Surname copy

700

Ching
Ellis
Yogo
Hilgaard
Selfridge
Johnson

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

JUL 18 1956

Mr. G. C. Ridland
Geological Engineer
U. S. Pitchblende Corporation
822 First National Bank Building
Denver 2, Colorado

Re: Docket No. DMEA-4185 (Uranium)
Broken Ridge Property
Clark County, Nevada

Dear Mr. Ridland:

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

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

Careful study of all our information, although noting the presence of low-grade uranium mineralization on your property, 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.

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

Sincerely yours,

G. O. Mittendorf

Administrator

MChing/gla
7-16-56
cc to: Admr.'s Reading File
Operating Committee
Docket
Messrs. JECrawford, Rm. 3641
THKiilsgaard, Rm. 5224
JOHosted, Rm. 3210, GSA
Code 700
Mr. Ching
DMEA Field Team, Region IV (2)

A.C.G.

Docket Copy 700

Ching
Ehs

Summary of Proposed Project

July 16, 1956

Object: Denial of application for an exploration project

Docket No.: DMEA-4185

Commodity: Uranium

Applicant: U. S. Pitchblende Corporation
822 First National Bank Building
Denver 2, Colorado

Property: Two claims, Carnotite No. 1 and Broken Ridge, situated in sec. 20, T. 16 S., R. 67 E., M.D.B. & M., Clark County, Nevada. Applicant is the Lessee.

Date of Application: February 19, 1956

Amount of Application: $140,645.00

Work Proposed: Explore a steeply dipping radioactive zone at depth by 7 diamond drill holes totaling 5,445 feet, a 500-foot shaft, and 1000 feet of drifting from the bottom of the shaft. Estimated costs are as follows:

5,450 ft. core drilling @ $5.00/ft.	$27,250.00
500 ft. shaft sinking @ $134.83/ft.	67,415.00
1,000 ft. drifting @ $45.98/ft.	45,980.00
Total	$140,645.00
Government participation @ 75%	$105,483.75

Field Team Report: June 18, 1956. B. H. Sheahan & Walter Bank, USBM
D. B. Tatlock, USGS

The rocks on the property consist of highly folded, steeply-dipping Cretaceous sandstone with interbeds of cherty limestone, conglomerate, and clay. A thin layer of clay shale, underlying the lower of two limestone beds, contain radioactive carbonaceous material. The radioactive zone along a steeply-dipping bedding plane fault is intermittently exposed in four outcrops totaling 80 feet in length over a distance of 280 feet along the strike. It ranges from 4 to 6 feet in thickness and has been exposed to a depth of 58 feet in an old shaft.

Nine representative samples were taken on the surface, midway down the shaft and at the bottom of the shaft. The lowest chemical assay was 0.003% U_3O_8 and the highest 0.06% U_3O_8. Average grade of the mineralized material is about 0.02% U_3O_8. The mineralized zone cannot be projected to depths of 500 feet or more with any degree of reliability owing to the close folding and overturning of the beds. Because of the low grade of the material exposed and the lack of any evidence that the grade will increase with depth, or along the strike, it is recommended that the application be denied.

Commodity Group Comments:

USGS - N. E. Nelson, June 29, 1956

Lack of ore grade material and reasons for expecting it at some unknown depth justify the recommendation of the examiners that the application be denied.

USBM - James Paone, July 10, 1956

Discussed report of examination with the AEC representative. Concurs in the recommendation that the application be denied.

Rare and Miscellaneous Metals Division, Michael Ching
July 13, 1956.

The results of the field examination show that the presence of widespread anomalous radioactivity along a bedding plane fault and a few selected specimens of ore grade are insufficient criteria for a potential ore deposit. Representative samples failed to show the presence of ore-grade material at the best exposures and there was no evidence that grade would improve with depth.

Conclusions and Recommendations:

The chances of finding a worthwhile ore body on this property are poor. It is recommended that the application be denied.

Ernest Wm. Ellis

Ernest Wm. Ellis, Chief
Rare and Miscellaneous
Metals Division

7-11-56

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

July 10, 1956

RECEIVED
JUL 11 1956

Memorandum

To: Ernest William Ellis, DMEA Member
Uranium Commodity Committee

From: James Paone, Bureau of Mines Alternate Member
Uranium Commodity Committee

Subject: Report of Examination, DMEA Docket 4185 (Uranium), U.S. Pitchblende Corporation, Broken Ridge Property, Clark County, Nevada

I have reviewed the report of examination, DMEA Docket 4185, U. S. Pitchblende Corporation, Broken Ridge Property, Clark County, Nevada, dated June 18, 1956, and received in this office June 28. I have also discussed it with Joseph O. Hosted, Washington representative of the Atomic Energy Commission.

The examining team recommend that the application for exploration assistance be denied because of the low grade of the exposed uranium-bearing material and the lack of any evidence to indicate an increase in grade at depth or along the strike.

We concur in the recommendation that the application be denied.

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

James Paone

James Paone

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

RECEIVED
JUL 11 1956

July 10, 1956

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Uranium Commodity Committee

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James Paone

6/29/06

IN REPLY REFER TO:

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

RECEIVED
JUN 29 1956

June 29, 1956

Re: DMEA 4185
U. S. Pitchblende Corp.
Broken Ridge property
Clark Co., Nev.
$140,646.00 - Uranium

Memorandum

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

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

Subject: Review of Field Team report.

The applicant requested assistance in exploring by drilling, shaft sinking and drifting a steeply-dipping thin bed of limestone and an underlying layer of clay shale which contains radioactive carbonaceous material.

A shaft 58 feet deep and a few pits have been sunk in the limestone shale beds. Carnotite has been noted along the outcrop as a coating on clay layers and to a depth of about 15 feet in the shaft.

Sampling in the shaft and along the outcrop failed to show material of ore grade and the examiners noted no tendency for the grade to increase with depth and found no reason for thinking such might happen, as postulated by the applicant.

Lack of ore grade material and reasons for expecting it at some unknown depth justify the recommendation of the examiners and the Field Team that the application be denied.

I concur with the recommendation.

N. E. Nelson

N. E. Nelson

IN REPLY REFER TO:

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

RECEIVED
JUN 29 1956

June 29, 1956

re: [illegible] 4185
[illegible] itchblende [illegible]
[illegible]roken [illegible]idge property
[illegible]lark [illegible]., [illegible]ev.
[illegible]160,546.00 - [illegible]radium

[illegible]emorandum

[illegible]o: [illegible] [illegible]llis, [illegible]efense [illegible]nerals [illegible]xploration [illegible]dministration

[illegible]rom: [illegible]. [illegible] Nelson, U. [illegible] [illegible]eological [illegible]urvey

[illegible]ubject: [illegible]eview of [illegible]ield [illegible]eam report.

The applicant requested assistance in exploring by drilling, shaft sinking and drifting a steeply-dipping thin bed of limestone and an underlying layer of clay shale which contains radioactive carbonaceous material.

A shaft 54 feet deep and a few pits have been sunk in the limestone shale beds. Carnotite has been noted along the outcrop as a coating on clay layers and to a depth of about 15 feet in the shaft.

Sampling in the shaft and along the outcrop failed to show material of ore grade and the examiners noted no tendency for the grade to increase with depth and found no reason for thinking such might happen, as postulated by the applicant.

Lack of ore grade material and reasons for expecting it at some unknown depth justify the recommendation of the examiners and the Field Team that the application be denied.

I concur with the recommendation.

N. E. Nelson

N. E. Nelson

N Nelson:bbtr
D 6/29/56

cc: J. E. Crawford, Rm. 3641
J. O. Hosted, Rm. 3210
Director's reading file (A212)
Branch reading file
DBA(3)
Chron. file
Docket file

DMEA
7/2/56

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

RECEIVED
JUN 25 1956

1605 Evans Avenue
Reno, Nevada

June 21, 1956

Memorandum

To: Operating Committee, DMEA, Washington 25, D.C.

From: Executive Officer, DMEA Field Team, Region II

Subject: Docket No. DMEA-4185 (Uranium)
U. S. Pitchblende Corporation
Broken Ridge Property
Clark County, Nevada

Reference is made to your letter of March 12, 1956 requesting a field investigation of the subject property.

Attached are four copies of a report by B. H. Sheahan of the Bureau of Mines and D. B. Tatlock of the Geological Survey, in which it is concluded that an exploration project is not warranted because ore of commercial grade cannot be inferred.

This report has been unduly delayed owing to length of time required for receiving dependable assay results.

Roscoe Smith and I concur in the recommendation.

S. Ricker

Attach.

Reviewed by
DMEA OPERATING COMMITTEE
6-29-56
(date)

RECEIVED
JUN 25 1956

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

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION II

APPLICATION REPORT

DMEA 4185 (uranium)
U. S. Pitchblende Corporation
Broken Ridge property
Clark County, Nevada

by

B. H. Sheahan
Walter Bank
U. S. Bureau of Mines

D. B. Tatlock
U. S. Geological Survey

June 18, 1956

Reviewed by
DMEA OPERATING COMMITTEE
6-29-56
(date)

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ILLUSTRATIONS

Figure 1 . . . . . Location map

2 . . . . . Geologic sketch map

INTRODUCTION

The U. S. Pitchblende Corporation, 822 First National Bank Building, Denver 2, Colorado, applied to the Defense Minerals Exploration Administration for Government assistance in a $140,646.00 program to explore for uranium at the Broken Ridge property, Clark County, Nevada. The application was referred to the field by the Operating Committee on March 12, 1956.

The property was examined March 25-26, 1956 by B. H. Sheahan and Walter Bank of the U. S. Bureau of Mines, and D. B. Tatlock, U. S. Geological Survey. The applicant's representative, Mr. G. C. Ridland, and his resident associates, Messrs. Sidney Bell, Howard L. Perkins, and Bryant Perkins, accompanied the examiners.

The applicant wishes to explore for primary uranium ore at depth as he believes that there are indications of possible primary ore at the inferred depth of the water table.

CONCLUSIONS AND RECOMMENDATIONS

Radioactive material, chiefly "carbon trash", is disseminated in clay and gouge along a steeply-dipping bedding plane fault in sandstone. There are no reserves of ore grade. Reserves of less than ore grade total about 5,000 tons averaging about 0.02 percent U_3O_8.

It is recommended that the application for Government assistance be denied because of the low grade of the exposed uranium-bearing material and the lack of any evidence to indicate an increase in grade at depth or along the strike.

LOCATION, ACCESSIBILITY, AND LOCAL FACILITIES

The property is in the SE 1/4, sec. 20, T. 16 S., R. 67 E., M.D.B.&M., Clark County, Nevada, at an altitude of about 2,000 feet in the semi-arid Muddy Mountain range (fig. 1).

To reach the deposit follow a narrow, winding, sandy road 6.6 miles westerly from Overton, Nevada. A four-wheel drive vehicle is required.

Overton is the nearest source of power, water, labor, and supplies. The climate during summer months is very hot and the working season is about nine months a year. The wage scale is $2.00 per hour for semi-skilled labor at the nearby Nevada Silica Sand deposits.

HISTORY AND PRODUCTION

Carnotite was discovered by members of the pioneer Perkins family in 1916 while prospecting for radium and a group of claims were located and a shaft was later sunk on the Carnotite No. 1 claim.

In 1953, the claims were relocated by Howard L. Perkins, Bryant Perkins, Fay R. Perkins, and associates. Nevada Tungsten and Uranium, Inc., with offices at 118 Friedman Building, Third and Fremont Streets, Las Vegas, Nevada, acquired the property and other claims from the Perkins. This corporation let a contract to Messrs. Jay Jacobson and Albert E. Johnson, 647 South 11th East, Salt Lake City, Utah, and the old shaft was reopened in 1954. No ore has been produced.

PROPERTY AND OWNERSHIP

Nevada Tungsten and Uranium, Inc. leased 10 claims, including the Carnotite No. 1 and Broken Ridge No. 1, to Eldorado Mining Company, Ltd., another Nevada corporation. Jayson Associates of New York City formed U. S. Pitchblende Corporation which obtained an assignment of the property from the two previous corporations.

Location certificates are recorded in the County Recorder's office, Las Vegas, Nevada.

DEVELOPMENT

The Carnotite No. 1 claim is developed by a one-compartment, partly timbered, crooked, inclined shaft (5 feet by 7 feet) to a depth of 58 feet. From the bottom of the shaft a crosscut has been driven 10 feet north and a drift 19 feet west. The only other workings on the property are a few shallow prospect pits and dozer trenches.

The only surface improvement is a poorly constructed headframe. There is no equipment on the land and none is owned by U. S. Pitchblende. The depth of the water table in this area is unknown.

No exploratory drilling has been done. Core recovery would be poor. The holes proposed would require casing and water consumption would be high.

GENERAL GEOLOGY

The Broken Ridge property is underlain by folded and faulted Cretaceous sandstones containing minor interbeds and lenses of conglomerate, limestone, and clay, from which an overthrust plate of Jurassic Aztec sandstone has been partly removed by erosion[/].

/Longwell, C. R., 1949: Structure of the Northern Muddy Mountain area, Nevada; Bull. Geol. Soc. of Am., Vol. 60, pp. 923-968.

The Aztec sandstone is thick-bedded and strongly cross-bedded. It is normally brick red, but over large areas the original color has been altered by leaching to lavender, yellow, cream, and white. The Cretaceous deposits have been subdivided into the Willow Tank formation and the Baseline sandstone. The Willow Tank formation is about 300 feet thick and consists of coarse conglomerates at the base succeeded by clay and limestone beds interspersed with layers of tuffaceous sandstone. The clays contain fragments of silicified wood and carbonaceous material. The Baseline sandstone is about 3,000 feet thick and is made up largely of reworked sand from the Jurassic Aztec sandstone.

The Aztec was thrust from west to east over the Cretaceous deposits. The Cretaceous beds are strongly upturned and folded along the thrust block. After the thrusting the entire area was tilted eastward about 30°.

In the mine area the rocks consist of highly folded, steeply-dipping Cretaceous sandstone with interbeds of cherty limestone, conglomerate and clay.

