

Calcium Carbonate Slated in Oregon

GK Carbonate, a unit of Georgia Kaolin Company, has formed an agreement with Boise Cascade Corporation to build a precipitated calcium carbonate plant on-site at Boise's St. Helens, Ore., paper mill. The 60,000-ton-per-year plant is due to be completed by April 1, 1990, and will also supply Boise's paper mill in Vancouver, Wash.

Richard D. Ryan, president of GK Carbonate, said, "We are very pleased with this project. This is further evidence of the paper industry's confidence in GK Carbonate." The company now has a total of three on-site precipitated calcium carbonate plants completed or scheduled to be constructed.

General Laboratory Number 2213

Date received

Spectrographic Laboratory Number

Sample received from R. S. Mason

QUALITATIVE SPECTROGRAPHIC ANALYSIS
(Quantities estimated to nearest power of ten)

1. Elements present in concentrations over 10%.

Calcium

2. Elements present in concentrations 10% - 1%.

3. Elements present in concentrations 1% - 0.1%.

Aluminum, sodium, manganese, strontium

4. Elements present in concentrations 0.1% - .01%.

Silicon, magnesium, potassium, chromium, vanadium

5. Elements present in concentrations .01% - .001%.

Iron, barium, nickel, boron, titanium

6. Elements present in concentrations below .001%.

Silver

Dr. H. C. Harrison, Spectroscopist

.....

General Laboratory Number P 2214

Date received

Spectrographic Laboratory Number

Sample received from R.S.Mason

QUALITATIVE SPECTROGRAPHIC ANALYSIS
(Quantities estimated to nearest power of ten)

1. Elements present in concentrations over 10%.

Calcium

2. Elements present in concentrations 10% - 1%.

3. Elements present in concentrations 1% - 0.1%.

Aluminum, sodium, manganese

4. Elements present in concentrations 0.1% - .01%.

Silicon, magnesium, potassium, chromium,
vanadium, strontium

5. Elements present in concentrations .01% - .001%.

Iron, barium, beryllium, nickel,
Boron, titanium

6. Elements present in concentrations below .001%.

Silver

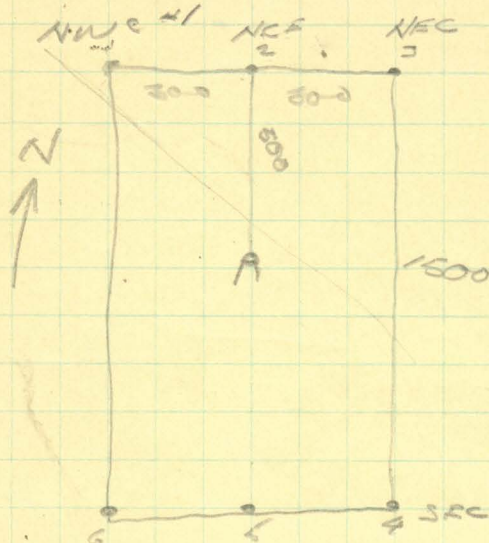
Dr. H. C. Harrison, Spectroscopist

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- BONISSIGHT -

R. D. LYTTLE ET AL AUG 11, 1943

UNNAMED DIST



LOCATED 2 MI SOUTH
 $E \frac{1}{2}$ MI WEST OF POINT
 WHERE WATSON ROAD
 CROSSES DRY CREEK,
 AND IS ON NORTH SIDE
 OF SECOND R. HAND
 CANYON NEAR SUMMIT.

R. D. LYTTLE
 CHARLES W. SWAIN.
 J. H. EDMUNSON.

- DEER HORN MINE -

LOCATED AUG 16, 1943

1800' x 600' NW DIR
 VEIN E-W

LOCATORS J. VEAR VAN NOY
 HARRY BUTLER
 MRS FRED LACKEY

- DEER HORN NO 2. -

AUG 16, 1943

1800' x 600' SE-NW

SAME LOC AS ABOVE.

State Department of Geology and Mineral Industries

702 Woodlark Building
Portland, Oregon

CALCITE OCCURRENCES NEAR THE OWYHEE RESERVOIR Malheur County, Oregon

Three samples of calcite taken from the Iceland Spar no. 3 claim were sent on May 28, 1943, to Bausch & Lomb Optical Co., Rochester, New York. One was about three inches long and half an inch through and though twinned, was sent to suggest the size of crystals available. Two smaller cleavage fragments, slightly turbid in a spot or two, were not large enough to meet specifications. In the letter of transmittal, it was explained that the samples probably would not meet their specifications and that we wished to know if they looked promising.

They replied June 16, 1943, that the samples were of no optical value to them as they contained flaws, cracks, and stripes. This we knew and had explained to them but either they ignored or did not receive the letter. However, they stated that they would be glad to inspect any further samples that appeared to meet their specifications.

Other specimens were shown to a Mr. Kaiser (?), who is an expert on certain minerals here in Portland. Though a perfectionist when it comes to the judging of crystals, he said one small cleavage fragment about $3/4$ of an inch long and more than $1/4$ of an inch on the other two sides would probably be satisfactory for use in dichroscopes.

This crystal, another also from the Iceland Spar no. 3 claim, and one measuring about 1 inch on each side from the Calcite Miner claim, were sent to Gordon Taylor, Chief of the Miscellaneous Minerals Division, War Production Board. Mr. Nixon saw him in Washington, D.C. in July, 1943, and Taylor urged our Department to promote the development of these deposits.

I feel that most of the deposits contain some calcite of optical grade at

State Department of Geology and Mineral Industries

702 Woodlark Building
Portland, Oregon

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depth. The depth at which it will be found will vary with the deposit. Whether or not it can be profitably extracted is another question. The veins in the lake beds can be worked most easily. The calcite at Island Spar nos. 1 and 2 claims and the Iceland Spar no. 3 claim probably can be examined to depths of 20 or 30 feet without much difficulty as both are situated on rather steep slopes. Of course, only hand methods can be used *close to the vein matter.*

The sale of non-optical grade calcite for use as poultry grit, stock feed, standardizing spar, etc. will not be feasible until the roads are much improved.

It has been suggested to the operators of Island Spar nos. 1 and 2 claims that they prospect elsewhere along the vein and that they might employ a small circular saw to cut around and thus remove desirable crystals.

Joe W. Jarvis, supervisor of agricultural development for the Union Pacific Railroad, 1416 Dodge Street, Omaha, Nebraska, reported certain information regarding the quantity sale of this calcite. He is co-holder of the Calcite Miner and Sheep Horn claims. He states that the freight rate on material shipped from Adrian, Oregon or a siding 5 miles from there, is based on the Line, Oregon rate which is \$2.65/ton to Portland. Thus the freight rate would be about \$3.35/ton from Adrian to Portland. He says that this calcite would sell for use as poultry grit for about \$15/ton wholesale, Portland. For use in livestock mineral feeds, he states the material is worth about \$20/ton, Portland. For use in agriculture, he thinks it could be sold without trouble for probably \$7/ton, Oswego, Oregon. Jarvis says similar calcite taken from a small deposit at Indian Head, Idaho, was sold readily to Crown Mills, but that the deposit was soon worked out.

State Department of Geology and Mineral Industries

702 Woodlark Building
Portland, Oregon

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Attached hereto is the letter from Bausch & Lomb Optical Co., Rochester, New York, regarding the samples submitted to them from the Iceland Spar no. 3 claim. Attached to it is a list of their specifications. Also attached is the June, 1943, issue of "The Ore.-Bin" which contains an article on Iceland Spar.

Wallace D. Lowry
July 22, 1943

CONFIDENTIAL

COPY
BAUSCH & LOMB OPTICAL CO.
Rochester, New York

June 16, 1943

Mr. Wallace D. Lowry
State Department of Geology and
Mineral Industries
702 Woodlark Building
Portland, Oregon

Dear Sir:

We have examined the sample of calcite which you recently submitted, and regret to advise that it is of no optical value to us as it contains flaws, cracks, and striae. For your information, we are enclosing a copy of our specifications covering this material. If you should locate any which would meet our requirements, we would be glad to inspect same at our plant, advising you as to its suitability for our work.

The rejected samples were returned to you under separate cover to the Hotel Vale, Vale, Oregon,

Very truly yours,

BAUSCH & LOMB OPTICAL CO.

/s/ C. S. Buss

Assistant Purchasing Agent

D.W.

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WAR PRODUCTION BOARD

Washington, D.C.

July 15, 1944

CALCITE

During the past year large quantities of optical calcite (Iceland spar) were used in the manufacture of sights for the Army and Navy. The demand was greater than the supply and new sources of calcite were sought.

The Army and Navy have recently announced a reduction in their requirements for optical calcite, however, and it is now estimated that their present requirements can be filled from existing sources during the next 3 months and that no calcite for gun sights will be needed after October.

H. G. Taylor

COPY
WAR PRODUCTION BOARD
Washington 25, D.C.

August 11, 1944

In reply refer to:
Division MM
R. 1212 - Tempo "R"

Mr. Wallace D. Lowry
Assistant Geologist
State Dept. of Geology and Mineral Industries
702 Woodlark Building
Portland 5, Oregon

Dear Mr. Lowry:

This is with reference to your letter of August 4 concerning the demand for optical calcite.

A copy of the enclosed notice was mailed to you several days ago explaining that no new sources of calcite are needed and that no calcite will be required by the Government after October.

This has not been brought about by the manufacture of artificial optical crystals since these are still in the laboratory stage of development. It has been caused first by the Navy's inability to get adequate delivery of the calcite sights, and secondly because of the recent development of another sight on an entirely different principal which accomplishes the same result without the use of calcite or other birefringent material.

So far as we know the demand will again be limited to that used for the well known optical instruments such as polarizing microscopes, saccharimeters and the like. Before the war the world demand has been estimated at 200 pounds per year.

Very truly yours,

/s/ Gordon Taylor

Miscellaneous Minerals Division
WPB Dept. 7525

Enclosure

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POLAROID CORPORATION

CAMBRIDGE 39, MASSACHUSETTS

MEMORANDUM

To: Lieutenant D. K. Merrill C.C. Mr. Phillips
From: Frank Cooke
Date: August 22, 1944
Subject: Your memo of August 21 on Calcite

The three pieces of calcite which you sent us have been carefully reviewed by myself and Mr. Phillips. We have the following to report:

- 1 - None of the three pieces would make a one inch crystal.
- 2 - The one piece which was big enough physically to give a one inch crystal was obviated because of twinning.
- 3 - It is our opinion that the quality of the crystal indicates a promising field and it should be further investigated.
- 4 - The mining operators in this field should be instructed to send us larger pieces and not to cleave away material which they find objectionable.

signed
Frank Cooke

fc:kh



1ST DRAFT

GENERAL REMARKS ON THE MALHEUR COUNTY CALCITE PROJECT

FEBRUARY 10 - MARCH 15, 1944

A further investigation of some of the calcite occurrences in Malheur County was made during the period from February 10-March 15, 1944. This project was carried on with the object of proving or disproving whether the vein material improved in quality with depth. Work was carried on at the "Bombsight" claim, held by Lytle and Swan and consisted of a shaft sunk along the footwall of the vein to a depth of 20 feet and a drift 15 feet long ~~drift~~ on another vein nearby. The top five or six feet of the vein where the shaft was sunk was carefully removed in large blocks weighing up to 300 pounds. These blocks were not jarred or subjected to pressure or strain in any way and constituted naturally fractured units which were simply lifted out and laid on the dump. Some of these blocks were subsequently reduced either by wedging or cleaving and the contained material closely examined. Additional blocks were also removed at various points farther down the vein as the shaft was deepened and they too were carefully broken up for inspection. ^{NO OPTICAL GRADE MATERIAL WAS FOUND.} The vein varied in width from about 1 foot to nearly 3 feet, although the walls tended to be fairly regular. At the point where the shaft was sunk a solution channel occurred in the central portion of the vein and continued to at least the bottom of the shaft and very likely to a greater depth. This channel was about 6 or 8 inches in diameter in the main, swelling to about 18 inches in some places and nearly disappearing ~~or fingering out~~ in others. The top soil (where it adjoined the vein) was ~~very~~ loose and weathered but changed ^{IN A FEW FEET} rapidly to a tough resistant mass mixed with numerous veinlets and inclusions of calcite which produced a cement-like material almost impossible to work ~~in~~ by hand methods alone.

The vein at the portal of the ^{DRIFT} shaft, which was driven from the face of the cut having a ~~face 8 feet high~~ showed evidences of a solution channel along the hangingwall. The drift was driven along this wall leaving a thin layer of protecting material which was later stripped off when the vein was examined. A

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rapid change was noted in the texture and appearance of the vein as the ~~work~~ ^{FACE AROUND} progressed, the vein changing from a solid appearing calcite at the portal to a dirty calcareous mass containing many inclusions and fingering out into the lake beds in all directions. This ~~rapid~~ ^{ABRUPT} change was observed at numerous points where the veins outcropped and is believed to be the normal condition in this area. Upon completion of the ~~project~~ ^{UNDERGROUND WORK} some ~~little~~ time was spent in attempting to cleave ~~the~~ ^{FROM} out suitable material of optical grade, various blocks of calcite which could be removed from the vein ^{AT PLACES} in both the shaft and the drift. As far as could be determined none of the material obtained approached the (requisite) size or perfection ~~required at the present time~~. All cleavage rhombs tended to be of the order of an inch or slightly larger on an edge and even these small pieces contained numerous visible cleavages, clouds, or showed ~~other~~ ^{INCIPIENT} evidences of internal fracturing. Little if any improvement could be noted in the material removed from the lowest part of the vein as compared with that at the surface or immediately below it. A much greater change was observed along the vein in a horizontal direction than in a ^{VERTICAL} direction, and it is felt that any given portion along a vein would tend to maintain its ^{CHARACTER} type and texture of material with depth, although there would doubtless be local variations. As the work progressed (at both the shaft and drift) careful observation was made of the vein material and as far as could be determined it was difficult, if not impossible, to ^{DIFFERENTIATE BETWEEN} locate portions of the ~~good~~ ^{ALONG BASE PORTIONS OF THE VEIN CONTAINING GOOD AND BEAUTIFUL} vein containing what might prove to be acceptable material without actually breaking the calcite up into small chunks. ^{FIRST} ~~A~~ cloudy or badly fractured material closely resembled the clearer portions while still in place and any mining operation (carried on with the object of retrieving optical calcite) would ~~almost~~ ^{REQUIRE} necessarily be forced to break up all of the vein material in search of the clearer portions. The walls of the solution channel frequently contained fairly large areas of clear-~~looking~~ calcite which apparently had been deposited ^{LATER THAN} after the bulk of the

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vein material and ~~apparently~~ was of a purer grade ~~due to the fact that it was~~ protected from ~~contamination with the lake bed material~~. Nearly all of the calcite however showed traces of chemical impurities, probably leached out of the lake beds by the ascending solutions. Geniculated twins were common and were just as numerous along the walls of the solution channel as in the midst of the thickest portions of the solid vein.

ADD

Any mining operation (which might be continued on these outcrops and) which would extract material of optical grade only, would be faced with a good many serious obstacles. ~~In the first place~~ optical grade calcite cannot suffer any jarring or strain during ~~the~~ mining operation. The nature of the lake beds is such that they cannot be worked sufficiently by hand methods alone, ~~although some~~ types of power equipment such as air-driven paving breakers or moils might ~~be~~ ^{PROVE} satisfactory. The veins too, are tough and resistant and where more than a foot thick present a difficult problem in breaking them up into small ~~enough~~ pieces. A few natural cleavage or fracture joints were found ~~at and~~ near the surface of the vein but with depth the vein is uniformly solid and nothing short of a stone saw ^{QUARRY} would seem to be suitable for cutting out portions of the vein. ^Q To be of any value for optical purposes, calcite crystals must be at least an inch and a half on an edge and have no impurities either visible or invisible to the unaided eye, ~~although~~ ^{IS NOT OBJECTIONABLE} they may have basal twinning. ^{ROOMS SEEN} As mentioned above, all the cleavage ~~rocks seen~~ either in the vein or actually recovered were much smaller than an inch and a half, and all contained visible defects. Another disadvantage lies in the fact that this material will be needed in quantity for the duration only and would become relatively worthless once the war-time consumption has ceased. These veins occur in ^{A REMOTE} ~~an~~ area which is ~~somewhat remote from any large town or city~~ and some difficulty might be experienced in maintaining a suitable camp and crew at the present time. ^Q On the other hand, there are certain advantages which an operation of this type possesses and

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which might be great enough to offset ~~many of~~ the disadvantages mentioned above.

There would be no transportation ~~with~~ either by truck to railroad or railroad

~~freight~~ since the recovered material would be of such small bulk. Also there

would be no assay charges or delays in payments since delivery would probably

be made to ~~a~~ ^{AN} company agent in the nearest town, at which time material would be

graded and payment made. ^{PRICES} ~~Values~~ range from \$5 to \$50 a pound depending on the

^{AND PURITY} size of the rhombs. ^{TABLE NO. 2. GIVES EXHIBITS OF VALUES OF RHOMBS OF SIZES} Although the mining operation itself would be slow and tedious

there would be little or no expense for timbering since the ground stands well

and the aridity of the region would permit year around operation without any

pumping cost. Since there are any number of outcrops of calcite in this general

area it is likely that mining operations would not be carried to a very great

depth since it would probably be cheaper to move from point to point on the

^{ADDS} surface and carry on operations to a ~~nominal~~ ^{SHALLOW} depth instead. ^{TABLE NO. 3 LISTS} Priorities for

materials of all sorts would be the highest available and the full cooperation

of the various Government agencies could be expected since optical grade calcite

is one of the most critical of the raw material needed in the war effort today. ^{END OF ADDS}

In conclusion it is felt that there is a distinct possibility that the veins

in this area do contain material of optical grade although to date none has been

found and the probability of finding ~~any amount of~~ this material in economic

amounts is very limited. The extraction and preparation for market of optical

grade calcite has been so ^{LIMITED} ~~small~~ in the past that little information regarding

it is available and anyone engaging in such an operation would practically be

working from scratch on a material which is exceedingly susceptible to injury

and which must be absolutely perfect on delivery.

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HOW A SUDDEN DEMAND FOR OPTICAL

CALCITE WAS MET

(When new wartime types of fire-control equipment called for tons, instead of pounds, of this comparatively rare mineral, a hitherto overlooked supply in the Sierra Madres, in Sonora, was tapped.)

Prior to the war the principal use for optical calcite was in the manufacture of Nicol prisms and optical elements of other instruments utilizing the high double-refraction of calcite for the polarization of light. To date, no satisfactory substitute for the natural Iceland spar crystal has been found.

Calcite veins are common in many parts of the world, but few localities have produced the rare Iceland spar variety, and these localities only in limited amounts. The principal sources of optical calcite prior to the war were Iceland (hence the name Iceland spar), New Mexico, Montana, Oregon, California, parts of South America, Africa, Italy, Spain, and Russia. Because of the pockety nature of the deposits, no steady production has been attained, and no profitable organized mining operations have existed for any length of time. In this respect, the production of optical calcite may be compared to the production of large diamonds; accident and luck have heretofore accounted for small amounts at irregular intervals from many places.

Before the war, the average world consumption of Iceland spar for optical purposes was approximately 1,500 to 2,000 lb. per year. This consumption was conditioned by production rather than by demand, which condition was reflected in the high price paid for the material (from \$20 to more than \$100 per pound, depending on crystal size and the state of the market).

Optical calcite was commercially unknown in Mexico prior to 1937. Doubtless many mining engineers and others passing through the great volcanic complex of the Sierra Madre in the search for metal mines had noticed transparent Iceland spar weathering out of the thousands of calcite veins in this region. The Indian tribes inhabiting the Sierra have long used cleavage fragments, smoked on one side, for mirrors. No thought, however, was given to the possibility of the commercial occurrence of optical calcite, or at least nothing was done about it, until in 1937 Dr. E. M. Stanton, Jr., began to prospect the northern part of the west slope of the Sierra Madre, and produced a little Iceland spar from a place near Cumpas, in Sonora.

About the same time I was investigating the calcite veins near the Monterde gold mine, in the Creel region of Chihuahua, this as a hobby. The coming of the war, with its attendant problems for me as manager of a gold mine in Mexico, stopped this work until the middle of 1943, when the need of optical calcite for certain types of fire-control equipment precipitated a critical demand for tons instead of pounds of the crystal. For this application first-grade optical calcite was not necessary; some color and inclusions could be tolerated; as no great degree of magnification was involved in the instruments, and a piece of calcite transparent to the unaided eye, free from twinning (except basal) or fracturing, and of the proper dimensions, was suitable.

Before attention was turned to Mexico, a survey of the other possible sources of the mineral, both in the United States and in other countries, was made, which resulted in only a negligible production at very high cost. These activities were necessarily secret, and I had no intimation of the need for this material until the middle of 1943.

WAR AGENCIES INVESTIGATE

At that time a preliminary investigation of the productive possibilities of Northern Mexico was undertaken by the U. S. Geological Survey, in cooperation with the Mexican Government, and by Dr. Stanton and myself, after consultation with the Bureau of Ordnance of the U. S. Navy. It was evident that immediate production could be attained if certain essential steps were taken, and the first sub-optical and optical calcite for the war program was shipped in September, 1943.

I was called to Washington the following January to discuss the possibilities of producing quickly a major quantity of sub-optical calcite from this region of northern Mexico. The problem was not one of limitation of the existing quantity. Thousands of calcite veins are known to me as a result of many mine-examination trips through all parts of the region over many years. If 1 per cent of these veins produced a little sub-optical calcite, more than enough would be forthcoming. Instead, the problem was one of organization, with the time element the most important consideration; how to prospect quickly a great many calcite veins widely scattered through one of the most rugged mountain masses in the world; how to get production quickly from veins showing promise; where the only means of transportation and communication is the long-suffering mule or Indian runners; and how to avoid delays due to human inertia and political interference.

ESSENTIAL FACTORS

Because of the peculiar conditions inherent in searching for and producing quickly a mineral heretofore unknown in Mexico, and found in scattered pockets over wide areas in terrain difficult of access, it was believed that the following factors were essential to quick exploration and production:

1. Establishment of a price per kilogram or per pound high enough to stimulate prospecting of an intensive scale by local inhabitants, once they knew what to look for.
2. Dissemination of information as to price and other factors to prospectors and producers, to eliminate undesirable speculative elements.
3. Intensive instruction of local inhabitants by word of mouth on what to look for and where to look for it. This point is important; the first deposits showing promise in each district were subsidized until profitable operation was assured, to get production at strategic places. This immediately stimulated prospecting at each point, and production would "snowball."

I personally visited more than 200 possible producing points in two months of steady travel, spreading information, advice and distributing specimens among the people. With one or two points opened and producing a nice profit for the owners in each district, the prospecting problem was solved; every inhabitant of the district immediately became a prospector, and because his incentive was personal profit, he was more efficient than salaried prospectors.

4. Payment for material accepted, on the spot was in cash. The average producer could not and would not wait several months to find out what he would get for any given lot of calcite. This was one of the most difficult problems to solve. Few men capable of field-grading optical calcite were available.

Cooperation between factory and field was not satisfactory, nor could it be made so, because of the time lag between acceptance in the field and arrival at the factory. This threw a heavy responsibility on the field men, as the price was based on field acceptance on the assumption that field-graded material would yield over 60 percent usable material at the factory.

5. It was essential to establish one, and one only, channel of market and system of payment. It is a natural trait, not confined to the Mexican people, to hold something of value if there is a chance of getting a higher price. This could not be tolerated, and it was essential that there should be no intervention by private or governmental agencies except with a complete understanding of the exact program, at least in its early stages.

RESULTS SUCCESSFUL

With the marketing channeled through one agency and with a fixed price, and with information disseminated freely by all private and governmental agencies interested, an immediate production of optical and sub-optical calcite was attained, with little speculative interference.

By May 1944 sufficient calcite was at the factory to take care of urgent needs, and by July 1 a substantial reserve had accumulated, a large part of which was produced in northern Mexico. Close cooperation between all factors involved was maintained throughout the period of urgent need and intensive production. That November, the redesign of the fire-control equipment, and the invention of a substitute for the calcite used in it, eliminated the need for sub-optical calcite, and the program was suspended.

A theory as to the origin of optical calcite developed from observation of the circumstances attending many occurrences will be discussed in an early issue. Some practical rules will likewise be given for prospecting for the mineral, based on wartime experience, and the procedure for extracting the crystals and preparing them for the market will be described.

Clarence R. King
Consulting Mining Engineer
Box 210, Santa Ana, Calif.

15 E. M. J. MAY 1946, pp 80-81

OPTICAL CRYSTALS

Formation of perfect mineral crystals is among Nature's most wonderful phenomena, but man tries not only to emulate but to improve upon Nature by making crystals of uncommonly large size. Crystals of sodium chloride, potassium bromide, and lithium fluoride give better results in ultraviolet and infrared optical studies than can be obtained with a noncrystalline substance like glass. However, it is difficult to find in Nature perfect crystals large enough for effective use. Accordingly, processes have been developed for making crystals up to 8 in. in diameter in platinum crucibles heated in electric furnaces. Several investigators have worked on the problem since 1925. A major commercial demand was for crystals of lithium fluoride to take the place of optical flourspar in infrared spectrum analysis, particularly in the petroleum industry. The claim is made that by using prisms cut from 8-in. synthetic crystals of lithium fluoride a spectroscopic analysis of a petroleum fraction can be made in five minutes by one man, whereas the chemical method requires a crew of six men working eight hours to attain somewhat less accurate results. The art of making large crystals is a distinct aid to optical research in many fields.

