REPORT ON
INDUCED POLARIZATION
AND RESISTIVITY SURVEY
OF THE
LUCIE CLAIM GROUP
ELKO COUNTY, NEVADA
FOR
PAN-NEVADA INCORPORATED

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McPHAR GEOPHYSICS

REPORT ON

INDUCED POLARIZATION

AND RESISTIVITY SURVEY

OF THE

LUCIE CLAIM GROUP

ELKO COUNTY, NEVADA

FOR

PAN-NEVADA INCORPORATED

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1. INTRODUCTION

At the request of Mr. Norman H. Ursel, consultant for the Company, we have carried out a combined induced polarization and resistivity survey of the Lucie Group in Elko County, Nevada. The property is located just west of the Effie Fay Group, in Sections 27, 28, 33 and 34 of T45N, R63E.

The area is underlain by granodiorite which has been extensively altered and mineralized. Two narrow zones of alteration have been traced across the claims and several copper showings have been located. The IP survey was carried out to search for concentrations of metallic minerals of the vein or lode type. Several interesting zones have been found and further work is warranted.

2. PRESENTATION OF RESULTS

The Induced Polarization and Resistivity results are shown on

the following data plots in the manner described in the notes preceding this report.

Line 0	100 foot spreads	Dwg. IP 5203-1
Line 8W	100 foot spreads	Dwg. IP 5203-2
Line 12W	100 foot spreads	Dwg. IP 5203-3
Line 16W	100 foot spreads	Dwg. IP 5203-4
Line 20W	100 foot spreads	Dwg. IP 5203-5
Line 24W	100 foot spreads	Dwg. IP 5203-6
Line 28W	100 foot spreads	Dwg. IP 5203-7
Line 32W	100 foot spreads	Dwg. IP 5203-8
Line 36W	100 foot spreads	Dwg. IP 5203-9
Line 40W	100 foot spreads	Dwg. IP 5203-10
Line 44W	100 foot spreads	Dwg. IP 5203-11
Line 48W	100 foot spreads	Dwg. IP 5203-12
Line 52W	100 foot spreads	Dwg. IP 5203-13
Line 56W	100 foot spreads	Dwg. IP 5203-14
Line 60W	100 foot spreads	Dwg. IP 5203-15
Line 64W	100 foot spreads	Dwg. IP 5203-16
Line 68W	100 foot spreads	Dwg. IP 5203-17

Enclosed with this report is Dwg. I.P.P. 3332, a plan map of the grid at a scale of 1" = 400'. The definite and possible induced polarization anomalies are indicated by solid and broken bars respectively on this plan map as well as the data plots. These bars represent the surface projection of the anomalous zones as interpreted from the location of the transmitter and receiver electrodes when the anomalous values were measured.

Since the induced polarization measurement is essentially an averaging process, as are all potential methods, it is frequently difficult to exactly pinpoint the source of an anomaly. Certainly, no anomaly can be located with more accuracy than the spread length; i.e. when using 100' spreads the position of a narrow sulphide body can only be determined to lie between two stations 100' apart. In order to locate sources at some depth, larger spreads must be used, with a corresponding increase in the uncertainties of location. Therefore, while the centre of the indicated anomaly probably corresponds fairly well with source, the length of the indicated anomaly along the line should not be taken to represent the exact edges of the anomalous material.

3. DISCUSSION OF RESULTS

Line 0

The IP results from this traverse indicate possible weak sources at 5N and 6S to 7S.

Line 8W

Three possible anomalies are present on this line. The feature at 4N to 5N is incomplete but correlates with similar anomalies on the adjacent lines and these have been designated as Zone A on the accompanying plan. The anomaly at 1S correlates with the northern alteration zone but is not present on Line 0.

The anomaly at the south end of the line is also incomplete and correlates with weak effects on Line 0 and Line 8W, forming Zone B. It coincides with the southern alteration zone and a copper showing.

Line 12W

Zone A and Zone B are stronger and more definite on this line. In both cases the source appears to be shallow although Zone B increases in magnitude with depth.

Line 16W

Zone A is broader and weaker on this line but Zone B is no longer present. There is a possible deep anomaly at 0 to 1S that probably correlates approximately with the northern zone of alteration.

Line 20W

Only minor variations in the IP effects were measured here.

Line 24W

A possible shallow narrow source is indicated at 2N to 3N.

Line 28W

There is a probable anomaly at 2N to 3N correlating with the weak anomaly on the previous line. The source is shallow and narrow and could be better evaluated by detailing with shorter electrode intervals as described in the Appendix.

Line 32W

On this line there is a possible deep weak anomaly at 3S, coincident with the southern alteration zone.

Line 36W and Line 40W

Possible weak sources occur on these two lines but they do not

appear to be of prime importance.

Line 44W

There is a definite anomaly, with some depth to the top, centred at 10N. This feature correlates with similar anomalies to the west forming Zone D.

Line 48W

Zone D is somewhat stronger here and centred at 9N to 10N.

Line 52W

Here Zone D is slightly weaker than on the two preceding lines, but the anomaly is still definite.

Line 56W

On this line there is a broad complex anomaly from 3N to 6N; the results suggest a shallow source between 5N and 6N and a deep source under 4N.

Line 60W

There are clearly two sources here, at 2N to 3N and 4N to 5N, but the anomalies are weaker than on Line 56W. The southern anomaly has been correlated with similar effects on the adjacent lines to form Zone "E".

Line 64W

Possible shallow anomalies were found at 0 to 2N and 4S to 5S.

Line 68W

Zone E is stronger and more definite on this line and there is

a possible weak source at 4S.

4. SUMMARY AND RECOMMENDATIONS

Numerous IP anomalies of low to moderate magnitude have been found on the Lucie Claim Group. Most of these can be correlated into continuous zones having a general northeasterly trend.

Zone A extends from Line 0 to Line 16W and is strongest on Line 12W. A drill test may be warranted but the anomaly is off the property.

Zone B has been traced from Line 0 to Line 12W and is coincident with the southern alteration zone. Drilling is probably warranted on Line 12W, with the hole angled to pass under 8+50S at a vertical depth of 150 feet.

Zone C is represented by anomalies on Line 24W and Line 28W and is probably an extension or repetition of Zone A. If encouraging results are obtained from the other zones, a short angle hole should be drilled under 2+50N on Line 28W to test this feature.

Zone D consists of definite anomalies on Line 44W, Line 48W and Line 52W. It may also include anomalies on Line 56W and Line 60W, but if so there is an offset or flexure between Line 52W and Line 56W. A hole should be drilled on Line 48W but here the zone angles off the property and it would be advisable to acquire additional ground to the north prior to drilling.

Zone E is parallel to the west part of Zone D and about 100 feet to the south; it is still open to the west of Line 68W. A drill test is suggested on Line 56W to test both Zone D and Zone E, i.e. from 6+50N south at -45° for a length of 500 feet. If encouraging results are obtained a hole should

also be drilled under 0+50S, Line 68W at a vertical depth of 150 feet.

McPHAR GEOPHYSICS INCORPORATED

Robert A. Bell.

Robert A. Bell,
Geologist.

Philip G. Hallof

Philip G. Hallof,
Geophysicist.

Dated: November 28, 1968

APPENDIX
THE INTERPRETATION OF INDUCED POLARIZATION ANOMALIES FROM RELATIVELY SMALL SOURCES

The induced polarization method was originally developed to detect disseminated sulphides and has proven to be very successful in the search for "porphyry copper" deposits. In recent years we have found that the IP method can also be very useful in exploring for more concentrated deposits of limited size. This type of source gives sharp IP anomalies that are often difficult to interpret.

The anomalous patterns that develop on the contoured data plots will depend on the size, depth and position of the source and the relative size of the electrode interval. The data plots are not sections showing the electrical parameters of the ground. When the electrode interval (X) is appreciably greater than the width of the source, a large volume of unmineralized rock is averaged into each measurement. This is particularly true for the large values of the electrode separation (n).

The theoretical scale model results shown in Figure 1 and Figure 2 indicate the effect of depth. If the depth to the top of the source is small compared to the electrode interval (i.e. d X) the measurement for n = 1 will be anomalous. In Figure 1 the depth is 0.5 units (X = 1.0 units) and the n = 1 value is definitely anomalous; the pattern on the contoured data plot is typical for a relatively shallow, narrow, near-vertical tabular source. The results in Figure 2 are for the same source with the depth increased to 1.5 units. Here the n = 1 value is not anomalous; the larger values of (n) are anomalous but the magnitudes are much lower than for the source at less depth.

When the electrode interval is greater than the width of the source, it is not possible to determine its width or exact position between the electrodes. The true IP effect within the source is also indeterminate; the anomaly from a very narrow source with a very large true IP effect will be much the same as that from a zone with twice the width and 1/2 the true IP effect. The theoretical scale model data shown in Figure 3 and Figure 4 demonstrate this problem. The depth and position of the source are unchanged but the width and true IP effect are varied. The anomalous patterns and magnitudes are essentially the same, hence the data are insufficient to evaluate the source completely.

The normal practise is to indicate the IP anomalies by solid, broken, or dashed bars, depending upon their degree of distinctiveness. These bars represent the surface projection of the anomalous zones as interpreted from the location of the transmitter and receiver electrodes

when the anomalous values were measured. As illustrated in Figure 1, Figure 2, Figure 3 and Figure 4, no anomaly can be located with more accuracy than the spread length. While the centre of the solid bar indicating the anomaly corresponds fairly well with the source, the length of the bar should not be taken to represent the exact edges of the anomalous material.

If the source is shallow, the anomaly can be better evaluated using a shorter electrode interval. When the electrode interval used approaches the width of the source, the apparent effects measured will be nearly equal to the true effects within the source. When there is some depth to the top of the source, it is not possible to use electrode intervals that are much less than the depth to the source. In this situation, one must realize that a definite ambiguity exists regarding the width of the source and the IP effect within the source.

Our experience has confirmed the desirability of doing detail. When a reconnaissance IP survey using a relatively large electrode interval indicates the presence of a narrow, shallow source, detail with shorter electrode intervals is necessary in order to better locate, and evaluate, the source. The data of most usefulness is obtained when the maximum apparent IP effect is measured for n = 2 or n = 3. For instance, an anomaly originally located using X = 300' may be checked with X = 200' and then X = 100'. The data with X = 100' will be quite different from the original reconnaissance results with X = 300'.

The data shown in Figure 5 and Figure 6 are field results from a greenstone area in Quebec. The expected sources were narrow (less than 30' in width) zones of massive, high-grade, zinc-silver ore. An electrode interval of 200' was used for the reconnaissance survey in order to keep the rate of progress at an acceptable level. The anomalies located were low in magnitude.

The very weak, shallow anomaly shown in Figure 5 is typical of those located by the X = 200' reconnaissance survey. Several anomalies of this type were detailed using shorter electrode intervals. In most cases the detail measurements suggested broad zones of very weak mineralization. However, in the case of the source at 20N to 22N, the measurements with shorter electrode intervals confirmed the presence of a strong, narrow source. The X = 50' results are shown in Figure 6. Subsequent drilling has shown the source to be 12.5' of massive sulphide mineralization containing significant zinc and silver values.

The change in the anomaly that results when the electrode interval is reduced is not unusual. The X = 50' data more accurately locates the narrow source, and permits the geophysicist to make a better evaluation of its importance. The completion of this type of detail is very important, in order to get the maximum usefulness from a reconnaissance IP survey.

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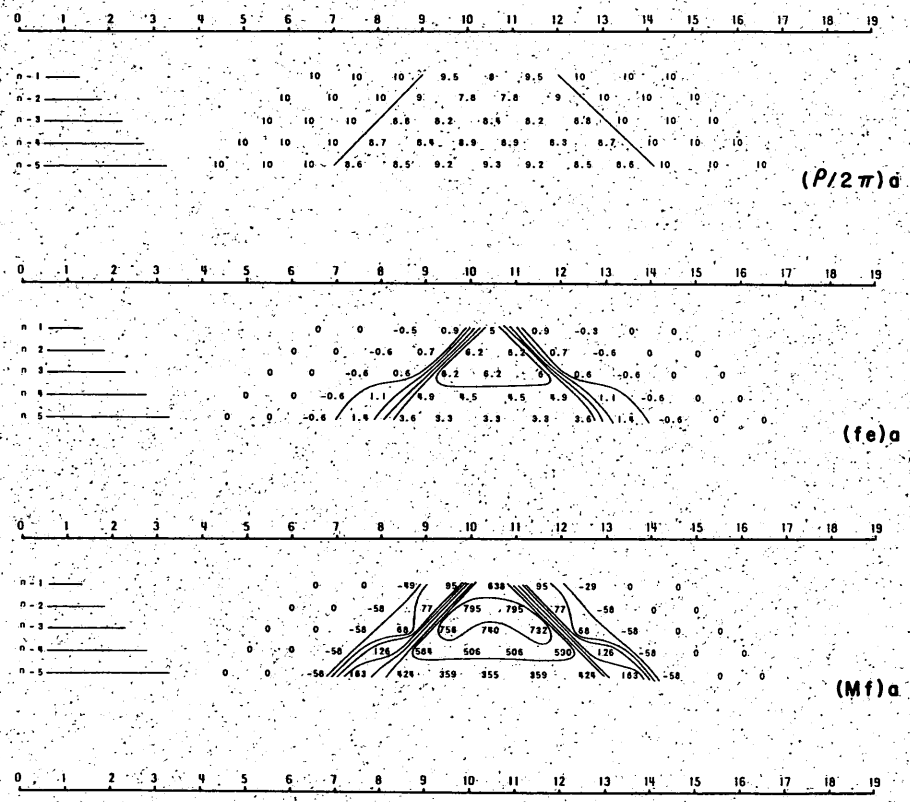
Theoretical Induced Polarization and Resistivity Studies

