



CONTACT INFORMATION
Mining Records Curator
Arizona Geological Survey
3550 N. Central Ave, 2nd floor
Phoenix, AZ, 85012
602-771-1601
<http://www.azgs.az.gov>
inquiries@azgs.az.gov

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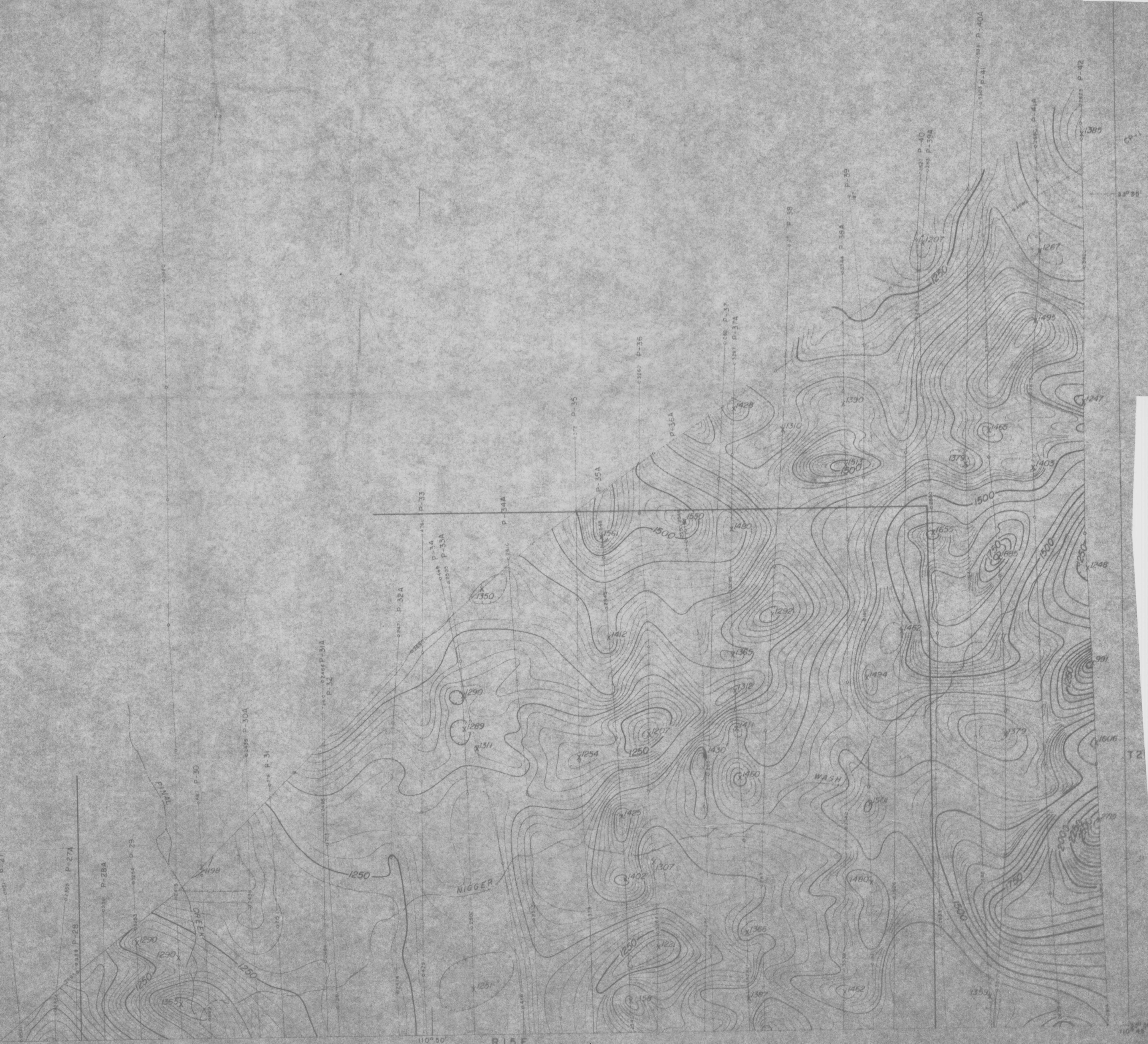
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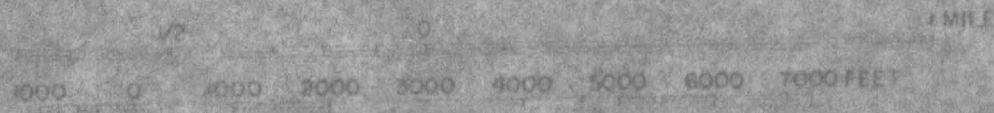
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SCALE 1:24,000



