82E/3W 4E

REPORT ON THE INDUCED POLARIZATION AND RESISTIVITY SURVEY ON THE CHUKAR CLAIM GROUP OSOYOOS MINING DIVISION, B.C. FOR PERRY, KNOX, KAUFMAN, INC.

BY

PHILIP G. HALLOF, Ph.D. P.Eng.

AND

ANTHONY M. HAUCK III, Geophysicist

CLAIMS - Chukar Fraction; Chukar 1-16; Moly 1,2,4; Quail Fraction 2,3; Quail Fraction

MINERAL LEASES - Blue Bell, Bertha Fraction, Molka, Rhone Fraction

CROWN GRANTED CLAIMS - Gem, Whistler

NAME AND LOCATION OF PROPERTY:

CHUKAR CLAIM GROUP

OSOYOOS MINING DIVISION, B.C. 49°N, 119°W - SW

DATE STARTED: SEPTEMBER 21, 1970

DATE FINISHED: SEPTEMBER 29, 1970

TABLE OF CONTENTS

McPHAR GEOPHYSICS

NOTES ON THE THEORY, METHOD OF FIELD OPERATION AND PRESENTATION OF DATA FOR THE INDUCED POLARIZATION METHOD

Induced Polarization as a geophysical measurement refers to the blocking action or polarization of metallic or electronic conductors in a medium of ionic solution conduction.

This electro-chemical phenomenon occurs wherever electrical current is passed through an area which contains metallic minerals such as base metal sulphides. Normally, when current is passed through the ground, as in resistivity measurements, all of the conduction takes place through ions present in the water content of the rock, or soil, i.e. by ionic conduction. This is because almost all minerals have a much higher specific resistivity than ground water. The group of minerals commonly described as "metallic", however, have specific resistivities much lower than ground waters. The induced polarization effect takes place at those interfaces where the mode of conduction changes from ionic in the solutions filling the interstices of the rock to electronic in the metallic minerals present in the rock.

The blocking action or induced polarization mentioned above, which depends upon the chemical energies necessary to allow the ions to give up or receive electrons from the metallic surface, increases with the time that a d.c. current is allowed to flow through the rock; i.e. as ions pile up against the metallic interface the resistance to current flow increases. Eventually, there is enough polarization in the form of excess ions at the interfaces, to appreciably reduce the amount of current flow through the metallic particle. This polarization takes place at each of the infinite number of solution-metal interfaces in a mineralized rock.

When the d.c. voltage used to create this d.c. current flow is cut off, the Coulomb forces between the charged ions forming the polarization cause them to return to their normal position. This movement of charge creates a small current flow which can be measured on the surface of the ground as a decaying potential difference.

From an alternate viewpoint it can be seen that if the direction of the current through the system is reversed repeatedly before the polarization occurs, the effective resistivity of the system as a whole will change as the frequency of the switching is changed. This is a consequence of the fact that the amount of current flowing through each metallic interface depends upon the length of time that current has been passing through it in one direction.

The values of the per cent frequency effect or F. E. are a measurement of the polarization in the rock mass. However, since the measurement of the degree of polarization is related to the apparent resistivity of the rock mass it is found that the metal factor values or M. F. are the most useful values in determining the amount of polarization present in the rock mass. The MF values are obtained by normalizing the F. E. values for varying resistivities.

The induced polarization measurement is perhaps the most powerful geophysical method for the direct detection of metallic sulphide mineralization, even when this mineralization is of very low concentration. The lower limit of volume per cent sulphide necessary to produce a recognizable IP anomaly will vary with the geometry and geologic environment of the source, and the method of executing the survey. However, sulphide mineralization of less than one per cent by volume has been detected by the IP method under proper geological conditions.

The greatest application of the IP method has been in the search for disseminated metallic sulphides of less than 20% by volume. However, it has also been used successfully in the search for massive sulphides in situations where, due to source geometry, depth of source, or low resistivity of surface layer, the EM method can not be successfully applied. The ability to differentiate ionic conductors, such as water filled shear zones, makes the IP method a useful tool in checking EM anomalies which are suspected of being due to these causes.

In normal field applications the IP method does not differentiate between the economically important metallic minerals such as chalcopyrite, chalcocite, molybdenite, galena, etc., and the other metallic minerals such as pyrite. The induced polarization effect is due to the total of all electronic conducting minerals in the rock mass. Other electronic conducting materials which can produce an IP response are magnetite, pyrolusite, graphite, and some forms of hematite.

In the field procedure, measurements on the surface are made in a way that allows the effects of lateral changes in the properties of the ground to be separated from the effects of vertical changes in the properties. Current is applied to the ground at two points in distance (X) apart. The potentials are measured at two other points (X) feet apart, in line with the current electrodes is an integer number (n) times the basic distance (X).

The measurements are made along a surveyed line, with a constant distance (nX) between the nearest current and potential electrodes. In most surveys, several traverses are made with various values of (n); i.e. (n) = 1, 2, 3, 4, etc. The kind of survey required (detailed or reconnaissance) decides the number of values of (n) used.

In plotting the results, the values of the apparent resistivity, apparent per cent frequency effect, and the apparent metal factor measured for each set of electrode positions are plotted at the intersection of grid lines, one from the center point of the current electrodes and the other from the center point of the potential electrodes. (See Figure A.) The resistivity values are plotted above the line as a mirror image of the metal factor values below. On a second line, below the metal factor values, are plotted the values of the per cent frequency effect. In some cases the values of per cent frequency effect are plotted as superscripts of the metal factor value. In this second case the frequency effect values are not contoured. The lateral displacement of a given value is determined by the location along the survey line of the center point between the current and potential electrodes. The distance of the value from the line is determined by the distance (nX) between the current and potential electrodes when the measurement was made.

The separation between sender and receiver electrodes is only one factor which determines the depth to which the ground is being sampled in any particular measurement. The plots then, when contoured, are not section maps of the electrical properties of the ground under the survey line. The interpretation of the results from any given survey must be carried out using the combined experience gained from field results, model study results and theoretical investigations. The position of the electrodes when anomalous values are measured is important in the interpretation.

