10/6/54 gla

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

COPY

224 NewCustomHouse
Denver 2, Colorado

September 23, 1954

Mr. James H. Cagle
Mr. W. L. Cagle
Mr. R. E. Black
Box 87
Heavener, Oklahoma

Re: Docket DMEA 3413

Gentlemen:

Reference is made to your application for Government aid on the Collen claims.

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 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
W. H. King
DMEA Field Team, Region IV

/s/ E. N. HARSHMAN
for A. H. KOSCHMANN
DMEA Field Team, Region IV

HMC/mb
cc: Docket
Administrator, DMEA
Mining Div.
AHKoschmann
WMTraver
ALBrokaw
ERGordon
Chron

Reviewed by
DMEA OPERATING COMMITTEE
10-4-54
(date)

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

Department of the Interior
Administration
RECEIVED
SEP 30 1954

224 New Customhouse
Denver 2, Colorado

September 23, 1954

Memorandum

To: Administrator, Defense Minerals Exploration Administration
Attention: 200

From: DMEA Field Team, Region IV

Subject: Report of Examination, Docket DMEA 3413 (Uranium), Cagle, Cagle and Black, Collen claims, San Juan County Utah.

Enclosed are four copies of the report of examination 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

E. M. Haushman
for A. H. Koschmann

Enclosures

Reviewed by
DMEA OPERATING COMMITTEE
10-4-54
(date)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Mining Division
Region IV

September 23, 1954

Memorandum

To: DMEA Field Team, Region IV

From: Chief, Mining Division, Region IV

Subject: Report of Examination, Docket DMEA 3413 (Uranium), Cagle, Cagle and Black, Collen Claims, San Juan County, Utah.

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

The applicants requested $12,675.00 to core drill the Collen claims but they admit that they have no experience in exploration, development, or mining of uranium ores.

The engineer examiner found little, if any, geologic evidence to support the application. The reported showings of uranium could not be verified and the engineer examiner recommends that the application be denied.

We concur in this recommendation.

W. H. King

Enclosures

Reviewed by
DMEA OPERATING COMMITTEE
10-4-54
(date)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Region IV

Building 20, Room 137
Denver Federal Center
Denver 2, Colorado
September 21, 1954

Memorandum

To: Executive Officer, DMEA Field Team, Region IV

From: Chief, Mineral Resources Branch, Mining Division, Region IV

Subject: DMEA 3413 (Uranium) Cagle, Cagle, and Black (Collen claims), San Juan County, Utah

Enclosed are the original and ten copies of a Summary, Conclusions, and Recommendations by M. H. Salsbury, Bureau of Mines, and H. S. Johnson, Geological Survey, and of Salsbury's engineering report on the subject docket.

Salsbury concludes the applicants are inexperienced in the exploration, development or mining of uranium ores, their proposal is not feasible, nor their cost estimates realistic. There is little, if any, geologic evidence to support the application, their reported showings of uranium mineralization could not be verified, and the favorable Salt Wash formation would not be penetrated or completely explored by their proposed drilling. Denial of the loan application is recommended and I am in agreement.

The brochure furnished with your memorandum instructing us to make the investigation, and the geologist's report loaned us August 20, 1954, are both enclosed.

W. M. Traver

W. M. Traver

Enclosures

WMT/iei

cc: 10
DMEA 3413
DMEA Chron.

Reviewed by
DMEA OPERATING COMMITTEE
10-4-54

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
Defense Minerals Exploration Administration
Denver Federal Center
Denver 2, Colorado

August 16, 1954

Memorandum

To: DMEA Field Team, Region IV

From: A. H. Koschmann

Subject: DMEA Docket 3413, Cagle, Cagle, and Black, Collen claims, San Juan County, Utah

Enclosed are 11 copies of the geologic report by H. S. Johnson of the U. S. Geological Survey covering the above docket.

Mr. Johnson concludes that geologic conditions are not favorable for ore grade mineralization and recommends that the application for exploration assistance be denied.

E. M. Hackman
for A. H. Koschmann
Supervising Geologist
Colorado-Wyoming

Enclosures (11)

Reviewed by
DMEA OPERATING COMMITTEE
10-4-54
(date)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DOUGLAS McKAY, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION IV

DMEA 3413, Collen Claims

Cagle, Cagle, and Black

San Juan County, Utah

Uranium

M. H. Salsbury, Mining Engineer
Bureau of Mines

H. S. Johnson, Geologist
Geological Survey

Reviewed by
DMEA OPERATING COMMITTEE
10-4-54
(date)

September 2, 1954

DMEA 3413

COLLEN CLAIMS
CAGLE, CAGLE, AND BLACK
SAN JUAN COUNTY, UTAH

Summary, Conclusions, and Recommendations

By M. H. Salsbury
Mining Engineer
Bureau of Mines

H. S. Johnson
Geologist
Geological Survey

DMEA 3413

COLLEN CLAIMS
CAGLE, CAGLE, AND BLACK
SAN JUAN COUNTY, UTAH

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

By M. H. Salsbury and H. S. Johnsen

James H. Cagle, W. L. Cagle, and R. E. Black, Box 87, Heavener, Okla., applied for Defense Minerals Exploration Administration assistance in exploration for uranium of their property in San Juan County, Utah, south of Monticello. A core-drilling program consisting of 7 holes and a maximum of 2,500 feet of drilling was proposed at an estimated cost of $12,675.00--Government participation 75 percent, or $9,506.25.

The property was examined by Geological Survey and Bureau of Mines, members of the examining team, at different times. The applicants were not present, although they had been notified of the pending examination.

The property consists of 9 located claims, Collen Nos. 1 to 9 inclusive. Location and filing procedures appear to be in order.

The rocks exposed on the Collen claims, which are on a mesa top, are nearly flat-lying beds of mudstone, sandstone, and conglomerate of the Cretaceous Burro Canyon and Dakota formations. Below these formations, red, green, and purple variegated mudstones and fine sandstones of the Brushy Basin member of the Jurassic Morrison formation are exposed in vertical walls and steep slopes of canyons which dissect the tablaland. None of these formations are known to contain commercial uranium deposits in this part of the

Colorado Plateau and there is no mineralization, abnormal radioactivity, or favorable geological evidence, either on top of the mesa or along the canyon rims, to indicate that such occurrences might be found here.

The underlying Salt Wash member of the Morrison formation contains commercial uranium in this general area but the nearest known deposits are 10 miles east and 10 miles west. Salt Wash beds are not exposed on the property and are at least 150 feet below the floors of the canyons. There is no evidence to indicate that they are ore-bearing in this area.

The core-drilling program proposed by the applicants was planned to explore only the Dakota Burro Canyon and part of the Brushy Basin formations. Estimated costs used in the application were much higher than normal drilling costs in the area. There appears to be no justification for revising the program to explore the deeper Salt Wash formations in view of the absence of favorable geological indications.

Denial of the loan application is recommended.

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

SEP 30 1954

August 13, 1954

Memorandum

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

From: W. P. Williams

Subject: DMEA 3413, Cagle, Cagle and Black, Collen claims, San Juan County, Utah

Transmitted herewith are eleven copies of the geologic report prepared by H. S. Johnson covering the subject DMEA application.

In Johnson's estimation, geologic conditions on the property do not warrant justification of a DMEA project at this time. Johnson, therefore, recommends that the application be denied.

W P Williams

W. P. Williams
Geologist

WPW/mlr

Enclosures

UNITED STATES DEPARTMENT OF THE INTERIOR
DOUGLAS McKAY, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION
REPORT OF EXAMINATION BY FIELD TEAM
REGION IV

DMEA 3413, Cagle, Cagle and Black, Collen claims
San Juan County, Utah

Uranium

Geologic Report

By

H. S. Johnson
U. S. Geological Survey

Reviewed by
DMEA OPERATING COMMITTEE
10-4-54
(date)

INTRODUCTION AND SUMMARY

On July 2, 1954, James H. Cagle, W. L. Cagle, and R. E. Black of Heavener, Oklahoma, applied for Government assistance to explore for uranium on the Collen group of claims in sec. 8, T. 35 S., R. 23 E., S.L.M., San Juan County, Utah (fig.1). The Collen group comprises nine unpatented claims located by James H., and William L. Cagle on or about May 7, 1954, and recorded on pages 515-516 and 31-33 of books 89 and 91 at the county courthouse at Monticello, Utah. These claims are reached by about one mile of ungraded dirt road leading west from Utah Highway 47 at a point about eight miles north of Blanding, Utah.

The Collen claims were examined by H. S. Johnson and T. E. Mullens of the U. S. Geological Survey, on the afternoon of August 3, 1954. No occurrences of uranium were found on the property, and the geology of the immediate area is not considered favorable for economic uranium deposits. It is recommended that the application be denied.

GEOLOGY AND ORE DEPOSITS

The rocks exposed on the Collen claims consist of nearly flat-lying beds of mudstone, sandstone, and conglomerate of the Jurassic Morrison formation and the Cretaceous Burro Canyon or Dakota formations (fig. 2). In this area, the Burro Canyon and Dakota formations have not been differentiated; but the Burro Canyon probably makes up the greater part of the 100-foot thick sandstone and conglomerate unit present. This unit forms the surface of a partially dissected plain, and the steep-walled canyons cut into the plain have exposed 200-300 feet of the underlying Brushy Basin member of the Morrison formation. The Brushy Basin member is composed largely of red, purple, and green variegated mudstones and fine sandstones and has a total thickness of about 400 feet in this area.

The Burro Canyon and Dakota formations are represented in the vicinity of the Collen claims by about 100 feet of cross-bedded medium- to coarse sandstone and pebble conglomerate. The pebbles are predominantly well-rounded quartz and chert and are up to about one inch in diameter. A small amount of green mudstone is also present as layers, or beds, up to about two feet in thickness. Most of the unit is a rather clean, massive sandstone and conglomerate with only minor amounts of carbonaceous material. Where erosion has cut through it, the Burro Canyon-Dakota unit is a strong cliff former in this area.

No uranium mineralization was found during the field examination of the Collen claims, and none is known in the Brushy Basin and Burro Canyon-Dakota units of this part of the Colorado Plateau. Uranium can and does occur in both these units in other parts of the Colorado Plateau, usually being found in thicker sandstone lenses in the Brushy Basin or associated with carbonaceous material in broad shallow channels in the Burro Canyon or Dakota formation. However, on the Collen claims, the sandstone-mudstone ratios and the content of carbonaceous material do not appear especially favorable for uranium deposits, and there is no reason to expect such deposits in either the Brushy Basin or the Burro Canyon-Dakota units within the boundaries of these claims.

