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	Long 126°04'W
FILE NO:	

GEOPHYSICAL REPORT
on the
ADAM RIVER PROPERTY
Nanaimo Mining Division, B.C.

for

LUCKY BREAK GOLD INC.
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GEOLOGICAL BRANCH
ASSESSMENT REPORT

13 April 1995

23,906

SUMMARY

At the request of Lucky Break Gold Inc., Reliance Geological Services carried out a magnetic and VLF program on the Adam River Property, Sayward area, Vancouver Island, B.C.

The Adam River Property is located 50 kilometers northwest of Campbell River, B.C., and is accessible by logging roads. The property comprises 11 contiguous mineral claims totalling 37 units in the Nanaimo Mining Division.

The claims are underlain 80% by Upper Triassic Karmutsen basaltic volcanics consisting of interbedded porphyritic, amygdaloidal, and fine grained flows. A 10 to 40 foot thick dark grey limestone horizon is interbedded with the volcanics. The northeast part of the claims is underlain by Jurassic granite-granodiorite. At least two large northerly trending faults cross the property. Smaller faults/shears are seen in creeks and in drill core.

Copper mineralization consists of chalcopyrite, bornite, chalcocite, and minor native copper within vertical fractures and as disseminations and bunches within amygdaloidal basalts (Main zone). Alteration within and near zones of mineralization consists of a strong to intense epidote-quartz-chlorite-sericite assemblage.

Previous work (mainly 1967-1973) has included geological mapping, soil sampling (1300 samples), silt sampling, an I.P. survey, blast trenching, and approximately 6000 ft of diamond drilling. Most trenching and all drilling was completed on the Main Zone.

Trenching (11) yielded results up to 2.70% Cu over 10 ft and drilling intersected intervals up to 2.96% Cu over 17 ft. Many of the drill logs and assay results were not available.

A 1991 exploration program of reconnaissance geological mapping, geochemical sampling, and data compilation was undertaken by West Pride Industries Corp for the purpose of verifying work from previous fieldwork and evaluating the mineral potential of the whole property. The program identified three high priority targets, called the Main Zone (Zone 2), Adam River Zone (Zone 1), and the Boyes Creek - North Creek Zone (Zone 3).

The 1995 magnetic/VLF survey totalling 6.6 line kilometers was conducted over Zone 1. This Adam River Zone is a blind target consisting of anomalous copper in soils and an IP chargeability anomaly, both of which are coincident with the inferred contact zone of basalt volcanics and granitic intrusive rocks.

Magnetic data indicates the contact zone at the eastern boundary of the grid. A strong VLF conductor in the same area confirms the possible fault(?) contact and indicates the presence of structurally controlled mineralization. The surveys did not confirm or deny the possibility of disseminated or skarn style copper mineralization near the contact.

A ground exploration program consisting of geological mapping, soil sampling, magnetic and VLF surveys, and an IP survey has been recommended to establish additional drill targets.

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CERTIFICATE

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1. **INTRODUCTION**

This report was prepared at the request of Lucky Break Gold Inc to describe and evaluate the results of a geophysical magnetic/VLF survey program carried out by Reliance Geological Services on the Adam River Property in the Nanaimo Mining District, Sayward area, Vancouver Island, B.C.

The field work was undertaken for the purpose of identifying possible copper mineralization at the contact between granodiorite and basaltic volcanics.

Field work was carried out from January 6 to January 9, 1995, by Brian Chore (geophysical operator) and Carl Gjendem (geotechnician).

This report is based on published and unpublished information and the maps, reports, and field notes of the crew listed above.

2. LOCATION, ACCESS AND PHYSIOGRAPHY

The Adam River Property is situated in the Nanaimo Mining Division, Sayward area, approximately 50 kilometers northwest of Campbell River, or 22 kilometers by road northwest of Sayward, B.C. (Figures 1 and 2).

The claims are located on Map Sheet NTS 92L/8E, at latitude 50°18' North, longitude 126°04' West, and between UTM 5577000 m and 5573000 m North, and UTM 708000 m and 711000 m East.

Road access is via the Island Highway #19 north of Sayward junction to the Adam River logging road(s) turn-off at Keta Lake. A series of logging roads cross the subject claims.

The property is on moderate to steep terrain with slopes rising from about 850 ft (259 meters) to 3300 ft (1006 meters). The lower elevations have been logged at different times, and vegetation consists mainly of reforested fir. Mature growth forest at higher elevations consists of fir, cedar, and hemlock.

Recommended work season is year-round.

LUCKY BREAK GOLD INC.

ADAM RIVER PROJECT
NANAIMO MINING DIVISION, BRITISH COLUMBIA

LOCATION MAP

	NTS: 92 L/8
NOVEMBER, 1991	Figure: 1
RELIANCE GEOLOGICAL SERVICES INC.	



3. PROPERTY STATUS (Figure 2)

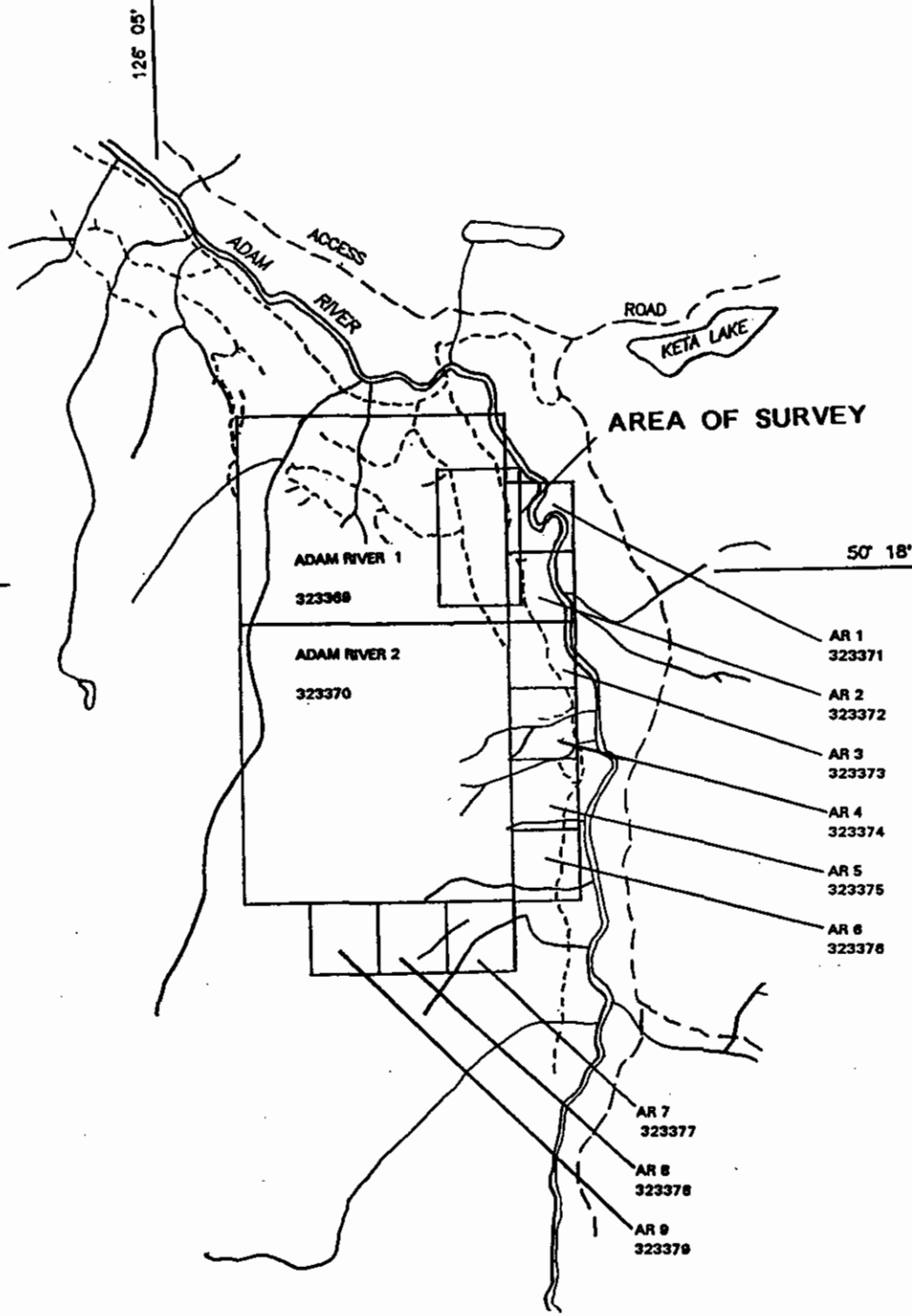
The property consists of 11 contiguous mineral claims totalling 37 units in the Nanaimo Mining Division. The claims are owned 100% by Harvey Keck, Vancouver, B.C., and have been optioned to Lucky Break Gold Inc.

Details of the claims are as follows:

<u>Claim</u>	<u>Record Number</u>	<u>Units</u>	<u>Record Date</u>	<u>Expiry Date</u>
Adam River 1	323369	12	20 Jan 1994	20 Jan 1996
Adam River 2	323370	16	22 Jan 1994	22 Jan 1996
AR 1	323371	1	20 Jan 1994	20 Jan 1996
AR 2	323372	1	20 Jan 1994	20 Jan 1996
AR 3	323373	1	22 Jan 1994	22 Jan 1996
AR 4	323374	1	22 Jan 1994	22 Jan 1996
AR 5	323375	1	22 Jan 1994	22 Jan 1996
AR 6	323376	1	22 Jan 1994	22 Jan 1996
AR 7	323377	1	22 Jan 1994	22 Jan 1996
AR 8	323378	1	22 Jan 1994	22 Jan 1996
AR 9	323379	<u>1</u>	22 Jan 1994	22 Jan 1996
Total		37		

The total area covered by the claims is 925 hectares, or 2285 acres.

The writer is not aware of any particular environmental, political, or regulatory problems that would adversely affect mineral exploration and development on the Adam River Property.



LUCKY BREAK GOLD INC.		
ADAM RIVER PROJECT		
CLAIM MAP		
Scale 1:50,000	N.T.S. 92 L/8	Drawn by
Date March 1995	Geologist	Figure 2
RELIANCE GEOLOGICAL SERVICES INC.		

4. REGIONAL GEOLOGY (Figure 3)

Very limited regional mapping has been done in the Sayward area. Figure 3 is taken from GSC O.F. 463, Geology of Vancouver Island, by J.E. Muller.

The Sayward - Adam River area is underlain by Triassic-Jurassic volcanics, limestones, and clastic rocks, which are intruded by Jurassic granodiorite-granite.

Individual formations are discussed as follows:

Triassic:

Vancouver Group

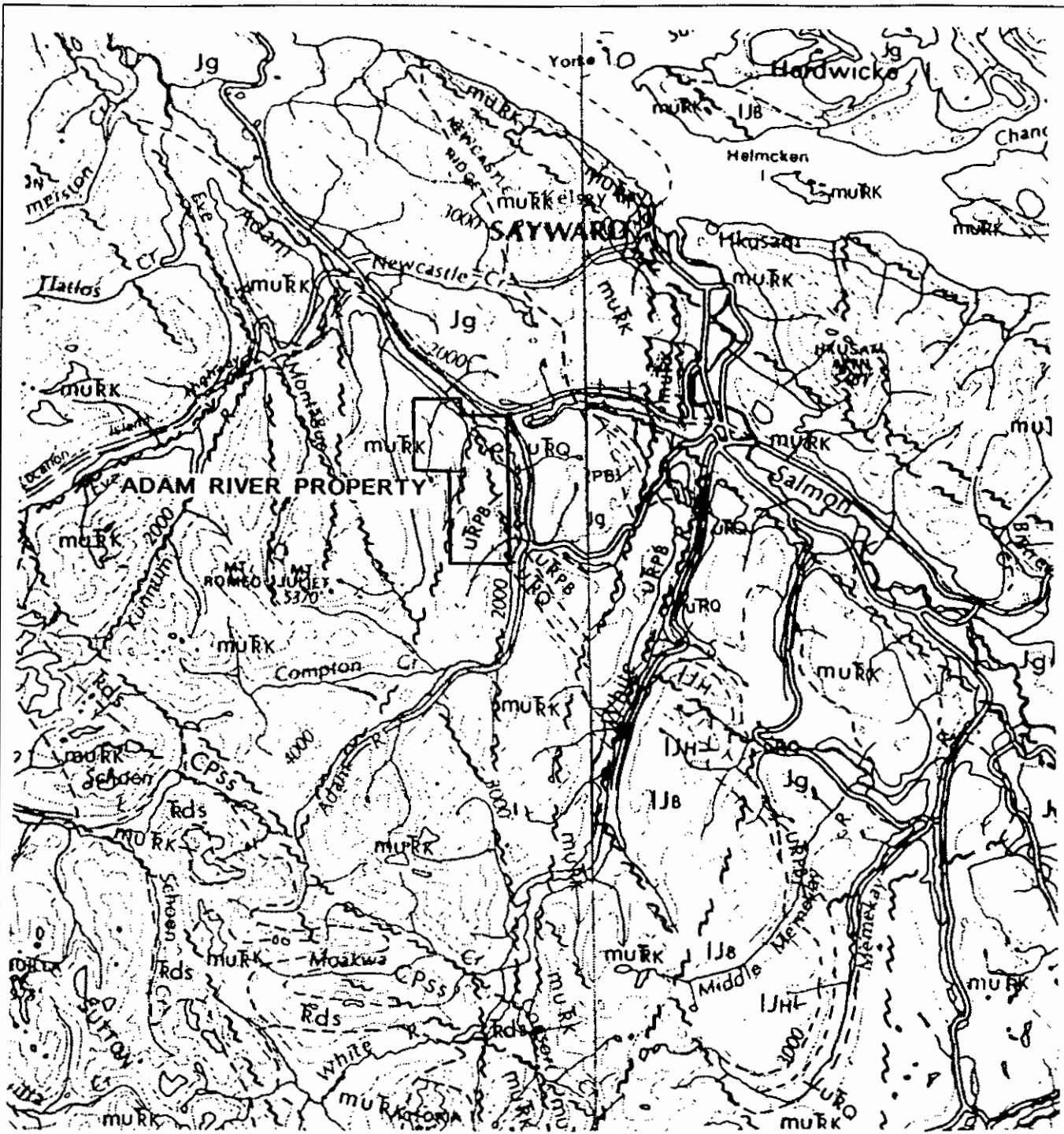
Karmutsen Formation (mu TRk)

The most widespread formation in the area. On Vancouver Island, it consists of a thick (up to 6000 m) succession of tholeiitic (basaltic) pillow lavas, massive flows and tuffs. Locally, the Karmutsen is a dark fine grained basalt flow with sections of fine grained gabbro-diorite, and porphyritic-amygdaloidal lavas. On the subject property, flows strike east-west and dip 20-30° northerly.

Quatsino Formation (u TR Q):

Overlies the Karmutsen Formation and is a grey - dark grey limestone unit varying from 25 to 500 m in thickness.

When in close contact with intrusive rocks, the Quatsino formation is often metamorphosed to marble. Numerous base metal skarn occurrences and deposits on Vancouver Island are hosted within the limestone.



LEGEND:

Tertiary

Vancouver Group

muRK

Kamutsen Formation - basaltic pillow lavas, massive flows and tuffs

uRQ

Quatsino Formation - limestone

uRPB

Parson Bay Formation - greywacke, black argillite, shaly limestone

Jurassic

Vancouver Group

IJB

Bonanza Group - basaltic rhyolitic porphyritic lavas, breccias and tuffs.

