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DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

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DMA Docket No. 4275

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To:	Rare & Misc. Met's. Div.	Date	5/7/56
To:	Oper. Com	Date	5/21/56
To:	F.E. Johnson	Date	5-21-56
To:	Mr. Crawford.	Date	5-28-56
To:	Operating Com.	Date	6-27-56
To:	F.E. Johnson	Date	6-29-56
To:	CM	Date	6-29-56
To:	Op. Com.	Date	8-16-56
To:	F.E. Johnson	Date	8-17-56
To:	Operating Com.	Date	11-26-56
To:	F.E. Johnson	Date	11-28-56
To:	CM	Date	11-28-56
To:		Date	
To:		Date	
To:		Date	

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IN REPLY REFER TO:

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

GEOLOGICAL SURVEY
DENVER, COLORADO

November 23, 1956

RECEIVED
NOV 29 1956
D.M.E.A.

Memorandum

To: George C. Selfridge

From: E. N. Harshman

Subject: DMEA Docket 4275 (Uranium), National Mines, Inc., Rubydale and Lee groups, San Juan County, Utah, and Mesa County, Colorado

According to the request in your letter of August 17 to J. W. Hasler, we are returning the copy of a "Report of the Development Work Done on the Lee Claims by National Mines, Inc., Oct. 20 - Nov. 15, 1955," to your office.

E. N. Harshman

E. N. Harshman

Enclosure

DMBX
Date Rec'd
APR 27 1956
BUREAU OF MINES
Denver, Colorado

RECEIVED
NOV 29 1956
D.M.E.A.

603 Quincy St.
Twin Falls, Idaho
December 11, 1955

Mr. Lee Cannon, President
National Mines, Inc.
Boise, Idaho

Dear Sir,

The following is a report of the work and the results of the work done on the Lee group of claims (No. 1-6 incl.) from October 20 to November 15, 1955 (incl.).

A map of the six Lee claims has been redrawn and additional information has been placed upon it. Since it has been drawn on tracing cloth it is capable of being reproduced and it will also be a permanent record. This map will be submitted with the report. It would be advisable to enclose a print of this map with the report as soon as one is available.

The survey data is not included with this report but will be made available upon request.

I hope this reprt will be satisfactory to you and National Mines, Inc..

Very Truly Yours,

Lloyd D. Brownson

Lloyd D. Brownson

LDB/REB

RECEIVED
MAY 2 - 1956

RECEIVED
1 29 1956
D.M.E.A.

REPORT OF THE DEVELOPMENT WORK DONE ON THE LEE CLAIMS
BY NATIONAL MINES? INC. - OCT. 20 - NOV. 15(incl.) 1955

SUMMARY

A crew of men headed by WC Scott, General Manager, and including Clem Arnzen, Leo Walzer, Lloyd Scott and L.D. Brownson began diamond drilling operations on the Lee claims Oct. 20, 1955. Since the diamond drilling was not satisfactory in producing results, a wagon drill operating intthe area was secured on a contract basis and a bulldozer was obtained to build roads and drilling sites for the wagon drill. Bulldozing was done during two days and because of breakdowns became unavailable. As a result the wagon drill could only operate in areas that were level. Many times, compromises had to be made betweentthe ideal location and where the wagon drill could actually get to. The operation of the wagon drill and diamond drill were also ha handicapped by breakdowns.

The results of drilling were unsatisfactory from the standpoint of finding ore but did result in securing information that could lead to a more productive program. In addition, the peculiarities in drilling these claims were learned by experiende and a better selection of equipment to do the job will undoubtably be made if this development program is continued.

Diamond Drilling

A crew of five men headed by W.C. Scott, General Manager, began a diamond drilling program on the Lee claims on October 20, 1955. Equipment included two jeeps, a 1-1/2 T. 1945 Studebaker truck, a light portable diamond drill with approximately 150 ft. of XR steel, water tanks and other necessary equipment.

Totest the adaptability of this equipment to the drilling depths necessary, it was decided to try the deep holes first. With this in mind, holes no. D #1 and 2 were spotted.

The drill steel in D #1 became stuck and the hole and most of the steel had to be abandoned.

The equipment was moved to D #2. This hole was satisfactorily drilled to 102 ft. in depth. It was felt at this point that with this equipment it would not be practicable to go deeper due to the uncertainty of the ground and to the fact the drill water was being lost. In addition, at the rate D #2 was drilled, very little drilling would be accomplished with it alone. Since a wagon drill was on an adjoining property, steps were taken to secure it after its work there was completed. The diamond drill and all equipment was moved to the bench above the tunnels and D #3 was begun. It was sunk to 78 ft. which was judged to be adequate. On the next site, D #4, the steel was stuck after drilling a short distance. All efforts to remove the steel were unavailing and the hole and some steel were abandoned. D #5 was then drilled to a depth of 49 ft.. Mineralization was encountered between 37 and 44 ft. and it totaled about one foot in thickness through this distance that was radioactive. The tenor of this rock was 0.10 % or less. Although submarginal, the occurance of mineralization was encouraging and D #6 was started. At a depth of about 30 ft., the steel was stuck and abandoned. Due to severe sickness in the family, it became necessary for Lloyd Scott, the diamond drill operator to leave. As a consequence it was decided to suspend diamond drilling operations for the balance of the season. The last day of diamond drilling was November 10, 1955.

The total diamond drill footage was as follows:

D #1	30 ±	abandoned
D #2	102	
D #3	78 ±	
D #4	30 ±	abandoned

(cont. on page 3.)

D #5	49	
D #6	30 ±	abandoned
Total footage	219 feet	

The problems in diamond drilling in the Colorado Plateau area are severe and can only be met satisfactorily by operators with considerable experience and with larger equipment than what were used. It is recommended that in the future that if any diamond drilling is found necessary that it be done by regular Colorado Plateau contractors.

Road building.

When it was apparent that a wagon drill would be available, it was also necessary that road building be done and that drill sites be prepared. Accordingly, the services of Raymond Foster and his D-6 bulldozer were obtained. On October 30, a road was built from the access road near corner 4, Lee No. 3 to near corner 3, Lee No. 4, near Station 31. At this point it was found that the oil filler pipe was broken and that considerable oil had been lost. Not until Nov. 3 was Foster able to get repair parts. In attempting to start the cat the starting engine was injured by lack of oil in it but the cat was started and it stayed running the rest of the day. Excavation was done on a mineralized ledge that had been found several days earlier (to be discussed under Exploration, below) and a road was built from near Station 31 to Station L in the northeast cormer of Lee No. 5. A drilling site was roughed out near Station 31 and at Station L. Since the starting motor had to be fixed and Foster took the bulldozer to Grand Junction for repairs. This finished this phase of road building. A short length of road was subsequently built with explosives and hand work from the existing road to WD - 17.

The total footage of road construction is as follows:

Bulldozer	2745 ft.
Hand work	160 ft.

Total excavation: 73 cu. yd.

Wagon Drilling

Wagon drilling was done by Douglas Sullivan using a Diamond T 6 x 6 truck on which was mounted a Murphy Diesel, a 500 cfm Gardner Denver 3 stage compressor, and a 22 foot boon with a model 99 Gardner Denver air drill. This drill is capable of drilling to 400 feet under proper operating conditions.

Wagon drill holes were started near the cabin; reference to the map will show the rest of the holes. Since this drill uses air to blow the cuttings to the surface, it is necessary that the ground was wet at depth which severely handicapped our efforts in drilling deep enough in some areas. On holes WD - 5 and WD - 6, the drill broke down which prevented the driller from finishing them. National Mines did not have to pay for those holes. However, National Mines paid for the rest of the holes, even if they could not be finished, since the reason for not being able to continue did not lie with the driller but was on account of bad ground conditions.

This drilling was done at the rateoof $0.75 per foot for holes under 200 ft.; this limit was not exceeded. Compared to other methods of drilling, this is by far the least expensive on a footage basis. From our experience in drilling those holes and the number that were not drilled deep enough, it is obvious that in the future a different rig, possibly a rotary drill which operates with either air or water, be used.

Pertinent drill data is as follows:

No. holes drilled	21
Total footage drilled	2293 feet
Holes drilled to correct depth	14

A graphical log of these holes is included in this report (Plates I -VI).

The results of this drilling as well as of the diamond drilling were unsatisfactory as far as discovering ore is concerned.. They were not unsatisfactory from the standpoint of acquiring information and pointing the way toward a logical drilling program if development is to be continued. These possibilities will be discussed later in the report.

Exploration

Much of the rim exposures were covered by the writer and others with a scintillator. The writer traced radioactivity up one wash to the source in the Brushy Basin member of the Morrison in the extreme northeast corner of Lee No. 4. The mineralization was in a limestone ledge which lay in a body of predominantly blue clay. The ledge varied from a few inches to ten inches wide and it was exposed for a distance of about fifteen feet. The mineralization took place as carnotite filling minute fractures in the limestone and in the adjoining dark reddish - brown clay. High readings could be obtained on a few specimens but an overall sample

of the best material assayed 0.08% U_3O_8 and ~~0.11~~ 0.23 V_2O_5 and 15% lime.

The possibilities of this mineralization are hard to evaluate. Occurrences of uranium in the Brushy Basin are unknown in Colorado to the best of the writer's knowledge. Certainly commercial deposits are. This particular ledge should be viewed with misgivings especially in view of the high lime content. However, it may be a favorable sign as far as additional occurrences of uranium are concerned such as might be in the sandstone fifteen or twenty feet underneath. This is only conjecture but it might not be amiss to drill several holes in the vicinity of this mineralization.

Recommendations

From our experiences in drilling the Lee claims, the following recommendations are recapped:

1. If any additional diamond drilling is attempted, experienced Colorado Plateau operators should be used. This is in no sense a reflection on the individuals that did the diamond drilling, but an appreciation of the problems peculiar to the Plateau area.

2. Any other drilling to be done should be with probably a rotary drill that is capable of switching from air to water as a medium for flushing drill cuttings due to wet strata at depth.

Results of Drilling

The following discussion will refer to Plates I to VI inclusive.

Plate I shows a graphical log of WD-1, WD-2, WD-3 and D #2. D #2 is included since it is closest to these wagon drill holes. Of these holes, WD-1 and D #2 appear to be most favorable. These two holes should be checked by additional holes. The wagon drill operator seemed to believe that the "copper" flashes were very favorable indications judging from his past experience.

Plate II show the drill holes put down from the new road. Only two reached the tunnel horizon. At that depth WD-7 was particularly encouraging since scintillator readings of the cuttings from the 190 ft. depth showed radioactivity. Additional holes in this area are indicated.

Plate III shows two holes, WD-8 and WD-9 that could not be completed on account of water. This area should be tested again.

Plate IV shows the logs of two diamond drill holes, D #3 and D #5 and the wagon drill holes WD-10 to WD-16. Of all areas, this area was tested most thoroughly and the results were not encouraging for further action. It must be remembered, however, that in other areas on the Plateau where nothing of consequence was found during the first drilling, succeeding operators have found ore.

Plate V shows two holes that were drilled from a ledge above the tunnels. Only two of these holes, WD-18 and WD-19 reached that horizon. Neither hole is particularly encouraging but they are too far apart to be indicative.

Plate VI shows the last two holes drilled, neither of which are particularly encouraging. Their main value lies in being in a relatively unexplored part of the claimes.

700

FILE COPY
Surname:
Murphy
Dept
Edmond
Selbridge
Johnson

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

NOV 29 1956

Mr. Al R. Perri, President
National Mines, Inc.
Post Office Box 614
Lewiston, Idaho

Re: Docket No. DMEA-4275 (Uranium)
Rubydale and Lee Groups
San Juan County, Utah and
Mesa County, Colorado

Dear Mr. Perri:

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

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

Careful study of all our information, although noting some uranium mineralization on the Lee group of claims, indicates to us 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. Such denial, however, is made without prejudice to the property. In the event further work on your part discloses new and more favorable evidence of ore deposition on the property, we shall be pleased to consider a new application.

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

Sincerely yours,

C. O. Mittendorf

Administrator

FMMurphy/izm 11-27-56
cc to: Docket
Code 700
Mr. Murphy
Admr.'s Reading File
Operating Committee
DMEA Field Team, Reg. III (2)
Messrs. JECrawford, Rm. 3643
THKiilsgaard, Rm. 5224
JOHosted, Rm. 3210½ GSA

RCS.

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

Docket copy

November 26, 1956

Summary of Proposed Project

Object: Denial of application for exploration aid.

Docket No.: DMEA-4275

Commodity: Uranium

Applicant: National Mines, Inc.
L. R. Cannon, President
307 Sonna Building
Boise, Idaho

Later changed to:
Al R. Perri, President
P. O. Box 614
Lewiston, Idaho

Property: The Lee group of 6 claims situated in sec.21, T. 50 N., R. 18 W., Mesa County, Colorado, and Rubydale group of 50 claims situated in secs. 7, 8, 18, and 19, T. 29 S., R. 26 E., and secs. 12 and 13, T. 29 S., R. 27 E., San Juan County, Utah. The Applicant is owner of the Lee group and lessee of the Rubydale group.

Date of application: April 25, 1956 (received May 2, 1956)

Amount of application: $34,676.00

Grand Junction comments recd.: May ~~25~~ 8, 1956

Referred to Region III: June 29, 1956

Field examination made: August 16, 1956

Field Team report recd.: October 29, 1956

Work Proposed and Costs:

On the Lee group:

22 drill holes totaling 4,400 feet	$6,600.00
100 feet tunnel @ $40.00/ft.	4,000.00
Bulldozing, 24 hours @ $8.00/hr.	192.00

On the Rubydale group:

13 drill holes totaling 7,000 feet	19,500.00
Bulldozing 48 hours @ $8.00/hr.	384.00

General:

Supervision, Engineering, Consultants	3,000.00
Analytical work	1,000.00
Total	$34,676.00

Excerpts from Field Team report:

A field examination was made on the Lee group only.

Lee Group

On the Lee group, the Brushy Basin and Salt Wash members of the Morrison formation are exposed. The strata are nearly horizontal, with no faults and no prominent jointing.

The uppermost sandstone lenses (the potential "ore-bearing sandstone") of the Salt Wash member on the claims are well exposed. They crop out principally as two ledges; the upper lens is about 25-30 feet thick, the lower lens is about 35-40 feet thick, and in much of the claim area are separated by about 10-15 feet of red-brown mudstone, siltstones and silty sandstones. No mineralized rock has been detected on outcrop or in the drill holes which have penetrated the upper "ore-bearing sandstone" lenses on the claims. These lenses are classed as unfavorable for ore.

Some uranium has been discovered on the claims in a thin, mostly red colored sandstone which underlies and is separated from the "ore-bearing sandstone" by about 40 feet of red mudstone. This sandstone lens is mostly about 10 feet thick, and pinches out near the southern part of Lee No. 3 claim. The ore-grade material (55.52 dry tons with 0.41% U_3O_8 and 2.14% V_2O_5 content) produced during 1951-52, was mined mainly from mineralized logs and associated carbonaceous sandstone near the portal of the southern prospect tunnel.

The exploration on the Lee group consisted of 27 drill holes largely concentrated on Lee Nos. 2 and 3 claims, about 150 feet of

underground workings in three adits on the Lee claim No. 3.

Five holes (about 400 feet behind the rim workings on Lee No. 3) were said to have cut uranium mineralization ranging from slight to 0.05% U_3O_8. The shallow workings were started to mine two mineralized logs exposed by rim stripping. Drifts were extended back of the ore occurrence as much as 75 feet, following thin mineralized sections of the sandstone ledge, but no more minable ore was found.

The field examiners recommend that the proposed project on the Lee group of claims be denied because the thinness of the sandstone lens, the general lack and restriction of favorably-colored sandstone and mudstone, and the smallness and discontinuity of the individual mineralized layers, all indicate that there is little possibility of finding more than the small, discontinuous deposits which are typical of the fringe areas of the Uravan Mineral Belt.

Rubydale Group

The Rubydale group of claims lies about 2 miles south of ground classed as favorable for ore in the upper sandstone stratum of the Salt Wash in the La Sal Creek area.

The U. S. Uranium Corp., under Contract No. Idm-E717, Docket No. DMEA-3405, completed a project on the Frying Pan claims 2 miles northeast of the Rubydale group with negative results. Thickness and alteration of sandstone and mudstone units were found to be unfavorable.

No exploration has been completed on the Rubydale group. After several attempts, one hole was drilled to a depth of 530 feet. No log of the hole was kept, but based on the driller's description of the formation penetrated, the Salt Wash units encountered have been thin bedded and red and are considered generally unfavorable.

The Applicant has considered continuation of its current drilling program. If this is done, it is barely possible that more favorable evidence for uranium-vanadium potential will result.

The field examiners and Field Team recommend denial of the proposed program to explore the Lee Group and recommend denial without prejudice on the Rubydale group program.

Commodity Members' Comments (Excerpts):

U. S. Bureau of Mines, J. E. Crawford, November 8, 1956.

Mr. Crawford concurs in the FieldTeam's recommendation.

U. S. Geological Survey, W. P. Williams, November 26, 1956.

Mr. Williams' comments have not been typed; however, he has advised this Division that he concurs in the Field Team's recommendation of denial.

Rare and Miscellaneous Metals Division, F. M. Murphy, November 26, 1956.

Data available at the time of the field examination indicate that the potential ore-bearing sandstone units of the Salt Wash are either unfavorable for ore deposition or entirely absent in the areas covered by the Lee and Rubydale groups of claims. However, as the Applicant is currently drilling on the Rubydale group, the new work might indicate some areas where the Salt Wash is more favorable.

Conclusion and Recommendation:

This Division agrees with the conclusions of the field examiners and concurs in the Field Team's recommendation of denial in regard to the Lee Group and denial without prejudice of the proposal to explore the Rubydale group.

Ernest Wm. Ellis

Ernest Wm. Ellis

11/27/56

IN REPLY REFER TO:

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

RECEIVED NOV 27 1956 D.M.E.A.

November 26, 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 4275, National Mines, Inc., Lee claims, Mesa County, Colorado, and Rubydale claims, San Juan County, Utah (uranium).