In the Cottonwood Wash area about 10 miles west of the Collen claims and in Montezuma Canyon about 10 miles to the east, vanadium-uranium deposits occur in the upper part of the Salt Wash member of the Morrison formation. These deposits are for the most part rather small and low grade and are associated with carbonized wood and trashy carbonaceous material. Mineralization of this type may be present in the Salt Wash under the Collen claims, but the depth to this possible ore horizon is about 500-600 feet from the surface of the claims. There is no particular reason to expect Salt Wash mineralization here, and drilling to test the Salt Wash on the Collen claims is not considered justifiable at the present time.

PROPOSED EXPLORATION

To explore the possibilities of uranium mineralization in the Burro Canyon-Dakota unit on the Collen claims, the applicants proposed drilling seven core-drill holes with a maximum total footage of 2,500 feet. These holes were to be spaced 500 feet apart on the Collen Nos. 1, 2, 3, 4, and 6 claims. The total cost of the work was estimated by the applicants to be $12,240, of which Government participation would be 75 percent, or $9,180.

CONCLUSIONS AND RECOMMENDATIONS

No uranium mineralization was found during the field examination of the Collen claims, and the Brushy Basin and Burro Canyon-Dakota units are not considered especially favorable for uranium deposits in this area. There is a possible mineralized horizon in the Salt Wash member of the Morrison formation about 500-600 feet beneath the surface of the Collen claims, but there is no particular reason to expect economic deposits there.

Because no uranium occurrences are known on the Collen claims and the geology is not considered especially favorable for ore-grade mineralization, it is recommended that the application for DMEA assistance be denied.

DMEA 3413

COLLEN CLAIMS
CAGLE, CAGLE, AND BLACK
SAN JUAN COUNTY, UTAH

Engineering Report

By M. H. Salsbury
Mining Engineer
Bureau of Mines

DMEA 3413

COLLEN CLAIMS
CAGLE, CAGLE, AND BLACK
SAN JUAN COUNTY, UTAH

CONTENTS

Engineering Report — Page

Introduction..... 1
Acknowledgements..... 1
Location, topography, and physical features..... 2
History, production, and ownership..... 3
Description of the deposits..... 4
Present status..... 5
Project proposals with costs..... 5
Proposed financing..... 6
Conclusions..... 6
Recommendations..... 6

ILLUSTRATIONS

Figure — Follows page

1 Location map, Cagle, Cagle, and Black, Collen claims, San Juan County, Utah..... 2

DMEA 3413

COLLEN CLAIMS
CAGLE, CAGLE, AND BLACK
SAN JUAN COUNTY, UTAH

ENGINEERING REPORT

By M. H. Salsbury

INTRODUCTION

James H. Cagle, W. L. Cagle, and R. E. Black of Heavener, Okla., applied for Defense Minerals Exploration Administration assistance in exploration for uranium on their Collen claims in San Juan County, Utah. A drilling program consisting of 7 holes and 2,500 feet of core-drilling was proposed. The total estimated cost is not given, but from the application, appears to be $12,675.00.

The property was examined by the Bureau of Mines member of the Region IV DMEA team on August 4, 1954, and independently by the Geological Survey member on August 3, 1954. The owners did not participate. James Cagle was notified by letter of the impending examination, but was unable to accompany either examiner because of illness.

ACKNOWLEDGEMENTS

Data were obtained by personal observation and by conference with personnel of the Geological Survey, who are familiar with the area. Lou Garbrecht of the Atomic Energy Commission was contacted by W. F. Williams of the Survey, but had no comment to offer on the proposed exploration.

LOCATION, TOPOGRAPHY, AND PHYSICAL FEATURES

The Collen claims are located in sec. 8, T. 35 S., R. 23 E. of the Salt Lake meridian, San Juan County, Utah (fig. 1). They are on a mesa between Bulldog and Devil Canyons and 3/4 mile north of Utah State Highway 47, a hard-surfaced road. The claims are easily accessible over a dirt road, which joins Highway 47 at a point 13.2 miles south of Monticello, Utah, the nearest town. Monticello is 175 miles by hard-surfaced highways from Grand Junction, Colo., the nearest major source of supplies, and is served by scheduled motor freight lines.

The region, at an altitude of about 7,000 feet on the lower eastern slope of the Abajo Mountains, is less precipitous than many Colorado Plateau mining areas, and some canyons are fairly wide with bottomland suitable for farming. The claims are on flat or gently sloping land with a heavy cover of pinon pine. Sections of the mesa west and south of the claims have been cleared and planted.

The climate is semiarid with cool to warm summer and moderate winters, with occasional periods of extreme cold. Snow may accumulate in timbered areas at this elevation. In a normal year, precipitation is sufficient for dry-land farming of certain crops. Mining operations are feasible throughout the year with minor interruptions after heavy storms, or during the spring thaw, but surface drilling operations are usually suspended in winter.

Power needs for exploration must be met by the operator, usually in the form of gas- or diesel-engine units. Water for drilling and domestic use must be hauled 4 or 5 miles from stream crossings on Highway 47.

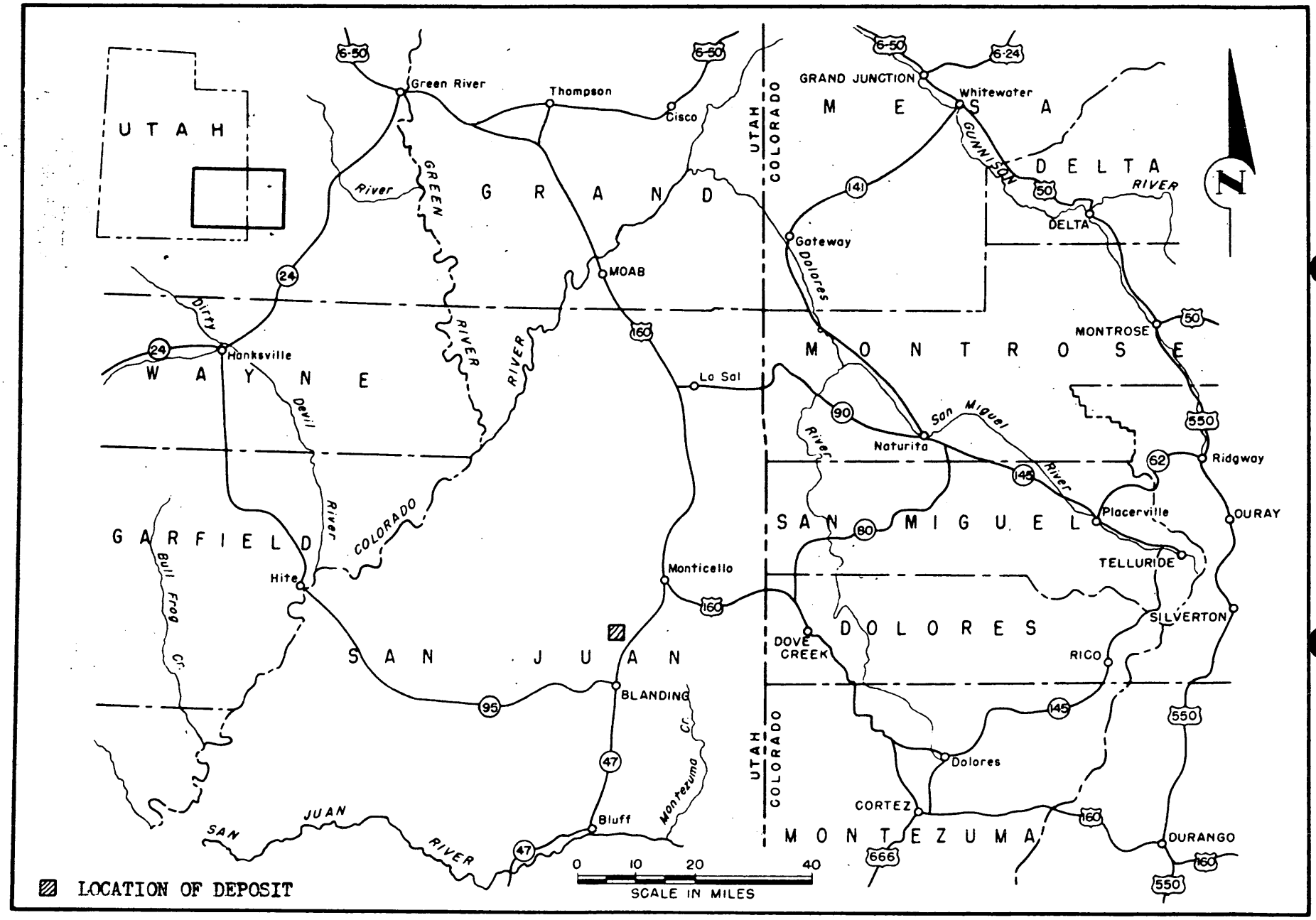


FIGURE 1 - LOCATION MAP, CAGLE, CAGLE, AND BLACK, COLLEN CLAIMS, SAN JUAN COUNTY, UTAH. (DMEA 3413)

The market for uranium ores is at the ore-buying station and plant at Monticello, Utah, operated by the American Smelting and Refining Company.

The applicants propose to furnish all labor and supervision themselves, and the drilling would be done by a contract driller who would furnish other personnel and housing facilities.

HISTORY, PRODUCTION, AND OWNERSHIP

There has been no successful mining activity within 10 miles of the Collen claims, and the current proposal marks one of the first exploration efforts in the immediate vicinity.

There has been no production of uranium or vanadium within 10 miles of the claims.

The property included in the application consists of 9 unpatented claims, Collen Nos. 1 to 9, inclusive, which were located by James H. and William L. Cagle, et al, Box 87, Meeteetse, Okla., on May 7 and 8, 1954, and recorded in Book 89, pages 515 and 516, and Book 91, pages 31 and 33, in the Recorder's Office of San Juan County, Utah (fig. 2 with the geologic report). The locators also filed a proof of labor statement on May 8, 1954, and on May 28, an agreement setting forth the ownership: 5/8 to James H. Cagle, 1/4 to William L. Cagle, and 1/8 to R. E. Black. These entries were verified by the examining engineer. The applicants have also located 8 claims north of the Collen group, which were not included in the application. A field check resulted in verification of discovery notices for

Collom claims Nos. 7 and 8, and a number of the claim corners. No effort to find them all was made. Location and filing procedures appear to have been in order.

