CLASS OF SERVICE
This is a fast message unless its deferred character is indicated by the proper symbol.

WESTERN UNION
TELEGRAM

W. P. MARSHALL, PRESIDENT

1201

SYMBOLS
DL=Day Letter
NL=Night Letter
LT=International Letter Telegram

The filing time shown in the date line on domestic telegrams is STANDARD TIME at point of origin. Time of receipt is STANDARD TIME at point of destination

DA279

1956 JUN 27 PM 5 10 (09).

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RECEIVED
JUN 28 1956

FENCE MINERAL EXPLORATION ADMINISTRATION=
INTERIOR BLDG CARE MICHAEL CHING WASHDC=

ANY INFORMATION RELATIVE MONARCH EXPLORATION COMPANY CLAIMS MAY BE FURNISHED TO OUR WASHINGTON REPRESENTATIVE MR ROY SIMMONS= ST. 3-1000.
PATRICK W BRADY PRES=

DMEA-4251
" -4252
" -4253

THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE

700

FILE COPY
Surname:

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

JUL 9 - 1956

Monarch Exploration Company
511 San Jacinto Building
Houston 2, Texas

Re: Docket No. DMEA-4253 (Uranium)
Shurshot Claims
Saguache County, Colorado

Gentlemen:

Your application for aid in an exploration project and other information available to us in Washington concerning the above-named property have been reviewed.

Projects approved by the Defense Minerals Exploration Administration must, in its judgment, show definite promise of yielding materials of acceptable grade in quantities that will significantly improve the mineral supply position for the National Defense Program.

Careful study of all our information indicates to us that the probability of disclosing significant ore reserves is not sufficiently promising to justify Government participation. We regret to advise you that, under those circumstances, your application for exploration assistance is denied. Such denial, however, is made without prejudice, to the property. In the event further work on your part discloses new and more favorable evidence of ore deposition on the property, we shall be pleased to consider a new application.

We wish to thank you for your interest in the Defense Minerals Program and for brining your property to our attention.

Sincerely yours,

G. O. Mittendorf

Administrator

MChing/izm 7-3-56
cc to: Docket
Code 700
Mr. Ching
Admr.'s Reading File
Operating Committee
DMEA Field Team, Reg. III (2)
Messrs. JECrawford, Rm. 3643
THKiilsgaard, Rm. 5224
JOHosted, Rm. 3210, GSA

Docket
700

Ching
Ellis

July 3, 1956

Summary of Proposed Project

Object: Denial of application for an exploration project.

Docket No.: DMEA-4253

Commodity: Uranium

Applicant: Monarch Exploration Company
511 San Jacinto Building
Houston 2, Texas

Property: Shurshot Claims 1 through 10, situated in SE$\frac{1}{4}$ sec. 1, T. 47 N., R. 1 E., N.M.P.M.& B., Saguache County, Colorado. Applicant is the owner.

Date of Application: April 10, 1956

Amount of Application: $10,312.00

Work Proposed: Two bulldozer cuts across the contact between the Morrison sandstone and the Pre-Cambrian metamorphics at the surface, and three inclined core drill holes totaling 600 feet to intersect the contact at depth. Estimated Costs:

Bulldozer moving and work	$ 692.00
600 feet core drilling @ $12/ft.	$7,200.00
Supervision and other costs	$2,420.00
Estimated Total Cost of Project	$10,312.00
Government Participation @ 75%	$ 7,734.00

Field Team Report: June 15, 1956 by E. W. Buel, USBM & R. U. King, USGS:

Precambrian metamorphic rocks in fault contact with sandstone of Jurassic or Cretaceous age underlie the subject property. The contact is obscured by soil cover and there are no rock outcrops. Within the inferred fault zone radioactivity anomalies of 0.05 to 0.15 MR/HR were measured over a 100 square foot area of brown soil and scattered sandstone slabs. It was not possible to determine the relationship of the anomalies to either rock types or to geologic structure. Reconnaissance investigations in this vicinity by the AEC encountered similar anomalies over deep soil cover, and subsequent trenching showed that the anomalies were not related to the bedrock.

No material worth sampling was encountered. The Applicant has done no propsecting on theproperty. The nearest producing property is the Los Ochos mine, 3 miles to the east.

It is recommended that the application be denied without prejudice to the property.

Commodity Group Comments:

USBM, John E. Crawford, June 27, 1956:

Discussed report of examination with the AEC representative. Concurs with the recommendation for denial without prejudice because of the lack of geologic data on the property.

USGS, N. E. Nelson, June 27, 1956:

The western two-thirds of the property is underlain by sandstone, the eastern one-third by Precambrian metamorphic rocks. Because of lack of outcrops in the area where the two rocks are in contact the relationship is not clear. Faulting could be and probably is responsible for the differing bedrocks, but until a fault is located and shown to be ore-bearing a definite exploratory project cannot be presented. Concurs with the recommendation for denial without prejudice.

Rare and Miscellaneous Metals Division, Michael Ching, July 3, 1956:

The Applicant places significance in the fact that an inferred north-south fault on the property is similar to a fault associated with primary uranium mineralization at the Thornburg Los Ochos Mine and that a radiometric anomaly of two or three times background is apparently related to the fault. No work was done to establish a specific relationship. Denial of the application appears to be in order.

Conclusions and Recommendations:

Insufficient geological criteria of a favorable nature has been presented to warrant an exploration project. It is recommended that the application be denied without prejudice to the property.

Ernest Wm. Ellis

Ernest Wm. Ellis, Chief
Rare and Miscellaneous
Metals Division

6/28/56

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

RECEIVED
JUN 28 1956

July 27, 1956

Re: DMEA 4253
Monarch Exploration Company,
Shurshot County, Colo.,
$10,312.00 - Uranium

Memorandum

To: E. W. Ellis, Defense Minerals Exploration Administration

From: N. E. Nelson, U. S. Geological Survey

Subject: Review of Field Team report.

The applicant requested assistance in searching for and prospecting an 'interpreted' fault zone in which might be found the uranium ore making conditions associated with the Los Ochos fault at the Thornburg mine, 3 miles to the east.

The western two-thirds of the property is underlain by sandstone, the eastern one-third by Precambrian metamorphic rocks. Because of lack of outcrops in the area where the two rocks are in contact the relationship is not clear. Faulting could be and probably is responsible for the differing bedrocks, but until a fault is located and shown to be ore-bearing a definite exploratory project cannot be presented.

Radioactivity has been noted in one small area, 100 square feet, but it has not been related to bedrock or geologic structure. The examiners and the Field Team recommend that the application be denied without prejudice.

I concur with that recommendation.

N. E. Nelson

N. E. Nelson

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

RECEIVED
JUN 28 1956

July 27, 1956

Re: DPA 4253
Monarch Exploration Company,
Hurshot County, Colo.,
10,312.00 - Uranium

Memorandum

To: [illegible] Ellis, Defense Minerals Exploration Administration

From: W. [illegible] Nelson, U. S. Geological Survey

Subject: Review of field team report.

The applicant requested assistance in searching for and prospecting an 'interpreted' fault zone in which might be found the uranium ore making conditions associated with the Los Ochos fault at the Thornburg mine, 3 miles to the east.

The western two-thirds of the property is underlain by sandstone, the eastern one-third by precambrian metamorphic rocks. Because of lack of outcrops in the area where the two rocks are in contact the relationship is not clear. Faulting could be and probably is responsible for the differing bedrocks, but until a fault is located and shown to be ore-bearing a definite exploratory project cannot be presented.

Radioactivity has been noted in one small area, 100 square feet, but it has not been related to bedrock or geologic structure. The examiners and the field team recommend that the application be denied without prejudice.

I concur with that recommendation.

W. E. Nelson

W. E. Nelson

W.Nelson:btr
C 6/27/56

cc: Director's reading file (4212)
Branch reading file (4212)
DPA (3)
Chron. file
Docket file
J. E. Crawford, 3641
J. O. Houted, 3210

6/28/56

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
WASHINGTON 25, D. C.

RECEIVED
JUN 28 1956

June 27, 1956

Memorandum

To: Ernest William Ellis, DMEA Member
Uranium Commodity Committee

From: John E. Crawford, Bureau of Mines Member
Uranium Commodity Committee

Subject: Report of Examination, DMEA Docket 4253 (Uranium)
Monarch Exploration Company (Shurshot group), Saguache County, Colorado

I have reviewed the report of examination, DMEA Docket 4253, Monarch Exploration Company (Shurshot group), Saguache County, Colorado, dated June 15 and received in this office June 27, 1956. I have also discussed it with Joseph O. Hosted, Washington representative of the Atomic Energy Commission.

The field examiners recommend that the application to explore for uranium on the claims be denied without prejudice because of the lack of geologic data on the property.

We concur in the recommendation for denial without prejudice.

The report is being forwarded to the Chief, Division of Minerals, in accordance with the routing slip attached thereto.

John E Crawford
John E. Crawford

RECEIVED
JUN 28 1956

June 27, 1956

Memorandum

To: Ernest William Ellis, DMEA Member
Uranium Commodity Committee

From: John E. Crawford, Bureau of Mines Member
Uranium Commodity Committee

Subject: Report of Examination, DMEA Docket 4253 (Uranium)
Monarch Exploration Company (Shurshot group), Saguache County, Colorado

I have reviewed the report of examination, DMEA Docket 4253, Monarch Exploration Company (Shurshot group), Saguache County, Colorado, dated June 15 and received in this office June 27, 1956. I have also discussed it with Joseph O. Hosted, Washington representative of the Atomic Energy Commission.

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John E. Crawford

6/28/56

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

RECEIVED
JUN 22 1956

June 20, 1956

224 New Customhouse
Denver 2, Colorado

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Field Team, Region III

Subject: Joint Report of Examination, DMEA Docket 4253 (Uranium) Monarch Exploration Company (Shurshot group), Saguache County, Colorado

Enclosed are the original and three copies of a joint engineering and geologic report on the subject property.

The examiners found an almost total lack of geologic data on which to base an exploration program, and they recommend that the application be denied without prejudice. We concur in this recommendation.

DMEA Field Team, Region III

W. M. Traver

By W. M. Traver
Executive Officer

Enclosures

Reviewed by
DMEA OPERATING COMMITTEE
6-27-56
(date)

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Defense Minerals Exploration Administration
Denver Federal Center
Denver, Colorado

DMEA
Date Rec'd.
JUN 15 1956

BUREAU OF MINES
Denver, Colorado

June 15, 1956

RECEIVED
JUN 22 1956

TRANSMITTED
JUN 20 1956

Memorandum

To: Executive Officer, DMEA Field Team, Region III

From: John F. Shaw
E. N. Harshman

Subject: DMEA Docket 4253 (Uranium), Monarch Exploration Company (Shurshot group), Saguache County, Colorado

Enclosed are the original and nine copies of a joint examination report by E. W. Buel, Bureau of Mines, and R. U. King, Geological Survey, in which denial of the requested DMEA exploration assistance is recommended.

The applicant has located one small, low-intensity, radioactivity anomaly on the claims but has done no work to relate this anomaly to geologic conditions in the claim area.

We concur with the conclusions and recommendations made in the report but because of the almost total lack of geologic data on the property we suggest that the denial be made without prejudice.

John F. Shaw
Superintendent of the Denver Experiment Station

E. N. Harshman
Member, Field Team

Enclosures (10)
ENHarshman:mp

Reviewed by
DMEA OPERATING COMMITTEE
6-27-56
(date)

RECEIVED
JUN 20 1956
DMEA
Date Rec'd.
JUN 19 1956
BUREAU OF MINES
Denver, Colorado

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

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION III

TRANSMITTED
JUN 20 1956

DMEA 4253

Shurshot Group

Monarch Exploration Company

Saguache County, Colorado

Uranium

Joint Engineering and Geological Report

by

E. W. Buel, Mining Engineer
Bureau of Mines

R. U. King, Geologist
Geological Survey

June 15, 1956

Reviewed by
DMEA OPERATING COMMITTEE
6-27-56
(date)

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Applicant's Proposal	4
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Conclusions and Recommendations	6

ILLUSTRATIONS

Figure	Follows page
1. Location map of the Shurshot group of claims, Saguache County, Colorado. DMEA 4253	2

DMEA 4253

RECEIVED
JUN 22 1956

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.

