DMEA Form 9
Rev. 6/57

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration

OFFICIAL DOCKET FILE Idm-E NO._____ DMEA NO. 4868

Application
- [x] Denied
- [ ] Withdrawn

Contract
- [ ] Terminated - Not Certified
- [ ] Terminated - Certified
- [ ] Cancelled
- [ ] Royalty Agreement

The records contained in this file are marked (x) and arranged in this order:

Folder No. 1: 50%

Left Side

- [ ] Royalty Audits
- [ ] Certification of Discovery
- [ ] Closing Letter
- [ ] Cost Audits
- [ ] Termination Notice or Agreement
- [ ] Recision Notice
- [ ] Assignment of Contract
- [ ] Contract Amendments
- [ ] Contract with all exhibits and annexes
- [ ] Owner's Consent to Lien and Subordination Agreement
- [x] Application and attachments

Right Side

- [ ] Project summary (final)
- [ ] Work Completed analysis (final)

All other material filed in chronological order including the following reports if checked:

- [ ] Field Team Semi-Annual Report for Certified Project
- [ ] Final Field Team Report (Tab)
- [ ] Operator's Final Report (Tab)
- [ ] Interim Field Team Reports
- [ ] Operator's monthly reports and all attachments
- [x] On-site Exam Report (Tab)
- [ ] Settlement Sheets
- [ ] Drill Logs

Additional Folders:

Left Side

Folders No._____: Reports
- [ ] Analysis of Semi-Annual Inspection Reports
- [ ] Project Summary (Interim) by DMEA Engineers

Right Side

- [ ] Field Team Semi-Annual Report for Certified Project
- [ ] Field Team Interim Reports
- [ ] Operator's Monthly Reports with transmittal, narrative and maps.

Folders No._____: Maps (Use pocket folder or envelope)

Folders No._____: Settlement Sheets

Folders No._____: Drill Logs

Folders No._____: Royalty material

Form MF–103
Revised Feb. 1957

UNITED STATES
DEPARTMENT OF THE INTERIOR

Budget Bureau No. 42–R1035.3
Approval expires June 30, 1958

DEFENSE MINERALS EXPLORATION ADMINISTRATION

APPLICATION FOR AID IN AN EXPLORATION PROJECT

PURSUANT TO DMEA ORDER I, UNDER THE DEFENSE PRODUCTION ACT OF 1950, AS AMENDED

NAME OF APPLICANT (Full legal name and mailing address as it should appear on contract if one is executed)

John Niedfelt
Box 595
Grand Island, Nebraska

APPLICANT NOT TO USE THIS BLOCK

Docket Number: DMEA-4868
Date Received: 11/8
Government Participation %:
Region: III
Division Code: 700

BUSINESS ORGANIZATION (Check one)

- Individual [X]
- Corporation [ ]
- Partnership [ ]
- Other (Specify) [ ]

State in which firm is organized:

LIST CORPORATE OFFICERS OR PARTNERS HERE, IF APPLICABLE

Name	Address	Title

Mineral(s) for which you wish to explore: Uranium

Estimated Cost of Project: $ 14811.50

LOCATION OF PROPERTY

Name	County	State
Karn Claims	San Juan	Utah

GENERAL INSTRUCTIONS

Before filling out this application, please read DMEA Order–I, Amended, "Government Aid in Defense Exploration Projects." To assure prompt action, your application must provide all applicable material and information specified on the back of this application form. Avoid unnecessary correspondence and delays by submitting complete and accurate information. *Please submit four copies of this application and all accompanying papers* except as otherwise noted. Place your name and address on each sheet. Each item of information, maps, and reports required as a part of this application is described on the back of this form. Identify each attached statement by the item number to which it applies. If an item does not apply to your application, show the item number on your statement and after it write "not applicable." Maps or sketches should be used to supplement narrative descriptions of the property location and boundaries in item 1, existing mine workings and geology in item 2, and the proposed exploration project in item 4. When this information is not too complex, all of it may be shown on one map or sketch. All documents and other attachments submitted as a part of this application, except those in item 2(g) which you mark to be returned, become the property of the Government and will not be returned to the applicant. Send true copies, *not originals*, of leases, contracts, and other documents which are an essential part of your business records. *File this application with the Defense Minerals Exploration Administration, Department of the Interior, Washington 25, D. C., or with the nearest DMEA Field Office.*

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.

November 5, 1957
Dated

Raymond C. Gabeck
BY (Signature)

Consulting Geologist
Title

A wilfully false statement or certification to any Department or Agency of the United States Government is a criminal offense. U. S. Code, Title 18, Sec. 1001.

INFORMATION REQUIRED WITH THIS APPLICATION

1. *Applicant's Property Rights:*

(a) State the legal description (section, township, and range; metes and bounds; patent number of claims) of the land upon which you wish to explore and all land adjacent to the proposed project area which you own or control. Describe any part of the project land or workings which should not be subject to Government lien for royalty payments. If the land consists of unpatented claims, state the book and page number for each recorded location notice, including amended locations, and the place where recorded (courthouse, recorder's office, county, and state).

(b) State all the names by which you know the property.

(c) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise. If you are not the owner, submit with this application one exact copy of the lease, contract, or other document (with address of owner) under which you control the property.

(d) Describe all liens, mortgages, or other encumbrances on the property.

2. *Physical Description:*

(a) Describe in detail and illustrate with maps or sketches all mining or exploration operations which you know have been or are being conducted upon the lands, including existing mine workings. Describe all production facilities.

(b) State your interest, if any, in operations stated in 2*(a)*.

(c) State, as far as you know, the past and current production, supporting your statement with copies of settlement sheets, mine records, or published data if available.

(d) Describe known ore reserves on the property giving quantities and grades and sampling methods used, supporting your statement with copies of assay certificates and assay maps if available.

(e) Describe by narrative and maps or sketches the geologic features of the property, including ore minerals, geologic formations if known, and type of deposit (vein, bedded, etc.).

(f) State your reasons for expecting to find ore, and if you have sampled the area you propose to explore, show where the samples were taken, describe sampling methods used, and provide copies of assay certificates.

(g) Send with your application at least *two* copies of all geologic or engineering reports, assay maps, or technologic information which you may have, indicating on each whether you require its return to you.

3. *Accessibility of Project:*

(a) To aid DMEA representatives who may be required to examine the property, state the name and address of the person who will meet the DMEA representative; give directions for reaching the property; and describe accessibility of the property including the mine workings.

(b) Name the shipping and supply points and places where employees reside and state the distances between them and the property.

4. *The Exploration Project:*

(a) Describe fully the proposed exploration project giving individual footages and sizes of openings *for each item of work.* Use narrative, maps, plans, and longitudinal and cross sections as necessary. Show the location of the proposed work as related to geologic features such as veins, ore-bearing beds, contacts of rock formations, etc. Show also the relation of the proposed work to any existing mine workings and to *property boundaries* or to the closest identifiable corner.

(b) If an access road to the project must be built, show the location on the property map and state the length, type, and construction methods proposed.

(c) In the event that an exploration contract with DMEA is executed, how soon will the work start and how many months will be required to complete it? State your anticipated average daily or monthly rate of progress for each type of work.

5. *Experience:*

State your operating experience and background with relation to your ability to carry out this exploration project, and also that of the person or persons who will supervise the operations.

6. *Estimate of Costs:*

Furnish detailed estimates of the costs *for each item of the work proposed in 4(a)* under the headings listed below with a total for each heading and the estimated total cost of the project. Costs for any work to be performed by an independent contractor should be shown separately under category *(a)* below. Costs for any work that is not to be performed by an independent contractor should be given in detail under categories *(b)* through *(g)*.

(a) Independent contracts. State the cost of any proposed independent contract for the performance of all or any part of the work, expressed in units of work, such as per foot of drilling, per foot of drifting, per hour of bulldozer operations, per cubic yard of material moved. Cost estimates should be supported by bids from three contractors if possible. *(Note* – If none of the work is to be contracted, write "none" after this item.)

(b) Personal services. For necessary supervision, engineering and geological services, and labor, include an itemized schedule of numbers, classes, rates of wages, salaries or fees, and periods of employment. State whether these technicians and employees are available.

(c) Operating materials and supplies. List items of material and supplies with their cost. Include under this heading power, water, and fuel, and units of equipment and tools costing less than $50 each.

(d) Operating equipment. List items of operating equipment to be used giving specifications and indicating how each item is to be acquired – i.e., rented, purchased, or provided by the applicant. If it is rented or purchased, state the estimated rental or purchase price. If it is to be furnished by the applicant, give its present fair market value.

(e) Initial rehabilitation and repairs. Describe the type and the cost of necessary *initial* rehabilitation or repair of existing buildings, fixtures, installations (exclusive of mine workings), and movable operating equipment now owned by the applicant, which will be used on the exploration project.

(f) New buildings, fixtures, installations. Describe each building, fixed improvement, and installation to be purchased, constructed, or installed for the exploration project stating specifications and cost including labor, materials and supervision.

(g) Miscellaneous. For the operating equipment listed in 6*(d)*, describe the type and estimate the cost of repairs and maintenance expected during project operations. Do not repeat initial repairs listed in 6*(e)*. Show also the costs of analytical work, accounting, workmen's compensation and employees' liability insurance, payroll taxes, and other required costs that do not fall within the previous categories.

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)* State whether you are prepared to furnish your share of the cost of the proposed project in accordance with the regulations on Government participation stated in Sec. 7 of DMEA Order–I, Amended.

(b) Explain to what extent you propose to furnish your share of the costs by providing money, by use of equipment owned by you, or otherwise.

* * * * *

INT.-DUP. SEC., WASH., D.C. 15539

John Niedfelt

Application for DMEA loan on Karn's Project

1. (a) The Karn ~~1, 2,~~ 12 8, 9, 10, 11 (see map) are the claims on which we wish to explore. The claims are in Section 7, T 37 S, R 16 E, S L PM. The following are claims on the south which are also owned by the applicants: Karn 1-7 and Phantom 1, 2 and 3. The Karn 1-7 amended claim notices were filed June 17, 1954 and recorded in Book 111, page 318, San Juan County recorder's office, Monticello, Utah. The Karn 8-12 were staked in 1957 on open ground by the applicants and are recorded in book , page . See attached sheet

1. (b) Karn claims.

1. (c) Owned by applicants.

1. (d) None.

2. (a) Several holes have been drilled along the old road on Karn 1 and 2 claims. No information is available except that the holes were probed in June 1957 and no radioactivity was found.
During June and July, 1957, the applicants drilled 27 holes on Karn 1, 2 and 8 as shown on the map.

