

Vector Pulse
Electromagnetometer Survey

STOKES EXPLORATION 81-1095
MANAGEMENT CO. LTD.

ONO claims Tulsequah area #9857
Northwest B.C.

N.T.S. 104 K/13

Lat. 58° 50' N Long. 133° 36' W

Atlin r.d.

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

DATE OF WORK: June 3-11/81

DATE OF REPORT: July 7/81

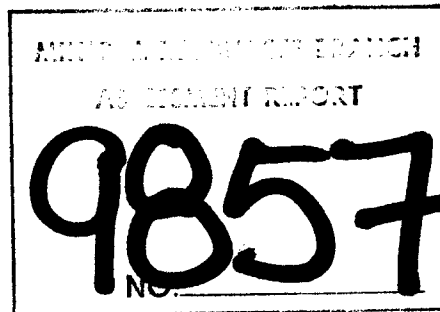
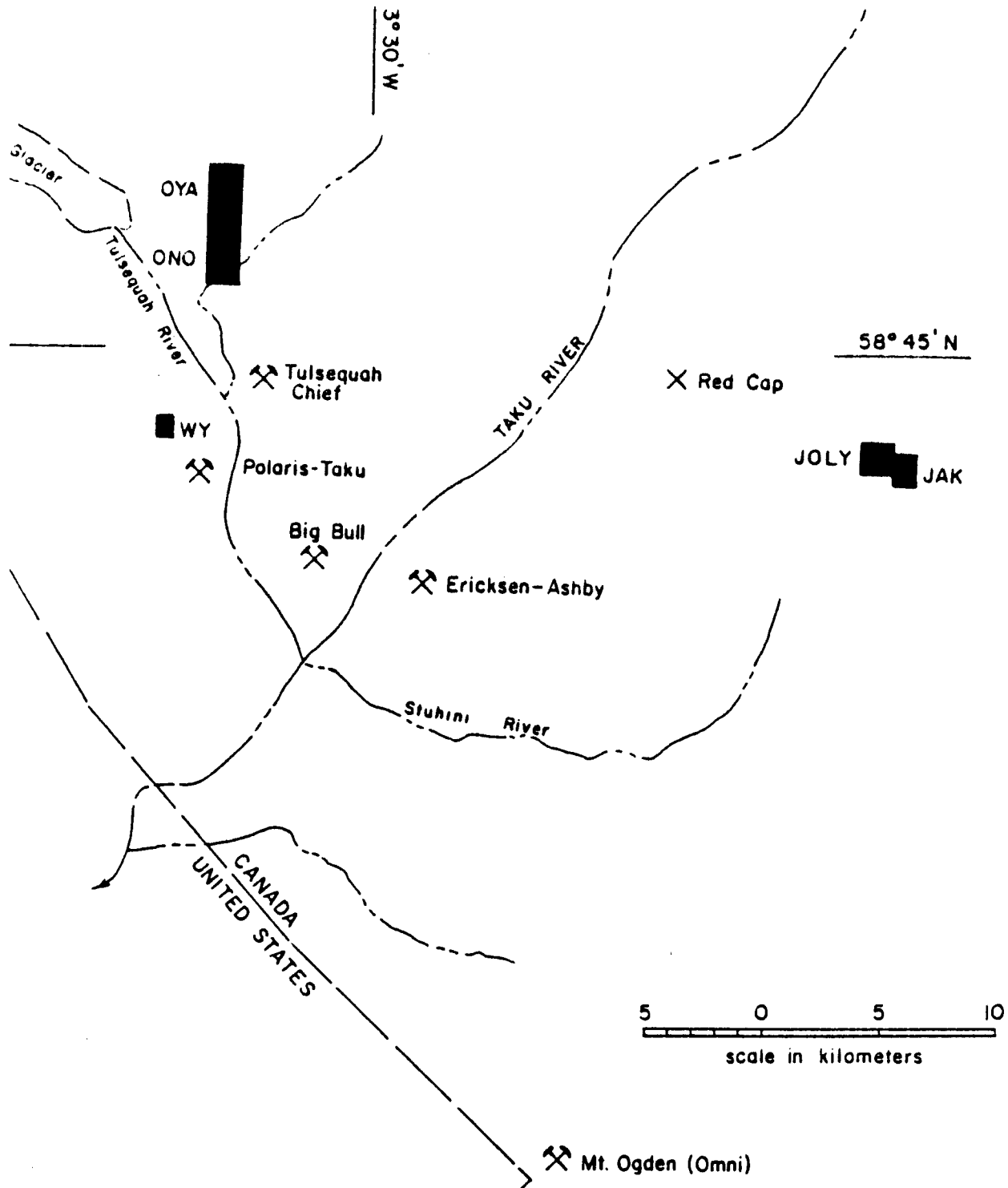


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ILLUSTRATIONS

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Figure 2	Loop Location and Conductor Map
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STOKES EXPLORATION MANAGEMENT CO. LTD.
ONO-OYA CLAIMS
LOCATION AND CLAIMS MAP

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 5
 services ltd

INTRODUCTION

During the period June 3-12/81 a program of Vector Pulse electromagnetometer surveying was conducted over a portion of the ONO claim block Tulsequah River area, B.C. on behalf of Stokes Exploration Management Co. Ltd.

The purpose of the survey was to try and detect any conductors that might underlay a glacial detritus filled river valley. Massive sulphide mineralization was noted on the north side of the river during the 1980 geological mapping program.

PROPERTY

The area of survey was the ONO mineral claim which is part of the ONO-OYA claim project as illustrated on Figure 1.

LOCATION AND ACCESS

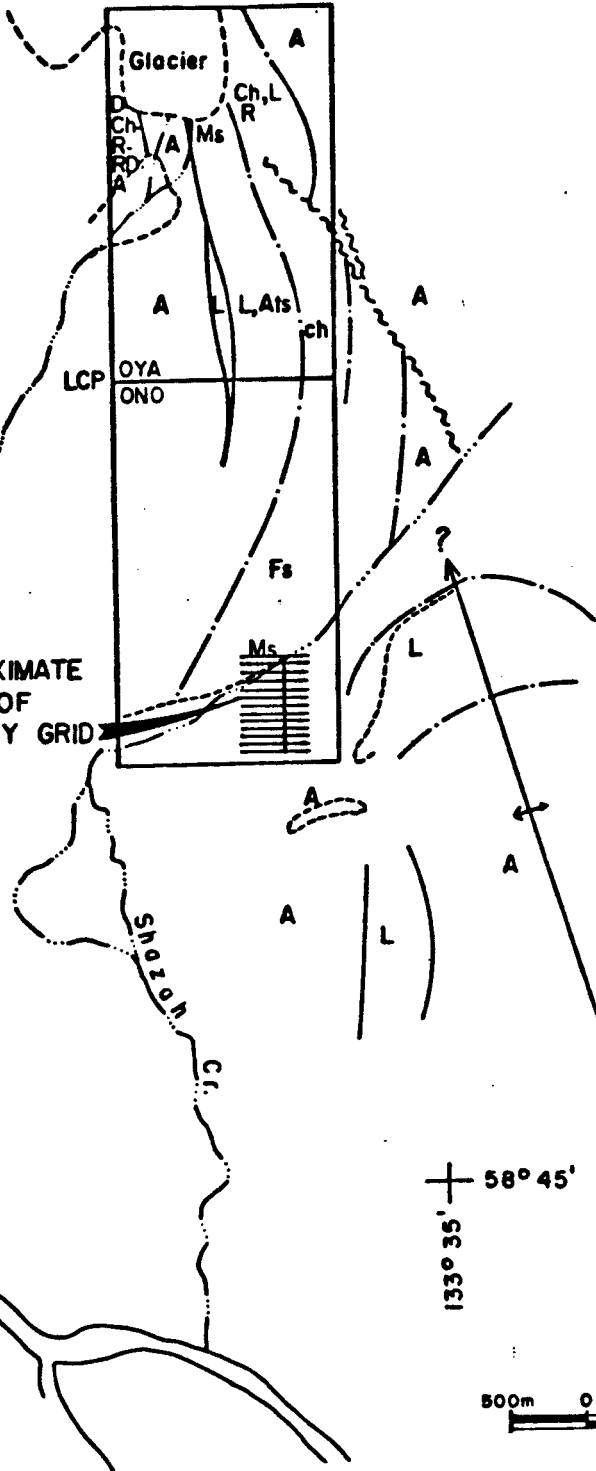
The mineral claims are located in the northwest corner of British Columbia some 130 km south of Atlin. N.T.S. 104 K/13 Lat. $58^{\circ}50'N$ Long. $133^{\circ}36'W$.

Access is by fixed wing aircraft to the Tulsequah airstrip and thence by helicopter.

GENERAL GEOLOGY

The general geology of the area is illustrated on plate 1 as provided by Stokes Exploration Management Co. Ltd. The area of interest lies in the Stuhini formation which

hosts several formerly producing mines such as the Big Bull and Tulsequah Chief whose tenor of ore was some 0.02 oz/t gold, 3.3 oz/t silver, 1.32% copper, 1.46% lead and 6.05% zinc. The ONO and OYA claims were staked as a result of a helicopter supported search for a volcanogenic massive sulphide deposit.



LEGEND

- A: andesite
- Ats: andesitic tuffs - andesitic sediments
- Ch: chert
- D: dacite
- Fs: felsites (rhyolite, rhyodacite, dacite)
- L: limestone
- Ms: massive sulfide
- R: rhyolite
- RD: rhyodacite
- anticlinal axis
- contact: approx, defined.
- outcrop limit
- fault

GEOLOGY BY J. NELSON

58° 45'
133° 35'



LOCAL GEOLOGY

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VECTOR PULSE ELECTROMAGNETOMETER SURVEY

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

The primary field for the horizontal loop survey is obtained from a transmit loop 9 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 or 21.6 ms. The receiver coil is generally spaced 25 - 100 m from the transmitter loop. Both are moved simultaneously from station to station. The secondary field signal from the receiver coil is sampled and averaged for 11 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. Since the time derivative of the secondary field is measured directly during the primary field off time, the pulse method is relatively free of geometrical restrictions, such as topography interference and coil alignment.

The primary field for the vector EM technique is obtained from a LSL (Large Scale Loop) of 150 m (492 ft.) per side which is energized with a current of 25 amps at 24 volts. A resultant vector can be obtained by vector addition of the horizontal and vertical components of the secondary field. A right angle to this resultant points to the eddy current position. See Appendix for diagrams. Additionally, detailed conductor information can be obtained from the analysis of the individual component information.

DISCUSSION OF RESULTS

Figure 2 gives the location of the transmitter loops and the interpreted conductor responses. The strongest response was obtained on line 0S at 200W from loop A where the horizontal component responds through to channel 8, Figures 3 and 4. This conductor may be part of a broader shear zone response or be covered by conductive clay. Line 100S also shows a multi channel response at 350W.

Both the 20 and 10 millisecond time base data Figures 9 to 12 suggest a flat conductor response from 100W to 350W with better conductivities at 350W.

Line 700S, Figures 21 to 24 show conductor responses from loops B and C. The weak conductor which extends from line 700S to 900S shows up as a subtle response at the higher frequency of 2000 cps on channel 1. However at these frequencies weak responses can be obtained from fault zones and conductive clay materials. Correlation of the geophysical data with the geological information indicates that the strong response on line 0 may possibly be reflecting massive sulphide mineralization. Should this be the case it would appear that the area to the west and north would warrant further work.

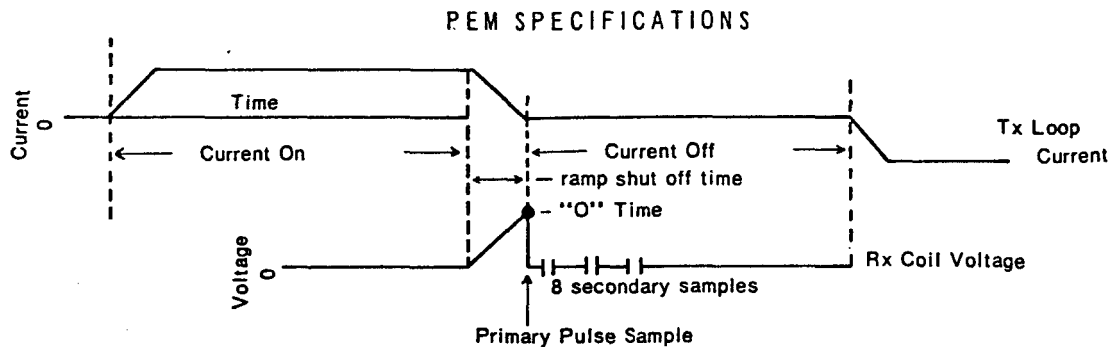
CONCLUSIONS AND RECOMMENDATIONS

A test program of Vector Pulse electromagnetometer surveying was conducted over a portion of the ONO claim during June 1981. The best response was obtained on the north side of Shazah Creek on line 0 close to a showing of massive sulphide mineralization. This response is open to the west and north. However similar responses can be obtained from clay zones, graphite and aqueous saturated fault zones.

Respectfully submitted,



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



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 μ s

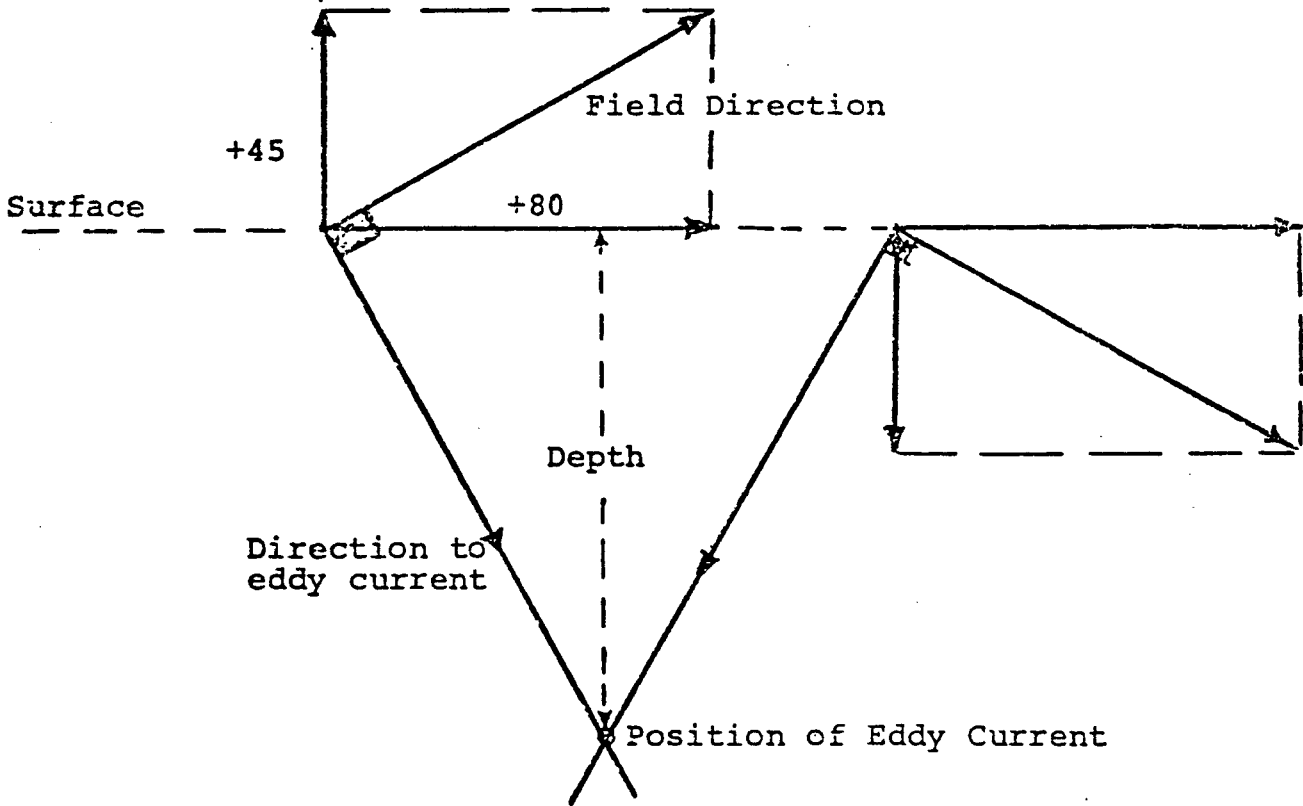
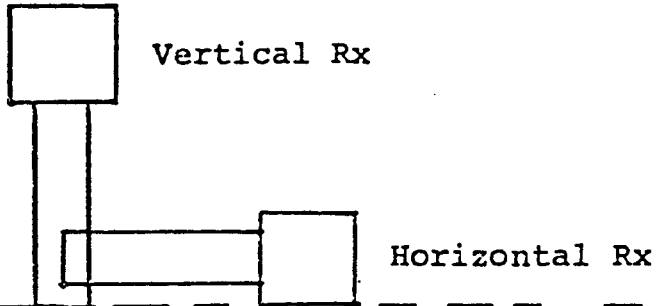
Zero time set at drop off point of primary pulse

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.

