

LOG NO: 12 05	RD.
ACTION:	
FILE NO:	

Geology and Rock Sampling  
of the  
Nation Property

Specific Claims Involved:	Claim Name	Record No.
	Nation 2	9479
	Nation 3	9962
	Nation 4	9963
	Nation 5	10426
	Nation 6	10427

Mining Division: Omineca

NTS: 93N/11W, 93N/6W

Latitude: <sup>55</sup>/~~52~~ degrees 32 minutes north

Longitude: 125 degrees 25 minutes west

Owner/operator: Eastfield Resources Ltd.

Author of report: J. W. Morton

Date submitted: November 1989

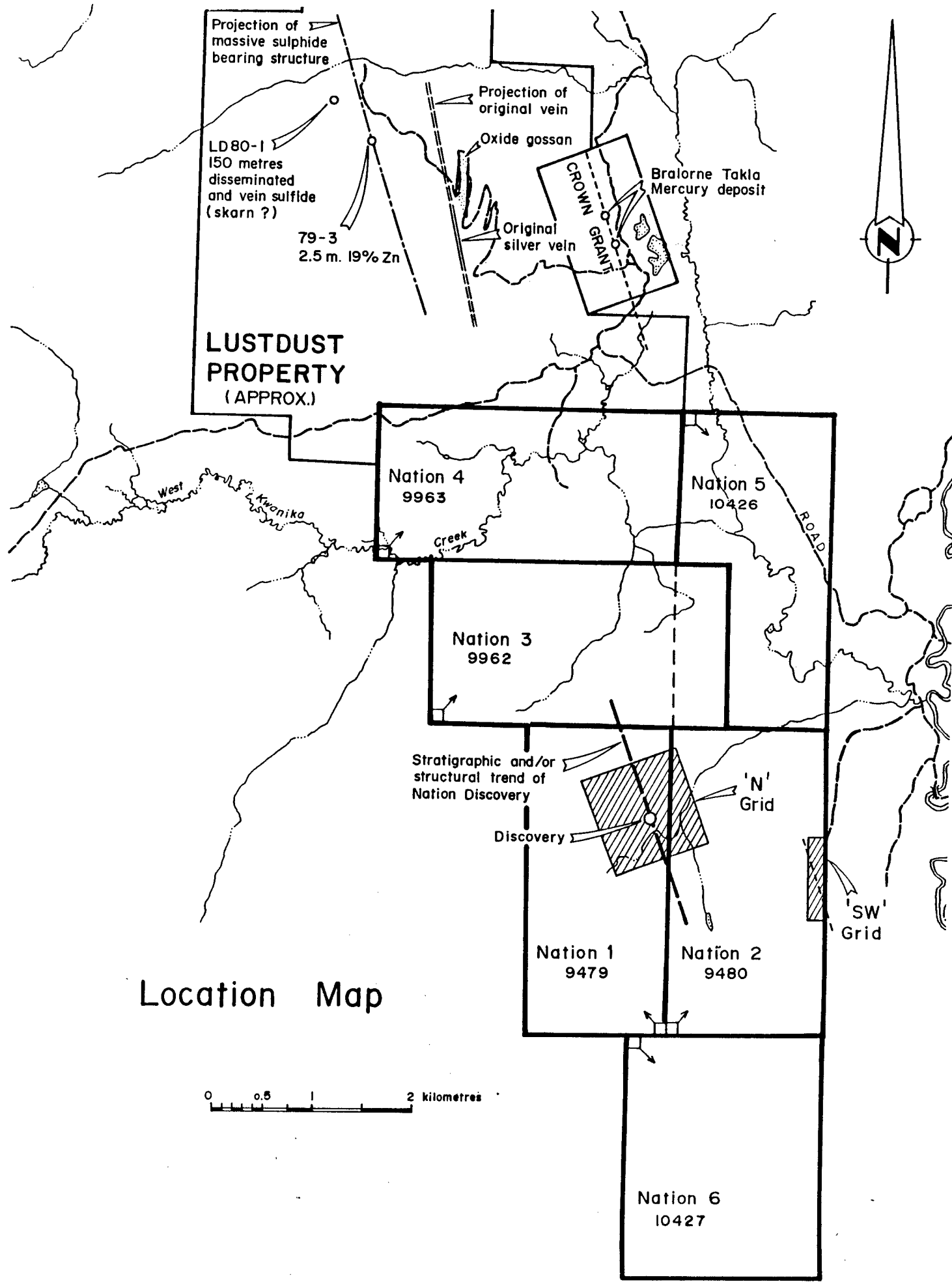
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NOV 29 1989  
M.R. # \_\_\_\_\_ \$ \_\_\_\_\_  
VIA: MFC, I.C.

GEOLOGICAL BRANCH  
ASSESSMENT REPORT

19,373

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Location Map

### 1.1 General Geographical and Physiographical Position:

The Nation Claims occur in the Omineca mountains north of Tsayta Lake. The claims are accessible by bush road from Manson Creek which is in turn accessible by gravel road from Fort St. James, B.C. The claims occupy a pine and spruce forested terrain in which elevation varies from 1,000 meters to 1,220 meter (3,300 feet to 4,000 feet).

### 1.2 Introduction

On May 24, 1989 J. W. Morton, in the company of Michael Caron of the Battle Mountain Exploration Company, visited the Nation Property. The May 24 trip was predominantly to investigate an arsenical and auriferous ankeritic carbonate unit discovered in 1988 at the head of a stream sediment gold-arsenic anomaly (305 ppb Au, 7917 ppm As).

This area of the claim was gridded in 1988 and is referred to as the 'N' grid. A siderite altered latite porphyry occurring 300 meters west of the 1988 discovery was also sampled on this day and returned a value of 350 ppb gold. During the departure from the property by helicopter some old workings were noted approximately 2 km east of the 1988 discovery. These workings (trenches) are now believed to originate from the early 1940's and are described in Armstrong's G.S.C. paper 44-5 under the heading Dan Group. The trenches which occur in intensely silicified limestone and ultramafic rock were completed by the Consolidated Mining and Smelting Company of Canada while exploring for mercury.

Some sampling was completed on May 24 and the area was further investigated in July and October when the 'SW' grid was established over this area. During June and July 1989, Eastfield Resources Ltd. and Northair Mines Ltd. were exploring the adjacent Swan claims. Two lines of induced polarization survey were extended off the Swan claims onto the Nation claims. This geophysical work is not claimed as an expense in this report although the relevant portions of these lines is included in the appendix and the significance of the geophysical response is covered in the section 'SW' Grid geology.

### 1.3 History

The Nation claims were staked in 1988 following the definition of an outstanding gold-arsenic silt anomaly above a site where the government funded 1983 regional reconnaissance map indicated a highly anomalous arsenic drainage. The source of the silt anomaly was deemed to be from a similar stratigraphic and structural regime to that which occurs at the Indata property to the south, and the Lustdust property to the north. Placer gold occurrences are presently being worked approximately 4 kilometers downstream from the Nation discovery on Kwanika Creek. A one kilometer square grid was established in 1988 at the apparent source of the anomaly. A soil sample survey, magnetometer survey and VLF-EM survey were completed on this grid in 1988.

Vein mineralization, precious metal rich massive sulphides with minor quartz and carbonate, was discovered 1.5 kilometers west of the Bralorne Takla Mercury Mine in 1944. This occurrence formerly called the Kay Group and more recently the Lustdust deposit is located 2.5 km north of the Nation Property. Bralorne Mines Ltd. optioned the Kay Group in 1945 and completed trenching, drilling and 350 feet of underground development subsequent to 1954. In the period 1960 - 1962 Bralorne Mines Ltd., Canex Aerial Exploration Ltd. and Noranda Exploration Ltd. formed a joint venture to explore the Lustdust property, predominantly by diamond drilling. In 1964 Takla Silver Mines Ltd. completed an additional 750 feet of adit and continued surface and underground diamond drilling. In 1977 Granby Mining Co. Ltd. (Zapata Canada Incorporated) staked around the core claims and in 1979 solidified the land position by optioning the remaining claims. Between 1978 and 1979 Granby completed extensive soil sampling and a pulse EM survey on the claims and in the fall of 1979 drilled an anomaly located 750 meters north-east of the historic workings. Drill holes 79-1 and 79-2 intersected multiple layers of massive sulphide including a 2.5 m intercept that graded 19% zinc. In 1980 and 1981 Noranda Exploration Ltd., following Noranda's acquisition of most of the assets of Granby Mining Co., continued grid work and diamond drilling. Noranda's works were not successful and Noranda terminated its exploration on the property in 1981.

#### 1.4 Summary of Work Completed in 1989

Follow up Geochemical rock sampling - 25 samples analyzed using ICP methods plus Au, Hg by A.A. methods.  
Soil Sampling - 3 lines totalling 725 meters 29 samples analyzed using ICP methods plus Au, Hg by A.A. methods.  
Preliminary Geological Mapping 'SW' Grid (24 hectares) at a scale of 1:2000  
Petrographic analyses - 4 samples prepared and described.

Soil samples were obtained with a soil mattock from a depth of approximately 30 cm. Soils and rocks were sent to Acme Analytical Labs in Vancouver for analyses. Analytical procedures are outlined in the geochemical certificates which appear in the appendix.

Petrographic studies were completed by John G. Payne of Vancouver Petrographics Ltd. of Fort Langley, B.C.

#### 2.1 Regional Geology

The Nation claims lie within an assemblage of Paleozoic aged interbedded sedimentary and volcanic rocks and their derived schists. Recrystallized blue grey limestone is a major part of this sequence. The eastern edge of the claim group coincides with a narrow linear band of ultramafic rocks that marks the approximate trace of a major break of the Pinchi Fault zone. Further to the east, beyond the limits of the claims, there is an abrupt change in lithology as Upper Triassic aged sediments and Jurassic age Hogem intrusive rocks are encountered. The Pinchi

Fault zone varies between 100 and 1,500 meters in width in this region and trends in a north by northwest direction separating Mesozoic strata from Paleozoic strata.

## 2.2 Geology of the 'N' Grid

Cache Creek age blue grey limestone occurs in contact with quartz-sericite schist, chloritic schist and a jasperoid like unit. Quartz feldspar porphyry and feldspar porphyry dykes have been emplaced parallel to the stratigraphy. Foliations in the schist and contacts between dykes are typically approximately 160 degrees and dip steeply to the west. A central area of jasperoid like rock that may be a silicified limestone or alternatively a chert occupies an area of at least 250 meters by 150 meters. Limestone adjacent to the jasperoid like rock is commonly affected by a low density stockwork quartz/carbonate vein system. Ankeritic carbonate rich siltstone containing significant sulphides (pyrite, arsenopyrite) occurs in contact with the jasperoid like rock at 2010N/1975E. An auriferous siderite altered latite porphyry occurs approximately 300 meters west of the ankeritic siltstone. Auriferous porphyritic dacite rubble occurs approximately 400 meters SE of the altered siltstone.

