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Telephone 363-3302

Hand Sample Serial **6053-6055**

ASSAY REPORT  
**UNION ASSAY OFFICE, Inc.**

W. C. WANLASS, President

L. G. HALL, Vice President

G. P. WILLIAMS, Treasurer

GERALDINE A. WANLASS, Secretary

P. O. Box 1528

Salt Lake City, Utah 84110

Mine E. F. Posey  
1245 Vine Street  
Salt Lake City, Utah 84121

RESULTS PER TON OF 2000 POUNDS

Feb. 26, 1971

NUMBER	GOLD Ozs. per Ton	SILVER Ozs. per Ton	LEAD Wet on Ore	COPPER Per Cent	INSOL. Per Cent	ZINC Per Cent	SULPHUR Per Cent	IRON Per Cent	LIME Per Cent	Per Cent	Per Cent
Shin 1	Trace	1.0		1.948							
2	None	0.3		0.006							
3	None	0.1		None							

→ dump material - visible  $\text{CuOx-SiO}_2$   
 → skarn material adjacent to #1  
 → ferruginous float in wash adjacent to #1

Remarks.....

Charges \$ 16.50

*W. C. Wanlass*

**EDWARD F. POSEY**

**GEOPHYSICIST**

**TRANS WESTERN MINERALS, INC.  
MINERA EL VIGILANTE, S.A. DE C.V.  
2968 RICHARDS STREET  
SALT LAKE CITY, UTAH 84115  
PHONE 466-5375**

**RESIDENCE  
1245 VINE, #1  
SALT LAKE CITY, UTAH  
PHONE 262-2295**

Edward F. Posey  
1245 Vine Street  
Salt Lake City, Utah 84121  
January 17, 1972

Mr. Paul Eimon  
Essex International  
1704 West Grant Road  
Tucson, Arizona 85705

Paul,

Enclosed please find some data on a property near Milford, Utah, which Charlie Smith and myself started working on last Spring. As you may know, Charlie took a one year job with the U. N. last June. We have not done anything with the property since then and since your company is in Milford now, we thought this area might be of interest.

The area was shown to us by a local prospector, I run some reconnaissance mag profiles which seem to confirm the existence of an intrusive at depth. That is about the sum of what we have done to date. It is our feeling the property deserves more work i.e. I.P., aeromag etc..

I have enclosed some data on the area, its not much but if your interested, I'd be happy to hear from you.

Regards,  
*Ted Posey*  
Ted Posey

To: Essex International

January 17, 1972

BLUE MOUNTAIN AREA

Property name: Maw Claim Group, T.30S., R.14W., Beaver Co.,  
Utah.

Exposed Mineralization : Copper oxides and silicates

USGS Map coverage: Richfield A.M.S., 1:250,000

Land Status: 60 unpatented mining claims

Ownership: E.F. Posey, 1245 Vine St. Salt Lake City, Utah  
C.W. Smith, 2968 Richards St. Salt Lake City, Utah  
G. A. McCulley, Milford, Utah  
M. White, Milford, Utah

General Geology ( References ):

Miller, G. M., 1958, Post-Paleozoic structure  
and stratigraphy of Blue Mountain area, southwest Utah:  
unpub. M. S. thesis, Univ. Wash.

-----, 1959, The pre-Tertiary structure  
and stratigraphy of the southern portion of the Wah Wah  
Mountains, southwest Utah: unpub. Ph.D. thesis, Univ. Wash.

-----, 1966, Structure and stratigraphy of  
the southern portion of the Wah Wah Mountains, southwest  
Utah: Am. Assoc. Petroleum Geologists Bull., v. 50, no. 5,  
p. 858-900.

Work done to date: numerous old prospect pits in area,  
none very large; reconnaissance ground magnetic survey.

Proposed terms: Lease & option, one year free with  
exploration work commitment .

STRUCTURE AND STRATIGRAPHY OF SOUTHERN PART OF  
WAH WAH MOUNTAINS, SOUTHWEST UTAH<sup>1</sup>

GERALD M. MILLER<sup>2</sup>  
Auburn, Washington

ABSTRACT

The area investigated is in the southern part of the Wah Wah Mountains of southwest Utah. With regard to regional structural relations, the area lies a short distance west of the frontal belt of Laramide thrusts developed at the eastern border of the Great Basin. Two large thrusts are present in the Wah Wah Mountains; these thrusts divide the area into three structurally and stratigraphically distinct units: an "autochthon," the Blue Mountain thrust plate, and the Wah Wah thrust plate.

