DMEA Form 7
(12-56)

700

OFFICIAL FILE COPY

Date	Surname	Code
3-13	Murphy	700
3-13	Ellis	700
"	Johnson	110
"	Mittendorf	120
		150
		220

MAR 14 1957

Hon. Mike Mansfield
United States Senate
Washington 25, D. C.

Re: Docket No. DMEA-4437
(Uranium-copper-lead)
Monarch Copper and Uranium Mines, Inc.
Monarch Mine
Powell County, Montana

Dear Senator Mansfield:

This is in response to your letter of March 9 and the attached letter, dated February 7, 1957, to you from Mr. D. L. Jones, in which he again requests certain maps prepared by DMEA personnel.

I note Mr. Jones states that he assisted our field men in making the survey. Actually, Mr. Jones should have made the survey previous to submitting the above-referenced application. In this case, however, such surveying and mapping was done by representatives of our Regional Office in order to obtain information for the Government so as to expedite the processing of the application.

Applicants are also expected to make their mine workings accessible for examination and to assist the Government representatives in making their examination; but in this case the mine was not properly prepared for the examination and ladders necessary to reach the backs were not furnished as requested. However, the examiners completed a creditable job under the existing conditions.

This Administration as well as the other Government Agencies involved do not want to be put in the position of having their personnel compete with private consultants in doing work for applicants. Furnishing applicants with maps and other data prepared by our staff for Government use certainly would have this effect. Under the circumstances, I regret that I must again deny Mr. Jones' request for the map compiled by this Agency during the examination of the Monarch Mine.

I am returning Mr. Jones' letter in accordance with your request.

Sincerely yours,

C. D. Mittendorf

Administrator

MG FMMurphy/izm 3-13-57
cc to: Mr. Murphy
Admr.'s Reading File

DMEA FT Reg. I, NW Dist.(2) w/2cc of Applicant's 2-7-57 letter
THKilsgaard, 5224
JKratchman, AEC

8623

THEODORE FRANCIS GREEN, R. I., CHAIRMAN
J. W. FULBRIGHT, ARK.
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H. ALEXANDER SMITH, N. J.
BOURKE B. HICKENLOOPER, IOWA
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CARL MARCY, CHIEF OF STAFF
C. C. O'DAY, CLERK

United States Senate

COMMITTEE ON FOREIGN RELATIONS

OFFICIAL FILE COPY
DMEA
RECEIVED MAR 12 1957

DATE	INITIALS	CODE
3-12	Murphy	700

March 9, 1957

DMEA-4437

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

Dear Mr. Mittendorf:

With reference to our previous correspondence, I am enclosing herewith a further reply I have received from Mr. D. L. Jones of Helena, Montana, requesting certain maps.

Please return Mr. Jones' letter with your reply.

Thanking you and with best personal wishes, I am

Sincerely yours,

Mike Mansfield

MONARCH COPPER & URANIUM MINES, INC.

Office: Penwell Building P. O. Box 33

Helena, Montana

February, 7, 1957

Sen. Mike Mansfield
Washington, D. C.

Dear Mike:

Your letter with enclosure of Mittendorfs. This rule of theirs is very arbitrary, and as I boarded their team of Pinckney and Boucher of B. of Mines. They told me, or rather Pinckney did, that if I would get M.E. to make a report recommending the work that I would get a go ahead from them. This I did not do, after the time spent with Pinckney, I dont want anything to do with a deal with some group that is as arbitrary as Pinckney, he would not consider any information from men who had known and worked at Monarch for years. You know enough about mining to know that the information from miners is most dependable, that is men of the years of experience as Chas. Anderson, Hank Lauri and report of M.E.s as Standish and E.W.Stevens of Boaz Mine at Norris, all these men highly recommended the Monarch, but on a casual check Pinckney, probably with very little if any mining background disregards all the data of these men. So I want no part of DM EA, but do want the maps. As I say we took them in, boarded them, worked with them all the time they were taking survey, after all it is our property, we assisted with survey work, so we are entitled to maps we helped to make. As to contention, thats out, if later they made any sampling I dont want that, as doubt Pinckney could do it right. We need the map for measurements, adta on formation, angles etc, realation to uppwe runnwl. Have no intention of making any contention on loan. If deal had been up to Boucher B.M. he would I beleive okehed the deal, apparently Pinckney was arbitrarily tock charge, tho Boucher appeared to have plenty of mining knowledge and experience.

I wrote Lee Metcalf about another matter, a Patent check, and I also mentioned this matter. I am sue if you and Lee make a demand for this map, you can get it. There is no law, just an Bureau of DMEA coverup deal. So get this for us.

Yours truly,

/s/ Casey

D. L. Casey Jones

(Stamped) REC'D FEB 9 1957

c
o
p
y

DMEA Form 7
(12-56)

700

OFFICIAL FILE COPY

Date	Surname	Code
1/22/57	Murphy	700
"	[illegible]	700
	[illegible]	110
"	Mittendorf	100
		225

JAN 22 1957

Hon. Mike Mansfield
United States Senate
Washington 25, D. C.

Re: Docket No. DMEA-4437
(Uranium-copper-lead)
Monarch Copper and Uranium Mines, Inc.
Monarch Mine
Powell County, Montana

My dear Senator Mansfield:

This is to acknowledge your letter of January 17 and the attached letter, dated January 13, 1957, to you from Mr. D. L. Jones of Helena, Montana.

I regret that we cannot give Mr. Jones the copies of the maps he wishes. Applicants are required to furnish adequate maps for our purposes. If such maps are not available, in order to avoid delay and additional expense to the applicant, the Government may prepare suitable maps. These maps and other data resulting from examinations by members of the Bureau of Mines and Geological Survey are primarily for Government use in determining the merits of the proposed exploratory work. When a contract is executed, Government prepared maps are sometimes included as part of the contract and thus become available to the Operator. However, until a contract is approved, such information might be very controversial, especially if our maps and other data could be used as a base for contention. Under the circumstances, we do not make this type of information available to applicants for Government assistance in exploration.

For your information, I am enclosing a letter, dated January 11, 1957, by Mr. Weissenborn to Mr. Jones, relating to the same question. You will note from this letter that the interesting part of the mine is inaccessible. A study of the examiners' report leads me to believe that they took some long chances going through the part of the mine that was examined.

I am returning Mr. Jones' letter in accordance with your request.

Sincerely yours,

C. O. Mittendorf (for)
Administrator

FMMurphy/FEJohnson/gla
cc to: Admr.'s Reading File
Messrs. JECrawford, 3643
THKiilsgaard, 5224
AEC - Jack Kratchman
DMEA Field Team, Region I, NWDist.(2) w/2cc incoming letters
Enclosure
Code 700, Mr. Murphy

8623

70

WALTER F. GEORGE, GA., CHAIRMAN
THEODORE FRANCIS GREEN, R. I. ALEXANDER WILEY, WIS.
J. W. FULBRIGHT, ARK. H. ALEXANDER SMITH, N. J.
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HUBERT H. HUMPHREY, MINN. WILLIAM LANGER, N. DAK.
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CARL MARCY, CHIEF OF STAFF
C. C. O'DAY, CLERK

United States Senate

COMMITTEE ON FOREIGN RELATIONS

OFFICIAL FILE COPY
DMEA
RECEIVED JAN 18 1957

DATE	INITIALS	CODE
1-18	R.C.G.	700
1-18	Murphy	700

January 17, 1957

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

Re: Docket No. DMEA-4437
(Uranium-copper-lead)
Monarch Copper and Uranium Mines, Inc.
Monarch Mine, Powell County, Mont

Dear Mr. Mittendorf:

With respect to the application of Monarch Copper and Uranium Mines, Inc., Docket No. DMEA-4437, will say, I am enclosing a further letter I have received from Mr. D. L. Jones of Helena, Montana.

You will note that Mr. Jones is interested in securing the return of the maps. Would you please advise me if this is possible and return the enclosure with your reply.

Thanking you and with best personal wishes, I am

Sincerely yours,

Mike Mansfield

Recd. DMEA-1-18-57

MONARCH COPPER & URANIUM MINES, INC.

Office: Penwell Building Helena, Montana P. O. Box 33

January 13, 1957

Senator Mike Mansfield
US Senate Chambers
Washington, D. C.

Dear Senator:

I have wrote you concerning DMEA loan application before. The #DMEA 4437 was rejected by DMEA field team. However the USGS chap Pinckney, without possibly any actual operation or mining experience had the deal nixed before he was ever underground. Herman Ingman with over 20 years actual mining background remarked first evening that apparently Pinckney would not consider any past records, statements of engineers or men who knew Monarch property. However the purpose of this letter is to have you get me copy of maps that we helped them obtain the data on. We took them to camp, furnished meals, cabin etc, also either Mr. Ingman or myself worked with them in survey work on surface and in lower tunnel, gave them every assistance possible. I wrote Spokane Office for copy of maps, and was told that I could not have them. On local DMEA loan projects as well as more secret AEC deals the owners of properties always have a copy of all maps etc furnished them on request.

Anaconda has always had good reports on Monarch, furnished DMEA reports by Standish, who drove lower tunnel, report by Stevens of Sierra Talc former engineer of Boaz, statements by foreman and miners as to actual production and opinion of Monarch, all very favorable. However on very casual inspection by Pinckney, he in a very superior attitude said NO. But regardless I want, and think I am entitled to copy of maps (which we helped get data for), as the owners we are entitled to these maps. If it takes an Act of Congress, lets get it. I think if you will contact Washington Office of DMEA, Frank Johnson acting adm, they will see that we get maps. Monarch has been considered by every engineer, miner, ACM, as one of best properties on Boulder Batholith, and to be turned down for DMEA on such a casual manner irks us. Will appreciate your effort in our behalf. Fergus Fay is still in NYC, I think he was to be in Washington to appear before some Committee in behalf of Cruse Estate, he is director of Monarch, Larry Scheewe is legal talent for us in Washington.

Yours truly,

/s/ Casey

D. L. Jones

C O P Y

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.
So. 157 Howard Street
Spokane 4, Washington

OFFICIAL FILE COPY
DMEA
RECEIVED JAN 14 1957

DATE	INITIALS	CODE
1-14	C	220
		225

January 11, 1957

Air Mail

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-4437 (Uranium-Copper-Lead)
Monarch Copper & Uranium Mines, Inc.
Monarch Mine
Powell County, Montana

Dear Mr. Selfridge:

As you will note from the attached letter, Mr. D. L. (Casey) Jones of the Monarch mine is dissatisfied with the denial of his application for a DMEA contract. He also is insistant that we provide him a geological map of the property, which, of course we have refused to do.

As Mr. Jones will almost certainly be at the Helena meeting of the Montana Mining Association next Wednesday where I am scheduled for a DMEA talk, I have made a prompt answer to his letter without taking the time that would be required to refer it to you. A copy of my letter is enclosed, and I feel quite confident that it is in line with DMEA policy.

Sincerely yours,

A. E. Weissenborn

A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region I
Northwest District

Enclosures
cc: USBM(2)
Pinckney

OFFICIAL FILE COPY
DMEA
RECEIVED JAN 14 1957

DATE	INITIALS	CODE

No. 157 Howard Street
Spokane 4, Washington

January 11, 1957

Mr. D. W. Jones
Farwell Building
P. O. Box 33
Helena, Montana

Re: Docket No. DMEA-1437 (Uranium-Copper-Lead)
Monarch Copper & Uranium Mines, Inc.
Monarch Mine
Powell County, Montana

Dear Mr. Jones:

I regret that you have taken the attitude that you have concerning the Defense Minerals Exploration Administration examination of the Monarch Mine. The chief difficulty with respect to the property is the fact that the critical parts of the No. 1 and No. 2 tunnels are inaccessible, and until these places can be examined, it is impossible to reach any firm conclusion as to the value of the property or to plan any further exploration. You will note that this is precisely the conclusion reached by Mr. William R. Price whose report you attached to your DMEA application. I appreciate the problem you are faced with, but the fact is that the DMEA program does not provide for Government participation in rehabilitation necessary to make a mine accessible for examination. Should you be able to have this done we will be most pleased to make careful re-examination of your property.

As regards my refusal to furnish you a copy of our map I assure you that this is not mere caprice on my part. The maps and reports our field men prepare are turned over to the DMEA for its own use, and I have strict instructions not to release them. I can only repeat that I would be glad to show you a copy of the map and discuss your property with you, but without violating a specific order I cannot give you a copy of the map. I am sure that you will appreciate my reason for refusal.

Sincerely yours,

A. W. Weissenborn
Executive Officer, DMEA
Field Team, Region I
Northwest District

cc: DMEA(2) via Air Mail w/cpy incoming
USBM(2) w/cpy incoming
Pinckney do.

COPY COPY

MONARCH COPPER & URANIUM MINES, INC.