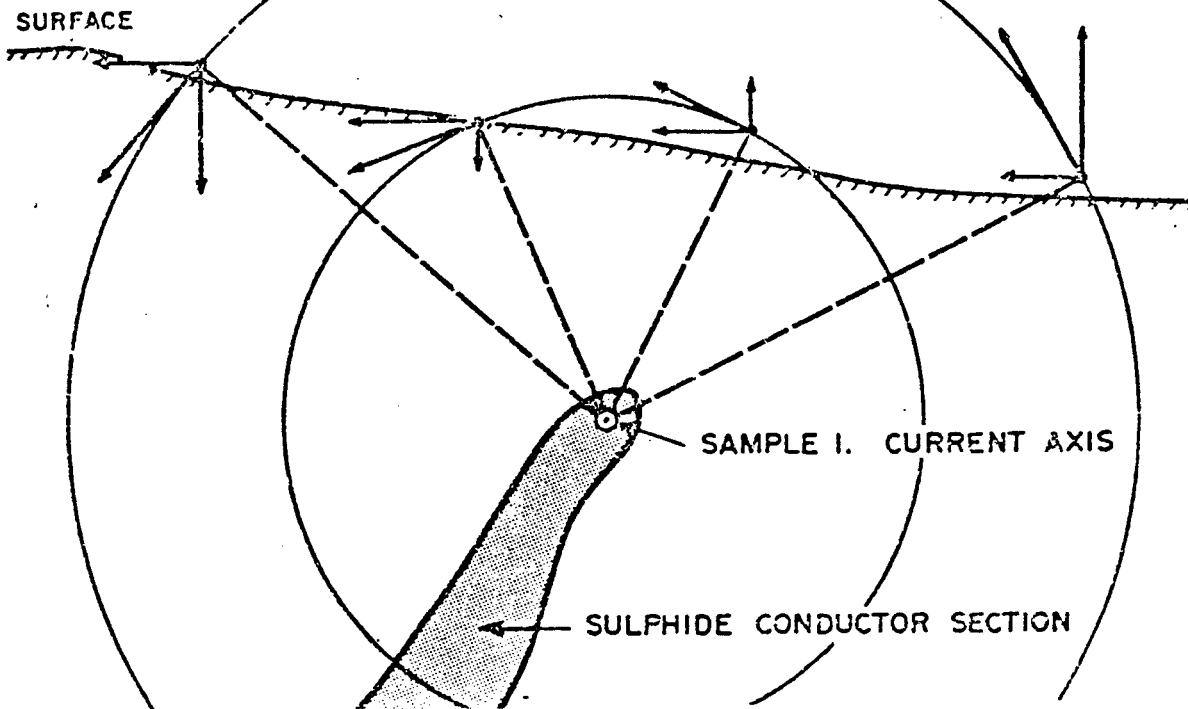
Loop diameter	— minimum 4 meters (13 feet)
Loop current	— 15 to 20 amps
Loop applied voltage	— 24 volts
Loop output	— minimum 4500 amps x meter ²
Loop weight	— 11.8 kilos (26 lb)
Control unit weight	— 10 kilos (22 lb)
Control unit dimensions	— 20.5cm x 25.5cm x 36.5cm (8" x 10" x 14.5")
Battery supply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

RECEIVER

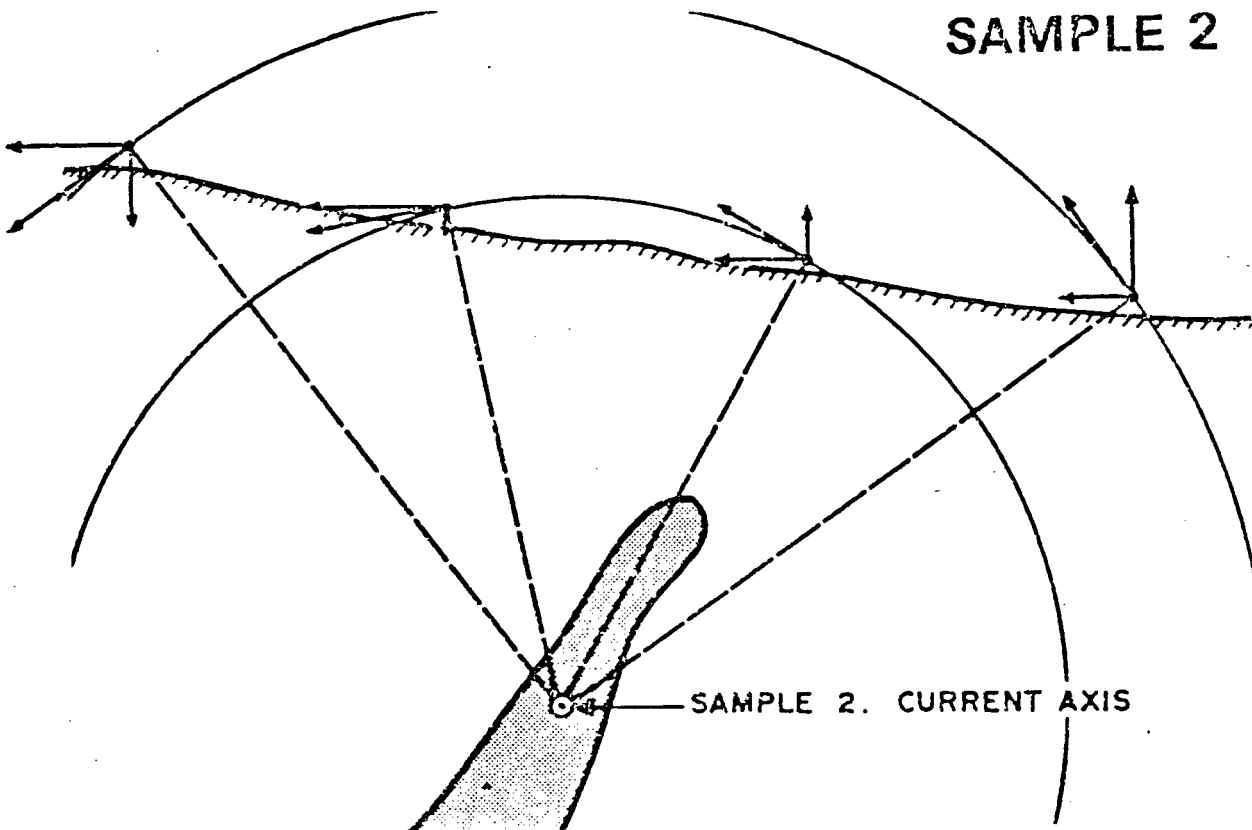
- Receive coil dimensions: 55cm x 15cm (22" x 6")
- Receive coil weight: 4.5 kilos (10 lb)
- Pre-amplifier in coil
- Pre-amplifier batteries: 2 of 9 volt
- Receive coil tripod mounted
- Receiver measuring instrument dimensions: 28cm x 18cm x 21.5cm (11" x 7" x 9")
- Receiver measuring instrument weight: 6.3 kilos (14 lb)
- Timing control by radio synchronization
- Primary sample width: 100 μ s
- 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 μ s
- 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



SAMPLE 1



SAMPLE 2



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 Services 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.

Ten years Consulting Geophysicist.

Active experience in all Geologic provinces of
Canada.

COST BREAKDOWN

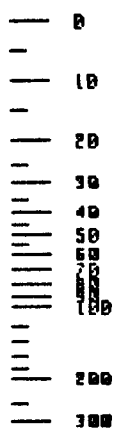
<u>Personnel</u>	<u>Date</u>	<u>Wages</u>	<u>Total</u>
T. Allmann	June 3-11/81	\$170.00	\$1,530.00
B. Hamilton	June 3-11/81	\$145.00	\$1,305.00
Instrument lease		\$150.00 ...	\$1,350.00
Airfare			\$ 365.50
Airfreight			\$ 284.83
General Expenses			\$ 124.40
VPEM computer processing 17 lines @ \$20 ...			\$ 340.00
Interpretation and Reports			\$ 850.00
			<u> </u>
		Total	\$6,149.73

VECTOR PULSE ELECTROMAGNETOMETER COMPONENT PROFILES

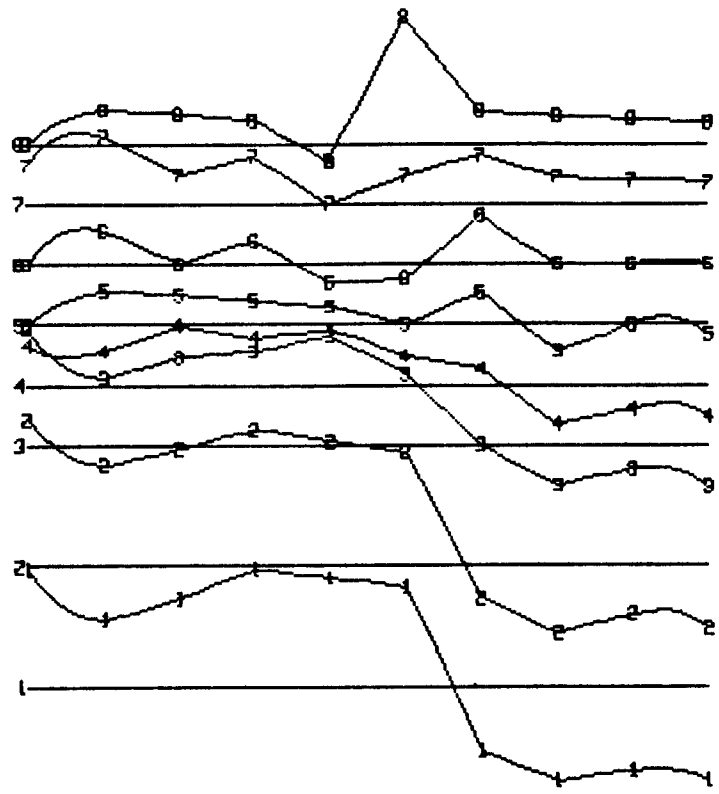
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& SERVICES LTD.

355C
300C
MB52
MB02
150N
100N
50S
0N
50E
100E

LOOP A



SCALE
P.P.K.
+ OR -



Note: 20 millisecond timebase

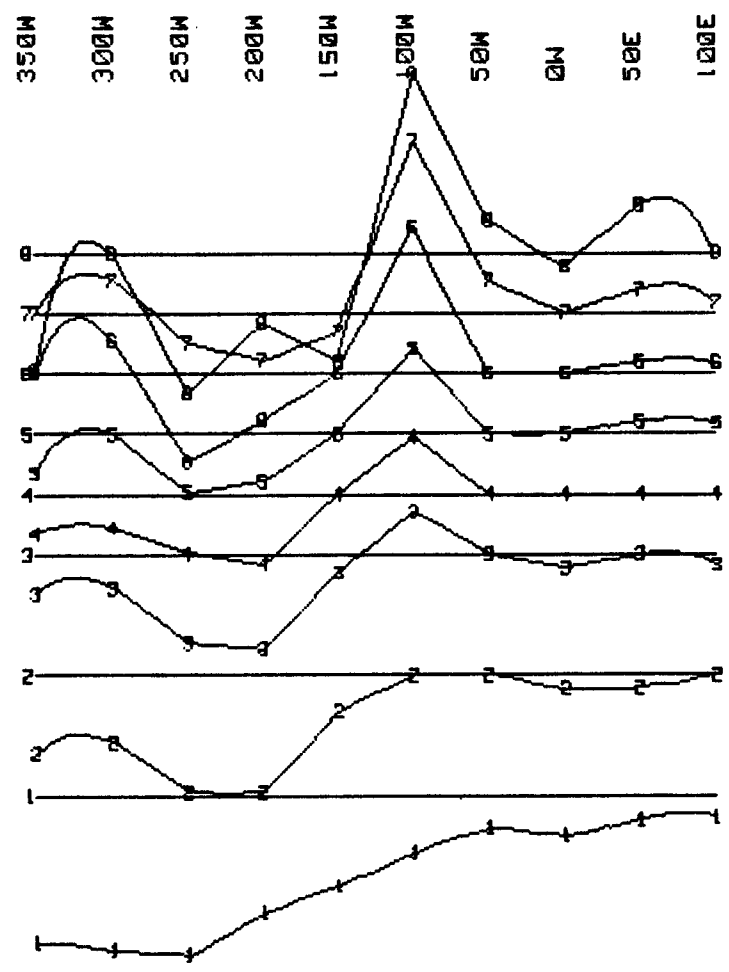
GLEN E. WHITE
GEOPHYSICAL CONSULTING
& SERVICES LTD.

PRIMARY FIELD NORMALIZED DATA
NUMBER IN LINE-CHANNEL NUMBER
INSTRUMENT: CRONE P.E.M.

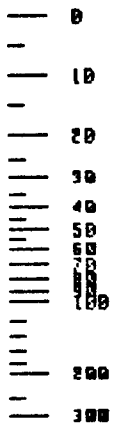


SEMCO
OND CLAIM
VECTOR PULSE ELECTROMAGNETOMETER
VERTICAL COMPONENT
0005 A

DATE: JUNE/81 FIG.: 3



LOOP A



SCALE
P.P.K.
+ OR -

Note: 20 millisecond timebase

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PRIMARY FIELD NORMALIZED DATA
NUMBER IN LINE-CHANNEL NUMBER
INSTRUMENT: CRONE P.E.M.

