Crawford

April 12, 1955

The Defense Minerals Exploration Administration
Department of the Interior
Washington 25, D.C.

Gentlemen:

Attached in quadruplicate is an application to DMEA for financial cooperation in connection with anticipated exploratory work on fourteen uranium claims in the Pumpkin Buttes area of Campbell County, Wyoming.

Any inquiries pertaining to additional detailed information on these claims should be addressed to John C. Ostlund at Gillette, Wyo.

Yours very truly,

Lou Thorson

Treasurer and Director

L.B.Thorson*MJ
enclosures

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

Defense Minerals Administration
RECEIVED
APR 15 1955

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

Not to be filled in by applicant

Docket No. 3777
Metal or Mineral Uranium, Vanadium, Thorium
Date Received 4-15-55
Estimated Cost $25,300
Participation (Government %)

INSTRUCTIONS

1. *Name of applicant.*—(*a*) State here your full legal name, in the form in which you will wish to contract, and your mailing address: A partnership made up of Mustang Oil & Exploration Co., 1200 So. Windermere Ave., Littleton, Colo., C.D.Roberts of Sundance, Wyo., Axel R. and John C. Ostlund of Gillette, Wyo.,The last named partner should be contacted in connection with properties named herein.

(*b*) If other than an individual, add to your name above whether a corporation, partnership, etc., and the name of the State in which incorporated or otherwise organized. partnership as shown in 1(A)

(*c*) If a corporation, add to above statement, titles, names and addresses of officers.

(*d*) If a partnership, add to the above statement the names and addresses of all partners. under 1(a)

2. *General.*—Read DMEA Order 1, "Government Aid in Defense Exploration Projects," before completing this application. Submit this application and all accompanying papers in quadruplicate (four copies), with your name and address on each sheet of the application and on all accompanying papers. Where sufficient space is not provided on the form for all required information, state it on an accompanying paper, with a reference in each case to the instruction to which it refers by number. Comply with all applicable instructions; or, if not applicable, so state. File the application with Defense Minerals Exploration Administration, Department of the Interior, Washington 25, D. C., or with the nearest field executive officer thereof.

3. *Applicant's property rights.*—(*a*) State the legal description of the land upon which you wish to explore, including all land which you possess or control that may be benefited by the exploration, and excluding any land or interest in land which is not to be included in the exploration project contract see enclosure "A"

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

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise owner of mineral rights

(*d*) If you are not the owner, submit with this application a copy of the lease, contract, or other document under which you control the property.

(*e*) If you own the land, describe any liens or encumbrances on it none

(*f*) If the land consists of unpatented claims, add to the description above, the book and page numbers for each recorded location notice. Book 5,Placer Mining Records, Pages 1 through 14, Campbell Co., Wyoming.

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

(*b*) State past and current production, and ore reserves, if any, giving quantities and grades. none

(*c*) Describe the geologic features of the property, including mineralization, type of deposit (vein, bedded, etc.), and your reasons for wishing to explore. Illustrate with maps or sketches. Send with your application (but not necessarily as a part of it) any geologic or engineering report, assay maps, or other technologic information you may have, indicating on each whether you require its return to you. See USGS Circulars 176 & 338. Also attached maps and report from Alfred G. Hoyl.

(*d*) State the facts with respect to the accessibility of the project: Access roads, distances to shipping, supply and residence points. Gillette, Wyo., rail, supply & residence point is 45 miles NE by secondary road.

(*e*) State the availability of manpower, materials, supplies, equipment, water, and power. Manpower, materials supplies & equipment are readily available in the area. Water is readily available from nearby ranches. Power would be supplied from portable generating plants or by extension of powerlines in the area.

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

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

(*c*) The work will start within 60 days and be completed within 3 months from the date of an exploration project contract.

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

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

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

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

(*c*) *Operating materials and supplies.*—Furnish an itemized list, including items of equipment costing less than $50 each, and power, water and fuel. none

(*d*) *Operating equipment.*—Furnish an itemized list of any operating equipment to be rented, purchased, or which is owned and will be furnished by the Operator, with the estimated rental, purchase price, or suggested use-allowance based on present value, as the case may be. none

(*e*) *Rehabilitation and repairs.*—Furnish a detailed list showing the cost of any necessary initial rehabilitation or repairs of existing buildings, installations, fixtures, and movable operating equipment, now owned by the Operator and which will be devoted to the exploration project. none

(*f*) *New buildings, improvements, installations.*—Furnish a detailed list showing the cost of any necessary buildings, fixed improvements, or installations to be purchased, installed or constructed for the benefit of the exploration project. none

(*g*) *Miscellaneous.*—Furnish a detailed list showing the cost of repairs to and maintenance of operating equipment (not including initial rehabilitation or repairs of the Operator's equipment), analytical work, accounting, workmen's compensation and employers' liability insurance, and payroll taxes. none

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

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

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

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

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

Explain in detail on acompanying paper.

CERTIFICATION

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

Dated April 13, 1955

Partners listed in 1(a)
(Applicant)

By [signature]

E.W.Thorson, Treasurer & Director

Mustang Oil & Exploration Co.

Title 18, U. S. Code (Crimes), Section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

U. S. GOVERNMENT PRINTING OFFICE 16—66551-1

ENCLOSURE "A"

3(a) This application is written for 14 lode mining claims. The "A" group consisting of claims A-1 through A-8, lying in Section 3, T42N, R75W and in Sections 34 and 35, T43N, R75W; and the "B" group consisting of claims B-1 through B-6, lying in Sections 16, 17 and 20, T44N, R75W, all in the Pumpkin Buttes Mining District, Campbell County, Wyoming. The detailed legal description of these claims is given in the attached "Assignment of Mining Claims".

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4(a) No mining operations are now being conducted on these claims. The general area has been explored by the USGS and its findings have been published in circulars 176 and 338. The above partnership has also conducted a surface examination of the claims. The claims all are readily accessible by secondary roads, to autos and trucks of all sizes.

5(b) Proposed exploratory work would include shallow drilling using augers where possible or rotary drilling; taking cores where indicated as well as dozing to remove overburden to expose deposits indicated by surface outcroppings.

It is proposed to drill on a 200x200-ft. grid (250 holes, see maps), with approximately 8,000 ft. of drill hole, varying between 20 ft. and 50 ft. in depth. The stratographic target is soft sand stone impregnated with uranium ore. As indicated by the results of this drilling, additional drilling on spacings of 50 ft. to 100 ft. will be undertaken at similar depths. Total auger or rotary drilling 12,000 ft. Where results from this auger drilling indicate, cores will be taken for an estimated 2,000 ft.

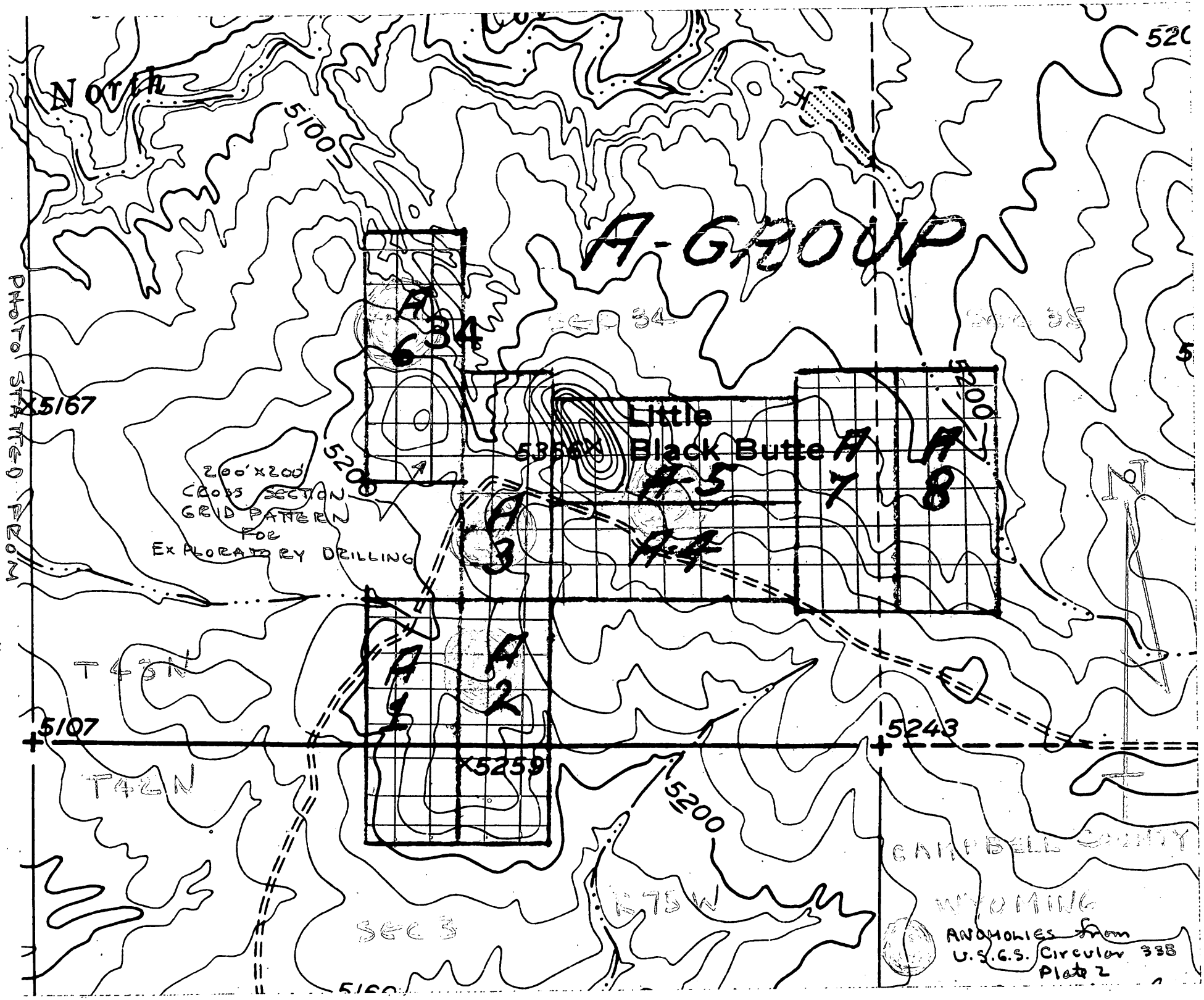
Where surface outcrops exist , it is desired to remove sufficient overburden with a dozer to approximate the extent of these near surface deposits.

Geologic and engineering supervision in order to evaluate the results of drilling and to adjust the program as knowledge accumulates is to be provided.

5(d) It is contemplated that competent mining engineering and geologic consultants will be retained to advise relative to the proposed program. Members of the partnership are fully qualified to supervise fieldwork.

6(a) Work to be done by independent contracts.

	Rotary drilling 12,000 ft. at $1.00	= $12,000	
	Core drilling 2,000 ft. at $3.00	= 6,000	
	Dozing 80 hours at $12.50	= 1,000	
	Total		$19,000
(b)	Labor, Supervision & Consultants		
	Supervision 3 mo. at $500	= 1,500	
	Consultanta 16 da. at $1000	= 1,600	
	Testing	= 900	4,000
(h)	Contingencies 10%		2,300
	Grand Total		$25,300


North
A-GROUP
Little Black Butte
5356
5167
5107
5243
5259
5100
5200
520
200'x200'
CROSS SECTION
GRID PATTERN
FOR
EXPLORATORY DRILLING
A 1
A 2
A 3
A 4
A 5
A 6
A 7
A 8
34
T42N
T43N
R75W
SEC 3
CAMPBELL COUNTY
WYOMING
ANOMOLIES from
U.S.G.S. Circular 338
Plate 2
PHOTO STATED FROM
U.S.G.S. QUADRANGLE MAP "SOUTH BUTTE, WYO."

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BY PICK
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MAR 9 1955
PICK PHOTOGRAPH & BLUEPRINT CO.
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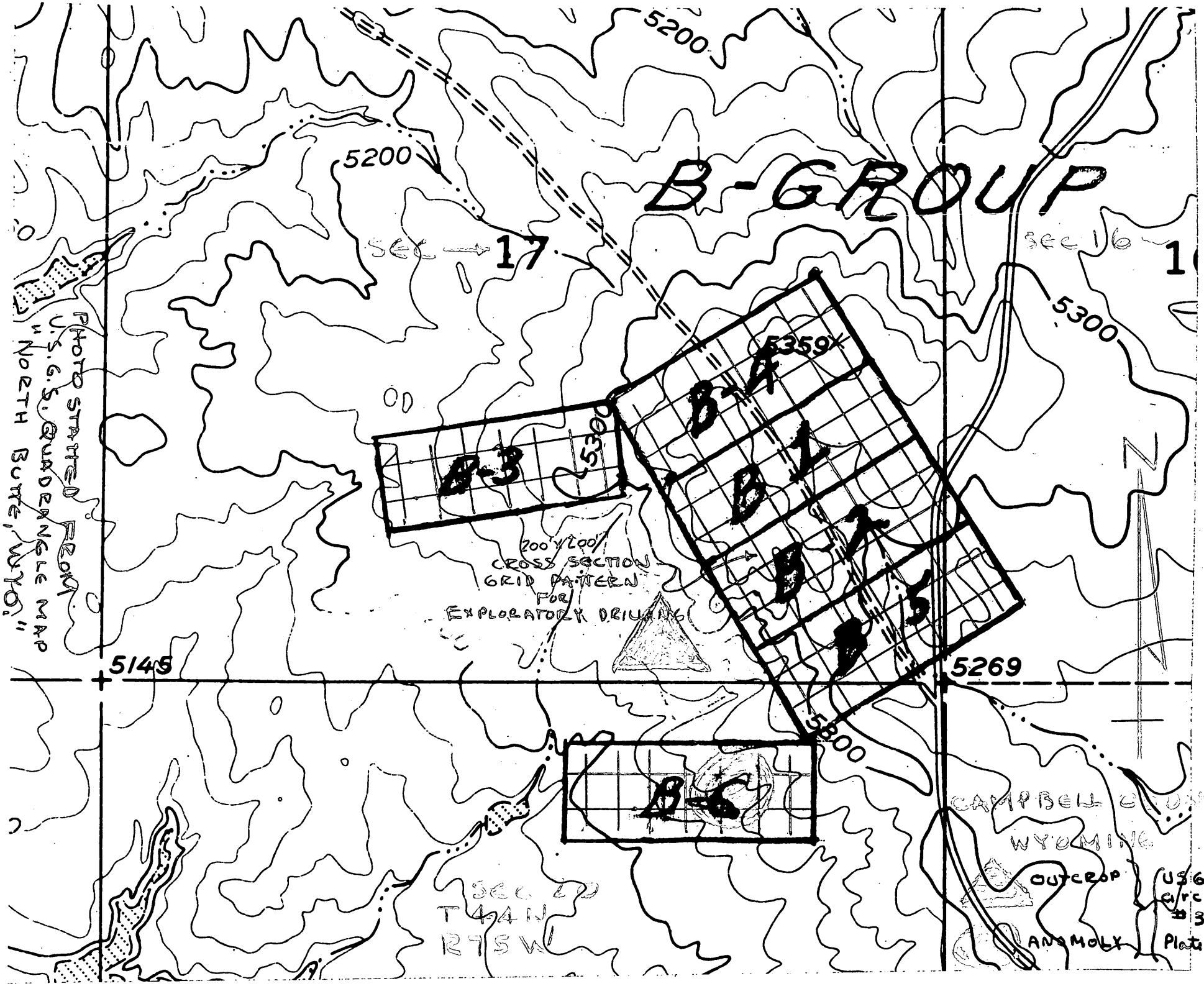
B-GROUP
5200
5200
SEC 17
SEC 16
5300
5359
B-4
B-3
B-1
B-2
B-5
B-6
5300
200'x100'
CROSS SECTION
GRID PATTERN
FOR
EXPLORATORY DRILLING
5145
5269
5800
CAMPBELL COUNTY
WYOMING
OUTCROP
ANTICLINE
SEC 20
T 44 N
R 75 W
PHOTO STATED FROM
U.S.G.S. QUADRANGLE MAP
"NORTH BUTTE, WYO."
USGS.
Circular
#338
Plate 2

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CONTRACT ENGINEERING COMPANY

Engineering, Development, Research, in the Mineral and Construction Industries

DENVER, COLORADO

1727 Boulder Street

January 6, 1955

Mustang Oil and Exploration Company
c/o Mr. E. W. Thorson
Boston Building
Denver 2, Colorado

Gentlemen:

In accordance with Mr. E. W. Thorson's request, I made a preliminary examination of a number of lode mining claims in the Pumpkin Buttes area, Campbell County, Wyoming. I examined twenty-four claims in all. Twenty of the claims had been located by Mr. Dale Ruby, (marked in yellow on the attached maps), and four had been located by John C. and Axel R. Ostlund, (marked in blue on the attached maps.)