Scale Model Cases



$(\rho/2\pi)_1 = 10$

$(Mf)_1 = 0$

$(\rho/2\pi)_2 = 2.51$

$(Mf)_2 = 10000$

$(fe)_2 = 25\%$

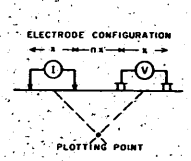
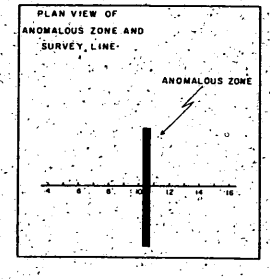


FIG. 1



CASE II-0.5-BU-10-a

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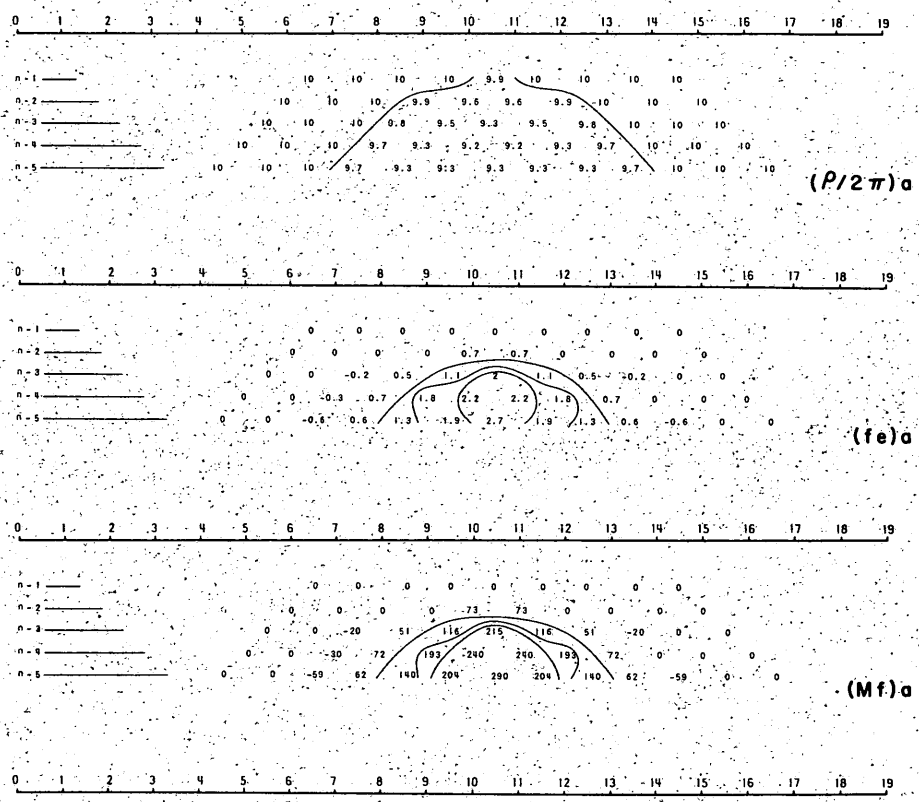
Theoretical Induced Polarization and Resistivity Studies

Scale Model Cases



$(\rho/2\pi)_1 = 10$

$(Mf)_1 = 0$

$(\rho/2\pi)_2 = 2.6$

$(Mf)_2 = 9250$

$(fe)_2 = 24\%$

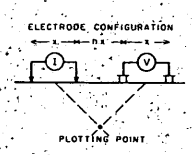
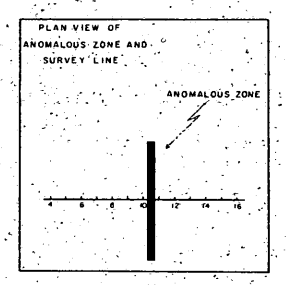


FIG. 2

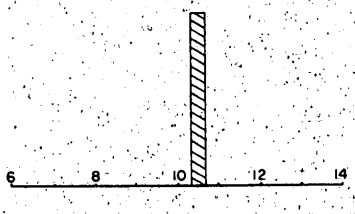


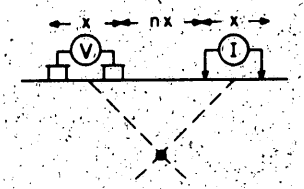
CASE II-1.5-BU-10-a

THEORETICAL INDUCED POLARIZATION AND RESISTIVITY STUDIES

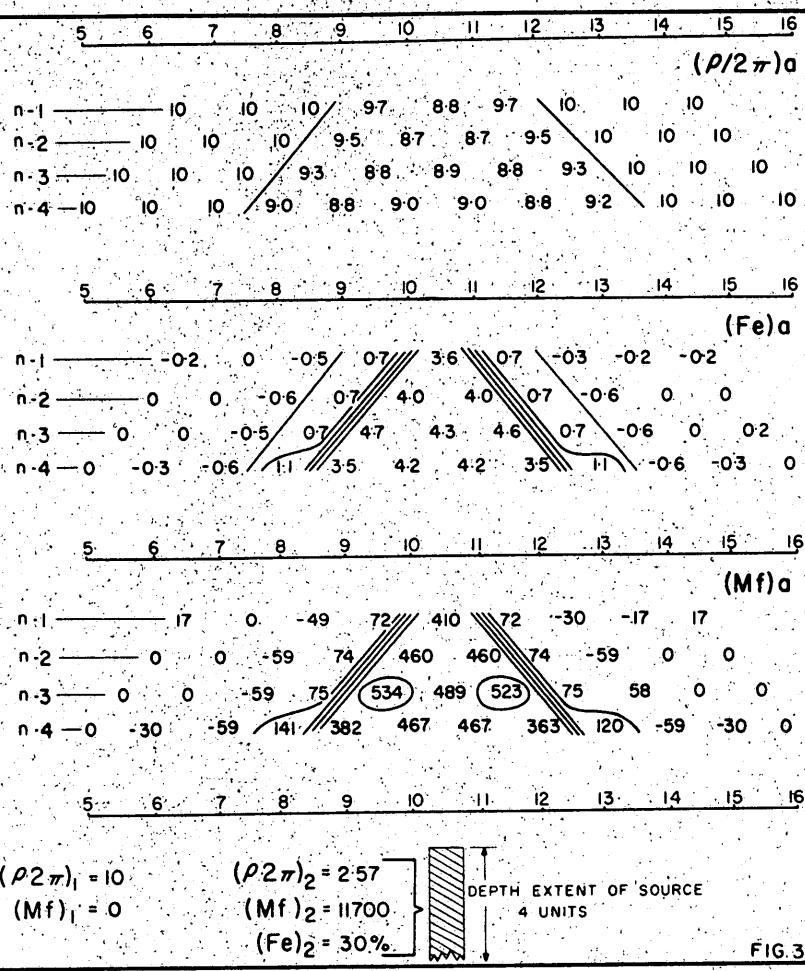
SCALE MODEL CASE

PLAN VIEW





X EQUALS 1 UNIT



$(\rho 2\pi)_1 = 10$
$(Mf)_1 = 0$

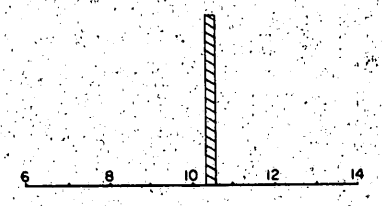
$(\rho 2\pi)_2 = 2.57$
$(Mf)_2 = 11700$
$(Fe)_2 = 30\%$

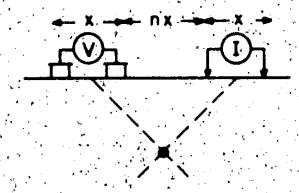
FIG. 3

THEORETICAL INDUCED POLARIZATION AND RESISTIVITY STUDIES

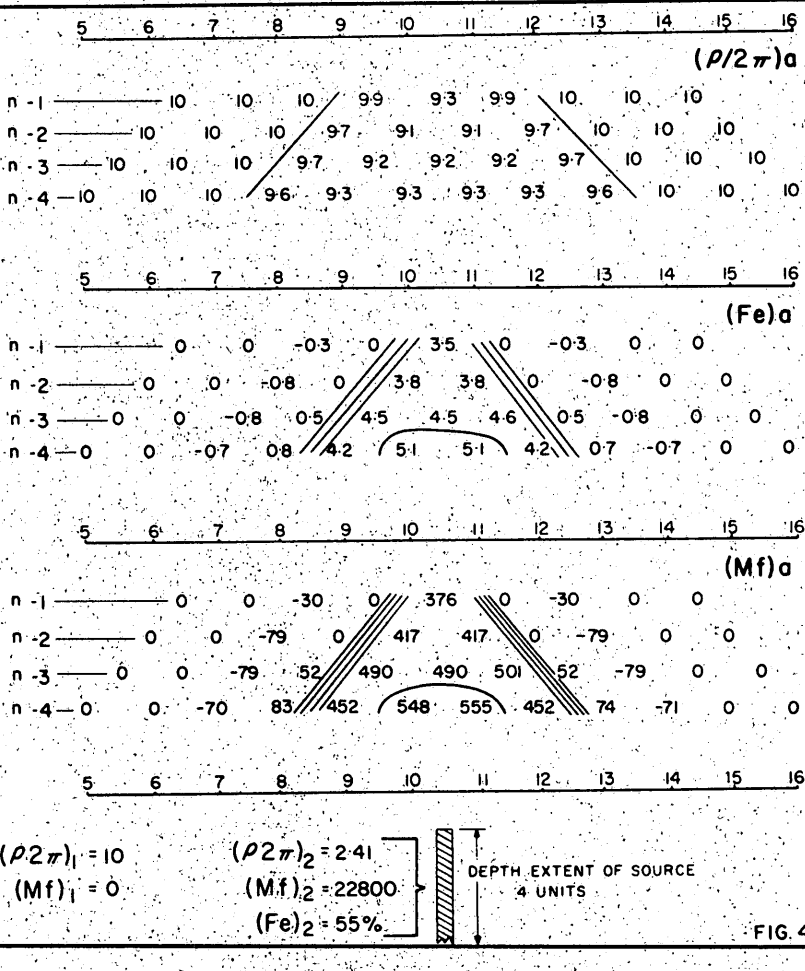
SCALE MODEL CASE

PLAN VIEW





X EQUALS 1 UNIT



$(\rho 2\pi)_1 = 10$
$(Mf)_1 = 0$

$(\rho 2\pi)_2 = 2.41$
$(Mf)_2 = 22800$
$(Fe)_2 = 55\%$

FIG. 4

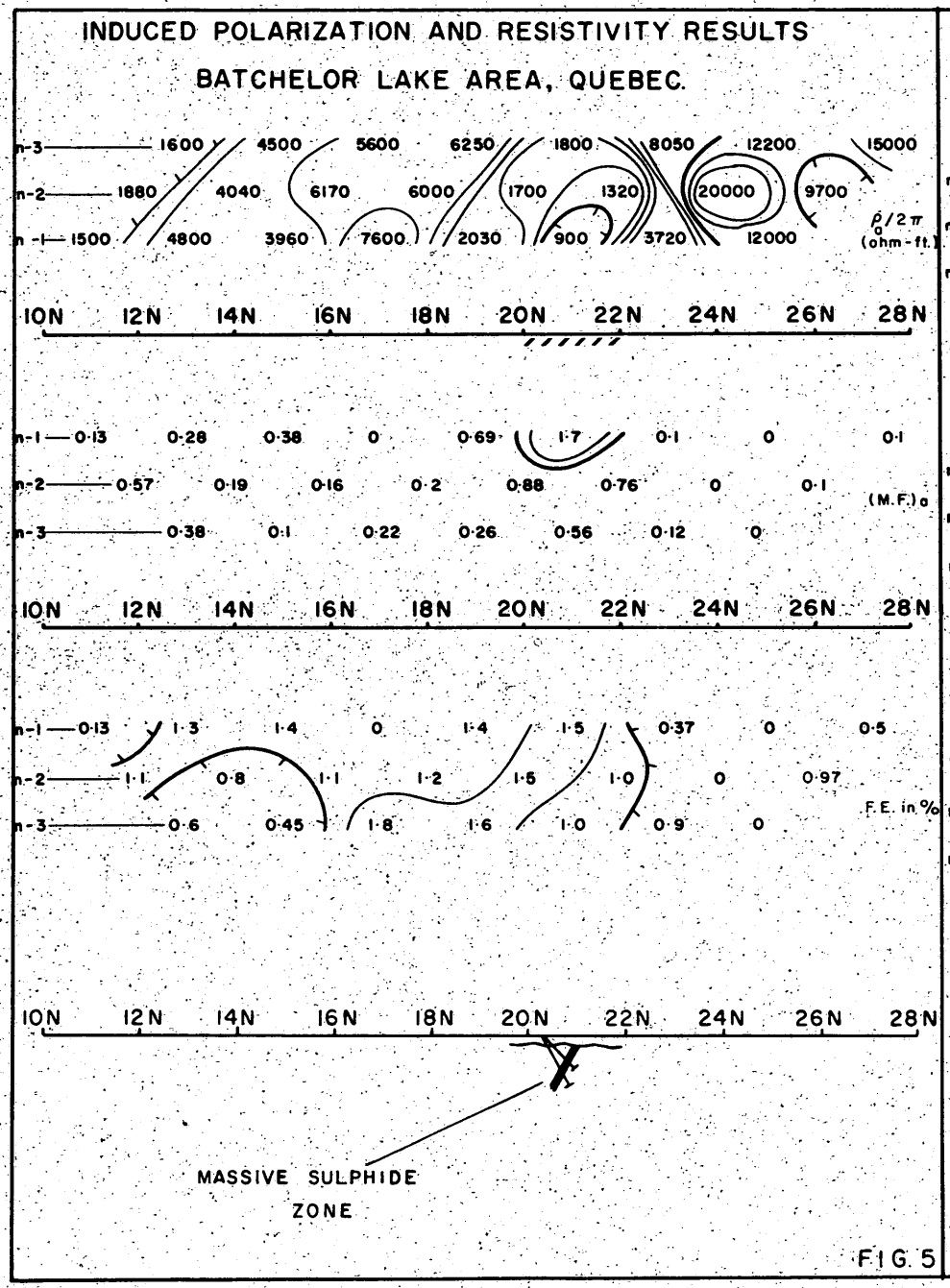

INDUCED POLARIZATION AND RESISTIVITY RESULTS
BATCHELOR LAKE AREA, QUEBEC.
n-3 1600 4500 5600 6250 1800 8050 12200 15000
n-2 1880 4040 6170 6000 1700 1320 20000 9700
n-1 1500 4800 3960 7600 2030 900 3720 12000
ρa/2π (ohm-ft.)
10N 12N 14N 16N 18N 20N 22N 24N 26N 28N
n-1 0·13 0·28 0·38 0 0·69 1·7 0·1 0 0·1
n-2 0·57 0·19 0·16 0·2 0·88 0·76 0 0·1
n-3 0·38 0·1 0·22 0·26 0·56 0·12 0
(M.F.)a
10N 12N 14N 16N 18N 20N 22N 24N 26N 28N
n-1 0·13 1·3 1·4 0 1·4 1·5 0·37 0 0·5
n-2 1·1 0·8 1·1 1·2 1·5 1·0 0 0·97
n-3 0·6 0·45 1·8 1·6 1·0 0·9 0
F.E. in %
10N 12N 14N 16N 18N 20N 22N 24N 26N 28N
MASSIVE SULPHIDE ZONE

