

UNITED STATES DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY



GEOPHYSICAL LOGS OF THREE COAL BOREHOLES,
NORTH HORN MOUNTAIN, UTAH

Chapter A of

Coal drilling during 1979 in Emery County, Utah

By

Thomas R. Abbay

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This report has not been edited for conformity
with U.S. Geological Survey editorial standards.

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COAL DRILLING DURING 1979 IN EMERY COUNTY, UTAH

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INTRODUCTION

This is the first in a series of reports on the 1979 drilling program in North Horn Mountain and East Mountain, Emery County, Utah, most of which is within the Wasatch Plateau Known Recoverable Coal Resource Area (KRCRA). The purpose of the program is to evaluate coal resources under three parcels of land which are being considered for possible exchange, as authorized by Public Law 95-554 of 1978, between the Federal government and Utah Power and Light Company. The lands involved are identified as "North Horn Mountain," "Cottonwood," and "Meetinghouse Canyon" (figs. 1, 2a-2d, 3, and 4).

Tertiary and Cretaceous sedimentary rocks are present in the vicinity of North Horn Mountain (fig. 1). The principal coal seams of economic interest, Blind Canyon and Hiawatha, are contained in the lower one-third of the Cretaceous Blackhawk Formation. In the drilling area, the strata dip 3°-5° west or northwest. The geology and coal resources of the area were described by Spieker (1931) and Doelling (1972). Geophysical logs of holes drilled previously on North Horn Mountain were presented in a report by Blanchard, Ellis, and Roberts (1977).

The geophysical logs for this area (figs. 5, 6, and 7) are being released in order of completion and, therefore, are not necessarily in numerical sequence. This report presents the logs of drill-holes MC-56A-TC, MC-57A-TC, and W-CD-2.

Table 1.--Summary of information for three holes drilled in T. 18 S.,
R. 7 E., North Horn Mountain, Emery County, Utah

Drill-hole No.	Location	Estimated collar elev. (feet)	Total depth (feet)
MC-56A-TC ¹ -----	SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 32	3,565	1,240
MC-57A-TC ² -----	NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 30	8,260	1,060
W-CD-2 ³ -----	NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 29	8,540	1,118

