'81-1062-9912

Geophysical Report
on a

Pulse Electromagnetometer Survey
on behalf of

Cordilleran Engineering Ltd.
Midway Property

Way, Bull, Climax & Post Mineral Claims
Rancheria Area, Liard M.D., B.C.
NTS 1040, Lat. 60°00N, Long. 130°15'N

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

DATE OF WORK: Sept. 15-25/81

DATE OF REPORT: Oct. 28/81

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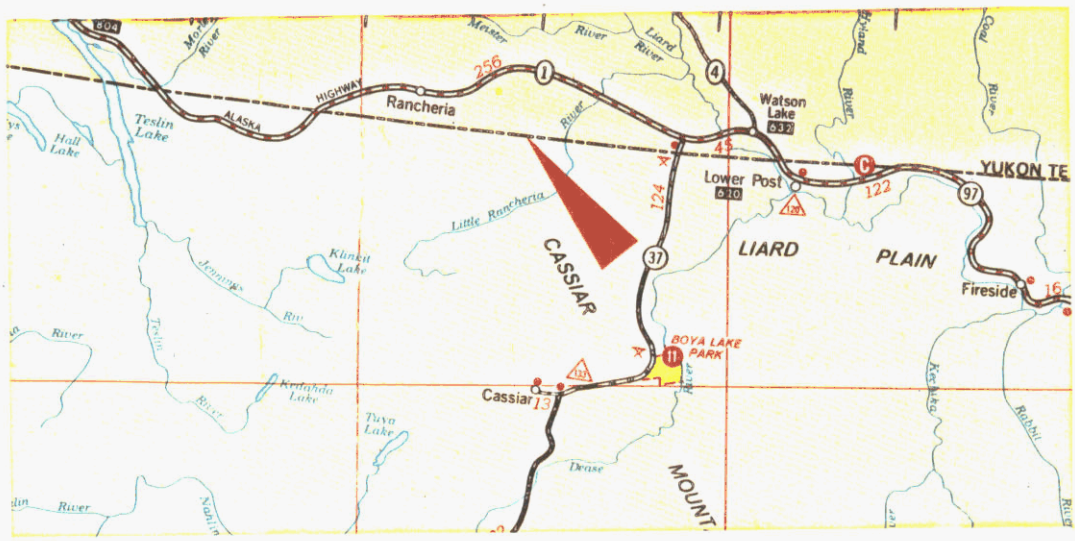
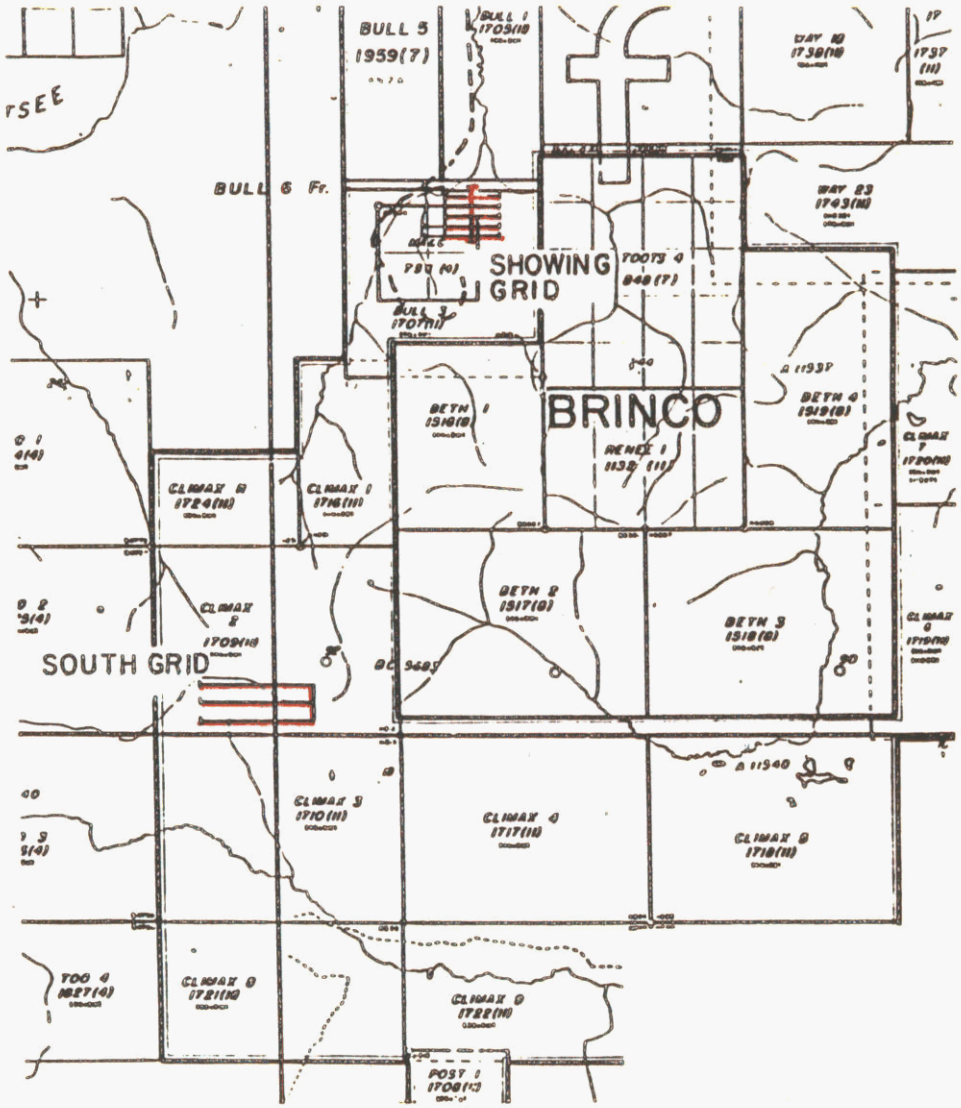




CORDILLERAN ENGINEERING LTD.

MIDWAY PROPERTY

LOCATION AND CLAIMS MAP

Glen E. White
geophysical consulting
services ltd.

FIG. 1

INTRODUCTION

This report describes a pulse time domain electromagnetometer survey which was conducted over two areas of interest on the Midway property on behalf of Cordilleran Engineering Ltd. The two areas of interest have been designated the south grid and the showing grid. The work was completed during the period Sept. 15 to 25, 1981 by Glen E. White Geophysical Consulting & Services Ltd.

PROPERTY

CLAIM	RECORD NO.	EXPIRY DATE
Way 1-5	1684-1688	Oct. 20/81
Way 6-23	1726-1743	Nov. 26/81
Bull 1-3	1705-1707	Nov. 12/81
Bull 4Fr.	1725	Nov. 26/81
Bull 5	1959	July 21/82
Climax 1	1716	Nov. 26/81
Climax 2&3	1709,1710	Nov. 12/81
Climax 4-11	1717-1724	Nov. 26/81
Post 1	1708	Nov. 12/81

LOCATION AND ACCESS

The mineral claims are located 90 km west of Watson Lake Yukon, Lat. 60°00'N Long. 130°15'W N.T.S. 104 O, Laird M.D., B.C.

Access to the property is via unimproved roads south across the Rancheria River near Mile 706 on the Alaska Highway.

GENERAL GEOLOGY

The property is underlain by Mississippian argillites, sandstones and coarse clastics of the Lower Sylvester Formation, which lie stratigraphically between McDame Formation carbonates and Upper Sylvester Formation volcanic rocks. Siliceous, pyritic and baritic exhalites, thought to be distal equivalents to Pb-Zn-Ag-Ba mineralization occur within the argillites. One stratiform galena-sphalerite-pyrite showing has been identified on the Bull 3 claim (B.C.).

The Lower Sylvester Formation rocks strike northwest and occupy the central part of a broad northwesterly trending syncline. Stratigraphy dips at 10° to 30° northeast and southwest toward the center of the structure. Numerous high angle faults cut stratigraphy, with vertical displacements up to several hundred metres.

The showing area grid is underlain by interbedded carbonaceous, siliceous argillite and massive to well laminated sandstone which strike generally north-south, and dip 20° to 30° to the east. Numerous steep dipping faults cut the stratigraphy.

Three stratiform pyrite-sphalerite-galena horizons are present in the grid area, associated with the highly carbonaceous argillite. The Discovery showing is a 1 to 2 metre thick horizon exposed in a trench over a strike length of 115 metres, and is composed of 5-10% sphalerite and galena, plus 5% to 70% fine to coarsely crystalline pyrite in a siliceous matrix. A second zone lies 30 metres stratigraphically above this trench, and a third along the upper contact of the McDame limestone. Overburden depth varies from 7 to 13 metres.

The south grid covers an area of anomalous lead, zinc, silver and barium soil geochemistry, at the same stratigraphic position as the Discovery showing. The grid is underlain by siliceous, carbonaceous argillite and massive to laminated sandstone, which strike at 150° and dip 20° to 30° to the northeast. Two baritic, siliceous exhalite horizons occur within the argillites. Overburden consists mainly of coarse talus and is generally less than 13 metres thick.

PULSE ELECTROMAGNETOMETER SURVEY

The Crone 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 fixed source mode.

The primary field for the fixed source VPEM technique is obtained from a surface loop of 150 metres per side which is energized by a current pulse of some 20 amps on a time base of 10.8 or 21.6 ms. The former of these was utilized in the surveys discussed herein. The resulting secondary field is temporaly sampled at eight windows on the decay curve, and spatially sampled in both vertical and horizontal components during a traverse of the area of interest. The convention of vertical component positive up and horizontal positive away from the loop applies. The eight channels of secondary field information are equivalent to a wide spectrum of frequencies from approximately 2 KHz to 16 Hz thus allowing conductor character and strength determination. Conductor attitude and depth information are obtained from model curves. The time derivative of the secondary field is sampled during primary field off time,

thus the method is relatively free from geometrical restrictions.

The primary field information is recorded at each occupied station. This allows data plotting under two methods of normalization. Normalization with respect to instrument gain produces a constant gain plot in which the symmetry of an ideal dyke-like conductor response is preserved. The second method is intended to accomodate the rapid primary field strength reduction (approximately inverse cube) with increasing distance from the transmitter loop. The data is normalized with respect to the primary field strength at each station thus reducing the de-emphasis of conductors present in the far primary field. This method, which distorts the anomaly shape somewhat, finds application in multiple conductor situations.

The vector focus method of data display is useful in some line source conductor conditions. A resultant vector can be obtained by vector addition of the vertical and horizontal components of the secondary field. A perpendicular to this resultant points to the apparent eddy current position.

DISCUSSION OF RESULTS

SOUTH GRID

This area was covered by the pulse electromagnetometer system in the horizontal loop mode with a separation of 75 m and a read interval of 25 m. Some 3.6 km of work was completed. Figure 2 shows the conductor trends and Figures 3-5 the PEM profiles. The horizontal loop data shows several very strong responses across a wide zone. Within this zone are super conducting areas which give strong responses into the low frequencies of channel 8. Negative

troughs occur on the east side which would suggest a north-east dip.

SHOWING GRID

The survey grid was first surveyed in the horizontal loop mode with a separation of 75 m. Some 3.5 km of line was covered. A further 3.5 km testing in the deep penetrating vector mode was completed from large loops A and B. The survey results are illustrated on Figure 6.

The horizontal loop profiles are Figures 7-12. Line 11800N seems to show a number of small conductive lenses from 5188E to 5338E. Conductor 'A' shows a definite south-easterly dip and a much stronger response on line 11700N. On line 11700N the two close responses of 11800N have moved apart. From profile 5250E along the baseline it would appear line 11700N is parallel to a narrow super conductor. The tip of this conductor can be seen at 5313E on Figure 8. The low channel data on Figure 8 from 5263E to 5363E would suggest a flatter conductor response or that the conductor at 5363E changes dip to the west. Figure 9 line 11600N shows conductor A as a super conductor; a small response occurs at 5188E which has been labelled conductor B. The response from 5288E to 5388E suggests a flat conductor at a depth of some 75m. The response on line 11500N shows a dramatic character change which would suggest a NW-SE fault. Conductor A occurs as a flat lense like conductor at depth as shown by the negative responses from channels 5 to 8. Conductor B shows an increase in width and conductivity. There is a very weak response at 5400E which would suggest the creek is a N-S fault. Figure 11 shows a small response at 5113E which is the projection of conductor B.

The negative basin like responses of channels 4-7 indicates a conductor at a depth of or greater than the separation.

The vector pulse data Figures 13-52 illustrate the data as constant gain data at 100% which is showing the relative strength of the secondary fields away from the loop. The normalized data corrects the secondary field to the decreasing strength of the primary field so that each response along the line is relative one to another. The responses from both loops A and B on line 11800N Figures 15, 16, 35 and 36 show very strong secondary fields. The close position of the crossovers on Figures 15 and 35 indicates the nose of a possible fold. Figure 19 the vertical component from loop A, line 11700N shows a strong channel 1 to 3 crossover at conductor A. The crossovers from the remaining channels migrate downdip. The horizontal components show large basin like responses due to the large conductive envelope. Loop B shows a number of inflections on a large crossover commencing from 5350E to 5150E. Figure 23 shows strong crossovers on conductors A and B. Figure 43 shows a conductor at depth at 5350E. This conductor is not seen on lines 11500N or 11400N. Figure 47 from loop B now shows a concentration of electrical energy at 5200 the downdip projection of conductor B. Figure 27 shows a good deep response at 5025E and a strong channel 1 to 8 response at 5200E witn loop B. Loop A Figure 31 supports the deep flat like conductor at 5025E. However both loops A and B indicate a major conductor from 5150E to 5200E at a depth of approximately 100m beneath station 5175E.

CONCLUSION AND RECOMMENDATIONS

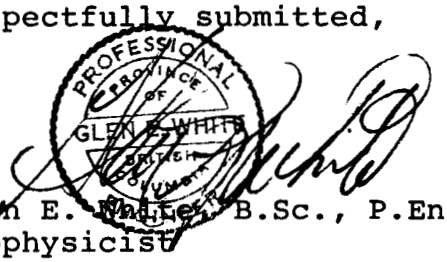
SOUTH GRID

The three lines completed indicate a number of very strong conductors within a conductive zone. These conductors are likely graphite with possibly associated sulphide mineralization.

SHOWING GRID

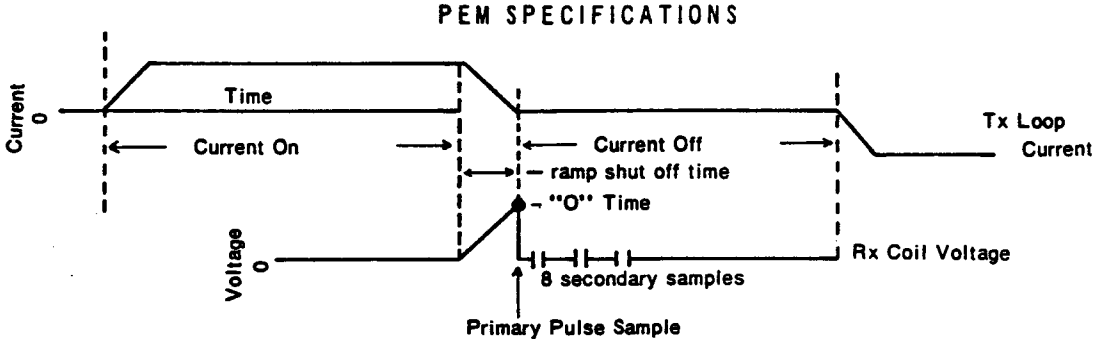
A comprehensive time domain electromagnetic test was completed over this grid in that both the horizontal loop and vector modes were used. Two conductors, A and B, were delineated which have surface traces of massive sulphide mineralization of economic interest. These two conductors appear to increase in dimension at depth on line 11400N at 5025E and 5175E respectively. These should be tested by diamond drilling. The dramatic response of these conductors would suggest the positioning of two more loops to the south to search for them at depth. A further two loops to the northeast would examine the possibility that the conductive envelope has been drag folded and faulted northward.

Respectfully submitted,



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

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

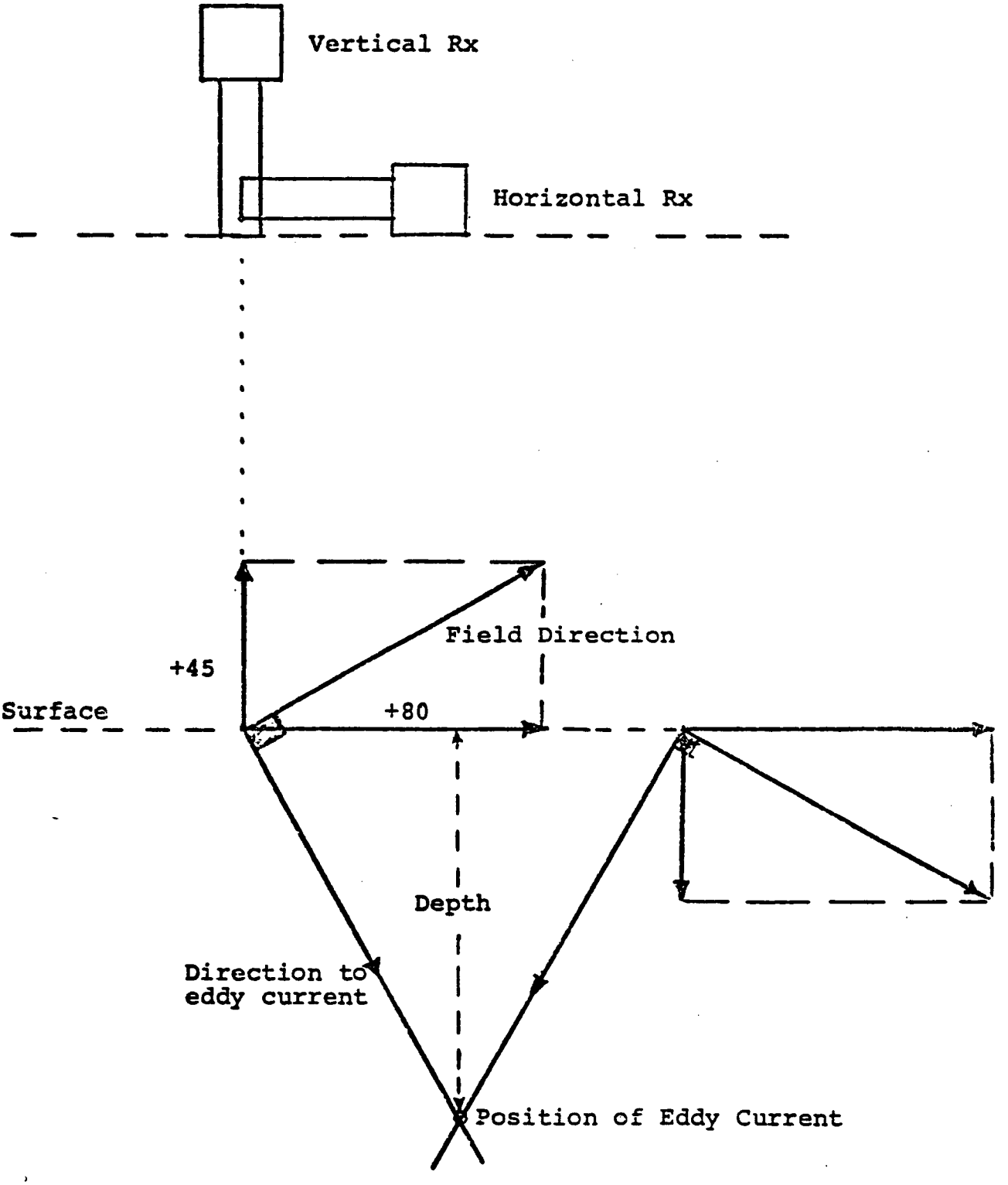
TRANSMITTER – Transmitter power and loop size may be increased to obtain increased penetration. Weight, portability and power capabilities of the control instrument are the limiting factors. The standard transmitter is designed to be carried by two men.

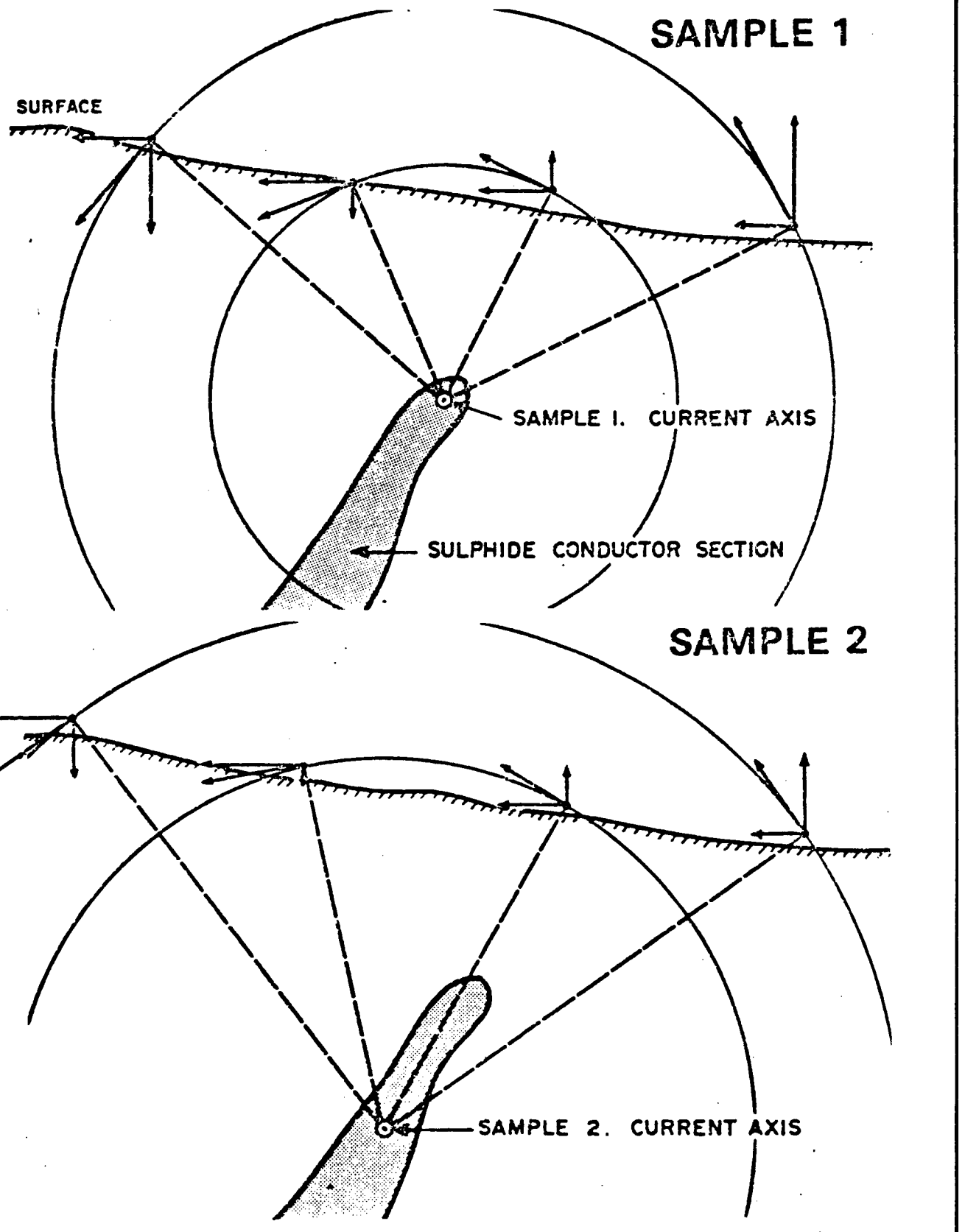
Loop diameter	– minimum 4 meters (13 feet)
Loop current	– 15 to 20 amps
Loop applied voltage	– 24 volts
Loop output	– minimum 4500 amps x meter ^{2}
Loop weight	– 11.8 kilos (26 lb)
Control unit weight	– 10 kilos (22 lb)
Control unit dimensions	– 20.5cm x 25.5cm x 36.5cm (8" x 10" x 14.5")
Battery supply 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. Geophysicist - 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 Gerphysical Divions with Geo-X Surveys Ltd.
	Two years Chief Geophysicst Tri-Con Exploration Surveys Ltd.
	Eleven years Consulting Geophysicist.
	Active experience in all Geologic provinces of Canada.

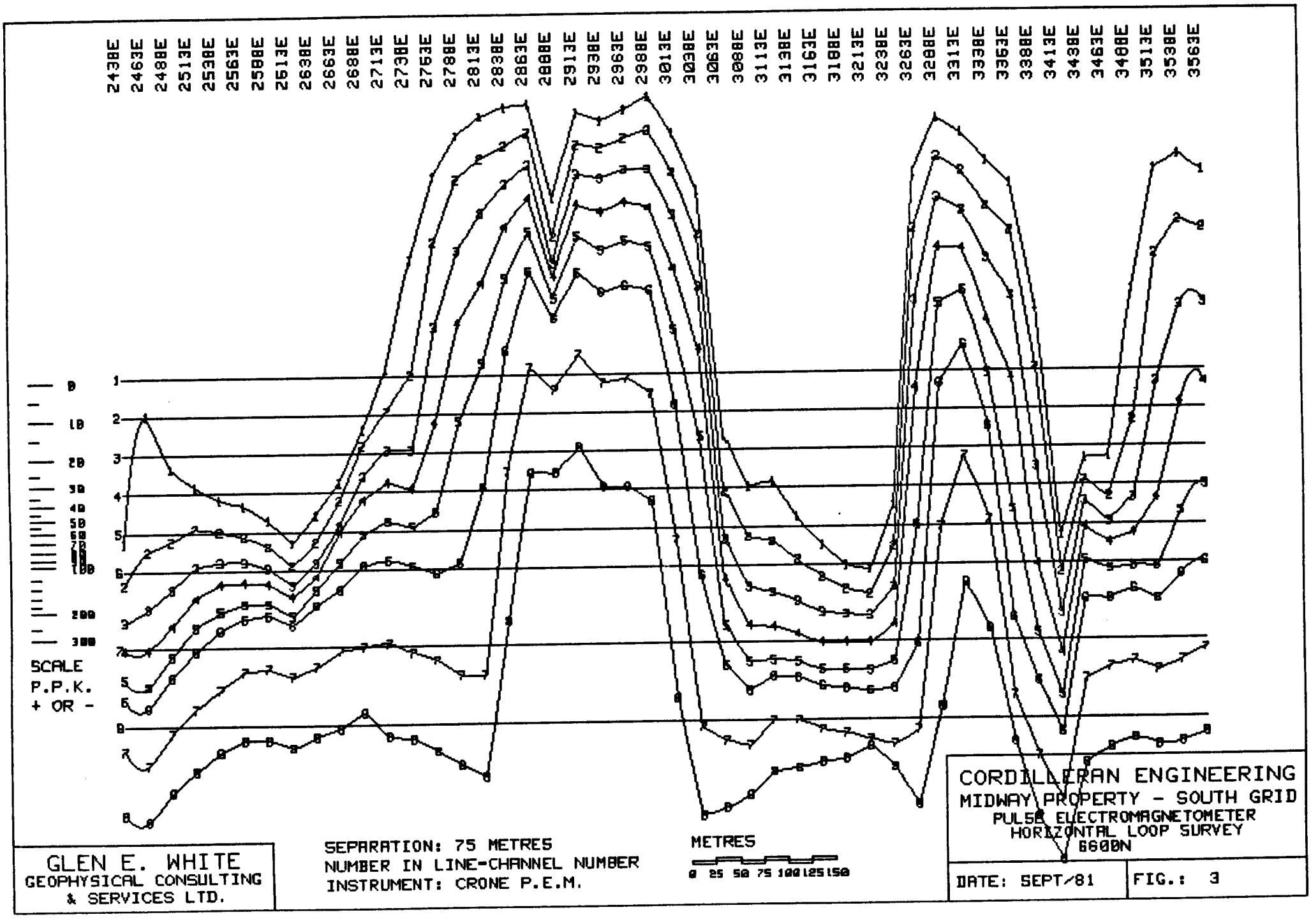
COST BREAKDOWN

B.C. - Yukon Projects

PERSONNEL	DATE	WAGES	TOTAL
B. Robertson	Sept. 15-25	$160.00	$1,760.00
B. Crassweller	Sept. 15-25	$112.00	$1,232.00
T. Purcell	Sept. 15-25	$112.00	$1,232.00

Instrument Lease	$1,100.00
Vehicle Rental	$ 667.17
Airfreight	$ 424.99
Airfares	$1,120.50
General Expenses	$ 252.57
Computer Plotting-Horizontal Loop Data	$ 250.00
Computer Plotting-Vector Pulse	$ 250.00
Drafting and Reproduction	$ 485.00
Interpretation and Compilation	$1,000.00
Total	$9,774.23

