

NINA and FEVER MINERAL CLAIMS

GEOPHYSICAL AND GEOCHEMICAL SURVEY

by

Gary C. Lee, P.Eng.

Report: December 1996
Fieldwork: June/September 1996
Revised Report: October 1997
Fieldwork: July 1997

	<u>Claim Name</u>	<u>Grant Numbers</u>
1996 staking:	NINA 1-96	343848
	NINA 2-96	343850
	FEVER 1-96	343849
	FEVER 2-96 to 7-96	347694 to 347699, incl.
1997 staking:	NINA 3	355241
	NINA 4	355201
	FEVER 8	355202
	FEVER 9-16	355213-355220
	FEVER 17-22	355248-355253

Omineca Mining Division, B.C.
Map NTS 93N/15W
Latitude 55° 57', Longitude 124° 48'
UTM 6,200,000N, 388,500E

Owners: Gary C. Lee and Dave Hayward
Work done by: Gary C. Lee, Dave Hayward and Dave McCurdy

GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORT

Date submitted: Re-SUBMIT OCT. /98

25,532

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SUMMARY

The original discovery of copper north of Nina Lake was found by the Geological Survey of Canada (G.S.C.) by Roots in the 1940s.

The next discovery (northeast of the G.S.C. showing) of copper and precious metals (Au, Ag) was made on the NINA 1-96 claim as anomalous concentrations in a gossan-stained bedrock by Anaconda Canada in 1982. The discovery of another anomalous gossan was made by Rio Algom Exploration Inc. and JAM Geological Services on July 23, 1985. Following this work, in the Report of Evaluation (Watkins, 1985) it was stated that the favourable contact extended to the southeast into the FEVER mineral claims. A program of ground geophysics and soil geochemistry was recommended at this time. This recommended program was finally, at least partially, carried out during the summers of 1996 and 1997. Some interesting geophysical anomalies (VLF) were encountered. Also, the geochem soil sampling yielded some unexplained anomalies (e.g. soils running 300-400 ppm copper). Some of the longer geophysical lines when extended grid east (Brg. 48°) yielded complex conductor systems (multiple conductors) which may host economic mineralization (massive sulphides).

A program of further gridding, geophysics and soil geochemistry is recommended, with emphasis on extending the coverage to at least station 1500 east, past the volcanics into the sediments.

INTRODUCTION

General

In 1996, line cutting, followed by a magnetometer and VLF survey, was started on the NINA-FEVER claim group. In addition, from July 13 to July 28, 1997 (excluding mobilization and demobilization) myself (the writer) and Mr. Dave Hayward extended the grid easterly. Both magnetometer and VLF surveys were completed, including some general prospecting. Since the target is massive sulphides (Cu, Au), the prospecting target was sulphide outcrop or float.

The claims consist of the NINA 1-96 (16 units), NINA 2-96 (15 units), NINA 3 (14 units), NINA 4 (14 units), FEVER 1-96 (16 units), FEVER 8 (4 units) and 20 two-post claims, for a total of 99 units. The claim boundaries can be seen on the 1:20,000 topo map on page 4 and partly on the 1:2,000 VLF and magnetometer plan contained in the pocket.

The claims are jointly owned by myself and Mr. Dave Hayward.

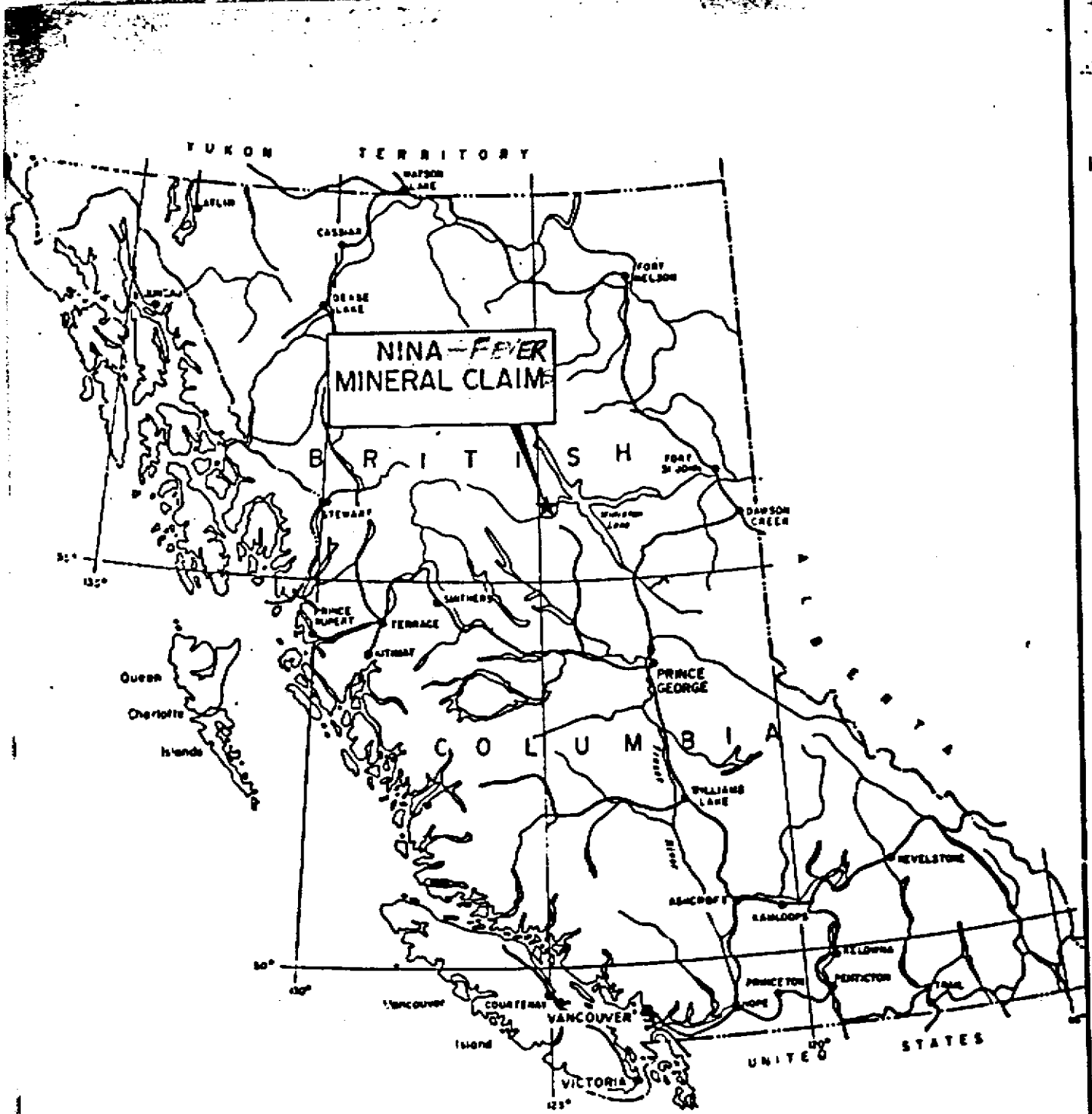
Location and Access

The property is located in north-central British Columbia, 260 km northwest of Prince George at the south end of the Swannell Range in the Omineca Mountains (see map, page 2). The property is 17 km north by northwest of Germansen Landing. Germansen Landing is slightly less than 200 road km north of Fort St. James (see map, page 3). Road access is achieved by proceeding 10 km northwest of Germansen Landing on an all-weather gravel road and thence turning right (north) on an unmaintained 4x4 road for an additional 14.5 km to the property. Approximately 7.5 km up this road it is necessary to turn left and cross a small creek flowing out of Nina Lake. The road cuts through the southeast portion of the property (see map, page 4).

Topography

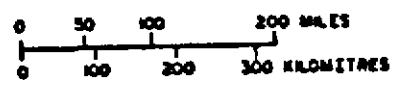
The property ranges in elevation from 940 metres to 1800 metres. Vegetation is typical of a relatively mature evergreen forest common to north-central B.C. with trees thinning out above the 1600 metre elevation. Most of the FEVER claims are easily traversed by foot; however, parts of the NINA claims such as the area of the main showing have steep valley walls and are traversed with difficulty.

The photos on page 5 show the steep topography (lower two photos) versus the more easily traversed country (top two photos) of the FEVER claims.



PROPERTY LOCATION MAP

NINA CLAIMS

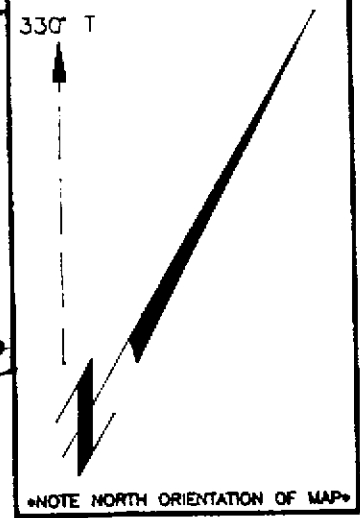


FORT ST. JAMES FOREST DISTRICT MAP

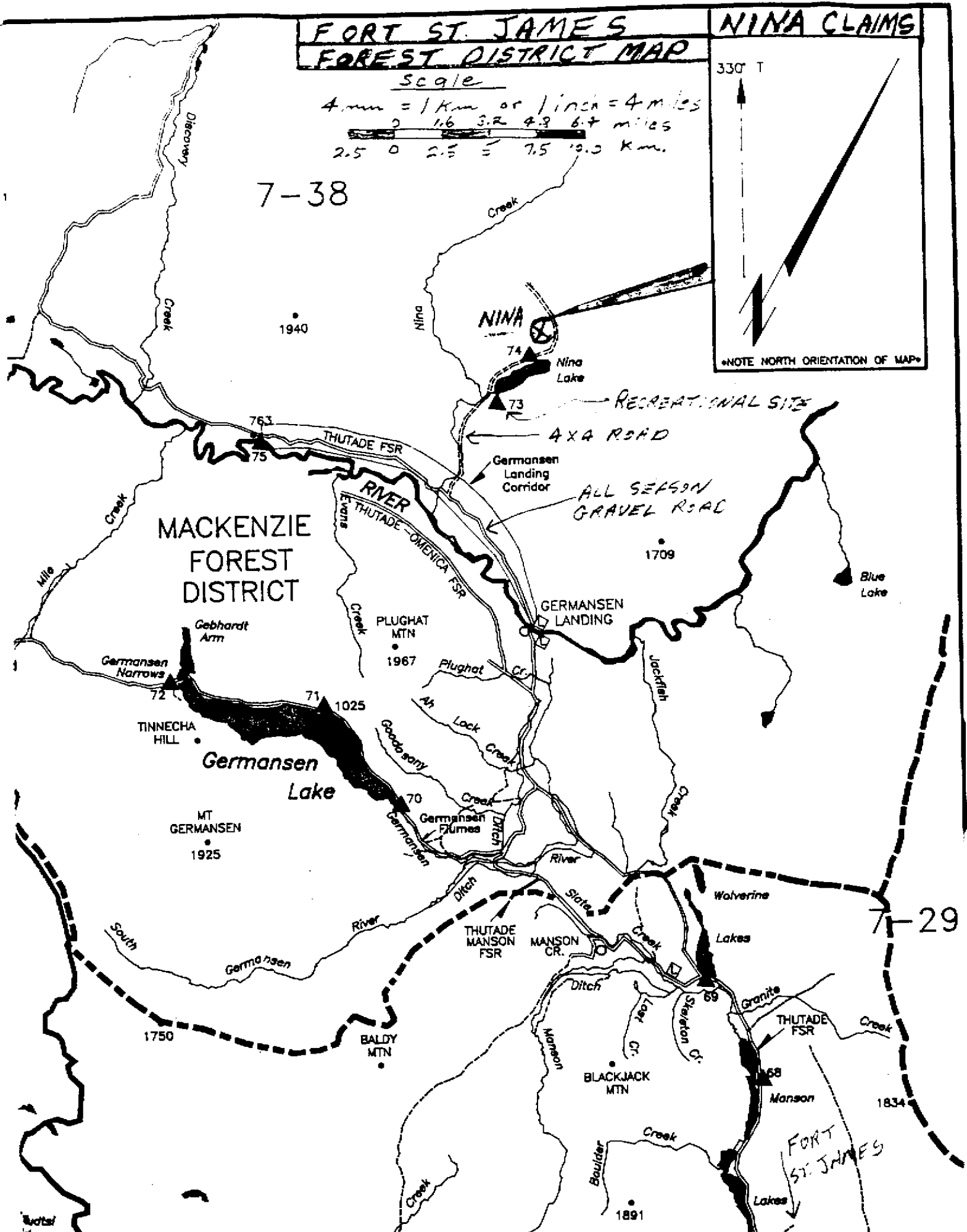
NINA CLAIMS

Scale

4 mm = 1 Km or 1 inch = 4 miles
0 1.6 3.2 4.8 6.4 miles
2.5 0 2.5 = 7.5 10.0 Km.

