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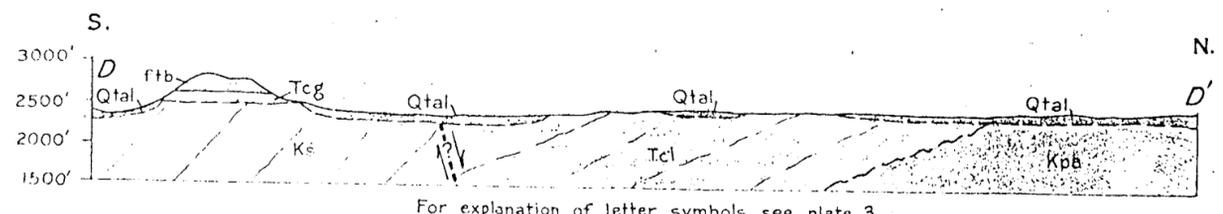
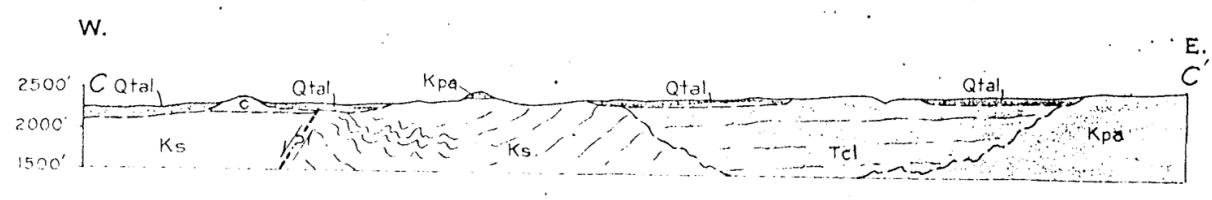
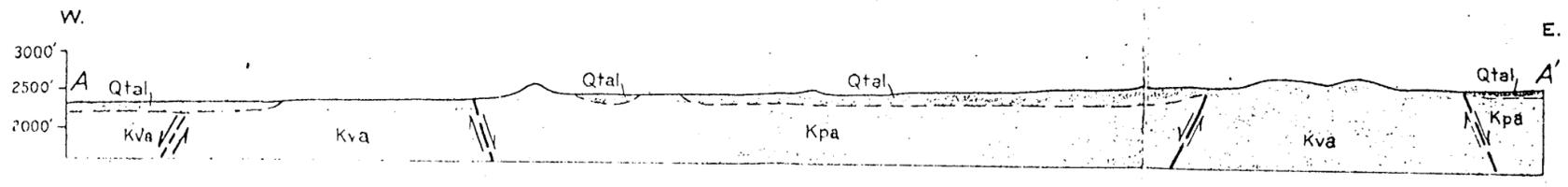
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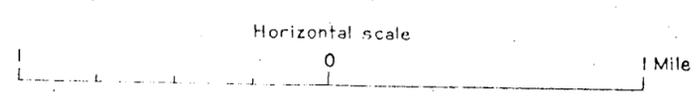
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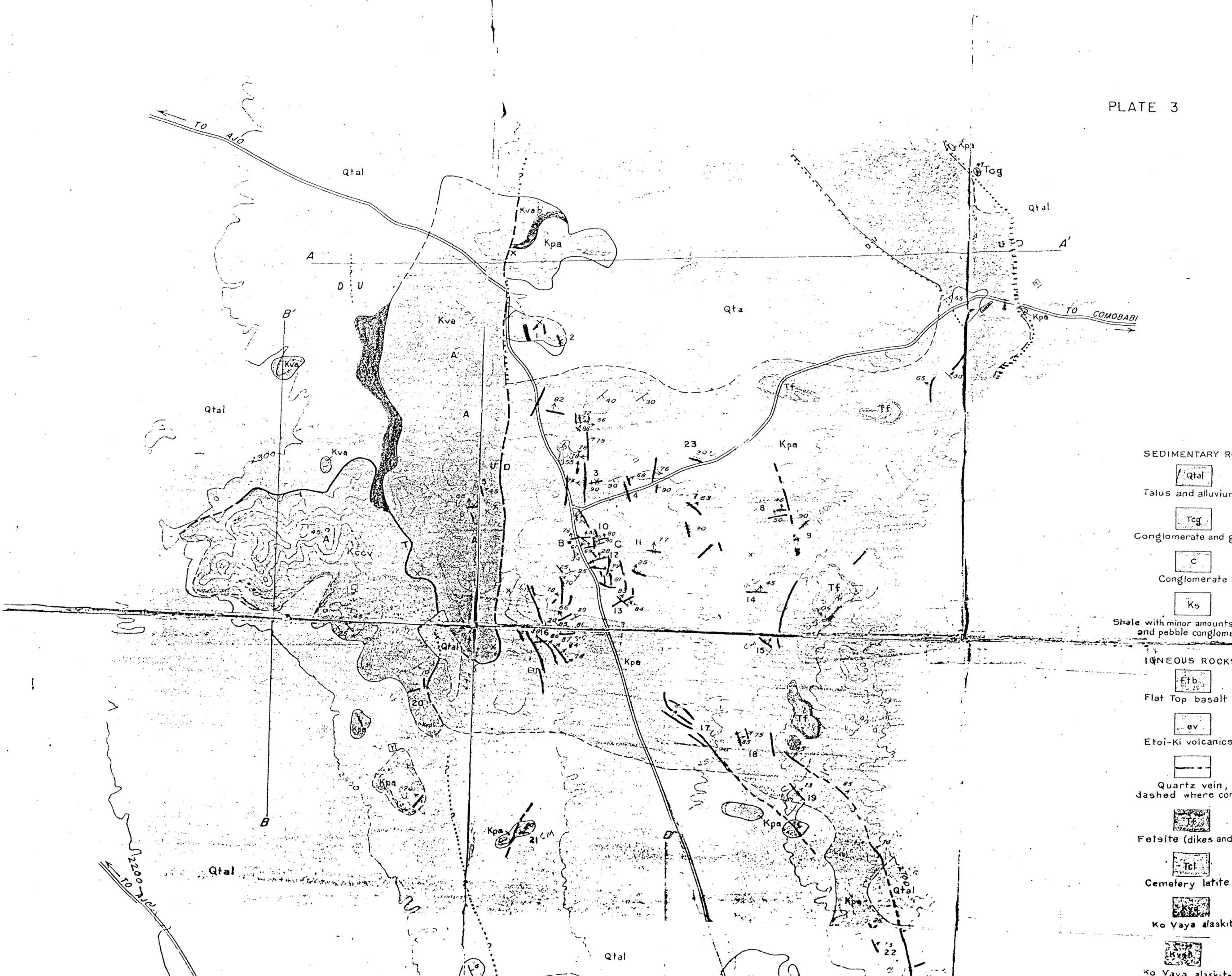
PLATE 4



