R.L. WRIGHT & ASSOCIATES

GEOLOGICAL CONSULTANTS

1988 YEAR END REPORT

on the

DOVE PROJECT

VOLUME III

FILMED

Appendix III: Induced Polarization (IPR-II) Survey Report by Scott Geophysics Ltd. CH PORT

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LOGISTICAL REPORT

INDUCED POLARIZATION/RESISTIVITY SURVEY

DOVE PROPERTY

COURTENAY AREA, BRITIISH COLUMBIA

on behalf of

WESTMIN RESOURCES LTD. 904 - 1055 Dunsmuir Street Vancouver, B.C. V7X 1C4

Field work completed: September 20-27, October 7,8, 12-22, 1988

Ъy

Alan Scott, Geophysicist SCOTT GEOPHYSICS LTD. 4013 West 14th Avenue Vancouver, B.C. V&R 2X3

October 26, 1988

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1. INTRODUCTION

Induced polarization and resistivity surveys were conducted over portions of the Dove Property within the periods September 20-27, October 7-8, and October 12-22, 1988. The work was conducted by Scott Geophysics Ltd. on behalf of Westmin Resources Ltd.

The survey consisted of test lines on the Regan Creek and Lower Murex Grids, and widely spaced lines (200 meter intervals) on the NS and Main Grids. The pole dipole electrode array was used on the survey, with an "a" spacing of 25 meters and "n" separations of 1 to 5. The current electrode was to the south of the receiving electrodes on all north south survey lines and to the west of the receiving electrodes on all east west survey lines.

2. SURVEY LOCATION

The Dove Property is located in the Courtenay Area, Vancouver Island, B.C. Access to the property was by a network of logging roads from Courtenay.

3. SURVEY GRID AND SURVEY COVERAGE

A total of 25.9 line kilometers of induced polarization survey was completed on the Dove Property. Details of lines surveyed are given in the production reports.

4. PERSONNEL

Dominique Berube, geophysicist, was the party chief on the survey and operated the IPR11 receiver. Bob Wright, geologist, was the Westmin Resources' representative for the project.

5. INSTRUMENTATION AND PROCEDURES

A Scintrex IPRII time domain microprocessor based induced polarization receiver and a Scintrex TSQ4 10 kilowatt transmitter were used for the survey. Readings were taken using a 2 second alternating square wave.

The chargeability for the eighth slice (2 second pulse; 690 to 1050 milliseconds after shutoff; midpoint at 870 milliseconds) is the value that has been plotted on the accompanying plans and pseudosections.

The survey data was archived, processed, and plotted using a Sharp PC7000 microcomputer running Scintrex Soft II and proprietory software. All chargeability values were analyzed for their spectral characteristics using a curve matching procedure (Soft II).

6. RECOMMENDATIONS

A preliminary examination of the results of the induced polarization survey on the Dove Property indicates the presence of both localized weak to moderate chargeability highs and broad areas of moderate to strong chargeability.

A detailed interpretation of the results of this survey, and correlation to geological and geochemical information, is required before any specific recommendations could be made.

Respectfully Submitted,

(a total

Alan Scott, Geophysicist

GEOPHYSICAL REPORT

on the

Dove Property

Main, NS, Murex Creek and Regan Lake Grids

Courtenay Area, B.C.

Nanaimo Mining Division

Lat: N 49°35' Long: W 125°16'

NTS: 92-F-11

Owned by: Westmin Resources Ltd.

J.M. Thornton

Scott Geophysics Ltd.

April, 1989

_	rveys Results e Grid		1 1 2 2 2 3 4 5 6 6 7
Statement of Qu	alifications		9
	MAPS (in pock	et)	
Main Grid	Pseudo-Sections Lines 18+00N to 26	+00N incl	1:2500
	Chargeability Plan Resistivity Plan	n=1 n=1	1:5000
	Chargeability Plan Resistivity Plan	n=2 n=2	**
	Compilation		"
Murex Creek Gri	d		
	Pseudo-Sections Lines 9+50W & 8+00	W and Baseline	1:2500
Regan Lake Grid	1		
	Pseudo-Sections Lines 0+75E & 1+50	E	1:2500
NS Grid	Pseudo-Sections Lines 0 to 28+00N	incl	1:2500
	Chargeability Plan n= Resistivity Plan n=		1:5000
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	Compilation		\$7

Scott Geophysics Ltd.

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Summary

Induced Polarization surveys over parts of the Dove property have revealed the presence of strong anomalies. Very high chargeabilities combined with extremely low resistivities are seen in the central part of the Main and NS grids as well as the north end of the Murex grid.

High resistivity-high chargeability anomalies which can be interpreted as high sulfide/silicification are evident in several areas.

Much faulting can be inferred from the data but is generally difficult to interpret because of wide line-spacing.

Nanaimo Formation rocks are readily mappable with IP as is the volcanic-sedimentary contact particularly on the NS and Main grids.

Introduction

During the period September 20 to October 22, 1988, Induced Polarization and Resistivity surveys were performed by Scott Geophysics Ltd. over portions of the Main, NS, Murex Creek and Regan Lake grids, owned by Westmin Resources Ltd.

A total of 25.9 line kilometers were surveyed using an array spacing "a" of 25 meters, gathering data for five "n" separations in the standard pole-dipole configuration on widely spaced lines (200 meter intervals).

Location and Access

The Main grid baseline is parallel to and south-west of Wolf Lake. The Tsolum Main logging road forms the south-west boundary of the survey area from branch 55 to 1.5 km north-west of branch 101 as shown on the forest cover maps of the area.

The NS grid is immediately south of Dove Creek just east of Anderson Lake and is most easily reached by taking branch 53 from the Tsolum Main. Only Line 28+00N is north of Dove Creek.

The Murex Creek grid is reached via the Royston-Duncan Bay Main to the Rossiter Main and branch 102 to the south approximately 1.5 km to the north end of line 8+00W. Alternatively, Branch 101 from the Tsolum Main provides access to the south end of lines 8+00 and 9+50W approximately 1.0 km west at branch 101E.

The Regan Lake grid lies immediately south of the Rossiter Main at Regan Lake and is accessed via branch 112 or the disused branch 114.

Previous Work

The Main grid was the site of an IP survey in 1987 which extended from 10S to 44N with a gap between 18+00N and 32+00N. A VLF-EM survey has been performed on most of the grid.

The author is unaware of any geophysical work performed on the NS and Murex Creek grids.

The two lines of data on the Regan Lake grid are followup to an earlier survey which revealed the necessity for a high powered IP transmitter.

Geophysical Survey

The current work on the Main Grid (18N to 26N) was done in an area of extremely low resistivities which required a very high power IP transmitter.

The survey parameters for the four areas are detailled as follows:

	LINES	Spacing	Stn. Spc.	Current	# Sep	# km
Main Grid	5	200 m	25 m	W	5	6.30
NS Grid	15	200 m	25 m	W	5	14.50
Murex Creek Grid	3	150 m	25 m	S	5	2.70
Regan Lake Grid	2	75 m	25 m	S	5	2.40

Surveys were performed with a Scintrex IPR-11 receiver and a Scintrex TSQ4 (10 kW) transmitter. Transmitted waveform was the conventional 2 second alternating square wave. The IPR-11 is a micro-processor based IP receiver capable of measuring six dipoles simultaneously. Ten channels (or windows) of chargeability were gathered and stored in the receiver memory along with the SP and resistivity at each dipole. Data was archived to 5.25" floppy disks and processed using a Sharp 7000 portable microcomputer using software proprietary to Scott Geophysics Ltd. on a dot matrix printer.

The chargeability information was processed to provide spectral information (Soft II). This processing also provides a data quality check.

Survey Results

Resistivity and chargeability data (M7) were plotted as pseudosections at a scale of 1:1250 and later to 1:2500 for inclusion into the report. M7 is the eighth chargeability window (690-1050 msec), which closely approximates the Newmont standard (700-1100 msec).

Spectral Analysis of the IP data was performed. The Cole-Cole parameters, c and tau, were calculated along with a goodness-of-fit. This fit is a measure of the data quality, inasmuch as the data can be seen to conform to pre-established waveforms. Large tau values are indicative of large "grain" size. Table entries of -2000 indicate a value not determined, generally due to extremely low signals in areas of low resistivity.

Contour maps of the resistivity and chargeability data for n=1 and n=2 were generated and plotted at a scale of 1:5000.

Discussion of Results

Main Grid

According to published geological information, the survey area is underlain by Karmutsen volcanics to the west with Nanaimo formation (sediments, coaly measures and black shales) to the east. The IP information suggests that the volcanics form a thin skin over the extremely reactive Nanaimo formation rocks.

Line 26+00N

Very low resistivity under thin layer of surface material, except at 1+50W where a block or raft of higher resistivity material is noted. Chargeabilities are very high except in the surface material near the west end of the line. Resistivities too low for accurate measurements of chargeability in central part of line.

"G" - subcropping contact feature between moderate and very low resistivity material.

"H3" - well defined chargeability within moderate resistivity material.

Line 24+00N

The flat lying low resistivity material under slightly thicker cover at the west end of the line apparently dips gently to the east and is seen again at 100W.(up faulted?) Generally the resistivities are high, particularly east of 200E (Anomaly J).

"G" - contact feature as indicated above - not as well defined due to inability to measure in low resistivity medium.

"H1 & H3" - distinct chargeability anomalies separated by sharp chargeability contrasts and a marked resistivity change H1 is more than 1 dipole wide - appears nearly vertical H3 is very narrow and also appears vertical

- apparent dip may be an artifact of what appears to be a fault between the zones.

"J" - well defined broad response from a wide body at surface. The zone has a marked resistivity contrast to the host material, 300 ohm-m vs 2500 ohm-m rocks.

