DMEA Form 9
Rev. 6/57

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration

OFFICIAL DOCKET FILE Idm-E NO._____ DMEA NO. 5064

Application
- [ ] Denied
- [x] Withdrawn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:

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
- [x] 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
- [ ] 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

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

224 New Customhouse
Denver 2, Colorado
June 20, 1958

OFFICIAL FILE COPY
DMEA
RECEIVED JUN 23 1958
DATE | INITIAL | CODE

Memorandum

To: Secretary to the Operating Committee

From: Alternate Acting Executive Officer, DMEA Field Team, Region III

Subject: Application for DMEA Aid, (Uranium) Charles A. Steen (Aldridge Property) Grand County, Utah

Enclosed are three copies of the subject application in the amount of $137,404.00. One copy is being retained in our file.

The Applicant's property consists of a lease on 18 unpatented lode mining claims which the Applicant proposes to explore by 37,000 feet of drilling in 37 holes in a two stage drilling program.

Three drilling bids accompany the application.

The Assignments of the lease appear to be somewhat complicated which indicates the necessity of a careful review by the legal section.

J. W. Townsend

Form MF–103
Revised Feb. 1957

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

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)

Charles A. Steen
Box 487
Moab, Utah

DMEA
DEPARTMENT OF THE INTERIOR
JUN 19 1958
REGION III
DENVER, COLORADO

RECEIVED JUN 23 DMEA

APPLICANT NOT TO USE THIS BLOCK

Docket Number: DMEA-5064
Date Received: 6-23-58
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
Aldridge		

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

Estimated Cost of Project: $ 137,404.00

LOCATION OF PROPERTY

Name	County	State
Aldridge Property	Grand	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.

10 June 1958
Dated

Charles A Steen
BY *(Signature)*

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.

* * * * *

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DATE	[illegible]	CODE

APPLICATION FOR AID IN AN EXPLORATION PROJECT

Charles A. Steen
Box 487
Moab, Utah

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DMEA
RECEIVED JUN 23 1958

DATE	INITIALS	CODE
	Charles A.	Steen

Moab, Utah

SUPPLEMENTAL SHEET TO FORM MF- 103

1(a)

The project land consists of the following 18 unpatented claims located in Grand County, Utah, and recorded in County Recorder's Office, Moab, Utah:

Township 25 South, Range 18 East, S.L.M.

Claim	Section	Book	Page
Man-O-War #1	25	71	378
Man-O-War #2	"	"	379
Man-O-War #3	"	"	379
Man-O-War #4	"	"	380
Man-O-War #5	"	"	380
Man-O-War #6	"	"	381
D. S. #1	"	73	356
D. S. #2	"	"	356
D. S. #3	"	"	357
D. S. #4	"	"	357
D. S. #5	"	"	358
D. S. #6	"	"	358
Melinda #1	"	"	354
Melinda #2	"	"	355
Melinda #3	"	"	355
Four Studs #1	"	82	527
Four Studs #2	"	"	528
Four Studs #3	"	"	528

1(b)

The area is known as the Aldridge property. The entire area was formerly known as the Glenn Ruby property.

1(c)

The Aldridge property is held by the applicant under terms of a lease assignment dated June 2, 1958 from Moab Drilling Company, M. H. Westbrook et al, a notarized copy of which is attached.

1(d)

The owners of the property, Aldridge and Associates, Durango, Colorado, have reserved a 5 per cent royalty of the gross return from any production from this property.

2(a)

All known exploration work on the Aldridge property consists of two holes drilled by Moab Drilling Company in July and September, 1957, as shown on the enclosed map, "Drill Hole Location Map". On adjoining property, some 3000 feet distant, the Vanadium Corporation of America drilled seven holes on 50 foot centers. Mineralization was noted in some of the core but further information on these seven holes is unavailable to the applicant.

The first hole drilled by Moab Drilling Company on the Man-O-War #5 claim was completed on July 20, 1957. The purpose of this hole was two-fold: (1) to explore for uranium and (2) to perform assessment work. The hole was drilled to a depth of 1120 feet and uranium mineralization was noted at 1105-1106 feet. Geologically, the Man-O-War #5 hole is located approximately 2000 feet down the north flank of the Cane Creek Anticline. This hole is also located 3000 feet northwest of the seven V. C. A. holes. Since the stratigraphic thicknesses were unknown the Man-O-War #5 hole was not cored. A copy of the geologic log is attached.

The second Aldridge property hole was completed on September 24, 1957. The hole is located on the crest of the Cane Creek Anticline in School Section 36, T25S R18E and is 970 feet deep. The hole was cored from 935 feet to 970 feet with an average core recovery of 75 percent. Probing indicated no ore but a trace of mineralization which was verified by slight radioactivity

in some of the core. Solid red brown shale of the Moenkopi formation was encountered at a depth of 965 feet. Conglomerate of the Basal Chinle formation contained considerable carbonaceous material and in two horizons contained strong pyrite mineralization with the carbon. A copy of the geologic log is attached, marked SS-1.

2(b)

The exploratory holes described in item 2(a), above, were drilled solely at the expense of Moab Drilling Company.

2(c)

As far as is known, there has been no production from this property.

2(d)

On the basis of the past exploration work, no ore reserves can be inferred.

2(e)

The claims comprising the Aldridge property cover an area of the north flank of the Cane Creek anticline containing exposures of the Navajo and Kayenta formations. Probably not more than 100 feet of the Navajo sandstone is present on the property. Below the Navajo is the Kayenta formation comprised of fine grained buff to light brown sandstone, some of which has been eroded from the area in Section 36. The Kayenta probably will average 300 feet in thickness. Below the Kayenta, the Wingate formation of buff sandstone is estimated at 300 feet thick, underlain by plus or minus 150 feet of Chinle sandstone/shale. There is a few feet of Shinarump conglomerate at the base of the Chinle. Hole number MOW5-1 was found to contain a considerable thickness, which however, might be due to sloughing of the hole. Hole SS-1 contained only a few feet of Shinarump but was abundant with pyrite and vegetal carbon. The Moenkopi formation of chocolate

brown shale underlies the Shinarump or Chinle formations.

The sediments are slightly arched to form the Cane Creek Anticline, the crest of which appears to cross the school section 36 east and west. No faulting is known in the immediate area.

Any ore that might be discovered on the claims will be of the uraninite-carnotite type typical of the Chinle and Shinarump formations. Outcrops in the surrounding canyons contain uranium and copper oxides associated with carbonaceous material.

2(f)

The possibility of finding an ore deposit on the Aldridge property can be assumed to be greater than that of a rank prospect. As more data has become available concerning uranium deposits of the plateau type, certain guides and loci for ore deposition have been developed which serve as favorable area indicators. These guides are described in U.S.G.S. Professional Paper 300 and are summaried below:

Structural Guides

Low anticlines, domes or other features showing abrupt changes in dip of permeable host rock below an impermeable cap; channels in a relatively impermeable formation below the channel filling sandstone host rock; faults, fractures and shears cutting porous beds; zones of sandstones interfingering with shale; thickened parts of lenses.

Lithologic Guides

Cross-bedded, medium to coarse grained, variable textured sandstone; carbonaceous sandstone and shale; clay pellet conglomerate and sandstone; red shales or siltstones altered to gray, green or white below sandstone; abundant iron and manganese concretions; arkosic rock.

Mineralogic Guides

Yellow or green incrustations or grains; Jarosite; Iron and Manganese carbonates; vanadium, silver or copper; carbon.

Chemical Guides

Unusual quantities of vanadium, arsenic, selenium, molybdenum, zinc, copper, cobalt, nickel, manganese, iron, radium, helium in rocks, soils, surface and subsurface waters, silicification of sandstones and shales enclosing carbonate cemented sandstones.

The criteria listed above in many cases apply to the Aldridge Property. the structure, (Cane Creek Anticline), favorable lithology as indicated from Moab Drilling logs, abundant carbon within the expected producing horizon, and presence of mineralization in two separated holes enhance the probability of discovery. Undoubtably, the Vanadium Corporation of America encountered interesting conditions to justify drilling seven deep holes. The applicant and his technical advisors believe the property has sufficient merit to warrant a thorough exploratory drilling program.

2(g)

Included with this application are:

4 copies	Claims-Photogeology map 1" = 2000'
4 copies	Claims-Drill Hole Location map 1" = 600'
4 copies	Claims-Proposed Drill Hole map 1" = 600'
4 copies	Geologic Log Hole Number MW5-1
4 copies	Geologic Log Hole Number SS-1

3(a)

The applicant, Mr. Charles A. Steen, Moab, Utah or one of his technical staff can guide the D.M.E.A. field examination team.

The property may be reached by taking the Dead Horse Point road from U.S. Highway 160, 10.7 miles north of Moab, Utah; travel 8.8 miles to main junction, take left branch for 4.4 miles; turn right on reservoir access road and travel 2.0 miles to barn; travel 1.5 miles to east line of School

Section 36. The claims are on the ridge to the north of the road.

3(b)

The nearest rail head is Thompsons, Utah about 38 miles from Moab, Utah and about 60 miles from the property. Supplies and living accomodations are available in Moab.

4(a)

The proposed exploration program will consist of an exploratory drilling program in two phases to accomplish approximately 37,000 feet of drilling in 37 holes. Drill sites and drill roads will be prepared from existing access roads using a bulldozer. No blasting will be necessary in this road construction program as a heavy soil mantle will eliminate any rock work.

As shown on the accompanying map marked "Proposed Drill Hole Location", phase I of the program will consist of 18 holes on lines 950 feet apart with holes on 600 foot centers on these lines. As visualized by the applicant, the project engineer can establish the three parallel lines and drill sites using standard survey methods. Immediate bulldozer work can commence to construct the necessary drill sites following the pattern indicated. The first drill sites being completed, drilling equipment can move into the area and commence operations. Holes will be drilled using rotary rigs with 3½" rock bits to within 40 feet of the Chinle-Moenkopi contact. NX coring equipment will then be used to extract core for analysis. The hole depth should average 1000 feet. After completing the drill holes of phase I, short sections of road can be run from the existing drill sites to the staggered hole locations of phase II determined by the engineer. When completed, the 37 drill holes will form a grid pattern on the claims with no hole being closer than 300 feet to any boundary line. Distances between adjacent holes will be 500-600 feet.

4(b)

No access road to the property is necessary.

4(c)

Engineering work and drill site construction could be commenced within 15 days after execution of a contract.

The time for completion of the contract will depend upon factors of the successful bidder on the drilling contract and cannot be determined at this writing.

5(a)

The applicant, Charles A. Steen, Moab, Utah is a graduate geologist with experience in petroleum and mining geology, both in the United States and abroad. He is president and chief geologist of the Utex Exploration Company, Moab, Utah.

6(a)

Bids on the project are enclosed and indicate the prices for the following work:

(1) 37 holes, 1000 feet deep

(2) Coring of approximately 40 feet/hole

(3) Road and drill site construction, 6 mi. of road, 37 drill sites

(4) Geologic-Engineer services

The following cost estimate is submitted in line with the bid data as above:

Drilling Costs

Plug Drilling	
0-200 ft. @ $2.75/ft.	550.00
200-400 ft. @ $2.85/ft.	570.00
400-600 ft. @ $2.95/ft.	590.00
600-800 ft. @ $3.05/ft.	610.00
800-960 ft. @ $3.25/ft.	520.00
Total Plug	$2,840.00

Coring

40 ft. @ $9.00/ft.	$ 360.00
Total (average 1000 ft. hole) =	$3,200.00/hole

Road Construction

Road

6.0 miles; $12.00/hr. - 24 hrs. =	288.00

Drill Sites

37 locations, 18 hrs. =	216.00
Total Road Construction	$504.00

Geologic, Chemical & Engineering Services

37,000 feet @ $.50/ft.	$18,500.00

Cost Estimate Summary

Drilling Costs - 37 holes @ $3200.00/hole	$118,400.00
Road Construction	504.00
Geology, Chemical Assaying, Engineer Services	18,500.00
Total Estimated Cost	$137,404.00

6(b)

Not Applicable

6(c)

Not Applicable

6(d)

Not Applicable

6(e)

Not Applicable

6(f)

Not Applicable

6(g)

Not Applicable

Charles A. Steen Moab, Utah

7(a)

The applicant is prepared to furnish his share of the project cost.

7(b)

The applicant will furnish all of his share of the cost by providing money.

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DATE

ASSIGNMENT

WHEREAS, on the 5th day of November, A. D., 1956, D. H. BYRD and MATTIE CARRUTH BYRD, husband and wife, of 6909 Vassar Drive, Dallas, Texas; ALVIE F. FIELDING and BARBARA L. FIELDING, husband and wife, of Reservoir Hill, Durango, Colorado; and GEORGE T. ALDRIDGE and ELIZABETH K. ALDRIDGE, husband and wife, of 1919 East Lawn Avenue, Durango, Colorado, as Lessors, and CHARLES A. STEEN doing business as MOAB DRILLING COMPANY, of Moab, Utah, as Lessee, entered into a "Mining Lease"; and

WHEREAS, said "Mining Lease" was recorded May 3, 1957 in Book 84 pages 523-533 Grand County Recorder's Office, Grand County, Utah; and

WHEREAS, it is the intention of Charles A. Steen doing business as Moab Drilling Company to assign all of his interest in said "Mining Lease" to Mary Hope Westbrook;

NOW, THEREFORE, in consideration of the sum of One Dollar ($1.00) and other valuable consideration, receipt of which is hereby acknowledged, we, the undersigned, Charles A. Steen and Minnie Lee Steen, husband and wife, do hereby sell, assign, transfer, set over and convey all of our right, title and interest in and to the "Mining Lease" hereinabove described to Mary Hope Westbrook.

IN WITNESS WHEREOF, we have hereunto set our hands and seals this 2nd day of June, A. D, 1958.

Charles A. Steen

Charles A. Steen

Minnie Lee Steen

STATE OF UTAH)
: ss.
COUNTY OF GRAND)

On the 2nd day of June, A. D., 1958, personally appeared before me Charles A. Steen and Minnie Lee Steen, husband and wife, the signers of the above instrument, who acknowledged to me that they executed the same.

My commission expires:

Notary Public -- Residing at Moab, Utah

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DATE CODE

ASSIGNMENT

WHEREAS, on the 5th day of November, A. D., 1956, D.H. BYRD and MATTIE CARRUTH BYRD, husband and wife, of 6909 Vassar Drive, Dallas, Texas; ALVIE F. FIELDING and BARBARA L. FIELDING, husband and wife, of Reservoir Hill, Durango, Colorado; and GEORGE T. ALDRIDGE and ELIZABETH K. ALDRIDGE, husband and wife, of 1919 East Lawn Avenue, Durango, Colorado, as Lessors, and CHARLES A. STEEN doing business as MOAB DRILLING COMPANY, of Moab, Utah, as Lessee, entered into a "Mining Lease"; and

WHEREAS, said "Mining Lease" was recorded May 3, 1957 in Book 84 pages 523-533 Grand County Recorder's Office, Grand County, Utah; and

WHEREAS, the said Charles A. Steen doing business as Moab Drilling Company has heretofore assigned his interest in said "Mining Lease" to Mary Hope Westbrook; and

WHEREAS, it is the intention of Mary Hope Westbrook to assign all of her interest in said "Mining Lease" to Charles A. Steen;

NOW, THEREFORE, in consideration of the sum of One Dollar ($1.00) and other valuable consideration, receipt of which is hereby acknowledged, I, the undersigned, Mary Hope Westbrook, do hereby sell, assign, transfer, set over and convey all of my right, title and interest in and to the "Mining Lease" hereinabove described to Charles A. Steen.

IN WITNESS WHEREOF, I have hereunto set my hand and seal this second day of June, A. D., 1958.

Mary Hope Westbrook
Mary Hope Westbrook

STATE OF UTAH)
: ss.
COUNTY OF GRAND)

On the 2nd day of June, A. D., 1958, personally appeared before me Mary Hope Westbrook, the signer of the foregoing instrument, who duly acknowledged to me that she executed the same.

Notary Public
Residing at: Moab, Utah

My commission expires:
10-27-61

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1956

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Apr 20 9 36 AM '57
Entry No. 282183
Filed May 3 1957 5 P.M.
Recorded Book 84 Page 523-533
Fee $18.50
Esther Somerville
Esther Somerville
Grand County Recorder

MINING LEASE

THIS AGREEMENT, made and entered into in duplicate this 5 day of November, 1956, by and between D. H. BYRD and MATTIE CARRUTH BYRD, husband and wife, of 6909 Vassar Drive, Dallas, Texas; ALVIE F. FIELDING and BARBARA L. FIELDING, husband and wife, of Reservoir Hill, Durango, Colorado; and GEORGE T. ALDRIDGE and ELIZABETH K. ALDRIDGE, husband and wife, of 1919 East Lawn Avenue, Durango, Colorado, as Lessors, and CHARLES A. STEEN doing business as MOAB DRILLING COMPANY, of Moab, Utah, as Lessee;

W I T N E S S E T H

That in consideration of the mutual covenants and agreements herein set forth to be kept and performed by the parties, and in consideration of the sum of Ten Dollars ($10.00) paid by each of the parties to the other, the parties hereto mutually covenant and agree as follows:

I.

Lessors do hereby demise, let and lease to Lessee all of their right, title and interest in and to the following described lode mining claims and mining property situated in Grand County, Utah, to-wit:

NAME OF CLAIM	BOOK RECORDED	PAGE
Four Studs #1	82	527
Four Studs #2	82	528
Four Studs #3	82	528
Melinda #1	73	354
Melinda #2	73	355
Melinda #3	73	355
D.S. #1	73	356
D.S. #2	73	356
D.S. #3	73	357
D.S. #4	73	357
D.S. #5	73	358

D.S. #6	73	358
Man-o-War #1	71	378
Man-o-War #2	71	379
Man-o-War #3	71	379
Man-o-War #4	71	380
Man-o-War #5	71	380
Man-o-War #6	71	381

Together with all and singular the minerals, lodes and veins within the lines of said mining claims, and all dips and spurs and all rights and privileges and appurtenances thereto appertaining or in any wise belonging. Also together with any and all right, title and interest hereafter acquired by Lessors, or by any one for the benefit of Lessors, in and to said mining claims, or the lands covered thereby, whether under and by virtue of said Notices of Location or any other Notices of Location or Amended Notices of Location or otherwise, expressly excepting therefrom oil and gas.

TO HAVE AND TO HOLD the same unto Lessee for a term of one year commencing on the date hereof and so long thereafter as the terms, covenants and conditions required of Lessee to be performed as in this agreement set forth are strictly complied with.

II.

Lessee shall have the exclusive right and privilege of entering upon said leased premises and taking immediate possession thereof for the purpose of exploring, prospecting, developing, mining, removing, shipping, treating, selling and disposing of uranium ores, vanadium, copper and other related and associated minerals and all radio-active elements and compounds and all minerals belonging to Lessors or to which they may have a right except oil and gas, whatsoever, upon or underlying said leased premises and the right and

privilege to construct all drilling rigs, works, buildings, dwellings, plants, ditches, reservoirs, roads, railways, structures, machinery, mills and appliances as may be necessary or convenient for the mining, preparation and marketing of the minerals, and to use so much of the surface of the leased premises as reasonably may be required for the exercise of the rights and privileges herein granted.

All work performed by Lessee upon and within the leased premises shall be done in accordance with good mining practices.

III.

Lessee shall allow duly authorized agents or representatives of Lessors, from time to time, to enter upon and into all parts of said leased premises for the purpose of inspection at such reasonable times as shall not interfere with the regular operation of the leased premises. It is understood that Lessee shall assume no responsibility for the safety of the agents or representatives of Lessors when and while upon the leased premises for such purposes.

IV.

Lessee shall not mix any ores from the demised premises with the ores, minerals or products therefrom derived from any other property.

V.

Lessee, in the operation and development of the property hereby leased, shall be subject to all applicable Federal enactments, laws of the State of Utah, and all Federal or State rules and regulations regarding Employees' Liability, Workmen's Com-

pensation and Workmen's Old Age and Unemployment Insurance, and said Lessee covenants and agrees to indemnify and hold harmless the Lessors from and against the payment of any and all damages, claims, costs and expenses due to the existence of such enactments, and of any and all claims, costs, and expenses in connection therewith under any claim or subrogation provided for by said enactments or otherwise arising out of any operation conducted under this Lease by Lessee; and the Lessee shall further indemnify and hold harmless the Lessors from and against all and any damages, claims, costs and expenses arising out of damage to property or any injuries to or death of the employees of the Lessee or any other person whomsoever other than the Lessors and those acting under them, where such injury, death or damage occurs because of or in connection with the use, operation or development in any manner of the property hereby leased by Lessee, whether such claims are based upon a right conferred by the common law or by statute.