FIG. 5

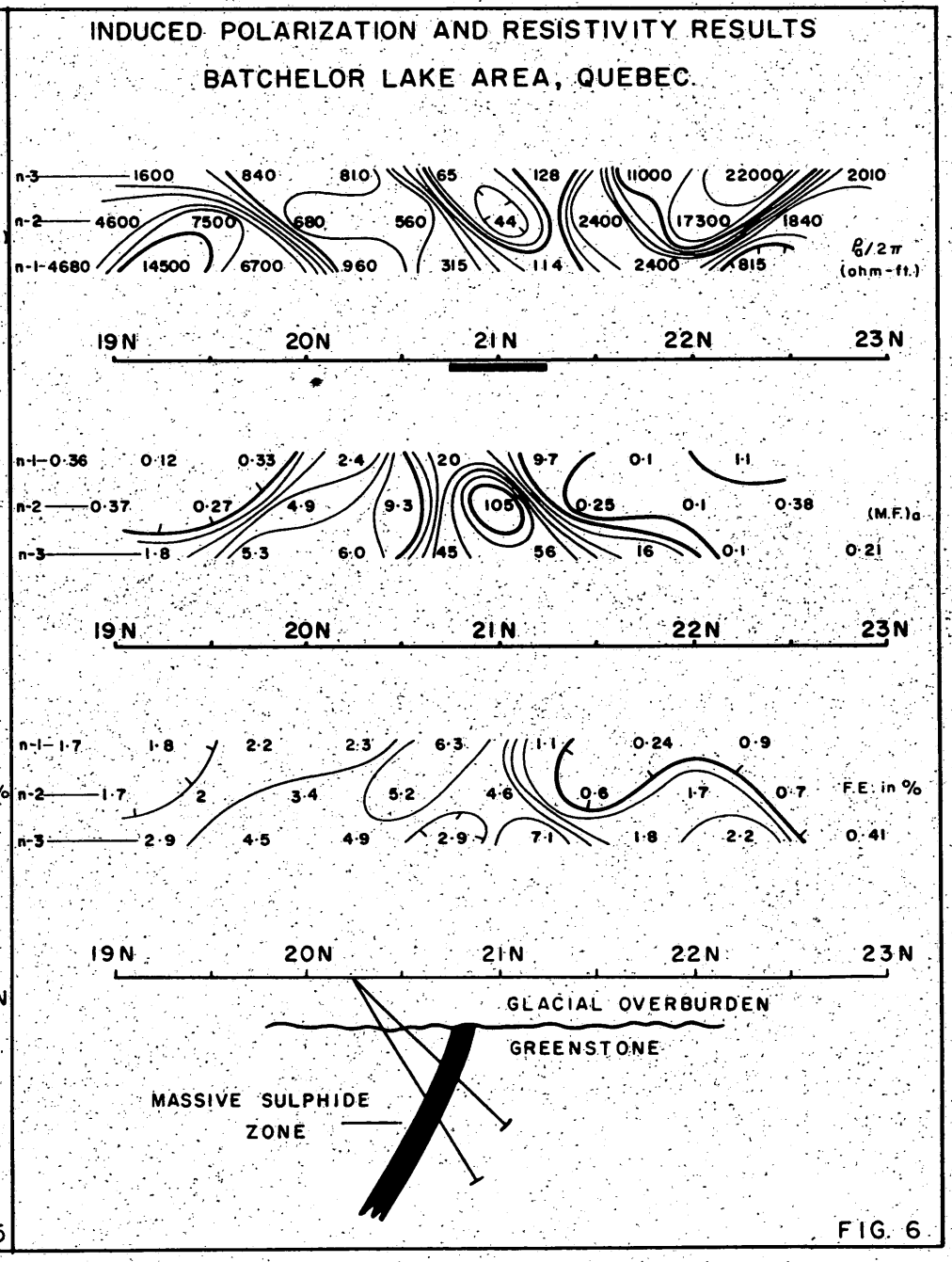

INDUCED POLARIZATION AND RESISTIVITY RESULTS
BATCHELOR LAKE AREA, QUEBEC.
n-3 1600 840 810 65 128 11000 22000 2010
n-2 4600 7500 680 560 44 2400 17300 1840
n-1 4680 14500 6700 960 315 114 2400 815
ρa/2π (ohm-ft.)
19N 20N 21N 22N 23N
n-1 0·36 0·12 0·33 2·4 20 9·7 0·1 1·1
n-2 0·37 0·27 4·9 9·3 105 0·25 0·1 0·38
n-3 1·8 5·3 6·0 45 56 16 0·1 0·21
(M.F.)a
19N 20N 21N 22N 23N
n-1 1·7 1·8 2·2 2·3 6·3 1·1 0·24 0·9
n-2 1·7 2 3·4 5·2 4·6 0·6 1·7 0·7
n-3 2·9 4·5 4·9 2·9 7·1 1·8 2·2 0·41
F.E. in %
19N 20N 21N 22N 23N
GLACIAL OVERBURDEN
GREENSTONE
MASSIVE SULPHIDE ZONE

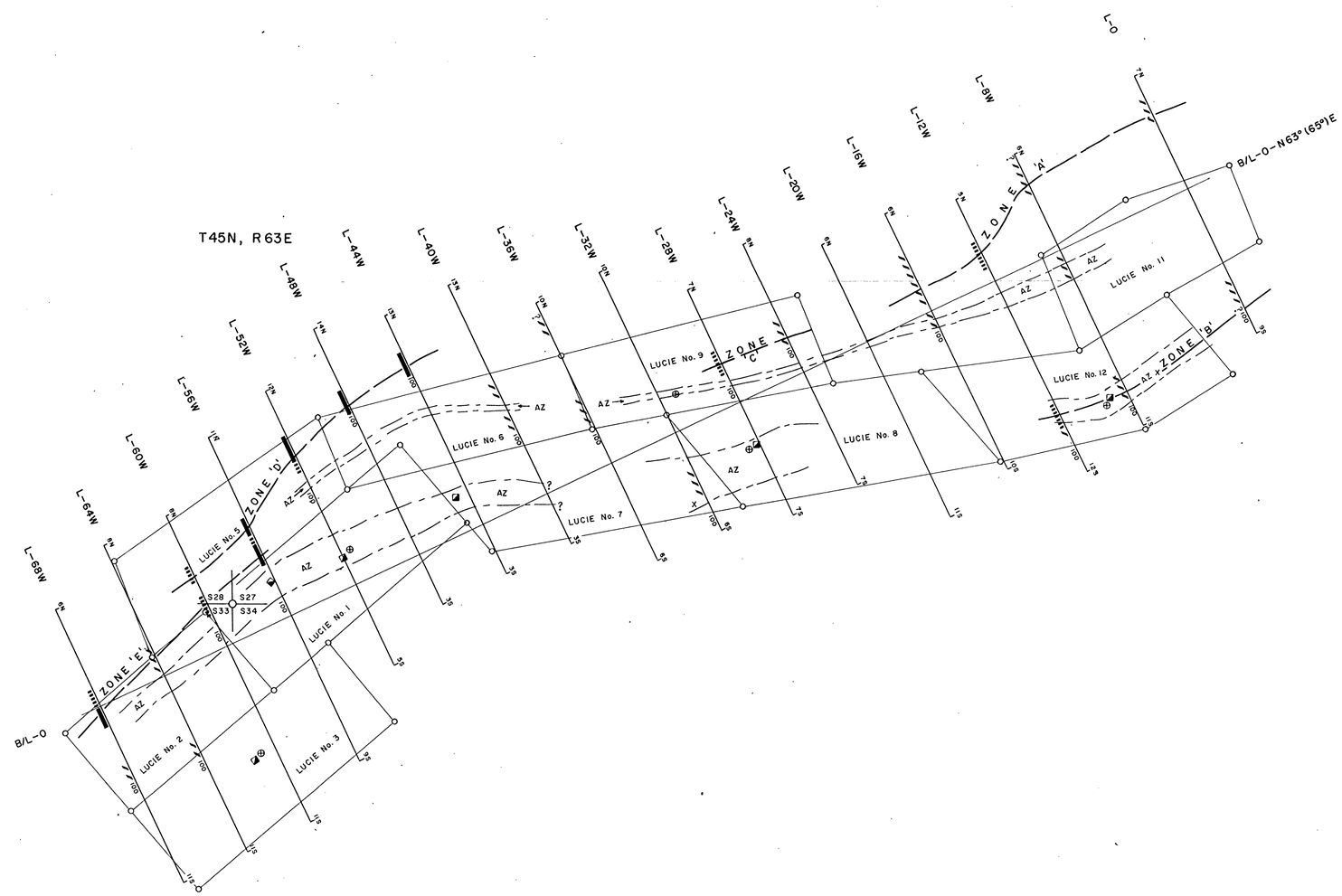
FIG. 6

Dwg. I.P.P. 3332

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

PLAN MAP



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE

PROBABLE

POSSIBLE

Number at the end of anomaly indicates spread used.

PAN-NEVADA INCORPORATED

TWP. 45N, R.63E, S.27, 28, 33, 34, ELKO CTY., NEVADA

LUCIE GROUP

SCALE

ONE INCH EQUALS FOUR HUNDRED FEET

NOTE:

AZ – ALTERED ZONE (or ALASKITE DIKE)

X – SULPHIDE

⊕ – Cu

IP ZONE

DRAWN:

DATE: 8-NOV-1968

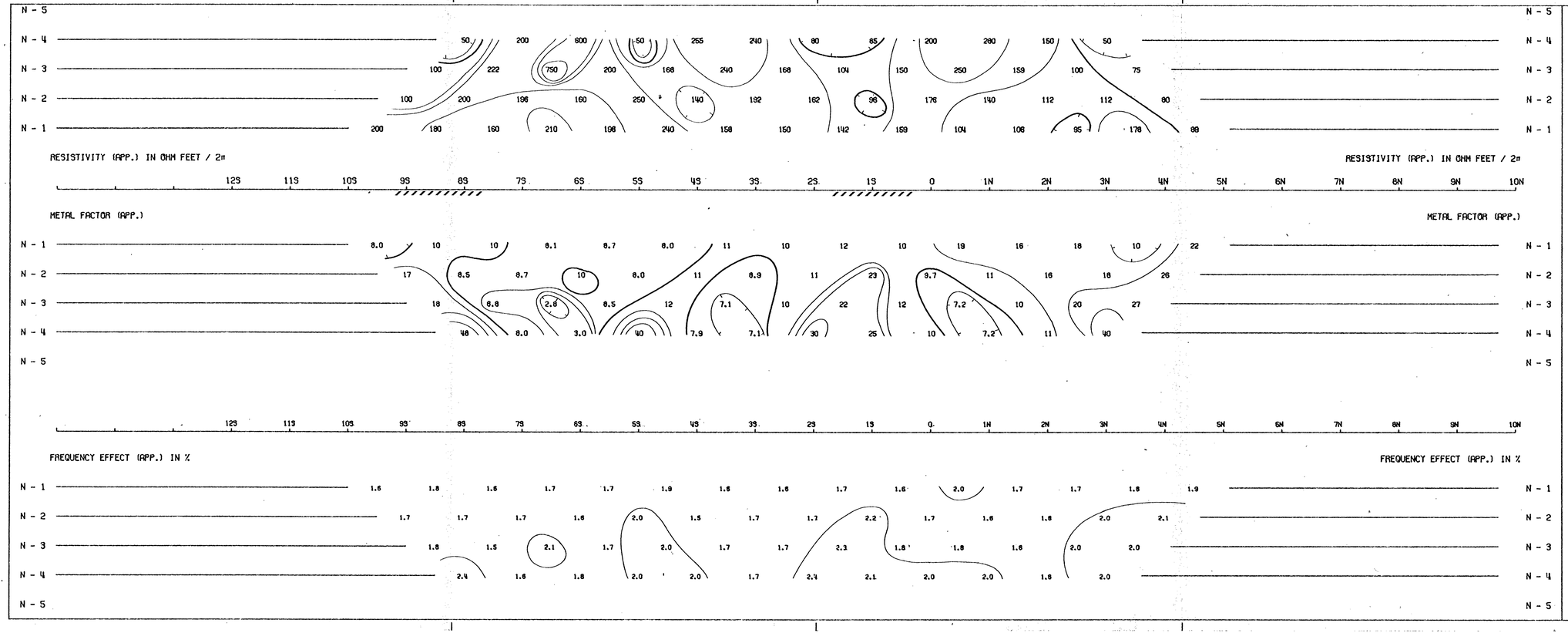
APPROVED: R.A. Bell

DATE: Nov. 27/68.