Jg

Island Intrusions - granodiorite, granite

--- Contact

~~~~ Fault



**LUCKY BREAK GOLD INC.**

**ADAM RIVER PROJECT**

NANAIMO MINING DIVISION, BRITISH COLUMBIA

**REGIONAL GEOLOGY**

Geology by Muller, 1977; GSC O.F. 463



SCALE 1:250,000

NTS: 92 L/8

March 1995

Figure: 3

RELiance GEOLOGICAL SERVICES INC.

Parson Bay Formation (u TR PB)

Is usually stratigraphically above the Quatsino formation, but occasionally directly overlies the Karmutsen Formation. Consists of calcareous greywacke, calcareous black argillite and shaly limestone. The thickness is between 300 and 600 meters.

Jurassic

Bonanza Group (IJB)

Consists mainly of porphyritic lavas, breccias and tuffs of basaltic and rhyolitic composition.

Island Intrusions (Jg)

Batholiths and stocks of granitoid rocks, ranging in composition from quartz diorite to granite, underlying approximately 1/4 of the Island's surface, and intruding Sicker, Vancouver, and Bonanza Group rocks.

Locally, the Island Intrusions are a medium to coarse grained granodiorite with phases of granite and pegmatite. Rocks in contact with the intrusions are often metamorphosed to amphibolites, marble, and migmatites. Potassic alteration is common, especially in the more fractured areas of the body.

Figure 3 shows the Adam River property to be underlain dominantly by Karmutsen Formation (about 70%). Rocks in the eastern claim area are a wedge of Quatsino and Parson Bay Formations in fault contact with Karmutsen volcanics (west) and Island Intrusions (east). The northeast corner and the portion of the claim block east of the Adam River is underlain by granodiorite-granite (Island Intrusions). Three north-south trending faults cross the claims.

5.0 PROPERTY GEOLOGY (Figure 4)

5.1 Lithologies

(taken from Assessment Report 22409, 1991)

Karmutsen volcanics (Unit 2) cover at least 80% of the property area. All volcanic rocks are andesite-basalt in composition and occur as massively bedded fine grained, porphyritic and amygdaloidal flows of Triassic age. Phenocrysts are usually euhedral plagioclase. Amygdules are commonly infilled with epidote and quartz. Flows have a strike of 100-120° and dip 30° north.

Limestone (Unit 4) consists of a dark grey to black crystalline limestone, 10 to 40 ft. thick, which is interbedded with volcanic rocks. In the Main Zone area limestone appears to have acted as an impermeable cap to ascending mineralizing copper rich fluids.

Granodiorite - Granite (Unit 1): Jurassic granodiorite-granite is exposed in the northeast corner of the property. Contact relationships with volcanic rocks are unknown. Minerals include 40 - 45% combined hornblende-biotite, 40% combined feldspars, 15% quartz and 1 to 2% magnetite. Disseminated pyrite locally constitutes up to 4%. Exposures in the Adam River and along the Adam River main logging road contain numerous quartz-epidote ± K-spar veinlets. Several steeply dipping shear zones were noted in 70° and 120° directions.

## 5.2

### Structure

Faulting and fracturing has played an important part in the transportation and localization of copper mineralization.

On a regional scale, two large NNE and NNW trending faults are inferred. The Main Zone area is wedged between the two faults. The NNW fault appears as a well defined lineament at the base of slope. Muller (1977) has postulated a fault along the Adam River.

Most streams are along fault or fracture zones. The extent of displacement, if any, is not known. Fracture zones along Boyes Creek control quartz veining and associated copper-gold mineralization.

In drill core there is strong evidence of quartz healed fracturing and local brecciation.

## 5.3 Mineralization and Alteration

Mineralization consists of chalcopyrite, bornite, minor chalcocite, and native copper within Karmutsen volcanic rocks. There are two types of mineralization on the property:

- i) Steep to vertical fractures infilled with chalcopyrite, malachite, and quartz (example: Boyes Creek Zone).
- ii) Disseminations and bunches of chalcopyrite - bornite within amygdaloidal basalts (example: Main Zone).

All work since 1969 has been directed towards Type 2 mineralization as it has been thought to have greater potential for economic tonnage.

Diamond drill logs from the Main Zone show that copper sulphide mineralization is finely disseminated within all phases of basalt-andesite. No mineralization was noted above the interbedded limestone, indicating the limestone may have acted as an impermeable barrier to ascending solutions.

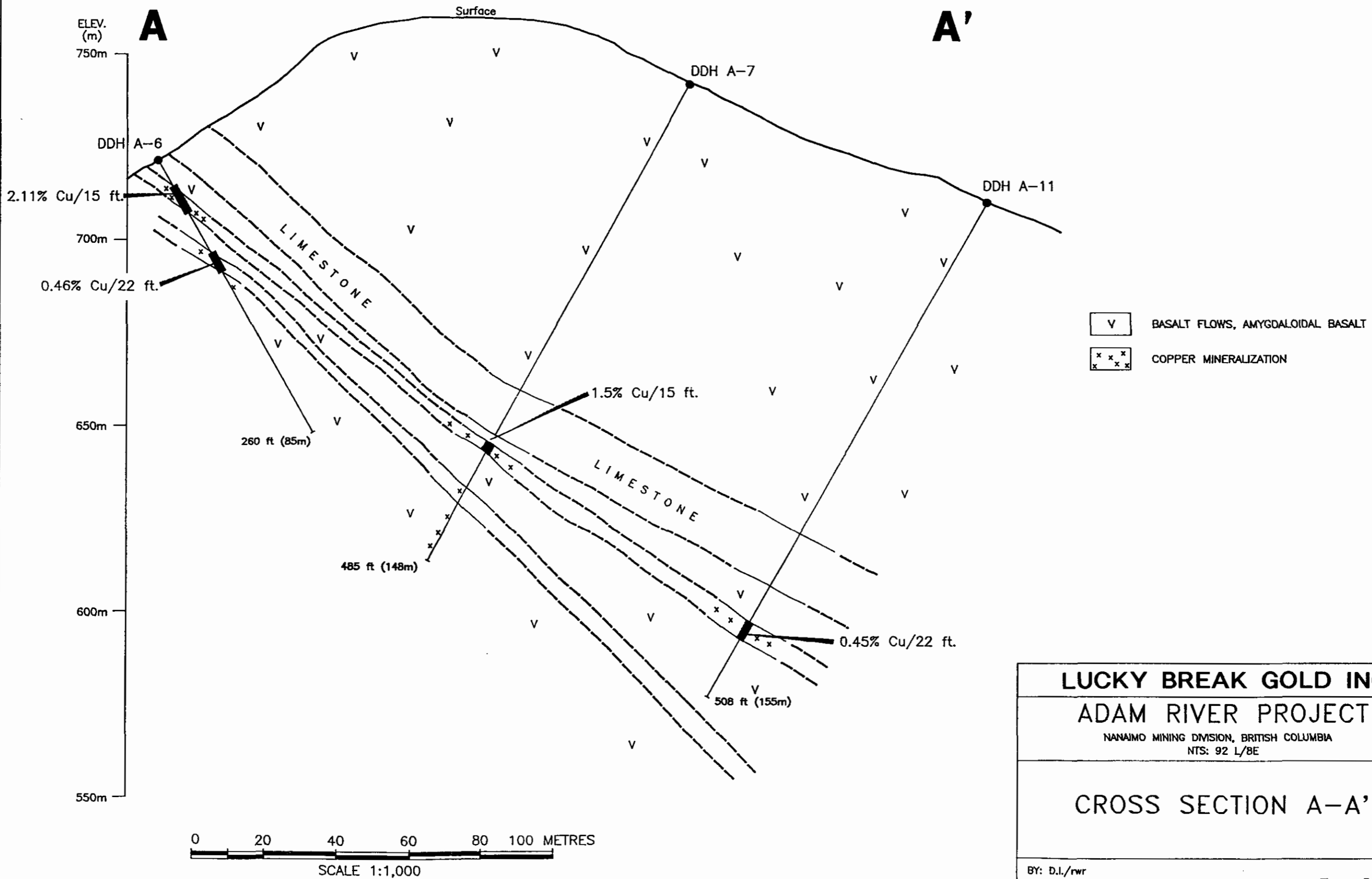
Copper sulphides are seen in greater density within amygdaloidal zones of the flows. Chalcopyrite, bornite, minor chalcocite, and native copper occur as fine disseminations, in bunches, and within open amygdules. Figure 5 (cross-section) shows a stratigraphic zone of mineralization, 15 feet wide and 20 to 40 feet below the limestone, in amygdaloidal flows. Logs from holes A.4 and A.6 show two well mineralized stratigraphic zones.

Alteration within and near zones of mineralization consists of a strong to intense epidote-quartz-chlorite-sericite assemblage. Amygdules are infilled with quartz, epidote and copper sulphides. The groundmass is pervasively altered in varying degrees to chlorite and epidote with local areas of sericite and silicification.



SOUTH

NORTH



**LUCKY BREAK GOLD INC.**  
**ADAM RIVER PROJECT**  
 NANAIMO MINING DIVISION, BRITISH COLUMBIA  
 NTS: 92 L/8E

**CROSS SECTION A-A'**

6. PREVIOUS WORK (Figure 4)

1965 Copper showings along Boyes Creek were discovered by William Boyes.

1966-67 Silver Standard Mines conducted a program of trenching, soil sampling, and prospecting, mainly on the Boyes Creek showings. Copper assayed up to 26.26% over 1 foot and gold up to 0.78 oz/t over 2 feet.

1969 Bethlehem Copper Corp mapped and re-sampled the Boyes, North and South Creek showings (Assess. Report 1993).

The Boyes Creek showing consists of a sheeted braided fracture system (80/70S) in amygdaloidal basalts, containing stringers, lenses and disseminations of chalcopyrite, bornite, and subordinate chalcocite and native copper. Thirteen hand trenches exposed mineralization over a 1000 foot strike length with widths ranging from 1 to 15 ft. The average of 11 representative samples from trenches was approximately 3.25% Cu over 4 feet. Gold assayed up to 0.02 oz/t. Soils from two reconnaissance lines were anomalous in copper and indicated a 1,800-1,900 foot easterly strike continuation of the Boyes Creek zone.

The North Creek zone is a broad fracture zone within basalts where 6 trenches were put in over a 30 meter length. Mineralization consists of veinlets, "small bunches" and disseminations of pyrite, chalcopyrite and bornite. Six samples, 1 from each trench, assayed up to 1.02% Cu over 12 feet, and 0.03 oz Au/t over 8 feet. Anomalous copper in soils from a single line north of the showing suggested a larger mineralized system.

The South Creek showing is a single exposure (elevation: 1750-1800 ft) at the base of a steep falls. Chalcopyrite and pyrite are disseminated within a pod of calcite-epidote breccia. A sample across 5 feet assayed 0.90% Cu and 0.02 oz Au/t.

1971 Conoco Silver Mines Ltd conducted soil geochemical and induced polarization geophysical surveys.

Fifty-three line miles of grid were established and 1300 soil samples were collected at 200 foot spacings and at 100 foot spacings over anomalous areas.

Samples were analyzed for copper and considered anomalous above 75 ppm.

The three main zones which were defined are shown with 150 ppm contour in Figure 4. Zone 1, most northerly, is an anomalous area, approximately 500 by 300 meters. Zone 2 is a crescent shaped anomaly surrounding the main zone of mineralization and is approximately 1500 by 150 meters wide. Zone 3 is an east-west trending anomaly, approximately 600 by 250 meters, on the north side of North Creek.

An induced polarization survey was conducted over the three zones of interest defined from the soil survey. Based on statistics, 10 to 14.9 m.s. was slightly anomalous, 15 to 19.9 m.s. was moderately anomalous, and >20 m.s. was highly anomalous (Figure 4). In general, it appears that chargeability anomalies correspond with the three zones of anomalous copper in soil.

The soil and geophysical surveys resulted in the discovery of the Saddle or "Main Zone" in which all the subsequent trenching and drilling was performed.

Late 1971 or early 1972

Conoco Silver Mines blasted and sampled eleven trenches on the Main Zone. Results are as follows:

| <u>Trench #</u> | <u>Interval<br/>(ft)</u> | <u>Copper<br/>(%)</u> |
|-----------------|--------------------------|-----------------------|
| 1               | 0-50                     | 0.32%                 |
| 2               | 0-10                     | 0.58%                 |
| 2               | 10-20                    | 2.12%                 |
| 2               | 20-25                    | 1.53%                 |
| 2               | 30-40                    | 0.23%                 |
| 3               | 0-10                     | 1.91%                 |
| 4               | 0-10                     | 1.95%                 |
| 4               | 10-20                    | 1.31%                 |
| 5               | 0-10                     | 0.82%                 |
| 6               | 0-10                     | 0.22%                 |
| 7               | 0-10                     | 2.70%                 |
| 9               | 0-10                     | 0.43%                 |
| 10              | 0-10                     | 1.38%                 |
| 11a             | 0- 6                     | 0.63%                 |
| 11b             | 0- 6                     | 0.54%                 |
| 11c             | 0- 6                     | 0.21%                 |

Trench results were taken from a map, the source of which is unknown. The writer (1991) re-sampled trenches 1, 4 and 9, and results were 1.04, 1.38, and 0.95% copper respectively. Therefore, the previous results from trench sampling are considered accurate.

1972 Conoco completed 939 feet of X-Ray and 2883 feet of BQ diamond drilling.

Short X-Ray holes were drilled to test mineralization in trenches.

BQ holes 1 to 6 were drilled to test the down dip continuation of the copper mineralization.

Mineralization was found to have a definite stratigraphic association with an amygdaloidal phase of a porphyritic andesite. The most prominent mineralized zone occurred 15 to 20 feet below an interbedded limestone unit. Two separate mineralized horizons were intersected in holes 2, 4, 5, 6.

1973 Conoco completed at least 5 additional holes (7 to 11) of BQ diamond drilling totalling approximately 2,500 feet. The purpose of drilling was further testing of the down-dip of the mineralized horizon.

Very little documentation was found relating to the 1973 program. The writer located, briefly examined, and re-sampled split sections of core from holes 8, 9, 10 and 11.

1983 Craven Resources prepared a geological-geochemical report on the Adam claim (part of subject property). The writer (Vermeen) documented the results of a regional silt sampling program he conducted in 1969. Silts from many of the streams draining the Adam River property area were highly anomalous in copper (see Figure 4). Eight silt samples from a stream 1500 meters northwest of the main zone yielded values ranging from 720 to 4200 ppm copper over a stream length of 1000 meters.

1985 Craven Resources conducted a field program of prospecting, rock sampling, and limited re-sampling of drill core.

1991 West Pride Industries Corp contracted Reliance Geological Services to conduct a geological,

geochemical, and data compilation program (Assessment Report 22409).

Drill core was examined and selectively sampled from BQ drill holes. Results are summarized in Appendix B.

## 7.0 1995 EXPLORATION PROGRAM

### 7.1 Methods and Procedures

The magnetic VLF-EM survey was conducted over Zone 1, an area with anomalous copper in soils and high chargeability, at the inferred contact area between volcanic and intrusive rocks.

A grid totalling 7.6 kilometers was surveyed using compass, hipchain, and flagging at 100 meter line intervals and 25 meter station intervals.

An E.D.A. Omni Plus system was used to simultaneously measure total field magnetics data and VLF-EM data from the Seattle (24.8 kHz) and Cutler (24.0 kHz) transmitters. Parameters measured at 25 meter intervals were total magnetic field strength, VLF-EM field strength, in-phase dip angle, and quadrature (see Appendix A for Equipment Specifications).

Total field magnetic data was corrected for diurnal variation by the internal programming of the Omni IV base station. The Omni IV program interpolates a base-station reading corresponding to the time of each field reading and corrects the field reading to a chosen datum value.

Geophysicist J.M. Thornton, P.Geo., plotted and interpreted all results (Appendix A). Six maps were plotted at a scale of 1:5000, giving magnetic profiles and contours (Figures 6 and 7), VLF profiles (Figures 8 and 10), and Fraser filtered VLF contours (Figures 9 and 11).

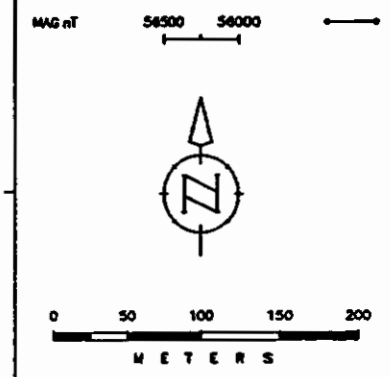
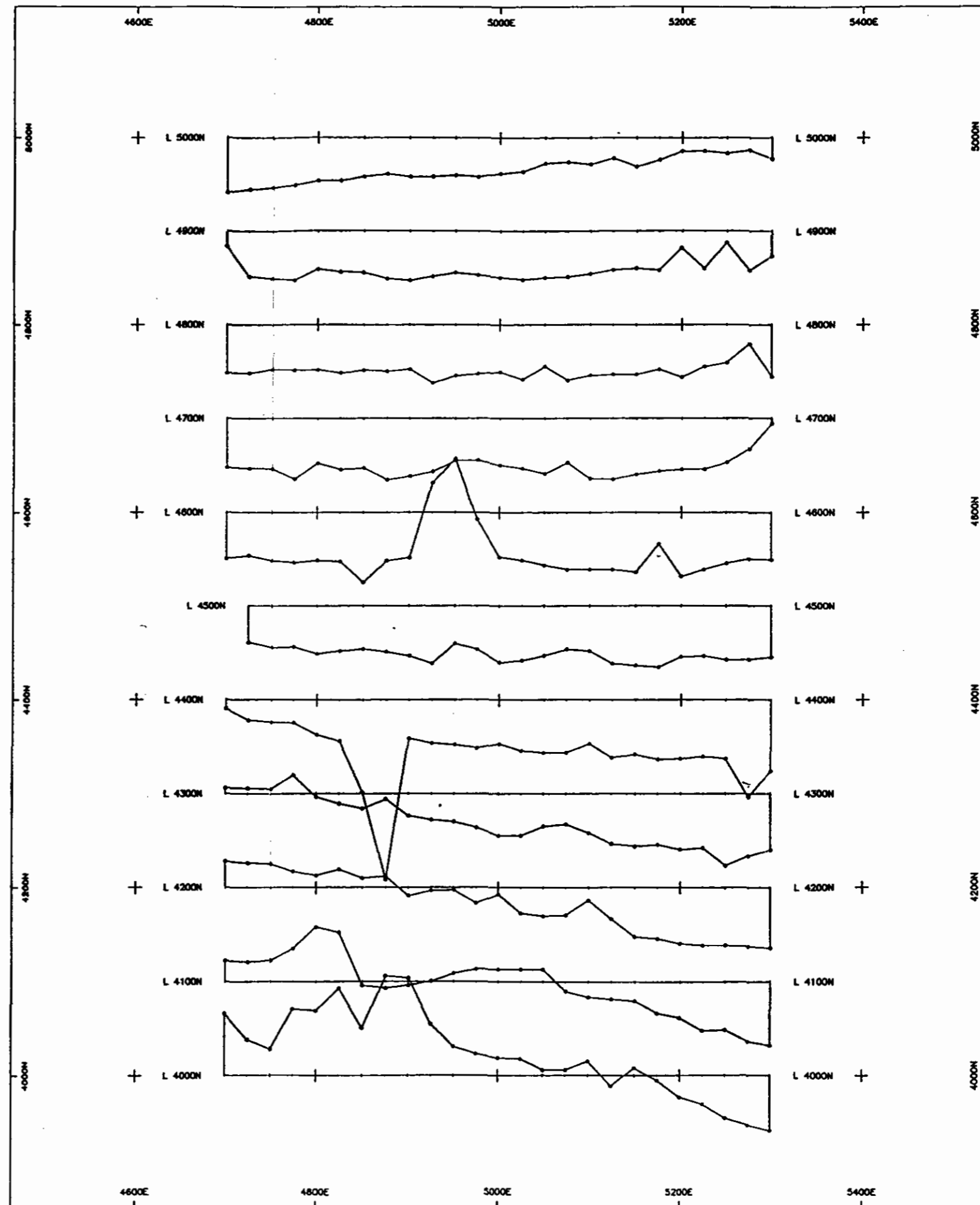
## 7.2 Results

Magnetic readings vary from 54086 nT to 57058 nT for a total magnetic relief of 2972 nT. A prominent magnetic high and low in the central grid area are single point readings and are interpreted as near surface or cultural effects. Magnetic data trends at approximately 300° which parallels the volcanic/intrusive contact. The magnetic field is increasing along the northeast boundary of the grid which may indicate the volcanic/intrusive contact.

The Seattle VLF data shows a strong anomaly from L4400N 5275E to L4800N 5175E which trends at 345°. The conductor may represent a mineralized structural zone or the volcanic/intrusive contact. A second parallel conductor is observed from L4100N 5125E to L4400N 5025E.

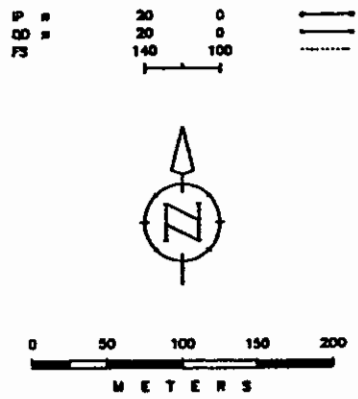
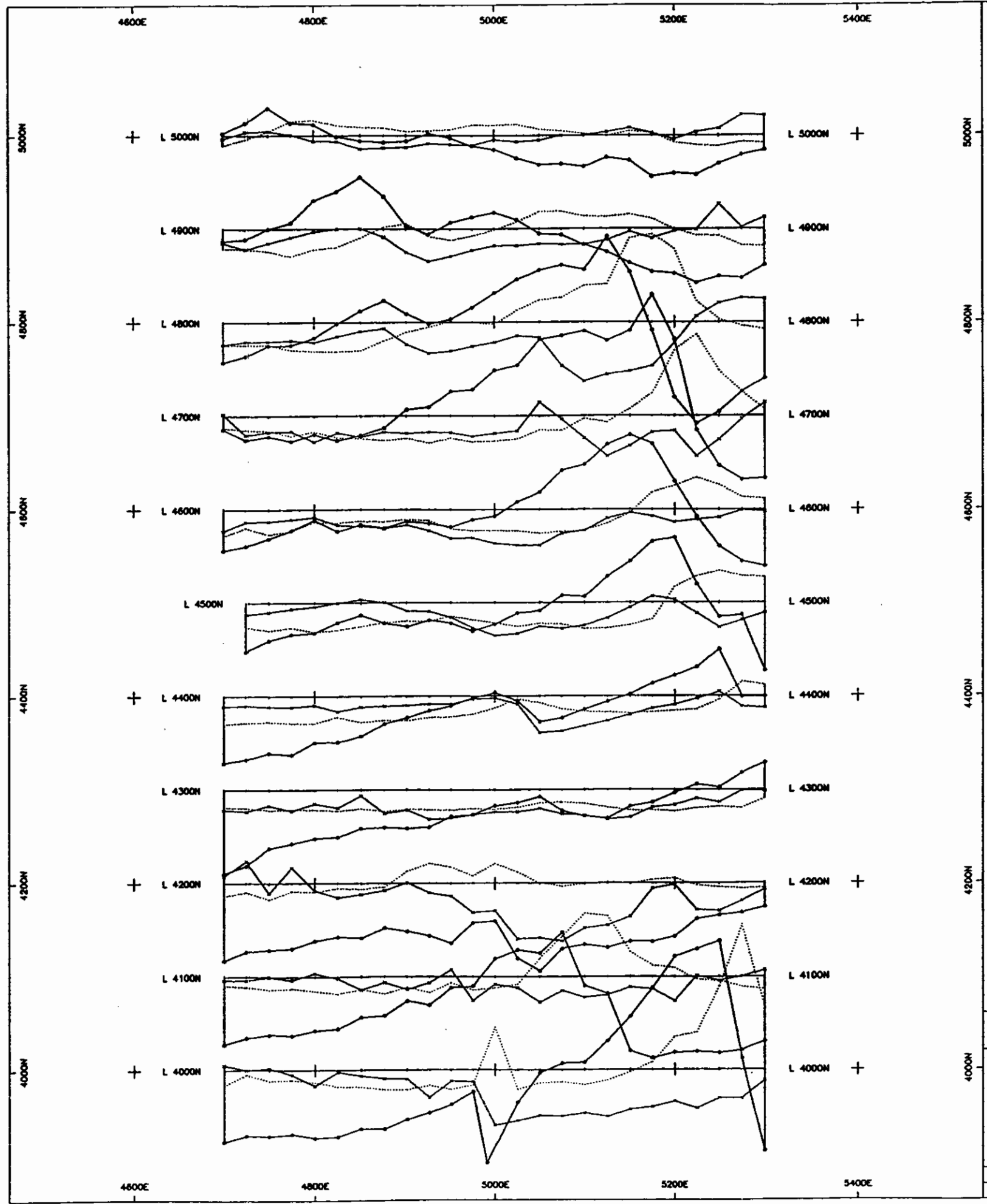
The Cutler VLF data is not considered useful as the station direction was parallel to the grid lines, rather than orthogonal.





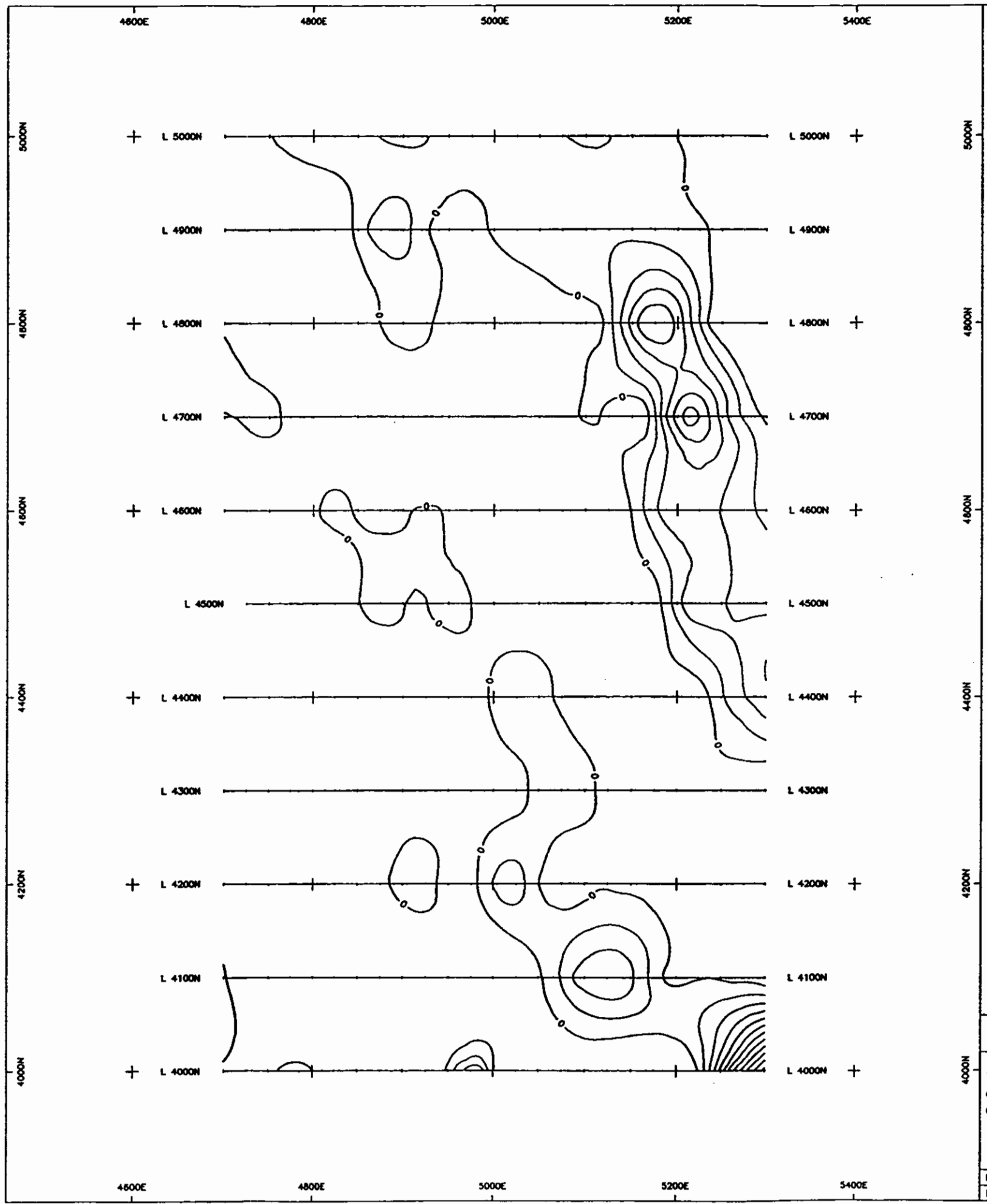
LUCKY BREAK GOLD INC.  
 ADAM RIVER CLAIMS  
 SAYWARD, B.C.  
 GROUND MAGNETOMETER SURVEY  
**FIGURE 6**  
 DRAWN BY: jmt      DATE: 95.01.18  
 RELIANCE GEOLOGICAL SERVICES INC.





LUCKY BREAK GOLD INC.  
 ADAM RIVER PROPERTY  
 ADAM RIVER CLAIMS, SAYWARD, B.C.  
 GROUND VLF SURVEY (24.8 kHz - Seattle)

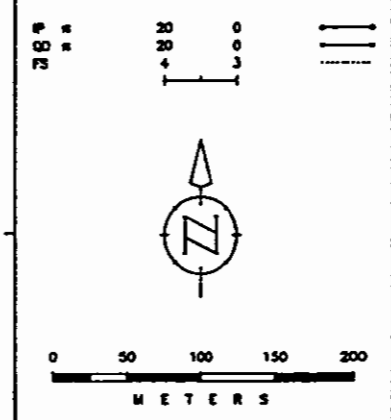
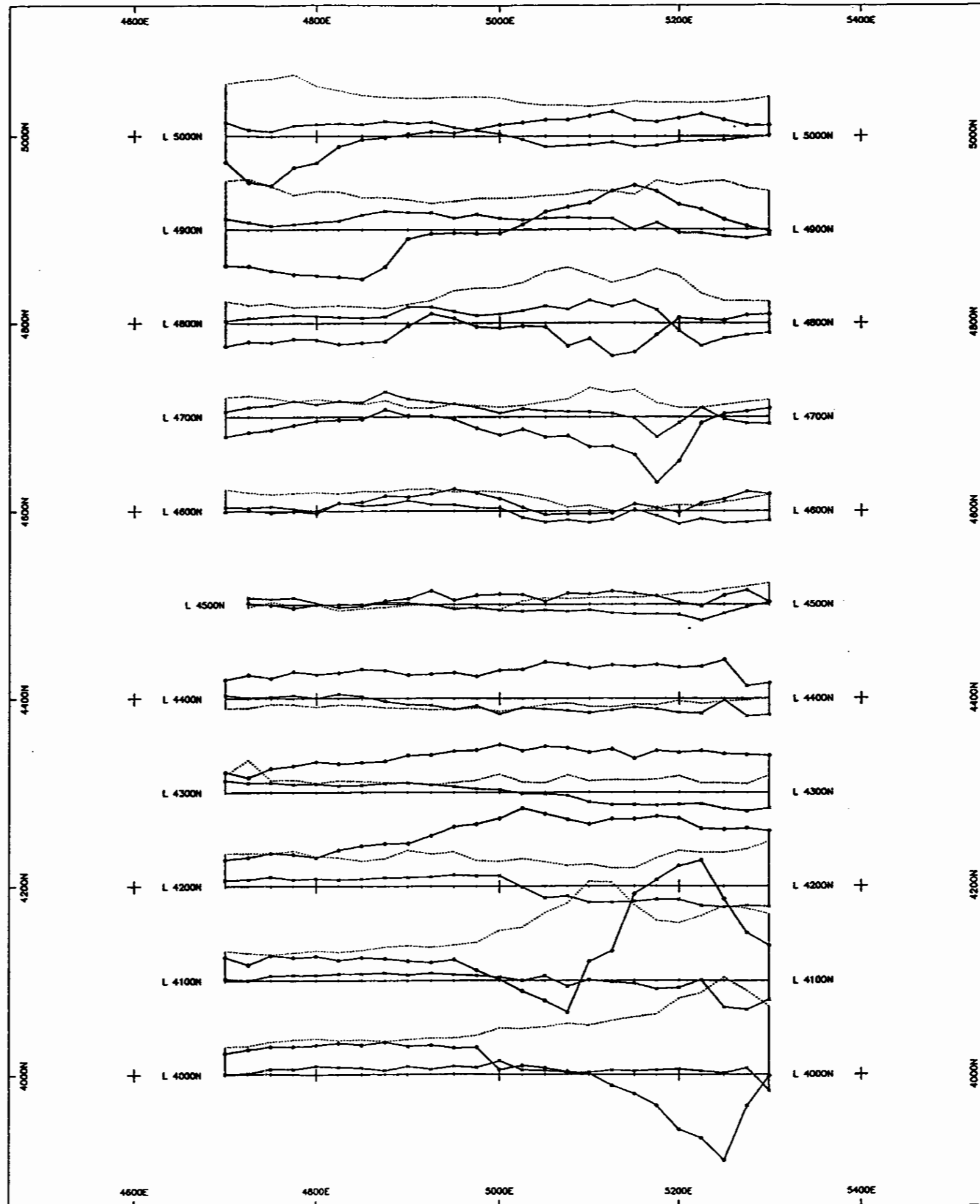
**FIGURE 8**  
 DRAWN BY: jmt      DATE: 95.01.18  
 RELIANCE GEOLOGICAL SERVICES INC.



LUCKY BREAK GOLD INC.  
 ADAM RIVER PROPERTY  
 ADAM RIVER CLAIMS, SAYWARD, B.C.  
 GROUND VLF SURVEY (24.8 kHz - Seattle)

**FIGURE 9**

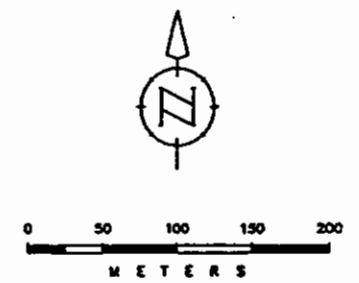
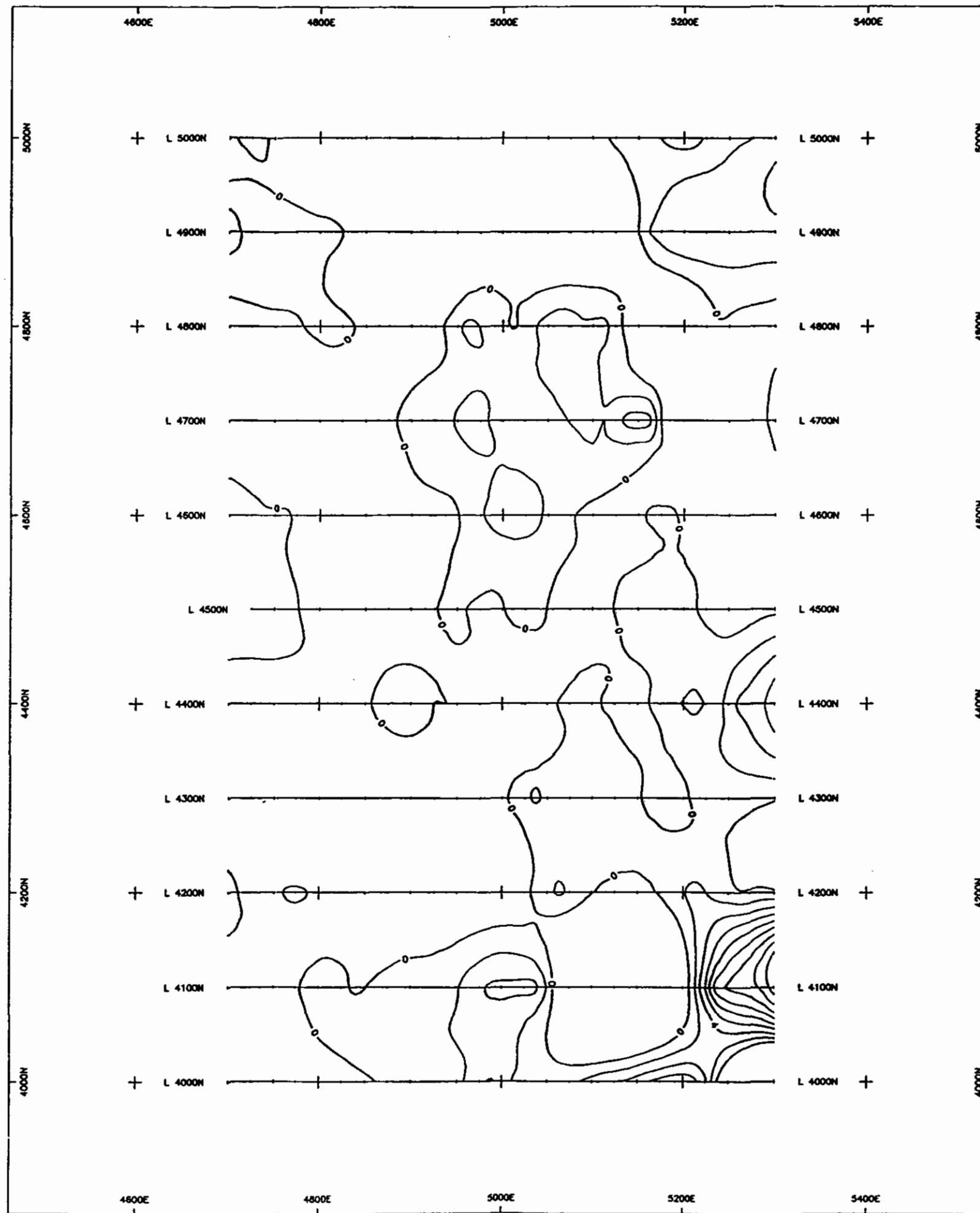
DRAWN BY: jmt      DATE: 95.01.18  
 RELIANCE GEOLOGICAL SERVICES INC.



LUCKY BREAK GOLD INC.  
 ADAM RIVER CLAIMS  
 SAYWARD, B.C.  
 GROUND VLF SURVEY (24.0 kHz - Cutler)

**FIGURE 10**

DRAWN BY: jmt      DATE: 95.01.18  
 RELIANCE GEOLOGICAL SERVICES INC.



LUCKY BREAK GOLD INC.  
 ADAM RIVER CLAIMS  
 SAYWARD, B.C.  
 GROUND VLF SURVEY (24.0 kHz - Cutler)

FIGURE 11

DRAWN BY: jmt      DATE: 95.01.18  
 RELIANCE GEOLOGICAL SERVICES INC.

## 8. DISCUSSION

The target on the Adam River Property is a disseminated, possibly strata-bound, copper deposit within Karmutsen volcanic rocks. Evidence suggests that mineralizing fluids were channelled through faults/shear zones and copper sulphides were deposited as disseminations and bunches within basaltic volcanic rocks. Amygdaloidal intervals were more receptive and contain a higher density of bornite and chalcopyrite. The possible source of copper is from the underlying Island Intrusive rocks.

Disseminated style copper mineralization has been found in the Main Zone within stratigraphic intervals in Karmutsen basalts. The zone has been tested by trenching and drilling, and remains open in all directions.

The 1995 magnetic/VLF survey was conducted over Zone 1, a blind target area with anomalous copper in soils and high IP chargeability at the inferred contact area of volcanic and intrusive rocks. Intrusive contacts are favourable zones for structurally controlled, disseminated, or skarn style mineralization.

Magnetic data indicates that the volcanic/intrusive contact may be along the east edge of the grid. A strong VLF conductor in the same area confirms the possible contact along a fault(?) and indicates possible structurally controlled mineralization. The survey did not confirm or deny the presence of disseminated or skarn type mineralization.

Further ground surveys are required over the main zone and Zone 1 to identify drill targets.

9.

CONCLUSIONS

The Adam River property has good potential to host an economic copper deposit for the following reasons:

- the geological environment (faulted volcanic rocks in contact with intrusive rocks) is favorable;
- the Main Zone area has significant tonnage potential with possible economic grade of copper;
- at least three other target areas exist which have not been adequately tested.



10.           RECOMMENDATIONS

1.           Establish a grid to cover the Main Zone, Zone 1, and Zone 3 target areas.
2.           Geologically map and rock sample in detail.
3.           Conduct a soil survey.
4.           Run a magnetic and VLF survey over the grid.
5.           Run a IP survey over the grid.

Contingent upon successful results, the following phase would consist of diamond drilling to test the highest priority targets at depth.

## REFERENCES

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**CERTIFICATE**

I, **PETER D. LERICHE**, of 3125 West 12th Avenue, Vancouver, B.C., V6K 2R6, do hereby state that:

1. I am a graduate of McMaster University, Hamilton, Ontario, with a Bachelor of Science Degree in Geology, 1980.
2. I am registered as a member in good standing with the Association of Professional Engineers and Geoscientists of British Columbia.
3. I am a Fellow in good standing with the Geological Association of Canada.
4. I have actively pursued my career as a geologist for fifteen years in British Columbia, Ontario, the Yukon and Northwest Territories, Montana, Oregon, Alaska, Arizona, Nevada, California, and Mexico.
5. The information, opinions, and recommendations in this report are based on fieldwork carried out under my direction, and on published and unpublished literature. I visited the subject property from October 5 to 10, 1991.
6. I have no interest, direct or indirect, in the subject claims or the securities of Lucky Break Gold Inc.
7. I consent to the use of this report in a Prospectus or Statement of Material Facts for the purpose of private or public financing.

**RELIANCE GEOLOGICAL SERVICES INC.**

  
Peter D. Leriche, B.Sc., P. Geo.

Dated at North Vancouver, B.C., this 13th day of April 1995.

**APPENDIX A**  
**RAW MAGNETIC AND VLF DATA**

Memorandum

April 10, 1995

To: Peter Leriche  
From: J.M. Thornton

Re: Sayward Property - Adam River


Total field mag and two stations of VLF data was plotted at a scale of 1:5000. Stacked profiles and contour maps were generated for the 6.6 km survey comprised of eleven 600 meter E/W lines.

Magnetics data confirms the regional 300° trend and suggests that the volcanic-intrusive contact is slightly futher ~~west~~<sup>east</sup> than shown on the regional geology map. The two spikes in the magnetics data are probably near surface or cultural effects and have been ignored in the data processing and interpretation.

The Seattle VLF data profiles indicate a strong anomaly on lines 4600N to 4900N along the magnetic inferred contact. A second slightly conductive zone is noted approximately 300 meters west of this strong feature. The Fraser filter contour map shows these results clearly. There is some evidence of a N/S feature at about 4900E on the grid. Cross-cutting structures with strike azimuth 60° may exist at 5000E on Line 4200N and at 4800E on Line 4600N.

The Cutler VLF data is of very limited use as the station direction is parallel to the survey lines rather than orthogonal.

The current work does not confirm or deny any of the findings by the IP work done several years earlier. Careful examination of the IP and geochemical data in the vicinity of the good conductor may reveal a drillable target. This anomaly is open at both ends, possibly faulted with unknown but limited offsets at 4900N and at 4300N by aforementioned cross cutting structures.

  
J.M. Thornton, P. Geo.

VLF EM DATA  
 Instrument: OMNI-IV  
 Seattle, Washington (24.8 kHz)

| North | East | IP    | OP    | FS     | Tilt  | LINE  | STN   |
|-------|------|-------|-------|--------|-------|-------|-------|
| 4000  | 4725 | -28.3 | 0.0   | 95.95  | -15.8 | 4000N | 4725E |
| 4000  | 4750 | -28.5 | 0.8   | 90.53  | -15.9 | 4000N | 4750E |
| 4000  | 4775 | -27.7 | -2.0  | 91.50  | -15.5 | 4000N | 4775E |
| 4000  | 4800 | -29.3 | -6.7  | 89.72  | -16.4 | 4000N | 4800E |
| 4000  | 4825 | -28.8 | -0.9  | 85.86  | -16.1 | 4000N | 4825E |
| 4000  | 4850 | -25.3 | -2.5  | 85.41  | -14.2 | 4000N | 4850E |
| 4000  | 4875 | -25.2 | -3.7  | 82.99  | -14.1 | 4000N | 4875E |
| 4000  | 4900 | -21.2 | -3.9  | 83.19  | -11.9 | 4000N | 4900E |
| 4000  | 4925 | -18.4 | -11.8 | 86.68  | -10.5 | 4000N | 4925E |
| 4000  | 4950 | -14.9 | -4.8  | 83.10  | -8.5  | 4000N | 4950E |
| 4000  | 4975 | -9.4  | -5.1  | 86.94  | -5.4  | 4000N | 4975E |
| 4000  | 5000 | -57.3 | -23.8 | 136.70 | -30.8 | 4000N | 5000E |
| 4000  | 5025 | -13.9 | -21.9 | 83.37  | -8.3  | 4000N | 5025E |
| 4000  | 5050 | -1.3  | -19.7 | 88.85  | -0.8  | 4000N | 5050E |
| 4000  | 5075 | 2.8   | -19.9 | 89.45  | 1.6   | 4000N | 5075E |
| 4000  | 5100 | 3.2   | -18.6 | 87.26  | 1.9   | 4000N | 5100E |
| 4000  | 5125 | 12.5  | -20.2 | 90.99  | 7.4   | 4000N | 5125E |
| 4000  | 5150 | 23.0  | -17.1 | 97.87  | 13.3  | 4000N | 5150E |
| 4000  | 5175 | 35.2  | -16.0 | 106.50 | 19.8  | 4000N | 5175E |
| 4000  | 5200 | 48.6  | -13.7 | 128.40 | 26.2  | 4000N | 5200E |
| 4000  | 5225 | 51.8  | -16.6 | 132.30 | 27.9  | 4000N | 5225E |
| 4000  | 5250 | 55.2  | -12.3 | 171.90 | 29.2  | 4000N | 5250E |
| 4000  | 5275 | 5.0   | -12.2 | 224.60 | 2.9   | 4000N | 5275E |
| 4000  | 5300 | -34.9 | -4.6  | 154.00 | -19.2 | 4000N | 5300E |
| 4100  | 4700 | -28.9 | -1.5  | 92.40  | -16.1 | 4100N | 4700E |
| 4100  | 4725 | -26.1 | -1.6  | 91.03  | -14.6 | 4100N | 4725E |
| 4100  | 4750 | -24.8 | -0.1  | 89.02  | -13.9 | 4100N | 4750E |
| 4100  | 4775 | -25.2 | -1.4  | 89.91  | -14.1 | 4100N | 4775E |
| 4100  | 4800 | -23.0 | 1.5   | 87.72  | -13.0 | 4100N | 4800E |
| 4100  | 4825 | -22.3 | -0.8  | 85.54  | -12.6 | 4100N | 4825E |
| 4100  | 4850 | -17.4 | -5.6  | 88.98  | -9.9  | 4100N | 4850E |
| 4100  | 4875 | -16.7 | -2.5  | 85.20  | -9.4  | 4100N | 4875E |
| 4100  | 4900 | -10.5 | -5.5  | 90.82  | -6.0  | 4100N | 4900E |
| 4100  | 4925 | -12.2 | -2.7  | 86.17  | -7.0  | 4100N | 4925E |
| 4100  | 4950 | -4.8  | 2.9   | 94.60  | -2.7  | 4100N | 4950E |
| 4100  | 4975 | -4.1  | -10.2 | 88.48  | -2.4  | 4100N | 4975E |
| 4100  | 5000 | 7.7   | -3.3  | 90.20  | 4.4   | 4100N | 5000E |
| 4100  | 5025 | 11.4  | -4.8  | 93.51  | 6.5   | 4100N | 5025E |
| 4100  | 5050 | 10.0  | -11.0 | 115.80 | 5.8   | 4100N | 5050E |
| 4100  | 5075 | 19.0  | -6.0  | 134.20 | 10.8  | 4100N | 5075E |
| 4100  | 5100 | -3.9  | -8.8  | 154.00 | -2.2  | 4100N | 5100E |
| 4100  | 5125 | -7.2  | -7.8  | 151.90 | -4.1  | 4100N | 5125E |
| 4100  | 5150 | -31.9 | -4.6  | 121.00 | -17.7 | 4100N | 5150E |
| 4100  | 5175 | -35.0 | -5.3  | 109.60 | -19.3 | 4100N | 5175E |
| 4100  | 5200 | -32.6 | -10.4 | 107.40 | -18.2 | 4100N | 5200E |
| 4100  | 5225 | -32.2 | 0.3   | 97.67  | -17.8 | 4100N | 5225E |
| 4100  | 5250 | -32.8 | -1.7  | 96.34  | -18.1 | 4100N | 5250E |
| 4100  | 5275 | -31.5 | 0.1   | 91.56  | -17.5 | 4100N | 5275E |
| 4100  | 5300 | -27.7 | 2.7   | 89.30  | -15.5 | 4100N | 5300E |
| 4200  | 4700 | -33.1 | 3.0   | 88.86  | -18.3 | 4200N | 4700E |
| 4200  | 4725 | -29.3 | 9.5   | 92.52  | -16.5 | 4200N | 4725E |
| 4200  | 4750 | -28.5 | -4.2  | 86.21  | -15.9 | 4200N | 4750E |
| 4200  | 4775 | -27.9 | 6.7   | 93.26  | -15.6 | 4200N | 4775E |
| 4200  | 4800 | -24.6 | -3.2  | 92.23  | -13.8 | 4200N | 4800E |
| 4200  | 4825 | -23.0 | -6.1  | 95.73  | -13.0 | 4200N | 4825E |
| 4200  | 4850 | -23.5 | -4.7  | 95.06  | -13.2 | 4200N | 4850E |
| 4200  | 4875 | -19.1 | -3.0  | 97.00  | -10.8 | 4200N | 4875E |
| 4200  | 4900 | -20.6 | 0.3   | 110.40 | -11.6 | 4200N | 4900E |
| 4200  | 4925 | -22.6 | -4.1  | 117.10 | -12.7 | 4200N | 4925E |
| 4200  | 4950 | -25.8 | -5.6  | 114.00 | -14.5 | 4200N | 4950E |
| 4200  | 4975 | -17.1 | -12.6 | 106.30 | -9.8  | 4200N | 4975E |
| 4200  | 5000 | -16.2 | -11.8 | 116.80 | -9.3  | 4200N | 5000E |
| 4200  | 5025 | -32.2 | -23.8 | 109.50 | -18.7 | 4200N | 5025E |
| 4200  | 5050 | -37.6 | -23.4 | 100.00 | -21.5 | 4200N | 5050E |
| 4200  | 5075 | -28.1 | -24.8 | 97.34  | -16.6 | 4200N | 5075E |
| 4200  | 5100 | -26.3 | -19.3 | 99.28  | -15.2 | 4200N | 5100E |
| 4200  | 5125 | -27.6 | -18.0 | 101.20 | -15.9 | 4200N | 5125E |
| 4200  | 5150 | -25.0 | -14.3 | 99.92  | -14.3 | 4200N | 5150E |
| 4200  | 5175 | -25.1 | -2.3  | 103.00 | -14.1 | 4200N | 5175E |
| 4200  | 5200 | -22.9 | -0.6  | 104.40 | -12.9 | 4200N | 5200E |
| 4200  | 5225 | -15.3 | -11.4 | 98.15  | -8.8  | 4200N | 5225E |
| 4200  | 5250 | -13.8 | -11.9 | 96.53  | -7.9  | 4200N | 5250E |
| 4200  | 5275 | -12.7 | -7.6  | 95.24  | -7.3  | 4200N | 5275E |
| 4200  | 5300 | -10.2 | -2.7  | 95.89  | -5.8  | 4200N | 5300E |

|      |      |       |       |        |       |       |       |
|------|------|-------|-------|--------|-------|-------|-------|
| 4300 | 4700 | -35.9 | -8.6  | 84.99  | -19.9 | 4300N | 4700E |
| 4300 | 4725 | -32.5 | -9.2  | 84.48  | -18.1 | 4300N | 4725E |
| 4300 | 4750 | -25.0 | -6.8  | 82.43  | -14.1 | 4300N | 4750E |
| 4300 | 4775 | -23.0 | -9.0  | 82.91  | -13.0 | 4300N | 4775E |
| 4300 | 4800 | -20.8 | -5.9  | 83.00  | -11.8 | 4300N | 4800E |
| 4300 | 4825 | -20.2 | -7.7  | 81.99  | -11.5 | 4300N | 4825E |
| 4300 | 4850 | -16.5 | -2.6  | 83.79  | -9.4  | 4300N | 4850E |
| 4300 | 4875 | -16.0 | -10.0 | 81.53  | -9.1  | 4300N | 4875E |
| 4300 | 4900 | -16.5 | -8.7  | 83.62  | -9.4  | 4300N | 4900E |
| 4300 | 4925 | -15.9 | -12.5 | 83.03  | -9.1  | 4300N | 4925E |
| 4300 | 4950 | -11.3 | -12.2 | 82.68  | -6.5  | 4300N | 4950E |
| 4300 | 4975 | -10.6 | -10.7 | 83.92  | -6.1  | 4300N | 4975E |
| 4300 | 5000 | -6.8  | -9.5  | 83.34  | -3.9  | 4300N | 5000E |
| 4300 | 5025 | -5.5  | -9.5  | 84.86  | -3.2  | 4300N | 5025E |
| 4300 | 5050 | -3.0  | -8.1  | 88.57  | -1.7  | 4300N | 5050E |
| 4300 | 5075 | -9.0  | -10.4 | 89.33  | -5.2  | 4300N | 5075E |
| 4300 | 5100 | -11.3 | -11.0 | 88.03  | -6.5  | 4300N | 5100E |
| 4300 | 5125 | -12.3 | -12.7 | 84.80  | -7.1  | 4300N | 5125E |
| 4300 | 5150 | -7.2  | -11.9 | 82.06  | -4.2  | 4300N | 5150E |
| 4300 | 5175 | -5.5  | -7.6  | 82.41  | -3.1  | 4300N | 5175E |
| 4300 | 5200 | -1.5  | -6.6  | 81.43  | -0.9  | 4300N | 5200E |
| 4300 | 5225 | 2.3   | -3.8  | 84.25  | 1.3   | 4300N | 5225E |
| 4300 | 5250 | 0.9   | -5.4  | 85.29  | 0.5   | 4300N | 5250E |
| 4300 | 5275 | 7.2   | -0.4  | 84.18  | 4.1   | 4300N | 5275E |
| 4300 | 5300 | 11.5  | -0.7  | 92.33  | 6.6   | 4300N | 5300E |
| 4400 | 4700 | -28.5 | -4.3  | 76.41  | -15.9 | 4400N | 4700E |
| 4400 | 4725 | -26.9 | -4.0  | 77.39  | -15.0 | 4400N | 4725E |
| 4400 | 4750 | -24.3 | -4.5  | 78.06  | -13.6 | 4400N | 4750E |
| 4400 | 4775 | -25.0 | -4.6  | 77.10  | -14.0 | 4400N | 4775E |
| 4400 | 4800 | -19.7 | -3.8  | 77.10  | -11.1 | 4400N | 4800E |
| 4400 | 4825 | -19.5 | -6.4  | 82.46  | -11.0 | 4400N | 4825E |
| 4400 | 4850 | -17.0 | -4.6  | 77.88  | -9.6  | 4400N | 4850E |
| 4400 | 4875 | -11.8 | -4.2  | 79.53  | -6.7  | 4400N | 4875E |
| 4400 | 4900 | -9.1  | -3.9  | 79.25  | -5.2  | 4400N | 4900E |
| 4400 | 4925 | -6.1  | -3.3  | 81.90  | -3.5  | 4400N | 4925E |
| 4400 | 4950 | -4.2  | -3.3  | 82.24  | -2.4  | 4400N | 4950E |
| 4400 | 4975 | -0.8  | -1.3  | 84.54  | -0.5  | 4400N | 4975E |
| 4400 | 5000 | 1.4   | -0.9  | 89.83  | 0.8   | 4400N | 5000E |
| 4400 | 5025 | -2.1  | -3.4  | 97.52  | -1.2  | 4400N | 5025E |
| 4400 | 5050 | -11.0 | -15.6 | 94.29  | -6.4  | 4400N | 5050E |
| 4400 | 5075 | -9.3  | -14.9 | 89.02  | -5.4  | 4400N | 5075E |
| 4400 | 5100 | -5.6  | -12.6 | 86.81  | -3.2  | 4400N | 5100E |
| 4400 | 5125 | -2.3  | -10.5 | 86.32  | -1.3  | 4400N | 5125E |
| 4400 | 5150 | 0.9   | -7.9  | 85.38  | 0.5   | 4400N | 5150E |
| 4400 | 5175 | 5.4   | -5.2  | 86.36  | 3.1   | 4400N | 5175E |
| 4400 | 5200 | 8.8   | -3.7  | 87.52  | 5.0   | 4400N | 5200E |
| 4400 | 5225 | 12.4  | -1.2  | 88.55  | 7.0   | 4400N | 5225E |
| 4400 | 5250 | 20.0  | 1.8   | 97.02  | 11.3  | 4400N | 5250E |
| 4400 | 5275 | -0.3  | -4.5  | 112.20 | -0.2  | 4400N | 5275E |
| 4400 | 5300 | -0.2  | -5.0  | 109.50 | -0.1  | 4400N | 5300E |
| 4500 | 4725 | -20.8 | -5.0  | 79.13  | -11.8 | 4500N | 4725E |
| 4500 | 4750 | -16.1 | -4.0  | 76.42  | -9.2  | 4500N | 4750E |
| 4500 | 4775 | -13.5 | -2.6  | 78.65  | -7.7  | 4500N | 4775E |
| 4500 | 4800 | -12.9 | -1.7  | 75.11  | -7.3  | 4500N | 4800E |
| 4500 | 4825 | -8.5  | -0.1  | 76.69  | -4.8  | 4500N | 4825E |
| 4500 | 4850 | -5.3  | 1.4   | 79.82  | -3.0  | 4500N | 4850E |
| 4500 | 4875 | -8.7  | 0.1   | 83.11  | -4.9  | 4500N | 4875E |
| 4500 | 4900 | -10.1 | -3.5  | 84.34  | -5.7  | 4500N | 4900E |
| 4500 | 4925 | -7.5  | -3.7  | 84.32  | -4.3  | 4500N | 4925E |
| 4500 | 4950 | -8.8  | -6.3  | 88.51  | -5.0  | 4500N | 4950E |
| 4500 | 4975 | -12.2 | -10.7 | 85.39  | -7.0  | 4500N | 4975E |
| 4500 | 5000 | -9.2  | -14.1 | 82.67  | -5.3  | 4500N | 5000E |
| 4500 | 5025 | -4.5  | -13.3 | 79.56  | -2.6  | 4500N | 5025E |
| 4500 | 5050 | -3.4  | -10.2 | 82.18  | -2.0  | 4500N | 5050E |
| 4500 | 5075 | 3.1   | -11.1 | 81.52  | 1.8   | 4500N | 5075E |
| 4500 | 5100 | 2.6   | -9.7  | 77.53  | 1.5   | 4500N | 5100E |
| 4500 | 5125 | 11.2  | -6.6  | 78.18  | 6.4   | 4500N | 5125E |
| 4500 | 5150 | 17.7  | -2.1  | 80.81  | 10.0  | 4500N | 5150E |
| 4500 | 5175 | 26.2  | 2.7   | 85.78  | 14.7  | 4500N | 5175E |
| 4500 | 5200 | 27.8  | 1.2   | 113.30 | 15.5  | 4500N | 5200E |
| 4500 | 5225 | 7.9   | -4.6  | 122.60 | 4.5   | 4500N | 5225E |
| 4500 | 5250 | -6.2  | -10.6 | 127.00 | -3.6  | 4500N | 5250E |
| 4500 | 5275 | -5.3  | -7.6  | 122.60 | -3.0  | 4500N | 5275E |
| 4500 | 5300 | -29.2 | -4.4  | 121.80 | -16.3 | 4500N | 5300E |
| 4600 | 4700 | -17.5 | -9.2  | 77.23  | -10.0 | 4600N | 4700E |
| 4600 | 4725 | -15.7 | -5.3  | 84.37  | -8.9  | 4600N | 4725E |
| 4600 | 4750 | -12.5 | -5.1  | 78.70  | -7.1  | 4600N | 4750E |
| 4600 | 4775 | -9.0  | -4.3  | 81.80  | -5.1  | 4600N | 4775E |
| 4600 | 4800 | -4.6  | -3.3  | 89.03  | -2.6  | 4600N | 4800E |
| 4600 | 4825 | -9.3  | -6.7  | 88.71  | -5.3  | 4600N | 4825E |

|      |      |       |       |        |       |       |       |
|------|------|-------|-------|--------|-------|-------|-------|
| 4600 | 4850 | -6.5  | -7.2  | 90.03  | -3.7  | 4600N | 4850E |
| 4600 | 4875 | -8.0  | -8.2  | 89.40  | -4.6  | 4600N | 4875E |
| 4600 | 4900 | -5.1  | -6.7  | 91.48  | -2.9  | 4600N | 4900E |
| 4600 | 4925 | -6.0  | -9.1  | 90.71  | -3.4  | 4600N | 4925E |
| 4600 | 4950 | -7.5  | -12.4 | 83.30  | -4.3  | 4600N | 4950E |
| 4600 | 4975 | -4.4  | -12.2 | 81.73  | -2.6  | 4600N | 4975E |
| 4600 | 5000 | -2.9  | -14.6 | 81.76  | -1.7  | 4600N | 5000E |
| 4600 | 5025 | 3.2   | -15.4 | 81.57  | 1.9   | 4600N | 5025E |
| 4600 | 5050 | 7.4   | -15.4 | 79.32  | 4.3   | 4600N | 5050E |
| 4600 | 5075 | 16.7  | -10.3 | 81.01  | 9.5   | 4600N | 5075E |
| 4600 | 5100 | 19.2  | -9.1  | 81.97  | 10.9  | 4600N | 5100E |
| 4600 | 5125 | 27.8  | -3.9  | 87.89  | 15.5  | 4600N | 5125E |
| 4600 | 5150 | 31.8  | -1.5  | 96.90  | 17.6  | 4600N | 5150E |
| 4600 | 5175 | 28.0  | -3.0  | 114.70 | 15.6  | 4600N | 5175E |
| 4600 | 5200 | 12.0  | -5.6  | 120.20 | 6.8   | 4600N | 5200E |
| 4600 | 5225 | -3.0  | -4.4  | 127.30 | -1.7  | 4600N | 5225E |
| 4600 | 5250 | -15.8 | -3.5  | 120.90 | -9.0  | 4600N | 5250E |
| 4600 | 5275 | -22.4 | -0.4  | 110.20 | -12.6 | 4600N | 5275E |
| 4600 | 5300 | -24.5 | -1.0  | 109.20 | -13.7 | 4600N | 5300E |
| 4700 | 4700 | -5.7  | 0.8   | 89.88  | -3.2  | 4700N | 4700E |
| 4700 | 4725 | -10.2 | -8.1  | 88.13  | -5.9  | 4700N | 4725E |
| 4700 | 4750 | -8.7  | -6.8  | 87.39  | -5.0  | 4700N | 4750E |
| 4700 | 4775 | -10.8 | -6.6  | 82.87  | -6.2  | 4700N | 4775E |
| 4700 | 4800 | -7.9  | -11.0 | 86.67  | -4.5  | 4700N | 4800E |
| 4700 | 4825 | -10.5 | -7.2  | 81.60  | -6.0  | 4700N | 4825E |
| 4700 | 4850 | -8.2  | -8.9  | 80.78  | -4.7  | 4700N | 4850E |
| 4700 | 4875 | -5.1  | -6.9  | 79.03  | -2.9  | 4700N | 4875E |
| 4700 | 4900 | 2.7   | -7.4  | 80.99  | 1.5   | 4700N | 4900E |
| 4700 | 4925 | 3.8   | -6.9  | 77.09  | 2.2   | 4700N | 4925E |
| 4700 | 4950 | 10.4  | -7.1  | 81.03  | 6.0   | 4700N | 4950E |
| 4700 | 4975 | 11.2  | -8.7  | 77.87  | 6.4   | 4700N | 4975E |
| 4700 | 5000 | 19.4  | -7.5  | 78.49  | 11.0  | 4700N | 5000E |
| 4700 | 5025 | 21.5  | -6.4  | 80.16  | 12.2  | 4700N | 5025E |
| 4700 | 5050 | 32.7  | 5.8   | 87.83  | 18.1  | 4700N | 5050E |
| 4700 | 5075 | 34.3  | -1.5  | 87.70  | 18.9  | 4700N | 5075E |
| 4700 | 5100 | 36.3  | -9.4  | 97.59  | 20.1  | 4700N | 5100E |
| 4700 | 5125 | 32.2  | -17.2 | 94.44  | 18.3  | 4700N | 5125E |
| 4700 | 5150 | 36.4  | -12.8 | 105.80 | 20.3  | 4700N | 5150E |
| 4700 | 5175 | 51.8  | -7.0  | 119.00 | 27.4  | 4700N | 5175E |
| 4700 | 5200 | 32.7  | -6.4  | 155.80 | 18.1  | 4700N | 5200E |
| 4700 | 5225 | -6.0  | -17.2 | 169.50 | -3.5  | 4700N | 5225E |
| 4700 | 5250 | -21.3 | -10.1 | 138.10 | -12.1 | 4700N | 5250E |
| 4700 | 5275 | -27.3 | -1.4  | 120.30 | -15.2 | 4700N | 5275E |
| 4700 | 5300 | -26.7 | 5.6   | 105.40 | -15.0 | 4700N | 5300E |
| 4800 | 4700 | -17.1 | -9.5  | 80.51  | -9.8  | 4800N | 4700E |
| 4800 | 4725 | -14.4 | -8.2  | 80.83  | -8.2  | 4800N | 4725E |
| 4800 | 4750 | -9.9  | -8.1  | 80.63  | -5.7  | 4800N | 4750E |
| 4800 | 4775 | -9.7  | -7.7  | 76.40  | -5.5  | 4800N | 4775E |
| 4800 | 4800 | -6.6  | -8.5  | 75.28  | -3.8  | 4800N | 4800E |
| 4800 | 4825 | -0.6  | -6.0  | 75.19  | -0.3  | 4800N | 4825E |
| 4800 | 4850 | 4.9   | -3.8  | 76.11  | 2.8   | 4800N | 4850E |
| 4800 | 4875 | 9.4   | -2.6  | 84.39  | 5.3   | 4800N | 4875E |
| 4800 | 4900 | 3.6   | -9.4  | 91.65  | 2.1   | 4800N | 4900E |
| 4800 | 4925 | -0.6  | -13.3 | 96.06  | -0.3  | 4800N | 4925E |
| 4800 | 4950 | 1.3   | -12.4 | 100.60 | 0.7   | 4800N | 4950E |
| 4800 | 4975 | 6.3   | -10.4 | 99.97  | 3.6   | 4800N | 4975E |
| 4800 | 5000 | 12.4  | -8.6  | 97.98  | 7.1   | 4800N | 5000E |
| 4800 | 5025 | 18.3  | -5.9  | 110.10 | 10.4  | 4800N | 5025E |
| 4800 | 5050 | 22.3  | -6.5  | 118.90 | 12.6  | 4800N | 5050E |
| 4800 | 5075 | 24.4  | -18.6 | 121.20 | 14.2  | 4800N | 5075E |
| 4800 | 5100 | 22.4  | -25.3 | 131.30 | 13.4  | 4800N | 5100E |
| 4800 | 5125 | 36.7  | -22.4 | 132.50 | 21.0  | 4800N | 5125E |
| 4800 | 5150 | 21.4  | -21.1 | 171.90 | 12.6  | 4800N | 5150E |
| 4800 | 5175 | -3.5  | -18.8 | 175.40 | -2.0  | 4800N | 5175E |
| 4800 | 5200 | -32.2 | -9.0  | 162.80 | -17.9 | 4800N | 5200E |
| 4800 | 5225 | -43.2 | 2.5   | 118.10 | -23.4 | 4800N | 5225E |
| 4800 | 5250 | -38.3 | 8.2   | 102.40 | -21.0 | 4800N | 5250E |
| 4800 | 5275 | -29.8 | 10.3  | 96.65  | -16.7 | 4800N | 5275E |
| 4800 | 5300 | -24.1 | 9.9   | 93.75  | -13.6 | 4800N | 5300E |
| 4900 | 4700 | -5.2  | -5.9  | 83.24  | -3.0  | 4900N | 4700E |
| 4900 | 4725 | -4.3  | -8.6  | 82.94  | -2.4  | 4900N | 4725E |
| 4900 | 4750 | 0.1   | -6.0  | 81.04  | 0.0   | 4900N | 4750E |
