

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  
Mineral Resources  
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.

Acknowledgments - The writer wishes to thank the following people for their valuable assistance in the field: Lars (Skip) Skotte, Richard Chamberlin, JoAnne Osburn, Mary Ann Anderson, and Cheryl Kyllonen.

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.

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MINES IN NEW MEXICO

Orin J. Anderson

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

SANDOVAL COUNTY

Quad: Holy Ghost Spring 7½'

1. NM-129-2-1 Page 1  
Collins (Warm Springs) (Goodner-Collins leases)

Quad: La Gotera 7½'

1. NM-152-3-1 Page 5  
Dory (Dorie) Prospect
2. NM-152-3-2 Page 7  
Betty (Betty Claims)

Quad: La Ventana 7½'

1. NM-105-3-1 Page 12  
Butler Brothers
2. NM-105-3-2 Page 16/17  
Rambler #2 Prospect

Quad: Regina 7½'

1. NM-81-2-1 . \*found under Rio Arriba County; Quad: Regina  
Whiteflow.. (Corral #3)
2. NM-81-2-2 Page 19/20  
Sla-Tex Open Pit (Corral #3 Claim)

Date visited 3/3/80

Mine name(s) Collins (Warm Springs) County Sandoval  
(Goodner-Collins leases)

Section NW $\frac{1}{4}$  25 Twنش. 17 N R. 1 W

Quadrangle sheet Holy Ghost Spring, 7 $\frac{1}{2}$ '

Mining district Nacimiento-Jemez Region

Elevation 6,500'

Nearest city and/or dwellings San Ysidro, 14 mi. S on highway 44

The Collins and Warm Springs workings found during this investigation lie in the NW $\frac{1}{4}$  of sec. 25. They are located approximately 3/4 mi. north of the major bend in highway no. 44 in the N $\frac{1}{2}$  of sec. 36 T. 17 N., R. 1 W. Gates along the highway are kept locked and the quickest access is to walk in this last 3/4 mi. Workings are on Zia Indian land.

The workings consist of two small open pits in the Brushy Basin member of the Morrison fm. The one on the east side of the south trending drainage line is a 100' long, 12' high cut on a steep southwest facing slope (see photo a). A fine to medium grained, tan to buff sandstone exposed in this cut (see photo b) produced scintillometer readings of 1,500 cps. The disturbance is relatively minor. A claim marker at the site identified this as the Warm Springs Prospect, with a later claim dated June, 1968 calling it the White Lille I, signed by R. R. King.

The other workings lie to the southwest on the west side of the drainage. It consists of a 125' long, northeast trending shallow cut on a bench above a massive red sandstone; no photographs available, see Fig. 1. Scintillometer readings in the pit were in the 400-600 range, but highs of over 2,500 cps were recorded in the small notch cut into the north face shown in Fig. 1. A small dump area, approximately 75' x 100', 3-4' high, extends southward from the southwest edge of the pit. The disturbance is minor and no hazards exist. Site is largely revegetated, and the selenium concentrator, Astragalus, is very common.

Chenoweth, 1974, stated that 395 tons of ore averaging .13% U<sub>3</sub>O<sub>8</sub> were produced from the Goodner and Collins leases during 1957-1959; the Collins lease was located in sec. 23, the Goodner in sec. 25. The State Mine Inspector's Office, however, has on record a Collins uranium operation in sec. 25 registered in 1957; and also a Warm Springs, in the same section, registered in 1959; no sec. 23 operation is on record. The present investigation revealed no significant workings in sec. 23.

- References:
- (1) Chenoweth, W. L., 1974, Uranium Occurrences of the Nacimiento-Jemez Region, Sandoval and Rio Arriba Counties, N.M., in, New Mex. Geol. Soc. 25th Guidebook, Ghost Ranch, p. 311.
  - (2) Hilpert, L., 1969, Uranium Resources of NW New Mexico, U.S.G.S., Prof. Paper 603.
  - (3) New Mexico State Mine Inspector's Office, inactive uranium mine file.

(4) Field notes, 3/3/80.



Photo (a) Looking northeast at 100' long cut on the Goodner-Collins lease (Warm Springs Prospect).



Photo (b) Close-up of cut shown in photo (a); note range pole for scale.

