

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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New Mexico Bureau of Mines and
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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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A special thanks is extended to Mr. William Chenoweth of the U.S. Department of Energy, both for his time in the field as well as the claim maps and A.E.C. mine production records he provided. Mr. John Blagbrough provided helpful information about the Chuska district. The editorial assistance of Wyatt Brewster and Lars (Skip) Skotte is gratefully acknowledged.

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.

Horace Ben

Quad: Sonsala Butte 1. NE 7½'

1. AZ-60-1-1

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Kee and Tohe

2. AZ-60-1-2

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John Joe

3. AZ-60-1-3

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Castle Tsosie

4. AZ-60-1-4

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Joe Ben #2 Prospect

5. AZ-60-1-5

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Joe Ben #1 Prospect

6. AZ-60-1-6

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Joe Ben #3

7. AZ-60-1-7

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Enos Johnson

8. AZ-60-1-8

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Carl Yazzie #1

9. AZ-60-1-9

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H.B. Roy #2

10. AZ-60-1-10

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Reed Henderson (Reed Henderson Claims)

REFERENCES FOR CHUSKA DISTRICT

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Date visited 11/15/79

Mine name(s) Reed Henderson (Reed Henderson Claims) County San Juan

Section (Unsurveyed) 19 Twnsh. 25 N R. 20 W

Quadrangle sheet Sonsala Butte 1 NE, 7½'

Mining district Chuska

Elevation 7,800'

Nearest city and/or dwellings Sanostee, 9 mi. E NE; additional single family dwellings scattered throughout area.

The Reed Henderson workings in projected section 19 consist only of a 75' long by 30' wide open cut on the western edge of a Todilto limestone capped cuesta, (see photo a). The pit or cut is no deeper than 3 feet at any place, and would be very difficult to find were it not for the road leading into the site. No definite uranium mineralization found at this site, however, Hilpert, 1969 stated that: "deposits (of tyuyamunite and metatyuyamunite) are principally on the flanks of intraformational anticlinal folds, which have amplitudes of as much as 1 to 2 feet, are about 3 feet wide, and 10-15 feet long. The limestone is mineralized in areas of most intense folding."

Minor folding was noted at the site, but scintillometer readings even in these areas were only 300 to 400 cps. Records show that 24 tons of Todilto limestone ore averaging .03% U_3O_8 was shipped in 1954.

Photo (b) offers another view of the disturbed area, and photo (c) gives some indication of the rugged topography in the area. Photo (d) shows a Navajo camp a few hundred feet southeast of the prospect; it is used primarily for pinon nut collecting.

A complete road log describing the route to this site has been included following photo (d). See also the Chuska District map:

- References:
- (1) Blagbrough, J. W., et. al., 1959, Uranium Reconnaissance and Drilling in the Sanostee area ... U.S. AEC RME-111.
 - (2) Hilpert, L., 1969, Uranium Resources of NW New Mexico, U.S.G.S. Prof. Paper 603, p. 51.
 - (3) U.S. AEC Production Records, courtesy Wm. Chenoweth, U.S. Dept. of Energy.
 - (4) Field notes, 11/15/79.

