+00E	38	214	.3	1
67N 45+50E	10	72	.2	3
67N 46+00E	26	62	.1	1
67N 46+50E	32	52	.3	1
67N 47+00E	23	83	.1	1
67N 47+50E	7	44	.1	1
67N 48+00E	16	70	.1	1
67N 48+50E	45	161	.4	1
67N 49+00E	23	68	.3	1
67N 49+50E	14	62	.1	1
67N 50+00E	20	54	.2	1
66N 42+00E	54	48	.1	1
66N 42+50E	92	108	.2	2
66N 43+00E	8	35	.1	1
66N 43+50E	174	134	.2	6
66N 44+00E	4	114	.4	1
66N 44+50E	58	83	.5	1
66N 45+00E	12	80	.2	1
66N 45+50E	31	257	.2	1
66N 46+00E	5	50	.1	1
66N 46+50E	7	23	.2	1
66N 47+00E	14	38	.1	1
66N 47+50E	15	48	.1	1
66N 48+00E	18	86	.1	1
66N 48+50E	8	26	.1	1
66N 49+00E	25	40	.3	1
66N 49+50E	13	50	.1	1
66N 50+00E	44	178	.1	4
65N 42+00E	10	47	.1	1
65N 42+50E	35	56	.3	1
65N 43+00E	27	94	.1	1
65N 43+50E	33	66	.1	1
65N 44+00E	11	54	.1	1
65N 44+50E	96	164	.1	1
65N 45+00E	12	227	.2	1
65N 46+50E	27	97	.3	2
STD C/AU-S	62	132	7.8	53

SAMPLE#	Cu PPM	Zn PPM	Ag PPM	Au* PPB
65N 47+00E	1	46	.1	2
65N 47+50E	13	77	.1	1
65N 48+00E	14	82	.1	1
65N 48+50E	49	311	.4	1
65N 49+00E	12	63	.1	1
65N 49+50E	4	148	.1	3
65N 50+00E	7	61	.1	1
65N 50+50E	32	129	.3	1
65N 51+00E	47	205	.4	1
65N 51+50E	49	68	.2	1
65N 52+00E	6	117	.2	1
65N 53+00E	16	53	.1	1
64N 42+00E	13	49	.1	1
64N 42+50E	15	57	.1	1
64N 43+00E	17	62	.1	7
64N 43+50E	10	70	.1	1
64N 44+00E	24	220	.9	1
64N 44+50E	65	64	.1	1
64N 45+00E	6	186	.4	1
64N 45+50E	16	104	.2	1
64N 45+50E A	33	227	.3	1
64N 46+00E	45	207	.2	1
64N 46+00E A	12	79	.1	1
64N 46+50E	63	264	.3	4
64N 46+50E A	29	73	.2	1
64N 47+00E	43	45	.1	1
64N 47+50E	20	412	.1	1
64N 48+00E	48	42	.3	1
64N 48+50E	14	81	.1	1
64N 49+00E	30	72	.1	1
64N 49+50E	29	67	.1	1
64N 50+00E	14	85	.1	1
64N 50+50E	19	80	.2	1
64N 51+00E	33	180	.6	1
64N 51+50E	15	74	.1	1
64N 52+00E	7	69	.1	1
STD C/AU-S	62	132	7.5	48



SAMPLE#	Cu PPM	Zn PPM	Ag PPM	Au* PPB
64N 52+50E	6	74	.1	1
63N 45+50E	39	97	.1	1
63N 46+00E	8	52	.1	3
63N 46+50E	6	80	.1	1
63N 47+00E	18	82	.1	1
63N 47+50E	36	47	.1	1
63N 48+00E	19	138	.1	72
63N 48+50E	18	96	.1	1
63N 49+00E	23	66	.1	1
63N 49+50E	20	66	.1	1
63N 50+00E	74	48	.1	2
63N 50+50E	4	35	.1	1
63N 51+00E	50	131	.1	1
63N 51+50E	51	85	.5	1
63N 52+00E	11	89	.2	1
63N 52+50E	25	30	.1	1
63N 53+00E	6	67	.1	1
63N 53+50E	101	291	.2	1
63N 54+00E	53	185	.1	1
63N 54+50E	8	39	.1	1
63N 55+00E	9	87	.1	1
63N 55+50E	17	70	.1	1
63N 56+00E	33	160	.1	1
63N 56+50E	24	130	.1	1
63N 57+00E	7	51	.1	1
STD C/AU-S	62	132	7.2	52

**GEOCHEMICAL ANALYSIS CERTIFICATE**

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

ASSAYER: *C. Leong* D. TOYE OR C. LEONG, CERTIFIED B.C. ASSAYERS

MINGOLD RESOURCES PROJECT-#626 SONGBIRD File # 88-1540 *R* Page 3

SAMPLE#	Cu PPM	Zn PPM	Ag PPM	Au* PPB
L61+25N 52+00E	23	52	.1	1
L61+25N 52+25E	14	40	.1	1
L61+25N 52+50E	41	193	.5	1
L61+25N 52+75E	19	131	.4	1
L61+25N 53+00E	29	114	.6	1
L61+25N 53+25E	11	72	.2	1
L61+25N 53+50E	8	74	.1	1
L61+25N 53+75E	8	75	.1	1
L61+25N 54+00E	9	55	.1	1
L61+00N 52+25E	6	43	.1	1
L61+00N 52+50E	18	122	.6	1
L61+00N 52+75E	7	34	.1	1
L61+00N 53+25E	26	94	.1	1
L61+00N 53+75E	8	73	.1	1
L59+75N 52+00E	33	153	.1	1
L59+75N 52+25E	29	117	.1	1
L59+75N 52+50E	6	48	.1	1
L59+75N 52+75E	17	57	.1	1
L59+75N 53+00E	18	119	.1	1
L59+75N 53+25E	19	83	.2	1
L59+75N 53+50E	5	42	.1	1
L59+75N 53+75E	12	42	.1	1
L59+00N 52+25E	7	62	.1	1
L59+00N 52+75E	6	89	.1	1
L59+00N 53+25E	6	50	.1	1
L59+00N 53+75E	39	45	.1	2
L57+00N 51+25E	42	90	.2	1
L57+00N 51+75E	8	66	.1	1
L57+00N 52+25E	20	77	.1	1
L57+00N 52+75E	17	79	.2	1
L57+00N 53+25E	24	68	.1	1
L57+00N 53+75E	22	86	.1	1
L49+00N 51+25E	51	177	.3	1
L49+00N 51+75E	22	84	.1	1
L48+00N 51+00E	52	257	.6	1
L48+00N 51+25E	41	139	.1	1
STD C/AU-S	60	133	7.4	51

SAMPLE#		Cu PPM	Zn PPM	Ag PPM	Au* PPB
L48+00N	51+75E	17	80	.4	1
L47+50N	51+00E	27	210	.5	1
L47+50N	51+25E	64	259	.8	1
L47+50N	51+50E	8	63	.3	1
L47+50N	51+75E	22	175	.5	1
L47+50N	52+00E	33	102	.9	1
L47+00N	51+25E	18	76	.2	1
L47+00N	51+75E	20	75	.1	4
L46+50N	51+00E	22	112	.4	1
L46+50N	51+25E	49	90	.4	1
L46+50N	51+50E	240	196	.8	1
L46+50N	51+75E	140	180	.7	1
L46+50N	52+00E	170	174	.8	1
L46+00N	51+25E	12	103	.3	1
L46+00N	51+75E	47	79	.3	1
L45+50N	51+00E	23	73	.3	1
L45+50N	51+25E	30	83	.3	1
L45+50N	51+50E	33	78	.3	1
L45+50N	51+75E	8	104	.2	1
L45+50N	52+00E	79	140	.5	145
L45+00N	51+25E	14	71	.2	1
L45+00N	51+75E	41	54	.1	1
L44+50N	51+00E	13	71	.3	1
L44+50N	51+25E	36	61	.1	1
L44+50N	51+50E	35	162	.3	1
L44+50N	51+75E	77	100	.2	1
L44+50N	52+00E	16	162	.3	1
L44+00N	51+25E	20	45	.3	1
L44+00N	51+75E	45	52	.1	1
L44+00N	52+25E	39	57	.2	2
L44+00N	52+75E	18	51	.2	1
L44+00N	53+25E	37	46	.3	1
L44+00N	53+75E	16	67	.2	1
L43+75N	51+00E	41	86	.2	1
L43+75N	51+25E	41	65	.1	3
L43+75N	51+50E	13	31	.2	2
STD C/AU-S		62	132	7.3	52

SAMPLE#	Cu PPM	Zn PPM	Ag PPM	Au* PPB
L43+75N 51+75E	60	58	.3	1
L43+75N 52+00E	32	58	.1	1
L43+75N 52+25E	23	53	.1	65
L43+75N 52+50E	8	49	.1	1
L43+75N 52+75E	39	93	.1	4
L43+75N 53+00E	4	57	.1	1
L43+75N 53+25E	17	112	.3	1
L43+75N 53+50E	7	38	.2	2
L43+75N 53+75E	29	99	.3	1
L43+75N 54+00E	21	105	.1	1
L43+50N 51+00E	10	46	.3	1
L43+50N 51+25E	51	96	.3	1
L43+50N 51+50E	12	56	.2	1
L43+50N 51+75E	32	73	.3	1
L43+50N 52+00E	24	76	.3	1
L43+50N 52+50E	13	51	.3	1
L43+50N 52+75E	20	99	.1	1
L43+50N 53+00E	41	80	.2	5
L43+50N 53+25E	21	87	.2	2
L43+50N 53+50E	13	91	.1	1
L43+50N 53+75E	46	305	.7	1
L43+50N 54+00E	49	64	.5	1
L43+25N 51+00E	8	43	.1	1
L43+25N 51+25E	17	57	.1	1
L43+25N 51+50E	1	16	.1	1
L43+25N 51+75E	5	50	.1	1
L43+25N 52+00E	17	85	.1	1
L43+25N 52+25E	14	71	.2	1
L43+25N 52+50E	21	105	.1	2
L43+25N 52+75E	28	190	.8	7
L43+25N 53+00E	9	43	.4	3
L43+25N 53+25E	7	56	.4	1
L43+25N 53+50E	51	235	.3	1
L43+25N 53+75E	24	102	.3	1
L43+25N 54+00E	26	62	.2	4
STD C/AU-S	59	130	7.6	51

SAMPLE#		Cu PPM	Zn PPM	Ag PPM	Au* PPB
L43+00N	51+75E	19	52	.1	1
L43+00N	52+25E	20	72	.1	1
L43+00N	52+75E	130	296	3.3	160
L43+00N	53+25E	24	101	.3	8
L43+00N	53+75E	44	70	.1	2
L42+75N	52+00E	23	86	.1	1
L42+75N	52+25E	54	53	.1	1
L42+75N	52+50E	8	68	.1	1
L42+75N	52+75E	364	498	4.8	440
L42+75N	53+00E	29	92	.2	1
L42+75N	53+25E	1612	1361	6.4	640
L42+75N	53+50E	36	106	.2	2
L42+75N	53+75E	7	53	.1	1
L42+75N	54+00E	29	96	.1	1
L42+50N	52+00E	17	54	.1	1
L42+50N	52+25E	28	61	.2	1
L42+50N	52+50E	11	60	.1	1
L42+50N	52+75E	48	51	.2	6
L42+50N	53+00E	609	905	4.6	510
L42+50N	53+25E	404	551	2.7	141
L42+50N	53+50E	34	99	.1	1
L42+50N	53+75E	14	85	.1	1
L42+50N	54+00E	18	60	.1	1
L42+50N	54+25E	40	64	.1	1
L42+50N	54+50E	38	110	.2	1
L42+50N	54+75E	24	69	.1	1
L42+50N	55+00E	27	82	.1	1
L42+25N	52+00E	29	46	.2	1
L42+25N	52+25E	10	54	.1	1
L42+25N	52+50E	16	60	.1	1
L42+25N	52+75E	4	36	.1	1
L42+25N	53+00E	59	157	.4	7
L42+25N	53+25E	235	570	3.2	330
L42+25N	53+50E	26	111	.1	1
L42+25N	53+75E	10	117	.2	1
L42+25N	54+00E	18	63	.1	1
L42+25N	54+25E	24	46	.1	1
STD C/AU-S		63	132	7.1	53

SAMPLE#	Cu PPM	Zn PPM	Ag PPM	Au* PPB
L42+25N 54+50E	21	42	.1	1
L42+25N 54+75E	39	120	.2	1
L42+25N 55+00E	21	102	.2	6
L42+00N 52+25E	13	44	.1	3
L42+00N 52+75E	32	91	.1	2
L42+00N 53+25E	178	151	.5	6
L42+00N 53+75E	11	63	.1	1
L42+00N 54+25E	23	107	.1	1
L42+00N 54+75E	25	142	.3	2
L41+75N 52+75E	17	60	.2	3
L41+75N 53+00E	46	85	.1	1
L41+75N 53+25E	13	43	.2	33
L41+75N 53+50E	26	73	.1	72
L41+75N 53+50EA	6	29	.2	1
L41+75N 53+75E	33	103	.2	1
L41+75N 54+00E	8	94	.1	3
L41+75N 54+25E	46	82	.4	5
L41+75N 54+50E	9	55	.1	1
L41+75N 54+75E	52	160	.3	18
L41+75N 55+00E	51	87	.4	1
L40+00N 54+25E	51	79	.3	2
L40+00N 54+75E	41	79	.2	1
L39+00N 55+25E	45	74	.1	1
L39+00N 55+75E	12	29	.1	1
STD C/AU-S	61	129	6.9	49

ACME ANALYTICAL LABORATORIES LTD.  
 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6  
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DATE RECEIVED: MAY 24 1988

