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

RECEIVED
SEP 23 1953

September 23, 1953

Memorandum

To: Ernest William Ellis, DMEA Member
Uranium Commodity Committee, Room 4640

From: H. D. Keiser, Bureau of Mines Member
Uranium Commodity Committee

Subject: Final Report, DMEA Docket 3056, R.A.M. Mining Co., Emery County, Utah

I have reviewed the subject report and discussed it with Arthur P. Butler, Geological Survey Member.

I concur with the Field Team in denial of the application involved under the subject docket.

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

H. D. Keiser

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

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Signed

H. D. Keiser

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

WASHINGTON 25, D. C.

IN REPLY REFER TO:

DEPARTMENT OF THE INTERIOR
Bureau Mines Administration
RECEIVED
SEP 23 1953

File in Docket

E. Wm. Ellis, DMEA Member, Uranium Commodity Committee

September 23, 1953

Arthur P. Butler, Jr., USGS Member, Uranium Commodity Committee

Final Field Team Report, DMEA Docket 3056 (uranium). R. A. M. Mining Co., applicant, Grand Junction, Colo.: Spotted Wolf claims, Secs. 1 and 2 (unsurveyed) T. 22 N., R. 13 E., Emery County, Utah.

The Field Team Report on the results of examination at the property identified above recommended denial of the application, and it was denied in Region IV. The report has been reviewed and discussed with Mr. H. D. Keiser, Bureau of Mines Member, Uranium Commodity Committee, and J. O. Hosted, Atomic Energy Commission.

The geologic reasons for denial are adequately summarized in the memorandum of August 18 from R. P. Fischer transmitting the report to the Field Team Region IV.

I concur in the examiners' recommendation that the application be denied.

Copies to: E. Wm. Ellis (2)

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
SEP 23 1953

IN REPLY REFER TO:

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

E. Wm. Ellis, DMEA Member, Uranium Commodity Committee

September 23, 1953

Arthur P. Butler, Jr., USGS Member, Uranium Commodity Committee

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I concur in the examiners' recommendation that the application be denied.

Copies to: E. Wm. Ellis (2)

STANDARD FORM NO. 64

Office Memorandum • UNITED STATES GOVERNMENT

TO : E. Wm. Ellis, DMEA Member, Uranium Commodity Committee

DATE: September 23, 1953

FROM : Arthur P. Butler, Jr., USGS Member, Uranium Commodity Committee

SUBJECT: Final Field Team Report, DMEA Docket 3056 (uranium). R. A. M. Mining Co., applicant, Grand Junction, Colo.: Spotted Wolf claims, Secs. 1 and 2 (unsurveyed) T. 22 N., R. 13 E., Emery County, Utah.

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The geologic reasons for denial are adequately summarized in the memorandum of August 18 from R. P. Fischer transmitting the report to the Field Team Region IV.

I concur in the examiners' recommendation that the application be denied.

Arthur P. Butler Jr.

Copies to: E. Wm. Ellis (2)

9/21/53 gla

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

224 New Customhouse
Denver 2, Colorado

September 8, 1953.

Memorandum

To: Administrator, Defense Minerals Exploration Administration
Attention: 200

From: Field Team, Region IV

Subject: Final Report, DMEA Docket 3056 (Uranium), R.A.M. Mining Company, Emery County, Utah.

Enclosed are four copies of the final report on the subject docket, a copy of the letter of denial to the applicant, and two copies of Form 3b.

W. H. King
W. H. King

A. H. Koschmann
A. H. Koschmann

Enclosures

DENIED

Reviewed by
DMEA OPERATING COMMITTEE
9-21-53
(date)

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

224 New Customhouse
Denver 2, Colorado

September 8, 1953.

Mr. Frank Nisley, Jr.
R.A.M. Mining Company
Route 3
Grand Junction, Colorado

Re: Docket DMEA-3056

Dear Mr. Nisley:

Reference is made to your application for Government aid on the Spotted Wolf property.

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

A careful study of your property and data available to this agency, reveals that the probability of disclosing mineable reserves of uranium by your proposed exploration program is not considered sufficiently promising to justify Government participation. Under these circumstances, we regret to advise that your application for exploration aid is denied.

Very truly yours,

for John F. Shaw
W. N. King
Field Team, Region IV

HMC:cwm

cc: Subject
Administrator, DMEA
SKWilson
ERGordon
RPFischer
AHKoschmann (2)
Chron.

A. H. Koschmann
A. H. Koschmann
Field Team, Region IV

Reviewed by
DMEA OPERATING COMMITTEE
9-21-53
(date)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Mining Division
Region IV

September 8, 1953.

Memorandum

To: Field Team, Region IV

From: Chief, Mining Division, Region IV

Subject: Final Report, DMEA Docket 3056 (Uranium), Spotted Wolf Group, R.A.M. Mining Company, Emery County, Utah.

Enclosed are ten copies of the final engineering report on the subject docket.

The applicant requested $5,750.00 to build an access road and drift 100 feet. The examining engineer concludes that evidence of uranium mineralization is not sufficiently strong to justify the requested loan and he recommends that the application be denied.

We concur in this recommendation.

W. H. King
W. H. King

Enclosures

Reviewed by
DMEA OPERATING COMMITTEE
9-21-53
(date)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

1600 EAST FIRST SOUTH STREET
SALT LAKE CITY 1, UTAH

August 27, 1953

Memorandum

To: W. H. King, Executive Officer, DMEA Field Team, Region IV

From: Chief, Minerals Development Branch, Mining Division, Region IV

Subject: Docket No. DMEA-3056 (Uranium), R.A.M. Mining Co., Spotted Wolf property, Emery County, Utah

Enclosed are 11 copies of an engineering report covering examination of the subject property by W. E. Young. Also included are three copies each of forms 6-803 and 6-993 and the original brochure.

Uranium mineralization on the Spotted Wolf property occurs in the Shinarump conglomerate. Examination indicates that the uranium mineralization is too low grade for commercial significance. The examining engineer concludes that Government participation in exploratory work is not warranted. I concur with his recommendation.

Stephen R. Wilson
Stephen R. Wilson

Enclosures

Reviewed by
DMEA OPERATING COMMITTEE
9-21-53
(date)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.
200 New Customhouse
Denver 2, Colorado

August 21, 1953

Memorandum

To: DMEA Field Team, Region IV

From: A. H. Koschmann

Subject: DMEA Docket 3056, Spotted Wolf Group, R.A.M. Mining Company, Emery County, Utah

Enclosed are 10 copies of the geologic report by I. J. Witkind of the U. S. Geological Survey covering the above docket.

It has been recommended that the loan be denied.

A. H. Koschmann

A. H. Koschmann
Supervising Geologist
Colorado-Wyoming

Enclosures (10)

Reviewed by
DMEA OPERATING COMMITTEE
9-21-53
(date)

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

August 18, 1953

Memorandum

To: A. H. Koschmann
Field Team, Region IV

From: R. P. Fischer
Colorado Plateau District Office

Subject: DMEA 3056, Spotted Wolf group, R.A.M. Mining Co., Emery County, Utah

Transmitted herewith are ten copies of a geologic report on the Spotted Wolf group of claims, Emery County, Utah. The R.A.M. Mining Company, owner, has applied for a loan of $5,730.00 to build one mile of access road and drive 100 feet of exploratory drift.

The attached report is prepared by I. J. Witkind and is based on a field examination made jointly with W. E. Young, Bureau of Mines, and W. I. Finch, Geological Survey. In connection with this application, contact has been made with the Atomic Energy Commission, Grand Junction, who concur in general with the appraisal made in this report.

The Spotted Wolf claims cover an outcrop of Shinarump conglomerate. A little radioactivity was detected in a few places along the outcrop, but samples from these places yielded only a slight amount of uranium, vanadium, and copper, and no uranium minerals were observed at the outcrop. In the absence of known deposits and the lack of other positive evidence of geologically favorable ground, it is concluded that the chances are poor of finding minable deposits of uranium, and the report recommends that the application be denied.

I concur with this recommendation.