I obtained maps and literature on the area from the U.S.G.S., examined the claims on the ground with the help of a scintillator, examined a nearby mine being operated by the Kerr-Magee Oil Industries, Inc., and discussed the possibilities of the area with Mr. J. T. Awald, geologist for the Atomic Energy Commission sub-office at Douglas, Wyoming.

I did not check the county or state land records; however, I did check with the Atomic Energy Commission and found that the claims in question were not in conflict with the area withdrawn by the U.S.G.S. It is my understanding that the surface rights are owned by a rancher named Mr. Brown. There is a possible conflict on the Sue Group with Kerr-Magee.

I was taken to the claims by John and Axel Ostlund, Mr. Scotchy Roberts and Mr. Dale Ruby. I was advised by John and Axel Ostlund that they had checked the county records and were satisfied that the claims had been recorded and were on open ground and not in conflict with state, school, or county land. I impressed upon them that this point must be absolutely positive, and they agreed to recheck with the aid of their local lawyer.

In the Pumpkin Buttes area, the uranium-bearing sands occur in a 450' thick zone of the Wasatch formation. The top of this zone is approximately 700' down in the section and would be at an approximate elevation of 5,250' since the sandstone beds are essentially horizontal.

Mustang Oil and Exploration Company
Boston Bldg., Denver 2, Colorado

January 6, 1955

High radioactivity was noted with the scintillator at one or more points on each group of claims. This was caused by a surface exposure of uranium-bearing sandstone. Samples were taken from three of these points. It would seem from the relative elevation of the buttes and the claims that these surface exposures were near the top of the 450' uranium-bearing zone.

Attached is a very recent U.S.G.S. circular, No. 338, which gives the geology and mineralogy of the area in detail.

The claims are divided into four groups: The A Group, A - 1 to A - 8; the B Group, B - 1 to B - 6; the C Group, C - 1 to C - 6; all located and owned by Dale Ruby; and the Sue Group, Sue 1 to Sue 4, located and owned by John and Axel Ostlund. Although the latter two groups are not included in the option, I was told they could be included in the deal.

The Pumpkin Buttes area is relatively new, and not enough drilling and mining has been done to tell whether it will become a major producer or not of uranium ore.

The indications are good and some ore is being mined by open-pit methods and trucked to Gillette, Wyoming, then shipped by rail to the A. E. C. ore-buying station at Edgemont, South Dakota.

Some of the uranium-bearing sandstones on the claims examined are almost on the surface and could be prospected very easily with shallow drilling or dozer cuts. It might be possible to uncover enough surface ore to pay for the necessary exploration, drilling, and development to prove the value of the claims.

The twenty-four claims examined are unproved and speculative, and must be drilled or otherwise developed; however, they have definite promise and are a good buy at the price offered.

If you purchase these claims, the following steps should be taken without delay:

1. Re-check the title and land situation.

2. Dig the discovery pits before February 2, 1955.

3. Re-stake the claims, using 4 x 4 posts; adequately and properly marking each post with stamped metal tags. Check distances and bearings.

Mustang Oil and Exploration Company
Boston Bldg., Denver 2, Colorado

January 6, 1955

4. Wherever indicated, file amended location notices.

5. Make an agreement with Mr. Brown as to procedure in protecting his surface rights or paying damages.

Respectfully yours,

Alfred G. Hoyl

Alfred G. Hoyl

AGH:dsh

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ASSIGNMENT OF MINING CLAIMS

KNOW ALL MEN BY THESE PRESENTS: Heretofore on January 12, 1955, Dale Ruby, as assignor, conveyed all his right, title and interest in the mining claims set forth below, to assignees, John C. Ostlund, Axel R. Ostlund, C. D. Roberts and E. W. Thorson; said claims being located in Township 42, 43 and 44, North, Range 75, West 6th P.M., all situated in Campbell County, Wyoming.

NOW THEREFORE, in consideration of the sum of Ten Dollars ($10.00) and other good and valuable consideration, receipt whereof is hereby acknowledged, I, the undersigned, E. W. Thorson, do hereby bargain, sell, transfer, assign, and set over to the Mustang Oil & Exploration Co., a Colorado Corp. all my right title and interest in, to and under the following described and identified mining claims, to wit:

1. Mining claim identified as A-1, dated and/or located or discovered December 21, 1954, by one Dale Ruby, as locator or discoverer, covering and including the following described tract of land:

Situated in Section 34, T. 43, N.R. 75 W. and Section 3, T. 42 N.R. 75, Campbell County, Wyoming, beginning at a point 100' north of Gov't. survey marker (s 34) go south 750' then west 600' then north 1500' then east 600' then (S 3) south to point of beginning. Located in Section 34, T. 43 N. R. 75, West.

Said mining claim being duly recorded in Book 5, Placer Mining Records, page 7, of Campbell County, State of Wyoming.

2. Mining claim identified as A-2, dated and/or located or discovered December 21, 1954, by one Dale Ruby, as locator or discoverer, covering and including the following described tract of land:

Situated in Section 34, T. 43, N.R. 75 West also Section 3, T. 42, N.R. 75 West. Beginning at a point 100' north of Gov't. survey marker (1 S34) go south 750' thence east 600' thence north 1500 feet thence West (4 S3) 600' thence south to point of beginning.

Said mining claim being duly recorded in Book 5, Placer Mining Records, page 8, of Campbell County, State of Wyoming.

3. Mining claim identified as A-3, dated and/or located or discovered December 21, 1954, by one Dale Ruby, as locator or discoverer, covering and including the following described tract of land:

Situated in Section 34, T. 43 N.R. 75 West. Beginning at a point 850' north of Gov't. survey marker (1 S34) thence north 1500' thence east 600' thence south 1500' thence (4 S3) west to point of beginning.

Said mining claim being duly recorded in Book 5, Placer Mining Records, page 9, of Campbell County, State of Wyoming.

4. Mining claim identified as A-4, dated and/or located or discovered December 21, 1954, by one Dale Ruby, as locator or discoverer, covering and including the following described tract of land:

Situated in Section 34, T. 43, N.R. 75 West. Beginning at a point 850' north and 600' east of Gov't. Survey marker (1 S34) thence north 600' thence east 1500' thence 600' south thence (4 S3) 1500' to point of beginning.

Said mining claim being duly recorded in Book 5, Placer Mining Records, page 10, of Campbell County, State of Wyoming.

5. Mining claim identified as A-5, dated and/or located or discovered December 21, 1954, by one Dale Ruby, as locator or discoverer, covering and including the following described tract of land:

Situated in Section 34, T. 43 N.R. 75 West. Beginning at a poing 1360' in a northeasterly direction from Gov't. survey marker (1S34) then go east 1500' thence north 600' thence east 1500' thence (4S3) south 600' to point of beginning.

Said mining claim being duly recorded in Book 5, Placer Mining Records, page 11, of Campbell County, State of Wyoming.

6. Mining claim identified as A-6, dated and/or located or discovered December 24, 1954, by one Dale Ruby, as locator or discoverer, covering and including the following described tract of land:

Situated in Section 34, T. 43, N.R. 75, West. Beginning at a point 1450' north of Gov't. survey marker (1 S34) go north 1500' thence west 600' thence south 1500' thence east (4 S3) 600' to point of beginning.

Said mining claim being duly recorded in Book 5, Placer Mining Records, page 12, of Campbell County, State of Wyoming.

7. Mining claim identified as A-7, dated and/or located or discovered December 24, 1954, by one Dale Ruby, as locator or discoverer, covering and including the following described tract of land:

Situated in Section 34, T. 43, N.R. 75, Starting at a point 720 feet northwesterly direction from SE cor of Section 34, T. 43, N.R. 75, hence north 1500' thence 600' west thence 1500 feet south thence 600' east to point of beginning. Located in Section 34, T. 43, N.R. 75 West.

Said mining claim being duly recorded in Book 5, Placer Mining Records, page 13, of Campbell County, State of Wyoming.

8. Mining claim identified as A-8, dated and/or located or discovered December 22, 1954, by one Dale Ruby, as locator or discoverer, covering and including the following described tract of land:

Situated in Section 34, T. 43, N. R. 75. Starting at a point 206' northwesterly from SE Cor of Section 34, T. 43, N.R. 75, thence north 1500' thence 600' west thence south 1500' thence east 600' to a point of beginning.

Said mining claim being duly recorded in Book 5, Placer Mining Records, page 14, of Campbell County, State of Wyoming.

9. Mining claim identified as B-1, dated and/or located or discovered December 22, 1954, by one Dale Ruby, as locator or discoverer, covering and including the following described tract of land:

Situated in Section 17, T. 44, N.R. 75. Starting at a point 1800 feet in a northwesterly direction from SE cor of Section 17, T. 44, N.R. 75, thence northwesterly 600' thence northeasterly 1500' thence southeasterly 600' thence southwesterly 1500 to point of beginning.

Said mining claim being duly recorded in Book 5, Placer Mining Records, page 1, of Campbell County, State of Wyoming.

10. Mining claim identified as B-2, dated and/or located or discovered December 23, 1954, by one Dale Ruby, as locator or discoverer, covering and including the following described tract of land:

Situated in Section 17, T. 44 N.R. 75. Starting at a point 1200 feet northwesterly from SE cor of Section 17, T. 44, N.R. 75, thence northwesterly 600' thence northeasterly 1500' thence southeasterly 600' thence southwesterly 1500' to point of beginning.

Said mining claim being duly recorded in Book 5, Placer Mining Records, page 2, of Campbell County, State of Wyoming.

11. Mining claim identified as B-3, dated and/or located or discovered December 22, 1954, by one Dale Ruby, as locator or discoverer, covering and including the following described tract of land:

Situated in Section 17, T. 44 N.R. 75. Starting at a point 2340' north westerly from SE cor of Section 17, T. 44 N.R. 75, thence northwesterly 600' thence southwesterly 1500' thence southeasterly 600' thence northeasterly 1500' to point of beginning.

Said mining claim being duly recorded in Book 5, Placer Mining Records, page 3, of Campbell County, State of Wyoming.

12. Mining claim identified as B-4, dated and/or located or discovered December 23, 1954, by one Dale Ruby, as locator or discoverer, covering and including the following described tract of land:

Situated in Section 17, T. 44, N.R. 75. Starting at point 2340' northwesterly from SE cor of Section 17, T. 44, N.R. 75, thence northwesterly 600' thence northeasterly 1500' thence southeasterly 600' thence southwesterly 1500' to a point of beginning.

Said mining claim being duly recorded in Book 5, Placer Mining Records, page 4, of Campbell County, State of Wyoming.

13. Mining claim identified as B-5, dated and/or located or discovered December 23, 1954, by one Dale Ruby, as locator or discoverer, covering and including the following described tract of land:

Situated in Section 17, T. 44, N.R. 75. Starting at a point 700 feet west of SE cor of Section 17, T. 44, N.R. 75, thence northwesterly 600' thence northeasterly 1500' thence southeasterly 600' thence 1500' southwesterly to point of beginning.

Said mining claim being duly recorded in Book 5, Placer Mining Records, page 5, of Campbell County, State of Wyoming.

14. Mining claim identified as B-6, dated and/or located or discovered December 23, 1954, by and Dale Ruby, as locator or discoverer, covering and including the following described tract of land:

Situated in Section 20, T. 44, N.R. 75. Starting at a point 600' West of SE cor, Section 17, T. 44, N.R. 75, thence west 1500' thence south 600' thence east 1500' thence north 600' to point of beginning. Claim is in Section 20, T. 44, N.R. 75.

Said mining claim being duly recorded in Book 5, Placer Mining Records, page 6, of Campbell County, State of Wyoming.

This assignment is made without warranty of title either express or implied.

IN WITNESS WHEREOF, the undersigned has signed and sealed this instrument on the 4th day of April, 1955.

E W Thorson

STATE OF COLORADO)
) ss.
County of Denver)

On this 4 day of April, 1955, before me personally appeared E. W. Thorson, to me known to be the person described in and who executed the foregoing instrument and acknowledged that he executed the same as his free act and deed.

E W Thorson
Notary Public

My Commission expires Apr 26 1955

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APR 5 1955
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CERTIFIED ON REQUEST

Recorded January 13, 1955 - 9:45 A.M. - Book 5-Placer Mining Records, Page 72.
Number - - - 182927 Eileen Butler - County Clerk.

Minerals Commission
RECEIVED

ASSIGNMENT OF MINING CLAIMS

KNOW ALL MEN BY THESE PRESENTS: That whereas Dale Ruby, a single man, of Gillette, Wyoming, declares and acknowledges that he is the locator of certain mining claims by virtue of the revised statutes of the United States and the laws of the State of Wyoming, said claims being located in Townships 42, 43 and 44, in range 75 West 6th P.M., all situate in Campbell County, Wyoming.

NOW, THEREFORE, in consideration of the sum of One Dollar and other good and valuable consideration, the receipt whereof is hereby acknowledged, the undersigned, Dale Ruby, a single man, does hereby bargain, sell, transfer, assign, and set over to John C. Ostlund, Axel R. Ostlund, C. D. Roberts, and E. W. Thorson, their heirs, personal representatives and assigns all his right, title and interest in, to and under the following described and identified mining claims and the lands covered thereby, to wit:

1. Mining claim identified as A-1, dated and/or located or discovered December 21, 1954, by said Dale Ruby, as locator or discoverer, covering and including the following described tract of land:

Situated in Section 34, T. 43, N.R. 75 W. and Section 3, T. 42 N.R. 75, Campbell County, Wyoming, beginning at a point 100' north of Gov't. survey marker ($\frac{S34}{S3}$) go south 750' then west 600' then north 1500' then east 600' then south to point of beginning. Located in Section 34, T. 43 N.R. 75. West.

Said mining claim being duly recorded in Book 5, Placer Mining Records, page 7, of Campbell County, State of Wyoming.

2. Mining claim identified as A-2, dated and/or located or discovered December 21, 1954, by said Dale Ruby, as locator or discoverer, covering and including the following described tract of land:

Situated in Section 34, T. 43, N.R. 75 West also Section 3, T. 42, N.R. 75 West. Beginning at a point 100' north of Gov't. survery marker ($\frac{1\ S34}{4\ S3}$) go south 750' thence east 600' thence north 1500 feet thence West 600' thence south to point of beginning.