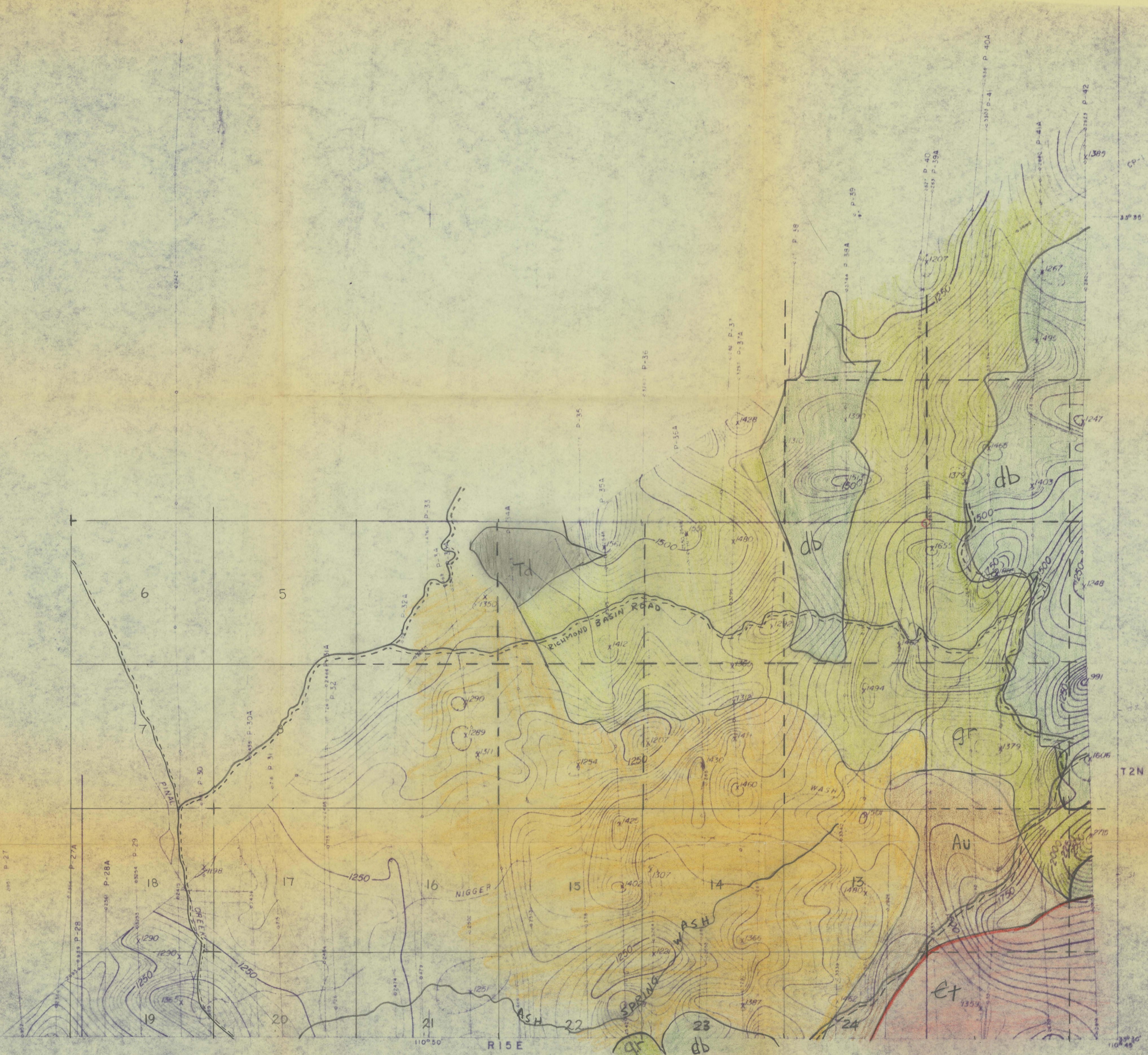
CONTOUR INTERVAL 50 GAMMAS
WITH SUPPLEMENTARY CONTOURS AT 10 GAMMAS

AEROMAGNETIC CONTOUR MAP
TOTAL INTENSITY

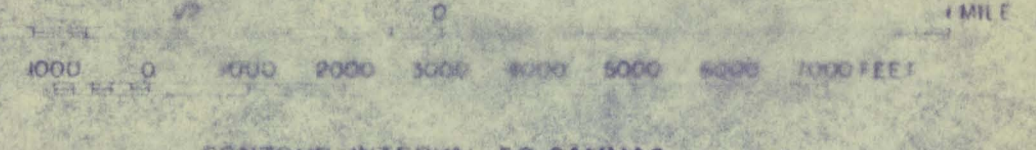
INSPIRATION, ARIZONA

Prepared for
THE ANACONDA COMPANY

SHEET 1



SCALE 1:24,000



CONTOUR INTERVAL 50 GAMMAS
WITH SUPPLEMENTARY RESULTS AT 10 GAMMAS

Explanation

- Unsurveyed
- db Diabase
- gr Granite & related crystalline intrusive rocks.
- Au Apache group (Mesal limestone, Dripping Spring quartzite, Barnes conglomerate, Pioneer shale, & Scanlan conglomerate)
- Et Sandstone quartzite (includes Tapiata sandstone and Troy quartzite)
- Road
- QTS - Gravel, sand & silt.
- Td - Dacite (includes dacite tuff and agglomerate)

AEROMAGNETIC CONTOUR MAP
TOTAL INTENSITY

INSPIRATION, ARIZONA

Prepared for
THE ANACONDA COMPANY

SHEET 1

PRELIMINARY MAGNETIC INVESTIGATION

**RICHMOND BASIN
Globe Mining District
Gila County, Arizona**

for

THE ANACONDA CO. - INSPIRATION CONSOLIDATED COPPER CO. Joint Project

December 1963

by

**HEINRICHS GEOEXPLORATION COMPANY
P. O. Box 5671 Tucson, Arizona**

INTRODUCTION

On December 11, 12 and 13 Heinrichs Geoexploration Company measured the vertical component of the magnetic intensity for Inspiration Consolidated Copper Company investigation over the Richmond Basin area in Township 2 North, Range 16 East, Gila County, Arizona. Specifically, work was concentrated in Sections 7, 8, 17, 18, 19 and 20.

RECOMMENDATIONS

The problem was to investigate a possible aerial magnetic high in the Richmond Basin; considering the magnetic interpretation and general geological environment present within the area, the immediate district warrants no further magnetic investigations.

