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

224 New Customhouse
Denver 2, Colorado

October 22, 1953

Memorandum

To: Administrator, Defense Minerals Exploration Administration
Attention: 200

From: Field Team, Region IV

Subject: Report of Examination - Docket DMEA No. 2769 (Lead-Zinc)
Johnson & Purkeypile, Alma No. 1, Park County, Colorado

Enclosed are four copies of the report of examination on the subject property.

This docket was closed October 15, 1953 because the applicant was unable to obtain a lease and Owner's Consent to Lien.

John F. Shaw
John F. Shaw, for
W. H. King

A. H. Koschmann
A. H. Koschmann

Enclosure

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Mining Division
Region IV

August 13, 1953.

Memorandum

To: Field Team, Region IV

From: Chief, Mining Division, Region IV

Subject: Final Report, DMEA Docket 2769 (Lead-Zinc), Harry J. Johnson and John C. Purkeypile, Alma No. 1, Park County, Colorado.

Enclosed are eight copies of the final engineering report on the subject docket.

The applicant requested $90,000.00 for core drilling and lateral exploration. The examining engineer recommends a maximum of 500 feet of diamond drilling at an estimated cost of $4,865.00.

We concur in this recommendation.

W. H. King
W. H. King

Enclosures

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Region IV

Building 20, Room 137
Denver Federal Center
Denver 14, Colorado
July 31, 1953

Memorandum

To: Executive Officer, Field Team, Region IV

From: Chief, Mineral Resources Branch, Mining Division, Region IV

Subject: DMEA 2769, Alma No. 1 lode claim (lead-zinc), Johnson and Purkeypile, Park County, Colorado

Enclosed please find the original and eight copies of the "Summary, Conclusions, and Recommendations," by M. E. Salsbury and D. R. Maclaren, and of Salsbury's engineering report on the above docket.

Salsbury considers the applicants' request for a $30,000.00 loan entirely too ambitious but concludes a limited surface diamond drilling program is justified. He recommends a maximum of 500 feet of drilling in three holes, the project to be set up in two phases--the first phase to include two holes with an estimated depth of 90 feet and 255 feet, respectively, and the second phase to be approved by the Defense Minerals Exploration Administration field representatives only if one of the two holes in the first phase encounters ore, and to include the drilling of a third hole to a depth of 155 feet. He estimates an over-all cost to include contract drilling and all incidentals of $4,867.00 and recommends a short-form unit-cost contract at $9.73 a foot, subject to the inclusion of two adjoining claims the applicants have under lease.

I concur with his conclusions and recommendations.

The examining team discussed with Johnson the proposed modification of the project as recommended in the report and he agreed that it would be satisfactory to him.

The brochure furnished this office with your memorandum of June 19, 1953, is also enclosed.

W. M. Trever

W. M. Trever

enclosures
cc A, DMEA 2769, DMEA Chrono.

WMT/pmm

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.
200 New Customhouse
Denver 2, Colorado

July 21, 1953

Memorandum

To: DMEA Field Team, Region IV

From: A. H. Koschmann

Subject: DMEA Docket 2769, Alma No. 1 Lode, Park County, Colorado

Attached are 8 copies of the geological report by D. R. MacLaren covering DMEA Docket 2769, Alma No. 1 Lode, Park County, Colorado.

The applicant proposes to explore for lead and zinc ore by driving 1250 feet of tunnel and 2000 feet of diamond drilling at an estimated cost of $90,000.

Ore in the district occurs in the Leadville limestone and MacLaren concludes that a mineralized zone in the limestone crosses the Alma No. 1 claim. However, it is possible that the mineralized zone may have pinched on subject property and is too thin to be profitably moved. MacLaren therefore recommends that three drill holes totalling 500 feet be drilled to determine the presence and thickness of the ore and to consider underground exploration if drilling proves favorable.

I concur in this recommendation.

A. H. Koschmann

A. H. Koschmann
Supervising Geologist
Colorado-Wyoming

Enclosures (8)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DOUGLAS McKAY, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION IV

DMEA 8769

Harry J. Johnson and John C. Parkerpile

Alma No. 1 Lode Claim

Park County, Colorado

Lead-Zinc

M. H. Salsbury, Mining Engineer
Bureau of Mines

D. R. MacLaren, Geologist
Geological Survey

July 31, 1953

MMA 2769

HARRY J. JOHNSON AND JOHN C. PURKYPILE
ALMA NO. 1 LODE CLAIM
PARK COUNTY, COLORADO

Summary, Conclusions and Recommendations

By H. K. Salsbury
Mining Engineer
Bureau of Mines

D. H. Stalburn
Geologist
Geological Survey

DMEA 2769

HARRY J. JOHNSON AND JOHN C. PURKEYPILE
ALMA NO. 1 LODE CLAIM
PARK COUNTY, COLORADO

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

By M. H. Salsbury and D. R. MacLaren

The Alma No. 1 lode in the eastern part of the Weston Pass Mining District in the Mosquito Range, Park County, Colo., was examined on July 9, 1953, by a Defense Minerals Exploration Administration examining team to investigate the application for Government-assisted exploration submitted by Harry J. Johnson and John C. Purkeypile, under docket 2769. A loan of $90,000.00, under the Defense Minerals Exploration Administration, was requested--Government participation 50 percent, or $45,000.00.

The Weston Pass area, at high altitude and with a severe winter climate, has a history dating from the 1880's and a record of moderate production, unverified, from several properties of which the most important was the Ruby mine. The applicants' claim, a location and totally unexplored, is located some 700 feet west of the Ruby mine and covers a section of the potential ore-bearing horizon of the district.

The proposal is unrealistic and based on an analysis of vein structure which is not substantiated by known facts. H. J. Johnson, the active partner, has arrived at his picture of the vein system by a method of his own which he does not disclose.

Nevertheless, the location of the claim is such that there is a good possibility of discovering profitable ore by diamond drilling from surface to cut the known potential ore-bearing horizon in the Leadville Blue limestone.

DMEA-assisted exploration is recommended at a cost of $4,867.00--Government participation 50 percent, or $2,433.50--to do a maximum of 500 feet of surface diamond drilling in three holes. The recommendation is subject to the inclusion of two adjoining claims, which the applicants have under lease, in the project to protect the Government's interest. Further exploration assistance would be dependent upon the results of the preliminary drilling.

ALMA NO. 1 LODE

PARK COUNTY, COLORADO

DMEA DOCKET 2769

Geologic Report

By D. R. MacLaren
U. S. Geological Survey

ALMA NO. 1 LODE
PARK COUNTY, COLORADO

INTRODUCTION

Harry J. Johnson of Nathrop, Colorado, has applied to the Defense Minerals Exploration Administration for assistance to explore for lead and zinc on the Alma No. 1 claim in the Union Mining District, Park County, Colorado. The applicant proposes to drive 1,250 feet of tunnel and diamond drill 2,000 feet of holes at an estimated total cost of $90,000 (Government's share $45,000).

The property is located in the Mosquito Range, about 1/4 mile east of Weston Pass. It is accessible from Fairplay, 23 miles to the east, and from Leadville, 18 miles to the west, over a fair dirt road during 4 or 5 months out of the year. During the winter months the road might be kept open but only with the most extreme difficulty.

The property was examined on July 9, 1953, in the company of M. H. Salsbury of the U. S. Bureau of Mines, Luis Santos-Yniga, a Point IV student, and the applicant.

It is concluded that there is a reasonably good chance of making a discovery of lead and zinc on this claim, but it is recommended that before considering exploration by underground methods, three drill holes totalling 500 feet be drilled to test the thickness of the ore beds. The Bureau of Mines estimates that the cost of these three holes will be $4,867 (Government's share $2,433.50).

GEOLOGY

The geology of the Weston Pass (Union) Mining District (figure 2 of the engineering report) has been described by Charles H. Behre Jr.

(1931). Paleozoic sediments striking northwest and dipping at an average of 25° northeast rest unconformably on pre-Cambrian granite. The sequence of the sedimentary rocks is essentially the same as that of the Leadville district described by Emmons, Irving, and Loughlin (1927). The northeast edge of the district is granite that has been faulted up by the Weston fault, a reverse fault that strikes northwest and dips steeply northeast. Actually the Weston fault has split into two branches with a combined estimated throw of about 1,265 feet.

The Leadville limestone is the only formation of known economic importance in the district. It has a total thickness of about 370 feet. About 90 feet above the base of the Leadville limestone is a zone of silicified breccia roughly 20 feet thick and at least 7,200 feet long. It consists of a light grey, highly silicified, dense jasper rock. It is evidently Leadville limestone that has been broken into angular fragments and re-cemented by iron-stained silica. Behre suggests that the brecciated zone represents a bed that had been shattered by folding accompanied by movement along the bedding plane, or that it may represent a thrust fault so nearly parallel to the bedding that it is not recognizable as such at any of its few outcrops. The latter concept would account more reasonably for the increase in the average thickness over that of the formation in the Leadville district which Emmons, Irving, and Loughlin give as 200 feet. Ore on the dump of the Gates shaft, because of its areal position and its association with a few fragments of jasperoid breccia, is thought to have come from the breccia zone. With this one possible exception, all the ore found in the district is

in a single stratigraphic horizon, some 70 feet above the breccia zone. The ore bed is discontinuous and varies in thickness. The center of maximum mineralization appears to be in the Ruby mine where some of the stopes are said to reach a height of 25 feet. From the Ruby mine, the ore bed tends to thin out gradually to the northwest and southeast. It seems reasonable to suppose that the ore bearing solutions came up along the Weston fault and entered the limestone along the breccia zone from which they filtered upwards until they encountered an impervious shaley layer beneath which they formed ore bodies. The ore bed has been traced for a distance of 6,800 feet along the outcrop but the degree of mineralization varies so much that the ore cannot be considered as a single shoot or blanket deposit. The ore does not appear to occur in any well developed fissures but rather as impregnations of the limestone in and around small vuggy cavities sometimes massed so closely together as to constitute a cellular replacement body in densely crystalline limestone.

On the Alma No. 1 claim the applicant's proposed tunnel site is in or just above the silicified breccia zone (figure 2 of the engineering report) about 400 feet southeast of the portal of the Ruby tunnel and 600 feet northwest of an old shaft. The shaft is inaccessible but evidence of ore was found on the dump. The outcrop of the ore zone is covered by surface wash and debris, but on projection from the shaft to an outcrop near the Ruby tunnel, it should be about 110 feet northeast of the portal site and should be encountered in the proposed tunnel at about 240 feet from the portal, about 130 to 140 feet down the dip of the ore from the outcrop.

CONCLUSIONS AND RECOMMENDATIONS

It is concluded that a mineralized zone in the Leadville limestone crosses the Alma No. 1 claim and that good ore has been produced from this zone in the Ruby mine some 400 to 600 feet to the northwest. However, it is possible that the mineralized bed may have pinched and become too thin to be profitably worked. Therefore, it is recommended that three drill holes totalling 500 feet be drilled to determine the thickness of the ore bed before starting a tunnel. If these holes show the ore bed to be of mineable thickness, it is recommended that further exploration by underground methods be considered. The approximate location of the suggested holes is shown in figure 2 of the engineering report. The Bureau of Mines estimates that the cost of this drilling will be $4,867 (Government's share 50 percent or $2,433.50).

REFERENCES

Behre Jr., Charles H., The Western Pass Mining District, Lake and Park Counties, Colorado: Colo. Sci. Soc. Vol. 13, No. 3, 35 pp. 1931.

Emmons, S. F., Irving, J. D., and Loughlin, G. F., Geology and ore deposits of the Leadville mining district, Colorado: U. S. Geol. Survey Prof. Paper 148, 368 pp., 1927.

DMEA 2769

HARRY J. JOHNSON AND JOHN C. PURKEYPILE
ALMA NO. 1 LODE CLAIM
PARK COUNTY, COLORADO

Engineering Report

By M. H. Salsbury
Mining Engineer
Bureau of Mines

BMRA #769

HARRY J. JOHNSON AND JOHN C. PURKEYPILE
ALMA NO. 1 LODE CLAIM
PARK COUNTY, COLORADO

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DMEA 2769

HARRY J. JOHNSON AND JOHN C. PURKYPILE
ALMA NO. 1 LODE CLAIM
PARK COUNTY, COLORADO

ENGINEERING REPORT

By M. H. Salsbury

INTRODUCTION

The Alma No. 1 lode claim, a location, was examined on July 9, 1953, by a Defense Minerals Exploration Administration examining team to verify the information in a loan application by Harry J. Johnson and John C. Purkeypile for exploration assistance under docket 2769 at an estimated cost of $90,000.00--Government participation 50 percent, or $45,000.00. The proposal called for 2,000 feet of core drilling from surface and lateral development totaling 1,250 feet, including an adit tunnel, to explore the Alma No. 1 lode claim.

ACKNOWLEDGMENTS

Data have been obtained by personal observation and by reference to the following sources:

Behre, Charles H., Jr., The Weston Pass Mining District, Lake and Park Counties, Colorado, volume 13, number 3, Colorado Scientific Society Proceedings, 1938.

A Bureau of Mines unpublished Supplemental Report on the Weston Pass Mining Area, dated September 1948.

Schwartz, G. M., and Longyear, Robert Davis, Geological Report on the Weston Pass Area, Park and Lake Counties, Colorado, unpublished, in files of Mineral Resources Branch, Denver Federal Center, Denver, Colorado.

LOCATION, TOPOGRAPHY, AND PHYSICAL FEATURES

The Alma No. 1 lode claim is located in Park County 1/4 mile east of the summit of Weston Pass in the Mosquito Range and some 600 feet east of the mine buildings of the Ruby mine. Weston Pass crosses the Mosquito Range, the boundary between Park and Lake Counties. The claim is in sec. 35, T. 10 S., and sec. 1, T. 11 S., R. 79 W. (fig. 1).

The region, at an altitude of 12,000 feet on the divide between the Arkansas and South Platte watersheds, is one of long, severe winters and heavy snowfall. Winter operations of an exploration program would be difficult if not impossible. Underground operation in winter would be feasible with proper preparation but would entail considerable expense.

Weston Pass is 18 miles southeast of the town of Leadville, Lake County, Colo., 22 miles southwest of Fairplay, Park County, Colo., and is reached over fair dirt roads from either town. The route from Fairplay has the easier approach. The road can be quickly improved if the need is justified. Both Fairplay and Leadville are on hard-surfaced highways connecting with Denver.

The nearest railroad is at Snowden siding 10 miles west on the Arkansas Valley line of the Denver and Rio Grande Western Railroad.

Lead ore of smelting grade can be sold to the Arkansas Valley lead plant of the American Smelting and Refining Company at Leadville. Low-grade lead-zinc sulfide ores could be treated in the Resurrection Mining Company's mill in Leadville, which is operating presently on a restricted basis.