Line 22+00N

Extremely low resistivities from west end of line to 2+00E where there is an abrupt rock-type change. Rafts of moderate resistivity material noted at 4+00W and 1+00W. Fault inferred at 3+75W. A broad fault or shear zone is suggested at 2+25E which also marks the boundary between low resistivity material (coaly sediments) and high resistivity rocks (typically intrusive). Distinct fault response is also noted at 3+50E Chargeability anomalies "F", "G1", and "G2" lie within the very low resistivity rocks. "H1" and "H3" are contact features on either side of a raft of moderate resistivity material.

"J" is assocoated with the shear/fault zone and exhibits a moderate chargeability high.

"K" - immediately east of a strong resistivity low, assumed to be a fault. Moderate (30 msec) anomaly

The survey area lies immediately south of a tailings pond. Tailings slimes and chemistry might contribute strongly to the measured responses on lines 26+00N and 24+00N.

Line 20+00N

The line is characterized by extremely low resistivities throughout, especially at the west end of the line and in the vicinity of anomalies "G2" and between "H3" and J". The change from low to moderate resistivity rocks at "K" is thought to be fault controlled.

All marked anomalies exhibit strong chargeability anomalies and lie within extremely low resistivity rocks. Anomalies are discrete but not isolated and possibly caused by near vertical beds? of coaly material.

"K" - is thought to lie on or near a contact with moderately resistive rocks. Overburden may be a little thicker as a layering effect is apparent in the resistivity data and the chargeability anomaly is not apparent in the first separation.

Line 18+00N

The west part of the line is very similar to line 20+00N. The marked anomalies are very similar to their counterparts, but are slightly more distinct.

There is a fundamental difference in the response east of 100E. Either the overburden has thickened considerably (to 80 meters or more) or a fundamental change in the underlying rocks has taken place. The resistivities are very much higher, except at depth, and the chargeability data reflects little or no chargeable material, increasing at depth at the east end of the line in concert with the decrease in resistivity. It is likely that the sediments are covered with a sheet or sill of moderately resistive rocks (volcanics;tuffs?) or a sill of intrusive material. Two sharp resistivity lows are evident; each interpreted as a fault.

<u>Regan Lake Grid</u>

Two North-South test lines revealed three distinct anomalies.

Line 0+75E

"A" - a weak (10-15 ms) chargeability high/ resistivity low of limited depth extent dipping North within moderate to high resistivity host rocks.

Line 1+50E

"B" - a weak (15 ms) anomaly with some width perhaps broadening somewhat at depth, dip uncertain. Weak distinct chargeability increase

at survey depth limit south of "B" suggests that anomaly is within a window to deeper rocks.

"C" - is a narrow contact feature present on both lines and appears as a narrow resistivity high/chargeability high on line 0+75E in host rocks of moderate resistivity/low chargeability. A distinct narrow chargeability high in high resistivity rocks marks its location on line 1+50E. Chargeability data for this line is complex while the resistivity data is quite well behaved. Possibly a narrow vertical structure located precisely at 400N.

Murex Creek Grid

Three test lines of data were gathered; two N/S lines and part of the base-line.

Baseline

Rocks typically moderate resistivity with some layering indicative of thin to moderate overburden cover. Three contact/fault zones evident.

Chargeability high associated with resistivity high at 900W (n=2) to 800W (n=4).

Distinct strong chargeability/resistivity high at 7+00W.

A weak but distinct chargeability high assocoated with a resistivity change from moderate to high at 3+75W.

Fault 1+75 W - resistivity contrast - no chargeability anomaly

These anomalies are interesting because they are resistivity highs; carbonatization or silicification of the host and surrounding rocks may explain the anomalies.

Line 9+50W

Line is characterized by high to very high resistivity rocks south of 3+00N, a very low resistivity (<100 ohm-m) central region and moderate resistivies north of 7+50N.

"A" - 0+75N to 1+50N -broad chargeability (>25 ms) in very high resistivity material.

"B" - 2+25N to 2+50N - narrow chargeability in same material.

"D" - very high chargeabilities (>40 ms) in medium resistivities (200 ohm-meter) - typical of sulfide saturated sediments or volcanics

The Nanaimo Formation rocks appear to dip steeply west, and outcrop/subcrop at 3+50N. Chargeability data suggests that the overburden is moderate thinning to near zero around 4+00N and increases again north of 5+75N where the Nanaimo rocks are overlain by another (unknown) rock type.

Line 8+00W

Anomalies "A" and "D" are repeated, although at depth on this line. Anomaly "B" appears to be faulted off. Fault contacts at 1+75S and 2+75N and 7+25N. Thick non-chargeable cover giving way to more chargeable rocks at depth at north end of line. (Altered volcanics with Nanaimo Formation at depth?)

NS Grid

The NS grid is characterized by very strong N/S lineations. A major break/contrast is seen in the resistivity data. Moderate to high reesistivities to the west, with extremely low resistivity rocks to the east. Continuity between lines is poor to fair, a large number of faults and/or contacts have been interpreted; a considerable amount of longtitudinal movement must have occurred in the survey area. Some lateral motion is suggested between lines 28+00N and 26+00N. The block of high resistivity material on line 16+00N appears out of place as well.

The compilation map shows the location of the major anomalies.

"A" lies within the high resistivity rocks and is a weak to moderate chargeability high at some depth. It extends from line 22+00N to 18+00N and may be associated with anomaly "B".

"B" for the most part is a near surface strong IP high lying just within highly resistive rocks or is fault bounded on the east by low resistivity rocks.

Both of these anomalies reflect tau values in the 10 to 30 range, a value normally associated with disseminated material rather than massive or electrically continuous material.

"C" appears fault bounded on both sides and is thought to extend somewhat discontinuously from 2600N to 200N within very low resistivity rocks.

"D" lies east of "C" and also extends from 2600N to approximately 800S but is not as obviously structurally controlled. Several contact features are noted in the vicinity of "D" but are not regular features.

"H" is a fairly deep-seated (n=4) weak chargeability high in moderate to low resistivity rocks.

Spectral Considerations

Tau values consistently above 100 indicate the material to have a large effective "grain-size" or individual electrical path length. Readings below 10 are generally from finely disseminated material, while tau values of 3 or less are normally from unpolarizable rocks.

Detailled analysis of the spectral information has not been performed; the data has been simply scanned in order to select the higher priority anomalies. Given a certain chargeability, those anomalies

For a given chargeability, those anomalies with smaller tau values are considered better than those with longer time constants.

Conclusions and Recommendations

For the most part, rocks with resistivities below 100 ohm-meters are characterized by high chargeabilities and are thought to be Nanaimo Formation (poor coals, black shales etc.) This material is highly polarizable but is also quite variable in response, probably reflecting the variations in carbon and pyrite content throughout the sequence.

Rocks exhibiting resistivities in excess of 1000 ohm-meters are thought to be Karmutsen volcanics. The chargeability of these rocks is quite varied but generally below 7 msec, which translates to 1.5% sulfides or less.

Little evidence of intrusive activity is apparent in the IP data except perhaps at the south end of the Main Grid, where resistivity data suggests relatively homogenous material is to be found.

Targets (by priority - each grid separately treated):

NS Grid	"A" - L18+00N to L24+00N - 5+00W "B" - L14+00N to L4+00N - 4+00W
Murex Creek	"A" - L 9+50W - 1+25N, L8+00W - 2+50N "B" - L 9+50W - 2+25N
	"D" - L 9+00W - 7+75N to 8+50N, L8+00N - 7+75N to 8+00N "E" - Baseline 7+00W
Regan Lake	"A" - L 0+75E - 3+00S "C" - L 0+75E - 4+10N, L1+50E - 4+00N
Main Grid	"J" - L24+00N - 2+00E "K" - L22+00N - 3+75E "K" - L20+00N - 2+75E

These anomalies are exclusively high chargeability/high resistivity anomalies which are felt to be more significant than those within the suspected Nanaimo Formation rocks. Many of the anomalies have mid-range tau values and are thought to be sulfide targets.

Detailled analysis of the spectral information in the low resistivity regions might provide further anomaly differentiation.

Further corroboration is required prior to any drilling and/or trenching of the IP targets. Magnetic data could be expected to reveal the presence of pyrrhotite mineralization thus providing further knowledge of the chemical aspects under which mineralization was formed.

Skin depth effectively limits the depth penetration to $3.6\sqrt{Rho}$ for VLF signals (20 to 30 kHz), thus VLF data would reflect only the makeup of the top several meters in the low resistivity areas.

Any of the time-domain EM techniques (Pulse EM or UTEM) may provide further information. They will most certainly provide a greater depth of penetration with a slight decrease in anomaly definition as compared to Induced Polarization surveys.

For detailled examination of IP anomalies, it is reccommended to use dipole-dipole arrays, where possible, in order to make better estimates of dip and location of individual anomalies.

Exploration within the Nanaimo Formation is difficult. IP has mapped highly polarizable zones within the highly variable but extremely low resistivity sequence. These anomalies are thought to arise from low to medium quality coals and shales with very high sulfide content.