*May 31/88*

**GEOCHEMICAL ANALYSIS CERTIFICATE**

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

ASSAYER: *C. Leong* D. TOYE OR C. LEONG, CERTIFIED B.C. ASSAYERS

MINGOLD RESOURCES PROJECT-#626 SONG BIRD File # 88-1549 Page 1

SAMPLE#	Cu PPM	Zn PPM	Ag PPM	Au* PPB
75N 42E	37	138	.1	11
75N 42+50E	10	138	.2	3
75N 43E	22	68	.1	2
74N 42E	45	89	.1	1
74N 43+50E	38	72	.2	4
73N 42E	19	44	.1	1
73N 42+50E	8	61	.2	4
73N 43E	9	136	.1	4
73N 43+50E	20	91	.1	1
50+25N 56+75E	5	47	.2	1
50+25N 57+00E	12	67	.2	1
50+25N 57+25E	52	278	.4	1
50+00N 56+75E	38	160	.2	1
50+00N 57+25E	24	116	.3	1
49+75N 56+75E	46	94	.5	2
49+75N 57+00E	18	71	.3	4
49+75N 57+75E	26	175	.1	2
49+50N 51+50E	21	95	.3	1
49+50N 51+75E	5	32	.1	1
49N 50+25E	53	82	.2	3
48+50N 50+00E	67	44	.2	1
48+50N 50+25E	27	165	.2	4
48+50N 50+50E	46	56	.2	1
48+50N 50+75E	25	55	.2	1
48+50N 51+00E	8	61	.2	1
48+50N 51+25E	28	80	.2	1
48+50N 51+50E	6	40	.2	2
48+50N 51+75E	31	136	.1	2
48+50N 52+00E	24	134	.4	1
48+50N 52+25E	13	75	.2	1
48N 50+25E	25	35	.1	1
48N 50+75E	19	159	.5	2
48N 51+25E	36	116	.2	1
48N 51+75E	9	133	.5	1
48N 52+25E	58	147	.6	9
46N 50+25E	60	52	.2	19

SAMPLE#	Cu PPM	Zn PPM	Ag PPM	Au* PPB
46N 50+75E	24	101	.1	1
46N 51+25E	45	86	.2	5
46N 51+75E	17	48	.1	1
88 MSS 0+00	43	63	.1	1
88 MSS 0+01	28	53	.1	1
88 MSS 0+02	28	48	.1	1
88 MSS 0+03	40	40	.1	1
88 MSS 0+04	39	45	.1	1
88 MSS 0+05	39	42	.1	1
88 MSS 0+06	26	45	.1	1
88 MSS 0+07	38	35	.1	1
88 MSS 0+08	15	42	.1	1
STD /AU-S	58	131	7.1	48



## SONGBIRD ROCK SAMPLES

<u>Rock Sample No.</u>	<u>Type</u>	<u>Width</u>	<u>Description</u>
88NS002	Grab	-	Rusty orange brown weathered graphitic argillite. Fine dissem py throughout.
88NS003	"		Vuggy bull gz cutting phyllitic argillite.
88NS004	Cont. chip	1 m.	Orange brown weathering bleached, silicified andesitic tuff. Tr - 1% py.
88NS005	Float	-	Rusty orange brown weathering bleached andesitic tuff. $\leq$ 1% py-cpy dissems.
88NS006	Cont. chip	1 m.	Qz-carb phyllite-argillite contact.
88NS007	" "	1 m.	Propylitized andesite, porphyry $\leq$ 1% dissem py-cpy throughout.
88NS008	Cont. chip	1 m.	Graphite argillite - qz carb contact $\leq$ 1% dissem py t cpy.
88NS009	Cont. chip	1.5 m.	Cherty argillite with qz-sericite schist.
88NS010	Random chip	-	Cherty argillite with layers of qz-sericite schist.
88NS011	Random chip	-	Bleached andesitic tuff. $\leq$ 1% dissem py.
88NS012	" "	-	Orange brown weathering qz - ser. schist. Finely laminated py. and minor blebs of py/arsenopy.
88NS013	Cont. chip	0.5 m.	Contact between qz-ser schist and cherty andesitic tuff. $\leq$ 1% dissem & frac fills of py.
88NS014	Cont. chip	1.5 m.	Limonite stained qz-ser schist with chert bands. Chert contains finely dissem. py.
88NS015	Cont. chip	2 m.	Cherty qz-ser schist with limonite weathering. $\leq$ 1% py along narrow
88NS016	Cont. chip	2 m.	(same as above 88NS015)
88NS017			Limonite stained qz-ser schist with chert bands. 1-2% py as veinlets and blebs.
88NS018	Random chip	-	Orange brown weathering qz-ser. schist. 1 - 3% py in pods and stringers.

<u>Rock Sample No.</u>	<u>Type</u>	<u>Width</u>	<u>Description</u>
88NS019	Grab	-	Massive andesite with $\leq 1\%$ dissem py.
88NS020	Grab	-	Limonite stained qz-carbonate $\leq 1\%$ cpy. as infillings in brecciated rock.
88NS021	Cont. chip	1.5 m.	Limonite stained qz-ser schist with chert bands. $\leq 1\%$ dissem and blebby py.
88NS022	Cont. chip	1.0 m.	Contact between qz-ser schist and graphitic arg. 1 - 3% py in schist; Tr. - 1% dissem. py in arg.
88NS023	Grab	-	Bleached andesitic tuff. $\leq 1\%$ dissem py.
88NS024	Random chip	-	(Same as 023)
88NS025	" "	-	( " " " )
88NS026	Grab	-	Limonite stained, chloritized andesite tuff. $\leq 1\%$ py. dissems.
88NS027	"	-	Bleached and silicified and. tuff.
88NS028	"	-	Andesite tuff cut by series of qz and calcite stringers. $\leq 1\%$ py-cpy dissems in qz.
88NS029	Random chip	-	Contact between phyllitic argillite and fossiliferous sandstone.
88NS030	Random chip	-	Phyllitic argillite. 1 - 2% dissem py.
88NS031	Cont. chip	1.5 m.	Rusty weathering qz-ser schist. Pods of massive py up to 5 cm. wide by 15 cm. long.
88NS032	Grab	-	High grade grab of massive sulphide pod in qz-ser schist. Sulphide mainly py w. tr. arseno.
88NS033	Cont. chip	1.0 m.	Silicified phyllitic argillite. Sample includes 10 cm wide qz vein with tr - 1% py.
88NS034	" "	0.5 m.	Qz vein with 1 - 2% py, tr-1% arseno, tr - 1% cpy.
88NS035, 36	" "	1.5 m.	Graphitic arg. with qz bands. Tr py, cpy dissems.
88NS037	Cont. chip	0.5 m.	Graphitic arg. w. qz veinlets. M. dissem py.

<u>Rock Sample No.</u>	<u>Type</u>	<u>Width</u>	<u>Description</u>
88NS038	Grab	-	Select grab of veinlets in above.
88NS039	Grab	-	Bleached, silicified andesitic tuff with chalcedonic qz fracture fills. Tr py-cpy in veins.
88NS040	Grab	-	Float of bleached silicified and.
88TR001	Grab	-	Graphitic phyllite with qz veining.
88NS001	Grab	-	Rusty weathering qz-ser schist with finely disseminated py throughout.

GEOCHEMICAL ANALYSIS CERTIFICATE

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.  
 THIS LEACH IS PARTIAL FOR NH FE 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: P1-P2 ROCK P3-P7 SOIL AU\* ANALYSIS BY AA FROM 10 GRAM SAMPLE.

DATE RECEIVED: MAY 24 1988

DATE REPORT MAILED: May 27/88

ASSAYER:.....D.TOYE OR C.LEONG, CERTIFIED B.C. ASSAYERS

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SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Cr	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Au*
	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	%	PPM	PPM	%	PPM	%	PPM	%	%	%	PPM	PPM	
88 NS 001	4	53	7	31	1.1	10	8	316	3.80	2	5	ND	1	8	1	2	2	39	.48	.056	6	9	1.04	39	.04	2	1.19	.10	.03	1	2
88 NS 001	1	26	7	28	.3	15	3	354	1.05	12	5	ND	1	2	1	2	2	7	.05	.009	8	5	.18	160	.01	6	.27	.03	.05	1	3
88 NS 002	62	49	13	256	.9	43	5	258	2.63	27	5	ND	2	28	2	2	2	127	.52	.187	9	19	.61	267	.01	8	.93	.01	.10	1	1
88 NS 003	1	197	2	174	.1	103	44	1490	9.62	69	5	ND	1	5	1	2	3	232	.11	.052	11	99	1.51	250	.01	9	2.14	.02	.03	1	1
88 NS 003A SA	5	10	5	129	.1	8	3	517	5.21	2	5	ND	4	25	1	2	2	4	.39	.034	32	3	.53	51	.01	5	1.58	.04	.04	1	1
88 NS 004	1	36	7	106	.2	28	8	294	3.87	7	5	ND	2	4	1	2	2	30	.19	.016	10	15	.37	50	.01	3	.70	.02	.04	1	1
88 NS 005	1	24	3	58	.1	58	22	1389	5.54	177	5	ND	1	76	1	2	2	96	4.73	.029	4	76	1.19	111	.01	12	.41	.05	.07	1	1
88 NS 006	2	80	2	115	.1	100	35	1574	8.77	110	5	ND	2	4	1	2	3	156	.15	.043	10	61	.56	54	.01	3	1.22	.01	.02	1	1
88 NS 007	1	120	2	41	.1	49	19	445	3.41	2	5	ND	1	55	1	2	2	64	1.46	.039	3	56	1.59	619	.28	5	3.00	.22	.03	1	1
88 NS 008	13	39	6	118	.4	26	7	1211	4.11	47	5	ND	1	100	2	2	3	49	6.10	.149	6	21	1.93	84	.07	6	.84	.01	.04	1	9
88 NS 009	7	22	9	43	.3	7	4	105	2.27	16	5	ND	3	9	1	2	2	6	.04	.024	2	3	.50	175	.01	5	.69	.01	.08	1	4
88 NS 010	1	45	10	50	.1	9	5	219	2.15	5	5	ND	1	13	1	2	2	11	.46	.190	9	6	.77	190	.01	7	.83	.03	.06	1	11
88 NS 011	3	39	5	116	.2	19	21	2484	8.03	16	5	ND	2	91	1	2	5	63	3.26	.380	20	34	2.29	156	.01	6	1.62	.05	.02	1	3
88 NS 012	1	31	6	18	.1	6	3	111	1.42	13	5	ND	1	3	1	2	2	5	.03	.014	4	5	.04	170	.01	6	.16	.05	.04	1	2
88 NS 013	2	32	3	138	.1	19	21	2553	8.70	20	5	ND	2	91	1	2	2	50	4.50	.396	19	26	1.19	1400	.01	14	1.49	.01	.08	1	1
88 NS 014	1	35	27	43	.5	20	5	622	1.72	7	5	ND	2	4	1	2	2	13	.08	.020	11	10	.39	127	.01	3	.55	.01	.05	1	1
88 NS 015	1	37	12	40	.2	24	6	774	2.97	5	5	ND	2	4	1	2	2	12	.09	.017	8	12	.47	166	.01	9	.60	.02	.06	1	1
88 NS 016	1	30	17	49	.4	18	4	690	1.71	5	5	ND	2	5	1	2	2	18	.07	.023	11	11	.50	139	.01	3	.65	.02	.06	1	1
88 NS 017	1	37	7	38	.4	23	7	505	1.76	9	5	ND	1	10	1	2	2	9	.75	.018	4	10	.55	172	.01	2	.60	.01	.05	1	1
88 NS 018	1	107	22	743	2.1	46	14	305	6.44	16	5	ND	2	5	1	2	3	28	.39	.035	17	39	1.30	120	.01	5	1.86	.02	.15	1	16
88 NS 019	1	149	8	100	.1	75	35	1332	7.97	2	5	ND	2	47	1	2	2	243	2.93	.057	6	190	3.62	485	.12	2	4.41	.01	.05	1	1
88 NS 020	1	574	3	157	.5	91	46	1174	8.87	209	5	ND	1	34	1	2	3	234	3.26	.057	5	82	.78	28	.01	6	.50	.03	.03	1	5
88 NS 021	1	60	4	64	.3	27	6	974	2.23	4	5	ND	1	3	1	2	2	18	.07	.019	11	19	1.15	209	.01	2	1.11	.02	.06	1	1
88 NS 022	16	66	10	159	.4	28	8	1135	2.24	17	5	ND	1	42	1	2	2	45	2.56	.056	6	11	.66	155	.01	3	.82	.01	.07	1	7
88 NS 023	1	203	5	88	.8	70	34	1092	7.43	167	5	ND	2	93	1	3	3	157	4.97	.040	5	50	1.72	34	.01	12	.53	.01	.06	1	1
88 NS 024	1	175	4	84	.2	64	32	1175	7.47	130	5	ND	2	93	1	2	2	164	5.94	.036	6	48	1.83	42	.01	12	.69	.02	.04	1	2
88 NS 025	1	165	2	91	.1	73	39	1423	9.44	142	5	ND	2	16	1	2	2	192	.72	.038	6	50	.24	205	.03	10	.83	.02	.03	1	13
88 NS 026	2	28	2	55	.1	2	2	634	6.28	3	5	ND	4	5	1	2	2	4	.10	.038	21	2	.20	141	.01	2	1.23	.03	.08	1	5
88 NS 027	1	187	3	94	.1	67	29	667	5.68	7	5	ND	1	16	1	2	2	131	1.42	.040	2	116	2.20	65	.41	3	3.16	.01	.03	1	8
88 NS 029	1	70	9	97	.2	53	18	182	5.66	31	5	ND	2	9	1	2	2	59	.06	.020	3	20	.41	74	.01	10	.52	.01	.06	1	1
88 NS 030	1	49	9	115	1.0	37	8	155	2.73	2	5	ND	2	10	1	2	2	14	.16	.016	8	7	.55	86	.01	5	.49	.03	.08	1	2
88 NS 031	1	42	8	35	.2	26	9	339	3.02	61	5	ND	1	2	1	2	2	10	.03	.011	6	5	.03	146	.01	4	.21	.01	.06	1	7
88 NS 032	1	206	43	338	3.6	50	19	909	16.25	56	5	ND	2	130	1	5	3	10	4.75	1.378	12	8	.42	36	.01	7	.53	.01	.07	1	27
88 NS 033	1	60	3	89	.3	51	15	1248	4.69	37	5	ND	2	36	1	2	2	39	2.75	.115	8	70	1.20	239	.01	4	1.75	.01	.08	1	560
88 NS 034	1	21	2	55	.1	33	5	1154	4.48	17	5	ND	2	34	1	2	2	22	3.52	.159	5	48	.67	43	.01	8	.74	.02	.04	2	1
88 NS 035	16	66	15	109	.7	110	21	822	4.17	262	5	ND	2	18	1	2	2	46	1.55	.073	7	24	.04	102	.01	8	.40	.01	.09	1	42
STD C/AU-R	19	61	43	130	7.1	71	30	1049	4.09	39	20	8	39	52	19	17	20	58	.49	.090	40	60	.30	177	.07	34	1.82	.08	.14	12	470

