224 New Customhouse
Denver 2, Colorado

January 17, 1955

Memorandum

To: Administrator, Defense Minerals Exploration Administration
Attention: 200

From: Field Team, Region III

Subject: Report of Examination, DMEA Docket No. 3500, (Uranium)
Robert F. George and Associates, Wildcat and Gogalla claims,
San Juan County, Utah

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

W. M. Traver

W. M. Traver

WMC:pw

E. N. Harshman

E. N. Harshman

Recorded in
DMEA OPERATING COMMITTEE

1-28-55
(date)

COPY

224 New Customhouse
Denver 2, Colorado

January 17, 1955

Mr. Robert F. George
708 Railway Exchange Building
Denver, Colorado

Re: Docket No. DMEA 3500

Dear Mr. George:

Reference is made to your application for Government aid on the Wildcat and Oogalla 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. M. TRAVER
W. M. Traver

E. N. HARSHMAN
E. N. Harshman

HMC:pw

cc: Subject
Chron
Shaw
Mining Div.
Williams
AEC
Harshman
Administrator

Reviewed by
DMEA OPERATING COMMITTEE
1-28-55
(date)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Date Rec'd.
JAN 7 1955
BUREAU OF MINES
Denver, Colorado

Region IV

Transmitted
JAN 17 1955

Building 20, Room 137
Denver Federal Center
Denver 2, Colorado
December 1, 1954

Memorandum

To: Executive Officer, DMEA Field Team, Region IV

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

Subject: DMEA 3500 (Uranium) Robert F. George and Associates (Wildcat No. 1-8 and Cogalla No. 1-8 claims) San Juan County, Utah

Enclosed are the original and ten copies of a "Summary, Conclusions, and Recommendations," by Carl Belser, Bureau of Mines, and Randall T. Chew, III, Geological Survey, and of Belser's engineering report on the subject docket.

Belser concludes the applicants' property is favorable for the discovery of uranium deposits in the Salt Wash member of the Morrison formation. He recommends a two-stage contract, set up on unit cost with Stage I comprising a maximum of five, AX size drill holes on 100-foot centers paralleling the cliff east of mine workings on the Wildcat No. 1 claim. The holes are to be 300 feet deep with the last 100 feet cored and the estimated cost is $2.93 a foot, or $4,395.00 for 1,500 feet. If the Stage I drilling is successful in the discovery of workable uranium ore in any of the holes, he recommends, subject to written authorization by the Region IV Field Team, 1,200 feet in 12 holes of offset drilling at an estimated cost of $2.87 a foot, or $3,444.00. The total cost if both stages are completed will be $7,839.00, with Government participation 75 percent, or $5,879.25.

Your attention is directed to the fact that three other loan applications in the immediate area, one of them DMEA 3501, by the same applicant have been denied; the others are DMEA 3413, DMEA 3567. Also, production from the area has been negligible and admittedly any ore bodies discovered will be small, scattered, and low-grade with little likelihood of there being a sufficient quantity of ore to repay even a small part of the exploration costs. In the interest of consistency I recommend that this application be denied.

The brochure furnished with your memorandum of September 24, 1954, requesting a field examination and suitable report is also enclosed.

W. M. Traver

W. M. Traver

Reviewed by
DMEA CONSULTING COMMITTEE
1-28-55
(date)

enclosures

cc 10, DMEA 3500, DMEA Chron.
MEF/pah

IN REPLY REFER TO:

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

Mining Division
Date Rec'd.
DEC 17 1954
BUREAU OF MINES
Denver, Colorado

Transmitted
JAN 17 1955

December 16, 1954

Memorandum

To: DMEA Field Team, Region IV

From: E. N. Hershman

Subject: DMEA Docket 3800 (uranium), Robert F. George & Associates, Wild Cat and Cogalia groups, San Juan County, Utah

Enclosed are 10 copies of a geologic report by R. T. Chew, III, of the U. S. Geological Survey covering the above docket.

Chew recommends a program of exploration for vanadium-uranium ore deposits in the Salt Wash member of the Morrison formation. The following pertinent facts are contained in the geologic report:

1. Deposits of vanadium-uranium ore in the Montezuma Canyon area, of which hundreds are known, are small and of moderate to low grade. The best deposits are located in the middle Montezuma area about 5 miles south of the subject property. Chew lists the reported production from several of these better deposits as ranging from 198 tons to 2,589 tons with an average grade, where available, of from .13 to .17% U_3O_8.

2. The physical character of the sandstone beds in the Montezuma Canyon area is not favorable for the deposition of large deposits.

3. The best ore exposure near the subject claims is on the old Blue Eagle No. 6 claim where 26 tons of ore containing 1.72% V_2O_5 and undetermined amount of uranium was mined in 1943.

4. The sandstone lens on which the Wildcat and Cogalia claim groups are located is one of the largest single sandstone lenses in the Montezuma Canyon area.

From the above information it must be concluded that the proposed exploration at best may result in the discovery of a few thousand tons of marginal grade ore, and the propriety of Government participation in the proposed exploration program is therefore questioned.

Enclosed are 9 extra copies of the maps accompanying the report.

E. N. Hershman
E. N. Hershman
Project Chief

Enclosures (28)

1-28-55

UNITED STATES
DEPARTMENT OF THE INTERIOR
DOUGLAS McKAY, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION IV

DMEA 3500, Wildcat 1-8, and Oogalla 1-8 Claims

Robert F. George and Associates

San Juan County, Utah

Uranium

Carl Belser, Mining Engineer
Bureau of Mines

Randall T. Chew, III, Geologist
Geological Survey

November 24, 1954

Reviewed by
DMEA OPERATING COMMITTEE
1-28-55
(2010)

DMEA 3500

WILDCAT 1-8, and OOGALLA 1-8 CLAIMS
ROBERT F. GEORGE AND ASSOCIATES
SAN JUAN COUNTY, UTAH

Summary, Conclusions, and Recommendations

By Carl Belser
Mining Engineer
Bureau of Mines

Randall T. Chew, III
Geologist
Geological Survey

Reviewed by
DMEA OPERATING COMMITTEE
1-28-55
(date)

DMEA 3500

WILDCAT 1-8, AND OOGALLA 1-8 CLAIMS
ROBERT F. GEORGE AND ASSOCIATES
SAN JUAN COUNTY, UTAH

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

By Carl Belser and Randall T. Chew, III

Robert F. George and Associates, 708 Railway Exchange Building, Denver, Colo., have applied for a Defense Minerals Exploration Administration loan of $11,220.00, to explore the Wildcat 1-8 and Oogalla 1-8 claims by 4,500 feet of core-hole drilling.

A field investigation was made on October 20, 1954, by an examining team of the Geological Survey and the Bureau of Mines. W. V. N. Jones and A. George Wright, associates of Robert F. George accompanied the examining team and approved the modifications suggested.

The claims form a compact block 4,800 feet long by 3,000 feet wide on the east side of Montezuma creek in secs. 22 and 27, T. 34 S., R. 24 E., Salt Lake meridian, San Juan County, Utah. The ore-bearing beds occur in the flat-dipping Salt Wash member of the Morrison formation. The exposed rocks on the property consist mostly of the Salt Wash sandstone and Brushy Basin shale members of the Morrison formation. Some rocks of the San Rafael group of the Lower Jurassic are exposed near the western end of the claims and a little Burro Canyon formation covers the extreme east end of the claim group. The claims cover 4,800 feet of a N. 15° W. striking

escarpment of the Salt Wash member of the Morrison formation on the east side of Montezuma Canyon and extend over on top of the upper Morrison (Brushy Basin) to the east. The best uranium mineralization appears to be in the third sandstone rim of the Salt Wash with slight mineralization showing in the upper rims.

Production amounts to 56 tons of ore containing an average of 1.72 percent V_2O_5. This production was made in 1941 from the Wildcat No. 1 (Blue Eagle No. 6) claim and was not assayed for uranium. A 16-inch sample taken from the Wildcat No. 6 by the examining team showed 0.21 percent U_3O_8 by radiometric analysis.

The applicants' proposal called for 4,500 feet of core-hole drilling at a total estimated cost of $11,220.00.

The examining team recommends a modified program prepared as a two-stage, short-form unit cost contract. Stage I includes 5 holes averaging 300 feet in depth to be drilled on 100-foot centers in a line parallel to the cliff behind the Wildcat No. 1 mine workings. The drilling cost is estimated at $2.93 a foot, or $4,395.00.

Stage II consists of not over 1,200 feet of "fill in" drilling at $2.87 a foot, or $3,444.00.

The total cost of the entire program, which includes bulldozing and core boxes is $7,839.00. Government participation is 75 percent, or $5,879.25.

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

December 10, 1954

Memorandum

To: A. H. Koschmann, Supervising Geologist, DMEA Field Team, Region IV

From: Arnold L. Brokaw, District Supervisor

Subject: DMEA 3500, Robert F. George & Associates, Wild Cat and Oogalla groups (Uranium), San Juan County, Utah

Transmitted herewith are ten copies of a geological report by Randall T. Chew, III, covering a field examination of the above-referenced property. Because favorable geologic conditions exist on the subject claims and uranium production has been made from the property, Chew recommends that a DMEA contract be approved to provide for a total of 2700 feet of exploration drilling on the property.

The application has been brought to the attention of the Exploration Division, U. S. Atomic Energy Commission, Grand Junction Operations Office. The Commission has been asked for its help and advice in evaluating the property.

We are enclosing nine extra copies of the maps accompanying Chew's report.

W. P. Williams (R)
For Arnold L. Brokaw

WPW/mlr
Enclosures 10

Reviewed by
DMEA OPERATING COMMITTEE
1-28-55
(date)

UNITED STATES DEPARTMENT OF THE INTERIOR

DOUGLAS McKAY, SECRETARY

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

DMEA 3500, Robert F. George & Associates, Wild Cat and Oogalla groups
San Juan County, Utah

Uranium

Geologic Report

by

R. T. Chew, III
U. S. Geological Survey

December 8, 1954

Reviewed by
DMEA OPERATING COMMITTEE
1-28-55
(date)

INTRODUCTION AND SUMMARY

Robert F. George and Associates, 708 Railway Exchange, Denver 2, Colo., requested DMEA assistance (Docket 3500) in an exploration program on the Wildcat group (1-8) and the Oogalla group (1-8) in upper Montezuma Canyon. The claims lie mostly in sec. 22, T. 34 S., R. 24 E., Salt Lake Base and Meridian, San Juan County, Utah. Small portions of the Oogalla 7 or 8 lie in secs. 23, 25, and 27. The workings along the rim on the claims can be reached by paved and good secondary road south and souteast from Monticello. The drilling access road on the bench above the claims is reached by paved and fair secondary access roads east and south from Monticello. The drilling road itself may not be passable at all times during the winter months.

The applicant requested aid in an exploration program of fifteen diamond drill holes totaling 4,500 feet of which 1,000 feet was to be cored in addition to necessary bulldozer work to permit access to the drill sites. Total cost was to be $11,200, of which the Government's share was to be $8,415.

A field examination of the property was made during the afternoon of October 20, 1954, with R. T. Chew,III and H. S. Johnson representing the U. S. Geological Survey, Carl Belser representing the U. S. Bureau of Mines, and W. V. N. Jones, A. George Wright and Cloyd Johnson representing the applicants.

H. B. Wood, district geologist for District 3 of the AEC in which the subject claims are located, was consulted regarding the application. The Commission has no geologists available who are familiar with the area. AEC drilling at the middle Montezuma Canyon group about 5 miles south of the subject claims in the Coalbed Canyon area a few miles to the eas was unfavorable.

Lyman Huff of the U. S. Geological Survey is project chief of a Geological Survey mapping project in the Montezuma Canyon area. Huff has left the field for the winter, but was consulted; and he suggests that a small amount of exploration work in upper Montezuma Canyon is desirable.

The subject claims are located on what appears lithologically to be the most favorable lens in the Salt Wash sandstone in upper Montezuma Canyon. A drilling program consisting of 5 diamond drill holes in Stage I and 4 diamond drill holes in Stage II behind the main ore exposure is recommended for approval.

GEOLOGY AND ORE DEPOSITS

The ore exposures on the Wildcat and Oogalla groups are located in the Salt Wash member of the Morrison formation about 200 feet below the top of the member. According to the Union Mines Development Company's Comb Ridge report, the Salt Wash is about 350 feet thick in the Upper Montezuma Canyon area. It consists of a series of sandstone lenses separated by maroon siltstones. The sandstone lenses range from 30 to 50 feet thick and are more persistent in the Montezuma Canyon area than is typical on the Colorado Plateau. Sandstone forms about 50 percent of the Salt Wash member in the Montezuma Canyon area. In areas where minable ore deposits occur, the sandstone lenses thicken and may coalesce to form from 70 to 100 percent of the Salt Wash.

There are hundreds of vanadium occurrences known in the Montezuma Canyon area though none appear to contain large tonnages of uranium ore or to be of exceptionally high grade. They occur scattered at random throughout the Salt Wash sandstone. It has been postulated that the persistent sandstone beds of the Montezuma Canyon area with their relatively regular lithology have not been favorable for the deposition of large uranium deposits but rather have allowed the formation of many small ones. The sands are lenticular with variable lithologic features in only a few areas and these areas contain the best deposits.

The best uranium deposits in the Montezuma Canyon are in the middle Montezuma area at the Cottonwood, Rock, Strawberry, and Rainbow mines. These all occur in the same sandstone lens about five miles south of the Wildcat and Oogalla claims. The lens is about 125 feet thick and 4,000 to 5,000 feet long. The best ore bodies in this group of claims are near intraformational unconformities and are usually directly below them. In the Cottonwood mine, uranium is concentrated along the bedding for as much as 3 or 4 feet below an unconformity and is enriched where trash is present (Carlson, W.A., 1954). According to Carlson, the Cottonwood mine has produced 2,589 tons of ore averaging 0.13 percent U_3O_8, the Rock, 1,907 tons averaging 0.17 percent U_3O_8, the Strawberry, 294 tons, and the Rainbow 198 tons with the grade not reported. Vanadium ranged from 1.75 to 2.23 percent.

The sand lens on which the Wildcat and Oogalla groups are located is exposed for about one mile along the north-trending rim. The lens is probably 100-feet thick and certainly at least 80-feet thick at its thickest part. These dimensions make it one of the largest single sandstone lenses in Montezuma Canyon and makes the Salt Wash about 70 percent sand in this immediate area. It is underlain by thin-bedded red siltstone with less than a foot altered to green siltstone along the contact.