Anomalies in moderately high to high resistivity areas are thought to provide higher probability of economic mineralization than those in the low resistivity zones. (Nanaimo Formation)

f. M. Shenton Thornton April 13, 1989

Statement of Qualifications

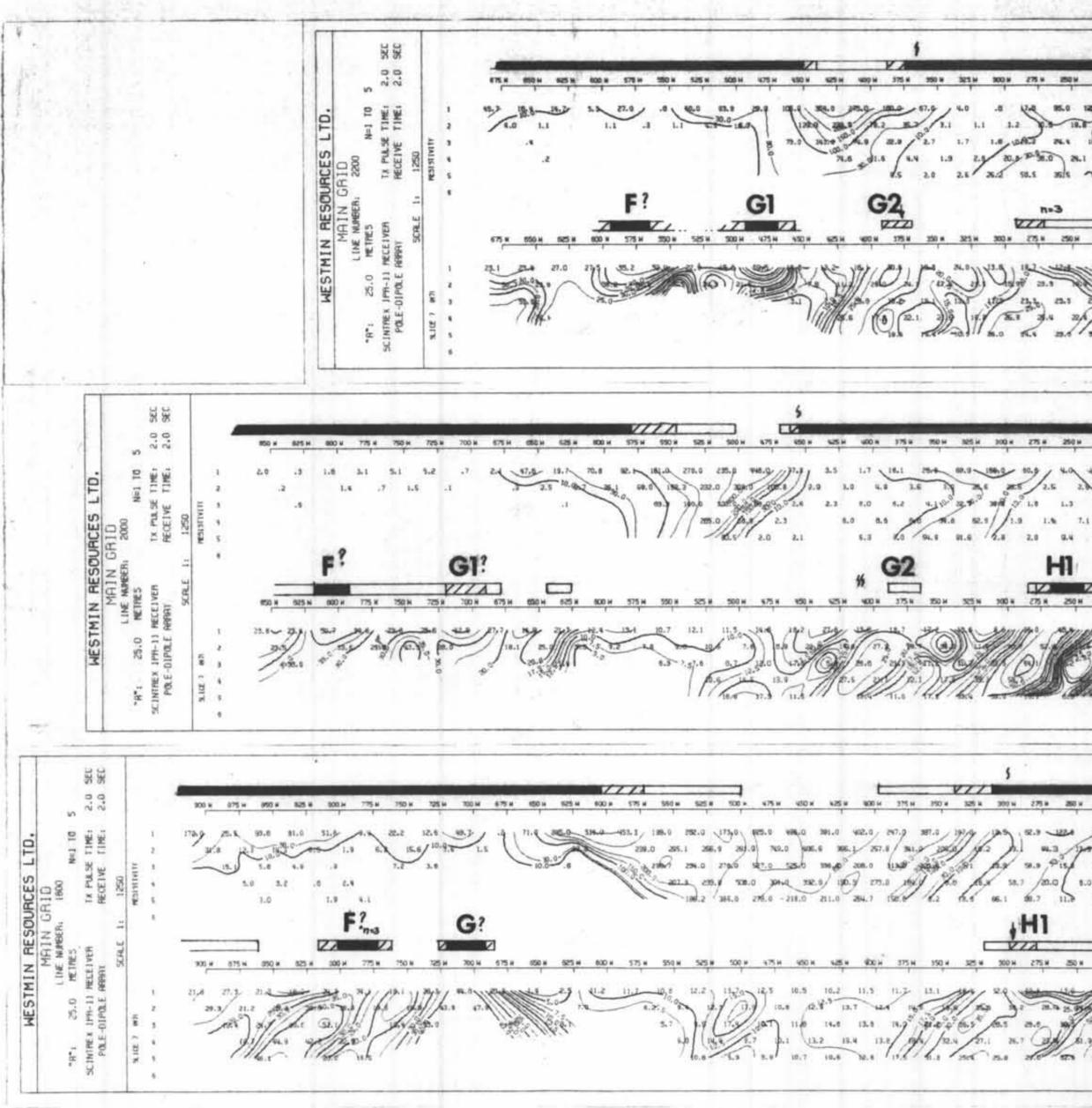
I, J.M. Thornton, of 3393 Fairmont Road, North Vancouver, B.C. do certify that:

1) I have worked as a geophysical technician/geophysicist for the past twenty years.

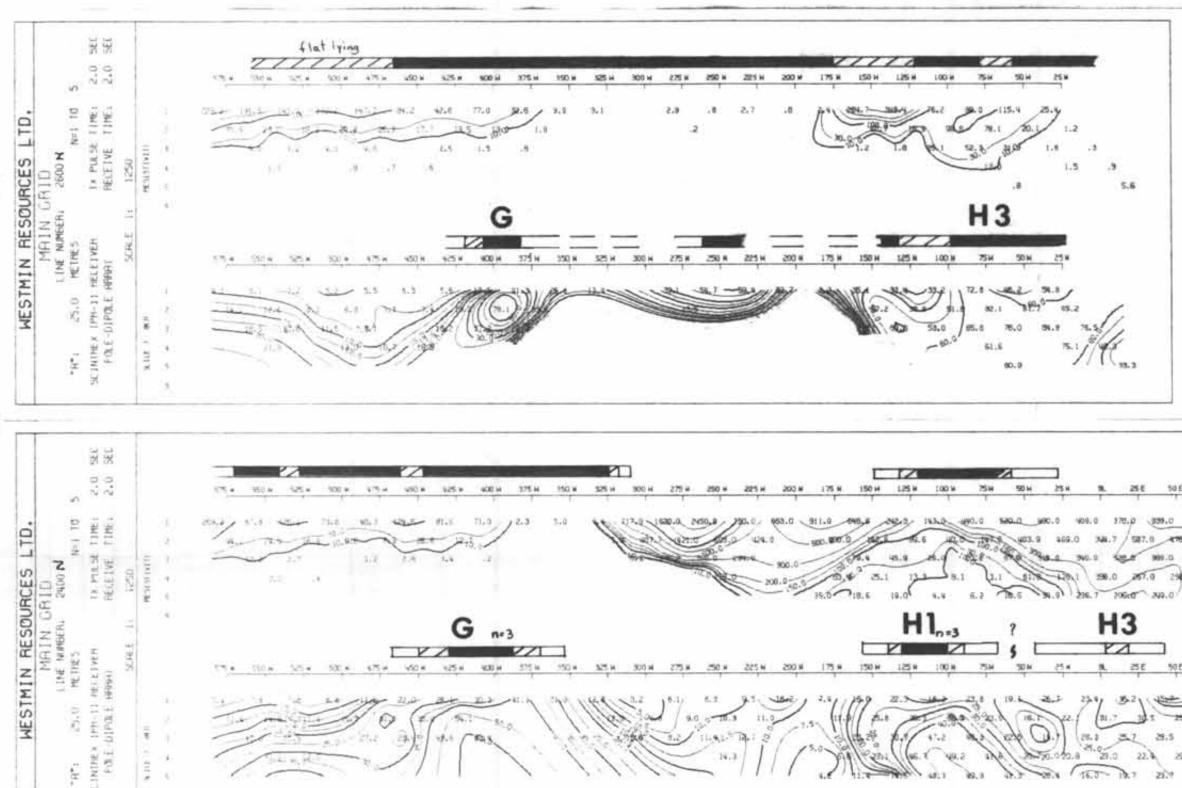
2) I have been engaged in mineral exploration since graduation from BCIT in 1967.

3) I have no interest in the property represented in this report, nor do I expect to receive any such interest.

1. M. Show tr



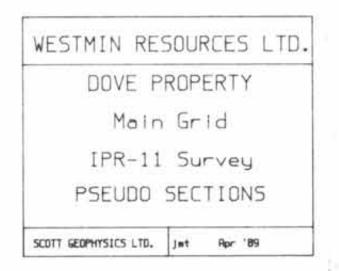
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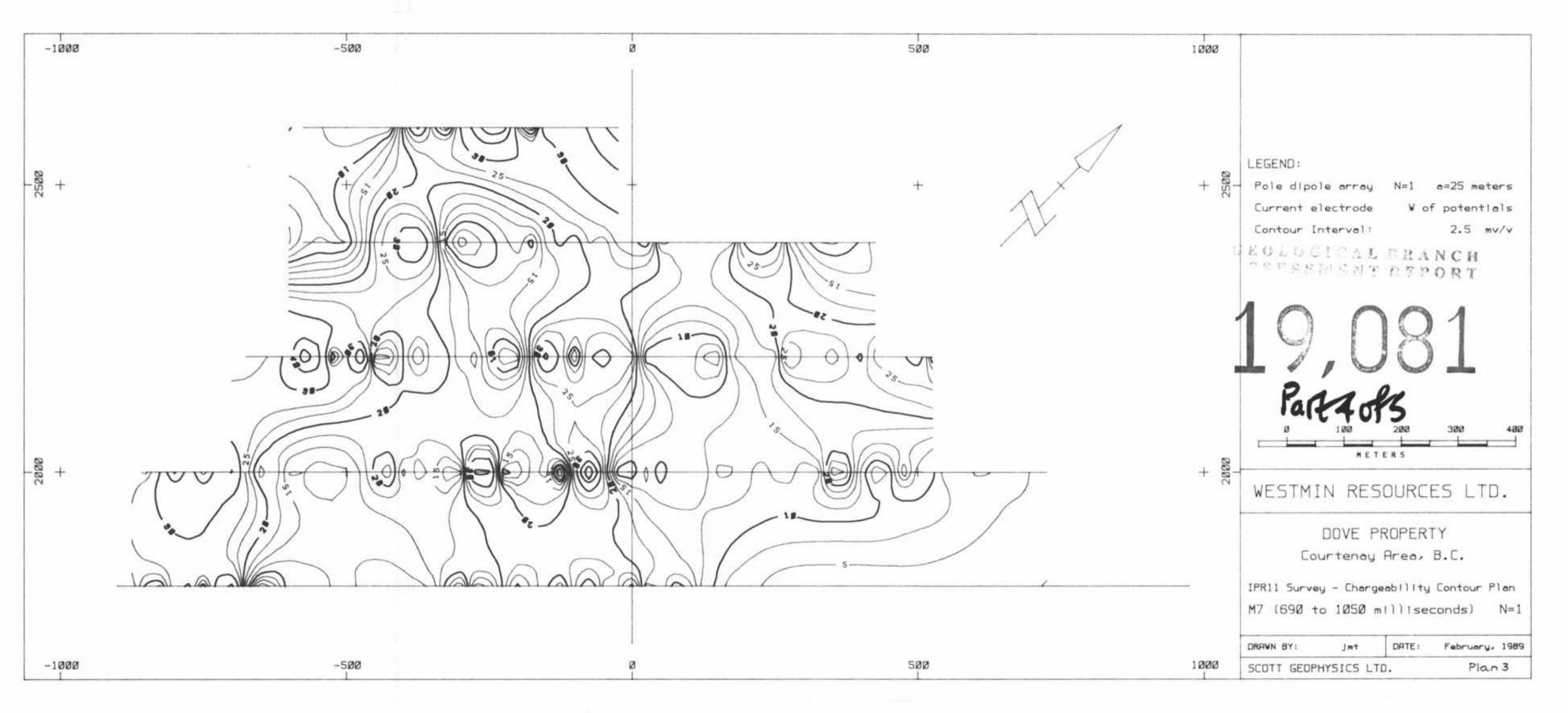