Graded bedding in the sandstones indicates that tops are to the north. Locally the beds are slightly overturned.

In the vicinity of the shaft two thin cherty limestone layers, about 30 feet apart stratigraphically, are interbedded in the massive

sandstone. This sequence forms a syncline that plunges about 70° north. The lower limestone, on which the shaft was sunk, is from 1 to 3 feet thick and is underlain by a thin layer of clay shale which contains radioactive carbonaceous material. There has been bedding-plane movement, probably as a result of folding, along the clay-limestone zone. The upper limestone layer is from 2 to 7 feet thick; no carbonaceous clay is present along its base and no anomalous radioactivity was recorded along the strike.

About 200 feet northwest of the shaft a steeply-dipping, northeast-trending fault cuts off the syncline. Northwest of the fault two steeply-dipping, northwest-trending limestone beds, each about 2 feet thick, are enclosed in massive sandstone with thin interbeds and lenses of coarse conglomerate. The limestone beds are separated by a clay layer one to four inches thick which contains only slightly radioactive carbonaceous material and cherty limestone nodules.

ORE DEPOSITS

Radioactive material, chiefly "carbon trash" is disseminated in clay and gouge along a steeply-dipping zone of bedding plane slips which trends about N 80° E. Carnotite occurs as coatings on clay layers near the surface. A typical section across the radioactive zone at the surface in the vicinity of the shaft consists of massive pink sandstone in the footwall overlain

by 30 inches of silty red shale, 3 inches of green clay gouge, 6 to 8 inches of green clay mottled black with radioactive carbonaceous material, 6 to 10 inches of gouge with chert nodules and some radioactive carbonaceous material, 30 inches of cherty limestone, a clay seam from 1 to 3 inches thick, and massive sandstone in the hanging wall.

The ore body is intermittently exposed in four outcrops totaling 80 feet in length for 280 feet along the strike and ranges from four to six feet in thickness; it has been exposed to a depth of 58 feet in the shaft. The cherty limestone bed is fractured and parted; clay containing radioactive carbonaceous material fills the partings and occurs along slips above and below the limestone. Some carnotite is present on the surface and to a depth of about 15 feet in the shaft; it occurs as thin coatings sporadically distributed on clay layers and on cherty limestone nodules in the clay.

There is no increase in grade or thickness in the ore zone at depth.

SAMPLING

The following samples were taken at locations indicated on the attached geologic map. Radiometric and chemical analyses were determined by the Atomic Energy Commission, Salt Lake City, Utah.

Sample No.	Width, feet	% eU_3O_8	% cU_3O_8	Remarks
S-473	2.0	*0.01	0.003	Gray shale, trace yellow.
S-474	2.5	0.05	0.060	Black, coal-like material.
S-475	4.0	0.07	0.008	Gray soft limy nodular shale.
S-476	0.1	0.03	0.024	Film along side of drift.
S-477	5.0	0.02	0.019	Gray limy shale, trace yellow.
S-478	2.5	0.02	0.017	Gray and buff shale, footwall.
S-479	1.0	0.02	0.024	Chert with yellow stain.
S-480	3.0	*0.01	0.007	Soft gray shale.
S-481	3.0	*0.01	0.005	Sandy shale from open cut.

*less than

ORE RESERVES

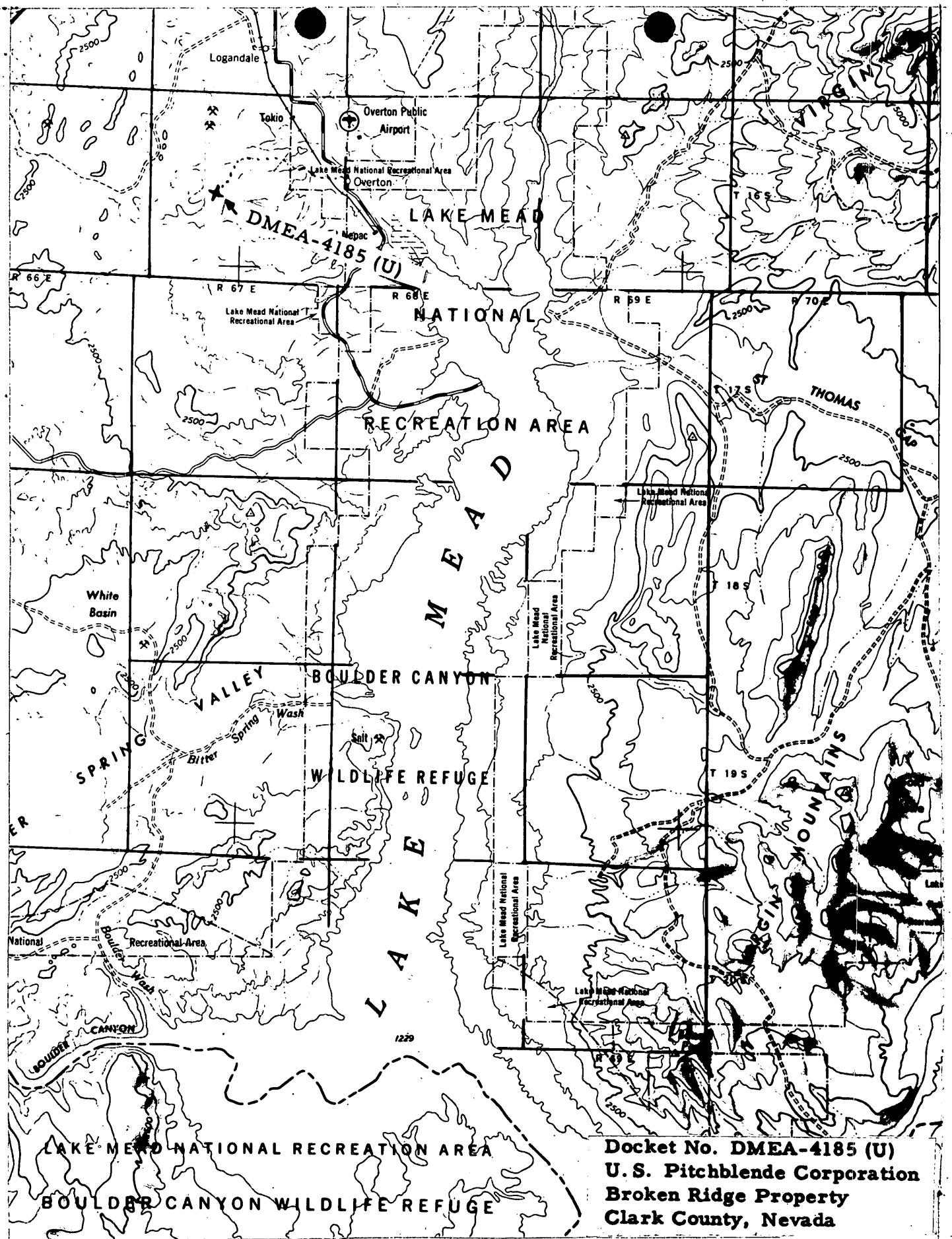
There are no reserves of ore grade. Reserves of less than ore grade total about 5,000 tons averaging about 0.02 percent U_3O_8.

PROPOSED EXPLORATION

The applicant proposes to explore the mineralized zone at depths ranging from 500 to 1,200 feet by seven diamond drill holes totaling 5,445 feet from a surface station 450 feet N 25° W from the existing shaft and by 1,000 feet of drifting from the bottom of a proposed 500-foot shaft to be located adjacent to the existing shaft.

Geologically the program is unsound in that the mineralized zone can not be projected to depths of 500 to 1,200 feet with any degree of reliability owing to the close folding and overturning of the beds as exposed on the surface.

It is recommended that the application for Government aid be denied because of the low grade of the ore as exposed in the shaft and on the surface and the lack of any evidence to indicate that the grade will increase at depth or along the strike.



Docket No. DMEA-4185 (U)
U.S. Pitchblende Corporation
Broken Ridge Property
Clark County, Nevada

Figure 1 LOCATION MAP NEVADA

6/26/56

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

RECEIVED
JUN 28 1956

1605 Evans Avenue
Reno, Nevada

June 21, 1956

Memorandum

To: Operating Committee, DMEA, Washington 25, D.C.

From: Executive Officer, DMEA Field Team, Region II

Subject: Docket No. DMEA-4185 (Uranium)
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This report has been unduly delayed owing to length of time required for receiving dependable assay results.

Roscoe Smith and I concur in the recommendation.

S. Ricker

Attach.

SRicker:gh
cc: R. M. Smith
File

Reviewed by
DMEA OPERATING COMMITTEE
6-29-56
(date)

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

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION II

APPLICATION REPORT

DMEA 4185 (uranium)
U. S. Pitchblende Corporation
Broken Ridge property
Clark County, Nevada

by

B. H. Sheahan
Walter Bank
U. S. Bureau of Mines

D. B. Tatlock
U. S. Geological Survey

June 18, 1956

Reviewed by
DMEA OPERATING COMMITTEE
6-29-56
(date)

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To reach the deposit follow a narrow, winding, sandy road 6.6 miles westerly from Overton, Nevada. A four-wheel drive vehicle is required.

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The only surface improvement is a poorly constructed headframe. There is no equipment on the land and none is owned by U. S. Pitchblende. The depth of the water table in this area is unknown.

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The Aztec was thrust from west to east over the Cretaceous deposits. The Cretaceous beds are strongly upturned and folded along the thrust block. After the thrusting the entire area was tilted eastward about 30°.

In the mine area the rocks consist of highly folded, steeply-dipping Cretaceous sandstone with interbeds of cherty limestone, conglomerate and clay.

Graded bedding in the sandstones indicates that tops are to the north. Locally the beds are slightly overturned.

In the vicinity of the shaft two thin cherty limestone layers, about 30 feet apart stratigraphically, are interbedded in the massive

sandstone. This sequence forms a syncline that plunges about 70° north. The lower limestone, on which the shaft was sunk, is from 1 to 3 feet thick and is underlain by a thin layer of clay shale which contains radioactive carbonaceous material. There has been bedding-plane movement, probably as a result of folding, along the clay-limestone zone. The upper limestone layer is from 2 to 7 feet thick; no carbonaceous clay is present along its base and no anomalous radioactivity was recorded along the strike.

About 200 feet northwest of the shaft a steeply-dipping, northeast-trending fault cuts off the syncline. Northwest of the fault two steeply-dipping, northwest-trending limestone beds, each about 2 feet thick, are enclosed in massive sandstone with thin interbeds and lenses of coarse conglomerate. The limestone beds are separated by a clay layer one to four inches thick which contains only slightly radioactive carbonaceous material and cherty limestone nodules.

ORE DEPOSITS

Radioactive material, chiefly "carbon trash" is disseminated in clay and gouge along a steeply-dipping zone of bedding plane slips which trends about N 80° E. Carnotite occurs as coatings on clay layers near the surface. A typical section across the radioactive zone at the surface in the vicinity of the shaft consists of massive pink sandstone in the footwall overlain

by 30 inches of silty red shale, 3 inches of green clay gouge, 6 to 8 inches of green clay mottled black with radioactive carbonaceous material, 6 to 10 inches of gouge with chert nodules and some radioactive carbonaceous material, 30 inches of cherty limestone, a clay seam from 1 to 3 inches thick, and massive sandstone in the hanging wall.

The ore body is intermittently exposed in four outcrops totaling 80 feet in length for 280 feet along the strike and ranges from four to six feet in thickness; it has been exposed to a depth of 58 feet in the shaft. The cherty limestone bed is fractured and parted; clay containing radioactive carbonaceous material fills the partings and occurs along slips above and below the limestone. Some carnotite is present on the surface and to a depth of about 15 feet in the shaft; it occurs as thin coatings sporadically distributed on clay layers and on cherty limestone nodules in the clay.

There is no increase in grade or thickness in the ore zone at depth.

SAMPLING

The following samples were taken at locations indicated on the attached geologic map. Radiometric and chemical analyses were determined by the Atomic Energy Commission, Salt Lake City, Utah.

Sample No.	Width, feet	% eU_3O_8	% cU_3O_8	Remarks
S-473	2.0	*0.01	0.003	Gray shale, trace yellow.
S-474	2.5	0.05	0.060	Black, coal-like material.
S-475	4.0	0.07	0.008	Gray soft limy nodular shale.
S-476	0.1	0.03	0.024	Film along side of drift.
S-477	5.0	0.02	0.019	Gray limy shale, trace yellow.
S-478	2.5	0.02	0.017	Gray and buff shale, footwall.
S-479	1.0	0.02	0.024	Chert with yellow stain.
S-480	3.0	*0.01	0.007	Soft gray shale.
S-481	3.0	*0.01	0.005	Sandy shale from open cut.