On profile B, south of Nugget Wash limestone units are intruded by a granite and local copper mineralization is noted. The zone of mineralization represents a magnetically low area. Possible further magnetic investigations to the southwest may be indicated to investigate the possibility of an increased size of the contact zone. Consideration of such work is recommended, if any further interest in the general area is being considered.

CONCLUSIONS

The contoured vertical magnetic component map indicates a major high zone in Section 17. This magnetically high zone is located in the vicinity of the highest topographical area covered within the survey, and the aerial magnetics is probably only an expression of the combined effects of the rock magnetism and topography.

The magnetic profile plots and observed surface geological expressions are indicative of several magnetic environments. The geological contacts are readily observed from the magnetic profile plots. The relative order of magnetic intensity of the various environments is dependent upon the rock magnetic properties of the geological units involved in the area. The environmental boundaries correspond to geologic contact as observed from the profiles; thus, the measured vertical magnetic component is probably only a function of the lithological units present.

PROCEDURE

A portable Jalander magnetometer of ± 10 gammas sensitivity was used. A total of 3 north-south profiles equaling

29,800 feet with 100-foot station separations was measured. The resultant data are presented in contour plan and profiles. The various traverses were tied and corrected for drift to allow for more valid contouring. The various geological exposures were noted and plotted on the profile map to aid in an understanding and evaluation of the observed magnetic characteristics.

Respectfully submitted,
HEINRICHS GEOEXPLORATION CO.

Wm W. Carey
Wm. W. Carey
Geophysicist

Approved by:

E. Grover Heinrichs
Vice President

December 23, 1963
P. O. Box 5671
Tucson, Arizona

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3

PAGE-

7

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8