B.C. 75%	$7,330.67
Yukon 25%	$2,443.56


2438E
2463E
2488E
2513E
2538E
2563E
2588E
2613E
2638E
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2688E
2713E
2738E
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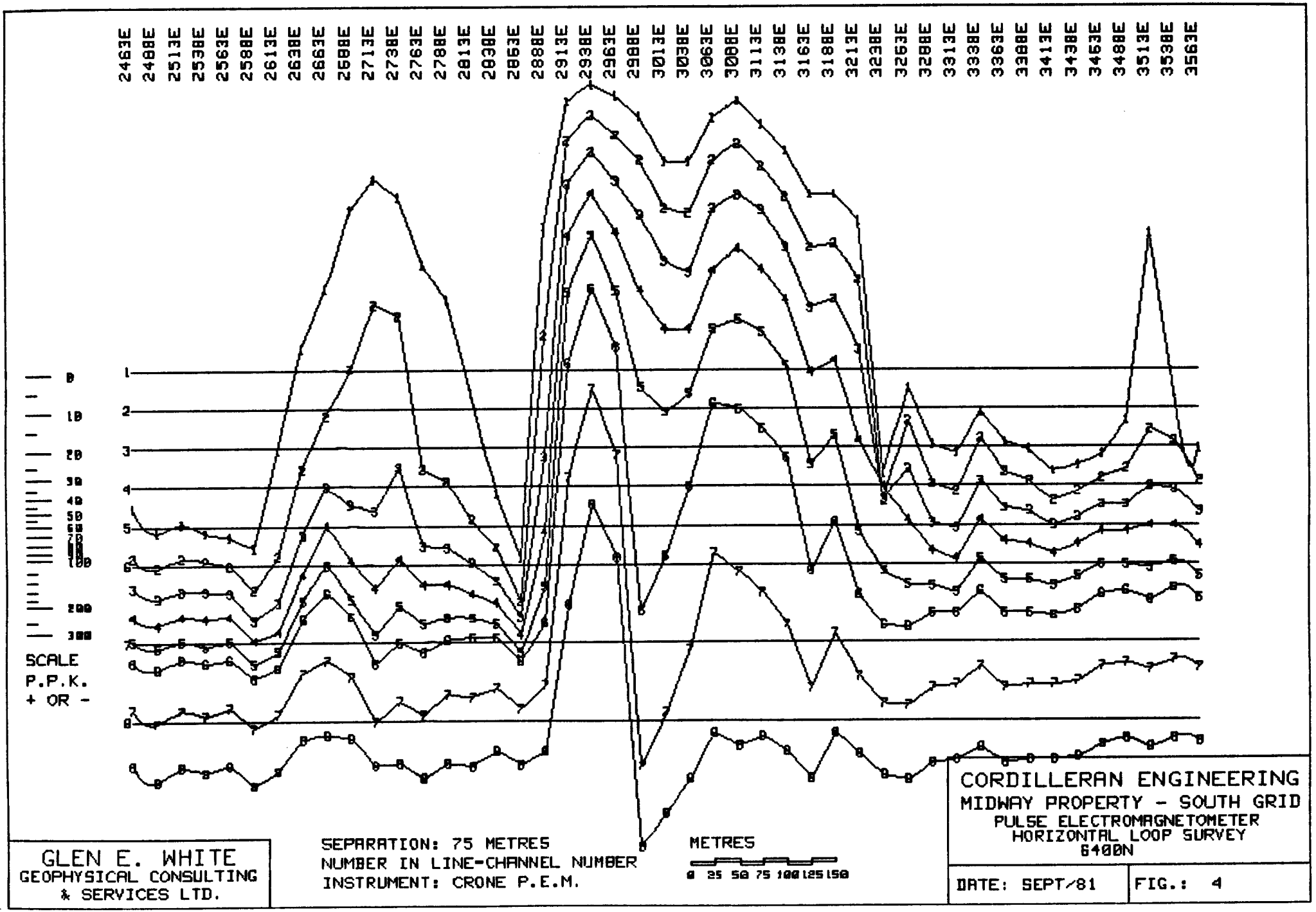
3013E
3038E
3063E
3088E
3113E
3138E
3163E
3188E
3213E
3238E
3263E
3288E
3313E
3338E
3363E
3388E
3413E
3438E
3463E
3488E
3513E
3538E
3563E
0
10
20
30
40
50
100
200
300
SCALE
P.P.K.
+ OR -
1
2
3
4
5
6
7
8
SEPARATION: 75 METRES
NUMBER IN LINE-CHANNEL NUMBER
INSTRUMENT: CRONE P.E.M.
METRES
0 25 50 75 100 125 150
GLEN E. WHITE
GEOPHYSICAL CONSULTING
& SERVICES LTD.
CORDILLERAN ENGINEERING
MIDWAY PROPERTY - SOUTH GRID
PULSE ELECTROMAGNETOMETER
HORIZONTAL LOOP SURVEY
6600N
DATE: SEPT/81
FIG.: 3


2463E
2488E
2513E
2538E
2563E
2588E
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2638E
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2963E
2988E
3013E
3038E
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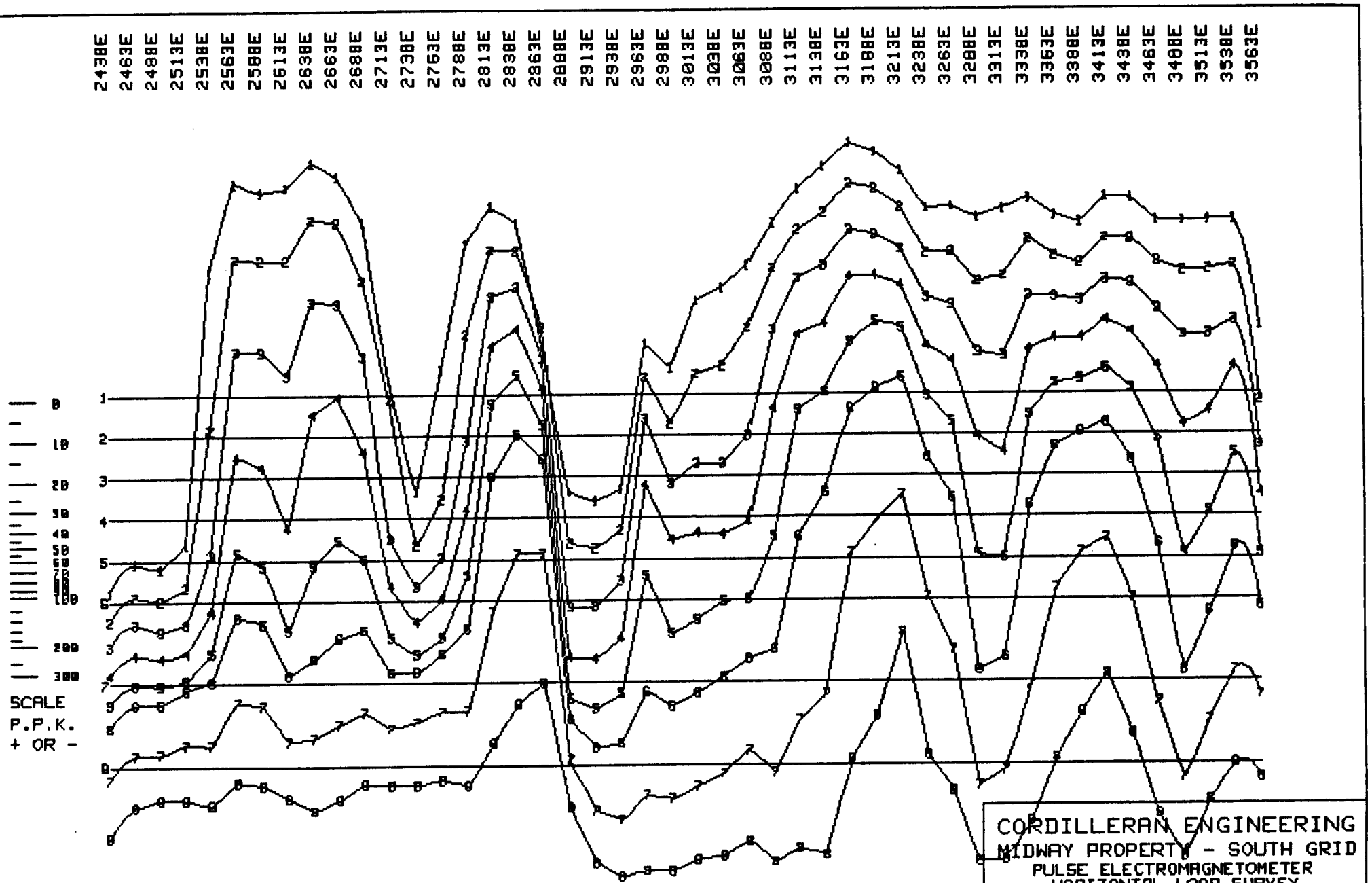
3138E
3163E
3188E
3213E
3238E
3263E
3288E
3313E
3338E
3363E
3388E
3413E
3438E
3463E
3488E
3513E
3538E
3563E
0
10
20
30
40
50
100
200
300
SCALE
P.P.K.
+ OR -
SEPARATION: 75 METRES
NUMBER IN LINE-CHANNEL NUMBER
INSTRUMENT: CRONE P.E.M.
METRES
0 25 50 75 100 125 150
GLEN E. WHITE
GEOPHYSICAL CONSULTING
& SERVICES LTD.
CORDILLERAN ENGINEERING
MIDWAY PROPERTY - SOUTH GRID
PULSE ELECTROMAGNETOMETER
HORIZONTAL LOOP SURVEY
6400N
DATE: SEPT/81
FIG.: 4



GLEN E. WHITE
GEOPHYSICAL CONSULTING
& SERVICES LTD.

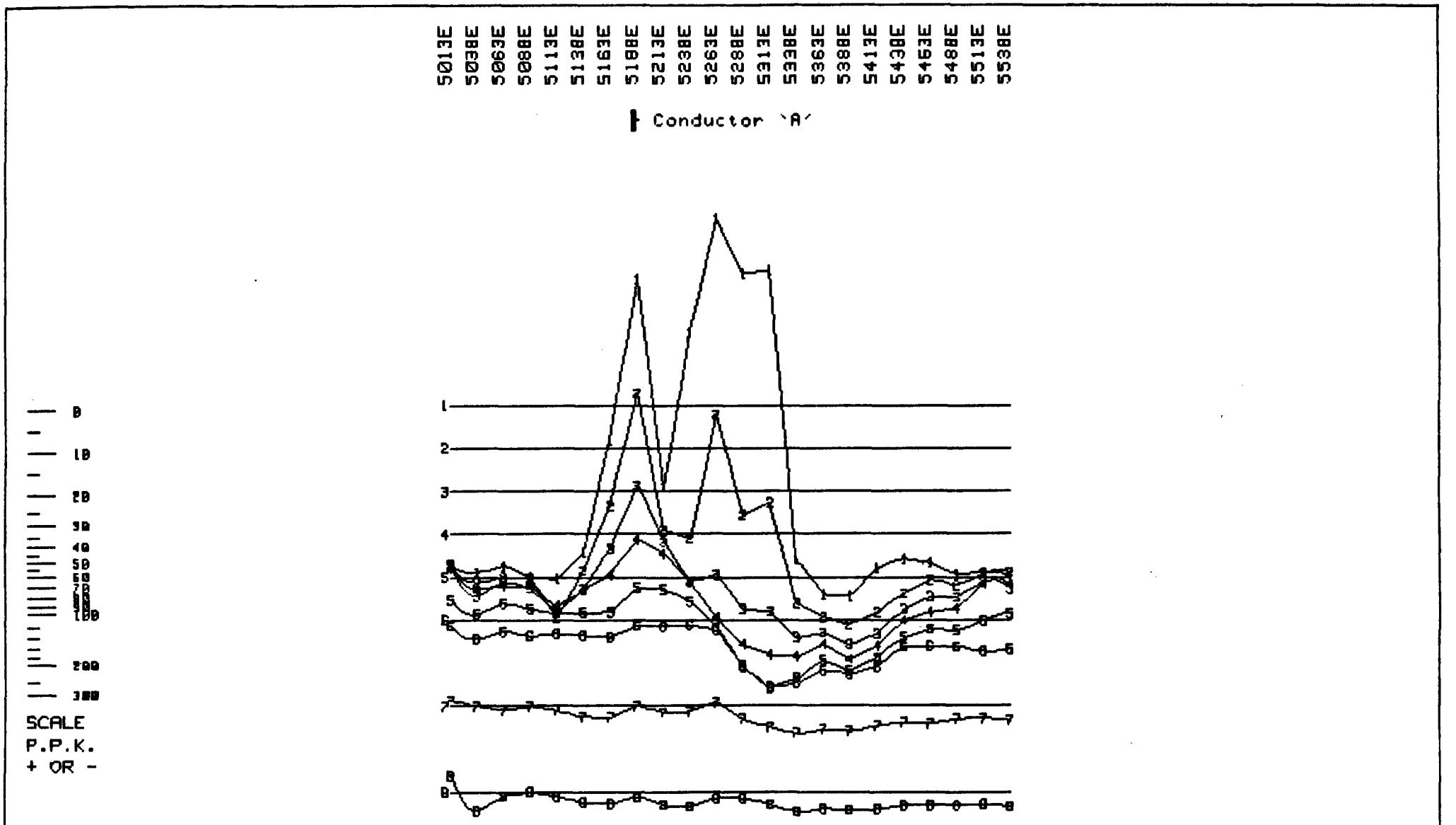
SEPARATION: 75 METRES
NUMBER IN LINE-CHANNEL NUMBER
INSTRUMENT: CRONE P.E.M.

METRES
0 25 50 75 100 125 150

CORDILLERAN ENGINEERING
MIDWAY PROPERTY - SOUTH GRID
PULSE ELECTROMAGNETOMETER
HORIZONTAL LOOP SURVEY
6200N

DATE: SEPT/81

FIG.: 5



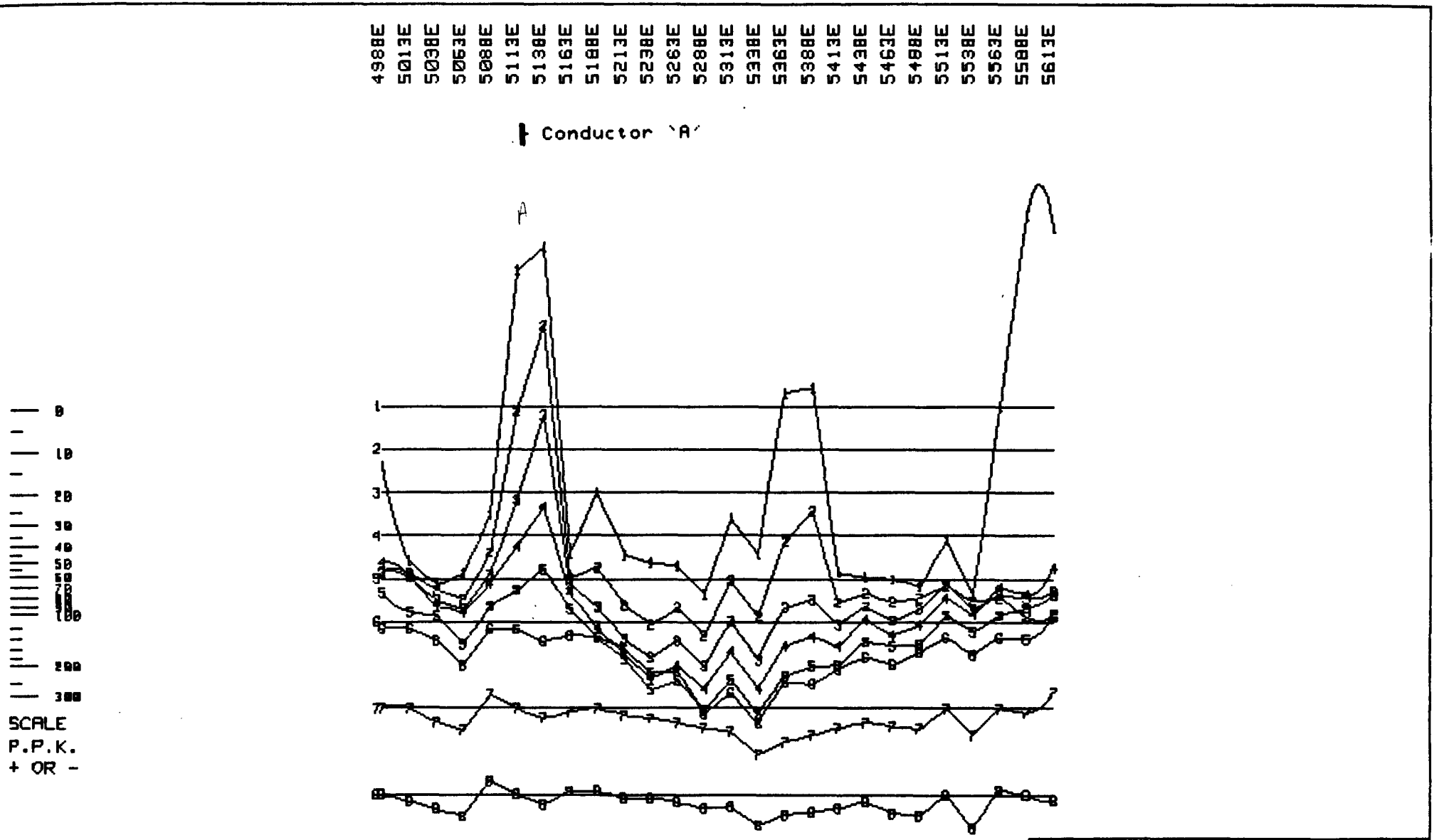
GLEN E. WHITE
GEOPHYSICAL CONSULTING
& SERVICES LTD.

SEPARATION: 75 METRES
NUMBER IN LINE-CHANNEL NUMBER
INSTRUMENT: CRONE P.E.M.

METRES
0 25 50 75 100 125 150

CORDILLERAN ENGINEERING
MIDWAY PROPERTY - SHOWING GRID
PULSE ELECTROMAGNETOMETER
HORIZONTAL LOOP SURVEY
11800N

DATE: SEPT/81 | FIG.: 7



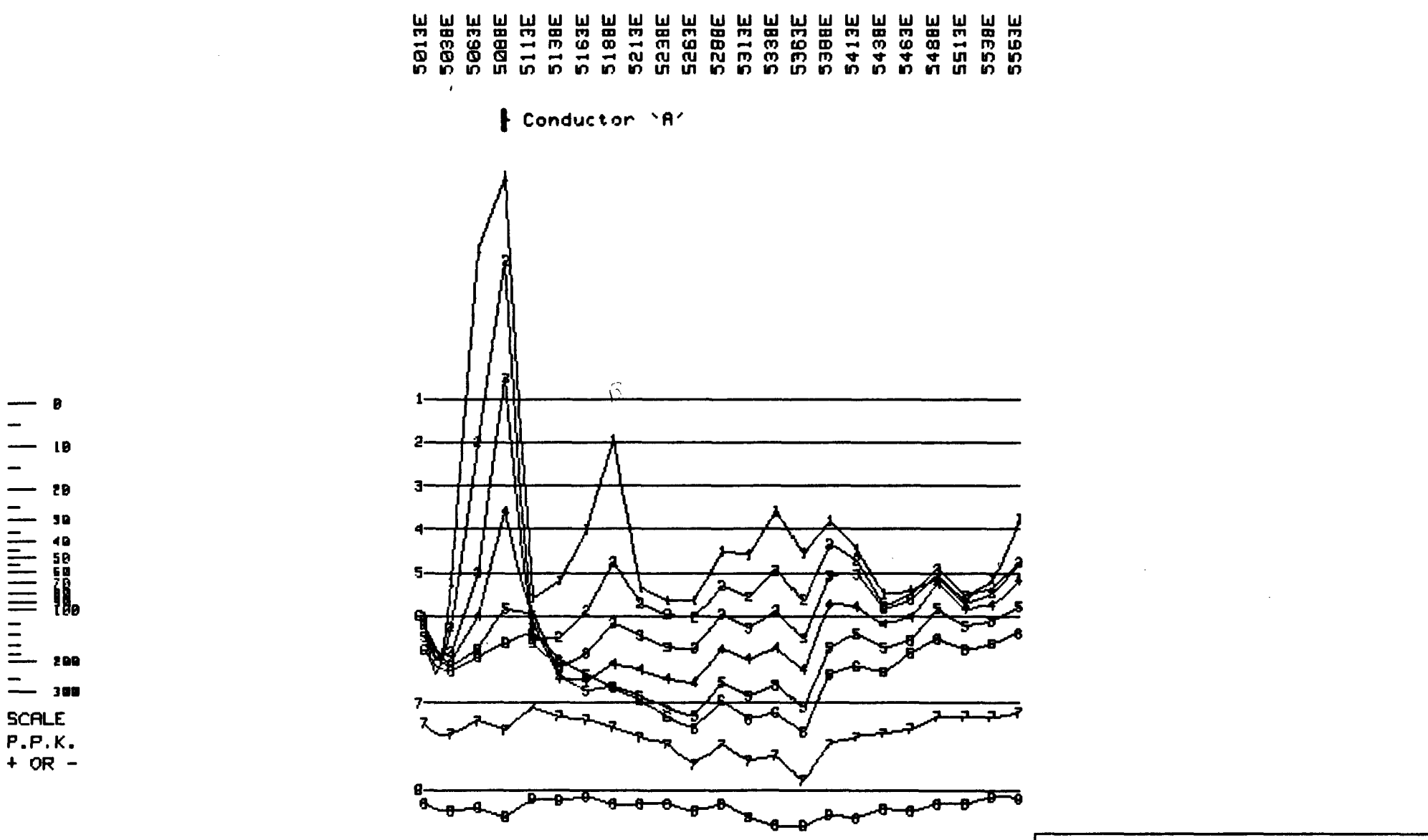
GLEN E. WHITE
GEOPHYSICAL CONSULTING
& SERVICES LTD.

SEPARATION: 75 METRES
NUMBER IN LINE-CHANNEL NUMBER
INSTRUMENT: CRONE P.E.M.

METRES
0 25 50 75 100 125 150

CORDILLERAN ENGINEERING
MIDWAY PROPERTY - SHOWING GRID
PULSE ELECTROMAGNETOMETER
HORIZONTAL LOOP SURVEY
11700N

DATE: SEPT/81 | FIG.: 8



GLEN E. WHITE
GEOPHYSICAL CONSULTING
& SERVICES LTD.

SEPARATION: 75 METRES
NUMBER IN LINE-CHANNEL NUMBER
INSTRUMENT: CRONE P.E.M.

METRES
0 25 50 75 100 125 150

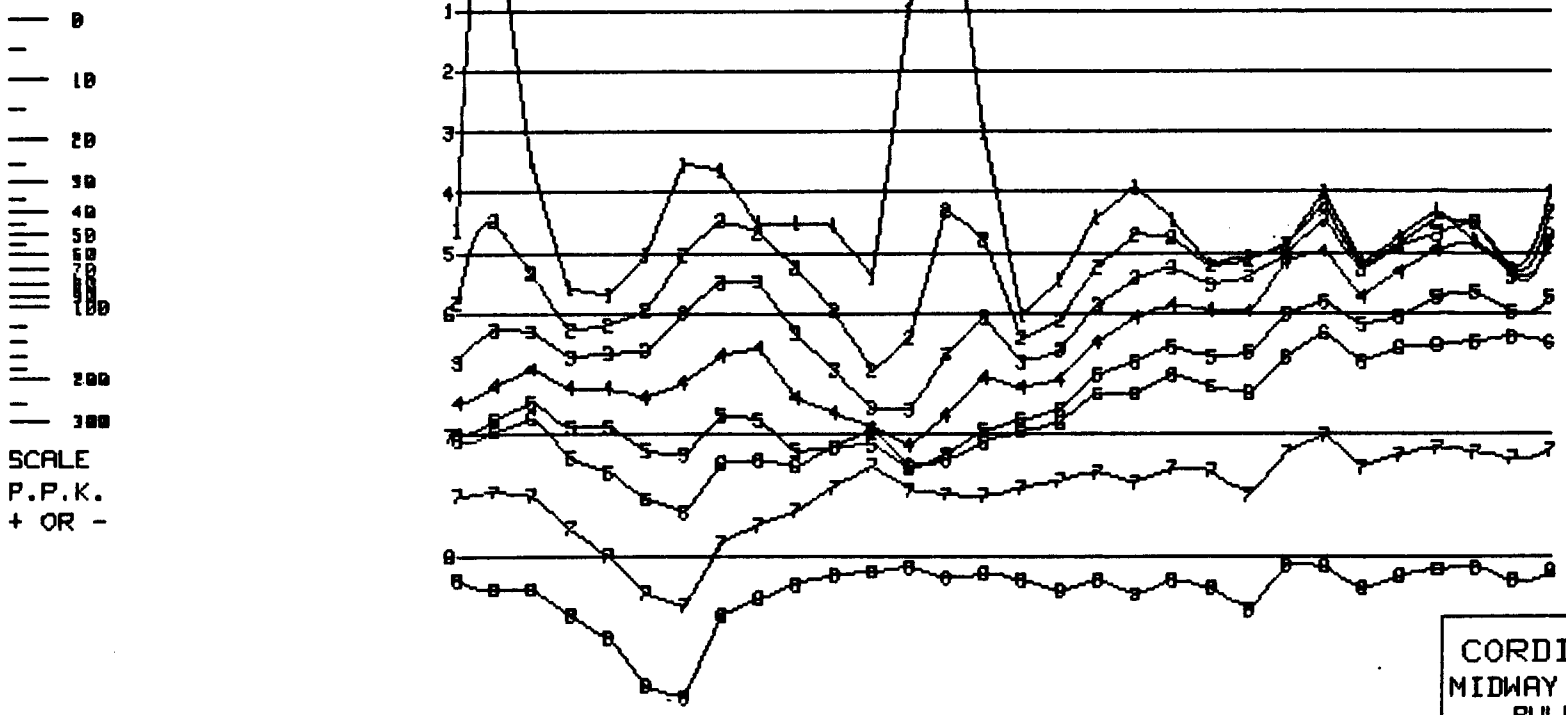
CORDILLERAN ENGINEERING
MIDWAY PROPERTY - SHOWING GRID
PULSE ELECTROMAGNETOMETER
HORIZONTAL LOOP SURVEY
11600N

DATE: SEPT/81 | FIG.: 9

4838E 4863E 4888E 4913E 4938E 4963E 4988E 5013E 5038E 5063E 5088E 5113E 5138E 5163E 5188E 5213E 5238E 5263E 5288E 5313E 5338E 5363E 5388E 5413E 5438E 5463E 5488E 5513E 5538E 5563E

Conductor 'A'

Conductor 'B'



SEPARATION: 75 METRES
NUMBER IN LINE-CHANNEL NUMBER
INSTRUMENT: CRONE P.E.M.

METRES
0 25 50 75 100 125 150

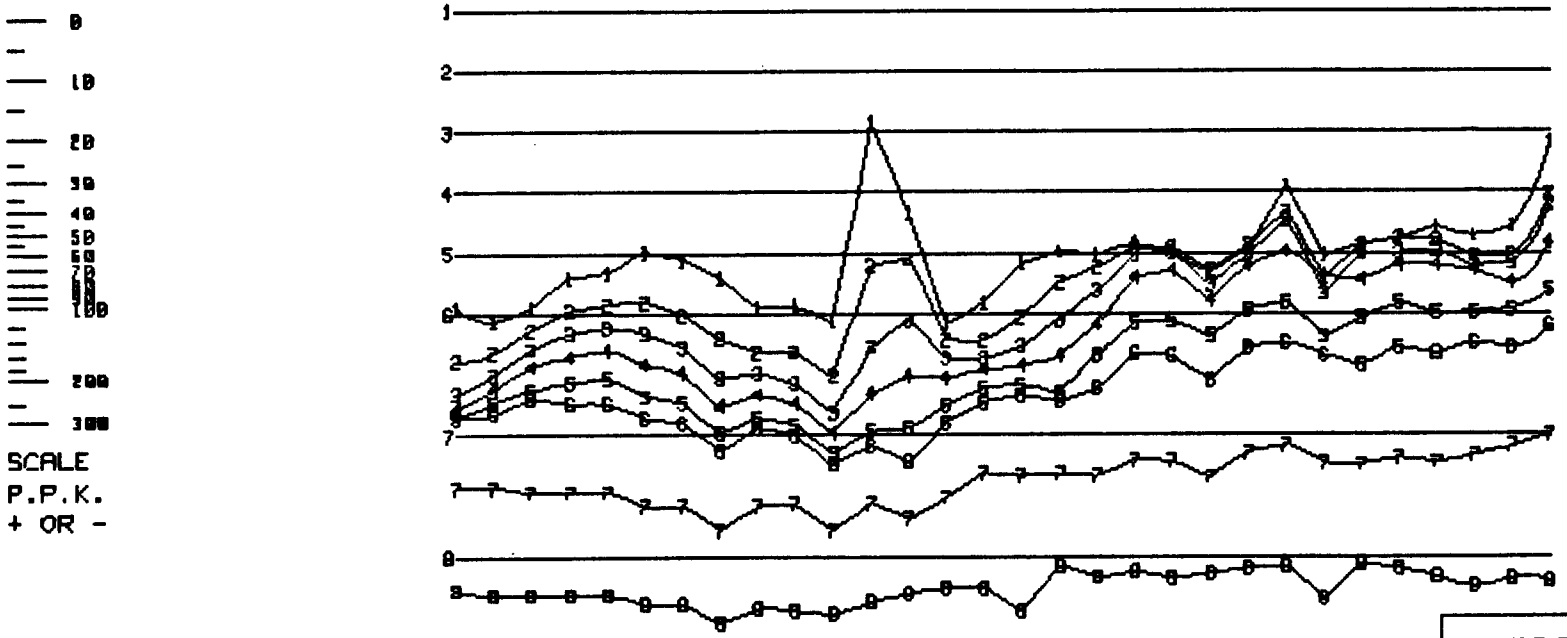
GLEN E. WHITE
GEOPHYSICAL CONSULTING
& SERVICES LTD.