McPHAR GEOPHYSICS INCORPORATED

DWG. IPP-3332

DWG. IPP-3332



DWG. NO.- I.P.-5203-2

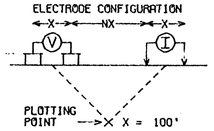
PAN-NEVADA INCORPORATED

LUCIE GROUP, TP. 45N, R63E, SEC. 27, 28, 33 & 34

ELKO COUNTY, NEVADA

LINE NO.- 8W

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE

PROBABLE

POSSIBLE

FREQUENCIES: 0.31-5.0 CPS

DATE SURVEYED: OCT 1968

APPROVED: R. Bell

DATE: Nov 27/68

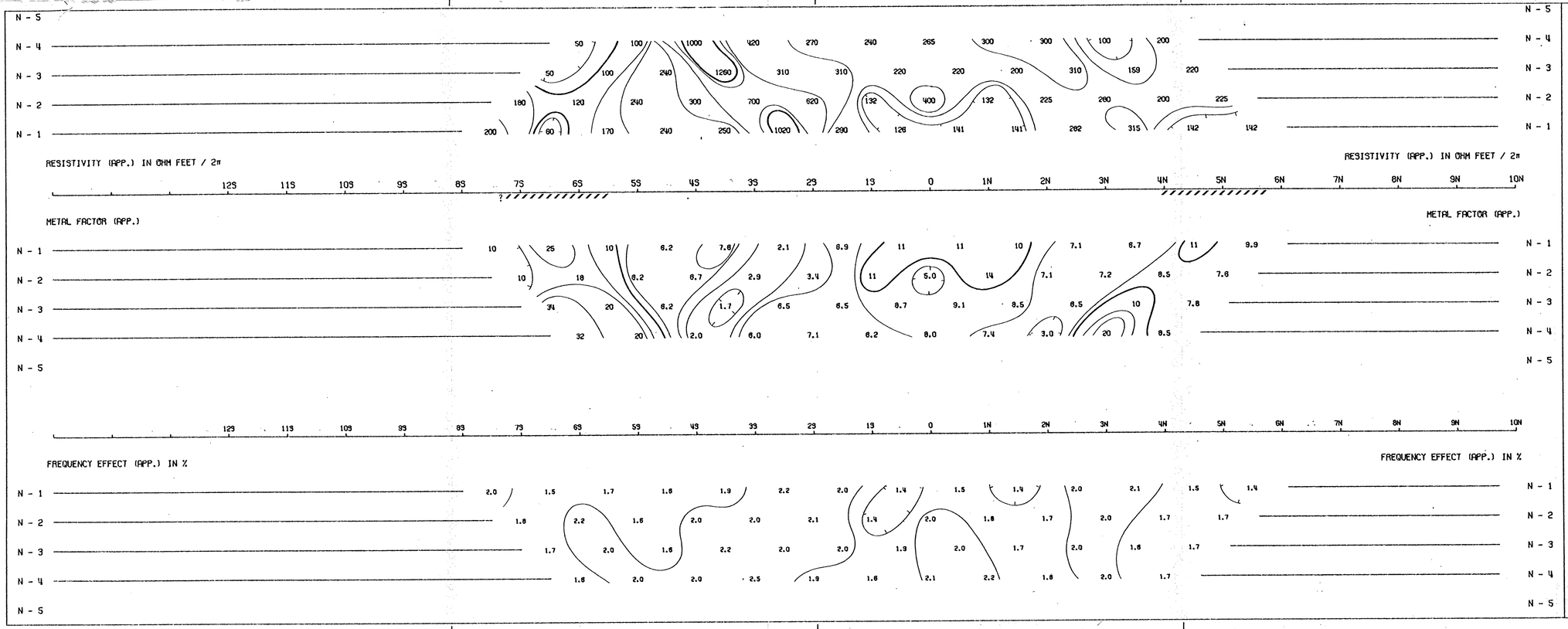
NOTE: CONTOURS AT LOGARITHMIC INTERVALS 1.-1.5-2.-3.-5.-7.5-10

McPHAR GEOPHYSICS INCORPORATED

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED WITH AN IBM 360/75 COMPUTER AND A CALCOMP PLOTTER



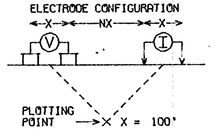
DWG. NO.- I.P.-5203-1

PAN-NEVADA INCORPORATED

LUCIE GROUP, TP. 45N, R63E, SEC. 27, 28, 33 & 34
ELKO COUNTY, NEVADA

LINE NO.- 0

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-5.0 CPS

DATE SURVEYED: OCT 1968

APPROVED:

DATE: Nov 27 68

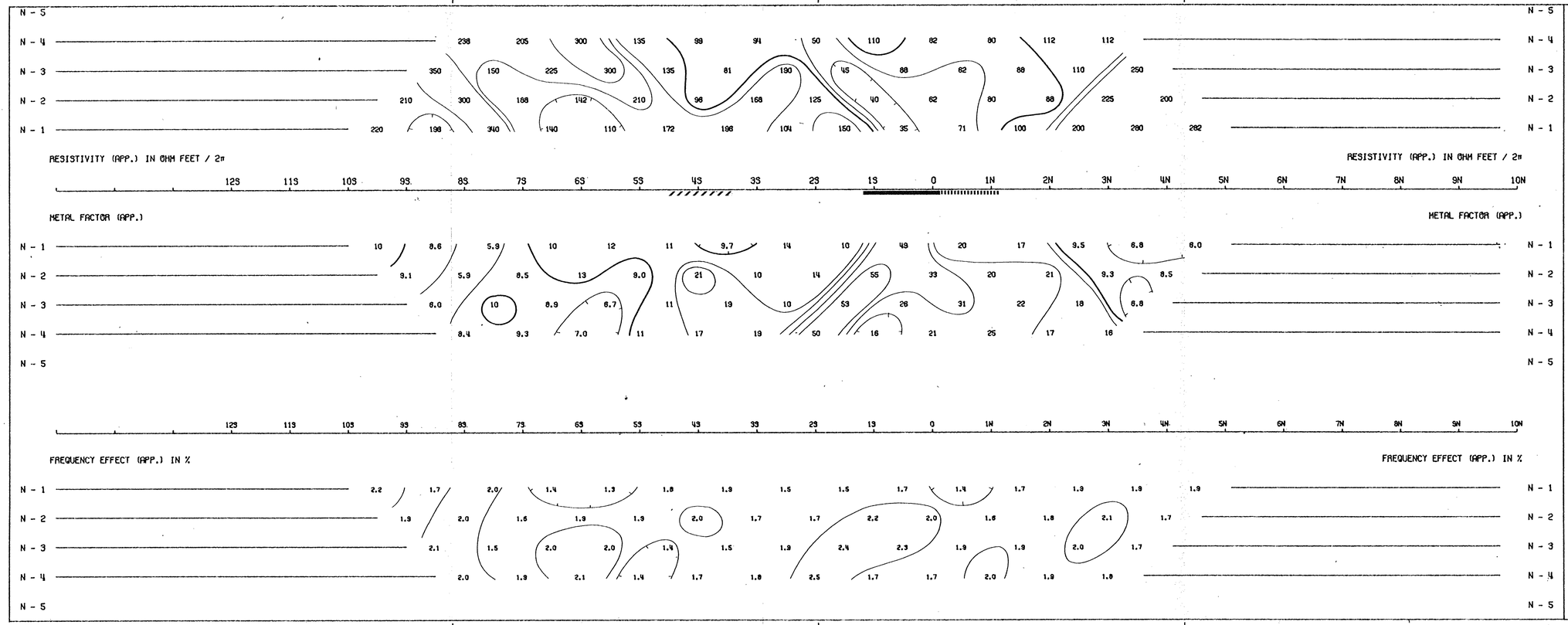
NOTE: CONTOURS AT LOGARITHMIC INTERVALS 1.-1.5-2.-3.-5.-7.5-10

