DMA Form 1

DEFENSE MINERALS ADMINISTRATION
Control Slip

CONTROLLED DOCUMENT

DMA Docket No. 3663

DO NOT DETACH THIS SLIP

Action on this document is recorded and controlled in Reports and Records Branch. Any movement of this document between divisions or offices of DMA or movement outside DMA must be reported to the Reports and Records Branch. Actions taken that affect status of the case must also be reported.
Cys to USBM and USGS.
This document has been recorded as

Exploration

Any action taken to change the type of request for assistance must be promptly reported to the Reports and Records Branch. Use DMA Form 2 for submitting these reports.

Routing Slip

To:	700	Date	2/4/55
To:	Oper Com	Date	2-21-55
To:	Oper Com	Date	5-23-55
To:		Date	
To:		Date	
To:		Date	
To:		Date	
To:		Date	
To:		Date	
To:		Date	
To:		Date	
To:		Date	
To:		Date	
To:		Date	
To:		Date	

DO NOT DETACH

CONTROLLED DOCUMENT

700

Surname copy

Murphy
Ellis
Crawford
Hedges
Kiilsgaard
Selfridge
Johnson

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

MAY 23 1955

Mr. J. Keith Hansen
Secretary-Treasurer
Uranium Chief Incorporated
323 East 2nd South
Salt Lake City, Utah

Re: Docket No. DMEA-3663 (Uranium)
South Lisbon Valley Area
San Juan County, Utah

Dear Mr. Hansen:

Your application for aid in an exploration project and other data available to us in Washington concerning your 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, although noting a small amount of mineralization near your property, indicates to us that the probability of disclosing minable ore reserves by your proposed program is not sufficiently promising to justify Government participation. We regret to advise you, under these circumstances, that your application for exploration assistance is denied. Such denial, however, is made without prejudice. In the event that specific geologic data of a favorable nature are disclosed through limited drilling or other work on your part, we shall be pleased to consider a new application.

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

Sincerely yours,

C. O. Mittendorf

Administrator

FMMurphy/gla
5-20-55
cc to: Admr.'s Reading File
Operating Committee
Docket
Messrs. J. E. Crawford, Rm.3641
T. H. Kiilsgaard, Rm. 5224
J. O. Hosted, Rm. 3210, GSA
Code 700
Mr. Murphy
DMEA Field Team, Region III (2)

R.C.H.

5/23/55 glr

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

May 20, 1955

Memorandum

To: Ernest William Ellis, DMEA Member
Uranium Commodity Committee, Room 4445

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

Subject: Report of Examination, DMEA Docket 3663 (Uranium), Uranium Chief, Inc., San Juan County, Utah

I have reviewed the Field Team report of examination, Uranium Chief, Inc., DMEA Docket 3663, San Juan County, Utah. Mr. Joseph O. Hosted, Washington representative of the Atomic Energy Commission, also studied the report, and we have discussed it together.

We agree with the Field Team that evidence does not indicate exploration is desirable on claims held by Uranium Chief, Inc. Therefore, we suggest that the application of this organization be denied.

The report has been forwarded to the Chief, Division of Minerals, in accord with the routing slip attached thereto.

John E. Crawford

John E. Crawford

700

Murphy

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

WASHINGTON 25, D. C.

May 20, 1955

Summary of Proposed Project

Object: Denial of application for an exploration project.

Docket No.: DMEA-3663

Commodity: Uranium

Applicant: Uranium Chief Incorporated
J.Keith Hansen, Secretary-Treasurer
323 East 2nd South
Salt Lake City, Utah

Property: Owners of the Sand, Low, Elba, Viola, Joyce, Flat, and Richard claim groups, consisting of 44 claims in secs. 20, 21, 22, 27, 28, 29, 32, and 33, T. 31 S., R. 26 E., and the Queen group of 18 claims in secs. 34 and 35, T. 32 S., R. 25 E., S. L. B. & M., San Juan County, Utah.

Date of application: November 1, 1954

Date transmitted to Washington by Region III - January 31, 1955
Date referred to Field Team - February 21, 1955
Date Field Team Report received Washington - May 6, 1955

Amount of application: $57,000.00

Work Proposed and Estimated Costs:

10,000 feet non-core drilling @ $2.70/ft.	$27,000.00
5,000 feet of core drilling @ $6.00/ft	30,000.00
Total	$57,000.00
Government participation @ 75%	$42,750.00

The work proposed (Stage I only) to consist of reconnaissance drilling 34 holes on 1,000-foot centers to delineate favorable drilling ground. Average depth of the holes about 400 feet (the four holes on the Queen claims would average 700 feet in depth).

The company would then drill the more favorable areas indicated by the above reconnaissance drilling on their own account.

Field Team Report (excerpts):

"The Queen claims were not examined. The claims are immediately underlain by the Upper Cretaceous Dakota sandstone and perhaps the Mancos shale. Depth to the Salt Wash member of the Morrison formation, the potential ore-bearing rock probably is between 600 and 800 feet. No significant deposits are known to occur within several miles. The geologic characteristics of the Salt Wash member can be projected only relatively short distances. Until the Salt Wash is drilled on or near the property, the exploration potential of the property (i.e. Queen claims) will remain unknown."

Referring to the claims in Little Indian Canyon:

"The exposed rocks in the area near the Liberty adit are of the Salt Wash member of the Morrison formation while further to the west the exposed rocks are of the Brushy Basin member. The Brushy Basin member is about 400 feet thick and the Salt Wash member about 300 feet thick. The Salt Wash member contains a number of rims. The ore in the Liberty adit appears to be in the second rim from the top. This sandstone lens has a pinkish tinge, has a thickness of from 20 to 30 feet and is underlain in part by red mudstone. Carbonaceous material is abundant and the sands are crossbedded. As a whole, the various sandstone lenses are thin, the sandstone pinkish in color, and the mudstone red."

The examining team recommended that the application be denied, because the proposed drilling was "in areas where the Salt Wash is un-mineralized and unfavorable, or where it is so deeply buried and distant from known deposits that evaluation is not possible."

Commodity Committee Members' Comments:

U. S. Geological Survey, R. D. Trace, May 10, 1955.

"The Field Team recommends denial of the subject application. I concur with this recommendation. The description given for the potential ore-bearing sandstone reads like a cataloge of unfavorable criteria."

U. S. Bureau of Mines:

Comments not received by May 20, 1955.

Rare and Miscellaneous Metals Division - F.M.Murphy

This application was referred to the Field Team by this Division, with enclosed recommendations for denial from R. D. Trace and J. E. Crawford.

The Field Team Report of Examination under "History and Production", page 3, line 4, of the engineering section, states: "Approximately 500 tons of ore containing an average of .30 percent U_3O_8 and 3.00 percent V_2O_5 is said to have been produced from the Liberty group which is surrounded by the applicant's claims. The Liberty workings are inactive at this time."

The wide-spaced reconnaissance drilling proposed by the applicant was not acceptable to this Division. The application was referred to the Field Team with the thought that the field examiners might justify a limited amount of drilling on the mineralization trend of the above-noted mine. However, due to the unfavorable color of the sandstones and mudstones in the immediate area the examiners arrived at the conclusion that drilling would not disclose significant ore deposits.

Because the drilling proposed by the Applicant could be considered reconnaissance work, and also because of the unfavorable geological characteristics of the Salt Wash member of the Morrison formation exposed on the subject property, this Division recommends the present application be denied. The denial should be without prejudice as future work on or near the properties might disclose more favorable geological criteria.

Ernest Wm. Ellis

Ernest Wm. Ellis

5/12/55 gla

IN REPLY REFER TO:

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

Defense Minerals Administration
RECEIVED
MAY 12 1955

May 10, 1955

Re: DMEA-3663
Uranium Chief, Inc.
Liberty Area
San Juan Co., Utah
$57,000 - Uranium

Memorandum

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

From: R. D. Trace, U. S. Geological Survey

Subject: Review of Field Team report

The Field Team recommends denial of the subject application. I concur with this recommendation. The description given for the potential ore-bearing sandstone reads like a catalogue of unfavorable criteria.

R. D. Trace

R. D. Trace

IN REPLY REFER TO:

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

May 10, 1955

Re: DMEA-3663
Uranium Chief, Inc.
Liberty Area
San Juan Co., Utah
$57,000 - Uranium

Memorandum

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

From: R. D. Trace, U. S. Geological Survey

Subject: Review of Field Team report

The Field Team recommends denial of the subject application. I concur with this recommendation. The description given for the potential ore-bearing sandstone reads like a catalogue of unfavorable criteria.

R. D. Trace

RDTrace:hlm
G-5/10/55

Copy to: Director's reading, 4212
Branch reading, 4212
DMEA (3)
Docket file
J. E. Crawford, 3641 Interior
J. O. Hosted, 3210 GSA

IN REPLY REFER TO:

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

RECEIVED
MAY 12 1955

May 10, 1955

Re: DMEA-3663
Uranium Chief, Inc.
Liberty Area
San Juan Co., Utah
$57,000 - Uranium

Memorandum

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

From: R. D. Trace, U. S. Geological Survey

Subject: Review of Field Team report

The Field Team recommends denial of the subject application. I concur with this recommendation. The description given for the potential ore-bearing sandstone reads like a catalogue of unfavorable criteria.

R. D. Trace

RDTrace:hlm
G-5/10/55

Copy to: Director's reading, 4212
Branch reading, 4212
DMEA (3)
Docket file
J. E. Crawford, 3641 Interior
J. O. Hosted, 3210 GSA

IN REPLY REFER TO:

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

Defense Minerals
MAY 12 1955

May 10, 1955

Re: DMEA-3063
Uranium Chief, Inc.
Liberty Area
San Juan Co., Utah
$57,000 - Uranium

Memorandum

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

From: R. D. Trace, U. S. Geological Survey

Subject: Review of Field Team report

The Field Team recommends denial of the subject application. I concur with this recommendation. The description given for the potential ore-bearing sandstone reads like a catalogue of unfavorable criteria.

R. D. Trace

RDTrace:hlm
G-5/10/55

Copy to: Director's reading, 4212
Branch reading, 4212
DMEA (3)
Docket file
J. E. Crawford, 3641 Interior
J. O. Hosted, 3210 GSA

5/11/55 gla

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

224 New Customhouse
Denver 2, Colorado

May 3, 1955

Memorandum

To: Secretary to the Operating Committee, DMEA

From: DMEA Field Team, Region III

Subject: Report of Examination, DMEA Docket 3663 (Uranium), Uranium Chief, Inc., San Juan County, Utah

Enclosed are the original and three copies of the report pertaining to the above application.

We concur in the recommendation of the field examiners that the application be denied.

W. M. TRAVER

E. N. HARSHMAN

Enclosures

Reviewed by
DMEA OPERATING COMMITTEE
5-11-55
(date)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

DMEA
Date Rec'd
APR 5 1955
BUREAU OF MINES
Denver, Colorado

Region III

TRANSMITTED
MAY 3 1955

Building 20, Room 137
Denver Federal Center
Denver 2, Colorado

April 1, 1955

Memorandum

To: Executive Officer, DMEA Field Team, Region III

From: John F. Shaw, Supervising Mining Engineer

Subject: Docket No. DMEA 3663, Uranium Chief, Inc., Richard, Sand, Low, Elba, Flat, Viola, Joyce, and Queen groups of claims, San Juan County, Utah

Enclosed are the original and 10 copies of a summary, conclusions, and recommendations by Gordon W. Weir, geologist, and Carl Belser, mining engineer, and the original and 10 copies of an engineering report by Carl Belser covering Docket No. DMEA 3663.

Uranium Chief, Inc. applied for exploration assistance in the amount of $57,000.00 to explore the subject groups of claims by 10,000 feet of non-core drilling and 5,000 feet of core drilling.

Field investigation was made on March 22, 1955. The examining team concluded that there was little likelihood of discovering a significant amount of uranium as a result of the proposed exploration.

It is recommended that the application be denied.

John F. Shaw

John F. Shaw

Enclosures

cc: 10 w/orig
DMEA 3663
Chron

JFS/mh

Reviewed by
DMEA OPERATING COMMITTEE
5-11-55
(date)

MAY 6 - 1955

UNITED STATES
DEPARTMENT OF THE INTERIOR
DOUGLAS McKAY, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION III

DMEA 3663, Richard, Sand, Low, Elba, Flat, Viola, Joyce, and Queen groups of claims

Uranium Chief, Inc.

San Juan County, Utah

Uranium

Gordon W. Weir, Geologist
Geological Survey

Carl Belser, Mining Engineer
Bureau of Mines

Reviewed by
DMEA OPERATING COMMITTEE
5-11-55
(date)

March 28, 1955

DMEA 3663
RICHARD, SAND, LOW, ELBA, FLAT, VIOLA,
JOYCE, AND QUEEN GROUPS
URANIUM CHIEF, INC.
SAN JUAN COUNTY, UTAH

Summary, Conclusions, and Recommendations

By Gordon W. Weir
Geologist
Geological Survey

Carl Belser
Mining Engineer
Bureau of Mines

Reviewed by
DMEA OPERATING COMMITTEE

5-11-55
(date)

DMEA 3663
RICHARD, SAND, LOW, ELBA, FLAT, VIOLA,
JOYCE, AND QUEEN GROUPS
URANIUM CHIEF, INC.
SAN JUAN COUNTY, UTAH

MAY 6 - 1955

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

By Gordon W. Weir and Carl Belser

Uranium Chief, Inc., 323 East 2nd South, Salt Lake City, Utah, S. H. Eliason, president, 2230 Parleys Terrace, Salt Lake City, Utah, has applied for Defense Minerals Exploration Administration aid in a $57,000.00 project to explore the claims by 10,000 feet of non-core drilling and 5,000 feet of core drilling.

A field investigation was made on March 22, 1955, by an examining team from the Geological Survey and the Bureau of Mines. William B. Furgusson, geologist, represented the applicant.

The claims are on the west flank of South Lisbon Valley in secs. 20, 21, 22, 27, 28, 29, 32, and 33, T. 31 S., R. 26 E., and secs. 34 and 35, T. 32 S., R. 25 E., Salt Lake meridian, in South Lisbon Valley, San Juan County, Utah.

The exposed rocks in the area near the Liberty adit are of the Salt Wash member of the Morrison formation while farther to the west the exposed rocks are of the Brushy Basin member. The Brushy Basin member is about 400 feet thick and the Salt Wash member about 300 feet thick. The Salt Wash member contains a number of rims. The ore in the Liberty adit appears to be in the second rim from the top. This sandstone lens has a pinkish tinge, has a thickness of from 20 to 30 feet and is underlain in part by red mudstone. Carbonaceous material is abundant and the sands are crossbedded. As a whole,

Reviewed by
DMEA OPERATING COMMITTEE
5-11-55
(date)

the various sandstone lenses are thin, the sandstone pinkish in color, and the mudstones red.

The applicant's proposal called for 15,000 feet of diamond drilling (34 holes of which 4 on the Queen claims averaged 700 feet each) at a total estimated cost of $57,000.00.

Because of the unfavorable sandstones and mudstones, the examining team recommended that the application be denied.

