'80-#430-# 8208

GEOCHEMICAL - GEOPHYSICAL REPORT

On Behalf Of

KARGEN DEVELOPMENT CORPORATION

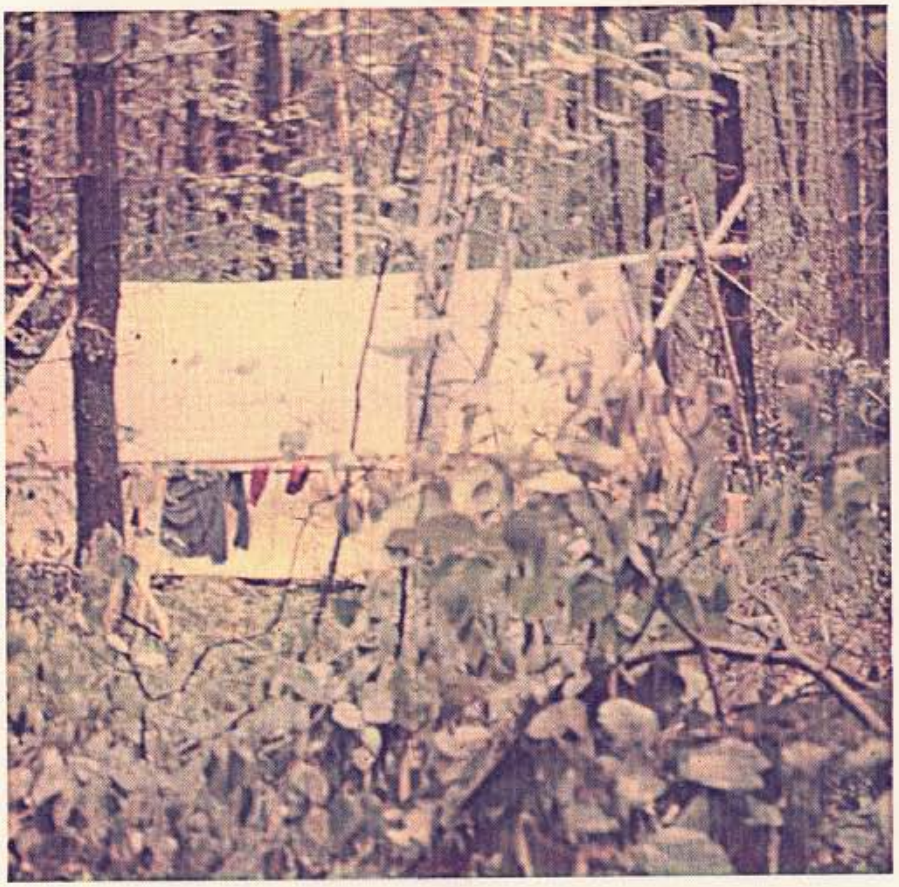
John 1 and 2 mineral claims, 6 km NW of Jordan River, Victoria Mining Division, B. C.

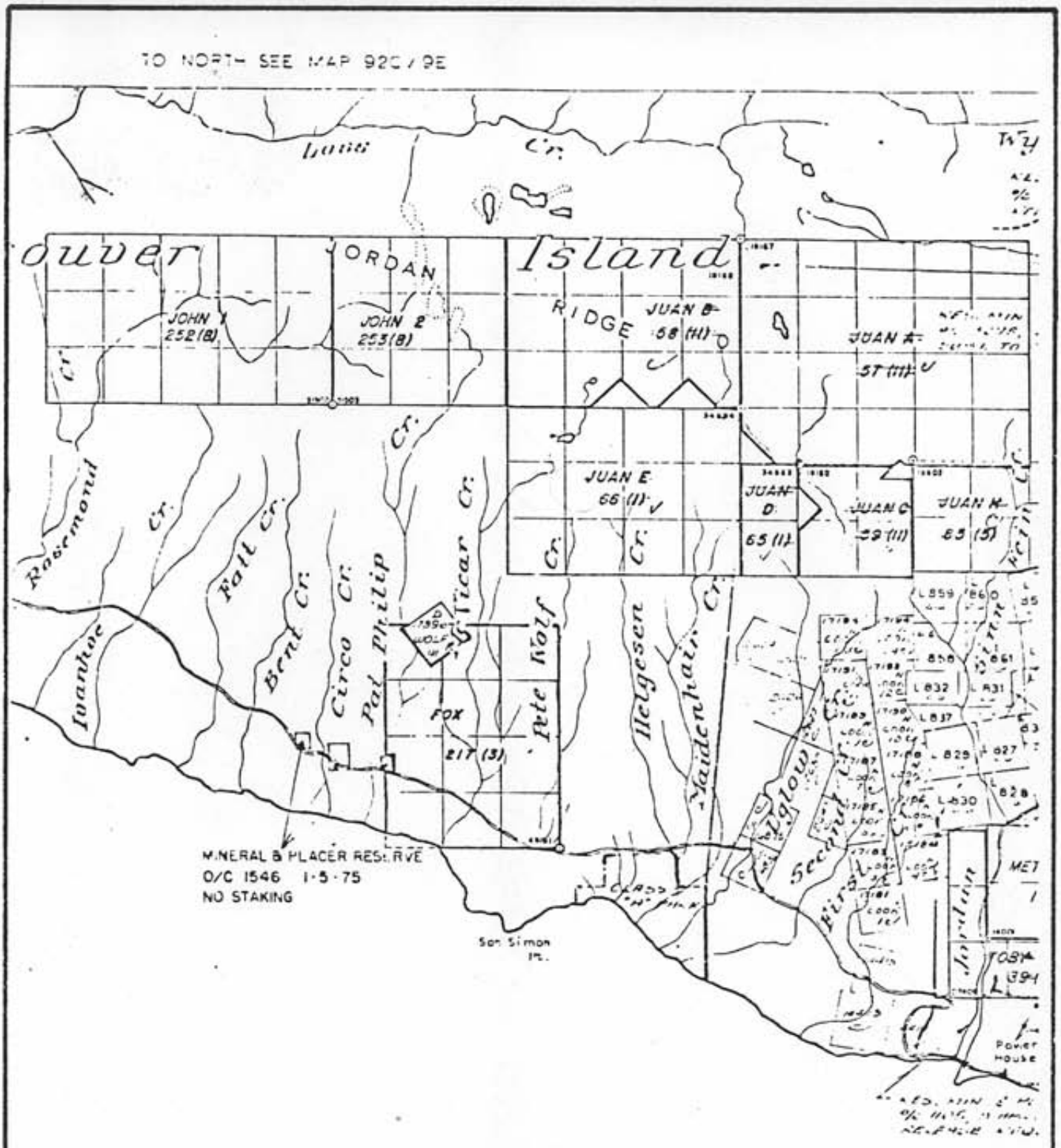
Lat. 48° 29' N Long. 124° 08' W N.T.S. 92 C/8E

AUTHOR: Glen E. White, B.Sc., P. Eng., Geophysicist

DATE OF WORK: September 12 - 28, November 27 - 29, December 11 - 14, 1979.

DATE OF REPORT: March 4, 1980





KARGEN DEVELOPMENT CORP

JOHN CLAIMS

LOCATION AND CLAIMS MAP

N.T.S. 92-C/8

DATE 31 DECEMBER 1979

Glen E. Wilson
geological consulting
services ltd.

FIG. 1

CONTENTS

Illustrations

INTRODUCTION

This report describes detailed geochemical and electromagnetometer surveys conducted over the John 1 and 2 mineral claims. A linecutting, soil sampling and VLF electromagnetometer survey were conducted during the period September 12 - 28, 1979. A minor amount of test Max-Min 2 surveying was undertaken from November 27 - 29, 1979 and some test vector pulse surveying from December 11 - 14, 1979. The John 1 and 2 mineral claims cover a strong VLF EM and magnetometer anomaly detected in 1972 in a regional geochemical geophysical program conducted by the Jordan River Syndicate and discussed in a report dated January 8, 1973 by Glen E. White and D. Parent, P. Eng.

PROPERTY

The property consists of the John 1 and 2 mineral claims record numbers 252 and 253 respectively, comprising 24 contiguous units staked August 2, 1979. The claim layout is illustrated on Figure 1.

LOCATION AND ACCESS

The John mineral claims are situated on the Jordan Ridge, a plateau-like feature ranging between 2000 - 2300 feet A.S.L., some 6 km west of Jordan River, B.C., Victoria Mining Division. Lat. 48°29'N, Long. 124°08'W, N.T.S. 92 C/3E.

Access is by a secondary logging road turning northward from the Jordan River - Port Renfrew Highway some 3.4 miles (5.4 km) from the Jordan River Bridge.

GENERAL GEOLOGY

An extensive volcanic assemblage of Eocene age, exceeding 7500 feet in thickness, known as the Metchosin formation, occupies the southwestern tip of Vancouver Island from Sombrio Point at the entrance of Loss Creek to Victoria. They have a width of five to ten miles and strike in a general direction of N60° to 70° west and dip 15° to 30° northeastward. The Metchosin series consists of a variable succession of interbedded lithologies; basalt, diabase, including porphyritic varieties, pillow lavas, flow breccias, and both fine and coarse bedded tuffs and agglomerates.

Stock and sill-like masses of gabbro with great lateral continuity, known as the Sooke gabbro of Late Eocene or Early Oligocene age occur throughout the Sooke to Jordan River area. Once thought to be of a minor nature, they have now been shown geologically to underly much of the southern tip of Vancouver Island. Irregular intrusions of granitic material, hornblende granite, feldspar porphyry and diorite are believed to represent differentiates of the Sooke gabbro.

Copper mineralization in the area may possibly be genetically related to the gabbro but occurs in shear zones in hornblendized basalt along the contacts with the gabbro. Three such zones are known at the Jordan River Mine: The river zone bearing N30°W, the cave zone bearing N42°W and the center zone bearing 69°W.

Late Oligocene marine sandstones and conglomerates of the Sooke formation overlie unconformably the earlier lithologies at lower elevations along the coastline.

PREVIOUS WORK

The original thrust of the Jordan River Syndicate was to look for further ore bodies to the west of the Jordan River Mine along a possible fold axis as defined by a regional airborne magnetometer survey. D. Parent, P. Eng., manager of the exploration group, recognized a definite similarity of the rocks in the Jordan River area to the "greenstones" of eastern Canada. The 1972 surveys located interesting ground magnetometer and VLF electromagnetometer anomalies but with weak geochemical data. An induced polarization survey conducted immediately west of the Jordan River Crown Grant claims located a strong chargeability anomaly but with no supporting magnetic, electromagnetic or geochemical anomalies. A diamond drill hole into this target located a zone of andesitic lapilli tuff with epidote and heavy chloritization. Two sections of bleached and sheared rock containing euhedral pyrite mineralization of some 20% by volume were detected. Minor chalcopyrite mineralization was also present.

The area of the present survey covers the strongest VLF-EM conductor detected. It gave a Fraser filter high of 80% which lies along the flank of a moderate magnetic anomaly. See Plates 1 and 2.

