

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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Open-File Report 148

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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The help and cooperation of the Navajo Tribe Office in Window Rock, Arizona permitted a statewide investigation to be completed; a note of thanks goes to Mr. R. Zaman and Mr. William Armstrong of that office.

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|-------------------|-----------|----------------|
| Bernalillo County | 6 pages | \$1.20 |
| Catron County | 9 pages | \$1.80 |
| Dona Ana County | 6 pages | \$1.20 |
| Eddy County | 5 pages | \$1.00 |
| Grant County | 22 pages | \$4.40 |
| Harding County | 3 pages | \$.60 |
| Hidalgo County | 10 pages | \$2.00 |
| McKinley County | 275 pages | \$55.00 |
| Mora County | 6 pages | \$1.20 |
| Quay County | 7 pages | \$1.40 |
| Rio Arriba County | 30 pages | \$6.00 |
| Sandoval County | 24 pages | \$4.80 |
| San Juan County | 192 pages | \$38.40 |
| San Miguel County | 15 pages | \$3.00 |
| Santa Fe County | 11 pages | \$2.20 |
| Sierra County | 19 pages | \$3.80 |
| Socorro County | 25 pages | \$5.00 |
| Taos County | 10 pages | \$2.00 |
| Torrance County | 5 pages | \$1.00 |
| Valencia County | 98 pages | <u>\$19.60</u> |
| | | \$ 153.60 |

DONA ANA COUNTY

Quad: Bishop Cap 7½'

1. NM-466-1-1

Page 1

Blue Star

Quad: Rincon 7½'

1. NM-416-1-1

Page 4

ABC Mining (Prospect)

Date visited 9/27/79

Mine name(s) Blue Star County Dona Ana

Section SW $\frac{1}{4}$ NW $\frac{1}{4}$ 25 Twنش. 24S R. 3E

Quadrangle sheet Bishop Cap

Mining district Mesquite

Elevation 4600'-4800'

Nearest city and/or dwellings 7 miles NE of Vado

The Blue Star workings are located $\frac{1}{2}$ mile east of Bishops Cap in a north-south trending drainage line (Photo a). The drainage is fault controlled (Seager, 1973).

Workings at the prospect consist of two **shallow** adits, several trenches, drill roads and holes. The southernmost adit is at an elevation of 4620', trends due west for 30', and then turns north for another 30'. The entrance to the adit is boarded (Photo b), and is 6' high and 6' wide. The second adit (Photo c) is at an elevation of 4720', trends west and is also boarded. It has an estimated length of 75' and is 6' high and 6' wide. The drill road activity extends up the valley floor to an elevation of 5000' (Photo d). Several drill pads were noted, and core is scattered about.

The geology of the mine area consists of the Silurian age Fusselman dolomite. The prospect is on the Blue Star fault. The main vein is 100' in length, 15' thick at the surface, but thins to less than 4' at a depth of 45'. The vein trends E-W and dips 55° north (Seager, 1973). Mineralization consists of fluorite, barite, calcite, and pyrite, as seen from the dumps. Some small crystals of ~~galena~~ were noted 45' from the surface (Seager, 1973). The purple fluorite is moderately radioactive (Seager, 1973), although no scintillometer readings were available at the time of the field check.

Approximately 12 tons of fluorite have been mined from the prospect (Williams, 1966), but there is no record of uranium production. Core drilling was done by the Ranger Corporation during the winter of 1969-1970 (Seager, 1973).

- References
- (1) Seager, W. R., 1973, Geologic Map and Sections of Bishop Cap-Organ Mountains Area, New Mexico, N.M.B.M. Geologic Map 29.
 - (2) Kottlowski, F. E., 1960, Reconnaissance Geologic Map of Las Cruces 30 minute quadrangle, N.M.B.M. Geologic Map 14.
 - (3) Williams, F. E., 1966, Fluorspar deposits of New Mexico, U.S.B.M. Information Circular 8307, p. 27-29.
 - (4) McAnulty, W. N., 1978, Fluorspar in New Mexico, N.M.B.M. Memoir 34, p. 24.
 - (5) U.S.S. Atomic Energy Commission, RME-160, 1970, Preliminary Reconnaissance for Uranium in New Mexico, 1950-1958, GJO/AEC.