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Hg %	Ba PPM	Tl %	B PPM	Al %	W %	K %	V PPM	Au <sup>2</sup> PPB
88 NS 036	7	87	12	89	.6	94	17	1145	4.35	279	5	ND	1	26	1	2	2	33	2.11	.057	5	20	.14	144	.01	14	.32	.01	.10	1	42
88 NS 037	1	67	2	17	.3	20	4	928	.97	26	5	ND	1	18	1	2	3	5	3.69	.006	2	5	.20	67	.01	4	.07	.01	.06	1	1
88 NS 038	1	83	5	74	.6	49	15	1385	5.04	47	5	ND	1	35	1	2	3	32	5.50	.183	6	54	1.13	30	.01	14	1.17	.01	.02	1	1
88 NS 039	1	194	6	96	.1	77	37	1204	7.98	188	5	ND	1	79	1	2	2	178	4.04	.043	5	50	1.65	44	.01	18	.49	.01	.03	1	1
88 NS 040	1	41	4	99	.2	23	7	191	3.44	2	5	ND	1	36	1	2	2	34	.89	.018	9	20	1.23	79	.01	6	1.63	.01	.04	1	2
88 NS 041	23	39	18	169	.2	25	11	716	6.02	59	5	ND	2	6	1	2	2	84	.11	.060	4	20	.05	188	.01	12	.71	.01	.06	1	4

△	Dip Angle	Slope %	Correction Factor	Reading	1 <sup>st</sup> Diff.	F. Filter	Quod.
50+00	-1				φ	φ	-9
	+1				+101	+13	+1
	+16				107	-41	+15
	+85				-46	-21	-10
51+00	+39				-101	+11	-15
	+16				-43	+17	-1
	+7				+7	+6	-13
	+5				+28	-37	+14
52+00	+25				+24	-14	-22
	+15				+24	+8	-14
	+39				-25	-22	-8
	+25				-51	-9	-20
53+00	+4				-11	+35	-24
	+9				+9	+43	-13
	+9				+8	-1	+4
	+13				-5	-17	+2
54+00	+13				-17	+31	-12
	+4				-18	+24	+1
	+5				+9	-55	+20
	-6				+55	-63	-7
55+00	+24				+30	-18	-27
	+30				-29	+1	-23
	+18				-45	+11	-29
	+7				-37	+5	-20
56+00	-4				-18	-2	-21
	-8				0	+6	-23
	-7				+2	+10	-20
	-5				φ	φ	-18
57+00	-8						-15

△	Dip Angle	Slope %	Correction Factor	Reading	1 <sup>st</sup> Diff.	F. Filter		Quad.
50+00	+65				∅	∅		+2
	+78				-40	+11		-10
	+35				-31	+20		0
	+28				-37	+4		+3
51+00	+14				-15	-38		+7
	+12				+5	-61		0
	+15				+37	-14		-28
	+16				+51	+29		-26
52+00	+48				-12	+28		-16
	+34				-50	+15		-9
	+18				-26	+3		-5
	+14				-16	+2		-5
53+00	+12				-17	+13		-6
	+4				-17	+8		-2
	+5				-25	-11		+4
	-6				-16	-23		-4
54+00	-10				+53	-29		-5
	-7				+81	-19		-18
	+44				-7	-8		-20
	+20				-50	-2		-22
55+00	+10				-25	+9		-24
	+4				-23	+9		-20
	+1				-15	+9		-17
	-10				+7	+13		-18
56+00	0				-5	+5		-10
	-2				-11	0		-12
	-13				+14	0		-11
	0				∅	∅		-11
57+00	-1							-12

Δ	Dip Angle	Slope %	Correction Factor	Reading	1 <sup>st</sup> Diff.	F. Filter		Quad.
47+50E	+42				∅	∅		-11
47+75E	+21				-20	+19		-9
48+00	+16				+45	+35		-12
	+27	-			+42	+4		+11
	+55				-32	-16		+3
	+30				-52	-7		0
49+00	+20				+41	+2		-2
	+13				+121	+8		-2
	+78				+27	+1		+2
	+76				-74	-3		+2
50+00	+42				-60	+5		-1
	+38				-42	+7		+2
	+70				-35	+3		+1
	+18				-18	-23		+4
51+00	+5				+34	-41		+5
	+15				+47	-7		-20
	+42				-17	+13		-12
	+25				-44	+6		-10
52+00	+15				-31	+8		-9
	+8				-27	+9		-7
	+1				-27	+5		-4
	-5				-26	+1		-3
53+00	-13				-11	0		-3
	-17				+4	-4		-3
	-12				+35	-17		-3
	-14				+77	-21		-7
54+00	+20				+54	-9		-16
	+31				-9	-3		-15
	+29				-43	+1		-17
	+13				-38	+7		-17
55+00	+4				-12	+1		-14
	0				-5	-1		-13
	+5				-10	+12		-17
	-6				+6	+17		-11
56+00	+1				+17	+13		-7
	+4				+16	+14		-4
	+8				+8	+9		-1
	+13				-9	0		+4





Δ	Dip Angle	Slope %	Correction Factor	Reading	1st Diff.	F. Filter		Quad.
47+50	+43				∅	∅		-5
47+75	+57				-17	+29		-1
48+00	+50				-44	+5		+13
	+33	-			-37	-12		+10
	+30				-29	-14		+7
	+16				+37	-11		+4
49+00	+18				+60	-6		-1
	+65				-1	-6		+1
	+49				-63	0		-4
	+33				-51	+3		-2
50+00	+18				-43	+1		-1
	+10				-35	-4		-2
	-2				+21	-17		0
	-5				+42	-9		-7
51+00	+44				+31	+12		-12
	+42				-41	+10		-4
	+28				-44	+1		-3
	+17				-35	+1		-3
52+00	+9				-37	+3		-3
	+1				-17	+4		-2
	-2				-19	0		-1
	-5				+28	-25		0
53+00	-15				+140	-41		-3
	+36				+99	-23		-23
	+84				-48	-5		-21
	+36				-67	+10		-28
54+00	+36				-38	+15		-21
	+17				-25	+10		-18
	+17				-17	+9		-16
	+11				-21	+6		-13
55+00	+6				-12	+6		-12
	+1				+3	+12		-11
	+4				+7	+13		-8
	+6				+2	+8		-3
56+00	+6				-3	+4		-3
	+6				-5	-3		0
	+3				-10	-6		-2
	+4				-19	-3		-4



△	Dip Angle	Slope %	Correction Factor	Reading	1 <sup>st</sup> Diff.	F. Filter		Quod
47+50	+33				∅	∅		+4
47+75	+24				-41	-2		+5
48+00	+13				-31	-10		+5
	+3				+57	-14		+2
	+3				+109	-17		-2
	+70				+2	-10		-5
49+00	+15				-72	+12		-12
	+13				-62	+18		-5
	0				-48	+6		0
50+00	+5				-32	-6		+1
	-14				+16	-14		0
	+15				+94	-17		-5
	+70			→	+79	+7		-13
54+00	+40				-9	+19		-9
	+26				-49	+8		-2
	+15				-48	-3		-1
	+3				-43	-4		-2
					-31	+5		-4
52+00	-5				-24	+3		-3
	-8				-25	-1		+2
	-18				-16	-12		0
	-20				+52	-14		-2
57+00	-22				+105	-24		-8
	+36				+16	-36		-8
	+27				-22	-11		-26
	+3				+23	+12		-26
54+00	+38				-29	+4		-19
	+15				-56	+3		-21
	-3				-15	+10		-20
	0				-3	+10		-17
55+00	-3				-10	+3		-14
	-3				-7	+1		-13
	-10				+12	+9		-15
	-3				+21	+16		-11
56+00	+2				+6	+14		-8
	+6				-9	+9		-2
	-1				-12	-2		-3
	0				∅	∅		-3



△	Dip Angle	Slope %	Correction Factor	Reading	1st Diff.	F. Filter	Quad.
47+50	+18				∅	∅	-12
47+75	+7						+10
48+00	+5				-20	+80	+26
	0	-			+8	+39	+52
	+20				+40	-22	+23
	+25				+10	-34	+33
49+00	+5				-42	-39	+8
	-2				-39	-7	+9
	-7				-20	+5	+25
	-10				-8	-29	-3
50+00	-7				+70	+21	+8
	+60				+127	+25	+35
	+50				+32	-53	-5
	+35				-55	-35	-5
51+00	+20				-58	+35	0
	+7				-42	+60	+25
	+6				-26	+35	+30
	-5				-25	-25	+30
52+00	-7				-23	-45	0
	-15				-18	+5	+15
	-15				+32	+30	+20
	+25				+77	-28	+25
57+00	+22				+8	-90	-18
	-4				+4	-48	-27
	+55				+70	+17	-14
	+33				+5	+12	-14
54+00	+23				-53	-1	-15
	+12				-39	+5	-14
	+5				-24	+9	-10
	+6				-2	+8	-10
97+00	+9				+2	+8	-6
	+4				-7	0	-6
	+4				-4	-4	-10
	+5				+4	+6	-6
76+00	+7				+4	+7	-4
	+6				-2	-1	-5
	+4				-6	-4	-6
	+3				-9	-2	-7
					∅	0	



$\Delta$	Dip Angle	Slope %	Correction Factor	Reading	1 <sup>st</sup> Diff.	F. Filter		Quad.
46+50	+13				$\phi$	$\phi$		+1
46+75	+17				-27	+1		+2
47+00	+10				-24	-3		+2
47+25	+3				-13	-7		+2
47+50	0				0	-11		-1
47+75	0				+13	-15		-2
48+00	+3				+17	-8		-8
48+25	+10				+3	+3		-10
48+50	+10				-18	+11		-8
48+75	0				-11	+18		-7
49+00	+2				-15	+11		0
49+25	-3				-4	-14		+3
49+50	-10				+58	-34		+1
49+75	+5				+10	-3		-12
50+00	+40				+50	+32		-18
50+25	+55				-35	+12		+4
50+50	+40				-70	-2	v	-2
50+75	+70				-60	+6		-0
51+00	+5				-45	+8		0
51+25	-5				-30	+14		+4
51+50	-15				-20	+6		+4
51+75	-15				+35	-26		+14
52+00	-25				+105	-38		0
52+25	+30				+60	-42		-8
52+50	+35				-18	-46		-16
52+75	+30				+27	+11		-34
53+00	+17				+73	+49		-36
53+25	+75				-12	-8		-3
53+50	+45				-80	-25		-18
53+75	+35				-80	-2		-24
54+00	+5				-50	-6		-22
54+25	-5				+15	+8		-22
54+50	-5				+95	+66		-30
54+75	+20				+80	+40		-6
55+00	+65				-50	-50		+20
55+25	+30				-95	-40		-16
55+50	+5				-65	-18		-20
55+75	-5				-33	-20		-16





cut phase. In phase

△	Dip Angle	Slope %	Correction Factor	Reading	1 <sup>st</sup> Diff.	F. Filter		Quad.
47+00	+1	-15						+4
47+25	0	-20			φ	φ		+1
47+50	0	+10			-2	-1		+5
47+75	0	+25			-16	+20		-2
48+00	+20	+60			-16	+52		-8
48+25	+32	+35			-1	+17		-5
48+50	+5	+70			+2	-40		-6
48+75	+7	+70			+6	-27		-5
49+00	+3	0			+9	-14		0
49+25	-5	+15			-8	-2		-2
49+50	+17	+20			-22	+49		-11
49+75	+30	+17			-6	+63		-13
50+00	+45	+35			+38	+25		+6
50+25	+27	+8			+21	-32		+8
50+50	+16	-5			-1	-49		+6
50+75	+26	+20			0	-31		+7
51+00	+5	+32			+2	-30		+7
51+25	-12	+35			-1	-48		+8
51+50	-25	+37			-10	-10		+5
51+75	+8	+5			-29	+80		0
52+00	+35	-10			-37	+60		-16
52+25	+8	+5			-18	-40		-16
52+50	-5	+10			-10	-28		-18
52+75	+20	+12			+10	+34		-10
53+00	+17	-10			0	+10		-14
53+25	+8	-5			-2	-29		-14
53+50	0	-10			+2	-25		-12
53+75	0	+10			0	-13		-14
54+00	-5	+5			+6	-5		-12
54+25	0	+10			+16	+13		-8
54+50	+8	+25			+15	+27		-2
54+75	+14	+30			+5	+21		-3
55+00	+15	+40			-4	+7		-2
55+25	+14	0			-10	-9		-7
55+50	+6	+17			-4	-13		-8
55+75	+10	+17			+7	+4		-5
56+00	+14	+5			+10	+10		-3
56+25	+12	-30			+11	+4		0
					+10	+2		