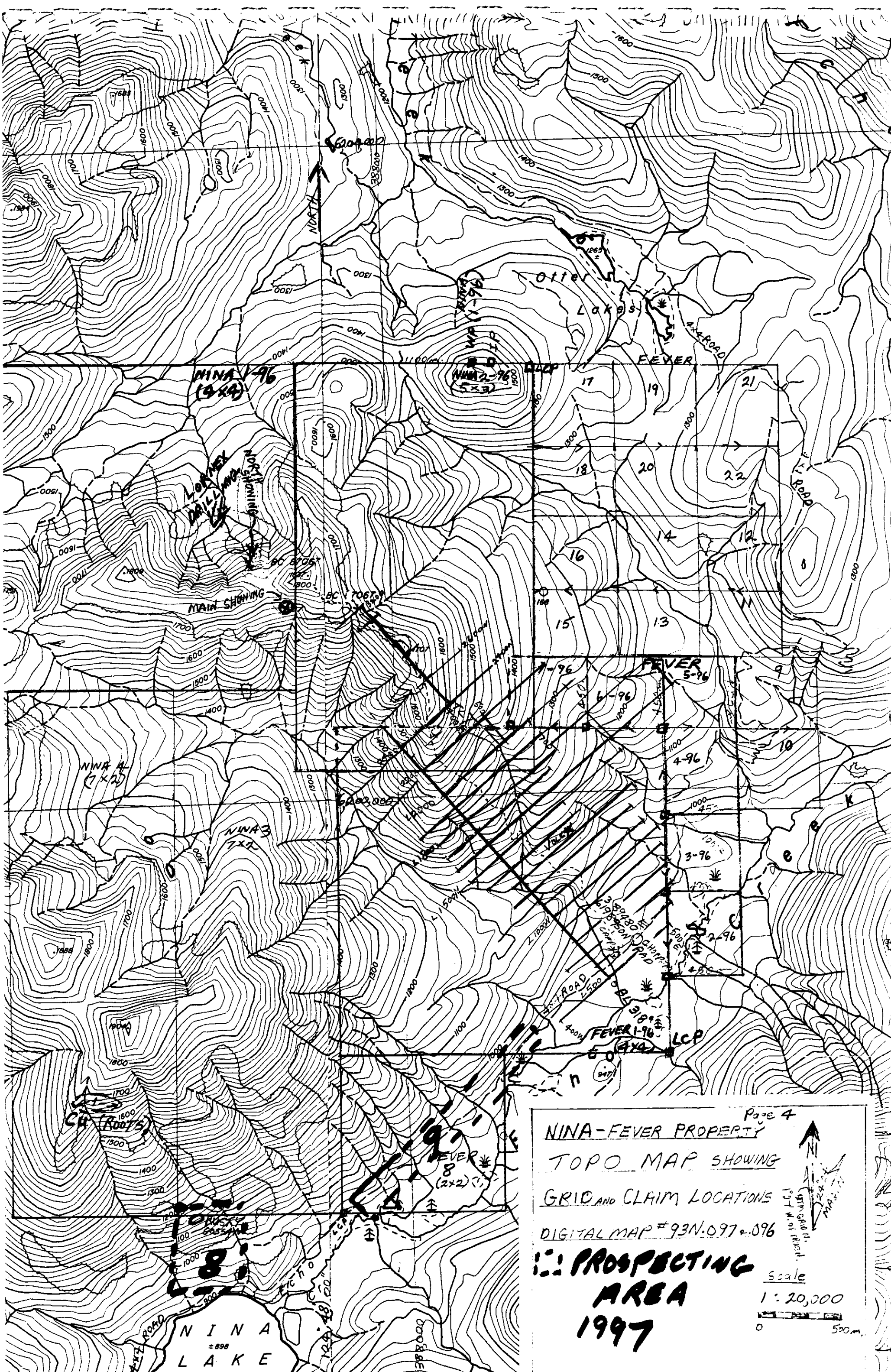


7-38



7-29

FORT ST. JAMES



Page 4
 NINA-FEVER PROPERTY
 TOPO MAP SHOWING
 GRID AND CLAIM LOCATIONS
 DIGITAL MAP #93N.097-096
 !! PROSPECTING
 AREA
 1997

Scale
 1 : 20,000
 0 500m

North Arrow
 100' of North
 200' of North
 300' of North
 400' of North
 500' of North
 600' of North
 700' of North
 800' of North
 900' of North
 1000' of North



LOOKING N.E. TO ROAD (OFF PROPERTY)
WHICH IS SUPPOSED TO
TERMINATE AT COMMICO FLATS
TO THE NORTH



LOOKING S.E. FROM LAZON
SHOWS APPROX LOCATION OF PART
OF GRID, ROAD, CAMP AND BASELINE



LOOKING N.W.
CLOSE-UP OF GOSSAN (RED-BROWN)



LOOKING N.W. TO GOSSAN
MAIN SHOWING (WATKINS, 1985)

History

In the 1940s, Roots (Geological Survey of Canada) found a copper showing on a south-facing ridge at an elevation of about 5,500 feet, approximately 1.25 miles due north of Nina Lake.

(From: Watkins, 1985 B.C. Assessment Report no. 13,977 and from Cope, 1988 B.C. Assessment Report no. 17,940): Anomalous concentrations of copper and precious metals from gossan-stained bedrock were reported by Anaconda Canada Ltd. in 1982. Another anomalous gossan was discovered by Rio Algom Exploration Inc. and JAM Geological Services in 1985. These were both in the NINA claims at high elevations. Geological mapping in 1985 by JAM Geological Services showed these gossans to contain massive sulphide fragments containing copper, gold and silver (Watkins, 1985). Also at this time, two strataform EM anomalies were detected in a VLF survey.

In 1986 Lornex Mining Corporation Ltd. took over the property, conducting geological mapping, rock sampling and soil geochemistry in the 1986 field season.

In 1987, six kilometres of induced polarization survey were performed. In 1988, 224 metres of BGK wireline diamond drilling in three holes from three set-ups were performed. This was conducted in the north half of the NINA 1-96 claim (see map, page 4) in a separate valley to the northwest of the FEVER claims. Not all holes reached their targets as drilling problems were reported. There was no work done in the valley of the FEVER claims by Lornex.

As seen on the mineral occurrence map, numerous Zn, Pb, Ag, Ba and one Ge showing were discovered along the east boundary and north of the area surveyed.

Grid and Field Procedure

All lines were flagged with orange and blue flagging at 20-metre stations. Four-foot pickets with metal tags were used on most of the baseline. Lines, for the most part, were run in at 100-metre intervals. The grid layout can be seen on the 1:20,000 map on page 4 and the 1:2,000 map contained in the pocket. Roughly 18 km of baseline and lines were flagged in 1996. An additional 5 km were established in 1997.

A Geonics EM-16 was employed for the VLF survey, with readings being taken at 10-metre intervals. Both the in-phase and quadrature were read. All stations were read by facing the direction of the transmitting station and thence turning clockwise 90° before taking the readings. Most lines were read on Cuttler, Maine, since Seattle, Washington was off the air for a major refit until July 11, 1996. At this time, as many lines as possible in the time remaining were read on the Seattle station. In 1997,

Seattle was by far the most useful station.

Magnetometer readings were taken at 10-metre intervals with a Scintrex MF-2 fluxgate magnetometer. The instrument reads the vertical component of earth's magnetic field. Readings were taken to the nearest 10 gammas in short loops and corrected for diurnal. Each loop was subsequently corrected to adjacent loops throughout the survey.

In 1996, geochemical sampling was begun by soil sampling the 'B' horizon (where possible) with a split spoon auger at 20-metre intervals. It was soon realized that sampling the complete grid would be too costly, especially regarding limited resources and high costs of the lab analyses. Consequently, sampling was limited to areas of mag. and especially VLF anomalies in the hope that it might indicate the location of buried massive sulphides. These can be seen on the eight colour-contoured geochemistry maps contained in the Appendix. These 1996 geochem maps are included in this report for reference purposes.

No geochemical sampling was done in 1997.

Areas prospected are shown on the map contained in the pocket and on the 1:20,000 map on page 4.

ECONOMIC GEOLOGY

The first known mineral occurrence on the property was found by the G.S.C. (Roots) in the 1940s. The location is shown on G.S.C. map 907A published in 1948 and has been roughly plotted on the enclosed 1:20,000 topo map and the 1:50,000 mineral occurrence map. It is described by Roots as a "mineralized zone at least eight feet wide, containing malachite, pyrite, and minor azurite. It lies in a 200 foot band of sheared, carbonatized, silicified and pyritized interbedded argillite and andesite. This mineralized zone is broken by many faults and is veined by quartz. A grab sample assayed 4.83% copper. This showing is exposed in only a few outcrops."

The following was taken from B.C. Assessment Report no. 13,977 by Watkins and Atkinson, 1985 - refer also to map on page 10:

Property Geology

Stratigraphic and structural relationships within the Nina Creek belt are not known. Stratigraphy in the property area appears to be part of a homoclinal succession topping and dipping westerly.

The property is underlain predominantly by weakly metamorphosed massive, green to brownish green weathered, fine grained, altered basalt. The metabasalt is locally variolitic, brecciated or pillowed. Intracalated with metabasalt is a metasedimentary unit

with an apparent thickness of up to 150 metres that flexes in trend from 100° to 140°, and thins markedly towards the north side of the property. The metasediments are predominantly dark brown, weakly foliated, fine grained mafic tuffs, locally argillaceous. Near the basalt contact, the sediments are distinctly layered with siliceous, cherty bands to 1 cm wide, which locally grade to massive chert. No stratigraphic top indicators were recognized.

Hydrothermal Breccia

On lines east of the main showing, within massive and pillowed metabasalt, a 50 x 150 m area is underlain by a mixed basalt and cherty breccia. Here, massive basalt and chert have been shattered to angular fragments of millimetre to 10 centimetre size to form a matrix supported breccia. The matrix is either a dense, creamy grey siliceous groundmass, or mixed lamellae of fine basalt and chert shards in a siliceous groundmass. No sulphide minerals were seen within this breccia body. The contact between mixed breccia and host massive basalt is not sharp, but grades from an in-situ shattered basalt.

Structure

On the property, basalt flow rocks have little or no penetrative deformation. Pillowed and brecciated basalt have retained their primary textures. However, within the sedimentary unit, a vertical foliation is developed. North of the main showing, chert bands in tuff define an open, upright synform with small amplitude shallow, north-plunging drag folds well developed. Bedding plane mullions have a shallow north plunge. It is interpreted that these small folds are geometrically similar to larger folds developed in the west dipping homoclinal succession of Nina Creek belt rocks. No major disruption of the stratigraphic package by faults is recognized.

Sulphide Mineralization

Localized areas of sulphide mineralization occur within a 100 metre interval in metabasalt on the east side of the sedimentary unit. Two styles of mineralization are recognized:

1. clastic sulphide mineralization
2. disseminated sulphide mineralization

Fragments of massive sulphide are mixed with monolithic, fragment supported, conglomerate-like, unmineralized basalt. This style of mineralization is identified in two areas 300 metres apart at the same stratigraphic position relative to the sediment-basalt contact. The larger of the two areas (photo, page 6) is lens-shaped in plan view, measures 25 x 130 metres, and is elongated parallel to the sediment contact. The smaller zone is less defined; it measures 5 x 60 metres with its long axis conformable

to the sediment contact. Sulphide fragments are composed of fine grained, granular textured pyrite with grey quartz. The chalcopyrite content of individual fragments is variable [see lab reports in the Appendix]. The total sulphide content of the two zones does not exceed 15%.

Localized areas of disseminated pyrite with varying amounts of fine grained chalcopyrite and minor sphalerite are intracalated with metabasalt. These mineralized areas are small, not exceeding three metres in width and 20 metres in length. They tend to occur at a stratigraphic interval 100 metres from the sediment contact.

Alteration

Metamorphism in the NINA claim area appears to be of the lower greenschist facies. Metabasalt is commonly a fine grained assemblage of suspected plagioclase, amphibole and chlorite. Fine leucoxene is ubiquitous in the metabasalt. Silica replacement of basalt is widespread, occurring as distinct fracture controlled linear zones and as large strataform replacement zones. Cherty bands in sediment may be silica replacement. Fracture related siliceous zones are texturally similar to the matrix of the hydrothermal breccia, consisting of fine lamellae of creamy grey chert.

Metabasalt is crosscut by a wide-spaced northeast-trending set of steeply dipping quartz-epidote veins that postdates silica alteration.

On the FEVER claim to the southeast, bedrock exposures are poor. The claim appears to be underlain by predominantly massive basalt flows and tuffs, and intercalated argillites striking north-northwest and dipping moderately west. The favourable basalt and argillite can be traced southeasterly across the northeast half of the FEVER claim (Watkins, 1985).

The 1:50,000 geology map (Ferri, 1990) on page 12 well documents the sediments on the eastern part of the survey area. However, the volcanics which are well documented by Watkins and noted by us are not clearly defined due to excessive overburden.

As seen on the mineral occurrence map (page 13), the area to the east and north of the survey area hosts many Zn, Pb, Ag and Ba showings, with one Ge showing. Many of these are in sedimentary rocks east of the volcanic-argillite contact. It is the volcanic argillite contact which is considered favourable for a volcanic massive sulphide (V.M.S.) deposit.