CORDILLERAN ENGINEERING
MIDWAY PROPERTY - SHOWING GRID
PULSE ELECTROMAGNETOMETER
HORIZONTAL LOOP SURVEY
11500N

DATE: SEPT/81 | FIG.: 10

4838E 4863E 4888E 4913E 4938E 4963E 4988E 5013E 5038E 5063E 5088E 5113E 5138E 5163E 5188E 5213E 5238E 5263E 5288E 5313E 5338E 5363E 5388E 5413E 5438E 5463E 5488E 5513E 5538E 5563E

Conductor 'B'



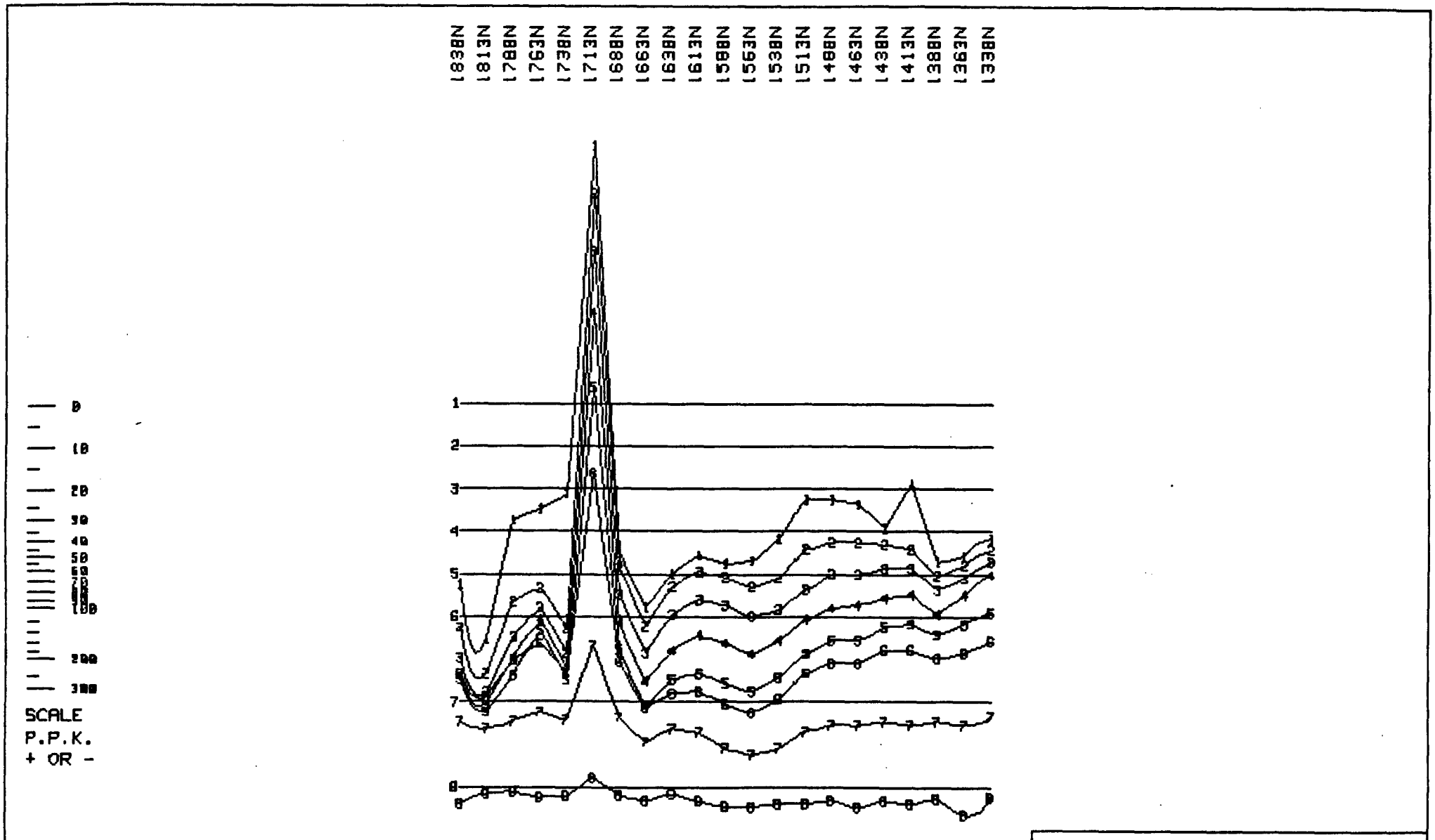
SEPARATION: 75 METRES
NUMBER IN LINE-CHANNEL NUMBER
INSTRUMENT: CRONE P.E.M.

METRES
0 25 50 75 100 125 150

GLEN E. WHITE
GEOPHYSICAL CONSULTING
& SERVICES LTD.

CORDILLERAN ENGINEERING
MIDWAY PROPERTY - SHOWING GRID
PULSE ELECTROMAGNETOMETER
HORIZONTAL LOOP SURVEY
11400N

DATE: SEPT/81 | FIG.: 11



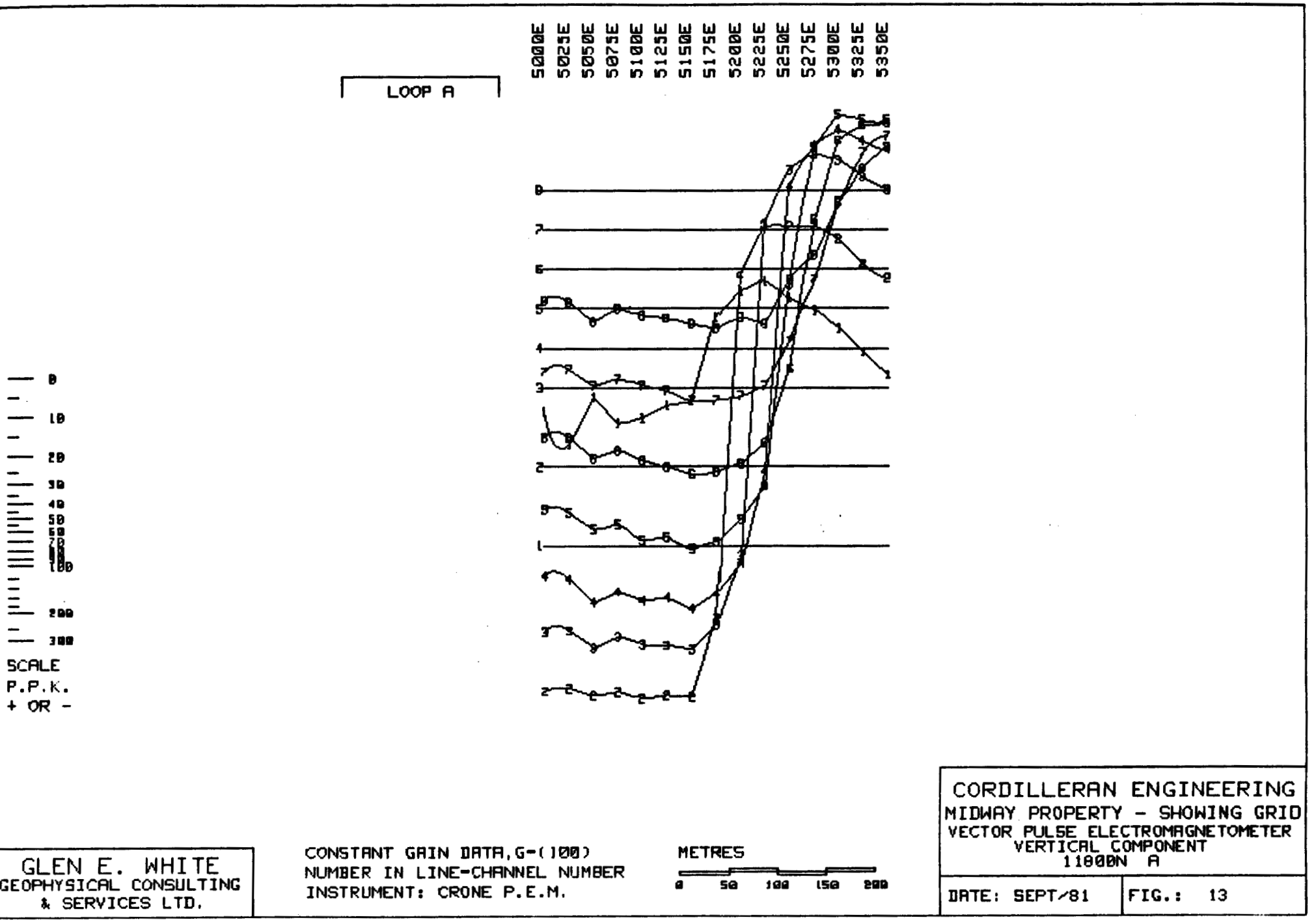
GLEN E. WHITE
GEOPHYSICAL CONSULTING
& SERVICES LTD.

SEPARATION: 75 METRES
NUMBER IN LINE=CHANNEL NUMBER
INSTRUMENT: CRONE P.E.M.

METRES
0 25 50 75 100 125 150

CORDILLERAN ENGINEERING
MIDWAY PROPERTY - SHOWING GRID
PULSE ELECTROMAGNETOMETER
HORIZONTAL LOOP SURVEY
5250E

DATE: SEPT/81 | FIG.: 12

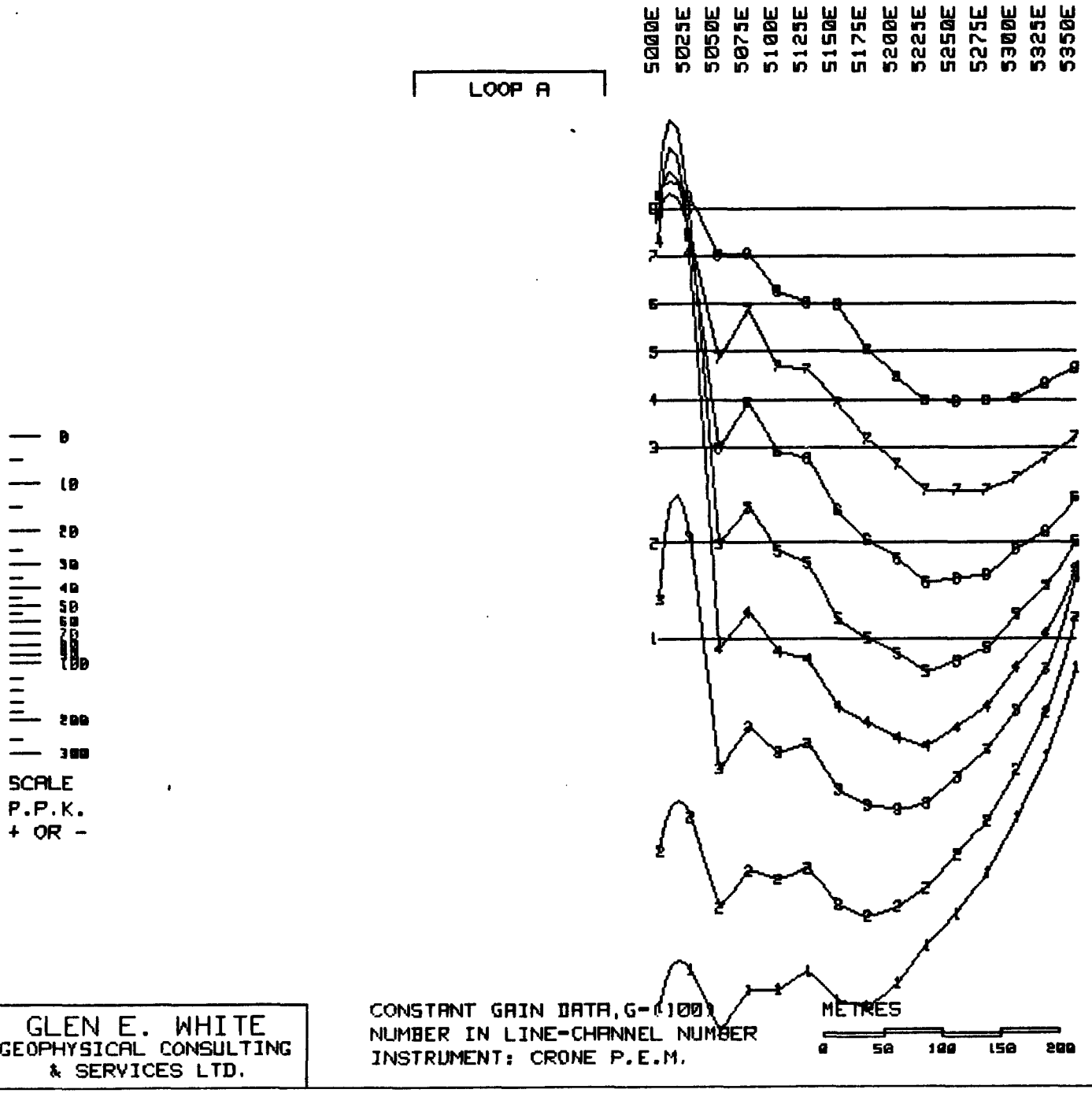


GLEN E. WHITE
GEOPHYSICAL CONSULTING
& SERVICES LTD.

CONSTANT GAIN DATA, G-(100)
NUMBER IN LINE-CHANNEL NUMBER
INSTRUMENT: CRONE P.E.M.

CORDILLERAN ENGINEERING
MIDWAY PROPERTY - SHOWING GRID
VECTOR PULSE ELECTROMAGNETOMETER
VERTICAL COMPONENT
11000N A

DATE: SEPT/81 | FIG.: 13



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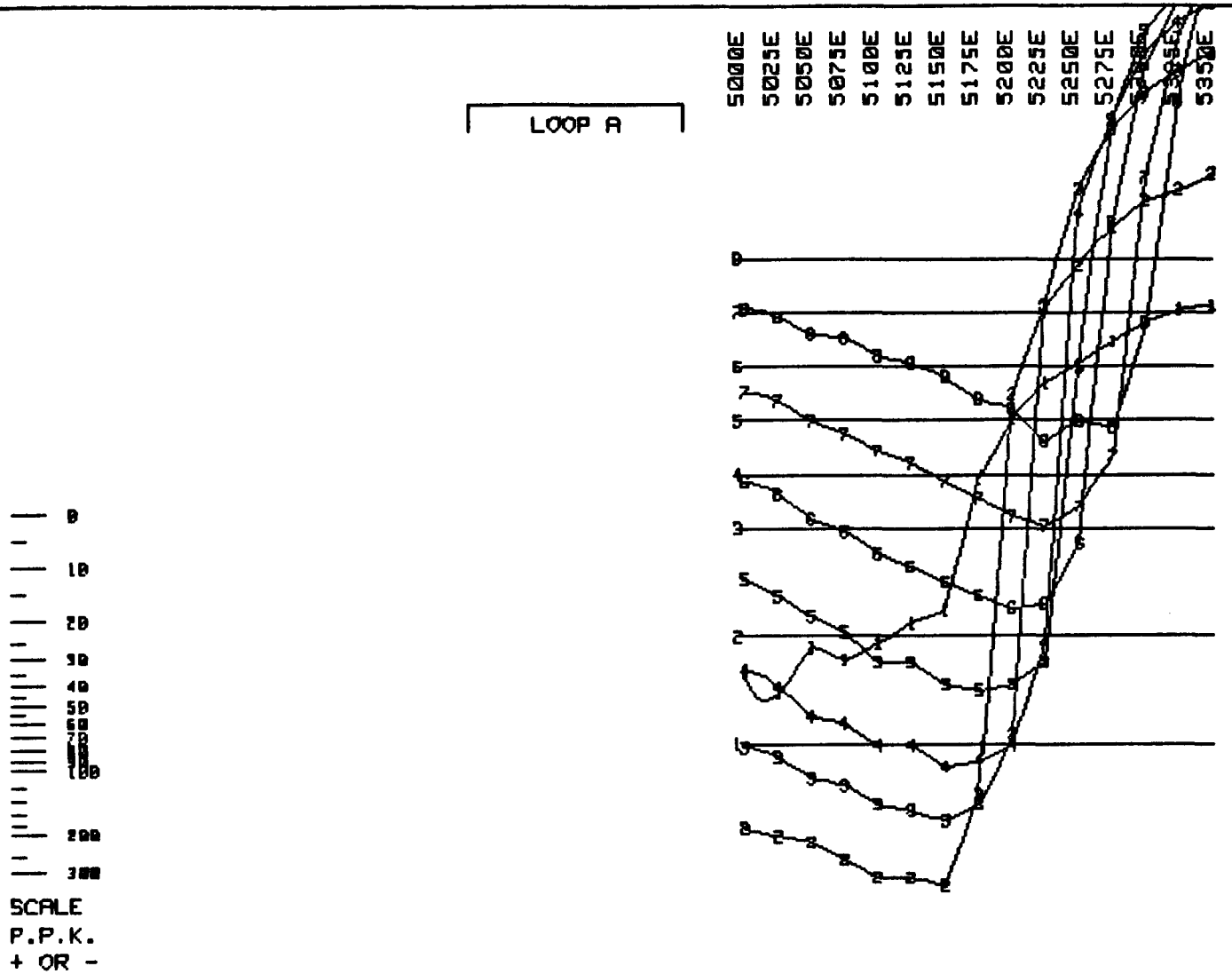
MIDWAY PROPERTY - SHOWING GRID
VECTOR PULSE ELECTROMAGNETOMETER
HORIZONTAL COMPONENT
11800N A

DATE: SEPT/81 | FIG.: 14



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

METRES
0 50 100 150 200

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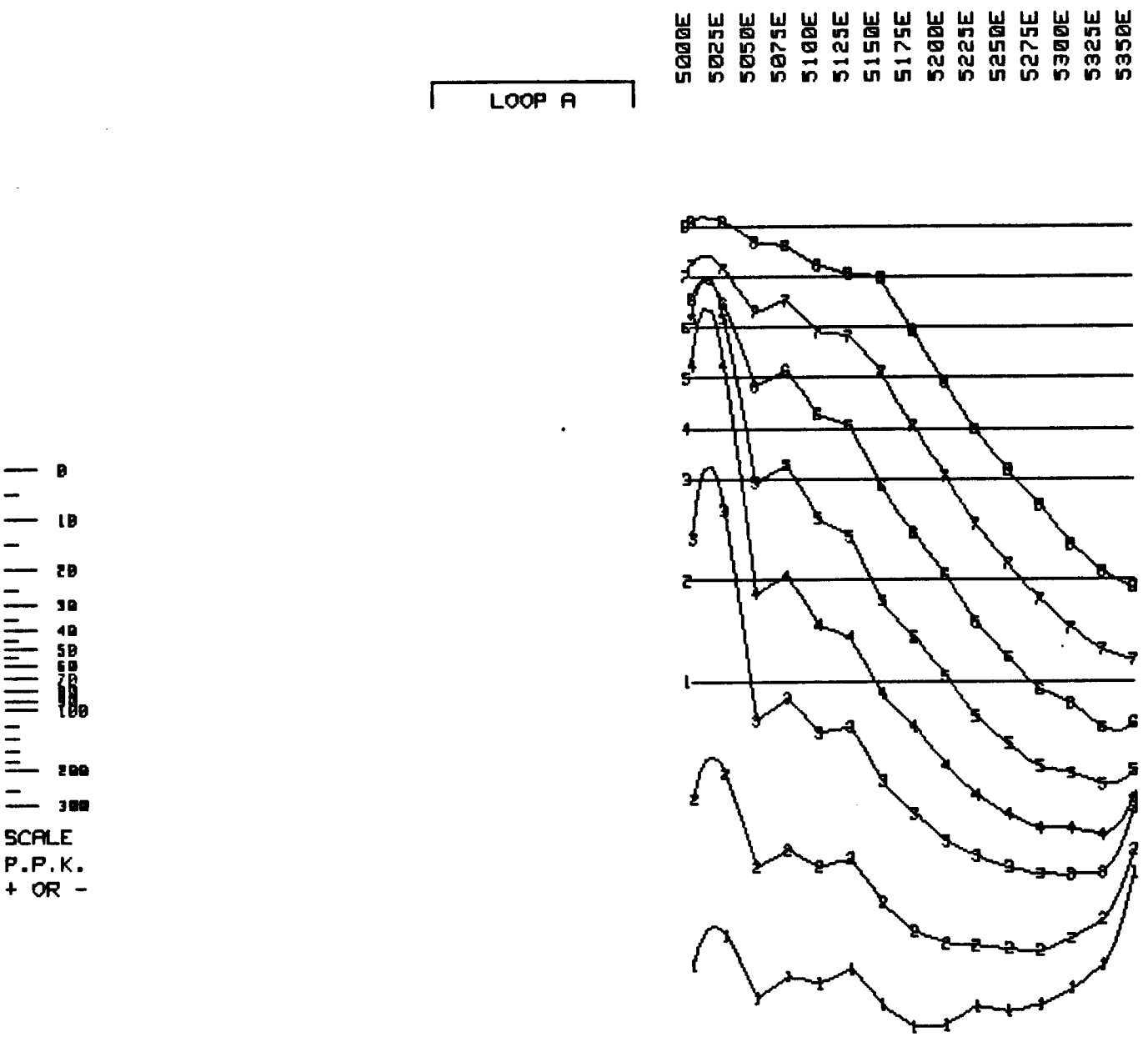
CORDILLERAN ENGINEERING
MIDWAY PROPERTY - SHOWING GRID
VECTOR PULSE ELECTROMAGNETOMETER
VERTICAL COMPONENT
11800N A

DATE: SEPT/81 | FIG.: 15



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

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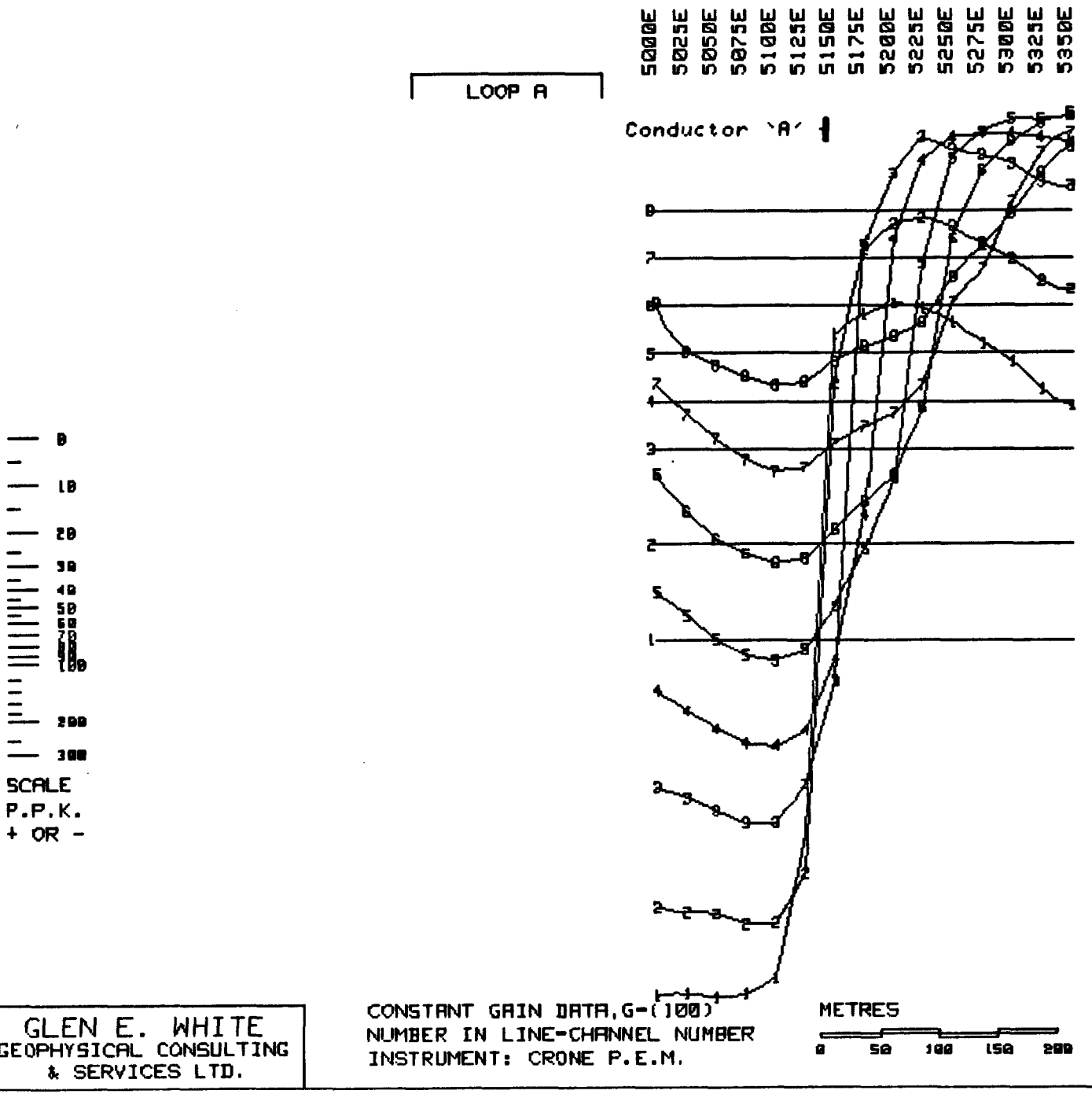
MIDWAY PROPERTY - SHOWING GRID
VECTOR PULSE ELECTROMAGNETOMETER
HORIZONTAL COMPONENT
11000N A