387 SD-3

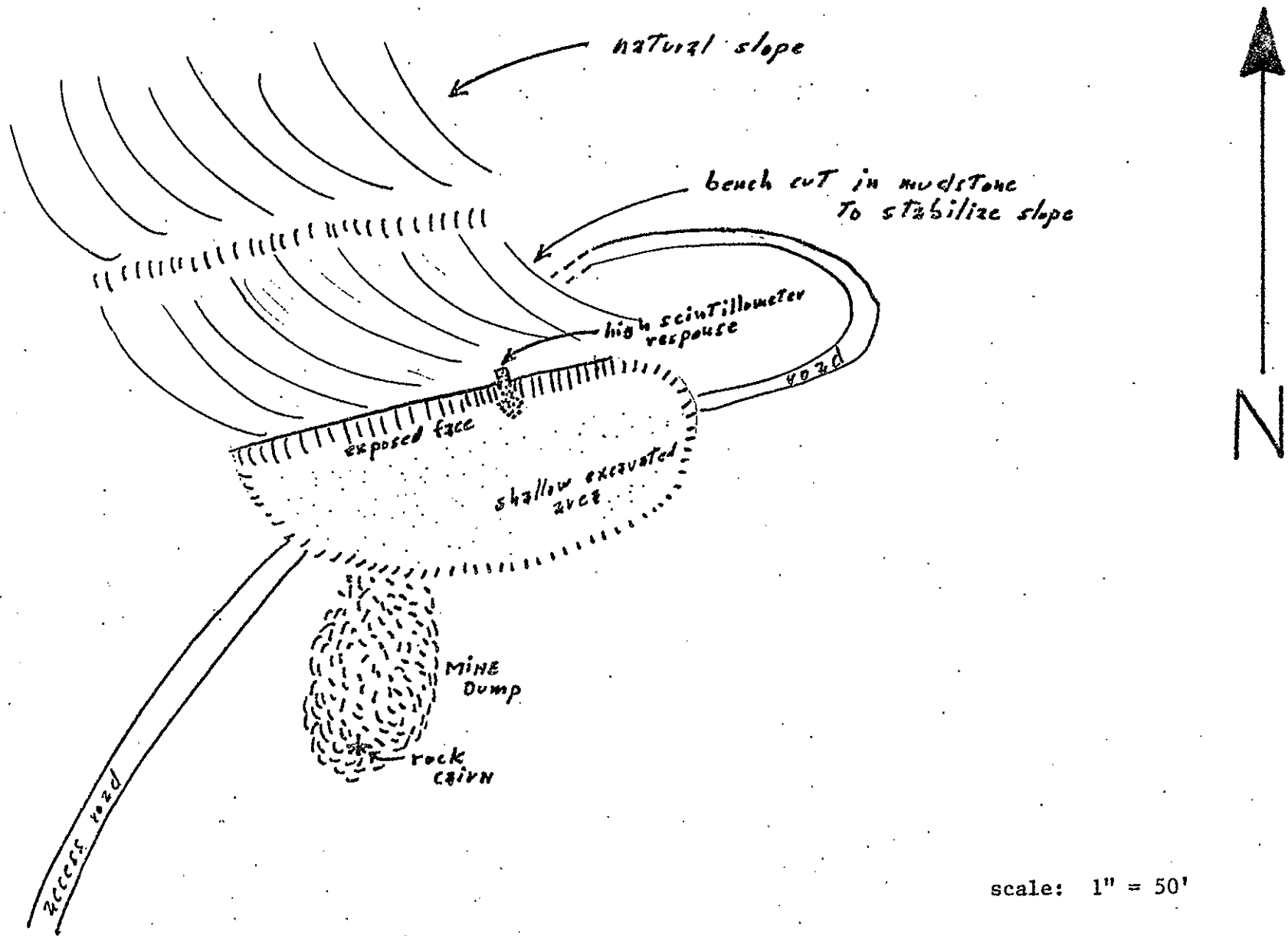


Fig. 1 Diagrammatic sketch of the open pit on west side of drainage, on the Goodner-Collins lease.

SDS

Mine name(s) Dory (Dorie) Prospect County SandovalSection (Unsurveyed) NW $\frac{1}{4}$  8 Twنش. 12 N R. 3 WQuadrangle Sheet La Gotera 7 $\frac{1}{2}$ 'Mining district PuercoElevation 6,300'Nearest City and/or dwelling Marquez, approximately 8 air miles NW

The Dory Prospect is located in the NW $\frac{1}{4}$  of sec. 8 about 1 $\frac{1}{2}$  miles north-east of the Puerco Mine. It is on L-Bar Ranch property. To reach the workings leave U.S. I-40 at the Laguna exit and travel northward to Seboyeta; then take the Marquez road northeastward about 12 miles to the south end of Mesita de la Madera (a prominent topographic feature) and turn right (east) and proceed about 6 miles to the mine site (use headframe of Puerco Mine in sec. 18 as a landmark). Road approaches the mine from the south through section 17. The last  $\frac{1}{2}$  mile must be made on foot, walking westward to the rim of the canyon.

The "mine" is shown on GQ-371 and would appear to be in sec. 8 (projected). However, Hilpert, 1969, listed the mine in sec. 7 as did a 1957 AEC-PRR.