R. P. Fischer

Richard P. Fischer
Acting District Supervisor

Enclosures 10

Reviewed by
DMEA OPERATING COMMITTEE
9-21-53
(date)

UNITED STATES DEPARTMENT OF THE INTERIOR

DOUGLAS MCKAY, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM

REGION IV

DMEA Docket 3056 (Uranium)

The R.A.M. Mining Company, Spotted Wolf Claims, Emery County, Utah

By

Irving J. Witkind
U. S. Geological Survey

August 18, 1953

Reviewed by
DMEA OPERATING COMMITTEE
9-21-53
(date)

DMEA DOCKET 3056 (Uranium)

THE R.A.M. MINING CO., SPOTTED WOLF CLAIMS, EMERY COUNTY, UTAH

INTRODUCTION AND SUMMARY

The R.A.M. Mining Company of Grand Junction, Colo., has applied (Docket 3056) to the Defense Minerals Exploration Administration for assistance to explore for uranium in Emery County, Utah. The applicant proposes to spend $5,730.00, of which $3,237.00 is to be used towards the construction of one mile of road. The remaining $2,493.00 is to defray the expenses involved in driving a drift 100 feet long. The Government is asked to supply the full amount of $5,730.00.

The property was examined on July 2, 1953, in company with W. E. Young, Bureau of Mines, and Warren I. Finch, Geological Survey.

The Spotted Wolf claims consist of nine claims in secs. 1 and 2, (unsurveyed) T. 22 N., R. 13 E., Salt Lake Principal Meridian. The claims are about 7 miles west of Utah highway 24 and 15 miles southwest of Green River, Utah. The property could be reached, as of July 1953, only by cars having 4-wheel drive and by walking about 1 mile up a narrow wash confined between steep walls (fig. 1). Any road constructed in the wash would be susceptible to washout during periods of heavy rain.

The mineralized rock is in basal sediments of the Shinarump conglomerate (Triassic) and consist principally of pods of carbon in a coarse-grained sandstone. No uranium minerals were observed and it is concluded that chance of making a significant discovery of uranium ore on these claims is poor. It is recommended, therefore, that this application be denied.

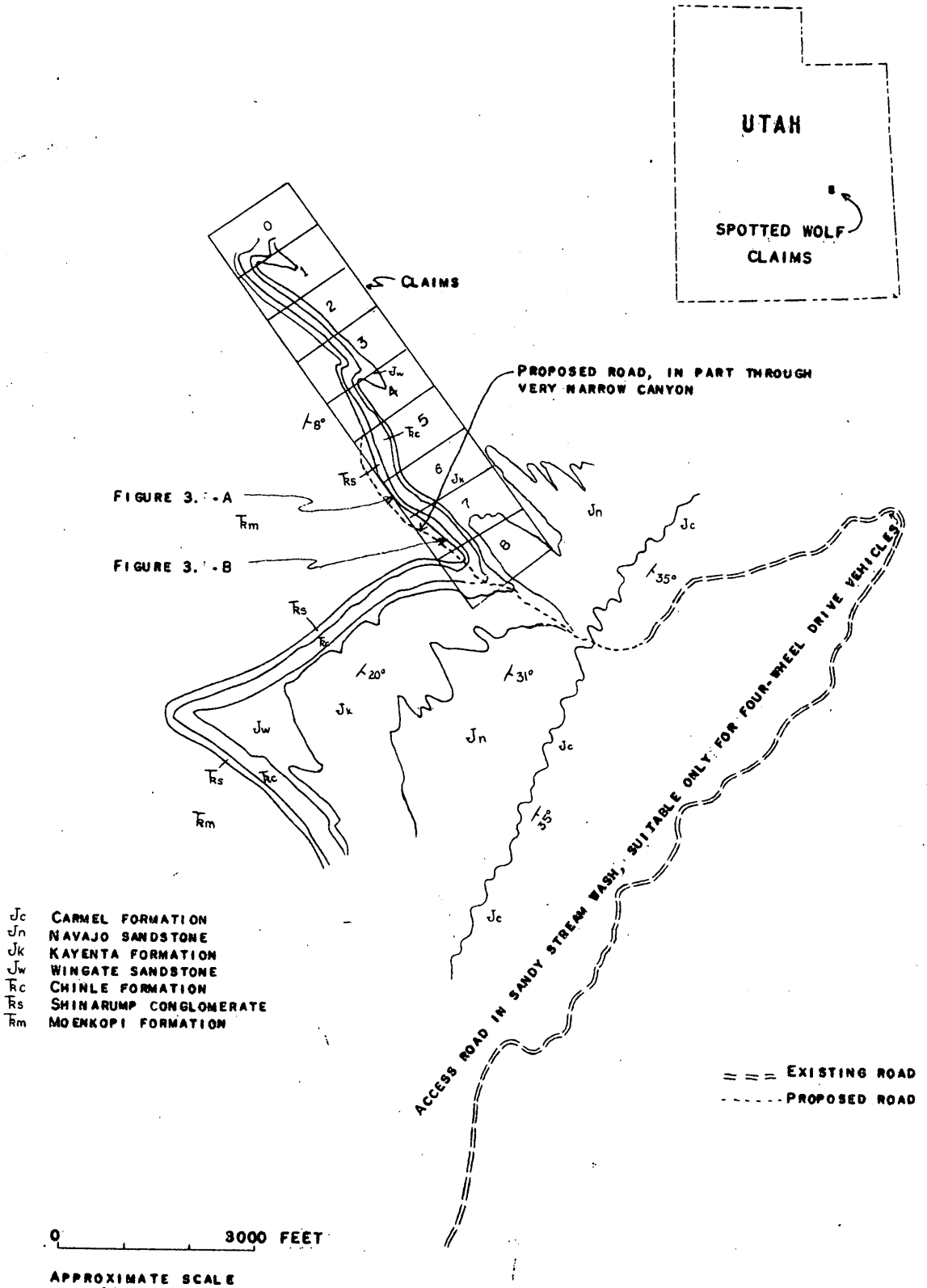


Figure 1. GENERALIZED GEOLOGIC MAP OF AREA SURROUNDING SPOTTED WOLF CLAIMS, EMERY CO., UTAH.
D.M.E.A. DOCKET 3056

GEOLOGY

The claims are on the northeast flank of the San Rafael Swell, a broad dome-like fold. In this general region consolidated sedimentary strata are exposed; they range from the Coconino sandstone of Permian age to the Morrison formation of Jurassic age. In the area immediately adjacent to the claims the range of strata is from the Moenkopi formation of Triassic age to the Navajo sandstone of Jurassic age (fig. 2).

This last-mentioned group of strata comprise the more prominent cuesta which forms the eastern flank of the Swell. All strata dip eastward, and dips range from about 5° to as much as 35°.

The host rock in this region for economic concentrations of uranium minerals is the Shinarump conglomerate. The Shinarump is a light gray conglomeratic sandstone that ranges in thickness from about 25 feet to as much as 75 feet. It is composed of lenticular beds of cross-bedded medium to coarse-grained sandstone, with small conglomerate lenses along the contact with the underlying Moenkopi formation. The Shinarump unconformably overlies the red shaley siltstones of the Moenkopi with the relief along the unconformity generally less than 5 feet. In one locality near the center of the claims a scour in the Moenkopi about 60 feet wide and about 3 feet deep, filled with sediments of the Shinarump, accentuates the unconformity.