McPHAR GEOPHYSICS INCORPORATED

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED WITH AN IBM 360/75 COMPUTER AND A CALCOMP PLOTTER



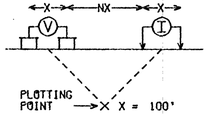
DWG. NO.- I.P.-5203-17

PAN-NEVADA INCORPORATED

LUCIE GROUP, TP. 45N, R63E, SEC. 27, 28, 33 & 34
ELKO COUNTY, NEVADA

LINE NO.- 68W

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-5.0 CPS

DATE SURVEYED: OCT 1968

APPROVED: R. Bell

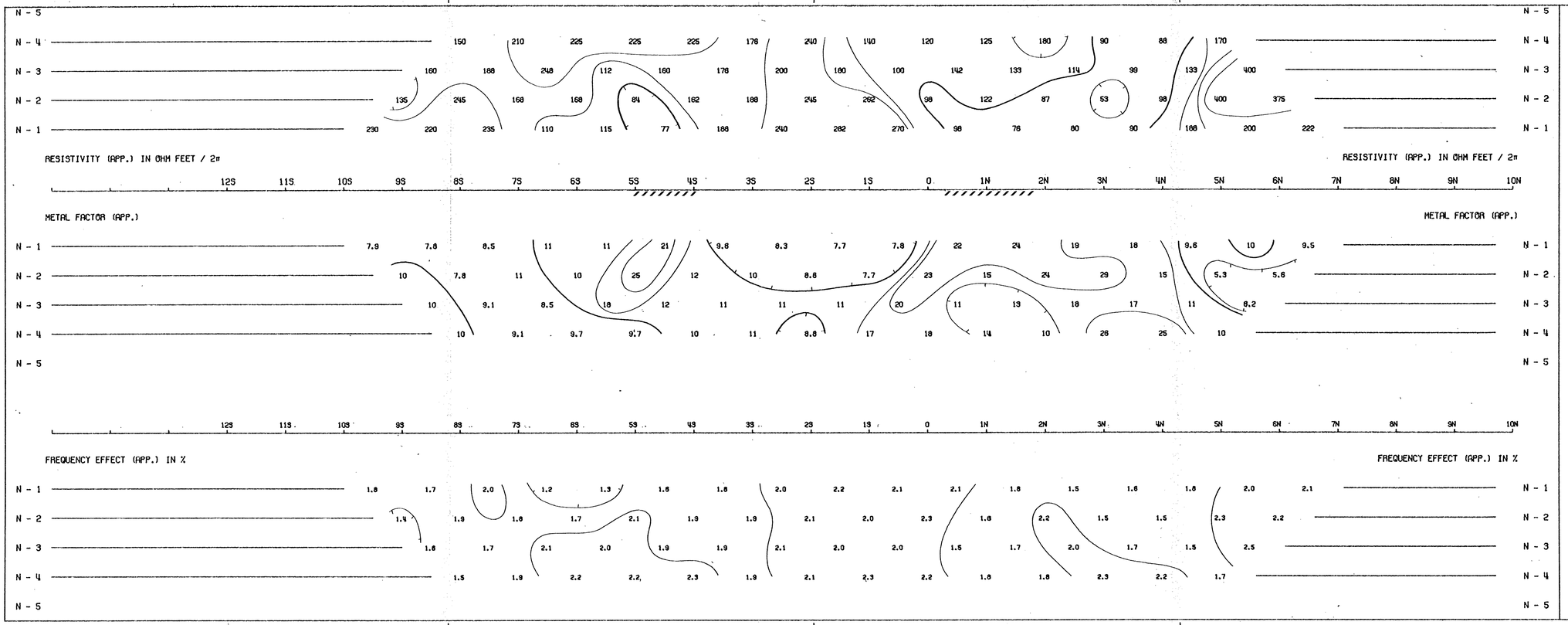
DATE: Aug. 27 1968

NOTE: CONTOURS AT LOGARITHMIC INTERVALS 1.-1.5-2.-3.-5.-7.5-10

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED WITH AN IBM 360/75 COMPUTER AND A CALCOMP PLOTTER



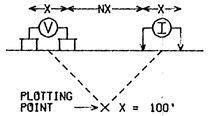
DWG. NO.- I.P.-5203-16

PAN-NEVADA INCORPORATED

LUCIE GROUP, TP. 45N, R63E, SEC. 27, 28, 33 & 34
ELKO COUNTY, NEVADA

LINE NO.- 64W

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-5.0 CPS

DATE SURVEYED: OCT 1968

APPROVED: A. J. Bell

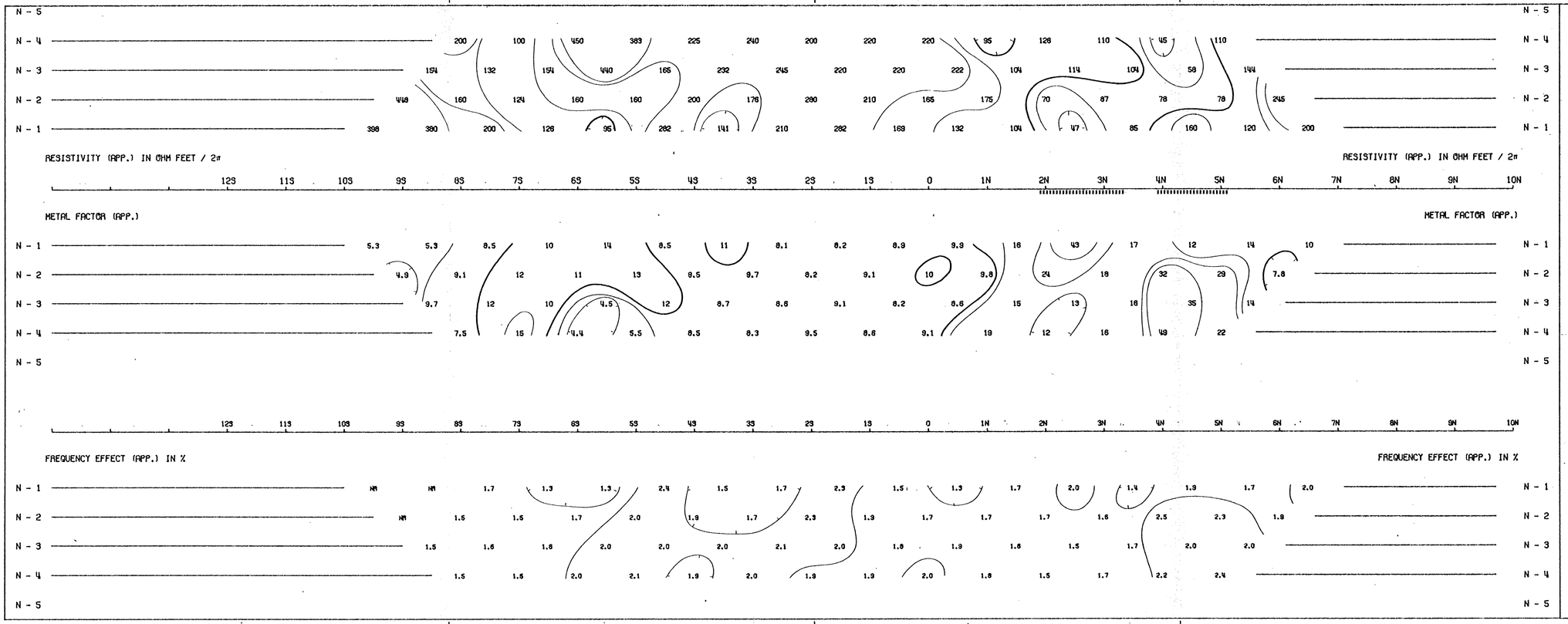
DATE: Aug. 21

NOTE: CONTOURS AT LOGARITHMIC INTERVALS 1.-1.5-2.-3.-5.-7.5-10

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED WITH AN IBM 360/75 COMPUTER AND A CALCOMP PLOTTER



OWG. NO.- I.P.-5203-15

PAN-NEVADA INCORPORATED

LUCIE GROUP, TP. 45N, R63E, SEC. 27, 28, 33 & 34
ELKO COUNTY, NEVADA

LINE NO.- 60W

ELECTRODE CONFIGURATION

X — NX — X

PLOTTING POINT → X = 100'

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-5.0 CPS

DATE SURVEYED: OCT 1968

APPROVED:

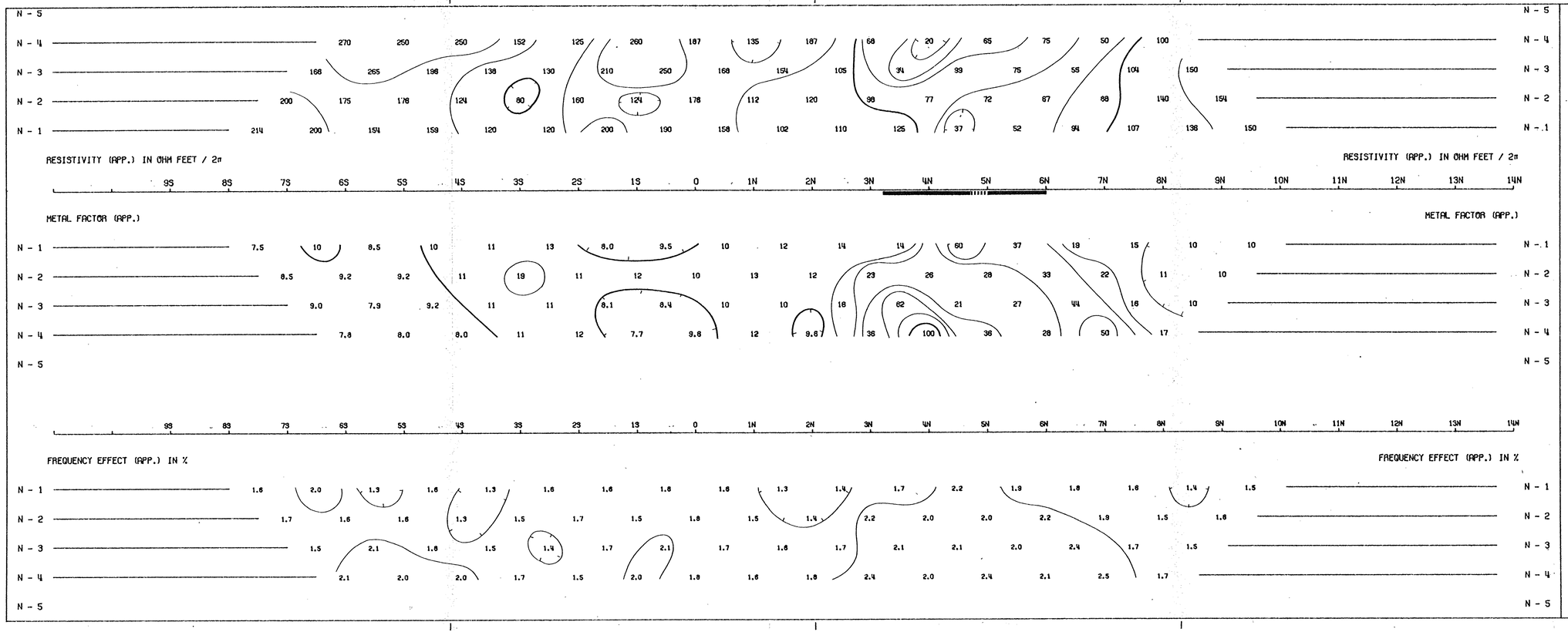
DATE:

NOTE: CONTOURS AT LOGARITHMIC INTERVALS 1.-1.5-2.-3.-5.-7.5-10

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED WITH AN IBM 360/75 COMPUTER AND A CALCOMP PLOTTER



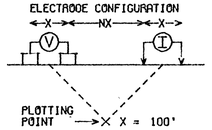
DWG. NO.- I.P.-5203-14

PAN-NEVADA INCORPORATED

LUCIE GROUP, TP. 45N, R63E, SEC. 27, 28, 33 & 34
ELKO COUNTY, NEVADA

LINE NO.- 56W

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-5.0 CPS

DATE SURVEYED: OCT 1968

APPROVED: A. Bell

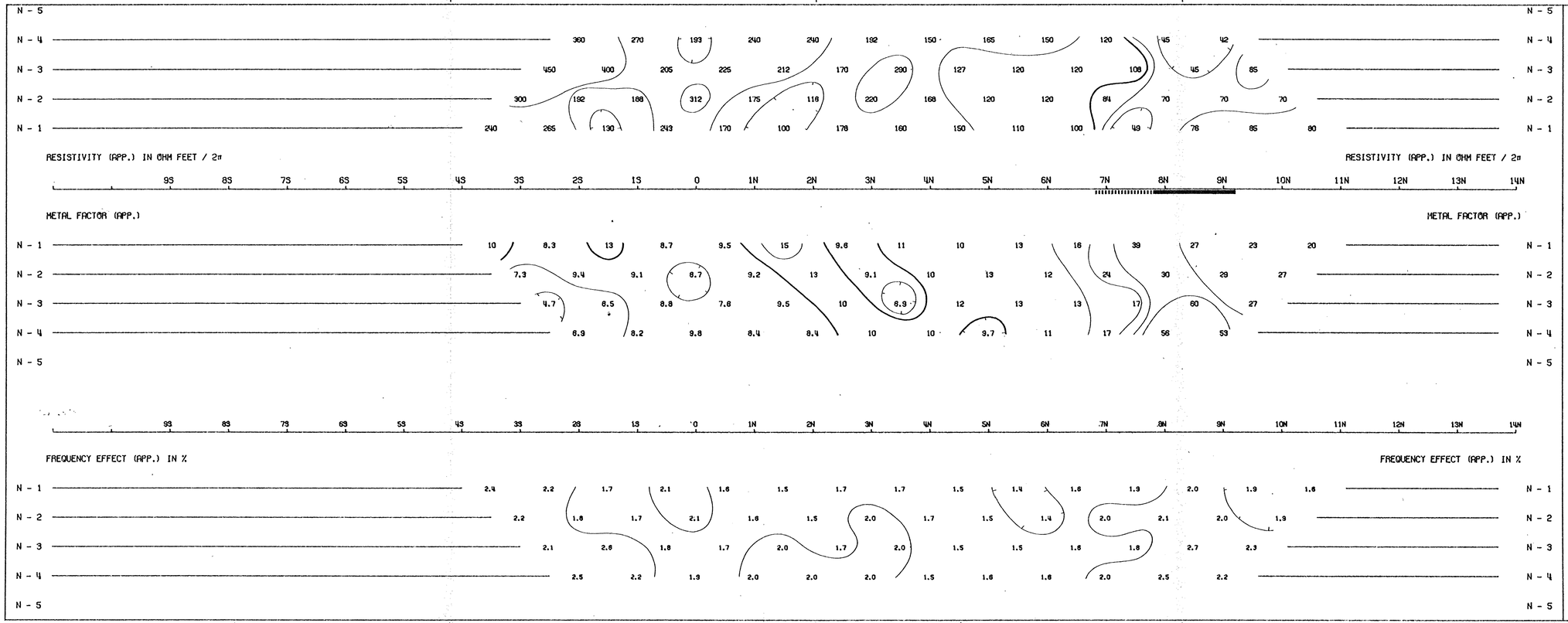
DATE: Nov 27

NOTE: CONTOURS AT LOGARITHMIC INTERVALS 1.-1.5-2.-3.-5.-7.5-10

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED WITH AN IBM 360/75 COMPUTER AND A CALCOMP PLOTTER



DWG. NO.- I.P.-5203-13

PAN-NEVADA INCORPORATED

LUCIE GROUP, TP. 45N, R63E, SEC. 27, 28, 33 & 34
ELKO COUNTY, NEVADA

LINE NO.- 52W

ELECTRODE CONFIGURATION

X — NX — X

PLOTTING POINT → X X = 100'

