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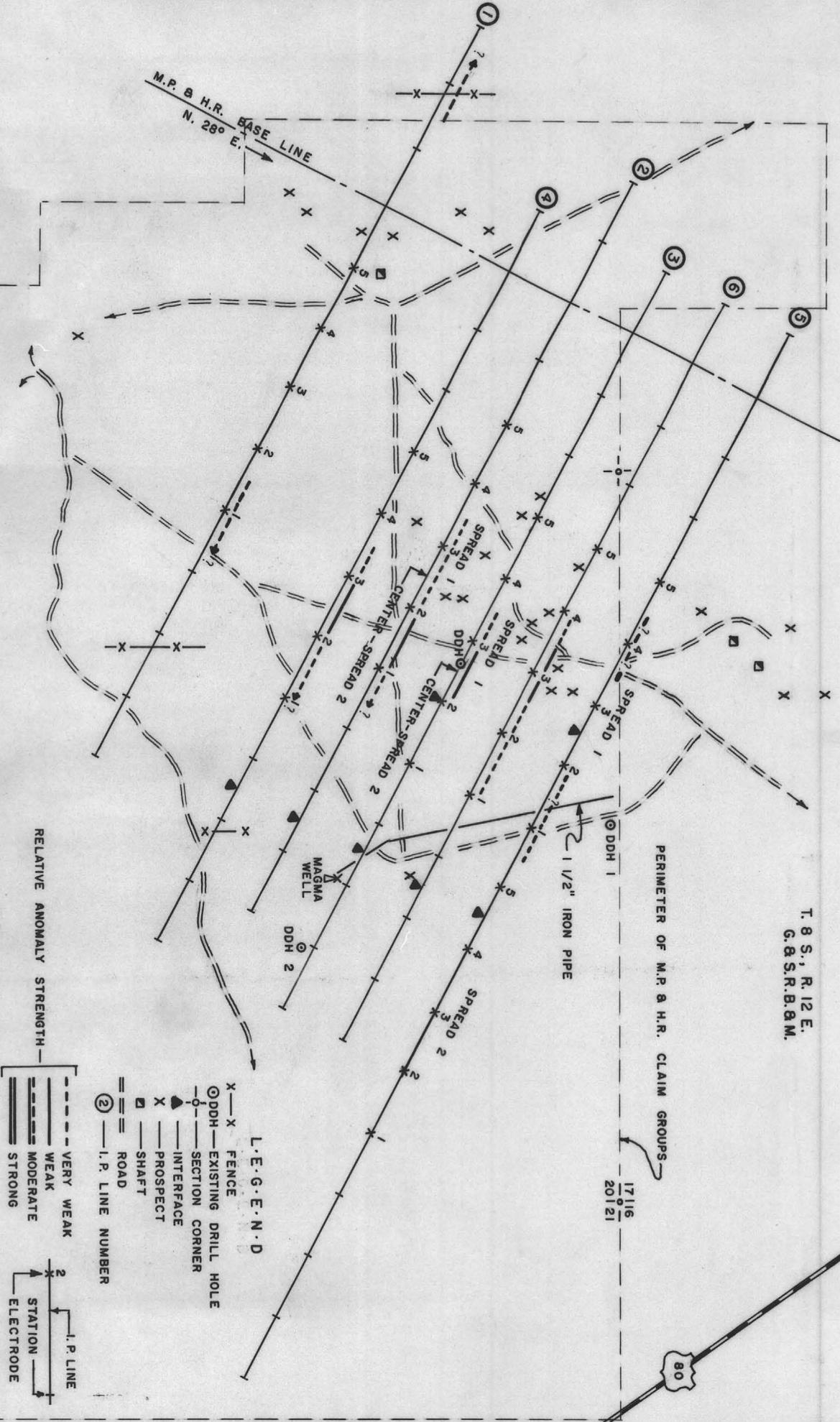
Induced Relinquishment Survey
Blue Project, Durham Hill
Pinal County, Arizona
For MP+HR Consulting, Ltd.

T. 8 S., R. 12 E.
G. & S. R. B. & M.

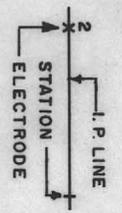
17116
20121

80

M.P. & H.R. BASE LINE
N. 28° E.



RELATIVE ANOMALY STRENGTH



- X — X FENCE
- ⊙ DDH — EXISTING DRILL HOLE
- — — SECTION CORNER
- ▲ — — — INTERFACE
- X — — — PROSPECT
- ▣ — — — SHAFT
- == == ROAD
- ② — — — I.P. LINE NUMBER

L.E.G.E.N.D

INDUCED POLARIZATION LOCATION & INTERPRETATION PLAN

19120
30129

BLUE PROJECT, PINAL COUNTY, ARIZONA

M.P. & H.R. CONSULTING LIMITED

HEINRICHS GEOEXPLORATION COMPANY

SCALE: 1" = 1000'
FEB 1968



INDUCED POLARIZATION SURVEY

BLUE PROJECT, DURHAM HILLS

PINAL COUNTY, ARIZONA

For

M.P. & H.R. Consulting Limited

February 1968

By

**Heinrichs Geoexploration Company
P. O. Box 5671 Tucson, Arizona 85703
Phone: 623-0578 Area Code: 602**

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Line 4 (a=500')
Line 5 Spread 1 & 2 (a=500')
Line 6 (a=500')

INTRODUCTION

At the request of Mr. Ernest D. Black of M.P. & H.R. Consulting Limited of Toronto, Canada, Heinrichs Geoexploration Company of Tucson, Arizona conducted and completed an induced polarization (I.P.) survey over parts of the Blue Project Area in the Durham Hills, Pinal County, Arizona. The field work was done during the interim January 15 to February 8, 1968.

A total of six lines of I.P. coverage were run consisting of nine spreads. This gives a total surface coverage of 44,500 feet of which 27,000 feet is "subsurface" plotted data. All spreads were run on a dipole spacing of 500 feet except Spread 2 on Lines 2 and 3 which were run on a 250 foot spacing. The lines are all separated by 500 feet except Line 1 which is 1,000 feet southwest of Line 4. The lines are all oriented approximately $N62^{\circ}W-S62^{\circ}E$. For location details of this coverage with respect to the M.P. & H.R. baseline and other features, see the plan map.

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The purpose of this survey was to attempt to locate any sulfide zones related to a strong surface oxide copper showing.

Data are presented on sectional data sheets showing resistivity, percent frequency effect (PFE) and metallic conduction factor (MCF) contoured in section and self potential (S.P.) in profile form. For additional details concerning

theory, plotting and interpretation, see the Basis of the Induced Polarization Method appended to this report. An Induced Polarization Location and Interpretation Plan is also presented.

Heinrichs personnel involved in the field work were: J. King and R. Fedelchak, geophysical crew chiefs, G. Routt, D. McCoy, B. Gaul, and D. Berglind, technical assistants. Report and interpretation by Chris S. Ludwig, Senior Geophysicist, with the assistance of the Geox staff.

CONCLUSIONS AND RECOMMENDATIONS

A definite but weak to very weak zone of anomalous polarization effects was seen on all lines and is apparently fairly continuous, trending NNE-SSW. The indicated source is about 500 feet wide and has variable widths of weaker fringing material. Depth to the top of the source of polarization is interpreted to be at least within 100 feet of the surface.

On our recommendation, a vertical diamond core drill hole was drilled at Station 1.875SE Line 3 to determine the source of anomalism. A highly fractured granitic rock was encountered very near surface and continued for several hundred feet. Many of the fractures were filled with veinlets of manganese oxides. A laboratory induced polarization test was run on several samples of this core and the pieces showing manganese gave definite polarization, easily enough to cause the field anomaly.

Most of the copper show is just west of the main I.P. anomalism but no significant polarization response was seen there other than a very weak west fringe on the main anomaly.

If the geochemical work shows any definite correlation with the main anomaly anywhere along its 2,000+ feet strike length, additional drilling is recommended.

This anomalous zone is apparently cut off to the north by Line 5 except possibly for two very weak and questionable anomalies, one of which is quite likely interference from a grounded iron pipe. To the south, there is a significant resistivity change between Line 4 and 1 with the latter showing a more conductive zone near the surface. However, some very weak I.P. anomalism continues through more or less in line with the main anomalous trend; possibly the same zone of mineralization in a different, more conductive rock type.

There is a very weak anomaly on the northwest end of Line 1 that could be the fringe of a stronger zone. If this area is geologically interesting, additional I.P. is recommended to see if this anomaly increases. A grounded fence correlates with this anomaly but the response appears valid.

The resistivity shows several features of interest, in particular the electrical interface at about 4,250 feet east (M.P. & H.R. grid), on Lines 2 through 6. This is likely a major fault or topographic break in the granitic rocks, with thick alluvium to the southeast, in excess of 750 feet, at least on Line 5.

The resistivity over the granitic rocks is quite uniform even in the area of anomalism. However, as mentioned before, the resistivity changes to the south between Line 4 and Line 1. The near surface resistivity on Line 1 is low and increases with depth, suggestive of a more conductive material overlying the granitic rocks, perhaps schist or volcanics.

Self potentials show very little variation and almost no correlation with the I.P. anomalism except for a 25 millivolt low on Line 6. The lack of S.P. response suggests a lack of significant quantities of oxidizing sulfides within several hundred feet of the surface.

In summary, no more electrical work is recommended unless a more definite correlation between the I.P. results and copper mineralization is seen with geology or geochemistry. However, this general area is well mineralized and a reconnaissance I.P. magnetic and geochemical program could prove fruitful.

INTERPRETATION

Line 1: (a=500 feet)

This line is slightly anomalous in two places; near 10SE and 25NW. The 10SE anomaly appears to be a near surface slightly polarizable zone with limited depth extent (less than 500 feet). This anomaly is definitely within the lower resistivity near surface material and was therefore originally suspected of being a clay anomaly within the alluvium. However, after the other lines were run showing an anomalous zone trending towards this Line 1 anomaly and with the fact that alluvial cover is very thin or absent in this area, it is believed that the anomaly is a valid (but very weak) mineralized zone in schist or volcanics and related to the main anomaly.

The 25NW anomaly is too near the end of the line to interpret accurately but may be the beginning of a more definite anomalous zone further west. The anomaly does correlate with a fence but does not give the appearance of being caused artificially.

The resistivity at depth on this line is similar in amplitude to that over the granitic rocks exposed further north. No significant self potential anomalism was seen except for a 50 millivolt low correlating with a fence near 20SE.

Line 2: (Spread 1, a=500 feet; Spread 2, a=250 feet)

Spread 1 shows a weak to very weak anomalous zone from about 2.5NW to at least 12.5SE with the strongest portion between 5SE and 10SE. The source of this anomaly is likely within several hundred feet of the surface and has gradational boundaries northwest and southeast. The anomaly has good depth extent.

The resistivity is quite uniform in level over the line except for a sharp drop to the southeast. There is likely an abrupt increase in alluvial thickness near 22.5SE causing this drop off. The self potentials show very little variation.

Spread 2 was run to gain detailed information over the central and northwest half of Spread 1 where detailed geology and considerable exposed copper oxide is present. The I.P. response very gradually increases from the northwest to about 8.75SE (which is likely the center of the less detailed 5SE to 10SE Spread 1 anomaly. No distinct anomaly can be seen to relate to the copper show, only strong background effects or very weak mineralization response (3 to 4 PFE) occurs. A slight MCF closure occurs near 3.75SE that may have some significance. Again, the resistivity and S.P. is quite uniform.

Line 3: (Spread 1, a=500 feet; Spread 2, a=250 feet)

Spread 1 shows the strongest, most well defined anomaly seen on the project. On an absolute basis, however, the

anomaly is classified as weak. The pattern correlates very well with the theoretical response of a steeply dipping, shallow tabular body, one dipole (500 feet) wide and having no or little resistivity contrast with the surroundings and with good depth and strike extent. The mineralization ends abruptly to the southeast and is gradational to the northwest.

There is no significant S.P. variation. The resistivity again shows the alluvial drop off near 17.5SE. Also, a minor electrical interface is seen near 5SE, perhaps indicating a slight increase in alluvial thickness to the southeast before the main break.

Spread 2 was centered on the Spread 1 anomaly to gain detail and select a definitive drill target. The boundaries of the anomalous source as determined by Spread 1 were verified by this detail (0 NW/SE to 5 SE). Again, the anomaly appears shallow so it was expected that the source would be intersected within 75 feet of the surface. The northwest half of the anomaly appeared somewhat stronger than the southeast half so a drilling location was compromised between the center of the anomaly and the center of the northwest half; 1.875SE our grid, 2687.5E, M.P. & H.R. grid.

As mentioned above in the conclusions, the source of anomalism was intersected and is a manganiferous fractured granitic material.

Several samples were tested for PFE response in our laboratory with these results:

<u>Sample</u>	<u>PFE</u>
27' (core)	0.6
53' (core)	32.9
99' (core)	2.9
Surface Mn oxides near hole	19.3

Which easily accounts for the anomalism .

The resistivities show a gradual decrease towards the surface probably due to the weathered zone.

Line 4: (a=500 feet)

Anomalism similar to but slightly weaker and less definite than on Line 3 was seen from 0 NW/SE to 5 SE. The boundaries are quite gradational but the gross picture is still a steeply dipping, near surface, tabular body.

As before, there is no significant S.P. or resistivity response relating to this anomalism. The alluvial drop off shows as being near 17.5SE.

Line 5: (Spreads 1 and 2, a=500 feet)

No definite I.P. anomalism was seen on this line. Therefore, the main anomalous trend is likely cut off to the north just south of Line 5.

Two very weak questionable zones of anomalism were noticed. One is near 5NW where an ill-defined area of somewhat higher PFE's appear and could be just a lateral reflection of the main zone further south. The other zone is from about 5SE to 12.5SE where a complicated pattern of positive and negative PFE's are seen. This anomalism appears artificial and correlates with a grounded iron water pipe. This area should be inspected geologically and geochemically in case this anomalism is in part valid.

The resistivities show the alluvial break near 17.5SE. Spread 2, traversed the alluvium on the southeast half and shows a relatively resistive surface material overlying a more conductive zone. This could be due to sandy alluvium overlying clayey alluvium (or Gila conglomerate) or perhaps water unsaturated alluvium overlying saturated alluvium. Regardless, the thickness of the upper layer is about 250 feet.

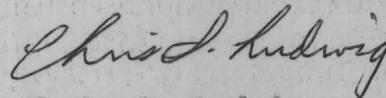
No bedrock response was seen here suggesting at least 750 total feet of cover. Self potential response was background.

Line 6: (a=500 feet)

The response here is quite similar to Line 4 with gradational anomalism strongest near 0 NW/SE and apparently resulting grossly from a steeply dipping tabular body sub-outcropping near surface. There is a slight S.P. low (25 mv) correlating with this anomaly, probably just background effects. The alluvial break shows in the resistivity data near 17.5SE.

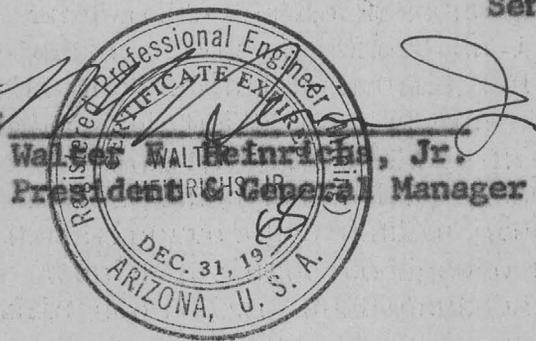
Respectfully submitted,

HEINRICHS GEOEXPLORATION COMPANY



Chris S. Ludwig
Senior Geophysicist

APPROVED:



Walter Heinrich, Jr.
President & General Manager

February 26, 1968
Tucson, Arizona

INDUCED POLARIZATION SURVEY
BLUE PROJECT, DURHAM HILLS
PINAL COUNTY, ARIZONA

For

M.P. & H.R. Consulting Limited

February 1968

By

Heinrichs Geoexploration Company
P. O. Box 5671 Tucson, Arizona 85703
Phone: 623-0578 Area Code: 602

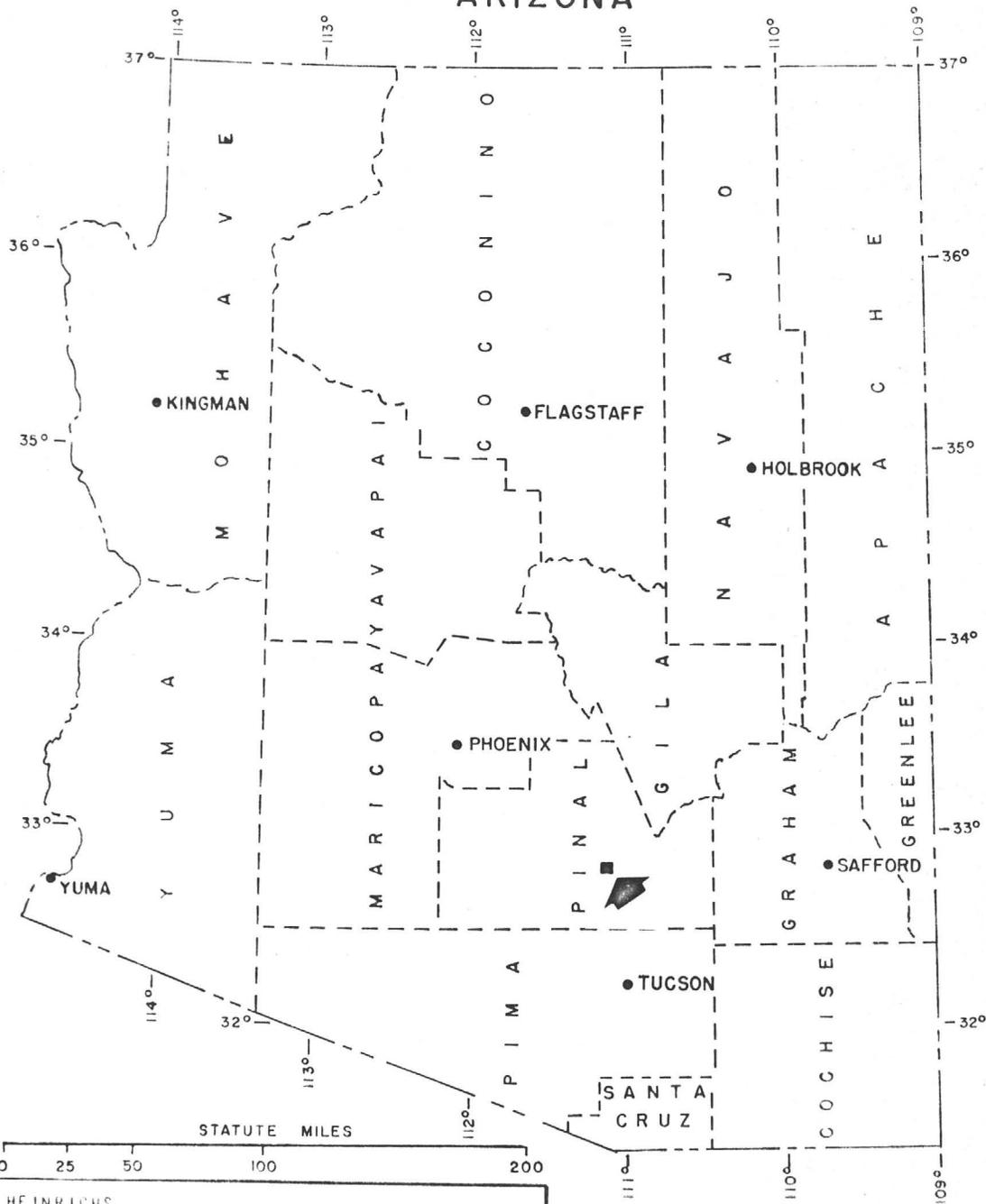
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GENERAL LOCATION OF
BLUE PROJECT
for
M. P. & H. R. CONSULTING LIMITED
ARIZONA



HEINRICHS
GEOEXPLORATION COMPANY

BOX 5671 TUCSON, ARIZONA 85703
PH. 602 623-0578 CABLE: GEOEX, TUCSON

GEOPHYSICAL ENGINEERSSYDNEYVANCOUVER

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Respectfully submitted,

HEINRICHS GEOEXPLORATION COMPANY

Chris S. Ludwig

Chris S. Ludwig
Senior Geophysicist

APPROVED



February 26, 1968
Tucson, Arizona

T. 8 S., R. 12 E.
G. & S.R.B.&M.

PERIMETER OF M.P. & H.R. CLAIM GROUPS
17116
20121

1 1/2" IRON PIPE

L.E.G.E.N.D

- X — FENCE
- ⊙ — EXISTING DRILL HOLE
- — SECTION CORNER
- ▲ — INTERFACE
- X — PROSPECT
- — SHAFT
- == — ROAD
- ② — I.P. LINE NUMBER

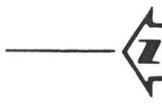


INDUCED POLARIZATION LOCATION & INTERPRETATION PLAN
OF

BLUE PROJECT, PINAL COUNTY, ARIZONA

FOR
M.P. & H.R. CONSULTING LIMITED
BY
HEINRICHS GEOEXPLORATION COMPANY

19120
30129

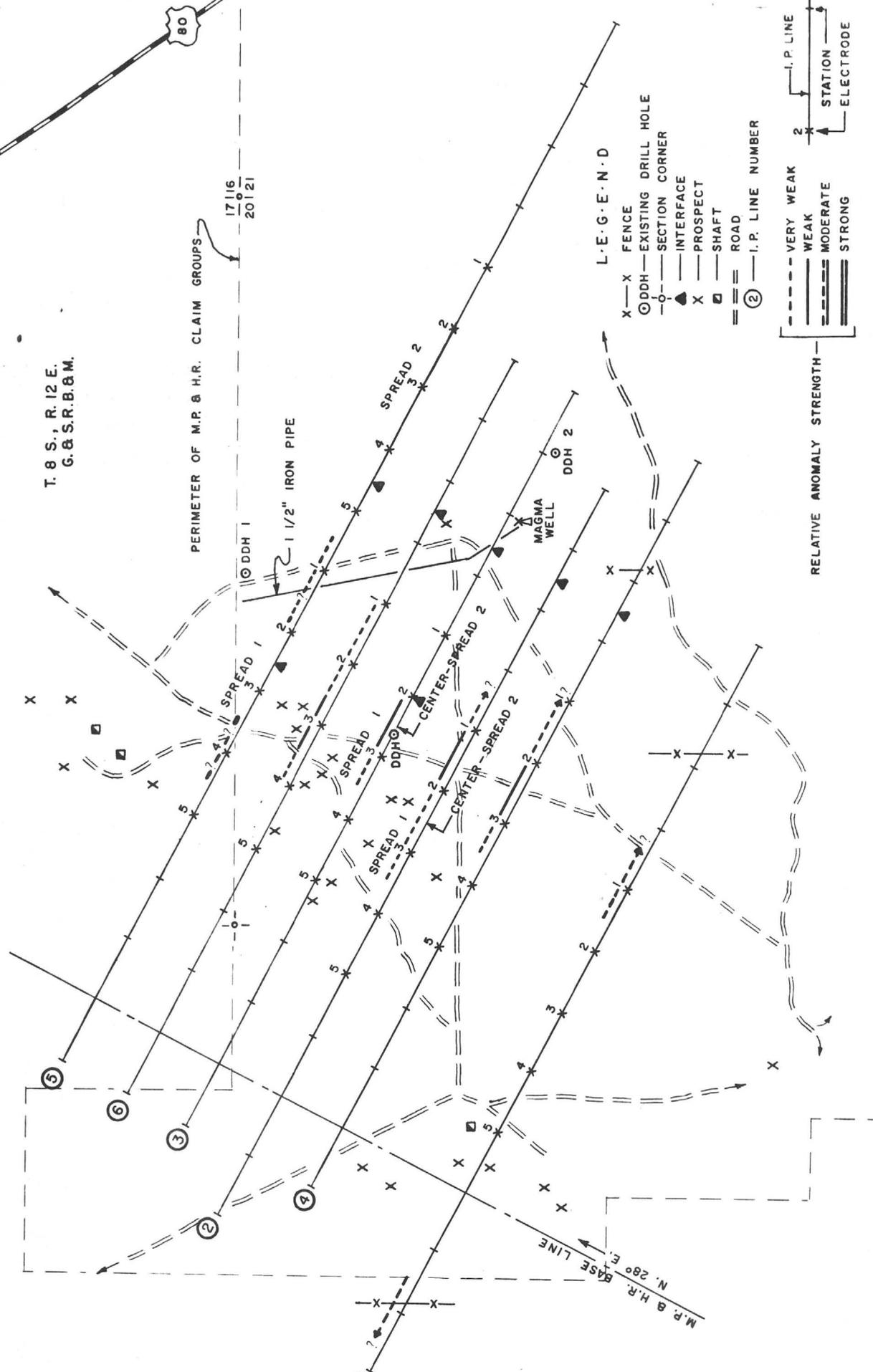


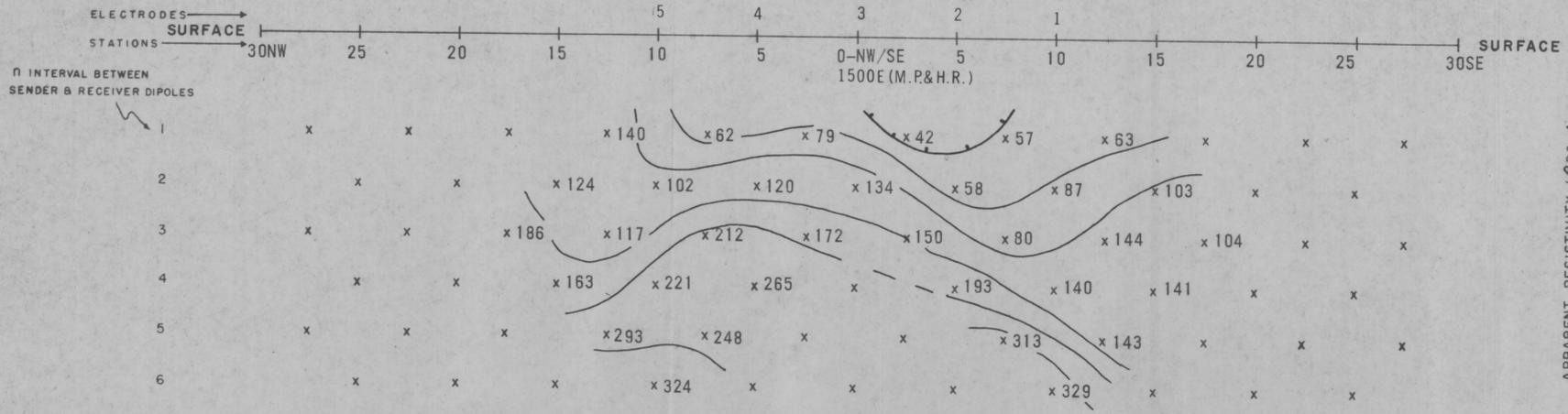
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FEB 1968

HEINRICHS
GEOEX

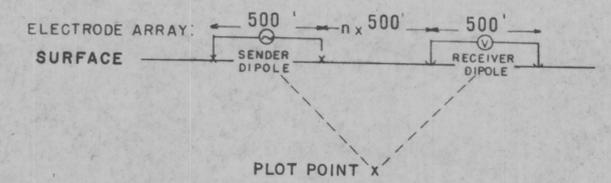


P. O. Box 5671
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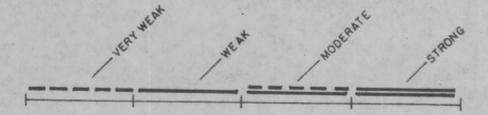




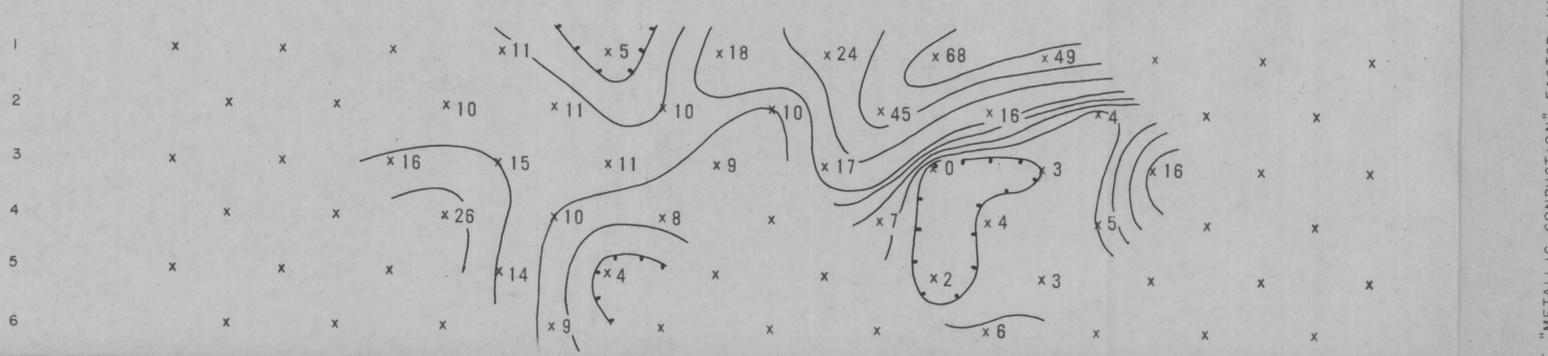
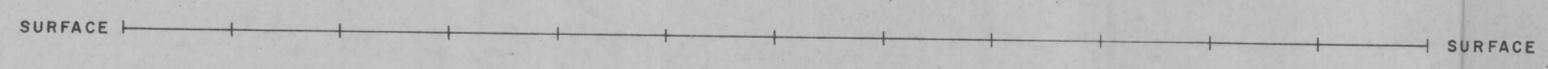
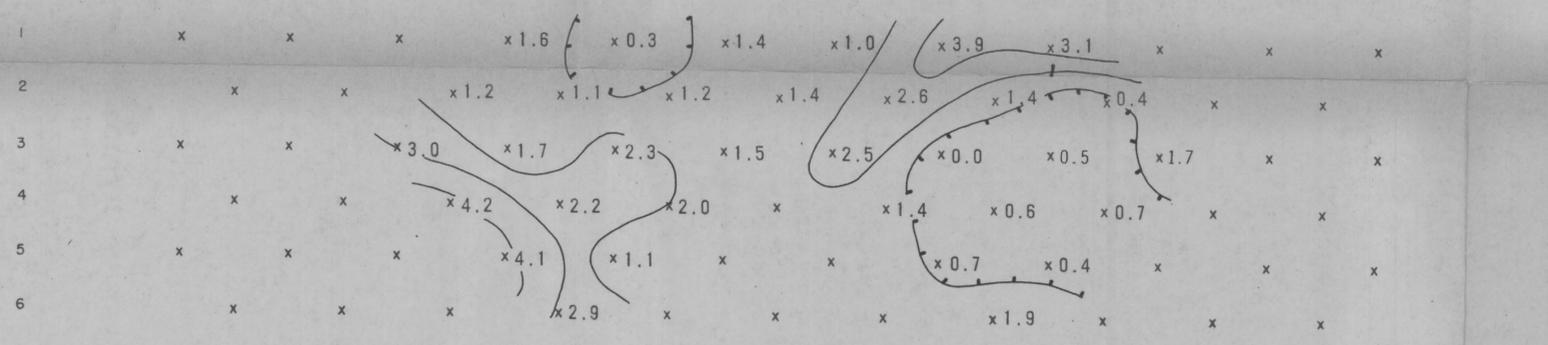
EXPLANATION



RELATIVE ANOMALY STRENGTH



LOOKING N 28° E

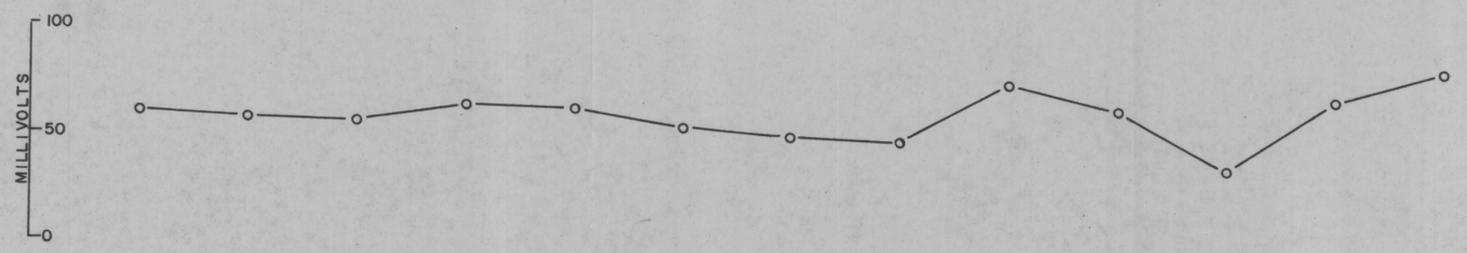


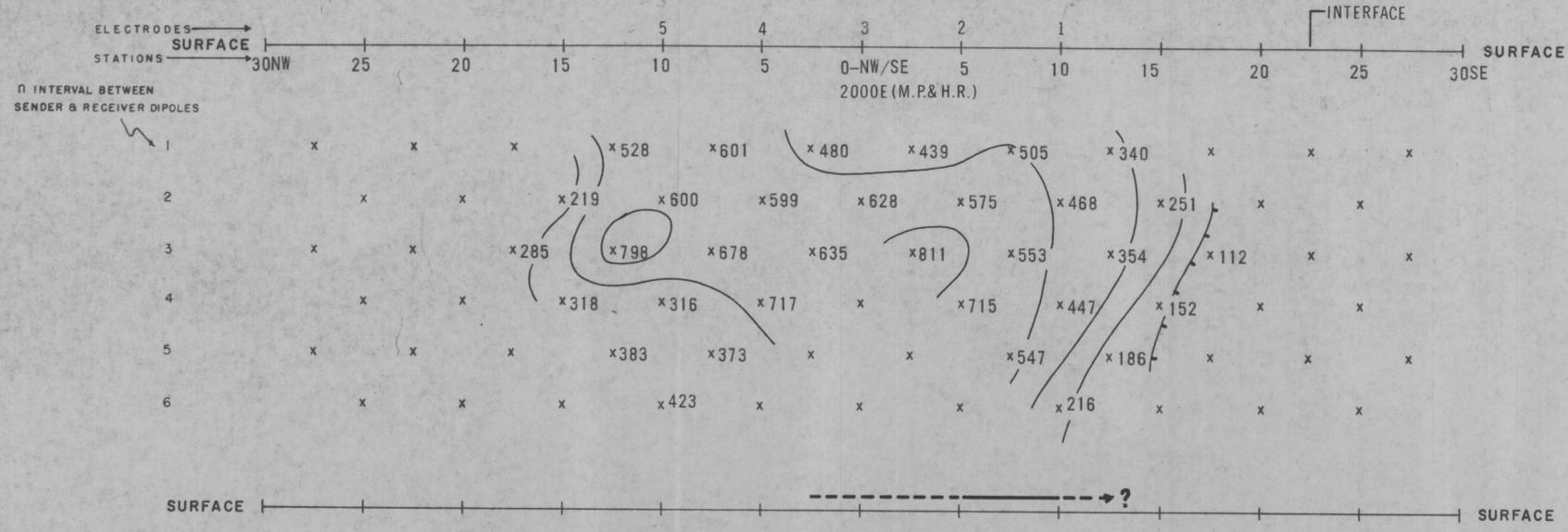
APPARENT "METALLIC CONDUCTION" FACTOR (MCF) (MCF = $\frac{PFE \times 1000}{\rho_{DC} \frac{2\pi l}{\lambda}}$) CONTOUR INTERVAL LOGARITHMIC

File

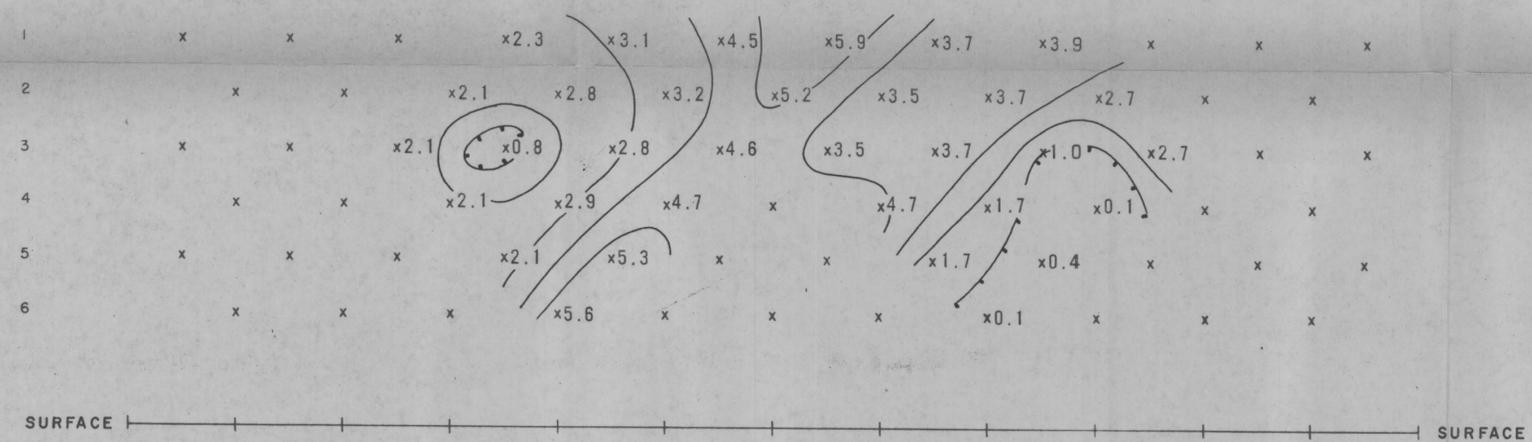
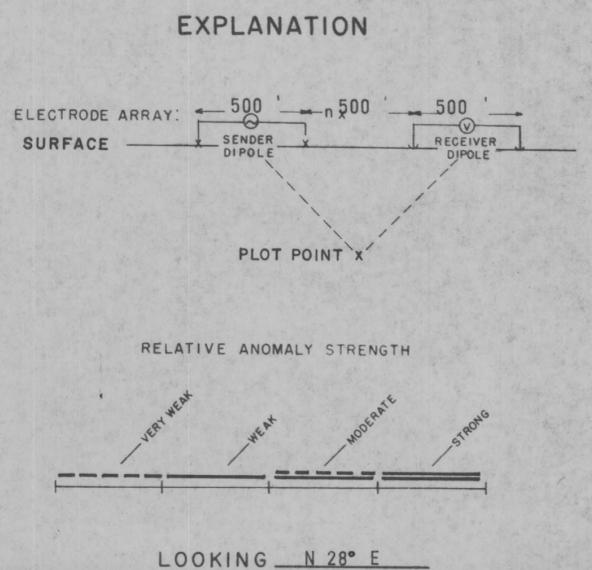
BLUE PROJECT
SECTIONAL DATA SHEET
LINE NO. 1
INDUCED POLARIZATION TRAVERSE
HEINRICHS GEOEXPLORATION COMPANY
SCALE: 1" = 500' DATE: JAN 1968
FOR
M.P. & H.R. CONSULTING LIMITED.

SELF POTENTIAL

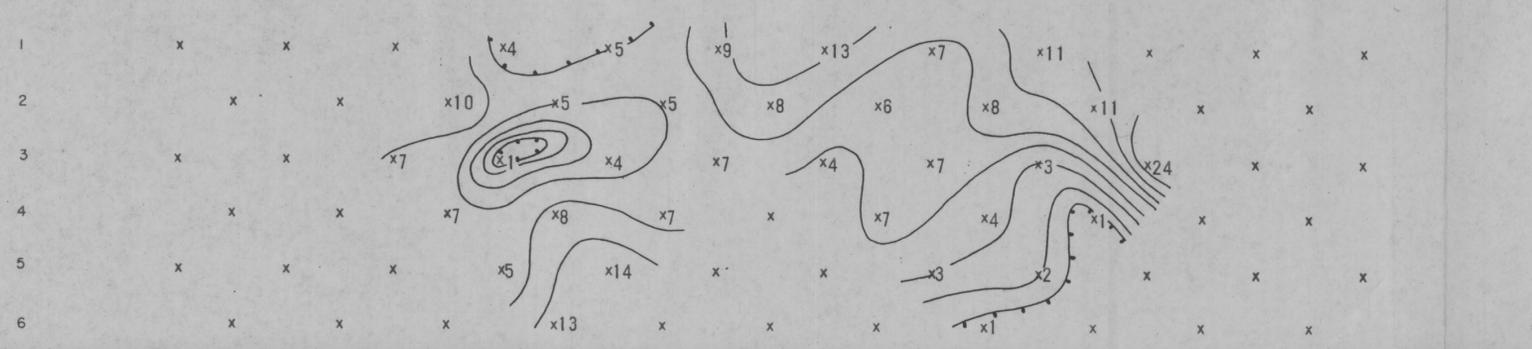




APPARENT RESISTIVITY ($\rho_{DC}/2T$)
IN UNITS OF OHM FEET
CONTOUR INTERVAL LOGARITHMIC
SENDER FREQUENCY: 0.05 c.p.s.

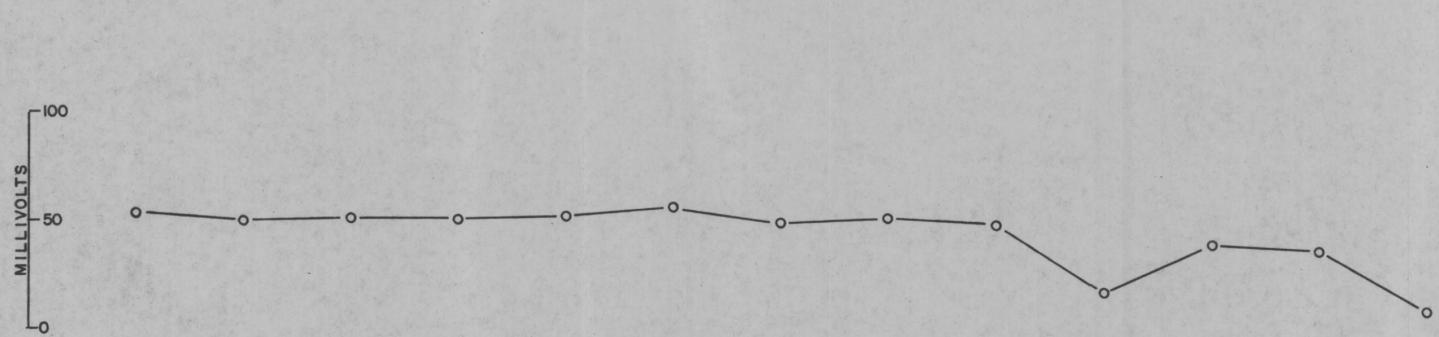


PERCENT FREQUENCY EFFECT (PFE)
CONTOUR INTERVAL CONSTANT
SENDER FREQUENCIES: 0.05 & 3.0 c.p.s.