Said mining claim being duly recorded in Book 5, Placer Mining Records, page 8, of Campbell County, State of Wyoming.

3. Mining claim identified as A-3, dated and/or located or discovered December 21, 1954, by said Dale Ruby, as locator or discoverer, covering and including the following described tract of land:

Situated in Section 34, T. 43 N.R. 75 West. Beginning at a point 850' north of Gov't. survey marker ($\frac{1\ S34}{4\ S3}$) thence north 1500' thence east 600' thence south 1500' thence west to point of beginning.

Said mining claim being duly recorded in Book 5, Placer Mining Records, page 9, of Campbell County, State of Wyoming.

4. Mining claim identified as A-4, dated and/or located or discovered December 21, 1954, by said Dale Ruby, as locator or discoverer, covering and including the following described tract of land:

Situtated in Section 34, T. 43, N.R. 75 West. Beginning at a point 850' north and 600' east of Gov't. Survey marker ($\frac{1\ S34}{4\ S3}$) thence north 600' thence east 1500' thence 600' south thence 1500' to point of beginning.

Said mining claim being duly recorded in Book 5, Placer Mining Records, page 10, of Campbell County, State of Wyoming.

5. Mining claim identified as A-5, dated and/or located or discovered December 21, 1954, by said Dale Ruby, as locator or discoverer, covering and including the following described tract of land:

Situated in Section 34, T. 43 N. R. 75 West. Beginning at a point 1360' in a northeasterly direction from Gov't. survey marker (1S34) then go east 1500' thence north 600' thence east 1500' thence (4S3) south 600' to point of beginning.

Said mining claim being duly recorded in Book 5, Placer Mining Records, page 11, of Campbell County, State of Wyoming.

6. Mining claim identified as A-6, dated and/or located or discovered December 24, 1954, by said Dale Ruby, as locator or discoverer, covering and including the following described tract of land:

Situated in Section 34, T. 43, N.R. 75, West. Beginning at a point 1450' north of Gov't. survery marker (1 S34) go north 1500' thence west 600' thence south 1500' thence east (4 S3) 600' to point of beginning.

Said mining claim being duly recorded in Book 5, Placer Mining Records, page 12, of Campbell County, State of Wyoming.

7. Mining claim identified as A-7, dated and/or located or discovered December 24, 1954, by said Dale Ruby, as locator or discoverer, covering and including the following described tract of land:

Situated in Section 34, T. 43, N.R. 75. Starting at a point 720 feet northwesterly direction from SE cor of Section 34 T. 43 N.R. 75, hence north 1500' thence 600' west thence 1500 feet south thence 600' east to point of beginning. Located in Section 34, T. 43, N.R. 75 West.

Said mining claim being duly recorded in Book 5, Placer Mining Records, page 13, of Campbell County, State of Wyoming.

8. Mining claim identified as A-8, dated and/or located or discovered December 22, 1954, by said Dale Ruby, as locator or discoverer, covering and including the following described tract of land:

Situated in Section 34, T. 43, N.R. 75. Starting at a poing 206' northwesterly from SE Cor of Section 34, T. 43, N.R. 75, thence north 1500' thence 600' west thence south 1500' thence east 600' to a point of beginning.

Said mining claim being duly recorded in Book 5, Placer Mining Records, page 14, of Campbell County, State of Wyoming.

9. Mining claim identified as B-1, dated and/or located or discovered December 22, 1954, by said Dale Ruby, as locator or discoverer, covering and including the following described tract of land:

Situated in Section 17, T. 44, N.R. 75. Starting at a point 1800 feet in a northwesterly direction from SE cor of Section 17, T. 44, N.R. 75, thence northwesterly 600' thence northeasterly 1500' thence southeasterly 600' thence southwesterly 1500 to point of beginning.

Said mining claim being duly recorded in Book 5, Placer Mining Records, page 1, of Campbell County, State of Wyoming.

10. Mining claim identified as B-2, dated and/or located or discovered December 23, 1954, by said Dale Ruby, as locator or discoverer, covering and including the following described tract of land:

Situated in Section 17, T. 44 N.R. 75. Starting at a point 1200 feet northwesterly from SE cor of Section 17, T. 44, N.R. 75, thence northwesterly 600' thence northeasterly 1500' thence southeasterly 600' thence southwesterly 1500' to point of beginning.

Said mining claim being duly recorded in Book 5, Placer Mining Records, page 2, of Campbell County, State of Wyoming.

11. Mining claim identified as B-3, dated and/or located or discovered December 22, 1954, by said Dale Ruby, as locator or discoverer, covering and including the following described tract of land:

Situated in Section 17, T. 44 N.R. 75. Starting at a point 2340' northwesterly from SE cor of Section 17, T. 44 N.R. 75, thence northwesterly 600' thence southwesterly 1500' thence southeasterly 600' thence northeasterly 1500' to point of beginning.

Said mining claim being duly recorded in Book 5, Placer Mining Records, page 3, of Campbell County, State of Wyoming.

12. Mining claim identified as B-4, dated and/or located or discovered December 23, 1954, by said Dale Ruby, as locator or discoverer, covering and including the following described tract of land:

Situated in Section 17, T. 44, N.R. 75. Starting at point 2340' northwesterly from SE cor of Section 17, T. 44, N.R. 75, thence northwesterly 600' thence northeasterly 1500' thence southeasterly 600' thence southwesterly 1500' to a point of beginning.

Said mining claim being duly recorded in Book 5, Placer Mining Records, page 4, of Campbell County, State of Wyoming.

13. Mining claim identified as B-5, dated and/or located or discovered December 23, 1954, by said Dale Ruby, as locator or discoverer, covering and including the following described tract of land:

Situated in Section 17, T. 44, N.R. 75. Starting at a point 700 feet west of SE cor of Section 17, T. 44, R. 75, thence northwesterly 600' thence northeasterly 1500' thence southeasterly 600' thence 1500' southwesterly to point of beginning.

Said mining claim being duly recorded in Book 5, Placer Mining Records, page 5, of Campbell County, State of Wyoming.

14. Mining claim identified as B-6, dated and/or located or discovered December 23, 1954, by said Dale Ruby, as locator or discoverer, covering and including the following described tract of land:

Situated in Section 20, T. 44, N.R. 75. Starting at a point 600' West of SE cor, Section 17, T. 44, N.R. 75, thence west 1500' thence south 600' thence east 1500' thence north 600' to point of beginning. Claim is in Section 20, T. 44, N.R. 75.

Said mining claim being duly recorded in Book 5, Placer Mining Records, page 6, of Campbell County, State of Wyoming.

This assignment is made without warranty of title either express or implied.

IN WITNESS WHEREOF, the undersigned has signed and sealed this instrument on the 12th day of January, 1955.

Dale Ruby

Dale Ruby

STATE OF WYOMING)
) ss.
County of Campbell)

On this 12th day of January, 1955, before me personally appeared Dale Ruby, to me known to be the person described in and who executed the foregoing instrument, and acknowledged that he executed the same as his free act and deed.

Michael M. Stock

Notary Public

My Commission expires August 18, 1958.

STATE OF WYOMING)
CAMPBELL COUNTY) ss.

I, Eileen Butler, County Clerk and Ex-Officio Register of Deeds within and for the County and State aforesaid, do hereby certify the foregoing to be a photograph of page 72, 73 & 74 of Book 5 of P.M.R. of the records of my office.

IN TESTIMONY WHEREOF I have hereunto set my hand and affixed the official seal of my office at Gillette, Wyoming, this 25th day of February, 1955.

Eileen Butler

County Clerk

DMA Form 1

DEFENSE MINERALS ADMINISTRATION
Control Slip

CONTROLLED DOCUMENT

DMA Docket No. 3777

DO NOT DETACH THIS SLIP

Action on this document is recorded and controlled in Reports and Records Branch. Any movement of this document between divisions or offices of DMA or movement outside DMA must be reported to the Reports and Records Branch. Actions taken that affect status of the case must also be reported.

Cys to USBM, USGS, and Reg. III.

This document has been recorded as

Exploration

Any action taken to change the type of request for assistance must be promptly reported to the Reports and Records Branch. Use DMA Form 2 for submitting these reports.

Routing Slip

To:	700	Date	4/18/55
To:	Offer Com	Date	4-29-55
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DO NOT DETACH

CONTROLLED DOCUMENT

Surname 700

Ching
Ellis
Bishop
Williams
Martin
Peterson

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

AUG 11 1955

Mr. John C. Ostlund
Mustang Oil and Exploration
Company, et al.
Gillette, Wyoming

Re: Docket No. DMEA-3777 (Uranium and thorium)
A and B Groups
Campbell County, Wyoming

Dear Mr. Ostlund:

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

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

Careful study of all our information, although noting a small amount of uranium and thorium mineralization on your claims, indicates to us that the probability of disclosing minable ore reserves by your proposed program is not sufficiently promising to justify Government participation. We regret to advise you, under these circumstances, that your application for exploration assistance is denied. Such denial, however, is made without prejudice. In the event further work on your part discloses new and more favorable evidence of ore deposition on the property, we shall be pleased to consider a new application.

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

Sincerely yours,

C. O. Mittendorf

Administrator

MChing:am
8-9-55

cc to: Admr. Reading File
Operating Committee
Docket

Messrs. J. E. Crawford, Rm. 3641
T. H. Kiilsgaard, Rm. 5222
J. O. Hosted, Rm. 3210, GSA
Code 700
Mr. Ching

DMEA Field Team, Region III(2)

(Docket Copy) 700

Chung
Ellis

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

August 9, 1955

Summary of Proposed Project

Object: Denial of application for an exploration project.

Docket No.: DMEA-3777

Commodity: Uranium and thorium

Applicant: Mustang Oil and Exploration Co., et al.
c/o John C. Ostlund
Gillette, Wyoming

Property: A and B Claim groups consisting of A - 1 through A - 8 claims in Sec. 3, T. 42 N., R. 75 W. and Secs. 34 and 35, T. 43 N., R. 75 W.; and B - 1 through B - 6 claims in Secs. 16, 17, and 20, T. 44 N., R. 75 W., 6th P. M., Campbell County, Wyoming. Applicant is the owner.

Date of Application: April 13, 1955

Amount of Application: $25,300.00

Work Proposed:

8,000 ft. (250 holes) augur or rotary drilling on a 200 X 200-ft. grid	$8,000.00
4,000 ft. augur or rotary drilling on 50-100 ft. offsets	$4,000.00
2,000 ft. core drilling @ $3.00/ft.	$6,000.00
80 hrs. dozer stripping @ $12.50/hr.	$1,000.00
Supervision and consultants	$3,100.00
Analyses, Contingencies, etc.	$3,200.00
Total	$25,300.00

Field Team Report: July 13, 1955 - E. O. Binyon, USBM and N. P. Cuppels, USGS.

Team
rt: Cont'd.

Uranium in this general area is mostly found in sandstone of the Wasatch formation at a stratigraphic interval between 450 and 900 feet above the base of the Wasatch. Deposits are of two types: small, high-grade concretions, and low-grade disseminations of considerably greater extent. Neither type is exposed on the subject property although the claims are in the favorable stratigraphic interval. No anomalies or other indications of mineralization were found on the B claims. Three anomalous areas were found on the A claims where radioactivity ranged from 0.03 MR/hr. to 1.2 MR/hr. One small mineralized exposure in a small pit on Claim A - 1 was sampled and showed 5.04% equivalent uranium. However, a similar sample taken 3 to 11 inches above this zone showed only 0.03% equivalent uranium. The property has not been adequately prospected and it is possible that a relatively small amount of stripping or shallow drilling may expose sufficient evidence of mineralization to warrant Government aid in further exploration. It is recommended that the application be denied without prejudice.

Commodity Committee Members' Comments:

Bureau of Mines - John E. Crawford - July 29, 1955

Reviewed the Field Team report and discussed it with the AEC representative. Concurs with the Field Team recommendation for denial.

Geological Survey - W. P. Williams - August 3, 1955

The Report of Examination does not seem to support adequately a recommendation either for approval or denial of the application. From the field report, USGS Circulars Nos. 176 and 338, and other sources the following favorable items are noted:

1. Mineralization of ore grade is present on the property.

2. Airborne-discovered anomalies exist on the property.

3. The property is located within the boundaries of the area of principal occurrences of uranium.

4. Deposits of 1,000 tons and larger are presently being worked in the Pumpkin Buttes area.

While the recommendation for denial without prejudice by the examiners is probably appropriate I recommend that all available information about the application be extra carefully reviewed before denial is made. The relatively small amount of dozer work or shallow drilling (for the Applicant's account) called for by the examiners may represent the "exploration" needed to make a discovery on the property.

Rare and Miscellaneous Metals Division - Michael Ching - August 4, 1955

Anomalies resulting from USGS airborne reconnaissance are shown on Applicant's maps, but the number and positions of such anomalies do not coincide with those of the anomalies described by the field examiners. The latter noted anomalous radioactivity in three areas on the A claims, and the highest readings were found in shallow pits within such areas. However, visible mineralization was found in only one place and here the exposure was quite limited. Several existing rotary drill holes were checked but the cuttings showed no radioactivity. The nearest producing property is an open cut operation 3 miles south and slightly west of the B group. The information presented to date is not sufficiently favorable or conclusive to justify an exploration project.

Conclusions and Recommendations:

On the basis of the information now available the chances of making a worthwhile discovery on this property are poor. Further prospecting may expose more encouraging information. It is recommended that the application be denied without prejudice.

Ernest Wm. Ellis

Ernest Wm. Ellis, Chief
Rare and Miscellaneous
Metals Division

IN REPLY REFER TO:

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

August 3, 1955

Memorandum

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

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

Subject: Review of Field Examination Report, DMEA Docket No. 3777, Mustang Oil and Exploration Company, A and B claim groups, Campbell County, Wyoming, (Uranium).

I have carefully reviewed both the examination of field report and the application covering the above-referenced property.

The report seems somewhat inconclusive in that considerable textual material is devoted to the favorable characteristics of the property, but an exceedingly concise section on "Recommendations" recommends denial of the application because of lack of information. Only one inadequate map, consisting essentially of a road map with two small dots representing the properties, accompanies the report. In summary, the report does not seem to support adequately a recommendation either for approval or denial of the application.

From the field report and from U.S.G.S. Circulars Nos. 176 and 338, and from inquiry of others familiar with the Pumpkin Buttes area the following favorable items are noted:

1) Mineralization of ore grade is present on the property. 1 only

2) Airborne-discovered anomalies exist on the property.

3) The property is located within the boundaries of the area of principal occurrences of uranium, (U.S.G.S. Circ. 338, p. 16).

4) Deposits of a thousand tons and largely are presently being worked in the Pumpkin Buttes area. Nearest - 3 miles

The "relatively small amount of dozer work or shallow drilling" (called 'prospecting' in the report) may represent the 'exploration' needed to make a discovery on the property.

BUREAU OF MINES
WASHINGTON, D. C.

AUG 4 8 54 AM '55

The examining team examined the property -- I did not. The recommendation for denial without prejudice is probably appropriate. I recommend, however, that all available information about the application be extra carefully reviewed before denial is made. It may be advisable for the Field Team, Region III, to contact Mr. N. W. Sharp, U. S. Geological Survey, Denver, concerning the property. Mr. Sharp has been doing areal geologic mapping in the Pumpkin Buttes area and probably has personal knowledge of the property involved.

WPWilliams

W. P. Williams

IN REPLY REFER TO:

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

RECEIVED

August 3, 1955

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2) Airborne-discovered anomalies exist on the property.

3) The property is located within the boundaries of the area of principal occurrences of uranium, (U.S.G.S. Circ. 338, p. 16).