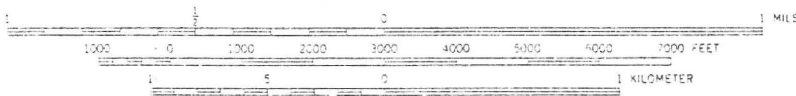
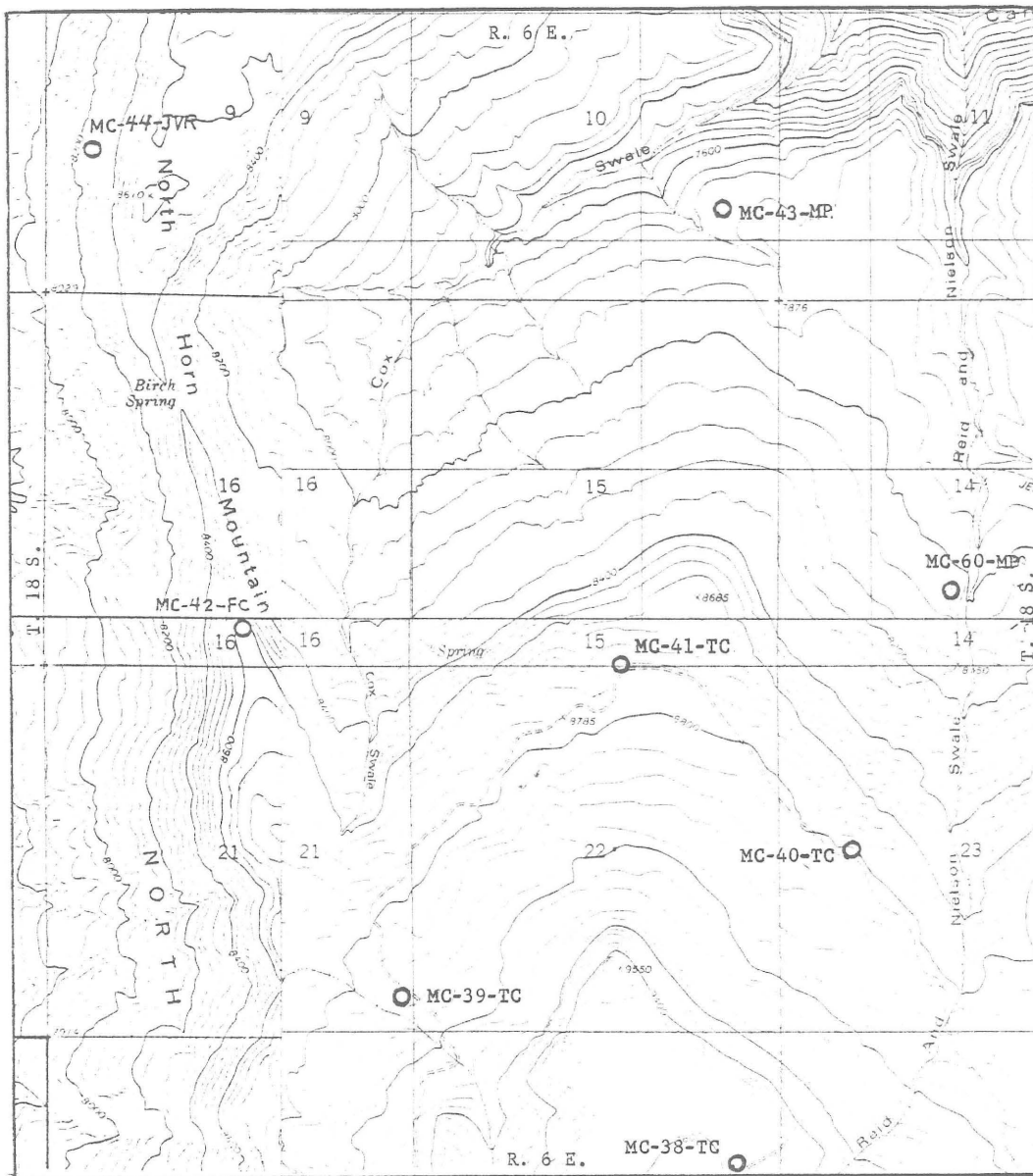
¹Redrill of NH-2-CD. Penetrated all coal seams and was bottomed in the Star Point Sandstone.

²Redrill of MC-57-TC (lost hole). Probably penetrated the Blind Canyon and upper Hiawatha seams. Hole was bottomed short of the target depth because of poor drill-hole conditions.

³Penetrated all coal seams and was bottomed in the Star Point Sandstone.

REFERENCES

- Blanchard, L. F., Ellis, E. G., and Roberts, J. V., 1977, Lithologic and geophysical logs of holes drilled in the Wasatch Plateau Known Recoverable Coal Resource Area, Carbon, Emery, and Sevier Counties, Utah: U.S. Geological Survey Open-File Report 77-133, 324 p., 32 figs., 2 tables.
- Doelling, H. H., Central Utah coal fields; Sevier-Sanpete, Wasatch Plateau, Book Cliffs, and Emery: Utah Geological and Mineralogical Survey Monograph Series, no. 3, p. 1-496.
- Spieker, E. M., 1931, The Wasatch Plateau coal field, Utah: U.S. Geological Survey Bulletin 819, 219 p.



2a	2c
2b	2d

Contour interval: 80 ft N $\frac{1}{2}$; 40 ft S $\frac{1}{2}$

Figure 2a.--Index map showing proposed drill-hole locations, North Horn Mountain, Emery Co., Utah