At the best ore exposure, known as the Blue Eagle No. 6 during World War II but now relocated, the sandstone is fine to medium grained, contains some feldspar and abundant limonite specks, and is thin bedded. There are about 2 feet of sandstone impregnated with vanadium minerals immediately underneath a diastem within the sandstone. The top six inches are highly impregnated with the vanadium minerals. This vanadium-rich zone is exposed for about 50 feet in the prospect workings and is reported to be about 140 feet long. According to Metals Reserve Corporation data, 56.17 tons of ore assaying 1.72 percent V_2O_5, but not assayed for uranium, was produced from these workings in 1943 when it was called the Blue Eagle group. There has probably been no later production from these claims. Other claims in the immediate area have probably produced similar amounts of ore.

Many other small exposures of uranium-vanadium mineralization occur to the south on property belonging both to the applicant and to others. None of the other properties are included in the subject application but the ore deposits are probably geologically related to each other. Most of the occurrences are similar to the one described above. The largest, known as Eagle No. 1 during World War II, includes some replaced wood in logs and

charcoal seams as well as a little mineralized sandstone. This deposit is probably richer in uranium than the subject deposit, but is much spottier and probably of smaller extent.

CONCLUSIONS AND RECOMMENDATIONS

The possibility exists that a deposit the size of the Cottonwood deposit may exist in the sandstone lens at the Wildcat and Oogalla claims. The exposure on the Wildcat, the old Blue Eagle No. 6, is of the variety which seems to persist with depth in the Montezuma Canyon area. That is, it consists of vanadium minerals impregnating the sandstone rather than simply consisting of mineralized wood and trash. It is concievable that the exposure may mark the edge of an ore body containing from 500 to 2,500 tons.

A diamond drilling program consisting of two stages is recommended to test this one exposure. Stage I will consist of five holes spaced 100 feet apart parallel to the rim behind the deposit. Stage II will consist of a maximum of four holes to offset any ore holes found in stage I hole, because most of the sandstone lens probably has mineralized ground in it at various horizons.

The ore horizon is about 300 feet below the surface in the drilling area. Because of the many ore horizons and the possibility of a minable ore body occurring higher in the lens, the first 200 feet of each hole in both stages should be drilled with plug bit and the remainder cored.

The row of holes should be placed as close as possible to the rim behind the outcrop because the drilling target is probably not more than 200 feet wide.

It is anticipated that much mineralized and favorable ground will be penetrated during the drilling because low-grade mineralization occurs at many levels in the sandstone lens. Therefore, about three assays will be necessary in each hole to determine the grade of the various horizons of favorable ground.

A road to the drilling area has been constructed and only roads to the drilling sites will be necessary. The road may not be passable during the winter months.

The entire project should take less than one month.

Project Summary

Stage I	
5 holes at 300 feet each	
200 feet plugged each hole	1,000 feet
100 feet cored each hole	500 feet
Total footage Stage I---	1,500 feet
Stage II	
4 holes at 300 feet each	
200 feet plugged each hole	800 feet
100 feet cored each hole	400 feet
Total footage Stage II--	1,200 feet
Total project footage---	2,700 feet
Assays, 3 per hole, 9 holes ----------	27 assays
Core boxes ----------	20
Supervision ----------	1 month
Bulldozer ----------	75 hours

The applicant has other blocks of claims on the same sand lens to the south and southeast. They are not adjacent to the Wildcat and Oogalla property and because of the small size of the drilling target it is suggested that they not be made subject to royalty.

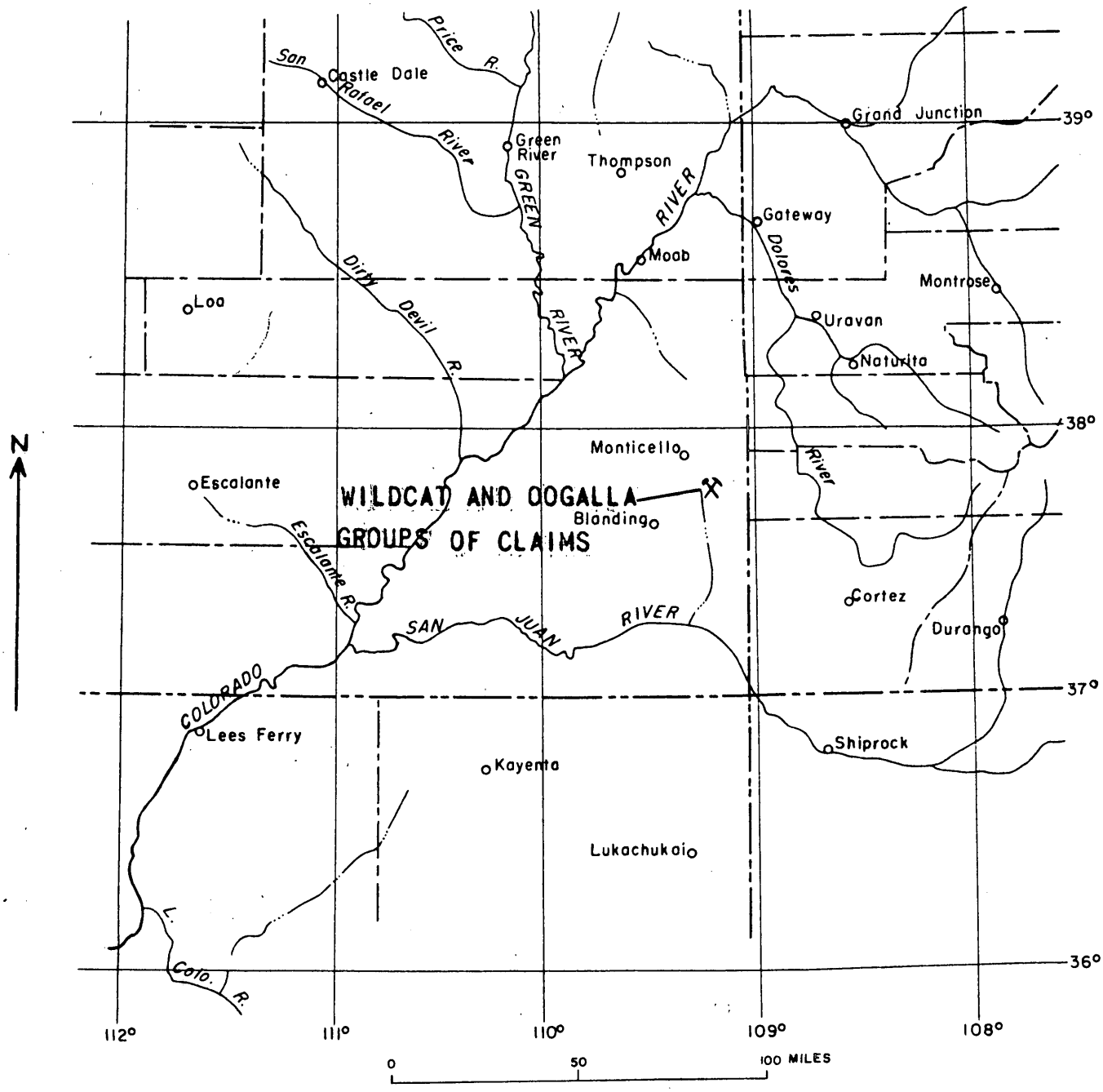


Figure 1. INDEX MAP OF PART OF THE COLORADO PLATEAU SHOWING LOCATION OF THE WILDCAT AND OOGALLA GROUPS, ROBERT F. GEORGE ASSOCIATES, SAN JUAN COUNTY, UTAH

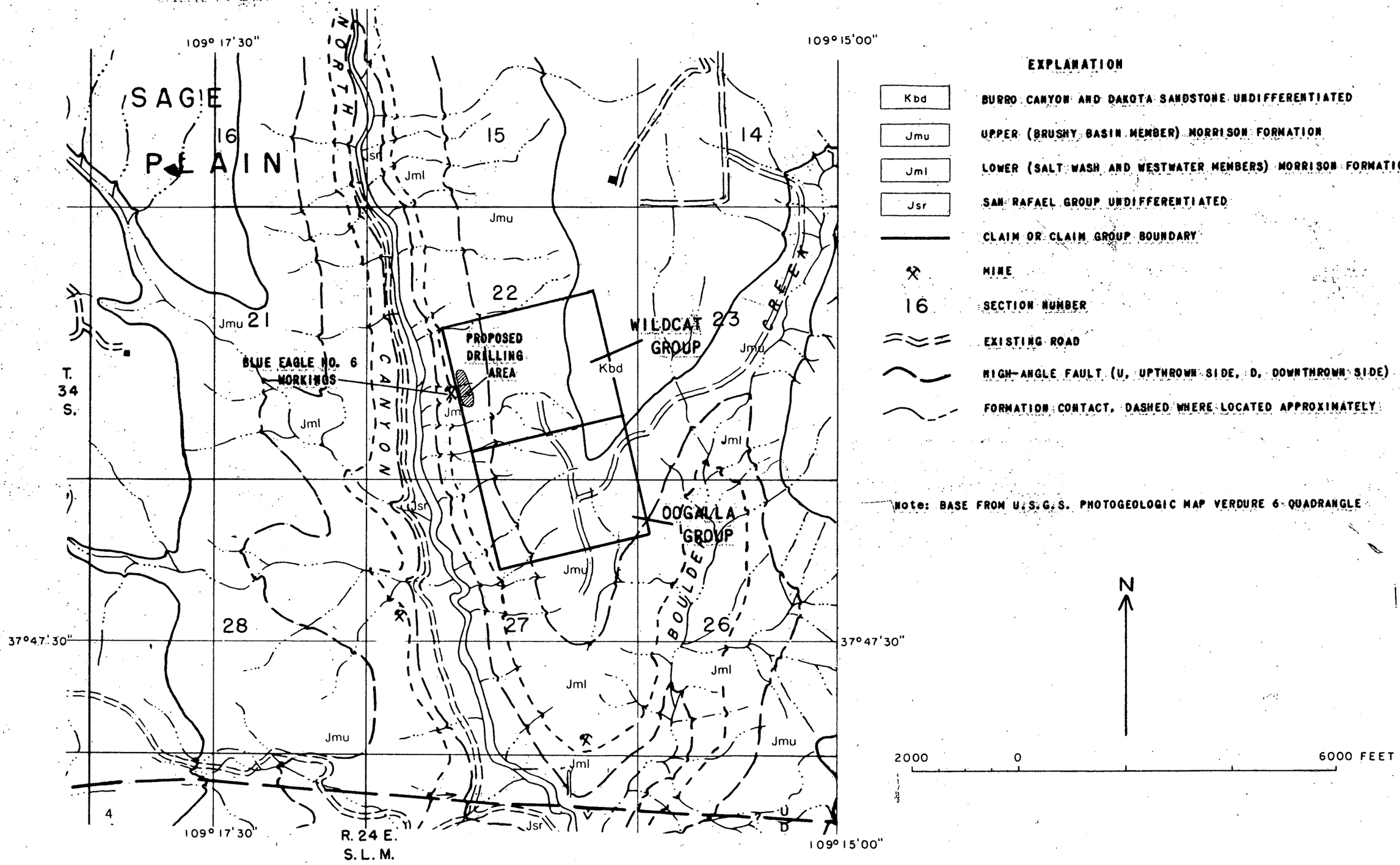


Figure 2. PHOTOGEOLOGIC MAP SHOWING APPROXIMATE LOCATION OF THE WILDCAT AND OOGALLA GROUPS, ROBERT F. GEORGE ASSOCIATES, SAN JUAN COUNTY, UTAH

DMEA 3500

WILDCAT 1-8, AND OOGALLA 1-8 CLAIMS
ROBERT F. GEORGE AND ASSOCIATES
SAN JUAN COUNTY, UTAH

Engineering Report

By Carl Belser
Mining Engineer
Bureau of Mines

Released by
DMEA OPERATIONS OFFICE
1-28-55

DMEA 3500

WILDCAT 1-8, AND OOGALLA 1-8 CLAIMS
ROBERT F. GEORGE AND ASSOCIATES
SAN JUAN COUNTY, UTAH

Engineering Report — Page

Introduction..... 1
Acknowledgments..... 2
Location, topography, and climate..... 2
History and production..... 3
Ownership and extent..... 4
Description of the deposits..... 5
Present status..... 5
  Exploration and development..... 5
  Mining and milling equipment and other facilities..... 6
Proposed exploration..... 6
Estimated cost of project..... 6
Summary cost of project..... 8
Conclusions..... 9
Recommendations..... 9

ILLUSTRATIONS

Figure		Follows Page
1	Location map, Wildcat 1-8, and Oogalla claims, Robert F. George and Associates, San Juan County, Utah (DMEA 3500)	2
2	Claim map showing proposed exploration, Wildcat 1-8, and Oogalla 1-8 claims, Robert F. George and Associates, San Juan County, Utah (DMEA 3500)	5

DMEA 3500

WILDCAT 1-8, AND OOGALLA 1-8 CLAIMS
ROBERT F. GEORGE AND ASSOCIATES
SAN JUAN COUNTY, UTAH

ENGINEERING REPORT

By

Carl Belser

INTRODUCTION

Robert F. George and Associates, 708 Railway Exchange Building, Denver, Colo., on September 21, 1954, submitted an application to the Defense Minerals Exploration Administration for aid in an exploration project on the Wildcat 1-8, and Oogalla 1-8 claims in the Montezuma Canyon mining district, San Juan County, Utah. The application, DMEA 3500, requested aid in completing 4,500 feet of core-hole drilling at a total estimated cost of $11,220.00--Government participation 75 percent, or $8,415.00. This proposed exploration was to test the Salt Wash member of the Morrison formation for Uranium mineralization.

A joint field examination was made by a Geological Survey and Bureau of Mines examining team on October 20, 1954. The examining team, as a result of their investigation, recommended Government assistance in a modification of the applicants' proposal of exploratory drilling, designed to explore the area east of the Wildcat No. 1 mine workings.

ACKNOWLEDGMENTS

A. George Wright, Monticello, Utah, and W. V. N. Jones, Aspen, Colo., associates of Robert F. George, accompanied the examining team.

Personnel of the Atomic Energy Commission were consulted concerning the Montezuma Canyon area prior to the examination.

Arnold L. Brokaw, District Supervisor, Geological Survey, Grand Junction, Colo., assigned Randall T. Chew, III, geologist, to make the examination as the Geological Survey member of the team. Chew was accompanied by H. S. Johnson of the Geological Survey.