2. (b) See above.

2. (c) No production.

2. (d) A Shinarump channel trending nearly east-west has been defined on Karn 1. Six mineralized holes were found and one ore hole (See table). Ore reserves are difficult ~~in~~ to estimate in a partially leached-out channel, however a linear body of ore containing at least 250 tons of .20% U_3O_8 may be present near drill hole K-118.

RcR

2. (e) The Chinle formation of Triassic age is the surface formation. The Monitor Butte member consists of various shades of purple-red mudstones with a few thin sandstones mainly about 130 feet above the base.

The underlying Shinarump member consists of a fine to coarse-grained quartz sandstone containing various amounts of conglomerate (pebbles up to 1 inch) and mudstone. The fresh rock is gray, the bleached portions are some shade of light brown.

The Karn's channel appears to be like one of a series of fingers coming off a hand with the palm of the hand about at the Spook mine, which is in the main channel (called Cairn's). The present development of the Karn's channel indicates it is a flat bottomed channel up to 1000 feet wide but with an "inner" channel that may average 100 feet in width. The maximum known depth of the channel (see map) is 16 feet. The Shinarump has a maximum known thickness on Karn 1 of 25 feet. The sand was deposited as an extra build-up on top of the channel rather than as a deeper cut channel.

It is believed that commercial grade uranium ore exists in the low places within the channel deeps, and possibly where there are permeability barriers and traps along the bottom or sides of the channel. The ore bodies would be tabular with such dimensions as 100 feet (along the channel), 10 feet wide and 3 feet thick.

2. (f) Ore bodies as described above are being worked in the Spook mine, which is up dip from the proposed drilling. The area between is covered by impervious Monitor Butte claystones so we believe that the 1500 feet of channel probably contains commercial amounts of ore.

2. (g) Report on the first phase drilling on the Karn's Project by Raymond C. Robeck enclosed.

3. (a) Raymond C. Robeck, 535 Orchard Avenue, Grand Junction, Colorado, Chapel 2-4943.

or

Frank J. Frankovitch, 3351 N. 6th Avenue, Phoenix, Arizona, Crestwood 4-0820.

The property is accessible from Blanding, Utah, via State Highway 95 and is 12 miles south and west from Fry Canyon store. It is 268 miles from Grand Junction.

3. (b) Supply points are Grand Junction, Blanding and Fry Canyon. Personnel will be in house trailers at Fry Canyon. Ore would be shipped to Monticello, Moab or Mexican Hat.

4. (a) The applicants propose to explore and define by drilling the presence and exact position of a Shinarump channel and to locate commercial quantities of uranium within the channel. It is proposed that a two-phase program be set up. The first phase would be to drill a series of fences about 200 feet apart at right angles to the apparent channel trend with holes 200 feet apart on the edges of the channel and 100 feet apart (within a fence) in the channel. It is proposed that the Shinarump be cored in four holes, one each in a fence and in alternate fences. All other first-phase drilling will be non-core drilling. All holes will be drilled at least 3 feet into the underlying Moenkopi for control and to make sure a probe will get to the basal Shinarump contact , the drilling will be by standard wagon and coring type rigs, making approximately a 4 inch hole.

The second phase will consist of offsets approximately 100 feet from mineral bearing holes wthin the channel. It is possible that a few second phase holes may have to be drilled to get closer control on the best part of the channel.

4. (b) It will be necessary to build about 4000 feet of roads to the proposed drill sites. Most of this will be very easy work except for 3 stretches of about 300 feet each where a ripper or blasting will be necessary to cut the steep clay bank to get a road onto the terrace. (see terrace outline on map). Once on the terrace, drill sites and roads can be put where needed. A D-7 or D-8 type dozer with operator will be rented to make roads only good enough to move the heavy truck-mounted drills over them safely.

4. (c) The work will commence as soon as possible after a contract is signed and within a month. The first phase should be completed within two months and a second phase within an additional month. Non-core drilling should progress about 250 feet or more per 10 hour shift. Between 50 and 75 feet a shift might be expected on coring if the conglomerate doesn't cause too much trouble.

5. See enclosed experience record for R. C. Robeck. Frank J. Frankovitch will also be consulted on general planning.

6. All work will be on a contract basis.

6.a.-d.	Dozer work - 50 hours at $15.00	750.00
	76 hrs. standby time at 6.00	456.00
	1st phase drilling (22 holes)	
	500 ft. plug bit drilling at 2.00	1000.00
	2700 Ft. wagon drilling (aver.depth 150') at 1.35	3645.00
	100 ft. coring (4 holes at 25') at 3.50	350.00

The following bids were received:

American Drilling Co., Grand Junction, Colo.
$1.20 per ft. rotary drilling
Coring - $20 per hour and bit costs

Sprague and Henwood Drilling, Inc., Grand Junction, Colo.
$1.50 per ft. plugged bit drilling
4.00 per ft. core (bx)

Minerals Engineering Co., Grand Junction, Colo.
$1.35 per ft. wagon drilling
2.00 per ft. plug bit
3.50 per ft. coring (bx)

Geologist (Robeck) and camp expenses	
14 days at $80.00	1120.00
Instrument rentals (recorder, probe, alidade)	
14 days at $18.00	252.00
Supplies, maps, reproductions	25.00
Miscellaneous-	
Analytical work, 15 samples at 3.50	52.50
Accounting and miscellaneous office work	50.00
Supervisor (Frankovitch)	300.00
Total 1st phase	8000.50

2nd phase drilling (17 holes)	
1050 ft. wagon drilling at $1.35	1417.50
1250 ft. plugged bit drilling at $2.00	2500.00
250 ft. core (10 holes at 25') $3.50	875.00
Geologist and camp expenses - 17 days at $80.00	1360.00
Instrument rental - 17 days at $18.00	306.00
Miscellaneous-	
Analytical work, 35 samples at $3.50	122.50
Accounting	30.00
Supervisor	200.00
Total 2nd phase	6811.00
Grand Total	14811.50
Government share	7405.75
Owner's share at 50%	7405.75

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DATE	INITIALS	CODE

7.a. Yes

7.b. Cash.

The following Karn claims were staked and recorded during 1957 at the San Juan County Court House, Monticello, Utah.

	Book	Page
Karn 8	186	345
9	186	346
10	186	347
11	196	519
12	196	519

John Niedfelt

June-July, 1957 drilling results

Hole number	Depth	eU_3O_8	Corrected elevation base of TRcs
K109	47.0	0.025	169
	47.5	.035	
	48.0	.03	
	49 - base TRcs		
K111	23.5	.025	166
	24.0	.025	
	24.5	.025	
	27 - base TRcs		
K112	30.0	.035	162
	30.5	.08	
	31.0	.065	
	31.5	.025	
	33 -base TRcs		
K113	32.5	.025	163
	33.0	.035	
	33.5	.055	
	34.0	.04	
	34.5	.025	
	35.0 base TRcs		
K116	25.5	.022	166
	26.0	.031	
	26.5	.03	
	27.0	.022	
	28 base TRcs		
K118	28.5	.022	161
	29.0	.025	
	29.5	.06	
	30.0	.18	? .02 chemical
	30.3	.41	
	30.5	.65	
	30.6	.74	
	30.9	.45	
	31.0	.35	
	31.5	.11	? .05 chemical
	32.0	.035	
	32 base TRcs		
K121	29.0	.022	162
	29.5	.025	
	30.0	.03	
	30.5	.035	
	30.9	.07	
	31.0	.08	
	31.2	.10	
	31.5	.08	
	32.0	.03	
	35.0	.022	
	35 base TRcs		

Report on the first phase drilling on the Karn's Project, Utah

The claims involved are 7 Karn claims, 3 Phantom, 5 Tarkio and 3 Fairfax, located in Red Canyon, Utah. One objective was to do the assessment work for 1957 and 1958. This was accomplished and all papers notarized and recorded. The other objective was to establish the presence of uraniferous channels on the Karn's and Tarkio claims.

Karn claims

A total of 27 holes were drilled on the Karn 1 and 2 claims. (See table for details.) As it worked out, 16 of these holes were drilled for information on the width, depth and direction of the Shinarump channel. Mineralization was found in 6 of the 11 holes drilled within the channel and hole K-118 is an ore hole with a maximum reading of .74 percent equivalent U3O8. Three feet might average .35. Since the channel underlies a deep wash where shallow drilling could be done without much difficulty, this first phase drilling was accomplished at a low cost. The Karn channel is wide and generally flat-bottomed with a narrow "inner" channel that seems to contain the ore. The channel is about 1000 feet wide (as defined by the 175-foot contours on the accompanying map) with the inner channel probably averaging about 100 feet in width. The maximum known depth of the channel is 16 feet. The channel is part of a braided stream system that is complicated in its details of width, depth and local direction.

The thickness of the Shinarump can be used only as a secondary guide as to the location of a channel. The sandstones frequently pile up on top without any specific reference to the base of the channel. It is therefore imperative that close control be obtained on the elevation of the base of the Shinarump. To get a true picture of the slope and configuration of the Shinarump as it was laid down, the present day dip of the racks has to be

compensated for. The dip and strike is determined by getting elevations on marker beds in the underlying Moenkopi formation. It was determined that the strike is N13°W in the Karn area with a dip to the southwest of 2.9 feet in every 100 horizontal feet. These figures should be used with caution since there are several broad gently warps in the Moenkopi.

The drilling indicates that the Karn channel probably continues its east southeasterly direction until it joins the main (Cairns) channel about in the Bull'seye No.5 claim. I staked a new claim (Karn 8) as of July 7 to cover the area where the channel may be present. In the near future, I will stake two or three fractional claims to cover any open ground not controlled by Cog Minerals (see map).

There is an upper terrace on the surface on Karn 8 that will be suitable for drilling with only a minimum of difficult road building. Additional holes will vary in depth from 40 to 300 feet with only about four (non-core) holes at 40 feet, a few at about 100 feet. Most holes will be between 150 and 200 feet in depth. There will be very little Wingate talus to drill through, so no serious handicaps are foreseen.

The Karn claims as now developed are probably good enough to warrant a DMEA loan provided that proof of clear title can be shown.

The previously drilled holes K 12, 3 and 15 were probed on June 23 and no radioactivity was found.

Phantom claims

These 3 claims are directly adjacent to the Karn claims so that expanses on the Karn's can be applied without any actual work on the Phantom claims.

Raymond C. Robeck,
Consulting Geologgist

July 15, 1957

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DATE	INITIALS	CODE

RAYMOND C. ROBECK
Consulting Geologist
535 Orchard Avenue
Grand Junction, Colorado

This paper is intended to present information on my geological experience.