| 4900 | 4775 | 2.6   | -3.6  | 76.55  | 1.5   | 4900N | 4775E |
| 4900 | 4800 | 12.2  | -1.2  | 82.43  | 7.0   | 4900N | 4800E |
| 4900 | 4825 | 16.0  | 0.0   | 84.35  | 9.1   | 4900N | 4825E |
| 4900 | 4850 | 22.1  | 0.2   | 92.52  | 12.5  | 4900N | 4850E |
| 4900 | 4875 | 13.9  | -3.4  | 101.70 | 7.9   | 4900N | 4875E |
| 4900 | 4900 | 1.3   | -9.9  | 104.90 | 0.7   | 4900N | 4900E |
| 4900 | 4925 | -2.2  | -13.8 | 93.86  | -1.3  | 4900N | 4925E |
| 4900 | 4950 | 2.8   | -11.7 | 90.48  | 1.6   | 4900N | 4950E |

|      |      |       |      |        |       |       |       |
|------|------|-------|------|--------|-------|-------|-------|
| 4900 | 4975 | 5.1   | -9.2 | 94.05  | 2.9   | 4900N | 4975E |
| 4900 | 5000 | 7.0   | -7.2 | 98.99  | 4.0   | 4900N | 5000E |
| 4900 | 5025 | 3.8   | -7.2 | 105.90 | 2.2   | 4900N | 5025E |
| 4900 | 5050 | -2.0  | -6.4 | 114.70 | -1.1  | 4900N | 5050E |
| 4900 | 5075 | -2.6  | -6.7 | 115.00 | -1.5  | 4900N | 5075E |
| 4900 | 5100 | -6.8  | -6.7 | 110.80 | -3.9  | 4900N | 5100E |
| 4900 | 5125 | -10.0 | -4.9 | 110.20 | -5.7  | 4900N | 5125E |
| 4900 | 5150 | -14.7 | -1.3 | 112.20 | -8.4  | 4900N | 5150E |
| 4900 | 5175 | -18.5 | -4.1 | 108.70 | -10.5 | 4900N | 5175E |
| 4900 | 5200 | -19.2 | -1.0 | 99.67  | -10.8 | 4900N | 5200E |
| 4900 | 5225 | -23.1 | -0.2 | 94.53  | -13.0 | 4900N | 5225E |
| 4900 | 5250 | -20.4 | 10.6 | 94.14  | -11.6 | 4900N | 5250E |
| 4900 | 5275 | -21.2 | 0.6  | 85.81  | -11.9 | 4900N | 5275E |
| 4900 | 5300 | -15.6 | 5.0  | 85.29  | -8.9  | 4900N | 5300E |
| 5000 | 4700 | 1.0   | -1.4 | 91.22  | 0.6   | 5000N | 4700E |
| 5000 | 4725 | 5.4   | 1.6  | 96.73  | 3.1   | 5000N | 4725E |
| 5000 | 4750 | 11.8  | 1.9  | 103.60 | 6.7   | 5000N | 4750E |
| 5000 | 4775 | 5.3   | 0.2  | 111.90 | 3.0   | 5000N | 4775E |
| 5000 | 4800 | 4.7   | -2.4 | 113.10 | 2.7   | 5000N | 4800E |
| 5000 | 4825 | -0.6  | -2.5 | 108.70 | -0.3  | 5000N | 4825E |
| 5000 | 4850 | -2.3  | -5.7 | 107.20 | -1.3  | 5000N | 4850E |
| 5000 | 4875 | -2.9  | -5.3 | 106.50 | -1.6  | 5000N | 4875E |
| 5000 | 4900 | -2.4  | -5.0 | 103.70 | -1.4  | 5000N | 4900E |
| 5000 | 4925 | 0.8   | -3.4 | 104.10 | 0.4   | 5000N | 4925E |
| 5000 | 4950 | -1.2  | -3.9 | 105.20 | -0.7  | 5000N | 4950E |
| 5000 | 4975 | -4.5  | -4.2 | 109.00 | -2.5  | 5000N | 4975E |
| 5000 | 5000 | -6.1  | -1.8 | 108.80 | -3.5  | 5000N | 5000E |
| 5000 | 5025 | -9.8  | -2.7 | 109.60 | -5.6  | 5000N | 5025E |
| 5000 | 5050 | -12.6 | -2.0 | 105.40 | -7.1  | 5000N | 5050E |
| 5000 | 5075 | -12.2 | 0.0  | 103.90 | -6.9  | 5000N | 5075E |
| 5000 | 5100 | -13.4 | 0.2  | 101.70 | -7.6  | 5000N | 5100E |
| 5000 | 5125 | -9.4  | 1.5  | 99.76  | -5.3  | 5000N | 5125E |
| 5000 | 5150 | -10.8 | 3.2  | 103.80 | -6.2  | 5000N | 5150E |
| 5000 | 5175 | -17.7 | 1.1  | 102.20 | -10.0 | 5000N | 5175E |
| 5000 | 5200 | -16.3 | -1.6 | 94.20  | -9.2  | 5000N | 5200E |
| 5000 | 5225 | -16.8 | 1.5  | 91.80  | -9.5  | 5000N | 5225E |
| 5000 | 5250 | -12.1 | 3.0  | 90.71  | -6.9  | 5000N | 5250E |
| 5000 | 5275 | -8.4  | 8.7  | 94.35  | -4.8  | 5000N | 5275E |
| 5000 | 5300 | -6.3  | 8.5  | 93.56  | -3.6  | 5000N | 5300E |

VLF RN DATA  
 Instrument: OHMI-IV  
 Cutler, Maine (24.0 kHz)

| North | East | IP    | OP    | FS   | Tilt  | LINE  | STN   |
|-------|------|-------|-------|------|-------|-------|-------|
| 4000  | 4700 | 9.2   | 0.3   | 3.60 | 5.2   | 4000N | 4700E |
| 4000  | 4725 | 10.6  | 0.4   | 3.61 | 6.1   | 4000N | 4725E |
| 4000  | 4750 | 11.8  | 2.2   | 3.70 | 6.7   | 4000N | 4750E |
| 4000  | 4775 | 12.0  | 2.2   | 3.74 | 6.8   | 4000N | 4775E |
| 4000  | 4800 | 12.6  | 3.7   | 3.77 | 7.2   | 4000N | 4800E |
| 4000  | 4825 | 13.4  | 3.1   | 3.73 | 7.6   | 4000N | 4825E |
| 4000  | 4850 | 12.5  | 2.8   | 3.74 | 7.1   | 4000N | 4850E |
| 4000  | 4875 | 13.8  | 1.7   | 3.71 | 7.8   | 4000N | 4875E |
| 4000  | 4900 | 12.1  | 3.5   | 3.75 | 6.9   | 4000N | 4900E |
| 4000  | 4925 | 12.5  | 2.3   | 3.78 | 7.1   | 4000N | 4925E |
| 4000  | 4950 | 11.3  | 3.5   | 3.78 | 6.4   | 4000N | 4950E |
| 4000  | 4975 | 11.6  | 2.9   | 3.83 | 6.6   | 4000N | 4975E |
| 4000  | 5000 | 2.1   | 5.9   | 3.99 | 1.2   | 4000N | 5000E |
| 4000  | 5025 | 3.9   | 2.0   | 3.98 | 2.2   | 4000N | 5025E |
| 4000  | 5050 | 2.8   | 1.7   | 4.02 | 1.6   | 4000N | 5050E |
| 4000  | 5075 | 1.3   | 0.9   | 4.09 | 0.7   | 4000N | 5075E |
| 4000  | 5100 | 0.4   | 1.0   | 4.05 | 0.2   | 4000N | 5100E |
| 4000  | 5125 | -4.7  | 1.9   | 4.15 | -2.7  | 4000N | 5125E |
| 4000  | 5150 | -8.2  | 1.6   | 4.23 | -4.7  | 4000N | 5150E |
| 4000  | 5175 | -13.3 | 2.1   | 4.29 | -7.6  | 4000N | 5175E |
| 4000  | 5200 | -23.5 | 2.4   | 4.62 | -13.2 | 4000N | 5200E |
| 4000  | 5225 | -27.1 | 1.6   | 4.74 | -15.2 | 4000N | 5225E |
| 4000  | 5250 | -36.5 | 0.7   | 5.07 | -20.1 | 4000N | 5250E |
| 4000  | 5275 | -13.2 | 2.8   | 4.79 | -7.5  | 4000N | 5275E |
| 4000  | 5300 | -0.7  | -7.0  | 4.46 | -0.4  | 4000N | 5300E |
| 4100  | 4700 | 10.0  | 0.8   | 3.63 | 5.7   | 4100N | 4700E |
| 4100  | 4725 | 6.7   | 0.1   | 3.58 | 3.8   | 4100N | 4725E |
| 4100  | 4750 | 10.6  | 1.9   | 3.55 | 6.0   | 4100N | 4750E |
| 4100  | 4775 | 9.7   | 2.3   | 3.59 | 5.5   | 4100N | 4775E |
| 4100  | 4800 | 10.3  | 2.2   | 3.63 | 5.8   | 4100N | 4800E |
| 4100  | 4825 | 8.5   | 2.7   | 3.60 | 4.8   | 4100N | 4825E |
| 4100  | 4850 | 9.7   | 2.8   | 3.64 | 5.5   | 4100N | 4850E |
| 4100  | 4875 | 9.3   | 3.2   | 3.71 | 5.3   | 4100N | 4875E |
| 4100  | 4900 | 8.3   | 2.4   | 3.74 | 4.7   | 4100N | 4900E |
| 4100  | 4925 | 7.7   | 3.2   | 3.71 | 4.4   | 4100N | 4925E |
| 4100  | 4950 | 8.9   | 2.5   | 3.75 | 5.0   | 4100N | 4950E |
| 4100  | 4975 | 4.3   | 2.1   | 3.81 | 2.4   | 4100N | 4975E |
| 4100  | 5000 | 0.3   | 1.4   | 4.06 | 0.2   | 4100N | 5000E |
| 4100  | 5025 | -4.5  | 0.0   | 4.13 | -2.6  | 4100N | 5025E |
| 4100  | 5050 | -8.6  | 1.9   | 4.44 | -4.9  | 4100N | 5050E |
| 4100  | 5075 | -13.5 | -2.5  | 4.64 | -7.7  | 4100N | 5075E |
| 4100  | 5100 | 8.0   | 0.3   | 5.10 | 4.5   | 4100N | 5100E |
| 4100  | 5125 | 12.5  | -0.8  | 5.08 | 7.1   | 4100N | 5125E |
| 4100  | 5150 | 36.6  | -1.3  | 4.60 | 20.1  | 4100N | 5150E |
| 4100  | 5175 | 42.7  | -3.6  | 4.27 | 23.1  | 4100N | 5175E |
| 4100  | 5200 | 48.6  | -3.1  | 4.22 | 25.9  | 4100N | 5200E |
| 4100  | 5225 | 51.1  | 0.2   | 4.37 | 27.1  | 4100N | 5225E |
| 4100  | 5250 | 34.5  | -11.2 | 4.58 | 19.2  | 4100N | 5250E |
| 4100  | 5275 | 20.2  | -12.2 | 4.52 | 11.6  | 4100N | 5275E |
| 4100  | 5300 | 14.7  | -8.0  | 4.41 | 8.4   | 4100N | 5300E |
| 4200  | 4700 | 11.3  | 2.6   | 3.70 | 6.4   | 4200N | 4700E |
| 4200  | 4725 | 12.3  | 2.9   | 3.70 | 7.0   | 4200N | 4725E |
| 4200  | 4750 | 14.0  | 3.9   | 3.70 | 7.9   | 4200N | 4750E |
| 4200  | 4775 | 13.5  | 2.8   | 3.75 | 7.7   | 4200N | 4775E |
| 4200  | 4800 | 12.2  | 3.2   | 3.64 | 6.9   | 4200N | 4800E |
| 4200  | 4825 | 15.4  | 2.8   | 3.61 | 8.7   | 4200N | 4825E |
| 4200  | 4850 | 17.2  | 3.1   | 3.54 | 9.7   | 4200N | 4850E |
| 4200  | 4875 | 18.2  | 3.7   | 3.59 | 10.3  | 4200N | 4875E |
| 4200  | 4900 | 18.3  | 3.8   | 3.77 | 10.4  | 4200N | 4900E |
| 4200  | 4925 | 21.6  | 4.1   | 3.69 | 12.2  | 4200N | 4925E |
| 4200  | 4950 | 25.4  | 4.9   | 3.74 | 14.3  | 4200N | 4950E |
| 4200  | 4975 | 26.5  | 4.5   | 3.55 | 14.9  | 4200N | 4975E |
| 4200  | 5000 | 28.9  | 4.5   | 3.53 | 16.1  | 4200N | 5000E |
| 4200  | 5025 | 33.2  | -0.3  | 3.59 | 18.4  | 4200N | 5025E |
| 4200  | 5050 | 30.8  | -5.0  | 3.52 | 17.1  | 4200N | 5050E |
| 4200  | 5075 | 28.4  | -4.2  | 3.44 | 15.9  | 4200N | 5075E |
| 4200  | 5100 | 26.4  | -6.9  | 3.47 | 14.9  | 4200N | 5100E |
| 4200  | 5125 | 28.6  | -6.9  | 3.38 | 16.0  | 4200N | 5125E |
| 4200  | 5150 | 28.6  | -6.6  | 3.38 | 16.0  | 4200N | 5150E |
| 4200  | 5175 | 29.8  | -5.7  | 3.60 | 16.6  | 4200N | 5175E |
| 4200  | 5200 | 29.0  | -5.7  | 3.76 | 16.2  | 4200N | 5200E |
| 4200  | 5225 | 24.6  | -8.2  | 3.72 | 13.9  | 4200N | 5225E |
| 4200  | 5250 | 24.2  | -8.9  | 3.72 | 13.7  | 4200N | 5250E |
| 4200  | 5275 | 24.8  | -8.3  | 3.79 | 14.0  | 4200N | 5275E |

|      |      |      |      |      |      |       |       |
|------|------|------|------|------|------|-------|-------|
| 4200 | 5300 | 23.5 | -8.7 | 3.96 | 13.3 | 4200N | 5300E |
| 4300 | 4700 | 8.7  | 5.1  | 3.37 | 4.9  | 4300N | 4700E |
| 4300 | 4725 | 6.3  | 4.0  | 3.69 | 3.6  | 4300N | 4725E |
| 4300 | 4750 | 10.2 | 4.1  | 3.26 | 5.8  | 4300N | 4750E |
| 4300 | 4775 | 11.3 | 3.4  | 3.27 | 6.4  | 4300N | 4775E |
| 4300 | 4800 | 13.1 | 3.6  | 3.20 | 7.4  | 4300N | 4800E |
| 4300 | 4825 | 12.2 | 2.8  | 3.25 | 6.9  | 4300N | 4825E |
| 4300 | 4850 | 12.7 | 3.0  | 3.23 | 7.2  | 4300N | 4850E |
| 4300 | 4875 | 13.2 | 3.7  | 3.21 | 7.5  | 4300N | 4875E |
| 4300 | 4900 | 15.7 | 4.0  | 3.21 | 8.9  | 4300N | 4900E |
| 4300 | 4925 | 16.0 | 3.3  | 3.17 | 9.1  | 4300N | 4925E |
| 4300 | 4950 | 17.6 | 2.5  | 3.21 | 10.0 | 4300N | 4950E |
| 4300 | 4975 | 18.1 | 1.5  | 3.26 | 10.3 | 4300N | 4975E |
| 4300 | 5000 | 20.4 | 1.2  | 3.39 | 11.5 | 4300N | 5000E |
| 4300 | 5025 | 17.9 | -0.5 | 3.22 | 10.1 | 4300N | 5025E |
| 4300 | 5050 | 19.7 | -0.7 | 3.20 | 11.2 | 4300N | 5050E |
| 4300 | 5075 | 19.0 | -1.4 | 3.37 | 10.7 | 4300N | 5075E |
| 4300 | 5100 | 17.0 | -4.2 | 3.24 | 9.7  | 4300N | 5100E |
| 4300 | 5125 | 18.4 | -5.3 | 3.27 | 10.4 | 4300N | 5125E |
| 4300 | 5150 | 14.5 | -5.3 | 3.26 | 8.3  | 4300N | 5150E |
| 4300 | 5175 | 17.9 | -5.5 | 3.28 | 10.2 | 4300N | 5175E |
| 4300 | 5200 | 17.0 | -5.1 | 3.35 | 9.6  | 4300N | 5200E |
| 4300 | 5225 | 17.8 | -4.8 | 3.20 | 10.1 | 4300N | 5225E |
| 4300 | 5250 | 16.4 | -6.9 | 3.20 | 9.3  | 4300N | 5250E |
| 4300 | 5275 | 16.0 | -8.0 | 3.18 | 9.1  | 4300N | 5275E |
| 4300 | 5300 | 15.6 | -6.8 | 3.37 | 8.9  | 4300N | 5300E |
| 4400 | 4700 | 8.0  | 1.4  | 2.79 | 4.6  | 4400N | 4700E |
| 4400 | 4725 | 10.0 | 0.5  | 2.80 | 5.7  | 4400N | 4725E |
| 4400 | 4750 | 8.6  | 0.8  | 2.88 | 4.9  | 4400N | 4750E |
| 4400 | 4775 | 11.4 | 1.3  | 2.87 | 6.5  | 4400N | 4775E |
| 4400 | 4800 | 10.2 | 0.3  | 2.82 | 5.8  | 4400N | 4800E |
| 4400 | 4825 | 10.9 | 1.9  | 2.87 | 6.2  | 4400N | 4825E |
| 4400 | 4850 | 12.4 | 0.9  | 2.85 | 7.0  | 4400N | 4850E |
| 4400 | 4875 | 11.9 | -1.3 | 2.80 | 6.7  | 4400N | 4875E |
| 4400 | 4900 | 10.0 | -2.6 | 2.79 | 5.7  | 4400N | 4900E |
| 4400 | 4925 | 10.4 | -2.9 | 2.76 | 5.9  | 4400N | 4925E |
| 4400 | 4950 | 11.0 | -4.6 | 2.76 | 6.2  | 4400N | 4950E |
| 4400 | 4975 | 9.4  | -3.1 | 2.80 | 5.4  | 4400N | 4975E |
| 4400 | 5000 | 12.0 | -6.6 | 2.73 | 6.8  | 4400N | 5000E |
| 4400 | 5025 | 12.3 | -3.9 | 2.80 | 7.0  | 4400N | 5025E |
| 4400 | 5050 | 15.5 | -4.5 | 2.87 | 8.8  | 4400N | 5050E |
| 4400 | 5075 | 14.5 | -5.2 | 2.90 | 8.2  | 4400N | 5075E |
| 4400 | 5100 | 12.9 | -6.1 | 2.83 | 7.3  | 4400N | 5100E |
| 4400 | 5125 | 14.2 | -5.0 | 2.82 | 8.1  | 4400N | 5125E |
| 4400 | 5150 | 13.5 | -3.7 | 2.88 | 7.7  | 4400N | 5150E |
| 4400 | 5175 | 14.4 | -4.5 | 2.87 | 8.2  | 4400N | 5175E |
| 4400 | 5200 | 13.2 | -6.0 | 2.95 | 7.5  | 4400N | 5200E |
| 4400 | 5225 | 13.6 | -6.2 | 2.89 | 7.7  | 4400N | 5225E |
| 4400 | 5250 | 16.5 | -0.7 | 2.94 | 9.3  | 4400N | 5250E |
| 4400 | 5275 | 5.3  | -7.5 | 2.96 | 3.0  | 4400N | 5275E |
| 4400 | 5300 | 6.5  | -7.0 | 3.01 | 3.7  | 4400N | 5300E |
| 4500 | 4725 | 0.6  | 2.9  | 2.94 | 0.3  | 4500N | 4725E |
| 4500 | 4750 | -0.2 | 2.4  | 3.06 | -0.1 | 4500N | 4750E |
| 4500 | 4775 | -1.6 | 2.9  | 2.98 | -0.9 | 4500N | 4775E |
| 4500 | 4800 | -0.1 | 0.7  | 3.00 | -0.1 | 4500N | 4800E |
| 4500 | 4825 | 0.0  | -1.3 | 2.87 | 0.0  | 4500N | 4825E |
| 4500 | 4850 | 0.0  | -0.8 | 2.91 | 0.0  | 4500N | 4850E |
| 4500 | 4875 | 1.6  | 0.9  | 2.94 | 0.9  | 4500N | 4875E |
| 4500 | 4900 | 2.5  | 0.8  | 2.98 | 1.4  | 4500N | 4900E |
| 4500 | 4925 | 5.9  | -0.1 | 2.99 | 3.3  | 4500N | 4925E |
| 4500 | 4950 | 1.9  | -2.0 | 2.94 | 1.1  | 4500N | 4950E |
| 4500 | 4975 | 4.0  | -1.2 | 2.91 | 2.3  | 4500N | 4975E |
| 4500 | 5000 | 4.4  | -2.5 | 2.90 | 2.5  | 4500N | 5000E |
| 4500 | 5025 | 4.2  | -2.9 | 3.08 | 2.4  | 4500N | 5025E |
| 4500 | 5050 | 1.3  | -2.4 | 3.14 | 0.7  | 4500N | 5050E |
| 4500 | 5075 | 4.8  | -3.0 | 3.12 | 2.7  | 4500N | 5075E |
| 4500 | 5100 | 4.4  | -2.4 | 3.14 | 2.5  | 4500N | 5100E |
| 4500 | 5125 | 5.7  | -3.7 | 3.15 | 3.2  | 4500N | 5125E |
| 4500 | 5150 | 4.7  | -4.1 | 3.15 | 2.7  | 4500N | 5150E |
| 4500 | 5175 | 3.6  | -4.1 | 3.17 | 2.0  | 4500N | 5175E |
| 4500 | 5200 | 0.8  | -4.3 | 3.24 | 0.4  | 4500N | 5200E |
| 4500 | 5225 | -0.7 | -6.8 | 3.25 | -0.4 | 4500N | 5225E |
| 4500 | 5250 | 3.9  | -3.8 | 3.33 | 2.2  | 4500N | 5250E |
| 4500 | 5275 | 6.1  | -1.2 | 3.39 | 3.5  | 4500N | 5275E |
| 4500 | 5300 | 1.0  | 1.0  | 3.46 | 0.6  | 4500N | 5300E |
| 4600 | 4700 | -0.3 | 1.5  | 3.46 | -0.2 | 4600N | 4700E |
| 4600 | 4725 | 0.2  | 1.4  | 3.39 | 0.1  | 4600N | 4725E |
| 4600 | 4750 | -0.8 | 2.0  | 3.36 | -0.4 | 4600N | 4750E |
| 4600 | 4775 | -0.2 | 0.9  | 3.38 | -0.1 | 4600N | 4775E |
| 4600 | 4800 | -1.2 | 0.1  | 3.40 | -0.7 | 4600N | 4800E |



|      |      |       |      |      |       |       |       |      |      |       |      |      |       |       |       |
|------|------|-------|------|------|-------|-------|-------|------|------|-------|------|------|-------|-------|-------|
| 4600 | 4825 | 3.4   | 3.4  | 3.37 | 1.9   | 4600N | 4825E | 4900 | 4950 | -1.4  | 5.0  | 3.61 | -0.8  | 4900N | 4950E |
| 4600 | 4850 | 3.8   | 2.2  | 3.42 | 2.1   | 4600N | 4850E | 4900 | 4975 | -1.6  | 6.6  | 3.67 | -0.9  | 4900N | 4975E |
| 4600 | 4875 | 6.4   | 2.6  | 3.41 | 3.6   | 4600N | 4875E | 4900 | 5000 | -1.5  | 4.9  | 3.67 | -0.8  | 4900N | 5000E |
| 4600 | 4900 | 6.0   | 4.4  | 3.46 | 3.4   | 4600N | 4900E | 4900 | 5025 | 2.2   | 4.2  | 3.69 | 1.2   | 4900N | 5025E |
| 4600 | 4925 | 7.3   | 2.8  | 3.47 | 4.1   | 4600N | 4925E | 4900 | 5050 | 7.7   | 4.9  | 3.73 | 4.4   | 4900N | 5050E |
| 4600 | 4950 | 9.4   | 2.7  | 3.40 | 5.4   | 4600N | 4950E | 4900 | 5075 | 9.7   | 5.2  | 3.75 | 5.5   | 4900N | 5075E |
| 4600 | 4975 | 7.7   | 1.4  | 3.43 | 4.4   | 4600N | 4975E | 4900 | 5100 | 11.4  | 4.8  | 3.84 | 6.5   | 4900N | 5100E |
| 4600 | 5000 | 5.3   | 1.4  | 3.41 | 3.0   | 4600N | 5000E | 4900 | 5125 | 16.5  | 4.7  | 3.82 | 9.4   | 4900N | 5125E |
| 4600 | 5025 | 1.5   | -2.8 | 3.34 | 0.8   | 4600N | 5025E | 4900 | 5150 | 18.9  | -0.1 | 3.75 | 10.7  | 4900N | 5150E |
| 4600 | 5050 | -1.6  | -4.8 | 3.24 | -0.9  | 4600N | 5050E | 4900 | 5175 | 16.3  | 2.9  | 4.05 | 9.2   | 4900N | 5175E |
| 4600 | 5075 | -1.2  | -3.9 | 3.08 | -0.7  | 4600N | 5075E | 4900 | 5200 | 10.7  | -1.5 | 3.95 | 6.1   | 4900N | 5200E |
| 4600 | 5100 | -1.2  | -5.0 | 3.12 | -0.7  | 4600N | 5100E | 4900 | 5225 | 8.6   | -1.5 | 4.02 | 4.9   | 4900N | 5225E |
| 4600 | 5125 | -0.9  | -3.7 | 3.01 | -0.5  | 4600N | 5125E | 4900 | 5250 | 4.3   | -2.9 | 4.05 | 2.4   | 4900N | 5250E |
| 4600 | 5150 | 2.9   | 0.6  | 2.98 | 1.6   | 4600N | 5150E | 4900 | 5275 | 1.5   | -3.7 | 3.89 | 0.8   | 4900N | 5275E |
| 4600 | 5175 | 1.3   | -2.1 | 3.07 | 0.7   | 4600N | 5175E | 4900 | 5300 | -1.0  | -2.3 | 3.82 | -0.5  | 4900N | 5300E |
| 4600 | 5200 | -0.8  | -5.6 | 3.13 | -0.5  | 4600N | 5200E | 5000 | 4700 | -11.2 | 5.6  | 4.11 | -6.4  | 5000N | 4700E |
| 4600 | 5225 | 3.3   | -3.4 | 3.10 | 1.9   | 4600N | 5225E | 5000 | 4725 | -19.8 | 2.6  | 4.19 | -11.2 | 5000N | 4725E |
| 4600 | 5250 | 5.1   | -5.1 | 3.19 | 2.9   | 4600N | 5250E | 5000 | 4750 | -21.1 | 2.1  | 4.23 | -11.9 | 5000N | 4750E |
| 4600 | 5275 | 8.3   | -4.8 | 3.26 | 4.7   | 4600N | 5275E | 5000 | 4775 | -13.5 | 4.4  | 4.31 | -7.7  | 5000N | 4775E |
| 4600 | 5300 | 7.2   | -4.1 | 3.34 | 4.1   | 4600N | 5300E | 5000 | 4800 | -11.4 | 4.9  | 4.06 | -6.5  | 5000N | 4800E |
| 4700 | 4700 | -8.4  | 2.3  | 3.42 | -4.8  | 4700N | 4700E | 5000 | 4825 | -4.5  | 5.2  | 3.97 | -2.5  | 5000N | 4825E |
| 4700 | 4725 | -6.6  | 4.2  | 3.45 | -3.8  | 4700N | 4725E | 5000 | 4850 | -1.5  | 4.9  | 3.87 | -0.8  | 5000N | 4850E |
| 4700 | 4750 | -5.4  | 5.0  | 3.41 | -3.1  | 4700N | 4750E | 5000 | 4875 | -0.6  | 6.3  | 3.83 | -0.3  | 5000N | 4875E |
| 4700 | 4775 | -3.5  | 6.8  | 3.33 | -2.0  | 4700N | 4775E | 5000 | 4900 | 0.9   | 5.5  | 3.82 | 0.5   | 5000N | 4900E |
| 4700 | 4800 | -1.7  | 5.4  | 3.38 | -1.0  | 4700N | 4800E | 5000 | 4925 | 2.0   | 6.1  | 3.82 | 1.1   | 5000N | 4925E |
| 4700 | 4825 | -1.3  | 6.8  | 3.33 | -0.7  | 4700N | 4825E | 5000 | 4950 | 1.4   | 3.7  | 3.84 | 0.8   | 5000N | 4950E |
| 4700 | 4850 | -0.9  | 6.3  | 3.27 | -0.5  | 4700N | 4850E | 5000 | 4975 | 2.9   | 2.4  | 3.84 | 1.7   | 5000N | 4975E |
| 4700 | 4875 | 3.1   | 10.7 | 3.35 | 1.8   | 4700N | 4875E | 5000 | 5000 | 4.9   | 1.0  | 3.82 | 2.8   | 5000N | 5000E |
| 4700 | 4900 | 0.5   | 7.7  | 3.20 | 0.3   | 4700N | 4900E | 5000 | 5025 | 5.8   | -1.4 | 3.71 | 3.3   | 5000N | 5025E |
| 4700 | 4925 | 0.4   | 6.4  | 3.19 | 0.2   | 4700N | 4925E | 5000 | 5050 | 7.0   | -4.5 | 3.66 | 4.0   | 5000N | 5050E |
| 4700 | 4950 | -1.0  | 5.6  | 3.28 | -0.6  | 4700N | 4950E | 5000 | 5075 | 7.1   | -4.1 | 3.66 | 4.0   | 5000N | 5075E |
| 4700 | 4975 | -4.7  | 4.1  | 3.25 | -2.7  | 4700N | 4975E | 5000 | 5100 | 8.7   | -3.6 | 3.64 | 4.9   | 5000N | 5100E |
| 4700 | 5000 | -7.6  | 1.7  | 3.21 | -4.3  | 4700N | 5000E | 5000 | 5125 | 10.6  | -2.6 | 3.68 | 6.0   | 5000N | 5125E |
| 4700 | 5025 | -5.2  | 3.5  | 3.25 | -3.0  | 4700N | 5025E | 5000 | 5150 | 6.9   | -4.5 | 3.75 | 4.0   | 5000N | 5150E |
| 4700 | 5050 | -8.5  | 2.6  | 3.32 | -4.9  | 4700N | 5050E | 5000 | 5175 | 6.2   | -3.9 | 3.72 | 3.5   | 5000N | 5175E |
| 4700 | 5075 | -8.0  | 2.3  | 3.38 | -4.5  | 4700N | 5075E | 5000 | 5200 | 7.7   | -2.3 | 3.72 | 4.4   | 5000N | 5200E |
| 4700 | 5100 | -12.7 | 2.1  | 3.62 | -7.2  | 4700N | 5100E | 5000 | 5225 | 9.5   | -2.0 | 3.71 | 5.4   | 5000N | 5225E |
| 4700 | 5125 | -12.5 | 1.5  | 3.52 | -7.1  | 4700N | 5125E | 5000 | 5250 | 7.0   | -1.6 | 3.73 | 4.0   | 5000N | 5250E |
| 4700 | 5150 | -16.1 | -0.6 | 3.58 | -9.1  | 4700N | 5150E | 5000 | 5275 | 4.6   | -0.6 | 3.77 | 2.6   | 5000N | 5275E |