*less than

ORE RESERVES

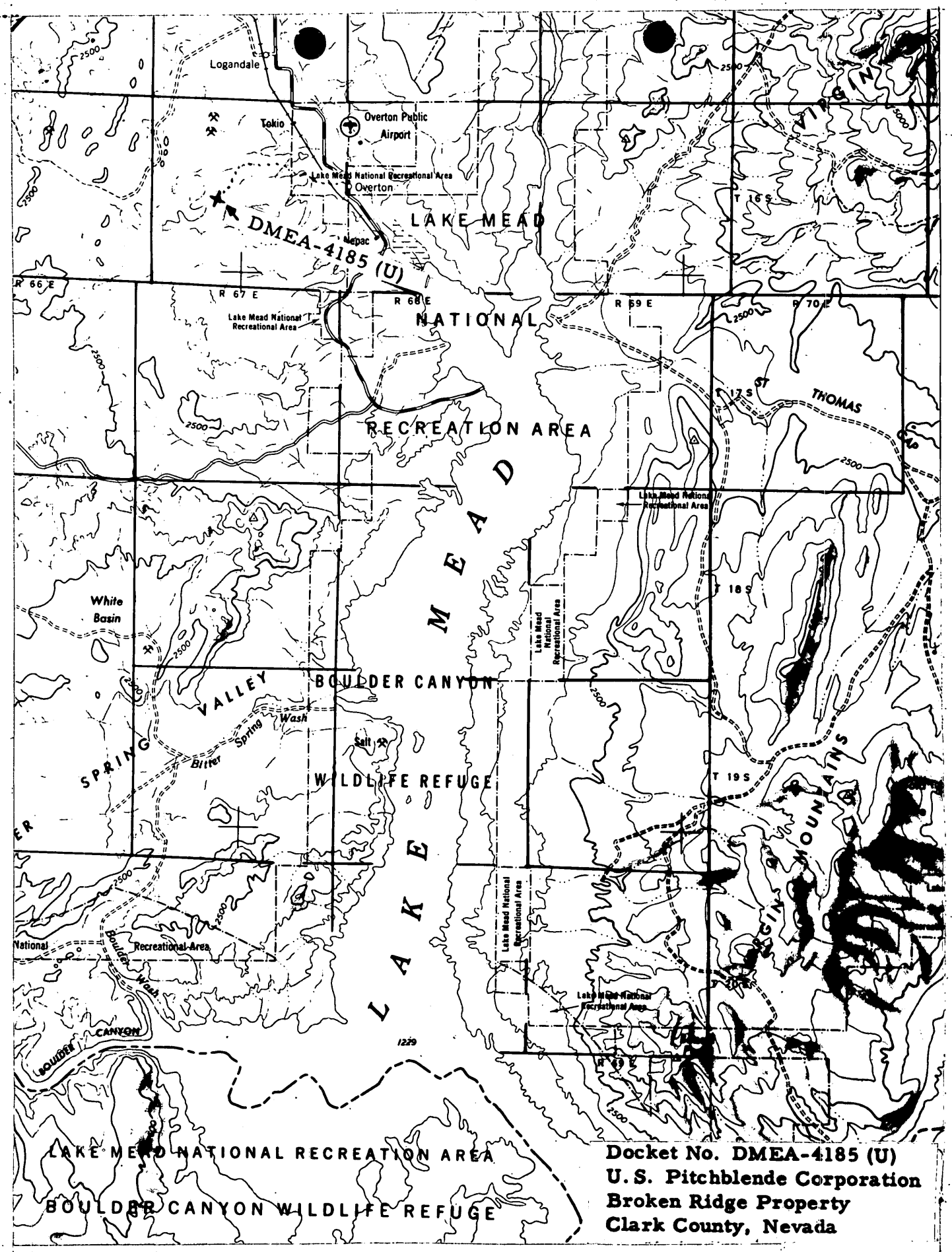
There are no reserves of ore grade. Reserves of less than ore grade total about 5,000 tons averaging about 0.02 percent U_3O_8.

PROPOSED EXPLORATION

The applicant proposes to explore the mineralized zone at depths ranging from 500 to 1,200 feet by seven diamond drill holes totaling 5,445 feet from a surface station 450 feet N 25° W from the existing shaft and by 1,000 feet of drifting from the bottom of a proposed 500-foot shaft to be located adjacent to the existing shaft.

Geologically the program is unsound in that the mineralized zone can not be projected to depths of 500 to 1,200 feet with any degree of reliability owing to the close folding and overturning of the beds as exposed on the surface.

It is recommended that the application for Government aid be denied because of the low grade of the ore as exposed in the shaft and on the surface and the lack of any evidence to indicate that the grade will increase at depth or along the strike.



Docket No. DMEA-4185 (U)
U.S. Pitchblende Corporation
Broken Ridge Property
Clark County, Nevada

Figure 1 LOCATION MAP NEVADA

6-7-56

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

1605 Evans Avenue
Reno, Nevada

June 5, 1956

Alice Jayson,
Secretary Treasurer
U. S. Pitchblende Corporation
414 East 52nd Street
New York 22, N. Y.

Re: Docket No. DMEA-4185 (Uranium)
Broken Ridge Property
Clark County, Nevada

Dear Miss Jayson:

Please refer to your letter of May 31, 1956 requesting information on the status of your application.

A field examination of your property was made March 25 and 26, during which several samples were taken. Several of these samples upon assay showed a wide discrepancy in chemical and radiometric results.

Because we wish to give every consideration to your application, we are holding our report to Washington until these samples have been rechecked. We will forward our report promptly when this information is received.

Very truly yours,

S. Ricker
Executive Officer
DMEA Field Team, Region II

SRicker:gh
cc: Opr. Com., DMEA, Wash., D.C.
R. M. Smith
File

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

RECEIVED
JUN 7 1956

1605 Evans Avenue
Reno, Nevada

June 5, 1956

Alice Jayson,
Secretary Treasurer
U. S. Pitchblende Corporation
414 East 52nd Street
New York 22, N. Y.

Re: Docket No. DMEA-4185 (Uranium)
Broken Ridge Property
Clark County, Nevada

Dear Miss Jayson:

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Very truly yours,

S. Ricker
Executive Officer
DMEA Field Team, Region II

SRicker:gh
cc: Opr. Com., DMEA, Wash., D.C.
R. M. Smith
File

700

FILE COPY
Surname:
Ching
Thackson
Hathaway

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

MAY 15 1956

U. S. Pitchblende Corporation
414 East 52nd Street
New York 22, New York

Attention: Alice Jayson, Secretary Treasurer

Re: Docket No. DMEA-4185 (Uranium)
Broken Ridge Property
Clark County, Nevada

Gentlemen:

Reference is made to your letter of May 9, 1956, addressed to the Administrator, inquiring as to when you might hear of the disposition of your application.

In a letter dated March 12, 1956, we advised your Denver office that the application had been referred for further investigation to:

Mr. Spangler Ricker
Executive Officer
DMEA Field Team, Region II
1605 Evans Avenue
Reno, Nevada

We understand that your property was examined on March 25 and 26, by our field personnel and that a report is being prepared. If you wish to keep current on the status of the application, it is suggested that you contact Mr. Ricker at the above address.

Sincerely yours,

SIGNED
F. L. Knouse, Acting Chief
Rare and Miscellaneous
Metals Division

MCHing/izm 5-14-56
cc to: Docket
Code 700
Mr. Ching
Admr.'s Reading File
DMEA Field Team, Region II
Messrs. JECrawford, 3643
THKiilsgaard, Rm. 5224
JOHosted, Rm. 3210, GSA

R.C.H.

5-11-56

U. S. PITCHBLENDE CORPORATION

NEW YORK OFFICE: 414 EAST 52ND STREET • NEW YORK 22, NEW YORK • ELDORADO 5-0326

May 9, 1956

Mr. C. O. Mittendorf, Administrator
Defense Minerals Exploration Administration
Department of Interior
Washington, D C

Re: Docket No. DMEA-4185 (Uranium)
Clark County, Nevada

Dear Mr. Mittendorf:

We would be very grateful if you could let us know when we might hope to hear of the disposition of this application.

Thank you for your courtesy.

Sincerely yours,

Alice Jayson

Alice Jayson
Secretary Treasurer

P

RECEIVED
MAY 10 1956

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

RECD
MAR 23 1956

Mr. E. E. Thurlow, Chief
Exploration Branch
U. S. Atomic Energy Commission
Division of Raw Materials
P. O. Box 2196
Salt Lake City, Utah

1605 Evans Avenue
Reno, Nevada

March 21, 1956

Re: Docket DMEA-4172 (Uranium)
" " 4185 "
" " 4191 "

Dear Mr. Thurlow:

We would appreciate having any information which you can make available to us regarding the following uranium properties. Government exploration assistance through the Defense Minerals Exploration Administration has been requested and it was suggested by our Washington office that you may have pertinent data that would aid us in our field examinations.

Docket No.	Remarks
DMEA-4172	Holiday Mines, Inc., Mr. Edward Goldberg, Pres. Holiday and Falcon claims, located 18 miles east of Hawthorne, Nev. and 3 miles north of Highway 95, in the Fitting Mining Dist., Mineral County, Nevada.
DMEA-4185 (Uranium)	U.S. Pitchblende Corporation, Dr. G. C. Ridland, Geol. Engr. Broken Ridge and Carnotite No. 1 claims. Located in the Old St. Thomas Mining Dist., in sec. 20, T. 16 S., R. 67 E., M.D.B.&M., Clark County, Nevada.
DMEA-4191	Coso Uranium Incorporated; Mr. Ormond Merritt, Pres. White Swan, Linda Sue, Helen Faith and Esther group of claims. Located in sec. 24 and 25, T. 20 S., R. 37 E., and in sec. 24 and 25, T. 20 S., R. 37-1/2 E., M.D.B.&M., Inyo County, California.

Very truly yours,

S. Ricker
Executive Officer
DMEA Field Team, Region II

c
o
p
y

700

FILE COPY
Surname:
Ching
Ely
Selfridge
Johnson

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

MAR 12 1956

Mr. Spangler Ricker
Executive Officer
DMEA Field Team, Region II
U. S. Bureau of Mines
Rare and Precious Metals
Experiment Station
1605 Evans Avenue
Reno, Nevada

Re: Docket No. DMEA-4185 (Uranium)
U. S. Pitchblende Corporation
Broken Ridge Property
Clark County, Nevada

Dear Mr. Ricker:

The subject application is being referred to you for investigation, a field examination if warranted, and recommendations. A copy of the application was forwarded to you on February 23, 1956.

Enclosed are two copies each of memoranda, dated February 28 and March 6, 1956, from James Paone, USBM, and M. E. Nelson, USGS, respectively.

In the event a contract is recommended by the Field Team, a Consent to Lien would be required of Nevada Tungsten and Uranium, Inc., and a Subordination Agreement would be required of Eldorado Mining Company, Ltd.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee

Enclosures

APPROVED:

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

Thor H. Kiilsgaard
Member, Geological Survey

MChing/izm 3-8-56
cc to: Docket
Code 700
Mr. Ching
Admr.'s Reading File
Operating Committee
Messrs. JECrawford, Rm. 3641
THKiilsgaard, Rm. 5224
JOHosted, Rm. 3210, GSA

R.P.B.

700

FILE COPY
Surname:
Chang
Ellis
Fitzgerald
Fuhrer
Holbridge
Johnson

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

MAR 12 1956

U. S. Pitchblende Corporation
822 First National Bank Building
Denver 2, Colorado

Re: Docket No. DMEA-4185 (Uranium)
Broken Ridge Property
Clark County, Nevada

Gentlemen:

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 the Executive Officer of Region II at the following address:

Mr. Spangler Ricker
Executive Officer
DMEA Field Team, Region II
U. S. Bureau of Mines
Rare and Precious Metals
Experiment Station
1605 Evans Avenue
Reno, Nevada

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

Sincerely yours,

C. O. Mittenzwerf

Administrator

MChing/izm 3-8-56
cc to: Docket
Code 700
Mr. Ching
Admr.'s Reading File
DMEA Field Team, Region II (2)

RCS.

3/7/56 [illegible]

IN REPLY REFER TO:

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

RECEIVED
MAR - 6 1956

March 6, 1956

Re: DMEA 4185
U. S. Pitchblende Corp.
Broken Ridge property
Clark County, Nevada
$140,646.00 - Uranium

Memorandum

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

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

Subject: Review of application.

The applicant requests assistance in exploring by deep drilling, shaft sinking and drifting, a steeply dipping bed of very altered and crumbly shale and clay, mineralized with carnotite. Shallow work in the bed shows it to be low grade, but the applicants believe uranium values have been leached near surface and higher grade primary material will be found at depth.

The work proposed consists of:

Stage A	
Drilling A X core, 5,450 feet at $5.00	$27,250.00
Shaft sinking 500 feet at $134.83/ft.	67,415.00
Drifting 1,000 feet at $45.98/ft.	45,981.00
	$140,646.00

The prospecting work done by the applicant consists of a 60-foot 5x7 shaft with a 15½-foot drift from it, and a 12-foot crosscut into the hanging wall. The shaft is in the mineralized zone throughout its length. A channel sample over 8 inches near the shaft collar, probably the best surface showing, assayed 0.37% U_3O_8. Hand specimen grab samples of ore brought up during the shaft sinking assayed 0.15%, 0.64%, and 0.67% U_3O_8. At a depth of 20 feet, a channel sample across ½ feet assayed 0.096% U_3O_8. At the 40-foot level radioactivity measured .17 to .26 mr/hr. across 4½ feet. At the 60-foot level a 2-foot channel sample assayed 0.023% U_3O_8 and other channel samples assayed 0.028, 0.026, and 0.048% U_3O_8.

Radioactivity was recorded along the outcrop of the shale bed for 825 feet west of the shaft and 375 feet east. The mr/hr. count ranged from 0.08 to 1.5. The high readings were obtained 50 feet west and 125 east of the shaft.

The information afforded by the application does not tend to confirm the contention of the applicant that leaching has occurred near the outcrop and better material will be found at depth. The results of sampling at a depth of 60 feet in the shaft do not support the assumption.

Certainly the work now proposed is not yet warranted, but a limited drilling program may be justified.

Referral to the Field Team for appropriate action is recommended.

N. E. Nelson

N. E. Nelson

2/29/56 [illegible]

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

February 28, 1956

Memorandum

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

RECEIVED
FEB 28 1956

From: James Paone, Bureau of Mines Alternate Member
Uranium Commodity Committee

Subject: Application for assistance, DMEA Docket 4185, U. S. Pitchblende Corporation, Clark County, Nevada

I have reviewed the attached application of U. S. Pitchblende Corporation, DMEA Docket 4185, dated February 19 and received in this office February 23. I have also discussed it with Joseph O. Hosted, Washington representative of the Atomic Energy Commission.

The U. S. Pitchblende Corporation has applied for DMEA participation in exploring for uranium on a group of unpatented mining claims located in the Old St. Thomas Mining district, Range 67 East, Township 16 South, Section 20, Clark County, Nevada. All exploration is expected to be conducted from the center of one claim, Carnotite No. 1. The program includes (1) 5,450 feet of AX-size core drilling at $5.00 per foot of drilling, (2) 500 feet of shaft sinking at a unit cost of $134.83 per foot of shaft, and (3) 1,000 feet of drifting at a unit cost of $45.98 per foot of drift. The total estimated cost of the project is $45,981.00.

Although the majority of channel samples from the existing shaft indicate sub-marginal material, several grab samples assayed 0.15, 0.64, and 0.67 percent U_3O_8, respectively.

