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

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION III

DMEA 4253

Shurabot Group

Monarch Exploration Company

Saguache County, Colorado

Uranium

Joint Engineering and Geological Report

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DMEA 4253

SHURSHOT GROUP
MONARCH EXPLORATION COMPANY
SAGUACHE COUNTY, COLORADO

SUMMARY

Monarch Exploration Company has applied for Defense Minerals Exploration Administration assistance in the amount of $10,312.00 to explore for uranium on the Shurshot group of claims, Saguache County, Colorado.

Radioactivity anomalies observed over a small soil-covered area in an inferred fault zone, have no known relationship to bedrock or geologic structure.

It is recommended that the application to explore for uranium on the Shurshot claims be denied without prejudice.

INTRODUCTION

Monarch Exploration Company applied for DMEA assistance to prospect for uranium by bulldozer trenching and diamond drilling on the Shurshot group, Saguache County, Colorado. The amount of assistance requested is $10,312.00.

The property was examined by Robert U. King, Geological Survey, and Edward W. Buel, Bureau of Mines, on May 21, 1956. The DMEA examining team was conducted over the property by Fred W. Howells, Vice President, Monarch Exploration Company.

Conditions permitted a thorough examination of the property.

LOCATION AND ACCESSIBILITY

The Shurshot claims were located on Public Domain land in sec. 1, T. 47 N., R. 1 E., New Mexico principal meridian, Saguache County, Colorado (fig. 1). The property lies approximately 3 miles west of the Los Ochos (Thorsburg) mine.

The property is readily accessible from Gunnison over U. S. Highway 50, State Highway 114, and a forestry road. The Shurshot claim group spans Bead Creek, a tributary of Cochetopa Creek. The claim group is along the north boundary of the Gunnison National Forest.

GEOGRAPHY

The topography in the immediate area of the Shurshot claims is not one of pronounced relief, possibly not exceeding 500 feet.

The surface is relatively flat except for the area immediately adjacent to Bead Creek and its tributaries.

Vegetation consists predominantly of sage brush, aspen and pine.

Water for mining operations can be obtained from Bead Creek which crosses the property.

Gunnison, located 25 miles away, is the nearest point for supplies, residence, and mining labor.

The climate consists of cool and dry summers and cold winters. Because of the unprotected nature of the terrain, winter surface

