

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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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.

Quad: Bread Springs 7½'

1. NM-146-2-1 Page 33
Diamond 2 (Largo)

Quad: Church Rock 7½'

1. NM-122-4-1 Page 39
CD & S (Sec. 35)
2. NM-122-4-2 Page 41
Foutz #3 (Yellow Jacket)
3. NM-122-4-3 Page 45.
Foutz 1 and 2
4. NM-122-4-4 Page 48
William and Reynolds
5. NM-122-4-5 Page 50
Christenson (Rimrock #2)
6. NM-122-4-6 Page 58
Santa Fe Christensen (Rimrock #1)

Quad: Dos Lomas 7½'

1. NM-149-4-1 Page 62
Isabella
2. NM-149-4-2 Page 67
Spencer Shaft (Centennial)
3. NM-149-4-3 Page 69
Hogan
4. NM-149-4-4 Page 74
Gossett Incline (Beacon Hill #23)

Date visited 12/5/79

Mine name(s) William and Reynolds County McKinley

Section NE $\frac{1}{4}$ SW $\frac{1}{4}$ 4 Twنش. 15 N R. 16 W

Quadrangle sheet Church Rock

Mining district Gallup

Elevation 7,540'

Nearest city and/or dwellings 3 $\frac{1}{2}$ miles NE of Church Rock

To reach the mine, go north from Church Rock 4 $\frac{1}{2}$ miles to the southern $\frac{1}{2}$ of Section 29. Turn right and go east for one mile just past several local dwellings, at which point the road forks. Take the right fork south for 1 $\frac{3}{4}$ miles to the mine.

The Williams and Reynolds is an open pit 40' wide north to south, 125' long east to west, with the north face being 20' high, and the south face 10' high (photo a). The dump directly west of the pit is 75' x 100' x 8' high (photo b). Several smaller waste and ore piles are found to the east and south of the pit.

The pit exposes a section of Dakota Sandstone. The ore zone lies in and just below a carbonaceous shale zone in the Dakota. Yellow uranium oxides were visible on some of the ore stockpiles south of the pit, and scintillometer readings on some of these small piles were as high as 800 cps. Readings in the pit itself were up to 150 cps, and the western dump registered a maximum of 125 cps.

References: (1) S. Skotte and O. Anderson field notes, 5 December, 1979.
(2) Church Rock 7 $\frac{1}{2}$ min. quadrangle.



Photo (a) Looking west at the William and Reynolds open pit.



Photo (b) Looking north at the western dump of the William and Reynolds open pit.