SURVEY GRID

The survey lines are orientated in a north-south direction from a central east-west directed baseline. Stations are numbered at 25 m intervals. Some 22 km of survey grid was established and surveyed.

GEOCHEMICAL SURVEY

Soil samples of the upper "B" horizon were taken along the traverse lines at 25 m intervals. The soil samples were then placed in soil envelopes provided by Chemex Labs Ltd. of North Vancouver, B. C. The samples were delivered to the above lab where -80 mesh sieving, digestion by hot perchloricnitric acid and analysis by atomic absorption were carried out under the supervision of professional geochemists. 816 samples were obtained and analysed for p.p.m. copper, silver and zinc.

VLF ELECTROMAGNETOMETER SURVEY

This survey was conducted using a Ronka EM-16 VLF Electromagnetometer. This instrument acts as a receiver only. It utilizes the primary electromagnetic fields generated by VLF marine communication stations. These stations operate at a frequency between 15 - 25 KHZ, and have a vertical antenna-current resulting in a horizontal primary field. Thus, this VLF - EM measures the dip-angle of the secondary field induced in a conductor.

For maximum coupling, a transmitter station located in the same direction as the geological strike should be selected, since the direction of the horizontal electromagnetic field is perpendicular to the direction of the transmitting station.

Readings were taken at 25 m intervals and the data filtered in the field by the operator as described by D. C. Fraser, Geophysics Vol. 34, No. 6 (December 1969). The advantage of this method is that it removes the dc and attenuates long spatial wave lengths to increase resolution of local anomalies, and phase shifts the dip-angle data by 90 degrees so that crossovers and inflections will be transformed into peaks to yield contourable quantities.

VECTOR PULSE ELECTROMAGNETOMETER SURVEY

The pulse electromagnetometer system is a time domain E.M. system which can be used in the standard horizontal loop mode or deep penetrating vector mode.

The primary field for the horizontal loop survey is obtained from a transmit loop 6 meters in diameter laid out horizontally on the ground and energized by a pulse of 20 amps at 24 volts with an on-off time of 10.8 ms. The receive coil is generally spaced 25 - 100 meters from the transmit loop. Both are moved simultaneously from station to station. The secondary field signal on the receive coil is sampled and averaged for 10 seconds and then stored for readout. Eight samples of the secondary field are obtained with increasing window widths during the primary field off time. Time synchronization is by radio link or cable.

The eight channels of secondary field information are equivalent to a wide spectrum of frequencies from approximately 2KH$_z$ to 16H$_z$ which allows for determination of overburden effects and penetration of conductive overburden. Since the secondary field is measured directly during the primary field off time, the pulse method is relatively free of geometrical restrictions between the transmit and receive coil positions, such as topography interference and coil alignment.

The primary field for the vector EM technique is obtained from a small turam type loop of 152 m (500 ft) per side which is energized with a current of some 25 amps at 24 volts. A scalar vector is obtained by determining the horizontal and vertical components of the secondary field. A right angle to this resultant vector points to the eddy current position. See Appendix for diagrams.

MAX - MIN 2 SURVEY

The Max-Min 2 horizontal loop system was used for this survey. The system was used in the Max mode where the transmitter coil plane and receiver coil plane are horizontal. In-phase and quadrature voltage measurements are induced in the receiver relative to like quantities induced in a reference coil. The reference voltage and the receiver voltage are compared in a bridge or rationeter circuit and the output is calibrated to read in percent of normal field. Thus, a zero reading indicates no conductors present.

DISCUSSION OF RESULTS

The copper geochemical data, Figure 2, shows two threshold levels, one at some 10 p.p.m. in the northern part of the survey grid and the other around 35 p.p.m. in the southern half. A cursory geological investigation showed an unknown, possibly pancake-like remnant of fossil-bearing sediments. These were found in the creek between lines 400W and 600W just north of the baseline, and in the creek along 800W at 250N. This geological feature, and the water saturated plateau-like area would account for the low values. The southern part of the grid has a number of weakly anomalous values which trend east-west across the survey area. One random high of 2950 p.p.m. occurs on line 1700W at 375S. Several values of over 100 p.p.m. were also obtained. In this area of high surface leeching, they can be considered anomalous. The zinc map, Figure 3, shows no definite geochemical anomalies. The two levels of background as indicated by the copper data, is mirrored faintly by the zinc values. In comparison to other properties, the zinc values in this survey area are less than one half of a normal

background value for basic rocks. This may possibly be accounted for by the high rainfall. Silver was run on each of the samples, and all were 0.1 p.p.m. except for the 2950 copper value which gave 2.0 p.p.m. Samples similar to this high one have been obtained in the general area and when followed up, vienlets of copper-bearing mineralization have been found.

The VLF filtered percent dip angle map, Figure 4, depicts a very strong conductor trend striking some 290° and dipping steeply to the north. This conductor reaches a high of 101° filtered with two other lobes over 90°. This type of conductor is unusual in this area as there is no known graphite mineralization in the Metchosin rocks. The conductor appears to be intersected by a number of weaker northeasterly orientated conductors along its' northern flank. Since the VLF - EM conductor is so strong and the topography relatively flat, a Max-Min test was conducted with a separation of 100 m at a frequency of 1777 H_z. The results are shown on Figure 5. The inphase shows variations due to slope and chainage errors and gave no response over the conductor except weakly on line 800W. The quadrature which is insensitive to topography and chainage errors is relatively smooth but does show weak variations across the conductor trend. The strongest quadrature response was obtained on line 800W with a weaker inphase variation. The stronger quadrature response than inphase response, along with the very strong VLF EM conductor, would suggest the presence of a very poor sulphide conductor rather than a good fault zone, though both are likely present. Model curves suggest a conductor at a depth of some 60 m. A vector pulse electromagnetometer test was initiated to try and resolve the conductor at depth. The program was terminated due to excessive winter rain. However, two lines

were surveyed, 800W and 1000W. See Figures 6 - 9. The VLF - EM and Max-Min data are shown for comparison. Line 1000W shows a weak channel 2 horizontal component response at a depth of some 30 m at 300N with the EM-16 crossover. The vertical component shows a smooth channel 1 crossover which is displaced 50 m down dip and is likely sensing a deeper conductor. The vertical component on line 800W, Figure 8, shows two definite crossovers, one at 225N with the excellent VLF-EM crossover and the other a strong one at 325N with a weaker VLF-EM crossover. The horizontal component gives a deep basin-like response typical of a loop on the footwall side of a dipping conductor. The vertical component, channel 2, shows a long crossover which may indicate a conductor at a depth of some 100 m down dip. The Max-Min response occurs at 250N midway between the two vector targets. The only magnetometer data available, Plate 1, shows a series of lense-like magnetic highs following the conductor trend, Plate 2. Plate 3 gives a brief description of the rock types obtained in the creek which crosses the end of the strong EM anomaly. Here the value is 36% filtered dip angle. Plates 4 - 6 show the magnetic and VLF-EM responses and geological interpretation on lines 1200W, 1000W and 800W respectively.

CONCLUSION

During the fall of 1979, soil sampling and electromagnetometer surveys were conducted over the John 1 and 2 mineral claims to detail a previously located strong VLF-EM conductor. The geochemical program would appear to be inconclusive due to a previously unknown remnant of the Sooke sediments. The VLF-EM survey delinated a 1.3 km long strong electromagnetic conductor. Above background geochemical

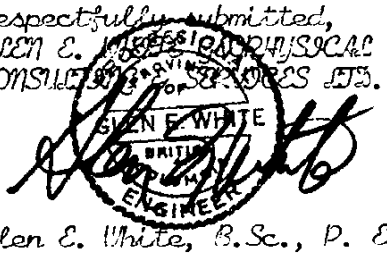
values occur sporadically along this trend where there appears to be post sediment faulting.

The Max-Min system gives an out-of-phase anomaly more typical of very poor sulphide mineralization conductors. The two test lines with the vector pulse electromagnetometer technique confirms the poor conductivity and appears to indicate some depth extent to the conductors. The geophysical dilemma is that the VLF-EM response is so strong and the conventional systems so weak. Strong faults in the area have been correlated with other VLF-EM anomalies up to 40 - 50% filtered dip angle. The strong VLF-EM anomaly of 101% filtered dip angle would normally be caused by good graphite, sulphide mineralization or fault gouge, the three of which should give a good response on the other two systems. Therefore, the combined responses of the three systems would tend to indicate a structure zone containing blebs of sulphide mineralization of some 50% content by volume which, because of its descrete nature, responds as a normal EM conductor only at the very high frequencies of a VLF-EM system.

RECOMMENDATIONS

To assist the selection of diamond drill targets, a ground magnetometer survey should be undertaken and a program of deep penetrating vector pulse electromagnetometer surveying, be completed.

Respectfully submitted,
GLEN E. WHITE GEOPHYSICAL
CONSULTING SERVICES LTD.



Glen E. White, B.Sc., P. Eng.
Consulting Geophysicist

A P P E N D I X

Instrument Specifications

ELECTROMAGNETOMETER

A. Instrument

(a) Type - Geonics VLF - EM
(b) Make - Ronka EM 16

B. Specifications

Measurement - (i) Utilizes primary fields generated by VLF marine communication stations measures the vertical field components in terns of horizontal field present.

(ii) Frequency range 15-25 KHZ

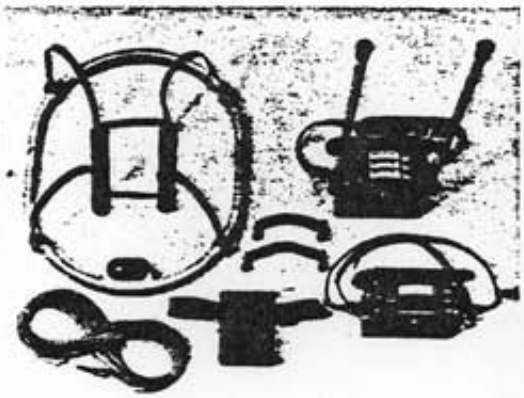
(iii) Range of measurement - in phase $\pm$ 150% or $\pm$ 90°
- quadrature $\pm$ 40%

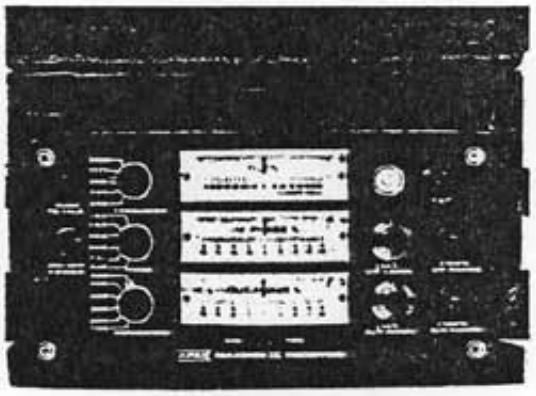
(iv) Method of reading - null detection by earphone, real and quadrature from mechanical dials.