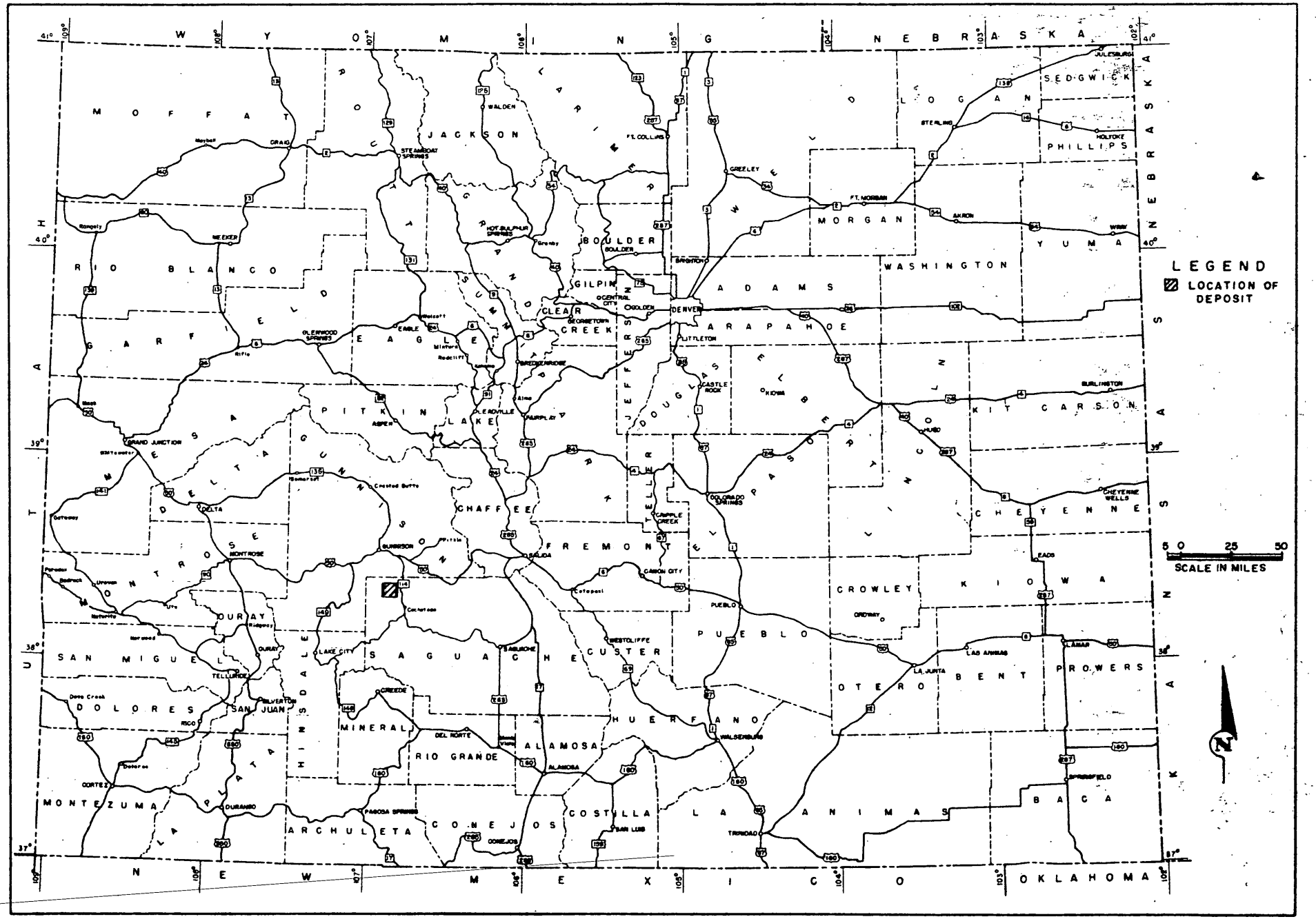

FIGURE 1 - LOCATION MAP OF SHURSHOT CLAIMS, SAGUACHE COUNTY, COLO. DMEA 4253

operations would probably be greatly hampered because of drifting snow.

PROPERTY

The Shurshot group is composed of ten unpatented claims owned by Monarch Exploration Company, 511 San Jacinto Building, Houston 2, Texas. The claims were located and recorded during the spring of 1955 by Monarch Exploration Company.

DEVELOPMENT

No prospecting has been done on the claims.

It is not known whether Monarch Exploration Company will do any development work other than possibly some minor amount of exploratory bulldozer trenching.

HISTORY AND PRODUCTION

The Shurshot claims were located during the spring of 1955 following the discovery of some minor radioactive anomalies along a fault contact.

There is no known ore production from the Shurshot group nor from adjoining properties. Considerable uranium ore, however, is being mined and stockpiled at the Los Ochos mine which is approximately 3 miles east of the Shurshot group.

SAMPLING AND ORE ESTIMATES

In the absence of any known material believed to contain any significant amount of uranium, no samples were taken.

The property does not contain any known reserves of uranium ore.

APPLICANT'S PROPOSAL

The applicant proposes to excavate two bulldozer cuts across a fault contact between sandstone and metamorphic rocks. Purpose of the cuts is to expose the fault-contact surface to determine its altitude. Contingent upon the results of the bulldozing, three core holes are to be located so as to have a core hole on each side of the two bulldozer cuts. The holes will be inclined to intersect the fault contact at a depth of approximately 150 feet below the surface.

The work is to be completed within four months.

The applicant estimates the cost of the proposed exploration program to be $10,312.00.

GEOLOGY

Precambrian metamorphic rocks in fault contact with sandstone of Jurassic or Cretaceous age underly the Shurshot claims.

The Precambrian metamorphic rocks consist of dark gray, fine-grained quartz biotite schist, and altered diorite porphyry. Because of the poor exposures over a relatively flat surface, the

structural relationship of these two rock types is not clear. The Precambrian rocks crop out over the eastern one-third of the claim group; the foliation is predominantly vertical and trends north-northeast.

White to buff sandstone crops out over the western two-thirds of the claim group. The sandstone is fine- to medium-grained, and is composed almost entirely of clear quartz grains of uniform size. The dip of the sandstone ranges from flat to as much as 5° east; the strike is probably close to north.

The contact between sandstone and schist is obscured by soil cover within a zone 50 to 75 feet wide that trends northward across the eastern part of the claim group; there are no rock outcrops. The ground surface is almost flat, and because the sandstone dips eastward, the contact is inferred to be a fault with the west side downthrown.

Within this inferred fault zone radioactivity anomalies of 0.05 to 0.15 mr/hr were measured over a 100 square feet area of brown soil and scattered sandstone slabs. Inasmuch as there are no pits or trenches in the area it is not possible to determine the relation of the anomalies to either rock type or geologic structure.

A. E. C. personnel who recently have made reconnaissance investigations in the immediate vicinity report that they have

observed similar radioactivity anomalies over deep soil cover, and that subsequent prospecting by trenching has shown that the anomalies were not related to the bedrock (Roger C. Malan, personal communication).

Although the Shurshot group of claims lies not over 3 miles west of the Thornburg Uranium mine, there is no evidence to indicate that the west-trending Los Ochos fault can be projected as far west as the Shurshot claim group.

CONCLUSIONS AND RECOMMENDATIONS

The radioactivity anomalies observed over a 100 square feet area of soil have no known relationship to bedrock or geologic structure.

It is recommended that the application to explore for uranium on the Shurshot claims be denied without prejudice.