RECEIVED
JUN 22 1956

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 (Thornburg) 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

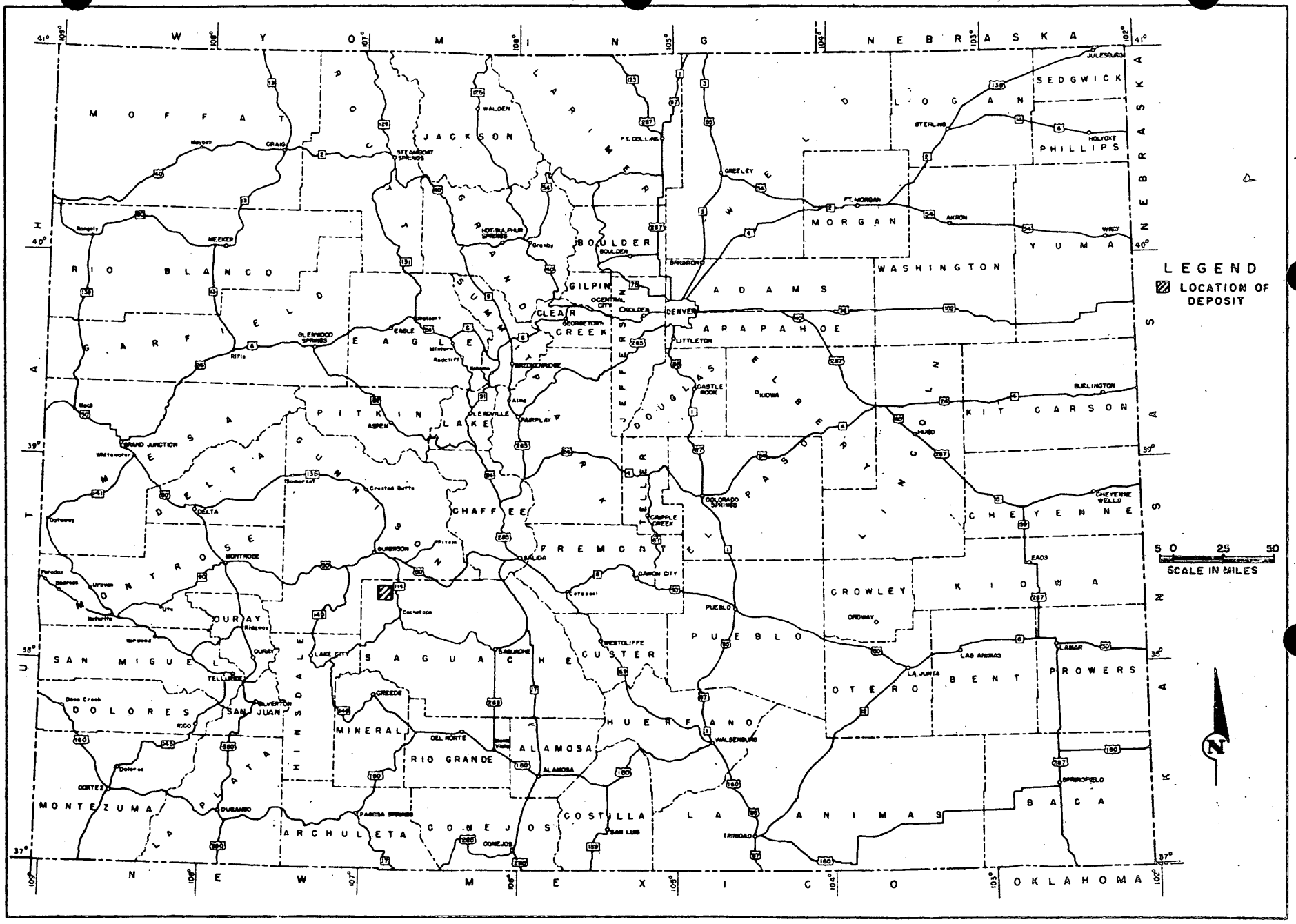

FIGURE 1 - LOCATION MAP OF SHURSHOT CLAIMS, SAGUACHE COUNTY, COLO. DMEA 4253

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 attitude. 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 foot 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 foot 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.

6/22/56
ai

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

June 20, 1956

Mr. Ken Gartenhauser
Denver 2, Colorado

RECEIVED
JUN 22 1956

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Field Team, Region III

Subject: Joint Report of Examination, DMEA Docket 4653 (Uranium)
Monarch Exploration Company (Kunzbert group), Saguache
County, Colorado

Enclosed are the original and three copies of a joint engineering and geologic report on the subject property.

The examiners found an almost total lack of geologic data on which to base an exploration program, and they recommend that the application be denied without prejudice. We concur in this recommendation.

DMEA Field Team, Region III

By W. M. Trever
Executive Officer

Enclosures

Reviewed by
DMEA OPERATING COMMITTEE
6-27-56
(date)

IN REPLY REFER TO:

DMEA
Date Rec'd.
JUN 19 1956
BUREAU OF MINES
Denver, Colorado

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Defense Minerals Exploration Administration
Denver Federal Center
Denver, Colorado

June 15, 1956

RECEIVED
JUN 22 1956

TRANSMITTED
JUN 20 1956

Memorandum

To: Executive Officer, DMEA Field Team, Region III

From: John F. Shaw
E. N. Harshman

Subject: DMEA Docket 4253 (Uranium), Monarch Exploration Company (Shurshot group), Saguache County, Colorado

Enclosed are the original and nine copies of a joint examination report by E. W. Buel, Bureau of Mines, and R. U. King, Geological Survey, in which denial of the requested DMEA exploration assistance is recommended.

The applicant has located one small, low-intensity, radioactivity anomaly on the claims but has done no work to relate this anomaly to geologic conditions in the claim area.

We concur with the conclusions and recommendations made in the report but because of the almost total lack of geologic data on the property we suggest that the denial be made without prejudice.

John F. Shaw
Superintendent of the Denver
Experiment Station

E. N. Harshman
Member, Field Team

Enclosures (10)
ENHarshman:mp

Reviewed by
DMEA DENVER COORDINATOR
6-27-56
(Date)

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

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION III

TRANSMITTED

JUN 20 1956

DMEA 4253

Shurshot Group

Monarch Exploration Company

Saguache County, Colorado

Uranium

Joint Engineering and Geological Report

by

E. W. Buel, Mining Engineer
Bureau of Mines

R. U. King, Geologist
Geological Survey

June 15, 1956

DMEA Operations Center

6-27-56
(Date)

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ILLUSTRATIONS

Figure	Follows page
1. Location map of the Shurshot group of claims, Saguache County, Colorado. DMEA 4253	2

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.

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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.

ARCHIVES
JUN 22 1959

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 (Thornburg) 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

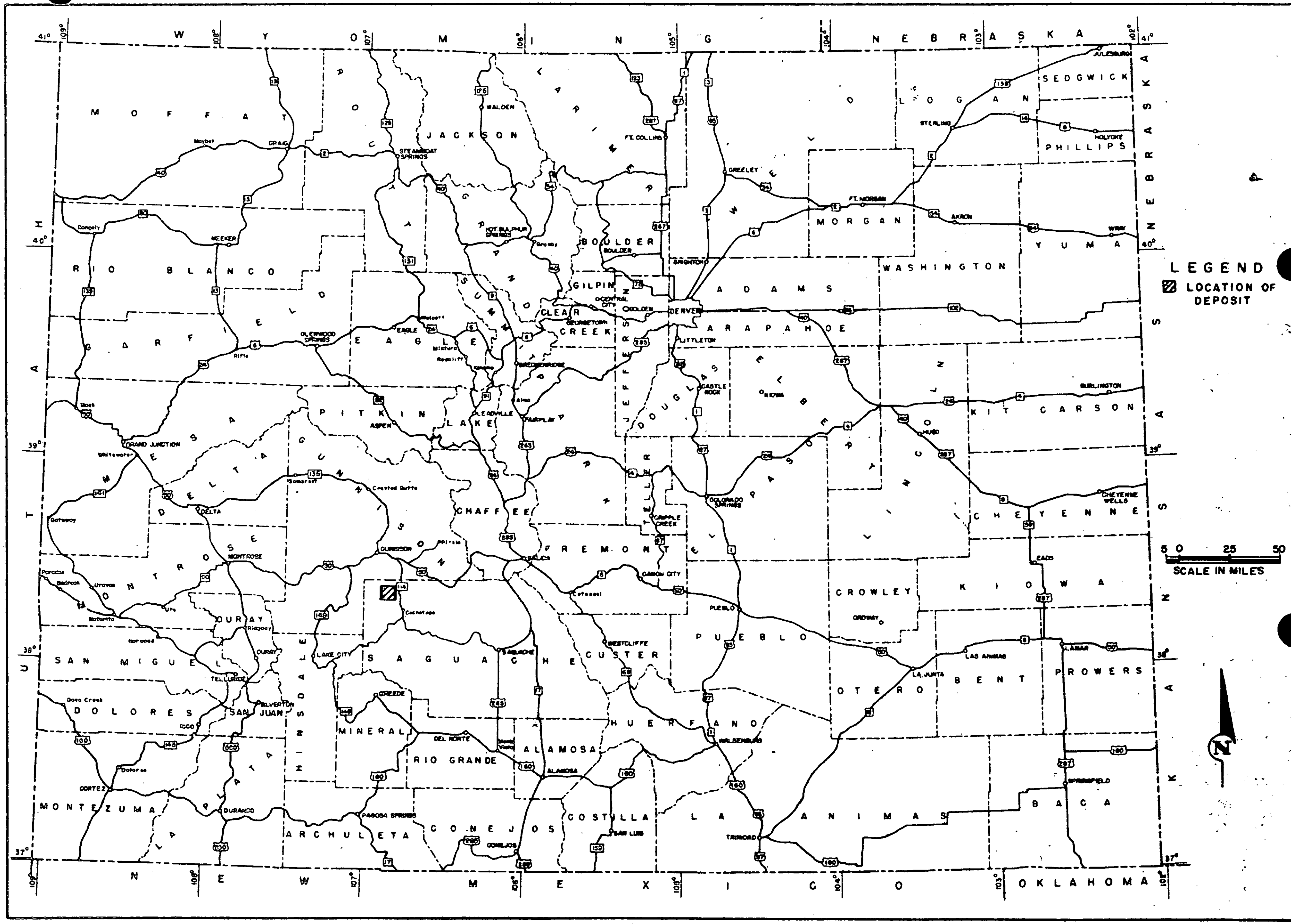

FIGURE 1 - LOCATION MAP OF SHURSHOT CLAIMS, SAGUACHE COUNTY, COLO. DMEA 4253

operations would probably be greatly hampered because of drifting snow.

RECEIVED
JUN 2 2 1956

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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

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

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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 a titude. 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.

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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 foot 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.

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CONCLUSIONS AND RECOMMENDATIONS

The radioactivity anomalies observed over a 100 square foot 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.

5/10/56

RECEIVED
MAY 10 1956

May 4, 1956

Memorandum

To: W. M. Traver, Executive Officer, DMEA Field Team, Reg. III

From: Superintendent, Denver Experiment Station, Reg. III

Subject: Docket DMEA 4253 (Uranium), Monarch Exploration Company
Shurshot Claims, Saguache County, Colorado

The subject application in the amount of $10,312.00 was received in this office on May 4, 1956.

A field examination will bemade and suitable report prepared by an engineer from the Denver office.

JOHN F. SHAW

John F. Shaw

cc: W. M. Traver (2)
E. N. Harshman
J. F. Shaw
See, Mp. Dn. (2)

RECEIVED
MAY 10 1956

May 4, 1956

Memorandum

To: W. M. Traver, Executive Officer, DMEA Field Team, Reg. III

From: Superintendent, Denver Experiment Station, Reg. III

Subject: Docket DMEA 4253 (Uranium), Monarch Exploration Company
Shurshot Claims, Saguache County, Colorado

The subject application in the amount of $10,312.00 was received in this office on May 4, 1956.

