DMA Form 1

DEFENSE MINERALS ADMINISTRATION
Control Slip

CONTROLLED DOCUMENT

DMA Docket No. 4259

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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.

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.

Cys. BM, GS, Region III

Routing Slip

To:	700	Date	4/17/56
To:	Oper. Com	Date	4/25/56
To:	F. E. Johnson	Date	4-27-56
To:	CBJ	Date	4-27-56
To:	Operating Com.	Date	9-18-56
To:	F. E. Johnson	Date	9-19-56
To:		Date	
To:		Date	
To:		Date	
To:		Date	
To:		Date	
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DO NOT DETACH

CONTROLLED DOCUMENT

4259

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF THE SECRETARY
WASHINGTON 25, D. C.

PRS 7129

OCT 16 1956

DMEA
Ching
F L Knouse
FLJohnson
Mittendorf
Imhoff
Liebert
Wormser

Dear Ted:

Upon returning from my western trip I found awaiting me your letter of September 19 requesting information on the status of an application by the Uranium Corporation of America for a Defense Minerals Exploration Administration project in Campbell County, Wyoming.

A Report of Examination was recently received from the DMEA Field Team at Denver and has been under study by the Washington Office of the DMEA. The results of this study were incorporated in a letter, dated September 20, 1956, to Mr. Robert Banks, President of Uranium Corporation of America. No doubt, by now, you have been informed of these results by Mr. Banks. If not, it is suggested that you get in touch with him for details.

I am sorry that I could not give you this information in South Dakota.

Sincerely yours,

(sgd) Fred A. Seaton

Secretary of the Interior

Mr. Ted Brown

Silver City, South Dakota

MChing/gla
WHMcCrillis/mmp

9/28/56

cc to Secretary's Reading File
Secretary's File Copy
Asst Secy Min Resources 2
DMEA docket file
Administrator's reading file
Code 700, DMEA
Mr. Ching

FILE COPY
Surname:
DMEA

Ching
Z Blaine
Mathewson

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF THE SECRETARY
WASHINGTON 25, D. C.

PRS No. 7129

Dear Ted:

This will reply to your letter of September 19, 1956, requesting information on the status of an application by the Uranium Corporation of America for a Defense Minerals Exploration Administration project in Campbell County, Wyoming.

A Report of Examination was recently received from the DMEA Field Team at Denver and has been under study by the Washington Office of the DMEA. The results of such study were incorporated in a letter, dated September 20, 1956, to Mr. Robert Baker, President of Uranium Corporation of America. No doubt, by now, you have been informed of these results by Mr. Baker. If not, it is suggested that you get in touch with him for details.

I shall look forward to seeing you.

Sincerely yours,

Secretary of the Interior

Mr. Ted Brown
Silver City, South Dakota

MChing/gla
9-21-56
cc to: Secretary's Reading File
Secretary's file copy
Assistant Secretary Mineral Resources (2)
DMEA Docket file
Administrator's Reading File
Code 700, DMEA
Mr. Ching

Silver City, South Dakota
September 19, 1956

Mr. Fred A. Seaton
Secretary of the Interior
Washington, D. C.

Dear Fred:

We of the Uranium Corporation of America, of which I am a partner, made application for a D.M.E.A. loan about six months ago. The A.E.C. field team has been out to investigate the ore twice and they were impressed with what we had done and seemed to think the loan was in order. Now, it seems to be stalemated. I am interested in expediting it - or in the determination of their inspection report. I understand the papers are now in Washington, D. C.

Data on separate sheet.

Intend to contact you at Belle Fouche, S.D., or at Leed. Will see Chile tomorrow. Now getting ready for hunting November 9th.

Sincerely,

/s/ Ted Brown

Ted Brown

c
o
p
y

D A T A

URANIUM CORPORATION OF AMERICA

Robert Banks, President, signed application

Office - 150 North Beech Street
Casper Wyoming
(from Lexington, Nebraska)

Phone - 3-7976, Casper, Wyoming

Known as Trix claims
Section 29, Range 75, Township 43 north
Pumpkin Butte area of Wyoming

Filed in A.E.C. office at Denver, Colorado, but now in Washington, D. C.

c
o
p
y

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

September 27, 1956

Memorandum

To: Secretary of the Interior

From: C. O. Mittendorf, Administrator
Defense Minerals Exploration Administration

Subject: FRS No. 7129
Docket No. DMEA-4259 (Uranium and selenium)
Uranium Corporation of America
Trix and Cora Claims
Campbell County, Wyoming

The subject application for aid in an exploration project was received in Washington on April 17, 1956, and referred to the DMEA Field Team, Region III, on April 27. The Report of Examination of the field examiners was delayed considerably by their inability to obtain pertinent information from the Applicant on the results of previous drilling by it. However, the report was received in Washington on August 29 and, until recently, was under study by this office and the commodity members of the Bureau of Mines and the Geological Survey.

It was concluded that uranium mineralization on the property was confined to a narrow, shallow zone that has been adequately explored by the Applicant and that further drilling under a DMEA project would not add materially to the present knowledge of the deposit. The possibility of making a significant discovery by such work was considered poor. Consequently, under date of September 20, 1956, a letter denying the application was sent to Uranium Corporation of America.

Although the DMEA makes public its actions when contract approvals are concerned, it has been its long established policy to divulge final action involving denial of an application only to the Applicant or to the officers of the company in case of a corporate entity. A search of our docket discloses that Mr. Ted Brown is not shown as an officer of the Uranium Corporation of America. For that reason, the reply which we have prepared does not divulge to Mr. Brown that this application was denied by our letter of September 20, 1956.

C. O. Mittendorf

Administrator

COMittendorf/esf
cc to: Docket
Admr. R. File
Mr. Ellis
Mr. Mittendorf

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

SECRETARY'S MAIL CENTER
SEP 27 1956
INTERIOR DEPT.
McC

September 24, 1956

SEP 24 1956

Returned by Secretary's office (McCullough) for revision. See revision 9/27/56

Memorandum

To: Secretary of the Interior

From: C. O. Mittendorf, Administrator
Defense Minerals Exploration Administration

Subject: PRS No. 7129
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Uranium Corporation of America
Trix and Cora Claims
Campbell County, Wyoming

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C O Mittendorf
Administrator

Surname copy

700

Ching
Filtenborn
Johnson

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

September 24, 1956

Memorandum

To: Secretary of the Interior

From: C. O. Mittendorf, Administrator
Defense Minerals Exploration Administration

Subject: PRS No. 7129
Docket No. DMEA-4259 (Uranium and selenium)
Uranium Corporation of America
Trix and Cora Claims
Campbell County, Wyoming

The subject application for aid in an exploration project was received in Washington on April 17, 1956, and referred to the DMEA Field Team, Region III, on April 27. The Report of Examination of the field examiners was delayed considerably by their inability to obtain pertinent information from the Applicant on the results of previous drilling by it. However, the report was received in Washington on August 29 and, until recently, was under study by this office and the commodity members of the Bureau of Mines and the Geological Survey.

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C. O. Mittendorf
(Copy of)
Administrator

MChing/gla
cc to: Admr.'s Reading File
Docket
Mr. Ching, Code 700

Surname copy

700

Murphy
Ellis
Yoes
Olson Kilgaard
Selfridge
Fjeldsen

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

SEP 2 0 1956

Mr. Robert Banks, President
Uranium Corporation of America
Star Building
Casper, Wyoming

Re: Docket No. DMEA-4259 (Uranium)
Trix and Cora Claims
Campbell County, Wyoming

Dear Mr. Banks:

Your application for aid in an exploration project and other information available to us in Washington concerning your 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 some uranium mineralization on your property, indicates that the probability of disclosing significant ore reserves is not sufficiently promising to justify Government participation. We regret to advise you that, under these circumstances, your application for exploration assistance is denied.

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

Sincerely yours,

C. O. Mittendorf

Administrator

Copy to: Robert A. Levitt
Attorney at Law
2200 Rand Tower
Minneapolis 2, Minnesota

FMMurphy/gla
9-18-56
cc to: Admr.'s Reading File
Operating Committee
Docket
Messrs. JECrawford, Rm. 3641
THKiilsgaard, Rm. 5224
JOHosted, Rm. 3210, GSA
Code 700 Mr. Murphy
DMEA Field Team, Region III (2)

R.S.

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

September 18, 1956

Summary of Proposed Project

Object: Denial of application for exploration aid.

Docket No.: DMEA-4259

Commodity: Uranium

Applicant: Uranium Corporation of America
Robert Banks, President
Star Building
Casper, Wyoming

Property: Owner of Trix Nos. 1, 2, 4, 5 and Cora Nos. 7, 8, 9, 10, 11 claims, situated in sec. 29, T. 43 N., R. 75 W., 6th PM, Campbell County, Wyoming

Date of Application: April 12, 1956

Amount of Application: $22,541.50

Referred to Region III: April 27, 1956

Field Examinations made: June 12, 1956, and again on July 11 because the applicant had done a considerable amount of stripping and open pitting subsequent to the first examination. Requested geological exploration, and claim maps, were not submitted to the Field Team until August 7.

Field Team Report received: August 29, 1956

Work proposed:

Stage I

Drill 151 holes to the water table within an area showing anomalous radioactivity that was discovered by an aerial survey. Also, 21 holes, on a 400-foot grid, to depths of 100 to 200 feet.

Stage II

Drill offset holes to holes drilled in Stage I that encountered significant mineralization.

Estimated Costs:

21 holes to average depth of 150 feet @ $2.00/ft.	$ 6,300.00
151 holes to average depth of 50 feet @ $0.75/ft.	5,662.50
Bulldozer, 27 hours @ $12.00/hr.	324.00
Supervision and Consultants	7,500.00
Materials and supplies	1,130.00
Use allowance on company equipment valued at $6,750.00	675.00
New buildings, improvements, etc.	550.00
Miscellaneous and Contingencies	400.00
	$22,541.50

Excerpts from Field Team report:

The Trix and Cora claims in the South Central Pumpkin Buttes area are underlain by the Wasatch formation of Eocene age. A stratigraphic interval that extends from 450 to 900 feet above the base of the Wasatch formation is considered to contain the potential uranium-bearing beds in the area.

Approximately 100 to 200 feet of the ore-bearing strata have been removed by erosion in the vicinity of the claims. However, there are at least two thick sandstone units within the 100-to 200-foot stratigraphic interval that underlies the property.

The property has been explored by 100 non-core drill holes, whose depths are reported to range from 30 to 110 feet. The holes are 25 to 100 feet apart, in an irregular pattern. In addition to the drill holes, the property has been explored by a small bulldozer trench and developed by a large opencut. It is reported that two shipments of uranium-bearing material was recovered from the opencut.

The drilling, trenching, and opencut work indicate the presence of a mineralized zone about 150 feet wide by 1800 feet long, with an average grade no higher than 0.05% U_3O_8. Selected samples of mineralized sandstone from this area, taken by the examiners, assayed 0.20, 1.05, 0.31, and 2.70% U_3O_8.

The examiners conclude that the zone has been sufficiently drilled to indicate the trend, approximate limits, and location of ore-grade material that may be present within the zone. Also, that additional drilling would not result in finding significant uranium deposits on the property. The Field Team recommends that the application be denied.

Commodity Members' Comments (excerpts):

U. S. Bureau of Mines
J. E. Crawford, September 6, 1956

Mr. Crawford concurs in the Field Team's recommendation.

U. S. Geological Survey
W. P. Williams, September 17, 1956

Mr. Williams notes that ore-grade uranium mineralization has been discovered on the subject property by the applicant. However, he agrees with the field examiners that additional exploration work would not result in a significant discovery and therefore concurs in the Field Team's recommendation to deny the application.

Rare and Miscellaneous Metals Division, F. M. Murphy, September 18, 1956:

Investigation of the uranium and selenium potentials within the Pumpkin Buttes area have been made by the USGS, USBM, and AEC. Selenium was not found present in sufficient concentrations to be considered as an independent source of ore. Several thousand tons of uranium ore have been mined from an area adjacent and north of Pumpkin Buttes, however, only about 100 tons of uranium ore have been produced from the area west and southwest of the Buttes.

The Applicant's claims lie in the unfavorable area, and the examiners state the claims have been sufficiently explored with only small pods of ore-grade material discovered.

Conclusion and Recommendation:

This Division agrees with the conclusions of the field examiners and concurs in the Field Team's recommendation to deny the application.

Ernest Wm. Ellis

Ernest Wm. Ellis

Murphy

September 18, 1956

Summary of Proposed Project

Object:	Denial of application for exploration aid.
Docket No.:	DMEA-4299
Commodity:	Uranium
Applicant:	Uranium Corporation of America Robert Banks, President Star Building Casper, Wyoming
Property:	Owner of Trix Nos. 1, 2, 4, 5 and Cara Nos. 7, 8, 9, 10, 11 claims, situated in sec. 29, T. 43 N., R. 75 W., 6th PM, Campbell County, Wyoming
Date of Application:	April 12, 1956
Amount of Application:	$22,541.50
Referred to Region III:	April 27, 1956
Field Examinations made:	June 12, 1956, and again on July 11 because the applicant had done a considerable amount of stripping and open pitting subsequent to the first examination. Requested geological exploration, and claim maps, were not submitted to the Field Team until August 7.
Field Team Report received:	August 29, 1956

Work proposed:

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Use allowance on company equipment valued at $6,750.00	675.00
New buildings, improvements, etc.	550.00
Miscellaneous and Contingencies	400.00
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FMMurphy:ms 9/18/56
Copy to: Docket
Operating Committee
Code 700
Mr. Murphy
Admr. R. File

9/18/56 gla

IN REPLY REFER TO:

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

September 17, 1956 RECEIVED

SEP 17 1956

Memorandum

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

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

Subject: Review of field examination report, DMEA 4259, Uranium Corporation of America, Trix and Cora claims, Campbell County, Wyoming.

The field examiners report uranium mineralization of ore grade has been discovered on the subject property by the applicant. It is concluded by the examining team, however, that additional exploration work would not result in a significant discovery; and denial of the application is recommended.

The field report describes several favorable features about the property. These include a favorable sandstone ore-host of fair thickness and the abundance of uranium mineralization. The property is not well suited to a DMEA project, however, because the long narrow potential ore zone has already been fairly well 'drilled out' by over a hundred drill holes. Any additional drilling would have to be closely spaced and interspersed with previous drilling.

I am in agreement with the examining team's recommendation for denial of the application. If the application is denied the usual denial notification to the applicant will not exactly fit this case because the applicant already has some shipping ore in sight.

W. P. Williams

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

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WPWilliams:btr
G 9/17/56

W. P. Williams

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

IN REPLY REFER TO:

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

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

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Memorandum

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Chron. file
Docket file

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

RECEIVED
SEP - 6 1956

Date 9/6/56

DMEA Docket No. 4259
DMEA Contract No.
Commodity Uranium
Name of applicant Uranium Corporation ofAmerica
Name of property Trix and Cora claims
Location of property Campbell County, Wyoming
Estimated cost of project $22,531.50

Memorandum

To: Ernest William Ellis, DMEA Member
Uranium Commodity Committee

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

Subject: Review of Report of Examination
(Application, Field Team Report, etc.)

1. Date of subject documents: 8/21. 2. Date received by reviewers: 8/30

3. Prior reports on this property known to reviewer: Yes [ ], No [x].

4. Prior reports on nearby properties known to reviewers: Yes [ ], No [x].

5. Information available on past production: Yes [ ], No [x].

6. Other pertinent factors known to reviewer: Yes [ ], No [x].

7. Explain items marked yes above:

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

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

10. Remarks: (Use back of page if necessary)
Mr. Joseph O. Hosted, Washington representative of the Atomic Energy Commission, assisted in the review.

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

RECEIVED
SEP - 6 1956

Date 9/6/56

DMEA Docket No. 4259
DMEA Contract No.
Commodity Uranium
Name of applicant Uranium Corporation ofAmerica
Name of property Trix and Cora claims
Location of property Campbell County, Wyoming
Estimated cost of project $22,531.50

Memorandum

To: Ernest William Ellis, DMEA Member
Uranium Commodity Committee

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

Subject: Review of Report of Examination
(Application, Field Team Report, etc.)

1. Date of subject document: 8/21. 2. Date received by reviewer: 8/30

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

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

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

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

7. Explain items marked yes above:

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

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

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

Mr. Joseph O. Hosted, Washington representative of the Atomic Energy Commission, assisted in the review.

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

RECEIVED
SEP - 6 1956

Date 9/6/56

DMEA Docket No. 4259
DMEA Contract No.
Commodity Uranium
Name of applicant Uranium Corporation of America
Name of property Trix and Cora claims
Location of property Campbell County, Wyoming
Estimated cost of project $22,531.50

Memorandum

To: Ernest William Ellis, DMEA Member
Uranium Commodity Committee

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

Subject: Review of Report of Examination
(Application, Field Team Report, etc.)

1. Date of subject document: 8/21. 2. Date received by reviewer: 8/30

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

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

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

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

7. Explain items marked yes above:

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

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

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

Mr. Joseph O. Hosted, Washington representative of the Atomic Energy Commission, assisted in the review.