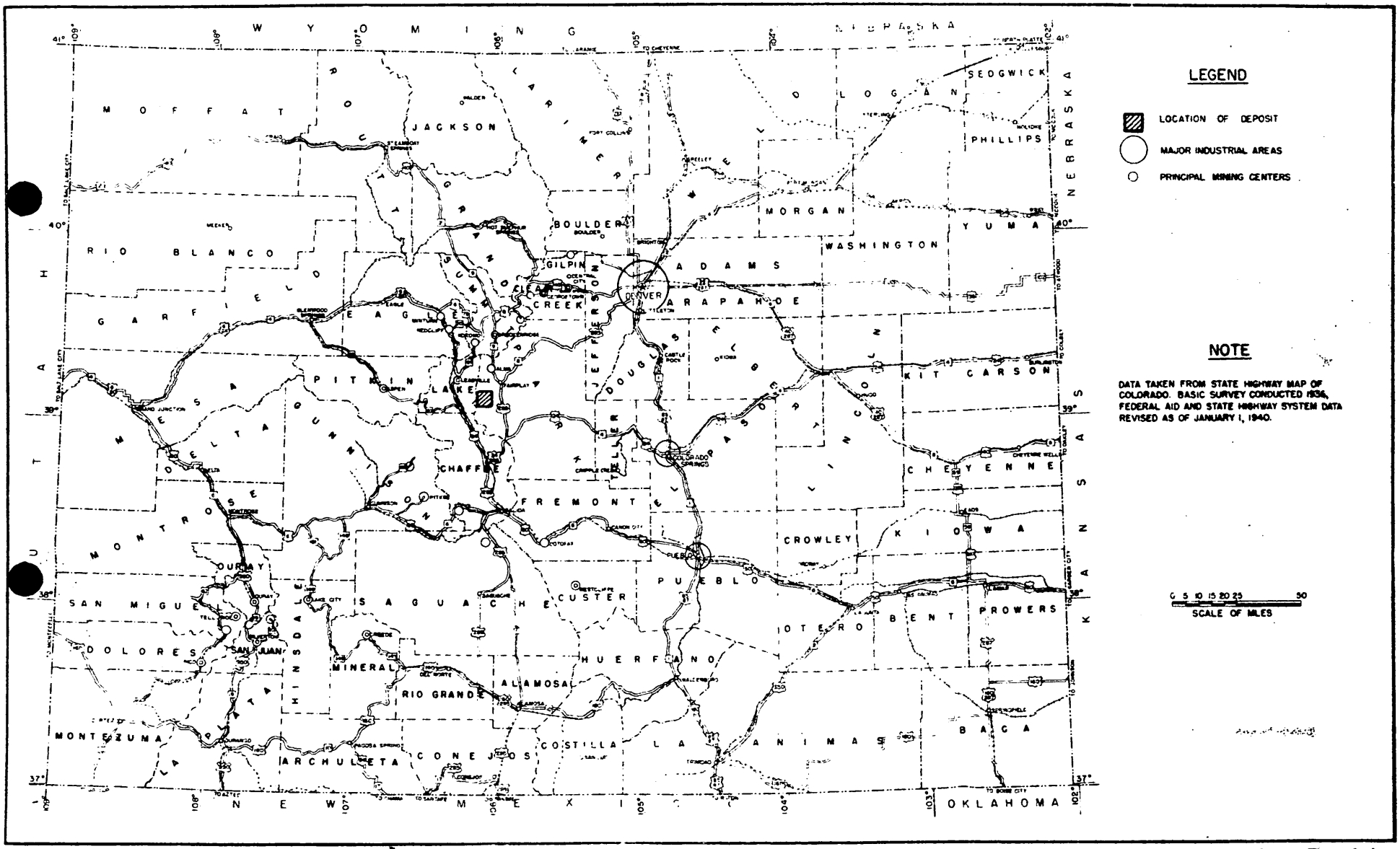

FIGURE [illegible] - LOCATION MAP, HARRY J. JOHNSON AND JOHN C. [illegible]KEYPILE, ALMA NO. 1 CLAIM, PARK COUNTY, COLO. (DME [illegible]2769).

Common mining supplies and timber can be obtained in Leadville or Fairplay. Other supplies are obtainable in Denver, a distance of 85 miles from Fairplay.

There is no timber suitable for mining use on the property.

Labor and Living Conditions

A limited but adequate supply of mine labor is available in Leadville and Fairplay. The standard wage rate at the present time for miners is $1.70 per hour, with time and one-half for over 40 hours per week. This would probably have to be supplemented by some kind of a bonus at the location of the proposed project.

There are no living facilities near the mine except one cabin belonging to Johnson at the nearby Ruby mine. Preliminary exploration could be carried on by crews traveling from Leadville or Fairplay or living in camp facilities set up on the property. Continuous operations would require the establishment of housing for winter occupancy.

There are no power lines nearer than 10 miles away. If and when extensive development is undertaken in this area, a power line might be considered. Until that time, diesel- or gasoline-powered equipment would be satisfactory.

HISTORY, PRODUCTION, AND OWNERSHIP

The Weston Pass area was known as early as the late 1870's when it was the route of a stage road to Leadville. The mining possibilities apparently were not recognized until much later. The Ruby claim was not

patented until 1897. Early production came from the Ruby, Colin Campbell, Cincinnati, and several other mines, but the total from all operations was not large. There are no authentic production figures, but the consensus of several estimates places the total for the Weston Pass area at $125,000.00 in lead and silver. Perhaps $65,000.00 of this total is from the Ruby mine. The Colin Campbell is credited with four carloads of ore assaying 40 percent lead and 15 ounces of silver per ton. The production of the Cincinnati is estimated at $20,000.00 to $30,000.00 from shallow workings. The present applicants report production, amount indefinite, from the Lexington and Pay Rock claims on the evidence of old-timers with whom they have talked and who supposedly did the work. It was verified by the examining team that old dumps on these claims contain partially oxidized specimens of lead ore.

During World War I, the Ruby mine, which had been idle for many years, was reopened and some lead ore mined. Shipment of oxidized zinc ore from tunnel workings on the Cincinnati claim is reported during this period.

Activity in the area ceased after World War I. In 1930, a geologic examination and report on the area were made by the E. J. Longyear Company of Minneapolis, Minn. The conclusion was reached that exploration had been totally inadequate and that there were good possibilities of finding replacement bodies with high lead and low zinc content.

Exploration was recommended, if the ground could be acquired. However, the project was not carried out, probably because of a low lead and silver market.

The area was not worked again until after World War II when the present applicants shipped a few cars of sorted lead smelting ore obtained mostly from old stope fills in the Ruby mine above the water level. The Statistics Branch, Mineral Industry Division, Region IV, has a record of 135 tons of ore shipped in 1948 and 1949 containing 23,400 pounds or approximately 8.6 percent lead with 110 ounces of silver. The zinc content of four shipments ranged from 1.5 to 5.05 percent.

The Bureau of Mines supplemental report, listed under acknowledgements, covers a proposed Bureau exploration project for diamond drilling the Ruby claim and the area west of it. Although the drilling program was recommended by the Bureau engineers, no funds were made available and the work was not done (fig. 2).

The latest production in the area was a shipment of sorted lead smelting ore mined by Moore Brothers and John Loehnikvar, of Leadville, from the Gates shaft west of the Weston Pass summit. The old shaft was cleaned out to a depth of 80 feet at that time. The Statistics Branch of the Bureau has no record of this production.

At the present time, Johnson is doing a little surface prospecting on the Alma No. 1 lode claim and two men who relocated the Pay Rock claim last year are working that ground in their spare time.

Operations on Weston Pass have been handicapped by adverse winter climate, remote location, and ground water encountered in a flat terrain locally which cannot be satisfactorily drained by gravity methods. Even though the flows of water are moderate, the Ruby is reported to make 20,000 gallons per day; the expense of pumping has discouraged deep exploration.

The present applicants, Harry J. Johnson and John C. Purkaypile, Box 4, Hathrop, Colo., hold the Alma No. 1 lode claim on location (fig. 2). It is recorded in book 42, page 541, in the Park County Courthouse in Fairplay. Johnson showed the examining team affidavits of assessment work performed for the years ending July 1, 1952, and July 1, 1953.

Johnson is the active partner and states that Purkaypile is elderly and not able to participate in the work.

A one-fourth interest in the Ruby claim, survey number 11947, and three adjoining claims are held by Johnson. He has leases, or lease and option agreements, from the other owners. He is also lessee of the Lexington, Wake Up Jim, and L. J. Conway claims which adjoin the Alma No. 1 (fig. 2).

Mr. Johnson states that he did not include any claim except the Alma No. 1 lode in the proposed exploration project because of the possible difficulty of getting agreements from the various owners. He may or may not have realized that some of these claims, at least, would have to be included in a project such as he proposes.

DESCRIPTION OF THE DEPOSITS

The geology of the Western Pass area is covered in the reports listed under acknowledgements. The surial geology was mapped by Emmons, Irving, and Loughlin.[1] Structural knowledge is not complete and is

1/ Emmons, S. F., Irving, J. D., and Loughlin, G. F., Geology and Ore Deposits of the Leadville Mining District, Colorado, Geological Survey Professional Paper 148, 1927.

necessarily based on rather scanty information obtained in the limited exploration to date (fig. 2).

The formations of the area are similar to those of the Leadville district. With the possible exception of the ore found in the Gates shaft, the ore horizon, as it has been defined to date, appears to be one bed in the Leadville Blue limestone. Other potential ore-bearing formations which produced in Leadville, Aspen, Gilman, and other Colorado districts have not yet been explored.

Locally there are two structural features of note: The Weston fault to the northeast of the Weston Pass area cuts off the ore-bearing formations where they butt up against the pre-Cambrian granite uplift on the northeast side of the fault. The fault, which is a premineral thrust fault locally, may eventually prove to have influenced ore deposition with resultant larger and richer shoots near the fault. The other feature of the district is a persistent silicified breccia zone in the Leadville Blue limestone about 275 feet below the top of the formation. It averages 20 feet in thickness and has been traced for over 6,000 feet. The Leadville Blue limestone is abnormally thick at Weston Pass, at least 440 feet, as contrasted with a normal thickness of approximately 220 feet elsewhere. It is thought that the breccia zone and the extreme thickness of the limestone may be the result of thrust faulting along a bedding plane.

At surface, the ore consists chiefly of galena, cerussite, and anglesite, with lesser amounts of the zinc minerals calamine and

smithsonite. The outcrops are often prominent and can be identified by the presence of abundant limonite.

The ore has been mined mostly for the content of lead and silver. The zinc is negligible except in the case of one occurrence of oxidized zinc ore reported on the Cincinnati claim during World War I.

All reports on the Weston Pass area mention the high silver content of the ore. In contrast, sampling done in recent years and shipments made by Johnson from Ruby stope fills have shown remarkably low silver content.

The chief gangue mineral is dolomite with some quartz and rarely barite. The dolomite occurs in white bands in the limestone, forming the familiar "zebra rock" of the Leadville district, often but not invariably, a marker occurring in or above the ore.

With the possible exception of the occurrence in the Gates claim, where the ore may be in the silicified shear zone,[2] the ore is in a definite bed approximately 200 feet below the contact of the Leadville Blue limestone and the overlying Pennsylvanian or Weber grits. It has not been found to occur along any well-developed mineralized fissures. The ore zone strikes N. 20° W. to N. 45° W. and dips 15° to 60° northeast, as does the general bedding. In the Ruby mine there is an anticlinal fold with the axis dipping to the northeast, and locally, on the east limb of the fold, the beds have a southeasterly dip. Behre and Longyear[3] report much steeper dips in the western part of the district than in the vicinity of the Ruby mine.

2/ Work cited under "Acknowledgements."
3/ Work cited under "Acknowledgements."

The ore is reported to have been not over 10 feet thick with the average much less. However, one stope in the Ruby mine was said to be 25 feet in height. The width of the Ruby ore shoot was not over 120 feet with very irregular margins in the commercial ore. The extent down the dip is indefinite. The lower margins of the Ruby stopes below the present water level are reported to be in as good ore as was mined.

The mineralization at the Ruby mine appears to have been the most intense in the district. However, this may be more apparent than real. Centering of exploration around the Ruby mine may have resulted from the fact that outcrops were prominent and easily noticed in this vicinity. The presence of other centers of mineralization both east and west of the Ruby is not precluded by the evidence from limited exploration to date.

Figure 2, based on the geologic map in the Longyear report, shows the ore horizon passing through the applicants' Alma No. 1 claim, although the examining team did not see any distinct outcrop.

MINEABLE ORE RESERVES

There are no measurable ore reserves in any of the properties of the Weston Pass area.

PRESENT STATUS

Exploration and Development

There are a number of shallow mine workings in the Weston Pass area, none of which are accessible at the present time. Of these, the Ruby mine could be opened up by several days' work shoveling away the

snowdrifts at the portal. The Gates shaft, west of the Pass summit, is open, but there were no ladders and the cribbing exhibits the effort of side and end pressure. All other mine openings were caved.

The Ruby mine workings are not extensive and only a small section of the mine is presently above water level, as indicated in a mine map in the available report.

The Alma No. 1 lode claim of the applicants is totally untouched except for an open-cut in wash started by Johnson for a tunnel portal.

There are inaccessible shafts on the Lexington claim northwest of the Alma No. 1 lode claim and on the Pay Rock claim to the southeast. These shafts are caved but are reported to have produced ore. At any rate, there is partially oxidized lead ore in both dumps and the shafts appear to have reached the ore horizon.

There is no activity in the district at present except the surface work by Johnson on the Alma No. 1 lode claim and some prospecting which was started last summer on the Pay Rock and is being continued at intervals.

Mining and Milling Equipment and Other Facilities

Johnson has no equipment on the Alma No. 1 lode claim. There are portal buildings, a gasoline hoist, and miscellaneous tools and equipment at the Ruby mine.

There are no milling facilities closer than the concentrator of the Resurrection Mining Company at Leadville.

PROJECT PROPOSALS, WITH COSTS

The applicants proposed driving 1,250 feet of adit tunnel and accomplishing 2,000 feet of core drilling at an estimated cost of $90,000.00.

Actually Johnson is not particularly interested in the core drilling and says he put it in because he thought that it would be the first requirement of any project approved by Government examiners.

Johnson is an old-time miner and prospector who has acquired a picture of the Weston Pass area not substantiated by known facts, although he has had considerable experience working the Ruby mine. He states that there is a vertical vein along the centerline of his claim and that at least five more or less vertical cross veins would be encountered along the course of his proposed tunnel. He ignores completely the probable presence of the low-dipping potential ore in the limestone which furnished the production in the Ruby mine and elsewhere.

The applicant admits that his statements cannot be verified by any physical evidence but merely says that by a "secret" method which he cannot divulge, he has determined that the vertical veins do exist and that the ore in the Lexington and Pay Rock claims was found on one of them. It would appear that he uses some variation of the "divining rod" method of vein location.

If Johnson's picture of the vein structure was correct, his exploration proposal would have merit. Actually the only feasible exploration initially would be a few core-drill holes to cut the known ore horizon.

Three holes, totaling a maximum of 500 feet, would be justified for preliminary exploration of the ore horizon in the Leadville Blue limestone. The first two of these holes (A and B, fig. 2) would determine the depth of the potential ore-bearing bed and indicate the dip of the formation, assuming the strike is as shown on the geologic map, figure 2. The third hole (C) would be drilled only if there was some indication of mineralization in at least one of the other holes, in order to outline additional width.

Boyles Brothers Drilling Company of Leadville has quoted a contract price of $8.00 per foot on a somewhat larger but similar project on the west side of the Weston Pass, and, based on this price, a cost estimate is made:

Phase I

345 feet diamond drilling in two vertical holes, A and B, 90 feet and 255 feet, respectively. Estimated time required, including moving in, 11 days:

Drill site preparation on hillside for two holes	$ 50.00	
345 feet of hole, minimum size AX, at $8.00 per foot	2,760.00	
Accounting	20.00	
Supervision, at $500.00 per month	168.00	
Sampling, including core boxes and assaying, at $1.00 per foot	345.00	
Total Phase I		$3,343.00

Phase II

155 feet diamond drilling in one vertical hole, C. Estimated time required, 5 days:

Drill site preparation	$ 25.00	
155 feet of hole, minimum size AX, at $8.00 per foot	1,240.00	
Accounting	20.00	
Supervision, at $500.00 per month	84.00	
Sampling, including core boxes and assaying, at $1.00 per foot	155.00	
Total Phase II		$1,524.00
Total estimated cost		$4,867.00
Cost per foot		$8.74

Note: Actual length of each hole may vary, but the maximum footage is not to be exceeded.