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JOHN F. SHAW

John F. Shaw

cc: W. M. Traver (2)
E. N. Harshman
J. F. Shaw
Sec. Op. Com. (2)

SEE DOCKET NO. 4251 FOR TRAVER MEMO OF MAY 3, 1956 IN WHICH HE SUBMITTED THE APPLICANT'S BIDS.

DMEA-4252
4253

5/8/56

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

RECEIVED
MAY 7 - 1956

May 3, 1956

224 New Customhouse
Denver 2, Colorado

Memorandum

To: J. F. Shaw (2) (With brochure)
E. N. Marshman

From: Field Team, Region III

Subject: Docket DMEA 4253 (Uranium), Monarch Exploration Company, Shurshot Claims, Saguache County, Colorado

Enclosed is the subject application in the amount of $10,312.00. A field examination and suitable report are required.

Enclosed are copies of three drilling bids submitted by the applicant. These bids pertain to DMEA Docket Nos. 4251, 4252, and 4253.

Also enclosed for your information are a copy of a letter from the Chairman, Operating Committee dated April 27, 1956 and attached memoranda of review of the application by N. E. Nelson and John E. Crawford.

Please return the brochure with the Report of Examination.

The Applicant agreed to advise this office when the claims will be free of snow and available for a field examination.

DMEA Field Team, Region III

W. M. TRAVER

By W. M. Traver
Executive Officer

Enclosures

HMC:ab

cc: Chair. Op. Comm. (2)
Docket 4253
Chron.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

RECEIVED
MAY 7 - 1956

May 3, 1956

224 New Customhouse
Denver 2, Colorado

Memorandum

To: J. F. Shaw (2) (With brochure)
E. N. Harshman

From: Field Team, Region III

Subject: Docket DMEA 4253 (Uranium), Monarch Exploration Company, Sharshot Claims, Saguache County, Colorado

Enclosed is the subject application in the amount of $10,312.00. A field examination and suitable report are required.

Enclosed are copies of three drilling bids submitted by the applicant. These bids pertain to DMEA Docket Nos. 4251, 4252, and 4253.

Also enclosed for your information are a copy of a letter from the Chairman, Operating Committee dated April 27, 1956 and attached memoranda of review of the application by E. E. Nelson and John E. Crawford.

Please return the brochure with the Report of Examination.

The Applicant agreed to advise this office when the claims will be free of snow and available for a field examination.

DMEA Field Team, Region III

W. M. TRAVER

By W. M. Traver
Executive Officer

Enclosures

WMT:ab

cc: Chair. Op. Comm. (2)
Docket 4253
Chron.

Surname copy

700

Ching
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Geehon
Kilsgaard
Selfridge
Fenton

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

APR 27 1956

Monarch Exploration Company
511 San Jacinto Building
Houston 2, Texas

Re: Docket No. DMEA-4253 (Uranium)
Shurshot Claims
Saguache County, Colorado

Gentlemen:

The application for assistance in exploring your claims, under the captioned docket number, has been reviewed by the Rare and Miscellaneous Metals Division of the Defense Minerals Exploration Administration. It has been referred to:

Mr. W. M. Traver
Executive Officer
DMEA Field Team, Region III
224 New Customhouse Building
Denver 2, Colorado

The Regional Office will contact you in regard to your project if additional information is required.

Sincerely yours,

C. O. Mittendorf (for)

Administrator

MChing/gla
4-25-56
cc to: Admr.'s Reading File
Docket
Code 700
Mr. Ching
DMEA Field Team, Region III (2)

R.C.4

Surname copy 700

Ching
Z Kuppe
Selfridge
Bohman

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

APR 27 1956

Mr. W. M. Traver
Executive Officer
DMEA Field Team, Region III
224 New Customhouse Building
Denver 2, Colorado

Re: Docket No. DMEA-4253 (Uranium)
Monarch Exploration Company
Shawnhet Claims
Saguache County, Colorado

Dear Mr. Traver:

The subject application is being referred to you for investigation, a field examination if warranted, and recommendations. A copy of the application was retained by your office.

Copies of memoranda, dated April 18 and 23, 1956, by N. E. Nelson, USGS, and John E. Crawford, USBM, respectively, relating to the application, are enclosed.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (2/3)

Enclosures

MChing/gla
4-25-56
cc to: Admr.'s Reading File
Docket
Code 700
Mr. Ching
~~DMEA Field Team, Region III (2)~~
JECrawford, Rm. 3641
THKiilsgaard, Rm. 5224
JOHosted, Rm. 3210, GSA
Oper Com.

APPROVED:

/s/ Robert W. Geehan (2/5)
Member, Bureau of Mines

Thor H. Kiilsgaard (2/5)
Member, Geological Survey

A.S.L.

4-25-56

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
WASHINGTON 25, D. C.

RECEIVED
APR 24 1956

April 23, 1956

Memorandum

To: Ernest William Ellis, DMEA Member
Uranium Commodity Committee

From: John E. Crawford, Bureau of Mines Member
Uranium Commodity Committee

Subject: Application for Assistance, DMEA Docket 4253, Monarch Exploration Company, Saguache County, Colorado

I have reviewed the attached application, DMEA Docket 4253, Monarch Exploration Company, Saguache County, Colorado, dated April 10, 1956 and received in this office April 16, 1956. I have also discussed it with Joseph O. Hosted, Washington representative of the Atomic Energy Commission.

The Shurshot claims consist of ten unpatented mining claims upon which prospecting has encountered a radiometric anomaly of two to three times background count. Based on the strength of the anomaly, the applicant requests DMEA aid in the amount of $10,312 to explore for uranium. The proposed work includes 56 hours of bulldozing at $12.00 per hour and 600 feet of core drilling at $12.00 per foot.

The cost of drilling appears to be high and an expenditure of funds for exploration based on one weak anomaly is questionable.

Inasmuch as the applicant has several properties under DMEA consideration in the area, field referral of this application is recommended. The Field Team may have information relative to the area and they may be requested to consult with D. L. Everhart, Acting Chief, Atomic Energy Commission, Denver, Colorado.

John E. Crawford
John E. Crawford

Attachment

4-19-56

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

RECEIVED
APR 19 1956

April 18, 1956

Re: DMEA 4253
Monarch Exploration Co.
Shurshot Claims
Saguache County, Colo.
$10,312.00 - Uranium

Memorandum

To: E. W. Ellis, Defense Minerals Exploration Administration

From: N. E. Nelson, U. S. Geological Survey

Subject: Review of application

The applicant requests assistance in finding and prospecting on the ground an "interpreted" fault taken as shown on aerial photographs. This property is 30 miles west of the subject properties of applications 4251, 52, and 54.

Except for ground anomalies showing twice to three times background and pieces of sandstone showing fluorescence, there are no known signs of radioactivity on the property. Extension westward of the Los Ochos fault for 3 miles shows it to fall, after bending, within the referenced group (Shurshot). The Los Ochos fault is the structure containing the Los Ochos (Thornburg) mine and the applicant personnel think the similarity of inferred conditions related to the faults warrants prospective bulldozing and drilling.

Probably the proposed work is based on too hypothetical grounds. The property is not near the referenced groups of applications 4251, 4252, and 4254 and possible work cannot be "lumped" as is indicated for the three easterly groups.

Referral to the Field Team for appropriate action is recommended.

N. E. Nelson

N. E. Nelson

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

April 18, 1956

Re: DMEA 4253
Kennecott Exploration Co.
Shurshot Claims
Sagamche County, Calif.
$10,312.00 - Uranium

Memorandum

To: R. W. Ellis, Defense Minerals Exploration Administration

From: W. E. Nelson, U. S. Geological Survey

Subject: Review of application

The applicant requests assistance in finding and prospecting on the ground on "interpreted" fault lines as shown on aerial photographs. This property is 30 miles west of the subject properties of applications 4251, 52, and 54.

Except for ground anomalies showing twice to three times background and pieces of sandstone showing fluorescence, there are no known signs of radioactivity on the property. Extension westward of the Las Cubas fault for 3 miles shows it to fall, after bending, within the referenced group (Shurshot). The Las Cubas fault is the structure containing the Las Cubas (Thorsburg) mine and the applicant personnel think the similarity of inferred conditions related to the faults warrants prospective buildozing and drilling.

Probably the proposed work is based on too hypothetical grounds. The property is not near the referenced groups of applications 4251, 4252, and 4254 and possible work cannot be "lumped" as is indicated for the three easterly groups.

Referral to the Field Team for appropriate action is recommended.

W. E. Nelson

W. E. Nelson

WENelson:jah
4/18/56
cc: Director's reading 4212
Branch reading 4212
DMEA (3)
Roehrt file
J. H. Crawford, 3641
J. O. Hested, 3210 GS

April 16, 1956
Subject: DMEA-4253
Re: Exploration Assistance
Shurshot Claims 1 - 10

Monarch Exploration Company
511 San Jacinto Building
Houston 2, Texas

Gentlemen:

The receipt of your application dated April 10, 1956, for exploration assistance under the Defense Production Act of 1950, as amended, is hereby acknowledged.

Your application has been assigned Docket Number DMEA-4253 and referred to the Rare & Misc. Metals Division.

Kindly identify all future correspondence relating to your application by this docket number.

Sincerely yours,

Robert E. Adams, Chief
Operations Control and
Statistics Division

60932

April 16, 1956

Memorandum

To: Executive Officer, DMEA Field Team, Region III

From: Chief, Operation's Control and Statistics Division

Subject: Assignment of Docket Number

There is listed below the assigned docket number to an application recently received from Region III.

DMEA - 4253 Monarch Exploration Company

Robert E. Adams
Chief, Operation's Control
and Statistics Division

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

RECEIVED
APR 13 1956

April 11, 1956

224 New Customhouse
Denver 2, Colorado

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Field Team, Region III

Subject: Application for DMEA Aid (Uranium), Monarch Exploration Company, (Shurshot claims 1-10), Saguache County, Colorado

Enclosed are three copies of the subject application in the amount of $10,312.00. One copy of the application is being retained in our file.

DMEA Field Team, Region III

By W. M. Traver
Executive Officer

Enclosures

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

RECEIVED
APR 13 1956

April 11, 1956

224 New Customhouse
Denver 2, Colorado

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Field Team, Region III

Subject: Application for DMEA Aid (Uranium), Monarch Exploration Company, (Shurshot claims 1-10), Saguache County, Colorado

Enclosed are three copies of the subject application in the amount of $10,312.00. One copy of the application is being retained in our file.

DMEA Field Team, Region III

W. M. TRAVER

By W. M. Traver
Executive Officer

Enclosures

DMEA
Date Rec'd.

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Form Approved
Budget Bureau No. 56-R1035.2.

RECEIVED
APR 13 1956
BUREAU OF MINES
Denver, Colorado

APPLICATION FOR AID IN AN EXPLORATION PROJECT, PURSUANT TO DMEA ORDER 1, UNDER THE DEFENSE PRODUCTION ACT OF 1950, AS AMENDED

Not to be filled in by applicant

Docket No. DMEA-4253
Metal or Mineral Uranium
Date Received 4-13-56
Estimated Cost $10,312.00
Participation (Government %) _____

INSTRUCTIONS

1. *Name of applicant.*—(*a*) State here your full legal name, in the form in which you will wish to contract, and your mailing address: Monarch Exploration Company, 511 San Jacinto Building, Houston 2, Texas
See supplement

(*b*) If other than an individual, add to your name above whether a corporation, partnership, etc., and the name of the State in which incorporated or otherwise organized.

(*c*) If a corporation, add to above statement, titles, names and addresses of officers.

(*d*) If a partnership, add to the above statement the names and addresses of all partners.

2. *General.*—Read DMEA Order 1, "Government Aid in Defense Exploration Projects," before completing this application. Submit this application and all accompanying papers in quadruplicate (four copies), with your name and address on each sheet of the application and on all accompanying papers. Where sufficient space is not provided on the form for all required information, state it on an accompanying paper, with a reference in each case to the instruction to which it refers by number. Comply with all applicable instructions; or, if not applicable, so state. File the application with Defense Minerals Exploration Administration, Department of the Interior, Washington 25, D. C., or with the nearest field executive officer thereof.