In the field procedure, the interval over which the potential differences are measured is the same as the interval over which the electrodes are moved after a series of potential readings has been made. One of the advantages of the induced polarization method is that the same equipment can be used for both detailed and reconnaissance surveys merely by changing the distance (X) over which the electrodes are moved each time. In the past, intervals have been used ranging from 25 feet to 2000 feet for (X). In each case, the decision as to the distance (X) and the values of (n) to be used is largely determined by the expected size of the mineral deposit being sought, the size of the expected anomaly and the speed with which it is desired to progress.

The diagram in Figure A demonstrates the method used in plotting the results. Each value of the apparent resistivity, apparent metal factor, and apparent per cent frequency effect is plotted and identified by the position of the four electrodes when the measurement was made. It can be seen that the values measured for the larger values of (n) are plotted farther from the line indicating that the thickness of the layer of the earth that is being tested is greater than for the smaller values of (n); i. e. the depth of the measurement is increased. When the F. E. values are plotted as superscripts to the MF values the third section of data values is not presented and the F. E. values are not contoured.

The actual data plots included with the report are prepared utilizing an IBM 360/75 Computer and a Calcomp 770/763 Incremental Plotting System. The data values are calculated, plotted, and contoured according to a programme developed by McPhar Geophysics. Certain symbols have been incorporated into the programme to explain various situations in recording the data in the field.

The IP measurement is basically obtained by measuring the difference in potential or voltage (ΔV) obtained at two operating frequencies. The voltage is the product of the current through the ground and the apparent resistivity of the ground. Therefore in field situations where the current is very low due to poor electrode contact, or the apparent resistivity is very low, or a combination of the two effects; the value of (ΔV) the change in potential will be too small to be measurable. The symbol "TL" on the data plots indicates this situation.

In some situations spurious noise, either man made or natural, will render it impossible to obtain a reading. The symbol "N" on the data plots indicates a station at which it is too noisey to record a reading. If a reading can be obtained, but for reasons of noise there is some doubt as to its accuracy, the reading is bracketed in the data plot ( ).

In certain situations negative values of Apparent Frequency Effect are recorded. This may be due to the geologic environment or spurious electrical effects. The actual negative frequency effect value recorded is indicated on the data plot, however the symbol "NEG" is indicated for the corresponding value of Apparent Metal Factor. In contouring negative values the contour lines are indicated to the nearest positive value in the immediate vicinity of the negative value.

The symbol "NR" indicates that for some reason the operator did not attempt to record a reading although normal survey procedures would suggest that one was required. This may be due to inaccessible topography or other similar reasons. Any symbol other than those discussed above is unique to a particular situation and is described within the body of the report.