The lower or Blue Mountain thrust brings a sequence of rocks ranging in age from Middle Cambrian through Early Pennsylvanian over the "autochthon," which consists of clastic Mesozoic strata ranging in age from Early Triassic to Late Jurassic. The "autochthon" is essentially a plateau-type continental section. Some of the Triassic units are partly metamorphosed to hornfels by a postulated intrusive body in the subsurface. The "autochthon" is exposed at Blue Mountain in the eastern part of the area and in several windows in the south-central part of the range. The Blue Mountain thrust can be traced for 12 miles along the strike and has a minimum horizontal displacement of 9 miles. It is at least as young as latest Jurassic and probably formed during the Laramide orogeny.

The rocks of the Blue Mountain thrust plate are an easterly facies of the Paleozoic sequence of the eastern Great Basin. This easterly facies is characterized chiefly by thinning and omission of units found in the more westerly facies toward the interior of the geosyncline. A sequence of Upper Devonian-Mississippian rocks disconformably overlies the Middle Devonian Simonse Dolomite; this break presumably is the same as the regional unconformity that is found farther northeast in the Great Basin. The Mississippian sequence within the Blue Mountain thrust plate displays a distinct facies in contrast to that of the Mississippian of eastern Nevada and westernmost Utah. Several imbricate thrusts are present within the Blue Mountain thrust plate, and overfolding indicates an east-southeasterly direction of yielding.

The upper or Wah Wah thrust has brought a sequence of rocks ranging in age from latest Precambrian to Late Cambrian over the Paleozoic rocks of the Blue Mountain thrust plate. The main part of the Wah Wah Mountains is composed of the Cambrian sequence of the upper plate. The Cambrian sequence continues northward into the House Range. The Paleozoic sequence of the Wah Wah thrust plate continues unbroken northwestward into the Confusion Range. Thus, the Wah Wah, House, and Confusion Ranges are assigned to the same major thrust plate. Farther northeast the Wah Wah thrust is extended by the Frisco thrust mapped by E. H. East (1956) and possibly also by the Canyon Range thrust mapped by E. W. Christiansen (1952). The Wah Wah thrust is interpreted as being genetically related to a frontal breakthrough of the Snake Range décollement (Hazzard *et al.*, 1953; Misch, 1960).

A large part of the area is covered by Tertiary volcanic rocks which have been moderately faulted, tilted, and in part weakly folded.

INTRODUCTION

The Wah Wah Mountains are a north-south-trending range in the eastern part of the Great Basin in southwestern Utah (Fig. 1). On the north, they are adjacent to the Confusion and

House Ranges in the vicinity of the IbeX Hills. The structural complexities of the Wah Wah Mountains were recognized during a rapid reconnaissance during the summer of 1956 while the writer was employed by the Union Oil Company of California. A more detailed investigation, on which this paper is based, was made during the summers of 1957 and 1958 for a Ph.D. dissertation at the University of Washington (Miller, 1959). The primary purpose of the investigation was to map in detail the pre-Tertiary structures of this range which were suspected of representing an important link in regional structural relations. The regional structural problem involved the question of an easterly breakthrough of a décollement mapped by Hazzard *et al.* (1953) farther west in the Snake Range of east-

ernmost Nevada. Because thrusting was recognized in the Wah Wah Mountains, it was expected that this area might show some relation between overthrusting in the easternmost part of the Great Basin and the décollement farther west. Since completion of the writer's dissertation (Miller, 1959), these regional relations have been discussed by Misch (1960).

No previous geologic work has been published on the southern part of the Wah Wah Mountains. In 1959, however, after this writer's field work had been completed and an abstract had been published (Miller, 1958), a preliminary reconnaissance map of a part of the area herein discussed was released by the U. S. Geological Survey in open file (Taylor and Powers, 1953).