The field examiners report that the Lee claims are located in an unfavorable area outside the boundaries of the Uravan mineral belt. The potential ore zone, the upper sandstone layer of the Salt Wash, is thin, discontinuous, and lacks the geologic features favorable for large ore deposits.

Previous exploration work on the Lee claims consists of 27 drill holes, 150 feet of rim-stripping and 150 feet of underground openings in three adits. The drilling does not seem to have been very competently performed. At any rate, none of the work discovered significant amounts of ore.

The potential ore zone in the upper Salt Wash does not crop out on the Rubydale claims. One drill hole, drilled by the applicant, indicates that the ore zone is either absent or very thin and unfavorable. DMEA project 3405, contract Idm-E717 two miles northeast of the Rubydale claims was unsuccessful.

The field examiners state, "Efforts to extend the worthwhile mineralized areas toward both properties by drilling exploration have been unsuccessful."

There seems to be little to recommend, and much to condemn, on both properties. As a result, I am in agreement with the findings of the Field Team and recommend denial of DMEA participation on both claim groups.

W. P. Williams

W. P. Williams

11/23/56

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

RECEIVED
NOV 23 1956
DMEA

224 New Customhouse
Denver 2, Colorado

November 20, 1956

Memorandum

To: Chairman of the Operating Committee

From: Executive Officer, DMEA Field Team, Region III

Subject: DMEA Docket 4275 (Uranium) National Mines, Inc. (Rubydale-Lee groups), San Juan County, Utah and Mesa County, Colorado

Enclosed are two photocopies of a letter from the applicant on the subject docket requesting information on its status.

The Joint Report of Examination was forwarded to the Secretary to the Operating Committee on October 24, 1956.

If you have not informed the applicant of your decision, will you please reply to his letter at this time with copies for our files.

W. M. Traver

W. M. Traver

Enclosures

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

224 New Customhouse
Denver 2, Colorado

November 20, 1956

Mr. Al R. Perri, President
National Mines, Inc.
P. O. Box 614
Lewiston, Idaho

Re: Docket No. DMEA-4275 (Uranium)
Rubydale and Lee Groups
San Juan County, Utah and
Mesa County, Colorado

Dear Mr. Perri:

Reference is made to your letter of November 17, 1956 inquiring regarding the status of the captioned application.

Reports have been forwarded to Washington and also your letter with the request that they reply to you direct. No doubt you will hear from them reasonably soon if you have not already.

Very truly yours,

Original signed by
W. M. TRAVER

W. M. Traver
Executive Officer, DMEA
Field Team, Region III

WMT/pw

cc: Sec.Op.Comm. (2)
Harshman
Shaw
DMEA-4275
Chron
Hasler

DMEA
DEPARTMENT OF THE INTERIOR
NOV 19 1956
REGION III
DENVER, COLORADO

P. O. Box 614
Lewiston, Idaho
November 17, 1956

4275

Defense Minerals Exploration
Administration
New Custom House
Denver 2, Colorado

Gentlemen:

The new Directors of the National Mines, Inc. of Idaho would like to know why we have not heard from you about the loan we applied for.

If there is any reason for the delay we would like to know. We know we have good claims in Colorado and Utah and I think we should have some consideration from the Defense Minerals Exploration Administration on our application.

We are to have a Board of Directors Meeting in Boise, Idaho, November 24th. I would appreciate hearing from you soon so the Directors can plan a program of developing our properties with help from the D.M.E.A.

All mail is received for the Company at Lewiston, Idaho, P. O. Box 614.

Sincerely yours,

NATIONAL MINES, INC.

By E. R. Sorie, President
[redacted]-President.

11-9-56

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

RECEIVED NOV 9 1956 DMEA

Date 11/8/56

DMEA Docket No. 4275
DMEA Contract No.
Commodity Uranium
Name of applicant National Mines Inc.
Name of property Lee Group of Claims
Location of property Mesa County, Colorado
Estimated cost of project $34,676.00

Memorandum

To: Ernest William Ellis, DMEA Member
Uranium Commodity Committee

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

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

1. Date of subject document: 10/18/56. 2. Date received by reviewer: 11/1/56.

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

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

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

11/5/56 gla

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

RECEIVED
OCT 29 1956

224 New Customhouse
Denver 2, Colorado

October 24, 1956

Memorandum

To: Secretary to the Operating Committee

From: DMEA Field Team, Region III

Subject: Joint Report of Examination Docket DMEA 4275 (Uranium) National Mines Inc. (Lee Group of Claims) Mesa County, Colorado and (Rubydale Claims) San Juan County, Utah

Enclosed are the original and three copies of a joint engineering and geologic report on the subject properties.

The field examiners conclude that exploration on these properties would not result in a significant discovery of uranium ore. They recommend that the exploration proposed for the Rubydale Group be denied without prejudice, and that the proposed exploration of the Lee Claims be denied. We concur in this recommendation.

DMEA Field Team, Region III

W. M. Traver

By W. M. Traver
Executive Officer

Reviewed by
DMEA OPERATING COMMITTEE
11/2/56
(date)

FOR UNITED STATES GOVERNMENT USE ONLY

MINERAL DEPOSITS
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RECEIVED
OCT 22 1956
U. S.
GEOLOGICAL SURVEY
DENVER, COLORADO

TRANSMITTED
OCT 24 1956

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

DMEA
DEPARTMENT OF THE INTERIOR
OCT 24 1956
REGION III
DENVER, COLORADO

October 18, 1956

RECEIVED
OCT 29 1956

Memorandum

To: Executive Officer, DMEA Field Team, Region III

Through: E. N. Harshman EMH
John F. Shaw JFSh

From: J. William Hasler

Subject: Transmittal of a joint engineering-geologic report of examination on DMEA docket 4275 (Uranium).
National Mines, Inc., Lee group of claims, Mesa County, Colo., Rubydale claims, San Juan County, Utah

The National Mines, Incorporated, 307 Sonna Building, Boise, Idaho, applied to the Defense Minerals Exploration Administration for assistance to explore for uranium on the Lee group of claims, Mesa County, Colorado, and the Rubydale claims, San Juan County, Utah. The application was referred to the field and an examination was made August 16, 1956.

The Lee group of claims are located on Calamity Mesa south of the Uranium Mineral Belt in an area where the ore-bearing Salt Wash member of the Morrison formation of Jurassic age is generally unfavorable for ore. Several other applications in the same area have been examined (DMEA dockets 3934, 4046, and 3990) and denied. The Salt Wash member in the area of the Lee group of claims is thin and lacks the favorable characteristics necessary for the occurrence of significant uranium-vanadium ore deposits, in that the associated mudstones are red rather than the typical gray green colors that are generally associated with ore deposits. The sandstone lenses are also discontinuous and ore found on the claims is small and spotty, occurring in petrified logs and carbonaceous trash. As a result of this essentially negative data, it is recommended that the application be denied in so far as any exploratory work is concerned on the Lee group of claims.

The Rubydale claims on Wray Mesa were not examined as the applicant was in the process of completing some preliminary drilling on them. Data to date have been negative and the area around the Rubydale claims has been studied by the U. S. Geological Survey as well as considerable knowledge having been obtained from private drilling in the general area,

Reviewed by
DMEA OPERATING COMMITTEE
11/7/56
(date)

confirming this negative data. It is believed that the Rubydale claims are also in a generally unfavorable area for the occurrence of significant ore deposits and it is, therefore, recommended that the application on the Rubydale claims be denied without prejudice, without a field examination.

I concur with the conclusions and recommendations of the examining team.

The Atomic Energy Commission was consulted relative to the appraisal of these properties.

Enclosed are 12 copies of figures 1, 2, ~~and 3~~ for inclusion in the joint report, as well as the applicant's brochure.

J. William Hasler

J. William Hasler,
Geologist

JWH/mlr

Enclosures

FOR UNITED STATES GOVERNMENT USE ONLY

TRANSMITTED
OCT 24 1956

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

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY EXAMINING TEAM
REGION III

RECEIVED
OCT 29 1956

DMEA 4275

National Mines, Inc.,

Rubydale group, San Juan County, Utah

Lee group, Mesa County, Colorado

Uranium

Joint Engineering and Geologic Report

by

M. H. Salsbury
Bureau of Mines

Donald P. Elston
Geological Survey

October 1956

Reviewed by
DMEA OPERATING COMMITTEE
11/2/56
(Date)

DMEA 4275

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INTRODUCTION AND SUMMARY

On April 27, 1956, National Mines, Inc., 307 Sonna Building, Boise, Idaho, applied for Defense Minerals Exploration assistance to explore for uranium on two groups of located claims which are, (1) the Lee group of 6 claims in Gateway mining district, Mesa County, Colorado, and (2) the Rubydale group of 50 claims in Paradox mining district, San Juan County, Utah. The proposal calls for 22 non-core drill holes and 100 feet of underground exploration on the Lee claims, and 12 plug and core holes on the Ruby Dale group. The estimated cost is $10,792.00 for the Lee claims, and $19,884.00 for the Rubydale group plus $4,000.00 for supervision and technical services for both properties, making a total of $34,676.00. Government participation at 75 percent would amount to $26,007.00.

The Lee claims on Calamity Mesa, Mesa County, Colorado, were examined on August 16, 1956, in company with C. E. Mitchell, a drilling contractor, who had been requested by the applicant to guide the examining team.

The Rubydale group of claims on Wray Mesa, San Juan County, Utah, in an unexplored area several miles south of the known mineralized east-west trends which are present on either side of La Sal Creek, was not examined. There are no Salt Wash exposures on these claims. The applicant has recently employed Mr. Mitchell to do some drilling on them, but, so far, only one hole of four attempted has been successfully drilled. This hole has reached a depth of 530 feet by non-core methods without encountering

any sandstone which the driller has been able to identify as a Salt Wash unit. No coring has been attempted but Mitchell stated that the applicant has now instructed him to use coring methods in future work. A geologic log of the hole has not been made. It was collared in Brushy Basin sediments and, at a depth of 530 feet should be well into the Salt Wash, although Mitchell believes this member of the Morrison formation has not been reached. This negative data suggests that the upper sandstone lenses of the Salt Wash member may be absent. The driller's description of the rock units, coupled with other data available from Geological Survey reconnaissance and nearby completed DMEA project, suggests that the Salt Wash member of the Morrison formation on the Rubydale group is not favorable for the occurrence of uranium deposits. A project under docket DMEA 3405, contract Idm-E 717, U. S. Uranium Corporation, was carried out on the Frying Pan claims 2 miles northeast of the Rubydale group, within a supposed mineralized trend along the south side of La Sal Creek, and between the Rubydale group and the Vanadium Queen, the nearest producing mine. Project results were negative. Thickness and alteration of sandstone and mudstone units were found to be unfavorable. On the basis of available information there is no reason to expect better results in exploration of the Rubydale group. Denial without prejudice of this part of the proposed project is therefore recommended without a field examination.

The Lee claims are on a spur of Calamity Mesa between Maverick and Little Maverick Canyons, about 2 to 2-1/2 miles south of the Uravan Mineral Belt and definitely outside the area considered to be favorable or semifavorable for the occurrence of uranium deposits. Rocks exposed on and near the claims are, in ascending order, the Summerville formation of Jurassic age and the Salt Wash and Brushy Basin members of the Morrison formation of Jurassic age.

The principal ore-bearing strata in the producing areas to the north are the upper sandstone lenses of the Salt Wash member. On the basis of outcrop exposures as well as incomplete data on previous drilling by the applicant on the property, the upper sandstone lenses are classed as unfavorable. The ore minerals found on the claim are in a thin and lithologically unfavorable sandstone near the middle of the Salt Wash member. Distribution of the minerals is spotty and potential is nil.

The position of the Lee claims in relation to the Uravan Mineral Belt is analogous to that of three nearby properties which have already been examined in connection with applications for Government exploration assistance under Dockets DMEA 3934, DMEA 4046, and DMEA 3990. All three were denied.

Previous exploration on the claims has consisted of 27 holes drilled by the applicant, of which 6 were attempted with a light diamond drill rig, and 21 holes with a wagon drill. Two of the diamond drill holes probably reached the depth of the potential ore horizon. According to the applicant,

they penetrated no appreciable uranium mineralization, a little "copper", and thin sandstone units of "favorable" color. There was very little bleached mudstone encountered by the drill. Fourteen of the 21 wagon drill holes were considered to have penetrated the potential ore-bearing horizon. Of these, 5 holes within a small area on the Lee No. 3 claim, 400 feet behind shallow rim workings, penetrated slight mineralization in thin "gray" sandstone or "blue" clay units. Logs of the drill holes were furnished in graphical form, but descriptions of formations based on examination of cuttings are inadequate. Lithologic correlation on the basis of data furnished does not demonstrate the occurrence of continuous sandstone lenses of favorable thickness or consistent favorable alteration in sandstones or mudstones. The unfavorable nature of the strata are readily seen on outcrops.

From three shallow adits along 150 feet of rim workings on the Lee No. 3 claim, four shipments totaling 55.5 tons with an average content of 0.41 percent U_3O_8 and 2.14 percent V_2O_5 have been made. Three of these were small, high-grade lots mined from enrichments associated with buried logs. No ore has been shipped since 1952. Minable ore is not exposed in any of the working.

At the east end of the Lee No. 4 claim, a bulldozer cut in Brushy Basin sediments has exposed low-grade mineralization in a limy siltstone. Brushy Basin uranium occurrences are seldom minable and this one does not show any evidence of being significant. The applicant

has not proposed any exploration of the exposed mineralization, but suggests that the occurrence might be indicative of mineralization in the Salt Wash member below. There may be other small uranium occurrences on the Lee claims similar to those which have been mined and they might be aligned along an extension of the pinchout of the sandstone lens which contains the present ore minerals. Deposits of this type can not be profitably mined even if they occur very close to the outcrop where exploration and development costs would be low. It is doubtful that the returns from the ore shipments made in 1952 equaled the cost of the 150 feet of underground work done. While some of the proposed drill holes might penetrate similar small deposits by chance, there is little possibility that any of them are likely to be significant in the sense that they could be profitably mined now or in the foreseeable future. Geologically the proposed exploration would furnish very little more information than has already been obtained from the well exposed strata.

Denial of the proposed exploration on the Lee group and Rubydale group of claims, Docket 4275, is recommended, and denial of exploration on the Rubydale claim group should be made without prejudice.

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ACKNOWLEDGMENTS

The applicant furnished maps showing claims and proposed exploration, and an engineering report on the Lee claims only. Very poor records of previous work were furnished, and apparently no record of current drilling on the Rubydale group other than the depth of hole has been kept. The cost estimate, based on non-core drilling only did not cover the proposed work which was to be part core drilling. Three bids from independent contractors were made.

The results of Geological Survey and Atomic Energy Commission drilling north of the Lee group were available to the examining team, as were data on the La Sal Creek project of the Geological Survey. Material assembled during previous examinations of proposed projects in the vicinity of the Lee claims, Dockets DMEA 3934, DMEA 4046, and DMEA 3990, was considered. The results of a DMEA project north of the Rubydale group under Docket DMEA 3405, contract Idm-E 717, were also used.

Comments of the Uranium Commodity Committee and of J. W. Towsend of the Region III DMEA office regarding the advisability of field examination on the Rubydale group of claims were given consideration.

Floyd Hamrick, one of the locators of the Lee claims, was contacted during the field examination, and furnished information on earlier work in the area.

LOCATION, TOPOGRAPHY, AND CLIMATE

The Lee claims are on a spur of Calamity Mesa which is flanked by Maverick and Little Maverick Creeks, Mesa County, Colorado, in Sec. 21, T. 50 N., R. 18 W., N.M.P.M. (figs. 1 and 2). The property is 4 miles south of Arrowhead Camp by a poor access road, and 65 miles southwest of Grand Junction, of which 25 miles is over hard surfaced U. S. Highway 50 and Colorado State Highway 141. The balance is a dirt road traversing the Uncompahgre Plateau. The claims lie at an elevation of 6,000 feet. Topography consists of several benches and short, steep cliffs connected by moderate to steep slopes developed on sandstone and mudstone strata of the Brushy Basin and Salt Wash members of the Morrison formation. Access roads and drill sites can be constructed easily.

The Rubydale group of claims on Wray Mesa is 3 miles south of the Vanadium Queen mine or La Sal Creek, San Juan County, Utah, in Sec. 7, 8, 18 and 19, T. 29 S., R. 26 E., and Secs. 12 and 13, T. 29 S., R. 27 E., Salt Lake meridian (fig. 1). It is 4 miles by access road from Utah Highway 46 on La Sal Creek, 48 miles from Moab, Utah, the nearest supply center and 205 miles from Grand Junction, Colorado, the nearest major supply center.

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Climatic conditions on both groups of claims are similar. Warm to cool summers and moderate winters permit year around surface operation except for short periods following infrequent storms and spring thaws.

Ore from the LaSal area is normally marketed at buying stations in Monticello, Utah, and Moab, Utah. Calamity Mesa ore is currently being shipped to Grand Junction and Rifle, Colorado.

There are no unusual problems of access, housing, supply, marketing, or labor affecting either area.

HISTORY AND PRODUCTION

The history of both areas dates from mining operations for vanadium and, to a small degree, for radium, prior to World War I. Current activities date from World War II, with establishment of a market for uranium ore. A large amount of drilling has been done in both areas both privately and by Government agencies, with discovery of substantial uranium reserves. Efforts to extend the worthwhile mineralized areas toward both properties by drilling exploration have been unsuccessful. As a result Government projects did not reach either group of claims.

The recorded production of the Lee claims as shown in Atomic Energy Commission records, was mined by the original locators, Hamrick and Linscott, in 1951 and 1952. There were four shipments, all from shallow outcrop workings, as follows:

		U_3O_8 content		V_2O_5 content	
Date	Dry tons	percent	pounds	percent	pounds
1951	7.25	0.81	117.95	3.29	477.38
1951	3.80	0.84	63.66	0.45	34.24
1952	7.99	0.27	43.16	1.83	292.50
1952	36.48	0.32	232.20	2.16	1573.04
Totals	55.52	0.41	456.97	2.14	2377.16

There has been no production on the Rubydale group.