DATE: SEPT/81 | FIG.: 16



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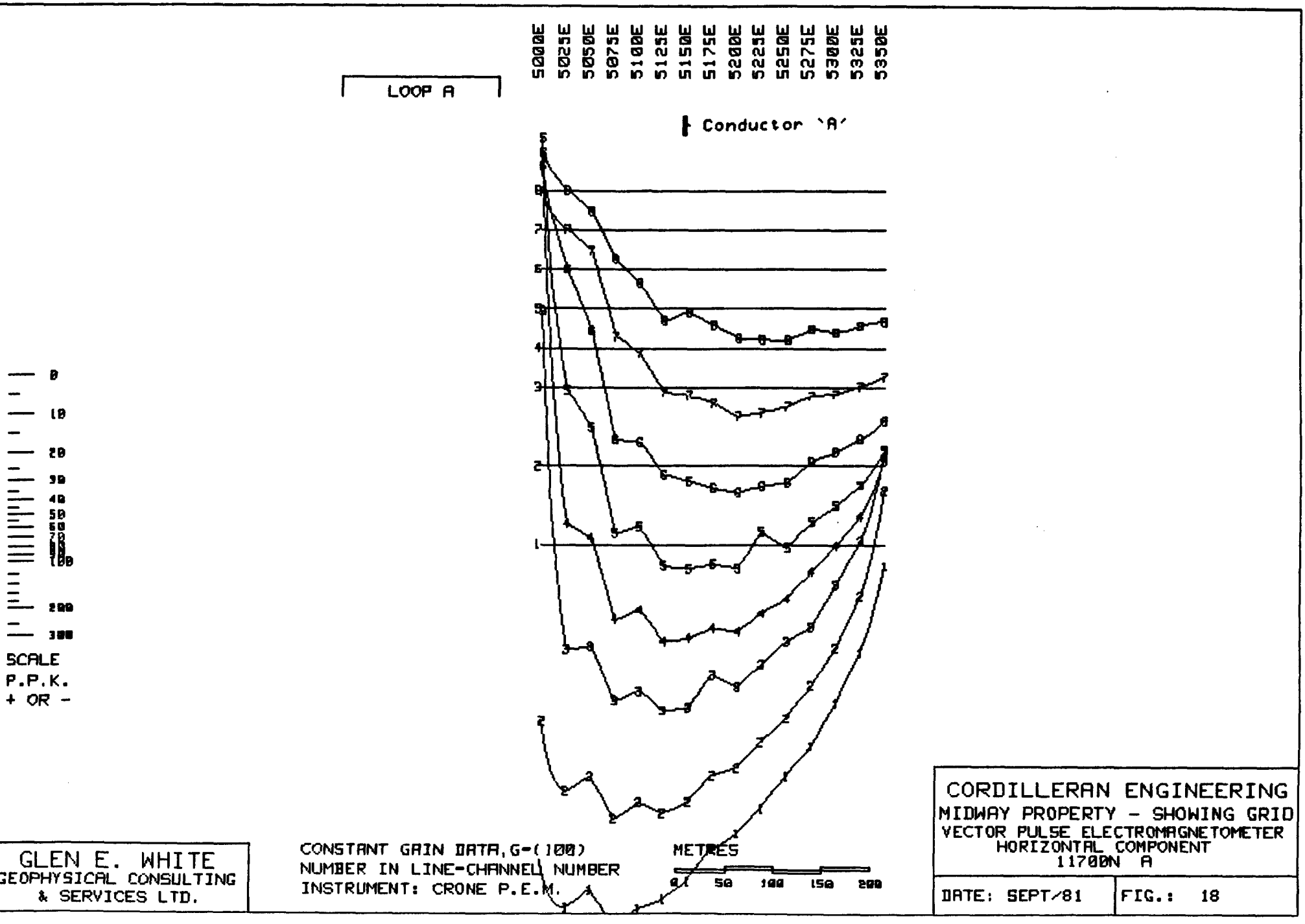
MIDWAY PROPERTY - SHOWING GRID
VECTOR PULSE ELECTROMAGNETOMETER
VERTICAL COMPONENT
11700N A

DATE: SEPT/81 | FIG.: 17



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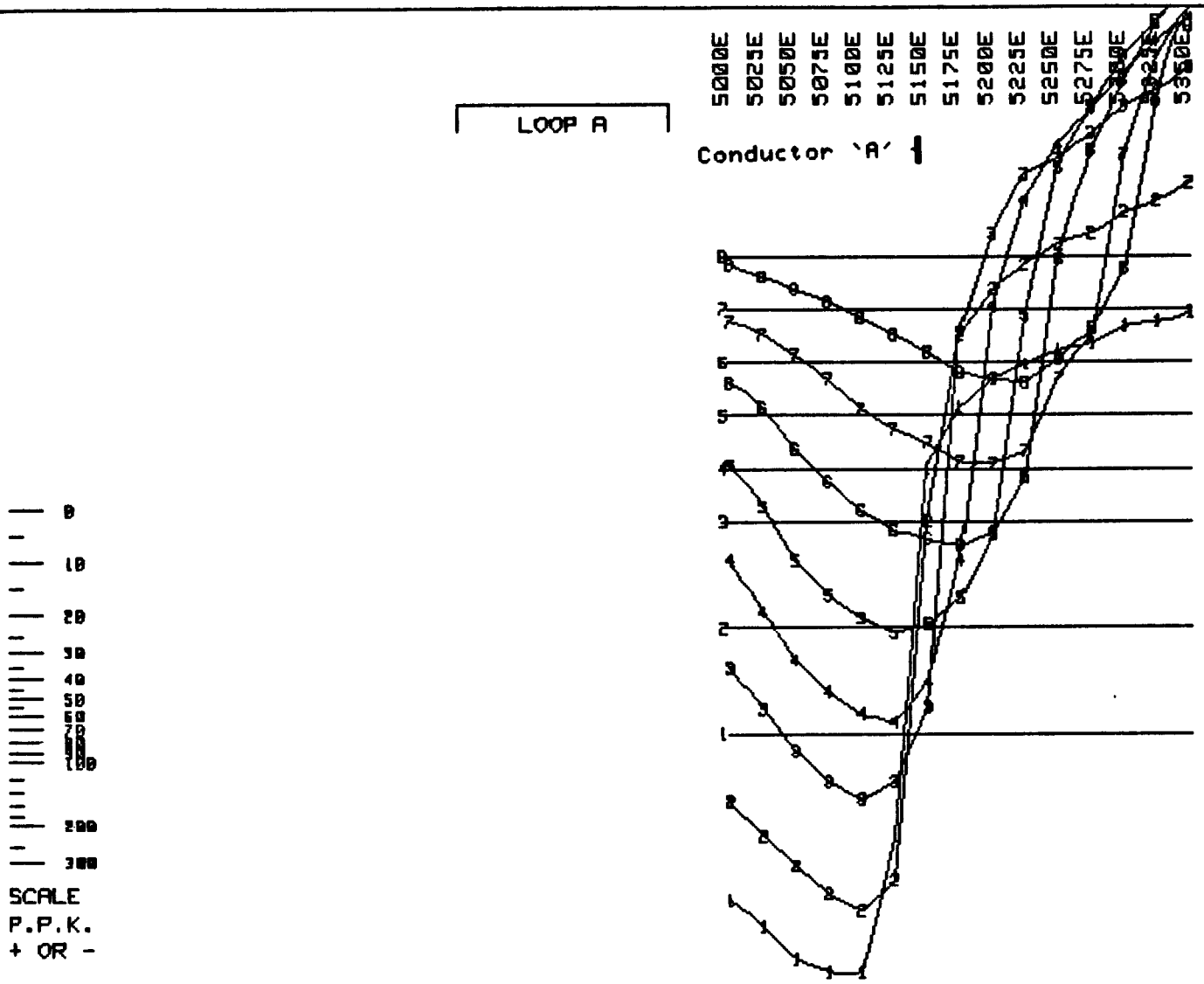
MIDWAY PROPERTY - SHOWING GRID
VECTOR PULSE ELECTROMAGNETOMETER
HORIZONTAL COMPONENT
11700N A

DATE: SEPT/81 | FIG.: 18



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

METRES
0 50 100 150 200

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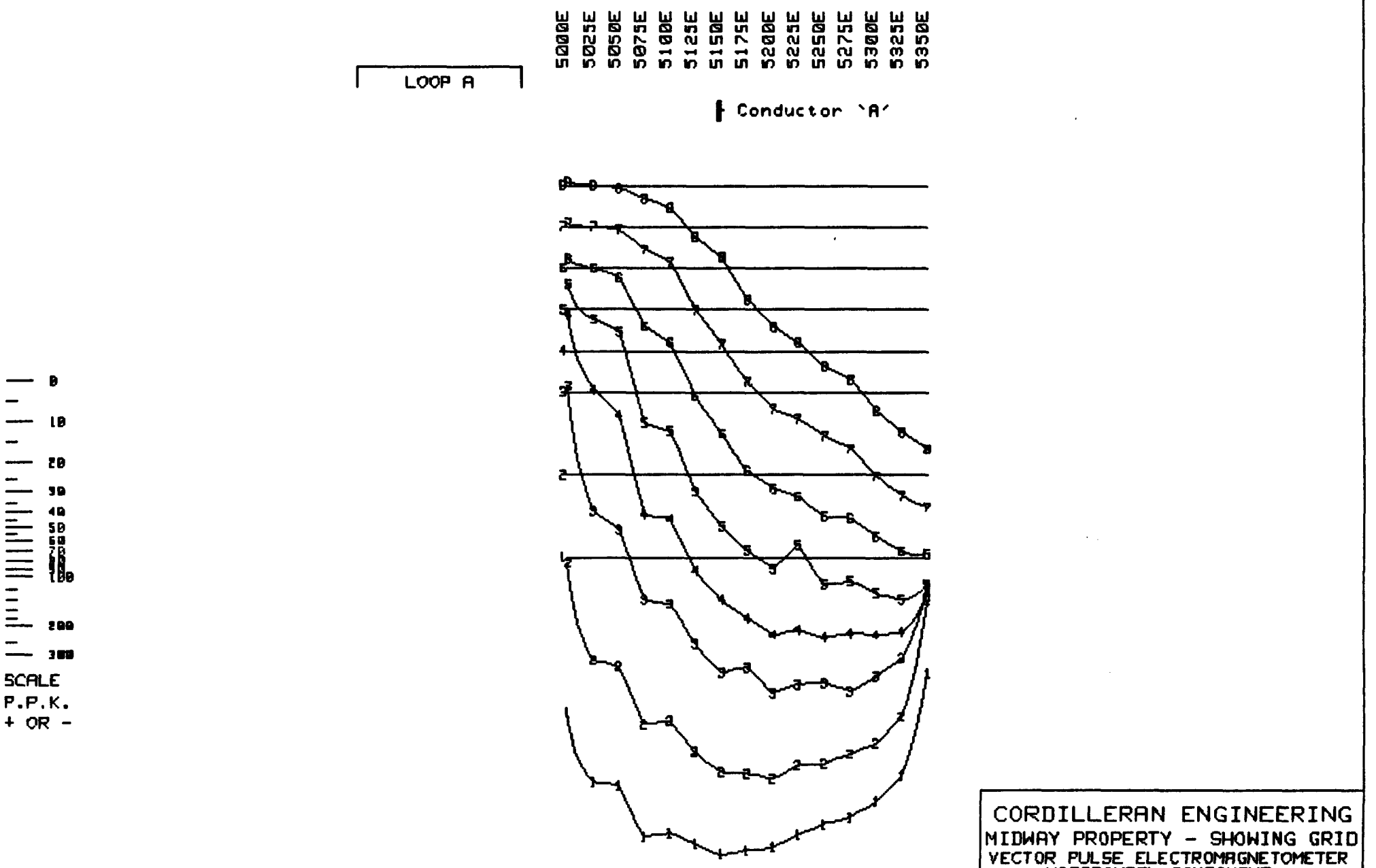
CORDILLERAN ENGINEERING
MIDWAY PROPERTY - SHOWING GRID
VECTOR PULSE ELECTROMAGNETOMETER
VERTICAL COMPONENT
11700N A

DATE: SEPT/81 | FIG.: 19



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

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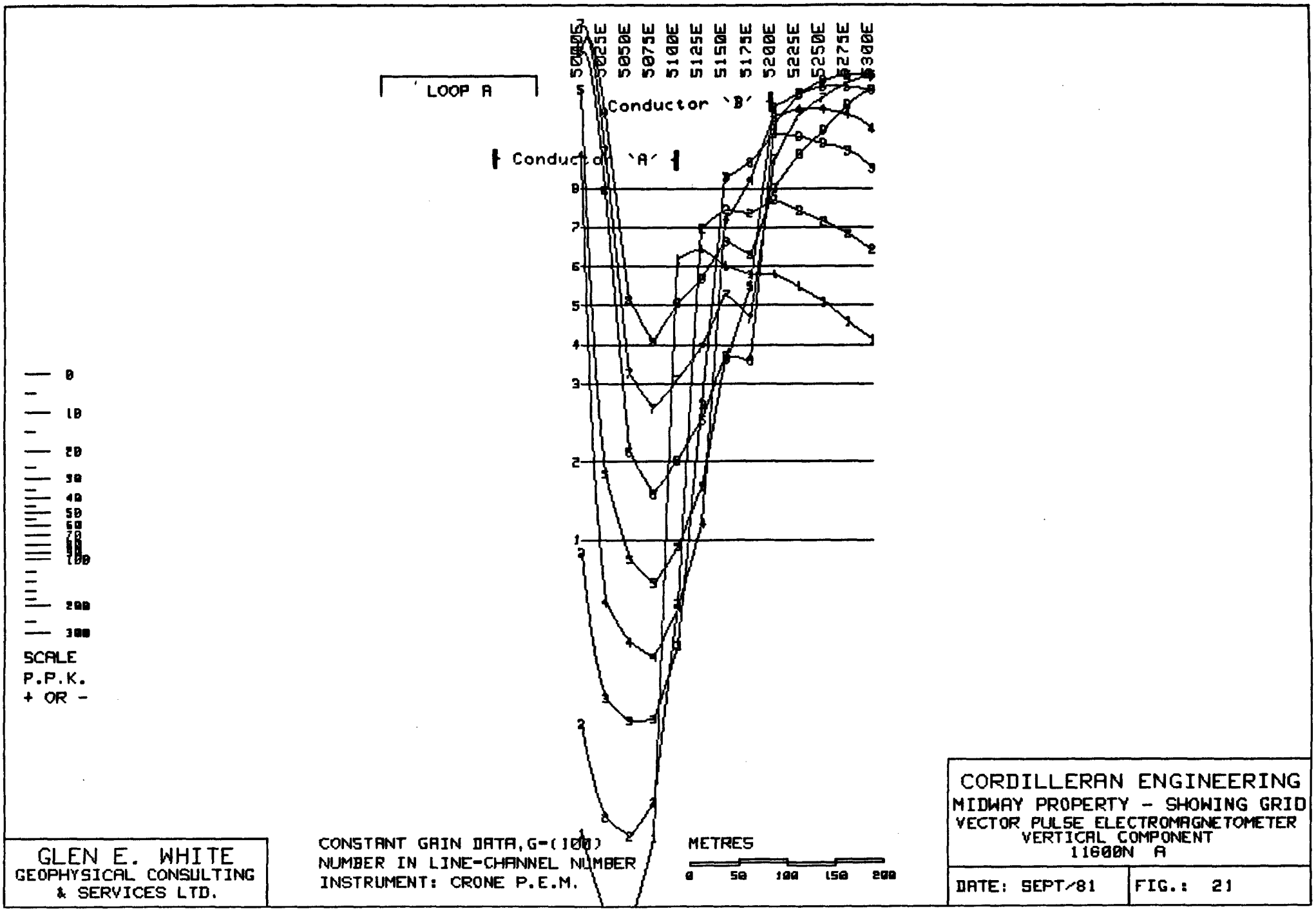
MIDWAY PROPERTY - SHOWING GRID
VECTOR PULSE ELECTROMAGNETOMETER
HORIZONTAL COMPONENT
11700N A

DATE: SEPT/81 | FIG.: 20



CONSTANT GAIN DATA, G=(100)
NUMBER IN LINE-CHANNEL NUMBER
INSTRUMENT: CRONE P.E.M.

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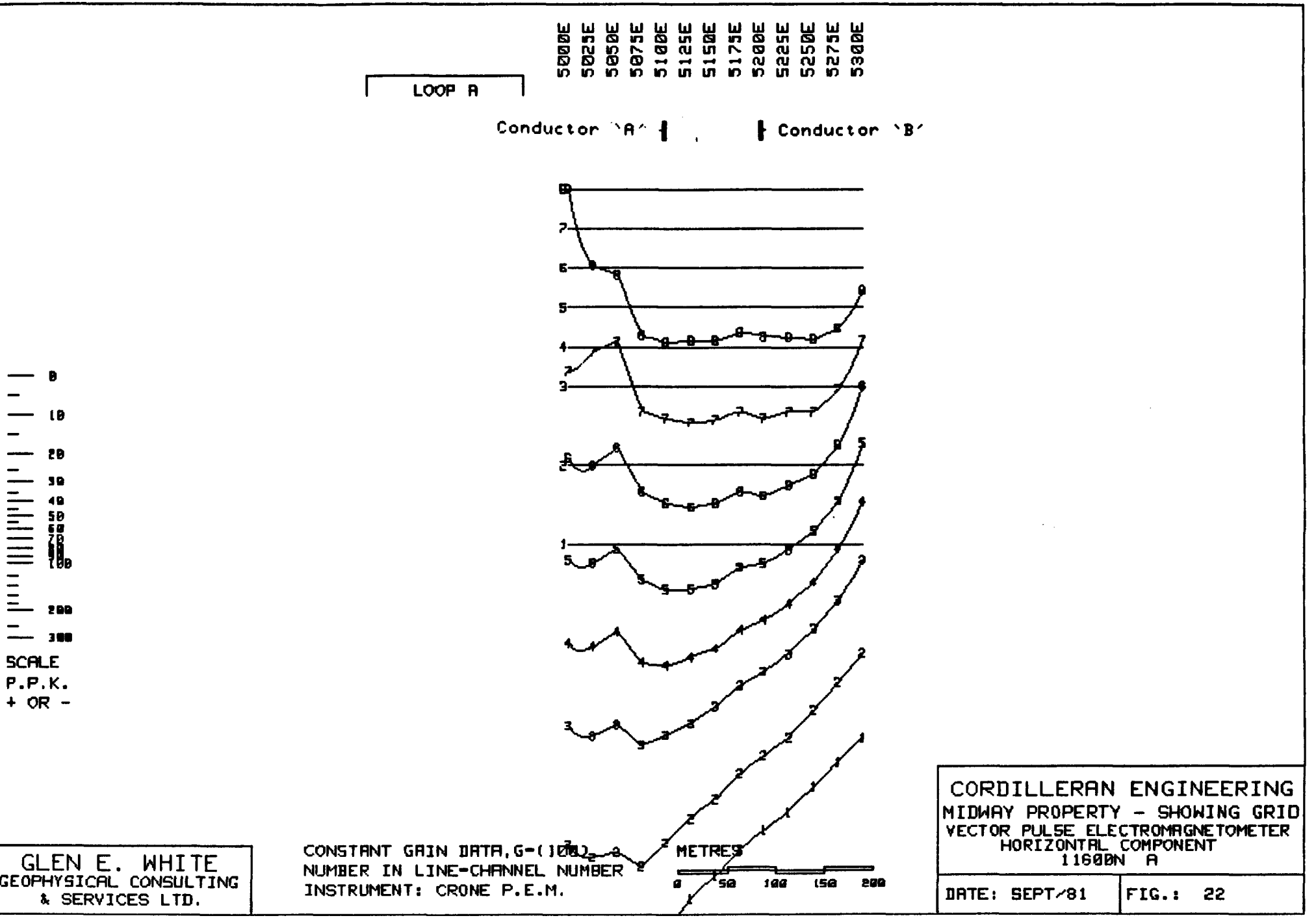
CORDILLERAN ENGINEERING
MIDWAY PROPERTY - SHOWING GRID
VECTOR PULSE ELECTROMAGNETOMETER
VERTICAL COMPONENT
11600N A

DATE: SEPT/81 | FIG.: 21



CONSTANT GAIN DATA, G=(100)
NUMBER IN LINE-CHANNEL NUMBER
INSTRUMENT: CRONE P.E.M.

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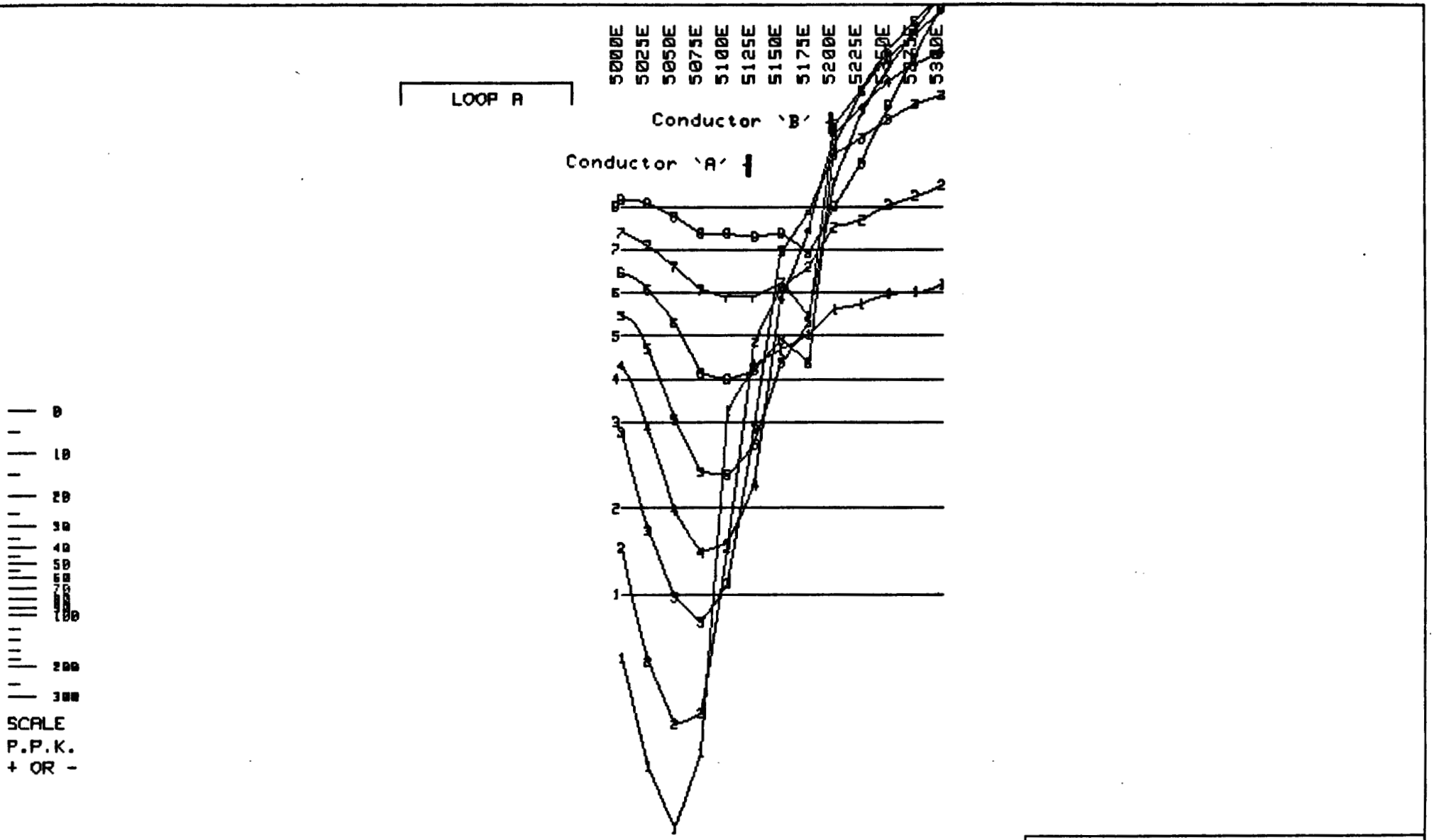
CORDILLERAN ENGINEERING
MIDWAY PROPERTY - SHOWING GRID
VECTOR PULSE ELECTROMAGNETOMETER
HORIZONTAL COMPONENT
11600N A

DATE: SEPT/81 | FIG.: 22



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

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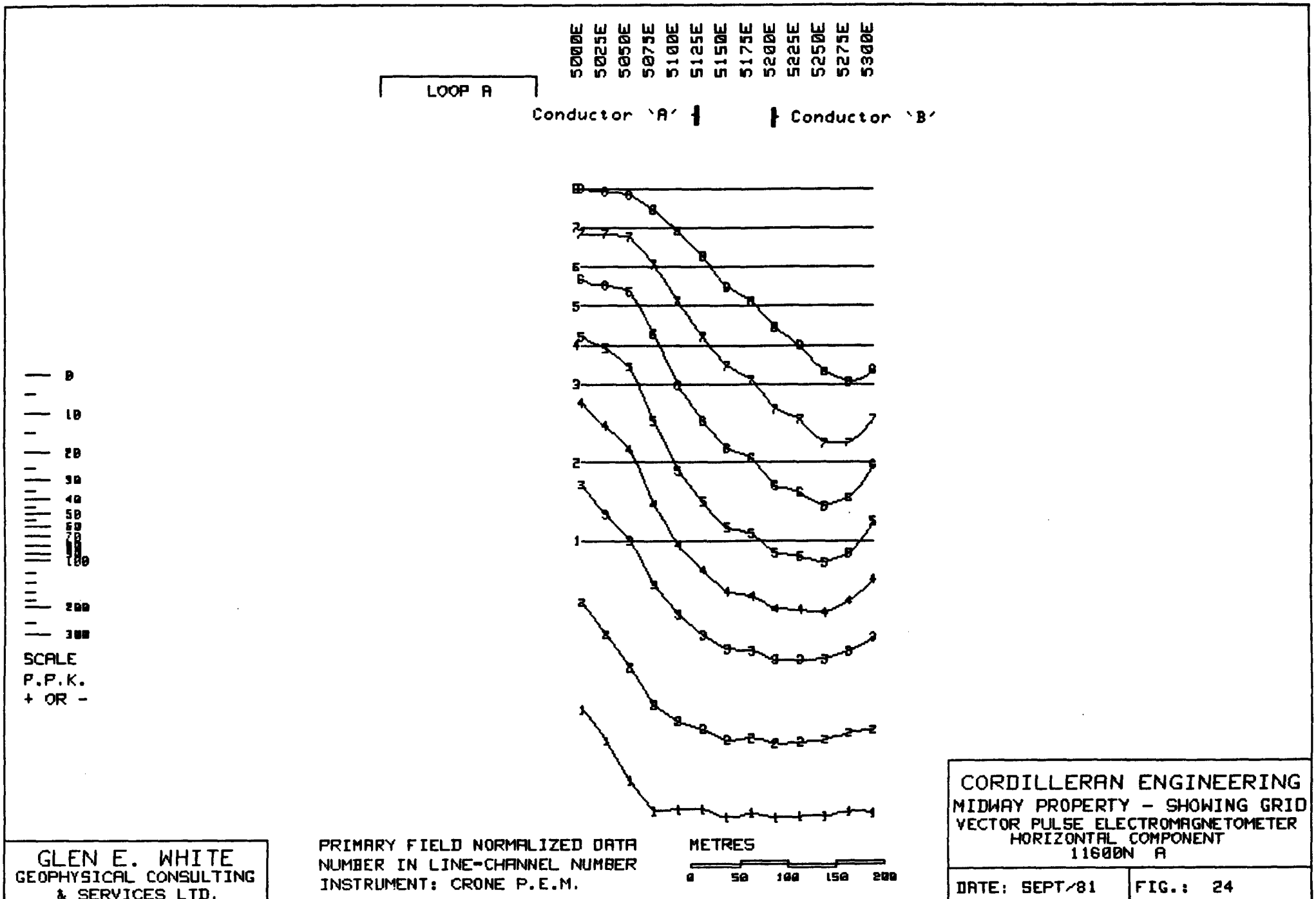
CORDILLERAN ENGINEERING
MIDWAY PROPERTY - SHOWING GRID
VECTOR PULSE ELECTROMAGNETOMETER
VERTICAL COMPONENT
11600N A

DATE: SEPT/81 | FIG.: 23



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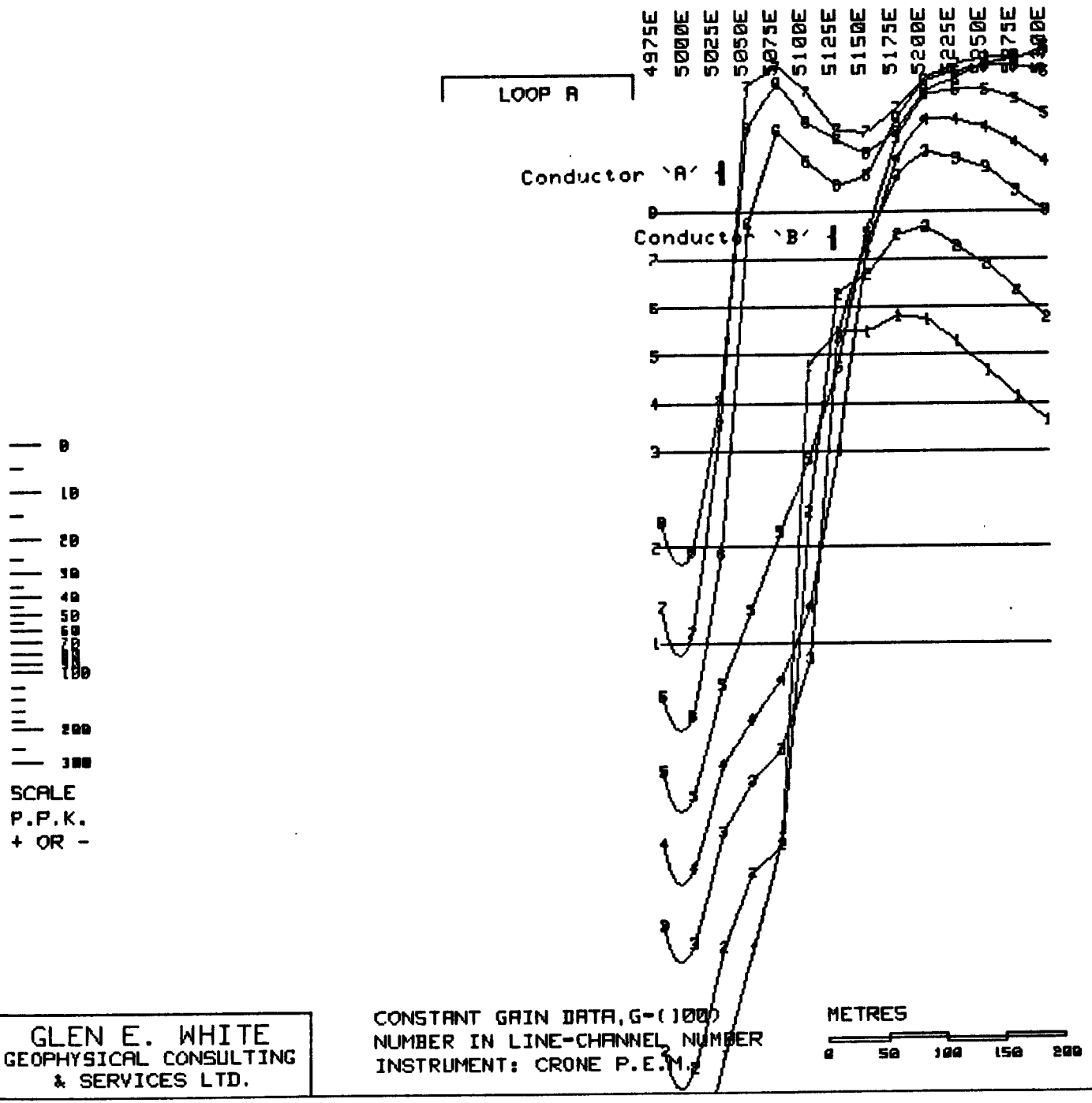
PRIMARY FIELD NORMALIZED DATA
NUMBER IN LINE-CHANNEL NUMBER
INSTRUMENT: CRONE P.E.M.

