UNITED STATES
DEPARTMENT OF THE INTERIOR
FRED A. SEATON, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION III

DMEA 6-002

Desert Treasure, Inc.

Alder Group of Claims

Rio Arriba County, New Mexico

Mineral

Joint Engineering and Geological Report

by

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DMEA 4401

DESERT TREASURE, INC.
ABBY GROUP OF CLAIMS
RIO ARRIBA COUNTY, NEW MEXICO

SUMMARY AND CONCLUSIONS

Desert Treasure, Inc., requested DMEA assistance to explore for uranium on the Abby group of claims, Rio Arriba County, New Mexico. The applicant's exploration program is estimated to cost $50,205.

The applicant proposes to explore the Morrison formation by core- and plug-bit drilling in areas indicated to be favorable by an aerial radiometric survey. The Morrison formation is composed mainly of varicolored shales interbedded with lenses of buff-colored sandstone. It is capped by Dakota sandstone, and from available information there are no determinable drilling targets.

It is concluded that insufficient work has been done on the property to make geologic data available from which an evaluation of possible uranium potential may be made at this time.

It is recommended that the application be denied without prejudice.

INTRODUCTION

Desert Treasure, Inc., applied for DMEA assistance to explore for uranium on its Abby group of claims in the Gallina area of Rio Arriba County, New Mexico. The applicant proposes to diamond drill 66 holes, by doing 3,300 feet of coring and 16,700 feet of plug-bit drilling at an estimated cost of $30,805.

A DMEA examining team composed of Bernard F. Albee, U. S. Geological Survey, and Edward V. Buol, U. S. Bureau of Mines, conducted a preliminary investigation of the Abby group on September 19, 1956. The team was accompanied by Mr. J. C. Harvey, vice-president, and Mr. McKinley, geologist for the Tenneco Company, Albuquerque, New Mexico. Members of the AEC were consulted regarding this application.

PROPERTY AND OWNERSHIP

The Abby group consists of 46 unpatented lode claims named Abby 5 to 50, inclusive. The claims are within the Santa Fe National Forest.

The owner of the Abby group is Desert Treasure, Inc., 605 East 11th Street, Kansas City 6, Missouri.

The property rights were acquired by the present owners from a non-defunct corporation (name unknown). There are no known liens or encumbrances against the property.

LOCATION, ACCESSIBILITY, AND PHYSICAL FEATURES

The Abby group is in secs. 19 and 30, T. 25 N., R. 2 E., New Mexico principal meridian, Rio Arriba County, New Mexico (fig.1). It is less than a mile south of the west branch of the Gallina River, and is about 10 miles northeast of Gallina, New Mexico. The group lies at an estimated average altitude of 7,400 feet.

The property is readily accessible from the Gallina postoffice by traveling eastward, 1.6 miles, along State Highway 96 to the French Mesa road. This road, which passes through a sawmill yard, is followed for 6.7 miles to the Gallina River road; then for 6.1 miles to the Gallegos Spring road. The Spring road passes by the southern boundary of the Abby group, less than 1 mile from the last turnoff.

The property may be reached by conventional types of automobiles when the roads are dry; but heavy rains may cause delays of 24 hours or more, unless 4-wheel-drive vehicles are used.

A number of lumber roads and service roads are near the property.