(v) Accuracy - $\pm$ 1% resolution

C. Survey Procedures

Method (a) Select closest VLF station perpendicular to traverse lines.
(b) In-phase dial measures degree of tilt from vertical position.
(c) Quadrature dial calibrated in percent - null.
(d) Station plot - plot values read at station surveyed.
(e) Manually filter dip-angle data.





SPECIFICATIONS :

Frequencies: 222, 444, 888, 1777 and 3555 Hz.

Modes of Operation:
- MAX: Transmitter coil plane and receiver coil plane horizontal (Max-coupled; Horizontal-loop mode). Used with reference cable.
- MIN: Transmitter coil plane horizontal and receiver coil plane vertical (Min-coupled mode). Used with reference cable.
- V.L. : Transmitter coil plane vertical and receiver coil plane horizontal (Vertical-loop mode). Used without reference cable, in parallel lines.

Coil Separations: 25, 50, 100, 150, 200 & 250m (MMI) or 100, 200, 300, 400, 600 and 800 ft. (MMIIR). Coil separations in V.L. mode not restricted to fixed values.

Parameters Read:
- In-Phase and Quadrature components of the secondary field in MAX and MIN modes.
- Tilt-angle of the total field in V.L. mode.

Readouts:
- Automatic, direct readout on 90mm (3.5") edgewise meters in MAX and MIN modes. No nulling or compensation necessary.
- Tilt angle and null in 90mm edgewise meters in V.L. mode.

Scale Ranges:
NOW ALSO ±4% QUADRATURE FULL SCALE

- In-Phase: ±20%, ±100% by push-button switch.
- Quadrature: ±20%, ±100% by push-button switch.
- Tilt: ±75% slope.
- Null (V.L.): Sensitivity adjustable by separation switch.

Readability: In-Phase and Quadrature: 0.25% to 0.5% ; Tilt: 1%.

Repeatability: ±0.25% to ±1% normally, depending on conditions, frequencies and coil separation used.

Transmitter Outputs:
- 222Hz : 220 Am²
- 444Hz : 200 Am²
- 888Hz : 120 Am²
- 1777Hz : 60 Am²
- 3555Hz : 30 Am²

Receiver Batteries: 9V trans. radio type batteries (4). Life: approx. 35hrs. continuous duty (alkaline, 0.5 Ah), less in cold weather.

Transmitter Batteries: 12V 8Ah Gel-type rechargeable battery. (Charger supplied).

Reference Cable: Light weight 2-conductor teflon cable for minimum friction. Unshielded. All reference cables optional at extra cost. Please specify.

Voice Link: Built-in intercom system for voice communication between receiver and transmitter operators in MAX and MIN modes, via reference cable.

Indicator Lights: Built-in signal and reference warning lights to indicate erroneous readings.

Temperature Range: -40°C to +60°C (-40°F to +140°F).

Receiver Weight: 6kg (13 lbs.)

Transmitter Weight: 13kg (29 lbs.)

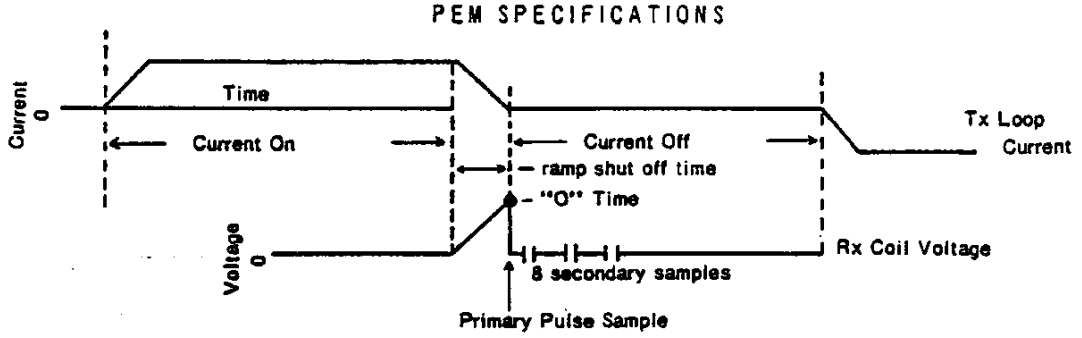
Shipping Weight: Typically 60kg (135 lbs.), depending on quantities of reference cable and batteries included. Shipped in two field/shipping cases.

Specifications subject to change without notification.

APEX PARAMETRICS LIMITED
200 STEELCASE RD. E., MARKHAM, ONT., CANADA, L3R 1G2

Phone: (416) 495-1612 Cables: APEXPARA TORONTO Telex: 06-966775 APEXPARA MKHM

PEM SPECIFICATIONS



Current Off time: 9.4 ms
Current on time: 10.8 ms
Current shut off (ramp) time: 1.4 ms
Sample times (zero to centre of sample): .15ms, .45ms, .85ms, 1.45ms, 2.45ms, 3.75ms, 5.85ms, 8.85ms.

Sample width: 100 μs
Zero time set at drop off point of primary pulse

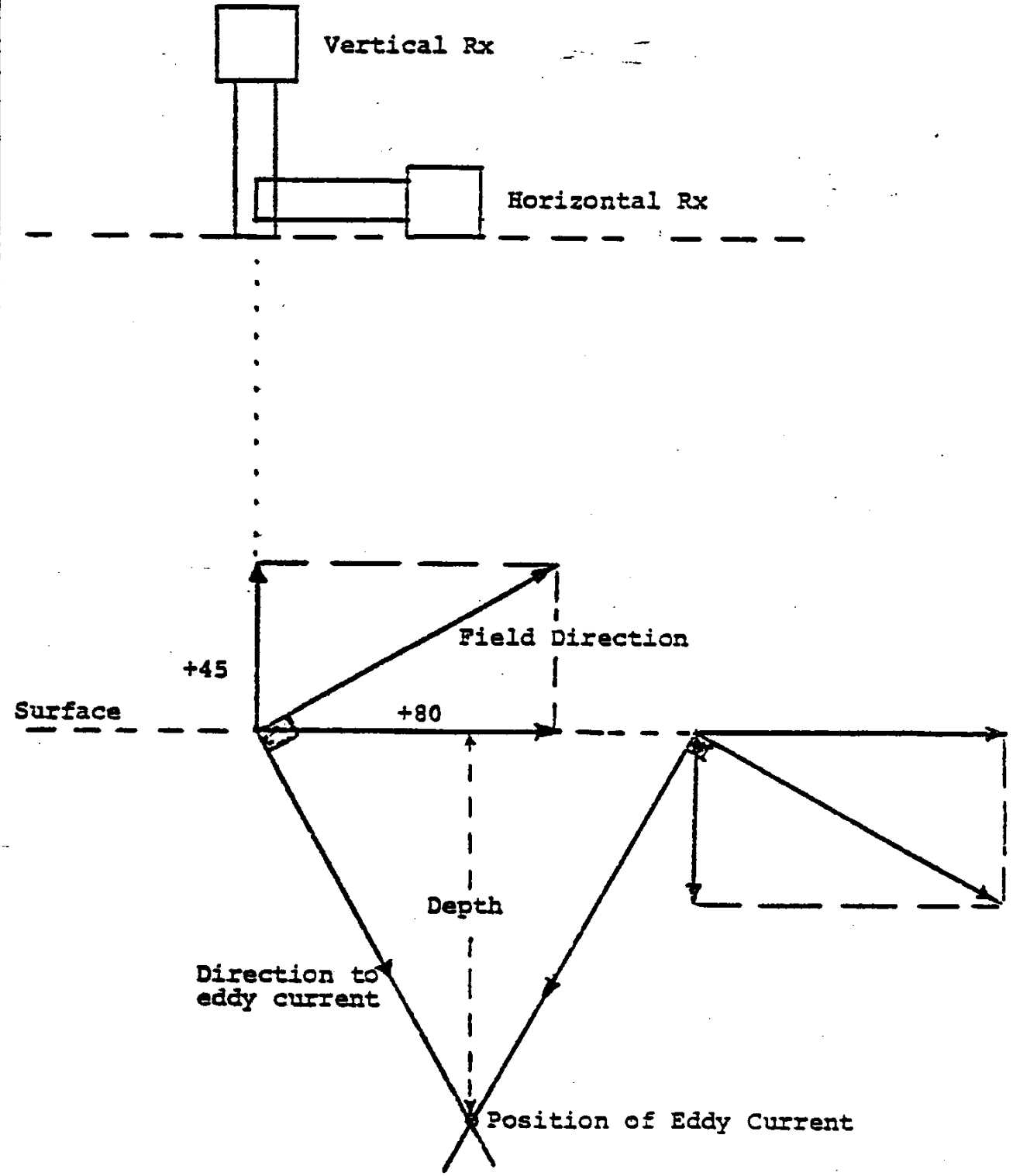
TRANSMITTER – Transmitter power and loop size may be increased to obtain increased penetration. Weight, portability and power capabilities of the control instrument are the limiting factors. The standard transmitter is designed to be carried by two men.