The unit costs presented by the applicant for the proposed work appear to be relatively average for the region, but the undertaking of the entire exploration plan is questionable. Perhaps the project could be broken down into phases, with each phase depending, of course, upon the results of the one preceding.

We recommend that the application be sent to the Field Team and that they consult with E. E. Thurlow, Chief, AEC, Salt Lake City.

James Paone
James Paone

Attachment

February 23, 1956
Subject: DMEA-4185
Re: Exploration Assistance
Broken Ridge Property

U. S. Pitchblende Corporation
822 First National Bank Building
Denver 2, Colorado

Gentlemen:

The receipt of your application dated February 19, 1956, for exploration assistance under the Defense Production Act of 1950, as amended, is hereby acknowledged.

Your application has been assigned Docket Number DMEA-4185 and referred to the Rare & Misc. Metals Division.

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

Sincerely yours,

Robert E. Adams, Chief
Operations Control and
Statistics Division

P. S. Only four copies of the application are required, we are returning the fifth application.

February 23, 1956

Memorandum

To: Executive Officer, DMEA Field Team, Region II

From: Chief, Operation's Control and Statistics Division

Subject: Assignment of Docket Number

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

DMEA - 4185 U. S. Pitchblende Corporation

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

G. CARMAN RIDLAND
Geological Engineer

TELEPHONE: AMHERST 6-0321

1036 FIRST NATIONAL BANK BUILDING
DENVER 2, COLORADO

February 19, 1956

RECEIVED
FEB 21 1956

Mr. C. O. Mittendorf, Administrator
Defense Minerals Exploration Administration
Department of Interior
Washington 25, D. C.

Re: Broken Ridge Property
Clark County, Nevada

Dear Mr. Mittendorf:

Enclosed please find five copies of an application for exploration aid by U. S. Pitchblende Corporation.

With reference to 1 (d), we are enclosing a copy of the lease and option agreement between the owner, Nevada Tungston and Uranium Corporation, and Eldorado Mining Company and copy of the assignment of this contract to Jayson Associates.

The assignment from Jayson Associates to U. S. Pitchblende has not arrived yet, and as soon as it does, I will send it directly to you.

If the application is unsuccessful, we would appreciate the return of the maps and legal documents.

Very truly Yours,

G. C. Ridland
for U. S. Pitchblende Corporation

GCR:pd

RECEIVED

FEB 21 1956

February 19, 1956

Mr. C. O. Mittendorf, Administrator
Defense Minerals Exploration Administration
Department of Interior
Washington 25, D. C.

Re: Broken Ridge Property
Clark County, Nevada

Dear Mr. Mittendorf:

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If the application is unsuccessful, we would appreciate the return of the maps and legal documents.

Very truly Yours,

G. C. Ridland

G. C. Ridland
for U. S. Pitchblende Corporation

GCR:pd

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED FEB 21 1956

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

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

Not to be filled in by applicant

Docket No. DMEA-4185
Metal or Mineral Uranium
Date Received 2-21-56
Estimated Cost $45,981.00
Participation (Government %)

INSTRUCTIONS

1. *Name of applicant.*—(*a*) State here your full legal name, in the form in which you will wish to contract, and your mailing address: U. S. Pitchblende Corporation
822 First National Bank Building
Denver 2, Colorado

(*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.

(All other questions answered on sheets attached.)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

☐ Money ☐ Use of equipment owned by you ☐ Other

Explain in detail on acompanying paper.

CERTIFICATION

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

Dated ..... 195[illegible]

[illegible] Corporation
(Applicant)

By G. C. Kirkland

[illegible]

Geological Engineer

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

U. S. PITCHBLENDE CORPORATION

822 First National Bank Building
Denver 2, Colorado

APPLICATION FOR AID IN AN EXPLORATION PROJECT
PURSUANT TO DMEA ORDER 1

1. (a) Applicant: U. S. Pitchblende Corporation, 822 First National Bank Building, Denver 2, Colorado.

(b) Corporation - incorporated in the State of Nevada.

(c) Officers: H. J. Stell, President, 333 W. 57th Street, New York, New York
Alice Jayson, Secretary-Treasurer, 414 East 52nd Street, New York, New York

3. (a) Unpatented lode mining claims, located in the Old St. Thomas Mining District, Range 67 East, Township 16 South, Section 20, Clark County, Nevada, all exploration to be conducted approximately from the center of one claim, Carnotite No. 1, recorded at the Clark County Court House, Book 3, Page 5531, and possibly extending over into Broken Ridge, recorded in Book 3, Page 5332.

(b) Broken Ridge Property

(c) Interest in the Land: Lessee with an assignment of a lease and option.

(d) Assignments and contracts attached.

(f) Given above in 3 (a).

4. (a) Physical Description:

The main showing is exposed for 110 feet and is located south of an east-west line running through the central part of the Carnotite No. 1 claim. At this showing a shaft, 8 feet by 10 feet at the collar and 5 feet by 7 feet in the shaft, has been sunk at an angle of 65 to 70 degrees to the north-northwest. The shaft is 60 feet deep and is in the mineralized zone all the way, the zone extending below the present bottom level of the shaft. At the bottom of the shaft a drift has been driven west in the mineralized zone for 15½ feet, and a crosscut has been started through the limestone bed that forms the hanging wall and on into the sandstone for 12 feet.

Another mineralized zone is exposed for 400 feet in a north-south direction in the northeastern sector of Broken Ridge No. 1 claim. Numerous bulldozed roads and cuts made by a cat connect different parts of the property. Several cuts have been made at right angles through different exposed formations. The northern part of the property has a series of sandstone beds curving from the north towards the southeast. The beds in the eastern edge of the claim group have less of a dip to the west, but to the west the dip of the beds steepen until they are lying vertically.

There are also several axes of stress and possible movement on the property, but too much overburden and a scarcity of outcrops prevents determination visually of the amount of movement. The property can be reached by a bulldozed road 7 miles long that is strictly a jeep road. The diggings are exposed and accessible on the property. The shaft is timbered and braced with a series of ladders extending to the bottom.

(b) No past production and no present production.

(c) The country rock of the area is a dark-red, medium-grained sandstone that underlies the claim groups, and is found outcropping in all directions from the area of interest. Chester Longwell in his U.S.G.S. Bulletin #798 "Geology of the Muddy Mountains, Nevada" concludes that the contorted beds (on the property) resulted from an overthrust from the Willow Tank area to the southest; then the whole area was buried under a coarse rubbly fanglomerate that is well eroded away at present.

The stratigraphic sequence of this area is a series of sandstones, shales, limestones and conglomerates of Triassic or Jurassic age. The mineralized zone is a sedimentary bed of very altered crumbly shale and clay that is found directly south of and adjacent to a thin limestone bed that has numerous silicious nodules scattered throughout it. The mineralization is well scattered throughout the rock bed. It is found as a coating on layers, but in some places the carnotite clusters are quite thick, and large specimens can be obtained with the yellow crystallization completely through the rock. From projection of information obtained by a plane table map of the area, it can be inferred that the mineralized exposures link up in the area covered by gravel overburden. The plane-table map was made to determine locations for a drilling program that would probe this sub-surface structure and prove continuity of the mineralized zone with values at depth. Several hand specimens were taken close to the surface at the main showing near the shaft. Several channel samples were taken, one sample yielding 0.37% U_3O_8 over 8 inches and the other, a continuation over the first eight inches of three feet, went .077%. These specimens had suffered extensive weathering with consequent loss of values. Hand specimen grab samples of ore brought up during the shaft sinking were assayed at 0.15%, 0.64% and 0.67% U_3O_8.

At the collar of the shaft a Geiger counter registers .1 to .2 mr/hr. on average material, and over .2 mr/hr. on visible mineralization. U_3O_8 mineralization continues to the bottom of the shaft without any apparent decrease. Detailed readings and samples were taken at the 20-foot, 40-foot and 60-foot levels.

<u>20-Foot Level</u> - At the east end the Geiger registered .15 to .20 mr/hr. across 4.0 feet of mineralized zone and .2 to 1.0 mr/hr. over a 1/2-foot higher grade section. A channel sample assayed 0.096% U_3O_8.

<u>40-Foot Level</u> - A 4½-foot zone of mineralized zone is exposed and radioactivity measured .17 to .20 mr/hr. across the 4½ feet.

60-Foot Level - At the east end, 4 feet above the bottom of the shaft, the Geiger reading was .1 to .2 mr/hr. across 4 feet. A 2-foot channel sample assayed 0.023% U_3O_8. Several other readings at the bottom of the shaft ranged from .1 to plus .2 mr/hr. over a 5-foot section, and channel samples assayed 0.028%, 0.026% and 0.048% U_3O_8. Channel samples do not show commercial grade ore, but they indicate the presence of uranium mineralization ~~[illegible]~~ in the zone at every place it is exposed over a distance of 1000 feet and down the shaft with no apparent decrease in uranium mineralization.

The Geiger was used to trace out the mineralized zone and to compare the radioactive readings at the various outcrops. Using the shaft as the zero point on the property, readings were made at the outcrops and footages recorded in an easterly or westerly direction from the shaft. At the shaft or zero point Geiger readings were .10 to .20 mr/hr. with a normal background count of .05 mr/hr.

Station	Footage	Direction From Shaft	Geiger Readings
0 (shaft)	0	-	.10 - .20
1	50	West	.20 - 1.5
2	225	West	.08 - .15
3	475	West	.09 - .22
4	550	West	.10 - .20
5	675	West	.15 - .25
6	750	West	.08 - .18
7	825	West	.08 - .15
8	35	East	.15 - .25
9	125	East	.20 - 1.5
10	200	East	.15 - 1.0
11	375	East	.10 - .20

(d) The property is 3 miles due west of Overton, Nevada, Clark County. The property is accessible by a bulldozed road that is in good repair and about 7 miles long. Overton has a branch of the Union Pacific Railway line. The Nevada State Highway No. 12, an all weather blacktop, connects with Highway No. 91, a main north-south artery. A new buying station and mill is being set up at Washington, Utah, 90 miles distant, and should be in operation this summer. The nearnest present buying station is at Marysvale, Utah. Residences can be obtained in Overton, and supplies can be had either in Overton or Las Vegas, 65 miles to the southwest.

(e) Manpower and supplies are available in and around Overton. Materials and equipment could be obtained from Las Vegas. Power could be run overland to the property, and water can be drilled for or transported in tank trucks.

5. (a) Uranium

(b) We propose 5,450 feet of diamond drilling at a set-up on a hill to the north of the shaft. The drill will be oriented in each of three different compass directions, and two holes each will be drilled in each of these three directions. In addition, a vertical hole will be sunk beneath the set up. In addition to testing the sub-surface

extension of the structure this drilling will enable a close examination of the core in the mineralized zone below the 500-foot water table level of the area. Table level of the area on the theory that primary, concentrated uranium mineralization, possibly in the form of pitchblende, exists below the water table. Surface ground-water leeching of the original primary uranium minerals is believed to account for the low but consistent secondary uranium mineralization above the water table.

At the drill set up the first direction of orientation will be S 25 E. A hole drilled at the angle of 70 degrees will cut the mineralized zone at about 650 feet. A second hole at the same set up of 80 degrees will cut the zone at about 850 feet. At a second oriented bearing of S 10 W, 70 degree hole will cut the zone at 610 feet, and the 80 degree hole will go 775 feet before reaching the zone. The third direction of orientation will be S 40 W and at the angle of 70 degrees the zone will be reached at 600 feet while the 80 degree hole will intersect the zone at 760 feet. A vertical hole cored at this set-up will reach the mineralized zone at 1200 feet.

It is further proposed to sink a shaft, based on drilling results, adjacent to the present exploration shaft. The new shaft will be 500 feet in depth and it is proposed to drift along the mineralized zone for 1,000 feet upon reaching the bottom of the shaft. This will put the diggings at, or below, the water table, final considerations to be dictated by the results of the drilling program.

(c) The work will start within ~~30~~ 60 days and be completed within 1 year.

(d) The applicant is a new corporation formed for the purpose of exploring this property. The operation will be organized and supervised by Dr. G. C. Ridland, geological engineer, Denver, Colorado. Dr. Ridland is known to the DMEA as he has supervised the work done on DMEA contracts Idm-E54, Docket No. 1447X, at the Cold Spring mine, Nederland, Colorado, Idm-E501, Docket No. 2878, at the German mine, Central City, Colorado, and Idm-E909, Docket No. 3807, Dozer Mine, Nederland, Colorado.

U. S. PITCHBLENDE CORPORATION
822 First National Bank Building
Denver 2, Colorado

6. Estimate of Costs

Stage A

(a) Independent contracts:

5,450 feet of AX core drilling @ $5.00/ft.	$27,250.00

500-Foot Shaft

(b) Labor, supervision, consultants:

8 Miners 6,400 hrs. @$2.00	$12,800.00	
4 Timbermen 3,200 hrs. @$2.00	6,400.00	
2 Surface men 1,600 hrs. @ $1.89	3,024.00	
2 Hoistmen 1,600 hrs. @ $1.89	3,024.00	
1 Foreman - 5 months @ $600.00	3,000.00	
1 Engineer (part-time) - 5 months @ $100.	500.00	
1 Consultant - 5 months @ $200.00	1,000.00	
1 Truck Driver (water haul) 800 hrs. @ $1.89	1,512.00	
1 Truck Driver (supplies) - 800 hrs. @ $1.89	1,512.00	
	$32,772.00	
Contingencies	3,278.00	
		$36,050.00

(c) Operating materials and supplies: $ 1,000.00

Small tools, shovels, picks, hammers		
Shaft Timber - 40M @ $100/M	4,000.00	
Pipe - 2" water, 700' @ 37¢	259.00	
Pipe - 3" air, 700' @ 65¢	455.00	
Pipe - 12" vent, 600' @$1.00	600.00	
Fittings and misc.	2,000.00	
Powder - 550' @$10.00/ft.	5,500.00	
Caps and fuse - 550' @$1.00/ft.	550.00	
Steel - 550' @$5.00/ft.	2,750.00	
Wire rope - 700' @$1.00	700.00	
Power, gas and oil, and maintenance for diesel power	3,000.00	
Miscellaneous contingencies	2,086.00	22,900.00

(d) Operating Equipment: To be supplied by Company. Ten percent depreciation to be charged to program.