DMEA 3663
RICHARD, SAND, LOW, ELBA, FLAT, VIOLA,
JOYCE, AND QUEEN GROUPS
URANIUM CHIEF, INC.
SAN JUAN COUNTY, UTAH

Engineering Report

By Carl Belser
Mining Engineer
Bureau of Mines

Reviewed by
DMEA OPERATING COMMITTEE
5-11-55
(date)

DMEA 3663
RICHARD, SAND, LOW, ELBA, FLAT, VIOLA,
JOYCE, AND QUEEN GROUPS
URANIUM CHIEF, INC.
SAN JUAN COUNTY, UTAH

MAY 6 - 1955

CONTENTS

Engineering Report	Page
Introduction	1
Acknowledgments	1
Location, topography, and climate	2
History and production	3
Ownership and extent	3
Description of deposits	5
Minable ore reserves	5
Present status	5
Exploration and development	5
Mining and milling equipment and other facilities	5
Proposed Exploration	6
Estimated cost of project	6
Estimated cost of diamond drilling	6
Summary cost of project	7
Conclusions	7
Recommendations	7

ILLUSTRATIONS

Figure	Follows Page
1. Location map, Richard, Sand, Low, Elba, Viola, Joyce, Flat, and Queen groups, Uranium Chief, Inc., San Juan County, Utah. DMEA 3663	2

DMEA 3663
RICHARD, SAND, LOW, ELBA, FLAT, VIOLA,
JOYCE, AND QUEEN GROUPS
URANIUM CHIEF, INC.
SAN JUAN COUNTY, UTAH

Defense Minerals
Exploration Administration
Received
MAY 3 - 1955

ENGINEERING REPORT

By

Carl Belser

INTRODUCTION

On November 1, 1954, Uranium Chief, Inc., 323 East 2nd South, Salt Lake City, Utah, submitted an application for Defense Minerals Exploration Administration assistance on developing the Richard, Sand, Low, Elba, Flat, Viola, Joyce, and Queen groups in Southern Lisbon Valley, San Juan County, Utah. The application, DMEA 3663, requested aid in completing 15,000 feet of diamond drilling at an estimated total cost of $57,000.00. This proposed exploration was to test the Salt Wash member of the Morrison formation for Uranium mineralization.

A joint field examination was made by a Geological Survey and Bureau of Mines examining team on March 22, 1955. The examining team, as a result of their investigations, recommended that the application be denied.

ACKNOWLEDGMENTS

W. P. Williams, geologist, Colorado Plateau District, Geological Survey, Grand Junction, Colorado, assigned Gordon W. Weir, geologist, to make the examination as the Geological Survey member of the team.

Reviewed by
DMEA OPERATING COMMITTEE
5-11-55
(date)

Weir was accompanied by C. L. Dodson, geologist.

William B. Furgusson, geologist, accompanied the team and represented the applicant.

The Atomic Energy Commission was consulted regarding the area before the examination was made.

LOCATION, TOPOGRAPHY, AND CLIMATE

The Sand, Low, Elba, Viola, Joyce, Flat, and Richard claim groups consist of 44 claims containing 664.8 acres in secs. 20, 21, 22, 27, 28, 29, 32, and 33, T. 31 S., R. 26 E., Salt Lake meridian, San Juan County, Utah. The Queen group of 18 claims contains 327.3 acres and is in secs. 34 and 35, T. 32 S., R. 25 E., Salt Lake meridian, San Juan County, Utah. The main group of claims covers a portion of the east flank of a mesa (fig. 1).

A fair 3-mile access road connects with a graded road which in turn connects with U. S. highway 160 18 miles to the south, about 10 miles east of Monticello, Utah. The nearest railroad is at Thompson, Utah, 88 miles north of Monticello.

Labor, supplies, and light equipment can be obtained in Monticello. Pinon, suitable for some mine uses, grows on the property. Large native timbers and dimension lumber can be purchased locally. The nearest mill and ore depot is at Monticello.

Altitudes range from 6,300 feet on the Salt Wash member of the Morrison to 7,400 feet on the Dakota formation. Water for drilling purposes could be hauled from springs. Water for domestic purposes could be obtained from ranchers or hauled from Monticello.

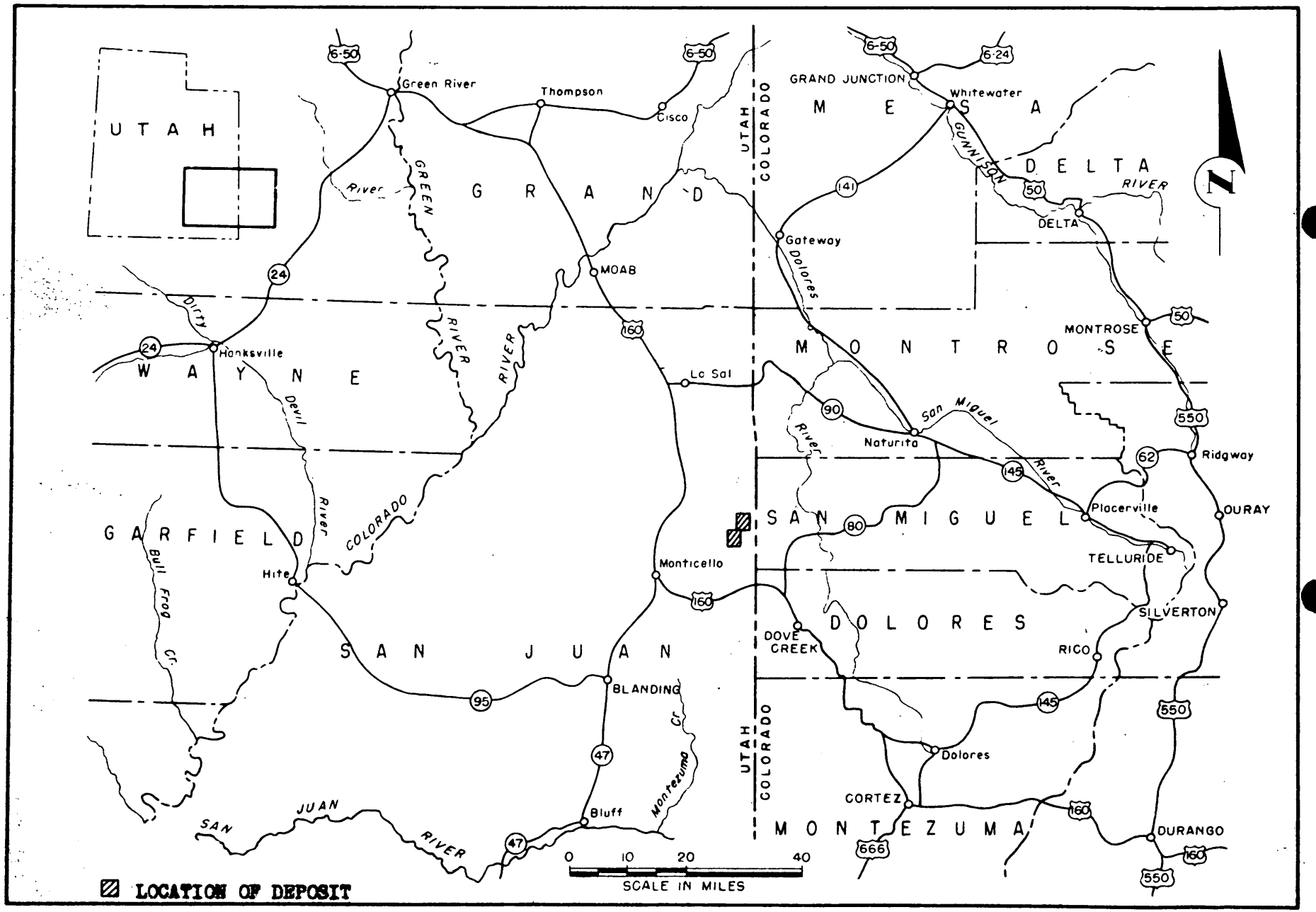


FIGURE 1 - LOCATION MAP, RICHARD, SAND, LOW, ELBA, VIOLA, JOYCE, AND QUEEN GROUPS, URANIUM CHIEF, INC., SAN JUAN COUNTY, UTAH. DMRA 3663

HISTORY AND PRODUCTION

Prospecting for uranium became of interest following the introduction of the Government schedules in 1948. No ore has been produced on the property. The Empire group, 3 miles northeast and the Radium group, 4 miles southeast are the largest producers. Approximately 500 tons of ore containing an average of .30 percent U_3O_8 and 3.00 percent V_2O_5 is said to have been produced from the Liberty group which is surrounded by the applicant's claims. The Liberty workings are inactive at this time.

The applicant's claims were located in 1953 and 1954 and quit claim deeded to the applicant on October 29, 1954.

OWNERSHIP AND EXTENT

The claims are recorded in the office of the County Recorder of San Juan County, Utah, as follows:

Claim	Book	Page	Date Filed	Discovery Date	Locator
Queen #1	91	269	5/11/54	4/24/54	Betty Buffington
Queen #2	91	270	5/11/54	4/24/54	Betty Buffington
Queen #3	91	270	5/11/54	4/24/54	Betty Buffington
Queen #4	91	271	5/11/54	4/24/54	Betty Buffington
Queen #5	91	271	5/11/54	4/24/54	Betty Buffington
Queen #6	91	272	5/11/54	4/24/54	Betty Buffington
Queen #7	91	272	5/11/54	4/24/54	Betty Buffington
Queen #8	91	273	5/11/54	4/24/54	Betty Buffington
Queen #9	91	273	5/11/54	4/24/54	Betty Buffington
Queen #10	91	274	5/11/54	4/24/54	Betty Buffington
Queen #11	91	274	5/11/54	4/24/54	Betty Buffington
Queen #12	91	275	5/11/54	4/24/54	Betty Buffington
Queen #13	91	275	5/11/54	4/24/54	Betty Buffington
Queen #14	91	276	5/11/54	4/24/54	Betty Buffington
Queen #15	91	276	5/11/54	4/24/54	Betty Buffington
Queen #16	91	277	5/11/54	4/24/54	Betty Buffington
Queen #17	91	277	5/11/54	4/24/54	Betty Buffington
Queen #18	91	278	5/11/54	4/24/54	Betty Buffington
Richard #1	19	299	3/21/53	2/20/53	E. R. Brown
Richard #2	19	299	3/21/53	2/20/53	E. R. Brown
Richard #3	19	300	3/21/53	2/20/53	E. R. Brown

Claim	Book	Page	Date Filed	Discovery Date	Locator
Richard #4	19	300	3/21/53	2/20/53	E. R. Brown
Richard #5	19	301	3/21/53	2/20/53	E. R. Brown
Richard #6	19	301	3/21/53	2/20/53	E. R. Brown
Richard #7	19	301	3/21/53	2/20/53	E. R. Brown
Richard #8	23	1	3/21/53	2/20/53	E. R. Brown
Sand #1	93	298	5/14/54	5/10/54 (Amended)	Betty Buffington
Sand #2	93	298	5/14/54	5/10/54 (Amended)	Betty Buffington
Sand #3	93	299	5/14/54	5/10/54 (Amended)	Betty Buffington
Sand #4	93	299	5/14/54	5/10/54 (Amended)	Betty Buffington
Low #1	25	280	5/16/53	4/16/53	Betty Buffington
Low #2	25	281	5/16/53	4/16/53	Betty Buffington
Low #3	25	281	5/16/53	4/16/53	Betty Buffington
Low #4	25	282	5/16/53	4/16/53	Betty Buffington
Elba #1	23	143	4/6/53	3/26/53	E. R. Brown
Elba #2	23	143	4/6/53	3/26/53	E. R. Brown
Elba #3	23	144	4/6/53	3/26/53	E. R. Brown
Elba #4	23	144	4/6/53	3/26/53	E. R. Brown
Elba #5	23	145	4/6/53	3/26/53	E. R. Brown
Elba #6	23	145	4/6/53	3/26/53	E. R. Brown
Viola #1	23	138	4/6/53	3/26/53	E. R. Brown
Viola #2	23	138	4/6/53	3/26/53	E. R. Brown
Viola #3	23	139	4/6/53	3/26/53	E. R. Brown
Viola #4	23	139	4/6/53	3/26/53	E. R. Brown
Viola #5	23	140	4/6/53	3/26/53	E. R. Brown
Viola #6	23	140	4/6/53	3/26/53	E. R. Brown
Viola #7	23	141	4/6/53	3/26/53	E. R. Brown
Viola #8	23	141	4/6/53	3/26/53	E. R. Brown
Viola #9	23	142	4/6/53	3/26/53	E. R. Brown
Viola #10	23	142	4/6/53	3/26/53	E. R. Brown
Flat #1	25	269	5/16/53	3/24/53	Viola Brown
Flat #2	25	269	5/16/53	3/24/53	Viola Brown
Flat #3	25	270	5/16/53	3/24/53	Viola Brown
Flat #4	25	270	5/16/53	3/24/53	Viola Brown
Joyce #1	23	134	4/6/53	3/25/53	E. R. Brown
Joyce #2	23	134	4/6/53	3/25/53	E. R. Brown
Joyce #3	23	135	4/6/53	3/25/53	E. R. Brown
Joyce #4	23	135	4/6/53	3/25/53	E. R. Brown
Joyce #5	23	136	4/6/53	3/25/53	E. R. Brown
Joyce #6	23	136	4/6/53	3/25/53	E. R. Brown
Joyce #7	23	137	4/6/53	3/25/53	E. R. Brown
Joyce #8	23	137	4/6/53	3/25/53	E. R. Brown

The transfer of the Buffington and Brown claims to Walter B. Snyder, Ovella Snyder, R. J. Fellmeth, and Julianne Fellmeth is not shown.

DESCRIPTION OF DEPOSITS

The exposed rocks on the applicant's claims are of Morrison formation of the Upper Jurassic with the exception of the Queen group on which the exposed rocks are mostly of Burro Canyon formation.

Ore has been mined from an adit on the Libery group which is surrounded by the applicant's claims. This ore occurred in the second sandstone lense below the top of the Salt Wash member of the Morrison formation. In the adit a small amount of carnotite-tyuyamunite-corvusite ore can be seen on the walls. The sandstone lens in which it occurs appears to be from 20 to 30 feet thick and has a pinkish cast. The mudstones are from green to red in color.

MINABLE ORE RESERVES

There are no known minable ore reserves on the property.

PRESENT STATUS

Exploration and Development

No exploration or development work has been done on the property to date.

Mining and Milling Equipment and Other Facilities

With the exception of the access roads to the Liberty group, there is no mining or milling equipment or other facilities on the property.

PROPOSED EXPLORATION

The applicant proposed to explore the claims with 15,000 feet of diamond drilling to be done in a single stage. Prices for drilling by the Brown Drilling Company are $2.70 a foot for plug drilling and $6.00 a foot for core drilling.