OWNERSHIP AND EXTENT

The Lee claims Nos. 1 through 6 were located in 1943, according to a statement by Floyd Hamrick, one of the locators, to the examining team, and recorded in Book 586, pages 506 to 511 in the Mesa County Courthouse, Grand Junction, Colorado (fig. 2). These book and page numbers do not correspond to a 1943 location date. Other courthouse records give a discovery date for the Lee claims of May 20, 1950, recorded on May 21, 1950 in book 526, pages 164 to 169. They were relocated February 18, 1951 and recorded April 25, 1951. All locations were made by Hamrick and Linscott.

No evidence of conflicts was found in the field. The map furnished by the applicant shows a conflict between portions of the Lee Nos. 5 and 6 claims and the Blue Ribbon No. 29 claim. Mr. Mitchell stated that the Lee claims are a prior location, but courthouse records show that the Blue Ribbon No. 29 claim is the southernmost of a group located on September 15, 1940, and recorded by Ray Lewis and Glen Dowdy in book 393, page 88.

Another conflict, not reported by the applicant, is shown on a map compiled by the Geological Survey. The Little Maverick Nos. 1 and 2 claims conflict with a portion of Lee No. 1 claim. The Little Maverick claims were located on July 8, 1940 by John Wade, Ernest Hoover, Rex Barton, and O. L. Vowell, and recorded in book 393, pages 45 and 46. Assessment work has been done on them since 1949. These conflicts would affect only a small portion of the applicant's proposed exploration program. Because of the probable decision on the application for Government assistance, they were not investigated further.

The Lee claims were purchased outright from the original locators through Pete Bosma of 1524 North Seventh Street, Grand Junction, Colorado, who transferred them to the applicant, retaining a 5 percent perpetual royalty on ore production. Copies of documents in support of these transactions were not furnished by the applicant.

The Rubydale group of claims consists of 23 Rubydale claims, 9 Ginger claims, 9 Little Redhead claims, and 9 Luke claims. Recording date for all of them was furnished by the applicant. A check was not made by the examining team.

PRESENT STATUS

Exploration and development

Exploration of the Lee claims to date has consisted of 27 drill holes largely concentrated on Lee Nos. 2 and 3 claims, about 150 feet of rim-stripping, and 150 feet of underground workings in 3 adits on the Lee claim No. 3 (fig.2).

Six out of the 26 holes were attempted with a light diamond drill rig. Only two of them were completed to the depth of the known mineralized horizon which is exposed in the rim workings. Fourteen of 21 wagon drill holes are reported by the applicant to have been completed to the mineralized horizon. The operator did not have bulldozing equipment available except for a short period, and drill sites were apparently chosen for their accessibility rather than to carry out any planned drilling pattern. They do not bear any apparent relation to the rim ore exposures on the Lee No. 3 claim.

In the report of the exploration project submitted with the applicant's brochure, logs of the holes are shown graphically, but lithologic descriptions are inadequate. Two of the diamond drill holes are described as penetrating favorable sandstone, including some copper mineralization. Five of the wagon drill holes, within a small area 400 feet behind the rim working on the Lee claim No. 3, are reported to have cut an undetermined thickness of uranium mineralization ranging from very slight to 0.05 percent eU_3O_8. The occurrence of continuous sandstone units in the Salt Wash member with favorable thickness and alteration can not be demonstrated by the recorded drilling results.

The shallow workings were started to mine two mineralized logs found by stripping a sandstone rim. Drifts were extended back of the ore occurrence for as much as 75 feet, following thin mineralized sections of the sandstone ledge, but no more minable ore has been found. Slight mineralization is now exposed at several points in the workings.

Another point on the same rim 125 feet southwest of the underground workings has been stripped on the basis of slight mineralization but no ore has been found. At the east end of Lee claim No. 4, mineralization in a Brushy Basin unit was found and stripped. The occurrence is close to a property boundary and does not have any significance.

No exploration has been completed on the Rubydale group. After several attempts, C. E. Mitchell, as a contractor, has drilled one hole 530 feet deep by non-core methods. No log of the hole has been kept but, from Mr. Mitchell's description of formations penetrated, the Salt Wash units encountered have been thin bedded and red and are considered generally unfavorable. In fact Mitchell was of the opinion that the Salt Wash member had not been penetrated yet because no sandstone had been penetrated by the drill. Inasmuch as the hole was collared in the Brushy Basin member, it is concluded that the hole has entered the Salt Wash member, that formations encountered resemble Brushy Basin units, so far as drilling performance indicates, and are unfavorable for the occurrence of uranium. The hole was not probed because it was caving and the contractor was afraid of losing the probe.

Mining and Milling Equipment and other Facilities

The applicants own no equipment suitable for use in the proposed project except automotive units. There is a cabin on the Lee Claim No. 2 with accomodations for several men.

GEOLOGY

Only the Lee claims in the Calamity Mesa area, Mesa County, Colorado, were examined in the field. These claims are on the west-central edge of Calamity Mesa and are about 2-1/2 miles south of the southern boundary of the Uravan mineral belt[1, 2] and in an area classed as generally unfavorable

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1/ Fischer, R. P., and Hilpert, L. S., 1952, Geology of the Uravan Mineral Belt, U. S. Geol. Surv. Bull. 988-A.

2/ McKay, E. J., 1955, Criteria for outlining areas favorable for Uranium Deposits in parts of Colorado and Utah, U. S. Beol. Sur. Bull. 1009-J.

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for uranium-vanadium deposits.

Sedimentary strata exposed on the Lee claims are the Brushy Basin and Salt Wash members of the Morrison formation of Jurassic age (fig. 2). Red siltstones and mudstones of the underlying Summerville formation of Jurassic age are exposed just west of the claims. In the general area the Salt Wash member is about 300 feet thick and the overlying Brushy Basin member is about 340 feet thick. Only the lower one-third of the Brushy Basin member is exposed on the claims.

The strata on the claims are nearly flat lying and are located along and near the axis of the Dolores River syncline which trends northwesterly between the Uncompahgre uplift on the northeast and the Sinbad Valley Salt anticline on the southwest. There are no faults on the claims and jointing is not prominent.

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The uppermost sandstone lenses of the Salt Wash member are called the "ore-bearing sandstone" in the uranium-vanadium producing region of western Colorado although, in places, small deposits of ore minerals are found in stratigraphically lower and higher sandstone lenses. Except for their occurrence on outcrop these deposits are usually so small that they cannot be mined profitably.

The uppermost sandstone lenses of the Salt Wash member on the claims are well exposed on outcrop. They crop out principally as two ledges; the upper lens is about 25-30 feet thick, the lower lens is about 35-40 feet thick and in much of the claim area are separated by about 10 - 15 feet of red-brown mudstones, siltstones and silty sandstones. The sandstone lenses are composed dominantly of fine- to medium-grained quartz grains. The color is mostly a light- to dark red but locally is light brown and freckled with spots of limonite. Mudstone as interstitial material and as pebbles in the sandstone is mostly red. Mudstone at the base of the sandstone lenses is mostly red but locally is mottled green. No mineralized rock has been detected on outcrop or drill holes which have penetrated the upper "ore-bearing sandstone" lenses on the claims. These lenses are classed as unfavorable for ore.

The ore minerals discovered on the claims are in a thin, mostly red colored sandstone lens which underlies ore-bearing sandstone and is separated from it by about 40 feet of red mudstone. This sandstone lens is composed of very-fine- to medium-sized quartz grains, is mostly about

10 feet thick, and pinches out near the southern part of the Lee No. 3 claim. The lens thickens slightly, to about 12 - 15 feet, a short distance north of the pinchout. The ore minerals are localized in the slightly thicker part of the sandstone and occurs as small, discontinuous, thin layers in the sandstone; much of the mineralized material is of marginal and sub ore grade. The ore-grade material produced was mined mainly from a mineralized log and associated carbonaceous sandstone near the portal of the southern prospect tunnel.

In the vicinity of the prospect, mudstone in the sandstone and at the base and top of the sandstone is colored gray green; a few feet north and south of the workings the mudstone is red. In and near the mineralized area the sandstone is light brown to light gray in color, but is a red to reddish brown color where the mudstones are red.

Because of the thinness of the sandstone lens, the general lack and restriction of favorably colored sandstone and mudstone, and the smallness and discontinuity of the individual mineralized layers, potential ore reserves from this sandstone lens are considered to be nil.

PROPOSED EXPLORATION

On the Lee claims the applicant has proposed 22 holes averaging 200 feet in depth, requiring a maximum of 4400 feet of drilling and a 100-foot adit just north of the present rim workings. The estimated cost is $10,792.00 in which Government participation at 75 percent would amount to $8,094.00.

In addition, costs of supervision and technical services for both projects is estimated at $4,000.00. The overall cost per foot of drilling comes to $2.90 which is high for non-core drilling. Mr. Mitchell stated that the applicant intended to core Salt Wash units although no provision is made for it in the cost estimate. However, the three submitted bids from independent contractors quote rates for both non-core and core drilling. It would be necessary to increase the costs for drilling only, quoted by the applicant, by approximately $2,200.00 to cover the additional cost of coring 1100 feet. This would make the overall cost per foot $3.40, which is high.

The proposed drilling sites do not appear to be based on any definite objective other than to drill in unexplored areas of the claims on a wide-spaced pattern. No driling is proposed behind the ore mined at the rim on Lee No. 3 claim. Instead a 100-foot drift in a northeasterly direction, to be driven from a portal a few feet north of the present workings, is proposed. So far as can be determined from examination of the workings, the proposed tunnel does not have an objective based on geologic evidence. Mr. Mitchell was not familiar with the applicant's reasons, and they are not discussed in the brochure.

The proposed exploration on the Rubydale claims calls for seven holes averaging 500 feet in depth and five holes averaging 700 feet for a total

of 7,000 feet of drilling at an estimated cost of $19,884.00, without supervision and technical services. The actual cost of drilling only at contract rates would be higher if essential coring should be done.

No alternate exploration plans or cost estimates are proposed by the examining team.

CONCLUSIONS AND RECOMMENDATIONS

The Rubydale group of claims is about two miles south of ground classed as favorable for ore in the upper sandstone stratum of the Salt Wash member of the Morrison formation in the La Sal Creek area. Evidence from the drilling done in the area, including a completed DMEA project, shows that there is at least some semi-favorable and unfavorable ground between the claims and the favorable area in the vicinity of La Sal Creek. Incomplete data from one hole drilled in the claim group for the applicant suggests that the upper sandstone stratum of the Salt Wash member is absent in at least a part of the area of the claims. The applicant has considered continuation of the current drilling program. If this is done, it is barely possible that more favorable evidence for uranium-vanadium potential will result. It is recommended that exploration proposed for the Rubydale group be denied without prejudice.

It is concluded from all the available evidence on the Lee claims, including outcrop exposures, mine workings, drilling, and a considerable amount of data compiled for other DMEA project examinations in the immediate area, that there is little possibility of finding more than the

small discontinuous deposits which are typical of fringe areas of the Uravan Mineral Belt. These are not significant and a profitable mining operation on them is doubtful, even if they occur very close to the outcrop.

Denial of the proposed project on the Lee claims under docket DMEA 4275 is recommended.

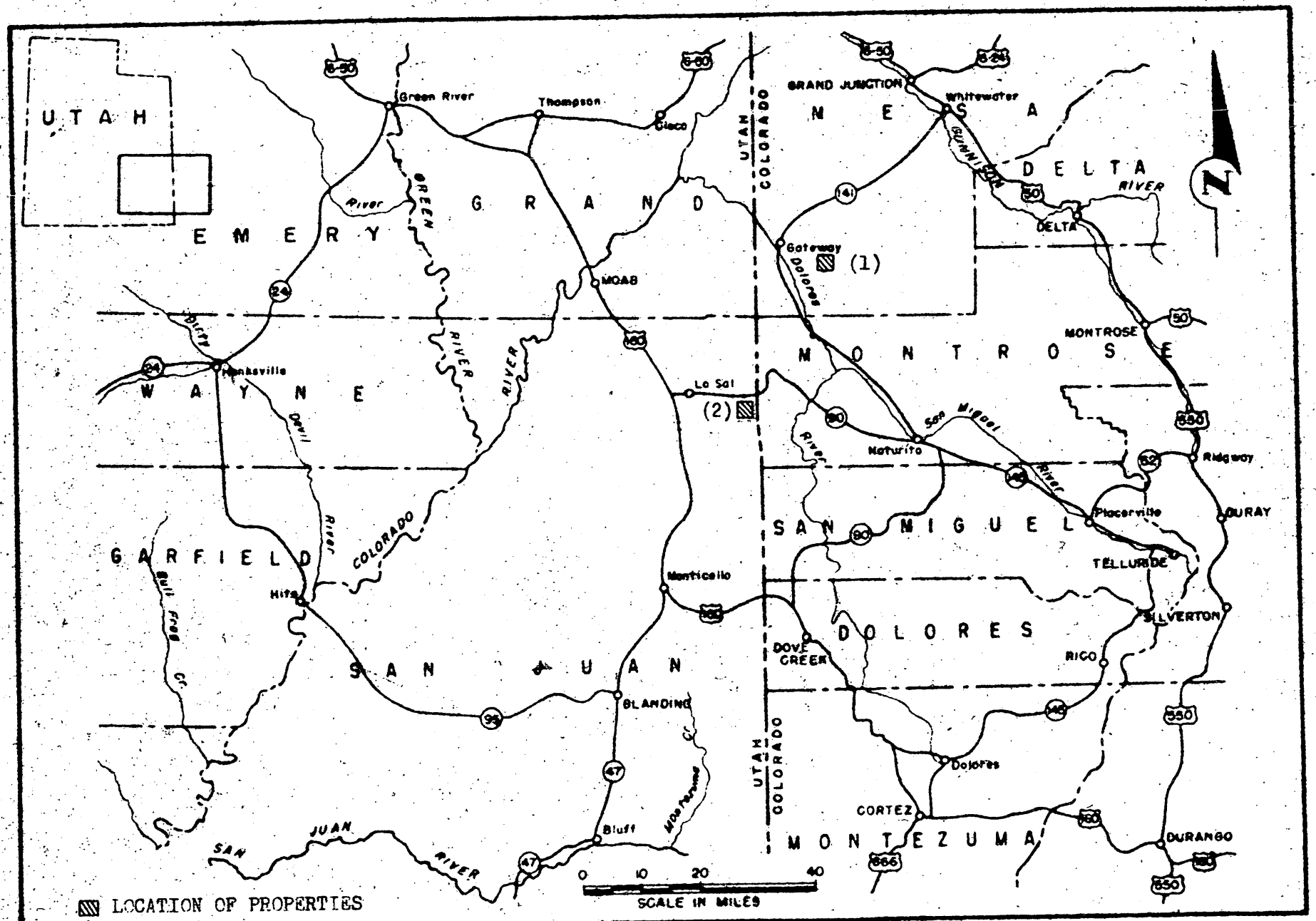

FIGURE 1 - LOCATION MAP, RUBYDALE GROUP OF CLAIMS (1), AND LEE CLAIMS (2), NATIONAL MINES, INCORPORATED, SAN JUAN COUNTY, UTAH AND MESA COUNTY, COLORADO. DMEA 4275

Surname copy

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

Murphy
Ellis
Selfridge
Johnson
Nuttendorf

AUG 17 1956

Mr. J. W. Hasler
Box 360
Grand Junction, Colorado

Re: Docket No. DMEA-4275 (Uranium)
National Mines, Inc.
Rubydale and Lee Groups
San Juan County, Utah, and
Mesa County, Colorado

Dear Mr. Hasler:

Enclosed is the copy of a "Report on the Development Work Done on the Lee Claims By National Mines, Inc., Oct. 20 - Nov. 15, 1955."

In a memorandum, dated August 14, 1956, Mr. Traver requested that this report be sent directly to you. As this is the only copy submitted by the Applicant, will you kindly return it to this office when it has served your purpose.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (SHB)

Enclosure

APPROVED:

FRANK D. LAMB (SHB)
Member, Bureau of Mines

N. E. Nelson (SHB)
Member, Geological Survey

FMMurphy/ai
8-16-56
cc to: Docket
Admr. Reading File
Operating Committee
Code 700
Mr. Murphy
Messrs. JECrawford, Rm. 3643
THKiilsgaard, Rm. 5224
JOHosted, Rm. 3210, GSA
DMEA Field Team, Reg. III, Exec. Officer

8/16/56

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

August 14, 1956

224 New Customhouse
Denver 2, Colorado

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Memorandum

To: Secretary to the Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 4275 (Uranium) National Mines, Inc. (Rubydale group) San Juan County, Utah and (Lee group) Mesa County, Colorado

On May 25, 1956 we transmitted to you the original and three copies of the recommendations from the Grand Junction office that an examination be made of the Lee group included in the subject application.

The last paragraph of the recommending memorandum referred to one copy of an engineering report on the Lee group submitted with application and requested that it be sent to the field with the Geological Survey's copy of the brochure.

The Grand Junction office called today and stated that the field examination is being made of the Lee group on Thursday, August 16, 1956, and while the engineering report is not essential for use during the examination, it might be helpful for writing up the joint report of examination. It has not been received as of today, August 14, 1956.

Will you please search your files and if you have the reference report, send it immediately to J. W. Hasler direct at P. O. Box 360, Grand Junction, Colorado, with a copy of your transmittal letter to this office.

W. M. Traver

W. M. Traver

7-12-56

DMEA
Date Rec'd.

JUL 9 1956

BUREAU OF MINES
Denver, Colorado

July 6, 1956

Memorandum

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

From: Superintendent, Denver Experiment Station, Reg. III

Subject: Docket DMEA 4275 (Uranium), National Mines, Inc., (Rubydale-Lee groups), San Juan County, Utah and Mesa County, Colorado

The application for National Mines, Inc., DMEA 4275, in the amount of $34,676.00 was received in this office on July 5, 1956.