△	Dip Angle	Slope %	Correction Factor	Reading	1 <sup>st</sup> Diff.	F. Filter		Quad
46+50	-7				∅	∅		+7
46+75	-5				-3	+6		+8
47+00	-13				+28	-15		+10
	-2				+81	-44		+11
	+12				+99	-32		-8
	+54				+32	+3		-15
48+00	+55				-35	+17		-14
	+43				-42	+8		-6
	+31				-24	+2		-6
	+25				-12	+4		-6
49+00	+20				+6	+10		-4
	+24				+2	+14		-4
	+27				-16	+6		+4
	+19				-31	+4		+2
50+00	+16				-31	+6		+6
	-1				-26	+8		+4
	-3				-24	+3		+10
	-8				-24	+5		+8
51+00	-20				+20	-1		+9
	-20				+87	-29		+14
	+12				+51	-34		+2
	+35				-41	-17		-8
52+00	+8				-13	-3		-10
	-2				+50	+1		-13
	+32				+4	-9		-8
	+24				-41	-4		-14
53+00	+10				-25	+13		-16
	+5				-11	+15		-10
	+4				-9	+9		-7
	0				+1	+5		-4
54+00	0				+16	+6		-4
	+5				+20	+5		-2
	+11				+13	-2		0
	+14				+3	-10		-1
55+00	+15				+2	-7		-3
	+13				0	+2		-8
	+18				-9	+5		-3
	+10				-8	+8		-6



Δ	Dip Angle	Slope %	Correction Factor	Reading	1 <sup>st</sup> Diff.	F. Filter		Quad.
47+50	+60				∅	∅		-5
47+75	+43				-43	-4		-10
48+00	+35				-33	+9		-12
	+25				-19	+13		-7
	+20				-7	+15		-6
	+21				-14	+11		0
49+00	+17				-20	+7		+2
	+10				-18	+10		+3
	+8				-19	+10		+6
	+1				-24	+5		+9
50+00	-2				-32	-3		+10
	-13				-28	-6		+10
	-20				+10	+8		+6
	-23				+33	+5		+8
51+00	0				+48	-25		+16
	-10				+55	-31		+3
	+35				-12	-20		-4
	+10				-4	-13		-8
52+00	+3				+50	-6		-13
	+38				+4	-3		-12
	+25				-31	+2		-15
	+20				-26	+7		-13
54+00	+12				-21	+10		-12
	+7				-11	+11		-9
	+4				-3	+9		-6
	+4				+11	+5		-4
54+00	+4				+19	+1		-2
	+15				+8	+2		-3
	+12				+8	+4		-2
	+15				+15	+3		-1
55+00	+20				+2	-2		0
	+22				-17	-7		0
	+15				-21	-4		-3
	+10				-15	0		-4
56+00	+6				-15	-1		-3
	+4				-15	-1		-4
	-3				-9	-1		-4
	-2				∅	∅		-4
	-1							-5



$\Delta$	Dip Angle	Slope %	Correction Factor	Reading	1 <sup>st</sup> Diff.	F. Filter	Quod.
46+00	+48				$\phi$		-1
46+75	+48						-3
47+00	+35				-39		-6
	+22	-			-47		-5
	+14				-34		-7
	+9				-19		-7
48+00	+8				-9		-8
	+6				+1		-7
	+12				+6		-3
	+8				-9		+1
49+00	+1				-20		+1
	-1				-12		+3
	-2				-3		+11
	-1				-6		+14
50+00	-8				-13		+13
	-8				-13		+13
	-14				-9		+10
	-11				+38		+5
51+00	+27				+57		-2
	+5				-23		-5
	-12				-44		+10
	0				+42		-5
52+00	+25				+82		-16
	+35				+18		-15
	+18				-42		-14
	+10				-39		-10
53+00	+4				-18		-15
	+6				-3		0
	+5				-2		0
	+3				-4		-1
54+00	+4				-4		-2
	0				-1		-3
	+6				+5		0
	+3				-5		-4
55+00	-2				-15		-9
	-4				-14		-9
	-9				-8		-11
					+8		





△	Dip Angle	Slope %	Correction Factor	Reading	1 <sup>st</sup> Diff.	F. Filter		Quod.
					/			
46150	+26				∅			
	+17				-32			
47100	+9	-			-24			
	+2				-13			
	0				-9			
	-2				-3			
48100	-5				+13			
	0				+21			
	+6				+22			
	+10				+14			
49100	+18				-11			
	+12				-30			
	+5				-35			
	-5				-20			
50100	-13				-1			
	-15				+41			
	-4				+39			
	+17				-30			
51100	+3				-20			
	-20				+88			
	+20				+81			
	+51				-23			
52100	+30				-52			
	+18				-30			
	+11				-19			
	+7				-14			
53100	+3				-9			
	+1				-6			
	0				-7			
	-2				0			
54100	-4				+10			
	+2				+12			
	+2				+13			
	+8				+6			
55100	+9				-7			
	+7				-11			



△	Dip Angle	Slope %	Correction Factor	Reading	1st Diff.	F. Filter	Quad.
46+50	+8				∅		-8
46+75	+10						-7
47+00	+2				-24		-8
	0				-23		-8
	-3				-4		-8
	+1				+23		-5
48+00	+19				+49		+3
	+28				+33		+9
	+25				-4		+10
	+10				-31		+10
49+00	+4				-39		+12
	0				-29		+7
	-7				-25		+7
	-14				-24		+2
50+00	-17				-2		-1
	-6				+45		-6
	+20				+44		-5
	+1				-20		-8
51+00	-7				+15		-10
	+43				+79		-2
	+30				+14		-16
	+20				-41		-16
52+00	+12				-31		-10
	+7				-21		-10
	+4				-13		-5
	+2				-11		-2
53+00	-2				-10		-4
	-2				-6		-3
	-4				-3		-4
	-3				+3		-6
54+00	0				+8		-3
	+1				+8		-4
	+4				+15		-6
	+12				+17		-4
55+00	+10				+9		0
	+15				+3		+2
	+10				-9		0
	+6				-14		+1
					-8		



△	Dip Angle	Slope %	Correction Factor	Reading	1 <sup>st</sup> Diff.	F. Filter		Quad.
46125					φ			-
46150	+13				-11			-8
	+8				+10			-8
47100	0	-			+8			-8
	+10				+2			-5
	+8				-3			-6
	+10				-10			-5
48100	+10				-8			-1
	+5				-18			+4
	+5				-27			+5
	+2				-22			+2
49100	-10				-15			+4
	-10				+7			+2
	-20				+53			0
	-15				+54			+4
50100	-8				-3			-8
	+26				+34			-15
	+5				+65			-15
	+10				-26			-14
51100	+55				-58			-14
	+25				-30			-3
	+14				-20			-11
	+8				-8			-9
52100	+1				-3			-5
	+1				-6			-3
	0				-7			-3
	-1				0			-5
53100	-4				+9			-4
	-4				+15			-4
	-1				+13			-2
	+2				+4			+2
54100	+8				0			-1
	+6				-5			-1
	+8				+4			-4
	+6				+18			-2
55100	+3				+7			-1
	+15				-7			-1
	+12				-10			-1



Grid : Songbird

△	Dip Angle	Slope %	Correction Factor	Reading	1 <sup>st</sup> Diff.	F. Filter		Quad.
45+00	+12				φ			
	+2				-16			
	0				-4			
	-2				+16			
46+00	0				+44			
	+14				+31			
	+28				-13			
	+17				-21			
47+00	+12				-11			
	+12				-16			
	+6				-17			
	+2				-19			
48+00	-1				-29			
	-10				-22			
	-18				-7			
	-15				-4			
49+00	-20				-1			
	-17				-2			
	-19				+18			
	-20				+61			
50+00	+2				+48			
	+20				+18			
	+10				+16			
	+30				-14			
51+00	+16				-34			
	+10				-26			
	+2				-21			
	-2				-17			
52+00	-7				-5			
	-10				+11			
	-4				+8			
	-2				+4			
53+00	-4				+15			
	+2				+20			
	+7				+6			
	+11				-6			
54+00	+4				+1			





VLF-EM Data Sheet

Grid : SongbirdLine : L53NTx. : SeattleFacing : West

cut pins in place

$\Delta$	Dip Angle	Slope %	Correction Factor	Reading	1 <sup>st</sup> Diff.	F. Filter		Quod.
45+00		+15			$\phi$	$\phi$		+2
45+25		+15						-2
45+50		+15			-14	-25		-6
45+75		+35			+2	+16		-8
46+00		+5			+21	+63		+2
46+25		+5			+16	+49		+5
46+50		0			-5	-1		+5
46+75		-3			-19	-24		-3
47+00		-15			-11	-26		-6
47+25		+12			+3	-16		-3
47+50		-25			+4	-12		-3
47+75		-5			+5	-12		-2
48+00		+10			+10	-4		+1
48+25		+15			+13	-2		+4
48+50		+15			+6	-13		+8
48+75		+5			-8	-25		+3
49+00		+15			-8	-20		+1
49+25		+25			-4	-18		+2
49+50		+38			+3	-8		-2
49+75		+18			+4	+22		+8
50+00		+17			-22	+66		-4
50+25		-3			-31	+73		-12
50+50		0			-11	+25		-15
50+75		+3			+3	+5		-12
51+00		-5			+7	-15		-12
51+25		-5			+12	-29		-8
51+50		+10			+14	-20		-4
51+75		-20			+7	-22		-2
52+00		+15			+1	-15		-3
52+25		+25			+3	-5		-2
52+50		+30			+7	+2		0
52+75		+32			+4	+5		+2
53+00		+20			+2	+4		0
53+25		+30			-5	-1		0
53+50		+40			-12	-18		-3
53+75		+5			-9	-15		-2
54+00		-35			+5	+13		-3
54+25		+20			+5	+21		-4
					+4	0		



VLF-EM Data Sheet

Grid : Sonybnd

Line : 54N

Tx. : Seattle

Facing : West

△	Dip Angle	Slope %	Correction Factor	Reading	1 <sup>st</sup> Diff.	F. Filter		Quad.
45+00	-15				∅	∅		-6
	+32				+23	0		+2
	+27				-40	-14		+1
	+13				-29	-7		-5
46+00	+6				-11	+2		-6
	+5				-7	+1		-5
	+3				-1	-2		-4
	+1				+21	+4		-6
47+00	+6				+20	+10		-5
	+19				-13	+6		-1
	+8				-21	+1		0
	+4				-11	+2		0
48+00	+2				-12	+4		0
	-1				-13	+2		+2
	-5				-6	+2		+2
	-7				0	+1		+2
49+00	-5				+20	+1		+9
	-7				+48	-5		+1
	+15				+23	-26		+6
	+21				-11	-26		-6
50+00	+10				+21	-1		-13
	+15				+37	+6		-13
	+37				-10	-5		-7
	+25				-30	+3		-13
51+00	+17				-22	+16		-12
	+15				-22	+10		-5
	+5				-10	+4		-4
	+5				0	+4		-3
52+00	+5				+2	+3		-2
	+5				+7	+1		-1
	+7				+8	+1		-1
	+10				-2	-6		-1
53+00	+10				+1	-9		0
	+5				+16	+2		-8
	+16				+9	+2		-2
	+15				-1	-1		-4
54+00	+15				-3	+1		-4
	+15				-1	0		-3



△	Dip Angle	Slope %	Correction Factor	Reading	1 <sup>st</sup> Diff.	F. Filter		Quad.
45+00	-3				0			0
	+1				+7			0
	+5				-6			-2
	0	-			-13			-2
46+00	0				-16			-4
	-8				-5			-6
	-8				+10			-5
	-5				+30			-6
47+00	-1				+27			+4
	+18				-24			+2
	+3				-31			+2
	-10				+3			+2
48+00	0				-3			+3
	-4				-16			+2
	-9				+1			-1
	-11				+35			-2
49+00	-1				+34			+3
	+16				-10			-1
	+6				-35			-8
	-1				+23			-1
50+00	-12				+68			-16
	+40				-5			-12
	+15				-42			-8
	+8				-14			-4
51+00	+5				-11			0
	+4				-13			0
	-2				-3			-2
	-2				+7			-2
52+00	+1				+8			-5
	+2				+7			-7
	+5				-8			-8
	+5				-22			-6
53+00	-6				-11			-6
	-6				+2			-6
	-6				+6			-4
	-4				+8			-2
54+00	-2				+8			0
	0				10			

VLF-EM Data Sheet

Line : L 55N

Tx : Seattle

Grid : Sombynd

Facing : West

$\Delta$	Dip Angle	Slope %	Correction Factor	Reading	1 <sup>st</sup> Diff.	F. Filter			Quad.
	+2								+2
	+5				+6				+5
95700	+3				+3				+3
	+7	-			+8				+7
	+9				+9				+9
	+10				+4				+10
56700	+10				+1				+10
	+10				-1				+10
	+9				-3				+9
	+8				-2				+8
157700	+9				$\phi$				+9