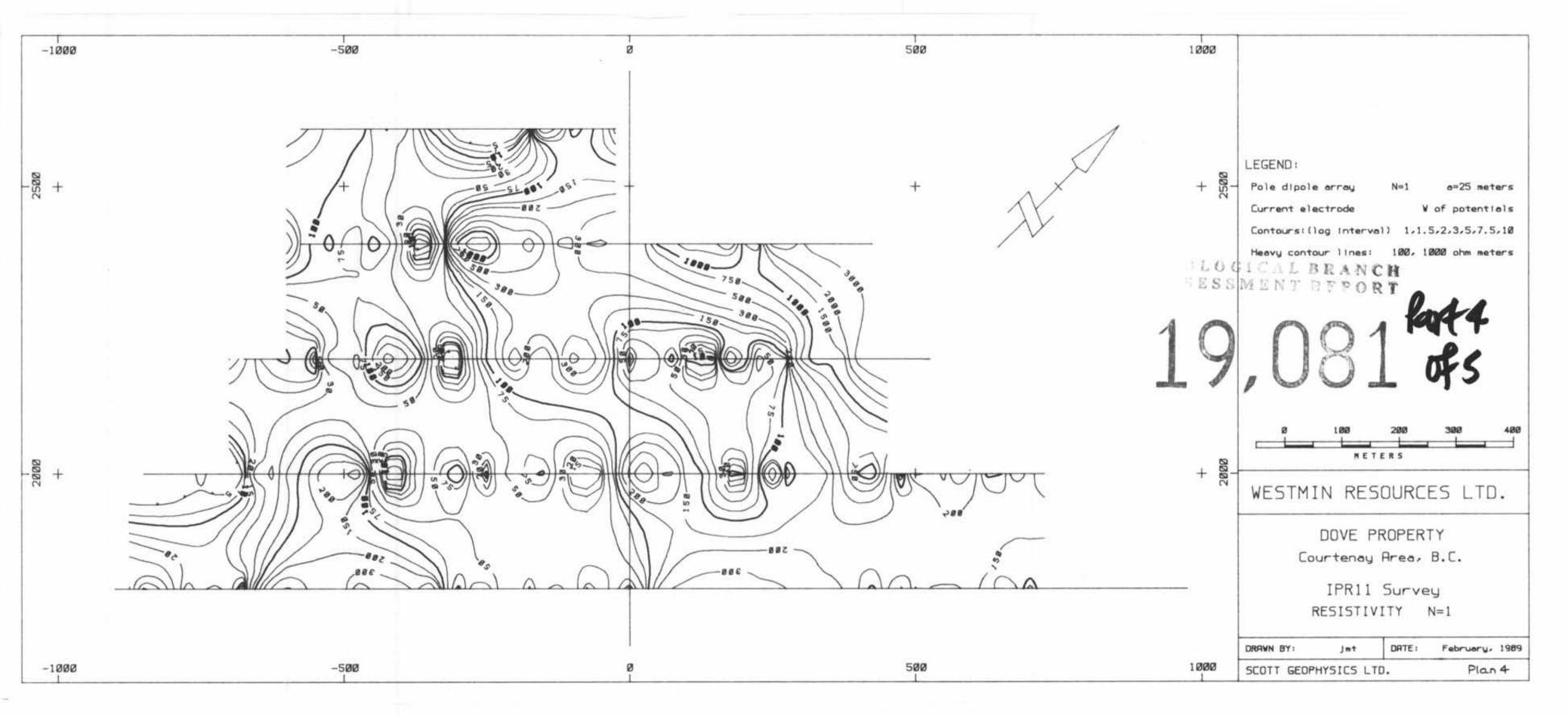
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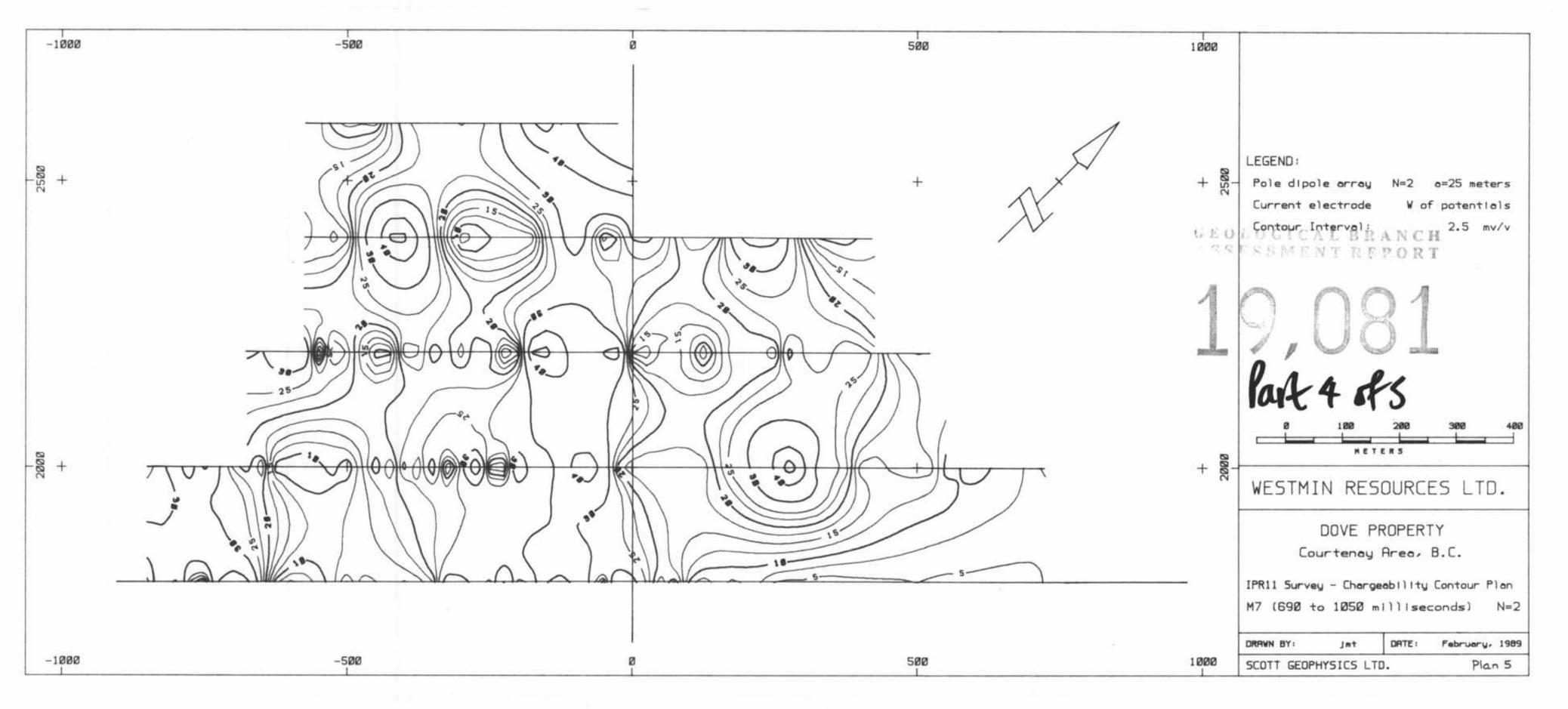
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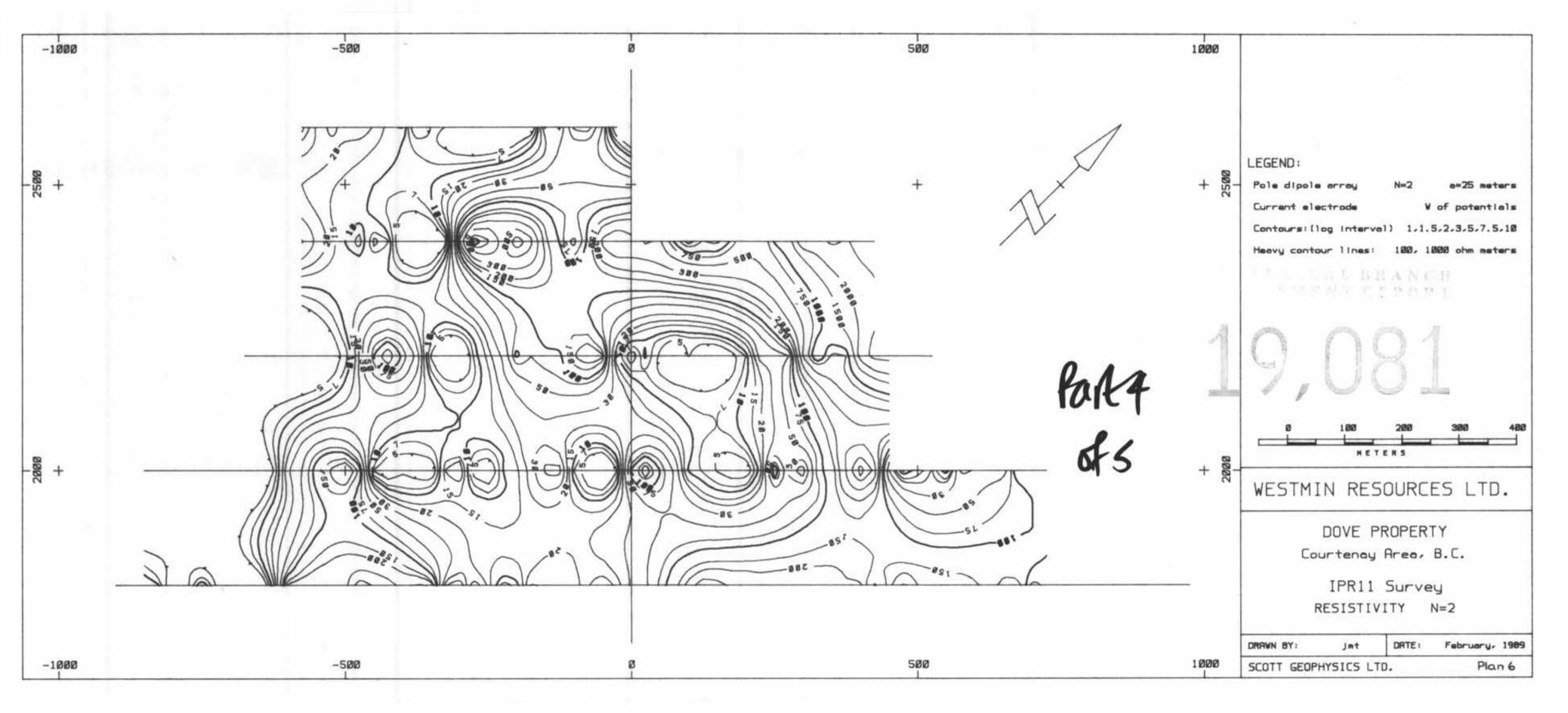
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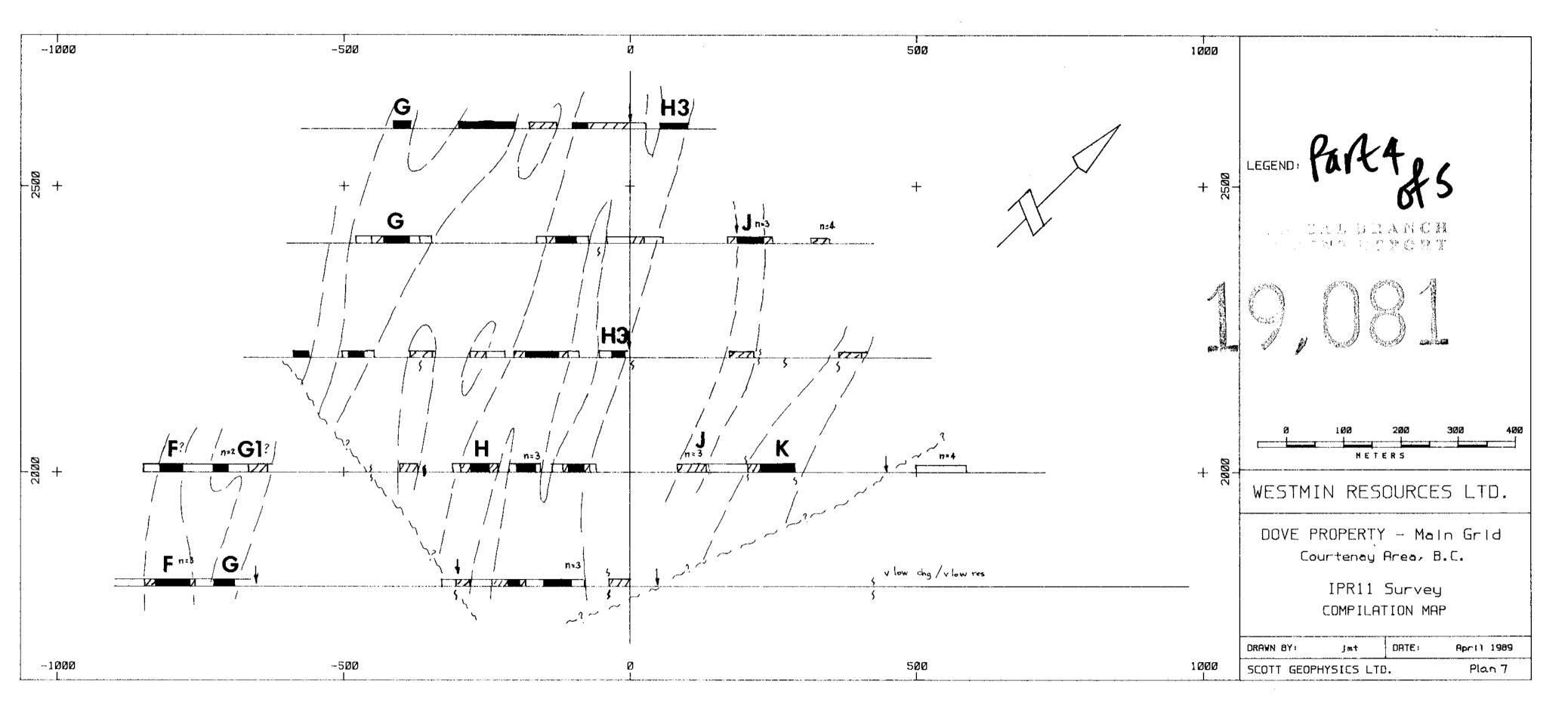