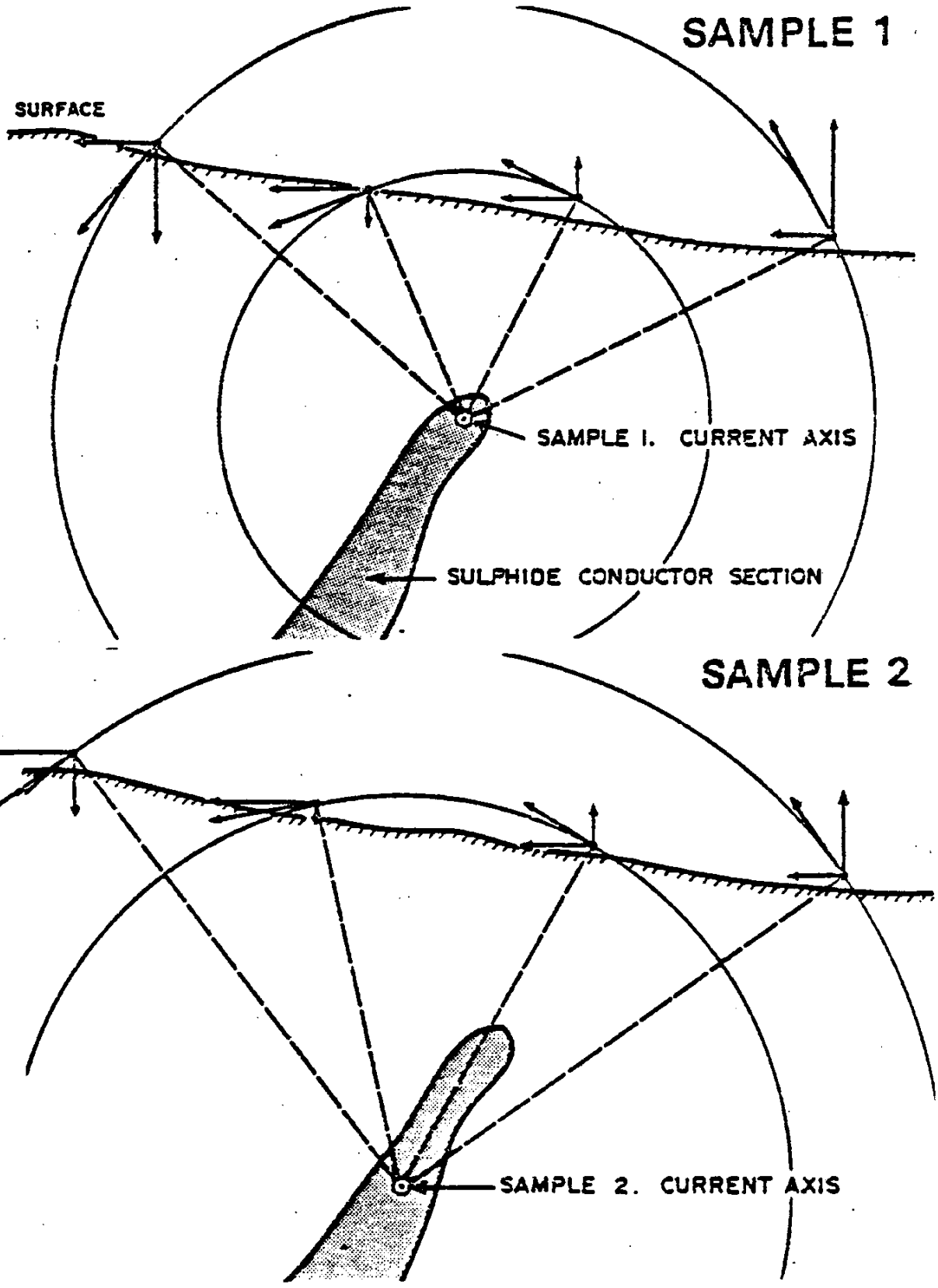
Loop diameter	– minimum 4 meters (13 feet)
Loop current	– 15 to 20 amps
Loop applied voltage	– 24 volts
Loop output	– minimum 4500 amps x meter ^{2}
Loop weight	– 11.8 kilos (26 lb)
Control unit weight	– 10 kilos (22 lb)
Control unit dimensions	– 20.5cm x 25.5cm x 36.5cm (8" x 10" x 14.5")
Battery supply weight	– 18.1 kilos (40 lb)
Battery supply	– 2 of 12 volt, 14 to 20 ampere hour

Timing control by radio synchronization

RECEIVER

- Receive coil dimensions: 55cm x 15cm (22" x 6")
- Receive coil weight: 4.5 kilos (10 lb)
- Preamplifier in coil
- Preamplifier batteries: 2 of 9 volt
- Receive coil tripod mounted
- Receiver measuring instrument dimensions: 28cm x 18cm x 21.5cm (11" x 7" x 9")
- Receiver measuring instrument weight: 6.3 kilos (14 lb)
- Timing control by radio synchronization
- Primary sample width: 100 μs
- Primary sample can be swept through primary pulse by means of a time calibrated pot
- Zero time set at primary pulse drop-off
- Secondary samples (eight of them) width: 100 μs
- Secondary samples time (zero to middle of sample): (1) .15ms (2) .45ms (3) .85ms (4) 1.45ms (5) 2.45ms (6) 3.75ms (7) 5.85ms (8) 8.85ms
- Automatic sampling for 5 seconds then all samples automatically stored
- Sample read out by means of meter
- Continuous sampling possible by switching function switch to "Continuous"
- Noise can be monitored by switching function switch to "Noise"
- Battery supply: 24 volt rechargeable, 2 of 12 volt Gel GC 12-15


Vertical Rx
Horizontal Rx
Field Direction
+45
Surface
+80
Depth
Direction to
eddy current
Position of Eddy Current



Location of the Current Path in the Conductor

STATEMENT OF QUALIFICATIONS

NAME: WHITE, Glen E., P. Eng.

PROFESSION: Geophysicist

EDUCATION: B.Sc. Geophysics - Geology
University of British Columbia

PROFESSIONAL ASSOCIATIONS: Registered Professional Engineer,
Province of British Columbia

Associate member of Society of Exploration Geophysicists.

Past President of B. C. Society of Mining Geophysicists.

EXPERIENCE: Pre-Graduate experience in Geology - Geochemistry - Geophysics with Anaconda American Brass.

Two years Mining Geophysicist with Sulmac Exploration Ltd. and Airborne Geophysics with Spartan Air Serv ices Ltd.

One year Mining Geophysicist and Technical Sales Manager in the Pacific north-west for W. P. McGill and Associates.

Two years Mining Geophysicist and supervisor Airborne and Ground Geophysical Divisions with Geo-X Surveys Ltd.

Two years Chief Geophysicist Tri-Con Exploration Surveys Ltd.

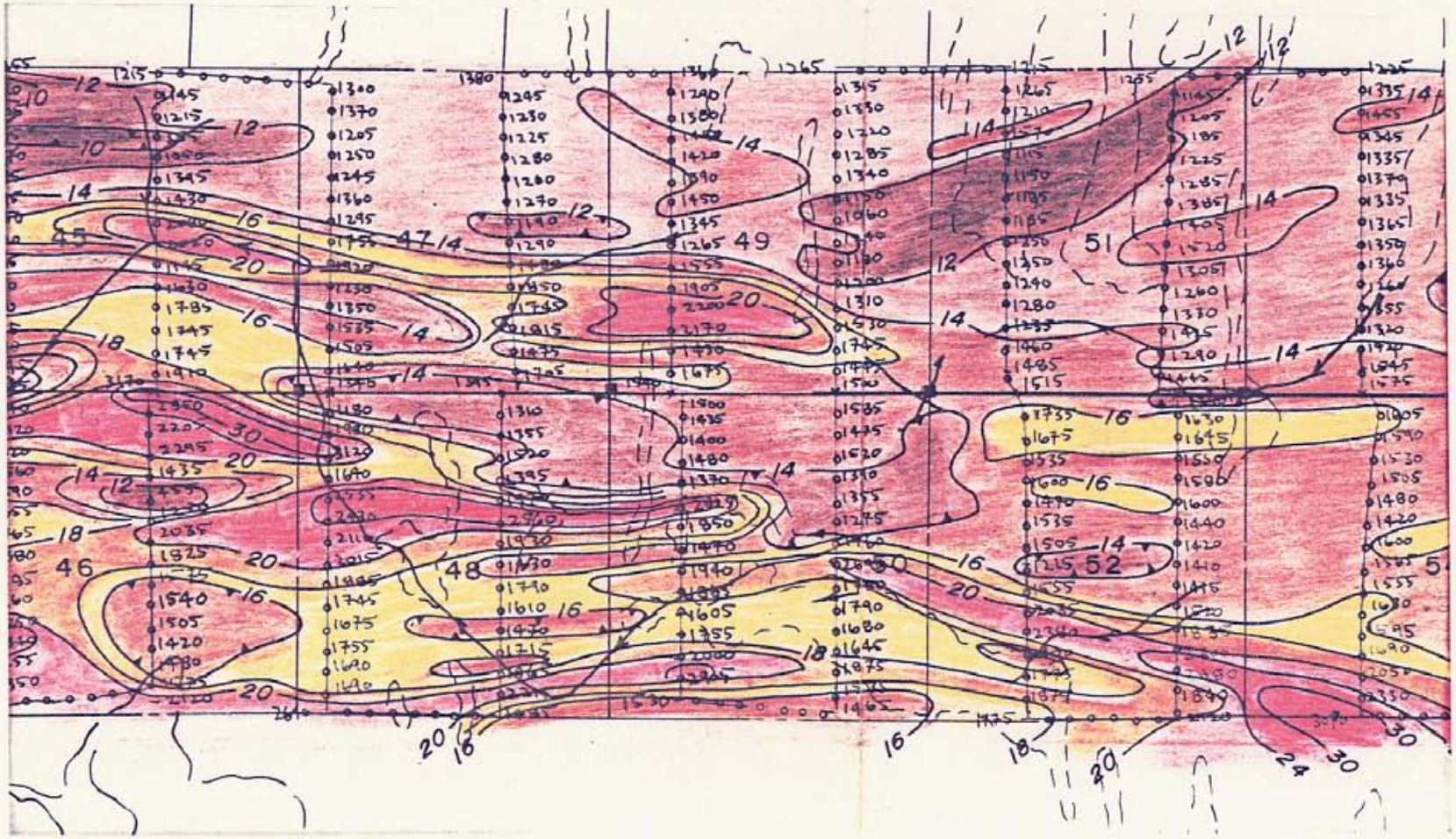
Nine years Consulting Geophysicist.

Active experience in all Geologic provinces of Canada.

COST BREAKDOWN

Personnel	Dates Worked	Wages	Total
G. Ennis	Sept. 12-28/79	$160/day	$2720.00
B. Elrix	" "	110/day	1870.00
P. Petersen	" "	110/day	1870.00
J. Miller	Nov. 27-29, Dec. 11-14/79	175/day	1225.00
G. Smedley	Nov. 27-29/79	110/day	330.00
R. Paesler	Dec. 11-14/79	175/day	700.00
G. Greg	" "	110/day	440.00
C. Schorn	" "	110/day	440.00