Optical calcite leads a precarious existence. During the war there was a sudden demand for it to make gun sights for which exceptional qualities were claimed, but after a few months new designs were developed and the flurry of demand suddenly ceased. The market for Iceland spar dropped back to its normal volume of a few hundred pounds a year for Nicol prisms and other optical instrument requirements. Now it appears that the requirements may shrink further in view of the claim that synthetic polaroid material may be substituted for calcite in polarizing prisms.

MEM FEB 1946

OPTICAL CRYSTALS

One of the difficulties in the manufacture of some types of optical instruments has been the inability or difficulty in obtaining suitable natural mineral substances for the manufacture of lenses, prisms and other parts that go into the optical system. Recently new worlds have been revealed to science with Harshaw's Synthetic Optical Crystals (Harshaw Chemical Company, of Cleveland, Ohio). These crystals are grown from their molten salts under license from the Research Corporation, using technique developed at Harvard University and Massachusetts Institute of Technology.

Because of the new synthetic crystals, better instruments are now available for infrared and ultraviolet spectroscopy, Infra-red photography, Polarizing optics, and numerous other similar instruments. The optical limitations of natural rock salt (halite), sylvite, fluorite, and iceland spar, have been largely overcome by making various synthetic products. These crystals are grown from their molten salts, and perfect single crystals up to 35 pounds in weight are produced. The synthetic optical halite, for instance, is far superior for use in optical instruments than the natural rock salt. The huge artificial crystals of halite are sectioned for optical purposes by sawing into suitable sizes by the use of a wet string.

Many uses will be found for these new synthetic crystals. The high cost of various optical instruments used in the field of mineralogy and petrography is due to a large extent to the high cost of natural iceland spar, optical halite, and fluorite.

....The Mineralogist, July 1944.

April 5, 1945

Rainbow Gunsight

A rainbow, as every schoolboy knows, is formed by the refraction (bending) of sunlight by raindrops. Optical engineers have known for some time that an artificial rainbow can be produced by passing light through certain crystals. An ingenious wartime application of this phenomenon is a rainbow gunsight.

The device, known as the "ring sight," looks something like a reading glass. When a gunner peers through it, he sees a set of rainbow-colored, concentric circles. Unlike rings painted on glass, these optical rings are projected beyond the disk and seem to lie directly on the object sighted (*see cut*). Easier to use and more accurate



Newspictures

RING SIGHT & TARGET

Easier, more accurate, prettier.

than most optical sights, the ring sight is especially helpful against moving targets, because the regularly spaced outer rings give a gunner a means of measuring how much he must lead the target.

The rainbow sight is made by sandwiching a natural crystal or a synthetic sodium nitrate crystal between two layers of polarizing glass. Optical engineers of the Polaroid Corp., manufacturers of the sight, envision many uses for it. Camera fans have already found that it makes an excellent view finder.

CALCITE USED
ORIGINALLY

July 9, 1971

Mr. Gilbert Ballantyne
101 Nevada Avenue
Klamath Falls, Oregon 97601

Dear Mr. Ballantyne:

Thank you for your letter inquiring about markets for calcite.

As you are probably aware, calcite is the principal mineral found in limestone. The markets for limestone in southern Oregon are rather limited, particularly with the closure of the cement plant at Gold Hill. Normal markets would include agricultural limestone and paper rock. The demand for this material is not great and a considerable effort would have to be made to develop individual buyers within a reasonable distance of your deposit.

Very high grade limestone is sometimes calcined to make either lime or cement. The capital investment required for either type plant is high and construction should be considered only after an extensive market survey has been made. At the present time the local markets for lime are supplied largely from plants located in Portland and Baker, while cement is produced at Oswego and Lime (Baker County). Considerable bulk cement and some lime is also shipped into the State.

Lime is used in a wide variety of applications ranging from agricultural soil amendment, paint filler, plastics, dusts for insecticides, water treatment, soil stabilization, paper making, neutralization of acids, and mortar for masonry.

If you wish to have your material tested for its calcium content we will be happy to perform the analysis. A sample information blank is enclosed. Please note the charges on the back.

Sincerely yours,

Ralph S. Mason
Mining Engineer

RSM:lk
Encl.

Klamath Falls, Oregon

June 21, 1971

Dept. Of Geology & Mineral Ind.

1069 State Bldg.

Portland, Oregon 97201

Gentlemen;

Recently I read an account in our local paper stating that a metals company was about to start mining calcite at Oregon Caves area. The article listed a long line of products that use calcite in their manufacture.

Recently I have located what appears to be a very large deposit of calcite, And I'm wondering if there is much demand for this material and its value ?.

I had contacted Reynolds Metal Co. regarding the calcite and they advised me to contact your office.

Thank You,

Yours Truly

Gilbert Ballantyne

101 Nevada Ave.

Klamath Falls, Oregon 97601

RECEIVED
JUN 22 1971
STATE DEPT. OF GEOLOGY
& MINERAL IND.

CALCITE

April 21, 1966

Mr. Ken Crawford, Manager
United States Calcite Company
1003 W. Andrews
Fresno, California

Dear Mr. Crawford:

Thank you for your letter concerning optical calcite deposits in Oregon.

This Department did considerable field investigation work on the calcite occurrences on the west side of Owyhee Reservoir during World War II. Although a considerable amount of minus one inch rhombs were available which had very few, if any, visible flaws, the abundance of cleavage rhombs larger than one inch was severely restricted. Basically the problem was one of trying to recover perfect material from a solid dike of a mixture of crystalline calcite and impure limestone. Since the dike averaged about 3 feet in thickness and was nearly vertical, the problem of trying to remove portions of it without producing undue concussions or strains proved to be insurmountable with the limited equipment available.

It might be possible to use some device such as a wire saw which could rapidly cut through the dike and rough out blocks weighing several hundred pounds which could then be transported to a plant for further processing. This would entail a moderate capital outlay, but whether this would be justified economically is not known.

Should you wish to investigate these deposits we would be happy to supply you with detailed information on how to get there, and with sufficient notice we might possibly arrange to have one of our staff personally accompany you to the area.

Sincerely yours,

Ralph S. Mason
Mining Engineer

RSM:lk

USCC

UNITED STATES CALCITE COMPANY • ~~4401 NORTH DEWITT AVENUE~~ • FRESNO, CALIFORNIA 93727 • 209/291-6800

1003 W. Andrews

93705 224-0618

April 17, 1966

Oregon Bureau of Mines
Salem, Oregon

Dear Sirs;

The United States Calcite Company is interested in developing deposits of Optical Calcite. We are presently involved in the investigation of reported deposits. In a search of the literature I find tha Calcite has been found on the shores of Lake Owyhee in Malheur County. My source for this information was an early copy of Ore-Bin. Do you have any other information on these deposits? We have also heard rumor that there are deposits near the California border but we have not been able to find mention of these in the literature. We would appreciate any information you can give us concerning any deposit of Optical or Sub-Optical Calcite in your state.

If you need any information on Calcite just let us know and we will try to get it for you.

Thank you for your attention.

Yours truly,



Ken Crawford
Manager U.S.C.C.

RECEIVED
APR 20 1966

STATE DEPT. OF GEOLOGY
MINERAL ENDS.

POLAROID CORPORATION

Cambridge 39, Massachusetts

MEMORANDUM

To: Lieutenant D. K. Merrill C.C. Mr. Phillips
From: Frank Cooke
Date: August 22, 1944
Subject: Your memo of August 21 on Calcite

The three pieces of calcite which you sent us have been carefully reviewed by myself and Mr. Phillips. We have the following to report:

- 1 - None of the three pieces would make a one inch crystal.
- 2 - The one piece which was big enough physically to give a one inch crystal was obviated because of twinning.
- 3 - It is our opinion that the quality of the crystal indicates a promising field and it should be further investigated.
- 4 - The mining operators in this field should be instructed to send us larger pieces and not to cleave away material which they find objectionable.

signed
Frank Cooke

fc:kh

TELEPHONE
MURRAY HILL 2-3858-9

IMPORT

DONALD M. MURRAY CO., DIVISION
OF FIDUCIARY MANAGEMENT S. A. INC.
14 EAST 46TH STREET
NEW YORK 17, N. Y.

CABLE ADDRESS
"DONMURRAY" ALL CODES

EXPORT

August 14, 1944

Mr. Ralph S. Mason
State Department of Geology and Mineral Industries
702 Woodlark Building
Portland, Oregon

Dear Ralph:

I have your letter of August fourth, ~~1944~~
Calcite for military needs is out after October first.

Very truly yours,


Charles A. Briggs II

CAB:JLP

R

August 4, 1944

Mr. Charles A. Briggs II
Donald M. Murray Co. Division
Fiduciary Management S.A. Inc.
14 East 46th Street
New York 17, New York

Dear Chuck:

Thank you for your letter of July 20.

I am naturally disappointed that the bottom is dropping out of the optical calcite market and am wondering whether this reflects the abundance of supply of suitable raw material or whether synthetic crystals are filling the bill. I have just run across an article describing the use of molten salts for the production of synthetic optical crystals, the technique being developed at Harvard University and M.I.T.

If the latter is the case, I presume that optical calcite is through as far as crystal use is concerned, but if the reduction in demand is due to the present over-supply of the raw material, there might be a possible resumption in the future.

Kindest regards.

Sincerely yours,

Ralph S. Mason
Industrial Engineer

RSM:jr

DONALD M. MURRAY CO., INC.

14 EAST 46TH STREET

IMPORT

NEW YORK 17, N. Y.

EXPORT

DONALD M. MURRAY CO., DIVISION
OF FIDUCIARY MANAGEMENT S.A. INC.

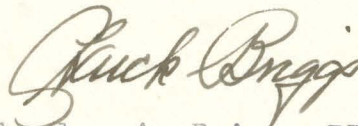
July 20th, 1944

Mr. Ralph S. Mason
State Dept. of Geology & Mineral Industries
702 Woodlark Bldg.
Portland 5, Oregon

Dear Ralph:

You will be interested to know that WPB advises us that the military is reducing their requirements for calcite and that there will probably be no demand for calcite for that purpose after the end of this year.

Very truly yours,



Charles A. Briggs II

CAB:M

R.

DONALD M. MURRAY CO., INC.

TELEPHONE
MURRAY HILL 2-3858-9

IMPORT EXPORT
14 EAST 46TH STREET
NEW YORK 17, N. Y.

CABLE ADDRESS
"DONMURRAY" ALL CODES

July 5, 1944

Mr. Ralph S. Mason
State Department of Geology and Mineral Industries
702 Woodlark Building
Portland 5, Oregon

Dear Ralph:

I want to thank you for sending me a copy of your report on Calcite and for your second letter enclosing some pictures which I indeed found interesting. I too have some pictures that I will ultimately send to you. You may recall that they were taken on 35 millemeter film. You will also recall that I told you that I had bought a new house and haven't yet set up a dark room. When I do, I will print them and send you some.

Many thanks again for everything.

Very truly yours,

DONALD B. MURRAY INC.


Charles A. Briggs II

CAB:JLP

R.

June 23, 1944

Mr. Charles A. Briggs, II
c/o Donald M. Murray Company, Inc.
14 East 46th Street
New York 17, New York

Dear Chuck:

I am enclosing three snaps taken while we were working on the calcite project which may be of interest to you. One view shows Camp Calcite after one of the numerous snow storms - dark object in center foreground is the water barrel covered by a tarp - just in case you could not figure out what in Sam Hill it was. Another picture shows the shaft headframe on the Bombsite Claim which you visited, and the third shows the panel truck, in which you spent most of your time on the trip, stuck for the Nth time in some mudhole or other. Thought it might bring back memories of the trip out to the dig that day.

Just recently I met a fellow who was the geologist for the calcite project in southern California, which was subsidized by Polaroid Corporation, which I believe you said you were unable to visit. Seems that this project was run on a semi hush-hush basis, and no one who was not immediately connected with the operation was permitted access to the ground. They even had Marine truck drivers hauling in supplies and bringing out what little ore they were able to recover. Apparently the whole thing was sort of a hit or miss proposition and eventually was abandoned as being unprofitable.

Sincerely yours,

R. S. Mason
Industrial Engineer

RSM:ff
Enclosure

June 9, 1944

Mr. Charles A. Briggs, II
c/o Donald M. Murray Company, Inc.
14 East 46th Street
New York 17, New York

Dear Chuck:

Enclosed is copy of the long-overdue report on our activities in Malheur County early this spring. Things are very quiet on the calcite front at the present time and it is not certain whether we will be doing any further work over there this summer or not. We have, however, heard from a gentleman back east who is either a would-be operator or promoter, and he writes that he is planning on visiting these properties soon. Don't really expect much to come of it but one can never tell. Will send you a snap or two taken at the project which may be of interest to you. Did your pictures of the Dry Creek crossing turn out all right?

Joe Jarvis is apparently attempting to secure help from the U. S. Geological Survey and latest information indicates that they will be spending a few days at least on the ground presently.

Sincerely yours,

R. S. Mason
Industrial Engineer

RSM:ff
Enclosure

DONALD M. MURRAY CO., INC.

TELEPHONE
MURRAY HILL 2-3858-9

IMPORT EXPORT
14 EAST 46TH STREET
NEW YORK 17, N. Y.

CABLE ADDRESS
"DONMURRAY" ALL CODES

April 28, 1944

Mr. Ralph S. Mason
State Department of Geology & Mineral Industries
702 Woodlark Building
Portland 5, Oregon

Dear Ralph:

Congratulations. If you could produce as big pieces of optical calcite as you can babies, it would be no problem at all.

I was interested in your letter. I agree with you that finding even one vug in Malheur County would be a real undertaking. The material is just too tight to indicate the presence of vugs and without vugs there is apparently no usable material that has ever been found. I won't deny that possibly suitable material could be found at or below the ground water level but I wouldn't spend any time, money or effort in looking. I say this because experience to date indicates that the presence of vugs does not vary in accordance with depth. In other words, you are just as apt to find an exposed vug on the surface as you are way down.

Very truly yours,

DONALD M. MURRAY CO., INC.


Charles A. Briggs II

CAB/mjm

B.

DONALD M. MURRAY CO., INC.

TELEPHONE
MURRAY HILL 2-3858-9

IMPORT EXPORT
14 EAST 46TH STREET
NEW YORK 17, N. Y.

CABLE ADDRESS
"DONMURRAY" ALL CODES

Confidential

April 18, 1944

Mr. Ralph S. Mason
State Department of Geology & Mineral Industries
702 Woodlark Building
Portland 5, Oregon

Dear Ralph:

I am very much obliged to you for your letters with illustrations.

I did not know that Mr. Nixon is leaving and I can imagine things "are somewhat unsettled." By the way, we sent him a piece of quartz with rutile as he requested. Do you know whether he got it? ✓

Ralph, I've learned quite a little about the calcite business since I left you from several angles. To begin with, the stuff doesn't actually bring the price indicated. Around \$7 - \$8 a pound is good. The higher prices are for very special and perfect material of which I believe they have only gotten a few pounds. That higher priced material is for Nicol prisms. Please do not quote me on this or tell where you got this information.

The way to look for the stuff is as follows:

Look all along the exposed veins for fractures (that's probably not the correct term.) When you find one, follow it to a vug. All crystals that are usable that have been found to date have been found in vugs. The solution channel and depth have no apparent relation to the vugs or whether the vugs contain crystals. The solution channel is, of course, a breaking down process. The vugs are caused by fractures or faults (I guess that's the word - right?) and provide space for the crystals to grow. I am attaching a rough diagram. In some places only 1 out of 10 - 18 vugs contain crystals. When they do and they have not grown together you just break them off. This is WPB dope. The thing is don't waste time just digging - follow fractures or faults. If there are none, forget it and look along another vein. An exceptional vug will yield around 7 or 9 hundred pounds of usable material.

The sample indications in California and Mexico were both better than Oregon but could not get out to either property. The yields are 1-13%. Mexico has best producing property so far.

With kindest regards,

Chuck.
Charles A. Briggs, II

CAB/mjm

*CSA
FWS*

DONALD M. MURRAY CO., INC.

TELEPHONE
MURRAY HILL 2-3858-9

IMPORT EXPORT
14 EAST 46TH STREET
NEW YORK 17, N. Y.

CABLE ADDRESS
"DONMURRAY" ALL CODES

April 7, 1944

Mr. Ralph Mason
State Department of Geology & Mineral Industries
702 Woodlark Building
Portland 5, Oregon

Dear Ralph:

I have been reading over Mr. Coady's letter to you about the mining of calcite and I would appreciate your enlightening me a little on some of the equipment that he says he is using, namely, what is:

D-7 angledozer
paving breakers
chippers
"wiggie-tail" buzzy

I assume that a paving breaker is some kind of hydraulic machine or hammer such as is used in breaking up pavements but it might be something quite different as far as I know.

Thanks a lot.

Very truly yours,

DONALD M. MURRAY CO., INC.



Charles A. Briggs II

CAB/mjm

DONALD M. MURRAY CO., INC.

TELEPHONE
MURRAY HILL 2-3858-9

IMPORT EXPORT
14 EAST 46TH STREET
NEW YORK 17, N. Y.

CABLE ADDRESS
"DONMURRAY" ALL CODES

March 30, 1944

Mr. Ralph Mason
Box 517
Ontario, Oregon

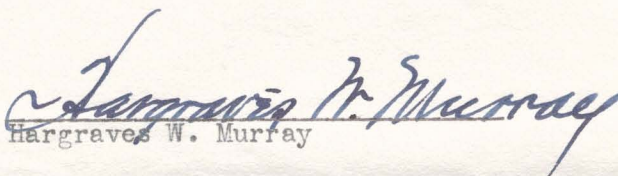
Dear Mr. Mason:

This is to advise you that we have just received a report on one of the sample pieces of calcite sent us by Mr. Briggs from the calcite deposits in Malheur County, Oregon. We sent this specimen to the Polaroid Corporation for inspection and their report is very favorable although they say that the piece contained very heavy white inclusions and cleavages.

Mr. Briggs is expected to be back in the office on Monday, March 3rd and he will write you in further detail at that time.

Very truly yours,

DONALD M. MURRAY CO., INC.


Hargraves W. Murray

mjm

RECEIVED
APR 7 1944
STATE DEPT OF GEOLOGY
& MINERAL INDS.

DONALD M. MURRAY CO., INC.

TELEPHONE
MURRAY HILL 2-3858-9

IMPORT EXPORT
14 EAST 46TH STREET
NEW YORK 17, N. Y.

CABLE ADDRESS
"DONMURRAY" ALL CODES

March 22, 1944

RECEIVED
MAR 27 1944
STATE DEPT. OF GEOLOGY
& MINERAL INDS.

Mr. Earl K. Nixon,
Director State Dept. of Geology & Mineral Industries
702 Woodlark Building
Portland 5, Oregon

Dear Mr. Nixon:

I am enclosing herewith a copy of my report to Mr. H. W. Murray on the calcite deposits in Malheur County, Oregon which I inspected with Mr. Ralph Mason and Mr. Joe W. Jarvis during my recent trip West.

I would appreciate receiving any comments you may wish to make concerning this report.

Very truly yours,

DONALD M. MURRAY CO., INC.

Charles A. Briggs, II
Charles A. Briggs, II

mjm
Enc.

11

CONFIDENTIAL REPORT

For: Mr. Hargraves W. Murray

From: Mr. Charles A. Briggs, II

CALCITE-DEPOSITS IN MALHEUR COUNTY, OREGON

(Inspected March 8th and 9th, 1944)

Conclusions:

This particular section appears to have numerous veins of calcite back in the hills, a number of which have been worked to varying degree. Mr. Joe Jarvis of Ontario and co-owner of what appears to be the largest deposit, and Mr. Ralph Mason of the State Geology Dept. arranged for me to visit two properties with them. I would say we saw thousands of crystals in about four to five hundred tons of calcite, and we examined innumerable separated crystal and chunks of material yet to be cleaved, cleaving some. The Jarvis property had been worked some. The other property has and is being worked in two places. Under the direction of Mr. Mason, he and three aides had sunk a vertical shaft about twenty feet and a horizontal shaft along another vein wall for about 15 feet. Thus it was possible to inspect for crystals at varying depths. Two days of such examining and picking and prying around did not reveal a single usable crystal. Thus while there admittedly may be usable material I question the wisdom of our using funds to aid in further development and could not recommend it.

My suggestions to Mr. Mason and Mr. Nixon, the head of the Geology Dept. of the State) were as follows:

1. Cleave the material now removed (around 9 tons) and segregate anything thought to be usable, sending it on to us for inspection and appraisal.
2. Remove material that has been or can easily be removed and do likewise.
3. Relate what is found and its value to be usable to tonnage handled and thus permit an estimate of production possibilities and value produced to cost of operations to serve as a basis of any further working.
4. If any further effort is to be expended, it should consist of sampling on or near the surfaces of other deposits in the vicinity.

Mr. Jarvis feels that his vein being wider should be worked at some depth. I have no way of knowing whether its width would increase the chances of finding usable material or not but from what I have heard of other usable deposits you could not expect that it would increase the chances except by virtue of greater volume of material handled. I think he agrees but feels greater volume justifies this. I told him that it seems to me that any decision of a Government agency on this point would depend upon how badly the Government wanted to get it and whether they have the time and manpower to do it.

There are three questions about the above conclusions. The first is that Mr. Jarvis says usable material was obtained from his deposit and sent to the War Production Board and Mr. Lowry, Assistant Geologist of the State of Oregon. Mr. McCormick of the WPB in Washington said they had received a good sample. I have not seen these samples and we could find none at the deposits. Mr. Jarvis had none in Ontario nor did Mr. Butler, co-owner.

Second, it might be that cleavage of chunks already removed would produce usable material. Mr. Mason will advise if such is the case and forward samples to you for valuation and testing. I have sent you smaller chunks to cleave.

CONFIDENTIAL REPORT

CALCITE DEPOSITS IN MALHEUR COUNTY, OREGON

-3-

a 2" cubed rhomb at weight of 8/10 of a pound at \$20 a lb. , for that usable rhomb you would have to recover 62 such rhombs from that to get 50 pounds of material worth \$1,000 to break even.

Mason has moved out about 9 tons of material with 3 men and a cook in a camp about one mile from the shafts. Chunks taken out are from 300-500 pounds in weight a piece (the large ones). Camp is 3,186 ft. elevation.

By-products:

Mr. Jarvis feels might well mine for chicken feed if none mined for crystals or have former by-product of latter. Question this because of inaccessibility. He feels County might put in road.

Conclusions:

If it were I, aside from finishing up development started, I'd put any further effort into looking elsewhere or at least limit activities there to surface examination of other outcroppings.

DONALD M. MURRAY CO., INC.

TELEPHONE
MURRAY HILL 2-3858-9

IMPORT EXPORT
14 EAST 46TH STREET
NEW YORK 17, N.Y.

CABLE ADDRESS
"DONMURRAY" ALL CODES

February 23, 1944

Mr. Earl K. Nixon
Willard Hotel
Washington, D. C.

Dear Mr. Nixon:

It was a pleasure to meet and talk with you here on Wednesday and I thank you for your time which I know was limited by activities in connection with your meetings.

By way of confirming our conversation, we are very much interested in the Malheur County deposit of calcite and in fact in finding any source of suitable material. You suggested that if your current activities there seem to warrant further development we might be interested in matching funds with your department for further development. We would be interested in doing this in any development in Oregon that would seem to warrant it. We appreciate your aid and leadership in seeking optical calcite in the State. You may feel that Oregon, through your efforts, is thereby aiding in seeking a most critical material for the war effort.

I sent your wire to Mr. Libbey, and I am enclosing a copy for your files. I am looking forward to visiting the deposit and Mr. Mason.

I will be in Washington on Friday and will telephone you at the office of the Director of U. S. Geological Survey as you suggested. I hope Mr. Jenkins will be there from California. I also hope that we can get together with Mr. Taylor of the War Production Board. I am planning to see him there.

Sincerely yours,

DONALD M. MURRAY CO., INC.

Charles A. Briggs II
Charles A. Briggs, II

CAB/mjm
Enc.

DONALD M. MURRAY CO., INC.

TELEPHONE
MURRAY HILL 2-3858-9

IMPORT EXPORT
14 EAST 46TH STREET
NEW YORK 17, N. Y.

CABLE ADDRESS
"DONMURRAY" ALL CODES

April 6, 1944

Mr. Ralph S. Mason
State Department of Geology & Mineral Industries
702 Woodlark Building
Portland 5, Oregon

Dear Ralph:

I have just returned to New York and found your letter of March 24th which had attached letters directed to you from Mr. Kelly and Mr. Coady both of which were very interesting particularly Mr. Coady's letter. Incidentally, it doesn't seem to me as though they were getting too much out of Montana.

I have the report on the inspection of the material that I sent from the Oregon deposit and it was rejected because of inclusions which was just about what we suspected. I sent you a copy of the report I prepared on our two days in Oregon and I am wondering if you have any criticisms of it. If you have, I will be very glad indeed to receive them. I note that you are preparing a report, copy of which I would appreciate having. I note from your letter of the 24th that the fellow you had inspect the material was of the same opinion as yourself namely that the defects were probably due to natural causes. As you say it all adds up to a matter of economics pure and simple and as I see it the addition is not a profitable one for anybody.