METHOD USED IN PLOTTING DIPOLE-DIPOLE INDUCED POLARIZATION AND RESISTIVITY RESULTS

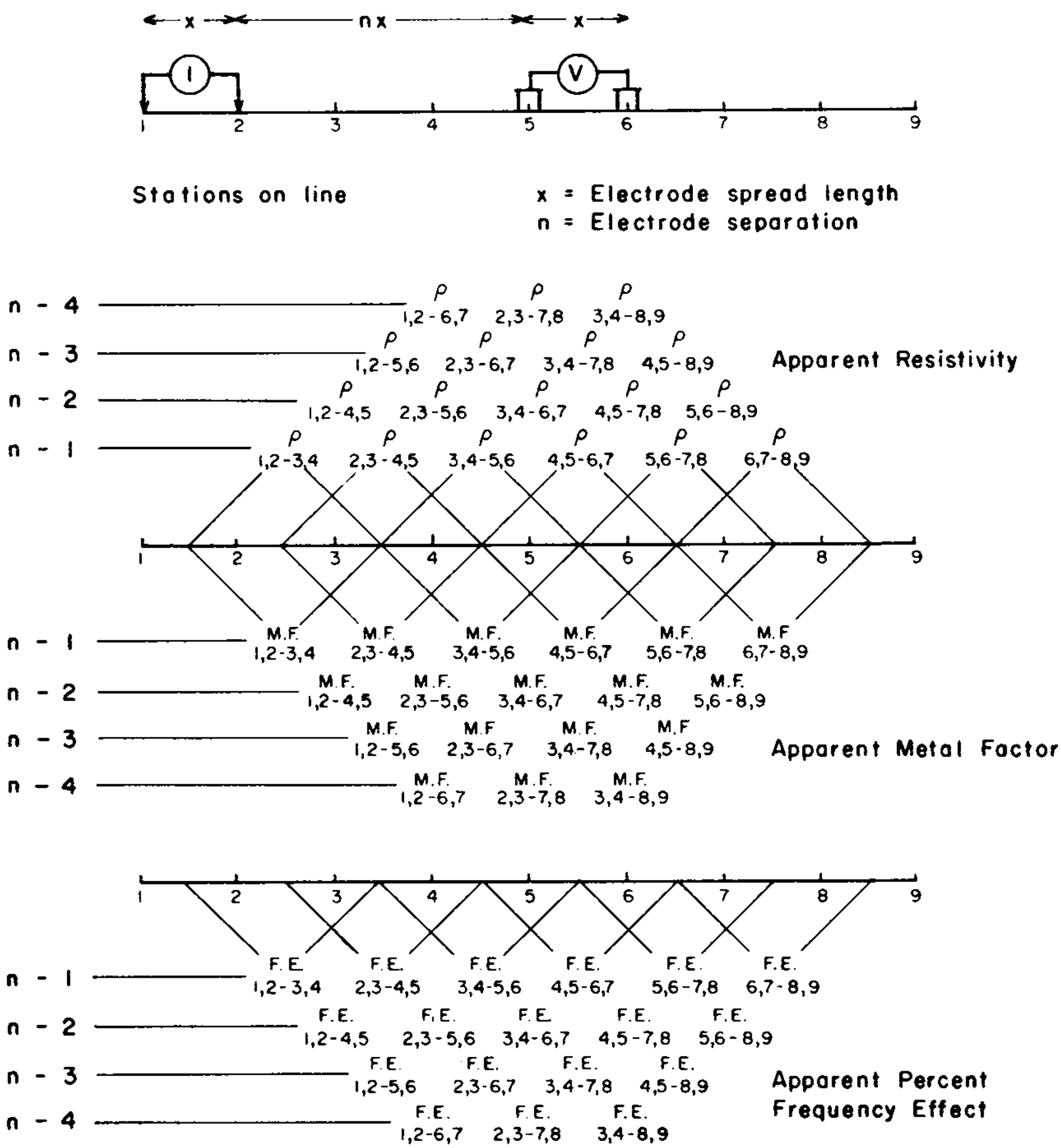

Fig. A

McPHAR GEOPHYSICS LIMITED

REPORT ON THE
INDUCED POLARIZATION
AND RESISTIVITY SURVEY
ON THE
CHUKAR CLAIM GROUP
OSOYOOS MINING DIVISION, B.C.
FOR
PERRY, KNOX, KAUFMAN, INC.

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1. INTRODUCTION

At the request of Perry, Knox, Kaufman, Inc., McPhar has completed an Induced Polarization and Resistivity survey on the Chukar Claim Group, Osoyoos Mining Division, British Columbia. The project area is situated at the Canada-United States border on the west side of Osoyoos Lake and is in the southwest quadrant of the 1° quadrilateral whose south-east corner is at 49°N latitude and 119°W longitude.

The claim group is underlain chiefly by granodiorite and diorite probably of Mesozoic age, which abuts quaternary glacial alluvium to the east. The granodiorite to diorite contains sporadic showings of weak chalcopyrite, pyrite and oxide copper minerals at the surface.

The purpose of the Induced Polarization and Resistivity survey was to prospect for and delineate possible sulphide zones at depth in order to favourably locate drill holes.

The survey was conducted by Robert D. Whitman, crew chief. The Induced Polarization results and geology of the area were reviewed with M.A. Kaufman, member of the firm.

The survey was carried out for the benefit of the following mineral claims, mineral leases, and crown granted claims.

Mineral Claims	Record Numbers
Chukar Fraction	8092
Chukar #1	
Chukar #2	7793
Chukar #3	
Chukar #4	8090 "0"
Chukar #5	8091
Chukar #6	8107 D
Chukar #7	8669 P
Chukar #8 Fr.	8670 P
Chukar #9 Fr.	8671 P
Chukar #10	20188 K
Chukar #11	20189 K
Chukar #12	20190 K
Chukar #13 Fr.	20191 K
Chukar #14 Fr.	20192 K
Chukar #15 Fr.	20193 K
Chukar #16	20194 K
Moly #1	8799 E
Moly #2	8800 E
Moly #4	8802 E
Quail Fraction #2	10332 N
Quail Fraction #3	10333 N
Quail Fraction	8798 E

Mineral Leases	Lot No.	Lease No.
Blue Bell	L 1902	M-65
Bertha Fraction	L 2677	M-65
Molka	L 2675	M-64
Rohne Fraction	L 2676	M-35

Crown Granted Claims	No.
Gem	L 3311
Whistler	L 3557

2. PRESENTATION OF RESULTS

The Induced Polarization and Resistivity results are shown on the following enclosed data plots. Surface projections of the Induced Polarization anomalies are shown on a plan map, Dwg. I.P.P. 4733, at a scale of 1" = 400'.

Line No. 1	500' electrode intervals	Dwg.IP 5620-1
Line No. 2	500' electrode intervals	Dwg.IP 5620-2
Line No. 3	500' electrode intervals	Dwg.IP 5620-3
Line No. 4	500' electrode intervals	Dwg.IP 5620-4
Line No. 5	500' electrode intervals	Dwg.IP 5620-5
Line No. 6	500' electrode intervals	Dwg.IP 5620-6
Line No. 7	500' electrode intervals	Dwg.IP 5620-7
Line No. 8	500' electrode intervals	Dwg.IP 5620-8

In this report both percent frequency effect (PFE) anomalies and metal factor (MF) anomalies are shown on the plan map. Percent frequency effect is a measure of the intensity of polarization, and anomalies are classified as very weak - very strong. The percent frequency effect results indicate polarizable areas without taking into account the resistivity of the areas. Metal factor (MF) is obtained by combining the percent frequency effect and the resistivity. A good conductor (low resistivity) that is strongly polarizable (high percent frequency effect) will give a well-defined or definite metal factor anomaly. Less well-defined metal factor anomalies are designated as probable or possible.

The percent frequency effect and metal factor parameters are complementary. The relative importance of each type of information depends upon the particular geophysical environment and the type of target expected. For example, a mineralized silicified zone will give a strong percent frequency effect anomaly, but may not give a definite metal factor anomaly. Alternatively, an oxidized ore zone may only give a weak percent frequency effect anomaly, but will give a definite metal factor anomaly pattern. Judicious consideration of both the percent frequency effect and the metal factor results permits a comprehensive evaluation of the geophysical environment.

The anomalies as shown on the data plots and plan map represent the surface projection of the polarizable zones. Contacts or faults inferred from the resistivity patterns are also shown. Anomaly boundaries and fault locations should be considered accurate to the electrode interval used.

The anomalies shown on the plan map are designated apparent depths of shallow, moderate, or deep. At larger dipole separations a greater volume of rock is averaged, in lateral extent as well as depth. Thus, the source of a deep-appearing anomaly detected along a single line may be at shallow depth to one side of the line. The data plots, therefore, cannot represent true depth.

Depths can be calculated from the apparent resistivity data in the case of ideal horizontal layers, but even this calculation depends on an assumed resistivity contrast between the zone at depth and the overlying rock. Although ambiguous, the simple depth designations are useful for correlating or comparing anomalous zones obtained on adjacent survey lines. Drill hole information from one or more zones frequently permits one to make a fair depth estimate for other zones. The following depth generalizations apply to porphyry copper and contact-replacement bodies:

	Apparent Depth (dipole separations)	Drill Hole Depth (in dipole lengths)
Shallow	1 - 2	½ - 1
Moderate	2 - 3	1 - 1½
Deep	3 - 5	1½ - 2+

Thus, a shallow zone is one detected at one-to-two dipole separations and should be tested by a drill hole from a half-to-one dipole length deep.

