

1310 0004

(85)

Item 4
Crawley
Raymond

ES-16, SOUTHERN ROYSTON HILLS

General location: Southern Royston Hills.

Coordinates: 1at 38°15' N., long 117°31' W.

Land classification: Public domain.

Area: 2 km² (cumulative).

Accessibility: 12 km north of U.S. Highway 6 and 95.

Remoteness: 33 km northwest of Tonopah.

Geologic setting: The intrusive consists of quartz monzonite and intrudes the Middle Triassic(?) Excelsior Formation, composed of greenstone, breccia, and tuffaceous sandstone, and is overlain unconformably by ash-flow tuffs of Tertiary age. The Excelsior Formation, Tertiary volcanic rocks, and pluton have all been displaced by high-angle normal faults. The pluton occurs within the Walker Lane Fault Zone.

Hydrologic setting: The pluton is in the Clayton Valley ground-water system and the Big Smoky Valley drainage basin. The nearest discharge is 12 km southeast, where the water is unused.

Aeromagnetic expression: The small exposures occur at the eastern gentle gradient of a regional high-amplitude positive anomaly associated with a composite of extrusive rocks.

Comment: The pluton is located within the Walker Lane Fault Zone and is very near the edge of the Nevada seismic zone.