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DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY

Figure 4. Map of the Sunnyside mining district, Utah, showing topography, faults, coal outcrops, major mine workings, and tremor hypocenters for the period April–June 1969.

EXPLANATION

SEISMIC NETWORK

- Basic seismometer station
- Supplementary seismometer station
- Central recording station and tiltmeter

TREMOR HYPOCENTERS

2.1–3.0 | 1.6–2.0 | 1.0–1.5 Richter Magnitude

FIRST MONTH / SECOND MONTH / THIRD MONTH / SEA LEVEL

Pie segment indicates range of focal depth, above or below sea level, in thousands of feet
Ring segment indicates first or second half of month
Example above: Tremor of Richter magnitude between 2.1 and 3.0 with focus between 0 and 2000 feet above sea level, occurring in the last half of the first month

MINES

- Haulageways and bleeders
- Mine portal
- (1) Mined-out area
- (2) Area mined this quarter

GEOLOGY

- Fault at surface
- Fault in mine workings

NOTE: U, upthrown side; D, downthrown side. Divergence between faults in the mine workings and at the surface is due to relief and the dip of the fault plane

Base from U.S. Geological Survey Sunnyside (1915 reprinted 1948), Woodside (1948), Range Creek (1944), and Flat Canyon (1954) quadrangles, 1:62,500
United States Steel Corp. reference grid (in thousands of feet)
Haulageways and bleeders of the mine workings shown compiled from Kaiser Steel Corp., United States Steel Corp., and Book Cliffs Coal Co. mine maps

Geology compiled from maps of the Sunnyside district (Osterwald, 1962), Columbia mine area (Osterwald, Dunrud, and Moberly, 1969), Geneva mine area (Dunrud and Barnes, 1972)

APPROXIMATE MEAN DECLINATION, 1969

SCALE 1:24,000

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This map is preliminary and has not been edited or reviewed for conformity with Geological Survey standards.