No access roads, equipment, labor, power, supplies, or housing facilities would be needed other than that furnished by the drilling contractor as a part of the contract price.

Water for drilling is obtainable from the stream running across the property.

PRODUCTION PLAN

The drilling work could be completed in approximately 16 working days. Any further work would be dependent on the results of drilling and the best method and cost would have to be determined later. There is a choice between an incline and a vertical shaft to reach the ore. The adit tunnel proposed by the applicant would be of doubtful value.

SUMMARY COST OF PROJECT

The estimated cost of the project is:

Phase I - 345 feet diamond drilling	$3,343.00
Phase II - 155 feet diamond drilling	1,524.00
Total	$4,867.00

PROPOSED FINANCING

Johnson proposes to furnish his share of the cost in labor, equipment, and cash. He states he has a backer, unnamed, to give additional financial help. The other applicant, John C. Purkeypile, is not in a position to contribute to the project, either financially or with personal services. For the proposed drilling program, Johnson's contribution must be largely cash.

CONCLUSIONS

The applicants' Alma No. 1 lode claim is well located on the known Weston Pass ore horizon. There appears to have been some production from shafts to the northwest and southeast of the claim. There is a good possibility of discovering profitable ore on the Alma No. 1 lode claim.

The active applicant, Johnson, has formed an erroneous picture of the vein occurrences and based his proposed exploration project on it. However, the presence on this claim of a potential ore-bearing bed in the Leadville Blue limestone has been established geologically, although there is no identifiable outcrop.

Known ore sheets of the area are not continuous, and ore may not occur within the limits of the Alma No. 1 lode claim, or ore found may be too narrow to mine profitably. Therefore, a limited drilling program would be advisable before other exploration is considered.

The expenditure of the amount proposed by the applicants on one claim could not be justified even if their proposal was reasonable. For the limited exploration recommended by the examining team, the two

adjoining claims, at least--the Wake Up Jim, survey number 12164, and the L. J. Conway, survey number 8440, which the applicants have under lease--should be included in the project to protect the Government's interest. The advisability of further exploration would be dependent on the results of the preliminary drilling. At the time of the field examination, Johnson was advised that his proposed exploration program could not be approved, and, at the most, a limited drilling program might be recommended.

RECOMMENDATIONS

Subject to the inclusion of the Wake Up Jim and L. J. Conway claims, it is recommended that an exploration project costing $4,867.00--Government participation 50 percent, or $2,433.50--be approved. Two holes shown on figure 2--(A) estimated depth 90 feet and (B) estimated depth 255 feet--are to be drilled, at the locations indicated, as Phase I. If either of the holes encounters ore, one hole--(C) estimated depth 155 feet--is to be drilled if approved by the Government representative. Holes may necessarily be longer or shorter than estimated, but in no case is the maximum of 500 feet to be exceeded.

A short-form unit-cost contract at $9.73 per foot to include all costs is suggested.

MHS/pam

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

224 New Customhouse
Denver 2, Colorado

September 15, 1953

Messrs. Harry J. Johnsen
and John C. Purkeypile
Box 4
Nathrop, Colorado

Re: Docket No. DMEA 2769

Gentlemen:

We have had no reply to our letter of August 11, 1953, in which we requested a signed copy of your lease on the Wake Up Jim and the L. J. Conway lode mining claims, and the Form MF-203 Owner's Consent to Lien.

We presume that you are no longer interested in this exploration project and will close this docket in 30 days unless we receive the signed copy of the lease and the Owner's Consent to Lien before that date.

Very truly yours,

W. H. KING

W. H. King
Executive Officer, DMEA
Field Team, Region IV

HMC:jp
cc Subject
Chron
WMTraver
AHKoschmann
HMConnors
COMittendorf (2)

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

500

Region IV

August 25, 1953

Memorandum to: Mrs. Iris L. M. Birmingham, Mails & Files

From: Base Metals Division

Subject: Docket No. DMEA-2769, Harry J. Johnson & John C. Purkeypile (Lead-Zinc)

In a memorandum dated August 13, 1953, Region IV has informed the Washington office that they will prepare the contract for this application. Therefore, the attached docket is being returned to you office and the case can be considered as a Region IV case from now on.

B. J. Lackhoff

B. J. Lackhoff

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

224 New Customhouse
Denver 2, Colorado

August 13, 1953.

Memorandum

To: Administrator, Defense Minerals Exploration Administration

From: Field Team, Region IV

Subject: Final Report, DMEA Docket 2769 (Lead-Zinc), Harry J. Johnson and John C. Purkeypile, Alma No. 1, Park County, Colorado.

The application for Government assistance in exploration work estimated to cost $4,865.00 has been approved by us and a contract is being prepared.

Government participation will be 50 percent, or $2,432.50.

Four copies of the Final Report will be forwarded when the contract is executed. The original and one copy of Form 3b is attached.

W. H. King

A. H. Koschmann

A. H. Koschmann

Enclosures

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

224 New Customhouse
Denver 2, Colorado

August 13, 1953.

Memorandum

To: Administrator, Defense Minerals Exploration Administration

From: Field Team, Region IV

Subject: Final Report, DMEA Docket 2769 (Lead-Zinc), Harry J. Johnson and John C. Parkeypile, Alma No. 1, Park County, Colorado.

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W. H. King

W. H. K.

A. H. Koschmann

Enclosures

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Mining Division
Region IV

August 13, 1953.

Memorandum

To: Field Team, Region IV

From: Chief, Mining Division, Region IV

Subject: Final Report, DMEA Docket 2769 (Lead-Zinc), Harry J. Johnson and John C. Purkeypile, Alma No. 1, Park County, Colorado.

Enclosed are eight copies of the final engineering report on the subject docket.

The applicant requested $90,000.00 for core drilling and lateral exploration. The examining engineer recommends a maximum of 500 feet of diamond drilling at an estimated cost of $4,865.00.

We concur in this recommendation.

W. H. King
W. H. King

Enclosures

Reviewed by
DMEA OPERATING COMMITTEE
10-30-53
(date)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Region IV

Building 20, Room 137
Denver Federal Center
Denver 14, Colorado
July 31, 1953

Memorandum

To: Executive Officer, Field Team, Region IV

From: Chief, Mineral Resources Branch, Mining Division, Region IV

Subject: DMEA 2769, Alma No. 1 lode claim (Lead-zinc), Johnson and Purkeypile, Park County, Colorado

Enclosed please find the original and eight copies of the "Summary, Conclusions, and Recommendations," by M. H. Salsbury and D. R. MacLaren, and of Salsbury's engineering report on the above docket.

Salsbury considers the applicants' request for a $90,000.00 loan entirely too ambitious but concludes a limited surface diamond drilling program is justified. He recommends a maximum of 500 feet of drilling in three holes, the project to be set up in two phases--the first phase to include two holes with an estimated depth of 90 feet and 255 feet, respectively, and the second phase to be approved by the Defense Minerals Exploration Administration field representatives only if one of the two holes in the first phase encounters ore, and to include the drilling of a third hole to a depth of 155 feet. He estimates an over-all cost to include contract drilling and all incidentals of $4,867.00 and recommends a short-form unit-cost contract at $9.73 a foot, subject to the inclusion of two adjoining claims the applicants have under lease.

I concur with his conclusions and recommendations.

The examining team discussed with Johnson the proposed modification of the project as recommended in the report and he agreed that it would be satisfactory to him.

The brochure furnished this office with your memorandum of June 19, 1953, is also enclosed.

W. M. Traver

W. M. Traver

Reviewed by
DMEA OPERATING COMMITTEE
10-30-53
(date)

enclosures
cc 8, DMEA 2769, DMEA Chron.

WMT/pam

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.
200 New Customhouse
Denver 2, Colorado

July 21, 1953

Memorandum

To: DMEA Field Team, Region IV

From: A. H. Koschmann

Subject: DMEA Docket 2769, Alma No. 1 Lode, Park County, Colorado

Attached are 8 copies of the geological report by D. R. MacLaren covering DMEA Docket 2769, Alma No. 1 Lode, Park County, Colorado.

The applicant proposes to explore for lead and zinc ore by driving 1250 feet of tunnel and 2000 feet of diamond drilling at an estimated cost of $90,000.

Ore in the district occurs in the Leadville limestone and MacLaren concludes that a mineralized zone in the limestone crosses the Alma No. 1 claim. However, it is possible that the mineralized zone may have pinched on subject property and is too thin to be profitably moved. MacLaren therefore recommends that three drill holes totalling 500 feet be drilled to determine the presence and thickness of the ore and to consider underground exploration if drilling proves favorable.

I concur in this recommendation.

A. H. Koschmann

A. H. Koschmann
Supervising Geologist
Colorado-Wyoming

Enclosures (8)

Reviewed by
DMEA OPERATING COMMITTEE
10-30-53
(date)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DOUGLAS McKAY, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION IV

DMEA 2769

Harry J. Johnson and John C. Purkeypile

Alma No. 1 Lode Claim

Park County, Colorado

Lead-Zinc

M. H. Salsbury, Mining Engineer
Bureau of Mines

D. R. Maclaren, Geologist
Geological Survey

July 31, 1953

Reviewed by
DMEA OPERATING COMMITTEE

10-20-53
(date)

DMEA 2769

HARRY J. JOHNSON AND JOHN C. PURKEYPILE
ALMA NO. 1 LODE CLAIM
PARK COUNTY, COLORADO

Summary, Conclusions, and Recommendations

By M. H. Salsbury
Mining Engineer
Bureau of Mines

D. R. MacLaren
Geologist
Geological Survey

Released by
DMEA DEVELOPING COMPANIES
10-30-53
(date)

DMEA 2769

HARRY J. JOHNSON AND JOHN C. PURKEYPILE
ALMA NO. 1 LODE CLAIM
PARK COUNTY, COLORADO

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

By M. H. Salsbury and D. H. Maclaren

The Alma No. 1 lode in the eastern part of the Weston Pass Mining District in the Mosquito Range, Park County, Colo., was examined on July 9, 1953, by a Defense Minerals Exploration Administration examining team to investigate the application for Government-assisted exploration submitted by Harry J. Johnson and John C. Purkeypile, under docket 2769. A loan of $90,000.00, under the Defense Minerals Exploration Administration, was requested--Government participation 50 percent, or $45,000.00.

The Weston Pass area, at high altitude and with a severe winter climate, has a history dating from the 1880's and a record of moderate production, unverified, from several properties of which the most important was the Ruby mine. The applicants' claim, a location and totally unexplored, is located some 700 feet west of the Ruby mine and covers a section of the potential ore-bearing horizon of the district.

The proposal is unrealistic and based on an analysis of vein structure which is not substantiated by known facts. H. J. Johnson, the active partner, has arrived at his picture of the vein system by a method of his own which he does not disclose.

Nevertheless, the location of the claim is such that there is a good possibility of discovering profitable ore by diamond drilling from surface to cut the known potential ore-bearing horizon in the Leadville Blue limestone.

DMEA-assisted exploration is recommended at a cost of $4,867.00--Government participation 50 percent, or $2,433.50--to do a maximum of 500 feet of surface diamond drilling in three holes. The recommendation is subject to the inclusion of two adjoining claims, which the applicants have under lease, in the project to protect the Government's interest. Further exploration assistance would be dependent upon the results of the preliminary drilling.

ALMA NO. 1 LODE

PARK COUNTY, COLORADO

DMEA DOCKET 2769

Geologic Report

By D. R. MacLaren
U. S. Geological Survey

Reviewed by
DMEA OPERATING COMMITTEE
10-30-53
(date)

ALMA NO. 1 LODE
PARK COUNTY, COLORADO

INTRODUCTION

Harry J. Johnson of Nathrop, Colorado, has applied to the Defense Minerals Exploration Administration for assistance to explore for lead and zinc on the Alma No. 1 claim in the Union Mining District, Park County, Colorado. The applicant proposes to drive 1,250 feet of tunnel and diamond drill 2,000 feet of holes at an estimated total cost of $90,000 (Government's share $45,000).

The property is located in the Mosquito Range, about 1/4 mile east of Weston Pass. It is accessible from Fairplay, 23 miles to the east, and from Leadville, 18 miles to the west, over a fair dirt road during 4 or 5 months out of the year. During the winter months the road might be kept open but only with the most extreme difficulty.

The property was examined on July 9, 1953, in the company of M. H. Salsbury of the U. S. Bureau of Mines, Luis Santos-Yniga, a Point IV student, and the applicant.

It is concluded that there is a reasonably good chance of making a discovery of lead and zinc on this claim, but it is recommended that before considering exploration by underground methods, three drill holes totalling 300 feet be drilled to test the thickness of the ore beds. The Bureau of Mines estimates that the cost of these three holes will be $4,867 (Government's share $2,433.50).

GEOLOGY

The geology of the Weston Pass (Union) Mining District (figure 2 of the engineering report) has been described by Charles H. Behre Jr.

(1931). Paleozoic sediments striking northwest and dipping at an average of 25° northeast rest unconformably on pre-Cambrian granite. The sequence of the sedimentary rocks is essentially the same as that of the Leadville district described by Emmons, Irving, and Loughlin (1927). The northeast edge of the district is granite that has been faulted up by the Weston fault, a reverse fault that strikes northwest and dips steeply northeast. Actually the Weston fault has split into two branches with a combined estimated throw of about 1,265 feet.

The Leadville limestone is the only formation of known economic importance in the district. It has a total thickness of about 370 feet. About 90 feet above the base of the Leadville limestone is a zone of silicified breccia roughly 20 feet thick and at least 7,200 feet long. It consists of a light grey, highly silicified, dense jasper rock. It is evidently Leadville limestone that has been broken into angular fragments and re-cemented by iron-stained silica. Behre suggests that the brecciated zone represents a bed that had been shattered by folding accompanied by movement along the bedding plane, or that it may represent a thrust fault so nearly parallel to the bedding that it is not recognizable as such at any of its few outcrops. The latter concept would account more reasonably for the increase in the average thickness over that of the formation in the Leadville district which Emmons, Irving, and Loughlin give as 200 feet. Ore on the dump of the Gates shaft, because of its areal position and its association with a few fragments of jasperoid breccia, is thought to have come from the breccia zone. With this one possible exception, all the ore found in the district is

in a single stratigraphic horizon, some 70 feet above the breccia zone. The ore bed is discontinuous and varies in thickness. The center of maximum mineralization appears to be in the Ruby mine where some of the stopes are said to reach a height of 25 feet. From the Ruby mine, the ore bed tends to thin out gradually to the northwest and southeast. It seems reasonable to suppose that the ore bearing solutions came up along the Weston fault and entered the limestone along the breccia zone from which they filtered upwards until they encountered an impervious shaley layer beneath which they formed ore bodies. The ore bed has been traced for a distance of 6,800 feet along the outcrop but the degree of mineralization varies so much that the ore cannot be considered as a single shoot or blanket deposit. The ore does not appear to occur in any well developed fissures but rather as impregnations of the limestone in and around small vuggy cavities sometimes massed so closely together as to constitute a cellular replacement body in densely crystalline limestone.

On the Alma No. 1 claim the applicant's proposed tunnel site is in or just above the silicified breccia zone (figure 2 of the engineering report) about 400 feet southeast of the portal of the Ruby tunnel and 600 feet northwest of an old shaft. The shaft is inaccessible but evidence of ore was found on the dump. The outcrop of the ore zone is covered by surface wash and debris, but on projection from the shaft to an outcrop near the Ruby tunnel, it should be about 110 feet northeast of the portal site and should be encountered in the proposed tunnel at about 240 feet from the portal, about 130 to 140 feet down the dip of the ore from the outcrop.