Significant rock geochemical values obtained from the 'N' Grid are as follows:

<u>Sample No.</u>	<u>Gold ppb</u>	<u>Arsenic ppm</u>	<u>Antimony ppm</u>	<u>Lithology</u>
21M3R	590	2	2	dacite porphyry rubble
88NBR9	305	7917	26	ankeritic siltstone outcrop
88NBR35 (1988)	72	34	2	siderite altered latite porphyry outcrop
BC469	350	107	-	siderite altered latite porphyry outcrop

## Geology of the 'SW' Grid

An ultramafic body, possibly a sill, occurs as a talc altered gabbro in the southwest corner of the grid and as quartz-carbonate-mariposite rock 800 meters to the north. Intense silicification of both the ultramafic and hosting limestone is evident. Abundant cinnebar occurs in the northern altered ultramafic unit in the form of disseminations and with chalcedonic veinlets. A quartz rich felsic porphyry that may be a rhyolite dyke occurs in the central region of the grid and trends north-south. Rubble obtained from soil holes indicates that a limonitic schistose quartz-carbonate rock (altered ultramafic) occurs on the southern soil line 4+00S. A one meter

wide pod of massive chromite in serpentinite is exposed in an old trench in the central region of the grid. Two induced polarization survey lines that reach the southern portion of the grid indicated that a well defined chargeability anomaly trends across the grid at approximately 345 degrees. the reason for this chargeability response is not known but may be related to the ultramafic unit.

Significant rock geochemical values obtained from the 'SW' grid are as follows:

<u>Sample No.</u>	<u>Au ppb</u>	<u>Hg ppb</u>	<u>Ni ppm</u>	<u>Cr ppm</u>	<u>As ppm</u>	<u>lithology</u>
89-NAT-1	2	308,000	899	365	770	silicified ultramafic
89-NAT-4	3	214,000	1028	314	40	silicified ultramafic
SW-89-MR-6	43	20	201	551	2	talc altered gabbro
SW-89-MR-10	120	120	22	29	636	felsic porphyry
SW-89-MR-11	2	5	149	1665	2	Pt: 158 ppb.

### 3. Conclusions

An intensely silicified ultramafic rock hosted by silicified limestone occurs approximately 1.5 km east of the 1988 discovery. This silicified unit displays multiple periods of quartz veining and contains subeconomic mercury values and anomalous arsenic values. Sampling completed in 1989 did not outline significant gold values. Two lines of induced polarization survey completed in 1989 indicate that this zone roughly correlates with a well defined northerly trending I.P. conductor.

This eastern silicified zone is suspected to correlate to the mineralizing structure that hosts the now mined out Bralorne - Takla mercury deposit located 6 kilometers to the north.

The intensity of alteration and the classical epithermal character of the silicification justify that this structure be properly explored for its gold potential. (Particularly in view of the downstream coarse gold placer which occurs with cinnebar nuggets in Kwanika Creek).

Similarly altered ultramafic rock occurring in the Pinchi Fault zone has been shown to host gold mineralization of economic grades. In 1983, Cominco Exploration located a boulder of quartz-mariposite-magnesite rock in the Pinchi Fault zone 75 kilometers to the south near Izana Lake. Three replicate assays of this boulder returned values of 8.1 grams per tonne gold. In 1988 Eastfield Resources Ltd. obtained a 4 meter intersection of 47.3 grams per tonne gold from a talc magnesite altered ultramafic rock at the Indata property 13 kilometers to the south.

At the 'N' grid discovery, 1.5 kilometers west of the mercury zone mineralization associated with ankeritic sericite altered siltstone was shown in 1989 to likewise be anomalous in mercury

content. In this context it appears likely that this mineralization, which is suspected to correlate with the Lustdust mineralization, 6 km to the north may be related to the mercury zone and may likewise be of an epithermal origin.

A sample of altered latite porphyry from the 'N' grid returned a value of 350 ppb gold without appreciable base metals. A thin section description of this latite shows that it is saturated with fine grained veinlets. (quartz-albite-calcite-pyrite). The presence of an auriferous latite on the 'N' grid indicates that at least two sources of gold mineralization occurs and further justifies that an I.P. survey be completed.

Cost Statement

Personnel:

J.W. Morton	May 23, 24; July 12, 16, 17 1989 5 days @ \$300/day	\$ 1,500.00
G.L. Garratt	July 12, 1989 - 1 day @ \$300/day	300.00
A. Buskas	October 5, 1989 - 1 day @ \$200/day	200.00
A. Fahlman	October 5, 1989 - 1 day @ \$200/day	200.00

Transportation:

Scheduled Flights - J.W. Morton - May 23/24, 1989	228.40
Helicopter - May 24, 1989 - 2.5 hrs	1,398.50

29 soil samples @ \$17/sample	493.00
25 rock samples @ \$18.5/sample	462.50
4 petrographic analyses	327.67

Report Preparation & Drafting:	<u>600.00</u>
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<b>TOTAL</b>	<b>\$ 5,710.07</b>
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note: Induced Polarization Survey not included in costs.  
July and October Travel not included in costs.  
Room and board not included in costs.



Appendix 1

Statement of Qualifications

STATEMENT OF QUALIFICATIONS

I, James William Morton, of 2750 Alma Street, Vancouver, British Columbia, do hereby certify:

1. I graduated from Carleton University, Ottawa, in 1971 with a Bachelor of Science on Geology.
2. I graduated from the University of British Columbia, Vancouver, in 1976 with a Master of Science in Soil Science.
3. I am a fellow of the Geological Association of Canada.
4. I supervised the work described in this report.



---

J. W. Morton  
M. Sc., F.G.A.C.

Dated at Vancouver, British Columbia, this 17th day of November, 1989.

Appendix 2

Petrographic Descriptions

**Sample NATION-88-NBR-9      Impure (Shaly) Ankeritic Marble; N' 2010N 1975E**  
**Disseminated Pyrite, Arsenopyrite; Veins of**  
**Dolomite-(Quartz) and of Calcite-Pyrite**

The sample is a very fine to extremely fine grained ankeritic marble containing moderately abundant sericite/kaolinite and pyrite porphyroblasts, and minor quartz and arsenopyrite. Early veins are of dolomite-(quartz), and later stringers are of calcite and pyrite-calcite.

ankerite	75-80%
sericite/kaolinite	8-10
pyrite	2- 3
Ti-oxide(?)	4- 5
quartz	1- 2
arsenopyrite	0.1
veins	
dolomite-(quartz)	5- 7
calcite-pyrite-(quartz)	1

Ankerite forms ragged, anhedral, interlocking grains averaging 0.05-0.15 mm in size, grading down to much finer grains in zones with moderately abundant sericite/kaolinite. In the latter zones, ankerite commonly forms ragged porphyroblasts averaging 0.2-0.5 mm in size, with a few up to 1 mm long. Some have textures suggestive of plagioclase phenocrysts.

Sericite and kaolinite occur together in wispy lenses and interstitial patches and seams of grains averaging 0.005-0.01 mm in size. Subparallel orientation of these produces a weak foliation.

Pyrite forms disseminated, subhedral to euhedral porphyroblasts and clusters of a few porphyroblasts averaging 0.1-0.5 mm in grain size. A few have small pressure-shadow rims of quartz and/or dolomite. Pyrite commonly contains moderately abundant, extremely fine grained inclusions of Ti-oxide.

Ti-oxide(?) forms disseminated, cryptocrystalline patches intergrown intimately with ankerite.

Quartz forms scattered patches averaging 0.1-0.2 mm in size of very fine grains.

Arsenopyrite forms a few concentrations of euhedral to subhedral, rhombic grains averaging 0.02-0.1 mm in size, with a few up to 0.22 mm long.

Veins up to 1 mm wide are dominated by very fine to locally fine grained dolomite and lesser very fine grained quartz. Quartz occurs in the cores of some veins. One large vein also contains a few patches of extremely fine grained sericite averaging 0.02 mm in grain size.

Calcite forms a few late veinlets averaging 0.03-0.05 mm in width; grain size averages 0.02-0.05 mm. One veinlet averaging 0.3-0.5 mm wide is dominated by fine grained, subhedral to euhedral pyrite grains, with patches of very fine grained calcite and minor quartz, in part oriented perpendicular to pyrite crystal faces.

Phenocrysts of plagioclase are set in a groundmass dominated by quartz and plagioclase, with minor pyrite, zoisite, and muscovite. At one end are several fragments(?) dominated by quartz. Hematite and limonite are secondary minerals.

phenocrysts	
plagioclase	8-10%
mafic	0.2
groundmass	
quartz	35-40
plagioclase	30-35
pyrite	1- 2
zoisite	1
limonite	0.5
muscovite	0.3
apatite	trace
fragments	
quartz-(muscovite)	8-10

Plagioclase forms euhedral to subhedral phenocrysts averaging 0.5-1.5 mm in size, with a few up to 2.5 mm across. Some show weak oscillatory growth zones. Composition is probably oligoclase-andesine. Alteration is slight to strong to extremely fine to very fine grained sericite and locally to cryptocrystalline to very fine grained clinozoisite. Blebby to lensy quartz inclusions averaging 0.05-0.1 mm in size occur in one large phenocryst.

A patch 2.5 mm long consisting mainly of very fine grained muscovite flakes, with lesser chlorite and minor limonite may be after biotite or hornblende.

In the groundmass, quartz forms equant grains averaging 0.03-0.15 mm in size, with a few from 0.5-1 mm across. The larger grains are anhedral in outline and do not appear to be phenocrysts. Plagioclase forms anhedral grains averaging 0.05-0.15 mm in size. Alteration is variable from slight to strong to sericite with minor patches of limonite. Muscovite forms equant flakes averaging 0.05-0.08 mm long.

Chlorite forms wispy seams and lenses averaging 0.3-0.5 mm long and 0.1-0.15 mm wide of subparallel, very fine grained flakes. Chlorite is nearly colorless and has a moderate birefringence.

Pyrite forms disseminated, anhedral to subhedral grains averaging 0.05-0.1 mm in size. Towards one end of the sample, grains are altered strongly to completely to red-brown and opaque hematite and on the edge of the section to orange limonite.

Clinozoisite forms anhedral grains averaging 0.1-0.3 mm in size, commonly associated with and in part rimming pyrite. Extinction is slightly anomalous.

Apatite forms scattered equant grains averaging 0.05 mm in size.

A few lensy patches up to 7 mm long and 2 mm wide at one end of the section are dominated by patches of equant quartz grains averaging 0.15-0.5 mm, which grade to patches of equant quartz grains averaging 0.03-0.1 mm in size. Some patches contain minor to moderately abundant intergrowths of muscovite. Enclosing the patches, the host rock is altered strongly to irregular aggregates of muscovite and limonite (in part after pyrite).