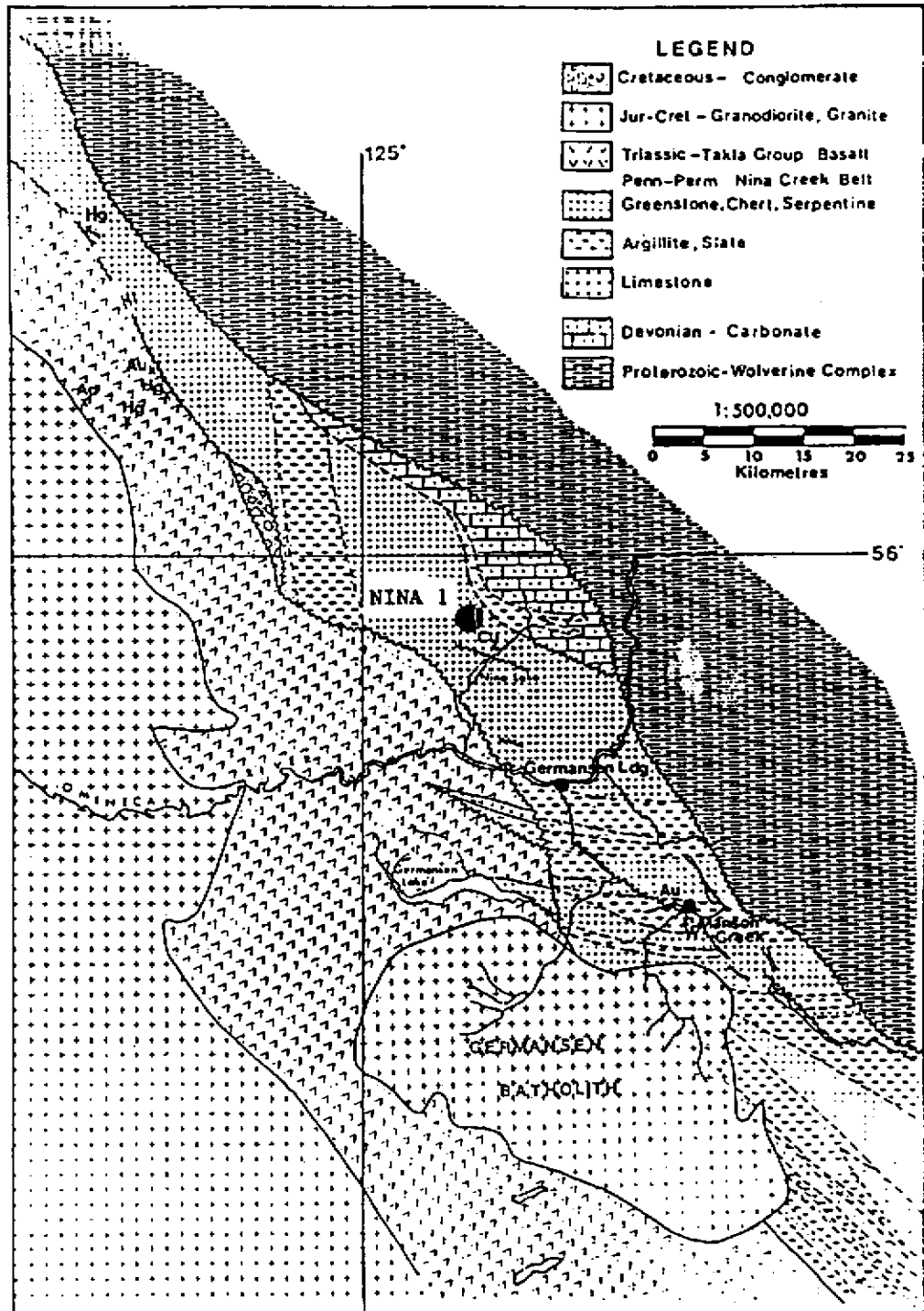
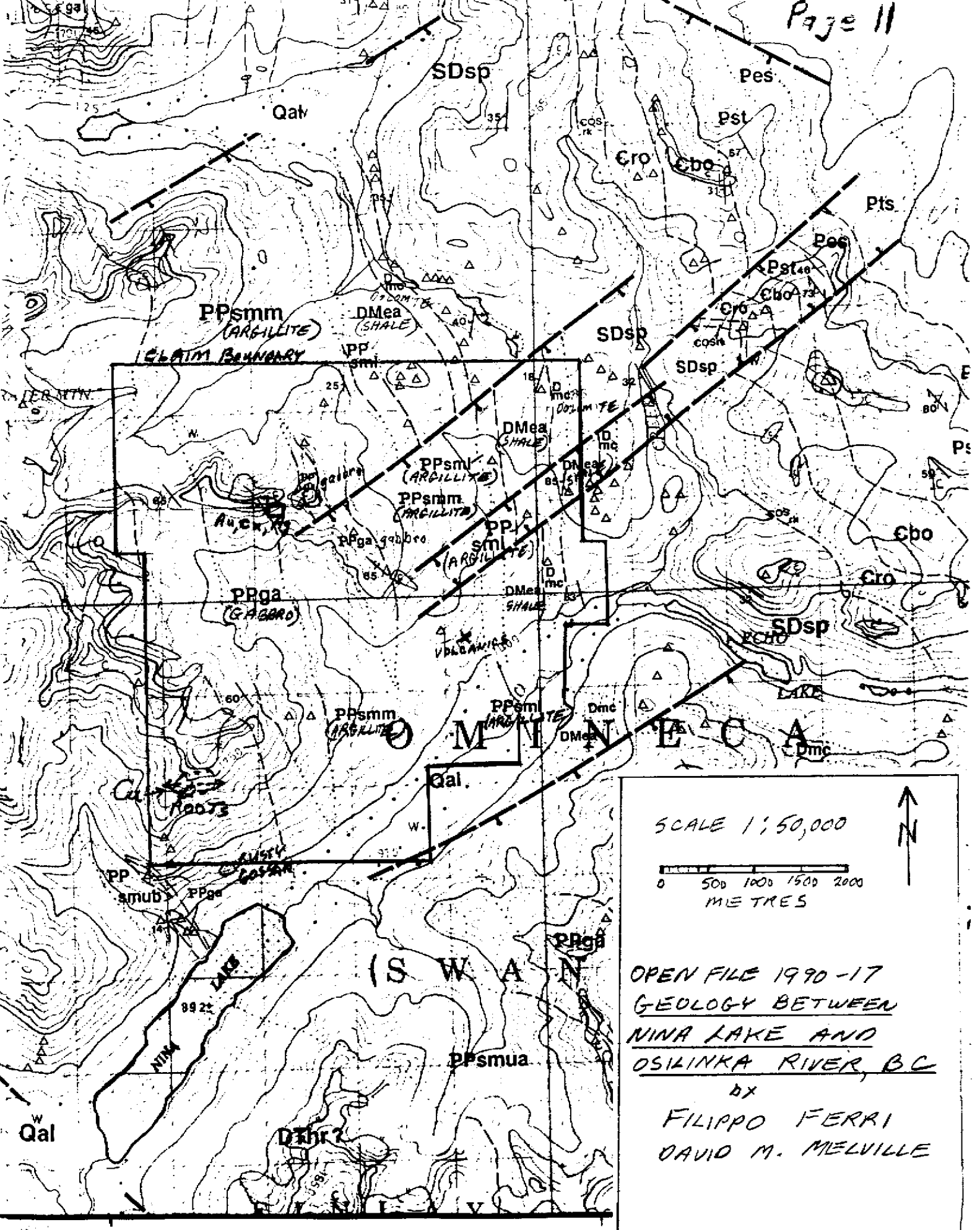
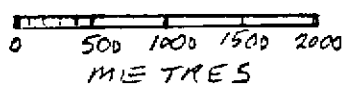


Figure 4. Geology of the Nina I claim area (from Armstrong, 1949 and Roots, 1954).

*Taken from B.C. Assessment Report #13977
Watkins - Atkinson, 1985*

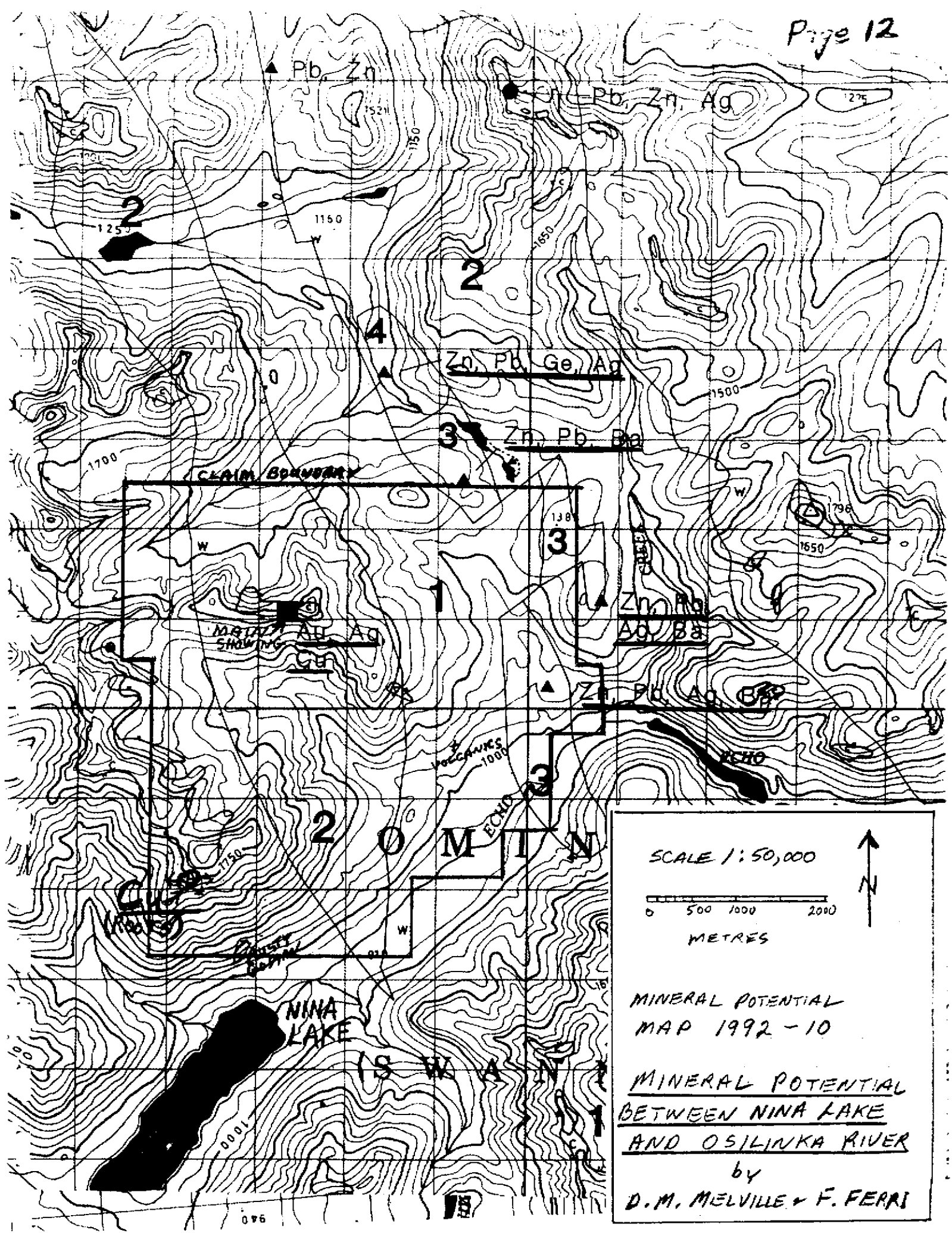


SCALE 1:50,000

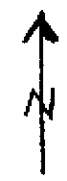
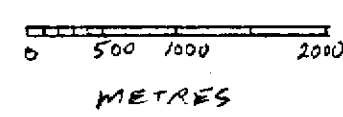


OPEN FILE 1990-17
GEOLOGY BETWEEN
NINA LAKE AND
OSILINKA RIVER, BC

BY
 FILIPPO FERRI
 DAVID M. MELVILLE



SCALE 1:50,000



MINERAL POTENTIAL
MAP 1992-10

MINERAL POTENTIAL
BETWEEN NINA LAKE
AND OSILINKA RIVER

by
D.M. MELVILLE & F. FERRI

PURPOSE

In 1996, it was attempted to detect a buried sulphide deposit to the southeast of the main showing in the FEVER and/or south end of NINA 2-96 mineral claims. This is the basic recommendation contained in the Report of Evaluation of Fever Mineral Claims by Watkins, 1985. Since there is very little outcrop, ground geophysics and a soil geochemistry program were recommended.

In 1997, the geophysical grid was extended easterly, the purpose being to detect more anomalies which may indicate buried sulphides.

However, because of the extreme difficulty in attracting mineral exploration investment in British Columbia, it was decided to spend half the time prospecting for a massive sulphide occurrence, the reason being that a massive sulphide (Au, Cu) occurrence would generate some interest in the property - see Journal on page 18 for details.

RESULTS

The 1996 VLF results can be seen as profiles on the map contained in the pocket. The location of the VLF conductor axis has been marked on this map as well as on the geochem maps in the Appendix. This could help to determine whether any interesting correlations develop between the geochemical anomalies and the VLF conductor axis. Any interesting magnetic results have been contoured on the VLF and Magnetometer plan.

The 1997 mag. and VLF results are shown on the 1:2,000 map contained in the pocket.

INTERPRETATION AND CONCLUSIONS

The best prospecting results were found in a chunk of 8-inch float discovered at 850N, 620E, containing 799 ppm Cu. This float was first discovered in 1996 and subsequent prospecting in 1997 yielded nothing of interest due to the extent of the overburden. Some andesitic float laced with Py was found in the creek at 2020N, 430E containing 393 ppm Cu during the 1996 program. Prospecting here (Area 7) in 1997 was disappointing since the source could not be located.

Prospecting continued in 1997 around the interesting outcrop discovered in 1996 immediately north of L1300N, 450E consisting of a felsic volcanic (rhyolite?) with visible pyrite and anomalous in copper (over 100 ppm), gold (0.02 g/tonne) and Ba. These rock analyses are included on the last few pages in the Appendix as sample numbers 96N L1320 445E and 451E and 97N L1320 450E. This is important since approximately 120 metres grid south there are copper soil anomalies of over 300 ppm near conductor B on line 1200N. This area should receive some more sophisticated

geophysics, followed by drilling. There is suspicious "dog leg" in the creek between L1100N and 1200N. This offset (approximately 200 metres) could indicate a fault which could mean that the conductor axis on L1100N 566E, L1000N 527E, L900N 585E, L800N 566E and L700N 525E is actually conductor B which has been faulted grid east. If this is the case, conductor B has a strike length of 1.3 km.

Even though the Zn, Pb, Ag and Ba showings to the east are interesting, the main thrust of this program is to look for buried V.M.S. deposits along the buried volcanic argillite contact (exact location unknown).