During the six years that I spent studying at the University of Wisconsin, I worked for the Department of Geology preparing the fossil and rock collections for classroom study. In 1941 I received a Bachelor of Philosophy degree. I worked for the Wisconsin Geological Survey during the summer of 1941, doing field work on the glacial geology to find usable gravel deposits. Graduate study and work on a Master's thesis was interrupted when the Army requested that I work as a civilian for the Army Map Service in Washington, D.C., preparing bomb target charts for the Air Corps. This 14 months was a valuable experience because of the people I worked with and for the knowledge acquired of maps and geography of many parts of the world.

In September, 1943, I joined the Fuels Branch of the U.S. Geological Survey. For the next two years I was engaged in geologic "spot" studies for the immediate war effort. The projects were all field mapping accompanied by drilling programs involving considerable self supervision and initiative. These projects were: coal - at Paonia, Colorado; Coos Bay, Oregon; and at Coaldale, Nevada. Asphalt - at Santa Rosa and Gallup, New Mexico (Prelim Map 44); and Uvalde, Texas. Detailed work was also done on the oil shale at Rifle, Colorado.

The year of 1946 was spent doing geologic field mapping, logging of well cuttings, and assisting in the direction of geophysical crews for The Texas Company. Mapping covered the area west of the Cascade Mountains and from Salem, Oregon, north to the Canadian border. The same type of field work was done for the Amerada Petroleum Corporation in central Kansas and northwest Arizona in 1947.

In October 1947, I rejoined the Fuels Branch of the U.S.G.S. and spent two years in detailed studies of uranium in the Chattanooga shale throughout eastern United States. A year was spent on geologic studies of fuels in the Glenwood Springs, Colorado area. I spent several months in Korea and Japan studying the coal of Korea. During this time I was evacuated twice when the Communists moved forward. Then I spent 2-1/2 years making a study of the coal resources of Mexico. A detailed reconnaissance report and map were made of the coal fields of Coahuila, Mexico. Several weeks of this time were spent studying the fluorite deposits and the water resources of Coahuila. In July, 1953, I started a project on the geology of uranium in the San Rafael Swell, Utah. This project was completed on July 1, 1956, at which time I resigned from the U.S. Geological Survey to set up private practice as a consulting geologist.

Each of the above projects involved the use of air photos, plane table methods and altimeter surveys for the making of geologic maps. Intensive and extensive stratigraphic and structural studies were made in connection with most of the projects. Mine mapping and various types of surface and subsurface sampling were done in order to make estimates of reserves. The individual property owners were assisted (as much as the Federal Law allows) in the detailed evaluation of their property. In uranium work these evaluations were made as part of regular project work and as appraisals for D.M.E.A. applications.

I was born in Denver, Colorado, in 1919; married in 1953 and now have two daughters

Since July 1956 — Drilling projects for sale, uranium
Mapping projects - shinarump channels
" " — oil field mapping, well siting, lease appraisals

U. S. Government Messenger Envelope

Standard Form No. 65 (Rev. 1957)
Promulgated by Bureau of the Budget Circular A-33 (Rev.)

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Mary Gilpatrick Myra Rasmussen	STOP		STOP
~~Mr Adams~~	STOP		STOP
Mr Hickman Rm 4456 - DMEA	STOP		STOP
	STOP		STOP
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DOCKET FILE

April 1, 1958

Ellis

Summary of Proposed Project

Object: Denial of application for exploration aid.

Docket No.: DMEA-4868

Commodity: Uranium

Applicant: John Niedfelt - Individual
Box 595
Grand Island, Nebraska

Property: Consists of one full-sized unpatented lode mining claim and parts of four additional contiguous claims that are not in conflict with prior located claims. The claims are in sec. 7, T. 37 S., R.16 E., SLB&M., San Juan County, Utah, and are Karn Nos. 8, 9, 10, 11, and 12.

Property rights: Claims own by Applicant.

Application dated: November 5, 1957
Application amount: $14,811.50
Received in Division: November 14, 1957
Referred to Field Team: November 25, 1957
Property examined: January 14, 1958
Field Team Report received in Division: March 21, 1958

Work Proposed: A two-stage drilling program, requiring an estimated 3,750 feet of percussion, 1,750 feet of plug-bit and 350 feet of core drilling in 59 holes, to explore an indicated Shinarump channel Chinle formation - for uranium.

Stage I

Would consist of 22 holes in six fences about 200 feet apart normal to the east-west channel trend. Hole spacing in each fence would be 100 feet.

Stage II

Would consist of 17 offset holes approximately 100 feet from any mineralized hole drilled.

The Applicant drilled one hole on the Kern No. 8 claim that was barren of mineralization. On the adjoining Karn Nos. 1 and 2 claims, 26 non-core holes were drilled. Six holes were mineralized, of which one was reported to be of ore grade.

Estimated Cost:

Stage I - 22 holes

Independent Contract

500 ft. plug-bit drilling @ $2.00/ft.	$1,000.00	
2700 ft. wagon drilling (Av. depth 150 ft.) @ $1.35/ft.	3,645.00	
100 ft. core drilling (4 holes at 25 ft.) @ $3.50/ft.	350.00	
50 hrs. bulldozing @ $15.00/hr.	750.00	
76 hrs. stand-by time (drill crew) @ $6.00/hr.	456.00	$6,201.00

Personal Services

Geologist, 14 days and expenses @ $80.00/day	$1,120.00	1,120.00

Operating Equpment and Supplies

Rental, recorder, probe, alidade - 14 days @ $18.00/day	$ 252.00	252.00
Supplies, map, reproduction	$ 25.00	25.00

Miscellaneous

15 sample analyses @ $3.50	$ 52.50	
Accounting	50.00	
Supervisor	300.00	402.50

Estimated Total Cost of Stage I $8,000.50

Stage II

Independent Contracts

1,050 ft. wagon drilling @ $1.35/ft.	$1,417.50	
1,250 ft. plug-bit drilling @ $2.00/ft.	2,500.00	
250 ft. core drilling (10 holes at 25 ft.) @ $3.50/ft.	875.00	
* Geologist, 17 days @ $80.00/day	* 1,360.00	
35 sample analyses @ $3.50	122.50	
Accounting	30.00	
Supervisor	200.00	

Estimated Total Cost of Stage II	$6,811.00
Total Est. Cost of the Project	$14,811.50
Govt. Participation @ 50%	$7,405.75

*Insert: Instrument rental, 17 days @ $18.00/day 306.00

Field Team report, dated March, 1958, by:
M. H. Salsbury, USBM, and N. L. Archbold, USGS

The claims lie on the west flank of the Monument upwarp where sedimentary formations dip 1-2 degrees to the southwest. No major folds occur in the vicinity, but a southerly trending zone of normal faults is located about one mile southwest of the property. Exposed sedimentary formations range in age from Permian to Jurassic. Deep canyons in the area expose the Cutler formation of Permian age.

All significant uranium deposits occur in the Shinarump member of the Chinle formation, and are localized when sandstone and conglomerate of the "Shinarump" fill stream channel scours in the top of the underlying Moenkopi formation.

Two major channels are known in the vicinity but do not cross the claims, where sizeable uranium deposits occur.

The Ula channel lies about one mile west of the claims and the Cairns channel which lies immediately northeast of the claims. Minor channels, tributary to the Ula and Cairns, are present, and one such channel has been traced across the Karn No. 1 claim (land is not in the application). Another minor channel apparently trends northeasterly and may cross the central part of the area proposed for exploration, but the trend has not been verified by exploration.

Although sizeable uranium deposits occur in the Ula and Cairns channels, no significant deposits have been found in the minor, tributary channels. Deposits tend to occur within depressions along the floor of the channels, and are associated with coalified plant remains. Ore minerals are disseminated through the sandstone or replace coalified plant remains. Uraninite, the principal ore mineral, is associated with significant amounts of copper sulphides.

Because of the generally unfavorable evidence developed to date (Karn Nos. 1 and 2 claims) on tenor and extent of mineralization in the explored part of one minor channel, and the probable absence or near absence of the known channel scour on the proposed project area, denial of the application for exploration assistance is recommended.

Commodity Members' Comments:

U. S. Bureau of Mines, James Paone, dated March 20, 1958

Agree with the Field Team; the application should be denied.

U. S. Geological Survey, W. P. Williams, dated March 31, 1958

"It does not appear that DMEA participation in exploration costs on the applicant's property would be appropriate. The main reason is that an exploration project probably would not be successful. I am, therefore, in agreement with the Field Team's recommendation for denial of the application."

Division of Rare and Miscellaneous Metals,
F. L. Knouse, March 26, 1958

Evidence developed to date indicates that only small uranium deposits will be found in the minor tributary channels to the Ula and Cairns channels. Since the Applicant's target is a minor tributary channel that trends toward the property, the writer agrees that the chances of discovering a significant uranium deposit on the property are poor and the application should be denied.

Conclusions

Our review of the information relating to the proposed project indicates that the possibilities of making a significant discovery of uranium on the property are poor. Therefore, the application should be denied.

Ernest Wm. Ellis

Ernest Wm. Ellis

DMEA Form 7
(12-56)

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Date	Surname	Code
4/2/58	Knouse	700
4/3	Elkin	700
4/4	Selfridge	130
4/4	Johnson	110
"	Rutledge	100
		220
		225
4/4	Lamb	130
4/4	Kiilsgaard	130

Mr. John Niedfelt
Box 595
Grand Island, Nebraska

Re: Docket No. DMEA-4868 (Uranium)
Karn Claims
San Juan County, Utah

Dear Mr. Niedfelt:

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

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

Careful study of all our information indicates that the probability of disclosing significant ore reserves is not sufficiently promising to justify Government participation. We regret to advise you that, under these circumstances, your application for exploration assistance is denied.

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

Sincerely yours,

(for)

Administrator

FLKnouse/gla
4-2-58
cc to: Admr.'s Reading File
Operating Committee
THKiilsgaard, 5224
FLKnouse
DMEA Field Team, Region III (2)

8623

IN REPLY REFER TO:

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

DATE	INITIALS	CODE
4/1	C	220
"	FLK	700
Complete		

Memorandum

March 31, 1958

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

From: W. P. Williams, U. S. Geological Survey

Subject: Review of field examination report, DMEA 4868 (uranium), John Niedfelt, Karn claims, San Juan County, Utah.

The examining team report that geologic conditions on the applicant's property are not favorable for the presence of minable uranium ore deposits. The applicant's mining claims are not located on the trend of major Shinarump channels. Two main channels in the vicinity pass close to the property but do not cross the claims. Small tributary channels are on the property, but such small geologic structures contain only small, pod-like ore bodies.