The sample is a recrystallized, slightly carbonaceous chert containing several seams dominated by sericite and carbonaceous opaque. Early-formed quartz veins also were recrystallized. A moderate to good foliation is defined by orientation of sericite-rich layers and stringers.

chert	
early (cryptocryst)	7- 8%
later (extr.f.gr.)	65-70
sericite	4- 5
limonite	0.5
pyrite/limonite	0.5
carbonaceous opaque	0.3
veins	
quartz	17-20
hematite/limonite	0.2

Irregular patches up to a few mm across consist of relic zones of cryptocrystalline silica (0.002-0.005 mm) containing moderately abundant to locally very abundant dusty opaque. These are recrystallized moderately along veinlets and in irregular patches to chert as in most of the rock.

The rock is dominated by equant, slightly interlocking cherty quartz grains averaging 0.01-0.025 mm in size. Intergrown with chert are wispy stringers of extremely fine grained sericite and minor dusty opaque. Many of the stringers are stained orange by limonite.

Sericite is concentrated in a few layers averaging 0.1-0.5 mm wide. Associated with sericite in most of these is moderately abundant, dusty, carbonaceous opaque and moderately abundant disseminated limonite.

Pyrite forms scattered subhedral grains averaging 0.2-0.3 mm in size. It is leached from the section, leaving casts which range from empty to largely filled with limonite. A few grains also have thin rims of quartz along one side, formed as subparallel aggregates in the pressure shadow behind the pyrite grain. A few patches of pyrite up to 0.7 mm across on the borders of a quartz vein are replaced by dense aggregates of limonite.

Quartz forms irregular to well-defined veins averaging 0.1-2 mm in width. Larger veins consist of equant grains averaging 0.2-1 mm in size. Quartz is recrystallized strongly, mainly along grain borders to extremely fine grained aggregates with textures trending, with increasing recrystallization, towards those of the host rock. Early-formed, coarser grained quartz contains minor dusty opaque, which is absent in the much finer grained, recrystallized aggregates.

A few late stringers parallel to foliation and averaging 0.01-0.03 mm wide are of red-brown to opaque hematite/limonite.

**Sample NATION 88-NBR-35****Porphyritic Latite; Siderite Alteration;  
Main Vein: Quartz-Calcite-Albite-(Limonite);  
Smaller Veins: Quartz-(Pyrite-Albite) Veins**

N 2000N 1711E

Phenocrysts of plagioclase are set in a moderately well foliated groundmass dominated by plagioclase, with disseminated patches of siderite. The main vein is bordered by albite with a core of quartz-calcite, and with cavities rimmed by limonite. Smaller veins are dominated by quartz, with scattered pyrite grains, and patches of albite where veins cut plagioclase phenocrysts.

phenocrysts	
plagioclase	5- 7%
groundmass	
plagioclase	78-80
siderite	4- 5
Ti-oxide	0.5
pyrite	0.1
siderite	trace
veins	
1) quartz-calcite-albite-(limonite)	8-10%
2) quartz-(pyrite-albite)	5- 7
3) siderite-(Ti-oxide)	0.3
4) hematite/limonite	1- 2

Plagioclase forms anhedral to subhedral phenocrysts averaging 0.3-1 mm in size, with a few subhedral to euhedral ones up to 1.5 mm long. Composition probably is oligoclase (An25-30). Dusty opaque inclusions are common.

The groundmass is dominated by extremely fine grained (0.01-0.03 mm), strongly interlocking plagioclase (albite-oligoclase?) grains, which are moderately to strongly oriented to define a foliation.

Siderite forms disseminated, ragged patches averaging 0.05-0.2 mm in size of extremely fine equant grains. In the weathered zones along one edge of the section and along a few veins of hematite, siderite is replaced by dense aggregates of hematite, and plagioclase in the surrounding groundmass is stained light orange by limonite.

Ti-oxide forms disseminated patches averaging 0.01-0.03 mm in size, and grains up to 0.03 mm across in cores of ankerite patches.

Pyrite forms scattered anhedral to subhedral grains averaging 0.05-0.1 mm in size. Some patches of pyrite are altered completely or almost completely to extremely fine grained aggregates of hematite.

Sericite forms scattered patches up to 0.15 mm long of extremely fine grains.

The main vein near one end of the section is up to 4 mm wide. In places it has a border zone up to 0.5 mm wide dominated by albite grains oriented subperpendicular to vein walls. The core of the vein consists of fine to medium grained quartz and patches of calcite. Cavities in the core of the vein up to a few mm across are rimmed by thin coatings of opaque hematite/limonite.

Quartz forms abundant veins and veinlets averaging 0.05-0.3 mm in width. One subparallel set is at a low angle to the length of the section. Some veins contain a few subhedral to euhedral grains of pyrite averaging 0.05-0.1 mm in size.

A few discontinuous veinlets of replacement origin up to 0.2 mm wide are of siderite with minor Ti-oxide.

A few veins up to 0.2 mm wide are of opaque hematite, with a core up to 0.05 mm wide of cryptocrystalline, red-brown hematite.

Appendix 3

Geochemical Certificates



ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716

**GEOCHEMICAL ANALYSIS CERTIFICATE**

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

DATE RECEIVED: MAY 29 1989 DATE REPORT MAILED: *June 5/89* SIGNED BY: *C. Long* D. TOYE, C. LEONG, J. WANG: CERTIFIED B.C. ASSAYERS

EASTFIELD RESOURCES LTD. PROJECT NATION File # 89-1237

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Au**	Hg
	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	%	PPM	PPM	%	PPM	%	PPM	%	%	%	PPM	PPB	PPB
6+60W 0+DGE	2	39	14	101	.1	45	11	1143	3.24	5	5	ND	7	11	1	2	2	19	.04	.029	51	6	.06	271	.01	2	.47	.01	.10	1	1	80
89-NAT-1	2	29	2	56	.1	899	43	305	2.76	770	5	ND	1	29	1	3	2	11	1.82	.002	2	365	11.77	109	.01	9	.04	.01	.01	1	2	308000
89-NAT-2	6	20198	5	88	3.3	37	36	143	7.99	12	5	ND	1	1	1	2	2	18	.04	.001	2	61	.69	21	.01	3	.51	.01	.01	1	84	70
89-NAT-3	1	38	2	10	.2	406	10	118	1.33	14	5	ND	2	51	1	2	2	6	11.31	.001	2	17	16.48	14	.01	9	.01	.01	.01	2	1	2500
89-NAT-4	2	87	2	39	.1	1028	44	417	2.80	40	5	ND	1	10	1	2	2	11	.65	.001	2	314	14.37	65	.01	36	.02	.01	.01	2	3	214000
89-NAT-5	8	43	6	48	.3	12	3	591	1.07	16	5	ND	2	26	1	2	2	2	.79	.034	4	4	.17	149	.01	4	.23	.03	.10	3	1	330
89-NAT-6	1	86	6	154	.3	22	29	1447	9.55	909	5	ND	3	313	1	21	2	39	7.59	.089	5	4	2.52	132	.01	16	.46	.01	.17	1	29	1100
89-NAT-7	1	63	2	138	.1	24	33	1385	9.24	1412	5	ND	2	174	1	25	2	53	5.24	.099	5	8	2.92	133	.01	3	.47	.01	.15	1	116	1200
STD C/AU-R	17	62	41	132	7.1	73	31	950	3.77	42	19	7	37	50	18	15	19	58	.46	.086	37	55	.86	171	.07	34	1.77	.06	.13	12	510	1400

**- ASSAY REQUIRED FOR CORRECT RESULT -**

ACME ANALYTICAL LABORATORIES LTD.

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

PHONE(604)253-3158 FAX(604)253-1716

GEOCHEMICAL ANALYSIS CERTIFICATE

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.  
 THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.  
 - SAMPLE TYPE: P1 ROCK P2 SILT AU\*\* ANALYSIS BY FA/ICP FROM 30 GM SAMPLE.

DATE RECEIVED: OCT 11 1989 DATE REPORT MAILED: *Oct 18/89* SIGNED BY: *C. Long* D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

Mincord Resources Inc. PROJECT NATION/SWAN File # 89-4198 Page 1

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	Au** PPB
NAB-10-89	1	54	22	134	.4	39	32	1315	9.42	2	5	ND	1	28	1	3	2	223	1.79	.076	5	118	3.33	1132	.36	4	3.84	.02	.09	2	16
NAB-11-89	2	25	6	18	.1	11	1	66	.56	8	5	ND	1	4	1	2	2	3	.01	.009	4	4	.01	113	.01	2	.09	.01	.05	1	2
NAB-12-89	1	10	22	49	.1	4	3	409	.93	2	5	ND	2	37	1	2	2	6	1.16	.037	10	6	.23	148	.01	4	.60	.02	.19	1	7
NAB-13-89	1	3	10	22	.1	4	1	111	.31	2	5	ND	2	20	1	2	2	1	.04	.016	11	3	.04	96	.01	4	.31	.02	.17	1	28
NAB-14-89	3	6	7	69	.1	6	1	332	.30	3	5	ND	1	72	1	2	3	2	4.02	.004	2	9	.27	31	.01	2	.03	.01	.01	1	6
NAF-01-89	1	15	4	14	.1	8	1	47	.32	2	5	ND	1	3	1	2	3	1	.02	.004	3	3	.01	101	.01	2	.07	.01	.04	1	8
NAF-02-89	2	17	6	16	.1	14	3	225	.56	8	5	ND	1	4	1	2	2	1	.04	.013	5	6	.01	133	.01	6	.07	.01	.04	1	4
NAF-03-89	1	66	12	144	.4	29	34	1273	9.90	2	5	ND	1	174	1	4	2	273	2.95	.099	4	57	3.77	223	.07	2	3.85	.01	.15	1	1
NAF-04-89	1	61	10	81	.3	41	22	793	5.94	2	5	ND	1	134	1	9	2	129	14.95	.042	3	112	2.23	51	.17	10	4.00	.01	.01	1	11
SWAB-100-89	1	37	11	38	.1	3	8	443	3.32	2	5	ND	1	60	1	2	2	83	.85	.131	8	7	.47	69	.09	2	.77	.03	.13	3	19
SWAB-101-89	1	50	9	55	.1	3	12	777	3.92	2	5	ND	1	64	1	2	2	72	1.23	.147	7	11	.65	52	.04	2	1.07	.02	.12	1	3
STD C/AU-R	18	60	39	132	6.8	68	31	1020	4.11	38	22	8	38	48	19	15	22	59	.48	.099	39	55	.89	176	.06	36	1.98	.06	.13	13	510

ACME ANALYTICAL LABORATORIES LTD.

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

PHONE (604) 253-3158 FAX (604) 253-1716

## GEOCHEMICAL ANALYSIS CERTIFICATE

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.  
 THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR NG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.  
 - SAMPLE TYPE: ROCK AU\*\* ANALYSIS BY FA+AA FROM 30 GM SAMPLE. HG ANALYSIS BY FLAMELESS AA.

