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NAM 877

INDUCED POLARIZATION INVESTIGATION

OF THE GOLD BELL MINE

PINAL COUNTY, ARIZONA

GEOEX Job#877

STRATHMORE ONION SKIN

INDUCED POLARIZATION INVESTIGATION

OF THE GOLD BELL MINE

PINAL COUNTY, ARIZONA

for

NORTH AMERICAN MINES INC.

November 1973

HEINRICHS GEOEXPLORATION COMPANY  
P. O. Box 5964, Tucson AZ 85703

Job# 877-73  
HEINRICHS GEOEXPLORATION COMPANY

STRATHMORE ONION SKIN

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STRATHMORE ONION SKIN  
25% COTTON FIBER USA

## INTRODUCTION

The Gold Bell Mine area was recommended to Mr. Quincy Shaw of North American Mines, Inc. as a potential IP target area on 2 October 1973. Mr. Wm. Hovey Smith of Heinrichs GEOEXploration Co. and Mr. Shaw visited the property on 20 October, and authorization was obtained for reconnaissance IP coverage. Field work was started 31 October and completed 6 November 1973.

The exploration hypothesis which was tested by this investigation was that the copper bearing veins at the Gold Bell Mine might be related to a porphyry copper deposit concealed under Precambrian or shallow alluvial cover. The formation of secondary biotite around the quartz veins along with argillic alteration was a hint that these particular veins might be related to an unexposed porphyry copper deposit.

The mine workings are located along the section line between Sections 13 and 24, Township 8 South, Range 9 East (see IP Location and Plan Map). Three IP lines were run using dipole-dipole electrode arrays with an "a" spacing of 1,000 feet. Dual frequency IP data using 1.0 and 0.1 hz was obtained to a "n" separation of 6. The lines were located to take advantage of terrain and access. Line 1, closest to the mine workings, extended 8,000 feet both east and west of center. Lines 2 and 3 were shorter because the steep and in places, vertical terrain prohibited progress except at an unacceptable cost for this type of reconnaissance investigation. In any case, the coverage is sufficient to test the exploration hypothesis.

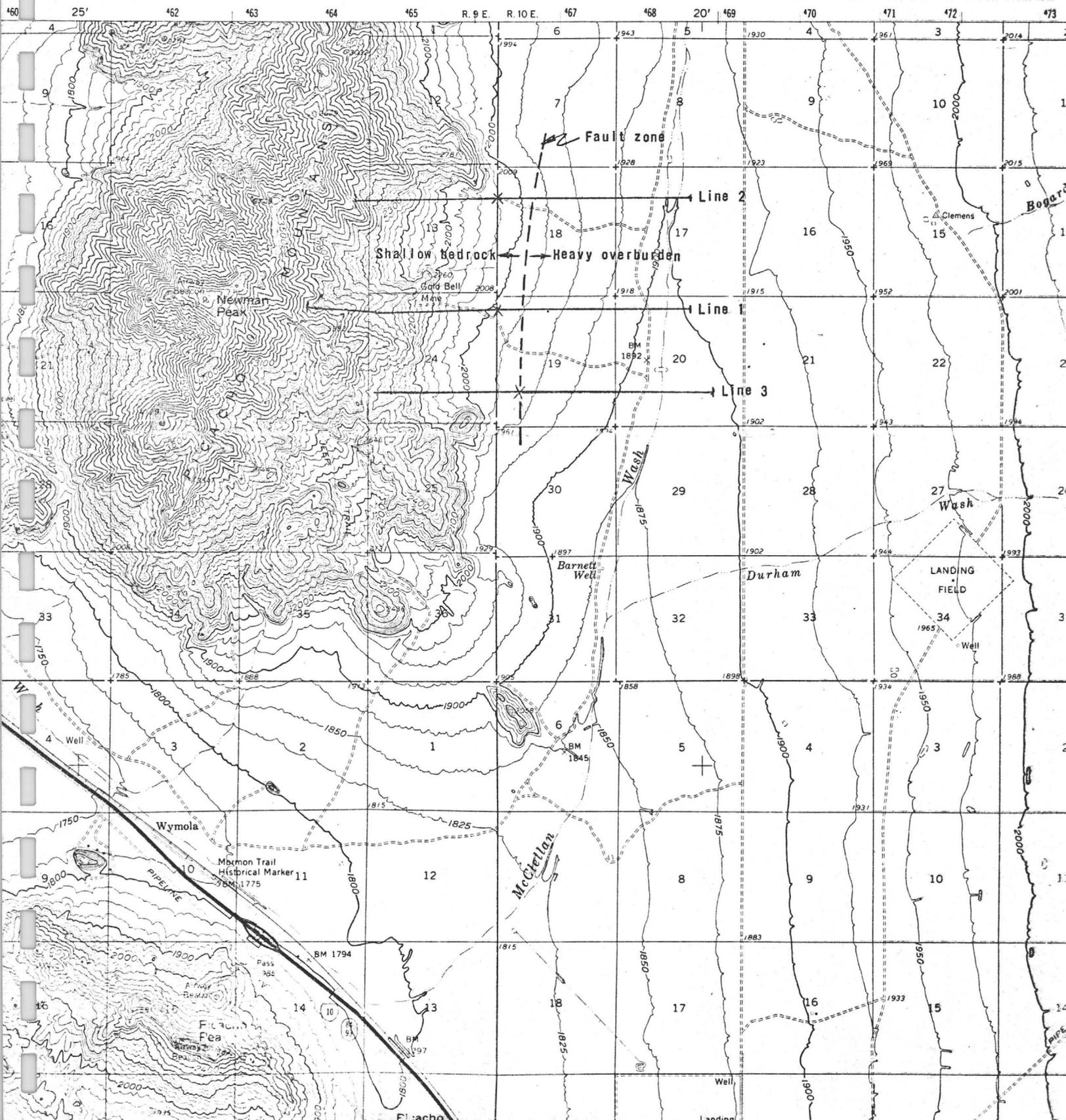
THIS SHEET OVERLAYS A PORTION OF U.S.G.S.  
RED ROCK, ARIZ. QUADRANGLE (SCALE: 1:62,500)