CONCLUSIONS AND RECOMMENDATIONS

It is concluded that a mineralized zone in the Leadville limestone crosses the Alma No. 1 claim and that good ore has been produced from this zone in the Ruby mine some 400 to 600 feet to the northwest. However, it is possible that the mineralized bed may have pinched and become too thin to be profitably worked. Therefore, it is recommended that three drill holes totalling 500 feet be drilled to determine the thickness of the ore bed before starting a tunnel. If these holes show the ore bed to be of mineable thickness, it is recommended that further exploration by underground methods be considered. The approximate location of the suggested holes is shown in figure 2 of the engineering report. The Bureau of Mines estimates that the cost of this drilling will be $4,867 (Government's share 50 percent or $2,433.50).

REFERENCES

Behre Jr., Charles H., The Western Pass Mining District, Lake and Park Counties, Colorado: Colo. Sci. Soc. Vol. 13, No. 3, 35 pp. 1931.

Emmons, S. F., Irving, J. D., and Loughlin, G. F., Geology and ore deposits of the Leadville mining district, Colorado: U. S. Geol. Survey Prof. Paper 148, 368 pp., 1927.

DMRA 2769

HARRY J. JOHNSON AND JOHN C. PURKYPILE
ALMA NO. 1 LODE CLAIM
PARK COUNTY, COLORADO

Engineering Report

By M. H. Salsbury
Mining Engineer
Bureau of Mines

DORA 2769

HARRY J. JOHNSON AND JOHN C. PURKEYPILE
ALMA NO. 1 LODE CLAIM
PARK COUNTY, COLORADO

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2. Geologic and claim map, Harry J. Johnson and John C. Purkeypile Alma No. 1 claim, Weston Pass area, Park County, Colorado	5

DMEA 2769

HARRY J. JOHNSON AND JOHN C. PURKYPILE
ALMA NO. 1 LODE CLAIM
PARK COUNTY, COLORADO

ENGINEERING REPORT

By M. H. Salsbury

INTRODUCTION

The Alma No. 1 lode claim, a location, was examined on July 9, 1953, by a Defense Minerals Exploration Administration examining team to verify the information in a loan application by Harry J. Johnson and John C. Purkypile for exploration assistance under docket 2769 at an estimated cost of $90,000.00--Government participation 50 percent, or $45,000.00. The proposal called for 2,000 feet of core drilling from surface and lateral development totaling 1,850 feet, including an adit tunnel, to explore the Alma No. 1 lode claim.

ACKNOWLEDGEMENTS

Data have been obtained by personal observation and by reference to the following sources:

Behre, Charles H., Jr., The Weston Pass Mining District, Lake and Park Counties, Colorado, volume 13, number 3, Colorado Scientific Society Proceedings, 1932.

A Bureau of Mines unpublished Supplemental Report on the Weston Pass Mining Area, dated September 1948.

Schwartz, G. M., and Longyear, Robert Davis, Geological Report on the Weston Pass Area, Park and Lake Counties, Colorado, unpublished, in files of Mineral Resources Branch, Denver Federal Center, Denver, Colorado.

LOCATION, TOPOGRAPHY, AND PHYSICAL FEATURES

The Alma No. 1 lode claim is located in Park County 1/4 mile east of the summit of Weston Pass in the Mosquito Range and some 600 feet east of the mine buildings of the Ruby mine. Weston Pass crosses the Mosquito Range, the boundary between Park and Lake Counties. The claim is in sec. 35, T. 10 S., and sec. 1, T. 11 S., R. 79 W. (fig. 1).

The region, at an altitude of 12,000 feet on the divide between the Arkansas and South Platte watersheds, is one of long, severe winters and heavy snowfall. Winter operations of an exploration program would be difficult if not impossible. Underground operation in winter would be feasible with proper preparation but would entail considerable expense.

Weston Pass is 18 miles southeast of the town of Leadville, Lake County, Colo., 22 miles southwest of Fairplay, Park County, Colo., and is reached over fair dirt roads from either town. The route from Fairplay has the easier approach. The road can be quickly improved if the need is justified. Both Fairplay and Leadville are on hard-surfaced highways connecting with Denver.

The nearest railroad is at Snowden siding 10 miles west on the Arkansas Valley line of the Denver and Rio Grande Western Railroad.

Lead ore of smelting grade can be sold to the Arkansas Valley lead plant of the American Smelting and Refining Company at Leadville. Low-grade lead-zinc sulfide ores could be treated in the Resurrection Mining Company's mill in Leadville, which is operating presently on a restricted basis.

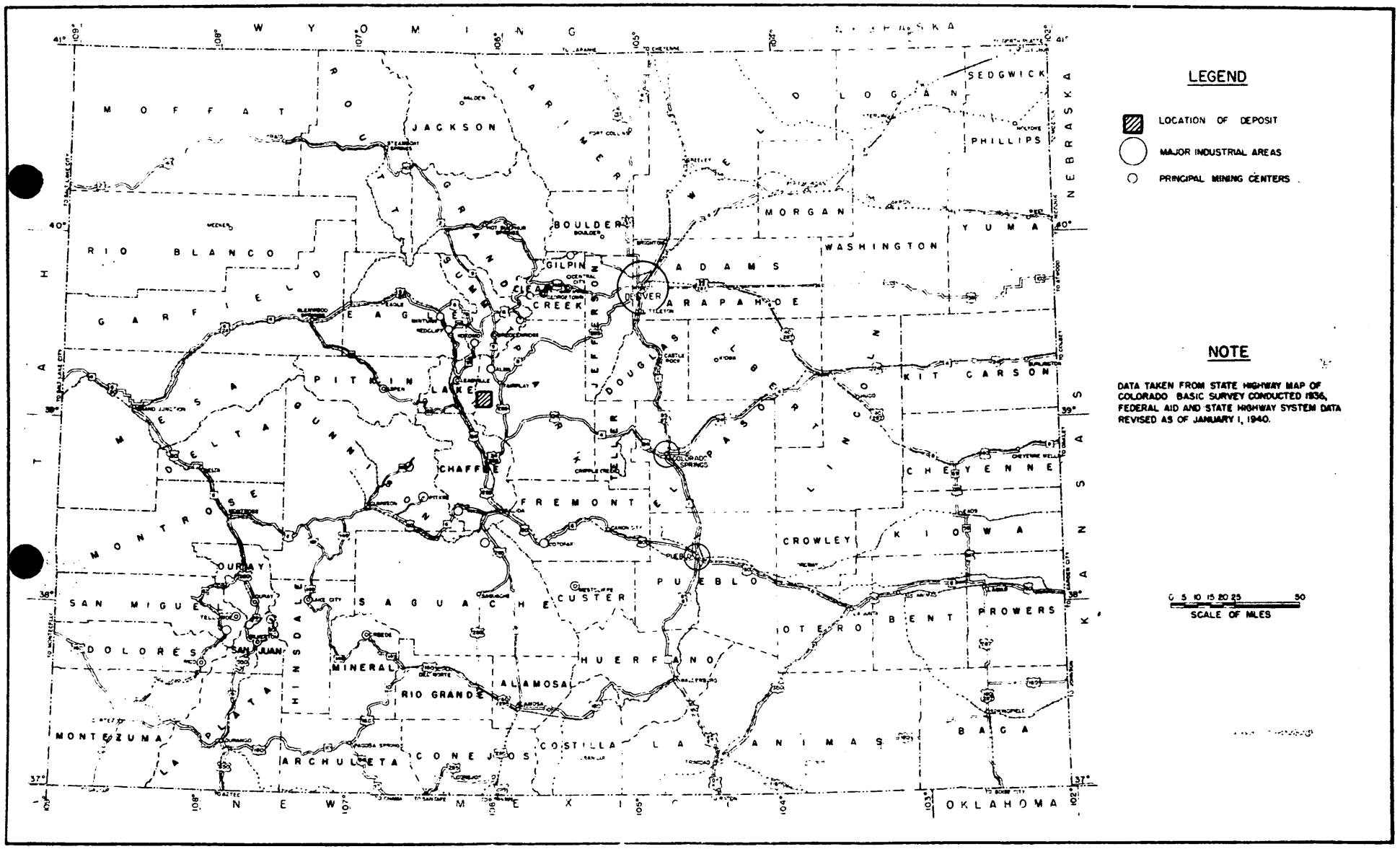

FIGURE 1 - LOCATION MAP, HARRY J. JOHNSON AND JOHN C. P[illegible]KEYPILE, ALMA NO. 1 CLAIM, PARK COUNTY, COLO. (DME [illegible]769).

Common mining supplies and timber can be obtained in Leadville or Fairplay. Other supplies are obtainable in Denver, a distance of 85 miles from Fairplay.

There is no timber suitable for mining use on the property.

Labor and Living Conditions

A limited but adequate supply of mine labor is available in Leadville and Fairplay. The standard wage rate at the present time for miners is $1.70 per hour, with time and one-half for over 40 hours per week. This would probably have to be supplemented by some kind of a bonus at the location of the proposed project.

There are no living facilities near the mine except one cabin belonging to Johnson at the nearby Ruby mine. Preliminary exploration could be carried on by crews traveling from Leadville or Fairplay or living in camp facilities set up on the property. Continuous operations would require the establishment of housing for winter occupancy.

There are no power lines nearer than 10 miles away. If and when extensive development is undertaken in this area, a power line might be considered. Until that time, diesel- or gasoline-powered equipment would be satisfactory.

HISTORY, PRODUCTION, AND OWNERSHIP

The Weston Pass area was known as early as the late 1870's when it was the route of a stage road to Leadville. The mining possibilities apparently were not recognized until much later. The Ruby claim was not

patented until 1897. Early production came from the Ruby, Colin Campbell, Cincinnati, and several other mines, but the total from all operations was not large. There are no authentic production figures, but the consensus of several estimates places the total for the Weston Pass area at $125,000.00 in lead and silver. Perhaps $65,000.00 of this total is from the Ruby mine. The Colin Campbell is credited with four carloads of ore assaying 40 percent lead and 15 ounces of silver per ton. The production of the Cincinnati is estimated at $20,000.00 to $30,000.00 from shallow workings. The present applicants report production, amount indefinite, from the Lexington and Bay Rock claims on the evidence of old-timers with whom they have talked and who supposedly did the work. It was verified by the examining team that old dumps on these claims contain partially oxidized specimens of lead ore.

During World War I, the Ruby mine, which had been idle for many years, was reopened and some lead ore mined. Shipment of oxidized zinc ore from tunnel workings on the Cincinnati claim is reported during this period.

Activity in the area ceased after World War I. In 1930, a geologic examination and report on the area were made by the R. J. Longyear Company of Minneapolis, Minn. The conclusion was reached that exploration had been totally inadequate and that there were good possibilities of finding replacement bodies with high lead and low zinc content.

Exploration was recommended, if the ground could be acquired. However, the project was not carried out, probably because of a low lead and silver market.

The area was not worked again until after World War II when the present applicants shipped a few cars of sorted lead smelting ore obtained mostly from old stope fills in the Ruby mine above the water level. The Statistics Branch, Mineral Industry Division, Region IV, has a record of 135 tons of ore shipped in 1948 and 1949 containing 23,400 pounds or approximately 8.6 percent lead with 110 ounces of silver. The zinc content of four shipments ranged from 1.5 to 5.05 percent.

The Bureau of Mines supplemental report, listed under acknowledgements, covers a proposed Bureau exploration project for diamond drilling the Ruby claim and the area west of it. Although the drilling program was recommended by the Bureau engineers, no funds were made available and the work was not done (fig. 2).

The latest production in the area was a shipment of sorted lead smelting ore mined by Moore Brothers and John Loshnikvar, of Leadville, from the Gates shaft west of the Weston Pass summit. The old shaft was cleaned out to a depth of 80 feet at that time. The Statistics Branch of the Bureau has no record of this production.

At the present time, Johnson is doing a little surface prospecting on the Alma No. 1 lode claim and two men who relocated the Pay Rock claim last year are working that ground in their spare time.

Operations on Weston Pass have been handicapped by adverse winter climate, remote location, and ground water encountered in a flat terrain locally which cannot be satisfactorily drained by gravity methods. Even though the flows of water are moderate, the Ruby is reported to make 20,000 gallons per day; the expense of pumping has discouraged deep exploration.

The present applicants, Harry J. Johnson and John C. Parkeypile, Box 4, Hathrop, Colo., hold the Alma No. 1 lode claim on location (fig. 2). It is recorded in book 48, page 541, in the Park County Courthouse in Fairplay. Johnson showed the examining team affidavits of assessment work performed for the years ending July 1, 1952, and July 1, 1953.

Johnson is the active partner and states that Parkeypile is elderly and not able to participate in the work.

A one-fourth interest in the Ruby claim, survey number 11947, and three adjoining claims are held by Johnson. He has leases, or lease and option agreements, from the other owners. He is also lessee of the Lexington, Wake Up Jim, and L. J. Conway claims which adjoin the Alma No. 1 (fig. 2).

Mr. Johnson states that he did not include any claim except the Alma No. 1 lode in the proposed exploration project because of the possible difficulty of getting agreements from the various owners. He may or may not have realized that some of these claims, at least, would have to be included in a project such as he proposes.

DESCRIPTION OF THE DEPOSITS

The geology of the Western Pass area is covered in the reports listed under acknowledgements. The aerial geology was mapped by Emmons, Irving, and Loughlin.[1] Structural knowledge is not complete and is

1/ Emmons, S. F., Irving, J. D., and Loughlin, G. F., Geology and Ore Deposits of the Leadville Mining District, Colorado, Geological Survey Professional Paper 148, 1927.

necessarily based on rather scanty information obtained in the limited exploration to date (fig. 2).

The formations of the area are similar to those of the Leadville district. With the possible exception of the ore found in the Gates shaft, the ore horizon, as it has been defined to date, appears to be one bed in the Leadville Blue limestone. Other potential ore-bearing formations which produced in Leadville, Aspen, Silver, and other Colorado districts have not yet been explored.

Locally there are two structural features of note: The Weston fault to the northeast of the Weston Pass area cuts off the ore-bearing formations where they butt up against the pre-Cambrian granite uplift on the northeast side of the fault. The fault, which is a premineral thrust fault locally, may eventually prove to have influenced ore deposition with resultant larger and richer shoots near the fault. The other feature of the district is a persistent silicified breccia zone in the Leadville Blue limestone about 275 feet below the top of the formation. It averages 20 feet in thickness and has been traced for over 6,000 feet. The Leadville Blue limestone is abnormally thick at Weston Pass, at least 440 feet, as contrasted with a normal thickness of approximately 220 feet elsewhere. It is thought that the breccia zone and the extreme thickness of the limestone may be the result of thrust faulting along a bedding plane.

At surface, the ore consists chiefly of galena, cerussite, and anglesite, with lesser amounts of the zinc minerals calamine and

smithsonite. The outcrops are often prominent and can be identified by the presence of abundant limonite.

The ore has been mined mostly for the content of lead and silver. The zinc is negligible except in the case of one occurrence of oxidized zinc ore reported on the Cincinnati claim during World War I.

All reports on the Western Pass area mention the high silver content of the ore. In contrast, sampling done in recent years and shipments made by Johnson from Ruby stope fills have shown remarkably low silver content.

The chief gangue mineral is dolomite with some quartz and rarely barite. The dolomite occurs in white bands in the limestone, forming the familiar "zebra rock" of the Leadville district, often but not invariably, a marker occurring in or above the ore.

