

(200)
T.G. Hoover
Nov 10 1957

111°52'30"

50'

111°45' 37'00"

EXPLANATION

Jc

Carmel formation

This map unit (Jc) is a tongue of the Carmel formation, and also includes the base of a tongue of the Navajo sandstone (which coalesces with the main mass of that formation in the Lees Ferry NW quadrangle to the east). It caps buttes in this quadrangle, ranges in thickness from 60 to 80 feet, and is composed, from bottom to top, of: (1) a 15- to 25-foot thick, red, silty limestone containing up to 90 percent calcite; unit is thin bedded, and ledge forming where the carbonate content is high and slope forming where silty; (2) a bed 15 to 35 feet thick of white cross-bedded Navajo sandstone; (3) a 6- to 8-foot-thick bed of yellowish-brown, highly calcareous, medium-grained sandstone composed of well sorted rounded quartz grains; in part crossbedded.

Jn

Navajo sandstone

Reddish-brown, brown, buff, and white moderately sorted predominantly medium-grained crossbedded sandstone composed of subrounded to rounded quartz grains and 2 to 5 percent feldspar grains; generally poorly cemented with iron oxide or calcite; forms cliffs which show prominent joints; about 1,700 feet thick. The lower contact of the unit is sharp and conformable.

Jk

Kayenta formation

Alternating beds of predominantly reddish-brown siltstones and fine-grained sandstones. The sandstones are composed of well-sorted subangular to rounded quartz grains poorly cemented with iron oxide and noncalcareous clay; cross-bedded in places; forms ledges and cliffs 10 to 30 feet high. The siltstone is thin-bedded, fissile, and weathers to gentle slopes 10 to 30 feet high; locally bleached to a yellowish gray. The formation is about 200 feet thick in this area. The bottom contact is gradational.

Rmos

Moenave formation

The Springdale member, Rmos, is a pale reddish-brown fine- to medium-grained sandstone composed of subrounded quartz grains with some mica; poorly cemented with noncalcareous clay and iron oxide; some beds crossbedded. The lower contact is not exposed in this quadrangle.

Contact

(Dashed where approximately located; short dashes where inferred or indefinite)

High angle fault

(Dashed where approximately located; short dashes where indefinitely located; U, upthrown side; D, downthrown side)

High angle fault

(Dashed where approximately located; U, probable upthrown side; D, probable downthrown side)

Fault showing dip; direction of throw unknown.

