

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.

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)

5.	NM-149-4-5	Page 78 ⁷⁷
	Blue Peak (Garcia 1)	
6.	NM 149-4-6	Page 84 ⁸³
	Mesa Top 7 & 18 (Malpais Raise)	
7.	NM-149-4-7	Page 93 ⁹²
	Dog Incline (Dog and Flea)	
8.	NM-149-4-8	Page 99 ⁹⁸
	Marquez	
9.	NM-149-4-9	Page 104
	Faith (Westvaco) (Sec. 29)	
10.	NM-149-4-10	Page 109
	Barbara J #3	
11.	NM-149-4-11	Page 112
	Barbara J #1	
12.	NM-149-4-12	Page 114
	Baily and Fife (Rimrock)	
13.	NM-149-4-13	Page 117
	T-20 Shaft (T-9 ore body)	
14.	NM-149-4-14	Page 120
	Flat Top (Flat Top #3 & 4)	
15.	NM-149-4-15	Page 124 ✓
	Roundy Shaft (Rimrock)	
16.	NM-149-4-16	Page 126
	SW $\frac{1}{4}$ 30 Strip	
17.	NM-149-4-17	Page 131
	Sec. 25 Strip Complex	

18.	NM-149-4-18	Page 141
	Sec. 25 Shaft	
19.	NM-149-4-19	Page 144
	NW $\frac{1}{4}$ 25, Decline and Open Pits	
20.	NM-149-4-20	Page 149
	Hanosh	
21.	NM-149-4-21	Page 152
	Sec. 23 and 26 Open Pit	
22.	NM-149-4-22	Page 156
	NE $\frac{1}{4}$ Sec. 36 (Rimrock) Homer Scriven)	
23.	NM-149-4-23	Page 160
	Sec. 31 Open Pit	
24.	NM-149-4-24	Page 163
	Moe No. 4 (Sec. 32)	
25.	NM-149-4-25	Page 165
	Charlotte	

*Dos Lomas Quad reports #26 - #35 found under Valencia County

Quad: Gallup East 7 $\frac{1}{2}$ '

1.	NM-122-3-1	Page 167
	Hogback (Hogback 3-5)	
2.	NM-122-3-2	Page 171
	Becenti	

Quad: Goat Mountain 7 $\frac{1}{2}$ '

1.	NM-149-2-1	Page 174
	Kermac Sec. 10 (Kermac No. 10)	

Date visited 1/16/80

Mine name(s) Mesa Top 7 and 18 (Malpais Raise) County McKinley

Section W $\frac{1}{2}$ 20 Twنش. 13 N R. 9 W

Quadrangle sheet Dos Lomas 7 $\frac{1}{2}$ '

Mining district Poison Canyon

Elevation 7,100'

Nearest city and/or dwellings Ambrosia Lake junction, 2 air miles northeast.

The Mesa Top workings are located in the W $\frac{1}{2}$ sec. 20 in the Poison Canyon trend. Permission to go up on the mesa must be obtained from Mr. Bob Miles of M & M Mining in Grants. Mr. Miles operates the Doris Mine in sections 21 and 20 and has patented claims in sec. 20.

The workings consists of two inclined shafts (or declines) on the Mesa Top 7 property near the center of W $\frac{1}{2}$, W $\frac{1}{2}$, sec. 20 shown in photos (a) through (f); and a vertical shaft and a raise (Malpais raise) on the Mesa Top 18 near the center of the E $\frac{1}{2}$, W $\frac{1}{2}$ sec. 20, shown in photos (g) through (n).

The two shafts in the W $\frac{1}{2}$ W $\frac{1}{2}$ are about 1,000' apart. The southern one, photos (a)-(c), is a decline with a portal about 10' high, 12'-14' wide at the bottom of a 30' x 120' box cut. The waste dump immediately to north is ramp shaped, 8' high at maximum, 50' long, with scintillometer readings of up to 1,200 cps (photo c). The other shaft, about 1,000' to the northwest of decline just described, is readily identified by presence of small metal headframe (photos d-f). Headframe is about 20' high, with the shaft extending out northward at about a 30° incline. Shaft is timbered, but caved or backfilled almost to top (photo f). The dump to the east of the shaft forms a linear ridge about 110' long and is composed of conical piles 3'-4' high (see photo d). Counts on dump were generally in 450 to 1,200 cps range, but black carbonaceous ore material present in places will produce a reading of over 7,000 cps.