(continued)

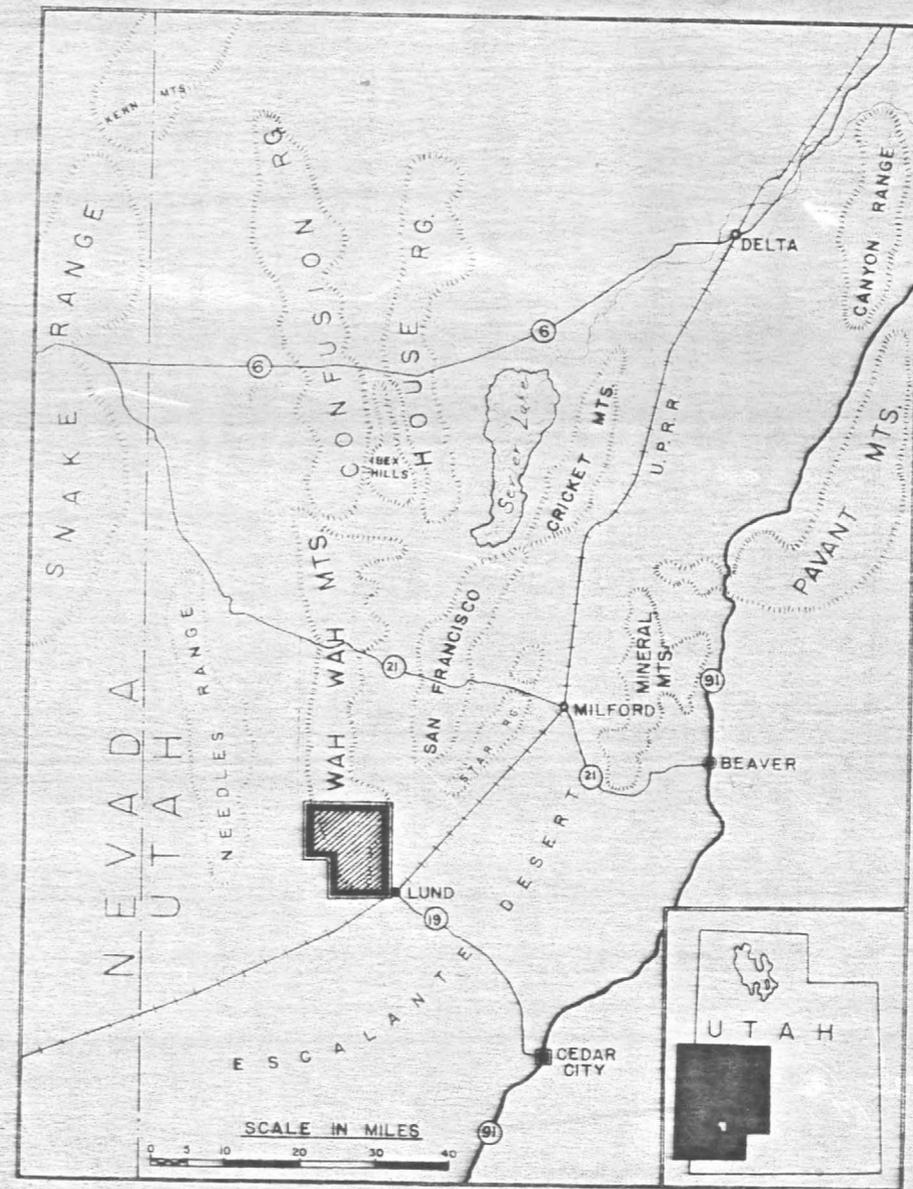


FIG. 1.—Index map, southwestern Utah.

<sup>1</sup> Manuscript received, March 25, 1965.

<sup>2</sup> Green River College.

The writer is most grateful to J. C. Hazzard, J. Hoover Mackin, Peter Misch, and C. A. Repenning for their invaluable discussions in the field. Special acknowledgment is given to Professor Misch for supervising the original dissertation on which this paper is based, and for critically reviewing the present manuscript. H. R. Blank, Jr., helped measure some of the stratigraphic sections, and W. H. Easton made all the Paleozoic fossil identifications. Fossil material is now in the University of Washington Paleontology Museum filed under Lot No. 45, localities UWA 738-810 inclusive.

The study was made possible by financial assistance from the Union Oil Company of California.