ESTIMATED COST OF PROJECT

Estimated Cost of Diamond Drilling

The application, as submitted, included only the independent contractors costs. The estimate follows:

Independent contracts

10,000 feet of plug-bit drilling at $2.70 per foot	$27,000.00	
5,000 feet of core drilling at $6.00 per foot	30,000.00	
Bulldozing roads, sites, etc. - none	---	
Total independent contracts		$57,000.00

Labor and Supervision

None

Operating materials and supplies

None

Operating equipment

None

Initial rehabilitation and supplies

None

New buildings, improvements, etc.

None

Miscellaneous

None

Total estimated drilling costs $57,000.00

The independent contractors prices appear to be high.

SUMMARY COST OF PROJECT

The summary cost of project as estimated by the applicant is $57,000.00.

CONCLUSIONS

The sandstone rims of the Salt Wash member of the Morrison formation are thin and somewhat off color. Most of the mudstones are brown or red. The examining team does not believe that the area will yield significant bodies of uranium ore.

RECOMMENDATIONS

It is recommended that the application be denied.

/mh

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
Defense Minerals Exploration Administration
Denver Federal Center
Denver, Colorado

IN REPLY REFER TO: DMEA

Date Rec'd.
APR 28 1955
BUREAU OF MINES
Denver, Colorado

April 27, 1955

RECEIVED
MAY 6 - 1955

Memorandum

TRANSMITTED
MAY 3 1955

To: Field Team, Region III

From: E. N. Harshman

Subject: DMEA Docket 3663 (Uranium), Uranium Chief, Inc., South Lisbon Valley area, San Juan County, Utah

Enclosed are 10 copies of a geologic report by G. W. Weir and C. L. Dodson, U. S. Geological Survey, covering an examination of the subject property.

Weir and Dodson conclude that the Salt Wash member of the Morrison formation is lithologically unfavorable for the occurrence of uranium ore on Richard et al claims, and that because of its deep burial on the Queen claims, evaluation of the ore potential cannot be made. They, therefore, recommend denial of the application for exploration assistance.

I concur with this recommendation.

E. N. Harshman

E. N. Harshman
Member, Field Team

Enclosures (10)

ENHarshman:arh

Reviewed by
DMEA OPERATING COMMITTEE
5-11-55
(Date)

MINERAL DEPOSITS
DMEA
RECEIVED

APR 25 1955

U. S.
GEOLOGICAL SURVEY
DENVER, COLORADO

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
COLORADO PLATEAU DISTRICT
P. O. Box 360
GRAND JUNCTION, COLORADO

April 12, 1955

RECEIVED
MAY 5 1955

Memorandum

To: E. N. Harshman, DMEA Field Team, Region III

From: W. P. Williams

Subject: DMEA 3663, Uranium Chief, Incorporated, Richard claims, et. al., San Juan County, Utah

Transmitted herewith are eleven copies of a geologic report by G. W. Weir and C. L. Dodson covering a field examination at the above-referenced property.

Much of the ore-bearing Salt Wash member of the Morrison formation is covered, on the property, by alluvial deposits. Where the Salt Wash is exposed none of the lithologic and geologic characteristics favorable for the occurrence of uranium ore bodies are found. No significant uranium or vanadium mineralization is present on the property. Weir and Dodson recommend that the application for DMEA assistance be denied. I concur with that recommendation.

As noted in the report, H. M. Dahl and Y. W. Isachsen, geologists in the U. S. Atomic Energy Commission, were contacted with regard to evaluation of the property.

We are returning to you herewith the brochure covering the subject application.

W P Williams

W. P. Williams
Geologists

Enclosures

Returned to
DMEA
5-11-55

UNITED STATES DEPARTMENT OF THE INTERIOR
DOUGLAS McKAY, SECRETARY

Defense Minerals Administration
RECEIVED
MAY 6 - 1955

DEFENSE MINERALS EXPLORATIONS ADMINISTRATION
REPORT OF EXAMINATION BY FIELD TEAM
REGION III

DMEA 3663, Uranium Chief, Incorporated, Richard claims et al, San Juan County, Utah

Uranium

Geologic Report

By

C. L. Dodson and G. W. Weir
U. S. Geological Survey

April 4, 1955

Reviewed by
DMEA OPERATING COMMITTEE
5-11-55

DMEA 3663

INTRODUCTION AND SUMMARY

Uranium Chief, Incorporated, Salt Lake City, Utah, has applied to the Defense Minerals Exploration Administration for a loan to explore for uranium by drilling on Richard nos. 1-8, Sand nos. 1-4, Low nos. 1-4, Elba nos. 1-6, Viola nos. 1-10, Flat nos. 1-4, and Joyce nos. 1-8 claims in Little Indian Canyon in secs. 21, 22, 28, and 33, T. 31 S., R. 26 E. and on Queen nos. 1-18 claims in sec. 35, T. 32 S., R. 25 E., San Juan County, Utah (figs. 1 and 2). The property in Little Indian Canyon was examined on March 22, 1955, by C. L. Dodson and G. W. Weir of the U. S. Geological Survey and Carl Belser of the U. S. Bureau of Mines, accompanied by William B. Fergusson representing the applicant.

The applicant proposes a drilling program consisting of 34 holes requiring about 15,000 feet of drilling (10,000 feet plug bit and 5,000 feet core) at a cost of $57,000.

The examining team recommends that the application for a loan be denied because no indication of favorable or mineralized ground was observed on the property.

GEOLOGY

The Queen claims were not examined. The claims are immediately underlain by the Upper Cretaceous Dakota sandstone and perhaps the Mancos shale. Depth to the Salt Wash member of the Morrison formation, the potential ore-bearing rock, probably is between 600 and 800 feet (table 1). No significant deposits are known to occur within several miles. The geologic characteristics of the Salt Wash member can be projected only relatively short distances. Until the Salt Wash is drilled on or near the property, the exploration potential of the property will remain unknown.

The general geologic setting of the Uranium Chief property in Little Indian Canyon is shown on figure 2. A generalized stratigraphic column for the area is given in table 1. Bedrock formations exposed on the claims are the Salt Wash and Brushy Basin members of the Morrison formation (fig. 2). Much of the area is covered by alluvium and colluvium.

No evidence of favorable or mineralized ground on the property in Little Indian Canyon is known. The Salt Wash exposed on the claims consists generally of light reddish brown to dark reddish brown, horizontally bedded and cross-bedded sandstone units less than 30 feet thick interbedded with red mudstone. Lithologic features commonly associated with significant uranium ore deposits

in the Salt Wash member are lacking. Salt Wash sandstone units containing significant deposits generally are thick (40 feet or more), light brown (not reddish), cross-bedded (not horizontally bedded) and underlain by gray (not red) mudstone. The sandstone ledge in which the "Sitton" ore deposit occurs on the adjoining Liberty claims is well-exposed on the Uranium Chief property. On the property it is light reddish brown (about 15-30 feet). The ledge is the second or third sandstone from the top of the Salt Wash rather than the uppermost sandstone in which most of the significant ore deposits in adjacent mining districts occur.

In sum the exposed Salt Wash on the Utah Chief property in Little Indian Canyon suggest that the area is unlikely to contain significant uranium deposits.

The applicant's brochure calls attention to several mines and deposits that are too far away to have any significance for the specific evaluation of the Uranium Chief property. The ore deposit nearest the Little Indian Canyon claims is on the Liberty claim (the "Sitton mine" in the application) adjoining the applicant's property. The mine is inactive. Probably most of the work was done before 1944, when the mine was examined by the Union Mines Development Corp. for the Government. Apparently, the mined ore bodies were relatively small and scattered. Little of them remains.

Much of the remaining ore bodies is a blue-black, corvusite-type mineral. The ore probably was high-grade. A grab sample taken from the stockpile by the Union Mines Development Corp. was reported to contain 0.365 percent equivalent U_3O_8. The workings consist of about 200 linear feet of drifts averaging about 6 feet wide and 7 feet high. According to the Atomic Energy Commission Finance Department, about 250 tons of ore containing 0.31 percent U_3O_8 and 2.63 V_2O_5 was produced from what is believed to be this mine. Nothing observed in the mine indicated that the deposit extends onto the property of the applicant. All the headings of the drifts are barren.

Additional information is contained in the following reports:

(1) Union Mines Development Corp. report --- Monticello (Dry Valley) district, Green River Desert area, Utah-Colorado, by R. K. Kirkpatrick, 1944, p. 14, working no. 34, fig. 33.

(2) Report on South Lisbon Valley, by Otis McRae, USAEC (unpublished) Classified.

Geologists of the Atomic Energy Commission have been consulted. They are unable to supply positive evaluation of the area.

CONCLUSIONS AND RECOMMENDATIONS

Uranium Chief, Incorporated, has applied for a loan to explore by drilling the Salt Wash member of the Morrison formation in areas where the Salt Wash is un-mineralized and unfavorable, or where it is so deeply buried and distant from known deposits that evaluation is not possible.

The examining team recommends that the loan be denied because no indication of favorable or mineralized ground was observed on the property.

Table 1.--Generalized stratigraphic section of rocks exposed in and near Big Indian Wash, Lisbon Valley area, Colorado-Utah

System or series	Group	Formation	Estimated thickness (feet)	Character of rocks
Quaternary		Alluvium	0-50	Sandy and silty material in part cemented in streams and valleys
		Gravel	0-50	Boulders, cobbles, and pebbles in sandy matrix, unconsolidated.
Upper Cretaceous		Mancos shale	200	Gray marine shale, fossilierous at base; covers parts of mesas. Upper part removed by erosion.
Upper Cretaceous		Dakota sandstone	50-100	Gray and brown sandstone, brown carbonaceous shale and impure coal.
Lower Cretaceous		Burro Canyon	160-250	Brown conglomerate and sandstone and bright green and reddish shale and mudstone; commonly silicified to a dense quartzite in the Lisbon Valley faults zone.
Upper Jurassic		Morrisom	300-420	Brushy Basin member; varicolored mudstone; some sandstone and conglomerate lenses commonly near base.
			300-375	Salt Wash member; light colored sandstone and red and gray mudstone.

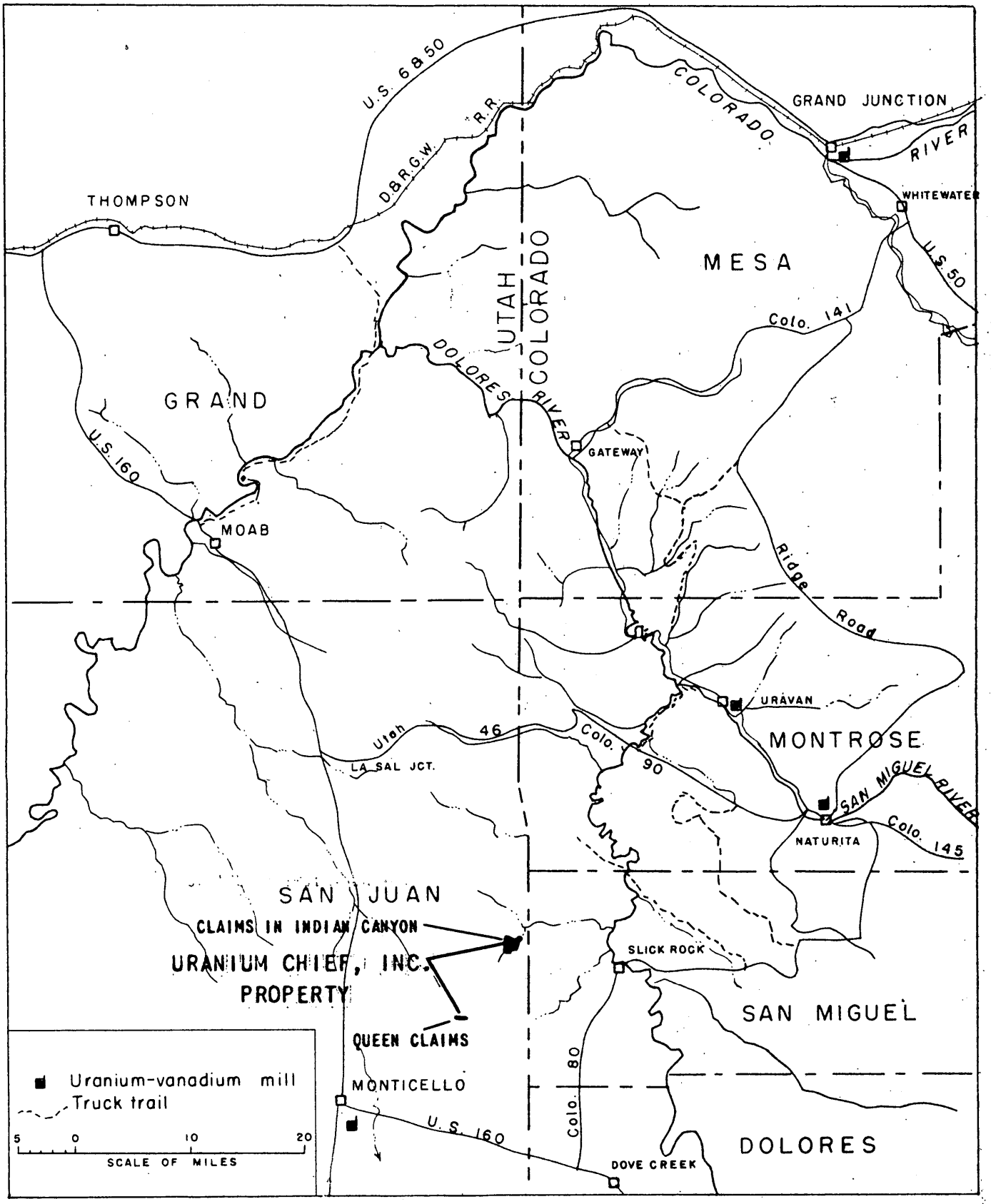


Figure 1. INDEX MAP OF PART OF THE COLORADO PLATEAU SHOWING LOCATION OF THE PROPERTY OF URANIUM CHIEF INCORPORATED, SAN JUAN COUNTY, UTAH

Surname 700

Murphy
Ellis
Kulsgaard
Hedges
Selfridge
R. Johnson

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

FEB 21 1955

Mr. J. Keith Hansen
Secretary-Treasurer
Uranium Chief Incorporated
323 East 2nd South
Salt Lake City, Utah

Re: Docket No. DMEA-3663 (Uranium)
South Lisbon Valley Area
San Juan County, Utah

Dear Mr. Hansen:

The application for assistance in exploring your property in San Juan County, Utah, under the above-captioned docket number, has been reviewed by the Rare and Miscellaneous Metals Division of the Defense Minerals Exploration Administration. It has been referred to the Executive Officer of Region III at the following address:

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.