LOCATION, TOPOGRAPHY, AND CLIMATE

The Wildcat 1-8, and Oogalla 1-8 claims are a compact block of 16 mining claims 4,800 feet long by 3,000 feet wide, containing approximately 330 acres. The claims are on the east side of Montezuma Canyon, in secs. 22 and 27, T. 34 S., R. 24 E., Salt Lake meridian, San Juan County, Utah, (fig. 1).

The claims cover a steep N. 12° W. striking escarpment of Salt Wash sandstone for 4,800 feet and extend eastward over the exposed Brushy Basin member of the Morrison formation for about 2,500 feet. A fair 3 mile access road connects the property with a good County road from whence it is 10 miles northwesterly to Monticello, the nearest town and supply point. The altitude at the proposed drilling sites is about 6,700 feet, 300 feet above the old mine workings. A road has been recently constructed on top of the bench from which short branches could easily be constructed to the proposed drill sites.

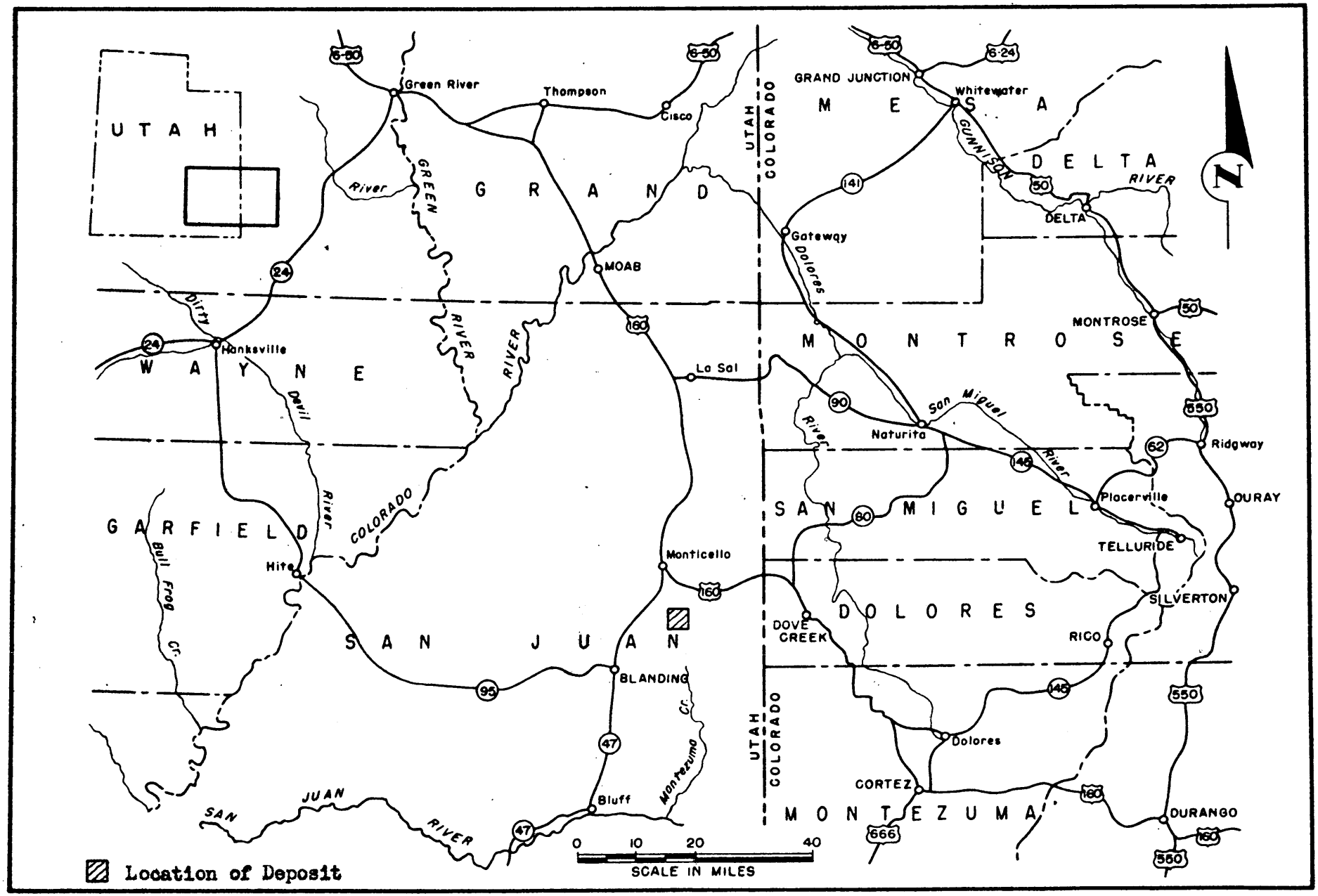


FIGURE 1 - LOCATION MAP, WILDCAT 1-8 AND OOGALLA 1-6 CLAIMS, ROBERT F. GEORGE AND ASSOCIATES, SAN JUAN COUNTY, UTAH (DMEA 3500)

The nearest ore depot is at Monticello where miners can be employed and timber or light equipment purchased. The nearest railroad is the Denver and Rio Grande Western at Thompson, Utah, which is 88 miles north of Monticello over good U. S. highways.

Annual rainfall is light and the country is classed as semi-arid. Winter snowfalls seldom exceed 6 inches and mining operations can be maintained the year around. Water, suitable for mining and domestic purposes, can be obtained near the junction of Verdure creek with Montezuma creek, about 2 miles distant, while water for drilling purposes would be hauled over the new road from a small creek farther north.

HISTORY AND PRODUCTION

The Montezuma Canyon area was infrequently visited before the wagon road was improved in 1940. In 1941 an access road was built to the Wildcat No. 1, then the Blue Eagle No. 6, and 56 tons of ore averaging 1.72 percent V_2O_5 was shipped. A small amount of vanadium ore was also shipped from other claims along Montezuma canyon. Prospecting for uranium became of interest following the introduction of the Government buying schedules in 1948. Before that date only high-grade uranium ores were of material interest. During the past few years, uranium ores have been mined on a small scale from several points in Montezuma canyon. Uranium has been found in several locations on the Wildcat and Oogalla claims with apparently the best deposition in the old Blue Eagle No. 6 workings. No uranium ore has been shipped from the property.

OWNERSHIP AND EXTENT

The property, as submitted in the application, consists of 16 unpatented claims containing approximately 330 acres on the east side of Montezuma canyon in secs. 22 and 27, T. 34 S., R. 24 E., Salt Lake meridian, San Juan County, Utah. The claims are recorded in the records of the County Recorder of San Juan County, Utah, as follows:

Claim	Book	Page
Wildcat No. 1	107	33
Wildcat No. 2	107	33
Wildcat No. 3	107	34
Wildcat No. 4	107	35
Wildcat No. 5	105	418
Wildcat No. 6	105	418
Wildcat No. 7	105	419
Wildcat No. 8	105	419
Oogalla No. 1	143	81
Oogalla No. 2	143	81
Oogalla No. 3	143	82
Oogalla No. 4	143	83
Oogalla No. 5	143	83
Oogalla No. 6	143	84
Oogalla No. 7	143	85
Oogalla No. 8	143	85

The Wildcat claims were leased for 5 years from Cloyd L. Johnson, Jean Johnson, Lewis C. Fuller and Della M. Fuller to A. George Wright on June 7, 1954, and the lease transferred to Robert F. George and Associates on September 9, 1954. The Oogalla group was leased for a period of 5 years to Robert F. George and Associates by Lewis C. Fuller, Cloyd L. Johnson, and A. George Wright on September 9, 1954

DESCRIPTION OF THE DEPOSITS

The exposed rocks on the applicants' claims are mostly of the Morrison formation of the Upper Jurassic, which, toward the eastern side of claim block, are overlain by rocks of the Burro Canyon member of the Dakota formation of the Lower Cretaceous. The known ore occurrences are in the Salt Wash member of the Morrison formation. This member consists mostly of sandstone lenses and a steep escarpment of Salt Wash sandstones extends about N. 12° W. the entire length of the claim block (fig. 2). The main ore occurrence appears to be in the third sandstone rim a short distance above a thick shale bed. Minor uranium mineralization was noted at two higher elevations in the Salt Wash. The formations are nearly flat and have been developed by a small, crescent-shaped working on the Wild cat No. 1 claim. A 16-inch sample taken from this working showed 0.21 percent U_3O_8 by radiometric analysis. Other small workings are along the rim north and south of the property and across the canyon west.

PRESENT STATUS

Exploration and Development

The property has been opened by one crescent-shaped working which was driven in 1941 for the production of vanadium and has been developed by an access road from the canyon below which follows the bottom of the cliff and also by a second access road that comes down onto the high bench on the eastern side of the claims from the Dakota formation above.

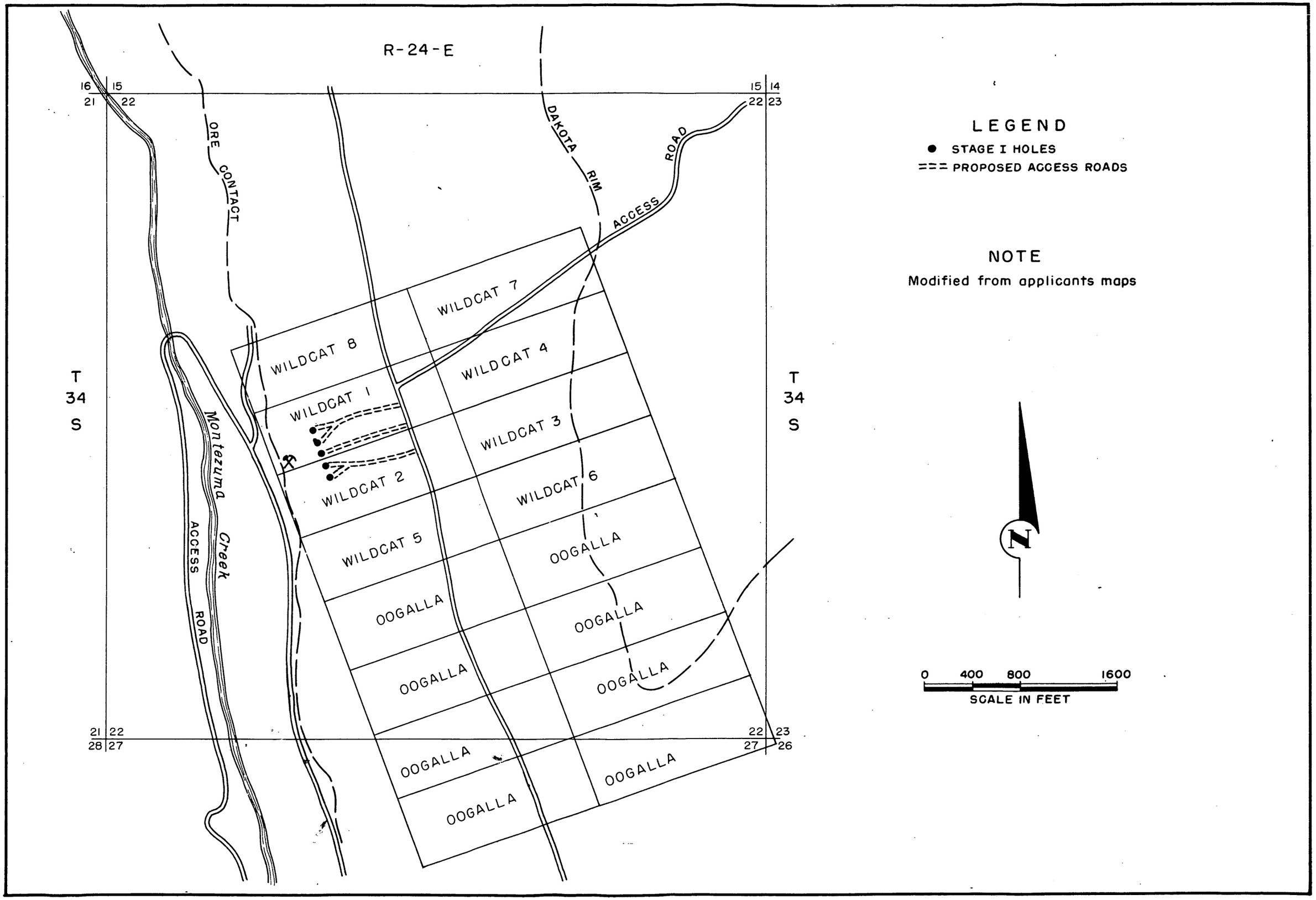


FIGURE 2 - CLAIM MAP SHOWING PROPOSED EXPLORATION, WILDCAT 1-8 AND OOGALLA 1-8 CLAIMS, ROBERT F. GEORGE AND ASSOCIATES, SAN JUAN COUNTY, UTAH (DMEA 3500)

Mining and Milling Equipment and Other Facilities

There is no mining or milling equipment on the property. An ore buying depot is located at Monticello, Utah.

PROPOSED EXPLORATION

The applicants proposed to further explore the Wildcat and Oogalla claims with 4,500 feet of core drill holes. The total cost, including bulldozing, assaying, and supervision, was estimated at $11,220.00 or $2.49 a foot.

The examining team suggested that the drilling proposed be modified to a 2-stage program. Stage I to consist of five, 300-foot holes spaced on 100-foot centers in a line parallel to the cliff behind the Wildcat No. 1 workings and as near to the cliff as practical. Stage II to consist of three, 300-foot offset holes to be drilled only if the showing in the Stage I holes warrants the expenditure. The total drilling under the modified program is 9 holes aggregating 2,700 feet. The approximate location of these holes is shown on figure 2.

ESTIMATED COST OF PROJECT

The application, as submitted, includes all items except payroll taxes and liability insurance.