I haven't had a chance to get the pictures printed yet and it may be sometime before I do but when I do, if there are any good ones, I will see that you get copies.

I want to say again that I enjoyed my stay in Oregon very much thanks to you and Mr. Jarvis and I hope that our paths will cross again and if you run across some 4 inch square clear calcite crystals under your back porch, let me know and I am sure that our paths will cross again.

Very truly yours,

DONALD M. MURRAY CO., INC.


Charles A. Briggs II

CAB/mjm

24 March 1944

Mr. Charles A. Briggs II
c/o California Club
Los Angeles, California

Dear Chuck:

Finally heard from both Coady and Kelley. Copies of their letters are enclosed. Apparently Coady is going at it with hammer and tongs and is learning as he goes, which is probably the only way. Kelley suggests writing Hughes but since we have his circular already at hand, I doubt if any further information would be forthcoming.

Am busy working up a report on our activities, but otherwise things are at a standstill. Took some of the better small pieces down to a fellow here who does a lot of quartz crystal sawing and who is somewhat of an expert on calcite and quartz, and had him appraise it. He seemed to think that the material was colorless enough and that the included defects were probably due to natural causes, although some of the major fractures were undoubtedly caused during their removal. It still all seems to add up to a matter of economics, pure and simple.

Best regards.

Sincerely yours,

Ralph S. Mason
Industrial Engineer

RSM:jr
Encl.
cc to New York office

March 18, 1944

AIRMAIL

Mr. Charles A. Briggs II
c/o California Club
Los Angeles, California

Dear Chuck:

Thank you for your letter of March 13 outlining the technique used in getting out the calcite. Your letter arrived as we were making the final trip in from camp, and this is being written from our Portland office. We spent the last few days trying to remove large blocks of the vein but the stuff was so resistant that we were only able to take out about one-fourth of a ton. We broke up most of this material as carefully as possible but found no material suitable for optical use at all. In fact, it was identical in every way with that which you saw at the time of your visit. We were so heavily laden coming out that we could not bring very much material along with us but have representative samples of all the impure material with its associated fractures, cleavages, etc. Have had no word from Coady at Livingston as yet, but will forward any news to you when it comes. Hope you really see some workable calcite down in Mexico and hoping to hear from you about your experiences there.

Sincerely yours,

Ralph S. Mason
Industrial Engineer

RSM:ff

CALIFORNIA CLUB
LOS ANGELES

Mon.

Dear Ralph,

The mining group seem to have kept methods quite secretive. The boys here know only this:

1. No dynamite
2. Laid away surrounding material before touching any crystal structure.
3. Then lifted out material in slabs or chunks and then break it up.
4. All seem to think they were broken up with wooden wedges and wood or composition mallets.
5. All seem certain that they did not dig into the veins.
6. They worked the Calif. deposit for

about 2 years and mostly on the surface
no deep work at all - so I'm told

My sources are Tucker (that man here)
and W.P.B.

I have been trying to contact the V.S. & S.
man here, but apparently he is away.

Jarvis feels his vein might produce.
whereas yours didn't because his is wide.
I wouldn't know one way or the other.

Useable material is usually found to
one side or the other of the solution
channel.

Did you hear from Coady. If so I'd
be anxious to know what he told you.
Please send it to California Club air
mail "to forward air mail upon receipt
of forwarding address."

Best of luck and many many
thanks to you and the state. Luck Briggs.

16 February 1944

AIRMAIL

Mr. Charles A. Briggs II
Donald M. Murray Co., Inc.
14 East 46th Street
New York City, New York

Dear Mr. Briggs:

This is in reply to your air letter of February 11.

I have had some preliminary investigations made of large calcite lenses occurring in Malheur County, Oregon, some preliminary reports written, and some samples taken. This was mid-summer, 1943. The samples were sent to Bausch & Lomb and they were pronounced not of sufficient grade to be interesting at that time.

Following this first work, I personally visited the properties and came to the conclusion that no samples taken in the beginning reflected the true character of the material where at depth it would be unaffected by surface agencies, freezing and thawing, etc. The samples first obtained carried incipient fracture planes and other defects resulting from mistreating the samples in "worrying" them out of the surface ledges.

I have now sent one of our staff with a truck and group of miners to the area in question and have instructed them to put down shafts or test pits 15 or 20 feet deep to get at the material where it is unaffected by surface agencies. The boys also are prepared to obtain samples using saws or other devices so that the crystals can be extracted with a minimum of damage. It may be a month before we will have anything very definite to report on the grade of this material. I can only say that in my opinion I think there is quite a fair chance of producing crystals of the order of a pound or more in size if conditions below ground are similar to those at surface, except for the effects mentioned.

The area is very remote, a desert location, with no habitation within miles. Our men are camping in tents in the snow so the going is a bit tough. However, we are determined to get some answer at an early date. The approximate location, if you are interested, is about 25 miles west and 80 miles north of the southeast corner of the State of Oregon.

I am leaving this evening for New York for the annual meeting of the A.I.M.E. I will be staying at the Algonquin Hotel where you can reach me if you care to discuss further details of the calcite matter.

Very truly yours,

EKN:jr

Director

DONALD M. MURRAY CO., INC.

14 EAST 46TH STREET

IMPORT

NEW YORK, N. Y.

EXPORT

AIR MAIL

February 11, 1944

Mr. Earl K. Nixon,
Director of the State Department of Geology & Mineral Industries
702 Woodlark Building
Portland 5, Oregon

Dear Mr. Nixon:

We are very much interested in locating and acquiring optical calcite and we have heard that there are indications of some deposits of this material in Oregon.

We would greatly appreciate your sending us any material or data or information of any kind that you might have with respect to the likelihood of existing deposits in Oregon.

Very truly yours,

DONALD M. MURRAY CO., INC.

Charles A. Briggs II
Charles A. Briggs II

CAB/mjm

RECEIVED
FEB 16 1944
STATE DEPT OF GEOLOGY
& MINERAL INDS.

ADDRESS NAVAL INSPECTOR OF ORDNANCE
AND REFER TO NO.

EN6-10(S71-8)(336/10)DKM

Calcite

RESIDENT
OFFICE OF NAVAL INSPECTOR OF ORDNANCE- OPT. MT'L.

At Polaroid Corporation

Cambridge 39, Mass.

21 August 1944

MEMORANDUM

To: Frank Cooke
Subj: Oregon Calcite

Through the courtesy of Lt. H. C. Harrison, USNR the enclosed samples are transmitted herewith for your information and investigation as to general quality. It is suggested that these three small pieces of Oregon calcite be processed and/or inspected with a report on same to the writer, with a copy to Lt. Harrison.

It is noted that these samples are of small size. The principle deposit in Oregon will probably yield larger pieces if the quality of material itself is found to be satisfactory.

D. K. Merrill

Encl: (HW)

1. Three (3) calcite samples from Malheur County, Oregon - submitted by Oregon State Dept. of Geology & Min. Industries, 702 Woodland Bldg., Portland, Oregon

CC: W. Lown

CC: → Lt. H. C. Harrison - 730 Main St.

RECEIVED
AUG 28 1944

STATE DEPT. OF GEOLOGY
& MINERAL IND.



WAR PRODUCTION BOARD

WASHINGTON 25, D. C.

August 11, 1944

IN REPLY REFER TO:

Division MM

R. 1212 - Tempo "R"

Mr. Wallace D. Lowry
Assistant Geologist
State Dept. of Geology and Mineral Industries
702 Woodlark Building
Portland 5, Oregon

Dear Mr. Lowry:

This is with reference to your letter of August 4 concerning the demand for optical calcite.

A copy of the enclosed notice was mailed to you several days ago explaining that no new sources of calcite are needed and that no calcite will be required by the Government after October.

This has not been brought about by the manufacture of artificial optical crystals since these are still in the laboratory stage of development. It has been caused first by the Navy's inability to get adequate delivery of the calcite sights, and secondly because of the recent development of another sight on an entirely different principal which accomplishes the same result without the use of calcite or other birefringent material.

So far as we know the demand will again be limited to that used for the well known optical instruments such as polarizing microscopes, saccharimeters and the like. Before the war the world demand has been estimated at 200 pounds per year.

Very truly yours,

A handwritten signature in blue ink that reads "Gordon Taylor".

Gordon Taylor
Miscellaneous Minerals Division
WPB Dept. 7525

Enclosure

COPY
WAR PRODUCTION BOARD

Washington 25, D.C.

August 11, 1944

In reply refer to:
Division MM
R. 1212 - Tempo "R"

Mr. Wallace D. Lowry
Assistant Geologist
State Dept. of Geology and Mineral Industries
702 Woodlark Building
Portland 5, Oregon

Dear Mr. Lowry:

This is with reference to your letter of August 4 concerning the demand for optical calcite.

A copy of the enclosed notice was mailed to you several days ago explaining that no new sources of calcite are needed and that no calcite will be required by the Government after October.

This has not been brought about by the manufacture of artificial optical crystals since these are still in the laboratory stage of development. It has been caused first by the Navy's inability to get adequate delivery of the calcite sights, and secondly because of the recent development of another sight on an entirely different principal which accomplishes the same result without the use of calcite or other birefringent material.

So far as we know the demand will again be limited to that used for the well known optical instruments such as polarizing microscopes, saccharimeters and the like. Before the war the world demand has been estimated at 200 pounds per year.

Very truly yours,

/s/ Gordon Taylor

Miscellaneous Minerals Division
WPB Dept. 7525

Enclosure

WAR PRODUCTION BOARD

Washington, D. C.

July 15, 1944

CALCITE

During the past year large quantities of optical calcite (Iceland spar) were used in the manufacture of sights for the Army and Navy. The demand was greater than the supply and new sources of calcite were sought.

The Army and Navy have recently announced a reduction in their requirements for optical calcite, however, and it is now estimated that their present requirements can be filled from existing sources during the next 3 months and that no calcite for ~~ARM~~ sights will be needed after October.

H. G. Taylor

8-24

August 4, 1944

Mr. H. Gordon Taylor
Misc. Minerals Div., Dept. 7525
War Production Board
Room 1212, Temporary "R" Bldg.
Washington 25, D.C.

Dear Mr. Taylor:

We have heard recently that the demand for optical calcite has been markedly reduced.

We are interested in learning whether or not the artificial manufacture of optical crystals has brought this about. What information can you give regarding the future of natural-occurring Iceland spar?

Very truly yours,

Wallace D. Lowry
Assistant Geologist

WDL:jr

WAR PRODUCTION BOARD

WASHINGTON, D. C. (Zone 25)

September 23, 1943

IN REPLY REFER TO:

Division MM

R. 1212 - Tempo "R"

Mr. Wallace D. Lowry
State Department of Geology and Mineral Industries
702 Woodlark Building
Portland 5, Oregon

Dear Mr. Lowry:

I have your letter of September 17 concerning the demand for optical calcite.

The Bausch and Lomb Optical Company have informed us that they are in the market for optical calcite in sizes larger than 1x1x1". Material for their use would have to be perfectly clear and transparent and free from incipient cracks, specks, clouds or flaws of any kind.

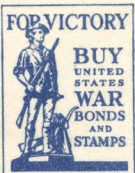
The Polaroid Corporation needs large quantities of a somewhat lower grade in that a faint color tint and a few microscopic inclusions are allowed. The size must be large enough to yield discs $1\frac{1}{4}$ " to $1\frac{5}{8}$ " in diameter by $\frac{1}{4}$ " thick cut normal to the optic axis. If you know of any source for such material we would be very glad to be kept advised.

Thank you for your cooperation.

Very truly yours,



H. Gordon Taylor
Miscellaneous Minerals Division
WPB Dept. 7525



Charge to the account of _____ \$

CLASS OF SERVICE DESIRED	
DOMESTIC	CABLE
TELEGRAM	ORDINARY
DAY LETTER	URGENT RATE
SERIAL	DEFERRED
OVERNIGHT TELEGRAM	NIGHT LETTER
SPECIAL SERVICE	SHIP RADIOGRAM

Patrons should check class of service desired; otherwise the message will be transmitted as a telegram or ordinary cablegram.

WESTERN UNION

1206

A. N. WILLIAMS
PRESIDENT

NEWCOMB CARLTON
CHAIRMAN OF THE BOARD

J. C. WILLEVER
FIRST VICE-PRESIDENT

CHECK

ACCOUNTING INFORMATION

TIME FILED

Send the following telegram, subject to the terms on back hereof, which are hereby agreed to

WANT A REPLY?

"Answer by WESTERN UNION"
or similar phrases may be
included without charge.

SEPTEMBER 21, 1943

DR. H. GORDON TAYLOR
MISC. MINERALS DIVISION, WAR PRODUCTION BOARD
TEMPORARY R BUILDING
WASHINGTON, D.C.

PLEASE FORWARD TO JOE W JARVIS 1416 DODGE STREET OMAHA NEBRASKA CALCITE CRYSTALS

WE SENT YOU.

WALLACE D. LOWRY, GEOLOGIST
OREGON STATE DEPT. OF GEOLOGY

Send day letter
Charge to: State Dept. of Geology
702 Woodlark Building

September 17, 1943

Dr. H. Gordon Taylor
Misc. Min. Div., War Production Board
Temporary "R" Building
Washington, D.C.

Dear Dr. Taylor:

We would like to know what the present demand for
optical calcite is. Is it really needed at the present
time?

Very truly yours,

Wallace D. Lowry
Assistant Geologist

WDL:jr
Sent airmail

September 13, 1943

Dr. H. Gordon Taylor
Misc. Min. Div., War Production Board
Temporary "R" Building
Washington, D.C.

Dear Dr. Taylor:

Thanks kindly for your note of September 1. I am pleased to note an element of levity in your letter inasmuch as I understand that the Washington summer has been the hottest on record and therefore presume that those who were stuck in Tempo R have had a considerable drain on their sense of humor. The price of whiskey in Oregon, incidentally, is almost immaterial because there is almost no whiskey.

I personally visited some of the calcite veins of Malheur County late last week to size up possible development and mining conditions. I have concluded that the possibilities are sufficient to justify the Department's spending a few hundred dollars to try and reach a final conclusion as to whether or not Oregon can supply optical calcite. I think there is a chance. We will do the work later this fall when a truck is released from other work.

Cordially yours,

Director

EKN:jr

cc Judge Robert W. Sawyer

WAR PRODUCTION BOARD

WASHINGTON, D. C. (Zone 25)

September 1, 1943

IN REPLY REFER TO:

Division MM
R.1212 - Tempo "R"

Mr. Earl K. Nixon
Director, State Department of Geology
702 Woodlark Building
Portland 5, Oregon

Dear Mr. Nixon:

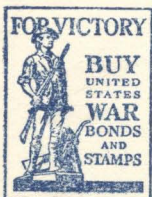
Thank you very much for your letter of August 14. If Oregon can produce a half ton of optical calcite, it will be splendid!

We have read with interest and attention numerous articles about the industrial opportunities in your State, and are sure that if one invested \$50,000. in Oregon he could retire for life there with a good income. George Field points out, however, that it would be impossible to estimate the situation completely without knowing the price of whiskey in Oregon.

Very truly yours,

H. Gordon Taylor

H. Gordon Taylor
Miscellaneous Minerals Division
WPB Dept. 7525



RECEIVED
SEP 7 1943
STATE DEPT OF GEOLOGY
& MINERAL INDS.

August 14, 1943

Dr. H. Gordon Taylor
Miscellaneous Minerals Branch
War Production Board
Temporary R Building
Washington, D. C.

Dear Dr. Taylor:

This will recall our pleasant chat while I was in Washington some time ago. Since returning to Portland I gave out a brief press release encouraging prospecting for optical calcite. This was in line with your suggestion that the larger crystals were still in particular demand.

In order to give the release a little kick, I quoted you as remarking - in order to convey some idea of the unusual value of the optical material - "that a prospector after taking out half a ton of the special grade, could retire for life with \$50,000 in the bank."

I was careful to mention "perfect crystals weighing three or four pounds each" in order completely to cover you.

Now it develops that one of our particular friends, a leading newspaper editor and judge in the State, writes me facetiously, "did Taylor explain how he would invest the \$50,000 to make retirement possible?"

Not knowing the answer to the Judge's question, I am returning the buck to you for attention as you see fit. It would seem that among the dozen or so of us ex-University of Wisconsin guys who are connected with the War Production Board, that we could figure out some answer to the puzzling question.

Cordially yours,

Director

EKN:ff

WAR PRODUCTION BOARD

WASHINGTON, D. C.

June 11, 1943

IN REPLY REFER TO:

Division MM

R. 1212 - Tempo "R"

Mr. Earl K. Nixon, Director
State Department of Geology and Mineral Industries
702 Woodlark Building
Portland, Oregon

Dear Mr. Nixon:

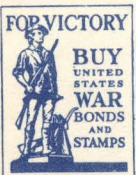
Thank you for your letter of June 5, and
for the five cleavage rhombs of calcite which
came to us in a separate package.

We have sent a copy of your letter to Mr.
Taylor who plans to be in the Los Angeles area
in a day or two and we hope that he will be able
to get in touch with you. If he does not contact
you during his trip, we will call his attention to
your letter and to the specimens when he returns.

Very truly yours,

Robert R. Shrock

Robert R. Shrock
Miscellaneous Minerals Division



RECEIVED
JUN 16 1943
STATE DEPT OF GEOLOGY
& MINERAL INDS.

*Howe f.w. R
W.P.S.*

Zone 5
June 5, 1943

AIRMAIL

Mr. H. Gordon Taylor
Misc. Minerals Division
War Production Board
Washington, D.C.

Dear Mr. Taylor:

You may possibly recall that some time ago I wired Dick Lund about a reported "find" of calcite that might have optical possibilities. The matter evidently was referred to you and you replied by wire on April 15.

We have had one of our field geologists look into this situation and report his findings to us. They are as follows:

In southeast Oregon in a rather unfrequented part of the desert country, a considerable number of claims were staked some years ago that covered various calcite veins. We find that these veins are either in Miocene basalt or later Tertiary basin sediments that we refer to as "lake bed deposits". A typical vein would have a width of from six inches to a few feet. Our man examined one vein that actually measured at various points from six to twenty-five feet in thickness. Its apparent extent was at least half a mile. The material in this large vein is largely an aggregate of smaller crystals of calcite, although some were as large as eight inches on a side. Crystals at the surface were clear and unflawed in part. There is some twinning, but it seems plain to our field man that a very considerable amount of optically clear calcite could be obtained if the vein were carefully mined.

There are probably a dozen veins that have substantial continuity, that is, say, from 100 yards to half a mile in length. Most of them stand nearly vertical. The lake bed sediments are practically flat-lying, and are softer than the calcite veins. There seems to be no particular difference in the veins that occur in the lake sediments and those in the basalt except that as a general rule the latter type are thicker and seem to contain a larger percentage of the smaller crystal aggregates.

No depth has been attained in any of these veins. The material being sent you came from within two feet of surface. One of the pieces obviously shows surface weathering, as you will see. The veins are harder than the lake bed sediments and the latter are soft enough to be cut with a miners pick. Therefore, it seems to us that there would be a good chance of extracting entire sections of calcite vein in a mining process by removing the wall rock first and sawing or otherwise segregating the calcite material without the use of dynamite or very likely without even the use of bars which, of course, would cause strain effects in the calcite.

(over)

We are anxious to follow this matter up if, in your opinion, there is any considerable demand for the calcite. We have seen some of the material that came from the operation near Indio and we feel that by comparison the thing we are describing may indeed have possibilities.

We presume that you customarily call in the U.S.G.S. on matters of this kind. In the present circumstances, considerable time and expense would be saved if you gave us an expression of your feeling toward this matter and let us carry on as we have already spent considerable time and we are anxious to encourage development of the properties if there seemed any point in doing so.

Referring again to the samples being sent you, they are portions of much larger crystals and come from the zone right at surface. It would cost only a few hundred dollars to improve present roads to bring about satisfactory accessibility to the calcite deposits I refer to.

Would appreciate your letting us have a reply by wire or air mail in regard to giving us your reaction on this calcite matter.

Cordially yours,

Director

EKN:jr

RECEIVED BY THE U.S. GEOLOGICAL SURVEY

AS DEPT. OF THE INTERIOR

WASHINGTON, D. C.

NOV 10 1913

U.S. GEOLOGICAL SURVEY

WASHINGTON, D. C.

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CLASS OF SERVICE

This is a full-rate Telegram or Cablegram unless its deferred character is indicated by a suitable symbol above or preceding the address.

WESTERN UNION

1220

A. N. WILLIAMS
PRESIDENT

NEWCOMB CARLTON
CHAIRMAN OF THE BOARD

J. C. WILLEVER
FIRST VICE-PRESIDENT

SYMBOLS

DL=Day Letter

NT=Overnight Telegram

LC=Deferred Cable

NLT=Cable Night Letter

Ship Radiogram

The filing time shown in the date line on telegrams and day letters is STANDARD TIME at point of origin. Time of receipt is STANDARD TIME at point of destination

GK44 GOVT LG=TDC WASHINGTON DC VIA BAKER ORG 15 AL

EARL K NIXON=

702 WOODLARK BLDG PORTLAND ORG=

1943 A, 15 PM 5 11

SUBOPTICAL CALCITE USED BY POLAROID CORPORATION ALLOWS SLIGHT COLOR AND FEW VERY SMALL INCLUSIONS BUT NO INCIPIENT CRACKS IN PIECES NOT LESS THAN TWO INCHES ON EACH EDGE-VALUE TEN DOLLARS A POUND. POLAROID CLAIMS TO HAVE AMPLE SUPPLY NEAR LIVINGSTON, MONTANA AND INDIANO, CALIFORNIA. OPTICAL CALCITE USED BY BAUSCH AND LOMB AND OTHERS MUST BE COLORLESS AND ABSOLUTELY PERFECT IN CUTTINGS AT LEAST ONE INCH ON EACH EDGE. STILL LARGER SIZES PREFERRED. THESE SIZES DEFINITELY NEEDED. AT PRICES CONSIDERABLY ABOVE TEN DOLLARS. WE ARE ASKING GEOLOGICAL SURVEY TO INVESTIGATE=

H GORDON TAYLOR MISCELLANEOUS MINERALS DIVN
WAR PRODUCTION BOARD.

Calcutta

UNION PACIFIC RAILROAD COMPANY

DEPARTMENT OF TRAFFIC

JOE W. JARVIS,
SUPERVISOR AGRICULTURAL DEVELOPMENT

1416 DODGE STREET
OMAHA, NEBRASKA

(2)

August 14, 1944
File: Y-Personal

Mr. Ralph S. Mason
Industrial Engineer
State Department of Geology
and Mineral Industries
702 Woodlark Building
Portland 5, Oregon

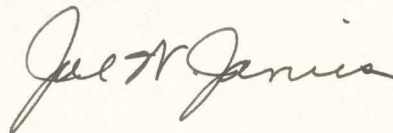
Dear Ralph:

Thank you for your letter of August 4 advising that optical-grade calcite requirements are now being curtailed. Mr. Taylor, of the War Production Board, advised me to that effect July 15. However, I appreciate very much your interest in keeping me informed.

I appreciate the time you and Wallace spent with me while I was in Portland and I hope to see you again when I am in that area.

With best personal wishes, I am

Sincerely yours,



M

R-

August 4, 1944

Mr. J. W. Jarvis
Union Pacific Railroad Company
1416 Dodge Street
Omaha 2, Nebraska

Dear Joe:

On the off-chance that Briggs has not written you re. the curtailment of requirements for optical-grade calcite by W.P.B., I thought you might be interested.

Apparently there will be no demand for calcite after the end of this year but whether this reflects an over-supply of the material as such or whether they are making use of the new technique whereby synthetic crystals are produced from molten crystal solutions, I do not know. In any event, it looks like the bottom has dropped out of the optical calcite market.

Sincerely yours,

Ralph S. Mason
Industrial Engineer

RSM: jr

10 June 1944

Mr. Joe W. Jarvis
Union Pacific Railroad Company
1416 Dodge Street
Omaha 2, Nebraska

Dear Joe:

Thanks for your letter of late May and I have put off answering it purposely as our Acting Director was away at that time.

I am still not certain whether or not I can accompany you and W. C. Stoll at the time you have in mind. As soon as I know for certain, I shall let you know. I realize it is not of particular importance that I accompany you, but I should like to if it can be conveniently arranged.

If I am not able to accompany you, I would appreciate hearing what Stoll has to say about the calcite deposits.

Very truly yours,

Wallace D. Lowry
Assistant Geologist

WDL: jr

UNION PACIFIC RAILROAD COMPANY

DEPARTMENT OF TRAFFIC

JOE W. JARVIS,
SUPERVISOR AGRICULTURAL DEVELOPMENT

1416 DODGE STREET
OMAHA, NEBRASKA
(2)

May 31, 1944

File: Y-2404-3342-6

Mr. Wallace D. Lowry
Assistant Geologist
State Department of Geology
and Mineral Industries
702 Woodlark Building
Portland 5, Oregon

Dear Wallace:

I am attaching a copy of a letter to
Walter C. Stoll, U. S. Geological Survey, which is
self-explanatory.

I would appreciate having you advise
if it would be possible to at least accompany Mr. Stoll
and myself the first day. Mr. Stoll has indicated to
me that he would like to spend 3 to 10 days on this
property and if possible I would like you to be with
him.