$\Delta$	Dip Angle	Slope %	Correction Factor	Reading	1 <sup>st</sup> Diff.	F. Filter		Quad.
45+00	-6				$\phi$			+7
	-6				+21			+3
	+10				+17			0
	-1				+25			-9
46+00	+22				+11			+8
	+12				+16			+1
	+20				+18			0
	+30				-23			+8
47+00	+20				-43			+4
	+7				-33			+4
	0				-20			+3
	-6				+2			+4
48+00	-7				+14			+3
	+3				+7			+4
	-2				+4			-5
	+5				0			0
49+00	0				+17			-10
	+3				+67			-11
	+19				+44			-6
	+51				-34			-14
50+00	+15				-34			-17
	+21				-18			-17
	+11				-20			-10
	+7				-14			-5
51+00	+5				-18			0
	-1				-16			0
	-5				-8			-2
	-7				+4			-4
52+00	-7				+11			-6
	-1				+9			-8
	-2				+9			-8
	+3				+6			-8
53+00	+3				-2			-4
	+4				-2			-2
	0				+9			-2
	+5				+13			-1
54+00	+8				+17			+2
	+10				+15			+4





VLF-EMI Data Sheet

Grid: Sombrin

Line: L57N

Tx: Seattle

Facing: West

$\Delta$	Dip Angle	Slope %	Correction Factor	Reading	1 <sup>st</sup> Diff.	F. Filter		Quad.
45+00	-9				$\phi$	$\phi$		+5
	-10				118	-5		+5
	0				+16	-4		+2
	-1				+17	-11		+3
46+00	+7				+35	-4		0
	+9				+42	+12		-6
	+32				-8	+4		+5
	+26				-43	-2		+1
47+00	+7				-27	+1		+2
	+8				-20	0		+2
	-2				-15	+2		+2
	-3				+2	+11		+2
48+00	-6				+15	+17		+4
	+3				+1	-7		+11
	+3				+44	-40		+12
	-5				+76	-39		-4
49+00	+55				+7	-24		-13
	+19				-16	-14		-18
	+38				-22	+5		-23
	+20				-39	+21		-22
50+00	+15				-28	+26		-14
	+4				-14	+24		-10
	+3				-5	+8		0
	+2				-8	-4		0
51+00	0				-3	-2		-2
	-3				+21	+2		-2
	+2				+41	+8		-2
	+16				+23	+4		0
52+00	+24				-11	-8		+4
	+17				-47	-7		-2
	+12				-42	-3		-2
	-18				+19	-2		-3
53+00	+5				+31	+2		-4
	+8				0	+16		-3
	+10				-28	+17		-2
	+3				-38	-10		+11
54+00	-13				-20	-16		+1
	-12				-11	1		-2



VLF-EM Data Sheet

Grid : Sxngbivd

Line : L 58N

Tx. : Seattle

Facing : West

△	Dip Angle	Slope %	Correction Factor	Reading	1 <sup>st</sup> Diff.	F. Filler		Quad.
45+00	-1				ϕ	ϕ		+6
	+1				-17	-10		+11
	0				+25	-31		+14
	-17				+111	-1		-7
46+00	+43				+53	+12		+1
	+51				-49	-3		+5
	+28				-45	-2		+1
	+17				-24	+2		+2
47+00	+17				-28	+3		+2
	+4				-22	+5		+3
	+2				-13	+10		+4
	-3				-14	+8		+6
48+00	-4				-9	-7		+11
	-11				+48	-40		+7
	-5				+90	-57		+3
	+38				+38	-18		-25
49+00	+36				-19	+17		-22
	+35				-42	+14		-18
	+20				-38	+6		-12
	+9				-17	+12		-14
50+00	+8				-10	+18		-10
	+4				-11	+8		-4
	+3				-12	-2		-2
	-2				+4	-1		-4
51+00	-3				+31	+6		-4
	+8				+35	+10		-3
	+18				+19	+6		+1
	+22				+1	-2		+2
52+00	+23				-22	-11		+2
	+18				-28	-12		-1
	+5				-5	-3		-6
	+8				+9	+4		-5
53+00	+10				-4	+4		-5
	+12				-22	0		-2
	+2				-19	+3		-4
	-2				-8	+12		-3
54+00	-3				-3	+14		0
	-5				0	0		+5



△	Dip Angle	Slope %	Correction Factor	Reading	1 <sup>st</sup> Diff.	F. Filter		Quad.
44+75	0				∅	∅		+7
45+00	+3				-18	-15		+23
	-10				+46	-31		+11
	-5				+91	-21		+4
	+44				+8	-12		-1
46+00	+32				-63	+6		-5
	+15				-46	+13		-4
	-2				-9	+4		+4
	+3				-3	+6		0
47+00	+1				-16	+8		+4
	-3				-22	+1		+6
	-9				-18	-12		+6
	-15				+29	-48		+5
48+00	-15				+96	-52		-5
	+20				+66	-2		-32
	+46				-33	+19		-20
	+25				-59	+19		-19
49+00	+8				-18	+19		-14
	+4				+7	+7		-6
	+11				+1	+5		-8
	+8				-12	+5		-5
50+00	+8				-16	+3		-4
	-1				+4	+7		-4
	+1				+22	+9		-2
	+10				+16	+3		+1
51+00	+12				+3	-7		+2
	+15				-7	-9		0
	+10				-4	-1		-4
	+10				-2	+1		-3
52+00	+11				-2	-4		-2
	+7				+7	-4		-4
	+12				+12	0		-5
	+13				+10	+4		-5
53+00	+18				0	+5		-4
	+17				∅	∅		-2
	+14							-2
	✓							✓
54+00	✓							✓



△	Dip Angle	Slope %	Correction Factor	Reading	1 <sup>st</sup> Diff.	F. Filter		Quad.
45+00	-4				0	0		+3
	+11				+85	+8		+3
	+46				+4	-8		+10
	+46	-			1%	-11		+4
46+00	+15				-58	+1		+1
	+5				-46	+3		+2
	-2				-34	+7		+4
	-24				+14	+17		+2
47+00	-7				+17	+11		+11
	-5				+6	-10		+12
	-9				+57	-39		+12
	+3				+46	-53		+1
48+00	+40				+17	-28		-16
	0				+30	+9		-24
	+50				+15	+23		-19
	+11				-46	+15		-12
49+00	+15				-19	+7		-8
	+9				-15	+4		-8
	+7				-6	+1		-5
	+2				+9	+6		-7
50+00	+8				+13	+9		-5
	+10				+10	+2		-1
	+13				+2	+1		-2
	+15				-13	+4		-2
51+00	+10				-5	0		0
	+5				+15	-5		0
	+15				+3	-5		-2
	+15				-18	-11		-3
52+00	+8				-4	-11		-4
	+4				+24	+1		-12
	+15				+25	+6		-6
	+21				+8	+9		-9
53+00	+23				-10	+4		-3
	+21				-24	-3		-3
	+13				-14	0		-5
	+7				+16	+3		-4
54+00	+13				+15	+1		-4
	+17							-2





△	Dip Angle	Slope %	Correction Factor	Reading	1 <sup>st</sup> Diff.	F. Filter		Quad.
45400	+38				∅	∅		-1
	117							-1
	+5				-60	+2		-1
	-10	-			-47	+7		+1
46400	-15				-10	+9		+4
	0				+38	+1		+5
	+13				+41	-22		+1
	+13				-8	-30		-14
47400	-8				+21	-7		-10
	+55				+78	-7		-10
	+28				-4	-24		-21
	+15				-26	+3		+23
48400	+42				+34	+21		-5
	+35				+8	-2		-18
	+30				-14	+8		-12
	+33				-8	+22		-3
49400	+24				-24	+4		-5
	+15				-32	-4		-6
	+10				-19	+3		-6
	+10				-9	+6		-2
50400	+6				-4	+3		-4
	+10				+4	+5		-1
	+10				+4	+2		0
	+10				-2	-4		-3
51400	+8				-2	-1		-2
	+10				+1	0		-2
	+9				+3	-2		-3
	+12				+6	-3		-3
52400	+13				+9	-4		-5
	+17				+17	-1		-5
	+25				+13	+3		-4
	+18				-9	+2		-3
53400	+15				-13	-1		-4
	+15				+2	+1		-4
	+20				+6	+6		-2
	+16				+1	+6		0
54400	+20				+4	-2		0
	+20				-14	-6		-4



VLF-EM Data Sheet

Line : L-62-N

Tx : Seattle

Grid : Songbird

Facing : W

△	Dip Angle	Slope %	Correction Factor	Reading	1 <sup>st</sup> Diff.	F. Filter		Quad.
45+00	-1				<del>0</del>	<del>0</del>		-1
	-7				-20	-7		-2
	-23				+41	+6		-2
	-5				+75	-11		+4
46+00	+16				+41	-32		+1
	+31				-7	-22		-10
	+21				-38	-7		-17
	+19				-2	-9		-14
47+00	-5				+75	0		-20
	+43				+41	+10		-20
	+41				-24	+9		-14
	+33				-14	+15		-16
48+00	+30				-6	+15		-9
	+33				-18	+6		-6
	+26				-23	+3		-4
	+21				-17	+7		-5
49+00	+15				-15	+9		-2
	+15				-17	+3		0
	+6				-5	-2		+2
	+7				0	0		-1
50+00	+9				-7	-2		+1
	+4				-4	-5		0
	+5				+3	-3		-2
	+4				+4	-1		-2
51+00	+8				0	+1		-3
	+5				+3	-1		-2
	+7				+8	-6		-2
	+9				-4	-6		-4
52+00	+11				-7	-2		-6
	+11				+15	0		-6
	+12				+16	+4		-6
	+15				0	+8		-6
53+00	+14				+6	+7		-2
	+13				+4	+3		-2
	+22				-17	-5		+1
	+9				-14	-9		-2
54+00	+9				-5	-8		-4
	+8							-6



△	Dip Angle	Slope %	Correction Factor	Reading	1 <sup>st</sup> Diff.	F. Filter		Quod.
45+00	-1							0
	-2				0	0		0
	+22				+57	+13		+6
	+32				+37	-15		+7
46+00	+25				-12	-49		-16
	+17				-38	-21		-20
	+2				-13	+12		-10
	+27				+58	-12		-14
47+00	+50				+43	-32		-28
	+22				-30	-4		-28
	+25				-22	+24		-18
	+25				+9	+24		-14
48+00	+31				+11	+22		-8
	+30				-4	+15		-2
	+22				-22	-1		-5
	+17				-20	-1		-6
49+00	+15				-10	+11		-2
	+14				-13	+11		+2
	+5				-21	-1		+1
	+3				-16	-5		-2
50+00	0				-5	+2		0
	+3				+4	+1		+1
	+4				+9	-5		-2
	+8				+9	-3		0
51+00	+8				+1	-3		-2
	+5				-4	-5		-5
	+7				+2	-1		-4
	+8				-1	-2		-4
52+00	+3				-4	-5		-7
	+8				+4	0		-6
	+7				0	+2		-5
	+4				-6	+1		-6
53+00	+5				-1	+2		-4
	+5				-7	-1		-5
	-3				-23	-5		-6
	-10				-12	-4		-8
54+00	0				+9	+1		-7
	-4				+2	+3		-6



△	Dip Angle	Slope %	Correction Factor	Reading	1 <sup>st</sup> Diff.	F. Filter		Quad.
42+00	+1				φ			
	+1				-2			
	0				+4			
	0				+43			
43+00	+5				+71			
	+38				+22			
	+38				-24			
	+27				-23			
44+00	+25				-17			
	+17				-25			
	+18				-38			
	-1				-1			
45+00	-2				+56			
	+18				+63			
	+35				+12			
	+44				-56			
46+00	+21				-73			
	+2				+12			
	-10				+70			
	+45				-3			
47+00	+17				-31			
	+15				-1			
	+16				-1			
	+15				-1			
48+00	+15				-5			
	+15				-10			
	+10				-10			
	+10				-7			
49+00	+5				-2			
	+8				-8			
	+5				-13			
	0				-5			
50+00	0				+15			
	0				+25			
	+15				-13			
	+10				-28			
51+00	-8				+8			





△	Dip Angle	Slope %	Correction Factor	Reading	1 <sup>st</sup> Diff.	F. Filter		Quad.
42+06	+6				∅	∅		+2
	+2				-7	+13		-1
	+2				-3	+33		+3
	-1				+3	+30		+11
43+00	+2				+3	+1		+24
	+2				+2	-19		+20
	+2				+15	-19		+16
	+4				+21	-14		+10
44+00	+15				-4	-36		+8
	+12				-27	-31		+4
	+3				-16	+56		-22
	-3				-19	+92		+3
45+00	+2				-37	+10		+35
	-20				-11	-67		+38
	-18				+19	-82		+10
	-11				+9	+9		-4
46+00	-8				-19	+117		-30
	-12				-24	+48		+45
	-26				+4	-38		+38
	-18				+16	-25		+25
47+00	-16				+12	-19		+20
	-12				+12	-20		+18
	-10				+10	-16		+8
	-6				+4	-18		+10
48+00	-6				+4	-10		0
	-6				+11	0		0
	-2				+9	-1		0
	+1				0	-1		0
49+00	0				0	+4		-1
	-1				+8	+13		0
	+2				+6	+16		+3
	+5				-3	+7		+9
50+00	+2				-6	+1		+10
	+2				-8	+2		+9
	-1				-8	-5		+11
	-3				-4	-10		+10
51+00	-4				-1	-7		+5
	-4							+6