OFFICE: PENWELL BUILDING P. O. BOX 33

HELENA, MONTANA

January 8, 1957

A. E. Weissenborn
Executive Officer DMEA
So. 157 Howard Street
Spokane 4, Washington

Dear Mr. Weissenborn:

Your letter regarding copies of maps made by Pinckney of the Monarch Mine. I am sorry we ever made a Loan Application. The Monarch Mine is considered by all who are familiar with it to have very high potential. However someone, who I doubt ever had operating experience, on very brief casual examination vetoed application. Mr. Ingman who has had years of actual mining work agreed with me the first nite that Pinckney was looking on our application with a jaundiced eye. Apparently this was to be the application to be rejected, regardless of what the men who had years of knowledge of property thought. Anaconda geologists have told me their opinions, you have statements of men who were for years foremen at Monarch etc. You have reports of Standish ME who drove 1100 feet of lower tunnel, Stevens who has excellent record, with three sucessful operations.

Mr. Ingman and I worked with your crew to make these maps, had their meals, furnished cabins etc, so I feel that as owners of the property we are entitled to copy of maps, that we helped to get the data for. I would rather get them from you, if not I will be of mind to write Mike Mansfield our Senator to find out just the deal. I am not satisfied with action of your crew, as I know two or three properties locally, that had no production record, with little development, no reports, yet they got okehs for DMEA, as you know they did not show enough for operation. The Monarch with its record, with 250 feet of virgin ground above lower tunnel, with 250 feet of ore below production area, still rejection.

I hope you will consider this request in favorable attitude.

Yours truly,

/s/ D. L. JONES

D. L. Jones

RECEIVED
JAN 10 1957
U.S.G.S.
Spokane, Wash.

OFFICIAL FILE COPY
DMEA
RECEIVED JAN 14 1957

DATE	INITIALS	CODE

OFFICIAL FILE COPY DMEA RECEIVED JAN 7 1957		
DATE	INITIALS	CODE
1-8	C	220

xxxxxxxxxxxxxxxxxx
So. 157 Howard Street
Spokane 4, Washington

January 4, 1957

Mr. D. L. Jones
Monarch Copper & Uranium Mines, Inc.
Penwell Building
P. O. Box 33
Helena, Montana

Re: Docket No. DMEA-4437 (U-Cu-Pb)
Monarch Mines
Powell County, Montana

Dear Mr. Jones:

This will acknowledge receipt of your letter of December 28, 1956, in which you request copies of maps of the Monarch Mine made by Darrell Pinckney last October. While we would be very glad to discuss the geology of the Monarch Mine with you, either in Spokane or the next time the field men are in Helena, we regret that we are not permitted to give out copies of any maps or reports prepared for DMEA examinations.

Sincerely yours,

A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region I, NW District

cc: DMEA (2) w/incoming
USBM (2)
Pinckney

MONARCH COPPER & URANIUM MINES, INC.

OFFICE: PENWELL BUILDING — P.O. BOX 93

HELENA, MONTANA

OFFICIAL FILE COPY
D M E A
RECEIVED JAN 7 1957

DATE	INITIALS	CODE

December, 28, 1956

D M E A

Spokane, Washington

Gentlemen:

Would It be possible for me to get a copy of survey map made by Pinkney of Monarch Line, surface, and map of # 2 Tunnel made this last October.

Yours truly,

D. L. Jones

REFER TO	ACTION	NOTED	DATE

RECEIVED
JAN 2 1957
U.S.G.S.
SPOKANE, WA.

12/7/56

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
So. 157 Howard Street
Spokane 4, Washington

RECEIVED DEC 1956 D.M.E.A.

December 4, 1956

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-4437 (U-Cu-Pb)
Monarch Copper & Uranium Mines, Inc.
Monarch Mines
Powell County, Montana

Dear Mr. Selfridge:

Enclosed are four copies of a letter from Mr. Arthur E. Granger, Manager of the Atomic Energy Commission, Salt Lake City office, in regard to our recommendation for denial which was forwarded to you on November 14, 1956 in connection with this application.

Mr. Granger concurs with the Field Team recommendation that this application be denied.

Sincerely yours,

D R MacLaren

D. R. MacLaren
for: A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region I, NW Dist.

Enclosures

cc: USBM (2)
Pinckney

UNITED STATES
ATOMIC ENERGY COMMISSION
SALT LAKE AREA OFFICE
P.O. BOX 2108
SALT LAKE CITY, UTAH

IN REPLY REFER TO: SLAO:RJM:af

November 26, 1956

Mr. A. E. Weissenborn
Executive Officer, DMEA
Field Team Region I, NW Dist.
South 157 Howard Street
Spokane 4, Washington

Dear Al:

Our appraisal of the Monarch mine, Powell County, Montana, must be rendered more as an opinion than a geologic evaluation in that field work was greatly restricted by the mine's inaccessibility.

From the meager information available at this time it appears that the small isolated and limited occurrence of radioactivity detected in the #2 tunnel of the Monarch mine is of academic rather than economic interest and does not constitute a major discovery of radioactive material. For this reason and ones presented in Docket DMEA-4437 (U-Cu-Pb), we feel the denial is justified.

However, if rehabilitation of the workings is undertaken and accomplished, the Salt Lake Area Office would be interested to investigate the property further.

Sincerely yours,

Arthur E. Granger
Manager
Salt Lake Area Office

cc: Wayne S. Moen, AEC, Butte

700

FILE COPY
Surname:

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

NOV 30 1956

Mr. D. L. Jones, President
Monarch Copper and Uranium Mines, Inc.
Box 33
Helena, Montana

Re: Docket No. DMEA-4437 (Uranium-copper-lead)
Monarch Mine
Powell County, Montana

Dear Mr. Jones:

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

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

Careful study of all our information, although noting some mineralization on your property, indicates to us that the probability of disclosing significant ore reserves is not sufficient to justify Government participation. We regret to advise you that, under these circumstances, your application for exploration assistance is denied. However, this denial is made without prejudice to the property. In the event further work on your part discloses new and more favorable evidence of ore deposition on the property, we shall be pleased to consider a new application.

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

Sincerely yours,

C. O. Mitcheltree

Administrator

FMMurphy/izm 11-27-56
cc to: Docket
Code 700
Mr. Murphy
Admr.'s Reading File
Operating Committee
DMEA Field Team, Region I, NW Dist. (2)
Messrs. JECrawford, Rm. 3643
THKiilsgaard, Rm. 5224
JOHosted, Rm. 3210, GSA

Docket

700

Murphy

Summary of Proposed Project

Object: Denial of application for exploration aid.

Docket No.: DMEA-4437

Commodity: Uranium, copper, lead

Applicant: Monarch Copper and Uranium Mines, Inc.
Mr. D. L. Jones, President
Box 33
Helena, Montana

Property: Owner of Monarch, Monarch No. 1, S. Monarch, N. Monarch, Anderson, and J.R.M. Claims, situated in the Elliston district, sec. 31 T. 8 N., R. 6 W., Powell County, Montana.

Amount of Application: $59,111.25

Date of Application: August 15, 1956

Referred to Reg. I, NW District Field Team: September 10, 1956

Field Examination made: October 1, 2, 3, and 10, 1956

Field Team Report received: November 16, 1956

Work Proposed and Costs:

Outside of the rehabilitation work the Applicant did not state where the bulldozing, drilling, drifting, and raising would be used.

Bulldozing	$900.00	
Diamond drilling, 1,000 ft. @ $5.00/ft.	5,000.00	
Assaying, 200 samples @ $5.00/each	1,000.00	
Drifting, 1,000 ft. @ $33.70/ft.	33,700.00	
Raising, 250 ft. @ $39.70/ft.	9,925.00	
Rehabilitating adits #1 and #2	3,500.00	
Consultants	1,200.00	
Contingencies	2,761.25	
Accounting, 15 months	1,125.00	
Total		$59,111.25
Government Participation @ 62½%		$36,944.53

Excerpts from Field Team Report:

The Monarch mine is at the western margin of the Boulder batholith along and near the contact of the batholith and Late Cretaceous volcanic rocks. The contact for the most part seems to be a zone, a few hundred feet wide, containing the intruded and intruding rocks.

Openings on the property are the "Big" shaft (350 feet deep), the "Little"shaft (200 feet deep), an upper tunnel "No. 1," and a lower tunnel "No. 2." The Big and Little shafts are caved at the collars and probably are caved for their entire depths. The No. 1 tunnel is caved at the portal. The No. 2 tunnel is open for 1,540 feet of its 1,700-foot length, of this length 580 feet is a crosscut to the vein. The accessible part along the vein is timbered and in good condition, except for a timbered length of 135 feet in the west ore shoot. The vein and walls are hard and strong so that much of the timber in the drift carries no weight. Other lesser workings include four other adits and one other shaft, all inaccessible.

The mine was active about 1894-1909 according to USGS, Bull. 842, p. 266-267. During this period the shafts were sunk and No. 1 tunnel was driven on the vein. In 1918, No. 2 tunnel was driven 580 feet to the vein, but apparently no mining was done. In 1934, the No. 2 tunnel was driven an additional 1,100 feet as a drift on the vein. Only a few hundred tons of ore were shipped during this period.

The examining team, Darrell M. Pinckney, USGS, and John A. Bowsher, USBM, spent 4 days examining all the surface workings and the accessible underground workings. The vein in No. 2 tunnel was mapped in as much detail as was possible. The walls and backs were covered by a thick layer of mud, and in many places the backs were lagged over, or too high to reach. Samples were taken in eight places in No. 2 tunnel and four samples of dump material were taken. Two ore shoots in the No. 2 tunnel were not sampled because the backs were too high to reach and, although requested to do so, the Applicant did not provide ladders so that backs could be sampled.

None of the tunnel samples showed significant amounts of lead, zinc, copper, silver, or gold. Some of the dump samples show ore grade gold, lead, and copper. Radioactivity was noted in No. 2 tunnel at two spots a few feet apart. A chip sample of this material contained 0.38% U_3O_8 , but probably only a few pounds of this material would be found in the vein.

The field examiners and Field Team recommend that the subject application be denied because the mine would have to be rehabilitated before an exploration program could be planned; also, because there is insufficient favorable data available on the possibilities of the mine to justify DMEA assistance in the initial rehabilitation of the underground workings.

Commodity Member's Comments: (excerpts)

USGS, N. E. Nelson, November 21, 1956:

Mr. Nelson notes that it is quite evident that the Applicant believing the usual tales concerning ore left in old mines, desires to investigate same and if verified to exploit the re-discoveries.

Unfortunately, the Applicant, lacking creditable reports, is unable to contrive a definite and plausible program possessed of targets and the examiners and Field Team recommend that the application be denied without prejudice.

Mr. Nelson, although believing there is little possibility of finding significant ore deposits on the property, concurs in the Field Team's recommendation that the denial should be made without prejudice to the property.

USBM, J. E. Crawford, November 27, 1956:

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

Rare & Miscellaneous Metals Div., F. M. Murphy, November 27, 1956:

Data submitted by the Field Team indicates that until the mine has been made accessible, it is impossible to plan an exploration program.

The Monarch, Evening Star, Julia, Flora, Ontario, and Twin City mines, all within a radius of about 10 miles from Elliston, have a total production estimated at $2,750,000. The values have been in lead, copper, silver, and gold ores mined between the years 1894-1909. However, to our knowledge, there are no data available relating to the underground workings of the above named mines.

Conclusion and Recommendation:

Judging from past production, the Monarch Mine may have possibilities for further production. However, the fact that in 1918 a mill, aerial tramway, and large ore bins were constructed, and the lower or No. 2 tunnel was driven 580 feet to the vein, but apparently no ore was shipped; and again in 1934 when 1,100 feet of drifting in tunnel No. 2 was completed along the vein with only about 250 tons of ore being shipped as the result of the work, certainly does not indicate the property is very favorable for additional significant ore deposits.

Neither the field examiners or the Applicant has presented sufficient reliable information on the property to justify DMEA participation in an exploration program. Therefore, this Division recommends the subject application be denied without prejudice to the property, and if the Applicant makes tunnels Nos. 1 and 2 accessible for a thorough examination, a new application should receive consideration.

Ernest Wm. Ellis

Ernest Wm. Ellis, Chief
Rare and Miscellaneous Metals Division

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

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

Date November 27, 1956

DMEA Docket No. 4437
DMEA Contract No.
Commodity Uranium
Name of applicant Monarch Copper & Uranium Mines, Inc.
Name of property Monarch Mine
Location of property Powell County, Montana
Estimated cost of project $59,111.25

Memorandum

To: Ernest William Ellis, DMEA Member
Uranium Commodity Committee

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

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

1. Date of subject document: _____. 2. Date received by reviewer: 11/20/56.

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

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

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

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

7. Explain items marked yes above:

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

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

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

11/27/56

IN REPLY REFER TO:

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

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

November 21, 1956

Re: DMEA 4437
Monarch Copper & Uranium Mines, Inc.
Monarch Mine
Powell County, Montana
$59,111.25 - Uranium, Copper, Lead

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 an indefinite project consisting of rehabilitation of old mine workings and work as indicated by the resultant revelations of the rehabilitation work. It is quite evident the managers of the proposed project, believing the proverbial tales concerning ore left in old mines, desire to investigate same and if verified to exploit the re-discoveries.

Unfortunately, the managers, lacking creditable reports, are unable to contrive a definite and plausible program possessed of targets and the examiners and Field Team recommend that the application be denied. Not too reliable and incomplete records suggest, workings considered, that the value of ore recovered was far from commensurate with its cost. Examination of the open part of No. 2 Tunnel and sampling justify the assumption that the tonnage figures are not too much out of line and indicate the vein or veins, if reopened, are not likely to produce much ore.