DATE RECEIVED: JUL 20 1989

DATE REPORT MAILED:

July 29/89

SIGNED BY:

*C. Long*

D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

MINCORD EXPLORATION LTD

File # 89-2334

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Cc PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	Au** PPB	Hg PPB
N-AB-89-1	1	3	2	35	.1	102	18	331	3.02	5	5	ND	1	3	1	2	2	43	2.10	.001	2	62	3.23	8	.01	2	4.00	.01	.01	1	6	10
N-AB-89-2	1	18	12	44	.1	1289	55	696	3.70	3	5	ND	1	19	1	2	2	10	1.67	.001	2	378	15.71	157	.01	32	.04	.02	.02	1	2	510
N-AB-89-3	1	9	4	16	.1	798	35	438	2.89	70	5	ND	1	34	1	2	2	6	2.58	.001	2	135	14.68	27	.01	2	.06	.01	.01	1	8	1400
SW-89-MR-5	1	31	12	94	.3	25	15	871	4.86	4	5	ND	1	37	1	2	2	54	1.08	.065	6	26	1.68	122	.01	2	2.28	.02	.03	1	4	10
SW-89-MR-6	1	1	2	34	.1	201	20	292	2.54	2	5	ND	1	1	1	2	2	24	.42	.004	2	551	4.27	5	.01	2	2.83	.01	.01	1	43	20
SW-89-MR-7	2	7	7	46	.1	7	3	291	1.36	6	5	ND	1	7	1	2	2	8	.09	.029	5	6	.13	76	.01	3	.39	.03	.10	1	6	40
SW-89-MR-8	1	32	3	44	.1	920	75	1141	5.11	40	5	ND	1	5	1	2	3	24	.07	.011	2	746	2.04	72	.01	2	.61	.01	.02	1	12	50
SW-89-MR-9	1	65	10	154	.1	85	32	1254	9.07	14	5	ND	1	60	3	2	3	124	1.62	.135	9	56	3.10	92	.01	2	4.16	.01	.08	1	8	20
SW-89-MR-10	3	37	5	39	.2	22	6	247	1.55	636	5	ND	1	10	1	2	2	14	.14	.032	4	29	.16	34	.01	2	.25	.05	.02	1	120	30
SW-89-MR-11	1	5	2	10	.1	149	4	159	1.03	2	5	ND	1	1	1	2	3	6	.04	.001	2	1665	1.24	1	.01	2	.40	.01	.01	1	2	5
SW-89-MR-12	1	5	2	30	.1	1316	59	177	3.29	197	5	ND	1	41	1	62	2	6	.16	.001	2	476	11.56	19	.01	2	.11	.01	.01	1	3	40
SW-89-MR-13	20	98	6	43	.2	125	26	352	3.11	7	5	ND	1	20	1	2	3	29	.82	.033	2	102	1.16	54	.12	4	1.26	.03	.06	2	6	10
SW-89-MR-14	1	87	4	82	.1	46	27	3101	5.94	24	5	ND	1	98	3	2	2	32	8.46	.036	3	49	1.48	99	.01	2	.25	.03	.04	1	13	30
SW-89-MR-15	1	1	2	4	.1	14	1	25	.22	2	5	ND	1	89	1	2	2	1	28.55	.004	2	3	2.36	17	.01	2	.02	.01	.01	1	3	80
SW-89-MR-16	1	5	2	25	.1	974	43	504	3.08	2	5	ND	1	76	1	2	2	6	3.82	.001	2	178	14.26	22	.01	18	.04	.01	.01	1	2	30
SW-89-MR-17	1	1	2	6	.1	5	1	13	.07	2	5	ND	1	112	1	2	2	1	39.99	.005	2	1	.15	36	.01	3	.01	.01	.01	1	8	120
SW-89-MR-18	10	561	2	54	2.8	17	13	283	7.45	47	5	ND	1	5	1	2	3	21	.10	.060	3	20	.15	14	.01	3	.63	.01	.22	1	198	10
SW-89-MR-19	1	32	4	63	.1	3	6	1223	3.57	3	5	ND	2	19	1	2	2	82	.66	.084	10	13	1.26	338	.01	3	1.34	.02	.07	1	5	20
SW-89-MR-20	2	9	2	14	.4	547	20	244	2.29	14	5	ND	1	15	1	2	2	6	1.75	.001	2	169	10.25	14	.01	4	.02	.01	.01	1	6	3000
SW-89-MR-21	1	9	7	34	.2	1312	57	485	4.35	29	5	ND	1	6	2	2	2	11	.41	.001	2	484	16.02	41	.01	28	.06	.01	.01	1	11	2900
STD C/AU-P	18	62	39	133	6.6	71	31	1035	4.28	42	20	7	37	49	18	14	22	58	.50	.693	39	56	.94	185	.07	34	2.07	.06	.13	13	495	1300

SWAN

SWAN

SWAN

## GEOCHEMICAL ANALYSIS CERTIFICATE

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.  
 THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR HG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.  
 - SAMPLE TYPE: Soil -80 Mesh AU\*\* ANALYSIS BY FA+AA FROM 30 GN SAMPLE. HG ANALYSIS BY FLAMELESS AA.

DATE RECEIVED: JUL 20 1989

DATE REPORT MAILED: July 28/89

SIGNED BY: *C. L. King* D. TOYE, C. LKONG, J. WANG; CERTIFIED B.C. ASSAYERS

MINCORD EXPLORATION LTD

File # 89-2336

SAMPLE#	No	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Tb	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Au**	Hg
	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	%	PPM	PPM	%	PPM	%	PPM	%	%	%	PPM	PPB	PPB	
NB88	2	39	6	137	.4	368	19	3251	3.38	20	5	ND	1	30	2	2	44	.52	.059	8	104	1.10	269	.02	2	1.07	.01	.04	1	10	370	
NS-1	1	20	6	50	.2	50	8	212	2.03	14	5	ND	1	7	1	2	33	.14	.013	9	63	.86	112	.03	2	1.14	.01	.03	1	4	100	
NS-2	1	14	6	39	.2	35	5	165	1.43	9	5	ND	1	8	1	2	25	.13	.025	10	37	.51	111	.02	6	.87	.01	.03	1	4	80	
NS-3	3	33	10	63	.2	55	7	222	3.05	25	5	ND	1	7	1	2	45	.09	.024	10	69	.71	99	.03	2	1.16	.01	.04	1	4	60	
NS-4	2	46	4	78	.2	106	13	242	3.72	18	5	ND	1	6	1	2	48	.07	.028	9	111	1.22	139	.04	2	1.90	.01	.02	1	6	150	
NS-5	2	49	2	67	.3	1803	97	995	6.02	607	5	ND	1	30	1	27	36	2.41	.017	3	581	9.01	113	.01	13	.48	.01	.02	1	1	67000	
NS-6	3	85	10	86	.3	261	26	986	3.72	33	5	ND	2	16	1	2	46	.53	.045	12	170	2.52	106	.04	8	1.31	.01	.05	1	12	600	
NS-7	2	26	4	60	.1	88	10	287	2.81	18	5	ND	1	12	1	2	55	.20	.033	9	85	.59	158	.05	2	.87	.01	.03	1	4	450	
NS-8	2	26	9	74	.2	58	10	249	3.20	39	5	ND	1	9	1	2	70	.17	.034	9	73	.61	132	.06	2	1.16	.01	.03	1	4	280	
NS-9	2	30	7	94	.3	167	31	1792	4.38	75	5	ND	1	14	1	2	59	.29	.066	6	150	1.08	206	.03	6	1.06	.01	.04	1	7	15000	
SW 2+00S 28+00W	2	18	6	47	.1	15	5	176	1.98	10	5	ND	2	6	1	2	29	.06	.022	12	24	.37	61	.03	2	.98	.01	.03	1	6	40	
SW 2+00S 27+75W	2	22	7	66	.1	26	6	228	3.98	13	5	ND	1	6	1	2	50	.05	.068	11	51	.44	66	.03	2	1.38	.01	.03	1	4	20	
SW 2+00S 27+56W	2	19	12	62	.2	25	6	192	3.39	17	5	ND	1	5	1	2	43	.06	.104	10	53	.39	58	.03	4	1.38	.01	.03	1	6	40	
SW 2+00S 27+25W	1	3	5	27	.1	21	4	92	.61	3	5	ND	1	7	1	2	14	.11	.015	9	34	.30	82	.02	2	.50	.01	.03	1	5	80	
SW 2+00S 27+06W	1	20	8	72	.2	109	16	463	2.49	22	5	ND	1	16	1	3	32	.25	.028	10	131	1.43	222	.02	4	1.38	.01	.04	1	9	310	
SW 2+00S 26+75W	1	21	10	69	.3	54	12	520	2.24	15	5	ND	1	17	1	2	35	.25	.024	10	60	.64	297	.02	2	1.32	.01	.05	1	6	60	
SW 2+00S 26+56W	2	34	10	73	.2	90	10	473	2.48	17	5	ND	1	18	1	3	30	.27	.030	11	82	.92	253	.02	7	1.28	.01	.05	1	10	130	
SW 2+00S 26+25W	2	43	12	83	.3	96	11	519	2.80	17	5	ND	1	26	1	2	35	.39	.044	10	95	.84	278	.01	2	1.53	.01	.06	1	7	110	
SW 2+00S 26+00W	1	21	6	50	.2	53	9	297	2.08	12	5	ND	1	16	1	2	26	.26	.028	10	71	.82	140	.03	2	.94	.01	.03	1	4	330	
SW 2+00S 25+75W	3	39	13	104	.2	64	15	757	3.58	16	5	ND	1	26	1	2	49	.43	.037	10	72	.51	255	.02	2	1.38	.01	.05	1	11	80	
SW 4+00S 27+50W	3	20	6	69	.2	45	8	323	2.57	18	5	ND	2	8	1	2	32	.12	.053	12	42	.46	113	.03	2	1.01	.01	.04	1	5	660	
SW 4+00S 27+25W	3	15	5	45	.1	13	5	297	1.56	5	5	ND	1	7	1	3	37	.09	.028	12	25	.16	157	.03	2	.87	.01	.04	1	4	60	
SW 4+00S 27+00W	3	20	9	55	.3	20	4	387	1.93	12	5	ND	1	7	1	2	35	.10	.041	11	32	.20	127	.02	3	.80	.01	.03	1	6	50	
SW 4+00S 26+75W	2	25	6	49	.2	39	8	301	2.08	12	5	ND	1	8	1	2	27	.11	.026	12	55	.56	155	.02	2	.95	.01	.03	1	6	60	
SW 4+00S 26+50W	3	20	11	66	.3	36	8	428	2.22	9	5	ND	1	12	1	3	36	.20	.021	11	65	.52	233	.02	2	1.15	.01	.04	1	4	1900	
SW 4+00S 26+25W	2	34	10	74	.3	52	8	442	2.44	10	5	ND	1	14	1	3	32	.23	.035	12	79	.72	236	.02	4	1.31	.01	.04	1	5	190	
SW 4+00S 26+00W	8	44	13	105	.3	45	13	672	4.01	19	5	ND	1	12	1	2	57	.19	.039	11	65	.38	267	.03	2	1.34	.01	.06	1	4	60	
SW 4+00S 25+75W	3	44	11	52	.2	57	7	178	2.53	14	5	ND	1	17	1	3	37	.34	.025	12	72	.46	219	.02	2	1.09	.01	.03	1	5	110	
SW 4+00S 25+50W	2	13	3	47	.2	39	6	214	2.01	9	5	ND	1	11	1	3	30	.22	.027	11	64	.83	141	.03	2	.98	.01	.03	1	5	80	
SW 4+00S 25+25W	2	21	3	70	.2	48	9	417	2.26	6	5	ND	1	14	1	2	31	.26	.028	11	72	.84	219	.02	2	1.22	.01	.05	1	7	70	
STD C/AU-S	17	58	38	132	7.1	66	30	1032	4.08	39	19	6	36	49	18	15	21	58	.52	.090	38	55	.92	182	.07	33	2.01	.06	.14	12	510	1300

} SWAN

} SWAN

TITLE 06-06-89 13:52:38 V89-02490.0 M. CARON 01/06/89

CLIENT BATTLE MOUNTAIN (CANADA) LTD.