At present the workings consist of a 100' long, 15' high, face cut in Jackpile Sandstone, (see photos a & b). No underground workings were found even though Hilpert, 1969, stated the property was prospected from a small adit. Several rounds were fired off at the face now exposed and this may have destroyed the small adit. The original deposit was very small and was nearly completely removed by Dutch Dory of Albuquerque in 1955, which accounts for the lack of radioactivity at the site presently; maximum scintillometer readings were 75 cps. The prospect is considered to have no potential, and the workings present no hazard. Several additional small prospect pits occur in sec. 8 and 17.

The Base Metal Corporation of Toronto, Canada took over the lease from Dory in late 1955 or early 1956. The property has been inactive since 1956.

- References:
- (1) Hilpert, L., 1969, Uranium Resources of NW New Mexico, U.S.G.S., Prof. Paper 603.
  - (2) U.S. AEC PRR, 1957, Preliminary Reconnaissance Report of the Dory Prospect, GJ-ED-1.
  - (3) Field notes, 5/7/80.
  - (4) Moench, R. H., Schlee, J. S., and Bryan, W. D., 1965, Geologic Map of the La Gotera Quadrangle, Sandoval and Valencia Counties, New Mexico, GQ-371.



Photo (a) Looking eastward at face cut in Jackpile Sandstone on Dory Prospect. A small amount of blasting may have been done here.



Photo (b) Looking southeastward from cut shown in (a); prospecting road continued for 100' south of cut but is now obliterated due to slumping. Cliffs on skyline are 100' above cut, capped by Dakota Sandstone.

Mine name(s) Betty (Betty Claims) County SandovalSection SW $\frac{1}{4}$  17 Twنش. 12 N R. 3 WQuadrangle sheet La Gotera 7 $\frac{1}{2}$ 'Mining district Rio PuercoElevation 6,400'Nearest city and/or dwellings Marquez, approximately 8 air miles NW.

The Betty Mine is located in the SW $\frac{1}{4}$  of sec. 17 approximately 1 mile east of the Kerr-McGee Corp.; Rio Puerco Mine. To reach the workings leave U.S. I-40 at the Laguna exit and travel northward to Seboyeta; then take the Marquez road northeastward about 12 miles to the south end of Mesita de la Madera (a prominent topographic feature) and turn to right (east) and proceed about 5 miles to the mine site (use headframe of Puerco Mine as a landmark).

The mine consists of an 10<sup>o</sup> decline and a vertical shaft in a small northward draining Mancos shale valley (see photo a). A north trending fault passes immediately west of the mine site. Neither the depth of the shaft nor the length of the decline are known as literature on this occurrence is rare. The host rock, however, must be the thin sandstone beds present in the Mancos shale. The Morrison fm. Jackpile sand crops out 3/4 mi. to the north along the valley, however, no Jackpile type sand was noted in the mine dump. The Puerco shaft 1 mi. to the west bottoms in the upper Westwater Canyon member sands, but it is 900' deep. The Betty workings have apparently explored much shallower deposits.

The portal of the decline is 6' high, 10' wide, and is timbered in as far as one can see (photos b & c). Timbering is in good condition. Scintillometer readings at the portal were no more than 75 cps (only slightly above background).

The shaft which is located about 350' north of the decline is about 10' x 10' with a wooden plank cover. From the up slope side there is an abrupt 6' drop off to this plank covering (photo d), but from the downslope side one can walk inside the shaft through a narrow passage (photo e) at the level of the shaft cover. Scintillometer response was weak here also, barely above background.

The mine dump extends for several hundred feet between the two workings and is about 10' high at maximum point (see photo a).

The American Uranium Corporation had this property under lease from the U.S. Government at the time the mine was registered with the State Mine Inspector's Office in March, 1969. Production is unknown.

Numerous prospecting pits are scattered throughout the west  $\frac{1}{2}$  of sec. 17.

References: (1) New Mex. State Mine Inspector's Office, inactive uranium mine file.  
(2) Field notes, 3/21/80.



Photo (a) View eastward at Betty Mine site showing shaft site at left (arrow) and location of entrance to decline (arrow at right). The two workings are about 350' apart. Mine offices and maintenance shop were located on low bench several hundred feet to right of the decline. Note range pole just to left of center at toe of dump.



Photo (b) View eastward into  $10^{\circ}$  decline.