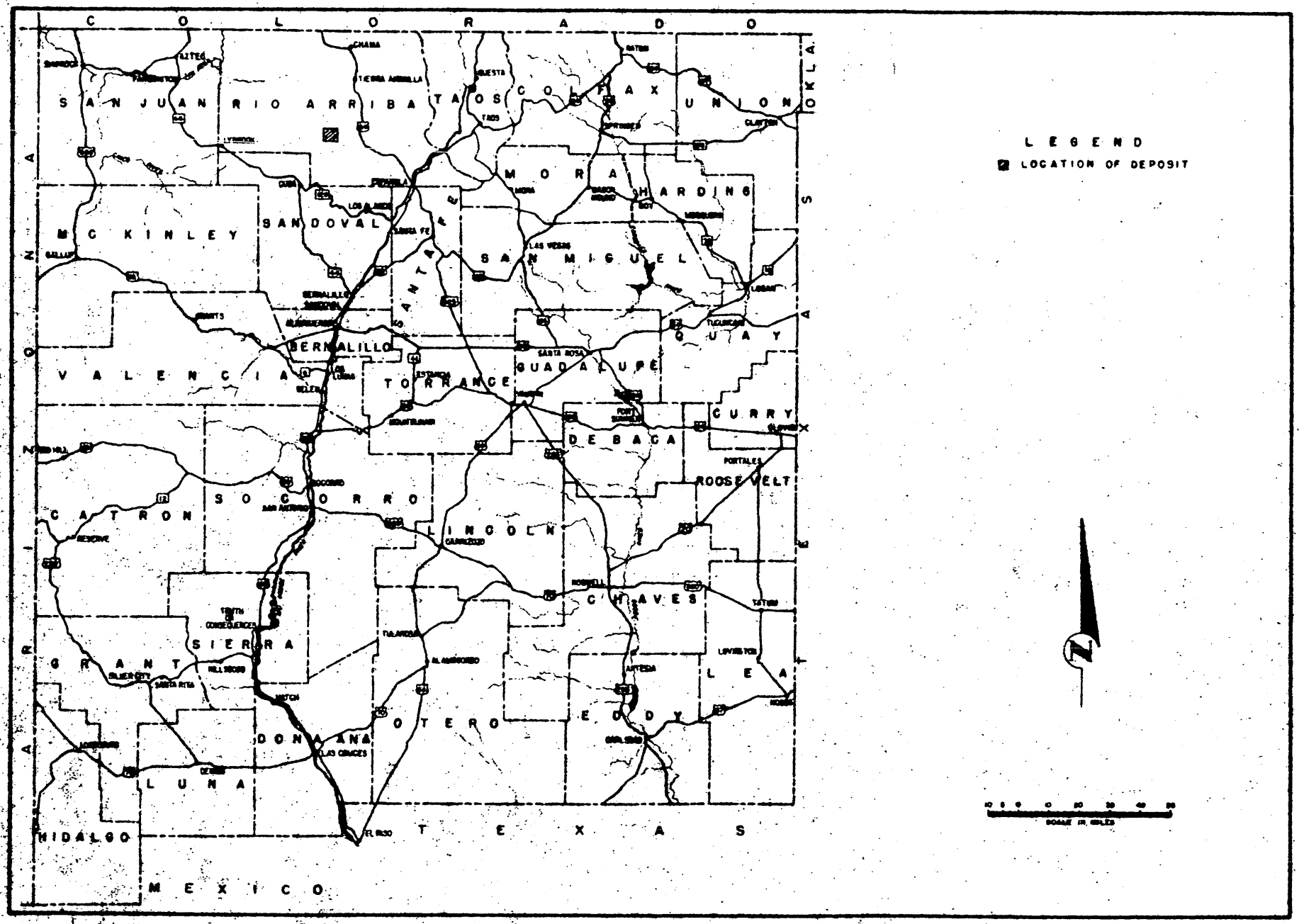

FIGURE 1 - MAP SHOWING LOCATION OF ABBY GROUP, DESERT TREASURE, INC., RIO ARRIBA COUNTY, NEW MEXICO.
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The property lies within the Santa Fe National Forest which contains a comparatively heavy growth of ponderosa pine and scrub oak. The general area is deeply dissected by the Gallina River and its tributaries, which have produced numerous steep canyons and gulches, between which are small mesas. The area the applicant proposes to explore lies atop of one of these mesas.

Altitudes in the general area of the property range from about 6,800 along the river valley, to well over 8,000 feet a short distance south of the property and the average altitude is estimated at 7,400 feet.

Abundant timber for mining needs grows on the claims. Water probably must be hauled 8 miles from the Gallina River during the dry season.