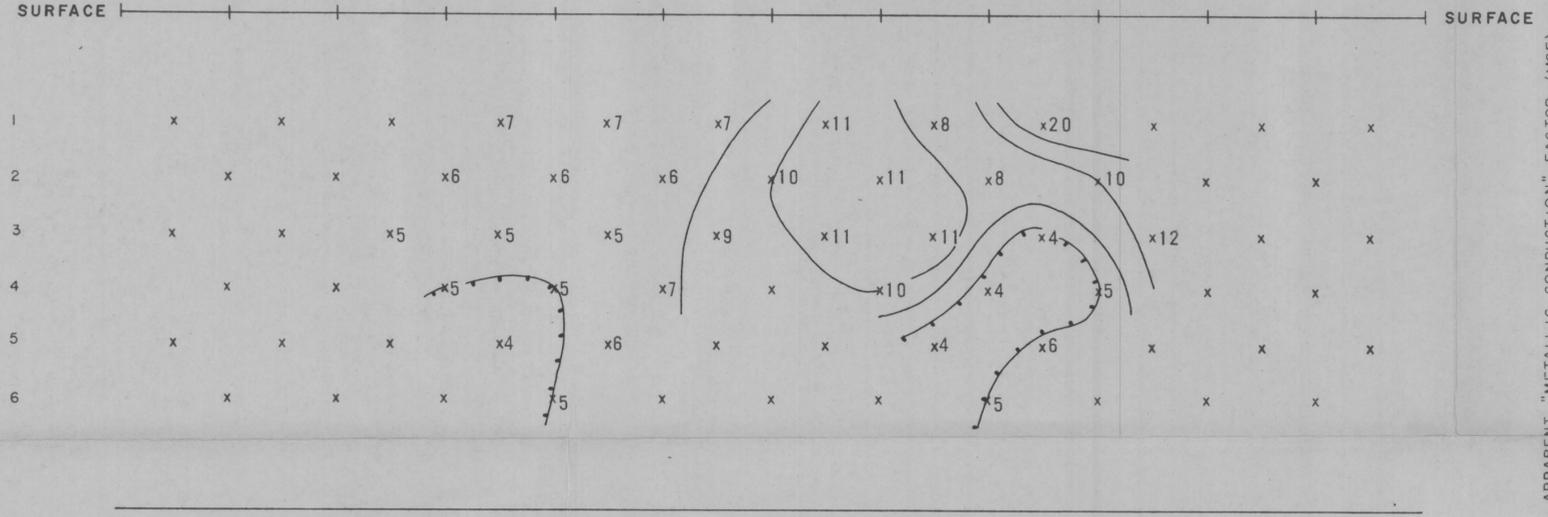
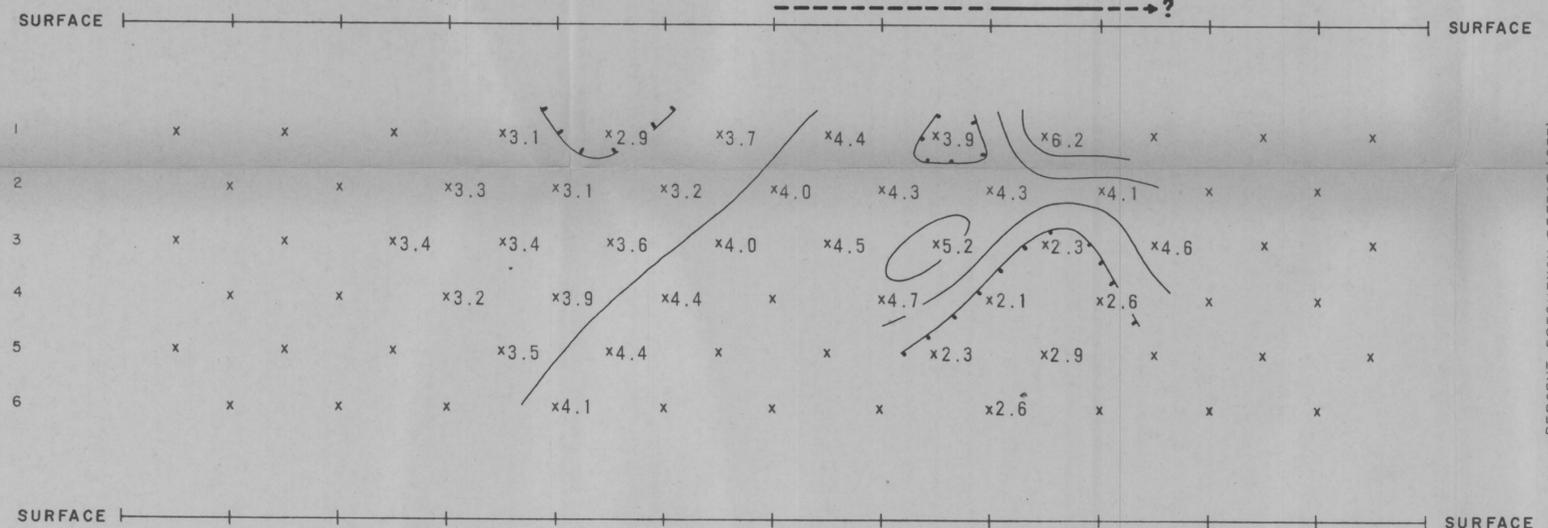
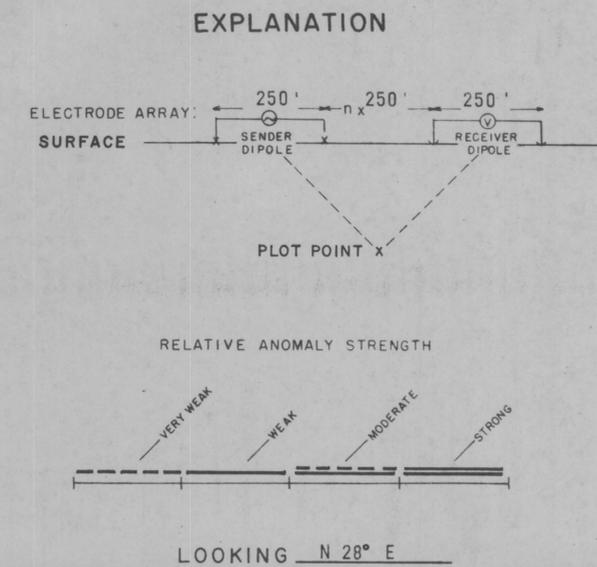
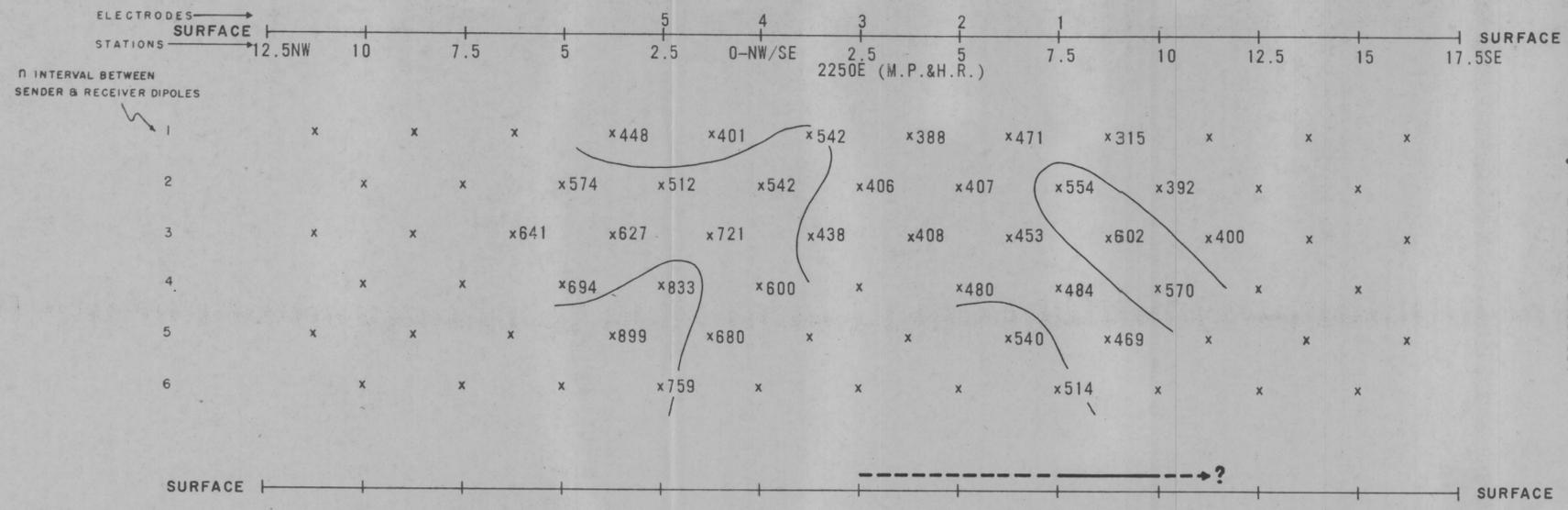


APPARENT "METALLIC CONDUCTION" FACTOR (MCF)
($MCF = \frac{PFE \times 1000}{\rho_{DC}/2T}$)
CONTOUR INTERVAL LOGARITHMIC

BLUE PROJECT.
SECTIONAL DATA SHEET
LINE NO. 2 (SPREAD 1)
INDUCED POLARIZATION TRAVERSE
HEINRICHS GEOEXPLORATION COMPANY
SCALE: 1" = 500' DATE: JAN 1968
FOR
M.P. & H.R. CONSULTING LIMITED.



SELF POTENTIAL

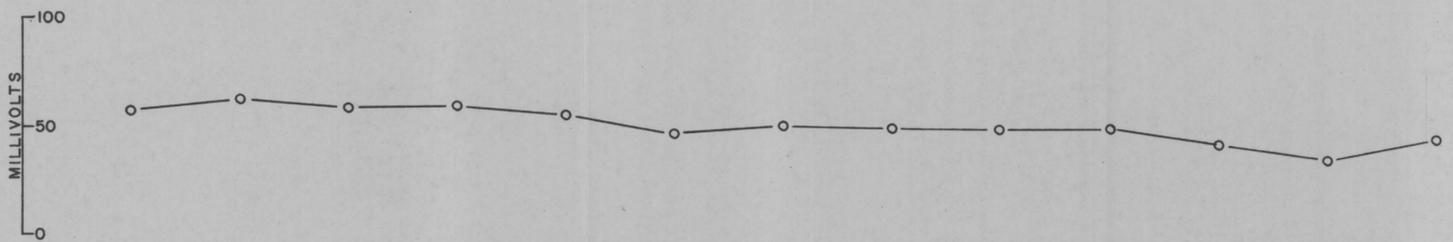


APPARENT RESISTIVITY (ρ_{DC}) IN UNITS OF OHM FEET
 CONTOUR INTERVAL LOGARITHMIC
 SENDER FREQUENCY: 0.05 C.P.S.

PERCENT FREQUENCY EFFECT (PFE)
 CONTOUR INTERVAL CONSTANT
 SENDER FREQUENCIES: 0.05 & 3.0 C.P.S.

APPARENT "METALLIC CONDUCTION" FACTOR (MCF)
 (MCF = $\frac{\rho_{DC}}{\rho_{AC}} \times 1000$)
 CONTOUR INTERVAL LOGARITHMIC

SELF POTENTIAL



BLUE PROJECT

SECTIONAL DATA SHEET

LINE NO. 2 (SPREAD 2)

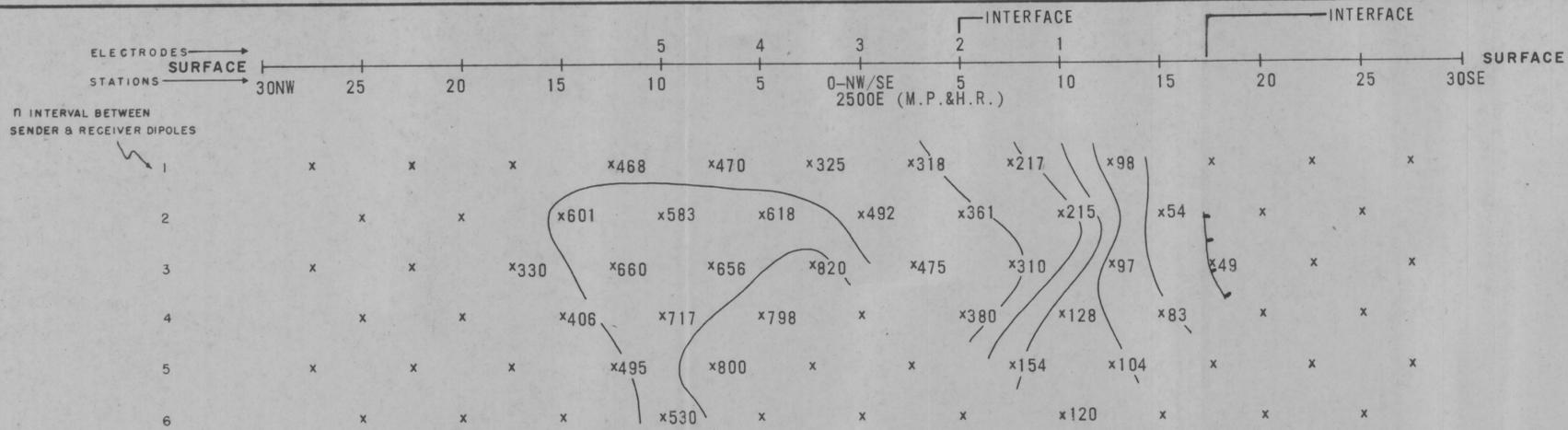
INDUCED POLARIZATION TRAVERSE

HEINRICHS GEOEXPLORATION COMPANY

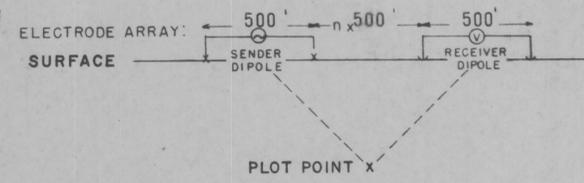
SCALE: 1" = 250' DATE: FEB 1968

FOR

M. P. & H. R. CONSULTING LIMITED



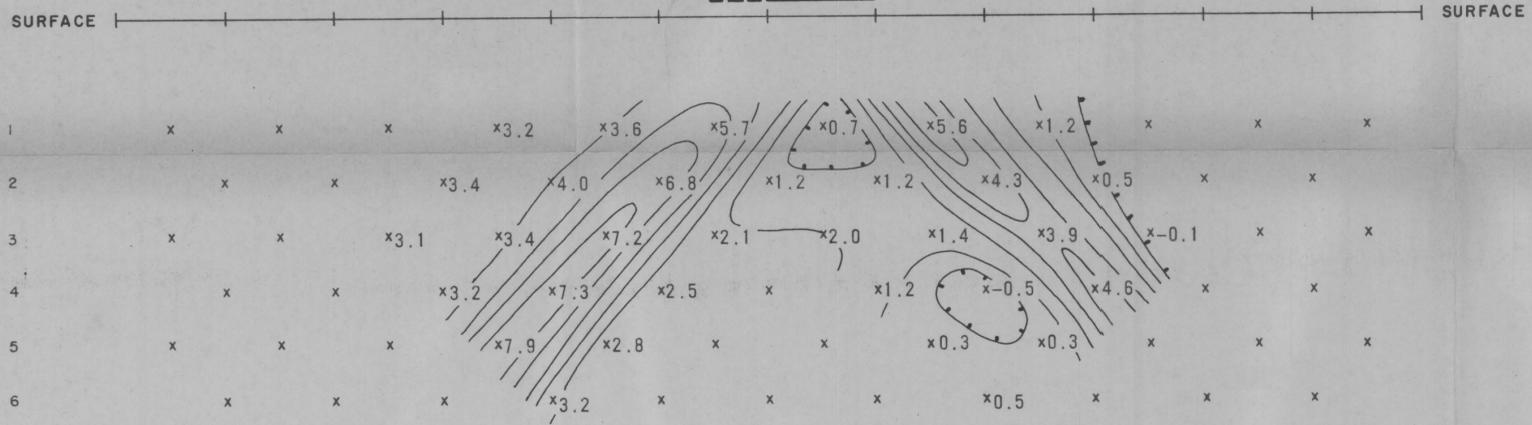
EXPLANATION



RELATIVE ANOMALY STRENGTH



LOOKING N 28° E



BLUE PROJECT

SECTIONAL DATA SHEET

LINE NO. 3 (SPREAD 1)

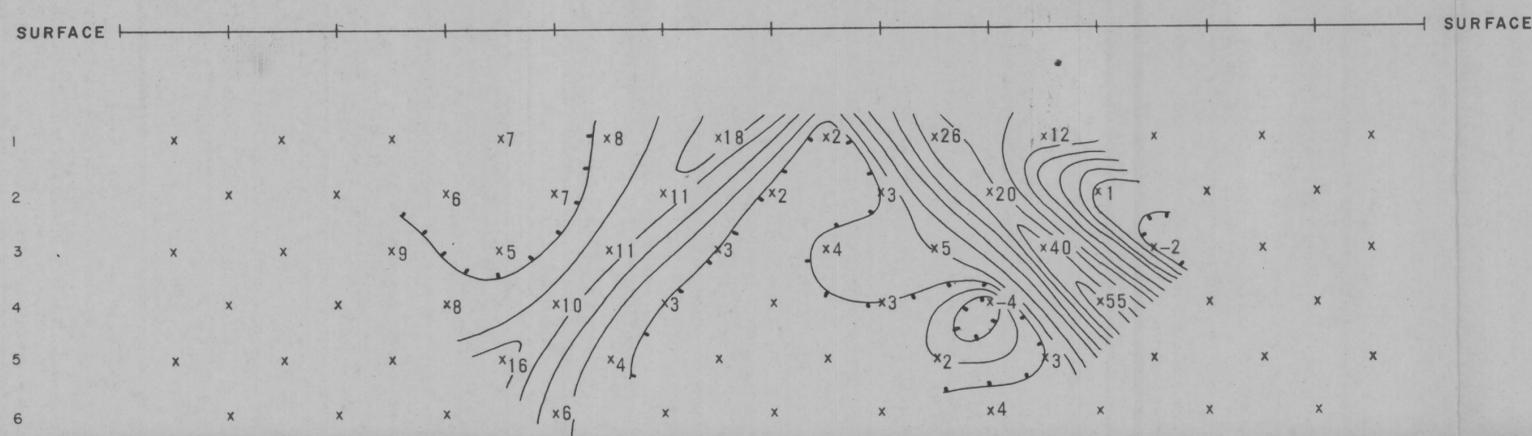
INDUCED POLARIZATION TRAVERSE

HEINRICHS GEOEXPLORATION COMPANY

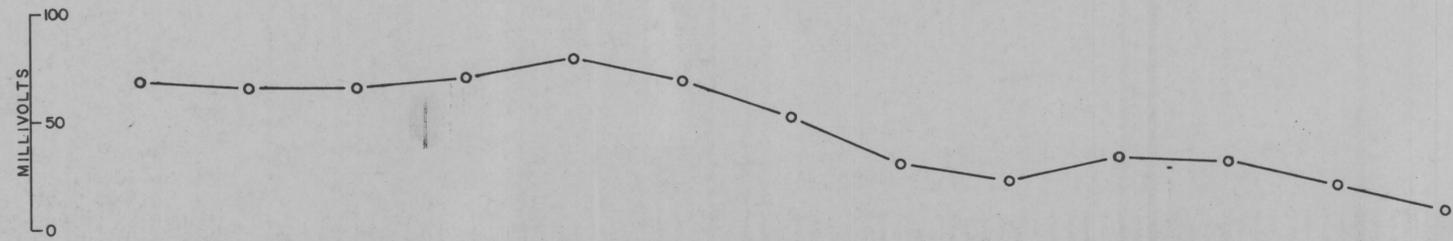
SCALE: 1" = 500' DATE: JAN 1968

FOR

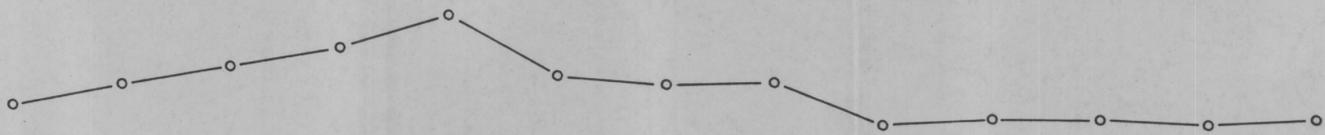
M. P. & H. R. CONSULTING LIMITED



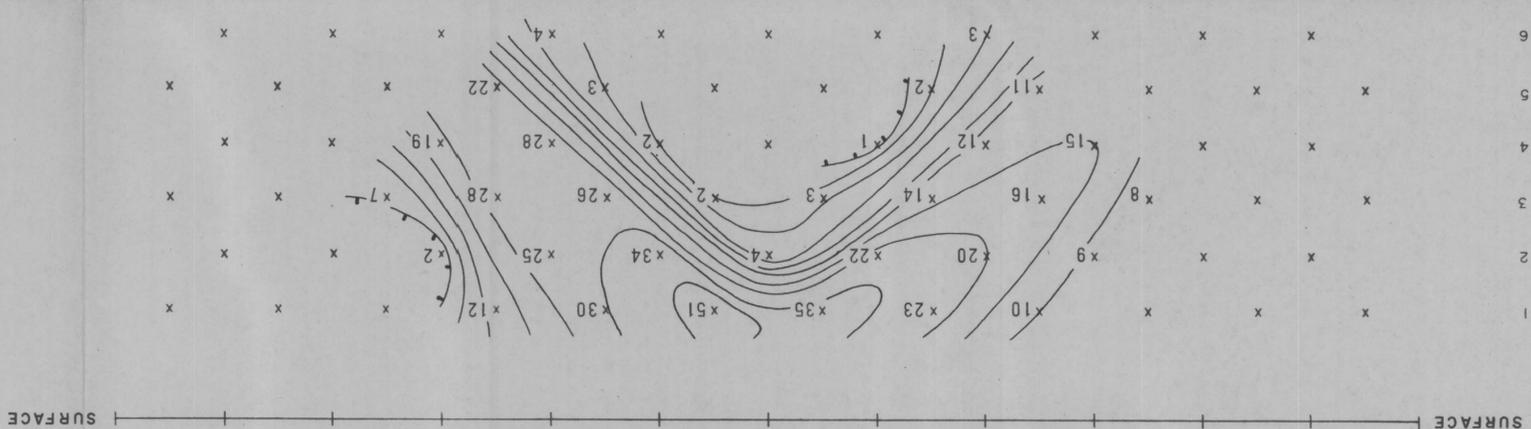
SELF POTENTIAL



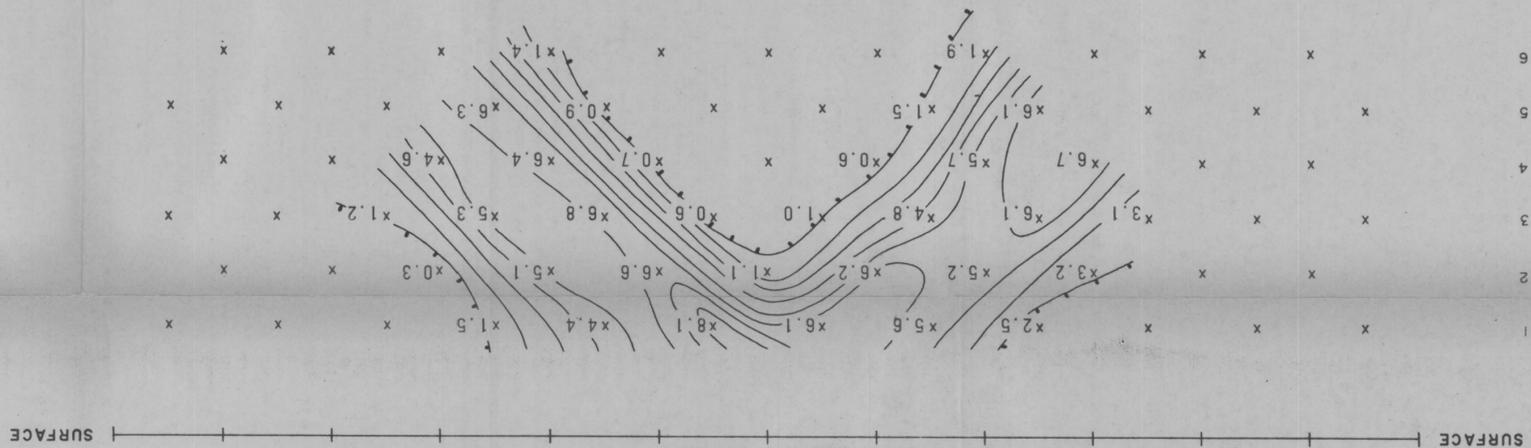
MILLIVOLTS
0
50
100



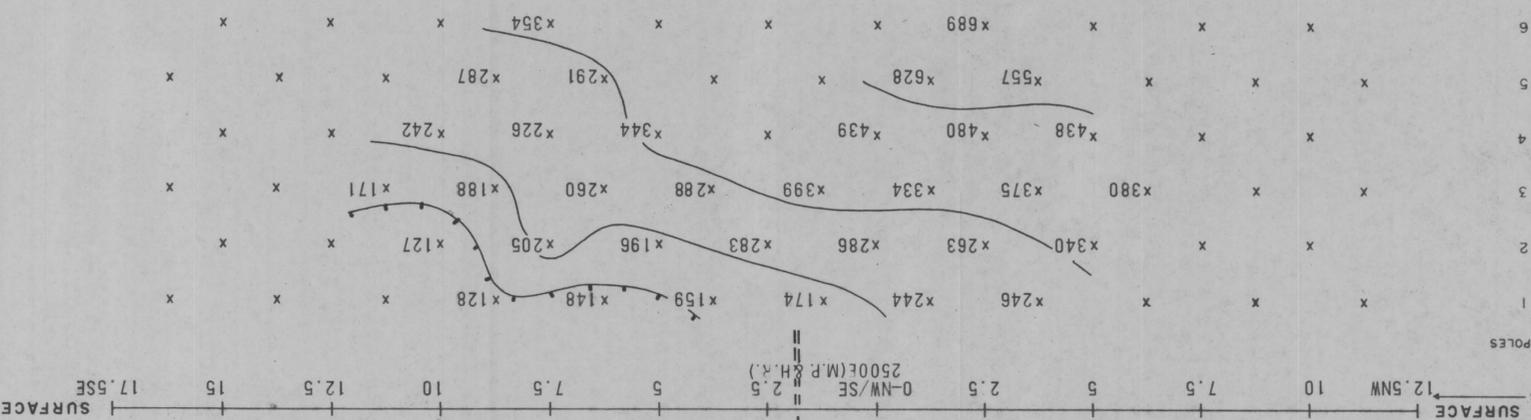
SELF POTENTIAL



APPARENT "METALLIC CONDUCTION" FACTOR (MCF)
(MCF = $\frac{\rho_{DC}}{\rho_{AC}} \times 1000$)
CONTOUR INTERVAL LOGARITHMIC



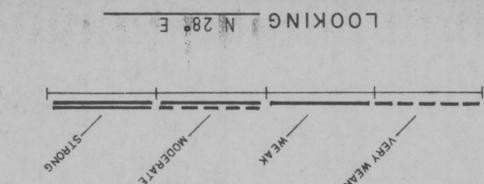
PERCENT FREQUENCY EFFECT (PFE)
CONTOUR INTERVAL CONSTANT
SENDER FREQUENCIES: 005 & 30 CPS



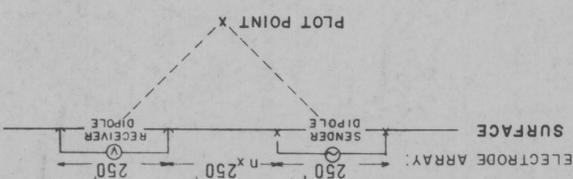
APPARENT RESISTIVITY (ρ_{DC})
IN UNITS OF OHM FEET
CONTOUR INTERVAL LOGARITHMIC
SENDER FREQUENCY: 005 CPS

ELECTRODES
SURFACE
STATIONS
12.5NW
10
7.5
5
2.5
0-NW/SE
2500C(M.P. & H.A.)
2.5
3
4
5
DDH

SECTIONAL DATA SHEET
LINE NO. 3 (SPREAD 2)
BLUE PROJECT
HEINRICHS GEOEXPLORATION COMPANY
DATE: FEB 1968
FOR
M. P. & H. R. CONSULTING LIMITED

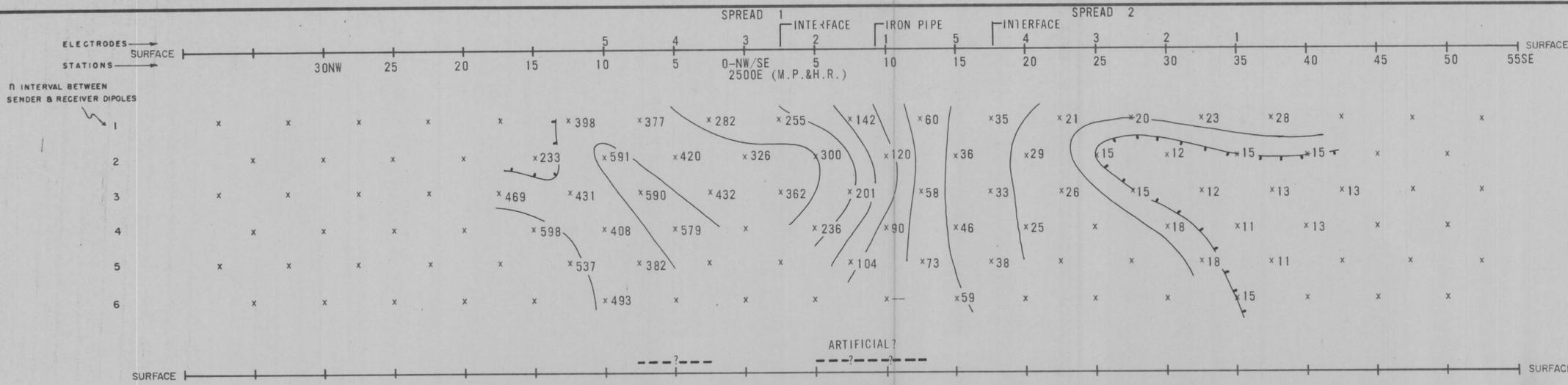


RELATIVE ANOMALY STRENGTH

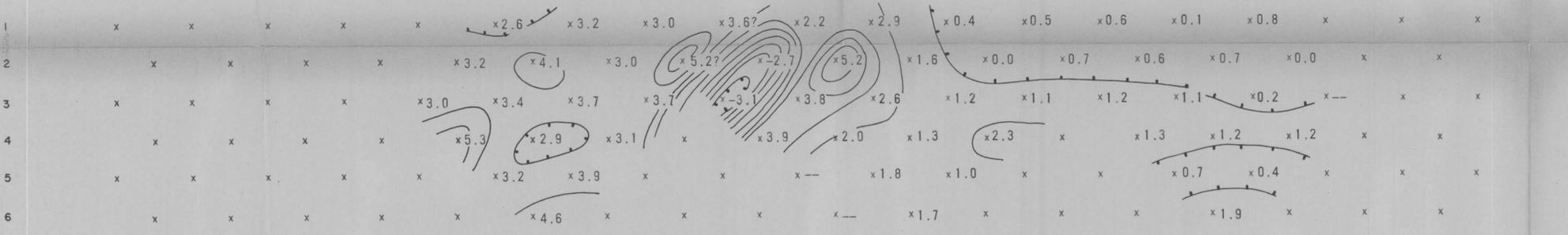
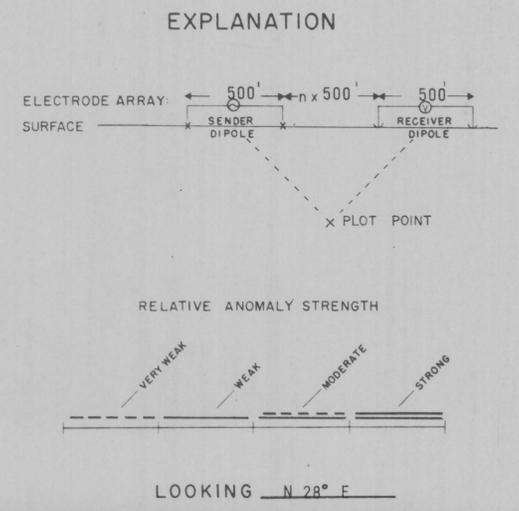


EXPLANATION

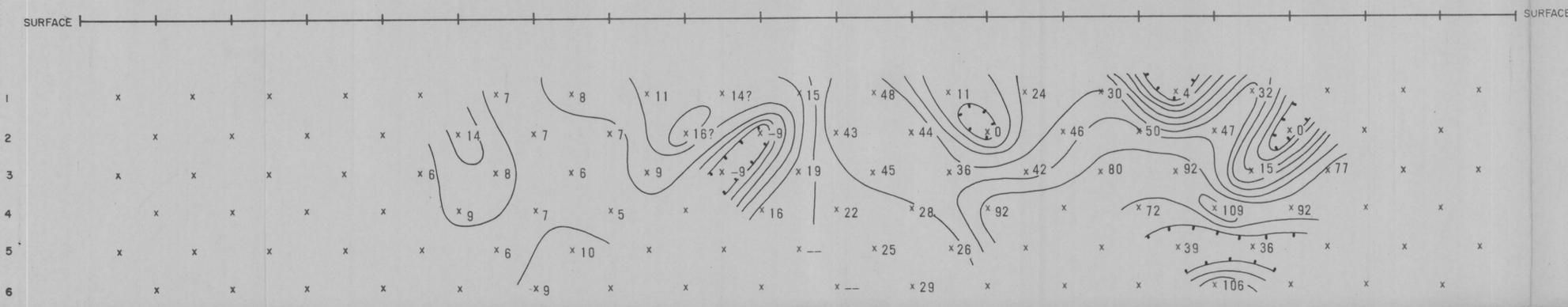
SURFACE
17.5SE



APPARENT RESISTIVITY (ρ_{DC})
IN UNITS OF OHM FEET $\times 10^4$
CONTOUR INTERVAL LOGARITHMIC
SENDER FREQUENCY: 0.05 cps

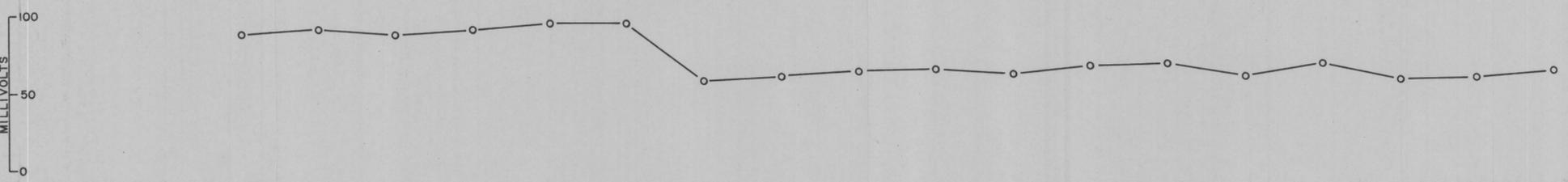


PERCENT FREQUENCY EFFECT (PFE)
CONTOUR INTERVAL CONSTANT
SENDER FREQUENCIES: 0.05 & 30 cps



APPARENT "METALLIC CONDUCTION" FACTOR (MCF)
($MCF = \frac{PFE \times 1000}{\rho_{DC} \times 10^4}$)
CONTOUR INTERVAL LOGARITHMIC

SELF POTENTIAL

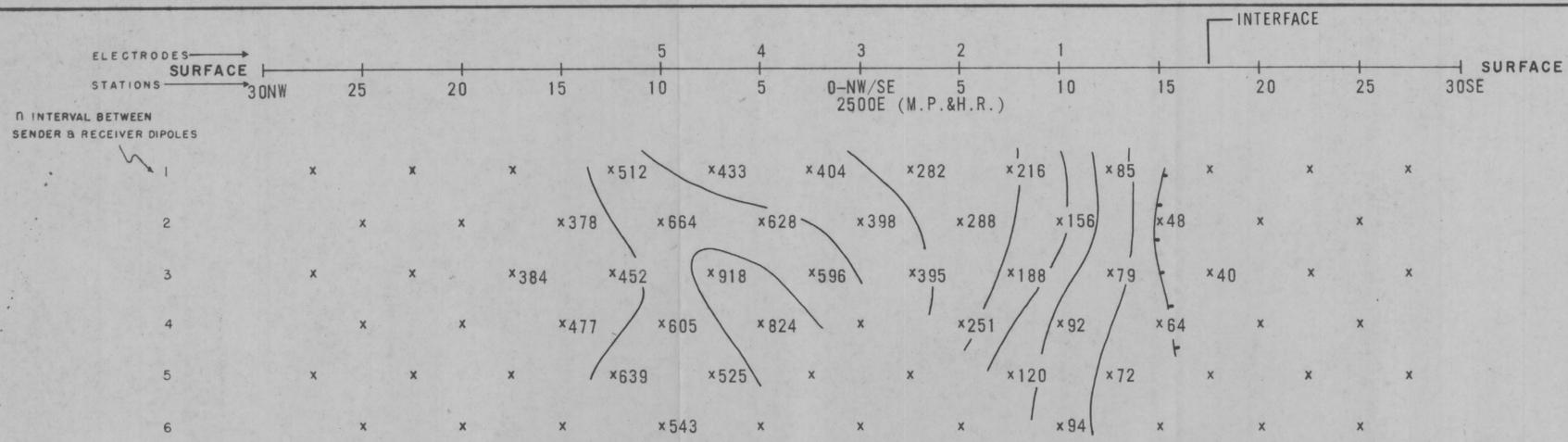


BLUE PROJECT

SECTIONAL DATA SHEET
LINE NO. 5 (SPREADS 1 & 2)
INDUCED POLARIZATION TRAVERSE

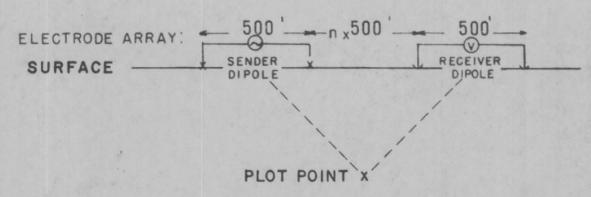
HEINRICHS GEOEXPLORATION COMPANY
SCALE: 1" = 500' DATE: FEB 1968

FOR
M. P. & H. R. CONSULTING LIMITED

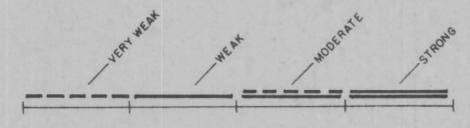


APPARENT RESISTIVITY (ρ_a)
IN UNITS OF OHM FEET
CONTOUR INTERVAL LOGARITHMIC
SENDER FREQUENCY: 0.05 c.p.s.

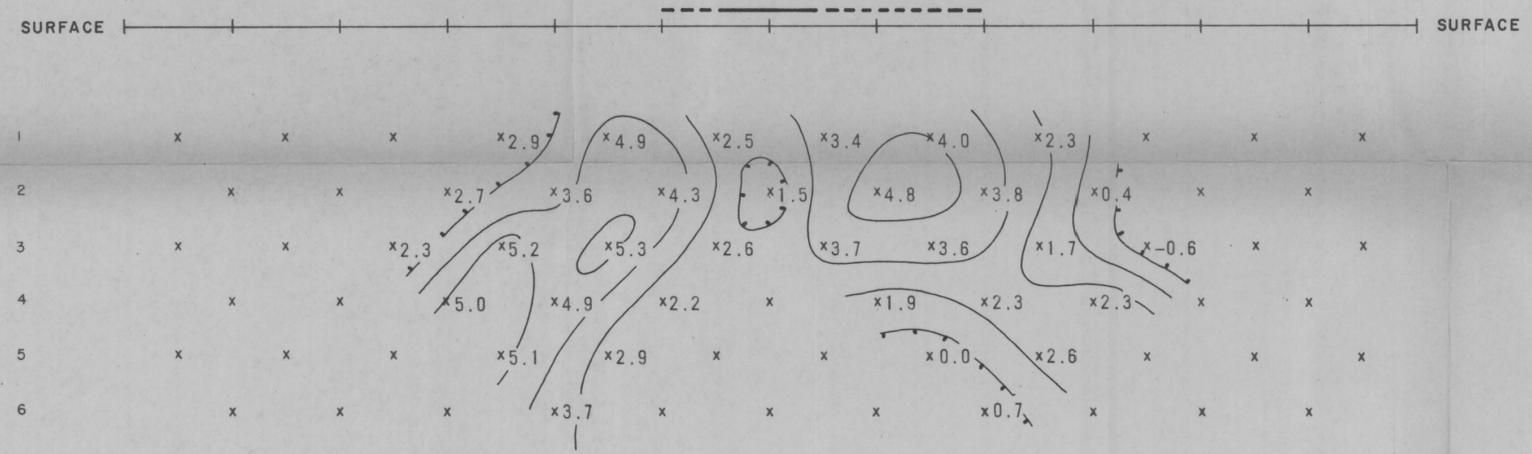
EXPLANATION



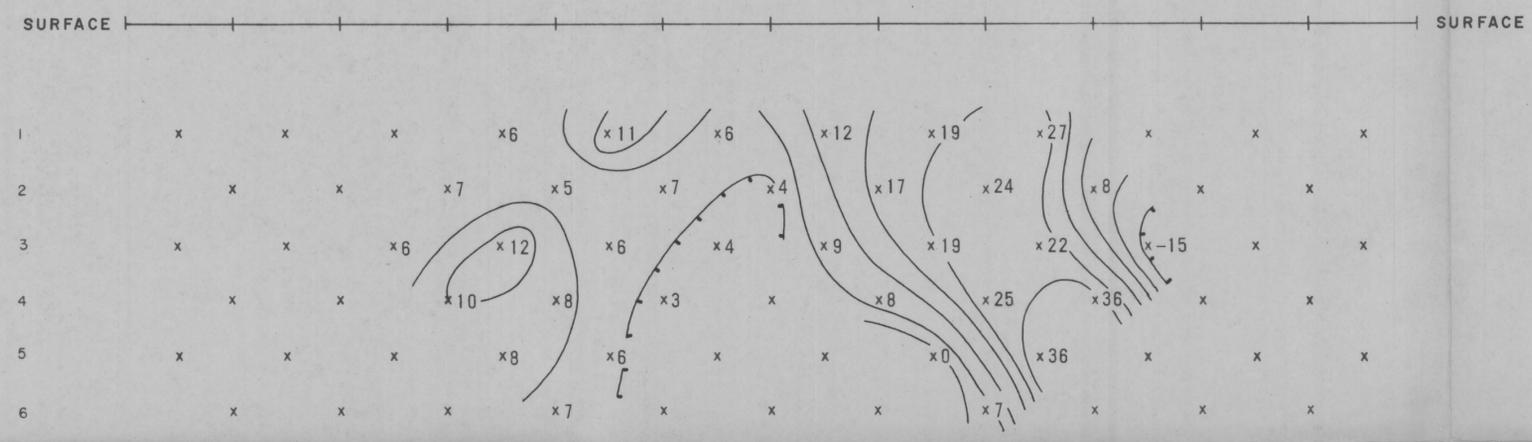
RELATIVE ANOMALY STRENGTH



LOOKING N 28° E

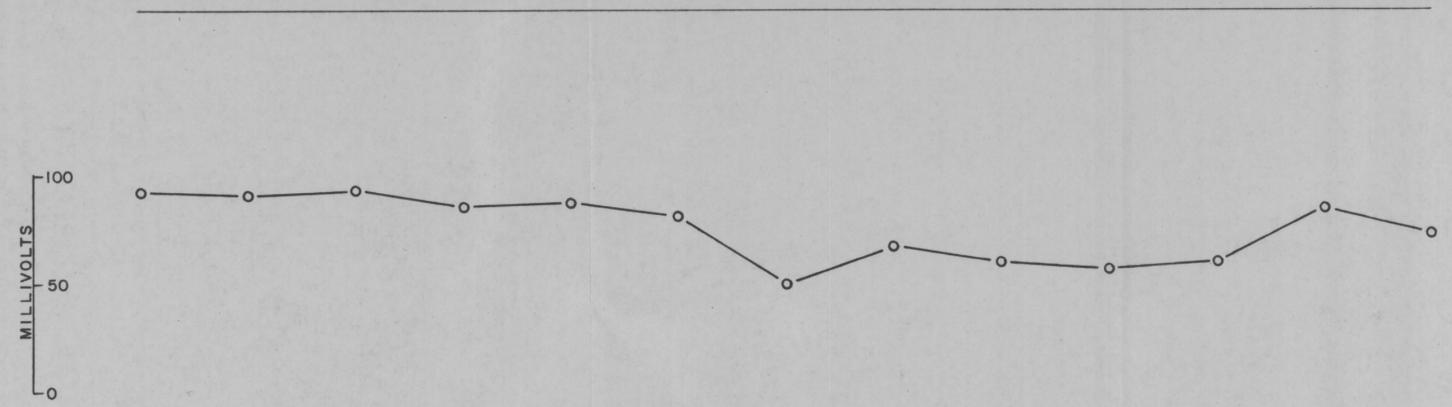


PERCENT FREQUENCY EFFECT (PFE)
CONTOUR INTERVAL CONSTANT
SENDER FREQUENCIES: 0.05 & 3.0 c.p.s.



APPARENT "METALLIC CONDUCTION" FACTOR (MCF)
(MCF = $\frac{\rho_{DC}}{\rho_{AC}} \times \frac{1000}{2\pi f}$)
CONTOUR INTERVAL LOGARITHMIC

BLUE PROJECT
SECTIONAL DATA SHEET
LINE NO. 6
INDUCED POLARIZATION TRAVERSE
HEINRICHS GEOEXPLORATION COMPANY
SCALE: 1" = 500' DATE: FEB 1968
FOR
M. P. & H. R. CONSULTING LIMITED



SELF POTENTIAL



HEINRICHS GEOEXPLORATION CO.
I.P. RECEIVER NOTES

PROJECT MPH & R
LINE 1

HALF W SP. 1 DATE 1-23-68

SEND	12	23	12	34	23	12	45	34	23	12
RECEIVE	0-SW	5-NW	—	10-15W	—	—	15-20W	—	—	—
RANGE	100	300	100	100	100	30	300	100	30	30
DC 1	580546	106106	470440	820866	430386	224239	189191	338354	284290	184176
DC 2	582541	106106	466444	801888	426403	232234	189191	346354	284290	184178
DC 3	586540	106106	476440	832861	415388	230291	189191	340360	290286	181180
DC 4				830871	420406	226242		334350	290284	179184
DC 5										
DC 6										
DC 7					P	P				
DC 8										
DC AVG.	112.4	212	91.0	168.8	81.6	46.7	380	69.5	57.6	36.1
AC 1	55.5	104	44.6	83.6	40.2	22.9	186	34.2	28.0	17.6
AC 2	55.6	104	44.6	83.8	40.0	22.9	186	34.2	28.0	17.6
AC AVG.	111.1	208	89.2	167.4	80.2	45.8	372	68.4	56.0	35.2
S.P.	+3.4	+9.4	—	+1.1	—	—	-6.6	—	—	—
AC NOISE	2.11	2.1	—	2.1	—	—	2.1	—	—	—
POT RES.	800m	600	—	112	—	—	112	—	—	—

STEEL POST FENCE
40' EAST OF QSW

NOTE :

2
2
2
2
2



HEINRICHS GEOEXPLORATION CO.
I.P. RECEIVER NOTES

PROJECT M P H & R 1-23-68
LINE 1 HALF W SP. 1 DATE 1-23-68

PAGE

SEND	15	34	23	12	45	34	23	12	CAL	2A95
RECEIVE	20-25W	—————	—————	—————	25-30W	—————	—————	—————		
RANGE	100	30	50	30	30	30	30	10		
DC 1	423419	140 175	141 160	102 89	249 256	109 119	104 125	780 800		
DC 2	426418	150 166	144 158	98 99	250 254	105 115	103 125	792 766		
DC 3	426418	154 164	140 156	102 92	253 255	105 118	101 128	825 740		
DC 4		155 164	142 159	100 86	250 258	100 129	98 134	830 746		
DC 5								831 732	204	
DC 6									204	
DC 7									204	
DC 8									204	
DC AVG.	84.4	31.8	30.0	19.3	50.6	22.2	22.8	15.75	408	
A	41.5	15.5	14.6	9.50	24.5	10.6	10.9	7.62	204	
AC 2	41.5	15.6	14.6	9.50	24.4	10.6	10.9	7.61	204	
AC AVG.	83.0	31.1	29.2	19.0	48.9	21.2	21.8	15.23	408	
S.P.	+1.2	—————	—————	—————	+2.8	—————	—————	—————		
AC NOISE	2.2	—————	—————	—————	<.2	—————	—————	—————		
POT RES.	1K	—————	—————	—————	1K	—————	—————	—————		



HEINRICH'S GEOEXPLORATION CO.
I. P. SENDER NOTES

PROJECT MP 1412
LINE 1 HALF W SP. 1 DATE 1-23-64

SEND	1-2	2-3	1-2	3-4	2-3	1-2	4-5	3-4	2-3	1-2
RECEIVE	0-5W	5-10W	—	10-15W	—	—	15-20W	—	—	—
RANGE	Hi	—	—	—	—	—	—	—	—	—
VOLTAGE	100	130	100	140	130	100	130	140 ^s	130	100
CURRENT	2a	2a	2a	2a	2a	2a	2a	2a	2a	2a
SEND	4-5	3-4	2-3	1-2	4-5	3-4	2-3	1-2	CAL	2a, 4-5
RECEIVE	20-25W	—	—	—	25-30W	—	—	—	—	—
RANGE	Hi	—	—	—	—	—	—	—	Hi	—
VOLTAGE	130	140	130	100	130	140	130	100	130	—
CURRENT	2a	2a	2a	2a	2a	2a	2a	2a	2a	—

FREQUENCIES .05 3
SENDER NO. 13671-S MK7
OPERATOR McLoy
RECEIVER NO. 5644R
OPERATOR KING

COMMENTS:
STEEL POST fence 40' E. of 25W.