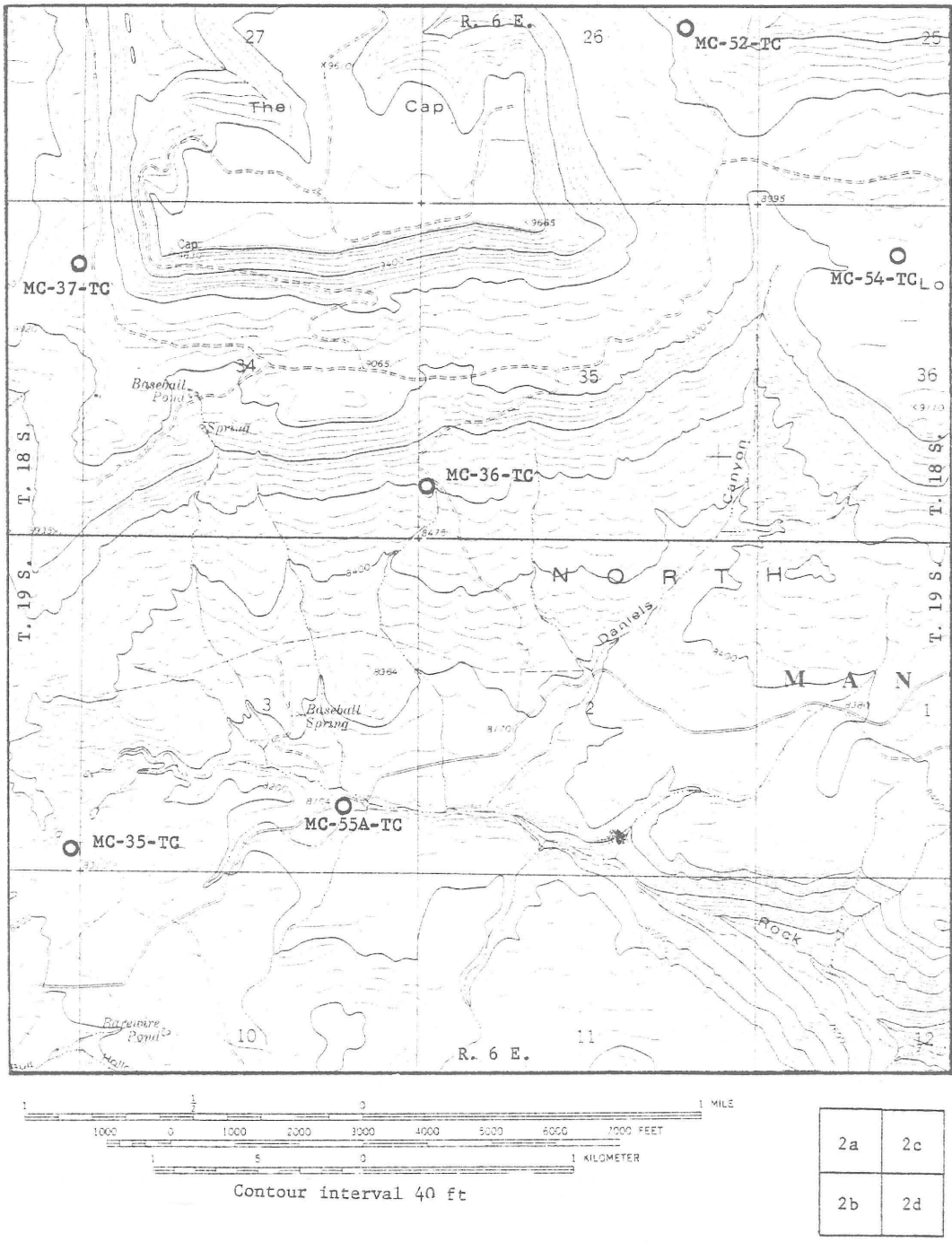