8/31/56

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

August 24, 1956

224 New Customhouse
Denver 2, Colorado

RECEIVED
AUG 29 1956

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Field Team, Region III

Subject: Joint Report of Examination, Docket DMEA 4259 (Uranium), Uranium Corporation of America (Trix and Cora claims), Campbell County, Wyoming

Enclosed are four copies of a joint engineering and geologic report on the subject property.

The examining team find that the uranium mineralization confined to a narrow shallow zone has been adequately drilled and the holes probed by the Applicant to indicate the trend limits and location of ore-grade material present in the zone. They consider that the additional drilling proposed would not serve to add materially to present knowledge of the deposit and would be mostly drilling on less than 100 foot centers. The possibility of the discovery of a significant uranium deposit is poor, and denial of the application for DMEA assistance is recommended.

The Region III Field Team concurs with the recommendation.

The covering transmittal memorandum from the supervisors attributes the delay in submission of the Report of Examination to failure on the part of the Applicant to furnish information requested.

DMEA Field Team, Region III

W. M. Traver

By W. M. Traver
Executive Officer

Enclosures

Reviewed by
DMEA OPERATING COMMITTEE
8-31-56
(date)

IN REPLY REFER TO:

DMEA
Date Rec'd.

RECEIVED AUG 20 1956

AUG 24 1956

BUREAU OF MINES
Denver, Colorado

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

August 22, 1956

Memorandum

To: Executive Officer, DMEA Field Team, Region III

TRANSMITTED
AUG 24 1956

From: John F. Shaw
E. N. Harshman

Subject: DMEA Docket 4259 (Uranium), Uranium Corporation of America (Trix and Cora claims), Campbell County, Wyoming

Enclosed are the original and nine copies of a joint report by R. U. King, Geological Survey, and Edward W. Buel, Bureau of Mines, covering their examinations of the subject property.

The applicant proposes a drilling program, estimated to cost $22,531.50, to explore for uranium deposits in the Wasatch formation underlying the Cora and Trix claims.

The examiners conclude that small deposits of ore-grade material are limited to a zone 1,500 feet long and about 150 feet wide which traverses the subject claims from east to west. They further conclude that the ore-bearing zone has been adequately explored by the applicant and that additional drilling would be in the nature of development work.

Considerable delay in preparation of the report resulted from the inability of the examiners to obtain pertinent information from the applicant on the results of drilling by him. A claim map requested at the time of the second examination (July 11, 1956) was received on August 7, 1956.

We concur with the recommendation that the application, DMEA Docket 4259 be denied.

Reviewed by
DMEA OPERATING COMMITTEE
8-31-56
(date)

for W. H. King
John F. Shaw
Superintendent of the Denver
Experiment Station

E. N. Harshman
E. N. Harshman
Member, Field Team

Enclosures (10)
ENHarshman:mp

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

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION III

TRANSMITTED
AUG 24 1956

CONFIDENTIAL
NOT FOR PUBLIC INSPECTION OR QUOTATION

DMEA 4259

Uranium Corporation of America

Trix and Cora Claims

Campbell County, Wyoming

Uranium

Joint Engineering and Geological Report

by

Robert U. King, Geologist
Geological Survey

Edward W. Buel, Mining Engineer
Bureau of Mines

August 21, 1956

Reviewed by
DMEA OPERATING COMMITTEE
8-31-56
(date)

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1. Index map showing location of Trix and Cora claims, Uranium Corporation of America, Campbell County, Wyoming. DMEA 4259..... 4

2. Geologic map of part of the Trix and Cora claims, Uranium Corporation of America, Pumpkin Buttes area, Campbell County, Wyoming. DMEA 4259..... 18

DMEA 4259

URANIUM CORPORATION OF AMERICA
TRIX AND CORA CLAIMS
CAMPBELL COUNTY, WYOMING

SUMMARY

The Uranium Corporation of America, Casper, Wyoming, requested DMEA assistance in the amount of $22,531.50 to explore for uranium by non-core drilling on their Trix and Cora claims in the Pumpkin Buttes district, Campbell County, Wyoming.

Because the information supplied by the applicant was inadequate and exposures on the claims were poor during an examination made on June 12, 1956, a second examination was made on July 11, 1956. Claim maps were not received from the applicant until August 7, 1956.

Uranium occurs on the Trix and Cora claims disseminated in bedded deposits in sandstone beds in the Wasatch formation of Tertiary age. The presence of a mineralized zone about 1,800 by 150 feet and 4 feet thick is indicated by the applicant's drilling and open pitting. The average grade of the zone is estimated to be around 0.05 percent U_3O_8.

The examining team concludes that the probability of finding significant uranium ore bodies on the Trix and Cora claims is poor and recommends that the application for DMEA assistance be denied.

INTRODUCTION

Uranium Corporation of America applied for DMEA assistance to explore for uranium on the Trix and Cora claims. Total cost of the exploration is given as $22,531.50, with the Government's share being $16,898.62.

An examination was made by Edward W. Buel, mining engineer, Bureau of Mines, on June 12, 1956. Mr. John Sargent, geological consultant for the applicant, was present during the investigation.

An examination of the property revealed, that even though a considerable amount of exploratory drilling (non-core) had been done, geological information required for an appraisal of the property generally was lacking. Except for one bulldozer trench the excavated areas did not permit a viewing of the geological features. Another examination was made of the property on July 11, 1956, by a DMEA examining team of Robert U. King, Geological Survey, and Edward W. Buel, Bureau of Mines. The team was accompanied by John Sargent.

The applicant had done a considerable amount of stripping and open pitting since the first visit, and the property was sufficiently exposed to permit a close scrutiny of the salient geological features.

Conversations held with representatives of the applicant and personal observations indicate that the exploration and mining

are being carried on in somewhat of a disorganized fashion. Geological, exploration, and claim maps, as well as drill hole data were not made available during the initial investigation nor during the second examination. Claim maps were furnished on August 7, 1956. More than 100 holes had been drilled by the applicant, but chemical assays were available for only three holes. Representatives of the applicant, however, said that they intend to have chemical assays made of the drill hole material.

Personnel of the Atomic Energy Commission's offices in Denver, Colorado, and Casper, Wyoming, were contacted with reference to the property. Messrs. Eugene W. Grutt, Jr. and Ray Lindlof of the Atomic Energy Commission's office in Casper stated that radiometric probing of drill holes in the Pumpkin Buttes area was adversely affected by radon gas, and that chemical assays were the only effective check for uranium content. Casper office personnel who had conducted an examination of the property on April 5, 1956, concluded that "the sporadic distribution of the highly radioactive areas and their small size in addition to the limited amount of uranium-mineralized host rock both on the surface and in drill hole cuttings suggest that this claim group will not produce an ore body of commercial size" (A.E.C. Reconnaissance Report DEB p. 2, 2786).

LOCATION AND ACCESSIBILITY

The Trix and Cora claims are in sec. 29, T. 43 N., R. 75 W., 6th principal meridian, Campbell County, Wyoming (fig. 1). The claims lie less than 3 miles southwest of South Butte of the Pumpkin Buttes area.

The property is accessible from Midwest which is a small town at the junction of U. S. Highway 87 and State Highway 387. From Midwest, Highway 387 is followed eastward for about 29 miles to an unimproved road on the Earl Brown Ranch. This unimproved road passes through the ranch to the Pumpkin Buttes area and to Uranium Corporation of America's trailer camp. Distance from Highway 387 to the camp is 9 miles.

GEOGRAPHY

Prominent physiographic feature of the area are the buttes, geographically referred to as Pumpkin Buttes, which are near the divide between the drainage basins of the Powder and Belle Fourche Rivers. These landmarks rise about 1,000 feet above the gently rolling and grass covered land to the west and southwest. Locally this land is incised into by deep gullies and ravines into badlands.

Average altitude of the property is estimated at 5,100 feet.

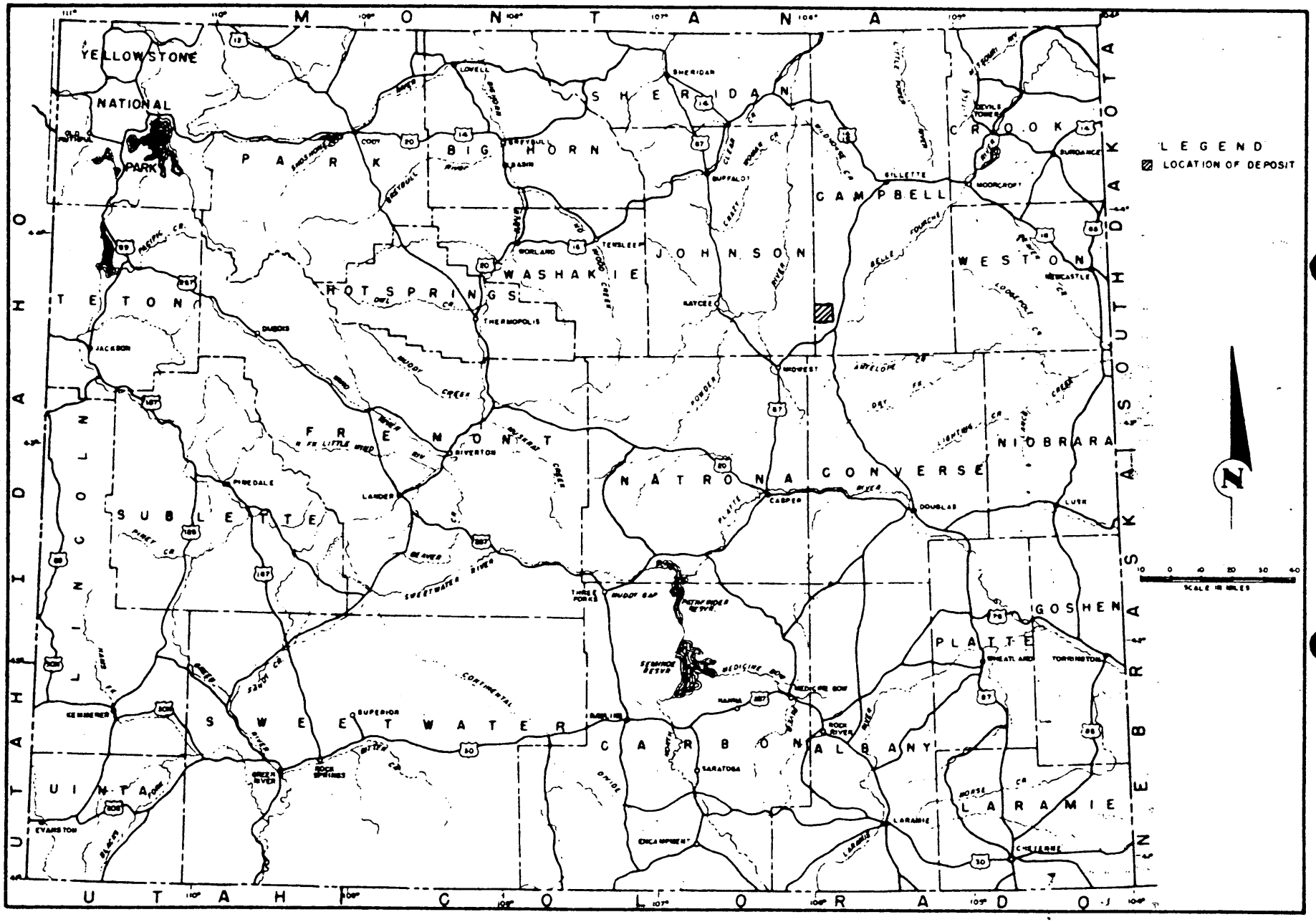

FIGURE 1 - INDEX MAP SHOWING LOCATION OF TRIX AND CORA CLAIMS, URANIUM CORPORATION OF AMERICA, CAMPBELL COUNTY, WYOMING. DMEA 4259

The area containing the Trix and Cora claims is drained by an ephemeral tributary of Cottonwood Creek. Water for drilling needs is available at the trailer camp site on the property.

Vegetation consists principally of grass and sage brush with small conifers along the upper slopes of the buttes and cottonwood trees growing in the areas containing water.

The climate is semi-arid with frequent extremes in weather and temperature.

Living conditions are suitable for trailers at the company camp.

Mining supplies, in part, can be secured from Casper which is nearly 80 miles from the property.

All power needs are supplied by portable equipment.

PROPERTY

The property consists of the Trix 1, 2, 4, and 5, and the Cora 7, 8, 9, 10, and 11 unpatented lode claims. The claim map submitted by the applicant on August 7, 1956, shows that the Cora claims in part overlie the Trix claims. Sizeable gaps as much as 80 feet in width exist between the Cora claims, placing parts of the area of proposed exploration on and near apparently open ground.

The property is owned by Uranium Corporation of America, Star Building, Casper, Wyoming.

The claims are recorded in Campbell County Courthouse as follows:

Claim	Book	Pages
Cora 7, 8, 9, 10, 11	21	289-297
Trix 1, 2, 4, 5	21	527-531

The Cora claims which overlie the Trix claims, were owned formerly by Robert Ackerson, but quitclaim deeds have been issued to the applicant. Rather than involve itself in any legal entanglements, Uranium Corporation of America traded several of its claims with Ackerson, who owns claims adjacent to the applicant's property.

HISTORY AND PRODUCTION

Prior to November 17, 1955, the Atomic Energy Commission withdrew (Public Land Withdrawal Order 811) 100 square miles, more or less, in the Pumpkin Buttes area following the discovery of uranium minerals. Investigations of the uranium and selenium potentials within the area were conducted by the U. S. Geological Survey in 1952 and by the U. S. Bureau of Mines in 1955. Results of these investigations are given in "Summary of Investigations of Uranium Deposits in the Pumpkin Buttes area, Johnson and

Campbell Counties, Wyoming" Geological Survey Circular 338, p. 17, 1954, and "Selenium Investigation of the Pumpkin Buttes district, Johnson, Campbell, and Converse Counties, Wyoming" Bureau of Mines Confidential Final Report, p. 24, 1955. Results of these investigations showed that many localities contain visible uranium mineralization and have anomalous radioactivity, and that selenium occasionally occurs closely allied with the uranium. The selenium, however, was not present in sufficient concentrations to be considered as an independent source of ore. Several thousand tons of uranium ore have been mined from an area adjacent to and north of the Pumpkin Buttes. Estimated production of uranium, however, from the area west and southwest of the buttes is believed to be less than 100 tons. Principal production has been obtained from properties other than the applicant's. The applicant has made two shipments of unknown quantities to buying stations at Edgemont, South Dakota and Riverton, Wyoming.

It is reported that 18 tons of uranium ore valued at $20,000 were produced during 1954 from a disseminated type ore body in sandstone at the School Section mine about 2 miles to the southwest of the applicant's property.

APPLICANT'S PROPOSAL AND DISCUSSION

The applicant's proposed exploration program under phase I is given as ".....drilling 151 drill holes to the water table within the area of the airborne anomaly and above the elevation of uranium mineralization outcroppings. Also proposed are 21 holes to be drilled in the same area on a 400-foot center grid pattern and to a depth of 100 to 200 feet through the strata described in Geological Survey Circular 338 as being ore-bearing horizons". Drill-hole access road construction is also proposed by the applicant.

Phase II proposed exploration is given by the applicant as ".....drilling holes to the water table on a 50-foot grid pattern in areas where significant radioactivity is detected in drill holes on the 100-foot grid pattern. Deep holes (100 to 200) are proposed at 200-foot intervals in areas where significant radioactivity is detected in holes drilled during Phase I".

Costs of the drilling in Phases I and II proposed by the applicant is $22,531.50 of which the Government's participation is $16,898.62.

The applicant's proposed exploration program lacks such essential details as the size of holes, depths of holes, approximate elevation of "ore-bearing horizons", amount of core and/or

non-core, depth to water table,.....to name but a few. In addition to the above, the applicant does not have a geologic map nor sufficient chemical assay data to lay out an intelligent exploration drilling program. The exploration program as proposed by the applicant appears to be poorly planned and much of the program more than likely would constitute offset drilling, and prospecting in unknown ground outside of and below the mineralized zone.

Many of the holes proposed by the applicant are outside of the expected limits of mineralized rock and the collars of a number of the proposed holes are lower than the elevation of the bottom of the ore-bearing sandstone bed in which the uranium ore is expected to be found.

PRESENT STATUS

The property has been explored by over 100 non-core drill holes whose depths are reported to range from 30 to 110 feet. The holes are from 25 to 100 feet apart, in an irregular pattern.

In addition to the drill holes, the property has been explored by a small bulldozer trench and developed by a large opencut.

The applicant has engaged a road construction company to mine a mineralized showing exposed in the large opencut. It is reported that two shipments of uranium ore-bearing material was removed principally from this area.

Any uranium ore produced from the Pumpkin Buttes district is shipped to buy stations at Edgemont, South Dakota, or Riverton, Wyoming; both towns are more than 200 miles by road from the district. Shipping costs, therefore, restrict production to ore of 0.20 percent U_3O_8 or better.