△	Dip Angle	Slope %	Correction Factor	Reading	1 <sup>st</sup> Diff.	F. Filter		Quad.
42+00	0							+5
	+23				<del>0</del>	<del>0</del>		+4
	+30				+27	+4		+9
	+20				-15	-2		+4
43+00	+18				-17	+10		+7
	+15				-8	+24		+16
	+15				-25	+8		+19
	-7				-14	-17		+12
44+00	+23				+40	-29		+6
	+25				+49	-31		-4
	+40				+24	-28		-9
	+32				-12	-19		-17
45+00	+21				-51	+1		-15
	0				-73	+18		-10
	-20				+19	-7		-4
	+60				+112	-44		-28
46+00	+32				+8	-23		-30
	+16				-59	+19		-25
	+17				-15	+32		-14
	+16				-2	+21		-9
47+00	+15				-8	+5		-9
	+10				-16	+2		-9
	+5				-20	+3		-7
	0				-15	+4		-8
48+00	0				-5	+9		-4
	0				+3	+10		-2
	+3				+8	+4		0
	+5				+11	+1		-2
49+00	+9				+11	+7		+1
	+10				+6	+8		+4
	+10				0	-1		+3
	+9				-8	-6		+1
50+00	+3				<del>0</del>	<del>0</del>		0

△	Dip Angle	Slope %	Correction Factor	Reading	1 <sup>st</sup> Diff.	F. Filter		Quad.
42+00	-3							+1
	+31				∅	∅		+14
	+17				+3	+5		+9
	+14	-			-29	-6		+11
43+00	+5				-22	0		+6
	+4				-26	+7		+14
	-11				+8	-11		+10
	+28				+77	-33		-1
44+00	+42				+41	-44		-8
	+16				-14	-43		-27
	+40				+6	-11		-25
	+24				-27	+13		-21
45+00	+5				-62	+13		-18
	-3				-12	+2		-15
	+20				+43	-12		-22
	+25				+30	-8		-23
46+00	+22				-8	+3		-22
	+15				-17	+12		-20
	+15				-11	+18		-13
	+11				-7	+16		-11
47+00	+12				+1	+9		-6
	+15				+5	+3		-9
	+13				-9	+1		-5
	+5				-8	+4		-9
48+00	+15				+12	+12		-1
	+15				+11	+8		-1
	+16				-3	-2		-1
	+11				-5	-1		-3
49+00	+15				-1	+6		0
	+11				-4	+7		+2
	+11				-10	0		+2
	+5				-11	-6		0
50+00	+6				∅	∅		-2

△	Dip Angle	Slope %	Correction Factor	Reading	1 <sup>st</sup> Diff.	F. Filter		Quad.
41+00	+16				∅	∅		+16
	+10				-6	+16		+6
	+8				+6	+26		+13
	+12	-			+4	-6		+25
42+00	+12				0	-26		+20
	+12				+14	-10		+12
	+12				+15	-24		+7
	+26				-18	-39		+15
43+00	+13				-43	+43		-20
	+7				-46	+66		+3
	-11				-49	+16		+55
	-15				-38	+16		+14
44+00	-38				-2	-9		+40
	-26				+16	-38		+25
	-29				+24	-35		+20
	-19				+24	-21		+7
45+00	-12				+15	+23		+3
	-12				+4	+44		+3
	-4				-20	-3		+30
	-16				-9	-27		+20
46+00	-20				+16	-7		+10
	-9				+11	-8		+13
	-11				+9	-13		+10
	-7				+10	-7		+5
47+00	-4				0	-7		+5
	-4				-3	-5		+3
	-7				+4	+3		0
	-4				+2	+3		+3
48+00	-3				-7	-10		+3
	-6				-5	-12		+3
	-8				+8	+7		-7
	-6				+12	+15		+1
49+00	0				+6	+4		+2
	-2				+7	-5		+7
	+2				+5	-3		0
	+3				∅	∅		+4
50+00	+2							0

△	Dip Angle	Slope %	Correction Factor	Reading	1 <sup>st</sup> Diff.	F. Filter		Quad.
41+00	+8				0	0		+10
	+10				+6	-11		+17
	+12				0	-15		+11
	+12	-			+6	+2		+5
42+00	+10				+14	-18		+8
	+20				-4	-5		+10
	+16				-27	+13		-15
	+10				-41	+94		-17
43+00	-1				-43	+45		+20
	-14				-41	-26		+37
	-20				-40	-13		+16
	-36				-6	-6		+26
44+00	-38				+28	-25		+28
	-24				+22	-34		+10
	-22				+13	-21		+5
	-18				+13	+49		-9
45+00	-15				+9	+76		+3
	-12				+6	+2		+42
	-12				+9	-33		+28
	-9				+6	-19		+19
46+00	-7				+2	-14		+18
	-8				+8	-3		+10
	-6				+17	+2		+13
	-1				+16	+1		+12
47+00	+4				+10	+3		+13
	+5				+7	+4		+13
	+8				+1	0		+15
	+8				-4	-8		+15
48+00	+6				-3	-12		+13
	+6				-2	-12		+9
	+5				-3	-12		+7
	+5				-6	-9		+3
49+00	+3				-7	-5		+1
	+1				-4	-7		0
	0				-1	-5		-1
	0				0	0		-5
50+00	0				0			-1

△	Dip Angle	Slope %	Correction Factor	Reading	1 <sup>st</sup> Diff.	F. Filter		Quod.
41+00	+4				∅			
	0				+6			
	+5				+5			
	+5				+1			
42+00	+5				-14			
	+6				-30			
	-10				+30			
	-9				+79			
43+00	+35				+17			
	+25				-28			
	+18				-21			
	+14				-16			
44+00	+8				-15			
	+8				-25			
	-1				+20			
	-8				+74			
45+00	+35				+18			
	+30				-41			
	+15				-26			
	+9				-4			
46+00	+10				+3			
	+10				+4			
	+12				+3			
	+12				+5			
47+00	+13				-1			
	+16				-11			
	+8				-5			
	+10				-3			
48+00	+9				-8			
	+6				-9			
	+5				-2			
	+1				+7			
49+00	+8				-1			
	+5				-5			
	+3				0			
	+5				∅			
50+00	+3							







$\triangle$	Dip Angle	Slope %	Correction Factor	Reading	1 <sup>st</sup> Diff.	F. Filter			Quad.
42100	+33				$\phi$				
	+11				-1				
	+28				-15				
	+15				-16				
43100	+9				$\phi$				
	+18								

△	Dip Angle	Slope %	Correction Factor	Reading	1 <sup>st</sup> Diff.	F. Filter		Quad.
42+00	+10				∅			
	+6				+44			
	+19				+33			
	+41				-28			
43+00	+17				-44			
	+15				-39			
	-1				-22			
	-6				+7			
44+00	-2				+1			
	+2				-14			
	-9				+3			
	-5				+16			
45+00	+1				+5			
	+1				+2			
	0				+7			
	+4				+4			
46+00	+4				-2			
	+4				-8			
	+2				-11			
	-2				-9			
47+00	-3				-6			
	-6				+9			
	-5				+23			
	+5				+12			
48+00	+7				-3			
	+5				-3			
	+4				+2			
	+5				-1			
49+00	+6				-9			
	+2				-11			
	0				-7			
	-3				∅			
50+00	-2							

STATEMENT OF COSTS

PHYSICAL WORK (Linecutting & Grid Preparation)

Personnel

J. Thomlinson	\$100/day	-	April 14-23	-	10 days	-	\$ 1000.00
D. Cosgrove	\$100/day	-	April 13-20	-	8 days	-	800.00
J. Nicholson	\$100/day	-	April 28-30	-	3 days	-	300.00
M. Fekete	\$100/day	-	April 14-21	-	7 days	-	700.00
T. Roberts	\$100/day	-	May 1-17	-	17 days	-	1700.00
N. MacLeod	\$100/day	-	April 20-24	-	5 days	-	500.00

5000.00

Linecutting - 4.6 Km. of baseline and tie lines  
Compass, Chained, Flagged Section Lines - 42 kilometres

Room & Board

50 man days x \$45/man day 2250.00

Truck Rental - 12 days x \$40/day 480.00

Field Equipment (flagging, topofil thread, axes, machetes  
chainsaw parts, wooden pickets, etc. 1000.00

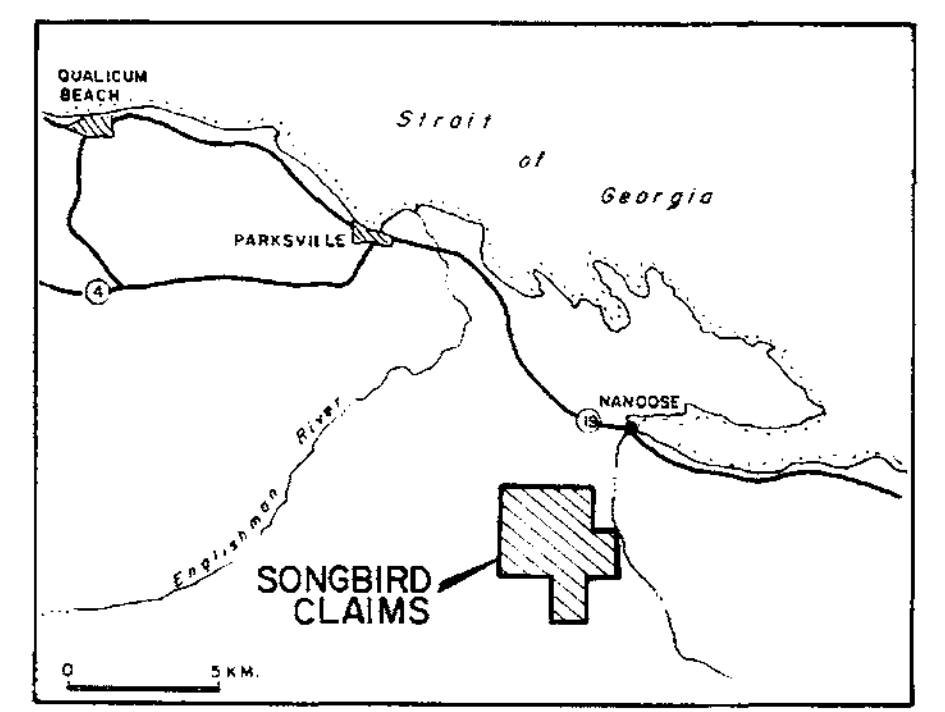
Transportation (Vehicle charges, ferry trips, meals) 200.00

8930.00

40+00E

50+00E  
B.L.

60+00E



70+00 N

SONGBIRD 4  
35, 3W

SONGBIRD 3  
3N, 6W

60+00 N

T.L.

SONGBIRD 1  
3N, 5W

50+00 N

T.L.

LEGEND

- Road
- Creek
- Swamp
- Legal corner post
- Grid station
- Contours at 20 intervals (e.g. 0, 20, 40, 60, ...)

Seattle Transmitter  
Facing west  
VLF-EM 16

GEOLOGICAL BRANCH  
ASSESSMENT REPORT

17,837

40+00 N



SONGBIRD 2  
3N, 2W

MINGOLD RESOURCES INC.  
VANCOUVER OFFICE

SONGBIRD CLAIMS

VLF-EM FRASER FILTERED

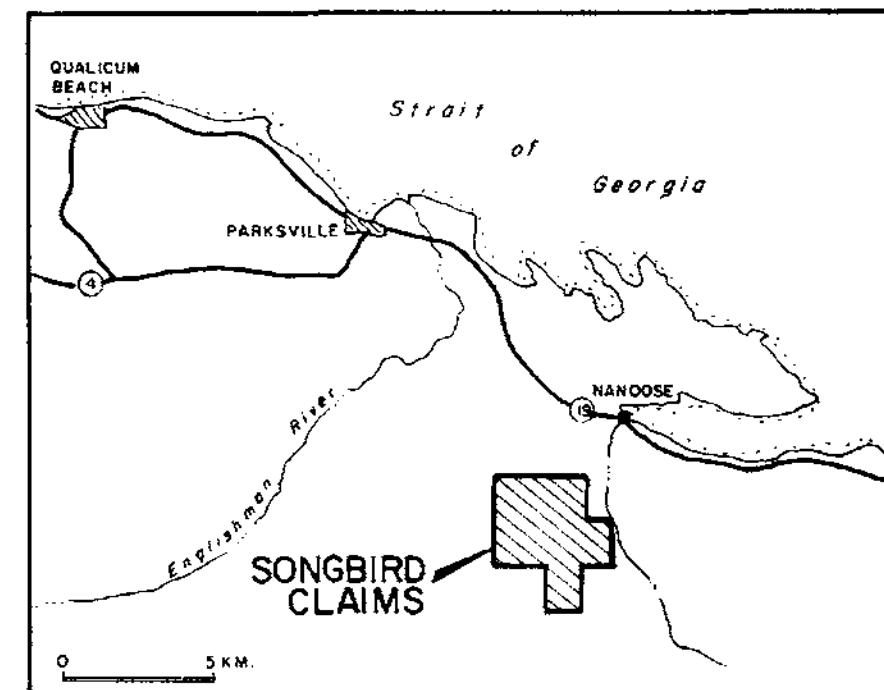
N.T.S. 92F-1E,W NANAIMO M.D., B.C.

DRAWN BY:	DATE: JUNE 1988	APPROVED BY:
VANCOUVER ISLAND	SCALE 1:5000 0 100 200 300 metres	PLATE NO. 6

40+00E

50+00E  
B.L.

60+00E



70+00 N

SONGBIRD 3  
3N, 6W

SONGBIRD 4  
3S, 3W

60+00 N

T.L.