DESCRIPTION OF THE DEPOSITS

The rocks exposed in the vicinity of the claims are those of the Cretaceous Burro Canyon or Dakota formations on the mesa top and rim, and the Brushy Basin member of the Jurassic Morrison formation in the lower walls and floor of the canyon (fig. 2 with the geologic report).

The exposed strata consist of nearly flat-bedded, red, purple, and green variegated mudstones and fine sandstones of the Brushy Basin series, with a total thickness in this area of 450 feet, and 100 feet of overlying cross-bedded sandstone and conglomerate of the Burro Canyon-Dakota unit.

Uranium mineralization is found in both the Brushy Basin and Burro Canyon formations elsewhere on the Colorado Plateau, but none is known in this part of Utah. Examination of the rim exposures did not disclose mineralization or favorable geological conditions such as thick sandstone ledges, carbonaceous content, or ancient stream channels. A reconnaissance of the surface with a Geiger counter did not show more than normal background count of from 0.01 to 0.03 MR/HR. No evidence of the radioactive belt across the claims reported by the applicants was found.

The Salt Wash formation, which would be the most likely host rock for uranium deposits in this area, is at least 150 feet below the floor of the canyons and 500 - 600 feet below the mesa top at the claims. There is no evidence to indicate that uranium mineralization is present in the unexposed Salt Wash unit.

PRESENT STATUS

There has been no development done, and there are no buildings or equipment on the property. Efforts to date have been confined to placing corner posts and discovery monuments.

PROJECT PROPOSALS WITH COSTS

The applicants proposed a core-drilling program consisting of 7 holes with average depth of 357 feet at an estimated total cost of $12,675.00. Government participation at 75 percent would be $9,506.25. Employment of a contract driller was planned and it was intended to use the services of all three applicants in supervision of operations and examination of drill core. The estimated cost of drilling, according to the applicants' figures was $5.07 per foot, which is too high compared with usual Colorado Plateau costs, particularly at this very accessible location.

The contract price for drilling is quoted at $3.75 per foot and cost of supervision was estimated as $975.00 per month for 2 months. Both of these items are high, as are estimated charges for truck rental, upkeep, and drilling water procurement. Normally this last item would be included in the contract drilling price.

The holes, planned for an average depth of 357 feet, would penetrate the Dakota and Morrison formations and part of the Brushy Basin; and were to be located to explore a radioactive belt across the claims reported by the applicants but not found by the DMEA examiners. None of the holes would reach the deeper Salt Wash formation.

PROPOSED FINANCING

The applicants proposed to furnish their share of the exploration cost in equipment and labor. Their contributions in these items, on the basis of their estimate, would be more than their 25 percent of the estimated cost.

CONCLUSIONS

The applicants are inexperienced in uranium exploration, and have not proposed a feasible program, or made a realistic cost estimate.

Geologically, there is very little possibility of finding even minor uranium mineralization by the proposed exploration, because no probable ore-bearing formations would be penetrated . Nor is it possible to revise the project to any advantage and drill deeper to cut the Salt Wash formation, in view of the small liklihood of finding mineralization at this deeper horizon.

RECOMMENDATIONS

It is recommended that the application for Government-assisted exploration under DMEA 3413 be denied.

/ici

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

224 New Customhouse
Denver 2, Colorado

September 23, 1954

Mr. James H. Cagle
Mr. W. L. Cagle
Mr. R. E. Black
Box 87
Heavener, Oklahoma

Gentlemen:

Re: Docket DMEA 3413

Reference is made to your application for Government aid on the Collen claims.

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 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,

W H King
W. H. King
DMEA Field Team, Region IV

HMC/mb

cc: Docket
Administrator, DMEA
Mining Div.
AHKoschmann
WMTraver
ALBrokaw
ERGordon
Chron

for E. N. Haushman
A. H. Koschmann
DMEA Field Team, Region IV

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

Defense Minerals Administration
RECEIVED
SEP 30 1954

224 New Customhouse
Denver 2, Colorado

September 23, 1954

Memorandum

To: Administrator, Defense Minerals Exploration Administration
Attention: 200

From: DMEA Field Team, Region IV

Subject: Report of Examination, Docket DMEA 3413 (Uranium), Cagle, Cagle and Black, Collen claims, San Juan County Utah.

Enclosed are four copies of the report of examination 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

for E N Haushman
A. H. Koschmann

Enclosures

letter denied to N E 9-30-54

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Mining Division
Region IV

September 23, 1954

SEP 30 1954

Memorandum

To: DMEA Field Team, Region IV

From: Chief, Mining Division, Region IV

Subject: Report of Examination, Docket DMEA 3413 (Uranium), Cagle, Cagle and Black, Collen Claims, San Juan County, Utah.

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

The applicants requested $12,675.00 to core drill the Collen claims but they admit that they have no experience in exploration, development, or mining of uranium ores.

The engineer examiner found little, if any, geologic evidence to support the application. The reported showings of uranium could not be verified and the engineer examiner recommends that the application be denied.

We concur in this recommendation.

W. H. King

Enclosures

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Region IV

Building 20, Room 137
Denver Federal Center
Denver 2, Colorado
September 21, 1954

SEP 30 1954

Memorandum

To: Executive Officer, DMEA Field Team, Region IV

From: Chief, Mineral Resources Branch, Mining Division, Region IV

Subject: DMEA 3413 (Uranium) Cagle, Cagle, and Black (Collen claims), San Juan County, Utah

Enclosed are the original and ten copies of a Summary, Conclusions, and Recommendations by M. H. Salsbury, Bureau of Mines, and H. S. Johnson, Geological Survey, and of Salsbury's engineering report on the subject docket.

Salsbury concludes the applicants are inexperienced in the exploration, development or mining of uranium ores, their proposal is not feasible, nor their cost estimates realistic. There is little, if any, geologic evidence to support the application, their reported showings of uranium mineralization could not be verified, and the favorable Salt Wash formation would not be penetrated or completely explored by their proposed drilling. Denial of the loan application is recommended and I am in agreement.

The brochure furnished with your memorandum instructing us to make the investigation, and the geologist's report loaned us August 20, 1954, are both enclosed.

W. M. Traver

W. M. Traver

Enclosures

WMT/ici

cc: 10
DMEA 3413
DMEA Chron.

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
Defense Minerals Exploration Administration
Denver Federal Center
Denver 2, Colorado

August 16, 1954

Memorandum

To: DMEA Field Team, Region IV

From: A. H. Koschmann

Subject: DMEA Docket 3413, Cagle, Cagle, and Black, Collen claims, San Juan County, Utah

Enclosed are 11 copies of the geologic report by H. S. Johnson of the U. S. Geological Survey covering the above docket.

Mr. Johnson concludes that geologic conditions are not favorable for ore grade mineralization and recommends that the application for exploration assistance be denied.

E. M. Hackman
for A. H. Koschmann
Supervising Geologist
Colorado-Wyoming

Enclosures (11)

THE INTERIOR
Administration
SEP 30 1954

UNITED STATES
DEPARTMENT OF THE INTERIOR
DOUGLAS McKAY, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION IV

DMEA 3413, Collen Claims

Cagle, Cagle, and Black

San Juan County, Utah

Uranium

M. H. Salsbury, Mining Engineer
Bureau of Mines

H. S. Johnson, Geologist
Geological Survey

September 2, 1954

DMEA 3413

COLLEN CLAIMS
CAGLE, CAGLE, AND BLACK
SAN JUAN COUNTY, UTAH

Summary, Conclusions, and Recommendations

By M. H. Salsbury
Mining Engineer
Bureau of Mines

H. S. Johnson
Geologist
Geological Survey

DMEA 3413

SEP 30 1954

COLLEN CLAIMS
CAGLE, CAGLE, AND BLACK
SAN JUAN COUNTY, UTAH

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

By M. H. Salsbury and H. S. Johnson

James H. Cagle, W. L. Cagle, and R. E. Black, Box 87, Heavener, Okla., applied for Defense Minerals Exploration Administration assistance in exploration for uranium of their property in San Juan County, Utah, south of Monticello. A core-drilling program consisting of 7 holes and a maximum of 2,500 feet of drilling was proposed at an estimated cost of $12,675.00--Government participation 75 percent, or $9,506.25.

The property was examined by Geological Survey and Bureau of Mines, members of the examining team, at different times. The applicants were not present, although they had been notified of the pending examination.

The property consists of 9 located claims, Collen Nos. 1 to 9 inclusive. Location and filing procedures appear to be in order.

The rocks exposed on the Collen claims, which are on a mesa top, are nearly flat-lying beds of mudstone, sandstone, and conglomerate of the Cretaceous Burro Canyon and Dakota formations. Below these formations, red, green, and purple variegated mudstones and fine sandstones of the Brushy Basin member of the Jurassic Morrison formation are exposed in vertical walls and steep slopes of canyons which dissect the tableland. None of these formations are known to contain commercial uranium deposits in this part of the

Colorado Plateau and there is no mineralization, abnormal radioactivity, or favorable geological evidence, either on top of the mesa or along the canyon rims, to indicate that such occurrences might be found here.

The underlying Salt Wash member of the Morrison formation contains commercial uranium in this general area but the nearest known deposits are 10 miles east and 10 miles west. Salt Wash beds are not exposed on the property and are at least 150 feet below the floors of the canyons. There is no evidence to indicate that they are ore-bearing in this area.

The core-drilling program proposed by the applicants was planned to explore only the Dakota Burro Canyon and part of the Brushy Basin formations. Estimated costs used in the application were much higher than normal drilling costs in the area. There appears to be no justification for revising the program to explore the deeper Salt Wash formations in view of the absence of favorable geological indications.

Denial of the loan application is recommended.

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

August 13, 1954

Memorandum

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

From: W. P. Williams

Subject: DMEA 3413, Cagle, Cagle and Black, Collen claims, San Juan County, Utah

Transmitted herewith are eleven copies of the geologic report prepared by H. S. Johnson covering the subject DMEA application.