Applicants' Estimated Cost of Core Drilling

The applicant expects to subcontract all core drilling to an independent contractor and stated that a bid had been received from a reliable drilling contractor for non-coring at $2.00 a foot and $2.50 a foot for coring. The applicants' estimated costs follow:

Independent contracts		
3,500 feet plug-bit drilling at $2.00 a foot	$7,000.00	
1,000 feet core drilling at $2.50 a foot	2,500.00	
Bulldozing 75 hours at $8.50 plus $100.00 "move in".	737.50	
Total independent contracts	10,237.50	
		$10,237.50
Supervision		
2 months at $300.00		600.00
Miscellaneous		
Core boxes 24 at $5.00	120.00	
Assay costs	262.50	
Total miscellaneous		382.50
Total core drilling costs		11,220.00

Average cost per foot for 4,500 feet of drilling $2.49

Engineer's Estimated Cost of Modified Project

Stage I (time required to complete--one month)

Independent contracts		
1,000 feet non-core drilling at $2.00 a foot	$2,000.00	
500 feet core drilling at $2.50 a foot	1,250.00	
Bulldozing 48 hours at $8.50 an hour plus $100.00 "move in"	508.00	
Total independent contracts		$ 3,758.00
Labor and Supervision		
Labor	none	
Supervision one man, 1 month at $500.00 a month	500.00	
Total labor and supervision	500.00	500.00
Operating materials and supplies		
None		
Operating equipment		
None		
Initial rehabilitation and repairs		
None		
New buildings, improvements, etc.		
None		
Miscellaneous		
Sampling and analysis, 10 at $500 each	50.00	
Core boxes, 12 at $5.00 each	60.00	
Payroll taxes, liability insurance, compensation and social security		

Miscellaneous (continued)

$500.00 at 5 percent	$ 25.00	
Total miscellaneous	135.00	135.00
Total cost Phase I drilling		$ 4,393.00

Cost per foot for 1,500 feet of drilling $2.93

Stage II (time required to complete--one month)

Independent contracts		
800 feet of non-core drilling at $200 a foot	1,600.00	
400 feet of core drilling at $2.50 a foot	1,000.00	
Bulldozing 16 hours at $8.50 plus $100.00 "move in"	236.00	
Total independent contracts	$2,836.00	2,836.00
Labor and Supervision		
Labor	none	
Supervision one month at $500.00 a month	500.00	
Total labor and supervision	500.00	500.00
Miscellaneous		
Sampling and analysis, 8 at $5.00 each	40.00	
Core boxes, 8 at $5.00 each	40.00	
Payroll taxes, liability insurance, compensation, and social security $500.00 at 5 percent	25.00	
Total miscellaneous	105.00	105.00
Total cost Phase II drilling		3,441.00

Cost per foot for 1,200 feet of drilling $2.87

SUMMARY COST OF PROJECT

Stage I

1,500 feet of core-hole drilling at $2.93 a foot	$4,395.00

Stage II

1,200 feet of core-hole drilling at $2.87 a foot	3,444.00
Total cost of project	$7,839.00
Government participation, 75 percent, or	5,879.25
Total time for completion -- 2 months	

CONCLUSIONS

The sandstone lens in which the ore occurs is exposed for 100 feet in height and for over a mile in length and is one of the largest in the Montezuma Canyon area. Thick sandstone lenses of the Salt Wash member of the Morrison formation, especially where they rest upon green mudstones are considered favorable for uranium deposits. The examining team is of the opinion that the thick sandstone lens exposed on the Wildcat-Oogalla claims justifies a limited exploration program.

RECOMMENDATIONS

It is recommended that a short-form contract be prepared for a two-phase program consisting of:

Stage I

Drilling a maximum of five holes averaging 300 feet in depth to be spaced on 100-foot centers in a line parallel to the cliff and to the east of the Wildcat No. 1 workings as shown in figure 2. The bottom 100 feet of each hole is to be cored. The minimum size of core should be AX or larger. The estimated cost of 1,500 feet of drilling is $2.93 per foot, or $4,395.00.

Stage II

Drilling a maximum of four "fill in" holes averaging 300 feet in depth to delineate possible ore found by Phase I drilling. The bottom 100 feet of each hole is to be cored. The minimum size of core is AX or larger. Prior approval of holes by Defense Minerals Exploration Administration, Region IV Field Team, is recommended. The estimated cost of 1,200 feet of drilling is $2.87 a foot or $3,444.00. The total cost of project if both stages are completed will

be $7,839.00. Government participation--75 percent or $5,879.25.

/ici

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

224 New Customhouse
Denver 2, Colorado

January 17, 1955

Memorandum

To: Administrator, Defense Minerals Exploration Administration
Attention: 200

From: Field Team, Region III

Subject: Report of Examination, DMEA Docket No. 3500, (Uranium)
Robert F. George and Associates, Wildcat and Oogalla claims,
San Juan County, Utah

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

W. M. Traver

W. M. Traver

HMC:pw

E. N. Harshman

E. N. Harshman

224 New Customhouse
Denver 2, Colorado

January 17, 1955

Mr. Robert F. George
708 Railway Exchange Building
Denver, Colorado

Re: Docket No. DMEA 3500

Dear Mr. George:

Reference is made to your application for Government aid on the Wildcat and Ogalla 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 minable 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. M. TRAVER,

W. M. Traver

E. N. Harshman

E. N. Harshman

EHC:pw

cc: Subject
Chron
Shaw
Mining Div.
Williams
AEC
Harshman
Administrator

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Date Rec'd.
JAN 7 1955

BUREAU OF MINES
Denver, Colorado

Region IV

Transmitted
JAN 17 1955

Building 20, Room 137
Denver Federal Center
Denver 2, Colorado
December 1, 1954

Memorandum

To: Executive Officer, DMEA Field Team, Region IV

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

Subject: DMEA 3500 (Uranium) Robert F. George and Associates (Wildcat No. 1-8 and Gogalle No. 1-8 claims) San Juan County, Utah

Enclosed are the original and ten copies of a "Summary, Conclusions, and Recommendations," by Carl Belser, Bureau of Mines, and Randall T. Chew, III, Geological Survey, and of Belser's engineering report on the subject docket.

Belser concludes the applicants' property is favorable for the discovery of uranium deposits in the Salt Wash member of the Morrison formation. He recommends a two-stage contract, set up on unit cost with Stage I comprising a maximum of five, AX size drill holes on 100-foot centers paralleling the cliff east of mine workings on the Wildcat No. 1 claim. The holes are to be 300 feet deep with the last 100 feet cored and the estimated cost is $2.93 a foot, or $4,395.00 for 1,500 feet. If the Stage I drilling is successful in the discovery of worthwhile uranium ore in any of the holes, he recommends, subject to written authorization by the Region IV Field Team, 1,200 feet in 12 holes of offset drilling at an estimated cost of $2.87 a foot, or $3,444.00. The total cost if both stages are completed will be $7,839.00, with Government participation 75 percent, or $5,879.25.

Your attention is directed to the fact that three other loan applications in the immediate area, one of them DMEA 3501, by the same applicant have been denied; the others are DMEA 3413, DMEA 3567. Also, production from the area has been negligible and admittedly any ore bodies discovered will be small, scattered, and low-grade with little likelihood of there being a sufficient quantity of ore to repay even a small part of the exploration costs. In the interest of consistency I recommend that this application be denied.

The brochure furnished with your memorandum of September 24, 1954, requesting a field examination and suitable report is also enclosed.

W. M. Traver

W. M. Traver

enclosures

cc 10, DMEA 3500, DMEA Chron.
WMT/pah

IN REPLY REFER TO:

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

Mining Division
Date Rec'd.
DEC 17 1954
BUREAU OF MINES
Denver, Colorado

Transmitted
JAN 17 1955

December 16, 1954

Memorandum

To: DMEA Field Team, Region IV

From: E. N. Hansen

Subject: DMEA Docket 3530 (uranium), Robert F. George & Associates, Wild Cat and Dogpile groups, San Juan County, Utah

Enclosed are 10 copies of a geologic report by A. T. Chew, III, of the U. S. Geological Survey covering the above docket.

Chew recommends a program of exploration for vanadium-uranium ore deposits in the Salt Wash member of the Morrison formation. The following pertinent facts are contained in the geologic report:

1. Deposits of vanadium-uranium ore in the Montezuma Canyon area, of which hundreds are known, are small and of moderate to low grade. The best deposits are located in the middle Montezuma area about 3 miles south of the subject property. Chew lists the reported production from several of these better deposits as ranging from 153 tons to 2,300 tons with an average grade, where available, of from .13 to .17% U_3O_8.

2. The physical character of the sandstone beds in the Montezuma Canyon area is not favorable for the deposition of large deposits.

3. The best ore exposure near the subject claims is on the old Blue Eagle No. 6 claim where 56 tons of ore containing 1.72% V_2O_5 and undetermined amount of uranium was mined in 1943.

4. The sandstone lens on which the Wildcat and Dogpile claim groups are located is one of the largest single sandstone lenses in the Montezuma Canyon area.

From the above information it must be concluded that the proposed exploration at best may result in the discovery of a few thousand tons of marginal grade ore, and the propriety of Government participation in the proposed exploration program is therefore questioned.

Enclosed are 9 extra copies of the maps accompanying the report.

E. N. Hansen
E. N. Hansen
Project Chief

Enclosures (23)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DOUGLAS McKAY, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION IV

DMEA 3500, Wildcat 1-8, and Cocalla 1-8 Claims

Robert F. Guerra and Associates

San Juan County, Utah

Uranium

Carl Belser, Mining Engineer
Bureau of Mines

Randall T. Chew, III, Geologist
Geological Survey

November 24, 1954

DMRA 3500

WILDCAT 1-8, and OOGALLA 1-8 CLAIMS
ROBERT F. GEORGE AND ASSOCIATES
SAN JUAN COUNTY, UTAH

Summary, Conclusions, and Recommendations

By Carl Palmer
Mining Engineer
Bureau of Mines

Randall T. Chew, III
Geologist
Geological Survey

DMEA 3500

WILDCAT 1-8, AND OGALLA 1-8 CLAIMS
ROBERT F. GEORGE AND ASSOCIATES
SAN JUAN COUNTY, UTAH

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

By Carl Belser and Randall T. Chew, III

Robert F. George and Associates, 706 Railway Exchange Building, Denver, Colo., have applied for a Defense Minerals Exploration Administration loan of $11,220.00, to explore the Wildcat 1-8 and Ogalla 1-8 claims by 4,500 feet of core-hole drilling.

A field investigation was made on October 20, 1954, by an examining team of the Geological Survey and the Bureau of Mines. W. V. H. Jones and A. George Wright, associates of Robert F. George accompanied the examining team and approved the modifications suggested.

The claims form a compact block 4,800 feet long by 3,000 feet wide on the east side of Montezuma creek in secs. 22 and 27, T. 34 S., R. 24 E., Salt Lake meridian, San Juan County, Utah. The ore-bearing beds occur in the flat-dipping Salt Wash member of the Morrison formation. The exposed rocks on the property consist mostly of the Salt Wash sandstone and Brushy Basin shale members of the Morrison formation. Some rocks of the San Rafael group of the Lower Jurassic are exposed near the western end of the claims and a little Barro Canyon formation covers the extreme east end of the claim group. The claims cover 4,800 feet of a N. 14° W. striking

escarpment of the Salt Wash member of the Morrison formation on the east side of Montezuma Canyon and extend over on top of the upper Morrison (Brushy Basin) to the east. The best uranium mineralization appears to be in the third sandstone rim of the Salt Wash with slight mineralization showing in the upper rims.

Production amounts to 36 tons of ore containing an average of 1.78 percent U_3O_8. This production was made in 1951 from the Wildcat No. 1 (Mono Eagle No. 4) claim and was not assayed for uranium. A 14-inch sample taken from the Wildcat No. 4 by the examining team showed 0.21 percent U_3O_8 by radiometric analysis.

The applicants' proposal called for 4,500 feet of core-hole drilling at a total estimated cost of $11,220.00.

The examining team recommends a modified program prepared as a two-stage, short-form unit cost contract. Stage I includes 5 holes averaging 300 feet in depth to be drilled on 100-foot centers in a line parallel to the cliff behind the Wildcat No. 1 mine workings. The drilling cost is estimated at $2.93 a foot, or $4,395.00.

Stage II consists of not over 1,200 feet of "fill in" drilling at $2.87 a foot, or $3,444.00.

The total cost of the entire program, which includes bulldozing and core boxes is $7,839.00. Government participation is 75 percent, or $5,879.25.

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

December 10, 1954

Memorandum

To: A. H. Koschmann, Supervising Geologist, DMEA Field Team, Region IV

From: Arnold L. Brokaw, District Supervisor

Subject: DMEA 3500, Robert F. George & Associates, Wild Cat and Oogalla groups (Uranium), San Juan County, Utah

Transmitted herewith are ten copies of a geological report by Randall T. Chew, III, covering a field examination of the above-referenced property. Because favorable geologic conditions exist on the subject claims and uranium production has been made from the property, Chew recommends that a DMEA contract be approved to provide for a total of 2700 feet of exploration drilling on the property.

The application has been brought to the attention of the Exploration Division, U. S. Atomic Energy Commission, Grand Junction Operations Office. The Commission has been asked for its help and advice in evaluating the property.

We are enclosing nine extra copies of the maps accompanying Chew's report.

W. P. Williams (R)
For Arnold L. Brokaw

WPW/mlr
Enclosures 10

UNITED STATES DEPARTMENT OF THE INTERIOR

DOUGLAS McKAY, SECRETARY

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

DMEA 3500, Robert F. George & Associates, Wild Cat and Oogalla groups
San Juan County, Utah

Uranium

Geologic Report

by

R. T. Chew, III
U. S. Geological Survey

December 8, 1954

INTRODUCTION AND SUMMARY

Robert F. George and Associates, 708 Railway Exchange, Denver 2, Colo., requested DMEA assistance (Docket 3500) in an exploration program on the Wildcat group (1-8) and the Oogalla group (1-8) in upper Montezuma Canyon. The claims lie mostly in sec. 22, T. 34 S., R. 24 E., Salt Lake Base and Meridian, San Juan County, Utah. Small portions of the Oogalla 7 or 8 lie in secs. 23, 25, and 27. The workings along the rim on the claims can be reached by paved and good secondary road south and souteast from Monticello. The drilling access road on the bench above the claims is reached by paved and fair secondary access roads east and south from Monticello. The drilling road itself may not be passable at all times during the winter months.

The applicant requested aid in an exploration program of fifteen diamond drill holes totaling 4,500 feet of which 1,000 feet was to be cored in addition to necessary bulldozer work to permit access to the drill sites. Total cost was to be $11,200, of which the Government's share was to be $8,415.

A field examination of the property was made during the afternoon of October 20, 1954, with R. T. Chew,III and H. S. Johnson representing the U. S. Geological Survey, Carl Belser representing the U. S. Bureau of Mines, and W. V. N. Jones, A. George Wright and Cloyd Johnson representing the applicants.

H. B. Wood, district geologist for District 3 of the AEC in which the subject claims are located, was consulted regarding the application. The Commission has no geologists available who are familiar with the area. AEC drilling at the middle Montezuma Canyon group about 5 miles south of the subject claims in the Coalbed Canyon area a few miles to the eas was unfavorable.