Sampling and ore estimated

The applicant reported that large areas gave readings on scintillation detectors and Geiger counters of three to four times background count and that smaller areas showed readings from 10 to 30 times background count. He also stated that representative samples taken from the smaller areas assayed from 1.11 percent U_3O_8 and 0.04 percent V_2O_5 to 4.06 percent U_3O_8 and 0.14 percent V_2O_5. Drill hole and sample assay data are given by the applicant as follows:

Drill Hole	Sample No.	Depth	U_3O_8%	eU_3O_8%	V_2O_5%
D 1/2, 14 3/4	1	18'	0.06	0.03	trace
" " "	2	19'	0.26	0.14	trace
" " "	3	20'	0.65	0.23	0.07
" " "	4	20'6"	1.85	0.62	0.45
" " "	5	21'	0.97	0.35	0.12
D 5/8, 14 5/8-14 3/4	6	15'	trace	trace	trace
" " " "	7	20'6"-21'	0.29	0.10	0.02

Sample locality	Sample No.	Description	U_3O_8%	eU_3O_8%	V_2O_5%
D 14 5/8	1	bottom foot	0.03	0.04	---
" "	2.	second foot	0.02	0.02	---
" "	3	third foot	0.02	0.02	---
" "	4	fourth foot	0.02	0.02	---
" "	5	top 10 inches	0.01	0.01	---
D 14 3/4	6	bottom foot	0.01	trace	---
" "	7	second foot	0.01	0.01	---
" "	8	third foot	0.02	0.01	---
" "	9	fourth foot	0.03	0.01	---

The applicant reported that he has probed the drill holes and that probing shows from zero to more than 10 times background count.

Samples taken of select uraniferous material during the DMEA investigation are tabulated as follows:

Sample	Description	U_3O_8%	eU_3O_8%
EB-17	4-foot chip sample taken in small hole along bottom of large opencut. Small disseminations of a secondary uranium mineral (tyuyumanite) in a friable sandstone.	0.202	0.17
EB-18	From company's ore stockpile	1.05	0.72
EB-19	Grab from unconsolidated sands located along a small gully. Sands display conspicuous secondary uranium mineral (tyuyumanite ?)	0.310	0.41
EB-23	Grab, same location as EB-17, buff sandstone, no visible uranium minerals	0.127	0.11
A.E.C.	Grab of selected high-grade mineralized sandstone from Trix claims, V_2O_5=0.1 percent $CaCO_3$=0.7 percent.	2.70	1.39

Inasmuch as the geologic character of the deposit is not too well known and for which few samples have been assayed the making of ore estimates is not practicable.

GEOLOGY

The geology and uranium deposits of the Pumpkin Buttes area, have been described by Sharp, et al., (U. S. G. S. Bulletin in preparation) and the general geology in the following account is largely taken from that report.

The Trix and Cora claims in the South Central Pumpkin Buttes area are underlain by the Wasatch formation of Eocene age. Within this region the Wasatch formation consists of about 1,500 feet of siltstone, claystone, and carbonaceous shale beds with randomly spaced buff and reddish sandstone lenses ranging from 10 to 100 feet in thickness. Although the sandstone is moderately cemented in some exposures, the sediments for the most part are poorly consolidated. In most places bedrock is concealed by a thin veneer of soil and grass and outcrops are found chiefly in the heads of small draws where erosion has been most active.

Very coarse-grained siliceous sandstone of the White River formation of Oligocene age overlies the Wasatch formation and caps South Butte about 3 miles northeast of the Trix and Cora claims.

The Fort Union formation of Paleocene age, underlies the Wasatch formation, and is exposed on Great Pine Ridge about 15 miles southwest of the Pumpkin Buttes. The Fort Union consists of 2,800 feet of light colored sandstone, gray shale and coal beds.

Regional dip in the South Central Pumpkin Buttes area, which is east of the Powder River basin axis, is only 30 to 100 feet per mile, or generally less than 1° to the northwest, the sandstone lenses thicken to the northwest and apparently wedge out within a few miles southeast of the area.

One of the chief prospecting guides to uranium ore in this area is a favorable stratigraphic interval that extends from 450

to 900 feet above the base of the Wasatch formation. Most of the sandstone lenses in this interval are in whole or in part reddish. The red color does not extend into the adjacent claystone and siltstone. Host rock for the uranium deposits is either the red iron-stained sandstone or a gray to buff-colored sandstone associated with the iron-stained sandstone.

According to the applicant the stratigraphic horizon at the highest elevation on the Trix and Cora claims is about 800 feet below the base of the White River formation and about 700 feet above the Fort Union formation of Paleocene age. The applicant further states that "approximately 100 to 200 feet of the ore-bearing strata have been removed by erosion in the vicinity of the Trix claims, leaving only 100 to 200 feet of the ore-bearing strata intact."

According to Sharp, et al. there are at least two thick sandstone units within the 100- to 200-foot stratigraphic interval that underlies the applicant's property.

Three radioactivity anomalies with sparse uranium mineralization have been found on the surface and one locality containing visible uranium minerals is known within one mile of the claims.

Drab to buff porous sandstone, pink to reddish sandstone and clay-pellet conglomeratic sandstone crop out and are exposed on

the Trix and Cora claims. At the east end of the property green to gray clay underlying the sandstone beds is exposed in a 10- by 70-foot trench (fig. 2).

Ore deposits

The ore deposits are generally restricted to the sandstone units in a limited zone in the Wasatch formation, and to those units that are red or partly red in color or to drab and buff sandstone near the color change to pink and red.

Three types of uranium occurrences are recognized in the Pumpkin Buttes area based on their physical habit and mineralogic associations: (a) oxidized uranium minerals disseminated in porous sandstone, (b) manganese oxide nodular concretions, and (c) nodular concretions of uraninite with pyrite (W. N. Sharp and E. J. McKay, U. S. Geological Survey, T. E. I. Report 428, in preparation). Most of the production for the Pumpkin Buttes district to date has come from the disseminated type of occurrence; the deposits on the applicant's property belong to the first type.

Yellow to greenish-yellow uranium minerals are disseminated in a buff to drab porous sandstone bed near a color change to red sandstone in exposures along the crest of a ridge that trends easterly across the applicant's claims.

Ore-grade uranium mineralization has been exposed on the property at three places in pits excavated by the applicant; in the

main pit near the northwestern part of the mineralized zone, in an opencut at about the center and along the south side of the mineralized zone; and in a small pit near the southeastern end of the mineralized zone (fig. 2). A trench excavated by previous operators near the small pit but at a lower elevation at the southeastern end of the zone exposes the contact of the ore-bearing sandstone bed with underlying barren clay.

In the bottom of the main pit, over an area 30 by 50 feet, yellow to yellowish-green oxidized uranium minerals are disseminated in buff to drab friable sandstone. A selected sample of sandstone with visible uranium minerals (EB-17) contained 0.202 percent U_3O_8. Sandstone from the same locality in which uranium minerals were not visible megascopically (sample EB-23) contain 0.127 percent U_3O_8. The mineralized sandstone is as much as 4 feet thick at this locality.

In the opencut, which is not over 2 feet deep, yellow secondary uranium minerals are disseminated in buff to white, medium grained, poorly cemented sandstone over a 10-square foot area. A sample collected from the weathered outcrop at this locality (EB-19) contained 0.31 percent U_3O_8; the applicant reports that they shipped 2 tons of ore from this locality.

In the small pit at the eastern end of the mineralized zone on the Cora No. 11 claim a small pod of buff to brown sandstone is exposed that is highly mineralized with secondary yellow uranium

minerals. A trench 20 feet southeast of this locality exposes the lower contact of pink to red sandstone; the sandstone in the trench is not appreciably mineralized.

The location of holes drilled by the applicant that are stated to have encountered mineralized sandstone are shown on figure 2. The position of these holes and the mineralized exposures indicate the presence of a mineralized zone about 150 feet wide by 1,800 feet long. The average grade of this mineralized zone probably would not be higher than 0.05 percent U_3O_8.

The applicant postulates the mineralized zone occupies a channel in the sandstone. However, a channel structure was not visible in the exposures at the time of the examinations.

CONCLUSIONS AND RECOMMENDATIONS

From present exposures, the uranium mineralization appears to be confined to a relatively narrow and shallow zone perhaps 1,800 feet long by 150 feet wide by 4 feet thick. This zone has been sufficiently drilled and the holes probed by the applicant to indicate the trend, approximate limits, and location of ore-grade material that may be present within the zone. Additional drilling as proposed by the applicant would not materially add to the present knowledge of the deposit on the basis of the quality of information obtained to date and largely would be on less than 100-foot centers. It is concluded that

the chances for finding significant uranium deposits on the applicant's claims are poor, and it is recommended that the application for DMEA assistance to explore for uranium on the Trix and Cora claims be denied.

8/29/56

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

August 24, 1956

224 New Customhouse
Denver 2, Colorado

RECEIVED
AUG 29 1956

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Field Team, Region III

Subject: Joint Report of Examination, Docket DMEA 4259 (Uranium), Uranium Corporation of America (Trix and Cora claims), Campbell County, Wyoming

Enclosed are four copies of a joint engineering and geologic report on the subject property.

The examining team find that the uranium mineralization confined to a narrow shallow zone has been adequately drilled and the holes probed by the Applicant to indicate the trend limits and location of ore-grade material present in the zone. They consider that the additional drilling proposed would not serve to add materially to present knowledge of the deposit and would be mostly drilling on less than 100 foot centers. The possibility of the discovery of a significant uranium deposit is poor, and denial of the application for DMEA assistance is recommended.

The Region III Field Team concurs with the recommendation.

The covering transmittal memorandum from the supervisors attributes the delay in submission of the Report of Examination to failure on the part of the Applicant to furnish information requested.

DMEA Field Team, Region III

W. M. Traver

By W. M. Traver
Executive Officer

Enclosures

O.C.
8/31/56

IN REPLY REFER TO:
DMEA
Date Rec'd.
AUG 24 1956
BUREAU OF MINES
Denver, Colorado

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Defense Minerals Exploration Administration
Denver Federal Center
Denver, Colorado

August 22, 1956

TRANSMITTED
AUG 24 1956

Memorandum

To: Executive Officer, DMEA Field Team, Region III

From: John F. Shaw
E. N. Harshman

Subject: DMEA Docket 4259 (Uranium), Uranium Corporation of America (Trix and Cora claims), Campbell County, Wyoming

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The applicant proposes a drilling program, estimated to cost $22,531.50, to explore for uranium deposits in the Wasatch formation underlying the Cora and Trix claims.

The examiners conclude that small deposits of ore-grade material are limited to a zone 1,500 feet long and about 150 feet wide which traverses the subject claims from east to west. They further conclude that the ore-bearing zone has been adequately explored by the applicant and that additional drilling would be in the nature of development work.

Considerable delay in preparation of the report resulted from the inability of the examiners to obtain pertinent information from the applicant on the results of drilling by him. A claim map requested at the time of the second examination (July 11, 1956) was received on August 7, 1956.

We concur with the recommendation that the application, DMEA Docket 4259 be denied.

DMEA OPERATING COMMITTEE
8/31/56
(Date)

John F. Shaw
Superintendent of the Denver Experiment Station

E. N. Harshman
E. N. Harshman
Member, Field Team

Enclosures (10)
ENHarshman:mp

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

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION III

TRANSMITTED
AUG 24 1956

CONFIDENTIAL
NOT FOR PUBLIC INSPECTION OR QUOTATION

DMEA 4259

Uranium Corporation of America

Trix and Cora Claims

Campbell County, Wyoming

Uranium

Joint Engineering and Geological Report

by

Robert U. King, Geologist
Geological Survey

Edward W. Buel, Mining Engineer
Bureau of Mines

August 21, 1956

Reviewed by
DMEA OPERATING COMMITTEE
8/31/56
(date)

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1. Index map showing location of Trix and Cora claims, Uranium Corporation of America, Campbell County, Wyoming. DMEA 4259	4
2. Geologic map of part of the Trix and Cora claims, Uranium Corporation of America, Pumpkin Buttes area, Campbell County, Wyoming. DMEA 4259	18

DMEA 4259

URANIUM CORPORATION OF AMERICA
TRIX AND CORA CLAIMS
CAMPBELL COUNTY, WYOMING

SUMMARY

The Uranium Corporation of America, Casper, Wyoming, requested DMEA assistance in the amount of $22,531.50 to explore for uranium by non-core drilling on their Trix and Cora claims in the Pumpkin Buttes district, Campbell County, Wyoming.

Because the information supplied by the applicant was inadequate and exposures on the claims were poor during an examination made on June 12, 1956, a second examination was made on July 11, 1956. Claim maps were not received from the applicant until August 7, 1956.

Uranium occurs on the Trix and Cora claims disseminated in bedded deposits in sandstone beds in the Wasatch formation of Tertiary age. The presence of a mineralized zone about 1,800 by 150 feet and 4 feet thick is indicated by the applicant's drilling and open pitting. The average grade of the zone is estimated to be around 0.05 percent U_3O_8.

The examining team concludes that the probability of finding significant uranium ore bodies on the Trix and Cora claims is poor and recommends that the application for DMEA assistance be denied.

INTRODUCTION

Uranium Corporation of America applied for DMEA assistance to explore for uranium on the Trix and Cora claims. Total cost of the exploration is given as $22,531.50, with the Government's share being $16,898.62.

An examination was made by Edward W. Buel, mining engineer, Bureau of Mines, on June 12, 1956. Mr. John Sargent, geological consultant for the applicant, was present during the investigation.

An examination of the property revealed, that even though a considerable amount of exploratory drilling (non-core) had been done, geological information required for an appraisal of the property generally was lacking. Except for one bulldozer trench the excavated areas did not permit a viewing of the geological features. Another examination was made of the property on July 11, 1956, by a DMEA examining team of Robert U. King, Geological Survey, and Edward W. Buel, Bureau of Mines. The team was accompanied by John Sargent.

The applicant had done a considerable amount of stripping and open pitting since the first visit, and the property was sufficiently exposed to permit a close scrutiny of the salient geological features.

Conversations held with representatives of the applicant and personal observations indicate that the exploration and mining

are being carried on in somewhat of a disorganized fashion. Geological, exploration, and claim maps, as well as drill hole data were not made available during the initial investigation nor during the second examination. Claim maps were furnished on August 7, 1956. More than 100 holes had been drilled by the applicant, but chemical assays were available for only three holes. Representatives of the applicant, however, said that they intend to have chemical assays made of the drill hole material.

Personnel of the Atomic Energy Commission's offices in Denver, Colorado, and Casper, Wyoming, were contacted with reference to the property. Messrs. Eugene W. Grutt, Jr. and Ray Lindlof of the Atomic Energy Commission's office in Casper stated that radiometric probing of drill holes in the Pumpkin Buttes area was adversely affected by radon gas, and that chemical assays were the only effective check for uranium content. Casper office personnel who had conducted an examination of the property on April 5, 1956, concluded that "the sporadic distribution of the highly radioactive areas and their small size in addition to the limited amount of uranium-mineralized host rock both on the surface and in drill hole cuttings suggest that this claim group will not produce an ore body of commercial size" (A.E.C. Reconnaissance Report DEB p. 2, 2786).

LOCATION AND ACCESSIBILITY

The Trix and Cora claims are in sec. 29, T. 43 N., R. 75 W., 6th principal meridian, Campbell County, Wyoming (fig. 1). The claims lie less than 3 miles southwest of South Butte of the Pumpkin Buttes area.

The property is accessible from Midwest which is a small town at the junction of U. S. Highway 87 and State Highway 387. From Midwest, Highway 387 is followed eastward for about 29 miles to an unimproved road on the Earl Brown Ranch. This unimproved road passes through the ranch to the Pumpkin Buttes area and to Uranium Corporation of America's trailer camp. Distance from Highway 387 to the camp is 9 miles.

GEOGRAPHY

Prominent physiographic feature of the area are the buttes, geographically referred to as Pumpkin Buttes, which are near the divide between the drainage basins of the Powder and Belle Fourche Rivers. These landmarks rise about 1,000 feet above the gently rolling and grass covered land to the west and southwest. Locally this land is incised into by deep gullies and ravines into badlands.

Average altitude of the property is estimated at 5,100 feet.