CORDILLERAN ENGINEERING
MIDWAY PROPERTY - SHOWING GRID
VECTOR PULSE ELECTROMAGNETOMETER
HORIZONTAL COMPONENT
11600N A

DATE: SEPT/81 | FIG.: 24



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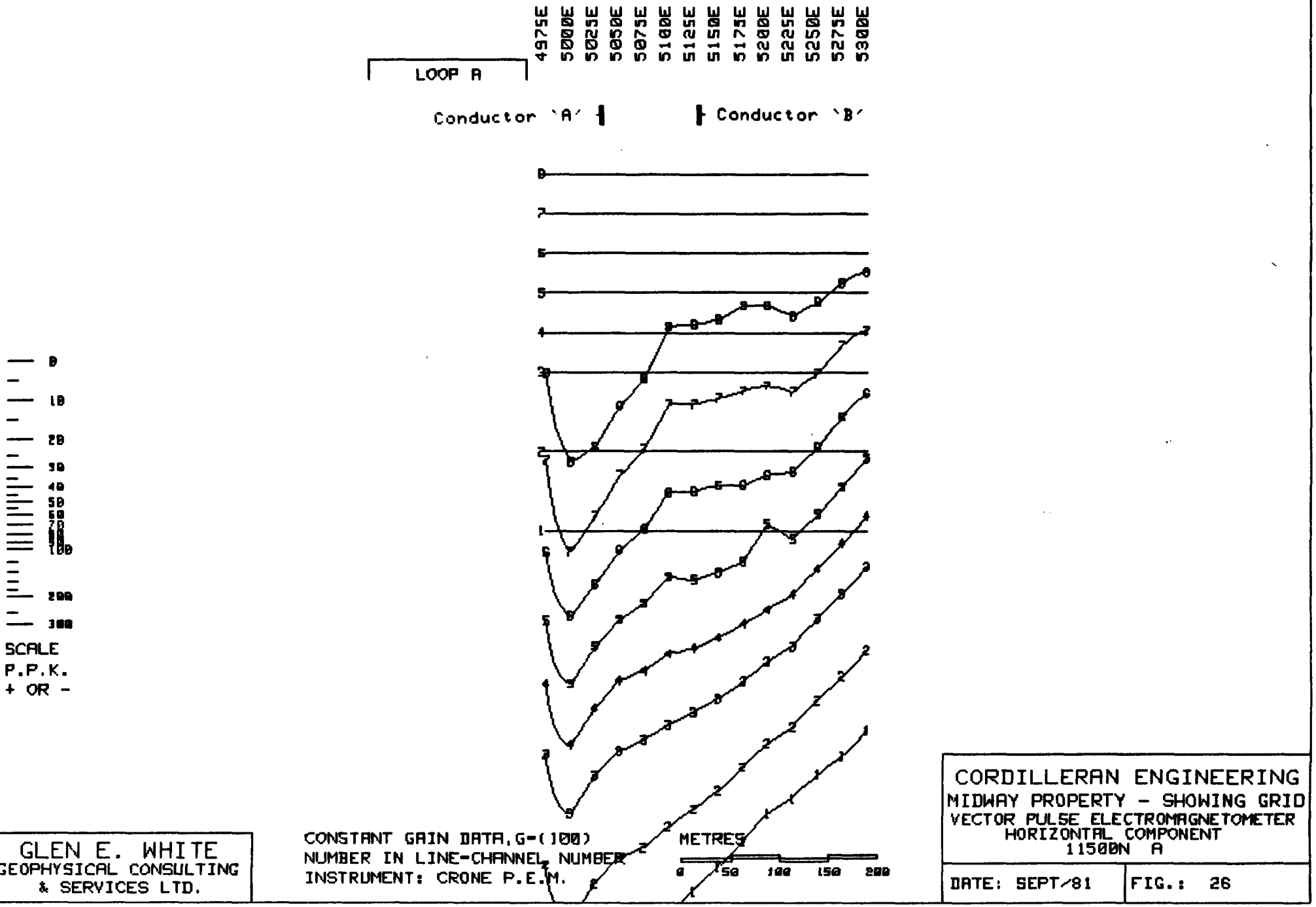
MIDWAY PROPERTY - SHOWING GRID
VECTOR PULSE ELECTROMAGNETOMETER
VERTICAL COMPONENT
11500N A

DATE: SEPT/81 | FIG.: 25



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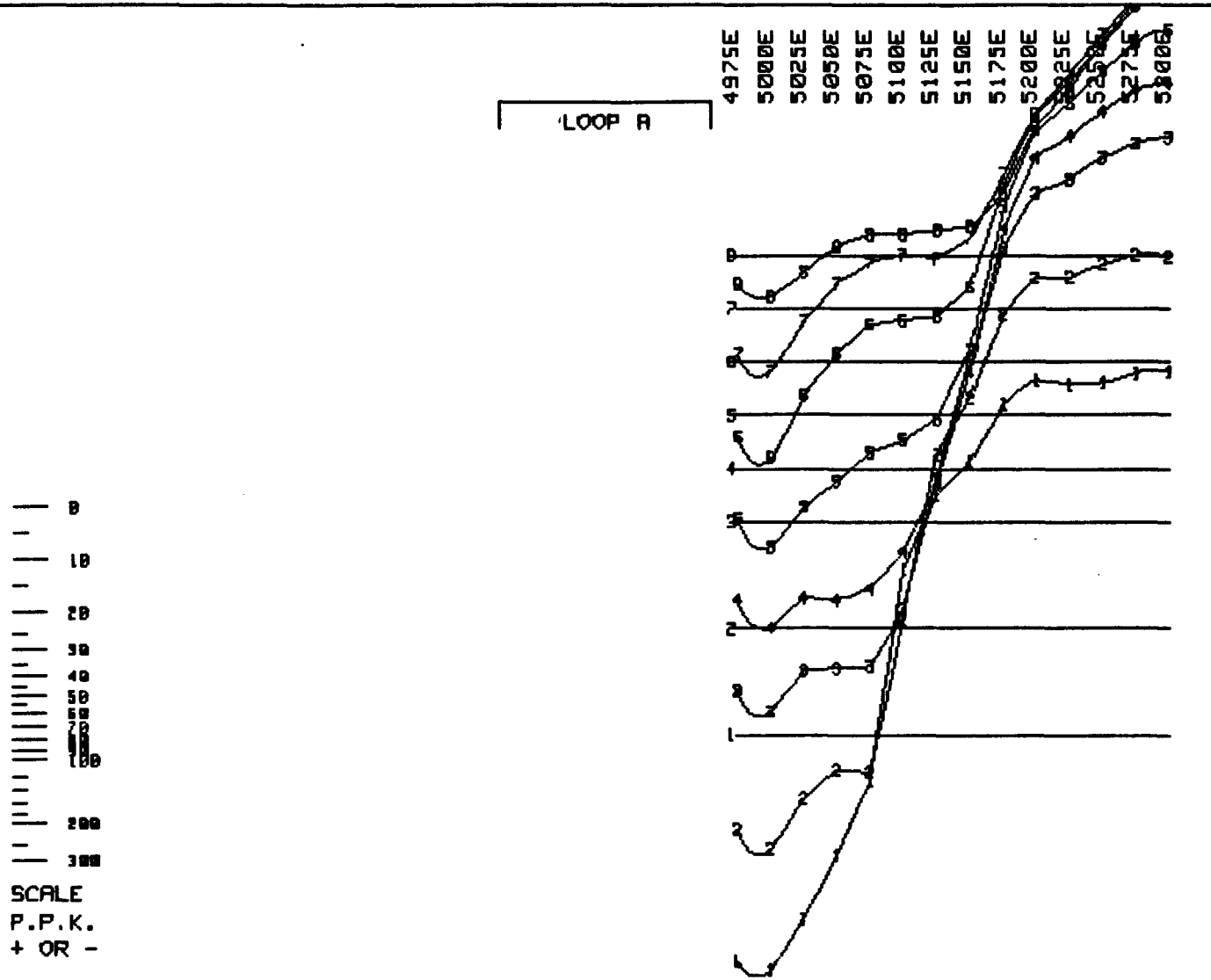
MIDWAY PROPERTY - SHOWING GRID
VECTOR PULSE ELECTROMAGNETOMETER
HORIZONTAL COMPONENT
11500N A

DATE: SEPT/81 | FIG.: 26



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

METRES
0 50 100 150 200

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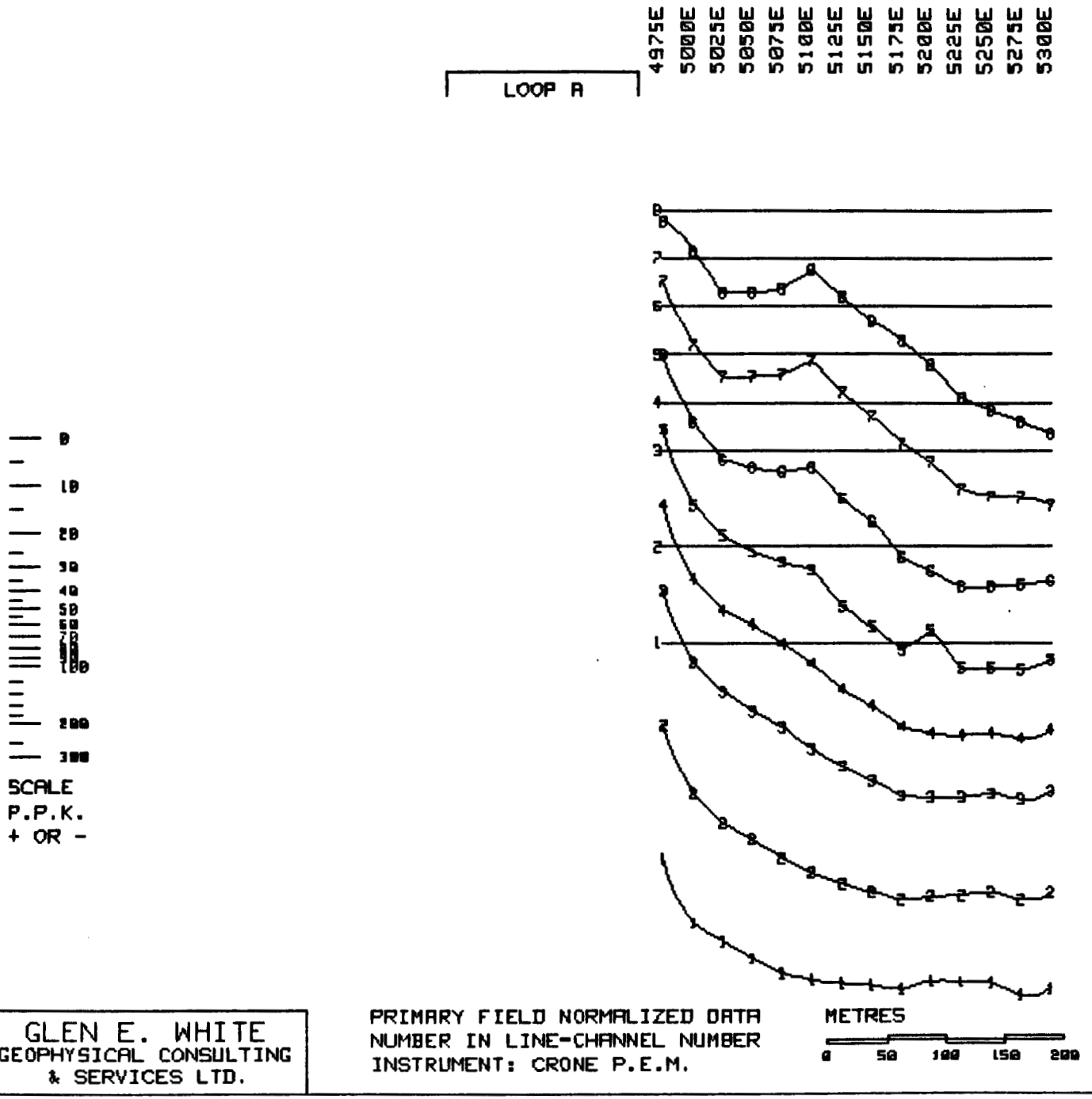
CORDILLERAN ENGINEERING
MIDWAY PROPERTY - SHOWING GRID
VECTOR PULSE ELECTROMAGNETOMETER
VERTICAL COMPONENT
11500N A

DATE: SEPT/81 | FIG.: 27



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

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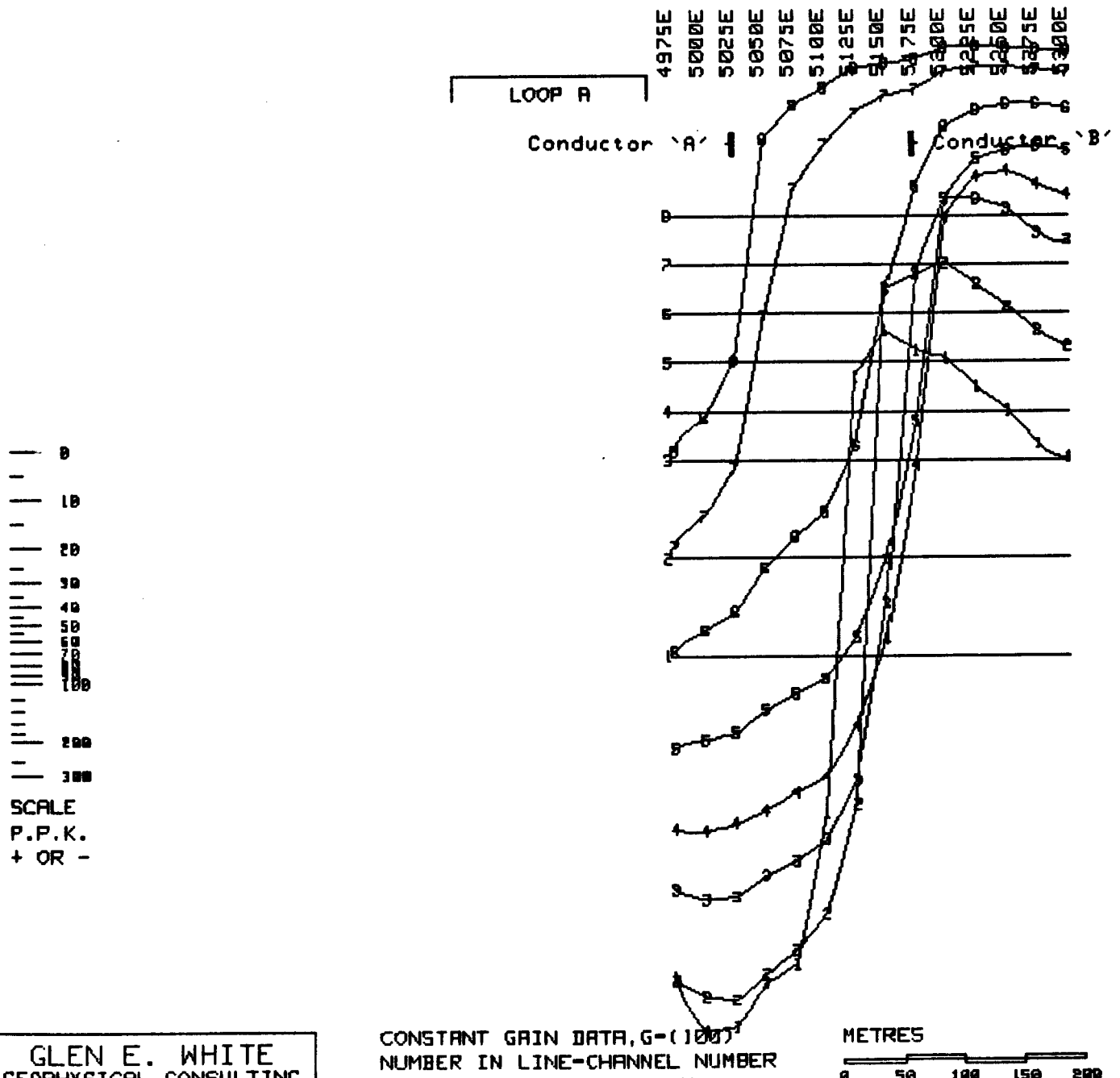
MIDWAY PROPERTY - SHOWING GRID
VECTOR PULSE ELECTROMAGNETOMETER
HORIZONTAL COMPONENT
11500N A

DATE: SEPT/81

FIG.: 28



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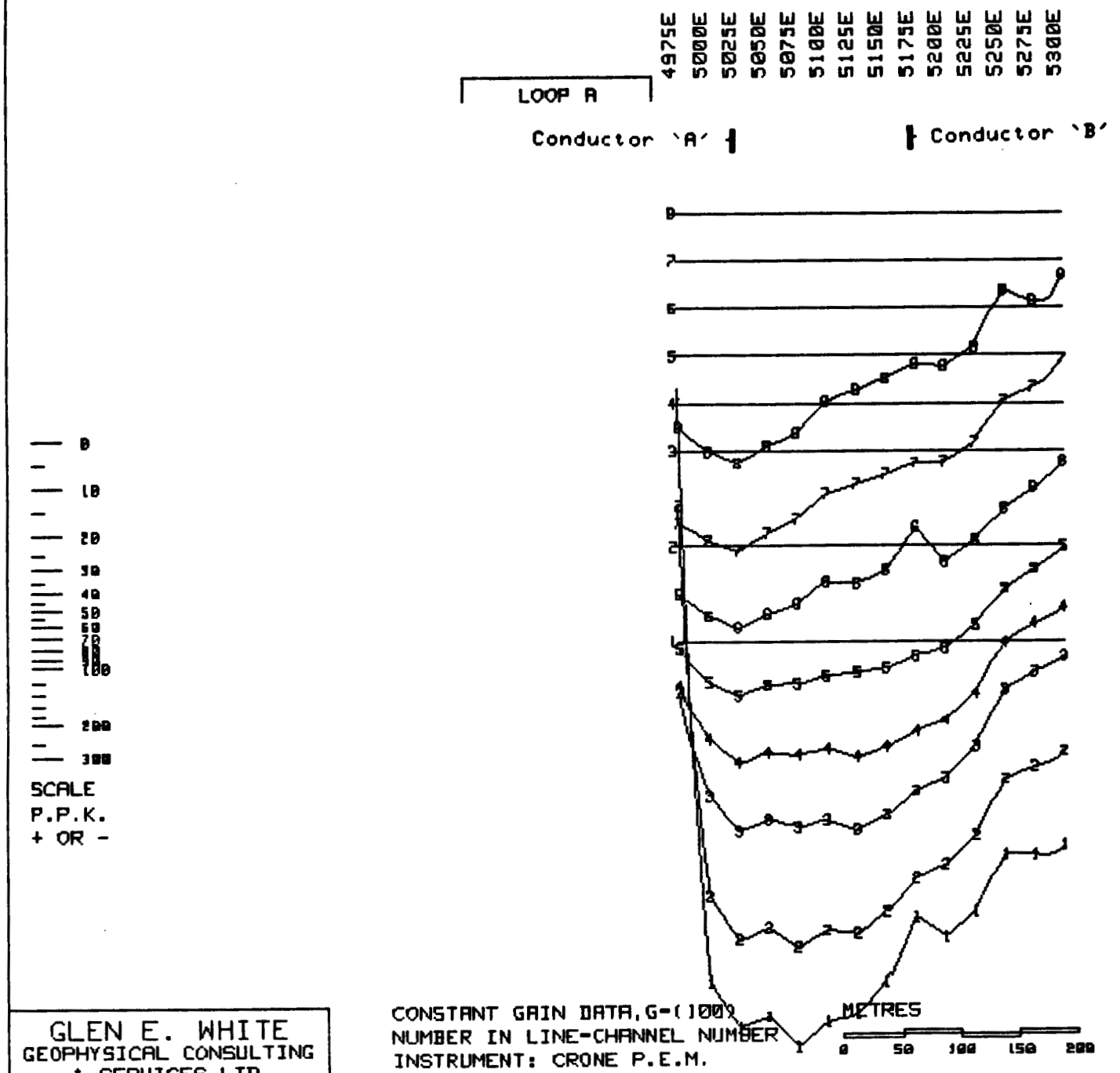
MIDWAY PROPERTY - SHOWING GRID
VECTOR PULSE ELECTROMAGNETOMETER
VERTICAL COMPONENT
11400N A

DATE: SEPT/81 | FIG.: 29



CONSTANT GAIN DATA, G=(100)
NUMBER IN LINE-CHANNEL NUMBER
INSTRUMENT: CRONE P.E.M.

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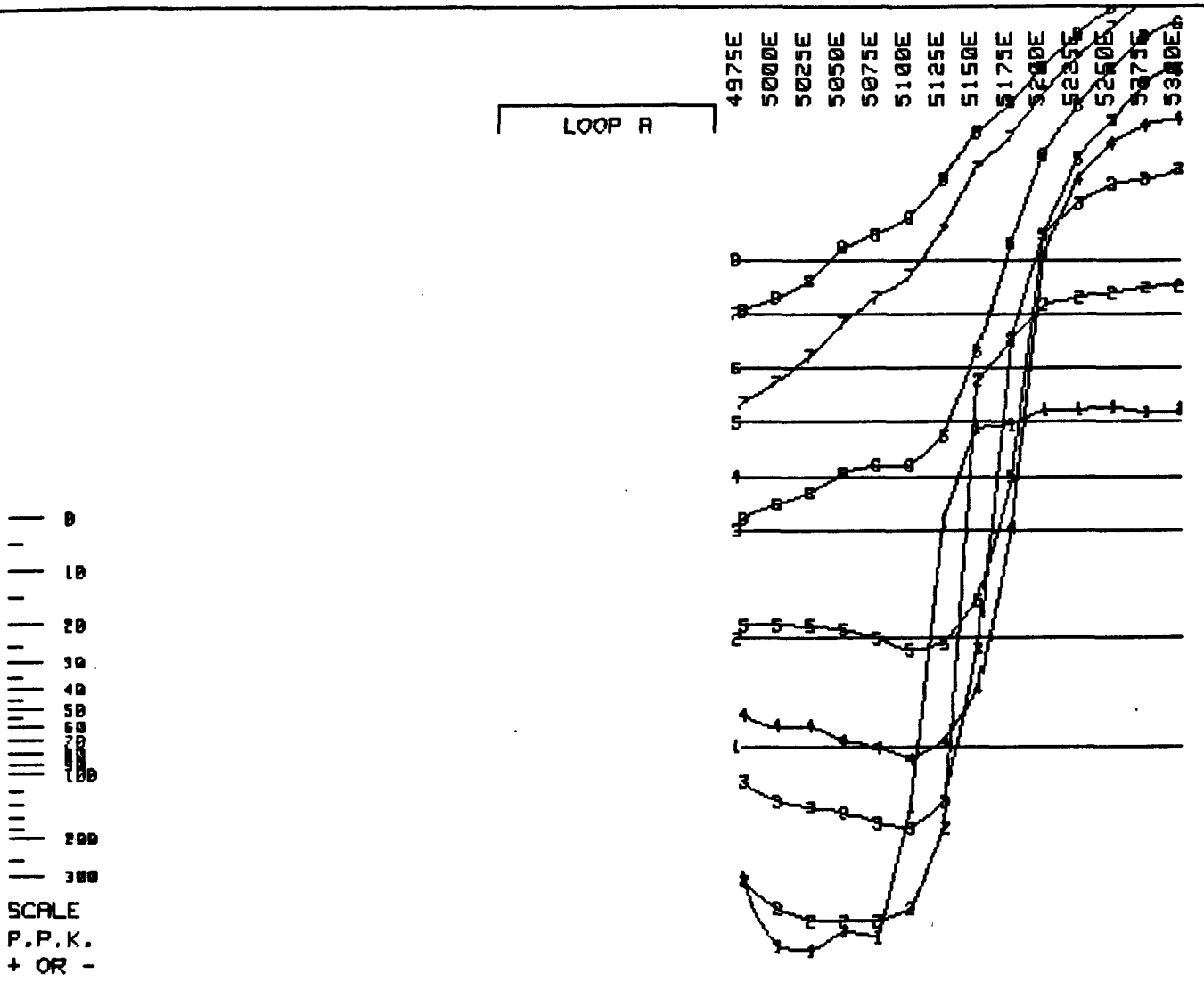
MIDWAY PROPERTY - SHOWING GRID
VECTOR PULSE ELECTROMAGNETOMETER
HORIZONTAL COMPONENT
11400N A

DATE: SEPT/81 | FIG.: 30



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

METRES
0 50 100 150 200

GLEN E. WHITE
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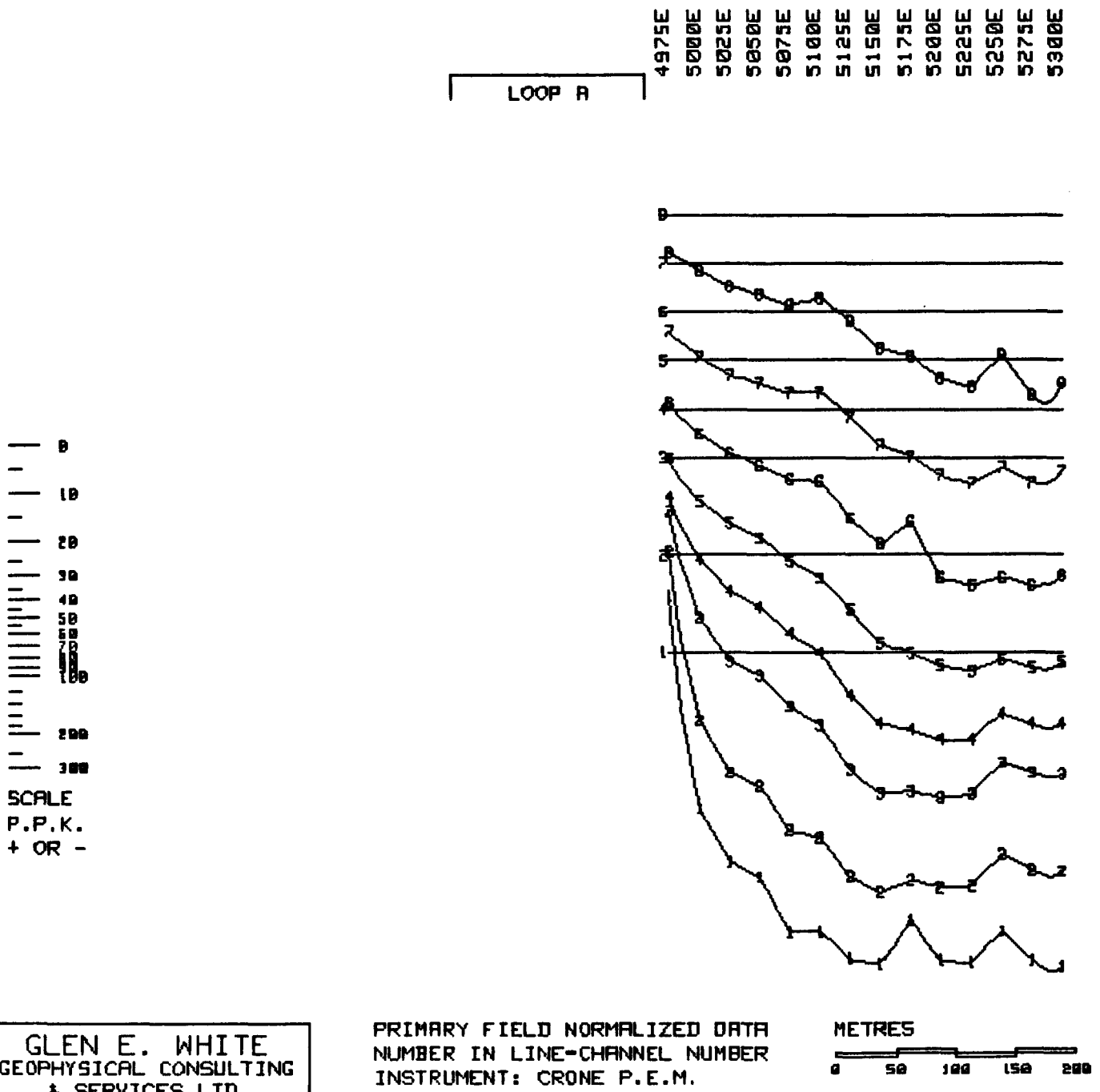
CORDILLERAN ENGINEERING
MIDWAY PROPERTY - SHOWING GRID
VECTOR PULSE ELECTROMAGNETOMETER
VERTICAL COMPONENT
11400N A

DATE: SEPT/81 | FIG.: 31



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

GLEN E. WHITE
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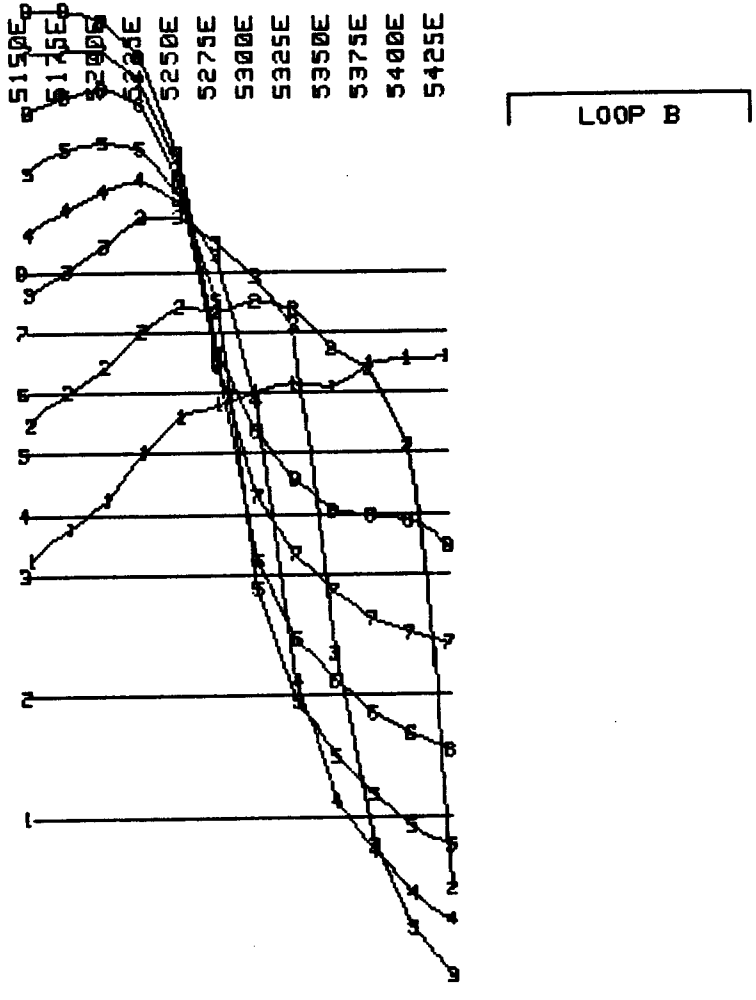
CORDILLERAN ENGINEERING
MIDWAY PROPERTY - SHOWING GRID
VECTOR PULSE ELECTROMAGNETOMETER
HORIZONTAL COMPONENT
11400N A

DATE: SEPT/81

FIG.: 32



0
10
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100
200
300

SCALE
P.P.K.
+ OR -

CONSTANT GAIN DATA, G-()100)
NUMBER IN LINE-CHANNEL NUMBER
INSTRUMENT: CRONE P.E.M.