Lyman Huff of the U. S. Geological Survey is project chief of a Geological Survey mapping project in the Montezuma Canyon area. Huff has left the field for the winter, but was consulted; and he suggests that a small amount of exploration work in upper Montezuma Canyon is desirable.

The subject claims are located on what appears lithologically to be the most favorable lens in the Salt Wash sandstone in upper Montezuma Canyon. A drilling program consisting of 5 diamon drill holes in Stage I and 4 diamond drill holes in Stage II behind the main ore exposure is recommended for approval.

GEOLOGY AND ORE DEPOSITS

The ore exposures on the Wildcat and Oogalla groups are located in the Salt Wash member of the Morrison formation about 200 feet below the top of the member. According to the Union Mines Development Company's Comb Ridge report, the Salt Wash is about 350 feet thick in the Upper Montezuma Canyon area. It consists of a series of sandstone lenses separated by maroon siltstones. The sandstone lenses range from 30 to 50 feet thick and are more persistent in the Montezuma Canyon area than is typical on the Colorado Plateau. Sandstone forms about 50 percent of the Salt Wash member in the Montezuma Canyon area. In areas where minable ore deposits occur, the sandstone lenses thicken and may coalesce to form from 70 to 100 percent of the Salt Wash.

There are hundreds of vanadium occurrences known in the Montezuma Canyon area though none appear to contain large tonnages of uranium ore or to be of exceptionally high grade. They occur scattered at random throughout the Salt Wash sandstone. It has been postulated that the persistent sandstone beds of the Montezuma Canyon area with their relatively regular lithology have not been favorable for the deposition of large uranium deposits but rather have allowed the formation of many small ones. The sands are lenticular with variable lithologic features in only a few areas and these areas contain the best deposits.

The best uranium deposits in the Montezuma Canyon are in the middle Montezuma area at the Cottonwood, Rock, Strawberry, and Rainbow mines. These all occur in the same sandstone lens about five miles south of the Wildcat and Oogalla claims. The lens is about 125 feet thick and 4,000 to 5,000 feet long. The best ore bodies in this group of claims are near intraformational unconformities and are usually directly below them. In the Cottonwood mine, uranium is concentrated along the bedding for as much as 3 or 4 feet below an unconformity and is enriched where trash is present (Carlson, W.A., 1954). According to Carlson, the Cottonwood mine has produced 2,589 tons of ore averaging 0.13 percent U_3O_8, the Rock, 1,907 tons averaging 0.17 percent U_3O_8, the Strawberry, 294 tons, and the Rainbow 198 tons with the grade not reported. Vanadium ranged from 1.75 to 2.23 percent.

The sand lens on which the Wildcat and Oogalla groups are located is exposed for about one mile along the north-trending rim. The lens is probably 100-feet thick and certainly at least 80-feet thick at its thickest part. These dimensions make it one of the largest single sandstone lenses in Montezuma Canyon and makes the Salt Wash about 70 percent sand in this immediate area. It is underlain by thin-bedded red siltstone with less than a foot altered to green siltstone along the contact.

At the best ore exposure, known as the Blue Eagle No. 6 during World War II but now relocated, the sandstone is fine to medium grained, contains some feldspar and abundant limonite specks, and is thin bedded. There are about 2 feet of sandstone impregnated with vanadium minerals immediately underneath a diastem within the sandstone. The top six inches are highly impregnated with the vanadium minerals. This vanadium-rich zone is exposed for about 50 feet in the prospect workings and is reported to be about 140 feet long. According to Metals Reserve Corporation data, 56.17 tons of ore assaying 1.72 percent V_2O_5, but not assayed for uranium, was produced from these workings in 1943 when it was called the Blue Eagle group. There has probably been no later production from these claims. Other claims in the immediate area have probably produced similar amounts of ore.

Many other small exposures of uranium-vanadium mineralization occur to the south on property belonging both to the applicant and to others. None of the other properties are included in the subject application but the ore deposits are probably geologically related to each other. Most of the occurrences are similar to the one described above. The largest, known as Eagle No. 1 during World War II, includes some replaced wood in logs and

charcoal seams as well as a little mineralized sandstone. This deposit is probably richer in uranium than the subject deposit, but is much spottier and probably of smaller extent.

CONCLUSIONS AND RECOMMENDATIONS

The possibility exists that a deposit the size of the Cottonwood deposit may exist in the sandstone lens at the Wildcat and Oogalla claims. The exposure on the Wildcat, the old Blue Eagle No. 6, is of the variety which seems to persist with depth in the Montezuma Canyon area. That is, it consists of vanadium minerals impregnating the sandstone rather than simply consisting of mineralized wood and trash. It is concievable that the exposure may mark the edge of an ore body containing from 500 to 2,500 tons.

A diamond drilling program consisting of two stages is recommended to test this one exposure. Stage I will consist of five holes spaced 100 feet apart parallel to the rim behind the deposit. Stage II will consist of a maximum of four holes to offset any ore holes found in stage I hole, because most of the sandstone lens probably has mineralized ground in it at various horizons.

The ore horizon is about 300 feet below the surface in the drilling area. Because of the many ore horizons and the possibility of a minable ore body occurring higher in the lens, the first 200 feet of each hole in both stages should be drilled with plug bit and the remainder cored.

The row of holes should be placed as close as possible to the rim behind the outcrop because the drilling target is probably not more than 200 feet wide.

It is anticipated that much mineralized and favorable ground will be penetrated during the drilling because low-grade mineralization occurs at many levels in the sandstone lens. Therefore, about three assays will be necessary in each hole to determine the grade of the various horizons of favorable ground.

A road to the drilling area has been constructed and only roads to the drilling sites will be necessary. The road may not be passable during the winter months.

The entire project should take less than one month.

Project Summary

Stage I	
5 holes at 300 feet each	
200 feet plugged each hole	1,000 feet
100 feet cored each hole	500 feet
Total footage Stage I---	1,500 feet
Stage II	
4 holes at 300 feet each	
200 feet plugged each hole	800 feet
100 feet cored each hole	400 feet
Total footage Stage II--	1,200 feet
Total project footage---	2,700 feet
Assays, 3 per hole, 9 holes ----------	27 assays
Core boxes ----------	20
Supervision ----------	1 month
Bulldozer ----------	75 hours

The applicant has other blocks of claims on the same sand lens to the south and southeast. They are not adjacent to the Wildcat and Oogalla property and because of the small size of the drilling target it is suggested that they not be made subject to royalty.

RMRA 3809

WILDCAT 1-6, AND GORILLA 1-6 WLAIMS
ROBERT F. GRUBB AND ASSOCIATES
SAN JUAN COUNTY, UTAH

Engineering Report

By Jack Shiner
Mining Engineer
Bureau of Mines

DMRA 3500

WILDCAT 1-8, AND COGELLA 1-8 CLAIMS
ROBERT F. GEORGE AND ASSOCIATES
SAN JUAN COUNTY, UTAH

Engineering Report

	Page
Introduction	1
Acknowledgments	2
Location, topography, and climate	2
History and production	3
Ownership and extent	4
Description of the deposits	5
Present status	5
Exploration and development	5
Mining and milling equipment and other facilities	6
Proposed exploration	6
Estimated cost of project	6
Summary cost of project	8
Conclusions	9
Recommendations	9

ILLUSTRATIONS

Figure		Follows Page
1	Location map, Wildcat 1-8, and Cogella claims, Robert F. George and Associates, San Juan County, Utah (DMRA 3500)	2
2	Claim map showing proposed exploration, Wildcat 1-8, and Cogella 1-8 claims, Robert F. George and Associates, San Juan County, Utah (DMRA 3500)	5

DMEA 3500

WILDCAT 1-8, AND OGGALLA 1-8 CLAIMS
ROBERT F. GEORGE AND ASSOCIATES
SAN JUAN COUNTY, UTAH

ENGINEERING REPORT

By

Carl Balsley

INTRODUCTION

Robert F. George and Associates, 706 Railway Exchange Building, Denver, Colo., on September 21, 1954, submitted an application to the Defense Minerals Exploration Administration for aid in an exploration project on the Wildcat 1-8, and Oggalla 1-8 claims in the Montezuma Canyon mining district, San Juan County, Utah. The application, DMEA 3500, requested aid in completing 4,500 feet of core-hole drilling at a total estimated cost of $11,220.00--Government participation 75 percent, or $8,415.00. This proposed exploration was to test the Salt Wash member of the Morrison formation for Uranium mineralization.

A joint field examination was made by a Geological Survey and Bureau of Mines examining team on October 20, 1954. The examining team, as a result of their investigation, recommended Government assistance in a modification of the applicants' proposal of exploratory drilling, designed to explore the area east of the Wildcat No. 1 mine workings.

ACKNOWLEDGMENTS

A. George Wright, Monticello, Utah, and W. V. H. Jones, Aspen, Colo., associates of Robert F. George, accompanied the examining team.

Personnel of the Atomic Energy Commission were consulted concerning the Montezuma Canyon area prior to the examination.

Arnold L. Brokaw, District Supervisor, Geological Survey, Grand Junction, Colo., assigned Randall T. Chew, III, geologist, to make the examination as the Geological Survey member of the team. Chew was accompanied by H. R. Johnson of the Geological Survey.

LOCATION, TOPOGRAPHY, AND CLIMATE

The Wildcat 1-8, and Cagnile 1-8 claims are a compact block of 16 mining claims 4,800 feet long by 3,000 feet wide, containing approximately 330 acres. The claims are on the east side of Montezuma Canyon, in secs. 22 and 27, T. 34 S., R. 24 E., Salt Lake meridian, San Juan County, Utah, (fig. 1).

The claims cover a steep N. 12° W. striking escarpment of Salt Wash sandstone for 4,800 feet and extend eastward over the exposed Brushy Basin member of the Morrison formation for about 2,500 feet. A fair 3 mile access road connects the property with a good County road from whence it is 10 miles northwesterly to Monticello, the nearest town and supply point. The altitude at the proposed drilling sites is about 4,700 feet, 300 feet above the old mine workings. A road has been recently constructed on top of the bench from which short branches could easily be constructed to the proposed drill sites.

The nearest ore depot is at Monticello where miners can be employed and timber or light equipment purchased. The nearest railroad is the Denver and Rio Grande Western at Thompson, Utah, which is 86 miles north of Monticello over good U. S. highways.

Annual rainfall is light and the country is classed as semi-arid. Winter snowfalls seldom exceed 6 inches and mining operations can be maintained the year around. Water, suitable for mining and domestic purposes, can be obtained near the junction of Verdure creek with Montezuma creek, about 2 miles distant, while water for drilling purposes would be hauled over the new road from a small creek farther north.

HISTORY AND PRODUCTION

The Montezuma Canyon area was infrequently visited before the wagon road was improved in 1940. In 1941 an access road was built to the Wildcat No. 1, then the Blue Eagle No. 6, and 54 tons of ore averaging 1.72 percent V_2O_5 was shipped. A small amount of vanadium ore was also shipped from other claims along Montezuma canyon. Prospecting for uranium became of interest following the introduction of the Government buying schedules in 1948. Before that date only high-grade uranium ores were of material interest. During the past few years, uranium ores have been mined on a small scale from several points in Montezuma canyon. Uranium has been found in several locations on the Wildcat and Cogalla claims with apparently the best deposition in the old Blue Eagle No. 6 workings. No uranium ore has been shipped from the property.

OWNERSHIP AND EXTENT

The property, as submitted in the application, consists of 16 unpatented claims containing approximately 330 acres on the east side of Mathewsons canyon in secs. 22 and 27, T. 34 S., R. 24 E., Salt Lake meridian, San Juan County, Utah. The claims are recorded in the records of the County Recorder of San Juan County, Utah, as follows:

Claim	Book	Page
Wildcat No. 1	107	33
Wildcat No. 2	107	33
Wildcat No. 3	107	34
Wildcat No. 4	107	35
Wildcat No. 5	105	418
Wildcat No. 6	105	418
Wildcat No. 7	105	419
Wildcat No. 8	105	419
Cogalla No. 1	143	81
Cogalla No. 2	143	81
Cogalla No. 3	143	82
Cogalla No. 4	143	83
Cogalla No. 5	143	83
Cogalla No. 6	143	84
Cogalla No. 7	143	85
Cogalla No. 8	143	85

The Wildcat claims were leased for 5 years from Cloyd L. Johnson, Joan Johnson, Lewis G. Fuller and Della M. Fuller to A. George Wright on June 7, 1954, and the lease transferred to Robert F. George and Associates on September 9, 1954. The Cogalla group was leased for a period of 5 years to Robert F. George and Associates by Lewis G. Fuller, Cloyd L. Johnson, and A. George Wright on September 9, 1954

DESCRIPTION OF THE DEPOSITS

The exposed rocks on the applicants' claims are mostly of the Morrison formation of the Upper Jurassic, which, toward the eastern side of claim block, are overlain by rocks of the Burro Canyon member of the Dakota formation of the Lower Cretaceous. The known ore occurrences are in the Salt Wash member of the Morrison formation. This member consists mostly of sandstone lenses and a steep escarpment of Salt Wash sandstones extends about N. 12° W. the entire length of the claim block (fig. 2). The main ore occurrence appears to be in the third sandstone rim a short distance above a thick shale bed. Minor uranium mineralization was noted at two higher elevations in the Salt Wash. The formations are nearly flat and have been developed by a small, crescent-shaped working on the Wild cat No. 1 claim. A 16-inch sample taken from this working showed 0.21 percent U_3O_8 by radiometric analysis. Other small workings are along the rim north and south of the property and across the canyon west.

PRESENT STATUS

Exploration and Development

The property has been opened by one crescent-shaped working which was driven in 1941 for the production of vanadium and has been developed by an access road from the canyon below which follows the bottom of the cliff and also by a second access road that comes down onto the high bench on the eastern side of the claims from the Dakota formation above.

Mining and Milling Equipment and Other Facilities

There is no mining or milling equipment on the property. An ore buying depot is located at Monticello, Utah.

PROPOSED EXPLORATION

The applicant proposed to further explore the Wildcat and Cogalla claims with 4,500 feet of core drill holes. The total cost, including bulldozing, assaying, and supervision, was estimated at $11,220.00 or $2.49 a foot.