PROJECT 75-91 #SAMPLES: 28 REFERENCE: SHIPMENT #2

*Bondar-Clegg*

CRITICAL VALUES

Insufficient Sample

-9 No Value Recorded

Values above the upper limit are shown as > uplimt

Values below the lower limit are shown as < lolmt (ie not detected)

DETERMINATIONS

ELNAME	METHO	ECO	UNI	#SAM	LOLMT	UPLIMT	COMMENTS
01 Au	30g	FA-AA	E20 PPB	28	5	10000	Results Reported
02 Ag	ICP	E04 PPM	28	0.5	50.0	Results Reported	
03 As	ICP	E04 PPM	28	5	2000	Results Reported	
04 Bi	ICP	E04 PPM	28	2	20000	Results Reported	
05 Co	ICP	E04 PPM	28	1	20000	Results Reported	
06 Cu	ICP	E04 PPM	28	1	20000	Results Reported	
07 Mo	ICP	E04 PPM	28	1	20000	Results Reported	
08 Pb	ICP	E04 PPM	28	5	10000	Results Reported	
09 W	ICP	E04 PPM	28	10	2000	Results Reported	
10 Zn	ICP	E04 PPM	28	1	20000	Results Reported	

SAMPLE PREPS

40 SAMPLE TYPE=R ROCK OR BED ROCK

41 P05= 28 CRUSH,PULVERIZE -150

REMARKS

50 Assay of high Ag and Pb to follow on

51 V89-02490.6.

\*\*\*\*

FORMAT (A8,1X,A1,A1,1X,A20,10(1X,A7,A1))

REP	Au 30g	Ag	As	Bi	Co	Cu	Mo	Pb	W	Zn
24900001 R2 BC-0467	30 <	0.5	532	27	37	63 <	1	36 <	10	127
24900003 R2 BC-0468	20 <	0.5	12 <	2 <	1	18	4 <	5 <	10	54
24900004 R2 BC-0469	350 <	0.5	107	7 <	1	6	4	12 <	10	210
24900005 R2 BC-0470	7 <	0.5	775	87	49	1 <	1	100 <	10	12
24900006 R2 BC-0471	<	5 <	0.5	296	116	36 <	1 <	115 <	10	8
24900007 R2 BC-0472	<	5 <	0.5	724	130	76	5 <	101 <	10	18
24900008 R2 BC-0473	2084 >	50.0 >	2000	41	1	2228	6 >	10000 <	10	7259
24900009 R2 BC-0474	410 >	50.0 >	2000	8 <	1	3180	1	5417	10	11541
24900010 R2 BC-0475	197	22.4	1356	23	12	82	4	202 <	10	429
24900011 R2 BC-0476	256 >	50.0 >	2000	13	18	62	2	2819 <	10	135
24900012 R2 BC-0589	28	6.9	76	12	8	89	14	81 <	10	63
24900013 R2 BC-0590	23	1.7	28	14	18	75 <	1	74 <	10	275
24900014 R2 BC-0591	1719 >	50.0	435	33	1	94	1 >	10000 <	10	11508
24900015 R2 BC-0592	26	4.4	69	6	8	67	1	706 <	10	2898
24900016 R2 BC-0593	11 <	0.5	26	20	20	131	5	44 <	10	94
24900017 R2 BC-0594	20	1.3	22	10	2	26	2	89 <	10	96
24900018 R2 BC-0595	9	0.6	29	10	1	22	3	23 <	10	62
24900019 R2 BC-0596	14	0.9	14	11	6	75	20	25 <	10	85
24900020 R2 BC-0597	6	0.5	17	12	4	26	16	30 <	10	112
24900022 R2 BC-0598	16	0.6	34	11	15	106	1	25 <	10	56
24900023 R2 BC-0599	17	1.3	82	11	28	648	7	19 <	10	49
24900024 R2 BC-0600	40	3.3	140 <	2	31	2436 <	1	20 <	10	36
24900026 R2 BC-0601	10	1.0	214 <	2	38	358 <	1	15 <	10	17
24900027 R2 BC-0602	25	0.7	150	19	42	196 <	1	48 <	10	94
24900029 R2 BC-0603	14 <	0.5	56	16	25	103 <	1	39 <	10	54
24900030 R2 BC-0604	197	0.6	183	18	28	135	38	60 <	10	80
24900031 R2 BC-0605	302	0.9	297	33	32	282	51	80 <	10	105
24900032 R2 BC-0606	9 <	0.5	28	12	30	110	2	25 <	10	49

Nation 'N' Grid

Nation 'SW' Grid

END

ACME ANALYTICAL LABORATORIES  
852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6  
PHONE 253-3158

DATE RECEIVED: NOV 16 1989

DATA LINE 251-1011 DATE REPORT MAILED: .....

Nov 24/89

### GEOCHEM PRECIOUS METALS ANALYSIS

10 GRAM SAMPLE FIRE ASSAY AND ANALYSIS BY ICP/GRAPHITE FURNACE.  
- SAMPLE TYPE: ROCK PULP

SIGNED BY. *C. Leong* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

Mincord Exploration FILE # 89-2334R

SAMPLE#	Pt	Pd
	PPB	PPB
SW-89-MR-6	8	17
SW-89-MR-8	3	2
SW-89-MR-11	158	9
SW-89-MR-12	5	7
SW-89-MR-21	2	3

Appendix 4

Rock Descriptions

('N' Grid)

- 89-NAT-5: 200N/2005E ('N' Grid) Au 1 ppb, subcrop, quartz eye porphyry?, limonite, minor cpy, possibly brecciated with rounded quartz clasts to 1 centimeter.
- 89-NAT-6: 2020N/2000E ('N' Grid) Au 29 ppb, As 909 ppm, Sb 21 ppm, Hg 1100 ppb. Subcrop, ankeritic gossan, silicified, blebby and fracture controlled sulfides, more pronounced clastic appearance, altered siltstone?
- 89-NAT-7: 2000N/1975E ('N' Grid) Au 116 pb, As 1412 ppm, Sb 25 ppm, Hg 1200 ppb. Outcrop, ankerite and silicified siltstone. Contains lenses of sericite-kaolinite.
- NAF-4-89: L2500N/1425E ('N' Grid) Au 11 ppb, Sb 9 ppm subcrop, fine grained black unit with rusty brown to beige zones, trace fine grained pyrite, cut by occasional quartz veinlet.
- NAB-14-89: L2500N/1455E ('N' Grid) Au 6 ppb subcrop, bull white quartz veinlet in volcanic host, occasional chaotic limonite, quartz veinlet striking 128 degrees dipping 32 degrees NE.
- NAF-3-89: L2450N/1488E ('N' Grid) Au 1 ppb outcrop, fine grained to aphanitic black rock with rusty brown area, silicified siltstone?, surrounded by foliated chlorite schist, contains trace fine grained pyrite.
- NAB-13-89: L2440N/1500E ('N' Grid) Au 28 ppb quartz feldspar porphyry, aphanitic carbonate altered, light grey with orange limonite specks, contains quartz eyes to 2 mm, trace pyrite.
- NAB-12-89: 2250N/1770E ('N' Grid) Au 7 ppb outcrop, carbonate altered aphanitic volcanic, beige with 5% quartz grains 2-3 mm in size, 3% pyrite as fine grained aggregates, alteration zone striking 178 degrees.
- NAF-2-89: 2250N/1925E ('N' Grid) Au 4 ppb outcrop, chert with quartz veinlets striking 040 degrees - 050 degrees and dipping 58 degrees to 62 degrees NW.
- NAB-11-89: 2270N/1955E ('N' Grid) Au 2 ppb subcrop, black to medium grey chert cut by quartz veinlets, trace cpy, <.5% py as disseminated grains.
- NAF-1-89: 2250N/1975E ('N' Grid) Au 8 ppb subcrop, black to medium grey chert, cut by quartz veinlets, <.5% py.
- NAB-10-89: 2115N/2120E ('N' Grid) Au 16 ppb subcrop, aphanitic volcanic, pale green schistose, weathers rusty brown, brecciated, black chloritic stringers, occasional carbonate veinlets, silicified. Chlorite schist.



B.C. 467            200N/1975E ('N' Grid) Au 350 ppb, As 107 pm, Zn 210  
Nation              ppm latite with quartz and carbonate veinlets.

('SW' Grid)

89-NAT-1:           400N/2720W ('SW' Grid) Au 2 ppb, Hg 308,000 ppb,  
As 770 ppm, outcrop, grey silicified chalcedonic  
rock, several generations of clear quartz veinlets,  
minor whitish sulfide, mariposite.

89-NAT-2:           410N/2720W ('SW' Grid) Au 84 ppb, Cu 20,198 ppm,  
Rubble, gossanous boulder with malachite and  
chalcopyrite.

89-NAT-3:           375N/2740W ('SW' Grid) Au 1 ppb, Hg 2600 ppb  
subcrop, banded clear vuggy quartz in light buff  
coloured silicified carbonate, minor limonite on  
fractures magnesium content indicates that the  
carbonate is dolomite.

89-NAT-4:           350N/2740W ('SW' Grid) Au 3 ppb, Hg 214,000 ppb,  
subcrop, grey coloured silicified ultramafic, grey  
chalcedonic veinlets, cinnebar, some iron carbonate.