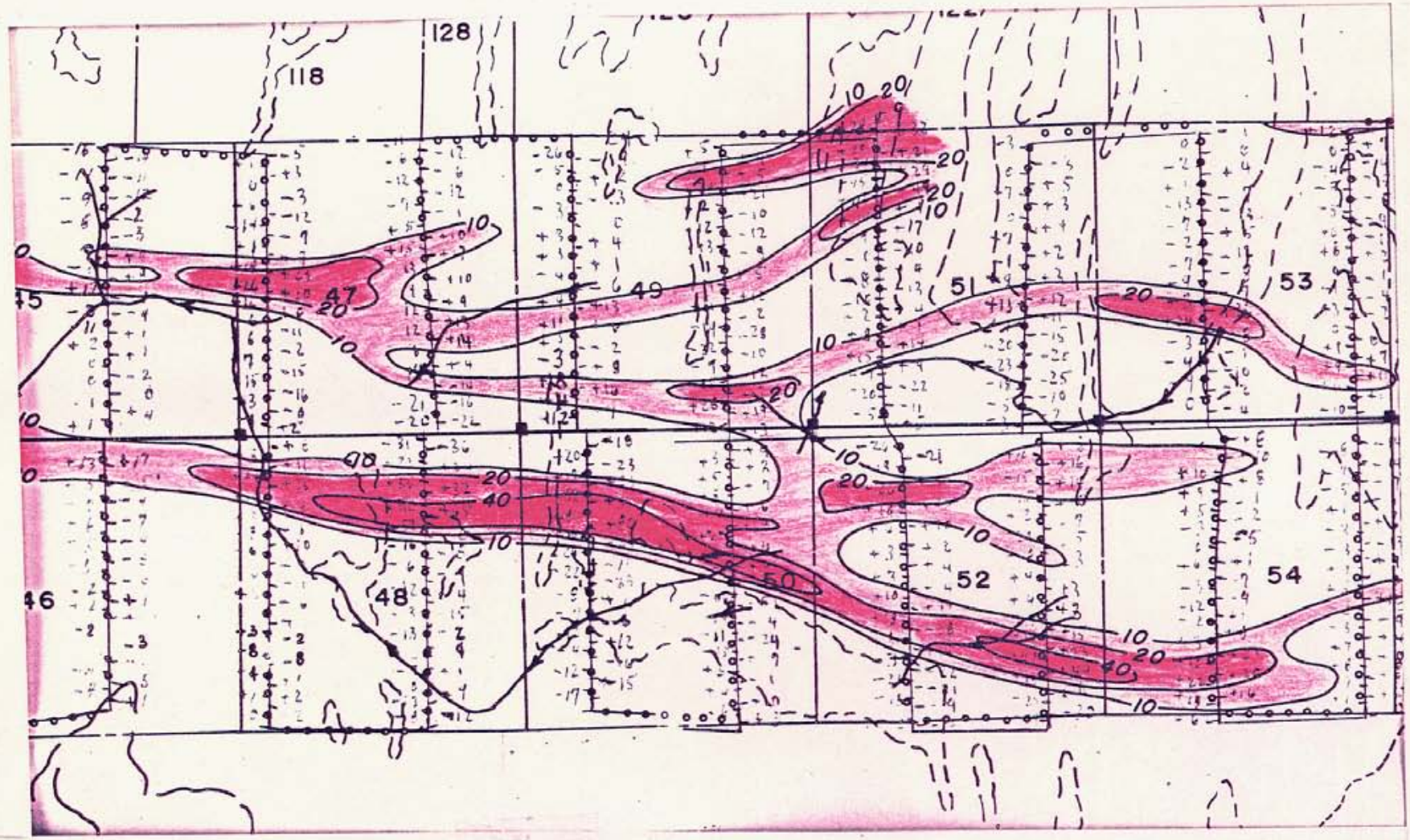
Meals and accomodations, 73 man days @ $35	2555.00
Vehicle @ $60/day all inclusive x 25 days	1500.00
Geochemical soil analysis	1930.00
Instrument lease: EM-16 @ $25/day	425.00
Max-Min @ $85/day	255.00
Vector pulse @ $130/day	520.00
Materials, flagging, geochem bags etc	150.00
Drafting and data plotting	385.00
Interpretation and reports	850.00
TOTAL	$18,165.00



Glen E. White
geophysical consulting
& services ltd.

VERTICAL MAGNETIC INTENSITY 1972
scale 1"=800'

Plate 1



VLF - EM FILTERED DIPANGLE % 1972
scale 1" = 800'

Plate 2

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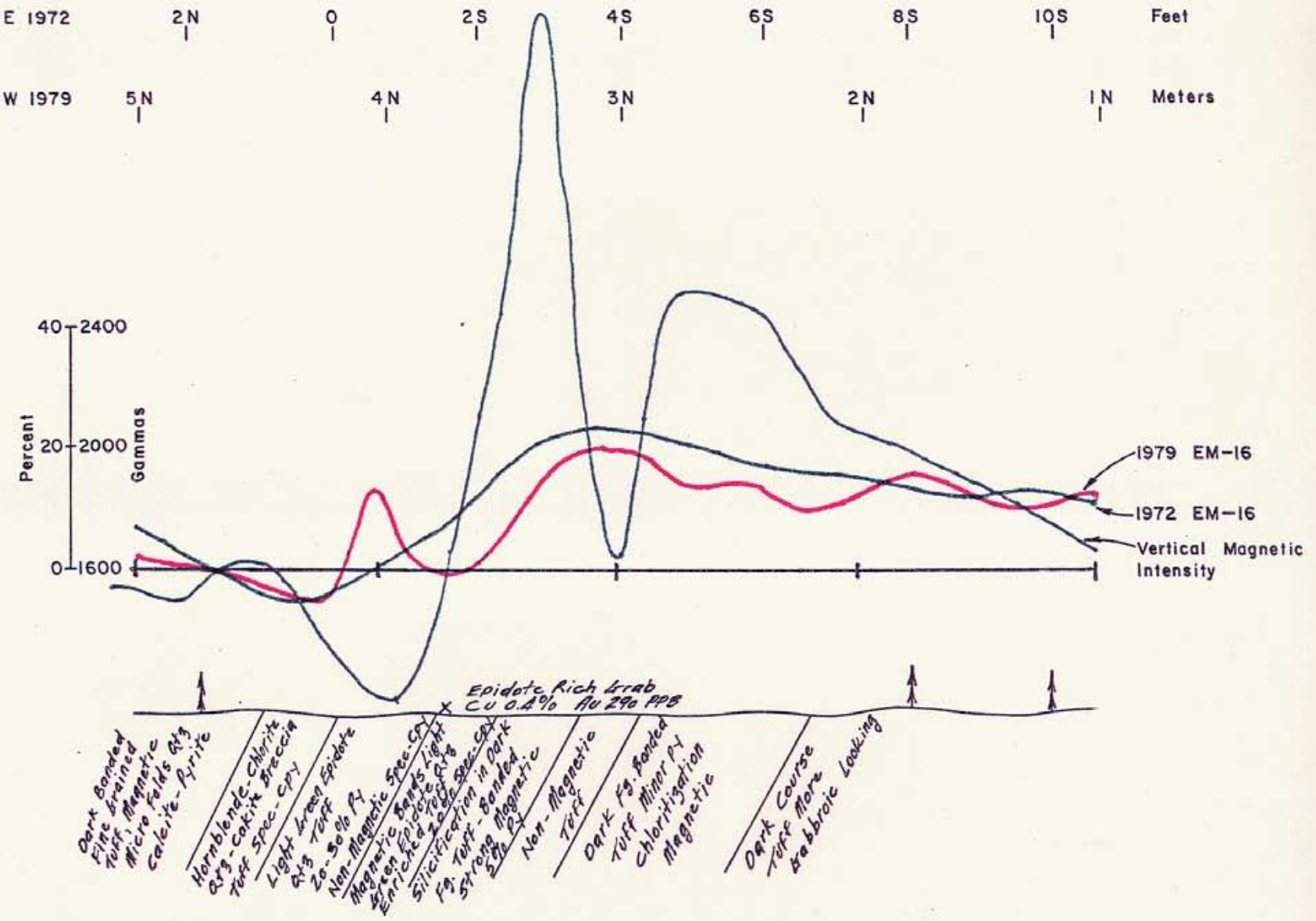


KARGEN DEVELOPMENT CORPORATION

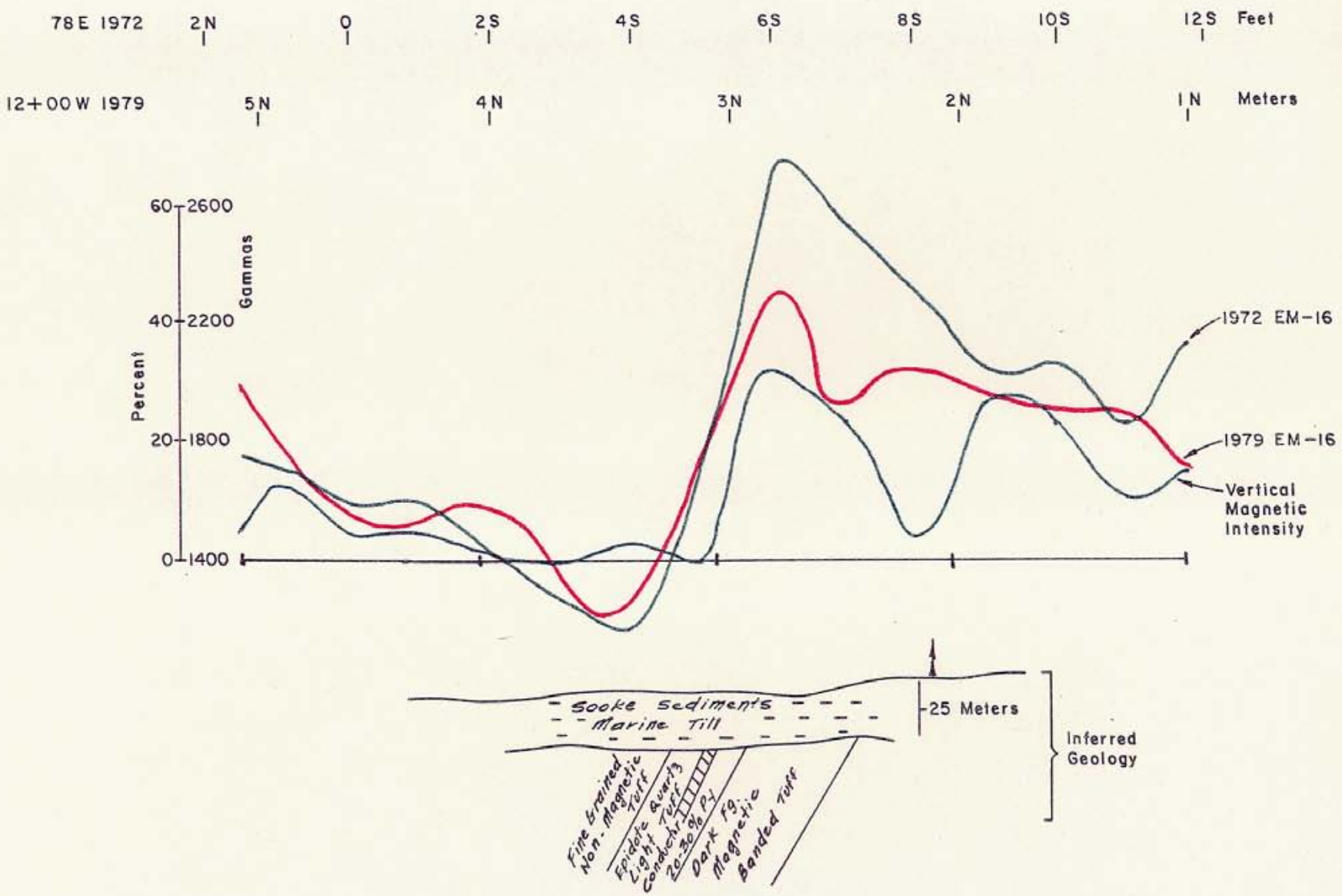
COMPOSITE PROFILES

LINE 17+00W

Glen E. White geophysical consulting & services ltd.