With the possible exception of the occurrence in the Gates claim, where the ore may be in the silicified shear zone,[2] the ore is in a definite bed approximately 200 feet below the contact of the Leadville Blue limestone and the overlying Pennsylvanian or Weber grits. It has not been found to occur along any well-developed mineralized fissures. The ore zone strikes N. 20° W. to N. 45° W. and dips 15° to 60° northeast, as does the general bedding. In the Ruby mine there is an anticlinal fold with the axis dipping to the northeast, and locally, on the east limb of the fold, the beds have a southeasterly dip. Behre and Longyear[3] report much steeper dips in the western part of the district than in the vicinity of the Ruby mine.

2/ Work cited under "Acknowledgments."
3/ Work cited under "Acknowledgments."

The ore is reported to have been not over 10 feet thick with the average much less. However, one stope in the Ruby mine was said to be 25 feet in height. The width of the Ruby ore shoot was not over 180 feet with very irregular margins in the commercial ore. The extent down the dip is indefinite. The lower margins of the Ruby stopes below the present water level are reported to be in as good ore as was mined.

The mineralization at the Ruby mine appears to have been the most intense in the district. However, this may be more apparent than real. Centering of exploration around the Ruby mine may have resulted from the fact that outcrops were prominent and easily noticed in this vicinity. The presence of other centers of mineralization both east and west of the Ruby is not precluded by the evidence from limited exploration to date.

Figure 2, based on the geologic map in the Longyear report, shows the ore horizon passing through the applicants' Alma No. 1 claim, although the examining team did not see any distinct outcrop.

MINEABLE ORE RESERVES

There are no measurable ore reserves in any of the properties of the Weston Pass area.

PRESENT STATUS

Exploration and Development

There are a number of shallow mine workings in the Weston Pass area, none of which are accessible at the present time. Of these, the Ruby mine could be opened up by several days' work shoveling away the

snowdrifts at the portal. The Gates shaft, west of the Pass summit, is open, but there were no ladders and the cribbing exhibits the effect of side and end pressure. All other mine openings were caved.

The Ruby mine workings are not extensive and only a small section of the mine is presently above water level, as indicated in a mine map in the available report.

The Alma No. 1 lode claim of the applicants is totally untouched except for an open-cut in wash started by Johnson for a tunnel portal.

There are inaccessible shafts on the Lexington claim northwest of the Alma No. 1 lode claim and on the Pay Rock claim to the southeast. These shafts are caved but are reported to have produced ore. At any rate, there is partially oxidized lead ore in both dumps and the shafts appear to have reached the ore horizon.

There is no activity in the district at present except the surface work by Johnson on the Alma No. 1 lode claim and some prospecting which was started last summer on the Pay Rock and is being continued at intervals.

Mining and Milling Equipment and Other Facilities

Johnson has no equipment on the Alma No. 1 lode claim. There are portal buildings, a gasoline hoist, and miscellaneous tools and equipment at the Ruby mine.

There are no milling facilities closer than the concentrator of the Resurrection Mining Company at Leadville.

PROJECT PROPOSALS, WITH COSTS

The applicants proposed driving 1,250 feet of adit tunnel and accomplishing 2,000 feet of core drilling at an estimated cost of $90,000.00.

Actually Johnson is not particularly interested in the core drilling and says he put it in because he thought that it would be the first requirement of any project approved by Government examiners.

Johnson is an old-time miner and prospector who has acquired a picture of the Weston Pass area not substantiated by known facts, although he has had considerable experience working the Ruby mine. He states that there is a vertical vein along the centerline of his claim and that at least five more or less vertical cross veins would be encountered along the course of his proposed tunnel. He ignores completely the probable presence of the low-dipping potential ore in the limestone which furnished the production in the Ruby mine and elsewhere.

The applicant admits that his statements cannot be verified by any physical evidence but merely says that by a "secret" method which he cannot divulge, he has determined that the vertical veins do exist and that the ore in the Lexington and Pay Rock claims was found on one of them. It would appear that he uses some variation of the "divining rod" method of vein location.

If Johnson's picture of the vein structure was correct, his exploration proposal would have merit. Actually the only feasible exploration initially would be a few core-drill holes to cut the known ore horizon.

Three holes, totaling a maximum of 500 feet, would be justified for preliminary exploration of the ore horizon in the Leadville Blue limestone. The first two of these holes (A and B, fig. 2) would determine the depth of the potential ore-bearing bed and indicate the dip of the formation, assuming the strike is as shown on the geologic map, figure 2. The third hole (C) would be drilled only if there was some indication of mineralization in at least one of the other holes, in order to outline additional width.

Boyles Brothers Drilling Company of Leadville has quoted a contract price of $8.00 per foot on a somewhat larger but similar project on the west side of the Weston Pass, and, based on this price, a cost estimate is made:

Phase I

345 feet diamond drilling in two vertical holes, A and B, 90 feet and 255 feet, respectively. Estimated time required, including moving in, 11 days:

Drill site preparation on hillside for two holes	$ 50.00	
345 feet of hole, minimum size AX, at $8.00 per foot	2,760.00	
Accounting	80.00	
Supervision, at $500.00 per month	168.00	
Sampling, including core boxes and assaying, at $1.00 per foot	345.00	
Total Phase I		$3,343.00

Phase II

155 feet diamond drilling in one vertical hole, C. Estimated time required, 5 days:

Drill site preparation	$ 25.00	
155 feet of hole, minimum size AX, at $8.00 per foot	1,240.00	
Accounting	20.00	
Supervision, at $500.00 per month	84.00	
Sampling, including core boxes and assaying, at $1.00 per foot	155.00	
Total Phase II		$1,524.00
Total estimated cost		$4,867.00
Cost per foot		$8.74

Note: Actual length of each hole may vary, but the maximum footage is not to be exceeded.

No access roads, equipment, labor, power, supplies, or housing facilities would be needed other than that furnished by the drilling contractor as a part of the contract price.

Water for drilling is obtainable from the stream running across the property.

PRODUCTION PLAN

The drilling work could be completed in approximately 16 working days. Any further work would be dependent on the results of drilling and the best method and cost would have to be determined later. There is a choice between an incline and a vertical shaft to reach the ore. The adit tunnel proposed by the applicant would be of doubtful value.

SUMMARY COST OF PROJECT

The estimated cost of the project is:

Phase I - 345 feet diamond drilling	$3,343.00
Phase II - 155 feet diamond drilling	1,524.00
Total	$4,867.00

PROPOSED FINANCING

Johnson proposes to furnish his share of the cost in labor, equipment, and cash. He states he has a backer, unnamed, to give additional financial help. The other applicant, John C. Purkeypile, is not in a position to contribute to the project, either financially or with personal services. For the proposed drilling program, Johnson's contribution must be largely cash.

CONCLUSIONS

The applicants' Alma No. 1 lode claim is well located on the known Weston Pass ore horizon. There appears to have been some production from shafts to the northwest and southeast of the claim. There is a good possiblity of discovering profitable ore on the Alma No. 1 lode claim.

The active applicant, Johnson, has formed an erroneous picture of the vein occurrences and based his proposed exploration project on it. However, the presence on this claim of a potential ore-bearing bed in the Leadville Blue limestone has been established geologically, although there is no identifiable outcrop.

Known ore shoots of the area are not continuous, and ore may not occur within the limits of the Alma No. 1 lode claim, or ore found may be too narrow to mine profitably. Therefore, a limited drilling program would be advisable before other exploration is considered.

The expenditure of the amount proposed by the applicants on one claim could not be justified even if their proposal was reasonable. For the limited exploration recommended by the examining team, the two

adjoining claims, at least--the Wake Up Jim, survey number 12164, and the L. J. Conway, survey number 8440, which the applicants have under lease--should be included in the project to protect the Government's interest. The advisability of further exploration would be dependent on the results of the preliminary drilling. At the time of the field examination, Johnson was advised that his proposed exploration program could not be approved, and, at the most, a limited drilling program might be recommended.

RECOMMENDATIONS

Subject to the inclusion of the Wake Up Jim and L. J. Conway claims, it is recommended that an exploration project costing $4,867.00--Government participation 50 percent, or $2,433.50--be approved. Two holes shown on figure 2--(A) estimated depth 90 feet and (B) estimated depth 255 feet--are to be drilled, at the locations indicated, as Phase I. If either of the holes encounters ore, one hole--(C) estimated depth 155 feet--is to be drilled if approved by the Government representative. Holes may necessarily be longer or shorter than estimated, but in no case is the maximum of 500 feet to be exceeded.

A short-form unit-cost contract at $9.73 per foot to include all costs is suggested.

MBS/pam

FILE COPY
SURNAME:

500

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

JUN 17 1953

Mr. Harry J. Johnson
Box 4
Nathrop, Colorado

Re: Docket No. DMRA-2769 (Lead-Zinc)
Harry J. Johnson and John C. Purkeypile
Alma No. 1 Claim
Park County, Colorado

Dear Mr. Johnson:

This will acknowledge your letter dated June 13, 1953, in which you say you wish to pursue your application for Government assistance in your exploration project.

We note that you say that you can now get to the property at any time. We are sure that Mr. W. H. King, Executive Officer, DMRA Field Team, Region IV, 224 New Customhouse Building, Denver 2, Colorado, will take up this matter with you as soon as it is practical for him to do so.

Sincerely yours,

C. O. Mittendorf

Administrator

WRGriswold/bjl (6/17/53)

Copy to: Docket
Admr. R. File
Op. Committee
Base Metals
Mr. Bishop
Mr. Kinkel
Region IV (2)
Chron.

6-17-53

P. 1

Gunwald
Betty

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
Washington

JUN 15 1953

Nathrop, Colorado.
June 13, 1953

Docket

U. S. Department Of The Interior,
D.M.E.M.A.
Washington, D.C.

Mr. C. O. Mittendorf, Administrator,

Re: Docket No. D.M.E.A. 2769.
(Lead Inc.)
Harvey J. Johnson
J. C. Kirkeypile
Alma No. 1 Claim
Park County, Colorado.

Dear Mr. Mittendorf:

In reply to yours of June 8th. We do wish to persue our application for government assistance in our exploration project. We can get to the property any time now. Please adise us what our

next move should be to complete the same.

Yours Truly,

Harry J Johnson

FILE COPY
SURNAME:

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

JUN 8 1953

Mr. Harry J. Johnson
Box 4
Nathrop, Colorado

Re: Docket No. DMA 2769 (Lead-Zinc)
Harry J. Johnson and
John C. Turkeypile
Alma No. 1 Claim
Park County, Colorado

Dear Mr. Johnson:

On May 18, 1953, you were informed that a restricted program directive had obliged this Administration to deny your application for Government assistance in an exploration project.

However, a modifying directive dated June 1, 1953 has given us authority to continue processing your application. Therefore, we are reactivating your case. If you no longer desire to pursue your application, kindly advise accordingly.

Sincerely yours,

C. O. Mittendorf

Administrator

J.R.Griswold/hmj
(6/5/53)
CC to: Docket
Adm. R. File
Op. Committee
Base Metals Division
Region IV (2)
Mr. Kinkel
Mr. Bishop
Chron.

6-8-53

FILE COPY
SURNAME:

500

Griswold

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

MAY 1 9 1953

Mr. Harry J. Johnson
Box 4
Nathrop, Colorado

Re: Docket No. DMEA 2769 (Lead-Zinc)
Harry J. Johnson and
John C. Purkeypile
Alma No. 1 Claim
Park County, Colorado

Dear Mr. Johnson:

This is to inform you that, effective April 15, 1953, the commitment of funds allocated to the DMEA for exploration assistance under the Defense Production Act was restricted to certain specified metals and minerals still in short supply. Lead and zinc were not specified, and consequently were automatically removed from the list of metals or minerals eligible for exploration assistance.

I regret to advise you that, since your application relates to lead-zinc and was pending on the date of the restrictive order, we are without authority or funds to enter into a contract for exploration, and your application is accordingly denied. This action is taken without prejudice to the merits of your proposed project.

The staff of the DMEA wishes to express its appreciation for your interest in the exploration program and for your cooperation during the period your application has been under consideration.

Sincerely yours,

C. O. Mittendorf
Administrator

WRGriswold/hmj
(5/18/53)
CC to: Docket
Adm. R. File
Op. Committee
Base Metals Division
Region IV (2)
Mr. Kinkel
Mr. Bishop
Chron.

5-19-53

FILE COPY
SURNAME:

Corbett

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

500

NOV 24 1952

Mr. Harry J. Johnson
Box 4
Hathrop, Colorado

Re: Docket No. DMEA-2769 (Lead-Zinc)
Alma No. 1 Claim
Park County, Colorado

Dear Mr. Johnson:

Your application for Government assistance in the exploration of the Alma No. 1 Claim, Docket No. DMEA-2769, has been reviewed by the Base Metals Division of the Defense Minerals Exploration Administration and has been referred to:

Mr. W. H. King
Executive Officer, Region IV
DMEA Field Team
224 New Customhouse Building
Denver 2, Colorado

The Region office will advise you in regard to your project at the earliest opportunity.

Sincerely yours,

H. F. Keller

H. F. Keller, Chief
Base Metals Division

11-24-52

FXCorbett/bw
(written 11/21/52)
Copy to: Docket
Adm R. File
Op. Comm.
H. F. Keller (2)
F. X. Corbett
Mr. Bishop
Kinkle, JR.
Reg. IV (2)
Chron.

FILE COPY
SURNAME:

Corbett
W. Keller

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION 500

WASHINGTON 25, D. C.

Mr. W. W. King
Executive Officer, Region IV
DMEA Field Team
221 New Customhouse Building
Denver 2, Colorado

NOV 24 1952

Re: Docket No. DMEA-2769 (Lead-Zinc)
Harry J. Johnson and John C. Purkeypile
Alma No. 1 Claim
Park County, Colorado

Dear Mr. King:

In accordance with the commodity plan of the DMEA and OPS, a copy of whose memorandum regarding the merits of this property is enclosed, we are referring this matter to you for the usual field examination and further appraisal of the application.

Sincerely yours,

Chairman, Operating Committee

(signed) FRANK E. JOHNSON (JHB)

Enclosure

FXCorbett/bw (written 11/20/52)
Copy to: Docket
Adm R. File
Op. Comm.
H. F. Keller (2)
F. X. Corbett
Mr. Bishop
Kinkle, Jr.
Chron.

J. H. Hedges (JHB)
Member, Bureau of Mines

A. R. Kinkel, Jr. (JHB)
Member, Geological Survey

J.N. 11-24-52

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

November 19, 1952

Memorandum

Re: DMEA-2769
Alma No. 1 Claim
Weston Pass District
Park County, Colorado
$90,000.11
Lead, Zinc

To: Mr. H. F. Keller

From: W. L. Newcomb, USGS
O. M. Bishop, USBM

Subject: Recommendation for field referral

The applicant requests Government assistance to drive a tunnel northeasterly about 1250 feet across the Alma claim. He assumes that a series of parallel veins will be cut by the proposed tunnel.

A report by C. H. Behre, Jr., The Weston Pass Mining District, Lake and Park Counties, Colorado, Colorado Scientific Society Proceedings, vol. 13, 1932, indicates that the prominent "ore horizon" is the discovery outcrop on the Alma claim. Although most of the claim is covered by drainel and talus material to a depth of 50-75 feet (?), there is sufficient information in the report to indicate that a limited program of exploration may be warranted on the Alma No. 1 claim.

The applicant's proposal is too ambitious and expensive. Drilling east of the outcropping "ore horizon", which dips gently eastward, should be considered before a tunnel is driven on the claim. A long tunnel, as proposed by the applicant, will lie for most of its length above the favorable "ore horizon". Because of the location of the property, drilling may not be as feasible as driving a 100-200-foot incline down the dip of the favorable ore zone.

Before any further consideration is made of this application, a field examination should be made to determine whether a limited exploration project is justified on the Alma No. 1 claim.