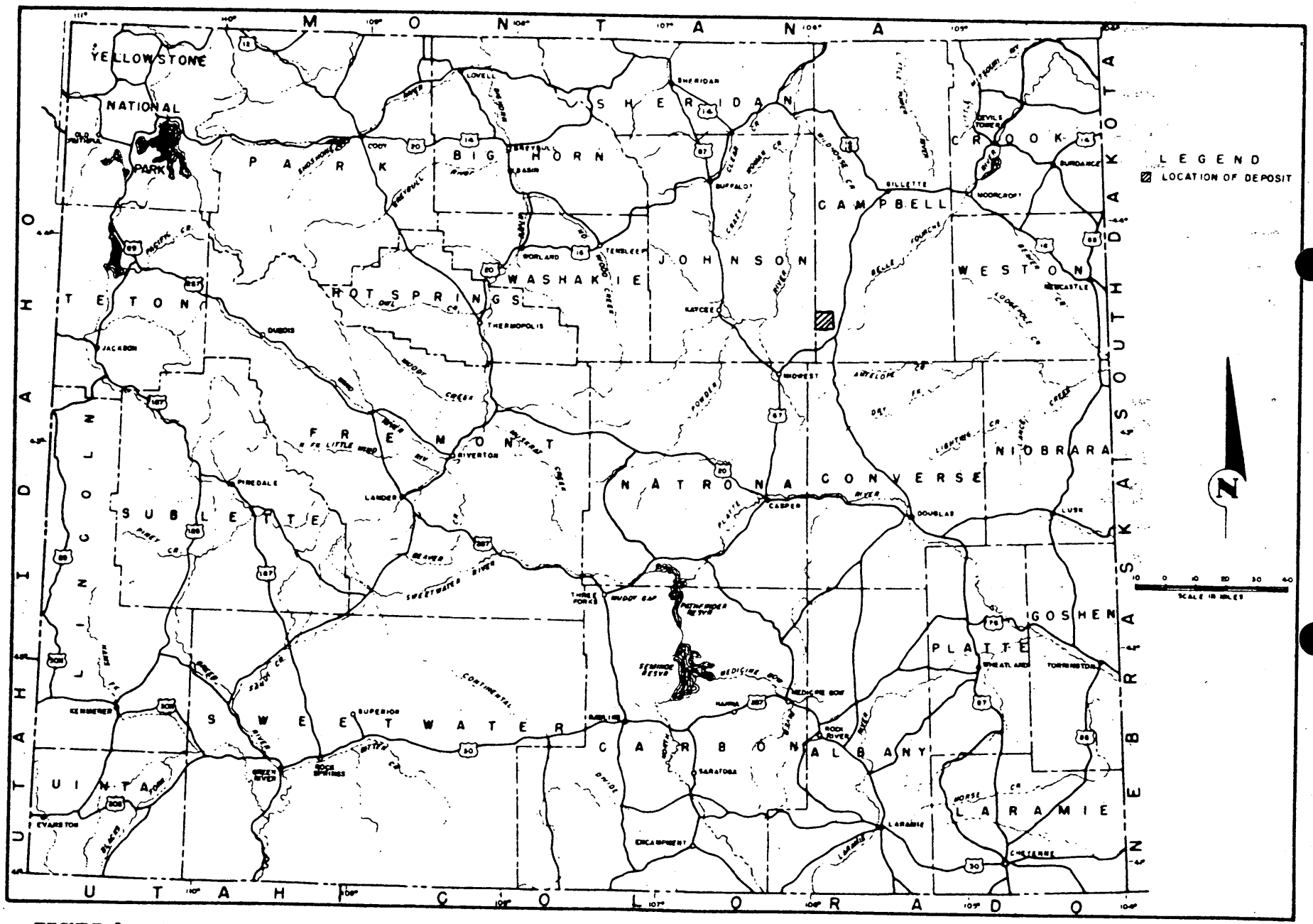

FIGURE 1 - INDEX MAP SHOWING LOCATION OF TRIX AND CORA CLAIMS, URANIUM CORPORATION OF AMERICA, CAMPBELL COUNTY, WYOMING. DMEA 4259

The area containing the Trix and Cora claims is drained by an ephemeral tributary of Cottonwood Creek. Water for drilling needs is available at the trailer camp site on the property.

Vegetation consists principally of grass and sage brush with small conifers along the upper slopes of the buttes and cottonwood trees growing in the areas containing water.

The climate is semi-arid with frequent extremes in weather and temperature.

Living conditions are suitable for trailers at the company camp.

Mining supplies, in part, can be secured from Casper which is nearly 80 miles from the property.

All power needs are supplied by portable equipment.

PROPERTY

The property consists of the Trix 1, 2, 4, and 5, and the Cora 7, 8, 9, 10, and 11 unpatented lode claims. The claim map submitted by the applicant on August 7, 1956, shows that the Cora claims in part overlie the Trix claims. Sizeable gaps as much as 80 feet in width exist between the Cora claims, placing parts of the area of proposed exploration on and near apparently open ground.

The property is owned by Uranium Corporation of America, Star Building, Casper, Wyoming.

The claims are recorded in Campbell County Courthouse as follows:

Claim	Book	Pages
Cora 7, 8, 9, 10, 11	21	289-297
Trix 1, 2, 4, 5	21	527-531

The Cora claims which overlie the Trix claims, were owned formerly by Robert Ackerson, but quitclaim deeds have been issued to the applicant. Rather than involve itself in any legal entanglements, Uranium Corporation of America traded several of its claims with Ackerson, who owns claims adjacent to the applicant's property.

HISTORY AND PRODUCTION

Prior to November 17, 1955, the Atomic Energy Commission withdrew (Public Land Withdrawal Order 811) 100 square miles, more or less, in the Pumpkin Buttes area following the discovery of uranium minerals. Investigations of the uranium and selenium potentials within the area were conducted by the U. S. Geological Survey in 1952 and by the U. S. Bureau of Mines in 1955. Results of these investigations are given in "Summary of Investigations of Uranium Deposits in the Pumpkin Buttes area, Johnson and

Campbell Counties, Wyoming" Geological Survey Circular 338, p. 17, 1954, and "Selenium Investigation of the Pumpkin Buttes district, Johnson, Campbell, and Converse Counties, Wyoming" Bureau of Mines Confidential Final Report, p. 24, 1955. Results of these investigations showed that many localities contain visible uranium mineralization and have anomalous radioactivity, and that selenium occasionally occurs closely allied with the uranium. The selenium, however, was not present in sufficient concentrations to be considered as an independent source of ore. Several thousand tons of uranium ore have been mined from an area adjacent to and north of the Pumpkin Buttes. Estimated production of uranium, however, from the area west and southwest of the buttes is believed to be less than 100 tons. Principal production has been obtained from properties other than the applicant's. The applicant has made two shipments of unknown quantities to buying stations at Edgemont, South Dakota and Riverton, Wyoming.

It is reported that 18 tons of uranium ore valued at $20,000 were produced during 1954 from a disseminated type ore body in sandstone at the School Section mine about 2 miles to the southwest of the applicant's property.

APPLICANT'S PROPOSAL AND DISCUSSION

The applicant's proposed exploration program under phase I is given as ".....drilling 151 drill holes to the water table within the area of the airborne anomaly and above the elevation of uranium mineralization outcroppings. Also proposed are 21 holes to be drilled in the same area on a 400-foot center grid pattern and to a depth of 100 to 200 feet through the strata described in Geological Survey Circular 338 as being ore-bearing horizons". Drill-hole access road construction is also proposed by the applicant.

Phase II proposed exploration is given by the applicant as ".....drilling holes to the water table on a 50-foot grid pattern in areas where significant radioactivity is detected in drill holes on the 100-foot grid pattern. Deep holes (100 to 200) are proposed at 200-foot intervals in areas where significant radioactivity is detected in holes drilled during Phase I".

Costs of the drilling in Phases I and II proposed by the applicant is $22,531.50 of which the Government's participation is $16,898.62.

The applicant's proposed exploration program lacks such essential details as the size of holes, depths of holes, approximate elevation of "ore-bearing horizons", amount of core and/or

non-core, depth to water table,.....to name but a few. In addition to the above, the applicant does not have a geologic map nor sufficient chemical assay data to lay out an intelligent exploration drilling program. The exploration program as proposed by the applicant appears to be poorly planned and much of the program more than likely would constitute offset drilling, and prospecting in unknown ground outside of and below the mineralized zone.

Many of the holes proposed by the applicant are outside of the expected limits of mineralized rock and the collars of a number of the proposed holes are lower than the elevation of the bottom of the ore-bearing sandstone bed in which the uranium ore is expected to be found.

PRESENT STATUS

The property has been explored by over 100 non-core drill holes whose depths are reported to range from 30 to 110 feet. The holes are from 25 to 100 feet apart, in an irregular pattern.

In addition to the drill holes, the property has been explored by a small bulldozer trench and developed by a large opencut.

The applicant has engaged a road construction company to mine a mineralized showing exposed in the large opencut. It is reported that two shipments of uranium ore-bearing material was removed principally from this area.

Any uranium ore produced from the Pumpkin Buttes district is shipped to buy stations at Edgemont, South Dakota, or Riverton, Wyoming; both towns are more than 200 miles by road from the district. Shipping costs, therefore, restrict production to ore of 0.20 percent U_3O_8 or better.

Sampling and ore estimated

The applicant reported that large areas gave readings on scintillation detectors and Geiger counters of three to four times background count and that smaller areas showed readings from 10 to 30 times background count. He also stated that representative samples taken from the smaller areas assayed from 1.11 percent U_3O_8 and 0.04 percent V_2O_5 to 4.06 percent U_3O_8 and 0.14 percent V_2O_5. Drill hole and sample assay data are given by the applicant as follows:

Drill Hole	Sample No.	Depth	U_3O_8%	eU_3O_8%	V_2O_5%
D 1/2, 14 3/4	1	18'	0.06	0.03	trace
" " "	2	19'	0.26	0.14	trace
" " "	3	20'	0.65	0.23	0.07
" " "	4	20'6"	1.85	0.62	0.45
" " "	5	21'	0.97	0.35	0.12
D 5/8, 14 5/8-14 3/4	6	15'	trace	trace	trace
" " " "	7	20'6"-21'	0.29	0.10	0.02

Sample locality	Sample No.	Description	U_3O_8%	eU_3O_8%	V_2O_5%
D 14 5/8	1	bottom foot	0.03	0.04	---
" "	2.	second foot	0.02	0.02	---
" "	3	third foot	0.02	0.02	---
" "	4	fourth foot	0.02	0.02	---
" "	5	top 10 inches	0.01	0.01	---
D 14 3/4	6	bottom foot	0.01	trace	---
" "	7	second foot	0.01	0.01	---
" "	8	third foot	0.02	0.01	---
" "	9	fourth foot	0.03	0.01	---

The applicant reported that he has probed the drill holes and that probing shows from zero to more than 10 times background count.

Samples taken of select uraniferous material during the DMEA investigation are tabulated as follows:

Sample	Description	U_3O_8%	eU_3O_8%
EB-17	4-foot chip sample taken in small hole along bottom of large opencut. Small disseminations of a secondary uranium mineral (tyuyumanite) in a friable sandstone.	0.202	0.17
EB-18	From company's ore stockpile	1.05	0.72
EB-19	Grab from unconsolidated sands located along a small gully. Sands display conspicuous secondary uranium mineral (tyuyumanite ?)	0.310	0.41
EB-23	Grab, same location as EB-17, buff sandstone, no visible uranium minerals	0.127	0.11
A.E.C.	Grab of selected high-grade mineralized sandstone from Trix claims, V_2O_5=0.1 percent $CaCO_3$=0.7 percent.	2.70	1.39

Inasmuch as the geologic character of the deposit is not too well known and for which few samples have been assayed the making of ore estimates is not practicable.

GEOLOGY

The geology and uranium deposits of the Pumpkin Buttes area, have been described by Sharp, et al., (U. S. G. S. Bulletin in preparation) and the general geology in the following account is largely taken from that report.

The Trix and Cora claims in the South Central Pumpkin Buttes area are underlain by the Wasatch formation of Eocene age. Within this region the Wasatch formation consists of about 1,500 feet of siltstone, claystone, and carbonaceous shale beds with randomly spaced buff and reddish sandstone lenses ranging from 10 to 100 feet in thickness. Although the sandstone is moderately cemented in some exposures, the sediments for the most part are poorly consolidated. In most places bedrock is concealed by a thin veneer of soil and grass and outcrops are found chiefly in the heads of small draws where erosion has been most active.

Very coarse-grained siliceous sandstone of the White River formation of Oligocene age overlies the Wasatch formation and caps South Butte about 3 miles northeast of the Trix and Cora claims.

The Fort Union formation of Paleocene age, underlies the Wasatch formation, and is exposed on Great Pine Ridge about 15 miles southwest of the Pumpkin Buttes. The Fort Union consists of 2,800 feet of light colored sandstone, gray shale and coal beds.

Regional dip in the South Central Pumpkin Buttes area, which is east of the Powder River basin axis, is only 30 to 100 feet per mile, or generally less than 1° to the northwest, the sandstone lenses thicken to the northwest and apparently wedge out within a few miles southeast of the area.

One of the chief prospecting guides to uranium ore in this area is a favorable stratigraphic interval that extends from 450

to 900 feet above the base of the Wasatch formation. Most of the sandstone lenses in this interval are in whole or in part reddish. The red color does not extend into the adjacent claystone and siltstone. Host rock for the uranium deposits is either the red iron-stained sandstone or a gray to buff-colored sandstone associated with the iron-stained sandstone.

According to the applicant the stratigraphic horizon at the highest elevation on the Trix and Cora claims is about 800 feet below the base of the White River formation and about 700 feet above the Fort Union formation of Paleocene age. The applicant further states that "approximately 100 to 200 feet of the ore-bearing strata have been removed by erosion in the vicinity of the Trix claims, leaving only 100 to 200 feet of the ore-bearing strata intact."

According to Sharp, et al. there are at least two thick sandstone units within the 100- to 200-foot stratigraphic interval that underlies the applicant's property.

Three radioactivity anomalies with sparse uranium mineralization have been found on the surface and one locality containing visible uranium minerals is known within one mile of the claims.

Drab to buff porous sandstone, pink to reddish sandstone and clay-pellet conglomeratic sandstone crop out and are exposed on

the Trix and Cora claims. At the east end of the property green to gray clay underlying the sandstone beds is exposed in a 10- by 70-foot trench (fig. 2).

Ore deposits

The ore deposits are generally restricted to the sandstone units in a limited zone in the Wasatch formation, and to those units that are red or partly red in color or to drab and buff sandstone near the color change to pink and red.

Three types of uranium occurrences are recognized in the Pumpkin Buttes area based on their physical habit and mineralogic associations: (a) oxidized uranium minerals disseminated in porous sandstone, (b) manganese oxide nodular concretions, and (c) nodular concretions of uraninite with pyrite (W. N. Sharp and E. J. McKay, U. S. Geological Survey, T. E. I. Report 428, in preparation). Most of the production for the Pumpkin Buttes district to date has come from the disseminated type of occurrence; the deposits on the applicant's property belong to the first type.

Yellow to greenish-yellow uranium minerals are disseminated in a buff to drab porous sandstone bed near a color change to red sandstone in exposures along the crest of a ridge that trends easterly across the applicant's claims.

Ore-grade uranium mineralization has been exposed on the property at three places in pits excavated by the applicant; in the

main pit near the northwestern part of the mineralized zone, in an opencut at about the center and along the south side of the mineralized zone; and in a small pit near the southeastern end of the mineralized zone (fig. 2). A trench excavated by previous operators near the small pit but at a lower elevation at the southeastern end of the zone exposes the contact of the ore-bearing sandstone bed with underlying barren clay.

In the bottom of the main pit, over an area 30 by 50 feet, yellow to yellowish-green oxidized uranium minerals are disseminated in buff to drab friable sandstone. A selected sample of sandstone with visible uranium minerals (EB-17) contained 0.202 percent U_3O_8. Sandstone from the same locality in which uranium minerals were not visible megascopically (sample EB-23) contain 0.127 percent U_3O_8. The mineralized sandstone is as much as 4 feet thick at this locality.

In the opencut, which is not over 2 feet deep, yellow secondary uranium minerals are disseminated in buff to white, medium grained, poorly cemented sandstone over a 10-square foot area. A sample collected from the weathered outcrop at this locality (EB-19) contained 0.31 percent U_3O_8; the applicant reports that they shipped 2 tons of ore from this locality.

In the small pit at the eastern end of the mineralized zone on the Cora No. 11 claim a small pod of buff to brown sandstone is exposed that is highly mineralized with secondary yellow uranium

minerals. A trench 20 feet southeast of this locality exposes the lower contact of pink to red sandstone; the sandstone in the trench is not appreciably mineralized.

The location of holes drilled by the applicant that are stated to have encountered mineralized sandstone are shown on figure 2. The position of these holes and the mineralized exposures indicate the presence of a mineralized zone about 150 feet wide by 1,800 feet long. The average grade of this mineralized zone probably would not be higher than 0.05 percent U_3O_8.

The applicant postulates the mineralized zone occupies a channel in the sandstone. However, a channel structure was not visible in the exposures at the time of the examinations.

CONCLUSIONS AND RECOMMENDATIONS

From present exposures, the uranium mineralization appears to be confined to a relatively narrow and shallow zone perhaps 1,800 feet long by 150 feet wide by 4 feet thick. This zone has been sufficiently drilled and the holes probed by the applicant to indicate the trend, approximate limits, and location of ore-grade material that may be present within the zone. Additional drilling as proposed by the applicant would not materially add to the present knowledge of the deposit on the basis of the quality of information obtained to date and largely would be on less than 100-foot centers. It is concluded that

the chances for finding significant uranium deposits on the applicant's claims are poor, and it is recommended that the application for DMEA assistance to explore for uranium on the Trix and Cora claims be denied.

5/10/56

RECEIVED
MAY 10 1956

May 4, 1956

Memorandum

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

From: Superintendent, Denver Experiment Station, Reg. III

Subject: Docket DMEA 4259 (Uranium) Uranium Corporation of America (Trix and Cora claims), Campbell County, Wyoming

The subject application in the amount of $22,531.50 was received in this office on May 4, 1956.