The Induced Polarization method is a geophysical tool used to determine the electrical properties of the earth. The final evaluation of the Induced Polarization anomalies, e.g., which of the anomalies constitutes the most favourable exploration target, must be based on available geologic evidence and concepts.

3. DISCUSSION OF RESULTS

As shown on the plan map, weak - moderate percent frequency effect (PFE) anomalies and possible metal factor anomalies were detected on the Chukar Claim Group. The resistivity and Induced Polarization results obtained along each line are discussed in detail below.

Line No. 1

There are no anomalous IP effects at the east end of this line.

Line No. 2

A shallow resistivity low occurs in the interval 0 to 5E. A resistivity low occurs at depth in the interval 12.5E to 20E(?). A shallow, high-resistivity zone occurs between possible contacts at 15E and 20E. The source of the moderate PFE anomaly in the interval 5E to 10E may dip to the east. An above-background metal factor zone in the interval 10E to 15E is due to both low resistivities and weak to moderate PFE's.

Line No. 3

A resistivity low occurs at depth beneath a shallow resistivity high in the interval 10E to 17.5E. An above-background metal factor zone in the interval 5E to 12.5E(?) is due to both low resistivities and weak PFE's.

Line No. 4

A shallow, low-resistivity layer extends from 40W to 0. The resistivity results indicate a fault at approximately 5E, and a shallow resistivity high between contacts at 10E and 15E. The anomalous PFE's are generally weaker than those measured along the lines to the north.

Line No. 5

A shallow resistivity low occurs in the interval 30W to 20W and a resistivity high occurs at shallow to moderate depth between possible contacts at 10W and 5W. Above-background metal factor zones in the intervals (?) 40W to 30W and 5W to 5E are due to both low resistivities and weak to moderate PFE's, but the moderate PFE anomaly in the interval 30W to 22.5W is associated with higher resistivity material at depth.

Line No. 6

A shallow resistivity low occurs in the interval 30W to 20W. The low resistivities contribute to the possible metal factor anomaly in the interval (?) 30W to 25W. The metal factor anomaly occurs in the vicinity of the contact between the intrusive and the Mesozoic rocks, and is associated with a moderate PFE anomaly. The source of the PFE anomaly may dip to the west. Above-background metal factor values are associated with the moderate PFE anomalies in the intervals 10W to 5W and 2.5W to 5E.

Line No. 7

This line is a single reconnaissance line located north of the Chukar Claim Group. The resistivity results indicate a contact or fault at approximately 15W, with a high-resistivity intrusive to the west and low-resistivity alluvium to the east. Very weak PFE's are associated with the intrusive.

Line No. 8

The resistivity results indicate a contact or fault at approximately 5SW, with a shallow resistivity low in the interval 5SW to 10SW. The moderate PFE anomaly in the interval (?) 7.5NE to 5SW is shallowest in the vicinity of 5NE, where oxide copper and chalcopyrite occur at the surface.

4. CONCLUSIONS AND RECOMMENDATIONS

The apparent frequency effects measured on the Chukar Claim Group are moderately high; the apparent resistivity values are also moderately high. As shown on the plan map, Dwg. I.P.P. 4733, several of the moderately high frequency effect anomalies can be correlated into zones. To the south, zones of this character have been tested by drilling, near where copper mineralisation is visible at the surface.

The following drill hole locations and minimum depths of holes are suggested to test the moderate frequency effect anomalous zones:

Line No. 2	12.5E	to 500'
Line No. 3	27.5W	to 750'
Line No. 5	2.5E	to 750'
Line No. 6	27.5W	to 500'
Line No. 6	2.5E	to 500'
Line No. 8	5NE	to 500'

When drilling has been completed, the available geological information and the nature of the mineralization encountered should be correlated with the Induced Polarization results to determine if additional investigations are warranted.

McPHAR GEOPHYSICS LIMITED

Philip G. Hallof
Philip G. Hallof,
Geophysicist.

A. M. Hauck (per RAB)
Anthony M. Hauck III,
Geophysicist.

Dated: December 10, 1970

ASSESSMENT DETAILS

PROPERTY: Chukar Claim Group

MINING DIVISION: Osoyoos

SPONSOR: Perry, Knox, Kaufman, Inc.

PROVINCE: British Columbia

LOCATION: Osoyoos Lake Area

TYPE OF SURVEY: Induced Polarization

OPERATING MAN DAYS:	36	DATE STARTED:	Sept. 21, 1970
EQUIVALENT 8 HR. MAN DAYS:	54	DATE FINISHED:	Sept. 29, 1970
CONSULTING MAN DAYS:	3	NUMBER OF STATIONS:	99
DRAUGHTING MAN DAYS:	7	NUMBER OF READINGS:	990
TOTAL MAN DAYS:	64	MILES OF LINE SURVEYED:	9.2

CONSULTANTS:

Philip G. Hallof, 5 Minorca Place, Don Mills, Ontario
Anthony M. Hauck III, c/o McPhar Geophysics Inc., 818 West Miracle Mile, Tucson, Arizona 85705, U.S.A.

FIELD TECHNICIANS:

Robert Whitman, 1815 East Speedway, Tucson, Arizona, U.S.A.
Roger Fuller, 1331 East Seventh Street, Denver, Colorado, U.S.A.
Plus 2 Local Helpers:
Chris Gadsby, General Delivery, Osoyoos, B.C.
Craig Jones, General Delivery, Osoyoos, B.C.

DRAUGHTSMEN:

J. Duffy, 7 Waddington Crescent, Willowdale, Ontario.
B. Marr, 19 Kenewen Court, Toronto 16, Ontario.
F. Hurst, 230 Woburn Avenue, Toronto 12, Ontario.

McPHAR GEOPHYSICS LIMITED

Philip G. Hallof,
Geophysicist.