W. L. Newcomb
Geologist

O. M. Bishop
Base Metals Branch

IN REPLY REFER TO:

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

November 19, 1952

Memorandum

Re: DMEA-2769
Alma No. 1 Claim
Weston Pass District
Park County, Colorado
$90,000.11
Lead, zinc

To: Mr. H. F. Keller

From: E. L. Newcomb, USGS
O. M. Bishop, USBM

Subject: Recommendation for field referral

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Before any further consideration is made of this application, a field examination should be made to determine whether a limited exploration project is justified on the Alma No. 1 claim.

E. L. Newcomb
E. L. Newcomb
Geologist

O. M. Bishop
O. M. Bishop
Base Metals Branch

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

November 19, 1952

Memorandum

Re: DMEA-2769
Alma No. 1 Claim
Weston Pass District
Park County, Colorado
$90,000.11
Lead, zinc

To: Mr. H. F. Keller

From: E. L. Newcomb, USGS
O. M. Bishop, USBM

Subject: Recommendation for field referral

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Before any further consideration is made of this application, a field examination should be made to determine whether a limited exploration project is justified on the Alma No. 1 claim.

E. L. Newcomb
Geologist

O. M. Bishop
Base Metals Branch

November 7, 1952

Mr. Harry J. Johnson
Box 4
Nathrop, Colorado

Subject: DMEA-2769
Re: Exploration Assistance

My dear Mr. Johnson:

The receipt of your application dated October 29, 1952 for exploration assistance under the Defense Production Act of 1950, as amended, is hereby acknowledged.

Your application has been assigned Docket Number DMEA-2769 and referred to the Base Metals Division.

Kindly refer to DMEA-2769 in any future correspondence relating to your application.

Sincerely yours,

R. E. ADAMS

Robert E. Adams
Chief, Operation Control
and Statistics Division

25451

November 7, 1952

Memorandum

To: Executive Officer, DMEA Field Team, Region IV

From: Chief, Operation Control and Statistics Division

Subject: Assignment of Docket Number

Listed below you will find the assigned docket number to an application recently submitted from Region IV.

Harry J. Johnson & John C. Purkeypile - DMEA -2769

R. E. ADAMS

Robert E. Adams
Chief, Operation Control
and Statistics Division

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

OF THE INTE
...ls Administration
RECEIVED
... 1952

224 New Customhouse
Denver 2, Colorado

November 3, 1952

Memorandum

To: Secretary to the Operating Committee, Defense Minerals Exploration Administration

From: Field Team, Region IV

Subject: (Lead-Zinc), Application of Harry Johnson and John Purkeypile, Alma Lode #1, Park County, Colorado

Enclosed are three copies of the subject application for exploration aid in the amount of $90,000.00, and a copy of the letter to the applicants.

W. H. King

A. H. Koschmann

A. H. Koschmann

Enclosure

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

224 New Customhouse
Denver 2, Colorado

November 3, 1952

Memorandum

To: Secretary to the Operating Committee, Defense Minerals Exploration Administration

From: Field Team, Region IV

Subject: (Lead-Zinc), Application of Harry Johnson and John Purkeypile, Alma Lode #1, Park County, Colorado

Enclosed are three copies of the subject application for exploration aid in the amount of $90,000.00, and a copy of the letter to the applicants.

W. H. King

A. H. Koschmann

A. H. Koschmann

Enclosure

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
NOV 6 1952

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

Not to be filled in by applicant

Docket No. dmea 2769
Metal or Mineral
Date Received 11-6-52
Estimated Cost
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: Harry J. Johnson Box 4, Nathrop, Colorado
John C. Purkeypile Box 4, Nathrop, Colorado,

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

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

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

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. Alma Lode No. 1 situated in the Kenton Pass Mining District, County of Park, State of Colorado, as recorded in Book 42, page 541. not patented. (see accompanying paper Page 1.)

(*b*) State any mine name by which the property is known. no mine name

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise Ownership by right of discovery and location.

(*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. Recorded in Book 42, page 541, Affidavit of Labor and Improvements recorded in Book J. page 408

4. *Physical description.*—(*a*) Describe in detail any mining or exploration operations which have been or now are being conducted upon the land, including existing mine workings and production facilities. State your interest, if any, in such operations. Also describe accessibility of mine workings for examination purposes. see page 1

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

(*c*) Describe the geologic features of the property, including mineralization, type of deposit (vein, bedded, etc.), and your reasons for wishing to explore. Illustrate with maps or sketches. Send with your application (but not necessarily as a part of it) any geologic or engineering report, assay maps, or other technologic information you may have, indicating on each whether you require its return to you. see accompanying paper page 2

(*d*) State the facts with respect to the accessibility of the project: Access roads, distances to shipping, supply and residence points. see page 4

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

16—66551-1

5. *The exploration project.*—(*a*) S[redacted] the mineral or minerals for which you wish [redacted] explore Lead & Zinc

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

(*c*) The work will start within 5 to 10 days and be completed within 24 months from the date of an exploration project contract.

(*d*) State the operating experience and background of the applicant with relation to the ability to carry out such exploration project, and also that of the person or persons who will supervise the operations. see paper p. 7-8.

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)? yes

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

☒ Money ☒ Use of equipment owned by you ☒ Other

Explain in detail on acompanying paper.

CERTIFICATION

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

Dated Oct. 29, 195[illegible]

Harry J. Johnson
(Applicant)

By

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

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

3. (a) continued

I also control by 5 year lease The Lexington U.S. survey No. 12825, The Wake up Jim U.S. survey No. 12164, I also control by 1/4 ownership and by lease on the other 3/4 of the Little Ruby U.S. survey No. 11947, The Palmer U.S. survey No. 9936, The Fairview U.S. survey No. 3262, The Davis U.S. survey No. 3264.

The above claims will be benefited indirectly as well as other patented and unpatented claims on Weston Pass Mining District

all exploration work to be done on The Alma Lode No. 1

4. Physical description: (a) No mine work has been done on this claim, except test holes, location work, any

4(a.) continued,
of which can be examined, There has been production on the Payrock South East of this Property, and also on the Lexington North West of this claim. We made four shipments of ore from the Little Ruby mine which is located 2 claims North West from this exploration project. (see map in Colorado Scientific Society Proceedings, Vol. 13, No. 3. Page 58)

Mr. Purkeypile and I own and control the Alma Lode No. 1 100% by right of discovery and location.

4(c) Enclosed find Colorado Scientific Society Proceedings Vol. 13, No. 3. Map on page 58. This pamphlet gives a better discription of the geologic features of

Harry Johnson,
Box 4. Nathrop, Colorado.

4 (c) continued.
this exploration project than any thing I could write.

I wish to explore this particular claim because of the position it is located in relation to the whole of The Weston Pass Mining District, all of which will be benefitted by this exploration project. This location has the shortest distance to reach the fault North East from the portal.

This exploration tunnel will I believe cross cut several veins running parallel to The Weston Fault.

This exploration tunnel should do it at less cost, time, and work than any other way that I know of.

Furthermore if a discovery is made the tunnel would be of

Harry J. Johnson
Box 4, Southroad, Colorado.

4(c.) continued.
sufficent depth so that these veins could be mined through this tunnel.

4(d.) The property can be reached from both Fairplay and Leadville by a mountian road in fair condition. 16 miles to the A.V. smelter of the A.S.&R. Co at Leadville. 18 miles to Leadville. 21 miles to Fairplay. Road runs right through the property. (see map)

4(e) Skilled miners can be had from Leadville, Fairplay, and Alma. Most kinds of mining supplies and materals can be had from Leadville, heavey equipment may have to be brought from Denver.

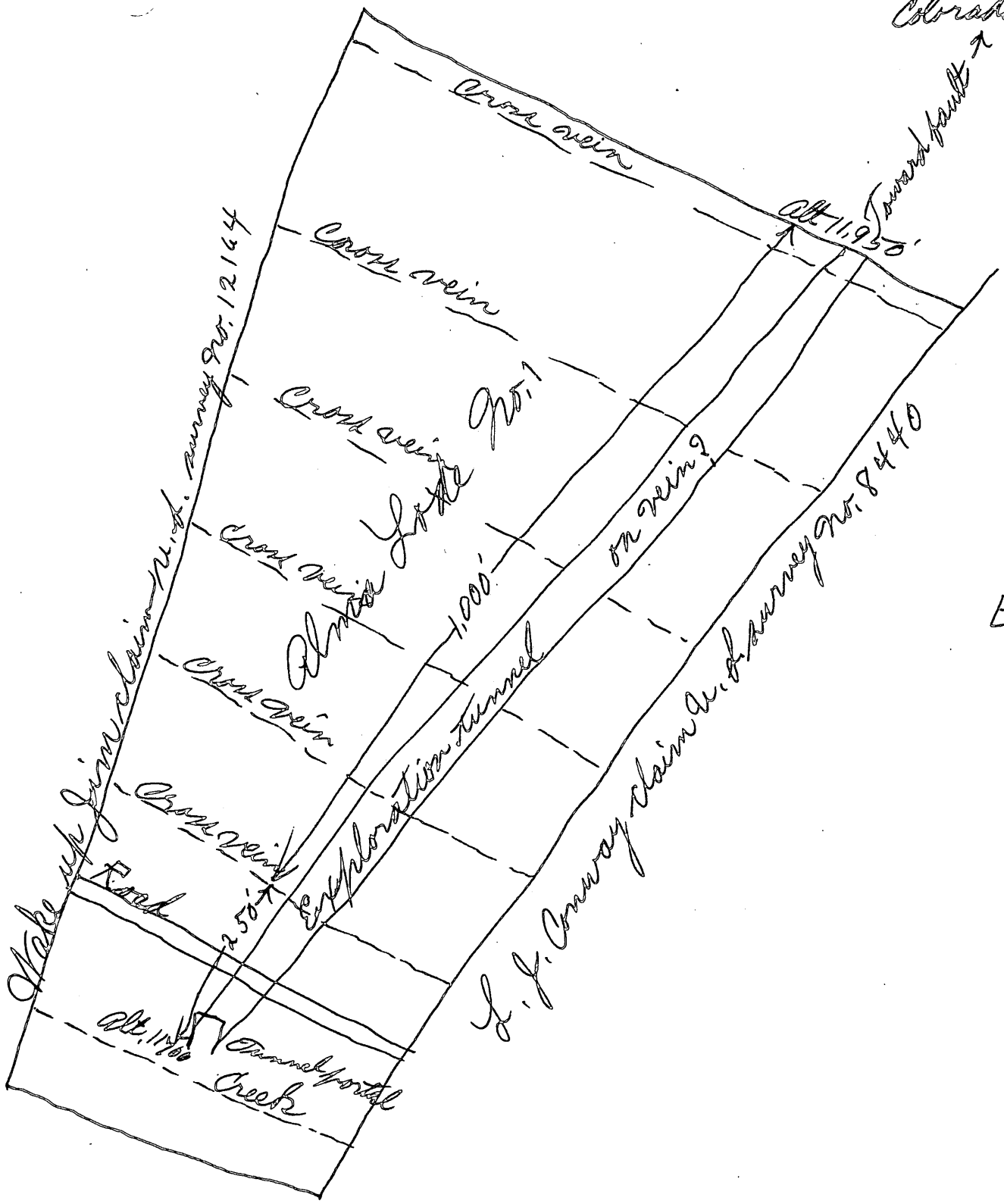
4(e) continued.
The Little Ruby mine just above the property makes 20,000 gal. of water a day, also a small lake just above the Little Ruby could supply water. (see map.) There is no electric power closer than Leadville. Plenty of timber both North and South of the property.

5 (b.) I propose to drive an exploration tunnel on the Alma Lode No. 1, starting on the South West part of the claim, (see sketch) thence going North Easterly to the end of this claim, together with such cross cuts as may seem necessary and expedient for the full exploration of this project. 250' from the portal

5.(b.)

N.

Harry J. Johnson,
Box 4,
Nathrop,
Colorado.



W.

E.

S.

sketch.

no drawn to scale

5(b.) continued.
we should cross cut the first vein, because this vein was opened on The Pay rock to the South East, and on The Lexington on the North West.
In my opinion we should cross cut at least 5 more veins before reaching the end of the claim. (see sketch)
This claim is covered with morinal matter 10-75 ft. thick, (see report map page 58.) therefore no outcrop can be seen. This project is one of purely exploration, no tunnels have ever been driven North Easterly toward the fault where in my opinion the biggest and best ore bodies should be found. If you will note the report map you will notice that at the North Easterly end of the claim we would be under 250 ft. deeper

5(b.) continued.
than at the portal. It is to explore this possibly rich ore zone that I wish to undertake this exploration project.

5(d.) I have been engaged continuely in mining and prospecting since 1935 working for The London Mining & Milling Co. at Fairplay and Alma, The Resurrection Mining Co. at Leadville, Ellis Webster at Leadville, Jones & Nylene Mining Co. at Leadville, Manager of The Little Ruby mines on Weston Pass, and prospecting for myself on several different lode and placer prospects.

Mr. Frank Burgess of Fairplay will act as supervisor of the

Harry J Johnson
Box 4
Nathrop, Colo.

5. (d.) continued.
project. Mr. Burgess was shift foreman at the South London mine for several years, also supervisor for the Pennsylvania Exploration project on Penn. mountian at Alma-Fairplay under Mr. Tedrow.

6. Estimate of costs:—
(a.) Independent contracts:—

40 hours of bulldozing @$15.00 per hour	$600.00
2000' of core drilling @$2.50 per foot	5000.00

(b.) Labor underground miners muckers trammers etc. 250 shifts @$14.50+$3.00 bonus 3 men 13,125.00

Labor surface 1 man 250 shifts @ $12.50+$2.00 bonus 3,625.00

Harry J. Johnson,
Box 4, Nathrop, Colo.

6 (b.) continued.

Supervision 2 men @ $450.00 per month each, 12 months	$10,500.00
2 timber cutters @ $14.00 per shift 168 shifts	2,352.00
Engineering & geologic consultants	1,500.00
1 cook @ $10.00 per day 300 days	3,000.00

6 (c) 2 carpenter's saws @ 7.00 each	14.00
3 one man cross cut saws @ $6.25	18.75
4 splitting wedges @ $1.50 each	6.00
3 Timberman's axes @ $3.75 each	10.25
3 square point shovels @ $3.00 each	9.00
3 round point shovels @ $3.00 each	9.00
2 cant hooks @ $5.75 each	11.50
2 load binders @ $3.00 each	6.00
1 tap and die set	30.00
1 blow torch	12.00
5 open end wrenches	2.00
5 box end wrenches	3.00

6. (c) continued.

1 set steel letter and numeral stamps for marking tools	7.00
2 log chains 14' @ 6.00 each	12.00
1 broad hatchet	3.00
1 post drill	30.00
1 breast drill	8.00
14 auger bits 1/4" - 1 1/4"	12.00
1 ratchet brace	5.00
1 set chisels	6.00
1 hand bench grinder	7.00
1 belt drive grind stone	15.00
1 complete drawing outfit	25.00
500 rock bits @ .60¢ each	300.00
1 - 2 man cross cut saw	15.00
1 pocket hand sighing level	2.25
1 Brunton Compass	45.00
12 tons coal @ 12.00 per ton	144.00
5000 gal. gas @ .27¢ per gal.	1,250.00
2,500 gal. fuel oil @ .16¢ gal.	400.00

Harry J. Johnson
Box 44, Nathrop, Colorado

6. (c) continued.