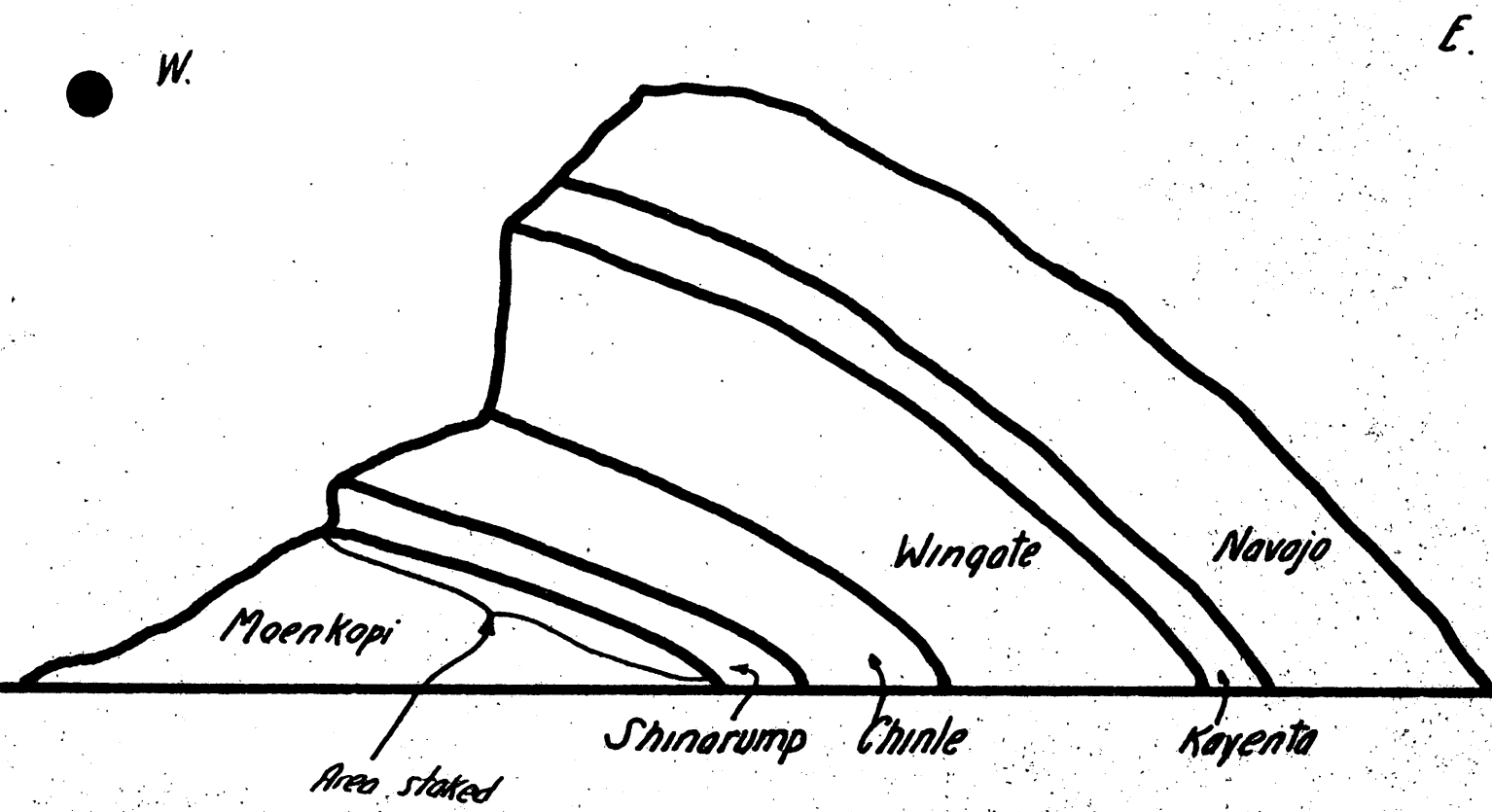


Figure 2. IDEALIZED CROSS-SECTION OF EASTERN FLANK OF THE SAN RAFAEL SWELL IN THE VICINITY OF THE SPOTTED WOLF CLAIMS. NOT TO SCALE.

D.M.E.A. DOCKET 3056

ORE DEPOSITS

The mineralized outcrops are in basal sediments of the Shinarump conglomerate, which crops out in a steep slope, above which is developed a narrow bench.

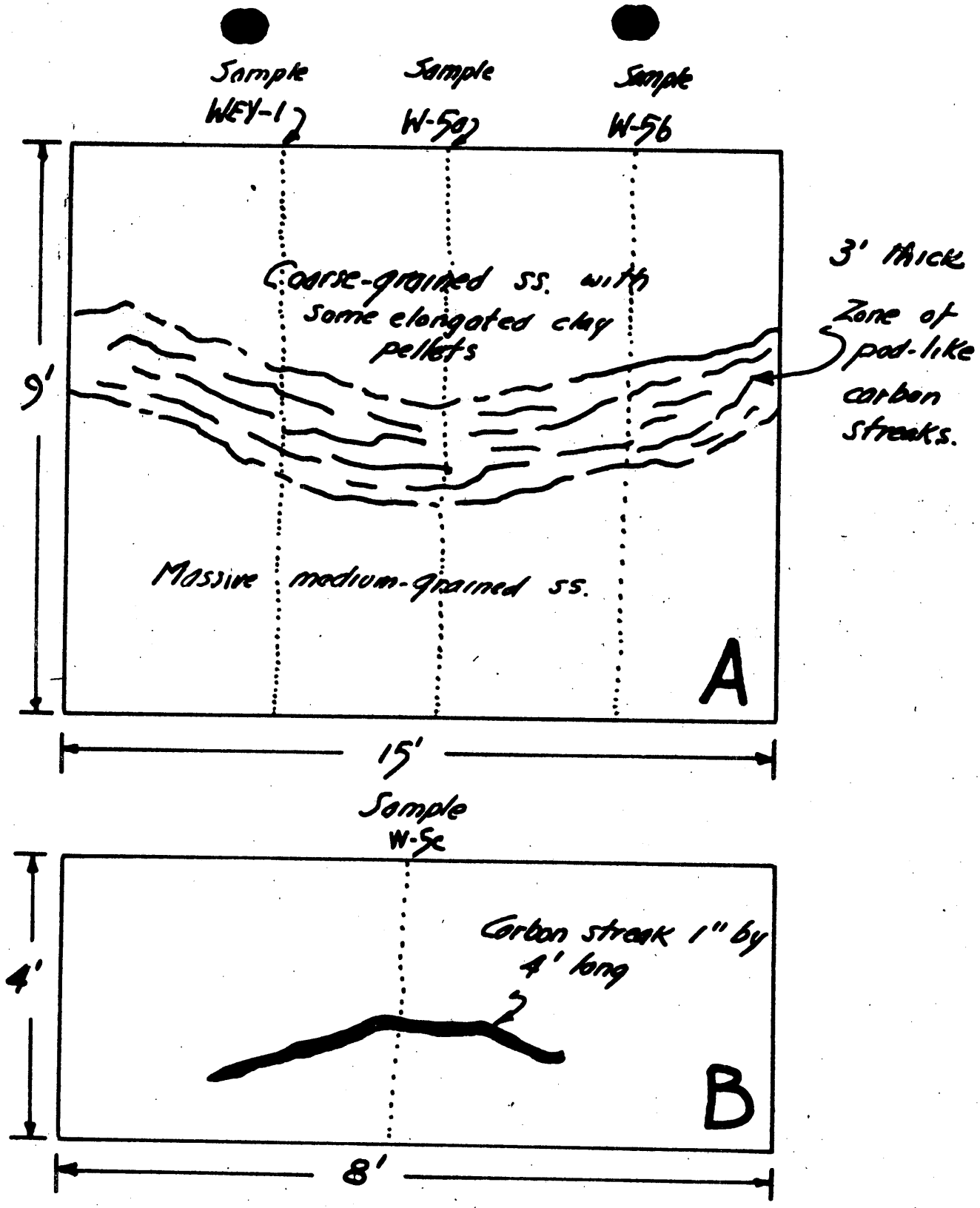
The Shinarump-Moenkopi contact was examined for the presence of observable uranium minerals and tested for abnormal radioactivity with a Precision Scintillator. Although radioactive anomalies were noted at four places along the contact, uranium minerals were not observed in these places; all abnormal radioactivity appeared to be associated with thin pod-like seams of carbonaceous material scattered irregularly in the sandstone. The highest count obtained was .1 MR per hour; normal background for the area was .02 MR per hour.

The largest concentration of these carbonaceous pods was in a coarse-grained sandstone lens about 15 feet long and about 4 feet thick near the eastern edge of claim no. 6 (fig. 1, and A, fig. 3). (Incidentally, the numbering system of the claims as staked on the ground does not match the one shown on the map accompanying the docket. The numbering system of the claims on the ground is correctly shown in fig. 1.)

Samples were collected from this lens (A, fig. 3) and from one other locality (B, fig. 3 and fig. 1). These samples were submitted for analysis on July 7, 1953; results are presented below.