VI.

Lessee shall pay and satisfy all claims for materials, supplies or labor in connection with the working of said leased premises and shall keep said leased premises free of liens or encumbrances of any and every kind, except such as might result from the acts of others than the Lessee, his employees or those in privity with him.

VII.

Lessee agrees that he will perform or make improvements upon said mining claims which will satisfy the assessment work required for the protection of said mining claims for each year during the terms as provided, however, the Lessee shall not be

required to make any expenditure with respect to annual assessment labor in the event Lessee shall surrender his rights and privileges hereunder prior to June 1st of the year in which the work is to be performed.

VIII.

Lessors shall pay all Federal, State and County taxes of any kind assessed against Lessors on account of their receipt of royalties provided herein to be paid to Lessors by Lessee. Lessors shall pay all State and County tax assessments upon the leased premises, except as hereinafter otherwise provided. Lessee shall pay all State and County ad valorem tax assessments upon any and all structures and other improvements, machinery, equipment, tools, supplies and personal property whatsoever placed upon the leased premises by the Lessee. Lessee shall pay State and County ad valorem taxes, if any, according to his interest in same as may be assessed upon the leased premises or the production therefrom covered by this Lease at the time of the assessment. Lessors shall pay such ad valorem taxes on their royalty interest in the said leased premises or the production therefrom. In the event the ad valorem taxes on said royalty interest are included with the assessment against Lessee, then Lessee may pay such assessments and be reimbursed by Lessors for their proportion upon receipt of billing from Lessee.

IX.

This lease is made upon the condition that Lessee shall perform all of the covenants and agreements herein set forth to be performed by him, and if, at any time, there shall be any

defaults on the part of the Lessee due to other than acts of God, strikes, title disputes, storms, floods, a public enemy, or unusual casualty, or other cause entirely beyond Lessee's control, and if such default shall continue for a period of thirty (30) days after written notice thereof being given to the Lessee, then and in such event this Lease shall terminate and the leased premises shall revert to the Lessors, and the Lessee shall deliver to the Lessors the leased premises.

X.

In the event of termination of this agreement for any reason whatsoever, the Lessee agrees to furnish Lessors with copies of all drilling and sampling data, reports of metallurgical tests, a map accurately showing the development work performed by the Lessee upon the leased mining claims, and copies of any and all geological maps relating to said leased premises prepared by Lessee.

XI.

It is mutually understood and agreed that Lessee may at any time surrender and terminate this Lease upon giving the Lessors ten (10) days notice in writing and paying to Lessors all royalties and other sums due and payable to Lessors to the effective date of such surrender, PROVIDED HOWEVER, that in order to be relieved of the performance of the assessment labor for any year during the terms of this agreement the effective date of any surrender by Lessee must be on or prior to June 1st of the year in which the surrender notice is given.

XII.

Lessee shall pay on all ores extracted and shipped or sold from the leased premises a royalty of five per cent (5%) of the

gross returns (to be computed as hereinafter set out) from the sale of all minerals or ores extracted hereunder from the leased premises, PROVIDED EXPRESSLY that, where such minerals or ores are sold other than f.o.b. mine, there shall be deducted from the gross purchase price paid by the mill or other purchaser for such minerals or ores the costs of transportation thereof from mine to point of sale to the extent that such transportation costs shall not be paid by purchaser or that such transportation costs shall not be covered by an allowance or other reimbursement not included in the computation as a part of the gross purchase price. No exploratory or development allowance which shall be paid to Lessee by any governmental agancy as to the leased deposits shall be deemed to constitute a portion of the gross purchase price for the purpose of determining royalties payable hereunder but any premium or bonus payments paid to Lessee in connection with the production and sale of minerals or ores produced hereunder and based upon the quantity and/or quality of the minerals and ores so produced, shall be deemed to be part of the gross purchase price and shall be included as part of the gross purchase price in the computation of royalties to the extent that payment of royalties on such bonus or premium payments is not contrary to law or government regulation.

Payments aforementioned shall expressly include, and shall not be in addition to, any royalty or other payment or payments with respect to production payable to any other party or parties under any reservation, assignment or conveyance heretofore made involving said mining claims or ores or minerals extracted therefrom.

Any amount due and payable to Lessors as royalty on any shipment of ore extracted and shipped or sold hereunder shall be

paid by Lessee to Lessors on or before the 15th day of the month next succeeding the calendar month during which Lessee shall have received payment for such shipment.

XIII.

It is mutually understood and agreed that in case of forfeiture, surrender or other termination of this Lease, all underground timbering supports, shaft linings and other fixtures necessary for the preservation of any mines, and all rails or head frames upon or in the said leased premises shall be and remain a part of the realty and shall revert to the Lessors without further consideration or compensation.

It is further understood and agreed that all personal property of Lessee located within or upon the leased premises, and all buildings, machinery, equipment and tools, (other than the fixtures to become the property of the Lessors as above provided) shall in case of forfeiture, surrender or other termination of this Lease, remain upon the leased premises, and be held as a guarantee in lieu of bond until all terms of this Lease with respect to payment of royalties and the preservation of the property shall have been complied with. Upon such compliance with the performance of such conditions and obligations the Lessee shall be entitled to, and may, within ninety (90) days after such termination of this Lease or within such extension of time as may be granted by Lessors, remove from the leased premises such personal property and improvements, other than those items which are to remain the property of the Lessors as above provided.

XIV.

Lessee shall occupy and hold as property of the Lessors all fractions, if any, which he may discover to exist between any of

the leased mining claims and which he shall locate under the mining laws, and the Lessee shall have the right and privilege of working such fractions, subject only to the payment of royalties provided herein.

XV.

Any notice contemplated herein to be served upon Lessee shall be in writing and shall be sufficiently given if deposited in the United States mail, postage prepaid and registered, and addressed as follows:

Moab Drilling Company
Attention: Charles A. Steen
P.O. Box 487
Moab, Utah

or at such other address as Lessee may from time to time designate by written notice to Lessors.

Any notice contemplated herein to be served upon Lessors shall be in writing and shall be sufficiently given if deposited in the United States mail, postage prepaid and registered, and addressed as follows:

George T. Aldridge
1919 East Lawn Avenue
Durango, Colorado

D. H. Byrd
1110 Tower Petroleum Bldg.
Dallas 1, Texas

or at such other address as Lessors may from time to time designate by written notice to Lessee.

XVI.

The provisions hereof shall inure to the benefit of and shall be binding upon the successors in interest, legal representatives and assigns of the respective parties hereto, but no party hereto shall be chargeable with notice of any assignment or conveyance until such party shall have been furnished with written notice

thereof and with a duplicate certified or photostat copy of the instrument of assignment or conveyance.

IN WITNESS WHEREOF, the parties hereto have executed these presents the day and year first above written.

MOAB DRILLING COMPANY

By _____
Charles A. Steen

_____
D. H. Byrd

_____
Mattie Carruth Byrd, his wife

_____
Alvie F. Fielding

_____
Barbara L. Fielding, his wife

_____
George T. Aldridge

_____
Elizabeth K. Aldridge, His wife

STATE OF UTAH)
: ss
COUNTY OF GRAND)

On the 28th day of November 1956, personally appeared before me Charles A. Steen, one of the signers of the above and foregoing instrument, who duly acknowledged to me that he executed the same.

_____
Notary Public:
Residing at Moab, Utah.

My Commission Expires:
1-19-59

STATE OF TEXAS)
: ss
COUNTY OF Dallas)

On the 10 day of November 1956, personally appeared before me D. H. Byrd and Mattie Carruth Byrd, husband and wife, who after being duly sworn, acknowledged to me that they executed the above and foregoing instrument.

_____
Notary Public, residing at: Dallas, Tex

My Commission Expires: 6-1-57.

STATE OF COLORADO)
: ss
COUNTY OF La Plata)

On the 03 day of Nov. 1956, personally appeared before me Alvie F. Fielding and Barbara L. Fielding, husband and wife, and George T. Aldridge and Elizabeth K. Aldridge, husband and wife, all of whom being duly sworn, did acknowledge to me that they executed the above and foregoing instrument.

Notary Public: Dan Smith
Residing at: Durango, Co

My Commission Expires:
Mar. 23, 1959

Entry No. 191816 52
Recorded 4-20-57 At 9 30 a M. Book 66 Page 62
FEE PAID
$ 18.50 By
ARVILLA E. WARREN.
San Juan County Recorder
Deputy

CONTRACT DRILLING BID FORM

DRILLING:

Bid price is for hole completed to 5 ft. below the lower ore horizon contact, cleaned for probing. Coring, when required, shall be at a minimum size of NX.

ROCK BIT				CORING			
0 -	200 ft.	@ $ 2.75	per ft.	0 -	200 ft.	@ $ 5.50	per ft.
200 -	400 ft.	@ $ 2.85	per ft.	200 -	400 ft.	@ $ 6.00	per ft.
400 -	600 ft.	@ $ 2.95	per ft.	400 -	600 ft.	@ $ 6.50	per ft.
600 -	800 ft.	@ $ 3.05	per ft.	600 -	800 ft.	@ $ 7.50	per ft.
800 -	1,000 ft.	@ $ 3.25	per ft.	800 -	1,000 ft.	@ $ 9.00	per ft.
1,000 -	1,100 ft.	@ $ 3.45	per ft.	1,000 -	1,100 ft.	@ $11.00	per ft.
1,100 -	1,200 ft.	@ $ 3.65	per ft.	1,100 -	1,200 ft.	@ $13.00	per ft.
Standby		$ 25.00	per hr.				

ACCESS ROAD CONSTRUCTION:

Bulldozer with Operator	D-6 Cat	$ 12.00 per hr.
Compressor & Jackhammer & 1 man	W/125 cfm	$ 7.38 per hr.

GEOLOGICAL-ENGINEERING SERVICES:

Logging & report on core and/or cuttings
~~Gamma-ray logging~~
Location of holes
Survey location of hole with collar elevation
Splitting core; 1/2 for analysis, 1/2 for storage
Ore reserve calculation, including map
Geologic information of adjacent properties
All above included $.50 per ft.

PROPERTY LOCATION

This property is located 10.5 miles southwest of Moab and may be easily reached in one hour. The claims are in Sec. 25, T25S, R19E, adjoining sec. 36 to the north.

HOLE DEPTH & NUMBER

Approximately 30 holes to be drilled in sandstone to a depth of 1050 feet.

All lost circulation material will be paid by the client @ cost plus 10%.

MOAB DRILLING COMPANY

BY A. T. Tudlow
Comptroller

FILE COPY
OCT 29 1958

CONTRACT DRILLING BID FORM

DRILLING:

Bid price is for hole completed to 5 ft. below the lower ore horizon contact, cleaned for probing. Coring, when required, shall be at a minimum size of NX.

ROCK BIT		CORING	
0 - 200 ft.	@ $ 2.50 per ft.	0 - 200 ft.	@ $3.50 per ft.
200 - 400 ft.	@ $ 2.75 per ft.	200 - 400 ft.	@ $3.75 per ft.
400 - 600 ft.	@ $ 3.00 per ft.	400 - 600 ft.	@ $4.50 per ft.
600 - 800 ft.	@ $ 3.50 per ft.	600 - 800 ft.	@ $5.00 per ft.
800 - 1,000 ft.	@ $ 4.00 per ft.	800 - 1,000 ft.	@ $6.00 per ft.
1,000 - 1,100 ft.	@ $ 4.50 per ft.	1,000 - 1,100 ft.	@ $6.50 per ft.
1,100 - 1,200 ft.	@ $ 5.00 per ft.	1,100 - 1,200 ft.	@ $ 7.00 per ft.

Standby time ~~$16.00~~ per hr.

ACCESS ROAD CONSTRUCTION:

Bulldozer with Operator	$12.00 per hr.
Compressor & Jackhammer	$ 6.00 per hr.

GEOLOGICAL-ENGINEERING SERVICES:

Logging & report on core and/or cuttings
Gamma ray logging
Location of holes
Survey location of hole with collar elevation
Splitting core; 1/2 for analysis, 1/2 for storage
Ore reserve calculation, including map
Geologic information of adjacent properties

All above included $

PROPERTY LOCATION

This property is located 30.5 miles southwest of Moab and may be easily reached in one hour. The claims are in Sec. 25, T25S, R18E, adjoining sec. 36 to the north.

HOLE DEPTH & NUMBER

Approximately 30 holes to be drilled in sandstone to a depth of 1050 feet.

Geological Bid under separate bid

SWANK DRILLING EXPLORATION CO.

G.W. Swank

GEOLOGICAL SERVICE — MOAB, UTAH

MAY 20, 1958

TO: MR. G. W. SWANK, DRILLING CONTRACTOR, MOAB, UTAH
FROM: WM. DEAN MC DOUGALD, GEOLOGICAL SERVICES

THE FOLLOWING IS A ROUGH ESTIMATE ON THE COSTS FOR THE THIRTY DRILL HOLE PROGRAM INCLUDING HOLES WITH AROUND 1,000 FOOT DEPTH, WITH FIVE HOLES CORING SECTIONS OF 60' EACH AND THE BALANCE OF THE HOLES AMOUNTING TO TWENTY-FIVE HOLES WITH 40' FEET CORING EACH:

GEOLOGICAL-ENGINEERING SERVICES

THE FOLLOWING ARE INCLUDING IN THE ESTIMATE (A)

- LOGGING & REPORT ON CORE AND/OR CUTTINGS
- LOCATION OF HOLES
- SURVEY LOCATION OF HOLE WITH COLLAR ELEVATION
- SPLITTIGN CORE; ½ FOR ANALYSIS, ½ FOR STORAGE
- ORE RESERVE CALCULATION, INCLUDING MAP
- WEEKLY OR MONTHLY PROGRESS REPORTS ON ENGINEERING AND GEOLOGICAL DATA
- GEOLOGICAL INFORMATION OF ADJACENT PROPERTIES

(A) BASED ON A FOUR (4) DAY PER WEEK REQUIREMENT, INCLUDING FIELD AND OFFICE WORK, UP TO 9 HOURS PER DAY WITH TRAVEL TIME; THIS DOES NOT INCLUDE GAMMA RAY LOGGING...PER MONTH..... $1,000.00

(B) BASED ON A 5 TO 6 DAY WEEK, INCLUDING ALL OF THE ABOVE AS OUTLINED FOR (A).....PER MONTH.....$1250.00

CONTRACT GAMMA RAY LOGGING ON 1,000 FOOT HOLES WILL COST APPROXIMATLEY $200.00 PER HOLE ON ONE SCHEDULE, OR AROUND $2800.00 PER MONTH ON THE OTHER SCHEDULE. THE OPERATOR CAN CHOOSE THE SCHEDULE TO FIT HIS SCHEDULE OF COMPLETION. THE ONLY CONTRACT GAMMA RAY CONTRACTOR IN THIS AREA IS THE CENTURY GEOPHYSICAL CORPORATION, WITH OFFICES IN TULSA, OKLAHOMA, GRANTS, NEW MEXICO AND GRAND JUNCTION, COLORADO. CENTURY ALSO GIVES AN ELECTRIC LOG (EITHER SELF POTENTIAL OR RESISTIVITY) AT NO ADDITIONAL COSTS TO THE OPERATOR. THE ELECTIR LOGS ARE VERY USEFUL FOR CORRELATION AND GEOLOGICAL INFORMATION. CENTURY SERVICES ARE VERY GOOD AND COMPLETE, AND CONFIDENTIAL.

NOT INCLUDED IN THE CONTRACT BID FORM SUBMITTED TO ME ARE THE FOLLOWING ITEMS:

NX CORE BOXES; THE 30 HOLE PROGRAM WOULD NEED 130 BOXES AT A COST OF 1.30 EACH..... $169.00

CHEMICAL ASSAYING OF CORE; THE THIRTY HOLE PROGRAM WOULD HAVE TO ESTIMATE THIS ON A BASIS OF TWO ASSAYS PER HOLE, AT A COST FOR U308 AND V205 ONLY ON THE BASIS OF $4.00 PER SAMPLE, OR 60 X 4.00.....$240.00

THE ABOVE IS SUBMITTED FOR YOUR CONSIDERATIONS WHEN ESTIMATING OR BIDDING THE ABOVE CONSIDERED JOB.

SINCERELY YOURS,

Wm. Dean Mc Dougald

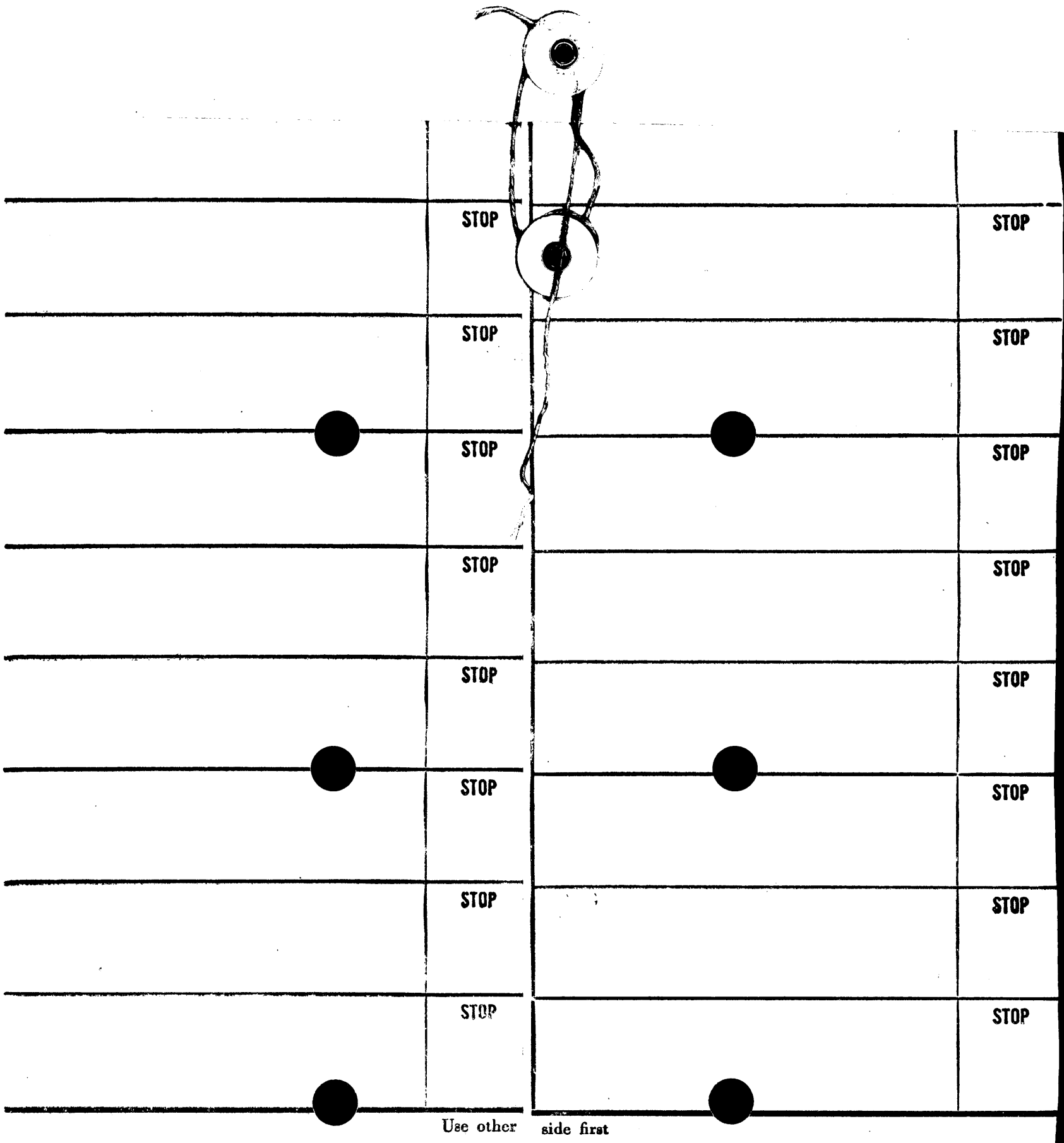
WM. DEAN MC DOUGALD,
MANAGING GEOLOGIST

WDM/WDM

OFFICIAL FILE COPY
DMEA
RECEIVED JUL 28 '56
DATE T

INSTRUCTIONS FOR USE

1. Identify Agency of Addressee
2. Void Previously Used Block
3. Write Clearly
4. Send Surplus Envelopes to Supply Room for Reissue



Use other side first

U.S. Government Messenger Envelope

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

NAME (OR TITLE) OF ADDRESSEE, AGENCY, ORGANIZATIONAL UNIT, ADDRESS, AND ROOM		NAME (OR TITLE) OF ADDRESSEE, AGENCY, ORGANIZATIONAL UNIT, ADDRESS, AND ROOM	
m. W. N. Chamberlain D. M. E. A	STOP		STOP
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Use other side

se STOP only when messenger service between Government buildings in Washington, D. C., is required or wherever a STOP system is used. Your mail room has STOP information.