THE SOUTHERN PORTION OF THE  
**WAH WAH MOUNTAINS**  
 SOUTHWEST UTAH  
 by  
 GERALD M. MILLER, 1965

LEGEND

- Qd1 Alluvium
- Qb Quaternary basalt
- Tg1 Tertiary volcanics
- Jg1 Tertiary conglomerates
- J Jurassic
- T Triassic
- Pa Pennsylvanian
- M Mississippian
- D Devonian
- S Silurian
- O Ordovician
- Cmu Middle-Upper Cambrian (includes Pioche Shale)
- Cpm Precambrian-Lower Cambrian
- Cp Precinct Mountain Quartzite

Geologic contact  
 High angle faults and fractures  
 Thrust (Tein on upper plate)



LUND  
 Highway 19  
 To Cedar City  
 33 miles

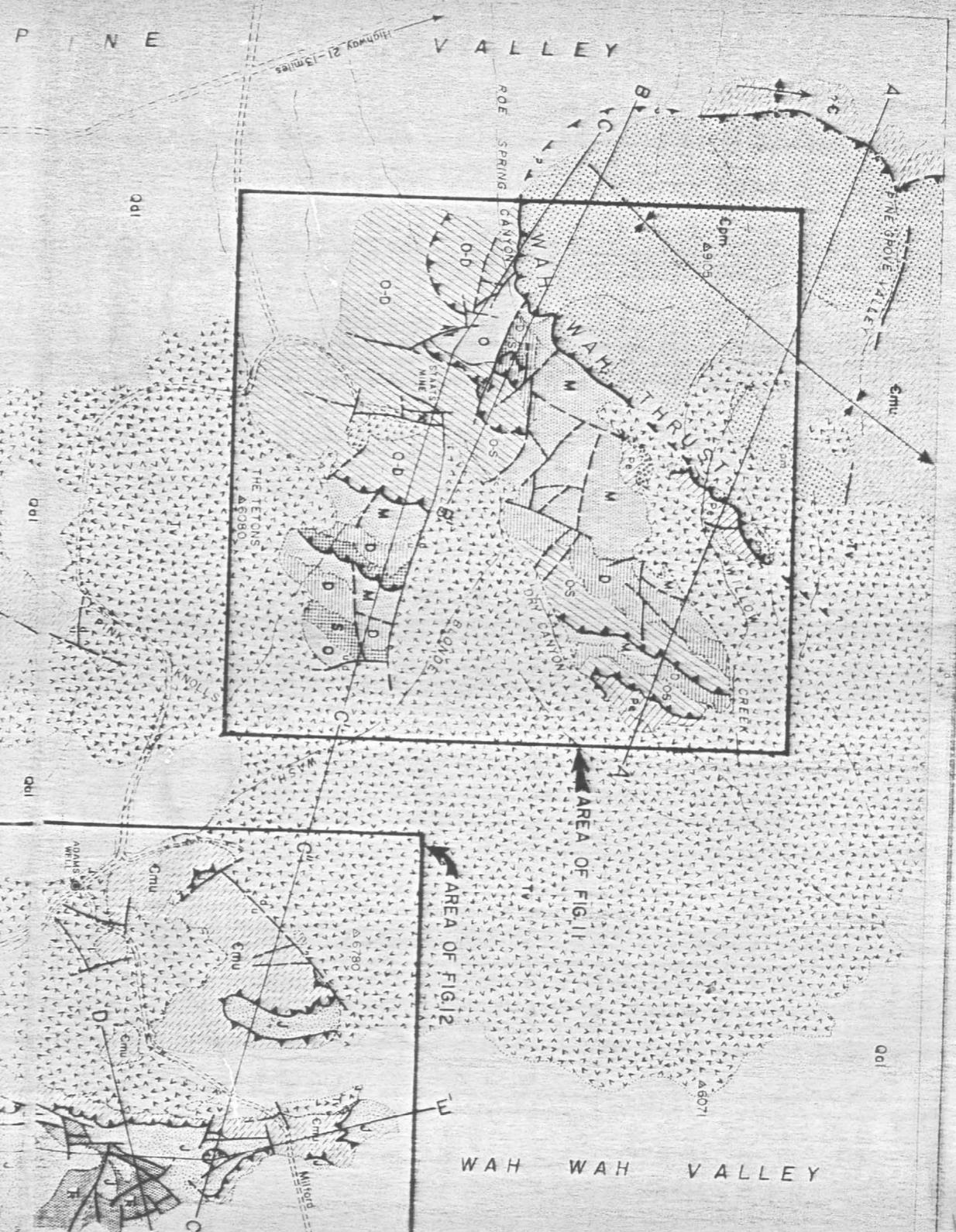


Fig. 10.—Geologic map of southern part of Wah Wah Mountains

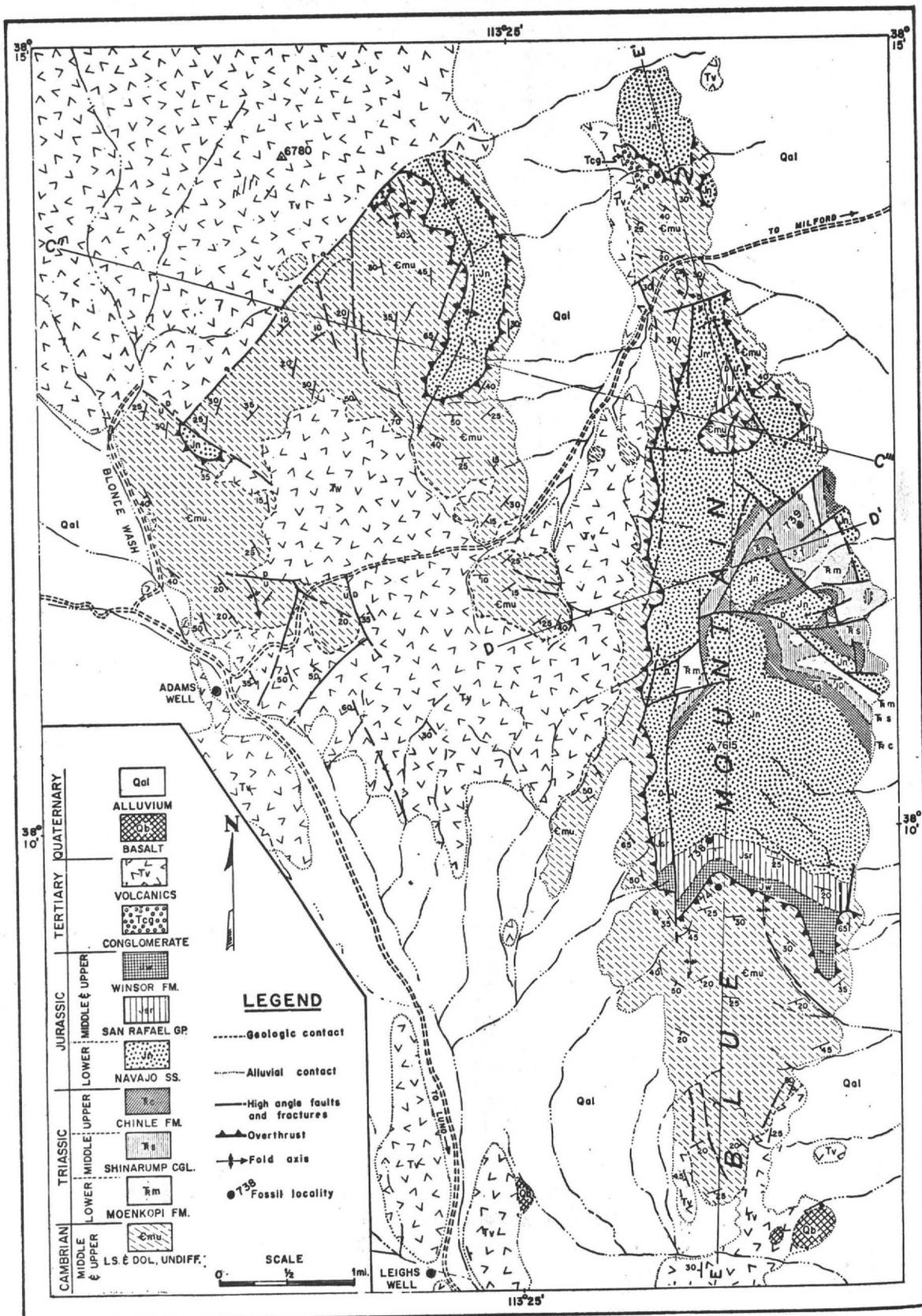


FIG. 12.—Geologic map of Blue Mountain area.

similar to those trend between N. tion of overturn yielding has been

On the eastern Eureka Quartzite the southeast (Se frontal part of th ly sheared and br remains relatively fold has developo tion C-C'; howev along the strike, compressed and in turned. The wester tcline has been c thrust as shown in

In the next low out in the core been cut by the the fold is shown east. Farther sout has occurred along southwest, the fa from the axis, for both limbs of the east has been faul in the vicinity of town Dolomite of

*High-angle fault* plate is cut by There are two w faults trending a other. One set str essentially parallel Many of these fa lated directly to structurally lowes Mine is cut by an tear fault which hundred feet. Thi ticular imbricate next higher thrus higher imbricate fault, although in the strata is appar