The examiners' conclusions concerning the uranium potential of the property are well taken.

In order that the denial recommended by the examiners and Field Team may be somewhat consistent with judgments in more or less similar cases, I recommend that the application be denied without prejudice.

N. E. Nelson

N. E. Nelson

Senator Murray - Montana

Mr. Brookfield - 190-805

Checked

No SNE A-9437

Montana Applicant -

Cary Jones

called by Murphy

send copy of denial letter to both senators

call 3:30 P.M.

Mr. Murphy:

Frances Webster left following message:

Senator Mansfield's office -

re status DMEA-4437, Monarch Copper & Uranium Mine

Phone Code 190, ext. 874

(either of the secretaries will talk).

Called 1-12½ PM, 9/18/56.

gla 9/18/56

Would like information when final DMEA decision is made in regard to application

Murphy.

11/19/56 gle

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
So. 157 Howard Street
Spokane 4, Washington

RECEIVED NOV 16 1956 D.M.E.A.

November 14, 1956

Air Mail

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-4437 (U-Cu-Pb)
Monarch Copper & Uranium Mines, Inc.
Monarch Mine
Powell County, Montana

Dear Mr. Selfridge:

Attached are four copies of a memorandum from Darrell M. Pinckney, U. S. Geological Survey, recommending denial of the application of the Monarch Copper and Uranium Mines, Inc. Pinckney's recommendation for denial is based on the inaccessibility of the workings and the consequent lack of information on which to appraise the property, or to plan an exploration program, as well as the applicant's lack of a definite program of his own.

The application represents one of the most difficult types to deal with under the DMEA program. The property may have merit but there is little to go on but hearsay evidence and incomplete and unsatisfactory accounts of what was found in the now inaccessible workings. The applicant has no definite plan of his own beyond drifting and raising in unspecified places after rehabilitating the old workings, and in all fairness, it is difficult to suggest anything superior. If reliable records were available some opinion could be formed of the property and possibly some plan could be worked out to explore it but unfortunately such records as exist are not very helpful.

Clearly, the first logical step would be rehabilitation of the workings followed by mapping and sampling of the critical, but now inaccessible, parts of the mine. In other contracts, DMEA has participated in rehabilitation but only where it could be demonstrated from reliable records that the rehabilitation is justified in terms of potential ore and then only if sufficient

Reviewed by
DMEA OPERATING COMMITTEE
11-19-56
(date)

is known of the geology so that a sound exploration program could be planned. DMEA, on the other hand, has consistently refused to participate in rehabilitation whose purpose is merely to make a property accessible for inspection and sampling, and this, in our judgment, is essentially what we would be doing in this case.

With regard to uranium, the meager showing is insufficient to suggest that the property is a potential uranium producer, though, once again, what lies beyond the caved workings is anybody's guess.

Mr. Jones, president of the company, has stated that he is "entitled to a loan" and has given every indication that he will protest vigorously a denial of his application. We would be happy to re-examine his property if he made it accessible but with our present information we can only concur with Mr. Pinckney's recommendation for denial.

By Field Team Region I, NW Dist.

A. E. Weissenborn

A. E. Weissenborn, Exec. Officer
U. S. Geological Survey

Wing G. Agnew

Wing G. Agnew, Member
U. S. Bureau of Mines

Enclosure 1 (in quad.)

cc: USBM (2)
AEC, Salt Lake
Pinckney

xxxxxxxxxxxxxxxx
So. 157 Howard Street
Spokane 4, Washington

November 14, 1956

RECEIVED
NOV 16 1956

Mr. Arthur E. Granger
U. S. Atomic Energy Commission
P. O. Box 2195
Salt Lake City, Utah

Re: Docket No. DMEA-4437 (U-Cu-Pb)
Monarch Copper & Uranium Mines, Inc.
Monarch Mine
Powell County, Montana

Dear Art:

Enclosed is a copy of an application received from Mr. D. L. Casey Jones, together with our report of examination. A copy of our letter to Mr. George Selfridge, Chairman of the DMEA Operating Committee, sums up our appraisal of the application and our reasons for recommending denial of a contract.

We would appreciate receiving your comments as to what you believe the merits of this property to be. We will forward them to Washington just as soon as received so that our DMEA people will have the benefit of your appraisal in evaluating the application.

Sincerely yours,

A. E. Weissenborn
Executive Officer, DMEA
Field Team Region I, NW Dist.

Enclosures

cc: DMEA (2)
USBM (2)
Pinckney

Reviewed by
DMEA OPERATING COMMITTEE
11-19-56
(date)

RECEIVED
NOV 16 1956
D.M.E.A.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
So. 157 Howard Street
Spokane 4, Washington

November 13, 1956

MEMORANDUM

To: DMEA Field Team, Region I, Northwest District

From: Darrell M. Pinckney, Geologist, U. S. Geological Survey

Subject: Application examination report, Docket No. DMEA-4437 (Lead-Copper-Uranium), Monarch Copper & Uranium Mines, Inc., Box 33, Helena, Montana, Monarch Mine, Powell County, Montana

APPLICANT

An application for Defense Minerals Exploration Administration assistance was submitted by the Monarch Copper & Uranium Mines, Inc., Helena, Montana, on August 20, 1956. The company officers are Mr. D. L. Jones, President, and Mr. Herman Ingman, Secretary. The applicant has no program, but Mr. Jones states that the company wishes to explore for copper, lead, and uranium. He requests that the Government furnish 62½ percent of an estimated total cost of $59,111.25 for this purpose.

RECOMMENDATION

On the basis of present knowledge it is recommended that the application be denied. It is possible that there is a target area worth exploring near the eastern end of the No. 1 and No. 2 tunnels, but there is no definite information which permits an appraisal of the property nor the laying out of a logical plan of exploration. If the applicant should make more of the property accessible for examination, reconsideration of the property would be warranted.

Reviewed by
DMEA OPERATING COMMITTEE
11-19-56
(date)

SUMMARY

The Monarch mine, which may be reached over good roads, is about 17 miles south of Elliston, Montana, at the western margin of the Boulder batholith. The main mine workings are along a steeply dipping eastward-trending vein in part along the contact between the batholith and intruded volcanic rocks and in part within the batholith. The main mine workings, extending over a vertical distance of 450 feet and a horizontal distance of about 1,700 feet, comprise two shafts and two adits. Only the lower adit is open.

The mine may contain another vein and possibly a major fault, but this could not be determined because most of the mine workings are inaccessible. No evidence was seen of a third vein which is inferred by the applicant.

The mine is not a potential source of uranium.

The application contains no specific program or objectives. What the applicant seems to want is a "loan" which, if granted, would probably be used for rehabilitation work. The applicant does not now have sufficient funds to finance its share of the project, but Mr. Jones states that if the company receives a DMEA contract he would be able to raise the necessary funds.

LOCATION

The Monarch mine is in sec. 31, T. 8 N., R. 6 W., Powell County, Montana, about 17 miles south of Ellston, Montana, along good roads. It is at the foot of Bison Mountain at an altitude of approximately 7,000 feet. The mine can be reached in a passenger car by following Highway 10N for 1 mile east of Ellston to the Little Blackfoot River road, turning south along the river and following this road for about 9½ miles to Ontario Creek, thence up the Ontario Creek road to the Monarch Creek road, and up the Monarch Creek road to the mine camp.

The mine could be worked through the winter if a light snowplow were available to keep the road open.

The surrounding hills are covered with pine trees suitable for mine timber.

HISTORY OF THE MINE

The mine has apparently undergone three periods of activity. According to J. T. Pardee and F. C. Schrader (U. S. Geol. Survey Bull. 842, p. 266-267, 1933), the mine was active about 50 to 60 years ago (1894 and 1909). They report that in 1894 "a large production" was made. Apparently during this period both the shafts were sunk and the upper or No. 1 tunnel was driven on the vein.

In 1918 a mill, aerial tramway, and large ore bins were constructed and the lower or No. 2 tunnel was driven 580 feet to the vein, but apparently no mining was done.

In 1934 the No. 2 tunnel was driven an additional 1,100 feet as a drift on the vein. Only a few hundred tons of ore were shipped during this period.

RECEIVED
16 1956
D.M.E.A.

DESCRIPTION OF THE MINE

Mine workings

The mine has been developed by two shafts, two main drift tunnels, and a short winze below the upper tunnel (fig. 1). One shaft, called the Big Shaft, is said by Pardee and Schrader to be 350 feet deep. The other shaft, which Mr. Jones calls the Little Shaft, is said to be 200 feet deep. The upper or No. 1 tunnel is said to extend to the Little Shaft and may, according to the sketch accompanying the application, extend an additional 150 feet eastward for a total length of about 1,015 feet. The applicant states that the lower or No. 2 tunnel is 1,700 feet long, of which 580 feet is a crosscut to the vein. The drift on the vein is open for about 960 feet; the drift thus presumably extends another 160 feet beyond this point.

Lesser workings include four other adits and one other shaft. About 275 feet northwest of the Big Shaft is a caved adit portal at which the dump seems to indicate several hundred feet of drift and crosscut. The dump is mostly altered quartz monzonite but also contains some vein material of quartz and sulfide minerals. About 740 feet northeast of the Big Shaft is a cribbed one-compartment shaft. This shaft is flooded, but it is estimated by the examiners to be about 40 feet deep. The dump at this shaft contains altered quartz monzonite and vein material of quartz and sulfide minerals. About 395 feet S. 17° E. from the Big Shaft is a caved adit at which the dump probably represents a few hundred feet of tunnel. The dump contains no vein material or altered rock, only fresh quartz monzonite. About 210 feet south of the Little Shaft is an adit probably only a few tens of feet long. The dump here contains a little altered rock and a few small pieces of vein material. Approximately 650 feet south of the Big and Little Shafts is another caved adit probably only a few tens of feet long at which the dump contains only fresh quartz monzonite. This adit is not shown on figure 1.

Condition of the workings.--The No. 2 tunnel is open for 1,540 feet of its 1700-foot length. Seven hundred and eight-five feet of the accessible part is timbered and in good condition, but a timbered length of 135 feet in the west ore shoot is in poor condition. The vein and the walls are hard and strong so that much of the timber in the drift carries no weight.

The Big and Little Shafts are caved at the collars and probably are caved for their entire depths. The No. 1 tunnel is caved at the portal, but beyond this it probably is in as good condition as the No. 2 tunnel.

PRODUCTION

Shipping records accompanying the application show that 250 tons were shipped from the upper tunnel about 1918. This ore contained approximately 25 ounces of silver and 0.22 ounce of gold to the ton and approximately 2.7 percent copper and 15 percent lead. One hundred forty-seven tons were shipped from the No. 2 tunnel about 1934. This ore contained 20 ounces of silver and 0.62 ounce of gold to the ton and approximately 4 percent copper. No figures are given for lead. The application also lists 542 additional tons shipped from the No. 2 tunnel for which no metal content is given. Miners' statements indicate that some ore was produced prior to 1910, but no records are available.

THE EXAMINATION

The Monarch mine was examined by the writer and John A. Bowsher, mining engineer of the Bureau of Mines, on October 1, 2, 3, and 10, 1956. In all a total of 56 man hours were spent examining all of the surface workings and the accessible underground workings. The vein in the No. 2 tunnel was mapped in as much detail as was possible. All of the walls and backs are covered by a thick layer of mud, and in many places the backs are lagged over or are too high to reach. Four samples were taken of vein material characteristic of the upper dumps, and chip samples were taken across the vein in eight places in the No. 2 tunnel, wherever the vein could be reached. Two ore shoots in the No. 2 tunnel were not sampled because the backs were too high to reach and, although requested to do so, the applicant did not provide ladders so that the backs could be sampled. The samples therefore are not representative of the stopes and presumably the best parts of the vein.

Mr. Jones advised us not to go east of the west edge of the west ore shoot because of bad timber; however, we did map and sample the vein beyond this point in the same manner as the rest of the vein.

GEOLOGY

The Monarch mine is at the western margin of the Boulder batholith along and near the contact of the batholith and Late Cretaceous volcanic rocks. The contact for the most part seems to be a zone, a few hundred feet wide, containing both the intruded and the intruding rocks. For about 480 feet along the No. 2 tunnel drift the contact is sharp and nearly straight, striking N. 78° W. and dipping about 75° N. In other places the contact is irregular or gradational so that the batholith is separated from the volcanic rocks by a gradational zone of fine-grained rock that probably represents a complete recrystallization of the volcanic rocks.

Structure of the Monarch vein

In the No. 2 tunnel the vein follows the straight segment of the contact for 480 feet east of the crosscut with volcanic rocks on the south wall and quartz monzonite on the north wall. The vein continues beyond this point with the same strike but with both walls in quartz monzonite.