The climate is dry during much of the year, as is indicated by the growth of some chaparral; but, at the higher elevations, precipitation in the form of summer rains and winter snows, is sufficient to support the growth of larger trees.

Public utilities do not serve the area. This makes necessary the use of portable internal-combustion engines as sources of power.

Skilled mining labor is reported to be abundant, because gold, silver, and mica mines that had been worked in the area, have now been closed down, resulting in a surplus of skilled labor.

Mining materials, supplies, and equipment can be obtained in Espanola, Santa Fe, and Albuquerque, New Mexico.

Atomic Energy Commission ore-buying stations are at Grants, New Mexico, and Durango, Colorado, both of which are more than 150 miles, by road, from the Sullivan area.

GEOLOGY

The Abby group of claims lies a few miles north of the northerly-trending Nacimiento and San Pedro Range of mountains that borders on part of the eastern side of the San Juan Basin. The mountains are the northwesternmost extension of the southern Rocky Mountain province and separate the Colorado Plateau province from a northern extension of the Basin and Range province.

The rocks exposed in the vicinity of the claims range in age from Triassic to Cretaceous and are, in ascending order, the Triassic Chinle formation, the Jurassic Entrada, Todilto, and Morrison formations, and the Cretaceous Dakota sandstone (fig. 2). The lower 50 feet or so of the Morrison formation may possibly contain rocks equivalent to the Summerville formation.

The claims on which the exploration work is proposed lie on a relatively high mesa capped by the Dakota sandstone. The Dakota in the vicinity comprises a lower member of massive, cross-bedded sandstone about 120 feet thick, a middle member of 20 feet or more

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GEOLOGICAL SURVEY

DEFENSE MINERALS EXPLORATION ADMINISTRATION
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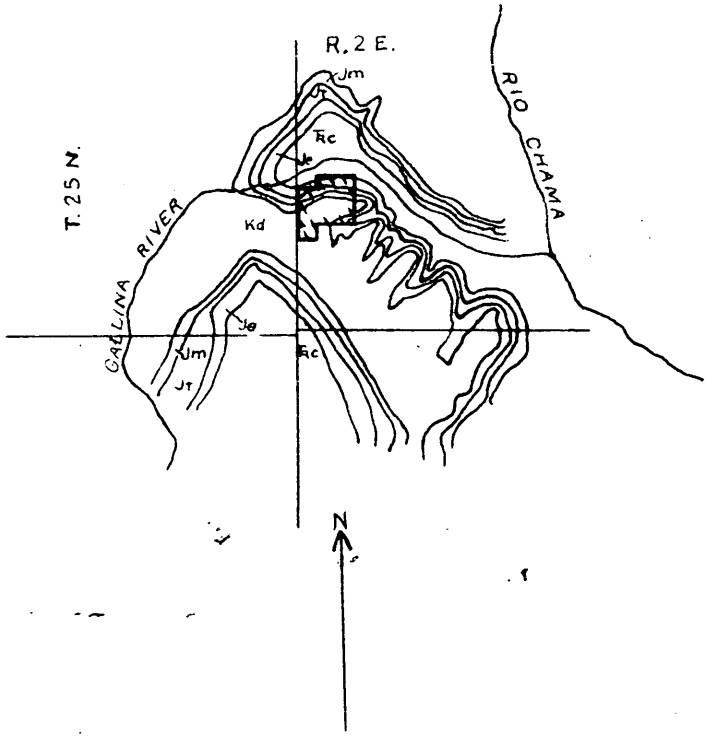

1 0 2 4 6 8 MILES

DATUM IS MEAN SEA LEVEL.

Kd CRETACEOUS DAKOTA SANDSTONE

Jm JURASSIC MORRISON FORMATION

Jt JURASSIC TODILTO LIMESTONE

Je JURASSIC ENTRADA SANDSTONE

Ꞧc TRIASSIC CHINLE FORMATION

GEOLOGIC CONTACT

LOCATION OF ABBY CLAIMS

NOTE: BASE MODIFIED FROM RECONNAISSANCE GEOLOGIC MAP OF NACIMIENTO UPLIFT AND CHAMA BASIN IN RIO ARRIBA AND SANDOVAL COUNTIES, NEW MEXICO, U.S.G.S. BULLETIN 794.