Ore	
Mineralization	
Blank	X

MOAB DRILLING COMPANY

GEOLOGIC LOG

HOLE No. ALDRIDGE SCHOOL SEC. No. 1

CONTRACT

CLAIM SCHOOL SECTION 36

GROUP ALDRIDGE

CO-ORDS: N.

E.

DATE 9-24-57

LOGGED BY R.R.M.

COLLAR ELEV.

TOTAL DEPTH 970.0

Sample No.	From	To	Thickness	Assay Rad	Assay Wet	W't'd. Grade	Mtl.	Color	Tex.	REMARKS
	0.0	324	324				SS	BUFF LT. BR.	F	KAYENTA
	324	634	310				SS	BUFF	F	WINGATE
	634	805	171				SS-SH	LT. BR.	F-M	CHINLE (RED)
	805	965	165				CONGL. SS-SH	GRY-GR.	F-M-C	CHINLE (GREEN)
	965	970	5				SS-SH	CHOC BR	F	MOENKOPI

Remarks:

PROBE RESULTS NIL

+1.5' CORRECTION

CARBON + PYRITE FROM 936' THRU 945' - WK COUNT

CORE RECOVERY From	To	Ft.	%	PROBE RESULTS At	C	S	At	C	S
935	955	16.5	82		V				
955	970	10	66			<			

O'LEY CO. L 2734

Ore	
Mineralization	✓
Blank	

MOAB DRILLING COMPANY

GEOLOGIC LOG

CONTRACT UTEX

CLAIM Man-O-War #5

GROUP Aldridge & Associates

CO-ORDS: _____ N.

_____ E.

COLLAR ELEV. 5,695 (aneroid)

DATE 6/20/57

LOGGED BY R.K. Wyant

TOTAL DEPTH 1120 ft.

HOLE No. MW5-1

Sample No.	From	To	Thickness	Assay Rad	Assay Wet	W't'd. Grade	Mtl.	Color	Tex.	REMARKS
			GEOLOGIC SECTION							
		NAME		INTERVAL				THICKNESS		
		Navajo		0 - 120'				120'		
		Kayenta		120' - 475'				350'		
		Wingate		475' - 775'				300'		
		Chinle		775' - 940'				165'		
		Shinarump		940' - 1110'				170'		
		Moenkopi		1110' -						

Remarks:

Probed to - 1120 ft.
Correction - +8.0 ft.
No core
Cutting samples taken at 5' intervals from 460' to 1120'.

CORE RECOVERY From	To	Ft.	%	PROBE RESULTS At	C	S	At	C	S
				1110	17	5			
				1109	18	5			
				1108	5	5			
				1107	10	5			
				1106	22	5			
				1105	80	5			
				1104	12	5			
				1103	4	5			
				1102	10	5			
				1101	8	5			
				1075	10	5			

EXTRA COPY
DMEA
RECEIVED JUN 27 1958

DATE	INITIALS	CODE

June 26, 1958
Re: DMEA 5064
Charles A. Steen
Aldridge Property
Grand County, Utah
$137,404.00 - Uranium

Memorandum

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

From: N. E. Nelson, U. S. Geological Survey

Subject: Review of application

The applicant requests assistance in testing, by 37 one thousand-foot holes, the Shinarump-Moenkopi contact zone on the north flank of the Cane Creek anticline.

One hole has been drilled on the property and one has been drilled 950 feet south of the property. A seven hole cluster was drilled 3,400 feet to the southeast of the property by the Vanadium Corp. of America. In the hole on the property (Man-O-War 5, No. 1), uranium mineralization was noted at 1,105-1,106 feet. In the second hole SS-1, a trace of mineralization verified by slight radioactivity showed in some of the core. Considerable carbonaceous material with strong pyrite mineralization was found in the basal Chinle conglomerate.

No exact information is given concerning the VCA drilling, but mineralization was noted in some of the core. Testing for oil in the Cane Creek anticlinal structure was in progress in the general vicinity of the property during early May 1958.

Two and a half miles to three miles west of the property several miles of the Shinarump-Moenkopi contact zone is exposed by erosion in Hell Roaring Canyon and about the same distance to the south and southwest, miles of the contact zone show in the rim of Mineral Canyon. V. C. Kelley's 1955 Tectonic Map shows the location of several (8) Shinarump type deposits in Mineral Canyon and the canyon of Green River, about 6 miles to the west of the property. Of the importance of the showings, I have no information.

Except for the fact that the VCA drilled 7 holes on 50-foot centers about on the crest of the Cane Creek anticline, there is no apparent specific reason that might prompt a continuation of the deep drilling. General purpose drilling could be done with shorter holes in the nearby canyons. Presumedly the applicant expects to do his own drilling, and the cost to him might not be great. The reasoning behind this hunch of the applicant should make interesting reading.

Referral of the application to the Field Team is recommended.

N. E. Nelson

N. E. Nelson

Copy to: DMEA (3)
C. I. Gardner
James Paone, 3643
Docket file
Chron. file
Director's reading
Branch reading

NENelson:pbb
G-MD: 6/26/58

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Re: DMEA 5064
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No exact information is given concerning the VCA drilling, but mineralization was noted in some of the core. Testing for oil in the Cane Creek anticlinal structure was in progress in the general vicinity of the property during early May 1958.

Two and a half miles to three miles west of the property several miles of the Shinarump-Moenkopi contact zone is exposed by erosion in Hell Roaring Canyon and about the same distance to the south and southwest, miles of the contact zone show in the rim of Mineral Canyon. V. C. Kelley's 1955 Tectonic Map shows the location of several (8) Shinarump type deposits in Mineral Canyon and the canyon of Green River, about 6 miles to the west of the property. Of the importance of the showings, I have no information.

Except for the fact that the VCA drilled 7 holes on 50-foot centers about on the crest of the Cane Creek anticline, there is no apparent specific reason that might prompt a continuation of the deep drilling. General purpose drilling could be done with shorter holes in the nearby canyons. Presumably the applicant expects to do his own drilling, and the cost to him might not be great. The reasoning behind this bunch of the applicant should make interesting reading.

Referral of the application to the Field Team is recommended.

N. E. Nelson

N. E. Nelson

Copy to: DMEA (3)
C. I. Gardner
James Paone, 3643
Docket file
Chron. file
Director's reading
Branch reading

NENelson:pbb
G-MD: 6/26/58

EXTRA COPY
DMEA
RECEIVED JUN 25 1958

DATE	[illegible]	CODE

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

Date June 24, 1958

DMEA Docket No. 5064
DMEA Contract No.
Commodity Uranium
Name of Applicant Charles A. Steen
Name of Property Aldridge
Location of property Grand Co., Utah
Estimated cost of project $137,404.00

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: 6/10/58 2. Date received by reviewer: 6/23/58

3. Prior reports on this property known to reviewer: Yes [X] 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 meeting 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 [X]
c. Decline [ ]
d. Agree with Field Team [ ]
e. Disagree with Field Team [ ]
f. Suggest alternate plan [ ]
g. Request another examination [ ]
h. Approval [ ]
i. Consult with Mr. _____ at _____ AEC Office

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

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DMEA
RECEIVED JUN 25 1958

DATE	[illegible]	CODE

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

Date June 24, 1958

DMEA Docket No. 5064
DMEA Contract No.
Commodity Uranium
Name of Applicant Charles A. Steen
Name of Property Aldridge
Location of property Grand Co. Utah
Estimated cost of project $137,404.00

Memorandum

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

1. Date of subject document: 6/10/58 2. Date received by reviewer: 6/23/58

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. Decline ☐
d. Agree with Field Team ☐
e. Disagree with Field Team ☐
f. Suggest alternate plan ☐
g. Request another examination ☐
h. Approval ☐
i. Consult with Mr. _____ at _____ AEC Office

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

EXTRA COPY DMEA RECEIVED JUN 25 1958		
DATE	[illegible]	CODE

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

Date June 24, 1958

DMEA Docket No. 5064
DMEA Contract No.
Commodity Uranium
Name of Applicant Charles A. Steen
Name of Property Aldridge
Location of property Grand Co., Utah
Estimated cost of project $157,400.00

Memorandum

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

1. Date of subject document: 6/10/58 2. Date received by reviewer: 6/23/58

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. Decline ☐
d. Agree with Field Team ☐
e. Disagree with Field Team ☐
f. Suggest alternate plan ☐
g. Request another consultation ☐
h. Approval ☐
i. Consult with Mr. _____ at _____ AEC Office

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

5061

[redacted]

224 New Customhouse
Denver 2, Colorado
June 20, 1958

DATE | CODE

Memorandum

To: Secretary to the Operating Committee

From: Alternate Acting Executive Officer, DMEA Field Team, Region III

Subject: Application for DMEA Aid, (Uranium) Charles A. Steen (Aldridge Property) Grand County, Utah

Enclosed are three copies of the subject application in the amount of $137,404.00. One copy is being retained in our file.

The Applicant's property consists of a lease on 18 unpatented lode mining claims which the Applicant proposes to explore by 37,000 feet of drilling in 37 holes in a two stage drilling program.

Three drilling bids accompany the application.

The Assignments of the lease appear to be somewhat complicated which indicates the necessity of a careful review by the legal section.

Original signed by
J. W. TOWNSEND
J. W. Townsend

HMC:dp

cc: Harshman
Hasler
Robertson
DMEA/DFC
Docket
Chron.

Original signed by
J. W. TOWNSEND

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DATE	INITIALS	CODE

APPLICATION FOR AID IN AN EXPLORATION PROJECT

Charles A. Steen
Box 487
Moab, Utah

Form MF–103
Revised Feb. 1957

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

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)

Charles A. Steen
Box 487
Moab, Utah

RECEIVED
JUN 23 1958
DMEA
DEPARTMENT OF THE INTERIOR
JUN 19 1958
REGIONAL
DENVER, COLORADO

APPLICANT NOT TO USE THIS BLOCK

Docket Number	DMEA-5064
Date Received	6-23-58
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 and Vanadium

Estimated Cost of Project: $ 137,404.00

LOCATION OF PROPERTY

Name	County	State
Aldridge Property	Grand	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.

10 June 1958
Dated

Charles A Steen
BY *(Signature)*

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

EXTRA COPY
DMEA
RECEIVED JUN 23 1958

DATE	INITIALS	CODE
	Charles A. Steen	

Moab, Utah

SUPPLEMENTAL SHEET TO FORM MF- 103

1(a)

The project land consists of the following 18 unpatented claims located in Grand County, Utah, and recorded in County Recorder's Office, Moab, Utah:

Township 25 South, Range 18 East, S.L.M.

Claim	Section	Book	Page
Man-O-War #1	25	71	378
Man-O-War #2	"	"	379
Man-O-War #3	"	"	379
Man-O-War #4	"	"	380
Man-O-War #5	"	"	380
Man-O-War #6	"	"	381
D. S. #1	"	73	356
D. S. #2	"	"	356
D. S. #3	"	"	357
D. S. #4	"	"	357
D. S. #5	"	"	358
D. S. #6	"	"	358
Melinda #1	"	"	354
Melinda #2	"	"	355
Melinda #3	"	"	355
Four Studs #1	"	82	527
Four Studs #2	"	"	528
Four Studs #3	"	"	528

1(b)

The area is known as the Aldridge property. The entire area was formerly known as the Glenn Ruby property.

1(c)

The Aldridge property is held by the applicant under terms of a lease assignment dated June 2, 1958 from Moab Drilling Company, M. H. Westbrook et al, a notarized copy of which is attached.

1(d)

The owners of the property, Aldridge and Associates, Durango, Colorado, have reserved a 5 per cent royalty of the gross return from any production from this property.

2(a)

All known exploration work on the Aldridge property consists of two holes drilled by Moab Drilling Company in July and September, 1957, as shown on the enclosed map, "Drill Hole Location Map". On adjoining property, some 3000 feet distant, the Vanadium Corporation of America drilled seven holes on 50 foot centers. Mineralization was noted in some of the core but further information on these seven holes is unavailable to the applicant.

The first hole drilled by Moab Drilling Company on the Man-O-War #5 claim was completed on July 20, 1957. The purpose of this hole was two-fold: (1) to explore for uranium and (2) to perform assessment work. The hole was drilled to a depth of 1120 feet and uranium mineralization was noted at 1105-1106 feet. Geologically, the Man-O-War #5 hole is located approximately 2000 feet down the north flank of the Cane Creek Anticline. This hole is also located ~~3000~~ 5500 feet northwest of the seven V. C. A. holes. Since the stratigraphic thicknesses were unknown the Man-O-War #5 hole was not cored. A copy of the geologic log is attached.

The second Aldridge property hole was completed on September 24, 1957. The hole is located on the crest of the Cane Creek Anticline in School Section 36, T25S R18E and is 970 feet deep. The hole was cored from 935 feet to 970 feet with an average core recovery of 75 percent. Probing indicated no ore but a trace of mineralization which was verified by slight radioactivity

in some of the core. Solid red brown shale of the Moenkopi formation was encountered at a depth of 965 feet. Conglomerate of the Basal Chinle formation contained considerable carbonaceous material and in two horizons contained strong pyrite mineralization with the carbon. A copy of the geologic log is attached, marked SS-1.

2(b)

The exploratory holes described in item 2(a), above, were drilled solely at the expense of Moab Drilling Company.

2(c)

As far as is known, there has been no production from this property.

2(d)

On the basis of the past exploration work, no ore reserves can be inferred.

2(e)

The claims comprising the Aldridge property cover an area of the north flank of the Cane Creek anticline containing exposures of the Navajo and Kayenta formations. Probably not more than 100 feet of the Navajo sandstone is present on the property. Below the Navajo is the Kayenta formation comprised of fine grained buff to light brown sandstone, some of which has been eroded from the area in Section 36. The Kayenta probably will average 300 feet in thickness. Below the Kayenta, the Wingate formation of buff sandstone is estimated at 300 feet thick, underlain by plus or minus 150 feet of Chinle sandstone/shale. There is a few feet of Shinarump conglomerate at the base of the Chinle. Hole number MOW5-1 was found to contain a considerable thickness, which however, might be due to sloughing of the hole. Hole SS-1 contained only a few feet of Shinarump but was abundant with pyrite and vegetal carbon. The Moenkopi formation of chocolate

brown shale underlies the Shinarump or Chinle formations.

The sediments are slightly arched to form the Cane Creek Anticline, the crest of which appears to cross the school section 36 east and west. No faulting is known in the immediate area.

Any ore that might be discovered on the claims will be of the uraninite-carnotite type typical of the Chinle and Shinarump formations. Outcrops in the surrounding canyons contain uranium and copper oxides associated with carbonaceous material.

2(f)

The possibility of finding an ore deposit on the Aldridge property can be assumed to be greater than that of a rank prospect. As more data has become available concerning uranium deposits of the plateau type, certain guides and loci for ore deposition have been developed which serve as favorable area indicators. These guides are described in U.S.G.S. Professional Paper 300 and are summaried below:

Structural Guides

Low anticlines, domes or other features showing abrupt changes in dip of permeable host rock below an impermeable cap; channels in a relatively impermeable formation below the channel filling sandstone host rock; faults, fractures and shears cutting porous beds; zones of sandstones interfingering with shale; thickened parts of lenses.

Lithologic Guides

Cross-bedded, medium to coarse grained, variable textured sandstone; carbonaceous sandstone and shale; clay pellet conglomerate and sandstone; red shales or siltstones altered to gray, green or white below sandstone; abundant iron and manganese concretions; arkosic rock.

Mineralogic Guides

Yellow or green incrustations or grains; Jarosite; Iron and Manganese carbonates; vanadium, silver or copper; carbon.

Chemical Guides

Unusual quantities of vanadium, arsenic, selenium, molybdenum, zinc, copper, cobalt, nickel, manganese, iron, radium, helium in rocks, soils, surface and subsurface waters, silicification of sandstones and shales enclosing carbonate cemented sandstones.

The criteria listed above in many cases apply to the Aldridge Property. the structure, (Cane Creek Anticline), favorable lithology as indicated from Moab Drilling logs, abundant carbon within the expected producing horizon, and presence of mineralization in two separated holes enhance the probability of discovery. Undoubtably, the Vanadium Corporation of America encountered interesting conditions to justify drilling seven deep holes. The applicant and his technical advisors believe the property has sufficient merit to warrant a thorough exploratory drilling program.

2(g)

Included with this application are:

4 copies	Claims-Photogeology map 1" = 2000'
4 copies	Claims-Drill Hole Location map 1" = 600'
4 copies	Claims-Proposed Drill Hole map 1" = 600'
4 copies	Geologic Log Hole Number MW5-1
4 copies	Geologic Log Hole Number SS-1

3(a)

The applicant, Mr. Charles A. Steen, Moab, Utah or one of his technical staff can guide the D.M.E.A. field examination team.

The property may be reached by taking the Dead Horse Point road from U.S. Highway 160, 10.7 miles north of Moab, Utah; travel 8.8 miles to main junction, take left branch for 4.4 miles; turn right on reservoir access road and travel 2.0 miles to barn; travel 1.5 miles to east line of School

Section 36. The claims are on the ridge to the north of the road.

3(b)

The nearest rail head is Thompsons, Utah about 38 miles from Moab, Utah and about 60 miles from the property. Supplies and living accomodations are available in Moab.

4(a)

The proposed exploration program will consist of an exploratory drilling program in two phases to accomplish approximately 37,000 feet of drilling in 37 holes. Drill sites and drill roads will be prepared from existing access roads using a bulldozer. No blasting will be necessary in this road construction program as a heavy soil mantle will eliminate any rock work.

As shown on the accompanying map marked "Proposed Drill Hole Location", phase I of the program will consist of 18 holes on lines 950 feet apart with holes on 600 foot centers on these lines. As visualized by the applicant, the project engineer can establish the three parallel lines and drill sites using standard survey methods. Immediate bulldozer work can commence to construct the necessary drill sites following the pattern indicated. The first drill sites being completed, drilling equipment can move into the area and commence operations. Holes will be drilled using rotary rigs with 3½" rock bits to within 40 feet of the Chinle-Moenkopi contact. NX coring equipment will then be used to extract core for analysis. The hole depth should average 1000 feet. After completing the drill holes of phase I, short sections of road can be run from the existing drill sites to the staggered hole locations of phase II determined by the engineer. When completed, the 37 drill holes will form a grid pattern on the claims with no hole being closer than 300 feet to any boundary line. Distances between adjacent holes will be 500-600 feet.

4(b)

No access road to the property is necessary.

4(c)

Engineering work and drill site construction could be commenced within 15 days after execution of a contract.

The time for completion of the contract will depend upon factors of the successful bidder on the drilling contract and cannot be determined at this writing.

5(a)

The applicant, Charles A. Steen, Moab, Utah is a graduate geologist with experience in petroleum and mining geology, both in the United States and abroad. He is president and chief geologist of the Utex Exploration Company, Moab, Utah.

6(a)

Bids on the project are enclosed and indicate the prices for the following work:

(1) 37 holes, 1000 feet deep

(2) Coring of approximately 40 feet/hole

(3) Road and drill site construction, 6 mi. of road, 37 drill sites

(4) Geologic-Engineer services

The following cost estimate is submitted in line with the bid data as above:

Drilling Costs

Plug Drilling	
0-200 ft. @ $2.75/ft.	550.00
200-400 ft. @ $2.85/ft.	570.00
400-600 ft. @ $2.95/ft.	590.00
600-800 ft. @ $3.05/ft.	610.00
800-960 ft. @ $3.25/ft.	520.00
Total Plug	$2,840.00

Coring

40 ft. @ $9.00/ft.	$ 360.00
Total (average 1000 ft. hole) =	$3,200.00/hole

Road Construction

Road

6.0 miles; $12.00/hr. - 24 hrs. =	288.00

Drill Sites

37 locations, 18 hrs. =	216.00
Total Road Construction	$504.00

Geologic, Chemical & Engineering Services

37,000 feet @ $.50/ft.	$18,500.00

Cost Estimate Summary

Drilling Costs - 37 holes @ $3200.00/hole	$118,400.00
Road Construction	504.00
Geology, Chemical Assaying, Engineer Services	18,500.00
Total Estimated Cost	$137,404.00

6(b)

Not Applicable

6(c)

Not Applicable

6(d)

Not Applicable

6(e)

Not Applicable

6(f)

Not Applicable

6(g)

Not Applicable

Charles A. Steen Moab, Utah

7(a)

The applicant is prepared to furnish his share of the project cost.