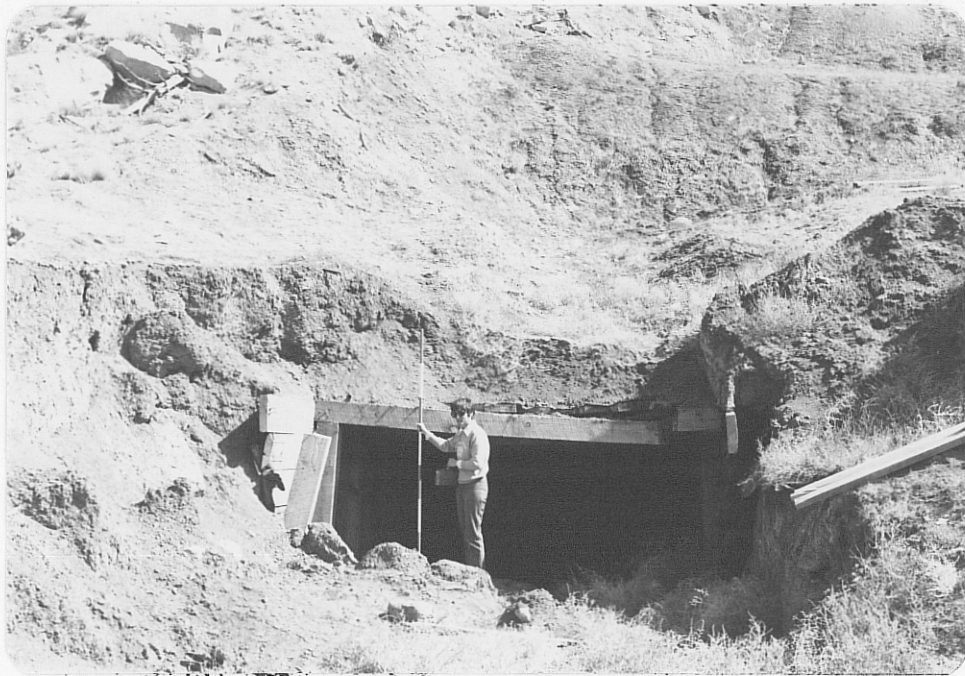


Photo (c) Close-up view eastward into decline shown in photo (b); portal is 6' x 10'.

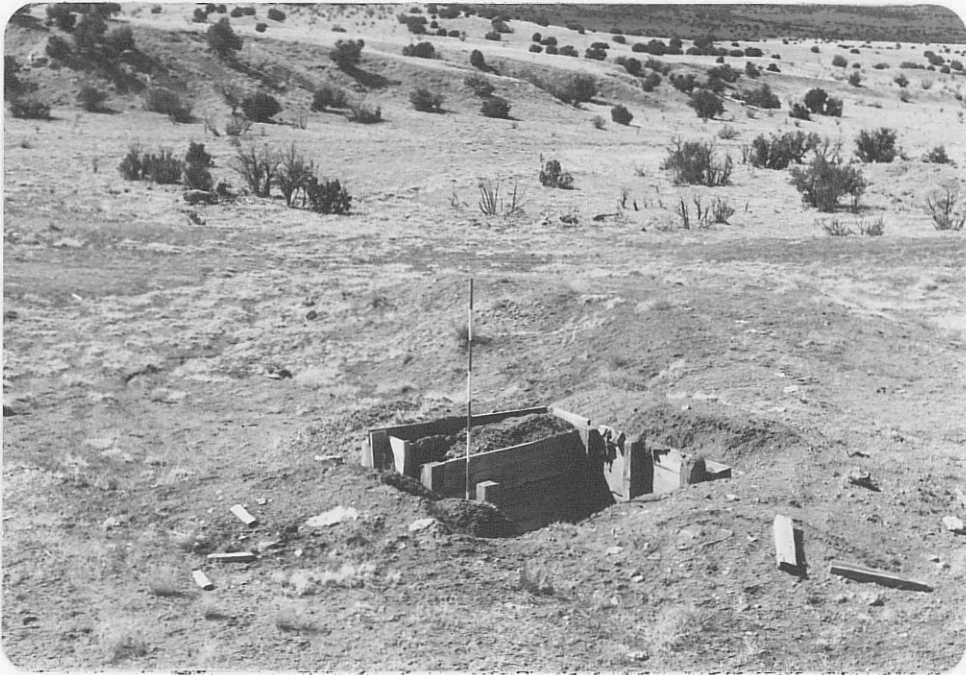


Photo (d) Close-up, taken up slope from shaft; shaft is 10' x 10', depth unknown.