In Johnson's estimation, geologic conditions on the property do not warrant justification of a DMEA project at this time. Johnson, therefore, recommends that the application be denied.

WPWilliams

W. P. Williams
Geologist

WPW/mlr

Enclosures

UNITED STATES DEPARTMENT OF THE INTERIOR
DOUGLAS McKAY, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION
REPORT OF EXAMINATION BY FIELD TEAM
REGION IV

DMEA 3413, Cagle, Cagle and Black, Collen claims
San Juan County, Utah

Uranium

Geologic Report

By

H. S. Johnson
U. S. Geological Survey

INTRODUCTION AND SUMMARY

On July 2, 1954, James H. Cagle, W. L. Cagle, and R. E. Black of Heavener, Oklahoma, applied for Government assistance to explore for uranium on the Collen group of claims in sec. 8, T. 35 S., R. 23 E., S.L.M., San Juan County, Utah (fig.1). The Collen group comprises nine unpatented claims located by James H., and William L. Cagle on or about May 7, 1954, and recorded on pages 515-516 and 31-33 of books 89 and 91 at the county courthouse at Monticello, Utah. These claims are reached by about one mile of ungraded dirt road leading west from Utah Highway 47 at a point about eight miles north of Blanding, Utah.

The Collen claims were examined by H. S. Johnson and T. E. Mullens of the U. S. Geological Survey, on the afternoon of August 3, 1954. No occurrences of uranium were found on the property, and the geology of the immediate area is not considered favorable for economic uranium deposits. It is recommended that the application be denied.

GEOLOGY AND ORE DEPOSITS

The rocks exposed on the Collen claims consist of nearly flat-lying beds of mudstone, sandstone, and conglomerate of the Jurassic Morrison formation and the Cretaceous Burro Canyon or Dakota formations (fig. 2). In this area, the Burro Canyon and Dakota formations have not been differentiated; but the Burro Canyon probably makes up the greater part of the 100-foot thick sandstone and conglomerate unit present. This unit forms the surface of a partially dissected plain, and the steep-walled canyons cut into the plain have exposed 200-300 feet of the underlying Brushy Basin member of the Morrison formation. The Brushy Basin member is composed largely of red, purple, and green variegated mudstones and fine sandstones and has a total thickness of about 400 feet in this area.

The Burro Canyon and Dakota formations are represented in the vicinity of the Collen claims by about 100 feet of cross-bedded medium- to coarse sandstone and pebble conglomerate. The pebbles are predominantly well-rounded quartz and chert and are up to about one inch in diameter. A small amount of green mudstone is also present as layers, or beds, up to about two feet in thickness. Most of the unit is a rather clean, massive sandstone and conglomerate with only minor amounts of carbonaceous material. Where erosion has cut through it, the Burro Canyon-Dakota unit is a strong cliff former in this area.

No uranium mineralization was found during the field examination of the Collen claims, and none is known in the Brushy Basin and Burro Canyon-Dakota units of this part of the Colorado Plateau. Uranium can and does occur in both these units in other parts of the Colorado Plateau, usually being found in thicker sandstone lenses in the Brushy Basin or associated with carbonaceous material in broad shallow channels in the Burro Canyon or Dakota formation. However, on the Collen claims, the sandstone-mudstone ratios and the content of carbonaceous material do not appear especially favorable for uranium deposits, and there is no reason to expect such deposits in either the Brushy Basin or the Burro Canyon-Dakota units within the boundaries of these claims.

In the Cottonwood Wash area about 10 miles west of the Collen claims and in Montezuma Canyon about 10 miles to the east, vanadium-uranium deposits occur in the upper part of the Salt Wash member of the Morrison formation. These deposits are for the most part rather small and low grade and are associated with carbonized wood and trashy carbonaceous material. Mineralization of this type may be present in the Salt Wash under the Collen claims, but the depth to this possible ore horizon is about 500-600 feet from the surface of the claims. There is no particular reason to expect Salt Wash mineralization here, and drilling to test the Salt Wash on the Collen claims is not considered justifiable at the present time.

PROPOSED EXPLORATION

To explore the possibilities of uranium mineralization in the Burro Canyon-Dakota unit on the Collen claims, the applicants proposed drilling seven core-drill holes with a maximum total footage of 2,500 feet. These holes were to be spaced 500 feet apart on the Collen Nos. 1, 2, 3, 4, and 6 claims. The total cost of the work was estimated by the applicants to be $12,240, of which Government participation would be 75 percent, or $9,180.

CONCLUSIONS AND RECOMMENDATIONS

No uranium mineralization was found during the field examination of the Collen claims, and the Brushy Basin and Burro Canyon-Dakota units are not considered especially favorable for uranium deposits in this area. There is a possible mineralized horizon in the Salt Wash member of the Morrison formation about 500-600 feet beneath the surface of the Collen claims, but there is no particular reason to expect economic deposits there.

Because no uranium occurrences are known on the Collen claims and the geology is not considered especially favorable for ore-grade mineralization, it is recommended that the application for DMEA assistance be denied.

DMEA 3413

COLLEN CLAIMS
CAGLE, CAGLE, AND BLACK
SAN JUAN COUNTY, UTAH

Engineering Report

By M. H. Salsbury
Mining Engineer
Bureau of Mines

SEP 30 1954

DMEA 3413

COLLEN CLAIMS
CAGLE, CAGLE, AND BLACK
SAN JUAN COUNTY, UTAH

CONTENTS

Engineering Report

	Page
Introduction	1
Acknowledgements	1
Location, topography, and physical features	2
History, production, and ownership	3
Description of the deposits	4
Present status	5
Project proposals with costs	5
Proposed financing	6
Conclusions	6
Recommendations	6

ILLUSTRATIONS

Figure		Follows page
1	Location map, Cagle, Cagle, and Black, Collen claims, San Juan County, Utah	2

DMEA 3413

COLLEN CLAIMS
CAGLE, CAGLE, AND BLACK
SAN JUAN COUNTY, UTAH

ENGINEERING REPORT

By M. H. Salsbury

INTRODUCTION

James H. Cagle, W. L. Cagle, and R. E. Black of Heavener, Okla., applied for Defense Minerals Exploration Administration assistance in exploration for uranium on their Collen claims in San Juan County, Utah. A drilling program consisting of 7 holes and 2,500 feet of core-drilling was proposed. The total estimated cost is not given, but from the application, appears to be $12,675.00.

The property was examined by the Bureau of Mines member of the Region IV DMEA team on August 4, 1954, and independently by the Geological Survey member on August 3, 1954. The owners did not participate. James Cagle was notified by letter of the impending examination, but was unable to accompany either examiner because of illness.

ACKNOWLEDGEMENTS

Data were obtained by personal observation and by conference with personnel of the Geological Survey, who are familiar with the area. Lou Garbrecht of the Atomic Energy Commission was contacted by W. P. Williams of the Survey, but had no comment to offer on the proposed exploration.

LOCATION, TOPOGRAPHY, AND PHYSICAL FEATURES

The Collen claims are located in sec. 8, T. 35 S., R. 23 E. of the Salt Lake meridian, San Juan County, Utah (fig. 1). They are on a mesa between Bulldog and Devil Canyons and 3/4 mile north of Utah State Highway 47, a hard-surfaced road. The claims are easily accessible over a dirt road, which joins Highway 47 at a point 13.2 miles south of Monticello, Utah, the nearest town. Monticello is 175 miles by hard-surfaced highways from Grand Junction, Colo., the nearest major source of supplies, and is served by scheduled motor freight lines.

The region, at an altitude of about 7,000 feet on the lower eastern slope of the Abajo Mountains, is less precipitous than many Colorado Plateau mining areas, and some canyons are fairly wide with bottomland suitable for farming. The claims are on flat or gently sloping land with a heavy cover of pinon pine. Sections of the mesa west and south of the claims have been cleared and planted.

The climate is semiarid with cool to warm summers and moderate winters, with occasional periods of extreme cold. Snow may accumulate in timbered areas at this elevation. In a normal year, precipitation is sufficient for dry-land farming of certain crops. Mining operations are feasible throughout the year with minor interruptions after heavy storms, or during the spring thaw, but surface drilling operations are usually suspended in winter.

Power needs for exploration must be met by the operator, usually in the form of gas- or diesel-engine units. Water for drilling and domestic use must be hauled 4 or 5 miles from stream crossings on Highway 47.