Dated: December 10, 1970.

SUMMARY OF COST

Perry, Knox, Kaufman, Inc.
Chukar Claim Group, Osoyoos Mining Division, B.C.

Crew - 2 Field Technicians + 2 Helpers

9 days	Operating	@ $255.00/day	$2,295.00
1 day	Standby	@ $100.00/day	100.00
			2,395.00

Expenses

Meals and Accommodation	317.60
Vehicle Expense	17.70
Vehicle Rental	228.37
Freight	247.80
Postage	1.80
Miscellaneous & Supplies	59.06
Locally Hired Labour	90.00
	962.33

Direct Labour $962.33 + 10%	1,058.56
Extra Labour $216.00 + 25%	270.00
TOTAL	$3,723.56

McPHAR GEOPHYSICS LIMITED

Philip G. Hallof,
Geophysicist.

Dated: December 10, 1970.

CERTIFICATE

I, Philip George Hallof, of the City of Toronto, Province of Ontario, do hereby certify that:

1. I am a geophysicist residing at 5 Minorca Place, Don Mills, (Toronto) Ontario.

2. I am a graduate of the Massachusetts Institute of Technology with a B.Sc. Degree (1952) in Geology and Geophysics, and a Ph.D. Degree (1957) in Geophysics.

3. I am a member of the Society of Exploration Geophysicists and the European Association of the Exploration Geophysicists.

4. I am a Professional Geophysicist, registered in the Province of Ontario, the Province of British Columbia and the State of Arizona.

5. I have no direct or indirect interest, nor do I expect to receive any interest directly or indirectly, in the property or securities of Perry, Knox, Kaufman, Inc. or any affiliate.

6. The statements made in this report are based on a study of published geological literature and unpublished private reports.

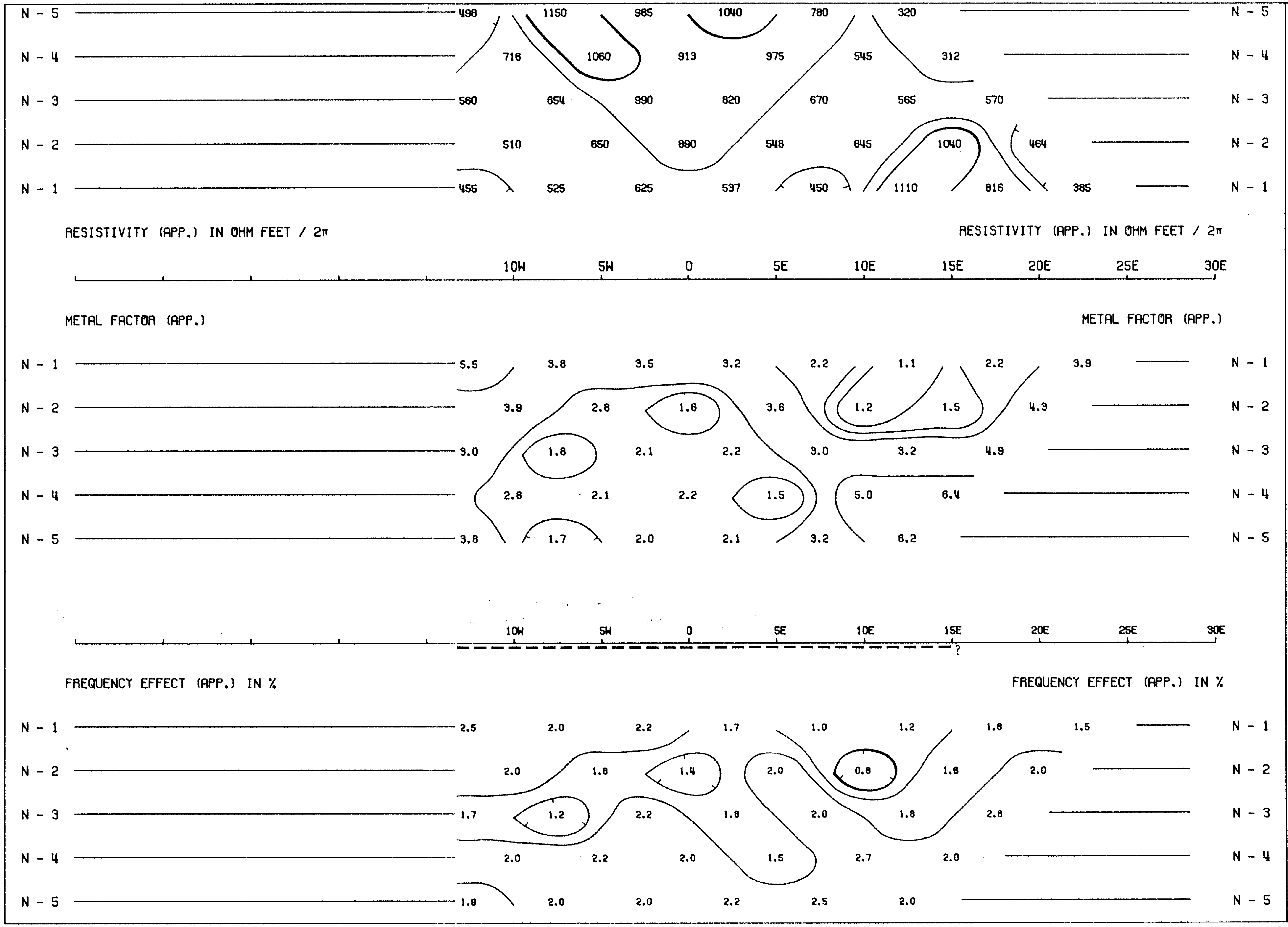
7. Permission is granted to use in whole or in part for assessment and qualification requirements but not for advertising purposes.

Dated at Toronto

This 10th day of December 1970

Philip G. Hallof

Philip G. Hallof, Ph.D.