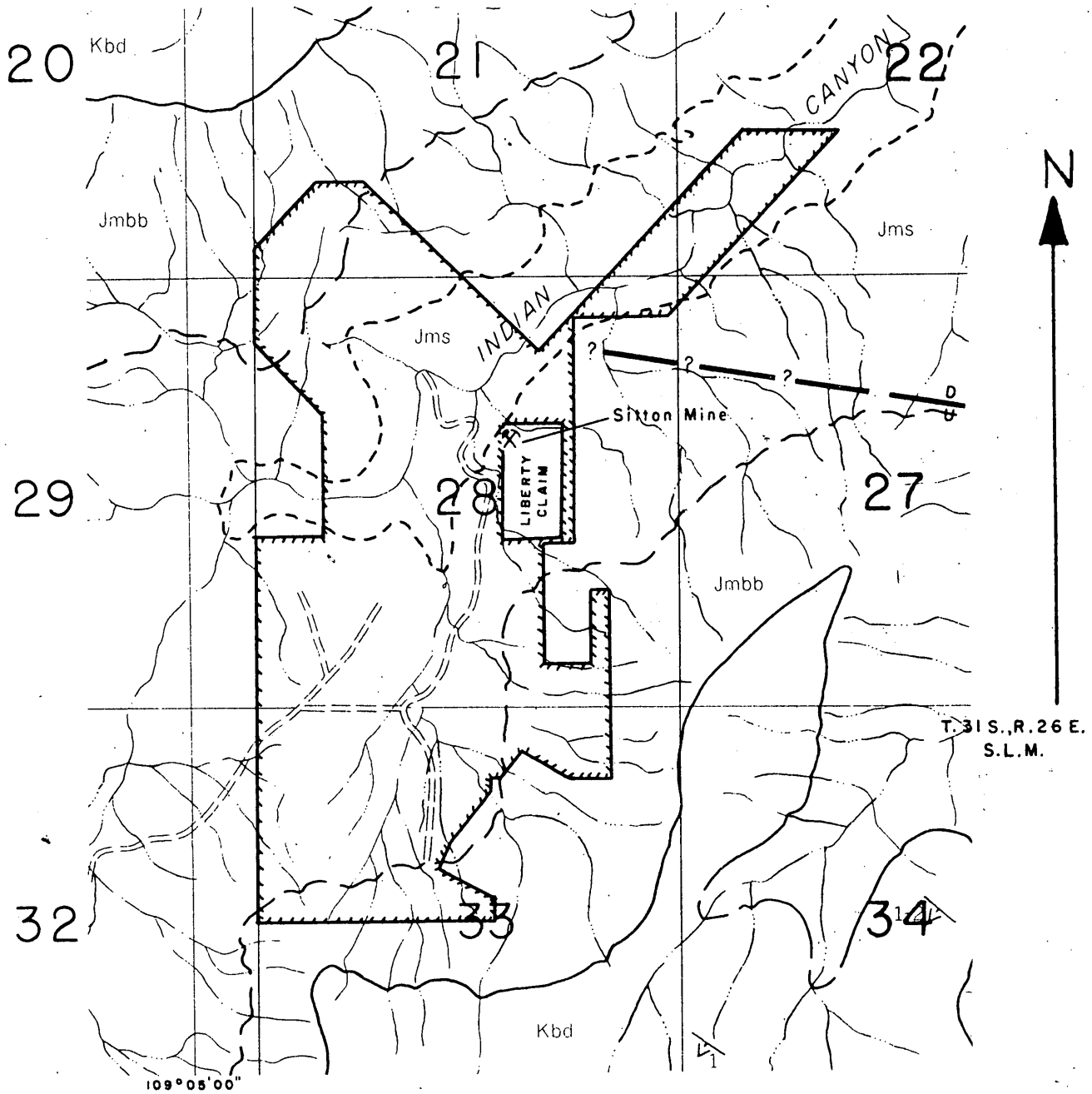
Sincerely yours,

C. O. Mittendorf

Administrator

FMurphy:am
2-21-55
cc to: Admr. Reading File
Docket
Code 700
Mr. Murphy
DMEA Field Team, Reg. III(2)

Cal



EXPLANATION

Kbd	BURRO CANYON FORMATION AND DAKOTA SANDSTONE UNDIFFERENTIATED
Jmbb	BRUSHY BASIN SHALE MEMBER OF THE MORRISON FORMATION
Jms	SALT WASH SANDSTONE MEMBER OF THE MORRISON FORMATION, DASHED LINE SHOWS POSITION OF BASE OF CARNOTITE-BEARING SANDSTONE
	FORMATION CONTACT
? D U	FAULT, SHOWING RELATIVE MOVEMENT
1	STRIKE AND DIP OF BEDS
	URANIUM CHIEF INC. PROPERTY BOUNDARY

APPROXIMATE SCALE — 1 : 24,000

Figure 2. GEOLOGIC MAP OF PART OF THE URANIUM CHIEF INC. PROPERTY AND VICINITY
SAN JUAN COUNTY, UTAH

Surname 700
Murphy
Selfridge
Johnson

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

FEB 21 1955

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

Re: Docket No. DMEA-3663 (Uranium)
Uranium Chief Incorporated
South Lisbon Valley Area
San Juan County, Utah

Dear Mr. Traver:

The subject application is referred to Region III Field Team for investigation, a field examination if deemed advisable, and recommendation. A copy of the application was retained by your office.

Enclosed are copies of memoranda from John E. Crawford, dated February 16, and R. D. Trace, dated February 8, 1955, members of the Uranium Commodity Committee.

Although both commodity members recommend that the application should be denied, it seems advisable to refer the subject application to the field because of the known ore body adjacent to the Applicants' claims in Section 26. Also, you may have, or can secure, information on the area that is not available here.

You will note that the claims in the "Queen Group" are about 6 air-line miles southwest of the other groups of claims mentioned in the subject application. We suggest that the Applicant be advised to submit a separate application for the "Queen Group" in the event that exploration projects on both areas are recommended by the Field Team.

Sincerely yours,

George C. Selfridge
Chairman, Operating Committee

Enclosures

APPROVED:

J. H. Hedges
Member, Bureau of Mines

Thor H. Kiilsgaard
Member, Geological Survey

FMurphy:am
2-21-55

cc to: Admr. Reading File
Operating Committee
Docket
Messrs. J. E. Crawford, Rm. 3641
T. H. Kiilsgaard, Rm. 5224
J. O. Hosted, Rm. 3210, GSA
Code 700 - Mr. Murphy

2/17/55 fa

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

DEPARTMENT OF THE INTERIOR
Bureau Mines Information
FEB 17 1955

February 16, 1955

Memorandum

To: Ernest W. Ellis, DMEA Member
Uranium Commodity Committee

From: Bureau of Mines Member
Uranium Commodity Committee

Subject: DMEA Docket 3663, Uranium Chief Inc.,
323 East 2nd South, Salt Lake City, Utah

I have reviewed the attached application of Uranium Chief Incorporated, DMEA Docket 3663, and have discussed it with Joseph O. Hosted, Washington representative of the Atomic Energy Commission.

We recommend that the application be denied inasmuch as there has not been presented sufficient proof of uranium mineralization on the claims of the applicant.

The application of the Uranium Chief Incorporated is based solely on the proximity of the subject property to known uranium producing properties and the geologic favorability of the area. While this information is good supporting data, the basic criteria for granting DMEA assistance is lacking.

John E. Crawford

John E. Crawford

Attachment

Copy to: Branch of Rare and Precious Metals
Division of Minerals
J. O. Hosted (2)
J. E. Crawford

2/8/55-gla

IN REPLY REFER TO:

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

February 8, 1955

Re: DMEA-3663
Uranium Chief, Inc.
South Lisbon Valley
San Juan Co., Utah
$57,000 - Uranium

Memorandum

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

From: R. D. Trace, U. S. Geological Survey

Subject: Review of application

The applicant's claims are in a general area that contains a few small mines. The known deposits are the carnotite type, which occurs in the Salt Wash member of the Morrison formation. The applicant proposes to drill 37 wide-space holes.

The only mine in the immediate vicinity of the applicant's claims is Findel Sitton's mine (Liberty). No data is given on the ore in Sitton's mine. The Empire group, a few miles to the northeast, and the Radium group, a few miles to the southeast, are too far away to have any bearing on the applicant's claims.

The geologic reports on the applicant's claims contain the usual generalities, nothing more. Except for facts that 1) the "ore bearing" sandstone is present on most of the applicant's claims and 2) a small mine exists nearby -- there is no justification for the proposed exploration (or is it prospecting?).

On the basis of the application, and my memory as of 1951, I recommend that the project be denied. You may wish, however, to query Grand Junction about ideas they have on the area.

Bob Trace

R. D. Trace

IN REPLY REFER TO:

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

February 8, 1955

Re: DMEA-3663
Uranium Chief, Inc.
South Lisbon Valley
San Juan Co., Utah
$57,000 - Uranium

Memorandum

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

From: R. D. Trace, U. S. Geological Survey

Subject: Review of application

The applicant's claims are in a general area that contains a few small mines. The known deposits are the carnotite type, which occurs in the Salt Wash member of the Morrison formation. The applicant proposes to drill 37 wide-spaced holes.

The only mine in the immediate vicinity of the applicant's claims is Pindal Sitton's mine (Liberty). No data is given on the ore in Sitton's mine. The Eagles group, a few miles to the northeast, and the Radium group, a few miles to the southeast, are too far away to have any bearing on the applicant's claims.

The geologic reports on the applicant's claims contain the usual generalities, nothing more. Except for facts that 1) the "ore bearing" sandstone is present on most of the applicant's claims and 2) a small mine exists nearby -- there is no justification for the proposed exploration (or is it prospecting?).

On the basis of the application, and my memory as of 1951, I recommend that the project be denied. You may wish, however, to query Grand Junction about ideas they have on the area.

RDTrace:hlm
G-2/8/55

R. D. Trace

Copy to: Director's reading, 4212
Branch reading, 4212
DMEA (3)
Docket file
J. E. Crawford, 3641 Interior

February 4, 1955
Subject: DMEA 3663
Re: Exploration Assistance

Uranium Chief Incorporated
323 East 2nd South
Salt Lake City, Utah

Gentlemen:

The receipt of your application dated November 1, 1954 for exploration assistance under the Defense Production Act of 1950, as amended, is hereby acknowledged.

Your application has been assigned Docket Number DMEA 3663 and referred to the Rare and Miscellaneous 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

February 4, 1955

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 - 3663 Uranium Chief Incorporated

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

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

DEPARTMENT OF THE INTERIOR
FEB - 3 1955

224 New Customhouse
Denver 2, Colorado

January 31, 1955

Memorandum

To: Secretary to the Operating Committee
Defense Minerals Exploration Administration

From: Executive Officer, DMEA Field Team, Region III

Subject: (Uranium), Application for DMEA Assistance, Uranium Chief, Inc., San Juan County, Utah

Enclosed are three copies of the subject application in the amount of $57,000. A fourth copy is being retained in our files.

W. M. Traver

W. M. Traver

Enclosures

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

DEPARTMENT OF THE INTERIOR
Administration
FEB - 3 1955

224 New Customhouse
Denver 2, Colorado

January 31, 1955

Memorandum

To: Secretary to the Operating Committee
Defense Minerals Exploration Administration

From: Executive Officer, DMEA Field Team, Region III

Subject: (Uranium), Application for DMEA Assistance, Uranium Chief, Inc., San Juan County, Utah

Enclosed are three copies of the subject application in the amount of $57,000. A fourth copy is being retained in our files.

W. M. Traver

Enclosures

WMC:lg

Copy to: J. P. Shaw
[illegible] P. Williams
Sub
Chron

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

DEPARTMENT OF THE INTERIOR
Administration
FEB - 3 1955

224 New Customhouse
Denver 2, Colorado

January 31, 1955

Mr. J. Keith Hansen, Secretary
Uranium Chief, Inc.
323 East Second South
Salt Lake City, Utah

Dear Mr. Hansen:

This will acknowledge receipt of four copies of your application for DMEA assistance on several groups of mining claims located in T. 32 S., R. 25 E., in San Juan County, Utah.

The application has been forwarded to our Washington office for further processing.

Yours very truly,

W. M. TRAVER

W. M. Traver
Executive Officer
DMEA Field Team, Region III

WMC:ld

Copy to: Sec. Opr. Comm.

sub
chron

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
FEB - 3 1955

Date Rec'd. JAN 28 1955
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. 3663
Metal or Mineral Uranium
Date Received 2-3-55
Estimated Cost $57,000
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:

URANIUM CHIEF INCORPORATED
323 East 2nd South
Salt Lake City, Utah.

(*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

See attached Sheets

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

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

Purchaser under Contract

(*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

None

(*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 8 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)?

(*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 November 1, 1954, 195

URANIUM CHIEF INC.,
(Applicant)

By J. Keith Hansen, Sec'try-Tr'sr

J. Keith Hansen

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

URANIUM CHIEF INC.
323 East 2nd South
Salt Lake City, Utah.

Form
MP-103

DEPARTMENT OF THE INTERIOR
Land Office Application
FEB - 5 1955

UNITED STATES DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

1. Name of Applicant

(a.) Uranium Chief Inc.
323 East 2nd South
Salt Lake City, Utah.

(b.) A Utah Corporation; incorporated July 30, 1954.

(c.) S.H. Eliason, President and Director
2230 Parleys Terrace
Salt Lake City, Utah.

Gordon C. Holt, Vice-President and Director
2252 Laird Way,
Salt Lake City, Utah

J. Keith Hansen, Secretary-Treasurer
1852 Woodside Drive
Salt Lake City, Utah

(d.) Not Applicable

3. Applicants Property Rights

(a.) The property consists of 62 unpatented mining claims which were purchased from Walter B. Snyder and

URANIUM CHIEF INC.
323 East 2nd South
Salt Lake City, Utah.

Form
UP-103

3. Applicants Property Rights (continued)

Robert J. Fellmeth on July 30th, 1954. The claims are located in sections 21, 22, 27, 28 and 33, T. 31 S., R. 25 E., and section 35, T. 32 S., R. 25 E., SLBM. Title is uncontested and the properties have been surveyed by a registered Utah surveyor.

(b.) None

(c.) Uranium Chief Inc. purchased the claims from Mr. R. J. Fellmeth and Mr. alter R. Snyder

(d.) Copies of the legal documents pertaining to the transfer have been attached to this application . (See attached exhibits)

(e.) None

(f.)

CLAIM NAME	REC.	BOOK NO.	PAGE NO.	COUNTY
Queen #1	5/11/54	91	269	San Juan
Queen # 2	5/11/54	91	270	"
Queen #3	5/11/54	91	270	"
Queen #4	5/11/54	91	271	"
Queen #5	5/11/54	91	271	"
Queen #6	5/11/54	91	272	"
Queen #7	5/11/54	91	272	"
Queen #8	5/11/54	91	273	"
Queen #9	5/11/54	91	273	"
Queen #10	5/11/54	91	274	"
Queen #11	5/11/54	91	274	"
Queen #12	5/11/54	91	275	"
Queen #13	5/11/54	91	275	"
Queen #14	5/11/54	91	276	"
Queen #15	5/11/54	91	276	"
Queen #16	5/11/54	91	277	"
Queen #17	5/11/54	91	277	"

URANIUM CHIEF INC.
323 Ea st 2nd South
Salt Lake City, Utah.