As can be seen on the VLF and Magnetometer plan, two conductors (A and B) were detected (1996), having a strike length of 600 metres or more each. Also, on the east end of the grid, complex multiple conductors striking north by northwest need to be defined accurately with more geophysical lines. The 1997 program yielded only one more significant conductor intersecting lines L18, 19, 20 and 2200N between 710E and 748E. With only two lines extending past 1000E, there is insufficient data here.

Correlation of the conductor axis and geochemical contouring (Appendix) do not result in any obvious patterns. An area partially on and below conductor A resulted in a lot of barium highs and some very high arsenic values east of the baseline. Conductor A was very strong (in phase values up to 142%) west of the baseline and also had some high copper values associated with it. Prospecting is difficult here due to the absence of outcrops. Anomaly A has curved around line 1700N, almost making it appear as a nose of a fold. The cause of this anomaly should be determined.

Some very high zinc anomalies (over 400 ppm) began to appear on the east side of the grid in the area of the multiple conductors. This whole area should be filled in with more geophysical lines and followed with geochemical sampling. A mag. anomaly coincident with a VLF anomaly (conductor B?) began to develop on lines 700N and 800N between 500E and 600E, the cause of which is unknown. It could be significant because of the piece of volcanic float found at 850N, 620E running 799 ppm copper.

Gold was not tested for in 1996, due to lack of funds. For the same reason, no geochemistry was done in 1997.

RECOMMENDATIONS

1. Sample some of the obvious gaps as seen on the geochem maps and run for ICP plus gold. Also re-run all pulps for gold.
2. Extend all lines between L 1000N and L 2200N to at least 1500E and conduct a geophysical and geochemical survey.
3. All new anomalies should be prospected and any outcrops should be geologically mapped.
4. Depending on the foregoing, any multiple conductor axes could be surveyed by a more sophisticated EM system in order to ascertain its quality.
5. Depending on the foregoing, any one or a combination of trenching and drilling could commence, especially on L1200N near 400E.

NINA and FEVER MINERAL CLAIMS

1996 VALUE OF ASSESSMENT WORK
Geophysical and Geochemical Survey

(Rates as per personal communication with T. Kalnins, 1995)

FIELD

Engineer: 29 days @ \$350/day	\$10,150.00
Technicians (geophysical and geochemical):	
: 23 - 2 man-days @ \$225/man-day	\$10,350.00
: 12 - 1 man-days @ \$225/man-day	\$2,700.00
Mag. and VLF rental: 29 days @ \$50/day	\$1,450.00
Living allowance: 87 man-days @ \$60/day	\$5,220.00
Trucks (4x4): 2 trucks (25 days + 18 days) = 43 days x \$70/day	\$3,010.00
Supplies, pickets, flagging, thread, tags, batteries, etc:	\$500.00
ATV: 8 days @ \$100/day	\$800.00
Chainsaw: 6 days @ \$35/day	\$210.00
Subtotal:	\$34,390.00

LAB

Min-En Labs - geochem: July 16, 1996	\$1,582.53
Min-En Labs - geochem: July 31, 1996	\$1,431.93

COMPUTER

Amerok Geosciences - geochem colour contouring - August 17, 1996	\$321.00
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OFFICE

Data reduction, drafting and report composition - 7 days x \$350/day	\$2,450.00
Report typing	\$75.00
Report reproduction (sepias, colour copying, etc.)	\$320.00

Total	<u>\$40,570.46</u>
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<u>Application:</u> NINA and FEVER claims (53 units):	
3 yrs @ \$100/yr/unit = \$5300 x 3:	\$15,900
2 yrs @ \$200/yr/unit = \$200 x 53 x 2:	\$21,200
5 years total	<u>\$37,100</u>

RR 7-8-11

NINA and FEVER MINERAL CLAIMS

1997 VALUE OF ASSESSMENT WORK
Geophysical and Geochemical Survey

(Rates as per personal communication with T. Kalnins, 1995)

FIELD

Engineer: 18 days @ \$350/day	\$ 6,300.00
Technicians (geophysical and geochemical):	
18, 1-man-days @ \$225/man-day	4,050.00
Mag. and VLF rental: 18 days @ \$50/day	900.00
Living allowance: 36 man-days @ \$60/day	2,160.00
Trucks (4x4): 18 days x 2 trucks @ \$70	2,520.00
Supplies, pickets, flagging, thread, tags, batteries, etc:	200.00
ATV: 7 days @ \$100/day	700.00
Chainsaw: 4 days @ \$35/day	<u>140.00</u>
Subtotal:	\$16,970.00

LAB

Min-En Labs - geochem: August 13, 1997	46.65
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OFFICE

Data reduction, plotting, drafting and report composition - 5 days x \$350/day	1,750.00
Report typing	\$75.00
Report reproduction (sepia, colour copying, etc.)	<u>250.00</u>
Total	<u>\$19,091.65</u>

1997 JOURNAL - GEOPHYSICS AND PROSPECTING

[Prospecting areas are marked on maps (page 4 and in pocket) as Areas 1 to 9]

- July 13 Prospect northeast of Nina Lake north of road (see map page 4, Area 9).
- July 14 Prospect east of 850N, 620E (Area 3) where 8-inch piece of float was found containing 799 ppm Cu. (MAP IN POCKET)
- July 15 Pick up supplies at Germansen Landing, phone Bob Lane and Jamie Pardie, and arrange property visit. Prospect area 4 north of camp
- July 16 Prospect Area 7 in headwaters of small creek - looking for source of andesitic rocks laced with Py containing 393 ppm Cu.
- July 17 Chaining, flagging and VLF L1600N, 1000E-1500E, TL1000E, 1600N-1800N.
- July 18 Chain, flag and VLF L2000N, 700E-1060E, L1800, 700E-1000E.
- July 19 Chain, flag and VLF L2200, 500E-1000E, L1900N, 700E-820E, and prospect in area.
- July 20 Prospect Area 6 in small creek valley north of trail.
- July 21 Prospect Area 2 (see map in pocket) in area of conductor B above high Cu geochem.
- July 22 Prospect Area 8 below rusty area and well below roots showing north of Nina Lake. (SEE MAP Pg 4)
- July 23 (A.M.) Show Bob Lane and Jamie Pardie felsic outcrop (rhyolite?) laced with Py containing 100 ppm Cu, located at 1320N, 450E (Area 1). PM EXCATATE THESE OUTCROPS
- July 24 Mag. L1500, 1600, 1800, 2000 and TL1000 and TL1500. Brush and flag L1800, 1000-1500 and TL1500, 1800N-1600N.
- July 25 Chain, flag and VLF L2400N, L2600N and L2800N.
- July 26 Chain, flag and VLF L1600N, 1000E-1500E, L1500, 500E-1000E, L1400, 500E-566E, and TL1500E, 1600-1800N.

- July 27 Prospect reddish-brown gossan above Nina Lake (Area 8).
- July 28 Prospect L1500N around 600E (Area 5); found argillite with Py along partings.

All of the above comprise 2 man-days, plus two more days for Mob and Demob.

BIBLIOGRAPHY

Ferri, F., Melville, D. Geology Between Nina Lake and Osilinka River, B.C." Open File 1990-17.

Melville, D., Ferri, F. "Mineral Potential Between Nina Lake and Osilinka River." Mineral Potential Map 1992-10.

Armstrong, J.E., 1946.. Geological Survey of Canada. Map 907A (shows roots Cu showing).

Watkins and Atkinson, 1985. "Geology of the Nina Claim." B.C. Assessment Report 13977.

Watkins and Atkinson, 1985. "Geology of the Fever Claim." B.C. Assessment Report.

LEE G.C. 1996 "NINA & FEVER MINERAL CLAIMS
GEOPHYSICAL & GEOCHEMICAL SURVEY"
B.C. ASSESSMENT REPORT

STATEMENT OF QUALIFICATIONS

I, **GARY C. LEE**, of the City of Whitehorse, Yukon Territory, HEREBY CERTIFY that:

1. I am a self-employed Geological Engineer.
2. I am a graduate of the University of Toronto, Toronto, Ontario, with a degree in Applied Science - Geological Engineering (Mineral Exploration option).
3. I am a member of the Professional Engineering Associations of the Yukon, British Columbia, and Ontario.
4. I supervised and carried out the work described in this report.



Gary C. Lee, P.Eng.

Date: Oct / 98

A P P E N D I X

(12) - Page 1 Appendix

FROM BC ASSESSMENT REPORT # 13,977
Watkins - Atkinson 1985

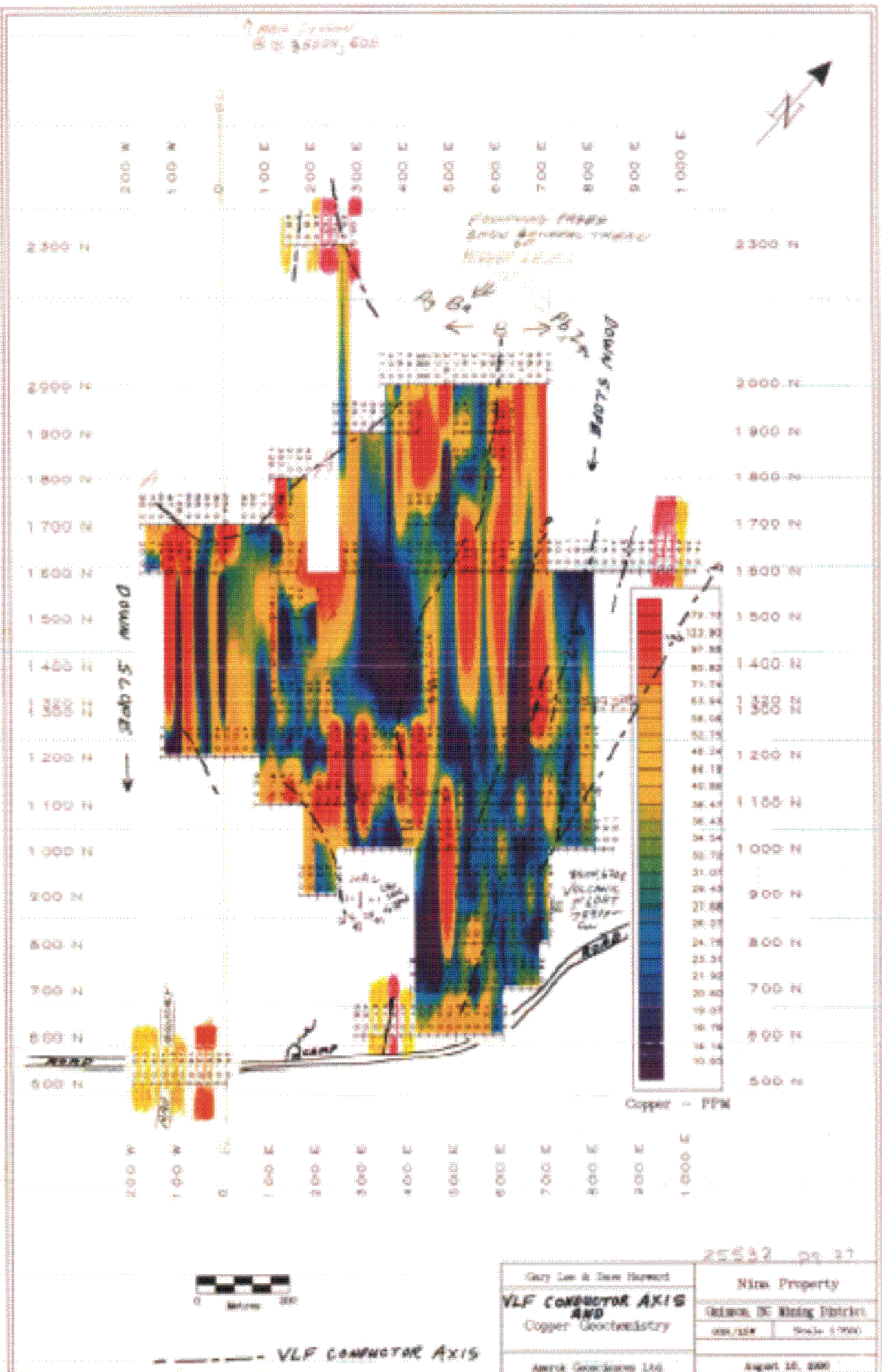
Table 1

Analytical results of individual sulphide-rich fragments from
clastic sulphide zones

SEE 1:20,000 TOPO MAP Pg 5
FOR LOCATION OF SHOWINGS

Sample No	Cu %	Pb % (ppm)	Zn % (ppm)	Ag gm/T	Au gm/T	Co ppm	Ba ppm	Mo ppm	As ppm
D3001	0.10	0.01	0.04	75.5	3.00 ←	11			
D3002	1.74 ←	0.01	0.05	84.5	0.30	21			
D3003	3.15 ←	0.02	0.05	226.5	0.90	32			
D3004	0.41	0.01	0.01	26.0	0.60	18			
D3005	0.36	0.01	0.06	146.5	6.90	8			
D3006	0.17	0.01	0.01	9.5	0.05	186			
D3007	0.09	0.01	0.51	10.0	1.20 ←	19			
D3008	0.46	0.01	0.01	3.5	0.05	10			
D3009	0.17	0.01	0.01	7.0	0.40	18			
D3013	0.80	0.01	0.02	38.0	1.90 ←	10			
D3014	0.21	0.01	0.01	10.0	4.70 ←	3			
*D5459	0.19	(129)	(193)	96.8	1.80		5	3	238
*D5460	0.07	(27)	(48)	9.8	0.15		9	7	67
*D5461	0.31	(35)	(53)	7.6	0.05		8	12	131
*D5462	0.41	(63)	(157)	23.7	0.40		9	8	117
*D5464	14.91 ←	(47)	(1167)	20.2	0.60		9	8	164