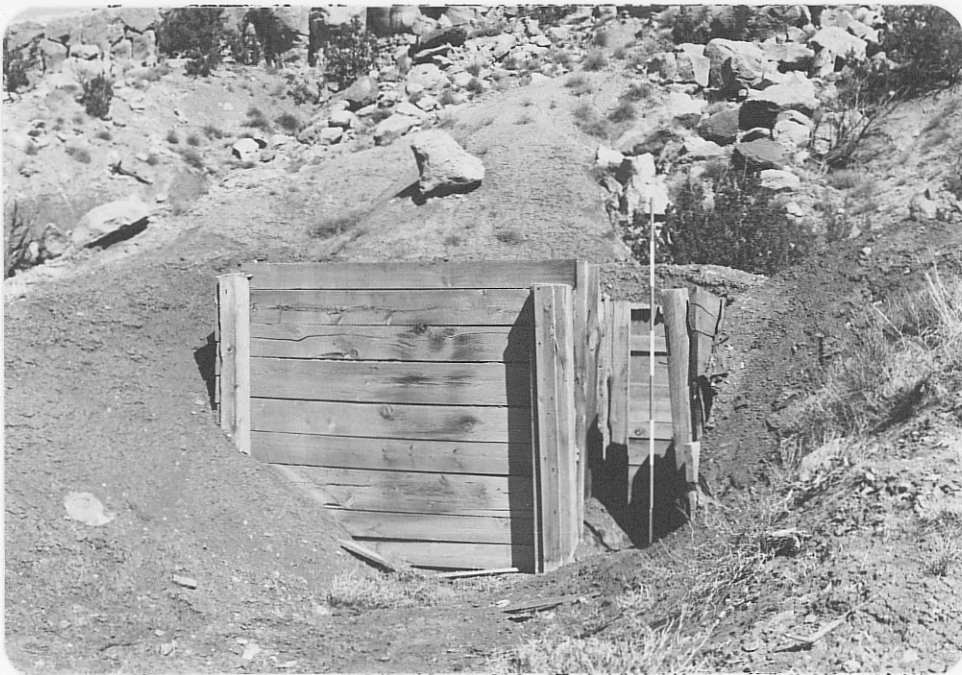


Photo (e) Close-up, looking east at shaft from low side. Shaft is covered with wooden planking at level of narrow passageway marked by range pole.



Photo (f) View northeastward showing access road at left and shaft at right; note range pole in same position as it is in photo (e).

35  
80-11

Date visited 3/4/80

Mine name(s) Butler Brothers County Sandoval

Section NE $\frac{1}{4}$  23 Twنش. 19 N R. 1 W

Quadrangle sheet La Ventana

Mining district La Ventana

Elevation 7,700'

Nearest city and/or dwellings La Ventana, 5 air miles southeast

The Butler Bros., is located in the NE $\frac{1}{4}$  of sec. 23, 1 mi. west of the San Miguel copper mine. It may be reached by dirt road leading eastward from highway no. 44 at a point 12 mi. south of Cuba. Proceed northeastward on this road for approximately 1 mi. to old no. 44, then jog to the right for 1/4 mi. to pick up dirt road heading eastward parallel to the drainage line. Proceed eastward for about 3 $\frac{1}{2}$  mi. to mine site.

The mine consists of a 110' long cut in basal Dakota Sandstone exposing at 1' thick carbonaceous shale or peat zone that is uraniferous, (see photo a). Although that is the extent of the mine it would appear that a considerable amount of material had to be moved to get to the ore zone. The ore zone is shown in photo (b). On the opposite, or down dip, side of the ore body a sandstone capped knob stands isolated; if ore existed on this side it has now been mined out. Photos (d) and (e) show the northern portion of the cut and indications of a small underground working; a small decline was apparently started just below the steeply dipping peat bed, but the opening was too small to allow an investigation (see again photo e). Scintillometer readings at the opening = 1,400 cps; maximum along north end of ore bearing peat zone = 4,000 cps.

A total of 23 tons of ore averaging .63% U<sub>3</sub>O<sub>8</sub> was produced from the mine during 1954-1957 (Chenoweth, 1974). The State Mine Inspector's office last registered the mine in June, 1955. However, a \$106.00 shipment of ore was reported again in 1959 (Elston, 1967).

Disturbance at the site is of minor significance and represents little if any hazard.

- References:
- (1) Chenoweth, W. L., 1974, Uranium Occurrences of the Nacimiento-Jemez Region, Sandoval and Rio Arriba Counties New Mex., in, New Mex. Geol. Soc. 25th Guidebook, Ghost Ranch; p. 312.
  - (2) Elston, W. E., 1967, Summary of the Mineral Resources of Bernalillo, Sandoval, and Santa Fe Counties, New Mexico; New Mexico Bur. of Mines and Mineral Resources; Bull. 81.
  - (3) Hilpert, L., 1969, Uranium Resources of NW New Mexico, U.S.G.S., Prof. Paper 603.

- (4) New Mexico State Mine Inspector's Office, inactive uranium mine file.
- (5) Field notes 3/4/80.