The vein is extremely lenticular, four main lenses being exposed in the accessible portion of the No. 2 adit. The lenses range from a few inches to 8 feet in width, are from a few feet to nearly 300 feet long, and are composed mainly of chalcedony and silicified quartz monzonite, with some white quartz and some sulfide minerals. In places sulfides are abundant enough so that the vein is of or approaches ore grade; in other places the lenses are nearly barren. Two spur veins split off from the south side of the largest lens and apparently die out in the wall. Between the lenses the vein is in places barely distinguishable being marked only by a 2-foot band of altered wall rock between joints and by a few thin, irregular stringers of chalcedony. The first lens is found about 200 feet east of the crosscut and the lenses increase in size and frequency eastward. Sulfide content also seems to increase eastward.

Other structures

On the surface a line of pits extends about 60 feet to the east and west of the Big Shaft. These pits have no associated dumps and probably are due to the caving of stopes along a vein. Their trend is parallel to the Monarch vein as seen in the No. 2 tunnel, but their position is nearly 120 feet north of the expected apex of the Monarch vein. The Monarch vein projected upward from the No. 2 tunnel should apex at or very near the Little Shaft. (One cross section accompanying the application indicates that its apex is south of the Little Shaft.) Thus the alined pits may represent a vein other than the Monarch but parallel to it. If such a vein exists, it could project along strike through a sheeted zone exposed in the crosscut of the No. 2 tunnel north of the Monarch vein. However, the alined pits could be on a segment of the Monarch vein which has been offset by a north-trending fault.

Miners' statements accompanying the application say that the No. 1 tunnel was driven 1,100 feet to a fault and that the tunnel was extended an additional 200 feet through the fault zone to its footwall. Different individuals employ the terms "fault" and "contact" almost interchangeably to designate this otherwise undescribed structure said to be found a short distance east of the shafts. One miner claims to have drifted 300 feet northerly along the footwall of the structure. The map accompanying the application shows two nearly parallel drifts trending N. 20° E. from near

the Big Shaft -- one about 325 feet long and the other about 1,150 feet long. The No. 2 tunnel is said to have been driven to this structure but no farther. Mr. Jones, who has never seen this structure, claims that it is a contact zone 200 feet wide between the batholith and the volcanic rocks. Such a contact zone seems unlikely since the rock at the surface on both sides of the zone is all quartz monzonite. A possible alternative is a wide post-vein fault trending northward. The cave at the end of the No. 2 tunnel may be due to weak ground in the vicinity of such a fault. Many such northerly trending post-vein faults are known in and around the batholith. None of them have been mineralized. If this structure is a fault, possibly the short line of pits near the Big Shaft are on an offset segment of the Monarch vein.

Mr. Jones believes that a vein, called the Anderson vein, trends southeast from a point somewhere south of the shafts. This vein is supposed to be marked by three adits and to contain lead. The three adits referred to by the applicant do not lie along a line even if considerable allowance is made for crosscuts. The dumps from two of them contain only fresh rock and no vein material; one of these adits goes into a large outcrop that contains no vein or altered zone. The small dump from the third adit contains a little altered rock and a few small pieces of vein material. That the hypothetical Anderson vein exists is therefore doubtful.

Mineralogy of the Monarch vein

The Monarch vein is very siliceous but in places carries some sulfide minerals. Individual lenses of vein material are composed largely of light gray chalcedony and lesser amounts of milky quartz, galena, light red sphalerite, pyrite, and chalcopyrite. Pardee and Schrader report the presence also of arsenopyrite and tetrahedrite.

Incomplete data suggest that the eastern part of the vein contains more sulfide minerals than the western end and may contain some ore. There are two stoped areas east of the caved ground in the No. 2 tunnel, one about 115 feet long, another perhaps 10-20 feet long. According to miners' statements accompanying the application, there is a third stoped area about 135 feet long beyond the caved ground at the end of the drift. For a distance of about 250 feet westward from the ore shoots, the vein contains small pods of sulfide minerals, whereas farther west it contains only chalcedony and a very minor amount of pyrite. The miners' statements, which accompany the application, indicate that most of the ore that was mined came from the vicinity of the Big and Little Shafts and that the vein to the west of this area contained only a small amount of ore.

One of the vein splits from the Monarch vein in the No. 2 tunnel is radioactive in two places a few feet apart. The highest radioactivity found was 0.2 MR/hr. over an area of less than 1 square foot on the wall of the vein split. The radioactive material is a mixture of light gray to buff and black chalcedony that contains a very small amount of chalcopyrite but no visible uranium mineral. A sample consisting of a few chips from both spots (all the material that could be broken off) contained 0.38 percent uranium. This material is of ore grade, but probably only a few pounds of it are in the vein. On the evidence available the Monarch mine does not appear to contain significant amounts.

THE APPLICATION

The applicant requests the Government to furnish 62½ percent of the funds needed to provide for 1,000 feet of drifting, 250 feet of raising, 1,000 feet of diamond drilling, 60 hours of bulldozing, rehabilitating the No. 1 and No. 2 tunnels, assaying of 200 samples, and consultant services for 30 days. Because the application does not state where the proposed work will be done and does not define any specific target, the examiners held a conference in Helena, Montana, with Messrs. Jones and Ingman on October 6, 1956, in order to get the applicant to outline a program. The only program Mr. Jones could outline when pressed hard for one was (1) to connect the No. 2 tunnel to the No. 1 tunnel by raising; (2) to reopen the No. 1 portal; (3) to drive the No. 2 drift to the "contact." (This last has already been done according to miners familiar with the workings.) It was explained to Mr. Jones that such work had no objectives that could be called exploration and that the Government probably would not participate in a contract for such work. Mr. Jones, however, seems to have confidence in the mine and believes that if he were granted a "loan," rehabilitation work would point out some worthy objectives. Rehabilitation of the tunnels could not be considered exploration nor could it at the present time be considered as being necessary prior to exploration because no specific objective has been demonstrated.

Before a worth-while objective could be outlined some or all of the following work should be done:

1. Reopen the No. 2 tunnel to its face so that the "contact" or "fault" zone can be mapped.

2. Reopen the No. 1 tunnel and especially the run around tunnels that connect the No. 1 tunnel to the "contact" or "fault" zone.

3. Reopen the caved adit located 275 feet northwest of the Big Shaft. This adit probably is a crosscut to the vein indicated by the alined pits and probably would reveal information indicating whether one or two veins are present and might also reveal vital information about the "contact" or "fault" zone.

4. Properly prepare the mine for examination so that the backs of the stoped area can be sampled.

That the above work is necessary in order to make an adequate appraisal of the property, one on which an exploration program could be based, was pointed out to the applicants. However, Mr. Jones said that he did not have the money for such work, but if the Government granted a loan he could raise the money. He said several times that he was "entitled to a loan" to do this preliminary work.

It was pointed out to the applicant that the above work is necessary in order to make an adequate appraisal and to lay out an exploration program.

Enclosure
Distribution:
DMEA(4)
USBM(2)
USGS(SRO)
AEC, Salt Lake
Docket
Pinckney

10/24/56

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D. C.~~
So. 157 Howard Street
Spokane 4, Washington

RECEIVED
OCT 24 1956

October 15, 1956

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-4437 (Uranium-Copper-Lead)
Monarch Copper and Uranium Mines, Inc.
Monarch Mine
Powell County, Montana

Dear Mr. Selfridge:

Enclosed are two copies of a letter dated October 8 received from D. L. Casey Jones of the Monarch Copper & Uranium Mines, Inc., in connection with the above application. This letter was received in our office before Darrell M. Pinckney, our examining geologist, returned from the field.

Sincerely yours,

A. E. Weissenborn

A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region I, NW District

Enclosures

cc: USBM (2)
Pinckney

P.S. Mr. Pinckney's report will be given high priority and will be submitted to Washington as soon as possible.

RECEIVED
OCT 24 1956

xxxxxxxxxxxxxxxxxx
So. 157 Howard Street
Spokane 4, Washington

October 12, 1956

Mr. D. L. Casey Jones
Monarch Copper and Uranium Mines, Inc.
P. O. Box 33
Helena, Montana

Re: Docket No. DMEA-4437
(Uranium-Copper-Lead)
Monarch Mine
Powell County, Montana

Dear Mr. Jones:

This is in answer to your letter of October 8 regarding your DMEA application on the Monarch mine. For the past 18 months I have been engaged in work totally unrelated to the DMEA program and am therefore unfamiliar with your application.

With regard to Mr. Pinckney's visit to the property, I am likewise unfamiliar with the details, but I know that Pinckney is a thorough and competent geologist, and I feel sure that he will give your application every consideration. In the meantime, I have referred your letter to Mr. Weissenborn, Executive Officer of the DMEA program.

Sincerely yours,

Paul L. Weis
Geologist

cc: DMEA (2)
USBM (2)
Pinckney

C O P Y

MONARCH COPPER & URANIUM MINES, INC.

Office: Penwell Building

Helena, Montana

P. O. Box 33

October 8, 1956

Paul Wise
U.S.G.S.
Spokane, Washington

RECEIVED
OCT 24 1956

Dear Mr. Wise:

Your associate Pinckney accompanied by Bowsher inspected the Monarch last week, and regardless of past shipping record and data of men who worked at Monarch, drove tunnels and drifts, he is unimpressed with possibility of Monarch. In fact I told Mr. Ingman the first nite that Pinckney would turn down application even before he had been underground. Pinckney seemed to question any statements of men who had known Monarch mine, even if they had spent considerable time in Mine. Bowsher of Bureau of Mines evidently with quite a lot of practical experience, being less aggressive, let Pinckney lead the party.

This is first time any mining man or engineer has questioned that Monarch has big potential. On such a sketchy inspection, I am very disappointed with such attitude. When I know from actual knowledge how little showing there were for passing of DMEA deals on Lone Pine, Elkhorn Consolidated and Wades Tungsten loans, I cannot see any logical reason for Pinckney's attitude on this, tho after discussion he agreed that if we got a report by geologist-engineer outlining exploration program then that, he would put deal thru. How anyone could turn down Monarch, with past production, 690 tons shipped from lower tunnel, that would average over $40 per ton now, plus estimate of ore by Standish, who drove 1,100 ft. of lower tunnel, plus statements by Anderson & Lauri who knew Monarch for 15 to 60 years, especially on such a casual inspection.

However he did with Bowsher of B. of M. made survey on surface and underground map of Lower Tunnel, which I would like to have. I think I am entitled to this data. I signed an agreement for Pinckney for data on Monarch to be included in USGS reports, if he uses his assay samples and opinion, I do not think Monarch would be treated fairly so kindly submit data for USGS report before okehed for publication. I am very much disgusted with inspection for DMEA on this basis. If you or McLaren had made inspection report would have been different, as experience is of so much value in mining. Samples for assays were not taken from three oreshoots, but he said were characteristic of structure. Check over data in application, statements by Anderson & Lauri, Standish, shipments from #2 and see if I haven't got a kick coming. If any deal in Montana has potential of repaying loan its a cinch Monarch should have a better rating than this.

Sincerely,

/s/ Casey Jones

D. L. Casey Jones

Surname copy

700

Murphy
Ellis
Fleming

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

SEP 21 1956

Hon. Mike Mansfield
United States Senate
Senate Office Building
Washington 25, D. C.

Re: Docket No. DMEA-4437
(Uranium-copper-lead)
Monarch Copper and Uranium Mines, Inc.
Monarch Mine
Powell County, Montana

My dear Senator Mansfield:

This is to acknowledge receipt of your letter of September 19, 1956, and also Mr. Jones' letter of September 14 addressed to you.

With regard to more information than was mentioned in the telephone conversation between your office and Mr. Murphy of this Agency, there is little more that we can add at this time.

The above-docketed application was referred to our Field Team on September 10, and Mr. Jones was also advised of this action in a letter of the same date. It is possible our letter to Mr. Jones and his letter to you crossed in the mail.

Please be assured that our Field Team and this office will make every possible effort to expedite the processing of the subject application.

Returned herewith is Mr. Jones' letter. Copies of your letter and Mr. Jones' will be forwarded to our Field Team for its information.

If I can be of any further assistance in this matter, please call upon me.

Sincerely yours,

C. O. Mittendorf (for)

Administrator

FMMurphy/gla 9-20-56
cc to: Admr.'s Reading File
Docket
Messrs. JECrawford, 3643
THKiilsgaard, 5224
JOHosted, 3210, GSA
Code 700, Mr. Murphy

Enclosure

DMEA Field Team, Region I, NWDist.(2) w/2cc both incoming letters

R.G.G.

700

WALTER F. GEORGE, GA., CHAIRMAN
THEODORE FRANCIS GREEN, R. I.
J. W. FULBRIGHT, ARK.
JOHN SPARKMAN, ALA.
HUBERT H. HUMPHREY, MINN.
MIKE MANSFIELD, MONT.
ALBEN W. BARKLEY, KY.
WAYNE MORSE, OREG.
ALEXANDER WILEY, WIS.
H. ALEXANDER SMITH, N. J.
BOURKE B. HICKENLOOPER, IOWA
WILLIAM LANGER, N. DAK.
WILLIAM F. KNOWLAND, CALIF.
GEORGE D. AIKEN, VT.
HOMER E. CAPEHART, IND.