METRES
0 50 100 150 200

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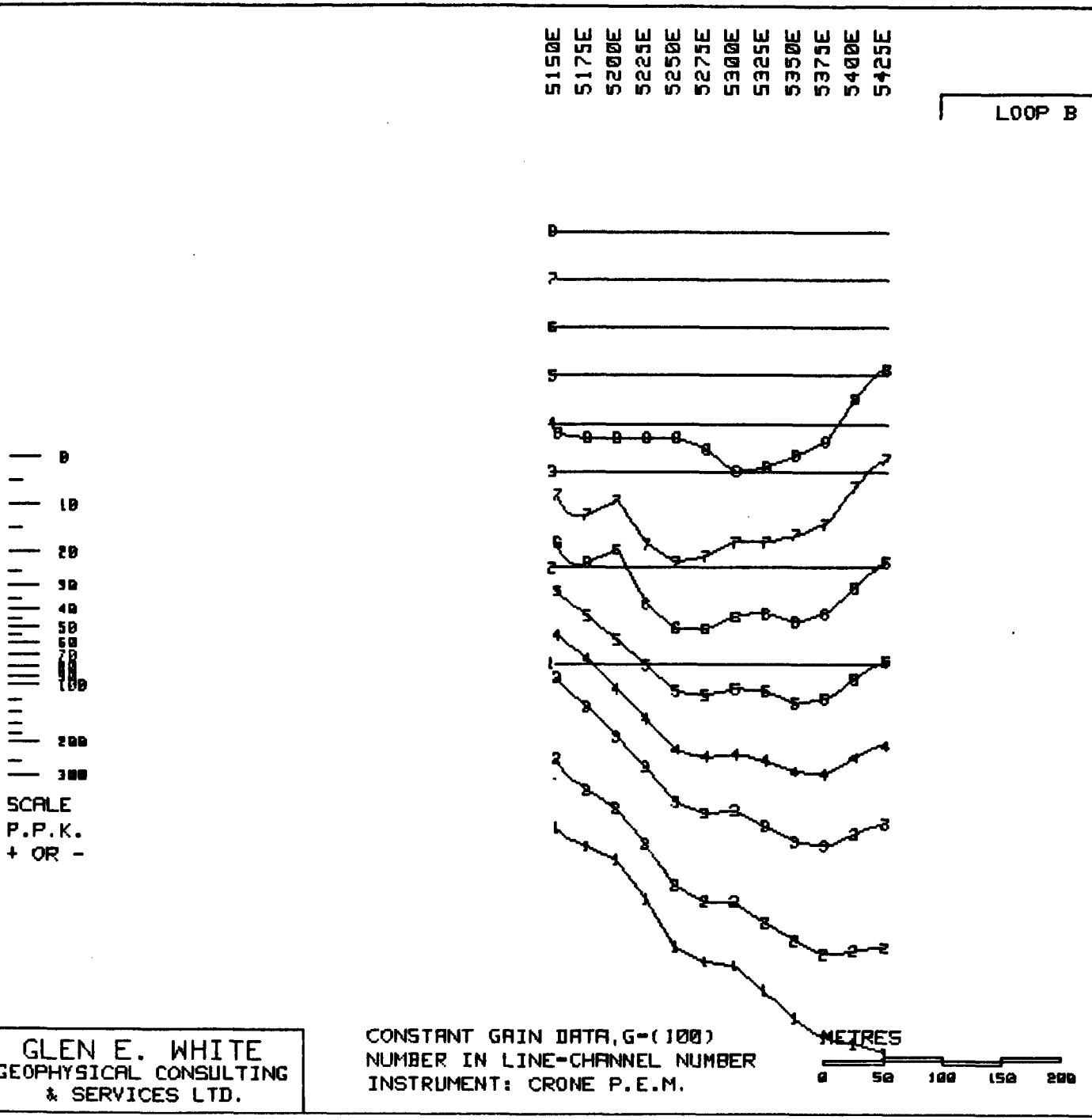
CORDILLERAN ENGINEERING
MIDWAY PROPERTY - SHOWING GRID
VECTOR PULSE ELECTROMAGNETOMETER
VERTICAL COMPONENT
11800N B

DATE: SEPT/81 | FIG.: 33



CONSTANT GAIN DATA, G=(100)
NUMBER IN LINE-CHANNEL NUMBER
INSTRUMENT: CRONE P.E.M.

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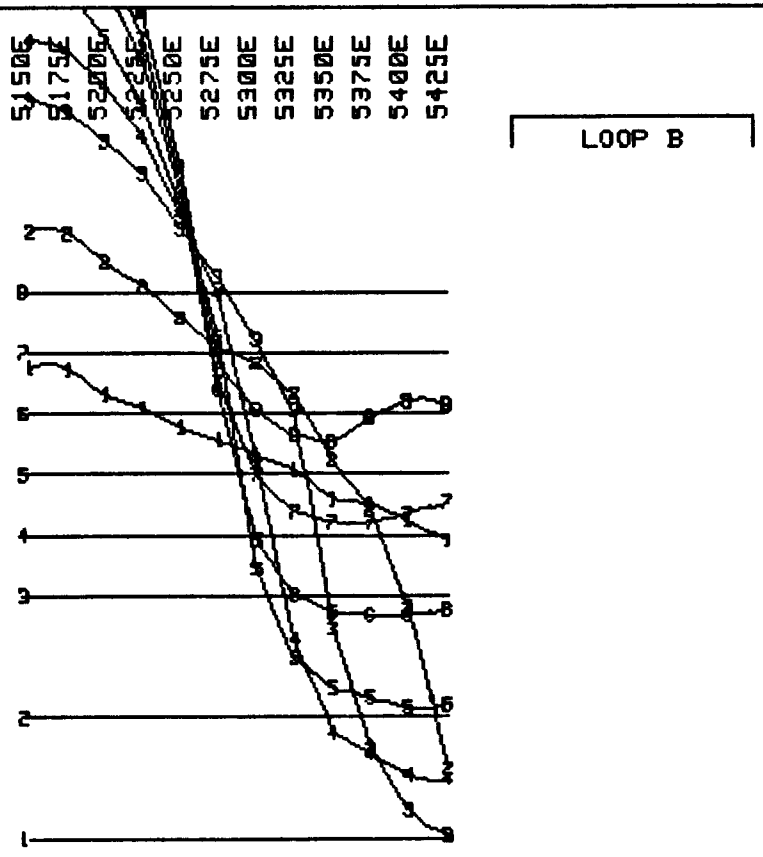
CORDILLERAN ENGINEERING
MIDWAY PROPERTY - SHOWING GRID
VECTOR PULSE ELECTROMAGNETOMETER
HORIZONTAL COMPONENT
11800N B

DATE: SEPT/81 | FIG.: 34



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200
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SCALE
P.P.K.
+ OR -

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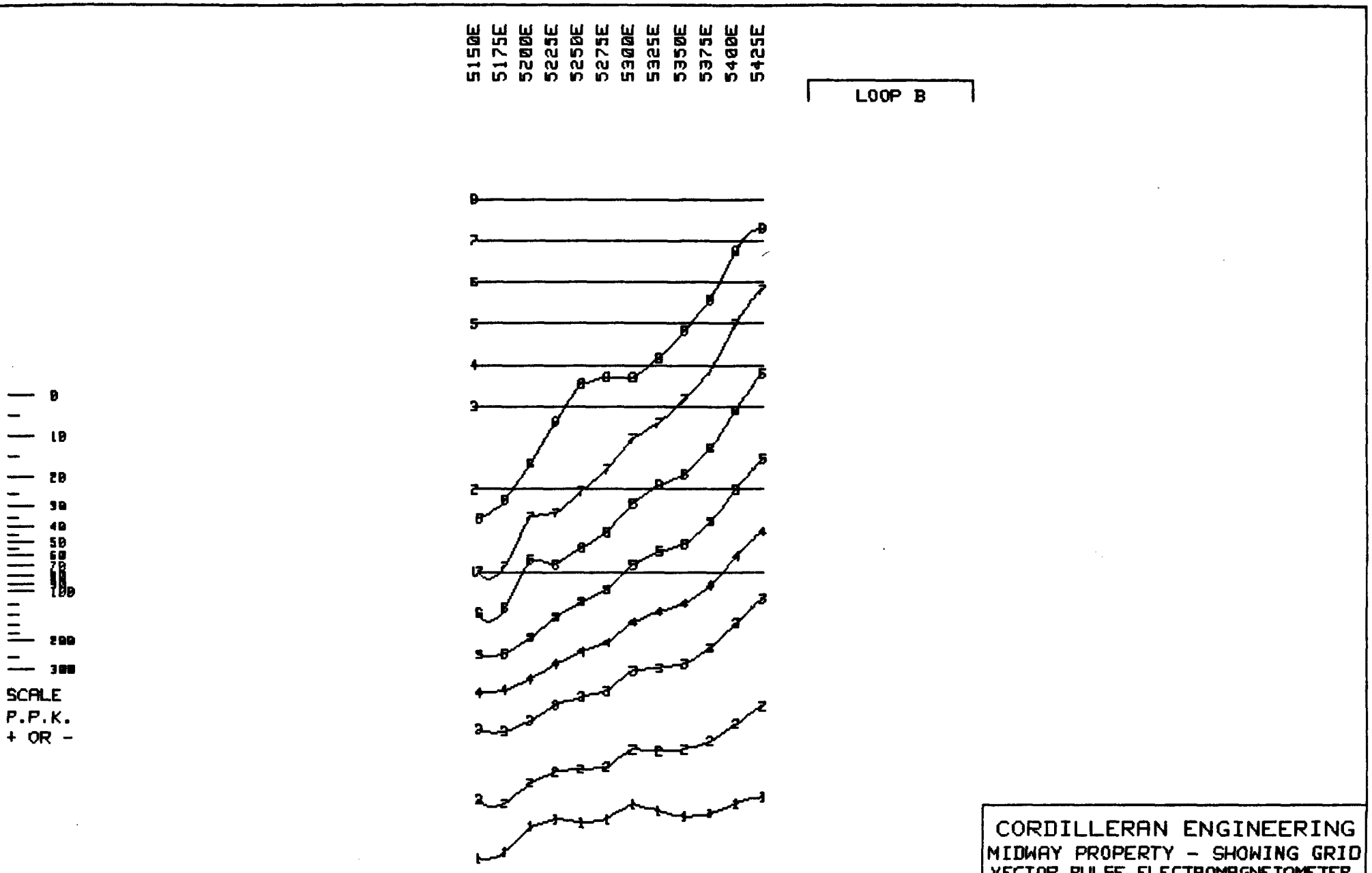
PRIMARY FIELD NORMALIZED DATA
NUMBER IN LINE-CHANNEL NUMBER
INSTRUMENT: CRONE P.E.M.

METRES
0 50 100 150 200

CORDILLERAN ENGINEERING
MIDWAY PROPERTY - SHOWING GRID
VECTOR PULSE ELECTROMAGNETOMETER
VERTICAL COMPONENT
11000N B

DATE: SEPT/81 | FIG.: 35



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

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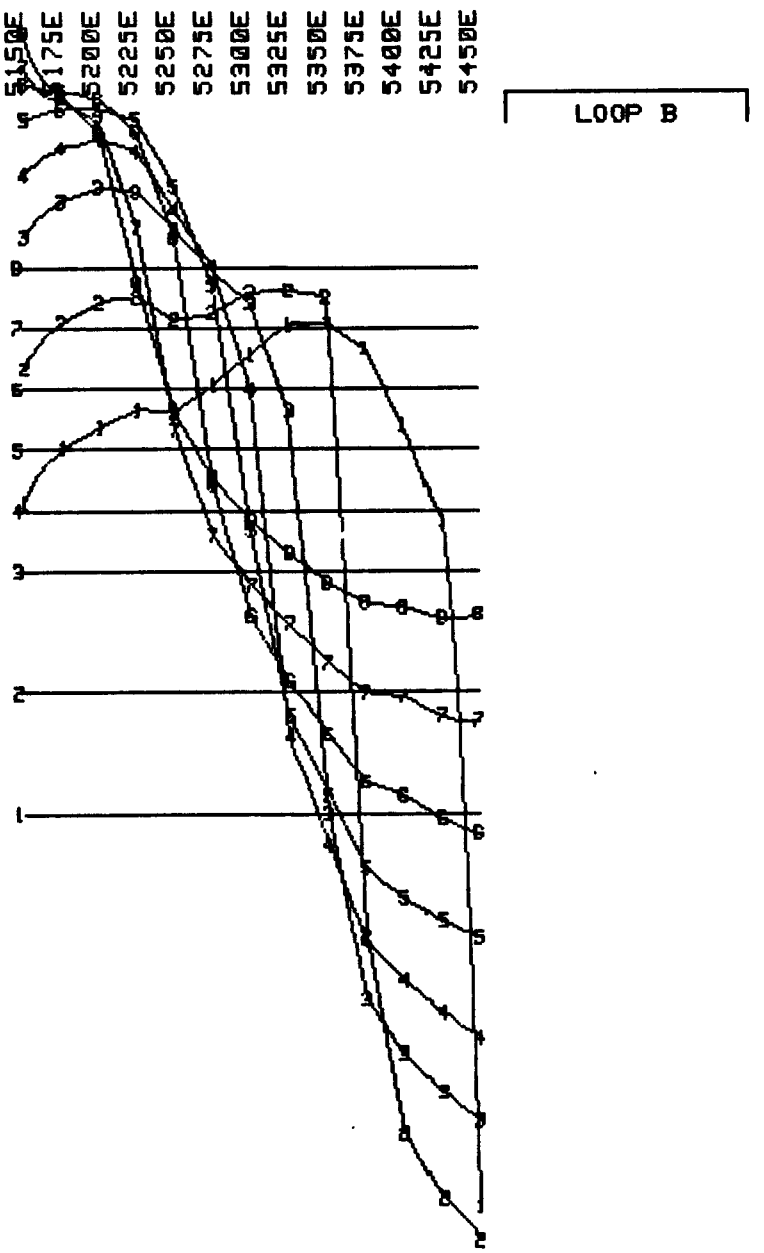
CORDILLERAN ENGINEERING
MIDWAY PROPERTY - SHOWING GRID
VECTOR PULSE ELECTROMAGNETOMETER
HORIZONTAL COMPONENT
11800N B

DATE: SEPT/81 | FIG.: 36



SCALE
P.P.K.
+ OR -

CONSTANT GAIN DATA, G=(100)
NUMBER IN LINE-CHANNEL NUMBER
INSTRUMENT: CRONE P.E.M.

METRES
0 50 100 150 200

GLEN E. WHITE
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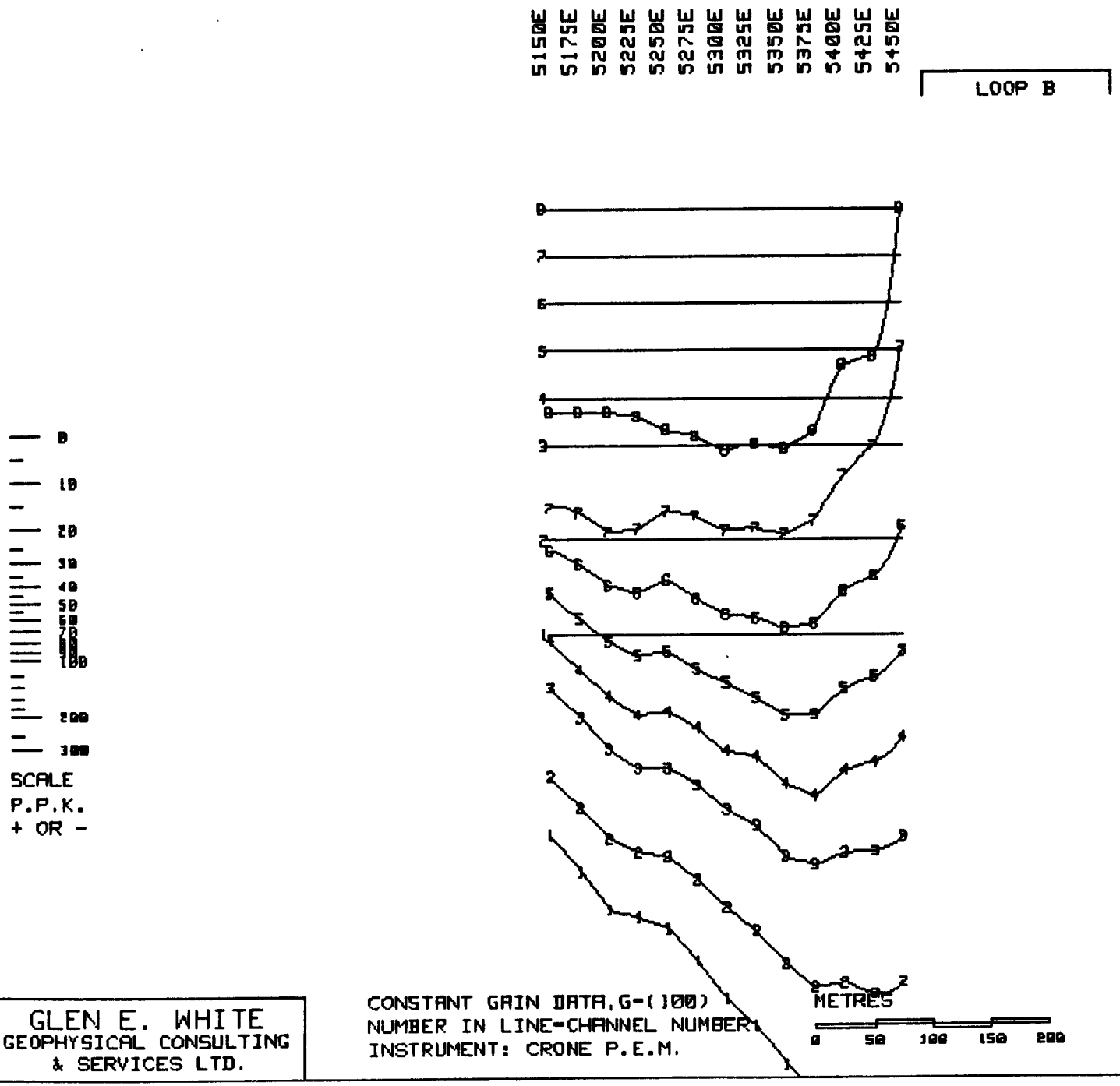
CORDILLERAN ENGINEERING
MIDWAY PROPERTY - SHOWING GRID
VECTOR PULSE ELECTROMAGNETOMETER
VERTICAL COMPONENT
11700N B

DATE: SEPT/81 | FIG.: 37



CONSTANT GAIN DATA, G=(100)
NUMBER IN LINE-CHANNEL NUMBER
INSTRUMENT: CRONE P.E.M.

GLEN E. WHITE
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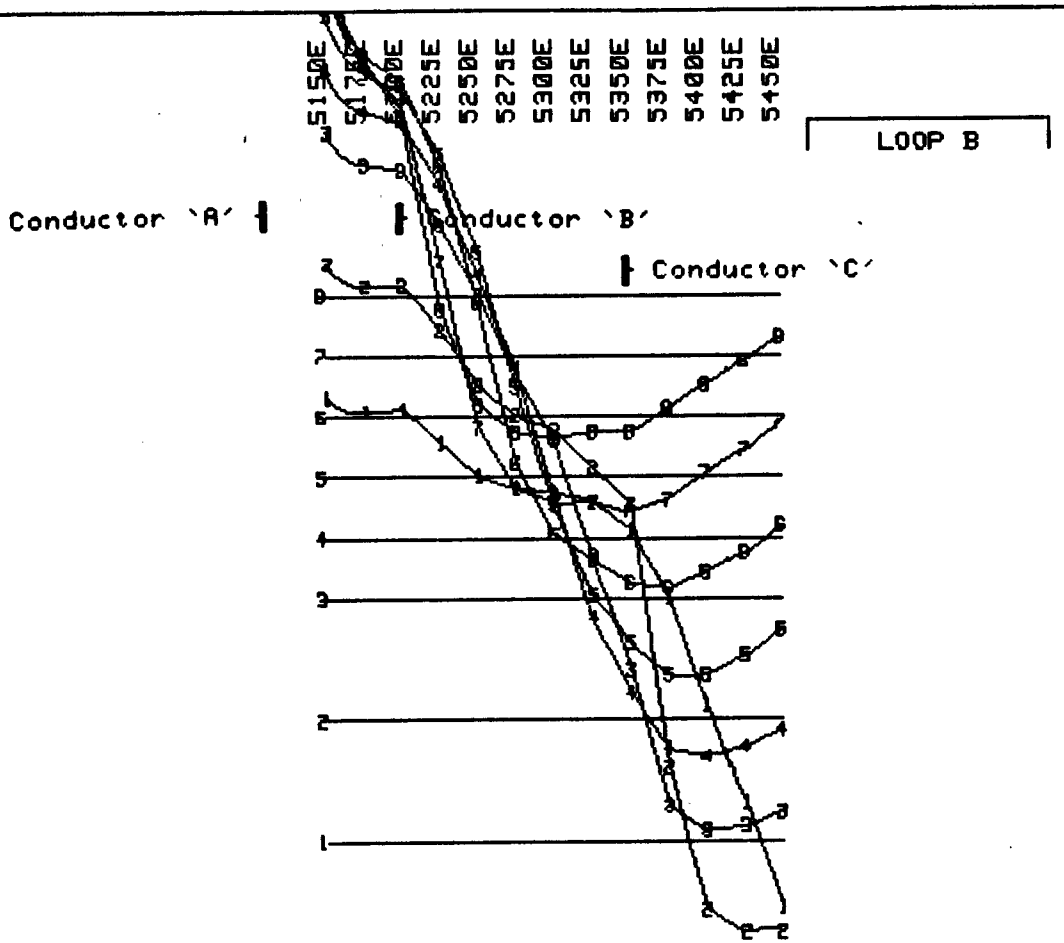
CORDILLERAN ENGINEERING
MIDWAY PROPERTY - SHOWING GRID
VECTOR PULSE ELECTROMAGNETOMETER
HORIZONTAL COMPONENT
11700N B

DATE: SEPT/81 | FIG.: 38



0
10
20
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200
300

SCALE
P.P.K.
+ OR -

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

METRES
0 50 100 150 200

GLEN E. WHITE
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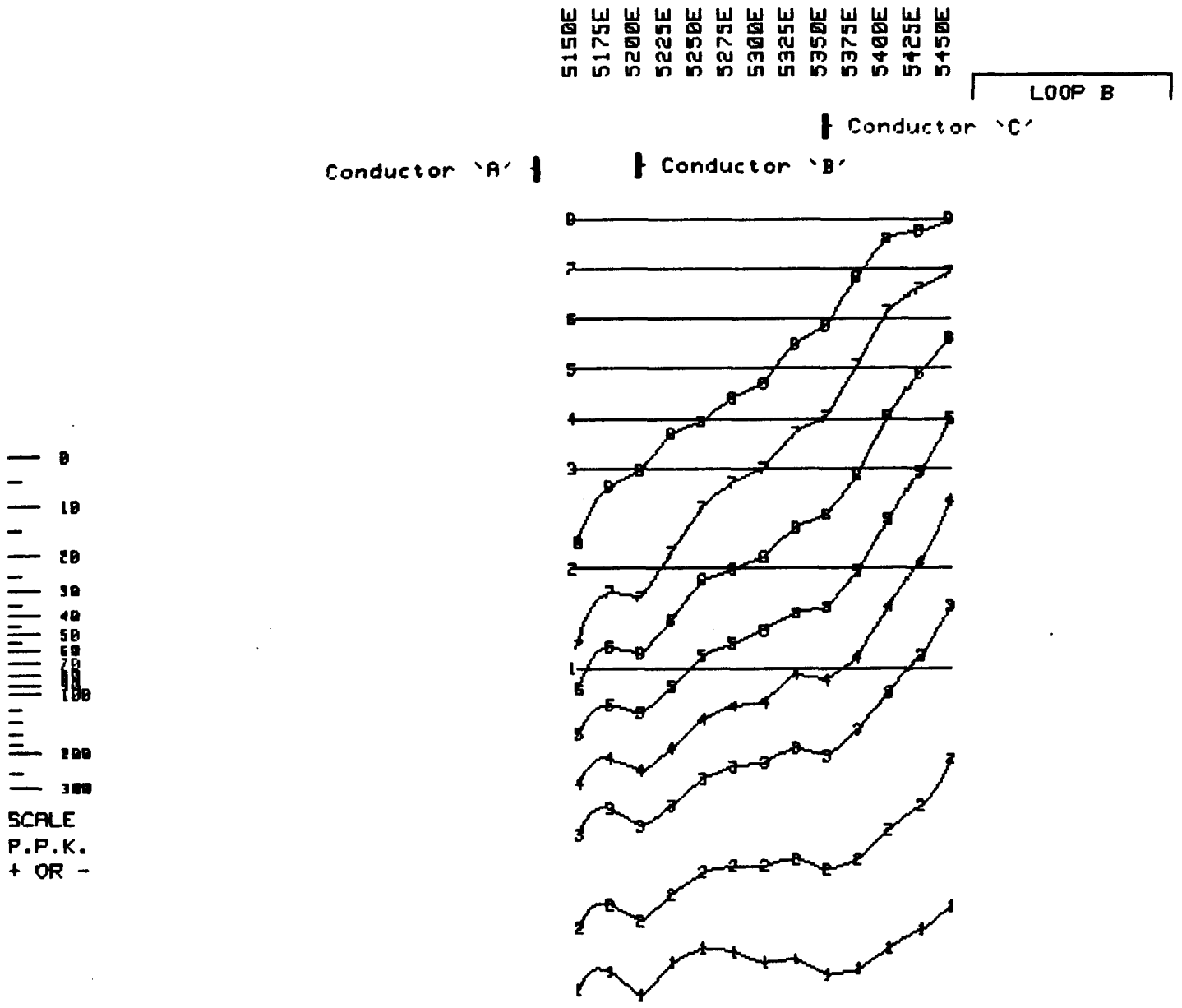
CORDILLERAN ENGINEERING
MIDWAY PROPERTY - SHOWING GRID
VECTOR PULSE ELECTROMAGNETOMETER
VERTICAL COMPONENT
11700N B