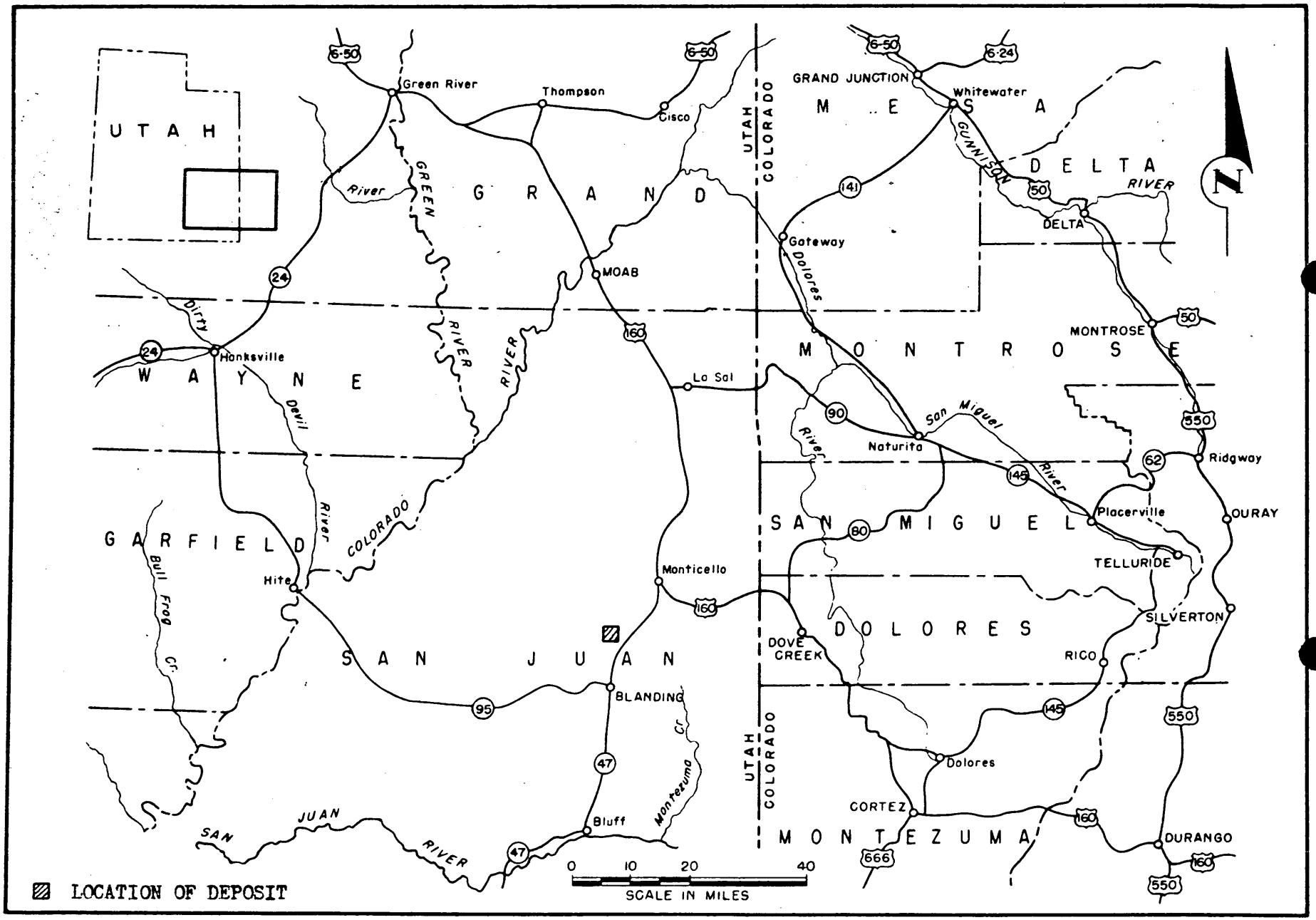


FIGURE 1 - LOCATION MAP, CAGLE, CAGLE, AND BLACK, COLLEN CLAIMS, SAN JUAN COUNTY, UTAH. (DMEA 3413)

The market for uranium ores is at the ore-buying station and plant at Monticello, Utah, operated by the American Smelting and Refining Company.

The applicants propose to furnish all labor and supervision themselves, and the drilling would be done by a contract driller who would furnish other personnel and housing facilities.

HISTORY, PRODUCTION, AND OWNERSHIP

There has been no successful mining activity within 10 miles of the Collen claims, and the current proposal marks one of the first exploration efforts in the immediate vicinity.

There has been no production of uranium or vanadium within 10 miles of the claims.

The property included in the application consists of 9 unpatented claims, Collen Nos. 1 to 9, inclusive, which were located by James H. and William L. Cagle, et al, Box 87, Heavener, Okla., on May 7 and 8, 1954, and recorded in Book 89, pages 515 and 516, and Book 91, pages 31 and 33, in the Recorder's Office of San Juan County, Utah (fig. 2 with the geologic report). The locators also filed a proof of labor statement on May 8, 1954, and on May 28, an agreement setting forth the ownership: 5/8 to James H. Cagle, 1/4 to William L. Cagle, and 1/8 to R. E. Black. These entries were verified by the examining engineer. The applicants have also located 8 claims north of the Collen group, which were not included in the application. A field check resulted in verification of discovery notices for

Collen claims Nos. 7 and 8, and a number of the claim corners. No effort to find them all was made. Location and filing procedures appear to have been in order.

DESCRIPTION OF THE DEPOSITS

The rocks exposed in the vicinity of the claims are those of the Cretaceous Burro Canyon or Dakota formations on the mesa top and rim, and the Brushy Basin member of the Jurassic Morrison formation in the lower walls and floor of the canyon (fig. 2 with the geologic report).

The exposed strata consist of nearly flat-bedded, red, purple, and green variegated mudstones and fine sandstones of the Brushy Basin series, with a total thickness in this area of 400 feet, and 100 feet of overlying cross-bedded sandstone and conglomerate of the Burro Canyon-Dakota unit.

Uranium mineralization is found in both the Brushy Basin and Burro Canyon formations elsewhere on the Colorado Plateau, but none is known in this part of Utah. Examination of the rim exposures did not disclose mineralization or favorable geological conditions such as thick sandstone ledges, carbonaceous content, or ancient stream channels. A reconnaisance of the surface with a Geiger counter did not show more than normal background count of from 0.01 to 0.03 MR/HR. No evidence of the radioactive belt across the claims reported by the applicants was found.

The Salt Wash formation, which would be the most likely host rock for uranium deposits in this area, is at least 150 feet below the floor of the canyons and 500 - 600 feet below the mesa top at the claims. There is no evidence to indicate that uranium mineralization is present in the unexposed Salt Wash unit.

PRESENT STATUS

There has been no development done, and there are no buildings or equipment on the property. Efforts to date have been confined to placing corner posts and discovery monuments.

PROJECT PROPOSALS WITH COSTS

The applicants proposed a core-drilling program consisting of 7 holes with average depth of 357 feet at an estimated total cost of $12,675.00. Government participation at 75 percent would be $9,506.25. Employment of a contract driller was planned and it was intended to use the services of all three applicants in supervision of operations and examination of drill core. The estimated cost of drilling, according to the applicants' figures was $5.07 per foot, which is too high compared with usual Colorado Plateau costs, particularly at this very accessible location.

The contract price for drilling is quoted at $3.75 per foot and cost of supervision was estimated as $975.00 per month for 2 months. Both of these items are high, as are estimated charges for truck rental, upkeep, and drilling water procurement. Normally this last item would be included in the contract drilling price.

The holes, planned for an average depth of 357 feet, would penetrate the Dakota and Burro Canyon formations and part of the Brushy Basin; and were to be located to explore a radioactive belt across the claims reported by the applicants but not found by the DMEA examiners. None of the holes would reach the deeper Salt Wash formation.

PROPOSED FINANCING

The applicants proposed to furnish their share of the exploration cost in equipment and labor. Their contributions in these items, on the basis of their estimate, would be more than their 25 percent of the estimated cost.

CONCLUSIONS

The applicants are inexperienced in uranium exploration, and have not proposed a feasible program, or made a realistic cost estimate.

Geologically, there is very little possibility of finding even minor uranium mineralization by the proposed exploration, because no probable ore-bearing formations would be penetrated . Nor is it possible to revise the project to any advantage and drill deeper to cut the Salt Wash formation, in view of the small likelihood of finding mineralization at this deeper horizon.

RECOMMENDATIONS

It is recommended that the application for Government-assisted exploration under DMEA 3413 be denied.

/ici

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

224 New Customhouse
Denver 2, Colorado

July 9, 1954.

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 DMEA Form 3a and MF-103 and supporting data pertaining to the following applications for Government assistance in exploration work:

Buckskin Joe Mines, Ltd. (Lead-Zinc-Copper)
Alma
Colorado

James H. Cagle, W. L. Cagle (Uranium)
and R. E. Black
Heavener, Oklahoma

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-R1085.2.

RECEIVED
OCT 12 1954

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. 3413
Metal or Mineral Uranium
Date Received
Estimated Cost $12,675
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: James H. Cagle, Box 87, Heavener, Okla. W. L. Cagle, Heavener, Okla. R. E. Black, 703 East Ave. B, Heavener, Okla.

(*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 Section Township 35 south range 23 east Nine unpatended mining claims. Each 600 ft. by 1500 ft. Manti-Lasal National Forest, San Juan County, Utah

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

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise I have an five eighth interest. W. L. Cagle an one fourth, R. E. Black an one eighth interest.

(*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 unpatended claims Recorded Monticello, Utah Page ~~31-32-33~~ 515-516 Books 89, and 91

(*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 ores

(*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 Six 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?

☐ 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 July 2, 1954

James H. Cagle
(Applicant)
William S. Cagle
R. E. Black

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

COLLEN MINING CLAIMS

Received
JUL 12 1954

Physical Description

4-a. There has been no mining or exploration operations on the Collen Claims to my knowledge. There are no production facilities either.

The claims are ideal located. Approximately 1/2 or 3/4 mile from hard surface highway between Blanding and Monticello, Utah. A good road runs across the claims. Approximately 14 miles southwest Monticello, Utah.

4-b. There has never been any production from these claims. But the radio active of some of these claims justify the need for exploring.

4-c. The claims are located on the upper DAKOTA morrison the best I can make out. Some of the claims are ~~very~~ radioactive. Most of the formation at the surface is conglomerate, with ancient channelways of streams showing on canyon walls. Organic matter is noticable on the west canyon wall. The claims are located on an ascending grade upthrow to the northeast.

4-C. The reason we wish to explore by core drill these claims is the unusal radioactive which is higher than any I have come in contact with. It seems the canyon walls are normal, but the center of the claims are ~~[illegible]~~ radioactive. Two veteran prospectors from Colorado said their geigor counter went over as far as fifteen and seventeen. Our Lucky Strike showed ~~[illegible]~~ in same spots. A steady rapid count was received by earphones, too fast to count in several places.

4-D. Roads to the claims are very good only 1/2 or 3/4 mile off main highway between Blanding and Monticello, Utah. No roads would have to be built. The claims are approximately 14 miles from Monticello, Utah in a southwest direction. Ore is received there at Monticello, also Blanding, Utah is a few miles south of these claims.

4-E. Manpower, materials, supplies, water, and power can be obtained either from Blanding or Monticello, Utah.

Also we will bring men from Oklahoma to assist in mining. The men we have in mind are very capable and have had mining experience.

5-B. We would like to core drill seven holes to a depth of 357 ft. or until ore is reached in commercial quanities, a maxium of 2500 ft. of drilling. This work will be done by experienced men. The locations will be made by my partners, W.L. Cagle, R.E. Black and myself. Also we will check every inch of rock brought to surface with geigor counters.

Most of the drilling will be on Claims, Collen 1, 2, and Collen No. 4.

5-D. The operating experience of the applicant in this type of mining is zero. I have worked in pigeon holes coal mining for approximately five months. The exploration of these claims will be carried out to the letter of our contract by experienced drillers.

Mr. Admiral Sims of Paris, Arkansas, a veteran of the mines around Paris would be the supervisor in charge of mining operations, if ore is reached.