Sincerely yours,

Joe W. Jarvis

m

UNION PACIFIC RAILROAD COMPANY

DEPARTMENT OF TRAFFIC

JOE W. JARVIS,
SUPERVISOR AGRICULTURAL DEVELOPMENT

1416 DODGE STREET
OMAHA, NEBRASKA
(2)

May 31, 1944
File: Y-2404-3342-6

Mr. Walter C. Stoll
Field Geologist
Geological Survey
United States Department of the Interior
P. O. Box 93
Moscow, Idaho

Dear Mr. Stoll:

This will acknowledge your letter of May 22 with reference to viewing the calcite deposit in Malheur County, Oregon, which was in answer to my wire of May 12.

Because of securing Pullman space from Omaha, I now find that I cannot leave here until the morning of June 28; therefore, I cannot meet you that night at Ontario, but can meet you the night of June 29 and make the trip to the calcite on the 30th. It is most convenient to drive to Owyhee Dam, then have the Bureau of Reclamation man take us 12 miles above the dam on the lake by boat. This trip requires about 30 minutes. From the place where we leave the boat, it is about one-half mile to the first claim which requires about 30 minutes to walk. I will arrange with the Bureau of Reclamation to take us up. They usually prefer to leave the dam about 9:00 a.m.; therefore, we should leave Ontario about 7:00 a.m. the morning of June 30.

Since the calcite claims are in the hills it would be necessary to camp at the lake if you were to stay more than one day. However, since both your department and the Bureau of Reclamation are under the U.S. Department of the Interior it may be possible for you to arrange to have the man in charge at the dam take you up and bring you back each day. If you cannot work this out, then it would be necessary to have your sleeping bag and necessary camping equipment. When arranging for the boat I will plan to have them take us up the morning of the 30th and wait and bring up back the afternoon of the 30th, as it will be necessary for me to be back in Ontario that evening. Should you desire to stay 3 to 10 days I will be glad to meet you when you have finished your prospect work.

Mr. Wallace D. Lowry, Assistant Geologist, Oregon Bureau of Mines, is very familiar with the area, and I am asking him to accompany us the first day if it is at all possible. If you stay 3 to 10 days Mr. Lowry

may also desire to be with you, which can be worked out by you and him to your satisfaction after we find out whether Mr. Lowry can accompany us.

In the event you desire to contact me further, I could be reached in Omaha until June 28.

Will look forward to meeting you on the evening of the 29th at the Moore Hotel at Ontario and making the trip with you on the 30th.

Very truly yours,

Joe W. Jarvis
JOE W. JARVIS

m

CC - Mr. Wallace D. Lowry ✓
Assistant Geologist
State Department of Geology
and Mineral Industries
702 Woodlark Building
Portland 5, Oregon

UNION PACIFIC RAILROAD COMPANY

DEPARTMENT OF TRAFFIC

JOE W. JARVIS,
SUPERVISOR AGRICULTURAL DEVELOPMENT1416 DODGE STREET
OMAHA, NEBRASKA

(2)

June 2, 1944
File: Y-2404-3542-6Mr. Thomas Galante
618 Mt. Prospect Avenue
Newark 4, New Jersey

Dear Mr. Galante:

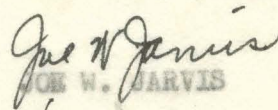
I have delayed answering your letter of April 17 with reference to calcite deposits in Malheur County, Oregon in which I have an interest, since I desired to try and secure suitable samples of the material. I have just returned from there and am sending you a few samples under separate cover. The samples are somewhat shattered but this can be expected where the material is taken out with ordinary equipment.

I am enclosing five 8x10 pictures which will give you a pretty good idea of the volume of calcite, and a report made by Mr. Wallace D. Lowry, Assistant Geologist, State Department of Geology and Mineral Industries, State of Oregon, July 8, 1943. Also, there are two maps enclosed which show the locations of the claims.

The property is free of all encumbrance. There is approximately a million or more tons of high grade calcite, but of course the optical quality calcite is found in small veins within the large veins. The property is 11 miles from a railroad and a road can be easily built. My associates and I are willing to offer you this property at a sale price of \$100,000.

If you are interested in looking into this further, I would be glad to show you the property and would prefer to do this on June 30 as I will be making a trip there at that time. I would appreciate having the samples, report, maps and pictures returned if you are not interested at this time.

Very truly yours,


JOE W. JARVIS

March 28, 1944

Mr. Joe W. Jarvis
1416 Dodge Street
Omaha 2, Nebraska

Dear Joe:

I was glad to get your letter of March 15, but I am afraid I cannot offer much encouragement at this time. As you know, Ralph Mason was to close up operations shortly after your visit and did come back some time ago. I wish that we could have continued the exploration, but our funds did not permit it. I feel that some of these veins may still have economic possibilities but they will have to be carefully selected.

I think Ralph will send you a copy of his report concerning the exploration work done and then you can gather from it the possibilities of obtaining optical grade material from one of the veins which may be fairly representative of them all. However, this does not rule out the possibility of developing any particular one. As far as optical grade material is concerned that is of sufficient size for critical needs today, I think the smaller veins or some of the minor branches of the larger veins offer the best possibilities, as they would probably limit the number of centers from which crystal growth would develop.

There is a possibility that we may try to do some additional work in this area this summer when conditions are more favorable. We shall keep you informed of our plans.

Very truly yours,

W. D. Lowry
Assistant Geologist

WDL:ff

UNION PACIFIC RAILROAD COMPANY

DEPARTMENT OF TRAFFIC

JOE W. JARVIS,
SUPERVISOR AGRICULTURAL DEVELOPMENT

1416 DODGE STREET
OMAHA, NEBRASKA

(2)

March 15, 1944
File: Y-2404-3342-6

Mr. Wallace D. Lowry
State Geologist
State of Oregon Department
of Geology
702 Woodlark Building
Portland, Oregon

Dear Wallace,

I am pleased to advise that two very enjoyable days were spent with Mr. Ralph Mason and Mr. Briggs in looking over the calcite deposits in Malheur County, Oregon. Mr. Mason is certainly a very fine fellow and put forth every effort to show Mr. Briggs and myself the deposits as well as the development work that is being done.

It finally worked out so that we were able to get Mr. Stockham, at the Owyhee Dam, to take the government boat and take us up to my deposits.

On Friday, after visiting the deposits and discussing them with Mr. Briggs, he expressed the hope that some development work could be done on my deposits, either by the State Department or by the Bureau of Mines. He felt that every possible channel should be explored before it was definitely decided that optical grade calcite was not present. As pointed out before, in the event you desire to do some development work, my associates and I will grant you permission to work on our deposits. Will look forward to hearing from you.

Very truly yours,

Joe W. Jarvis

Joe Jarvis
Union Pacific
Moscow, Idaho

Ralph Mason of our dept. now prospecting
claims on west side of reservoir. Mason
knows of Briggs' coming. Probably he can meet
you & Briggs at Ontario or Vale if notified
well in advance. He is camped at Iceland Spar 1+2
& mail is uncertain. His address is Box ~~517~~ 517,
Ontario.

Sent over
Union Pacific
teletype JK 2-28-44

W.D. Lowry
GMI

No home phone listed

115RA

1944 FEB 26 PM 10 57

LAGR 26 1025P

WALLACE D LOURY, STATE OF OREGON, DEPT OF GEOLOGY, 703 WOODLANK BLDG,
PORTLAND (OPERATOR PHONE RESIDENCE)

HAVE HAD CONSIDERABLE EXCHANGE CORRESPONDENCE WITH CHARLES BRIGGS
OF DONALD M MURRAY CO NEWY YORK WITH REFERENCE CALCITE DEPOSIT MALHEUR
CO, WAS REFERRED TO ME BY WPB BRIGGS ADVISES BY WIRE TODAY HAS
MADE ARRANGEMENTS WITH YOUR DEPARTMENT VISIT IDEPOSITS AND PLANS LEAVE
NEW YORK MARCH 4TH AM TRYING ARRANGE MEET HIM BOISE ON 7TH, IF YOU
HAVE ANYTHING NEW ADVISE MOSCOW, IDAHO. WILL BE THERE UNTIL NOON MAR
2ND.

JOE W JARVIS.

RA

HONED
No. Br 2276
By BF
To W D Loury
Time 10 55 28th

C
T
E
S
O
S

Sent via Union Pacific teletype

SERVICE	3 MIN RADIOGRAM
---------	--------------------

Patrons should check class of service desired; otherwise the message will be transmitted as a telegram or ordinary cablegram.

A. N. WILLIAMS
PRESIDENTWESTERN
UNIONNEWCOMB CARLTON
CHAIRMAN OF THE BOARDJ. C. WILLEVER
FIRST VICE-PRESIDENT

1206

CHECK

ACCOUNTING INFORMATION

TIME FILED

Send the following telegram, subject to the terms on back hereof, which are hereby agreed to

SEPTEMBER 21, 1943

WANT A REPLY?

"Answer by WESTERN UNION"
or similar phrases may be
included without charge.

MR. JOE W. JARVIS
1416 DODGE STREET
UNION PACIFIC RAILROAD
OMAHA, NEBRASKA

HAVE REQUESTED TAYLOR WPB TO FORWARD SPECIMENS/SENT THEM TO YOU THERE. LARGEST
PIECE IS FROM YOUR PROPERTY.

WALLACE D. LOWRY

1943 SEP 20 PM 1 06

201U

1943 SEP 20 AM 10 20

OMAHA 20 1204P

WALLACE D LOWRY

STATE DEPT OF GEOLOGY 702 WOODLARK BLDG PORTLAND ORE
HAVE HAD REQUEST FROM EASTERN CONCERN FOR BEST SAMPLES OPTICAL
CALCITE SECURED FROM CALCITE DEPOSIT IN MALHEUR COUNTY. APPRECIATE
YOU AIR EXPRESSING ME BEST SAMPLES YOU HAVE ON HAND. ADVISE
JOE W JARVIS UPRR OMAHA.

PHONED

No. *Bz 2276*

By *B.J.*

To *W.D. Lowry*

Time *3 30*

U

Charge to the account of

CLASS OF SERVICE DESIRED	
DOMESTIC	CABLE
TELEGRAM	ORDINARY
DAY LETTER	URGENT RATE
SERIAL	DEFERRED
OVERNIGHT TELEGRAM	NIGHT LETTER
SPECIAL SERVICE	SHIP RADIOGRAM

Patrons should check class of service desired; otherwise the message will be transmitted as a telegram or ordinary cablegram.

WESTERN UNION

1206

\$

CHECK

ACCOUNTING INFORMATION

TIME FILED

A. N. WILLIAMS
PRESIDENT

NEWCOMB CARLTON
CHAIRMAN OF THE BOARD

J. C. WILLEVER
FIRST VICE-PRESIDENT

Send the following telegram, subject to the terms on back hereof, which are hereby agreed to

WANT A REPLY?

"Answer by WESTERN UNION"
or similar phrases may be
included without charge.

JULY 19, 1943

MR. JOE JARVIS
UNION PACIFIC
ONTARIO, OREGON

NIXON CONFERRED WITH TAYLOR OF WAR PRODUCTION BOARD RE CALCITE. TAYLOR STATES
CRYSTALS IN VUGS COMMONLY BEST. TAYLOR ALSO URGES DEEPER DEVELOPMENT ON MALHEUR
COUNTY DEPOSITS. CRYSTALS MUST BE ABSOLUTELY FREE OF FLAWS. PERFECT CRYSTALS
THREE INCHES SMALLEST DIMENSION WORTH UP TO ONE HUNDRED DOLLARS PER POUND.

Send Day Letter
Charge to: State Dept. of Geology
702 Woodlark Building

WALLACE D. LOWRY
STATE DEPARTMENT OF GEOLOGY

1943 JUL 18 PM 9 36

1943 JUL 18 PM 10 44

240CA

ONTARIO 18 515P

WALLACE D LOWRY ASST GEOLOGIST STATE DEPT GEOLOGY 702 WOODLARK
BLDG PORTLAND ORE

APPRECIATE YOUR WIRING ME ONTARIO IF E K NIXON REPORT BEING PRESENTED
IN WASHINGTON COVERS CALCITE PROPERTY AND HAVE YOU HAD ANY ^{world} WORK FROM
WAR PRODUCTION BOARD

JOE W JARVIS. *U.S.*

RECEIVED
JUL 21 1943

STATE DEPT OF GEOLOGY
& MINERAL INDS.

PHONED

No. *Br 2271*

By *G. Christy*

To *Wallace Lowry*

Time *10:25*

1943 JUL 18 PM 10 43

PORT

CUR 240 SHD RD ANY WORD FROM WAR PRODUCTION BOARD RPT WORD IS
CORRECT

CA.

May 9, 1944

Ration Board No. 9
7648 NE Glisan
Portland, Oregon

Gentlemen:

Mr. A. W. Hancock has informed me that he has made application for some extra gasoline for the purpose of going into eastern Oregon to prospect for optical calcite crystals. Mr. Hancock had told me that he had found specimens of such material on some previous trips he had made into the district somewhere south of Huntington.

Optical calcite is a quite critical material needed in the war program. It is the only satisfactory material for use in polarizing microscopes and also certain optical instruments used directly at the war fronts. The present supply is insufficient for war needs.

Mr. Hancock is thoroughly reliable and is experienced in mineral prospecting. I hope that you will be able to supply him with the gas he needs for this prospecting trip.

Very truly yours,

F. W. Libbey
Acting Director

FWL:ff

Washington, D. C.

CALCITE SPECIFICATIONS

January 4, 1944

Following are specifications for optical calcite (Iceland spar) as required by the Polaroid Corporation for the manufacture of Optical Ring Sights.

Material for this purpose need not be first grade optical spar but must be clear and transparent. Each usable piece must contain a usable portion of such size and quality as to yield one or more disks 1-1/8" in diameter by 1/8" thick, cut normal to the optic axis, clear and transparent, free from twinning (except basal), and free from all cracks and most flaws. A faint color and a few very fine inclusions are permitted, insofar as they do not interfere with clear vision. The extent to which color and minute imperfections can be tolerated will depend on whether or not they are noticeable in the finished sight. Basal twinning is not objectionable but no other type of twinning is allowable in the disk.

The smallest cleavage rhomb from which a disk of the required size can be cut is 1x1x1 inches. Cleavage pieces less than 1" thick cannot be used, regardless of length or width. Crystals of tabular habit, in which the optic axis is normal to the plate, may be comparatively thin (3/16 inch) but such crystals have been produced from only one locality in the U.S. (Truckhaven).

Optical calcite is fragile and easily damaged. Trimming should be avoided, except where obviously worthless material can easily be removed to save shipping weight. When packed for shipment, pieces should be separately wrapped.

H. G. Taylor

LEO J. COADY, CONTRACTOR

OPTICAL CALCITE PROJECT

P. O. Box 925

LIVINGSTON, MONTANA

March 21, 1944

Mr. Ralph S. Mason
State Department of Geology
and Mineral Industries
702 Woodlark Building
Portland 5, Oregon

Dear Mr. Mason:

This will acknowledge your letter of March 15, 1944 regarding exploratory work which you are conducting on calcite veins in eastern Malheur County, Oregon.


From your description of the occurrence of calcite veins and the country rock in which they are found, it would appear that the occurrence is more or less similar to the calcite veins in Park County, Montana, which we are exploiting.

In Park County, Montana, calcite veins are found throughout an area 100 miles long and 60 miles wide. The terrain is rolling hills suitable for grazing or semi-agricultural purposes. The out-crops in some places are revealed by calcite "float" in others they are covered with soil from a few to many feet in depth. Where the veins are covered it is our practise to expose them by using a D-7 angledozer and remove the over-burden by trenching and open cuts. All this in an effort to expose "eggs" indicative of "vugs" or cavities below. So far the only Optical Calcite we have found occurs in "vugs". The use of an angledozer was quite practical and successful until the ground became frozen. This practise has been discontinued until such time as the ground thaws in the Spring.

When surface work indicates cavities below shallow shafts are sunk and drifts run. Over-hand stoping seems more successful in removing crystals than any other approach to this problem which we have tried. While we are still in the experimental stage, our practise in removing the crystals has been to use paving breakers, chippers and the "wiggle-tail" buzzy which was in common use some years ago. We are currently using a 17% powder and will shortly try out a 4% black powder. We have found that in shaft sinking our acceptance of crystals is low and many crystals are injured. The very nature of shaft sinking makes this obvious.

Should you desire any further information regarding our operations or have any other questions in mind, feel free to write me.

Very truly yours


LEO J. COADY

March 15, 1944

Mr. Leo Coady
% Murray Hotel
Livingston, Montana

Dear Mr. Coady:

This department has been conducting some exploratory work on a number of veins of calcite in eastern Malheur county, Oregon, which may possibly contain material suitable for optical purposes. We are unfamiliar with the various techniques connected with extraction and preparation of optical quality spar, and felt that since you are familiar with calcite operation near Livingston, that you might be able to give us some advice.

The Malheur deposits outcrop through nearly horizontal lake beds, and have a vertical dip with widths varying from a few inches to fifteen or twenty feet. The calcite ranges in purity from almost a calcareous-bonded sandstone to the perfectly limpid portions containing no visible coloring, clouds or bubbles. The veins are uniformly solid and tight, with few, widely spaced fractures and an occasional solution channel.

Our problem is not to locate sections of the vein which might contain suitable material as much as it has been to remove these portions safely once they have been located. The vein is so tight and the material so resistant that to date we have not succeeded in removing any great amount of unfractured calcite which was perfectly free from other impurities. We would greatly appreciate any information which you might have pertaining to the removal of calcite rhombs from a large body, and any other techniques which are used in the mining operation as a whole.

Sincerely yours,

Ralph S. Mason
Engr. for the Dept.

THE UNIVERSITY OF NEW MEXICO
ALBUQUERQUE

DEPARTMENT OF GEOLOGY

March 20, 1944

Mr. Ralph S. Mason
State Department of Geology and Mineral Industries
702 Woodpark Bldg
Portland 5, Oregon

Dear Mr. Mason:

I have had no actual experience in the mining of Iceland spar. However, in talking with the operators at the Iceberg claim I judged that getting it out without fracturing is often a problem. They used bars, wedges, and picks with a minimum of blasting. With a deposit as tight as you describe it would seem that mining alongside might be the solution. With one wall exposed it might be possible to bar out the good parts.

H. H. Hughes in U. S. Bur. of Mines Information Circular 6468 describes a method of filling holes with lime which on setting may loosen up the material. I would suggest that you correspond with Mr. Hughes. He may be in touch with recent efforts at mining and be in a better position to give you some help.

Very sincerely yours,

Vincent C. Kelley
Vincent C. Kelley

March 18, 1944

Mr. W. M. Schmeykal
Mr. F. L. Muckensturm
919 North 19th Street
Boise, Idaho

Gentlemen:

This will acknowledge receipt of your letter of March 8 and the agreement forms enclosed. We regret that due to the fact that our calcite project in Malheur County had been completed prior to the time your letter was received, that no exploratory work can be performed on your leases. We had a crew of five men working in your locality for more than a month during which time a considerable amount of exploration work was accomplished. There is a remote possibility that we may be doing some additional work in this area in the future and if so, we will be glad to get in touch with you again.

Sincerely yours,

Ralph S. Mason
Industrial Engineer

RSM:ff

State Department Of Geology
and Mineral Industries,
Portland, Oregon,

Boise, Idaho,
March 8th,
I 9 4 4.

Mr. Ralph S Mason,
Industrial Engineer,

(Re, Iceland Spar)

Dear Mr. Mason;

Your letter was received,
together with the agreements, regarding the Iceland Spar Deposits,
which we hold on Lease & Option, in Malheur County, Oregon.

We found it necessary to make additions and reservations, to
the Agreement that we hold with the owner and we trust that the
enclosed completed Agreements will meet with your approval.

We will be very glad to co-operate with your contemplated
exploratory work as much as possible.

When the Agreements are approved, notarized and returned, we will
present same to owners for their signatures.

We hope that the project will proceed at an early date, and to
a successful conclusion.

Thanking you for your interest shown, we are

Sincerely Yours,

W. M. Schmeikal
W. M. SCHMEYKAL
F. L. MUCKENSTURM
BOISE, IDAHO.
919 NO. 19 TH ST.

THIS AGREEMENT entered into this _____ day of _____, 19____, between State of Oregon, acting by its State Department of Geology and Mineral Industries, party of the first part, and Messrs. Schmeykal & Muckensturm, of Boise, State of Idaho, party of the second part, witnesseth:

WHEREAS, party of the second part is the lessee of the following described
(Owner or lessee)
real property, including mineral rights, situate in Malheur County, State of Oregon,
to-wit:

Island Spar Nos. 1 and 2, Iceland Spar No. 3 located in
T. 23 S., R. 43 and 44 E. in Malheur County.

AND WHEREAS, party of the first part desires to enter upon exploration work for coal or other mineral deposits on said real property,

NOW, THEREFORE, said parties have agreed and do hereby agree as follows:

(1) Party of the second part hereby grants to party of the first part the right to enter upon said real premises, and to prospect, drill, bore and explore for coal or other minerals in, upon, or under said lands, and to build and maintain thereon all works, structures and equipment convenient to the prosecution of such operations.

(2) The party of the first part and its authorized representatives and employees shall have free access to and free and uninterrupted use of the whole and any portion of said lands, at any and all times during the period of this agreement, and may conduct its operations thereon without restriction as to locations.

(3) All tools, equipment, structures and improvements placed on or in said premises by party of the first part, shall be and remain the property of party of the first part, and may be removed by it at any time during or after the period of this agreement.

(4) Party of the first part shall not be liable for damages resulting from its use of said lands in conducting its operations thereon.

(5) All quantitative and qualitative data on coal or other mineral deposits on or in said premises obtained by party of the first part may be publicly reported by party of the first part.

(6) This agreement shall remain in full force and effect for a period of 2 years from the date hereof.

(7) In the event this agreement is executed by a lessee or other person not the owner of the above described premises, this agreement shall not become effective until the owner consents to the execution and the terms and provisions of this agreement.

STATE OF OREGON,
STATE DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES

By _____
Director. Party of the First Part

Page No. 2, is a continuation of and is an integ-

THIS AGREEMENT entered into this _____ day of _____, 19____, between State of Oregon, acting by its State Department of Geology and Mineral Industries, party of the first part, and Messrs. Schmeykal & Muckensturm, of Boise, State of Idaho, party of the second part, witnesseth:

WHEREAS, party of the second part is the lessee of the following described (Owner or lessee) real property, including mineral rights, situate in Malheur County, State of Oregon, to-wit:

Island Spar Nos. 1 and 2, Iceland Spar claims located in T. 23 S., R. 43 and 44 E., in Malheur County.

AND WHEREAS, party of the first part desires to enter upon exploration work for coal or other mineral deposits on said real property,

NOW, THEREFORE, said parties have agreed and do hereby agree as follows:

(1) Party of the second part hereby grants to party of the first part the right to enter upon said real premises, and to prospect, drill, bore and explore for coal or other minerals in, upon, or under said lands, and to build and maintain thereon all works, structures and equipment convenient to the prosecution of such operations.

(2) The party of the first part and its authorized representatives and employees shall have free access to and free and uninterrupted use of the whole and any portion of said lands, at any and all times during the period of this agreement, and may conduct its operations thereon without restriction as to locations.

(3) All tools, equipment, structures and improvements placed on or in said premises by party of the first part, shall be and remain the property of party of the first part, and may be removed by it at any time during or after the period of this agreement.

(4) Party of the first part shall not be liable for damages resulting from its use of said lands in conducting its operations thereon.

(5) All quantitative and qualitative data on coal or other mineral deposits on or in said premises obtained by party of the first part may be publicly reported by party of the first part.

(6) This agreement shall remain in full force and effect for a period of 2 years from the date hereof.

(7) In the event this agreement is executed by a lessee or other person not the owner of the above described premises, this agreement shall not become effective until the owner consents to the execution and the terms and provisions of this agreement.

STATE OF OREGON,
STATE DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES

Page No. 2, is a continuation of and is an integral part of this agreement.

By _____
Director, Party of the First Part

X _____ (Seal)

Party of the Second Part

CONSENT OF OWNER

The undersigned, as owner of the land and mineral rights described in the foregoing agreement, which he has leased to _____, the party of the second part to said instrument, does hereby consent to the execution of said agreement and the terms and provisions thereof, and does hereby join therein.

Field
Office ✓
Owner & Lessee

THIS AGREEMENT entered into this _____ day of _____, 19____, between State of Oregon, acting by its State Department of Geology and Mineral Industries, party of the first part, and Messrs. Schmeykal & Muckensturm, of Boise, State of Idaho, party of the second part, witnesseth:

WHEREAS, party of the second part is the lessee of the following described (Owner or lessee) real property, including mineral rights, situate in Malheur County, State of Oregon, to-wit:

Island Spar Nos. 1 and 2, Iceland Spar No. 3 claims located in T. 23 S., R. 43 and 44 E., in Malheur County.

AND WHEREAS, party of the first part desires to enter upon exploration work for coal or other mineral deposits on said real property,

NOW, THEREFORE, said parties have agreed and do hereby agree as follows:

(1) Party of the second part hereby grants to party of the first part the right to enter upon said real premises, and to prospect, drill, bore and explore for coal or other minerals in, upon, or under said lands, and to build and maintain thereon all works, structures and equipment convenient to the prosecution of such operations.