FIGURE 2.--GEOLOGIC MAP OF PART OF THE GALLINA AREA SHOWING THE LOCATION OF THE ABBY GROUP OF CLAIMS, DESERT TREASURE, INC., RIO ARRIBA COUNTY, NEW MEXICO.

of dark shale and thin-bedded sandstone, and an upper member of about 50 feet of massive hard sandstone (Darton, N. H., 1909). The upper part of the Dakota is eroded in places and the Morrison is overlain by only part of the lower sandstone.

The Morrison formation is composed mainly of greenish, brownish-gray, white, or maroon massive shale or claystone with some buff-colored, lenticular sandstone layers and some thin beds of limestone. The formation was estimated to be about 400 feet thick.

The rocks dip easterly at the claims, from an estimated 7° to 8° on the west to 2° to 3° on the east. The applicant suggested that a fault trends northerly across the property; however, no displacement of strata was seen in the field.

ORE DEPOSITS

There are no known ore deposits on the property. The applicant has indicated on a map that two samples were taken, one of which averaged 0.164 percent U_3O_8, but no supporting data were submitted. Some slight anomalies by an aerial radiometric survey were detected over the property, but no physical prospecting on the ground has been reported.

In the Gallup-Laguna area, about 17 miles south of the property, numerous places that show high radioactivity have been found in strata that range in age from Pennsylvanian to Cretaceous.

Exploration has been done on many of these occurrences, but no shipments are being made from the area.

The known mineralization is usually very small in extent, is mainly of the copper-uranium type, and is commonly associated with carbonaceous material and green siltstone gills.

SAMPLING AND ORE EVIDENCE

An initial radiometric log submitted by the applicant shows readings of from 0.011 to 0.045 mr/hr or more with an average background count estimated as 0.02 mr/hr or more. These readings indicate that the property has some uranium mineralization.

The applicant reports that a sample taken from the Harrison siltstone contained 0.16% U_3O_8. Details as to this sampling were not given the examining team, nor were the examiners conducted to the place from which the sample was taken.

At the time of the preliminary examination there were no favorably mineralized areas suitable for sampling shown to the examining team. Hence no samples were collected.

There are no known ore reserves in the subject property.

APPLICANT'S PROPOSAL

The applicant's exploration proposal is not given in detail. As nearly as can be determined, the applicant contemplates initial

drilling of 29 or 30 holes, on 600-foot centers, to prospect a "channel". If the initial drilling indicates favorable uranium mineralization, then 36 or 37 additional holes will be drilled, in some cases on 300-foot centers, to explore for "tributaries". The applicant estimates total drilling to be 20,000 feet.

HISTORY AND PRODUCTION

The history of the area and property is not fully known. Uranium minerals were first reported in Rio Arriba County in 1930. The location of the original discoveries is not known, but it is supposedly in the Gallina area, as uranium mineralization has been discovered in several localities in sedimentary rocks and also in igneous dikes and plugs.

It is believed that interest in the Gallina area developed less than four years ago, following the exploration and development of uranium deposits of the Grants, New Mexico area.

There is no known uranium production from the Abby group or from any other properties of the Gallina area.

PRESENT STATUS

The property has no exploratory workings, and has been prospected only by radiometric surveys from the air and on the ground.

There is no mining or milling equipment on the property.

CONCLUSIONS AND RECOMMENDATIONS

Several radioactive anomalies were discovered on the Abby group, but the claims have not been sufficiently prospected to allow a determination of the geological relationships or to evaluate their uranium mineralization potential. R. R. Sparrier, in his report prepared for the applicant, states, "It is not possible in the light of present information to determine which part of the property would be most likely to produce".

The examining team considers that there is not enough information on which to base an exploration program, and that the applicant should prospect its property so that the needed information can be obtained.

The examining team recommends that the application be denied without prejudice.