3. *Applicant's property rights.*—(*a*) State the legal description of the land upon which you wish to explore, including all land which you possess or control that may be benefited by the exploration, and excluding any land or interest in land which is not to be included in the exploration project contract Shurshot Claims 1 through 10.
Saguache County, Colorado
See supplement

(*b*) State any mine name by which the property is known. See supplement

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise _____

(*d*) If you are not the owner, submit with this application a copy of the lease, contract, or other document under which you control the property.

(*e*) If you own the land, describe any liens or encumbrances on it _____

(*f*) If the land consists of unpatented claims, add to the description above, the book and page numbers for each recorded location notice.

4. *Physical description.*—(*a*) Describe in detail any mining or exploration operations which have been or now are being conducted upon the land, including existing mine workings and production facilities. State your interest, if any, in such operations. Also describe accessibility of mine workings for examination purposes.

(*b*) State past and current production, and ore reserves, if any, giving quantities and grades.

(*c*) Describe the geologic features of the property, including mineralization, type of deposit (vein, bedded, etc.), and your reasons for wishing to explore. Illustrate with maps or sketches. Send with your application (but not necessarily as a part of it) any geologic or engineering report, assay maps, or other technologic information you may have, indicating on each whether you require its return to you.

(*d*) State the facts with respect to the accessibility of the project: Access roads, distances to shipping, supply and residence points.

(*e*) State the availability of manpower, materials, supplies, equipment, water, and power.

5. *The exploration project.*—(*a*) State the mineral or minerals for which you wish to explore Uranium

(*b*) Describe fully the proposed work, including a map or sketch of the property showing a plan (and cross sections if needed) of any present mine workings, and the location of the proposed exploration work as related to such features as contacts, veins, ore-bearing beds, etc.

(*c*) The work will start within 60 days and be completed within 4 months from the date of an exploration project contract.

(*d*) State the operating experience and background of the applicant with relation to the ability to carry out such exploration project, and also that of the person or persons who will supervise the operations.

6. *Estimate of costs.*—Furnish a detailed estimate of the costs of the proposed work (you will have to use a separate sheet), under the following headings. Add the totals under all headings to give the estimated total cost of the project:

(*a*) *Independent contracts.*—(Note.—If the applicant does not intend to let any of the work to contractors, write "none" after this item. To the extent that the work is to be contracted, do not repeat the cost of the contract-work in subsequent items.) State the cost of any proposed independent contracts for the performance of all or any part of the work, expressed in terms of units of work (such as per foot of drilling, per foot of drifting, per hour of bulldozer operations, per cubic yard of material moved, etc.).

(*b*) *Labor, supervision, consultants.*—Include an itemized schedule of numbers, classes and rates of wages, salaries or fees for necessary labor, supervision and engineering and geological consultants.

(*c*) *Operating materials and supplies.*—Furnish an itemized list, including items of equipment costing less than $50 each, and power, water and fuel.

(*d*) *Operating equipment.*—Furnish an itemized list of any operating equipment to be rented, purchased, or which is owned and will be furnished by the Operator, with the estimated rental, purchase price, or suggested use-allowance based on present value, as the case may be.

(*e*) *Rehabilitation and repairs.*—Furnish a detailed list showing the cost of any necessary initial rehabilitation or repairs of existing buildings, installations, fixtures, and movable operating equipment, now owned by the Operator and which will be devoted to the exploration project.

(*f*) *New buildings, improvements, installations.*—Furnish a detailed list showing the cost of any necessary buildings, fixed improvements, or installations to be purchased, installed or constructed for the benefit of the exploration project.

(*g*) *Miscellaneous.*—Furnish a detailed list showing the cost of repairs to and maintenance of operating equipment (not including initial rehabilitation or repairs of the Operator's equipment), analytical work, accounting, workmen's compensation and employers' liability insurance, and payroll taxes.

(*h*) *Contingencies.*—Give an estimate of any necessary allowances for contingencies not included in the costs stated above.

NOTE.—No items of general overhead, corporate management, interest, taxes (other than payroll and sales taxes), or any other indirect costs, or work performed or costs incurred before the date of the contract, should be included in the estimate of costs.

7. (*a*) Are you prepared to furnish your share of the cost of the proposed project in accordance with the regulations on Government participation (Sec. 7, DMEA No. 1)? Yes

(*b*) How do you propose to furnish your share of the costs?

☒ Money ☐ Use of equipment owned by you ☐ Other

Explain in detail on acompanying paper.

CERTIFICATION

The undersigned, whether as an individual, corporate officer, partner, or otherwise, both in his own behalf and acting for the applicant, certifies that the information set forth in this form and accompanying papers is correct and complete, to the best of his knowledge and belief.

Dated April 10, 1956

MONARCH EXPLORATION COMPANY
(Applicant)

By F. W. Howells

F. W. Howells

Vice President

Title 18, U. S. Code (Crimes), Section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

U. S. GOVERNMENT PRINTING OFFICE 16—66551-1

RECEIVED
APR 13 1956

DEFENSE MINERALS

EXPLORATION ADMINISTRATION

APPLICATION FOR AID IN AN EXPLORATION PROJECT PURSUANT TO DMEA ORDER I, UNDER THE DEFENSE PRODUCTION ACT OF 1950, AS AMENDED

Shurshot Claims 1 - 10

Located in Saguache County, Colorado

SUPPLEMENT

DEFENSE MINERALS EXPLORATION ADMINISTRATION

APPLICATION FOR AID IN AN EXPLORATION PROJECT
PURSUANT TO DMEA ORDER 1, UNDER THE
DEFENSE PRODUCTION ACT OF 1950 AS AMENDED

S U P P L E M E N T

1. Name of Applicant:

(b) Monarch Exploration Company - A Corporation incorporated in the State of Texas, authorized to do business in the State of Colorado.

(c) Company:

President	Patrick W. Brady 511 San Jacinto Building Houston, Texas
Vice-President	Fred W. Howells 511 San Jacinto Building Houston, Texas
Vice-President and Secretary-Treasurer	Jack Trotter 904 Citizens State Bank Bldg. Houston, Texas
Assistant Secretary-Treasurer	Ellis F. Morris 904 Citizens State Bank Bldg. Houston, Texas

3. Applicant's Property Rights:

(a) Unpatented Mining Claims:

Shurshot Claims 1 - 10, Saguache County, Colorado;

Southeast 1/4 Section 1; T-47-N R-1-E; N.M.P.M.

(b) The properties listed in 3(a) above are all unpatented mining claims, and to date are not associated with any mine or mines.

3. Applicant's Property Rights (continued):

(c) Shurshot Claims 1 - 10; Monarch Exploration Company is the owner.

(e) There are no liens or encumbrances on the Shurshot Claims 1 - 10 which are owned by Monarch Exploration Company.

(f)

Monarch Exploration Company
Shurshot Claims 1 - 10
Saguache County, Colorado

Name of Claim	Date Recorded	Book	Page
Shur Shot #1	May 9, 1955	254	191
Shur Shot #2	May 9, 1955	254	193
Shur Shot #3	May 9, 1955	254	195
Shur Shot #4	May 9, 1955	254	197
Shur Shot #5	May 9, 1955	254	199
Shur Shot #6	May 9, 1955	254	201
Shur Shot #7	May 9, 1955	254	203
Shur Shot #8	May 9, 1955	254	205
Shur Shot #9	May 9, 1955	254	207
Shur Shot #10	May 9, 1955	254	209

Locator: Monarch Exploration Company

4. Physical Description:

(a) The Shurshot Claims numbered 1 - 10 are located in Section 1, T-47N, R-1E, Saguache County, Colorado. To reach the claims, see Figure 1. Go East on U. S. Highway 50 from Gunnison, Colorado, to the junction with Colorado Highway 114. Go up Colorado Highway 114 twelve miles to the Thornburg mine turn-off. Continue on Colorado 114 one-fourth mile past the Thornburg mine turn-off, and turn right on the forestry road. Continue about two miles on the forestry road, which will be a broad flat area on top of a hill. The forestry road goes through along an east-west trending drift fence. The Shurshot claims lie immediately north of this drift fence.

4. <u>Physical Description (continued)</u>:

To date, no detailed mining or exploration operations have been conducted upon the Shurshot Claims other than initial prospecting and examination of surface geology. After leaving Colorado State Highway 114, the access road to above claims is fair to good for four-wheel drive vehicles and light trucks.

(b) To date, there has been no production, and there are no ore reserves blocked out.

(c) The main geologic feature on the Shurshot Claims is the north-south trending fault, which strikes across them. This fault is very noticeable from aerial photographs. See Figure 2 which is an aerial photograph with the subject fault indicated. The fault drops the Morrison formation to the west down, where it makes contact with Pre-Cambrian granite and metamorphics on the up-thrown side to the east. The area in which the fault cuts through is relatively flat, having a possible surface relief of 50 feet. The elevation is about 9000 feet. The above fault condition is significant as it is approximately three miles west of the Thornburg, Los Ochos Mine. The fault, or fault system, on which the Thornburg Mine is located strikes east-west, and if continuous to the west would possibly intersect the north-south fault near the Shurshot Claims. See figure 3. The Thornburg Mine has had considerable amount of general information published about it. Briefly, it is a mine producing primary uranium ore from a fissure-type vein

4. Physical Description (continued):

related to the fault in which the Morrison formation is faulted down making contact with Pre-Cambrian granite or metamorphic rocks.

To date, prospecting has been limited to surface features on the Shurshot Claims. Radiometric prospecting has encountered a radiometric anomaly of two to three times background, which is apparently related to the north-south fault. Some pieces of Morrison sandstone found on the Shurshot Claims have been examined under fluorescent light and found to have some whitish coating that gives a solid, apple green fluorescense, which may be related to uranium mineralization.

Studies of aerial photographs and surface examination of geologic features have focused attention on a fault which is similar in its major respects to the fault associated with the primary uranium mineralization of the Thornburg Los Ochos Mine. Because of similar fault conditions, a surface radiometric anomaly, associated fluorescence and proximity to the Thornburg fault, it is thought that a coring program planned to intersect the fault zone with depth is favorable to encounter uranium mineralization in commercial quantities.

(d) Present roads are adequate for any exploration or mining that might be undertaken on the Shurshot Claims.

At present, the Shurshot Claims are more than 100 miles from any mill or buying station. However, a mill or buying station is tentatively planned for Gunnison, Colorado

4. Physical Description (continued):

located 25 miles away.

Gunnison, Colorado - population 3,000 - located on U.S. Highway 50, is the nearest point of supply and residence. Salida, Colorado, 75 miles away, is the nearest supply point located on both a major highway and a railroad.

(e) Contract coring equipment and necessary manpower, materials, supplies, and equipment are available within the area. The most likely source for the above is Montrose, Colorado, located 68 miles west of Gunnison on U. S. Highway 50, or the Salida-Canyon City area located approximately 100 miles to the east.

Water is available from a small stream that lies on the Shurshot Claims. If pumped, it would entail an approximate 200 feet of lift and 1000 feet of lateral piping. Pumping through 1-inch rubber hose would be the most economical.

5. The Exploration Project:

(b) The proposed work is to make two cuts with a bulldozer across the Morrison sandstone - Pre-Cambrian contact, and drill three core holes to intersect this contact with depth. The two bulldozer cuts are thought necessary to definitely tie the fault trace to the ground surface, and possibly obtain the direction and degree of dip of the fault plane. The three core holes are to be located in relation to the bulldozer cuts in order to have a core hole on each side of the two bulldozer cuts. The core holes will be angled to intersect the fault contact at a depth of approximately

8. The Exploration Project (continued):

150 feet below the surface. Plate I shows the approximate location of the bulldozer cuts and proposed drill sites located on Shurshot Claims Nos. 4 and 6. The location of the drill sites would have to be changed as additional information relative to direction and dip of the fault plane was obtained. A generalized cross-section showing the approximate angle of the core holes intersecting the fault contact at a point approximately 150 feet below the surface is shown on Plate I.