(2) The party of the first part and its authorized representatives and employees shall have free access to and free and uninterrupted use of the whole and any portion of said lands, at any and all times during the period of this agreement, and may conduct its operations thereon without restriction as to locations.

(3) All tools, equipment, structures and improvements placed on or in said premises by party of the first part, shall be and remain the property of party of the first part, and may be removed by it at any time during or after the period of this agreement.

(4) Party of the first part shall not be liable for damages resulting from its use of said lands in conducting its operations thereon.

(5) All quantitative and qualitative data on coal or other mineral deposits on or in said premises obtained by party of the first part may be publicly reported by party of the first part.

(6) This agreement shall remain in full force and effect for a period of 2 years from the date hereof.

(7) In the event this agreement is executed by a lessee or other person not the owner of the above described premises, this agreement shall not become effective until the owner consents to the execution and the terms and provisions of this agreement.

STATE OF OREGON,
STATE DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES

By _____
Director, Party of the First Part

Page No. 2, is a continuation of and is an integral part of this agreement.

(Seal)

April 11, 1944

Mr. William Matevia
1119 Lee Street
Boise, Idaho

Dear Mr. Matevia:

We have just received very encouraging word from one of the calcite cutters in New York, who examined some of the material we sent from the Bombsight Claim. Although the calcite was not of optical grade, it was very nearly so, and this company indicated that it was much interested in the material.

This news somewhat raises our hopes for finding salable material in the vicinity of Dry Creek, and we are tentatively planning on doing some additional work there, possibly this summer. Should this projected exploration program transpire, we should like to be in a position to perform at least a part of the work on the Iceland Spar group jeld jointly by you and Tonning.

We would appreciate it if you would advise us what the present legal status of your holdings is and whether you will be in a position to grant us permission to work on them.

Sincerely yours,

R. S. Mason
Industrial Engineer

RSW:ff

March 21, 1944

Mr. M. P. Tomning
420 South Fourth
Boise, Idaho

Dear Mr. Tomning:

We regret that we will be unable to do any work on your calcite properties in Malheur County at the present time. After spending nearly five weeks in the vicinity of your holdings, we have completed the project and the camp has been abandoned. Until further test work is completed here in the office, it will be impossible to know just what our future plans will be with respect to additional work on possible optical calcite deposits in Malheur County, but we hope that some more work can be done. We will, of course, advise you if we decide to resume exploration, and trust that your leases will be in such shape that you can give us permission to work on your ground.

Sincerely yours,

R. S. Mason
Industrial Engineer

RSM:ff

RECEIVED
FEB 7 1944

STATE DEPT OF GEOLOGY
& MINERAL INDS.

Boise Idaho
2/ 5 /44

State Dept. of Geology
Portland Ore.
Gentlemen-

I have your letter of Jan 31 44 addressed to Matevia and Myself, stating that you would like to do some exploration work on our Calcite Claims in Malheur County, and in regard to Messrs. Schmeykal and Muckenstrum We consider their Lease Null and Void as they have failed to live up to their agreement, and I notified them to that effect last July as soon as I returned to Boise.

On Oct. 5 /43 We executed a contract for sale of the property to some Montana People , We put a Deed in Escrow for six months which will expire on April 5 44 in the event they do not fulfill their agreement, so until then we are not at liberty to sign the agreement enclosed in your letter.

In the event that this contract expires ,We are going to take legal action against Messrs. Schmeykal and Muckenstrum, to clear our title.

After this is all settled We will be glad to co-operate with you in any manner that we can.

I am located in Boise perminintly ,and if I can help you in any way I will be glad to do so. If you are interested in Coal in Oregon I can show you a couple of good Coal Blossoms that will measure about six to eight Feet in depth. as I have some Coal Leases in Malheur County ,and have spent a lot of time and Money working this property.

Yours truly

M P Tonning
M P Tonning
420 So. 4th St.

31 January 1944

Mr. William Matevia
Mr. M. Tanning
1119 Lee Street
Boise, Idaho

Gentlemen:

This department is intending to do some exploratory work on the Iceland Spar claims, Nos. 1, 2, and 3, along the lines mentioned in the enclosed carbon copy addressed to Messrs. Schmeykal and Muckensturm. Mr. O. O. Bailey was in the office today and indicated that you are desirous of breaking your current lease agreement with Messrs. Schmeykal and Muckensturm, but pending the accomplishment of this action, we are endeavoring to secure their written permission to enter upon the premises. However, in the event that you are successful in terminating this lease at an early date while we are still on the ground, we would like to have you complete the enclosed forms, as owners, so that we may be completely in the clear with regard to entry upon these claims. Since we are hoping to be in the field shortly, we would appreciate your prompt attention to this matter.

Sincerely yours,

R. S. Mason
Industrial Engineer

RSM:ff
Enclosure

September 14, 1943

Mr. Dallas Gordon
Home Hotel
105 No. 11th Street
Boise, Idaho

Dear Mr. Gordon:

In regard to your inquiries, I can give you the following information.

Messrs. William Matevia and M. P. Tanning hold three calcite claims located on the west side of the Owyhee Reservoir. As I understand it, they have leased these properties to Messrs. Schmeykal and Muckensturm, but their lease may be voidable. That is not for us to decide, of course. These claims, especially the one known as Iceland Spar no. 3, warrant development.

I am enclosing a copy of the report dealing with these properties. Please remit the purchase price of this report, which is 10¢. I would think that \$300 or \$400 development work on this one claim would show whether or not there is material of optical grade present.

It is interesting to know there is rich high gravel on the middle fork of the Boise River. I hope this proves of value to you.

Please feel free to write us for further information concerning these calcite claims. We shall be very glad to help you in any way as we would like to see the properties put into production.

Very truly yours,

Wallace D. Lowry
Assistant Geologist

WDL:jf
Encl.



HOME HOTEL

JULIA ROWE, PROP.
105 NO. 11TH STREET
BOISE, IDAHO

Sept 8th 43

Mrs. Wallace Lawry;
Portland, Oregon.

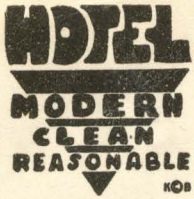
Dear Sir:

I am dropping you a line in regards to a Calcite property owned by Mr Wm Materia & M.P. Jones. These parties wish me to handle this property.

I am writing to you for advice. As I don't know anything about this kind of ore.

Would you be interested in developing this property? If not do you think I should form a small Company and see what this ore will show at depth.

I have been prospecting for years. I wish to tell you about our placer ground, which is located



HOME HOTEL

JULIA ROWE, PROP.

105 NO. 11TH STREET

BOISE, IDAHO

on the middle fork of Boise River
I have sampled the high channel
which made an average of .80¢ per yd.
I used a pump to make these
tests and sold the gold with a
10% discount. The average gold
brought \$28.00. This is high channel
on side of river.

We have 100 acres of high channel
The river proper is the richest
placer that I have ever sampled
Test no 1 6 ft. deep. \$2.50 per yd.
" " 2 in center of river. 1000 ft
above test no 1 \$3.00 per yd.

In 1932 there were 17 miners working
on this ground. With long tons
their earnings were from \$1.50 to \$3.00
per day.

A dredge above us was doing
quite well. I claim this river
to be a natural sluice box. This
will be a large operation. Hoping to hear
from you soon. Yours Truly. Dallas Gordon

Zone 5
July 24, 1943

Messrs. William Matevia & M.P. Tanning
c/o William Matevia
1410 N. 11th Street
Boise, Idaho

Gentlemen:

Enclosed is a copy of the report on the calcite occurrences near the Owyhee Reservoir, Malheur County, Oregon. We have sent a copy of this report to the lessees of your properties.

Our Department urges that you insist on the development of these deposits by the lessees. We are anxious to determine if there is material of optical grade present and if so, to hasten them into production.

Feel free to ask our advice and cooperation.

Very truly yours,

Wallace D. Lowry
Assistant Geologist

WDL:jr
Encl.

Zone 5
June 22, 1943

Messrs. William Matevia & M. Tonning
Boise
Idaho

Dear Sirs:

Our Department has received a report on the samples of calcite we sent recently to Bausch & Lomb Optical Co., Rochester, New York. They stated that the samples did not meet their rigid requirements but that they would be glad to inspect any further samples we submit. They enclosed a list of their specifications.

This reply was more or less anticipated as most of the samples submitted were taken from or very near the surface of your claim, Iceland Spar No. 3. Rather than become discouraged, we are inclined to take the "we'll show you" attitude.

As yet, I have not received an answer to the letter I sent you June 9th. We are very interested in seeing you develop this property. We wish to know your plans in this regard for the immediate future.

To get below the zone of weathering in which there has been much deterioration of the calcite, a depth of over 20 feet may be necessary. But as you go down on the vein even as much as 10 feet, the showings should invite further exploration. I noted a marked improvement in the several feet that I went down on the vein.

As taken from the list of specifications sent us by Bausch & Lomb, the minimum sizes of finished prisms are:

- (1) 1/2 inch x 1 inch x 1 inch.
 - (2) 3/4 inch x 3/4 inch x 1 1/4 inches.
 - (3) 1 inch x 1 inch x 1 inch.
 - (4) 1 5/8 inches x 1 5/8 inches x 1 5/8 inches.
- Larger sizes are, of course, preferred.

Enclosed is the latest issue of the "Ore.-Bin", periodical of our Department, which contains an article on Iceland spar which may interest you.

Please write and let us know what you are doing; enclosed is a reply envelope.

Sincerely yours,

WDL:jr
Encl.

Wallace D. Lowry
Assistant Geologist

Zone 5
June 9, 1943

Messrs. William Matevia and M. Tonning
Boise
Idaho

Dear Sirs:

I examined the more important calcite deposits in Malheur County recently. Before visiting the properties, I tried to get the names and locations of all such claims from the County Clerk's office at Vale, Oregon. I managed to secure the names and owners of most claims. I noticed (and previously knew, from the report by Mr. Wagner, our Baker field engineer) that you held Iceland Spar nos. 1 and 2 which you have leased.

However, I failed to get the owner's name of Iceland Spar no. 3. I examined Iceland Spar nos. 1 and 2 and later Iceland Spar no. 3. While on the latter property, I noted the development work and looked for the location notice which I did not find.

As I was staying with the Duggers at Twin Springs, I asked Dave what he knew of the claims. He said he had done the location work on Iceland Spar nos. 1 and 2 but that as far as Iceland Spar no. 3 was concerned, he thought you had filed on it but did not know of anyone's having done the location work.

Later upon returning to Vale, I rechecked the Clerk's records and found that you had recorded a proof of labor for the year 1942. The first time, I had noted Dave Dugger's name, and as I did not have any owner's name for Iceland Spar no. 3, supposed it was he who was the owner. He knew nothing of this and I later found instead that he had witnessed the procedure.

Whether or not the claim has been correctly and rightfully made is not for me to say. I hope that everything is in order, for I want you to do some development work on Iceland Spar no. 3. Of the properties I visited, this claim seemed one of the better as far as optical calcite possibilities are concerned. I spent as much time and energy as I could going down several feet on the vein. I obtained some fairly "good-looking" and, to me, promising samples, some of which I have sent out to be adjudged. I will let you know the results.

But these samples were taken from near the surface and naturally have been affected by atmospheric weathering and ground water action. At a depth of 15 feet or more, there should be a marked improvement - I noted it as I went down several feet.

31 January 1944

Mr. W. M. Schmeykal
Mr. F. L. Muckensturm
919 North 19th Street
Boise, Idaho

Gentlemen:

This department is contemplating doing some exploratory work on the Iceland Spar claims, Nos. 1, 2, and 3, which we understand you hold under lease from Messrs. Matevia and Tonning. Before we can start any such anticipated work, we must have written permission from the lessees and possibly the owners, if the lease is so drawn up. If you have no objections to having this work done, we wish you would complete and return to us promptly the three prospecting agreement forms which we are enclosing.

Our program at the present time calls for doing a minor amount of trenching and sinking, the object being to determine whether any optical grade calcite exists below the frost line. If your lease is so written that consent must be obtained from the owners for a program such as ours, would you please see that Messrs. Matevia and Tonning sign at the bottom of the forms at the space provided under "CONSENT OF OWNER" and have them forward same to us. Since we hope to start this work in the near future we would appreciate your expediting this matter.

Sincerely yours,

R. S. Mason
Industrial Engineer

RSM:ff
Enclosure
cc Messrs. Matevia and
Tonning

August 26, 1943

S. & M. Associated Mines
919 N. 19th Street
Boise, Idaho

Gentlemen:

We received your letter dated August 21. Before we can give you information regarding priorities, it is necessary for us to know what you have done in the way of recent development. You say that you will keep me informed of the progress made, but as yet we have had no specific information as to what you have done or what material you have recovered.

Please advise us of your progress and we will see if it warrants further encouragement. We are very interested in getting the deposits in that region into production, but the actual development work is your job. Please be specific when you write in the future.

Very truly yours,

Wallace D. Lowry
Assistant Geologist

WDL:jr

S. & M. ASSOCIATED MINES
Strategic-Minerals
Boise- Idaho.

Aug. 21, 1943.

STATE DEPARTMENT of GEOLOGY
and MINERAL INDUSTRIES,
702-Woodlark Bldg.,
Portland, Oregon,
Zone 5.

Mr. Wallace D. Lowery,
Ass't Geologist,

Dear Sir;

Your recent letter and extensive report on the Iceland Spar was received ,with sketches, for which we wish to express our appreciation and thanks for same.

Any further letters or Data that you may forward to us will be greatly appreciated, especially pertaining to prioritys ,war production board, etc. If you could at this time, recommend the property as worthy of extensive developement, the same would be valuable in assisting us to expedite production of Spar.

We will keep you informed from time to time of progress made. We expect to make considerable progress in the near future. Again thanking you for past favors, we are

Very Truly Yours,

W. M. Schmeykal
W. M. SCHMEYKAL
F. L. MUCKENSTURM,
BOISE, IDAHO.
919-NO. 19 TH ST.

Zone 5
July 24, 1943

S. & M. Associated Mines
919 N. 19th Street
Boise, Idaho

Gentlemen:

Enclosed is a copy of the report on the calcite occurrences
in Malheur County, Oregon.

Mr. Nixon, Director of our Department, returned recently from
Washington where he contacted Gordon Taylor, Chief of the
Misc. Minerals Div., War Production Board. Taylor strongly
urged the development of these deposits, stating that pieces
of optical calcite three inches thick were selling for as
much as \$100 a pound.

I received your letter dated July 9 and wish to hear what
you have done since then.

Very truly yours,

Wallace D. Lowry
Assistant Geologist

WDL:jr
Encl.

Zone 5
June 22, 1943

S. & M. Mines
919 N. 19th Street
Boise, Idaho

Gentlemen:

Our Department has received a report on the samples of calcite we recently sent to Bausch & Lomb Optical Co., Rochester, New York. They stated that the samples did not meet their rigid requirements but that they would be glad to inspect any samples we submit. They enclosed a list of specifications.

This reply was more or less anticipated as the samples submitted were taken from or very near the surface. Though they looked promising, they were not suitable for their optical use. Rather than become discouraged, we are inclined to take the "we'll show you" attitude. Consequently we desire the continued development of the calcite property which you have leased. We shall be glad to advise you regarding the development of the deposit, and if you wish, submit your samples for examination.

It seems certain that you must get below the zone of weathering if you are to obtain unweathered calcite. As you go down on the vein, the showings should invite further exploration.

The minimum sizes of finished prisms used by Bausch & Lomb Optical Co. are:

- (1) 1/2 inch x 1 inch x 1 inch.
 - (2) 3/4 inch x 3/4 inch x 1 1/4 inches.
 - (3) 1 inch x 1 inch x 1 inch.
 - (4) 1 5/8 inches x 1 5/8 inches x 1 5/8 inches.
- Larger sizes are, of course, preferred.

We more recently sent in samples to the War Production Board with descriptions of the deposits and are awaiting the return from the field of the man in charge of the Division concerned.

Enclosed is the latest issue of the "Ore.-Bin", periodical of our Department, which contains an article on Iceland spar which may interest you.

Please write us your plans. Enclosed is a business reply envelope.

Sincerely yours,

WDL:jr
Encl.

Wallace D. Lowry
Assistant Geologist

Zone 5
June 9, 1943

S. & M. Associated Mines
919 North 19th Street
Boise, Idaho

Gentlemen:

I wish to thank you for your letter dated June 5. I am glad to know that you are going ahead with your plans and shall appreciate knowing what you are doing.

As yet, I have not had any word as to the quality of the calcite from the deposits in Malheur County, but will let you know as soon as we receive them.

I am doing all I can to encourage the development of these deposits as I feel they have value not only during the war but also in peace time. Right now, however, the development of the optical calcite angle is more important and I hope this is the end in which you are interested.

Sincerely yours,

Wallace D. Lowry
Assistant Geologist

WDL:jr

State Dep't of Geology and
Industrial Minerals,
Portland, Oregon;
Wallace D. Lowery,
Ass't. Geologist,

Boise, Idaho.
June, 5-1943.

Dear Mr. Lowery;

Your letter of May 23, from Vale, Oregon, duly received; We regret very much that it was impossible for us to make connections with you, as we had planned to be with you on the property, but owing to unforeseen priority delays, gas, etc, we did not arrive there till the following Wednesday, after you left.

We went in with three men, and brought out some Ore. We plan to go in again at an early date, and do more work on the property.

We appreciate your information given in your letter, and if agreeable to you we would like to have a copy of your report, or summary, thereof, as same would be of much value to us. We would also appreciate any other suggestions that you might make.

We are making every endeavor, to put the property into production, as soon as possible. Priorities have retarded us considerably.

Thanking you for your letter and your interest shown, we are

Very Truly Yours,

W.M. Schmeyk
S. & M. ASSOCIATED MINES
Strategic-Minerals
W.M. SCHMEYKAL
F.L. MUCKENSTURM
BOISE, IDAHO.
919-NO. 19 TH ST.

P.S. WE WILL INFORM YOU OF FUTURE
DEVELOPEMENTS.

State Dep't. of Geology and
Mineral Industries,
Portland, Oregon;
Wallace D. Lowery, Ass't Geologist;

Boise, Idaho.
May 19, 1943.

Rec'd
5/21/43
JW

Dear Mr. Lowry;

Your letter of May 17th, received, and contents noted. Also the one from Mr. F.W. Libbey, of April 30th; Referring to Mr. Lowery's letter, and his working out from Vale, Oregon, stating that he will probably be there the latter part of this week and the early part of next week; (On the Calcite Property).

We are leaving Boise, Friday the 21st, for the Calcite property, Via Vale, Oregon; With a view of taking out a sample truck load of Calcite - Spar. Expect to arrive in Vale about 10. A.M. Friday, the 21st;

We would like to meet you in front of the City Hall, Vale, or else on the property, Friday; (The place is rather difficult to find, and if you should miss us, proceed to Twin Springs, about 34 miles south of Vale, (8 miles west, and 26 miles South.) At this point, or ranch, ask for Dave Dugger, Gov't Trapper, who will direct you to the Calcite Property, 8 and 8/10 Miles further. We do not expect to be on the property over a day or two, but would be willing to assist you in any possible, in your work, and will be very glad to meet you there. It is our intention to put this property in production on as large a scale as is practical. We have been somewhat handicapped on account of Priority and equipment, and regret the delays.; We had hoped to do considerable development, before your inspection but conditions were such that it was impossible; It is now very probable

2.

that we shall make a number of follow up trips, from Boise, into the property in the very near future.

Hoping to be able to co-operate with you in the future operations, and to meet you Friday, at Vale, preferably, or at the Property, we are

Very Sincerely Yours,

W. M. Schmeckal

W.M. SCHMEYKAL,
F.L. MUCKENSTURM,
BOISE, IDAHO.

919, NO. 19 TH ST.

PHONE 2039-W.

One Copy to Portland, Oregon.

One Copy to Vale, Oregon.

RECEIVED
MAY 21 1943

STATE DEPT

& M.

May 17, 1943

Messrs. W. M. Schmeykal & F.L. Muckensturm
919 N. Nineteenth Street
Boise, Idaho

Gentlemen:

Our Department has tried to contact you in regard to further work on our part in regard to your Iceland spar claims. We hoped that you could supply some aid for prospecting the deposit thoroughly.

As the calcite may be in part of optical grade and thus be much needed for war use, we are going ahead with our plans, hoping you may get in touch with me while I am working out from Vale, Oregon, I shall probably be there the latter part of this week and the early part of the following week. Mail will reach me there in care of general delivery.

Sincerely yours,

Wallace D. Lowry
Assistant Geologist

WDL:jr

Calcite

April 30, 1943

Messrs. W. M. Schmeykal and F. L. Muckensturm
919 North Nineteenth Street
Boise, Idaho

Gentlemen:

Thank you for your letter dated April 28. Our geologist, Mr. Wallace Lowry, will get in touch with you within a few days and notify you when he can go into the calcite locality. We are now waiting on tire replacements for the car which he will use.

We hope that you can see your way clear to going into the property with Mr. Lowry so that some digging may be done on the veins to open them up somewhat more than when Mr. Wagner visited the claim. In order to make the trip by Mr. Lowry worthwhile, some further work in opening up the deposit would seem to be essential, otherwise it is likely that our report would not be very thorough in determining definitely whether or not optical calcite is available.

I trust that you will be able to do some work either before or at the time of Mr. Lowry's visit.

Yours sincerely,

F. W. Libbey
Acting Director

FWL:ff

Boise, Idaho.
April, 28, 1943.

State Department of Geology
and Mineral Industries,

Portland, Oregon,

Mr. F.W. Libbey, M.E.,

Dear Mr. Libbey;

We have a letter of April 26, Inst., by Mr. N.S. Wagner, Field Geologist of Baker, Oregon, to Mr. Sheridan K. Atkinson, M.E., of Boise. Mr. Atkinson handed same to me and requested that we reply direct to you.

The letter states that the Department is going to conduct an investigation of the Optical Calcite possibilities in Malheur County Oregon, immediately.

As we hold the property rights on the Iceland-Spar Group of Claims, recently examined by Mr. Wagner, we are contemplating going onto the property, but at this writing are unable to state just when.

We should like very much to be on the property at the time you plan to go, but in the instance that we are not there it would be agreeable to us and we suggest that you proceed at your convenience to examine and take samples necessary for your determinations.

We shall be glad to co-operate with you in any way possible and would appreciate very much to receive a copy of the report.

Very Truly Yours,

W. M. Schmeykal
Frank L. Muckensturm

W.M. SCHMEYKAL
F.L. MUCKENSTURM
BOISE, IDAHO.
919- NO. 19 TH ST.

Copy forwarded to Mr. Wagner.

RECEIVED
APR 29 1943
STATE DEPT OF GEOLOGY
& MINERAL INDS.

18 January 1944

Mr. Dave Dugger
P. O. Box 233
Vale, Oregon

Dear Mr. Dugger:

Our department is very interested in doing prospecting work on the calcite deposits in the vicinity of Dry Creek, as well as on the east side of Owyhee Reservoir as soon as arrangements can be made. As we realize doing this work at the present time involves considerable difficulty, and you, better than anyone else, can probably tell us what conditions we should expect. First of all, we would like to ask if it would be possible for you to aid us in this work if arrangements are made. Would it be possible to use the house at Twin Springs for a headquarters? Is there any water suitable for camping purposes near the deposits in Dead Horse Canyon? Is the road into the properties passable at this time of the year? We realize that it might be hard to get over this, but could it be done with some effort?

We will be very grateful for all information you can supply and please feel free to call this plan foolish at the present time.

Very truly yours,

W. D. Lowry
Assistant Geologist

WDL:ff

Zone 5
June 9, 1943

Mr. Dave Dugger
General Delivery
Vale, Oregon

Dear Mr. Dugger:

I am enclosing a copy of the letter I sent to Messrs. Matevia and Tonning. I do not know whether or not you have contacted them regarding Iceland Spar no. 3. Will you please write me regarding it?

I hope that if you have done something in this direction, that a satisfactory arrangement has been made.

Please write; am enclosing addressed envelope.

Sincerely yours,

Wallace D. Lowry
Assistant Geologist

WDL:jr
Encl.

Zone 5
June 1, 1943

Mr. Dave Dugger
Vale
Oregon

Dear Mr. Dugger:

I checked with the County Clerk's office at Vale and found that M. P. Tanning and William Matevia located Iceland Spar No. 3 April 20, 1942. It is described as 1/4 mile west of old Watson road in Dead Horse Canyon about 2 miles south of Dry Creek. Your name is given as the witness.

They filed a proof of labor for \$100 for the year ending July 1, 1942 "consisting of labor opening up the ledge".

Here is the plan of the claim:

As yet I have not received an answer from Bausch & Lomb regarding the calcite. I shall let you know of the developments if you indicate interest.

You know the past history of the claim as to whether or not it was properly located and the assessment work completed, so it is up to you, I am sorry to say, to decide if the property has been claimed rightfully.

Sincerely,

Wallace D. Lowry
Assistant Geologist

WDL:jr

May 12, 1943

Mr. Dugger, State Trapper
Twin Springs
Oregon

Dear Mr. Dugger:

Mr. Wagner, the field engineer at our Baker office,
informs me that you know of several calcite (Iceland spar)
occurrences.