The shafts (one shaft and one raise) in the E $\frac{1}{2}$ W $\frac{1}{2}$ sec. 20 are the Mesa Top 18 workings of Hilpert (1969). The raise was not constructed until about 1960 and Hilpert does not refer to it. The main shaft area is shown in photos (g) through (j). The shaft site is enclosed with a 5' high wire mesh fence recently reinforced with steel posts as the wooden posts are decaying. The shaft is covered with deteriorating wooden planks (photo h) but appears to have been about a 6' x 8' opening. The mine dump and load out area are west and southwest of the shaft (photo i). Scintillometer readings in and around dump ranged up to 2,000 cps. A 30" diameter metal lined ventilation shaft and escapeway is located about 275' southwest of the shaft (photo j); a small door to the escapeway is open and ladder inside is still usable but temperatures are high inside—a warm draft blows. The Malpais Raise, or hoisting shaft, is located about 900' northeast of the main shaft and is shown in photos (k) through (n). The shaft is covered with a concrete slab, but some washing was noted at north edge indicating a potential problem (photo L). The mine dump lies several hundred feet west of the shaft and is 120' x 180' and up to 9' high. Scintillometer readings at the dump edge ranged between 500 and 2,200 cps (background <100 cps). A close-up of the mine dump is shown in photo (m). A concrete slab about 40' long, remains at the site; it was probably a foundation and floor of hoisting shed and/or machine shop, (photo n).

All deposits mined at the Mesa Top workings were in the Poison Canyon sandstone tongue in the Brushy Basin member of the Morrison fm. Deposits were mined between 1954 and 1961. The State Mine Inspector's Office last registered the Mesa Top 18 (Malpais Raise) in August, 1961 with the See-Tee Mining Corporation as operator.

Mr. Bob Miles considers a large portion of section 20, if not the whole, to be an "active" area.

A detailed account of the geology and ore zones at this mine is provided in Rapaport, (1963).

- References:
- (1) Hilpert, 1969, Uranium Resources of NW New Mexico, U.S.G.S., Prof. Paper 603, p. 34.
 - (2) Rapaport, I., 1963, Uranium Deposits of the Poison Canyon Trend Grants District, in Geology and Technology of the Grants Uranium Region: New Mex. Bur. of Mines and Mineral Resources, Mem. 15, p. 126.
 - (3) State Mine Inspector's Office, inactive uranium mine file.
 - (4) Field notes, 1/16/80.



Photo (a) Looking southward at decline, Mesa Top 7 workings.



Photo (b) Close-up of decline shown in (a); portal is about 10' high, 14' wide.



Photo (c) Looking southeast at waste dump from decline shown in (b).



Photo (d) Headframe and waste piles at inclined shaft 1,000' northwest of one shown in (b); close-ups are shown in photos (e) and (f).

#158 MS 86



Photo (e) Close-up of headframe and inclined shaft shown in (d).