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

JOHN F. SHAW

John F. Shaw

cc: W. M. Traver (2)
E. H. Barshman
J. W. Hasler
M. H. Salsbury
J. F. Shaw
Sec. (2)

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JUL 12 1956

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

July 3, 1956

234 New Customhouse
Denver 2, Colorado

RECEIVED
JUL 5 - 1956

Memorandum

To: J. F. Shaw (2) (With brochure)
Mealer

From: Field Team, Region III

Subject: DMEA Docket 4275 (Uranium) National Mines, Inc. (Rubydale-Lee groups), San Juan County, Utah and Mesa County, Colorado

Enclosed are copies of the subject application in the amount of $34,676.00, transmittal thereof by the Chairman of the Operating Committee to the Executive Officer, and memoranda of review from E. E. Nelson, USGS, and J. E. Crawford, USBM. A field examination of at least one group of claims and possibly both with suitable covering reports are requested.

Your attention is called to the recommendations of all concerned that the Lee group of claims, located in Mesa County, Colorado, should be examined. At the time that is done, the examining team should determine if the Applicant has sufficient information in addition to that furnished with the application to warrant a field examination of the Rubydale group, located in San Juan County, Utah.

In the event approval of a project is indicated of either one or both groups, the conditions mentioned in the last paragraph of the Chairman's letter should be determined and covered in the Reports of Examination.

DMEA Field Team, Region III

Enclosures

W. M. TRAVER,

WMT:ab

By W. M. Traver
Executive Officer

cc: Harshman
Chair. Op. Comm. (2)
Docket 4275
Chron.

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

Docket Copy not located.

JUN 28 1956

Mr. L. R. Cannon, President
National Mines, Inc.
307 Sonna Building
Boise, Idaho

Re: Docket No. DMEA-4275 (Uranium)
Rubydale and Lee Groups
San Juan County, Utah, and
Mesa County, Colorado

Dear Mr. Cannon:

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 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 in regard to your project if additional information is required.

Sincerely yours,

Administrator

FMMurphy/gla/ai
(6-27-56) 6-29-56
cc to: Admr.'s Reading File
Docket
Code 700
Mr. Murphy
DMEA Field Team, Region III (2)

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

Mr. L. R. Cannon, President
National Mines, Inc.
307 Sonna Building
Boise, Idaho

Re: Docket No. DMEA-4275 (Uranium)
Rubydale and Lee Groups
San Juan County, Utah, and
Mesa County, Colorado

Dear Mr. Cannon:

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:~~ 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.~~ in regard to your project if additional information is required.

Sincerely yours,

Administrator

Surname copy

700

Murphy

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

Mr. L. R. Cannon, President
National Mines, Inc.
307 Sonna Building
Boise, Idaho

Re: Docket No. DMEA-4275 (Uranium)
Rubydale and Lee Groups
San Juan County, Utah, and
Mesa County, Colorado

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Executive Officer
DMEA Field Team, Region III
224 New Customhouse Building
Denver 2, Colorado

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Sincerely yours,

Administrator

FMMurphy/gla
6-27-56
cc to: Admr.'s Reading File
Docket
Code 700
Mr. Murphy
DMEA Field Team, Region III (2)

700
Surname copy

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

Murphy
Selfridge
Townsend
Whitendorf

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

JUN 29 1956

Re: Docket No. DMEA-4275 (Uranium)
National Mines, Inc.
Rubydale and Lee Groups
San Juan County, Utah, and
Mesa County, Colorado

Dear Mr. Traver:

In accordance with Mr. J. W. Townsend's memorandum of May 25, the captioned application is referred to Region III Field Team for investigation, a field examination if deemed advisable, and recommendation.

Enclosed are copies of memoranda, dated June 13 and 26, 1956, by N. E. Nelson, USGS, and J. E. Crawford, USBM, respectively, relating to the application.

We note that Mr. Townsend concurs in the Grand Junction recommendation to make a field examination of the Lee property. However, he does not concur in the recommendation to deny the Rubydale group application without a field examination providing the Applicant can furnish enough additional information on the group to warrant an examination. This question can be resolved by the Field Team.

The Applicant states it is the owner of the claims detailed in the application. However, as royalty reservations on all the claim groups are noted in the application, in the event a project is recommended, the Field Team should advise the applicant that we will require two copies of the quit claim deeds and six copies of Subordination Agreements on any property which would benefit by the proposed work. However, if the lands are held under lease agreements, we will then require copies of such agreements and six copies of the Owners' Consent to Lien.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (GCS)

Enclosures

APPROVED:

P. F. Yopes (PFY)

Member, Bureau of Mines

Thor H. Kiilsgaard (THK)

Member, Geological Survey

JQHosted, Rm. 3210, GSA
Code 700
Mr. Murphy

PFMurphy/gla/ai (6-27-56) 6-29-56
cc to: Admr.'s Reading File
Oper. Comm.
Docket
Messrs. JECrawford, Rm. 3641
THKiilsgaard, Rm. 5224

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

RECEIVED
JUN 27 1956

June 26, 1956

Memorandum

To: Ernest William Ellis, DMEA Member
Uranium Commodity Committee

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

Subject: Application for Assistance, DMEA Docket 4275 (Uranium) National Mines, Inc. (Rubydale group), San Juan County, Utah and (Lee group) Mesa County, Colorado

I have reviewed the attached application for assistance, DMEA Docket 4275, National Mines, Inc., (Rubydale group) San Juan County, Utah and (Lee group) Mesa County, Colorado, dated April 25 and received in this office June 15, 1956. I have also discussed it with Joseph O. Hosted, Washington representative of the Atomic Energy Commission.

The National Mines, Inc., has applied for Federal exploration assistance for uranium on the Lee group of claims in Calamity Mesa, Gateway Mining District, Mesa County, Colo., and on the Rubydale group of claims in Wray Mesa, San Juan County, Utah. Exploration is expected to consist of 4,400 feet of drilling in 22 holes at a cost of $1.50 per foot and 100 feet of drifting at a cost of $40 per foot, or a total of $10,792 for the Lee group. The Rubydale claims will be explored by 13,000 feet of diamond drilling in 24 holes at a cost of $1.50 per foot, or a total cost of $19,884. The total estimated cost of both projects is $34,676.

The Lee group of claims has shown some favorable characteristics and has produced some uranium ore; the Rubydale group has had no production, and no favorable or encouraging outcrops are found in the area.

It is recommended that the application be referred to the field team for a possible examination of the Lee group and that the part of the application pertaining to the Rubydale group be denied without prejudice.

John E. Crawford
John E. Crawford

Attachment

6/14/56 gla

IN REPLY REFER TO:

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

RECEIVED
JUN 14 1956

June 13, 1956

Re: DMEA 4275
National Mines Inc.
Rubydale (Utah) Lee (Colo.)
Groups
San Juan Co. Utah and Mesa
Co. Colo.
$34,676.00 - Uranium

Memorandum

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

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

Subject: Review of application.

The application has been reviewed by the field office at Grand Junction. A field examination of the Lee Group is considered warranted and a denial of the application without an examination is recommended in the case of the Rubydale group.

The applicant requests assistance in exploring the Lee Group by non-core drilling and tunnelling. The proposed exploratory work on the Rubydale Group consists of non-core drilling.

As estimated by the applicant, the costs are:

Lee Group	$10,792.00
Rubydale Group	19,884.00
Joint work, supervision and analytical work.	4,000.00
Total	$34,676.00

The Lee Group is situated in the midst of producing mines and prospects and a few tons of ore, 7.74 tons, has been shipped from the property. A large number of diamond and wagon drill holes have been put down with little encouragement. No information concerning drilling by the Three States Uranium Co., other than the locations of the holes, is provided us. The diamond drilling by the applicant was very unsatisfactory and only one of the wagon drill holes, WD-7, (National) gave indication of ore. Six holes showed radioactivity from very slight to .04 to .05% U_3O_8.

The locations of the proposed drill holes appear to have no near relationship to the one target offered, the ore occurrence. Perhaps drilling should preceed the tunnel work.

The field office considers the proposed drilling on the Rubydale claims, wildcatting because the property has had no production, has no mineralized outcrops and no drilling has been done upon it. The nearest mine is 3 miles distant (north) and other mines are about 3 miles to the southeast. Exactly what the 2 "hot spots" (p. 5) connote can only be guessed, but they might constitute targets. Unless there is unmentioned adverse information concerning the area, the property may be only slightly less attractive than the Lee property which has good neighbors, but has not responded to considerable drilling.

Referral of the application to the Field Team for appropriate action is recommended.

N. E. Nelson

N. E. Nelson

5/28/56 gla

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

RECEIVED
MAY 28 1956

May 25, 1956

224 New Customhouse
Denver 2, Colorado

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Field Team, Region III

Subject: DMEA Docket 4275 (Uranium) National Mines, Inc. (Rubydale group), San Juan County, Utah and (Lee Group), Mesa County, Colorado

Enclosed are the original and three copies of the recommendations from the Grand Junction office on the subject properties. They recommend a field examination be made on the Lee group and that the Rubydale group application be denied without a field examination.

We concur in the recommendation for a field examination on the Lee group, and it may be possible that the Applicant can furnish additional information on the Rubydale group to warrant a field examination of this property.

The Applicant submitted only one copy with his original application of a Report of the Development Work done on the Lee claims. Will you please include this report with the copy of the brochure which you will forward for use of the Survey member of the examining team.

DMEA Field Team, Region III

Enclosures

By J. W. Townsend
Acting Executive Officer

MINERAL DEPOSITS
DMEA
RECEIVED
MAY 23 1956

IN REPLY REFER TO:

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

RECEIVED
MAY 28 1956
U. S. GEOLOGICAL SURVEY
DENVER, COLORADO
DMEA
Date Rec'd.
MAY 24 1956
BUREAU OF MINES
Denver, Colorado

May 21, 1956

Memorandum

To: Executive Officer, DMEA Field Team, Region III

Through: E. N. Harshman
J. F. Shaw
J. William Hasler

From: F. M. Byers, Jr.,

Subject: Recommendations for Field Examination, DMEA docket 4275 (Uranium), National Mines, Inc., (Rubydale group), San Juan County, Utah and (Lee group) Mesa County, Colorado

The National Mines, Inc., has applied for DMEA assistance under docket 4275 on two widely-separated properties in two different states: the Lee group on the west slope of Calamity Mesa, Gateway Mining District, Colorado, and the Rubydale group on the south side of Wray Mesa, San Juan County, Utah.

There have been 28 holes drilled on the Lee group of claims, the results of which are not included in the application. The application also mentions an engineering report to support the proposed drilling program, but no engineering report was included with the material under this docket sent to Grand Junction. Twenty-two drill holes and 100 feet of drift are proposed on the Lee group at a total cost of $10,792.00. This cost does not include $3,000.00 for supervision and $1,000.00 for analytic work for the projects. The Lee group, though it lies a few miles south of the favorable ground of the Uravan Mineral Belt, has produced a total of 52 tons of ore that contained 0.44 percent of U_3O_8 (AEC records). It is therefore recommended that the Lee group be examined relative to a DMEA loan in the field.

The Rubydale group, on the other hand, has had no production and there are no mineralized outcrops in the vicinity of the claim. The map submitted by the applicant shows no previous drilling on the property. The 24 holes proposed in the DMEA application would range from 500 to 700 feet in depth, the deeper holes actually being collared in the Burro Canyon formation. Drilling would cost $19,884.00, exclusive of supervision and assays. No Salt Wash crops out within two miles of the property. The Vanadium Queen and associated deposits all lie 3 miles or more north of the property, and no geologic trend has been demonstrated from these deposits into the applicant's Rubydale property. The drilling program outlined on the Rubydale property therefore constitutes prospecting or "wildcatting" and not exploration.

DMEA 4275 5/21/56

It is recommended that the application for DMEA assistance on the Rubydale property be denied without a field examination, but that a field examination be scheduled on the Lee group, because of the past production.

Please send applicant's engineering report to accompany application, if and when it is found.

F. M. Byers Jr by [illegible]

F. M. Byers, Jr.,
Geologist

FMB/mlr

Mr. George Selfridge
5/23/56

RECEIVED
MAY 23 1956

DN 235 BUR MINES 5-22-56 4-30

CHAIRMAN, OPERATING COMMITTEE, DMEA

REURTT 5-21-56 GRAND JUNCTION ADVISES COMMENTS DOCKET 4275, NATIONAL MINES, INC, BEING TYPED TODAY. SHOULD ARRIVE WASHINGTON 5-28-56.

J W TOWNSEND

Denver, Colo.

MAY 23 8 51 AM '56
BUREAU OF MINES
MAIL ROOM
WASHINGTON D. C.

Department of the Interior

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

DMEA
24X4401(01) Revolving Fund, Defense Production Act, Interior (Allocated Working Fund to the Office of the Secy.)

FILE COPY
Surname:
Knouse
Fulton
Kiilsgaard
Martin
Hosted
Hollenbeck

T E L E T Y P E

MAY 21 1956

W. M. TRAVER
EXECUTIVE OFFICER
DMEA FIELD TEAM, REGION III
224 NEW CUSTOMHOUSE BUILDING
DENVER 2, COLORADO

REFERENCE DMEA-4275 NATIONAL MINES, INC. WHEN MAY WE EXPECT TO RECEIVE GRAND JUNCTION COMMENTS.

W. S. Martin
~~GEORGE C. SHEPHERD~~
ACTING CHAIRMAN, OPERATING COMMITTEE

Flknouce/izm 5-21-56

cc to: Docket
Code 700
Mr. Knouse
Admr.'s Reading File
Operating Committee
Confirmation copy to Reg. III
Messrs. JECrawfor , Rm. 3643
THKiilsgaard, Rm. 5224
JOHosted, Rm. 3210, GSA

R.C.K.

5-14-56

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

RECEIVED
MAY 14 1956

May 10, 1956

224 New Customhouse
Denver 2, Colorado

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Field Team, Region III

Subject: DMEA Docket 4275 (Uranium) National Mines, Inc., (Rubydale group) San Juan County, Utah and (Lee Group), Mesa County, Colorado

Enclosed are the original and one copy of three drilling bids submitted by the Applicant. Copies of these bids will be forwarded to the field for the use of the field examiners.

DMEA Field Team, Region III

W. M. Traver

By W. M. Traver
Executive Officer

Enclosures

MANUFACTURERS OF
DIAMOND DRILLS
DRILLING EQUIPMENT
DIAMOND BITS

BRANCH OFFICES
NEW YORK · PITTSBURGH
PHILADELPHIA
GRAND JUNCTION, COLO.

EXECUTIVE OFFICES & PLANT
221 W. OLIVE STREET
SCRANTON, PA.

SPRAGUE & HENWOOD, INC.

SINCE 1883

CONTRACTORS FOR
DIAMOND DRILLING
SHOT DRILLING · SOIL SAMPLING · PRESSURE GROUTING
WATER WELLS & CHURN DRILLING

PLEASE REPLY TO
P. O. BOX 645
GRAND JUNCTION, COLO.
TELEPHONE 834

RECEIVED
MAY 14 1956

April 30, 1956

DMEA
Date Rec'd
MAY 7 1956
BUREAU OF MINES
Denver, Colorado

National Mines, Inc.
Sonna Bldg.
Boise, Idaho

Attn: Mr. W. C. Scott

Gentlemen:

In accordance with our conversations we herewith submit our proposal for drilling on your claims on Wray Mesa and on Calamity Mesa.

PROPOSAL

For drilling on Calamity Mesa:

Non-Core Drilling

Item 1. From 0 to 400 ft.....$1.60 per ft.

Core Drilling

Item 2. From 0 to 400 ft.....$3.85 per ft.

Delays

Item 3. For all delays for radiometric logging or for any other reason required by Customer.....$12.00 per hr.

For drilling on Wray Mesa

Non-Core Drilling

Item 1. From 0 to 400 ft.....$1.60 per ft.

Item 2. From 400 to 600 ft.....$2.10 per ft.

Item 3. From 600 to 800 ft.....$2.60 per ft.

RECEIVED
MAY 14 1956

Core Drilling

Item 4. From 0 to 400 ft.....$3.60 per ft.

Item 5. From 400 to 600 ft.....$4.60 per ft.

Item 6. From 600 to 800 ft.....$5.60 per ft.

Delays

Item 7. For all delays for radiometric logging or for any other reason required by Customer.....$12.00 per hr.

This proposal is subject to the following conditions:

1. All drill hole locations and access roads to drill sites will be constructed and maintained to accommodate Sprague & Henwood, Inc. truck mounted drills and water trucks. Any bulldozer work required for preparation of sites and roads will be furnished by the customer at no cost to Sprague & Henwood, Inc.

2. Cores will be delivered at drill hole locations, and storage and preservation of cores will be the responsibility of the customer.

3. Upon completion of a hole to the specified bottom depth and prior to moving the drill rig, if the drill and crew are required to stand by while the customer logs said hole with subsurface logging equipment, or if the drill and crew are required to perform additional work in the hole for use of subsurface logging equipment, Sprague & Henwood, Inc. will be paid at the rate per hour specified under Delays of proposed schedules.

4. In the event the customer does not have logging equipment available at the time the hole is completed to specified depth, the customer may require that the casing be left in the hole and the drill moved to another site. Sprague & Henwood, Inc. shall be paid at the rate per hour under Delays for the time required to return, set up on hole, and pull the casing. If such casing should be impossible to recover after diligent effort on the part of Sprague & Henwood, Inc., using such equipment normally capable of performing the operation efficiently, then the casing left in the hole will be paid for by the National Mines, Inc. at the fair market value.

5. All work shall be performed in such a manner as to secure maximum core recovery from each hole drilled and to deliver as complete and accurate core samples as are consistent with good drilling practice. The customer may require core runs of five feet when necessary to attain satisfactory core recovery.

6. All holes will be located in the field by the customer.

7. All rights of entry to and exit from the property will be obtained by the customer.

8. Prior to commencement of drilling of each hole, the non-core depth will be established by the Owner. This depth may be changed by the Owner at any time prior to commencement of coring. Once coring has begun, any drilling beyond the depth where coring commenced, will be paid for at coring prices.

9. The above prices are based on a minimum drilling program of 2,500 feet on the Calamity Mesa project and 5,000 feet on the Wray Mesa project. If a lesser amount is drilled on either project, 10 cents per foot will be charged for the difference between the actual amount drilled and the minimum drilling program. If the drilling program exceeds the planned minimum, drilling prices listed above will be reduced by 10 cents per foot for all drilling over the planned minimum.