4) Deposits of a thousand tons and largely are presently being worked in the Pumpkin Buttes area.

The "relatively small amount of dozer work or shallow drilling" (called 'prospecting' in the report) may represent the 'exploration' needed to make a discovery on the property.

The examining team examined the property -- I did not. The recommendation for denial without prejudice is probably appropriate. I recommend, however, that all available information about the application be extra carefully reviewed before denial is made. It may be advisable for the Field Team, Region III, to contact Mr. N. W. Sharp, U. S. Geological Survey, Denver, concerning the property. Mr. Sharp has been doing areal geologic mapping in the Pumpkin Buttes area and probably has personal knowledge of the property involved.

WPW

W. P. Williams

WPWilliams:iml
G-8/3/55

cc: Director's reading, 4212
Branch reading, 4212
DMEA (3)
Docket file
J. E. Crawford, 3641
J. O. Hosted, 3210

IN REPLY REFER TO:

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

August 3, 1955

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1) Mineralization of ore grade is present on the property.

2) Airborne-discovered anomalies exist on the property.

3) The property is located within the boundaries of the area of principal occurrences of uranium, (U.S.G.S. Circ. 336, p. 16).

4) Deposits of a thousand tons and largely ore presently being worked in the Pumpkin Buttes area.

The "relatively small amount of dozer work or shallow drilling" (called 'prospecting' in the report) may represent the 'exploration' needed to make a discovery on the property.

The examining team examined the property -- I did not. The recommendation for denial without prejudice is probably appropriate. I recommend, however, that all available information about the application be extra carefully reviewed before denial is made. It may be advisable for the Field Team, Region III, to contact Mr. N. W. Sharp, U. S. Geological Survey, Denver, concerning the property. Mr. Sharp has been doing areal geologic mapping in the Pumpkin Buttes area and probably has personal knowledge of the property involved.

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WPWilliams:iml
G-8/3/55

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From the field report and from U.S.G.S. Circulars Nos. 176 and 330, and from inquiry of others familiar with the Pumpkin Buttes area the following favorable items are noted:

1) Mineralization of ore grade is present on the property.

2) Airborne-discovered anomalies exist on the property.

3) The property is located within the boundaries of the area of principal occurrences of uranium, (U.S.G.S. Circ. 330, p. 10).

4) Deposits of a thousand tons and largely are presently being worked in the Pumpkin Buttes area.

The "relatively small amount of dozer work or shallow drilling" (called 'prospecting' in the report) may represent the 'exploration' needed to make a discovery on the property.

The examining team examined the property -- I did not. The recommendation for denial without prejudice is probably appropriate. I recommend, however, that all available information about the application be extra carefully reviewed before denial is made. It may be advisable for the Field Team, Region III, to contact Mr. R. W. Sharp, U. S. Geological Survey, Denver, concerning the property. Mr. Sharp has been doing areal geologic mapping in the Pumpkin Buttes area and probably has personal knowledge of the property involved.

WW

W. P. Williams

WPWilliams:iml
G-8/3/55

cc: Director's reading, 4212
Branch reading, 4212
DMRA (3)
Docket file
J. E. Crawford, 3641
J. O. Hosted, 3210

7/29/55 gla

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

RECEIVED
JUL 29 1955

July 29, 1955

Memorandum

To: Ernest William Ellis, DMEA Member
Uranium Commodity Committee, Room 4445

From: John E. Crawford, Bureau of Mines Member
Uranium Commodity Committee

Subject: Report of Examination, DMEA Docket 3777, Mustang Oil & Exploration Co., (A and B claim groups), Campbell County, Wyoming

I have reviewed the Field Team report of examination, Mustang Oil & Exploration Co., DMEA Docket 3777; and I have discussed it with Joseph O. Hosted, Washington representative of the Atomic Energy Commission.

We concur with the recommendation of the Field Team that the application be denied.

The report is being forwarded to the Chief, Division of Minerals, in accordance with the routing slip attached thereto.

John E. Crawford

John E. Crawford

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

RECEIVED
JUL 29 1955

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UNITED STATES
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BUREAU OF MINES
WASHINGTON 25, D. C.

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John E. Crawford

8/1/55 glc

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

RECEIVED
JUL 25 1955

224 New Customhouse
Denver 2, Colorado

July 20, 1955

Memorandum

To: Secretary to the Operating Committee, DMEA

From: DMEA Field Team, Region III

Subject: Joint Report of Examination, Docket DMEA-3777 (Uranium), Mustang Oil & Exploration Co., (A and B claim groups), Campbell County, Wyoming

Enclosed are the original and three copies of the report pertaining to the above application.

The property has not been adequately prospected. Additional geologic information should be obtained by the applicant at his expense in order to plan a logical program of exploration.

We recommend that this application be denied without prejudice.

DMEA Field Team, Region III

W. M. Traver

E. N. Harshman

Enclosures

Received by
DMEA OPERATING COMMITTEE
7-29-55
(Date)

RECEIVED
JUL 25 1955
BUREAU OF MINES
Denver, Colorado

Rapid City Experiment Station
School of Mines Campus
Rapid City, South Dakota

July 13, 1955

TRANSMITTED
JUL 20 1955

emorandum

o: W. M. Traver, Executive Officer, DMEA Field Team, Reg. III

om: Examining Team, N. P. Cuppels and E. O. Binyon

bject: Report of Examination, Mustang Oil and Exploration Company, A and B Claim Groups, Campbell County, Wyoming, Docket DMEA 3777 (Uranium)

Transmitted herewith are the original and ten copies of the subject report, with a tracing of Figure 1, Location Map, and B Claim Groups.

It will be appreciated if we can have two prints of the map for our files here.

Norman P. Cuppels
E. O. Binyon

By:

E. O. Binyon

DMEA Field Team Reg. III
7-29-55
(date)

RECEIVED
JUL 25 1955

UNITED STATES
DEPARTMENT OF THE INTERIOR
DOUGLAS McKAY, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION III

DMEA 3777, Mustang Oil and Exploration Company, et al, Applicant

A and B Claim Groups

Campbell County, Wyoming

Uranium

E. O. Binyon, Mining Engineer
Bureau of Mines

N. P. Cuppels, Geologist
Geological Survey

July 13, 1955

7-29-55

DMEA 3777

MUSTANG OIL AND EXPLORATION COMPANY, et al, APPLICANT

A and B CLAIM GROUPS
CAMPBELL COUNTY, WYOMING

Summary, Conclusions, and Recommendations

By E. O. Binyon
Mining Engineer
Bureau of Mines

N. P. Cuppels
Geologist
Geological Survey

TRANSMITTED
JUL 20 1955

DMEA 3777

MUSTANG OIL AND EXPLORATION COMPANY, et al, APPLICANT
A and B CLAIM GROUPS
CAMPBELL COUNTY, WYOMING

RECEIVED
JUL 25 1955

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

By E. O. Binyon and N. P. Cuppels

The Mustang Oil and Exploration Company, et al, 1200 South Windermere Ave., Littleton, Colorado, has applied to the Defense Minerals Exploration Administration for assistance to explore A and B Claim groups, Campbell County, Wyoming, for uranium.

An examination of the property was made by the examining team on May 17 and 18, 1955, in company with John C. Ostlund, one of the partnership, and Dale Ruby, the original locator and owner of the claims.

The A and B Claim groups are 12 miles apart by road and include 14 unpatented lode mining claims, all in the Pumpkin Buttes Mining District, Campbell County, Wyoming. The A Group, A-1 through A-8, is in sections 34 and 35, T. 43 N., R. 75 W. and sec. 3, T. 42 N., R. 75 W., and the B-1 through B-6 claims of the B Group are in secs. 16, 17 and 20, T. 44 N., R. 75 W. of 6th P.M.

Rock units exposed in the Pumpkin Buttes are the Wasatch of Eocene age and the White River formation of the Oligocene with the White River capping the Buttes.

Only the Wasatch formation is exposed in the area immediately surrounding and within the boundaries of the A and B Claim groups. According to several geologic publications (and unpublished A.E.C. reports)

on the area,[1/2/] most of the uranium, except for trace amounts and that occurring in a few coal seams and carbonaceous shales, is found in sandstone of the Wasatch formation at a stratigraphic interval between 450 and 900 feet above the base of the Wasatch.

Mineralized deposits of the Pumpkin Buttes area in general are of two types: small, high-grade concretions and a low-grade disseminated type of considerably greater extent. Neither type is exposed on the property; however, one small concretion in deposits was noted off the property 325 feet southwest of the B-1 claim, cor. No. 1. The small anomaly on the A-1 claim indicates that the mineralization is probably of the concretionary type. On the A-4 claim the anomaly is considerably larger and it may indicate a low-grade disseminated mineralization. There is nothing whatever to indicate the type of deposit mineralization at the anomaly on the A-6 claim.

As proposed in the application, 250 auger and/or rotary drill holes, with a total footage of 12,000 feet, are to be drilled on a 200- by 200-foot grid pattern covering all claims in both groups. In addition, 2,000 feet of core drilling and some dozer work are also proposed. The applicant's estimate of the total cost of exploration, including supervision, consultants and analyses, is $25,300, of which the government's share at 75 percent participation is $18,975.00.

1/ Geological Survey Circular 176, Preliminary Report on Uranium Deposits in the Pumpkin Buttes Area, Powder River Basin, Wyoming, by J. D. Love.

2/ Geological Survey Circular 338, Summary of Investigations of Uranium Deposits in the Pumpkin Buttes Area, Johnson and Campbell Counties, Wyoming, by Max L. Troyer, Edward J. McKay, Paul E. Soister and Stewart R. Wallace.

While it may be possible that additional work on the anomalies on the A-1, A-4, and A-6 claims will result in exposure of mineralization or of sufficient evidence of mineralized deposits to warrant exploration, at present, more information as to possible extent, grade and type of deposit is required before an intelligent exploration program can be planned. Therefore, it is recommended that the application be denied without prejudice pending submission by the applicant of information that might justify aid by the government in exploration of favorable areas on the property.

DMEA 3777

MUSTANG OIL AND EXPLORATION COMPANY, et al, APPLICANT
A and B CLAIM GROUPS
CAMPBELL COUNTY, WYOMING

Engineering and Geologic Report

By E. O. Binyon
Mining Engineer
Bureau of Mines

N. P. Cuopels
Geologist
Geological Survey

7-29-55

DMEA 3777

MUSTANG OIL AND EXPLORATION COMPANY, et al, APPLICANT
A and B CLAIM GROUPS
CAMPBELL COUNTY, WYOMING

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DMEA 3777

RECEIVED
JUL 25 1955

MUSTANG OIL AND EXPLORATION COMPANY, et al
A and B CLAIM GROUPS
CAMPBELL COUNTY, WYOMING

ENGINEERING AND GEOLOGIC REPORT

by

E. O. Binyon and N. P. Cuppels

INTRODUCTION

The Mustang Oil and Exploration Company, et al, has applied to the Defense Minerals Exploration Administration for a loan of $25,300.00 for exploration of the 14 unpatented lode mining claims in the A and B Claim groups for uranium.

As proposed by the applicant, exploration is to be by auger or rotary drilling and some core drilling equally distributed over the claims of each group on a 200- by 200-foot grid pattern. In all, 250 holes with an estimated total of 12,000 feet of auger or rotary drilling and 2,000 feet of core drilling are proposed.

A joint field examination was made by the examining team on May 17 and 18, 1955 in company with John C. Ostlund, a partner, and Dale Ruby, the original owner of the claims.

ACKNOWLEDGEMENTS

Acknowledgement is made to John C. Ostlund, one of the applicants, and to Dale Ruby for the courtesy and assistance in guiding the examining team over the property.

LOCATION, TOPOGRAPHY, AND PHYSICAL FEATURES

Both the A and B Claim groups are in the immediate vicinity of the Pumpkin Buttes. The claims of the A Group are 2 miles south of

South Butte, the southernmost of the four that make up the Pumpkin Buttes, and are in sec. 3, T. 42 N., R. 75 W., and secs. 34 and 35, T. 43 N., R. 75 W., Campbell County, Wyoming. The B Group, 12 miles by road north and slightly west of the A Group, is 3 miles east of North Butte and the claims, also in Campbell County, are in secs. 16, 17 and 20, T. 44 N., R. 75 W. (Figure 1).

From Gillette, Wyoming, the A and B Claim Groups are 56 and 46 miles respectively by way of the secondary state road through Savageton, or by way of State Highways 59 and 387 to Pine Tree Junction, the distances are about 10 miles farther, but in time of travel is the shorter route, particularly in bad weather.

Gillette, the county seat of Campbell County, is on the Chicago, Burlington and Quincy Railroad and is a supply center for the area.

From Midwest, Wyoming, the nearest sizeable community, it is 31 miles by surfaced road (U. S. Highway 87 and State Highway 387) to Pine Tree Junction, and the A and B groups are 6 and 13 miles respectively from the Junction by way of the secondary road to Savageton. Inquiries should be made at the Dale Ruby ranch for more specific directions to the B Group as there are two locked gates on the road to these claims.

Except for the Pumpkin Buttes, there are no outstanding topographic features in the area. The Buttes rise 700 to 800 feet above the surrounding country, the altitude of North Butte being 6,050 feet and that of the surface in the immediate vicinity of the B and A Groups being 5,200 and 5,300 feet above sea level.

The topography is of low relief, with gently rolling hills cut only by a few small draws.

No timber is found in the area and the only source of water are the wells and stock ponds on nearby ranches. Water for drilling or a small mining operation would have to be hauled.

The climate, typical of the northwestern plains states, with periods of extremely low temperature and heavy snows during the winter, fairly wet early springs, and dry, hot summers, permits continuous operations for about 10 months, but for the remaining two-months period, operations would be only intermittent and may have to cease entirely.

There are no living facilities at the property and unless trailers are used, arrangements would have to be made for living quarters at either Gillette or Midwest.

Sufficient man power and equipment for the proposed exploratory work, as well as small scale mining operations, are readily available in the area.

HISTORY AND PRODUCTION

According to county records, the claims of both groups were first located in December 1954 by Dale Ruby, a rancher living in the vicinity.

There has been no production from the property. However, an open cut stripping operation just 3 miles south and slightly west of the B Group has produced some ore.

OWNERSHIP AND EXTENT

The 14 unpatented mining claims comprising the A and B Groups are owned by a partnership between the Mustang Oil and Exploration Co., 1200 South Windermere Ave., Littleton, Colorado, C. D. Roberts, Sundance, Wyoming, and Axel R. and John C. Ostlund, Gillette, Wyoming.

The claims were acquired under two assignments; one by Dale Ruby, the original locator and owner, to John C. and Axel R. Ostlund, C. D. Roberts and E. W. Thorson, and one by E. W. Thorson, who assigned his rights to the Mustang Oil and Exploration Co. Photostatic copies of both assignments are included with the application.

Eight claims, A-1 through A-8, make up the A Group and in the B Group there are 6 claims designated B-1, B-2, B-3, B-4, B-5, and B-6. All claims are full size, 1500 x 600 feet, and have been recorded, as stated by the applicant, in Book 5, Placer Mining Records, Pages 1 through 14, at the office of the Register of Deeds of Campbell County at Gillette, Wyoming.