As I am to make an investigation of these occurrences,
I shall appreciate your cooperation. Will you please
write me what you know of them - their locations, how
they may be reached best, the owners, etc.

Thanking you,

Sincerely,

Wallace D. Lowry
Assistant Geologist

WDL:jr

UNITED STATES
DEPARTMENT OF THE INTERIOR

BUREAU OF RECLAMATION

Ontario, Oregon
October 14, 1943

Mr. W. D. Lowry, Assistant State Geologist
702 Woodlark Building
Portland, Oregon

Dear Mr. Lowry:

Receipt is acknowledged of your letter of the 12th. There have been no permits issued for the operation of boats on the Owyhee Reservoir, due to the war-time restrictions imposed to protect against sabotage. The purpose of your request, that of the increased production of a material needed for war work, certainly entitles you to special consideration. Before submitting the matter to my Chief, more information would be appreciated. Would the boat operate from the Dam or from some other point, say Dry Creek? Would explosives be transported? Could persons transported be limited to certain ones who could be investigated and approved for receipt of permits? What period of time would the operations cover?

Any other pertinent information would be appreciated.

Yours very truly,

Maurice D. Scroggs
Maurice D. Scroggs
Irrigation Manager



12 October 1943

Mr. Maurice D. Scroggs, Irrigation Mgr.
Bureau of Reclamation
City Hall
Ontario, Oregon

Dear Mr. Scroggs:

It is possible that William Robert Bailey and O.O. Bailey, both of Portland and part holders of the calcite claims on the west side of the Owyhee Reservoir, may need to take a boat on the reservoir to prospect the calcite deposit known as the Mammoth. If so, would it be possible to obtain permission for them to take a boat on the reservoir?

Our Department is still very interested in getting these calcite deposits into production as the material is really needed in war work.

Sincerely yours,

Wallace D. Lowry
Assistant Geologist

WDL:jr

Zone 5
June 1, 1943

Mr. Maurice D. Scroggs, Irrigation Mgr.
Bureau of Reclamation
City Hall
Ontario, Oregon

Dear Mr. Scroggs:

Mr. Stockham was very obliging and Mr. Butler and I
examined the calcite deposits and collected specimens.
Right now we are waiting for the report by Bausch & Lomb.

We appreciate your cooperation and I, personally, wish
to thank you.

Sincerely,

Wallace D. Lowry
Assistant Geologist

WDL:jr

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

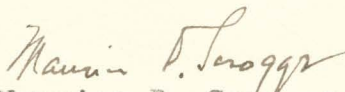
Ontario, Oregon
May 22, 1943

Mr. Wallace D. Lowry
State of Oregon
Dept. of Geology & Mineral Industries
Vale, Oregon

Dear Mr. Lowry:

Arrangements have been made with Reservoir Superintendent D. R. Stockham to make the trip as discussed with you last Thursday. The boat is small and only yourself and one other besides Mr. Stockham can be carried. Mr. Stockham I believe, knows just where you wish to go. He should be given notice of one or two days to prepare.

Yours very truly,


Maurice D. Scroggs
Irrigation Manager

OREGON STATE DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES
702 Woodlark Building
Portland, 5, Oregon

PRESS RELEASE NO. 59

FOR IMMEDIATE RELEASE

JULY 29, 1943

WAR PRODUCTION BOARD INTERESTED IN OREGON CALCITE

Encouragement has been given by War Production Board to further the development of calcite deposits of optical grade located near the Owyhee Reservoir in Malheur County, Oregon.

These deposits were recently examined by Dr. Wallace D. Lowry, Geologist with the Oregon Department of Geology and Mineral Industries. Samples were supplied to the Miscellaneous Minerals Division of W.P.B. in Washington, and as a result, the optical calcite specialist of W.P.B., Dr. H. Gordon Taylor, has asked the Oregon Department to give every possible encouragement to the opening up of the deposits which were discovered a few years ago.

Taylor stated to Mr. Nixon, Director of the Department, who recently returned from Washington, "A prospector taking out 1000 pounds of the right kind of calcite could retire for life with \$50,000 in the bank". "Some of the material," Taylor further stated, referring to perfect crystals weighing three or four pounds each, "may be worth as much as \$100 per pound." Flawlessness and size of the crystals are the characteristics that determine the value.

Only two localities in the United States, one in Montana and another in southern California, are producing significant amounts of optical calcite at the present time, according to W.P.B. In both cases, the crystalline material occurs in relatively hard rocks. At the locality in Malheur County, Oregon, some of the veins occur in old lake beds from which large crystals should be removed rather easily without damage to the crystals.

The Oregon Department of Geology and Mineral Industries has just made available to the public a report by Dr. Lowry on these calcite veins in Malheur County. The report gives the geology, location, and various details that would be of interest to prospectors.

September 14, 1943

Mr. Ray Jacobs
c/o Dave Dugger
P.O. Box 233
Vale, Oregon

Dear Mr. Jacobs:

I was pleased to get your letter telling of your development work on this one property which I did not see. I am sorry that you have been having some difficulty in your mining. I think you will find that if you do obtain good material, that is, material of optical grade, that it is best to leave it in large pieces rather than trying to break it down into portions that are entirely clear.

If you are coming over this way in a month or so I would appreciate your stopping in to tell me of your progress.

Yours sincerely,

Wallace D. Lowry
Assistant Geologist

WDL:ff


% Dave Dugger
P.O. Box 233
Vale, Oregon.

Wallace D Lowry,
Portland, Oregon,

Dear Sir—

I came here about a month ago after talking with you in Portland. I met Dave Dugger, trapper, and he brought me to this calcite vein which he had ~~filed~~ posted.

It is directly south of Iceland spar No 1 & 2. Our N. E. corner is near the South line of No 1. We are East & West. while the Iceland Spar's are S. E. to N. W.

We filed on this claim in partnership I am doing the work. Owing to the lay of the ground (about 15% rise) I have had to dig an open cut 50 ft to get a tunnel started. At tunnel mouth, am only 12 ft down. Am running tunnel on incline  as steep as I can wheel out with wheel barrow

Went down on north side of vein which is about 5 ft wide on top. At mouth of tunnel vein had an off shoot which is running parallel with main vein. However, at mouth of tunnel main vein is lying on top of lake bed material. When I get in farther I expect to cross end to the South and see if the main vein has any further

Depth. So far the surrounding ground is
criss crossed with small veins from $\frac{1}{4}$ in to
2 + 4 inches but there is no pattern to them
they go in all directions

At 12 ft. the only difference is, that
the crystals are becoming a little more
massive or larger in size, although
they are still cloudy. Have found no clear
pieces yet.

My main trouble is working this old
lake bed material. Went to Boise Ida
for single jack outfit & powder. Got
40% gelatin, when I should have a slower
powder. Found out I cant drill this ground
Am now using straight chisel bits, which
are only fair. What I need but cant locate,
is a dirt auger, and I'm not too sure that
would work, some of this ground is very
hard, and some fairly soft.

Right now I have this side vein
right in the middle of the tunnel. It is still
connected with the main vein, maybe a
feeder. at tunnel floor it is about 1 foot
wide. Both veins dip to the N. In under
cutting a footing in main vein
I discovered it was lying on top
of dirt

Main vein

Right now I figure I will

have to go quite a distance to get depth. Would have been better to sink a shaft. but didnt have help or material.

The big mystery, to me, is, where one does find good material, how do you get it out? cant shoot it, cant pick it. If you have any information on this, would like to find out just how this stuff is taken out when found.

In case you happen to be over in this part of the country, you can contact Dave Dugger in Vale. He is moving from Twin Springs to Vale in next couple weeks.

I expect to be here for about a month yet, then am going back to Cannon Beach for a spell. Will have to assemble a better outfit if I work here during winter.

Will be seeing you

Ray Jacobs

Zone 5
August 3, 1943

Mr. Ray Jacobs
P.O. Box 4
Cannon Beach, Oregon

Dear Mr. Jacobs:

In regard to your inquiry concerning the calcite beds near the Owyhee reservoir, we have here at our Portland office a report on the properties and I can give you additional information if you wish.

The calcite beds are really well-defined veins and can usually be located by a light gray or white patch or streak on the surface. Most of the known deposits have been filed on, but there may be additional ones not yet located. All you will need in the way of equipment for prospecting is a pick and shovel. Most of the material near the surface has been altered by weathering and ground water and therefore it is generally necessary to dig to a depth of several feet to determine if any promising material is present.

I suggest that you drop into our office to see me if convenient.

Very truly yours,

Wallace D. Lowry
Assistant Geologist

WDL:jr

State Dept. of Geology and Mineral Industries,
702 Woodlark Bldg.,
Portland, Oregon

P.O. Box 4
Cannon Beach
August 1 - 43.

Dear Sir

Would like information on calcite beds
near Curryee reservoir in Malheur County.

I am available to go over there and prospect,
but am not sure what equipment to take, nor methods
best adapted to this kind of prospecting

Yours Truly

Ray Jacobs

RECEIVED
AUG 3 1943
STATE DEPT OF GEOLOGY
& MINERAL INDS.

September 13, 1943

Mr. C. B. Morris
Box 15
Pleasant Valley, Oregon

Dear Mr. Morris:

Thank you for your letter of September 6.

Calcite is not valuable as optical material unless the crystals are an inch or more long and a half inch through. These crystals must be perfectly clear and free of all inclusions and other possible flaws.

We do not know if calcite crystals are used for radar. It might pay you to lease the property to a reliable company if the terms of the agreement are satisfactory to you.

If we can give you more information, please write us.

Very truly yours,

Wallace D. Lowry
Assistant Geologist

WDL:jf

Pleasant Valley
Sept 6th 1943
State Dept of Geology & Mineral Industries,
Portland, Oregon.

Dear Sirs; I would like to know
if all calcite lime is valuable for
the crystals it might carry. And is
all the crystals valuable? And is it
the calcite crystals that are used
for radar, would we be foolish if
we owned a large body of Calcite lime
to let a company have it, that claim
they want it to grind with a cattle
food. Will appreciate your
answer. yours truly

C. B. Morris

Box 15-

Pleasant Valley
Oregon

Baker Co.

RECEIVED
SEP 7 1943

STATE DEPT.
& MINERAL INDUST.

August 25, 1943

Mr. Dale Propst
403 N. 20th Street
Salem, Oregon

Dear Mr. Propst:

Thank you for your letter of August 24.

There is no demand for calcite the size which the sample you sent contains. If the calcite crystal is approximately an inch in diameter and perfectly clear, it may be of value. If you have crystals of this size, I suggest that you send them to us and we can give them a preliminary appraisement. We also have some literature dealing with the subject which you may obtain for the price of 10¢.

Very truly yours,

Wallace D. Lowry
Assistant Geologist

WDL:jr

Salem, Ore.

Aug. 24, 1943

State Dept of Geology
Portland, Ore.

Dear sirs :-

Recently sent a sample to your assay office for testing. According to report returned there is only a trace of gold and silver, but, dispersed through the rock and making up about one-fourth its substance is fractions of mica-like material. The assayer reports this is calcite.

Read an article in the Oregon Journal stating that large calcite crystals in good condition bring \$100.00 per pound, and that deposits were found in Malheur County.

The outcrop ledge from which I obtained the sample is large. The calcite fractions are small and evenly distributed through it. Wish to know if there is a commercial demand for calcite of this kind? If so, what is its value per pound, and do you know names and addresses of buyers?

Kindly thanking you for your trouble, and wishing to hear from you soon, I am

Very respectfully yours,

Wale Propst

403 N. 20th St.

RECEIVED
AUG 25 1943

STATE DEPT.
& MINERAL INDS.

August 26, 1943

Mrs. Charles E. Schweizer
Route 2
Nyssa, Oregon

Dear Mrs. Schweizer:

Thank you for your letter of August 13. A copy of the calcite report will be sent you upon receipt of 10¢.

Unless the deposit is on your property, you will have to stake a claim to develop the deposit. Generally optical calcite is sold directly to the consumer, a separate contract being made stating how much is to be furnished and the price to be paid.

I think the report and additional information we will send along with it will answer your questions.

Very truly yours,

Wallace D. Lowry
Assistant Geologist

WDL:jr

RECEIVED
AUG 26 1943
STATE DEPT OF GEOLOGY
& MINERAL INDS.

Nyssa, Oregon
8/13/43

Oregon Dept. Geology
Salem, Oregon

Gentlemen:

We have just noted in our local paper your report about the calcite deposits near Cuyhee Reservoir.

My husband and our son-in-law both know this country well, having been born here and run stock in that country all their lives. They have both noticed these calcite deposits. So naturally, we're very much interested, especially since we are all interested in rock formations. And our son-in-law has learned about them in his work as a diamond driller.

May we have a copy of Mr. Lowry's report on geology, location, etc. Please instruct us, as to how to go about obtaining and marketing it. would we have to stake claims, etc.

P.S. If there is a charge for report, I will remit.

no. C.E.S

Very truly yours

Mrs. Chas. E. Schweizer
Rt. 2, Nyssa, Oregon.

Calcite

August 12, 1943

Mr. George H. Bodfish
Unity Dam
Unity, Oregon

Dear Mr. Bodfish:

I wish to acknowledge receipt of your letter dated August 8, concerned with your Golden Eagle Mine, situated near Malheur, Oregon.

Unless the crystals you mention are perfectly clear and flawless, they would be of no value for optical purposes. Also for optical use they should be of relatively large size, say an inch in diameter.

On the chance that the granitic rock containing garnet crystals, which you state occurs in an escarpment across Willow Creek, contains minerals not determined visually, we should like to have you send us a small sample for analysis. For this purpose a few specimen pieces would suffice for preliminary work.

Should you have any perfectly clear, large crystals of quartz or calcite, it might be well to send us specimens for inspection.

Referring to your request for a copy of Dr. Lowry's report on the Malheur calcite claims, we have not yet issued this as a regular Department publication. The report has been set up in typewritten form and for such reports a rule has been made that a charge of 20 cents per typewritten page should be made. For this calcite report, the charge would be \$1.25.

Very truly yours,

F. W. Libbey
Mining Engineer

FWL:ff

Unity Dam Unity Oregon
Aug 8, 1943.

State Dept of Geology
and Mineral Industries.

E. K. Nixon, Director

Dear Sir:

Some two years ago, Mr. Hugh K. Lancaster, made an inspection of my Golden Eagle Mine, near Malheur Oregon, and made extensive notes for the Department: last year he made a fluorescent test on some of the calcite for scheelite, but none was present.

Roughly, we have six gold bearing veins all pockety, in argillite, lying practically parallel, underlain, waved and fissured by a coarse grained (possibly Monzonite) granite, which appears as a rough naked escarpment directly south, and across Willow Creek, from the mine; this granite contains great quantities of small ($\frac{3}{16}$ "") rounded garnets; there are no sulphides of any metal in the mine, we have some ochre and some manganese, usually associated with the

R
AUG 12 1943
STATE DEPT OF GEOLOGY
& MINERAL INDS.

(2)
gold, which is all bright and pretty and is also in the quartz and in the calcite.

I have about 2500 feet of work on the property, about 40 acres, a crosscut of 365 feet shows veins 1, 2-3 - 4-5 - and am 135 feet beyond no 5, but have not cut No 6 yet.

Lots of stringers of calcite occurs in the cross-cut, as well as in the veins mixed with the quartz; just above vein No 6 on surface we have a blowout of barren bull quartz, highly crystalline, this blowout lies north-east from the line of the tunnel, and may have disturbed, destroyed or altered the course of No 6 beyond the blowout.

I intended this Spring to do a lot of prospecting for quartz crystals, of which there are a great many in the workings and on surface, as well as calcite crystals with them, but I got broke and had to go to work to eat regular, so am at work as guard on the Unity dam at \$10.00 per month; I would liked something dif-

(3) Jervent, for instance I would have made a good office man in one of the state offices, - but at 77 years of age you cannot be too particular. I do not wear glasses, am quite spry, have a very complete assay outfit (not set up) and familiar with mining work, timbering, sharpening etc.

Now, if the State wants to look over this property, and I have anything the Government wants, they can have it on their own terms. As a gold mine, I am closed for the duration; you understand, of course, that I have never looked at these crystals as any thing of value, and I do not know whether Mr. Lancaster did or not.

For the present I can be found at the Unity Dam and can turn your men the keys to one or two houses and the mine. Very truly yours

George H. Bodfish

Reg. Mq. Eng No 1130

Oregon.

would like to have copy of Mr. Lowrys report on Malheur Collets veins.

August 9, 1943

Headquarters
U. S. Forest Service
Ochoco National Forest
Prineville, Oregon

Dear Sirs:

This is to introduce Mr. H. C. Crandall, 1134 S.W. Clay Street, Portland, Oregon. He reports a deposit of calcite in the Badger Valley area between Prineville and Mitchell. ~~As~~ this material is needed at the present time in various war uses, we wish you to grant Mr. Crandall permission to enter that area to prospect for this mineral. Any assistance you can give him to this end will be appreciated.

Very truly yours,

Wallace D. Lowry
Assistant Geologist

WDL:ff

July 13, 1943

Mr. S. K. Atkinson,
1303 North 24th Street,
Boise, Idaho

Dear Mr. Atkinson:

In response to your letter of July 1st we have entered your subscription to the Ore-Bin for two years from the June issue. This is the number containing the article on Iceland spar which you desired.

As you know, the Legislature appropriates funds for the continuance of the Department every two years, consequently we are unable to enter subscriptions for more than that period. You remitted \$1.00, and we are returning herewith 50¢ in cash to take up the difference.

Yours very truly,

for Earl K. Nixon, Director

fas/
encl/50¢ cash

7

Sheridan R. Atkinson
1303 n. 24th St.
BOISE, IDAHO
7/1/43

RECEIVED
JUL 3 1943
STATE DEPT OF GEOLOGY
& MINERAL IND.

Mr. Earl K. Nixon, Director,
State Dept. of Geol. & Min. Industries
702 Woodlark Bldg.,
Portland, Oregon.

My dear Nixon:-

I have your letter of June 28th and note with interest what you say relative to the possibilities of getting an access road into the calcite district of Malheur County providing sufficient development work is done to prove up an adequate source of optical grade spar.

The trouble is that the owners of the claims covering the choice portions of this calcite deposit are apparently not inclined to do any development work other than to gouge around a bit on the surface croppings which will never prove anything as far as optical spar is concerned and thus far my efforts to get any kind of a fair working agreement with any of the owners has failed. It begins to appear like they intended to play "Dog in the Manger" as long as they have no assessment work to do and it is not likely any one will spend money developing their claims without a contract.

The thing that has put them up on a "High Horse" and made them hard to deal with is the price that is now being offered for optical grade Iceland Spar Crystals of from \$40 to \$50 per pound. They even talk about it on the basis of \$80,000.00 to \$100,000.00 per ton; but they don't tell you, or they don't know, or don't want to know that one ton would glut the market for the next five years. I have contacted the principal buyers in the U.S. and find that about 300 lbs. is all the market would absorb this year; another 200 lbs might be sold in England and that is the limit as far as I have been able to ascertain. The demand is very limited, competition is developing and I am convinced that it would not pay to mine for optical grade spar except as a by-product in the production of stockfeed and chicken grit. That brings one down out of the silver lined clouds with a bang for the market on stockfeed and chicken grit is now ranging around ten to fifteen dollars a ton, sacked and delivered to the dealer or distributed. Of course if there is no profit margin in sight there is no incentive to proceed. It is an enterprise that will require very close analysis.

I hav'nt received a copy of the "Ore-Bin" for some time my subscription must have run out so I am enclosing my check for \$1.00 will you kindly pass it on with the request that they send me a copy of the last issue containing the article on spar.

I sincerely appreciate your acquiescence in my use of your name as a reference. Right now I am working in co-operation with WPB on the listing and sale of surplus used mine equipment.
Cordially yours,

S. R. Atkinson

Zone 5
June 28, 1943

Mr. S. K. Atkinson
1303 N. 24th Street
Boise, Idaho

Dear Mr. Atkinson:

I have just received your letters of June 25 and 26 in regard to the optical calcite or Iceland spar. It does not seem to me that the royalty of 50¢ per ton is out of line under the cost set-up you mention. That, incidentally, sounds reasonable to me, although of course I am not very familiar with the situation.

I might make this suggestion: If you or someone else does enough exploration to demonstrate for a certainty that an adequate source of calcite of strictly optical grade is present, I think I could wangle an access road for the entire distance and get early action on it. Of course this is not a promise because conditions change very rapidly indeed. Three months ago while in the east, the next to the most important operation in the United States was described to me by its operator, a former associate of mine. From his description and other information, I gathered that the commodity at that time was extremely critical. Since then, the War Production Board has advised me that a source in Montana may relieve the situation to a certain extent. At any event, I would like to give any possible assistance in getting a road into the deposit if development looks commercially feasible.

Presumably you received a copy of the last "Ore.-Bin" which carried quite an article on Iceland spar.

With reference to your second letter dated June 26, I shall be happy to keep in mind the fact that I may receive an inquiry about your competence for a war minerals connection. I shall report favorably and would not need to make further inquiries of your background unless some pointed question should come up.

Very sincerely yours,

Director

EKN:jr

Sheridan K. Atkinson
1303 N. 24th St.
BOISE, IDAHO

6/25/43

Mr. Earl K. Nixon, Director,
State Dept. Geol & Mineral Industries,
702 Woodlark Bldg., Portland, Ore.

Dear Earl:-

Since I saw you last I have sort of been chasing the rainbow in search of strategic or critical minerals and I have about come to the conclusion that said rainbow is no true indicator for strategic minerals any more than it is for the proverbial pot of gold.

First it was Chrome, then Nitrates and finally Calcite. On the latter two I had occasion to avail myself of your good offices and had the benefit of the reaction of Mr. N. S. Wagner of your State Assay Lab in Baker. Mr. Wagner accompanied me to one of the calcite properties and later your Mr. Lowery followed up on a preliminary investigation of this and two other calcite properties in the same vicinity. I talked with Mr. Lowry on the phone from Boise, while he was at Baker on his return trip to Portland and he told me about the Sheephead group of calcite claims that lie just east of the Owyhee Reservoir and that belong to Harry Butler, Joe Jarvis and others. He spoke quite favorably about the showing on these claims and I made arrangements last week to visit this property with Mr. Butler. We spent a day on it, examined the croppings, took some pictures and samples and traversed some of the adjoining country in search for the best route for a road from the claims to the U.P. Ry. on the Snake River. The other day Mr. Butler's partner was here in Boise. He is supervisor for agricultural development for the U.P. Ry. with head quarters in Omaha. I negotiated with Mr. Jarvis for an option on this property but it does not seem likely that we can get together on any sort of a fair working agreement. The trouble is that the high prices now being offered for calcite crystals or Iceland Spar, for optical purposes, has gone to the heads of some people and especially the owners and it is hard to do anything with them. Mr. Jarvis seems to know more or less about the value of calcite for stockfeed purposes but apparently he does not realize what he or anyone else would be up against from a physical or market standpoint when it comes to conducting a commercial operation.

Outside of the expense of the preliminary development work and sampling it would cost about \$15,000 to build a good secondary road and surface it for heavy hauling from the property, a distance of about 20 miles, to the railroad; following that another \$5,000.00 would be required for tunneling and drifting to get under the ore so as to permit economical mining; then there would be a further cost of about \$5,000.00 for mine equipment, ore bins, loading and camp facilities, development of water etc. The Calcite plant should be on a railroad siding at Nyssa or some other convenient point and would consist of crushing, washing, grinding, screening, storage and sacking facilities all of which would cost at least

\$25,000; then there is the matter of working capital and many other items of incidental expense, all of which would bring the grand total up to approximately \$75,000.00 and I would not care to recommend the project to my associates at a less amount than this.

I explained to Mr. Jarvis that before I could recommend the project I would have to have about 90 days time for the purpose of soliciting firm contracts with dealers and distributors for the sale at least 5,000 tons of stock feed and chicken grit to be delivered during the year 1944 and another 90 day period to test the deposit, build roads, open up the ore body and build a calcite plant. I would not care to move in the matter at all without first securing firm contracts for the sale of the first years production. If those contracts can not be had at this time on a basis that would show a fair margin of profit I would not care to proceed further with the matter.

Assuming that the contracts could be procured, I offered a royalty of 50% per ton on all calcite mined and sold and a 10% royalty on all optical spar crystals mined and sold, and would guarantee a minimum royalty for the year 1944 of \$2,500.00; all royalties to apply on an agreed purchase price for the claims.

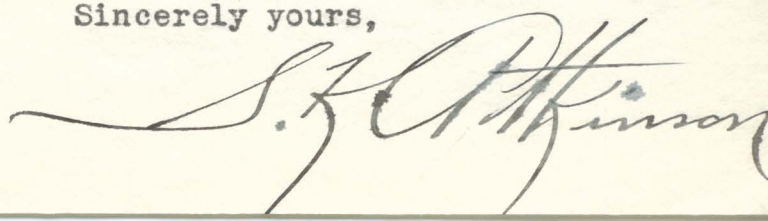
I am reciting these things so that you can judge for yourself whether or not my proposition to the owners is fair and equitable and in this connection you should take into consideration the fact that the market for stockfeed and chicken grit is limited by competition to from \$10.00 to \$15.00 per ton, sacked and delivered, also the fact that it would cost, on an average, about \$5.00 per ton for trucking and Ry. or auto freight; \$3.75 per ton for mining, milling, grading and sacking; 50 cents per ton royalty; and most of the remainder for taxes, interest, insurance, overhead, etc.