Photo (a) Looking southward into cut in basal Dakota Sandstone; beds are dipping at  $45^{\circ}$ - $50^{\circ}$  to right. Bench cut at upper left exposes 1' thick carbonaceous shale, or peat, unit with uranium values. Photo taken after light snowfall.

PL 3



Photo (d) Looking northward through the cut showing ore zone above bench at upper right and access road descending at left.

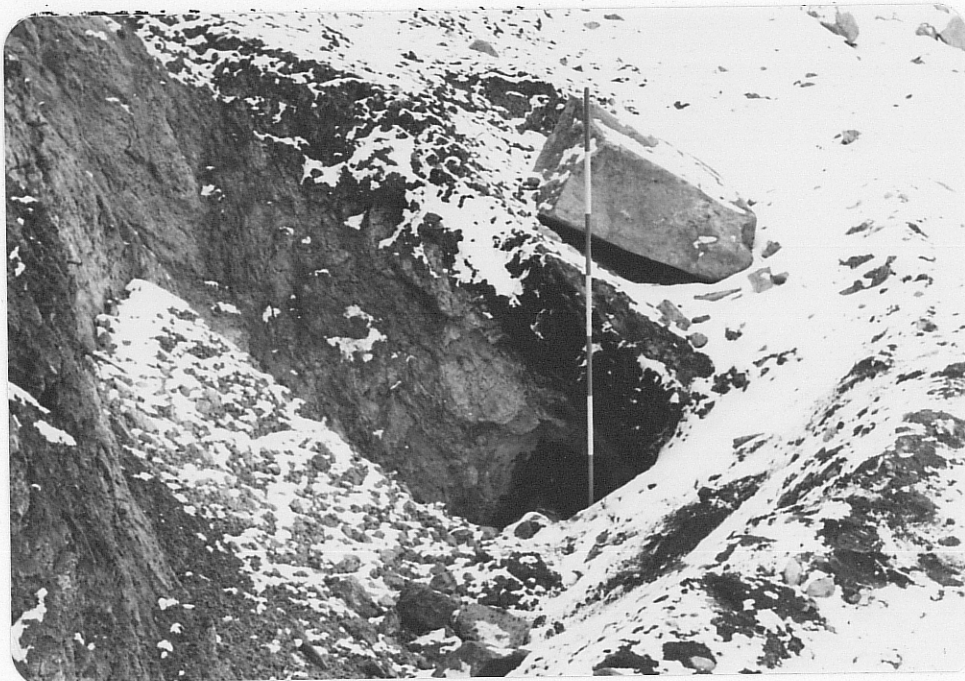


Photo (e) Evidence of minor underground workings at north end of bench shown in photo (d). A small incline may have been used to explore the peat zone visible just above the opening; opening is not large enough for a man to enter.

Date visited 3/4/80

Mine name(s) Rambler #2 Prospect County Sandoval

Section NW $\frac{1}{2}$  NW $\frac{1}{2}$  35 Twنش. 19 N R. 1 W

Quadrangle sheet La Ventana

Mining district La Ventana

Elevation 7,100'

Nearest city and/or dwellings La Ventana; 3 $\frac{1}{2}$  mi. west-southwest

The Rambler Prospect is located in the NE $\frac{1}{4}$  of sec. 35 on the west bank of the unnamed tributary to Arroyo de los Pinos. It may be reached by taking the old highway 44 route which branches eastward off the present highway no. 44 at a point 1.2 mi. north of La Ventana. Follow the old route northeastward for about 1 mi. to the washed out bridge and then turn right (east) and follow the dirt trail shown on the topographic quadrangle sheet for about 3 miles to the prospect.

The prospect is supposedly several hundred feet above the valley floor in a carbonaceous shale zone in the Point Lookout sandstone formation. The carbonaceous shale zone was found (photo a), but no disturbed ground was noted at the outcrop; scintillometer readings were 1.5 background (or about 100 cps). Directly below this outcrop is a small leveled area, just west of the road, that has been disturbed; a ridge of waste material from some type of operation extends partway up the slope toward the carb. shale outcrop (see photo b). No anomalous gamma ray readings were recorded at the lower site. The disturbance is insignificant.

The State Mine Inspector's Office had the Rambler registered as a uranium operation in May, 1955. It is not known for certain if the locality described above is the site of that 1955 operation or not. No other roads or disturbance was found in the immediate area, however.

- References:
- (1) Hilpert, L., -1969, Uranium Resources of NW New Mexico, U.S.G.S., Prof. Paper 603.
  - (2) New Mexico State Mine Inspector's Office, inactive uranium mine file.
  - (3) Chenoweth, W. L., 1974, Uranium occurrences of the Nacimiento-Jemez region, Sandoval and Rio Arriba Counties, New Mexico: New Mex. Geol. Soc. 25th Guidebook, Ghost Ranch, p. 312.
  - (4) Field notes, 3/4/80.