It is difficult to trace the course of major Shinarump channels in the White Canyon district by drilling. Finding the small ore bodies in the smaller channels would be a hit-or-miss venture that probably would require close-spaced drilling on random centers. The cost of such a project would outweigh the return that might be realized from the small ore bodies.

Twenty-six holes have been drilled in the vicinity of the proposed project area. Six holes penetrated mineralized rock, but only one hole was reported to have cut ore.

It does not appear that DMEA participation in exploration costs on the applicant's property would be appropriate. The main reason is that an exploration project probably would not be successful. I am, therefore, in agreement with the Field Team's recommendation for denial of the application.

W. P. Williams

W. P. Williams

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DATE
3/21 C 220
" FK 700

March 20, 1958

4868

Uranium
John Niedfelt
Karn claims
San Juan County, Utah
$14,811.50

Ernest William Ellis, DMEA Member
Uranium Commodity Committee
James Paone, Bureau of Mines Member
Uranium Commodity Committee

Field Team Report

1. Date of [illegible] 3/11/58 2. Date [illegible] 3/17/58

3. Prior report on this property [illegible] Yes / / No / /

4. Prior reports on nearby properties [illegible] Yes / / No / /

5. Information [illegible] Yes / / No / /

6. Other pertinent factors [illegible] Yes / / No / /

7. Explain [illegible] you [illegible]

8. Factors meeting special considerations
   a. Lenticular / /
   b. Conformable / /
   c. Direction of [illegible] / /
   d. Faulting / /
   e. Proposed exploration [illegible] / /
   f. Alternate exploration [illegible] / /
   g. Cover / /
   h. [illegible] / /

9. A. [illegible]
   1. Check information [illegible] / /
   2. [illegible] / /
   3. [illegible] x
   4. [illegible] / x /
   5. [illegible] / /
   6. [illegible] / /
   7. [illegible]
   8. [illegible] / /
   9. [illegible] / /
   10. Approval / /

[illegible] at [illegible]

[illegible] back of page if [illegible]

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

224 New Customhouse
Denver 2, Colorado

March 11, 1958

COPY
RECEIVED MAR 17 1958

DATE	INITIALS	CODE
3-17	C	220
3-19	JHB	130
3/20	C	220
3/21	FLK	700

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket No. DMEA 4868 (Uranium) John Niedfelt (Karn claims) San Juan County, Utah - Joint Report of Examination

Enclosed are the original and two copies of a Joint Report of Examination on the subject property.

The field examiners conclude that the minor tributary channels of the Shinarump which are present on the Karn claims do not appear to be favorable for the occurrence of significant ore deposits. The channel which has been partially explored may not extend into the proposed DMEA block and the holes which the Applicant proposes to drill cannot be expected to penetrate a channel. Accordingly, they recommend that the Applicant's work proposal be denied, in which the field team concurs.

W H King

W. H. King

ON-SITE EXAM. REPORT

Reviewed by
DMEA OPERATING COMMITTEE
3-19-58
(date)

IN REPLY REFER TO:
MINERAL DEPOSITS
DMEA
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MAR 10 1958
U. S.
GEOLOGICAL SURVEY
DENVER, COLORADO

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DMEA
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MAR 17 1958

DATE	INITIALS	CODE
3-19	HB	130
		220

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
P. O. Box 360
Grand Junction, Colorado

DMEA
DEPARTMENT OF THE INTERIOR
MAR 11 1958
REGION III
DENVER, COLORADO

March 7, 1958

Memorandum

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

~~Through: R. N. Markman~~

From: J. William Hasler

Subject: Transmittal of a joint geologic and engineering report of examination DMEA docket 4868 (Uranium), John Niedfelt, Karn claims, San Juan County, Utah.

TRANSMITTED
MAR 11 1958

Transmitted herewith are ten copies and accompanying maps of a joint geologic and engineering report by N. L. Archbold, U. S. Geological Survey and M. H. Salsbury, U. S. Bureau of Mines on DMEA docket 4868 (uranium), John Niedfelt, Karn claims, San Juan County, Utah.

John Niedfelt, Box 595, Grand Island, Nebraska, applied on November 8, 1957 for DMEA assistance in exploration for uranium on 5 located claims in Red Canyon, San Juan County, Utah. The property adjoins other claims of the same ownership that are not included in the project.

The application was referred to the field and a field examination was made January 14, 1958 by a DMEA examining team, accompanied by Mr. R. C. Robeck, consulting geologist for the applicant.

Uranium deposits occur in the Shinarump member of the Chinle formation and are localized where sandstone and conglomerate of the Shinarump member fill stream channels scoured into the top of the underlying Moenkopi formation. Two major channels, the Cairns and Ula channels, are located close to the Karn claims, but do not cross the claims. Two minor tributary channels are located on the Karn claims, but these do not seem to be especially favorable for the occurrence of significant ore deposits. One minor channel has been partially explored and may contain a few pods of ore; this channel trends eastward and may only be present on the proposed DMEA block in the most extreme northwest corner.

The only exploration to date, on the claims included in the proposed project, consists of one barren hole drilled on the Karn No. 8 claim. On the Karn Nos. 1 and 2 claims adjoining the proposed project claims on the west, 26 non-core holes have been drilled. Of these, 6 holes penetrated mineralization of which 1 was reported to be of ore-grade. A small scour has been partially delineated in an easterly trending Shinarump channel and the applicant's geologist estimates a small ore reserve on the basis of the one ore hole.

Reviewed by
DMEA OPERATING COMMITTEE
3-19-58
(date)

Because of the generally unfavorable evidence developed to date on the tenor and extent of mineralization in the explored part of one minor channel, and the probable absence or near absence of the known channel scour on the proposed project area, denial of the application for DMEA exploration assistance is recommended.

I concur with the conclusions and recommendations of the examining team. The results of Atomic Energy Commission work in the area and production records were consulted, and comments of DMEA Washington personnel were also noted.

Included also are ten copies each of 3 figures for inclusion in the joint report. Also included is the applicant's brochure.

J. William Hasler

J. William Hasler,
Geologist

JWH/bh
Enclosures

ORIGINAL FILE COPY
DMEA
RECEIVED MAR 17 1958

DATE	INITIALS	CODE
3/19	JHB	130
		220

TRANSMITTED

MAR 11 1958

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

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY EXAMINING TEAM
REGION III

DMEA 4868

John Niedfelt

Karn claims

San Juan County, Utah

Uranium

Joint Geologic and Engineering Report

by

N. L. Archbold
U. S. Geological Survey

M. H. Salsbury
U. S. Bureau of Mines

March 1958

Reviewed by
DMEA OPERATING COMMITTEE
3-19-58
(date)

DMEA 4868
JOHN NIEDFELT
KARN CLAIMS
SAN JUAN COUNTY, UTAH

Joint Engineering and Geologic Report

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TABLES

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DMEA 4868
JOHN NIEDFELT
KARN CLAIMS
SAN JUAN COUNTY, UTAH

INTRODUCTION AND SUMMARY

John Niedfelt, Box 595, Grand Island, Nebraska, applied on November 8, 1957 for DMEA assistance in exploration for uranium on 5 located claims in Red Canyon, San Juan County, Utah. The property adjoins other claims under the same ownership that are not included in the project.

The property was visited on January 14, 1958 by a DMEA examining team accompanied by Ray C. Robeck, consulting geologist for the applicant.

A drilling program requiring an estimated 3,750 feet of wagon drilling, 1,750 feet of plug bit drilling and 350 feet of core drilling in two stages has been proposed at a cost of $14,811.50. Government participation, at 50 percent would be $7,405.75.

Uranium deposits occur in the Shinarump member of the Chinle formation, and are localized where sandstone and conglomerate of the Shinarump member fill stream channels scoured into the top of the underlying Moenkopi formation. Two major channels, the Cairns and Ula channels, are located close to the Karn claims, but do not cross the claims. Two minor tributary channels are located on the Karn claims, but these do not seem to be especially favorable for the occurrence of significant ore deposits. One minor channel has been partially explored and may contain a few pods of ore; this channel trends eastward and may only be present on the proposed DMEA block in the extreme northwest corner.

The only exploration to date, on the claims included in the proposed project, consists of one barren hole drilled on the Karn No. 8 claim. On the Karn Nos. 1 and 2 claims adjoining the proposed project claims on the west, 26 non-core holes have been drilled. Of these, 6 holes penetrated mineralization of which 1 was reported to be of ore-grade. A small scour has been partially delineated in an easterly trending Shinarump channel and the applicant's geologist estimates a small ore reserve on the basis of the one ore hole.

Because of the generally unfavorable evidence developed to date on tenor and extent of mineralization in the explored part of one minor channel, and the probable absence or near absence of the known channel scour on the proposed project area, denial of the application for DMEA exploration assistance is recommended.

ACKNOWLEDGMENTS

The applicant furnished with form MF-103 a brief geologic appraisal with map and a proposal for drilling supported by a cost estimate based on 3 bids by independent contractors which were quoted but not included. Geologic logs on holes drilled on adjoining claims were furnished to the examining team but not included in material with the application.

The results of Atomic Energy Commission work in the area and production records were consulted. Comments of DMEA Washington personnel were noted.

LOCATION, TOPOGRAPHY, AND PHYSICAL FEATURES

The Karn Nos. 8, 9, 10, 11 and 12 claims are in sec. 7, T. 37 S., R. 16 E., SLM, San Juan County, Utah (figs. 1 and 3). The A.E.C. Red Canyon access road crosses the property and affords easy access from Utah State Highway 95 at Fry Canyon, 7 miles from the property. Fry Canyon is 60 miles from Blanding, Utah, the nearest town, over gravelled Highway 95, and 217 miles further over hard surfaced highways from Grand Junction Colorado, the nearest major source of supplies.

The climate of the region is arid, hot in summer, mild to cold in winter, and subject to violent storms at any season. Year around operations are feasible but in unusually wet years such as 1957 and 1958, there may be frequent delays caused by washouts or mud. The proposed drilling area is on a terrace of Chinle sediments where drilling sites can be prepared at moderate cost although access to the bench would require some costly bulldozing on a road to traverse a steep Chinle slope.

Uranium-copper ores from the White Canyon area are currently being marketed at the new Texas-Zinc Minerals mill at Mexican Hat, Utah, 70 miles from the property.

There are no unusual problems of supply, labor, power or ore marketing other than those inherent in projects at remote locations. Supplies of domestic water are available at a spring in Fry Canyon within 5 miles of the property, and enough drilling water can normally be obtained from catchment basins and mine drainage to service limited wet drilling operations. Dry drilling methods are preferred if feasible.