HEINRICH'S GEOEXPLORATION COMPANY
INDUCED POLARIZATION SURVEY COMPUTATION SHEET

Page _____

Project MPH # 2 Line 151 W 1/2 Field date 1-23-68 Data page _____ Comp. date _____ . Comp by _____

(A) Send	12	23	12	34	23	12	45	34	23	12		
(B) Receive	0-5W	5-10W	---	10-15W	---	---	15-20W	---	---	---		
(C) n separation	1	1	2	1	2	3	1	2	3	4		
(D) I	2	2	2	2	2	2	2	2	2	2		
(E) Vdc (avg)	112.4	212	91.0	168.8	81.6	46.7	380	69.5	57.6	36.1		
(F) DCcal	0.490											
(G) Kn x 10 ⁻³	1.5	1.5	6	1.5	6	15	1.5	6	15	30		
(H) $\rho_{dc} = ExFxGx10^3/D$	41	78	134	62	120	172	140	102	212	265		
(I) $\rho_{ac} \Sigma$	111.1	208	89.2	167.4	80.2	45.8	372	68.4	56.0	35.2		
(J) AC noise x 2												
(K) $V_{ac}(corr) = \sqrt{I^2 - J^2}$												
(L) AC-DC cal.												
(M) $\rho_{dc}/\rho_{ac} = ExL/K$												
(N) PFE = (M-1)(10 ²)	0.7	1.4	1.5	0.3	1.2	1.5	1.6	1.1	2.3	2.0		
(O) MCF = (M-1)(10 ⁵)/H				5	10	9	11	11	11	8		

Project _____ Line _____ Field date _____ Data page _____ Comp. date _____ Comp by _____

(A) Send	45	34	23	12	45	34	23	12	CAL	22,45		
(B) Receive	20-25W	---	---	---	25-30W	---	---	---	---	---		
(C) n separation	1	2	3	4	1	2	3	4				
(D) I	2	2	2	2	2	2	2	2		2000		
(E) Vdc (avg)	84.4	31.8	30.0	19.3	50.6	22.2	22.8	15.75		408		
(F) DCcal										0.490		
(G) Kn x 10 ⁻³	6	15	30	52.5	15	30	52.5	84				
(H) $\rho_{dc} = ExFxGx10^3/D$	124	117	221	248	186	163	293	324				
(I) $\rho_{ac} \Sigma$	83.0	31.1	29.2	19.0	48.9	21.2	21.8	15.23		408		
(J) AC noise x 2												
(K) $V_{ac}(corr) = \sqrt{I^2 - J^2}$												
(L) AC-DC cal.												
(M) $\rho_{dc}/\rho_{ac} = ExL/K$												
(N) PFE = (M-1)(10 ²)	1.2	1.7	2.2	1.1	3.0	4.2	4.1	2.9				
(O) MCF = (M-1)(10 ⁵)/H	10	15	10	4	16	26	14	9				



HEINRICH'S GEOEXPLORATION CO.
I.P. RECEIVER NOTES

PROJECT MPHER 1-23-68
LINE 1 HALF E SP. 1 DATE

PAGE

SEND	45	34	45	23	34	45	12	23	34	45
RECEIVE	0-5E	5-16E	—	10-15E	—	—	15-20E	—	—	—
RANGE	300	100	100	100	30	30	100	30	30	30
DC 1	108106	546610	412500	790756	198194	202206	860850	302290	109110	129136
DC 2	108106	538614	412500	791754	198194	202206	860852	300291	109109	126136
DC 3	108106	534618	413500	791752	199194	200208	860852	302291	111108	125140
DC 4										
DC 5										
DC 6										
DC 7										
DC 8										
DC AVG.	214	115.1	91.4	154.5	39.2	40.8	171.1	59.2	21.9	26.3
AC 1	105	56.5	45.0	74.0	19.0	19.8	82.5	29.0	10.9	12.9
AC 2	105	56.6	44.8	74.0	19.0	19.8	82.6	29.1	10.9	12.9
AC AVG.	210	113.1	89.8	148.0	38.0	39.6	165.1	58.1	21.8	25.4
S.P.	-2.0	+27.0	—	+2.0	—	—	-26.9	—	—	—
AC NOISE	4.1	4.1	—	4.1	—	—	4.1	—	—	—
POT RES.	600	450	—	800	—	—	110	—	—	—

100' E of 26E S.A. Fence



HEINRICH'S GEOEXPLORATION CO.
I.P. RECEIVER NOTES

PROJECT MPH & R
LINE 1

HALF E SP. 1 DATE 1-23-68

PAGE

SEND	12	23	34	45	12	23	34	45	CAL	2A	12	
RECEIVE	20-25E				25-30E							
RANGE	100	30	10	30	30	30	10	10				
DC 1	336376	182209	961940	128112	115166	10095	592522	790810				
DC 2	330375	183208	940925	130114	132147	9792	618492	796808				
DC 3	320382	186206	988927	126120	136144	10291	560545	800820				
DC 4			978978	128114	139145	10190	550548	788802				
DC 5							560550	763800	204			
DC 6								800801	204			
DC 7									204			
DC 8									204			
DC AVG.	70.4	39.2	19.00	24.3	28.2	19.27	11.10	15.97	408			
AC	35.0	19.4	9.40	12.0	13.8	9.50	5.50	7.80	202			
AC 2	34.8	19.4	9.40	12.0	13.8	9.50	5.50	7.80	204			
AC AVG.	69.8	38.8	18.80	24.0	27.6	19.00	11.00	15.60	406			
S.P.	+32.1				+14.9							
AC NOISE	2.1				2.1							
POT RES.	800				31K							



HEINRICH'S GEOEXPLORATION CO.
I. P. SENDER NOTES

PROJECT MPGR
LINE 1 HALF E SP. 1 DATE 1-23-65

SEND	4-5	3-4	4-5	2-3	3-4	4-5	1-2	2-3	3-4	4-5
RECEIVE	0-5E	5-10E	—	10-15E	—	—	15-20E	—	—	—
RANGE	Hi	—	—	—	—	—	—	—	—	—
VOLTAGE	130	140	130	130	140	130	100	130	140	130
CURRENT	2a	2a	2a	2a	2a	2a	2a	2a	2a	2a
SEND	1-2	2-3	3-4	4-5	1-2	2-3	3-4	4-5		
RECEIVE	20-25E	—	—	—	25-30W	—	—	—	Cal.	2a, 1-2
RANGE	Hi	—	—	—	—	—	—	—	Hi	—
VOLTAGE	100	130	140	130	100	130	140	130	100	
CURRENT	2a	2a	2a	2a	2a	2a	2a	2a	2a	

FREQUENCIES .05 3
SENDER NO. 13671-S Mk7
OPERATOR (r) G. y
RECEIVER NO. 5644R
OPERATOR King

COMMENTS:

STEEL POST FENCE
100' E. OF 20E

HEINRICHS GEOEXPLORATION COMPANY
INDUCED POLARIZATION SURVEY COMPUTATION SHEET

Page _____

Project MPH ER Line 1S1E 1/2 Field date 1-23-68 Data page _____ Comp. date _____ . Comp by _____

(A) Send	45	34	45	23	34	45	12	23	34	45		
(B) Receive	0-5E	S-10E	---	10-15E	---	---	15-20E	---	---	---		
(C) n separation	1	1	2	1	2	3	1	2	3	4		
(D) I	2	---	---	---	---	---	---	---	---	---		
(E) Vdc (avg)	214	115.1	91.9	154.5	39.2	40.8	171.1	59.2	21.9	26.7		
(F) DCcal	.490	---	---	---	---	---	---	---	---	---		
(G) Kn x 10 ⁻³	1.5	1.5	6	1.5	6	15	1.5	6	15	30		
(H) $\rho_{dc} = ExFxGx10^3/D$	79	42	134	57	58	150	63	87	80	193		
(I) Vac Σ	210	113.1	89.8	148.0	38.0	39.6	165.1	58.1	21.8	25.8		
(J) AC noise x 2												
(K) Vac (corr) = $\sqrt{I^2 - J^2}$												
(L) AC-DC cal.	.995	---	---	---	---	---	---	---	---	---		
(M) $\rho_{dc}/\rho_{ac} = ExL/K$	---	---	---	---	---	---	---	---	---	---		
(N) PFE = $(M-1)(10^2)$	1.4	1.3 1.0	1.3 1.9	3.9	2.6	2.5	3.1	1.4	0.0	1.4		
(O) MCF = $(M-1)(10^5)/H$	18	24	10	68	45	17	49	16	0	7		

Project _____ Line _____ Field date _____ Data page _____ Comp. date _____ Comp by _____

(A) Send	12	23	34	45	12	23	34	45	CAL	2A 1-2		
(B) Receive	20-25E	---	---	---	25-30E	---	---	---	---	---		
(C) n separation	1	2	3	4	1	2	3	4				
(D) I	2	---	---	---	---	---	---	---			2008	
(E) Vdc (avg)	70.4	39.2	19.00	24.3	28.2	19.23	11.10	15.97			408	
(F) DCcal	---	---	---	---	---	---	---	---			.990	
(G) Kn x 10 ⁻³	6	15	30	52.5	15	30	52.5	84				
(H) $\rho_{dc} = ExFxGx10^3/D$	103	144	140	313	104	141	143	329				
(I) Vac Σ	69.8	38.8	18.80	24.0	27.6	19.00	11.00	15.60			406	
(J) AC noise x 2												
(K) Vac (corr) = $\sqrt{I^2 - J^2}$												
(L) AC-DC cal.											.995	
(M) $\rho_{dc}/\rho_{ac} = ExL/K$	---	---	---	---	---	---	---	---				
(N) PFE = $(M-1)(10^2)$	0.4	0.5	0.6	0.7	1.7	0.7	0.4	1.9				
(O) MCF = $(M-1)(10^5)/H$	4	3	4	2	16	5	3	6				

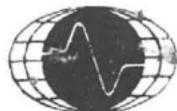


HEINRICH'S GEOEXPLORATION CO.
I.P. RECEIVER NOTES

PROJECT MPHER DATE 1-24-68
LINE 2 HALF W SP. 1

PAGE

SEND	12	23	12	34	23	12	45	34	23	12
RECEIVE	0-SW	S-10W	—	10-15W	—	—	15-20W	—	—	—
RANGE	1000	1000	300	1000	300	100	1000	300	100	100
DC 1	600 600	752 750	215 216	820 820	206 209	860 872	720 720	204 204	925 918	494 488
DC 2	600 600	752 750	215 216	820 820	205 202	860 873	720 721	205 204	928 920	492 484
DC 3	600 600	752 750	215 216	820 820	206 203	860 872	720 721	205 204	930 920	490 488
DC 4										
DC 5										
DC 6						P	P	P	P	P
DC 7	P									
DC 8										
AVG.	600	751	215.5	820	204.3	86.62	720.3	204.4	92.37	48.9
AC 1	568	716	202	784	195	81.6	694	196	88.4	46.0
AC 2	568	718	202	784	195	81.6	694	196	88.6	46.0
AC AVG.	568	717	202	784	195	81.6	694	196	88.5	46
S.P.	+6.9	-5.0	—	-0.6	—	—	-0.9	—	—	—
AC NOISE	2.1	2.1	—	2.1	—	—	2.1	—	—	—
POT RES.	700	700	—	700	—	—	700	—	—	—



HEINRICHS · GEOEXPLORATION CO.
I.P. RECEIVER NOTES

PROJECT MPHGR 1-24-68
LINE 2 HALF W SP. 1 DATE _____

SEND	AS	34	25	12	45	34	23	12	CAL	2A 4S
RECEIVE	20-25W	————	————	————	25-30W	————	————	————		
RANGE	100	100	30	30	100	30	30	30		
DC 1	740750	326328	220210	144 146	390385	224209	140 159	101 105		
DC 2	740750	326328	220212	144 148	390386	225206	140 158	102 102		
DC 3	740748	325325	215 210	144 145	392384	226209	141/149	105 101		
DC 4			219 221	146 146	394382	226206	150 148	104 101		
DC 5							151 146	105 101	203	
DC 6									204	
DC 7	P	————	————	————	————	————	————	————	205	
DC 8									204	
DC AVG.	74.48	32.64	21.52	14.54	38.81	21.66	14.925	10.29		
AC	71.8	32.0	20.6	13.6	37.4	20.9	14.4	9.60		
AC 2	72.0	31.8	20.4	13.6	37.5	20.9	14.4	9.60	201	
AC AVG.	71.9	31.9	20.6	13.6	37.45	20.9	14.4	9.6	202	
S.P.	-1.4	————	————	————	+2.7	————	————	————		
AC NOISE	4.1	————	————	————	4.2	————	————	————		
POT RES.	2K	————	————	————	1K	————	————	————		



HEINRICHS GEOEXPLORATION CO.
I. P. SENDER NOTES

PROJECT MPHER
LINE 2 HALF W 1/2 SP. 1 DATE 1-24-68

PAGE

SEND	12	23	12	34	23	12	45	34	23	12
RECEIVE	0-5W	5-10W	—	10-15W	—	—	15-20W	—	—	—
RANGE	Hi	—	—	—	—	—	—	—	—	—
VOLTAGE	300	340	300	200	340	300	180	200	340	300
CURRENT	2	2	2	2	2	2	2	2	2	2
SEND	45	34	23	12	45	34	23	12	CAL	2A, 45
RECEIVE	20-25W	—	—	—	25-30W	—	—	—	—	—
RANGE	Hi	—	—	—	—	—	—	—	—	—
VOLTAGE	180	200	340	300	180	200	340	300	180	—
CURRENT	2	2	2	2	2	2	2	2	2	—

FREQUENCIES 3 .05

SENDER NO. 136715-Mk7

OPERATOR McGoy

RECEIVER NO. 5644R

OPERATOR KING

COMMENTS:

30 SES AC. 30
4 Mials. DC.

HEINRICHS GEOEXPLORATION COMPANY
INDUCED POLARIZATION SURVEY COMPUTATION SHEET

Project MPH & R Line 2 W₂ Field date 1-24-68 Data page 2 Comp. date _____ . Comp by _____

(A) Send	1-2	2-3	1-2	3-4	2-3	1-2	4-5	3-4	2-3	1-2		
(B) Receive												
(C) n separation												
(D) I	2.0A	-----										
(E) Vdc (avg)	600	751	215.5	820	204.3	86.62	720.3	204.4	92.37	48.9		
(F) DCcal												
(G) Kn x 10 ⁻³	1.5	1.5	6.0	1.5	6.0	15.	1.5	6.0	15.0	30.0		
(H) $\rho_{dc} = ExFxGx10^3/D$	440	551	632	601	599	635	528	600	678	717		
(I) Vac Σ	459	495										
(J) AC noise x 2												
(K) Vac (corr) = $\sqrt{I^2 - J^2}$	568	717	202	784	195	81.6	694	194	88.5	46		
(L) AC-DC cal.												
(M) $\rho_{dc}/\rho_{ac} = ExL/K$												
(N) PFE = (M-1)(10 ²)	7.2	3.2	5.1	3.1	3.2	4.6	2.3	2.8	2.8	4.7		
(O) MCF = (M-1)(10 ⁵)/H	16	6	8	5	5	7	4	5	4	7		

Project _____ Line _____ Field date _____ Data page _____ Comp. date _____ Comp by _____

(A) Send	4-5	3-4	2-3	1-2	4-5	3-4	2-3	1-2				
(B) Receive												
(C) n separation												
(D) I	2.0A	-----										
(E) Vdc (avg)	74.48	32.64	21.52	14.54	38.81	21.66	14.925	10.29			204.5	
(F) DCcal											.978	
(G) Kn x 10 ⁻³	6.0	15.0	30.0	52.5	15.0	30.0	52.5	84.0				
(H) $\rho_{dc} = ExFxGx10^3/D$	219	798	316	373	285	318	383	423			97500	
(I) Vac Σ												
(J) AC noise x 2												
(K) Vac (corr) = $\sqrt{I^2 - J^2}$	71.9	31.9	20.6	13.6	37.45	20.9	14.4	9.6			201.5	
(L) AC-DC cal.											.985	
(M) $\rho_{dc}/\rho_{ac} = ExL/K$												
(N) PFE = (M-1)(10 ²)	2.1	0.8	2.9	5.3	2.1	2.1	2.1	5.6				
(O) MCF = (M-1)(10 ⁵)/H	10	1	8	14	7	7	5	13				



HEINRICH'S GEOEXPLORATION CO.
I.P. RECEIVER NOTES

PROJECT MPHER DATE 1-24-68
LINE 2 HALF E SP. 1

SEND	45	34	45	23	34	45	12	23	34	45
RECEIVE	0-SE	S-10E	—	10-1SE	—	—	15-20E	—	—	—
RANGE	1000	1000	300	1000	300	300	1000	300	100	100
DC 1	540.540	600.594	210.216	688.690	196.196	110.111	462.464	160.159	762.746	480.496
DC 2	540.540	600.594	210.216	688.690	196.196	110.111	462.464	160.159	765.746	478.498
DC 3	540.540	600.594	210.216	688.690	196.196	110.111	462.464	160.159	762.746	476.500
DC 4										
DC 5										
DC 6										
DC 7										
DC 8										
DC AVG.	540	597	213	689	196	110.5	463	159.5	754.6	480.6
AC 1	504	564	200	656	186	106	440	152	71.8	46.0
AC 2	504	564	200	656	188	105	440	152	72.0	46.0
AC AVG.	504	564	200	656	187	105.5	440	152	71.9	46
S.P.	42.1	3.2	—	-30.0	—	—	722.2	—	—	—
AC NOISE	2.2	2.2	—	2.2	—	—	2.2	—	—	—
POT RES.	900	800	—	700	—	—	900	—	—	—



HEINRICHS GEOEXPLORATION CO.
I.P. RECEIVER NOTES

PROJECT MPH & R 1-24-68
LINE 2 HALF E SP. 1 DATE

PAGE

SEND	12	23	39	45	12	23	34	45	CAL	2A-12
RECEIVE	20-25 E	—	—	—	25-30 E	—	—	—		
RANGE	100	100	30	30	30	30	10	10		
DC 1	862850	474490	310297	221205	151154	106101	758690	575480		
DC 2	862850	475490	314296	221205	152154	106101	758690	571480		
DC 3	862850	475490	314296	221206	152154	106100	760685	570484		
DC 4								561490		
DC 5									205	
DC 6									204	
DC 7									205	
DC 8									209	
DC AVG.	856	48.24	30.48	21.31	15.29	10.34	7.239	5.255		
1	82.2	47.2	29.6	20.8	14.6	10.2	7.10	5.18	202	
AC 2	82.4	47.2	29.6	20.6	14.8	10.2	7.14	5.19	202	
AC AVG.	82.3	47.2	29.6	20.7	14.7	10.2	7.12	5.185		
S.P.	-2.6	—	—	—	-26.9	—	—	—		
AC NOISE	2.2	—	—	—	2.2	—	—	—		
POT RES.	200	—	—	—	600	—	—	—		



HEINRICH'S GEOEXPLORATION CO.
I: P. SENDER NOTES

PAGE

PROJECT MPHR
LINE 2 HALFE 1/2 SP. 1 DATE 1-24-68

SEND	45	34	45	23	34	45	12	23	34	45
RECEIVE	0-5E	5-10E	—	10-15E	—	—	15-20E	—	—	—
RANGE	Hi	—	—	—	—	—	—	—	—	—
VOLTAGE	180	200	180	340	200	180	300	340	200	180
CURRENT	2	2	2	2	2	2	2	2	2	2
SEND	12	23	34	45	12	23	34	45	CAL	2A, 12
RECEIVE	20-25E	—	—	—	25-30E	—	—	—	—	—
RANGE	Hi	—	—	—	—	—	—	—	—	—
VOLTAGE	300	340	200	180	300	340	200	180	300	—
CURRENT	2	2	2	2	2	2	2	2	2	—

FREQUENCIES 3 .05

COMMENTS:

Volts build on CAL. 2a, 1, 2 approx 5V, on DC., Then drop back, Blip on AC line

SENDER NO. 136715 - MK7

OPERATOR McCoy

RECEIVER NO. 5644R

OPERATOR King

a = 500'

HEINRICHS GEOEXPLORATION COMPANY
INDUCED POLARIZATION SURVEY COMPUTATION SHEET

Project MPH & R Line 2 E Field date 1-24-68 Data page 1 Comp. date _____ Comp by _____

(A) Send	4-5	3-4	4-5	2-3	3-4	4-5	1-2	2-3	3-4	4-5		
(B) Receive												
(C) n separation												
(D) I	2A.											
(E) Vdc (avg)	540	597	213	689	196	110.5	463	159.5	75.46	48.76		
(F) DCcal												
(G) Kn x 10 ⁻³	1.5	1.5	6.0	1.5	6.0	15.0	1.5	6.0	15.0	30.0		
(H) $\rho_{dc} = ExFxGx10^3/D$	396	438	625	505	575	811	340	468	553	715		
(I) Vac Σ	480	417	228									
(J) AC noise x 2												
(K) Vac (corr) = $\sqrt{I^2 - J^2}$	504	564	200	656	187	105.5	440	152	71.9	46		
(L) AC-DC cal.												
(M) $\rho_{dc}/\rho_{ac} = ExL/K$	4.5	5.0	5.2									
(N) PFE = (M-1)(10 ²)	5.5	4.6	5.2	3.7	3.5	3.5	3.9	3.7	3.7	4.7		
(O) MCF = (M-1)(10 ⁵)/H	15	11	8	7	6	4	11	8	7	7		
	9.0	13	8									

Project _____ Line _____ Field date _____ Data page _____ Comp. date _____ Comp by _____

(A) Send	1-2	2-3	3-4	4-5	1-2	2-3	3-4	4-5				
(B) Receive												
(C) n separation												
(D) I	2A.										2000	
(E) Vdc (avg)	85.6	48.24	30.48	21.31	15.29	10.34	7.239	5.255			204.5	
(F) DCcal				52.5							.978	
(G) Kn x 10 ⁻³	6.0	15.0	30.	60.0	15.0	30.	52.5	84.				
(H) $\rho_{dc} = ExFxGx10^3/D$	251	354	447	547	112	152	186	216			28277	
(I) Vac Σ												
(J) AC noise x 2												
(K) Vac (corr) = $\sqrt{I^2 - J^2}$	82.3	47.2	29.6	20.7	14.7	10.2	7.12	5.185			202.	
(L) AC-DC cal.											.988	
(M) $\rho_{dc}/\rho_{ac} = ExL/K$												
(N) PFE = (M-1)(10 ²)	2.7	1.0	1.7	1.7	2.7	0.1	0.4	0.1				
(O) MCF = (M-1)(10 ⁵)/H	11	3	4	3	24	.7	2	.5				



HEINRICH'S GEOEXPLORATION CO.
I. P. SENDER NOTES

PROJECT 229-68

LINE 2 HALF W SP. X2 DATE 2/6/68

PAGE

SEND	1	2	2	3	1	2	3	4	2	3	1	2	4	5	3	4	2	3	1	2	
RECEIVE	25.0 E	0-25W			————— 725-50W				————— 7			50-75W			————— 7						
RANGE																					
VOLTAGE	180	190	180	140	190	180	360	140	190	180											
CURRENT	1A	1A	1A	1A	1A	1A	1A	1A	1A	1A											
SEND	4	5	3	4	2	3	1	2	4	5	3	4	2	3	1	2				CAL	
RECEIVE	75-100W	————— 7				100-125			————— 7												4 5
RANGE																					
VOLTAGE	360	140	190	180	360	140	190	180													740
CURRENT	1A	1A	1A	1A	1A	1A	1A	1A	1A	1A											2A

FREQUENCIES .05 3

SENDER NO. 15673 G

OPERATOR DON

RECEIVER NO. 3641

OPERATOR BOB

COMMENTS :

HEINRICHS GEOEXPLORATION COMPANY
INDUCED POLARIZATION SURVEY COMPUTATION SHEET

Page _____
Comp by C. J. L.

Project MPHR Line 2 - Spr. 2 Field date _____ Data page _____ Comp. date _____

$w_2 = a = 250'$

(A) Send	12	23	12	24	23	12	45	34	23	12		
(B) Receive												
(C) n separation												
(D) I	1											
(E) Vdc (avg)	967	1447	265	1057	357	115.3	1180	337	190	79.1		
(F) DCcal												
(G) Kn x 10 ⁻³	.75	.75	3	.75	3	7.5	.75	3	7.5	15		
(H) $\rho_{dc} = ExFxGx10^3/D$	367	549	402	401	542	438	448	512	721	600		
(I) Vac Σ	934	1400	255	1030	347	111.2	1148	328	184	76.0		
(J) AC noise x 2												
(K) Vac (corr) = $\sqrt{I^2 - J^2}$												
(L) AC-DC cal.												
(M) $\rho_{dc}/\rho_{ac} = ExL/K$												
(N) PFE = (M-1)(10 ²)	3.8	3.7	4.2	3.9	3.2	4.0	3.1	3.1	3.6	4.4		
(O) MCF = (M-1)(10 ⁵)/H				7	6	9	7	6	5	7		

Project _____ Line _____ Field date _____ Data page _____ Comp. date _____ Comp by _____

(A) Send	45	34	23	12	45	34	23	12				
(B) Receive												
(C) n separation												
(D) I											2000	
(E) Vdc (avg)	378	165.7	109.8	51.2	169	91.4	67.7	35.7		395		
(F) DCcal											10506	
(G) Kn x 10 ⁻³	3	7.5	15	26.25	7.5	15	26.25	42				
(H) $\rho_{dc} = ExFxGx10^3/D$	574	627	833	680	641	694	899	759				
(I) Vac Σ	367	160.4	106.0	49.2	164	88.8	65.6	34.4		396		
(J) AC noise x 2												
(K) Vac (corr) = $\sqrt{I^2 - J^2}$												
(L) AC-DC cal.											1,003	
(M) $\rho_{dc}/\rho_{ac} = ExL/K$												
(N) PFE = (M-1)(10 ²)	3.3	3.4	3.9	4.4	3.4	3.2	3.5	4.1				
(O) MCF = (M-1)(10 ⁵)/H	6	5	5	6	5	5	4	5				



HEINRICH'S GEOEXPLORATION CO.

I. P. SENDER NOTES

PROJECT 229-68LINE 2 HALF E SP. X² DATE 2/0/68

PAGE

SEND	4	5	3	4	4	5	2	3	3	4	4	5	1	2	2	3	3	4	4	5
RECEIVE	25-50E		50-75E		75-100E				100-125E											
RANGE																				
VOLTAGE	360	140	350	180	140	350	180	180	140	350	180	180	140	350	180	180	140	350	180	180
CURRENT	1A	1A	1A	1A	1A	1A	1A	1A	1A	1A	1A	1A	1A	1A	1A	1A	1A	1A	1A	1A
SEND	1	2	2	3	3	4	4	5	1	2	2	3	3	4	4	5				
RECEIVE	125-150E				150-175E														GAL	
RANGE																				
VOLTAGE	180	180	140	350	180	180	140	350	180	180	140	350	180	180	140	350	180	180	140	350
CURRENT	1A	1A	1A	1A	1A	1A	1A	1A	1A	1A	1A	1A	1A	1A	1A	1A	1A	1A	1A	2A

FREQUENCIES .05 3SENDER NO. 156719OPERATOR DONRECEIVER NO. 3641OPERATOR BOB

COMMENTS:

HEINRICHS GEOEXPLORATION COMPANY
INDUCED POLARIZATION SURVEY COMPUTATION SHEET

Project MPHR Line 2 - Spr 2 Field date _____ Data page _____ Comp. date _____ Comp by CDL
n = 250 E 2

(A) Send	45	34	45	27	34	45	12	27	34	45		
(B) Receive												
(C) n separation												
(D) I	1											
(E) Vdc (avg)	1398	1066	268	1232	266	106.6	824	762	118.9	62.8		
(F) DCcal												
(G) Kn x 10 ⁻³	.75	.75	3	.75	3	7.5	.75	3	7.5	15		
(H) $\rho_{dc} = ExFxGx10^3/D$	5350	408	4103	471	407	408	315	554	453	480		
(I) Vac Σ	1348	1016	258	1186	255	102.0	776	397	112.6	60.0		
(J) AC noise x 2												
(K) Vac (corr) = $\sqrt{I^2 - J^2}$												
(L) AC-DC cal.												
(M) $\rho_{dc}/\rho_{ac} = ExL/K$												
(N) PFE = (M-1)(10 ²)	3.7	4.9	3.9	3.9	4.3	4.5	6.2	4.3	5.2	4.7		
(O) MCF = (M-1)(10 ⁵)/H	1	11	11	8	11	11	20	8	11	10		

Project _____ Line _____ Field date _____ Data page _____ Comp. date _____ Comp by _____

(A) Send	12	23	30	45	12	23	34	45			CAL	
(B) Receive												
(C) n separation												
(D) I											2000	
(E) Vdc (avg)	256	157.3	63.3	40.3	104.6	74.5	35.0	24.0			392	
(F) DCcal											.510	
(G) Kn x 10 ⁻³	3	7.5	15	26.25	7.5	15	26.25	42				
(H) $\rho_{dc} = ExFxGx10^3/D$	392	602	484	540	400	570	469	514				
(I) Vac Σ	246	153.8	62.0	39.4	100.0	72.6	34.0	23.4			392	
(J) AC noise x 2												
(K) Vac (corr) = $\sqrt{I^2 - J^2}$												
(L) AC-DC cal.											1.000	
(M) $\rho_{dc}/\rho_{ac} = ExL/K$												
(N) PFE = (M-1)(10 ²)	4.1	2.3	2.1	2.3	4.6	2.6	2.9	2.6				
(O) MCF = (M-1)(10 ⁵)/H	10	4	4	4	12	5	6	5				



HEINRICH'S GEOEXPLORATION CO.
I. P. RECEIVER NOTES

PROJECT
LINE 3

MPHER
HALF W SP. 1 DATE 1-29-68

PAGE

SEND	12	23	12	34	23	12	45	34	23	12
RECEIVE	0-SW	S-10W	—	10-15W	—	—	15-20W	—	—	—
RANGE	1000	1000	300	1000	300	300	1000	300	300	100
DC 1	646 646	660656	251 249	796 795	314 316	165 169	786 800	294 300	132 135	772 846
DC 2	646 646	660658	250 249	798 794	314 316	164 170	788 800	293 300	131 136	782 840
DC 3	646 646	660659	251 249	799 794	313 317	164 170	788 801	294 299	131 136	792 824
DC 4										800 828
DC 5										
DC 6										
DC 7	P	—								
DC 8										
DC AVG.	1292	1317	500	1592.4	629.8	333.8	1587.8	593.4	266.8	162.4
AC 1	640	620	246	766	294	164	768	284	124	79.0
AC 2	646	620	246	766	294	162	766	285	124	79.0
AC AVG.	1280	1240	492	1532	588	326	1534	569	248	158.
S. P.	+17.0	+10.0	—	-8.4	—	—	-4.1	—	—	—
AC NOISE	2.2	2.2	—	2.2	—	—	2.2	—	—	—
POT RES.	600	800	—	800	—	—	500	—	—	—

0.9

6.2

1.6



HEINRICH'S GEOEXPLORATION CO.
I.P. RECEIVER NOTES

PROJECT MPHER
LINE 3 HALF W SP. 1 DATE 1-29-68

PAGE

SEND	45	34	23	12	45	34	23	12	CAL	45 2A
RECEIVE	20-25W				25-30W					
RANGE	300	300	100	100	100	100	30	30		
DC 1	306306	135134	748714	488412	68265A	400426	306271	175210		
DC 2	306306	135133	745715	488445	681660	400428	305271	176209		
DC 3	306306	136132	746712	485A42	682658	399430	305271	177208		
DC 4							305270	177208		
DC 5									203	
DC 6									204	
DC 7	P								203	
DC 8									204	
DC AVG.	602	268.6	146.0	93.0	134.42	82.72	57.6	38.529		
AC 1	295	130	67.8	45.1	65.0	40.0	26.6	18.6	200	
AC 2	295	129	67.9	45.1	65.0	39.9	26.6	18.6	200	
AC AVG.	590	259	135.7	90.2	130	79.9	53.2	37.2		
S.P.					+2.8					
AC NOISE	1.2				1.2					.997
POT RES.	800				1.4K				.983	→ .997



HEINRICH'S GEOEXPLORATION CO.
I. P. SENDER NOTES

PROJECT

MPHWR

LINE 3

HALF E SP. 1

DATE

1-29-68

PAGE

SEND	1-2	2-3	1-2	3-4	2-3	1-2	4-5	3-4	2-3	1-2
RECEIVE										
RANGE										
VOLTAGE	330	380	330	210	380	330	180	250	380	330
CURRENT	3	3	3	2.5	3	3	2.5	3	3	3
SEND	4-5	3-4	2-3	1-2	4-5	3-4	2-3	1-2	CDL	4-5
RECEIVE										
RANGE										
VOLTAGE	200	250	380	330	220	250	380	330		150
CURRENT	3									2

FREQUENCIES _____

SENDER NO.

OPERATOR

RECEIVER NO.

5644R

OPERATOR

COMMENTS :



HEINRICH'S GEOEXPLORATION CO.
I. P. RECEIVER NOTES

PROJECT MPHER
LINE 3

HALF E SP. 1 DATE 1-29-68

PAGE

SEND	45	34	45	23	34	45	12	23	34	45
RECEIVE	0-5E	5-10E	—	10-15E	—	—	15-20E	—	—	—
RANGE	1000	1000	300	1000	300	100	300	300	100	100
DC 1	660652	642644	250248	438 439	180 184	945972	200 194	112 105	640612	396 371
DC 2	660652	642644	249247	438 440	180 184	750971	201 194	112 105	640615	396 370
DC 3	660652	642644	250247	436 439	181 184	951970	201 194	112 105	640615	397 370
DC 4										
DC 5										
DC 6										
DC 7										
DC 8	p	p	—	—	—	—	—	—	—	—
DC AVG.	1312	1286	497	876.6	364.4	192.06	394.8	217	125.38	766.8
AC 1	622	638	246	415	180	94.2	195	104	61.8	37.9
AC 2	622	638	246	415	180	94.2	195	104	61.9	37.9
AC AVG.	1244	1276	492	830	360	188.4	390	208	123.7	75.8
S. P.	-22.6	-6.9	—	+10.9	—	—	-3.2	—	—	—
AC NOISE	1.2	1.2	—	1.2	—	—	1.2	—	—	—
POT RES.	200	800	—	600	—	—	600	—	—	—

5.5 0.8 1.0



HEINRICHS GEOEXPLORATION CO.
I.P. RECEIVER NOTES

PROJECT MPH & R 1-29-68
LINE 3 HALF E SP. 1 DATE

PAGE

SEND	12	23	34	45	12	23	34	45	CAL	2A 12
RECEIVE	20-25E				25-30E					
RANGE	30	30	30	10	30	10	10	10		
DC 1	275268	199199	136122	886901	10497	840890	620582	404460		
DC 2	275268	200192	138120	872911	10298	832844	621580	405459		
DC 3	274269	200192	139120	862920	10199	830845	622580	404460		
DC 4				858926	10199	822850	630576	406456		
DC 5									202	
DC 6									202	
DC 7									202	
DC 8									202	
DC AVG.	542.8	392.6	258.8	178.0	19.986	16.74	12.04	86.4		
AC 1	270	189	130	88.6	10.0	8.00	6.00	4.30	203.	
AC 2	270	189	130	88.8	10.0	8.00	6.00	4.30	204	
AC AVG.	540	378	260	177.4	20.0	16.0	12.0	8.6		
S.P.	-11.3				-12.0					
AC NOISE	1.2				1.2					1.000
POT RES.	500				500				1.007	1.002



HEINRICHS GEOEXPLORATION CO.
I. P. SENDER NOTES

PROJECT MPH+R
LINE 3 HALF E SP. 1 DATE 1/29/68

PAGE

SEND	4-5	3-4	4-5	2-3	3-4	4-5	1-2	2-3	3-4	4-5
RECEIVE										
RANGE	H									
VOLTAGE	220	250	220	380	250	220	330	380	250	220
CURRENT	3									
SEND	1-2	2-3	3-4	4-5	1-2	2-3	3-4	4-5	CAL	1-2
RECEIVE										
RANGE	H									
VOLTAGE	330	380	250	220	330	380	250	220		220
CURRENT	3									2

FREQUENCIES .05 3.0
SENDER NO.
OPERATOR
RECEIVER NO. 564412
OPERATOR

COMMENTS :

HEINRICHS GEOEXPLORATION COMPANY
INDUCED POLARIZATION SURVEY COMPUTATION SHEET

Page _____

Project MP4HR Line 3 W Field date _____ Data page _____ Comp. date _____ . Comp by _____

(A) Send	1-2	2-3	1-2	3-4	2-3	1-2	4-5	3-4	2-3	1-2		
(B) Receive												
(C) n separation												
(D) I	3		3	2.5	3		2.5	3				
(E) Vdc (avg)												
(F) DCcal	1292	1317	500	1592.4	629.8	333.8	1587.8	593.4	266.8	162.4		
(G) Kn x 10 ⁻³	1.5	1.5	6.0	1.5	6.0	15	1.5	6.0	15.0	30.		
(H) $\rho_{dc} = ExFxGx10^3/D$	317	324	471	470	618	820	468	583	656	798		
(I) Vac Σ												
(J) AC noise x 2												
(K) Vac (corr) = $\sqrt{I^2 - J^2}$	1280	1240	492	1532	588	326	1534	569	248	158		
(L) AC-DC cal.	.997											
(M) $\rho_{dc}/\rho_{ac} = ExL/K$												
(N) PFE = (M-1)(10 ²)	0.6	5.9	1.3	3.6	6.8	2.1	3.2	4.0	7.2	2.5		
(O) MCF = (M-1)(10 ⁵)/H	2	18		8	11	3	7	7	11	3		

Project _____ Line _____ Field date _____ Data page _____ Comp. date _____ Comp by _____

(A) Send	4-5	3-4	2-3	1-2	4-5	3-4	2-3	1-2				
(B) Receive												
(C) n separation												
(D) I	3.0										2	
(E) Vdc (avg)	1292 612	1317 288.6	500 146	93	134.42	82.72	57.6	38.529			407	
(F) DCcal											-4914	
(G) Kn x 10 ⁻³	6.0	15.0	30.0	52.5	15.0	30.0	52.5	84				
(H) $\rho_{dc} = ExFxGx10^3/D$	601	660	717	800	330	406	495	530				
(I) Vac Σ												
(J) AC noise x 2												
(K) Vac (corr) = $\sqrt{I^2 - J^2}$	590	259	135.7	90.2	130	79.9	53.2	37.2				
(L) AC-DC cal.	.997										.997	
(M) $\rho_{dc}/\rho_{ac} = ExL/K$												
(N) PFE = (M-1)(10 ²)	3.4	3.4	7.3	2.8	3.1	3.2	7.9	3.2				
(O) MCF = (M-1)(10 ⁵)/H	6	5	10	4	9	8	16	6				

$$P_{dc} = \frac{V_{Kn}}{I}$$

HEINRICHS GEOEXPLORATION COMPANY
INDUCED POLARIZATION SURVEY COMPUTATION SHEET

Project M P & HR Line 3 E 1/2 Field date _____ Data page _____ Comp. date _____ . Comp by _____

(A) Send	4-5	3-4	4-5	2-3	3-4	4-5	1-2	2-3	3-4	4-5		
(B) Receive												
(C) n separation												
(D) I	3.0	<hr/>										
(E) Vdc (avg)	1312	1286	497	876.6	364.4	192.06	394.8	217	125.38	766.8		
(F) DCcal	290											
(G) Kn x 10 ⁻³	1.5	1.5	6.0	1.5	6.0	15.0	1.5	6.0	15.0	30.0		
(H) $\rho_{dc} = ExFxGx10^3/D$	325	318	492	217	361	475	98	215	310	380		
(I) Vac Σ												
(J) AC noise x 2												
(K) Vac (corr) = $\sqrt{I^2 - J^2}$	1244	1276	492	830	360	188.4	390	208	123.7	75.8		
(L) AC-DC cal.	1.000											
(M) $\rho_{dc}/\rho_{ac} = ExL/K$	5.7	0.7	1.15									
(N) PFE = $(M-1)(10^2)$	5.5	0.8	1.0	5.6	1.2	2.0	1.2	4.3	1.4	1.2		
(O) MCF = $(M-1)(10^5)/H$	18	2	2	26	3	4	12	20	5	3		

Project _____ Line _____ Field date _____ Data page _____ Comp. date _____ Comp by _____

(A) Send	1-2	2-3	3-4	4-5	1-2	2-3	3-4	4-5				
(B) Receive												
(C) n separation												
(D) I	3.0	<hr/>										
(E) Vdc (avg)	542.8	392.6	258.8	178	19.886	16.74	12.04	86.4		2	404	495
(F) DCcal	290	495										
(G) Kn x 10 ⁻³	6.0	15.0	30.0	52.5	15.0	30.0	52.5	84.				
(H) $\rho_{dc} = ExFxGx10^3/D$	541	97	128	154	49.	83	104	120				
(I) Vac Σ												
(J) AC noise x 2												
(K) Vac (corr) = $\sqrt{I^2 - J^2}$	540	378	260	17.74	20	16	12.	8.6				
(L) AC-DC cal.	1.00											
(M) $\rho_{dc}/\rho_{ac} = ExL/K$												
(N) PFE = $(M-1)(10^2)$	0.5	3.9	-0.5	0.3	-0.1	4.6	0.3	0.5				
(O) MCF = $(M-1)(10^5)/H$	1.	40	-4	2	-2	55	3.	4				



HEINRICH'S GEOEXPLORATION CO.
I. P. SENDER NOTES

PROJECT 229-68
LINE 3 HALF E SP. 7 DATE 2/5/68

PAGE

SEND	4	5	3	4	4	5	2	3	3	4	4	5	1	2	2	3	3	4	4	5	
RECEIVE	0-25E		25-50E		50-75E			75-100E													
RANGE																					
VOLTAGE	160	330	170	340	330	170	340	340	330	170											
CURRENT	2A	2A	2A	2A	2A	2A	2A	2A	2A	2A											
SEND	1	2	2	3	3	4	4	5	1	2	2	3	3	4	4	5	CAL				
RECEIVE	100-125E		125-150E													1	2				
RANGE																					
VOLTAGE	340	340	330	170	340	340	330	170													
CURRENT	2A	2A	2A	2A	2A	2A	2A	2A	2A												

FREQUENCIES .05 3

COMMENTS :

SENDER NO. 136715

OPERATOR DON

RECEIVER NO. 36415

OPERATOR BOB

HEINRICHS GEOEXPLORATION COMPANY
INDUCED POLARIZATION SURVEY COMPUTATION SHEET

Page _____
Comp by C.S.L.

Project MP & HR Line 3 - Spr. 2 Field date _____ Data page _____ Comp. date _____
a = 250

(A) Send	45	74	45	23	74	45	12	23	74	45		
(B) Receive												
(C) n separation	1	1	2	1	2	3	1	2	3	4		
(D) I	2											
(E) Vdc (avg)	451	412	184.5	385	127.5	75.2	334	133.6	67.8	44.9		
(F) DCcal												
(G) Kn x 10 ⁻³	.75	.75	3	.75	3	7.5	.75	3	7.5	15		
(H) $\rho_{dc} = ExFxGx10^3/D$	177(124)	158(119)	283	148	196	288	128	205	260	344		
(I) Vac Σ	426	383	183	370	120	75.0	330	127.5	67.7	44.7		
(J) AC noise x 2												
(K) Vac (corr) = $\sqrt{I^2 - J^2}$												
(L) AC-DC cal.												
(M) $\rho_{dc}/\rho_{ac} = ExL/K$												
(N) PFE = (M-1)(10 ²)	6.26	9.08	1.1	4.4	6.6	0.6	1.5	5.1	6.8	0.7		
(O) MCF = (M-1)(10 ⁵)/H	35	51	4	30	34	2	12	25	26	2		

Project _____ Line _____ Field date _____ Data page _____ Comp. date _____ Comp by _____

(A) Send	12	23	74	15	12	23	74	15			CAL	
(B) Receive												
(C) n separation	2	3	4	5	3	4	5	6				
(D) I											2000	
(E) Vdc (avg)	83	48.9	29.5	21.67	49.7	31.5	21.4	16.48			195.5	
(F) DCcal											1.023	
(G) Kn x 10 ⁻³	3	7.5	15	26.25	7.5	15	26.25	42				
(H) $\rho_{dc} = ExFxGx10^3/D$	127	188	226	291	171	242	287	354				
(I) Vac Σ	83	46.6	27.8	21.55	44.7	30.2	20.2	16.7			196	
(J) AC noise x 2												
(K) Vac (corr) = $\sqrt{I^2 - J^2}$												
(L) AC-DC cal.											1.003	
(M) $\rho_{dc}/\rho_{ac} = ExL/K$												
(N) PFE = (M-1)(10 ²)	0.3	5.3	6.4	0.9	1.2	4.6	6.3	1.4				
(O) MCF = (M-1)(10 ⁵)/H	2	28	28	3	7	19	22	4				



HEINRICHS GEOEXPLORATION CO.
I. P. SENDER NOTES

PROJECT 229-6B
LINE 3 HALF W SP. 4 DATE 2/5/68

PAGE

SEND	1	2	2	3	1	2	3	4	2	3	1	2	4	5	3	4	2	3	1	2	
RECEIVE	0-25W		25-50W		50-75W			75-100W													
RANGE																					
VOLTAGE	340	340	340	330	340	340	170	230	350	350											
CURRENT	2A	2A	2A	2A	2A	2A	2A	2A	2A	2A	2A	2A	2A	2A	2A	2A	2A	2A	2A	2A	
SEND	4	5	3	4	2	3	1	2	4	5	3	4	2	3	1	2				CAL	
RECEIVE	100-125W		125-150W																	4	5
RANGE																					
VOLTAGE	170	330	350	350	170	330	250	350												170	
CURRENT	2A	2A	2A	2A	2A	2A	2A	2A	2A	2A	2A	2A	2A	2A	2A	2A	2A	2A	2A	2A	

FREQUENCIES .05 3

SENDER NO. 136715

OPERATOR DON

RECEIVER NO. 3641

OPERATOR BOB

COMMENTS :

HEINRICH'S GEOEXPLORATION COMPANY
INDUCED POLARIZATION SURVEY COMPUTATION SHEET

Page _____
Comp by C.S.L.