Photo (a) Carbonaceous shale zone in Point Lookout fm.; samples from this zone have assayed up to .12%  $U_3O_8$  which encouraged the location of the Rambler Prospect.

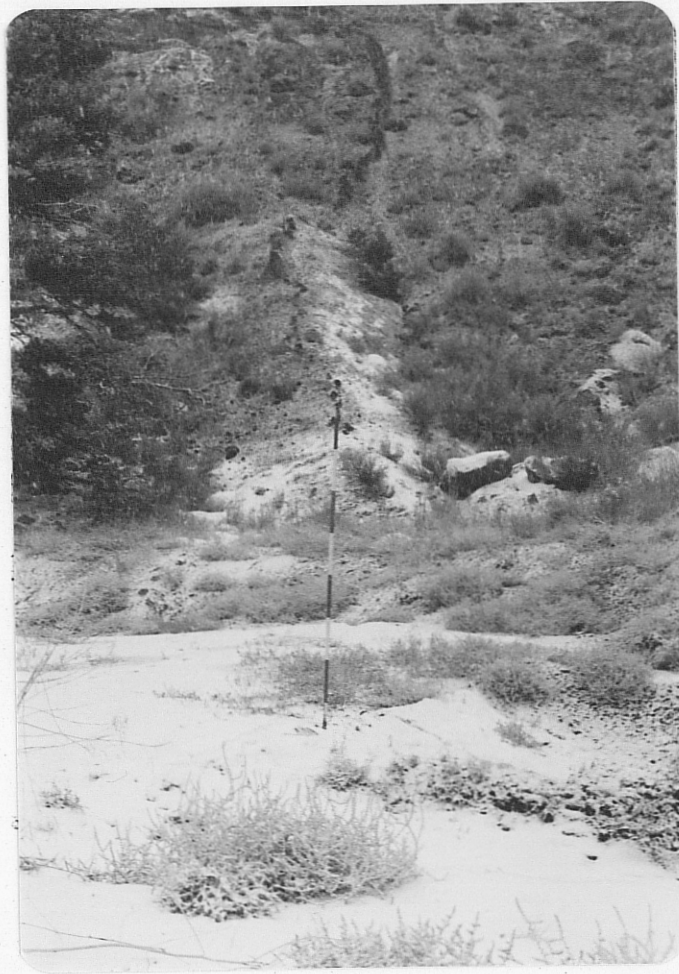


Photo (b) Minor disturbance at floor of canyon directly below the carbonaceous shale outcrop.

Date Visited 10/17/79

Mine name(s) Sla-Tex Open Pit (Corral #3 Claim)\* County Sandoval

Section NE $\frac{1}{4}$  NE $\frac{1}{4}$  25 Twنش. 23 N R. 1 W

Quadrangle Sheet Regina

Mining district Vegitas Cluster-Gallina

Elevation 8,180'

Nearest City and/or dwelling Gallina Plaza is 4 miles to the northeast.

To reach the workings, go west on New Mexico 96 from Gallina High School  $1\frac{1}{2}$  miles. Then proceed south on a dirt road through Gallina Plaza and along the Rio Gallina for  $2\frac{3}{4}$  miles to the intersection of Corral Canyon. Go west along Corral Canyon for 2 miles. The open pit is on the north side of the road.

The Sla-Tex consists of one open pit (photo a), trending east-west. It is 260' long, 60' wide on the west end, widening to 100' on the east end. It reaches a maximum depth of 40' on the north side of the pit. A dump lies due south of the pit (photo b), running the entire length of the pit, and spilling down onto the road below. An ore chute is on the east end of the dump (photo b). An ore stock pile is located on the southernmost edge of the pit (photo c), and according to Chenoweth (A.E.C., P.R.R.), the pile contains 125 tons, averaging .03%  $U_3O_8$ . Scintillometer readings on the pile were 200 cps.

The pit exposes a sequence of gray, medium grained, micaceous sandstone of the Cutler Formation. The mineralization is associated with a light green/gray carbonaceous zone with abundant clay galls, and secondary calcium carbonate cement.

Twenty tons of ore was shipped in 1956, and assayed .03%  $U_3O_8$ , .06%  $V_2O_5$ , and 17.23%  $CaCO_3$  (Chenoweth, A.E.C., P.R.R.).

\* The Sla-Tex and Whiteflow deposits are both located in the Corral #3 claim (see attached map). The Sla-Tex is located in Sandoval County, and the Whiteflow in Rio Arriba.