Field No.	eU%	U%	V_2O_5%	Cu%
W-5a	0.008	0.007	0.09	0.060
W-5b	0.006	0.005	0.12	0.030
W-5c	0.003	0.003	0.09	0.015

Sample no. WEY-1 was collected by W. E. Young of the Bureau of Mines; results are not available as yet.



not to scale

Figure 3. SKETCHES SHOWING THE CHARACTER OF THE SAMPLES AND THE ROCK SAMPLED
D.M.E.A. DOCKET 3056

The low uranium concentration shown by the assay results suggests that the dominant amount of radioactivity is derived from the disseminated carbonaceous pods. Further, the lateral extent of the carbonaceous pod concentration is probably very small; most of these pods being localized in one immediate area. On the basis of these reasons as well as the general unfavorable appearance of the area, it would seem that this area does not conceal an important deposit of uranium ore.

CONCLUSIONS AND RECOMMENDATIONS

It is concluded that the Spotted Wolf claims do not offer much promise for the discovery of significant deposits of uranium ore, and that any discovery that might be made would be extremely small and of low grade. It is recommended, therefore, that this application be denied.

R.A.M. MINING COMPANY
SPOTTED WOLF PROPERTY
EMERY COUNTY, UTAH
DMEA-3056
Uranium

Engineering Report

By W. E. Young
Mining engineer
Bureau of Mines

Reviewed by
DMEA OPERATING COMMITTEE
9-21-53
(date)

R.A.M. MINING COMPANY
SPOTTED WOLF PROPERTY
EMERY COUNTY, UTAH

CONTENTS

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Ownership and extent	3
Description of the deposit	3
Ore deposits	3
Ore reserves	4
Proposed exploration	4
Conclusions and recommendations	4

ILLUSTRATIONS

Fig. 1 Location map, Spotted Wolf claims, Emery County, Utah.

Reviewed by
DMEA OPERATING COMMITTEE
9-21-53
(date)

SUMMARY

Low-grade concentrations of uranium mineralization occur in the Shinarump formation in the area of Spotted Wolf Canyon in the San Rafael Swell, Emery County, Utah. No development work of any consequence has been done in the area. No shipments of ores have been made from the area and there are no known reserves of ore.

The cost of road construction to make the area accessible would be far in excess of the amount requested in the application. It is recommended that the application for a loan be denied.

INTRODUCTION

The uranium property of the R.A.M. Mining Co. was examined on July 1, 1953, in company with I. J. Witkind and Warren Finch of the Geological Survey. The examination was made at the request of the Field Team, DMEA, Region IV. An application for a loan for construction of a road and for exploration on the property was made by the above company.

LOCATION, TOPOGRAPHY AND PHYSICAL FEATURES

The property consists of eight unpatented lode claims in the San Rafael Swell area, Emery County, Utah. It is reached by traveling southwest from Greenriver, Utah, over Highway 24 a distance of 12 miles and then northwest 8 miles over an ungraded, dirt road to the mouth of Spotted Wolf Canyon. This canyon is inaccessible for about 1 mile, except on foot. At one point the canyon is a sharp,

narrow chasm less than 5 feet wide at the bottom, with nearly vertical walls over a distance of 100 feet. About 1 mile from the mouth, the canyon widens out into a broad, catchment basin. Although flash floods are rare in this area, they do occur, and on these occasions the torrents of water draining through this narrow gorge must be great. Building a road out of the basin over the top would involve long distances of costly construction.

OWNERSHIP AND EXTENT

The eight claims cover outcrops of the Shinarump formation along the northeast escarpment of the catchment basin. They cover about 4,800 feet of outcrop from the bottom of the canyon nearly to the divide between Spotted Wolf Canyon and Black Dragon Canyon to the north. This entire area was withdrawn for oil and gas leases on July 10, 1953, but the claims were recorded on February 14, 1953; thus they are probably valid.

DESCRIPTION OF THE DEPOSIT

The sedimentary rocks of the area range in age from Permian to Jurassic. The formation associated with uranium mineralization in the immediate area is the Shinarump of Triassic age. This formation strikes nearly north-south and dips to the east about 25°.

ORE DEPOSITS

Uranium mineralization occurs at spotted locations in the basal beds of the Shinarump. It is believed to be associated with

carbonaceous material. Exposures of rock outcrops contain small amounts of radioactive material in a few spotted locations. No development work of any consequence has been done on the property.

ORE RESERVES

There are no developed ore reserves at the present time.

PROPOSED EXPLORATION

The applicant proposes to construct 1 mile of road to make the property accessible and then explore the property by driving a drift approximately 100 feet. The application calls for a loan of $5,750, $3,257 of which is to be used for road construction and $2,493 for drifting. A rough estimate of construction costs for access to the area for a small bulldozer and compressor is placed at $15,000. It will be necessary to construct a half section of tunnel large enough for passage of the bulldozer for a distance of 100 feet. More than one-half of the remaining part of the 1-mile stretch will require extensive rock work. In the event of flash flood, the surface work on the road would have to be completely redone.

The proposed exploratory work cannot be done practically by driving a tunnel. To develop any trend of mineralization, it is apparent that an incline on the bed will be necessary.

CONCLUSIONS AND RECOMMENDATIONS

It is concluded that evidence of uranium mineralization is not sufficiently strong to justify the requested loan. The estimate of

road costs is far below the amount needed. Any road in this location would, at best, be temporary construction subject to the vicissitudes of weather. It is recommended that the application be denied.

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

224 New Customhouse
Denver 2, Colorado

September 8, 1953.

DENIED

Memorandum

To: Administrator, Defense Minerals Exploration Administration
Attention: 200

From: Field Team, Region IV

Subject: Final Report, DMEA Docket 3056 (Uranium), R.A.M. Mining Company, Emery County, Utah.

Enclosed are four copies of the final report on the subject docket, a copy of the letter of denial to the applicant, and two copies of Form 3b.

W. H. King
W. H. King

A. H. Koschmann
A. H. Koschmann

Enclosures

OFFICE OF THE ADMINISTRATOR

C
O
P
Y

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

RECEIVED SEPT. 14, 1953

224 New Customhouse
Denver 2, Colorado

September 8, 1953

Mr. Frank Nisley, Jr.
R.A.M. Mining Company
Route 3
Grand Junction, Colorado

RE: Docket DMEA-3056

Dear Mr. Nisley:

Reference is made to your application for Government aid on the Spotted Wolf property.

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

A careful study of your property and data available to this agency reveals that the probability of disclosing mineable reserves for uranium by your proposed exploration program is not considered sufficiently promising to justify Government participation. Under these circumstances, we regret to advise that your application for exploration aid is denied.

Very truly yours,

/s/ W. H. King
Field Team, Region IV

/s/ A. H. Koschmann
Field Team, Region IV

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Mining Division
Region IV

September 8, 1953.

Memorandum

To: Field Team, Region IV

From: Chief, Mining Division, Region IV

Subject: Final Report, DMEA Docket 3056 (Uranium), Spotted Wolf Group, R.A.M. Mining Company, Emery County, Utah.

Enclosed are ten copies of the final engineering report on the subject docket.

The applicant requested $5,750.00 to build an access road and drift 100 feet. The examining engineer concludes that evidence of uranium mineralization is not sufficiently strong to justify the requested loan and he recommends that the application be denied.

We concur in this recommendation.

W. H. King

W. H. King

Enclosures

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
1600 EAST FIRST SOUTH STREET
SALT LAKE CITY 1, UTAH

August 27, 1953

Memorandum

To: W. H. King, Executive Officer, DMEA Field Team, Region IV

From: Chief, Minerals Development Branch, Mining Division, Region IV

Subject: Docket No. DMEA-3056 (Uranium), R.A.M. Mining Co., Spotted Wolf property, Emery County, Utah

Enclosed are 11 copies of an engineering report covering examination of the subject property by W. E. Young. Also included are three copies each of forms 6-803 and 6-993 and the original brochure.

Uranium mineralization on the Spotted Wolf property occurs in the Shinarump conglomerate. Examination indicates that the uranium mineralization is too low grade for commercial significance. The examining engineer concludes that Government participation in exploratory work is not warranted. I concur with his recommendation.

Stephen R. Wilson

Stephen R. Wilson

Enclosures

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.
200 New Customhouse
Denver 2, Colorado

August 21, 1953

Memorandum

To: DMEA Field Team, Region IV

From: A. H. Koschmann

Subject: DMEA Docket 3056, Spotted Wolf Group, R.A.M. Mining Company, Emery County, Utah

Enclosed are 10 copies of the geologic report by I. J. Witkind of the U. S. Geological Survey covering the above docket.

It has been recommended that the loan be denied.