Project MP 9HR Line 3 - SPR. 2 Field date _____ Data page _____ Comp. date _____
w/2 a = 250'

(A) Send	12	27	12	34	67	12	15	34	27	12		
(B) Receive												
(C) n separation												
(D) I	2											
(E) Vdc (avg)	421	459	186	643	188	105	648	177.1	85.0	52.8		
(F) DCcal												
(G) Kn x 10 ⁻³	.75	.75	3	.75	3	7.5	.75	3	7.5	15		
(H) $\rho_{dc} = ExFxGx10^3/D$	160	174	283	244	286	399	296	267	334	439		
(I) Vac Σ	389	433	184	609	177	104	632	164.5	84.0	57.95		
(J) AC noise x 2												
(K) Vac (corr) = $\sqrt{I^2 - J^2}$												
(L) AC-DC cal.	1,000 used											
(M) $\rho_{dc}/\rho_{ac} = ExL/K$												
(N) PFE = $(M-1)(10^2)$	8.2	6.0	1.1	5.6	6.2	1.0	2.5	5.2	4.8	0.6		
(O) MCF = $(M-1)(10^5)/H$				27	22	3	10	20	14	1		

Project _____ Line _____ Field date _____ Data page _____ Comp. date _____ Comp by _____

(A) Send	45	34	23	12	45	34	23	12			CAL	
(B) Receive												
(C) n separation												
(D) I											2000	
(E) Vdc (avg)	224	98.7	63.2	47.2	100	57.7	41.9	32.4		197.5		
(F) DCcal										1.017		
(G) Kn x 10 ⁻³	3	7.5	15	26.25	7.5	15	26.25	42				
(H) $\rho_{dc} = ExFxGx10^3/D$	340	375	480	628	380	438	557	689				
(I) Vac Σ	217	93.0	59.8	46.5	97	54.1	39.5	31.8		197		
(J) AC noise x 2												
(K) Vac (corr) = $\sqrt{I^2 - J^2}$												
(L) AC-DC cal.										.997	USE 1000	
(M) $\rho_{dc}/\rho_{ac} = ExL/K$												
(N) PFE = $(M-1)(10^2)$	3.2	6.1	5.7	1.5	3.1	6.7	6.1	1.9				
(O) MCF = $(M-1)(10^5)/H$	9	16	12	2	8	15	11	3				

Bob Geizer

HEINRICHS GEOEXPLORATION COMPANY
INDUCED POLARIZATION SURVEY COMPUTATION SHEET

Page _____

Project MPHR Line 2451 W 1/2 Field date 1-31-68 Data page _____ Comp. date _____ . Comp by _____

(A) Send	12	23	12	34	23	12	45	34	23	12		
(B) Receive	0-SW	S-10W		10-15W			15-20W					
(C) n separation	1	1	2	1	2	3	1	2	3	4		
(D) I	2.5	2.5	2.5	2.5	3	3	3	3	3	3		
(E) Vdc (avg)	933.2	834.4	419.8	885.8	244.3	174.5	860.8	216	678.6	55.57		
(F) DCcal												
(G) Kn x 10 ⁻³	1.5	1.5	6	1.5	6	15	1.5	6	15	30		
(H) $\rho_{dc} = ExFxGx10^3/D$	544	486	978	516	474	847	418	408	329	540		
(I) Vac Σ	886	789	400	850	229.5	166	836	201	63.7	53.0		
(J) AC noise x 2												
(K) Vac (corr) = $\sqrt{I^2 - J^2}$												
(L) AC-DC cal.												
(M) $\rho_{dc}/\rho_{ac} = ExL/K$												
(N) PFE = $(M-1)(10^2)$	4.8	5.2	4.4	3.7	5.9	4.6	3.2	4.0	6.0	4.3		
(O) MCF = $(M-1)(10^5)/H$				7	12	5	8	10	18	8		

Project _____ Line _____ Field date _____ Data page _____ Comp. date _____ Comp by _____

(A) Send	45	34	23	12	45	34	23	12	CAL	2A		
(B) Receive	20-25W				25-30W							
(C) n separation	2	3	4	5	3	4	5	6				
(D) I	3								2			
(E) Vdc (avg)	223	85.82	35.99	33.07	66.01	30.67	16.44	16.43	206			
(F) DCcal									971			
(G) Kn x 10 ⁻³	6	15	30	52.5	15	30	52.5	84				
(H) $\rho_{dc} = ExFxGx10^3/D$	433	417	349	562	320	298	279	447				
(I) Vac Σ	216	82.9	34.0	31.8	64.2	30.0	15.45	15.6	205			
(J) AC noise x 2												
(K) Vac (corr) = $\sqrt{I^2 - J^2}$												
(L) AC-DC cal.									995			
(M) $\rho_{dc}/\rho_{ac} = ExL/K$												
(N) PFE = $(M-1)(10^2)$	2.7	3.0	5.3	3.5	2.3	1.7	5.9	4.8				
(O) MCF = $(M-1)(10^5)/H$	6	7	15	6	7	6	21	11				



HEINRICH'S GEOEXPLORATION CO.
I.P. RECEIVER NOTES

PROJECT
LINE 4

MPHR

1-31-68

HALF W SP. 1 DATE

PAGE

SEND	12	23	12	34	23	12	45	34	23	12
RECEIVE	0-5W	S-10W	—	10-15W	—	—	15-20W	—	—	—
RANGE	1000	1000	1000	1000	300	300	1000	300	100	100
DC 1	930936	836832	420419	884888	245244	175174	860862	206214	638720	512600
DC 2	930936	836833	420420	885886	245244	175174	860862	206214	638720	512600
DC 3	931936	836834	420420	885886	244244	175174	859862	206214	636720	510601
DC 4										
DC 5	S									
DC 6	P									
DC 7										
DC 8										
DC AVG.	933.2	839.4	419.8	885.8	244.3	174.5	860.8	210	678.6	55.57
AC 1	886	788	400	850	229	166	830	201	63.6	53.0
AC 2	886	790	400	850	230	166	830	201	63.8	53.0
AC AVG.	886	789	400	850	229.5	166	830	201	63.7	53.0
S.P.	+1.6	-0.5	—	+1.8	—	—	-2.3	—	—	—
AC NOISE	2.3	2.3	—	2.3	—	—	2.3	—	—	—
POT RES.	700	700	—	800	—	—	1.5K	—	—	—

2000
W
0
7



HEINRICH'S GEOEXPLORATION CO.
I.P. RECEIVER NOTES

PROJECT
LINE 4

MPHR

1-31-68

HALF W SP. 1 DATE

PAGE

SEND	45	34	23	12	45	34	23	12	CAL	AS 2A
RECEIVE	20-25 W	—	—	—	25-30 W	—	—	—		
RANGE	300	100	100	100	100	100	30	30		
DC 1	222 223	860 858	359 360	332 328	688 632	340 276/	164 165	161 171		
DC 2	222 224	856 858	360 360	332 330	690 631	304 308	164 165	156 172		
DC 3	223 224	861 856	360 360	332 331	688 631	302 308	166 160	156 174		
DC 4						302 309		152 178		
DC 5									206	
DC 6						306			206	
DC 7									206	
DC 8									206	
DC AVG.	223	85.82	35.99	33.07	66.01	30.67	16.44	16.43	206	
AC 1	216	82.8	34.0	31.8	64.2	30.0	15.4	15.6	205	
AC 2	216	83.0	34.0	31.8	64.2	30.0	15.5	15.6	205	
AC AVG.	216	82.9	34.0	31.8	64.2	30.0	15.45	15.6	205	
S.P.	-2.2	—	—	—	-20.1	—	—	—		
AC NOISE	5.3	—	—	—	5.3	—	—	—		
POT RES.	1.5K	—	—	—	1.5K	—	—	—		



HEINRICH'S GEOEXPLORATION CO.
I. P. SENDER NOTES

PAGE _____
PROJECT _____
LINE 4 HALF W SP. L DATE 1/31/68

SEND	1	2	2	3	1	2	3	4	2	3	1	2	4	5	3	4	2	3	1	2
RECEIVE	0-5W	5-10W	→	10-15W	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
RANGE																				
VOLTAGE	370	320	370	290	380	450	320	350	380	450										
CURRENT	2.5A	2.5A	2.5A	2.5A	3A	3A	3A	3A	3A	3A										
SEND	4	5	3	4	2	3	1	2	4	5	3	4	2	3	1	2				CA L
RECEIVE	20-25W	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→				4 5
RANGE																				
VOLTAGE	320	350	380	450	320	350	380	450												220
CURRENT	3A	3A	3A	3A	3A	3A	3A	3A	3A	3A										2A

FREQUENCIES: .05 3

SENDER NO. 6644 S

OPERATOR DON

RECEIVER NO. 5644 R

OPERATOR JIM

COMMENTS:

HEINRICHS GEOEXPLORATION COMPANY
INDUCED POLARIZATION SURVEY COMPUTATION SHEET

Page _____

Project MP1HR Line L4-51-E₂ Field date 1-31-68 Data page _____ Comp. date _____ . Comp by _____

(A) Send	45	34	45	23	34	45	12	23	34	45		
(B) Receive	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____		
(C) n separation												
(D) I	2	_____	_____	_____	_____	_____	_____	_____	3	_____		
(E) Vdc (avg)	1307	1460	657	998	456	261	569	214	228.9	155.5		
(F) DCcal												
(G) Kn x 10 ⁻³	1.5	1.5	6	1.5	6	15	1.5	6	15	20		
(H) $\rho_{dc} = ExFxGx10^3/D$	475	531	956	363	663	949	207	311	554	754		
(I) Vac Σ	(480)	(538)	(967)									
(J) AC noise x 2												
(K) Vac (corr) = $\sqrt{I^2 - J^2}$												
(L) AC-DC cal.												
(M) $\rho_{dc}/\rho_{ac} = ExL/K$		(5.3)	(5.0)	(4.2)								
(N) PFE = $(M-1)(10^2)$ <small>corrected to 3%</small>	114	5.4	5.3	4.1	5.7	2.1	2.2	4.5	4.6	2.9	1.2	
(O) MCF = $(M-1)(10^5)/H$	11	9	4	16	3	2	22	15	5	2		

Project _____ Line _____ Field date _____ Data page _____ Comp. date _____ Comp by _____

(A) Send	12	23	34	45	12	23	34	45			CAL	
(B) Receive	_____	_____	_____	_____	_____	_____	_____	_____				
(C) n separation												
(D) I	_____	_____	_____	_____	_____	_____	_____	_____	_____	2000		
(E) Vdc (avg)	100.6	48.5	37.7	26.9	33.7					412		
(F) DCcal										1485		
(G) Kn x 10 ⁻³	6	15	20	52.5	15							
(H) $\rho_{dc} = ExFxGx10^3/D$	98	118	181	228	82							
(I) Vac Σ										446		
(J) AC noise x 2												
(K) Vac (corr) = $\sqrt{I^2 - J^2}$												
(L) AC-DC cal.												
(M) $\rho_{dc}/\rho_{ac} = ExL/K$												
(N) PFE = $(M-1)(10^2)$	3.7	4.5	1.7	1.7	3.3?							
(O) MCF = $(M-1)(10^5)/H$	38	38	9	7	40							



HEINRICHS GEOEXPLORATION CO.
I.P. RECEIVER NOTES

PROJECT
LINE 4

MPHR
HALF E SP. 1 DATE

1-30-68

SEND	45	34	45	23	34	45	12	23	34	45
RECEIVE	0-SE	S-10E	—	10-15E	—	—	15-20E	—	—	—
RANGE	1000	1000	1000	1000	300	300	300	300	300	100
DC 1	660646	730730	330328	499499	230226	128133	284285	108106	114114	780774
DC 2	662645	730730	330326	499499	231226	128133	284285	108106	115114	784771
DC 3	662644	730730	330326	499499	230226	128133	284285	108106	114114	780778
DC 4										780771
DC 5										
DC 6	P			P						
DC 7	5.4	5.3	4.1	5.7	2.1	2.2	4.5	4.6	2.9	1.2
DC 8	4.1	4.0	3.1	4.3	1.6	1.7	3.4	3.5	2.2	0.9
DC AVG.	1307	1460	657	998	456	261	569	214	228.4	155.5
AC 1	680	760	345	518	242	140	298	112	121	83.4
AC 2	680	760	345	518	244	138	298	112	121	83.5
AC AVG.	1360	1520	690	1036	486	278	596	224	242	166.9
S.P.	+17.9	0	—	7.4	—	—	-8.0	—	—	—
AC NOISE	2.1	2.1	—	2.1	—	—	2.1	—	—	—
POT RES.	1K	1K	—	200	—	—	500	—	—	—

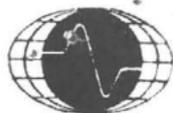


HEINRICHS GEOEXPLORATION CO.
I.P. RECEIVER NOTES

PROJECT MPHR 1-30-62
LINE 4 HALF E SP. 1 DATE _____

PAGE

SEND	12	23	34	45	12	23	34	45	CAL	2A 12
RECEIVE	20-25E	—	—	—	25-30E	—	—	—	300	
RANGE	100	30	30	30	30	30				
DC 1	480526	266218	189185	132135	175164					190
DC 2	480526	246238	188185	134136	176161					
DC 3	480526	246240	188185	134135	178156					
DC 4		245240			179158					
DC 5									206	
DC 6									206	
DC 7	2.2	3.5	1.7	1.7	3.3?				206	130
DC 8	2.8	3.4	1.2	1.2	2.5?				206	17
DC AVG.	100.6	48.5	37.3	26.9	33.7				442	190
AC 1	53.0	25.4	20.0	14.4	16.0				222	212.5
AC 2	53.0	25.4	19.9	14.4	17.8				224	212
AC AVG.	106.0	50.8	39.9	28.8	35.6?				446	412.7
S.P.	+3.0	—	—	—	+28.1	—	—	—	105.2	105.2
AC NOISE	<.1	—	—	—	<.1	—	—	—		
POT RES.	550	—	—	—	1.5K	—	—	—		



HEINRICH'S GEOEXPLORATION CO.
I. P. SENDER NOTES

PROJECT MPH & R
LINE 4 HALF E SP. 1 DATE 1-30-68

PAGE

SEND	4-5	3-4	4-5	2-3	3-4	4-5	1-2	2-3	3-4	4-5
RECEIVE	0-5E	5-10E	—	10-15E	—	—	15-20E	—	—	—
RANGE	Hi	—	—	—	—	—	Hi	Hi	—	—
VOLTAGE	220	230	220	270	230	220	320	265	350	330
CURRENT	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	3.0	3.0
SEND	1-2	2-3	3-4	4-5	1-2	2-3	3-4	4-5	1-2	
RECEIVE	20-25E	—	—	—	25-30E	—	—	—	CAL.	2A, 1, 2
RANGE	Hi	Hi	—	—	Hi	Hi	—	—	Lo	
VOLTAGE	480	400	350	325	470	400			320	
CURRENT	3.0	3.0	3.0	3.0	3.0	3.0			2.0	

FREQUENCIES .05 3

SENDER NO. 6644-S

OPERATOR M'LOY

RECEIVER NO. 5644R

OPERATOR KING

COMMENTS :



HEINRICHS GEOEXPLORATION CO.
I. P. SENDER NOTES

PAGE

PROJECT MPHR
LINE 5 HALF W SP. 1 DATE 2-1-65

SEND	12	23	12	34	23	12	45	34	23	12
RECEIVE	0-5W	5-10W	---	10-15W	---	---	15-20W	---	---	---
RANGE	Hi	---	---	---	---	---	---	---	---	---
VOLTAGE	430	380	430	180	280	320	200	180	280	320
CURRENT	4.0	4.0	4.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
SEND	45	34	23	12	45	34	23	12	CAL	2A, 45
RECEIVE	20-25W	---	---	---	25-30W	---	---	---	10-15W	---
RANGE	Hi	---	---	---	---	---	---	---	Hi	---
VOLTAGE	200	180	280	320	200	180	280	320	180	---
CURRENT	4.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.0	---

FREQUENCIES .05 Hz 3.0 Hz

SENDER NO. 6644-S

OPERATOR M'Gov

RECEIVER NO. 5644-R

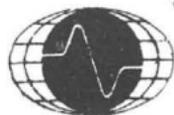
OPERATOR KING

COMMENTS:

1 START 3:07 - 40 Sec, AC, 12 Blips DC, 40 Sec

2 START 3:20

3 START 3:32:10



HEINRICHS GEOEXPLORATION CO.
I.P. RECEIVER NOTES

PROJECT
LINE S

MPHR

HALF W SP. 1 DATE 2-1-68

PAGE

SEND	12	23	12	31	23	12	45	34	23	12
RECEIVE	0-SW	S-10W	—	10-15W	—	—	15-20W	—	—	—
RANGE	1000	1000	300	1000	300	100	1000	300	300	100
DC 1	686 682	780 776	221 215	778 776	218 215	868 920	822 820	304 306	124 120	625 576
DC 2	686 682	780 776	220 215	778 776	216 216	864 918	822 820	304 306	124 120	620 572
DC 3	686 682	780 776	220 216	780 778	218 215	864 918	822 820	303 306	124 119	625 570
DC 4										
DC 5										
DC 6		P								
DC 7										
DC 8										
DC AVG.	684	778	217.7	777.6	216.3	89.22	821	304.8	121.9	59.81
AC 1	668	756	211	752	210	86.1	800	294	118	58.0
AC 2	670	757	211	754	210	86.1	800	292	117	58.0
AC AVG.	669	756.5	211	753	210	86.1	800	293	117.5	58.0
S.P.	+38.1	+4.6	—	-9.1	—	—	-3.3	—	—	—
AC NOISE	<.2	2.2	—	2.2	—	—	2.2	—	—	—
POT RES.	900	1.5K	—	212	—	—	800	—	—	—



HEINRICH'S GEOEXPLORATION CO.
I.P. RECEIVER NOTES

PROJECT
LINE 5

MAHR
HALF W SP. 1 DATE 2-1-68

PAGE

SEND	45	34	23	12	45	34	23	12	CAL	24	45
RECEIVE	20-25W	—	—	—	25-30W	—	—	—	300		
RANGE	300	100	100	30	100	100	100	30			
DC 1	160 160	881 895	432 410	214 236	982 952	638 598	338 298	174 190			
DC 2	160 160	884 891	435 406	216 235	982 950	640 590	308 326	175 192			
DC 3	160 160	888 890	438 409	216 236	990 946	646 582	311 320	171 190			
DC 4					994 945	651 583	312 320	173 186			
DC 5							306	178 190	206		
DC 6									206		
DC 7									206		
DC 8									206		
DC AVG.	160	88.87	42.14	22.56	96.8	61.7	31.6	18.2	206		
AC 1	155	85.9	41.0	21.6	94.0	58.6	30.6	17.4			
AC 2	155	85.9	40.8	21.8	94.0	58.6	30.6	17.4	206		
AC AVG.	155	85.9	40.9	21.7	94.0	58.6	30.6	17.4	206		
S.P.	+3.6	—	—	—	-3.2	—	—	—	206		
AC NOISE	2.3	—	—	—	5.2	—	—	—			
POT RES.	600	—	—	—	700	—	—	—			

HEINRICHS GEOEXPLORATION COMPANY
INDUCED POLARIZATION SURVEY COMPUTATION SHEET

Page _____

Project MP 1HR Line 5 - a = 500' Field date _____ Data page _____ Comp. date _____ . Comp by C.W.L.

$W \frac{1}{2}$

(A) Send	12	23	12	34	23	12	45	34	23	12		
(B) Receive	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____		
(C) n separation												
(D) I	4	4	4	3	_____	_____	_____	_____	_____	_____		
(E) Vdc (avg)	684	778	217.7	777.6	216.3	89.22	821	309.8	121.9	59.8		
(F) DCcal												
(G) Kn x 10 ⁻³	1.5	1.5	6	1.5	6	15	1.5	6	15	30		
(H) $\rho_{dc} = ExFxGx10^3/D$	249	283	317	377	420	432	398	591	590	579		
(I) Vac Σ	669	756.5	211.0	753	210	86.1	800	293	117.5	58.0		
(J) AC noise x 2												
(K) Vac (corr) = $\sqrt{I^2 - J^2}$												
(L) AC-DC cal.												
(M) $\rho_{dc}/\rho_{ac} = ExL/K$												
(N) PFE = $(M-1)(10^2)$	2.2	2.9	3.1	3.2	3.0	3.7	2.6	4.1	3.7	3.1		
(O) MCF = $(M-1)(10^5)/H$				8	7	9	7	7	6	5		

Project _____ Line _____ Field date _____ Data page _____ Comp. date _____ Comp by _____

(A) Send	45	34	23	12	45	34	23	12			CAL	
(B) Receive	_____	_____	_____	_____	_____	_____	_____	_____				
(C) n separation												
(D) I	4	3	_____	_____	_____	_____	_____	_____	_____	_____	2000	
(E) Vdc (avg)	160	88.9	42.1	22.56	96.8	61.7	31.6	18.2			206	
(F) DCcal											.971	
(G) Kn x 10 ⁻³	6	15	30	52.5	15	30	52.5	84				
(H) $\rho_{dc} = ExFxGx10^3/D$	233	431	408	382	469	598	537	493				
(I) Vac Σ	155	85.9	40.9	21.7	94.0	58.6	30.6	17.4			206	
(J) AC noise x 2												
(K) Vac (corr) = $\sqrt{I^2 - J^2}$												
(L) AC-DC cal.											1.000	
(M) $\rho_{dc}/\rho_{ac} = ExL/K$												
(N) PFE = $(M-1)(10^2)$	3.2	3.4	2.9	3.9	3.0	5.3	3.2	4.6				
(O) MCF = $(M-1)(10^5)/H$	14	8	7	10	6	9	6	9				



HEINRICHS GEOEXPLORATION CO.
I. P. SENDER NOTES

PROJECT MPHR
LINE 5 HALF E SP. 1 DATE 2-1-68

PAGE

SEND	45	34	45	23	34	45	12	23	34	45
RECEIVE	0-5E	5-10E	—	10-15E	—	—	15-20E	—	—	—
RANGE	Hi	—	—	—	—	—	—	—	—	—
VOLTAGE	270	230	270	390	230	270	440	390	230	270
CURRENT	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
SEND	12	23	34	45	12	23	34	45	CAL	2A, 12
RECEIVE	20-25E	—	—	—	25-30E	—	—	—	—	—
RANGE	Hi	—	—	—	—	—	—	—	Hi	—
VOLTAGE	440	380	230	410	440	—	—	—	220	—
CURRENT	4.0	4.0	4.0	6.0	4.0	—	—	—	2.0	—

FREQUENCIES .0542 - 3.0 Hz

SENDER NO. 6644-S

OPERATOR McGy

RECEIVER NO. 5644-R

OPERATOR KING

COMMENTS:

(ON RECEIVER STATION 20-25E THE CURRENT
D.C.
READS 4.6 ON METER.)
LAST SETUP WAS JAMMED



HEINRICH'S GEOEXPLORATION CO.
I.P. RECEIVER NOTES

PROJECT MPHR 2-1-68
LINE S HALF E SP. 1 DATE _____

SEND	45	34	45	23	34	45	12	23	34	45
RECEIVE	0-SE	S-10E	—	10-15E	—	—	15-20E	—	—	—
RANGE	1000	1000	300	1000	300	300	300	100	100	100
DC 1	772775	720710	232220	390392	205208	10099	141140	826836	562548	336314
DC 2	772774	720709	232220	391392	205208	10099	141140	824836	562548	336315
DC 3	772775	720709	232220	390392	205208	10099	141140	824838	562548	336314
DC 4										
DC 5										
DC 6	P	—	—	—	—	—	—	—	—	—
DC 7										
DC 8										
DC AVG.	773.3	715.7	231	391.2	206.5	99.5	140.5	83.04	55.5	32.52
AC 1	746	678	214	380	211	102	130	78.4	53.2	31.2
AC 2	746	678	214	380	211	102	128	78.6	53.2	31.0
AC AVG.	746	678	214	380	211	102	129	78.5	53.2	31.1
S.P.	+0.5	+20.0	—	-4.8	—	—	-3.1	—	—	—
AC NOISE	<.2	<.2	—	<.2	—	—	<.2	—	—	—
POT RES.	1K	1.5K	—	1K	—	—	200	—	—	—



2376 34

.16 INCL 12 AMPS

HEINRICH'S GEOEXPLORATION CO.
I.P. RECEIVER NOTESPROJECT
LINE

MPHR

2-1-68

HALF E SP. 1 DATE

PAGE

SEND	12	23	34	45	12	23	34	45	CAL	2A 12
RECEIVE	20-25E	————	————	————	25-30E	————	————	————		
RANGE	30	30	30	30	30					
DC 1	196200	146164	126121	121125						
DC 2	195201	146165	126121	121124						
DC 3	194202	145165	126121	121126						
DC 4										
DC 5									206.5	
DC 6									206	
DC 7									206.5	
DC 8									206	
DC AVG.	19.78	15.51	12.35	12.29	JAMMING?	?			206.25	—
AC 1	18.5	15.0	12.0	12.0					205	
AC 2	18.5	15.0	12.0	12.0					205	
AC AVG.	18.5	15.00	12.00	12.0					205	—
S.P.	42.9	————	————	————	+0.6	————	————	————		
AC NOISE	4.6	————	————	————	10.7	————	————	————		
POT RES.	1K	————	————	————	1K	————	————	————		

HEINRICHS GEOEXPLORATION COMPANY
INDUCED POLARIZATION SURVEY COMPUTATION SHEET

Page _____

Project MPHR Line 5 - a = 500' Field date _____ Data page _____ Comp. date _____ . Comp by C.L.L.

E_L

(A) Send	45	34	45	23	34	45	12	23	34	45		
(B) Receive												
(C) n separation												
(D) I	4											
(E) Vdc (avg)	773.3	715.7	231	391.2	206.5	99.5	140.5	83.04	55.5	32.52		
(F) DCcal												
(G) Kn x 10 ⁻³	1.5	1.5	6	1.5	6	15	1.5	6	15	30		
(H) ρ _{dc} = ExFxGx10 ³ /D	281.25	260.25	335.326	142	300	362	51	120	202	236		
(I) Vac Σ	746	678	214	380	211	102	129	78.5	53.2	31.1		
(J) AC noise x 2												
(K) Vac (corr) = √I ² - J ²												
(L) AC-DC cal.												
(M) ρ _{dc} /ρ _{ac} = ExL/K												
(N) PFE = (M-1)(10 ²)	3.03.0	5.036?	7.252?	2.2	-2.7	-3.1	8.2	5.1	3.7	3.9		
(O) MCF = (M-1)(10 ⁵)/H	11	14?	16?	15	-9	-9	161	43	18	16		

Project _____ Line _____ Field date _____ Data page _____ Comp. date _____ Comp by _____

(A) Send	12	23	34	45	12	23	34	45			CAL	
(B) Receive												
(C) n separation												
(D) I				6	4						2000	
(E) Vdc (avg)	19.78	15.51	12.35	12.29	+						206.25	
(F) DCcal											.969	+4 =
(G) Kn x 10 ⁻³	6	15	30	52.5								
(H) ρ _{dc} = ExFxGx10 ³ /D	29	56	90	104								
(I) Vac Σ	18.5	15.00	12.00	12.00							205	
(J) AC noise x 2												
(K) Vac (corr) = √I ² - J ²												
(L) AC-DC cal.											994	
(M) ρ _{dc} /ρ _{ac} = ExL/K												
(N) PFE = (M-1)(10 ²)	6.2	2.9	2.3	1.9								
(O) MCF = (M-1)(10 ⁵)/H	214	52	26	18								



HEINRICH'S GEOEXPLORATION CO.
I. P. SENDER NOTES

PROJECT 229.68
LINE 5 HALF W SP. 2 DATE 3/1/68

SEND	1	2	2	3	1	2	3	4	2	3	1	2	4	5	3	4	2	3	1	2
RECEIVE	25-20E		20-15E		→		15-10E		→		10-5E		→		→		→		→	
RANGE																				
VOLTAGE	400	340	400	270	340	400	320	270	340	400										
CURRENT	6A	6A	6A	6A	6A	6A	6A	6A	6A	6A	6A	6A	6A	6A	6A	6A	6A	6A	6A	6A
SEND	4	5	3	4	2	3	1	2	4	5	3	4	2	3	1	2				CAL
RECEIVE	5-0E		→		→		0-5W		→		→		→		→					
RANGE																				
VOLTAGE	320	270	340	400	320	270	340	400												110
CURRENT	6A	6A	6A	6A	6A	6A	6A	6A	6A	6A	6A	6A	6A	6A	6A	6A	6A	6A	6A	2A

FREQUENCIES .05 3

SENDER NO. 15672S

OPERATOR DDN

RECEIVER NO. 3641

OPERATOR BOB

COMMENTS :



HEINRICHS GEOEXPLORATION CO.
I.P. RECEIVER NOTES

PROJECT
LINE

B-229-68

5 HALF W SP. 2 DATE 2-7

SEND	4-3	3-4	2-3	1-2	4-5	3-4	2-3	1-2	CA 2
RECEIVE	5			0				500	4-3
RANGE	300	30	30	10	100	30	10	10	300
DC 1	115 115	229 209	91 88	446 386	776 766	173 178	796 843	430 375	193
DC 2	114 116	220 216	89 89	413 428	783 758	170 178	790 824	464 327	193
DC 3		224 215	90 88	424 424	783 764	172 177	800 774	495 336	193
DC 4		223 218		413 443	776 766	171 178	845 768	490 352	193
DC 5				414 444			850 746	459 391	
DC 6									
DC 7									
DC 8	114.8								
DC AVG.	71.5	21.9	8.91	4.24	77.2	17.45	8.07	4.10	193
AC 1	109	21.4	8.8	4.20	74.6	17.1	7.93	4.03	193
AC 2	109	21.4	8.8	4.20	74.3	17.2	7.93	4.03	193
AC AVG.					74.4	17.15			
S.P.	-2				+33				
AC NOISE	.04				.05				
POT RES.		BENT	LINE	AROUND	PIPE	LINE			



HEINRICHS GEOEXPLORATION CO.
I. P. SENDER NOTES

PROJECT 229-6B
LINE 5 HALF E SP. 2 DATE 2/7/68

PAGE

SEND	4	5	3	4	4	5	2	3	3	4	4	5	1	2	2	3	3	4	4	5
RECEIVE	25-30E	30-35E				35-40E							40-45E							
RANGE																				
VOLTAGE	480	420	480	370	420	480	420	370	420	480	480	480	420	370	420	480	420	480	480	480
CURRENT	9A	9A	9A	6A	9A	9A	9A	6A	6A	6A	6A	6A	6A	6A	9A	9A	9A	9A	9A	9A
SEND	1	2	2	3	3	4	4	5	1	2	2	3	3	4	4	5				
RECEIVE	45-50E							50-55E												
RANGE																				
VOLTAGE	400	350	410	480	400	350	410	480	400	400	350	410	480	480	480	480				140
CURRENT	6A	6A	9A	9A	6A	6A	9A	9A	6A	6A	6A	9A	9A	9A	9A	9A				2A

FREQUENCIES 05 3

COMMENTS :

SENDER NO. 156735

OPERATOR DON

RECEIVER NO. 3641

OPERATOR BOB

HEINRICHS GEOEXPLORATION COMPANY
INDUCED POLARIZATION SURVEY COMPUTATION SHEET

Page _____

Project B-229-68 Line 5-S2-W Field date _____ Data page _____ Comp. date _____ . Comp by _____

(A) Send	1-2	2-3	1-2	3-4	2-3	1-2	4-5	3-4	2-3	1-2		
(B) Receive	25-20		15			10				5		
(C) n separation												
(D) I	6											
(E) Vdc (avg)	75.5	79.4	14.88	134.5	28.4	9.91	267	40.7	12.70	4.91		
(F) DCcal	1.036											
(G) Kn x 10 ⁻³	1.5	1.5	6	1.5	6	15	1.5	6	15	30		
(H) $\rho_{dc} = ExFxGx10^3/D$	20	21	15	35	29	26	69	42	33	25		
(I) Vac Σ	75.35	79.3	14.75	134	28.4	9.8	259.5	40.05	12.55	4.80		
(J) AC noise x 2												
(K) Vac (corr) = $\sqrt{I^2 - J^2}$												
(L) AC-DC cal.	1.000											
(M) $\rho_{dc}/\rho_{ac} = ExL/K$												
(N) PFE = $(M-1)(10^2)$	0.2	0.1	0.9	0.4	0.0	1.1	2.9	1.6	1.2	2.3		
(O) MCF = $(M-1)(10^5)/H$	10	5	60	11	00	42	42	38	36	92		

Project _____ Line _____ Field date _____ Data page _____ Comp. date _____ Comp by _____

(A) Send	4-5	3-4	2-3	1-2	4-5	3-4	2-3	1-2	CAL			
(B) Receive	5			0				5	4-5			
(C) n separation												
(D) I	6									2A		
(E) Vdc (avg)	114.8	21.9	8.91	4.24	77.2	17.45	8.07	4.10	193			
(F) DCcal	1.036											
(G) Kn x 10 ⁻³	6	15	30	52.5	15	30	52.5	84				
(H) $\rho_{dc} = ExFxGx10^3/D$	119	57	46	38	200	90	73	59				
(I) Vac Σ	109	21.4	8.8	4.20	74.4	17.15	7.93	4.03	193			
(J) AC noise x 2												
(K) Vac (corr) = $\sqrt{I^2 - J^2}$												
(L) AC-DC cal.	1.000											
(M) $\rho_{dc}/\rho_{ac} = ExL/K$												
(N) PFE = $(M-1)(10^2)$	5.3	2.3	1.3	1.0	3.8	1.7	1.8	1.7				
(O) MCF = $(M-1)(10^5)/H$	45	40	28	26	19	19	25	29				

HEINRICHS GEOEXPLORATION COMPANY
INDUCED POLARIZATION SURVEY COMPUTATION SHEET

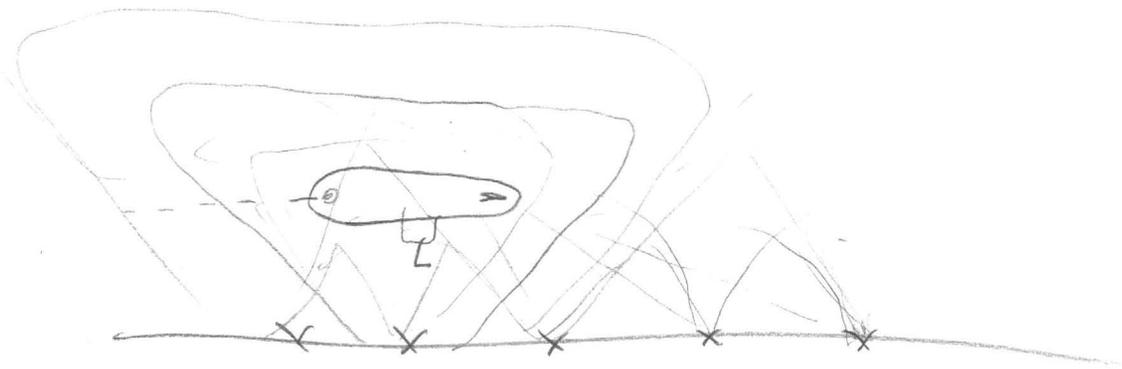
Page _____

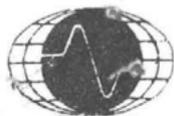
Project B-229 Line 5-S2E Field date 2/8/68 Data page _____ Comp. date _____ . Comp by _____

(A) Send	4-5	3-4	4-5	2-3	3-4	4-5	1-2	2-3	3-4	4-5		
(B) Receive	25-30		35			40				45		
(C) n separation												
(D) I	9	9	9	6	9	9	6	6	9	9		
(E) Vdc (avg)	116	114.5	22.9	92.1	17.61	8.6	111	14.8	7.11	5.25		
(F) DCcal	1.015											
(G) Kn x 10 ⁻³	1.5	1.5	6	1.5	6	15	1.5	6	15	30		
(H) $\rho_{dc} = ExFxGx10^3/D$	20	19	15	23	12	15	28	15	12	18		
(I) Vac Σ	115	113	22.8	92	17.5	8.5	110	14.7	7.03	5.185		
(J) AC noise x 2												
(K) Vac (corr) = $\sqrt{I^2 - J^2}$												
(L) AC-DC cal.	1.000											
(M) $\rho_{dc}/\rho_{ac} = ExL/K$												
(N) PFE = $(M-1)(10^2)$	0.9	1.3	0.4	0.1	0.6	1.2	0.9	0.7	1.1	1.3		
(O) MCF = $(M-1)(10^5)/H$	45	68	27	4	50	80	32	47	92	72		

Project _____ Line _____ Field date _____ Data page _____ Comp. date _____ Comp by _____

(A) Send	1-2	2-3	3-4	4-5	1-2	2-3	3-4	4-5	CAL			
(B) Receive	45			50				55	1-2			
(C) n separation												
(D) I	6	6	9	9	6	6	9	9	2			
(E) Vdc (avg)	14.7	5.27	3.39	3.00	5.06	2.55	1.888	1.937	197			
(F) DCcal	1.015											
(G) Kn x 10 ⁻³	6	15	30	52.5	15	30	52.5	84				
(H) $\rho_{dc} = ExFxGx10^3/D$	15	13	11	18	13	13	11	18				
(I) Vac Σ	14.7	5.26	3.35	2.98	5.01	2.52	1.88	1.90	197			
(J) AC noise x 2												
(K) Vac (corr) = $\sqrt{I^2 - J^2}$												
(L) AC-DC cal.	1.000											
(M) $\rho_{dc}/\rho_{ac} = ExL/K$												
(N) PFE = $(M-1)(10^2)$	0.0	0.2	1.8	0.7	0.0	1.2	0.4	1.9				
(O) MCF = $(M-1)(10^5)/H$	00	15	109	39	77	92	36	106				





HEINRICHS GEOEXPLORATION CO.
I.P. RECEIVER NOTES

PROJECT MPHR 2-2-68
LINE 6 HALF W SP. 1 DATE _____

SEND	12	23	12	34	23	12	45	34	23	12
RECEIVE	0-5W	S-10W	—	10-15W	—	—	15-20W	—	—	—
RANGE	1000	1000	300	1000	1000	300	1000	300	300	300
DC 1	570606	838842	209209	895894	324322	126120	702706	226230	124128	172167
DC 2	570606	840842	209209	892896	325320	125120	702704	226230	125125	172167
DC 3	570606	840842	209209	892896	325320	125121	702704	226230	128124	172169
DC 4	1176			189	6	6	8		12	19
DC 5				186	5	5	6		13	19
DC 6				188	5	6	6		12	21
DC 7				188		27			60	97
DC 8				29						
DC AVG.	588	841	206.5	894	322.8	122.7	703	228	126	169.7
AC 1	566	812	201	846	310	119	680	219	119	165
AC 2	566	812	201	850	306	119	680	219	119	165
AC AVG.	566	812	201	848	308	119	680	219	119	165
S.P.	+31.1	+6.1	—	-1.8	—	—	+7.8	—	—	—
AC NOISE	<.2	<.2	—	<.2	—	—	<.2	—	—	—
POT RES.	600	700	—	700	—	—	112	—	—	—



HEINRICH'S GEOEXPLORATION CO.
I.P. RECEIVER NOTES

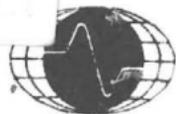
PROJECT
LINE 6

MPHR

HALFW 1 SP. 1 DATE 2-2-68

PAGE

SEND	45	34	23	12	45	34	23	12	CAL	45 2A
RECEIVE	20-25W				25-30W					
RANGE	1000	300	300	100	300	100	100	100		
DC 1	390 390	186 186	125 124	632 601	156 161	976 976	738 746	400 400		
DC 2	390 391	185 188	125 124	636 601	156 161	990 980	752 754	397 401		
DC 3	390 391	185 188	125 124	636 604	156 161	985 981	750 754	400 400		
DC 4	8	12		2	117		749 752	400 400		
DC 5		11		33	55.5		758 748	400 400	206	
DC 6		13		33					206	
DC 7		62		77					206	
DC 8				104					206	
DC AVG.	390	186.2	124.5	61.8	158.5	98.2	75.1	40.0	206	
AC 1							71.15	38.45	205	
AC 2	378	176	118	59.8	154	93.0	71.2	38.5	205	
AC AVG.	378	176	118	59.8	154	93.0	71.1	38.4		
S.P.	-2.7				+1.6					
AC NOISE	1.2				1.2					
POT RES.	800				600					



HEINRICH'S GEOEXPLORATION CO.
I. P. SENDER NOTES

PROJECT MPHR
LINE 6 HALF W SP. 1 DATE 2-2-68

SEND	12	23	12	34	23	12	45	34	23	12
RECEIVE	0-5W	5-10W	—	10-15W	—	—	15-20W	—	—	—
RANGE	Hi	—	—	—	—	—	—	—	—	—
VOLTAGE	220	210	220	200	210	220	130	140	140	440
CURRENT	3.0	3.0	3.0	3.0	3.0	3.0	2.0	2.0	2.0	6.0
SEND	45	34	23	12	45	34	23	12	CAL	2A, 45
RECEIVE	20-25W	—	—	—	25-30W	—	—	—	10-15W	—
RANGE	Hi	—	—	—	—	—	—	—	Hi	—
VOLTAGE	390	410	420	430	390	410	420	430	130	—
CURRENT	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	2.0	—

FREQUENCIES .05 HZ 3.0 HZ

SENDER NO. 6644-S

OPERATOR McGoy

RECEIVER NO. 5644-R

OPERATOR KING

COMMENTS :

START: 1:23:30 30 Sec. AC. Etc.

HEINRICHS GEOEXPLORATION COMPANY
INDUCED POLARIZATION SURVEY COMPUTATION SHEET

Project MP & HR Line 6 ^{wh} _{n=500} Field date _____ Data page _____ Comp. date _____

(A) Send	12	23	12	34	23	12	25	30	23	12		
(B) Receive												
(C) n separation												
(D) I	3	3	3	3	3	3	2	2	2	6		
(E) Vdc (avg)	588	841	206.5	894	323	122.7	703	228	126	169.7		
(F) DCcal												
(G) Kn x 10 ⁻³	1.5	1.5	6	1.5	6	1.5	1.5	6	1.5	30		
(H) $\rho_{dc} = ExFxGx10^3/D$	285	408	401	433	628	596	512	667	918	824		
(I) Vac Σ	566	812	201	848	308	119	680	219	119	165		
(J) AC noise x 2												
(K) Vac (corr) = $\sqrt{I^2 - J^2}$												
(L) AC-DC cal.												
(M) $\rho_{dc}/\rho_{ac} = ExL/K$												
(N) PFE = $(M-1)(10^2)$	3.3	3.0	2.2	4.9	4.3	2.6	2.9	3.6	5.3	2.2		
(O) MCF = $(M-1)(10^5)/H$				11	7	4	6	5	6	3		

Project _____ Line _____ Field date _____ Data page _____ Comp. date _____ Comp by _____

(A) Send	45	34	23	12	45	34	23	12		CAI		
(B) Receive												
(C) n separation												
(D) I	6	6	6	6	6	6	6	6		2000		
(E) Vdc (avg)	390	186.2	124.5	61.8	158.5	98.2	75.1	40.0		206		
(F) DCcal										.971		
(G) Kn x 10 ⁻³	6	15	30	52.5	15	30	52.5	84				
(H) $\rho_{dc} = ExFxGx10^3/D$	378	452	605	525	384	477	639	593				
(I) Vac Σ	378	176	118	59.8	154	93.0	71.1	38.4		205		
(J) AC noise x 2												
(K) Vac (corr) = $\sqrt{I^2 - J^2}$												
(L) AC-DC cal.										0.995		
(M) $\rho_{dc}/\rho_{ac} = ExL/K$												
(N) PFE = $(M-1)(10^2)$	2.7	5.2	4.9	2.9	2.3	5.0	5.1	3.7				
(O) MCF = $(M-1)(10^5)/H$	7	12	8	6	6	10	8	7				



HEINRICH'S GEOEXPLORATION CO.
I.P. RECEIVER NOTES

PROJECT 229-68 PAGE
LINE 6 HALF E SP. 1 DATE 2-2-68

SEND	45	34	45	23	34	45	12	23	34	45
RECEIVE	0-SE	5-10E	—	10-15E	—	—	15-20E	—	—	—
RANGE	546.548	1000	300	1000	300	300	1000	300	100	100
DC 1	546.548	386.385	134.136	446.442	151.146	160.165	350.350	161.160	791.762	534.500
DC 2	546.548	386.385	135.136	446.442	151.146	160.165	350.350	161.160	791.762	534.500
DC 3		386.385	135.136	446.442	151.146	160.165	350.350	161.160	791.762	534.500
DC 4	1600									
DC 5			11							
DC 6			11							
DC 7			11							
DC 8										
DC AVG.	547	385.5	135.4	444	148.5	162.5	350	160.5	77.6	51.7
AC 1	534.	370	134	425	141	156	340	154	74.5	50.6
AC 2	535	370	134	425	141	156	340	154	74.5	50.4
AC AVG.	534.5	370	134	425	141	156	340	154	74.5	50.5
S.P.	+17.1	-6.6	—	-2.6	—	—	+2.8	—	—	—
AC NOISE	2.1	2.1	—	2.1	—	—	2.2	—	—	—
POT RES.	500	500	—	11C	—	—	400	—	—	—



HEINRICH'S GEOEXPLORATION CO.
I.P. RECEIVER NOTES

30
51
49
49
48

2
1
2
1
2

PROJECT
LINE 6

HALF E SP.