DWG. NO.- I.P.-5620-3

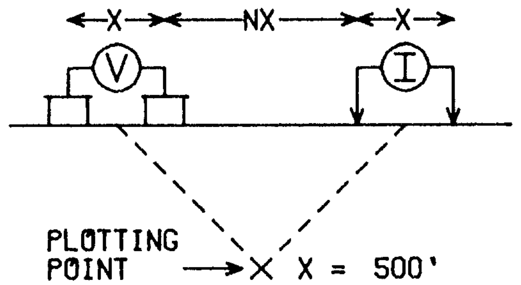
PERRY, KNOX, KAUFMAN, INC.

CHUKAR CLAIM GROUP

OSOYOOS M.D., B.C.

LINE NO.- 3

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-2.5 HZ

DATE SURVEYED: SEPT '70

APPROVED:

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

DATE: 12/10/70

Expiry Date February 25, 1971

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED WITH AN IBM 360/65 COMPUTER AND A CALCOMP PLOTTER

DWG. NO.- I.P.-5620-4

PERRY, KNOX, KAUFMAN, INC.

CHUKAR CLAIM GROUP

OSOYOOS M.D., B.C.

LINE NO.- 4

ELECTRODE CONFIGURATION

X — NX — X

PLOTTING POINT → X = 500'

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE

PROBABLE

POSSIBLE

FREQUENCIES: 0.31-2.5 HZ

DATE SURVEYED: SEPT '70

APPROVED:

DATE: 12/10/70

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 360/65 COMPUTER AND A CALCOMP PLOTTER

DWG. NO.- I.P.-5620-5

PERRY, KNOX, KAUFMAN, INC.

CHUKAR CLAIM GROUP

OSOYOOS M.D., B.C.

LINE NO.- 5

ELECTRODE CONFIGURATION

PLOTTING POINT X = 500'

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-2.5 HZ

DATE SURVEYED: SEPT '70

APPROVED:

DATE: 12/10/70

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 360/65 COMPUTER AND A CALCOMP PLOTTER

DWG. NO.- I.P.-5620-6

PERRY, KNOX, KAUFMAN, INC.

CHUKAR CLAIM GROUP

OSOYOOS M.D., B.C.

LINE NO.- 6

ELECTRODE CONFIGURATION

X — NX — X

PLOTTING POINT

X = 500'

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE

PROBABLE

POSSIBLE

FREQUENCIES: 0.31-2.5 HZ

DATE SURVEYED: SEPT '70

APPROVED:

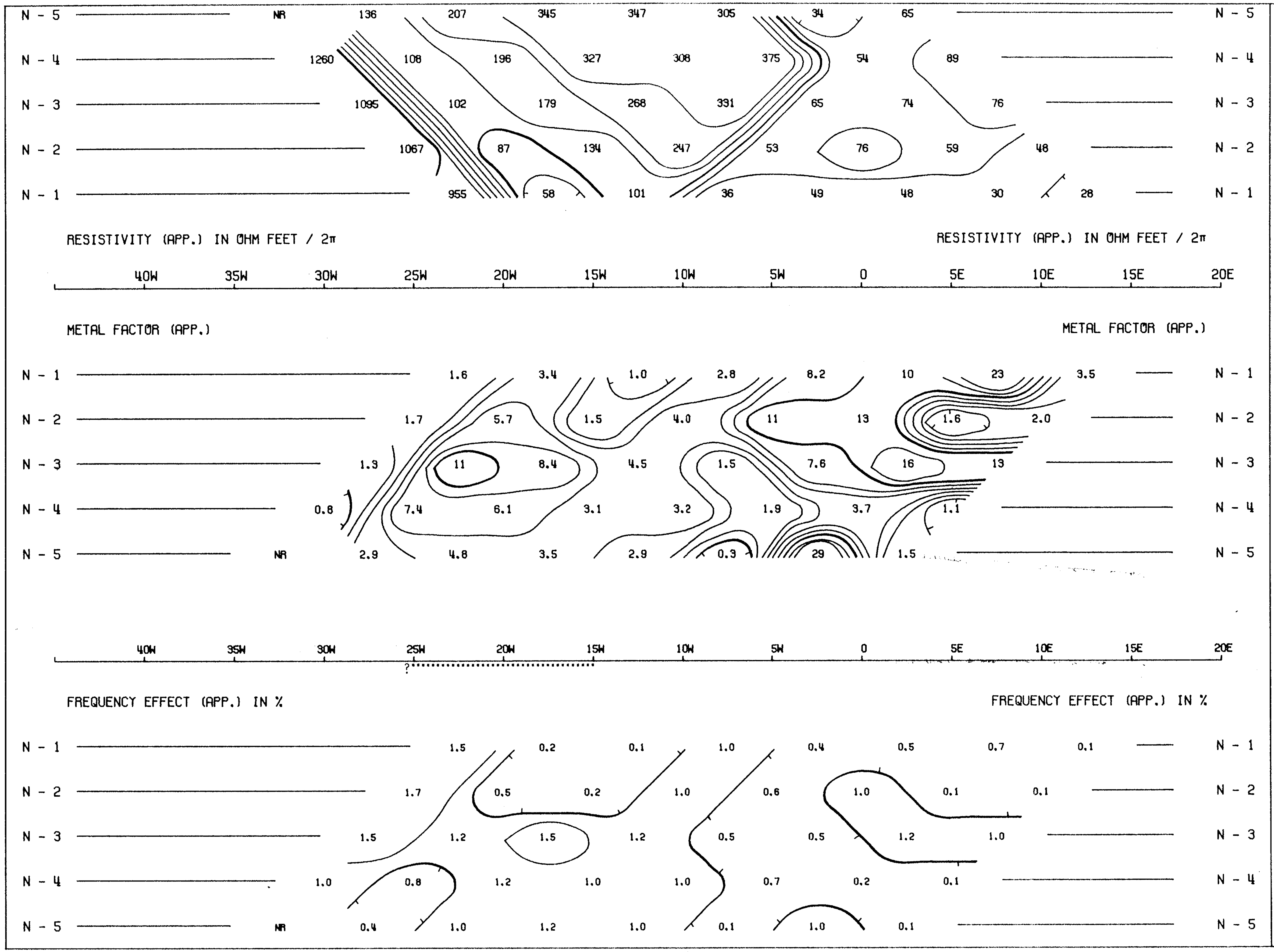
NOTE: CONTOURS AT LOGARITHMIC INTERVALS 1.-1.5-2.-3.-5.-7.5-10

DATE: 12/10/70

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED WITH AN IBM 360/65 COMPUTER AND A CALCOMP PLOTTER



DWG. NO.- I.P.-5620 - 7

PERRY, KNOX, KAUFMAN, INC.