A. H. Koschmann
A. H. Koschmann
Supervising Geologist
Colorado-Wyoming

Enclosures (10)

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

August 18, 1953

Memorandum

To: A. H. Koschmann
Field Team, Region IV

From: R. P. Fischer
Colorado Plateau District Office

Subject: DMEA 3056, Spotted Wolf group, R.A.M. Mining Co., Emery County, Utah

Transmitted herewith are ten copies of a geologic report on the Spotted Wolf group of claims, Emery County, Utah. The R.A.M. Mining Company, owner, has applied for a loan of $5,730.00 to build one mile of access road and drive 100 feet of exploratory drift.

The attached report is prepared by I. J. Witkind and is based on a field examination made jointly with W. E. Young, Bureau of Mines, and W. I. Finch, Geological Survey. In connection with this application, contact has been made with the Atomic Energy Commission, Grand Junction, who concur in general with the appraisal made in this report.

The Spotted Wolf claims cover an outcrop of Shinarump conglomerate. A little radioactivity was detected in a few places along the outcrop, but samples from these places yielded only a slight amount of uranium, vanadium, and copper, and no uranium minerals were observed at the outcrop. In the absence of known deposits and the lack of other positive evidence of geologically favorable ground, it is concluded that the chances are poor of finding minable deposits of uranium, and the report recommends that the application be denied.

I concur with this recommendation.

R. P. Fischer

Richard P. Fischer
Acting District Supervisor

Enclosures 10

UNITED STATES DEPARTMENT OF THE INTERIOR

DOUGLAS MCKAY, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM

REGION IV

DMEA Docket 3056 (Uranium)

The R.A.M. Mining Company, Spotted Wolf Claims, Emery County, Utah

By

Irving J. Witkind
U. S. Geological Survey

August 18, 1953

DMEA DOCKET 3056 (Uranium)

THE R.A.M. MINING CO., SPOTTED WOLF CLAIMS, EMERY COUNTY, UTAH

INTRODUCTION AND SUMMARY

The R.A.M. Mining Company of Grand Junction, Colo., has applied (Docket 3056) to the Defense Minerals Exploration Administration for assistance to explore for uranium in Emery County, Utah. The applicant proposes to spend $5,730.00, of which $3,237.00 is to be used towards the construction of one mile of road. The remaining $2,493.00 is to defray the expenses involved in driving a drift 100 feet long. The Government is asked to supply the full amount of $5,730.00.

The property was examined on July 2, 1953, in company with W. E. Young, Bureau of Mines, and Warren I. Finch, Geological Survey.

The Spotted Wolf claims consist of nine claims in secs. 1 and 2, (unsurveyed) T. 22 N., R. 13 E., Salt Lake Principal Meridian. The claims are about 7 miles west of Utah highway 24 and 15 miles southwest of Green River, Utah. The property could be reached, as of July 1953, only by cars having 4-wheel drive and by walking about 1 mile up a narrow wash confined between steep walls (fig. 1). Any road constructed in the wash would be susceptible to washout during periods of heavy rain.

The mineralized rock is in basal sediments of the Shinarump conglomerate (Triassic) and consist principally of pods of carbon in a coarse-grained sandstone. No uranium minerals were observed and it is concluded that chance of making a significant discovery of uranium ore on these claims is poor. It is recommended, therefore, that this application be denied.

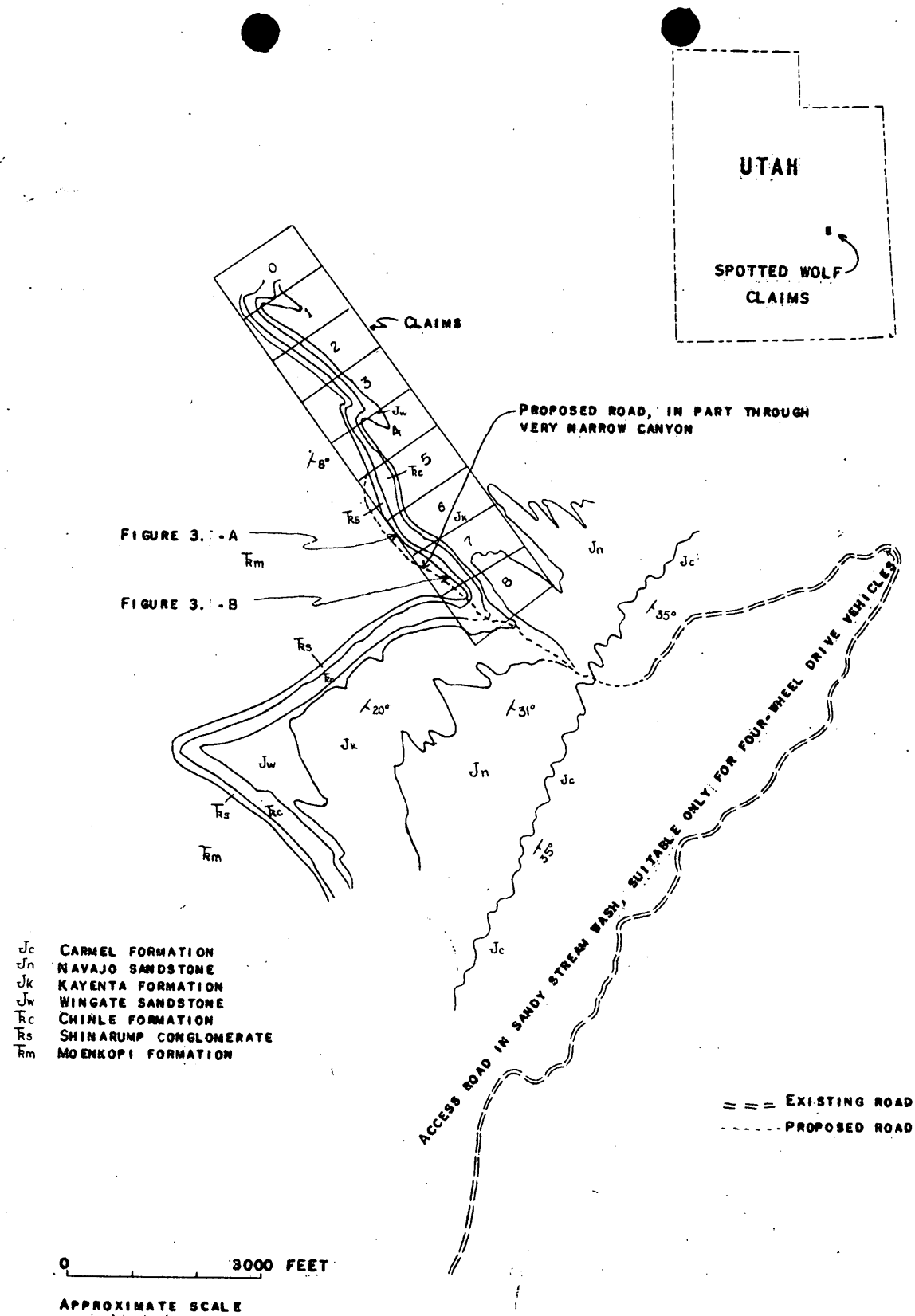


Figure 1. GENERALIZED GEOLOGIC MAP OF AREA SURROUNDING SPOTTED WOLF CLAIMS, EMERY CO., UTAH.
D.M.E.A. DOCKET 3056

GEOLOGY

The claims are on the northeast flank of the San Rafael Swell, a broad dome-like fold. In this general region consolidated sedimentary strata are exposed; they range from the Coconino sandstone of Permian age to the Morrison formation of Jurassic age. In the area immediately adjacent to the claims the range of strata is from the Moenkopi formation of Triassic age to the Navajo sandstone of Jurassic age (fig. 2).

This last-mentioned group of strata comprise the more prominent cuesta which forms the eastern flank of the Swell. All strata dip eastward, and dips range from about 5° to as much as 35°.

The host rock in this region for economic concentrations of uranium minerals is the Shinarump conglomerate. The Shinarump is a light gray conglomeratic sandstone that ranges in thickness from about 25 feet to as much as 75 feet. It is composed of lenticular beds of cross-bedded medium to coarse-grained sandstone, with small conglomerate lenses along the contact with the underlying Moenkopi formation. The Shinarump unconformably overlies the red shaley siltstones of the Moenkopi with the relief along the unconformity generally less than 5 feet. In one locality near the center of the claims a scour in the Moenkopi about 60 feet wide and about 3 feet deep, filled with sediments of the Shinarump, accentuates the unconformity.