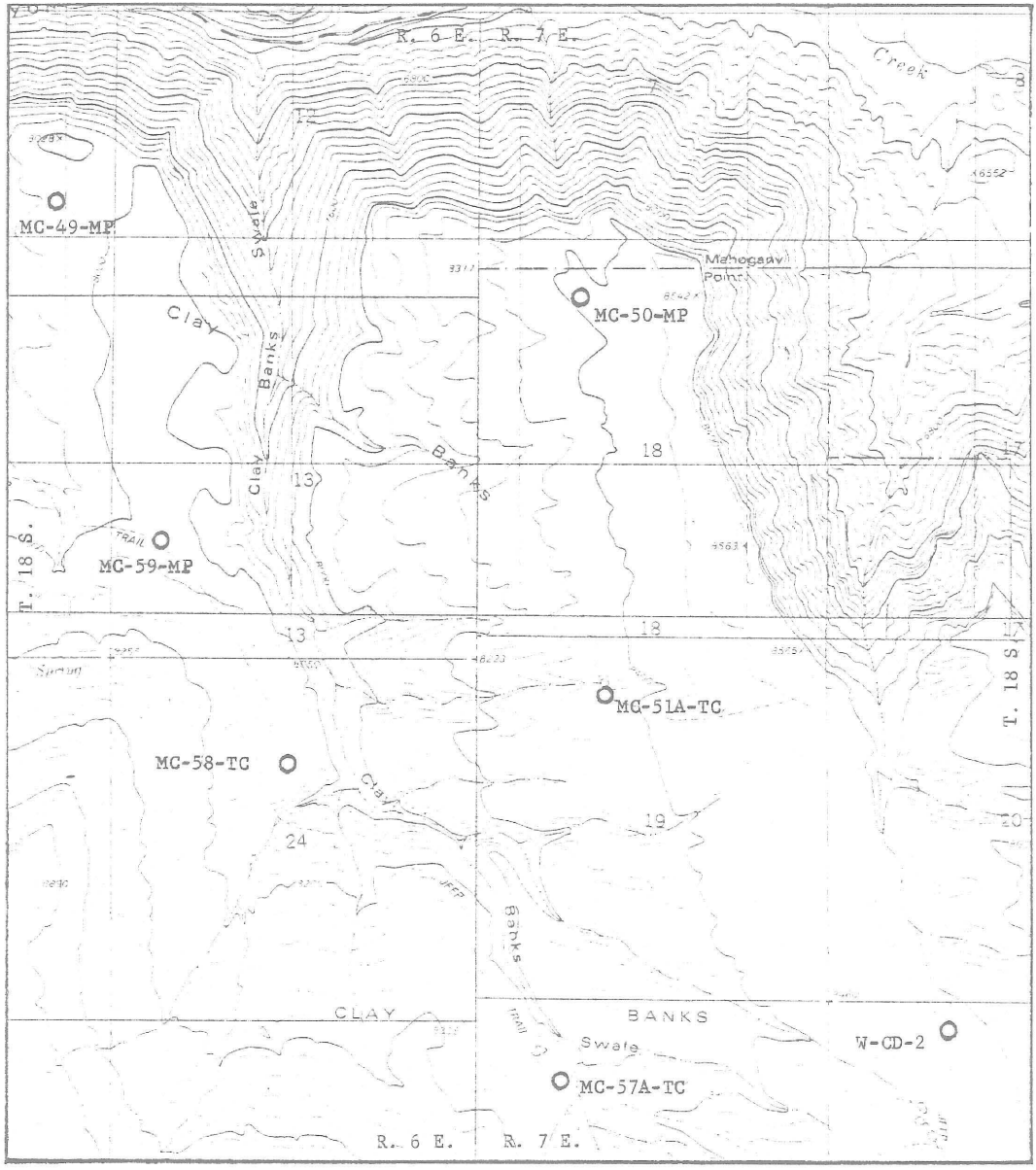