INDUCED POLARIZATION LOCATION  
AND INTERPRETATION PLAN

of  
GOLD BELL MINE AREA  
PINAL COUNTY, ARIZONA  
for  
NORTH AMERICAN MINES  
by

HEINRICHS GEOEXPLORATION COMPANY  
Job number 877-73 October 1973



CONCLUSIONS AND RECOMMENDATIONS

No sulfide related anomalism was identified by the IP survey and no further work on the property is recommended.

DISCUSSION OF RESULTS

The resistivity pattern developed on all three lines indicates an abrupt change from shallow depth to bedrock on the west to very deep alluvium on the east. We show this to be a fairly linear feature oriented almost north-south and passing through 0.0 on Line 1. (See Sectional Data Sheets Lines 1, 2 and 3). A basin and range frontal fault is likely the geologic feature causing this resistivity change.

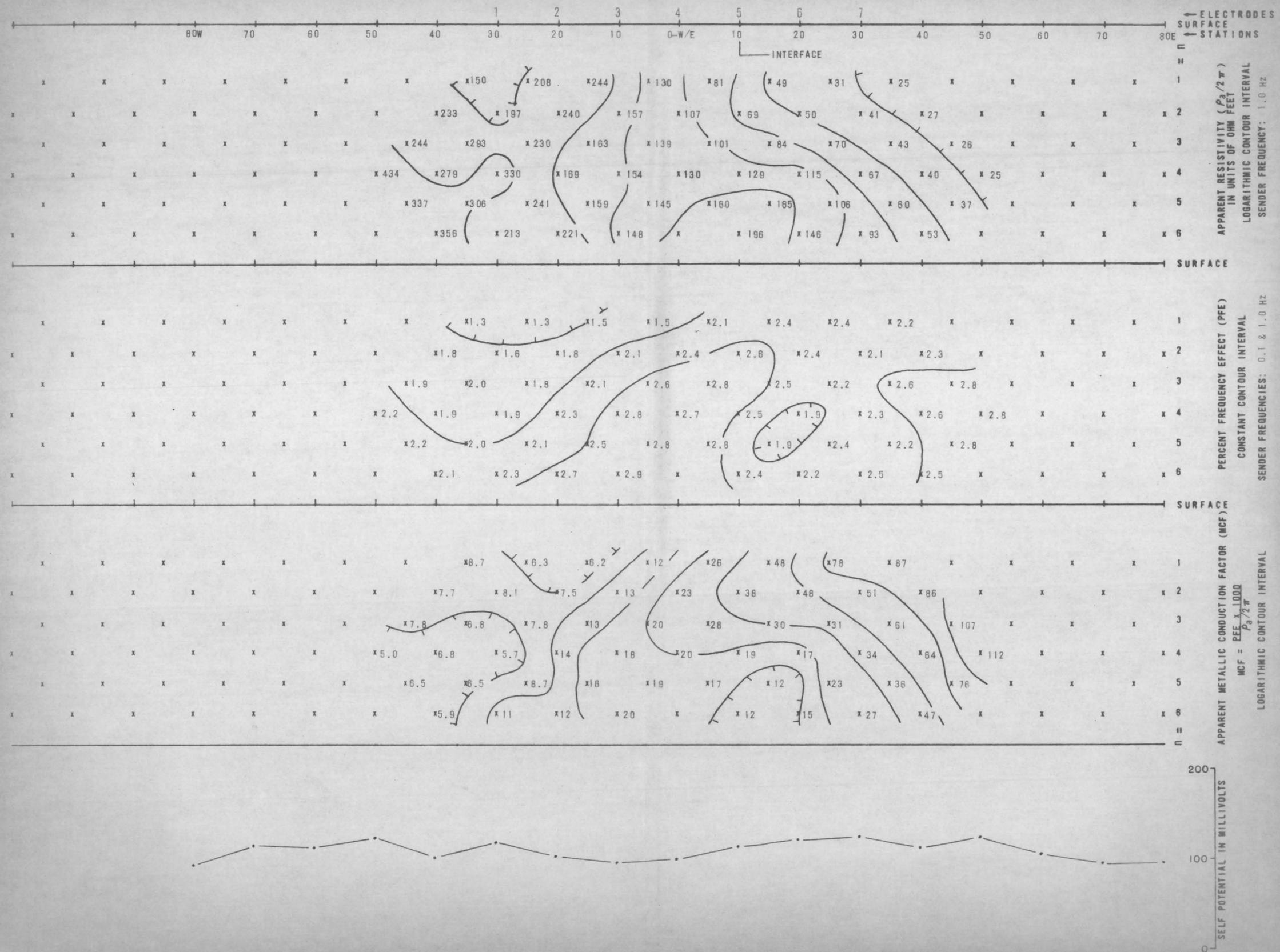
The above background PFE values occurring on all three lines are apparently intimately related to this resistivity change. Although the frequency effects do form a well defined anomalous pattern, particularly on Line 2, we suspect that the particular geometry and resistivity materials in the area caused a non-sulfide frequency response.

Respectfully submitted,  
Heinrichs GEOEXploration Co.

Wm. Hovey Smith  
Geologist

Paul A. Head  
Senior Geophysicist

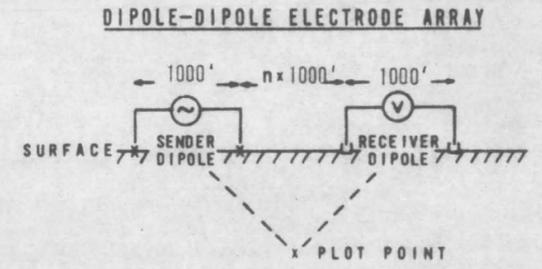
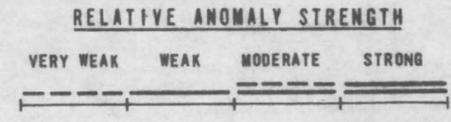
13 November 1973  
P. O. Box 5964  
Tucson, AZ 85703