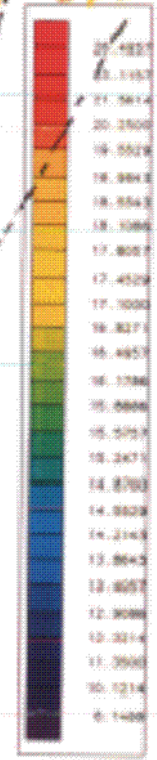
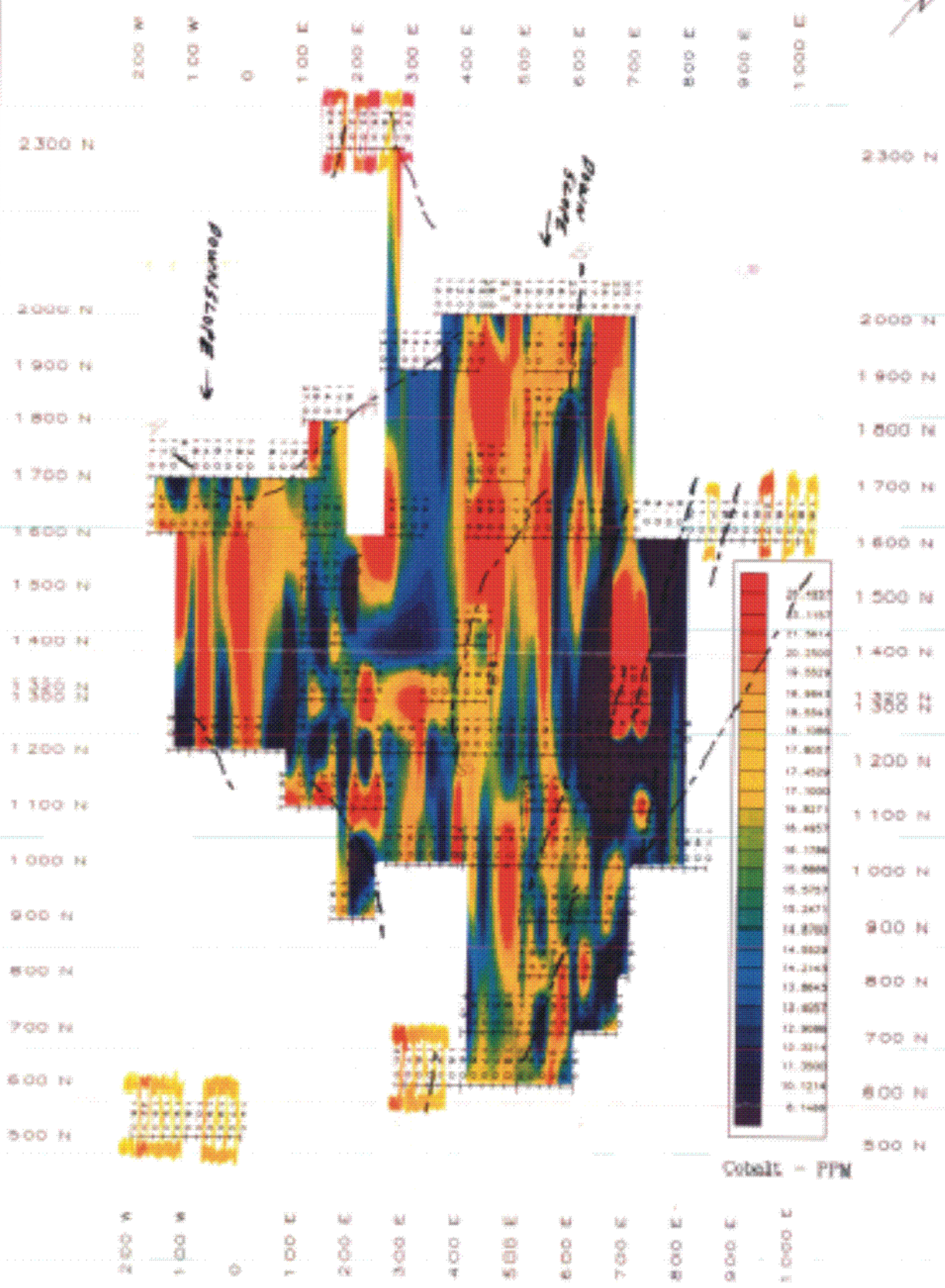
* Sample collected on July 23 during initial property examination



Gary Lee & Dave Howard	Nima Property	
VLF CONDUCTOR AXIS AND	Gibson, DC Mining District	
Copper Geobotany	099/109	Scale 1:7500
Aerak Geosciences Ltd.	August 15, 2000	



----- VLF CONDUCTOR AXIS

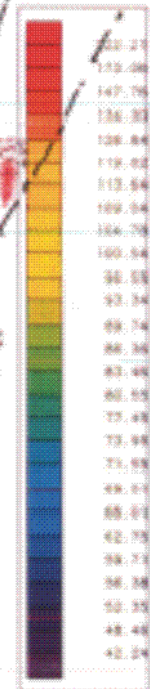
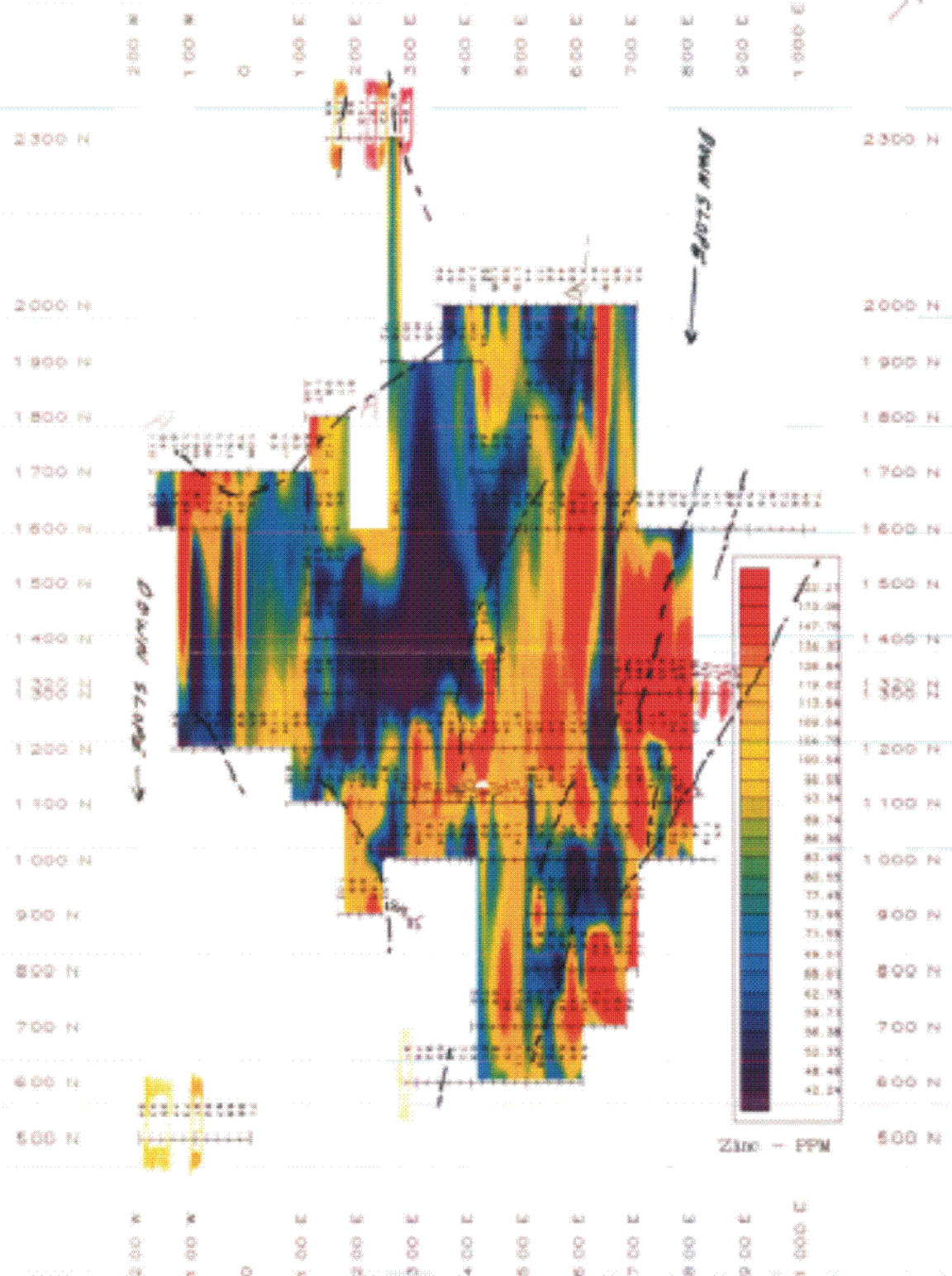


Cobalt - PPM



--- VLF CONDUCTOR AXIS

2553.2 pg. 34	
Gary Lee & Dave Norwood	Nima Property
Cobalt Geochemistry	Ontario, BC Mining District
	GSN/20W Scale 1:500
Aerco Geosciences Ltd.	August 26, 2005