50 gal. Anti-freeze @ 3.75 per gal	187.50
200 gal. lub. oil @ 1.00	200.00
cup grease	20.00
Pipe fittings elbows, coupling, valves etc all sizes	250.00

6 (d.) 1 four wheel drive pick up truck & wench	2480.00
1 compressor with engine	4000.00
100' air hose with fittings	70.00
100 water hose with fittings	60.00
1 chain saw air drive for underground	475.00
2 Atlas-Diesel drills, air legs, steels bits @ 640.00 each	1,280.00
1800' 2" pipe @ .38¢ per foot	684.00
1800' 1" pipe @ .18¢ per foot	324.00
500' 1/2" pipe @ .10 per foot	50.00
10 ton 30 lbs rails @ 160.00 per ton	1600.00
400 lbs track spikes @ 12.12 per 100	48.48
200 pair fish plates @ 1.17 a pair	234.00
1 mucking machine 24" gauge	3,000.00
3 rocker bottom ore cars 24" ga. 27 cu. ft. @ 450.00 each	1,350.00

6. (d.) continued.

20 tons powder @ $480.00 per ton	9,600.00
10,000 caps @ $2.40 per 100	240.00
42,000' fuse @ .01¢ per foot	420.00
Timber, posts, lumber, ties, & wedges	2,000.00
1 Canton car transfer 24" ga	775.00
1 screw gear hoist 1 ton cap	80.00
1 oxy-acetylene welding & cutting outfit	120.00

6. (e)

1 swivel arm chair	24.00
6 pillows @ $6.00 each	36.00
6 quilts @ $12.00 each	72.00
6 blankets @ 10.00 each	60.00
12 bed sheets @ 4.00 each	48.00
12 pillow cases @ 2.50 each	30.00
4 panels hard board 4'X8' @ 4.25 per panel	17.00
1 linoleum 8X16 for cabin.	36.64
5 sheets aluminum 26"X10' & nails	15.00

Harry J. Johnson,
Box 4, Nathrop, Colorado.

6 (f.) 1 trailer house	3,000.00
1 combination compressor house & shop	1,500.00
1 snow shed over track	500.00
Fuel & oil house	200.00
Ore bin, 2 compartment 14'X14' each comp.	1,800.00
1 electric generator set, wiring, & fixtures	1,000.00
1-2000 gal. Oil tank	600.00
1- 500 gal. oil tank	200.00

6. (g.) 1 new blower for forge	25.00
Grinding or sharpening 1000 Timkenbits, 15C each	150.00
Repairs & upkeep on compressor	500.00
Repairs & upkeep on stopers, drills etc.	375.00
Repairs & upkeep on mucking machine	100.00
Repairs & upkeep on ore cars	250.00
Repairs & upkeep on pickup truck	600.00
analytical work	175.00
Accounting	200.00
Workmen compensation & employers Liability insurance	1,367.21
Payroll & social security	571.58

Harry J. Johnson,
Box 4 Rathrop,
Colorado

6(h) Contingencies $4,940.00

Total $90,000.11

7(b.) I propose to furnish my share of the costs with money and such equipment as I already have, such as buildings on ajoining property that can be used for the benefit of this project, also small tools, such as pipe wrenches, threaders, vises, picks, double jacks, drill bits etc.

I expect to devote all my time on and for the benefit of this project.

Harry J. Johnson,

Applicant.

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
NOV 6 1952

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

Not to be filled in by applicant

Docket No. dmea 2969
Metal or Mineral
Date Received 11-6-52
Estimated Cost
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: Harry J. Johnson Box 4 Nathrop, Colorado.
John E. Purkeypile Box 4 Nathrop, Colorado. partners

(*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. Alma Lode No. 1 situated in the Weston Pass mining District, County of Park, State of Colorado as recorded in Book 42, Page 541. not patented. see accompanying paper Page 1)

(*b*) State any mine name by which the property is known. No mine name

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise Ownership by right of discovery and location,

(*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. Recorded in Book 42, Page 541, affidavit of and improvements recorded in Book J Page 408

4. *Physical description.*—(*a*) Describe in detail any mining or exploration operations which have been or now are being conducted upon the land, including existing mine workings and production facilities. State your interest, if any, in such operations. Also describe accessibility of mine workings for examination purposes. see paper Page 1

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

(*c*) Describe the geologic features of the property, including mineralization, type of deposit (vein, bedded, etc.), and your reasons for wishing to explore. Illustrate with maps or sketches. Send with your application (but not necessarily as a part of it) any geologic or engineering report, assay maps, or other technologic information you may have, indicating on each whether you require its return to you. see accompanying paper Page 2

(*d*) State the facts with respect to the accessibility of the project: Access roads, distances to shipping, supply and residence points. see Page 4

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

16—66551-1

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

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

(*c*) The work will start within 5-10 weather permitting days and be completed within 24 months from the date of an exploration project contract.

(*d*) State the operating experience and background of the applicant with relation to the ability to carry out such exploration project, and also that of the person or persons who will supervise the operations. see paper pages 7-8

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 s 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)? yes

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

☒ Money ☒ Use of equipment owned by you ☒ Other

Explain in detail on acompanying paper.

CERTIFICATION

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

Dated Oct. 29, 1952

Harry J. Johnson
(Applicant)

By

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

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

Harry J. Johnson
Box 4
Nathrop
Colorado

3. (a) continued.
I also control by 5 year lease the Lexington U.L. survey No. 12025, The Wake up Jim U.L. survey No. 12164, I also control by 1/4 ownership and by lease on the other 3/4 of the Little Ruby U.L. survey No. 11947, The Palmer U.L. survey No. 9934, The Fairview U.L. survey No. 3262, The Davis U.L. survey No. 3264.
The above claims will be benefitted indirectly as well as other patented and unpatented claims on Weston Pass Mining District. All exploration work to be done on The Alma Lode No. 1
4. Physical description. (a) - No mine work has been done on this claim, except test holes, location work, any

Harry J. Johnson,
Box 4. Nathrop, Colorado.

4. (a) continued.

of which can be examined. There has been production on the Payrock South East of this property, and also on the Lexington North West of this claim. We made four shipments of ore from the Little Ruby mine which is located 2 claims North West from this exploration project. (see map in Colorado Scientific Society Proceedings, Vol. 13, No. 3. Page 58).

Mr. Purkeypile and I own and control the Alma Lode No. 1 100% by right of discovery and location.

4 (c) Enclosed find Colorado Scientific Society Proceedings Vol. 13, No. 3. Map on page 58. This pamphlet gives a better discription of the geologic features of

4 (c.)(c.) continued.
this exploration project than any thing I could write.

I wish to explore this particular claim because of the position it is located in relation to the whole of The Weston Pass Mining District, all of which will be benefitted by this exploration project. This location has the shortest distance to reach the fault North East from the portal.

This exploration tunnel will I believe cross cut several veins running parallel to The Weston Fault.

This exploration tunnel should do it at less cost, time, and work than any other way that I know of.

Furthermore if a discovery is made the tunnel would be of

4(c.) continued.
sufficent depth so that these veins could be mined through this tunnel.

4(d.) The property can be reached from both Fairplay and Leadville by a mountian road in fair condition. 16 miles the A.V. smelter of the A.L.&R.Co at Leadville. 18 miles to Leadville. 21 miles to Fairplay. Road runs right through the property. (see Map.)

4(e) - Skilled miners can be had from Leadville, Fairplay, and Alma. Most kinds of mining supplies, and materials can be had from Leadville, heavy equipment may have to be brought from Denver.

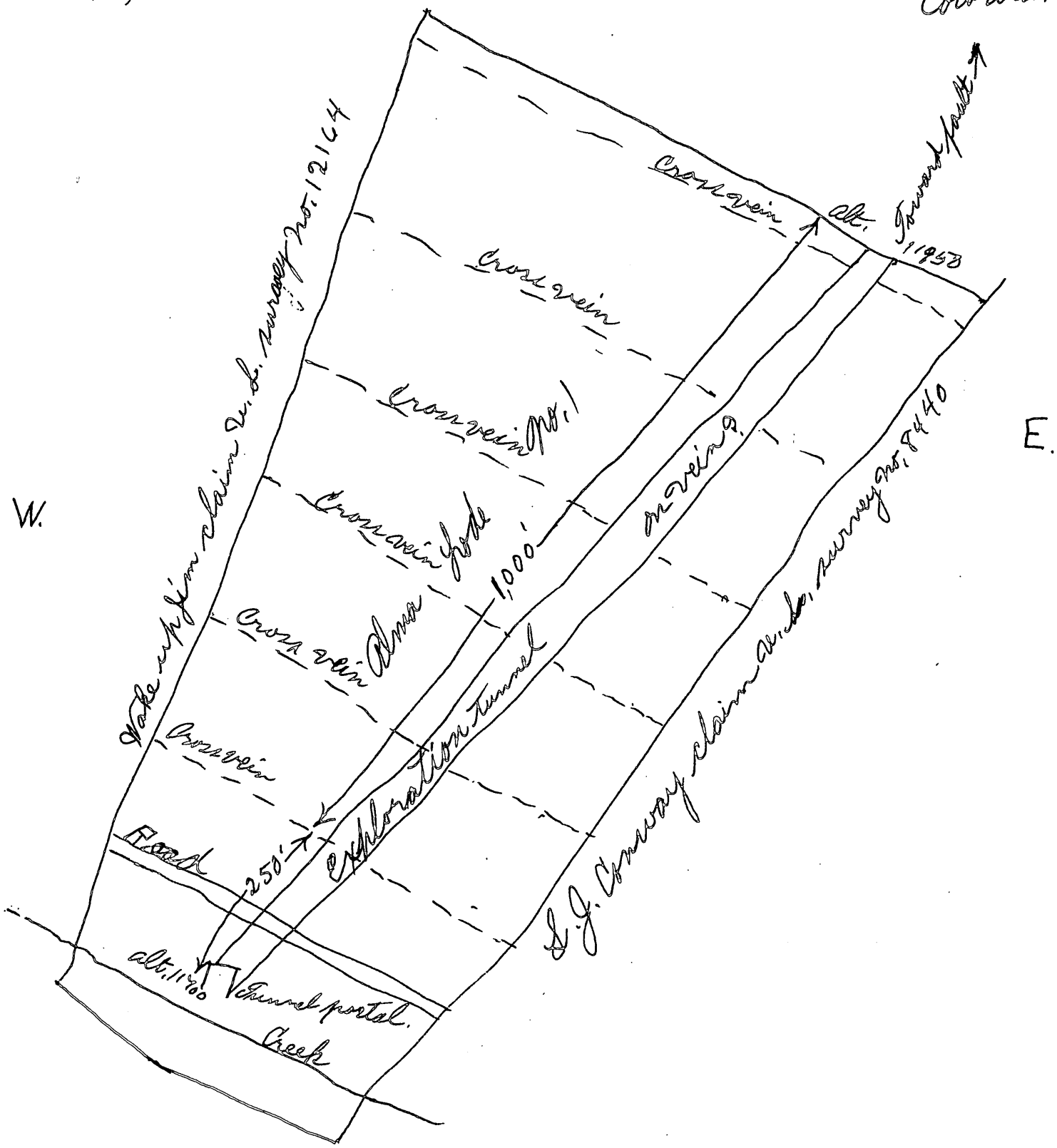
4(e) continued.
The Little Ruby mine just above the property makes 20,000 gal. of water a day, also a small lake just above The Little Ruby could supply water. (see map) There is no electric power closer than Leadville. Plenty of timber both North and South of the property.

5(b.) I propose to drive an exploration tunnel on The Alma Lode No. 1, starting on the South West part of the claim, (see sketch.) thence going North Easterly to the end of this claim, together with such cross cuts as may seem necessary and expedient for the full exploration of this project. a 50' from the portal

!5(A.)

N.

Harry J Johnson
Box 44 Nathrop
Colorado.



Not drawn to scale.

sketch.

Harry J. Johnson
Box 4. Nathrop, Colorado.

5(b.) continued.
we should cross cut the first vein, because this vein was opened on The Payrock to the South East and on The Lexington on the North West. In my opinion we should cross cut at least 5 more veins before reaching the end of the claim. (see sketch.)

This claim is covered with moral matter 10-75 ft. thick, (see report map page 58.) therefore no out crop can be seen. This project is one of purely exploration, no tunnels have ever been driven North Easterly toward the fault where in my opinion the biggest and best ore bodies should be found. If you will note the report map you will notice that at the North Easterly end of the claim we would be under 250 ft deeper

Harry J. Johnson
Box 4. Nathrop Colorado.

5(f.) continued:
than at the portal. It is to explore this possibly rich ore zone that I wish to undertake this exploration project.

5. (d.) I have been engaged continuely in mining and prospecting since 1935 working for the London Mining & Milling Co. at Fairplay and Alma, The Resurrection Mining Co. at Leadville, Ellis Webster at Leadville, Jones & Nylene Mining Co. at Leadville, Manager of The Little Ruby mines on Weston Pass, and prospecting for myself on several different lode and placer prospects.

Mr. Frank Burgess of Fairplay will act as supervisor of the

Harry Johnson
Box 4 Nathrop, Colorado.

5. (d.) continued,
project. Mr. Burgess was shift foreman at The South London mine for several years, also supervisor for The Pennsylvania Exploration project on Pennsylvania mountian, at Alma Fairplay under Mr. Tedrow.

6 Estimate of costs:—
(a.) Independent contracts:—
40 hours of bulldoging @ $15.00 per hour $600.00
2,000' of core drilling @ 2.50 per foot $5000.00

(b.) Labor under ground miners, muckers, trammers etc. 250 shifts @ $14.50 + 3.00 bonus 3 men 13,125.00
Labor surface 1 man 250 shifts @ $12.50 + 2 bonus 3,625.00

Harry J. Johnson,
Box 44 Nathrop, Colorado.

4(b.) continued,

Supervission 2 men @ $450.00 per month each, 12 months	$10,500.00
2 timber cutters @ $14.00 per shift 168 shifts	2,352.00
Engineering & geologic consultants	1,500.00
1 cook @ $10.00 per day 300 days	3,000.00

4(c.)

2 carpenter saws @ $7.00	14.00
3 one man cross cut saws @ 4.25/100	12.75
4 splitting wedges @ $1.50 each	6.00
3 timber mark axes @ $3.75 each	10.25
3 square point shovels @ $3.00	9.00
3 round point shovels	9.00
2 cant hooks @ $5.75 each	11.00
2 load binders @ 3.00 each	6.00
1 tap and die set	30.00
1 blow torch	12.00
5 open end wrenches	2.00
5 box end wrenches	3.00

Harry J. Johnson
Box 4. Nathrop, Colorado.

4. (c.) continued.

1 set steel letter and numeral stamps for marking tools	7.00
2 log chains 14' @ 6.00 each	12.00
1 broad hatchet	3.00
1 post drill	30.00
1 breast drill	8.00
14 auger bits 1/4"-1 1/4"	12.00
1 ratchet brace	5.00
1 set chisels	6.00
1 hand bench grinder	7.00
1 belt drive grind stone	15.00
1 complete drawing outfit	25.00
500 rock bits @ .60¢ each	300.00
1-2 man cross cut saw	15.00
1 pocket hand sighting level	2.25
1 Brunton Compass	45.00
12 tons of coal @ $12.00 per ton	144.00
5,000 gal. gas @ .27¢ per gal.	1,250.00
2,500 gal. fuel oil @ .16 gal.	400.00

6. (c.) continued.

50 gal. anti-freeze @ 3.75/00 per gal.	187.50
200 gal. lub oil @ $1.00 per gal.	200.00
Cup grease	20.00
Pipe fitting elbows, coupling, valves etc. all sizes	250.00

6 (d.) 1 four wheel drive pick up truck & winch	2,480.00
1 compressor with engine	4,000.00
100' air hose with fitting	70.00
100 water hose with fittings	60.00
1 chain saw air drive for under ground	475.00
2 Atlas-Diesel drills, air legs, steel & bits @ 640.00 each	1,280.00
1800' 2" pipe @ .38¢ per foot	684.00
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10 ton 30 lb rails @ $160.00 per ton	1,600.00
400 lb track spikes @ $12.12 per 100	48.48
200 pair fish plates @ $1.17 a pair	234.00
1 mucking machine 24" gauge	3,000.00
3 rocker bottom ore cars 24" ga. 27 cu. ft. @ $450.00 each	1,350.00

6. (d) continued.