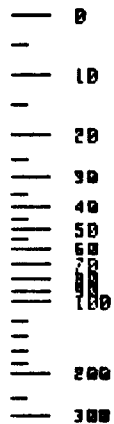
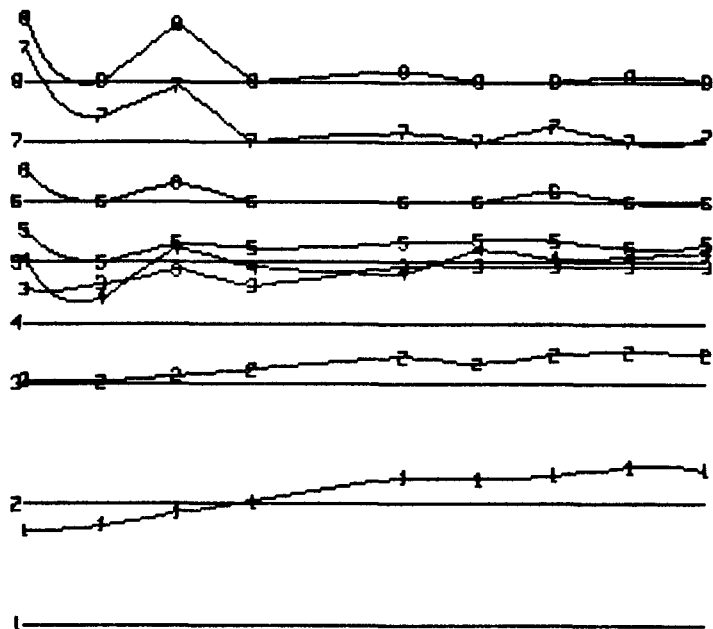


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OND CLAIM
VECTOR PULSE ELECTROMETER
HORIZONTAL COMPONENT
0005 A

DATE: JUNE/81 FIG.: 4

350M 300M 250M 200M 100M 50M 0E 50E 100E

LOOP A



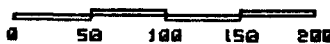
SCALE
P.P.K.
+ OR -

Note: 20 millisecond timebase

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& SERVICES LTD.

PRIMARY FIELD NORMALIZED DATA
NUMBER IN LINE-CHANNEL NUMBER
INSTRUMENT: CRONE P.E.M.

METRES



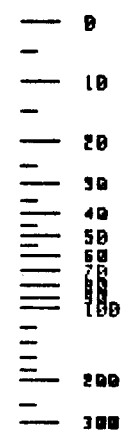
SEMCO
ONO CLAIM
VECTOR PULSE ELECTROMAGNETOMETER
VERTICAL COMPONENT
1005 A

DATE: JUNE/81

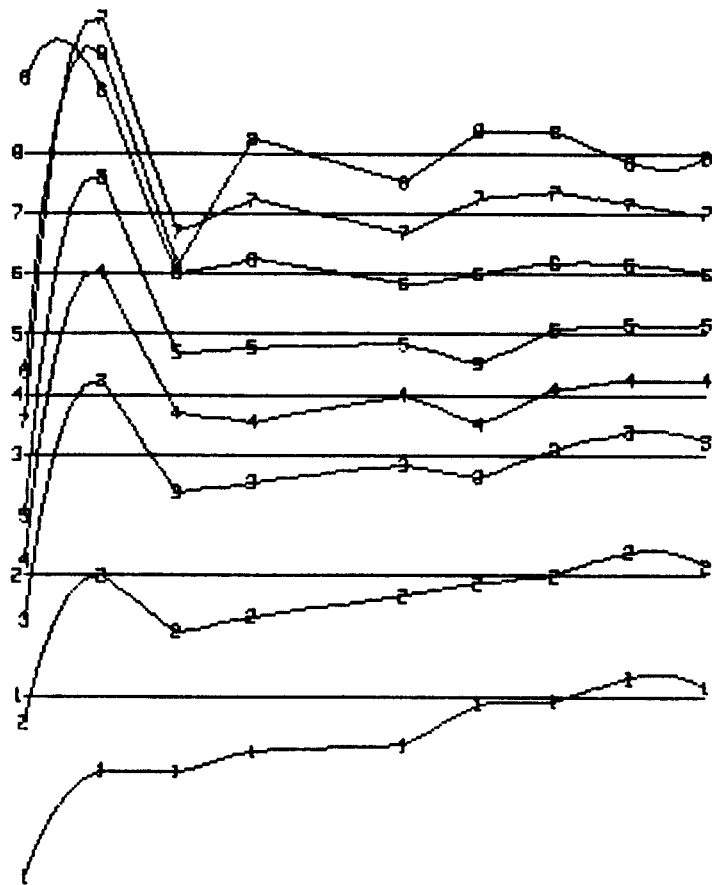
FIG.: 5

MB56 MB06 MB52 MB02 MB01 MB5 0E 50E 100E

LOOP A



SCALE
P.P.K.
+ OR -



Note: 20 millisecond timebase

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& SERVICES LTD.

PRIMARY FIELD NORMALIZED DATA
NUMBER IN LINE-CHANNEL NUMBER
INSTRUMENT: CRONE P.E.M.

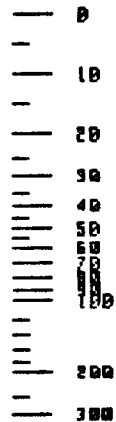
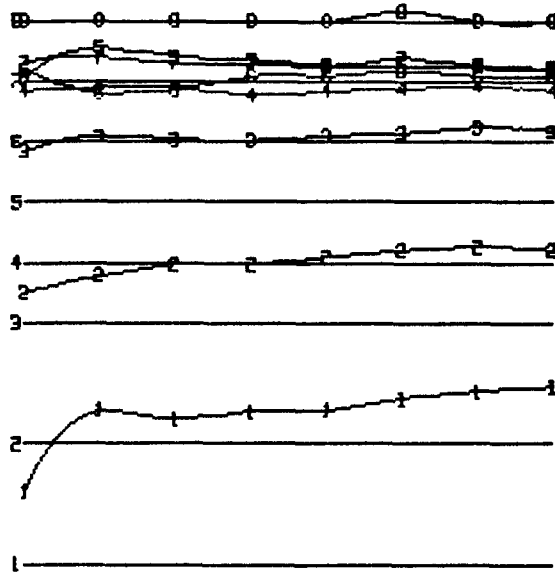


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OND CLAIM
VECTOR PULSE ELECTROMETER
HORIZONTAL COMPONENT
1005 A

DATE: JUNE/81 FIG.: 6

250W 200W 150W 100W 50W 0E 50E 100E

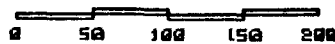
LOOP A



SCALE
P.P.K.
+ OR -

PRIMARY FIELD NORMALISED DATA
NUMBER IN LINE-CHANNEL NUMBER
INSTRUMENT: CRONE P.E.M.

METRES



SEMCO
ONO CLAIM
VECTOR PULSE ELECTROMAGNETOMETER
VERTICAL COMPONENT
2005 A

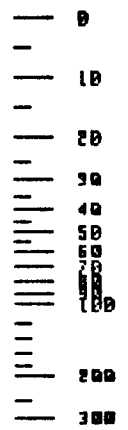
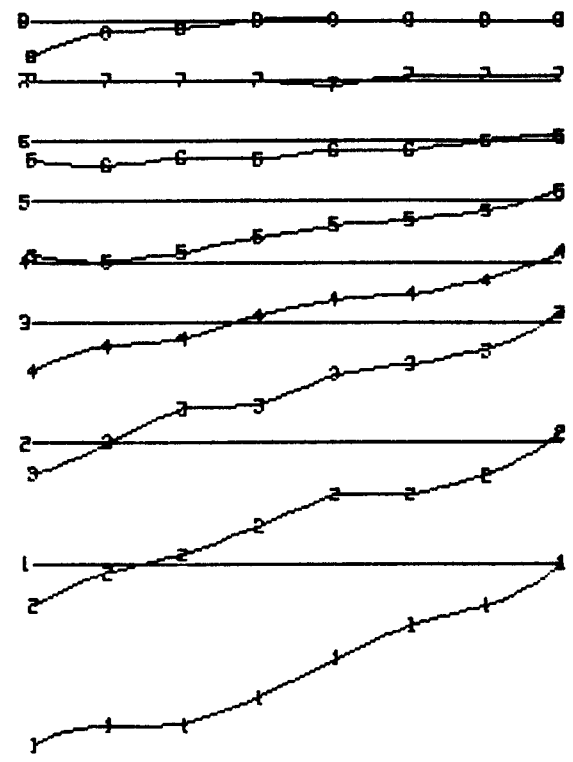
DATE: JUNE/81

FIG.: 7

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250W 200W 150W 100W 50W 0E 50E 100E

LOOP A



SCALE
P.P.K.
+ OR -

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PRIMARY FIELD NORMALISED DATA
NUMBER IN LINE-CHANNEL NUMBER
INSTRUMENT: CRONE P.E.M.

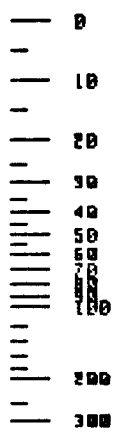
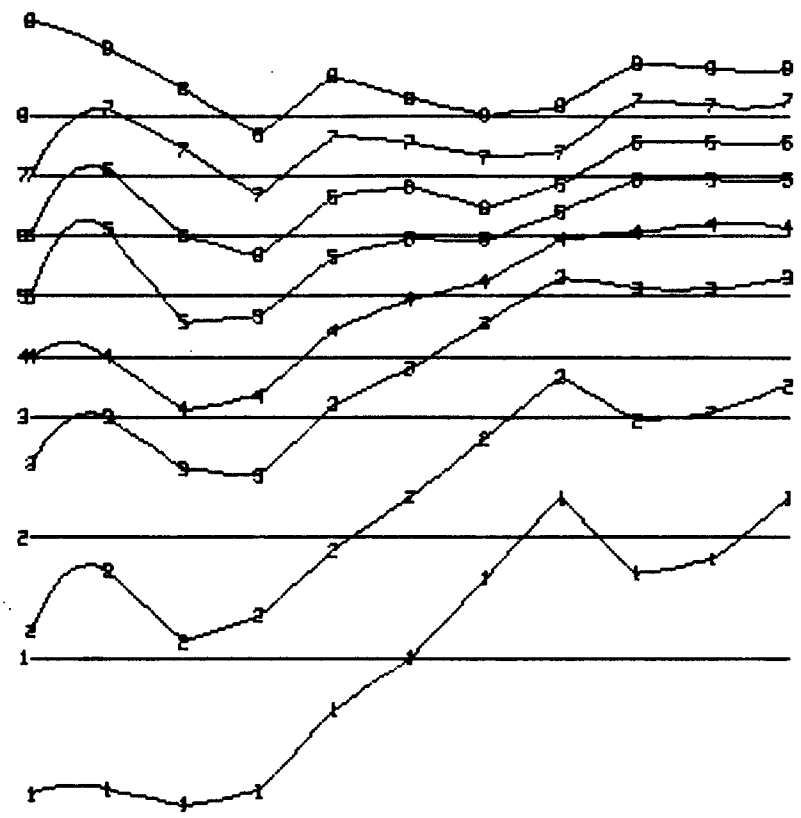


SEMCO
ON CLAIM
VECTOR PULSE ELECTROMAGNETOMETER
HORIZONTAL COMPONENT
2005 A

DATE: JUNE/81 FIG.: 8

400M 350M 300M 250M 200M 150M 100M 50M 0N 50E 100E

LOOP A



SCALE
P.P.K.
+ OR -

Note: 20 millisecond timebase

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PRIMARY FIELD NORMALIZED DATA
NUMBER IN LINE-CHANNEL NUMBER
INSTRUMENT: CRONE P.E.M.



SEMCO
OND CLAIM
VECTOR PULSE ELECTROMAGNETOMETER
VERTICAL COMPONENT
3005 A

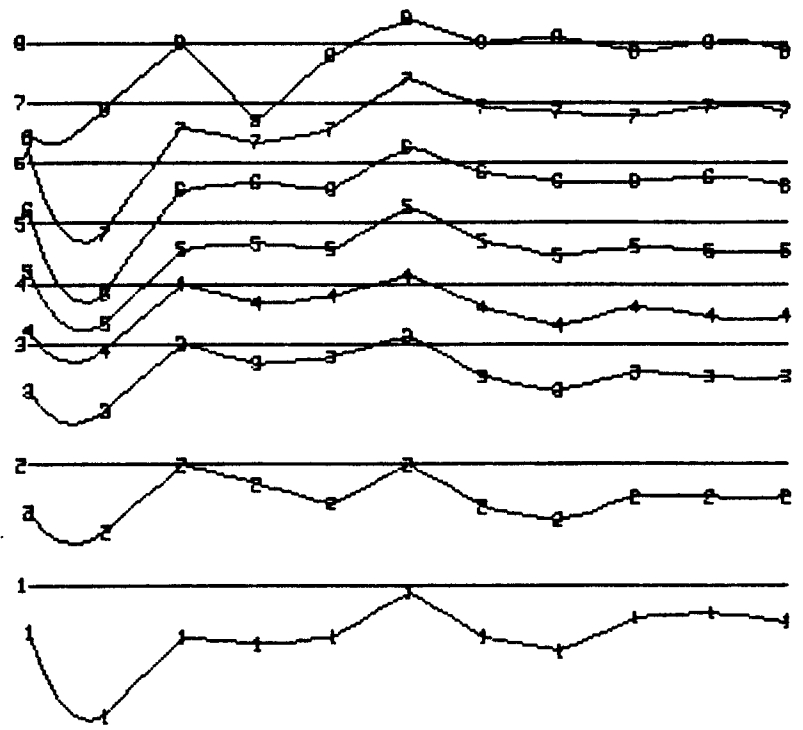
DATE: JUNE/81 FIG.: 9

400M 350E 300E 250W 200E 150E 100W 50W 0N 50E 100E

LOOP A



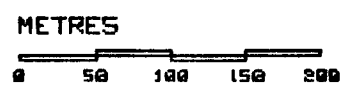
SCALE
P.P.K.
+ OR -



Note: 20 millisecond timebase

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PRIMARY FIELD NORMALIZED DATA
NUMBER IN LINE-CHANNEL NUMBER
INSTRUMENT: CRONE P.E.M.