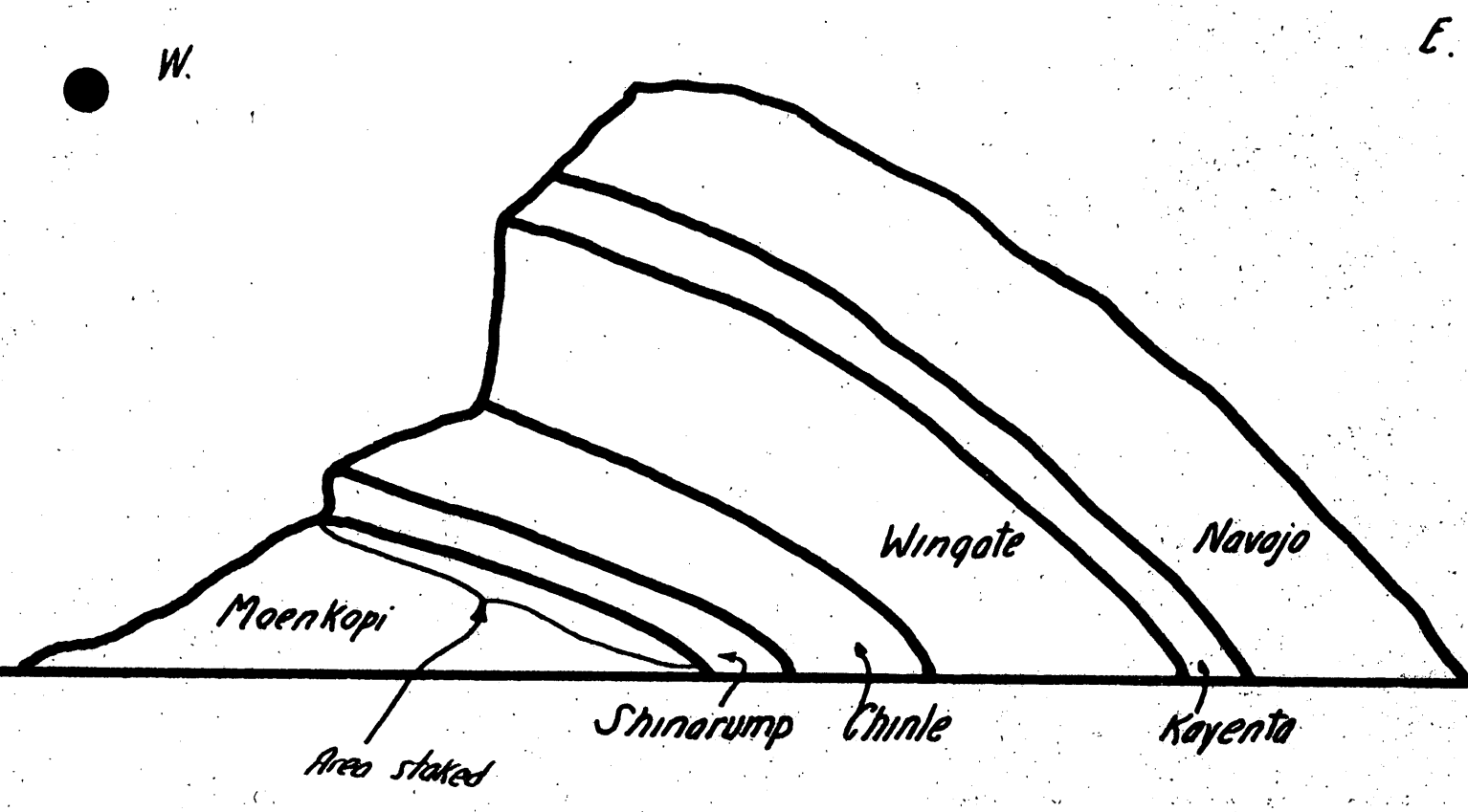


Figure 2. IDEALIZED CROSS-SECTION OF EASTERN FLANK OF THE SAN RAFAEL SWELL IN THE VICINITY OF THE SPOTTED WOLF CLAIMS. NOT TO SCALE.

D.M.E.A. DOCKET 3056

ORE DEPOSITS

The mineralized outcrops are in basal sediments of the Shinarump conglomerate, which crops out in a steep slope, above which is developed a narrow bench.

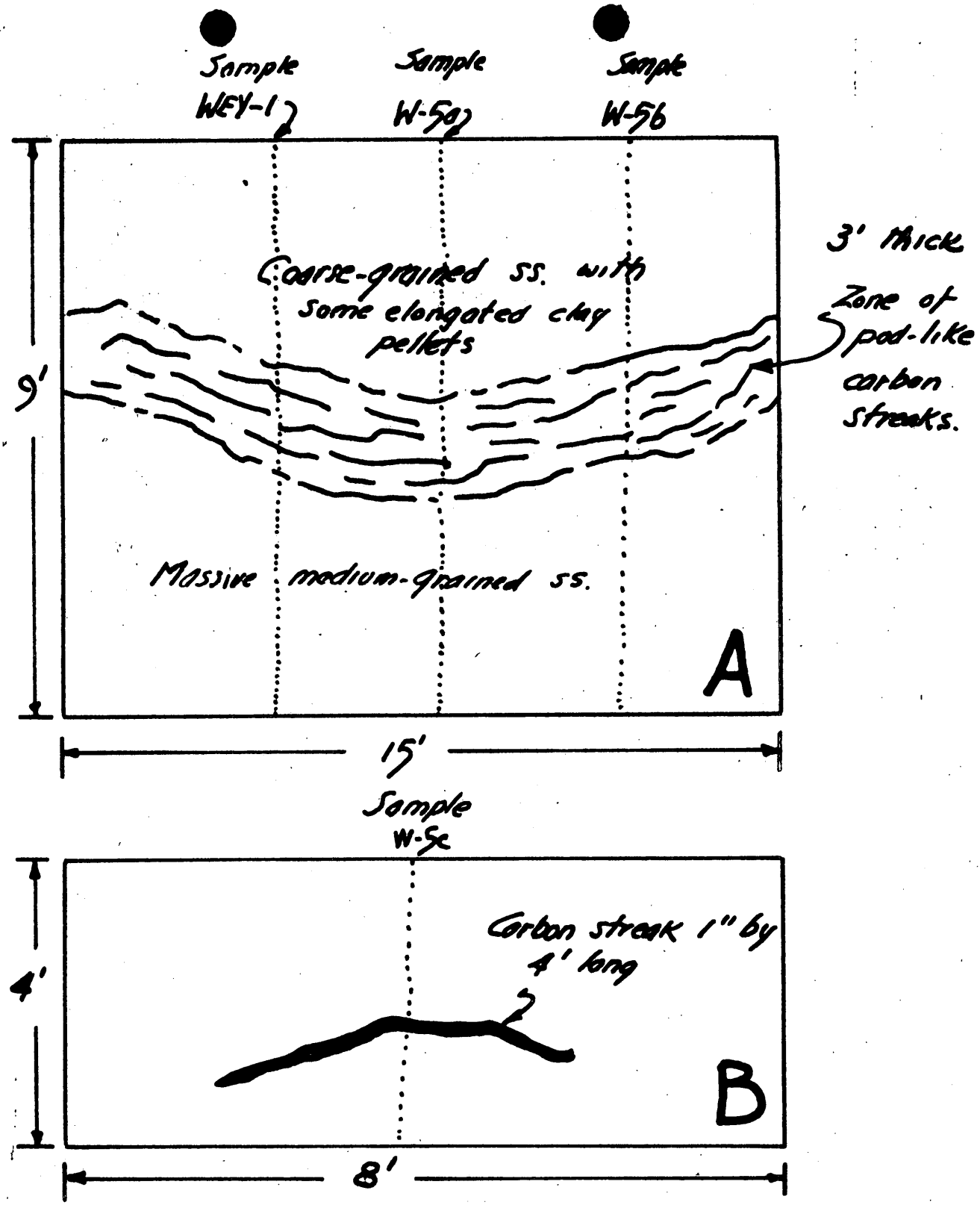
The Shinarump-Moenkopi contact was examined for the presence of observable uranium minerals and tested for abnormal radioactivity with a Precision Scintillator. Although radioactive anomalies were noted at four places along the contact, uranium minerals were not observed in these places; all abnormal radioactivity appeared to be associated with thin pod-like seams of carbonaceous material scattered irregularly in the sandstone. The highest count obtained was .1 MR per hour; normal background for the area was .02 MR per hour.