Farther west in cate slice contain Quartzite previous several right-latera pattern of the fol

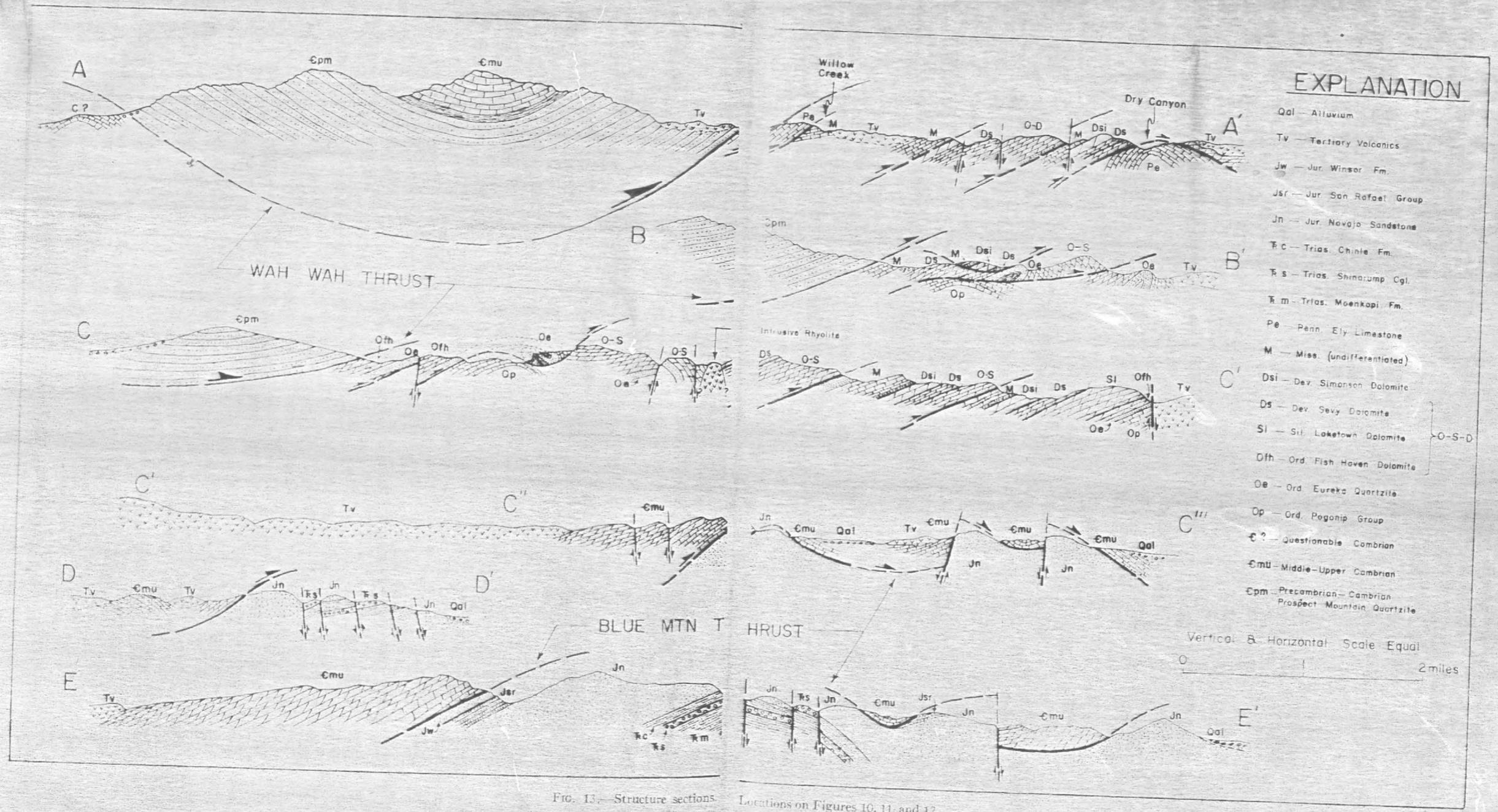
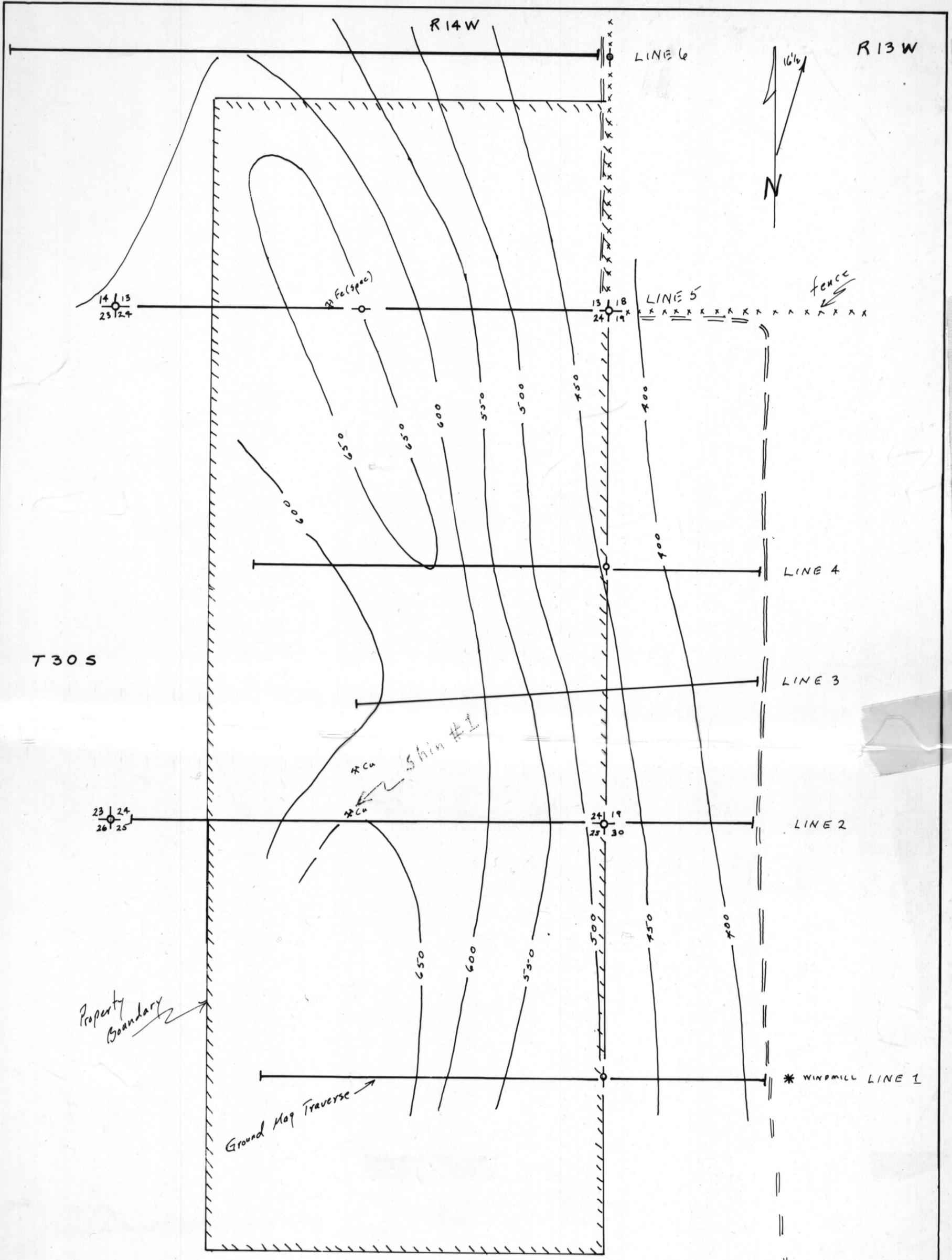