Air compressor	$5,000.00	
Diesel driver, power	6,000.00	
Hoist	2,000.00	
Pumps (2)	2,500.00	
Sinkers (drills) 8	5,600.00	
Accessories for drills	500.00	
	$21,600.00	
10% of $21,600.00		2,160.00

6. Rehabilitation and repairs:

(e) None

(f) New buildings, improvements, installations:

Small surface shed	$500.00	
Hoist and compressor room	700.00	
		$1,200.00

(g) Miscellaneous:

Maintenance of equipment - 5 months @ $100.00	500.00	
Assaying - 50 samples at $5.00	250.00	
Accounting - 5 months @ $150.00	750.00	
Payroll Taxes and insurance, unemployment etc. - 10% of labor	3,605.00	
		$5,105.00

(h) Contingencies: already included.

Total, 500 Feet of Shaft	$67,415.00
Cost Per Foot	134.83

1,000 Feet of Drifting

6. (b) Labor, supervision, consultants:

4 Miners - 3,200 hrs. @$2.00	6,400.00	
2 Timbermen - 1,600 Hrs. @$2.00	3,200.00	
2 Hoistmen - 1,600 hrs. @$2.00	3,200.00	
2 Surface Men - 2 shifts, 1,600 hrs. @$1.89	3,024.00	
1 Foreman - 5 mos. @ $600.00	3,000.00	
1 Engineer (part-time) - 5 months @$100.00	500.00	
1 Consultant - 5 months @ $200.00	1,000.00	
1 Truck Driver (water haul) - 800 hrs. @$1.89	1,512.00	
1 Truck Driver (Supplies) - 800 hrs. @$1.89	1,512.00	
Miscellaneous contingencies	2,335.00	
		$25,683.00

(c) Operating materials and supplies:

Small Tools	500.00	
Timber - 5M @ $80./M	400.00	
Pipe - 2" water, 1,000' @ 37@	370.00	
Pipe - 3' air, 1,000' @ 65¢	650.00	
Pipe - 12" vent, 500' @ $1.00	500.00	
Misc. Pipe fittings	500.00	
Powder - 1,000' @ $3.00/ft.	3,000.00	
Caps and fuse - 1,000' @ 50¢/ft	500.00	
Drill steel and bits - 1,000' @ $1.00/ft.	1,000.00	
Power, gas, oil and maintenance	3,000.00	
Rail and ties - 1,000' @ $2.00/ft.	2,000.00	
Miscellaneous contingencies	1,100.00	13,520.00

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6. (d) Operating equipment: To be supplied by Company. Ten percent depreciation to be charged to program.

Same as for shaft sinking	$21,600.00	
Add mucking machine	3,000.00	
	24,600.00	
10% of $24,600.00		2,460.00

(e) Rehabilitation and repairs: None

(f) New buildings, improvements, installations: None

(g) Miscellaneous:

Maintenance of equipment - 5 mos. @ $100.	500.00	
Assaying - 100 samples @ $5.00	500.00	
Accounting - 5 mos. @ $150.	750.00	
Payroll taxes and insurance - 10% of labor	2,568.00	
		4,318.00

(h) Contingencies: already included

Total, 1000 Feet of Drifting	45,981.00
Cost per Foot	45.98

7. (a) Yes

(b) Money

G. CARMAN RIDLAND
Geological Engineer

TELEPHONE: AMHERST 6-0321

822
~~1036~~ FIRST NATIONAL BANK BUILDING
DENVER 2, COLORADO

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February 21, 1956

Mr. C. O. Mittendorf, Administrator
Defense Minerals Exploration Administration
Department of Interior
Washington 25, D. C.

Re: Broken Ridge Property
Clark County, Nevada

Dear Mr. Mittendorf:

With reference to my letter of February 19th attached to the application of U. S. Pitchblende Corporation for aid to explore the Broken Ridge property, I herewith enclose the assignment referred to in said letter.

Yours very truly,

G. C. Ridland

G. C. Ridland

GCR:bh

Encl.

ELDORADO 5-0326

JAYSON ASSOCIATES
414 EAST 52ND STREET
NEW YORK 22, NEW YORK

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ASSIGNMENT

For one dollar ($1.00) and other valuable considerations the undersigned, Alice Jayson, Rhys Caparn Steel, operating as a partnership under the name Jayson Associates, and H. J. Steel do hereby assign, set forth and quit claim unto U. S. Pitchblende Corporation, a Nevada corporation, all their rights, title and interest in and to that certain agreement dated June 7, 1954, by and between Nevada Tungsten and Uranium, Inc. and Eldorado Mining Company, Ltd., with reference to the Broken Ridge property located in the Old St. Thomas Mining District, Range 67 East, Township 16 South, Section 20, Clark County, Nevada, to wit:

	Notice of Location Recorded In Official Records	
Name of Claim	Book	No.
Carnotite No. 1	10	5531
Carnotite No. 2	10	10962
Carnotite No. 3	8	9359
Broken Ridge No. 1	10	5532
Broken Ridge No. 2		
Broken Ridge No. 3		
Janis No. 1	10	10958
Janis No. 2	10	10959
Janis No. 3	10	10961
Janis No. 4	10	10960

Dated this 20th day of February, 1956.

JAYSON ASSOCIATES

By Alice Jayson

By Rhys Caparn Steel

AND

H J Steel

STATE OF COLORADO)
) SS
COUNTY OF DENVER)

Before me, personally came Mr. H. J. Steel, who being duly sworn did depose and say that he resides in New York, New York, and that he, Alice Jayson and Rhys Caparn Steel, operating a business as Jayson Associates, did execute the above assignment.

Given under my hand and seal of office this 20th day of February, 1956.

John P. Gramey
Notary Public

My Commission expires May 5, 1957

ASSIGNMENT

ASSIGNMENT made this 30th day of August, 1955, by and between ELDORADO MINING COMPANY, LTD., a Nevada corporation with offices at Nelson, Nevada (hereinafter referred to as "Assignor"), and ALICE JAYSON and RHYS CAPARN STEEL, of New York, N.Y., co-partners doing business as JAYSON ASSOCIATES, with offices at 414 East 52nd Street, New York, N.Y. (hereinafter referred to as "Assignees").

In consideration of the mutual agreements hereinafter set forth, the parties hereto agree as follows:

1. Assignor, by agreement dated June 7, 1954 (hereinafter referred to as the "Contract", a copy of which is annexed hereto marked Exhibit "A") with Nevada Tungsten and Uranium, Inc., has acquired a lease and option to purchase the following unpatented lode mining claims situate in the Old St. Thomas Mining District, Section 20, T. 16 S., R. 67 E., Clark County, Nevada, the notices of location of which are recorded in the Official Records of Clark County in the book and at the pages set forth below, to wit:

Claim	Book	Page
Carnotite No. 1	3	5531
Carnotite No. 2	10	10962
Carnotite No. 3	8	9359
Broken Ridge	3	5332
Broken Ridge No. 2	11	11610
Broken Ridge No. 3	11	11611
Janis No. 1	10	10958
Janis No. 2	10	10959
Janis No. 3	10	10961
Janis No. 4	10	10960

together with the appurtenances thereunto belonging (hereinafter collectively referred to as "the properties").

2. Assignor agrees to and hereby does sell, assign and transfer to the Assignees all of Assignor's right, title and interest in and to the Contract, subject to the overriding royalty hereinafter reserved to the Assignor.

3. Assignor reserves to itself, its successors and assigns, and Assignees for themselves, their heirs, legal representatives, successors and assigns, agree to pay Assignor an overriding royalty of Seven Per Cent (7%) of the gross proceeds of all ores and concentrates produced and sold from the properties, to be paid directly to the Assignor by the purchaser of such ores and concentrates in accordance with the Assignor's instructions; provided, however, that the Assignees may, within three years from the date of this agreement terminate the overriding royalty payable to Assignor under this Paragraph 3 by payment, in cash, of Two Hundred Thousand ($200,000) Dollars to the Assignor. The term "gross proceeds", as used herein, shall mean the gross proceeds of the sale of any and all ores and concentrates produced and sold from the properties by or for the Assignees, their heirs, legal representatives, successors and assigns and/or any lessee, operator or agent, including any and all bonuses, development allowances and other payments and considerations paid by or received from the Government of the United States or any other entity for, as a result of, or relating or attributable to such ores and concentrates and/or their production. In determining such gross proceeds there shall be no deductions whatsoever, except for any unreimbursed freight expense actually incurred by the Assignees.

4. Assignees agree to and hereby do assume all obligations of the Assignor under the Contract and agree to perform such obligations in the manner specified therein.

Assignees further agree (a) to perform all work and improvements on the properties necessary to satisfy all assessment work and/or annual labor required to be done or performed

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upon or for the benefit of each and all of the properties, and to complete and file in the Office of the County Recorder of Clark County, Nevada, or in such other office or offices as may be required by law, all necessary affidavits and notices showing the performance of such work, and otherwise to keep all of the properties in good standing, and (b) to complete, and to notify Assignor of the completion of, all such work and other things at least three (3) months in advance of the date in each year upon which they shall be required to have been completed under applicable laws and regulations.

Assignees further agree to carry all necessary insurance, including workmen's compensation and industrial insurance as required by the laws of Nevada, to protect the Assignor from any liability in connection with their possession and operation of the properties. The Assignees hereby covenant and agree to indemnify and hold Assignor harmless from any and all liability, loss, cost and expense occasioned by or arising out of their possession and operation of the properties, and to preserve and keep the properties free from any lien or encumbrance.

In the event that the Assignees shall default in the performance of any of their obligations pursuant to this Paragraph 4 or under Paragraph 3 of the Contract and such default shall continue for ten (10) days after notice shall have been given to them, then Assignor and its agents shall have the right, without giving any further notice or taking any proceedings whatsoever, to enter upon the properties and thereon perform any work and do any other acts and things which may be required to maintain the properties in good standing and fulfill the Assignor's obligations under the Contract. All expenses of such work and other acts and things done by the Assignor or its

agents shall be paid by the Assignees.

The Assignees further agree to post notices in appropriate places specifying that the Assignees are operating the properties and are solely liable for any damage arising out of such operation; and the Assignees agree fully to indemnify and hold Assignor harmless from and against any loss, cost or expense arising out of Assignees' failure to post or maintain such notice in accordance with law and with this agreement. Assignor and its agents shall have the right to enter upon and inspect from time to time any and all of the properties for the purpose of observing the Assignees' performance or non-performance of their obligations pursuant to this agreement and the Contract. The rights and remedies above provided for in this Paragraph 4 shall be in addition to, and not in exclusion of, any other rights and remedies which the Assignor may have pursuant to law.

5. The Assignees agree that prior to November 1, 1955, they shall organize or cause to be organized a corporation authorized to do business and own properties in the State of Nevada (hereinafter referred to as the "Mining Corporation"). The Assignees, if they shall not then be in default in the performance of any of their obligations under the Contract or this agreement, shall assign this agreement to the Mining Corporation upon a form of assignment approved in advance by the Assignor, and thereupon the Assignees shall be relieved of all obligations thereafter arising hereunder. No such assignment shall be effective until evidence acceptable to the Assignor that the Mining Corporation has been duly incorporated and is existing and is qualified to do business and own property in

Nevada, and is qualified and duly authorized to receive such assignment, shall have been delivered to the Assignor or until the original or a certified copy of said assignment shall have been delivered to the Assignor.

6. Assignees agree to pay Assignor for this agreement the following amounts and in the manner specified herein:

(a) The sum of $15,000, paid before the execution and delivery of this agreement, the receipt of which is hereby acknowledged;

(b) The sum of $7,000 from the first proceeds from the sale of the securities of the Mining Corporation, whether such sale shall be by public offering or private sale, as and when such proceeds are received, but in no event later than May 1, 1956;

(c) Delivery, on or before May 1, 1956, of certificates for fully paid and non-assessable shares of common stock of the Mining Corporation having a total value of Eight Thousand ($8,000) Dollars, valued at the price at which such stock shall have been first offered for sale to the public, or, if no public offering shall have taken place prior to May 1, 1956, the price at which such stock was sold at the first private sale.

7. If the Assignees shall default in the payment of any installment of the purchase price when due, or if the Assignees shall default in the performance of any of their other obligations under this agreement (including their obligations under Paragraphs 3 and 4), and such default shall continue for ten (10) days after notice thereof shall have been given to them by Assignor, the Assignor, at its option (which may be exercised at or after the time of the giving of such notice of default),

may terminate this agreement; and in that event the Assignor may retain the amount of all royalties and of all installments of the purchase price theretofore received by Assignor, as liquidated damages for the breach of this agreement by the Assignees and as payment for the right to occupy and operate the properties and for such ores, minerals and other valuable properties as may have been theretofore extracted from the properties by the Assignees. The rights and remedies above provided for in this Paragraph 7 shall be in addition to, and not in exclusion of, any other rights and remedies which the Assignor may have pursuant to law.

8. Upon any termination of this agreement, the Assignees agree peaceably to relinquish and surrender the properties to the Assignor and the Assignor shall have the right to re-enter and take immediate possession of the properties and to remove all persons therefrom.

9. The Assignees agree that neither the Assignor nor anyone on its behalf has made any representation or warranty as to the scope or validity of any of the properties or Assignor's title thereto, and that neither Assignor nor anyone on its behalf has made any representation or warranty of any kind or nature whatsoever not expressly set forth in this agreement, and that the purchase price has been fixed and this agreement entered into by the Assignees without reliance on any representation or warranty whatsoever by the Assignor or by anyone on its behalf not expressly set forth in this agreement.

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10. All notices hereunder shall be in writing, and shall be deemed given when received, or when mailed by postage prepaid registered mail addressed to the Assignees at 414 East 52nd Street, New York 22, N.Y., and to the Assignor, c/o Paul, Weiss, Rifkind, Wharton & Garrison, 575 Madison Avenue, New York 22, N.Y., or at such other address as may be designated by either party by written notice to the other in the foregoing manner.