The examining team suggested that the drilling proposed be modified to a 2-stage program. Stage I to consist of five, 300-foot holes spaced on 100-foot centers in a line parallel to the cliff behind the Wildcat No. 1 workings and as near to the cliff as practical. Stage II to consist of three, 300-foot offset holes to be drilled only if the showing in the Stage I holes warrants the expenditure. The total drilling under the modified program is 9 holes aggregating 2,700 feet. The approximate location of these holes is shown on figure 2.

ESTIMATED COST OF PROJECT

The application, as submitted, includes all items except payroll taxes and liability insurance.

Applicants' Estimated Cost of Core Drilling

The applicant expects to subcontract all core drilling to an independent contractor and stated that a bid had been received from a reliable drilling contractor for non-coring at $1.00 a foot and $2.50 a foot for coring. The applicants' estimated costs follow:

Independent contracts

3,500 feet plug-bit drilling at $2.00 a feet	$7,000.00	
1,000 feet core drilling at $2.50 a feet	2,500.00	
Bulldozing 75 hours at $8.50 plus $100.00 "move in".	737.50	
Total independent contracts	10,237.50	
		$10,237.50

Supervision

2 months at $300.00		600.00

Miscellaneous

Core boxes 24 at $5.00	120.00	
Assay costs	262.50	
Total miscellaneous		382.50

Total core drilling costs	11,220.00

Average cost per foot for 4,500 feet of drilling $2.49

Engineer's Estimated Cost of Modified Project

Stage I (time required to complete—one month)

Independent contracts

1,000 feet nonpoore drilling at $2.00 a feet	$2,000.00	
500 feet core drilling at $2.50 a feet	1,250.00	
Bulldozing 48 hours at $8.50 an hour plus $100.00 "move in"	508.00	
Total independent contracts		$ 3,758.00

Labor and Supervision

Labor	none	
Supervision one man, 1 month at $500.00 a month	500.00	
Total labor and supervision	500.00	500.00

Operating materials and supplies

None

Operating equipment

None

Initial rehabilitation and repairs

None

New buildings, improvements, etc.

None

Miscellaneous

Sampling and analysis, 10 at $500 each	50.00
Core boxes, 12 at $5.00 each	60.00
Payroll taxes, liability insurance, compensation and social security	

Miscellaneous (continued)

$500.00 at 5 percent	$ 25.00	
Total miscellaneous	135.00	135.00
Total cost Phase I drilling		$ 4,393.00

Cost per foot for 1,500 feet of drilling $2.93

Stage II (time required to complete—one month)

Independent contracts		
500 feet of non-core drilling at $200 a foot	1,000.00	
400 feet of core drilling at $2.50 a foot	1,000.00	
Bulldozing 16 hours at $8.50 plus $100.00 wages, etc.	236.00	
Total independent contracts	$2,236.00	2,236.00
Labor and supervision		
Labor	None	
Supervision one month at $500.00 a month	500.00	
Total labor and supervision	500.00	500.00
Miscellaneous		
Sampling and analysis, 8 at $6.00 each	48.00	
Core boxes, 8 at $6.00 each	48.00	
Payroll taxes, liability insurance, compensation, and social security $500.00 at 5 percent	25.00	
Total miscellaneous	121.00	121.00
Total cost Phase II drilling		3,441.00

Cost per foot for 1,200 feet of drilling $2.87

SUMMARY COST OF PROJECT

Stage I

1,500 feet of core-hole drilling at $2.93 a foot $4,393.00

Stage II

1,200 feet of core-hole drilling at $2.87 a foot 3,441.00

Total cost of project	$7,834.00
Government participation, 75 percent, or	5,875.25
Total time for completion — 2 months	

CONCLUSIONS

The sandstone lens in which the ore occurs is exposed for 100 feet in height and for over a mile in length and is one of the largest in the Montezuma Canyon area. Thick sandstone lenses of the Salt Wash member of the Morrison formation, especially where they rest upon green sandstones are considered favorable for uranium deposits. The examining team is of the opinion that the thick sandstone lens exposed on the Wildcat-Bagalls claims justifies a limited exploration program.

RECOMMENDATIONS

It is recommended that a short-form contract be prepared for a two-phase program consisting of:

Phase I

Drilling a maximum of five holes averaging 300 feet in depth to be spaced on 100-feet centers in a line parallel to the cliff and to the east of the Wildcat No. 1 workings as shown in figure 2. The bottom 100 feet of each hole is to be cored. The minimum size of core should be AX or larger. The estimated cost of 1,500 feet of drilling is $2.93 per foot, or $4,395.00.

Phase II

Drilling a maximum of four "fill in" holes averaging 300 feet in depth to delineate possible ore found by Phase I drilling. The bottom 100 feet of each hole is to be cored. The minimum size of core is AX or larger. Prior approval of holes by Defense Minerals Exploration Administration, Region IV Field Team, is recommended. The estimated cost of 1,200 feet of drilling is $2.87 a foot or $3,444.00. The total cost of project if both stages are completed will

be $7,639.00. Government participation--75 percent or $5,679.35.

/kcd

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

SEP 27 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. 3500
Metal or Mineral Uranium
Date Received
Estimated Cost $11,220
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: Robert F. George, 708 Railway Exchange Bldg., Denver, Colo., W.V.N. Jones, Aspen, Colorado, and A. George Wright, Monticello, Utah, doing business as Robert F. George & Associates, 708 Railway Exchange Bldg., Denver, 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 (Tract-1) Wildcats 1 to 8 inclusive and the Cogallas 1 to 8 inclusive and both being contiguous and adjoining and the same being located in the Montezuma Mining District, San Juan County, State of Utah, and specifically therein in Section 22, Tp. 34 S. R. 24 E.

(*b*) State any mine name by which the property is known. (Survey drawing attached) S.L.B.M.

(*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. (Said Lease copy attached.)

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

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

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

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

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

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

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

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

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

(*c*) The work will start within 30 days and be completed within 2 months from the date of an exploration project contract.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Explain in detail on acompanying paper.

CERTIFICATION

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

Dated 14 Sept, 1954

Robert F. George & Associates
(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

SHEET-1

Robert F. George & Associates
708 Railway Exchange
Denver 2, Colorado

Filed at Monticello, Utah

3-f: continuation -- Wildcats 1 to 8 inclusive and Oogallas 1 to 8, both contiguous and adjoining.

(Unpatented)

Name of Claim	Book	Page
Wildcat - 1	107	33
Wildcat - 2	107	33
Wildcat - 3	107	34
Wildcat - 4	107	35
Wildcat - 5	105	418
Wildcat - 6	105	418
Wildcat - 7	105	419
Wildcat - 8	105	419

Oogalla - 1	143	81
Oogalla - 2	143	81
Oogalla - 3	143	82
Oogalla - 4	143	83
Oogalla - 5	143	83
Oogalla - 6	143	84
Oogalla - 7	143	85
Oogalla - 8	143	85

All of the above being located in Section 22, Tp. 34 S. Range 25 E. in San Juan County, State of Utah.

Robert F. George & Associates
708 Railway Exchange
Denver 2, Colorado

4-a: continuation -- Wildcats 1 to 8 inclusive and Oogallas 1 to 8 incl.

Properties parallel a mineralized sandstone that is in evidence for approximately 5100 feet along its strike. Rim stripping operations indicate mineralization in several areas along it. In 1941 a drift or adit was driven into one of the more prominent mineralized zones and several carloads of Vanadium were shipped. Subsequent operations have indicated showings of Uranium Ore exist within the older workings and in addition on each side of the workings as exposed exteriorly, for distances along the strike of the outcroppings on each side of the entry for some fifty to seventy five feet. In addition to the foregoing, Uranium Ore occurs in place at five other locations within close proximity of the above described zone. Exploratory drilling is now in process on the adjoining Rimrock and Ike Griffith claims (see map). An excellent road allows one good entry into the properties. As a whole, said properties are fifteen minutes from the town of Monticello, Utah.

-b: Specific Production figures not available.

-c: Ores of Uranium occur in bedded deposits in sandstone of the third Morrison formation in the area. The Wildcats and Oogallas claims present Uranium ore showings in place along the Strike of the Sandstone formation. Preexploratory work has shown mineralized zones exist for distances of seventy five to over a hundred and fifty feet in a rather uniform manner along the strike of the sandstone outcrops. Samples have averaged as high as .22% U_3O_8 in content.

Because of the extent of the numerous Uranium ore showings occurring on the Wildcat and Oogalla properties, it is believed an exploratory drilling type program will prove the economic possibilities of the property in a manner that is consistent with the best practices. Drilling will be done back of Uranium ore shows in practically all instances to explore the third Morrison Formation

-d: Monticello, Utah, is the main residence point within the area of properties. Accessibility is over excellent paved highway and good secondary type roads. Time from property site to Monticello, Utah is approximately twenty minutes by automobile.

-e: Manpower, materials and supplies are available at Monticello, Utah. Water for industrial and domestic purposes occurs within two miles of the said properties. Also, climatically, the weather is considered favorable from the standpoint of working conditions.

5-b: continuation --

(See Wildcat property map)

The above plat shows via red-dotted line known extent of zones of Uranium ore. Small circles indicate approximate locations of drill holes in relation to proving up the continuity features of the known ore showings in place. Holes of approximately Three-hundred feet in depth will tend to prove the ore-bearing zones. This relatively

Robert F. George & Associates
708 Railway Exchange
Denver 2, Colorado

5-b: continuation - Wildcats 1 to 8 incl. and Oogallas 1 to 8 incl.

shallow drilling depth is made possible in this property area due to erosional features. The high Dakota Formation is gone, leaving only a small section of the upper 'Brushy Basin' member of the Morrison formation in evidence for drilling activity.

There are five holes plotted on the accompanying map for the initial phase of drilling, out of a contemplated fifteen total holes. The unplotted holes will be placed under the direction of the Atomic Energy Commission engineers from their Grand Junction office. The road is dotted in on the map and the requested 75 hours of bulldozer work will be of mostly surface and sub-soil excavation work with very little rock, with an estimated 2000 ft. of cross-patterned roadwork.

-d: It is proposed that drilling be done under contract with a reliable concern; such concerns as 'Sprague & Henwood, Joy Manufacturing Company or the Minerals Engineering Company' being in this category.

Supervision in the field is to be under Mr. A. George Wright, a registered professional engineer and a registered land surveyor in the State of Colorado. In the past Mr. Wright has served as Chief Field Geologist for the International Minerals and Chemicals Corporation on a Manganese project at Chamberlain, South Dakota. Also, as Superintendent of Mines and Quarries for the U. S. Gypsum Company at Sweetwater, Texas. As Assistant Footage Contract Engineer under Mr. Wm. Boetcher, on the Stork Tunnel development of the Climax Molybdenum Company at Climax, Colorado.

Administration will be under the direction of Mr. Robert F. George, of the firm of George and Downing, Oil Producers, of Denver, Colorado.

SHEET-4

Robert F. George & Associates
708 Railway Exchange
Denver 2, Colorado

6- : ESTIMATE OF COSTS --

6-a: Independent Contracts --

Rotary Type Drilling (No. Ft. Wet)	$ Per Plug Ft.	$ Per Core Ft.	Total
3500 Feet	$ 2.00		$ 7,000.00
1000 Feet		$ 2.50	$ 2,500.00
4500 Feet	$ 7,000	$ 2,500	$ 9,500.00

To test third Morrison Formation holes will run between 260 and 320 feet in depth.

Bulldozer Operations*	$ Per Hour	$ Move In	Total
75 Hours	$ 8.50	$ 100	$ 737.50
75 Hours	$ 636.50	$ 100	$ 737.50

* Accessible Drilling Road partially completed.

Assay Costs	$ 262.50
Core Boxes, 24 @ $5.00	$ 120.00
Supervision, 2 months @ $300.00	$ 600.00

6-b: Labors, Helpers, furnished by Contractor.
Supervision furnished by Applicant.

6-c: Operating Materials and Supplies furnished by Contractor.

6-d: Operating Equipment furnished by Contractor.

6-e: Rehabilitation and Repairs - (None Required)

6-f: New Buildings and Fixed Installations - (None Required)

6-g: Miscellaneous - (None Required) Included in Contractor's Acct.

6-h: Contingencies - (None Required) Included in Contractor's Acct.

7-b: SHARE OF COSTS --

TOTAL ESTIMATED COSTS	$ 11,220.00
APPLICANT'S COSTS	$ 2,805.00
DMEA	$ 8,415.00

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DEFENSE MINERALS EXPLORATION ADMINISTRATION
DOCKET 3500

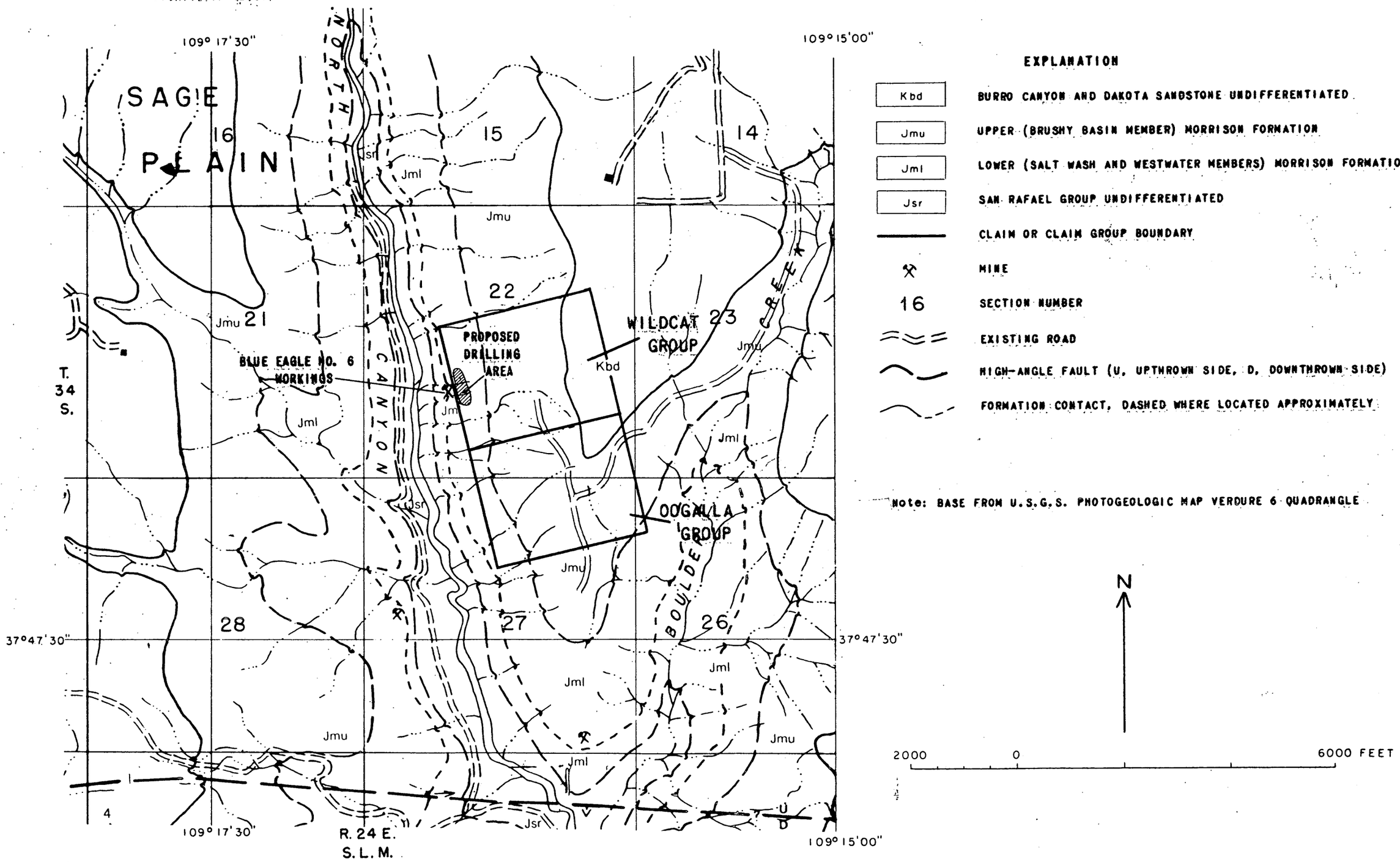


Figure 2. PHOTOGEOLOGIC MAP SHOWING APPROXIMATE LOCATION OF THE WILDCAT AND OOGALLA GROUPS, ROBERT F. GEORGE ASSOCIATES, SAN JUAN COUNTY, UTAH