7(b)

The applicant will furnish all of his share of the cost by providing money.

ASSIGNMENT

EXTRA COPY
D M E
RECEIVED JUN 23 1958
DATE | TRANS. | CODE

WHEREAS, on the 5th day of November, A. D., 1956, D. H. BYRD and MATTIE CARRUTH BYRD, husband and wife, of 6909 Vassar Drive, Dallas, Texas; ALVIE F. FIELDING and BARBARA L. FIELDING, husband and wife, of Reservoir Hill, Durango, Colorado; and GEORGE T. ALDRIDGE and ELIZABETH K. ALDRIDGE, husband and wife, of 1919 East Lawn Avenue, Durango, Colorado, as Lessors, and CHARLES A. STEEN doing business as MOAB DRILLING COMPANY, of Moab, Utah, as Lessee, entered into a "Mining Lease"; and

WHEREAS, said "Mining Lease" was recorded May 3, 1957 in Book 84 pages 523-533 Grand County Recorder's Office, Grand County, Utah; and

WHEREAS, it is the intention of Charles A. Steen doing business as Moab Drilling Company to assign all of his interest in said "Mining Lease" to Mary Hope Westbrook;

NOW, THEREFORE, in consideration of the sum of One Dollar ($1.00) and other valuable consideration, receipt of which is hereby acknowledged, we, the undersigned, Charles A. Steen and Minnie Lee Steen, husband and wife, do hereby sell, assign, transfer, set over and convey all of our right, title and interest in and to the "Mining Lease" hereinabove described to Mary Hope Westbrook.

IN WITNESS WHEREOF, we have hereunto set our hands and seals this 2nd day of June, A. D, 1958.

Charles A. Steen

Charles A. Steen

Minnie Lee Steen

STATE OF UTAH)
: ss.
COUNTY OF GRAND)

On the 2nd day of June, A. D., 1958, personally appeared before me Charles A. Steen and Minnie Lee Steen, husband and wife, the signers of the above instrument, who acknowledged to me that they executed the same.

My commission expires:

Notary Public -- Residing at Moab, Utah

EXTRA COPY
DMEA
RECEIVED JUN 23 1958

DATE	INITIALS	CODE

ASSIGNMENT

WHEREAS, on the 5th day of November, A. D., 1956, D.H. BYRD and MATTIE CARRUTH BYRD, husband and wife, of 6909 Vassar Drive, Dallas, Texas; ALVIE F. FIELDING and BARBARA L. FIELDING, husband and wife, of Reservoir Hill, Durango, Colorado; and GEORGE T. ALDRIDGE and ELIZABETH K. ALDRIDGE, husband and wife, of 1919 East Lawn Avenue, Durango, Colorado, as Lessors, and CHARLES A. STEEN doing business as MOAB DRILLING COMPANY, of Moab, Utah, as Lessee, entered into a "Mining Lease"; and

WHEREAS, said "Mining Lease" was recorded May 3, 1957 in Book 84 pages 523-533 Grand County Recorder's Office, Grand County, Utah; and

WHEREAS, the said Charles A. Steen doing business as Moab Drilling Company has heretofore assigned his interest in said "Mining Lease" to Mary Hope Westbrook; and

WHEREAS, it is the intention of Mary Hope Westbrook to assign all of her interest in said "Mining Lease" to Charles A. Steen;

NOW, THEREFORE, in consideration of the sum of One Dollar ($1.00) and other valuable consideration, receipt of which is hereby acknowledged, I, the undersigned, Mary Hope Westbrook, do hereby sell, assign, transfer, set over and convey all of my right, title and interest in and to the "Mining Lease" hereinabove described to Charles A. Steen.

IN WITNESS WHEREOF, I have hereunto set my hand and seal this second day of June, A. D., 1958.

Mary Hope Westbrook
Mary Hope Westbrook

STATE OF UTAH)
: ss.
COUNTY OF GRAND)

On the 2nd day of June, A. D., 1958, personally appeared before me Mary Hope Westbrook, the signer of the foregoing instrument, who duly acknowledged to me that she executed the same.

Notary Public
Residing at: Moab, Utah

My commission expires:
10-27-61

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RECEIVED JUN 23 1958

DATE	INITIALS	COMMENTS

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DATE | INITIALS | CO

1-1816

Apr 20 9 30 AM '57
Entry No. 282183
Filed May 3 1957 P.M.
Record Book 84 Page 523-533
Fee 18.50
Esther Somerville
Esther Somerville
Grand County Recorder

MINING LEASE

THIS AGREEMENT, made and entered into in duplicate this _____ day of _____, 1956, by and between D. H. BYRD and MATTIE CARRUTH BYRD, husband and wife, of 6909 Vassar Drive, Dallas, Texas; ALVIE F. FIELDING and BARBARA L. FIELDING, husband and wife, of Reservoir Hill, Durango, Colorado; and GEORGE T. ALDRIDGE and ELIZABETH K. ALDRIDGE, husband and wife, of 1919 East Lawn Avenue, Durango, Colorado, as Lessors, and CHARLES A. STEEN doing business as MOAB DRILLING COMPANY, of Moab, Utah, as Lessee;

W I T N E S S E T H

That in consideration of the mutual covenants and agreements herein set forth to be kept and performed by the parties, and in consideration of the sum of Ten Dollars ($10.00) paid by each of the parties to the other, the parties hereto mutually covenant and agree as follows:

I.

Lessors do hereby demise, let and lease to Lessee all of their right, title and interest in and to the following described lode mining claims and mining property situated in Grand County, Utah, to-wit:

NAME OF CLAIM	BOOK RECORDED	PAGE
Four Studs #1	82	527
Four Studs #2	82	528
Four Studs #3	82	528
Melinda #1	73	354
Melinda #2	73	355
Melinda #3	73	355
D.S. #1	73	356
D.S. #2	73	356
D.S. #3	73	357
D.S. #4	73	357
D.S. #5	73	358

D.S. #6	73	358
Man-o-War #1	71	378
Man-o-War #2	71	379
Man-o-War #3	71	379
Man-o-War #4	71	380
Man-o-War #5	71	380
Man-o-War #6	71	381

Together with all and singular the minerals, lodes and veins within the lines of said mining claims, and all dips and spurs and all rights and privileges and appurtenances thereto appertaining or in any wise belonging. Also together with any and all right, title and interest hereafter acquired by Lessors, or by any one for the benefit of Lessors, in and to said mining claims, or the lands covered thereby, whether under and by virtue of said Notices of Location or any other Notices of Location or Amended Notices of Location or otherwise, expressly excepting therefrom oil and gas.

TO HAVE AND TO HOLD the same unto Lessee for a term of one year commencing on the date hereof and so long thereafter as the terms, covenants and conditions required of Lessee to be performed as in this agreement set forth are strictly complied with.

II.

Lessee shall have the exclusive right and privilege of entering upon said leased premises and taking immediate possession thereof for the purpose of exploring, prospecting, developing, mining, removing, shipping, treating, selling and disposing of uranium ores, vanadium, copper and other related and associated minerals and all radio-active elements and compounds and all minerals belonging to Lessors or to which they may have a right except oil and gas, whatsoever, upon or underlying said leased premises and the right and

privilege to construct all drilling rigs, works, buildings, dwellings, plants, ditches, reservoirs, roads, railways, structures, machinery, mills and appliances as may be necessary or convenient for the mining, preparation and marketing of the minerals, and to use so much of the surface of the leased premises as reasonably may be required for the exercise of the rights and privileges herein granted.

All work performed by Lessee upon and within the leased premises shall be done in accordance with good mining practices.

III.

Lessee shall allow duly authorized agents or representatives of Lessors, from time to time, to enter upon and into all parts of said leased premises for the purpose of inspection at such reasonable times as shall not interfere with the regular operation of the leased premises. It is understood that Lessee shall assume no responsibility for the safety of the agents or representatives of Lessors when and while upon the leased premises for such purposes.

IV.

Lessee shall not mix any ores from the demised premises with the ores, minerals or products therefrom derived from any other property.

V.

Lessee, in the operation and development of the property hereby leased, shall be subject to all applicable Federal enactments, laws of the State of Utah, and all Federal or State rules and regulations regarding Employees' Liability, Workmen's Com-

pensation and Workmen's Old Age and Unemployment Insurance, and said Lessee covenants and agrees to indemnify and hold harmless the Lessors from and against the payment of any and all damages, claims, costs and expenses due to the existence of such enactments, and of any and all claims, costs, and expenses in connection therewith under any claim or subrogation provided for by said enactments or otherwise arising out of any operation conducted under this Lease by Lessee; and the Lessee shall further indemnify and hold harmless the Lessors from and against all and any damages, claims, costs and expenses arising out of damage to property or any injuries to or death of the employees of the Lessee or any other person whomsoever other than the Lessors and those acting under them, where such injury, death or damage occurs because of or in connection with the use, operation or development in any manner of the property hereby leased by Lessee, whether such claims are based upon a right conferred by the common law or by statute.

VI.

Lessee shall pay and satisfy all claims for materials, supplies or labor in connection with the working of said leased premises and shall keep said leased premises free of liens or encumbrances of any and every kind, except such as might result from the acts of others than the Lessee, his employees or those in privity with him.

VII.

Lessee agrees that he will perform or make improvements upon said mining claims which will satisfy the assessment work required for the protection of said mining claims for each year during the terms as provided, however, the Lessee shall not be

required to make any expenditure with respect to annual assessment labor in the event Lessee shall surrender his rights and privileges hereunder prior to June 1st of the year in which the work is to be performed.

VIII.

Lessors shall pay all Federal, State and County taxes of any kind assessed against Lessors on account of their receipt of royalties provided herein to be paid to Lessors by Lessee. Lessors shall pay all State and County tax assessments upon the leased premises, except as hereinafter otherwise provided. Lessee shall pay all State and County ad valorem tax assessments upon any and all structures and other improvements, machinery, equipment, tools, supplies and personal property whatsoever placed upon the leased premises by the Lessee. Lessee shall pay State and County ad valorem taxes, if any, according to his interest in same as may be assessed upon the leased premises or the production therefrom covered by this Lease at the time of the assessment. Lessors shall pay such ad valorem taxes on their royalty interest in the said leased premises or the production therefrom. In the event the ad valorem taxes on said royalty interest are included with the assessment against Lessee, then Lessee may pay such assessments and be reimbursed by Lessors for their proportion upon receipt of billing from Lessee.

IX.

This lease is made upon the condition that Lessee shall perform all of the covenants and agreements herein set forth to be performed by him, and if, at any time, there shall be any

defaults on the part of the Lessee due to other than acts of God, strikes, title disputes, storms, floods, a public enemy, or unusual casualty, or other cause entirely beyond Lessee's control, and if such default shall continue for a period of thirty (30) days after written notice thereof being given to the Lessee, then and in such event this Lease shall terminate and the leased premises shall revert to the Lessors, and the Lessee shall deliver to the Lessors the leased premises.

X.

In the event of termination of this agreement for any reason whatsoever, the Lessee agrees to furnish Lessors with copies of all drilling and sampling data, reports of metallurgical tests, a map accurately showing the development work performed by the Lessee upon the leased mining claims, and copies of any and all geological maps relating to said leased premises prepared by Lessee.

XI.

It is mutually understood and agreed that Lessee may at any time surrender and terminate this Lease upon giving the Lessors ten (10) days notice in writing and paying to Lessors all royalties and other sums due and payable to Lessors to the effective date of such surrender, PROVIDED HOWEVER, that in order to be relieved of the performance of the assessment labor for any year during the terms of this agreement the effective date of any surrender by Lessee must be on or prior to June 1st of the year in which the surrender notice is given.

XII.

Lessee shall pay on all ores extracted and shipped or sold from the leased premises a royalty of five per cent (5%) of the

gross returns (to be computed as hereinafter set out) from the sale of all minerals or ores extracted hereunder from the leased premises, PROVIDED EXPRESSLY that, where such minerals or ores are sold other than f.o.b. mine, there shall be deducted from the gross purchase price paid by the mill or other purchaser for such minerals or ores the costs of transportation thereof from mine to point of sale to the extent that such transportation costs shall not be paid by purchaser or that such transportation costs shall not be covered by an allowance or other reimbursement not included in the computation as a part of the gross purchase price. No exploratory or development allowance which shall be paid to Lessee by any governmental agency as to the leased deposits shall be deemed to constitute a portion of the gross purchase price for the purpose of determining royalties payable hereunder but any premium or bonus payments paid to Lessee in connection with the production and sale of minerals or ores produced hereunder and based upon the quantity and/or quality of the minerals and ores so produced, shall be deemed to be part of the gross purchase price and shall be included as part of the gross purchase price in the computation of royalties to the extent that payment of royalties on such bonus or premium payments is not contrary to law or government regulation.

Payments aforementioned shall expressly include, and shall not be in addition to, any royalty or other payment or payments with respect to production payable to any other party or parties under any reservation, assignment or conveyance heretofore made involving said mining claims or ores or minerals extracted therefrom.

Any amount due and payable to Lessors as royalty on any shipment of ore extracted and shipped or sold hereunder shall be

paid by Lessee to Lessors on or before the 15th day of the month next succeeding the calendar month during which Lessee shall have received payment for such shipment.

XIII.

It is mutually understood and agreed that in case of forfeiture, surrender or other termination of this Lease, all underground timbering supports, shaft linings and other fixtures necessary for the preservation of any mines, and all rails or head frames upon or in the said leased premises shall be and remain a part of the realty and shall revert to the Lessors without further consideration or compensation.

It is further understood and agreed that all personal property of Lessee located within or upon the leased premises, and all buildings, machinery, equipment and tools, (other than the fixtures to become the property of the Lessors as above provided) shall in case of forfeiture, surrender or other termination of this Lease, remain upon the leased premises, and be held as a guarantee in lieu of bond until all terms of this Lease with respect to payment of royalties and the preservation of the property shall have been complied with. Upon such compliance with the performance of such conditions and obligations the Lessee shall be entitled to, and may, within ninety (90) days after such termination of this Lease or within such extension of time as may be granted by Lessors, remove from the leased premises such personal property and improvements, other than those items which are to remain the property of the Lessors as above provided.

XIV.

Lessee shall occupy and hold as property of the Lessors all fractions, if any, which he may discover to exist between any of

the leased mining claims and which he shall locate under the mining laws, and the Lessee shall have the right and privilege of working such fractions, subject only to the payment of royalties provided herein.

XV.

Any notice contemplated herein to be served upon Lessee shall be in writing and shall be sufficiently given if deposited in the United States mail, postage prepaid and registered, and addressed as follows:

EXTRA COPY
DMEA
RECEIVED JUN 23 1
DATE | INITIALS

Moab Drilling Company
Attention: Charles A. Steen
P.O. Box 487
Moab, Utah

or at such other address as Lessee may from time to time designate by written notice to Lessors.

Any notice contemplated herein to be served upon Lessors shall be in writing and shall be sufficiently given if deposited in the United States mail, postage prepaid and registered, and addressed as follows:

George T. Aldridge
1919 East Lawn Avenue
Durango, Colorado

D. H. Byrd
1110 Tower Petroleum Bldg.
Dallas 1, Texas

or at such other address as Lessors may from time to time designate by written notice to Lessee.

XVI.

The provisions hereof shall inure to the benefit of and shall be binding upon the successors in interest, legal representatives and assigns of the respective parties hereto, but no party hereto shall be chargeable with notice of any assignment or conveyance until such party shall have been furnished with written notice

thereof and with a duplicate certified or photostat copy of the instrument of assignment or conveyance.

IN WITNESS WHEREOF, the parties hereto have executed these presents the day and year first above written.

MOAB DRILLING COMPANY

By Charles A. Steen
Charles A. Steen

D. H. Byrd
D. H. Byrd

Mattie Carruth Byrd
Mattie Carruth Byrd, his wife

Alvie F. Fielding
Alvie F. Fielding

Barbara L. Fielding
Barbara L. Fielding, his wife

George T. Aldridge
George T. Aldridge

Elizabeth K. Aldridge
Elizabeth K. Aldridge, his wife

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STATE OF UTAH)
: ss
COUNTY OF GRAND)

On the 28th day of November 1956, personally appeared before me Charles A. Steen, one of the signers of the above and foregoing instrument, who duly acknowledged to me that he executed the same.

My Commission Expires:
1958-59

Notary Public:
Residing at Moab, Utah.

STATE OF TEXAS)
: ss
COUNTY OF Dallas)

On the 10 day of November 1956, personally appeared before me D. H. Byrd and Mattie Carruth Byrd, husband and wife, who, after being duly sworn, acknowledged to me that they signed the above and foregoing instrument.

My Commission Expires: 6-1-57

Notary Public, residing at: Dallas, Tex

STATE OF COLORADO)
: ss
COUNTY OF La Plata)

On the 6th day of Nov. 1956, personally appeared before me Alvie F. Fielding and Barbara L. Fielding, husband and wife, and George T. Aldridge and Elizabeth K. Aldridge, husband and wife, all of whom being duly sworn, did acknowledge to me that they executed the above and foregoing instrument.

My Commission Expires:
Nov. 23, 1959

Notary Public:
Residing at: Durango, Colo.

Entry No. 191816 52
Recorded 4-20-57 At 9 30 M. Book 66 Page 62
FEE PAID
$18.50 By ARVILLA E. WARREN. San Juan County Recorder Deputy

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CONTRACT DRILLING BID FORM

DRILLING:

Bid price is for hole completed to 5 ft. below the lower ore horizon contact, cleaned for probing. Coring, when required, shall be at a minimum size of NX.

ROCK BIT				CORING			
0 - 200 ft.	@ $ 2.75	per ft.		0 - 200 ft.	@ $	per ft.	
200 - 400 ft.	@ $ 2.85	per ft.		200 - 400 ft.	@ $ 5.50	per ft.	
400 - 600 ft.	@ $ 2.95	per ft.		400 - 600 ft.	@ $ 6.00	per ft.	
600 - 800 ft.	@ $ 3.05	per ft.		600 - 800 ft.	@ $ 6.50	per ft.	
800 - 1,000 ft.	@ $ 3.25	per ft.		800 - 1,000 ft.	@ $ 7.50	per ft.	
1,000 - 1,100 ft.	@ $ 3.45	per ft.		1,000 - 1,100 ft.	@ $ 9.00	per ft.	
1,100 - 1,200 ft.	@ $ 3.65	per ft.		1,100 - 1,200 ft.	@ $ 11.00	per ft.	
							13.00

Standby time $ 25.00 per hr.

ACCESS ROAD CONSTRUCTION:

Bulldozer with Operator	D-6 Cat	$	per hr.
Compressor & Jackhammer	& 1 man w/125 cfm	$ 12.00	per hr.
		7.38	

GEOLOGICAL-ENGINEERING SERVICES:

Logging & report on core and/or cuttings
Gamma ray logging
~~Location of holes~~
Survey location of hole with collar elevation
Splitting core; 1/2 for analysis, 1/2 for storage
Ore reserve calculation, including map
Geologic information of adjacent properties
All above included $ .50 per ft.

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DATE | INITIALS | C

PROPERTY LOCATION

This property is located 30.5 miles southwest of Moab and may be easily reached in one hour. The claims are in Sec. 25, T25S, R18E, adjacent to sec. on the north.

HOLE DEPTH & NUMBER

Approximately 30 holes to be drilled in sandstone to a depth of 1050 feet.

All lost circulation material will be paid by the client @ cost plus 10%.

MOAB DRILLING COMPANY

BY A. T. Tudlow
Comptroller

CONTRACT DRILLING BID FORM

DRILLING:

Bid price is for hole completed to 5 ft. below the lowest ore contact, cleaned for probing. Coring, when required, shall minimum size of NX.

ROCK BIT				COR[illegible]	
0 - 200 ft.	@ $2.50	per ft.		0 - [illegible]	3.50
200 - 400 ft.	@ $2.75	per ft.		200 - [illegible]	3.75
400 - 600 ft.	@ $3.00	per ft.		400 - [illegible]	4.50
600 - 800 ft.	@ $3.50	per ft.		600 - [illegible]	5.00
800 - 1,000 ft.	@ $4.00	per ft.		800 - [illegible]	6.00
1,000 - 1,100 ft.	@ $4.50	per ft.		1,000 - [illegible]	6.50
1,100 - 1,200 ft.	@ $5.00	per ft.		1,100 - [illegible]	7.00

Standby time $ 16.00 per hr.