(c) The most efficient exploration season for this area is from June 1 through November. Drilling projects in this area should be started soon enough to be completed in November for the most efficient cost ratios.

(d) The applicant, Monarch Exploration Company, has been in existence eighteen months. The company was organized to explore for and develop uranium properties. The management is well versed on exploration techniques, having had extensive experience related to petroleum, sulphur and mineral exploration.

This operation would be under the supervision of Fred W. Howells, who has a B. A. Degree in Geology from the University of Colorado, 1949, and who has done graduate work at the University of Houston, Houston, Texas. While attending the University of Colorado, Mr. Howells was associated with Frank Ellis Brown, Colorado Springs, Colorado, an eminent mining and hard rock geologist, and gained extensive experience related to uranium, rare earths, and mining geology.

6. <u>Estimate of Costs:</u>

(a) Independent Contracts:

Cost of moving D-7 cat from Gunnison to unloading point on Colorado Highway 114, distance of 20 miles @ $1.00/mile	$ 20.00
Estimate 2 hours to walk cat to core hole location, @ $12.00/hour	24.00
Estimate 48 hours D-7 cat work to bulldoze two open cuts across fault trace, @ $12.00/hour	576.00
Estimate 6 hours D-7 cat work preparing drill site location for the three angle core holes, @ $12.00/hour	72.00
Estimate, based upon experience of other similar coring projects in this general area, that coring from angle hole can be contracted to depths of 300 feet for $12.00 per foot, for which the contractor furnishes all equipment. Three 200-foot core holes for a total of 600 feet of coring @ $12.00/Ft.	7,200.00

(b) Labor, Supervision, Consultants:

Labor supplied under above contracts.	
Supervision - company man - salary $600/Mo.	600.00
Estimate the coring to be completed in one month.	
Consultants - Estimate two days consulting fees per core hole by either consulting geologist or consulting firm @ $100.00 per day, plus expenses of $25.00 per day, which will include mileage -	
Six days consulting fees @ $100/day	600.00
Six days expenses @ $25/day	150.00

(c) Operating materials and supplies - None.

(d) Operating equipment - Jeep or pickup truck @ $5.00 per day plus $4.00 per day gas and oil for 30 working days	270.00

(e) Rehabilitation and repairs - None.

6. **Estimate of Costs (continued):**

(f) New buildings, improvements, installations - None.

(g) Miscellaneous:

Accounting costs for project	$ 500.00
Surveying of drill sites @ $75/day	150.00

(h) Contingencies:

Chemical analysis if uranium mineralization is encountered - 30 samples @ $5/sample	150.00

Summary of Costs

6	(a)	$ 20.00
		24.00
		576.00
		72.00
		7,200.00
	(b)	600.00
		600.00
		150.00
	(d)	270.00
	(g)	500.00
		150.00
	(h)	150.00
	Total	$10,312.00

DMEA
Date Rec'd

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Form Approved.
Bureau of Bureau No. 42-R1035.2.

RECEIVED
APR 13 1956
BUREAU OF MINES
Denver, Colorado

APPLICATION FOR AID IN AN EXPLORATION PROJECT, PURSUANT TO DMEA ORDER 1, UNDER THE DEFENSE PRODUCTION ACT OF 1950, AS AMENDED

Not to be filled in by applicant

Docket No. DMEA-4253
Metal or Mineral Uranium
Date Received 4-13-56
Estimated Cost $10,312.00
Participation (Government %)

INSTRUCTIONS

1. *Name of applicant.*—(*a*) State here your full legal name, in the form in which you will wish to contract, and your mailing address: Monarch Exploration Company, 511 San Jacinto Building, Houston 2, Texas

See supplement

(*b*) If other than an individual, add to your name above whether a corporation, partnership, etc., and the name of the State in which incorporated or otherwise organized.

(*c*) If a corporation, add to above statement, titles, names and addresses of officers.

(*d*) If a partnership, add to the above statement the names and addresses of all partners.

2. *General.*—Read DMEA Order 1, "Government Aid in Defense Exploration Projects," before completing this application. Submit this application and all accompanying papers in quadruplicate (four copies), with your name and address on each sheet of the application and on all accompanying papers. Where sufficient space is not provided on the form for all required information, state it on an accompanying paper, with a reference in each case to the instruction to which it refers by number. Comply with all applicable instructions; or, if not applicable, so state. File the application with Defense Minerals Exploration Administration, Department of the Interior, Washington 25, D. C., or with the nearest field executive officer thereof.

3. *Applicant's property rights.*—(*a*) State the legal description of the land upon which you wish to explore, including all land which you possess or control that may be benefited by the exploration, and excluding any land or interest in land which is not to be included in the exploration project contract Shurshot Claims 1 through 10, Saguache County, Colorado

See supplement

(*b*) State any mine name by which the property is known. See supplement

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise

(*d*) If you are not the owner, submit with this application a copy of the lease, contract, or other document under which you control the property.

(*e*) If you own the land, describe any liens or encumbrances on it

(*f*) If the land consists of unpatented claims, add to the description above, the book and page numbers for each recorded location notice.

4. *Physical description.*—(*a*) Describe in detail any mining or exploration operations which have been or now are being conducted upon the land, including existing mine workings and production facilities. State your interest, if any, in such operations. Also describe accessibility of mine workings for examination purposes.

(*b*) State past and current production, and ore reserves, if any, giving quantities and grades.

(*c*) Describe the geologic features of the property, including mineralization, type of deposit (vein, bedded, etc.), and your reasons for wishing to explore. Illustrate with maps or sketches. Send with your application (but not necessarily as a part of it) any geologic or engineering report, assay maps, or other technologic information you may have, indicating on each whether you require its return to you.

(*d*) State the facts with respect to the accessibility of the project: Access roads, distances to shipping, supply and residence points.

(*e*) State the availability of manpower, materials, supplies, equipment, water, and power.

5. *The exploration project.*—State the mineral or minerals for which you wish to explore Uranium

(*b*) Describe fully the proposed work, including a map or sketch of the property showing a plan (and cross sections if needed) of any present mine workings, and the location of the proposed exploration work as related to such features as contacts, veins, ore-bearing beds, etc.

(*c*) The work will start within 60 days and be completed within 4 months from the date of an exploration project contract.

(*d*) State the operating experience and background of the applicant with relation to the ability to carry out such exploration project, and also that of the person or persons who will supervise the operations.

6. *Estimate of costs.*—Furnish a detailed estimate of the costs of the proposed work (you will have to use a separate sheet), under the following headings. Add the totals under all headings to give the estimated total cost of the project:

(*a*) *Independent contracts.*—(Note.—If the applicant does not intend to let any of the work to contractors, write "none" after this item. To the extent that the work is to be contracted, do not repeat the cost of the contract-work in subsequent items.) State the cost of any proposed independent contracts for the performance of all or any part of the work, expressed in terms of units of work (such as per foot of drilling, per foot of drifting, per hour of bulldozer operations, per cubic yard of material moved, etc.).

(*b*) *Labor, supervision, consultants.*—Include an itemized schedule of numbers, classes and rates of wages, salaries or fees for necessary labor, supervision and engineering and geological consultants.

(*c*) *Operating materials and supplies.*—Furnish an itemized list, including items of equipment costing less than $50 each, and power, water and fuel.

(*d*) *Operating equipment.*—Furnish an itemized list of any operating equipment to be rented, purchased, or which is owned and will be furnished by the Operator, with the estimated rental, purchase price, or suggested use-allowance based on present value, as the case may be.

(*e*) *Rehabilitation and repairs.*—Furnish a detailed list showing the cost of any necessary initial rehabilitation or repairs of existing buildings, installations, fixtures, and movable operating equipment, now owned by the Operator and which will be devoted to the exploration project.

(*f*) *New buildings, improvements, installations.*—Furnish a detailed list showing the cost of any necessary buildings, fixed improvements, or installations to be purchased, installed or constructed for the benefit of the exploration project.

(*g*) *Miscellaneous.*—Furnish a detailed list showing the cost of repairs to and maintenance of operating equipment (not including initial rehabilitation or repairs of the Operator's equipment), analytical work, accounting, workmen's compensation and employers' liability insurance, and payroll taxes.

(*h*) *Contingencies.*—Give an estimate of any necessary allowances for contingencies not included in the costs stated above.

NOTE.—No items of general overhead, corporate management, interest, taxes (other than payroll and sales taxes), or any other indirect costs, or work performed or costs incurred before the date of the contract, should be included in the estimate of costs.

7. (*a*) Are you prepared to furnish your share of the cost of the proposed project in accordance with the regulations on Government participation (Sec. 7, DMEA No. 1)? Yes

(*b*) How do you propose to furnish your share of the costs?

[x] Money [ ] Use of equipment owned by you [ ] Other

Explain in detail on acompanying paper.

CERTIFICATION

The undersigned, whether as an individual, corporate officer, partner, or otherwise, both in his own behalf and acting for the applicant, certifies that the information set forth in this form and accompanying papers is correct and complete, to the best of his knowledge and belief.

Dated April 10, 1956

MONARCH EXPLORATION COMPANY
(Applicant)

By F. W. Howells

F. W. Howells

Vice President

Title 18, U. S. Code (Crimes), Section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

U. S. GOVERNMENT PRINTING OFFICE 16—66551-1

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DEFENSE MINERALS EXPLORATION ADMINISTRATION

APPLICATION FOR AID IN AN EXPLORATION PROJECT PURSUANT TO DMEA ORDER I, UNDER THE DEFENSE PRODUCTION ACT OF 1950, AS AMENDED

Shurshot Claims 1 - 10

Located in Saguache County, Colorado

SUPPLEMENT

DEFENSE MINERALS EXPLORATION ADMINISTRATION

APPLICATION FOR AID IN AN EXPLORATION PROJECT
PURSUANT TO DMEA ORDER 1, UNDER THE
DEFENSE PRODUCTION ACT OF 1950 AS AMENDED

- -

S U P P L E M E N T

1. Name of Applicant:

(b) Monarch Exploration Company - A Corporation incorporated in the State of Texas, authorized to do business in the State of Colorado.

(c) Company:

President	Patrick W. Brady 511 San Jacinto Building Houston, Texas
Vice-President	Fred W. Howells 511 San Jacinto Building Houston, Texas
Vice-President and Secretary-Treasurer	Jack Trotter 904 Citizens State Bank Bldg. Houston, Texas
Assistant Secretary-Treasurer	Ellis F. Morris 904 Citizens State Bank Bldg. Houston, Texas

3. Applicant's Property Rights:

(a) Unpatented Mining Claims:

Shurshot Claims 1 - 10, Saguache County, Colorado;

Southeast 1/4 Section 1; T-47-N R-1-E; N.M.P.M.

(b) The properties listed in 3(a) above are all unpatented mining claims, and to date are not associated with any mine or mines.

3. Applicant's Property Rights (continued):

(c) Shurshot Claims 1 - 10; Monarch Exploration Company is the owner.

(e) There are no liens or encumbrances on the Shurshot Claims 1 - 10 which are owned by Monarch Exploration Company.

(f)

Monarch Exploration Company
Shurshot Claims 1 - 10
Saguache County, Colorado

Name of Claim	Date Recorded	Book	Page
Shur Shot #1	May 9, 1955	254	191
Shur Shot #2	May 9, 1955	254	193
Shur Shot #3	May 9, 1955	254	195
Shur Shot #4	May 9, 1955	254	197
Shur Shot #5	May 9, 1955	254	199
Shur Shot #6	May 9, 1955	254	201
Shur Shot #7	May 9, 1955	254	203
Shur Shot #8	May 9, 1955	254	205
Shur Shot #9	May 9, 1955	254	207
Shur Shot #10	May 9, 1955	254	209

Locator: Monarch Exploration Company

4. Physical Description:

(a) The Shurshot Claims numbered 1 - 10 are located in Section 1, T-47N, R-1E, Saguache County, Colorado. To reach the claims, see Figure 1. Go East on U. S. Highway 50 from Gunnison, Colorado, to the junction with Colorado Highway 114. Go up Colorado Highway 114 twelve miles to the Thornburg mine turn-off. Continue on Colorado 114 one-fourth mile past the Thornburg mine turn-off, and turn right on the forestry road. Continue about two miles on the forestry road, which will be a broad flat area on top of a hill. The forestry road goes through along an east-west trending drift fence. The Shurshot claims lie immediately north of this drift fence.