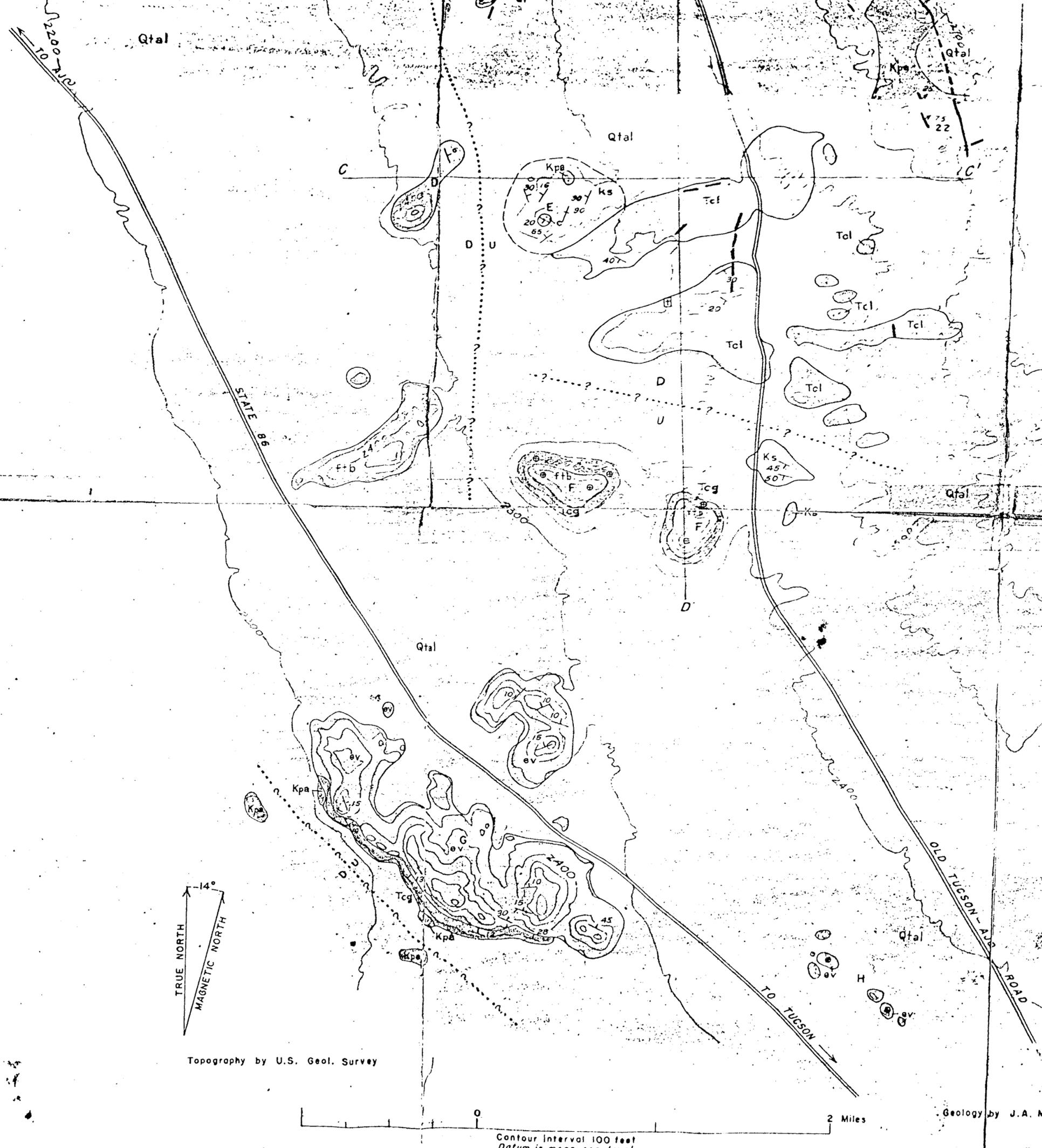
For explanation of letter symbols see plate 3