Also Mr. Cleo Grubbs of Heavener, Oklahoma, a veteran miner, now employed as fireman on K. C. S. Railroad would probably assist Mr. Sims in hiring men of proven ability if and when ore is reached in commercial quanities.

I will personally be in charge of locating drill sites and my partners Mr. W. L. Cagle, Mr. R. E.Black and myself will check all cores for radioactivity and assist in water hauling or keeping roads in shape.

Mr. Sims and Mr. Grubbs have worked in mines many years and are well qualified.

6-a. Independent Contracts:
Seven holes of 357 ft. each. BX SIZE
2500 ft. of coredrilling at $ 3.75 per ft.
Total cost $ 9,375.00

Core Drilling will be contracted to:

Name MACPHERSON DRILLING CO. Address P.O. BOX 447 MONTROSE, COLORADO.

6-B. Labor, supervision consultant.
My partners and myself at $1.25 per hour for approximately sixty days.

Selecting drill sites
Repairing road
~~Hauling water~~
Checking core samples
Truck driving

Approximate cost of Labor --------- $1950.00

6-C. Operating materials and supplies.

Water approximate $250.00
Gas for truck APPX. 185.00
Total $435.00

6-D. Operating equipment:
Core drill will be used by contractor
3/4 Chevrolet truck will be used by myself
Approximately $1.00 hr. Truck use $480.00

6-e. Rehabilitation and repairs.
None as far as I know.

6-f. New Buildings, Improvements, Installations
None as far as I know.

6-g. Miscellaneous.
Repairs and maintenance of operating equipment*------Cost None.
Analytical work----------Cost None.
Accounting----------Cost None.
Workmen compensation*----------Cost NONE.
Employers liability Insurance*----------Cost NONE.
Payroll taxes*----------Cost NONE.
*COVERED by DRILLING COMPANY.

6-h. Contingencies
None

7-a. yes

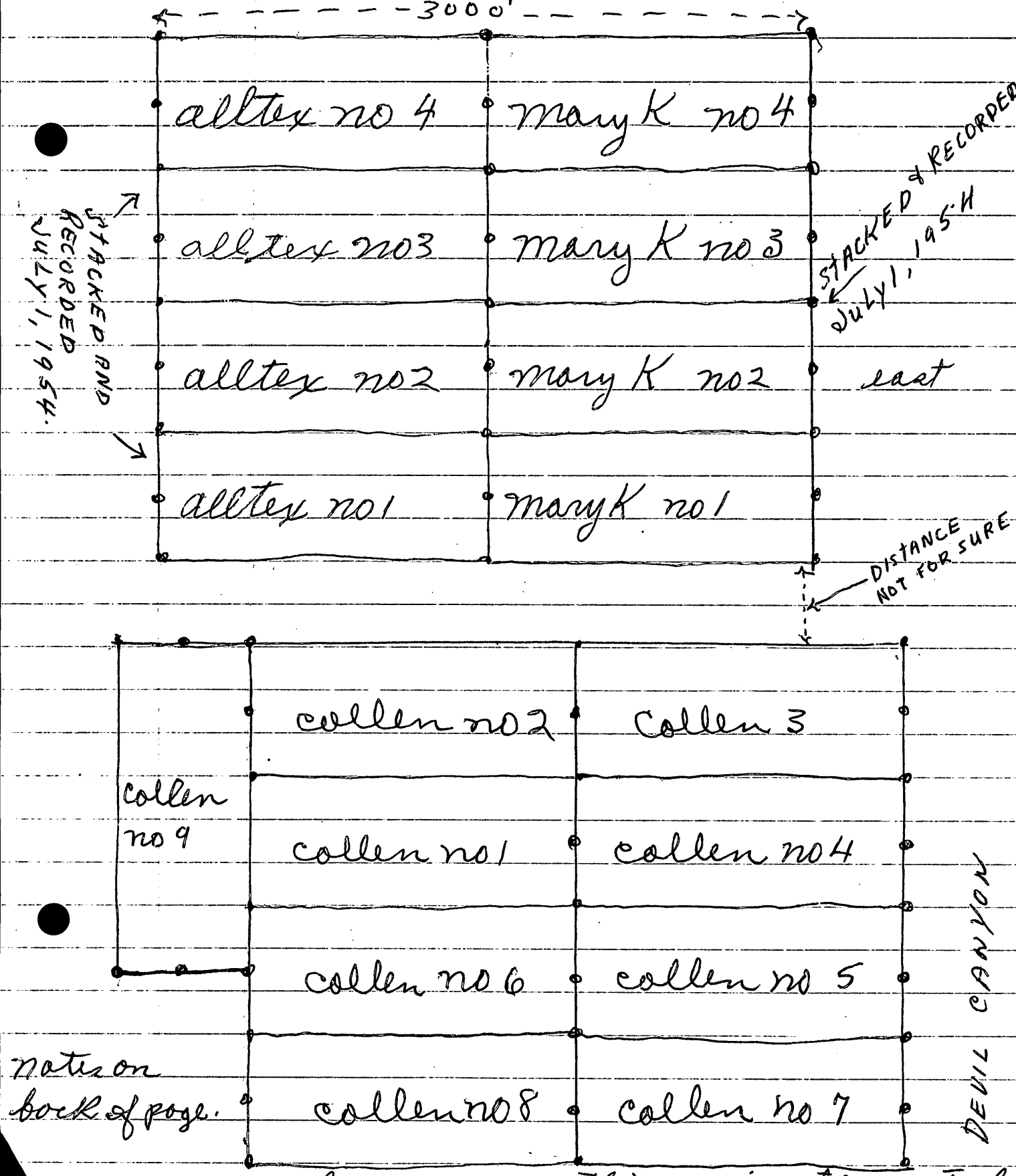
7-b. We, my partners and myself will assist in every way possible, to help keep roads up, ~~haul water~~, supervise and make drill locations, hauling

tools, check all core samples with geigor counters, make reports and etc.

James H. Cagle
William S. Cagle
R. E. Black

NORTH

Section? Township 35 S. Range 23 east



notes on back of page.

the accuracy of this map is not guaranteed

notes:- claims in nat'l Forest.

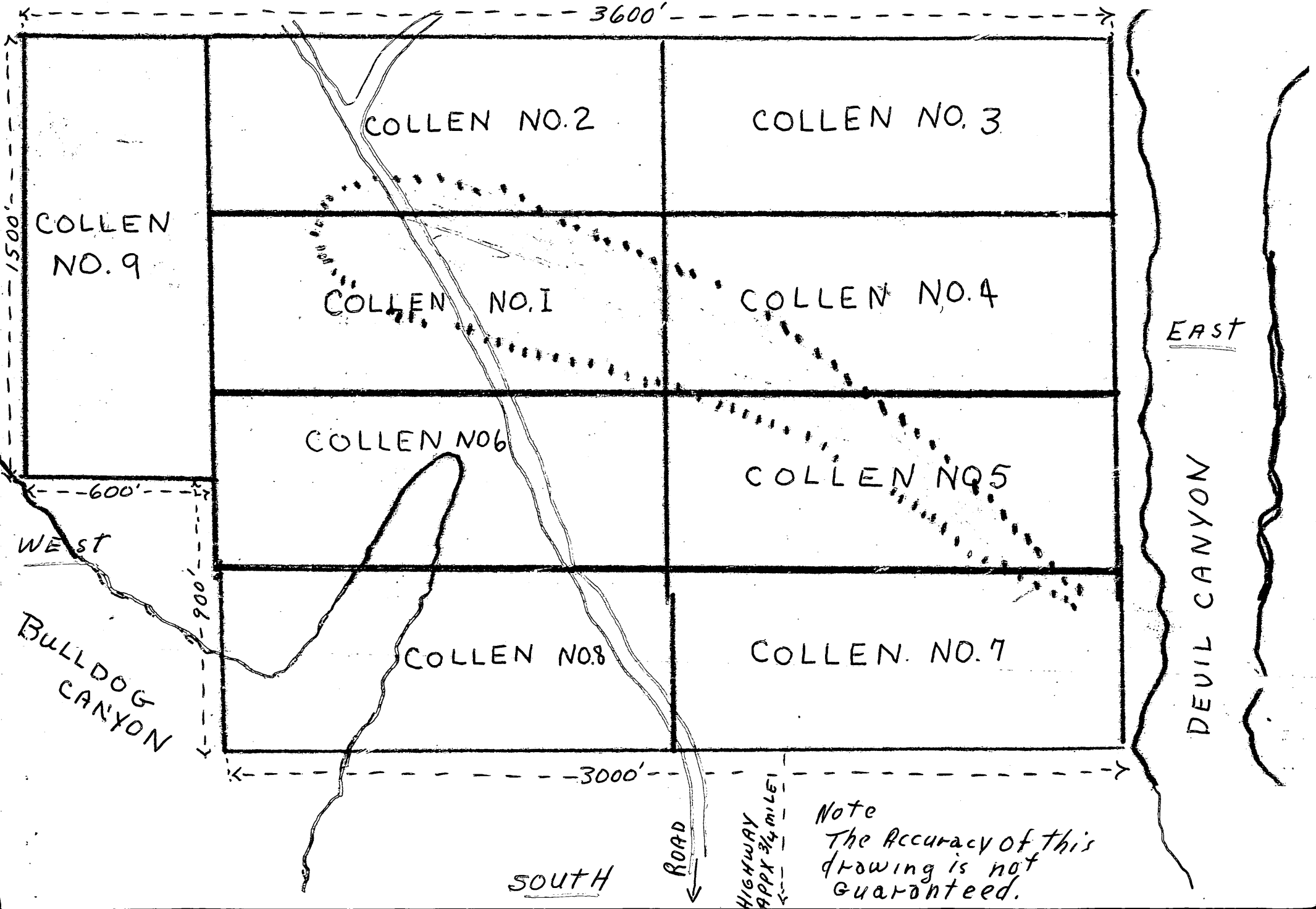
The alltex claims and many K claims are owned by the below each having 1/3 Interest. they are unsurveyed, unpatented claims.

R. E. Block	Heavener,	Okla
J. H. Cogle	"	"
R. A. Cogle	"	"

4C.

SECTION TOWNSHIP 35 south. NORTH
RANGE 23 east.

ROUGH SKETCH of COLLEN CLAIMS.