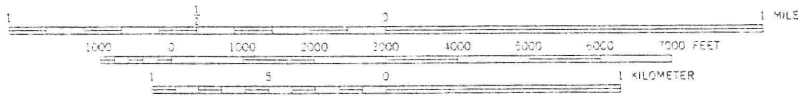
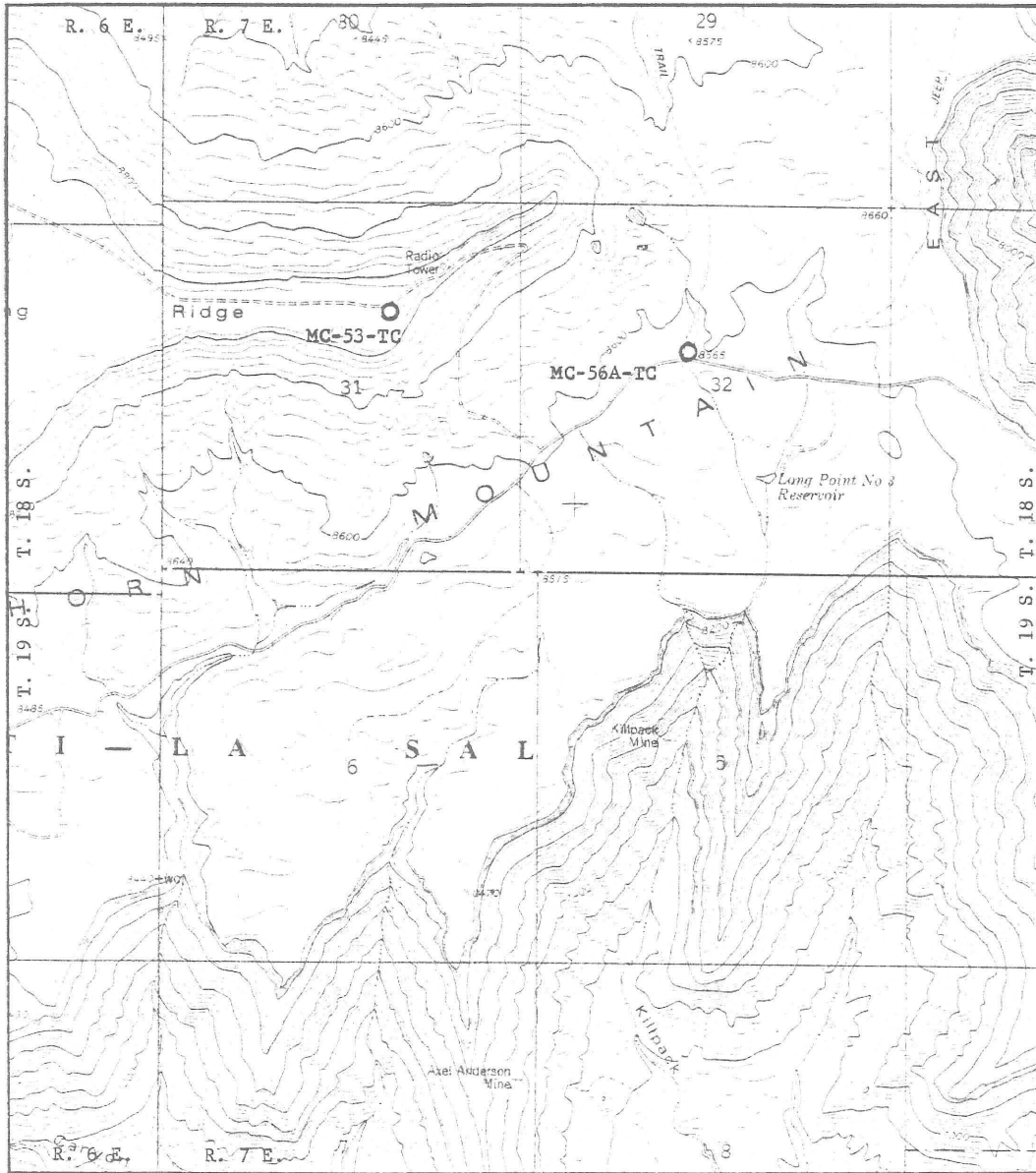
Figure 2b.--Index map showing proposed drill-hole locations, North Horn Mountain, Emery Co., Utah