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-5.0 CPS

DATE SURVEYED: OCT 1968

APPROVED: A. Bell

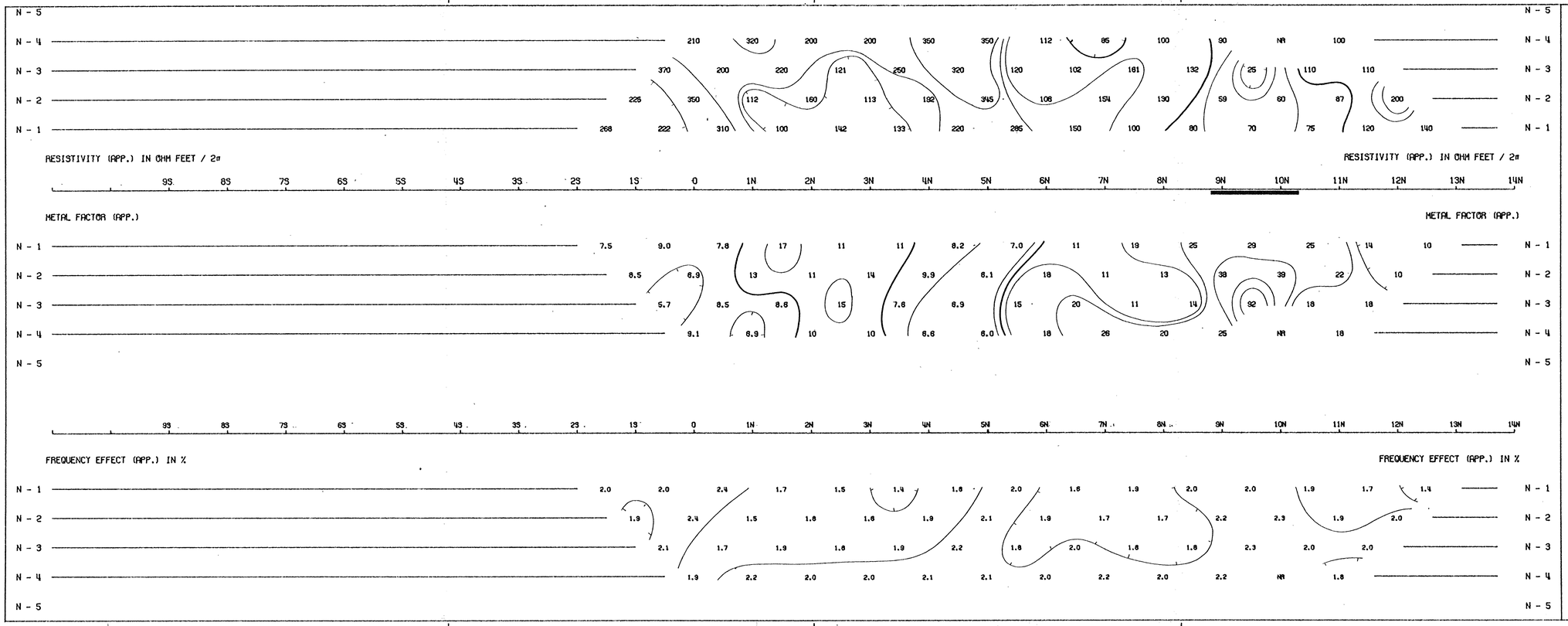
DATE: May 2

NOTE: CONTOURS AT LOGARITHMIC INTERVALS 1.-1.5-2.-3.-5.-7.5-10

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED WITH AN IBM 360/75 COMPUTER AND A CALCOMP PLOTTER



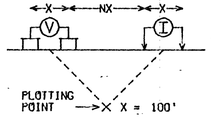
DWG. NO.- I.P.-5203-12

PAN-NEVADA INCORPORATED

LUCIE GROUP, TP. 45N, R63E, SEC. 27, 28, 33 & 34
ELKO COUNTY, NEVADA

LINE NO.- 48W

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-5.0 CPS

DATE SURVEYED: OCT 1968

APPROVED: R. Bell

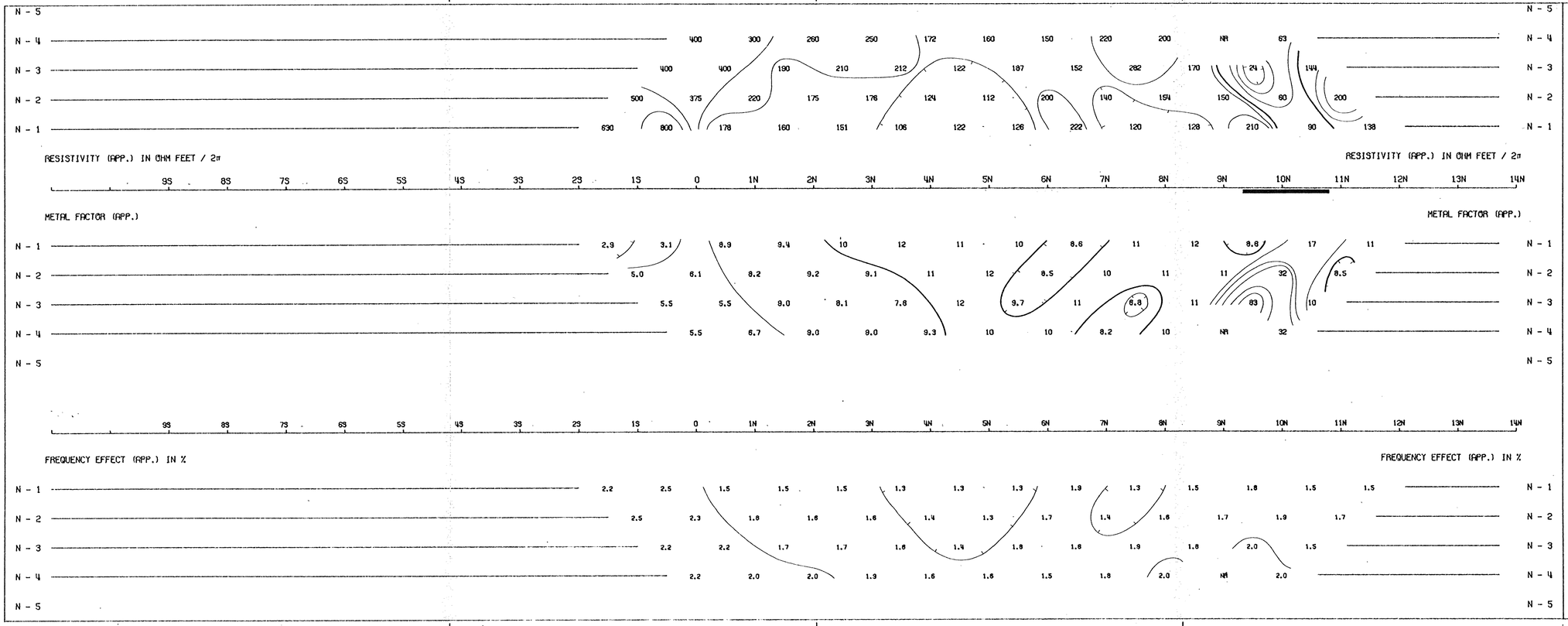
DATE: Apr. 2

NOTE: CONTOURS AT LOGARITHMIC INTERVALS 1.-1.5-2.-3.-5.-7.5-10

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED WITH AN IBM 360/75 COMPUTER AND A CALCOMP PLOTTER



DWG. NO.- I.P.-5203-11

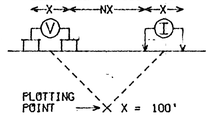
PAN-NEVADA INCORPORATED

LUCIE GROUP, TP. 45N, R63E, SEC. 27, 28, 33 & 34

ELKO COUNTY, NEVADA

LINE NO.- 44W

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-5.0 CPS

DATE SURVEYED: OCT 1968

APPROVED: R. Bell

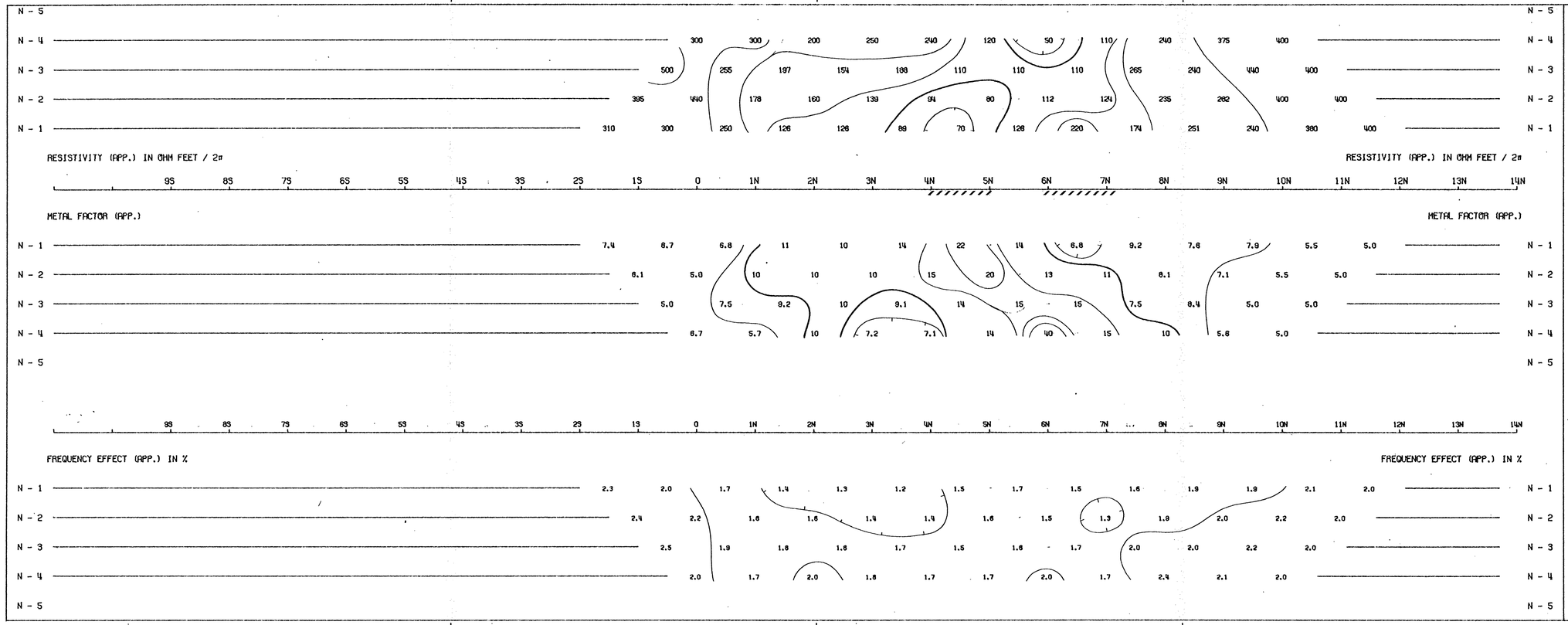
DATE: 3/

NOTE: CONTOURS AT LOGARITHMIC INTERVALS 1.-1.5-2.-3.-5.-7.5-10

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED WITH AN IBM 360/75 COMPUTER AND A CALCOMP PLOTTER



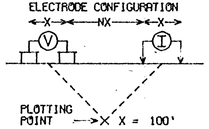
DWG. NO.- I.P.-5203-10