Strike and dip of beds

Strike and dip of joint

Strike of vertical joint

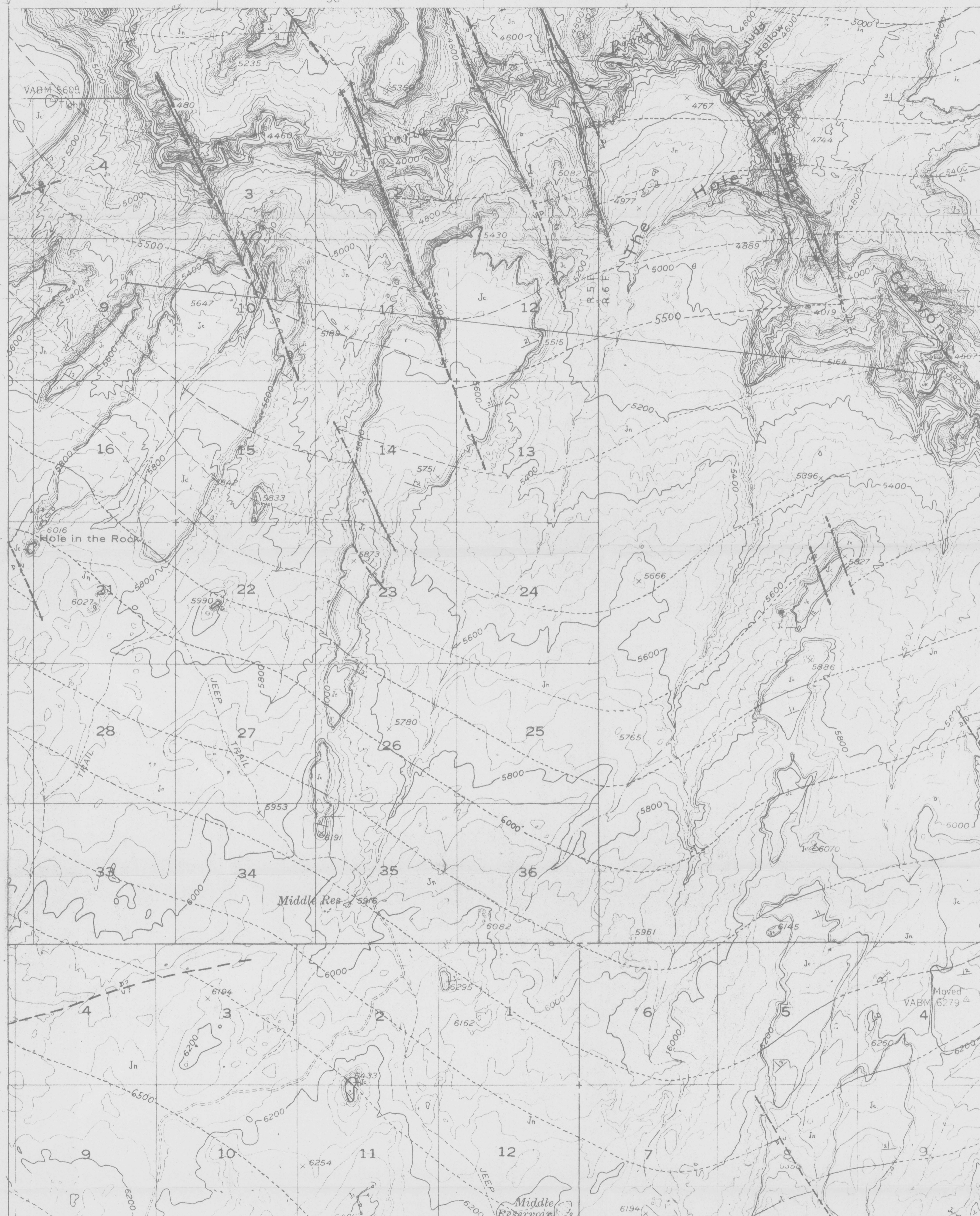
Structure contour

Drawn on base of Carmel formation; dashed where approximately located; short dashes indicate projection above surface. Structure contour trends are influenced by controls in adjacent quadrangles. Contour interval 100 feet. Datum is mean sea level.

Spring

Economic Geology

The Shinarump member of the Chinle formation, which contains uranium in adjacent areas, is not exposed in this quadrangle.



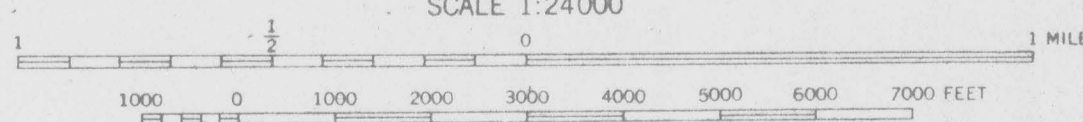
Lower Jurassic and Lower Jurassic(?)
Glen Canyon group
Lower Jurassic(?)
Upper Triassic(?)

JURASSIC
JURASSIC AND JURASSIC(?)
JURASSIC(?)
TRIASSIC(?)

36°52'30"

111°52'30"

SCALE 1:24000



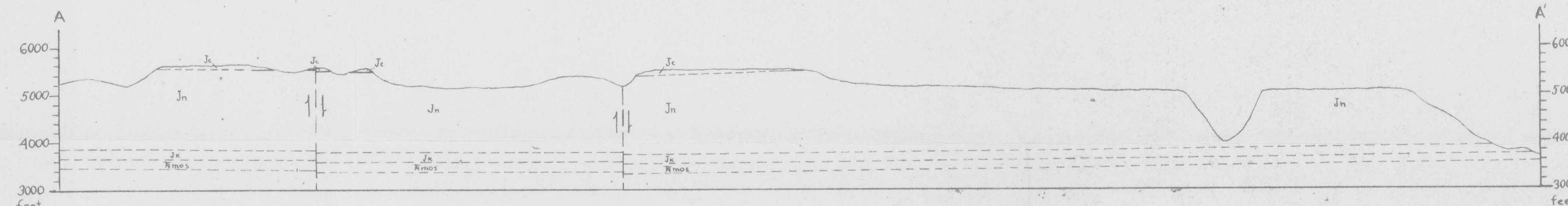
CONTOUR INTERVAL 40 FEET
DATUM IS MEAN SEA LEVEL

Made by the Geological Survey 1954
Topography by multiple methods from aerial-photographic data 1951