Scale: As Shown

Dec. 1979
Plate 3



KARGEN DEVELOPMENT CORPORATION

COMPOSITE PROFILES

LINE 12+00 W

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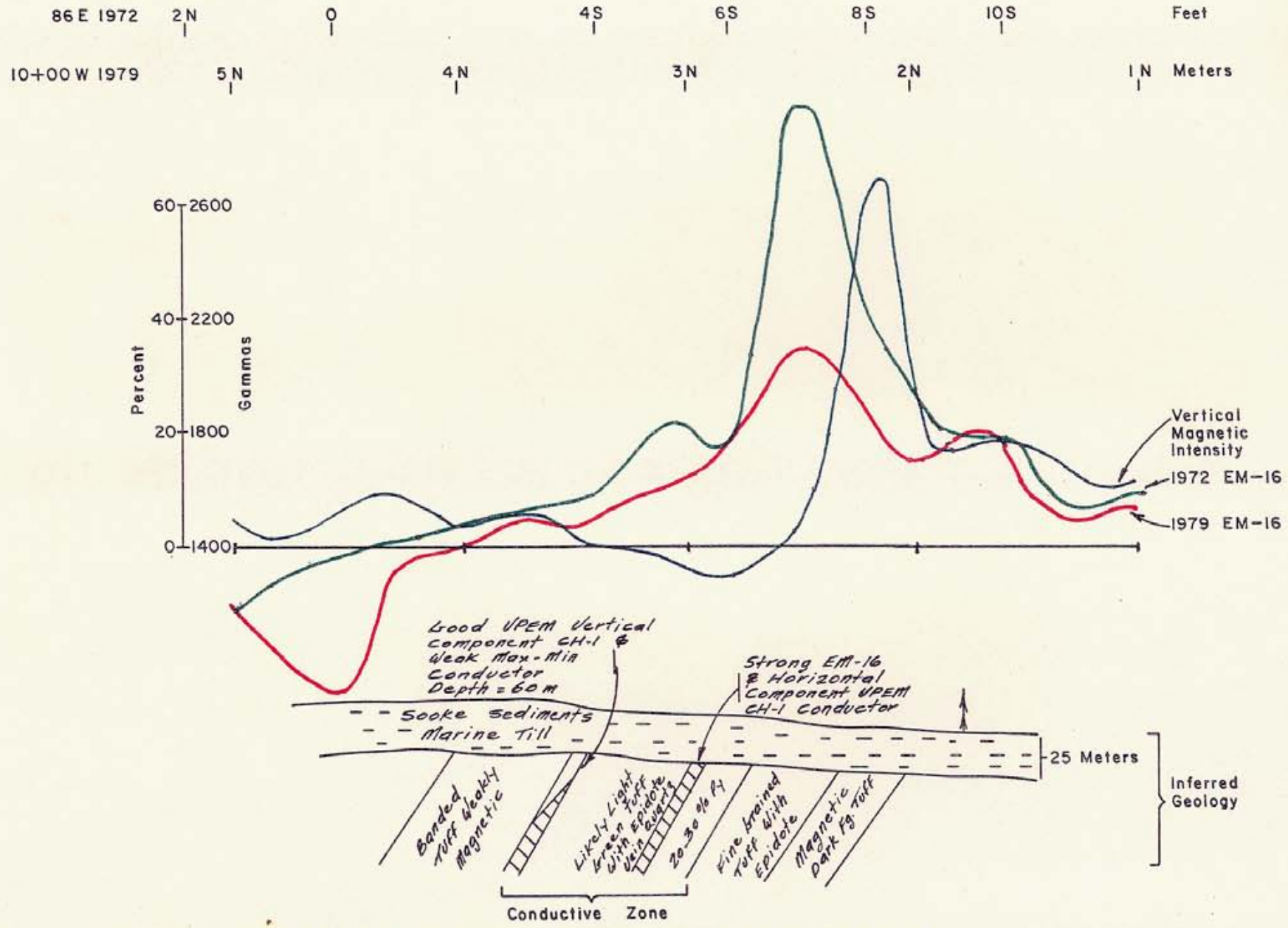
Scale : As Shown

Dec. 1979
Plate 4



KARGEN DEVELOPMENT CORPORATION

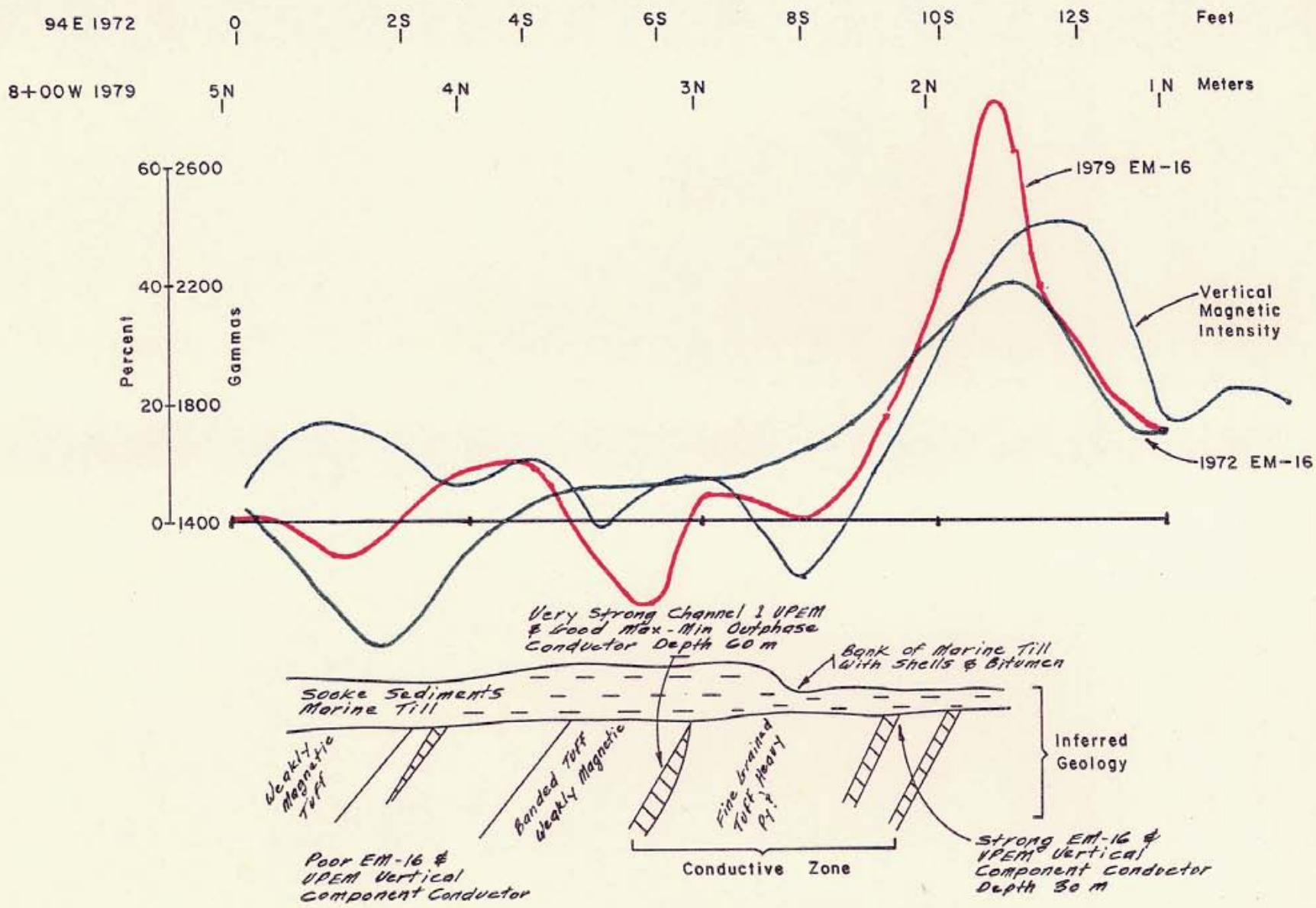
COMPOSITE PROFILES

LINE 10+00 W

Glen E. White geophysical consulting & services ltd.

Scale: As Shown

Dec. 1979
Plate 5



KARGEN DEVELOPMENT CORPORATION

COMPOSITE PROFILES

LINE 8+00W

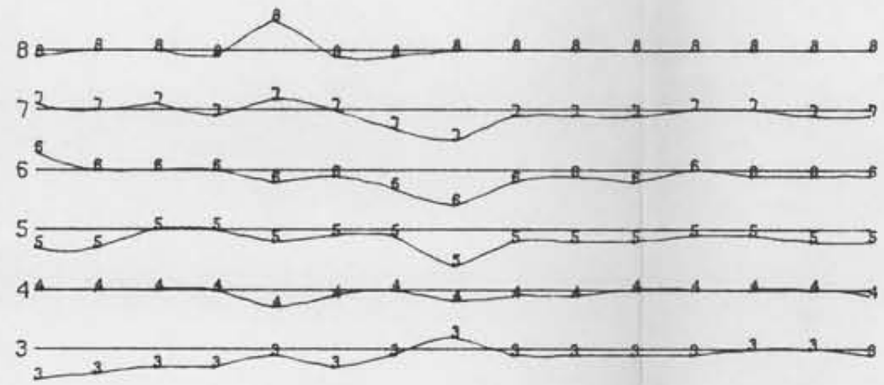
Glen E. White geophysical consulting & services ltd.

Scale : As Shown

Dec. 1979
Plate 6

500N 475N 450N 425N 400N 375N 350N 325N 300N 275N 250N 225N 200N 175N 150N

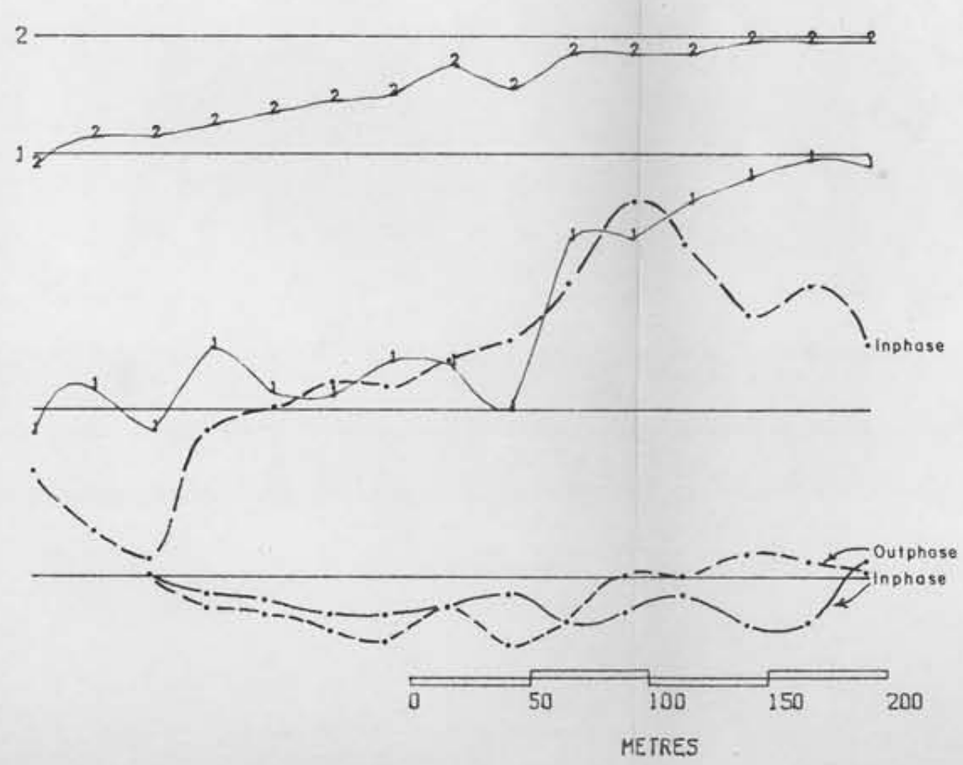
LOOPA



+ OR −
P.P.K.
SCALE

EM−16
Jim Creek
U.S.A.
18.6 KHz

Max−Min II
1777 Hz
100 m



NUMBER IN THE LINE = CHANNEL NUMBER

INSTRUMENT: CRONE P.E.M.