A field examination will be made and suitable report prepared by an engineer from the Denver office.

JOHN F. SHAW
John F. Shaw

cc: W. M. Traver (2)
E. H. Harshman
J. F. Shaw
Sec. Op. Com. (2)

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E. N. Harshman
J. F. Shaw

5-8-56

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

RECEIVED
MAY 7 - 1956

May 2, 1956

224 New Customhouse
Denver 2, Colorado

Memorandum

To: J. F. Shaw (2) (With brochure)
E. N. Harshman

From: Field Team, Region III

Subject: Docket DMEA 4259 (Uranium) Uranium Corporation of America (Trix and Cora claims), Campbell County, Wyoming

Enclosed is the subject application in the amount of $22,531.50. A field examination and suitable report are requested.

Enclosed for your information is a copy of a letter from the Chairman, Operating Committee dated April 27, 1956 with attached memoranda of review of the application by N. E. Nelson and John K. Crawford.

Please return the application with the Report of Examination.

DMEA Field Team, Region III

W. M. TRAVER,

By W. M. Traver
Executive Officer

Enclosures

EMC:ab

cc: Chair. Op. Comm. (2)
Docket 4259
Chron.

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

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W. M. TRAVER,

By W. M. Traver
Executive Officer

Enclosures

EMC:ab

cc: Chair. Op. Comm. (2)
Docket 4259
Chron.

700

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

FILE COPY
Surname:
Murphy
Selfridge
Selfridge
Selfridge

APR 27 1956

Mr. W. M. Traver
Executive Officer
DMEA Field Team, Region III
22h New Customhouse Building
Denver 2, Colorado

Re: Docket No. DMEA-4259 (Uranium)
Uranium Corporation of America
Trix and Cora claims
Campbell County, Wyoming

Dear Mr. Traver:

The captioned application is referred to Region III Field Team for a field examination and recommendation.

Copies of memoranda dated April 23, 1956, by J. E. Crawford, USBM, and N. E. Nelson, USGS, are enclosed.

It is suggested that in the event the Field Team believes a project to explore the subject property is warranted, it should advise the Applicant to submit bids from three independent contractors on the proposed drilling.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (S/B)

Enclosures

APPROVED:

/s/ Robert W. Geehan (S/B)
Member, Bureau of Mines

Thor H. Kiilsgaard (S/B)
Member, Geological Survey

FMMurphy/izm 4-25-56
cc to: Docket
Code 700
Mr. Murphy
Admr.'s Reading File
Operating Committee
Messrs. JECrawford, Rm. 3641
THKiilsgaard, Rm. 5224
JOHosted, Rm. 3210, GSA

RLH

700

FILE COPY
Surname:

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

APR 27 1956

Mr. Robert Banks, President
Uranium Corporation of America
Star Building
Casper, Wyoming

Re: Docket No. DMEA-4259 (Uranium)
Trix and Cora claims
Campbell County, Wyoming

Dear Mr. Banks:

The application for assistance in exploring your property, 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 for a field examination to:

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

The Regional Office will contact you at the earliest opportunity in regard to your project.

Sincerely yours,

C. O. Mittendorf

Administrator

FMMurphy/izm 4-25-56
cc to: Docket
Code 700
Mr. Murphy
Admr.'s Reading File
DMEA Field Team, Region III (2)

4-25-56

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

RECEIVED
APR 24 1956

April 23, 1956

Memorandum

To: Ernest William Ellis, DMEA Docket
Uranium Commodity Committee

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

Subject: Application for Assistance, DMEA Docket 4259, Uranium Corporation of America, Trix and Cora claims, Campbell County, Wyoming.

I have reviewed the attached application, DMEA Docket 4259, Uranium Corporation of America, Trix and Cora claims, Campbell County, Wyoming, dated April 12, 1956, and received in this office April 18, 1956. I have also discussed it with Joseph O. Hosted, Washington representative of the Atomic Energy Commission.

The applicant has conducted an airborne radiometric survey of the Trix and the Cora groups of claims. The anomalous areas were checked on the ground and the areas with the highest readings were sampled. Samples taken from subject claims assayed 1.11 percent U_3O_8 to 4.06 percent U_3O_8.

Drilling on 25-foot centers is currently in progress in an attempt to block out an ore body in a small area at the western end of the Trix claims. The proposed exploration includes 21 drill holes, on 400-foot centers, to an average depth of 150 feet at $2.00 per foot; and 151 drill holes, on 100-foot centers, to an average depth of 50 feet at $ .75 per foot. The total estimated cost of the project is $22,531.50.

Although a map of the subject claims is not included in the application, it appears that field examination may be warranted. Mr. Hosted notes that charges seem excessive.

We recommend that the application be referred to the field for appropriate action and that the Field Team consult with D. L. Everhart, Atomic Energy Commission, Denver, Colorado.

John E Crawford
John E. Crawford

Attachment

4/24/56 gla

IN REPLY REFER TO:

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

RECEIVED
APR 24 1956

April 23, 1956

Re: DMEA 4259
Uranium Corp. of America
Trix Claims
Campbell County, Wyoming
$22,531.50 - Uranium

Memorandum

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

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

Subject: Review of application.

The applicant requests assistance in continuing a drilling program initiated by it, following detection of areas showing anomalous readings. Both aerial and ground radiometric surveys were made. From small areas samples have been taken which assayed from 1.11% U_3O_8 to 4.06% U_3O_8.

Fifty-one drill holes (5,060 feet), 30 to 110 feet deep, have been drilled to the water table. Uranium mineralization has been intersected in beds from 2 to 19 feet thick at several stratigraphic horizons but apparently no ore was found. Some radioactive material is near the surface and stripping by bulldozer is opening the ground for sampling.

The radioactive minerals are found in beds of the Wasatch formation, the upper parts of which have been eroded. The axis of radiometric anomalies is said to coincide with the axis of a roll in the beds of the formation.

Unless the holes already drilled were not located in the areas of highest radioactivity, one may question the worth of further drilling. Perhaps the results obtained are more definitive than the data of the application indicates, or the area lacks promise.

Referral to the Field Team is recommended.

N. E. Nelson

N. E. Nelson

IN REPLY REFER TO:

RECEIVED
APR 24 1956

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

April 23, 1956

Re: DMEA 4259
Uranium Corp. of America
Trix Claims
Campbell County, Wyoming
$22,531.50 - Uranium

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The applicant requests assistance in continuing a drilling program initiated by it, following detection of areas showing anomalous readings. Both aerial and ground radiometric surveys were made. From small areas samples have been taken which assayed from 1.11% U_3O_8 to 4.06% U_3O_8.

Fifty-one drill holes (5,060 feet), 30 to 110 feet deep, have been drilled to the water table. Uranium mineralization has been intersected in beds from 2 to 19 feet thick at several stratigraphic horizons but apparently no one was found. Some radioactive material is near the surface and stripping by bulldozer is opening the ground for sampling.

The radioactive minerals are found in beds of the Wasatch formation, the upper parts of which have been eroded. The axis of radiometric anomalies is said to coincide with the axis of a roll in the beds of the formation.

Unless the holes already drilled were not located in the areas of highest radioactivity, one may question the worth of further drilling. Perhaps the results obtained are more definitive than the data of the application indicates, or the area looks promise.

Referral to the Field Team is recommended.

NEKelson:jeh
4/23/56
cc: Director's reading, 4212 GSA
Branch reading, 4212
DMEA (3)
Docket file
J. E. Crawford, 3641 Int.
J. O. Hosted, 3210, GSA

N. E. Nelson

N. E. Nelson

April 17, 1956
Subject: DMEA-4259
Re: Exploration Assistance
Trix Claims

Uranium Corporation of America
Star Building
Casper, Wyoming

Gentlemen:

The receipt of your application dated April 12, 1956, for exploration assistance under the Defense Production Act of 1950, as amended, is hereby acknowledged.

Your application has been assigned Docket Number DMEA-4259 and referred to the Rare & Misc. 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

ROBERT A. LEVITT
ATTORNEY AT LAW
2200 RAND TOWER
MINNEAPOLIS 2, MINN.
FEDERAL 9-7911

ASSOCIATE
EUGENE L. HECK

RECEIVED
APR 17 1956

April 12, 1956

U. S. Department of Interior
Defense Minerals Exploration Administration
Washington D. C.

Gentlemen:

The Uranium Corporation of America, Inc. hereby submits its application in quadruplicate upon Form No. MF 103. All accompanying maps and papers are herewith enclosed in duplicate.

Will you please give this matter your immediate attention.

Yours very truly,

Robert A. Levitt

ROBERT A. LEVITT

RAL:elh
Encs.

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

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APR 17 1956

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. DMEA-4259
Metal or Mineral Uranium
Date Received 4-17-56
Estimated Cost $22,531.50
Participation (Government %)

INSTRUCTIONS

1. *Name of applicant.*—(*a*) State here your full legal name, in the form in which you will wish to contract, and your mailing address: Robert Banks, President, James H. Towey, V.Pres & Treas; El Hillstrom, Secy.
Uranium Corporation of America
Star Building
Casper, Wyoming

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

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

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

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

3. *Applicant's property rights.*—(*a*) State the legal description of the land upon which you wish to explore, including all land which you possess or control that may be benefited by the exploration, and excluding any land or interest in land which is not to be included in the exploration project contract Section 29, Township 43 north, Range 75 west 6th prime meridan. Trix claims and Cora claims, which overlay the Trix claims are owned by Uranium Corporation of America as well as Placer claims on the same property.

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

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise
Owner-----Claimant on unpatented claims

(*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. Campbell County court house, register of deeds, Coras claims
* Nos.7-8-9-10-11, Book 21 pages 289-297; Trix claims 1-2-4-5 PP527-531

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

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

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

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

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

16—66551-1

*See attached sheet

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

[X] Money [X] 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 12, 195 6

URANIUM CORPORATION OF AMERICA, INC.
(Applicant)

By Robert Banks
Its President

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

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4(a). The Trix claims have never been mined.

An airborne radiometric survey of the Trix claims has been completed by the Uranium Corporation of America and a large area of anomaly readings were detected. These radiometric readings were taken from a Piper Super Cub, flying at approximately one hundred feet above the surface, with a three inch crystal Mt. Sopris scintillation detector.

The anamolous area outlined by the airborne survey was checked on the ground with both scintillation detectors and Geiger counters. Large areas gave ground readings of three to four times background count and smaller areas gave readings from ten to thirty times background count. Small pits were excavated by hand in areas with highest radiometric anomalies on the ground and in each instance visible uranium mineralization was uncovered at depths of less than one foot. Representative samples taken from these relatively small areas of high count assayed from 1.11% U_3O_8 and 0.04% V_2O_5 to 4.06% U_3O_8 and 0.14% V_2O_5 by chemical assay.

A drill pattern has been established on a grid system, with an interval of one hundred feet, in the area above 5,060 feet in elevation (the lowest elevation of uranium mineralization outcropping on the Trix claims). Fifty-one holes above 5,060 feet have been drilled, at various intervals, to the water table, (30 feet to 110 feet). Drill cuttings are being saved and will be checked geochemically in an effort to find any ore bodies close to the drill holes but not actually penetrated by them. Several of the exploratory drill holes have intersected uranium mineralization in beds ranging in thicknesses from two feet to nineteen feet, at depths ranging from the surface to sixty feet. Uranium mineralization has been noted at several stratigraphic horizons. Five foot composite samples of drill cuttings from depths at which anomalous radioactivity was recorded were chemically assayed and found to contain only .02 to .04 per cent uranium. This low assay may have been the result of sorting when the samples were blown from the drill hole, so a Ducone sampler has been ordered to prevent the loss of the fines. Direct sampling of the radioactive strata by open bulldozer cuts is in progress in order to establish a relationship between probe hole readings and chemical assays for uranium.

4(b). No previous production of minerals from the Trix claims is known. Close spaced drilling (25 foot intervals) is currently in progress, in an attempt to block out an ore body in a small area at the western end of the Trix claims. No estimate of ore reserves can be made as yet;

4(c). The Trix claims are underlain by the Wasatch formation of Eocene Age. The stratigraphic horizon at the highest elevation on the Trix claims (5,119 feet) is 800 feet below the White River formation of Oligocene Age, and 700 feet above the Ft. Union formation of Paleocene Age. Approximately 100 to 200 feet of the ore-bearing horizons have been eroded from the Trix

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claims, with only 100 to 200 feet of the ore-bearing horizons remaining intact. Regional dips of the formations to the south and west of the Pumpkin Buttes, is less than one degree to the Southwest but on the Trix claims some local dips of more than ten degrees to the north have been noted in outcrops for several hundred feet. This "roll" has its long axis parallel to the axis of the radiometric anomalies. (See accompanying grid map). The sequence of stratigraphic units as indicated by the drill cuttings ~~as~~ follows:

0 to 50 feet of sandstone—thickness depending upon surface elevation of the drill hole.
30 to 35 feet of blue shale.
1 to 5 feet of carbonaceous shale (black and dark grey) with coal and crystalline gypsum.
Sandstone of undetermined thickness.

The uranium minerals on the Trix claims have been tentatively identified as Carnotite, Uraninite, Uranophane, and Autunite. Uranium mineralization has apparently been controlled and localized by a fossil stream channel or by a local "roll" in otherwise horizontal formations or by both. Fossil wood and fossil bone has been found on the Trix claims. None of the wood is radioactive but all of the fossil bones are radioactive. Several gossans have been noted on the Trix claims, but apparently are not directly associated with the uranium mineralization.

The Uranium Corporation of America wishes to explore the Trix group of claims to determine the location and continuity of uranium mineralization responsible for the radiometric anomalies on and over the claims. Radiometric anomaly nos. 94 and 202, listed in Geological Survey Circular 338, are on the Trix claims.

AEC geologists, John Schulte and Robert Guilinger, visited the property on April 5, 1956, and said that the reverse dip was due to multiple stream channeling. They also opined that the uranium mineralization in the channels was localized by carbonaceous trash and that chances of large uranium deposits were better in the unoxidized zone beneath the water table than in the oxidized zone above it.

4(d). The area of the Trix claims is readily accessible by road. Further improvement of roads by property owners, without government assistance, has been agreed upon. The road distance to Gillette, Wyoming from the Trix claims is approximately 65 miles. Rail shipment of ore from Gillette, Wyoming to Edgemont, South Dakota is contemplated. Another possibility is truck shipment of ore direct from the Trix claims to Edgemont. Two truck routes from the Trix claims are possible; via Gillette, Wyoming, and via Douglas, Wyoming, the route depending on the weather. Low grade ores will probably be shipped by rail and high grade ores direct by truck,

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to avoid high grade penalties by the Burlington Railroad.

The campsite of the Uranium Corporation of America is approximately one mile from the Trix claims. It is so situated to service several groups of claims held by the company, including claims on the campsite itself. Supply and residence quarters are both at the campsite.

4(e). Two drillers are working at present and others are available. Materials, supplies, and equipment for exploration of the Trix claims has been purchased, and is on the site. Water is imported at present but pumping and storage facilities are anticipated. Electricity is provided by a gasoline power generator at the campsite.

5(a). The Uranium Corporation of America wishes to explore for uranium, vanadium, and selenium.

5(b). Phase I of the proposed exploration of the Trix claims includes drilling 151 drill holes to the water table within the area of the airborne anomaly and above the elevation of uranium mineralization outcroppings. Also proposed are 21 holes to be drilled in the same area on a 400 foot center grid pattern and to a depth of 100 to 200 feet through the strata described in Geological Survey Circular 338 as being ore bearing horizons. Drill cuttings will be saved and drill holes will be probed. In the steeper ravines drill access roads will be constructed.

Phase 2 of the proposed exploration of the Trix claims will include drilling holes to the water table on a 50 foot grid pattern in areas where significant radioactivity is detected in drill holes on the 100 foot grid pattern. Deep drill holes (100 to 200) are proposed at 200 foot intervals in areas where significant radioactivity is detected in holes drilled during Phase 1.

(c). Work is in progress and will continue until completion of the program.

(d). The president, Robert Banks, has been a uranium company president for more than a year and has control of several hundred claims in the western United States. The drill team is composed of two men who have been drilling together for approximately a year and have repeatedly proven themselves capable of improvising equipment when necessary. The geological consultant, John Sargent, has two degrees in geology and several years of experience with the Buffalo Museum of Science and the United States Bureau of Mines. The project supervisor, H. W. Baird, has been supervising the drill crew of Uranium Corporation of America for a year, during which time several thousand feet of drilling has been successfully completed.