ACCESS ROAD CONSTRUCTION:

Bulldozer with Operator	12.00
Compressor & Jackhammer	6.00

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GEOLOGICAL-ENGINEERING SERVICES

	DATE	INITIALS	C[illegible]
Logging & report on core and/or cuttings			
Gamma ray logging			
Location of holes			
Survey location of hole with collar elevation			
Splitting core; 1/2 for analysis, 1/2 for storage			
Ore reserve calculation, [illegible]			
Geologic information of adjacent [illegible] properties			

All [illegible]

PROPERTY LOCATION

This property is located 30.5 miles southwest of Moab and may be easily reached in one hour. The claims are in Sec. 25, T25S, R18E, adjoining sec. 36 to the north.

HOLE DEPTH & NUMBER

Approximately 30 holes to be drilled in sandstone to a depth of 1050 feet.

Geological Bid under separate bid

SWANK DRILLING EXPLORATION CO.

G. W. Swank

GEOLOGICAL SERVICE — MOAB, UTAH

MAY 20, 1958

TO: MR. G. W. SWANK, DRILLING CONTRACTOR, MOAB, UTAH
FROM: WM. DEAN MC DOUGALD, GEOLOGICAL SERVICES

THE FOLLOWING IS A ROUGH ESTIMATE ON THE COSTS FOR THE THIRTY DRILL HOLE PROGRAM INCLUDING HOLES WITH AROUND 1,000 FOOT DEPTH, WITH FIVE HOLES CORING SECTIONS OF 60' EACH AND THE BALANCE OF THE HOLES AMOUNTING TO TWENTY-FIVE HOLES WITH 40' FEET CORING EACH:

GEOLOGICAL-ENGINEERING SERVICES

THE FOLLOWING ARE INCLUDING IN THE ESTIMATE (A)

- LOGGING & REPORT ON CORE AND/OR CUTTINGS
- LOCATION OF HOLES
- SURVEY LOCATION OF HOLE WITH COLLAR ELEVATION
- SPLITTIGN CORE; ½ FOR ANALYSIS, ½ FOR STORAGE
- ORE RESERVE CALCULATION, INCLUDING MAP
- WEEKLY OR MONTHLY PROGRESS REPORTS ON ENGINEERING AND GEOLOGICAL DATA
- GEOLOGICAL INFORMATION OF ADJACENT PROPERTIES

(A) BASED ON A FOUR (4) DAY PER WEEK REQUIREMENT, INCLUDING FIELD AND OFFICE WORK, UP TO 9 HOURS PER DAY WITH TRAVEL TIME; THIS DOES NOT INCLUDE GAMMA RAY LOGGING...PER MONTH..... $1,000.00

(B) BASED ON A 5 TO 6 DAY WEEK, INCLUDING ALL OF THE ABOVE AS OUTLINED FOR (A).....PER MONTH.....$1250.00

CONTRACT GAMMA RAY LOGGING ON 1,000 FOOT HOLES WILL COST APPROXIMATLEY $200.00 PER HOLE ON ONE SCHEDULE, OR AROUND $2800.00 PER MONTH ON THE OTHER SCHEDULE. THE OPERATOR CAN CHOOSE THE SCHEDULE TO FIT HIS SCHEDULE OF COMPLETION. THE ONLY CONTRACT GAMMA RAY CONTRACTOR IN THIS AREA IS THE CENTURY GEOPHYSICAL CORPORATION, WITH OFFICES IN TULSA, OKLAHOMA, GRANTS, NEW MEXICO AND GRAND JUNCTION, COLORADO. CENTURY ALSO GIVES AN ELECTRIC LOG (EITHER SELF POTENTIAL OR RESISTIVITY) AT NO ADDITIONAL COSTS TO THE OPERATOR. THE ELECTIR LOGS ARE VERY USEFULL FOR CORRELATION AND GEOLOGICAL INFORMATION. CENTURY SERVICES ARE VERY GOOD AND COMPLETE, AND CONFIDENTIAL.

NOT INCLUDED IN THE CONTRACT BID FORM SUBMITTED TO ME ARE THE FOLLOWING ITEMS:

NX CORE BOXES; THE 30 HOLE PROGRAM WOULD NEED 130 BOXES AT A COST OF 1.30 EACH..... $169.00

CHEMICAL ASSAYING OF CORE; THE THIRTY HOLE PROGRAM WOULD HAVE TO ESTIMATE THIS ON A BASIS OF TWO ASSAYS PER HOLE, AT A COST FOR U308 AND V205 ONLY ON THE BASIS OF $4.00 PER SAMPLE, OR 60 X 4.00.....$240.00

THE ABOVE IS SUBMITTED FOR YOUR CONSIDERATIONS WHEN ESTIMATING OR BIDDING THE ABOVE CONSIDERED JOB.

SINCERELY YOURS,

WM. DEAN MC DOUGALD,
MANAGING GEOLOGIST

WDM/WDM

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RECEIVED JUN 23 19
DATE | INITIALS | CC

Ore	
Mineralization	
Blank	X

MOAB DRILLING COMPANY

GEOLOGIC LOG

HOLE No. ALDRIDGE SCHOOL SEC. No. 1

CONTRACT

CLAIM SCHOOL SECTION 36

GROUP ALDRIDGE

CO-ORDS: N.

E.

COLLAR ELEV.

DATE 9-24-57

LOGGED BY R.R.M.

TOTAL DEPTH 970.0

Sample No.	From	To	Thickness	Assay Rad	Assay Wet	W't'd. Grade	Mtl.	Color	Tex.	REMARKS
	0.0	324	324				SS	BUFF LT. BR.	F	KAYENTA
	324	634	310				SS	BUFF	F	WINGATE
	634	805	171				SS-SH	LT. BR	F-M	CHINLE (RED)
	805	965	165				CONGL. SS-SH	GRY-GR	F-M-C	CHINLE (GREEN)
	965	970	5				SS-SH	CHOC BR	F	MOENKOPI

Remarks:

PROBE RESULTS NIL

+1.5' CORRECTION

CARBON + PYRITE FROM 936' THRU 945' - WK COUNT

CORE RECOVERY From	To	Ft.	%
935	955	16.5	82
955	970	10	66

PROBE RESULTS At	C	S	At	C	S
	V				
		V			
		<			

Ore	
Mineralization	✓
Blank	

MOAB DRILLING COMPANY

GEOLOGIC LOG

CONTRACT: UTEX

CLAIM: MAN-O-WAR #5

GROUP: Aldridge & Associates

CO-ORDS: _____ N.

_____ E.

COLLAR ELEV. 5,695 (aneroid)

HOLE No. MW5-1

DATE 6/20/57

LOGGED BY R.K. Wyant

TOTAL DEPTH 1120 ft.

Sample No.	From	To	Thickness	Assay Rad	Assay Wet	W't'd. Grade	Mtl.	Color	Tex.	REMARKS
			GEOLOGIC SECTION							
		NAME		INTERVAL				THICKNESS		
		NAVAJO		0-120'				120'		
		KAYENTA		120'-475'				350'		
		WINGATE		475'-775'				300'		
		CHINLE		775'-940'				165'		
		SHINARUMP		940'-1110'				170'		
		MOENKOPI		1110'-						

Remarks:

Probed To - 1120 ft.
Correction - +3.0 ft.
No core
Cutting samples taken at 5' intervals from 460' to 1120'.

CORE RECOVERY From	To	Ft.	%	PROBE RESULTS At	C	S	At	C	S
				1110	17	5			
				1109	18	5			
				1108	5	5			
				1107	10	5			
				1106	22	5			
				1105	80	5			
				1104	12	5			
				1103	4	5			
				1102	10	5			
				1101	8	5			
				1075	10	5			

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RECEIVED JUN 23 1958

DATE	INITIALS	CODE

APPLICATION FOR AID IN AN EXPLORATION PROJECT

Charles A. Steen
Box 487
Moab, Utah

Form MF–103
Revised Feb. 1957

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

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)

Charles A. Steen
Box 487
Moab, Utah

DMEA
DEPARTMENT OF THE INTERIOR
JUN 19 1958
REGION III
DENVER, COLORADO

APPLICANT NOT TO USE THIS BLOCK

Docket Number	DMEA-5064
Date Received	6-23-58
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: $ 137,404.00

LOCATION OF PROPERTY

Name	County	State
Aldridge Property	Grand	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.

10 June 1958
Dated

Charles A Steen
BY *(Signature)*

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

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	Charles A. Steen	

Moab, Utah

SUPPLEMENTAL SHEET TO FORM MF- 103

1(a)

The project land consists of the following 18 unpatented claims located in Grand County, Utah, and recorded in County Recorder's Office, Moab, Utah:

Township 25 South, Range 18 East, S.L.M.

Claim	Section	Book	Page
Man-O-War #1	25	71	378
Man-O-War #2	"	"	379
Man-O-War #3	"	"	379
Man-O-War #4	"	"	380
Man-O-War #5	"	"	380
Man-O-War #6	"	"	381
D. S. #1	"	73	356
D. S. #2	"	"	356
D. S. #3	"	"	357
D. S. #4	"	"	357
D. S. #5	"	"	358
D. S. #6	"	"	358
Melinda #1	"	"	354
Melinda #2	"	"	355
Melinda #3	"	"	355
Four Studs #1	"	82	527
Four Studs #2	"	"	528
Four Studs #3	"	"	528

1(b)

The area is known as the Aldridge property. The entire area was formerly known as the Glenn Ruby property.

Charles A. Steen Moab, Utah

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The Aldridge property is held by the applicant under terms of a lease assignment dated June 2, 1958 from Moab Drilling Company, M. H. Westbrook et al, a notarized copy of which is attached.

1(d)

The owners of the property, Aldridge and Associates, Durango, Colorado, have reserved a 5 per cent royalty of the gross return from any production from this property.

2(a)

All known exploration work on the Aldridge property consists of two holes drilled by Moab Drilling Company in July and September, 1957, as shown on the enclosed map, "Drill Hole Location Map". On adjoining property, some 3000 feet distant, the Vanadium Corporation of America drilled seven holes on 50 foot centers. Mineralization was noted in some of the core but further information on these seven holes is unavailable to the applicant.

The first hole drilled by Moab Drilling Company on the Man-O-War #5 claim was completed on July 20, 1957. The purpose of this hole was two-fold: (1) to explore for uranium and (2) to perform assessment work. The hole was drilled to a depth of 1120 feet and uranium mineralization was noted at 1105-1106 feet. Geologically, the Man-O-War #5 hole is located approximately 2000 feet down the north flank of the Cane Creek Anticline. This hole is also located 3000 feet northwest of the seven V. C. A. holes. Since the stratigraphic thicknesses were unknown the Man-O-War #5 hole was not cored. A copy of the geologic log is attached.

The second Aldridge property hole was completed on September 24, 1957. The hole is located on the crest of the Cane Creek Anticline in School Section 36, T25S R18E and is 970 feet deep. The hole was cored from 935 feet to 970 feet with an average core recovery of 75 percent. Probing indicated no ore but a trace of mineralization which was verified by slight radioactivity

in some of the core. Solid red brown shale of the Moenkopi formation was encountered at a depth of 965 feet. Conglomerate of the Basal Chinle formation contained considerable carbonaceous material and in two horizons contained strong pyrite mineralization with the carbon. A copy of the geologic log is attached, marked SS-1.

2(b)

The exploratory holes described in item 2(a), above, were drilled solely at the expense of Moab Drilling Company.

2(c)

As far as is known, there has been no production from this property.

2(d)

On the basis of the past exploration work, no ore reserves can be inferred.

2(e)

The claims comprising the Aldridge property cover an area of the north flank of the Cane Creek anticline containing exposures of the Navajo and Kayenta formations. Probably not more than 100 feet of the Navajo sandstone is present on the property. Below the Navajo is the Kayenta formation comprised of fine grained buff to light brown sandstone, some of which has been eroded from the area in Section 36. The Kayenta probably will average 300 feet in thickness. Below the Kayenta, the Wingate formation of buff sandstone is estimated at 300 feet thick, underlain by plus or minus 150 feet of Chinle sandstone/shale. There is a few feet of Shinarump conglomerate at the base of the Chinle. Hole number MOW5-1 was found to contain a considerable thickness, which however, might be due to sloughing of the hole. Hole SS-1 contained only a few feet of Shinarump but was abundant with pyrite and vegetal carbon. The Moenkopi formation of chocolate

brown shale underlies the Shinarump or Chinle formations.

The sediments are slightly arched to form the Cane Creek Anticline, the crest of which appears to cross the school section 36 east and west. No faulting is known in the immediate area.

Any ore that might be discovered on the claims will be of the uraninite-carnotite type typical of the Chinle and Shinarump formations. Outcrops in the surrounding canyons contain uranium and copper oxides associated with carbonaceous material.

2(f)

The possibility of finding an ore deposit on the Aldridge property can be assumed to be greater than that of a rank prospect. As more data has become available concerning uranium deposits of the plateau type, certain guides and loci for ore deposition have been developed which serve as favorable area indicators. These guides are described in U.S.G.S. Professional Paper 300 and are summaried below:

Structural Guides

Low anticlines, domes or other features showing abrupt changes in dip of permeable host rock below an impermeable cap; channels in a relatively impermeable formation below the channel filling sandstone host rock; faults, fractures and shears cutting porous beds; zones of sandstones interfingering with shale; thickened parts of lenses.

Lithologic Guides

Cross-bedded, medium to coarse grained, variable textured sandstone; carbonaceous sandstone and shale; clay pellet conglomerate and sandstone; red shales or siltstones altered to gray, green or white below sandstone; abundant iron and manganese concretions; arkosic rock.

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Mineralogic Guides

Yellow or green incrustations or grains; Jarosite; Iron and Manganese carbonates; vanadium, silver or copper; carbon.

Chemical Guides

Unusual quantities of vanadium, arsenic, selenium, molybdenum, zinc, copper, cobalt, nickel, manganese, iron, radium, helium in rocks, soils, surface and subsurface waters, silicification of sandstones and shales enclosing carbonate cemented sandstones.

The criteria listed above in many cases apply to the Aldridge Property. the structure, (Cane Creek Anticline), favorable lithology as indicated from Moab Drilling logs, abundant carbon within the expected producing horizon, and presence of mineralization in two separated holes enhance the probability of discovery. Undoubtably, the Vanadium Corporation of America encountered interesting conditions to justify drilling seven deep holes. The applicant and his technical advisors believe the property has sufficient merit to warrant a thorough exploratory drilling program.

2(g)

Included with this application are:

4 copies	Claims-Photogeology map 1" = 2000'
4 copies	Claims-Drill Hole Location map 1" = 600'
4 copies	Claims-Proposed Drill Hole map 1" = 600'
4 copies	Geologic Log Hole Number MW5-1
4 copies	Geologic Log Hole Number SS-1

3(a)

The applicant, Mr. Charles A. Steen, Moab, Utah or one of his technical staff can guide the D.M.E.A. field examination team.

The property may be reached by taking the Dead Horse Point road from U.S. Highway 160, 10.7 miles north of Moab, Utah; travel 8.8 miles to main junction, take left branch for 4.4 miles; turn right on reservoir access road and travel 2.0 miles to barn; travel 1.5 miles to east line of School

Section 36. The claims are on the ridge to the north of the road.

3(b)

The nearest rail head is Thompsons, Utah about 38 miles from Moab, Utah and about 60 miles from the property. Supplies and living accomodations are available in Moab.

4(a)

The proposed exploration program will consist of an exploratory drilling program in two phases to accomplish approximately 37,000 feet of drilling in 37 holes. Drill sites and drill roads will be prepared from existing access roads using a bulldozer. No blasting will be necessary in this road construction program as a heavy soil mantle will eliminate any rock work.

As shown on the accompanying map marked "Proposed Drill Hole Location", phase I of the program will consist of 18 holes on lines 950 feet apart with holes on 600 foot centers on these lines. As visualized by the applicant, the project engineer can establish the three parallel lines and drill sites using standard survey methods. Immediate bulldozer work can commence to construct the necessary drill sites following the pattern indicated. The first drill sites being completed, drilling equipment can move into the area and commence operations. Holes will be drilled using rotary rigs with 3½" rock bits to within 40 feet of the Chinle-Moenkopi contact. NX coring equipment will then be used to extract core for analysis. The hole depth should average 1000 feet. After completing the drill holes of phase I, short sections of road can be run from the existing drill sites to the staggered hole locations of phase II determined by the engineer. When completed, the 37 drill holes will form a grid pattern on the claims with no hole being closer than 300 feet to any boundary line. Distances between adjacent holes will be 500-600 feet.

4(b)

No access road to the property is necessary.

4(c)

Engineering work and drill site construction could be commenced within 15 days after execution of a contract.

The time for completion of the contract will depend upon factors of the successful bidder on the drilling contract and cannot be determined at this writing.

5(a)

The applicant, Charles A. Steen, Moab, Utah is a graduate geologist with experience in petroleum and mining geology, both in the United States and abroad. He is president and chief geologist of the Utex Exploration Company, Moab, Utah.

6(a)

Bids on the project are enclosed and indicate the prices for the following work:

(1) 37 holes, 1000 feet deep

(2) Coring of approximately 40 feet/hole

(3) Road and drill site construction, 6 mi. of road, 37 drill sites

(4) Geologic-Engineer services

The following cost estimate is submitted in line with the bid data as above:

Drilling Costs

Plug Drilling	
0-200 ft. @ $2.75/ft.	550.00
200-400 ft. @ $2.85/ft.	570.00
400-600 ft. @ $2.95/ft.	590.00
600-800 ft. @ $3.05/ft.	610.00
800-960 ft. @ $3.25/ft.	520.00
Total Plug	$2,840.00

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Coring

40 ft. @ $9.00/ft.	$ 360.00
Total (average 1000 ft. hole) =	$3,200.00/hole

Road Construction

Road

6.0 miles; $12.00/hr. - 24 hrs. =	288.00

Drill Sites

37 locations, 18 hrs. =	216.00
Total Road Construction	$504.00

Geologic, Chemical & Engineering Services

37,000 feet @ $.50/ft.	$18,500.00

Cost Estimate Summary

Drilling Costs - 37 holes @ $3200.00/hole	$118,400.00
Road Construction	504.00
Geology, Chemical Assaying, Engineer Services	18,500.00
Total Estimated Cost	$137,404.00

6(b)

Not Applicable

6(c)

Not Applicable

6(d)

Not Applicable

6(e)

Not Applicable

6(f)

Not Applicable

6(g)

Not Applicable

Charles A. Steen Moab, Utah

7(a)

The applicant is prepared to furnish his share of the project cost.

7(b)

The applicant will furnish all of his share of the cost by providing money.

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DATE	INITIALS	CODE

ASSIGNMENT

WHEREAS, on the 5th day of November, A. D., 1955, D. H. BYRD and MATTIE CARRUTH BYRD, husband and wife, of 6909 Vassar Drive, Dallas, Texas; ALVIE F. FIELDING and BARBARA L. FIELDING, husband and wife, of Reservoir Hill, Durango, Colorado; and GEORGE T. ALDRIDGE and ELIZABETH K. ALDRIDGE, husband and wife, of 1919 East Lawn Avenue, Durango, Colorado, as Lessors, and CHARLES A. STEEN doing business as MOAB DRILLING COMPANY, of Moab, Utah, as Lessee, entered into a "Mining Lease"; and

WHEREAS, said "Mining Lease" was recorded May 3, 1957 in Book 84 pages 523-533 Grand County Recorder's Office, Grand County, Utah; and

WHEREAS, it is the intention of Charles A. Steen doing business as Moab Drilling Company to assign all of his interest in said "Mining Lease" to Mary Hope Westbrook;

NOW, THEREFORE, in consideration of the sum of One Dollar ($1.00) and other valuable consideration, receipt of which is hereby acknowledged, we, the undersigned, Charles A. Steen and Minnie Lee Steen, husband and wife, do hereby sell, assign, transfer, set over and convey all of our right, title and interest in and to the "Mining Lease" hereinabove described to Mary Hope Westbrook.

IN WITNESS WHEREOF, we have hereunto set our hands and seals this 2nd day of June, A. D, 1958.

Charles A. Steen

Charles A. Steen

Minnie Lee Steen

STATE OF UTAH)
: ss.
COUNTY OF GRAND)

On the 2nd day of June, A. D., 1958, personally appeared before me Charles A. Steen and Minnie Lee Steen, husband and wife, the signers of the above instrument, who acknowledged to me that they executed the same.