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
NO. 8208

KARGEN DEVELOPMENT CORP

JOHN CLAIMS

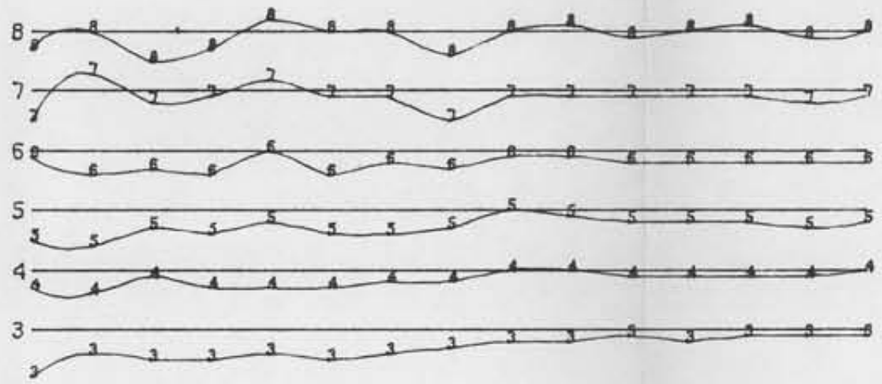
VECTOR PULSE ELECTROMAGNETOMETER
HORIZONTAL COMPONENT
LINE 10W A

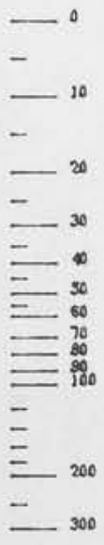
GLEN E. WHITE
GEOPHYSICAL CONSULTING
& SERVICES LTD.

N.T.S. 92-C/8
DATE 31 DECEMBER 1979
FIG.NO: 6

500N 475N 450N 425N 400N 375N 350N 325N 300N 275N 250N 225N 200N 175W 150N

LOOP A

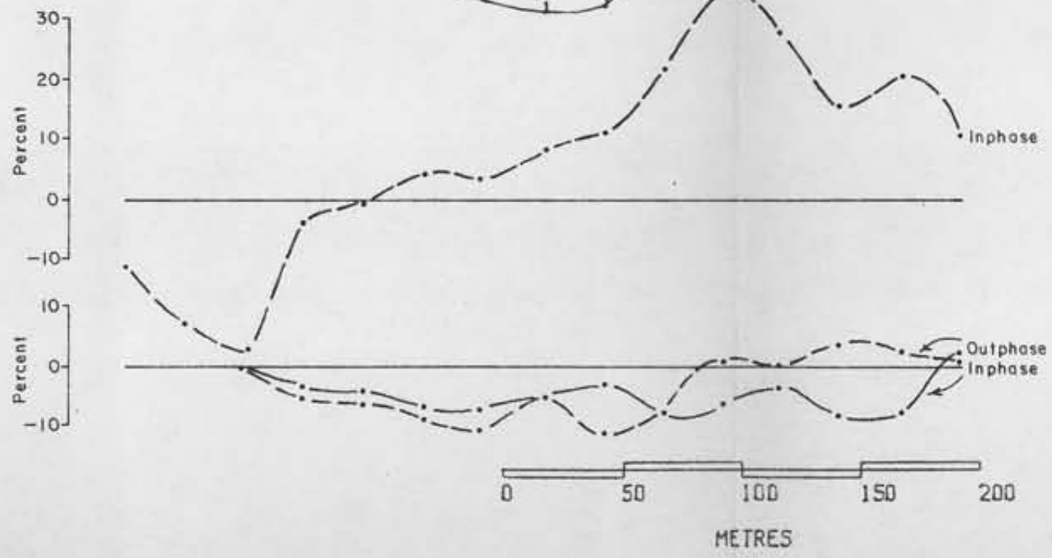




+ OR -
P.P.K.
SCALE

EM-16
Jim Creek
U.S.A.
18.6 KHz

Max-Min II
1777 Hz
100 m



NUMBER IN THE LINE = CHANNEL NUMBER

INSTRUMENT: CRONE P.E.M.

KARGEN DEVELOPMENT CORP

JOHN CLAIMS

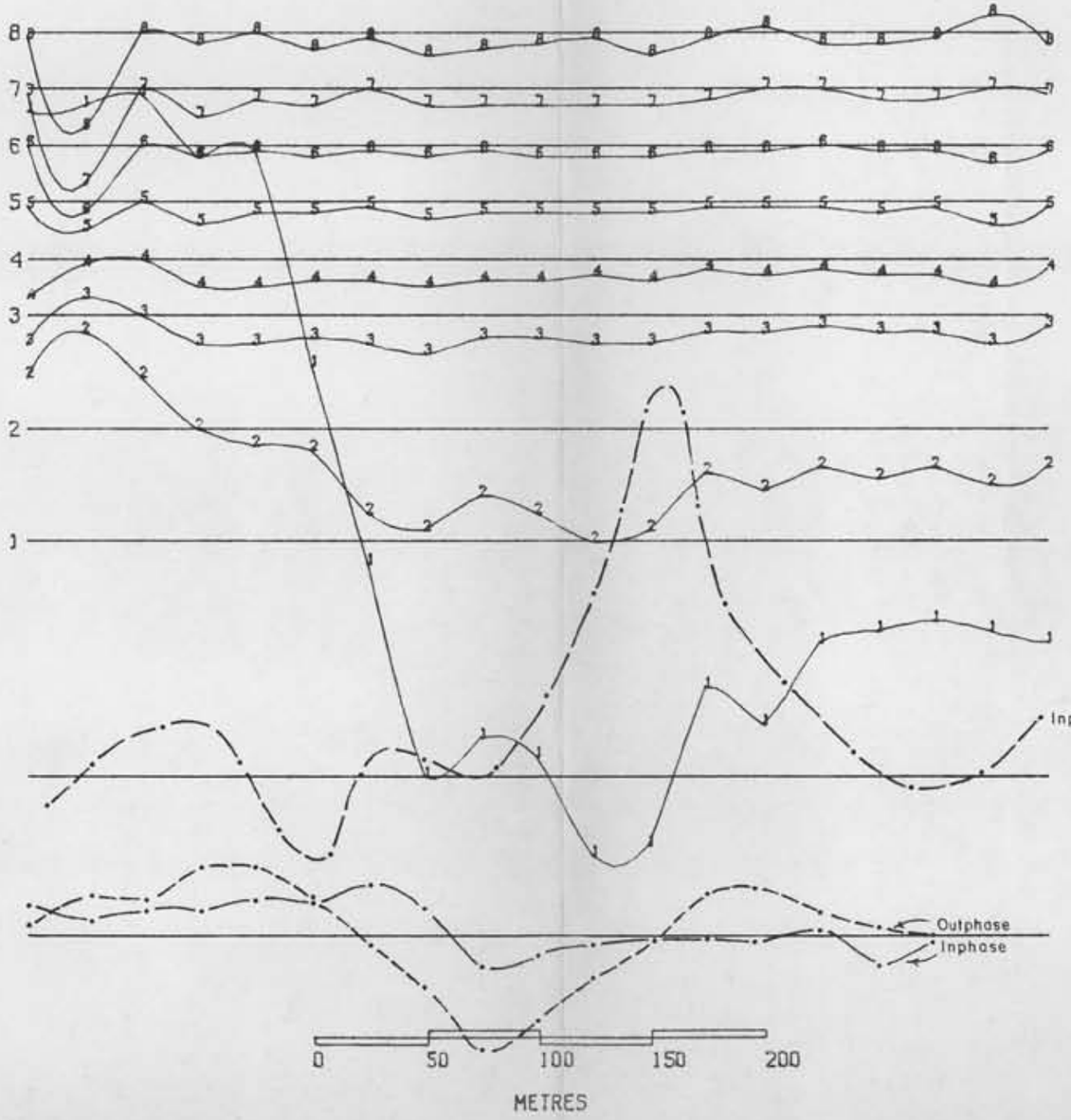
VECTOR PULSE ELECTROMAGNETOMETER
VERTICAL COMPONENT
LINE 10W A

GLEN E. WHITE
GEOPHYSICAL CONSULTING
& SERVICES LTD.

N.T.S. 92-C/8
DATE 31 DECEMBER 1978
FIG.NO: 7

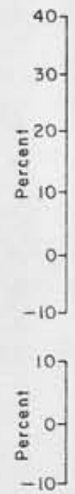
450N 425N 400N 375N 350N 325N 300N 275N 250N 225N 200N 175N 150N 125N 100N 75 N 50 N 25 N 0 N

L00PA



+ OR - P.P.K. SCALE

EM-16
Jim Creek
U.S.A.
18.6 KHz



Max-Min II
1777 Hz
100 m

NUMBER IN THE LINE = CHANNEL NUMBER

INSTRUMENT: CRONE P.E.M.