CHUKAR CLAIM GROUP

OSOYOOS M.D., B.C.

LINE NO.- 7

ELECTRODE CONFIGURATION

←X→←NX→←X→

PLOTTING POINT → X X = 500'

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE ▬▬▬

PROBABLE ||||||||||

POSSIBLE / / / / /

FREQUENCIES: 0.31-2.5 HZ

DATE SURVEYED: SEPT '70

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

APPROVED:

PROFESSIONAL ENGINEER · PROVINCE OF BRITISH COLUMBIA

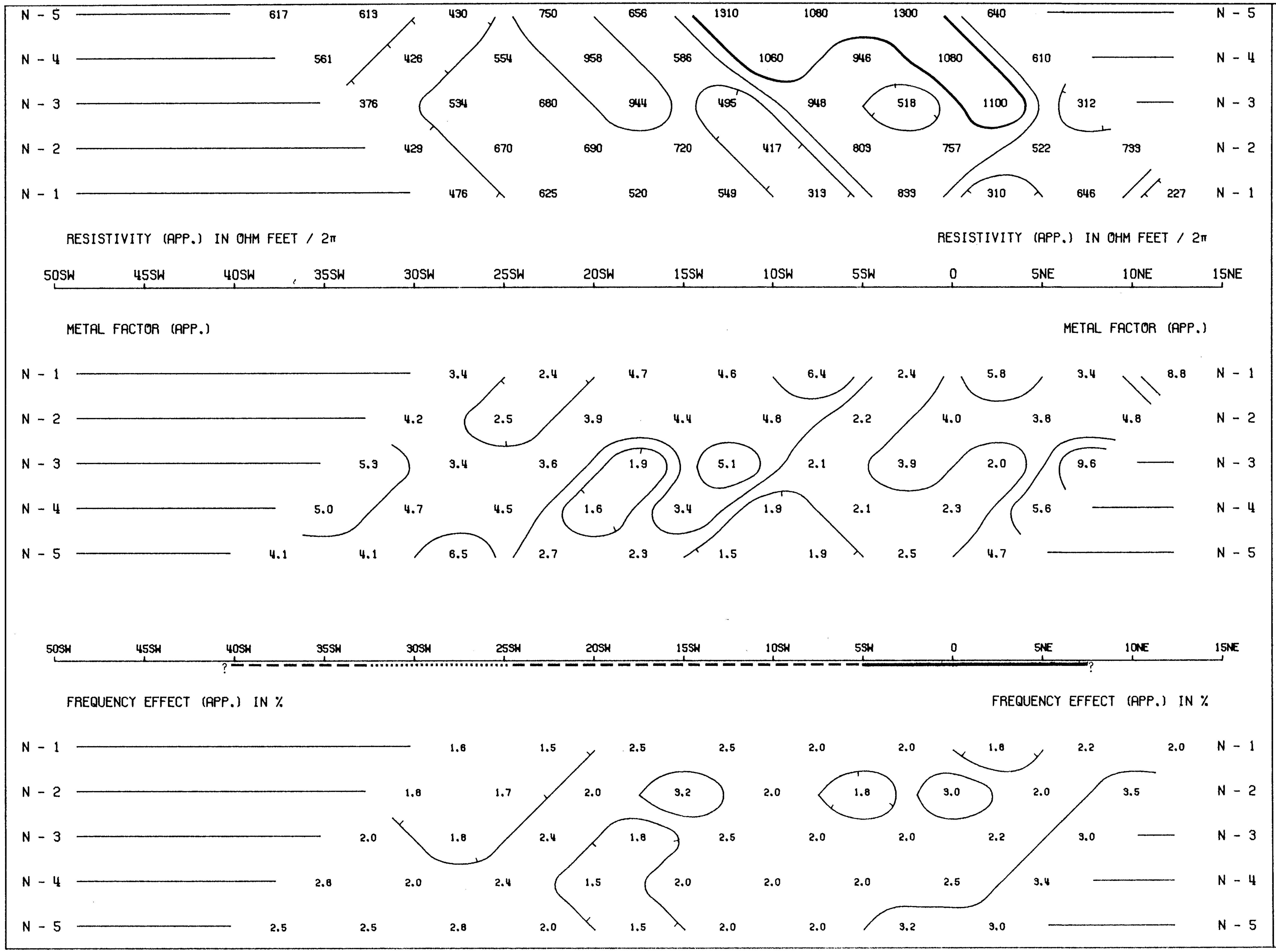
DATE: 12/10/70

Expiry Date: February 25 1971

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED WITH AN IBM 360/65 COMPUTER AND A CALCOMP PLOTTER



DWG. NO.- I.P.-5620 - 8

PERRY, KNOX, KAUFMAN, INC.

CHUKAR CLAIM GROUP

OSOYOOS M.D., B.C.