My commission expires:

Notary Public -- Residing at Moab, Utah

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DATE	INITIALS	CODE

ASSIGNMENT

WHEREAS, on the 5th day of November, A. D., 1956, D.H. BYRD and MATTIE CARRUTH BYRD, husband and wife, of 6909 Vassar Drive, Dallas, Texas; ALVIE F. FIELDING and BARBARA L. FIELDING, husband and wife, of Reservoir Hill, Durango, Colorado; and GEORGE T. ALDRIDGE and ELIZABETH K. ALDRIDGE, husband and wife, of 1919 East Lawn Avenue, Durango, Colorado, as Lessors, and CHARLES A. STEEN doing business as MOAB DRILLING COMPANY, of Moab, Utah, as Lessee, entered into a "Mining Lease"; and

WHEREAS, said "Mining Lease" was recorded May 3, 1957 in Book 84 pages 523-533 Grand County Recorder's Office, Grand County, Utah; and

WHEREAS, the said Charles A. Steen doing business as Moab Drilling Company has heretofore assigned his interest in said "Mining Lease" to Mary Hope Westbrook; and

WHEREAS, it is the intention of Mary Hope Westbrook to assign all of her interest in said "Mining Lease" to Charles A. Steen;

NOW, THEREFORE, in consideration of the sum of One Dollar ($1.00) and other valuable consideration, receipt of which is hereby acknowledged, I, the undersigned, Mary Hope Westbrook, do hereby sell, assign, transfer, set over and convey all of my right, title and interest in and to the "Mining Lease" hereinabove described to Charles A. Steen.

IN WITNESS WHEREOF, I have hereunto set my hand and seal this second day of June, A. D., 1958.

Mary Hope Westbrook
Mary Hope Westbrook

STATE OF UTAH)
: ss.
COUNTY OF GRAND)

On the [illegible] day of June, A. D., 1958, personally appeared before me Mary Hope Westbrook, the signer of the foregoing instrument, who duly acknowledged to me that she executed the same.

[illegible]
Notary Public
Residing at: [illegible]

My commission expires:

[illegible]

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DATE		CODE

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Apr 20 9 30 AM '57
Entry No. 282183
Filed May 3 1957 P.M.
Recorded Book 84 Page 523-533
Fee $18.50
Esther Somerville
Esther Somerville
Grand County Recorder

MINING LEASE

THIS AGREEMENT, made and entered into in duplicate this _____ day of _____, 1956, by and between D. H. BYRD and MATTIE CARRUTH BYRD, husband and wife, of 6909 Vassar Drive, Dallas, Texas; ALVIE F. FIELDING and BARBARA L. FIELDING, husband and wife, of Reservoir Hill, Durango, Colorado; and GEORGE T. ALDRIDGE and ELIZABETH K. ALDRIDGE, husband and wife, of 1919 East Lawn Avenue, Durango, Colorado, as Lessors, and CHARLES A. STEEN doing business as MOAB DRILLING COMPANY, of Moab, Utah, as Lessee;

W I T N E S S E T H

That in consideration of the mutual covenants and agreements herein set forth to be kept and performed by the parties, and in consideration of the sum of Ten Dollars ($10.00) paid by each of the parties to the other, the parties hereto mutually covenant and agree as follows:

I.

Lessors do hereby demise, let and lease to Lessee all of their right, title and interest in and to the following described lode mining claims and mining property situated in Grand County, Utah, to-wit:

NAME OF CLAIM	BOOK RECORDED	PAGE
Four Studs #1	82	527
Four Studs #2	82	528
Four Studs #3	82	528
Melinda #1	73	354
Melinda #2	73	355
Melinda #3	73	355
D.S. #1	73	356
D.S. #2	73	356
D.S. #3	73	357
D.S. #4	73	357
D.S. #5	73	358

D.S. #6	73	358
Man-o-War #1	71	378
Man-o-War #2	71	379
Man-o-War #3	71	379
Man-o-War #4	71	380
Man-o-War #5	71	380
Man-o-War #6	71	381

Together with all and singular the minerals, lodes and veins within the lines of said mining claims, and all dips and spurs and all rights and privileges and appurtenances thereto appertaining or in any wise belonging. Also together with any and all right, title and interest hereafter acquired by Lessors, or by any one for the benefit of Lessors, in and to said mining claims, or the lands covered thereby, whether under and by virtue of said Notices of Location or any other Notices of Location or Amended Notices of Location or otherwise, expressly excepting therefrom oil and gas.

TO HAVE AND TO HOLD the same unto Lessee for a term of one year commencing on the date hereof and so long thereafter as the terms, covenants and conditions required of Lessee to be performed as in this agreement set forth are strictly complied with.

II.

Lessee shall have the exclusive right and privilege of entering upon said leased premises and taking immediate possession thereof for the purpose of exploring, prospecting, developing, mining, removing, shipping, treating, selling and disposing of uranium ores, vanadium, copper and other related and associated minerals and all radio-active elements and compounds and all minerals belonging to Lessors or to which they may have a right except oil and gas, whatsoever, upon or underlying said leased premises and the right and

privilege to construct all drilling rigs, works, buildings, dwellings, plants, ditches, reservoirs, roads, railways, structures, machinery, mills and appliances as may be necessary or convenient for the mining, preparation and marketing of the minerals, and to use so much of the surface of the leased premises as reasonably may be required for the exercise of the rights and privileges herein granted.

All work performed by Lessee upon and within the leased premises shall be done in accordance with good mining practices.

III.

Lessee shall allow duly authorized agents or representatives of Lessors, from time to time, to enter upon and into all parts of said leased premises for the purpose of inspection at such reasonable times as shall not interfere with the regular operation of the leased premises. It is understood that Lessee shall assume no responsibility for the safety of the agents or representatives of Lessors when and while upon the leased premises for such purposes.

IV.

Lessee shall not mix any ores from the demised premises with the ores, minerals or products therefrom derived from any other property.

V.

Lessee, in the operation and development of the property hereby leased, shall be subject to all applicable Federal enactments, laws of the State of Utah, and all Federal or State rules and regulations regarding Employees' Liability, Workmen's Com-

pensation and Workmen's Old Age and Unemployment Insurance, and said Lessee covenants and agrees to indemnify and hold harmless the Lessors from and against the payment of any and all damages, claims, costs and expenses due to the existence of such enactments, and of any and all claims, costs, and expenses in connection therewith under any claim or subrogation provided for by said enactments or otherwise arising out of any operation conducted under this Lease by Lessee; and the Lessee shall further indemnify and hold harmless the Lessors from and against all and any damages, claims, costs and expenses arising out of damage to property or any injuries to or death of the employees of the Lessee or any other person whomsoever other than the Lessors and those acting under them, where such injury, death or damage occurs because of or in connection with the use, operation or development in any manner of the property hereby leased by Lessee, whether such claims are based upon a right conferred by the common law or by statute.

VI.

Lessee shall pay and satisfy all claims for materials, supplies or labor in connection with the working of said leased premises and shall keep said leased premises free of liens or encumbrances of any and every kind, except such as might result from the acts of others than the Lessee, his employees or those in privity with him.

VII.

Lessee agrees that he will perform or make improvements upon said mining claims which will satisfy the assessment work required for the protection of said mining claims for each year during the terms as provided, however, the Lessee shall not be

required to make any expenditure with respect to annual assessment labor in the event Lessee shall surrender his rights and privileges hereunder prior to June 1st of the year in which the work is to be performed.

VIII.

Lessors shall pay all Federal, State and County taxes of any kind assessed against Lessors on account of their receipt of royalties provided herein to be paid to Lessors by Lessee. Lessors shall pay all State and County tax assessments upon the leased premises, except as hereinafter otherwise provided. Lessee shall pay all State and County ad valorem tax assessments upon any and all structures and other improvements, machinery, equipment, tools, supplies and personal property whatsoever placed upon the leased premises by the Lessee. Lessee shall pay State and County ad valorem taxes, if any, according to his interest in same as may be assessed upon the leased premises or the production therefrom covered by this Lease at the time of the assessment. Lessors shall pay such ad valorem taxes on their royalty interest in the said leased premises or the production therefrom. In the event the ad valorem taxes on said royalty interest are included with the assessment against Lessee, then Lessee may pay such assessments and be reimbursed by Lessors for their proportion upon receipt of billing from Lessee.

IX.

This lease is made upon the condition that Lessee shall perform all of the covenants and agreements herein set forth to be performed by him, and if, at any time, there shall be any

defaults on the part of the Lessee due to other than acts of God, strikes, title disputes, storms, floods, a public enemy, or unusual casualty, or other cause entirely beyond Lessee's control, and if such default shall continue for a period of thirty (30) days after written notice thereof being given to the Lessee, then and in such event this Lease shall terminate and the leased premises shall revert to the Lessors, and the Lessee shall deliver to the Lessors the leased premises.

X.

In the event of termination of this agreement for any reason whatsoever, the Lessee agrees to furnish Lessors with copies of all drilling and sampling data, reports of metallurgical tests, a map accurately showing the development work performed by the Lessee upon the leased mining claims, and copies of any and all geological maps relating to said leased premises prepared by Lessee.

XI.

It is mutually understood and agreed that Lessee may at any time surrender and terminate this Lease upon giving the Lessors ten (10) days notice in writing and paying to Lessors all royalties and other sums due and payable to Lessors to the effective date of such surrender, **PROVIDED HOWEVER**, that in order to be relieved of the performance of the assessment labor for any year during the terms of this agreement the effective date of any surrender by Lessee must be on or prior to June 1st of the year in which the surrender notice is given.

XII.

Lessee shall pay on all ores extracted and shipped or sold from the leased premises a royalty of five per cent (5%) of the

gross returns (to be computed as hereinafter set out) from the sale of all minerals or ores extracted hereunder from the leased premises, PROVIDED EXPRESSLY that, where such minerals or ores are sold other than f.o.b. mine, there shall be deducted from the gross purchase price paid by the mill or other purchaser for such minerals or ores the costs of transportation thereof from mine to point of sale to the extent that such transportation costs shall not be paid by purchaser or that such transportation costs shall not be covered by an allowance or other reimbursement not included in the computation as a part of the gross purchase price. No exploratory or development allowance which shall be paid to Lessee by any governmental agency as to the leased deposits shall be deemed to constitute a portion of the gross purchase price for the purpose of determining royalties payable hereunder but any premium or bonus payments paid to Lessee in connection with the production and sale of minerals or ores produced hereunder and based upon the quantity and/or quality of the minerals and ores so produced, shall be deemed to be part of the gross purchase price and shall be included as part of the gross purchase price in the computation of royalties to the extent that payment of royalties on such bonus or premium payments is not contrary to law or government regulation.

Payments aforementioned shall expressly include, and shall not be in addition to, any royalty or other payment or payments with respect to production payable to any other party or parties under any reservation, assignment or conveyance heretofore made involving said mining claims or ores or minerals extracted therefrom.

Any amount due and payable to Lessors as royalty on any shipment of ore extracted and shipped or sold hereunder shall be

paid by Lessee to Lessors on or before the 15th day of the month next succeeding the calendar month during which Lessee shall have received payment for such shipment.

XIII.

It is mutually understood and agreed that in case of forfeiture, surrender or other termination of this Lease, all underground timbering supports, shaft linings and other fixtures necessary for the preservation of any mines, and all rails or head frames upon or in the said leased premises shall be and remain a part of the realty and shall revert to the Lessors without further consideration or compensation.

It is further understood and agreed that all personal property of Lessee located within or upon the leased premises, and all buildings, machinery, equipment and tools, (other than the fixtures to become the property of the Lessors as above provided) shall in case of forfeiture, surrender or other termination of this Lease, remain upon the leased premises, and be held as a guarantee in lieu of bond until all terms of this Lease with respect to payment of royalties and the preservation of the property shall have been complied with. Upon such compliance with the performance of such conditions and obligations the Lessee shall be entitled to, and may, within ninety (90) days after such termination of this Lease or within such extension of time as may be granted by Lessors, remove from the leased premises such personal property and improvements, other than those items which are to remain the property of the Lessors as above provided.

XIV.

Lessee shall occupy and hold as property of the Lessors all fractions, if any, which he may discover to exist between any of

the leased mining claims and which he shall locate under the mining laws, and the Lessee shall have the right and privilege of working such fractions, subject only to the payment of royalties provided herein.

XV.

Any notice contemplated herein to be served upon Lessee shall be in writing and shall be sufficiently given if deposited in the United States mail, postage prepaid and registered, and addressed as follows:

Moab Drilling Company
Attention: Charles A. Steen
P.O. Box 487
Moab, Utah

or at such other address as Lessee may from time to time designate by written notice to Lessors.

Any notice contemplated herein to be served upon Lessors shall be in writing and shall be sufficiently given if deposited in the United States mail, postage prepaid and registered, and addressed as follows:

George T. Aldridge
1919 East Lawn Avenue
Durango, Colorado

D. H. Byrd
1110 Tower Petroleum Bldg.
Dallas 1, Texas

or at such other address as Lessors may from time to time designate by written notice to Lessee.

XVI.

The provisions hereof shall inure to the benefit of and shall be binding upon the successors in interest, legal representatives and assigns of the respective parties hereto, but no party hereto shall be chargeable with notice of any assignment or conveyance until such party shall have been furnished with written notice

thereof and with a duplicate certified or photostat copy of the instrument of assignment or conveyance.

IN WITNESS WHEREOF, the parties hereto have executed these presents the day and year first above written.

MOAB DRILLING COMPANY

By _____
Charles A. Steen

_____
D. H. Byrd

_____
Mattie Carruth Byrd, his wife

_____
Alvie F. Fielding

_____
Barbara L. Fielding, his wife

_____
George T. Aldridge

_____
Elizabeth K. Aldridge, His wife

EXTRA COPY
DMEA
RECEIVED JUN 23 1959

DATE	[illegible]	CODE

STATE OF UTAH)
: ss
COUNTY OF GRAND)

On the 28th day of November 1956, personally appeared before me Charles A. Steen, one of the signers of the above and foregoing instrument, who duly acknowledged to me that he executed the same.

My Commission Expires:
1-18-59

_____
Notary Public:
Residing at Moab, Utah.

STATE OF TEXAS)
: ss
COUNTY OF Dallas)

On the 10 day of November 1956, personally appeared before me D. H. Byrd and Mattie Carruth Byrd, husband and wife, each of whom after being duly sworn, acknowledged to me that they executed the above and foregoing instrument.

My Commission Expires: 6-1-57

_____
Notary Public, residing at: Dallas, Tex.

STATE OF COLORADO)
: ss
COUNTY OF La Plata)

On the 0[illegible] day of Mar. 1956, personally appeared before me Alvie F. Fielding and Barbara L. Fielding, husband and wife, and George T. Aldridge and Elizabeth K. Aldridge, husband and wife, all of whom being duly sworn, did acknowledge to me that they executed the above and foregoing instrument.

My Commission Expires:
Mar 23 1959

Notary Public:
Residing at: Durango, Co

Entry No. 191816 52
Recorded 4-20-57 At 9 30 A.M. Book 166 Page 62
FEE PAID
ARVILLA E. WARREN.
San Juan County Recorder
$18.50 By [illegible] Deputy

EXTRA COPY
D M E A
RECEIVED [illegible] 19[illegible]

DATE	[illegible]	CODE

CONTRACT DRILLING BID FORM

DRILLING:

Bid price is for hole completed to 5 ft. below the lower ore horizon contact, cleaned for probing. Coring, when required, shall be at a minimum size of NX.

ROCK BIT				CORING			
0 -	200 ft.	@ $ 2.75	per ft.	0 -	200 ft.	@ $	per ft.
200 -	400 ft.	@ $ 2.85	per ft.	200 -	400 ft.	@ $ 5.50	per ft.
400 -	600 ft.	@ $ 2.95	per ft.	400 -	600 ft.	@ $ 6.00	per ft.
600 -	800 ft.	@ $ 3.05	per ft.	600 -	800 ft.	@ $ 6.50	per ft.
800 -	1,000 ft.	@ $ 3.25	per ft.	800 -	1,000 ft.	@ $ 7.50	per ft.
1,000 -	1,100 ft.	@ $ 3.45	per ft.	1,000 -	1,100 ft.	@ $ 9.00	per ft.
1,100 -	1,200 ft.	@ $ 3.65	per ft.	1,100 -	1,200 ft.	@ $ 11.00	per ft.

Standby time [illegible] per hr. 13.00

ACCESS ROAD CONSTRUCTION:

Bulldozer with Operator	D-6 Cat	$ 12.00	per hr.
Compressor & Jackhammer	& 1 man w/125 cfm	$ 7.38	per hr.

GEOLOGICAL-ENGINEERING SERVICES:

Logging & report on core and/or cuttings
Gamma ray logging
Location of holes
Survey location of hole with collar elevation
Splitting core; 1/2 for analysis, 1/2 for storage
Ore reserve calculation, including map
Geologic information of adjacent properties
All above included $ .50 per ft.

RECEIVED JUN 23 DATE

PROPERTY LOCATION

This property is located 30.5 miles southwest of Moab and may be easily reached in one hour. The claims are in Sec. 25, T25S, R18E, adjacent to sec. on the north.

HOLE DEPTH & NUMBER

Approximately 30 holes to be drilled in sandstone to a depth of 1050 feet.

All lost circulation material will be paid by the client @ cost plus 10%.

MOAB DRILLING COMPANY

BY A. C. Fudlow
Comptroller

A

CONTRACT DRILLING BID FORM

DRILLING:

Bid price is for hole completed to 5 ft. below the lower ore horizon contact, cleaned for probing. Coring, when required, shall be at a minimum size of NX.

ROCK BIT		CORING	
0 - 200 ft.	@ $ 2.50 per ft.	0 - 200 ft.	@ $3.50 per ft.
200 - 400 ft.	@ $ 2.75 per ft.	200 - 400 ft.	@ $3.75 per ft.
400 - 600 ft.	@ $ 3.00 per ft.	400 - 600 ft.	@ $4.50 per ft.
600 - 800 ft.	@ $ 3.50 per ft.	600 - 800 ft.	@ $5.00 per ft.
800 - 1,000 ft.	@ $ 4.00 per ft.	800 - 1,000 ft.	@ $6.00 per ft.
1,000 - 1,100 ft.	@ $ 4.50 per ft.	1,000 - 1,100 ft.	@ $6.50 per ft.
1,100 - 1,200 ft.	@ $ 5.00 per ft.	1,100 - 1,200 ft.	@ $7.00 per ft.

Standby time $ 16.00 per hr.

ACCESS ROAD CONSTRUCTION:

Bulldozer with Operator	$12.00 per hr.
Compressor & Jackhammer	$ 6.00 per hr.

GEOLOGICAL-ENGINEERING SERVICES:

	DATE	INITIALS	COST
Logging & report on core and/or cuttings			
Gamma ray logging			
Location of holes			
Survey location of hole with collar elevation			
Splitting core; 1/2 for analysis, 1/2 for storage			
Ore reserve calculation, including map			
Geologic information of adjacent properties			
All above included			$

EXTRA COPY
DMEA
RECEIVED JUN 23 1958

PROPERTY LOCATION

This property is located 30.5 miles southwest of Moab and may be easily reached in one hour. The claims are in Sec. 25, T25S, R18E , adjacent to sec. 36.

HOLE DEPTH & NUMBER

Approximately 30 holes to be drilled in sandstone to a depth of 1050 feet.

Geological Bid under separate bid

SWANK DRILLING EXPLORATION CO.

G.W. Swank

GEOLOGICAL SERVICE — MOAB, UTAH

MAY 20, 1958

TO: MR. G. W. SWANK, DRILLING CONTRACTOR, MOAB, UTAH
FROM: WM. DEAN MC DOUGALD, GEOLOGICAL SERVICES

THE FOLLOWING IS A ROUGH ESTIMATE ON THE COSTS FOR THE THIRTY DRILL HOLE PROGRAM INCLUDING HOLES WITH AROUND 1,000 FOOT DEPTH, WITH FIVE HOLES CORING SECTIONS OF 60' EACH AND THE BALANCE OF THE HOLES AMOUNTING TO TWENTY-FIVE HOLES WITH 40' FEET CORING EACH:

GEOLOGICAL-ENGINEERING SERVICES

THE FOLLOWING ARE INCLUDING IN THE ESTIMATE (A)

- LOGGING & REPORT ON CORE AND/OR CUTTINGS
- LOCATION OF HOLES
- SURVEY LOCATION OF HOLE WITH COLLAR ELEVATION
- SPLITTIGN CORE; ½ FOR ANALYSIS, ½ FOR STORAGE
- ORE RESERVE CALCULATION, INCLUDING MAP
- WEEKLY OR MONTHLY PROGRESS REPORTS ON ENGINEERING AND GEOLOGICAL DATA
- GEOLOGICAL INFORMATION OF ADJACENT PROPERTIES

(A) BASED ON A FOUR (4) DAY PER WEEK REQUIREMENT, INCLUDING FIELD AND OFFICE WORK, UP TO 9 HOURS PER DAY WITH TRAVEL TIME; THIS DOES NOT INCLUDE GAMMA RAY LOGGING...PER MONTH..... $1,000.00

(B) BASED ON A 5 TO 6 DAY WEEK, INCLUDING ALL OF THE ABOVE AS OUTLINED FOR (A).....PER MONTH.....$1250.00

CONTRACT GAMMA RAY LOGGING ON 1,000 FOOT HOLES WILL COST APPROXIMATLEY $200.00 PER HOLE ON ONE SCHEDULE, OR AROUND $2800.00 PER MONTH ON THE OTHER SCHEDULE. THE OPERATOR CAN CHOOSE THE SCHEDULE TO FIT HIS SCHEDULE OF COMPLETION. THE ONLY CONTRACT GAMMA RAY CONTRACTOR IN THIS AREA IS THE CENTURY GEOPHYSICAL CORPORATION, WITH OFFICES IN TULSA, OKLAHOMA, GRANTS, NEW MEXICO AND GRAND JUNCTION, COLORADO. CENTURY ALSO GIVES AN ELECTRIC LOG (EITHER SELF POTENTIAL OR RESISTIVITY) AT NO ADDITIONAL COSTS TO THE OPERATOR. THE ELECTIR LOGS ARE VERY USEFUL FOR CORRELATION AND GEOLOGICAL INFORMATION. CENTURY SERVICES ARE VERY GOOD AND COMPLETE, AND CONFIDENTIAL.