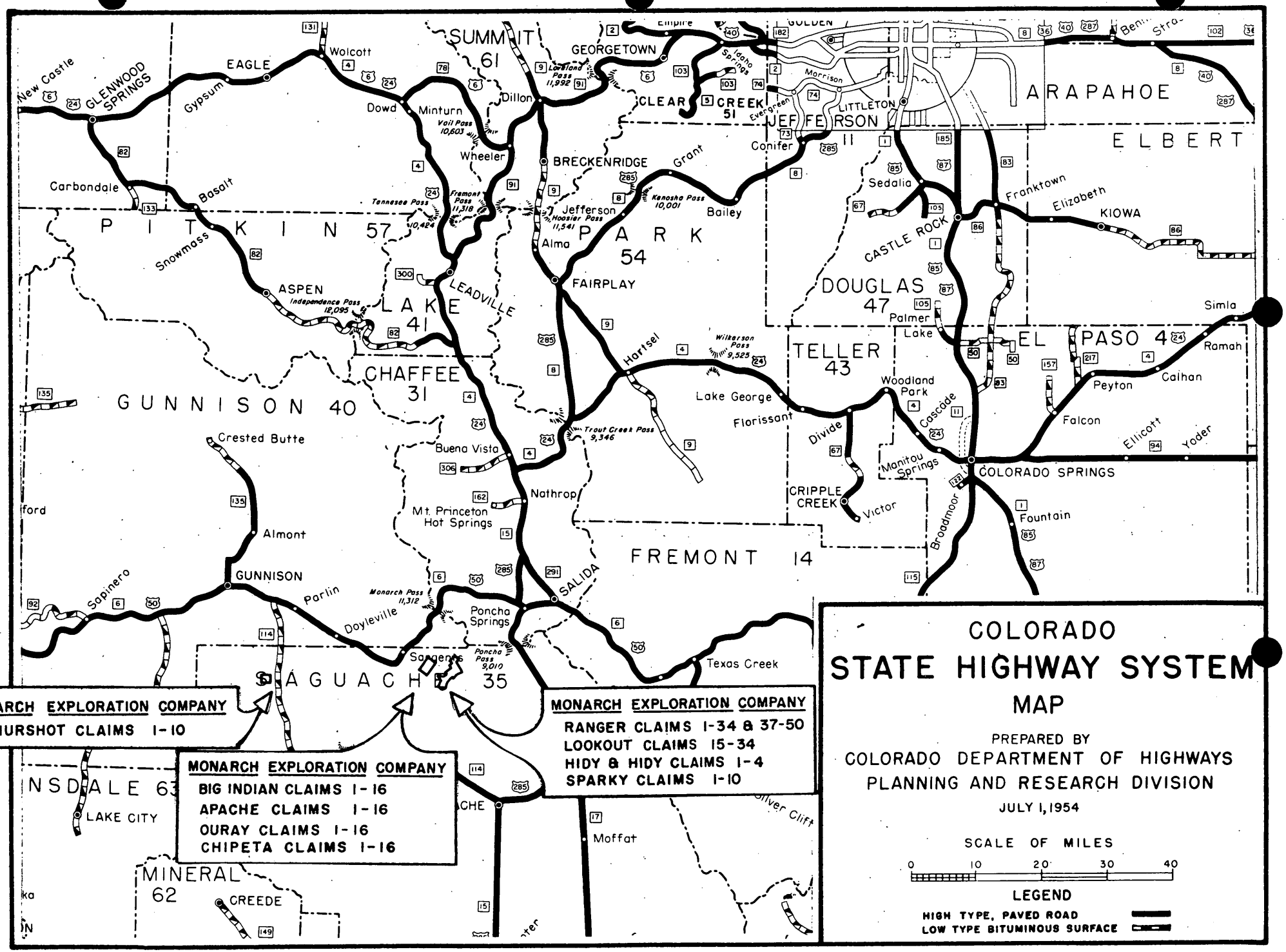
COLORADO
STATE HIGHWAY SYSTEM
MAP
PREPARED BY
COLORADO DEPARTMENT OF HIGHWAYS
PLANNING AND RESEARCH DIVISION
JULY 1, 1954
SCALE OF MILES
0 10 20 30 40
LEGEND
HIGH TYPE, PAVED ROAD
LOW TYPE BITUMINOUS SURFACE
MONARCH EXPLORATION COMPANY
SHURSHOT CLAIMS 1-10
MONARCH EXPLORATION COMPANY
BIG INDIAN CLAIMS 1-16
APACHE CLAIMS 1-16
OURAY CLAIMS 1-16
CHIPETA CLAIMS 1-16
MONARCH EXPLORATION COMPANY
RANGER CLAIMS 1-34 & 37-50
LOOKOUT CLAIMS 15-34
HIDY & HIDY CLAIMS 1-4
SPARKY CLAIMS 1-10
SUMMIT 61
PITKIN 57
LAKE 41
CHAFFEE 31
GUNNISON 40
PARK 54
CLEAR CREEK 51
JEFFERSON 11
ARAPAHOE
ELBERT
DOUGLAS 47
TELLER 43
EL PASO 4
FREMONT 14
SAGUACHE 35
MINERAL 62
GLENWOOD SPRINGS
EAGLE
Wolcott
Gypsum
Dowd
Minturn
Dillon
GEORGETOWN
Empire
Idaho Springs
Morrison
Evergreen
LITTLETON
Conifer
Sedalia
Franktown
Elizabeth
KIOWA
CASTLE ROCK
Palmer Lake
Simla
Ramah
Calhan
Peyton
Falcon
Ellicott
Yoder
COLORADO SPRINGS
Fountain
Broadmoor
Manitou Springs
Woodland Park
Cascade
Divide
CRIPPLE CREEK
Victor
Florissant
Lake George
Wilkerson Pass 9,525
Kenosha Pass 10,001
Bailey
Grant
Harisel
Trout Creek Pass 9,346
Nathrop
SALIDA
Texas Creek
Poncha Springs
Poncha Pass 9,010
Sargents
Monarch Pass 11,312
Doyleville
Parlin
GUNNISON
Almont
Sapinero
Mt. Princeton Hot Springs
Buena Vista
Crested Butte
LEADVILLE
FAIRPLAY
Alma
Jefferson
Hoosier Pass 11,541
BRECKENRIDGE
Lorland Pass 11,992
Vail Pass 10,603
Wheeler
Fremont Pass 11,318
Tennessee Pass 10,424
Independence Pass 12,095
ASPEN
Snowmass
Basalt
Carbondale
New Castle
Moffat
Silver Cliff
LAKE CITY
CREEDE
NSDALE 63

FIGURE 1

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4. Physical Description (continued):

To date, no detailed mining or exploration operations have been conducted upon the Shurshot Claims other than initial prospecting and examination of surface geology. After leaving Colorado State Highway 114, the access road to above claims is fair to good for four-wheel drive vehicles and light trucks.

(b) To date, there has been no production, and there are no ore reserves blocked out.

(c) The main geologic feature on the Shurshot Claims is the north-south trending fault, which strikes across them. This fault is very noticeable from aerial photographs. See Figure 2 which is an aerial photograph with the subject fault indicated. The fault drops the Morrison formation to the west down, where it makes contact with Pre-Cambrian granite and metamorphics on the up-thrown side to the east. The area in which the fault cuts through is relatively flat, having a possible surface relief of 50 feet. The elevation is about 9000 feet. The above fault condition is significant as it is approximately three miles west of the Thornburg, Los Ochos Mine. The fault, or fault system, on which the Thornburg Mine is located strikes east-west, and if continuous to the west would possibly intersect the north-south fault near the Shurshot Claims. See figure 3. The Thornburg Mine has had considerable amount of general information published about it. Briefly, it is a mine producing primary uranium ore from a fissure-type vein

FIGURE 2

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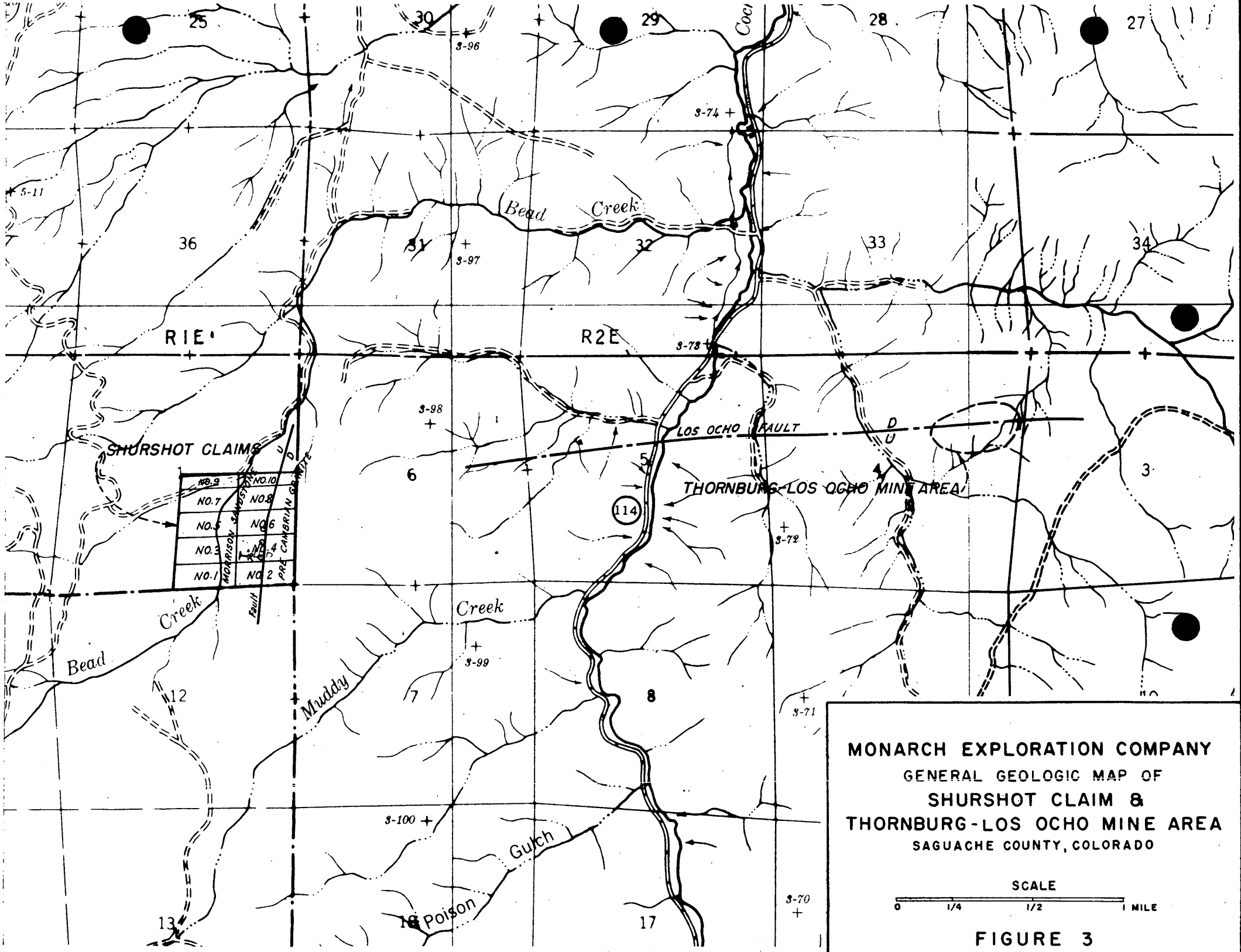
MONARCH EXPLORATION COMPANY
GENERAL GEOLOGIC MAP OF
SHURSHOT CLAIM &
THORNBURG-LOS OCHO MINE AREA
SAGUACHE COUNTY, COLORADO
SCALE
0 1/4 1/2 1 MILE
FIGURE 3
SHURSHOT CLAIMS
THORNBURG-LOS OCHO MINE AREA
LOS OCHO FAULT
MORRISON SANDSTONE
PRE CAMBRIAN GRANITE
Fault
NO.1
NO.2
NO.3
NO.4
NO.5
NO.6
NO.7
NO.8
NO.9
NO.10
Bead Creek
Muddy Creek
Poison Gulch
R1E
R2E
25
30
29
28
27
36
31
32
33
34
6
5
3
12
7
8
13
18
17
114
S-96
S-74
S-11
S-97
S-78
S-98
S-72
S-99
S-71
S-100
S-70

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4. Physical Description (continued):

related to the fault in which the Morrison formation is faulted down making contact with Pre-Cambrian granite or metamorphic rocks.