From a standpoint of optical spar it is simply a gamble. No crystals have been found as yet in the croppings that would meet the stringent requirements of the buyers of optical spar, however, the indications are favorable for commercial spar at depth, but it would not pay to mine for optical spar alone; a market must be provided for the waste calcite, furthermore, it must be remembered that a few hundred pounds of optical grade spar would glut the market for the demand is very limited and there are only a few buyers in the world. There is also a very limited market for sub-optical spar for chemical and medicinal purposes at from 10% to 20% per pound. Possibly your department could throw some light on other possible uses or markets for calcite or Iceland Spar. The above is all that I know about.

Recent inquiries indicate that the market for calcite for stock-feed purposes has had quite a setback because the dealers and distributors are unable to get certain of the other ingredients necessary to mix the feed according to the standard formulas. Some mixing plants have suspended for the duration.

I wish to express my appreciation for the co-operation and courtesy shown by your department in this field investigation of the calcite deposits in Malheur County.

Sincerely yours,



Zone 5
July 21, 1943

Union Carbide and Carbon Corp.
Carbide and Carbon Building
30 East Forty-Second Street
New York City, New York

Dear Sirs:

Recently our Department examined a number of large deposits of calcite in southeastern Oregon. We have had some of the material analyzed and find that it runs CaO 55.75% and MgO 0.18%.

We are interested in finding out if you use this type of material and if so, for what it sells.

Very truly yours,

Wallace D. Lowry
Assistant Geologist

WDL:jr

August 5, 1943

Mrs. K. B. Keuscher
2199 Broadway
Salem, Oregon

Dear Mrs. Keuscher:

Receipt is acknowledged of your letter of recent date, concerned with calcite and magnesium. I do not know of any Government appropriation expressly for investigation of magnesium deposits. At various times during the past five or six years, the Federal Government has appropriated money for pilot plant work in the production of metallic magnesium, mainly at Washington State College, Pullman, Washington. Also at various times the U. S. Geological Survey has investigated and reported upon the magnesite deposits in western United States.

Concerning calcite deposits, this Department has recently investigated deposits in Malheur County which hold some promise for production of optical calcite or Iceland Spar. Whether or not optical grade calcite will be found depends probably upon the amount of development work which the owners will carry on. Optical grade calcite, which is sought now for war purposes, must be perfectly clear, flawless, and without cracks or lines, for use in optical instruments. This type of material, which is rare, demands a very high price. Other calcite, that is, calcite that is well crystallized and apparently pure, is not in any special demand and would be of low value.

I am enclosing a request for inspection of property blank, which please fill out and send to our field geologist, Mr. Ray C. Treasher, State Assay Laboratory, Grants Pass. As soon as he is able he will communicate with you in regard to making an inspection of your property. If you have any samples of calcite or magnesium rock and will send it in to this office, we shall be glad to determine the value of it. For this purpose, I am enclosing also a sample information blank, on the back of which is given the law under which our free assay service operates. You should fill out the blank and send it in to this office together with the sample, or samples.

Very truly yours,

F. W. Libbey
Mining Engineer

FWL:ff
Enclosure

RECEIVED
AUG 4 1943
STATE DEPT. OF GEOLOGY
& MINERAL INDS.

2199 Broadway
Salem, Oregon

Earl K. Nixon, Director,
702 Woodlark Bldg.,
Portland, Oregon

Dear Sir:

Some time ago I read in the newspaper that the government had allotted each state an amount of money to carry on investigations concerning Magnesium. Also recently I read an article on Calcite deposits.

I am part owner of a mine in Southern Ore. and know that it has some magnesium in it from previous essays. I do not know if the Calcite is to be found or not. I wish to know if there are services of a government geologist with proper authority to be had in determining the amount of either or both minerals. Where can one locate a geologist. Is he paid by the government or by the individual for inspection and essay of a mine or the minerals therein? How can I go about getting in touch with the proper authorities to get either of these ores on the market?

Yours very truly,

Mr. K. B. Kersch

Two

August 4, 1943

Mr. Harry Butler
Box 222
Ontario, Oregon

Dear Mr. Butler:

I was glad to hear from you and learn that you are going ahead with the development work. As you have probably read, the War Production Board has strongly urged development of these claims. I would suggest that you be careful in the use of the powder, but then you have the information I gave you relative to its possible effect upon the calcite. I shall be glad to give you advice and there is a chance that I may return to that area to see how the development work on the various claims is progressing. I was disappointed to hear that you could not get to the property in the car. I appreciate your keeping me informed.

Very truly yours,

Wallace D. Lowry
Assistant Geologist

WDL:ff

Ontario, Ore.
Aug. 2 - '43

Mr. Wallace Lowry
Portland
Ore.

Dear Mr. Lowry:

Am writing you
to tell you that I plan on going
up to work on the Calcite as
soon as I can make arrange-
ments for Powder. Will go up
tomorrow to do a little work and
I will move up sometime this
week to stay.
Will keep you informed

July 24, 1943

Messrs. Harry Butler and Joe Jarvis
c/o Harry Butler
Box 222
Ontario, Oregon

Dear Sirs:

Enclosed is a copy of the report on calcite deposits near the Owyhee Reservoir. Joe Jarvis wired asking what we had heard from Mr. Nixon in Washington. He recently returned to tell us that Gordon Taylor, Chief of the Miscellaneous Minerals Division, War Production Board, saw the crystals we sent (one from your property) and strongly urged the development of these deposits. Taylor told Nixon that pieces of optical grade material three inches thick were selling for about \$100 a pound. Please let us know what your plans for development of your deposit consist of. Feel free to ask our advice and we shall give you our cooperation.

Very truly yours,

Wallace D. Lowry
Assistant Geologist

WDL:ff

Enclosure

P.S. The address of the operators of the Iceland Spar deposit near Taos, New Mexico is E. M. Stanton and Associates, Santa Fe, New Mexico. Possibly you can obtain some pertinent information from them.

Zone 5
June 22, 1943

Mr. Harry Butler
Box 222
Ontario, Oregon

Dear Mr. Butler:

We received a report on the samples of calcite we sent recently to Bausch & Lomb Optical Co., Rochester, New York. They stated that the samples did not meet their rigid requirements but that they would be glad to inspect any further samples we submit. They enclosed a list of their specifications. We have not heard from the War Production Board in regard to the samples we more recently sent them. Some of yours were included. Whereas Bausch & Lomb are concerned only with the actual specimens, we expect that the War Production Board is more interested in the geological occurrence and the promise of these specimens taken from or very near the surface.

Rather than be discouraged, we are inclined to take the "we'll show you" attitude. Thus we wish to know your present plans for developing the deposits you hold.

Do you plan to go down on the vein itself where we picked up the "good looking" specimens? We want to get specimens of required size of optical grade. If we can get them, we probably can get a road in to develop the property.

As taken from the list of specifications sent us by Bausch & Lomb, minimum sizes of finished prisms are:

- (1) 1/2 inch x 1 inch x 1 inch.
 - (2) 3/4 inch x 3/4 inch x 1 1/4 inches.
 - (3) 1 inch x 1 inch x 1 inch.
 - (4) 1 5/8 inches x 1 5/8 inches x 1 5/8 inches.
- Larger sizes are, of course, preferred.

I will let you know what the War Production Board has to say. But in the meantime please write us your plans. Enclosed is a reply envelope.

Enclosed is the latest issue of the "Ore.-Bin", periodical of our Department, which contains an article on Iceland spar which may interest you.

Sincerely yours,

WDL:jr
Encl.

Wallace D. Lowry
Assistant Geologist

Zone 5
June 3, 1943

Mr. Harry F. Butler
Box 222
Ontario, Oregon

Dear Mr. Butler:

Thank you for sending me names and addresses. As yet we have no word as to the quality of the calcite. We are sending additional samples to the War Production Board. We will let you know as soon as we have information regarding their value.

I referred your property to a Mr. Atkinson of Boise, Idaho, and he may be the one that contacted you. I hope that you will be able to secure aid in developing your calcite deposits and suggest that you stake additional claims along the veins.

Sincerely yours,

Wallace D. Lowry
Assistant Geologist

WDL:ff

Box 222

Ontario, Ore.

May 30 - '43

Mr. Wallace Lowry,
Portland
Ore.,

Dear Mr. Lowry:

Am sending the addresses
you requested sent to you at Portland.
Names of co-owners of the Calcite.

Had a letter from a Company in
Boise Idaho wanting to go and look
over the property. I think they only want
ed to tie it up with a lease, would prefer
waiting to see what the Government will
do. Hope you have good luck with it
so we can get it going. Yours Truly
Harry F. Butler

Mrs. O. M. Castleman, Merrill, Oregon
Joe W. Jarvis - 1416 Dodge St., Omaha
(Supervisor Agriculture Development / Nebr.
(Union Pacific Railroad))

Zone 5
June 7, 1943

Dr. Ethel I. Sanborn
Dept. of Biology
Oregon State College
Corvallis, Oregon

Dear Dr. Sanborn:

I would appreciate your taking a look at some fossil leaves on a small slab of tuff I picked up in Malheur County while there investigating some Iceland Spar claims. I would like to refer to your identification of any genera. The tuff occurs in beds overlying Steens (?) basalt. The calcite occurs in them as well as the basalt.

Possibly the beds belong to the Payette formation. I find a reference to R. W. Brown's work on "Miocene Leaves ... of Idaho", but we and the Portland library do not take the Jour. of Paleontology. His article is in the October issue, v. 9, No. 7, pp. 572-587, 1935. I am going to try to get the Department to take the Journal.

Jean Bowman Gustafson will probably be in Montana for the duration. Wish she were here to do the work. I am trying my best to give stratigraphy its due share of attention when the accent is dominantly on economic geology.

If you can give your idea on the leaves without much work, I would appreciate it; if it requires research, please do not spend the time on it, as it is not that important. The slab is being sent out on the same mail.

Sincerely yours,

Wallace D. Lowry
Assistant Geologist

WDL:ff

Zone 5
June 7, 1943

Dr. E. L. Packard
Dept. of Geology
Oregon State College
Corvallis, Oregon

Dear Dr. Packard:

It seems as though the only time I write you is when I want something. I guess that is true for I value your help. This time it is regarding some freshwater gastropods and pelecypods I am sending you. Will you give them a quick glance and see if they suggest anything to you? They are from tuffaceous sandstones that overlie the Steens (?) basalt in Malheur County, apparently without angular unconformity. The beds have dips up to several degrees and have been noticeably faulted in places. They may belong to the Payette. It is at these faults that calcite mineralization has taken place and these deposits have received my attention lately. The veins are fairly uniform in width and are from several inches to as much as 25 feet wide, and from several hundred feet to more than half a mile wide. I collected some fair specimens of calcite and hope to get encouraging reports soon regarding them. I, personally, have faith that the deposits contain calcite of optical grade. As yet the veins have been only slightly developed. I was very surprised to learn there were such large deposits of calcite in Oregon. I think that their grouped occurrence suggests the presence of underlying limy rocks.

I finished my degree work at Rochester in February following several months of work back there. I like my work here with the state department very much and realize our need of thorough and well done jobs.

I would like to hear of the department and its members, past and present. Tier dropped in yesterday to say hello.

Sincerely yours,

Wallace D. Lowry
Assistant Geologist

WDL:ff

Colorado Springs, Colo.

Aug-30-1943

Oregon Dept of Geology & Mineral Ind.
Portland, Oregon.

Gentlemen,

Please send me a
copy of the reports by Dr Lowry
and any others, and any other
data available of the balcite
Deposits in Malheur County.
Respectfully,

L. B. Alexander,
Box 940,
Colorado Springs,
Colo.

RECEIVED
SEP 4 1943

STATE DEPT OF GEOLOGY
& MINERAL INDS.

and sent
9-4-43

Colorado Springs, Colo.

Aug. 30, 1943

Oregon Dept. of Geology and Mineral Industries
Salem, Oregon

Gentlemen,

Please send copy of
~~the~~ reports by Dr Lowry and
any other data available of
the calcite deposits of
Malheur County, Oregon.

Respectfully,

S. B. Alexander,

Bot 940.

Colorado Springs
Colo.

RECEIVED
SEP 3 1943

STATE DEPT. OF GEOLOGY
& MINERAL INDS.

Hiko, Nevada
Aug. 29 - 1943.

On Wallace W Lowrey
Oregon Department of Geology
Salem, Or.

Dear Sir.

In the Mining Journal of Aug. 15th
"Optical Grade Calcite is Examined in Oregon"
a report by Mr Lowrey is available to the
public, we would like to obtain the
report.

We are mining Tungsten, on the contact we
have found some very fine calcite ~~crystals~~
your report might help us to know if they
are of any value.

Thanking you, we remain

Yours truly

G. W. Thiriot
Co Lincoln Mines
Hiko, Nevada

Card sent
JR 9-3-43

Cameron, Montana.
August 19, 43.

Department of Geology,
Portland,

Gentlemen;

I would appreciate it if you would send
me a copy of a report by Dr. Lowry on the calcite
deposits of Malhuer County, Oregon.

If there is any charge for this report
let me know the amount and I will forward the same.

Yours very truly,

L.E. Griffith

L.E. Griffith
Cameron, Montana

*Card sent GR
8-24-43*

RECEIVED
AUG 23 1943
STATE DEPT. OF GEOLOGY
& MINERAL IND.

Orting, Wn.
U.S. Dept. of Geology & Mineral
Industries
Dear Sir:

Would you please
send me the pamphlet
by Mr. Rowson
Calcite vernis in
machines Co.?

Respectfully,

Harry J. Ash

P.O. Box 351

Orting, Wn.

STATE
AUG 24 1943
& MINERAL IND.

and sent
8-24-43

August 12, 1943

Mr. Frank Graham
Route 2
Nyssa, Oregon

Dear Mr. Graham:

Receipt is acknowledged of your letter dated August 8 concerned with the calcite report by Dr. Lowry. This report has not yet been issued as a regular Department publication, but has been set up in typewritten form. For such reports there is a charge of 20 cents per page. This particular report will be sent to you on receipt of the price, which is \$1.25. We are, however, sending to you under separate cover, a copy of our monthly publication, THE ORE - BIN which contains a short article on calcite by Dr. Lowry.

Yours very truly,

Wallace D. Lowry
Assistant Geologist

WDL:ff

Nyssa Oreg
Aug 7-43

Dr. Wallace Lowry

Dear sir:-

I have read with interest an article in the Nyssa Gate City Journal in regard to your examination of Calcite Deposits in the vicinity of Owyhee dam. Am interested in doing some prospecting for Calcite in that vicinity and would like to have what information you can give me on the subject of Calcite.

Where can I get bulletins and articles ect. on these crystals.

Yours very truly
Frank Graham
Nyssa Oreg
R-2.

RECEIVED
AUG 12 1943

STATE DEPT. OF GEOLOGY
& MINERAL INDS.

August 12, 1943

Mr. Thomas H. Turner
Box 305
Nyssa, Oregon

Dear Mr. Turner:

Receipt is acknowledged of your letter of August 8, regarding the calcite report by Dr. Lowry. We have not yet issued this as a regular Department publication. The report has been set up in type-written form and for such reports, there is a charge of 20 cents per page. This calcite report will be sent to you on receipt of the price, which is \$1.25. We are, however, sending to you under separate cover, a copy of our monthly publication, THE ORE - BIN which contains a short article on calcite by Dr. Lowry.

Yours very truly,

Wallace D. Lowry
Assistant Geologist

WDL:ff

Nyssa, Ore.
Aug 8th 1943

Oregon Dept of Geology.
Salem Ore.

Dear Sirs.

Will you kindly send
me the report by Dr Lowry
on the calcite veins in
Malheur County, Ore.

Yours Truly
Thos. H. Turner
Box 305.
Nyssa, Ore.

RECEIVED
AUG 12 1943

STATE DEPT. OF GEOLOGY
& MINERAL LANDS.

P O Box 981
Klamath Falls, Ore

Aug 3rd, 1943.

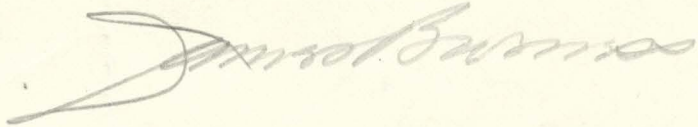
Mr. Earl K. Nixon,
2527 S E Market St.,
Portland, Oreg.

Dear Mr. Nixon;

I would like to get a copy of
Dr. Lowry's report on geology, location and details of
interest to prospectors on Calcite deposits as referred
to in last Fridays Oregonian and do not know just where
to write for same, so would appreciate it very much if
you could ask the proper parties to send me one.

Thanking you for your trouble, I am

Yours very truly



JAMES BURNESSE
P O Box 981
Klamath Falls, Oreg.

*Calcite Report
Sent 8/11/43
ff*

August 7, 1943

Technical Library
Information Division
Bonneville Power Administration
Portland, Oregon

Attention: M. S. Isseka

Gentlemen:

As requested in your letter of August 7, I am sending you herewith a complimentary copy of report on the Calcite Occurrences Near the Owyhee Reservoir, Malheur County, Oregon.

Very truly yours,

Secretary

jr
Encl.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BONNEVILLE POWER ADMINISTRATION
PORTLAND, OREGON

IN REPLY REFER TO:

August 7, 1943

Oregon State Dept. of Geology and Mineral Industries
Woodlark Building
Portland, Oregon

Gentlemen:

We should like to have, if available, for our Technical Library files, copies of your publications listed below. Kindly advise if there is a charge for these materials.

Your kindness in supplying us with these publications is very much appreciated.

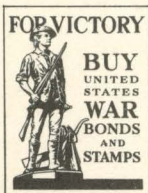
Sincerely yours,

M. S. Isaacs

TECHNICAL LIBRARY
Information Division

89h

INFORMAL REPORT ON OPTICAL CALCITE IN MALHEUR
COUNTY, OREGON.



August 26, 1943

Mr. Lucius W. Tilden
Route 1
Vale, Oregon

Dear Mr. Tilden:

We will be glad to send you a copy of the calcite report upon receipt of 10¢.

No report on the geology around Vale has been written. I can tell you this: Vale Butte is made up of tuffaceous sandstones and pebbly conglomerates which dip gently southward and Vale Butte itself has been faulted along the highway side. The steep slopes as well as the hot springs are evidence of this. The rocks are probably of late Miocene and Pliocene age. The rocks which lie to the west are tuffaceous sediments of similar age.

Possibly I can tell you more if you mention a specific area.

Very truly yours,

Wallace D. Lowry
Assistant Geologist

WDL:jr

Vale, Oregon
August 25, 1943

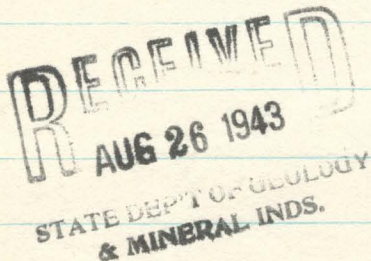
Mr. Earl K. Nixon, Director,
State Department of Geology and Mineral Industries,
702 Woodlark Building,
Portland, Oregon

Dear Sir:

I would like to have a copy of the recently published report by Dr. Lowrey on the calcite veins in Malheur County. I would also like to have information on the general geology of Malheur County, especially the part around Vale, Oregon, if there is any available.

Sincerely yours,

Lucius W. Tilden
Route 1
Vale, Oregon



	Position Number	POSITION	Term of Service	Time Allowed	Rate Monthly Hourly Daily	Amount Earned	Exemption Claimed		U. S. Income and Victory Tax	War Bond Purchases	Hospital Association Dues	Industrial Accident Insurance	Meals	Net Amount Due	Paid by Warrant No. Payt. Over- or Under- Paid
							Class.	No. of Dependents							
Original P/R as submitted-paid by warrant 67048				80 hr.	1.125	112.50	4	2	6.40			.10	10.00	96.00	
Correct time			Straight O/T Sunday	16 O/T 56 hr 16	1.6875 1.125) 1.6875) 2.25)	108.00	4	2	6.40			.10	10.00	91.50	4.50 0
Original P/R as submitted-paid by warrant 67069				80 hr.	1.00	100.00	4	0	11.60			.10	10.00	78.30	
Correct time			Straight O/T Sunday	16 O/T 56 hr 16	1.00) 1.50) 2.00)	96.00	4	0	7.60			.10	10.00	78.30	0 4.00
Original P/R as submitted-paid by warrant 67050				20 hr	.75	15.00	3	0	2.25			.03		12.72	
Correct time				20 hr	.75	15.00	3	0	2.25			.03		12.72	0 0
Original Payroll as submitted						227.50			20.25			.23	20.00	187.02	
11 per above detail						219.00			16.25			.23	20.00	182.52	
Overpaid						8.50			4.00			0	0	4.50	

[illegible]

State of Oregon—Pay Roll of the Department of Geology and Mineral Industries for the Month of *MAR* 19*44*

No.	NAME	POSITION	Budget Ledger Acct. No.	RATE	TIME RECORD MONTH OF _____, 194__																															Time Al- lowed	Amount Earned	Exemption Claimed		U. S. Inc and/o Victor- Tax
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3	WILLARD P. HARRIS	COOK		7 44	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	3	0	18.				
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CALCITE PROJECT

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Feb 16

[illegible]

Feb 13

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State of Oregon—Pay Roll of the Department of Geology and Mineral Industries for the Month of

CACIFFE PROJECT

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STATE DEPARTMENT OF GEOLOGY
AND MINERAL INDUSTRIES

702 WOODLARK BUILDING
PORTLAND 5, OREGON

13 March 1944

Mr. Ralph S. Mason
Box 517
Ontario, Oregon

Dear Ralph:

Thank you for your letter of March 10 summarizing the calcite situation.

It seems to me that your size-up given in the mail and over the telephone is perfectly sound and that we should wind up field work. If you are able to segregate any material that seems to be up to grade, bring it in and let us look it over. I think you should bring one or two fifty-pound chunks in anyway, so we can do some mental gymnastics on the problem of segregation of crystals.

You had better plan to come in to Portland with the truck and equipment.

As to what to do with Swanson and the other fellow, I am a bit uncertain. Imagine they had better go back to Coos Bay, although we are winding that job up as soon as possible. Am in hopes we can move the drill and crew to a job west of Portland in Washington County inasmuch as it is a bit too early, I am afraid, to start work on the saline work investigation. Anyway bring the outfit in to Portland and we will see what's what.

Sincerely yours,


Director

EKN:jr

Box 517, Ontario
March 10, 1944

Dear Fred:

Attached is the new W4 form covering the change in
Garris' tax deduction status re your request.

Present plans call for us to be leaving here on or about
the 15th, so gauge any mail sent here accordingly. Should there
be any radical change I will inform you.

Sincerely,

r
enc.

missing we will try to do this, although we have looked nearly
crops over pretty carefully already.

If we keep following out or otherwise-discover any good
rhombs, and the prospects look good for a satisfactory operation
the entire aspect of the project would of course be changed.
Briggs indicated to me that his company could be willing to enter
funds with either a state or federal agency, or some private oper-
ation if it could be demonstrated that there was a reasonable
expectancy of obtaining satisfactory results. To date I good many
rhombs have either been found or are being looked for in place and not one
rhomb of optical grade has been found. Should we find some good
rhombs you will be hearing from us and quickly.

On our return trip we rescued a farmer who had been
middle of Dry Creek. He had been there for some time
Mr. Earl K. Nixon
Portland Office.

Dear Earl:

Confirming our telephone conversation this morning
re shutting down the calcite project.

I must have read your mind, for I was just telling
Briggs that I was going to call you in the morning when Wag
called from Baker last night. Wag was quite relieved to catch
me in town, especially when I told him about the roads. He hopes
to come down before we leave and give us a hand, also to look
things over in general.

Briggs, who is admittedly a novice when it comes to
calcite and mining in general, was quite pessimistic about the
chances of making any economic recovery of rhombs of suitable
quality and in sufficient quantity. We spent on whole day on
the two claims partly owned by Jarvis and Butler across the lake
from our camp. We saw lots of calcite but no material that even
remotely resembled optical grade stuff. The vein is quite thick,
very solid and darn near impregnable. Even if crystals suitable
for optical use were definitely known to occur at regular inter-
vals throughout the vein it would be prohibitively expensive to
carefully cleave each single piece of the vein looking for them.

Yesterday we drove out to our camp, forded Dry creek
which was a roaring torrent, and spent several hours minutely ex-
amining all of the outcrops. The situation there was almost iden-
tical to the other deposits visited the day before with the exception
that the veins are somewhat narrower and consequently easier to
dissect. No optical grade material has been found to date, although
there may be some in the large chunks we have carefully lifted off
and laid aside pending receipt of information on how to cleave them.
Briggs is hopeful of obtaining this from the California operation
which he will visit shortly.

Briggs suggested, and I concur, that rather than contin-
ue sinking and drifting which is slow and expensive, that we clean up
and remove what calcite we have uncovered and try to cleave out some
good material from the chunks. He also thought that superficial
examination of all surface outcrops over the entire district might
be more fruitful than concentrating in one or two spots. Time per-

mitting we will try to do this, although we have looked nearby crops over pretty carefully already.