10. Payments are to be made monthly based on completed holes, within 15 days after date of invoice. Should payments not be made within the specified period then Sprague & Henwood, Inc. reserves the right to terminate operations. Credit arrangements satisfactory to Sprague & Henwood, Inc. must be made prior to commencement of work.

We thank you for the opportunity of submitting this proposal and trust you find it acceptable.

Very truly yours,

SPRAGUE & HENWOOD, INC.

R. R. Carver
Western Manager

RRC:jmt

CC: Scranton
File

220 Whiteside Bldg.
Phone: PO 3-5131
Lubbock, Texas

SCOTT BROS.
drilling company
"Exploration Drilling Services"

Branch:
641 Glenwood Ave.
Phone: 45
Grand Junction, Colo.

May 2, 1956

FILED
MAY 4 1956

National Mines Inc.
307 Sanna Bldg.
Boise, Idaho

Gentlemen:

We would like to quote the following prices for drilling and coring in Calamity and Paradox areas:

Drilling in Calamity Area

Plug-Bit Drilling
0-300 ft.....$1.50 per ft.

Core
0-300 ft.....$3.50 per ft.
Stand-by Time.....$10.00 per hr.

Drilling in Paradox Area

Plug-Bit Drilling
0-300 ft.....$1.50 per ft.
300-600 ft.....$2.00 per ft.
600-800 ft.....$2.25 per ft.

Core
0-300 ft.....$3.50 per ft.
300-600 ft.....$4.50 per ft.
600-800 ft.....$5.50 per ft.

Stand-by Time.....$10.00 per hr.

Thank You.

Sincerely,

L.W. Scott Partner
L.W. Scott

SCOTT BROS. DRILLING CO.

LWS: lan

1650 Orchard

BLACK CAT EXPLORATION CO.
P. O. BOX 1822
Grand Junction, Colo.

May 4, 1956

National Mines Inc.,
307 Sanna Bldg.
Boise, Idaho

RECEIVED
MAY 14 1956

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300-600 ft..... $ 4.65 per ft.
600-800 ft..... $ 5.65 per ft.

Stand-by Time..... $10.00 per hr.

Dozier Work..... $10.00 per hr.
Plus drilling and shooting where necessary.

Tunnell work will be figured according to formation.

Thank you.

Sincerely,

C. E. Mitchell

C. E. MITCHELL

BLACK CAT EXPLORATION CO.

CEM:sjs

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

RECEIVED
MAY 14 1956

May 10, 1956

224 New Customhouse
Denver 2, Colorado

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Field Team, Region III

Subject: DMEA Docket 4275 (Uranium) National Mines, Inc., (Rubydale group) San Juan County, Utah and (Lee Group), Mesa County, Colorado

Enclosed are the original and one copy of three drilling bids submitted by the Applicant. Copies of these bids will be forwarded to the field for the use of the field examiners.

DMEA Field Team, Region III

W. M. TRAVER,

By W. M. Traver
Executive Officer

Enclosures

MANUFACTURERS OF
DIAMOND DRILLS
DRILLING EQUIPMENT
DIAMOND BITS

BRANCH OFFICES
NEW YORK · PITTSBURGH
PHILADELPHIA
GRAND JUNCTION, COLO.

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SPRAGUE & HENWOOD, INC.

SINCE 1883

CONTRACTORS FOR
DIAMOND DRILLING
SHOT DRILLING · SOIL SAMPLING · PRESSURE GROUTING
WATER WELLS & CHURN DRILLING

PLEASE REPLY TO
P. O. BOX 645
GRAND JUNCTION, COLO.
TELEPHONE 834

April 30, 1956

DMEA
Date Rec'd
MAY 7 1956
BUREAU OF MINES
Denver

National Mines, Inc.
Sonna Bldg.
Boise, Idaho

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Item 3. From 600 to 800 ft.....$2.60 per ft.

with good drilling practice. The customer may require core runs of five feet when necessary to attain satisfactory core recovery.

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4. In the event the customer does not have logging equipment available at the time the hole is completed to specified depth, the customer may require that the casing be left in the hole and the drill moved to another site. Sprague & Henwood, Inc. shall be paid at the rate per hour under Delays for the time required to return, set up on hole, and pull the casing. If such casing should be impossible to recover after diligent effort on the part of Sprague & Henwood, Inc., using such equipment normally capable of performing the operation efficiently, then the casing left in the hole will be paid for by the National Mines, Inc. at the fair market value.

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Very truly yours,

SPRAGUE & HENWOOD, INC.

R. R. Carver
Western Manager

RRC:jmt

CC: Scranton
File

220 Whiteside Bldg.
Phone: PO 3-5131
Lubbock, Texas

SCOTT BROS.
drilling company
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Branch:
641 Glenwood Ave.
Phone: 45
Grand Junction, Colo.

May 2, 1956

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307 Sanna Bldg.
Boise, Idaho

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0-300 ft.....$1.50 per ft.

Core
0-300 ft.....$3.50 per ft.
Stand-by Time.....$10.00 per hr.

Drilling in Paradox Area

Plug-Bit Drilling
0-300 ft.....$1.50 per ft.
300-600 ft.....$2.00 per ft.
600-800 ft.....$2.25 per ft.

Core
0-300 ft.....$3.50 per ft.
300-600 ft.....$4.50 per ft.
600-800 ft.....$5.50 per ft.

Stand-by Time.....$10.00 per hr.

Thank You.

Sincerely,

L.W. Scott Partner
L.W. Scott

SCOTT BROS. DRILLING CO.

LWS: lam

1650 Orchard

BLACK CAT EXPLORATION CO.
P. O. BOX 1822
Grand Junction, Colo.

May 4, 1956

National Mines Inc..
307 Sanna Bldg.
Boise, Idaho

Gentlemen:

We would like to quote the following prices for drilling and coring in Calamity and Paradox areas:

Drilling in Calamity Area

Plug-Bit Drilling
0-300 ft..... $ 1.50 per ft.

Core
0-300 ft..... $ 3.88 per ft.
Stand-by Time..... $10.00 per hr.

Drilling in Paradox Area

Plug-Bit Drilling
0-300 ft..... $ 1.50 per ft.
300-600 ft..... $ 2.00 per ft.
600-800 ft..... $ 2.25 per ft.

Core
0-300 ft..... $ 3.65 per ft.
300-600 ft..... $ 4.65 per ft.
600-800 ft..... $ 5.65 per ft.

Stand-by Time..... $10.00 per hr.

Dozier Work..... $10.00 per hr.
Plus drilling and shooting where necessary.

Tunnell work will be figured according to formation.

Thank you.

Sincerely,

C. E. Mitchell

C. E. MITCHELL

BLACK CAT EXPLORATION CO.

CEM:sjs

National Mines, Inc.
307 Sonna Building
Boise, Idaho

Subject: DMEA NO. 4275
Re: Rubydale & Lee Groups

Gentlemen:

The receipt of your application dated April 25, 1956 for exploration assistance under the Defense Production Act of 1950, as amended, is hereby acknowledged.

Your application has been assigned Docket Number DMEA 4275 and referred to the Rare and Miscellaneous Metals Division.

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

Sincerely yours,

Robert E. Adams, Chief
Operations Control and
Statistics Division

Memorandum

To: Executive Officer, DMEA Field Team, Region III

From: Chief, Operation's Control and Statistics Division

Subject: Assignment of Docket Number DMEA 4275

There is listed below the assigned docket number to an application recently received from Region III

DMEA
4275 National Mines, Inc.

Robert E. Adams
Chief, Operation's Control
and Statistics Division

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

April 30, 1956

224 New Customhouse
Denver 2, Colorado

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Field Team, Region III

Subject: Application for DMEA Aid (Uranium) National Mines, Inc., (Rubydale group) San Juan County, Utah and (Lee group), Mesa County, Colorado

Enclosed are two copies of the subject application in the amount of $34,676.00. One copy of the application is being forwarded to the Grand Junction office, DMEA, and one copy is being retained in our file.

One copy of a Report of the Development Work done on the Lee claims by National Mines, Inc. was forwarded by the Applicant, and he has requested that this report be returned to him. It is included with your two copies of the application.

DMEA Field Team, Region III

By W. M. Traver
Executive Officer

Enclosures

RECEIVED
MAY 2 - 1956

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

April 30, 1956

224 New Customhouse
Denver 2, Colorado

Memorandum

To: J. W. Hasler

From: Field Team, Region III

Subject: Application for DMEA Aid (Uranium) National Mines, Inc., (Rubydale group) San Juan County, Utah, and (Lee group) Mesa County, Colorado

Enclosed is the subject application in the amount of $34,676.00. Will you please discuss this application with the Bureau of Mines representative in the Grand Junction office and the AEC and forward this office nine copies of your joint recommendations concerning the advisability of a field examination.

DMEA Field Team, Region III

W. M. TRAVER,

By W. M. Traver
Executive Officer

enclosure

WMC:ab

cc: Sec. Op. Comm. (2)
Subject
Harshman
Shaw (2)
Chron.

RECEIVED
MAY 2 - 1956

IF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

DMEA
Date Rec'd.
Form Approved.
Budget Bureau No. 42-R1035.2.
APR 27 1956
BUREAU OF MINES
Denver, Colorado

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. 4275
Metal or Mineral Uranium
Date Received May 2, 1956
Estimated Cost $34,676
Participation (Government %) 75

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: NATIONAL MINES, INC., 307 Sonna Bldg., Boise, Idaho, an Idaho corporation. President, L. R. CANNON, 307 Sonna Bldg., Boise, Idaho; Vice-President, FRANK A. PEARCE, Mountain Home, Idaho; Treasurer, JOHN MOLITOR, Boise, Idaho; Secretary, BLYTHE G. CLEMONS, Gooding, Idaho.

(*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

See "EXHIBIT A" attached for balance of information required on this application. Properties are located in Mesa County, Colorado and San Juan County, Utah.

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

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

See Exhibit A.

(*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. See Exhibit A

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

See Exhibit A.

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

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

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

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

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

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

See Exhibit A

16—66551-1

RECEIVED
MAY 2 - 1956

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

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

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

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

6. *Estimate of costs.*—Furnish a detailed estimate of the costs of the proposed work (you will have to use a separate sheet), under the following headings. Add the totals under all headings to give the estimated total cost of the project. See Exhibit A, Page 5A

(*a*) *Independent contracts.*—(Note.—If the applicant does not intend to let any of the work to contractors, write "none" after this item. To the extent that the work is to be contracted, do not repeat the cost of the contract-work in subsequent items.) State the cost of any proposed independent contracts for the performance of all or any part of the work, expressed in terms of units of work (such as per foot of drilling, per foot of drifting, per hour of bulldozer operations, per cubic yard of material moved, etc.). See Exhibit A Page 5A

(*b*) *Labor, supervision, consultants.*—Include an itemized schedule of numbers, classes and rates of wages, salaries or fees for necessary labor, supervision and engineering and geological consultants. See Exhibit A Page 5A

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

(*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. See Exhibit A.

(*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. See Exhibit A.

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

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

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

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

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

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

[X] Money [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 25, 1956

NATIONAL MINES, INC.
(Applicant)

By Lee R. Bauman
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

"EXHIBIT A"

3. Applicant's property rights.—

(a) The legal description of the land the applicant wishes to explore is as follows, to-wit:

MINING CLAIMS SITUATE IN THE STATE OF COLORADO

The Lee No. 1 through The Lee No. 6 Lode Mining Claims in Gateway Mining District, Mesa County, Colorado, the Amended Location Certificates thereof being recorded in Book 586 at Pages 506 to 511, inclusive, in the office of the County Recorder of said County.

MINING CLAIMS SITUATE IN THE STATE OF UTAH (San Juan County)

Rubydale No. 1, Rubydale No. 2, Rubydale No. 3, Rubydale No. 4, Rubydale No. 5, Rubydale No. 6, Rubydale No. 7, Rubydale No. 8, Rubydale No. 9, Rubydale No. 10, Rubydale No. 11, Rubydale No. 12, Rubydale No. 13, Rubydale No. 14, Rubydale No. 15, Rubydale No. 16, Rubydale No. 17, Rubydale No. 18, Rubydale No. 19, Rubydale No. 20, Rubydale No. 21, Rubydale No. 22 and Rubydale No. 23, the location notices thereof being duly of record in Book 73 at Pages 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338 and 339 respectively.

The Ginger No. 1, Ginger No. 2, Ginger No. 3, Ginger No. 4, Ginger No. 5, Ginger No. 6, Ginger No. 7, Ginger No. 8, and Ginger No. 9, the location notices thereof being duly of record in Book 75 at Pages 394, 395, 396, 397, 397, and 398 respectively in the office of the County Recorder of said County, reference to which being hereby made for a more particular description thereof.

Little Redhead Nos. 1, 2, 3, 4, 5, 6, 7, 8 and 9, in Section 18, T 29 S, R 26 E, S. L. M. location certificates for which are recorded in Book 85 at pages 28, 29, 30, 31 and 32 respectively in the office of the County Recorder of said San Juan County.

The Luke No. 1 to Luke No. 9, inclusive, situate in the SE¼ of Section 18 and the NE¼ of Section 19, T 29 S, R 26 E, S.L.M., the notices of location thereof being duly of record in the office of the County Recorder of said County, reference to which being hereby made

for a more particular description thereof.

(b) The mining claims situate in the State of Colorado are referred to as the Lee Group, and all of the mining claims situate in the State of Utah are referred to as the Rubydales.

(c) The applicant is the owner of the above described mining claims, subject to the royalty agreements following:

The Lee Group of mining claims situate in the State of Colorado, hereinabove referred to, are subject to a perpetual royalty of 5% of the proceeds of all ores mined and sold from any of said claims, less haulage and development allowances, together with 5% of any bonus or other premium payments made by the Atomic Energy Commission on account of ore production from said claims, in favor of Pete Bosma of Grand Junction, Colorado.

The mining claims situate in the State of Utah are subject to the royalties following:

Rubydale No. 1 through Rubydale No. 23, and The Ginger No. 1 through The Ginger No. 9:

"Reserving and excepting, however, to Grantors, their heirs and assigns Ten percent (10%) of the proceeds from the first Ten Thousand pounds of U_3O_8 mined and sold from said claims or any of them; thereafter Five percent (5%) of all such proceeds, in each instance, however, after the deduction of haulage and development allowances paid by the Atomic Energy Commission; but with the right in Grantee, its successors and assigns to mine and sell ores therefrom at such time, times, manner and amounts as Grantee, its successors and assigns may deem expedient or advisable without any interference on the part of Grantors, their heirs or assigns." (which reservations are in favor of E. R. Wise and E. K. Stephen, of Grand Junction, Colorado.)

The Luke No. 1 through The Luke No. 9:

"Reserving and excepting, however, to Grantors, their heirs and assigns Ten percent (10%) of the proceeds from the first Ten Thousand pounds of U_3O_8 mined and sold from said claims or any of them; thereafter Five percent (5%) of all such proceeds, in each instance, however, after the

deduction of haulage and development allowances paid by the Atomic Energy Commission; but with the right in Grantee, its successors and assigns to mine and sell ores therefrom at such time, times, manner and amounts as Grantee, its successors and assigns may deem expedient or advisable without any interference on the part of Grantors, their heirs or assigns." (which reservations are in favor of Robert Caldwell and C. Mac Dye, of Grand Junction, Colorado.

Little Redhead No. 1 through Little Redhead No. 9:

"Reserving and excepting, however, to Grantors, their heirs and assigns Ten percent (10%) of the proceeds from the first Ten Thousand pounds of U_3O_8 mined and sold from said claims or any of them; thereafter Five percent (5%) of all such proceeds, in each instance, however, after the deduction of haulage and development allowances paid by the Atomic Energy Commission; but with the right in Grantee, its successors and assigns to mine and sell ores therefrom at such time, times, manner and amounts as Grantee, its successors and assigns may deem expedient or advisable without any interference on the part of Grantors, their heirs or assigns." (which reservations are in favor of Robert Caldwell and Mrs. G. M. Caldwell, of Grand Junction, Colorado.

(d) Applicant is the owner of the mining claims, subject to the royalties reserved as hereinabove set forth.

(e) The applicant owns the mining claims hereinabove described and there are no liens or encumbrances on or against any of the same, save and except the royalties hereinbefore specifically set forth.

(f) For the book and pages of each recorded location notice of the mining claims hereinbove described see paragraph (a) above.

4. Physical description.—

MINING CLAIMS SITUATE IN THE STATE OF COLORADO

(a) For a detailed description of exploration operations which have been carried on, see the report on development work

done on the Lee claims by National Mines, Inc. from October 20 through November 15, 1955, a copy of which is presented herewith. Such exploration operations were conducted by the applicant. As shown by the report, all parts of the Lee mining claims are accessible by road for examination purposes. This report is to be returned to applicant.

(b) See photographic copies of U. S. Vanadium Company and Climax Uranium Company ore settlement sheets (4 sheets) hereto attached.

(c) The geologic features of the property are set forth in the report accompanying this application. The claims lie in a uranium-producing district, and from the work heretofore done on the premises it is reasonable to believe that further exploration will prove the claims to be valuable.

Schedule 1 hereto attached is a map of the Lee Group of mining claims, showing all exploration work heretofore done on the claims. For a geologic and engineering report, see the report of the development work accompanying this application.

(d) Access roads have been completed to all parts of the claims. The nearest rail head is Grand Junction, Colorado, 65 miles from the claims. Grand Junction is also the nearest point for supplies and residence of personnel, with the exception of one cabin constructed on the claims which will accomodate at least 4 men.

(e) With reference to manpower, the availability thereof is good. All materials, supplies and equipment are readily available at Grand Junction, Colorado. Water is hauled from the Climax Mine, approximately 6 miles away. Diesel power plants would have to be erected on the premises for mining purposes. However, no such plants will be required for exploration purposes.

MINING CLAIMS SITUATE IN THE STATE OF UTAH

(a) With reference to the Utah property, the only mining or exploration operations which have been conducted upon the property have been the construction of approximately 3-1/2 miles of access roads and performance of the necessary assessment work to hold the mining claims. All of this work was done by the applicant company. Accessibility to all parts of the claims for examination purposes is good.