To date, prospecting has been limited to surface features on the Shurshot Claims. Radiometric prospecting has encountered a radiometric anomaly of two to three times background, which is apparently related to the north-south fault. Some pieces of Morrison sandstone found on the Shurshot Claims have been examined under fluorescent light and found to have some whitish coating that gives a solid, apple green fluorescense, which may be related to uranium mineralization.

Studies of aerial photographs and surface examination of geologic features have focused attention on a fault which is similar in its major respects to the fault associated with the primary uranium mineralization of the Thornburg Los Ochos Mine. Because of similar fault conditions, a surface radiometric anomaly, associated fluorescence and proximity to the Thornburg fault, it is thought that a coring program planned to intersect the fault zone with depth is favorable to encounter uranium mineralization in commercial quantities.

(d) Present roads are adequate for any exploration or mining that might be undertaken on the Shurshot Claims.

At present, the Shurshot Claims are more than 100 miles from any mill or buying station. However, a mill or buying station is tentatively planned for Gunnison, Colorado

4. Physical Description (continued):

located 25 miles away.

Gunnison, Colorado - population 3,000 - located on U.S. Highway 50, is the nearest point of supply and residence. Salida, Colorado, 75 miles away, is the nearest supply point located on both a major highway and a railroad.

(e) Contract coring equipment and necessary manpower, materials, supplies, and equipment are available within the area. The most likely source for the above is Montrose, Colorado, located 68 miles west of Gunnison on U. S. Highway 50, or the Salida-Canyon City area located approximately 100 miles to the east.

Water is available from a small stream that lies on the Shurshot Claims. If pumped, it would entail an approximate 200 feet of lift and 1000 feet of lateral piping. Pumping through 1-inch rubber hose would be the most economical.

5. The Exploration Project:

(b) The proposed work is to make two cuts with a bulldozer across the Morrison sandstone - Pre-Cambrian contact, and drill three core holes to intersect this contact with depth. The two bulldozer cuts are thought necessary to definitely tie the fault trace to the ground surface, and possibly obtain the direction and degree of dip of the fault plane. The three core holes are to be located in relation to the bulldozer cuts in order to have a core hole on each side of the two bulldozer cuts. The core holes will be angled to intersect the fault contact at a depth of approximately

5. <u>The Exploration Project (continued)</u>:

150 feet below the surface. Plate I shows the approximate location of the bulldozer cuts and proposed drill sites located on Shurshot Claims Nos. 4 and 6. The location of the drill sites would have to be changed as additional information relative to direction and dip of the fault plane was obtained. A generalized cross-section showing the approximate angle of the core holes intersecting the fault contact at a point approximately 150 feet below the surface is shown on Plate I.

(c) The most efficient exploration season for this area is from June 1 through November. Drilling projects in this area should be started soon enough to be completed in November for the most efficient cost ratios.

(d) The applicant, Monarch Exploration Company, has been in existence eighteen months. The company was organized to explore for and develop uranium properties. The management is well versed on exploration techniques, having had extensive experience related to petroleum, sulphur and mineral exploration.

This operation would be under the supervision of Fred W. Howells, who has a B. A. Degree in Geology from the University of Colorado, 1949, and who has done graduate work at the University of Houston, Houston, Texas. While attending the University of Colorado, Mr. Howells was associated with Frank Ellis Brown, Colorado Springs, Colorado, an eminent mining and hard rock geologist, and gained extensive experience related to uranium, rare earths, and mining geology.

6. **Estimate of Costs:**

(a) Independent Contracts:

Cost of moving D-7 cat from Gunnison to unloading point on Colorado Highway 114, distance of 20 miles @ $1.00/mile	$ 20.00
Estimate 2 hours to walk cat to core hole location, @ $12.00/hour	24.00
Estimate 48 hours D-7 cat work to bulldoze two open cuts across fault trace, @ $12.00/hour	576.00
Estimate 6 hours D-7 cat work preparing drill site location for the three angle core holes, @ $12.00/hour	72.00
Estimate, based upon experience of other similar coring projects in this general area, that coring from angle hole can be contracted to depths of 300 feet for $12.00 per foot, for which the contractor furnishes all equipment. Three 200-foot core holes for a total of 600 feet of coring @ $12.00/Ft.	7,200.00

(b) Labor, Supervision, Consultants:

Labor supplied under above contracts.

Supervision - company man - salary $600/Mo.	600.00

Estimate the coring to be completed in one month.

Consultants - Estimate two days consulting fees per core hole by either consulting geologist or consulting firm @ $100.00 per day, plus expenses of $25.00 per day, which will include mileage -

Six days consulting fees @ $100/day	600.00
Six days expenses @ $25/day	150.00

(c) Operating materials and supplies - None.

(d) Operating equipment - Jeep or pickup truck @ $5.00 per day plus $4.00 per day gas and oil for 30 working days	270.00

(e) Rehabilitation and repairs - None.

6. Estimate of Costs (continued):

(f) New buildings, improvements, installations - None.

(g) Miscellaneous:

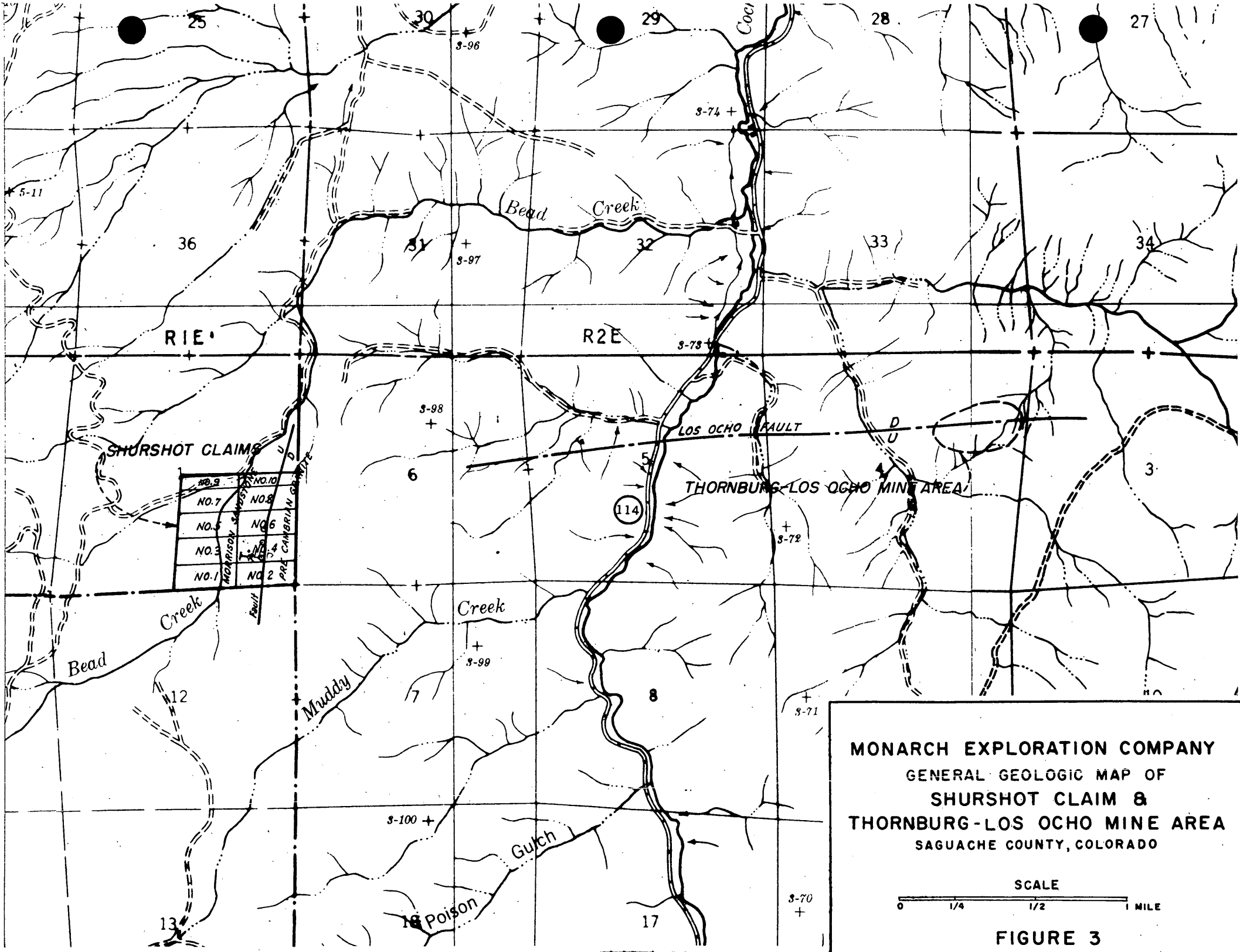
Accounting costs for project	$ 500.00
Surveying of drill sites @ $75/day	150.00

(h) Contingencies:

Chemical analysis if uranium mineralization is encountered - 30 samples @ $5/sample	150.00

Summary of Costs

6	(a)	$ 20.00
		24.00
		576.00
		72.00
		7,200.00
	(b)	600.00
		600.00
		150.00
	(d)	270.00
	(g)	500.00
		150.00
	(h)	150.00
	Total	$10,312.00