| 4700 | 5175 | -27.9 | -8.5 | 3.30 | -15.7 | 4700N | 5175E | 5000 | 5300 | 4.7   | 0.4  | 3.83 | 2.7   | 5000N | 5300E |
| 4700 | 5200 | -18.8 | -2.6 | 3.20 | -10.7 | 4700N | 5200E |      |      |       |      |      |       |       |       |
| 4700 | 5225 | -2.5  | 4.0  | 3.20 | -1.4  | 4700N | 5225E |      |      |       |      |      |       |       |       |
| 4700 | 5250 | 1.4   | -1.0 | 3.26 | 0.8   | 4700N | 5250E |      |      |       |      |      |       |       |       |
| 4700 | 5275 | 2.4   | -2.7 | 3.32 | 1.4   | 4700N | 5275E |      |      |       |      |      |       |       |       |
| 4700 | 5300 | 3.5   | -3.0 | 3.36 | 2.0   | 4700N | 5300E |      |      |       |      |      |       |       |       |
| 4800 | 4700 | -9.9  | 0.9  | 3.47 | -5.6  | 4800N | 4700E |      |      |       |      |      |       |       |       |
| 4800 | 4725 | -7.9  | 2.2  | 3.39 | -4.5  | 4800N | 4725E |      |      |       |      |      |       |       |       |
| 4800 | 4750 | -8.2  | 2.9  | 3.43 | -4.7  | 4800N | 4750E |      |      |       |      |      |       |       |       |
| 4800 | 4775 | -6.8  | 3.4  | 3.34 | -3.9  | 4800N | 4775E |      |      |       |      |      |       |       |       |
| 4800 | 4800 | -7.1  | 3.1  | 3.36 | -4.1  | 4800N | 4800E |      |      |       |      |      |       |       |       |
| 4800 | 4825 | -8.9  | 2.6  | 3.38 | -5.0  | 4800N | 4825E |      |      |       |      |      |       |       |       |
| 4800 | 4850 | -8.3  | 2.2  | 3.35 | -4.8  | 4800N | 4850E |      |      |       |      |      |       |       |       |
| 4800 | 4875 | -7.7  | 2.8  | 3.32 | -4.4  | 4800N | 4875E |      |      |       |      |      |       |       |       |
| 4800 | 4900 | -1.2  | 7.0  | 3.41 | -0.7  | 4800N | 4900E |      |      |       |      |      |       |       |       |
| 4800 | 4925 | 4.1   | 7.0  | 3.49 | 2.4   | 4800N | 4925E |      |      |       |      |      |       |       |       |
| 4800 | 4950 | 2.0   | 5.0  | 3.70 | 1.1   | 4800N | 4950E |      |      |       |      |      |       |       |       |
| 4800 | 4975 | -1.7  | 3.2  | 3.75 | -1.0  | 4800N | 4975E |      |      |       |      |      |       |       |       |
| 4800 | 5000 | -2.1  | 3.9  | 3.76 | -1.2  | 4800N | 5000E |      |      |       |      |      |       |       |       |
| 4800 | 5025 | -1.3  | 5.3  | 3.87 | -0.7  | 4800N | 5025E |      |      |       |      |      |       |       |       |
| 4800 | 5050 | -1.7  | 7.3  | 4.10 | -0.9  | 4800N | 5050E |      |      |       |      |      |       |       |       |
| 4800 | 5075 | -9.8  | 5.9  | 4.20 | -5.6  | 4800N | 5075E |      |      |       |      |      |       |       |       |
| 4800 | 5100 | -6.7  | 9.8  | 4.05 | -3.8  | 4800N | 5100E |      |      |       |      |      |       |       |       |
| 4800 | 5125 | -14.0 | 7.2  | 3.87 | -8.0  | 4800N | 5125E |      |      |       |      |      |       |       |       |
| 4800 | 5150 | -12.3 | 9.6  | 3.99 | -7.1  | 4800N | 5150E |      |      |       |      |      |       |       |       |
| 4800 | 5175 | -4.9  | 5.6  | 4.16 | -2.8  | 4800N | 5175E |      |      |       |      |      |       |       |       |
| 4800 | 5200 | 2.3   | -3.2 | 4.01 | 1.3   | 4800N | 5200E |      |      |       |      |      |       |       |       |
| 4800 | 5225 | 1.5   | -9.6 | 3.63 | 0.9   | 4800N | 5225E |      |      |       |      |      |       |       |       |
| 4800 | 5250 | 1.2   | -6.4 | 3.48 | 0.7   | 4800N | 5250E |      |      |       |      |      |       |       |       |
| 4800 | 5275 | 3.5   | -4.9 | 3.48 | 2.0   | 4800N | 5275E |      |      |       |      |      |       |       |       |
| 4800 | 5300 | 3.8   | -4.1 | 3.46 | 2.2   | 4800N | 5300E |      |      |       |      |      |       |       |       |
| 4900 | 4700 | -15.4 | 4.6  | 4.04 | -8.8  | 4900N | 4700E |      |      |       |      |      |       |       |       |
| 4900 | 4725 | -15.6 | 3.1  | 4.08 | -8.9  | 4900N | 4725E |      |      |       |      |      |       |       |       |
| 4900 | 4750 | -17.5 | 1.7  | 3.93 | -9.9  | 4900N | 4750E |      |      |       |      |      |       |       |       |
| 4900 | 4775 | -19.2 | 2.2  | 3.74 | -10.9 | 4900N | 4775E |      |      |       |      |      |       |       |       |
| 4900 | 4800 | -19.6 | 3.1  | 3.82 | -11.1 | 4900N | 4800E |      |      |       |      |      |       |       |       |
| 4900 | 4825 | -20.2 | 3.7  | 3.81 | -11.4 | 4900N | 4825E |      |      |       |      |      |       |       |       |
| 4900 | 4850 | -21.1 | 6.3  | 3.69 | -11.9 | 4900N | 4850E |      |      |       |      |      |       |       |       |
| 4900 | 4875 | -15.8 | 7.9  | 3.69 | -9.0  | 4900N | 4875E |      |      |       |      |      |       |       |       |
| 4900 | 4900 | -3.9  | 7.4  | 3.64 | -2.2  | 4900N | 4900E |      |      |       |      |      |       |       |       |
| 4900 | 4925 | -1.7  | 7.3  | 3.57 | -1.0  | 4900N | 4925E |      |      |       |      |      |       |       |       |

VLF EM DATA  
Instrument: OMNI-IV  
Cutler, Maine (24.0 kHz)  
Fraser Filter Results

| North | East | FF-IP | FF-OP | LINE  | STN   |
|-------|------|-------|-------|-------|-------|
| 4738  | 4000 | -1.0  | -0.6  | 4000N | 4738E |
| 4763  | 4000 | -0.5  | -0.3  | 4000N | 4763E |
| 4788  | 4000 | -0.6  | -0.3  | 4000N | 4788E |
| 4813  | 4000 | -0.3  | -0.2  | 4000N | 4813E |
| 4838  | 4000 | -0.1  | 0.0   | 4000N | 4838E |
| 4863  | 4000 | 0.0   | 0.0   | 4000N | 4863E |
| 4888  | 4000 | 0.4   | 0.2   | 4000N | 4888E |
| 4913  | 4000 | 0.5   | 0.3   | 4000N | 4913E |
| 4938  | 4000 | 0.4   | 0.3   | 4000N | 4938E |
| 4963  | 4000 | 2.5   | 1.4   | 4000N | 4963E |
| 4988  | 4000 | 4.2   | 2.4   | 4000N | 4988E |
| 5013  | 4000 | 1.8   | 1.0   | 4000N | 5013E |
| 5038  | 4000 | 0.5   | 0.3   | 4000N | 5038E |
| 5063  | 4000 | 1.2   | 0.7   | 4000N | 5063E |
| 5088  | 4000 | 2.1   | 1.2   | 4000N | 5088E |
| 5113  | 4000 | 3.6   | 2.1   | 4000N | 5113E |
| 5138  | 4000 | 4.3   | 2.4   | 4000N | 5138E |
| 5163  | 4000 | 6.0   | 3.3   | 4000N | 5163E |
| 5188  | 4000 | 7.3   | 4.0   | 4000N | 5188E |
| 5213  | 4000 | 6.7   | 3.6   | 4000N | 5213E |
| 5238  | 4000 | -0.2  | -0.2  | 4000N | 5238E |
| 5263  | 4000 | -12.4 | -6.8  | 4000N | 5263E |
| 4738  | 4100 | -0.9  | -0.5  | 4100N | 4738E |
| 4763  | 4100 | -0.7  | -0.4  | 4100N | 4763E |
| 4788  | 4100 | 0.4   | 0.2   | 4100N | 4788E |
| 4813  | 4100 | 0.5   | 0.3   | 4100N | 4813E |
| 4838  | 4100 | -0.1  | 0.0   | 4100N | 4838E |
| 4863  | 4100 | 0.2   | 0.1   | 4100N | 4863E |
| 4888  | 4100 | 0.8   | 0.4   | 4100N | 4888E |
| 4913  | 4100 | 0.3   | 0.1   | 4100N | 4913E |
| 4938  | 4100 | 0.7   | 0.4   | 4100N | 4938E |
| 4963  | 4100 | 3.0   | 1.7   | 4100N | 4963E |
| 4988  | 4100 | 4.3   | 2.5   | 4100N | 4988E |
| 5013  | 4100 | 4.4   | 2.5   | 4100N | 5013E |
| 5038  | 4100 | 4.5   | 2.5   | 4100N | 5038E |
| 5063  | 4100 | -1.9  | -1.1  | 4100N | 5063E |
| 5088  | 4100 | -10.6 | -6.1  | 4100N | 5088E |
| 5113  | 4100 | -13.6 | -7.6  | 4100N | 5113E |
| 5138  | 4100 | -14.7 | -7.9  | 4100N | 5138E |
| 5163  | 4100 | -10.6 | -5.4  | 4100N | 5163E |
| 5188  | 4100 | -5.1  | -2.4  | 4100N | 5188E |
| 5213  | 4100 | 1.4   | 0.7   | 4100N | 5213E |
| 5238  | 4100 | 11.2  | 5.5   | 4100N | 5238E |
| 5263  | 4100 | 12.7  | 6.6   | 4100N | 5263E |
| 4738  | 4200 | -1.0  | -0.6  | 4200N | 4738E |
| 4763  | 4200 | 0.1   | 0.1   | 4200N | 4763E |
| 4788  | 4200 | 0.0   | 0.0   | 4200N | 4788E |
| 4813  | 4200 | -1.7  | -0.9  | 4200N | 4813E |
| 4838  | 4200 | -2.0  | -1.1  | 4200N | 4838E |
| 4863  | 4200 | -1.0  | -0.6  | 4200N | 4863E |
| 4888  | 4200 | -1.1  | -0.6  | 4200N | 4888E |
| 4913  | 4200 | -2.6  | -1.4  | 4200N | 4913E |
| 4938  | 4200 | -3.0  | -1.7  | 4200N | 4938E |
| 4963  | 4200 | -2.1  | -1.1  | 4200N | 4963E |
| 4988  | 4200 | -2.5  | -1.3  | 4200N | 4988E |
| 5013  | 4200 | -2.1  | -1.1  | 4200N | 5013E |
| 5038  | 4200 | 0.7   | 0.4   | 4200N | 5038E |
| 5063  | 4200 | 2.3   | 1.2   | 4200N | 5063E |
| 5088  | 4200 | 1.0   | 0.5   | 4200N | 5088E |
| 5113  | 4200 | -0.6  | -0.3  | 4200N | 5113E |
| 5138  | 4200 | -0.8  | -0.4  | 4200N | 5138E |
| 5163  | 4200 | -0.4  | -0.2  | 4200N | 5163E |
| 5188  | 4200 | 1.2   | 0.6   | 4200N | 5188E |
| 5213  | 4200 | 2.5   | 1.3   | 4200N | 5213E |
| 5238  | 4200 | 1.1   | 0.6   | 4200N | 5238E |
| 5263  | 4200 | 0.1   | 0.1   | 4200N | 5263E |
| 4738  | 4300 | -1.6  | -0.9  | 4300N | 4738E |
| 4763  | 4300 | -2.0  | -1.1  | 4300N | 4763E |
| 4788  | 4300 | -1.0  | -0.5  | 4300N | 4788E |
| 4813  | 4300 | -0.1  | -0.1  | 4300N | 4813E |
| 4838  | 4300 | -0.2  | -0.1  | 4300N | 4838E |
| 4863  | 4300 | -1.0  | -0.6  | 4300N | 4863E |
| 4888  | 4300 | -1.5  | -0.8  | 4300N | 4888E |
| 4913  | 4300 | -1.2  | -0.7  | 4300N | 4913E |

|      |      |      |      |       |       |
|------|------|------|------|-------|-------|
| 4938 | 4300 | -1.0 | -0.6 | 4300N | 4938E |
| 4963 | 4300 | -1.2 | -0.7 | 4300N | 4963E |
| 4988 | 4300 | -0.6 | -0.3 | 4300N | 4988E |
| 5013 | 4300 | 0.2  | 0.1  | 4300N | 5013E |
| 5038 | 4300 | -0.1 | -0.1 | 4300N | 5038E |
| 5063 | 4300 | 0.4  | 0.2  | 4300N | 5063E |
| 5088 | 4300 | 0.8  | 0.5  | 4300N | 5088E |
| 5113 | 4300 | 0.8  | 0.4  | 4300N | 5113E |
| 5138 | 4300 | 0.8  | 0.4  | 4300N | 5138E |
| 5163 | 4300 | -0.5 | -0.3 | 4300N | 5163E |
| 5188 | 4300 | -0.6 | -0.3 | 4300N | 5188E |
| 5213 | 4300 | 0.2  | 0.1  | 4300N | 5213E |
| 5238 | 4300 | 0.6  | 0.3  | 4300N | 5238E |
| 5263 | 4300 | 0.6  | 0.4  | 4300N | 5263E |
| 4738 | 4400 | -0.5 | -0.3 | 4400N | 4738E |
| 4763 | 4400 | -0.7 | -0.4 | 4400N | 4763E |
| 4788 | 4400 | -0.3 | -0.2 | 4400N | 4788E |
| 4813 | 4400 | -0.4 | -0.2 | 4400N | 4813E |
| 4838 | 4400 | -0.8 | -0.4 | 4400N | 4838E |
| 4863 | 4400 | 0.3  | 0.2  | 4400N | 4863E |
| 4888 | 4400 | 1.0  | 0.5  | 4400N | 4888E |
| 4913 | 4400 | 0.1  | 0.1  | 4400N | 4913E |
| 4938 | 4400 | 0.0  | 0.0  | 4400N | 4938E |
| 4963 | 4400 | 0.0  | 0.0  | 4400N | 4963E |
| 4988 | 4400 | -1.0 | -0.5 | 4400N | 4988E |
| 5013 | 4400 | -1.6 | -0.9 | 4400N | 5013E |
| 5038 | 4400 | -1.4 | -0.8 | 4400N | 5038E |
| 5063 | 4400 | 0.1  | 0.1  | 4400N | 5063E |
| 5088 | 4400 | 0.7  | 0.4  | 4400N | 5088E |
| 5113 | 4400 | -0.1 | -0.1 | 4400N | 5113E |
| 5138 | 4400 | -0.2 | -0.1 | 4400N | 5138E |
| 5163 | 4400 | 0.0  | 0.0  | 4400N | 5163E |
| 5188 | 4400 | 0.3  | 0.2  | 4400N | 5188E |
| 5213 | 4400 | -0.6 | -0.3 | 4400N | 5213E |
| 5238 | 4400 | 1.2  | 0.7  | 4400N | 5238E |
| 5263 | 4400 | 4.6  | 2.6  | 4400N | 5263E |
| 4763 | 4500 | 0.5  | 0.3  | 4500N | 4763E |
| 4788 | 4500 | -0.4 | -0.2 | 4500N | 4788E |
| 4813 | 4500 | -0.4 | -0.3 | 4500N | 4813E |
| 4838 | 4500 | -0.4 | -0.3 | 4500N | 4838E |
| 4863 | 4500 | -1.0 | -0.6 | 4500N | 4863E |
| 4888 | 4500 | -1.7 | -0.9 | 4500N | 4888E |
| 4913 | 4500 | -0.9 | -0.5 | 4500N | 4913E |
| 4938 | 4500 | 0.6  | 0.3  | 4500N | 4938E |
| 4963 | 4500 | -0.1 | -0.1 | 4500N | 4963E |
| 4988 | 4500 | -0.7 | -0.4 | 4500N | 4988E |
| 5013 | 4500 | 0.7  | 0.4  | 4500N | 5013E |
| 5038 | 4500 | 0.6  | 0.4  | 4500N | 5038E |
| 5063 | 4500 | -0.9 | -0.5 | 4500N | 5063E |
| 5088 | 4500 | -1.0 | -0.6 | 4500N | 5088E |
| 5113 | 4500 | -0.3 | -0.2 | 4500N | 5113E |
| 5138 | 4500 | 0.5  | 0.2  | 4500N | 5138E |
| 5163 | 4500 | 1.5  | 0.9  | 4500N | 5163E |
| 5188 | 4500 | 2.0  | 1.2  | 4500N | 5188E |
| 5213 | 4500 | 0.3  | 0.2  | 4500N | 5213E |
| 5238 | 4500 | -2.5 | -1.4 | 4500N | 5238E |
| 5263 | 4500 | -1.0 | -0.6 | 4500N | 5263E |
| 4738 | 4600 | 0.2  | 0.1  | 4600N | 4738E |
| 4763 | 4600 | 0.2  | 0.1  | 4600N | 4763E |
| 4788 | 4600 | -0.8 | -0.4 | 4600N | 4788E |
| 4813 | 4600 | -2.2 | -1.2 | 4600N | 4813E |
| 4838 | 4600 | -2.0 | -1.1 | 4600N | 4838E |
| 4863 | 4600 | -1.3 | -0.8 | 4600N | 4863E |
| 4888 | 4600 | -0.8 | -0.5 | 4600N | 4888E |
| 4913 | 4600 | -1.1 | -0.6 | 4600N | 4913E |
| 4938 | 4600 | -0.9 | -0.6 | 4600N | 4938E |
| 4963 | 4600 | 0.9  | 0.5  | 4600N | 4963E |
| 4988 | 4600 | 2.6  | 1.5  | 4600N | 4988E |
| 5013 | 4600 | 3.3  | 1.9  | 4600N | 5013E |
| 5038 | 4600 | 2.4  | 1.3  | 4600N | 5038E |
| 5063 | 4600 | 0.6  | 0.3  | 4600N | 5063E |
| 5088 | 4600 | -0.2 | -0.1 | 4600N | 5088E |
| 5113 | 4600 | -1.1 | -0.6 | 4600N | 5113E |
| 5138 | 4600 | -1.6 | -0.9 | 4600N | 5138E |
| 5163 | 4600 | 0.4  | 0.2  | 4600N | 5163E |
| 5188 | 4600 | 0.4  | 0.2  | 4600N | 5188E |
| 5213 | 4600 | -2.0 | -1.2 | 4600N | 5213E |
| 5238 | 4600 | -2.7 | -1.5 | 4600N | 5238E |
| 5263 | 4600 | -1.8 | -1.0 | 4600N | 5263E |
| 4738 | 4700 | -1.5 | -0.9 | 4700N | 4738E |

|      |      |       |      |       |       |
|------|------|-------|------|-------|-------|
| 4763 | 4700 | -1.7  | -1.0 | 4700N | 4763E |
| 4788 | 4700 | -1.5  | -0.8 | 4700N | 4788E |
| 4813 | 4700 | -0.8  | -0.4 | 4700N | 4813E |
| 4838 | 4700 | -1.3  | -0.8 | 4700N | 4838E |
| 4863 | 4700 | -1.4  | -0.8 | 4700N | 4863E |
| 4888 | 4700 | 0.3   | 0.2  | 4700N | 4888E |
| 4913 | 4700 | 1.0   | 0.6  | 4700N | 4913E |
| 4938 | 4700 | 1.6   | 1.0  | 4700N | 4938E |
| 4963 | 4700 | 2.9   | 1.7  | 4700N | 4963E |
| 4988 | 4700 | 1.8   | 1.0  | 4700N | 4988E |
| 5013 | 4700 | 0.4   | 0.2  | 4700N | 5013E |
| 5038 | 4700 | 0.9   | 0.5  | 4700N | 5038E |
| 5063 | 4700 | 1.8   | 0.9  | 4700N | 5063E |
| 5088 | 4700 | 2.2   | 1.2  | 4700N | 5088E |
| 5113 | 4700 | 2.0   | 1.1  | 4700N | 5113E |
| 5138 | 4700 | 4.7   | 2.6  | 4700N | 5138E |
| 5163 | 4700 | 4.5   | 2.5  | 4700N | 5163E |
| 5188 | 4700 | -5.7  | -3.2 | 4700N | 5188E |
| 5213 | 4700 | -11.4 | -6.4 | 4700N | 5213E |
| 5238 | 4700 | -6.3  | -3.6 | 4700N | 5238E |
| 5263 | 4700 | -1.8  | -1.0 | 4700N | 5263E |
| 4738 | 4800 | -0.7  | -0.4 | 4800N | 4738E |
| 4763 | 4800 | -0.6  | -0.3 | 4800N | 4763E |
| 4788 | 4800 | 0.2   | 0.1  | 4800N | 4788E |
| 4813 | 4800 | 0.8   | 0.5  | 4800N | 4813E |
| 4838 | 4800 | 0.0   | 0.0  | 4800N | 4838E |
| 4863 | 4800 | -2.1  | -1.2 | 4800N | 4863E |
| 4888 | 4800 | -4.7  | -2.7 | 4800N | 4888E |
| 4913 | 4800 | -3.8  | -2.2 | 4800N | 4913E |
| 4938 | 4800 | 0.6   | 0.4  | 4800N | 4938E |
| 4963 | 4800 | 2.5   | 1.4  | 4800N | 4963E |
| 4988 | 4800 | 0.9   | 0.5  | 4800N | 4988E |
| 5013 | 4800 | -0.2  | -0.2 | 4800N | 5013E |
| 5038 | 4800 | 2.0   | 1.1  | 4800N | 5038E |
| 5063 | 4800 | 3.4   | 2.0  | 4800N | 5063E |
| 5088 | 4800 | 2.3   | 1.3  | 4800N | 5088E |
| 5113 | 4800 | 2.5   | 1.4  | 4800N | 5113E |
| 5138 | 4800 | -0.9  | -0.5 | 4800N | 5138E |
| 5163 | 4800 | -5.9  | -3.4 | 4800N | 5163E |
| 5188 | 4800 | -5.3  | -3.0 | 4800N | 5188E |
| 5213 | 4800 | -1.3  | -0.8 | 4800N | 5213E |
| 5238 | 4800 | -0.2  | -0.1 | 4800N | 5238E |
| 5263 | 4800 | -1.1  | -0.7 | 4800N | 5263E |
| 4738 | 4900 | 1.4   | 0.8  | 4900N | 4738E |
| 4763 | 4900 | 1.4   | 0.8  | 4900N | 4763E |
| 4788 | 4900 | 0.8   | 0.4  | 4900N | 4788E |
| 4813 | 4900 | 0.6   | 0.3  | 4900N | 4813E |
| 4838 | 4900 | -0.7  | -0.4 | 4900N | 4838E |
| 4863 | 4900 | -5.4  | -3.0 | 4900N | 4863E |
| 4888 | 4900 | -7.8  | -4.4 | 4900N | 4888E |
| 4913 | 4900 | -4.2  | -2.3 | 4900N | 4913E |
| 4938 | 4900 | -0.7  | -0.4 | 4900N | 4938E |
| 4963 | 4900 | 0.0   | 0.0  | 4900N | 4963E |
| 4988 | 4900 | -0.9  | -0.5 | 4900N | 4988E |
| 5013 | 4900 | -3.3  | -1.8 | 4900N | 5013E |
| 5038 | 4900 | -4.2  | -2.4 | 4900N | 5038E |
| 5063 | 4900 | -2.8  | -1.6 | 4900N | 5063E |
| 5088 | 4900 | -2.6  | -1.5 | 4900N | 5088E |
| 5113 | 4900 | -3.6  | -2.0 | 4900N | 5113E |
| 5138 | 4900 | -1.8  | -1.0 | 4900N | 5138E |
| 5163 | 4900 | 2.1   | 1.2  | 4900N | 5163E |
| 5188 | 4900 | 4.0   | 2.2  | 4900N | 5188E |
| 5213 | 4900 | 3.5   | 2.0  | 4900N | 5213E |
| 5238 | 4900 | 3.4   | 2.0  | 4900N | 5238E |
| 5263 | 4900 | 3.1   | 1.8  | 4900N | 5263E |
| 4738 | 5000 | 0.9   | 0.5  | 5000N | 4738E |
| 4763 | 5000 | -4.0  | -2.2 | 5000N | 4763E |
| 4788 | 5000 | -4.7  | -2.6 | 5000N | 4788E |
| 4813 | 5000 | -4.7  | -2.7 | 5000N | 4813E |
| 4838 | 5000 | -3.4  | -2.0 | 5000N | 4838E |
| 4863 | 5000 | -1.6  | -0.9 | 5000N | 4863E |
| 4888 | 5000 | -1.3  | -0.7 | 5000N | 4888E |
| 4913 | 5000 | -0.8  | -0.4 | 5000N | 4913E |
| 4938 | 5000 | -0.3  | -0.2 | 5000N | 4938E |
| 4963 | 5000 | -1.1  | -0.6 | 5000N | 4963E |
| 4988 | 5000 | -1.6  | -0.9 | 5000N | 4988E |
| 5013 | 5000 | -1.3  | -0.7 | 5000N | 5013E |
| 5038 | 5000 | -0.8  | -0.5 | 5000N | 5038E |
| 5063 | 5000 | -0.7  | -0.4 | 5000N | 5063E |
| 5088 | 5000 | -1.3  | -0.7 | 5000N | 5088E |

|      |      |      |      |       |       |
|------|------|------|------|-------|-------|
| 5113 | 5000 | -0.4 | -0.3 | 5000N | 5113E |
| 5138 | 5000 | 1.5  | 0.8  | 5000N | 5138E |
| 5163 | 5000 | 0.9  | 0.5  | 5000N | 5163E |
| 5188 | 5000 | -1.0 | -0.6 | 5000N | 5188E |
| 5213 | 5000 | -0.7 | -0.4 | 5000N | 5213E |
| 5238 | 5000 | 1.4  | 0.8  | 5000N | 5238E |
| 5263 | 5000 | 1.8  | 1.0  | 5000N | 5263E |

VLF EM DATA  
 Instrument: OMNI-IV  
 Seattle, Washington (24.8 kHz)  
 Fraser Filter Results

| North | East | FF-IP | FF-OP | LINE  | STN   |
|-------|------|-------|-------|-------|-------|
| 4738  | 4000 | -0.7  | -0.3  | 4000N | 4738E |
| 4763  | 4000 | 0.1   | 0.0   | 4000N | 4763E |
| 4788  | 4000 | 0.5   | 0.3   | 4000N | 4788E |
| 4813  | 4000 | -0.7  | -0.4  | 4000N | 4813E |
| 4838  | 4000 | -1.9  | -1.0  | 4000N | 4838E |
| 4863  | 4000 | -1.9  | -1.1  | 4000N | 4863E |
| 4888  | 4000 | -2.7  | -1.5  | 4000N | 4888E |
| 4913  | 4000 | -3.3  | -1.8  | 4000N | 4913E |
| 4938  | 4000 | -3.8  | -2.1  | 4000N | 4938E |
| 4963  | 4000 | 8.4   | 4.3   | 4000N | 4963E |
| 4988  | 4000 | 11.7  | 6.3   | 4000N | 4988E |
| 5013  | 4000 | -12.9 | -6.8  | 4000N | 5013E |
| 5038  | 4000 | -18.2 | -10.0 | 4000N | 5038E |
| 5063  | 4000 | -5.3  | -3.2  | 4000N | 5063E |
| 5088  | 4000 | -3.5  | -2.1  | 4000N | 5088E |
| 5113  | 4000 | -7.4  | -4.3  | 4000N | 5113E |
| 5138  | 4000 | -10.6 | -5.9  | 4000N | 5138E |
| 5163  | 4000 | -12.1 | -6.3  | 4000N | 5163E |