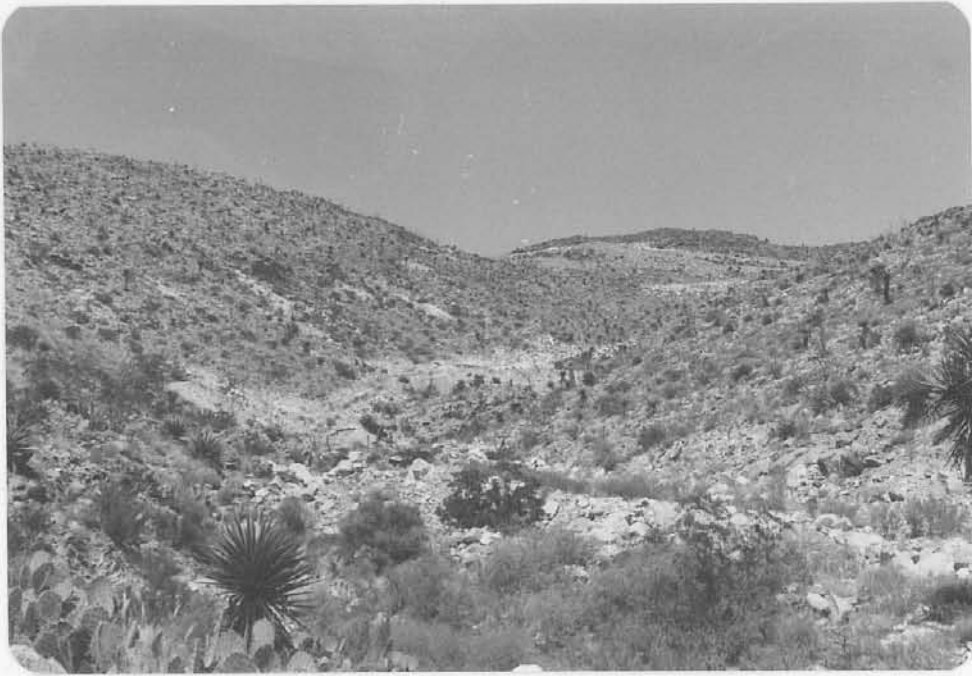


Photo A - looking N at Blue Star fault valley, adits to left.



Photo B - first adit, Blue Star.

Photo C - Second adit; Blue Star.



Photo D - Drill
road at Blue
Star.



Date visited 2/25/80

Mine name(s) ABC Mining (Prospect) County Dona Ana

Section 4, 5, 33, 34 Twnsh. 18 and 19 N R. 2 W

Quadrangle sheet Rincon 7½'

Mining district -

Elevation Approx. 4,600'

Nearest city and/or dwellings Rincon, 1½ miles south.

The Prospect is located 1½ miles generally north of Rincon. The description of the property given in RME-160 places it in secs. 33 and 34 of T. 18 S., R. 2 W., with the name Snooper Claims. The State Mine Inspector's office listed an ABC Mining operation in secs. 4 and 5 of T 19 S., R. 2 W., and 33 of T. 18 S., R. 2 W. The only workings on the Snooper Claim (sec. 33 & 34) were listed as a small prospect pit in the spring of 1955. (RME-160).

The present investigation followed the State Mine Inspector's office records and attempted to find a manganese and uranium prospect in secs. 4 and 5. A small shaft was found in the NE¼ NE¼ sec. 5, and a small open pit in the NW¼ NW¼ sec. 4 (no photographs available).

Mineralization is in silicinate quartz sandstone bed of the Santa Fe fm. Radioactivity is spotty but can be traced over an area of 50' x 150' (RME-160).

- References:
- (1) U.S. AEC RME-160, 1970, Preliminary Reconnaissance for uranium in New Mexico, GJO/AEC.
 - (2) State Mine Inspector's office, inactive uranium mine file.
 - (3) Field notes, 2/25/80.