HISTORY, PRODUCTION, AND PROPERTY OWNERSHIP

Exploration in the Red Canyon area dates from 1951 when uranium mineralization was found in Shinarump outcrops in upper canyon walls. A large amount of exploration drilling has been done privately and by the Atomic Energy Commission with discovery of many mineralized channels and substantial ore deposits. A.E.C. drilling on the Bullseye and Cove groups of claims adjoining the applicant's property on the north discovered ore grade mineralization in the Cairns channel which has been extensively developed by underground methods. Exploration under Docket No. DMEA 3625, contract no. Idm-E 879, was done through the Coleman-McCarty incline on the Cove claims to develop the Cairns channel by underground methods in 1955 and 1956. A substantial tonnage of ore was found in several individual deposits containing from a few tens of tons to a few thousand tons each. The operation was never profitable, however, because of high costs of development. No major deposit has been found on the Cove claims to date. The Spook mine on the Bullseye claims immediately north of the Karn claims is also on the Cairns channel and is currently in operation.

COG Minerals Corporation, present operators of both the Bullseye and Cove claims, have proposed a small exploration project under Docket No. DMEA 4852 which is currently under consideration. The proposed work has been planned to explore for a possible north-northeast extension of the Ula channel which does not cross the Karn claims.

Following is a summary of production in the area through September 30, 1957.

Table 1.--Production and Reserves from the Cairns and Ula channels.[1/]

Cairns channel	Production Tons	Production % U_3O_8	Indicated Tons	Indicated % U_3O_8	Inferred Tons	Inferred % U_3O_8
Bullseye	16,975	0.24	12,000	0.13	10,500	0.13
Cove (J. P. Coleman)	3,386	0.23	400	0.25	1,200	0.30
Spook	18,864	0.21	12,000	0.14	--	
Uranium King Mineral King	--	--	6,600	0.29	7,300	0.29
Cove #1 [2/]	42	0.14				
Cove #17 [2/]	37	0.11				
	39,304	0.22	31,000	0.17	19,000	0.20
Ula channel						
Allen #2	4,450	0.30	5,757	0.28	--	
Copper claim (Westside Hersey group)	2,977	0.19	53,762	0.30	71,600	0.30
Hersey & Dermis Fraction	34,318	0.31	22,820	0.33	57,800	0.33
	41,745	0.30	82,339	0.31	129,400	0.31

1/ Data from ore reserves section U.S. A.E.C., Grand Junction, Colorado complete to October 1, 1957.

2/ Not producing.

The Karn claim nos. 1 through 12 are located in the name of the Platte Valley Construction Company, controlled by the applicant, as are the Phantom Nos. 1 and 3 claims which conflict but are junior to the Karn Nos. 11 and 12 claims (figs. 2 and 3). The Karn Nos. 1 through 7 claims were located in 1954 and have not been included in the proposed DMEA project as have the Karn claims Nos. 8 through 12. The recording data is as follows:

Claim	Located	Recorded	Book	Page
Karn Nos. 8, 9, 10	8-7-57	8-25-57	186	345-347
Karn Nos. 11 and 12	9-17-57	9-17-57	196	519

The Karn Nos. 11 and 12 claims conflict with, but are senior to, the Phantom Nos. 1 and 3 claims of the same ownership. The Karn Nos. 8, 9, 10, and 12 claims conflict with and are junior to the Bullseye Nos. 9 and 10 claims, and the Dee claim owned by COG Minerals, Incorporated. The valid area of the Karn No. 9 claim is a triangle of ground 490 feet by 100 feet containing 1.12 acres, and of the Karn Nos. 8, 10, and 12 claims much less than the standard 20.66 acres per claim.

The applicant's claim rights appear to be satisfactory. No evidence of any settlement agreement with COG Minerals on claim conflicts was submitted, and in view of the probable DMEA recommendations, the applicant was not asked for further information.

PRESENT STATUS

Exploration and Development

One non-core hole has been drilled in the proposed project area and this one was barren. On the adjoining Karn Nos. 1 and 2 claims 26 non-core holes were drilled of which 6 were reported as mineralized (fig. 3). One of these, hole K118, penetrated ore grade material--3.0 feet averaging 0.35 percent eU_3O_8 as reported by the applicant's geologist. According to the radiometric log furnished for this hole ore grade mineralization between 0.11 and 0.74 percent eU_3O_8 was found over an interval of about 2.0 feet. The ore thickness of 3.0 feet quoted in the application would include sub-ore grade material above and below the ore interval. The chemical analyses of 0.02 percent U_3O_8 and 0.15 percent U_3O_8 obtained from drill cuttings from the ore interval may indicate that the material is not in equilibrium, but more likely that mineralized cuttings were diluted by admixture with barren cuttings.

Mining Equipment and Other Facilities

The applicant does not own any mining or drilling equipment and proposed to employ a drilling contractor.

GENERAL GEOLOGY

The Karn group of claims lies on the west flank of the Monument upwarp where sedimentary formations dip 1 to 2 degrees to the southwest. No major folds occur in the vicinity of the claims, but a southerly

trending zone of normal faults is located about 1 mile southwest of the property (fig. 2).

No igneous rocks are exposed in the vicinity of the Karn claims. Exposed sedimentary formations range in age from Permian to Jurassic. Deep canyons in the area expose the Cutler formation of Permian age. Overlying Triassic and Jurassic formations are briefly described in table 2. All significant uranium deposits occur in the Shinarump member of the Chinle formation and are localized where sandstone and conglomerate of the Shinarump member fill stream channel scours in the top of the underlying Moenkopi formation. Thus, the lithology of the Shinarump and the distribution of channel scours into the top of the Moenkopi are of major importance in an evaluation of the Karn group of claims.

The Shinarump consists of fine- to coarse-grained quartzose sandstone, locally containing chert pebbles up to 1 inch in diameter. Coalified plant remains are abundant in places, as are mudstone pebbles and lenses. The Shinarump member, on the Karn claims ranges from 1 to 25 feet in thickness; it occurs as broad lenticular masses and as narrow elongate lenses filling depressions in the top of the underlying Moenkopi formation. These elongate depressions in the top of the Moenkopi undoubtedly represent ancient stream channels.

Two major channels are known in the vicinity of the Karn claims (fig. 2). The northeasterly trending Ula channel has been traced for about 2 miles and lies about one mile to the west of the Karn claims; the Cairns channel has been traced for about 3 miles, has roughly a semicircular

Table 2.--Jurassic (?) and Triassic formations in the vicinity of the Karn group of claims.

Age	Formation	Approximate Thickness in feet	Description
Jurassic (?)	Kayenta	50+	Dark red to purple, medium-grained sandstone with thin layers of red-brown siltstone. Occurs as remnants on mesa tops.
Upper Triassic	Wingate	300	Red-brown, fine-grained sandstone; massive and cross-bedded. Forms vertical cliff.
	Chinle	145	Church Rock member.-Red and red-brown siltstone with minor lenses of fine-grained, crossbedded sandstone. Forms steep slope.
		290	Owl Rock member.-Red-brown siltstone with thinly bedded red and gray limestone. Forms steep slope.
		140	Petrified Forest member.-Varicolored, bentonitic claystone and mudstone. Forms steep slope.
		0-75	Moss Back member.--Light gray sandstone, fine- to medium-grained, with mudstone and conglomerate lenses. Forms cliff and caps mesas; absent on Karn claims.

Table 2. (con't.)

Age	Formation	Approximate Thickness in feet	Description
Upper Triassic		140	Monitor Butte member.-Gray and purple, bentonitic mudstone with thin layers of fine-grained to conglomeratic sandstone near top. Forms steep slope.
		1-25	Shinarump member.-Fine- to coarse-grained, locally conglomeratic sandstone. Contains lenses of mudstone. Forms bench or ledge.
		UNCONFORMITY	
Early and Middle Triassic	Moenkopi	195	Brown to red-brown siltstone and interbedded fine-grained sandstone. Forms cliff or steep slope

pattern, convex to the southwest, and lies immediately northeast of the Karn claims.

Minor channels, tributary to the Cairns and Ula channels, are present in the area. One such channel has been traced across the Karn No. 1 claim (fig. 3). This channel is about 300 feet wide and has an average depth of about 10 feet; it trends almost due east and probably does not extend onto the proposed area of exploration. Cross sections across this channel suggest that it may not be a true channel, but rather a series of connected Shinarump lenses which gives the impression of a channel as shown by structure contours drawn on the base of the Shinarump member (fig. 3).

Another minor channel has been mapped by A. F. Trites (fig. 2); this channel trends northeasterly and may cross the central part of the proposed area of exploration, but its trend is largely speculative as it has not been traced by drilling.

ORE DEPOSITS

Significant uranium deposits, in the White Canyon district, occur in sandstone of the Shinarump member of the Chinle formation where it fills channels cut into the underlying Moenkopi. Sizable uranium deposits occur in the Cairns and Ula channels, but no significant deposits have been found in the minor, tributary channels. Deposits tend to occur within depressions along the floor of channels, and are associated with coalified plant remains. Individual ore bodies are roughly lenticular with a thickness up to 5 feet and a long dimension up to 100 feet. An ore deposit may consist of several individual ore bodies strung out along the channel floor.

Ore minerals are disseminated through the sandstone or replace coalified plant remains. Uraninite, the principal ore mineral, is associated with significant amounts of copper sulfides. Oxidation near the outcrop has resulted in the formation of limonite from pyrite or azurite and malachite from copper sulfides. Secondary uranium minerals are not abundant, and it appears that uranium has been largely leached near the outcrop so that significant uranium deposits should not be expected in areas where the Shinarump is not protected from weathering.

PROPOSED EXPLORATION

The applicant's exploration proposal is divided into two stages of drilling requiring an estimated 3,750 feet of percussion drilling, 1,750 feet of plug-bit drilling, and 350 feet of core drilling in 39 holes at a cost of $14,811.50. Government participation at 50 percent would be $7,405.75.

The drill pattern for the first stage requires drilling 22 holes in 6 fences about 200 feet apart at right angles to the apparent east-west channel trend (fig. 3). Holes in each fence would be 100 feet apart near the supposed center of the channel and 200 feet apart on the edges. All of the proposed first stage drilling is on the Karn No. 8 claim.

The second stage would consist of 17 offset holes approximately 100 feet from any mineralized holes found.

The proposed drilling covers a considerably broader area than appears to be necessary to explore the easterly extension of the known scour, judging from the trend as projected. Exploration of the other channel which appears to cross the property was not suggested (fig. 3).