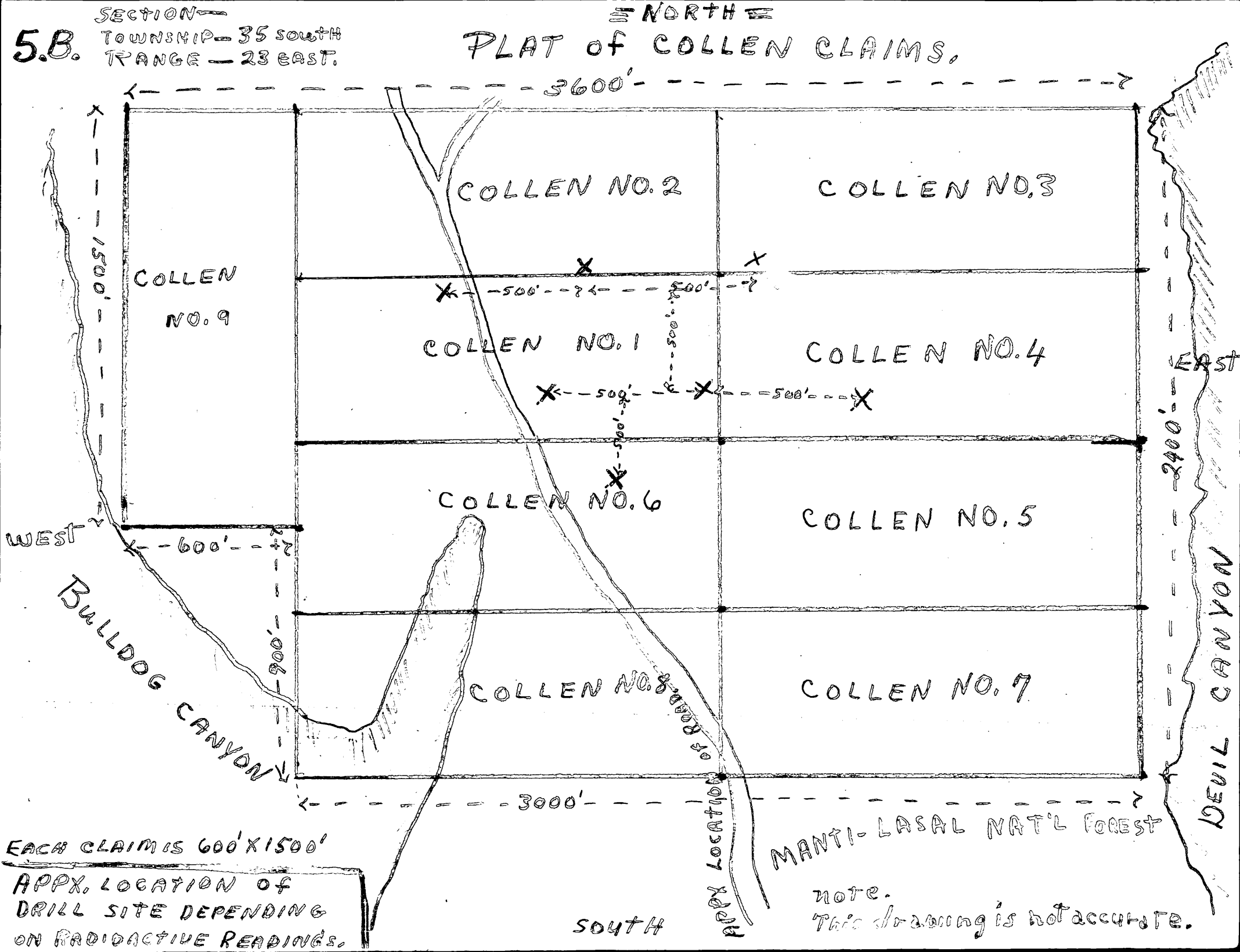


Note
The Accuracy of this drawing is not Guaranteed.

5.B.

SECTION —
TOWNSHIP — 35 SOUTH
RANGE — 23 EAST.

PLAT of COLLEN CLAIMS.



EACH CLAIM IS 600' X 1500'

APPX. LOCATION OF DRILL SITE DEPENDING ON RADIOACTIVE READINGS.

note.
This drawing is not accurate.