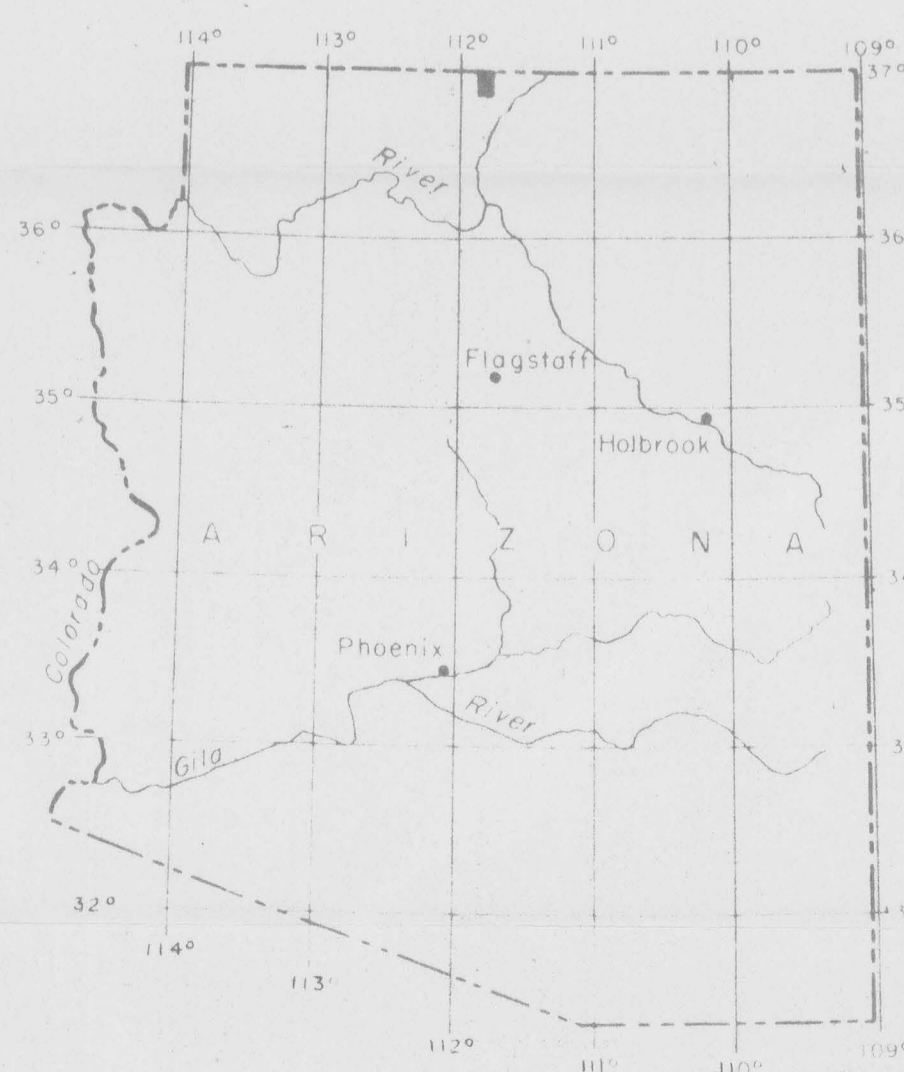
APPROXIMATE MEAN MAGNETIC DECLINATION, 1948

Geology by R.G. Petersen + D.A. Phoenix 1956

111°45'



SECTION ALONG A-A'



INDEX MAP OF ARIZONA SHOWING AREA OF THIS REPORT