877-73

INDUCED POLARIZATION TRAVERSE SECTIONAL DATA SHEET of GOLD BELL MINE AREA PINAL COUNTY, ARIZONA for NORTH AMERICAN MINES

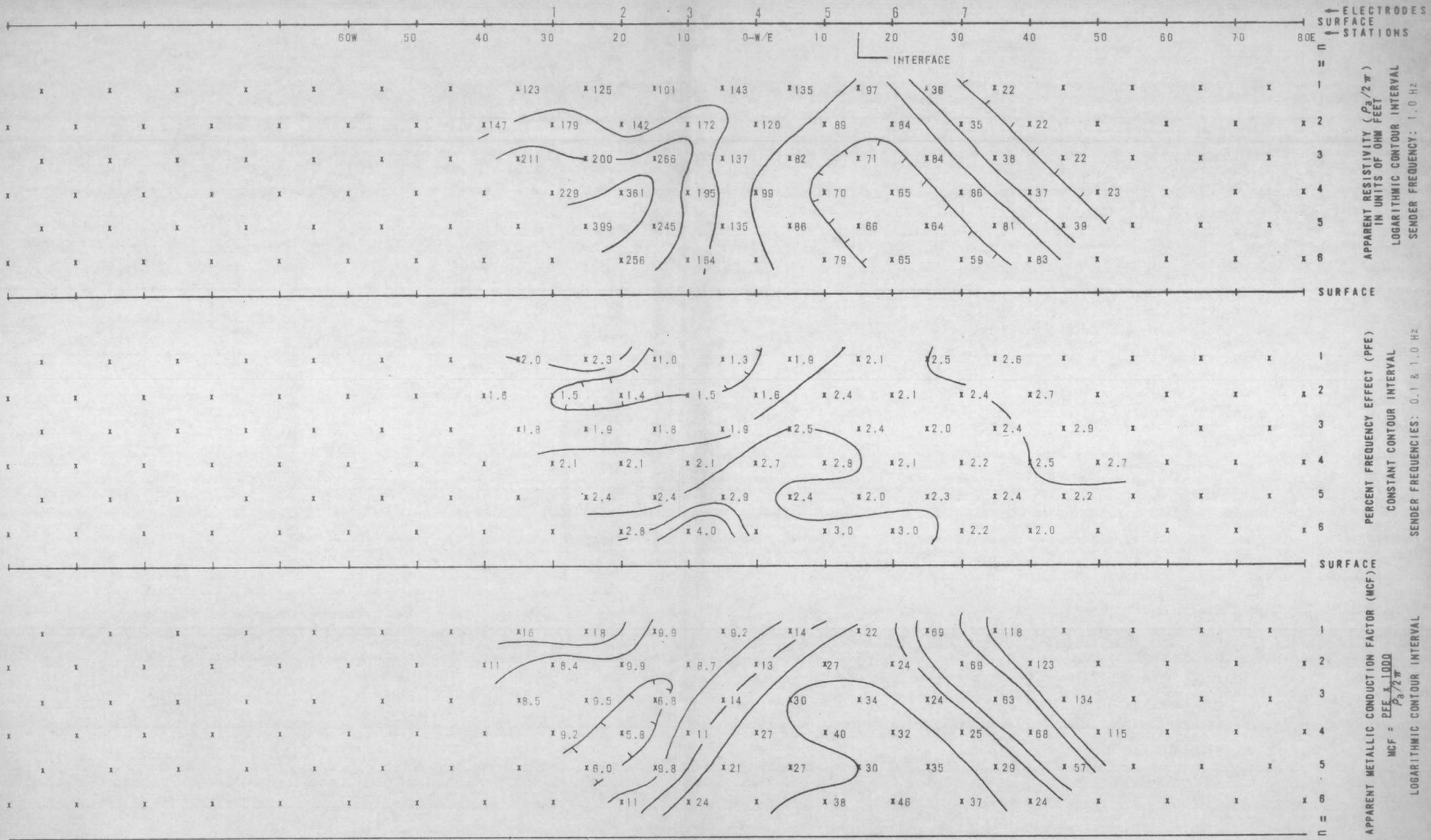
LINE NO. 1  
SPREAD(S) 1  
BEARING EAST-WEST



DATE OCTOBER 1973

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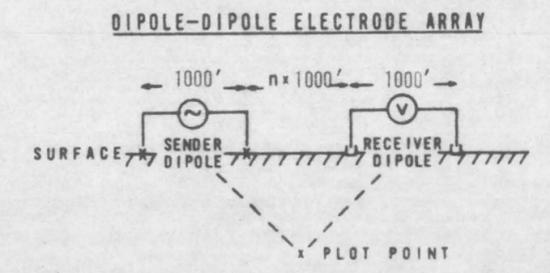
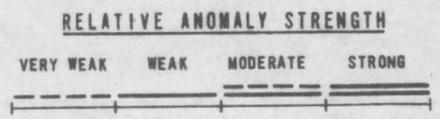
806 W. GRANT ROAD, POST OFFICE BOX 5964, TUCSON, ARIZ., 85703, PHONE: (602)623-0578