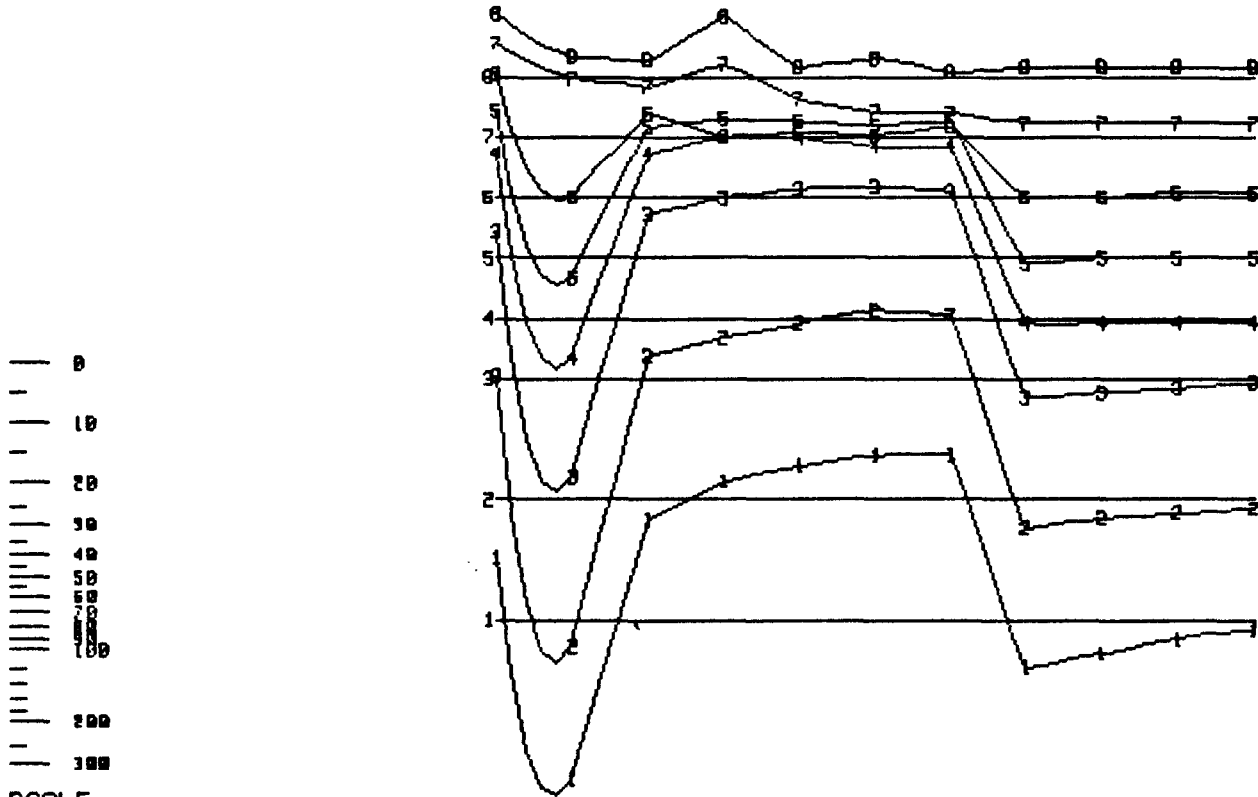


SEMCO
ON CLAIM
VECTOR PULSE ELECTROMAGNETOMETER
HORIZONTAL COMPONENT
3005 A

DATE: JUNE/81 FIG.: 10

4004
305E
M00E
2552
2002
1501
1001
505
0E
50E
1001

LOOP A



0
10
20
30
40
50
60
70
80
90
100
200
300

SCALE
P.P.K.
+ OR -

PRIMARY FIELD NORMALISED DATA
NUMBER IN LINE-CHANNEL NUMBER
INSTRUMENT: CRONE P.E.M.

METRES
0 50 100 150 200

SEMCO
OND CLAIM
VECTOR PULSE ELECTROMAGNETOMETER
VERTICAL COMPONENT
3005 A

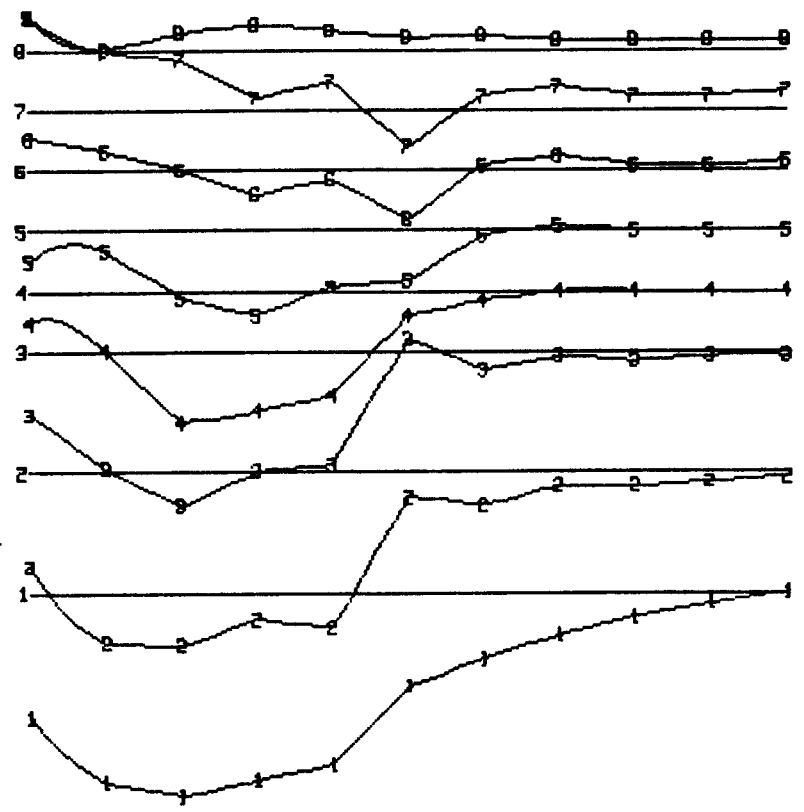
DATE: JUNE/81

FIG.: 11

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400M 350M 300M 250M 200M 150M 100M 50M 0E 50E 100E

LOOP A



0
10
20
30
40
50
60
70
80
90
100
200
300
SCALE
P.P.K.
+ OR -

PRIMARY FIELD NORMALISED DATA
NUMBER IN LINE-CHANNEL NUMBER
INSTRUMENT: CRONE P.E.M.

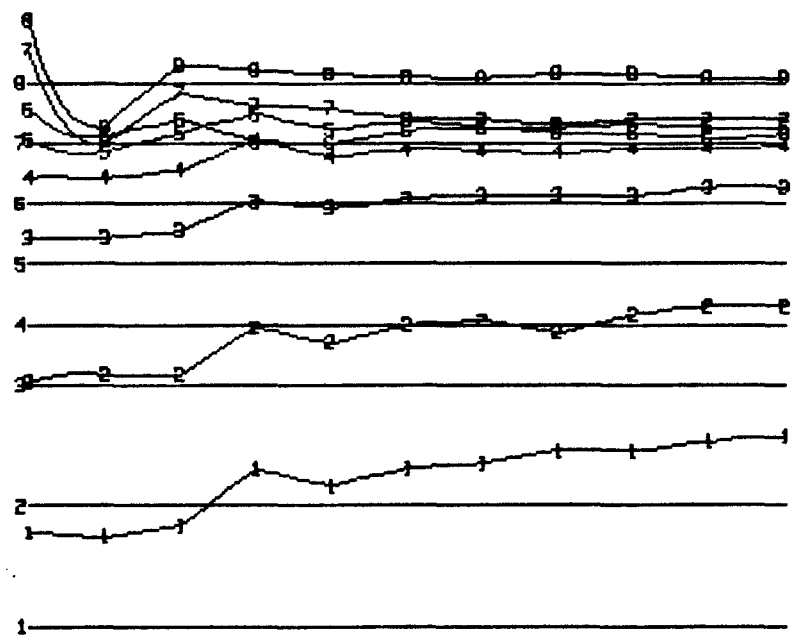
METRES
0 50 100 150 200

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SEMCO
ONO CLAIM
VECTOR PULSE ELECTROMAGNETOMETER
HORIZONTAL COMPONENT
300S A
DATE: JUNE/81 FIG.: 12

400W
350W
300E
250W
200E
150S
100W
50S
0E
50E
100E

LOOP A



0
10
20
30
40
50
60
70
80
90
100
200
300

SCALE
P.F.K.
+ OR -

PRIMARY FIELD NORMALISED DATA
NUMBER IN LINE-CHANNEL NUMBER
INSTRUMENT: CRONE P.E.M.

METRES
0 50 100 150 200

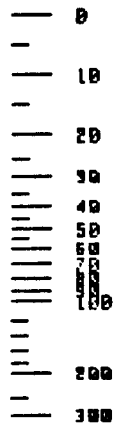
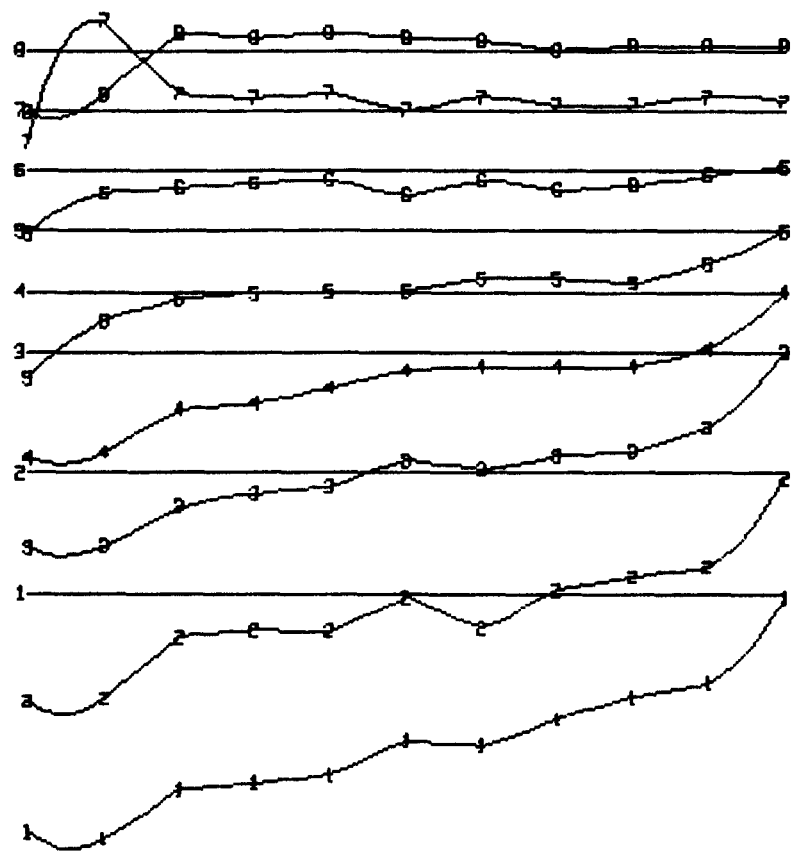
SEMCO
ONO CLAIM
VECTOR PULSE ELECTROMAGNETOMETER
VERTICAL COMPONENT
100S A

DATE: JUNE/81 FIG.: 13

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400W 350W 300W 250W 200W 150W 100W 50W 0E 50E 100E

LOOP A



SCALE
P.P.K.
+ OR -

PRIMARY FIELD NORMALISED DATA
NUMBER IN LINE-CHANNEL NUMBER
INSTRUMENT: CRONE P.E.M.



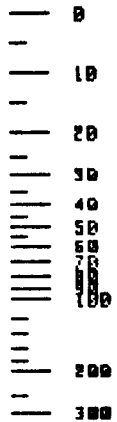
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& SERVICES LTD.

SEMCO
OND CLAIM
VECTOR PULSE ELECTROMAGNETOMETER
HORIZONTAL COMPONENT
100S A

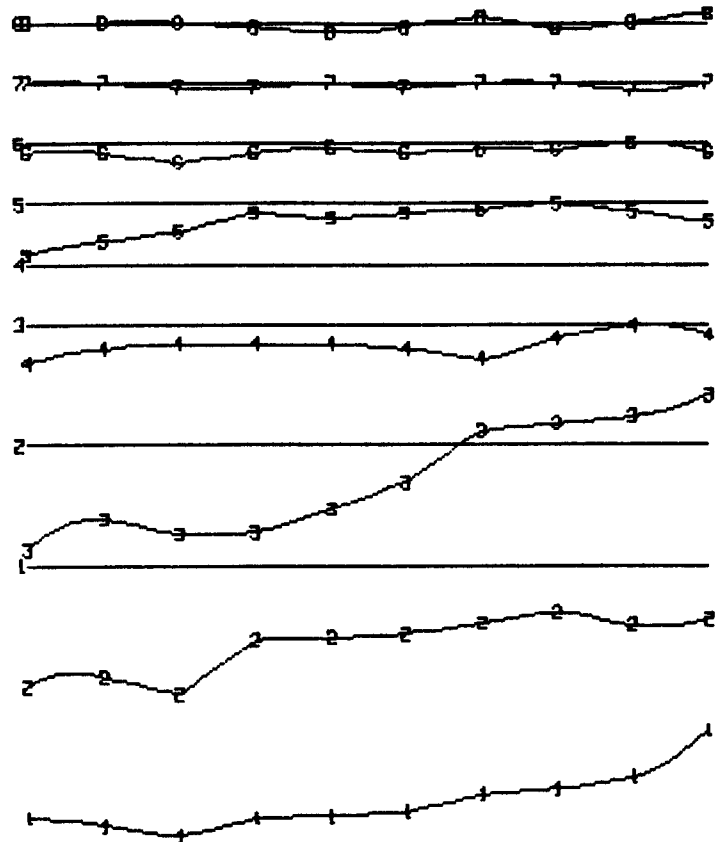
DATE: JUNE/81 FIG.: 14

LOOP C

3005
3002
3001
3000
2999
2998
2997
2996
2995
2994
2993
2992
2991
2990



SCALE
P.P.K.
+ OR -



PRIMARY FIELD NORMALISED DATA
NUMBER IN LINE-CHANNEL NUMBER
INSTRUMENT: CRONE P.E.M.



SEMCO
ONO CLAIM
VECTOR PULSE ELECTROMAGNETOMETER
VERTICAL COMPONENT
5005 C

DATE: JUNE/81 FIG.: 15

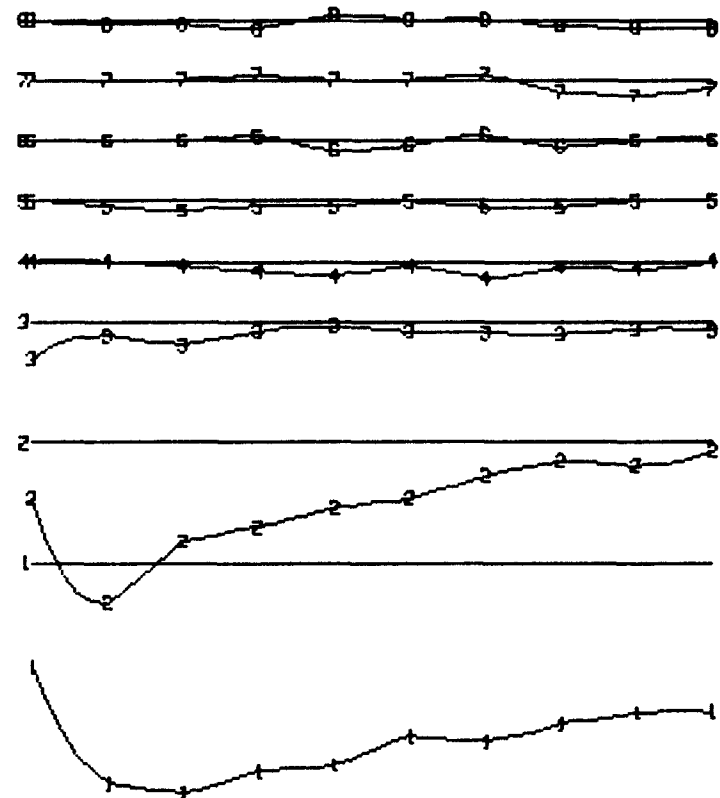
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& SERVICES LTD.