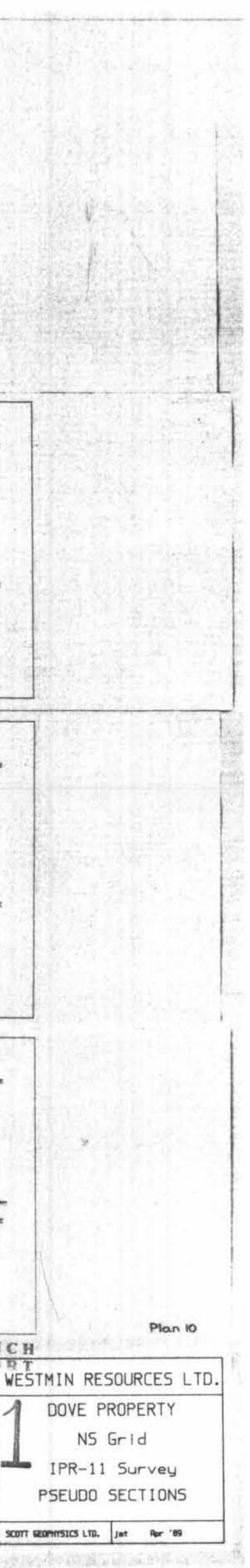




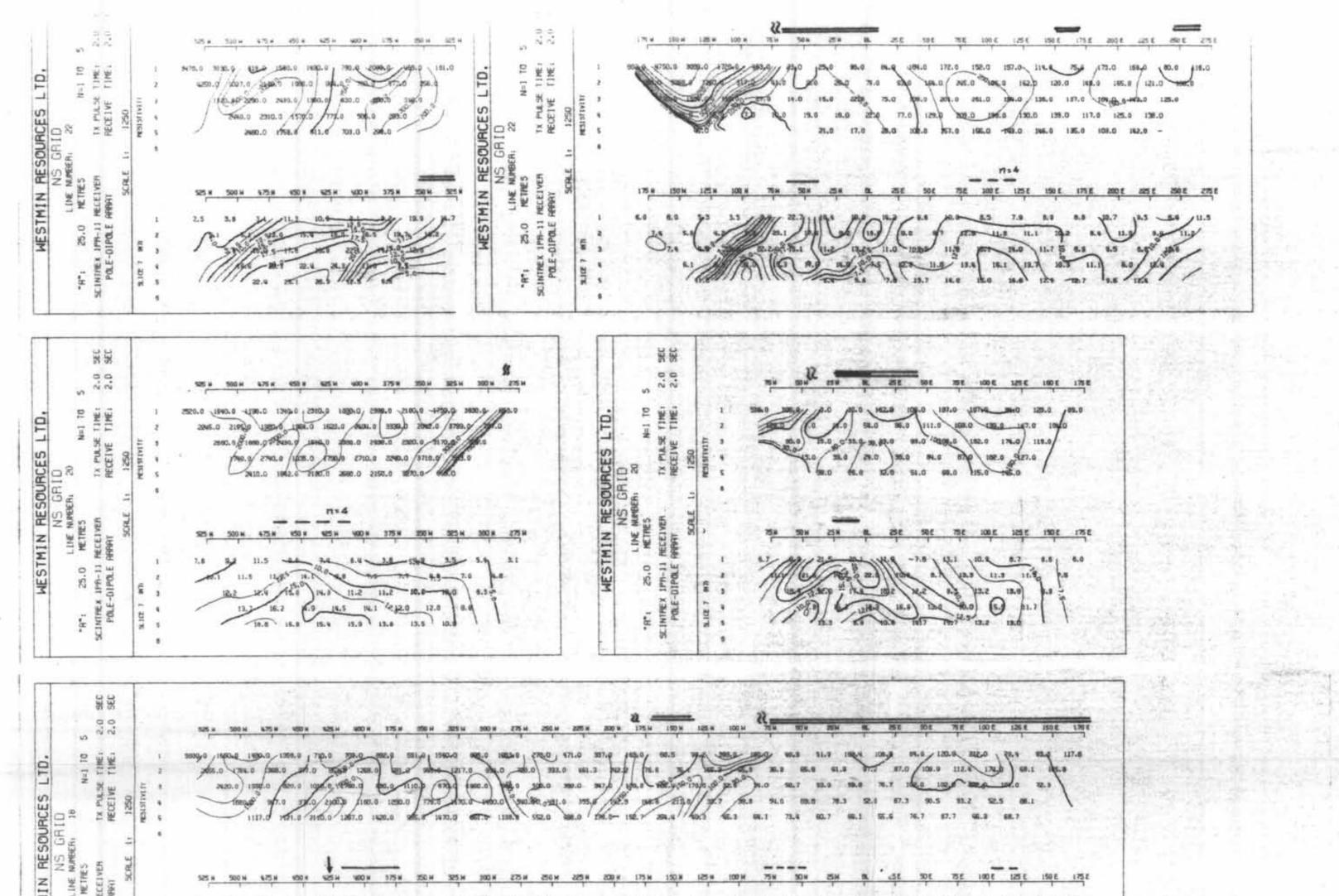
** 2.0 in 100-100-0 201-0 125-0 106-2 252-1 512-0 730-4 000-0 1300-0 000-0 201-0 20-0 310-0 200-0 105-0 102-3 450-0 1152-0 20 \$29.0 378.0 238.9 302-6 225.0 589.0 -12th 불분 191. 8 50. 81.0 710.0 8 100.0 Here.0 - 500.0 16.0 5 570.0 ABLD 832.8 639.0 802.0 1000 all a 0.594 381.0 Quese.0 424.0 228.1 D.O 40.0% and 2000.0 (1000 200.0 100.0 452.5 M. 1 100.0 10000 and 100.0 1150.0 100.0 1200.0 1200.0 10000 \$70.0 \$50.0 Sta 618.9 200.0 650.0 000.8 810.0 530.0 550.0 710.0 680.0 \$.0 TX PULS SOURCES 100,000 100 0 682.0 532.0 437.0 710to 0.010 581.0 1040.0 1550.0 432.0 352.0 \$77.0 577.0 - - --RARA **MESTMI** "A"1 25.0 CIMPREX 1PR-11 POLE-01POLE 1ª 0" and the second 16.3 (18.1-19745 89.5 8.8 3.1 4 1.7 1.8 4.5 2.0 1.1 1.9 1.1.0-60 2.2.8 2.3 4 5.6 in. 2.4 1.7 4.5 14 2 20 28 15 1.7 2.2 ab by 2.0 8.9 5.3 26 27 27 23 24 27 8.1 7.7 6.5 1.5 2.0 2.2 .8 0.6 7.0 6.3 0.0 5.1 7.3 10.1 8.5 5.8 LS 3.2 LB 1.5 2.7 SEC 14 0.0 2.0 500 H 525 H 350 N 175 8 400 N 1625 H 950 N 575 N 795.4 #75 H BOD N 675 N 700 N 11 TG 1000 0 1000 0 100 0 100 0 100 0 100 245.0 20.1 211.0 200.0 144. IL 199. AND 743. 8 10-4 1.9 ses.0) 3010.0/ \$17.0 547,0 \$7.1 14.0 78.4 333.0 \$2.4 A1 . 4 7.8 GEOLOGICAL BRANCH TX PULSE RECEIVE 5.4 5.1 6.4 4.7 ASSESSMENT REPORT 7.0 5.8 012.9 1770.0/ 11514 3.9 5.8 56.0 8.18 9.52 8.31.8 47.7 71.3 154.0 and 10.0 200.0 1017.0 1002.0 5.7 13.2 1.3 72.7 10.0 10200 112.0 71.7 463.0 3.0 11.1 7.1 1.8 18.0 38.4 75.7 (inh) 384.0 237.6 11.0 70.0 59,8 45.2 29,91 7711 625 N 550 N 575 N 700 N 725 N 750 N 775 N 600 N 625 N 650 N 675 N 900 N 325 N 125 N 150 N 175 N 225 N 250 N 275.8 300 N 75N 100N 200 N 425 N 450 N 475 N 500 W 525 N 550 N 0 2.3.0 01 57.5 98.4 "A"1 SCINTREX IP 1. 314 1.4 45.5 52.3 2.4 2.8 (1.445 000 55.9 375 4.0 46.9 94.5 2.0 94.8 5.5 977 44.9 56 1.1 91.5 15.2 15.0 (5.4) N.0 10.0 12 WILL 72.6 3.100 fart 4 of 5 ----SE SE n=3 \$ 2.0 175 H 200 K 225 H 250 H 275 H 300 H 325 H 350 H 375 H 400 H 425 H 400 H 475 K 500 H 525 K 550 H 575 H 600 H 625 H 650 N IE75 N 700 N 725 A 750 N 775 N 809 N 825 N 850 N 875 N 800 N 925 N 950 N 975 N 150 N Plan 8 F1061 21.8 179.7 129.5 104.4 130.0 235.0 195.0 5.2 2.0. 5.81 75.3 99.2 128-9 112.0 159.2 LTD. 121.0 43.5 38.9 I=N 12/ 0000-0 2770.0 1156.I 24/0 16.6 7,3 232.9 271.500.888.1 243.2 •) 50.0 65.1 46.2 179.262 113.5 150.0 205.1 TX PULSE RECEIVE MESTMIN RESOURCES L MUMEX CREEK GRID TE LINE NIMBER, BOOW "H"1 25.0 MUMES BOOW SCINTHCK IPH-11 RECEIVER TX PULSE POLE-OLPOLE ARMHI RECEIVER 0.0 2820.0 ofore along and and 48.1 410.0 362.0 28.6 12.3 15.6 50.0 e al 13.6 13.39 1.2 37.0 18.5 7410.0 (tea0.0) 1/min mile 3.1 -0.9.85-5.15 15.7 13,6 13.5 28.8 40.9 Ba \$37.0/ 530.0 0.5 17.8 199.8 20.5 85. p.811 217.5 17,9 16.4 136.0 36.2 6.3 18.1 15.2 \$3.8 28.8 169.5 WESTMIN RESOURCES LTD. 747.0 61.4 190.0 A С DOVE PROPERTY n-3 Ln=4 n=5 7777 150 N 175 N 200 N 225 N 230 N 275 N 100 N 225 N 150 N 375 N 100 N 125 N 150 N 125 N 150 N 125 N 150 N 525 N MUREX CREEK Grid 1 Cont 7.6 54 4.1 -15.4 - 11-1 38.6 6.9 14.6 -41 State 7 30.0 5. 