6(a). Independent contracts

21 drill holes to an average depth of 150' at $2.00 ft.	$ 6,300.00
151 drill holes to an average depth of 50' at $ .75 ft.	5,662.50
1 bulldozer 3 days, 9 hours/day, $12.00/hr.	324.00
	$12,286.50

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6(b).	1 consultant geologist 6 months at $750.00/mo.	$ 4,500.00
	1 project supervisor 6 months at $500.00/mo.	3,000.00
		$ 7,500.00
6(c).	Gasoline $125.00/mo for 6 months	$ 724.00
	Provisions $60.00/mo. for 6 months	360.00
	Sample bags	20.00
		$ 1,130.00
6(d).	2 jeeps at $1500.00 each	$ 3,000.00
	1 Spartan trailer	1,500.00
	1 bus outfitted as kitchen and bunkhouse	1,500.00
	1 electric pump, well, & storage tank	200.00
	1 gasoline electric generator and wiring	200.00
	1 Ducone sampler	350.00
		$ 6,750.00
	1/60 per month use allowance on above equipment for 6 months	$ 675.00
6(e).	No repairs necessary.	
6(f).	Sample storage shed.	$ 300.00
	Shelving	250.00
		$ 550.00
6(g).	Miscellaneous	$ 200.00
6(h).	Contingencies	$ 200.00

Item	Amount
6(a)	$12,286.50
6(b)	7,500.00
6(c)	1,130.00
6(d)	675.00
6(e)	0.00
6(f)	550.00
6(g)	200.00
6(h)	200.00
Total	$22,531.50
Company share	~~5,632.88~~
Government share	~~16,898.62~~

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MF-203
Revised March 24, 1955

For Government's Use Only
EXPLORATION PROJECT CONTRACT
Operator
Docket No. DMEA-
Contract No. Idm-E
Contract Date

CONSENT TO LIEN

To the United States of America:

Referring to that certain land in the County of Campbell, State of Wyoming, described as follows:1/, recorded in Campbell County Court House, Register of Deeds, Cora claims Nos. 7-8-9-10-11, Book 21, pages 289 - 297; Trix claims 1-2-4-5, pages 527 - 531.

3F

which is the subject of a proposed exploration project contract, hereinafter called the "contract," with the United States of America, hereinafter called the "Government;" in consideration of the contract and as an inducement to the Government to enter into it, the undersigned hereby--

1. Undertakes and agrees that property in which the Government may acquire an interest or equity under the contract may be dismantled, severed from the land, and removed, as may be provided in the contract; and the Government's interest and equity in such property shall be prior and superior to any adverse right or claim of the undersigned;

2. Grants to the Government a lien upon all of the undersigned's right, title, and interest in the land and upon any production of minerals therefrom to secure the payment to the Government of a percentage royalty on production as may be provided for by the contract;2/ and represents and undertakes that there are no claims, liens, or encumbrances upon the undersigned's right, title, or interest in the land prior to that hereby granted to the Government other than the following:3/

NONE

3. Undertakes and agrees neither to commit any act nor assert any claim in conflict with the provisions of this Consent to Lien; and to give advance notice of the Government's rights under this Consent to Lien to any subsequent transferee, mortgagee, encumbrancer, or lessee of any of the undersigned's right, title, or interest in the land; and

NONE

1/ Either (a) insert the legal description of the land, or (b) strike out the words "as follows" and insert "in a lease [or contract, deed, or other document] dated (as above), and recorded in book _____ page _____ official records of said county." If (b) is used, the book and page of recordation cannot be dispensed with. If the space provided is insufficient, use an Annex, and refer to the Annex in the space.

2/ Mining or production from the land is not required, and in the absence of production there is no obligation to repay the Government.

3/ Write "none" if that is the case. Do not leave lines blank.

4. Consents to all amendments and assignments of the contract without notice thereof, and agrees that this Consent to Lien shall extend and apply thereto.

5. Added provision: _____

Dated this 12th day of April, 1956.

URANIUM CORPORATION OF AMERICA, INC. [Seal]

By Robert Banks [Seal]
Its President

_____ [Seal]

I, E. Hillstrom certify that I am the Secretary (Secretary, etc.) of the corporation named herein; that Robert Banks who signed this agreement was then President (President or Vice-President, etc.) of said corporation; that said agreement was duly signed for and in behalf of said corporation by authority of its governing body, and was within the scope of its corporate powers.

E. Hillstrom
[Corporate Seal]

RECEIVED
APR 17 1956

MF-203
Revised March 24, 1955

For Government's Use Only
EXPLORATION PROJECT CONTRACT
Operator
Docket No. DMEA-
Contract No. Idm-E
Contract Date

CONSENT TO LIEN

To the United States of America:

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1. Undertakes and agrees that property in which the Government may acquire an interest or equity under the contract may be dismantled, severed from the land, and removed, as may be provided in the contract; and the Government's interest and equity in such property shall be prior and superior to any adverse right or claim of the undersigned;

2. Grants to the Government a lien upon all of the undersigned's right, title, and interest in the land and upon any production of minerals therefrom to secure the payment to the Government of a percentage royalty on production as may be provided for by the contract;2/ and represents and undertakes that there are no claims, liens, or encumbrances upon the undersigned's right, title, or interest in the land prior to that hereby granted to the Government other than the following:3/

NONE

3. Undertakes and agrees neither to commit any act nor assert any claim in conflict with the provisions of this Consent to Lien; and to give advance notice of the Government's rights under this Consent to Lien to any subsequent transferee, mortgagee, encumbrancer, or lessee of any of the undersigned's right, title, or interest in the land; and

NONE

1/ Either (a) insert the legal description of the land, or (b) strike out the words "as follows" and insert "in a lease [or contract, deed, or other document] dated (as above), and recorded in book _____ page _____ official records of said county." If (b) is used, the book and page of recordation cannot be dispensed with. If the space provided is insufficient, use an Annex, and refer to the Annex in the space.

2/ Mining or production from the land is not required, and in the absence of production there is no obligation to repay the Government.

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Dated this 12th day of April, 1956.

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By Robert Banks [Seal]
Its President

_____ [Seal]

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E. Hillstrom
[Corporate Seal]

UNITED STATES
ATOMIC ENERGY COMMISSION
Denver, Colorado

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APR 17 1956

Address by Raymond G. Lindlof
Geologist, Casper, Wyoming Sub-Office
Denver Exploration Branch
Atomic Energy Commission
Before the National-Western Mining Conference
Denver, Colorado
February 4, 1956

INTRODUCTION

In the Wyoming District of the Denver Exploration Branch, the past year's developments have caused tremendous increases in the known and potential ore reserves. I will briefly outline the events and conditions which have caused Wyoming to emerge as a major uranium province and also point out some of the factors which may have a bearing on the future of the district. In the mention of the various areas, note will be made of the minerals recently identified. These identifications have been made by Dr. John Gruner and his staff of the University of Minnesota.

EXPLORATION

Wyoming has passed through the initial phases of a new mining area quite rapidly. Two years ago, almost all effort was being expended on prospecting and claim staking. One year ago promotional activities seemed to have precedence over most other activities. At the present time mining is on the increase and most of the responsible operators in the district are devoting their efforts to the development of relatively new exploration techniques and the subsequent development of new ore bodies.

Most of the ore found to date is in poorly consolidated Tertiary sediments. Core drilling, as an exploration tool, has been very expensive and usually unsuccessful in these young formations. In cases where core is obtained, it is often of no value because the area of low recovery usually falls in the ore zone. A few companies have successfully cored the ore horizons, but only through the development of special types of equipment and techniques to suit local conditions. Needless to say, this is very expensive and can be justified only where exact knowledge of the ore type and occurrence is needed for future planning. Costs of core drilling may vary from two to ten dollars a foot with recovery varying from about 10% to 60% in most cases, and up to 95% in rare cases.

Rotary non-core drilling for uranium, with the use of air as a drilling medium, was first used in Wyoming by the Atomic Energy Commission in the winter and spring of 1953-54 with attendant good results. This drilling was done with a 315 cubic feet per minute air compressor, and among the limitations noted were an inability to always reach the desired depth, poor or no sample returns in damp zones, an inability to penetrate perched water tables, and sometimes poor recovery where the porosity of various strata allowed a heavy air loss. As a result, we now require a compressor having a minimum rated capacity of 500 cubic feet per minute, which in most cases, gives the desired results. In zones of heavy water flow, recovery is still understandably poor, but as this is usually in the unoxidized zone where reasonable equilibrium is attained; radiometric probe records are often useable and serve to augment actual samples. The use of this method of exploration has outlined several ore bodies containing more than 50,000 tons. It is certain that completion of development drilling on these ore bodies will enlarge some of them into the 200,000 ton class. Many other properties in the district require only an intelligent exploration and development program to develop potentially large ore bodies.

The Tertiary ore bodies are mainly of the disseminated blanket type. Some appear related to carbonaceous trash zones in ancient superimposed stream channels, others seem related to both minor and major fault structures, a few, apparently, are controlled by facies changes within bedded formations, and others occur as a direct result of the influence of the local water table on the contact between the oxidized and unoxidized zones. Therefore, pending more experience, in the calculation of ore reserves, areas of influence around an ore hole are held on the conservative side. Most ore bodies are not considered as fully developed until they have been drilled on 50 foot centers. Many operators are still skeptical of the drill results until they have either bulldozed a pit or sunk a shaft to the ore horizon, and made sample shipments from which the tonnage factor is calculated and the actual mineable grade of the ore is determined.

Development costs can be held quite low in this district, the pre-Cambrian granitic areas of course being an exception. Rotary non-core drilling by experienced operators may be obtained at rates varying from 50¢ to $1.00 per foot, with payment being contingent on good sample recovery. The actual price is dependent on the amount of footage desired and the local drilling characteristics of the formation. An average of 500 feet of drilling can be expected in an 8 hour day, but up to 1000 feet have been drilled by some operators. One operator has drilled about 1800 feet in 8 hours with one drill rig where no samples were taken and evaluation was made with the use of a motor driven Geiger

probe with an attached recording unit. Where samples are required, it is necessary to keep a competent geologist supervising the operation of each drill rig in order to assure dependable results. Exploration and development drilling have absolutely no value unless the program is laid out and closely supervised in all its phases by an experienced and competent mining geologist or exploration engineer.

In the Wyoming District, studies indicate that some redistribution of uranium is taking place in the oxidized zones at the present time. This process has resulted in differential leaching of uranium away from its decay products and makes radiometric assaying unreliable. On the other hand, the unoxidized ores are more likely to be in equilibrium as regards uranium content and equivalent percent uranium. Until the results of adequate sampling and chemical assaying have been evaluated by an experienced mining geologist or engineer, uranium-bearing material cannot be considered to be ore. It cannot be overemphasized that without good sampling and reliable chemical assaying, exploration results may be very misleading.

COSTS AND METHODS OF MINING

Up to the present time, mining problems have been relatively simple because of the fact that the most easily found ore bodies occur at or near the surface. As much as 5,000 tons have been mined from some of these surface deposits, with from zero to 7 feet of overburden to remove. In one instance, two men working on a property, using only a front-end loader and hand tools, mined and loaded into trucks, over 1000 tons of good grade ore in a months time. Needless to say, mining costs are very low on this type operation, if the work is done by experienced miners. It is almost impossible for any operation to show a profit, if the work is done by inexperienced personnel with attendant wasteful use of exploration and operation funds and subsequent dilution of the ore being mined. A four foot zone of ore can almost never be mixed with 8 or 10 feet of waste and shipped at a profit. Many inexperienced operators go broke before realizing this elemental fact.

At the present time very little underground mining has been done. However, recent drilling by the AEC has apparently shown economically mineable ore at a depth of 470 feet in the Green Mountain area and economic ore at a depth of 335 feet in the Gas Hills with uranium mineralization noted to a depth of 510 feet. Initial, near surface work, by a few companies, shows that these poorly consolidated Tertiary sediments are amenable to underground work and in some cases require little or no timbering. It is to

be expected that, as mining is conducted below the local water table, more timber will be required, and other measures may have to be taken as special conditions are encountered. It is to be expected that water will have to be handled and pumped, and that in some cases it may be corrosive due to contained salts. However, after the initial residual water has been disposed of, it will usually tend to be more of a seasonal problem.

Some of the presently successful exploration programs being performed by private companies are based on structural and stratigraphic data developed by AEC and USGS field teams. Information of this sort can be obtained at the Casper Sub-Office or from our area geologists. Other data available to the public are the lithologic logs from recent Atomic Energy Commission core drilling.

As the district extends from Moffat County, Colorado through central Wyoming, and into southeastern Montana, it might be well to mention developments by specific areas. Again, it must be remembered that most of these deposits occur in Tertiary sediments and, as such, require entirely different prospecting, development, and mining techniques than many of the occurrences on the Colorado Plateau.

MAJOR AREAS

The following major areas have seen the most progress during recent months and display the most potential.

The Maybell area in Moffat County, Colorado has seen substantial gains in ore reserves during the past year. Trace Elements Corporation, on the strength of these reserves, plans to construct a uranium processing mill during the coming year.

All the ore found to date in this area is in the Brown's Park formation and may occur in either near-surface oxidized sandstones or in the deeper, blue-gray, unoxidized sandstones. These ore bodies seem to have direct relationships to strong northwesterly trending faults, although the ore may locally appear to follow east-west fracture patterns. It appears that these irregularly shaped ore bodies are not vein type or related to sedimentary channels. The near-surface ore minerals have been identified as being autunite, uranophane, and tyuyamunite.

Recent developments in the Crooks Gap area of the Green Mountains, show promise of several good sized ore bodies. The complex regional structure appears to have had a localizing influence on ore deposition in the Wasatch formation.

During the last field season, the Atomic Energy Commission conducted a core drilling program in an attempt to resolve some of the geological problems. Six of ten holes drilled, on one-fourth to two mile centers for geologic information, encountered ore grade material even though no specific attempt had been made to locate them in areas where ore might be expected. One of the ore zones, penetrated at a depth of 470 feet, had seven feet of ore averaging 0.37% U_3O_8 chemically. Another hole had a three foot zone at 245 feet which averaged 0.78% U_3O_8 chemically. It is to be realized that one ore hole on a property does not make an ore body, but it does form a very good basis for further exploration.

The Wasatch is the only known economic ore bearing formation in this area. The ore occurs at those places within the formation where there is a combination of carbonaceous siltstones and arkosic sandstones with suitable structure. The ore minerals are mainly autunite, uranophane, and uraninite or coffinite.

Radioactive anomalies have been located for several miles to the east and west of Crooks Gap, but the importance of these remains to be determined.

The well publicized Gas Hills area, in the Wind River Basin, has developed into one of the major uranium districts during the last year. The buying station, established at Riverton in March of 1955, has been receiving substantial ore tonnages.

There are several producers in this area shipping over 1000 tons of ore per month with present development work shaping other properties into future large producers.

The recent Atomic Energy Commission core drilling program in the Gas Hills demonstrated that ore grade samples may be obtained at depths of 340 feet and mineralized samples were found at 510 feet. Based on radiometric probing, out of eight holes drilled, four penetrated ore grade material and two others were mineralized. These holes were spaced from two to four miles apart for geologic data. Radiometric data were used because of the very poor core recovery obtained in the favorable ore zones.

It was demonstrated that ore bodies may exist anywhere within the upper Wind River formation. This upper portion may be as much as 600 feet thick. The lower Wind River formation is composed mainly of mudstones and siltstones and as such is unfavorable.

With study of new data, ore controls in the Gas Hills area are becoming more clearly understood. At the present time, the

largest ore bodies are in an unoxidized siltstone just at or below the top of local water tables. Easterly trending faults, which often have relatively slight displacement in the Tertiary sediments, appear to have controlled the deposition of ore in many of the known ore bodies.

In addition to 12 or 14 uranium minerals previously recognized, carnotite and tyuyamunite recently were identified as minor constituents. Uraninite continues to be the major ore mineral in the unoxidized zone. Autunite and other phosphates or arsenates constitute most of the ore minerals in the oxidized zone.

The Monument Hill area, in the Southern Powder River Basin, seems to be in the center of a northerly trending mineralized belt, about twenty miles long and two or three miles wide. In this belt there are numerous radioactive anomalies in the lower Wasatch formation immediately overlying the Fort Union formation. Several small ore bodies in this area were mined in 1953 and 1954, but at that time it was thought that local mudstone layers limited the ore to near-surface occurrences. The existence of several new ore bodies at depth was revealed by Atomic Energy Commission non-core drilling in 1954. During 1955 additional, but as yet unfinished drilling by several uranium companies has increased the known reserves of the area to more than 50,000 tons of ore.

These ore bodies seem to occur just above or below thin mudstone layers and appear to have a relationship to lithology, disconformity, fracturing, and carbonaceous trash zones in channels.

Minerals indentified in this area are mainly tyuyamunite, uranophane, and uraninite with minor amounts of liebigite and metatyuyamunite.

DEVELOPING AREAS

Several other areas are still in the early stages of development. In one of these, the Baggs area in the Washakie Basin, uranium mineralization is in the Brown's Park formation. The mode of occurrence is very similar to the deposits at Maybell in that there is an apparent relationship to faulting. Very little exploration has been done here; only two companies are known to have drilled deeply enough to penetrate the unoxidized zone, and in both cases ore was discovered. At least one of these discoveries may develop into an important deposit.

The minerals identified in the Baggs area consist of metautunite, carnotite, sabugalite, and coffinite.

The Copper Mountain area, on the south slope of the Owl Creek Mountains, has been developing slowly.