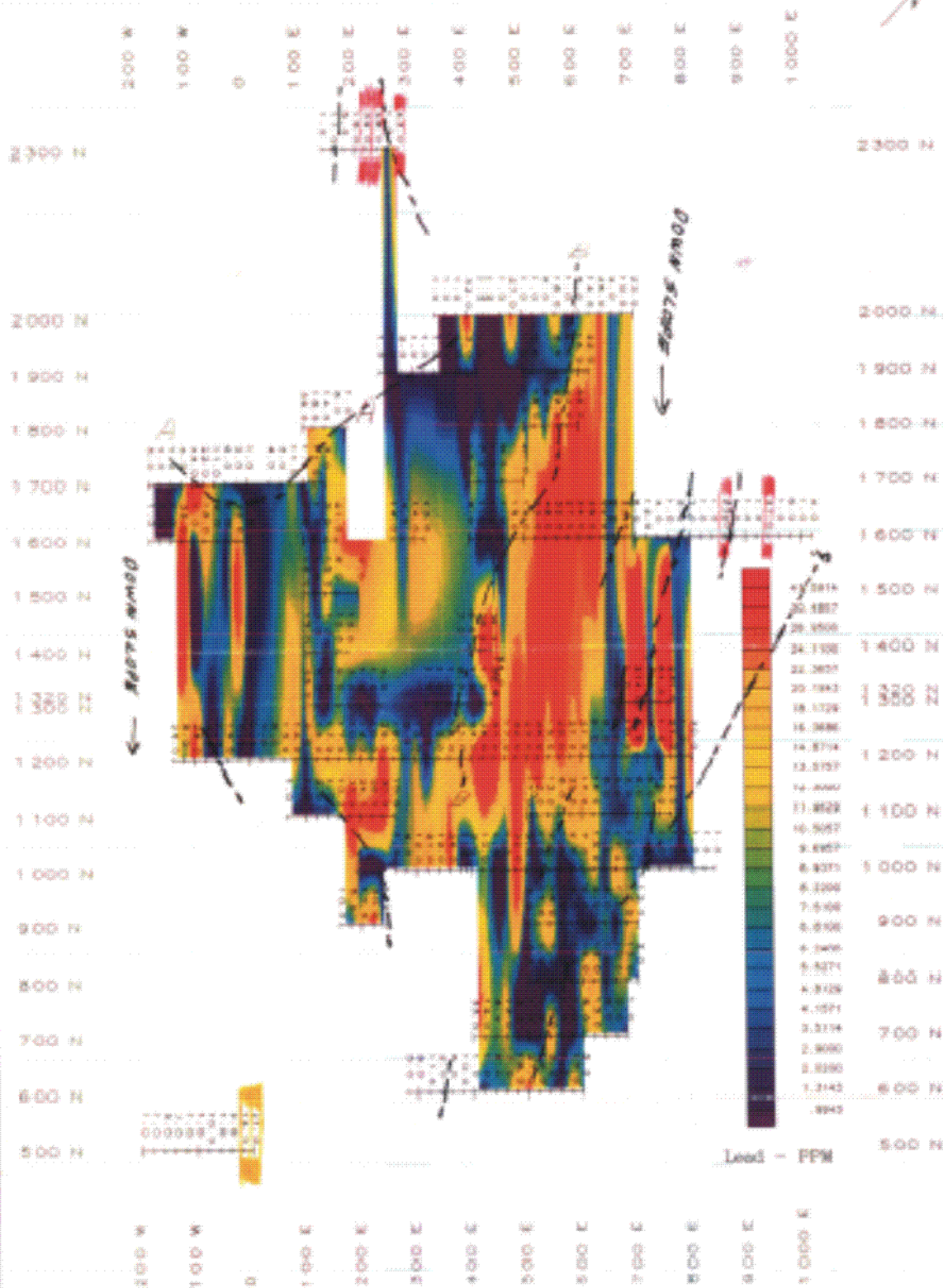


25532 P3 19

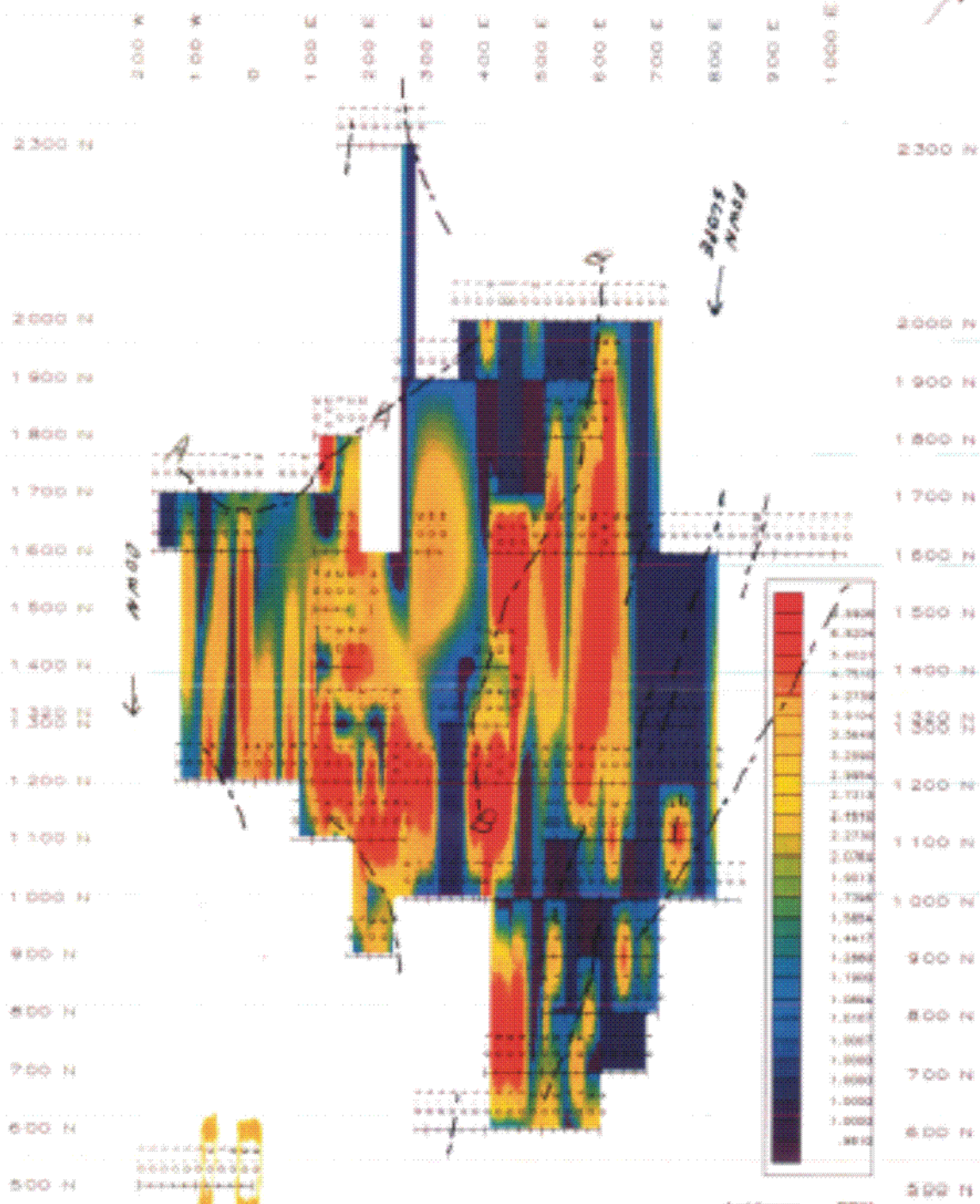
Gary Lee & Jon Huxford	Mira Property	
Zinc Geochemistry	Oskana, BC Mining District	
	201/208	Scale 1:7500
Geomatics Solutions Ltd	August 15, 2008	



--- VLF CONDUCTOR AXIS



Gary Lee & Don Hayward	Nixon Property	
Lead Geochemistry	Odessa, BC Mining District	
	sheet#	Scale 1:7500
Aurora Geosciences Ltd.	August 25, 1998	



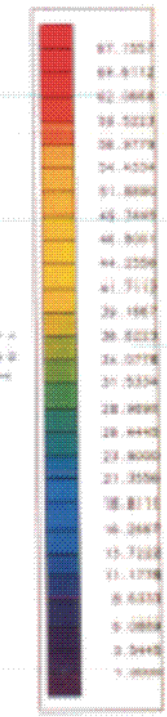
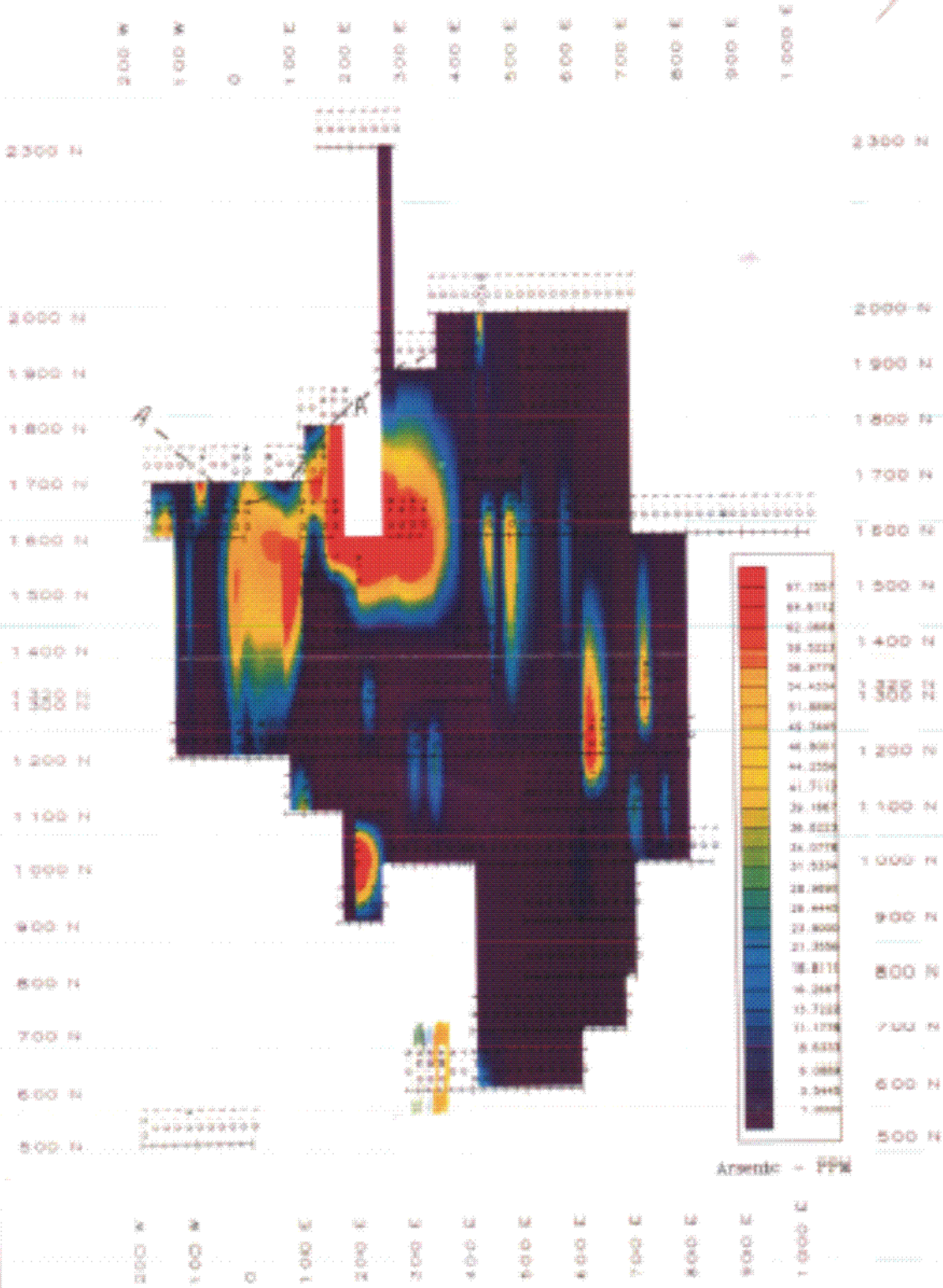
Antimony - PFM



VLF CONDUCTOR AXIS

25532 (24) 31

Geological Services Ltd.	Nina Property	
Antimony Geochemistry	Ottawa, BC Mining District	
	100/100	Scale 1:7500
Geological Services Ltd.	August 25, 1996	

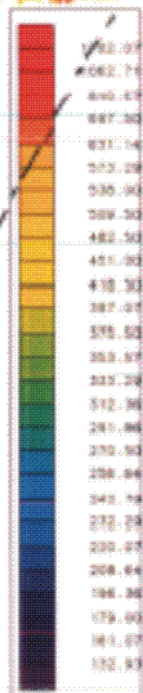
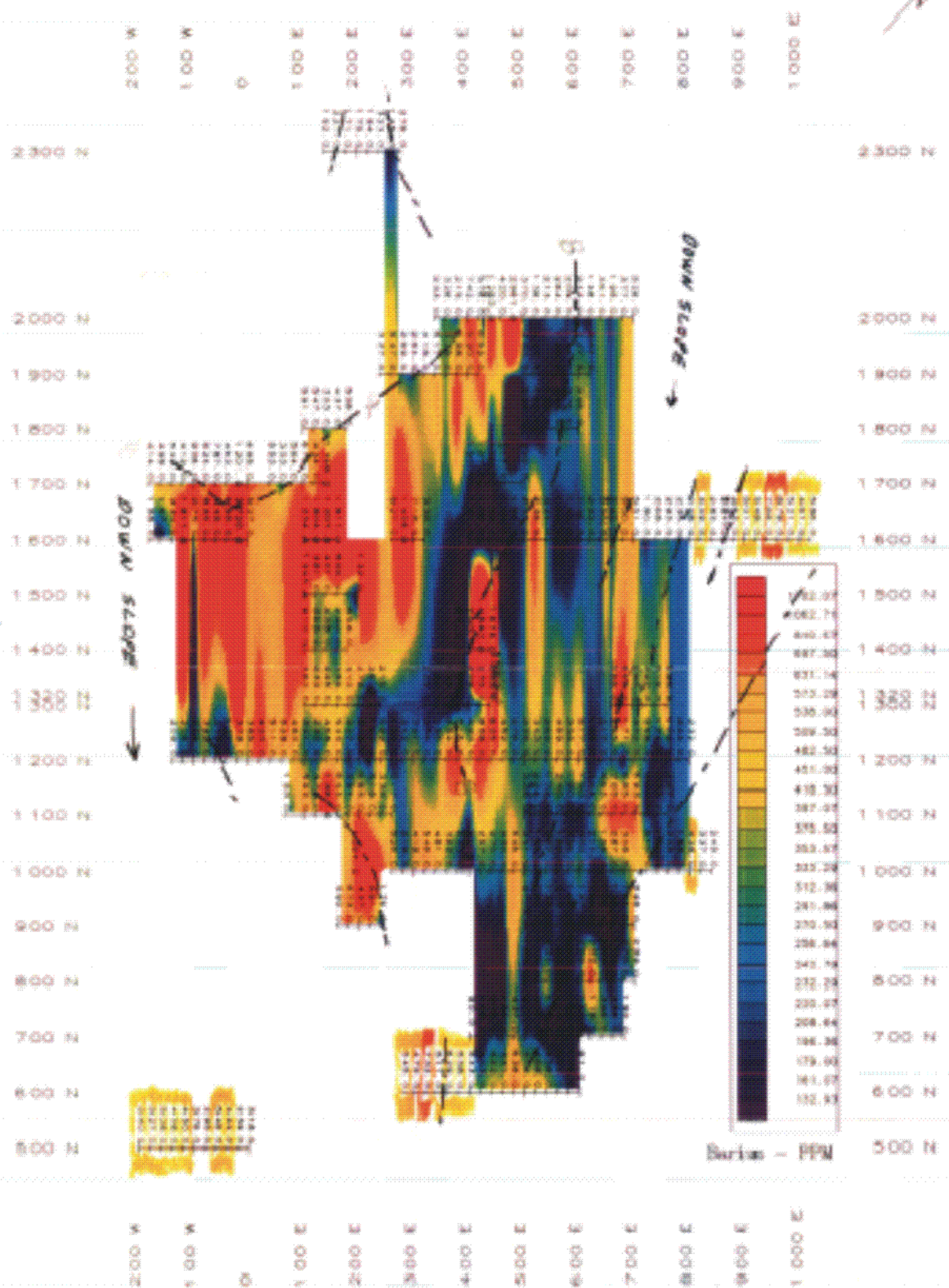