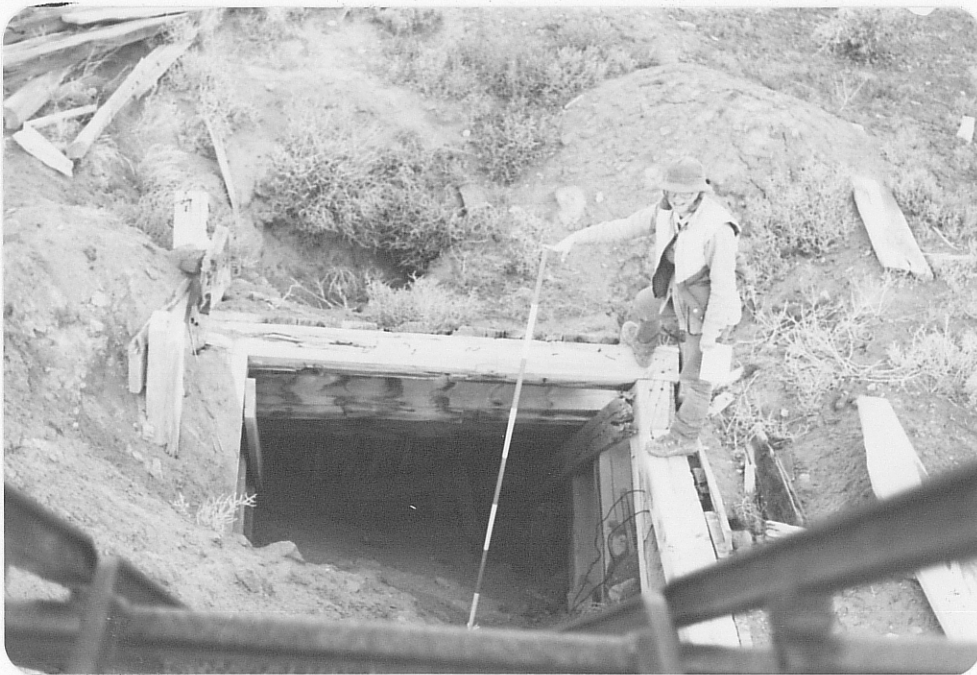


Photo (f) Close-up of inclined shaft shown in (e).



Photo (g) Mesa Top 18, fenced vertical shaft site.



Photo (h) Close-up of Mesa Top 18, showing deteriorating planks covering shaft.

100 Mc 88



Photo (i) Looking SW at remains of wooden loadout facility and waste piles at Mesa Top 18 workings.



Photo (j) Looking southward at 30" diameter metal lined ventilation shaft and escapeway at Mesa Top 18 workings. Shaft is open and air inside lining is very warm.

161 MESS9



Photo (k) Looking westward at the Malpais raise site, about 900' northeast of Mesa Top 18 shaft; note mine dump in middle distance.

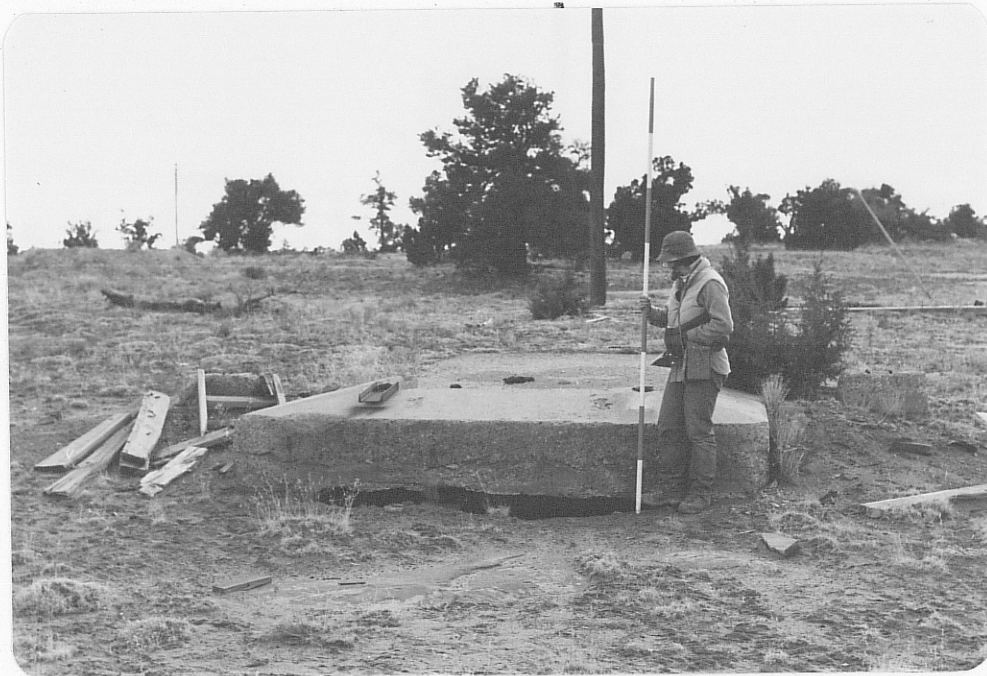


Photo (L) Close-up of raise shown in (k); some erosion around base of concrete covering is noticeable on north edge.

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Photo (m) Looking westward at mine dump on Malpais raise site.



Photo (n) Foundation and concrete slab remaining at Malpais raise site.

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