DATE

PAGE

2-2-68

SEND	12	23	34	45	12	23	34	45	CAL	2A	1L
RECEIVE	20-25E	—	—	—	25-30 E	—	—	—			
RANGE	100	100	30	30	30	30	10	10			
DC 1	508 486	340 310	208 170	142 140	164 163	134 130	868 822	692 700			
DC 2	510 485	341 308	186 191	141 141	164 164	134 129	878 818	682 700			
DC 3	511 484	341 308	188 191	140 142	164 163	135 129	881 812	680 700			
DC 4	994		188 191		165 164	134 129	890 801	678 706			
DC 5	996						900 796	678 700	206		
DC 6	996							683	206		
DC 7	995								206		
DC 8	976								206		
DC AVG.	49.8	32.48	18.93	14.08	16.39	13.18	8.48	6.91	206		
AC 1	49.2	31.8	18.4	14.0	16.4	12.8	8.22	6.82	205		
AC 2	49.4	31.8	18.4	14.0	16.4	12.8	8.24	6.84	205		
AC AVG.	49.3	31.8	18.4	14.0	16.4	12.8	8.23	6.83	205		
S.P.	+25.1	—	—	—	-11.6	—	—	—			
AC NOISE	< 2	—	—	—	2.2	—	—	—			
POT RES.	2K	—	—	—	600	—	—	—			



HEINRICH'S GEOEXPLORATION CO.
I. P. SENDER NOTES

PROJECT MPGR
LINE 6 HALF E SP. 1 DATE 2-2-68

PAGE

SEND	4-5	3-4	4-5	2-3	3-4	4-5	1-2	2-3	3-4	4-5
RECEIVE	0-5E	5-10-E	—	10-15E	—	—	15-20E	—	—	—
RANGE	Hi	—	—	—	—	—	—	—	—	—
VOLTAGE	130	140	130	200	200	380	420	420	400	380
CURRENT	2.0	2.0	2.0	3.0	3.0	6.0	6.0	6.0	6.0	6.0
SEND	1-2	2-3	3-4	4-5	1-2	2-3	3-4	4-5	CAL	2A, 1-2
RECEIVE	20-25E	—	—	—	25-30E	—	—	—	10-15E	—
RANGE	Hi	—	—	—	—	—	—	—	Hi	—
VOLTAGE	420	420	400	380	420	410	400	380	140	—
CURRENT	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	2.0	—

FREQUENCIES .05 HZ 3.0 HZ

SENDER NO. 6644-S

OPERATOR M' Coy

RECEIVER NO. 5644-R

OPERATOR KING

COMMENTS :

HEINRICH'S GEOEXPLORATION COMPANY
INDUCED POLARIZATION SURVEY COMPUTATION SHEET

Page _____

Project MP4HR Line 6-E₂ Field date _____ Data page _____ Comp. date _____ Comp by C.S.L.

$a = 500'$

(A) Send	45	34	45	23	34	45	12	23	34	45		
(B) Receive												
(C) n separation												
(D) I	2	2	2	3	3	6						
(E) Vdc (avg)	547	385.5	135.9	444	148.5	162.5	350	160.5	77.6	51.7		
(F) DCcal												
(G) Kn x 10 ⁻³	1.5	1.5	6	1.5	6	15	1.5	6	15	30		
(H) $\rho_{dc} = ExFxGx10^3/D$	399.08	280.28	394.398	216	288	395	85	156	188	251		
(I) Vac Σ	534.5	370	134	425	141	156	240	154	71.5	50.5		
(J) AC noise x 2												
(K) Vac (corr) = $\sqrt{I^2 - J^2}$												
(L) AC-DC cal.												
(M) $\rho_{dc}/\rho_{ac} = ExL/K$												
(N) PFE = $(M-1)(10^2)$	2.0(2.5)	3.6(3.5)	0.7(1.5)	4.0	4.8	3.7	2.3	3.8	3.6	1.9		
(O) MCF = $(M-1)(10^5)/H$	6	12	4	19	17	9	27	24	19	8		

Project _____ Line _____ Field date _____ Data page _____ Comp. date _____ Comp by _____

(A) Send	12	23	34	45	12	23	34	45				
(B) Receive												
(C) n separation												
(D) I											2000	
(E) Vdc (avg)	49.8	32.48	18.93	14.08	16.39	13.18	9.48	6.91			206	
(F) DCcal											0.971	
(G) Kn x 10 ⁻³	6	15	30	52.5	15	30	52.5	84				
(H) $\rho_{dc} = ExFxGx10^3/D$	48	79	92	120	40	64	72	94				
(I) Vac Σ	49.3	31.8	18.4	14.0	16.4	12.8	8.23	6.83			205	
(J) AC noise x 2												
(K) Vac (corr) = $\sqrt{I^2 - J^2}$												
(L) AC-DC cal.											0.995	
(M) $\rho_{dc}/\rho_{ac} = ExL/K$												
(N) PFE = $(M-1)(10^2)$	0.4	1.7	2.3	0.0	-0.6	2.3	2.6	0.7				
(O) MCF = $(M-1)(10^5)/H$	8	22	25	0	-15	36	36	7				

MP & HR

Samples

2/12/68

DD Core

Our recommended PH at line 3
187.5E

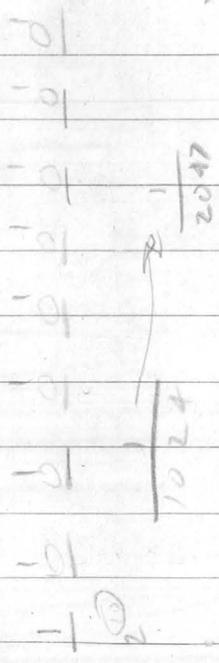
27' 0.6 PFE

53' 32.9 PFE

99 2.9 PFE

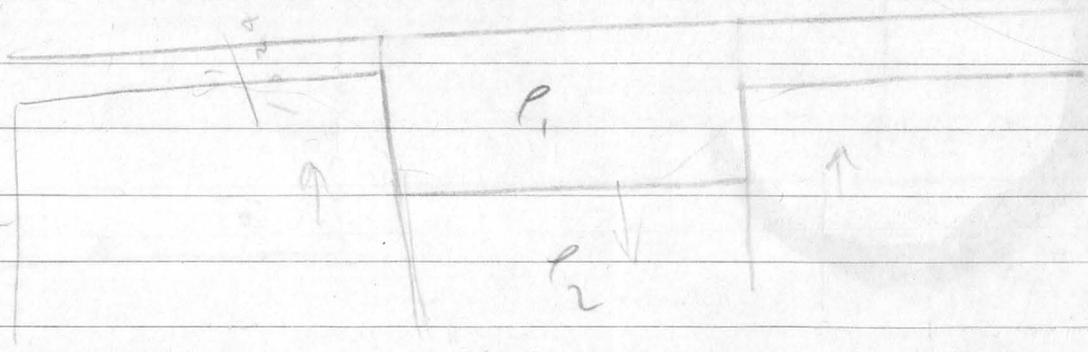
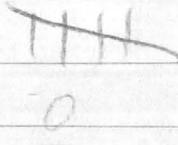
Surgic with sample 19.3 PFE

$\frac{1}{6 \text{ bit}} = 1 \text{ PPM}$
 $10^6 = M$



$1 \times 10^2 + 3 \times 10^1 + 2 \times 10^0$
 10^2

999
1000
1001
999



P-P

S-S

6000

3500

6000

3500

3000

1750

6000

3500

3000

1750

6000

3500

8500

6000

6000

3500

44,500

27,000

La

So

Sh

Sch

Qtzite

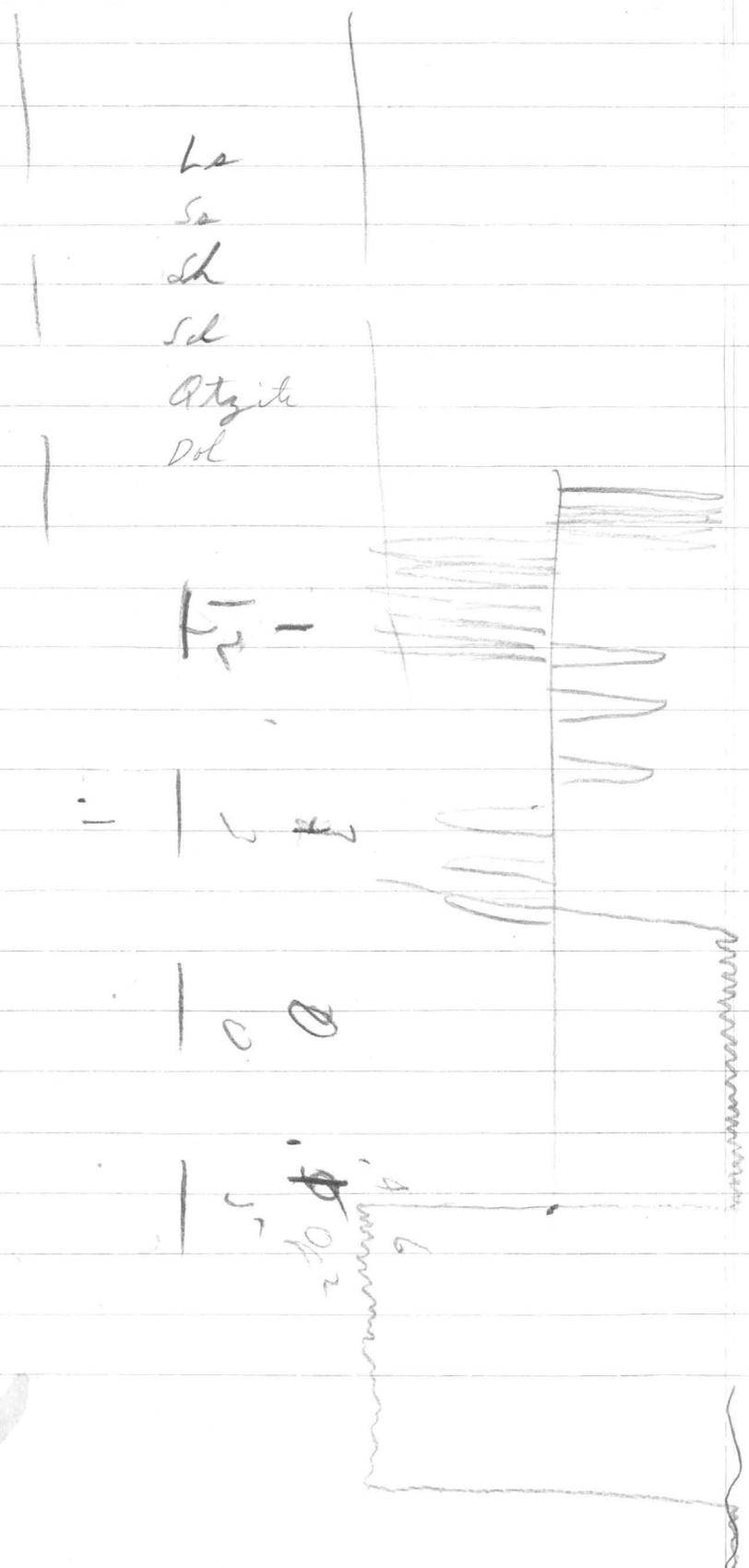
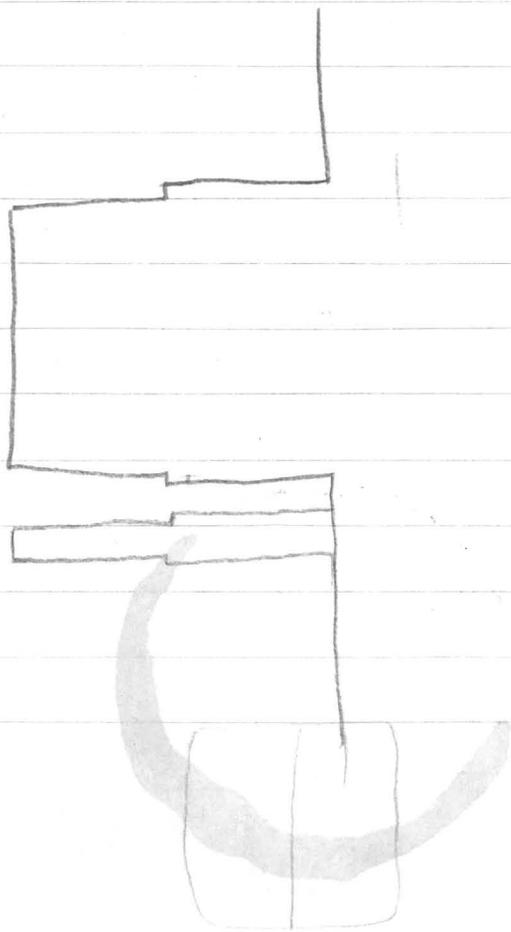
Dol

F₂ -

o o

o o

2 to 4
9



LIST ADDITIONAL CHECKS HERE

CHECK NUMBER			
AC	189.5	CAL	
DC	186.0		1.017
	186.5	CAL	
642	AC	MPHHR	
658	DC		
641	↓		
659	↓	99'	
643	↓		(2.2)
652	TC		
654	AC		
652	DC		
674	↓		(2.9)
654	↓		
677	↓		
659	AC		
777	AC		
797		99'	Rpt
783			Dry
799			
793			
802			(2.9)
797			
795	AC		

Please Show Total Deposit on Reverse Side

LIST ADDITIONAL CHECKS HERE

MP & HR

CHECK NUMBER		
647 AC		53'
864 DC		
838		
858		
843		
857	∨	
654 AC		
614 AC		
617 DC		
599		
620		27'
598	∨	
617 AC		
719 AC		
846 DC		Surface
842		
838		
840	∨	Oxide
715 AC		

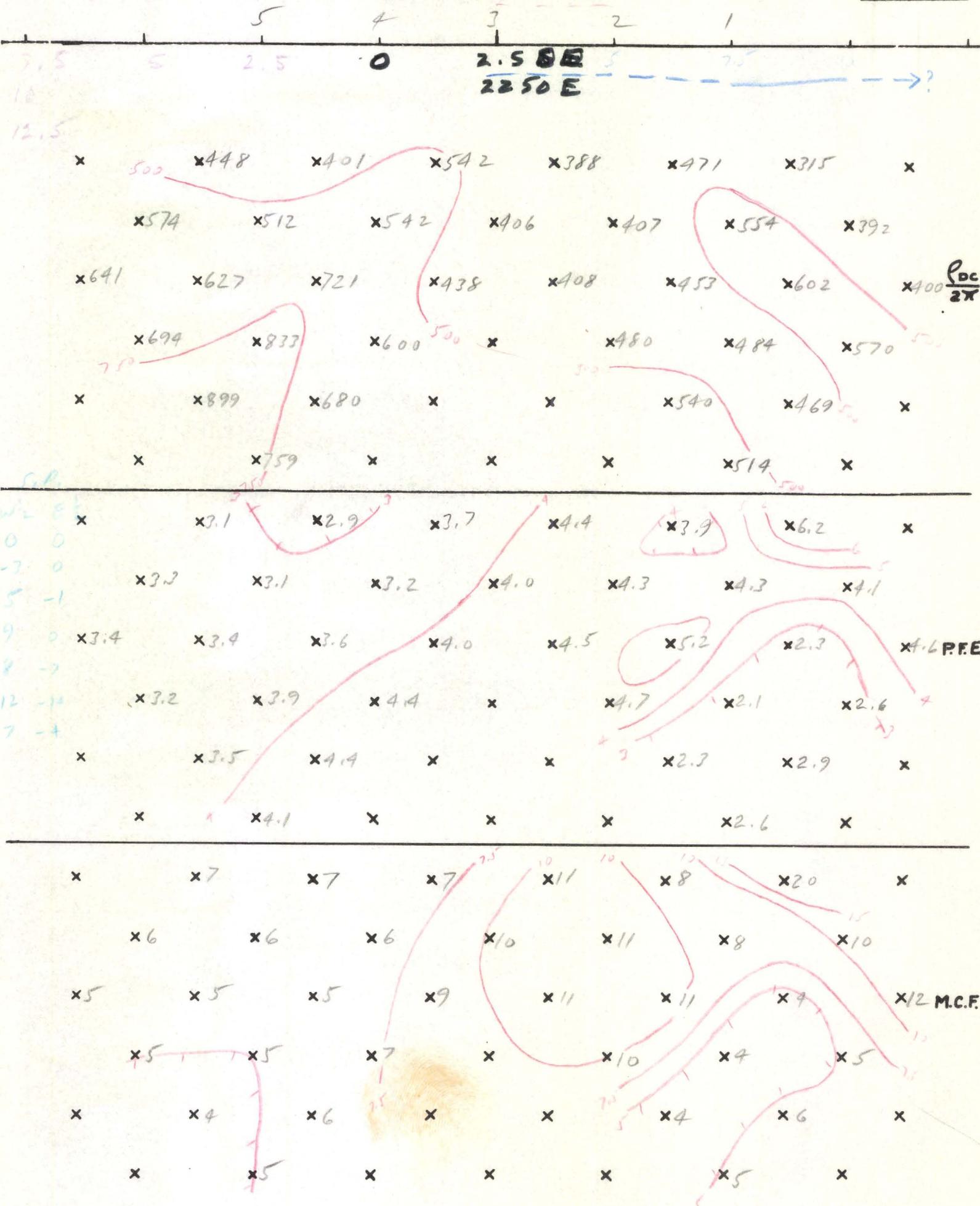
32.9

0.6

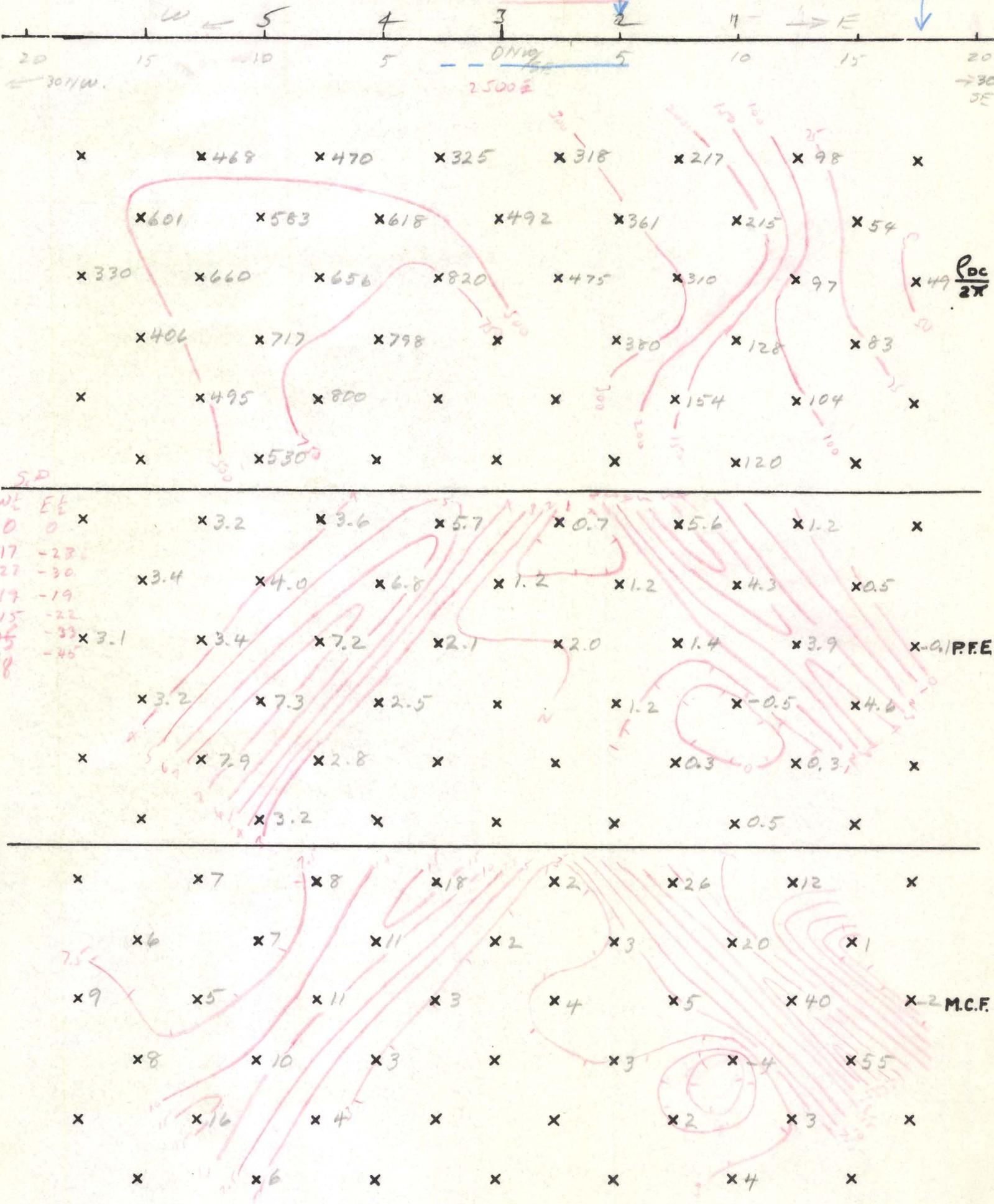
19.3

Please Show Total Deposit on Reverse Side

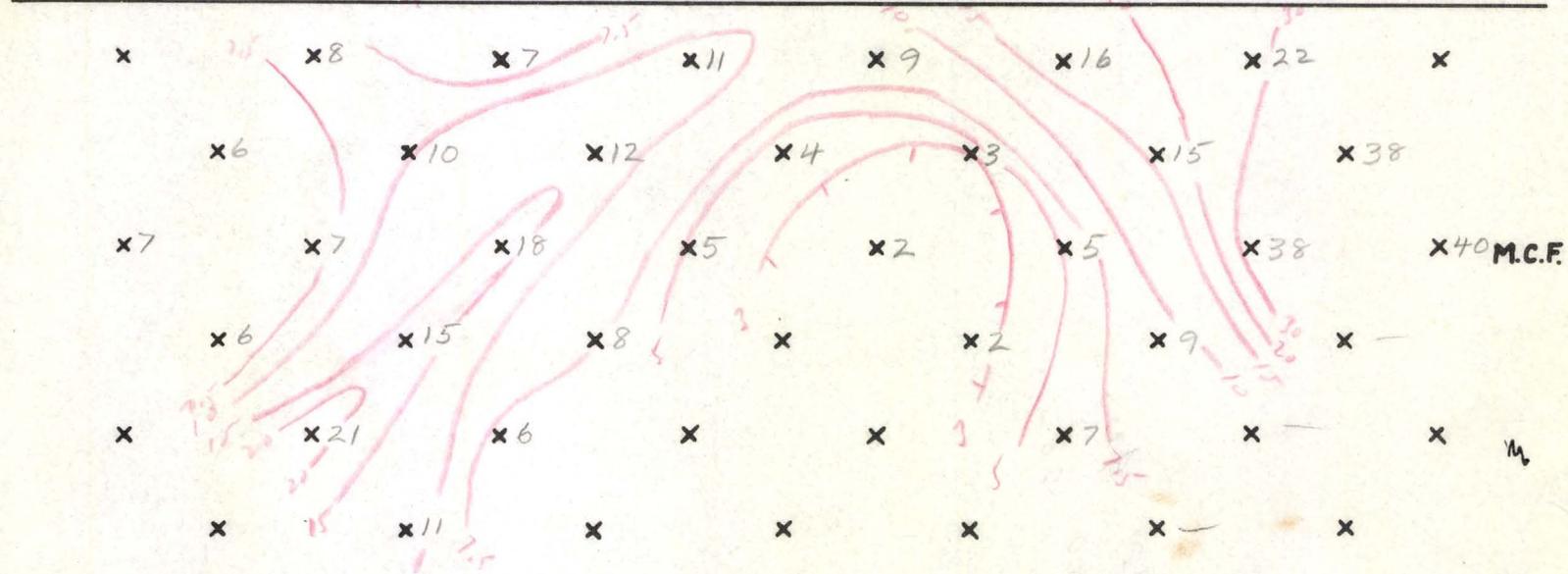
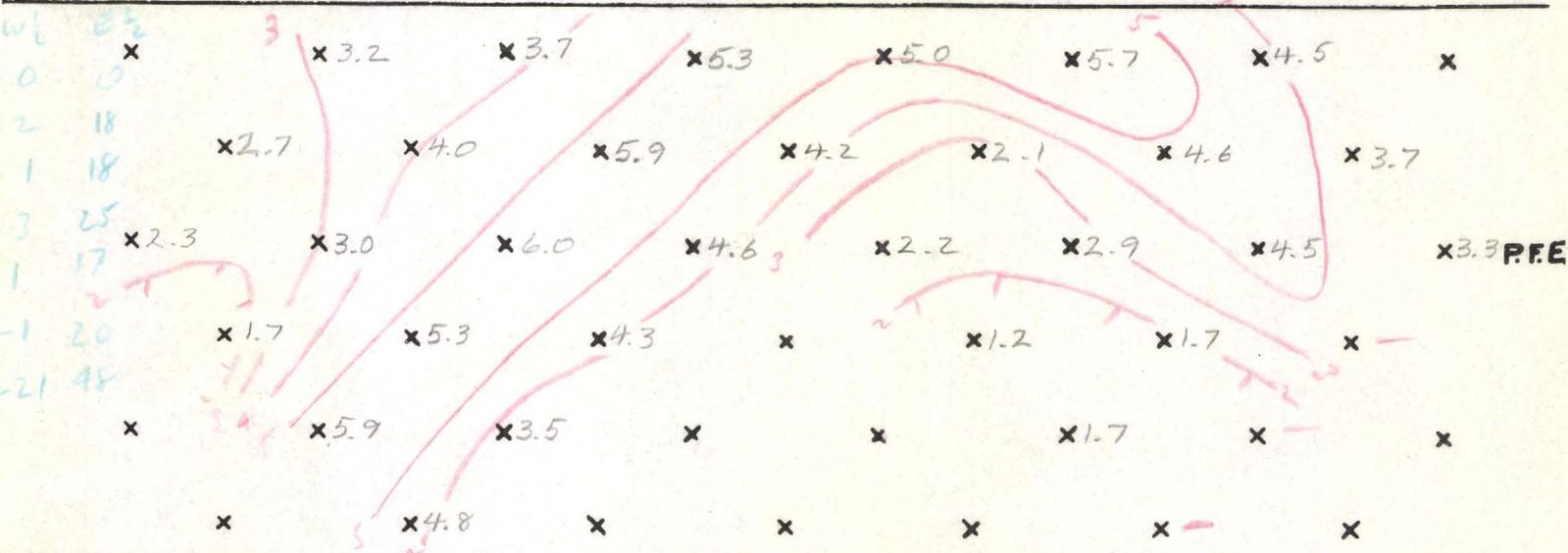
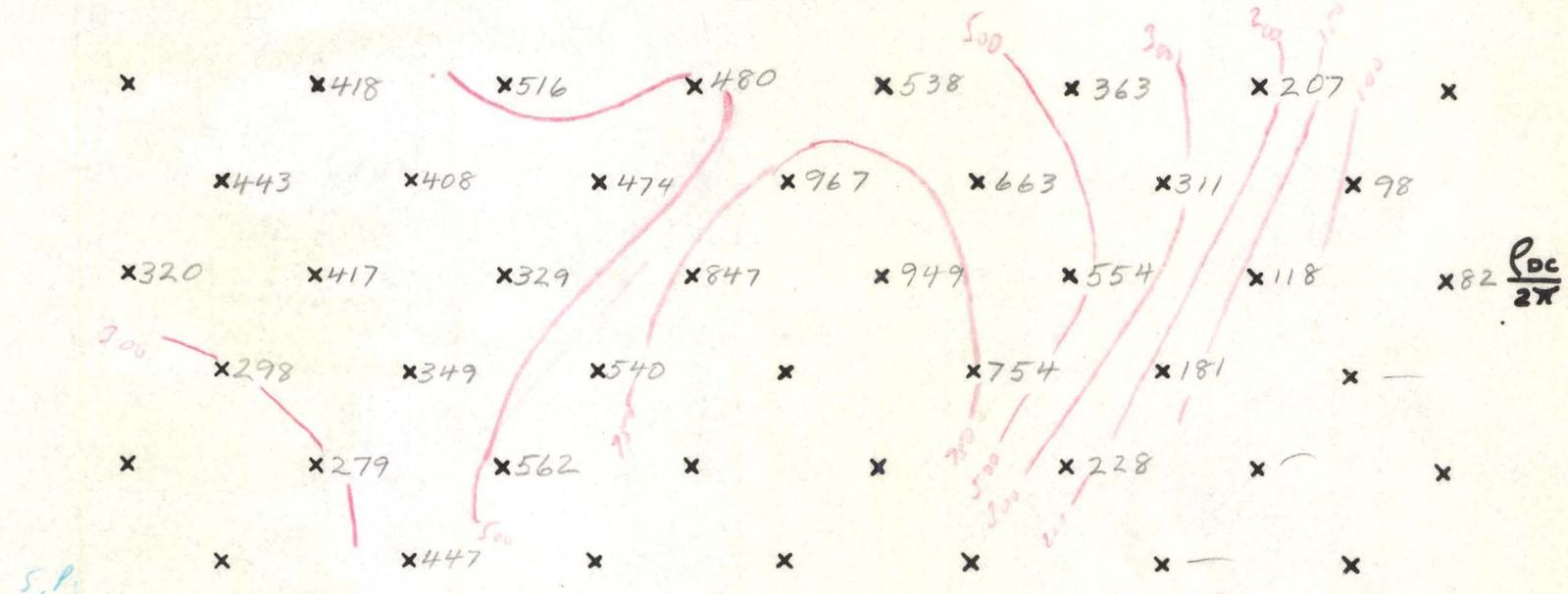
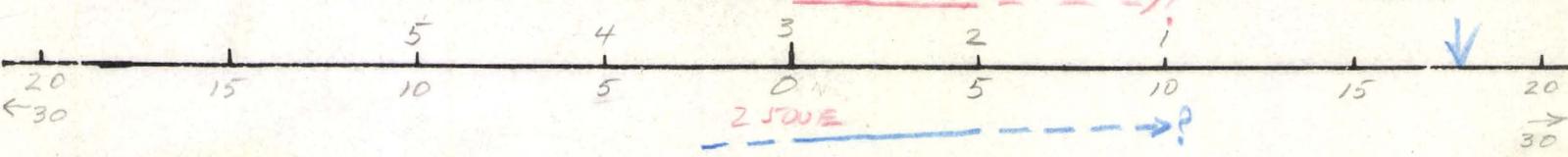
HEINRICHS GEOEX. INDUCED POLARIZATION SECTIONAL DATA PLOT, LOOKING N 28 E

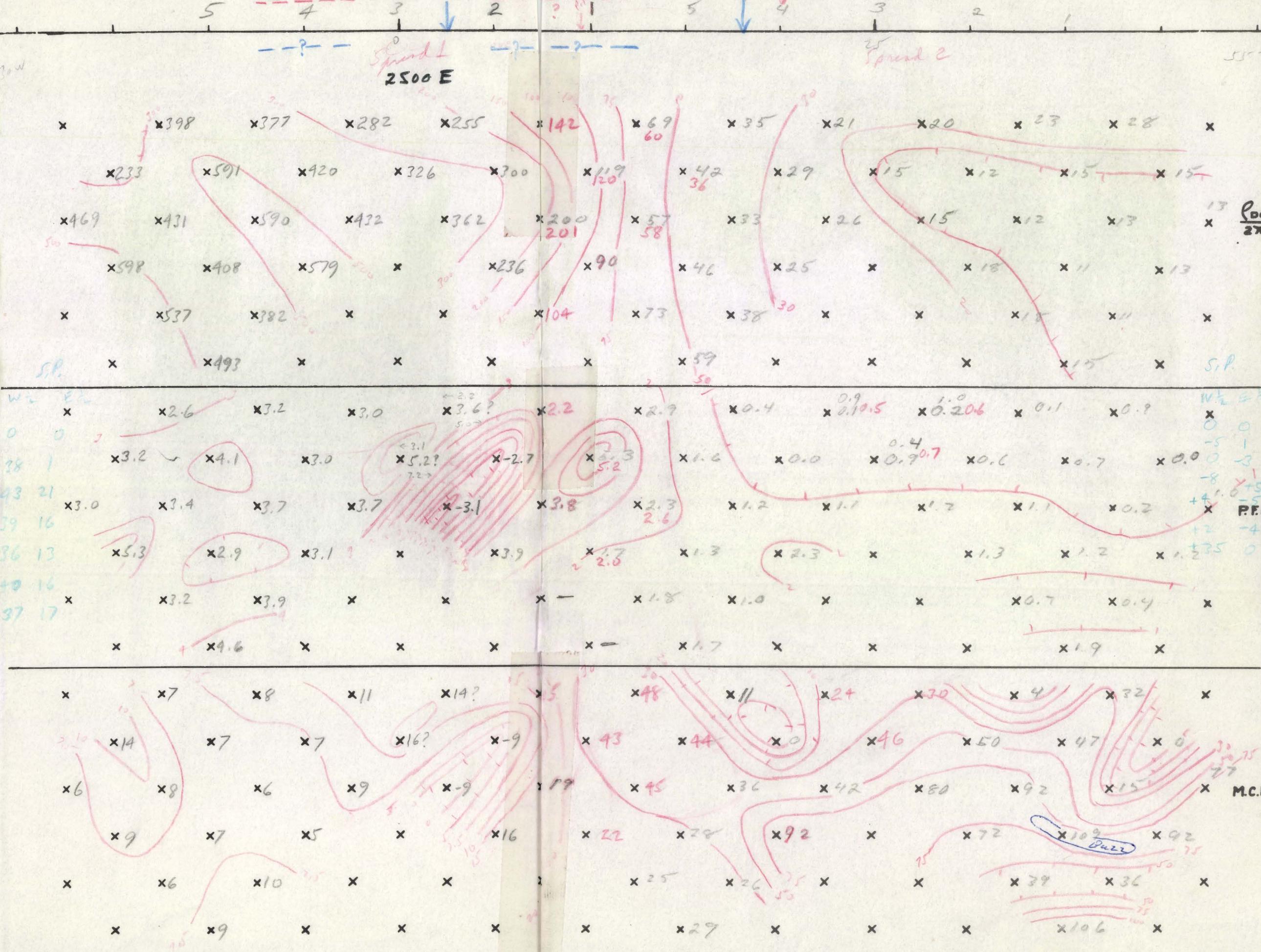


HEINRICHS GEOEX. INDUCED POLARIZATION SECTIONAL DATA PLOT, LOOKING N 28° E

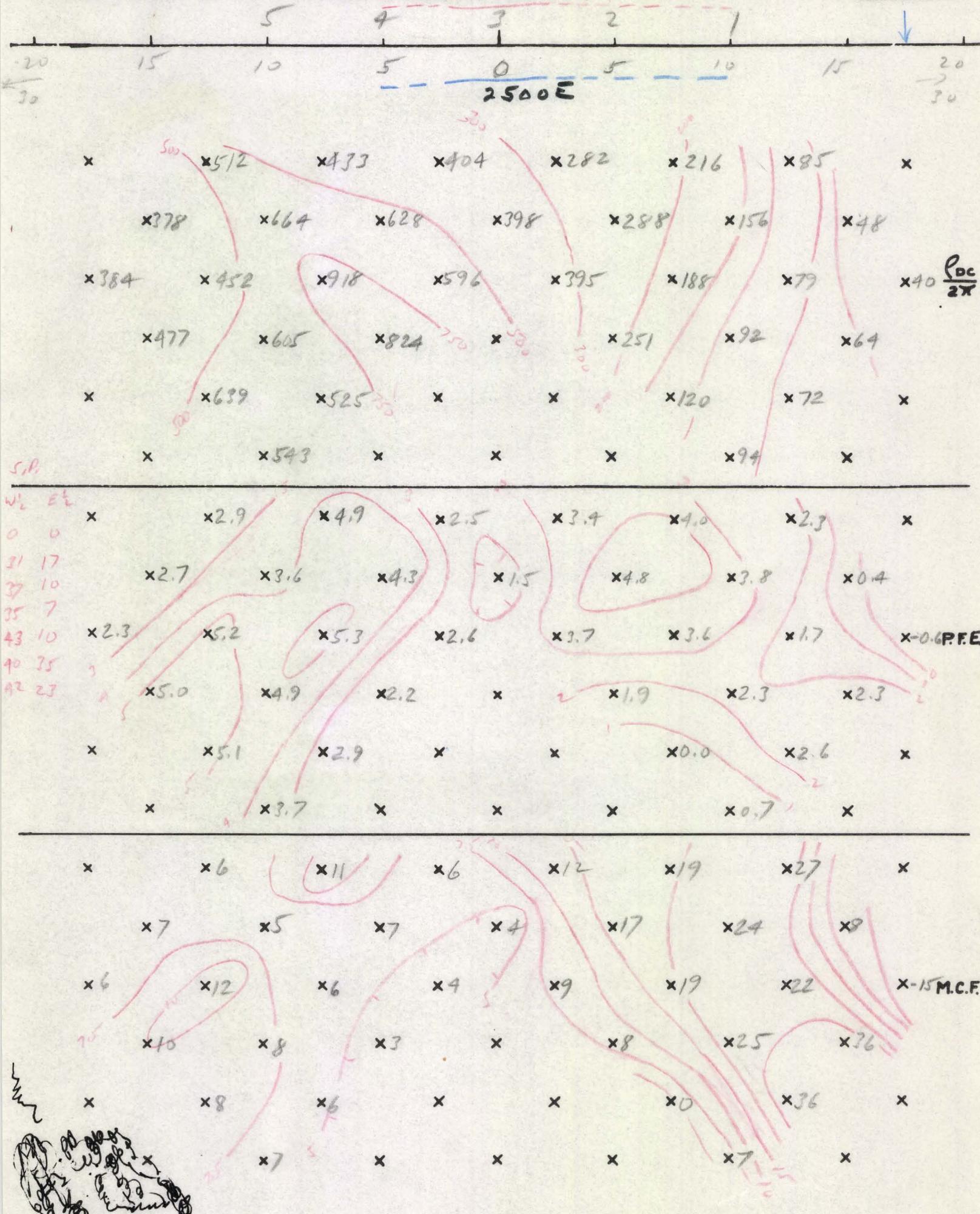


HEINRICHS GEOEX. INDUCED POLARIZATION SECTIONAL DATA PLOT, LOOKING $N 28^{\circ} E$



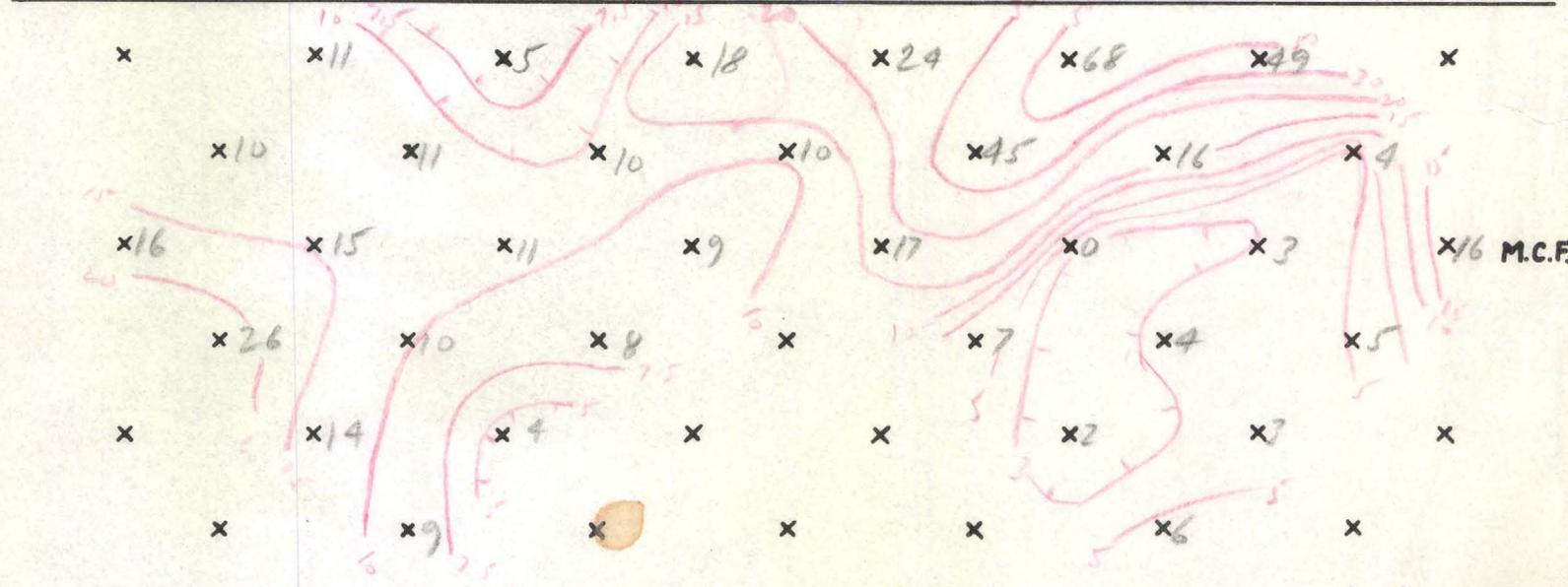
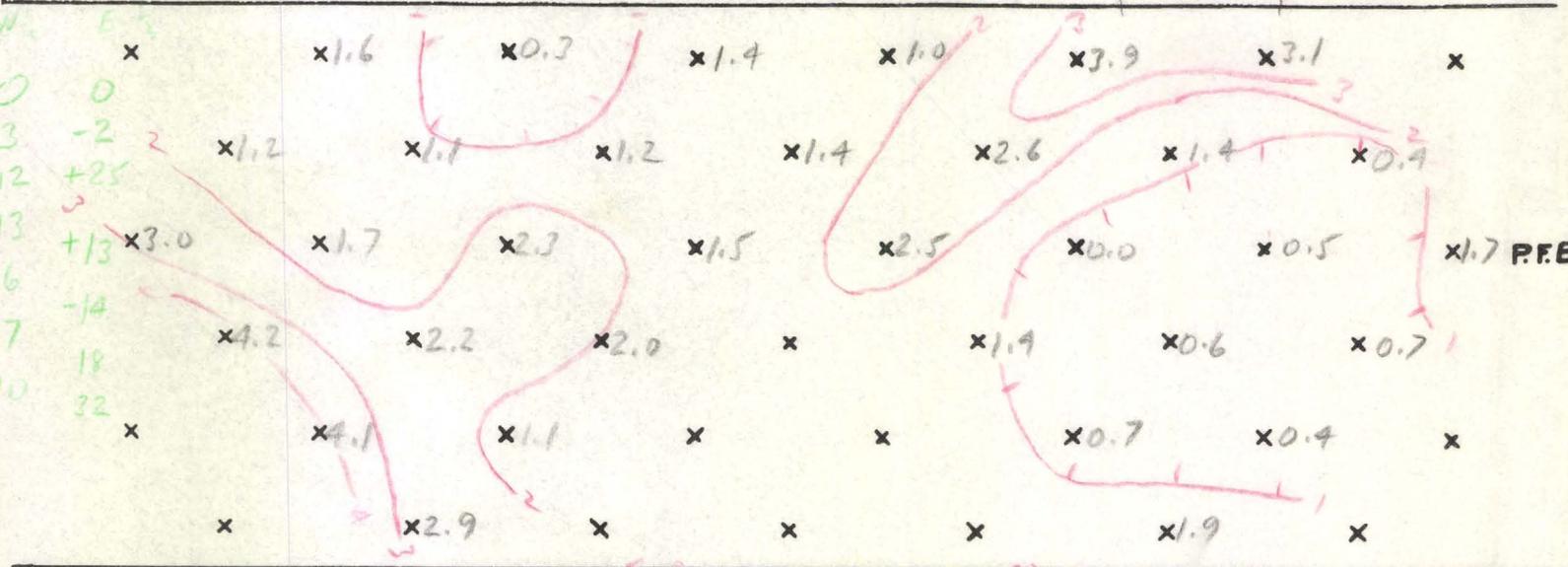
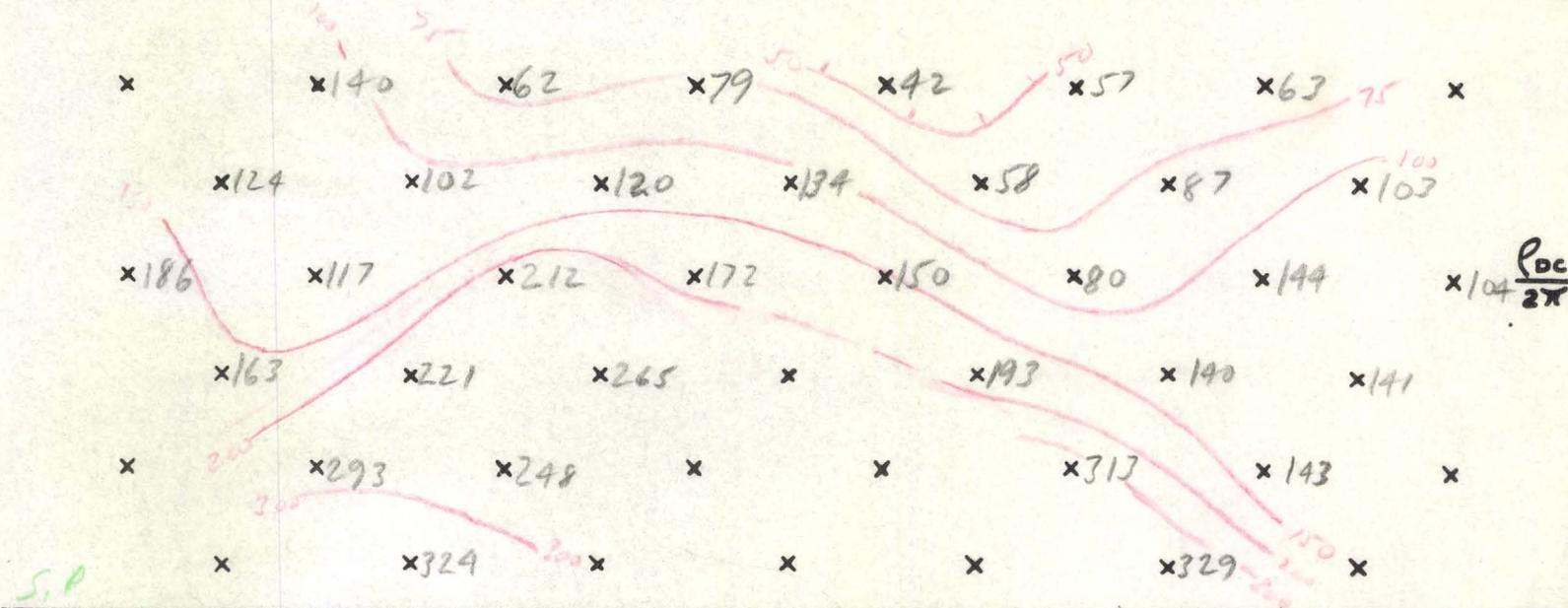
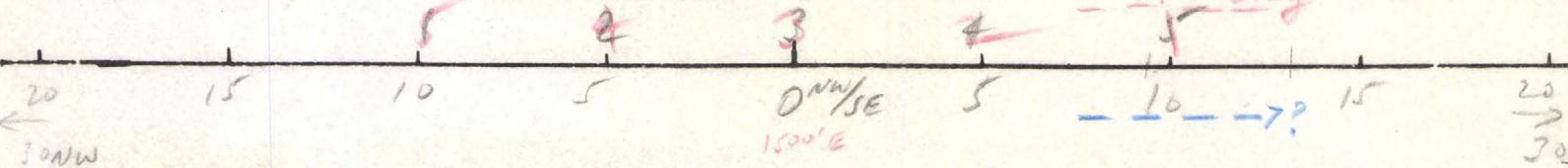


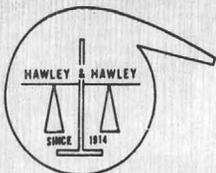
HEINRICHS GEOEX. INDUCED POLARIZATION SECTIONAL DATA PLOT, LOOKING



5.1
 W₂ E₂
 0 0
 31 17
 37 10
 35 7
 43 10
 40 35
 42 23

HEINRICHS GEOEX. INDUCED POLARIZATION SECTIONAL DATA PLOT, LOOKING N 20° E





Registered Assayers

HAWLEY & HAWLEY

ASSAYERS AND CHEMISTS, INC.