CARL MARCY, CHIEF OF STAFF
C. C. O'DAY, CLERK

United States Senate

COMMITTEE ON FOREIGN RELATIONS

September 19, 1956

RECEIVED
SEP 20 1956

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

Dear Mr. Mittendorf:

With reference to our telephone call of September 18 to Mr. Fred Murphy of your office, I am enclosing herewith letter I have received from Mr. D. L. Casey Jones of the Monarch Copper and Uranium Mines, Inc., Helena, Montana, regarding the application of the Monarch Mining Company for a loan under DMEA #4437.

I would appreciate any further information you can give me concerning this matter, and please return the enclosure with your reply.

Thanking you and with best personal wishes, I am

Sincerely yours,

Mike Mansfield
Encl

700

FILE COPY
Surname:
Murphy
Gill
Lamb
Kalbfleisch
Selbridge
Johnson

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

SEP 10 1956

Mr. D. L. Jones, President
Monarch Copper and Uranium Mines, Inc.
Box 33
Helena, Montana

Re: Docket No. DMEA-4437 (Uranium-copper-lead)
Monarch Mine
Powell County, Montana

Dear Mr. Jones:

The application for assistance in exploring your mine, under the captioned docket number, has been reviewed by the Rare and Miscellaneous Metals Division of the Defense Minerals Exploration Administration. It has been referred for a field examination to:

Mr. A. E. Weissenborn
Executive Officer
DMEA Field Team, Region I
Northwest District
South 157 Howard Street
Spokane 4, Washington

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

Sincerely yours,

Frank E. Johnson
Administrator

FMMurphy/izm 9-7-56
cc to: Docket
Code 700
Mr. Murphy
Admr.'s Reading File
DMEA Field Team, Reg. I, NW Dist. (2)

Surname copy

Murphy (EWS)
Ellis
Selfridge
FJ Nelson

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

SEP 10 1956

Mr. A. E. Weissenborn
Executive Officer
DMEA Field Team, Region I
Northwest District
South 157 Howard Street
Spokane 4, Washington

Re: Docket No. DMEA-4437 (Uranium-copper-lead)
Monarch Copper and Uranium Mines, Inc.
Monarch Mine
Powell County, Montana

Dear Mr. Weissenborn:

The captioned application is referred to Region I, Northwest District Field Team for a field examination and recommendation.

Enclosed are copies of memoranda, dated August 29, and September 4, 1956, by N. E. Nelson, USGS, and J. E. Crawford, USBM, respectively, relating to the subject application.

Sincerely yours,

George C. Selfridge
Chairman, Operating Committee

Enclosures

APPROVED:

Frank D. Lamb
Member, Bureau of Mines

Thor H. Kiilsgaard
Member, Geological Survey

FMMurphy/gla
(9-7-56) 9-10-56
cc to: Docket
Code 700
Mr. Murphy
Admr.'s Reading File
Operating Committee
Messrs. JECrawford, Rm. 3643
THKiilsgaard, Rm. 5224
JOHosted, Rm. 3210, GSA

R.G.S.

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

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SEP - 6 1956

Date September 4, 1956

DMEA Docket No. 4437
DMEA Contract No.
Commodity Uranium-Copper-Lead
Name of applicant Monarch Copper & Uranium Mines, Inc
Name of property Monarch Mine
Location of property Elliston, Montana
Estimated cost of project $59,111.25

Memorandum

To: Ernest William Ellis, DMEA Member
Uranium Commodity Committee

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

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

1. Date of subject document: 8/15/56. 2. Date received by reviewer: 8/27/56.

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

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

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

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

7. Explain items marked yes above:

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

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

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

Application referred to James Pennington, USBM, for review of copper production potentialities. Reports may be known by Pennington relative to property's past operation as a base metals producer.

This application has also been reviewed by Joseph O. Hosted, Washington representative of the Atomic Energy Commission.

8/31/56

IN REPLY REFER TO:

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

August 29, 1956

Re: DMEA 4437
Monarch Copper & Uranium Mines, Inc.
Monarch Mine
Powell County, Montana
$59,111.25 - Uranium, Copper, Lead

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 rehabilitating a mine and exploring a vein credited by the U. S. Geological Survey Bulletin #842 with a past production of over $1,000,000 worth of silver, gold, lead and copper. Old time reports say there is 50,000 tons of ore in the mine. Proposed work consists of bulldozing, drifting, raising and diamond drilling. The work would give access to the reported unmined ore and explore the lead-copper ore structure and a zone from which good uranium samples appear to have been taken.

An examination seems to be warranted.

Referral of the application to the Field Team is recommended.

N. E. Nelson

N. E. Nelson

August 27, 1956

Monarch Copper & Uranium
Mines, Inc.
Box 33
Helena, Montana

Subject: DMEA-4437
Re: Exploration Assistance
Monarch Mine

Gentlemen

The receipt of your application dated August 15, 1956 for exploration assistance under the Defense Production Act of 1950, as amended, is hereby acknowledged.

Your application has been assigned Docket Number DMEA-4437 and referred to the Rare & Misc. Metals Division.

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

Sincerely yours,

Allen S. Dakan
~~[illegible]~~ Chief
Operations Control and
Statistics Division

August 27, 1956

Memorandum

To: Executive Officer, DMEA Field Team, Region I,NW

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 I,NW.

DMEA - 4437 Monarch Copper & Uranium Mines, Inc.
'Monarch' Mine

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
So. 157 Howard Street
Spokane 4, Washington

August 23, 1956

Mr. George C. Selfridge, Chairman
DMEA Operating Committee
Department of the Interior
Washington 25, D. C.

Re: New Application (Uranium-Copper-Lead)
Monarch Copper & Uranium Mines, Inc.
Monarch Mine
Powell County, Montana

Dear Mr. Selfridge:

Enclosed are three copies of an application submitted by D. L. Jones, President, Monarch Copper & Uranium Mines, Inc., Box 33, Helena, Montana. We have retained one copy for our files.

Sincerely yours,

D R MacLaren
D. R. MacLaren
for: A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region I, NW District

Enclosure as indicated

cc: USBM (2)
Geologist

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AUG 27 1956

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

RECEIVED
AUG 20 1956
U. S. O.
SPOKANE, WASH.

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. 4437
Metal or Mineral Uranium-Cop-Ld.
Date Received 8-27-56
Estimated Cost $59,111.25
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: Monarch Copper & Uranium Mines, Inc. Box 33, Helena, Mont.
D.L. Jones-Pres. Herman Ingman-Secty. Helena, Mont.

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

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

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

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

3. *Applicant's property rights.*—(*a*) State the legal description of the land upon which you wish to explore, including all land which you possess or control that may be benefited by the exploration, and excluding any land or interest in land which is not to be included in the exploration project contract Six unpatented claims & millsites in Sections 30-31 Tp. 8 N., R. 6. W.

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

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

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

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

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

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.

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AUG 27 1956

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

(*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 90 days and be completed within 12-18 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 Labor and Supervision

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 August, 15, 1956, 195__

original application dated Dec, 29, 1955 Monarch Copper & Uranium Mines, Inc.
(Applicant)

By D L Jones - Pres.

Herman Ingman Sec

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.

MONARCH COPPER & URANIUM MINES, INC.

Office: Penwell Building P. O. Box 33

Helena, Montana

September, 14, 1956

Dear Senator:

Again I am asking assistance from you. We applied for DMEA assistance for Monarch, it was filed in Washington office on August 15, under DMEA # 4437. I know plenty of assistance deals they have made that were doubtful deals, but this one has plenty of merit. Has production record of over Million Dollars, and engineers reports showing 50,000 tons probable Ore above lower tunnel, needs exploration to prove, under a DMEA loan you are not supposed to block out Ore, but explore. Thehairline between exploration & development cannot be very thick. Would appreciate it if you could rush this application along, winter will be on us. So would like to get underground before it sets in.

Have had a bit of grief with Forest Service, especially since Congress passed # 167. How was our Montana vote on that bill? Under it F.S. can be nasty, and they will, moved in extra band of sheep thisseason, ran over our area at Monarch twice, could not feed a goat now. Had a lot of Elk in past, but they will be long gone now. Thanks for your early boost on this.

Best regards,

/s/ Casey

D. L. Casey Jones

Lawrence Scheewe - Nat'l Press Bldg.

has data on whole deal. He was just

in Helena for couple weeks.

c
o
p
y

3 (f)	Claims- Monarch	Amended relocation	Book	9	Page	57	1951
	Monarch # 1	" "	"	9	"	60	"
	S.Monarch	location	"	9	"	7	1953
	N.Monarch	"	"	8	"	621	"
	Anderson	"	"	9	"	63	1954
	J.R.M.	"	"	9	"	65	"

4 (a) We have & are doing exploration work,bulldozing etc.Cut copper vein that John Roos reported,which is 450 ft.above # 2 tunnel level.# 2 is open for 1700ft.to Contact Zone hanging wall,but 35-40 sets must be retimbered before safe to work.#1 apparently caved for 75-100 ft must be cleared.Open cuts expose vein system,but exploration work will be done thru tunnels,giving depth on veins.

(b) Past production according to U.S.G.S.#842,over $1,000,000. Reserves of Ore according to Standish M.E. & corroborated by E.W.Stevens M.E are over 50,000 tons above # 2,when drifting & raise completed,this without striking any unknown ore.

(c) Production was from Zone,which is Contact between Andesite on West & Quartz Monzonite on East,possibly faultted produced Lead-silver with exploration believe E-W extensions of this higrade vein can be located.Attached are maps,reports,assays,shipping data to prove our project worthy & feasible.

(d) Car can be driven to lower tunnel,Elliston on Hiway 10 & N.P.R.R.is 14 miles by good yearround road.Helena is 37 m.,Butte 65m.Camp for a crew of 10 men,cabin logs available & lumber.

(e) Can easily obtain crew at Elliston & Helena.Material, supplies at Helena or Butte. Plenty of water.Power deisel or gas.

5 (b) Proposed work ares shown on attached maps.

(c) Work should start in less than 90 days, in order to get set for a operation thru winter, depends on date of okeh of this application.

(d) Accompanying data report give experience of associates,also have a foremen in line, who has had 15 years actual underground experience

6 (a) Contracts for other than actual mine work;

	Bulldozing 60 hrs. @ $15.	$900.00	
	Diamond Drill 1000 ft. @ $5.00	$5000.00	
	Assaying 200 samples @ $5.00	$1000.00	
		$6900.00	$6900.00

(b)	Labor @ $12.00 per ft. drifting Workmens Comp.O.A.P. tax 10%	$13.20 a ft.	
(c)	Supplies,steel,powder,fuse,gas, deisel,timber etc drifting	$15.00 a ft.	
(d&b)	Equipment,supervision,~~consultants~~	$ 5.50 a ft.	
		$33.70	
(	Drifting 1000 ft. @ $33.70		$33700.00
(b,c,d)	Raising cost labor$3.50,supplies,timbering $2.00 supervision .50¢ over drifting costs- $6.00 250 ft. of raise @	$39.70 a ft.	$ 9925.00
(b,c,d)	Retimbering,rehabilitation back # 2		$ 1500.00
	Clearing portal # 1,rehabilitation		$ 2000.00
(b)	Consultant-geological-engineer 30 days @ $40.		$ 1200.00
(h)	5% contingencies estimate		$ 2761.25
			$57986.25

6 (d) Company will furnish following equipment in first class condition and maintain it in such condition;

Air compressor 210- 315 cfm
Air fan & bag
Pipe and recievers
Rail
Trammer & mucker
Drills, airhose, initial drill steel
Mine cars necessary
Pickup truck
Camp for crew
Compressor house
Dry house
Small tools etc.

Monarch Copper & Uranium Mines, Inc. application
continued from preceding page.

(g) h, of preceding page will take care of repairs, analytical work, taxes figured in b total.

Accounting $75 per month 15 months	$ 1125.00
Total from preceding page	$57986.25
Grand total	$59111.25
Monarch participation 37½%	$22166.70
D.M.E.A. " 62½%	$36944.55

Separate application for J.R.M. & other U_3O_8 exploration will be made later on advice of U.S.G.S. geologist.

Shipments from 'Monarch Mine' Elliston, Montana

Representative Shipments

Shipper	Weight	Silver oz.	Gold	Copper %	Lead	Value 1956	
Mon.L.Co	28938	36.8	.24	3.9	19.7	$135.56	
Fryberger	44505	35.9	.25	3.7		70.66	
"	19919	27.3	.11	2.4	16.2	96.22	All show from
Mon.M.&P.	88491	18.7	.25	2.6	10.3	77.28	
"	64166	17.2	.22	2.1	10.8	72.38	40 to 80 %
"	86099	21.6	.23	2.6	19.8	/77/99 107.69	
"	67866	22.7	.20	2.8	18.2	104.43	Silica & 12
"	56209	23.4	.19	3.24	15.9	101.71	
And-Hoff	43803	39.5	.28	4.5	16.1	129.55	to 32% Iron

These shipments from # 1 tunnel and shaft

Following 4 cars from # 2 tunnel

Beckstan	68928	22.7	.75	5.		86.68	AGM did not pay
"	76784	21.	.64	4.		73.30	
"	78863	18.5	.59	4.		69.30	for Lead, should
"	70100	19.7	.56	3.26		63.33	

In addition
160 tons @ $36.60; 165 tons @ $29.75; 217 tons @ $25.90
were shipped from # 2 development.

ad. $15.