11. This agreement shall inure to the benefit of and be binding upon each of the parties hereto, his or its heirs, legal representatives, successors and assigns. No assignment of this agreement, or of any interest therein, by the Assignees or any assignee or successor of the Assignees, shall relieve the Assignees (or such assignee or successor) from any obligation or liability under this agreement except an assignment made in accordance with Paragraph 5 hereof.

12. Time is of the essence of this agreement.

13. This agreement shall be governed by and construed according to the laws of the State of Nevada.

WITNESS due execution of this agreement by the parties hereto as of the day and year first above written.

ELDORADO MINING CO., LTD.

By _____
Vice-President

[Corporate Seal]

ATTEST:

_____
Secretary

_____ (L.S.)

_____ (L.S.)
Co-partners doing business
as JAYSON ASSOCIATES

STATE OF NEW YORK }
COUNTY OF NEW YORK } ss.:

On this 30th day of August, A.D. 1955, personally appeared before me Nathalie Kogan, a notary public in and for the County of New York, ALEXANDER PREGEL, known to me to be the Vice-President executing the same on behalf of the corporation that executed the foregoing instrument, and upon oath, did depose that he is the officer of said corporation as above designated; that he is acquainted with the seal of said corporation and that the seal affixed to said instrument is the corporate seal of said corporation; that the signatures to said instrument were made by officers of said corporation as indicated after said signatures; and that the said corporation executed the said instrument freely and voluntarily and for the uses and purposes therein mentioned.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal at my office in the County of New York, the day and year in this certificate first above written.

Nathalie Kogan [Seal]
Notary Public in and
for the County of
New York, New York

NATHALIE KOGAN
Notary Public, State of New York
No. 43-7327390
Qualified in Richmond County
Cert. Filed in New York County
Commission Expires March 30, 1956

STATE OF NEW YORK)
COUNTY OF NEW YORK) ss.:

On this 6 day of Aug, A.D. 1955, personally appeared before me, Arthur Paley, a notary public in and for New York County, ALICE JAYSON and RHYS CAPARN STEEL, known to me to be the persons described in and who executed the foregoing instrument, who acknowledged to me that they executed the same freely and voluntarily and for the uses and purposes therein mentioned.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal at my office in the County of New York, the day and year in this certificate first above written.

Arthur Paley [Seal]
Notary Public in and
for the County of
New York, New York

ARTHUR PALEY
Notary Public, State of New York
No. 03-3000300
Qualified in Bronx County
Certificate filed in New York County
Commission Expires March 30, 1957

EXHIBIT A

LEASE AND OPTION

THIS AGREEMENT made this 7th day of June, 1954, by and between the Nevada Tungsten and Uranium, Inc., a Nevada corporation, hereinafter designated as LESSOR, party of the first part, and Eldorado Mining Company, Ltd., also a Nevada corporation, herein designated as LESSEE, party of the second part,

WITNESSETH:

That the said LESSOR for and in consideration of the sum of One Dollar ($1.00) and other good and valuable considerations to LESSOR in hand paid by said LESSEE, receipt whereof is hereby acknowledged, does hereby lease agree to sell and convey upon the terms and conditions hereinafter set forth, the unpatented lode mining claims hereinafter described, located in the Old St. Thomas Mining District, R.67 E., T. 16 S., Section 20, Clark County, Nevada, to wit:

	Notice of Location Recorded in Official Records	
Name of Claim	Book	No.
Carnotite No. 1	10	5531
Carnotite No.2	10	10962
Carnotite No.3	8	9359
Broken Ridge No. 1	10	5532
Broken Ridge No. 2		
Broken Ridge No. 3		
Janis No. 1	10	10958
Janis No. 2	10	10959
Janis No. 3	10	10961
Janis No. 4	10	10960

TO HAVE AND TO HOLD said premises, together with the appurtenances, commencing the date hereof for a period of ten years or until prior termination in accordance with the terms hereinafter expressed.

1. LESSEE shall have the right to enter upon all of said premises and to explore for, mine and sell ore, doing all the work in a minerlike fashion and in compliance with the

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mining laws of the State of Nevada.

2. LESSEE shall carry all necessary insurance to protect the LESSOR from any liability in connection with the mining operations.

3. LESSEE shall perform all annual assessment work that shall be required to maintain the unpatented mining claims as valid and subsisting mining claims for the mining assessment year ending June 30, 1955, and each subsequent year while the agreement is in effect.

4. LESSEE shall pay a royalty of 10 per cent of the net proceeds of the sale of all ores or concentrates produced and sold from the premises and shall instruct the purchaser of such ore or concentrates to pay said royalty directly to the LESSOR in accordance with LESSOR'S instructions.

5. LESSEE shall have the option to purchase all of said premises for the total sum of $100,000.00, and all payments, royalty or otherwise, shall be credited upon the purchase price of said premises.

6. The LESSEE guarantees the following minimum royalty payment to the LESSOR, and if royalty payments from the sale of ore do not make up the minimum amounts due on the dates listed below, then LESSEE agrees to make up the difference by direct cash payment to LESSOR.

Date	Minimum Payment Royalty or Otherwise	Accumulated Payment
June 7, 1954	$ 100.00	$ 100.00
August 7, 1954	900.00	1000.00
October 7, 1954	1000.00	2000.00
December 7, 1954	2000.00	4000.00
June 7, 1955	6000.00	10,000.00
June 7, 1956	10,000.00	20,000.00
June 7, 1957	10,000.00	30,000.00
June 7, 1958	10,000.00	40,000.00
June 7, 1959	10,000.00	50,000.00
June 7, 1960	10,000.00	60,000.00
June 7, 1961	10,000.00	70,000.00
June 7, 1962	10,000.00	80,000.00
June 7, 1963	10,000.00	90,000.00
June 7, 1964	10,000.00	100,000.00

When royalty payments, or other cash payments, by LESSEE to LESSOR total the full purchase price of $100,000.00, on or before June 7, 1964, the option to purchase the premises will have been exerciced by LESSEE.

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7. LESSOR reserves the right to cancel this agreement if LESSEE fails to keep any of the covenants expressed herein, by notifying the LESSEE, in writing, by registered mail addressed to LESSEE at 403 Insterstate Trust Building, Denver 2 Colorado, setting forth the covenants and agreements with which the LESSEE is in default, and allowing 30 days from the date of receipt of said notice, for LESSEE to rectify said defect or defects. If LESSEE fails to rectify said defect or defects within said 30-day period, then LESSOR may terminate this agreement.

8. Upon termination of this agreement, the LESSEE agrees to surrender, yield up and deliver to the LESSOR, his successors or assigns, the quiet and peaceable possession and enjoyment of said premises and all buildings, machinery or other improvements thereon, except personal property, machinery and hoisting apparatus placed thereon by the LESSEE, which it shall be possible to remove without injury to the premises, without demand or further notice.

10. LESSOR warrants that it is the legal owner of said mining claims and has the right to sell said property and guarantees the LESSEE quiet and peaceable possession of said property. When the LESSOR has received a total of $4000.00, on or before December 7, 1954, LESSOR agrees to execute a good and sufficient warranty deed conveying said lode mining claims to LESSEE, which deed shall be placed in escrow with the Pioneer Title Insurance and Trust Company of Las Vegas, Nevada, with instructions for the delivery thereof to the LESSEE upon full payment of the purchase price. Upon delivery of the deed, if revenue stamps are then required, they shall be affixed by escrow agent at Lessor's expense. Escrow fee, if any shall be paid by the LESSEE.

11. This agreement shall run for the benefit of and be binding upon the heirs, executors, administrators, successors

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or assigns of the parties hereto.

IN WITNESS WHEREOF, the parties hereto have hereunto subscribed their names the day and year first above written.

LESSOR:

NEVADA TUNGSTEN AND URANIUM, INC.

By (sgd) J. Duvay Solomon
President

LESSEE:

ELDORADO MINING COMPANY, LTD.

By (sgd) G. C. Ridland
Secretary

STATE OF NEVADA)
COUNTY OF CLARK) ss

Before me, personally came Janes D. Solomon, to me known, who being duly sworn did depose and say that he resides in Las Vegas, Nevada; that he is the President of Nevada Tungsten and Uranium, Inc., a Nevada Corporation, the corporation described in and which executed the above instrument; that he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation, and that he signed his name thereto by like order.

Given under my hand and seal of office this 9th day of June, A.D., 1954.

(sgd) Robert M. CAllister
Notary Public

My Commission expires
January 3, 1955

STATE OF NEVADA)
COUNTY OF CLARK) ss

Before me, personally came G. C. Ridland, to me known, who, being duly sworn did depose and say that he resides in Denver, Colorado; that he is Secretary of Eldorado Mining Company, Ltd., a Nevada Corporation, the corporation described in and which executed the above instrument; that he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation, and that he signed his name thereto by like order.

Given under my hand and seal of office this 30th day of June, A.D., 1954.

(sgd) H. H. Hartmans
Notary Public

My Commission expires May 8, 1955

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MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

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

Not to be filled in by applicant

Docket No. DMEA-4185
Metal or Mineral Uranium
Date Received 2-21-56
Estimated Cost $45,981.00
Participation (Government %)

INSTRUCTIONS

1. *Name of applicant.*—(*a*) State here your full legal name, in the form in which you will wish to contract, and your mailing address: U. S. Pitchblende Corporation
622 First National Bank Building
Denver 2, Colorado

(*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.

(All other questions answered on sheets attached.)

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

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

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

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

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

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

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

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

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

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

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

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

_____

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

(*c*) The work will start within 0 days and be completed within 12 months from the date of an exploration project contract.

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

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

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

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

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

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

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

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

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

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

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

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

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

☐ Money ☐ Use of equipment owned by you ☐ Other

Explain in detail on acompanying paper.

CERTIFICATION

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

Dated February 19__, 195__

U. S. Pitchblonde Corporation
(Applicant)

By G. C. Ridland

G. C. Ridland,

Geological Engineer

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

U. S. PITCHBLENDE CORPORATION

822 First National Bank Building
Denver 2, Colorado

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APPLICATION FOR AID IN AN EXPLORATION PROJECT
PURSUANT TO DMEA ORDER 1

1. (a) Applicant: U. S. Pitchblende Corporation, 822 First National Bank Building, Denver 2, Colorado.

(b) Corporation - incorporated in the State of Nevada.

(c) Officers: H. J. Stell, President, 333 W. 57th Street, New York, New York
Alice Jayson, Secretary-Treasurer, 414 East 52nd Street, New York, New York

3. (a) Unpatented lode mining claims, located in the Old St. Thomas Mining District, Range 67 East, Township 16 South, Section 20, Clark County, Nevada, all exploration to be conducted approximately from the center of one claim, Carnotite No. 1, recorded at the Clark County Court House, Book 3, Page 5531, and possibly extending over into Broken Ridge, recorded in Book 3, Page 5332.

(b) Broken Ridge Property

(c) Interest in the Land: Lessee with an assignment of a lease and option.

(d) Assignments and contracts attached.

(f) Given above in 3 (a).

4. (a) Physical Description:

The main showing is exposed for 110 feet and is located south of an east-west line running through the central part of the Carnotite No. 1 claim. At this showing a shaft, 8 feet by 10 feet at the collar and 5 feet by 7 feet in the shaft, has been sunk at an angle of 65 to 70 degrees to the north-northwest. The shaft is 60 feet deep and is in the mineralized zone all the way, the zone extending below the present bottom level of the shaft. At the bottom of the shaft a drift has been driven west in the mineralized zone for 15½ feet, and a crosscut has been started through the limestone bed that forms the hanging wall and on into the sandstone for 12 feet.

Another mineralized zone is exposed for 400 feet in a north-south direction in the northeastern sector of Broken Ridge No. 1 claim. Numerous bulldozed roads and cuts made by a cat connect different parts of the property. Several cuts have been made at right angles through different exposed formations. The northern part of the property has a series of sandstone beds curving from the north towards the southeast. The beds in the eastern edge of the claim group have less of a dip to the west, but to the west the dip of the beds steepen until they are lying vertically.

There are also several axes of stress and possible movement on the property, but too much overburden and a scarcity of outcrops prevents determination visually of the amount of movement. The property can be reached by a bulldozed road 7 miles long that is strictly a jeep road. The diggings are exposed and accessible on the property. The shaft is timbered and braced with a series of ladders extending to the bottom.

(b) No past production and no present production.

(c) The country rock of the area is a dark-red, medium-grained sandstone that underlies the claim groups, and is found outcropping in all directions from the area of interest. Chester Longwell in his U.S.G.S. Bulletin #798 "Geology of the Muddy Mountains, Nevada" concludes that the contorted beds (on the property) resulted from an overthrust from the Willow Tank area to the southest; then the whole area was buried under a coarse rubbly fanglomerate that is well eroded away at present.

The stratigraphic sequence of this area is a series of sandstones, shales, limestones and conglomerates of Triassic or Jurassic age. The mineralized zone is a sedimentary bed of very altered crumbly shale and clay that is found directly south of and adjacent to a thin limestone bed that has numerous silicious nodules scattered throughout it. The mineralization is well scattered throughout the rock bed. It is found as a coating on layers, but in some places the carnotite clusters are quite thick, and large specimens can be obtained with the yellow crystallization completely through the rock. From projection of information obtained by a plane table map of the area, it can be inferred that the mineralized exposures link up in the area covered by gravel overburden. The plane-table map was made to determine locations for a drilling program that would probe this sub-surface structure and prove continuity of the mineralized zone with values at depth. Several hand specimens were taken close to the surface at the main showing near the shaft. Several channel samples were taken, one sample yielding 0.37% U_3O_8 over 8 inches and the other, a continuation over the first eight inches of three feet, went .077%. These specimens had suffered extensive weathering with consequent loss of values. Hand specimen grab samples of ore brought up during the shaft sinking were assayed at 0.15%, 0.64% and 0.67% U_3O_8.