LOOP C

300M 250M 200M 150M 100M 50M 0M 50E 100E 150E



SCALE
P.P.K.
+ OR -



PRIMARY FIELD NORMALISED DATA
NUMBER IN LINE-CHANNEL NUMBER
INSTRUMENT: CRONE P.E.M.

METRES



SEMCO
ONO CLAIM
VECTOR PULSE ELECTROMAGNETOMETER
HORIZONTAL COMPONENT
500S C

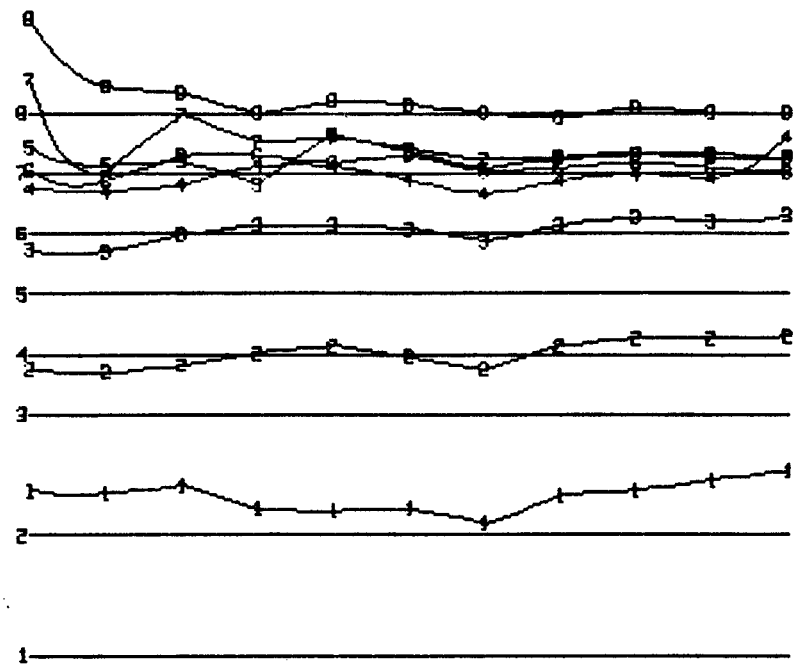
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FIG.: 16

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GEOPHYSICAL CONSULTING
& SERVICES LTD.

400W 350W 300W 250W 200W 150W 100W 50W 0E 50E 100E

LOOP A



SCALE
P.P.K.
+ OR -

PRIMARY FIELD NORMALISED DATA
NUMBER IN LINE-CHANNEL NUMBER
INSTRUMENT: CRONE P.E.M.



SEMCO
ONO CLAIM
VECTOR PULSE ELECTROMAGNETOMETER
VERTICAL COMPONENT
5005 A

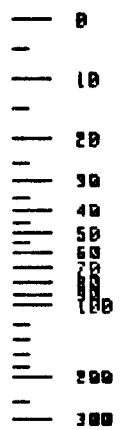
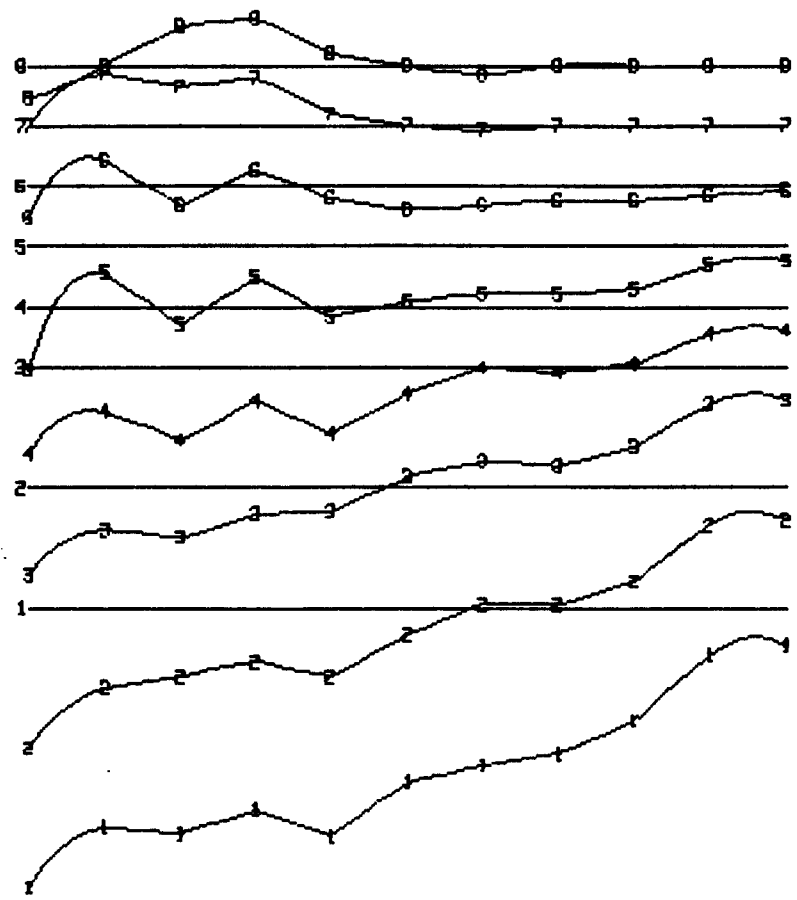
DATE: JUNE/81

FIG.: 17

GLEN E. WHITE
GEOPHYSICAL CONSULTING
& SERVICES LTD.

400M 350M 300M 250M 200M 150M 100M 50M 0E 50E 100E

LOOP A



SCALE
P.P.K.
+ OR -

PRIMARY FIELD NORMALISED DATA
NUMBER IN LINE-CHANNEL NUMBER
INSTRUMENT: CRONE P.E.M.



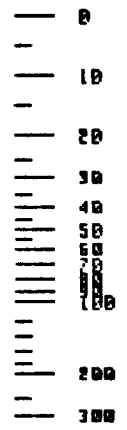
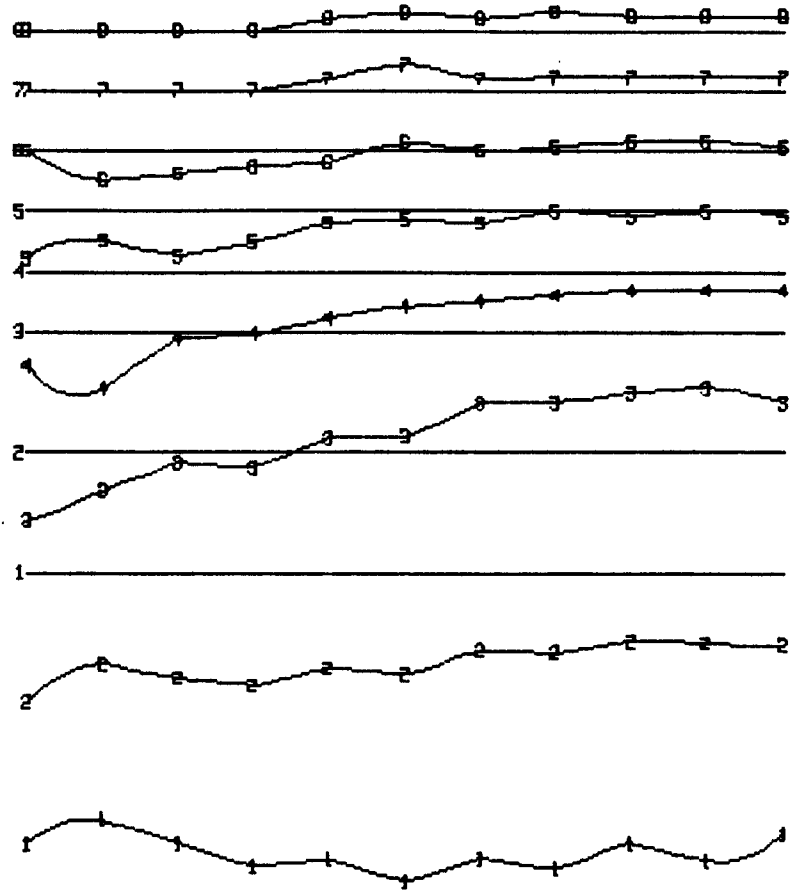
SEMCO
ONO CLAIM
VECTOR PULSE ELECTROMAGNETOMETER
HORIZONTAL COMPONENT
5005 A

DATE: JUNE/81 FIG.: 18

GLEN E. WHITE
GEOPHYSICAL CONSULTING
& SERVICES LTD.

400W 350W 300W 250W 200W 150W 100W 50W 0E 50E 100E

LOOP B



SCALE
P.P.K.
+ OR -

GLEN E. WHITE
GEOPHYSICAL CONSULTING
& SERVICES LTD.

PRIMARY FIELD NORMALISED DATA
NUMBER IN LINE-CHANNEL NUMBER
INSTRUMENT: CRONE P.E.M.

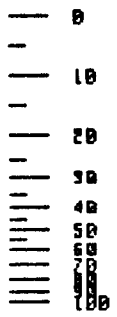
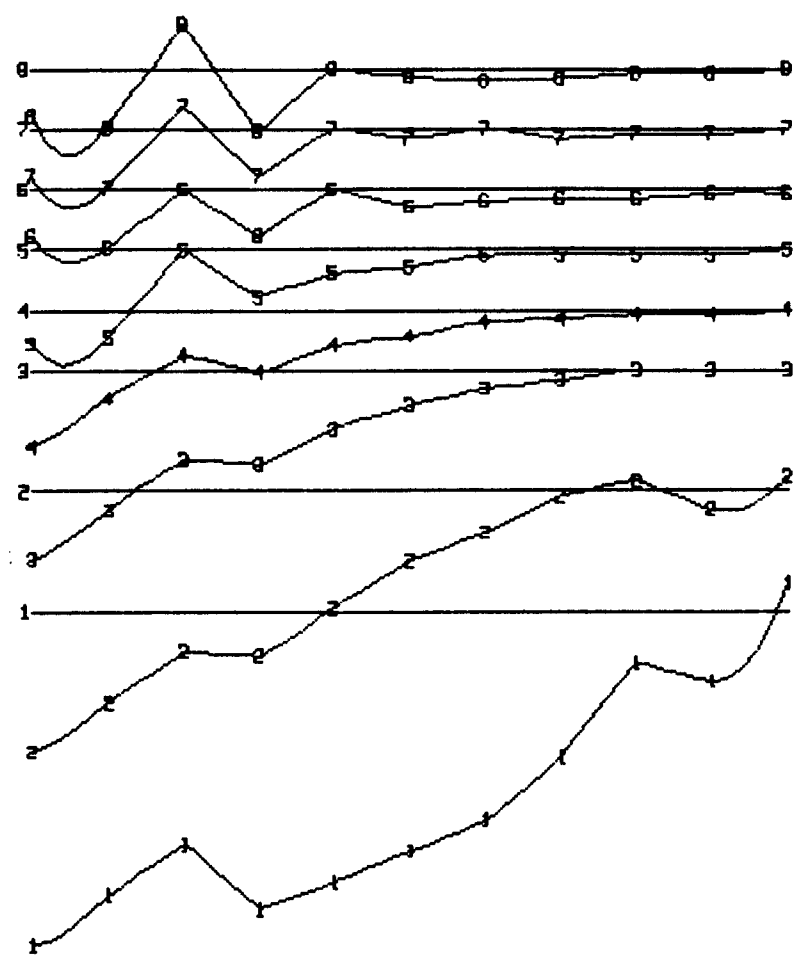


SEMCO
ONO CLAIM
VECTOR PULSE ELECTROMAGNETOMETER
VERTICAL COMPONENT
600S 0

DATE: JUNE/81 FIG.: 19

400H 350E 300E 250E 200E 150E 100E 50E 0E 50E 100E

LOOP B



SCALE
P.P.K.
+ OR -

PRIMARY FIELD NORMALISED DATA
NUMBER IN LINE-CHANNEL NUMBER
INSTRUMENT: CRONE P.E.M.



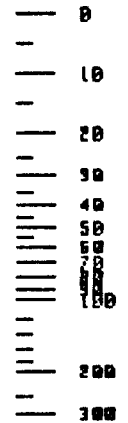
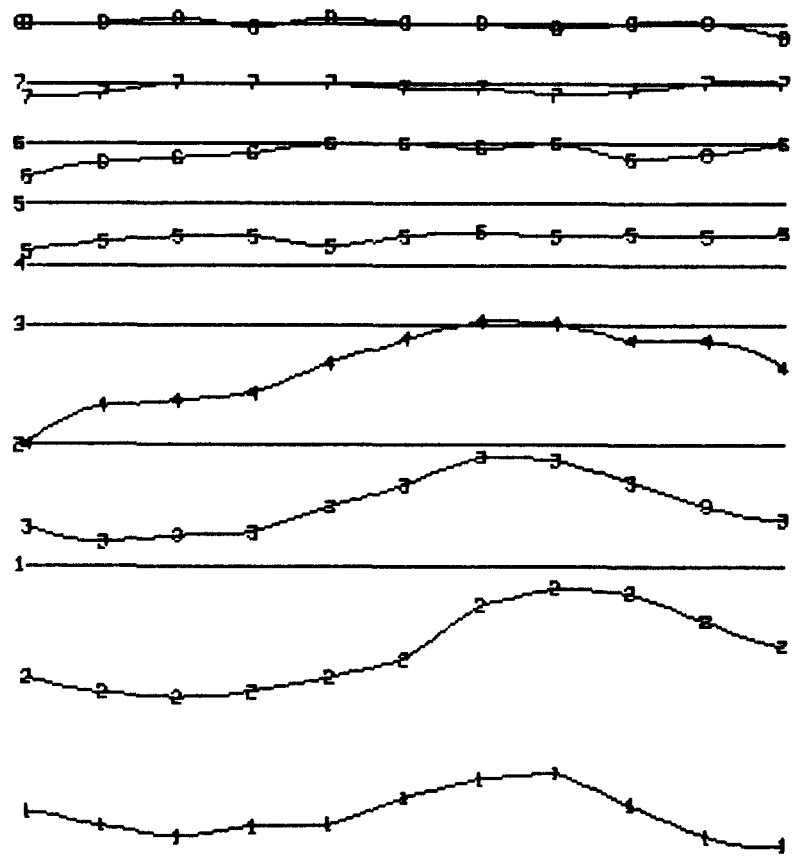
SEMCO
ONO CLAIM
VECTOR PULSE ELECTROMAGNETOMETER
HORIZONTAL COMPONENT
5005 B

DATE: JUNE/81 FIG.: 20

GLEN E. WHITE
GEOPHYSICAL CONSULTING
& SERVICES LTD.

LOOP C

300W 250W 200W 150W 100W 50W 0W 50E 100E 150E 200E



SCALE
P.P.K.
+ OR -

PRIMARY FIELD NORMALISED DATA
NUMBER IN LINE-CHANNEL NUMBER
INSTRUMENT: CRONE P.E.M.