4 60 502 425 (S 12.0 (st.) 5. Ja IPR-11 Survey 198.3 1 36.0 15,0 12.5 11.5 0/10 ŝ tes of 15.8.4 17.4 54.2 ALL IN 238.7 37.9 12.1 PSEUDO SECTIONS 0 San Anna 3.102.1 MAR. Mar az 32.8 36.2 36.8 14.1 R.5 MART 1224.1 42.0 6.1 1. Tor 17.4 M.C 17.2 41.5 44.7 12.7 20.2 SCOTT GEOPHYSICS LTD. Jat Apr '89

SEC _____ 2771 -2.0 853 N 675 N 700 N 10 N=1 TO E TIME: TIME: MESTMIN RESOURCES LTD. 558.0 523.0 404.0 500.04.4 418.0 556.0 1051.0 1012.0 514.0 1140.0 97500 1341.0 1171.0 134 250 720,0 590.0 710.9 290.0 750.0 760.0 960.0 850.0 1290.0 1340.0 1250.0 1250.0 1250.0 18.0 883.0 4580 890.0 320.0 54.0 9500 10 041.0 510.0 727,0 010.0 009.0) 804.0 572.0 -A LINE MU NETHES I RECEIVEN 220 375 3 350 3 385 3 300 5 275 5 400 N 425 N 450 N 475 N 500 N 530 N 575 N 800 N 625 N 550 N 575 N 13.2 2.8 2.7 3.1 8.5 2.8 3.0 3.4 4.5 "A": 25.0 SCINTREX IPH-11 | POLE-DIPOLE A 2.3 3.8 2.4 2.8 2.5 E1 6.6 7.1 7.9 9.8 7.8 5.7 4.4 4.0 3.5 3.2 3.7 3.9 4.6 0 E.J 5.3 6.1 2.5/ 8.5 6.2 0.0 7.4 6.0 3.4 8.5 12 S. AN AN AN 4.1 2.5 51 000 1.4 4.8 4.5 5.3 5.8 6.2 6.9 5.8 0.0 S.L 5.83.0 4 3 3.7 5.4 5.8 5,6 2.0.1 5.3 / Pet / Kg a ci es se si 6.3 6.6 2.6 7.4 8.9 8.4 9.5 5.4 5.0 5.0 5.2 5.5 5.3 5.2 5.1 8.4 6.0 5.6 5.0 8.4 5.5 5.8c 100 3.102 1.5 5.7 5.8 6.8 6.8 5.4 5.4 5.8 5.8 5.8 5.8 5.8 =0.0 2.8 4.9 10.0 8.6 7.1 65 22 12 14.51 128 6.5 9.1 5.6 6.5 5.6 6.1 8.2 8.7 SEC 2.0 100 N 125 H 150 H 175 N 25 N LI TU TIME: TIME: 102.0 11320.0 1110.0 1100.0 50.0 TOLO 1059.0 680,0 1040.0 980.0 900.0 503.0 / 963.0 MESTMIN RESOURCES LTD. \$43.0 557.0 1=1 TX PULSE RECEIVE B CINE NO CINE NO I RECEIVEN 272 SCR 975.5 450.1 925.5 400.5 100 N 125 N 150 H 375 N 400 N 425 N 450 H 475 N 500 N 525 N 550 N 575 N 600 N 525 N 650 N 675 N $\frac{2}{2^{2}} \frac{2}{2^{3}} \frac{2}{2^{3}} \frac{2}{2^{3}} \frac{2}{2^{3}} \frac{2}{2^{3}} \frac{2}{2^{3}} \frac{1}{2^{3}} \frac{2}{2^{3}} \frac{2}{2^{3}} \frac{3}{2^{3}} \frac{1}{2^{3}} \frac{1}{2^{3}} \frac{2}{2^{3}} \frac{3}{2^{3}} \frac{1}{2^{3}} \frac{1}$ 3.8 2.6 -2.6 2.2 FR. 25.0 FOLE-OIPOLE R 1.8 2.6 2.5 3.0 6.2 60 E a RH_ 69 2.8 ne. 5.0 Ver B 5.0 -10.97 a.b e.e 3,102.7 2 2 2 2 5 6.8 7.1 6.5 2 2 2 4 5.4 5.1 6.5 3.7 3.6 7.0 5.0 4.4 1.8 4.5 GGICAL BRANCH SSMENT PEPORT WESTMIN RESOURCES LTD. DOVE PROPERTY REGAN LAKE Grid IPR-11 Survey PSEUDO SECTIONS SCOTT GEOPHYSICS LTD. Jat Rpr '89