SONGBIRD 1.  
3N, 5W

50+00 N

LEGEND

- Road
- Creek
- Swamp
- Legal corner post
- Grid station
- Au in ppb
- Contours 50, 75, 100 ppb

GEOLOGICAL BRANCH  
ASSESSMENT REPORT

17,837

40+00 N



SONGBIRD 2  
3N, 2W

MINGOLD RESOURCES INC.  
VANCOUVER OFFICE

SONGBIRD CLAIMS

SOIL GEOCHEMISTRY - GOLD

N.T.S. 92F-1E,W

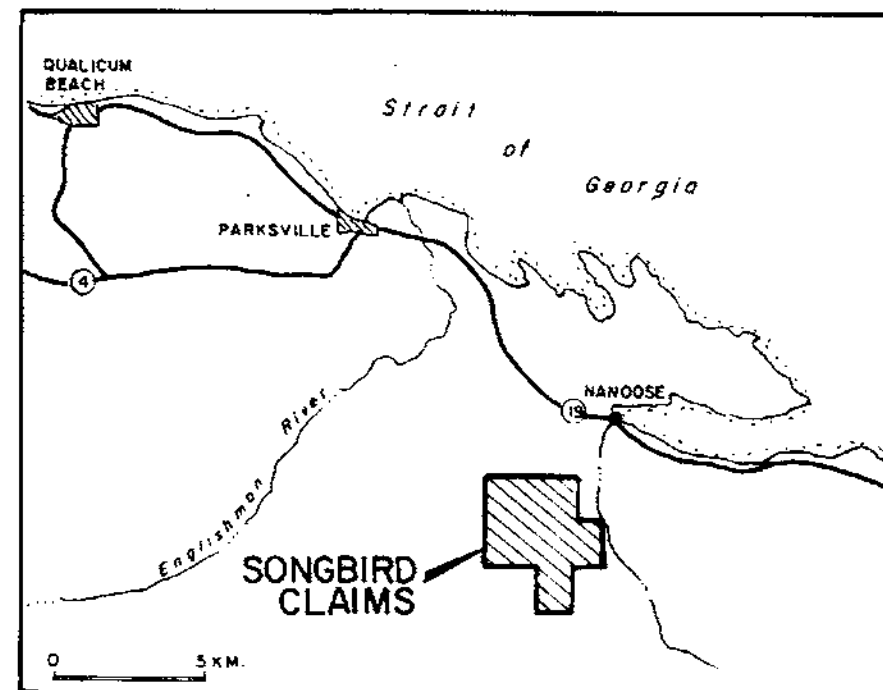
NANAIMO M.D., B.C.

DRAWN BY:	DATE: JUNE 1988	APPROVED BY:
VANCOUVER ISLAND	SCALE 1:5000 0 100 200 300metres	PLATE NO. 5

40+00E

50+00E  
B.L.

60+00E



70+00 N

SONGBIRD 3  
3N, 6W

SONGBIRD 4  
3S, 3W

60+00 N

T.L.

SONGBIRD 1  
3N, 5W

50+00 N

T.L.

LEGEND

- Road
- ~ Creek
- SWP Swamp
- Legal corner post
- Grid station
- 2.3 Ag in ppm
- Contours 0.5, 1.0, 1.5 ppm

GEOLOGICAL BRANCH  
ASSESSMENT REPORT

17,837

40+00 N



SONGBIRD 2  
3N, 2W

MINGOLD RESOURCES INC.  
VANCOUVER OFFICE

SONGBIRD CLAIMS  
SOIL GEOCHEMISTRY - SILVER

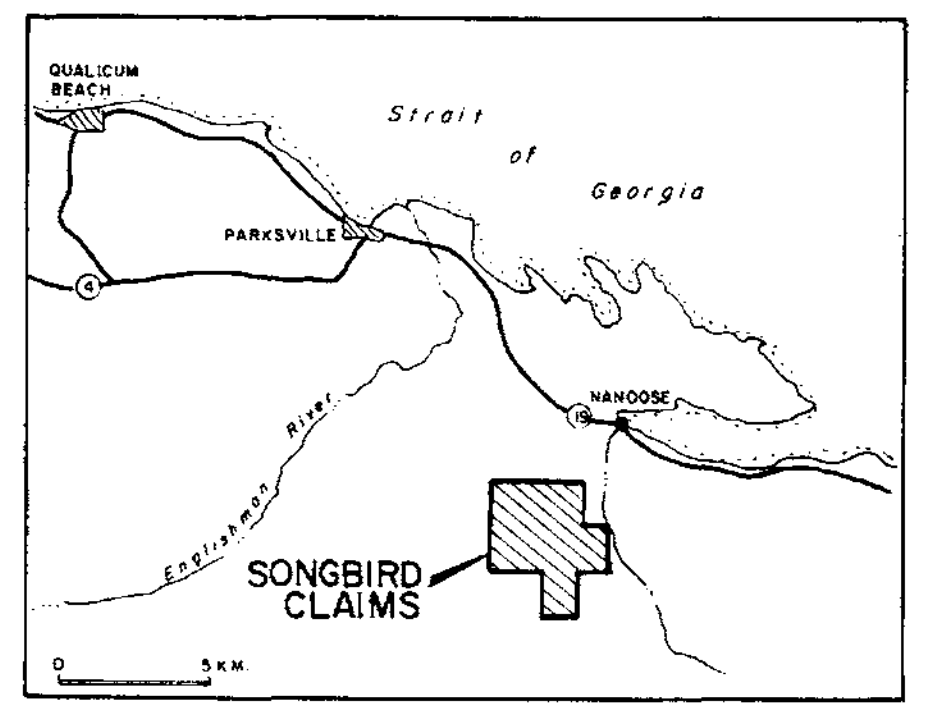
N.T.S. 92F-1E,W		NANAIMO M.D., B.C.	
DRAWN BY:	DATE: JUNE 1988	APPROVED BY:	
VANCOUVER ISLAND	SCALE 1:5000 0 100 200 300metres	PLATE N <sup>o</sup> . 4	



40+00E

50+00E  
B.L.

60+00E

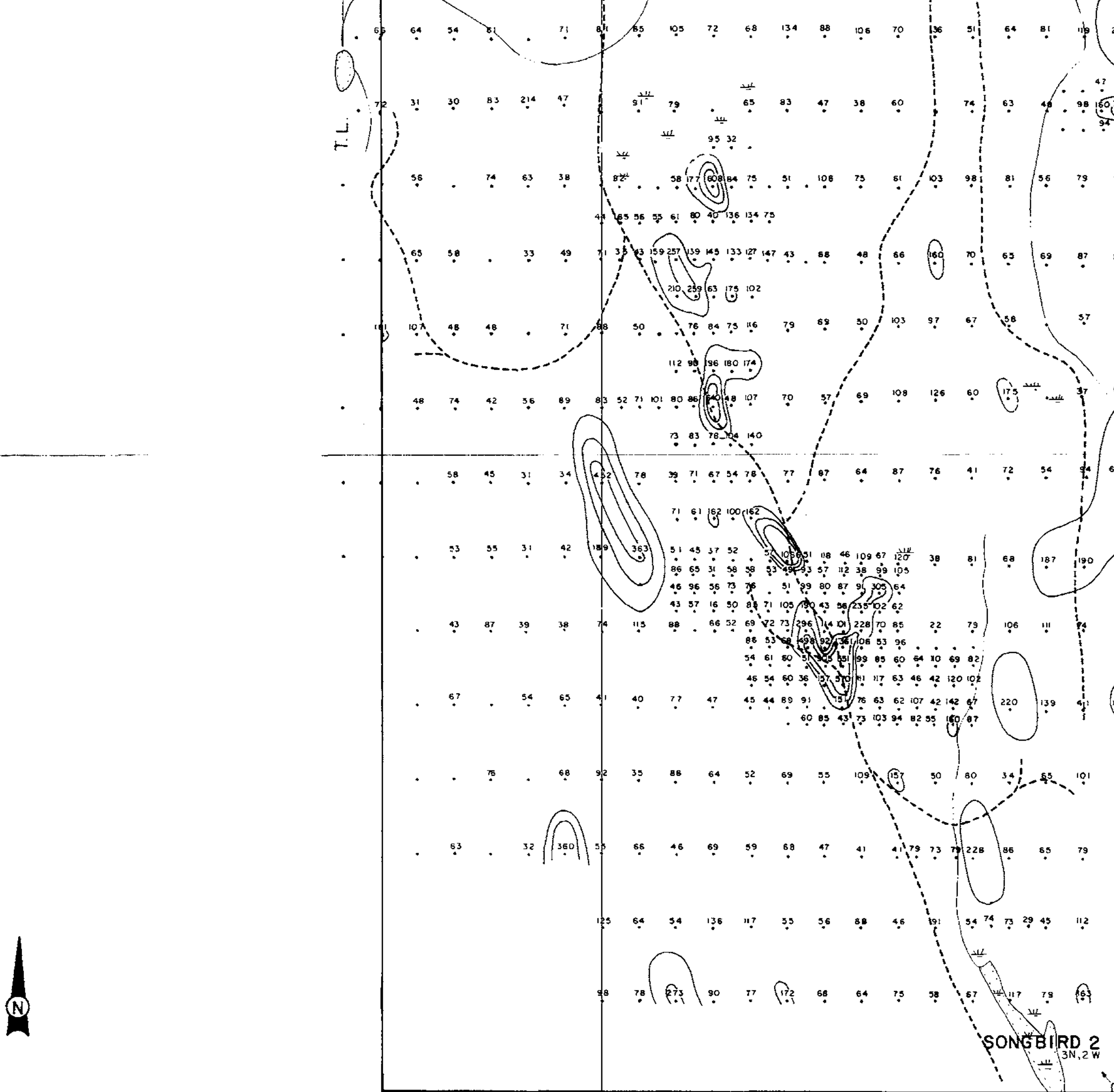
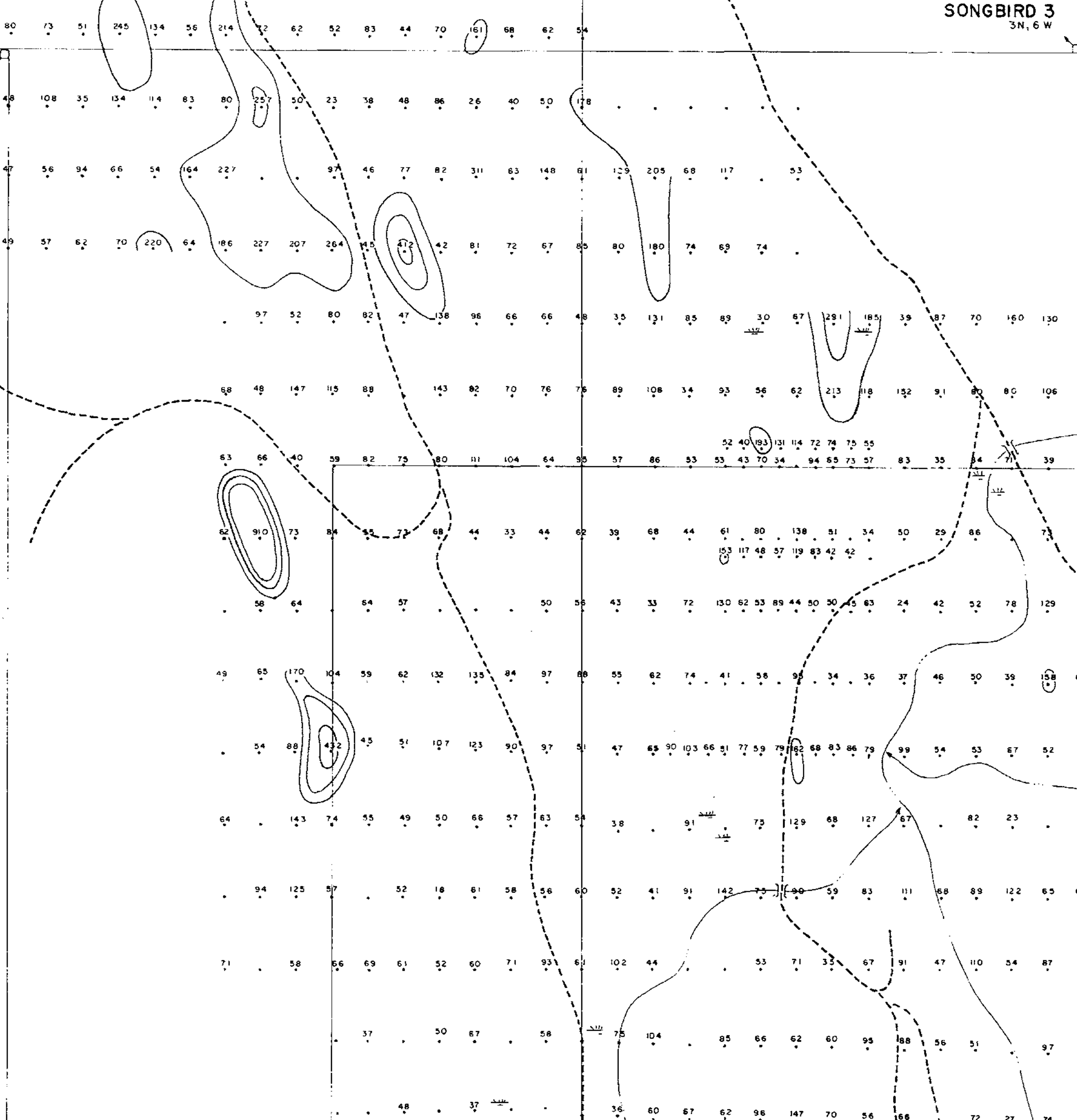
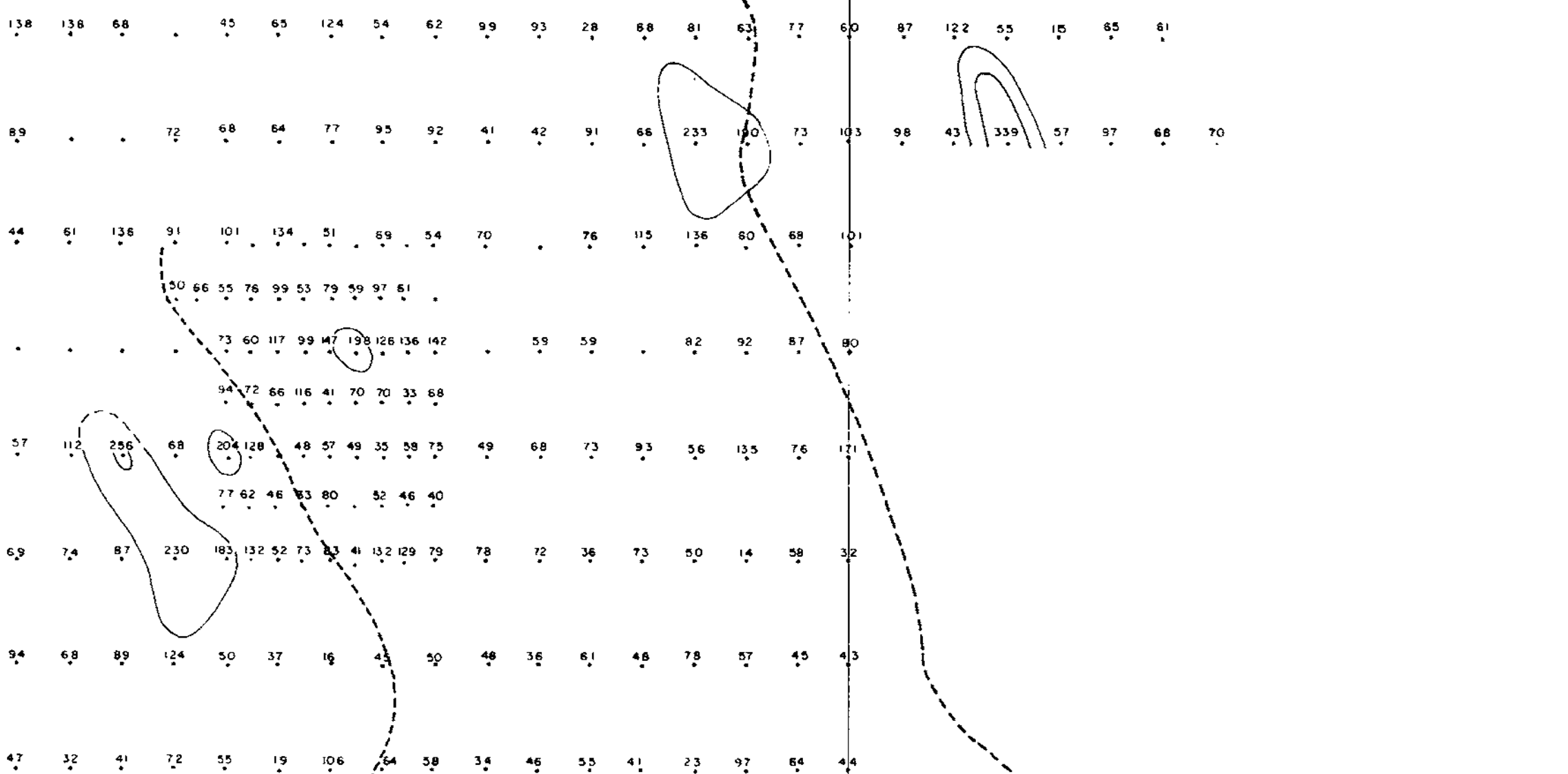