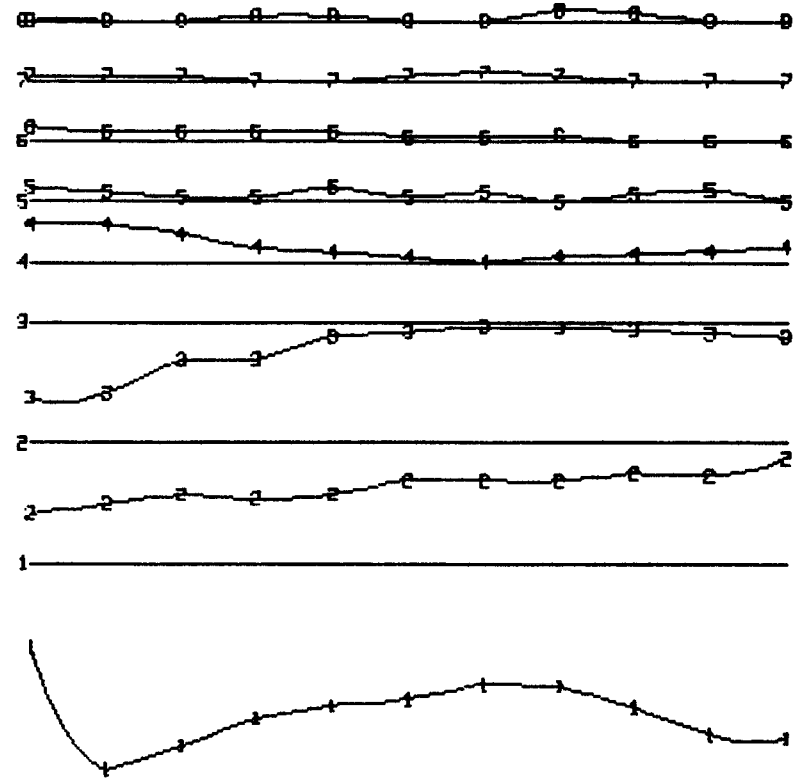
SEMCO
ONO CLAIM
VECTOR PULSE ELECTROMAGNETOMETER
VERTICAL COMPONENT
7005 C

DATE: JUNE/81 FIG.: 21

GLEN E. WHITE
GEOPHYSICAL CONSULTING
& SERVICES LTD.

LOOP C

300W 250W 200W 150W 100W 50W 0W 50E 100E 150E 200E



0
10
20
30
40
50
60
70
80
90
100

200
300

SCALE
P.P.K.
+ OR -

GLEN E. WHITE
GEOPHYSICAL CONSULTING
& SERVICES LTD.

PRIMARY FIELD NORMALISED DATA
NUMBER IN LINE-CHANNEL NUMBER
INSTRUMENT: CRONE P.E.M.



SEMCO
ONO CLAIM
VECTOR PULSE ELECTROMAGNETOMETER
HORIZONTAL COMPONENT
7005 C

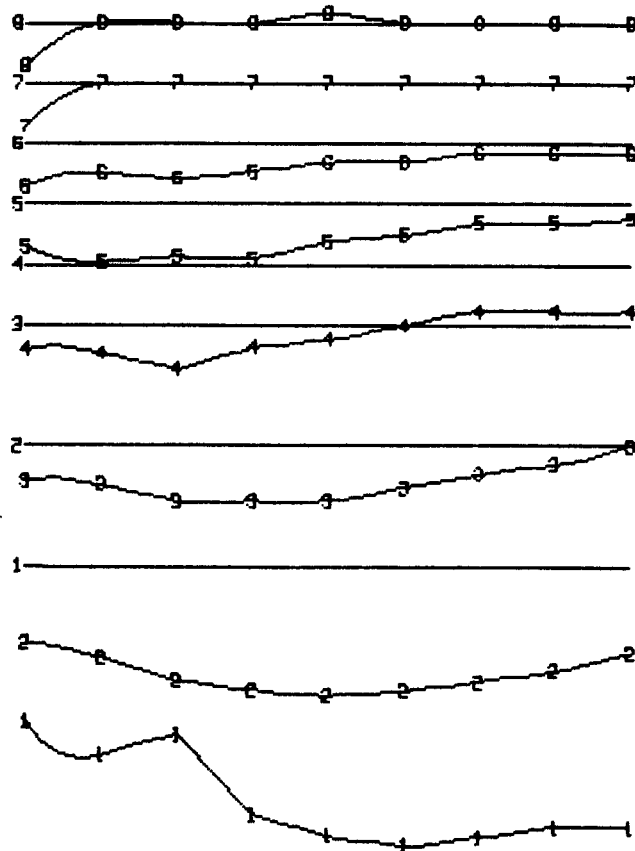
DATE: JUNE/81 FIG.: 22

400M
M05E
M00E
M052
2002
M051
1001
50M
0M

LOOP B



SCALE
P.P.K.
+ OR -



PRIMARY FIELD NORMALISED DATA
NUMBER IN LINE-CHANNEL NUMBER
INSTRUMENT: CRONE P.E.M.

METRES



SEMCO
ONO CLAIM
VECTOR PULSE ELECTROMAGNETOMETER
VERTICAL COMPONENT
7005 B

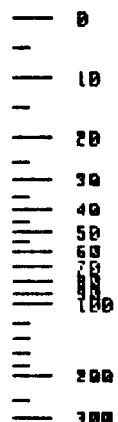
DATE: JUNE/81

FIG.: 23

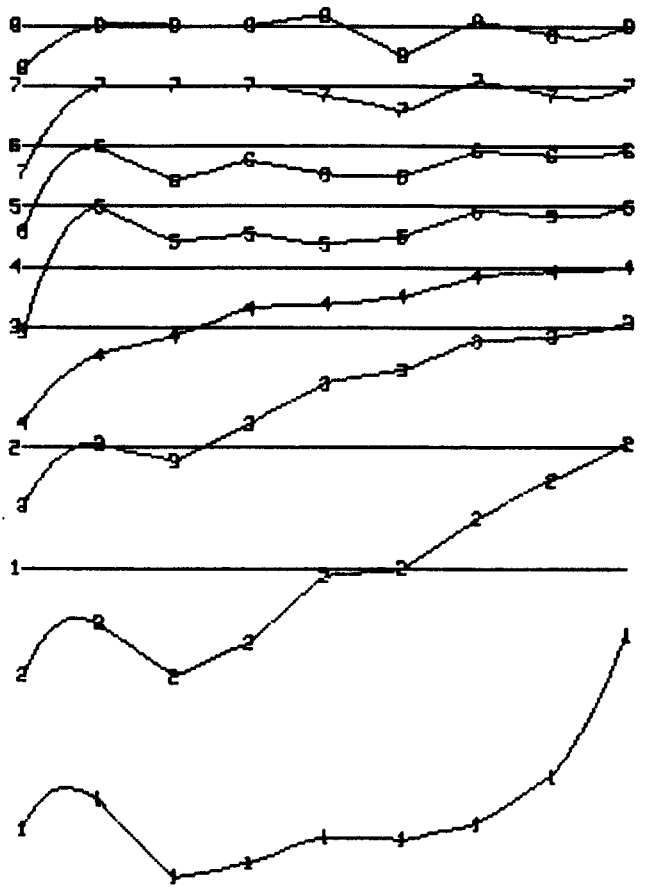
GLEN E. WHITE
GEOPHYSICAL CONSULTING
& SERVICES LTD.

400M 350M 300M 250M 200M 150M 100M 50M 0M

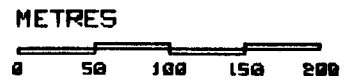
LOOP B



SCALE
P.P.K.
+ OR -



PRIMARY FIELD NORMALISED DATA
NUMBER IN LINE-CHANNEL NUMBER
INSTRUMENT: CRONE P.E.M.



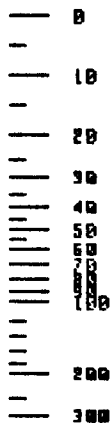
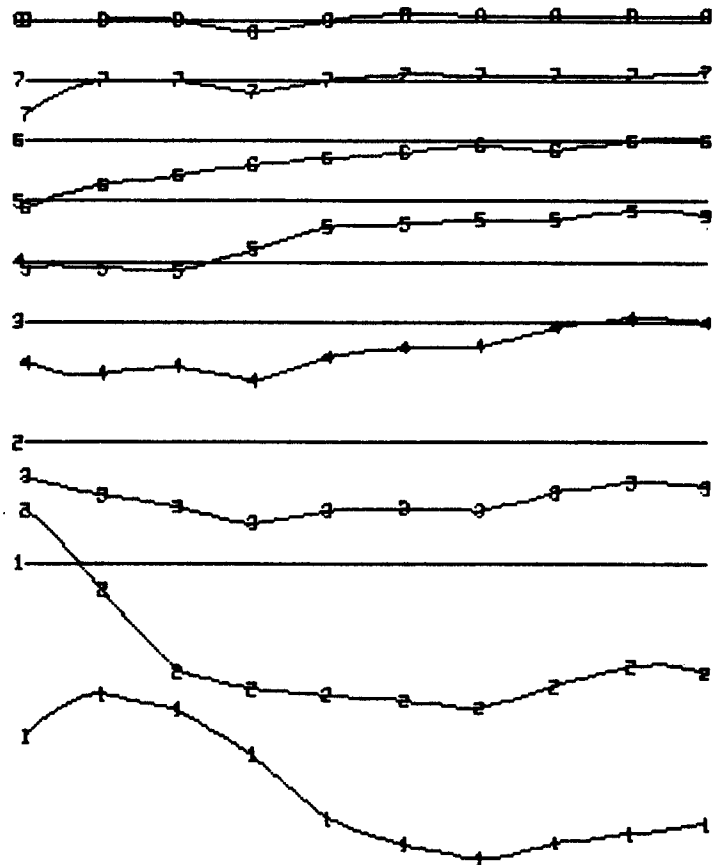
SEMCO
ONO CLAIM
VECTOR PULSE ELECTROMAGNETOMETER
HORIZONTAL COMPONENT
7005 B

DATE: JUNE/81 FIG.: 24

GLEN E. WHITE
GEOPHYSICAL CONSULTING
& SERVICES LTD.

400M 350M 300M 250M 200M 150M 100M 50M 0M 50E

LOOP B



SCALE
P.P.K.
+ OR -

PRIMARY FIELD NORMALISED DATA
NUMBER IN LINE-CHANNEL NUMBER
INSTRUMENT: CRONE P.E.M.



GLEN E. WHITE
GEOPHYSICAL CONSULTING
& SERVICES LTD.

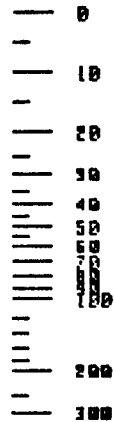
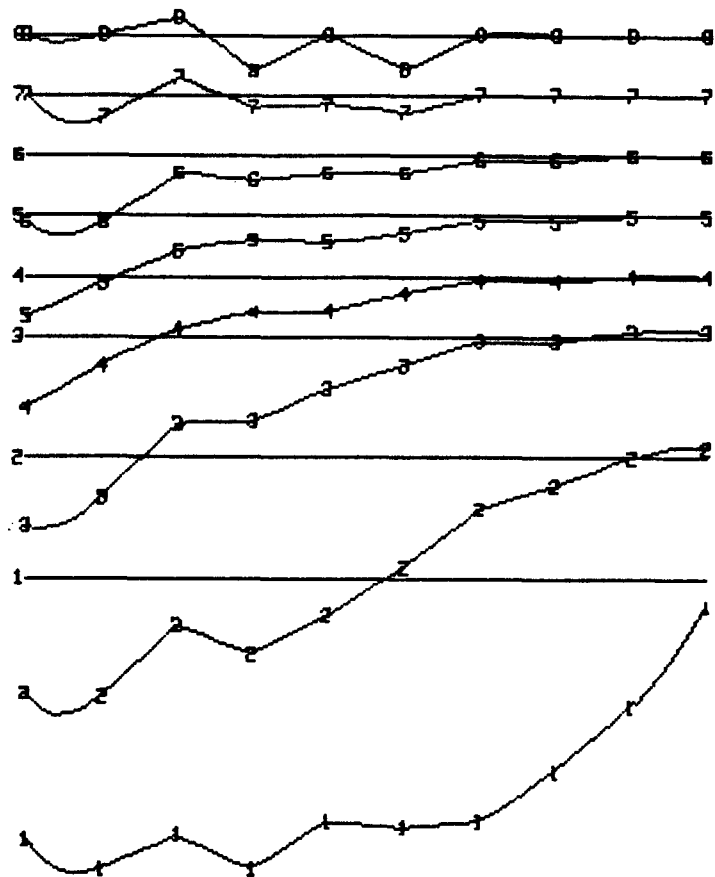
SEMCO
OND CLAIM
VECTOR PULSE ELECTROMAGNETOMETER
VERTICAL COMPONENT
8005 B

DATE: JUNE/81

FIG.: 25

400H 350E 300E 250W 200W 150W 100W 50W 0N 50E

LOOP B



SCALE
P.P.K.
+ OR -

PRIMARY FIELD NORMALISED DATA
NUMBER IN LINE-CHANNEL NUMBER
INSTRUMENT: CRONE P.E.M.

METRES



GLEN E. WHITE
GEOPHYSICAL CONSULTING
& SERVICES LTD.

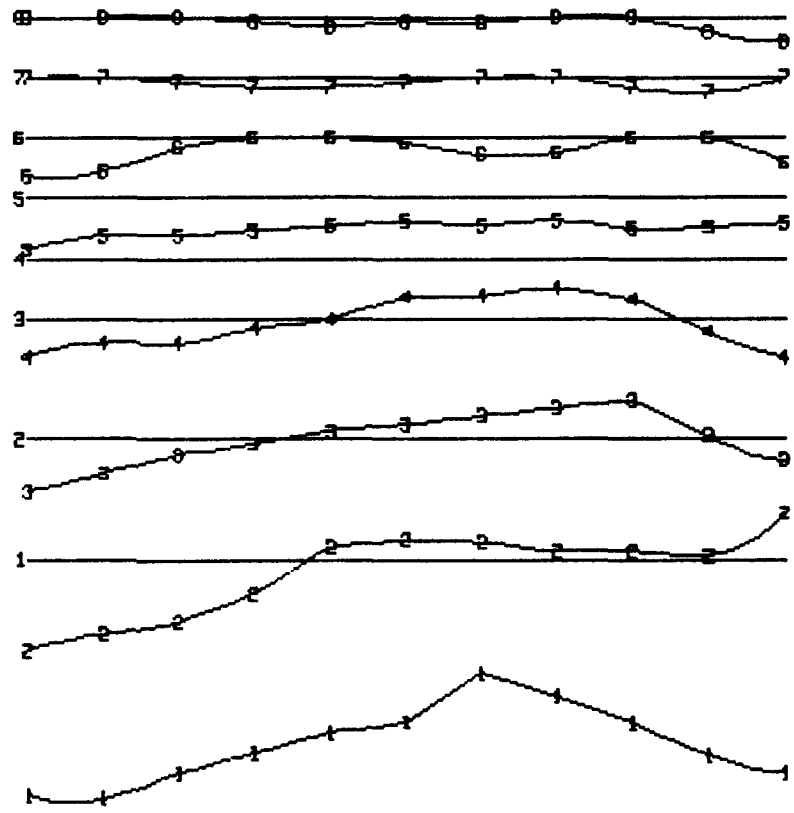
SEMCO
ONO CLAIM
VECTOR PULSE ELECTROMETER
HORIZONTAL COMPONENT
8005 B

DATE: JUNE/81

FIG.: 26

LOOP C

3000 2502 2002 1501 1000 500 0 500 1000 1500 2002



SCALE
P.P.K.
+ OR -

GLEN E. WHITE
GEOPHYSICAL CONSULTING
& SERVICES LTD.