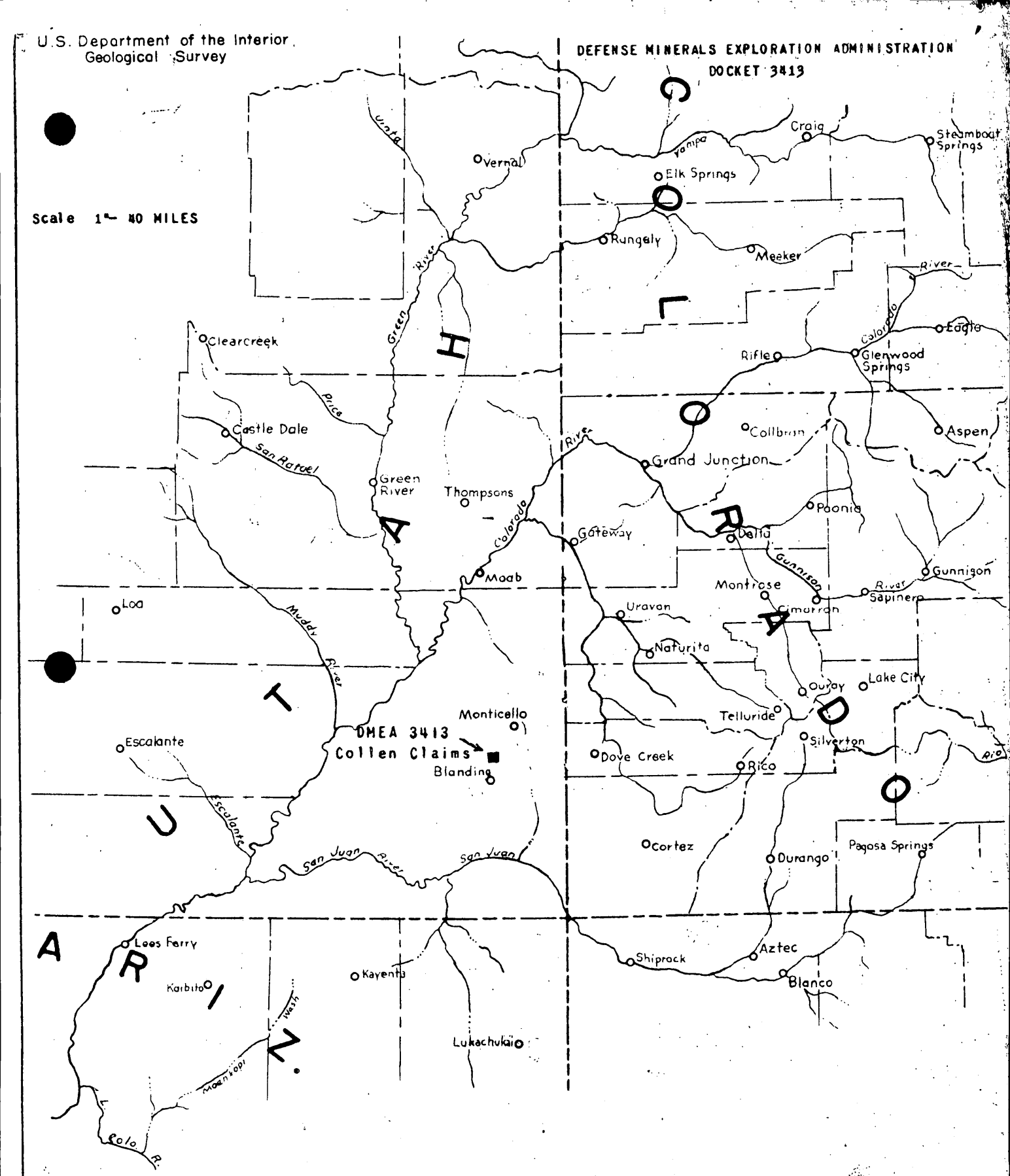


Figure 1. INDEX MAP OF PART OF COLORADO PLATEAU SHOWING LOCATION OF COLLEN GROUP OF CLAIMS SAN JUAN COUNTY, UTAH

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DEFENSE MINERALS EXPLORATION ADMINISTRATION
DOCKET 3413

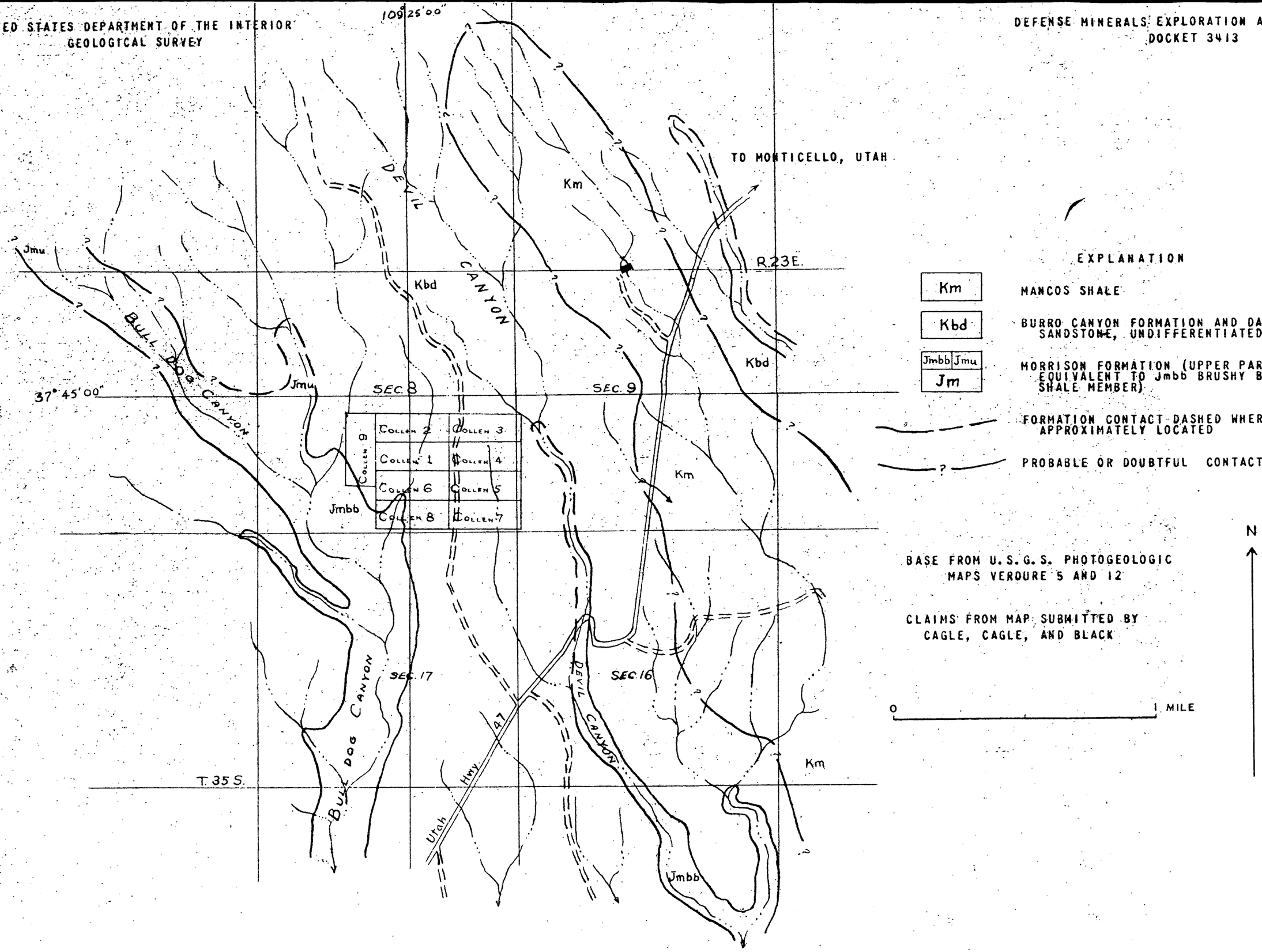


Figure 2. GEOLOGIC MAP SHOWING LOCATION OF COLLEN CLAIMS, SAN JUAN COUNTY, UTAH

U.S. Department of the Interior
Geological Survey

DEFENSE MINERALS EXPLORATION ADMINISTRATION
DOCKET-3413

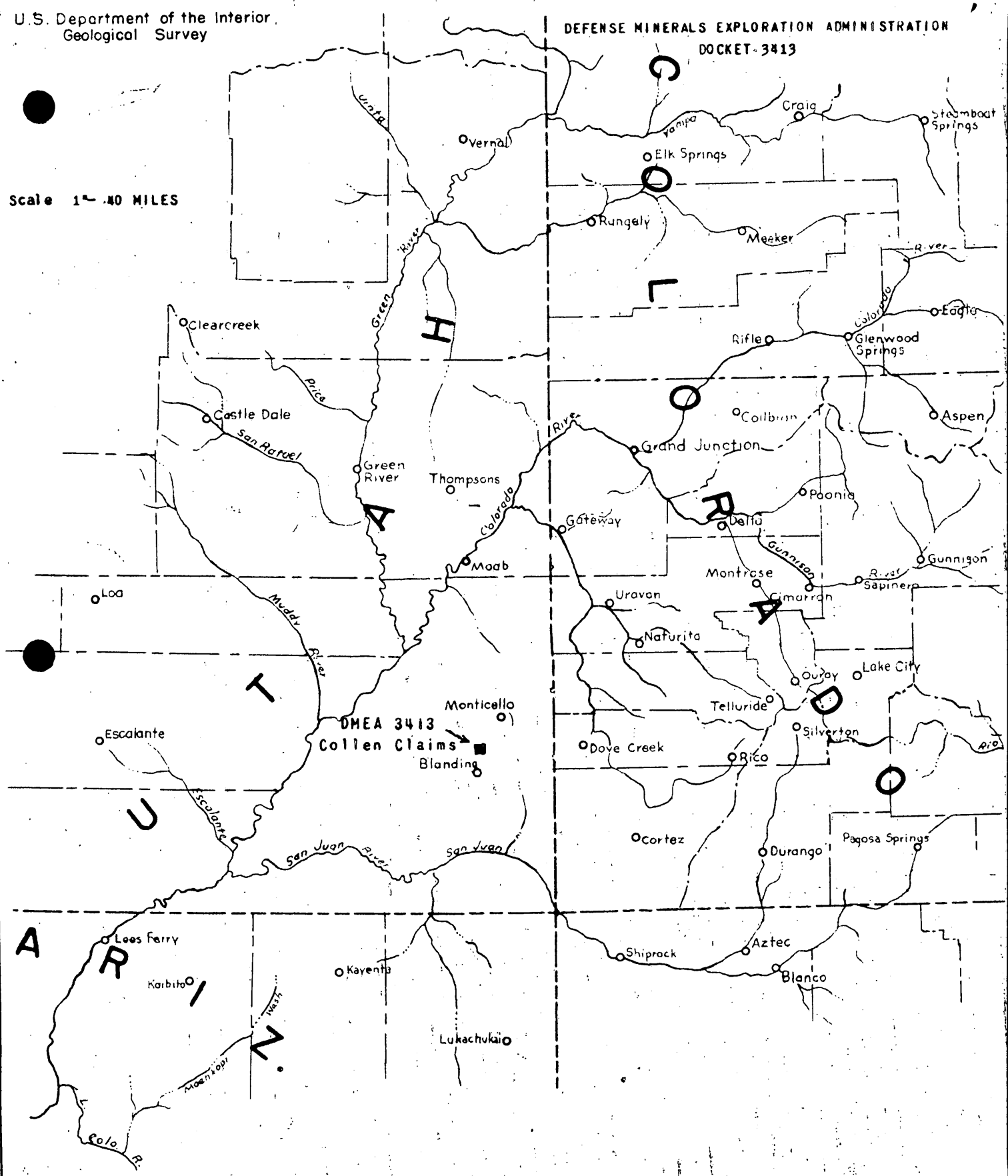


Figure 1. INDEX MAP OF PART OF COLORADO PLATEAU SHOWING LOCATION OF COLLEN GROUP OF CLAIMS
SAN JUAN COUNTY, UTAH

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DEFENSE MINERALS EXPLORATION ADMINISTRATION
DOCKET 3413

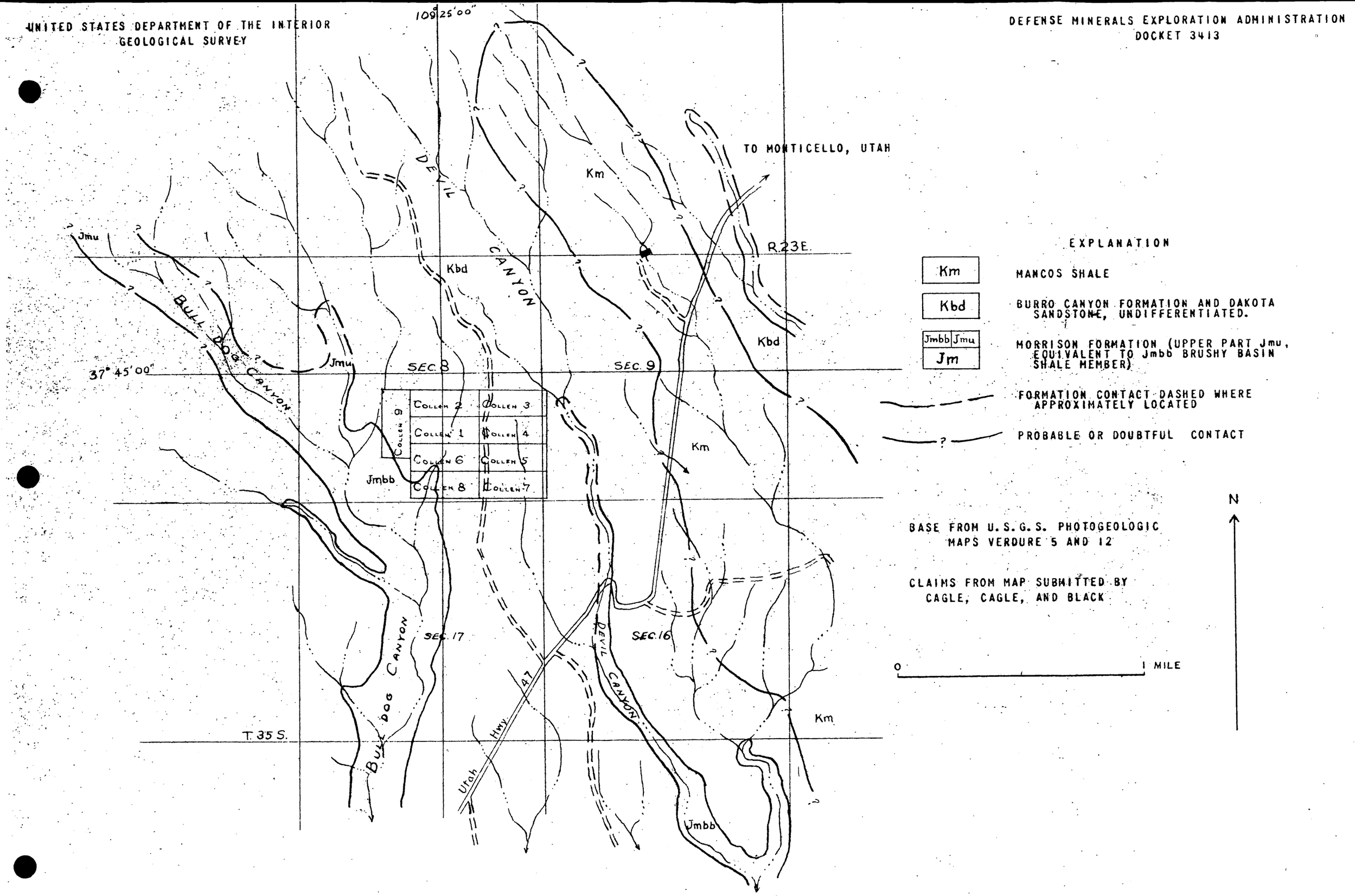


Figure 2. GEOLOGIC MAP SHOWING LOCATION OF COLLEN CLAIMS, SAN JUAN COUNTY, UTAH

DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION
[redacted]

OFFICIAL BUSINESS

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

JUNEAU JUL 9 12 1954 ALASKA

VIA AIR MAIL

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