(b) There has been no production of ore from the property and the reserves are unknown. The claims are approximately 1,000 acres in area and lie approximately 3 miles south of the Vanadium Queen Mine and other producing mines, and about 3 miles southeast thereof are located several other good producing mines.

(c) Geologic features: Morrison Formation, Brushy Basin member, some South Dakota sandstone. The type of deposits is unknown. Petrified wood in scattered amounts has been found and a high scintillator count has been obtained. At least two hot spots were located on the premises.

(d) The project is approximately 9 miles east of LaSal, Utah, and about 4 miles from a good road. There are 3-1/2 miles of good access roads on the claims themselves. The main shipping point is Moab, Utah, approximately 40 miles to the north. Moab, Utah will also constitute the main source of supply for materials, equipment and other supplies. There is an excellent artesian water supply approximately 4 miles from the claims. Diesel power could be installed upon the claims for mining purposes, but power of this nature is not required for exploration purposes.

5. <u>The exploration project.</u>—

MINING CLAIMS SITUATE IN THE STATE OF COLORADO

(a) Minerals to be explored for: Uranium and Vanadium.

(b) For the proposed work to be done, see Schedule 1 hereto attached. It is proposed to drill on the west end of Lee Claims Nos. 1 and 2, above and east of the tunnels on Lee Claim No. 3, and in the central sections of Lee Claims Nos. 4 and 5. Present mine workings are shown on said schedule. The said schedule also shows the tunnels located in the known ore-bearing beds situated on Lee Claim No. 3.

See Page 5A

(c) The work will start within 10 days of the execution of the Exploration Project Contract and be completed within 18 months from the date thereof.

NATIONAL MINES, INC.
307 Sonna Building
Boise, Idaho

Proposed Diamond Drill Holes

on Claim

Lee No. 1	5 holes(1,2,3,4,10)	1000 ft. @ $1.50	1500.00
Lee No. 2	6 " (5,6,7,8,9,11)@200	1200 @ "	1800.00
Lee No. 3	3 " (16,17,18) @ 200	600 @ "	900.00
	1 tunnel into rim rock 100 ft. @ $40 ft.		4000.00
Lee No. 4	5 " (12,13,14,19,20)@200	1000@ "	1500.00
Lee No. 5	3 " (15,21,22) @200	600@ "	900.00
	All as indicated on Plat of Lee Group.		
Bulldozing estimated @ 3 days @ $64			192.00
			10792.00

Rubydale Claims

Luke 8	1 hole (18) @ 500	500@ 1.50	750.00
Little Red Head No. 2	8 holes (10-17)@500	4000 @ 1.50	6000.00
	1 hole (20) @500	500 @ "	750.00
Little Red Head No. 3	4 holes (21 to 24)@500	2000@ 1.50	3000.00
Ginger No. 9	5 holes(6-9 and 19) @500	2500 @ 1.50	3750.00
Ginger No. 7	4 holes (2-5) @ 700	2800 @ 1.50	4200.00
Ginger No. 6	1 hole (1) @700	700 @ 1.50	1050.00
Bulldozing estimated 6 days @ $64			384.00
			19884.00

Labor to be supplied by Contractor. Bulldozinc necessary @ $8 per hour.

Supervision, Rngineering and Geological consultant	3000.00
Estimated cost of analytical work	1000.00
Total estimated cost	$34,676.00

NATIONAL MINES INC.
307 Sonna Building
Boise, Idaho

(d) The exploration project would be supervised by W.C.Scott of Harpster, Idaho, under the general direction of a licensed geologist. Mr. Scott has personally supervised and performed most of the development work that has been done upon the Lee group of mining claims.

6. Estimate of Costs.

6b See Page 5A

6c All small equipment to be furnished by the Contractor.

6d

Compressor	value	$1900
Truck	"	500
Jeep	"	1800
Use allowance of above		$4200.00

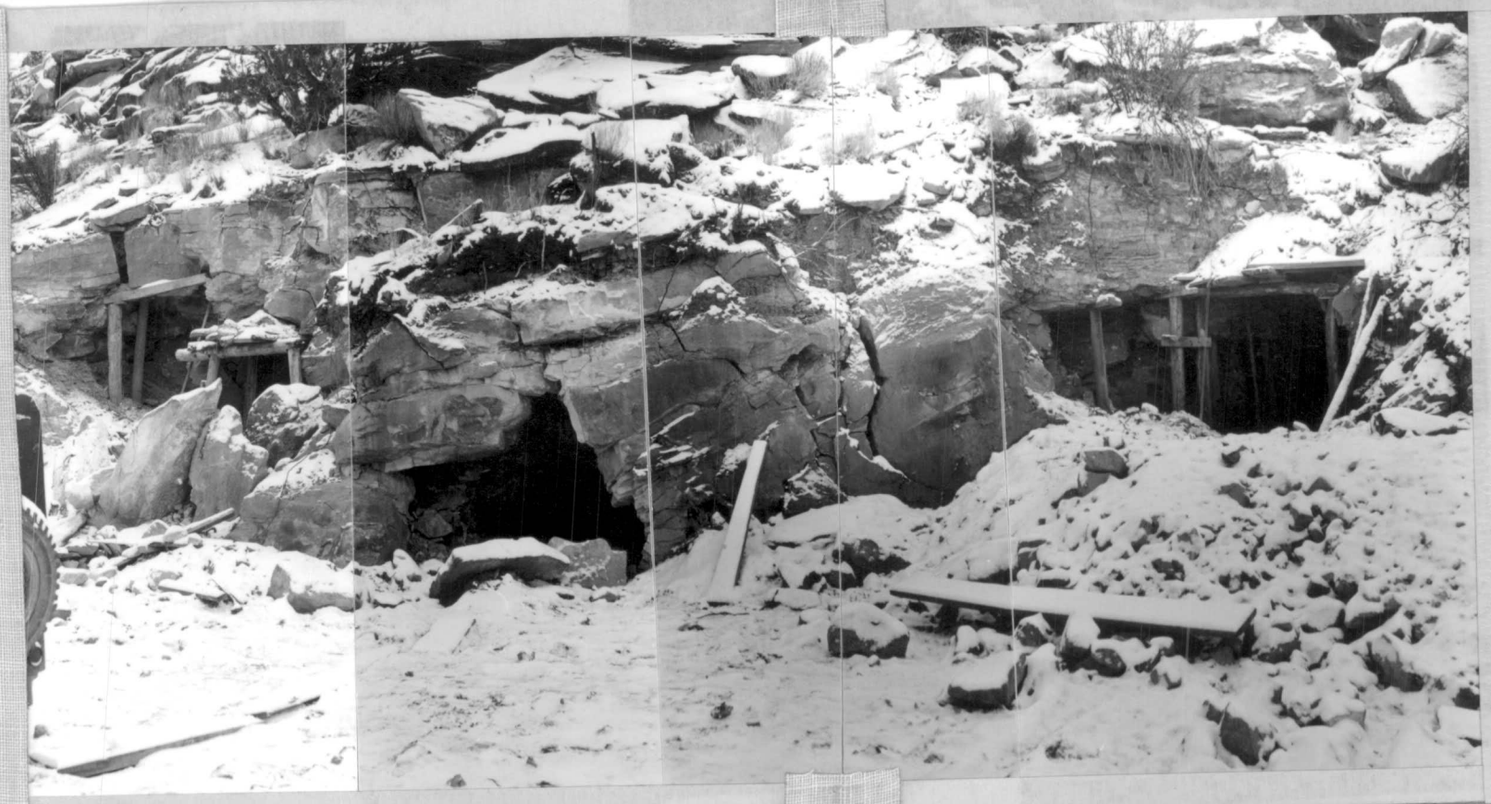
6e Repairs to compressor $850

6g Contractor will furnish machinery repairs, workmen's Compensation, Employers Liability and payroll taxes. Estimated cost of Analytical work $1000.00

7a Applicant is prepared to furnish its share of the cost of the proposed project in accordance with the regulations on Government participation (Sec. 7 DMEA No. 1)

7b Applicant proposed to furnish the 25% share of said amount in cash. The applicants equipment comsisting of Truck, Compressor and Jeep, is available for use in this work.

NATIONAL MINES INC.
307 Sonna Building
Boise, Idaho.



VIEW OF TUNNELS -

LOGS WERE MINED NEAR THE PORTALS ON THE LEFT AND RIGHT.

SW
West
North

GENERAL VIEW LOOKING FROM
SOUTHWEST to NORTH FROM
THE LEE CLAIMS

DIAMOND

DRILLING

Clem Arnzen, Lloyd Scott, Leo Walzer

Wally Scott, Clem Arnzen, Lloyd Scott

Leo Walzer

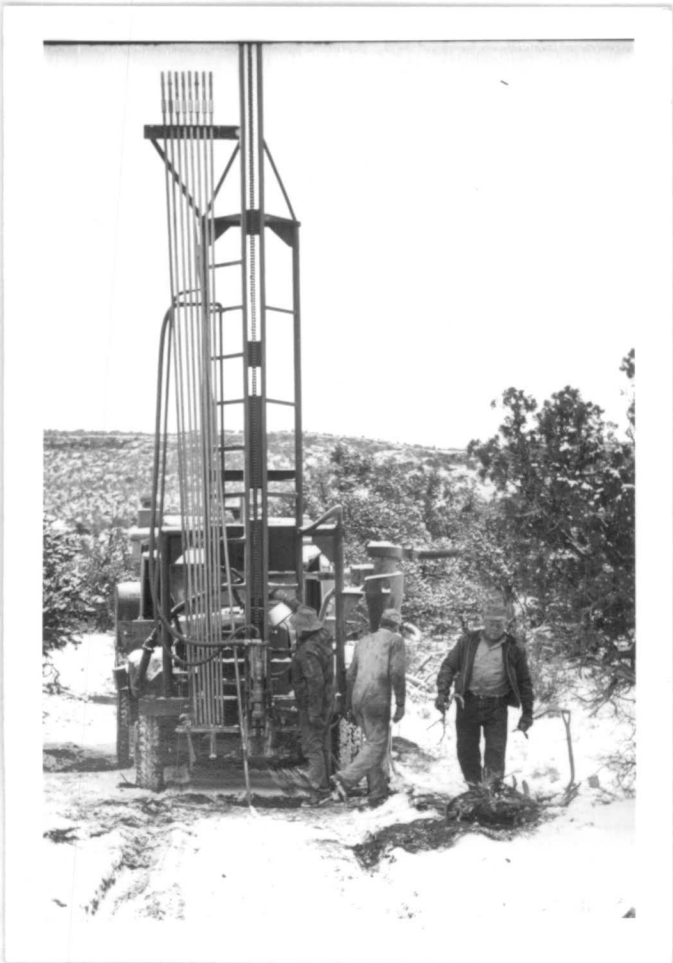
ROAD BUILDING

DOZING

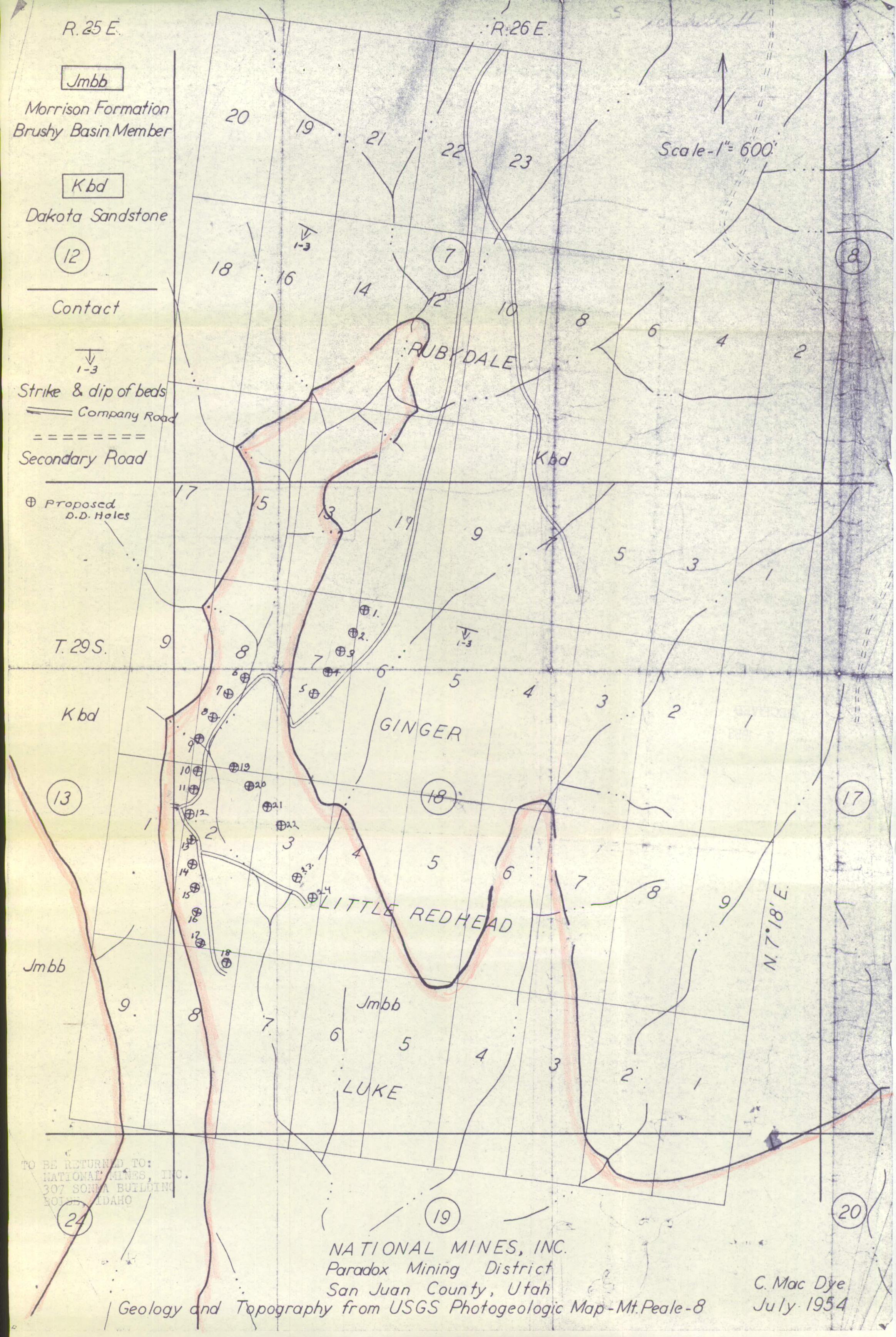
OPERATIONS

DRILL RIG WITH BOOM DOWN

WAGON DRILL RIG
Lloyd and W.C. Scott



OPERATIONS ON LAST DAY (Nov. 15, 1955)
W.C. Scott, Doug Sullivan
and Clem Arnzen



NATIONAL MINES, INC.
Paradox Mining District
San Juan County, Utah
Geology and Topography from USGS Photogeologic Map - Mt. Peale - 8

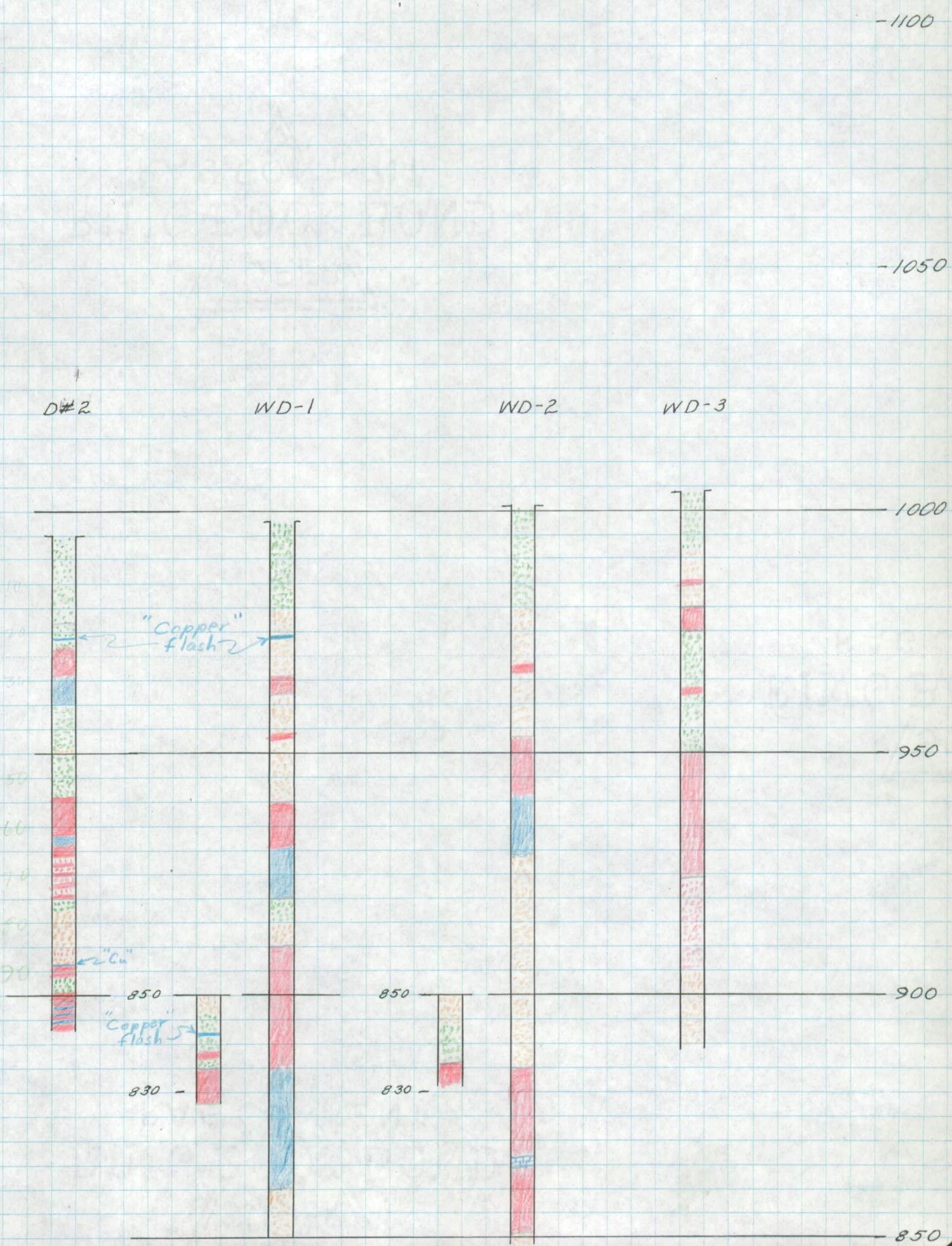
C. Mac Dye
July 1954

GRAPHIC REPRESENTATION OF DIAMOND DRILL & WAGON DRILL LOGS

KEY

- GRAY SANDSTONE
- GRAY CLAY (CLAYSTONE, MUDSTONE)
- BLUE CLAY
- BROWN CLAY WITH LIMESTONE RIB
- BROWN SANDSTONE
- RED CLAY
- RED SANDSTONE
- MINERALIZATION
- OVERBURDEN (UNCONSOLIDATED)