PRIMARY FIELD NORMALISED DATA
NUMBER IN LINE-CHANNEL NUMBER
INSTRUMENT: CRONE P.E.M.

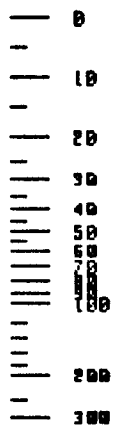


SEMCO
ONO CLAIM
VECTOR PULSE ELECTROMAGNETOMETER
VERTICAL COMPONENT
9005 C

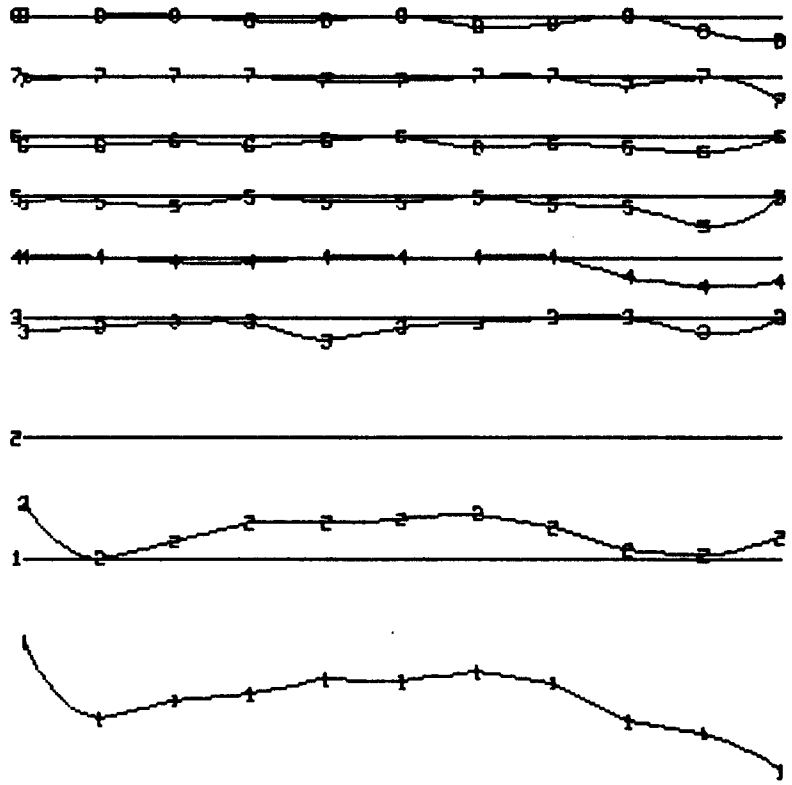
DATE: JUNE/81 FIG.: 27

LOOP C

3002
3051
3001
305
M0
M05
M001
M051
M002
M052
3000



SCALE
P.P.K.
+ OR -



PRIMARY FIELD NORMALISED DATA
NUMBER IN LINE-CHANNEL NUMBER
INSTRUMENT: CRONE P.E.M.



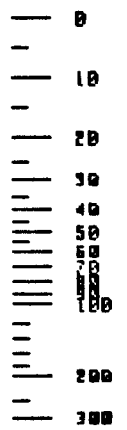
SEMCO
ONO CLAIM
VECTOR PULSE ELECTROMAGNETOMETER
HORIZONTAL COMPONENT
9005 C

DATE: JUNE/81 FIG.: 28

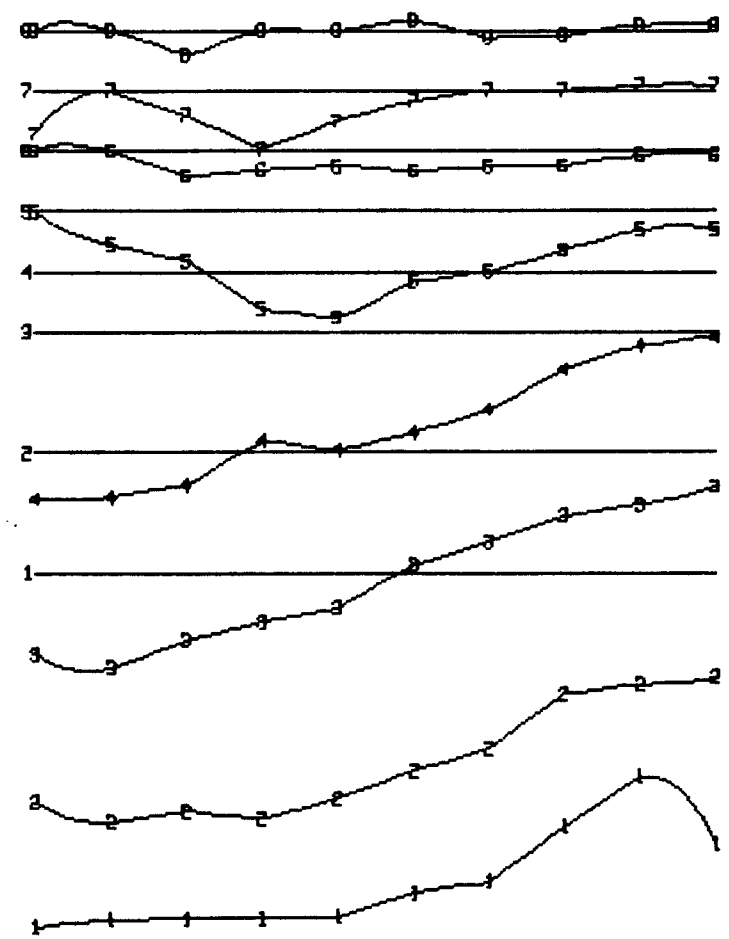
GLEN E. WHITE
GEOPHYSICAL CONSULTING
& SERVICES LTD.

400M 350M 300M 250M 200M 150M 100M 50M 0M 50E

LOOP B



SCALE
P.P.K.
+ OR -



PRIMARY FIELD NORMALISED DATA
NUMBER IN LINE-CHANNEL NUMBER
INSTRUMENT: CRONE P.E.M.



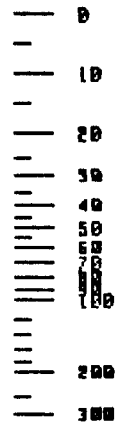
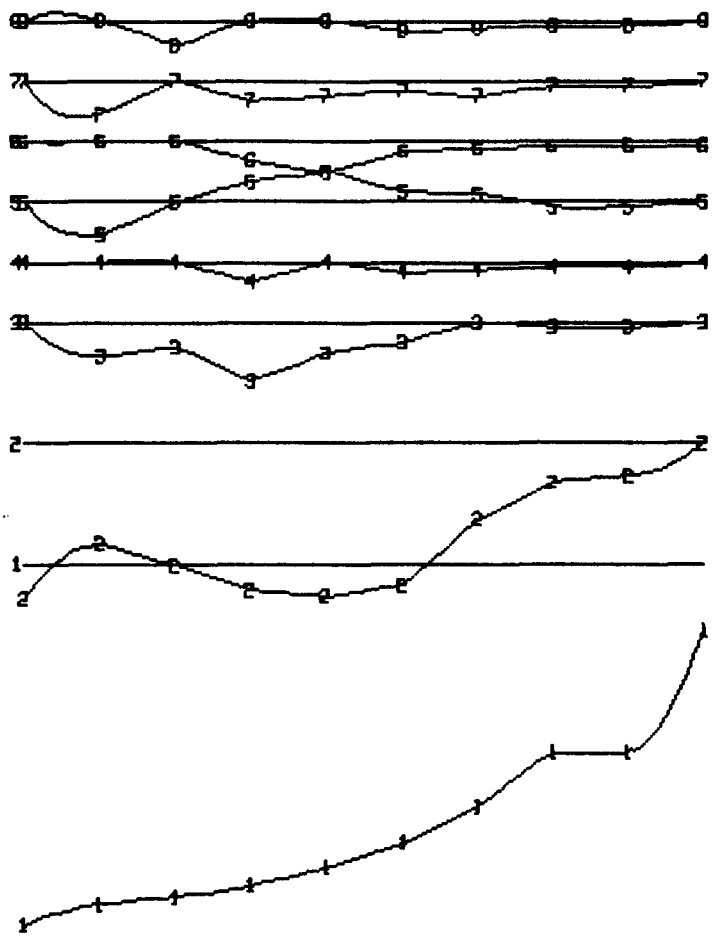
GLEN E. WHITE
GEOPHYSICAL CONSULTING
& SERVICES LTD.

SEMCO
ONO CLAIM
VECTOR PULSE ELECTROMAGNETOMETER
VERTICAL COMPONENT
9005 B

DATE: JUNE/81 FIG.: 29

400M
350E
300E
250E
200E
150E
100E
50E
0M
50E

LOOP B



SCALE
P.P.K.
+ OR -

PRIMARY FIELD NORMALISED DATA
NUMBER IN LINE-CHANNEL NUMBER.
INSTRUMENT: CRONE P.E.M.



SEMCO
OND CLAIM
VECTOR PULSE ELECTROMETER
HORIZONTAL COMPONENT
900S B

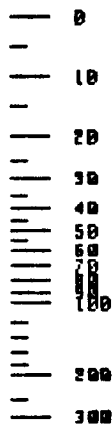
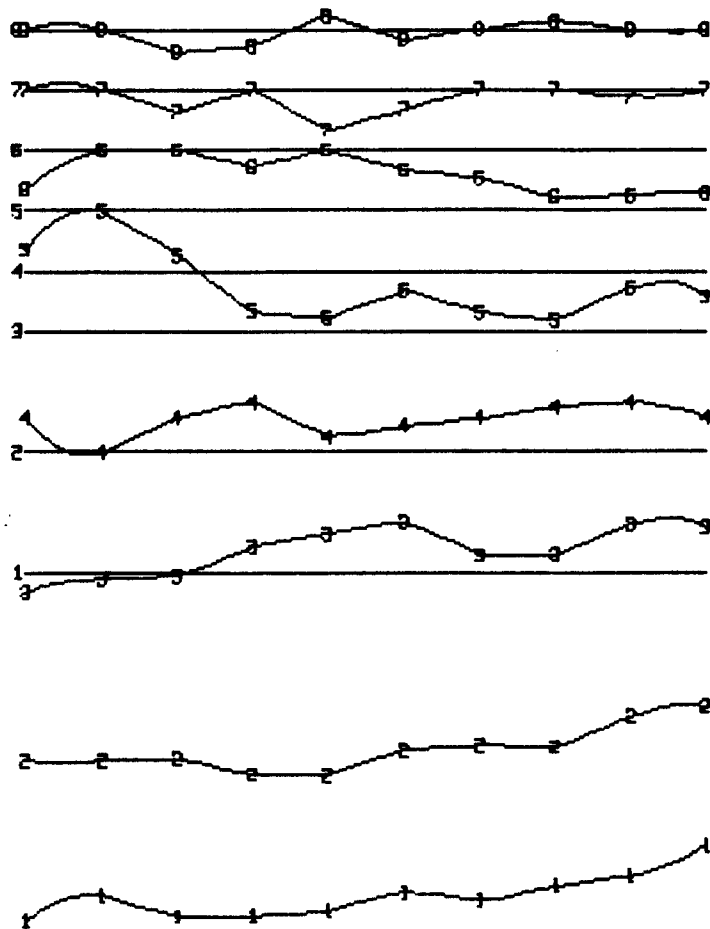
DATE: JUNE/81

FIG.: 30

GLEN E. WHITE
GEOPHYSICAL CONSULTING
& SERVICES LTD.

400M 350M 300M 250M 200M 150M 100M 50M 0M 50E

LOOP B



SCALE
P.P.K.
+ OR -

PRIMARY FIELD NORMALISED DATA
NUMBER IN LINE-CHANNEL NUMBER
INSTRUMENT: CRONE P.E.M.

METRES



SEMCO
OND CLAIM
VECTOR PULSE ELECTROMAGNETOMETER
VERTICAL COMPONENT
1000S B

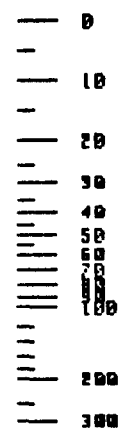
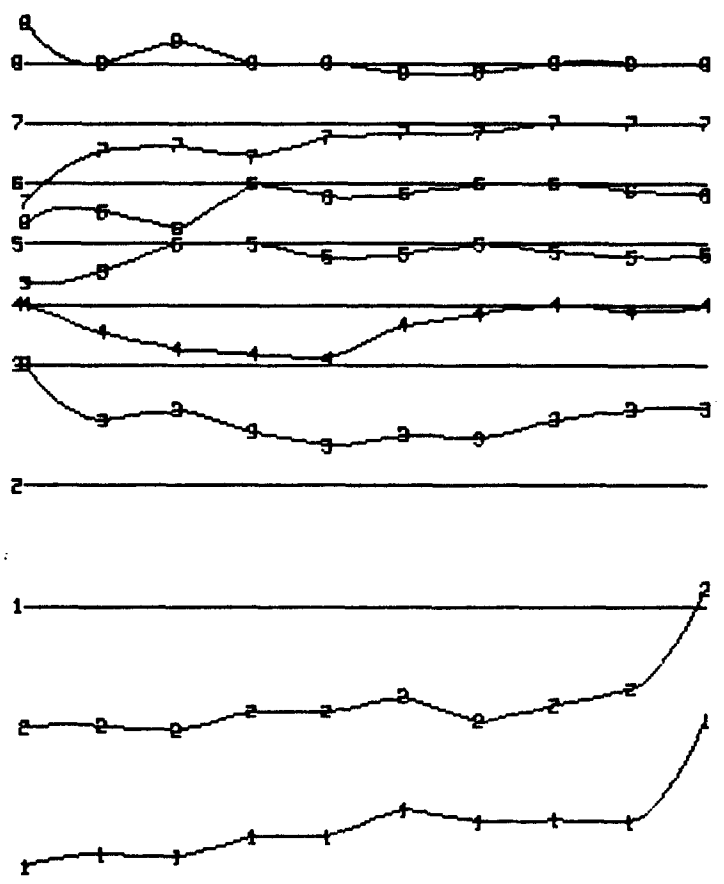
DATE: JUNE/81

FIG.: 31

GLEN E. WHITE
GEOPHYSICAL CONSULTING
& SERVICES LTD.

4004
3505
3006
2502
2002
1501
1001
505
00
505

LOOP B



SCALE
P.P.K.
+ OR -

PRIMARY FIELD NORMALISED DATA
NUMBER IN LINE-CHANNEL NUMBER
INSTRUMENT: CRONE P.E.M.