GEOLOGY

The Wasatch and White River formations, of Eocene and Oligocene ages respectively, are the only rock units exposed in or near the claim areas. Regionally, the Wasatch formation consists of lenticular beds of sandstone, mudstone, carbonaceous clays, and low rank coal. Although the sandstone is moderately well consolidated in many exposures, the sediments for the most part are poorly consolidated. Partial erosion of the Wasatch sediments has produced a topography of low relief and gently rolling hills. In most places, bedrock is concealed by a grass cover and outcrops are found chiefly at the heads of small draws where erosion has been most active or at rare blowouts that are found on topographic highs where differential wind erosion has exposed sandstone facies of the Wasatch. The quartzitic ferruginous sandstone of the White River formation caps all the Pumpkin Buttes. The formation is 250 feet thick at North Butte and thins southward to about 100 feet

on top of South Butte. The general level of the land surface is at an altitude of about 5,300 feet above which the Buttes project another 700 to 800 feet.

The A and B groups of claims of the Mustang Oil and Exploration Co. lie east and south of the Pumpkin Buttes. The A claims are near Little Black Butte 2 miles south of South Butte and the western boundary of the B claims is 2.5 miles east of North Butte.

According to U. S. Geological Survey Circular 338, one of the chief prospecting guides to uranium ore in the Pumpkin Buttes area is a favorable stratigraphic interval in the Wasatch formation. This interval extends from 450 to 900 feet above the base of the Wasatch and includes most known uranium deposits of ore grade. Lenses of sandstone in this stratigraphic interval commonly have a red coloration that partially stains the sandstone in an outcrop area 10 to 15 miles wide and 25 miles long around the Buttes. The long axis of this outcrop area trends a little west of north. The stratigraphic position of the rocks at the A and B claims with respect to the favorable stratigraphic interval described above is not clear.

According to J. D. Love in U. S. Geological Survey Circular 176, the Wasatch-White River contact is 250 feet below the top of North Butte. A projection of this contact into the area near the B claims, without regard to dip of the beds, would place ground level at the claims 500 feet below the contact. If the Wasatch is more than 2,000 feet thick as estimated by Love and others, ground level at the B claims is at least 1,500 feet above the base of the Wasatch and 600 feet above the favorable stratigraphic interval. As seen in the field,

the White River formation on North Butte appears to be essentially horizontal but in Plate 2 of U. S. Geological Survey Circular 176, the axis of the Powder River Basin is a short distance east of the claims which would give the regional dip of the formation a slight easterly component between North Butte and the claims. If this component is as much as 1 degree, the rocks at the B claims would be 700 feet above the favorable stratigraphic interval. A bed of sandstone exposed at a blowout in the claim area strikes N. 5° W. and dips 8° NE. The attitude of this sandstone is probably due to a local flexure in the Wasatch and may have no regional significance.

According to Max L. Troyer, et al, in the U.S.G.S. Circular 338, the Wasatch is 1,500 feet thick in the vicinity of the Pumpkin Buttes and has a uranium-bearing zone extending from 450 to 900 feet above the base. This stratigraphic position of the uranium-bearing zone places ground level at the B claims near the top of the zone and conforms more closely with field observations made by the examining team. A producing mine and several strong anomalies are known to exist at roughly the same stratigraphic level as that occupied by the B claims and within a radius of 3 miles from the claims. Similar stratigraphic relations exist at and near the A claims.

Host rock for most deposits in the Pumpkin Buttes area is a sandstone stained red by iron oxides or a gray to buff-colored sandstone associated with the iron-stained sandstone. Manganese is concentrated in the rocks near many deposits. The ore is commonly in a medium- to coarse-grained, cross-bedded facies of the sandstone. The sandstone is characteristically lenticular with an average thickness of 30 to 60 feet.

The only exposure of red sandstone seen on the claims of the applicant is in a small pit on claim A-1. This sandstone is fine-grained, 6 to 8 inches thick, and has the dull red color characteristic of some vanadiferous sediments. Little Black Butte near the A claims is capped by a dark brown, ferruginous sandstone.

Most uranium ore in the Buttes area is in small, high-grade, concretionary deposits or in large, low-grade, disseminated deposits. The concretionary deposits are generally found in buff to pink sandstone with grades as high as 15 percent uranium. These concretions are extremely variable in size but are rarely more than 15 to 20 feet in length and 5 to 10 feet in width. Radioactive minerals are either yellow or black and both uranophane and uraninite have been identified from this type of deposit. The disseminated type of deposit is generally found in a gray to green, poorly consolidated, fine- to coarse-grained sandstone. This sandstone is lenticular and commonly several hundred feet in length. Grade of the mineralized sediments is generally less than 1.0 percent uranium and the eU/U ratio tends to be greater than 1.0.

Although no anomalies or uraniferous rocks were found on any of the B claims, a concretionary-type deposit, 1 foot thick and 8 feet long, was found in a small outcrop of buff-colored, medium-grained sandstone 325 feet S. 45° W. of the south corner of claim B-1. This deposit was discovered by U. S. Geological Survey airborne reconnaissance and designated anomaly No. 12. The deposit produces a maximum reading of 2.0 MR/hr on a model 111 scintillator. Source of the radioactivity is a greenish-yellow mineral that permeates the sandstone. The host sandstone strikes N. 5° W., dips 2° E., is exposed for 30 feet along the strike, 20 feet down dip and is 8 feet thick. There is no evidence that the sandstone is continuous for more than several hundred feet

along the strike.

The only visibly mineralized rocks found on the A claims are in a small pit on claim A-1. Because of the small exposure, the nature of this deposit is undertain, but it appears to have the characteristics of a concretionary type of deposit. Source of the radioactivity seems to be a greenish-yellow, non-fluorescent mineral that forms a thick coating on the sand grains giving the mineral a rounded, reniform-like texture. A channel sample (8 inches long, 2 inches wide, and 2 inches deep) taken across the ore zone has a grade of 5.04 percent equivalent uranium as determined by the scaler operated by the Hot Springs office of the A.E.C. Another channel sample (with the same dimensions) taken across a brownish-red, medium-grained sandstone, 3 to 11 inches above the ore zone has a grade of 0.03 percent equivalent uranium. A green to gray, medium-grained sandstone exposed in a small pit near the south side-line of claim A-4 may be a disseminated-type deposit. No visible mineralization was found in the pit.

The lowest reading taken on the Scintillator near the A claims was 0.015 MR/hr which was used as background. This background radioactivity is unusually high compared with background values in the Edgemont district where readings of 0.007 to 0.010 are commonly taken for background. It is possible that the abnormally high background radioactivity was caused by atomic explosions at the A.E.C. test site in Nevada.

Four anomalies discovered by airborne reconnaissance are listed by the applicant as being present on his claims A-1 through A-6.

Two distinct anomalies were detected by the examining team; anomaly No. 97 is near the discovery cut on claim A-1 and anomaly No. 144 is near the south side-line of claim A-4. A weak anomaly was found 40 to 50 feet below the summit of a small hill in the southern part of claim A-6, which may be the U.S.G.S. anomaly No. 145.

The 0.05 MR/hr isorad at anomaly No. 97 is 5 to 10 feet wide, 40 to 50 feet long, and is elongated parallel to the topographic contour at an altitude of 5,240 feet. Intensity of this anomaly increases to 0.16 MR/hr at the discovery cut of claim A-1. Anomalous radioactivity was also found in two pits dug to a depth of 2 feet at the same stratigraphic interval 150 and 200 feet south of the discovery cut. Maximum scintillator readings in these pits was 0.25 MR/hr. Bedding plane features have apparently localized mineralization of the sediments in this locality.

An anomaly bounded by the 0.03 MR/hr isorad is over 100 feet long and 10 to 15 feet wide near the south side of claim A-4. Maximum anomalous radioactivity on this claim is in a pit 2 feet deep where a reading of 1.2 MR/hr was obtained. A weak anomaly was found 40 to 50 feet below the summit of a small hill in the southern part of claim A-6. This may be anomaly No. 145 discovered by U. S. Geological Survey air-borne reconnaissance. Magnitude of the anomaly is about 0.03 MR/hr and it tends to follow the topographic contour at an altitude of 5,220 feet. This anomaly is very close to the same stratigraphic interval occupied by the anomaly on claim A-1. The anomaly is in a light brown, fine- to medium-grained, poorly consolidated sandstone that caps the hill. No visible mineralization was found associated with this anomaly.

ORE RESERVES

An estimate of ore reserves is not feasible at this time.

PRESENT STATUS, EXPLORATION AND DEVELOPMENT

Except for the discovery pits and the rotary drill holes drilled to validate claims, no development or other work has been done on the property.

A check of several of the rotary drill holes, reported to have been drilled to a depth of 50 feet, showed no radioactivity in the cuttings.

MINING AND MILLING EQUIPMENT AND OTHER FACILITIES

There are no facilities, buildings, or equipment on the property.

PROPOSED EXPLORATION

As proposed in the application, the 14 claims in the A and B Claim groups are to be explored by 250 auger or rotary drill holes and by some core drilling in the rotary or auger holes where warranted. A grid pattern with a spacing of 200 by 200 feet blankets each group of claims, allowing 14 holes to all claims except A-5, which has 21, or a total of 202 holes in the primary grid. The additional 48 holes proposed are for offsets at 50 to 100 feet spacing. Drilling depth is estimated to vary from 20 to 50 feet or an average of 32 feet for the holes. In all, the applicant proposes to drill a total of 12,000 feet of auger or rotary holes in the primary and offset drilling program and an additional 2,000 feet of core drilling for detailed information on any mineralized holes of the primary grid and offsets.

Estimated total cost of the proposed work is $25,300.00, of which the government's share at 75 percent participation would amount to $18,975.00.

The breakdown of the costs as presented in the application is as follows:

Work to be done by independent contracts:			
Rotary drilling, 12,000 feet @ $1.00		$12,000.00	
Core drilling, 2,000 feet @ $3.00		6,000.00	
Dozing, 80 hours @ $12.50		1,000.00	
	Total		$ 19,000.00
Labor, Supervision, and Consultants:			
Supervision, 3 months @ $500.00		$ 1,500.00	
Consultants, 16 days @ $100.00		1,600.00	
Testing		900.00	
	Total		4,000.00
Contingencies, 10 percent			2,300.00
			$ 25,300.00

CONCLUSIONS

While the claims of the A and B groups are in a mineralized stratigraphic interval of the Wasatch formation, the evidence of mineralization is not sufficient to warrant a government loan for exploration at this time. The lack of anomalies or other indications of mineralization on the B Claims requires that additional prospecting is necessary before it is possible to logically plan exploration of the group. Of the three anomalies found in the A Group on the A-1, A-4, and A-6 claims, that on the A-4 is the most promising. The anomaly is the largest of the three in extent and it is possible that a relatively small amount of dozer work or shallow drilling may result in

sufficient evidence of disseminated-type mineralization to warrant exploration. Also, the applicant should do the small amount that would be required to determine the type and roughly the extent of the other anomalies.

The property has not been adequately prospected and additional geologic information which can be easily obtained at little expense to the applicant is necessary before any logical program of exploration can be planned.

RECOMMENDATIONS

It is recommended that the application be denied without prejudice pending submission by the applicant of additional information or evidence that anomalies on the A group, as well as newly discovered anomalies on other claims, do warrant investigation with DMEA assistance.

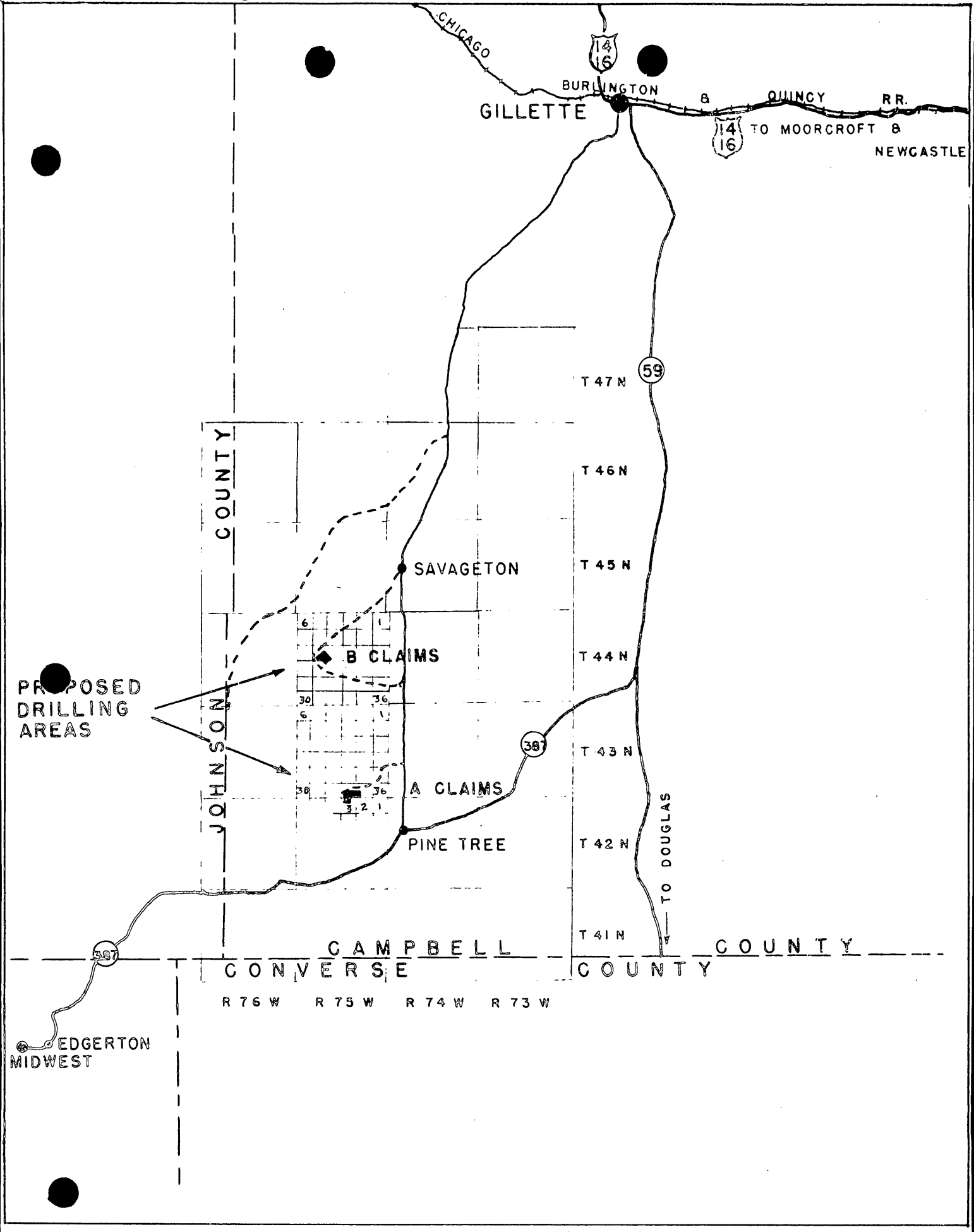

Figure 1, LOCATION MAP, A & B CLAIM GROUPS
MUSTANG OIL & EXPLORATION CO., CAMPBELL COUNTY, WYO, DMEA 3777

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

DEPARTMENT OF TH
Defense Minerals Ad
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ew Customhouse
er 2, Colorado

May 5, 1955

Memorandum

To: E. O. Binyon (w/brochure)
N. P. Cuppels

From: DMEA Field Team, Region III

Subject: Docket DMEA 3777 (Uranium), Mustang Oil and Exploration Company, et al. (A and B Groups), Campbell County, Wyoming

Enclosed are copies of the subject loan application in the amount of $25,300.00, transmittal thereof from the Chairman of the Operating Committee, and memoranda to E.W. Ellis from E.L. Newcomb, USGS, and John E. Crawford, USBM, members of the Uranium Commodity Committee.

After referral to the appropriate AEC field office a field examination and covering reports are required. In the event a contract is recommended, the examiners should advise the applicants it will be necessary for them to submit a map showing the location of any development work performed with respect to claim boundaries.