FIG. 13. Structure sections. Locations on Figures 10, 11, and 12.



- Overlay -  
 Reconnaissance  
 GROUND MAGNETIC MAP  
 Blue Mountain Area  
 Beaver County, Utah

\*<sup>cu</sup> Prospect w/ copper  
 Inst: Sharpe MFI  
 station spacing: 200 ft.  
 station control: Brunton & Pace

Scale: 1" = 1000 feet  
 0 500 1000 1500 2000  
 T.P. 3/71



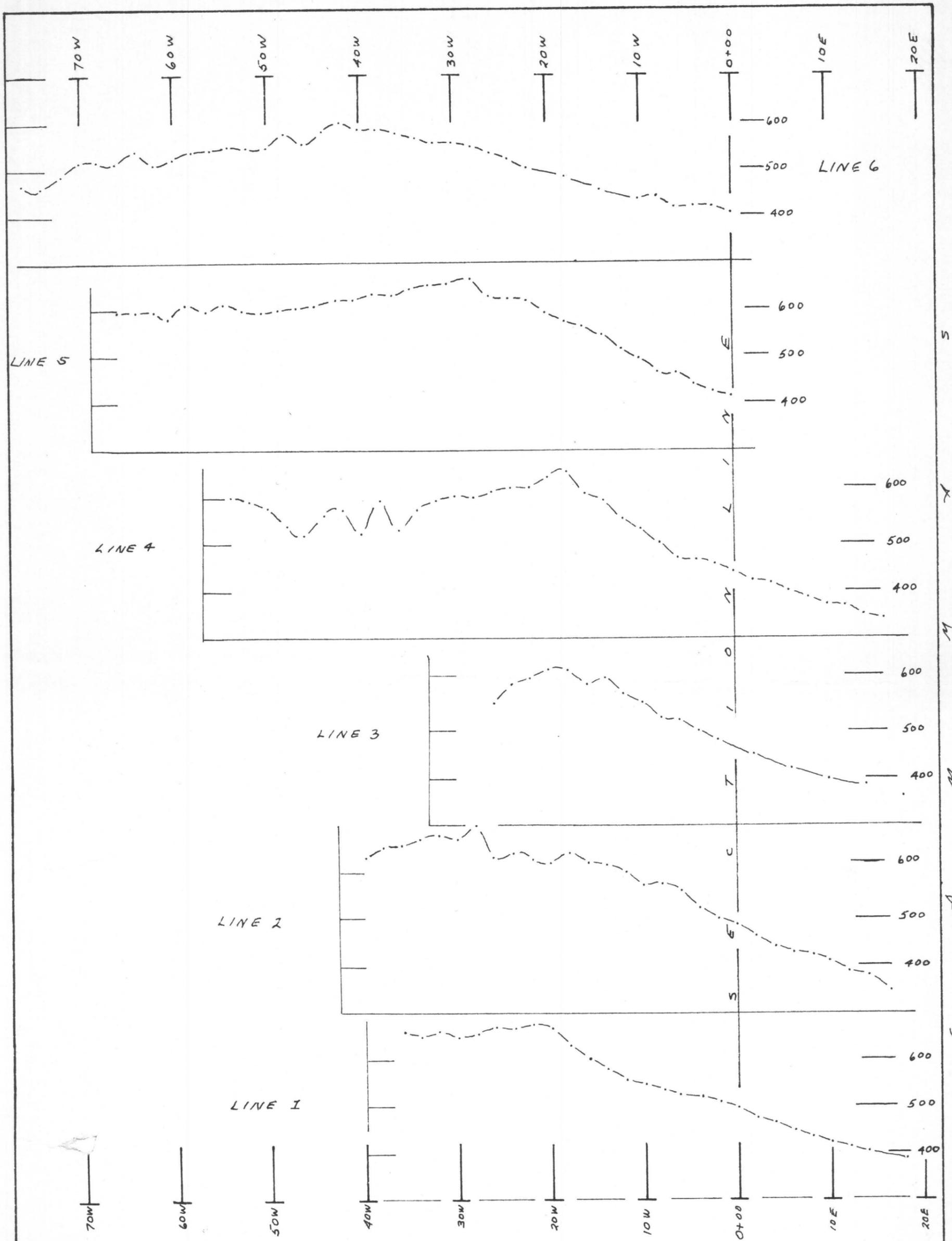
- Qal Alluvium
- Jn Jurassic Navajo sandstone
- Rc Triassic Chinle formation
- Rs Triassic Shinarump formation
- Rm Triassic Moenkopi formation
- Eun Cambrian undivided limestone

- N45 strike + dip
- inferred contact
- contact
- ..... drainage
- $\frac{u}{p}$  fault
- $\frac{u}{p}$  inferred fault

**GEOLOGY**  
Blue Mountain Area  
Beaver County, Utah

Approx. Scale: 1" = 1000 feet

Geology from Miller, 1966



Magnetic datum arbitrary  
 Inst: Sharpe MF-1  
 Control by Brunton + pace

GROUND MAGNETIC PROFILES

BLUE MOUNTAIN AREA  
 Sec. 13, 19, 24, 25, 30, T30S, R. 13, 19, W.  
 Beaver County, Utah  
 Scale: 1" = 1000 feet



T.P.