Form
UF-103

3. (f.) Continued

CLAIM NAME	REC	BOOK NO.	PAGE NO.	COUNTY
Queen #18	5/11/54	91	278	San Juan
Richard #1	3/21/53	19	299	"
Richard #2	3/21/53	19	299	"
Richard #3	3/21/53	19	300	"
Richard #4	3/21/53	19	300	"
Richard #5	3/21/53	19	301	"
Richard #6	3/21/53	19	301	"
Richard #7	3/21/53	19	301	"
Richard #8	3/21/53	23	1	"
Sand #1	5/14/54	93	298	"
Sand #2	5/14/54	93	298	"
Sand #3	5/14/54	93	299	"
Sand #4	5/14/54	93	299	"
~~Sand #5~~				
Low #1	5/16/53	25	280	"
Low #2	5/16/53	25	281	"
Low #3	5/16/53	25	281	"
Low #4	5/16/53	25	282	"
Elba #1	4/6/53	23	143	"
Elba #2	4/6/53	23	143	"
Elba #3	4/6/53	23	144	"
Elba #4	4/6/53	23	144	"
Elba #5	4/6/53	23	145	"
Elba #6	4/6/53	23	145	"
Viola #1	"	23	138	"
Viola #2	"	23	138	"
Viola #3	"	23	139	"
Viola #4	"	23	139	"
Viola #5	"	23	140	"
Viola #6	"	23	140	"
Viola #7	"	23	141	"
Viola #8	"	23	141	"
Viola #9	"	23	142	"
Viola #10	"	23	142	"
Flat #1	5/16/53	25	269	"
Flat #2	5/16/53	25	269	"
Flat #3	5/16/53	25	270	"
Flat #4	5/16/53	25	270	"

URANIUM CHIEF INC.,
323 East 2nd South
Salt Lake City, Utah.

Form
UF-103

3. (f.) Continued

CLAIM NAME	REC.	PAGE	BOOK	COUNTY
Joyce 1	4/6/53	134	23	San Juan
Joyce 2	"	134	23	"
Joyce 3	"	135	23	"
Joyce 4	"	135	23	"
Joyce 5	"	136	23	"
Joyce 6	"	136	23	"
Joyce 7	"	137	23	"
Joyce 8	"	137	23	"

URANIUM CHIEF INC.
323 East 2nd South
Salt Lake City, Utah.

Form
MF - 103

4. Physical Description

(a.) Surveying and geologic mapping are being conducted on the property by geologists associated with the Uranium Chief Inc.

(b.) None

(c.) Please see attached geologic report entitled ' Geologic Report on the Richard, Sand, Low, Elba, Viola, Flat, Joyce and Queen Groups of Claims, South Lisbon Valley, San Juan County, Utah., by Richard A. Teichman Jr.

(d.) Approach roads to the area have been constructed and further construction is continuing. From Moab, Utah the area is reached by travelling 36 miles south of Moab, Utah on U. S. Highway 160 , a good paved road, thence in an easterly direction through Dry Valley for a distance of 20 miles to the South Lisbon Valley area and the claims under discussion.

The Town of Moab, Utah is the principal supply and shipping point and is about 50 miles distant over good roads.

URANIUM CHIEF INC.
323 East 2nd South
Salt Lake City, Utah.

Form
MP-103

4. Physical Description (continued)

(e.) Material and supplies are available from well-stocked warehouses in Moab, Utah.

Water for drilling can be obtained from several springs within a short distance of the claims.

Power must be supplied by a diesel generator.

5. The Exploration Project

(a.) Uranium Ores

(b.) The projected program will consist of a reconnaissance, exploration and development drilling program which will be executed in stages.

<u>STAGE 1</u> Reconnaissance drilling on 1,000 foot centers to delineate favorable drilling ground. Average depth of hole on all except the Queen claims will be about 400 feet. A total of 34 wide-spaced holes will be needed for a total footage of approximately 15,000 feet, (4 holes on the Queen claims will require about 2,800 of the above total).

All other drill stages have been indicated on the attached map, but it is anticipated

5. The Exploration Project (continued)

that additional drilling will be undertaken by Uranium Chief should the initial drilling the initial drilling stage prove successful.

Therefore, the total footage requested under this application is 15,000 of diamond core footage, type BX. (See attached map for drill hole locations).

(c.) Work will commence immediately upon approval of the DMEA loan by government officials and will be completed within four months of the starting date.

(d,) Uranium Chief Inc. has just recently entered the uranium industry, however it is anticipated that an experienced geologist will be retained to conduct the drilling program as required by DMEA regulations.

6. Estimate of Costs

(a.) Several bids were solicited for the program and the lowest bid was by the Brown Drilling Co of Grand Junction, Colorado with a bid of :

Plug	$ 2.70/ft
Core	$ 6.00/ft

URANIUM CHIEF INC.
323 East 2nd South
Salt Lake City, Utah.

Form
UC-103

6. Estimate of Costs (Continued)

(a.) Approximately 10,000 feet of the required drilling will be of the non-core type at a cost of $27,000.00

Approximately 5,000 feet of the required drilling will be of the core type at a cost of $30,000.00

TOTAL COST $57,000.00

(b.) None

(c.) None

(d.) None

(e.) None

(f.) None

(g.), None

(h.) None

TOTAL PROJECT COST $57,000.00

7. (a.) Uranium Chief is prepared to furnish its share of the cost of the project in accordance with AEC regulations.

(b.) Uranium Chief Inc. proposes to furnish its share of costs in cash, payable upon demand.

URANIUM CHIEF INC.
323 East 2nd South
Salt Lake City, Utah.

Form
UF-103

7.

Dated.....

URANIUM CHIEF INC.
.....
Applicant

By. J. Keith Hansen
Title. Secretary & Treasurer

GEOLOGIC REPORT ON THE RICHARD, SAND, LOU, ELBA, VIOLA, FLAT, JOYCE AND QUEEN GROUPS OF CLAIMS, SOUTH LISBON VALLEY, SAN JUAN COUNTY, UTAH.

T. 31, 32 S., R. 25, 26 E.

By

RICHARD A. TAICHMAN JR.
CONSULTING GEOLOGIST
Moab, Utah

October, 1954

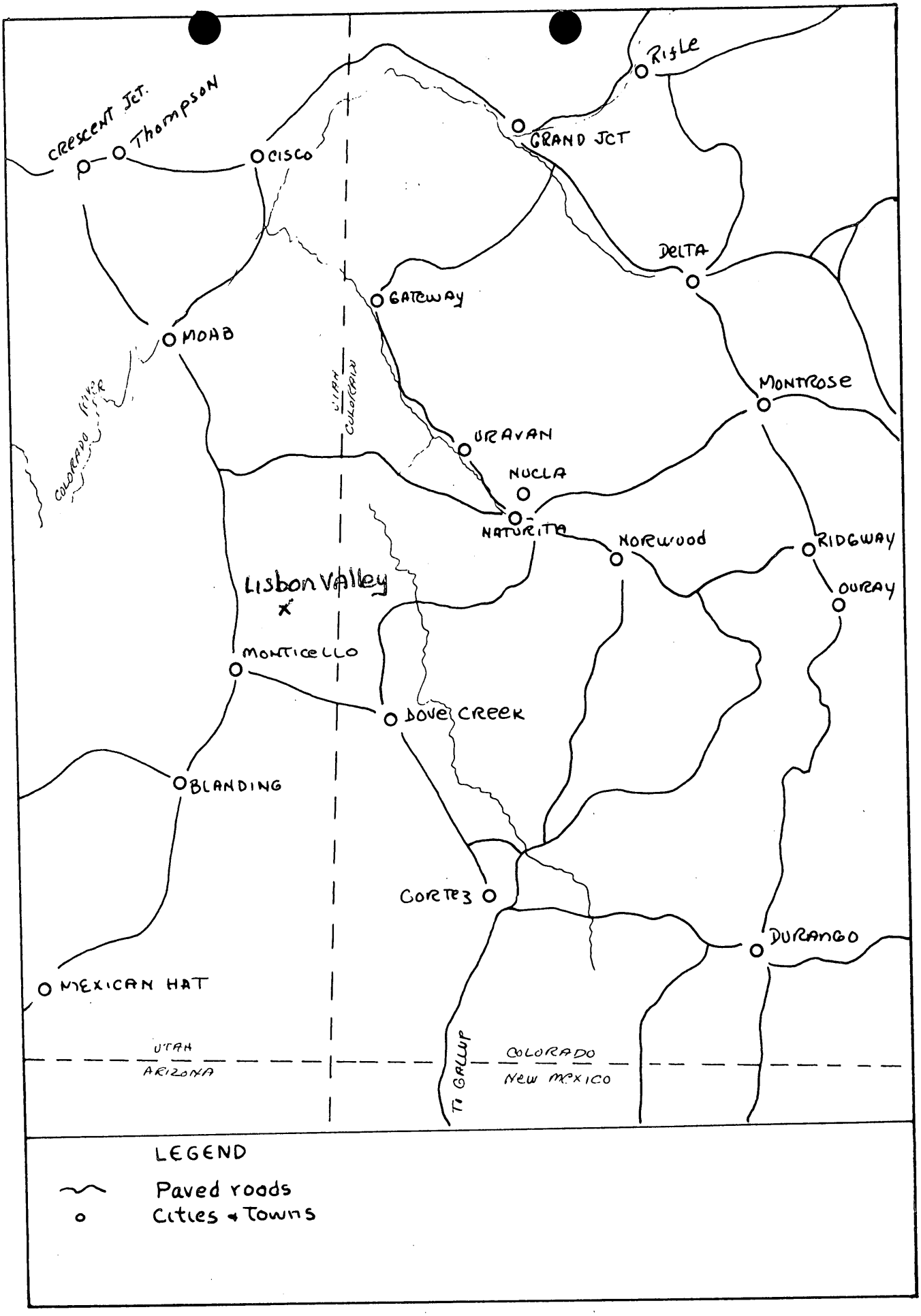


FIG.- INDEX MAP, COLORADO PLATEAU AREA

October, 1954

Uranium Chief, Inc.
% Tanner & Hansen, C.P.A's,
1758 South State Street,
Salt Lake City, Utah.

Gentlemen:

I have prepared and submit herewith the geologic report which you requested covering the properties in South Lisbon Valley, San Juan County, Utah. These properties include the Richard, Sand Low, Elba, Viola, Flat, Joyce and Queen groups of claims.

Pursuant to your instructions, I have included recommendations for further development.

Sincerely,

Richard A. Teichman Jr.

RICHARD A. TEICHMAN JR.
Geologist

CONTENTS

1. INTRODUCTION
2. LOCATION AND ACCESSIBILITY
3. GEOMORPHOLOGY
4. MINING HISTORY
5. GEOLOGY
6. TECTONIC STRUCTURES
7. ECONOMIC GEOLOGY
8. CONCLUSIONS AND RECOMMENDATIONS
9. DRILLING RECOMMENDATIONS

ILLUSTRATIONS

1. Index Map, Colorado Plateau Area.
2. Stratigraphic Section, South Big Indian Wash and Lisbon Valley.
3. Geologic section across Lisbon Valley anticline, San Juan County, Utah.

INTRODUCTION

DEPARTMENT OF THE INTERIOR
Land Office Administration
Salt Lake City, Utah
FEB - 5 1955

During the early part of October, 1954, a geologic examination of the South Lisbon Valley area, San Juan County, Utah, was made at the request of Mr. Robert Fellmeth of Moab, Utah. This examination was designed to assess the potential of the entire area and to specifically examine and assess the potential of the following properties.

CLAIM NAME		TOWNSHIP	RANGE	SECTIONS
Richard	1-8	31 s	26 E	21,28
Sand	1-4	31 s	26 E	28
Low	1-4	31 s	26 E	28
Elba	1-6	31 s	26 E	28
Viola	1-10	31 s	26 E	28,33
Flat	1-4	31 s	26 E	21,22,27,28
Joyce	1-8	31 s	26 E	28,33
Queen	1-18	32 s	25 E	35

No guarantee can be made as to title nor compliance in the past with state and federal mining statutes.

The objectives of the geologic reconnaissance were as follows;

1. To determine whether or not the above listed claims are located in areas considered to be geologically favorable for the production of commercial quantities of uranium and vanadium ores.

2. To determine whether or not further geological study, development and/or exploration of the properties is warranted.

3. To determine whether or not ore trends in surrounding areas can be projected into the area under discussion.

LOCATION AND ACCESSIBILITY

The claims under discussion are located in South Lisbon Valley, near the Radium, Empire and Liberty groups of claims, within sections 21, 22,27, 28, and 33 and 35. Township 31 and 32 South Range 25 and 26 East of the Salt Lake City Meridian.

From Moab, Utah the area is reached by traveling 36 miles south of Moab on US Highway 160, a good paved road, thence in an easterly direction through Dry Valley for a distance of 20 miles to the South Lisbon Valley area and the claims under discussion.

Ore from the area now being mined is being shipped either 40 miles to the AEC mill at Monticello, Utah or 60 miles to the new AEC buying station at Moab, Utah.

Roads are passable throughout the year.

GEOMORPHOLOGY AND CLIMATE

The South Lisbon Valley district has an elevation ranging from 7400 feet on the Dakota formation in the southwestern part of the area to 6300 feet on the Salt Wash member of the Morrison formation near the Radium group of mines.

The area is located on the northeastern edge of the Great Sage Plains in the southern part of Lisbon Valley.

The southern part of Lisbon Valley, which lies northwest of McIntyre Canyon and between the Great Sage Plain on the southwest, and the island Mesa area on the northeast is a graben valley formed by a series of fault blocks which are late cretaceous in age.

The drainage pattern is dendritic in nature and the southern part of Lisbon Valley drains in an easterly direction through McIntyre Canyon to the Dolores River.

The climate is semi-arid, with precipitation averaging 20 inches per year. Vegetation consists of sage, cactus, and small pinon and juniper trees. Working conditions are good throughout the year.

MINING HISTORY

Production from the district has been known for many years, with the Radium, Empire and Liberty Group of claims being the largest producers in the area. The Slick Rock mining district, several miles to the east has also been a large producer for many years. The Liberty Group of claims is located in South Lisbon Valley, northwest of the Radium group in what is known as Bull Pen Canyon. Production figures from this area have been obtained from the owner Mr. F. A. Sitton of Dove

Creek, Colorado and are itemized as follows:

DATES	AVERAGE V_2O_5	AVERAGE U_3O_8	TONS	VALUE
1/1/51-7/15/51	3.00	.30	500	$15,000.00

Production of uranium and vanadium ores from this district has been confined to the Salt Wash member of the Morrison formation.

The Queen Mary mine, located in section 18, Township 31 South Range 25 East, has also produced quantities of good grade uranium and vanadium ores. At the present time the mine is inoperative although good ore is still showing in the ribs.

The United States Atomic Energy Commission has requested exploration agreements from property owners in the Queen Mary mines area to the northwest, which procedure often signifies AEC interest in drilling a particular area. Triangulation stations have also been set-up in the area by the commission.

TECTONIC STRUCTURES

Lisbon Valley is located midway between two major laccolithic intrusives the La Sal mountains and the Abajo Mountains and on the axis of what is known as the Lisbon Valley-Dolores anticline.