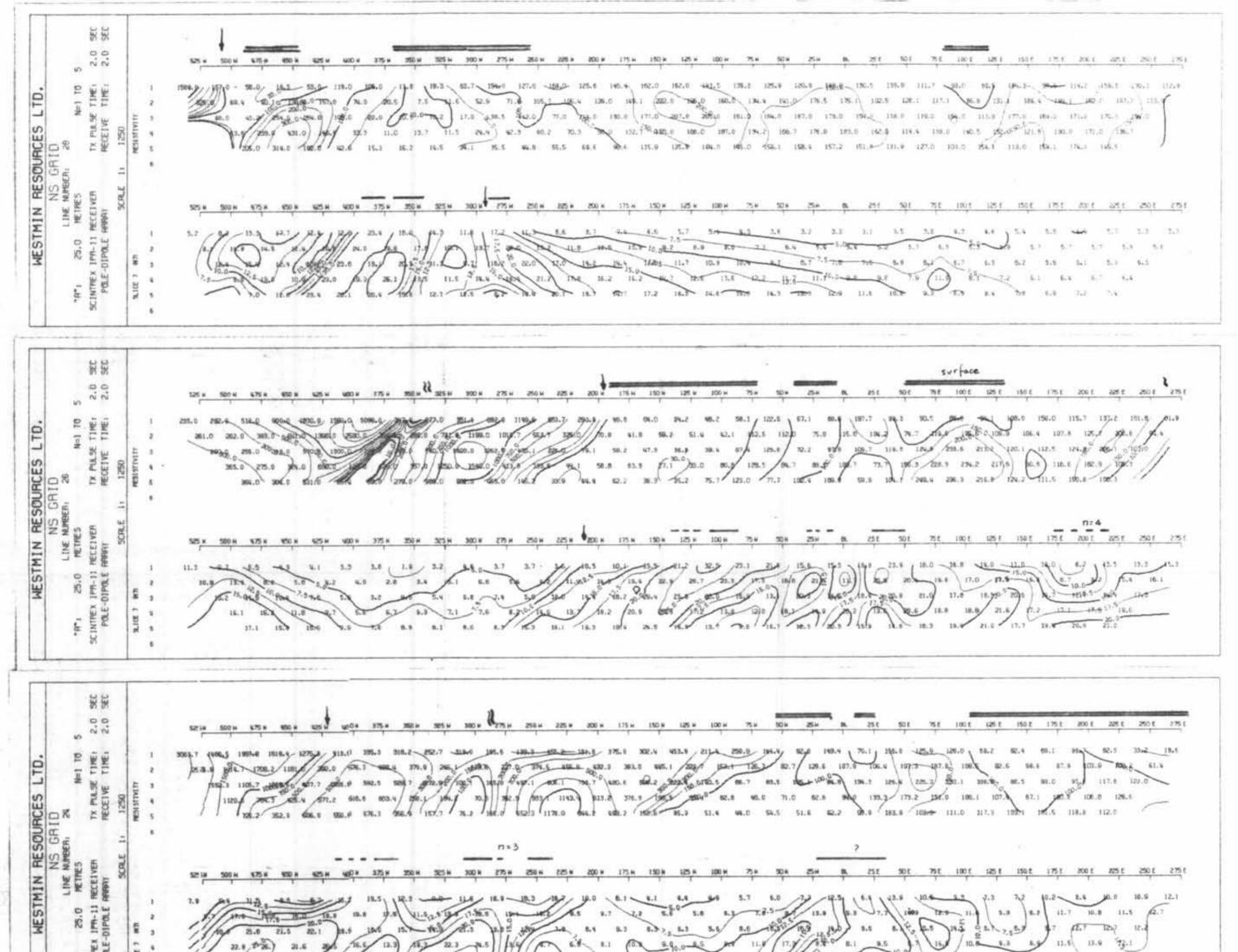
~~XXX 8.0 8.0 171 6 400 E 425 E 484 484 500 E 500 E 588 E 590 E 525 E 650 E 655 E 650 E 525 H 505 H 575 H 555 H 525 H 500 H 275 H 500 H 325 H 300 H 275 H 256 H 225 H 200 H 175 H 150 H 125 H 100 H ale mare sere used into the into and and the into the sere the ser 12949 197.0 281.1 1177.2 200.0 278.9 000.2 208.9 11 10 11161 bien osis and and are fanes forest anes eres dead after and fine press and are an 948 0 1257.0 1104.0 1136.0 1087 7 700.0 756.0 5060 413.0 113.0 330.0 건문 325 E 390 E 375 E 400 E 425 E 400 E 475 E 500 E 525 E 100 E 575 E the set of 10.7 18.5 0. 4 15.90 The Aus 198 POLE 35 5.0 AUSE 450 E 676 E 700 E 785 E 760 E 779 E 600 E AUSE 450 E A75 E P IN 274.0 207.0 201.0 201.0 201.0 201.0 201.0 201.0 101.0 TX PULSE RECEIVE GRID GRID 206.0 200.0 2001 176.8 202.0 319.0 348.0 313.0 850E 675E 700E 725E 750E 775E 850E 85E 250 1 2752 300 2 3152 390 1 375 1 400 2 425 2 ESTMIN -20 et 11.7 10.4 Mag 11.2 10.1 00 25.0 11-111 10 (25 mg 10) 18.7 (1.8 1214.4 11.5 107) (una 12.2 4.7 18.4 13.0 12.9 18.5 18.4 Ne Se 2.0 150 E 170 E 200 E 205 E 200 E 275 E 500 E 325 E 300 E 375 E 400 E 425 E 450 E 475 E 500 E 525 E 500 E 525 E 301 301 301 305 175 H 395 H 305 H 305 H 275 H 250 H 255 H 200 H 175 H 150 H 125 H 100 H 75 H 50 H 255 H 525 # 530 H 575 H 555 # 525 H 400 H Apr. 0 217.2 100.5 177.0 (202.7 200.8)178.8 177.8 100/2 201.0 202.0 159.8 **MESTM** 2.3 8"1 25.0 INTEX IT-11 POLE-DIPOLE 15.0 18.0 14.9 160 1L 10.5 14.1 4.5 \$, Cue 1 21 18.0 5.5 10 Sec 2.0 175 E 700 E 125 E 750 E 775 E 100 E 485 E 150 E 875 E 151 10L THE LODE LINE 150 C 175 C 100 C 1751 625 E 650 C 250 H 225 H 200 H 175 H 150 H 125 H 100 H 75 H 50 H 254 525 H 538 N 675 H 1, 10 1,0%5 MESTMIN RESOURCES LTD. MESTMIN RESOURCES LTD. NS GRID UNK MARER, 0 N-1 TIRE MARER, 0 4.3 62.4 67.6 134.0 137.1 104.4 217.4 36.9 201.4 - 5701110 / 49.8 147.0 100.0 100.0 They 100.0 120.0 117.0 W. 4 130.0 139.4 104.4 ange and 131.7 185.2 132.2 145.0 227.0 193.3 7723 ----125 C 150 E 175 E 200 C 599 E 575 E 709 E 725 E 750 E 775 E 000 E 555 E 650 E 575 E 25.6 30.6 2758 3008 3258 3508 3758 4008 4258 4508 4758 100.M 75.H 3.001 254 Dal as a port 4.90 20 20 210 2.0 2.3 3.1 we are the all the set \$6.3 \$ 5 161 32 N.I to the work of all A. 1 18.3 18.7 41 4.9/ 175 200 20.0 21.7 19.4 20.1 20.1 19.5 2.9 1 16 GEOLOGICAL BRANCH ASSESSMENT REPORT Part fofs