The applicant supported his cost estimate by quoting three bids from independent contractors. Copies of the actual bids were not submitted.

A revision of the operator's proposal or an engineering cost estimate were not prepared by the examining team.

CONCLUSIONS AND RECOMMENDATIONS

The minor tributary channels of the Shinarump which are present on the Karn claims do not appear to be favorable for the occurrence of significant ore deposits; moreover, the channel which has been partially explored may not extend onto the proposed DMEA block. Holes which the applicant proposes to drill cannot be expected to penetrate a channel. While deposits containing up to 30,000 tons of ore are present in major channels north and east of the property, no significant deposits can be expected on the proposed DMEA block.

The examining team recommends denial of the application for DMEA assistance.

U. S. DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DEFENSE MINERALS EXPLORATION ADMINISTRATION
MARCH 1958
DOCKET 4868

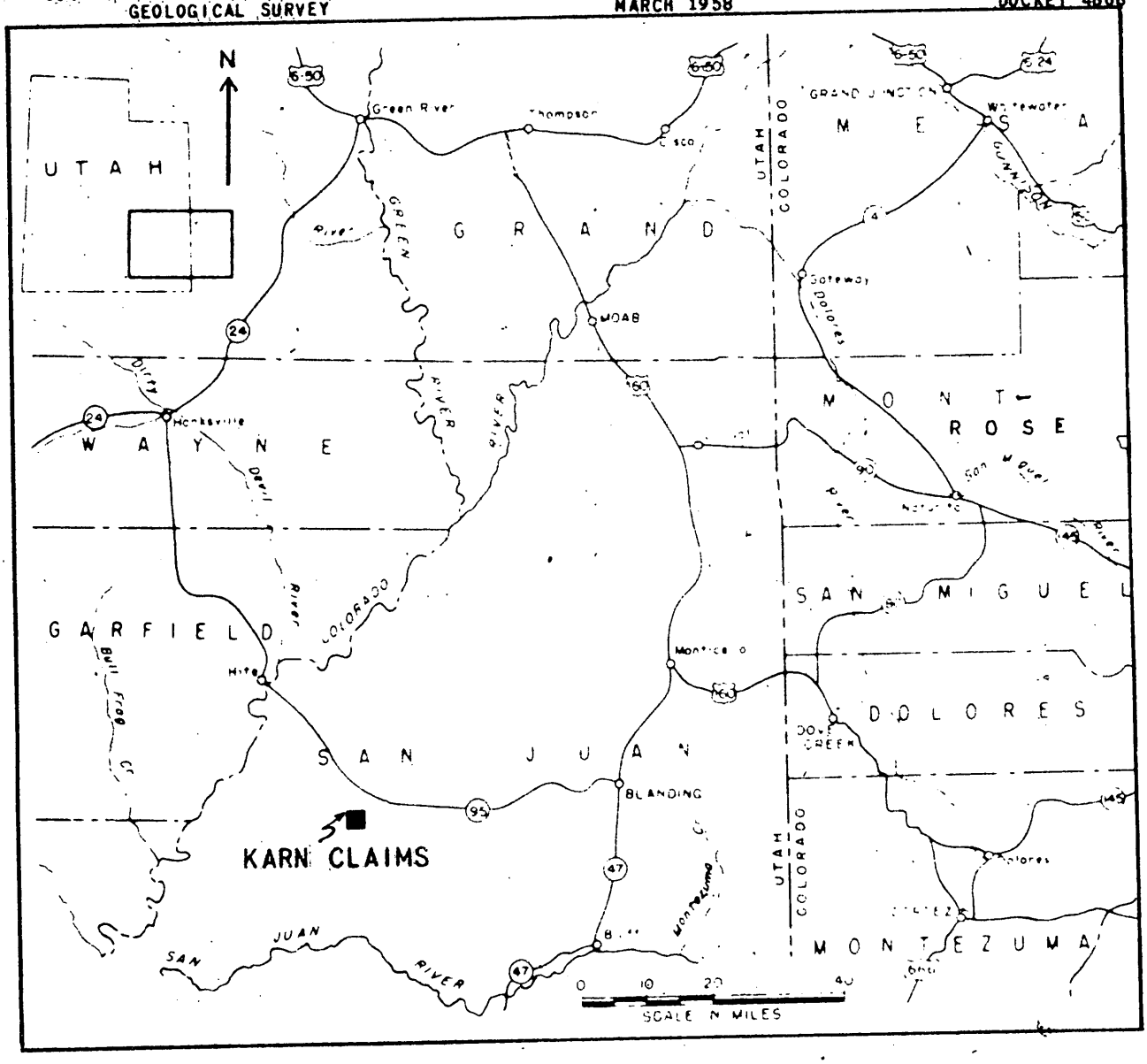
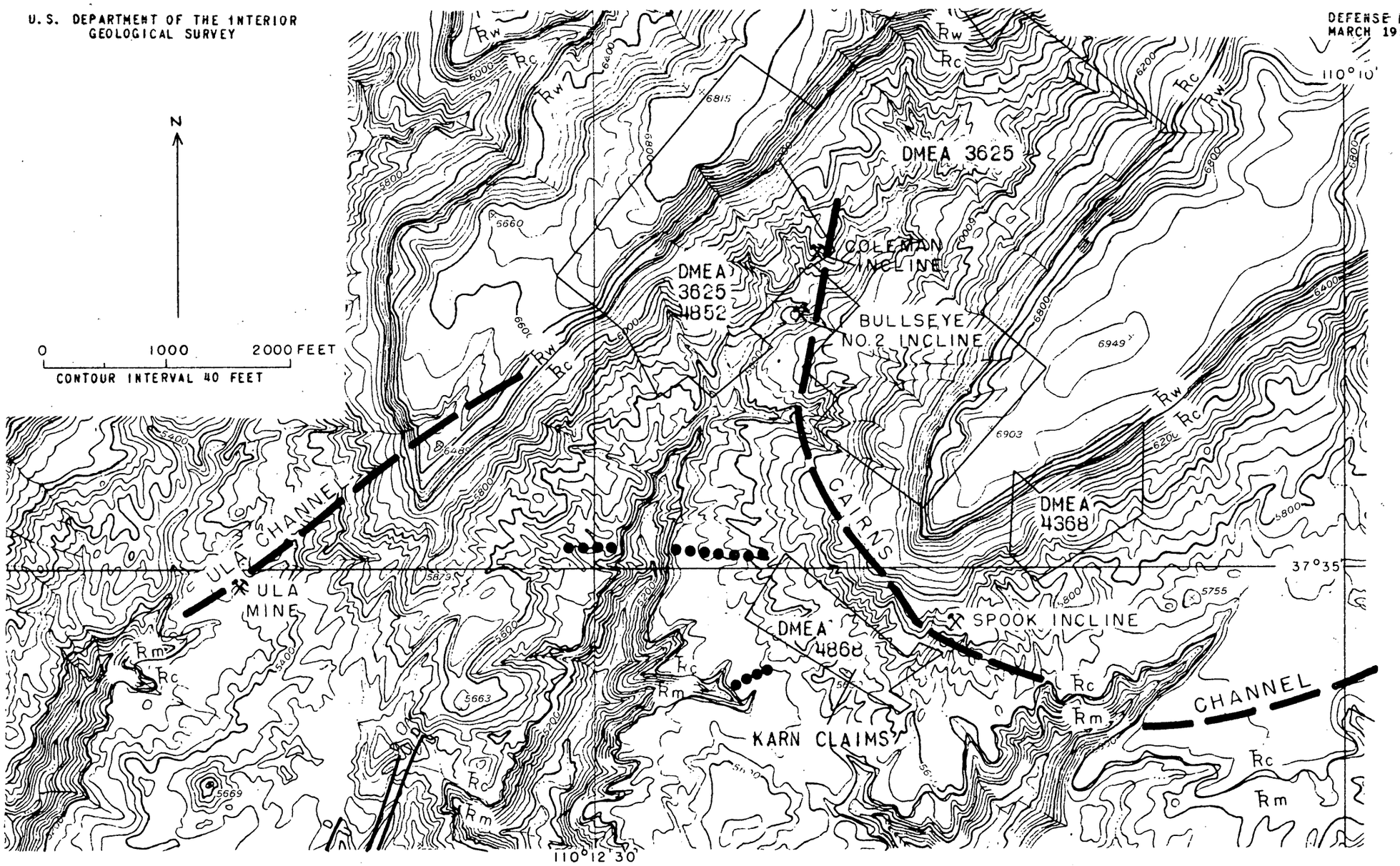


FIGURE 1.--INDEX MAP OF PART OF THE COLORADO PLATEAU SHOWING LOCATION OF KARN CLAIMS, SAN JUAN COUNTY, UTAH.

U. S. DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DEFENSE MINERALS EXPLORATION ADMINISTRATION
MARCH 1958
DOCKET 4868



EXPLANATION

Rw / Rc
CONTACT BETWEEN WINGATE AND UNDERLYING CHINLE FORMATION

Rc / Rm
CONTACT BETWEEN CHINLE FORMATION AND UNDERLYING MOENKOPI FORMATION

AXIS OF MAJOR SHINARUMP CHANNEL AT BASE OF CHINLE FORMATION

AXIS OF MINOR SHINARUMP CHANNEL AT BASE OF CHINLE FORMATION

D / U
FAULT
U, UPTHROWN SIDE; D, DOWNTHROWN SIDE

MINE

Note BASE FROM U. S. G. S. TOPOGRAPHIC QUADRANGLE MAP, WHITE CANYON 4 SW. GEOLOGIC CONTACTS FROM UNPUBLISHED U. S. G. S. MAP BY A. F. TRITES. PROPERTY BOUNDARIES AND POSITION OF MAJOR CHANNELS FROM MAPS OF VARIOUS OPERATORS

FIGURE 2.--GEOLOGY IN THE VICINITY OF THE KARN CLAIMS, SAN JUAN COUNTY, UTAH.

DMEA
RECEIVED DEC 4 1957
DATE | INITIALS | CODE
12/4 | C | 220
" | FILE | 700

224 New Customhouse
Denver 2, Colorado

December 2, 1957

Memorandum

To: J. W. Hasler) W/enclosures, Items 1-6
M. H. Salsbury) " " "

From: DMEA Field Team, Region III

Subject: Docket No. DMEA 4868 (Uranium) John Niedfelt (Karn Claims) San Juan County, Utah

Enclosed is the following material relating to the subject docket:

1. Copy of application for Government assistance in exploration work under the DMEA program.
2. Memorandum of Review by James Paone, USBM.
3. Memorandum of Review by W. P. Williams, USGS.
4. Letter of transmittal of the foregoing to this office, dated November 25, 1957, from the Chairman, Operating Committee, DMEA.
5. Letter from the Administrator to the Applicant dated November 25, 1957, requesting three drilling bids.
6. Routing Control Sheet.