Production in this area has been from Eocene-Oligocene sediments overlapping the pre-Cambrian basement complex. A few properties in this area hold some promise. Large ore bodies may be found in this area as a result of detailed long range geologic investigation.

Uranophane, autunite, uraninite, and coffinite have been identified in this area.

The Pumpkin Buttes area has been prospected longer than any other in Wyoming, but has had only sporadic ore production. The reason for this lies partly in the recent confusion regarding land ownership. Now that the withdrawn area has been released, it is hoped that long range work may be successful in finding significant new ore bodies. The presence of many mineralized anomalies that have little apparent economic significance has been discouraging to short term prospectors. In no known instance has the finding of concretionary pod type mineralization led to an ore body of over 15 tons. Most of the production from this area has been from disseminated type ore bodies containing up to 4,000 tons.

POTENTIAL AREAS

There are several potential areas in the Wyoming District, some of which will undoubtedly become productive in the future. One of these, the Ketchum Buttes area in the Brown's Park formation, is about 40 miles southwest of Rawlins. Geologically planned deep drilling may eventually reveal significant uranium deposits in this remote area.

In the northwestern Wind River Basin, the Indian Reservation holds considerable promise due to its similarity in structure and stratigraphy to the Gas Hills area. The Sand Draw area differs from others in the basin in that the uranium occurs in Oligocene sandstones as coffinite associated with asphaltic material; very little is yet known of this area. Just to the southeast of Lander, on Sheep Mountain, carnotite and tyuyamunite are found in the Tensleep and Phosphoria formations.

The Big Horn Basin contains many anomalous areas located by prospectors, but very little uranium of economic significance has yet been found. The Morrison formation has some promise as a potential host in this basin.

In the Powder River Basin a new area at Linch, just northeast of the Salt Creek Oil Field, exhibits favorable structure and mineralogy. The minerals present are carnotite, tyuyamunite, sabugalite, uraninite, and coffinite. This principal occurrence, in the Fort Union formation, contains much carbonaceous trash and some calcareous cement. In the northern-most part of the Powder River Basin, the Ollie-Carlyle area in Fallon County, Montana, metatyuyamunite has been identified as a constituent of ore found in poorly consolidated, carbonaceous trash lenses in coarse sandstones of the Fort Union formation. Even though very little work has been done in this area, it holds some promise. Although ore grade lignites may also occur in this area, they should expectedly be found along the margins of the Powder River Basin. A shipment of ore grade lignite has been made from a property between Douglas and Lance Creek in Wyoming, and ore grade samples have been obtained from other lignitic coals in this area.

Primary vein type deposits are known to exist in the Laramie Mountains, Pedro Mountains, Hartville Uplift, and Owl Creek Mountains, but the high cost of exploration, as compared with work in the Tertiary Basins, has caused most of the available risk capital to be expended in areas where the greatest and quickest returns may be expected.

During the last year, several interesting anomalies have been located in the Morrison formation as far south as Laramie and it is hoped that future exploration may lead to other discoveries in the South Central Basin areas of Wyoming.

There are many opportunities in this newly developed uranium district. There are opportunities for the small miner, with very little capital, to mine the small ore bodies lying close to the surface; and there are good opportunities for the large company to mine the larger and deeper ore bodies.

CLI-10

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CHEMICAL & GEOLOGICAL LABORATORIES

521 South Center St. P. O. Box 279
Casper, Wyoming

ANALYTICAL REPORT

From H. W. Baird Product Ore

Address 150 North Beech St., Casper, Wyo. Date March 20, 1956

Other Pertinent Data

Analyzed by GAW Date April 6, 1956 Lab No. 10656

MINERAL ANALYSIS

% by weight

Sample No.	V_2O_5 % by weight	U_3O_8 Radiometric	U_3O_8 Chemical
1.	0.14	2.20	4.06
2.	0.08	0.66	1.11
3.	0.04	1.06	1.84

CL1.10

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ANALYTICAL REPORT

From H. W. Baird Product Uranium Ore
Address 150 N. Beech St., Casper, Wyo. Date March 24, 1956
Other Pertinent Data

Analyzed by GAW Date March 27, 1956 Lab No. 10661

MINERAL ANALYSIS

U_3O_8, % by weight

Sample No.	Radiometric	Chemical
1. D 7/8 14 7/8	0.02	0.04
2. E 1/8 15	0.01	0.02

CLI-10
PRAIRIE PUBLISHING CO.—58525

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4/18/56 Crawford

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

RECEIVED
APR 17 1956

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. DMEA-4259
Metal or Mineral Uranium
Date Received 4-17-56
Estimated Cost $22,531.50
Participation (Government %)

INSTRUCTIONS

1. *Name of applicant.*—(*a*) State here your full legal name, in the form in which you will wish to contract, and your mailing address: Robert Banks, Pres.; James H. Towey, V.Pres & Treas; E.Hillstrom, Sec'y.
Uranium Corporation of America
Star Building
Casper, Wyoming

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

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

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

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

3. *Applicant's property rights.*—(*a*) State the legal description of the land upon which you wish to explore, including all land which you possess or control that may be benefited by the exploration, and excluding any land or interest in land which is not to be included in the exploration project contract Section 29, Township 43 north, Range 75 west, 6th Prime Meridian, Trix claims and Cora claims, which overlay the Trix claims are owned by Uranium Corporation of America as well as Placer claims on the same property.

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

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise Owner-----Claimant on unpatented claims

(*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. Campbell County court house, register of deeds, Cora claims Nos. 7-8-9-10-11, Book 21 pages 289-297; Trix claims 1-2-4-5 Page 527-531

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

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

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

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

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

16—66551-1

*See attached sheet

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

[X] Money [X] 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 12, 1956

URANIUM CORPORATION OF AMERICA, INC.
(Applicant)

By Robert Baird
Its President

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

4(a). The Trix claims have never been mined.

An airborne radiometric survey of the Trix claims has been completed by the Uranium Corporation of America and a large area of anomaly readings were detected. These radiometric readings were taken from a Piper Super Cub, flying at approximately one hundred feet above the surface, with a three inch crystal Mt. Sopris scintillation detector.

The anamolous area outlined by the airborne survey was checked on the ground with both scintillation detectors and Geiger counters. Large areas gave ground readings of three to four times background count and smaller areas gave readings from ten to thirty times background count. Small pits were excavated by hand in areas with highest radiometric anomalies on the ground and in each instance visible uranium mineralization was uncovered at depths of less than one foot. Representative samples taken from these relatively small areas of high count assayed from 1.11% U_3O_8 and 0.04% V_2O_5 to 4.06% U_3O_8 and 0.14% V_2O_5 by chemical assay.

A drill pattern has been established on a grid system, with an interval of one hundred feet, in the area above 5,060 feet in elevation (the lowest elevation of uranium mineralization outcropping on the Trix claims). Fifty-one holes above 5,060 feet have been drilled, at various intervals, to the water table, (30 feet to 110 feet). Drill cuttings are being saved and will be checked geochemically in an effort to find any ore bodies close to the drill holes but not actually penetrated by them. Several of the exploratory drill holes have intersected uranium mineralization in beds ranging in thicknesses from two feet to nineteen feet, at depths ranging from the surface to sixty feet. Uranium mineralization has been noted at several stratigraphic horizons. Five foot composite samples of drill cuttings from depths at which anomalous radioactivity was recorded were chemically assayed and found to contain only .02 to .04 per cent uranium. This low assay may have been the result of sorting when the samples were blown from the drill hole, so a Ducone sampler has been ordered to prevent the loss of the fines. Direct sampling of the radioactive strata by open bulldozer cuts is in progress in order to establish a relationship between probe hole readings and chemical assays for uranium.

4(b). No previous production of minerals from the Trix claims is known. Close spaced drilling (25 foot intervals) is currently in progress, in an attempt to block out an ore body in a small area at the western end of the Trix claims. No estimate of ore reserves can be made as yet;

4(c). The Trix claims are underlain by the Wasatch formation of Eocene Age. The stratigraphic horizon at the highest elevation on the Trix claims (5,119 feet) is 800 feet below the White River formation of Oligocene Age, and 700 feet above the Ft. Union formation of Paleocene Age. Approximately 100 to 200 feet of the ore-bearing horizons have been eroded from the Trix

claims, with only 100 to 200 feet of the ore-bearing horizons remaining intact. Regional dips of the formations to the south and west of the Pumpkin Buttes, is less than one degree to the Southwest but on the Trix claims some local dips of more than ten degrees to the north have been noted in outcrops for several hundred feet. This "roll" has its long axis parallel to the axis of the radiometric anomalies. (See accompanying grid map). The sequence of stratigraphic units as indicated by the drill cuttings as follows:

0 to 50 feet of sandstone—thickness depending upon surface elevation of the drill hole.
30 to 35 feet of blue shale.
1 to 5 feet of carbonaceous shale (black and dark grey) with coal and crystalline gypsum.
Sandstone of undetermined thickness.

The uranium minerals on the Trix claims have been tentatively identified as Carnotite, Uraninite, Uranophane, and Autunite. Uranium mineralization has apparently been controlled and localized by a fossil stream channel or by a local "roll" in otherwise horizontal formations or by both. Fossil wood and fossil bone has been found on the Trix claims. None of the wood is radioactive but all of the fossil bones are radioactive. Several gossans have been noted on the Trix claims, but apparently are not directly associated with the uranium mineralization.

The Uranium Corporation of America wishes to explore the Trix group of claims to determine the location and continuity of uranium mineralization responsible for the radiometric anomalies on and over the claims. Radiometric anomaly nos. 94 and 202, listed in Geological Survey Circular 338, are on the Trix claims.

AEC geologists, John Schulte and Robert Guilinger, visited the property on April 5, 1956, and said that the reverse dip was due to multiple stream channeling. They also opined that the uranium mineralization in the channels was localized by carbonaceous trash and that chances of large uranium deposits were better in the unoxidized zone beneath the water table than in the oxidized zone above it.

4(d). The area of the Trix claims is readily accessible by road. Further improvement of roads by property owners, without government assistance, has been agreed upon. The road distance to Gillette, Wyoming from the Trix claims is approximately 65 miles. Rail shipment of ore from Gillette, Wyoming to Edgemont, South Dakota is contemplated. Another possibility is truck shipment of ore direct from the Trix claims to Edgemont. Two truck routes from the Trix claims are possible; via Gillette, Wyoming, and via Douglas, Wyoming, the route depending on the weather. Low grade ores will probably be shipped by rail and high grade ores direct by truck,

to avoid high grade penalties by the Burlington Railroad.

The campsite of the Uranium Corporation of America is approximately one mile from the Trix claims. It is so situated to service several groups of claims held by the company, including claims of the campsite itself. Supply and residence quarters are both at the campsite.

4(e). Two drillers are working at present and others are available. Materials, supplies, and equipment for exploration of the Trix claims has been purchased, and is on the site. Water is imported at present but pumping and storage facilities are anticipated. Electricity is provided by a gasoline power generator at the campsite.

5(a). The Uranium Corporation of America wishes to explore for uranium, vanadium, and selenium.

5(b). Phase I of the proposed exploration of the Trix claims includes drilling 151 drill holes to the water table within the area of the airborne anomaly and above the elevation of uranium mineralization outcroppings. Also proposed are 21 holes to be drilled in the same area on a 400 foot center grid pattern and to a depth of 100 to 200 feet through the strata described in Geological Survey Circular 338 as being ore bearing horizons. Drill cuttings will be saved and drill holes will be probed. In the steeper ravines drill access roads will be constructed.

Phase 2 of the proposed exploration of the Trix claims will include drilling holes to the water table on a 50 foot grid pattern in areas where significant radioactivity is detected in drill holes on the 100 foot grid pattern. Deep drill holes (100 to 200) are proposed at 200 foot intervals in areas where significant radioactivity is detected in holes drilled during Phase 1.

(c). Work is in progress and will continue until completion of the program.

(d). The president, Robert Banks, has been a uranium company president for more than a year and has control of several hundred claims in the western United States. The drill team is composed of two men who have been drilling together for approximately a year and have repeatedly proven themselves capable of improvising equipment when necessary. The geological consultant, John Sargent, has two degrees in geology and several years of experience with the Buffalo Museum of Science and the United States Bureau of Mines. The project supervisor, H. W. Baird, has been supervising the drill crew of Uranium Corporation of America for a year, during which time several thousand feet of drilling has been successfully completed.

6(a). Independent contracts

21 drill holes to an average depth of 150' at $2.00 ft.	$ 6,300.00
151 drill holes to an average depth of 50' at $ .75 ft.	5,662.50
1 bulldozer 3 days, 9 hours/day, $12.00/hr.	324.00
	$12,286.50

6(b).	1 consultant geologist 6 months at $750.00/mo.	$ 4,500.00
	1 project supervisor 6 months at $500.00/mo.	3,000.00
		$ 7,500.00
6(c).	Gasoline $125.00/mo for 6 months	$ 724.00
	Provisions $60.00/mo. for 6 months	360.00
	Sample bags	20.00
		$ 1,130.00
6(d).	2 jeeps at $1500.00 each	$ 3,000.00
	1 Spartan trailer	1,500.00
	1 bus outfitted as kitchen and bunkhouse	1,500.00
	1 electric pump, well, & storage tank	200.00
	1 gasoline electric generator and wiring	200.00
	1 Ducone sampler	350.00
		$ 6,750.00
	1/60 per month use allowance on above equipment for 6 months	$ 675.00
6(e).	No repairs necessary.	
6(f).	Sample storage shed.	$ 300.00
	Shelving	250.00
		$ 550.00
6(g).	Miscellaneous	$ 200.00
6(h).	Contingencies	$ 200.00

Item	Amount
6(a)	$12,286.50
6(b)	7,500.00
6(c)	1,130.00
6(d)	675.00
6(e)	0.00
6(f)	550.00
6(g)	200.00
6(h)	200.00
Total	$22,531.50
Company share	5,632.88
Government share	16,898.62

OFFICIAL BUSINESS

PAYMENT OF P
(PMG

MR. GEORGE C. SELFRIDGE, CHAIRMAN
DMEA OPERATING COMMITTEE
DEPARTMENT OF THE INTERIOR
WASHINGTON 25, D. C.

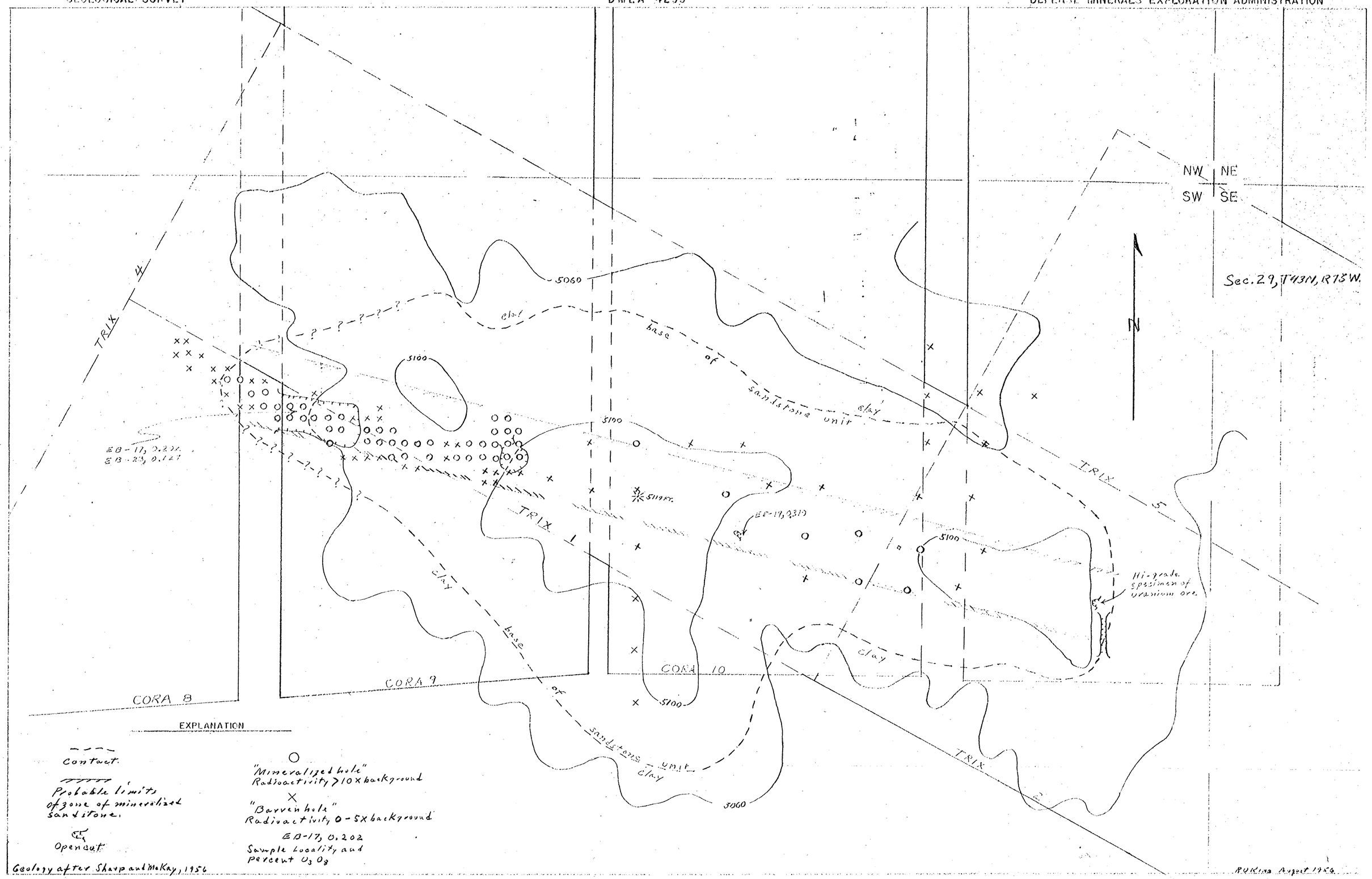


FIGURE 2.-- GEOLOGIC MAP OF PART OF TRIX AND CORA CLAIMS, URANIUM CORPORATION OF AMERICA, PUMPKIN BUTTES AREA CAMPBELL COUNTY, WYOMING.