NOT INCLUDED IN THE CONTRACT BID FORM SUBMITTED TO ME ARE THE FOLLOWING ITEMS:

NX CORE BOXES; THE 30 HOLE PROGRAM WOULD NEED 130 BOXES AT A COST OF 1.30 EACH..... $169.00

CHEMICAL ASSAYING OF CORE; THE THIRTY HOLE PROGRAM WOULD HAVE TO ESTIMATE THIS ON A BASIS OF TWO ASSAYS PER HOLE, AT A COST FOR U308 AND V205 ONLY ON THE BASIS OF $4.00 PER SAMPLE, OR 60 X 4.00.....$240.00

THE ABOVE IS SUBMITTED FOR YOUR CONSIDERATIONS WHEN ESTIMATING OR BIDDING THE ABOVE CONSIDERED JOB.

SINCERELY YOURS,

WM. DEAN MC DOUGALD,
MANAGING GEOLOGIST

WDM/WDM

EXTRA COPY
O M E A
RECEIVED MAY 23 19
DATE | INITIALS | CO

Ore	
Mineralization	✓
Blank	

MOAB DRILLING COMPANY

GEOLOGIC LOG

HOLE No. MW5-1

CONTRACT UTEX

CLAIM Man-O-War #5

GROUP Aldridge & Associates

CO-ORDS: _____ N.

_____ E.

COLLAR ELEV. 5,695 (aneroid)

DATE 6/20/57

LOGGED BY R.K. Wyant

TOTAL DEPTH 1120 ft.

Sample No.	From	To	Thickness	Assay Rad	Assay Wet	W't'd. Grade	Mtl.	Color	Tex.	REMARKS
			GEOLOGIC		SECTION					
		NAME			INTERVAL				THICKNESS	
		Navajo			0 - 120'				120'	
		Kayenta			120' - 475'				350'	
		Wingate			475' - 775'				300'	
		Chinle			775' - 940'				165'	
		Shinarump			940' - 1110'				170'	
		Moenkopi			1110' -					

Remarks:

Probed to - 1120 ft.
Correction - +8.0 ft.
No core
Cutting samples taken at 5' intervals from 460' to 1120'.

CORE RECOVERY From	To	Ft.	%	PROBE RESULTS At	C	S	At	C	S
				1110	17	5			
				1109	18	5			
				1108	5	5			
				1107	10	5			
				1106	22	5			
				1105	80	5			
				1104	12	5			
				1103	4	5			
				1102	10	5			
				1101	8	5			
				1075	10	5			

Ore	
Mineralization	
Blank	X

MOAB DRILLING COMPANY

GEOLOGIC LOG

HOLE No. ALDRIDGE SCHOOL SEC. No. 1

CONTRACT

CLAIM SCHOOL SECTION 36

GROUP ALDRIDGE

CO-ORDS: N.

E.

COLLAR ELEV.

DATE 9-24-57

LOGGED BY R.R.M.

TOTAL DEPTH 970.0

Sample No.	From	To	Thickness	Assay Rad	Assay Wet	W't'd. Grade	Mtl.	Color	Tex.	REMARKS
	0.0	324	324				SS	BUFF LT. BR.	F	KAYENTA
	324	634	310				SS	BUFF	F	WINGATE
	634	805	171				SS-SH	LT. BR	F-M	CHINLE (RED)
	805	965	165				CONGL. SS-SH	GRY-GR	F-M-C	CHINLE (GREEN)
	965	970	5				SS-SH	CHOC BR	F	MOENKOPI

Remarks:

PROBE RESULTS NIL

+1.5' CORRECTION

CARBON + PYRITE FROM 936' THRU 945' - WK COUNT

CORE RECOVERY From	To	Ft.	%	PROBE RESULTS At	C	S	At	C	S
935	955	16.5	82		N				
955	970	10	66			<			

KELLY CO. L 2234

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
3/4/59	Murphy	700
3/4	Kilcoise	700
3/5	Selfridge	120
		110
		~~100~~
3/6	C	220
		700

Mr. Charles A. Steen
Box 487
Moab, Utah

MAR 5 1959

Re: Docket No. DMEA-5064 (Uranium)
Man-O-War, et al., Claims
Grand County, Utah

Dear Mr. Steen:

Reference is made to our letter of February 4, 1959, regarding action required to make your DMEA application eligible for consideration under the OME regulations.

We wish to cooperate with you in allowing ample time to complete such action, but, if we do not hear from you within 30 days from the date of this letter, we will assume that you are no longer interested in proceeding with your application, and we will consider it as having been withdrawn.

Sincerely yours,

(signed) FRANK E. JOHNSON

Acting Director

FMMurphy/gla
3-4-59
cc to: Director's Reading File
THKiilsgaard, 5224
FMMurphy
OME Field Team, Region III (2)

4/6/59 No reply received

43683

Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
2/3/59	Murphy	700
		700
2/4	Selfridge	220
		~~110~~
		~~100~~
2/4	C.	220
		700

FEB 4 1959

Mr. Charles A. Steen
Box 487
Moab, Utah

Re: Docket No. DMEA-5064 (Uranium)
Man-O-War, et al., Claims
Grand County, Utah

Dear Mr. Steen:

In accordance with our letter of September 19, 1958, enclosed is a copy of the regulations for obtaining Federal assistance in financing mineral exploration under which the new Office of Minerals Exploration will operate.

If you wish that your partly-processed DMEA application be considered under the OME regulations, please complete and return four of the copies of the attached application, MME Form 40.

There are substantial differences between the OME and DMEA programs; therefore, your attention is called particularly to the criteria under the OME regulations and to the certification on the OME application form which when signed declares that you would not ordinarily undertake the proposed exploration under current conditions and circumstances at your sole expense, and to Item 1(a) - and 1(c) if applicable - which relates to information used to determine your financial eligibility under the new exploration program. In this respect you should furnish your company's latest detailed balance sheet and profit and loss statement. If substantial interests in your company are held by other parties or organizations, similar financial data for them should also be supplied. Pertinent information that is included in your DMEA application need not be repeated in the OME application, but you should furnish any additional information required to support your OME application.

Also enclosed are six copies of the Lien and Subordination Agreements, MME Form 52, referred to in Item 2(c) of the application. Three copies of the old Form MF-205, Consent to Lien and Subordination Agreement, submitted with your application, are returned herewith. Early submittal of

43683

five completed copies of MME Form 52 will save time in case you apply for exploration assistance under the OME program and a contract is granted.

If you do not wish to participate in the OME program, we shall appreciate being so informed.

Sincerely yours,

Frank E. Johnson (for)

Acting Director

Enclosures

FMMurphy/FEJohnson/gla
2-3-59
cc to: Director's Reading File
THKiilsgaard, 5224
FMMurphy
OME Field Team, Region III (2)

MME Form 7
(10-58)

OFFI[illegible]		COPY
Date		Code
1/16/59		700
1/19		700
1/22		20
		220
		700

Mr. Charles A. Steen
Box 487
Moab, Utah

Re: Docket No. DMEA-5064 (Uranium)
Man-O-War, et al., Claims
Grand County, Utah

Dear Mr. Steen:

In accordance with our letter of September 19, 1958, enclosed is a copy of the regulations for obtaining Federal assistance in financing mineral exploration under which the new Office of Minerals Exploration will operate.

If you wish that your partly-processed DMEA application be considered under the OME regulations, please complete and return four of the copies of the attached application MME Form 40.

~~Your attention is directed especially to the certification~~ which when signed declares that you would not ordinarily undertake the proposed exploration under current conditions and circumstances at your sole expense, and to Item 1(a) - and 1(c) if applicable - which relates to information used to determine your financial eligibility under the new exploration program. Information that is included in your DMEA application need not be repeated in the OME application, but you ~~can add~~ new information if you so desire.

Also enclosed are six copies of the Lien and Subordination Agreements, MME Form 52, referred to in Item 2(c) of the application. Three copies of the old Form MF-205, Consent to Lien and Subordination Agreement, submitted with your application, are returned herewith. Early submittal of five completed copies of MME Form 52 will save time in case you apply for exploration assistance under the OME program and a contract is granted.

If you do not wish to participate in the OME program, we shall appreciate being so informed.

FMMurphy/gla
1-16-59

Sincerely yours,

Frank E. Johnson

Acting Director

cc to: Director's Reading File
THKiilsgaard, 5224
FMMurphy
OME Field Team, Reg.III (2)

Enclosures

43683

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
Washington 25, D. C.

January 31, 1959

Memorandum for Docket

Subject: Withdrawal of Pending DMEA Applications

Effective this date, this pending DMEA application is considered withdrawn for statistical purposes.

If, at a later date, the applicant requests reconsideration under the OME program, all pertinent material in the DMEA file should be transferred to the new OME docket.

Frank E. Johnson
Acting Director

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
9/19	Kusner	
"	[illegible]	100

SEP 19 1958

Mr. Charles A. Steen
Box 487
Moab, Utah

Re: Docket No. DMEA-5066 (Uranium)
Utex Exploration Company
Docket No. DMEA-5064 (Uranium)

Dear Mr. Steen,

As you have applications for exploration aid pending in our office, perhaps you may wish to study the proposed OME regulations and comment on them before October 17 as provided in the first paragraph of the enclosed notice reprinted from the Federal Register of Sept. 17.

Some time after October 17 when the final regulations become effective, we will send you the new application form so you may furnish any additional information necessary to process your applications for aid under the new program.

C. O. Mittendorf

ACTING Director

ASDakan:gjb
Sept. 19, 1958
Copy to: Docket (5066)
Docket (5064)
Dir. R. File
Field Team. (2)

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
9/8/58	Ching	700
9/8	Kumpe	700
9/8	[illegible]	110
"	[illegible]	100
9/9	[illegible]	220
		225

SEP 9 1958

Utex Exploration Company
Box 487
Moab, Utah

Attention: Mr. Max D. Pierson

Re: Docket No. DMEA-5064 (Uranium)
Man-O-War, et al., Claims
Grand County, Utah
Docket No. DMEA-5066 (Uranium)
Cane Creek-Moab Area
Grand and San Juan Counties, Utah

Gentlemen:

This will respond to your inquiry of September 3, regarding the status of the subject applications.

Legislation to continue an exploration program has been enacted by the Congress. We are presently preparing the necessary regulations for the new program. When these have been completed, posted in the Federal Register, and approved in final form, we will be in a position to consider your applications under them. A period of six weeks or more will probably be required before further action on your applications is possible. We will advise you when action on your part is required.

Sincerely yours,

[illegible] (for)

Administrator

MChing/gla
9-8-58
cc to: Admr.'s Reading File
THKiilsgaard, 5224
Mr. Ching
DMEA Field Team, Region III (2) w/2 cc incoming letter

8623

Utex Exploration Company
MINERALS EXPLORATION & DEVELOPMENT
BOX 487
MOAB, UTAH

W. R. McBRAMICH
VICE PRESIDENT

CHARLES A. STEEN
PRESIDENT
CHIEF GEOLOGIST

MITCHELL MELISH
SECRETARY

MAXINE STEEN BOYD
TREASURER

September 3, 1953

5064

Mr. C. O. Mitterdorf, Administrator
Defense Minerals Exploration Administration
U. S. Department of Interior
Washington, D. C.

Dear Sir:

The time is approaching when we must start planning our assessment work.

Utex Exploration Company has two D. M. E. A. Uranium Applications, No's. 5064 and 5066, on file with your department. If it is at all possible, we would like to know the status of these in order that we may make plans.

On the Cane Creek-Moab Area Group Docket No. 5066, due to the size, we must start on these in the near future.

Since your last letter, Monte Cristo Uranium Company has completed several holes to the west of the Cane Creek-Moab Group. Evidently good mineralization was encountered. Monte Cristo plans approximately 30,000 additional feet of drilling.

Any information from you on this matter will be appreciated.

Sincerely,

Max D. Pierson
Senior Geologist

MDP:mj

cc

Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
7/2	Hague	700
7/2	Selfridge	130
"	Johnson	110
"	Mortenson	100
		HB
		220
		225

JUL 2 1958

Mr. Charles A. Steen
Box 487
Moab, Utah

Re: Docket No. DMEA-5064 (Uranium)
Man-o-War, et al., Claims
Grand County, Utah

7/2 Lamb (130)
7/2 Nelson (130

Dear Mr. Steen:

Early in June we sent you the Department of the Interior Information Service Release dated June 6 which announced that no new Defense Minerals Exploration Administration contracts could be executed after June 30 because of the ending of the present program for exploration assistance.

We regret to inform you that your application, identified above, could not be completely processed before June 30 because it was received too late. However, we will be glad to hold your application until the Congress acts on pending legislation to continue the program. If it is continued, we will then ask you to state whether you wish us to consider your application under the new regulations established for this program.

Sincerely yours,

C. O. Mittendorf

Administrator

izm 7-2-58
cc: Mr. Murphy
Admr.'s Reading File
THKiilsgaard, 5224
DMEA FT Reg. 3 (2)

8623

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

OFFICIAL FILE COPY
IN REPLY REFER TO:
DMEA
RECEIVED JUN 27 1958

DATE		
6/27	B	220
"	~~[illegible]~~	900
	Complete	

June 26, 1958
Re: DMEA 5064
Charles A. Steen
Aldridge Property
Grand County, Utah
$137,404.00 - Uranium

Memorandum

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

From: N. E. Nelson, U. S. Geological Survey

Subject: Review of application

The applicant requests assistance in testing, by 37 one thousand-foot holes, the Shinarump-Moenkopi contact zone on the north flank of the Cane Creek anticline.

One hole has been drilled on the property and one has been drilled 950 feet south of the property. A seven hole cluster was drilled 3,400 feet to the southeast of the property by the Vanadium Corp. of America. In the hole on the property (Man-O-War 5, No. 1), uranium mineralization was noted at 1,105-1,106 feet. In the second hole SS-1, a trace of mineralization verified by slight radioactivity showed in some of the core. Considerable carbonaceous material with strong pyrite mineralization was found in the basal Chinle conglomerate.

No exact information is given concerning the VCA drilling, but mineralization was noted in some of the core. Testing for oil in the Cane Creek anticlinal structure was in progress in the general vicinity of the property during early May 1958.

Two and a half miles to three miles west of the property several miles of the Shinarump-Moenkopi contact zone is exposed by erosion in Hell Roaring Canyon and about the same distance to the south and southwest, miles of the contact zone show in the rim of Mineral Canyon. V. C. Kelley's 1955 Tectonic Map shows the location of several (8) Shinarump type deposits in Mineral Canyon and the canyon of Green River, about 6 miles to the west of the property. Of the importance of the showings, I have no information.

Except for the fact that the VCA drilled 7 holes on 50-foot centers about on the crest of the Cane Creek anticline, there is no apparent specific reason that might prompt a continuation of the deep drilling. General purpose drilling could be done with shorter holes in the nearby canyons. Presumedly the applicant expects to do his own drilling, and the cost to him might not be great. The reasoning behind this hunch of the applicant should make interesting reading.

Referral of the application to the Field Team is recommended.

N. E. Nelson

N. E. Nelson

OFFICIAL FILE COPY DMEA RECEIVED JUN 25 1958		
DATE	INITIALS	CODE
6/25/58	KVB	220
" 25	Knowe	700

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

Date June 24, 1958

DMEA Docket No. 5064
DMEA Contract No.
Commodity Uranium
Name of Applicant Charles A. Steen
Name of Property Aldridge
Location of property Grand Co. Utah
Estimated cost of project $137,404.00

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 Trip Report, etc.)

1. Date of subject document: 6/10/58 2. Date received by reviewer: 6/23/58

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 meriting 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. Reject ☐
d. Agree with Field Team ☐
e. Disagree with Field Team ☐
f. Suggest alternate plan ☐
g. Request another consideration ☐
h. Approval ☐
i. Consult with Mr. _____ at _____ (Date)

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

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

June 23, 1958

Mr. Charles A. Steen
Box 487
Moab, Utah

Subject: DMEA-5064

Dear Mr. Steen:

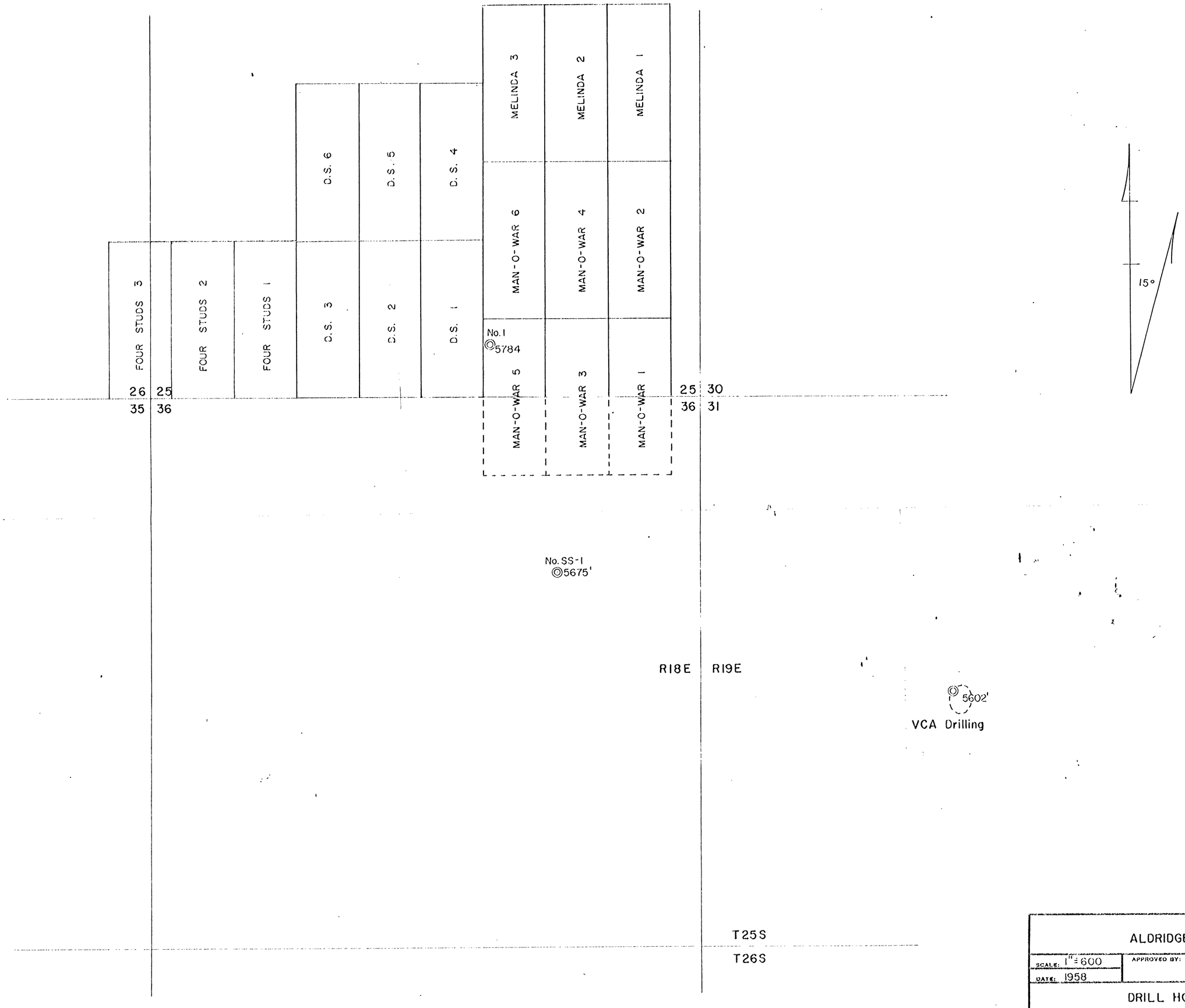
Your application for exploration assistance, dated June 10, 1958 submitted to our office at Denver, Colorado has been assigned Docket Number DMEA-5064 and referred to the Rare and Miscellaneous Metals Division in the Washington Office. Kindly identify all future correspondence relating to your application by this Docket Number.