SW-89-MR-5:        437S/2720W ('SW' Grid) Au 4 ppb, large angular block  
of rubble (.6 m x .6 m x .6 m), carbonate altered  
schist, weathers to limonite, less than 1% rusty  
pyritic blebs, approximately 5% corroded sulfide  
blebs.

SW-89-MR-6:        400S/2800W ('SW' Grid) Au 43 ppb, Ni 201 ppm,  
Cr 551 ppm, outcrop, top of ridge, chlorite and talc  
altered feldspar amphibole porphyry, appears to have  
been a gabbro.

SW-89-MR-7:        200S/2750W ('SW' Grid) Au 6 ppb, blocky rubble from  
soil hole (several pieces to .2 m x .2 m), felsic  
porphyry, quartz rich.

SW-89-MR-8:        200S/2700W ('SW' Grid) Au 12 ppb, Ni 920 ppm rubble,  
from soil hole, red limonitic quartz carbonate rock,  
schistose.

SW-89-MR-9:        200S/2650W ('SW' Grid) Au 8 ppb, Rubble from soil  
hole, bleached pyritic sericite schist, possibly  
derived from siltstone.

SW-89-MR-10:      200S/2650W ('SW' Grid) Au 120 ppb, As 636 ppm,  
rubble from soil hole, silicified felsic rock,  
minor limonite.

SW-89-MR-11:      060N/2780W ('SW' Grid) Au 2 ppb, Cr 1665 ppm,  
outcrop, massive pod 1.5 m x 1 m (as exposed), of  
ilmenite or chromite?

SW-89-MR-12: 015N/2785W ('SW' Grid) Au 3 ppb, As 197 ppm, Ni 1316 ppm, outcrop, silicified ultramafic, leucocratic, some mariposite.

SW-89-MR-20: 370N/2710W ('SW' Grid) Au 6 ppb, Hg 3000 ppb, outcrop, quartz flooded and intensely silicified rock, chalcedonic quartz veinlets, mariposite.

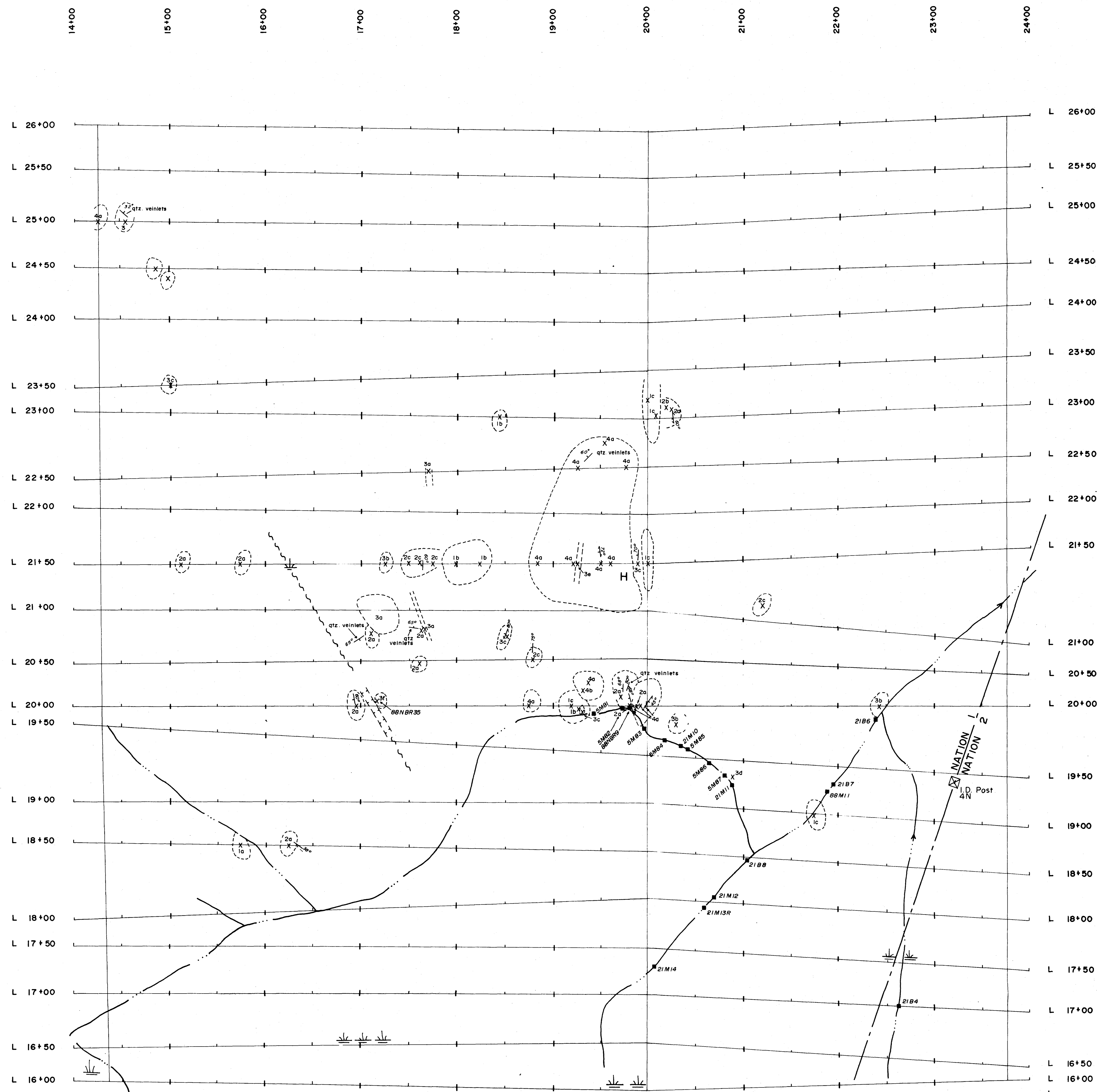
SW-89-MR-21: 370N/2750W ('SW' Grid) Au 11 ppb, Hg 2900 ppb, subcrop, silicified ultramafic, stockwork quartz veining.

Appendix 5

References

## References

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**LEGEND**

SEDIMENTARY ROCKS

- 1a White recrystallized limestone
- 1b Blue grey limestone, carbonaceous partings
- 1c Blue grey limestone with weak quartz stockwork
- 1d Carbonate cemented sandstone

SCHISTOSE ROCKS

- 2a Grey to buff coloured sericite schist, may contain conformable sulphides including py and aspy, commonly bleached and ankerite altered
- 2b Muscovite schist (phyllite)
- 2c Chloritic gritty schist
- 2d Calcareous argillaceous schist

IGNEOUS ROCKS

- 3a Quartz feldspar porphyry, white
- 3b Quartz feldspar porphyry, brick red
- 3c Red weathering crushed quartz feldspar porphyry with weak incipient schistosity
- 3d Medium grained feldspar porphyry, aphanitic green coloured groundmass
- 3e Rhyolite
- 3f Argillically altered and quartz veined rock, brecciated (latite porphyry)

SILICA ROCK

- 4a Jasperoid-like rock, dark grey chloritic selvages, quartz stockwork
- 4b Chalcedonic rock, fine grained grey on fresh surfaces, weathers to form orange gossan

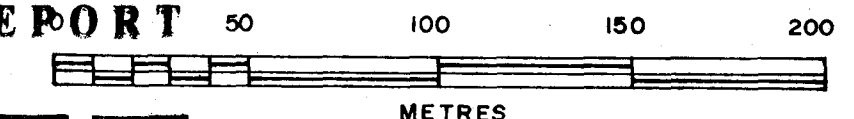
Mineralization

- py pyrite
- po pyrrhotite
- cpy chalcopyrite
- aspy arsenopyrite
- qtz quartz veining

- x outcrop
- area of influence
- - - fault
- / - bedding or vein orientation
- / - schistosity
- sample location
- ||| ravine
- ~ creek
- ⊥ swamp
- - - claim line
- (H) helicopter pad

**GEOLOGICAL BRANCH ASSESSMENT REPORT**

**19,373**



**STREAM SILT SUMMARY**

SAMPLE N°	GOLD (ppb)	ARSENIC (ppm)	ANTIMONY (ppm)
5M81	13	185	2
5M82	12	247	7
5M83	73	946	10
5M84	124	1257	11
5M85	116	1320	12
5M86	85	1378	11
5M87	53	808	8
21M11	44	521	3
21M12	7	17	2
21M14	12	12	2
21B4	1	106	2
21B6	7	162	2
21B7	30	487	3
21B8	1	17	2

**SIGNIFICANT ROCK GEOCHEMICAL RESULTS**

SAMPLE N°	GOLD (ppb)	ARSENIC (ppm)	ANTIMONY (ppm)	ROCK UNIT	GRID LOCATION
21M13R	590	2	2	3b	1800N, 2060E
88NBR9	305	7917	26	2a	2010N, 1975E
88NBR35	72	34	2	3f	2000N, 1711E
BC469 (1989)	350	107	-	3f	2000N, 1711E

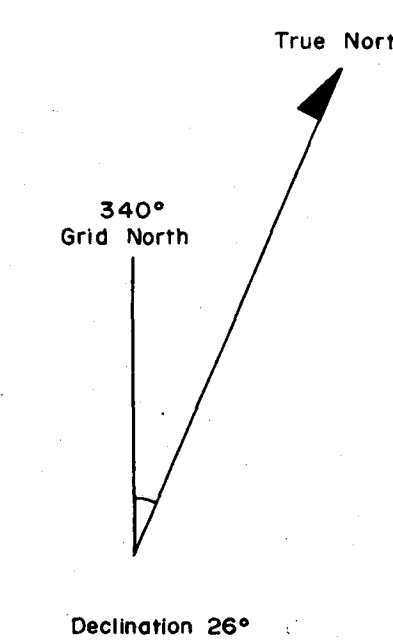
**EASTFIELD RESOURCES LTD**  
**NATION PROJECT**  
 OMINECA M.D., B.C.

**PRELIMINARY GEOLOGY**  
 'N' Grid

**MINCORD**  
 Exploration Consultants Ltd.

Scale: 1:2,000  
 Date: Nov. 1989  
 By: M.C.D.