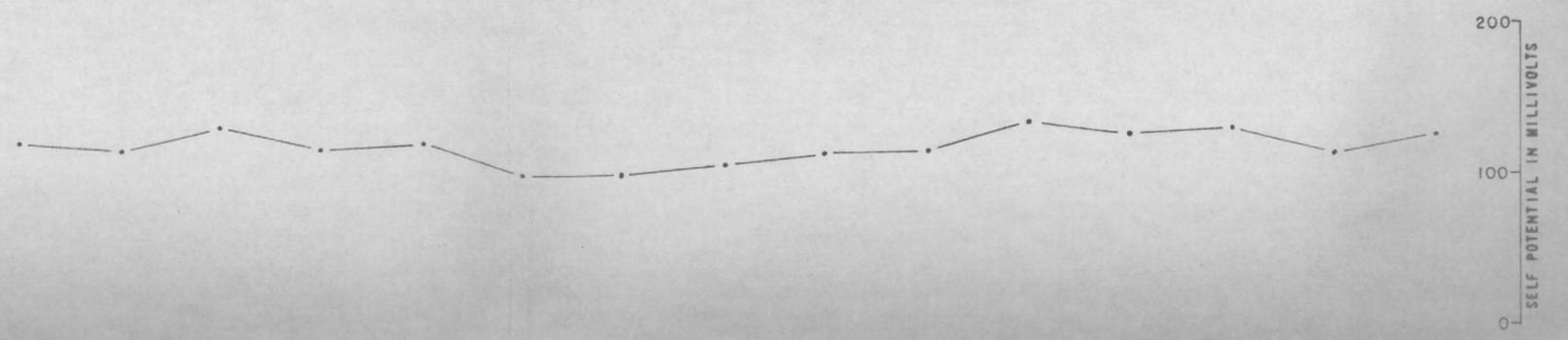
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INDUCED POLARIZATION TRAVERSE  
 SECTIONAL DATA SHEET  
 of  
 GOLD BELL MINE AREA  
 PINAL COUNTY, ARIZONA  
 for  
 NORTH AMERICAN MINES

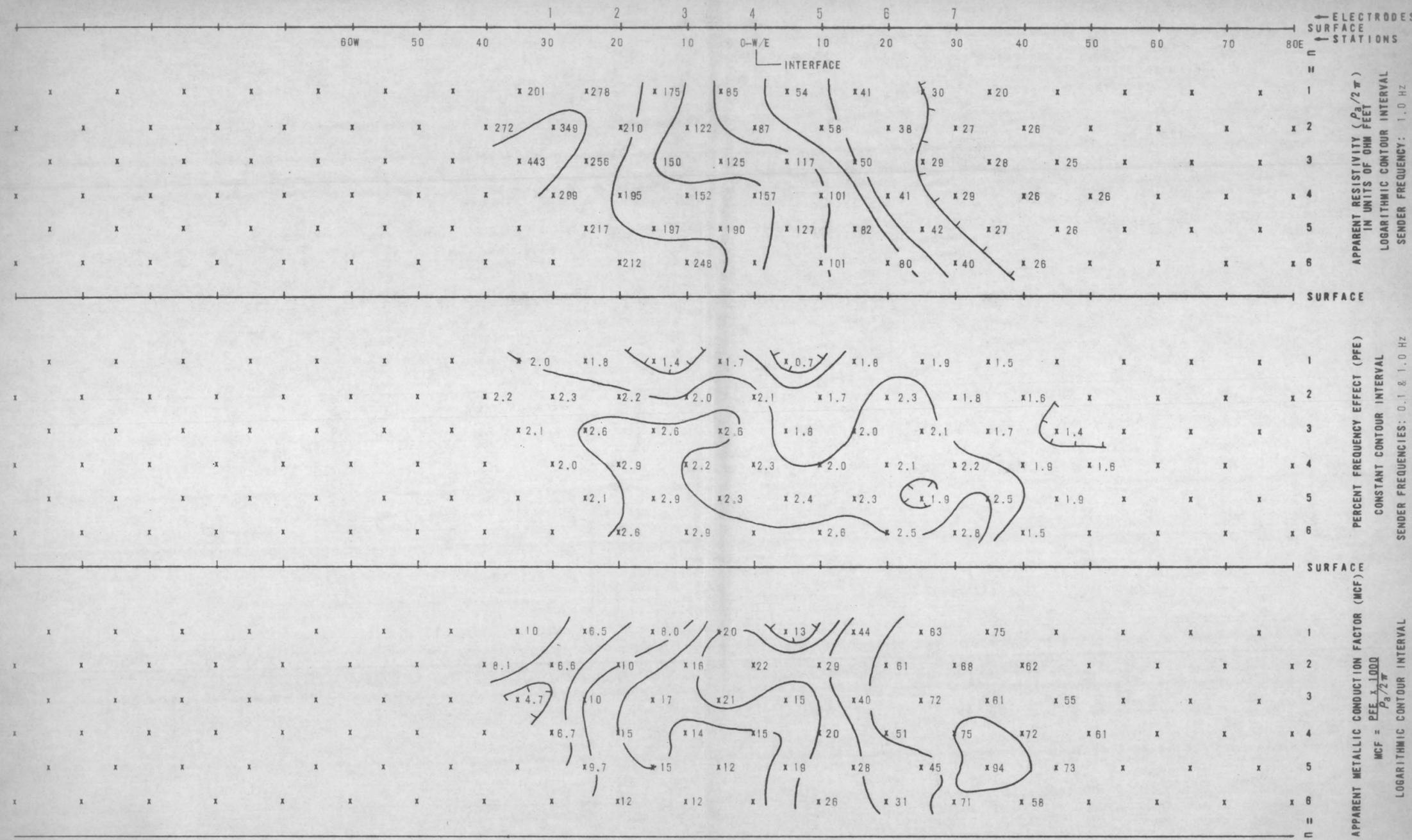
LINE NO.  
 2  
 SPREAD(S)  
 1  
 BEARING  
 EAST-WEST