1700 WEST GRANT ROAD - TELEPHONE 622-4836 - POST OFFICE BOX 5934

TUCSON, ARIZONA 85703

THE SOUTHWEST'S LEADING ASSAYERS AND REPRESENTATIVES

Branch Representatives at Buyer's Plants:

Phelps Dodge Corp., Douglas, Arizona; ASARCO, El Paso, Amarillo, Texas and Hayden, Arizona

IDENTIFICATION	Gold ozs.	Silver ozs.	Lead %	Copper %	Zinc %	Mo. %			
2 + 00 S - 0 + 00				242					
0 + 25 E				266					
0 + 50 E				576					
0 + 75 E				> 1000					
1 + 00 E				> 1000					
2 + 50 E				514					
3 + 40 E				198					
3 + 75 E				374					
4 + 00 E				366					
4 + 25 E				546					
4 + 50 E				246					
4 + 75 E				400					
5 + 00 E				638					
5 + 25 E				314					
5 + 50 E				262					
5 + 75 E				568					
6 + 00 E				278					
6 + 25 E				372					
6 + 50 E				234					
6 + 75 E				306					
7 + 00 E				478					
7 + 25 E				> 1000					
2 + 00 S - 7 + 50 E				384					
4 + 00 S - 0 + 00				402					

CC: Heinrichs Geoporation Company
 ADD: P. O. Box 5671
 CITY: 806 West Grant Road
 ADD: Tucson, Arizona 85703
 CITY:

REMARKS:

Analysis Cert. By

Page 1

Preparation \$

Analysis \$

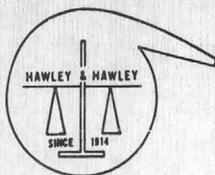
ACC: HEINRICHS GEOEXPLORATION CO.

Date Spl. Received 1/23/68

Date Compl. 1/26/68

TUC 337720

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TUCSON, ARIZONA 85703

Registered Assayers

THE SOUTHWEST'S LEADING ASSAYERS AND REPRESENTATIVES

Branch Representatives at Buyer's Plants:

Phelps Dodge Corp., Douglas, Arizona; ASARCO, El Paso, Amarillo, Texas and Hayden, Arizona

IDENTIFICATION	Gold ozs.	Silver ozs.	Lead %	Copper %	Zinc %	Mo. %			
				PPM					
4 + 00 S - 0 + 25 E				162					
0 + 50 E				330					
0 + 75 E				622					
1 + 00 W				254					
1 + 75 E				880					
2 + 00 E				258					
2 + 00 W				144					
2 + 25 E				358					
3 + 00 W				262					
3 + 40 E				378					
3 + 75 E				> 1000					
4 + 00 E				950					
4 + 00 W				150					
4 + 25 E				556					
4 + 50 E				688					
4 + 75 E				374					
5 + 00 E				254					
5 + 00 W				108					
5 + 25 E				410					
5 + 50 E				256					
5 + 75 E				370					
6 + 00 E				184					
6 + 00 W				78					
6 + 25 E				248					
6 + 50 W				166					
4 + 00 S - 6 + 75 E				180					

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REMARKS:

Analysis Cert. By

Page 2

Preparation \$
Analysis \$

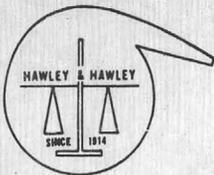
ACC: HEINRICHS GEOEXPLORATION CO.

Date Sp. Received 1/23/68

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TUCSON, ARIZONA 85703

THE SOUTHWEST'S LEADING ASSAYERS AND REPRESENTATIVES

Branch Representatives at Buyer's Plants:

Phelps Dodge Corp., Douglas, Arizona; ASARCO, El Paso, Amarillo, Texas and Hayden, Arizona

IDENTIFICATION	Gold ozs.	Silver ozs.	Lead %	Copper %	Zinc %	Mo. %			
				PPM					
4 + 00 S - 7 + 00 E				200					
7 + 00 W				38					
8 + 00 W				28					
9 + 00 W				36					
10 + 00 W				32					
11 + 00 W				28					
12 + 00 W				50					
13 + 00 W				22					
14 + 00 W				70					
4 + 00 S -15 + 00 W				54					
5 + 00 S -15 + 00 W				20					
6 + 00 N - 0 + 00				98					
0 + 50 W				196					
0 + 75 E				294					
1 + 00 E				604					
1 + 00 W				238					
1 + 50 W				226					
2 + 00 E				> 1000					
2 + 00 W				312					
2 + 50 W				634					
3 + 00 W				> 1000					
3 + 50 W				416					
4 + 00 W				80					
4 + 50 W				42					
5 + 00 W				44					

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REMARKS:

Analysis Cert. By

Page 3

Preparation \$

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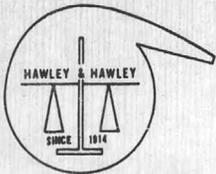
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TUCSON, ARIZONA 85703

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Branch Representatives at Buyer's Plants:
 Phelps Dodge Corp., Douglas, Arizona; ASARCO, El Paso, Amarillo, Texas and Hayden, Arizona

IDENTIFICATION	Gold ozs.	Silver ozs.	Lead %	Copper %	Zinc %	Mo. %			
6 + 00 N - 5 + 50 W				42					
6 + 00 W				30					
6 + 50 W				66					
7 + 00 W				46					
7 + 50 W				122					
8 + 00 W				98					
8 + 50 W				84					
9 + 00 W				416					
9 + 50 W				104					
10 + 00 W				234					
10 + 50 W			>	1000					
11 + 00 W				562					
11 + 50 W				464					
12 + 00 W				406					
12 + 50 W				162					
13 + 00 W				150					
13 + 50 W				118					
14 + 00 W				80					
14 + 50 W				108					
6 + 00 N - 15 + 00 W				68					
6 + 00 S - 0 + 00				200					
0 + 25 E				308					
0 + 50 E				348					
1 + 25 E				930					
1 + 50 E (a)			>	1000					
6 + 00 S - 1 + 50 E (b)				86					

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REMARKS:

Page 4'

Analysis Cert. By

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 Analysis \$

ACC: HEIRICHS GEOEXPLORATION CO.

Date Spl. Received

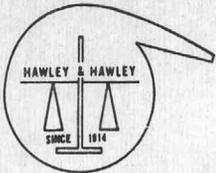
1/24/68

Date Compl.

1/26/68

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1700 WEST GRANT ROAD - TELEPHONE 622-4836 - POST OFFICE BOX 5934

TUCSON, ARIZONA 85703

THE SOUTHWEST'S LEADING ASSAYERS AND REPRESENTATIVES

Branch Representatives at Buyer's Plants:

Phelps Dodge Corp., Douglas, Arizona; ASARCO, El Paso, Amarillo, Texas and Hayden, Arizona

IDENTIFICATION	Gold ozs.	Silver ozs.	Lead %	Copper %	Zinc %	Mo. %			
				PPM					
6 + 00 S - 2 + 25 E				384					
3 + 75 E				114					
4 + 00 E				102					
4 + 25 E				110					
4 + 50 E				50					
4 + 75 E				30					
5 + 00 E				28					
5 + 25 E				30					
5 + 50 E				32					
5 + 75 E				48					
6 + 00 E				40					
6 + 25 E				64					
6 + 50 E				38					
6 + 75 E				26					
7 + 00 W				26					
6 + 00 S - 15 + 00 W				36					
7 + 00 S - 0 + 00 W				58					
1 + 00 W				24					
2 + 00 W				24					
3 + 00 W				> 1000					
4 + 00 W				> 1000					
5 + 00 W				384					
6 + 00 W (a)				276					
6 + 00 W (b)				366					
7 + 00 W				262					
7 + 00 S - 8 + 00 W				212					

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REMARKS:

Analysis Cert. By

Page 5

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Analysis \$

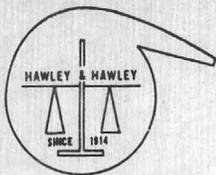
ACC: HEINRICHS GEOEXPLORATION CO.

Date Spl. Received 1/24/68

Date Compl. 1/26/68

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Registered Assayers

TUCSON, ARIZONA 85703

THE SOUTHWEST'S LEADING ASSAYERS AND REPRESENTATIVES

Branch Representatives at Buyer's Plants:
 Phelps Dodge Corp., Douglas, Arizona; ASARCO, El Paso, Amarillo, Texas and Hayden, Arizona

IDENTIFICATION	Gold ozs.	Silver ozs.	Lead %	Copper %	Zinc %	Mo. %			
				174					
7 + 00 S - 9 + 00 W				128					
10 + 00 W				552					
11 + 00 W				220					
12 + 00 W				248					
13 + 00 W				280					
14 + 00 W				210					
7 + 00 S - 15 + 00 W				200					
8 + 00 N - 0 + 00				370					
1 + 00 W				356					
2 + 00 W				34					
3 + 00 W				208					
4 + 00 W				266					
5 + 00 W				238					
6 + 00 W				32					
7 + 00 W				86					
8 + 00 W				146					
9 + 00 W				142					
9 + 50 W				108					
10 + 00 W				266					
10 + 50 W				300					
11 + 00 W				> 1000					
11 + 50 W				812					
12 + 00 W				742					
12 + 50 W				> 1000					
13 + 00 W				266					
8 + 00 N - 13 + 50 W				202					

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REMARKS:

Analysis Cert. By

Page 6

Preparation \$
 Analysis \$

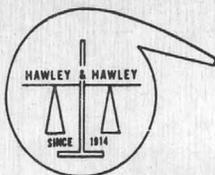
ACC: HEINRICH'S GEOEXPLORATION CO.

Date Spl. Received 1/23/68

Date Compl. 1/26/68

TUC 337720

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ASSAYERS AND CHEMISTS, INC.

1700 WEST GRANT ROAD - TELEPHONE 622-4836 - POST OFFICE BOX 5934

TUCSON, ARIZONA 85703

Registered Assayers

THE SOUTHWEST'S LEADING ASSAYERS AND REPRESENTATIVES

Branch Representatives at Buyer's Plants:

Phelps Dodge Corp., Douglas, Arizona; ASARCO, El Paso, Amarillo, Texas and Hayden, Arizona

IDENTIFICATION	Gold ozs.	Silver ozs.	Lead %	Copper %	Zinc %	Mo. %			
				774					
8 + 00 N -14 + 00 W				68					
14 + 50 W				104					
8 + 00 N -15 + 00 W				128					
8 + 00 S - 0 + 00 E				108					
0 + 25 E				190					
0 + 50 E				188					
0 + 75 E				178					
1 + 00 E				144					
1 + 25 E				150					
1 + 50 E				288					
1 + 75 E			>	1000					
2 + 00 E			>	1000					
2 + 25 E			>	1000					
2 + 50 E			>	1000					
2 + 75 E			>	1000					
3 + 00 E				772					
3 + 25 E				256					
3 + 75 E				110					
4 + 25 E				124					
4 + 50 E				138					
4 + 75 E				248					
5 + 00 E				622					
5 + 25 E				254					
5 + 50 E				132					
5 + 75 E				168					
8 + 00 S - 6 + 00 E				158					

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REMARKS:

Analysis Cert. By

Page 7

Preparation \$
Analysis \$

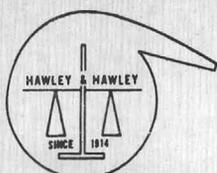
ACC: HEINRICHS GEOEXPLORATION CO.

Date Spl. Received 1/23/68

Date Compl. 1/26/68

TUC 337720

\$



Registered Assayers

HAWLEY & HAWLEY

ASSAYERS AND CHEMISTS, INC.

1700 WEST GRANT ROAD - TELEPHONE 622-4836 - POST OFFICE BOX 5934

TUCSON, ARIZONA 85703

THE SOUTHWEST'S LEADING ASSAYERS AND REPRESENTATIVES

Branch Representatives at Buyer's Plants:

Phelps Dodge Corp., Douglas, Arizona; ASARCO, El Paso, Amarillo, Texas and Hayden, Arizona

IDENTIFICATION	Gold ozs.	Silver ozs.	Lead %	Copper % PPM	Zinc %	Mo. %
8 + 00 S - 6 + 25 E				426		
6 + 50 E				176		
6 + 75 E				62		
8 + 00 S - 7 + 00 E				46		
10 + 25 S - 0 + 00 E				148		
0 + 25 E				124		
0 + 50 E				116		
0 + 75 E				108		
1 + 00 E				204		
1 + 25 E				336		
1 + 50 E				214		
1 + 75 E				312		
2 + 00 E				464		
2 + 25 E				500		
2 + 50 E				270		
2 + 75 E				650		
3 + 00 E				> 1000		
3 + 25 E				694		
3 + 50 E				740		
3 + 75 E				806		
4 + 00 E				> 1000		
4 + 25 E				282		
4 + 50 E				272		
4 + 75 E				268		
5 + 00 E				110		
10 + 25 S - 5 + 25 E				62		

CC:
ADD:
CITY:
ADD:
CITY:

REMARKS:

Page 8

Analysis Cert. By _____

Preparation \$ _____
Analysis \$ _____

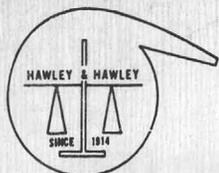
ACC: HEINRICHS GEOEXPLORATION CO.

Date Spl. Received 1/23/68

Date Compl. 1/26/68

TUC 337T20

\$ _____



Registered Assayers

HAWLEY & HAWLEY

ASSAYERS AND CHEMISTS, INC.

1700 WEST GRANT ROAD - TELEPHONE 622-4836 - POST OFFICE BOX 5934

TUCSON, ARIZONA 85703

THE SOUTHWEST'S LEADING ASSAYERS AND REPRESENTATIVES

Branch Representatives at Buyer's Plants:

Phelps Dodge Corp., Douglas, Arizona; ASARCO, El Paso, Amarillo, Texas and Hayden, Arizona

IDENTIFICATION	Gold ozs.	Silver ozs.	Lead %	Copper %	Zinc %	Mo. %			
10 + 25 S - 5 + 50 E 5 + 75 E 10 + 25 S - 6 + 00 E				PPM 68 170 138					

CC: **Heinrichs Geoporation Co.**
 ADD: **P. O. Box 5671**
 CITY: **806 West Grant Road**
 ADD: **Tucson, Arizona 85703**
 CITY:

REMARKS:

 Page 9

Analysis Cert. By *D. C. Crigton*

 Preparation \$ 228.80
 Analysis \$ 145.60

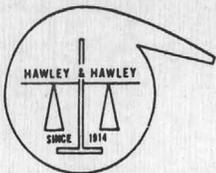
ACC: **HEINRICHS GEOEXPLORATION CO.**

Date Spl. Received **1/23/68**

Date Compl. **1/26/68**

TUC 337720

\$ **374.40**



HAWLEY & HAWLEY

ASSAYERS AND CHEMISTS, INC.

1700 WEST GRANT ROAD - TELEPHONE 622-4836 - POST OFFICE BOX 5934

TUCSON, ARIZONA 85703

Registered Assayers

THE SOUTHWEST'S LEADING ASSAYERS AND REPRESENTATIVES

Branch Representatives at Buyer's Plants:

P Phelps Dodge Corp., Douglas, Arizona; ASARCO, El Paso, Amarillo, Texas and Hayden, Arizona

IDENTIFICATION	Gold ozs.	Silver ozs.	Lead %	Copper %	Zinc %	Mo. %			
				PPM					
# 9 - Los 14 NW				66					
#10 - Los NW 12				28					
#11 - 74 NW				66					
#12 - 74				32					
#13 - Ang 29/And 16 A 27/A 20				50					
#14 - Corner X				70					
#15 - 2 + 00 S 8 + 00 E				> 1000					
#16 - 2 + 00 S 9 + 00 E				252					
#17 - 2 + 00 S 10 + 00 E				82					
#18 - 2 + 00 S 11 + 00 E				108					
#19 - 2 + 00 S 12 + 00 E				120					
#20 - 2 + 00 S 13 + 00 E				150					
#21 - 2 + 00 S 14 + 00 E				70					
#22 - 2 + 00 S 15 + 00 E				54					
#23 - 2 + 00 S 16 + 00 E				48					
#24 - 2 + 00 S 17 + 00 E				38					
#25 - 2 + 00 S 18 + 00 E				38					
#26 - 2 + 00 S 19 + 00 E				34					
#27 - 2 + 00 S 20 + 00 E				34					
#28 - 2 + 00 S 21 + 00 E				64					
#29 - 2 + 00 S 22 + 00 E				38					
#30 - 2 + 00 S 23 + 00 E				60					
#31 - 2 + 00 S 24 + 00 E				114					
#32 - 2 + 00 S 25 + 00 E				250					

CC: Heinrichs GeosExploration Company
 ADD: P. O. Box 5671
 CITY: Tucson, Arizona 85703
 ADD:
 CITY:

REMARKS:

Geochem

Analysis Cert. By

D. Craig Hton

Preparation \$ 26.40

Analysis \$ 23.88

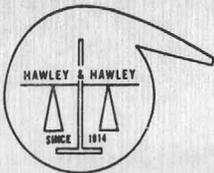
ACC: HEINRICHS GEOEXPLORATION CO.

Date Spl. Received 1/25/68

Date Compl. 1/29/68

TUC 337730

\$ 50.28



HAWLEY & HAWLEY

ASSAYERS AND CHEMISTS, INC.

1700 WEST GRANT ROAD - TELEPHONE 622-4836 - POST OFFICE BOX 5934

TUCSON, ARIZONA 85703

Registered Assayers

THE SOUTHWEST'S LEADING ASSAYERS AND REPRESENTATIVES

Branch Representatives at Buyer's Plants:

Phelps Dodge Corp., Douglas, Arizona; ASARCO, El Paso, Amarillo, Texas and Hayden, Arizona

IDENTIFICATION	Gold ozs.	Silver ozs.	Lead %	Copper %	Zinc %	Mo. %			
# 9 - Los 14 NW				66					
#10 - Los NW 12				28					
#11 - 74 NW				66					
#12 - 74				32					
#13 - Ang 29/And 16 A 27/A 20				50					
#14 - Corner X				70					
#15 - 2 + 00 S 8 + 00 E				> 1000					
#16 - 2 + 00 S 9 + 00 E				252					
#17 - 2 + 00 S 10 + 00 E				82					
#18 - 2 + 00 S 11 + 00 E				108					
#19 - 2 + 00 S 12 + 00 E				120					
#20 - 2 + 00 S 13 + 00 E				150					
#21 - 2 + 00 S 14 + 00 E				70					
#22 - 2 + 00 S 15 + 00 E				54					
#23 - 2 + 00 S 16 + 00 E				48					
#24 - 2 + 00 S 17 + 00 E				38					
#25 - 2 + 00 S 18 + 00 E				38					
#26 - 2 + 00 S 19 + 00 E				34					
#27 - 2 + 00 S 20 + 00 E				34					
#28 - 2 + 00 S 21 + 00 E				64					
#29 - 2 + 00 S 22 + 00 E				38					
#30 - 2 + 00 S 23 + 00 E				60					
#31 - 2 + 00 S 24 + 00 E				114					
#32 - 2 + 00 S 25 + 00 E				250					

CC: Heinrichs Geoporation Company
 ADD: P. O. Box 5671
 CITY: Tucson, Arizona 85703
 ADD:
 CITY:

REMARKS:

Geochem

Analysis Cert. By

D. Craig Stone

Preparation \$ 26.40

Analysis \$ 23.88

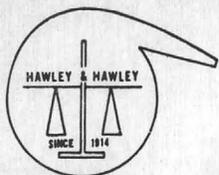
ACC: HEINRICHS GEOEXPLORATION CO.

Date Spl. Received 1/25/68

Date Compl. 1/29/68

TUC 337730

\$ 50.28



Registered Assayers

HAWLEY & HAWLEY

ASSAYERS AND CHEMISTS, INC.

1700 WEST GRANT ROAD - TELEPHONE 622-4836 - POST OFFICE BOX 5934

TUCSON, ARIZONA 85703

THE SOUTHWEST'S LEADING ASSAYERS AND REPRESENTATIVES

Branch Representatives at Buyer's Plants:
 Phelps Dodge Corp., Douglas, Arizona; ASARCO, El Paso, Amarillo, Texas and Hayden, Arizona

IDENTIFICATION	Gold ozs.	Silver ozs.	Lead %	Copper %	Zinc %	Mo. %			
				PPM					
2 + 00 N - 0 + 25 W				254					
0 + 50 W				402					
0 + 75 W				274					
0 + 85 W				384					
1 + 25 W				664					
1 + 75 W				526					
2 + 00 W				220					
2 + 25 W				> 1000					
2 + 50 W				> 1000					
2 + 75 W				> 1000					
3 + 50 W				672					
4 + 00 W				438					
4 + 25 W				436					
4 + 50 W				112					
4 + 75 W				122					
5 + 00 W				124					
5 + 25 W				104					
5 + 50 W				92					
5 + 75 W				46					
6 + 00 W				66					
6 + 25 W				66					
6 + 50 W				100					
6 + 75 W				130					
7 + 00				164					

CC: Heinrichs Geoporation Company
 ADD: P. O. Box 5671
 CITY: 806 West Grant Road
 ADD: Tucson, Arizona 85703
 CITY:

REMARKS:

Geochem
Page 1

Analysis Cert. By

Preparation \$
 Analysis \$

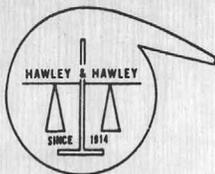
ACC: HEINRICHS GEOEXPLORATION CO.

Date Spl. Received 1/19/68

Date Compl. 1/25/68

TUC 337707

\$



Registered Assayers

HAWLEY & HAWLEY

ASSAYERS AND CHEMISTS, INC.

1700 WEST GRANT ROAD - TELEPHONE 622-4836 - POST OFFICE BOX 5934

TUCSON, ARIZONA 85703

THE SOUTHWEST'S LEADING ASSAYERS AND REPRESENTATIVES

Branch Representatives at Buyer's Plants:

Phelps Dodge Corp., Douglas, Arizona; ASARCO, El Paso, Amarillo, Texas and Hayden, Arizona

IDENTIFICATION	Gold ozs.	Silver ozs.	Lead %	Copper %	Zinc %	Mo. %			
				PPM					
400 N - 0 + 25 E				166					
0 + 50 E				204					
0 + 75 E				206					
0 + 25 W				112					
0 + 50 W				566					
0 + 75 W				> 1000					
1 + 00 E				230					
1 + 25 E				226					
1 + 50 E				164					
1 + 75 E				146					
1 + 00 W				552					
1 + 25 W				528					
1 + 50 W				> 1000					
1 + 75 W				920					
2 + 00 E				288					
2 + 25 E				272					
2 + 50 E (2' W of wash)				168					
2 + 75 E (3' E of wash)				60					
2 + 00 W				592					
2 + 25 W				646					
2 + 50 W				> 1000					
2 + 75 W				950					
2 + 00 E				50					
3 + 25 E				38					
3 + 50 E				32					
3 + 75 E				24					

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REMARKS:

Analysis Cert. By

Page 2

Preparation \$
Analysis \$

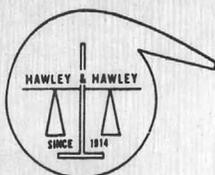
ACC: HEINRICHS GEOEXPLORATION CO.

Date Spl. Received 1/19/68

Date Compl. 1/25/68

TUC 337707

\$



Registered Assayers

HAWLEY & HAWLEY

ASSAYERS AND CHEMISTS, INC.

1700 WEST GRANT ROAD - TELEPHONE 622-4836 - POST OFFICE BOX 5934

TUCSON, ARIZONA 85703

THE SOUTHWEST'S LEADING ASSAYERS AND REPRESENTATIVES

Branch Representatives at Buyer's Plants:

Phelps Dodge Corp., Douglas, Arizona; ASARCO, El Paso, Amarillo, Texas and Hayden, Arizona

IDENTIFICATION	Gold ozs.	Silver ozs.	Lead %	Copper %	Zinc %	Mo. %			
				PPM					
400 N - 3 + 00 W				640					
3 + 25 W				980					
3 + 50 W				> 1000					
3 + 75 W				594					
4 + 00				30					
4 + 00 W				186					
4 + 25 W				66					
4 + 50 W				62					
4 + 75 W				74					
5 + 00 W				56					
4 + 00 N - 5 + 25 W				48					
5 + 50 W				40					
5 + 75 W				52					
6 + 00 W				106					
6 + 25 W				114					
6 + 50 W				110					
6 + 75 W				402					
7 + 00 W				106					
7 + 25 W				124					
7 + 50 W				42					
7 + 75 W				82					
8 + 00 W				108					
8 + 25 W				118					
8 + 50 W				78					
8 + 75 W				44					

CC:
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CITY:

REMARKS:

Analysis Cert. By

Page 3

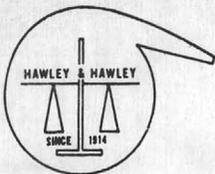
Preparation \$
Analysis \$

ACC: HEINRICH'S GEOEXPLORATION CO.

Date Spl. Received 1/19/68 Date Compl. 1/25/68

TUC 337707

\$



Registered Assayers

HAWLEY & HAWLEY

ASSAYERS AND CHEMISTS, INC.

1700 WEST GRANT ROAD - TELEPHONE 622-4836 - POST OFFICE BOX 5934

TUCSON, ARIZONA 85703

THE SOUTHWEST'S LEADING ASSAYERS AND REPRESENTATIVES

Branch Representatives at Buyer's Plants:

Phelps Dodge Corp., Douglas, Arizona; ASARCO, El Paso, Amarillo, Texas and Hayden, Arizona

IDENTIFICATION	Gold ozs.	Silver ozs.	Lead %	Copper %	Zinc %	Mo. %			
				PPM					
4 + 00 N - 9 + 00 W				64					
9 + 25 W				110					
9 + 50 W				36					
9 + 75 W				56					
10 + 00 W				232					
10 + 25 W				212					
10 + 75 W				106					
11 + 25 W				126					
11 + 50 W				66					
12 + 00 W				74					
12 + 50 W (down in flats)				82					
Sample 1				562					
Sample 2				798					
Sample 3				902					
10 + 00 S - 2 + 50 E				> 1000					
4 + 50 E				> 1000					
6 + 60 E				56					
14 + 00 S - approx 3 + 00 E				108					
5 + 00 E				52					
7 + 00 E				42					

CC: Heinrichs Geoexploration Company
 ADD: P. O. Box 5671
 CITY: 806 West Grant Road
 ADD: Tucson, Arizona 85703
 CITY:

REMARKS:

Analysis Cert. By

D. Crighton

Page 4
20% discount

Preparation \$ 104.50
 Analysis \$ 76.00

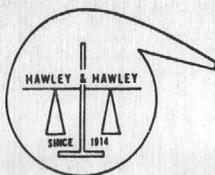
ACC: HEINRICHS GEOEXPLORATION CO.

Date Spl. Received 1/19/68

Date Compl. 1/25/68

TUC 337707

\$ 180.50



Registered Assayers

HAWLEY & HAWLEY

ASSAYERS AND CHEMISTS, INC.

1700 WEST GRANT ROAD - TELEPHONE 622-4836 - POST OFFICE BOX 5934

TUCSON, ARIZONA 85703

THE SOUTHWEST'S LEADING ASSAYERS AND REPRESENTATIVES

Branch Representatives at Buyer's Plants:

Phelps Dodge Corp., Douglas, Arizona; ASARCO, El Paso, Amarillo, Texas and Hayden, Arizona

IDENTIFICATION	Gold ozs.	Silver ozs.	Lead %	Copper %	Zinc %	Mo. %			
				PPM					
36				> 1000					
37				> 1000					
38				84					
39				40					
40				62					
41				54					
42				50					
43				146					
44				44					
45				44					
46				58					
47				50					
48				66					
49				40					
50				48					
51				388					
52				38					
53				34					
54				44					
55				136					
56				34					
57				66					
58				64					
59				110					
60				72					
61				46					

CC: Heinrichs Geoexploration Company
 ADD: P. O. Box 5671
 CITY: Tucson, Arizona 85703
 ADD:
 CITY:

REMARKS:

 Geochem
 Page 1

Analysis Cert. By

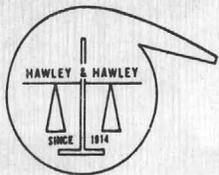
 Preparation \$
 Analysis \$
 \$

ACC: HEINRICHS GEOEXPLORATION COMPANY

Date Spl. Received 1/25/68

Date Compl. 1/29/68

TUC 337738



Registered Assayers

HAWLEY & HAWLEY

ASSAYERS AND CHEMISTS, INC.

1700 WEST GRANT ROAD - TELEPHONE 622-4836 - POST OFFICE BOX 5934

TUCSON, ARIZONA 85703

THE SOUTHWEST'S LEADING ASSAYERS AND REPRESENTATIVES

Branch Representatives at Buyer's Plants:

Phelps Dodge Corp., Douglas, Arizona; ASARCO, El Paso, Amarillo, Texas and Hayden, Arizona

IDENTIFICATION	Gold ozs.	Silver ozs.	Lead %	Copper %	Zinc %	Mo. %			
				PPM					
62				42					
63				44					
64				40					
65				36					
66				56					

CC: **Heinrichs Geoexploration Company**
 ADD: **P. O. Box 5671**
 CITY: **Tucson, Arizona 85703**
 ADD:
 CITY:

REMARKS:

Geochem
Page 2

Analysis Cert. By

D. Creighton

Preparation \$ 34.10

Analysis \$ 30.69

ACC: **HEINRICHS GEOEXPLORATION COMPANY**

Date Spl. Received

1/25/68

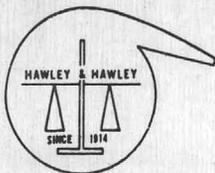
Date Compl.

1/29/68

TUC 337738

\$

68.79



HAWLEY & HAWLEY

ASSAYERS AND CHEMISTS, INC.

1700 WEST GRANT ROAD - TELEPHONE 622-4836 - POST OFFICE BOX 5934

TUCSON, ARIZONA 85703

Registered Assayers

THE SOUTHWEST'S LEADING ASSAYERS AND REPRESENTATIVES

Branch Representatives at Buyer's Plants:

Phelps Dodge Corp., Douglas, Arizona; ASARCO, El Paso, Amarillo, Texas and Hayden, Arizona

IDENTIFICATION	Gold ozs.	Silver ozs.	Lead %	Copper %	Zinc %	Mo. %			
				PPM					
2 + 00 S - 0 + 00				242					
0 + 25 E				266					
0 + 50 E				576					
0 + 75 E				> 1000					
1 + 00 E				> 1000					
2 + 50 E				514					
3 + 40 E				198					
3 + 75 E				374					
4 + 00 E				366					
4 + 25 E				546					
4 + 50 E				246					
4 + 75 E				400					
5 + 00 E				638					
5 + 25 E				314					
5 + 50 E				262					
5 + 75 E				568					
6 + 00 E				278					
6 + 25 E				372					
6 + 50 E				234					
6 + 75 E				306					
7 + 00 E				478					
7 + 25 E				> 1000					
2 + 00 S - 7 + 50 E				384					
4 + 00 S - 0 + 00				402					

CC: Heinrichs Geoporation Company
 ADD: P. O. Box 5671
 CITY: 806 West Grant Road
 ADD: Tucson, Arizona 85703
 CITY:

REMARKS:

Analysis Cert. By

Page 1

Preparation \$

Analysis \$

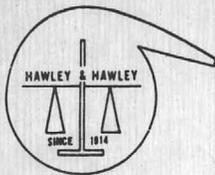
ACC: HEINRICHS GEOEXPLORATION CO,

Date Spl. Received 1/23/68

Date Compl. 1/26/68

TUC 337720

\$



Registered Assayers

HAWLEY & HAWLEY

ASSAYERS AND CHEMISTS, INC.

1700 WEST GRANT ROAD - TELEPHONE 622-4836 - POST OFFICE BOX 5934

TUCSON, ARIZONA 85703

THE SOUTHWEST'S LEADING ASSAYERS AND REPRESENTATIVES

Branch Representatives at Buyer's Plants:

Phelps Dodge Corp., Douglas, Arizona; ASARCO, El Paso, Amarillo, Texas and Hayden, Arizona

IDENTIFICATION	Gold ozs.	Silver ozs.	Lead %	Copper %	Zinc %	Mo. %			
				PPM					
4 + 00 S - 0 + 25 E				162					
0 + 50 E				330					
0 + 75 E				622					
1 + 00 W				254					
1 + 75 E				880					
2 + 00 E				258					
2 + 00 W				144					
2 + 25 E				358					
3 + 00 W				262					
3 + 40 E				378					
3 + 75 E				> 1000					
4 + 00 E				950					
4 + 00 W				150					
4 + 25 E				556					
4 + 50 E				688					
4 + 75 E				374					
5 + 00 E				254					
5 + 00 W				108					
5 + 25 E				410					
5 + 50 E				256					
5 + 75 E				370					
6 + 00 E				184					
6 + 00 W				78					
6 + 25 E				248					
6 + 50 W				166					
4 + 00 S - 6 + 75 E				180					

CC:
ADD:
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CITY:

REMARKS:

Analysis Cert. By

Page 2

Preparation \$

Analysis \$

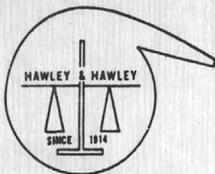
ACC: HEINRICHS GEOEXPLORATION CO.

Date Spl. Received 1/23/68

Date Compl. 1/26/68

TUC 337720

\$



HAWLEY & HAWLEY

ASSAYERS AND CHEMISTS, INC.

1700 WEST GRANT ROAD - TELEPHONE 622-4836 - POST OFFICE BOX 5934

TUCSON, ARIZONA 85703

Registered Assayers

THE SOUTHWEST'S LEADING ASSAYERS AND REPRESENTATIVES

Branch Representatives at Buyer's Plants:

Phelps Dodge Corp., Douglas, Arizona; ASARCO, El Paso, Amarillo, Texas and Hayden, Arizona

IDENTIFICATION	Gold ozs.	Silver ozs.	Lead %	Copper %	Zinc %	Mo. %			
				PPM					
4 + 00 S - 7 + 00 E				200					
7 + 00 W				38					
8 + 00 W				28					
9 + 00 W				36					
10 + 00 W				32					
11 + 00 W				28					
12 + 00 W				50					
13 + 00 W				22					
14 + 00 W				70					
4 + 00 S - 15 + 00 W				54					
5 + 00 S - 15 + 00 W				20					
6 + 00 N - 0 + 00				98					
0 + 50 W				196					
0 + 75 E				294					
1 + 00 E				604					
1 + 00 W				238					
1 + 50 W				226					
2 + 00 E				> 1000					
2 + 00 W				312					
2 + 50 W				634					
3 + 00 W				> 1000					
3 + 50 W				416					
4 + 00 W				80					
4 + 50 W				42					
5 + 00 W				44					

CC:
ADD:
CITY:
ADD:
CITY:

REMARKS:

Analysis Cert. By

Page 3

Preparation \$
Analysis \$

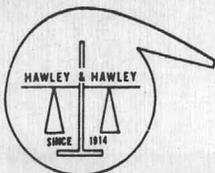
ACC: HEINRICHS GEOEXPLORATION CO.

Date Spl. Received 1/23/68

Date Compl. 1/26/68

TUC 337720

\$



HAWLEY & HAWLEY

ASSAYERS AND CHEMISTS, INC.

1700 WEST GRANT ROAD - TELEPHONE 622-4836 - POST OFFICE BOX 5934

Registered Assayers

TUCSON, ARIZONA 85703

THE SOUTHWEST'S LEADING ASSAYERS AND REPRESENTATIVES

Branch Representatives at Buyer's Plants:

Phelps Dodge Corp., Douglas, Arizona; ASARCO, El Paso, Amarillo, Texas and Hayden, Arizona

IDENTIFICATION	Gold ozs.	Silver ozs.	Lead %	Copper %	Zinc %	Mo. %			
				PPM					
6 + 00 N - 5 + 50 W				42					
6 + 00 W				30					
6 + 50 W				66					
7 + 00 W				46					
7 + 50 W				122					
8 + 00 W				98					
8 + 50 W				84					
9 + 00 W				416					
9 + 50 W				104					
10 + 00 W				234					
10 + 50 W				> 1000					
11 + 00 W				562					
11 + 50 W				464					
12 + 00 W				406					
12 + 50 W				162					
13 + 00 W				150					
13 + 50 W				118					
14 + 00 W				80					
14 + 50 W				108					
6 + 00 N - 15 + 00 W				68					
6 + 00 S - 0 + 00				200					
0 + 25 E				308					
0 + 50 E				348					
1 + 25 E				930					
1 + 50 E (a)				> 1000					
6 + 00 S - 1 + 50 E (b)				86					

CC:
ADD:
CITY:
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CITY:

REMARKS:

Analysis Cert. By

Page 4'

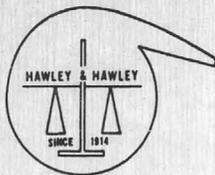
Preparation \$
Analysis \$

ACC: HEINRICHS GEOEXPLORATION CO.

Date Spl. Received 1/24/68 Date Compl. 1/26/68

TUC 337720

\$



HAWLEY & HAWLEY

ASSAYERS AND CHEMISTS, INC.

1700 WEST GRANT ROAD - TELEPHONE 622-4836 - POST OFFICE BOX 5934

TUCSON, ARIZONA 85703

Registered Assayers

THE SOUTHWEST'S LEADING ASSAYERS AND REPRESENTATIVES

Branch Representatives at Buyer's Plants:

Phelps Dodge Corp., Douglas, Arizona; ASARCO, El Paso, Amarillo, Texas and Hayden, Arizona

IDENTIFICATION	Gold ozs.	Silver ozs.	Lead %	Copper %	Zinc %	Mo. %			
				PPM					
6 + 00 S - 2 + 25 E				384					
3 + 75 E				114					
4 + 00 E				102					
4 + 25 E				110					
4 + 50 E				50					
4 + 75 E				30					
5 + 00 E				28					
5 + 25 E				30					
5 + 50 E				32					
5 + 75 E				48					
6 + 00 E				40					
6 + 25 E				64					
6 + 50 E				38					
6 + 75 E				26					
7 + 00 W				26					
6 + 00 S - 15 + 00 W				36					
7 + 00 S - 0 + 00 W				58					
1 + 00 W				24					
2 + 00 W				24					
3 + 00 W				> 1000					
4 + 00 W				> 1000					
5 + 00 W				384					
6 + 00 W (a)				276					
6 + 00 W (b)				366					
7 + 00 W				262					
7 + 00 S - 8 + 00 W				212					

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REMARKS:

Analysis Cert. By

Page 5

Preparation \$

Analysis \$

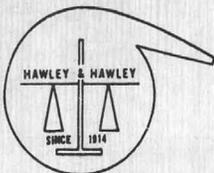
ACC: HEINRICHS GEOEXPLORATION CO.

Date Spl. Received 1/24/68

Date Compl. 1/26/68

TUC 337720

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Registered Assayers

HAWLEY & HAWLEY

ASSAYERS AND CHEMISTS, INC.

1700 WEST GRANT ROAD - TELEPHONE 622-4836 - POST OFFICE BOX 5934

TUCSON, ARIZONA 85703

THE SOUTHWEST'S LEADING ASSAYERS AND REPRESENTATIVES

Branch Representatives at Buyer's Plants:

Phelps Dodge Corp., Douglas, Arizona; ASARCO, El Paso, Amarillo, Texas and Hayden, Arizona

IDENTIFICATION	Gold ozs.	Silver ozs.	Lead %	Copper %	Zinc %	Mo. %			
				PPM					
7 + 00 S - 9 + 00 W				128					
10 + 00 W				552					
11 + 00 W				220					
12 + 00 W				248					
13 + 00 W				280					
14 + 00 W				210					
7 + 00 S - 15 + 00 W				200					
8 + 00 N - 0 + 00				370					
1 + 00 W				356					
2 + 00 W				34					
3 + 00 W				208					
4 + 00 W				266					
5 + 00 W				238					
6 + 00 W				32					
7 + 00 W				86					
8 + 00 W				146					
9 + 00 W				142					
9 + 50 W				108					
10 + 00 W				266					
10 + 50 W				300					
11 + 00 W				> 1000					
11 + 50 W				812					
12 + 00 W				742					
12 + 50 W				> 1000					
13 + 00 W				266					
8 + 00 N - 13 + 50 W				202					

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REMARKS:

Analysis Cert. By

Page 6

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Analysis \$

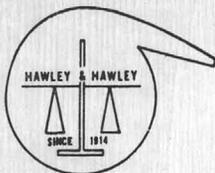
ACC: HEINRICHS GEOEXPLORATION CO.

Date Spl. Received 1/23/68

Date Compl. 1/26/68

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ASSAYERS AND CHEMISTS, INC.

1700 WEST GRANT ROAD - TELEPHONE 622-4836 - POST OFFICE BOX 5934

TUCSON, ARIZONA 85703

THE SOUTHWEST'S LEADING ASSAYERS AND REPRESENTATIVES

Branch Representatives at Buyer's Plants:

Phelps Dodge Corp., Douglas, Arizona; ASARCO, El Paso, Amarillo, Texas and Hayden, Arizona

IDENTIFICATION	Gold ozs.	Silver ozs.	Lead %	Copper %	Zinc %	Mo. %			
				114					
8 + 00 N -14 + 00 W				68					
14 + 50 W				104					
8 + 00 N -15 + 00 W				128					
8 + 00 S - 0 + 00 E				108					
0 + 25 E				190					
0 + 50 E				188					
0 + 75 E				178					
1 + 00 E				144					
1 + 25 E				150					
1 + 50 E				288					
1 + 75 E			>	1000					
2 + 00 E			>	1000					
2 + 25 E			>	1000					
2 + 50 E			>	1000					
2 + 75 E			>	1000					
3 + 00 E				772					
3 + 25 E				256					
3 + 75 E				110					
4 + 25 E				124					
4 + 50 E				138					
4 + 75 E				248					
5 + 00 E				622					
5 + 25 E				254					
5 + 50 E				132					
5 + 75 E				168					
8 + 00 S - 6 + 00 E				158					

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REMARKS:

Analysis Cert. By

Page 7

Preparation \$
Analysis \$

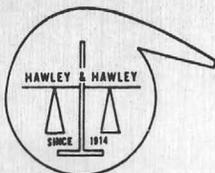
ACC: HEINRICHS GEOEXPLORATION CO.

Date Spl. Received 1/23/68

Date Compl. 1/26/68

TUC 337720

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Registered Assayers

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ASSAYERS AND CHEMISTS, INC.

1700 WEST GRANT ROAD - TELEPHONE 622-4836 - POST OFFICE BOX 5934

TUCSON, ARIZONA 85703

THE SOUTHWEST'S LEADING ASSAYERS AND REPRESENTATIVES

Branch Representatives at Buyer's Plants:

Phelps Dodge Corp., Douglas, Arizona; ASARCO, El Paso, Amarillo, Texas and Hayden, Arizona

IDENTIFICATION	Gold ozs.	Silver ozs.	Lead %	Copper %	Zinc %	Mo. %			
				PPM					
8 + 00 S - 6 + 25 E				426					
6 + 50 E				176					
6 + 75 E				62					
8 + 00 S - 7 + 00 E				46					
10 + 25 S - 0 + 00 E				148					
0 + 25 E				124					
0 + 50 E				116					
0 + 75 E				108					
1 + 00 E				204					
1 + 25 E				336					
1 + 50 E				214					
1 + 75 E				312					
2 + 00 E				464					
2 + 25 E				500					
2 + 50 E				270					
2 + 75 E				650					
3 + 00 E				> 1000					
3 + 25 E				694					
3 + 50 E				740					
3 + 75 E				806					
4 + 00 E				> 1000					
4 + 25 E				282					
4 + 50 E				272					
4 + 75 E				268					
5 + 00 E				110					
10 + 25 S - 5 + 25 E				62					

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REMARKS:

Analysis Cert. By

Page 8

Preparation \$

Analysis \$

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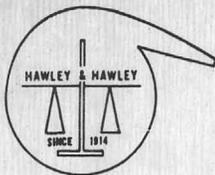
HEINRICHS GEOEXPLORATION CO.

Date Spl. Received 1/23/68

Date Compl. 1/26/68

TUC 337720

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Registered Assayers

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ASSAYERS AND CHEMISTS, INC.

1700 WEST GRANT ROAD - TELEPHONE 622-4836 - POST OFFICE BOX 5934

TUCSON, ARIZONA 85703

THE SOUTHWEST'S LEADING ASSAYERS AND REPRESENTATIVES

Branch Representatives at Buyer's Plants:

Phelps Dodge Corp., Douglas, Arizona; ASARCO, El Paso, Amarillo, Texas and Hayden, Arizona

IDENTIFICATION	Gold ozs.	Silver ozs.	Lead %	Copper %	Zinc %	Mo. %			
				PPM					
10 + 25 S - 5 + 50 E				68					
5 + 75 E				170					
10 + 25 S - 6 + 00 E				138					

CC: Heinrichs GeosExploration Co.
 ADD: P. O. Box 5671
 CITY: 806 West Grant Road
 ADD: Tucson, Arizona 85703
 CITY:

REMARKS:

Analysis Cert. By

D. C. Crighton

Page 9

Preparation \$ 228.80
 Analysis \$ 145.60

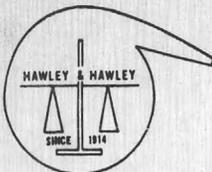
ACC: HEINRICHS GEOEXPLORATION CO.