MONARCH EXPLORATION COMPANY

GENERAL GEOLOGIC MAP OF

SHURSHOT CLAIM &

THORNBURG-LOS OCHO MINE AREA

SAGUACHE COUNTY, COLORADO

SCALE

0 1/4 1/2 1 MILE

FIGURE 3

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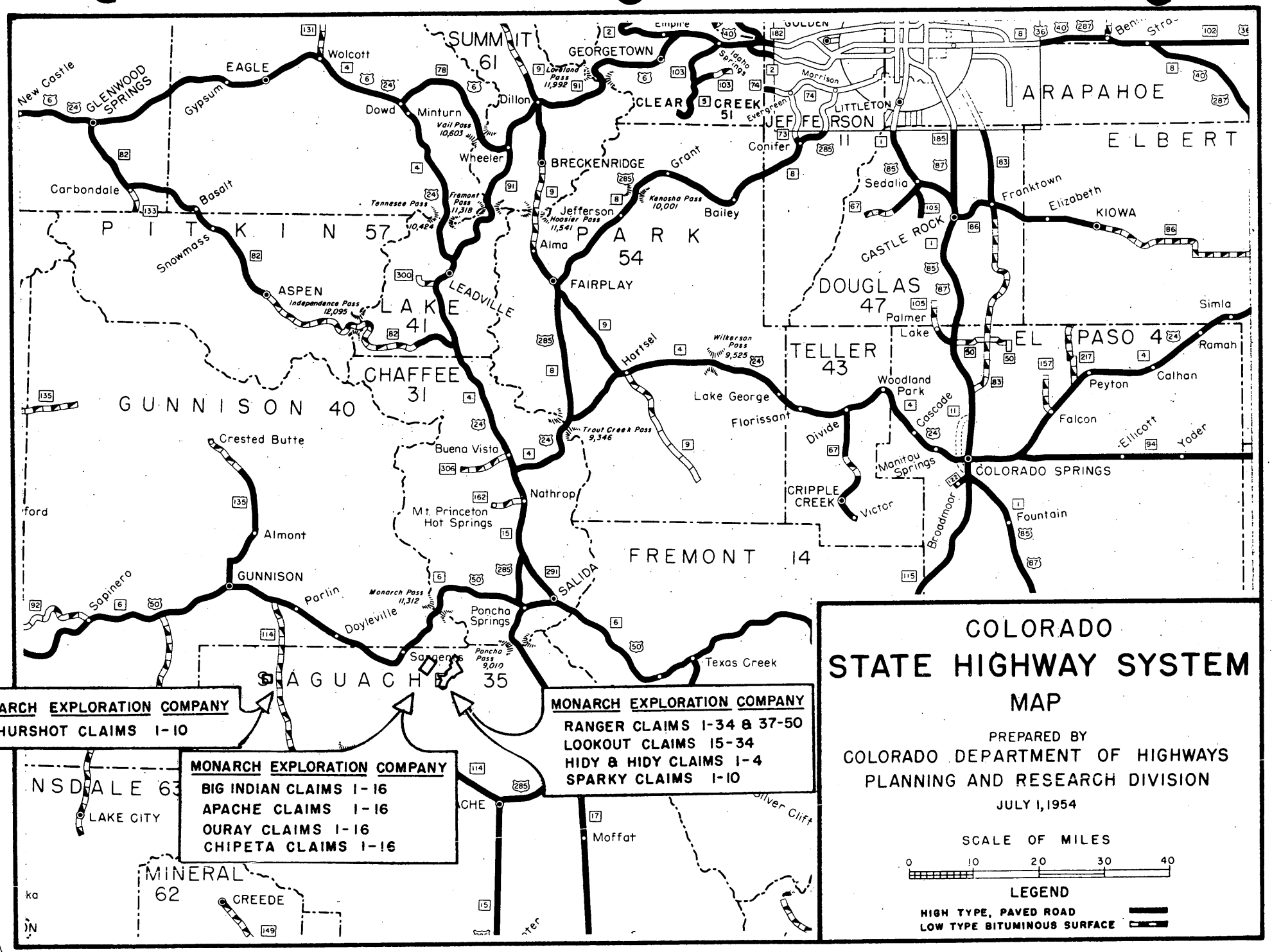
COLORADO
STATE HIGHWAY SYSTEM
MAP
PREPARED BY
COLORADO DEPARTMENT OF HIGHWAYS
PLANNING AND RESEARCH DIVISION
JULY 1, 1954
SCALE OF MILES
0 10 20 30 40
LEGEND
HIGH TYPE, PAVED ROAD
LOW TYPE BITUMINOUS SURFACE
MONARCH EXPLORATION COMPANY
SHURSHOT CLAIMS 1-10
MONARCH EXPLORATION COMPANY
BIG INDIAN CLAIMS 1-16
APACHE CLAIMS 1-16
OURAY CLAIMS 1-16
CHIPETA CLAIMS 1-16
MONARCH EXPLORATION COMPANY
RANGER CLAIMS 1-34 & 37-50
LOOKOUT CLAIMS 15-34
HIDY & HIDY CLAIMS 1-4
SPARKY CLAIMS 1-10
SUMMIT 61
ARAPAHOE
ELBERT
PITKIN 57
LAKE 41
CHAFFEE 31
GUNNISON 40
PARK 54
DOUGLAS 47
TELLER 43
EL PASO 4
FREMONT 14
SAGUACHE 35
MINERAL 62
GLENWOOD SPRINGS
EAGLE
Wolcott
Gypsum
Dowd
Minturn
Vail Pass 10,603
Wheeler
Dillon
GEORGETOWN
Loveland Pass 11,992
CLEAR CREEK 51
Idaho Springs
Empire
Morrison
Evergreen
LITTLETON
JEFFERSON 11
Conifer
BRECKENRIDGE
Grant
Kenosha Pass 10,001
Bailey
Sedalia
Franktown
Elizabeth
KIOWA
CASTLE ROCK
New Castle
Carbondale
Basalt
Snowmass
ASPEN
Independence Pass 12,095
Tennessee Pass 10,424
Fremont Pass 11,318
Jefferson
Hoosier Pass 11,541
Alma
FAIRPLAY
LEADVILLE
Hartsel
Wilkerson Pass 9,525
Lake George
Florissant
Trout Creek Pass 9,346
Palmer Lake
Woodland Park
Divide
Cascade
Manitou Springs
COLORADO SPRINGS
CRIPPLE CREEK
Victor
Broadmoor
Fountain
Falcon
Peyton
Calhan
Ramah
Simla
Ellicott
Yoder
Crested Butte
Buena Vista
Mt. Princeton Hot Springs
Nathrop
Almont
GUNNISON
Sapinero
Parlin
Doyleville
Monarch Pass 11,312
Poncha Springs
Poncha Pass 9,010
SALIDA
Sargents
Texas Creek
Moffat
Silver Cliff
LAKE CITY
CREEDE
Ford

FIGURE 1

FIGURE 2

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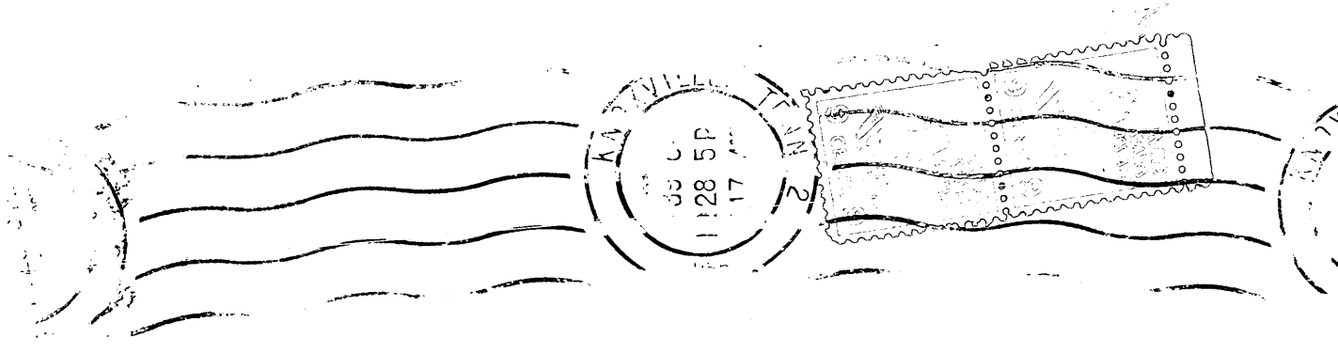
UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS
EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

OFFICIAL BUSINESS



Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Dept. of the Interior
Washington 25, D.C.

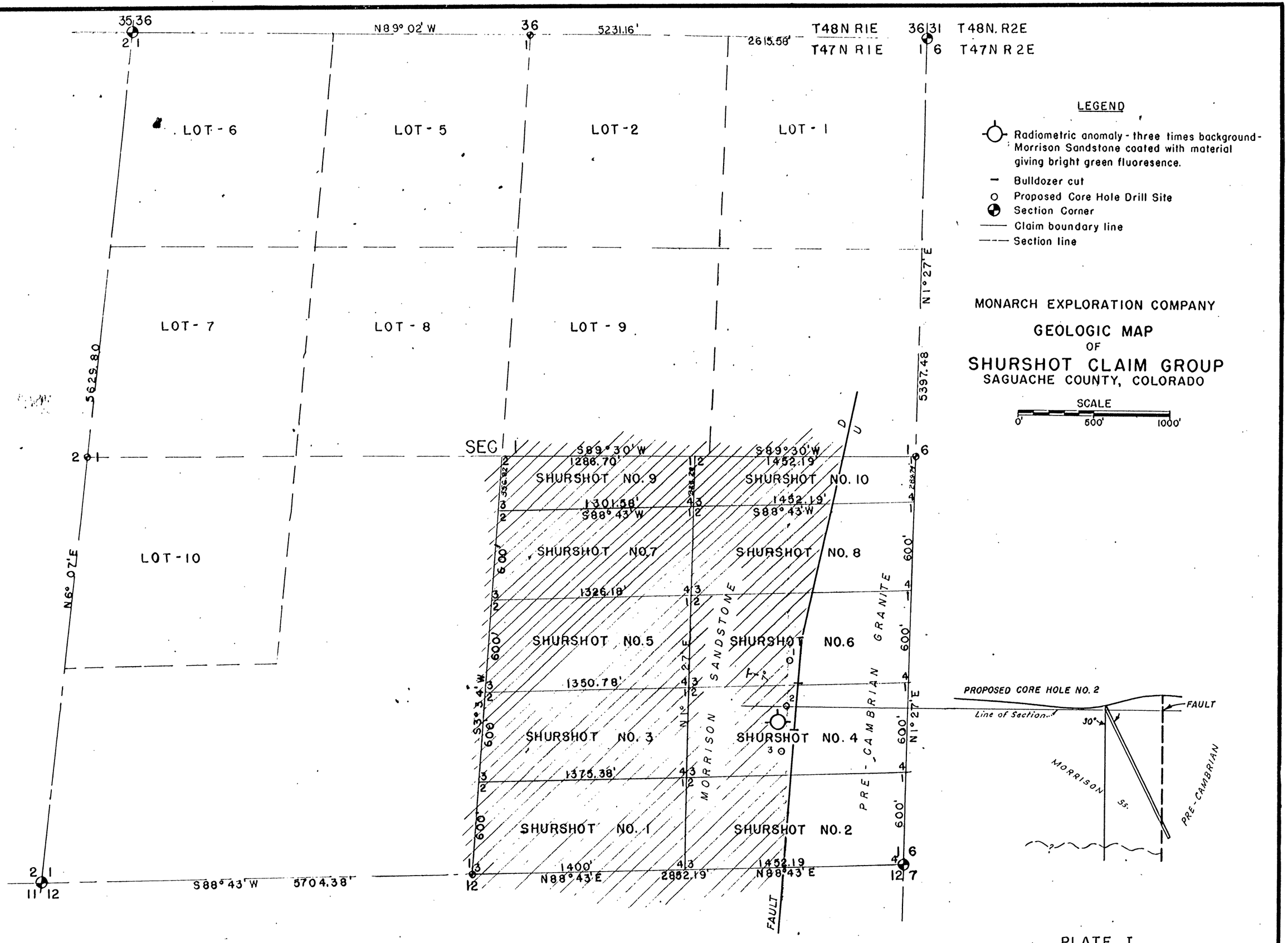

35 36
2 1
N89° 02' W
36
1
5231.16'
2615.58'
T48N R1E
T47N R1E
36 31
1 6
T48N. R2E
T47N R2E
LOT - 6
LOT - 5
LOT - 2
LOT - 1
LOT - 7
LOT - 8
LOT - 9
LOT - 10
5629.80
N6° 07' E
N1° 27' E
5397.48
SEC 1
S89° 30' W
1286.70'
S89° 30' W
1452.19'
SHURSHOT NO. 9
SHURSHOT NO. 10
1301.58'
S88° 43' W
1452.19'
S88° 43' W
SHURSHOT NO. 7
SHURSHOT NO. 8
1326.18'
SHURSHOT NO. 5
SHURSHOT NO. 6
1350.78'
SHURSHOT NO. 3
SHURSHOT NO. 4
1375.38'
SHURSHOT NO. 1
SHURSHOT NO. 2
1400'
N88° 43' E
2852.19'
1452.19
N88° 43' E
S88° 43' W
5704.38'
S3° 34' W
N1° 27' E
MORRISON SANDSTONE
PRE-CAMBRIAN GRANITE
FAULT
D
U
600'
PROPOSED CORE HOLE NO. 2
Line of Section
FAULT
30°
MORRISON SS.
PRE-CAMBRIAN
LEGEND
Radiometric anomaly - three times background - Morrison Sandstone coated with material giving bright green fluoresence.
Bulldozer cut
Proposed Core Hole Drill Site
Section Corner
Claim boundary line
Section line
MONARCH EXPLORATION COMPANY
GEOLOGIC MAP
OF
SHURSHOT CLAIM GROUP
SAGUACHE COUNTY, COLORADO
SCALE
0'
500'
1000'

PLATE I