

ABANDONED OR INACTIVE URANIUM
MINES IN NEW MEXICO

A report of investigation carried out
between August 1979 and May 1980 under
contract with the New Mexico Energy and
Minerals Department.

by

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INTRODUCTION

During the course of this investigation approximately 200 uranium mine sites were visited. Although these sites are distributed throughout 20 counties the majority are in McKinley, San Juan, and Valencia Counties, along the western and southern margin of the San Juan Basin. Other counties with an appreciable number of sites are Grant, Rio Arriba, Sandoval, Sierra, and Socorro.

Field work commenced in August, 1979 and extended although not continuously, into May, 1980. Information obtained during the on-site visits included location, type and size of mine, condition of mine, host formation, dimensions of remaining structures, proximity to residences or villages, water quality data, and radiation levels, although a gamma ray scintillometer was not obtained for the project until October 20, 1979. An effort was made to contact landowners whenever and wherever possible, however, no systematic attempt was made to determine land and mineral ownership during this phase of the investigation.

Mine operation data has been included where available. This consists of information on ore grades, production history mineralogy, and mine operator. Old publications of the U.S. AEC and the State Mine Inspectors office were helpful in this area.

The mine reports are arranged alphabetically by county with each county having its own index. A NM- or AZ-mine identification number is given with each mine name in the index. It is an AML numbering system devised by Don Baker, Jr. The first part of this

identification number is based on a U.S. Soil Conservation Service numbering system of 15' quadrangles beginning with 1 in the northwest corner of the state to 24 in the northeast corner, then returning to the western border to start a new tier. The second part refers to a 7½' quad within the 15' quad; these are numbered counterclockwise from 1 in the NE quadrant to 4 in the SE. The last part of the number refers to a particular mine within the 7½' quad. An AZ- prefix indicates the 15' quadrangle is an Arizona quad that overlaps the New Mexico state boundary.

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GRANT COUNTY

Quad: Burro Peak 7½'

1. NM-411-3-1 Page 1
Alhambra - Bluebelle No.2
2. NM-411-3-2 Page 3
Floyd Collins
3. NM-411-3-3 Page 6
Merry Widow

Quad: White Signal 7½'

1. NM-411-4-1 Page 9
Inez (Inez uranium deposit)
2. NM-411-4-2 Page 11
Shamrock
3. NM-411-4-3 Page 14
Calamity Mine
4. NM-411-4-4 Page 18
Blue Jay (Blue Jay Claim)
5. NM-411-4-5 Page 20
Eugenie

Date visited 8/30/79

Mine name(s) Eugenie County Grant
Section NE $\frac{1}{4}$ 26 Twنش. 20 S R. 15 W
Quadrangle sheet White Signal 7 $\frac{1}{2}$ '
Mining district White Signal
Elevation 5,940'
Nearest city and/or dwellings White Signal, 1 mile north

The Eugenie Mine is located in the NE $\frac{1}{4}$ sec. 26 on the north side of the small drainage line. It is accessible by traveling southward from White Signal on Separ Road for about 1 mile. Mine will then be several hundred feet off to the east of the road.

The mine consists of a single vertical shaft sunk along a quartz-pyrite vein that strikes N 55° E. The 4' x 8' shaft is reported as being 80' deep (Gillerman, 1964), but it was filled with water at time of visit (see photo a). The tailings dump lies immediately to the south (see photo b). Analysis of the shaft water showed 460 ppm total dissolved solids, 165 ppm SO $\frac{4}{2}$, and a conductivity of 6,600 μ mhos/cm 3 .

It was opened in 1913 as a gold and copper mine; the ore ranged up to 29.6% copper. In the 1920's 500 lbs. of torbernite were shipped to San Francisco (Gillerman, 1964). Apparently the U.S. AEC took no interest in this deposit during the uranium boom of the middle and late 1940's.

- References: (1) Gillerman, Elliot, 1964, Mineral Deposits of Western Grants Co., New Mex.; New Mexico Bur. of Mines and Mineral Resources Bull. 83; p. 95.
(2) Field notes, 8/30/79.



Photo (a) Looking westward at water filled Eugenie shaft; collar dimensions about 4' x 8'.



Photo (b) Looking southward at shaft site (immediately in front of persons in photo) and tailings pile in back.