PAN-NEVADA INCORPORATED

LUCIE GROUP, TP. 45N, R63E, SEC. 27, 28, 33 & 34
ELKO COUNTY, NEVADA

LINE NO.- 40W

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-5.0 CPS

DATE SURVEYED: OCT 1968

APPROVED: R. O. Bell

DATE: Nov 27/68

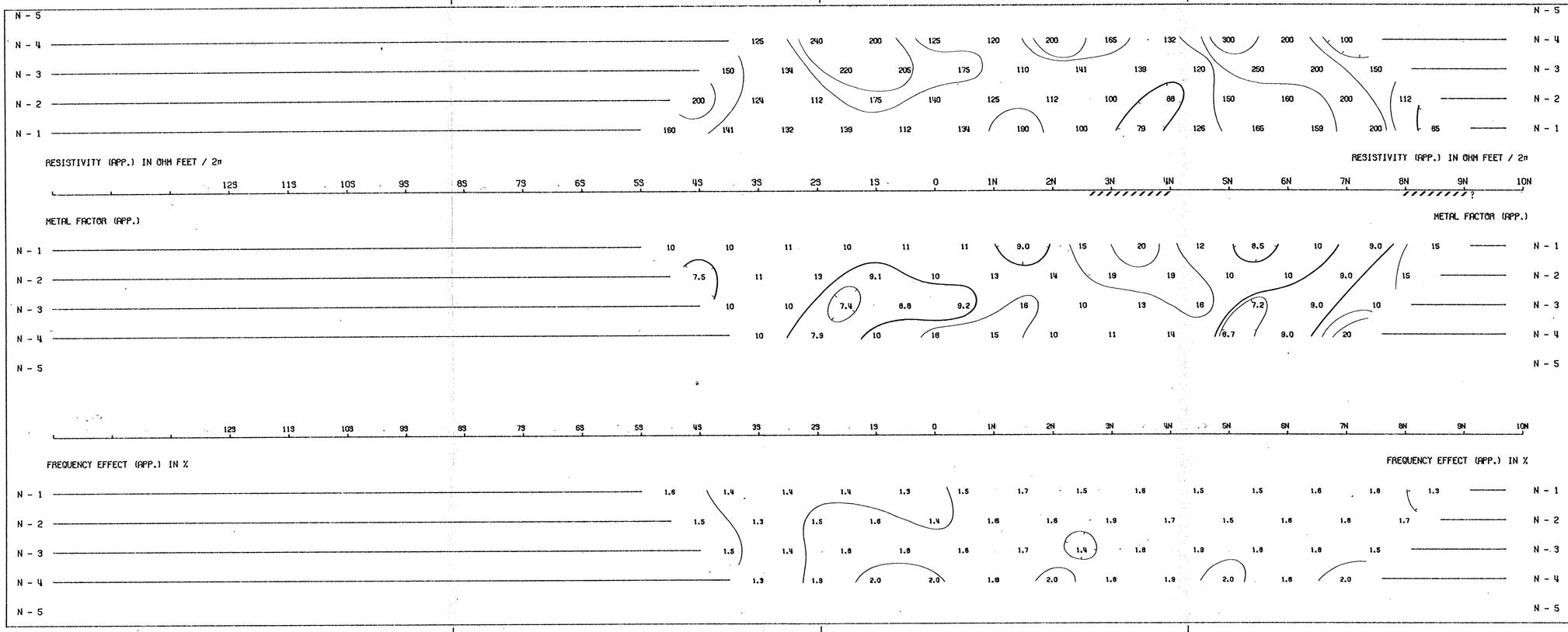
NOTE: CONTOURS AT LOGARITHMIC INTERVALS 1.-1.5-2.-3.-5.-7.5-10

McPHAR GEOPHYSICS INCORPORATED

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED WITH AN IBM 360/75 COMPUTER AND A CALCOMP PLOTTER



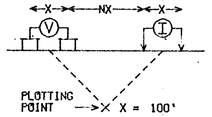
DWG. NO.- I.P.-5203-9

PAN-NEVADA INCORPORATED

LUCIE GROUP, TP. 45N, R63E, SEC. 27, 28, 33 & 34
ELKO COUNTY, NEVADA

LINE NO.- 36W

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-5.0 CPS

DATE SURVEYED: OCT 1968

APPROVED: R. Bell

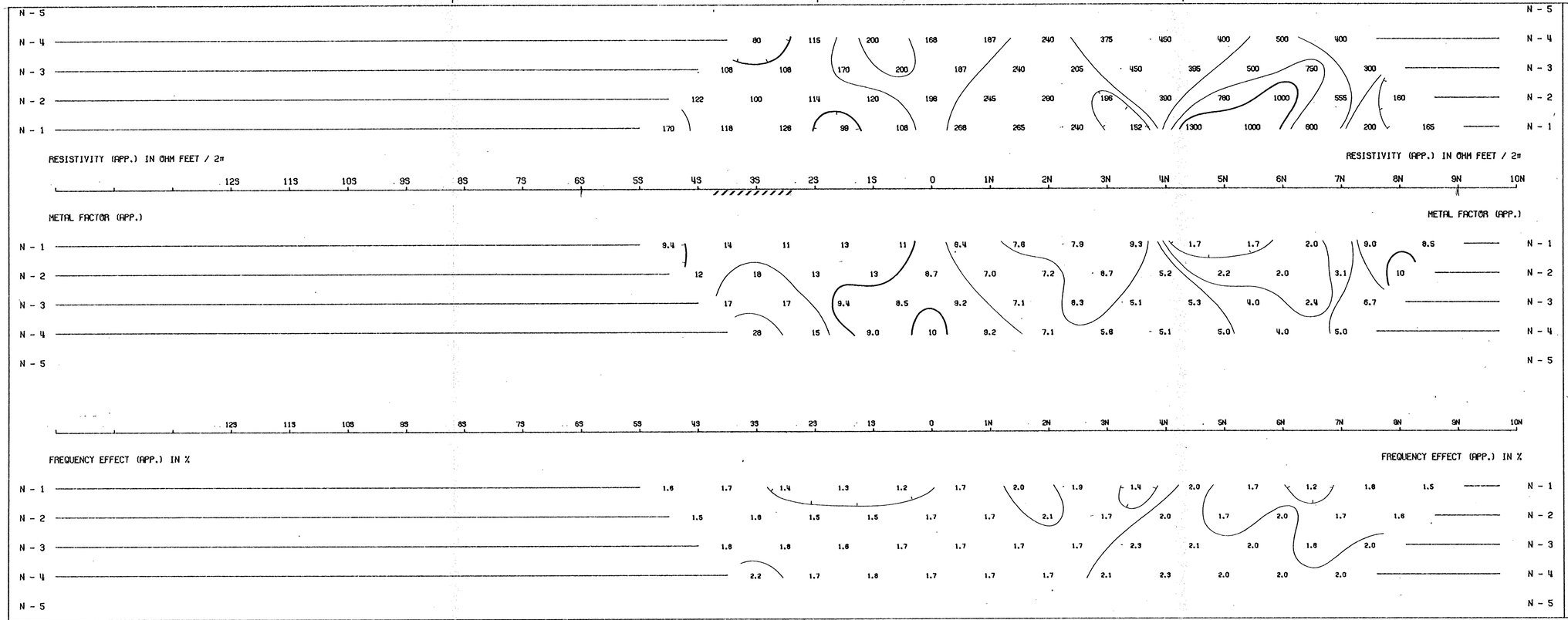
DATE: NOV. 27/68

NOTE: CONTOURS AT LOGARITHMIC INTERVALS 1.-1.5-2.-3.-5.-7.5-10

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED WITH AN IBM 360/75 COMPUTER AND A CALCOMP PLOTTER



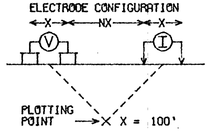
DWG. NO.- I.P.-5203-8

PAN-NEVADA INCORPORATED

LUCIE GROUP, TP. 45N, R63E, SEC. 27, 28, 33 & 34
ELKO COUNTY, NEVADA

LINE NO.- 32W

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-5.0 CPS

DATE SURVEYED: OCT 1968

APPROVED: R. Bell

DATE: Aug. 27/68

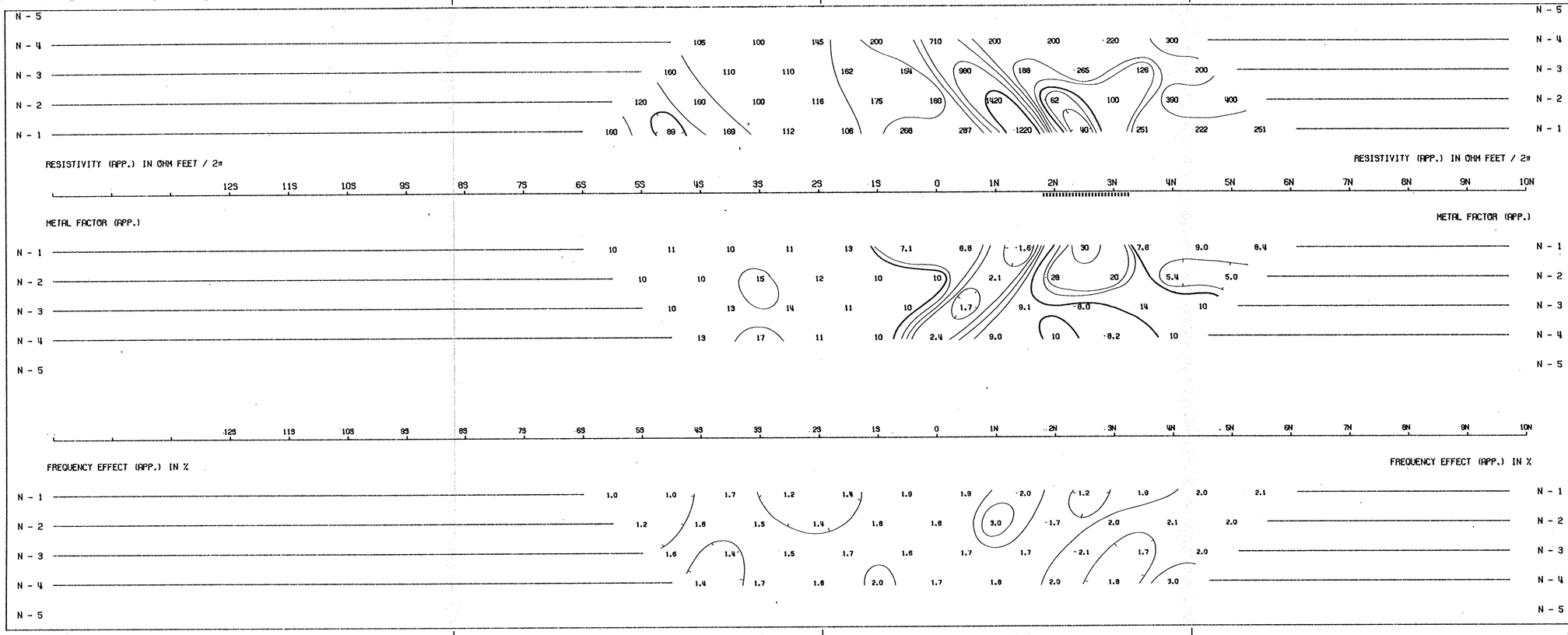
NOTE: CONTOURS AT LOGARITHMIC INTERVALS 1.-1.5-2.-3.-5.-7.5-10