12.22 2.0 125 175.0 251 W 305.H 305.H 275.H 250 H 225.4 200.0 175 m 150.8 100 H 15.4 50 # 254 251 552 THE. 100.8 125.5 525 x 510 x 375 x WO B 150 E 179.0 200.0 TINE: TIME: N=1 III 1460-0 1010-0 1510-0 3400-0 \$590-0 \$210-6-1660-0 4700-0 ADD-710.0, 1090.0, 913.0 529.0 237.0 10.1 130.0 0.00 0.001 206.0 200,0-485.0-26.7 1502 102.0 22.4 22.0 11.4 125.1 141.0 WESTMIN RESOURCES LTD TX PULSE RECEIVE 100.0 10 104.0 150.0 200.0 2120 1000 2000.0 1000.0 1000.0 1000.0 10000 10000 10000 1000 66.0 61.0 77.0 80.0 94.0 136.0 HS.0 1250 UINE NAMERAL 14 UNE NAMERAL 14 METRES 96.0 59.0 BD.0 BE.0 116.0 122.0 SCRLE 325 H 300 H 275 H 250 H 225 H 200 H 175 H 130 H 125 H 100 H 75 H 525 H 500 H 675 H 850 H 925 H 400 H 375 H 350 H 25E 50E 75E 100E 125E 150E 175E 200E SON 25H 8. 10.8 Sell. 5.8 15.4 7,8 9.0 10.50 (1.5¹) (0.5 (1.5¹)) 10.50 (1.5¹) (0.5 (1.5¹)) 10.5 (1.5¹) (0.5¹) (0.5¹) (0.5¹)</sup> 10.5 (1.5¹) (0.5¹) (0.5¹) (0.5¹)</sup> 10.5 (1.5¹) (0.5¹) (0.5¹) (0.5¹) (0.5¹) (0.5¹)</sup> 10.5 (1.5¹) (0.5¹) (0.5 8,0 "R"1 25.0 SCINTREX 1PP-11 1 10-10-0 11.9 les/ (fer) m 90/20 7.8 8.5 48-4.12.98.5 15.4 15.4 12.0 11.5 5 35.2 (2.5) 10.5 35.2 (2.5) 10.5 35.2 (2.5) 10.5 35.2 (2.5) 10.5 35.2 (2.5) 10.5 (2.5) 28.331 soff No. 11.51.2 ŝ 23,0 Ant.c. 14.3 8.5 1 (20 - 20 m) 22.2 2100 · 16.6 18.0 10.8 14.7 42.4 3.10 10.5 13.8 ins 2013 XX 2.0 375 H 350 H 325 H 500 H 275 H 250 H 225 H 75 N 50 H NOW NOW 200 H 175 H 150 H 12E H IOD H TE 100 6 125 E 150 E 175 E 200 C 225 C 425 H 10 10.0 200.0 200.0 200.0 200.0 200.0 120.0 120.0 200.0 200.0 200.0 200.0 200.0 200.0 200.0 120.0 100.0 1 113.0 188.0 188.0 188.0 187.8 181.0 113.0 81.0 88.0 88.0 181.0 196.6 128.1 185.0 18 1.2 189.0 18.9 18.8 190.0 112.8 119.7 11.2 91.2 81.9 188.8 128.0 \$172.0 169.1 182.8 TIME: A.BHES HOME CLOBIS Q.000 9.0005 2 WESTMIN RESOURCES LTD 1-N TX PULSE RECEIVE 75.0 76.0 75.0 940 305.0 134.0 187.0 158.0 1250 0.001 6.001 0.711 9.00 0.00 LINE NONEER, 12 LINE NONEER, 12 O METHES 11 RECEIVEN E RENAT 94.7 64.8 50.2 HE.O 107.0 100.0 142.0 11+3 SCRLE N 005 N 255 N 025 N 275 N 005 N 256 N 026 N 275 N 009 N 255 N 269 N 275 N 000 75.N 50 H 25E 50.6 75E 100 € 125 E 150 E 175 E 200 E 225 E 175 N 150 # 125 H 254 15th 25.0 11-11 -01P9LE 11.4 11.2 M 5 52.8 -8"1 SCINTREX 1 POLE-1 - D 1.105.1 50.5 \$7.9 . 5 2.0 100 H 125 H 100 H 315 H 300 H 305 H 300 H 275 H 200 H 225 H 200 H 175 H 150 H 125 H 100 H 75 H 50.11 2514 251 SOE 76E 100 E 129 E 150 E 175 E 475 H 1440-4 410.0 170.0 180.0 170.0 2 TIME LTD. 14.5 1 mile un mo me ino land and and and me TX PULSE RECEIVE 1250 = WESTMIN RESOURCES 02 GHI NS GF LLINE MONBERI NETRES I PRECELVER 11=4 n= 3 -----75E 100E 125E 150E 175E S25 H 500 N 975 H 950 H 925 H 400 H 375 H 350 H 202.8 125 H 100 H 75 # 175 501 275.8 250 H 175 H 150 H 305 H 300 H 3 1.0 12.2 10 90. 11.7 IL. 2 IN 10 00 00 14 0.0 11-111 1. a) he is 12.0 11.0 12.7 19.110 10 0 1and 8.0 - BY 18.5 18.2 5 TR.4 10.0000 14.5 (12.8 13.2 13.3 17.0 20.7 -R"I 11.4 11.5 12.3 12.9 18.1) 20.0 20 15.9 200 10.1 2 20.0 16.2 10.1 20.0 20.7 21.7)2.9 12.9 (0) (1) X.ICE SEC 2.0 2 0 TIRE WESTMIN RESOURCES LTD 3HE 105 6 277.3 175.0 153.2 177.3 177.0 NIC Ĩ TX PULSE 217. 4 185 6 438.0 1.815 0.04 820.D 763.0 28.1 4.855 178.5 117.0 285.8 205.0 271.2 213.9 220.0 952.9 023 NETRES **PECETVE** 375.4 200 # 250 H 300 W 400 H 325 N FOLE-DIPOLE F 52.0 ŝ 15.5 18.7 16.5 14.5 X.108.7 ÷ 14.5 12.4 1 8.4 Plan II GEOLOGICAL BRANCH ASSESSMENT REPORT WESTMIN RESOURCES LTD. 19,01 Part 4 of 5 DOVE PROPERTY NS Grid IPR-11 Survey PSEUDO SECTIONS SCOTT GEOPHYSICS LTD. Jat Apr '89



MESTMIN "H"1 (5.0 NE SCINTREX 1PTI-11 REC POLE-01POLE REP -12.9L 118.6 7.3 12.9 2.8 · (O 10, 4- 12-50 1.2 7.5 4.3 2 -18:4) 16.5 8 8.7 in the series 18.3 18.8 12.2 10.0 10.0 11.9 38.4 11.1 10.8 8.10E 18.7 18.7 in 10.0 in 12.7 15.8-12.6 12.4 11.9 76.8 ** 2.0 175 # 250 # 325 H 300 # 275 H 250 H 225 # 200 # 121 H 150 H 125 H 100 H 75.8 c5E 90E 75E 100 E 125 E 150 E 175 E 200 E 225 E 1400 # 45 -152000 WESTMIN RESOURCES LTD. NS GFID LINE NUMERIA 16 *0*1 (35.10) LINE NUMERIA 16 *0*1 (35.10) LINE NUMERIA 16 *0*1 (10 *0*1 HEREIVEN 16 FUNCE 11ME: FOLL HEREIVEN 16 FUNCE 11ME: N=1 TO 6 TIME: TIME: 38911 ALT REID'O 5510'D 488.0 \ 126.9 1325 3 2200.0 2750,0 3520.0 2520.0 1700.0 4650.0 -3110 NET STATE 51 0 4 miles 1555.0 antis 1773. 1 1773. 1 1556.0 (1794.0 1400.0 1000.0 1000.0 10.000 10.000.0 10.000.0 10.000.0 1515 115.0 0616 TS.00.5 \$6.2 stio. a soor and and and any in a proph harger TX PULSE RECEIVE 88.4 58.9 31.0 76.90 750:0 980.0 x33.0 36.0 112.0 60.3 1000 00.0 TOLO 20.0 02.5 00.5 00.5 0 (44.48 08 57.7 62.5 1250 107.0 66.0 77.0 2250.0 2280.0 2233.3 3.000.0 2390.0 2140.D / 99.0 89.4 95.2 880.0 2260.0 2760.0 2054 1800.0 2510.0 10720 424.0 451.0 68.5 63.4 78.8 87.7 n+3 n=3 n= 3 SCRU 525 # 500 H \$75 # 450 # \$45 H \$400 H 375 H 350 H 325 H 300 H 275 H 250 H 225 H 175 H 150 H 150 € THE 1752 200 H 125 H 100 M 75.8 50 H 254 200 E 325 E - 11.1 5 5.7 1.9.8 - 7.8 8.1 1 9.2 . 6.0 6.1 5.7 8.3 2.0 10,0 6.8 1.6 6.4 -2.2 12.17.3 -4.3 24 Con Ser Ste 8.8 500 11.3 11.9 145 b.a 8.2/ 9.2 15.8 9.1 10(8.7 3.2 10.9 14.5 19. 8, 3 1 12.8 10.8 12.1 13.7 711.8 10.4 5 P) 5.4 6.54 8.4 14-1 16.4 16.5 10.7 12.2 52-12.11 12.0 12.9 24.8 13.6 13.4 Ra Alt. 1155 11.0 10.2 . 10.5 do Plan 12 GEOLOGICAL DRANCH ASSESSMENT REPORT WESTMIN RESOURCES LTD. DOVE PROPERTY NS Grid Part + #5 IPR-11 Survey PSEUDO SECTIONS SCOTT GEOPHYSICS LTD. jæt Apr '89



11.6 13.9 72-1 "R" I 3.10 10.7 70.1 150 11 10.0 12.3 11.4 11.7 11.0 12.5 11.4 11.7 10.3 12:0 CEOLUGICAL BRANCH SEMTNT REPORT Plan 13 Part 4 of 5 WESTMIN RESOURCES LTD DOVE PROPERTY NS Grid IPR-11 Survey PSEUDO SECTIONS SCOTT GEOPHYSICS LTD. Jat Apr '89