20 ton powder @ $480.00 per ton	9,600.00
10,000 caps @ 2.40 per 100	240.00
42,000' fuse @ .01 per foot	420.00
Timber, lumber, posts, ties, wedges	2,000.00
1 Canton car transfer	775.00
1 screw gear hoist 1 ton cap.	80.00
1 oxy-acetylene and cutting outfit	120.00
6 (e.)	
1 swivel arm chair	24.00
6 pillows @ 6.00 each	36.00
6 quilts @ 12.00 each	72.00
6 blankets @ 10.00 each	60.00
12 bed sheets @ 4.00 each	48.00
12 pillow cases @ $2.50 each	30.00
4 panel hard board 4'X8' @ 4.25 per panel	17.00
1 linoleum 8'X16 for cabin	36.64
5 sheets Aluminum 26"X18' & nails	15.00

Harry J. Johnson
P.O. Box 4, Nathrop, Colorado.

6(f.) 1 trailer house	3,000.00
1 combination compressor house & shop	1,500.00
Snow shed over track	500.00
Fuel & oil house	200.00
Ore bin, 2 compartment 14'x14' each comp.	1800.00
1 electric generator set, wiring & fix.	1,000.00
1 2000 gal oil tank	600.00
1 500 gal oil tank	200.00

6.(g.) 1 new blower for forge	25.00
Grinding or sharpening 1000 Timken bits @ 15¢	150.00
Repair & upkeep on compressor	500.00
Repair & upkeep on stoper, drills etc.	375.00
repair & upkeep on mucking machine	100.00
repair & upkeep on ore cars	250.00
repair & upkeep on pick up truck	600.00
analytical work	175.00
accounting	200.00
Workmens Compensation and Employers liability insurance	1,355.21
Payroll & social security	511.53

6 (h.) Contingencies 4,940.00

Total $90,000.11

7 (b.) I propose to furnish my share of the costs with money and such equipment as I already have, such as buildings on ajoining property that can be used for the benefit of this project, also small tools, such as pipe wrenches, threaders, vises, picks, double jacks, and Timken drill bits etc.

I expect to devote all my time on and for the benefit of this project.

Harry J. Johnson,
Applicant.

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
NOV 6 1952

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

Not to be filled in by applicant

Docket No. dmea 2769
Metal or Mineral
Date Received 11-6-52
Estimated Cost
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: Harry J. Johnson Box 4, Nathrop, Colorado, John C. Purkey/file Box 4 Nathrop, Colorado, Partner

(*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 Alma Lode No. 1 situated in the Weston Pass Mining District, County of Park, State of Colorado, as recorded in Book 42, Page 541. Unpatented (see accompanying paper page 1)

(*b*) State any mine name by which the property is known. no mine name

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise Ownership by right of discovery and location.

(*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. Recorded in Book 42, Page 541, Affidavit of labor and improvements recorded in Book J, Page 408.

4. *Physical description.*—(*a*) Describe in detail any mining or exploration operations which have been or now are being conducted upon the land, including existing mine workings and production facilities. State your interest, if any, in such operations. Also describe accessibility of mine workings for examination purposes. see page 1

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

(*c*) Describe the geologic features of the property, including mineralization, type of deposit (vein, bedded, etc.), and your reasons for wishing to explore. Illustrate with maps or sketches. Send with your application (but not necessarily as a part of it) any geologic or engineering report, assay maps, or other technologic information you may have, indicating on each whether you require its return to you. see accompanying paper page 2

(*d*) State the facts with respect to the accessibility of the project: Access roads, distances to shipping, supply and residence points. see page 4.

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

16—66551-1

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

(*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 5-10 weather permitting days and be completed within 24 months from the date of an exploration project contract.

(*d*) State the operating experience and background of the applicant with relation to the ability to carry out such exploration project, and also that of the person or persons who will supervise the operations. see paper P. 7-8.

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? Yes

☒ Money ☒ Use of equipment owned by you ☒ Other

Explain in detail on acompanying paper.

CERTIFICATION

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

Dated Oct. 29, 1952

Harry J. Johnson
(Applicant)

By

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

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

Harry J Johnson
Box 11 Nathrop Colorado

3. (a) continued.

I also control by 5 year lease The Lexington U.L. survey No. 12025, The Wakeup Jim U.L. survey No. 12164, I also control by 1/4 ownership and by lease on the other 3/4 of The Little Ruby U.L. survey No. 11947, The Palmer U.L. survey No. 9936, The Fairview U.L. survey No. 3269, The Davis U.L. survey No. 3264.

The above claims will be benefitted indirectly as well as other patented and unpatented claims on Weston Pass Mining District.

All exploration work to be done on The Alma Lode No. 1

4. Physical description. (a) No mine work has been done on this claim, except test holes, location work any

4.(a) continued
of which can be examined. There has been production on the Payrock South East of this property, and also on the Lexington North West of this claim. We made four shipments of ore from the The Little Ruby mine which is located 2 claims North West from this exploration project. (see map in Colorado Scientic Society Proceedings, Vol, 13, No. 3. Page 58)

Mr. Burkey & I own and control the Alma Lode No. 1 100% by right of discovery and location.

4(c) Enclosed find Colorado Scientific Society Proceedings Vol. 13, No. 3. map on Page 58. This pamphlet gives a better discription of the geologic features of

Harry L Johnson
Box 4, Nathrop Colorado.

4(c.) continued.
this exploration project than any thing I could write.

I wish to explore this particular claim because of the position it is located in relation to the whole of The Weston Pass Mining District, all of which will be benefitted by this exploration project. This location has the shortest distance to read the fault North East from the portal.

This exploration tunnel will I believe cross cut several veins running parallel to The Weston Fault.

This exploration tunnel should do it at less cost, time, and work than any other way that I know of.

Furthermore if a discovery is made the tunnel would be of

Harry J. Johnson
Box 4. Nathrop Colorado.

4(c.) continued.
sufficent dept so that these veins could be mined through this tunnel.

4(d.)- The property can be reached from both Fairplay and Leadville by a mountain road in fair condition. 16 miles to the A. V. smelter of the A. S. & R. Co at Leadville. 18 miles to Leadville. 21 miles to Fairplay. Road runs right through the property. (see map.)

4(e)- Skilled miners can be had from Leadville, Fairplay, and Alma. Most kinds of mining supplies and materials can be had from Leadville, heavy equipment may have to be brought from Denver.

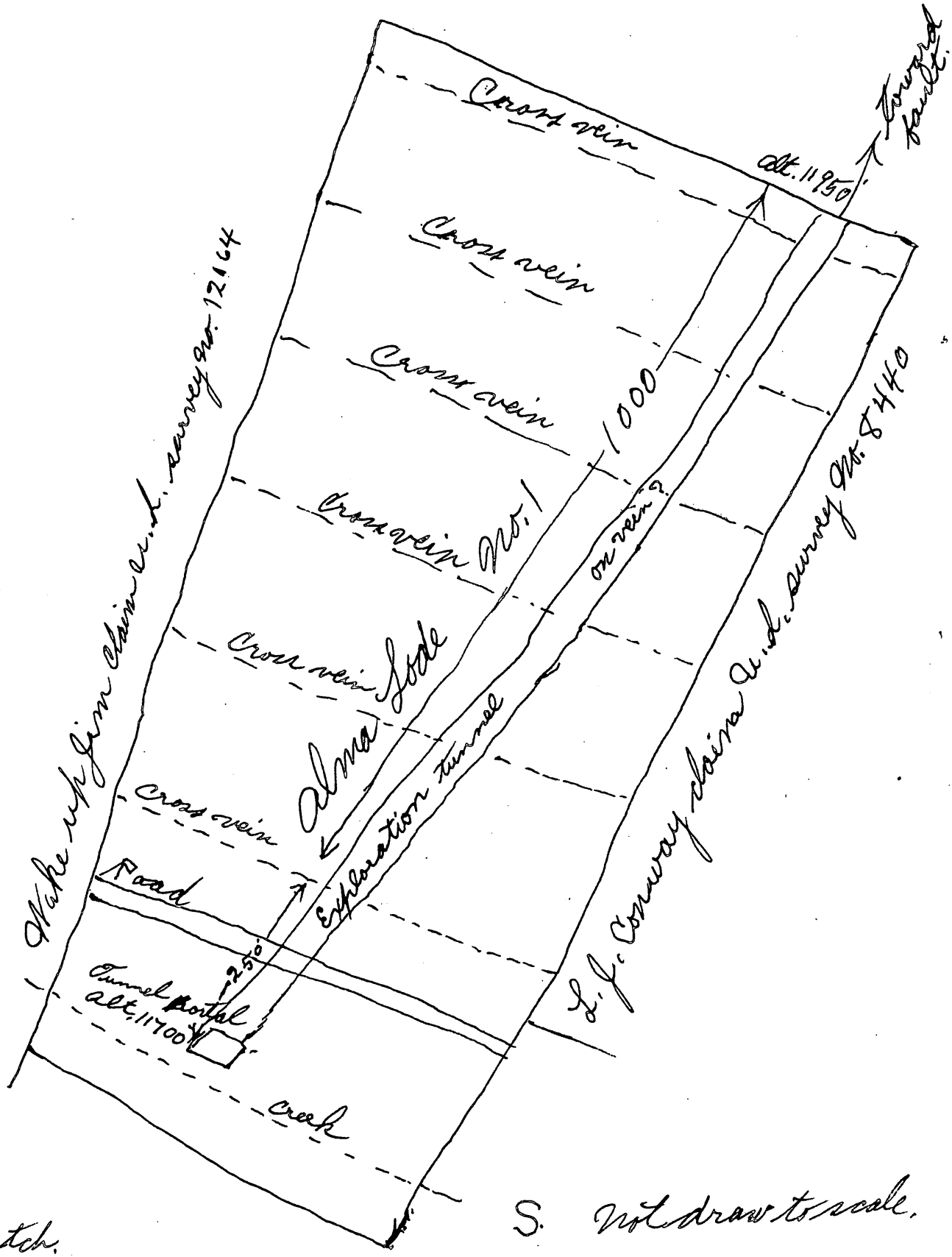
4(e) continued.
The Little Ruby mine just above the property makes 20.000 gals of water a day, also a small lake just above the Little Ruby could supply water. (see map) There is no electric power closer than Leadville. Plenty of timber both North and South of the property.

5 (b.) I propose to drive an exploration tunnel on the Alma Lode No. 1, starting on the South West part of the claim (see sketch) thence going North Easterly to the end of this claim, together with such cross cuts as may seem necessary and expedient for the full exploration of this project. 250' from the portal

5.b.

N.

Harvey J. Johnson,
Box 4, Rathrop,
Colorado.



Not draw to scale.

sketch.

5 (b.) continued.
we should cross cut the first vein, because this vein was open on The Payrock to the South East, and on The Lexington on the North West. In my opinion we should cross cut at least 5 more veins before reaching the end of the claim. (see sketch.)

This claim is covered with mound matter 10-75 ft. thick, (see report map page 58) therefore no out crop can be seen. This project is one of purely exploration, no tunnels have ever been driven North Easterly toward the fault where in my opinion the biggest and best ore bodies should be found. If you will note the report map you will notice that at the North Easterly end of the claim we would be under a 50 ft. deeper

5(b.) continued.
than at the portal. It is to explore this possibly rich ore gone that I wish to undertake this exploration project.

5(d.) I have been engaged continuely in mining and prospecting since 1935 working for The London mining & Milling Co. at Fairplay and Alma, The Resurrection Mining Co. at Leadville, Ellis Webster at Leadville, Jones & Kyleme Mining Co at Leadville, Manager of The Little Ruby Mines on Weston Pass, and prospecting for myself on several different lode and placer prospects.

Mr. Frank Burgess of Fairplay will act as supervisor of the

Harry J. Johnson,
Box 4. Nathrop, Colorado.

5. (d.) continued.
project. Mr. Burgess was shift foreman at the ~~South~~ London mine for several years, also supervisor for the Pennsylvania Exploration project on Pennsylvania mountian at Alma-Fairplay under Mr. Tedrow.

6. Estimate of costs:—
(a.) Independent contracts:—
40 hours of bulldozing @ $15.00 hour $600.00
2000' of core drilling @ $2.50 per foot 5000.00

6 (b.) Labor underground miners, muckers, trammers etc. 250 shifts @ 14.50 + 3.00 bonus
3 men 13,125.00
Labor surface 1 man 250 shifts @
$12.50 + 2 bonus 3,625.00

Harry J. Johnson
Box 4. Nathrop Colorado

6 (b.) continued.

Supervision 2 men @ $450.00 per month each, 12 months	$10,500.00
2 timber cutters @ $4.00 per shift	[illegible]
168 shifts	$2,352.00
Engineering & geologic consultants	$1,500.00
1 cook @ $10.00 per day, 300 days	3,000.00

6 (c.) 2 carpenter's saws @ $7.00 each	$14.00
3 one man cross cut saws @ 6.25	18.75
4 splitting wedges @ $1.50 each	6.00
3 timber or miners axes @ $3.75 each	10.25
3 square point shovels @ $3.00 each	9.00
3 round point shovels @ 3.00 each	9.00
2 cant hooks @ $5.75 each	11.50
2 load binders @ 3.00 each	6.00
1 tap and die set	30.00
1 blow torch	12.00
5 open end wrenches	2.00
5 box end wrenches	3.00

4:(c) continued.

1 set steel letter and numeral stamps for marking tools.	7.00
2 log chains 14' @ $6.00 each	12.00
1 broad hatchet	3.00
1 post drill	30.00
1 breast drill	8.00
14 auger bits 1/4"-1 1/4"	12.00
1 ratchet brace	5.00
1 set chisels	6.00
1 hand bench grinder	7.00
1 belt drive grind stone	15.00
1 complete drawing outfit	25.00
500 rock bits @ 60¢ each	300.00
1-2 man cross cut saw	15.00
1 pocket hand sighting level	2.25
1 Brunton Compass	45.00
12 tons of coal @ $12.00 per ton	144.00
5,000 gals gas. @ .27¢ per gal.	1,250.00
2,500 fuel oil @ .16¢	400.00

6. (c.) continued.

50 gal. anti freeze @ $3.75 per gal.	187.50
200 gal. lub oil @ $1.00	200.00
cup grease	20.00
Pipe fittings, elbows, coupling, valves etc. all sizes	250.00

6 (d.) 1 four wheel drive pick up truck & winch	2,480.00
1 compressor with engine	4,000.00
100' air hose with fittings	70.00
100 water hose with fittings	60.00
1 chain saw air drive for underground	475.00
2 Atlas Diesel drills, air legs, steel bits @ $640.00	1,280.00
1800'-2" pipe @ .38¢ per foot	684.00
1800'-1" pipe @ .18¢ per foot	324.00
500'-½" pipe @ .10¢ per foot	50.00
10 ton 30 lb. rails @ $160.00 per ton	1,600.00
400 lb track spikes @ 12¢ per 100	48.48
200 pair fish plates @ $1.17 a pair	234.00
1 mucking machine 24" gauge	3,000.00
3 rocker bottom ore cars 24" ga. 27 cu. ft @ $450.00 each	1,350.00

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Box 4, Nathrop, Colorado.

6. (d.) continued.

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Harry J. Johnson,
Box 44, Nathrop, Colorado.

6 (h.) Contingencies 4,940.00

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