U.S. DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DEFENSE MINERALS EXPLORATION ADMINISTRATION
DOCKET 3500

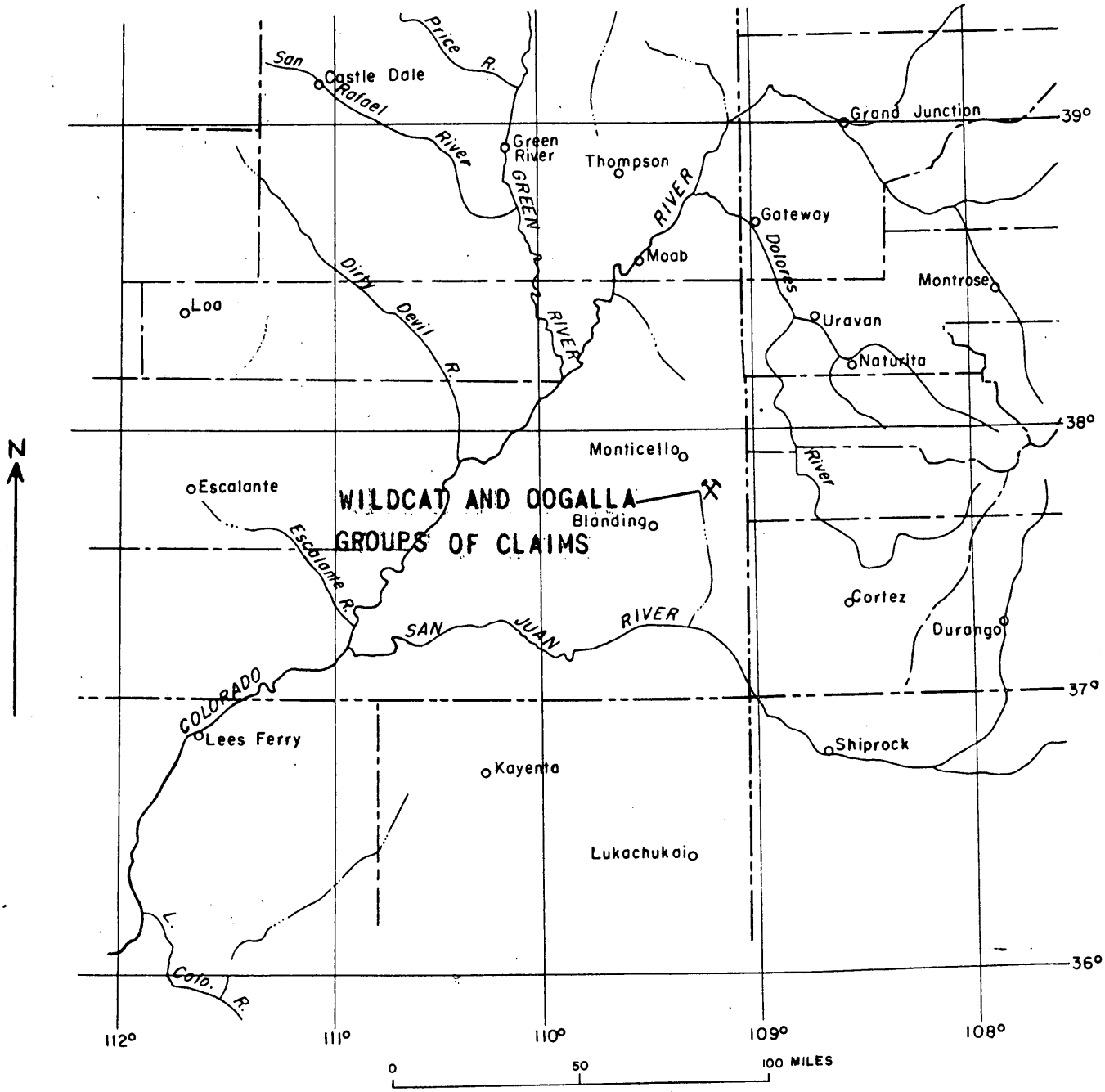


Figure 1. INDEX MAP OF PART OF THE COLORADO PLATEAU SHOWING LOCATION OF THE WILDCAT AND OOGALLA GROUPS, ROBERT F. GEORGE ASSOCIATES, SAN JUAN COUNTY, UTAH

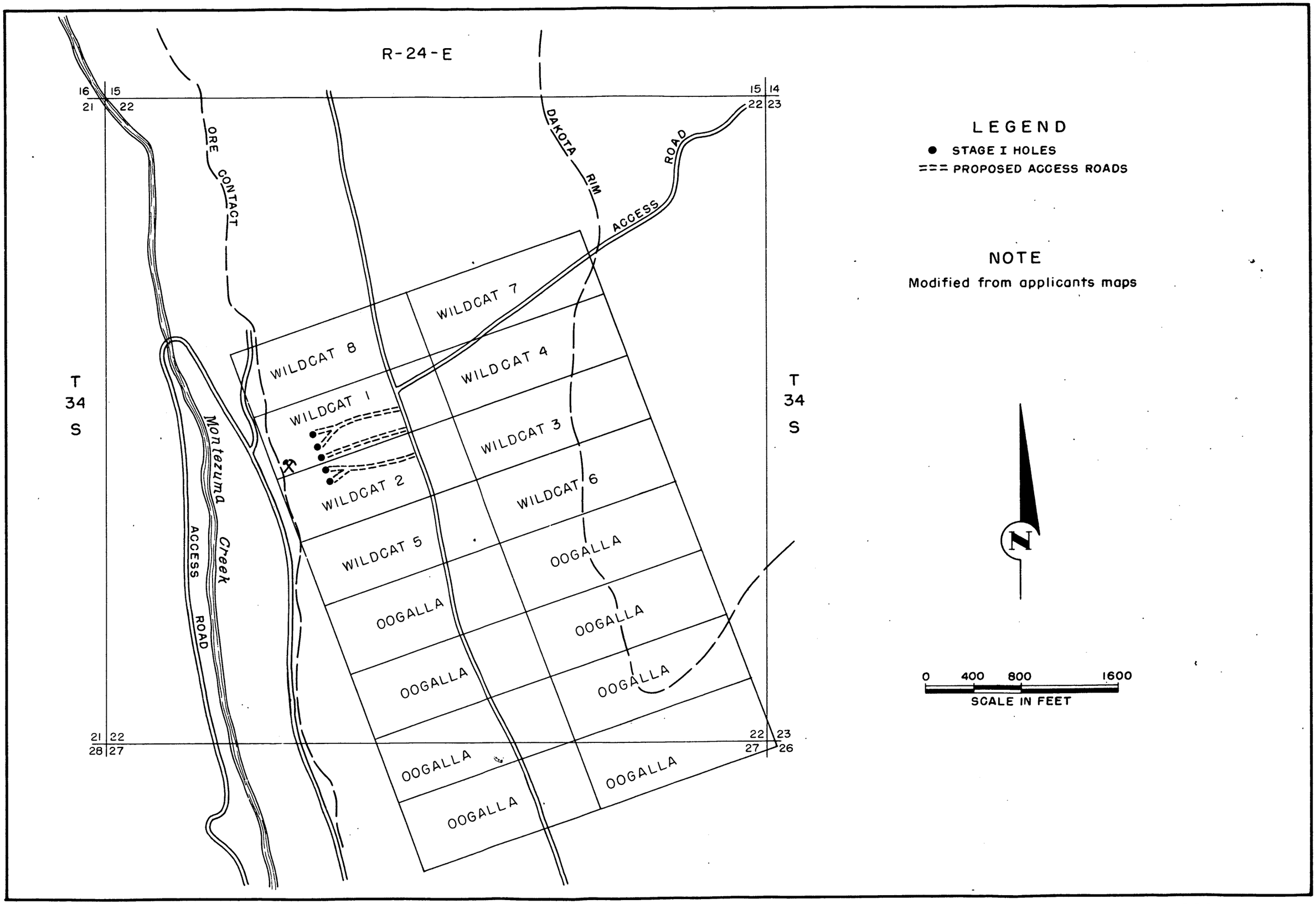


FIGURE 2 - CLAIM MAP SHOWING PROPOSED EXPLORATION, WILDCAT 1-8 AND OOGALLA 1-8 CLAIMS, ROBERT F. GEORGE AND ASSOCIATES, SAN JUAN COUNTY, UTAH (DMEA 3500)

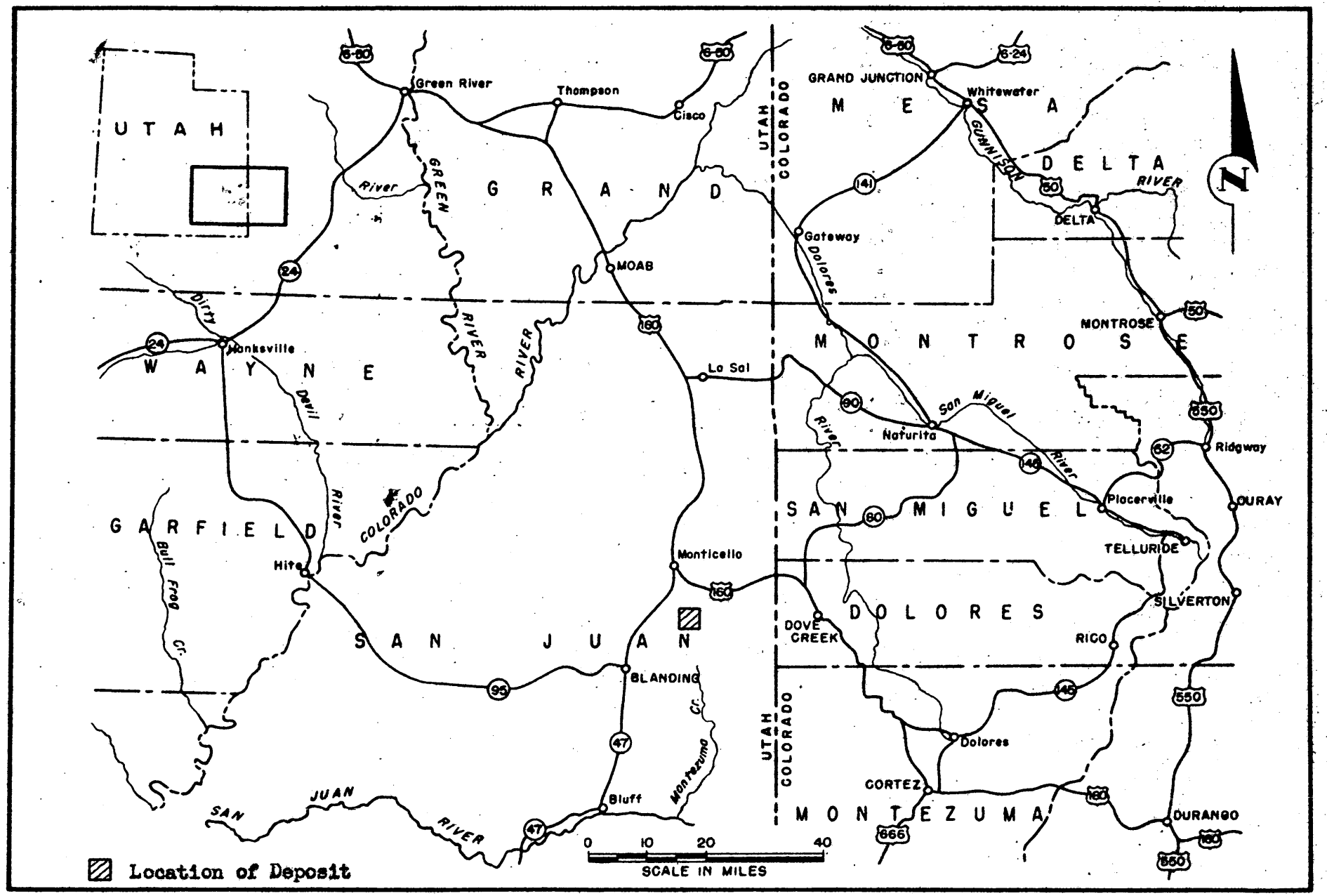


FIGURE 1 - LOCATION MAP, WILDCAT 1-8 AND OOGALLA 1-8 CLAIMS, ROBERT F. GEORGE AND ASSOCIATES, SAN JUAN COUNTY, UTAH (DMEA 3500)

Bureau of Mines
Custom House
55 Battery Street
San Francisco 11, California

OFFICIAL BUSINESS

SAN FRANCISCO CALIF. SEP 21 '54 12:

Defense Minerals Exploration Administration
Interior Building
Washington 25, D. C.