The largest concentration of these carbonaceous pods was in a coarse-grained sandstone lens about 15 feet long and about 4 feet thick near the eastern edge of claim no. 6 (fig. 1, and A, fig. 3). (Incidentally, the numbering system of the claims as staked on the ground does not match the one shown on the map accompanying the docket. The numbering system of the claims on the ground is correctly shown in fig. 1.)

Samples were collected from this lens (A, fig. 3) and from one other locality (B, fig. 3 and fig. 1). These samples were submitted for analysis on July 7, 1953; results are presented below.

Field No.	eU%	U%	V_2O_5%	Cu%
W-5a	0.008	0.007	0.09	0.060
W-5b	0.006	0.005	0.12	0.030
W-5c	0.003	0.003	0.09	0.015

Sample no. WEY-1 was collected by W. E. Young of the Bureau of Mines; results are not available as yet.



not to scale

Figure 3. SKETCHES SHOWING THE CHARACTER OF THE SAMPLES AND THE ROCK SAMPLED
D.M.E.A. DOCKET 3056

The low uranium concentration shown by the assay results suggests that the dominant amount of radioactivity is derived from the disseminated carbonaceous pods. Further, the lateral extent of the carbonaceous pod concentration is probably very small; most of these pods being localized in one immediate area. On the basis of these reasons as well as the general unfavorable appearance of the area, it would seem that this area does not conceal an important deposit of uranium ore.

CONCLUSIONS AND RECOMMENDATIONS

It is concluded that the Spotted Wolf claims do not offer much promise for the discovery of significant deposits of uranium ore, and that any discovery that might be made would be extremely small and of low grade. It is recommended, therefore, that this application be denied.

R.A.M. MINING COMPANY
APPROVED VOLT PROJECT
BANKS COUNTY, VIRG
DMRA-3054
Uranium

Engineering Report

By V. Z. Tsang
Mining Engineer
Bureau of Mines

E.A.M. MINING COMPANY
SPOTTED WOLF PROPERTY
EMERY COUNTY, UTAH

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ILLUSTRATIONS

Fig. 1 Location map, Spotted Wolf claims, Emery County, Utah.

SUMMARY

Low-grade concentrations of uranium mineralization occur in the Shinarump formation in the area of Spotted Wolf Canyon in the San Rafael Swell, Emery County, Utah. No development work of any consequence has been done in the area. No shipments of ores have been made from the area and there are no known reserves of ore.

The cost of road construction to make the area accessible would be far in excess of the amount requested in the application. It is recommended that the application for a lease be denied.

INTRODUCTION

The uranium property of the R.A.M. Mining Co. was examined on July 1, 1955, in company with I. J. Witkind and Warren Finch of the Geological Survey. The examination was made at the request of the Field Team, DMEA, Region IV. An application for a lease for construction of a road and for exploration on the property was made by the above company.

LOCATION, TOPOGRAPHY AND PHYSICAL FEATURES

The property consists of eight unpatented lode claims in the San Rafael Swell area, Emery County, Utah. It is reached by traveling southeast from Greenriver, Utah, over Highway 24 a distance of 12 miles and then northeast 8 miles over an ungraded, dirt road to the mouth of Spotted Wolf Canyon. This canyon is impassible for about 1 mile, except on foot. At one point the canyon is a sharp,

narrow chasm less than 5 feet wide at the bottom, with nearly vertical walls over a distance of 100 feet. About 1 mile from the mouth, the canyon widens out into a broad, catchment basin. Although flash floods are rare in this area, they do occur, and on these occasions the torrents of water draining through this narrow gorge must be great. Building a road out of the basin over the top would involve long distances of costly construction.

OWNERSHIP AND EXTENT

The eight claims cover outcrops of the Shinarump formation along the northwest escarpment of the catchment basin. They cover about 4,800 feet of outcrop from the bottom of the canyon nearly to the divide between Spotted Wolf Canyon and Black Dragon Canyon to the north. This entire area was withdrawn for oil and gas leases on July 10, 1953, but the claims were recorded on February 14, 1953; thus they are probably valid.

DESCRIPTION OF THE DEPOSIT

The sedimentary rocks of the area range in age from Permian to Jurassic. The formation associated with uranium mineralization in the immediate area is the Shinarump of Triassic age. This formation strikes nearly north-south and dips to the east about 25°.

ORE DEPOSITS

Uranium mineralization occurs at spotted locations in the basal beds of the Shinarump. It is believed to be associated with

carbonaceous material. Exposures of rock outcrops contain small amounts of radioactive material in a few spotted locations. No development work of any consequence has been done on the property.

ORE RESERVES

There are no developed ore reserves at the present time.

PROPOSED EXPLORATION

The applicant proposes to construct 1 mile of road to make the property accessible and then explore the property by driving a drift approximately 100 feet. The application calls for a loan of $5,750, $3,257 of which is to be used for road construction and $2,493 for drifting. A rough estimate of construction costs for access to the area for a small bulldozer and compressor is placed at $15,000. It will be necessary to construct a half section of tunnel large enough for passage of the bulldozer for a distance of 100 feet. More than one-half of the remaining part of the 1-mile stretch will require extensive rock work. In the event of flash flood, the surface work on the road would have to be completely redone.

The proposed exploratory work cannot be done practically by driving a tunnel. To develop any trend of mineralization, it is apparent that an incline on the bed will be necessary.

CONCLUSIONS AND RECOMMENDATIONS

It is concluded that evidence of uranium mineralization is not sufficiently strong to justify the requested loan. The estimate of

road costs is far below the amount needed. Any road in this location would, at best, be temporary construction subject to the vicissitudes of weather. It is recommended that the application be denied.

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

224 New Customhouse
Denver 2, Colorado

May 29, 1953.

Memorandum

To: Administrator, Defense Minerals Exploration Administration
Attention: Code 200

From: Executive Officer, DMEA Field Team, Region IV

Subject: Docketing for Exploration Assistance

Enclosed herewith in duplicate is DMA Form 3a and MF-103, and supporting data pertaining to the following applications for Government assistance in exploration work:

Colorado Mines and Metals Company DMEA-3057
Carl A. Larson, Assistant Secretary
Silverton, Colorado

R.A.M. Mining Company (Spotted Wolf Mine) DMEA-3056
302 Main Street
Grand Junction, Colorado

R.A.M. Mining Company (Grand Discovery & Morrison Claims) DMEA-3058
302 Main Street
Grand Junction, Colorado

Charles M. Taylor DMEA-3059
P. O. Box 1710
Tucson, Arizona

for John F. Shaw
W. H. King

Enclosures

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

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

Not to be filled in by applicant

Docket No. DMEA-3056
Metal or Mineral
Date Received 6/2/53
Estimated Cost
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: R. A. M. Mining Company
302 Main Street
Grand Junction, Colorado

(*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

(*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

(*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*) [redacted]e the mineral or minerals for which you wis[redacted] 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 14 days and be completed within 3½ months from the date of an exploration project contract.

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

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

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

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

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

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

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

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

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

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

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

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

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

☐ Money ☒ Use of equipment owned by you ☐ Other

Explain in detail on acompanying paper.