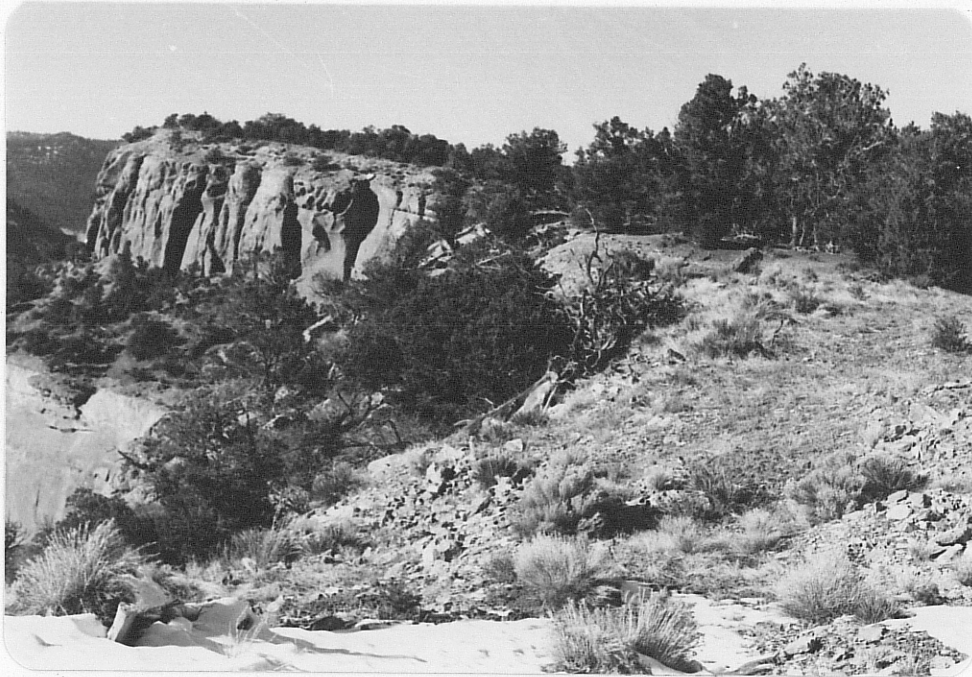


Photo (a) Looking N, at Reed Henderson claim workings; disturbed area in foreground measures about 70' in length, up to 30' wide. Site has largely revegetated itself.



Photo (b) Looking SE at Reed Henderson claim workings, showing southern edge of disturbed area; ponderosa pine seedlings at center middle distance are about 3' tall.



Photo (c) Looking SW from same vantage point as photo (b), showing canyon of Sanostee Wash with Chuska Mtns. in background.

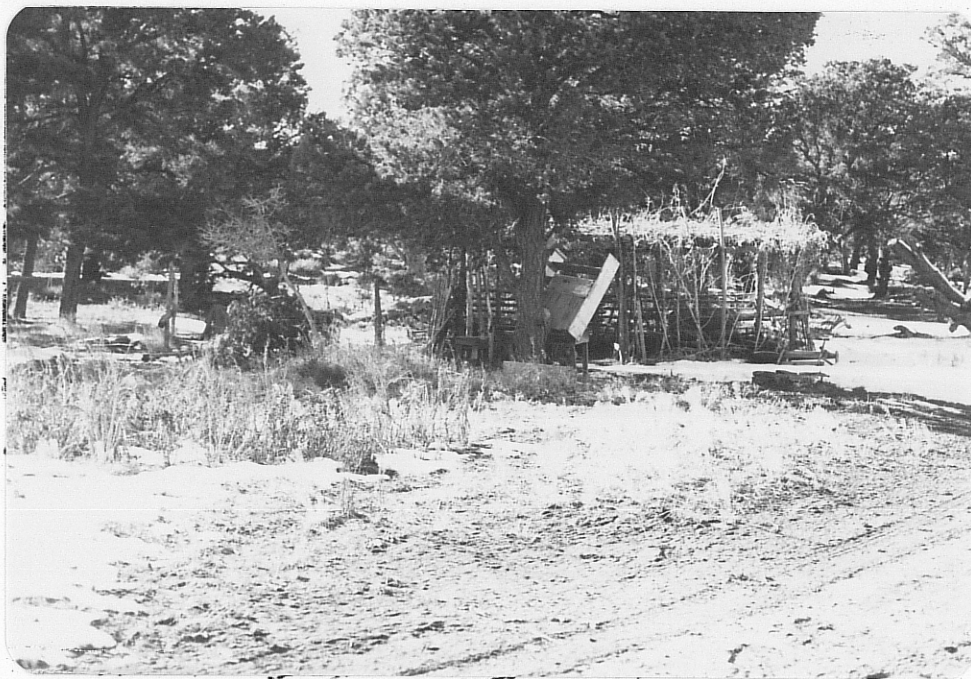


Photo (d) Navajo pinon nut collecting camp several hundred feet from Reed Henderson workings.

REFERENCES FOR CHUSKA DISTRICT

- (1) AEC Production Records, courtesy Wm. Chenoweth, U.S. Dept. of Energy.
- (2) Blagbrough, J. W., et. al, 1959, Uranium Reconnaissance and Drilling in The Sanostee Area..., AEC RME-111.
- (3) Gruner, J., 1956, Concentration of Uranium in Sediments by Multiple Migration-Accretion; Econ. Geol., Vol. 51, No. 6.
- (4) Hilpert, L., 1969, Uranium Resources of NW New Mexico, U.S.G.S. pp. 603.