Contour intervals: 80 ft in N $\frac{1}{2}$; 40 ft in S $\frac{1}{2}$

2a	2c
2b	2d

Figure 2c.--Index map showing proposed and completed drill-hole locations, North Horn Mountain, Emery Co., Utah



CONTOUR INTERVAL 40 FEET
 NATIONAL GEODETIC VERTICAL DATUM OF 1929

2a	2c
2b	2d

Figure 2d.--Index map showing proposed and completed drill-hole locations, North Horn Mountain, Emery Co., Utah

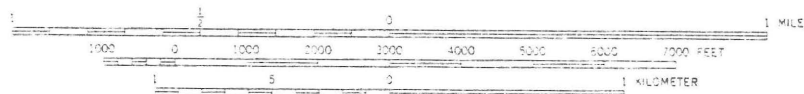
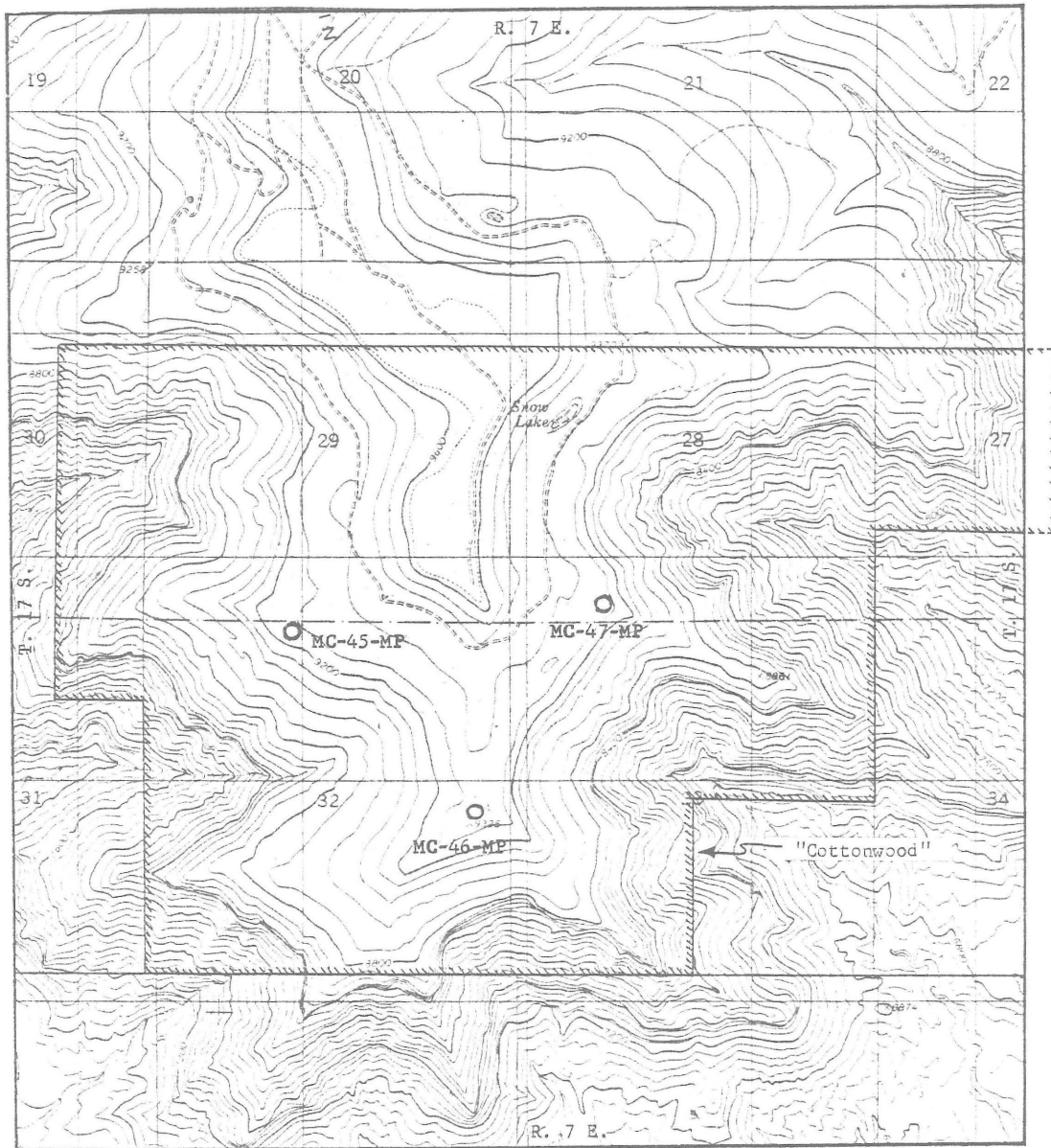
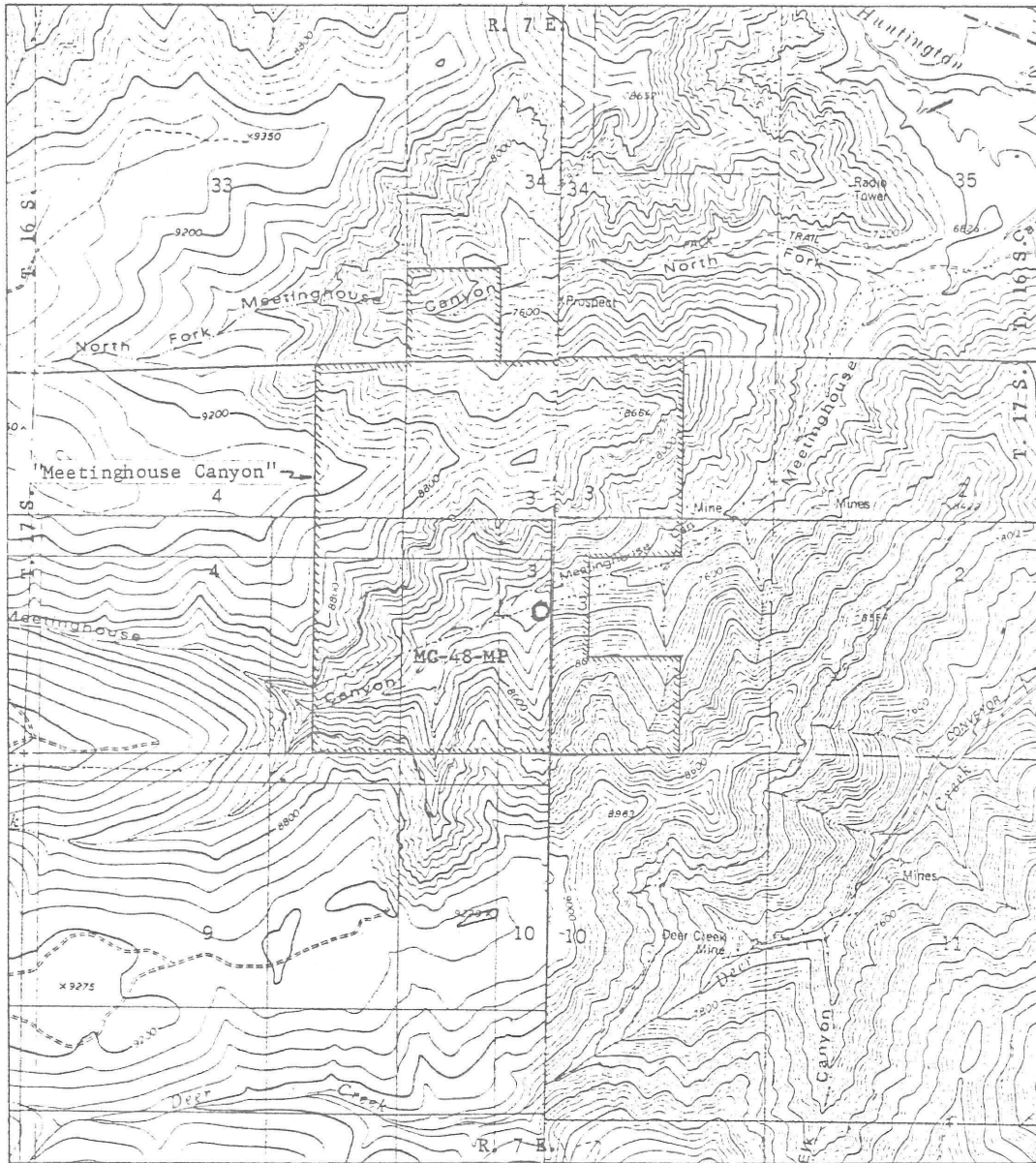


Figure 3. Index map showing proposed and completed drill-hole locations, "Cottonwood" parcel on East Mountain, Emery Co., Utah.



CONTOUR INTERVAL 80 ft (40 ft in SE $\frac{1}{4}$)

Figure 4. Index map showing proposed drill-hole location on the "Meetinghouse Canyon" parcel on East Mountain, Emery Co., Utah.