DATE: SEPT/81 | FIG.: 39



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

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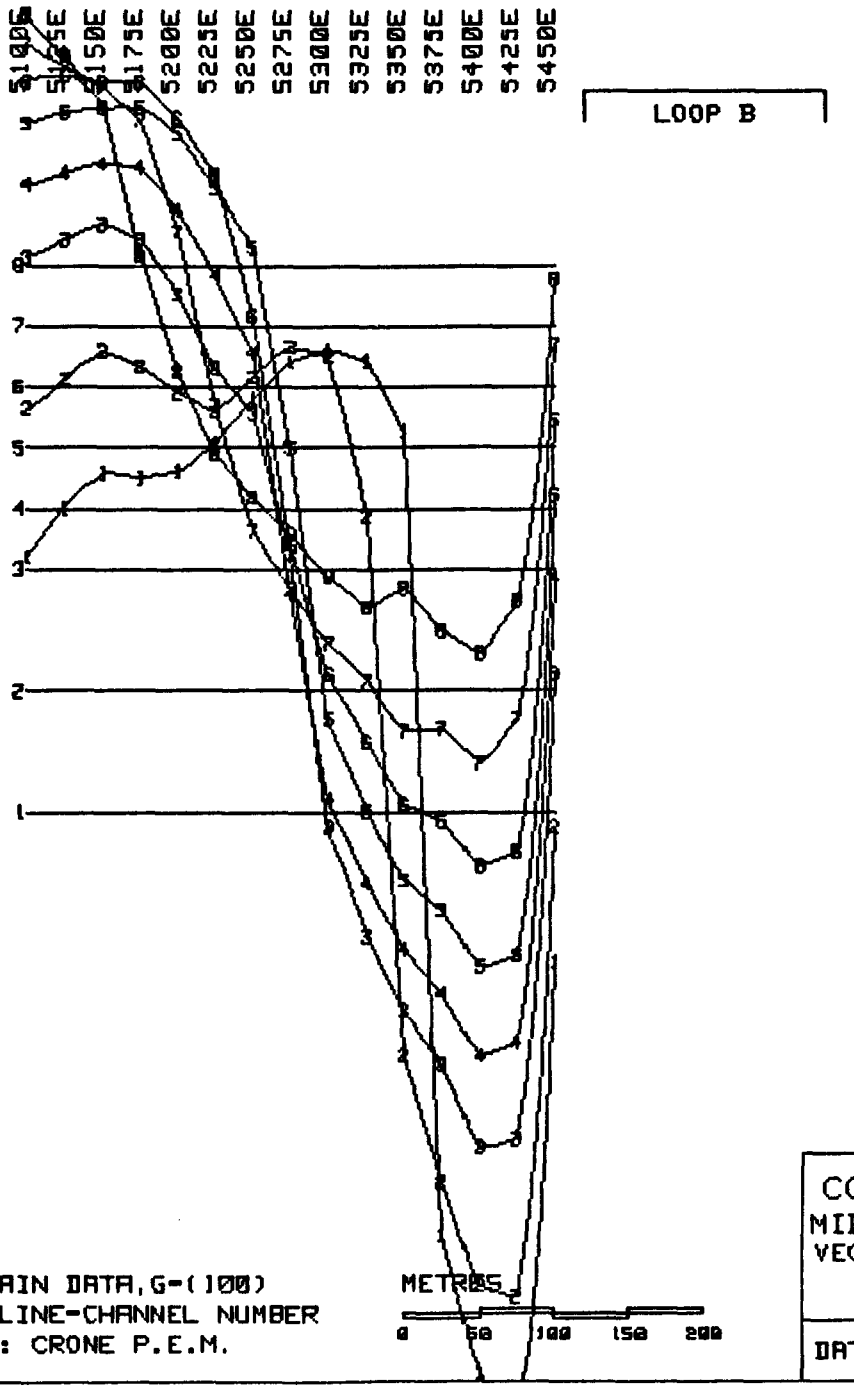
CORDILLERAN ENGINEERING
MIDWAY PROPERTY - SHOWING GRID
VECTOR PULSE ELECTROMAGNETOMETER
HORIZONTAL COMPONENT
11700N B

DATE: SEPT/81 | FIG.: 40



SCALE
P.P.K.
+ OR -

CONSTANT GAIN DATA, G=(100)
NUMBER IN LINE-CHANNEL NUMBER
INSTRUMENT: CRONE P.E.M.

GLEN E. WHITE
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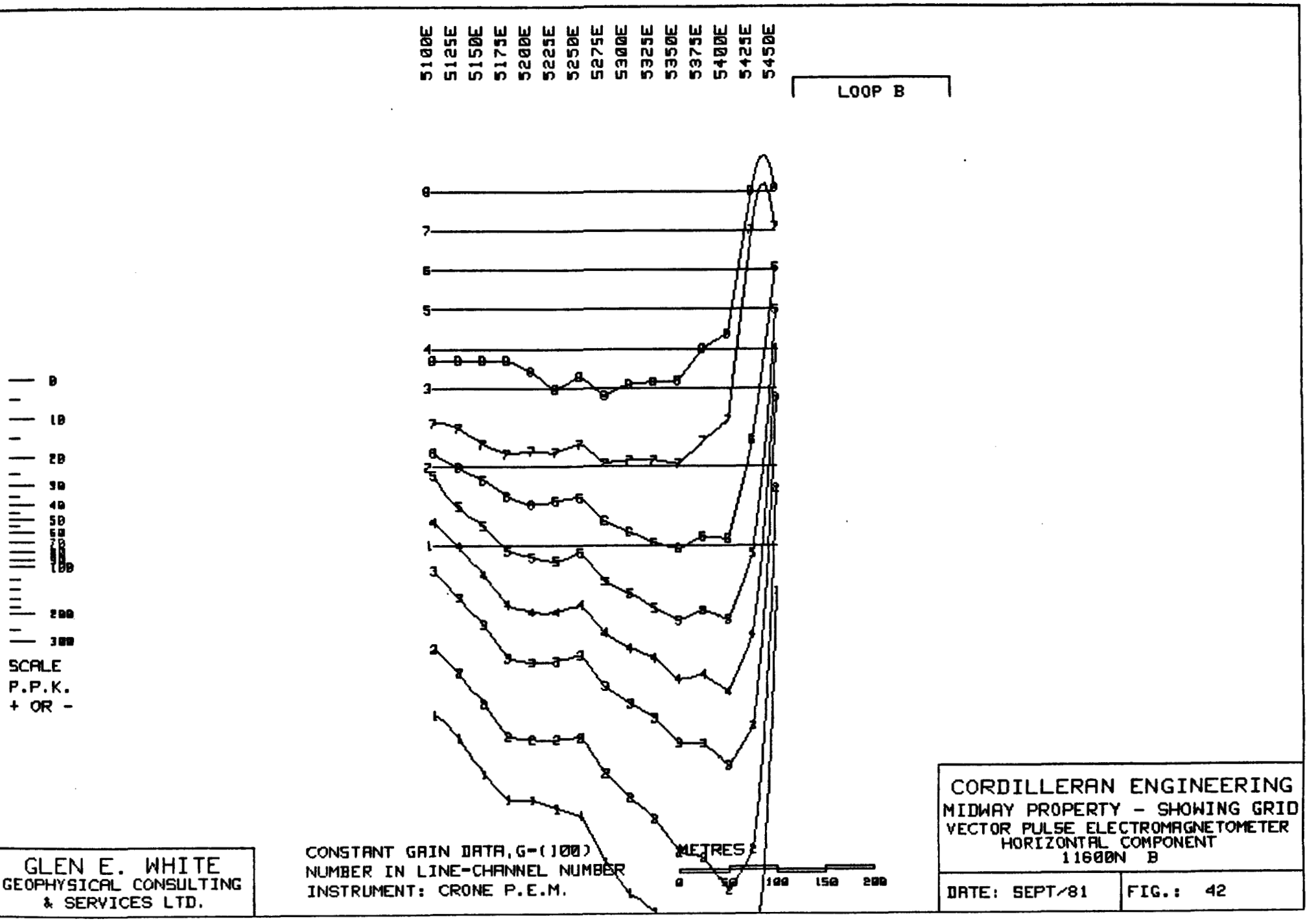
CORDILLERAN ENGINEERING
MIDWAY PROPERTY - SHOWING GRID
VECTOR PULSE ELECTROMAGNETOMETER
VERTICAL COMPONENT
11600N B

DATE: SEPT/81 | FIG.: 41



CONSTANT GAIN DATA, G=(100)
NUMBER IN LINE-CHANNEL NUMBER
INSTRUMENT: CRONE P.E.M.

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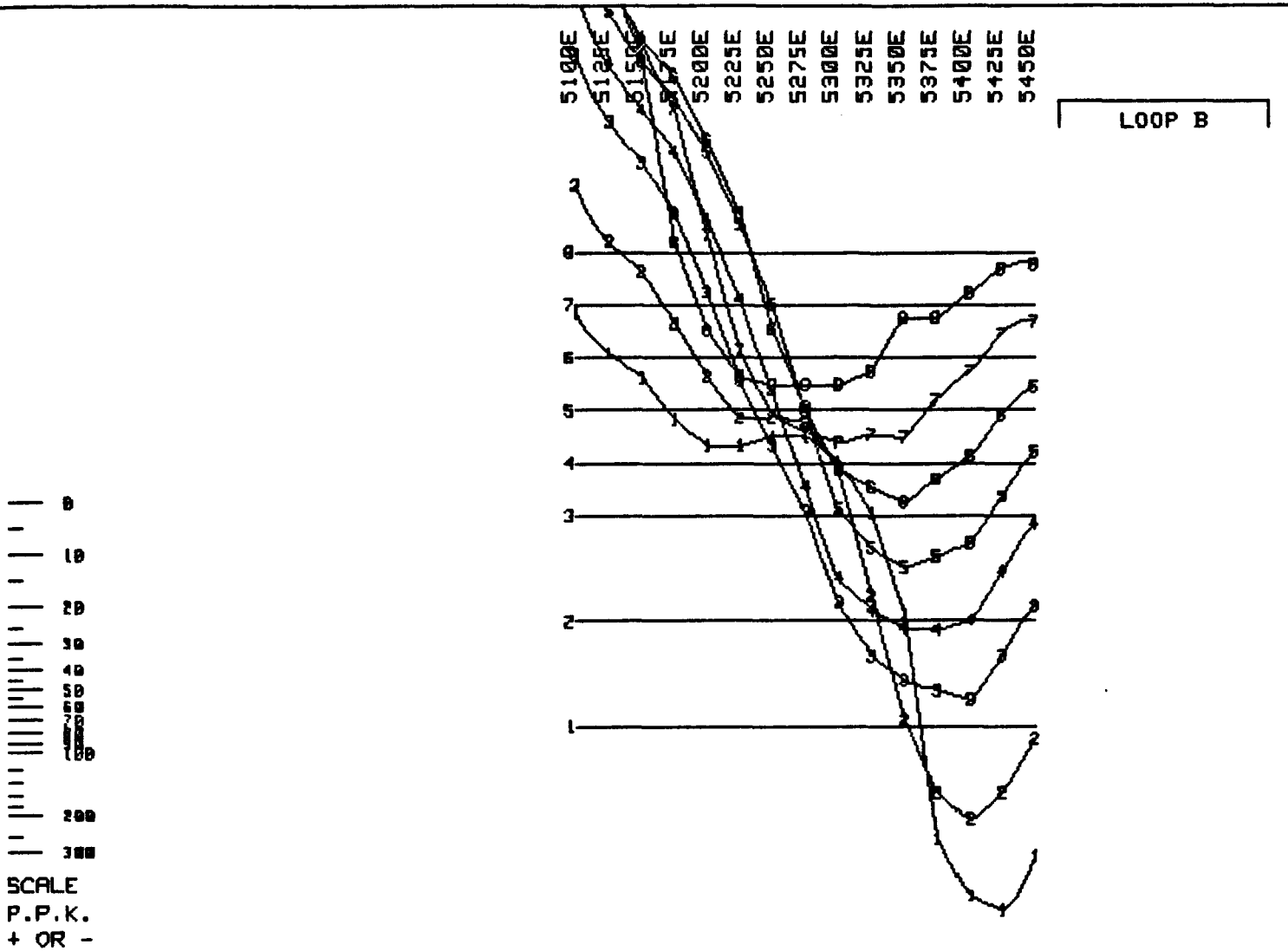
GEOPHYSICAL CONSULTING
& SERVICES LTD.

CORDILLERAN ENGINEERING
MIDWAY PROPERTY - SHOWING GRID
VECTOR PULSE ELECTROMAGNETOMETER
HORIZONTAL COMPONENT
11600N B

DATE: SEPT/81 | FIG.: 42



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

METRES
0 50 100 150 200

GLEN E. WHITE
GEOPHYSICAL CONSULTING
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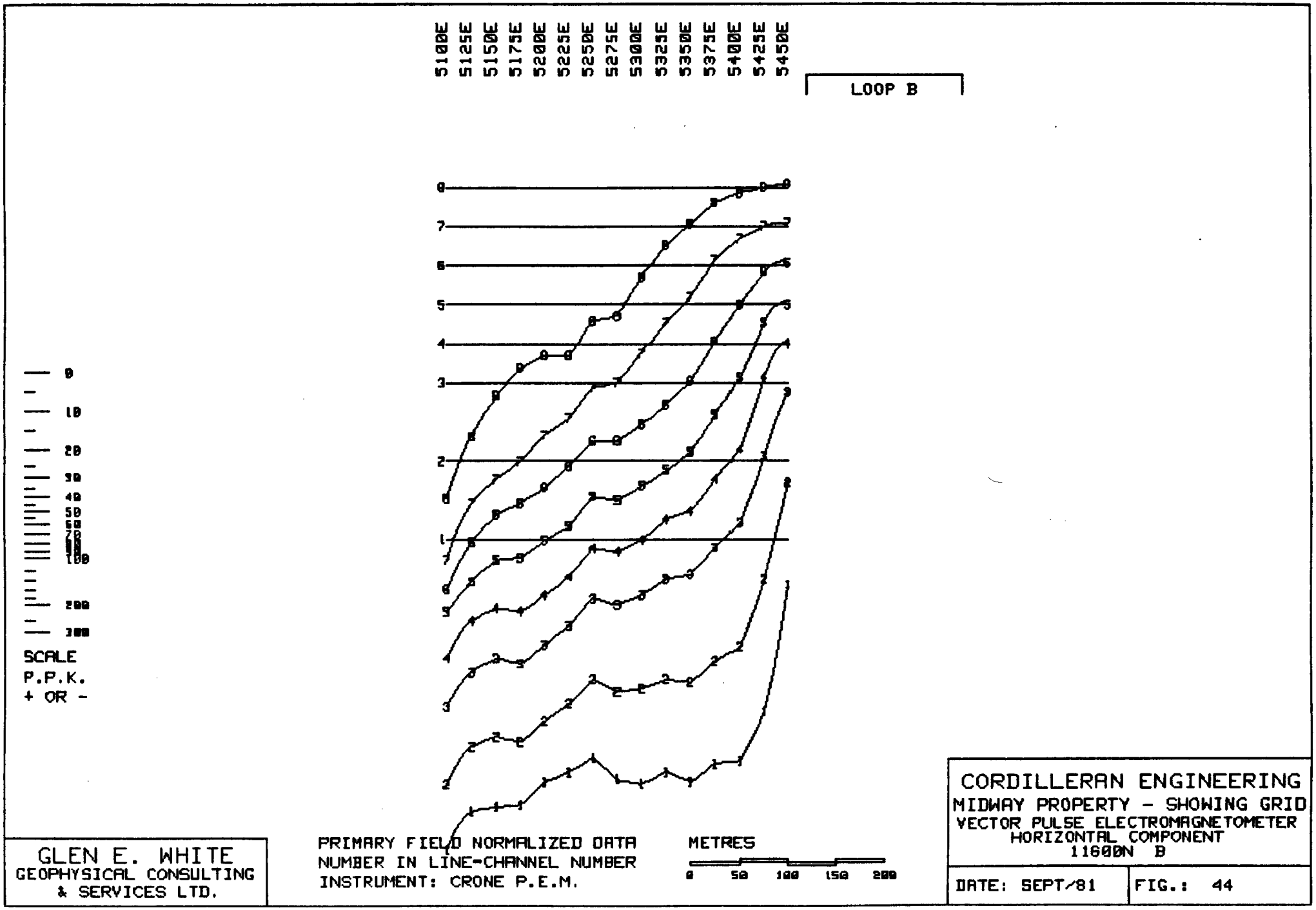
CORDILLERAN ENGINEERING
MIDWAY PROPERTY - SHOWING GRID
VECTOR PULSE ELECTROMAGNETOMETER
VERTICAL COMPONENT
11600N B

DATE: SEPT/81 | FIG.: 43



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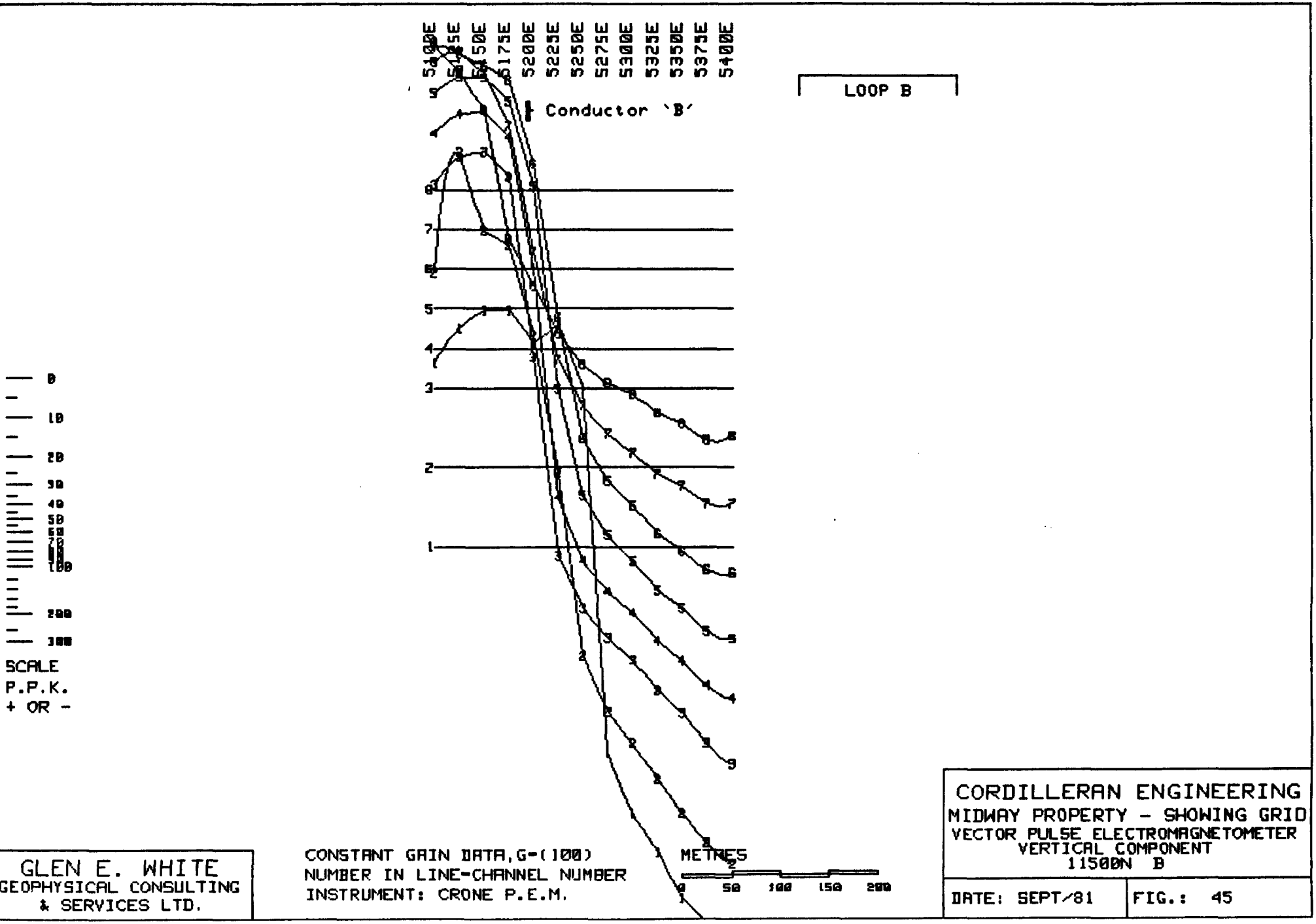
CORDILLERAN ENGINEERING
MIDWAY PROPERTY - SHOWING GRID
VECTOR PULSE ELECTROMAGNETOMETER
HORIZONTAL COMPONENT
11600N B

DATE: SEPT/81 | FIG.: 44



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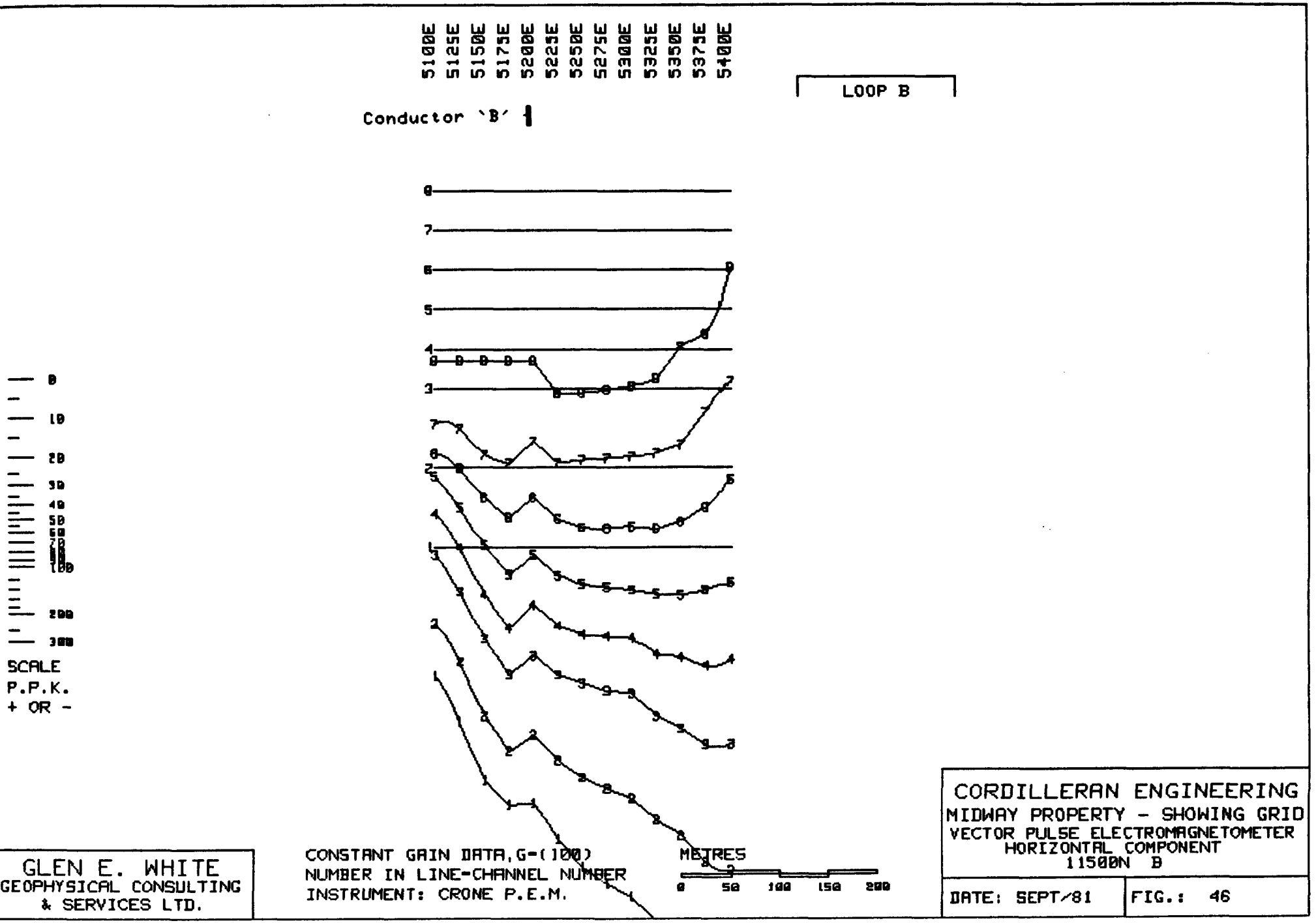
& SERVICES LTD.

CONSTANT GAIN DATA, G=(100)
NUMBER IN LINE-CHANNEL NUMBER
INSTRUMENT: CRONE P.E.M.