GEOLOGIC STRUCTURE SECTIONS OF WESTERN PART OF COBABI MINING DISTRICT, ARIZONA



- SEDIMENTARY ROCKS
- Qtal  
Talus and alluvium
  - Tcg  
Conglomerate and gravel
  - C  
Conglomerate
  - Ks  
Shale with minor amounts of and pebble conglomerate
- IGNEOUS ROCKS
- Ftb  
Flat Top basalt
  - ev  
Etoi-Ki volcanics
  - — —  
Quartz vein, dashed where concealed
  - F  
Felsite (dikes and sills)
  - Tcl  
Cemetery latite
  - Kva  
Ko Vava alaskite
  - Kvab  
Ko Vava alaskite



-  Tcl  
Cemetery latite
-  Kpa  
Ko Yaya alaskite
-  Kccv  
Ko Yaya alaskite  
(border facies)
-  Ks  
Picacho andesite
-  Kccv  
Coocan volcanics

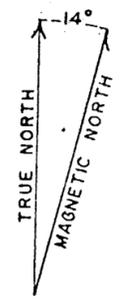
--- Contact, dashed where approximately located

U --- F ---  
Fault, dashed where approximately located; U, upthrown side; D, downthrown side; T, upper plate of thrust fault.

....?....?  
Concealed fault, queried where existence of fault is in doubt

-  50  
Strike and dip of beds
-  Horizontal beds
-  x4  
Prospect or shaft  
(with locality number)

- REFERENCE POINTS
- A  
Ko Yaya Hills
  - B  
Picacho Trading post
  - C  
Picacho Peak
  - D  
Indian Hills
  - E  
Sedimentary Hill
  - F  
Flat Top Buttes
  - G  
Etoi-Ki Hills
  - H  
Sheep Hills



Topography by U.S. Geol. Survey



Contour interval 100 feet  
Datum is mean sea level

Geology by J.A. MacKellar

**GEOLOGY OF THE WESTERN PART OF THE COBABI MINING  
DISTRICT, PIMA COUNTY, ARIZONA**

by

**Jules A. MacKallor**

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**A Thesis Submitted to the Faculty of the  
DEPARTMENT OF GEOLOGY  
In Partial Fulfillment of the Requirements  
For the Degree of  
MASTER OF SCIENCE  
In the Graduate College  
UNIVERSITY OF ARIZONA**

**1957**

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SIGNED: Jules a. MacKellar

### APPROVAL BY THESIS DIRECTOR

This thesis has been approved on the date shown below:

F. W. GALBRAITH  
Head, Department of Geology

1 July 1957  
Date

**GEOLOGY OF THE WESTERN PART OF THE COBABI MINING  
DISTRICT, PIMA COUNTY, ARIZONA**

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**ABSTRACT**

An area of fifty square miles midway between Tucson and Ajo, Arizona, has been mapped on a scale of one inch to two miles. Exclusive of Quaternary alluvium and talus, igneous rocks constitute 95 percent of the bedrock and sedimentary rocks constitute five percent. Many of the formations in this area closely resemble formations in the Tucson Mountains but have little or no resemblance to the rocks in the Ajo area.

Extrusive rocks consist of flows of intermediate to basic composition, and they have been divided into five formations. The total thickness is calculated to be about 10,000 feet. The thickest flows are Late Cretaceous, and they were eroded and faulted before the Tertiary flows were extruded. A volcanic conglomerate composed of volcanic ejecta is the only evidence for explosive volcanic activity in the area. The Late Cretaceous volcanics have been intruded by acidic stocks and dikes.