Assays & Ore Estimates by S. Standish M.E. who drove # 2 tunnel 1934-5

1.	1.08 Au	57.3 Ag.			assay 1956	$ 89.37	from # 1
2.	.32 "	58.5 "	13% Pb	7.7% Cu		164.45	
3.	1.12 "	35.3 "		7.5		130.97	

Ore estimate: 1934 prices 4¢ lead, 8¢ copper, 46¢ silver
19,500 tons @ $63. per ton } this Ore above # 2 tunnel
37,500 " @ $18. " " }

NOTE WELL:
This estimate takes no account of any Ore below # 2 tunnel, nor East of Contact Zone; copper & lead usually increase in value with depth, and Ore East if discovered, should be as rich as West known Ore.

Respectfully,

S. Standish, E.M.
Consulting Engineer

May, 12, 1934

U.S.G.S. Bulletin # 842 states as follows:

The Monarch Mine, 11 miles South of Elliston, on NW slope of Bison Mt., altitude of 7250 feet. It is easily reached by road up Ontario-Monarch Cr. The mine was operated extensively about 1894, when large production was made, again in 1909. Definite figures of production are not available but total over $1,000,000. or more. Development workings aggregate about mile in length, include two tunnels, shaft 3000 feet of drifts. The Ore deposits are in a vein located at or near contact between quartz monzonite & andesite. The vein strikes east, dips steeply north, & in places is 20 feet or more wide. The wall rock is altered and contains specularite & disseminated granular sulphides. The Ore consists of galena, pyrite, calchopyrite & tetrahedrite in a gangue of altered countryrock & quartz

C O P Y

MONARCH COPPER & URANIUM MINES, INC.

(A Montana Corporation)

Introductory Note

Monarch Copper & Uranium Mines, Inc., is a Montana corporation, organized under the laws of Montana on 1950, under the original name of French Gulch Placers, Inc., and later changed to its present name. The company maintains offices at 620 No. Last Chance Gulch, Helena, Montana.

Officers & Directors of the Company.

Name and Address	Stock Owned
President & Director	
D. L. Casey Jones 427 Hayes Street Helena, Montana	9,500 shares
Ten years in mining and mine development work in California, British Columbia and Montana.	
Secretary & Director	
Herman Ingman 819 Gilbert Street Helena, Montana	2,000 shares
Ten years as a Real Estate operator. Twenty years of actual experience as miner; owner of mining property.	
Director	
George Bennitt 925 Choteau Avenue Helena, Montana	7,500 shares
President of State Publishing Company, Helena, Montana; in banking and publishing business for twenty years.	
Director	
Fergus C. Fay 446 West Lawrence Street Helena, Montana	1,000 shares
A graduate of Cornell University; former Director of Montana State Retirement Fund	

former General Manager of Elkhorn Mining Company in Montana; Trustee for Estate of Thomas Cruse, Helena, Montana; has engaged in mining operations for 30 years.

Director

William R. Price — 2,000 shares
Galen Block
Helena, Montana

Mining engineer and consultant for past fifty years with experience in Colorado, California, Nevada and Montana.

Description of Business and Property.

The principal business of the company consists of the purchase or lease of mining properties and the exploration, development, extraction, and marketing of copper, gold, lead, uranium and such other minerals as may be found in commercial quantities.

The company owns outright a group of six claims, which includes a mill site, located in Powell County, Montana, approximately 37 miles west and south of Helena, the location of world famous "Last Chance Gulch." The claims are known as: Monarch, Monarch No. 1, North Monarch, South Monarch, Monarch Mill Site and Monarch No. 1 Mill Site. The Monarch mine is located 14 miles via county road from the town of Elliston and the mainline of the Northern Pacific Railroad.

The Monarch Mine, based on mining records dating back to its origin in 1884, is a proven producer of ores containing copper, gold, silver and lead. Ores have been mined and shipped from this property valued at more than a million dollars, according to U. S. Geological Survey reports. There is approximately 4,000 feet of development work in the Monarch Mine, consisting of tunnels and shafts, etc.

According to information from John Roos, now District Engineer & Geologist for the National Lead Company at Lovell, Wyoming, he

sampled a copper vein east of Big Shaft that assayed 29% copper. Now the lower tunnel is within 150 feet approximately of being 450 feet vertical depth on this vein.

Recently uranium ore was found in the mine. Samples taken by the Atomic Energy Commission from two different areas in the lower tunnel, 400 feet undergound, assayed:

.484/U_3O_8 - valued at approximately $78.00 per ton;
3.1/U_3O_8 - valued at approximately $511.00 per ton.

Drawing showing location plan of Monarch Mine . . . . . .
(attached hereto)

Following appears copy of reports made by: (1) William R. Price, Mining Engineer and Consultant of fifty years experience, and (2) E. W. Stevens, Metallurgical Engineer, Sierra Talc Corporation, Cameron, Montana.

Preliminary Report - Monarch Mine, Elliston, Montana.
By: William R. Price.

June 18, 1955

This examination and report was made to determine condition

of the property at this time, and to determine as far as is possible, its value as a mining venture.

The property is situated at an altitude of 6750 feet, about 14 miles South of Elliston, a station on the N. P. Railroad, 23 miles west of Helena. A fair county road connects the mine with Elliston. The property consists of 6 unpatented claims, originally located in 1884, and have been worked more or less since that time. Gross value of ore shipped from property is over a million dollars, according to U. S. Geological Survey reports. The ore shipped was a mixture of Lead, Copper, Gold and Silver, in a gangue of Quartz and Andesite.

Surface improvements consist of two cabins in good repair, and an old mill building. There is a loading bin at portal of #2 Tunnel, a track line from portal of #2 to breast, and 1000 feet of 2" pipe. There are more than a mile of underground workings on the Monarch claims, including two shafts, both 200 feet deep, and two tunnels; #1, 1100 feet in length, and #2, 1700 feet long. The breast of #1 is 200 feet below the surface, the breast of #2 is 450 feet below the surface. There are no underground connections between tunnels #1 and #2. All workings from #1 tunnel to the surface, as well as the tunnel is as of now inaccessible, due to cave-in at portal.

The #2 or lower tunnel is in good condition to within 150 feet of the breast; from thereon it will be necessary to re-timber about 30 to 40 sets in order to sample vein. Raises have been started to get to the workings above, but these are in about same unsafe condition. The #2 tunnel was driven as crosscut for 600 feet, at that point the Monarch Vein was encountered. The vein at this point is well defined and varies from 6 to 10 feet in width, and seems to be a sheeted zone in the Andesite. Later the tunnel was driven as a drift on the vein until it had reached the Contact, a distance of 1100 feet. Some ore occurs here and there along this drift. At a point about 1565 feet from portal of tunnel, a good shoot of ore was struck, which continued 135 feet to the breast. Some 690 tons of ore was shipped from this part of the mine. This had a value of $37.50 a ton. As this ore was taken from lower part of mine, it is of considerable importance, as it occurs 250 feet below workings of #1 tunnel, directly beneath. (This value did not include lead as A.C.M. (Anaconda Copper Mining Co.-Smelter) did not pay for lead, only for copper, gold and silver.)

Recently, uranium ore was discovered at various points in tunnel #2, the best showing about 500 feet from breast. A small amount of commercial ore has been found at this point. This discovery of uranium ore is of great importance, since it proves this kind of ore exists in sulphides on this property. The entire property is situated within Granitic area in which all uranium ore has been found in this part of the state.

Without going into further detail, possibly confusing, I may say that I am of the opinion that the property justifies the expenditure of sufficient money to repair the lower tunnel, so that vein could be sampled and the workings examined. The result of this examination should enable one to arrive at rational conclusion as to value of the property.

Respectfully submitted,
William R. Price.

A Report on the Monarch Mine - Elliston, Montana.
By: E. W. Stevens.

December 21, 1954

GENERAL INFORMATION

The Monarch Mine is located fourteen miles south of Elliston, Montana, which is a railhead for shipment to either Butte or Helena, The road from Elliston to the mine is a county road and should be accessible throughout the year with some bull dozer workduring the winter.

The property consists of six unpatented claims and two unpatented mill sites. The names of the claims are as follows: Monarch, Monarch #1, North Monarch, South Monarch, Monarch Mill Site, Monarch #1 Mill Site and Anderson and Bull Elk. All the above claims are duly on file and recorded in Deer Lodge, Montana, the county seat of Powell County.

HISTORY AND PRODUCTION

Originally located in 1884 as the Monarch and Whip-poor-will claims by four men: Noris, L. Scoville, Chas. White and Wilson. They sank a big shaft 50 ft. on ore, mined drag ore and drove an inclined tunnel to connect to the shaft. They later sank to 100 ft. all in ore, and in the contact zone. They sank the Little Shaft and connected to the Big Shaft at the 100 ft. level. They also mined vein ore from the Little Shaft.

In 1900 they gave lease and bond to a Butte company, who sank the Big Shaft to 200 ft. level. These operators cross-cut over under the Little Shaft, but had not raised when their lease expire. They had drifted on vein with good results.

In 1901, C. Anderson and G. Prangle took the lease from the Monarch Mining & Milling Co." (formed by the original locators) and started Tunnel #1. They drove the tunnel about 200 ft. but mined ore from the Little Shaft. It is reported that 12 tons returned $600.00.

In 1907, Linus Copper Mining Co. bought all stock of the Monarch Mining & Milling Co. and continued Tunnel #1 into the contact or fault zone and made a drift along the footwall to the North. They connected to the Little Shaft at the 200 ft. level, and mined very good ore. They operated for al least ten years and shipped a large amount of ore.

In 1917, a man named Fryberger took a lease and bond from Linus Copper, and worked about a year. Shipped ore.

In 1918, Fryberger, Eichelberger & Trauerman organized the Monarch Mining & Power Co., and assumed the Fryberger lease from Linus Copper. They sold plenty of stock, spent $200,00 building a mill, gigback, aerial tram, sawmill, building camp, cut 1400 cords of wood for steam plant. All this work was done above ground, except that Tunnel #2 was driven to the 600 ft. station, which was just short of the vein. The corporation failed and went into bankruptcy.

Anderson says the mill and surface work should never had been built until Tunnel #2 was driven and ore blocked out. They had spent all their money on the surface; silver took a sudden drop. They were then unable to finance the continuance of Tunnel #2 and so failed.

After Fryberger, Eichelberger and Trauerman, the Monarch Mine is not reported to have operated until 1934-35 when a group headed by S. Standish, E. M., had a lease and bond on it for $150,000.00. This group completed Tunnel #2 and then due to falling metal prices abandoned the project. The mine then became involved in litigation until all machinery and most of the buildings on the property were either hauled away or dismantled at which time the claims were allowed to become delinquent. In 1951, the present owner, D. L. Casey Jones relocated the claims and started repairing the buildings that were left. Since this relocation, the owner has endeavored to reopen the old workings and get the mine in a working operation. Only partial returns from shipments are available. From 1899 throught 1923, there were 277.6 tons of ore shipped from the Monarch Mine that averaged $84.13, at today's prices. The averaged of the smelter returns were as follows:

<u>0.23 oz. gold; 25.3 ox. silver; 2.72% copper; 13.1% lead, per Ton.</u>

In 1934-35, Standish shipped 690 tons of ore from Tunnel #2, which averaged $37.50 per ton, gold, silver and copper.

FACILITIES AND EQUIPMENT

The Monarch Mine is approximately ten miles from suitable three phase power. The equipment on the property at the present time consists of hand tools. There are two cabins that would be suitable for living quarters. A good supply of mine timber and camp wood is available as well as ample water for camp and milling purposes.

DEVELOPMENT

When I visited the mine in September, 1952, most of the workings were inaccessible. However, I did go into Tunnel #2 and was able to traverse its entire 1700 ft. length. I have recently come into possession of a map made by a mining engineer, S. Standish, which shows approximately 3000 ft. of work done on this property. The map verifies what I observed when I visisted the property.

The development work consists of two shafts and two tunnels. Both shafts are 200 ft. deep. Tunnel #1 is 1100 ft. from portal to the hanging wall of the contact zone. This tunnel connects with the Little Shaft. Tunnell #2 is 1700 ft. from the portal to the hanging wall of the contact zone. There has been work done beyond the hanging wall of the contact zone in Tunnel #1 and some mineable ore was reported by Standish to have been left in this area.

GEOLOGY

The Monarch Mine is located on the contact of quartz monzonite and andesite. The Monarch vein strikes East and dips to the

N orth. The vein structure is from 2 ft. to 10 ft. in width. Some alteration has occurred in the walls which contain disseminated grains of sulphides. The ore consists mainly of galena, pyrite, calcopyrite and tetrahedrite in a gangue of altered andesite and quartz. The structure is strong and well mineralized.