| 5188  | 4000 | -10.5 | -5.3  | 4000N | 5188E |
| 5213  | 4000 | -5.8  | -2.8  | 4000N | 5213E |
| 5238  | 4000 | 10.0  | 5.5   | 4000N | 5238E |
| 5263  | 4000 | 34.2  | 18.3  | 4000N | 5263E |
| 4738  | 4100 | -1.3  | -0.7  | 4100N | 4738E |
| 4763  | 4100 | -0.7  | -0.3  | 4100N | 4763E |
| 4788  | 4100 | -1.2  | -0.6  | 4100N | 4788E |
| 4813  | 4100 | -2.1  | -1.2  | 4100N | 4813E |
| 4838  | 4100 | -2.8  | -1.6  | 4100N | 4838E |
| 4863  | 4100 | -3.1  | -1.8  | 4100N | 4863E |
| 4888  | 4100 | -2.8  | -1.6  | 4100N | 4888E |
| 4913  | 4100 | -2.6  | -1.4  | 4100N | 4913E |
| 4938  | 4100 | -3.5  | -2.0  | 4100N | 4938E |
| 4963  | 4100 | -5.1  | -2.9  | 4100N | 4963E |
| 4988  | 4100 | -7.0  | -4.0  | 4100N | 4988E |
| 5013  | 4100 | -4.4  | -2.6  | 4100N | 5013E |
| 5038  | 4100 | -2.5  | -1.4  | 4100N | 5038E |
| 5063  | 4100 | 1.6   | 0.9   | 4100N | 5063E |
| 5088  | 4100 | 10.0  | 5.7   | 4100N | 5088E |
| 5113  | 4100 | 13.5  | 7.6   | 4100N | 5113E |
| 5138  | 4100 | 13.9  | 7.7   | 4100N | 5138E |
| 5163  | 4100 | 7.1   | 3.9   | 4100N | 5163E |
| 5188  | 4100 | -0.5  | -0.3  | 4100N | 5188E |
| 5213  | 4100 | -0.6  | -0.4  | 4100N | 5213E |
| 5238  | 4100 | -0.1  | -0.1  | 4100N | 5238E |
| 5263  | 4100 | -1.4  | -0.7  | 4100N | 5263E |
| 4738  | 4200 | -1.5  | -0.8  | 4200N | 4738E |
| 4763  | 4200 | -1.3  | -0.8  | 4200N | 4763E |
| 4788  | 4200 | -2.2  | -1.2  | 4200N | 4788E |
| 4813  | 4200 | -1.5  | -0.8  | 4200N | 4813E |
| 4838  | 4200 | -1.2  | -0.7  | 4200N | 4838E |
| 4863  | 4200 | -1.7  | -1.0  | 4200N | 4863E |
| 4888  | 4200 | 0.2   | 0.1   | 4200N | 4888E |
| 4913  | 4200 | 2.2   | 1.2   | 4200N | 4913E |
| 4938  | 4200 | -0.1  | 0.0   | 4200N | 4938E |
| 4963  | 4200 | -3.8  | -2.0  | 4200N | 4963E |
| 4988  | 4200 | 1.4   | 0.9   | 4200N | 4988E |
| 5013  | 4200 | 9.1   | 5.3   | 4200N | 5013E |
| 5038  | 4200 | 4.3   | 2.5   | 4200N | 5038E |
| 5063  | 4200 | -3.9  | -2.1  | 4200N | 5063E |
| 5088  | 4200 | -2.9  | -1.7  | 4200N | 5088E |
| 5113  | 4200 | -0.5  | -0.4  | 4200N | 5113E |
| 5138  | 4200 | -1.0  | -0.7  | 4200N | 5138E |
| 5163  | 4200 | -1.1  | -0.8  | 4200N | 5163E |
| 5188  | 4200 | -3.0  | -1.7  | 4200N | 5188E |
| 5213  | 4200 | -4.7  | -2.6  | 4200N | 5213E |
| 5238  | 4200 | -2.9  | -1.6  | 4200N | 5238E |
| 5263  | 4200 | -1.6  | -0.9  | 4200N | 5263E |
| 4738  | 4300 | -5.1  | -2.7  | 4300N | 4738E |
| 4763  | 4300 | -3.4  | -1.9  | 4300N | 4763E |
| 4788  | 4300 | -1.8  | -1.0  | 4300N | 4788E |
| 4813  | 4300 | -1.8  | -1.0  | 4300N | 4813E |
| 4838  | 4300 | -2.1  | -1.2  | 4300N | 4838E |
| 4863  | 4300 | -1.1  | -0.6  | 4300N | 4863E |
| 4888  | 4300 | 0.0   | 0.0   | 4300N | 4888E |
| 4913  | 4300 | -1.3  | -0.7  | 4300N | 4913E |

|      |      |      |      |       |       |
|------|------|------|------|-------|-------|
| 4938 | 4300 | -2.6 | -1.5 | 4300N | 4938E |
| 4963 | 4300 | -2.5 | -1.4 | 4300N | 4963E |
| 4988 | 4300 | -2.4 | -1.4 | 4300N | 4988E |
| 5013 | 4300 | -2.2 | -1.3 | 4300N | 5013E |
| 5038 | 4300 | -0.1 | -0.1 | 4300N | 5038E |
| 5063 | 4300 | 3.0  | 1.7  | 4300N | 5063E |
| 5088 | 4300 | 2.9  | 1.7  | 4300N | 5088E |
| 5113 | 4300 | -0.2 | -0.1 | 4300N | 5113E |
| 5138 | 4300 | -2.7 | -1.6 | 4300N | 5138E |
| 5163 | 4300 | -3.1 | -1.8 | 4300N | 5163E |
| 5188 | 4300 | -3.4 | -1.9 | 4300N | 5188E |
| 5213 | 4300 | -2.5 | -1.5 | 4300N | 5213E |
| 5238 | 4300 | -1.8 | -1.0 | 4300N | 5238E |
| 5263 | 4300 | -3.9 | -2.2 | 4300N | 5263E |
| 4738 | 4400 | -1.5 | -0.8 | 4400N | 4738E |
| 4763 | 4400 | -1.6 | -0.9 | 4400N | 4763E |
| 4788 | 4400 | -2.5 | -1.4 | 4400N | 4788E |
| 4813 | 4400 | -2.1 | -1.1 | 4400N | 4813E |
| 4838 | 4400 | -2.6 | -1.5 | 4400N | 4838E |
| 4863 | 4400 | -3.9 | -2.2 | 4400N | 4863E |
| 4888 | 4400 | -3.4 | -1.9 | 4400N | 4888E |
| 4913 | 4400 | -2.7 | -1.5 | 4400N | 4913E |
| 4938 | 4400 | -2.6 | -1.4 | 4400N | 4938E |
| 4963 | 4400 | -2.7 | -1.6 | 4400N | 4963E |
| 4988 | 4400 | -1.1 | -0.6 | 4400N | 4988E |
| 5013 | 4400 | 3.4  | 2.0  | 4400N | 5013E |
| 5038 | 4400 | 4.9  | 2.8  | 4400N | 5038E |
| 5063 | 4400 | 0.4  | 0.2  | 4400N | 5063E |
| 5088 | 4400 | -3.1 | -1.8 | 4400N | 5088E |
| 5113 | 4400 | -3.4 | -2.0 | 4400N | 5113E |
| 5138 | 4400 | -3.5 | -2.0 | 4400N | 5138E |
| 5163 | 4400 | -3.9 | -2.2 | 4400N | 5163E |
| 5188 | 4400 | -3.7 | -2.1 | 4400N | 5188E |
| 5213 | 4400 | -4.5 | -2.5 | 4400N | 5213E |
| 5238 | 4400 | 0.4  | 0.2  | 4400N | 5238E |
| 5263 | 4400 | 8.2  | 4.7  | 4400N | 5263E |
| 4763 | 4500 | -2.6 | -1.5 | 4500N | 4763E |
| 4788 | 4500 | -2.1 | -1.2 | 4500N | 4788E |
| 4813 | 4500 | -3.1 | -1.8 | 4500N | 4813E |
| 4838 | 4500 | -1.8 | -1.1 | 4500N | 4838E |
| 4863 | 4500 | 1.3  | 0.7  | 4500N | 4863E |
| 4888 | 4500 | 0.9  | 0.5  | 4500N | 4888E |
| 4913 | 4500 | -0.6 | -0.3 | 4500N | 4913E |
| 4938 | 4500 | 0.8  | 0.5  | 4500N | 4938E |
| 4963 | 4500 | 1.3  | 0.8  | 4500N | 4963E |
| 4988 | 4500 | -1.8 | -1.0 | 4500N | 4988E |
| 5013 | 4500 | -3.4 | -1.9 | 4500N | 5013E |
| 5038 | 4500 | -3.3 | -1.9 | 4500N | 5038E |
| 5063 | 4500 | -3.4 | -2.0 | 4500N | 5063E |
| 5088 | 4500 | -3.5 | -2.0 | 4500N | 5088E |
| 5113 | 4500 | -5.8 | -3.3 | 4500N | 5113E |
| 5138 | 4500 | -7.5 | -4.2 | 4500N | 5138E |
| 5163 | 4500 | -6.3 | -3.5 | 4500N | 5163E |
| 5188 | 4500 | 2.1  | 1.2  | 4500N | 5188E |
| 5213 | 4500 | 13.1 | 7.3  | 4500N | 5213E |
| 5238 | 4500 | 11.8 | 6.7  | 4500N | 5238E |
| 5263 | 4500 | 9.1  | 5.0  | 4500N | 5263E |
| 4738 | 4600 | -2.9 | -1.7 | 4600N | 4738E |
| 4763 | 4600 | -3.7 | -2.1 | 4600N | 4763E |
| 4788 | 4600 | -1.9 | -1.1 | 4600N | 4788E |
| 4813 | 4600 | 0.5  | 0.3  | 4600N | 4813E |
| 4838 | 4600 | 0.2  | 0.1  | 4600N | 4838E |
| 4863 | 4600 | -0.7 | -0.4 | 4600N | 4863E |
| 4888 | 4600 | -0.8 | -0.5 | 4600N | 4888E |
| 4913 | 4600 | 0.1  | 0.1  | 4600N | 4913E |
| 4938 | 4600 | 0.2  | 0.1  | 4600N | 4938E |
| 4963 | 4600 | -1.6 | -0.9 | 4600N | 4963E |
| 4988 | 4600 | -3.0 | -1.8 | 4600N | 4988E |
| 5013 | 4600 | -4.5 | -2.6 | 4600N | 5013E |
| 5038 | 4600 | -6.0 | -3.4 | 4600N | 5038E |
| 5063 | 4600 | -6.3 | -3.5 | 4600N | 5063E |
| 5088 | 4600 | -5.7 | -3.1 | 4600N | 5088E |
| 5113 | 4600 | -5.9 | -3.2 | 4600N | 5113E |
| 5138 | 4600 | -3.2 | -1.7 | 4600N | 5138E |
| 5163 | 4600 | 4.9  | 2.7  | 4600N | 5163E |
| 5188 | 4600 | 12.7 | 7.0  | 4600N | 5188E |
| 5213 | 4600 | 14.7 | 8.3  | 4600N | 5213E |
| 5238 | 4600 | 11.8 | 6.7  | 4600N | 5238E |
| 5263 | 4600 | 7.0  | 3.9  | 4600N | 5263E |
| 4738 | 4700 | 0.9  | 0.5  | 4700N | 4738E |

|      |      |      |      |       |       |
|------|------|------|------|-------|-------|
| 4763 | 4700 | 0.0  | 0.0  | 4700N | 4763E |
| 4788 | 4700 | -0.3 | -0.2 | 4700N | 4788E |
| 4813 | 4700 | 0.0  | 0.0  | 4700N | 4813E |
| 4838 | 4700 | -1.3 | -0.7 | 4700N | 4838E |
| 4863 | 4700 | -4.1 | -2.3 | 4700N | 4863E |
| 4888 | 4700 | -4.9 | -2.8 | 4700N | 4888E |
| 4913 | 4700 | -4.1 | -2.4 | 4700N | 4913E |
| 4938 | 4700 | -3.8 | -2.2 | 4700N | 4938E |
| 4963 | 4700 | -4.1 | -2.3 | 4700N | 4963E |
| 4988 | 4700 | -4.8 | -2.7 | 4700N | 4988E |
| 5013 | 4700 | -5.9 | -3.2 | 4700N | 5013E |
| 5038 | 4700 | -6.5 | -3.4 | 4700N | 5038E |
| 5063 | 4700 | -4.1 | -2.2 | 4700N | 5063E |
| 5088 | 4700 | -0.4 | -0.3 | 4700N | 5088E |
| 5113 | 4700 | 0.5  | 0.1  | 4700N | 5113E |
| 5138 | 4700 | -4.9 | -2.3 | 4700N | 5138E |
| 5163 | 4700 | -4.0 | -1.7 | 4700N | 5163E |
| 5188 | 4700 | 15.4 | 8.3  | 4700N | 5188E |
| 5213 | 4700 | 28.0 | 15.3 | 4700N | 5213E |
| 5238 | 4700 | 18.8 | 10.5 | 4700N | 5238E |
| 5263 | 4700 | 6.7  | 3.6  | 4700N | 5263E |
| 4738 | 4800 | -3.0 | -1.7 | 4800N | 4738E |
| 4763 | 4800 | -2.0 | -1.1 | 4800N | 4763E |
| 4788 | 4800 | -3.1 | -1.8 | 4800N | 4788E |
| 4813 | 4800 | -5.1 | -3.0 | 4800N | 4813E |
| 4838 | 4800 | -5.4 | -3.0 | 4800N | 4838E |
| 4863 | 4800 | -2.2 | -1.2 | 4800N | 4863E |
| 4888 | 4800 | 2.8  | 1.6  | 4800N | 4888E |
| 4913 | 4800 | 3.1  | 1.8  | 4800N | 4913E |
| 4938 | 4800 | -1.2 | -0.6 | 4800N | 4938E |
| 4963 | 4800 | -4.5 | -2.6 | 4800N | 4963E |
| 4988 | 4800 | -5.8 | -3.3 | 4800N | 4988E |
| 5013 | 4800 | -5.5 | -3.1 | 4800N | 5013E |
| 5038 | 4800 | -4.0 | -2.3 | 4800N | 5038E |
| 5063 | 4800 | -1.6 | -1.1 | 4800N | 5063E |
| 5088 | 4800 | -3.1 | -1.9 | 4800N | 5088E |
| 5113 | 4800 | -2.8 | -1.5 | 4800N | 5113E |
| 5138 | 4800 | 10.3 | 6.0  | 4800N | 5138E |
| 5163 | 4800 | 23.5 | 13.4 | 4800N | 5163E |
| 5188 | 4800 | 23.3 | 13.0 | 4800N | 5188E |
| 5213 | 4800 | 11.4 | 6.1  | 4800N | 5213E |
| 5238 | 4800 | -1.8 | -0.9 | 4800N | 5238E |
| 5263 | 4800 | -6.9 | -3.5 | 4800N | 5263E |
| 4738 | 4900 | -3.1 | -1.7 | 4900N | 4738E |
| 4763 | 4900 | -4.8 | -2.7 | 4900N | 4763E |
| 4788 | 4900 | -6.4 | -3.7 | 4900N | 4788E |
| 4813 | 4900 | -5.8 | -3.3 | 4900N | 4813E |
| 4838 | 4900 | -1.9 | -1.1 | 4900N | 4838E |
| 4863 | 4900 | 5.7  | 3.3  | 4900N | 4863E |
| 4888 | 4900 | 9.2  | 5.2  | 4900N | 4888E |
| 4913 | 4900 | 3.6  | 2.1  | 4900N | 4913E |
| 4938 | 4900 | -2.2 | -1.3 | 4900N | 4938E |
| 4963 | 4900 | -2.9 | -1.6 | 4900N | 4963E |
| 4988 | 4900 | -0.7 | -0.4 | 4900N | 4988E |
| 5013 | 4900 | 2.6  | 1.4  | 4900N | 5013E |
| 5038 | 4900 | 3.8  | 2.2  | 4900N | 5038E |
| 5063 | 4900 | 2.8  | 1.6  | 4900N | 5063E |
| 5088 | 4900 | 3.1  | 1.8  | 4900N | 5088E |
| 5113 | 4900 | 3.8  | 2.2  | 4900N | 5113E |
| 5138 | 4900 | 4.1  | 2.3  | 4900N | 5138E |
| 5163 | 4900 | 3.3  | 1.8  | 4900N | 5163E |
| 5188 | 4900 | 2.3  | 1.2  | 4900N | 5188E |
| 5213 | 4900 | 1.4  | 0.8  | 4900N | 5213E |
| 5238 | 4900 | -0.2 | -0.1 | 4900N | 5238E |
| 5263 | 4900 | -1.7 | -1.0 | 4900N | 5263E |
| 4738 | 5000 | -2.7 | -1.5 | 5000N | 4738E |
| 4763 | 5000 | 1.8  | 1.0  | 5000N | 4763E |
| 4788 | 5000 | 3.3  | 1.8  | 5000N | 4788E |
| 4813 | 5000 | 3.2  | 1.8  | 5000N | 4813E |
| 4838 | 5000 | 2.3  | 1.3  | 5000N | 4838E |
| 4863 | 5000 | 0.6  | 0.4  | 5000N | 4863E |
| 4888 | 5000 | -0.9 | -0.5 | 5000N | 4888E |
| 4913 | 5000 | -1.2 | -0.7 | 5000N | 4913E |
| 4938 | 5000 | 1.0  | 0.6  | 5000N | 4938E |
| 4963 | 5000 | 2.5  | 1.4  | 5000N | 4963E |
| 4988 | 5000 | 2.6  | 1.5  | 5000N | 4988E |
| 5013 | 5000 | 3.0  | 1.7  | 5000N | 5013E |
| 5038 | 5000 | 2.2  | 1.2  | 5000N | 5038E |
| 5063 | 5000 | 0.8  | 0.5  | 5000N | 5063E |
| 5088 | 5000 | -0.5 | -0.3 | 5000N | 5088E |

|      |      |      |      |       |       |
|------|------|------|------|-------|-------|
| 5113 | 5000 | -1.3 | -0.8 | 5000N | 5113E |
| 5138 | 5000 | 1.4  | 0.8  | 5000N | 5138E |
| 5163 | 5000 | 3.4  | 1.9  | 5000N | 5163E |
| 5188 | 5000 | 1.1  | 0.6  | 5000N | 5188E |
| 5213 | 5000 | -1.3 | -0.7 | 5000N | 5213E |
| 5238 | 5000 | -3.1 | -1.8 | 5000N | 5238E |
| 5263 | 5000 | -3.5 | -2.0 | 5000N | 5263E |

TOTAL FIELD Magnetometer Survey  
 Instrument: OMNI-IV  
 Base Station: OMNI-IV

| North | East | Sig   | Mag     | LINE  | STN   |
|-------|------|-------|---------|-------|-------|
| 4000  | 4700 | 788   | 56659.2 | 4000N | 4700E |
| 4000  | 4725 | 888   | 56382.5 | 4000N | 4725E |
| 4000  | 4750 | 788   | 56280.6 | 4000N | 4750E |
| 4000  | 4775 | 888   | 56710.2 | 4000N | 4775E |
| 4000  | 4800 | 588   | 56691.3 | 4000N | 4800E |
| 4000  | 4825 | 1088  | 56927.9 | 4000N | 4825E |
| 4000  | 4850 | 1088  | 56505.1 | 4000N | 4850E |
| 4000  | 4875 | 1288  | 57058.3 | 4000N | 4875E |
| 4000  | 4900 | 32088 | 57035.8 | 4000N | 4900E |
| 4000  | 4925 | 29088 | 56551.8 | 4000N | 4925E |
| 4000  | 4950 | 1088  | 56308.1 | 4000N | 4950E |
| 4000  | 4975 | 10088 | 56233.0 | 4000N | 4975E |
| 4000  | 5000 | 6188  | 56188.4 | 4000N | 5000E |
| 4000  | 5025 | 9288  | 56179.2 | 4000N | 5025E |
| 4000  | 5050 | 988   | 56059.0 | 4000N | 5050E |
| 4000  | 5075 | 1288  | 56058.8 | 4000N | 5075E |
| 4000  | 5100 | 4788  | 56153.2 | 4000N | 5100E |
| 4000  | 5125 | 1488  | 55885.9 | 4000N | 5125E |
| 4000  | 5150 | 11088 | 56080.6 | 4000N | 5150E |
| 4000  | 5175 | 1288  | 55944.6 | 4000N | 5175E |
| 4000  | 5200 | 1388  | 55763.7 | 4000N | 5200E |
| 4000  | 5225 | 888   | 55691.2 | 4000N | 5225E |
| 4000  | 5250 | 888   | 55546.7 | 4000N | 5250E |
| 4000  | 5275 | 888   | 55471.3 | 4000N | 5275E |
| 4000  | 5300 | 888   | 55416.9 | 4000N | 5300E |
| 4100  | 4700 | 688   | 56222.2 | 4100N | 4700E |
| 4100  | 4725 | 888   | 56206.1 | 4100N | 4725E |
| 4100  | 4750 | 788   | 56222.9 | 4100N | 4750E |
| 4100  | 4775 | 888   | 56351.1 | 4100N | 4775E |
| 4100  | 4800 | 588   | 56579.2 | 4100N | 4800E |
| 4100  | 4825 | 788   | 56521.2 | 4100N | 4825E |
| 4100  | 4850 | 1088  | 55957.6 | 4100N | 4850E |
| 4100  | 4875 | 788   | 55927.1 | 4100N | 4875E |
| 4100  | 4900 | 688   | 55958.6 | 4100N | 4900E |
| 4100  | 4925 | 788   | 56003.9 | 4100N | 4925E |
| 4100  | 4950 | 588   | 56086.2 | 4100N | 4950E |
| 4100  | 4975 | 688   | 56132.5 | 4100N | 4975E |
| 4100  | 5000 | 688   | 56130.3 | 4100N | 5000E |
| 4100  | 5025 | 888   | 56131.0 | 4100N | 5025E |
| 4100  | 5050 | 1088  | 56131.3 | 4100N | 5050E |
| 4100  | 5075 | 788   | 55896.7 | 4100N | 5075E |
| 4100  | 5100 | 688   | 55835.1 | 4100N | 5100E |
| 4100  | 5125 | 688   | 55814.8 | 4100N | 5125E |
| 4100  | 5150 | 688   | 55795.0 | 4100N | 5150E |
| 4100  | 5175 | 788   | 55665.7 | 4100N | 5175E |
| 4100  | 5200 | 788   | 55616.3 | 4100N | 5200E |
| 4100  | 5225 | 688   | 55481.8 | 4100N | 5225E |
| 4100  | 5250 | 688   | 55489.3 | 4100N | 5250E |
| 4100  | 5275 | 688   | 55366.1 | 4100N | 5275E |
| 4100  | 5300 | 788   | 55322.6 | 4100N | 5300E |
| 4200  | 4700 | 788   | 56279.7 | 4200N | 4700E |
| 4200  | 4725 | 688   | 56259.0 | 4200N | 4725E |
| 4200  | 4750 | 688   | 56252.0 | 4200N | 4750E |
| 4200  | 4775 | 888   | 56171.9 | 4200N | 4775E |
| 4200  | 4800 | 888   | 56127.1 | 4200N | 4800E |
| 4200  | 4825 | 12088 | 56191.4 | 4200N | 4825E |
| 4200  | 4850 | 788   | 56100.5 | 4200N | 4850E |
| 4200  | 4875 | 1088  | 56122.0 | 4200N | 4875E |
| 4200  | 4900 | 788   | 55914.0 | 4200N | 4900E |
| 4200  | 4925 | 688   | 55966.4 | 4200N | 4925E |
| 4200  | 4950 | 988   | 55974.0 | 4200N | 4950E |
| 4200  | 4975 | 588   | 55834.3 | 4200N | 4975E |
| 4200  | 5000 | 888   | 55924.8 | 4200N | 5000E |
| 4200  | 5025 | 588   | 55728.1 | 4200N | 5025E |
| 4200  | 5050 | 688   | 55698.3 | 4200N | 5050E |
| 4200  | 5075 | 788   | 55707.7 | 4200N | 5075E |
| 4200  | 5100 | 888   | 55861.9 | 4200N | 5100E |
| 4200  | 5125 | 788   | 55665.7 | 4200N | 5125E |
| 4200  | 5150 | 888   | 55476.6 | 4200N | 5150E |
| 4200  | 5175 | 688   | 55457.2 | 4200N | 5175E |
| 4200  | 5200 | 588   | 55404.8 | 4200N | 5200E |
| 4200  | 5225 | 688   | 55387.4 | 4200N | 5225E |
| 4200  | 5250 | 688   | 55387.5 | 4200N | 5250E |
| 4200  | 5275 | 588   | 55373.3 | 4200N | 5275E |

|      |      |       |         |       |       |
|------|------|-------|---------|-------|-------|
| 4200 | 5300 | 688   | 55356.3 | 4200N | 5300E |
| 4300 | 4700 | 688   | 56061.2 | 4300N | 4700E |
| 4300 | 4725 | 788   | 56056.6 | 4300N | 4725E |
| 4300 | 4750 | 788   | 56047.5 | 4300N | 4750E |
| 4300 | 4775 | 688   | 56197.8 | 4300N | 4775E |
| 4300 | 4800 | 588   | 55963.6 | 4300N | 4800E |
| 4300 | 4825 | 788   | 55891.5 | 4300N | 4825E |
| 4300 | 4850 | 1088  | 55842.2 | 4300N | 4850E |
| 4300 | 4875 | 688   | 55943.5 | 4300N | 4875E |
| 4300 | 4900 | 688   | 55762.0 | 4300N | 4900E |
| 4300 | 4925 | 588   | 55721.5 | 4300N | 4925E |
| 4300 | 4950 | 588   | 55700.0 | 4300N | 4950E |
| 4300 | 4975 | 588   | 55637.9 | 4300N | 4975E |
| 4300 | 5000 | 988   | 55550.3 | 4300N | 5000E |
| 4300 | 5025 | 688   | 55554.6 | 4300N | 5025E |
| 4300 | 5050 | 588   | 55651.5 | 4300N | 5050E |
| 4300 | 5075 | 688   | 55674.7 | 4300N | 5075E |
| 4300 | 5100 | 588   | 55578.8 | 4300N | 5100E |
| 4300 | 5125 | 588   | 55464.3 | 4300N | 5125E |
| 4300 | 5150 | 588   | 55437.1 | 4300N | 5150E |
| 4300 | 5175 | 688   | 55455.0 | 4300N | 5175E |
| 4300 | 5200 | 11088 | 55404.2 | 4300N | 5200E |
| 4300 | 5225 | 588   | 55420.8 | 4300N | 5225E |
| 4300 | 5250 | 788   | 55233.6 | 4300N | 5250E |
| 4300 | 5275 | 1088  | 55336.5 | 4300N | 5275E |
| 4300 | 5300 | 1088  | 55400.9 | 4300N | 5300E |
| 4400 | 4700 | 987   | 55907.6 | 4400N | 4700E |
| 4400 | 4725 | 788   | 55781.2 | 4400N | 4725E |
| 4400 | 4750 | 688   | 55760.5 | 4400N | 4750E |
| 4400 | 4775 | 588   | 55754.7 | 4400N | 4775E |
| 4400 | 4800 | 988   | 55628.2 | 4400N | 4800E |
| 4400 | 4825 | 788   | 55562.0 | 4400N | 4825E |
| 4400 | 4850 | 1188  | 55017.0 | 4400N | 4850E |
| 4400 | 4875 | 36085 | 54086.3 | 4400N | 4875E |
| 4400 | 4900 | 588   | 55588.4 | 4400N | 4900E |
| 4400 | 4925 | 588   | 55540.8 | 4400N | 4925E |
| 4400 | 4950 | 588   | 55522.0 | 4400N | 4950E |
| 4400 | 4975 | 888   | 55488.2 | 4400N | 4975E |
| 4400 | 5000 | 588   | 55530.5 | 4400N | 5000E |
| 4400 | 5025 | 788   | 55458.7 | 4400N | 5025E |
| 4400 | 5050 | 888   | 55435.9 | 4400N | 5050E |
| 4400 | 5075 | 788   | 55437.4 | 4400N | 5075E |
| 4400 | 5100 | 688   | 55531.9 | 4400N | 5100E |
| 4400 | 5125 | 988   | 55386.2 | 4400N | 5125E |
| 4400 | 5150 | 1188  | 55420.5 | 4400N | 5150E |
| 4400 | 5175 | 788   | 55367.7 | 4400N | 5175E |
| 4400 | 5200 | 888   | 55372.8 | 4400N | 5200E |
| 4400 | 5225 | 10088 | 55396.5 | 4400N | 5225E |
| 4400 | 5250 | 688   | 55372.1 | 4400N | 5250E |
| 4400 | 5275 | 988   | 54964.5 | 4400N | 5275E |
| 4400 | 5300 | 888   | 55240.1 | 4400N | 5300E |
| 4500 | 4725 | 688   | 55610.3 | 4500N | 4725E |
| 4500 | 4750 | 788   | 55556.3 | 4500N | 4750E |
| 4500 | 4775 | 888   | 55562.7 | 4500N | 4775E |
| 4500 | 4800 | 888   | 55489.3 | 4500N | 4800E |
| 4500 | 4825 | 788   | 55520.1 | 4500N | 4825E |
| 4500 | 4850 | 988   | 55540.9 | 4500N | 4850E |
| 4500 | 4875 | 988   | 55510.7 | 4500N | 4875E |
| 4500 | 4900 | 688   | 55467.5 | 4500N | 4900E |
| 4500 | 4925 | 11088 | 55387.1 | 4500N | 4925E |
| 4500 | 4950 | 1188  | 55598.1 | 4500N | 4950E |
| 4500 | 4975 | 588   | 55537.3 | 4500N | 4975E |
| 4500 | 5000 | 1286  | 55398.2 | 4500N | 5000E |
| 4500 | 5025 | 688   | 55418.1 | 4500N | 5025E |