CERTIFICATION

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

Dated May 14, 1953

R. A. M. Mining Company
(Applicant)

By [signature]

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

R.A.M. Mining Company
302 Main
Grand Junction, Colorado

Supplemental Data

1. b. A partnership organized in the State of Colorado

d. George Foy — Route 5 Grand Junction, Colo
Frank Nisley Jr — " " " " "
Sam Courtney — 435 North Avenue, Grand Junction, Colo
Hays Wilson — Rifle, Colorado
J. D. Dillard — 302 Main

3. Property Rights:
   a. The property consists of unpatented mining claims lying in Section 2; Twp 22S; R 13 E S.L.M. Section 2 is an unsurveyed area
   b. We call the mine the 'Spotted Wolf' after the wash in which it is located.
   c. The claims were taken up by Mr Foy, a stockholder.
   d. There are no liens or encumbrances on the property.
   f. Name of claims:

Name of claims	Ins #.	Book	Page	County recorded
Pety 0	81246	J 11	287	Emery, Utah
Pety 1	81247	"	288	
2	81248	"	289	
3	81249	"	290	
4	81250	"	291	
5	81251	"	292	
6	81252	"	293	
7	81253	"	294	
8	81254	"	295	

4. Physical Description:
   a. A jeep can be driven at present to about one mile from the ore showings as shown on the accompanying map. These exposures have been cleared off by hand and the faces squared up as much as possible for drifting in. Since there are no road facilities to the mine, no equipment has been used to date. The property is reached by walking up the wash from the present road.
   b. There has been no production from this property to date. However there are other mines and other production in the general area and in the same formation.
   c. The property is on the East side of the San Rafael Swell. The ore is in the shinarump with Chinle and Wingate lying over it. The shinarump is rather thick and also the Chinle and Wingate are thick making drilling not practical except for a possible small bench where the shinarump is exposed. When we were clearing off the sluff we found surface samples of carbons from logs etc that assayed .30 and .32 U_3O_8. The lime content was 6.7% and 8.5% on the surface samples. A crosscut of the vein for a distance of 52" was made by the U.S.V. and assayed .04 U_3O_8. The face indication shows considerable carbons. On a model #111 Precision Instrument Company Scintallometer it takes the 2nd and 3rd scale to take readings. The count can be traced with this instrument along the face with heavier readings in several places.
   d. As shown on the accompanying map about one mile of road would be required to get equipment to the property. About one-half of this would require some drilling and shooting and cat work while the rest would be mostly grading. Greenriver is about
   e. 20 miles by road. We have the necessary equipment on hand to do the work except for a cat which we would rent. We have necessary manpower available.

R. A. M. Mining Company
302 Main
Grand Junction, Colorado

Supplemental Data

5. The Exploration Project:

b. We propose to extend the present road one mile more so equipment can be moved into the property for exploration. A portion of this road will be on the vein which may expose other mineral. Since drilling is not feasible we propose to drift in on the ore vein for a distance of 100 feet or until the U_3O_8 content will increase to shipping grade or disappears whichever the case may be.

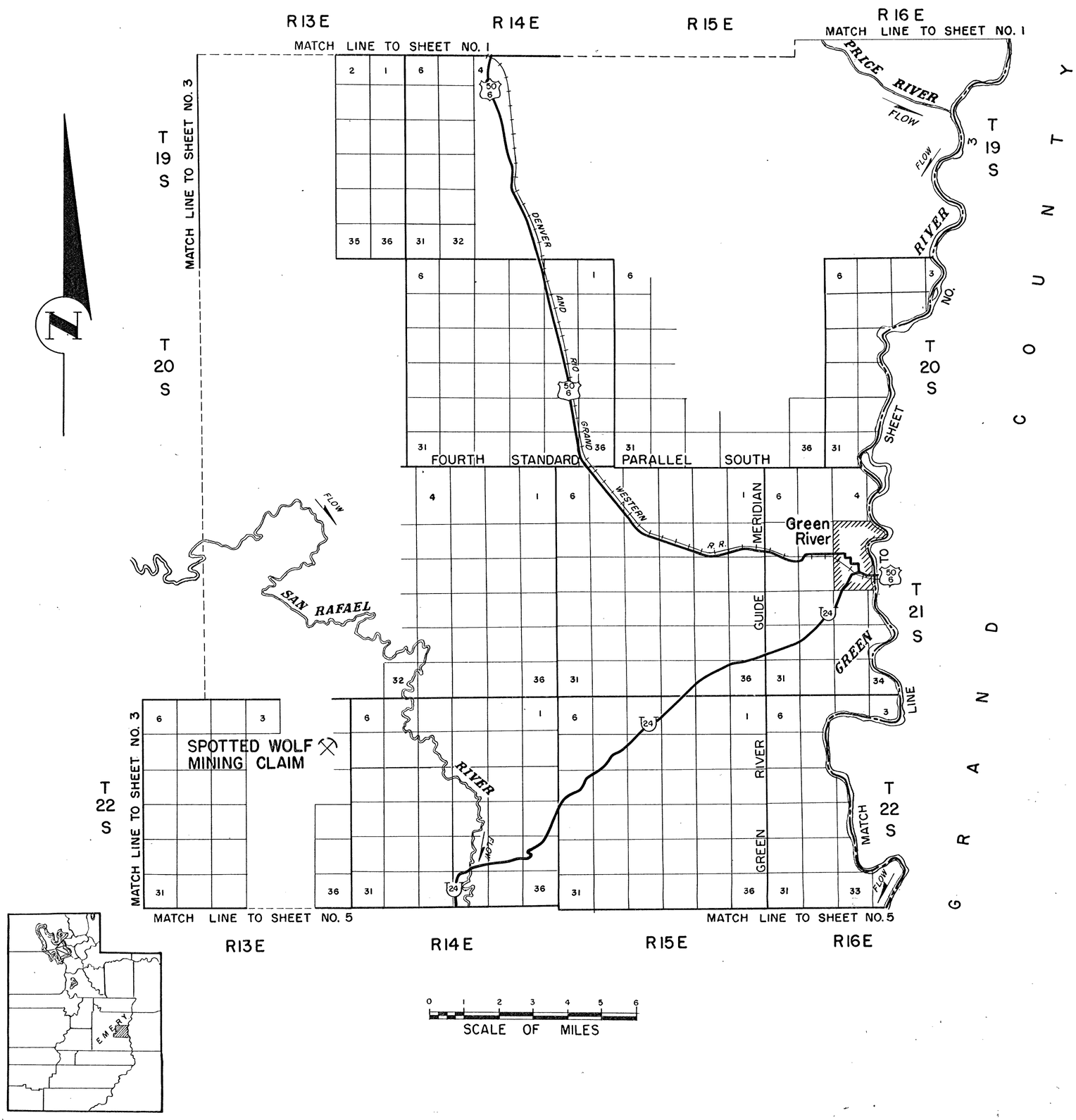
d. Mr Hays Wilson, a part owner, will be in charge of the operation. He and Frank Mosley Jr operated a vanadium mill at Gateway, Colorado, from 1940 to 1944. Part of this time the plant had a contract to produce Vanadic Acid for the Metals Reserve Company. Mr Wilson has mined coal and many other minerals including both vanadium and uranium for many years. He has done considerable contracting and construction work. References will be furnish d to establish his qualifications for this work if required.

6. Estimate of Costs:

	Road	Drift
b. 1 supervisor @ $20 per day - 15 days	$ 300.00	
34 "		$ 680.00
2 labors @ $16 per day 15 days	480.00	[illegible]
1 " " 34 days		544.00
c. Operating materials & Supplies:		
Powder 15 boxes @ $10	150.00	
" 25 " "		250.00
Caps 3 boxes @ $2.00	4.00	6.00
Fuse 1500' @ $1.30 / 100'	19.50	
" " " "		19.50
Fuel 200 gallons @ 30¢	60.00	
270 " "		81.00
Oil-grease-steel-bits-minor repairs	150.00	300.00
d. Operating Equipment:		
Compressor ($5500 investment with depree on 5 yr basis	45.00	104.00
Jackhammer, steel, hose, bits, water tank, mine tools, etc ($1,000) @ $1.50 per day	22.50	31.00
Bulldozer rental 15 days @ $12 per hr	1440.00	
Moving in and out and grading road in	300.00	
g. Analytical work		100.00
Workman's Comp and Emp Lib	27.30	42.84
Accounting	12.50	15.50
Payroll Taxes	11.70	18.36
h. Contingencies @ 5%	159.50	110.60
Moving in Camp and Camp expense	75.00	170.00
	$3257.00	$2493.00

Total of both: $5750.00

7. a. We are prepared to furnish our share of the costs by furnishing the necessary equipment except for a bull-dozer and part of the supervision.



U. S. DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Fig. 1 DMEA Docket No. 3056, R.A.M. Co.

STATE: UTAH

COUNTY: EMERY

Sheet 4 of 6
Location Map

ENGINEER: *W. E. Young*	DATE: AUG. 6, 1953
TRACED: AUG., 1953; BY: A.P.T.S.	1900 - 224 - C
CHECKED:	