ORE SHOOTS AND DUMPS

There are three dumps on the property; one near the Big Shaft, one at the portal of Tunnel #1 and another at the portal of Tunnel #2. There are approximately 1000 tons of ore in these dumps. The values in the ore around the Big Shaft dump will run about $22.00 per ton, gold, silver and lead. A trial sample shipped from there reads as follows:

0.02 oz. gold; 9.2 oz. silver; 5.4% lead

Samples taken from the dump near Tunnel #1 reads as follows:

0.62 oz. gold; 38.0 oz. silver; 3.2% lead; 3.1% copper
0.07 oz. gold; 21.9 oz. silver; 15.4% lead; 1.9% copper

At the time Tunnel #2 was driven, 690 tons of ore were shipped from the drift. At present prices, this averages $37.50 per ton in gold, Silver and copper. It averaged better than 5% copper. The dump at Tunnel #2 shows considerable copper. There are two distinct ore shoots in Tunnel #2; one shows a width of 10 ft. and the other a width of 2½ ft. Samples taken on the 2½ ft. width show:

0.12 oz. gold; 12.4 oz. silver; 3.4% lead; 14.6% copper
1.12 oz. gold; 48.9 oz. silver; 10.3% copper

The 10 ft. width will average $30.00 combined gold, lead, silver and copper.

In 1935 Standish calculated $1,162,500.00 worth of ore available at the Monarch Mine. He was using $35.00 gold, 0.46¢ lead and 0.08¢ copper as a basis for his calculations. Since gold is the only one of these minerals having the same value now as it did then and since it carries approximately one-third of the total value of the ore, it would be safe to estimate that, using Standish's figures and today's prices, there should be more than $3,000,000.00 worth of ore in the Monarch Mine about Tunnel #2; now copper is 50% higher in price.

ORE TREATMENT

In my opinion, the beneficiation of this ore can be best accomplhised by flotation methods. That is, a concentrate should be made of lead and separate one of copper since in shipping the concentrates they will have to go to either Washoe sampler or East Helena smelter. At East Helena, they will not pay for the copper; at Washoe sampler, they will not pay for the lead. Flotation therefore, should be considered whenever a mill is discussed.

SUMMARY AND CONCLUSIONS

After a thorough study of the Monarch Mine, I feel that machinery should be obtained and the mine put into operation. The values throughout the mine are exceptionally good at today's metal prices.

The geology of the mine is favorable for depth. The vein structure is exceedingly good. I believe this mine can be made to produce and pay big dividends on a reasonable investment. I would therefore, recommend that a raise be driven from Tunnel #2 to Tunnel #1. This would be in ore and would serve to block out on at least three sides a good quantity of ore. Furthermore, it would give additional information as to where Tunnel #2 should be driven in order to encounter the veins worked above.

In conclusion, I feel quite certain that with proper management and a well planned program, the Monarch Mine can be made to pay and has possibilities of becoming a large producer.

/s/ E. W. Stevens, Met. Engr.

(Copper prices have raised 50% since this report)

December 21, 1954

C O P Y

Elliston, Montana
February 25, 1954

I, C. H. Anderson makes the following statements concerning the Monarch Mine, with which I have been associated since 1892. I have worked as a miner since that time. I worked for original owners of Monarch in 1892. I worked taking out, so called 'drag' ore which ran from 25% to 40% Lead, up to 80 oz. of Silver, plus Gold & Copper. Later I worked for Harrington Bros. who shipped 1000 tons to Peck Concentrates at E. Helena, Montana, probably it ran around $25. ton net returns (3¢ to 4¢ lead, 25¢ Silver price) In 1900 Prangle & I took a lease on Little Shaft, shipped Ore on which we netted $50. per ton.

In 1906 Chas. Freiderichs bought property, under name of Linus Copper Company contracted with me to drive #1 tunnel, 1100 feet to hanging wall of Contact Zone. We continued to foot wall (200 Ft) drifted 300 ft. along foot wall: I shipped ore from #1 that netted over $35. per ton. I was foreman for Monarch Mining & Power Co. actually Supt. of mining work. However they spent about $225,000. for Mill construction, tramway, gigback, camp and surface work, and neglected entirely any actual mining work except for 600 ft. cross-cut tunnel, which brought them to vein, by that time they were out of money, creditors took over Mill and equipment. In 1934 Standish and associates took a Lease & Bond for $150,000. on Monarch. I was foreman for Standish, and we drove #2 to hanging wall of Fault or Contact Zone, actually a drift on Monarch Vein. The first shipment of 35 tons netted over $1100. Shipped 3 more cars, before I quit. As I recall they were about same value at 8¢ Copper, 46¢ Silver, lead was not paid for by ACM Smelter. Standish's Lease called for $15,000 every 6 months, by time he was ready to ship he owed $30,000. He paid about $3000 in extensions and royalties. In 1935 his lease & Bond was cancelled.

Since that time, there has been no actual mining. Practically all along the 800 feet of vein system are Ore Lense's, none were stopped. Near the Zone is a large Oreshoot about 150 feet long, about 9 feet from wall to wall. This Ore according to shipments made, averaged about $35 net, and would now assay around $65 to $70 per tone 1954 value. In my opinion if Monarch had been properly operated it would have been operating on a profitable hasis from then until now. I know of several veins that to date have not been explored, one at least that good Ore was shipped from. The Monarch definitely warrants putting into production, needs development of known Orebodies, and should be a profitable operation for years.

s/ C. H. Anderson

D.L. Jones
Bob Hiles
Witnesses

Chas. Anderson was an oldtime miner with best of reputation as to his honesty and ability. Active in mining for 60 years, had been foreman and superintendant of mining operations for several mining operations in Montana. Considered an authority on Monarch and knew Elliston District extremely well.

C O P Y

Helena, Montana
March 8, 1954

I, Chas. Friederichs bought the Monarch Mine in 1906 from Newman of Walsh & Newman attorneys of Helena. I turned property to the Linus Copper Company. We built road from Ontario Creek to Monarch Mine, about 2 miles, and up the hill to Big Shaft. I hired Chas. Anderson to drive #1 tunnel, and went on thru Faul Zone and drifted on foot wall for several hundred feet. In tunnel we cross-cut vein every 100 feet, and it was consistently 15 feet in width. Ore was not shipping, however at present prices of metals should be concentrating or milling ore, as corroborated by ACM assay map made by Paul Billingsley in 1916, when ACM was considering purchase of Frybergers Lease & Bond for $250,000. However upper tunnel did not show very much in Copper so ACM did not buy. Before this I had Paul Gow (President of North Butte at his death) a geologist of Butte to make a geological survey of Monarch. This was in 1912-1913, Gow was very favorably impressed, not, only with the Ore values, but with the Geological formation, and that it was right for Ore to go to depth. From all geological indications in Monarch upper tunnel & upper workings around Big Shaft. According to Gow, there were several veins East of Fault and exploration would show extension of Monarch Vein, and develop a large producer.

I owned Monarch for 28 years, spent a lot of money in development, driving tunnels, and drifting in Fault Zone. The only reason for lack of production was metal prices, Lead being 4¢, Copper 8¢, Silver 23¢ Gold $16.

At present market prices, modern equipment, electric power, flotation process for metals recovery, better mining practices, it is feasible and sensible to put Monarch Mine into commercial production.

s/ C. L. Freiderichs

C O P Y

Elliston Montana
March, 1, 1954

I, Hank Lauri have known Monarch Mine since 1928, having worked for Fennel Supt. for Continental Divide Consolidated Mng. Co. At that time Alex Lindquist was foreman, we were working close to the Little Shaft, sunk a winze from #1. We also worked in Fault Zone. In 1934 & 35, I worked for Standish under Chas. Anderson as foreman. We finished #2 tunnel, started raise on Oreshoot, Standish was then cancelled out, and Darneil was foreman for owner. Stope was lost on account of Darneils insisting on shrinking stope instead of timbering properly. All this is from practical mining standpoint, about this time I quit. After this good Ore was shipped from winze.

In later years due to this experience, I have taken several Mining Engineers into #2 tunnel, and all of them have been favorable impressed with showings of Ore. Among these were Keston of A. S. & R. Smelter Co., E. W. Stevens of Sierra Talc, Geo. Neuberg of Anaconda Copper. On a trip with Neuberg in 1953, we measured the length of the Ore shoot next to Zone as 135 feet in length, about 2 feet higrade. In my opinion the Monarch is well worth equipping and putting into a commercial operation.

s/ Henry Lauri.

Hank Lauri has had thirty years of actual mining experience, he is now a foreman for Consolidated Mining of Canada at their Phosphate Property 20 miles West of Elliston.

PITTSBURGH TESTING LABORATORY

FORM 407

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ORDER No. SF 2072

CLIENT'S No. Letter 10-6-54

LABORATORY No. 43258

FILE No. Report No. 1

REPORT

October 21, 1954

State Publishing Company
Helena, Montana

Attention: Mr. George Bennitt

Subject: (1) Sample Ore

Required: Analysis for Uranium Content

Results:

Uranium Oxide (U_3O_8) 3.1 %

Respectfully submitted,

PITTSBURGH TESTING LABORATORY

Carlos M. Robinson

District Manager

Casey —
This is analysis of ore taken from the Monarch
Floyd Bennitt

SS
cd
cc: 3 Above

UNITED STATES
ATOMIC ENERGY COMMISSION
DIVISION OF RAW MATERIALS
SALT LAKE EXPLORATION BRANCH

ADDRESS REPLY TO:
U. S. ATOMIC ENERGY COMMISSION
BUTTE SUBOFFICE
P. O. BOX 1984
BUTTE, MONTANA

AND REFER TO: SLEB:LDJ:mf

September 30, 1954

Mr. D. L. Jones
Monarch Mining Company
P. O. Box 33
Helena, Montana

Dear Mr. Jones:

As you probably know by now, the chemical assays on the samples submitted from the Monarch mine were determined to be 0.484% cU_3O_8, as opposed to the radiometric assay of 0.50% eU_3O_8, and for which we reported the radiometric assay of 0.41% eU_3O_8.

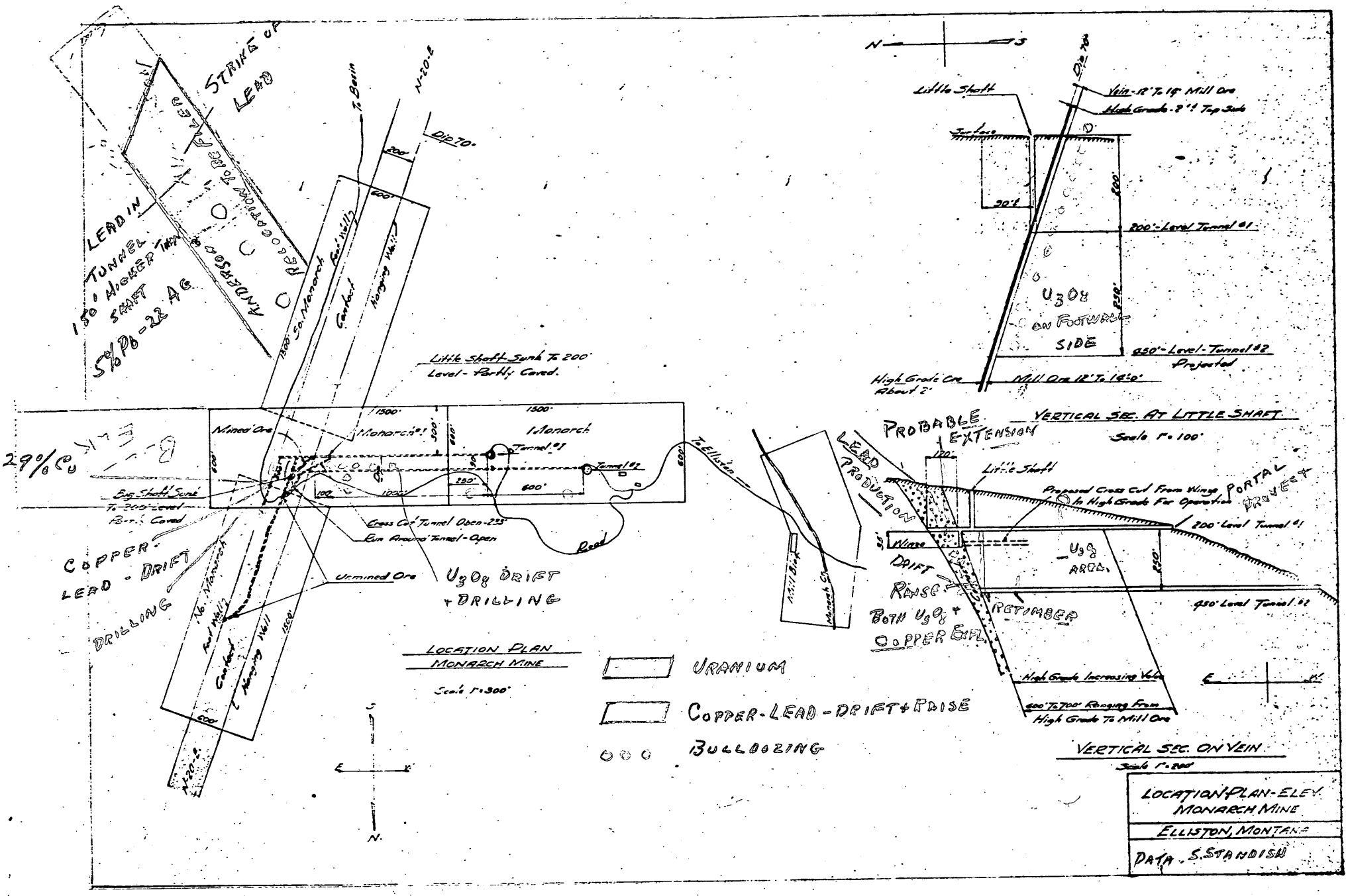
Please excuse our delay in getting this information to you. As you know the samples were unduly delayed and then, too, I have been absent from the office for the past week or ten days.