| 4500 | 5050 | 788   | 55470.4 | 4500N | 5050E |
| 4500 | 5075 | 588   | 55539.3 | 4500N | 5075E |
| 4500 | 5100 | 688   | 55520.2 | 4500N | 5100E |
| 4500 | 5125 | 688   | 55386.3 | 4500N | 5125E |
| 4500 | 5150 | 588   | 55365.3 | 4500N | 5150E |
| 4500 | 5175 | 788   | 55347.7 | 4500N | 5175E |
| 4500 | 5200 | 688   | 55457.1 | 4500N | 5200E |
| 4500 | 5225 | 688   | 55465.9 | 4500N | 5225E |
| 4500 | 5250 | 688   | 55425.2 | 4500N | 5250E |
| 4500 | 5275 | 588   | 55427.3 | 4500N | 5275E |
| 4500 | 5300 | 688   | 55453.0 | 4500N | 5300E |
| 4600 | 4700 | 788   | 55506.6 | 4600N | 4700E |
| 4600 | 4725 | 888   | 55537.9 | 4600N | 4725E |
| 4600 | 4750 | 888   | 55484.7 | 4600N | 4750E |
| 4600 | 4775 | 688   | 55463.4 | 4600N | 4775E |
| 4600 | 4800 | 788   | 55488.0 | 4600N | 4800E |

|      |      |       |         |       |       |      |      |     |         |       |       |
|------|------|-------|---------|-------|-------|------|------|-----|---------|-------|-------|
| 4600 | 4825 | 688   | 55473.0 | 4600N | 4825E | 4900 | 4950 | 588 | 55557.0 | 4900N | 4950E |
| 4600 | 4850 | 1488  | 55251.5 | 4600N | 4850E | 4900 | 4975 | 588 | 55531.0 | 4900N | 4975E |
| 4600 | 4875 | 788   | 55481.1 | 4600N | 4875E | 4900 | 5000 | 588 | 55503.5 | 4900N | 5000E |
| 4600 | 4900 | 888   | 55514.3 | 4600N | 4900E | 4900 | 5025 | 588 | 55482.4 | 4900N | 5025E |
| 4600 | 4925 | 788   | 56313.7 | 4600N | 4925E | 4900 | 5050 | 788 | 55503.4 | 4900N | 5050E |
| 4600 | 4950 | 988   | 56573.1 | 4600N | 4950E | 4900 | 5075 | 688 | 55511.4 | 4900N | 5075E |
| 4600 | 4975 | 888   | 55925.1 | 4600N | 4975E | 4900 | 5100 | 688 | 55543.0 | 4900N | 5100E |
| 4600 | 5000 | 1288  | 55518.3 | 4600N | 5000E | 4900 | 5125 | 688 | 55584.6 | 4900N | 5125E |
| 4600 | 5025 | 588   | 55485.9 | 4600N | 5025E | 4900 | 5150 | 588 | 55600.0 | 4900N | 5150E |
| 4600 | 5050 | 688   | 55433.6 | 4600N | 5050E | 4900 | 5175 | 688 | 55580.9 | 4900N | 5175E |
| 4600 | 5075 | 688   | 55387.6 | 4600N | 5075E | 4900 | 5200 | 688 | 55816.3 | 4900N | 5200E |
| 4600 | 5100 | 688   | 55387.3 | 4600N | 5100E | 4900 | 5225 | 588 | 55598.7 | 4900N | 5225E |
| 4600 | 5125 | 688   | 55387.2 | 4600N | 5125E | 4900 | 5250 | 588 | 55873.4 | 4900N | 5250E |
| 4600 | 5150 | 688   | 55358.7 | 4600N | 5150E | 4900 | 5275 | 688 | 55578.3 | 4900N | 5275E |
| 4600 | 5175 | 588   | 55662.4 | 4600N | 5175E | 4900 | 5300 | 588 | 55732.7 | 4900N | 5300E |
| 4600 | 5200 | 988   | 55315.4 | 4600N | 5200E | 5000 | 4700 | 688 | 55415.5 | 5000N | 4700E |
| 4600 | 5225 | 888   | 55387.5 | 4600N | 5225E | 5000 | 4725 | 588 | 55446.8 | 5000N | 4725E |
| 4600 | 5250 | 688   | 55453.5 | 4600N | 5250E | 5000 | 4750 | 688 | 55468.1 | 5000N | 4750E |
| 4600 | 5275 | 588   | 55500.1 | 4600N | 5275E | 5000 | 4775 | 588 | 55490.2 | 5000N | 4775E |
| 4600 | 5300 | 588   | 55493.9 | 4600N | 5300E | 5000 | 4800 | 588 | 55539.1 | 5000N | 4800E |
| 4700 | 4700 | 688   | 55478.8 | 4700N | 4700E | 5000 | 4825 | 688 | 55540.2 | 5000N | 4825E |
| 4700 | 4725 | 688   | 55467.1 | 4700N | 4725E | 5000 | 4850 | 688 | 55582.6 | 5000N | 4850E |
| 4700 | 4750 | 688   | 55464.2 | 4700N | 4750E | 5000 | 4875 | 588 | 55610.8 | 5000N | 4875E |
| 4700 | 4775 | 888   | 55355.6 | 4700N | 4775E | 5000 | 4900 | 588 | 55579.9 | 5000N | 4900E |
| 4700 | 4800 | 688   | 55523.8 | 4700N | 4800E | 5000 | 4925 | 588 | 55581.3 | 5000N | 4925E |
| 4700 | 4825 | 688   | 55457.1 | 4700N | 4825E | 5000 | 4950 | 688 | 55596.3 | 5000N | 4950E |
| 4700 | 4850 | 688   | 55471.7 | 4700N | 4850E | 5000 | 4975 | 688 | 55579.1 | 5000N | 4975E |
| 4700 | 4875 | 788   | 55345.9 | 4700N | 4875E | 5000 | 5000 | 588 | 55614.9 | 5000N | 5000E |
| 4700 | 4900 | 688   | 55383.3 | 4700N | 4900E | 5000 | 5025 | 688 | 55636.1 | 5000N | 5025E |
| 4700 | 4925 | 688   | 55434.4 | 4700N | 4925E | 5000 | 5050 | 588 | 55724.5 | 5000N | 5050E |
| 4700 | 4950 | 788   | 55553.1 | 4700N | 4950E | 5000 | 5075 | 688 | 55737.8 | 5000N | 5075E |
| 4700 | 4975 | 688   | 55557.1 | 4700N | 4975E | 5000 | 5100 | 588 | 55713.3 | 5000N | 5100E |
| 4700 | 5000 | 688   | 55501.2 | 4700N | 5000E | 5000 | 5125 | 588 | 55779.7 | 5000N | 5125E |
| 4700 | 5025 | 688   | 55468.3 | 4700N | 5025E | 5000 | 5150 | 688 | 55689.9 | 5000N | 5150E |
| 4700 | 5050 | 988   | 55411.6 | 4700N | 5050E | 5000 | 5175 | 588 | 55765.2 | 5000N | 5175E |
| 4700 | 5075 | 588   | 55533.0 | 4700N | 5075E | 5000 | 5200 | 588 | 55855.5 | 5000N | 5200E |
| 4700 | 5100 | 688   | 55359.7 | 4700N | 5100E | 5000 | 5225 | 588 | 55857.8 | 5000N | 5225E |
| 4700 | 5125 | 788   | 55354.0 | 4700N | 5125E | 5000 | 5250 | 588 | 55834.1 | 5000N | 5250E |
| 4700 | 5150 | 1188  | 55403.3 | 4700N | 5150E | 5000 | 5275 | 588 | 55866.7 | 5000N | 5275E |
| 4700 | 5175 | 588   | 55440.6 | 4700N | 5175E | 5000 | 5300 | 588 | 55769.1 | 5000N | 5300E |
| 4700 | 5200 | 588   | 55458.2 | 4700N | 5200E |      |      |     |         |       |       |
| 4700 | 5225 | 788   | 55459.5 | 4700N | 5225E |      |      |     |         |       |       |
| 4700 | 5250 | 788   | 55532.2 | 4700N | 5250E |      |      |     |         |       |       |
| 4700 | 5275 | 788   | 55674.4 | 4700N | 5275E |      |      |     |         |       |       |
| 4700 | 5300 | 688   | 55942.7 | 4700N | 5300E |      |      |     |         |       |       |
| 4800 | 4700 | 588   | 55484.9 | 4800N | 4700E |      |      |     |         |       |       |
| 4800 | 4725 | 588   | 55482.0 | 4800N | 4725E |      |      |     |         |       |       |
| 4800 | 4750 | 588   | 55521.5 | 4800N | 4750E |      |      |     |         |       |       |
| 4800 | 4775 | 688   | 55514.2 | 4800N | 4775E |      |      |     |         |       |       |
| 4800 | 4800 | 788   | 55517.7 | 4800N | 4800E |      |      |     |         |       |       |
| 4800 | 4825 | 588   | 55485.1 | 4800N | 4825E |      |      |     |         |       |       |
| 4800 | 4850 | 688   | 55514.7 | 4800N | 4850E |      |      |     |         |       |       |
| 4800 | 4875 | 688   | 55501.9 | 4800N | 4875E |      |      |     |         |       |       |
| 4800 | 4900 | 788   | 55525.5 | 4800N | 4900E |      |      |     |         |       |       |
| 4800 | 4925 | 888   | 55379.3 | 4800N | 4925E |      |      |     |         |       |       |
| 4800 | 4950 | 588   | 55456.7 | 4800N | 4950E |      |      |     |         |       |       |
| 4800 | 4975 | 688   | 55477.8 | 4800N | 4975E |      |      |     |         |       |       |
| 4800 | 5000 | 688   | 55495.2 | 4800N | 5000E |      |      |     |         |       |       |
| 4800 | 5025 | 688   | 55417.8 | 4800N | 5025E |      |      |     |         |       |       |
| 4800 | 5050 | 24088 | 55554.8 | 4800N | 5050E |      |      |     |         |       |       |
| 4800 | 5075 | 788   | 55405.0 | 4800N | 5075E |      |      |     |         |       |       |
| 4800 | 5100 | 588   | 55456.2 | 4800N | 5100E |      |      |     |         |       |       |
| 4800 | 5125 | 588   | 55467.1 | 4800N | 5125E |      |      |     |         |       |       |
| 4800 | 5150 | 688   | 55467.5 | 4800N | 5150E |      |      |     |         |       |       |
| 4800 | 5175 | 688   | 55522.1 | 4800N | 5175E |      |      |     |         |       |       |
| 4800 | 5200 | 688   | 55438.2 | 4800N | 5200E |      |      |     |         |       |       |
| 4800 | 5225 | 688   | 55552.5 | 4800N | 5225E |      |      |     |         |       |       |
| 4800 | 5250 | 588   | 55595.4 | 4800N | 5250E |      |      |     |         |       |       |
| 4800 | 5275 | 788   | 55794.3 | 4800N | 5275E |      |      |     |         |       |       |
| 4800 | 5300 | 688   | 55442.9 | 4800N | 5300E |      |      |     |         |       |       |
| 4900 | 4700 | 588   | 55838.1 | 4900N | 4700E |      |      |     |         |       |       |
| 4900 | 4725 | 588   | 55514.4 | 4900N | 4725E |      |      |     |         |       |       |
| 4900 | 4750 | 588   | 55493.3 | 4900N | 4750E |      |      |     |         |       |       |
| 4900 | 4775 | 688   | 55475.5 | 4900N | 4775E |      |      |     |         |       |       |
| 4900 | 4800 | 588   | 55591.5 | 4900N | 4800E |      |      |     |         |       |       |
| 4900 | 4825 | 588   | 55562.4 | 4900N | 4825E |      |      |     |         |       |       |
| 4900 | 4850 | 688   | 55555.3 | 4900N | 4850E |      |      |     |         |       |       |
| 4900 | 4875 | 588   | 55492.5 | 4900N | 4875E |      |      |     |         |       |       |
| 4900 | 4900 | 588   | 55475.2 | 4900N | 4900E |      |      |     |         |       |       |
| 4900 | 4925 | 588   | 55517.1 | 4900N | 4925E |      |      |     |         |       |       |

**APPENDIX B**

**DIAMOND DRILL HOLES, SUMMARY LOGS**



DDH A.4, Azimuth 360°, Dip -60°, Length 907 ft.

| Sample No | Year Sampled | Interval (ft) |         | Width (ft) | Cu % | Cu (ppm) | Comments                                     |
|-----------|--------------|---------------|---------|------------|------|----------|----------------------------------------------|
|           |              | From          | To      |            |      |          |                                              |
| 5227-28   | 1972         | 119           | 136     | 17         | 2.96 |          | True thickness 12 ft.<br>Poor core recovery. |
| GR-005    | 1991         | 131.5         | 133.5   | 2          | 4.73 |          |                                              |
| GR-004    | 1991         | 153.3         | 156.6   | 3.3        |      | 5621     |                                              |
| 5229-31   | 1972         | 153           | 170     | 17         | 0.73 |          | True thickness 12 ft.                        |
| 18705     | 1985         | 158-169       | 159-170 | 1          | )    |          | 5729 Composite Sample                        |
|           |              | 193           | 194     | 1          | )    |          |                                              |
| 5232      | 1972         | 190           | 196     | 6          | 0.54 |          |                                              |
| 18707     | 1985         | 271-678       | 272-688 | 1          | )    |          | 2110 Composite                               |
|           |              | 238           | 240     | 2          | )    | 748      |                                              |
| 18706     | 1985         | 238           | 240     | 2          |      | 748      |                                              |
| 5233-36   | 1972         | 659           | 676     | 17         | 0.55 |          | True thickness 12 ft.                        |

DDH A.5 Azimuth 360°, Dip -45°, Length 286 ft.

| Sample No | Year Sampled | Interval (ft) |         | Width (ft) | Cu % | Cu (ppm) | Comments              |
|-----------|--------------|---------------|---------|------------|------|----------|-----------------------|
|           |              | From          | To      |            |      |          |                       |
| 5243-44   | 1972         | 27            | 39      | 12         | 1.70 |          | True thickness 6 ft.  |
| 5237-42   | 1972         | 171           | 200     | 29         | 0.31 |          | True thickness 15 ft. |
| 18708     | 1985         | 181-188       | 182-189 | 1          | )    |          | 3034 Composite Sample |
|           |              |               |         | 1          | )    |          |                       |
| GR010     | 1991         | 185           | 185     | 2          |      | 4346     |                       |

DDH A.6 Azimuth 025°, Dip -60°, Length 280 ft.

| Sample No | Year Sampled | Analytical Results Interval (ft) |     | Width (ft) | Cu % | Cu (ppm) | Comments             |
|-----------|--------------|----------------------------------|-----|------------|------|----------|----------------------|
|           |              | From                             | To  |            |      |          |                      |
| 5245-47   | 1972         | 27                               | 44  | 17         | 2.11 |          | True thickness 9 ft. |
| GR011     | 1991         | 30                               | 32  | 2          | 3.78 |          |                      |
| 5248      | 1972         | 51                               | 53  | 2          | 1.14 |          |                      |
| 5249-52   | 1972         | 97                               | 119 | 22         | 0.46 |          |                      |
| 18709     | 1985         | 98                               | 99  | 1          | )    | 2710     |                      |
|           |              | 108                              | 109 | 1          | )    |          |                      |

DDH A.7, Azimuth 180°, Dip -60°, Length 485 ft.

The only assay given (1973) was 1.5% over 15 ft. from approximately 370 to 385 ft.

DDH A.8, Azimuth 180°, Dip -60°, Length approx. 550 ft.

| Sample No   | Year Sampled | Analytical Results Interval (ft) |     | Width (ft) | Cu % | Cu (ppm) | Comments  |
|-------------|--------------|----------------------------------|-----|------------|------|----------|-----------|
|             |              | From                             | To  |            |      |          |           |
| AH8 507-510 | 1991         | 507                              | 510 | 3          |      | 392)     |           |
| GR002       | 1991         | 510                              | 512 | 2          |      | 2828)    |           |
| AH8 512-517 | 1991         | 512                              | 517 | 5          |      | 276)     |           |
| AH8 517-519 | 1991         | 517                              | 519 | 2          |      | 3884)    | 1690 ppm  |
| GR003       | 1991         | 519                              | 521 | 2          |      | 909)     | (.17%) Cu |
| AH8 521-ft. |              |                                  |     |            |      | )        | over 20   |
| 527         | 1991         | 521                              | 527 | 6          |      | 1850)    |           |

Sample AH8 517-519 assayed 215 ppb gold

DDH A.9, Azimuth 180°(?), Dip -60°(?), Length, approx. 510 ft.

| Sample No | Year Sampled | Analytical Results Interval (ft) |     | Width (ft) | Cu % | Cu (ppm) | Comments    |
|-----------|--------------|----------------------------------|-----|------------|------|----------|-------------|
|           |              | From                             | To  |            |      |          |             |
| AH 9      |              |                                  |     |            |      |          |             |
| 461-466   | 1991         | 461                              | 466 | 5          |      | 1731)    |             |
| GR001     | 1991         | 466                              | 468 | 2          |      | 3532)    |             |
| AH 9      |              |                                  |     |            |      |          | )           |
| 468-473   | 1991         | 468                              | 473 | 5          |      | 212)     | 1588 ppm    |
| AH 9      |              |                                  |     |            |      |          | ) (.16%)    |
| 473-478   | 1991         | 473                              | 478 | 5          |      | 252)     | over 22 ft. |
| AH 9      |              |                                  |     |            |      |          | )           |
| 478-483   | 1991         | 478                              | 483 | 5          |      | 2212)    |             |

DDH A.10, Azimuth 180°(?), Dip -60°(?), Length, approx. 450 ft.

| Sample No | Year Sampled | Analytical Results Interval (ft) |     | Width (ft) | Cu %   | Cu (ppm) | Comments   |
|-----------|--------------|----------------------------------|-----|------------|--------|----------|------------|
|           |              | From                             | To  |            |        |          |            |
| AH 10     |              |                                  |     |            |        |          |            |
| 399-404   | 1991         | 399                              | 404 | 5          |        | 671)     |            |
| AH10      |              |                                  |     |            |        |          | )          |
| 404-409   | 1991         | 404                              | 409 | 5          |        | 568)     |            |
| AH10      |              |                                  |     |            |        |          | ) 1994 ppm |
| 409-414   | 1991         | 409                              | 414 | 5          | +115   | 4088)    | (19%) Cu   |
|           |              |                                  |     |            | ppb Au |          | ) over 20' |
| AH10      |              |                                  |     |            |        |          | )          |
| 414-419   | 1991         | 414                              | 419 | 5          |        | 2561)    |            |

DDH A.11 Azimuth 180°(?) Dip - 60°(?), Length: 508 ft.

| Sample No | Year Sampled | Interval (ft) |     | Width (ft) | Cu % | Cu (ppm) | Comments                                               |
|-----------|--------------|---------------|-----|------------|------|----------|--------------------------------------------------------|
|           |              | From          | To  |            |      |          |                                                        |
| AH11      |              |               |     |            |      |          |                                                        |
| 430-433   | 1991         | 430           | 433 | 3          |      | 4835)    | 4536 ppm over 22' including 8379 ppm (.84%) over 9 ft. |
| AH11      |              |               |     |            |      | )        |                                                        |
| 433-436   | 1991         | 433           | 436 | 3          | 1.45 | 14400)   |                                                        |