W. M. TRAVER
W. M. Traver

E. N. Harshman
E. N. Harshman

Enclosures

WMT:jp
cc Subject
Chron
Harshman w/copy Chairman's ltr & attachments
Sec. Op. Comm.

Surname 700

Ching
Ellis
Kilsgaard
Geehan
Selfridge
Johnson

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

Mr. John C. Ostlund
Gillette, Wyoming

APR 29 1955

Re: Docket No. DMEA-3777 (Uranium)
Mustang Oil and Exploration
Company, et al.
A and B Groups
Campbell County, Wyoming

Dear Mr. Ostlund:

The application for assistance in exploring the subject property in Campbell County, Wyoming, under the captioned docket number, has been reviewed by the Rare and Miscellaneous Metals Division of the Defense Minerals Exploration Administration. It has been referred to the Executive Officer of Region III at the following address:

Mr. W. M. Traver
Executive Officer
DMEA Field Team, Region III
224 New Customhouse Building
Denver 2, Colorado

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

Sincerely yours,

L. P. Mistandoni (for)

Administrator

MChing:am
4-27-55
cc to: Admr. Reading File
Docket
Code 700
Mr. Ching
DMEA Field Team, Region III(2)

P.C.

Surname 700

Ching
Ellis
Henderson
Hendricks

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

Mr. W. M. Traver
Executive Officer
DMEA Field Team, Region III
224 New Customhouse Building
Denver 2, Colorado

APR 29 1955

Re: Docket No. DMEA-3777 (Uranium)
Mustang Oil and Exploration
Company, et al.
A and B Groups
Campbell County, Wyoming

Dear Mr. Traver:

The subject application is being referred to you for investigation, a field examination if warranted, and recommendation. A copy of the application was forwarded to you on April 18.

Enclosed are two copies each of comments and recommendations by John E. Crawford and E. L. Newcomb of the Uranium Commodity Committee, dated April 20 and April 21, 1955, respectively.

As noted by Mr. Crawford, the data submitted is rather incomplete. However, we believe that any additional information that the Applicant might be able to supply would be inconsequential and that an appraisal by the Field Team is in order.

Sincerely yours,

George C. Selfridge
By 457

Chairman, Operating Committee

Enclosures

APPROVED:

/s/ Robert W. Geehan By 457
Member, Bureau of Mines

Thor H. Kiilsgaard By 457
Member, Geological Survey

Ching:am
4-27-55
cc to: Admr. Reading File
Operating Committee
Docket
Messrs. J. E. Crawford, Rm. 3641
T. H. Kiilsgaard, Rm. 5224
J. O. Hosted, Rm. 3210, GSA
Code 700
Mr. Ching

R.S.S.

4/22/55 gh

IN REPLY REFER TO:

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

Department of the Interior
Defense Minerals Administration
RECEIVED
APR 21 1955

April 21, 1955

Re: DMEA-3777
Mustang Oil & Exploration Co.
(Ruby & Ostlund Claims)
Campbell Co., Wyoming
$25,300 - Uranium

Memorandum

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

From: E. L. Newcomb, U. S. Geological Survey

Subject: Review of application

The applicant proposes to drill in excess of 250 holes to an average depth of 20 feet to 50 feet. The objective of the program is to test a favorable section of the Wasatch formation of Eocene age. The present drilling plan is based on a 200 foot grid pattern, which will explore the "A" claims (A-1 thru A-8) in Section 3, T. 42 N., R. 75 W. and Sections 34 and 35, T. 43 N., R. 75 W., and the "B" claims (B-1 thru B-6) in Sections 16, 17, and 20, T. 44 N., R. 75 W. in the Pumpkin Buttes district.

Although the operator has laid great stress on the significance of radiometric anomalies on his property, a review of U.S.G.S. Circular 338 indicates that only one visible uranium occurrence was found on the Ruby and Ostlund claims. All of the localities of high radioactivity on the "A" group claims were discovered by A.E.C. airborne equipment. None of these "highs" were identified by visible uranium minerals. On the "B" group claims, one radioactive anomaly was discovered by U.S.G.S. airborne equipment, but no uranium minerals were observed. Locality No. 12 is either improperly numbered or its location is not correctly defined in Circular 338. According to Plate 2, Circular 338, it is located in Section 17, not in Section 12 as specified on p. 4. Allowing that the map is correct, it should be noted that No. 12 is a sample of selected material and not a channel sample. The applicant's claims are in a known mineralized district, but our present information is not conclusive evidence that the proposed project is geologically justified.

I recommend this application be referred to the Field Team for an examination and a report of their investigation.

E. L. Newcomb

E. L. Newcomb

IN REPLY REFER TO:

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
APR 21 1955

April 21, 1955

Re: DMEA-3777
Mustang Oil &
Exploration Co.
(Ruby & Gutlund
Claims)
Campbell Co., Wyoming
$25,300 - Uranium

Memorandum

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

From: E. L. Newcomb, U. S. Geological Survey

Subject: Review of application

The applicant proposes to drill in excess of 250 holes to an average depth of 20 feet to 50 feet. The objective of the program is to test a favorable section of the Wasatch formation of Eocene age. The present drilling plan is based on a 800 feet grid pattern, which will explore the "A" claims (A-1 thru A-8) in Section 3, T. 42 N., R. 75 W. and Sections 34 and 35, T. 43 N., R. 75 W., and the "B" claims (B-1 thru B-6) in Sections 16, 17, and 20, T. 44 N., R. 75 W. in the Pumpkin Buttes district.

Although the operator has laid great stress on the significance of radiometric anomalies on his property, a review of U.S.G.S. Circular 338 indicates that only one visible uranium occurrence was found on the Ruby and Gutlund claims. All of the localities of high radioactivity on the "A" group claims were discovered by A.E.C. airborne equipment. None of these "highs" were identified by visible uranium minerals. On the "B" group claims, one radioactive anomaly was discovered by U.S.G.S. airborne equipment, but no uranium minerals were observed. Locality No. 12 is either improperly numbered or its location is not correctly defined in Circular 338. According to Plate 2, Circular 338, it is located in Section 17, not in Section 12 as specified on p. 4. Allowing that the map is correct, it should be noted that No. 12 is a sample of selected material and not a channel sample. The applicant's claims are in a known mineralized district, but our present information is not conclusive evidence that the proposed project is geologically justified.

I recommend this application be referred to the Field Team for an examination and a report of their investigation.

ELNewcomb:hlm G-4/21/55
CC: Director's reading, 4212
Branch reading, 4212
DMEA (3)
Docket file
J. E. Crawford, 3641 Interior
J. O. Hosted, 3210 Interior

E. L. Newcomb

4/21/55

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
APR 21 1955

April 20, 1955

Memorandum

To: Ernest William Ellis, DMEA Member
Uranium Commodity Committee

From: Bureau of Mines Member
Uranium Commodity Committee

Subject: DMEA Docket 3777, Mustang Oil & Exploration Co., claims in Campbell County, Wyoming.

I have reviewed the application of the Mustang Oil & Exploration Co., DMEA Docket 3777; and I have discussed it with Joseph O. Hosted, Washington representative of the Atomic Energy Commission.

We suggest that the applicant be requested to submit supplementary substantiating information. A map showing the location of outcrops of sandstone with high radioactivity would be helpful, as would be assay results of samples taken from the property by the consulting engineer. The samples are mentioned on page 2 of the report attached to the application. The application as submitted contains insufficient data to warrant a field referral.

John E. Crawford

John E. Crawford

Attachment

April 18, 1955
Subject: DMEA 3777
Re: Exploration Assistance
A Group, B Group

Mr. John C. Ostlund
Gillette, Wyoming

Dear Mr. Ostlund:

The receipt of your application dated April 13, 1955 for exploration assistance under the Defense Production Act of 1950, as amended, is hereby acknowledged.

Your application has been assigned Docket Number DMEA 3777 and referred to the Rare and Miscellaneous Metals Division.

Kindly identify all future correspondence relating to your application by this docket number.

Sincerely yours,

Robert E. Adams, Chief
Operations Control and
Statistics Division

MUSTANG OIL & EXPLORATION CO.

DENVER, COLORADO

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
APR 15 1955

April 12, 1955

The Defense Minerals Exploration Administration
Department of the Interior
Washington 25, D.C.

Gentlemen:

Attached in quadruplicate is an application to DMEA for financial cooperation in connection with anticipated exploratory work on fourteen uranium claims in the Pumpkin Buttes area of Campbell County, Wyoming.

Any inquiries pertaining to additional detailed information on these claims should be addressed to John C. Ostlund at Gillette, Wyo.

Yours very truly,

E.W. Thorson

Treasurer and Director

E.W.Thorson*MJ
enclosures

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

OFFICE OF THE INTERIOR
Minerals Administration
RECEIVED
APR 15 1955

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

Not to be filled in by applicant

Docket No. 3777
Metal or Mineral Uranium, Vanadium, Thorium
Date Received 4-15-55
Estimated Cost $25,300
Participation (Government %)

INSTRUCTIONS

1. *Name of applicant.*—(*a*) State here your full legal name, in the form in which you will wish to contract, and your mailing address: A partnership made up of Mustang Oil & Exploration Co., 1200 So. Windermere Ave., Littleton, Colo., C.D.Roberts of Sundance, Wyo., Axel R. and John C. Ostlund of Gillette, Wyo.,The last named partner should be contacted in connection with properties named herein.

(*b*) If other than an individual, add to your name above whether a corporation, partnership, etc., and the name of the State in which incorporated or otherwise organized.partnership as shown in 1(a)

(*c*) If a corporation, add to above statement, titles, names and addresses of officers.

(*d*) If a partnership, add to the above statement the names and addresses of all partners. under 1(a)

2. *General.*—Read DMEA Order 1, "Government Aid in Defense Exploration Projects," before completing this application. Submit this application and all accompanying papers in quadruplicate (four copies), with your name and address on each sheet of the application and on all accompanying papers. Where sufficient space is not provided on the form for all required information, state it on an accompanying paper, with a reference in each case to the instruction to which it refers by number. Comply with all applicable instructions; or, if not applicable, so state. File the application with Defense Minerals Exploration Administration, Department of the Interior, Washington 25, D. C., or with the nearest field executive officer thereof.

3. *Applicant's property rights.*—(*a*) State the legal description of the land upon which you wish to explore, including all land which you possess or control that may be benefited by the exploration, and excluding any land or interest in land which is not to be included in the exploration project contract see enclosure "A"

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

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise owner of mineral rights

(*d*) If you are not the owner, submit with this application a copy of the lease, contract, or other document under which you control the property.

(*e*) If you own the land, describe any liens or encumbrances on it none

(*f*) If the land consists of unpatented claims, add to the description above, the book and page numbers for each recorded location notice. Book 5,Placer Mining Records, Pages 1 through 14, Campbell Co., Wyoming.

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

(*b*) State past and current production, and ore reserves, if any, giving quantities and grades. none

(*c*) Describe the geologic features of the property, including mineralization, type of deposit (vein, bedded, etc.), and your reasons for wishing to explore. Illustrate with maps or sketches. Send with your application (but not necessarily as a part of it) any geologic or engineering report, assay maps, or other technologic information you may have, indicating on each whether you require its return to you. See USGS Circulars 176 & 338. Also attached maps and report from Alfred G. Hoyl.

(*d*) State the facts with respect to the accessibility of the project: Access roads, distances to shipping, supply and residence points. Gillette, Wyo., rail, supply & residence point is 45 miles NE by secondary road.

(*e*) State the availability of manpower, materials, supplies, equipment, water, and power. Manpower, materials supplies & equipment are readily available in the area. Water is readily available from nearby ranches. Power would be supplied from portable generating plants or by extension of powerlines in the area.

16-66551-1

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

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

(*c*) The work will start within 60 days and be completed within 3 months from the date of an exploration project contract.

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

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

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

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

(*c*) *Operating materials and supplies.*—Furnish an itemized list, including items of equipment costing less than $50 each, and power, water and fuel. none

(*d*) *Operating equipment.*—Furnish an itemized list of any operating equipment to be rented, purchased, or which is owned and will be furnished by the Operator, with the estimated rental, purchase price, or suggested use-allowance based on present value, as the case may be. none

(*e*) *Rehabilitation and repairs.*—Furnish a detailed list showing the cost of any necessary initial rehabilitation or repairs of existing buildings, installations, fixtures, and movable operating equipment, now owned by the Operator and which will be devoted to the exploration project. none

(*f*) *New buildings, improvements, installations.*—Furnish a detailed list showing the cost of any necessary buildings, fixed improvements, or installations to be purchased, installed or constructed for the benefit of the exploration project. none

(*g*) *Miscellaneous.*—Furnish a detailed list showing the cost of repairs to and maintenance of operating equipment (not including initial rehabilitation or repairs of the Operator's equipment), analytical work, accounting, workmen's compensation and employers' liability insurance, and payroll taxes. none

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

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

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

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

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

Explain in detail on acompanying paper.

CERTIFICATION

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

Dated April 13, 1955

Partners listed in 1(a)
(Applicant)

By E. W. Thorson

E.W.Thorson, Treasurer & Director

Mustang Oil & Exploration Co.

Title 18, U. S. Code (Crimes), Section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

U. S. GOVERNMENT PRINTING OFFICE 16—66551-1

ENCLOSURE "A"

3(a) This application is written for 14 lode mining claims. The "A" group consisting of claims A-1 through A-8, lying in Section 3, T42N, R75W and in Sections 34 and 35, T43N, R75W; and the "B" group consisting of claims B-1 through B-6, lying in Sections 16, 17 and 20, T44N, R75W, all in the Pumpkin Buttes Mining District, Campbell County, Wyoming. The detailed legal description of these claims is given in the attached "Assignment of Mining Claims".

4(a) No mining operations are now being conducted on these claims. The general area has been explored by the USGS and its findings have been published in circulars 176 and 338. The above partnership has also conducted a surface examination of the claims. The claims all are readily accessible by secondary roads, to autos and trucks of all sizes.

5(b) Proposed exploratory work would include shallow drilling using augers where possible or rotary drilling; taking cores where indicated as well as dozing to remove overburden to expose deposits indicated by surface outcroppings.

It is proposed to drill on a 200x200-ft. grid (250 holes, see maps), with approximately 8,000 ft. of drill hole, varying between 20 ft. and 50 ft. in depth. The stratographic target is soft sand stone impregnated with uranium ore. As indicated by the results of this drilling, additional drilling on spacings of 50 ft. to 100 ft. will be undertaken at similar depths. Total auger or rotary drilling 12,000 ft. Where results from this auger drilling indicate, cores will be taken for an estimated 2,000 ft.

Where surface outcrops exist, it is desired to remove sufficient overburden with a dozer to approximate the extent of these near surface deposits.

Geologic and engineering supervision in order to evaluate the results of drilling and to adjust the program as knowledge accumulates is to be provided.

5(d) It is contemplated that competent mining engineering and geologic consultants will be retained to advise relative to the proposed program. Members of the partnership are fully qualified to supervise fieldwork.

6(a) Work to be done by independent contracts.