At the collar of the shaft a Geiger counter registers .1 to .2 mr/hr. on average material, and over .2 mr/hr. on visible mineralization. U_3O_8 mineralization continues to the bottom of the shaft without any apparent decrease. Detailed readings and samples were taken at the 20-foot, 40-foot and 60-foot levels.

<u>20-Foot Level</u> - At the east end the Geiger registered .15 to .20 mr/hr. across 4.0 feet of mineralized zone and .2 to 1.0 mr/hr. over a 1/2-foot higher grade section. A channel sample assayed 0.096% U_3O_8.

<u>40-Foot Level</u> - A 4½-foot zone of mineralized zone is exposed and radioactivity measured .17 to .20 mr/hr. across the 4½ feet.

60-Foot Level - At the east end, 4 feet above the bottom of the shaft, the Geiger reading was .1 to .2 mr/hr. across 4 feet. A 2-foot channel sample assayed 0.023% U_3O_8. Several other readings at the bottom of the shaft ranged from .1 to plus .2 mr/hr. over a 5-foot section, and channel samples assayed 0.028%, 0.026% and 0.048% U_3O_8. Channel samples do not show commercial grade ore, but they indicate the presence of uranium mineralization in the zone at every place it is exposed over a distance of 1000 feet and down the shaft with no apparent decrease in uranium mineralization.

The Geiger was used to trace out the mineralized zone and to compare the radioactive readings at the various outcrops. Using the shaft as the zero point on the property, readings were made at the outcrops and footages recorded in an easterly or westerly direction from the shaft. At the shaft or zero point Geiger readings were .10 to .20 mr/hr. with a normal background count of .05 mr/hr.

Station	Footage	Direction From Shaft	Geiger Readings
0 (shaft)	0	-	.10 - .20
1	50	West	.20 - 1.5
2	225	West	.08 - .15
3	475	West	.09 - .22
4	550	West	.10 - .20
5	675	West	.15 - .25
6	750	West	.08 - .18
7	825	West	.08 - .15
8	35	East	.15 - .25
9	125	East	.20 - 1.5
10	200	East	.15 - 1.0
11	375	East	.10 - .20

(d) The property is 3 miles due west of Overton, Nevada, Clark County. The property is accessible by a bulldozed road that is in good repair and about 7 miles long. Overton has a branch of the Union Pacific Railway line. The Nevada State Highway No. 12, an all weather blacktop, connects with Highway No. 91, a main north-south artery. A new buying station and mill is being set up at Washington, Utah, 90 miles distant, and should be in operation this summer. The nearnest present buying station is at Marysvale, Utah. Residences can be obtained in Overton, and supplies can be had either in Overton or Las Vegas, 65 miles to the southwest.

(e) Manpower and supplies are available in and around Overton. Materials and equipment could be obtained from Las Vegas. Power could be run overland to the property, and water can be drilled for or transported in tank trucks.

5.(a) Uranium

(b) We propose 5,450 feet of diamond drilling at a set-up on a hill to the north of the shaft. The drill will be oriented in each of three different compass directions, and two holes each will be drilled in each of these three directions. In addition, a vertical hole will be sunk beneath the set up. In addition to testing the sub-surface

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extension of the structure this drilling will enable a close examination of the core in the mineralized zone below the 500-foot water table level of the area. Table level of the area on the theory that primary, concentrated uranium mineralization, possibly in the form of pitchblende, exists below the water table. Surface ground-water leeching of the original primary uranium minerals is believed to account for the low but consistent secondary uranium mineralization above the water table.

At the drill set up the first direction of orientation will be S 25 E. A hole drilled at the angle of 70 degrees will cut the mineralized zone at about 650 feet. A second hole at the same set up of 80 degrees will cut the zone at about 850 feet. At a second oriented bearing of S 10 W, 70 degree hole will cut the zone at 610 feet, and the 80 degree hole will go 775 feet before reaching the zone. The third direction of orientation will be S 40 W and at the angle of 70 degrees the zone will be reached at 600 feet while the 80 degree hole will intersect the zone at 760 feet. A vertical hole cored at this set-up will reach the mineralized zone at 1200 feet.

It is further proposed to sink a shaft, based on drilling results, adjacent to the present exploration shaft. The new shaft will be 500 feet in depth and it is proposed to drift along the mineralized zone for 1,000 feet upon reaching the bottom of the shaft. This will put the diggings at, or below, the water table, final considerations to be dictated by the results of the drilling program.

(c) The work will start within ~~30~~ 60 days and be completed within 1 year.

(d) The applicant is a new corporation formed for the purpose of exploring this property. The operation will be organized and supervised by Dr. G. C. Ridland, geological engineer, Denver, Colorado. Dr. Ridland is known to the DMEA as he has supervised the work done on DMEA contracts Idm-E54, Docket No. 1447X, at the Cold Spring mine, Nederland, Colorado, Idm-E501, Docket No. 2878, at the German mine, Central City, Colorado, and Idm-E909, Docket No. 3807, Dozer Mine, Nederland, Colorado.

U. S. PITCHBLENDE CORPORATION
822 First National Bank Building
Denver 2, Colorado

6. Estimate of Costs

Stage A

(a) Independent contracts:

5,450 feet of AX core drilling @ $5.00/ft.	$27,250.00

500-Foot Shaft

(b) Labor, supervision, consultants:

8 Miners 6,400 hrs. @$2.00	$12,800.00	
4 Timbermen 3,200 hrs. @$2.00	6,400.00	
2 Surface man 1,600 hrs. @ $1.89	3,024.00	
2 Hoistmen 1,600 hrs. @ $1.89	3,024.00	
1 Foreman - 5 months @ $600.00	3,000.00	
1 Engineer (part-time) - 5 months @ $100.	500.00	
1 Consultant - 5 months @ $200.00	1,000.00	
1 Truck Driver (water haul) 800 hrs. @ $1.89	1,512.00	
1 Truck Driver (supplies) - 800 hrs. @ $1.89	1,512.00	
	$32,772.00	
Contingencies	3,278.00	
		$36,050.00

(c) Operating materials and supplies: $ 1,000.00

Small tools, shovels, picks, hammers		
Shaft Timber - 40M @ $100/M	4,000.00	
Pipe - 2" water, 700' @ 37¢	259.00	
Pipe - 3" air, 700' @ 65¢	455.00	
Pipe - 12" vent, 600' @$1.00	600.00	
Fittings and misc.	2,000.00	
Powder - 550' @$10.00/ft.	5,500.00	
Caps and fuse - 550' @$1.00/ft.	550.00	
Steel - 550' @$5.00/ft.	2,750.00	
Wire rope - 700' @$1.00	700.00	
Power, gas and oil, and maintenance for diesel power	3,000.00	
Miscellaneous contingencies	2,086.00	22,900.00

(d) Operating Equipment: To be supplied by Company. Ten percent depreciation to be charged to program.

Air compressor	$5,000.00	
Diesel driver, power	6,000.00	
Hoist	2,000.00	
Pumps (2)	2,500.00	
Sinkers (drills) 8	5,600.00	
Accessories for drills	500.00	
	$21,600.00	
10% of $21,600.00		2,160.00

U. S. PITCHBLENDE CORPORATION
822 First National Bank Building
Denver 2, Colorado

6. Rehabilitation and repairs:

(e) None

(f) New buildings, improvements, installations:

Small surface shed	$500.00	
Hoist and compressor room	700.00	
		$1,200.00

(g) Miscellaneous:

Maintenance of equipment - 5 months @ $100.00	500.00	
Assaying - 50 samples at $5.00	250.00	
Accounting - 5 months @ $150.00	750.00	
Payroll Taxes and insurance, unemployment etc. - 10% of labor	3,605.00	
		$5,105.00

(h) Contingencies: already included.

Total, 500 Feet of Shaft	$67,415.00
Cost Per Foot	134.83

1,000 Feet of Drifting

6. (b) Labor, supervision, consultants:

4 Miners - 3,200 hrs. @$2.00	6,400.00	
2 Timbermen - 1,600 Hrs. @$2.00	3,200.00	
2 Hoistmen - 1,600 hrs. @$2.00	3,200.00	
2 Surface Men - 2 shifts, 1,600 hrs. @$1.89	3,024.00	
1 Foreman - 5 mos. @ $600.00	3,000.00	
1 Engineer (part-time) - 5 months @$100.00	500.00	
1 Consultant - 5 months @ $200.00	1,000.00	
1 Truck Driver (water haul) - 800 hrs. @$1.89	1,512.00	
1 Truck Driver (Supplies) - 800 hrs. @$1.89	1,512.00	
Miscellaneous contingencies	2,335.00	
		$25,683.00

(c) Operating materials and supplies:

Small Tools	500.00	
Timber - 5M @ $80./M	400.00	
Pipe - 2" water, 1,000' @ 37@	370.00	
Pipe - 3' air, 1,000' @ 65¢	650.00	
Pipe - 12" vent, 500' @ $1.00	500.00	
Misc. Pipe fittings	500.00	
Powder - 1,000' @ $3.00/ft.	3,000.00	
Caps and fuse - 1,000' @ 50¢/ft	500.00	
Drill steel and bits - 1,000' @ $1.00/ft.	1,000.00	
Power, gas, oil and maintenance	3,000.00	
Rail and ties - 1,000' @ $2.00/ft.	2,000.00	
Miscellaneous contingencies	1,100.00	13,520.00

6. (d) Operating equipment: To be supplied by Company. Ten percent depreciation to be charged to program.

Same as for shaft sinking	$21,600.00	
Add mucking machine	3,000.00	
	24,600.00	
10% of $24,600.00		2,460.00

(e) Rehabilitation and repairs: None

(f) New buildings, improvements, installations: None

(g) Miscellaneous:

Maintenance of equipment - 5 mos. @ $100.	500.00	
Assaying - 100 samples @ $5.00	500.00	
Accounting - 5 mos. @ $150.	750.00	
Payroll taxes and insurance - 10% of labor	2,568.00	
		4,318.00

(h) Contingencies: already included

Total, 1000 Feet of Drifting	45,981.00
Cost per Foot	45.98

7. (a) Yes

(b) Money

U. S. Government Messenger Envelope

Standard Form No. 65 (Rev. 1/46)