| AH11      |              |               |     |            |      | )        |                                                        |
| 436-439   | 1991         | 436           | 439 | 3          |      | 5901)    |                                                        |
| AH11      |              |               |     |            |      | )        |                                                        |
| 439-442   | 1991         | 439           | 442 | 3          |      | 1958)    |                                                        |
| AH11      |              |               |     |            |      | )        |                                                        |
| 442-445   | 1991         | 442           | 445 | 3          |      | 359)     |                                                        |
| AH11      |              |               |     |            |      | )        |                                                        |
| 445-448   | 1991         | 445           | 448 | 3          |      | 3053)    |                                                        |
| AH11      |              |               |     |            |      | )        |                                                        |
| 448-452   | 1991         | 448           | 452 | 4          |      | 1244)    |                                                        |
| AH11      |              |               |     |            |      | )        |                                                        |
| 452-454   | 1991         | 452           | 454 | 2          |      | 409      |                                                        |

| <u>Analytical Results</u> |              |               |     |            |      |          |            |
|---------------------------|--------------|---------------|-----|------------|------|----------|------------|
| Sample No                 | Year Sampled | Interval (ft) |     | Width (ft) | Cu % | Cu (ppm) | Comments   |
|                           |              | From          | To  |            |      |          |            |
| 5201                      | 1972         | 28.5          | 37  | 8.5        | .20  |          |            |
| 18712                     | 1985         | 51            | 53  | 2          |      | 190      |            |
| 5202-                     |              |               |     |            |      |          | 35 ft.avg. |
| 5208                      | 1972         | 47            | 82  | 35         | 0.08 |          | 0.08%      |
| GR-008                    | 1991         | 66            | 68  | 2          |      | 365      |            |
| 18713                     | 1985         | 77            | 79  | 2          |      | 420      |            |
| 18719                     | 1985         | 367           | 370 | 3          |      | 182      |            |
| 18711                     | 1985         | 395           | 397 | 2          |      | 742      |            |

DDH A.2, Azimuth 030°, Dip -60°, Length 488 ft.

Analytical Results

| Sample No   | Year Sampled | Interval (ft)<br>From | To  | Width (ft) | Cu % | Cu (ppm) | Comments               |
|-------------|--------------|-----------------------|-----|------------|------|----------|------------------------|
| 5212        | 1972         | 17                    | 19  | 2          | 3.30 |          | True thickness 1.5 ft. |
| 5213        | 1972         | 24                    | 28  | 4          | 0.60 |          |                        |
| 5214-15     | 1972         | 37                    | 49  | 12         | 1.75 |          | True thickness 8 ft.   |
| 5216        | 1972         | 64                    | 69  | 5          | 0.22 |          |                        |
| 5217-20     | 1972         | 69                    | 92  | 23         | 0.14 |          |                        |
| 18715       | 1985         | 90                    | 92  | 2          |      | 645      |                        |
| 5221-22     | 1972         | 116                   | 128 | 12         | 0.10 |          |                        |
| 18716       | 1985         | 117                   | 119 | 2          |      | 1142     |                        |
| AH2 136-143 | 1991         | 136                   | 143 | 7          |      | 428      |                        |
| 18717       | 1985         | 138                   | 141 | 3          |      | 276      |                        |
| 18714       | 1985         | 331                   | 333 | 2          |      | 379      |                        |

DDH A.3, Azimuth --, Dip -90°, Length 295 ft.

No assays reported.

DDH A.4, Azimuth 360°, Dip -60°, Length 907 ft.

Analytical Results

| Sample No | Year Sampled | Interval (ft)<br>From | To    | Width (ft) | Cu % | Cu (ppm) | Comments                                     |
|-----------|--------------|-----------------------|-------|------------|------|----------|----------------------------------------------|
| 5227-28   | 1972         | 119                   | 136   | 17         | 2.96 |          | True thickness 12 ft.<br>Poor core recovery. |
| GR-005    | 1991         | 131.5                 | 133.5 | 2          | 4.73 |          |                                              |
| GR-004    | 1991         | 153.3                 | 156.6 | 3.3        |      | 5621     |                                              |
| 5229-31   | 1972         | 153                   | 170   | 17         | 0.73 |          | True thickness 12 ft.                        |
| 18705     | 1985         | 158-                  | 159   | 1          | )    |          |                                              |
|           |              | 169                   | 170   | 1          | )    | 5729     | Composite Sample                             |
|           |              | 193                   | 194   | 1          | )    |          |                                              |
| 5232      | 1972         | 190                   | 196   | 6          | 0.54 |          |                                              |
| 18707     | 1985         | 271-                  | 272   | 1          | )    |          |                                              |
|           |              | 678                   | 688   | 10         | )    | 2110     | Composite                                    |
| 18706     | 1985         | 238                   | 240   | 2          |      | 748      |                                              |
| 5233-36   | 1972         | 659                   | 676   | 17         | 0.55 |          | True thickness 12 ft.                        |

DDH A.5 Azimuth 360°, Dip -45°, Length 286 ft.

| Sample No | Year Sampled | Interval (ft) |            | Width (ft) | Cu %   | Cu (ppm) | Comments                 |
|-----------|--------------|---------------|------------|------------|--------|----------|--------------------------|
|           |              | From          | To         |            |        |          |                          |
| 5243-44   | 1972         | 27            | 39         | 12         | 1.70   |          | True thickness 6 ft.     |
| 5237-42   | 1972         | 171           | 200        | 29         | 0.31   |          | True thickness 15 ft.    |
| 18708     | 1985         | 181<br>188    | 182<br>189 | 1<br>1     | )<br>) |          | Composite Sample<br>3034 |
| GR010     | 1991         | 185           | 185        | 2          |        | 4346     |                          |

DDH A.6 Azimuth 025°, Dip -60°, Length 280 ft.

| Sample No | Year Sampled | Interval (ft) |           | Width (ft) | Cu %   | Cu (ppm) | Comments             |
|-----------|--------------|---------------|-----------|------------|--------|----------|----------------------|
|           |              | From          | To        |            |        |          |                      |
| 5245-47   | 1972         | 27            | 44        | 17         | 2.11   |          | True thickness 9 ft. |
| GR011     | 1991         | 30            | 32        | 2          | 3.78   |          |                      |
| 5248      | 1972         | 51            | 53        | 2          | 1.14   |          |                      |
| 5249-52   | 1972         | 97            | 119       | 22         | 0.46   |          |                      |
| 18709     | 1985         | 98<br>108     | 99<br>109 | 1<br>1     | )<br>) |          | 2710                 |

DDH A.7, Azimuth 180°, Dip -60°, Length 485 ft.

The only assay given (1973) was 1.5% over 15 ft. from approximately 370 to 385 ft.

DDH A.8, Azimuth 180°, Dip -60°, Length approx. 550 ft.

| Analytical Results                      |              |               |     |            |      |          |           |
|-----------------------------------------|--------------|---------------|-----|------------|------|----------|-----------|
| Sample No                               | Year Sampled | Interval (ft) |     | Width (ft) | Cu % | Cu (ppm) | Comments  |
|                                         |              | From          | To  |            |      |          |           |
| AH8 507-                                |              |               |     |            |      |          |           |
| 510                                     | 1991         | 507           | 510 | 3          |      | 392)     |           |
| GR002                                   | 1991         | 510           | 512 | 2          |      | 2828)    |           |
| AH8 512-                                |              |               |     |            |      | )        |           |
| 517                                     | 1991         | 512           | 517 | 5          |      | 276)     |           |
| AH8 517-                                |              |               |     |            |      | )        |           |
| 519                                     | 1991         | 517           | 519 | 2          |      | 3884)    | 1690 ppm  |
| GR003                                   | 1991         | 519           | 521 | 2          |      | 909)     | (.17%) Cu |
| AH8 521-                                |              |               |     |            |      | )        | over 20   |
| ft.                                     |              |               |     |            |      |          |           |
| 527                                     | 1991         | 521           | 527 | 6          |      | 1850)    |           |
| Sample AH8 517-519 assayed 215 ppb gold |              |               |     |            |      |          |           |

DDH A.9, Azimuth 180°(?), Dip -60°(?), Length, approx. 510 ft.

| Analytical Results |              |               |     |            |      |          |          |
|--------------------|--------------|---------------|-----|------------|------|----------|----------|
| Sample No          | Year Sampled | Interval (ft) |     | Width (ft) | Cu % | Cu (ppm) | Comments |
|                    |              | From          | To  |            |      |          |          |
| AH 9               |              |               |     |            |      |          |          |
| 461-466            | 1991         | 461           | 466 | 5          |      | 1731)    |          |
| GR001              | 1991         | 466           | 468 | 2          |      | 3532)    |          |
| AH 9               |              |               |     |            |      | )        |          |
| 468-473            | 1991         | 468           | 473 | 5          |      | 212)     | 1588 ppm |
| AH 9               |              |               |     |            |      | )        | (.16%)   |
| 473-478            | 1991         | 473           | 478 | 5          |      | 252)     | over 22  |
| ft.                |              |               |     |            |      |          |          |
| AH 9               |              |               |     |            |      | )        |          |
| 478-483            | 1991         | 478           | 483 | 5          |      | 2212)    |          |

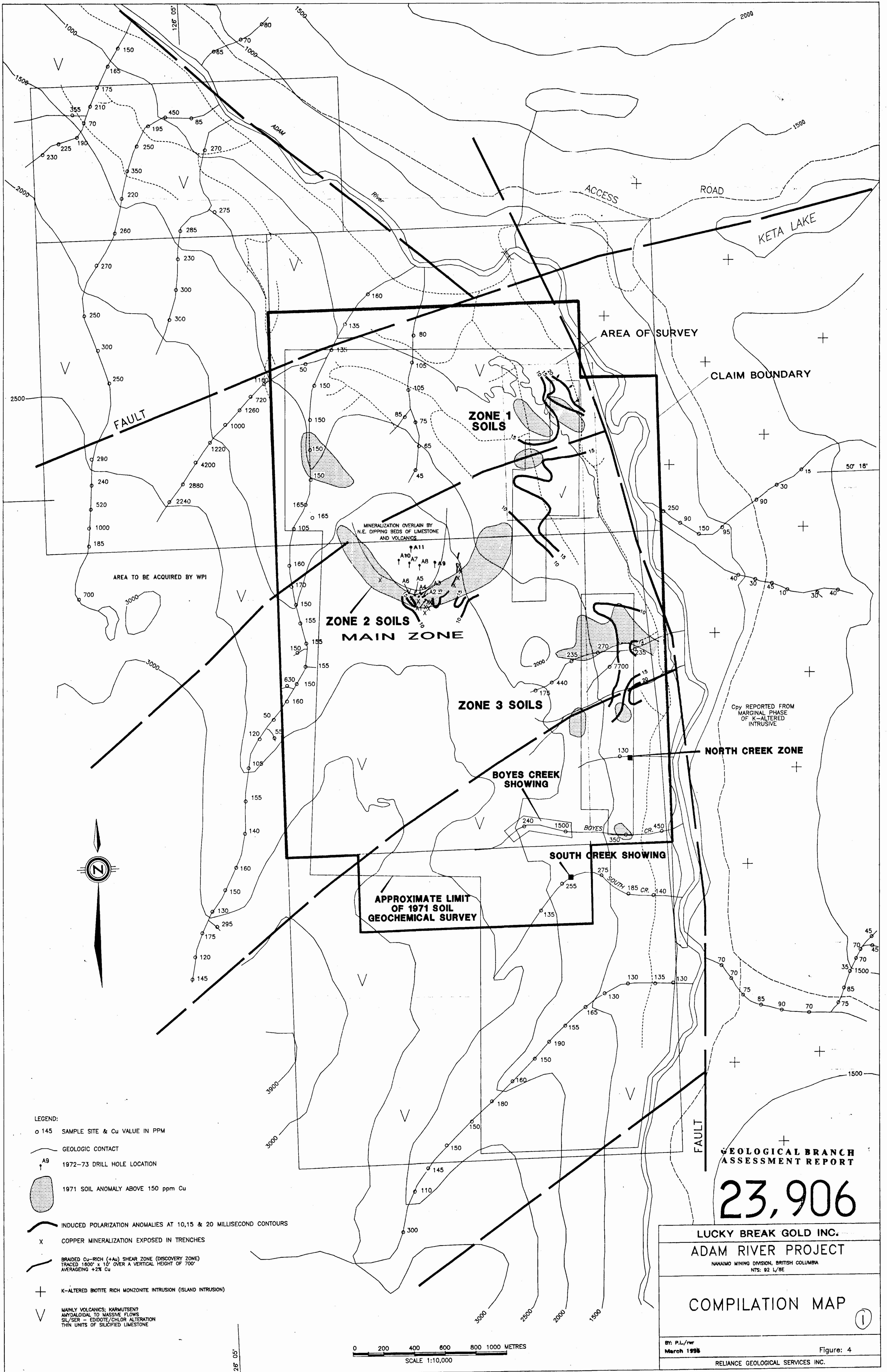
DDH A.10, Azimuth 180°(?), Dip -60°(?), Length, approx. 450 ft.

| Analytical Results |              |               |     |            |        |          |          |
|--------------------|--------------|---------------|-----|------------|--------|----------|----------|
| Sample No          | Year Sampled | Interval (ft) |     | Width (ft) | Cu %   | Cu (ppm) | Comments |
|                    |              | From          | To  |            |        |          |          |
| AH 10              |              |               |     |            |        |          |          |
| 399-404            | 1991         | 399           | 404 | 5          |        | 671)     |          |
| AH10               |              |               |     |            |        | )        |          |
| 404-409            | 1991         | 404           | 409 | 5          |        | 568)     |          |
| AH10               |              |               |     |            |        | )        | 1994 ppm |
| 409-414            | 1991         | 409           | 414 | 5          | +115   | 4088)    | (19%) Cu |
|                    |              |               |     |            | ppb Au | )        | over 20' |
| AH10               |              |               |     |            |        | )        |          |
| 414-419            | 1991         | 414           | 419 | 5          |        | 2561)    |          |

DDH A.11 Azimuth 180°(?) Dip - 60°(?), Length: 508 ft.

| Sample No | Year Sampled | Analytical Results Interval (ft) |     | Width (ft) | Cu % | Cu (ppm) | Comments                                                              |
|-----------|--------------|----------------------------------|-----|------------|------|----------|-----------------------------------------------------------------------|
|           |              | From                             | To  |            |      |          |                                                                       |
| AH11      |              |                                  |     |            |      |          |                                                                       |
| 430-433   | 1991         | 430                              | 433 | 3          |      | 4835)    | 4536 ppm<br>over 22'<br>including<br>8379 ppm<br>(.84%)<br>over 9 ft. |
| AH11      |              |                                  |     |            |      | )        |                                                                       |
| 433-436   | 1991         | 433                              | 436 | 3          | 1.45 | 14400)   |                                                                       |
| AH11      |              |                                  |     |            |      | )        |                                                                       |
| 436-439   | 1991         | 436                              | 439 | 3          |      | 5901)    |                                                                       |
| AH11      |              |                                  |     |            |      | )        |                                                                       |
| 439-442   | 1991         | 439                              | 442 | 3          |      | 1958)    |                                                                       |
| AH11      |              |                                  |     |            |      | )        |                                                                       |
| 442-445   | 1991         | 442                              | 445 | 3          |      | 359)     |                                                                       |
| AH11      |              |                                  |     |            |      | )        |                                                                       |
| 445-448   | 1991         | 445                              | 448 | 3          |      | 3053)    |                                                                       |
| AH11      |              |                                  |     |            |      | )        |                                                                       |
| 448-452   | 1991         | 448                              | 452 | 4          |      | 1244)    |                                                                       |
| AH11      |              |                                  |     |            |      | )        |                                                                       |
| 452-454   | 1991         | 452                              | 454 | 2          |      | 409      |                                                                       |





- LEGEND:
- 145 SAMPLE SITE & Cu VALUE IN PPM
  - GEOLOGIC CONTACT
  - A9 1972-73 DRILL HOLE LOCATION
  - 1971 SOIL ANOMALY ABOVE 150 ppm Cu
  - INDUCED POLARIZATION ANOMALIES AT 10, 15 & 20 MILLISECOND CONTOURS
  - X COPPER MINERALIZATION EXPOSED IN TRENCHES
  - BRAIDED Cu-RICH (+Au) SHEAR ZONE (DISCOVERY ZONE) TRACED 1800' x 10' OVER A VERTICAL HEIGHT OF 700' AVERAGING +2% Cu
  - + K-ALTERED BIOTITE RICH MONZONITE INTRUSION (ISLAND INTRUSION)
  - V MAINLY VOLCANICS; KARUMUTSEN? ANYDIALOICAL TO MASSIVE FLOWS SIL/SER - EPIDOTE/CHLOR ALTERATION THIN UNITS OF SILICIFIED LIMESTONE

0 200 400 600 800 1000 METRES  
SCALE 1:10,000

Cpy REPORTED FROM MARGINAL PHASE OF K-ALTERED INTRUSIVE

GEOLOGICAL BRANCH ASSESSMENT REPORT

23,906

LUCKY BREAK GOLD INC.  
ADAM RIVER PROJECT  
NANAIMO MINING DIVISION, BRITISH COLUMBIA  
NTS: 82 L/8E

COMPILATION MAP

By: P.L./rw  
March 1995  
RELIANCE GEOLOGICAL SERVICES INC.

Figure: 4