CORDILLERAN ENGINEERING
MIDWAY PROPERTY - SHOWING GRID
VECTOR PULSE ELECTROMAGNETOMETER
VERTICAL COMPONENT
11500N B

DATE: SEPT/81 | FIG.: 45



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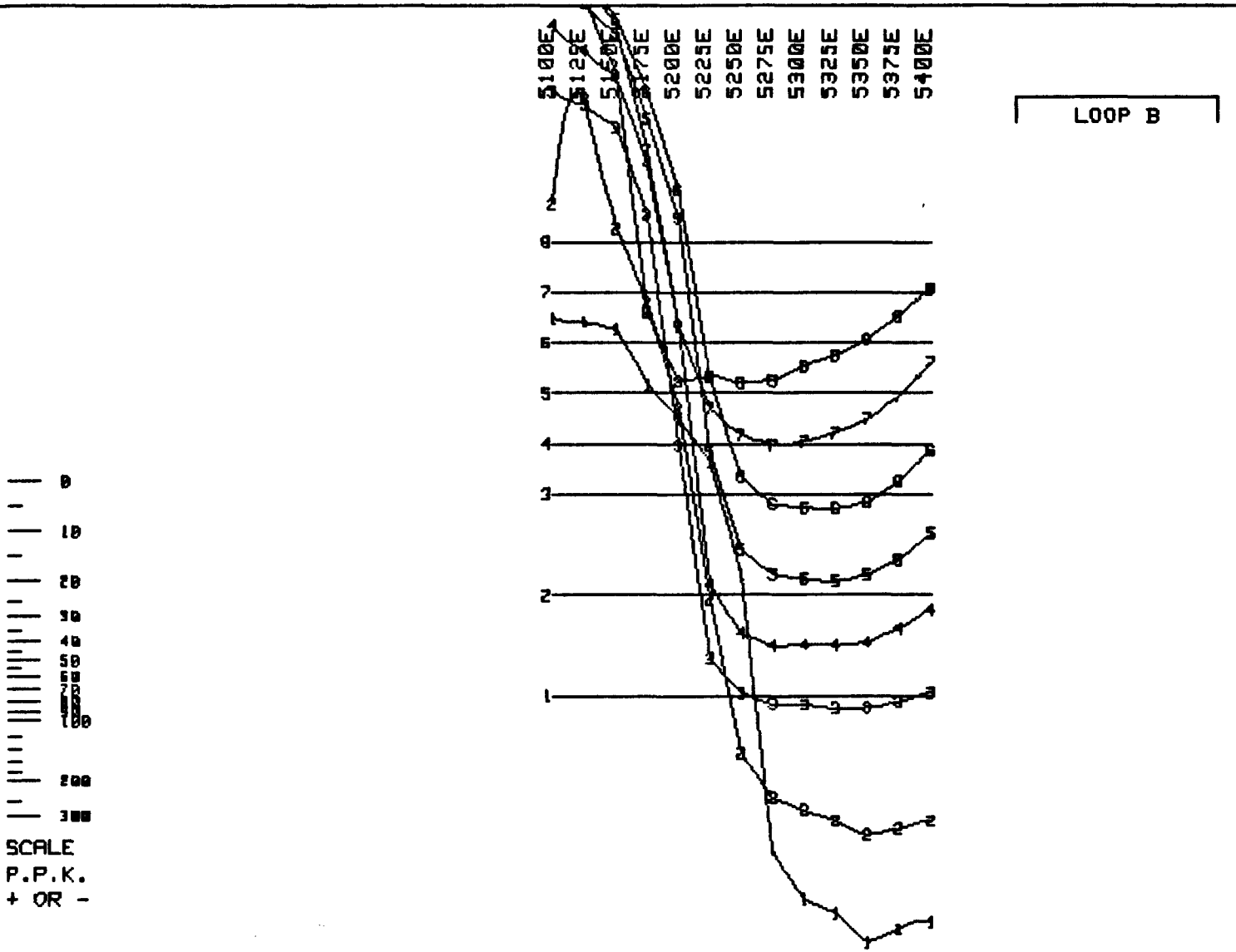
CORDILLERAN ENGINEERING
MIDWAY PROPERTY - SHOWING GRID
VECTOR PULSE ELECTROMAGNETOMETER
HORIZONTAL COMPONENT
11500N B

DATE: SEPT/81

FIG.: 46



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

METRES
0 50 100 150 200

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CORDILLERAN ENGINEERING
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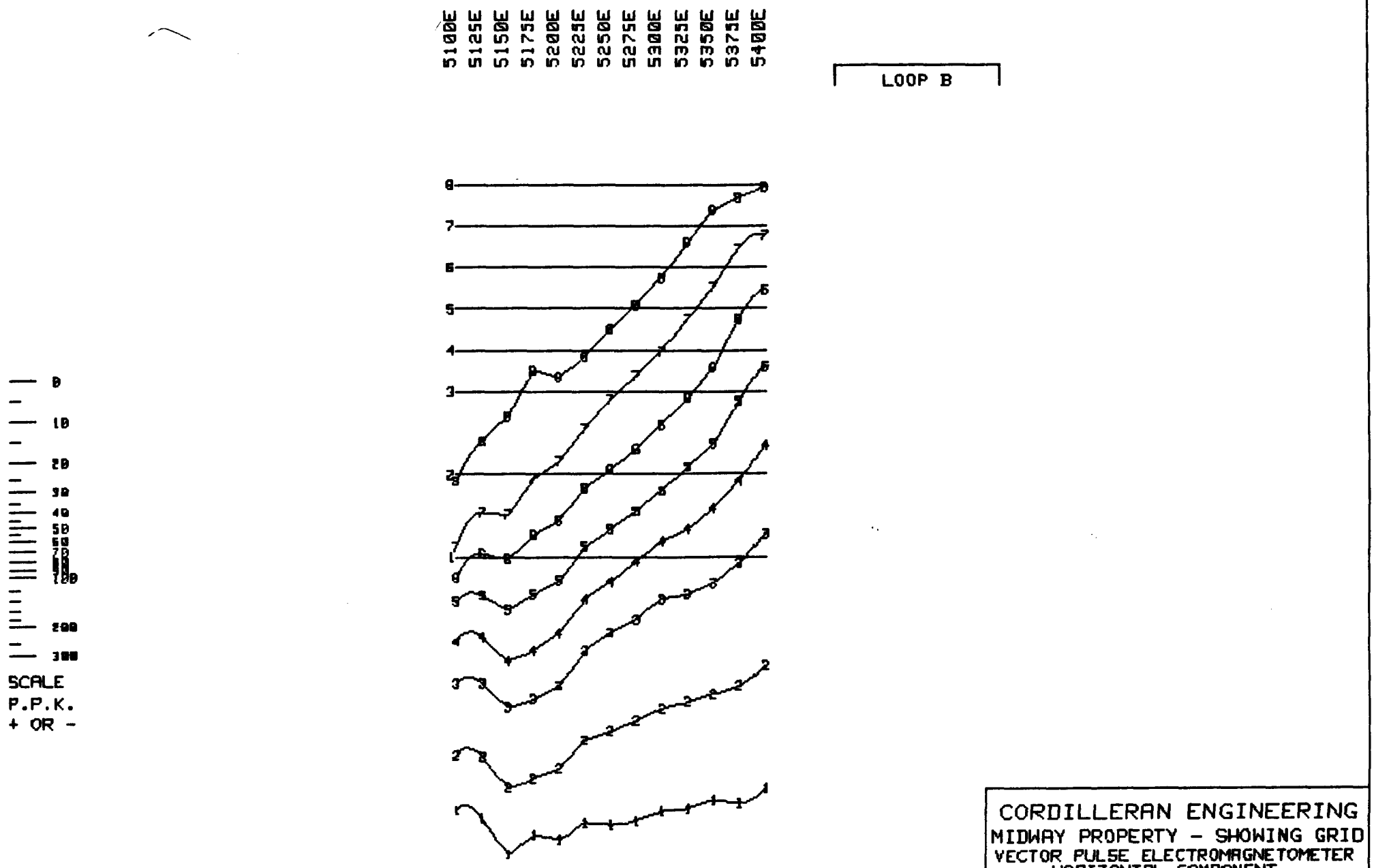
VECTOR PULSE ELECTROMAGNETOMETER
VERTICAL COMPONENT
11500N B

DATE: SEPT/81 | FIG.: 47



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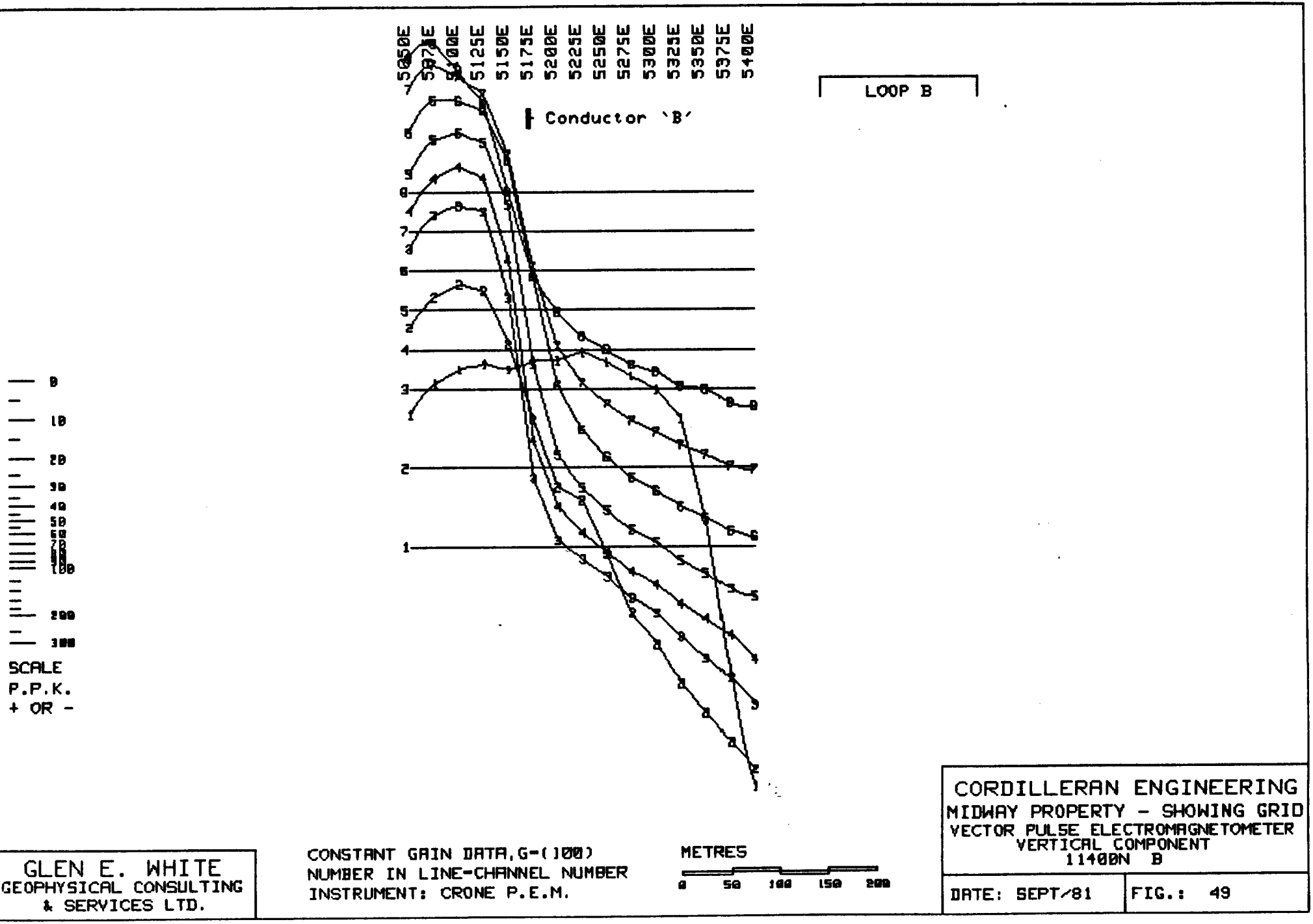
MIDWAY PROPERTY - SHOWING GRID
VECTOR PULSE ELECTROMAGNETOMETER
HORIZONTAL COMPONENT
11500N B

DATE: SEPT/81 | FIG.: 48



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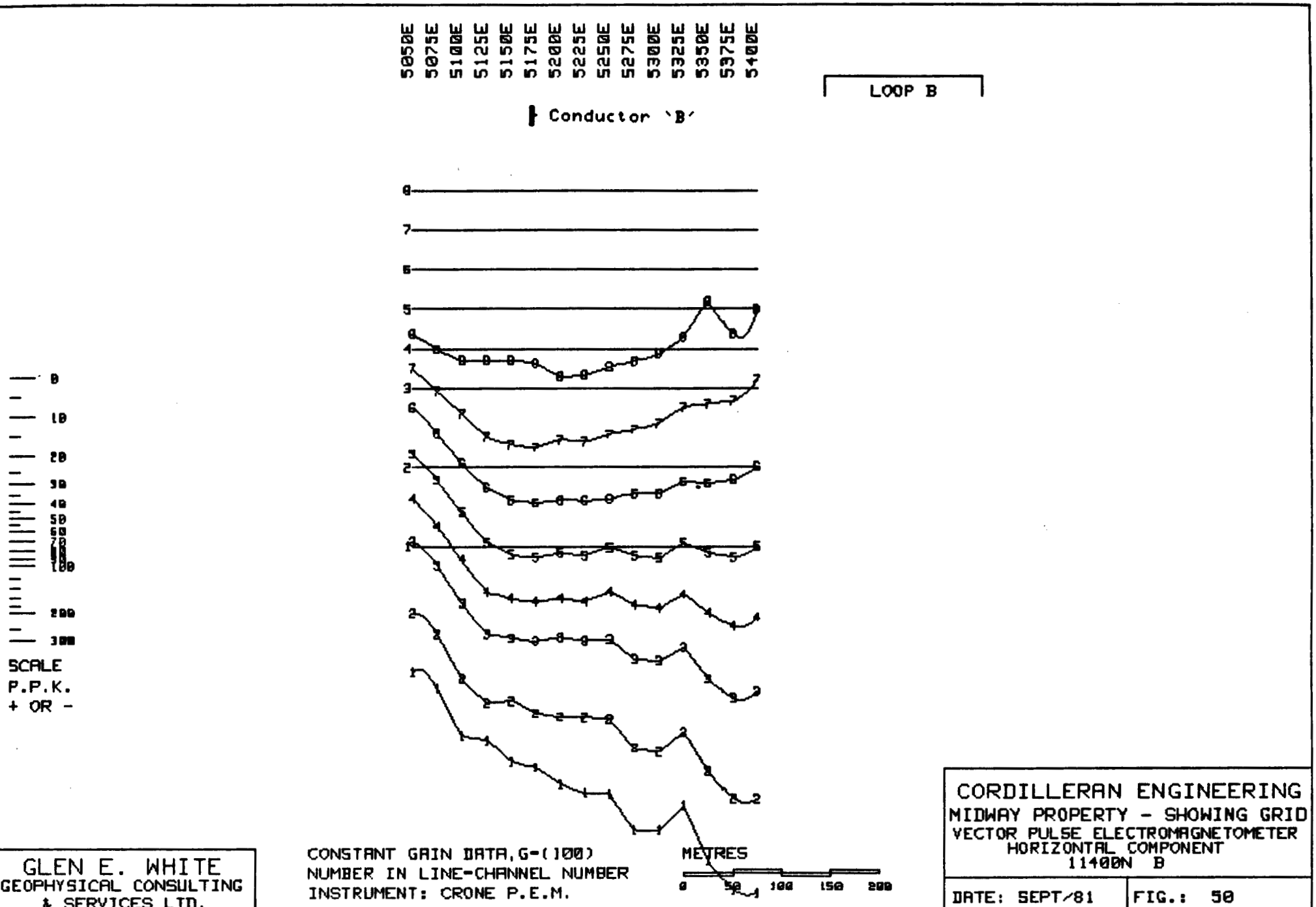
CONSTANT GAIN DATA, G=()100)
NUMBER IN LINE-CHANNEL NUMBER
INSTRUMENT: CRONE P.E.M.

CORDILLERAN ENGINEERING
MIDWAY PROPERTY - SHOWING GRID
VECTOR PULSE ELECTROMAGNETOMETER
VERTICAL COMPONENT
11400N B

DATE: SEPT/81 | FIG.: 49



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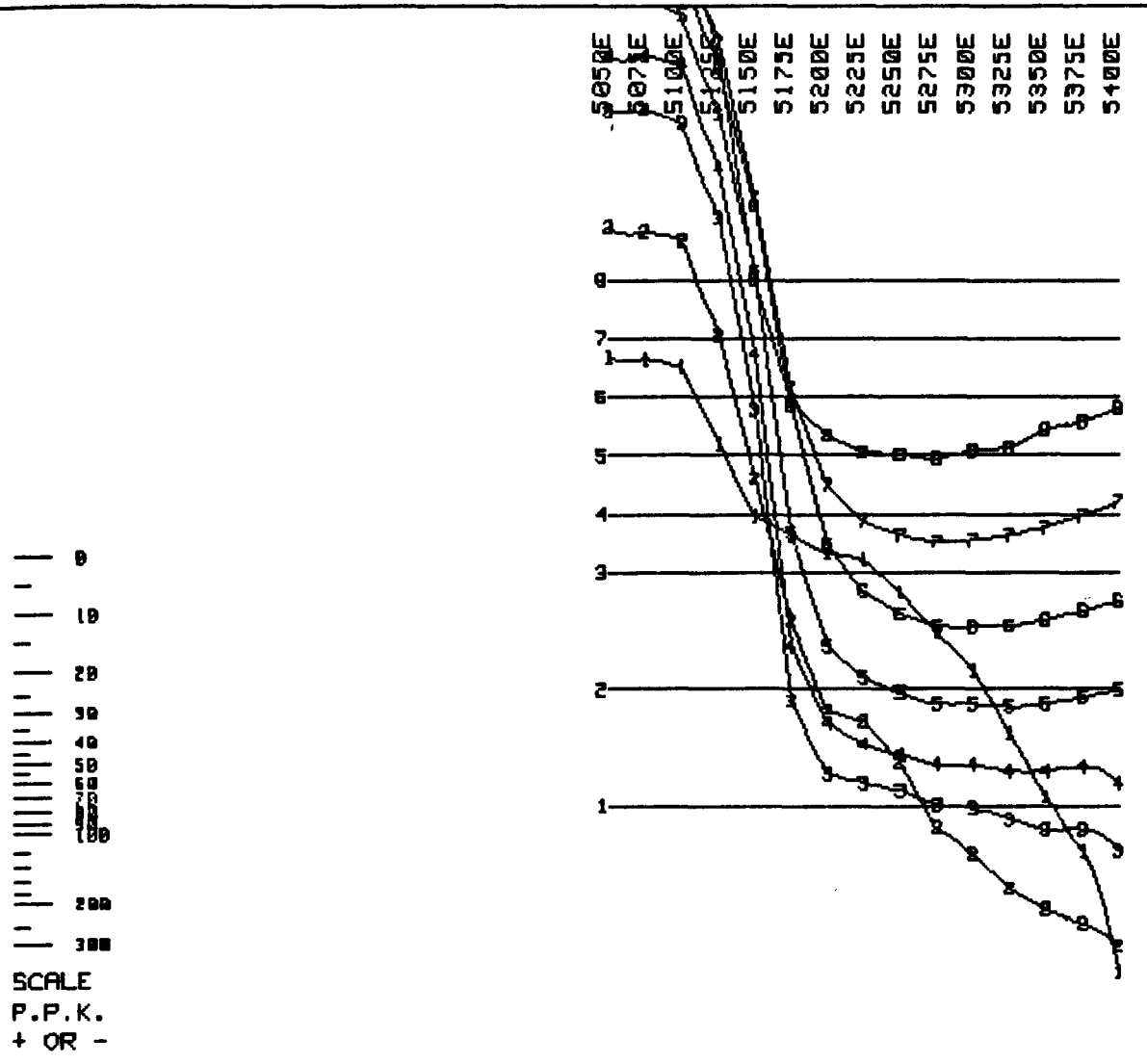
CORDILLERAN ENGINEERING
MIDWAY PROPERTY - SHOWING GRID
VECTOR PULSE ELECTROMAGNETOMETER
HORIZONTAL COMPONENT
11400N B

DATE: SEPT/81 | FIG.: 50



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

METRES
0 50 100 150 200

GLEN E. WHITE
GEOPHYSICAL CONSULTING
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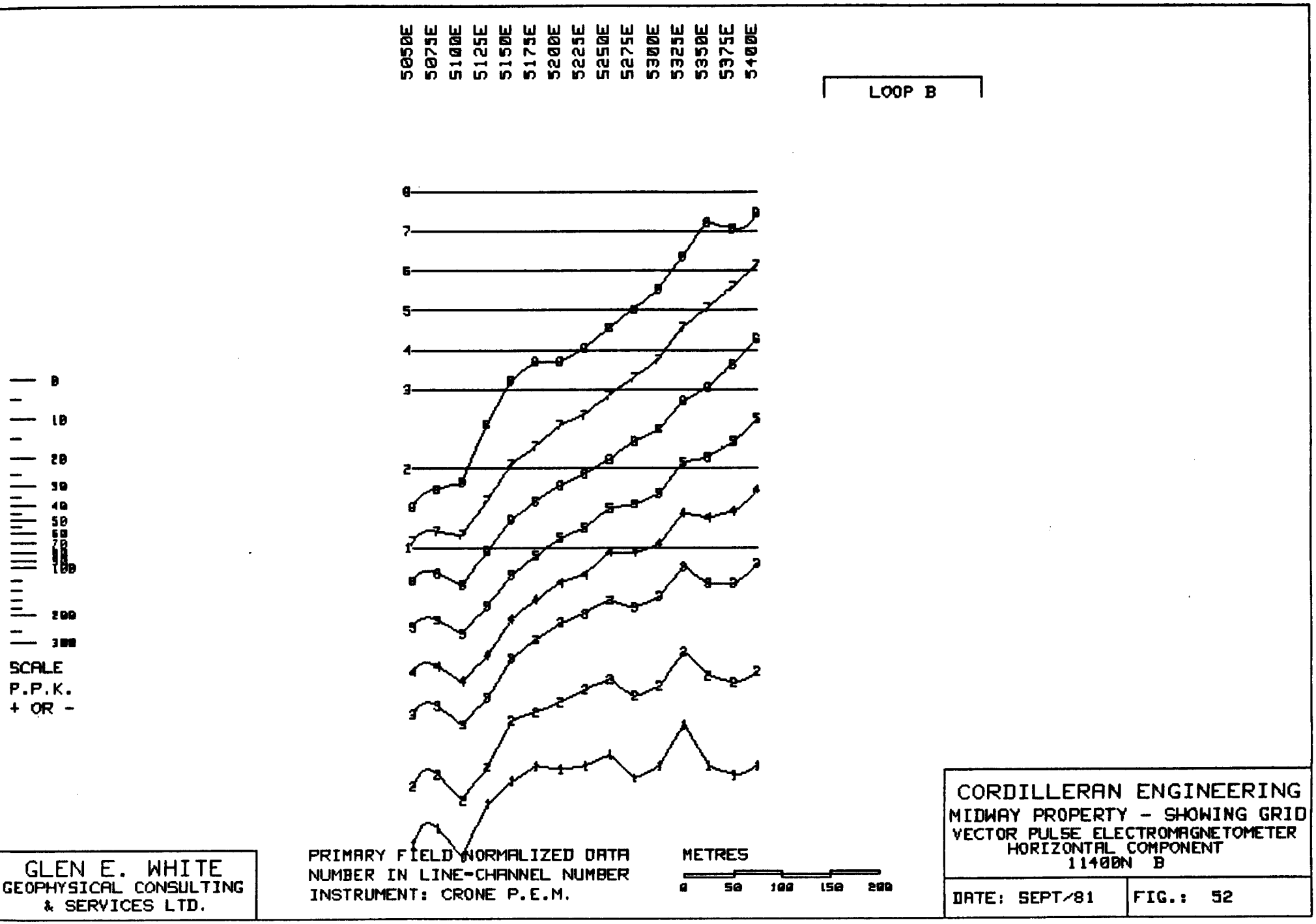
CORDILLERAN ENGINEERING
MIDWAY PROPERTY - SHOWING GRID
VECTOR PULSE ELECTROMAGNETOMETER
VERTICAL COMPONENT
11400N B

DATE: SEPT/81 | FIG.: 51



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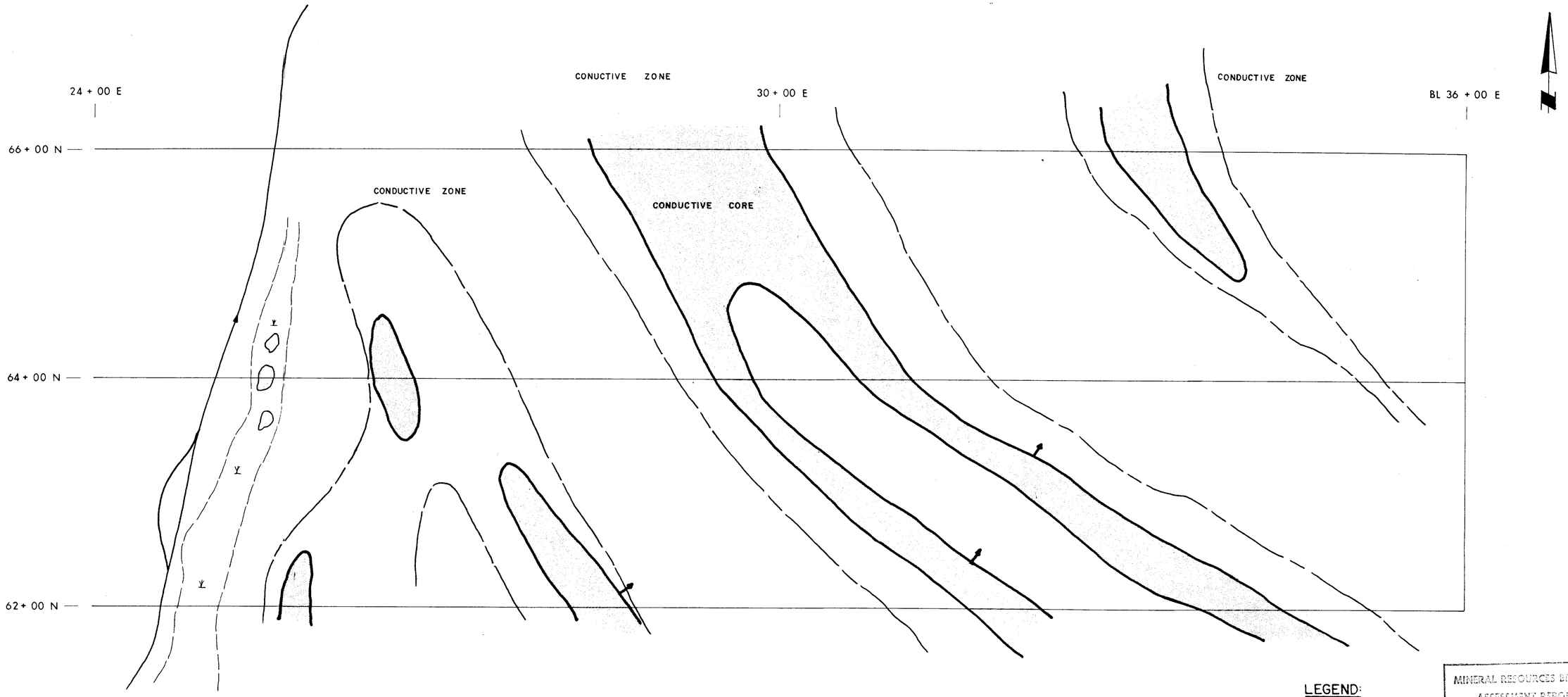
CORDILLERAN ENGINEERING
MIDWAY PROPERTY - SHOWING GRID
VECTOR PULSE ELECTROMAGNETOMETER
HORIZONTAL COMPONENT
11400N B

DATE: SEPT/81 | FIG.: 52



LEGEND:

- ROAD
- STREAM
- SWAMP
- FAULT
- CONDUCTIVE ZONE
- CONDUCTORS

50 25 0 50 100 150

1: 2500

N.T.S. 104 O/16

CORDILLERAN ENGINEERING LTD.

MIDWAY PROPERTY - SOUTH GRID

LAIRD MINING DIVISION - BRITISH COLUMBIA

CONDUCTOR MAP

To Accompany Geophysical Report on
Midway Property
Date: November/81
By GLEN E. WHITE - B.Sc.

PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA GLEN E. WHITE

GEOPHYSICIST

Glen E. White geophysical consulting & services ltd.

Interpreted By	G.E.W.
Drawn By	M.E.P.
Checked By	G.E.W.
Date	NOVEMBER/81
Fig. No.	2

YANCAL 7134

BL 50 + 00 E

TL 52 + 50 E

56 + 00 E

118 + 00 N

117 + 00 N

116 + 00 N

115 + 00 N

114 + 00 N

2100

2200

2300

2400

2500

2600

CONDUCTIVE TREND

CONDUCTIVE TREND
SE PLUNGE?

CONDUCTOR 'A'

FAULT?

'A'

??

FLAT LIKE
CONDUCTOR AT DEPTH

CONDUCTOR 'C'

'B'

DIP CHANGE TO
FLATTER

FAULT?

CONDUCTOR 'B'

EXCELLENT
CONDUCTOR
100m DEPTH

CONDUCTIVE TREND

CONDUCTIVE TREND

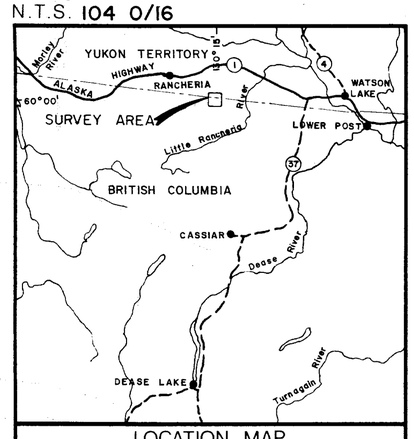
EXCELLENT CONDUCTOR
100m DEPTH

FAULT

LEGEND:

- ROAD
- STREAM
- SWAMP
- FAULT
- CONDUCTIVE ZONE
- CONDUCTORS
- TRENCH

N.T.S. 104 O/16



LOCATION MAP
1" = 32 mi.

50 25 0 50 100 150
1 : 2500

CORDILLERAN ENGINEERING LTD.

MIDWAY PROPERTY — SHOWING GRID

LAIRD MINING DIVISION - BRITISH COLUMBIA

CONDUCTOR MAP

Glen E. White geophysical consulting & services ltd.

Interpreted By	G.E.W.
Drawn By	M.E.P.
Checked By	G.E.W.
Date	OCTOBER / 81
Fig. No	6

To Accompany Geophysical Report On
Midway Property
Date October / 1981
By GLEN E. WHITE - B.Sc.

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
GLEN E. WHITE

GEOPHYSICIST

VANCAL 7134