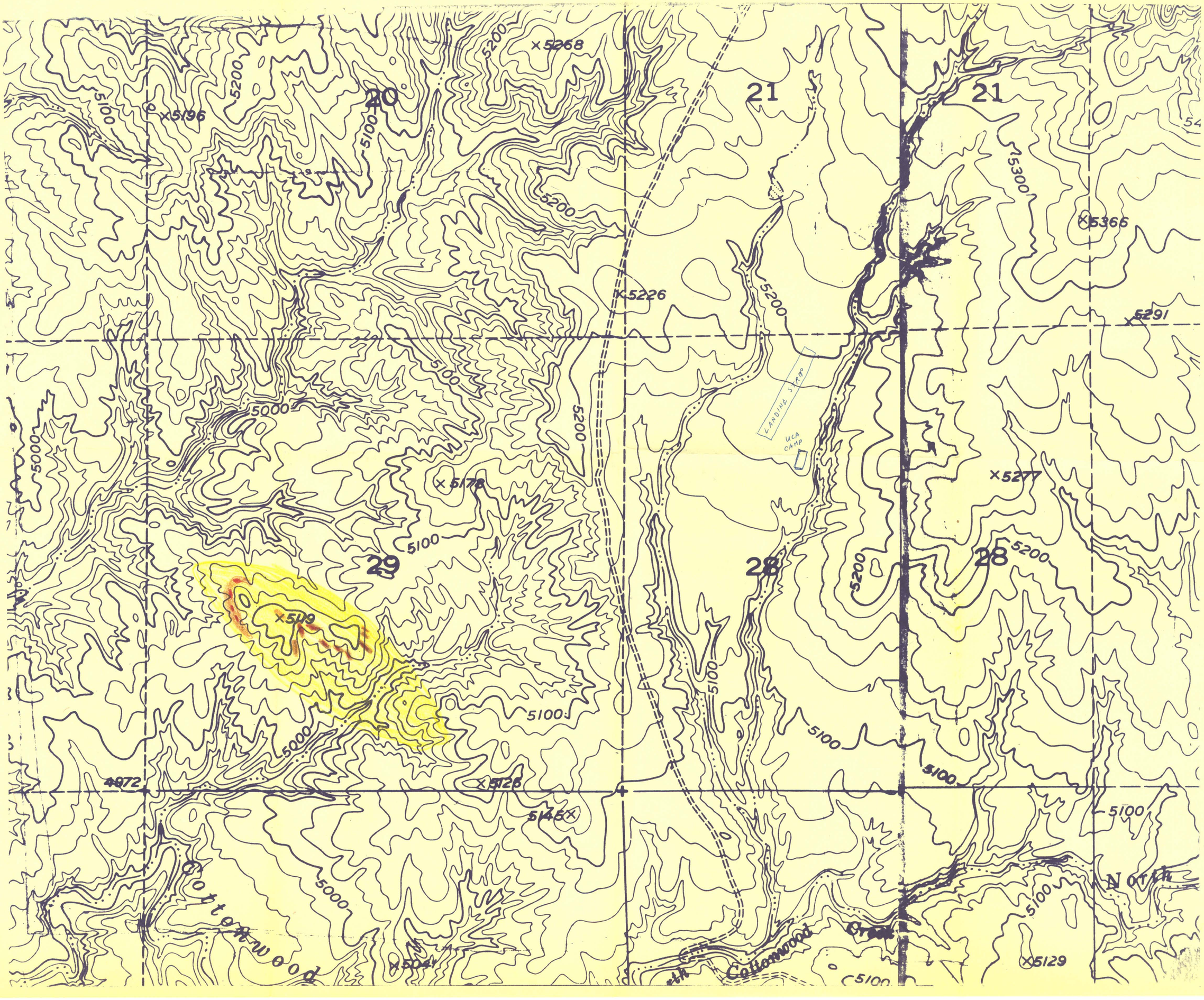
AIRBORNE ANOMALY

GROUND ANOMALY

VISIBLE URANIUM MINERALIZATION

MR. BOB BANKS PRES.
URANIUM CORP OF AMERICA
140 N. BEECH ST
CASPER WYO.

ROLLING PIN RANCH QUADRANGLE, WYO.



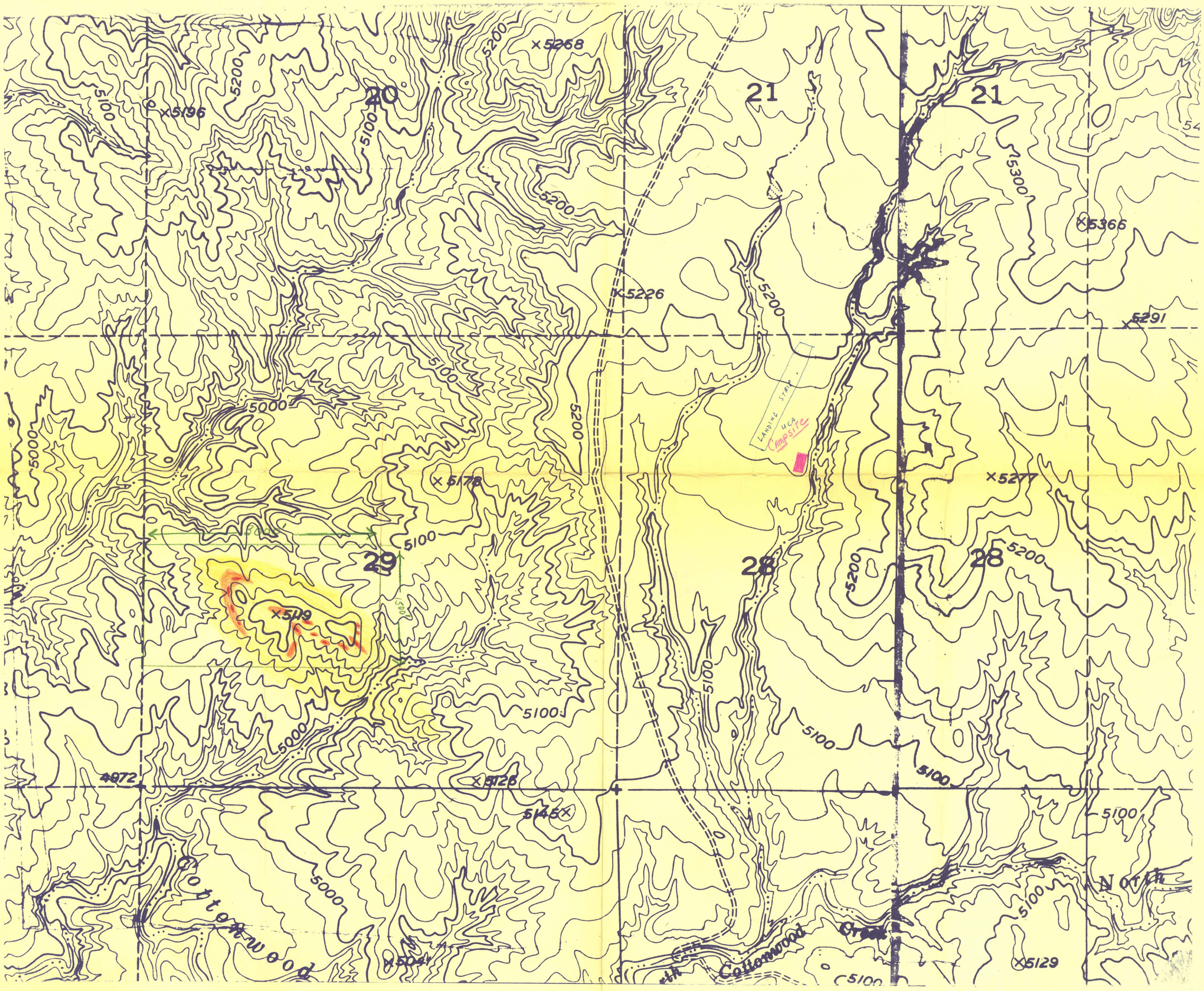
AIRBURNE ANOMALY

GROUND ANOMALY

VISIBLE URANIUM MINERALIZATION

MR ROBERT BANKS
URANIUM CORP OF AMERICA
150 N. BEECH ST
CASPER, WYO.

ROLLING PIN RANCH QUADRANGLE, WYO.



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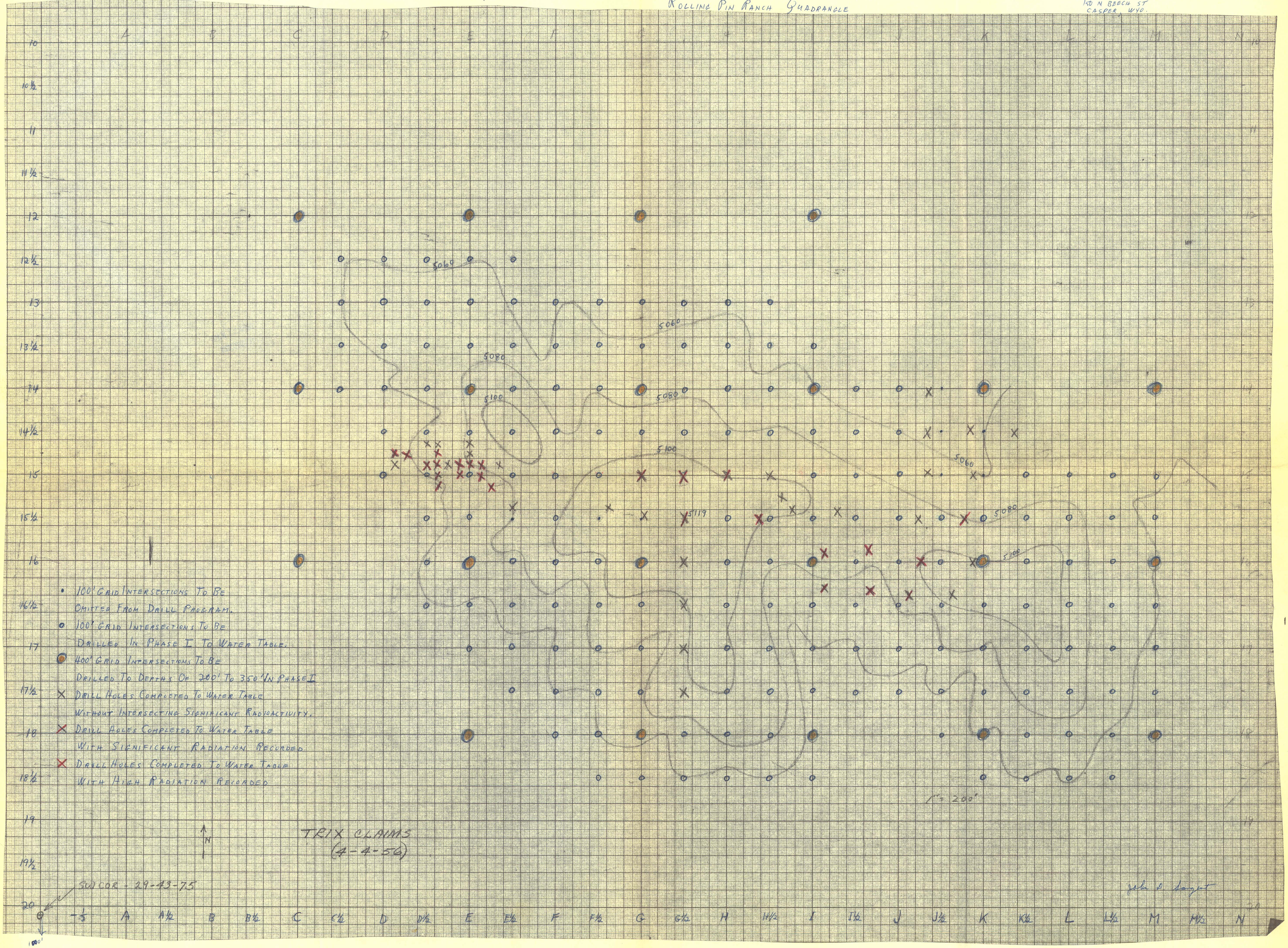
URANIUM CORP OF AMERICA
150 N BEECH ST
CASPER, WYO.

ROLLING PIN RANCH QUADRANGLE



ROBERT BANKS
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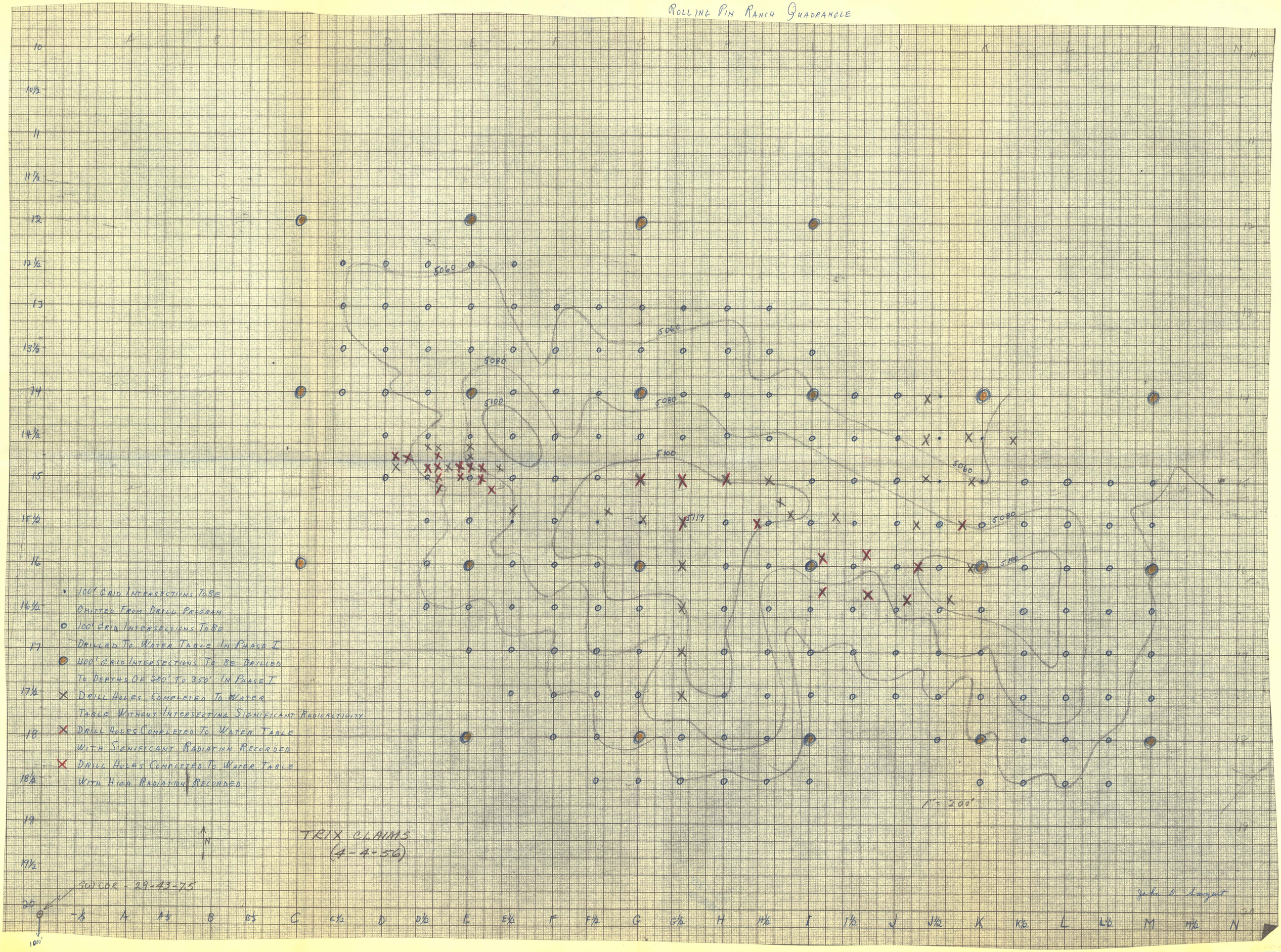
ROLLING PIN RANCH QUADRANGLE