N.T.S. 93N/11  
 Figure 2



19,373

Transmit to East

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"A": 50.0 METRES

N=1 TO 10

SCINTREX IPA-11 RECEIVER  
POLE-DIPOLE ARRAY

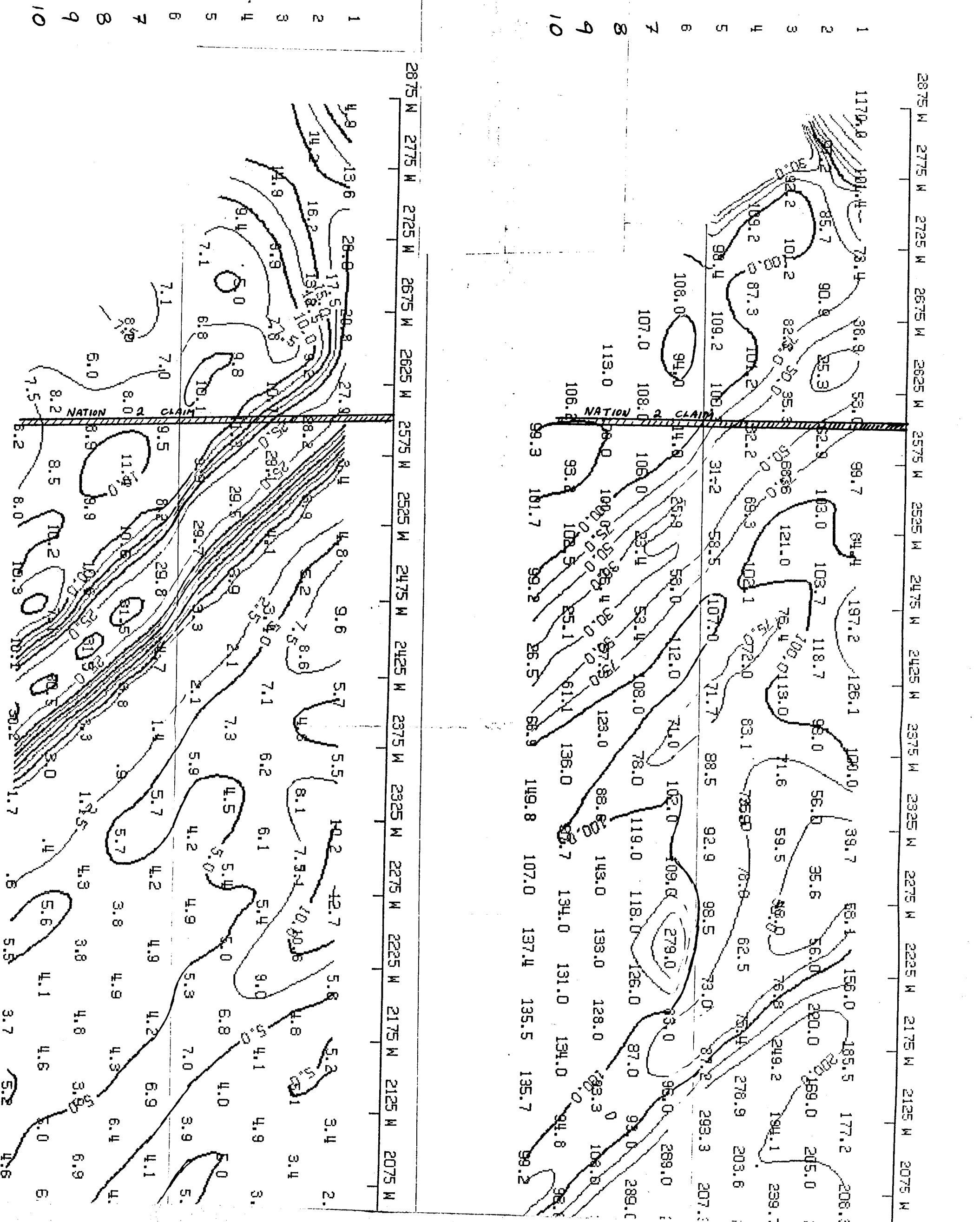
TX PULSE TIME: 2.0

RECEIVE TIME: 2.0

SCALE 1: 2500

SLICE 7 (M7)

RESISTIVITY



19,373  
Danksmith to East

EASTFIELD RESOURCES LTD.

SW PROJECT

Figure 6.

LINE NUMBER: 400 SOUTH

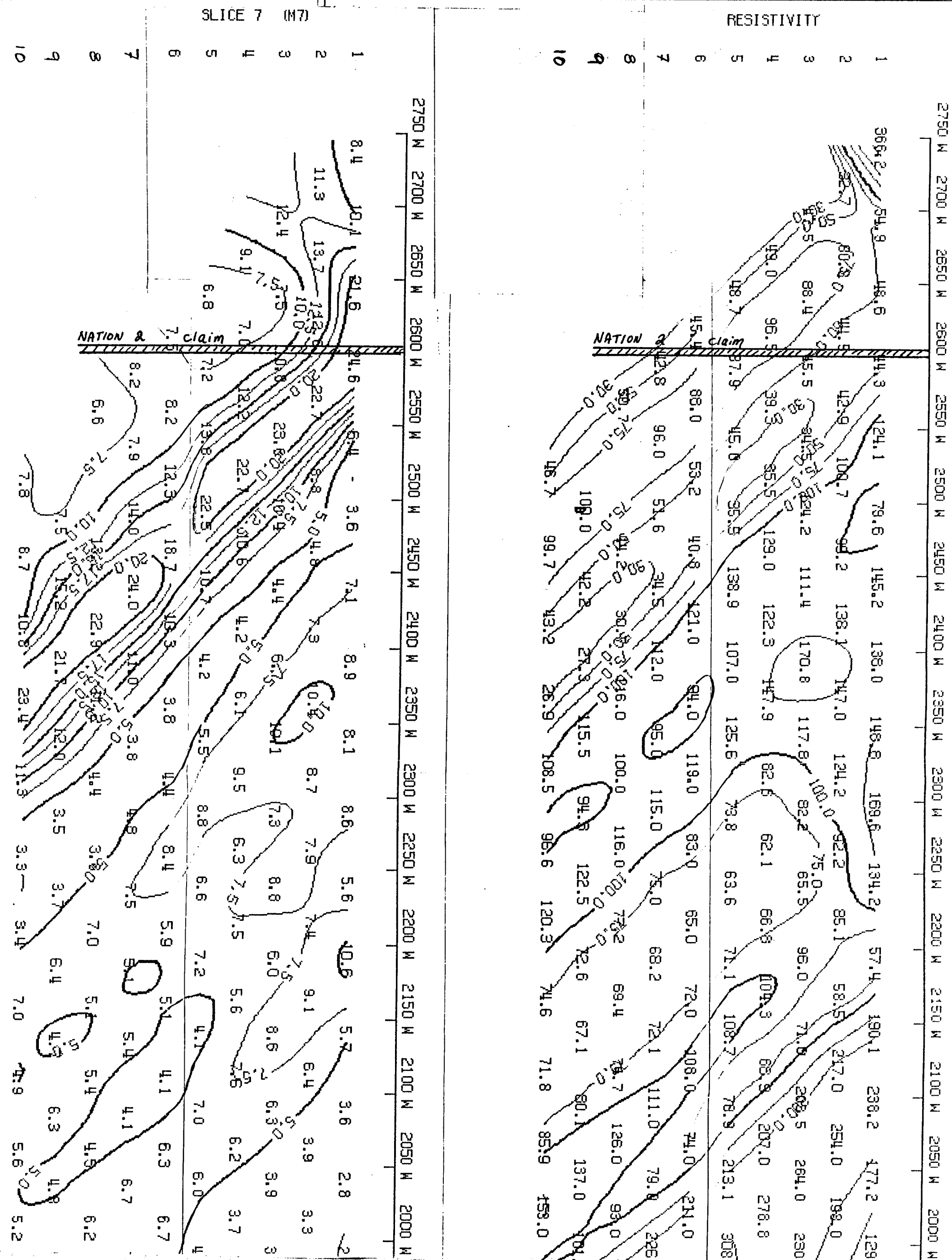
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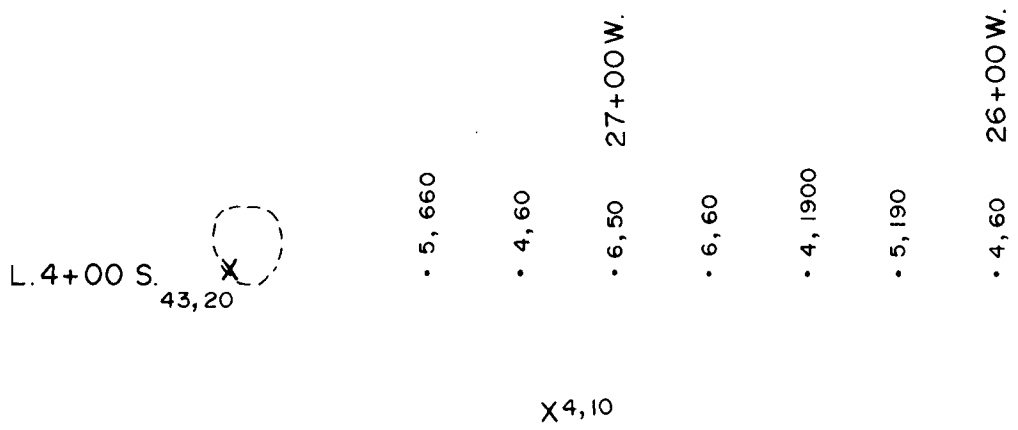
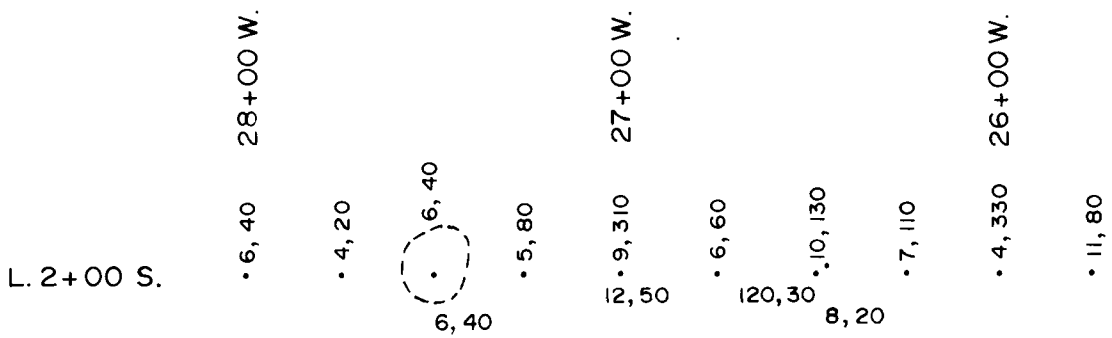
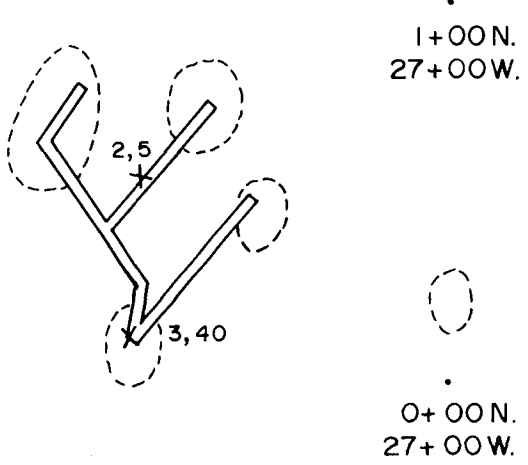
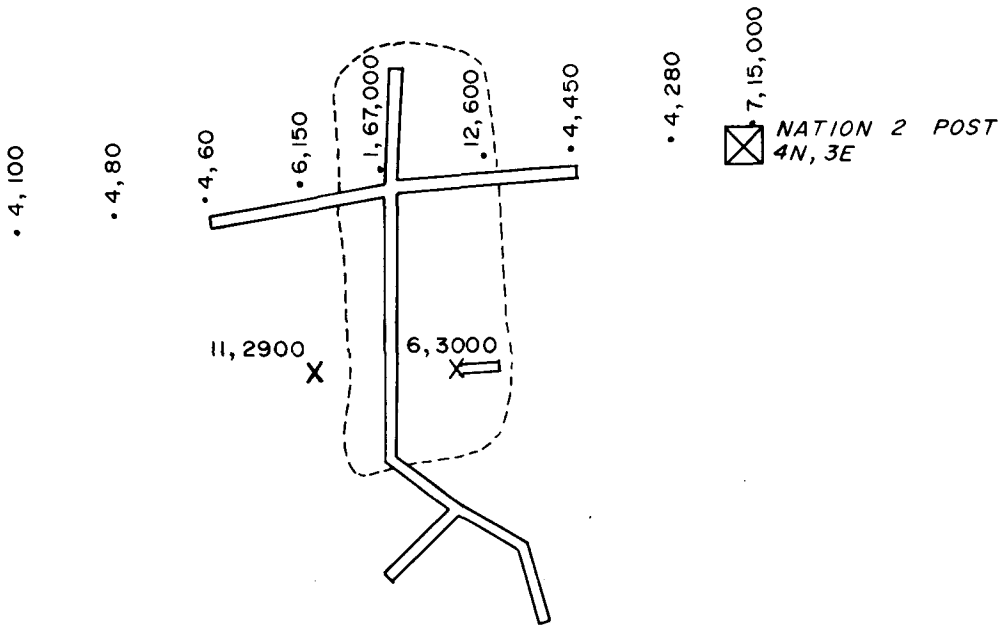
N=1 TO 10