	Rotary drilling 12,000 ft. at $1.00	= $12,000	
	Core drilling 2,000 ft. at $3.00	= 6,000	
	Dozing 80 hours at $12.50	= 1,000	
	Total		$19,000
(b)	Labor, Supervision & Consultants		
	Supervision 3 mo. at $500	= 1,500	
	Consultanta 16 da. at $100	= 1,600	
	Testing	= 900	4,000
(h)	Contingencies 10%		2,300
	Grand Total		$25,300

CONTRACT ENGINEERING COMPANY

Engineering, Development, Research, in the Mineral and Construction Industries

DENVER, COLORADO

1727 Boulder Street

January 6, 1955

Mustang Oil and Exploration Company
c/o Mr. E. W. Thorson
Boston Building
Denver 2, Colorado

Gentlemen:

In accordance with Mr. E. W. Thorson's request, I made a preliminary examination of a number of lode mining claims in the Pumpkin Buttes area, Campbell County, Wyoming. I examined twenty-four claims in all. Twenty of the claims had been located by Mr. Dale Ruby, (marked in yellow on the attached maps), and four had been located by John C. and Axel R. Ostlund, (marked in blue on the attached maps.)

I obtained maps and literature on the area from the U.S.G.S., examined the claims on the ground with the help of a scintillator, examined a nearby mine being operated by the Kerr-Magee Oil Industries, Inc., and discussed the possibilities of the area with Mr. J. T. Awald, geologist for the Atomic Energy Commission sub-office at Douglas, Wyoming.

I did not check the county or state land records; however, I did check with the Atomic Energy Commission and found that the claims in question were not in conflict with the area withdrawn by the U.S.G.S. It is my understanding that the surface rights are owned by a rancher named Mr. Brown. There is a possible coonflict on the Sue Group with Kerr-Magee.

I was taken to the claims by John and Axel Ostlund, Mr. Scotchy Roberts and Mr. Dale Ruby. I was advised by John and Axel Ostlund that they had checked the county records and were satisfied that the claims had been recorded and were on open ground and not in conflict with state, school, or county land. I impressed upon them that this point must be absolutely positive, and they agreed to recheck with the aid of their local lawyer.

In the Pumpkin Buttes area, the uranium-bearing sands occur in a 450' thick zone of the Wasatch formation. The top of this zone is approximately 700' down in the section and would be at an approximate elevation of 5,250' since the sandstone beds are essentially horizontal.

Mustang Oil and Exploration Company
Boston Bldg., Denver 2, Colorado

January 6, 1955

High radioactivity was noted with the scintillator at one or more points on each group of claims. This was caused by a surface exposure of uranium-bearing sandstone. Samples were taken from three of these points. It would seem from the relative elevation of the buttes and the claims that these surface exposures were near the top of the 450' uranium-bearing zone.

Attached is a very recent U.S.G.S. circular, No. 338, which gives the geology and mineralogy of the area in detail.

The claims are divided into four groups: The A Group, A - 1 to A - 8; the B Group, B - 1 to B - 6; the C Group, C - 1 to C - 6; all located and owned by Dale Ruby; and the Sue Group, Sue 1 to Sue 4, located and owned by John and Axel Ostlund. Although the latter two groups are not included in the option, I was told they could be included in the deal.

The Pumpkin Buttes area is relatively new, and not enough drilling and mining has been done to tell whether it will become a major producer or not of uranium ore.

The indications are good and some ore is being mined by open-pit methods and trucked to Gillette, Wyoming, then shipped by rail to the A. E. C. ore-buying station at Edgemont, South Dakota.

Some of the uranium-bearing sandstones on the claims examined are almost on the surface and could be prospected very easily with shallow drilling or dozer cuts. It might be possible to uncover enough surface ore to pay for the necessary exploration, drilling, and development to prove the value of the claims.

The twenty-four claims examined are unproved and speculative, and must be drilled or otherwise developed; however, they have definite promise and are a good buy at the price offered.

If you purchase these claims, the following steps should be taken without delay:

1. Re-check the title and land situation.

2. Dig the discovery pits before February 2, 1955.

3. Re-stake the claims, using 4 x 4 posts; adequately and properly marking each post with stamped metal tags. Check distances and bearings.

Mustang Oil and Exploration Company
Boston Bldg., Denver 2, Colorado

January 6, 1955

4. Wherever indicated, file amended location notices.

5. Make an agreement with Mr. Brown as to procedure in protecting his surface rights or paying damages.

Respectfully yours,

Alfred G. Hoyl

Alfred G. Hoyl

AGH:dsh

PHOTO - COPY
BY PICK
FOR EXTRA COPIES, CALL KE. 2876
APR 5 1955
PICK PHOTOGRAPH & BLUEPRINT CO.
1015 - 17th ST. DENVER, COLO.
CERTIFIED ON REQUEST

ASSIGNMENT OF MINING CLAIMS

KNOW ALL MEN BY THESE PRESENTS: Heretofore on January 12, 1955, Dale Ruby, as assignor, conveyed all his right, title and interest in the mining claims set forth below, to assignees, John C. Ostlund, Axel R. Ostlund, C. D. Roberts and E. W. Thorson; said claims being located in Township 42, 43 and 44, North, Range 75, West 6th P.M., all situated in Campbell County, Wyoming.

NOW THEREFORE, in consideration of the sum of Ten Dollars ($10.00) and other good and valuable consideration, receipt whereof is hereby acknowledged, I, the undersigned, E. W. Thorson, do hereby bargain, sell, transfer, assign, and set over to the Mustang Oil & Exploration Co., a Colorado Corp. all my right title and interest in, to and under the following described and identified mining claims, to wit:

1. Mining claim identified as A-1, dated and/or located or discovered December 21, 1954, by one Dale Ruby, as locator or discoverer, covering and including the following described tract of land:

Situated in Section 34, T. 43, N.R. 75 W. and Section 3, T. 42 N.R. 75, Campbell County, Wyoming, beginning at a point 100' north of Gov't. survey marker (s 34) go south 750' then west 600' then north 1500' then east 600' then (S 3) south to point of beginning. Located in Section 34, T. 43 N. R. 75, West.

Said mining claim being duly recorded in Book 5, Placer Mining Records, page 7, of Campbell County, State of Wyoming.

2. Mining claim identified as A-2, dated and/or located or discovered December 21, 1954, by one Dale Ruby, as locator or discoverer, covering and including the following described tract of land:

Situated in Section 34, T. 43, N.R. 75 West also Section 3, T. 42, N.R. 75 West. Beginning at a point 100' north of Gov't. survey marker (1 S34) go south 750' thence east 600' thence north 1500 feet thence West (4 S3) 600' thence south to point of beginning.

Said mining claim being duly recorded in Book 5, Placer Mining Records, page 8, of Campbell County, State of Wyoming.

3. Mining claim identified as A-3, dated and/or located or discovered December 21, 1954, by one Dale Ruby, as locator or discoverer, covering and including the following described tract of land:

Situated in Section 34, T. 43 N.R. 75 West. Beginning at a point 850' north of Gov't. survey marker (1 S34) thence north 1500' thence east 600' thence south 1500' thence (4 S3) west to point of beginning.

Said mining claim being duly recorded in Book 5, Placer Mining Records, page 9, of Campbell County, State of Wyoming.

4. Mining claim identified as A-4, dated and/or located or discovered December 21, 1954, by one Dale Ruby, as locator or discoverer, covering and including the following described tract of land:

Situated in Section 34, T. 43, N.R. 75 West. Beginning at a point 850' north and 600' east of Gov't. Survey marker (1 S34) thence north 600' thence east 1500' thence 600' south thence (4 S3) 1500' to point of beginning.

Said mining claim being duly recorded in Book 5, Placer Mining Records, page 10, of Campbell County, State of Wyoming.

5. Mining claim identified as A-5, dated and/or located or discovered December 21, 1954, by one Dale Ruby, as locator or discoverer, covering and including the following described tract of land:

Situated in Section 34, T. 43 N.R. 75 West. Beginning at a poing 1360' in a northeasterly direction from Gov't. survey marker (1S34) then go east 1500' thence north 600' thence east 1500' thence (4S3) south 600' to point of beginning.

Said mining claim being duly recorded in Book 5, Placer Mining Records, page 11, of Campbell County, State of Wyoming.

6. Mining claim identified as A-6, dated and/or located or discovered December 24, 1954, by one Dale Ruby, as locator or discoverer, covering and including the following described tract of land:

Situated in Section 34, T. 43, N.R. 75, West. Beginning at a point 1450' north of Gov't. survey marker (1 S34) go north 1500' thence west 600' thence south 1500' thence east (4 S3) 600' to point of beginning.

Said mining claim being duly recorded in Book 5, Placer Mining Records, page 12, of Campbell County, State of Wyoming.

7. Mining claim identified as A-7, dated and/or located or discovered December 24, 1954, by one Dale Ruby, as locator or discoverer, covering and including the following described tract of land:

Situated in Section 34, T. 43, N.R. 75, Starting at a point 720 feet northwesterly direction from SE cor of Section 34, T. 43, N.R. 75, hence north 1500' thence 600' west thence 1500 feet south thence 600' east to point of beginning. Located in Section 34, T. 43, N.R. 75 West.

Said mining claim being duly recorded in Book 5, Placer Mining Records, page 13, of Campbell County, State of Wyoming.

8. Mining claim identified as A-8, dated and/or located or discovered December 22, 1954, by one Dale Ruby, as locator or discoverer, covering and including the following described tract of land:

Situated in Section 34, T. 43, N. R. 75. Starting at a point 206' northwesterly from SE Cor of Section 34, T. 43, N.R. 75, thence north 1500' thence 600' west thence south 1500' thence east 600' to a point of beginning.

Said mining claim being duly recorded in Book 5, Placer Mining Records, page 14, of Campbell County, State of Wyoming.

9. Mining claim identified as B-1, dated and/or located or discovered December 22, 1954, by one Dale Ruby, as locator or discoverer, covering and including the following described tract of land:

Situated in Section 17, T. 44, N.R. 75. Starting at a point 1800 feet in a northwesterly direction from SE cor of Section 17, T. 44, N.R. 75, thence northwesterly 600' thence northeasterly 1500' thence southeasterly 600' thence southwesterly 1500 to point of beginning.

Said mining claim being duly recorded in Book 5, Placer Mining Records, page 1, of Campbell County, State of Wyoming.

10. Mining claim identified as B-2, dated and/or located or discovered December 23, 1954, by one Dale Ruby, as locator or discoverer, covering and including the following described tract of land:

Situated in Section 17, T. 44 N.R. 75. Starting at a point 1200 feet northwesterly from SE cor of Section 17, T. 44, N.R. 75, thence northwesterly 600' thence northeasterly 1500' thence southeasterly 600' thence southwesterly 1500' to point of beginning.

Said mining claim being duly recorded in Book 5, Placer Mining Records, page 2, of Campbell County, State of Wyoming.

11. Mining claim identified as B-3, dated and/or located or discovered December 22, 1954, by one Dale Ruby, as locator or discoverer, covering and including the following described tract of land:

Situated in Section 17, T. 44 N.R. 75. Starting at a point 2340' north westerly from SE cor of Section 17, T. 44 N.R. 75, thence northwesterly 600' thence southwesterly 1500' thence southeasterly 600' thence northeasterly 1500' to point of beginning.

Said mining claim being duly recorded in Book 5, Placer Mining Records, page 3, of Campbell County, State of Wyoming.

12. Mining claim identified as B-4, dated and/or located or discovered December 23, 1954, by one Dale Ruby, as locator or discoverer, covering and including the following described tract of land:

Situated in Section 17, T. 44, N.R. 75. Starting at point 2340' northwesterly from SE cor of Section 17, T. 44, N.R. 75, thence northwesterly 600' thence northeasterly 1500' thence southeasterly 600' thence southwesterly 1500' to a point of beginning.

Said mining claim being duly recorded in Book 5, Placer Mining Records, page 4, of Campbell County, State of Wyoming.

13. Mining claim identified as B-5, dated and/or located or discovered December 23, 1954, by one Dale Ruby, as locator or discoverer, covering and including the following described tract of land:

Situated in Section 17, T. 44, N.R. 75. Starting at a point 700 feet west of SE cor of Section 17, T. 44, N.R. 75, thence northwesterly 600' thence northeasterly 1500' thence southeasterly 600' thence 1500' southwesterly to point of beginning.

Said mining claim being duly recorded in Book 5, Placer Mining Records, page 5, of Campbell County, State of Wyoming.

14. Mining claim identified as B-6, dated and/or located or discovered December 23, 1954, by and Dale Ruby, as locator or discoverer, covering and including the following described tract of land:

Situated in Section 20, T. 44, N.R. 75. Starting at a point 600' West of SE cor, Section 17, T. 44, N.R. 75, thence west 1500' thence south 600' thence east 1500' thence north 600' to point of beginning. Claim is in Section 20, T. 44, N.R. 75.

Said mining claim being duly recorded in Book 5, Placer Mining Records, page 6, of Campbell County, State of Wyoming.

This assignment is made without warranty of title either express or implied.

IN WITNESS WHEREOF, the undersigned has signed and sealed this instrument on the 4th day of April, 1955.

E. W. Thorson

STATE OF COLORADO)
) ss.
County of Denver)

On this 4 day of April, 1955, before me personally appeared E. W. Thorson, to me known to be the person described in and who executed the foregoing instrument and acknowledged that he executed the same as his free act and deed.

[illegible]
Notary Public

My Commission expires Apr 26 1955

PHOTO - COPY
BY PICK
FOR EXTRA COPIES, CALL KE. 2876
APR 5 1955
PICK PHOTOGRAPH & BLUEPRINT CO.
1015 - 17th ST. DENVER, COLO.
CERTIFIED ON REQUEST

Lincoln Abstracts
RECEIVED

ASSIGNMENT OF MINING CLAIMS

KNOW ALL MEN BY THESE PRESENTS: That whereas Dale Ruby, a single man, of Gillette, Wyoming, declares and acknowledges that he is the locator of certain mining claims by virtue of the revised statutes of the United States and the laws of the State of Wyoming, said claims being located in Townships 42, 43 and 44, in range 75 West 6th P.M., all situate in Campbell County, Wyoming.

NOW, THEREFORE, in consideration of the sum of One Dollar and other good and valuable consideration, the receipt whereof is hereby acknowledged, the undersigned, Dale Ruby, a single man, does hereby bargain, sell, transfer, assign, and set over to John C. Ostlund, Axel R. Ostlund, C. D. Roberts, and E. W. Thorson, their heirs, personal representatives and assigns all his right, title and interest in, to and under the following described and identified mining claims and the lands covered thereby, to wit:

1. Mining claim identified as A-1, dated and/or located or discovered December 21, 1954, by said Dale Ruby, as locator or discoverer, covering and including the following described tract of land:

Situated in Section 34, T. 43, N.R. 75 W. and Section 3, T. 42 N.R. 75, Campbell County, Wyoming, beginning at a point 100' north of Gov't. survey marker ($\frac{S34}{S3}$) go south 750' then west 600' then north 1500' then east 600' then south to point of beginning. Located in Section 34, T. 43 N.R. 75. West.

Said mining claim being duly recorded in Book 5, Placer Mining Records, page 7, of Campbell County, State of Wyoming.

2. Mining claim identified as A-2, dated and/or located or discovered December 21, 1954, by said Dale Ruby, as locator or discoverer, covering and including the following described tract of land:

Situated in Section 34, T. 43, N.R. 75 West also Section 3, T. 42, N.R. 75 West. Beginning at a point 100' north of Gov't. survery marker ($\frac{1\ S34}{4\ S3}$) go south 750' thence east 600' thence north 1500 feet thence West 600' thence south to point of beginning.

Said mining claim being duly recorded in Book 5, Placer Mining Records, page 8, of Campbell County, State of Wyoming.

3. Mining claim identified as A-3, dated and/or located or discovered December 21, 1954, by said Dale Ruby, as locator or discoverer, covering and including the following described tract of land:

Situated in Section 34, T. 43 N.R. 75 West. Beginning at a point 850' north of Gov't. survey marker ($\frac{1\ S34}{4\ S3}$) thence north 1500' thence east 600' thence south 1500' thence west to point of beginning.