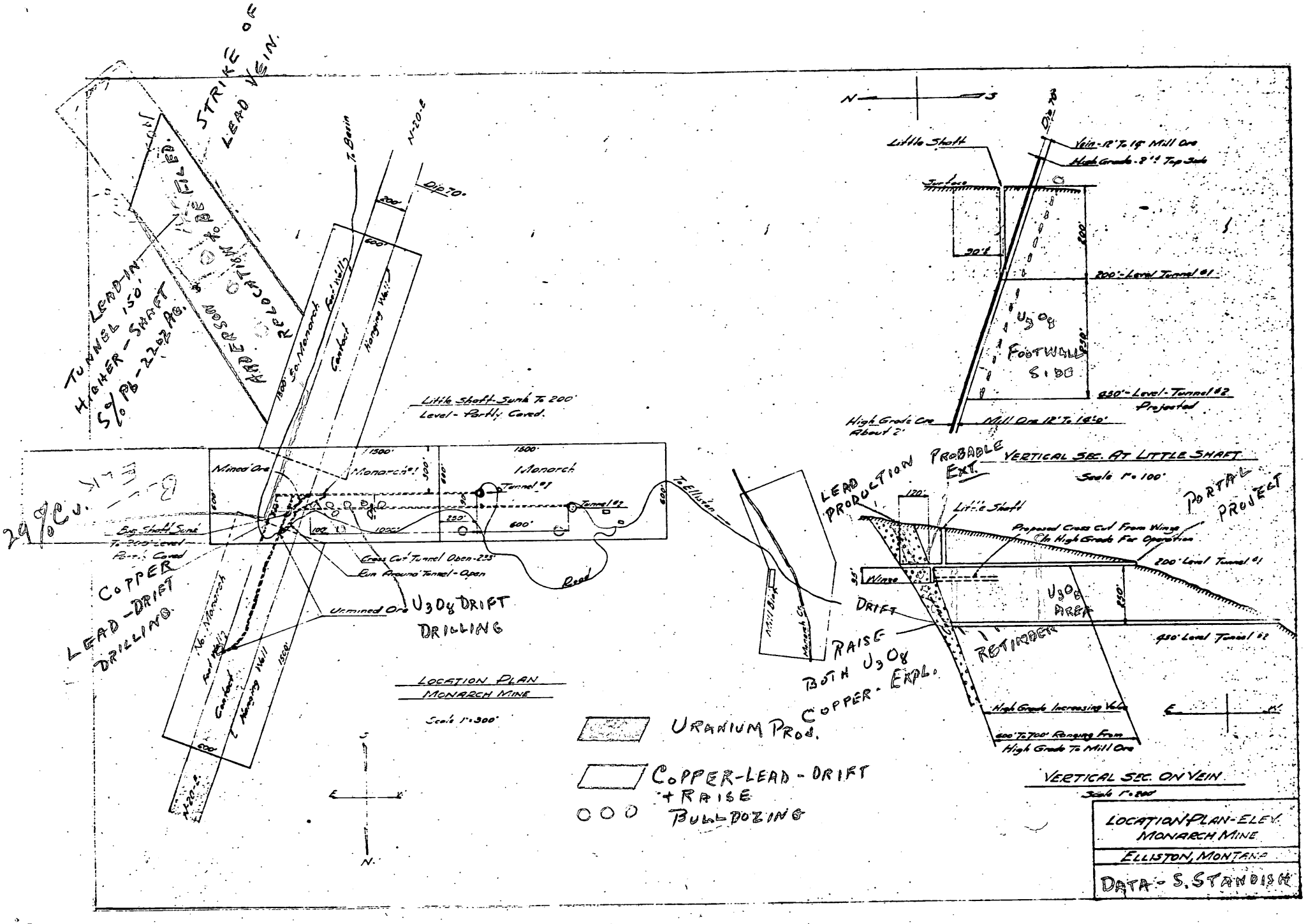
We will look forward to hearing from you regarding the outcome of your present work at the Monarch mine, and if favorable will certainly get over to see the appearance once again before winter descends upon us. As far as mapping the lower tunnel is concerned we would be able to map only that part that may concern or have a bearing upon the radioactivity as noted during your work.

If we may be of any further assistance to you other than above mentioned, please let us know.

Very truly yours,

Leonard B. Jarrard
Chief, Butte Sub-Office


STRIKE OF LEAD
LEAD IN TUNNEL 150' HIGHER THAN SHAFT
5% Pb - 22 Ag
ANDERSON & RECLOCAPTION TO BE FILED
To Basin
N-20-E
Dip 70°
200'
600'
1500' So. Monarch
Footwall
Hanging Wall
Little Shaft Sunk To 200' Level - Partly Covered.
29% Cu
Mined Ore
Monarch #1
Monarch
Tunnel #1
Tunnel #2
1500'
300'
600'
280'
100'
Big Shaft Sunk To 210' Level Partly Covered
Cross Cut Tunnel Open - 225'
Run Around Tunnel - Open
To Elliston
Road
COPPER - LEAD - DRIFT DRILLING
Unmined Ore
U3O8 DRIFT + DRILLING
No. Monarch
Footwall
Hanging Wall
1500'
Footwall
Hanging Wall
600'
N-20-E
LOCATION PLAN
MONARCH MINE
Scale 1" = 300'
S
E
W
N
URANIUM
COPPER - LEAD - DRIFT + RAISE
BULLDOZING
N
S
Little Shaft
Vein - 12' To 14' Mill Ore
High Grade - 2'-1' Top Side
Surface
20'
200' - Level Tunnel #1
U3O8 ON FOOTWALL SIDE
250' - Level - Tunnel #2 Projected
High Grade Ore About 2'
Mill Ore 12' To 14'-0"
VERTICAL SEC. AT LITTLE SHAFT
Scale 1" = 100'
PROBABLE EXTENSION
LEAD PRODUCTION
Little Shaft
Proposed Cross Cut From Winze To High Grade For Operation
PORTAL PROJECT
200' Level Tunnel #1
Winze
DRIFT RAISE BOTH U3O8 + COPPER EPL.
U3O8 AREA
RETIMBER
250' Level Tunnel #2
High Grade Increasing Vein
600' To 700' Ranging From High Grade To Mill Ore
E
W
VERTICAL SEC. ON VEIN
Scale 1" = 200'
LOCATION PLAN - ELEV.
MONARCH MINE
ELLISTON, MONTANA
DATA. S. STANDISH


STRIKE OF LEAD VEIN.
LEAD-IN TUNNEL 150'
HIGHER - SHAFT
5% Pb - 22 oz AG.
PRESCOTT
PRESCOTT
To Basin
N-20-E
Dip 70°
200'
600'
1500' So. Monarch
Contact
Hanging Wall
Little Shaft - Sunk To 200'
Level - Partly Caved.
1500'
1500'
Mined Ore
Monarch #1
Monarch
Tunnel #1
Tunnel #2
300'
600'
100'
100'
280'
600'
To Elliston
29% Cu.
Big Shaft Sunk
To 200' Level
Partly Caved
COPPER
LEAD - DRIFT
DRILLING.
Cross Cut Tunnel Open - 225'
Run Around Tunnel - Open
Road
Unmined Ore
U3O8 DRIFT
DRILLING
No. Monarch
Foot Wall
Contact
Hanging Wall
1500'
N-20-E
LOCATION PLAN
MONARCH MINE
Scale 1" = 300'
E
W
N.
S.
N
S
Dip 70°
Little Shaft
Vein - 12' To 14' Mill Ore
High Grade - 2'!! Top Side
Surface
30'±
200'
200' - Level Tunnel #1
U3O8
FOOTWALL
SIDE
450' - Level - Tunnel #2
Projected
High Grade Ore
About 2'
Mill Ore 12' To 14'-0'
VERTICAL SEC. AT LITTLE SHAFT
Scale 1" = 100'
LEAD PRODUCTION
PROBABLE EXT.
PORTAL PROJECT
120'
Little Shaft
Proposed Cross Cut From Winze
To High Grade For Operation
200' Level Tunnel #1
Winze
DRIFT
U3O8 AREA
RETIMBER
450' Level Tunnel #2
RAISE
BOTH U3O8
COPPER - EXPL.
High Grade Increasing Value
600' To 700' Ranging From
High Grade To Mill Ore
E
W
VERTICAL SEC. ON VEIN
Scale 1" = 200'
URANIUM PROS.
COPPER-LEAD - DRIFT
+ RAISE
BULLDOZING
LOCATION PLAN - ELEV.
MONARCH MINE
ELLISTON, MONTANA
DATA - S. STANDISH

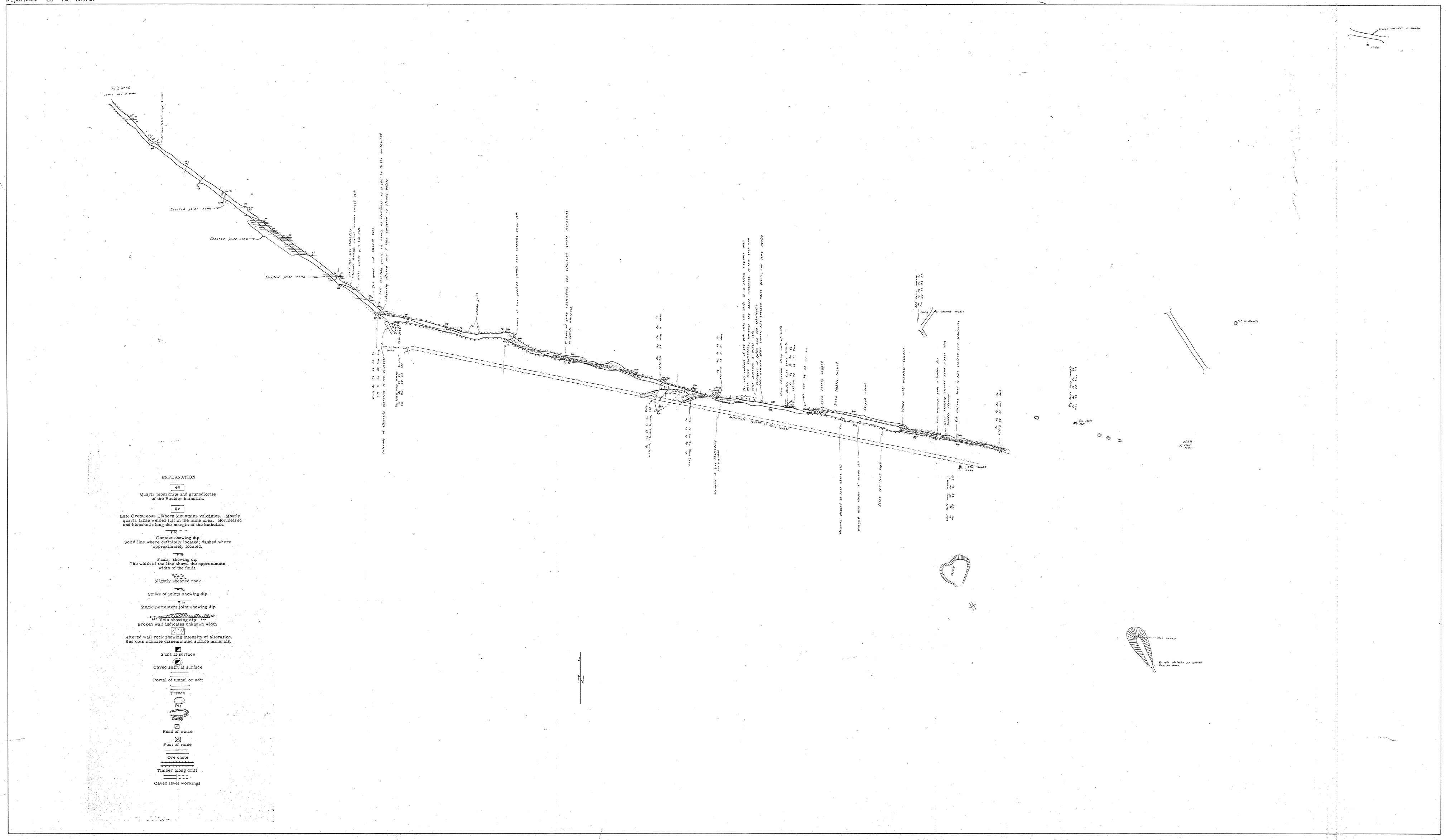


Fig. 1 — Geology Of The Monarch Mine, — Powell County Montana

TAPE AND COMPASS MAP BY
D.M. PINCKNEY U.S.G.S. AND
J.A. BOWSER U.S.B.M.
OCT. 2, 3 AND 10 1956