A field examination of the property and a joint report of findings and recommendations pertaining to the Applicant's work proposal are requested.

Your attention is directed to the last paragraph of the Chairman's letter regarding the exclusion of certain claims.

If the field examiners recommend Government participation in the proposed exploration program, please submit eleven extra copies of each map used in the joint report which show the land to be subordinated and the location and extent of recommended work, relative to property boundaries.

The Bureau of Mines' copy of the application should not be returned to this office, but is to be kept for the Examining Engineer's file. The Routing Control Sheet, however, is to be completed, detached from the application, and forwarded to the Executive Officer with the Joint Examination Report. The Survey's copy of the application is to be returned to Mr. Harshman's office.

Original signed by
W. H. KING

W. H. King
Executive Officer

Enclosures

HMC:eh

cc: Sec. Op. Comm. (2)
Harshman W/enclosures, Items 2-5
DMRA/DPC (2)
Docket
Chron.

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
11-25	Knouse	700
11-25	[illegible]	700
11/25	[illegible]	130
"	Johnson	110
"	Hartenberg	100
		25
11/26	[illegible]	220
		700

Mr. E. N. Harshman
Acting Executive Officer
DMEA Field Team, Region III
224 New Customhouse Building
Denver 2, Colorado

NOV 25 1957

Re: Docket No. DMEA-4868 (Uranium)
John Niedfelt
Karn Claims
San Juan County, Utah

Dear Mr. Harshman:

The subject application is referred to Region III Field Team for investigation, a field examination if deemed advisable, and recommendations. You will note from our letter of even date to the Applicant that we have requested that copies of the drilling bids listed in the application be forwarded to you.

Enclosed are copies of memoranda, dated November 12, and 19, 1957, from James Paone, USBM, and W. P. Williams, USGS, respectively, relating to the proposed project. Also enclosed, for the use of the Field Team, are two extra copies of the application.

We note that the Applicant proposed to exclude certain claims and areas of owned claims that adjoin the land proposed for exploration. We see no reason for not excluding owned claims located some distance from the area proposed for exploration. However, the claims Karn Nos. 1, 2, and 9, Phantom Nos. 1 and 3, and any adjoining claims owned or controlled on the northeast of the area to be explored should be included in the application unless there is a valid reason for exclusion. In this connection, we will require recording data for the additional claims that are to be included provided an exploration program is recommended.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (GCS)

Enclosures
APPROVED:

Frank D. Lamb (GCS)
Member, Bureau of Mines

Thor H. Kiilsgaard (GCS)
Member, Geological Survey

FLKnouse/izm 11-25-57 (11-21-57)
cc: Mr. Knouse
Admr.'s Reading File
Operating Committee
THKiilsgaard, 5224

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
11-22	Knouse	700
11-22	Ellis	700
11/25	Selfridge	130
"	Johnson	110
"	Mittendorf	100
11/22	Lamb	130
11/22	Williams	130
11/26	gb	720
		700

NOV 25 1957

Mr. John Niedfelt
Box 595
Grand Island, Nebraska

Re: Docket No. DMEA-4868 (Uranium)
Karn Claims
San Juan County, Utah

Dear Mr. Niedfelt:

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

Mr. E. N. Harshman
Acting Executive Officer
DMEA Field Team, Region III
224 New Customhouse Building
Denver 2, Colorado

In your application you state bids from three drilling contractors were received for the drilling you propose to do. You should forward three copies of each of these bids to Mr. Harshman at the above address and also send one copy of each bid to this office.

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

Sincerely yours,

C. O. Mittendorf

Administrator

FLKnouse/izm 11-21-57
cc: Mr. Knouse
Admr.'s Reading File
DMEA FT Reg. 3 (2)

8623

IN REPLY REFER TO:

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

November 19, 1957

Memorandum

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

From: W. P. Williams, U. S. Geological Survey

Subject: Review of application, DMEA 4868 (uranium), John Niedfelt, Karn Claims, Red Canyon, San Juan County, Utah

The applicant proposes to explore for uranium ore deposits on mining claims located a few miles southeast of the well known Happy Jack Mine. The property involved comprises one full-sized mining claim and fractions of three others. The area, however, that would be eligible geologically and topographically for drilling is less than one full mining claim. The applicant controls land to the west where he has completed some successful drilling. The applicant apparently does not wish to subordinate that ground.

I feel somewhat dubious about the chances for success of the limited proposed drilling project on the small area described. Some of the proposed holes, in addition, are less than 100 feet from property boundaries which would restrict the program even more.

It would be well to refer the application to the Field Team for review and comment. Under the very best of geologic conditions, a small amount of drilling may be warranted, otherwise denial of the application seems indicated.

W. P. Williams

W. P. Williams

OFFICIAL FILE COPY
DMEA
RECEIVED NOV 20 1957

DATE	INITIALS	CODE
11/20	C	220
11/21	~~FEK~~	700
Complete		

E. Ellis

OFFICIAL FILE COPY
DMEA
RECEIVED NOV 13 1957

DATE	INITIALS	CODE
11/13	C	~~220~~
"	Ellis	700
11/14	Knowm	700

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

Date November 12, 1957

DMEA Docket No. 4868
DMEA Contract No.
Commodity Uranium
Name of applicant John Niedfelt
Name of property
Location of property San Juan, Utah
Estimated cost of project $14,811.50

Memorandum

To: Ernest William Ellis, DMEA Member
Uranium Commodity Committee
From: James Paone, Bureau of Mines Member
Uranium Commodity Committee
Subject: Review of Application
(Application, Field Team Report, etc.)

1. Date of subject document: 11/8/57. 2. Date received by reviewer: 11/8/57.

3. Prior reports on this property known to reviewer: Yes ☐ No ☐

4. Prior reports on nearby properties known to reviewer: Yes ☐ No ☐

5. Information available on past production: Yes ☐ No ☐

6. Other pertinent factors known to reviewer: Yes ☐ No ☐

7. Explain items marked yes above:

8. Factors needing special consideration:
   a. Location ☐
   b. Ownership ☐
   c. Evidence of mineralization ☐
   d. Geology ☐
   e. Proposed exploration method ☐
   f. Alternate exploration method ☐
   g. Costs ☒
   h. ☐

9. Action advised:
   a. Obtain information from applicant ☐
   b. Refer to Field Team ☒
   c. Denial ☐
   d. Agree with Field Team ☐
      i. Consult with Mr. _____ at _____ AEC office.
   e. Disagree with Field Team ☐
   f. Suggest alternate plan ☐
   g. Request another examination ☐
   h. Approval ☐

10. Remarks: (Use back of page if necessary)

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

November 8, 1957

Mr. John Niedfelt
Box 595
Grand Island, Nebraska

Dear Mr. Niedfelt:

Subject: DMEA-4868

Your application for exploration assistance, dated November 5, 1957 submitted to our office at Washington, D. C. has been assigned Docket Number DMEA-4868 and referred to the Rare and Miscellaneous Metals Division in the Washington office. Kindly identify all future correspondence relating to your application by this Docket Number.

Sincerely yours,

Allen S. Dakan, Director
Operations Control and
Statistics Division

Copy to:

Region III

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DEFENSE MINERALS EXPLORATION ADMINISTRATION
MARCH 1958
DOCKET 4868

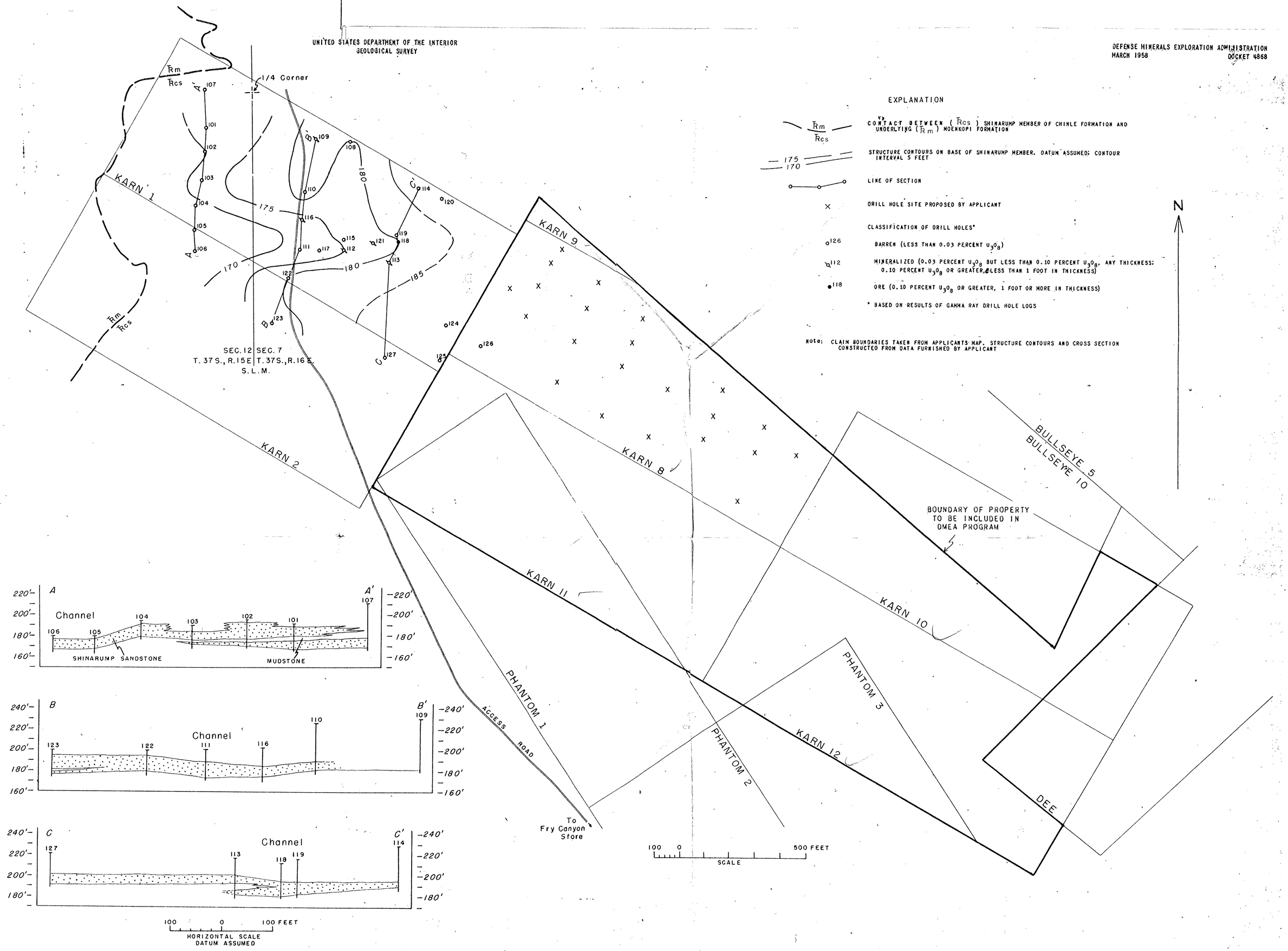


FIGURE 3.--PREVIOUS AND PROPOSED DRILLING ON THE KARN CLAIMS, JOHN NIEDFELT, SAN JUAN COUNTY, UTAH.