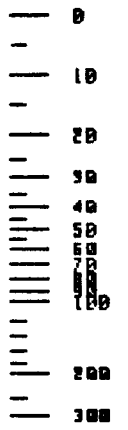
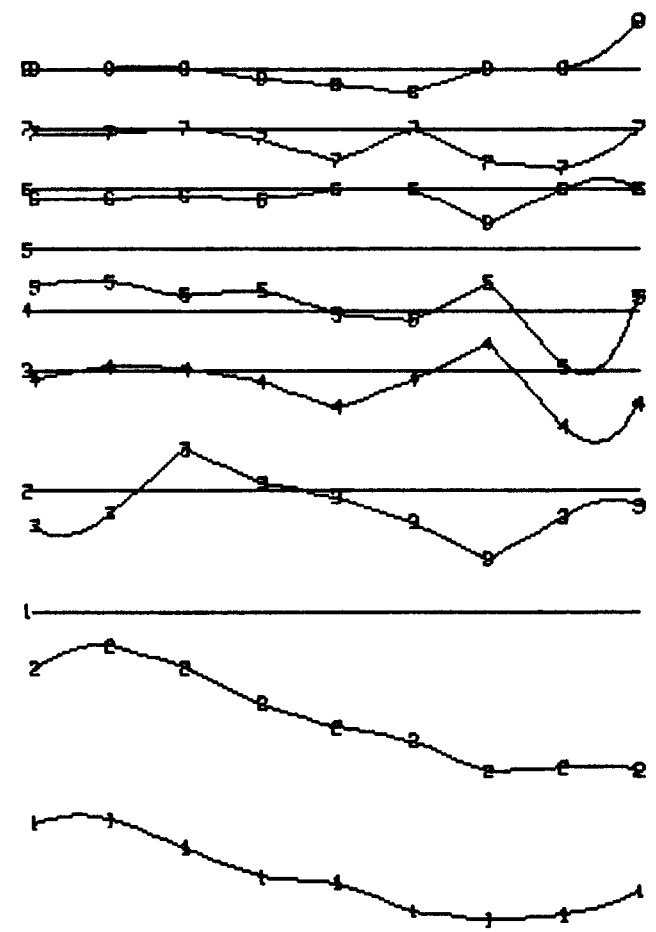
GLEN E. WHITE
GEOPHYSICAL CONSULTING
& SERVICES LTD.

SEMCO
ON0 CLAIM
VECTOR PULSE ELECTROMAGNETOMETER
HORIZONTAL COMPONENT
1000S B

DATE: JUNE/81 FIG.: 32

LOOP C

300E 250E 200E 150E 100E 50E 0E 50E 100E



SCALE
P.P.K.
+ OR -

PRIMARY FIELD NORMALISED DATA
NUMBER IN LINE-CHANNEL NUMBER
INSTRUMENT: CRONE P.E.M.



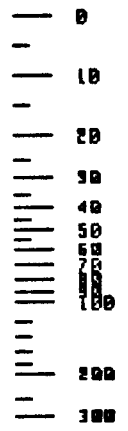
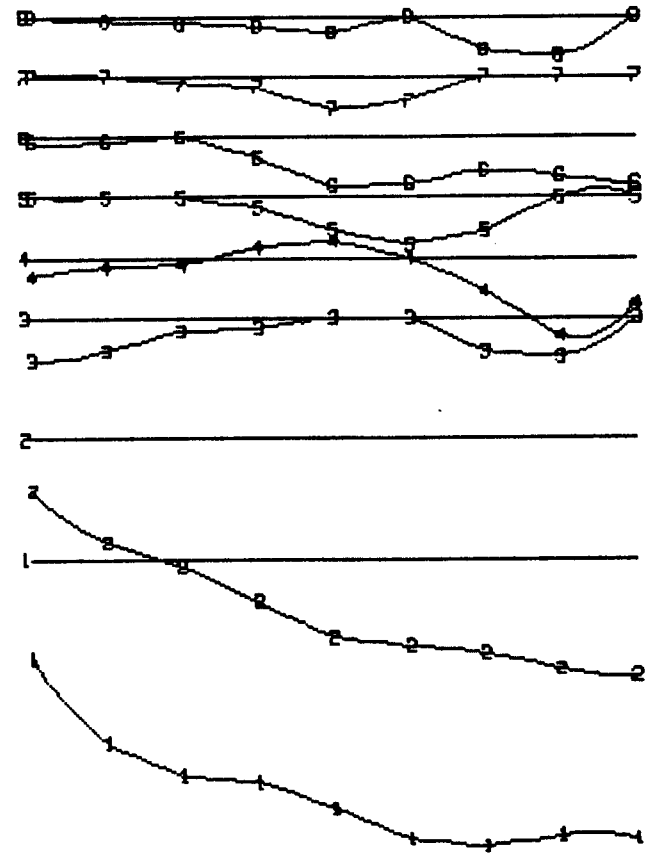
SEMCO
 ONO CLAIM
 VECTOR PULSE ELECTROMAGNETOMETER
 VERTICAL COMPONENT
 1100S C

DATE: JUNE/81 FIG.: 33

GLEN E. WHITE
GEOPHYSICAL CONSULTING
& SERVICES LTD.

LOOP C

3001
505
00
505
1001
M051
2002
M052
M00E



SCALE
P.P.K.
+ OR -

PRIMARY FIELD NORMALISED DATA
NUMBER IN LINE-CHANNEL NUMBER
INSTRUMENT: CRONE P.E.M.



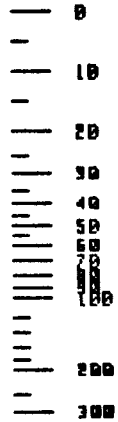
SEMCO
 ONO CLAIM
 VECTOR PULSE ELECTROMAGNETOMETER
 HORIZONTAL COMPONENT
 1100S C

DATE: JUNE/81 FIG.: 34

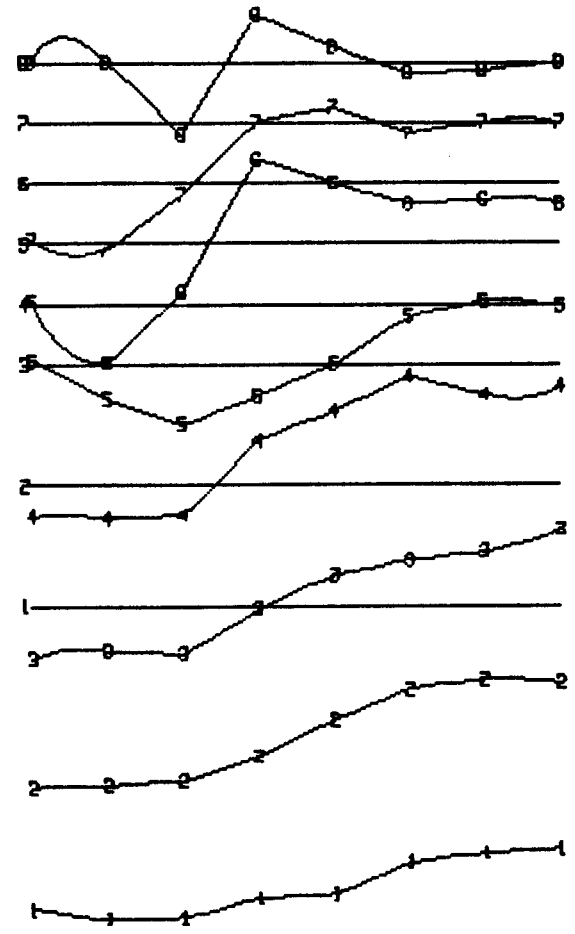
GLEN E. WHITE
GEOPHYSICAL CONSULTING
& SERVICES LTD.

300W 250W 200W 150W 100W 50W 0W 50E

LOOP B



SCALE
P.P.K.
+ OR -



GLEN E. WHITE
GEOPHYSICAL CONSULTING
& SERVICES LTD.

PRIMARY FIELD NORMALISED DATA
NUMBER IN LINE-CHANNEL NUMBER
INSTRUMENT: CRONE P.E.M.



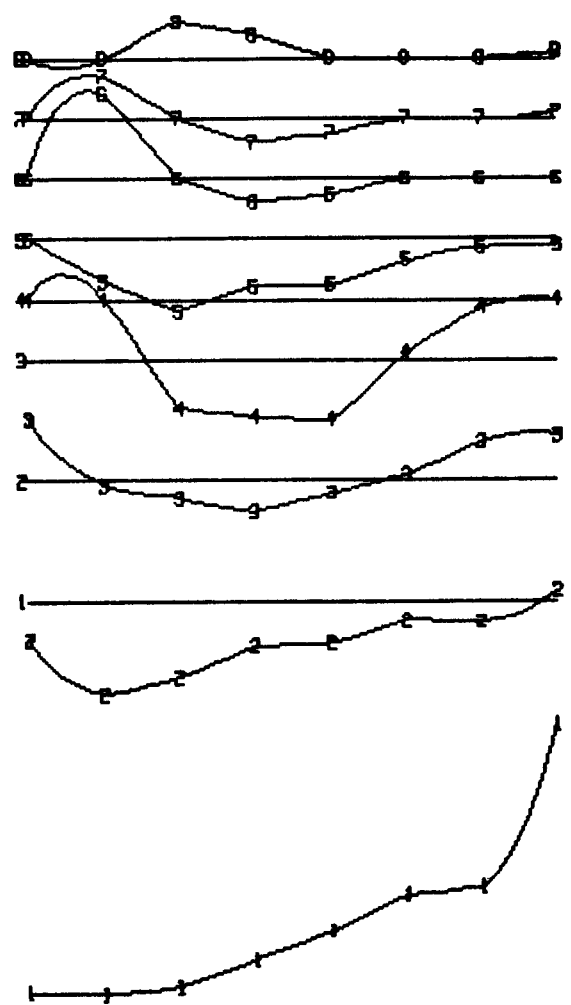
SEMCO
ONO CLAIM
VECTOR PULSE ELECTROMAGNETOMETER
VERTICAL COMPONENT
1100S B

DATE: JUNE/81 FIG.: 35

MD06
MD52
MD02
MD51
MD01
MD5
MD
SD5

LOOP B

0
10
20
30
40
50
60
70
80
90
100
200
300
SCALE
P.P.K.
+ OR -



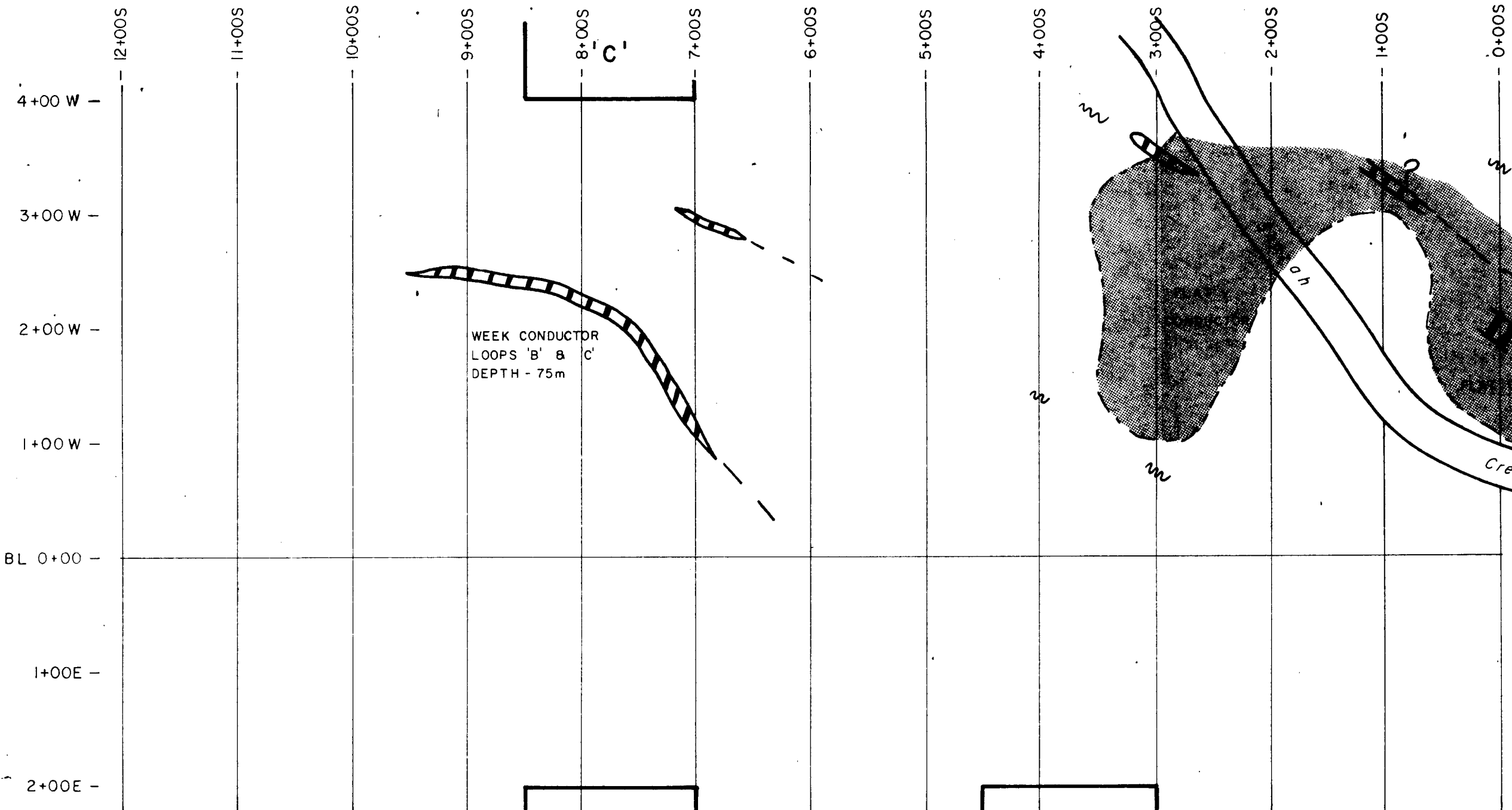
PRIMARY FIELD NORMALISED DATA
NUMBER IN LINE-CHANNEL NUMBER
INSTRUMENT: CRONE P.E.M.



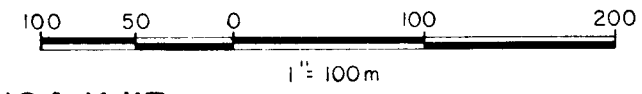
GLEN E. WHITE
GEOPHYSICAL CONSULTING
& SERVICES LTD.

SEMCO
ON CLAIM
VECTOR PULSE ELECTROMAGNETOMETER
HORIZONTAL COMPONENT
1100S B
DATE: JUNE/81 | FIG.: 36

MINING ENGINEERING
 REPORT
9857



- LEGEND:**
- A LOOP LOCATION
 - CONDUCTOR
 - FLAT CONDUCTOR
 - POSSIBLE FAULT



NT.S. 104 K/13
**STOKES EXPLORATION
 MANAGEMENT CO. LTD.**
 — ONO OYA CLAIMS —
 ATLIN MINING DIVISION — BRITISH COLUMBIA

VP EM SURVEY
LOOP LOCATION & CONDUCTOR MAP



To Atlin Mining Division
 The ONO Claim
 Date July / 81
 By GLEN E. WHITE B.Sc. Eng. (Electrical)

Glen E. White
 geophysical consulting
 &
 services Ltd.

INTERPRETED BY: G.E.W.
DRAWN BY: N.L.P.
CHECKED BY: G.E.W.
DATE: JULY / 81
FIG No: 2