The anticline trends in a northwesterly direction from a point approximately 20 miles west of the San Miguel Mountains where it joins the Gypsum Valley anticline to a point 20 miles east of Upheaval Dome, in the Inter-River area northwest of Moab, Utah.

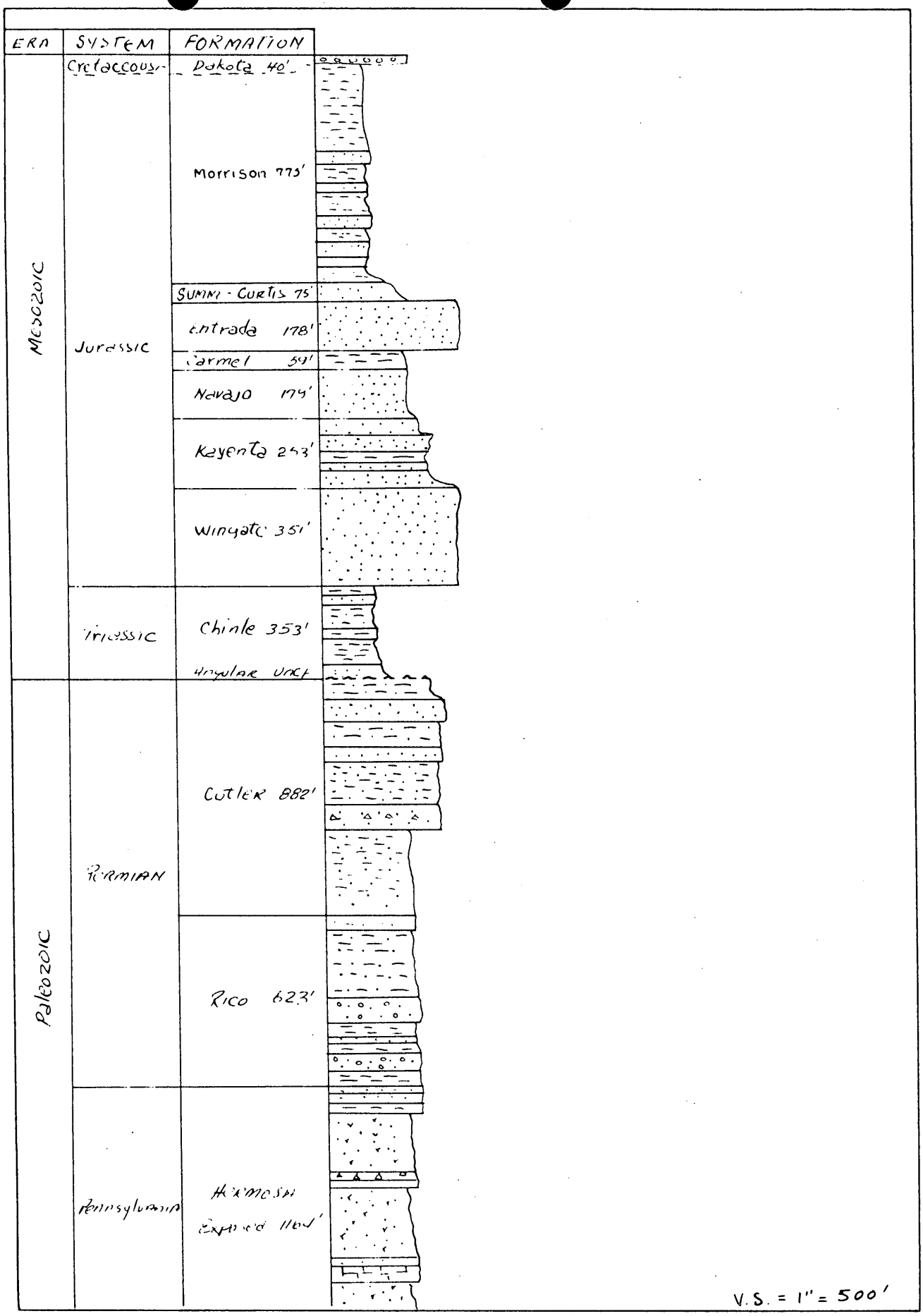


FIG.- STRATIGRAPHIC SECTION, SOUTH BIG INDIAN WASH and LISBON VALLEY, SAN JUAN COUNTY, UTAH.

Lisbon Valley is a major fault valley and determination of the attitude and displacement along the fault is difficult due to the presence of alluvium in the fault zone. However, present field evidence from cross-sections and drill hole data show the fault to be hinged at the north end reaching a maximum displacement of approximately 5,000 feet east of the Big Indian Rock and 'Horse-Tailing' out in the south, near the claims under discussion.

The major fault in the graben-block area trends in a northwesterly direction through township 31 south range 26 East with the least displacement near the Colorado State line.

The displacement places the Cretaceous Dakota formation against the Triassic Chinle formation for a maximum displacement of 2500 feet.

The many other small faults in the area are of small displacement and the lack of good marker beds and the extensive detrital cover makes their exact displacement difficult to determine. Relationship to mineralization has not been established. However, the faults generally do not displace the Morrison formation, and therefore are less that 300 feet.

GEOLOGY

Few detailed reports exist on the South Lisbon Valley area, and only two are of interest here. They are:

1. Report on the Green River Desert District, by Kirkpatrick, UMDC report, 1944. CLASSIFIED

2. Report on South Lisbon Valley, by Otis McRae, USAEC, (unpub) CLASSIFIED 1953.

It is to be noted that the above listed reports are both considered CLASSIFIED information by the USAEC and are not available to the general public.

The rocks exposed in the area range in age from the Triassic Chinle formation to the Cretaceous Dakota sandstone.

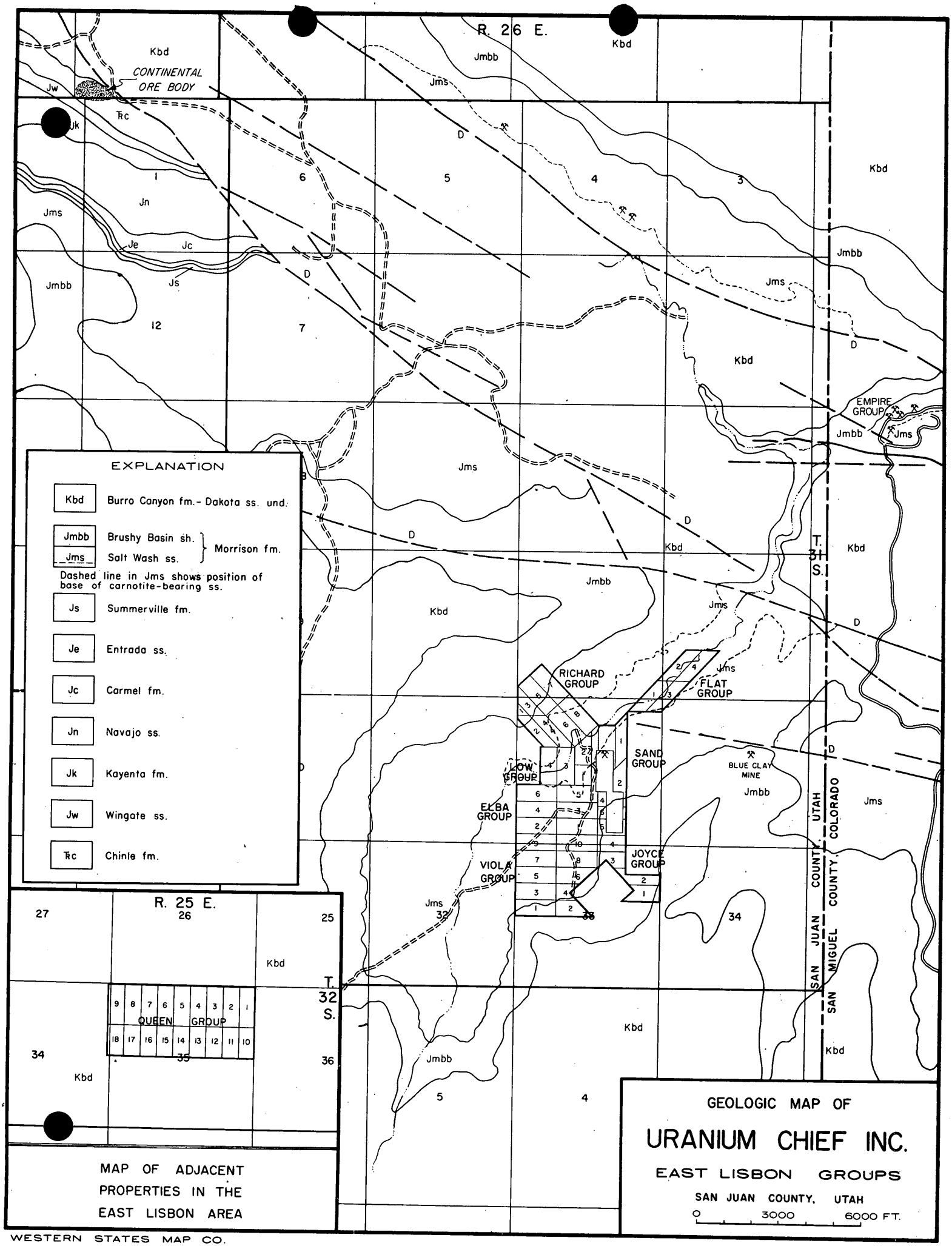
ECONOMIC GEOLOGY

Production of uranium and vanadium ores in the district is confined to the Salt Wash member of the Morrison formation, although mineralization has been noted along fracture planes in other formations. This is considered to be of little significance as far as commercial quantities of uranium are concerned.

Ore minerals found in the Salt Wash member of the Morrison formation are of the carnotite-tyuyamunite types. Corvusite is probably the principal vanadium mineral.

The Lost Rock, the upper sandstone lenses of the Salt Wash member of the Morrison formation, is light to dark brown, medium to fine-grained and contains specks of limonite and abundant amounts of carbonaceous material.

Carnotite and tyuyamunite is present in the host



WESTERN STATES MAP CO.

GEOLOGIST'S REPORT ON MINING CLAIMS

Attached to the Offering Circular and made a part hereof by reference as Exhibit "A" is a geological report by Robert L. Menl concerning this Issuer's claims in the Monument, Coal Bed Canyons and Lockhart Canyon areas in San Juan County, Utah. Mr. Mehl received his formal geology training at the University of Kansas and first entered the Uranium field in the summer of 1951. He has been employed as geologist for the Great Western Uranium and Dan Danvers Uranium for the past two years. His work has been exclusively studying and evaluating mining properties for the purpose of purchase by these companies.

EXHIBIT "A" — GEOLOGICAL REPORT MONUMENT AND COAL BED CANYONS

The reconnaissance of the Monument and Coal Bed Canyon Area was undertaken during the latter part of June, 1954, at the request of Tanner & Hansen, Certified Public Accountants, Moab, Utah. The objectives of this investigation were to:

1. Study the Morrison formation in the Monument and Coal Bed Canyon Areas.
2. Determine possible mineralization in the area, and to ascertain probable concentrations of uranium ores.
3. Specifically to examine the Uranium Chief Claims.
4. Examine these claims for valuation of economic considerations for uranium ore deposits.
5. Make a recommendation for an exploration program.

The fifteen claims in Monument Canyon comprise an area of approximately 300 acres. They have been surveyed, and no evidence of overstaking was apparent.

The claims are easily accessible by taking U. S. Highway 160 east from Monticello, Utah, for 18 miles then turning south, following the main traveled road for 15 miles; thence over five miles of unimproved road, which would be satisfactory for travel except in bad weather.

The property in question is situated in Township 36 South, Range 25 East, S. L. M., San Juan County, Utah.

No detailed examination or geologic study of the area is recorded in literature.

GEOGRAPHY

The elevation varies from seven thousand two hundred (7,200) feet on the means to six thousand three hundred (6,300) feet in the canyons.

The drainage of the area is to the west and south in a dendritic pattern, which is characteristic of areas where structural controls are not exaggerated.

The area is heavily covered with sage-brush, cedar, spruce, and pine-tree growth.

GEOLOGY AND PETROGRAPHY

The formations exposed in the area are of lower Cretacious Age with the Dakota Sandstone forming the high mesas.

The Dakota Sandstone is underlain by the Brushy Basin shale member of the Morrison formation. The Brushy Basin is composed of varied colored shales forming red, blue, green, gray and brown dune-like structures.

The Brushy Basin member is followed by the Salt Wash with its many sandstone members, which is the lowest formation of Cretacious age in this geologic province. The sandstone members of the Salt Wash contain the possible mineralized horizons thought to underlie the company's holdings. Most of the uranium deposits of the United States come from these Salt Wash sand members.

GENERALIZED SECTION OF THE MONUMENT AND COAL BED CANYON AREAS

System	Formation	Thickness	Description
	Dakota	10-50 ft.	Buff colored; medium grained; vertical joint system; heavy limonite stain; forms cap rock for mesas.
Cretacious Morrison formation	Brushy Basin shale member	250 ft.	Varied colored shales forming red, blue, green, gray and brown dune-like structures. Abundance of calcite, petrified wood and mineralized bone.
	Salt Wash Sand	300 ft.	Heavy sandstone lenses; medium to coarse grained: limonite staining in sandstone; forms benches.

The claims lie on a flat directly on top of the Salt Wash. The Brushy Basin shale member of the Morrison formation has been eroded away. Approximately ten feet of alluvial fill covers the claims.

rock as blebs or lenses and is also present as grain coatings and fracture fillings.

The average grade of the ore shipped from areas surrounding the claims under discussion is about .20% U_3O_8 and 1.2% V_2O_5.

CONCLUSIONS AND RECOMMENDATIONS

During the course of the preliminary investigation it was found that the RICHARD, SAND, LOG, LIDA, VIOLA, FLAT, AND JOYCE groups of claims were located in an area considered to be geologically favorable for the deposition of uranium ores.

It is recommended that the above listed groups of claims be considered for further geological study and exploration.

Based on the criteria established by government agencies a drilling program is outlined below.

It is recommended that further geological study be made before valid recommendations can be made concerning the potential of the Queen group of claims.

DRILLING RECOMMENDATIONS

It is recommended that:

1. The above listed groups of claims be explored using physical methods of exploration, i.e. diamond drilling.

2. Initial drill hole spacings be on 500 foot centers to locate favorable ground.

3. Second stage drilling be on 250 foot centers to further define mineralized ground and outline ore-bearing horizons.

4. Development of oreblocks be done using diamond drill holes spaced on 100 foot centers.

It has been established that a large part of the drilling will range between 200 and 400 feet in depth.

Very truly yours,

RICHARD A. TAIGMAN, JR.
Consulting Geologist

SUPPLEMENTARY GEOLOGIC REPORT ON THE PROPOSED
OIL [illegible] WELLS IN [illegible] LEMON VALLEY
[illegible], SAN BERNARDINO COUNTY, CALIF.

Sections [illegible] and [illegible]
T.[illegible] S., R.20 [illegible], [illegible]

by

William S. Ferguson
[illegible] A. [illegible]
Consulting Geologist

January, 1[illegible].