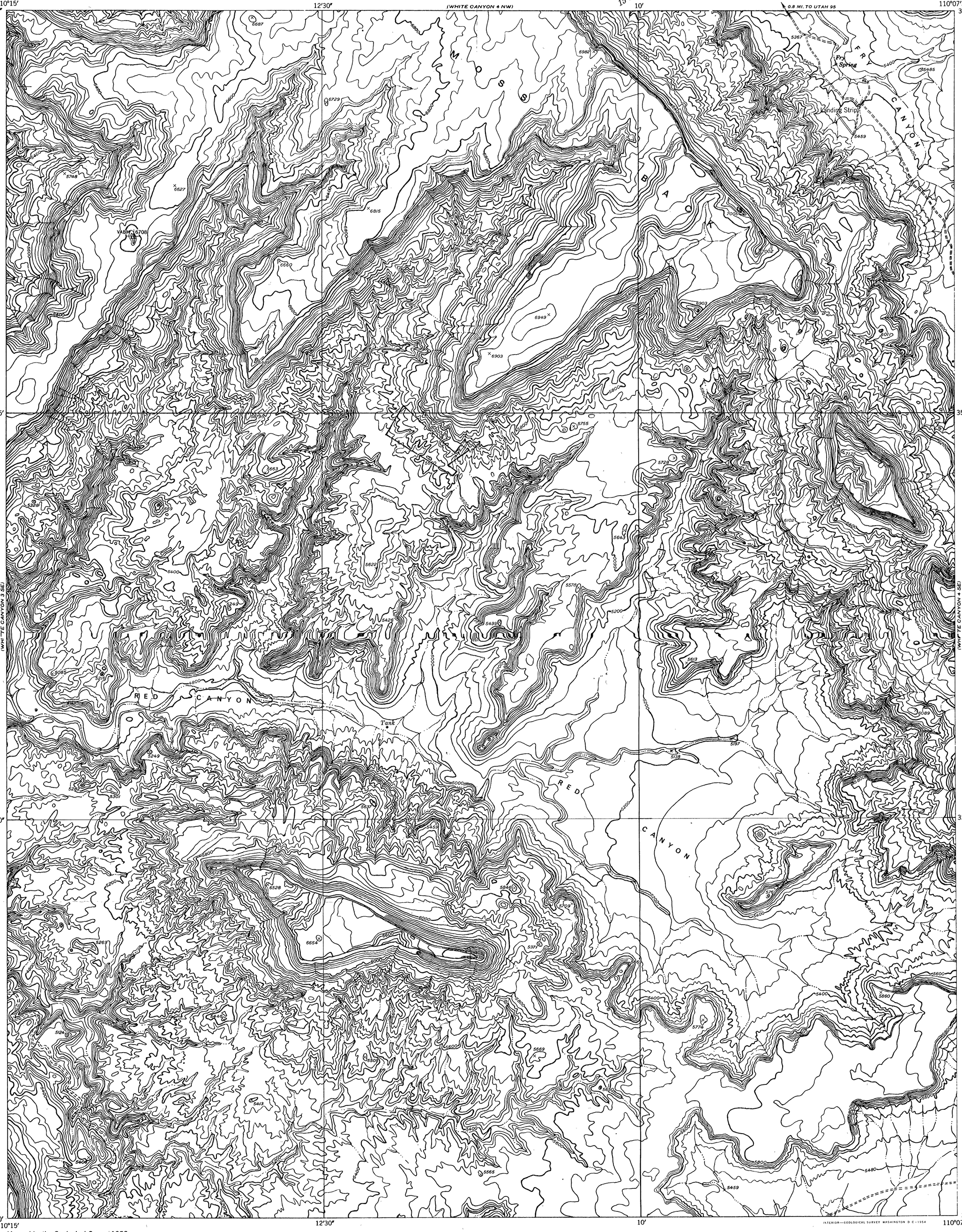
(WHITE CANYON 3 NE)

DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Preliminary edition
Pending completion of 1:62,500 scale
15 minute maps covering this area

WHITE CANYON 4 SW QUADRANGLE
UTAH-SAN JUAN CO.

(WHITE CANYON 4 NE)



INTERIOR—GEOLOGICAL SURVEY WASHINGTON D C-1954

Mapped by the Geological Survey 1952

Topography by multiplex methods from aerial photographs taken 1951

Niedfelt

☐3 - Area to be subordinated to DMEA

15°
TRUE NORTH
MAGNETIC NORTH
APPROXIMATE MEAN DECLINATION, 1952

SCALE 1:24000

1 ½ 0 1 MILE

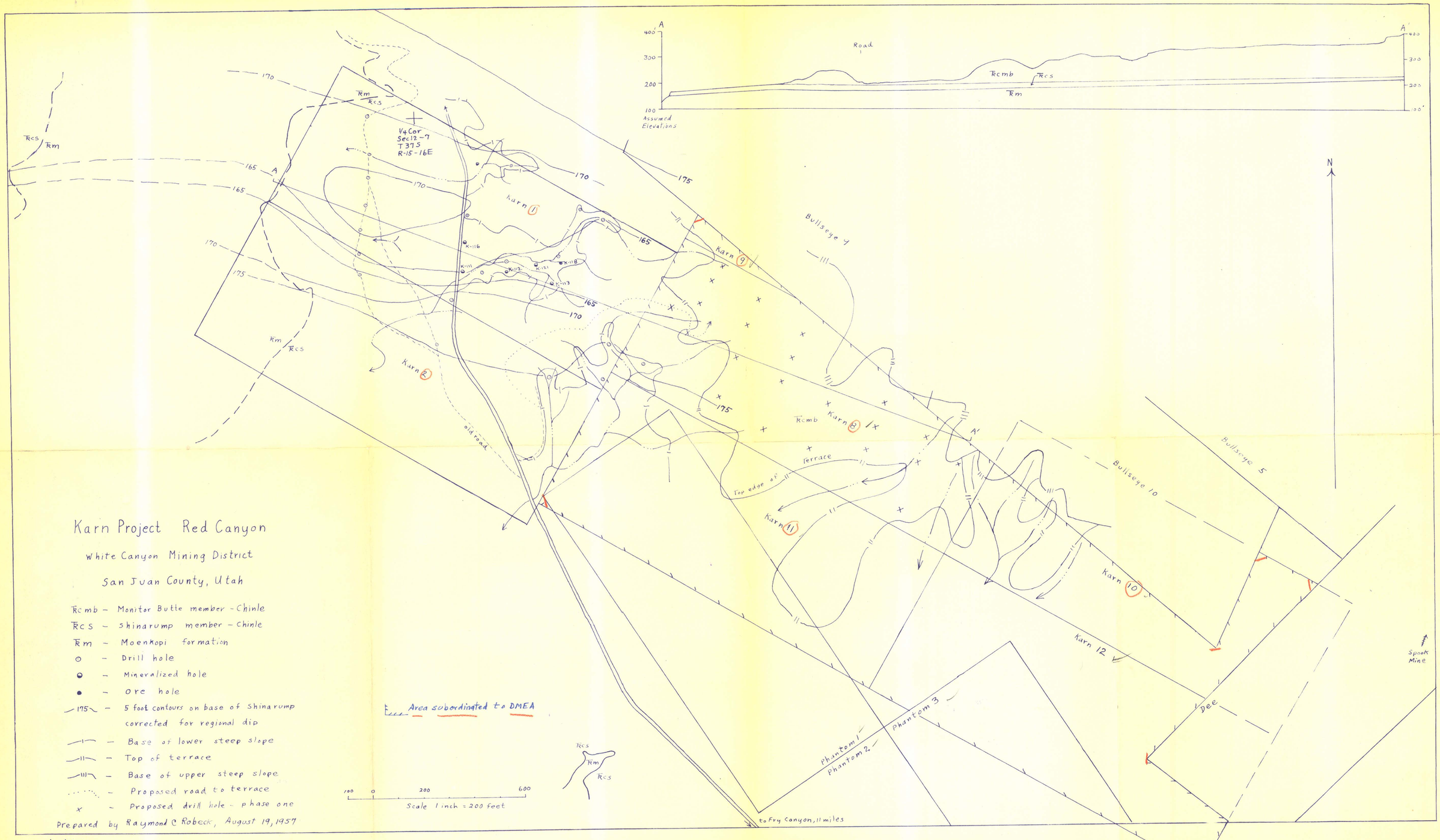
1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

CONTOUR INTERVAL 40 FEET
DATUM IS MEAN SEA LEVEL

ROAD CLASSIFICATION

Improved ═══ Unimproved - - - - -

WHITE CANYON 4 SW, UTAH
N3730—W11007 5/7.5


Karn Project Red Canyon
White Canyon Mining District
San Juan County, Utah
Rcmb - Monitor Butte member - Chinle
Rcs - Shinarump member - Chinle
Rm - Moenkopi formation
Drill hole
Mineralized hole
Ore hole
175 - 5 foot contours on base of Shinarump corrected for regional dip
Base of lower steep slope
Top of terrace
Base of upper steep slope
Proposed road to terrace
Proposed drill hole - phase one
Prepared by Raymond C Robeck, August 19, 1957
Area subordinated to DMEA
Scale 1 inch = 200 feet
Assumed Elevations
Road
Rcmb
Rcs
Rm
V4 Cor Sec 12-7 T 37 S R-15-16E
Karn 1
Karn 2
Karn 8
Karn 9
Karn 10
Karn 11
Karn 12
Bullseye 4
Bullseye 5
Bullseye 10
Phantom 1
Phantom 2
Phantom 3
Pee
Spook Mine
Terrace
Top edge of
old road
to Fry Canyon, 11 miles
N

Niedfelt