Date Spl. Received 1/23/68

Date Compl. 1/26/68

TUC 337720

\$ 374.40



Registered Assayers

HAWLEY & HAWLEY

ASSAYERS AND CHEMISTS, INC.

1700 WEST GRANT ROAD - TELEPHONE 622-4836 - POST OFFICE BOX 5934

TUCSON, ARIZONA 85703

THE SOUTHWEST'S LEADING ASSAYERS AND REPRESENTATIVES

Branch Representatives at Buyer's Plants:
 Phelps Dodge Corp., Douglas, Arizona; ASARCO, El Paso, Amarillo, Texas and Hayden, Arizona

95 samples

IDENTIFICATION	Gold ozs.	Silver ozs.	Lead %	Copper %	Zinc %	Mo. %			
				PPM					
2 + 00 N - 0 + 25 W				254					
0 + 50 W				402					
0 + 75 W				274					
0 + 85 W				384					
1 + 25 W				664					
1 + 75 W				526					
2 + 00 W				220					
2 + 25 W				> 1000					
2 + 50 W				> 1000					
2 + 75 W				> 1000					
3 + 50 W				672					
4 + 00 W				438					
4 + 25 W				436					
4 + 50 W				112					
4 + 75 W				122					
5 + 00 W				124					
5 + 25 W				104					
5 + 50 W				92					
5 + 75 W				46					
6 + 00 W				66					
6 + 25 W				66					
6 + 50 W				100					
6 + 75 W				130					
7 + 00				164					

6 8.7 9
 5 0.2 8
 6 8.7 9
 3 7 4.4 0
 1 8 0.5 0
 7 4 2.7 6 *

CC: Heinrichs Geoploration Company
 ADD: P. O. Box 5671
 CITY: 806 West Grant Road
 ADD: Tucson, Arizona 85703
 CITY:

REMARKS:
 Geochem
 Page 1

Analysis Cert. By

Preparation \$
 Analysis \$

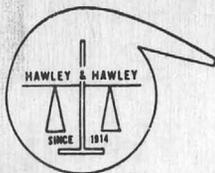
ACC: HEINRICHS GEOEXPLORATION CO.

Date Spl. Received 1/19/68

Date Compl. 1/25/68

TUC 337707

\$



HAWLEY & HAWLEY

ASSAYERS AND CHEMISTS, INC.

1700 WEST GRANT ROAD - TELEPHONE 622-4836 - POST OFFICE BOX 5934

TUCSON, ARIZONA 85703

Registered Assayers

THE SOUTHWEST'S LEADING ASSAYERS AND REPRESENTATIVES

Branch Representatives at Buyer's Plants:

Phelps Dodge Corp., Douglas, Arizona; ASARCO, El Paso, Amarillo, Texas and Hayden, Arizona

95 samples

IDENTIFICATION	Gold ozs.	Silver ozs.	Lead %	Copper %	Zinc %	Mo. %			
				PPM					
400 N - 0 + 25 E				166					
0 + 50 E				204					
0 + 75 E				206					
0 + 25 W				112					
0 + 50 W				566					
0 + 75 W				> 1000					
1 + 00 E				230					
1 + 25 E				226					
1 + 50 E				164					
1 + 75 E				146					
1 + 00 W				552					
1 + 25 W				528					
1 + 50 W				> 1000					
1 + 75 W				920					
2 + 00 E				288					
2 + 25 E				272					
2 + 50 E (2' W of wash)				168					
2 + 75 E (3' E of wash)				60					
2 + 00 W				592					
2 + 25 W				646					
2 + 50 W				> 1000					
2 + 75 W				950					
2 + 00 E				50					
3 + 25 E				38					
3 + 50 E				32					
3 + 75 E				24					

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REMARKS:

Analysis Cert. By

Page 2

Preparation \$

Analysis \$

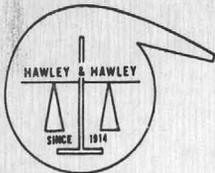
ACC: HEINRICHS GEOEXPLORATION CO.

Date Spl. Received 1/19/68

Date Compl. 1/25/68

TUC 337707

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Registered Assayers

HAWLEY & HAWLEY

ASSAYERS AND CHEMISTS, INC.

1700 WEST GRANT ROAD - TELEPHONE 622-4836 - POST OFFICE BOX 5934

TUCSON, ARIZONA 85703

THE SOUTHWEST'S LEADING ASSAYERS AND REPRESENTATIVES

Branch Representatives at Buyer's Plants:

Phelps Dodge Corp., Douglas, Arizona; ASARCO, El Paso, Amarillo, Texas and Hayden, Arizona

95 samples

IDENTIFICATION	Gold ozs.	Silver ozs.	Lead %	Copper %	Zinc %	Mo. %			
				PPM					
400 N - 3 + 00 W				640					
3 + 25 W				980					
3 + 50 W				> 1000					
3 + 75 W				594					
4 + 00				30					
4 + 00 W				186					
4 + 25 W				66					
4 + 50 W				62					
4 + 75 W				74					
5 + 00 W				56					
4 + 00 N - 5 + 25 W				48					
5 + 50 W				40					
5 + 75 W				52					
6 + 00 W				106					
6 + 25 W				114					
6 + 50 W				110					
6 + 75 W				402					
7 + 00 W				106					
7 + 25 W				124					
7 + 50 W				42					
7 + 75 W				82					
8 + 00 W				108					
8 + 25 W				118					
8 + 50 W				78					
8 + 75 W				44					

CC:
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REMARKS:

Analysis Cert. By

Page 3

Preparation \$

Analysis \$

ACC:

HEINRICHS GEOEXPLORATION CO.

Date Spl. Received

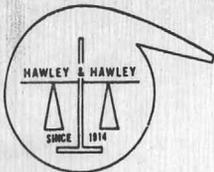
1/19/68

Date

Compl. 1/25/68

TUC 337707

\$



Registered Assayers

HAWLEY & HAWLEY

ASSAYERS AND CHEMISTS, INC.

1700 WEST GRANT ROAD - TELEPHONE 622-4836 - POST OFFICE BOX 5934

TUCSON, ARIZONA 85703

THE SOUTHWEST'S LEADING ASSAYERS AND REPRESENTATIVES

Branch Representatives at Buyer's Plants:

Phelps Dodge Corp., Douglas, Arizona; ASARCO, El Paso, Amarillo, Texas and Hayden, Arizona

95 samples

IDENTIFICATION	Gold ozs.	Silver ozs.	Lead %	Copper %	Zinc %	Mo. %			
				PPM					
4 + 00 N - 9 + 00 W				64					
9 + 25 W				110					
9 + 50 W				36					
9 + 75 W				56					
10 + 00 W				232					
10 + 25 W				212					
10 + 75 W				106					
11 + 25 W				126					
11 + 50 W				66					
12 + 00 W				74					
12 + 50 W (down in flats)				82					
Sample 1				562					
Sample 2				798					
Sample 3				902					
10 + 00 S - 2 + 50 E				> 1000					
4 + 50 E				> 1000					
6 + 60 E				56					
14 + 00 S - approx 3 + 00 E				108					
5 + 00 E				52					
7 + 00 E				42					

CC: Heinrichs GeosExploration Company
 ADD: P. O. Box 5671
 CITY: 806 West Grant Road
 ADD: Tucson, Arizona 85703
 CITY:

REMARKS:

Analysis Cert. By

D. Creighton

Page 4
20% discount

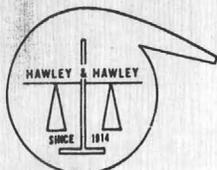
Preparation \$ 104.50
 Analysis \$ 76.00

ACC: HEINRICHS GEOEXPLORATION CO.

Date Spl. Received 1/19/68 Date Compl. 1/25/68

TUC 337707

\$ 180.50



Registered Assayers

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ASSAYERS AND CHEMISTS, INC.

1700 WEST GRANT ROAD - TELEPHONE 622-4836 - POST OFFICE BOX 5934

TUCSON, ARIZONA 85703

THE SOUTHWEST'S LEADING ASSAYERS AND REPRESENTATIVES

Branch Representatives at Buyer's Plants:

Phelps Dodge Corp., Douglas, Arizona; ASARCO, El Paso, Amarillo, Texas and Hayden, Arizona

208 samples

IDENTIFICATION	Gold ozs.	Silver ozs.	Lead %	Copper %	Zinc %	Mo. %			
				PFM					
2 + 00 S - 0 + 00				242					
0 + 25 E				266					
0 + 50 E				576					
0 + 75 E				> 1000					
1 + 00 E				> 1000					
2 + 50 E				514					
3 + 40 E				198					
3 + 75 E				374					
4 + 00 E				366					
4 + 25 E				546					
4 + 50 E				246					
4 + 75 E				400					
5 + 00 E				638					
5 + 25 E				314					
5 + 50 E				262					
5 + 75 E				568					
6 + 00 E				278					
6 + 25 E				372					
6 + 50 E				234					
6 + 75 E				306					
7 + 00 E				478					
7 + 25 E				> 1000					
2 + 00 S - 7 + 50 E				384					
4 + 00 S - 0 + 00				402					

CC: Heinrichs Geoexploration Company
 ADD: P. O. Box 5671
 CITY: 806 West Grant Road
 ADD: Tucson, Arizona 85703
 CITY:

REMARKS:

Analysis Cert. By

Page 1

Preparation \$

Analysis \$

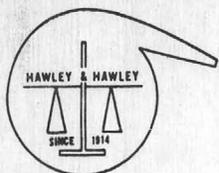
ACC: HEINRICHS GEOEXPLORATION CO.

Date Spl. Received 1/23/68

Date Compl. 1/26/68

TUC 337720

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HAWLEY & HAWLEY

ASSAYERS AND CHEMISTS, INC.

1700 WEST GRANT ROAD - TELEPHONE 622-4836 - POST OFFICE BOX 5934

TUCSON, ARIZONA 85703

Registered Assayers

THE SOUTHWEST'S LEADING ASSAYERS AND REPRESENTATIVES

Branch Representatives at Buyer's Plants:

Phelps Dodge Corp., Douglas, Arizona; ASARCO, El Paso, Amarillo, Texas and Hayden, Arizona

208 samples

IDENTIFICATION	Gold ozs.	Silver ozs.	Lead %	Copper %	Zinc %	Mo. %			
				PPM					
4 + 00 S - 0 + 25 E				162					
0 + 50 E				330					
0 + 75 E				622					
1 + 00 W				254					
1 + 75 E				880					
2 + 00 E				258					
2 + 00 W				144					
2 + 25 E				358					
3 + 00 W				262					
3 + 40 E				378					
3 + 75 E				> 1000					
4 + 00 E				950					
4 + 00 W				150					
4 + 25 E				556					
4 + 50 E				688					
4 + 75 E				374					
5 + 00 E				254					
5 + 00 W				108					
5 + 25 E				410					
5 + 50 E				256					
5 + 75 E				370					
6 + 00 E				184					
6 + 00 W				78					
6 + 25 E				248					
6 + 50 W				166					
4 + 00 S - 6 + 75 E				180					

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REMARKS:

Analysis Cert. By

Page 2

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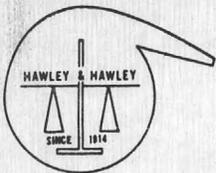
ACC: HEINRICHS GEOEXPLORATION CO.

Date Spl. Received 1/23/68

Date Compl. 1/26/68

TUC 337720

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Registered Assayers

HAWLEY & HAWLEY

ASSAYERS AND CHEMISTS, INC.

1700 WEST GRANT ROAD - TELEPHONE 622-4836 - POST OFFICE BOX 5934

TUCSON, ARIZONA 85703

THE SOUTHWEST'S LEADING ASSAYERS AND REPRESENTATIVES

Branch Representatives at Buyer's Plants:

P Phelps Dodge Corp., Douglas, Arizona; ASARCO, El Paso, Amarillo, Texas and Hayden, Arizona

208 samples

IDENTIFICATION	Gold ozs.	Silver ozs.	Lead %	Copper %	Zinc %	Mo. %			
				PPM					
4 + 00 S - 7 + 00 E				200					
7 + 00 W				38					
8 + 00 W				28					
9 + 00 W				36					
10 + 00 W				32					
11 + 00 W				28					
12 + 00 W				50					
13 + 00 W				22					
14 + 00 W				70					
4 + 00 S - 15 + 00 W				54					
5 + 00 S - 15 + 00 W				20					
6 + 00 N - 0 + 00				98					
0 + 50 W				196					
0 + 75 E				294					
1 + 00 E				604					
1 + 00 W				238					
1 + 50 W				226					
2 + 00 E				> 1000					
2 + 00 W				312					
2 + 50 W				634					
3 + 00 W				> 1000					
3 + 50 W				416					
4 + 00 W				80					
4 + 50 W				42					
5 + 00 W				44					

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Analysis Cert. By

Page 3

Preparation \$
Analysis \$

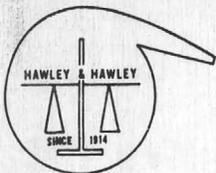
ACC: HEINRICHS GEOREXPLORATION CO.

Date Spl. Received 1/23/68

Date Compl. 1/26/68

TUC 337720

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Registered Assayers

HAWLEY & HAWLEY

ASSAYERS AND CHEMISTS, INC.

1700 WEST GRANT ROAD - TELEPHONE 622-4836 - POST OFFICE BOX 5934

TUCSON, ARIZONA 85703

THE SOUTHWEST'S LEADING ASSAYERS AND REPRESENTATIVES

Branch Representatives at Buyer's Plants:
 Phelps Dodge Corp., Douglas, Arizona; ASARCO, El Paso, Amarillo, Texas and Hayden, Arizona

208 samples

IDENTIFICATION	Gold ozs.	Silver ozs.	Lead %	Copper %	Zinc %	Mo. %			
				PPM					
6 + 00 N - 5 + 50 W				42					
6 + 00 W				30					
6 + 50 W				66					
7 + 00 W				46					
7 + 50 W				122					
8 + 00 W				98					
8 + 50 W				84					
9 + 00 W				416					
9 + 50 W				104					
10 + 00 W				234					
10 + 50 W				> 1000					
11 + 00 W				562					
11 + 50 W				464					
12 + 00 W				406					
12 + 50 W				162					
13 + 00 W				150					
13 + 50 W				118					
14 + 00 W				80					
14 + 50 W				108					
6 + 00 N - 15 + 00 W				68					
6 + 00 S - 0 + 00				200					
0 + 25 E				308					
0 + 50 E				348					
1 + 25 E				930					
1 + 50 E (a)				> 1000					
6 + 00 S - 1 + 50 E (b)				86					

CC:
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 CITY:

REMARKS:

 Page 4'

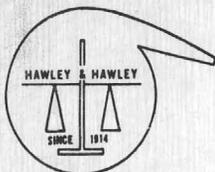
Analysis Cert. By

 Preparation \$
 Analysis \$

ACC: HEINRICHS GEOEXPLORATION CO.

Date Spl. Received 1/24/68 Date Compl. 1/26/68

TUC 337720 \$



HAWLEY & HAWLEY

ASSAYERS AND CHEMISTS, INC.

1700 WEST GRANT ROAD - TELEPHONE 622-4836 - POST OFFICE BOX 5934

TUCSON, ARIZONA 85703

Registered Assayers

THE SOUTHWEST'S LEADING ASSAYERS AND REPRESENTATIVES

Branch Representatives at Buyer's Plants:

Phelps Dodge Corp., Douglas, Arizona; ASARCO, El Paso, Amarillo, Texas and Hayden, Arizona

IDENTIFICATION	Gold ozs.	Silver ozs.	Lead %	Copper %	Zinc %	Mo. %			
				PPM					
6 + 00 S - 2 + 25 E				384					
3 + 75 E				114					
4 + 00 E				102					
4 + 25 E				110					
4 + 50 E				50					
4 + 75 E				30					
5 + 00 E				28					
5 + 25 E				30					
5 + 50 E				32					
5 + 75 E				48					
6 + 00 E				40					
6 + 25 E				64					
6 + 50 E				38					
6 + 75 E				26					
7 + 00 W				26					
6 + 00 S - 15 + 00 W				36					
7 + 00 S - 0 + 00 W				58					
1 + 00 W				24					
2 + 00 W				24					
3 + 00 W				> 1000					
4 + 00 W				> 1000					
5 + 00 W				384					
6 + 00 W (a)				276					
6 + 00 W (b)				366					
7 + 00 W				262					
7 + 00 S - 8 + 00 W				212					

CC:
ADD:
CITY:
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CITY:

REMARKS:

Analysis Cert. By

Page 5

Preparation \$
Analysis \$

ACC:

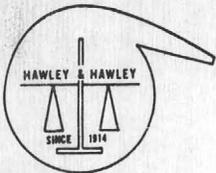
HEINRICHS GEOEXPLORATION CO.

Date Spl. Received 1/24/68

Date Compl. 1/26/68

TUC 337T20

\$



Registered Assayers

HAWLEY & HAWLEY

ASSAYERS AND CHEMISTS, INC.

1700 WEST GRANT ROAD - TELEPHONE 622-4836 - POST OFFICE BOX 5934

TUCSON, ARIZONA 85703

THE SOUTHWEST'S LEADING ASSAYERS AND REPRESENTATIVES

Branch Representatives at Buyer's Plants:
Phelps Dodge Corp., Douglas, Arizona; ASARCO, El Paso, Amarillo, Texas and Hayden, Arizona

IDENTIFICATION	Gold ozs.	Silver ozs.	Lead %	Copper %	Zinc %	Mo. %			
				FFM					
7 + 00 S - 9 + 00 W				128					
10 + 00 W				552					
11 + 00 W				220					
12 + 00 W				248					
13 + 00 W				280					
14 + 00 W				210					
7 + 00 S - 15 + 00 W				200					
8 + 00 N - 0 + 00				370					
1 + 00 W				356					
2 + 00 W				34					
3 + 00 W				208					
4 + 00 W				266					
5 + 00 W				238					
6 + 00 W				32					
7 + 00 W				86					
8 + 00 W				146					
9 + 00 W				142					
9 + 50 W				108					
10 + 00 W				266					
10 + 50 W				300					
11 + 00 W				> 1000					
11 + 50 W				812					
12 + 00 W				742					
12 + 50 W				> 1000					
13 + 00 W				266					
8 + 00 N - 13 + 50 W				202					

CC:
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CITY:

REMARKS:

Analysis Cert. By

Page 6

Preparation \$
Analysis \$

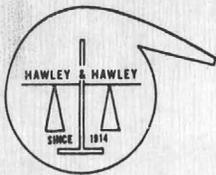
ACC: HEINRICHS GEOEXPLORATION CO.

Date Spl. Received 1/23/68

Date Compl. 1/26/68

TUC 337720

\$



Registered Assayers

HAWLEY & HAWLEY

ASSAYERS AND CHEMISTS, INC.

1700 WEST GRANT ROAD - TELEPHONE 622-4836 - POST OFFICE BOX 5934

TUCSON, ARIZONA 85703

THE SOUTHWEST'S LEADING ASSAYERS AND REPRESENTATIVES

Branch Representatives at Buyer's Plants:

Phelps Dodge Corp., Douglas, Arizona; ASARCO, El Paso, Amarillo, Texas and Hayden, Arizona

IDENTIFICATION	Gold ozs.	Silver ozs.	Lead %	Copper %	Zinc %	Mo. %			
				PPM					
8 + 00 N -14 + 00 W				168					
14 + 50 W				104					
8 + 00 N -15 + 00 W				128					
8 + 00 S - 0 + 00 E				108					
0 + 25 E				190					
0 + 50 E				188					
0 + 75 E				178					
1 + 00 E				144					
1 + 25 E				150					
1 + 50 E				288					
1 + 75 E			>	1000					
2 + 00 E			>	1000					
2 + 25 E			>	1000					
2 + 50 E			>	1000					
2 + 75 E			>	1000					
3 + 00 E				772					
3 + 25 E				256					
3 + 75 E				110					
4 + 25 E				124					
4 + 50 E				138					
4 + 75 E				248					
5 + 00 E				622					
5 + 25 E				254					
5 + 50 E				132					
5 + 75 E				168					
8 + 00 S - 6 + 00 E				158					

CC:
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CITY:

REMARKS:

Analysis Cert. By

Page 7

Preparation \$
Analysis \$

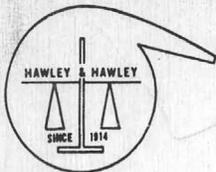
ACC: HEINRICHS GEOEXPLORATION CO.

Date Spl. Received 1/23/68

Date Compl. 1/26/68

TUC 337720

\$



HAWLEY & HAWLEY

ASSAYERS AND CHEMISTS, INC.

1700 WEST GRANT ROAD - TELEPHONE 622-4836 - POST OFFICE BOX 5934

Registered Assayers

TUCSON, ARIZONA 85703

THE SOUTHWEST'S LEADING ASSAYERS AND REPRESENTATIVES

Branch Representatives at Buyer's Plants:
 Phelps Dodge Corp., Douglas, Arizona; ASARCO, El Paso, Amarillo, Texas and Hayden, Arizona

IDENTIFICATION	Gold ozs.	Silver ozs.	Lead %	Copper %	Zinc %	Mo. %			
				PPM					
8 + 00 S - 6 + 25 E				426					
6 + 50 E				176					
6 + 75 E				62					
8 + 00 S - 7 + 00 E				46					
10 + 25 S - 0 + 00 E				148					
0 + 25 E				124					
0 + 50 E				116					
0 + 75 E				108					
1 + 00 E				204					
1 + 25 E				336					
1 + 50 E				214					
1 + 75 E				312					
2 + 00 E				464					
2 + 25 E				500					
2 + 50 E				270					
2 + 75 E				650					
3 + 00 E				> 1000					
3 + 25 E				694					
3 + 50 E				740					
3 + 75 E				806					
4 + 00 E				> 1000					
4 + 25 E				282					
4 + 50 E				272					
4 + 75 E				268					
5 + 00 E				110					
10 + 25 S - 5 + 25 E				62					

CC:
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 CITY:
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 CITY:

REMARKS:

Analysis Cert. By

Page 8

Preparation \$
 Analysis \$

ACC: HEINRICHS GEOEXPLORATION CO.

Date Spl. Received 1/23/68

Date Compl. 1/26/68

TUC 337720

\$



HAWLEY & HAWLEY

ASSAYERS AND CHEMISTS, INC.

1700 WEST GRANT ROAD - TELEPHONE 622-4836 - POST OFFICE BOX 5934

Registered Assayers

TUCSON, ARIZONA 85703

THE SOUTHWEST'S LEADING ASSAYERS AND REPRESENTATIVES

Branch Representatives at Buyer's Plants:

Phelps Dodge Corp., Douglas, Arizona; ASARCO, El Paso, Amarillo, Texas and Hayden, Arizona

IDENTIFICATION	Gold ozs.	Silver ozs.	Lead %	Copper %	Zinc %	Mo. %			
				PPM					
10 + 25 S - 5 + 50 E				68					
5 + 75 E				170					
10 + 25 S - 6 + 00 E				138					

CC: Heinrichs Geoexploration Co.
 ADD: P. O. Box 5671
 CITY: 806 West Grant Road
 ADD: Tucson, Arizona 85703
 CITY:

REMARKS:

Analysis Cert. By

D. C. ...

Page 9

Preparation \$ 228.80
 Analysis \$ 145.60

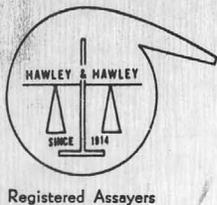
ACC: HEINRICHS GEOEXPLORATION CO.

Date Spl. Received 1/23/68

Date Compl. 1/26/68

TUC 337720

\$ 374.40



HAWLEY & HAWLEY

ASSAYERS AND CHEMISTS, INC.

1700 WEST GRANT ROAD - TELEPHONE 622-4836 - POST OFFICE BOX 5934

TUCSON, ARIZONA 85703

THE SOUTHWEST'S LEADING ASSAYERS AND REPRESENTATIVES

Branch Representatives at Buyer's Plants:
Phelps Dodge Corp., Douglas, Arizona; ASARCO, El Paso, Amarillo, Texas and Hayden, Arizona

31

IDENTIFICATION	Gold ozs.	Silver ozs.	Lead %	Copper %	Zinc %	Mo. %			
				PPM					
36				> 1000					
37				> 1000					
38				84					
39				40					
40				62					
41				54					
42				50					
43				146					
44				44					
45				44					
46				58					
47				50					
48				66					
49				40					
50				48					
51				388					
52				38					
53				34					
54				44					
55				136					
56				34					
57				66					
58				64					
59				110					
60				72					
61				46					

CC: **Heinrichs Geoexploration Company**
 ADD: **P. O. Box 5671**
 CITY: **Tucson, Arizona 85703**
 ADD:
 CITY:

REMARKS:

Geochem
Page 1

Analysis Cert. By

Preparation \$
 Analysis \$

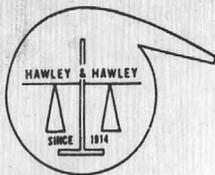
ACC: **HEINRICHS GEOEXPLORATION COMPANY**

Date Spl. Received **1/25/68**

Date Compl. **1/29/68**

TUC 337738

\$



HAWLEY & HAWLEY

ASSAYERS AND CHEMISTS, INC.

1700 WEST GRANT ROAD - TELEPHONE 622-4836 - POST OFFICE BOX 5934

TUCSON, ARIZONA 85703

Registered Assayers

THE SOUTHWEST'S LEADING ASSAYERS AND REPRESENTATIVES

Branch Representatives at Buyer's Plants:

Phelps Dodge Corp., Douglas, Arizona; ASARCO, El Paso, Amarillo, Texas and Hayden, Arizona

31

IDENTIFICATION	Gold ozs.	Silver ozs.	Lead %	Copper %	Zinc %	Mo. %			
				PPM					
62				42					
63				44					
64				40					
65				36					
66				56					

CC: **Heinrichs Geoexploration Company**
 ADD: **P. O. Box 567L**
 CITY: **Tucson, Arizona 85703**
 ADD:
 CITY:

REMARKS:

Geochem
Page 2

Analysis Cert. By

D. Crighton

Preparation \$ **34.10**
 Analysis \$ **30.69**

ACC: **HEINRICHS GEOEXPLORATION COMPANY**

Date Spl. Received **1/25/68**

Date Compl. **1/29/68**

TUC 337738

\$ **68.79**



Registered Assayers

HAWLEY & HAWLEY

ASSAYERS AND CHEMISTS, INC.

1700 WEST GRANT ROAD - TELEPHONE 622-4836 - POST OFFICE BOX 5934

TUCSON, ARIZONA 85703

THE SOUTHWEST'S LEADING ASSAYERS AND REPRESENTATIVES

Branch Representatives at Buyer's Plants:
 Phelps Dodge Corp., Douglas, Arizona; ASARCO, El Paso, Amarillo, Texas and Hayden, Arizona

24

IDENTIFICATION	Gold ozs.	Silver ozs.	Lead %	Copper %	Zinc %	Mo. %			
				PPM					
# 9 - Los 14 NW				66					
#10 - Los NW 12				28					
#11 - 74 NW				66					
#12 - 74				32					
#13 - Ang 29/And 16 A 27/A 20				50					
#14 - Corner X				70					
#15 - 2 + 00 S 8 + 00 E				> 1000					
#16 - 2 + 00 S 9 + 00 E				252					
#17 - 2 + 00 S 10 + 00 E				82					
#18 - 2 + 00 S 11 + 00 E				108					
#19 - 2 + 00 S 12 + 00 E				120					
#20 - 2 + 00 S 13 + 00 E				150					
#21 - 2 + 00 S 14 + 00 E				70					
#22 - 2 + 00 S 15 + 00 E				54					
#23 - 2 + 00 S 16 + 00 E				48					
#24 - 2 + 00 S 17 + 00 E				38					
#25 - 2 + 00 S 18 + 00 E				38					
#26 - 2 + 00 S 19 + 00 E				34					
#27 - 2 + 00 S 20 + 00 E				34					
#28 - 2 + 00 S 21 + 00 E				64					
#29 - 2 + 00 S 22 + 00 E				38					
#30 - 2 + 00 S 23 + 00 E				60					
#31 - 2 + 00 S 24 + 00 E				114					
#32 - 2 + 00 S 25 + 00 E				250					

CC: Heinrichs Geoporation Company
 ADD: P. O. Box 5671
 CITY: Tucson, Arizona 85703
 ADD:
 CITY:

REMARKS:

Geochem

Analysis Cert. By

D. Craig Hton

Preparation \$ 26.40
 Analysis \$ 23.88

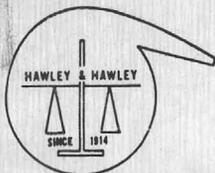
ACC: HEINRICHS GEOEXPLORATION CO.

Date Spl. Received 1/25/68

Date Compl. 1/29/68

TUC 337730

\$ 50.28



Registered Assayers

HAWLEY & HAWLEY

ASSAYERS AND CHEMISTS, INC.

1700 WEST GRANT ROAD - TELEPHONE 622-4836 - POST OFFICE BOX 5934

TUCSON, ARIZONA 85703

THE SOUTHWEST'S LEADING ASSAYERS AND REPRESENTATIVES

Branch Representatives at Buyer's Plants:
Phelps Dodge Corp., Douglas, Arizona; ASARCO, El Paso, Amarillo, Texas and Hayden, Arizona

31

IDENTIFICATION	Gold ozs.	Silver ozs.	Lead %	Copper %	Zinc %	Mo. %			
				PPM					
36				> 1000					
37				> 1000					
38				84					24
39				40					
40				62					
41				54					
42				50					
43				146					
44				44					
45				44					
46				58					
47				50					
48				66					
49				40					
50				48					
51				388					
52				38					
53				34					
54				44					
55				136					
56				34					
57				66					
58				64					
59				110					
60				72					
61				46					

CC: Heinrichs Geoporation Company
 ADD: P. O. Box 5671
 CITY: Tucson, Arizona 85703
 ADD:
 CITY:

REMARKS:

Geochem
Page 1

Analysis Cert. By

Preparation \$
Analysis \$

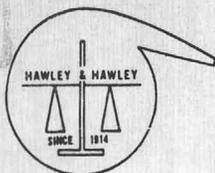
ACC: HEINRICHS GEOEXPLORATION COMPANY

Date Spl. Received 1/25/68

Date Compl. 1/29/68

TUC 337738

\$



Registered Assayers

HAWLEY & HAWLEY

ASSAYERS AND CHEMISTS, INC.

1700 WEST GRANT ROAD - TELEPHONE 622-4836 - POST OFFICE BOX 5934

TUCSON, ARIZONA 85703

THE SOUTHWEST'S LEADING ASSAYERS AND REPRESENTATIVES

Branch Representatives at Buyer's Plants:

Phelps Dodge Corp., Douglas, Arizona; ASARCO, El Paso, Amarillo, Texas and Hayden, Arizona

31

IDENTIFICATION	Gold ozs.	Silver ozs.	Lead %	Copper %	Zinc %	Mo. %			
				FPM					
62				42					
63				44					
64				40					24
65				36					
66				56					

CC: **Heinrichs Geoporation Company**
 ADD: P. O. Box 5671
 CITY: Tucson, Arizona 85703
 ADD:
 CITY:

REMARKS:

Geochem
Page 2

Analysis Cert. By

D. Crighton

Preparation \$ 34.10

Analysis \$ 30.69

ACC: **HEINRICHS GEOEXPLORATION COMPANY**

Date Spl. Received

1/25/68

Date Compl.

1/29/68

TUC 337738

\$ 68.79



HEINRICHS GEOEXPLORATION COMPANY

806 WEST GRANT ROAD, TUCSON, ARIZONA, 85703. P.O. BOX 5671. PHONE: (AREA CODE 602) 623-0578

January 19, 1968

Mr. James Glass
M.P. & H.R. Consultants
4409 East Patricia
Tucson, Arizona

Dear Jim:

Confirming our discussions with you and Mr. Ferrill, we herewith propose for our mutual understanding and agreement as follows:

Beginning within two weeks of your authorization to proceed, Geoex will furnish a three man I.P. crew using medium output equipment to conduct surveys in Sections 17, 18, 19, and 20, T8S, R12E, Pinal County, Arizona.

Charges will be at the rate of \$250.00 per I.P. crew day and it is recommended that ² ~~six~~ lines be run approximately 2,000 feet apart on a 500 foot dipole spacing to process the area in a reconnaissance fashion. Vehicle charges will be \$12.00 per day, plus 12¢ per mile per vehicle and one vehicle will be used. Directly related supplies, communications, living, and other directly incidental charges at our cost. Final compilation, interpretation and report is \$125.00 per Tucson staff day. C.S.L.

Total cost including the report and interpretation is estimated at \$3,000.00. E.P.B.

Mobilization and demobilization, travel, excessive weather delay and standby charges are one-half the daily rate. Breakdown of our equipment in excess of one hour per day will be made up or not charged.

EGH:jc
Enclosure

TITLE: Prospect

ACCEPTED BY: E. Grover Heinrichs

DATE: Jan 22/68

E. Grover Heinrichs
Vice President

HEINRICHS GEOEXPLORATION COMPANY
Very truly yours,

Indication of your understanding and approval of the above by executing as provided below on the attached copy of this letter and returning it to us, will be most appreciated.

Payments due on presentation. Billings may be submitted periodically with final statement after completion of final report.

Geochem analysis by atomic absorption spectrographic method: \$1.00 soil sample preparation \$1.75 rock sample prep. 0.50 per element determination Minimum order of \$100.00 otherwise \$2.30 per copper determination plus 50¢ for each additional determination including sample preparation. With single orders of \$1,000.00 or more, a reduction of 5% is allowed.

Preliminary reports or copies of rough field plotting sheets will be available as work progresses.

Geox will save client harmless from all workmen's Compensation, public liability and property damage liability incurred by Geox employees.

All property permits, brushing and trespassing-liability and related costs incurred on behalf of client assumed by client. Charges for extra equipment and personnel employed if mutually desired, are extra.

Others of our technical staff are involved as needed and/or are supplied as requested and mutually agreed upon.

February 8, 1968.

Lou Stockneyer
M.P. & H.R. Consultants *(got File)*

SUBJECTS In parts per million geochemical analysis
229-68

M.P. & H.R. ID.#	GEOEX #	Cu ppm
2+00S 31+00E	1	110
2+00S 32+00E	2	28
2+00S 33+00E	3	48
2+00S 34+00E	4	89
2+00S 35+00E	5	54
2+00S 36+00E	6	46
2+00S 37+00E	7	42
2+00S 38+00E	8	34
2+00S 39+00E	9	28
2+00S 40+00E	10	22
2+00S 41+00E	11	26
2+00S 41+75E	12	25
2+00S 43+00E	13	35
2+00S 43+75E	14	26
2+00S 45+00E	15	29
131	16	36
132	17	44
133	18	121
134	19	105
135	20	120
136	21	97
137	22	50
138	23	26
139	24	42
140	25	76
141	26	30
142	27	20
143	28	28
144	29	14
145	30	20
146	31	18
147	32	27
148	33	15
149	34	23

M.P. & H.R.

February 8, 1968.

M.P. & H.R. ID.#	GEOEX #	Cu ppm
500	35	29
151	36	24
152	37	18
153	38	24
154	39	14
155	40	30
156	41	18
157	42	22
158	43	29
159	44	12
160	45	29
161	46	10
2+00S	26+00E (67)	47
2+00S	27+00E (68)	48
2+00S	28+00E (69)	49
2+00S	29+00E (70)	50
2+00S	30+00E (71)	51
13+00N	0+00E (101)	52
13+00N	1+00E (100)	53
13+00N	2+00E (99)	54
13+00N	3+00E (98)	55
13+00N	4+00E (97)	56
13+00N	5+00E (96)	57
13+00N	6+00E (95)	58
13+00N	7+00E (94)	59
13+00N	8+00E (93)	60
13+00N	9+00E (92)	61
13+00N	10+00E (91)	62
13+00N	11+00E (90)	63
13+00N	12+00E (89)	64
13+00N	13+00E (88)	65
13+00N	14+00E (87)	66
13+00N	15+00E (86)	67
13+00N	16+00E (85)	68
13+00N	17+00E (84)	69
13+00N	18+00E (83)	70
13+00N	19+00E (82)	71
13+00N	30+00E (81)	72
13+00N	29+00E (80)	73
13+00N	28+00E (79)	74
13+00N	27+00E (78)	75
13+00N	26+00E (77)	76
13+00N	25+00E (76)	77
13+00N	24+00E (75)	78
13+00N	23+00E (74)	79
13+00N	22+00E (73)	80
13+00N	21+00E (72)	81
13+00N	20+00E (71)	82
13+00N	31+00E (112)	83
13+00N	32+00E (113)	84

M.P. & H.R.

February 8, 1968.

M.P. & H.R.	ID.#	GEOEX #	Cu ppm
13+00N	33+00E (114)	85	28
13+00N	34+00E (115)	86	34
13+00N	35+00E (116)	87	48
13+00N	36+00E (117)	88	28
13+00N	37+00E (118)	89	22
13+00N	40+00E (121)	90	20
13+00N	41+00E (122)	91	23
13+00N	42+00E (123)	92	22
13+00N	45+00E (126)	93	22
13+00N	47+00E (128)	94	20
13+00N	49+00E (130)	95	18
13+00N	50+00E (131)	96	23
13+00N	1+00W (102)	97	30
13+00N	2+00W (103)	98	20
13+00N	3+00W (104)	99	19
13+00N	4+00W (105)	100	21
13+00N	5+00W (106)	101	19
13+00N	6+00W (107)	102	24
13+00N	7+00W (108)	103	35
13+00N	8+00W (109)	104	36
13+00N	9+00W (110)	105	34
13+00N	10+00W (111)	106	54
13+00N	38+00W (119)	107	26
13+00N	39+00W (120)	108	14
13+00N	43+00W (124)	109	18
13+00N	44+00W (125)	110	28
13+00N	46+00W (127)	111	17
13+00N	48+00W ?(129)	112	17
162		113	39
163		114	90
164	115 77	115	77
165		116	135
166		117	98
167		118	210
168		119	27
169		120	31
170		121	39
171		122	16
172		123	56
173	(Hit 33+00E)	124	41
174		125	34
175		126	986
176		127	13
177	(Hit road)	128	26
178		129	22
179		130	30
180		131	26
181		132	17
182		133	14
183		134	13

M.P. & H.R.

February 8, 1968.

M.P. & H.R. ID.#	GEOEX #	Cu ppm
184	135	25
185	136	18
18+00N 24+00E (186)	137	33
18+00N 23+00E (187)	138	35
18+00N 22+00E (188)	139	66
18+00N 21+00E (189)	140	288
18+00N 20+00E (190)	141	107
18+00N 19+00E (191)	142	34
18+00N 18+00E (192)	143	43
18+00N 17+00E (193)	144	52
18+00N 16+00E (194)	145	38
18+00N 15+00E (195)	146	32
18+00N 14+00E (196)	147	48
18+00N 13+00E (197)	148	18
18+00N 12+00E (198)	149	36
18+00N 11+00E (199)	150	--
18+00N 10+00E (200)	151	23
18+00N 9+00E (201)	152	64
18+00N 8+00E (202)	153	33
18+00N 7+00E (203)	154	59
18+00N 6+00E (204)	155	35
18+00N 5+00E (205)	156	25
18+00N 4+00E (206)	157	18
18+00N 3+00E (207)	158	22
18+00N 2+00E (208)	159	19
18+00N 1+00E (209)	160	26
18+00N 0+00E (210)	161	34
8+00N 20+00E (216)	162	36
8+00N 21+00E (217)	163	42
8+00N 22+00E (218)	164	134
8+00N 23+00E (219)	165	22
8+00N 24+00E (219)	166	55
8+00N 25+00E (220)	167	25
8+00N 26+00E (221)	168	39
8+00N 27+00E (222)	169	39
8+00N 28+00E (223)	170	33

February 12, 1968.

Lou Stockneyer
M.P. & H.R. Consultants

SUBJECTS In parts per million geochemical analysis
229-68

M.P. & H.R. ID.#	GEOEX #	Cu ppm
18+00N 11+00E (199)	150	45
8+00N 16+00E (254)	201	56
8+00N 15+00E (255)	202	52
8+00N 14+00E (256)	203	63
8+00N 13+00E (257)	204	62
8+00N 12+00E (258)	205	97
8+00N 11+00E (259)	206	54
8+00N 10+00E (260)	207	45
8+00N 9+00E (261)	208	49
8+00N 8+00E (262)	209	49
8+00N 7+00E (263)	210	50
8+00N 6+00E] (264)	211	39
8+00N 5+00E (265)	212	36
8+00N 4+00E (266)	213	34
8+00N 3+00E] (267)	214	49
8+00N 2+00N (268)	215	37
8+00N 1+00N (269)	216	36
28+00N 14+00E (295)	217	56
28+00N 13+00E (296)	218	58
28+00N 12+00E (297)	219	68
28+00N 11+00E (298)	220	59
28+00N 10+00E (299)	221	60
28+00N 9+00E (300)	222	47
28+00N 8+00E (301)	223	36
28+00N 7+00E (302)	224	46
28+00N 6+00E (303)	225	44
28+00N 5+00E (304)	226	30
28+00N 4+00E (305)	227	49
28+00N 3+00E (306)	228	32
28+00N 2+00E (307)	229	43
28+00N 1+00E (308)	230	32
28+00N 0+00 (309)	231	32
28+00N 1+00W (310)	232	35

M.P. & H.R.

February 12, 1968.

M.P. & H.R. ID.#	GEOEX #	Cu ppm
28+00N 2+00W (311)	233	32
28+00N 3+00W (312)	234	42
28+00N 4+00W (313)	235	--
28+00N 5+00W (314)	236	31
L/82/WE, L/797SE (1)	237	57
L/787SE, L/77SW, 81/NE, L/82/NW (2)	238	44
L/78, L/79 (3)	239	1370
L/75/SE, 76/SW, 79/NW 78/NE (4)	240	52
L/75, 76 (5)	241	60
L/76/NW, 75/NE (6)	242	64
L/74NE, 75/NW (7)	243	102
L/76/NE (8)	244	80
28+00N 40+00E (315)	245	39
28+00N 41+00E (316)	246	28
28+00N 42+00E (317)	247	33
28+00N 43+00E (318)	248	33
28+00N 44+00E (319)	249	34
28+00N 45+00E (320)	250	24
28+00N 46+00E (321)	251	34
28+00N 47+00E (322)	252	34
28+00N 48+00E (323)	253	28
28+00N 49+00E (324)	254	34
28+00N 50+00E (325)	255	35
28+00N 51+00E (326)	256	28
28+00N 52+00E (327)	257	--
28+00N 53+00E (328)	258	40
28+00N 54+00E (329)	259	28
28+00N 55+00E (330)	260	26
28+00N 20+00E (270)	261	37
28+00N 21+00E (271)	262	56
28+00N 22+00E (272)	263	25
28+00N 23+00E (273)	264	33
28+00N 24+00E (274)	265	38
28+00N 25+00E (275)	266	31
28+00N 26+00E (276)	267	22
28+00N 27+00E (277)	268	--
28+00N 28+00E (278)	269	26
28+00N 29+00E (279)	270	26
28+00N 30+00E (280)	271	34
28+00N 31+00E (281)	272	16
28+00N 32+00E (282)	273	26
28+00N 33+00E (283)	274	34
28+00N 34+00E (284)	275	31
28+00N 35+00E (285)	276	24
28+00N 36+00E (286)	277	38
28+00N 37+00E (287)	278	24
28+00N 38+00E (288)	279	36

M.P. & H.R.

February 12, 1968.

M.P. & H.R. ID.#	GEOEX #	Cu ppm
28+00N 39+00E (289)	280	32
28+00N 19+00E (290)	281	48
28+00N 18+00E (291)	282	52
28+00N 17+00E (292)	283	26
28+00N 16+00E (292)	284	28
28+00N 15+00E (294)	285	42
23+00N 20+00E	286	46
23+00N 21+00E	287	42
23+00N 22+00E	288	46
23+00N 23+00E	289	31
23+00N 24+00E	290	41
23+00N 25+00E	391	37
23+00N 26+00E	292	33
23+00N 27+00E	293	42
23+00N 28+00E	294	28
23+00N 29+00E	295	36
23+00N 30+00E	296	41
23+00N 31+00E	297	29
23+00N 32+00E	298	42
23+00N 33+00E	300	45
23+00N 34+00E	301	38
23+00N 35+00E	302	28
23+00N 36+00E	303	27
23+00N 37+00E	304	26
23+00N 38+00E	305	38
23+00N 39+00E	306	33
23+00N 40+00E	307	28
23+00N 41+00E	308	30
23+00N 42+00E	309	26
23+00N 43+00E	310	28
23+00N 44+00E	311	38
23+00N 45+00E	312	32
23+00N 46+00E	313	39
23+00N 47+00E	314	39
23+00N 48+00E	315	25
23+00N 49+00E	316	32
23+00N 50+00E	317	35
23+00N 51+00E	318	28
23+00N 52+00E	319	17
23+00N 53+00E	320	24
23+00N 54+00E	321	34
23+00N 55+00E	322	26
23+00N 1+00W	323	30
23+00N 2+00W	324	32
23+00N 3+00W	325	46
23+00N 4+00W	326	38
23+00N 5+00W	327	40
23+00N 0+00E	328	39
23+00N 1+00E	329	34
23+00N 2+00E	330	45

Note: GEOEX #299 missing

M.P. & H.R.

February 12, 1968.