Arsenic - PPM

25532 24 32



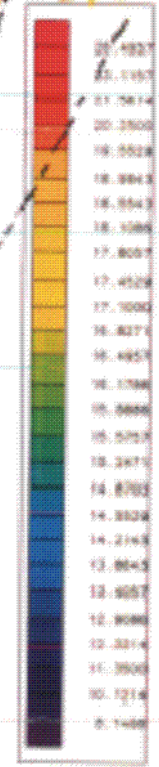
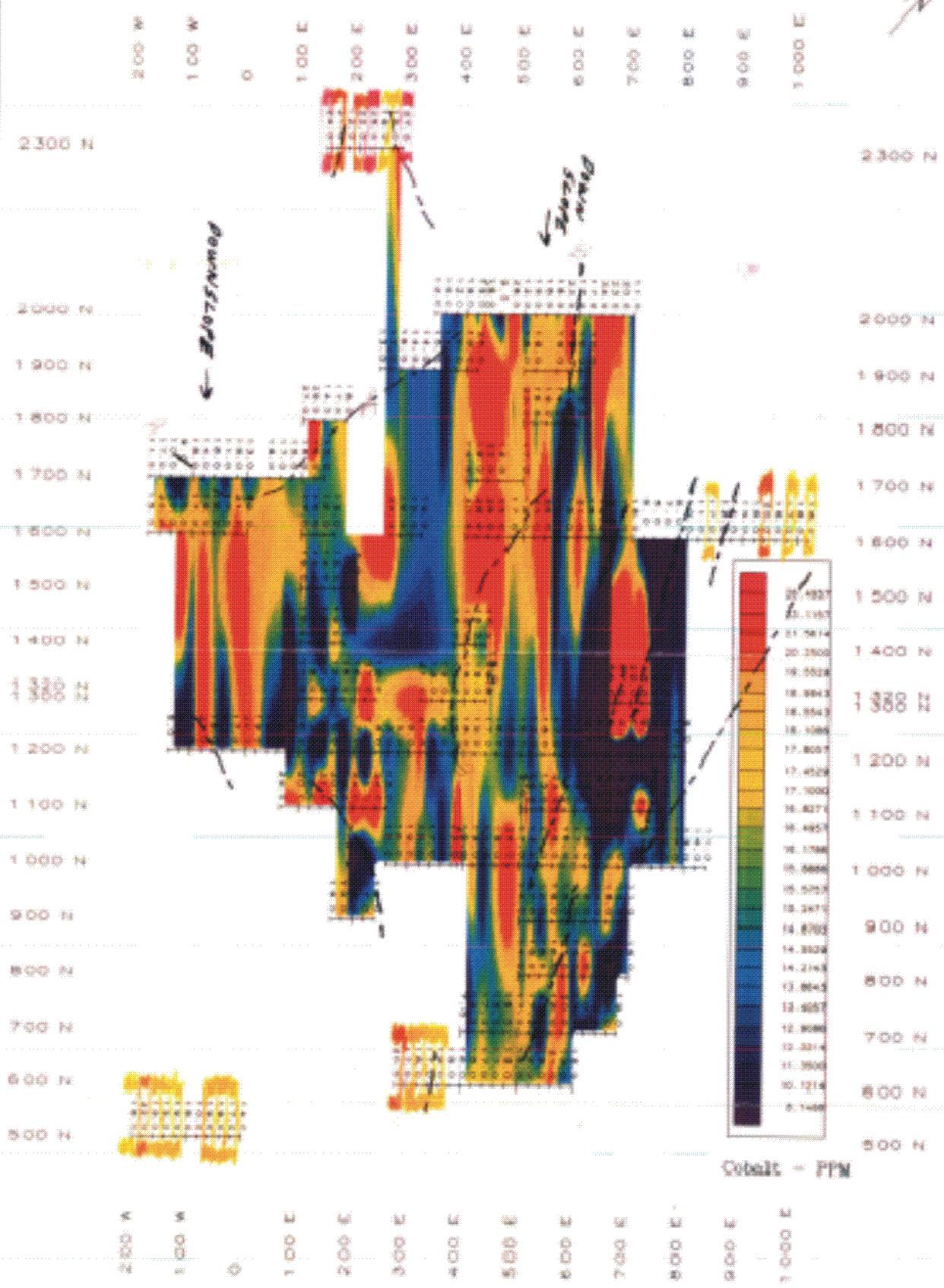
Gary Lee & Daw Hayward	Nirm Property	
Arsenic Geochronology	Ontario, NC Mining District	
	888/158	Scale 1:7500
Arsenic Geochronology Ltd.	August 14, 2008	



--- VLF CONDUCTOR AXIS

45532 24 13

Gary Lee & Dow Bayard	Nise Property	
Burian Geochemistry	Delburn, BC Mining District	
	site/24#	Scale 1:750
Jeannet Geosystems Ltd.	August 26, 1999	



Cobalt - PPM



--- VLF CONDUCTOR AXIS

25532 p. 39

Gary Lee & Dawn Roward	Nima Property	
Cobalt Geochemistry	Outcrop, BC Mining District	Scale 1/7500
	ASR/20W	
Aerco Geosciences Ltd.	August 25, 2005	

COMP: DAVE HAYWARD

PROJ:

ATTN: Dave Hayward / Gary Lee

MIN-EN LABS — ICP REPORT

8282 SHERBROOKE ST., VANCOUVER, B.C. V5X 4E8

TEL: (604)327-3436 FAX: (604)327-3423

FILE NO: 6S-0050-SJ7

DATE: 96/07/30

* * (ACT:F31)

SAMPLE NUMBER	AG PPM	AL %	AS PPM	BA PPM	BE PPM	BI PPM	CA %	CD PPM	CO PPM	CR PPM	CU PPM	FE %	GA PPM	K %	L1 PPM	MG %	MN PPM	MO PPM	NA %	NI PPM	P PPM	PB PPM	SB PPM	SN PPM	SR PPM	TH PPM	TI %	U PPM	V PPM	W PPM	ZN PPM
96NL 2000 440E	1.3	1.83	1	1282	.2	3	.69	.1	16	48	74	3.24	1	.09	14	.87	955	15	.01	33	620	1	1	2	36	1	.11	1	87.3	1	108
96NL 2000 460E	1.3	1.70	1	420	.1	4	.58	.1	9	51	27	2.89	1	.03	14	.82	321	12	.01	27	360	1	1	2	20	1	.11	1	93.3	2	58
96NL 2000 480E	1.0	2.23	1	2961	.4	1	.25	.1	28	31	218	3.62	1	.06	13	.84	990	15	.01	55	310	27	2	2	49	1	.04	1	45.9	1	115
96NL 2000 500E	1.8	1.65	1	370	.1	14	.79	.1	12	40	17	3.10	1	.04	10	.56	271	14	.01	18	210	1	1	2	23	1	.21	1	121.3	3	44
96NL 2000 520E	2.3	2.26	1	136	.2	12	.93	.1	19	65	26	4.61	1	.04	16	1.09	455	17	.01	32	680	1	1	2	20	1	.28	1	138.0	2	77
96NL 2000 540E	2.2	2.22	1	213	.1	19	1.01	.1	18	45	31	4.60	1	.04	11	.97	478	17	.01	28	710	6	1	2	22	1	.31	1	152.9	1	66
96NL 2000 560E	1.9	1.90	1	264	.1	15	1.10	.1	16	64	19	3.93	1	.04	11	.80	349	15	.01	27	400	16	1	2	15	1	.26	1	172.5	3	44
96NL 2000 580E	2.4	2.90	1	209	.2	13	1.17	.1	23	62	39	4.90	1	.03	16	1.25	545	18	.01	39	390	1	1	3	20	1	.26	1	131.7	1	68
96NL 2000 600E	1.6	1.96	1	212	.1	7	.60	.1	17	47	46	4.59	1	.04	13	.87	415	16	.01	37	480	5	1	2	13	1	.19	1	105.6	1	91
96NL 2000 620E	1.8	2.22	1	146	.1	12	.78	.1	17	50	37	4.87	1	.04	12	.85	784	17	.01	29	440	14	1	2	17	1	.24	1	141.6	1	64
96NL 2000 640E	1.2	2.60	1	361	.5	9	1.46	.1	34	59	127	4.30	1	.04	17	1.12	4739	18	.01	72	750	26	1	3	45	1	.14	1	130.8	1	239
96NL 2000 660E	2.0	2.31	1	195	.1	13	1.01	.1	23	62	58	5.64	1	.04	13	.99	680	19	.01	33	670	4	1	3	18	1	.29	1	221.3	2	85
96NL 2000 680E	1.7	2.20	1	377	.2	11	1.35	.1	20	52	65	4.56	1	.04	17	.88	1009	16	.01	32	850	10	1	2	34	1	.21	1	149.1	1	75
96NL 2000 700E	1.3	1.71	1	526	.2	9	.88	.1	11	29	132	3.25	1	.06	9	.38	426	12	.01	23	380	23	4	2	64	1	.12	1	108.9	2	54
96NL 2300 140E	1.8	3.03	1	192	.5	9	1.74	.1	24	68	48	4.63	1	.05	17	1.54	1217	16	.01	37	890	1	1	3	38	1	.21	1	129.8	1	68
96NL 2300 160E	1.9	2.51	1	221	.4	15	.94	.1	21	54	31	3.85	1	.07	17	1.03	946	16	.01	32	960	11	1	2	30	1	.25	1	100.3	1	145
96NL 2300 180E	1.7	1.50	1	171	.1	14	.48	.1	12	30	18	3.21	1	.06	6	.47	619	12	.01	18	1210	5	1	2	17	1	.21	1	90.0	2	56
96NL 2300 200E	1.9	2.56	1	175	.4	13	.59	.1	22	53	46	4.28	1	.05	17	1.11	1138	15	.01	36	1080	18	1	2	24	1	.24	1	131.9	1	143
96NL 2300 220E	1.7	3.08	1	194	.5	16	.48	.1	25	64	143	4.67	1	.06	18	1.34	1463	17	.01	54	1050	39	1	3	38	1	.26	1	170.9	1	187
96NL 2300 240E	1.3	2.15	1	323	.3	9	.46	.1	19	40	110	3.85	1	.10	11	.73	2146	15	.01	36	1650	48	2	2	26	1	.17	1	80.0	1	142
96NL 2300 260E	2.0	2.40	1	145	.3	12	.84	.1	18	50	35	4.42	1	.04	15	1.16	626	16	.01	32	1550	1	1	2	23	1	.23	1	108.9	1	73
96NL 2300 280E	1.3	2.38	1	278	.6	7	.43	.1	27	47	105	4.38	1	.06	15	.89	2356	16	.01	34	1480	43	1	2	26	1	.15	1	84.6	1	184

COMP: DAVE HAYWARD
 PROJ:
 ATTN: Dave Hayward / Gary Lee

MIN-EN LABS — ICP REPORT
 8282 SHERBROOKE ST., VANCOUVER, B.C. V5X 4E8
 TEL:(604)327-3436 FAX:(604)327-3423

FILE NO: 6S-0050-RJ1
 DATE: 96/07/30
 * ROCK * (ACT:F31)

SAMPLE NUMBER	AG PPM	AL %	AS PPM	BA PPM	BE PPM	BI PPM	CA %	CD PPM	CO PPM	CR PPM	CU PPM	FE %	GA PPM	K %	LI PPM	MG %	MN PPM	MO PPM	NA %	NI PPM	P PPM	PB PPM	SB PPM	SN PPM	SR PPM	TH PPM	TI %	U PPM	V PPM	W PPM	ZN PPM	Au-fire PPB
96NL 1840 295E	1.5	2.11	162	12	.5	9	1.50	.1	16	170	383	3.08	1	.01	8	1.39	685	15	.02	24	830	1	2	2	5	1	.11	1	57.3	7	103	5
96NL 2300 178E YT	1.4	3.79	1	31	.4	1	1.88	.1	22	12	94	7.25	1	.01	16	2.08	1071	23	.02	16	1460	1	14	5	1	1	.19	1	100.3	1	69	1
96NL 3400 150E PYS	28.8	3.15	410	60	.4	51	1.06	.1	36	109	3260	11.05	1	.02	8	2.50	1171	36	.03	62	550	643	5	7	1	1	.20	1	105.2	7	4796	1255
96NL 3500 050E MS	53.8	.06	1	18	.8	1	.08	.1	21	74	1108	>15.00	1	.01	1	.04	3	64	.01	36	10	19	1	13	1	1	.01	1	12.6	1	568	547
96NL 3500 050E Q	2.4	.90	149	22	.3	46	2.14	.1	17	88	1568	.83	1	.01	6	.31	557	5	.02	16	260	9	8	1	48	1	.17	1	41.0	7	175	3

COMP: MR DAVE HAYWARD
 PROJ:
 ATTN: Dave Hayward

MIN-EN LABS — ICP REPORT
 8282 SHERBROOKE ST., VANCOUVER, B.C. V5X 4E8
 TEL:(604)327-3436 FAX:(604)327-3423

ROCK

FILE NO: 6S-0045-RJ1
 DATE: 96/07/16
 (ACT:F31)

SAMPLE NUMBER	AG PPM	AL %	AS PPM	Ba PPM	Be PPM	BI PPM	CA %	CD PPM	CO PPM	CR PPM	CU PPM	FE %	GA PPM	K %	LI PPM	MG %	MN PPM	MO PPM	NA %	NI PPM	P PPM	PB PPM	SB PPM	SN PPM	SR PPM	TH PPM	TI %	U PPM	V PPM	W PPM	Zn PPM
96NL 850 620E	2.8	3.87	1	109	.1	17	1.85	.1	31	40	799	9.29	1	.06	7	3.10	1574	25	.02	31	900	1	1	7	23	1	.40	1	224.1	1	149
96NL 1000 190E	.6	1.07	117	1354	.1	1	.10	.1	6	63	23	1.85	1	.10	12	.80	199	8	.01	25	390	1	1	1	49	1	.01	1	10.7	2	104
96NL 1000 390E	1.9	3.24	1	95	.1	7	3.76	.1	41	50	52	6.67	1	.02	18	2.97	1213	20	.03	37	710	1	1	5	2	1	.34	1	220.0	1	54
96NL 1000 400E	1.7	2.09	1	31	.1	9	2.54	.1	15	67	46	2.49	1	.02	2	.95	417	12	.08	21	400	3	7	2	8	1	.18	1	79.2	4	34
96NL 1075 180E	.8	.09	41	82	.1	1	.02	.1	1	182	13	.34	4	.04	2	.02	29	5	.01	7	10	1	1	1	2	1	.01	1	8.4	10	6
96NL 1100 0+65E	1.7	2.63	1	120	.1	7	1.63	.1	29	27	62	5.04	1	.01	4	1.91	772	16	.03	47	640	1	1	4	18	1	.26	1	99.3	1	65
96NL 1100 510E	1.8	2.52	1	183	.1	12	2.43	.1	22	80	46	3.38	1	.01	2	1.51	517	12	.07	40	460	1	1	2	6	1	.24	1	99.1	2	40
96NL 1200 100W	2.1	2.75	30	86	.1	15	3.26	.1	12	76	84	2.10	1	.01	7	1.04	346	11	.03	18	780	3	15	2	9	1	.17	1	100.2	5	20
96NL 1300 2+00E	1.7	3.02	1	60	.1	7	3.04	.1	26	22	59	5.30	1	.01	3	1.33	759	18	.03	28	640	1	1	4	1	1	.21	1	124.0	1	64
96NL 1300 220E	1.4	3.46	22	26	.1	1	1.99	.1	27	150	64	4.74	1	.04	12	3.06	867	17	.04	52	400	1	1	4	10	1	.16	1	96.7	1	52
96NL 1320 445E (4-4-5E)	.2	1.55	1	229	.1	1	.13	.1	10	135	117	3.88	1	.60	15	1.31	381	14	.01	33	330	1	1	3	31	1	.05	1	179.3	6	54
96NL 1320 451E (4-5-1E)	.2	2.76	1	>10000	.2	2	.35	.1	15	75	105	1.98	1	.04	2	.15	478	9	.01	35	410	55	29	1	94	1	.01	1	38.1	4	61
96NL 1500 200E	1.0	.72	31	132	.1	5	1.07	.1	3	179	4	.67	4	.01	2	.12	126	4	.01	7	100	7	4	1	29	1	.03	1	19.9	10	6
96NL 1600 650E	.9	.41	1	477	.1	2	.06	.1	3	83	21	1.49	1	.12	4	.19	131	8	.01	11	200	5	1	1	13	1	.02	1	12.2	5	30
96NL 1600 865E	1.9	2.43	1	50	.1	11	5.25	.1	13	86	17	2.31	1	.01	3	.50	281	12	.01	20	380	35	25	1	1	1	.12	1	69.8	6	30
96NL 2000 430E	1.5	1.27	69	116	.1	8	.49	.1	20	100	54	2.79	1	.06	7	1.03	890	11	.03	35	440	1	1	2	13	1	.14	1	50.3	5	24
96NL 2020 430E	2.6	2.74	1	208	.1	24	1.34	.1	41	105	393	4.73	1	.11	10	1.74	1446	18	.06	67	740	1	1	4	11	1	.30	1	93.4	2	49
JACKARDO	.9	.97	1	39	.1	8	.72	.1	13	151	145	2.95	1	.12	5	.30	98	32	.10	49	320	7	1	2	40	1	.13	1	171.1	10	23