Plate I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-1050
D#2
WD-1
WD-2
WD-3
1000
950
900
850
"Copper" flash
"Cu"
850
"Copper" flash
830
850
830

Plate II

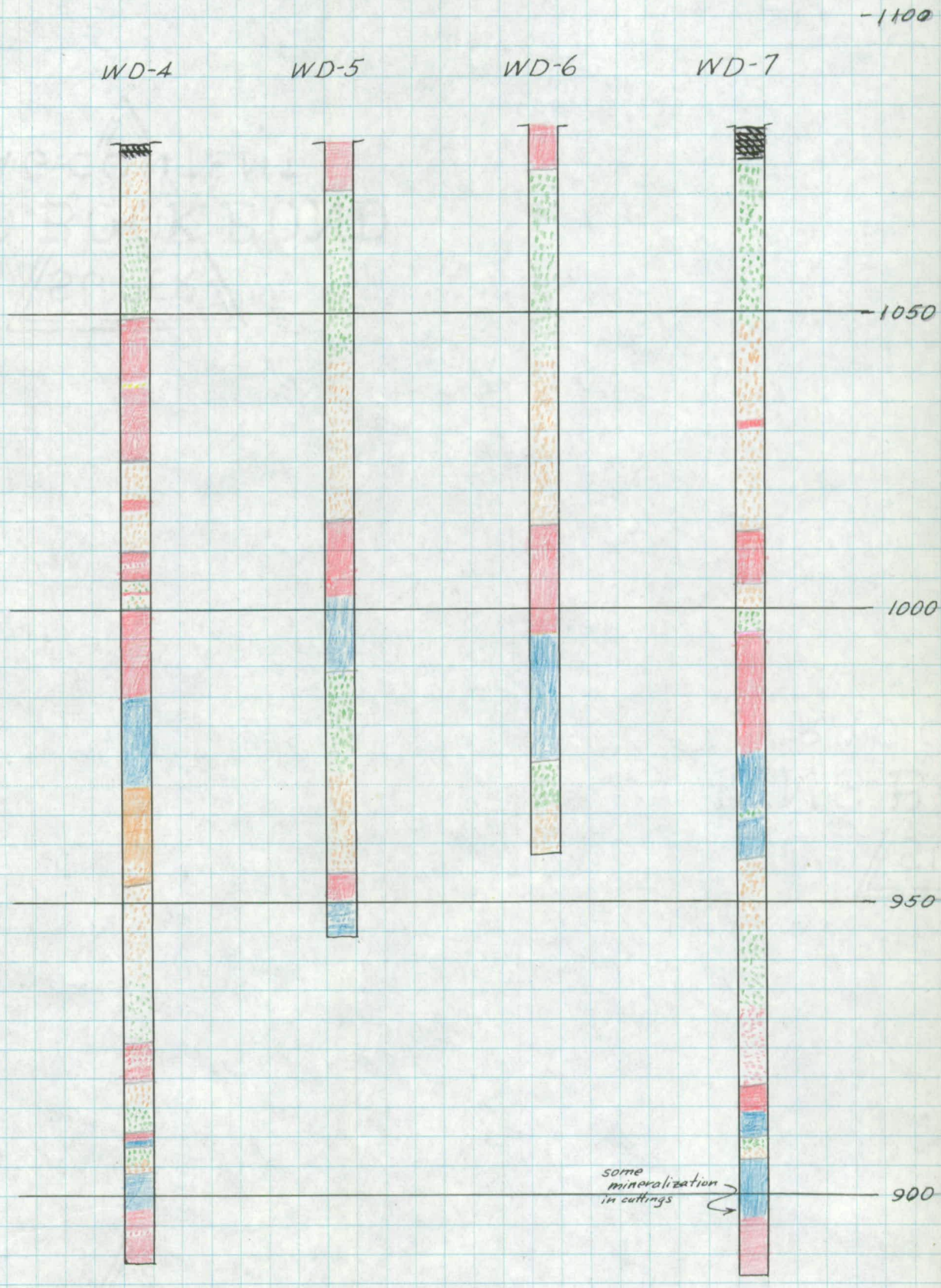
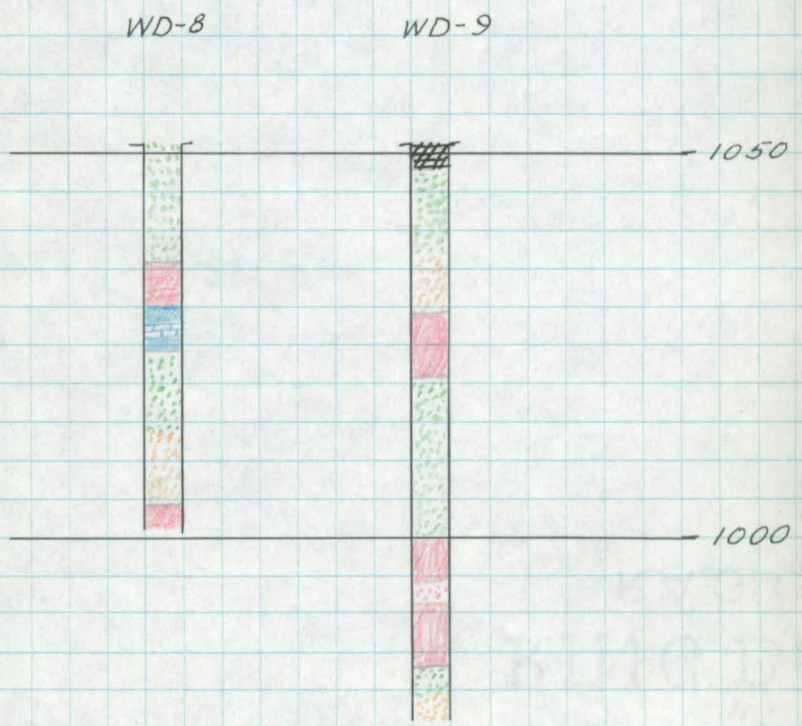

-1100
WD-4
WD-5
WD-6
WD-7
-1050
1000
950
900
some mineralization in cuttings
-850

Plate III



950

900

850

Plate IV.

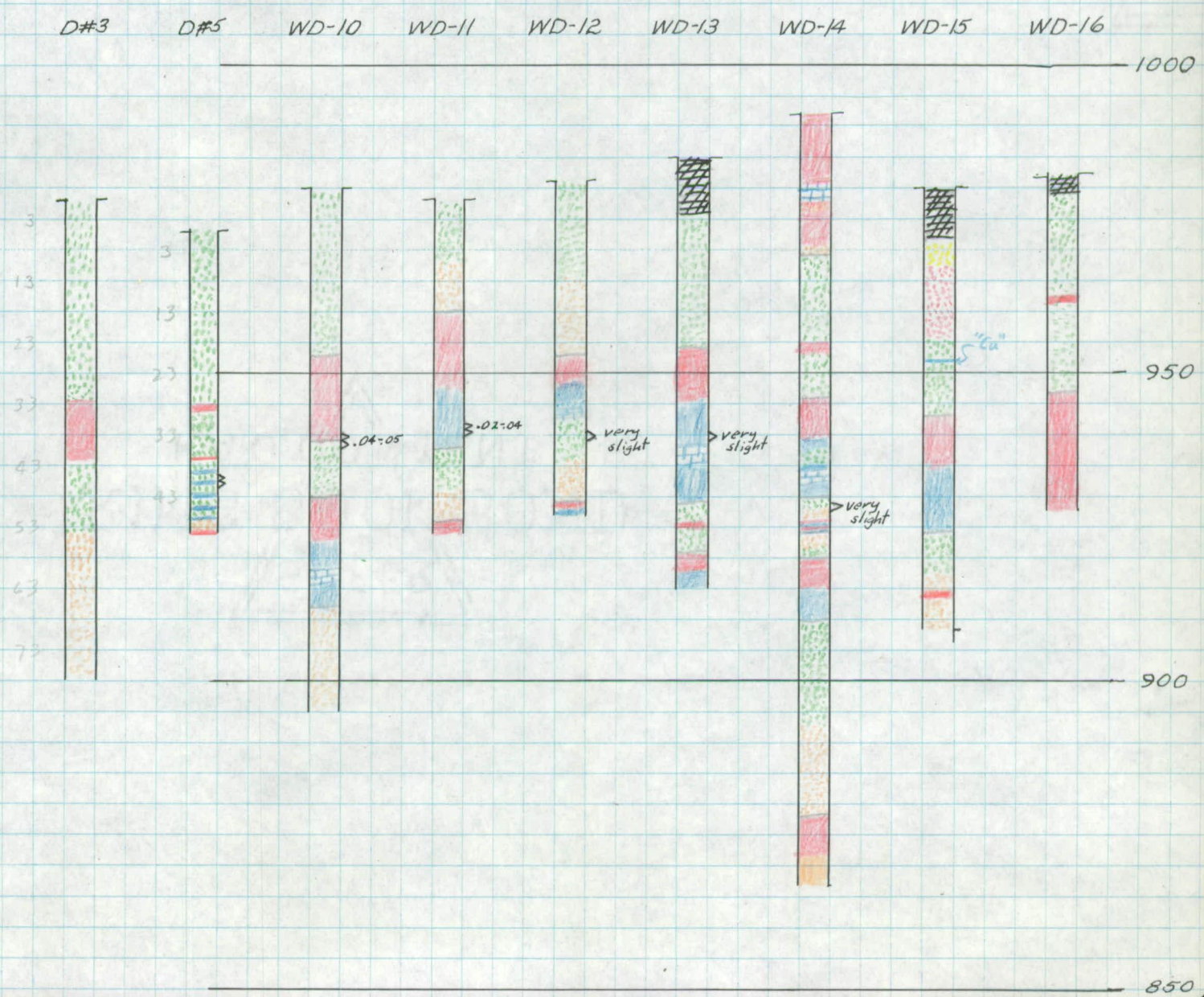

1050
D#3
D#5
WD-10
WD-11
WD-12
WD-13
WD-14
WD-15
WD-16
1000
950
900
850
3
13
23
33
43
53
63
73
.04-.05
.02-.04
very slight
very slight
very slight
"Cu"

Plate V

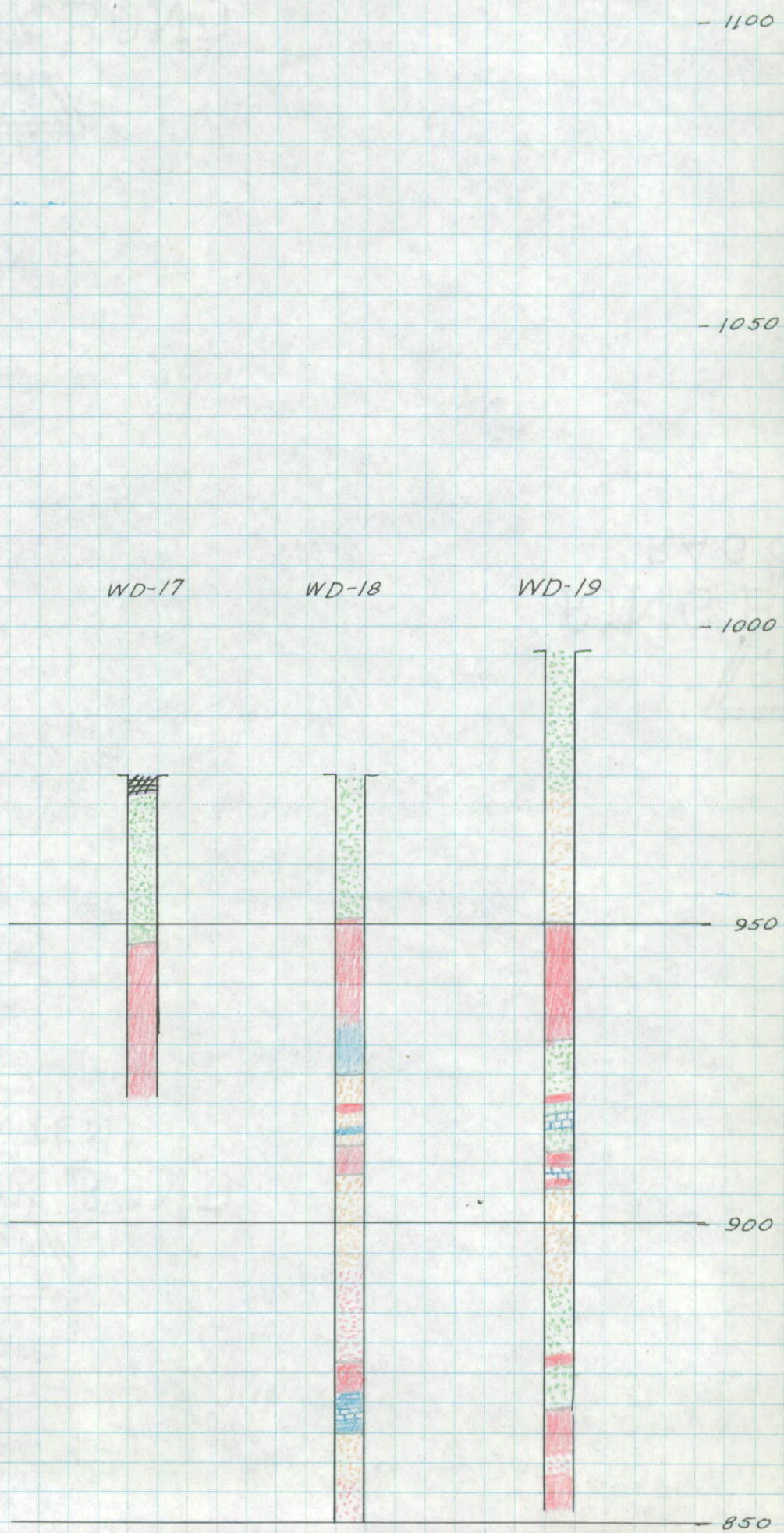
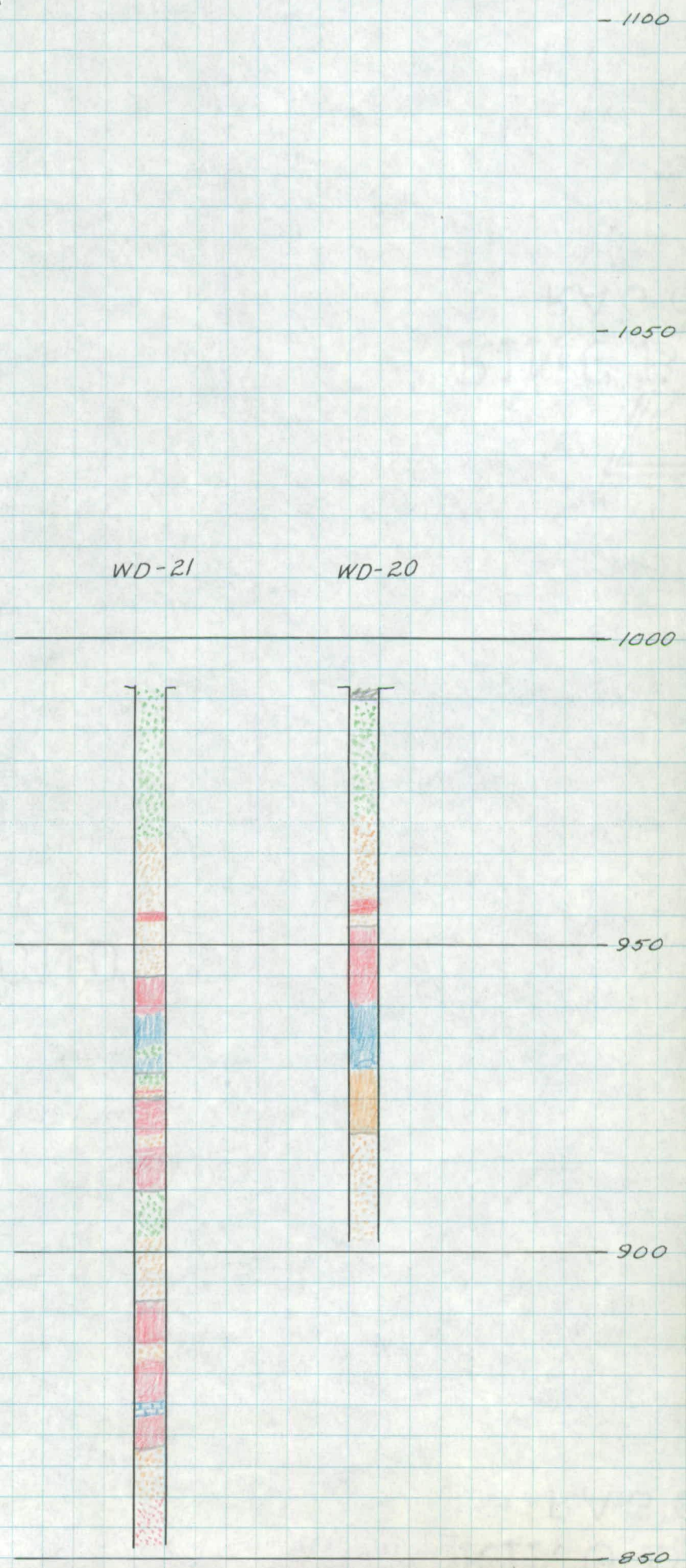


Plate VI



UNITED STATES DEPARTMENT OF THE INTERIOR,
GEOLOGICAL SURVEY

DEFENSE MINERALS EXPLORATION ADMINISTRATION
AUGUST 1956 DOCKET 4279

EXPLANATION

SEDIMENTARY ROCKS

Jmb, BRUSHY BASIN MEMBER OF JURASSIC MORRISON FORMATION

Jms SALT WASH MEMBER OF JURASSIC MORRISON FORMATION: STIPPLED, SANDSTONE; CLEAR, MUDSTONE

CONTACT, LOCATED APPROXIMATELY

MINE WORKINGS

GROUND CONTAINING URANIUM-VANADIUM MINERALS

BOUNDARY BETWEEN SEMI-FAVORABLE AND FAVORABLE GROUND IN SANDSTONE LENSE WHICH CONTAIN URANIUM-VANADIUM MINERALS; OVERLYING AND UNDERLYING SANDSTONE LENSES ARE CLASSED AS UNFAVORABLE AND SEMI-FAVORABLE FOR ORE

DRILL HOLES

o HOLE DRILLED BY APPLICANT

× HOLE PROPOSED BY APPLICANT

TUNNEL PROPOSED BY APPLICANT

N

200 0 600 FEET

Note: Claim boundaries, drill holes, and outline of mine workings from applicants map.