LINE NO.- 8

ELECTRODE CONFIGURATION

X NX X

V I

PLOTTING POINT X = 500'

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE

PROBABLE

POSSIBLE

FREQUENCIES: 0.31-2.5 HZ

DATE SURVEYED: SEPT '70

APPROVED:

DATE: 12/10/70

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

McPHAR GEOPHYSICS

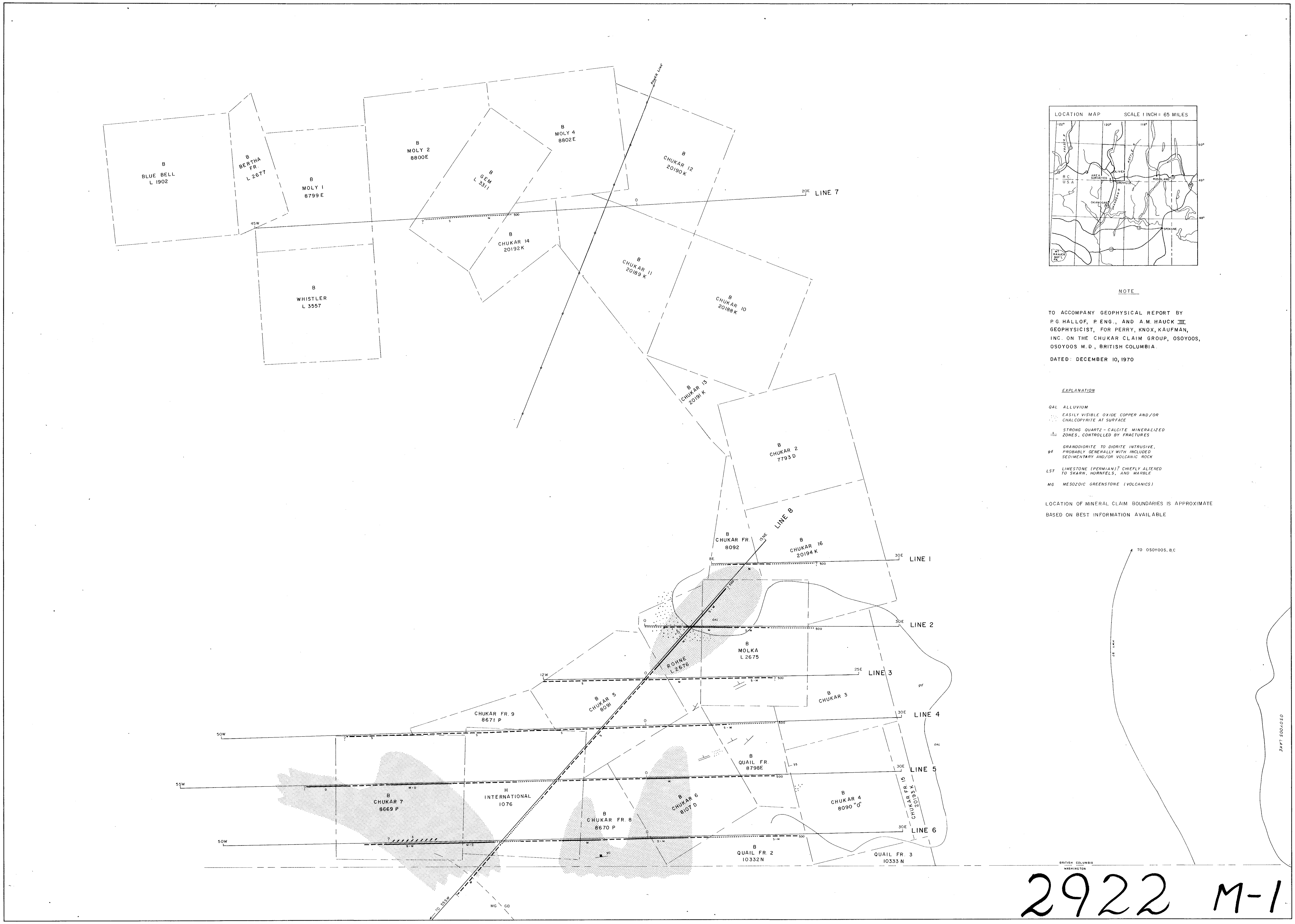
INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED WITH AN IBM 360/65 COMPUTER AND A CALCOMP PLOTTER

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

PLAN MAP



NOTE

TO ACCOMPANY GEOPHYSICAL REPORT BY P.G. HALLOF, P. ENG., AND A.M. HAUCK III GEOPHYSICIST, FOR PERRY, KNOX, KAUFMAN, INC. ON THE CHUKAR CLAIM GROUP, OSOYOOS, OSOYOOS M.D., BRITISH COLUMBIA

DATED: DECEMBER 10, 1970

EXPLANATION

- Qal — *ALLUVIUM*
- *EASILY VISIBLE OXIDE COPPER AND/OR CHALCOPYRITE AT SURFACE*
- *STRONG QUARTZ - CALCITE MINERALIZED ZONES, CONTROLLED BY FRACTURES*
- gd — *GRANODIORITE TO DIORITE INTRUSIVE, PROBABLY GENERALLY WITH INCLUDED SEDIMENTARY AND/OR VOLCANIC ROCK*
- LST — *LIMESTONE (PERMIAN)? CHIEFLY ALTERED TO SKARN, HORNFELS, AND MARBLE*
- MG — *MESOZOIC GREENSTONE (VOLCANICS)*

LOCATION OF MINERAL CLAIM BOUNDARIES IS APPROXIMATE BASED ON BEST INFORMATION AVAILABLE

SURFACE PROJECTION OF METAL FACTOR ANOMALOUS ZONES

- DEFINITE
- PROBABLE
- POSSIBLE

NOTE Number at the end of anomaly indicates spread used

APPARENT DEPTH (S=shallow, M=moderate, D=deep)

C= CONTACT, F= FAULT

SURFACE PROJECTION OF PERCENT FREQUENCY EFFECT ANOMALOUS ZONES

0.1 - 1.25		0.3 - 2.5
10	VERY STRONG	7.5
7.5 - 10	STRONG	5 - 7.5
5 - 7.5	MODERATE	3 - 5
3 - 5	WEAK	2 - 3
2 - 3	VERY WEAK	1.5 - 2

PERRY, KNOX, KAUFMAN, INC.

CHUKAR CLAIM GROUP, OSOYOOS MINING DIVISION

OSOYOOS, BRITISH COLUMBIA

SCALE

ONE INCH EQUALS FOUR HUNDRED FEET

MODERATE F.E. ANOMALY ZONES

Department of Mines and Petroleum Resources
ASSESSMENT REPORT
NO 2922 MAP #1

Philip G. Hallof
Dec. 10, 1970