SCINTREX IPA-11 RECEIVER  
POLE-DIPOLE ARRAY

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RECEIVE TIME: 2.0

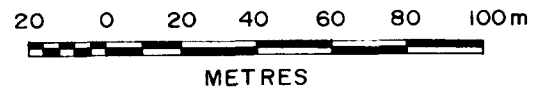
SCALE 1: 2500





**LEGEND**

- Mercury (ppb)
- Gold (ppb)
- Sample location

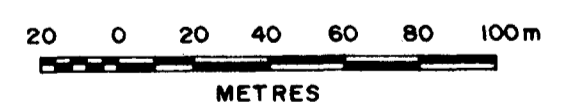
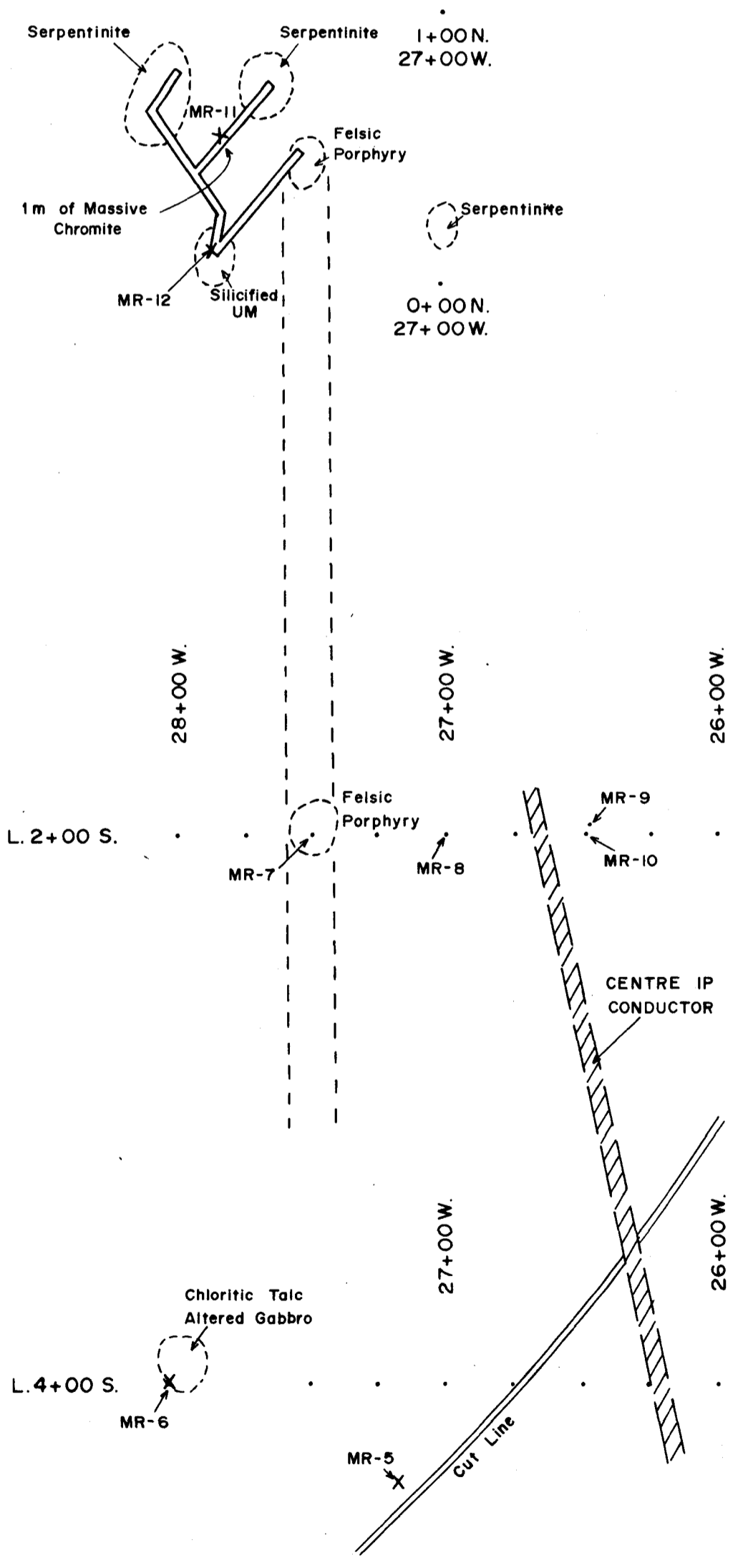
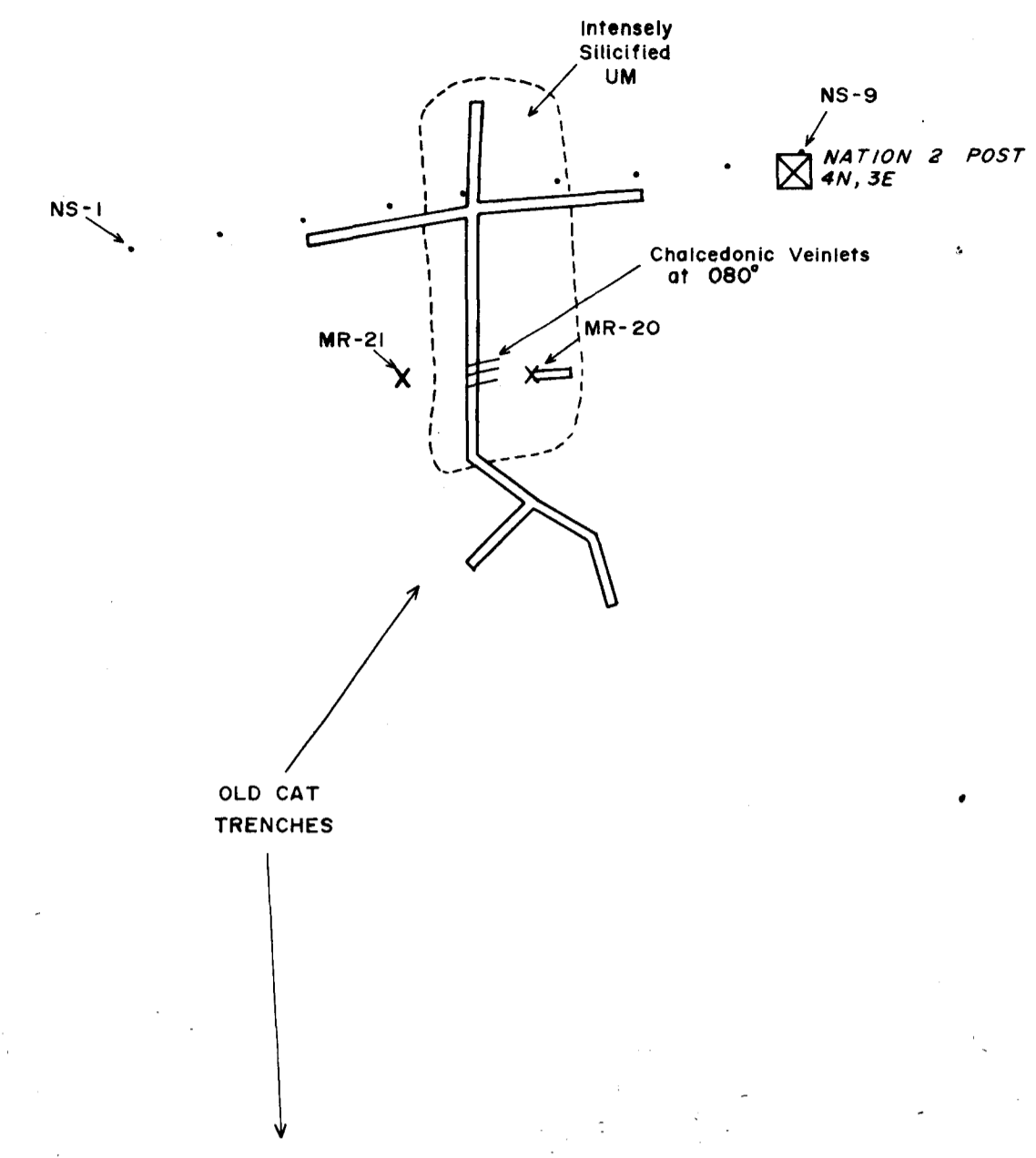


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<b>MINCORD</b> Exploration Consultants Ltd.	Scale	1 : 2,000
	Date	Nov. 1988
	By	M. C. D.
		N.T.S. 93N/11
		Figure 4





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<b>SW GRID GEOLOGY</b>		
<p>MINCORD Exploration Consultants Ltd.</p>	Scale	1:2,000
	Date	Nov. 1988
	By	M.C.D.
	N.Y.B.	23N/11
	Figure	3