M.P. & H.R.	ID.#	GEOEX #	Cu ppm
23+00N	3+00E	331	40
23+00N	4+00E	332	27
23+00N	5+00E	333	56
23+00N	6+00E	334	39
23+00N	7+00E	335	35
23+00N	8+00E	336	39
23+00N	9+00E	337	24
23+00N	10+00E	338	29
23+00N	11+00E	339	36
23+00N	12+00E	340	34
23+00N	13+00E	341	36
23+00N	14+00E	342	30
23+00N	15+00E	343	31
23+00N	16+00E	344	43
23+00N	17+00E	345	--
23+00N	18+00E	346	40
23+00N	19+00E	347	34
12+00S	1+00E	348	47
12+00S	2+00E	349	85
12+00S	3+00E	350	75
12+00S	4+00E	351	615
12+00S	5+00E	352	805
12+00S	6+00E	353	98
12+00S	7+00E	354	--
12+00S	8+00E	355	--
12+00S	9+00E	356	58
12+00S	10+00E	357	28
12+00S	11+00E	358	38
12+00S	12+00E	359	37
12+00S	13+00E	360	146
12+00S	14+00E	361	206
12+00S	15+00E	362	1066
12+00S	16+00E	363	378
12+00S	17+00E	364	96
12+00S	18+00E	365	44
12+00S	19+00E	366	37
12+00S	20+00E	367	38
12+00S	21+00E	368	32
12+00S	22+00E	369	20
12+00S	23+00E	370	50
12+00S	24+00E	371	22
12+00S	25+00E	372	34
12+00S	26+00E	373	33
12+00S	27+00E	374	56
12+00S	28+00E	375	70
12+00S	29+00E	376	63
12+00S	30+00E	377	80
12+00S	31+00E	378	29
12+00S	32+00E	379	64
12+00S	33+00E	381	46
12+00S	34+00E	382	34

Note: GEOEX #380 missing

M.P. & H.R.

February 12, 1968.

M.P. & H.R. ID.#	GEOEX #	Cu ppm
12+00S 35+00E	383	60
12+00S 36+00E	384	33
12+00S 37+00E	385	56
12+00S 38+00E	386	76
12+00S 39+00E	387	32
12+00S 40+00E	388	24
12+00S 41+00E	389	29
12+00S 42+00E	390	32
12+00S 44+00E	391	30
12+00S 45+00E	392	34
12+00S 46+00E	393	20
12+00S 47+00E	394	25
12+00S 48+00E	395	22
12+00S 49+00E	396	17
12+00S 50+00E	397	30
12+00S 51+00E	398	20
12+00S 52+00E	399	21
12+00S 53+00E	400	20
12+00S 54+00E	401	30

Heinrich's Geoplocation
808 West Grant Rd.

EFCO LABS
SAMPLE NO. C 810

Tucson, Arizona

PPM Cu

PPM Cu

PPM Cu

Final 0
Final 10
18+00N }
11+00E } 150 45
(199) }
201 56
202 52
203 63
204 62
205 97
206 54
207 45
208 49
209 49
210 50
211 39
212 36
213 34
214 49
215 37
216 36
217 56
218 58
219 68
220 59
221 60
222 47
223 36
224 46
225 44
226 30
227 49
228 32
229 43
230 32
231 32
232 35
233 32
234 42

235 Missing
236 31
237 57
238 44
239 1370
240 52
241 60
242 64
243 102
244 80
245 39
246 28
247 33
248 33
249 34
250 24
251 34
252 34
253 28
254 34
255 35
256 28
257 Missing
258 40
259 28
260 26
261 37
262 56
263 25
264 33
265 38
266 31
267 22
268 Missing
269 26
270 26
271 34

272 16
273 26
274 34
275 31
276 24
277 38
278 24
279 36
280 32
281 48
282 52
283 26
284 28
285 42
286 46
287 42
288 46
289 31
290 41
291 37
292 33
293 42
294 28
295 36
296 41
297 29
298 42
~~299 Missing~~
300 45
301 38
302 28
303 27
304 26
305 38
306 33
307 28
308 30

PPM cu
309 26
310 28
311 38
312 32
313 39
314 39
315 25
316 32
317 35
318 28
319 17
320 24
321 34
322 26
323 30
324 32
325 46
326 38
327 40
328 39
329 34
330 45
331 40
332 27
333 56
334 39
335 35
336 39
337 24
338 29
339 34
340 34
341 34
342 30
343 31
344 43
345 Missing

PPM cu
346 40
347 34
348 47
349 85
350 75
351 65
352 805
353 98
354 Missing
355 Missing
356 58
357 28
358 38
359 37
360 146
361 206
362 1066
363 378
364 96
365 44
366 37
367 38
368 32
369 20
370 50
371 22
372 34
373 33
374 56
375 70
376 63
377 80
378 29
379 64
~~380~~ Missing
381 46
382 34

PPM cu
383 60
384 33
385 56
386 76
387 32
388 24
389 29
390 32
391 30
392 34
393 20
394 25
395 22
396 17
397 30
398 20
399 21
400 20
401 30

Sub

February 14, 1968.

Lou Stockneyer
M.P. & H.R. Consultants

M.P. & H.R. ID.#	GEOEX #	Cu ppm
12+00S 55+00E	1	47
12+00S 56+00E	2	64
12+00S 57+00E	3	66
12+00S 58+00E	4	50
12+00S 59+00E	5	44
12+00S 60+00E	6	37
12+00S 61+00E	7	32
12+00S 62+00E	8	52
12+00S 63+00E	9	38
12+00S 64+00E	10	44
12+00S 65+00E	11	41
12+00S 66+00E	12	40
12+00S 67+00E	13	45
12+00S 68+00E	14	56
12+00S 69+00E	15	36
12+00S 70+00E	16	48
12+00S 71+00E	17	38
12+00S 72+00E	18	43
12+00S 73+00E	19	38
12+00S 74+00E	20	46
12+00S 75+00E	21	36
12+00S 76+00E	22	45
12+00S 77+00E	23	43
12+00S 78+00E	24	40
12+00S 79+00E	25	43
12+00S 80+00E	26	34
12+00S 82+00E	27	36
12+00S 83+00E	28	36
12+00S 84+00E	29	40
12+00S 85+00E	30	48
12+00S 86+00E	31	41
12+00S 87+00E	32	28
12+00S 88+00E	33	38
12+00S 89+00E	34	43
12+00S 90+00E	35	44
12+00S 91+00E	36	26
12+00S 92+00E	37	33
12+00S 93+00E	38	28
12+00S 94+00E	39	34

M.P. & H.R.

February 14, 1968.

M.P. & H.R. ID.#	GEOEX #	Cu ppm
12+00S 95+00E	40	32
12+00S 96+00E	41	36
12+00S 97+00E	42	32
12+00S 98+00E	43	33
12+00S ?	44	117
18+00N 56+00E	45	32
18+00N 57+00E	46	22
18+00N 58+00E	47	32
18+00N 59+00E	48	34
18+00N 60+00E	49	26
18+00N 61+00E	50	31
18+00N 62+00E	51	21
18+00N 63+00E	52	33
18+00N 64+00E	53	30
18+00N 65+00E	54	23
18+00N 66+00E	55	28
18+00N 67+00E	56	22
18+00N 68+00E	57	22
18+00N 69+00E	58	24
18+00N 70+00E	59	32
18+00N 71+00E	60	22
18+00N 72+00E	61	16
18+00N 73+00E	62	17
18+00N 74+00E	63	22
18+00N 75+00E	64	26
18+00N 76+00E	65	25
18+00N 77+00E	66	31
18+00N 78+00E	67	33
18+00N 79+00E	68	26
18+00N 80+00E	69	19
18+00N 81+00E	70	24
18+00N 82+00E	71	22
18+00N 83+00E	72	28
18+00N 84+00E	73	30
18+00N 85+00E	74	28
18+00N 86+00E	75	22
18+00N 87+00E	76	23
18+00N 88+00E	77	29
18+00N 89+00E	78	26
18+00N 90+00E	79	24
8+00N 56+00E	80	34
8+00N 58+00E	81	24
8+00N 59+00E	82	26
8+00N 60+00E	83	21
8+00N 61+00E	84	20
8+00N 62+00E	85	25
8+00N 63+00E	86	22
8+00N 64+00E	87	20
8+00N 65+00E	88	23
8+00N 66+00E	89	28

M.P. & H.R.

February 14, 1968.

M.P. & H.R. ID.#	GEOEX #	Cu ppm
8+00N 67+00E	90	33
8+00N 68+00E	91	31
8+00N 69+00E	92	28
8+00N 70+00E	93	32
8+00N 71+00E	94	23
8+00N 72+00E	95	20
8+00N 73+00E	96	24
8+00N 74+00E	97	13
8+00N 75+00E	98	24
8+00N 76+00E	99	18
8+00N 77+00E	100	22
8+00N 78+00E	101 <u>BL</u>	35
8+00N 79+00E	102	19
8+00N 80+00E	103	24
8+00N 81+00E	104	20
8+00N 82+00E	105	26
8+00N 83+00E	106	24
8+00N 84+00E	107	34
8+00N 85+00E	108	17
8+00N 86+00E	109	32
8+00N 88+00E	110	21
8+00N 89+00E	111	36
8+00N 90+00E	112	32
8+00N 91+00E	113	17
8+00N 92+00E	114	34
8+00N 93+00E	115	26
8+00N 94+00E	116	34
8+00N 95+00E	117	16
2+00S 46+00E	118	34
2+00S 47+00E	119	8
2+00S 48+00E	120	20
2+00S 49+00E	121	20
2+00S 50+00E	122	21
2+00S 51+00E	123	21
2+00S 53+00E	124	11
2+00S 54+00E	125	12
2+00S 55+00E	126	20
2+00S 56+00E	127	13
2+00S 57+00E	128	20
2+00S 58+00E	129	12
2+00S 59+00E	130	14
2+00S 60+00E	131	15
2+00S 61+00E	132 00E	33 2
2+00S 62+00E	133	16
2+00S 63+00E	134	31
2+00S 64+00E	135	26
2+00S 65+00E	136	21
2+00S 66+00E	137	13
2+00S 67+00E	138	14
2+00S 68+00E	139	23

MMP. & H.R.

February 14, 1968.

M.P. & H.R. ID.#	GEOEX #	Cu ppm
2+00S 69+00E	140	25
2+00S 70+00E	141	8
2+00S 71+00E	142	20
2+00S 72+00E	143	29
2+00S 73+00E	144	9
2+00S 74+00E	145	24
2+00S 25+00E	146	27
2+00S 76+00E	147	20
2+00S 77+00E	148	12
2+00S 78+00E	149	12
2+00S 79+00E	150	19
2+00S 80+00E	151	21
2+00S 81+00E	152	27
2+00S 82+00E	153	18
2+00S 83+00E	154	17
2+00S 84+00E	155	21
2+00S 85+00E	156	18
2+00S 86+00E	157	22
2+00S 87+00E	158	20
2+00S 88+00E	159	15
2+00S 89+00E	160	18
2+00S 90+00E	161	25
2+00S 91+00E	162	14
2+00S 92+00E	163	20
2+00S 93+00E	164	18
2+00S 94+00E	165	87
2+00S 95+00E	166	45
2+00S 96+00E	167	35
2+00S 97+00E	168	22
2+00S 98+00E	169	30
2+00S 99+00E	170	16
2+00S 100+00E	171	22
32+00S 41+00E	172	25
32+00S 42+00E	173	35
32+00S 43+00E	174	13
32+00S 44+00E	175	14
32+00S 45+00E	176	18
32+00S 46+00E	177	11
32+00S 47+00E	178	14
32+00S 48+00E	179	18
32+00S 49 +00E	180	15
32+00S 50+00E	181	7
32+00S 51+00E	182	17
32+00S 52+00E	183	9
32+00S 53+00E	184	3
32+00S 54+00E	185	34
32+00S 55+00E	186	24
32+00S 56+00E	187	34
32+00S 57+00E	188	7
32+00S 58+00E	189	12
32+00S 59+00E	190	10

M.P. & H.R.

February 14, 1968.

M.P. & H.R. ID.#	GEOEX #	Cu ppm
32+00S 60+00E	191	2
32+00S 61+00E	192	2
32+00S 62+00E	193	17
32+00S 64+00E	194	16
32+00S 65+00E	195	18
32+00S 66+00E	196	10
32+00S 67+00E	197	9
32+00S 68+00E	198	18
32+00S 69+00E	199	22
32+00S 70+00E	200	21
12+00S 7+00E	501 (354)	108
12+00S 8+00E	502 (355)	46
23+00N 17+00E	503 (345)	15
28+00N 4+00N (313)	504 (235)	8
28+00N 27+00E (277)	505 (268)	5
28+00N 52+00E (327)	506 (257)	19

Heinrichs Geoexploration Co.
 808 W. Grant Rd.
 Tucson, Arizona

EFCO LABS
 SAMPLE NO. C812
 2-14-68

Solution No.	P.P.M. Cu	Solution No.	P.P.M. Cu	Solution No.	P.P.M. Cu
BL 1	17	34	43	69	19
BL 2	18	35	44	70	24
1	47	36	26	71	22
2	64	37	33	72	28
3	66	38	28	73	30
4	50	39	34	74	28
5	44	40	32	75	22
6	37	41	36	76	23
7	32	42	32	77	29
8	52	43	33	78	26
9	38	44	117	79	24
10	44	45	32	80	34
11	41	46	22	81	24
12	40	47	32	82	26
13	45	48	34	83	21
14	56	49	26	84	20
15	36	50	31	85	25
16	48	51	21	86	22
17	38	52	33	87	20
18	43	53	30	88	23
19	38	54	23	89	28
20	46	55	28	90	33
21	36	56	22	91	31
22	45	57	22	92	28
23	43	58	24	93	32
24	40	59	32	94	23
25	43	60	22	95	20
26	34	61	16	96	24
27	36	62	17	97	13
28	36	63	22	98	24
29	40	64	26	99	18
30	48	65	25	100	22
31	41	66	31	101	35
32	28	67	33	102	19
33	38	68	26	103	24

Solution No.	P.P.M. Cu	Solution No.	P.P.M. Cu	Solution No.	P.P.M. Cu
104	20	139	23	174	13
105	24	140	25	175	14
106	24	141	8	176	18
107	34	142	21	177	11
108	17	143	20	178	14
109	32	144	9	179	18
110	21	145	24	180	15
111	36	146	27	181	7
112	32	147	20	182	17
113	17	148	12	183	9
114	34	149	12	184	3
115	26	150	19	185	34
116	34	151	21	186	24
117	14	152	27	187	34
118	34	153	18	188	7
119	8	154	17	189	12
120	20	155	21	190	10
121	20	156	18	191	2
122	21	157	22	192	2
123	21	158	20	193	17
124	11	159	15	194	16
125	12	160	18	195	18
126	20	161	25	196	10
127	13	162	14	197	9
128	20	163	20	198	18
129	12	164	18	199	22
130	14	165	87	200	21
131	15	166	45	501	108
132	31	167	35	502	46
133	16	168	22	503	15
134	31	169	30	504	8
135	26	170	16	505	5
136	21	171	22	506	19
137	13	172	25		
138	14	173	35		

308 W. Grant Rd.
Tucson, Arizona

EFCO LABS
SAMPLE NO. 2812
2-14-68

Solution No.	P.P.M. Cu	Solution No.	P.P.M. Cu	Solution No.	P.P.M. Cu
BL 1	17	34	43	69	19
BL 2	18	35	44	70	24
1	47	36	26	71	22
2	64	37	33	72	28
3	66	38	28	73	30
4	50	39	34	74	28
5	44	40	32	75	22
6	37	41	36	76	23
7	32	42	32	77	29
8	52	43	33	78	26
9	38	44	117	79	24
10	44	45	32	80	34
11	41	46	22	81	24
12	40	47	32	82	26
13	45	48	34	83	21
14	56	49	26	84	20
15	36	50	31	85	25
16	48	51	21	86	22
17	38	52	33	87	20
18	43	53	30	88	23
19	38	54	23	89	28
20	46	55	28	90	33
21	36	56	22	91	31
22	45	57	22	92	28
23	43	58	24	93	32
24	40	59	32	94	23
25	43	60	22	95	20
26	34	61	16	96	24
27	36	62	17	97	13
28	36	63	22	98	24
29	40	64	26	99	18
30	48	65	25	100	22
31	41	66	31	101	35
32	28	67	33	102	19
33	38	68	26	103	24

2-14-68

Solution No.	P.P.M. Cu	Solution No.	P.P.M. Cu	Solution No.	P.P.M. Cu
104	20	139	23	174	13
105	24	140	25	175	14
106	24	141	8	176	18
107	34	142	21	177	11
108	17	143	20	178	14
109	32	144	9	179	18
110	21	145	24	180	15
111	34	146	27	181	7
112	32	147	20	182	17
113	17	148	12	183	9
114	34	149	12	184	3
115	26	150	19	185	34
116	34	151	21	186	24
117	16	152	27	187	34
118	34	153	18	188	7
119	8	154	17	189	12
120	20	155	21	190	10
121	20	156	18	191	2
122	21	157	22	192	2
123	21	158	20	193	17
124	11	159	15	194	16
125	12	160	18	195	18
126	20	161	25	196	10
127	13	162	14	197	9
128	20	163	20	198	18
129	12	164	18	199	22
130	14	165	87	200	21
131	15	166	45	501	108
132	31	167	35	502	46
133	16	168	22	503	15
134	31	169	30	504	8
135	26	170	16	505	5
136	21	171	22	506	19
137	13	172	25		
138	14	173	35		

mp	f	HP	H	✓	Gears #	rpm
12+00s	55+00E			✓	1	47
12+00s	56+00E			✓	2	64
12+00s	57+00E			✓	3	66
12+00s	58+00E			✓	4	50
12+00s	59+00E			✓	5	44
12+00s	60+00E			✓	6	37
12+00s	61+00E			✓	7	32
12+00s	62+00E			✓	8	52
12+00s	63+00E			✓	9	38
12+00s	64+00E			✓	10	44
12+00s	65+00E			✓	11	41
12+00s	66+00E			✓	12	40
12+00s	67+00E			✓	13	45
12+00s	68+00E			✓	14	56
12+00s	69+00E			✓	15	36
12+00s	70+00E			✓	16	48
12+00s	71+00E			✓	17	38
12+00s	72+00E			✓	18	43
12+00s	73+00E			✓	19	38
12+00s	74+00E			✓	20	46
12+00s	75+00E			✓	21	36
12+00s	76+00E			✓	22	45
12+00s	77+00E			✓	23	43
12+00s	78+00E			✓	24	40
12+00s	79+00E			✓	25	43
12+00s	80+00E			✓	26	34
12+00s	82+00E			✓	27	36
12+00s	83+00E			✓	28	36
12+00s	84+00E			✓	29	40
12+00s	85+00E			✓	30	48
12+00s	86+00E			✓	31	41
12+00s	87+00E			✓	32	28
12+00s	88+00E			✓	33	38

mp	HR	H	Lead	H copper ppm
12+00S	89+00E	✓	34	43
12+00S	90+00E	✓	35	44
12+00S	91+00E	✓	36	26
12+00S	92+00E	✓	37	33
12+00S	93+00E	✓	38	28
12+00S	94+00E	✓	39	34
12+00S	95+00E	✓	40	32
12+00S	96+00E	✓	41	36
12+00S	97+00E	✓	42	32
12+00S	98+00E	✓	43	33
12+00S	?	✓	44	117

18+00N	56+00E	✓	45	32
18+00N	57+00E	✓	46	22
18+00N	58+00E	✓	47	32
18+00N	59+00E	✓	48	34
18+00N	60+00E	✓	49	26
18+00N	61+00E	✓	50	31
18+00N	62+00E	✓	51	21
18+00N	63+00E	✓	52	33
18+00N	64+00E	✓	53	30
18+00N	65+00E	✓	54	23
18+00N	66+00E	✓	55	28
18+00N	67+00E	✓	56	22
18+00N	68+00E	✓	57	22
18+00N	69+00E	✓	58	24
18+00N	70+00E	✓	59	32
18+00N	71+00E	✓	60	22
18+00N	72+00E	✓	61	16
18+00N	73+00E	✓	62	17
18+00N	74+00E	✓	63	22
18+00N	75+00E	✓	64	26
18+00N	76+00E	✓	65	25

imp f HR H Gold # copper ppm

18+00N	77+00E	✓	66	31
18+00N	78+00E	✓	67	33
19+00N	79+00E	✓	68	26
18+00N	80+00E	✓	69	19
18+00N	81+00E	✓	70	24
18+00N	82+00E	✓	71	22
18+00N	83+00E	✓	72	28
18+00N	84+00E	✓	73	30
18+00N	85+00E	✓	74	28
18+00N	86+00E	✓	75	22
18+00N	87+00E	✓	76	23
18+00N	88+00E	✓	77	29
18+00N	89+00E	✓	78	26
18+00N	90+00E	✓	79	24

8+00N	56+00E	✓	80	34
8+00N	58+00E	✓	81	24
8+00N	59+00E	✓	82	26
8+00N	60+00E	✓	83	21
8+00N	61+00E	✓	84	20
8+00N	62+00E	✓	85	25
8+00N	63+00E	✓	86	22
8+00N	64+00E	✓	87	20
8+00N	65+00E	✓	88	23
8+00N	66+00E	✓	89	28
8+00N	67+00E	✓	90	33
8+00N	68+00E	✓	91	31
8+00N	69+00E	✓	92	28
8+00N	70+00E	✓	93	32
8+00N	71+00E	✓	94	23
8+00N	72+00E	✓	95	20

mp #	HR #		Coex #	Copper ppm
8+00N	73+00E	✓	96	24
8+00N	74+00E	✓	97	13
8+00N	75+00E	✓	98	24
8+00N	76+00E	✓	99	18
8+00N	77+00E	✓	100	22
8+00N	78+00E	✓	101 ^{BL}	35
8+00N	79+00E	✓	102	19
8+00N	80+00E	✓	103	24
8+00N	81+00E	✓	104	20
8+00N	82+00E	✓	105	26
8+00N	83+00E	✓	106	24
8+00N	84+00E	✓	107	34
8+00N	85+00E	✓	108	17
8+00N	86+00E	✓	109	32
8+00N	88+00E	✓	110	21
8+00N	89+00E	✓	111	36
8+00N	90+00E	✓	112	32
8+00N	91+00E	✓	113	17
8+00N	92+00E	✓	114	34
8+00N	93+00E	✓	115	26
8+00N	94+00E	✓	116	34
8+00N	95+00E	✓	117	16
2+00S	46+00E	✓	118	34
2+00S	47+00E	✓	119	8
2+00S	48+00E	✓	120	20
2+00S	49+00E	✓	121	20
2+00S	50+00E	✓	122	21
2+00S	51+00E	✓	123	21
2+00S	53+00E	✓	124	11
2+00S	54+00E	✓	125	12
2+00S	55+00E	✓	126	20

MP & H R #	Coord #	Copper ppm	
9+00S	56+00E	✓ 127	13
2+00S	57+00E	✓ 128	20
2+00S	58+00E	✓ 129	12
2+00S	59+00E	✓ 130	14
2+00S	60+00E	✓ 131	15
2+00S	61+00E	✓ 132	31
2+00S	62+00E	✓ 133	16
2+00S	63+00E	✓ 134	31
2+00S	64+00E	✓ 135	26
2+00S	65+00E	✓ 136	21
2+00S	66+00E	✓ 137	13
2+00S	67+00E	✓ 138	14
2+00S	68+00E	✓ 139	23
2+00S	69+00E	✓ 140	25
2+00S	70+00E	✓ 141	8
2+00S	71+00E	✓ 142	21
2+00S	72+00E	✓ 143	20
2+00S	73+00E	✓ 144	9
2+00S	74+00E	✓ 145	24
2+00S	75+00E	✓ 146	27
2+00S	76+00E	✓ 147	20
2+00S	77+00E	✓ 148	12
2+00S	78+00E	✓ 149	12
2+00S	79+00E	✓ 150	19
2+00S	80+00E	✓ 151	21
2+00S	81+00E	✓ 152	27
2+00S	82+00E	✓ 153	18
2+00S	83+00E	✓ 154	17
2+00S	84+00E	✓ 155	21
2+00S	85+00E	✓ 156	18
2+00S	86+00E	✓ 157	22
2+00S	87+00E	✓ 158	20
2+00S	88+00E	✓ 159	15
2+00S	89+00E	✓ 160	18

mp	KR	H	Coals	# copper ppm
81+00S	90+00E	✓	161	25
2+00S	91+00E	✓	162	14
2+00S	92+00E	✓	163	20
2+00S	93+00E	✓	164	18
2+00S	94+00E	✓	165	87
2+00S	95+00E	✓	166	45
2+00S	96+00E	✓	167	35
2+00S	97+00E	✓	168	22
2+00S	98+00E	✓	169	30
2+00S	99+00E	✓	170	16
2+00S	100+00E	✓	171	22
32+00S	41+00E	✓	172	25
32+00S	42+00E	✓	173	35
32+00S	43+00E	✓	174	13
32+00S	44+00E	✓	175	14
32+00S	45+00E	✓	176	18
32+00S	46+00E	✓	177	11
32+00S	47+00E	✓	178	14
32+00S	48+00E	✓	179	18
32+00S	49+00E	✓	180	15
32+00S	50+00E	✓	181	7
32+00S	51+00E	✓	182	17
32+00S	52+00E	✓	183	9
32+00S	53+00E	✓	184	3
32+00S	54+00E	✓	185	34
32+00S	55+00E	✓	186	24
32+00S	56+00E	✓	187	34
32+00S	57+00E	✓	188	7
32+00S	58+00E	✓	189	12
32+00S	59+00E	✓	190	10

February 19, 1968.

Lou Stockneyer, Consultants
M.P. & H.R.

M.P. & H.R. ID.#	GEOEX #	Cu ppm
32+00S 71+00E	201	39
32+00S 72+00E	202	40
32+00S 73+00E	203	39
32+00S 74+00E	204	46
32+00S 75+00E	205	39
32+00S 76+00E	206	45
32+00S 77+00E	207	40
32+00S 78+00E	208	36
32+00S 79+00E	209	38
32+00S 80+00E	210	26
32+00S 81+00E	211	31
32+00S 82+00E	212	28
32+00S 83+00E	213	39
32+00S 84+00E	214	36
32+00S 85+00E	215	48
32+00S 86+00E	216	42
32+00S 87+00E	217	34
32+00S 88+00E	218	37
32+00S 89+00E	219	27
32+00S 90+00E	220	36
32+00S 91+00E	221	32
32+00S 92+00E	222	28
32+00S 93+00E	223	25
32+00S 94+00E	224	35
32+00S 95+00E	225	38
32+00S 96+00E	226	30
32+00S 97+00E	227	52
32+00S 98+00E	228	22
32+00S 99+00E	229	39
32+00S 100+00E	230	34
32+00S 101+00E	231	21
32+00S 102+00E	232	40
32+00S 103+00E	233	48
32+00S 104+00E	234	27
32+00S 105+00E	235	27
32+00S 106+00E	236	30
32+00S 107+00E	237	28
32+00S 108+00E	238	30
32+00S 109+00E	239	22

M.P. & H.R.

February 19, 1968.

M.P. & H.R ID.#	GEOEX #	Cu ppm
32+00S	110+00E	240
32+00S	111+00E	241
32+00S	112+00E	242
32+00S	113+00E	243
32+00S	114+00E	244
32+00S	115+00E	245
32+00S	116+00E	246
32+00S	117+00E	247
32+00S	118+00E	248
42+00S		
42+00S	46+00E	249
42+00S	47+00E	250
42+00S	48+00E	251
42+00S	49+00E	252
42+00S	50+00E	253
42+00S	51+00E	254
42+00S	52+00E	255
42+00S	53+00E	256
42+00S	54+00E	257
42+00S	55+00E	258
42+00S	56+00E	259
42+00S	57+00E	260
42+00S	58+00E	261
42+00S	59+00E	262
42+00S	60+00E	263
42+00S	61+00E	264
42+00S	62+00E	265
42+00S	63+00E	266
42+00S	64+00E	267
42+00S	65+00E	268
42+00S	66+00E	269
42+00S	67+00E	270
42+00S	68+00E	271
42+00S	69+00E	272
42+00S	70+00E	273
42+00S	71+00E	274
42+00S	72+00E	275
42+00S	73+00E	276
42+00S	74+00E	277
42+00S	75+00E	278
42+00S	76+00E	279
42+00S	77+00E	280
42+00S	78+00E	281
42+00S	79+00E	282
42+00S	80+00E	283
42+00S	81+00E	284
42+00S	82+00E	285
42+00S	83+00E	286
42+00S	84+00E	287
42+00S	85+00E	288
42+00S	86+00E	289
42+00S	87+00E	290
42+00S	88+00E	291
42+00S	89+00E	292

M.P. & H.R.

February 19, 1968.

M.P. & H.R. ID.#	GEOEX #	Cu ppm
42+00S 90+00E	293	16
42+00S 91+00E	294	18
42+00S 92+00E	295	32
42+00S 93+00E	296	18
42+00S 94+00E	297	27
42+00S 95+00E	298	14
42+00S 96+00E	299	18
42+00S 97+00E	300	26
42+00S 98+00E	301 BL	28
42+00S 99+00E	302	42
42+00S 100+00E	303	28
42+00S 101+00E	304	13
42+00S 102+00E	305	19
28+00N 56+00E	306	11
28+00N 57+00E	307	18
28+00N 58+00E	308	14
28+00N 59+00E	309	26
28+00N 60+00E	310	16
28+00N 61+00E	311	18
28+00N 62+00E	312	20
28+00N 63+00E	313	15
28+00N 64+00E	314	32
28+00N 65+00E	315	37
28+00N 66+00E	316	30
28+00N 67+00E	317	41
28+00N 68+00E	318	25
28+00N 69+00E	319	37
28+00N 70+00E	320	11
28+00N 71+00E	321	31
28+00N 72+00E	322	26
28+00N 73+00E	323	23
28+00N 74+00E	324	18
28+00N 75+00E	325	20
28+00N 76+00E	326	32
28+00N 77+00E	327	34
28+00N 78+00E	328	20
28+00N 79+00E	329	26
28+00N 80+00E	330	35
28+00N 81+00E	331	22
28+00N 82+00E	332	28
28+00N 83+00E	333	30
28+00N 85+00E	334	39
28+00N 86+00E	335	51
28+00N 87+00E	336	38
28+00N 88+00E	337	25
28+00N 89+00E	338	23
22+00S 35+00E	339	23
22+00S 36+00E	340	34
22+00S 37+00E	341	32
22+00S 38+00E	342	24
22+00S 40+00E	343	18
22+00S 41+00E	344	25

M.P. & H.R.

February 19, 1968.

M.P. & H.R. ID.#	GEOEX #	Cu ppm
22+00S 42+00E	345	32
22+00S 43+00E	346	32
22+00S 44+00E	347	32
22+00S 45+00E	348	28
22+00S 46+00E	349	26
22+00S 47+00E	350	23
22+00S 48+00E	351	30
22+00S 49+00E	352	47
22+00S 50+00E	353	36
22+00S 51+00E	354	27
22+00S 52+00E	355	40
22+00S 53+00E	356	27
22+00S 54+00E	357	35
22+00S 55+00E	358	22
22+00S 56+00E	359	28
22+00S 57+00E	360	31
22+00S 58+00E	361	20
22+00S 59+00E	362	30
22+00S 60+00E	363	22
22+00S 61+00E	364	18
22+00S 62+00E	365	21
22+00S 63+00E	366	22
22+00S 64+00E	367	34
22+00S 65+00E	368	24 22+00S
* 22+00S 67+00E	370	12
22+00S 68+00E	371	12
22+00S 69+00E	372	36
22+00S 70+00E	373	30
22+00S 71+00E	374	34
22+00S 72+00E	375	26
22+00S 73+00E	376	28
22+00S 74+00E	377	13
22+00S 75+00E	378	17
22+00S 76+00E	379	26
22+00S 77+00E	380	27
22+00S 78+00E	381	32
22+00S 79+00E	382	26
22+00S 80+00E	383	22
22+00S 81+00E	384	17
22+00S 82+00E	385	20
22+00S 83+00E	386	15
22+00S 84+00E	387	26
22+00S 85+00E	388	24
22+00S 86+00E	389	19
22+00S 88+00E	390	28
22+00S 89+00E	391	28
22+00S 90+00E	392	18
22+00S 91+00E	393	16
22+00S 92+00E	394	27
22+00S 93+00E	395	13
22+00S 94+00E	396	26
22+00S 95+00E	397	28
22+00S 96+00E	398	24
22+00S 97+00E	399	34
* 22+00S 66+00E	369	14

M7P. & H.R.

February 19, 1968.

M.P. & H.R. ID.#	GEOEX #	Cu ppm
22+00S 98+00E	400	19
22+00S 99+00E	401	32
22+00S 100+00E	1	58
22+00S 101+00E	2	56
22+00S 102+00E	3	50
22+00S 103+00E	4	56
22+00S 104+00E	5	46
22+00S 105+00E	6	48
22+00S 106+00E	7	61
22+00S 107+00E	8	40
22+00S 108+00E	9	55
22+00S 109+00E	10	44
22+00S 110+00E	11	52
22+00S 111+00E	12	38
22+00S 112+00E	13	37

214

H. Inick's Geoplatation
 808 West Grant Rd.
 Tucson Arizona

EFCO LABS
 SAMPLE NO. C 818

2-16-68

	ppm Cu		ppm Cu		ppm Cu
BL	0	222	28	258	24
BL	0	223	25	259	24
1	58	224	35	260	33
2	56	225	38	261	41
3	50	226	30	262	34
4	54	227	52	263	16
5	46	228	22	264	32
6	48	229	39	265	34
7	61	230	34	266	44
8	40	231	21	267	24
9	55	232	40	268	26
10	44	233	48	269	27
11	52	234	27	270	19
12	38	235	27	271	18
13	37	236	30	272	24
201	39	237	28	273	23
202	40	238	30	274	32
203	39	239	22	275	13
204	46	240	20	276	23
205	39	241	54	277	16
206	45	242	25	278	20
207	40	243	34	279	16
208	36	244	28	280	19
209	48	245	30	281	18
210	26	246	26	282	15
211	31	247	27	283	22
212	28	248	23	284	28
213	39	249	23	285	16
214	36	250	20	286	21
215	48	251	26	287	16
216	42	252	26	288	21
217	34	253	26	289	14
218	57	254	31	290	22
219	27	255	30	291	20
220	36	256	21	292	18
221	32	257	26	293	16

PPM Cu		PPM Cu		PPM Cu	
294	18	330	35	366	22
295	32	331	22	367	34
296	18	332	28	368	28
297	27	333	30	369	14
298	14	334	39	370	12
299	18	335	51	371	12
300	26	336	38	372	36
301	28	337	25	373	30
302	42	338	23	374	34
303	28	339	23	375	26
304	13	340	34	376	28
305	19	341	32	377	13
306	11	342	24	378	17
307	18	343	18	379	26
308	14	344	25	380	27
309	26	345	32	381	32
310	16	346	32	382	26
311	18	347	32	383	22
312	20	348	28	384	17
313	15	349	26	385	20
314	32	350	23	386	15
315	37	351	30	387	26
316	30	352	47	388	24
317	41	353	36	389	19
318	25	354	27	390	28
319	37	355	40	391	28
320	11	356	27	392	18
321	31	357	35	393	16
322	26	358	22	394	27
323	23	359	28	395	13
324	18	360	31	396	26
325	20	361	20	397	28
326	32	362	30	398	24
327	34	363	22	399	34
328	20	364	18	400	19
329	26	365	21	401	32

Henrichs Geoplasation
 28 West Grant Rd.
 Tucson Arizona

EFCO LABS
 SAMPLE NO. 0878
 2-16-68

	PPM Cu		PPM Cu		PPM Cu
BL	0	222	28	258	24
BL	0	223	25	259	24
1	58	224	35	260	33
2	56	225	38	261	41
3	50	226	30	262	34
4	54	227	52	263	16
5	46	228	22	264	32
6	48	229	39	265	34
7	61	230	34	266	44
8	40	231	21	267	24
9	55	232	40	268	26
10	44	233	48	269	27
11	52	234	27	270	19
12	38	235	27	271	18
13	37	236	30	272	24
201	39	237	28	273	23
202	40	238	30	274	32
203	39	239	22	275	13
204	46	240	20	276	23
205	39	241	54	277	16
206	45	242	25	278	20
207	40	243	34	279	16
208	36	244	28	280	19
209	38	245	30	281	18
210	26	246	26	282	15
211	31	247	27	283	22
212	28	248	23	284	28
213	39	249	23	285	16
214	36	250	20	286	21
215	48	251	26	287	16
216	42	252	26	288	21
217	34	253	26	289	14
218	37	254	31	290	22
219	27	255	30	291	20
220	36	256	21	292	18
221	32	257	26	293	16

PPM Cu		PPM Cu		PPM Cu	
294	18	330	35	364	22
295	32	331	22	367	34
296	18	332	28	368	28
297	27	333	30	369	14
298	14	334	39	370	12
299	18	335	51	371	12
300	26	336	38	372	36
301	28	337	25	373	30
302	42	338	23	374	34
303	28	339	23	375	26
304	13	340	34	376	28
305	19	341	32	377	13
306	11	342	24	378	17
307	18	343	18	379	26
308	14	344	25	380	27
309	26	345	32	381	32
310	16	346	32	382	26
311	18	347	32	383	22
312	20	348	28	384	17
313	15	349	26	385	20
314	32	350	23	386	15
315	37	351	30	387	26
316	30	352	47	388	24
317	41	353	36	389	19
318	25	354	27	390	28
319	37	355	40	391	28
320	11	356	27	392	18
321	31	357	35	393	16
322	26	358	22	394	27
323	23	359	28	395	13
324	18	360	31	396	26
325	20	361	20	397	28
326	32	362	30	398	24
327	34	363	22	399	34
328	20	364	18	400	19
329	26	365	21	401	32

February 26, 1968.

Lou Stockneyer Consultants
M.P. & H.R.

M.P. & H.R. ID.#	GEOEX #	Cu ppm
38+00N 40+00E	1	3131
38+00N 41+00E	2	38
38+00N 42+00E	3	20
38+00N 43+00E	4	22
38+00N 44+00E	5	30
38+00N 45+00E	6	33
38+00N 46+00E	7	81
38+00N 47+00E	8	18
38+00N 48+00E	9	24
38+00N 49+00E	10	28
38+00N 50+00E	11	37
38+00N 51+00E	12	30
38+00N 52+00E	13	23
38+00N 53+00E	14	20
38+00N 54+00E	15	25
38+00N 55+00E	16	18
38+00N 56+00E	17	21
38+00N 57+00E	18	30
38+00N 58+00E	19	27
38+00N 59+00E	20	18
38+00N 60+00E	21	31
38+00N 61+00E	22	27
38+00N 62+00E	23	24
38+00N 63+00E	24	26
38+00N 64+00E	25	36
38+00N 65+00E	26	24
38+00N 66+00E	27	29
38+00N 67+00E	28	23
38+00N 68+00E	29	32
38+00N 69+00E	30	25
38+00N 70+00E	31	38
38+00N 71+00E	32	44
38+00N 72+00E	33	19
38+00N 73+00E	34	34
38+00N 74+00E	35	35
38+00N 75+00E	36	34
48+00N 55+00E	37	26
48+00N 56+00E	38	28
48+00N 57+00E	39	18

M.P. & H.R.

February 28, 1968.

M.P. & H.R. ID.#	GEOEX #	Cu ppm
48+00N	58+00E	40
48+00N	59+00E	41
48+00N	60+00E	42
48+00N	61+00E	43
48+00N	62+00E	44
48+00N	63+00E	45
48+00N	64+00E	46
48+00N	65+00E	47
48+00N	66+00E	48
48+00N	67+00E	49
48+00N	68+00E	50
48+00N	69+00E	51
48+00N	70+00E	52
52+00N	52+00E	53
52+00S	53+00E	54
52+00S	54+00E	55
52+00S	55+00E	56
52+00S	56+00E	57
52+00S	57+00E	58
52+00S	58+00E	59
52+00S	59+00E	60
52+00S	60+00E	61
52+00S	61+00E	62
52+00S	62+00E	63
52+00S	63+00E	64
52+00S	64+00E	65
52+00S	65+00E	66
52+00S	66+00E	67
52+00S	67+00E	68
52+00S	68+00E	69
52+00S	69+00E	70
52+00S	70+00E	71
52+00S	71+00E	72
52+00S	72+00E	73
52+00S	73+00E	74
52+00S	74+00E	75
52+00S	75+00E	76
52+00S	76+00E	77
52+00S	77+00E	78
52+00S	78+00E	79
52+00S	79+00E	80
52+00S	80+00E	81
52+00S	81+00E	82
52+00S	82+00E	83
52+00S	83+00E	84
52+00S	84+00E	85
52+00S	85+00E	86
52+00S	86+00E	87
52+00S	87+00E	88

Henrich's
808 W. Grant Rd.
Tucson, Arizona

EFCO LABS
SAMPLE NO. C 828
2-23-68

	PPM Cu		PPM Cu		PPM Cu
B1	0	35	35	70	34
1	31	36	34	71	20
2	38	37	26	72	25
3	20	38	28	73	26
4	22	39	18	74	39
5	30	40	12	75	30
6	33	41	24	76	32
7	31	42	48	77	22
8	18	43	23	78	26
9	24	44	20	79	23
10	28	45	22	80	28
11	37	46	19	81	32
12	30	47	11	82	28
13	23	48	23	83	26
14	20	49	30	84	22
15	25	50	28	85	38
16	18	51	28	86	27
17	21	52	32	87	26
18	30	53	26	88	26
19	27	54	38		
20	18	55	26		
21	31	56	26		
22	27	57	35		
23	24	58	18		
24	26	59	18		
25	36	60	26		
26	24	61	14		
27	29	62	12		
28	23	63	17		
29	32	64	24		
30	25	65	29		
31	38	66	68		
32	44	67	26		
33	19	68	52		
34	34	69	22		

H. einrich's
808 W. Grant Rd.
Tucson, Arizona

EFCO LABS
SAMPLE NO. C 828
2-23-68

	PPM Cu		PPM Cu		PPM Cu
81	0	35	35	70	34
1	31	36	34	71	20
2	38	37	26	72	25
3	20	38	28	73	26
4	22	39	18	74	39
5	30	40	12	75	30
6	33	41	24	76	32
7	31	42	48	77	22
8	18	43	23	78	26
9	24	44	20	79	23
10	28	45	22	80	28
11	37	46	19	81	32
12	30	47	11	82	28
13	23	48	23	83	26
14	20	49	30	84	22
15	25	50	28	85	38
16	18	51	28	86	27
17	21	52	32	87	26
18	30	53	26	88	26
19	27	54	38		
20	18	55	26		
21	31	56	26		
22	27	57	35		
23	24	58	18		
24	26	59	18		
25	36	60	26		
26	24	61	14		
27	29	62	12		
28	23	63	17		
29	32	64	24		
30	25	65	29		
31	38	66	68		
32	44	67	26		
33	19	68	52		
34	34	69	22		

Mps & HR	#	✓	Core #	Copper ppm
38+00N 40+00E		✓	1	31
38+00N 41+00E		✓	2	38
38+00N 42+00E		✓	3	20
38+00N 43+00E		✓	4	22
38+00N 44+00E		✓	5	30
38+00N 45+00E		✓	6	33
38+00N 46+00E		✓	7	31
38+00H 47+00E		✓	8	18
38+00N 48+00E		✓	9	24
38+00N 49+00E		✓	10	28
38+00N 50+00E		✓	11	37
38+00N 51+00E		✓	12	30
38+00N 52+00E		✓	13	23
38+00N 53+00E		✓	14	20
38+00N 54+00E		✓	15	25
38+00N 55+00E		✓	16	18
38+00H 56+00E		✓	17	21
38+00N 57+00E		✓	18	30
38+00H 58+00E		✓	19	27
38+00N 59+00E		✓	20	18
38+00N 60+00E		✓	21	31
38+00N 61+00E		✓	22	27
38+00N 62+00E		✓	23	24
38+00N 63+00E		✓	24	26
38+00N 64+00E		✓	25	36
38+00N 65+00E		✓	26	24
38+00N 66+00E		✓	27	29
38+00N 67+00E		✓	28	23
38+00N 68+00E		✓	29	32
38+00N 69+00E		✓	30	25
38+00N 70+00E		✓	31	38
38+00N 71+00E		✓	32	44
38+00N 72+00E		✓	33	19
38+00N 73+00E		✓	34	34
38+00N 74+00E		✓	35	35
38+00N 75+00E		✓	36	34

mp #	HP #	Gravel #	Copper ppm
48+00N	55+00E	✓ 37	26
48+00N	56+00E	✓ 38	28
48+00N	57+00E	✓ 39	18
48+00N	58+00E	✓ 40	12
48+00N	59+00E	✓ 41	24
48+00N	60+00E	✓ 42	48
48+00N	61+00E	✓ 43	23
48+00N	62+00E	✓ 44	20
48+00N	63+00E	✓ 45	22
48+00N	64+00E	✓ 46	19
48+00N	65+00E	✓ 47	11
48+00H	66+00E	✓ 48	23
48+00H	67+00E	✓ 49	30
48+00N	68+00E	✓ 50	28
48+00N	69+00E	✓ 51	28
48+00N	70+00E	✓ 52	32

52+00S	52+00E	✓ 53	26
52+00S	53+00E	✓ 54	38
52+00S	54+00E	✓ 55	26
52+00S	55+00E	✓ 56	26
52+00S	56+00E	✓ 57	35
52+00S	57+00E	✓ 58	18
52+00S	58+00E	✓ 59	18
52+00S	59+00E	✓ 60	26
52+00S	60+00E	✓ 61	14
52+00S	61+00E	✓ 62	12
52+00S	62+00E	✓ 63	17
52+00S	63+00E	✓ 64	24
52+00S	64+00E	✓ 65	29
52+00S	65+00E	✓ 66	68
52+00S	66+00E	✓ 67	26
52+00S	67+00E	✓ 68	52
52+00S	68+00E	✓ 69	22
52+00S	69+00E	✓ 70	34

map #	HR #	✓	Count #	ppm
52+00S	70+00E	✓	71	20
52+00S	71+00E	✓	72	25
52+00S	72+00E	✓	73	26
52+00S	73+00E	✓	74	39
52+00S	74+00E	✓	75	30
52+00S	75+00E	✓	76	32
52+00S	76+00E	✓	77	22
52+00S	77+00E	✓	78	26
52+00S	78+00E	✓	79	23
52+00S	79+00E	✓	80	28
52+00S	80+00E	✓	81	32
52+00S	81+00E	✓	82	28
52+00S	82+00E	✓	83	26
52+00S	83+00E	✓	84	22
52+00S	84+00E	✓	85	38
52+00S	85+00E	✓	86	27
52+00S	86+00E	✓	87	26
52+00S	87+00E	✓	88	26