1. Use blocks consecutively, one at a time.
2. Void previous block.
3. Write clearly.

NAME OR TITLE OF PERSON, DEPARTMENT, ADDRESS, AND ROOM		NAME OR TITLE OF PERSON, DEPARTMENT, ADDRESS, AND ROOM	
~~[illegible]~~	RUN STOP		RUN STOP
Mr. Ellis Room 4443 Interior Bldg.	RUN STOP		RUN STOP
	RUN STOP		RUN STOP
	RUN STOP		RUN STOP
	RUN STOP		RUN STOP
	RUN STOP		RUN STOP
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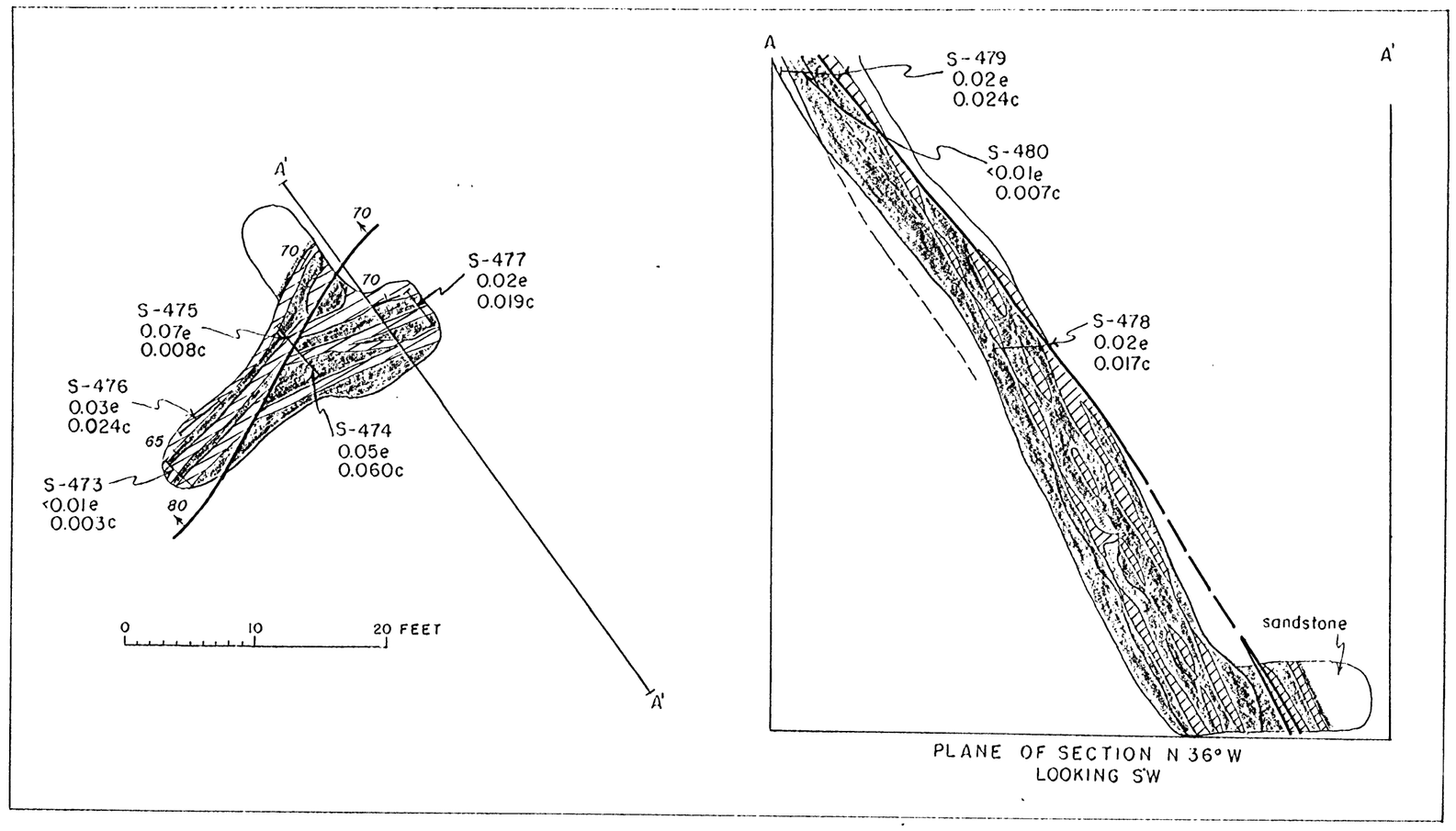
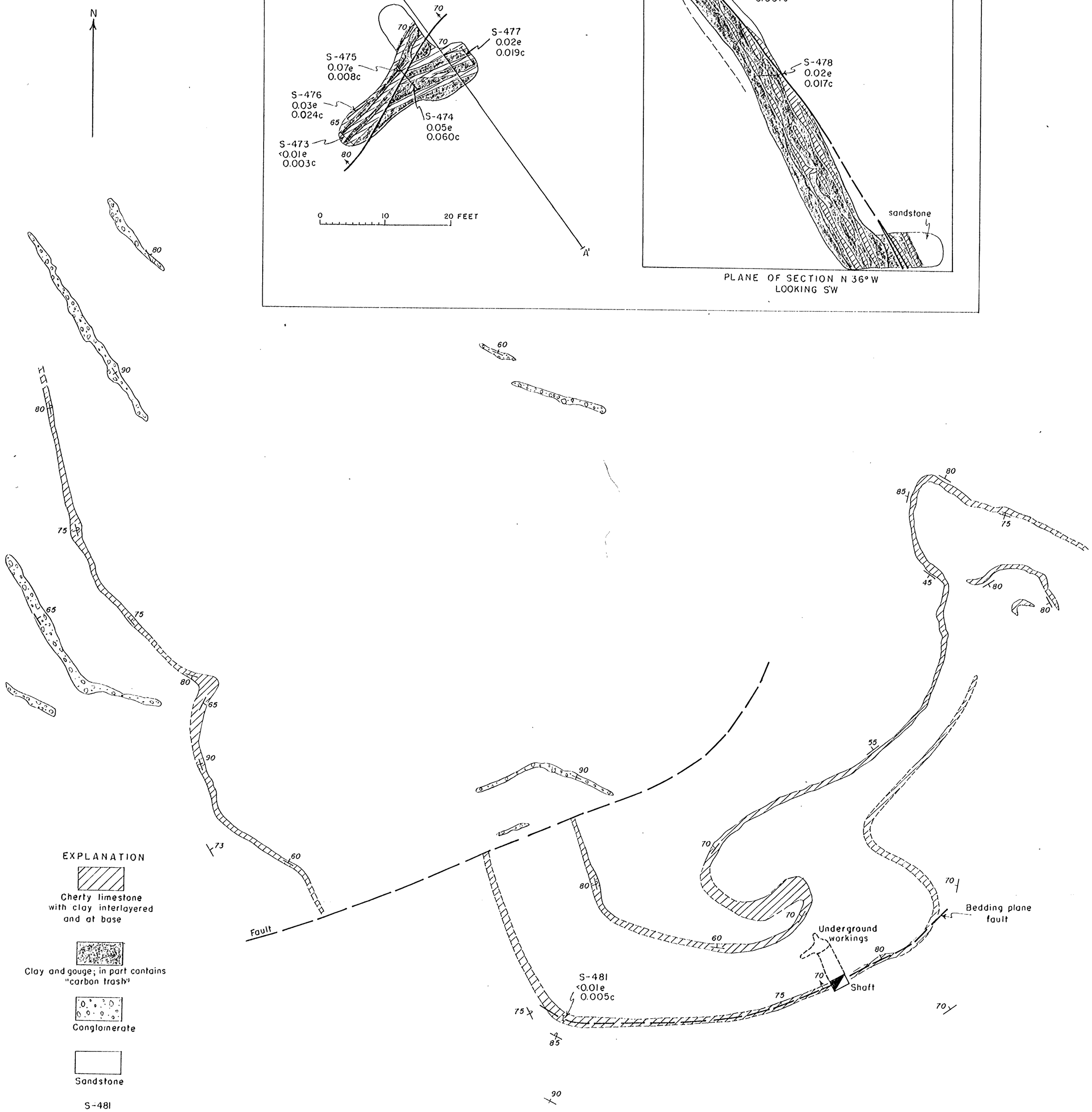
	RUN STOP		RUN STOP

Send surplus envelopes to supply room for reissue.

Use other side

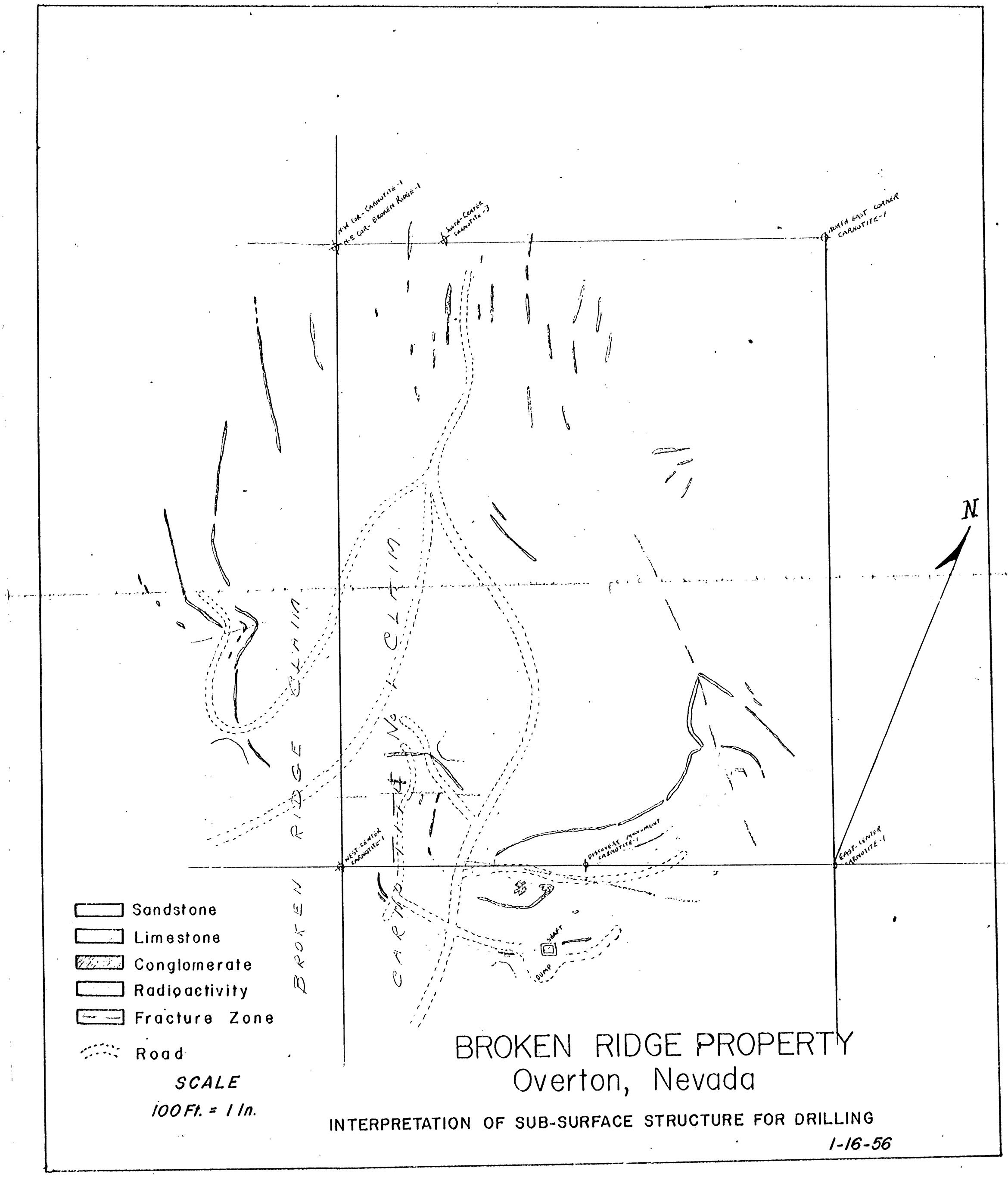
Use RUN and STOP only when messenger service between Government buildings in Washington is required. Your mail room has RUN and STOP information.

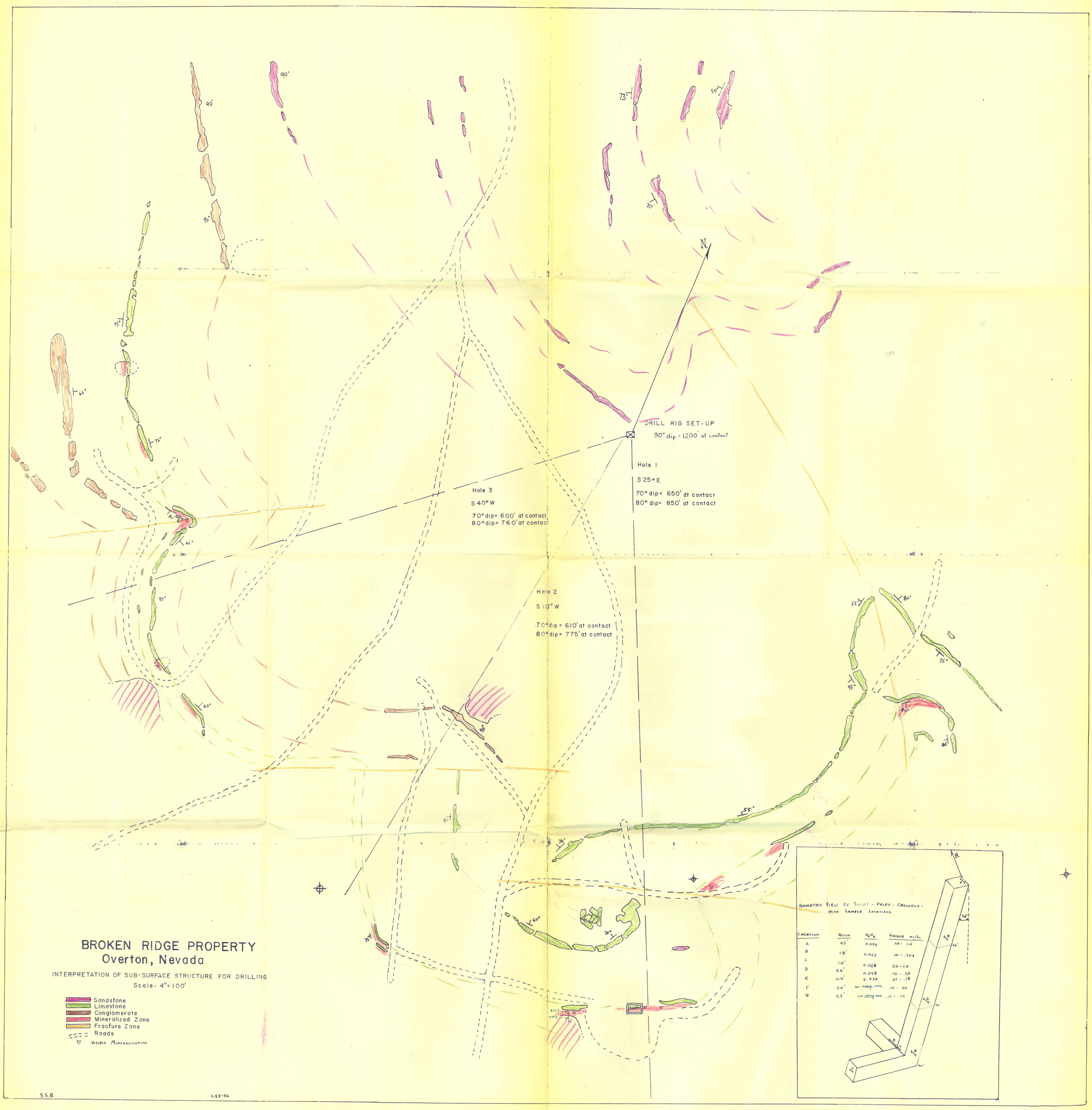




BROKEN RIDGE PROPERTY, CLARK COUNTY, NEVADA

Figure 2


N.W. COR. - CARNOTITE-1
N.E. COR. - BROKEN RIDGE-1
SOUTH-CENTER CARNOTITE-3
NORTH EAST CORNER CARNOTITE-1
N
WEST-CENTER CARNOTITE-1
DISCOVERY MONUMENT CARNOTITE-1
EAST-CENTER CARNOTITE-1
SHAFT
DUMP
BROKEN RIDGE
CARNOTITE
Sandstone
Limestone
Conglomerate
Radioactivity
Fracture Zone
Road
SCALE
100 Ft. = 1 In.
BROKEN RIDGE PROPERTY
Overton, Nevada
INTERPRETATION OF SUB-SURFACE STRUCTURE FOR DRILLING
1-16-56


N
DRILL RIG SET-UP
90° dip = 1200' at contact
Hole 1
S 25° E
70° dip = 650' at contact
80° dip = 850' at contact
Hole 3
S 40° W
70° dip = 600' at contact
80° dip = 760' at contact
Hole 2
S 10° W
70° dip = 610' at contact
80° dip = 775' at contact
SHAFT
ISOMETRIC VIEW OF SHAFT - DRIFT - CROSSCUT - WITH SAMPLE LOCATIONS
LOCATION | WIDTH | U_3O_8 | GEIGER mr/hr
A | 4.5' | 0.096 | .20 - 1.0
B | 1.8' | 0.023 | .10 - .204
C | 1.0' | 0.028 | .20 - 1.0
D | 4.6' | 0.048 | .10 - .20
E | 0.4' | 0.026 | .07 - .18
F | 3.0' | no assay run | .10 - .20
G | 4.5' | no assay run | .17 - .25
BROKEN RIDGE PROPERTY
Overton, Nevada
INTERPRETATION OF SUB-SURFACE STRUCTURE FOR DRILLING
Scale- 4" = 100'
Sandstone
Limestone
Conglomerate
Mineralized Zone
Fracture Zone
Roads
U VISIBLE MINERALIZATION
S.S.B.
1-23-56