[illegible]

	Page
I. Introduction	1
II. Accessibility	1
III. Economic Geology-Mining History	1
IV. Geology	2
V. Conclusions	4
VI. Recommendations	4

[illegible]
Consulting Geologist

[illegible] Junction, Colorado.

January, 1966.

[illegible] Inc.
Salt Lake City, Utah

Dear Bros:

At your request I have examined the properties owned by your corporation in the [illegible] Valley area, San Juan County, Utah.

The attached is a report on the geology and the uranium prospectivity of the properties which consists of the Ballard, Lou, Carl, Pat, Libo and Lojoe group of claims.

Sincerely,

[illegible]

Consulting Geologist

/rg

INTRODUCTION

A geologic reconnaissance of the uranium mining properties in sections [illegible] and 28, R. 31 E., R. 28 E., [illegible] was undertaken during the early part of January, 1956. The purpose of the reconnaissance was to project ore trends by possible, plot anticlinal trends, map the Liberty Line owned by Mr. Sitton of Dove Creek and to otherwise determine the relative favorability of the area as compared to other producing districts.

ACCESSIBILITY

The area may be reached by two routes. First, through Dry Valley which is 26 miles south of the town of Moab, which is U.S. Highway 160, or from Monticello, which by travelling 15 miles east to the Dark Canyon Point 36, and thence 15 miles in a northerly direction to the property. All roads into the area are passable throughout the year.

[illegible] HISTORY

Sections [illegible] and 28, R. 31 E., R. 28 E., are located in a well-known uranium and vanadium producing district. Within a radius of a few miles there are a number of large and small deposits, chiefly vanadium. These deposits range in size from the Mathews Deposit of 200,000 tons in the Mitchell Mesa District to 1,000 tons in the

Waterfall and Prince groups to the northeast.

The average grade of the deposits is .[illegible] uranium and 1.[illegible] vanadium where carnotite deposits are encountered.

The Liberty mine owned by Mr. Sitton of the Dove Creek area is located on the eastern boundary of the Uranium Chief property, and it was into mine that was mapped with the intent to determine the direction of lineation and other sedimentary features as a guide to ore.

To the east of the Sitton mine there is a great deal of drilling actually underway. No information could be obtained on this activity nor the results as of to date.

Section

The ore-bearing horizon in the area under consideration is the upper resistant member of the Dakota Sandstone formation. It is in turn is overlain by the ruddy shale member of the Morrison formation, composed of carbonated shales, siltstones and mudstones. The Morrison formation is approximately 600 feet thick. The cap rock is the Burro Canyon formation of the Cretaceous.

The mineralized sandstone lenses in the area are about 60-70 feet thick. The color of the sandstone varies. In the mine it is seen to be dark brown due to limonite staining. Fresh hand specimens range in color from light gray to white and brown. The grain size ranges from fine to medium. Limonite is abundant. Carbonaceous material is also abundant.

No excessive bleaching of green mudstone were observed, but there silts or galls are in great everywhere.

cross-bedding and contorted bedding are common. Current lineation was noted and measured, but in general the lineation is obscure and precise measurement difficult. On the basis of so many readings as could be obtained the general direction of sedimentation appears to be in a southeasterly direction.

The area under consideration is just south of the horseshoe structure at the south end of the Hobson Valley fault. These faults are rather small and of little displacement and probably create the channelways necessary for the presence of solution. As has recent time the relationship between structure and ore occurrence in the Carbon Lake not been clearly defined, and requires intensive study on the problem.

There is a widely spaced joint set developed in the vicinity of the Sisson mine with the major set trending in a southeasterly direction. There is a possibility that a conjugate joint set has been developed near the mine, but the presence of heavy snow cover makes field observation extremely difficult.

Intercalated between the portals of the two small workings there is a thick seam of green mudstone and abundant carbonaceous material associated. (See at color the map) This seam rolls with the bedding planes, normal and cross-bedded, and is in the mineralized mudstone horizon exposed in the mine workings. A bleached area with numerous limonite streaks is noticed around and above the mine portal.

Curvatite "paint" is noted throughout the carbon seam and throughout the accompanying mudstone and sandstone. The

mineralization appears to follow the carbonaceous seam as it cuts through the mine workings. The green rutilated lamprophyre also follows the carbonaceous seam, and where the carbon pinches out the the seam continues as a green rutilated lamprophyre.

CONCLUSIONS

From a study of the mine workings it can be concluded that the ore deposit was a typical carnotite-tyuyamunite type deposit. Carbon and limonite were abundant and rather intimately associated with the ore.

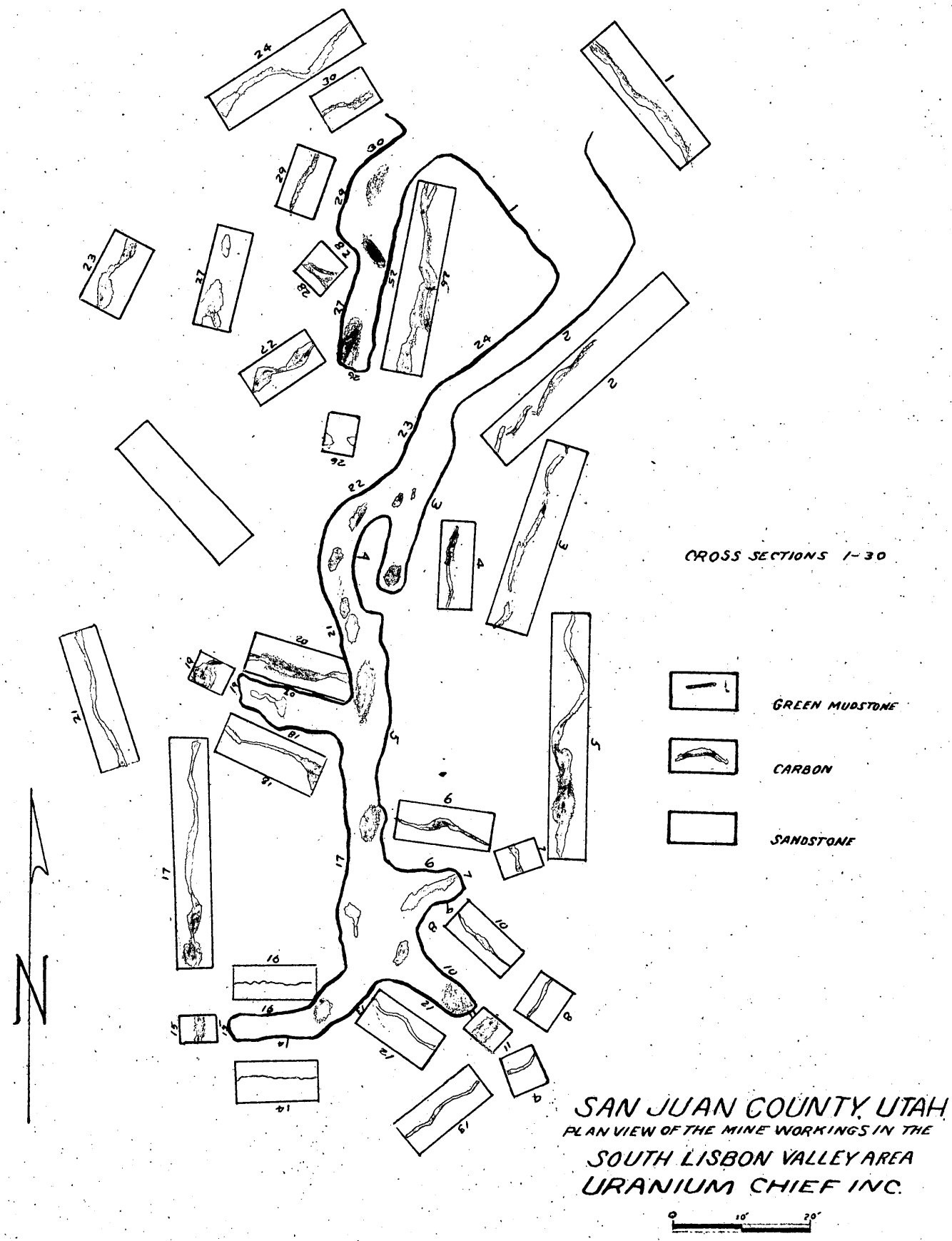
Cross-bedding and lineation was noted throughout the mine, and although there is a relatively fractured, carnotite veinlet was observed on the associated trends to a southeasterly direction.

In structure, current lineation in the mine workings thereafter trend to a southeasterly direction, giving rise to the belief that stream erosion, structure and ore trends are in approximately the same direction.

RECOMMENDATIONS

Based on the ore trends developed in and about the mine workings it is recommended that exploratory channel cuttings be done in the areas south and west of the mine workings, as indicated on the accompanying map.

SEC. 28
T31S R26E



SAN JUAN COUNTY, UTAH
PLAN VIEW OF THE MINE WORKINGS IN THE
SOUTH LISBON VALLEY AREA
URANIUM CHIEF INC.

QUIT CLAIM DEED

WALTER B. SNYDER and OVELLA SNYDER, his wife, and R. J. FELLMETH and JULIANNE FELLMETH, his wife, GRANTORS, of Dove Creek, State of Colorado and Moab, State of Utah, hereby Quit Claim to URANIUM CHIEF, INC., a Utah Corporation, GRANTEES, of Salt Lake City, State of Utah, for the sum oe Ten Dollars ($10.00) and other valuable considerations, the following described mining claims located in San Juan County, State of Utah, TO WIT:

Those certain mining claims in which certificates of location are recorded in the County Recorder's Office of San Juan County, State of Utah, and particularly described therein, and said certificates as recorded are hereby incorporated in and made a part of the description of the herein described mining claims. The names of the said mining claims, the book and pages where recorded are as follows:

NAME	BOOK	PAGE
Flat #1	25	269
Flat #2	25	269
Flat #3	25	270
Flat #4	25	270
Richard #1	19	299
Richard #2	19	299
Richard #3	19	300
Richard #4	19	300
Richard #5	19	301
Richard #6	19	301
Richard #7	23	1
Richard #8	23	1
Viola #1	23	168
Viola #2	23	168
Viola #3	23	139
Viola #4	23	139
Viola #5	23	139
Viola #6	23	139
Viola #7	23	141
Viola #8	23	141
Viola #9	23	142
Viola #10	23	142
Elba #1	23	143
Elba #2	23	143
Elba #3	23	144
Elba #4	23	144
Elba #5	23	145
Elba #6	23	145

NAME	BOOK	PAGE
Sand #1	93	298
Sand #2	93	298
Sand #3	93	299
Sand #4	93	299

Subject to Royalty Reservation herto reserved to E. R. Brown.

WITNESS the hands of the said GRANTORS this 29th day of October, A.D. 1954.

R J Fellmeth

Walter B Snyder

Ovella Snyder

Julianne Fellmeth

ACKNOWLEDGEMENT

STATE OF UTAH)
) SS
County of San Juan)

On this 29th day of October, A. D. 1954, personally appeared before me WALTER B. SNYDER and OVELLA SNYDER, his wife, and R. J. FELLMETH and JULIANNE FELLMETH, his wife, the signers of the foregoing instrument, who duly acknowledged to me that they executed the same.

Donald T. Adams
Notary Public, Residing at
Monticello, Utah.

My Commission Expires:
2-1-55
~~August 17, 1958~~

QUIT CLAIM DEED

WALTER B. SNYDER and OVELLA SNYDER, his wife; and R. J. FELLMETH AND JULIANNE FELLMETH, his wife, GRANTORS, of Dove Creek, State of Colorado and Moab, State of Utah, hereby Quit Claim to URANIUM CHIEF, INC., a Utah Corporation, GRANTEES, of Salt Lake City, State of Utah, for the sum of Ten Dollars ($10.00) and other valuable considerations, the following described mining claims located in San Juan County, State of Utah, TO WIT:

Those certain mining claims in which Certificates of Location are recorded in the County Recorder's Office of San Juan County, State of Utah, and particularly described therein, and said certificates as recorded are hereby incorporated in and made a part of the description of the herein described mining claims. The names of the said mining claims, the book and pages where recorded are as follows:

NAME	BOOK	PAGE
Joyce #1	23	134
Joyce #2	23	134
Joyce #3	23	135
Joyce #4	23	135
Joyce #5	23	136
Joyce #6	23	136
Joyce #7	23	137
Joyce #8	23	137
Queen #1	91	269
Queen #2	91	270
Queen #3	91	270
Queen #4	91	271
Queen #5	91	271
Queen #6	91	272
Queen #7	91	272
Queen #8	91	273
Queen #9	91	273
Queen #10	91	274
Queen #11	91	274
Queen #12	91	275
Queen #13	91	275
Queen #14	91	276
Queen #15	91	276
Queen #16	91	277
Queen #17	91	277
Queen #18	91	278
Low #1	25	280
Low #2	25	281
Low #3	25	281
Low #4	25	282

NAME	BOOK	PAGE
Low #5		
Low #6		
Low #7		
Low #8		
Mule Shoe #1	45	480
Mule Shoe #2	45	481
Mule Shoe #3	45	481
Mule Shoe #4	45	482
Mule Shoe #5	45	482
Mule Shoe #6	45	483
Mule Shoe #7	45	483
Mule Shoe #8	45	484
Mule Shoe #9	45	484
Mule Shoe #10	45	485
Mule Shoe #11	45	485
Mule Shoe #12	45	486
Willow Creek #3	71	46
Willow Creek #6	119	313
Willow Creek #7	119	314
Willow Creek #8	119	314
Willow Creek #9	119	315
Willow Creek #10	119	315
Uranium Chief #1	109	359
Uranium Chief #2	109	359
Uranium Chief #3	109	360
Uranium Chief #4	109	360
Uranium Chief #5	109	361
Uranium Chief #6	109	361
Uranium Chief #7	109	362
Uranium Chief #8	109	362
Uranium Chief #9	109	363
Uranium Chief #10	109	363
Uranium Chief #11	109	364
Uranium Chief #12	109	364
Uranium Chief #13	109	365
Uranium Chief #14	109	365
Uranium Chief #15	109	366

Subject to Royalty Reservation hereto reserved to E. R. Brown and Ed Baird Jr.
Richard #11

WITNESS the hands of the said GRANTORS, this 29th day of October, A.D. 1954.

R J Fellmeth

Walter Kessler

Ovella Snyder

Julianne Fellmeth

5

ACKNOWLEDGEMENT

STATE OF UTAH)
) SS
County of San Juan)

On this 29th day of October, A. D. 1954, personally appeared before me WALTER B. SNYDER and OVELLA SNYDER, his wife; and R. J. FELLMETH and JULIANNE FELLMETH, his wife, the signers of the foregoing instrument, who duly acknowledged to me that they executed the same.

Donald T. Adams
Notary Public, Residing at
Monticello, Utah.