Said mining claim being duly recorded in Book 5, Placer Mining Records, page 9, of Campbell County, State of Wyoming.

4. Mining claim identified as A-4, dated and/or located or discovered December 21, 1954, by said Dale Ruby, as locator or discoverer, covering and including the following described tract of land:

Situtated in Section 34, T. 43, N.R. 75 West. Beginning at a point 850' north and 600' east of Gov't. Survey marker ($\frac{1\ S34}{4\ S3}$) thence north 600' thence east 1500' thence 600' south thence 1500' to point of beginning.

Said mining claim being duly recorded in Book 5, Placer Mining Records, page 10, of Campbell County, State of Wyoming.

5. Mining claim identified as A-5, dated and/or located or discovered December 21, 1954, by said Dale Ruby, as locator or discoverer, covering and including the following described tract of land:

Situated in Section 34, T. 43 N. R. 75 West. Beginning at a point 1360' in a northeasterly direction from Gov't. survey marker (1S34) then go east 1500' thence north 600' thence east 1500' thence (4S3) south 600' to point of beginning.

Said mining claim being duly recorded in Book 5, Placer Mining Records, page 11, of Campbell County, State of Wyoming.

6. Mining claim identified as A-6, dated and/or located or discovered December 24, 1954, by said Dale Ruby, as locator or discoverer, covering and including the following described tract of land:

Situated in Section 34, T. 43, N.R. 75, West. Beginning at a point 1450' north of Gov't. survery marker (1 S34) go north 1500' thence west 600' thence south 1500' thence east (4 S3) 600' to point of beginning.

Said mining claim being duly recorded in Book 5, Placer Mining Records, page 12, of Campbell County, State of Wyoming.

7. Mining claim identified as A-7, dated and/or located or discovered December 24, 1954, by said Dale Ruby, as locator or discoverer, covering and including the following described tract of land:

Situated in Section 34, T. 43, N.R. 75. Starting at a point 720 feet northwesterly direction from SE cor of Section 34 T. 43 N.R. 75, hence north 1500' thence 600' west thence 1500 feet south thence 600' east to point of beginning. Located in Section 34, T. 43, N.R. 75 West.

Said mining claim being duly recorded in Book 5, Placer Mining Records, page 13, of Campbell County, State of Wyoming.

8. Mining claim identified as A-8, dated and/or located or discovered December 22, 1954, by said Dale Ruby, as locator or discoverer, covering and including the following described tract of land:

Situated in Section 34, T. 43, N.R. 75. Starting at a poing 206' northwesterly from SE Cor of Section 34, T. 43, N.R. 75, thence north 1500' thence 600' west thence south 1500' thence east 600' to a point of beginning.

Said mining claim being duly recorded in Book 5, Placer Mining Records, page 14, of Campbell County, State of Wyoming.

9. Mining claim identified as B-1, dated and/or located or discovered December 22, 1954, by said Dale Ruby, as locator or discoverer, covering and including the following described tract of land:

Situated in Section 17, T. 44, N.R. 75. Starting at a point 1800 feet in a northwesterly direction from SE cor of Section 17, T. 44, N.R. 75, thence northwesterly 600' thence northeasterly 1500' thence southeasterly 600' thence southwesterly 1500 to point of beginning.

Said mining claim being duly recorded in Book 5, Placer Mining Records, page 1, of Campbell County, State of Wyoming.

10. Mining claim identified as B-2, dated and/or located or discovered December 23, 1954, by said Dale Ruby, as locator or discoverer, covering and including the following described tract of land:

Situated in Section 17, T. 44 N.R. 75. Starting at a point 1200 feet northwesterly from SE cor of Section 17, T. 44, N.R. 75, thence northwesterly 600' thence northeasterly 1500' thence southeasterly 600' thence southwesterly 1500' to point of beginning.

Said mining claim being duly recorded in Book 5, Placer Mining Records, page 2, of Campbell County, State of Wyoming.

11. Mining claim identified as B-3, dated and/or located or discovered December 22, 1954, by said Dale Ruby, as locator or discoverer, covering and including the following described tract of land:

Situated in Section 17, T. 44 N.R. 75. Starting at a point 2340' northwesterly from SE cor of Section 17, T. 44 N.R. 75, thence northwesterly 600' thence southwesterly 1500' thence southeasterly 600' thence northeasterly 1500' to point of beginning.

Said mining claim being duly recorded in Book 5, Placer Mining Records, page 3, of Campbell County, State of Wyoming.

12. Mining claim identified as B-4, dated and/or located or discovered December 23, 1954, by said Dale Ruby, as locator or discoverer, covering and including the following described tract of land:

Situated in Section 17, T. 44, N.R. 75. Starting at point 2340' northwesterly from SE cor of Section 17, T. 44, N.R. 75, thence northwesterly 600' thence northeasterly 1500' thence southeasterly 600' thence southwesterly 1500' to a point of beginning.

Said mining claim being duly recorded in Book 5, Placer Mining Records, page 4, of Campbell County, State of Wyoming.

13. Mining claim identified as B-5, dated and/or located or discovered December 23, 1954, by said Dale Ruby, as locator or discoverer, covering and including the following described tract of land:

Situated in Section 17, T. 44, N.R. 75. Starting at a point 700 feet west of SE cor of Section 17, T. 44, R. 75, thence northwesterly 600' thence northeasterly 1500' thence southeasterly 600' thence 1500' southwesterly to point of beginning.

Said mining claim being duly recorded in Book 5, Placer Mining Records, page 5, of Campbell County, State of Wyoming.

14. Mining claim identified as B-6, dated and/or located or discovered December 23, 1954, by said Dale Ruby, as locator or discoverer, covering and including the following described tract of land:

Situated in Section 20, T. 44, N.R. 75. Starting at a point 600' West of SE cor, Section 17, T. 44, N.R. 75, thence west 1500' thence south 600' thence east 1500' thence north 600' to point of beginning. Claim is in Section 20, T. 44, N.R. 75.

Said mining claim being duly recorded in Book 5, Placer Mining Records, page 6, of Campbell County, State of Wyoming.

This assignment is made without warranty of title either express or implied.

IN WITNESS WHEREOF, the undersigned has signed and sealed this instrument on the 12th day of January, 1955.

Dale Ruby

Dale Ruby

STATE OF WYOMING)
) ss.
County of Campbell)

On this 12th day of January, 1955, before me personally appeared Dale Ruby, to me known to be the person described in and who executed the foregoing instrument, and acknowledged that he executed the same as his free act and deed.

Michael M. Stock

Notary Public

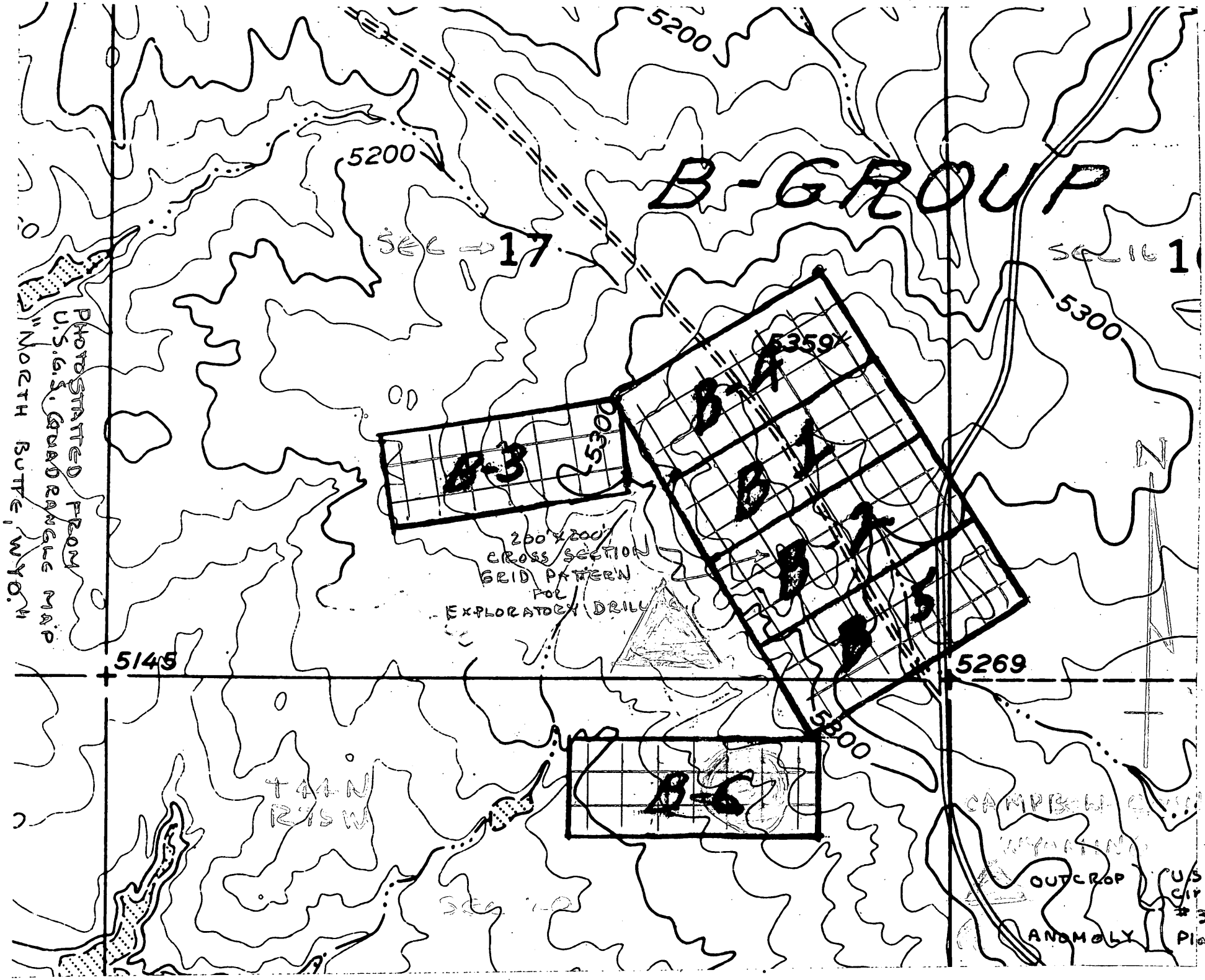
My Commission expires August 18, 1958.

STATE OF WYOMING)
CAMPBELL COUNTY) ss.

I, Eileen Butler, County Clerk and Ex-Officio Register of Deeds within and for the County and State aforesaid, do hereby certify the foregoing to be a photograph of page 72, 73 & 74 of Book 5 of P.M.R. of the records of my office.
IN TESTIMONY WHEREOF I have hereunto set my hand and affixed the official seal of my office at Gillette, Wyoming, this 25th day of February, 1955.

Eileen Butler

County Clerk


B-GROUP
5200
5200
SEC 17
SEC 16
5300
5359
B-4
B-1
B-2
B-5
B-3
5300
200' x 200'
CROSS SECTION
GRID PATTERN
FOR
EXPLORATORY DRILLING
5145
5269
5300
B-6
T 41 N
R 15 W
N
OUTCROP
ANOMOLY
U.S.G.S
Circular
#338
Plate 2
PHOTOSTATED FROM
U.S.G.S. QUADRANGLE MAP
"NORTH BUTTE, WYO."

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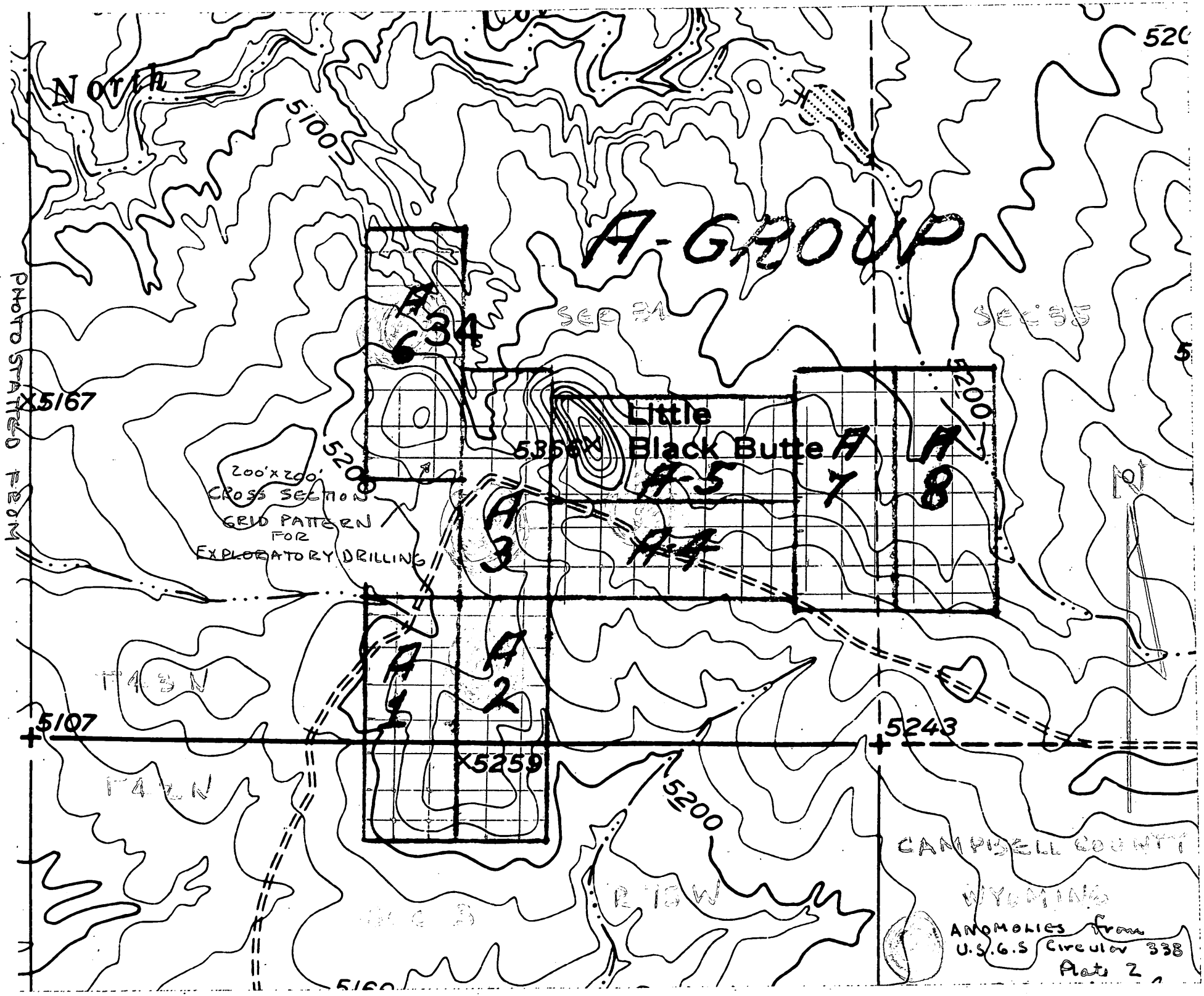

PHOTOSTATED FROM
U.S.G.S. QUADRANGLE MAP "SOUTH BUTTE, WYO."

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BUREAU OF MINES

~~234 NEW CUSTOMHOUSE~~
~~DENVER 2, COLORADO~~

OFFICIAL BUSINESS

(PMGC)

DENVER
JUN
23
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1954
COLO.

COLO.

Maps

Defense Minerals Exploration Administration
U.S.Department of the Interior
Interior Bldg.
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