70+00 N

60+00 N

50+00 N

40+00 N



- LEGEND**
- Road
  - ~ Creek
  - Swamp
  - Legal corner post
  - Grid station
  - Zn in ppm
  - Contours 150, 250, 350 ppm

GEOLOGICAL BRANCH  
ASSESSMENT REPORT

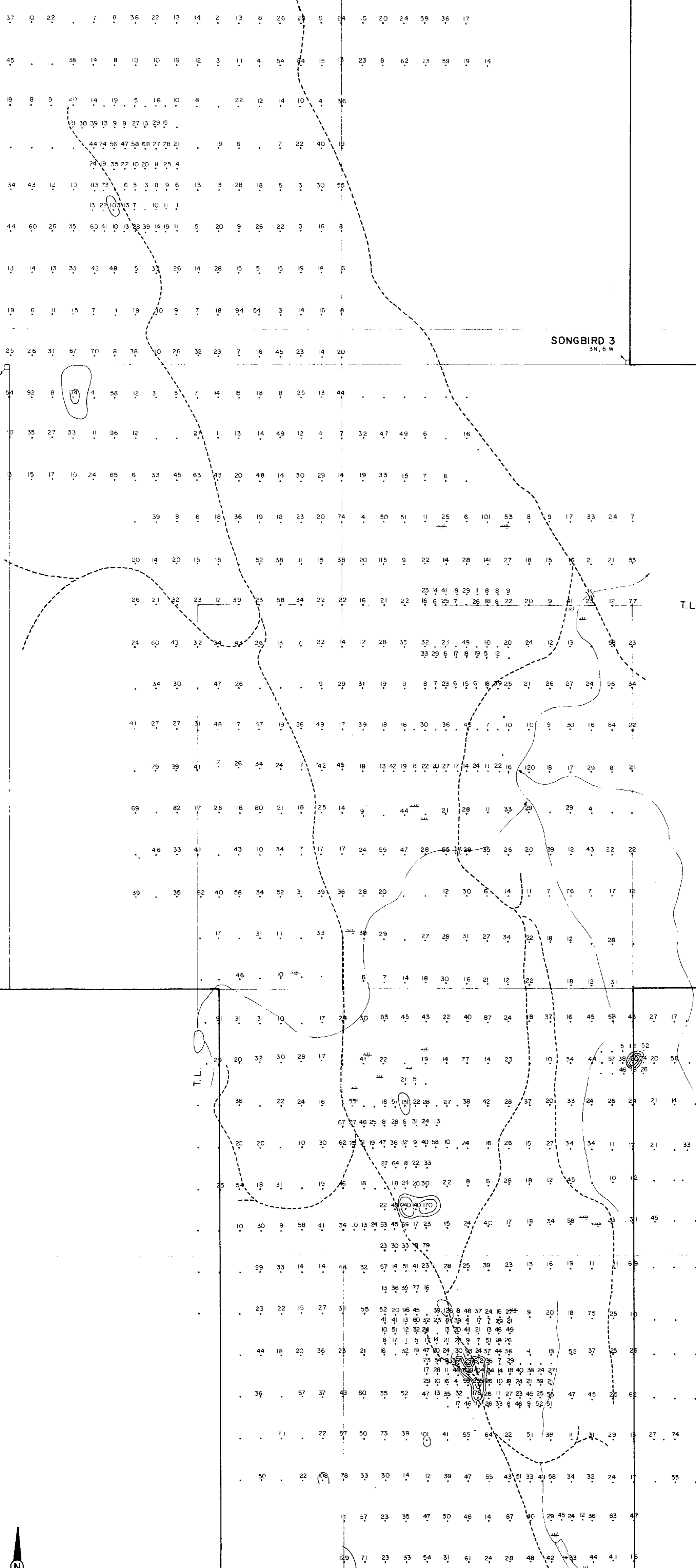
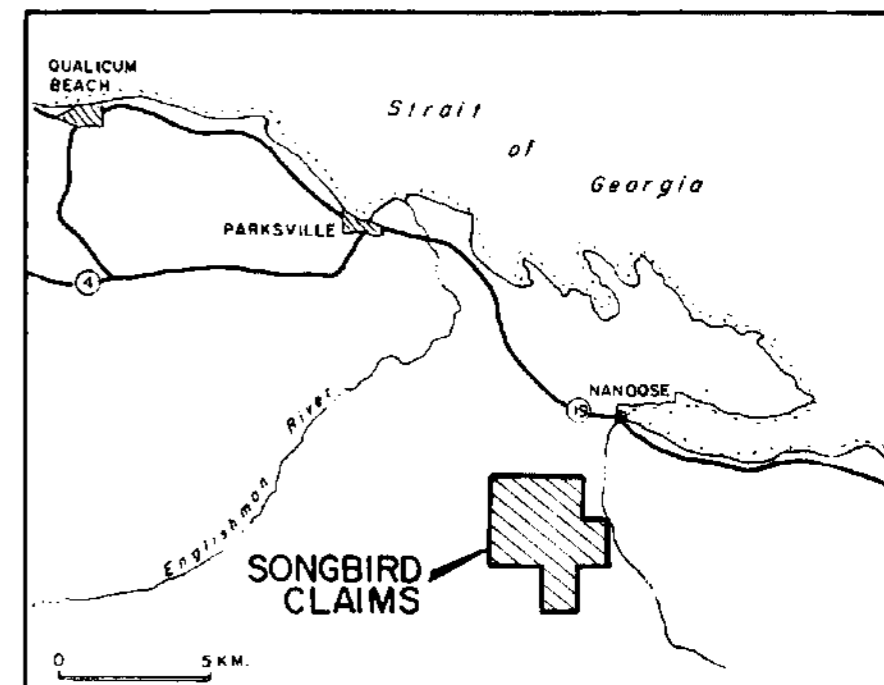
17-837

MINGOLD RESOURCES INC. VANCOUVER OFFICE		
SONGBIRD CLAIMS		
<b>SOIL GEOCHEMISTRY - ZINC</b>		
N.T.S. 92F-1E,W		NANAIMO M.D., B.C.
DRAWN BY:	DATE: JUNE 1988	APPROVED BY:
VANCOUVER ISLAND	SCALE 1:5000 0 100 200 300metres	PLATE NO. <b>3</b>

40+00E

50+00E  
B.L.

60+00E



70+00 N

60+00 N

50+00 N

40+00 N

SONGBIRD 3  
3N, 6W

SONGBIRD 4  
3S, 3W

SONGBIRD 1  
3N, 5W

SONGBIRD 2  
3N, 2W

T.L.

- LEGEND**
- Road
  - - - - - Creek
  - Swamp
  - Legal corner post
  - Grid station
  - 178 Cu in ppm
  - Contours 100, 150, 200ppm

GEOLOGICAL BRANCH  
ASSESSMENT REPORT

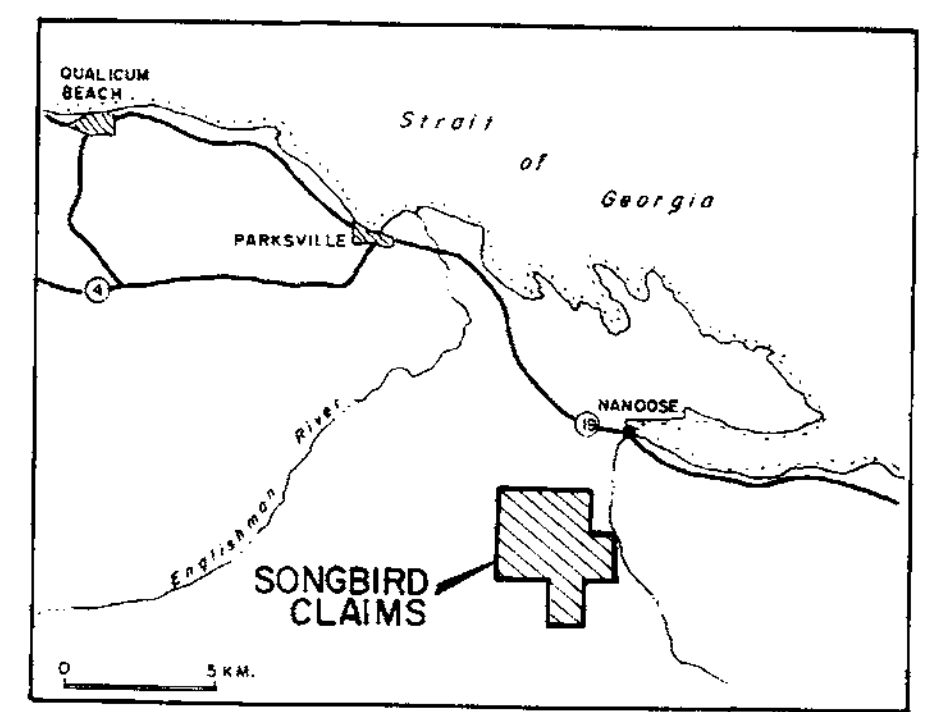
17,837

MINGOLD RESOURCES INC. VANCOUVER OFFICE		
SONGBIRD CLAIMS		
SOIL GEOCHEMISTRY - COPPER		
N.T.S. 92F-1E,W		NANAIMO M.D., B.C.
DRAWN BY: VANCOUVER ISLAND	DATE: JUNE 1988	APPROVED BY:
SCALE 1:5000	PLATE NO. 2	

40+00E

50+00E  
B.L.

60+00E



WATERFALL ZONE

SONGBIRD 3  
3N, 6W

SONGBIRD 4  
3S, 3W

BEAR ZONE

T.L.

T.L.

SONGBIRD 1  
3N, 5W

60+00N

50+00N

40+00N

LEGEND

- Road
- Creek
- Swamp
- Legal corner post
- Rock sample
- Trench
- Old diamond drill hole
- Outcrop
- Flot
- Contact, assumed
- Fault
- Foliation
- Strike dip bedding (top unknown)
- Fracture plane
- Mineralization
- Nanaimo Group Conglomerate 1a fossiliferous sandstone
- Sicker Group Phyllite 2a argillaceous, 2b cherty, 2c graphitic
- Andesite 3a porphr, 3b bleached
- Quartz sericite schist 4a cherty
- Karmutsen Formation Massive andesite 5a porphy andesite

GEOLOGICAL BRANCH  
ASSESSMENT REPORT

17.837

MINGOLE RESOURCES INC.  
VANCOUVER OFFICE

SONGBIRD CLAIMS  
PROPERTY GEOLOGY

N.T.S. 92F-1E,W

NANAIMO M.D., B.C.

DRAWN BY

DATE: JUNE 1988

APPROVED BY

VANCOUVER ISLAND

SCALE 1:5000  
0 100 200 300metres

PLATE NO. 1