My Commission Expires:
2-1-55
~~August 17, 1958.~~

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION
[redacted]

OFFICIAL BUSINESS

Bureau of Mines
P. O. Box 560
Juneau, Alaska

JUL 3 10PM 1954

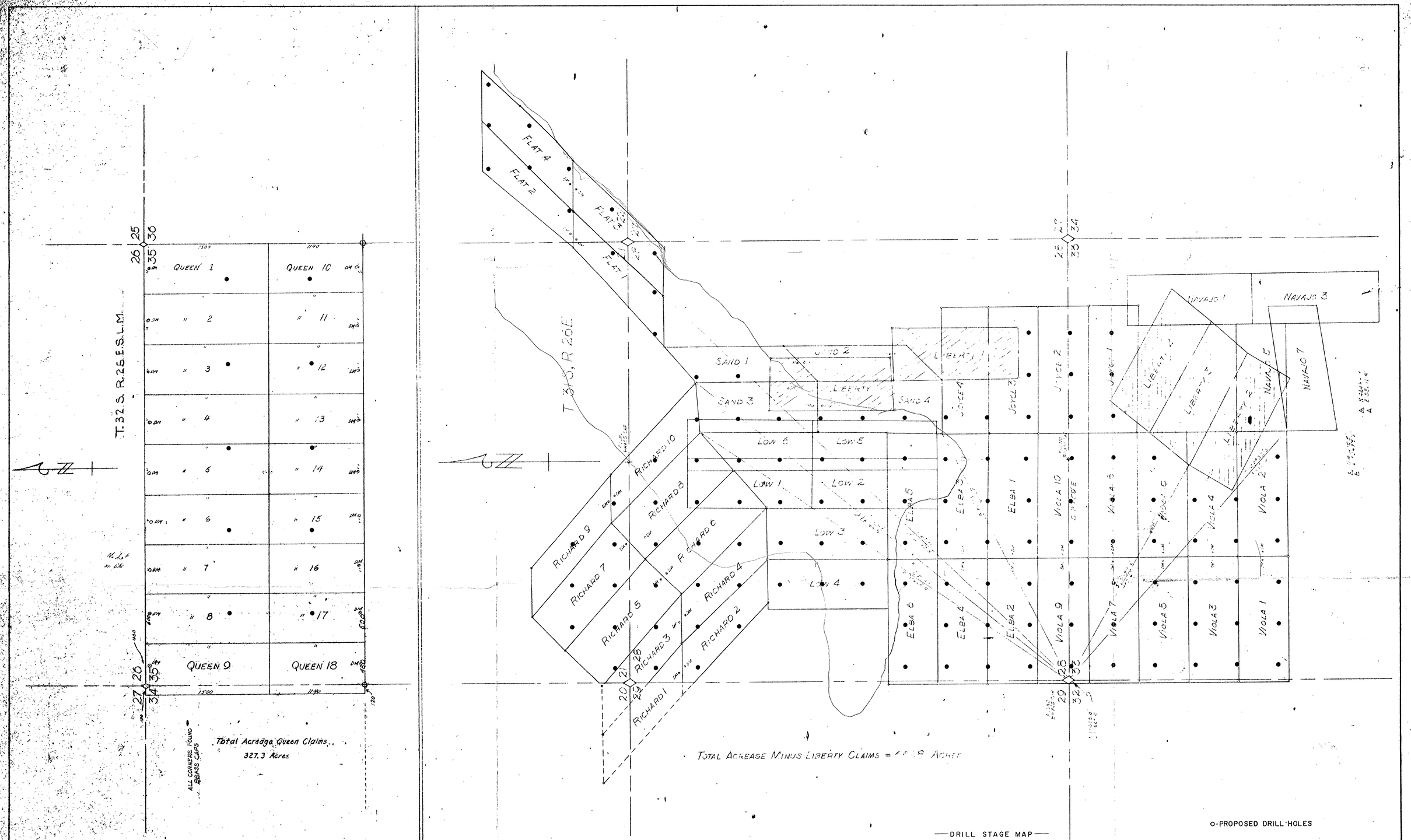
PENALTY FOR PRIVATE USE TO AVOID PAYMENT OF POSTAGE, $300

UNITED STATES POSTAGE 5 CENTS 5

VIA AIR MAIL

Maps + Deed

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.



—DRILL STAGE MAP—

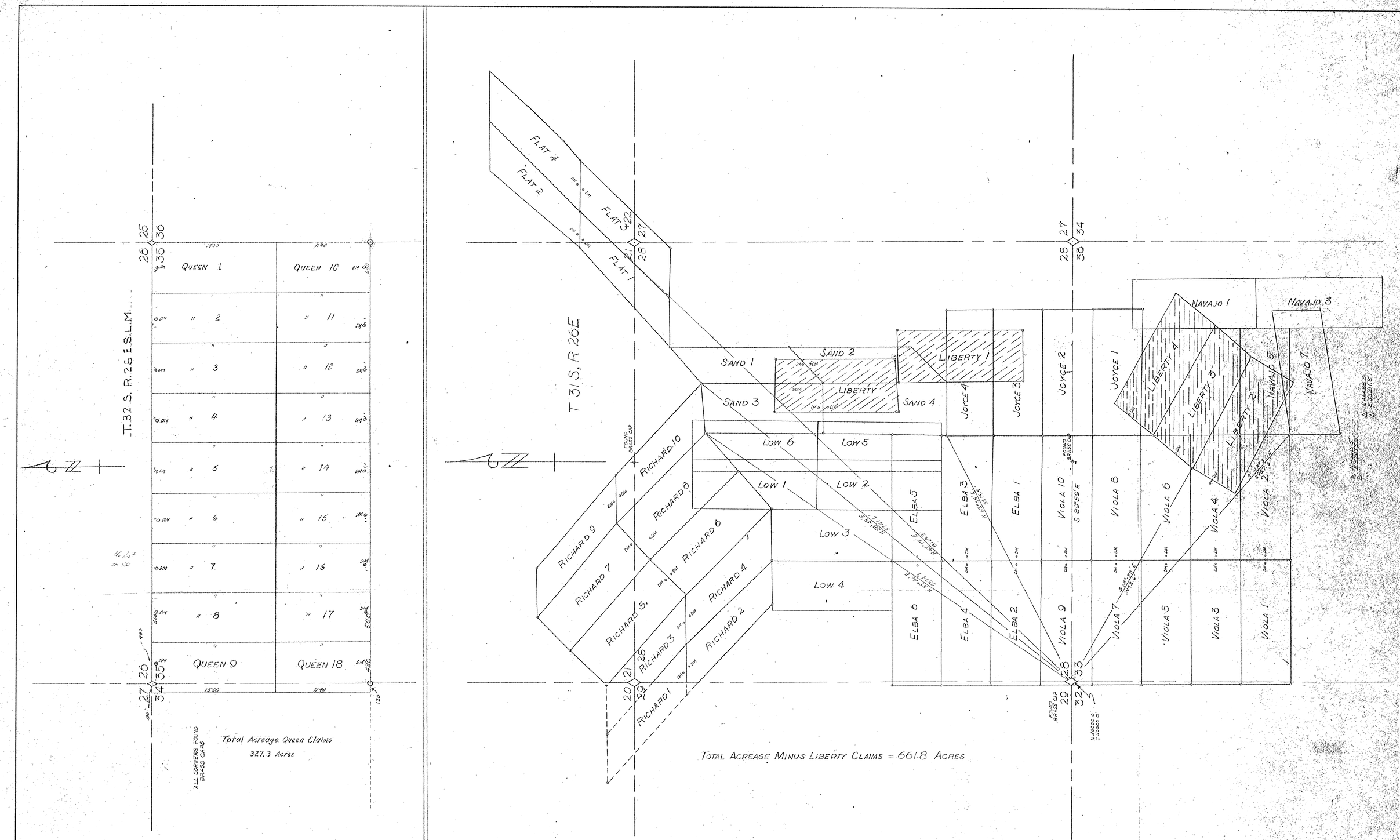
DATE	REVISION	BY	CHKD.

METROPOLITAN ENGINEERS, INC.
CONSULTING ENGINEERS
140 WEST 2nd SOUTH — SALT LAKE CITY, UTAH

DRAWN BY [illegible] DATE [illegible] CHECKED BY ____ DATE ____ SCALE: 1" = 500'

NAME OF OWNER: Snyder & Fellows
LOCATION OF JOB: Little Indian Canyon, San Juan Co.
TITLE OF DRAWING:

CONTRACT NO.
DRAWING NO.



DATE	REVISION	BY	CHKD.

METROPOLITAN ENGINEERS, INC.
CONSULTING ENGINEERS
140 WEST 2nd SOUTH — SALT LAKE CITY, UTAH

DRAWN BY B.W. DATE 8/10/59 CHECKED BY ____ DATE ____ SCALE: 1" = 500'

NAME OF OWNER: SNYDER & FELLMUTH
LOCATION OF JOB: LITTLE INDIAN CANYON: SAN JUAN CO.
TITLE OF DRAWING:

CONTRACT NO.
DRAWING NO.

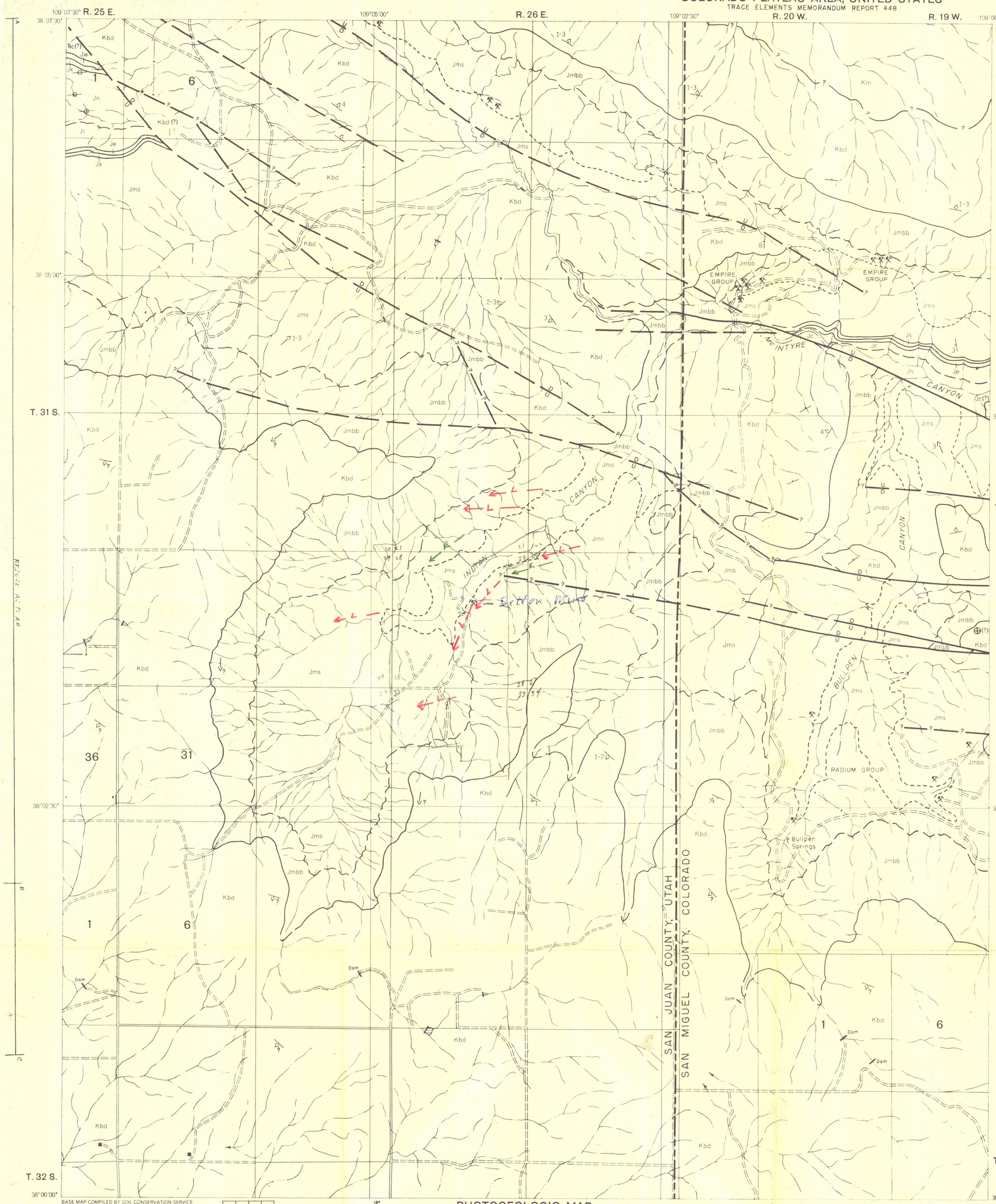
SALT LAKE BLUE

U. S. DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

PREPARED IN COOPERATION WITH THE
ATOMIC ENERGY COMMISSION

COMPILATION OF PHOTOGEOLOGY AND SURFACE GEOLOGY
COLORADO PLATEAU AREA, UNITED STATES

TRACE ELEMENTS MEMORANDUM REPORT 448



EXPLANATION

QUATERNARY

Qal — Alluvium
Valley fill and terrace gravel

CRETACEOUS

Upper — Km — Mancos shale

Lower — Kbd — Burro Canyon formation and Dakota sandstone, undifferentiated (In places may be covered by thin mantle of Mancos shale (Upper Cretaceous))

JURASSIC

Upper — Jmbb, Jms — Morrison formation. Brushy Basin shale member, Jmbb; Salt Wash sandstone member, Jms. Dashed line shows position of base of carnotite-bearing sandstone

Upper — Js — Summerville formation

Middle — Je — Entrada formation

Middle — Jc — Carmel formation

JURASSIC (?)

Jn — Navajo sandstone

Jk — Kayenta formation

Jw — Wingate sandstone

TRIASSIC

Upper — TRc — Chinle formation

L — Contact (Can be accurately located within 30 feet horizontally)

Contact (Can be approximately located within 30 to 200 feet horizontally)

Contact (Cannot be located accurately; probable error greater than 200 feet)

Probable or doubtful contact

Fault (Dashed where approximately located)

Probable or doubtful fault

High-angle fault (U, upthrown side; D, downthrown side)

Strike and dip of beds (Based on field measurement)

Strike and dip of beds (Based on photo-interpretation)

Horizontal beds

Mine or quarry

Spring

Primary road

Secondary road

Trail

Fence

State boundary

R — Ripple mark

BASE MAP COMPILED BY SOIL CONSERVATION SERVICE
U. S. DEPT. OF AGRICULTURE

JULY 1952

4	3	2	1
5	6	7	8
12	11	10	9
13	14	15	16

MT. PEALE QUADRANGLE

TRUE NORTH 15°

PHOTOGEOLOGIC MAP
MT. PEALE - 16
UTAH - COLORADO

PHOTOGEOLOGY BY R. J. HACKMAN
PHOTOGEOLOGIC UNIT, ALASKAN GEOLOGY BRANCH

SCALE 1:24,000
0 1 MILE

Stratigraphic column modified from Colorado Geol. Survey Bull. 16; U. S. Geol. Survey Strategic Minerals Inv., Geologic map of vanadium region of southwestern Colorado and southeastern Utah, by R. P. Fischer, 1944; Oil and Gas Inv., Prelim. Map 53; and U. S. Geol. Survey unpublished report.

M8-3.16-1