**MINERAL
ENVIRONMENTS
LABORATORIES LTD.**

SPECIALISTS IN MINERAL ENVIRONMENTS
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VANCOUVER, B.C., CANADA V5X 4E8
TELEPHONE (604) 327-3436
FAX (604) 327-3423

SMITHERS LAB:
3176 TATLOW ROAD
SMITHERS, B.C., CANADA V0J 2N0
TELEPHONE (604) 847-3004
FAX (604) 847-3005

Quality Assaying for over 25 Years

Assay Certificate

7S-0190-RA1

Company: **MR. DAVE HAYWARD**
Project:
Attn: Dave Hayward / Gary Lee

Date: AUG-13-97

We hereby certify the following Assay of 2 ROCKS samples
submitted MMM-DD-YY by .

Sample Number	Au-fire g/tonne
97N RTS	.01
97N 1320N 450E	.02

ROCK

Certified by _____

MIN-EN LABORATORIES

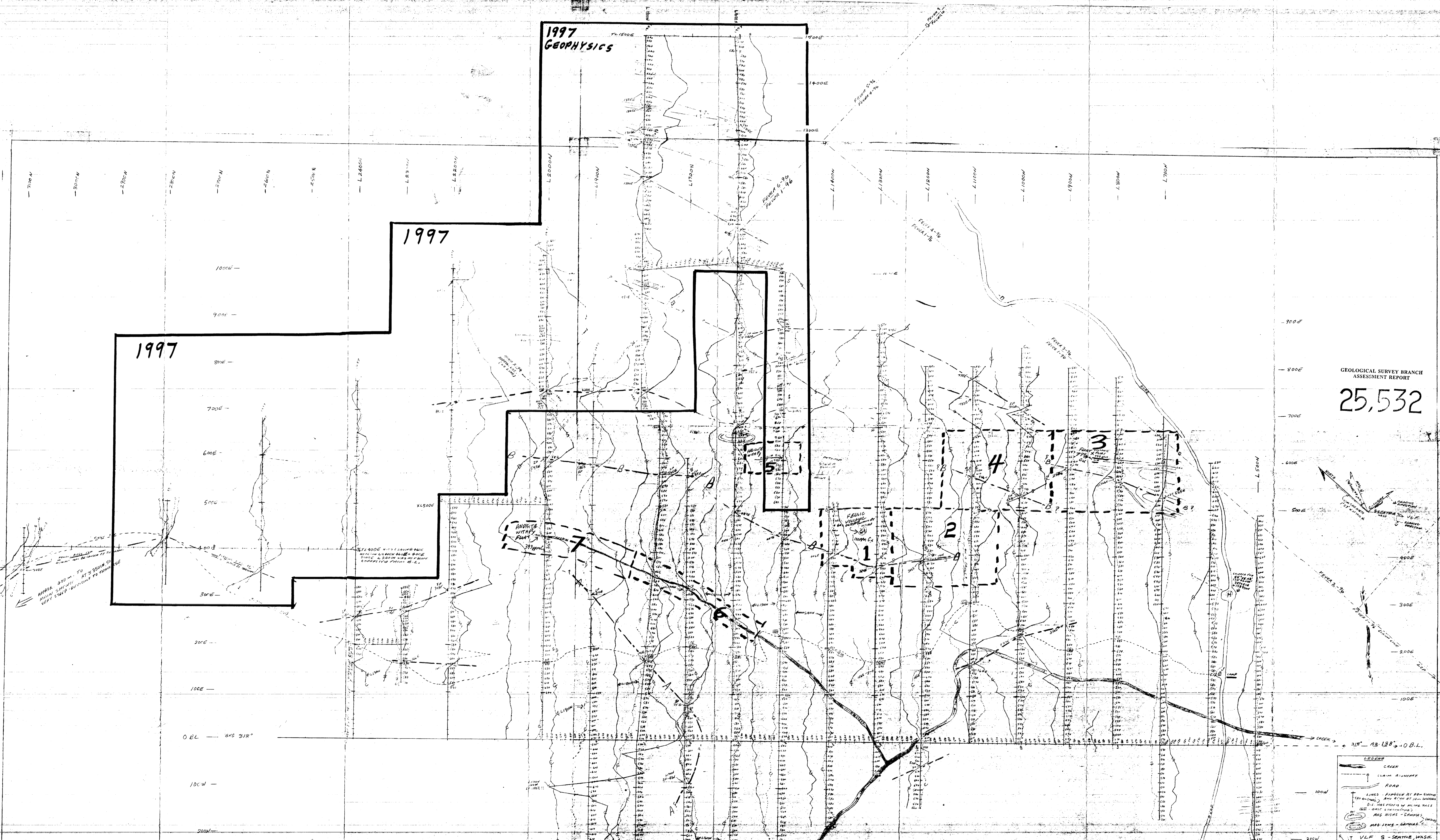
1997
GEOPHYSICS

1997

1997

GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORT

25,532



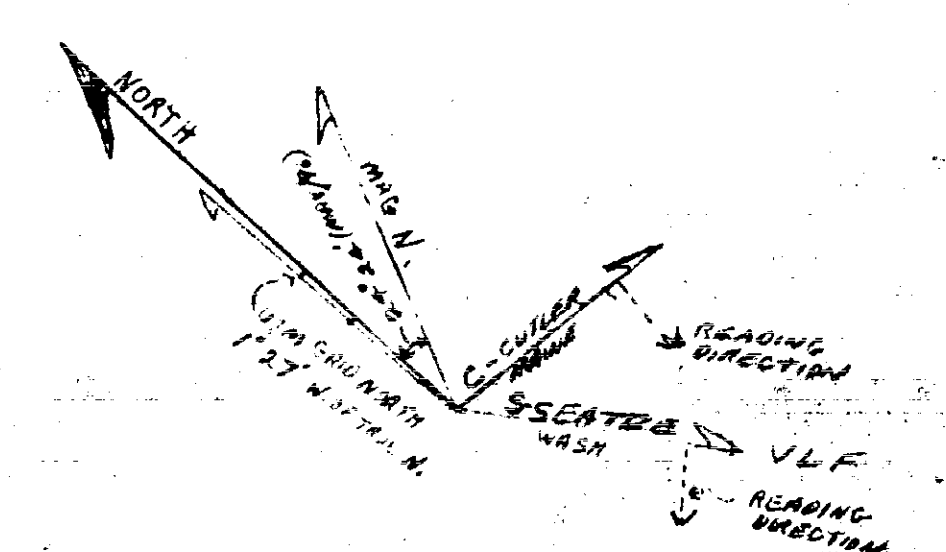
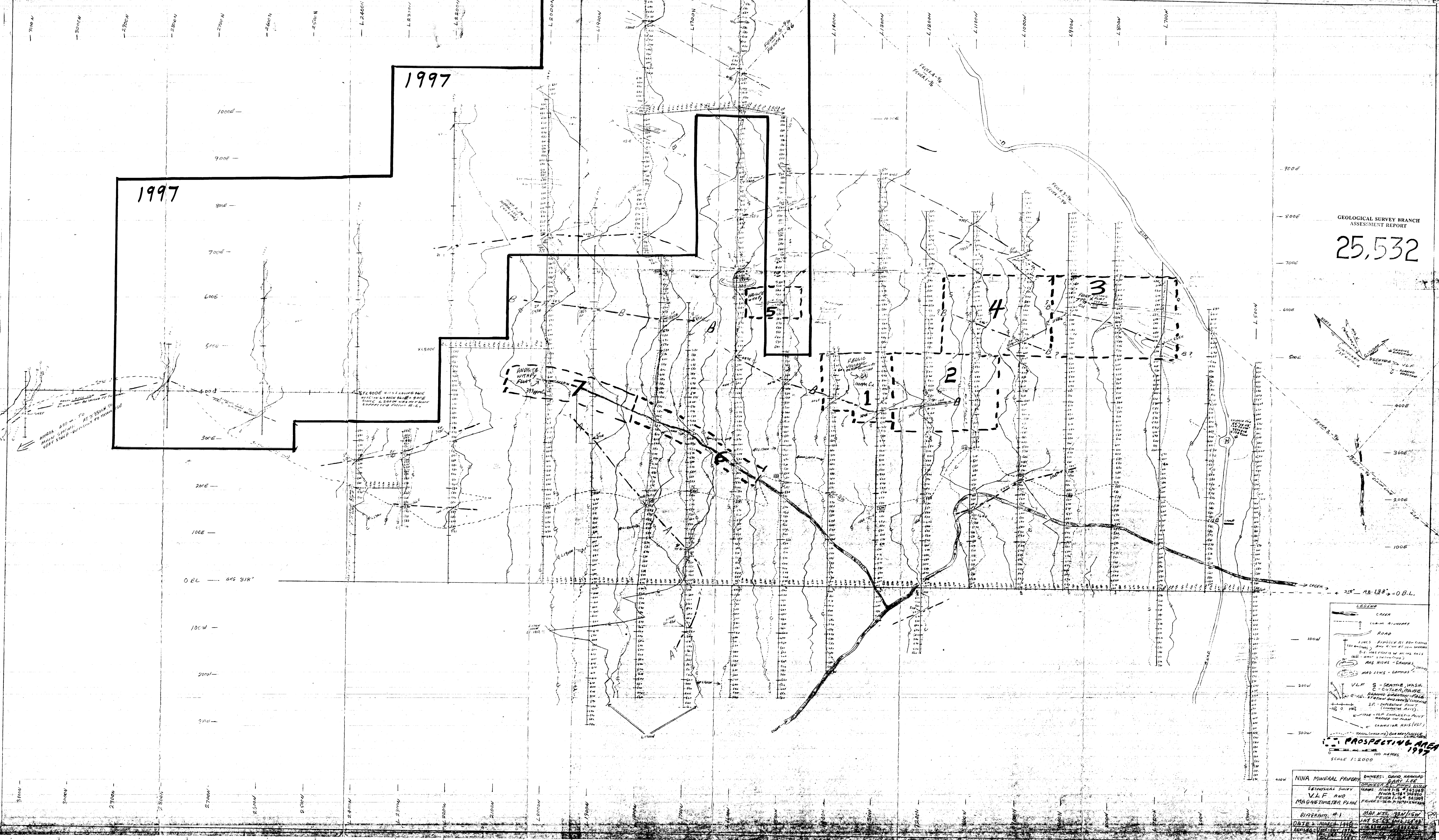
LEGEND

- CREEK
- CLAIM ALIGNMENT
- ROAD
- LINES - PROPOSED AT 20-30MM
- VLF S - SEATTLE, WASH.
- C - CUTLER, IDAHO

1997

1997

GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORT
25,532



LEGEND

- CREEK
- CLAIM BOUNDARY
- ROAD
- VLF S - SEATTLE WASH. - OUTER MARGIN
- VLF S - SEATTLE WASH. - INNER MARGIN
- VLF S - SEATTLE WASH. - CENTER AXIS
- VLF S - SEATTLE WASH. - OUTER MARGIN (with arrow)
- VLF S - SEATTLE WASH. - INNER MARGIN (with arrow)
- VLF S - SEATTLE WASH. - CENTER AXIS (with arrow)

PROSPECTING AREA 1997

SCALE 1:2000

NINA MINERAL PROPERTY	OWNERS: DAVID HANNAH GARY LEE
GEOLOGICAL SURVEY	GEOL. SURVEY BRANCH
VLF AND MAGNETOMETER PLAN	DATE: MARCH 1986
DIARRHY #1	M.A. SMITH, G.S. SMITH
DATE: MARCH 1986	DATE: MARCH 1986
REVISION: NONE	REVISION: NONE