DATE  
 OCTOBER 1973



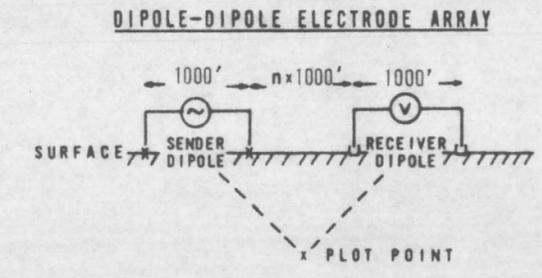
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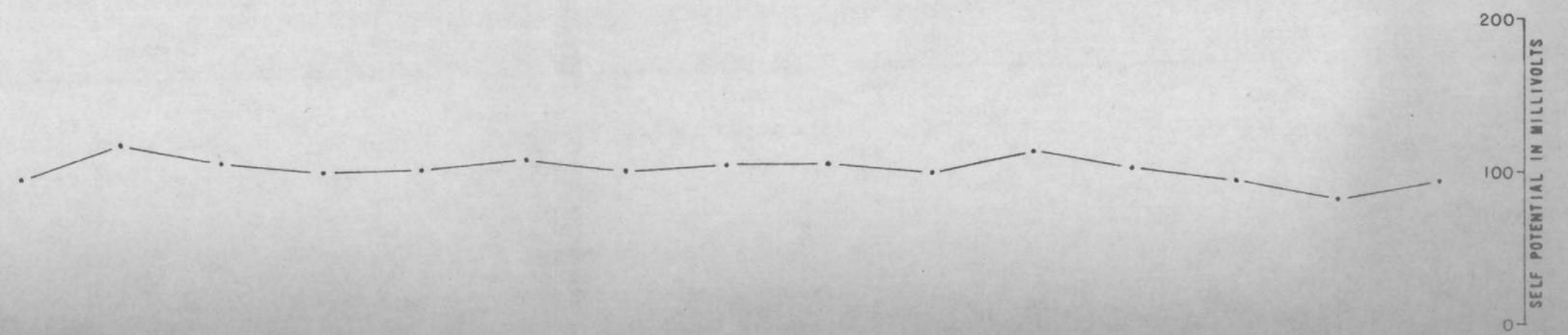
877-73

INDUCED POLARIZATION TRAVERSE  
SECTIONAL DATA SHEET  
of  
GOLD BELL MINE AREA  
PINAL COUNTY, ARIZONA  
for  
NORTH AMERICAN MINES

LINE NO.  
3  
SPREAD(S)  
1  
BEARING  
EAST-WEST



DATE  
OCTOBER 1973



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