Sincerely yours,

Allen S. Dakan, Director
Operations Control and
Statistics Division

Copy to: Region III.

37909



ALDRIDGE PROPERTY

SCALE: 1" = 600	APPROVED BY:	DRAWN BY RRM
DATE: 1958		REVISED AEG

DRILL HOLE LOCATIONS

DRAWING NUMBER

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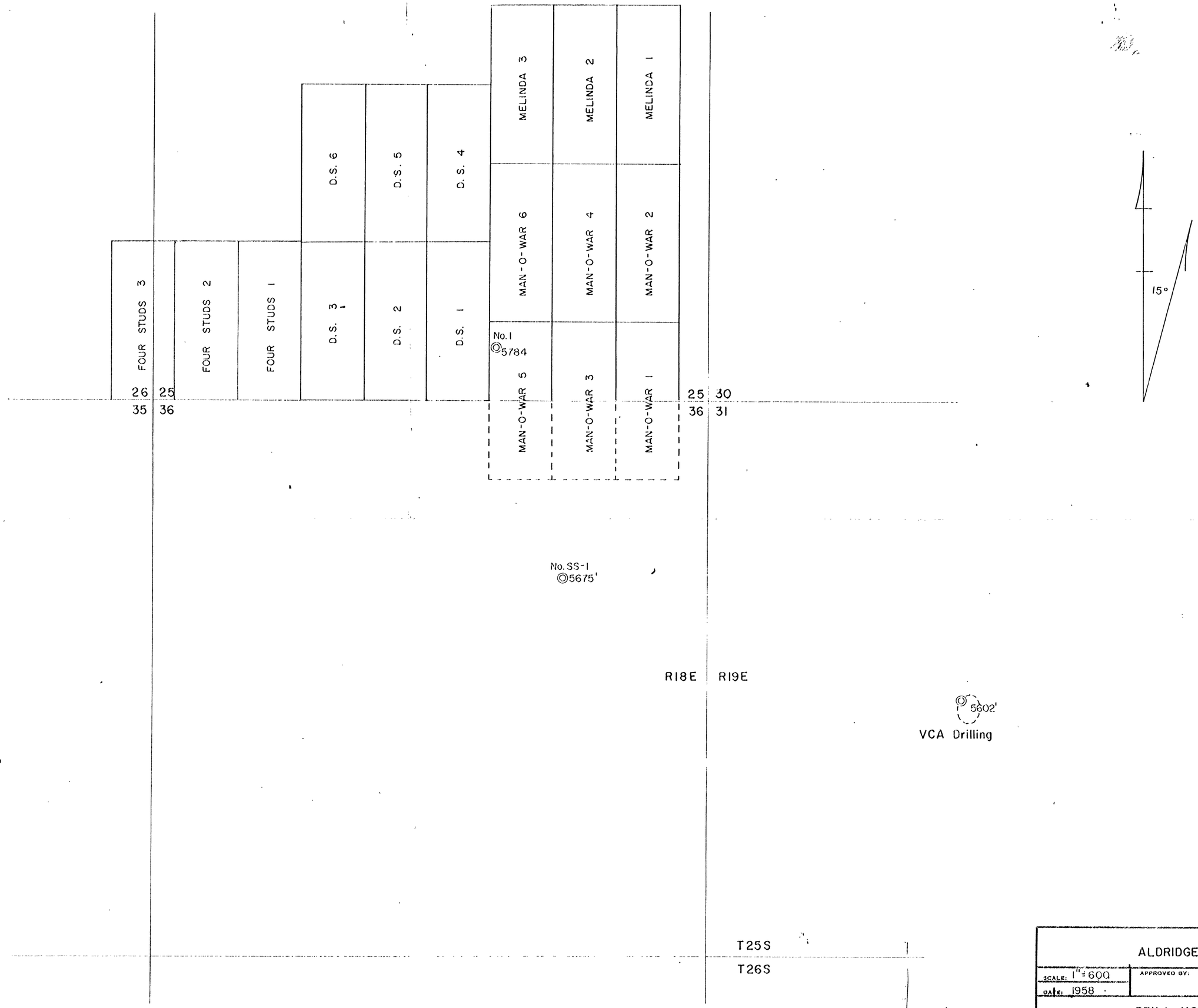

ALDRIDGE PROPERTY

SCALE: 1" = 600	APPROVED BY:	DRAWN BY RRM
DATE: 1958		REVISED AEG

DRILL HOLE LOCATIONS

DRAWING NUMBER

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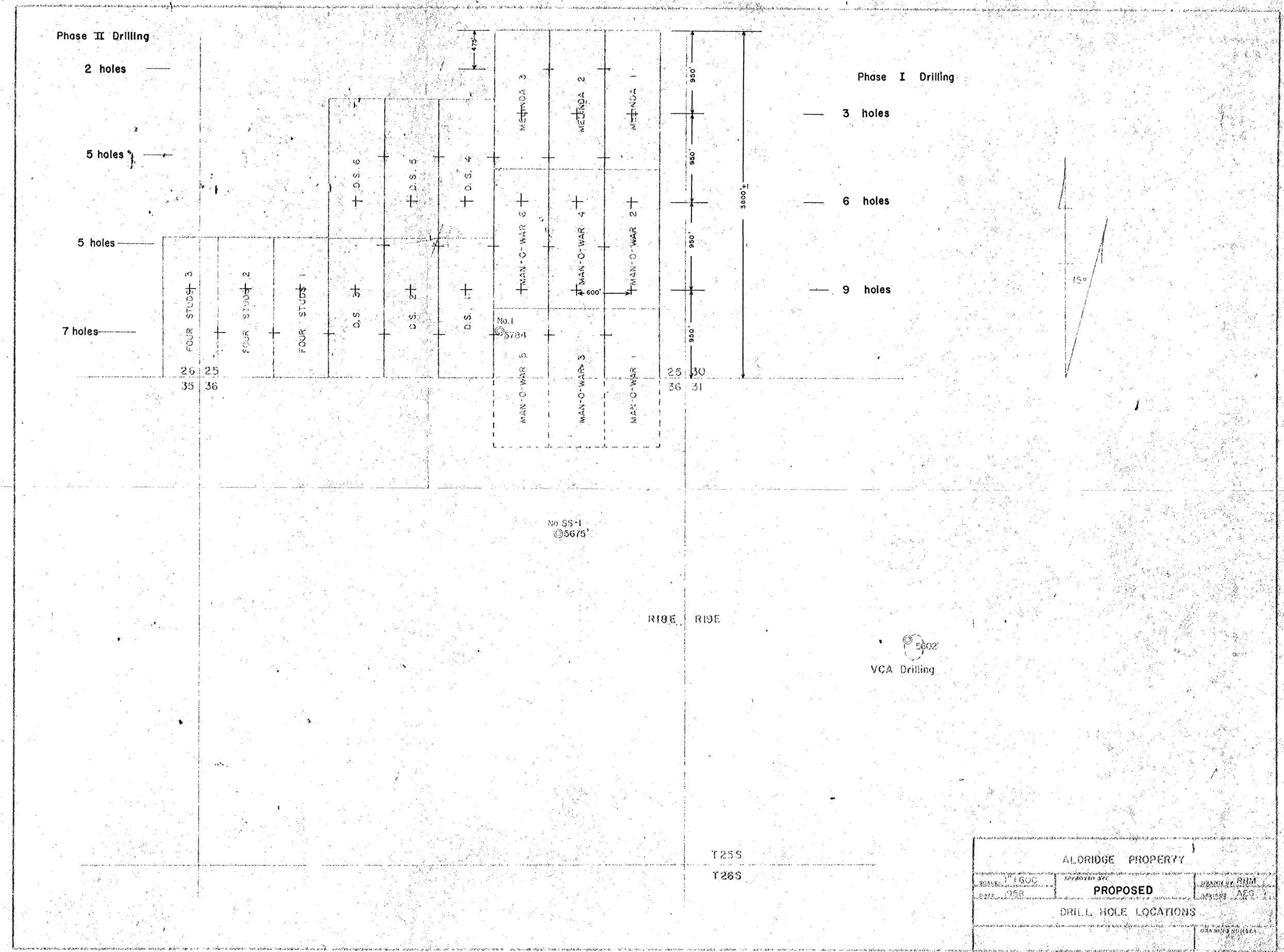
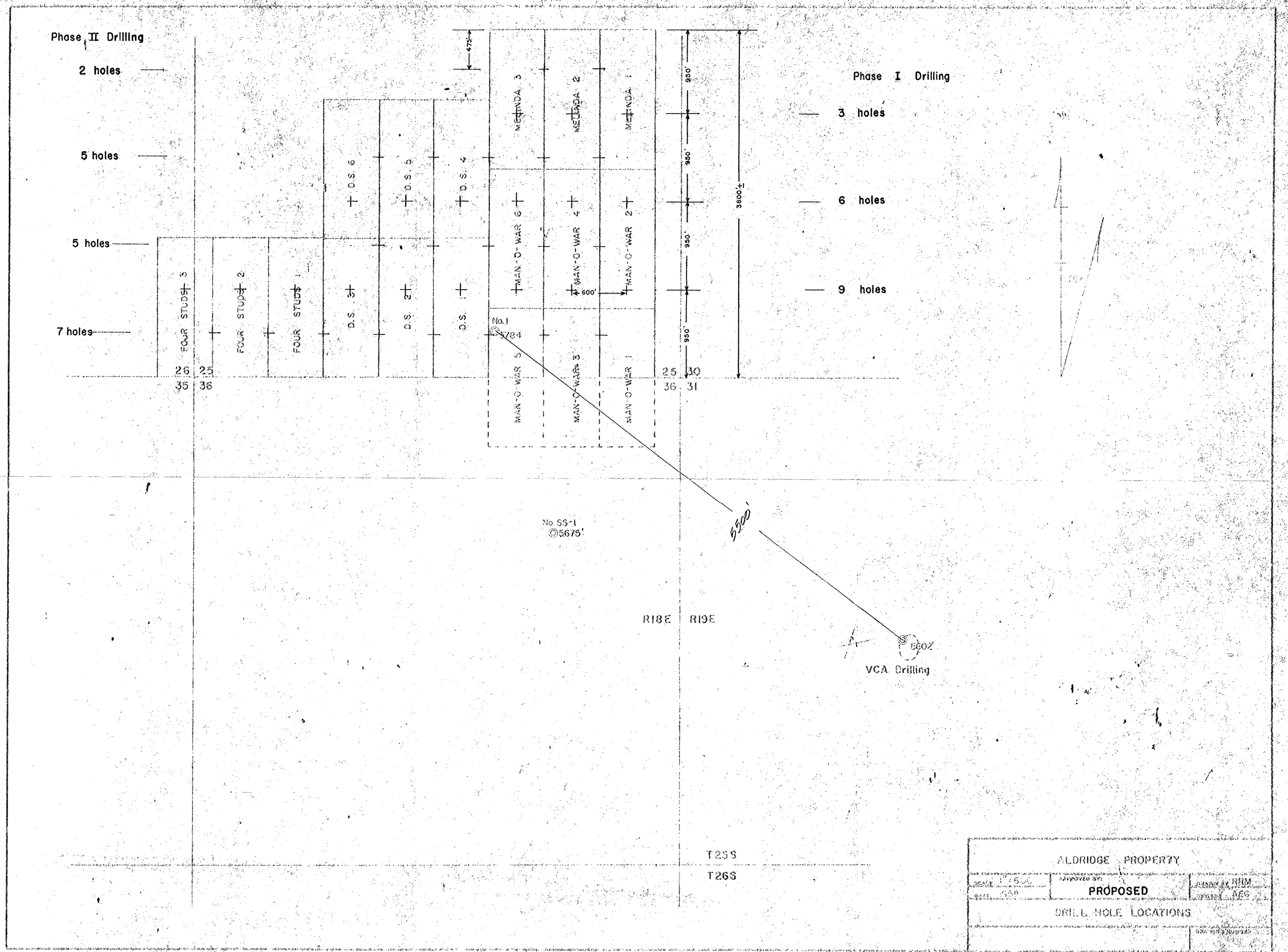

Phase II Drilling
2 holes
5 holes
5 holes
7 holes
Phase I Drilling
3 holes
6 holes
9 holes
475'
950'
950'
950'
950'
3800'±
600'
15°
MELINDA 3
MELINDA 2
MELINDA 1
MAN-O-WAR 6
MAN-O-WAR 4
MAN-O-WAR 2
MAN-O-WAR 5
MAN-O-WAR 3
MAN-O-WAR 1
D.S. 6
D.S. 5
D.S. 4
D.S. 3
D.S. 2
D.S. 1
FOUR STUDS 3
FOUR STUDS 2
FOUR STUDS 1
No. 1
5784
26 25
35 36
25 30
36 31
No SS-1
5675'
R18E
R19E
5602'
VCA Drilling
T25S
T26S
ALDRIDGE PROPERTY
SCALE 1" = 600'
DATE 1958
APPROVED BY
PROPOSED
DRAWN BY RHM
CHECKED AEG
DRILL HOLE LOCATIONS


Phase II Drilling
2 holes
5 holes
5 holes
7 holes
Phase I Drilling
3 holes
6 holes
9 holes
FOUR STUDS 3
FOUR STUDS 2
FOUR STUDS 1
D.S. 6
D.S. 5
D.S. 4
D.S. 3
D.S. 2
D.S. 1
MELINDA 3
MELINDA 2
MELINDA 1
MAN-O-WAR 6
MAN-O-WAR 4
MAN-O-WAR 2
MAN-O-WAR 5
MAN-O-WAR 3
MAN-O-WAR 1
475'
950'
950'
950'
950'
3800'±
600'
No.1
5784
26
25
35
36
25
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31
No SS-1
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T25S
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ALDRIDGE PROPERTY
PROPOSED
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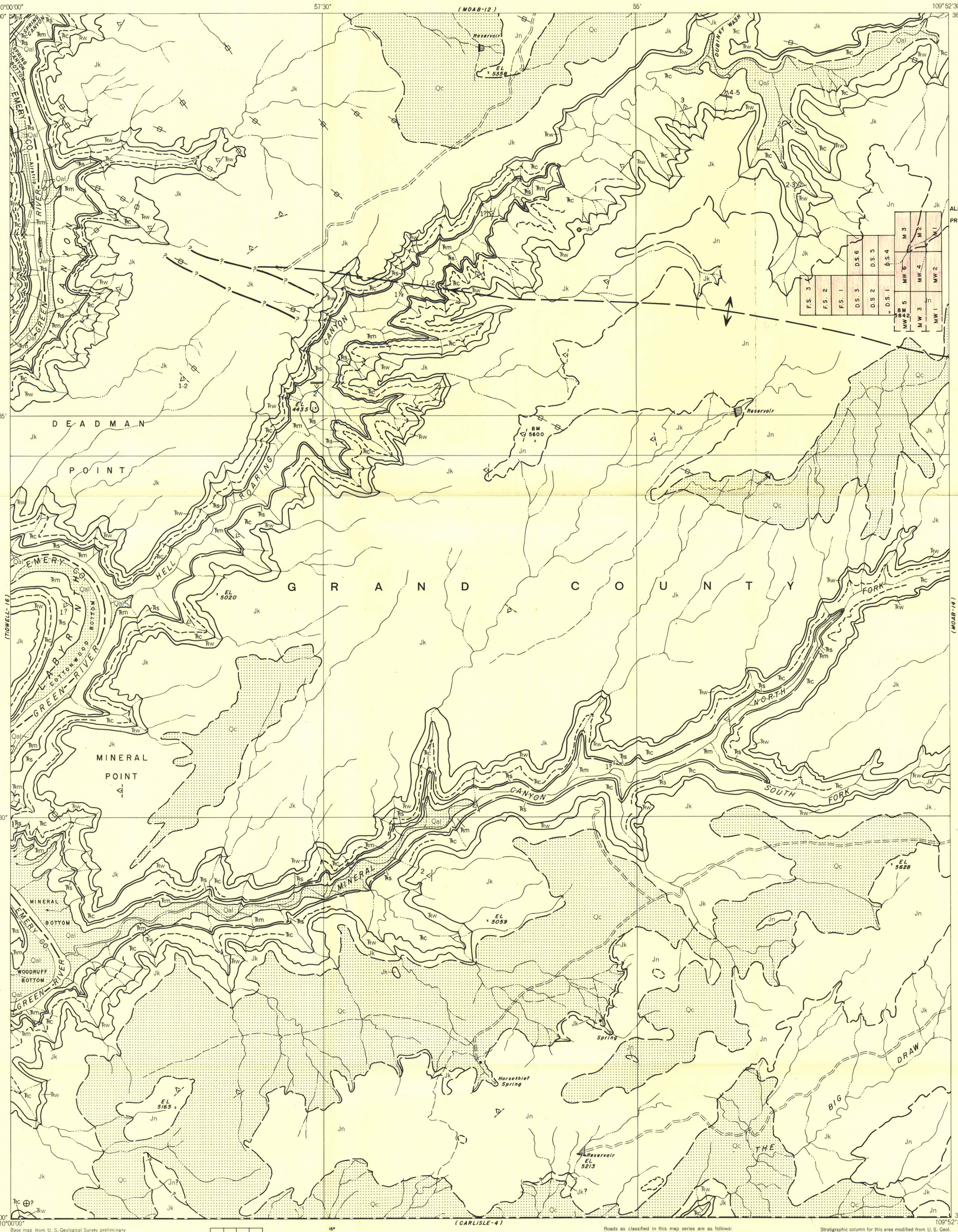

EXPLANATION

Qal | Qc	Alluvium, Qal; covering deposits, undifferentiated, Qc	QUATERNARY
Jn	Navajo sandstone	JURASSIC (?)
Jk	Kayenta formation	JURASSIC
Rw	Wingate sandstone	TRIASSIC — Upper Triassic
Rc	Chinle formation	TRIASSIC — Upper Triassic
Rs	Shinarump conglomerate	TRIASSIC — Lower and Middle(?) Triassic
Rm	Moenkopi formation	TRIASSIC — Lower and Middle(?) Triassic

Contact
Can be located within 30 feet horizontally.

Contact
Can be located within 30 to 200 feet horizontally.

Contact
Cannot be located accurately; probable error greater than 200 feet horizontally.

Probable contact

Conspicuous or resistant bed within a formation
May be traceable only locally.

Probable fault

Anticline
Showing crest line and direction of plunge
Approximately located.

Strike and dip of beds
Based on field measurement.

Strike and dip of beds
Computed by photogrammetric methods.

Approximate strike and dip of beds
Based on photointerpretation.

Inferred strike and dip of beds
Based on photointerpretation of areas where bedding is obscure.

Horizontal beds

Strike of approximately vertical joints
Based on photointerpretation.

Mine or quarry

County boundary

Secondary road

Trail

Base map from U. S. Geological Survey preliminary topographic map Moab 3 SW.

The aerial photographs used for photogeologic interpretation were taken in September 1951.

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

MOAB QUADRANGLE

15°
TRUE NORTH
MAGNETIC NORTH

Roads as classified in this map series are as follows: Primary roads are maintained and graded, traversable by two-wheel-drive vehicles; secondary roads are traversable possibly by two-wheel-drive vehicles; trails are not traversable by four-wheel-drive vehicles except locally. When other information is lacking, roads are classified by their appearance on aerial photographs.

Stratigraphic column for this area modified from U. S. Geol. Survey Bull. 908, 1940. Geographic and geologic field data also from U. S. Geol. Survey Bull. 908, 1940.

This map has been compiled mainly from photogeologic data but has not been checked in the field; hence it has not had the benefit of thorough evaluation with respect to maps compiled entirely from field data.

PHOTOGEOLOGIC MAP
OF THE
MOAB-13 QUADRANGLE
GRAND AND EMERY COUNTIES, UTAH

By
W. E. Bergquist

Scale 1:24 000

1 ½ 0 1 Mile

1955

INTERIOR—GEOLOGICAL SURVEY, WASHINGTON, D. C., MR-0720
For sale by U. S. Geological Survey, price 50 cents