KARGEN DEVELOPMENT CORP

JOHN CLAIMS

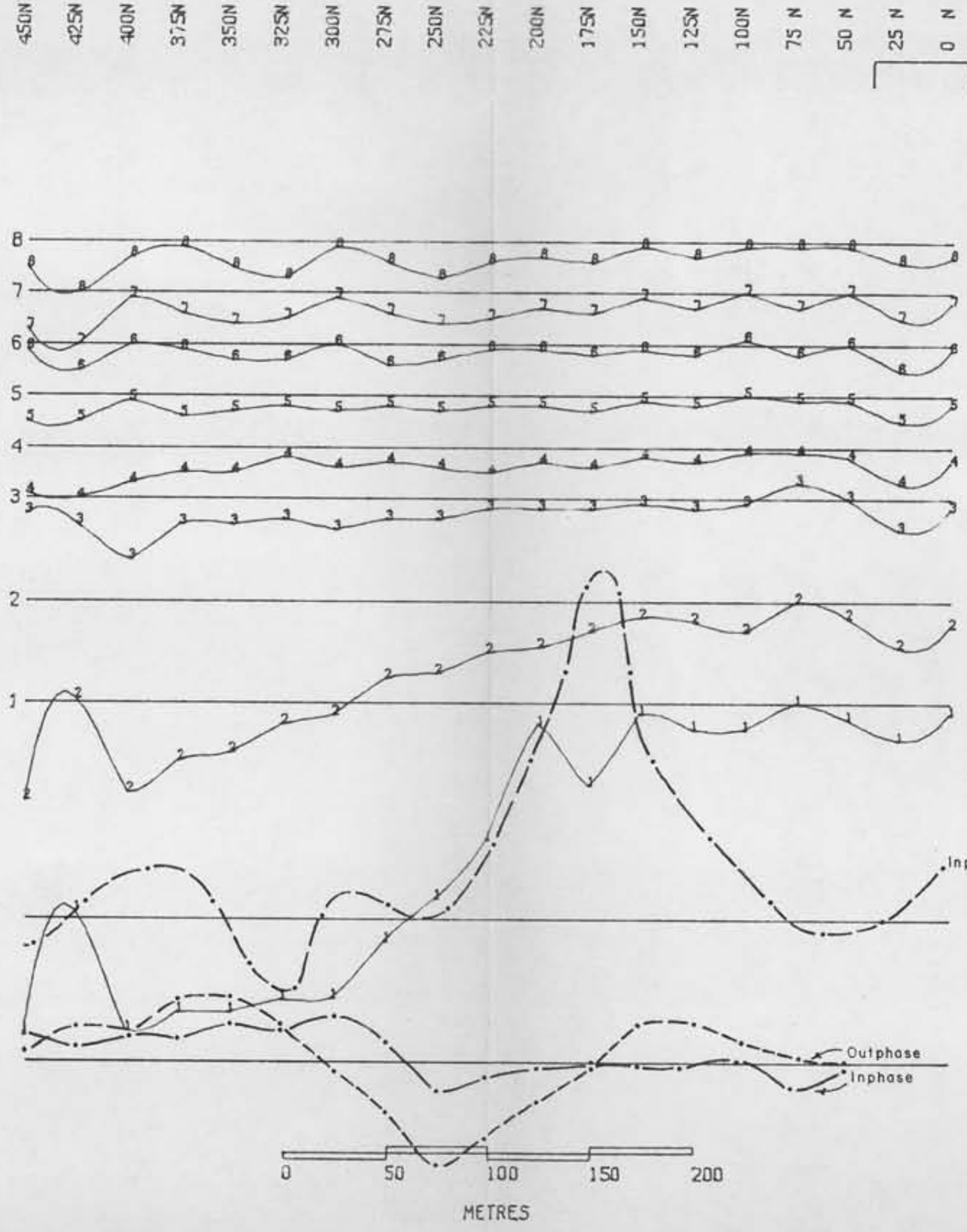
VECTOR PULSE ELECTROMAGNETOMETER
VERTICAL COMPONENT
LINE 800W A

GLEN E. WHITE
GEOPHYSICAL CONSULTING
& SERVICES LTD.

N.T.S. 92-C/8

DATE 31 DECEMBER 1979

FIG.NO: 8



NUMBER IN THE LINE = CHANNEL NUMBER

INSTRUMENT: CRONE P.E.M.

KARGEN DEVELOPMENT CORP

JOHN CLAIMS

VECTOR PULSE ELECTROMAGNETOMETER
HORIZONTAL COMPONENT
LINE 800W A

GLEN E. WHITE
GEOPHYSICAL CONSULTING
& SERVICES LTD.

N.T.S. 92-C/8
DATE 31 DECEMBER 1979
FIG.NO: 9

124°08'

19W 18W 17W 16W 15W 14W 13W 12W 11W 10W 9W 8W 7W 6W 5W 4W 3W 2W 1W 0

62+00E (1972) 70+00E 78+00E 86+00E

5+00N
4+00N
3+00N
2+00N
1+00N
48°29' 0+00—BASE LINE
1+00S
2+00S
3+00S
4+00S
5+00S

(1972 BASELINE 0+00)

(1972 GRID) 15+00S

Timber Line
Creek
Timber Line
Creek
JOHN 1 JOHN 2
LCP

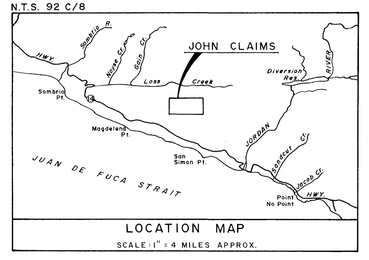
LEGEND

CONTOUR INTERVAL : 20,40,60,80,100 PPM

COPPER KEY

100	PPM
80	"
60	"
20	"

N.T.S. 92 C/8



LOCATION MAP

SCALE 1" = 4 MILES APPROX.

50 0 50 100 200
Meters

8208

To Accompany Geophysical Report
THE JOHN CLAIMS
Date March 12
By GLEN E WHITE - B.Sc. GEOPHYSICIST

PROFESSIONAL ENGINEER Province of British Columbia GLEN E. WHITE

KARGEN DEVELOPMENT CORPORATION

— JOHN CLAIMS —

VICTORIA MINING DIVISION — BRITISH COLUMBIA

GEOCHEMICAL MAP

— COPPER PPM —

Glen E. White geophysical consulting services ltd.

INTERPRETED BY:	G.E.W.
DRAWN BY:	T.M.
CHECKED BY:	
DATE:	NOV. 1979
FIG. No.:	2

124°08'

19W 18W 17W 16W 15W 14W 13W 12W 11W 10W 9W 8W 7W 6W 5W 4W 3W 2W 1W 0

72+00E (1972) 74+00E 78+00E 86+00E

5+00N
4+00N
3+00N
2+00N
1+00N
48°29' 0+00—BASE LINE
1+00S
2+00S
3+00S
4+00S
5+00S

(1972 BASELINE 0+00)

(1972 GRID) 15+00S

78+00E 86+00E

Timber Line

Creek

Timber Line

JOHN 1 JOHN 2
L.C.P.

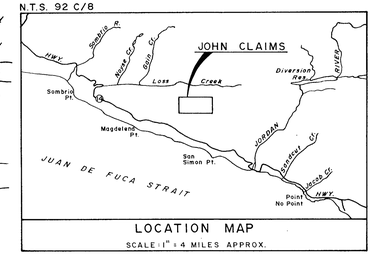
LEGEND

CONTOUR INTERVAL : 25,50,75 PPM

ZINC KEY

75 PPM
50 "
25 "

N.T.S. 92 C/8



LOCATION MAP
SCALE: 1" = 4 MILES APPROX.

50 0 50 100 200
Meters

MINISTRY OF ENERGY, MINES & PETROLEUM RESOURCES
8208

KARGEN DEVELOPMENT CORPORATION
—JOHN CLAIMS—
VICTORIA MINING DIVISION — BRITISH COLUMBIA

GEOCHEMICAL MAP
—ZINC PPM—

Glen E. White geophysical consulting & services ltd.

INTERPRETED BY : G.E.W.
DRAWN BY : T.M.
CHECKED BY :
DATE : NOV. 1979
FIG. No. : 3

To Accompany Geophysical Report on the JOHN CLAIMS
Date Nov. 30
By GLEN E. WHITE - B.Sc. GEOPHYSICIST

PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA GLEN E. WHITE

124°08'

19W 18W 17W 16W 15W 14W 13W 12W 11W 10W 9W 8W 7W 6W 5W 4W 3W 2W 1W 0

62+00E (1972) 70+00E 78+00E 86+00E

5+00N
4+00N
3+00N
2+00N
1+00N
48°29 0+00—BASE LINE
1+00S
2+00S
3+00S
4+00S
5+00S

(1972 BASELINE 0+00)

(1972 GRID) 15+00S

JOHN 1 JOHN 2 L.C.P.

Timber Line

Creek

DIP ANGLE FILTERED DIP ANGLE

To JAN CREEK WEST

LEGEND

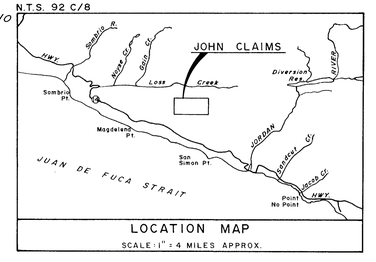
CONTOUR INTERVAL : 10,20,30,40,60,80 Percent

DIP ANGLE KEY

80 — Percent
40 — "
30 — "
20 — "
10 — "

INSTRUMENT : RONKA EM-16

N.T.S. 92 C/8



LOCATION MAP

SCALE : 1" = 4 MILES APPROX.

50 0 50 100 200 Meters

To Accompany Assessment Report on
THE JOHN CLAIMS
Date Nov. 29, 1979
By GLEN E WHITE, GEOPHYSICIST

PROFESSIONAL ENGINEER GLEN E WHITE BRITISH COLUMBIA GEOPHYSICIST

KARGEN DEVELOPMENT CORPORATION

— JOHN CLAIMS —

VICTORIA MINING DIVISION — BRITISH COLUMBIA

GEOPHYSICAL MAP

ELECTROMAGNETOMETER — FILTERED DIP ANGLE (Percent)

Glen E. White geophysical consulting & services ltd.

INTERPRETED BY : G.E.W.	
DRAWN BY : T.M.	
CHECKED BY :	
DATE : NOV. 1979	
FIG. No. : 4	

124°08'

19W 18W 17W 16W 15W 14W 13W 12W 11W 10W 9W 8W 7W 6W 5W 4W 3W 2W 1W 0

62+00E (1972) 70+00E 78+00E 86+00E

5+00N
4+00N
3+00N
2+00N
1+00N
48°29' 0+00—BASE LINE
1+00S
2+00S
3+00S
4+00S
5+00S

(1972 BASELINE 0+00)

VPEM V-1 60 m
VPEM H-1 25 m
VPEM V-2 H-2 60 m
VPEM V-2 30 m
VPEM CONDUCTIVE ZONE

Creek

78+00E 86+00E

(1972 GRID) 15+00 S

LOOP 'A'

Timber Line

Creek

Timber Line

JOHN 1 JOHN 2
L.C.P.

-20 -10 0 10 20
Percent

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
8208

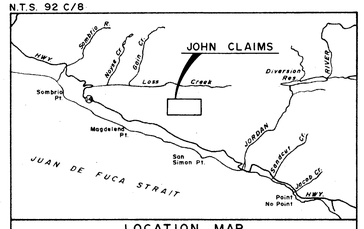
LEGEND

- Swamp
- Claim Post
- Grid Line
- VLF Conductor Trend
- Conductor

INSTRUMENT : APEX MAX-MIN II
1777 Hz
SEPARATION 100m

Percent 10 0 -10
Inphase
Outphase

N.T.S. 92 C/8



LOCATION MAP
SCALE: 1" = 4 MILES APPROX.

50 0 50 100 200
Meters

KARGEN DEVELOPMENT CORPORATION
— JOHN CLAIMS —
VICTORIA MINING DIVISION — BRITISH COLUMBIA

GEOPHYSICAL MAP
INTERPRETATION MAP
&
MAX-MIN II PROFILES

Glen E. White geophysical consulting & services ltd.

INTERPRETED BY: G.E.W.
DRAWN BY: T.M.
CHECKED BY:
DATE: NOV. 1979
FIG. No.: 5

To Accompany Geophysical Report on THE JOHN CLAIMS
Date March 80
By GLEN E. WHITE - B.S. GEOPHYSICIST