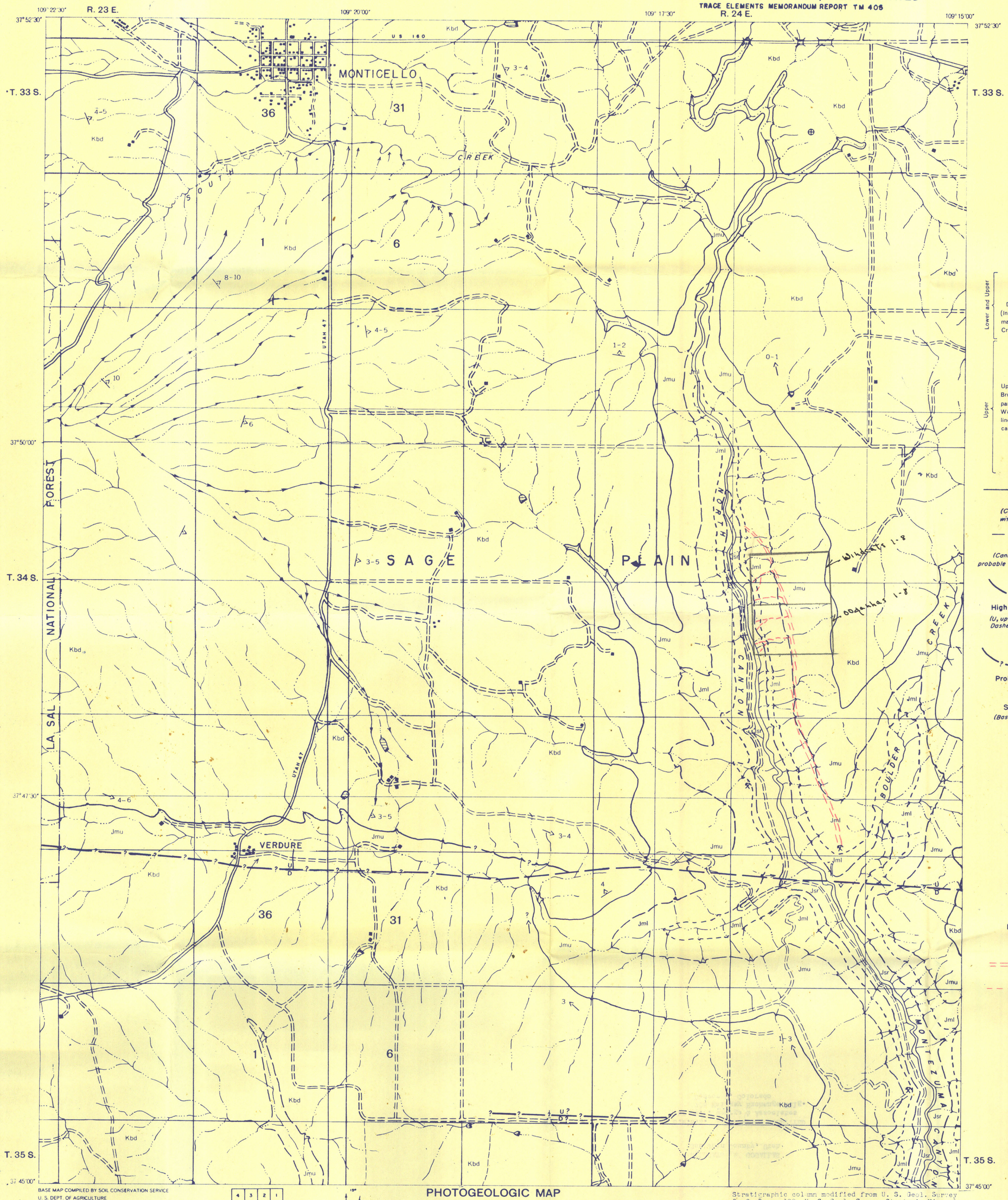
Wildcats & Oodaklas

U. S. DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

PREPARED IN COOPERATION WITH THE
ATOMIC ENERGY COMMISSION

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

TRACE ELEMENTS MEMORANDUM REPORT TM 405



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

JUNE 1952

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

VERDURE QUADRANGLE

TRUE NORTH 15°

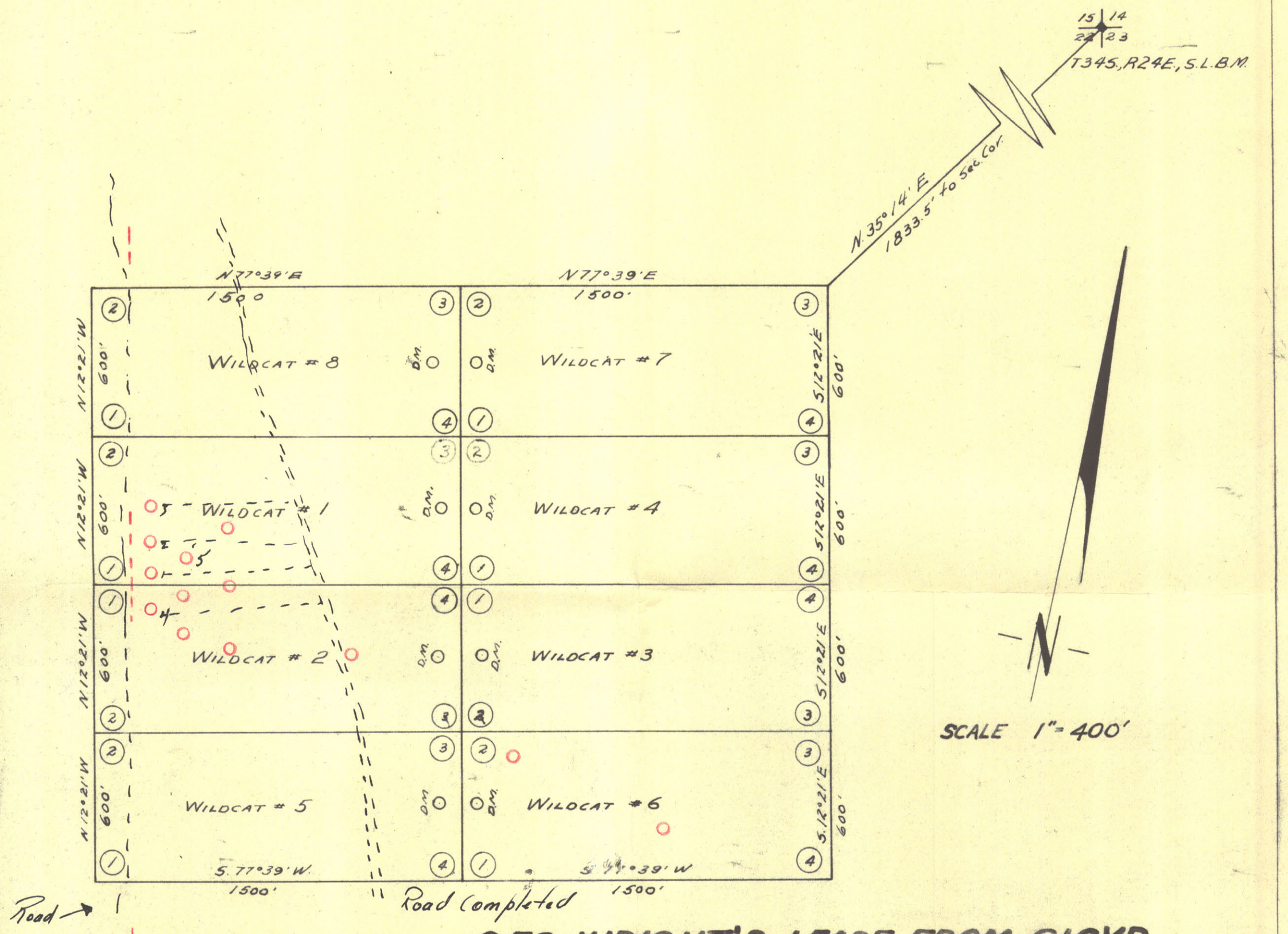
PHOTOGEOLOGIC MAP
VERDURE – 6
SAN JUAN COUNTY, UTAH

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

SCALE 1:24,000
0 1 MILE

Stratigraphic column modified from U. S. Geol. Survey Prof. Paper 188, U. S. Geol. Survey Strategic Minerals Inv., Geologic map of vanadium region of southwestern Colorado and southeastern Utah, by R. F. Fischer, 1944, and U. S. Geol. Survey unpublished report.

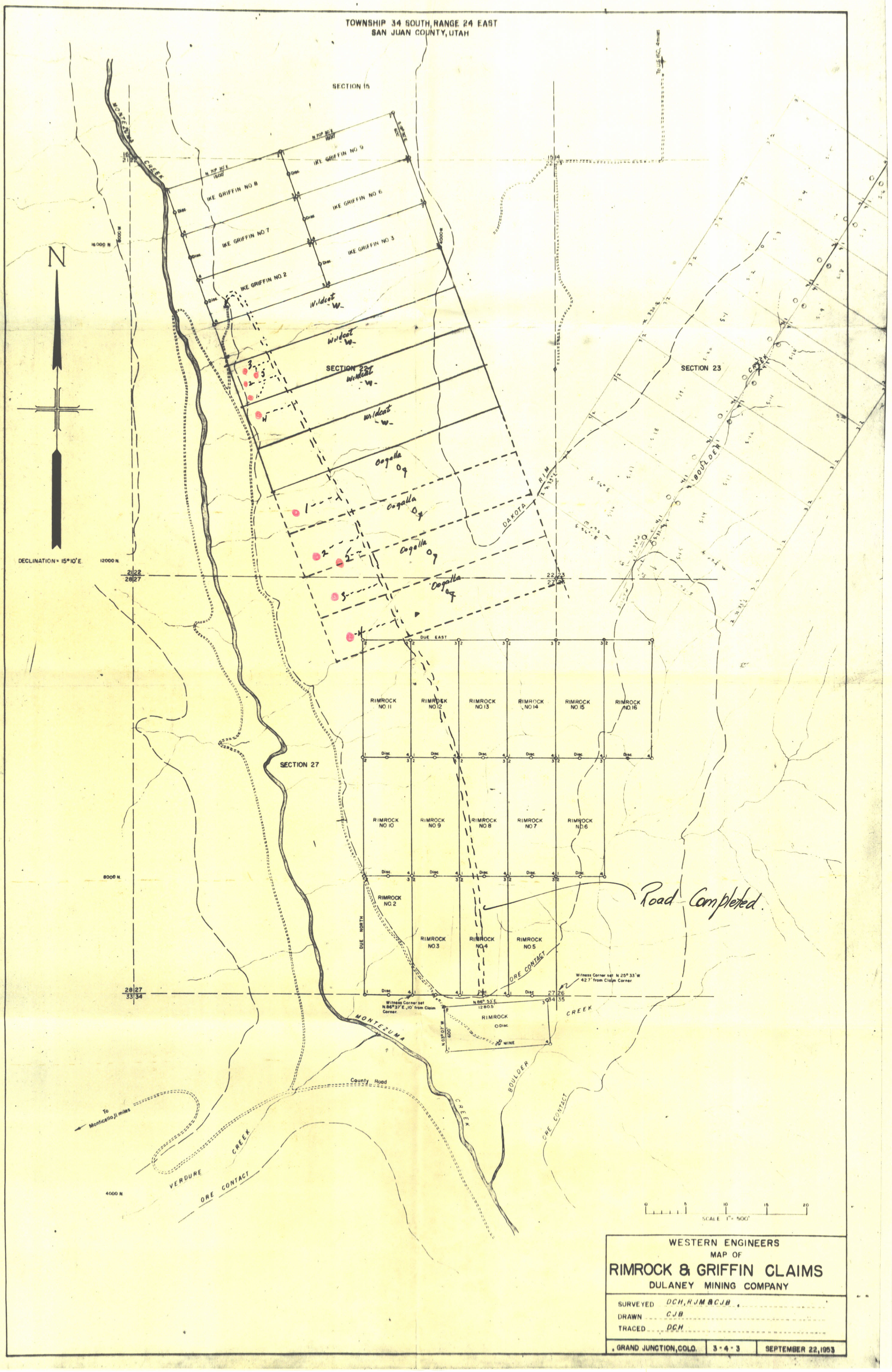
Submitted by R. F. George & Associates
708 Railway Exchange Bldg
Denver 2, Colo



Frank L Shere
REG. LAND SURVEYOR #1361

GEO. WRIGHT'S LEASE FROM CLOYD JOHNSON & LOU FULMER IN SECTION 22, TSP. 34 S, R 24 E, S.L.B.M.

SAN JUAN SURVEYING SERVICE
MONTICELLO, UTAH
SURVEYED JULY 2nd - 8th, 1954


TOWNSHIP 34 SOUTH, RANGE 24 EAST
SAN JUAN COUNTY, UTAH
SECTION 15
SECTION 22
SECTION 23
SECTION 27
MONTEZUMA CREEK
BOULDER CREEK
VERDURE CREEK
DAKOTA RIM
ORE CONTACT
IKE GRIFFIN NO 9
IKE GRIFFIN NO 8
IKE GRIFFIN NO 6
IKE GRIFFIN NO 7
IKE GRIFFIN NO 3
IKE GRIFFIN NO 2
Wildcat
Oogalla
RIMROCK NO 11
RIMROCK NO 12
RIMROCK NO 13
RIMROCK NO 14
RIMROCK NO 15
RIMROCK NO 16
RIMROCK NO 10
RIMROCK NO 9
RIMROCK NO 8
RIMROCK NO 7
RIMROCK NO 6
RIMROCK NO 2
RIMROCK NO 3
RIMROCK NO 4
RIMROCK NO 5
RIMROCK
MINE
Disc
DUE EAST
DUE NORTH
Road Completed.
Witness Corner set N 25° 33' W 42.7' from Claim Corner
Witness Corner set N 86° 37' E, 10' from Claim Corner
N 86° 53' E 1280.5'
N 03° 07' W 600'
County Road
To Monticello 11 miles
DECLINATION = 15° 10' E
N
16000 N
12000 N
8000 N
4000 N
SCALE 1" = 500'
WESTERN ENGINEERS
MAP OF
RIMROCK & GRIFFIN CLAIMS
DULANEY MINING COMPANY
SURVEYED DCH, RJM & CJB
DRAWN CJB
TRACED DCH
GRAND JUNCTION, COLO.
3-4-3
SEPTEMBER 22, 1953