Geology by D.P. Elston

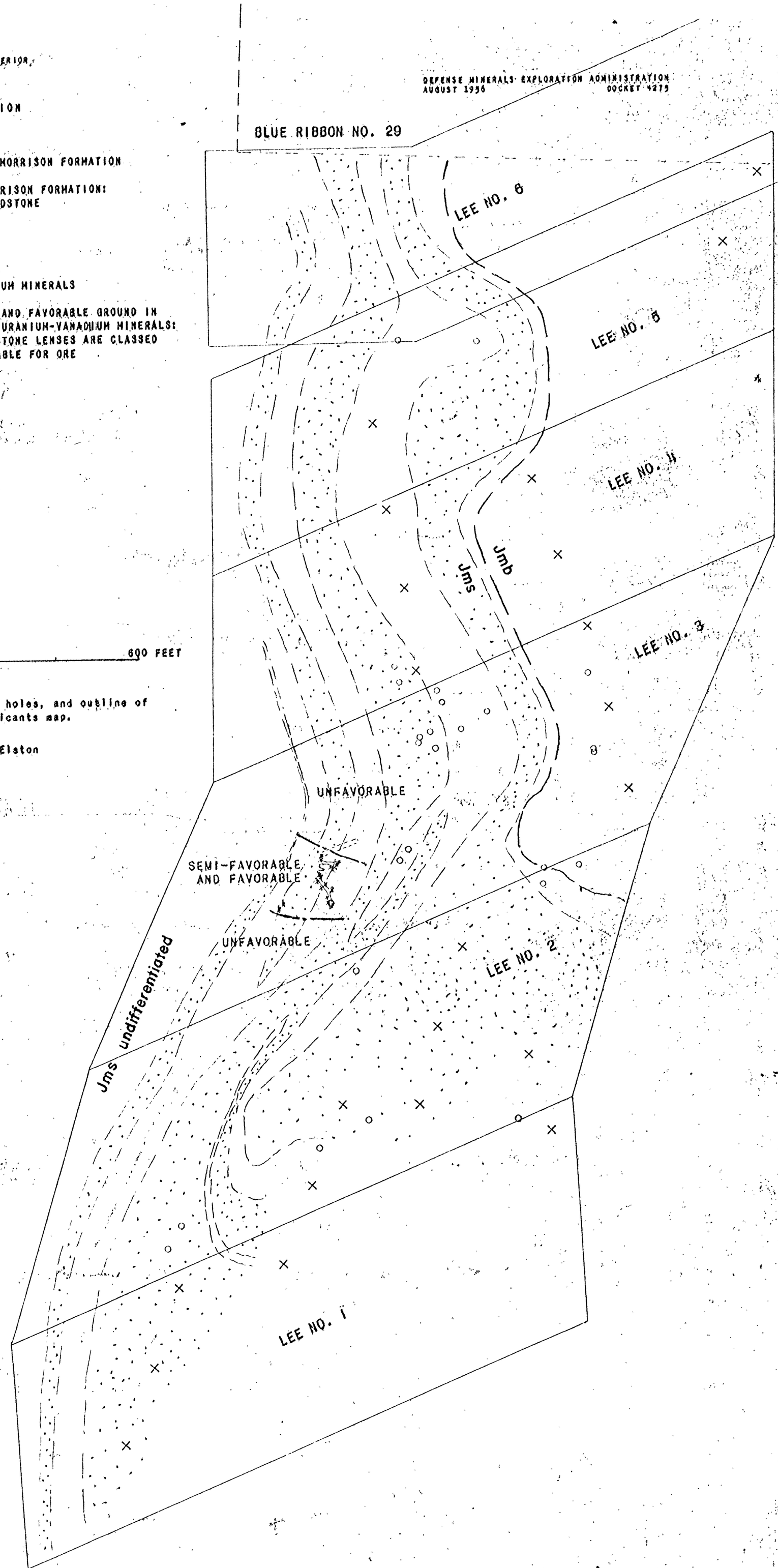
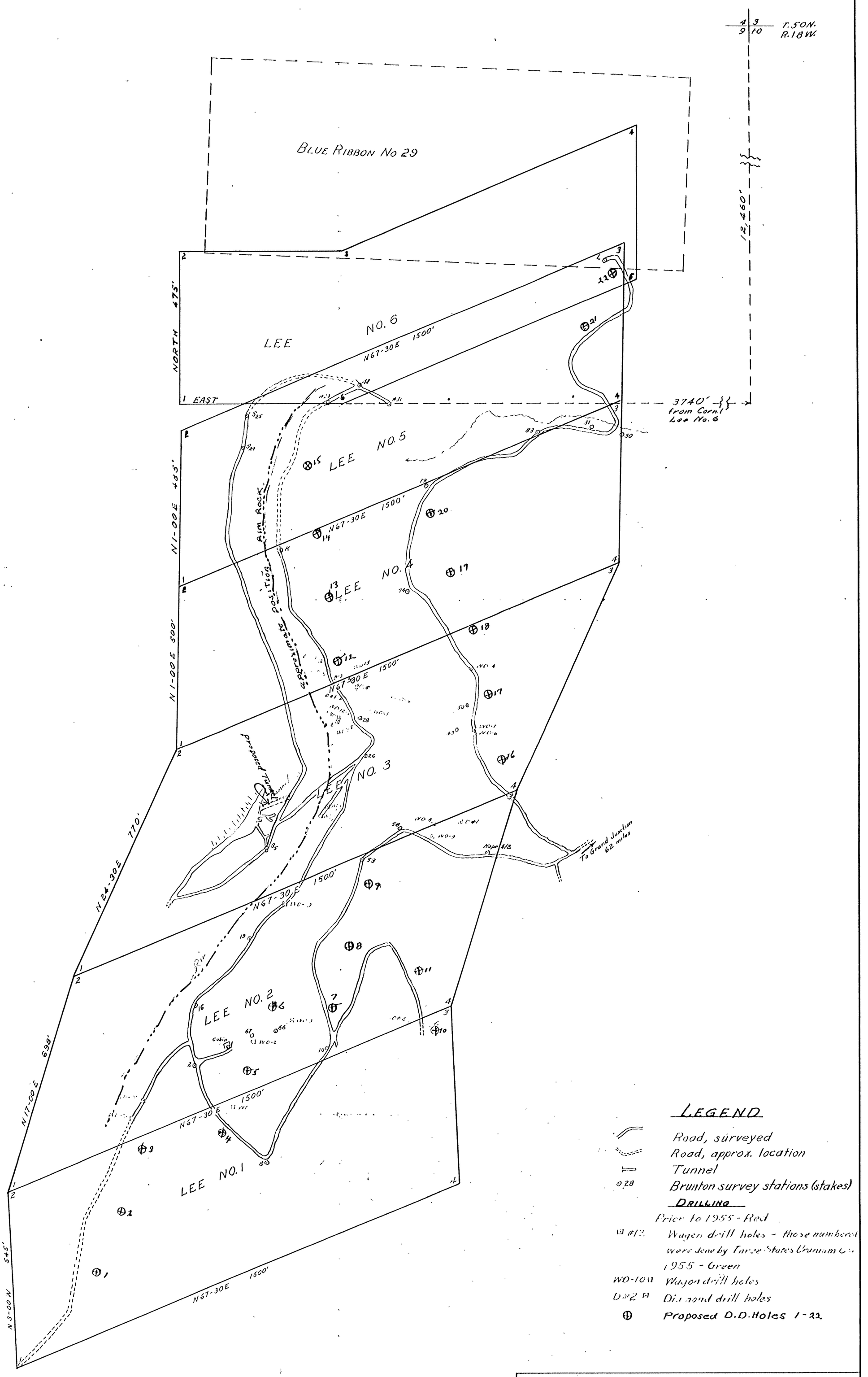


FIGURE 2.--GEOLOGIC SKETCH MAP OF THE LEE GROUP OF CLAIMS, SECTION 21, T.50 N., R.18 W., N.M.P.M.
NATIONAL MINES, INC., CALAMITY MESA AREA, MESA COUNTY, COLORADO.



LEE GROUP

CALAMITY AREA, MESA CO., COLO.

SCALE 1 IN. = 200 FT.

Surved and orig. drwg. by H.D.Clark

June - 1953

Redrawn by L.D.Brownson - Dec. 1955

TO BE RETURNED TO:
NATIONAL [illegible], INC.
3[illegible] [illegible] BUILDING
BOISE, IDAHO

CLIMAX URANIUM COMPANY

GRAND JUNCTION, COLO.

Receiving Station Climax Uranium Company — Grand Junction, Colorado, October 25, 1951

Liquidation No. 282 — Lot No. — Shippers Lot No.

Bought of Floyd Hamrich & Charles A. Linscott — A.E.C. License No. P-617

Address Route #11, Grand Junction, Colorado

Type of Ore Carnotite — Date Received 10-12-51

Mining Claim Lee #4 — Mining District Calamity — File No.

Lot No.	Wet Weight Pounds	H_2O	Dry Weight Pounds	SETTLEMENT ASSAYS U_3O_8	SETTLEMENT ASSAYS V_2O_5	SETTLEMENT ASSAYS C_aCO_3	CONTENTS POUNDS U_3O_8	CONTENTS POUNDS V_2O_5	CONTENTS POUNDS C_aCO_3
	13,690	3.0	13,279	0.57	3.00		75.69	398.37	
	4,844		4,439						

			Per lb.	Per Ton	Short Tons	Total Value
U_3O_8						
0.57 % = 75.69 lbs. at			$ 3.50	$ 39.90	6.64	$ 264.92
Development allowance 75.69 lbs. at			.50	5.70	6.64	37.85
Premium in excess of 4# per ton						
Total lbs. U_3O_8	75.69					
Less: 6.64 tons @ 4#	26.56					
PREMIUM LBS.	49.13	at	.75	5.55	6.64	36.85
Premium in excess of 10# per ton						
Total lbs. U_3O_8	75.69					
Less: 6.64 tons @ 10#	66.40					
PREMIUM LBS.	9.29	at	.25	.35	6.64	2.32
Total U_3O_8 payment						$ 341.94
Haulage allowance 6.00 per wet ton						41.07
TOTAL						$ 383.01
V_2O_5						
3.00% = 398.37 lbs. at			.31	18.60	6.64	123.49
Total Gross Price						$ 506.50

Floyd Hamrich

I certify that I am the lawful owner or authorized Representative of the Lawful Owner, of the Ore described in this Settlement Sheet and have legal right to deliver the same to Climax Uranium Company.

I hereby transfer to Climax Uranium Company, effective as of the date of delivery of the ore, all my right, title and interest in and to said ore.

I will accept the amount as shown above as "Total Gross Price" in full settlement, for sums due to me on account of the deliveries described herein.

Seller or Agent

Buyers assays govern if Seller fails to submit his assays prior to acceptance of payment.
All rates paid are based on U. S. Atomic Energy Commission Published Schedules.

CU-178-3M-11-50 W-Y

UNITED STATES VANADIUM COMPANY

A DIVISION OF UNION CARBIDE AND CARBON CORPORATION

UCC

URAVAN, COLORADO

September 29, 1951

Messrs. Floyd Hamrick & Charles Linscott
Rt. 11,
Grand Junction, Colorado

Gentlemen:

This is to advise that the ore shipped to Uravan has been analysed in our laboratory as shown below:

DATE	CLAIM	TICKET NO.	% V_2O_5	% U_3O_8	% $CaCO_3$
9/25	Lee	34444	8.94	16.62	2.22

Very truly yours,

UNITED STATES VANADIUM COMPANY

E. M. Paris
p.p.

E. M. Paris
Mine Superintendent

EMP/ow

CLIMAX URANIUM COMPANY

GRAND JUNCTION, COLO.

(19) ✓

Receiving Station: Climax Uranium Company — Grand Junction, Colorado, October 9, 1951

Settlement No.: 271 — Lot No.: — Shippers Lot No.:

Shipper of: Floyd Hamrick & Charles A. Linscott — A.E.C. License No.: R-617

Address: Route 11, Grand Junction, Colorado

Type of Ore: Carnotite — Date Received: 9/27/51

Mining Claim: Lee #4 — Mining District: Calamity — File No.:

Lot No.	Wet Weight Pounds	H_2O	Dry Weight Pounds	Settlement Assays U_3O_8	Settlement Assays V_2O_5	Settlement Assays $CaCO_3$	Contents Pounds U_3O_8	Contents Pounds V_2O_5	Contents Pounds $CaCO_3$
	1,250	2.0	1,225 (2)	3.45 (3)	6.45 (4)		42.26	79.01	

(5)

	Per lb.	Per Ton	Short Tons	Total Value
U_3O_8				
3.45% = 42.26 lbs. at	$ 3.50	$ 242.48	.61	$ 147.91
Development Allowance 42.26 lbs. at	.50	34.64	.61	21.13
Premium in excess of 4# per ton				
Total lbs. U_3O_8 42.26				
Less: 0.61 tons @ 4# 2.44				
PREMIUM LBS. 39.82 at	.75	48.97	.61	29.87
Premium in excess of 10# per ton				
Total lbs. U_3O_8 42.26				
Less: 0.61 tons @ 10# 6.10				
PREMIUM LBS. 36.16 at	.25	14.82	.61	9.04
Total U_3O_8 payment				$ 207.95
Haulage allowance $6.00 per wet ton				3.75
TOTAL				$ 211.70
V_2O_5				
6.45% = 79.01 lbs. at	.31	20.15	.61	24.49
Total Gross Price				$ 236.19

Less 1/3 — 78.73

Rec'd Bonus 147.91

384.10

30.#

[illegible] the lawful owner or authorized Representative of the Lawful Owner, of the Ore described in this Settlement [illegible] have legal right to deliver the same to Climax Uranium Company.

[illegible] Climax Uranium Company, effective as of the date of delivery of the ore, all my right, title and interest in [illegible]

[illegible] payment shown as "Total Gross Price" in full settlement, for sums due to me on account of the ore de-

Seller or Agent.

[illegible] governing Seller [illegible] prior to acceptance of payment.
All [illegible] tes paid are based on [illegible] Schedules.

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1. 4

A Division of [illegible] Corporation

ORE SETTLEMENT

Mining Station: Climax, Colorado — Grand Junction, Colorado: October 9, 1951

Settlement No.: [illegible] — Lot No.: [illegible] — Shippers Lot No.: 1

Bought of: Floyd Hamrick & Charles A. Linscott — A.E.C. License No.: R-617

Address: Route 11, Grand Junction, Colorado

Type of Ore: Carnotite — Date Received: 10-5-51

Mining Claim: Lee #4 — Mining District: Calamity Mesa — File No.:

Lot No.	Net Weight Pounds	% H_2O	Dry Weight Pounds	Settlement Assays U_3O_8	Settlement Assays V_2O_5	Settlement Assays $CaCO_3$	Contents Pounds U_3O_8	Contents Pounds V_2O_5	Contents Pounds $CaCO_3$
	420	3.3	383.04	16.52	8.94		63.66	34.24	

PRICED PER A.E.C. CIRCULAR NO. [illegible]

	Pounds	Per Lb.	Dry Short Tons	Per Ton	Value	Total Value
U_3O_8 Payment	63.66	3.50	0.19	1172.41	222.81	
Development Allowance	63.66	.50	0.19	167.53	31.83	
Premium 4 lb. Per Ton Excess	62.12	.75	0.19	249.34	47.38	
Premium 10 lb. Per Ton Excess	61.66	.25	0.19	81.46	15.48	
Total U_3O_8 Payment						317.26
V_2O_5 Payment	34.24	.31	0.19	55.84	10.61	
Total V_2O_5 Payment						10.61
Haulage Allowance 22 Miles 6.21 Wet Tons @ .06 per wet ton mile						.40
Total U_3O_8, V_2O_5 and Haulage Payment						328.27

I certify that I am the lawful owner or authorized Representative of the Lawful Owner, of the Ore described in this Settlement Sheet and have legal right to deliver the same to the United States Vanadium Company, a Division of Union Carbide and Carbon Corporation.

I certify that I hold the A. E. C. Source Material License numbered above.

I hereby transfer to the United States Vanadium Company, a Division of Union Carbide and Carbon Corporation, effective as of the date of delivery of the ore, all my right, title and interest in and to said ore.

The amount set opposite "Total U_3O_8, V_2O_5 and Haulage Payment" shown above constitutes the entire amount payable to me in respect of ore deliveries described herein and is accepted by me in full payment [illegible]

Voucher Number	10-1-49	Date	
Check Number	13989	Date	
Approved for Payment			

6-51-1500 SENTINEL PRINTERS

UNITED STATES VANADIUM CO. — Date 9-25-51

Warren, Colorado — Lee #4 — Mill Bin — Stock Pile

Claim: — From:

Gross 4250 lbs. — Owner: Hamrick & Linscott

Tare 3830 lbs. — Trucker:

Net 420 lbs. — Weighed:

Cu. — Oil — Memo No.

U 34444