McPHAR GEOPHYSICS INCORPORATED

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED WITH AN IBM 360/75 COMPUTER AND A CALCOMP PLOTTER



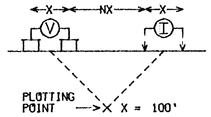
DWG. NO.- I.P.-5203-7

PAN-NEVADA INCORPORATED

LUCIE GROUP, TP. 45N, R63E, SEC. 27, 28, 33 & 34
ELKO COUNTY, NEVADA

LINE NO.- 28W

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-5.0 CPS

DATE SURVEYED: OCT 1968

APPROVED: R. Bell

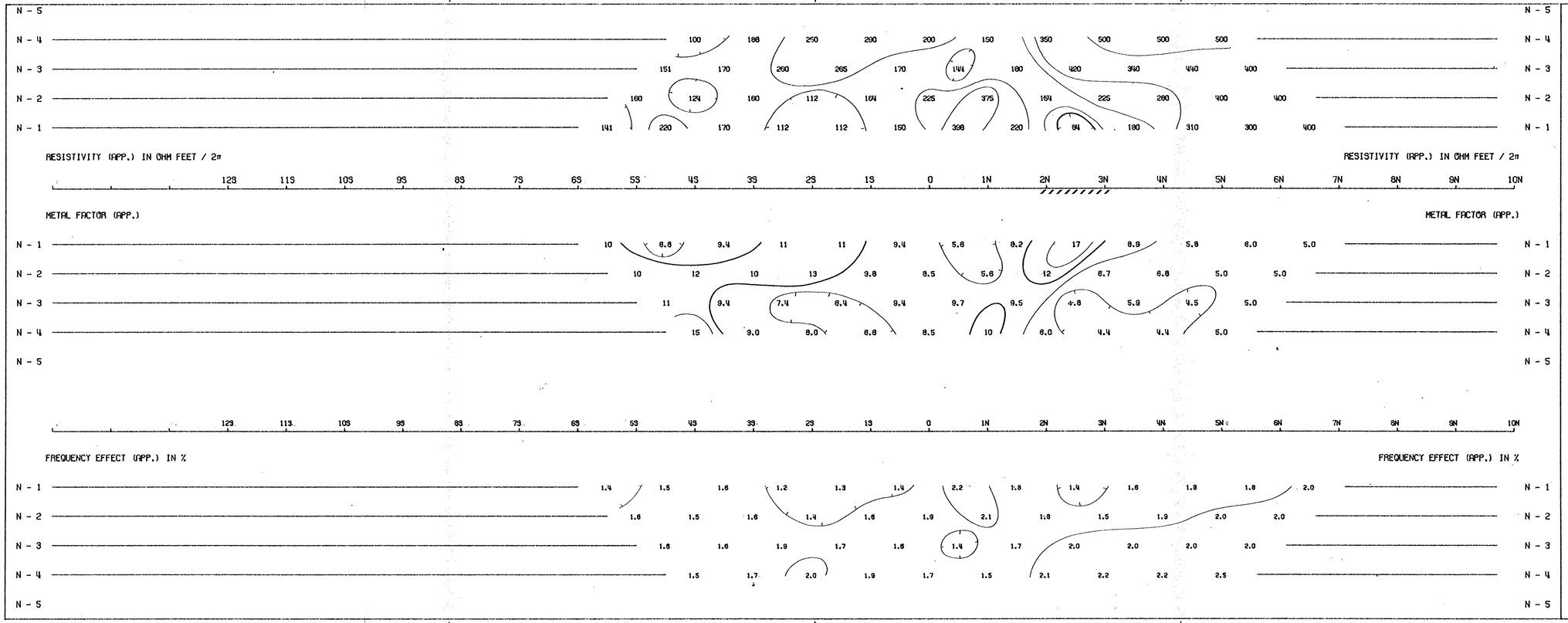
DATE: 27/6

NOTE: CONTOURS AT LOGARITHMIC INTERVALS 1.-1.5-2.-3.-5.-7.5-10

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED WITH AN IBM 360/75 COMPUTER AND A CALCOMP PLOTTER



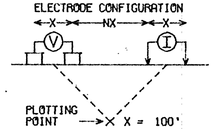
DWG. NO.- I.P.-5203-6

PAN-NEVADA INCORPORATED

LUCIE GROUP, TP. 45N, R63E, SEC. 27, 28, 33 & 34
ELKO COUNTY, NEVADA

LINE NO.- 24W

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-5.0 CPS

DATE SURVEYED: OCT 1968

APPROVED: R. C. Bell

DATE: 2/27/69

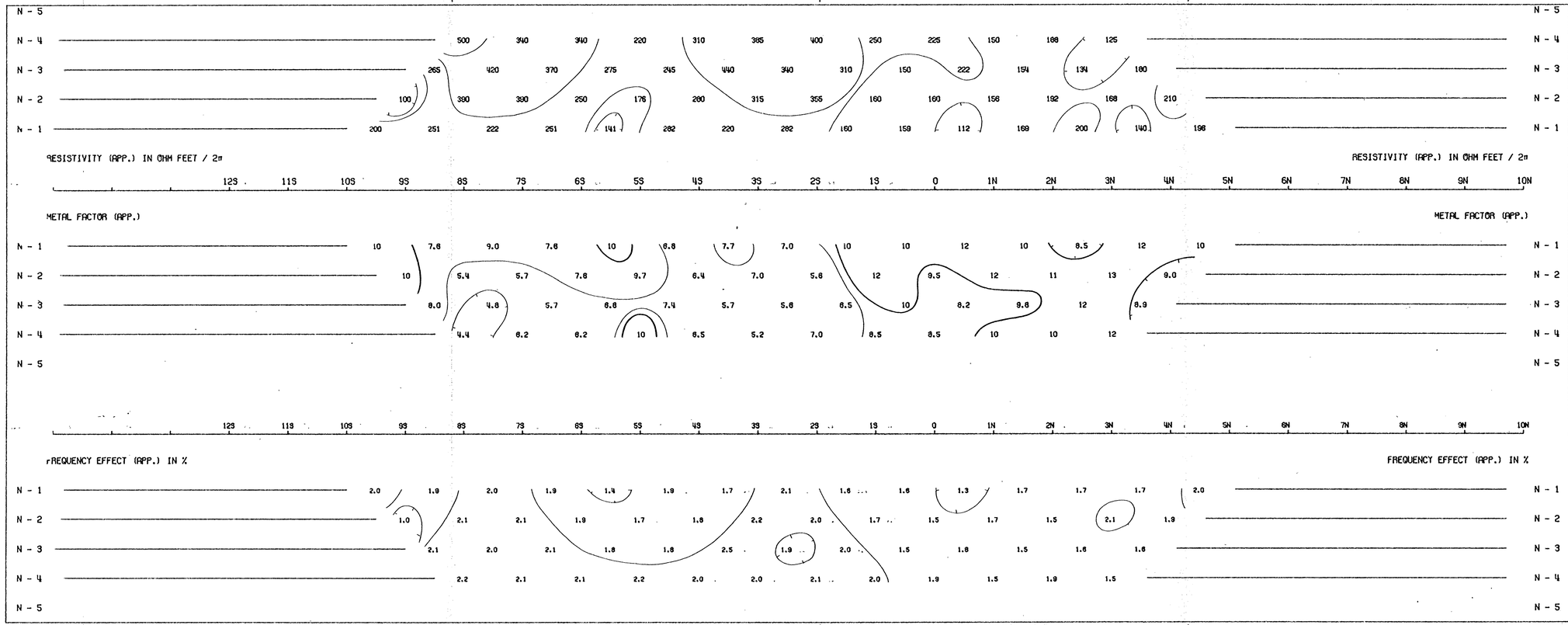
McPHAR GEOPHYSICS INCORPORATED

NOTE: CONTOURS AT LOGARITHMIC INTERVALS 1.-1.5-2.-3.-5.-7.5-10

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED WITH AN IBM 360/75 COMPUTER AND A CALCOMP PLOTTER



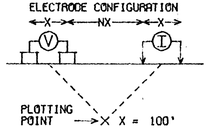
DWG. NO.- I.P.-5203-5

PAN-NEVADA INCORPORATED

LUCIE GROUP, TP. 45N, R63E, SEC. 27, 28, 33 & 34
ELKO COUNTY, NEVADA

LINE NO.- 20W

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-5.0 CPS

DATE SURVEYED: OCT 1968

APPROVED: A. G. Bell

DATE: 1/20/70

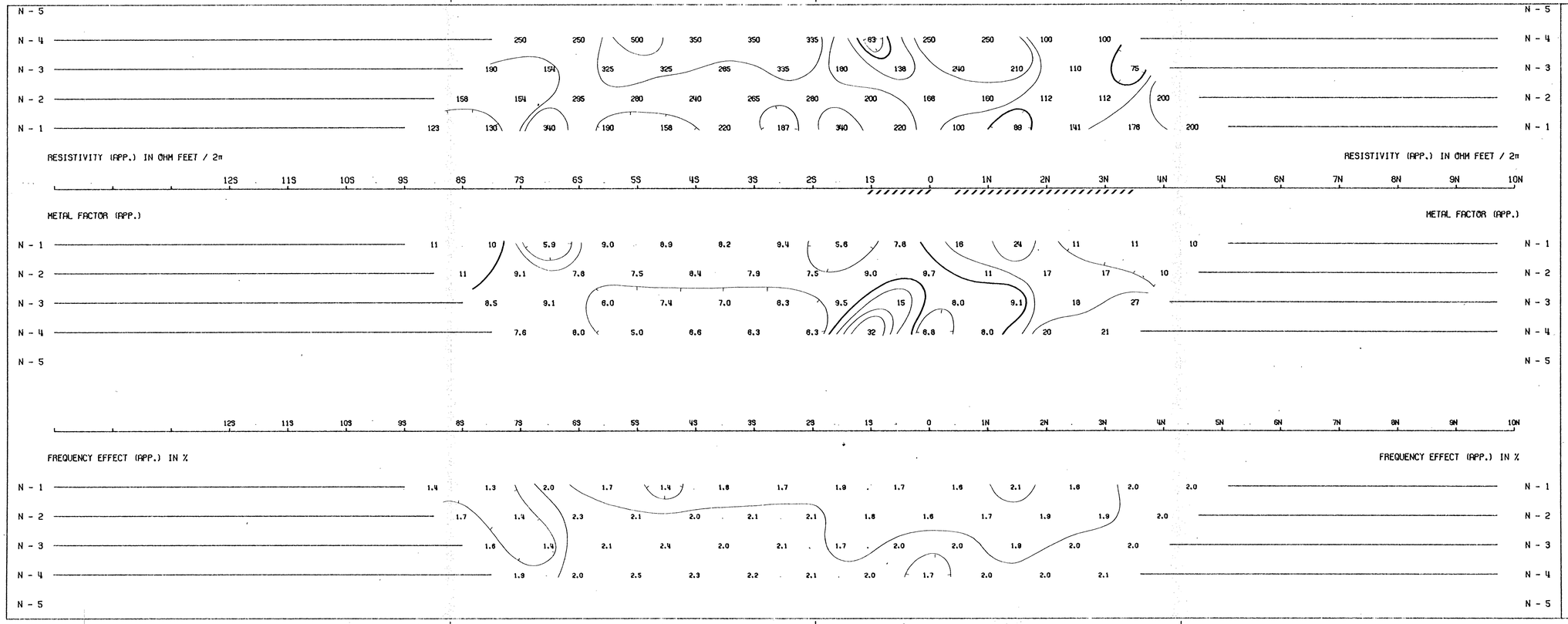
NOTE: CONTOURS AT LOGARITHMIC INTERVALS 1.-1.5-2.-3.-5.-7.5-10

McPHAR GEOPHYSICS INCORPORATED

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED WITH AN IBM 360/75 COMPUTER AND A CALCOMP PLOTTER



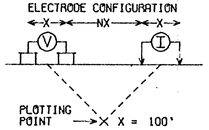
DWG. NO.- I.P.-5203-4

PAN-NEVADA INCORPORATED

LUCIE GROUP, TP. 45N, R63E, SEC. 27, 28, 33 & 34
ELKO COUNTY, NEVADA

LINE NO.- 16W

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-5.0 CPS

DATE SURVEYED: OCT 1968

APPROVED: A. Bell

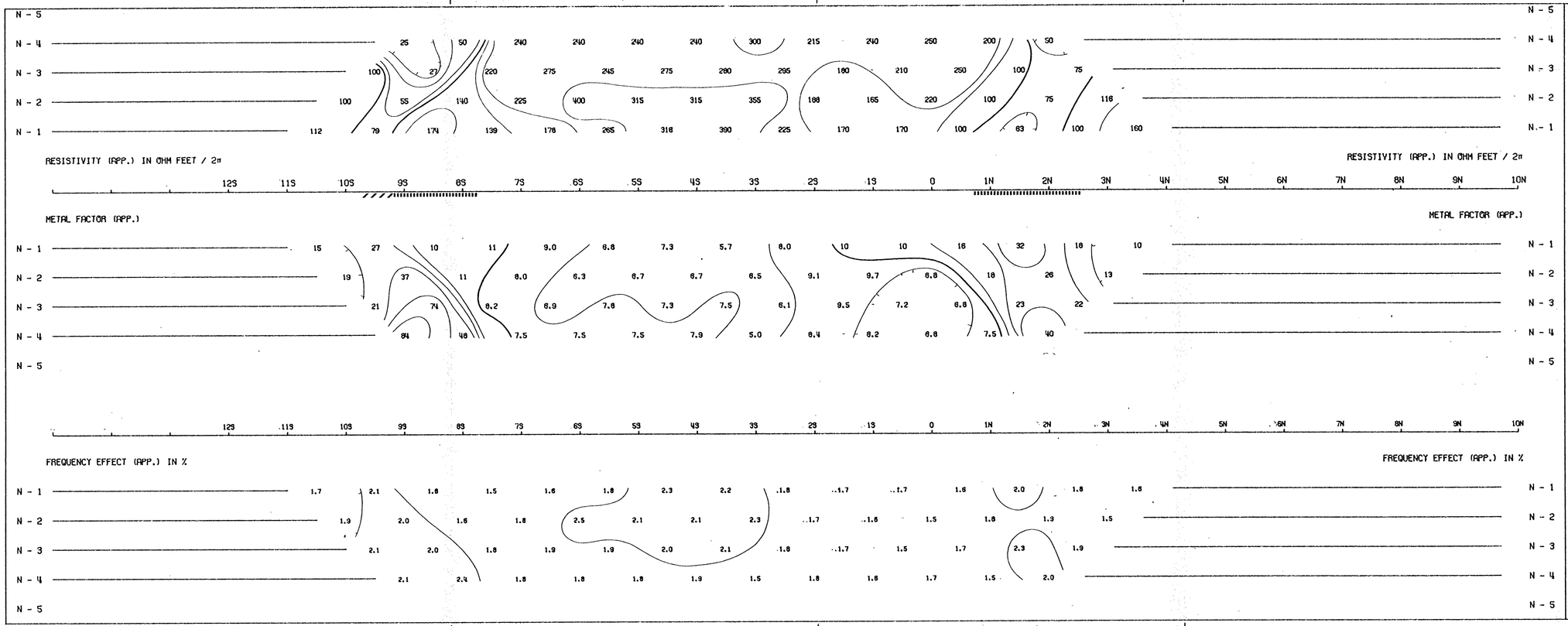
DATE: Nov. 27

NOTE: CONTOURS AT LOGARITHMIC INTERVALS 1.-1.5-2.-3.-5.-7.5-10

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED WITH AN IBM 360/75 COMPUTER AND A CALCOMP PLOTTER



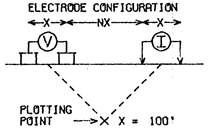
DWG. NO.- I.P.-5203-3

PAN-NEVADA INCORPORATED

LUCIE GROUP, TP. 45N, R63E, SEC. 27, 28, 33 & 34
ELKO COUNTY, NEVADA

LINE NO.- 12W

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-5.0 CPS

DATE SURVEYED: OCT 1968

APPROVED: [illegible]

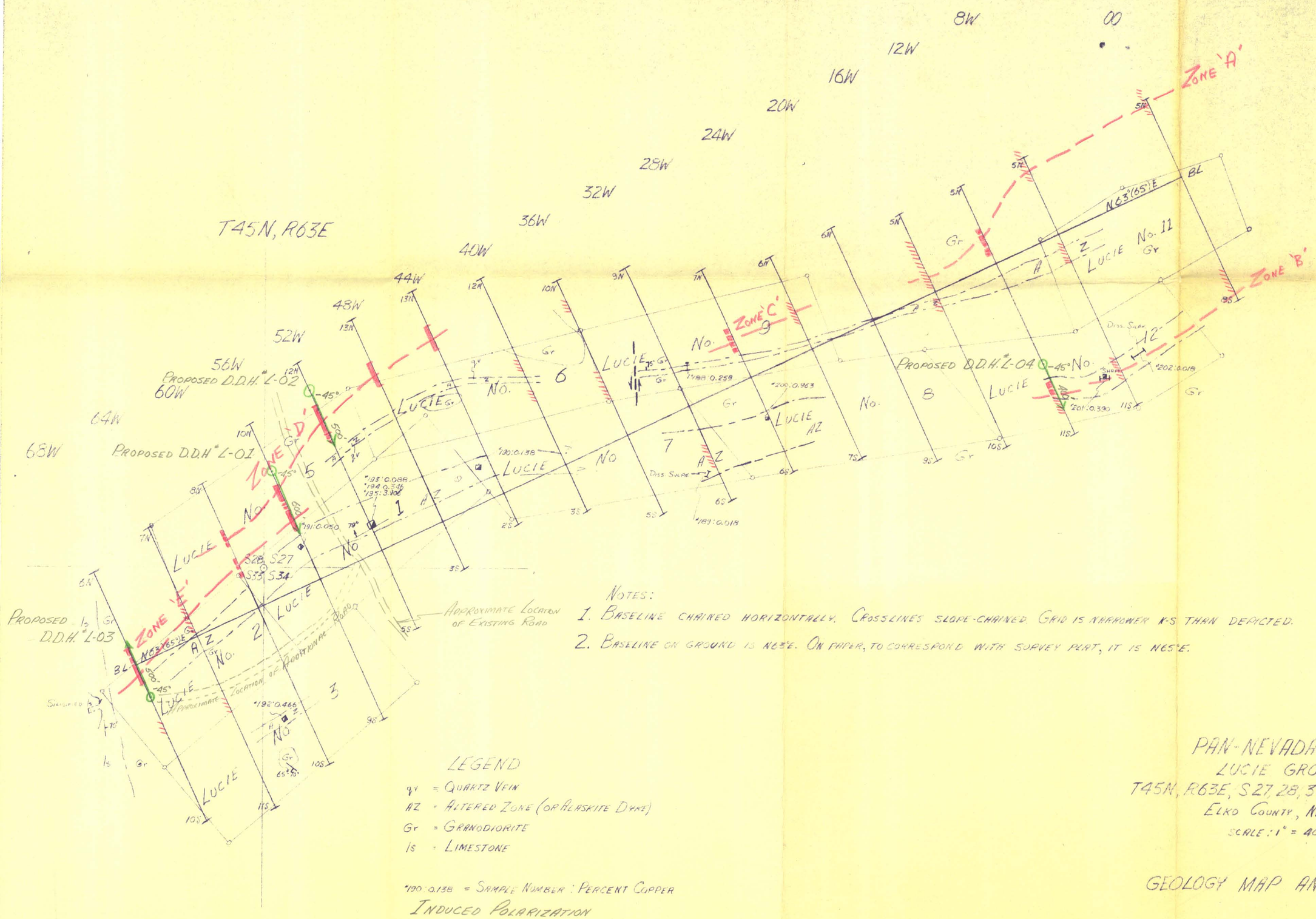
DATE: May. 27 [illegible]

NOTE: CONTOURS AT LOGARITHMIC INTERVALS 1.-1.5-2.-3.-5.-7.5-10

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED WITH AN IBM 360/75 COMPUTER AND A CALCOMP PLOTTER



NOTES:

1. BASELINE CHAINED HORIZONTALLY. CROSSLINES SLOPE-CHAINED. GRID IS NARROWER N-S THAN DEPICTED.
2. BASELINE ON GROUND IS N63°E. ON PAPER, TO CORRESPOND WITH SURVEY PLAT, IT IS N65°E.

LEGEND

qv = QUARTZ VEIN
AZ = ALTERED ZONE (OR ALASKITE DYKE)
Gr = GRANODIORITE
Is = LIMESTONE

*190:0.138 = SAMPLE NUMBER : PERCENT COPPER

INDUCED POLARIZATION

= DEFINITE ANOMALY
= PROBABLE ANOMALY
= POSSIBLE ANOMALY

PAN-NEVADA INC.
LUCIE GROUP
T45N, R63E, S27, 28, 33, 34, MDBM
ELKO COUNTY, NEVADA
SCALE: 1" = 400'

GEOLOGY MAP AND IP GRID

Item 3(e)