- References:
- (1) Chenoweth, W. L., 1956, U.S. AEC Preliminary Reconnaissance Report on Sla-Tex Open Pit, file no. ED: R-610.
  - (2) Chenoweth, W. L., 1974, Uranium Occurrences of the Nacimiento-Jemez Region, Sandoval and Rio Arriba Counties, New Mexico, U.S. AEC, TM-194.
  - (3) Hilpert, L., 1969, Uranium Resources of NW New Mexico, U.S.G.S. Prof. Paper 603.



Photo (a) Looking west along the strike of the Sla-Tex pit.

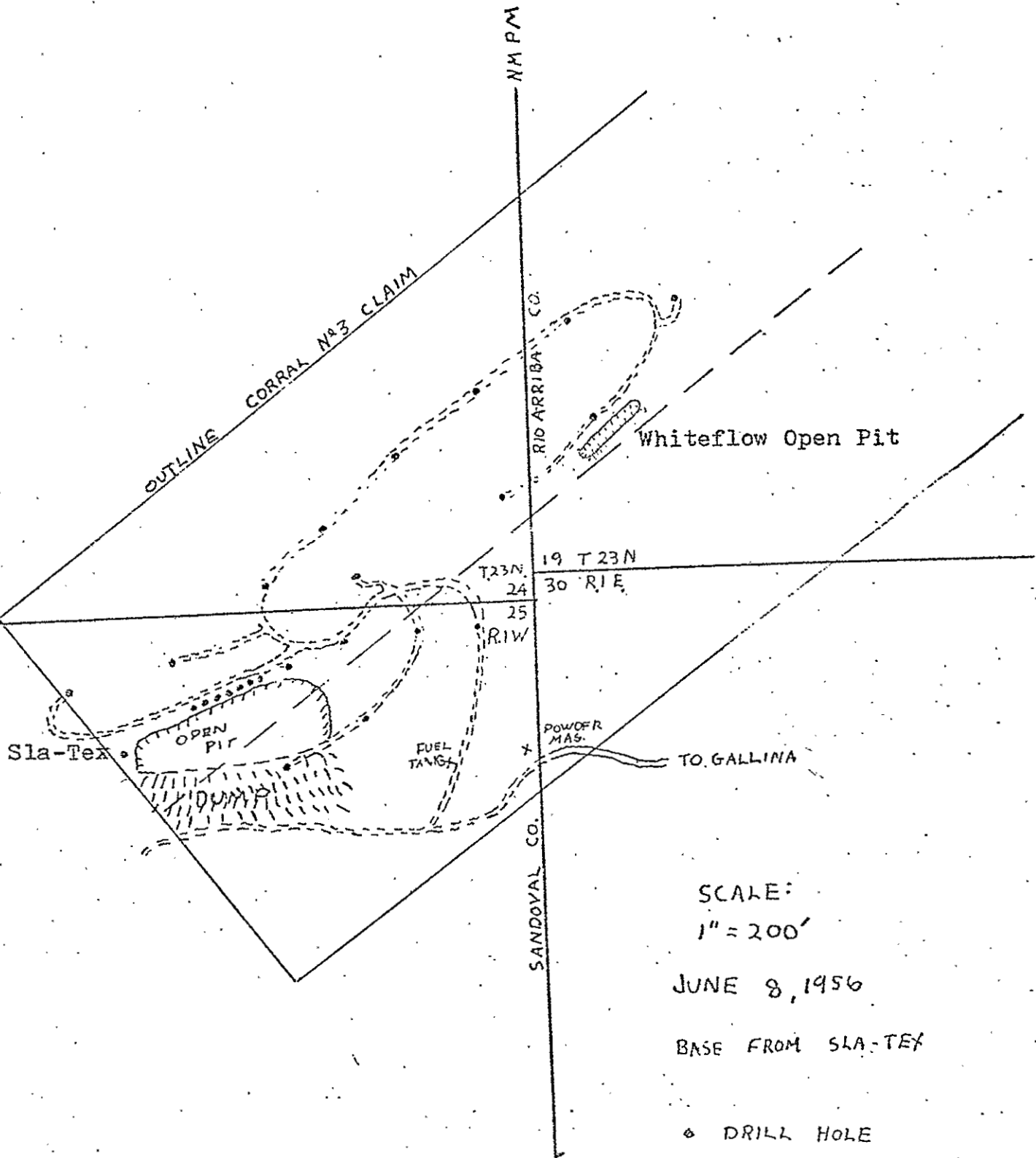


Photo (b) Looking NW at Sla-Tex dump. Note ore slot or chute on the right side of the dump.



Photo (c) Looking east at Sla-Tex pit. Note ore stock pile on right edge of photo.

Sla-Tex and Whiteflow open pits on the Corral #3 Claim



EL:R 613