If we can telegraph out or otherwise discover any good rhombs, and the prospects look good for a satisfactory operation the entire aspect of the project would of course be changed. Briggs indicated to me that his company would be willing to match funds with either a state or federal agency, or some private operator if it could be demonstrated that there was a reasonable expectancy of obtaining suitable material. To date a good many tons have either been picked out or indicated in place and not one rhomb of optical grade has turned up. Should we find some good rhombs you will be hearing from us and quickly.

On our return trip we rescued a farmer marooned in the middle of Dry Creek. He had been there for two hours and the water was over the bed of the pickup --and rising higher. These natives just don't know how to navigate in their own back yard. To top things off we had to repair another pickup motor--fuel pump gone haywire, and then tow him across after he had started down the creek broadside to the current. Needless to say Briggs, who had never been west of the Mississippi, had quite a day--after we crossed various swollen streams seven or eight times.

Weather and roads permitting we will pull up stakes on or about the 15th. Should you want to get in touch with me urgently, the best and cheapest way is to wire the local flying school here, as per instructions outlined in a letter to Fay recently.

Sincerely,



STATE DEPARTMENT OF GEOLOGY
AND MINERAL INDUSTRIES

702 WOODLARK BUILDING
PORTLAND 5, OREGON

March 9, 1944

TO: R.S.M.

FROM: F.W.L.

This will acknowledge receipt of yours of March 7, written just prior to the arrival of Briggs and Jarvis. I hope that their visit was both pleasant and profitable. Earl has just arrived in the office and is, of course, eager to obtain a report from you. He may write you later today or tomorrow. In any event I feel sure that he would like to have you call him by phone on receiving this letter.

With best regards.

Sincerely yours,

F.W.L.

F. W. Libbey
Mining Engineer

FWL:ff

Box 517, Ontario
March 7th, 1944

Mr. F.W. Libbey
Portland Office.

Dear Fay:

Responding to yours of the 3rd. Briggs and Jarvis are due to arrive here in a few hours. Jarvis wired me that he had arranged for a boat to go up the lake in, apparently it is to be a one day trip. Upon checking into things it develops that Jarvis is part owner of some of the claims lying east of the reservoir, the ones we are working being of course on the west side. This will give me an opportunity to see some more of the deposits but am hopeful that I can at least get them to take a running look at the stuff we are digging on. Hope Jarvis hasn't taken it for granted that we have been working on his ground all this time.

Will let you know immediately what Brigg's reaction is to the calcite crystal possibilities since I agree with you that what he says will probably largely determine our course of action. This project is using up a lot of money fast and the sooner we know what the score is the better. The work at the two faces is progressing steadily. Monday we set up the hoist, built a ladder and guides for the bucket and got set to really make a shaft out of the open cut. We hauled all of the stuff up in the truck right to the job--part of the grade measured 98% with a Brunton--and that was in rough country, sagebrush, rocks and all. Have already started praying for good weather to let us go after the stuff when we pull out. On Sunday we took a busman's holiday and went prospecting. We found a hitherto unknown claim lying to the north of our dig, which has some excellent appearing material right on the surface. In fact some of the crystals were clearer and more perfect than anything we have found to date. I intend doing some further digging on this outcrop as soon as possible. The peculiar thing about all these outcrops is the variability in grade and appearance of the vein within a space of a few feet, or even inches. This change appears to be greater in a horizontal direction with a somewhat greater persistence of grade vertically.

In the shaft we have decided to leave the vein in place for the time being in order to speed the sinking operation and also to serve as a solid hanging wall. The ground normally

stands quite well but has a tendency to slough along the contact with the calcite. Current plans are to sink another eight or ten feet and then take a look at the vein. If the vein is located solid at depth and maintains its present thickness we may have a merry old time plucking out a chunk to examine it. I hope you will get on this endeavor as soon as possible. The beautiful rock Swanson and I spent the balance of Sunday trying our hand at cleaving out some rhombs. Our equipment consisted of a 2# ball peen hammer and my scout knife. Our experience showed that the purer the crystal the easier it was to cleave, and vice versa. Twins (which are numerous) are almost impossible to do anything with and imperfect pieces break with a hackly fracture. By carefully orienting the knife blade on the face of a chunk and then giving it a smart rap with the hammer a clean perfect cleavage resulted, although too often the hammer head carried on and ruined the rhomb. A rig resembling a paper knife equipped with a jig to properly orient the crystal both horizontally and vertically would probably work perfectly. When using such a device the blade could be brought firmly down on top of the crystal and then given a smart tap. A box containing some of the products of our art is going forward to you today. The pieces are all small, but are the largest which we have been able to cleave out so far.

Sincerely,

On the evening of the 11th I was out for a walk and found a number of small pieces of the same material. I have a number of these pieces and will send you a few.

Box 517, Ontario
March 7, 1944

Mr. F.A. Steeble
Portland Office

Dear Fred:

I seem to have loused up the last payroll--again. You will have to give me credit, though, for suspecting that there were some errors--which is small consolation when you have to do the whole thing over again. By the time this project is finished I will once more have gotten my hand 'in' on how to make out a payroll--and then promptly forget all about it again during the interim between projects.

Responding to paragraph 5 of yours on the 2nd, Garris definitely wants his check sent here, and Swanson would prefer to have his come here---sooooo Mrs. G. will just have to vent her spleen on John down in Coos Bay--John being of course blameless but nearest. Will send in Garris' revised Form W4 as soon as possible. Don't know what Mrs. G. does with her money, but Mr. G. certainly can't spend his out here--I know.

I refuse to quibble with you about certain portions of my anatomy, the relative positions of same and their respective uses in letter writing as mentioned in the last paragraph of yours op cit. All I can say is that we make the most of what we have---and are darn glad to have it.

Sincerely,

r.



STATE DEPARTMENT OF GEOLOGY
AND MINERAL INDUSTRIES

702 WOODLARK BUILDING
PORTLAND 5, OREGON

March 3, 1944

TO: R.S.M.

FROM: F.W.L.

Thanks for yours dated March 1 and March 2. I hope that the Briggs' visit will not be especially troublesome and that it may have some beneficial results. Since Earl is expected to arrive in Portland next Wednesday, I see no possibility of either of us going over there at this time.

As to how long your project will continue, I am a little up in the air. My guess would be that if Briggs is pessimistic about your chances of finding suitable material, the project would end rather quickly, that is, perhaps around the middle of the month. If he thinks the chances are better than even of finding some commercial spar, then I should say Earl would want you to continue. It is an expensive project. Fred tells me that it will be necessary for Earl to request the Board of Control to transfer more money to our "special requests" account just as soon as he returns, in order to meet the March payroll. I suggest that you tell us as soon as possible what Briggs says about the chances and I will talk over finances with Earl just as soon as he returns.

I note your statement concerning use of the Halliday School of Flying which could be used to get word to you quickly.

Sincerely yours,

F. W. Libbey
Acting Director

FWL:ff

GOVERNING BOARD:

W. H. STRAYER, CHAIRMAN BAKER
 ALBERT BURCH MEDFORD
 S. H. WILLISTON PORTLAND

EARL K. NIXON
 DIRECTOR

F. W. LIBBEY
 MINING ENGINEER
 JOHN ELIOT ALLEN
 GEOLOGIST

H. C. HARRISON
 CHIEF CHEMIST



FIELD OFFICES:

2101 COURT STREET, BAKER
 NORMAN S. WAGNER
 FIELD GEOLOGIST

714 EAST "H" STREET, GRANTS PASS
 RAY C. TREASHER
 FIELD GEOLOGIST

STATE DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES

702 WOODLARK BUILDING
 PORTLAND 5, OREGON

March 2, 1944

Mr. Ralph Mason,
 Ontario, Oregon

Dear Ralph,

I am sorry to hear that you have not found any good crystals but I still am inclined to think that good ones may well be found in the general district. Even though you find the vein is well fractured below the frost line and damaged crystals are due to movement within the vein; still it is possible that small isolated areas may be found in which circumstances were such that such movement happened to be lacking and the crystals happened to be big and clear. It's sort of like pocket hunting on quartz stringers with the pockets of good crystals being about as small and scarce as gold pockets are in proportion to the amount of quartz veins. In other words it will take both persistence and luck to find them. *but someday somebody will turn up with a crush pounds!*

As far as the Portland Office's suggestions to you are concerned I might point out that they advised me of some calcite float reported by a very reliable source to occur between Huntington and Ontario near the Snake River. This reliable source is apparently a rock hound, agate polisher and what-have-you, and since he was driving his own car the general conclusion was that these calcite crystals he found were probably not more than a mile from the road. You ask if I have looked at it yet. No, I haven't, and if you think your answer is vague what do you call those directions? *However, I intend to spend a few days questioning people & looking, but you know how many miles there are to look over.* The undulant fever caught up with me shortly after I returned from Ontario and in general it has been the most persistent and debilitating occurrence I've had. In short I have been and am working at about half efficiency.

Among the things I have accomplished perhaps the brightest is my letter to Harold relative to the 3.532 incident. I will show you a copy of this, but the hell of it is that he writes back a lengthy explanation of why I can't divide apples into oranges and get the percent of one of them, totally ignoring the 3.532 affair.

My tire turned out to be very thoroughly cut up, and required two sections. I had better get back to business and go through the motions of working. As soon as I succeed in clearing up and rewriting some suggested revisions to the antimony survey I would like to come down and pay you a visit. Remember me to the boys.

Sincerely,

NSW/fs

Ontario, Oregon
March 2, 1944

To: F.W. Libbey

From: RSM

I have just received a wire from Charles A Briggs, which is in reply to mine sent yesterday. His wire follows:

MEETING JARVIS DEPOSIT OWNER BOISE 455 PM MARCH SEVENTH ASSUME HE WL
WILL PROCEED WITH ME ONTARIO ARRIVING 608 PM OR HE WILL ARRANGE TO
ARRIVE ONTARIO WEDNESDAY MORNING SUGGEST YOU PLAN FOR PROCEEDING
ONTARIO TO DEPOSIT WEDNESDAY MORNING MARCH EIGHTH

CHARLES A BRIGGS

I am wiring Briggs that the above plan is satisfactory and will meet him here in town on the eighth. I don't know whether either you or Earl will want to be here at that time to get the low down on the crystal business, but if you do plan on coming over here be sure to arrange for hotel reservations at the Moore Hotel, Ontario. This town is practically riding the crest of a boom, cattle and hay being what they are, and every farmer in the county comes to town and stays and stays and stays. This hotel is sold out every night in the week, usually full up by noon or shortly after.

Have written Matevia and Tonning co-owners of the Island Spar group of claims, pointing out that they had either better give us permission to prospect their ground for them immediately or else the golden opportunity will presently pass and we will be long gone from the site. Jarvis, as I recall, is somehow connected with Matevia and Tonning, and perhaps his presence on the ground will help to jar them out of their lethargy.

Sincerely,

Qrj

Spokane 328pm Mar. 2/44

Ralph Mason

State Dept. of Geology Box 517 Ontario Oreg.

Briggs and I will meet you Moore Hotel Tuesday nite arrival
train 17 assume you plan accompany us on thursday to my deposit or
can do it wednesday Am making arrangements for government boat. Can
be reached at Ontario phone 153 W Saturday and Sunday.

Jce W Jarvis

1017p

7:15 am

CLASS OF SERVICE

This is a full-rate Telegram or Cablegram unless its deferred character is indicated by a suitable symbol above or preceding the address.

WESTERN UNION

A. N. WILLIAMS
PRESIDENT

1201

SYMBOLS

DL=Day Letter

NL=Night Letter

LC=Deferred Cable

NLT=Cable Night Letter

Ship Radiogram

The filing time shown in the date line on telegrams and day letters is STANDARD TIME at point of origin. Time of receipt is STANDARD TIME at point of destination

BF44 DL=ZG NEWYORK NY 2 1142A

RALPH S MASON=

MOORE HOTELONTARIO ORG=

MEETING JARVIS DEPOSIT OWNER BOISE 435 PM MARCH SEVENTH ASSUME
HE WILL PROCEED WITH ME ONTARIO ARRIVING 608 PM OR HE WILL
ARRANGE TO ARRIVE ONTARIO WEDNESDAY MORNING SUGGEST YOU PLAN
FOR PROCEEDING ONTARIO TO DEPOSIT WEDNESDAY MORNING
MARCH EIGHTH=

CHARLES A BRIGGS 11.

435 PM 608 PM 11.

PRECATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE

CLASS OF SERVICE DESIRED	
DOMESTIC	CABLE
TELEGRAM	ORDINARY
DAY LETTER	URGENT RATE
SERIAL	DEFERRED
OVERNIGHT TELEGRAM	NIGHT LETTER <input checked="" type="checkbox"/>
SPECIAL SERVICE	SHIP RADIOGRAM

Patrons should check class of service desired; otherwise the message will be transmitted as a telegram or ordinary cablegram.

WESTERN UNION

1213

CHECK

ACCOUNTING INFORMATION

TIME FILED

A. N. WILLIAMS
PRESIDENTNEWCOMB CARLTON
CHAIRMAN OF THE BOARDJ. C. WILLEVER
FIRST VICE-PRESIDENT

Send the following telegram, subject to the terms on back hereof, which are hereby agreed to

To Charles A. Briggs II & Donald M. Murray Co.

3-2-44

19

Street and No. 14 East 46 Street

Place New York City

Retel Meet you Wednesday eighth Ontario. Reserving rooms Hotel

Moore, for you Jarvis.

Ralph S. Mason
(Moore Hotel)

WANT A REPLY?

"Answer by WESTERN UNION"
or similar phrases may be
included without charge.

Sender's telephone

CLASS OF SERVICE DESIRED	
DOMESTIC	CABLE
TELEGRAM <input checked="" type="checkbox"/>	ORDINARY <input type="checkbox"/>
DAY LETTER <input type="checkbox"/>	URGENT RATE <input type="checkbox"/>
SERIAL <input type="checkbox"/>	DEFERRED <input type="checkbox"/>
OVERNIGHT TELEGRAM <input type="checkbox"/>	NIGHT LETTER <input type="checkbox"/>
SPECIAL SERVICE <input type="checkbox"/>	SHIP RADIOGRAM <input type="checkbox"/>

Patrons should check class of service desired; otherwise the message will be transmitted as a telegram or ordinary cablegram.

WESTERN UNION

1213

A. N. WILLIAMS
PRESIDENT

NEWCOMB CARLTON
CHAIRMAN OF THE BOARD

J. C. WILLEVER
FIRST VICE-PRESIDENT

CHECK
ACCOUNTING INFORMATION
TIME FILED

Send the following telegram, subject to the terms on back hereof, which are hereby agreed to

To MR CHARLES A. BRIGGS 3-1-44 1944
% DONALD M. MURRAY CO.
 Street and No. _____

Place 14 E 46TH ST. NEW YORK CITY

WIRE ME MOORE HOTEL, ONTARIO, RE YOUR
ARRIVAL TO SEE MALHEUR CALCITE. CAN
MEET YOU ANY TIME YOU SPECIFY.

RALPH S. MASON
(MOORE HOTEL)

WANT A REPLY?

"Answer by WESTERN UNION"
 or similar phrases may be
 included without charge.

STATE DEPARTMENT OF GEOLOGY AND
MINERAL INDUSTRIES

702 WOODLARK BUILDING
PORTLAND, OREGON

March 2d 1944

Mr. John Eliot Allen
North Bend Oregon

Dear John:

I have your letter in regard to Mrs. Garris desiring her husband's check be sent her instead of Ontario. As no one had said anything about it to me, I sent all checks, including those for Coos Bay time, to the men at Ontario, and asked Ralph to find out what the desired arrangement was. Today he writes me:

"The boys apparently feel safer if the checks come here first, so better shoot them over here and let them squander them among the sage. The Coos Bay checks for the boys arrived in the mail today".

As I haven't any authority from the men to deliver their checks to anyone, I am advising Ralph of the situation, and shall continue sending the checks to Ontario until another arrangement is made.

Yours,

fas/
CC: Ralph S. Mason



STATE DEPARTMENT OF GEOLOGY
AND MINERAL INDUSTRIES

702 WOODLARK BUILDING
PORTLAND 5, OREGON

March 2nd, 1944

Mr. Ralph S. Mason,
Ontario, Oregon

Dear Ralph:

The payroll certainly is a mess, isn't it? so I am enclosing a copy of it as sent to Salem for your records.

You will note the 1¢ per day deduction for SIAC has been changed on all of the men except the cook, as they are supposed to pay only for the days actually worked, not being under protection of SIAC when they are off duty.

The arrangement about the withholding tax for any time less than the half-monthly period is that the men shall have the tax withheld on the basis of the average amount received per day, and multiplying that amount (which you will find in table A-5) by the number of days. This changes Phillips' tax from \$7.60 to \$10.00. Also, in the case of Harris, I called up the Revenue Collector's office and was informed that the tax would have to be figured on the basis of the cash paid (that is, the total of his earnings as if it were paid in full in cash), plus the value of his meals, or \$14.00. This makes a total of \$104.00 on which the tax is estimated, although of course Harris gets only \$90. less deductions.

Thanks for the Withholding Exemption Certificate from Phillips. It will be necessary that Garriss furnish me a new one, changing the exemption to 2-0, and dating it back to February 16th, to cover the present payroll. I really am sticking out my neck, you know, in figuring out his tax on the 2-0 basis instead of the former one, without his authorization, so would appreciate it if you would get this to me as soon as possible.

There is probably a little family trouble brewing about the matter of the men getting the checks, instead of sending them to their femmes. Had a letter from John today, stating "Mrs. Garriss is very anxious that her husband's check be sent to this office, which was the arrangement that was made before Mr. Garriss left here. If it is not too late, please see that that is done." Underneath is the caption, signed by Mrs. Garriss, "The above is at my request." As I haven't any authority to deliver it to her, I wrote John accordingly, as you will note from the copy attached hereto.

And people ask me, "Why didn't you ever get married?" Pfft!

Enclosed are copy of letter to John regarding Garriss' check, and blank exemption forms if you haven't any on hand, one of which Garriss is to fill out and return to me.

Thanks for the information about the gasoline tank etc. Now I shall know what I am doing with the bill.

Your explanation of how you were situated when writing your letter of the 27th has left me very much confused. I always had the idea that your sitting room was west of your lap, so that if your lap was sitting on the cot, how could your desk be sitting on your lap? Excuse me, please - I just got through figuring your payroll and my head is somewhat addled therefrom.

Yours,

John

There is probably a little family trouble brewing about the matter of the man getting the checks, instead of sending them to their families. Had a letter from John today, stating "Mrs. Garriss is very anxious that her husband's check be sent to this office, which was the arrangement that was made before Mr. Garriss left here. If it is not too late, please see that that is done." Underneath is the caption, signed by Mrs. Garriss, "The above is at my request." As I haven't any authority to deliver it to her, I wrote John accordingly, as you will note from the copy attached hereto. appreciate it if you would get this to me as soon as possible. 3-0 basis instead of the former one, without his authorization, so would I really am sticking out my neck, you know, in figuring out his tax on the 3-0, and doing it back to February, 1944, to cover the present payroll. be necessary that Garriss furnish me a new one, changing the exemption to Thanks for the Withholding Exemption Certificate from Phillips. It will less deductions. on which the tax is estimated, although of course Harris gets only \$90. plus the value of his meals, or \$14.00. This makes a total of \$104.00 (that is, the total of his earnings as if it were paid in full in cash), that the tax would have to be figured on the basis of the cash paid of Harris. I called up the Revenue Collector's office and was informed This changes Phillips' tax from \$7.80 to \$10.00. Also, in the case amount (which you will find in table A-2) by the number. basis of the average amount received per day, and multiply that half-monthly period as the men shall have the tax withheld on the The arrangement about the withholding tax for any time less than the

I realize that it is impossible, perhaps to decide how much longer this project will continue at the present time, but I would appreciate being apprised of the very earliest opportunity. Purchases of supplies, mainly food ought to be made in such a manner that we won't be left with large amounts of perishable or semi-perishable goods on hand. Also there is the problem of getting our stuff out of the place. A big truck hauled the heavy items in and I have been taking out rods of stuff every trip. Some of it, the food and coal for instance won't be coming back, but a wheelbarrow, stoves, buckets and winch, tent, bedding, kitchen supplies, gasoline drums, etc. etc. etc. won't. The road situation is always a bit of a question mark and at this time will raise Holy hell with some portions of it. At present we can drive it fairly well while it is frozen hard but those alkali flats are damn near impassable during the thawing hours.

To: F.W. Libbey.

From: RSM. All of the foregoing paragraph, I know, is my worry, in planning as to how much longer this thing will last will make a whole lot simpler. I will ship you some likely looking Responding to yours of the 23rd as well as the 26th, both of which were waiting for me here upon arrival today. I immediately straight-wired Briggs telling him I was standing by awaiting word from him concerning his date of arrival. I hope he comes prepared for a couple of nights out in some mighty chilly country--in a tent. If he shows up tricked out with a brief case and bowler I'll just go off quietly to a vacant town-ship and wail like a banshee.

Briggs' arrival will be opportunely timed for we will have sunk to a point which should be well below the line affected by surface conditions. The going in both the tunnel and shaft is tantalizingly slow. We finally took the bit in our teeth and started using 1/4 and 1/2 stick charges of powder, which have almost no effect on anything except our morale. The darn shots bootleg nearly every time, or failing in that, hunt out some cavity in the vicinity and expend their gaseous energy in blackening it up. To date we are in about five feet from the portal with our drift, and have the shaft (which is developing out of an open cut) down nearly 10 feet, measured from the face end of the cut. We are carefully lifting out huge chunks of calcite which separate along mud seams and simply leaving them on the dump pending receipt of some technique of cleaving them safely. Such technique may be forthcoming from Briggs--I certainly hope so. We keep trying our hand at cleaving some of the smaller pieces, but have a long way to go before we could really call ourselves the least bit proficient. It is amazing, though, to see how nicely some of them do part with a smart rap of a hammer on someone's knife blade.

In answer to your PS, I have to get the mail at Ontario, there being nobody living out our way to serve as postman. Vale is too small for shopping purposes and the Twin Springs-Vale branch of the road is worse than the Nyssa-Twin Springs stretch. I try to stay out at camp at least a week between trips, and at the end of that time a want-list as long as my arm has accumulated. If you have to get hold of me pronto wire Miss Bessie Halliday of the Halliday School of Flying, Ontario, and have her fly a message out to camp. There is no chance of landing out there, but messages can be dropped. Charges for a round trip will amount to about \$15.00.

I realize that it is impossible, perhaps to decide how much longer this project will continue at the present time, but I would appreciate being apprized at the very earliest opportunity. Purchases of supplies, mainly food ought to be made in such a manner that we won't be left with large amounts of perishable, or semi-perishable goods on hand. Also there is the problem of getting our stuff out of the place. A big truck hauled the heavy items in and I have been taking out gobs of stuff every trip. Some of it, the food and coal for instance won't be coming back, but a wheelbarrow, stoves, bucket and winch, tents, bedding, kitchen supplies, gasoline drum, 54 gallon water barrel etc. etc. won't fit into just one or two truck loads. The road situation is always a big black question mark and any rain at this time will raise Holy hob with some portions of it. At present we can drive it fairly well while it is frozen hard but those alkali flats are darn near impassable during the thawing hours.

All of the foregoing paragraph, I know, is my worry, but even an inkling as to how much longer this thing will last will make planning a whale of a lot simpler. I will ship you some likely looking crystals just as soon as we find some, at present our largest rhombs can be measured in millimetres, and at that they aren't any too good looking. The calcite does appear to be getting a little less fractured with depth, but nothing breathtaking in the change yet.

Sincerely,
Ship and well like a breeze.

Worst arrival will be opportunely timed for we will have sunk to a point which should be well below the line affected by surface conditions. The mine in both the tunnel and shaft is fantastically slow. We finally took the bit in our teeth and started using it and the shock charges of powder, which have almost no effect on anything except our morale. The damn shaft booby nearly every time, or falling in that, want out some cavity in the vicinity and expend their enormous energy in blackening it up. To date we are in about five feet from the portal with our drill and have the shaft (which is developing out of an open cut) down nearly 10 feet, measured from the face end of the cut. We are carefully lifting out huge chunks of calcite which separate along and seams and finally leaving them on the dump pending receipt of some technique of elevating them safely. Such technique may be forthcoming from Britain--I certainly hope so. We keep trying our hand at elevating some of the smaller pieces, but have a long way to go before we could really call ourselves the least bit proficient. It is amazing, though, to see how nicely some of them go part with a sharp rap of a hammer on someone's knife blade.

In answer to your 22, I have to get the mail at Ontario, there being nobody living out our way to serve as postman. Vais is too small for shopping purposes and the Twin Springs-Vais branch of the road is worse than the Wythe-Twin Springs stretch. I try to stay out at camp at least a week between trips, and at the end of that time a mail-list as long as my arm has accumulated. If you have to get hold of me pronto write Miss Basile Highway of the Highway School of Physics, Ontario, and I will let you know. There is no chance of posting out there, but messages can be dropped. Charges for a round trip will amount to about \$15.00.

Box 517 Ontario.
March 1, 1944

Dear Fred:

Re yours of the 25th, paragraph five. The ESSO bills cover the purchase, in-bulk, of 55 gallons of gas from the Ontario ESSO bulk plant, whose district office, apparently is located in Spokane. Don't see why the location of the district office should affect the State's contract any. The second voucher covers the light barrel used to haul the gas out in, and on which there will be return due upon my surrendering it when empty at the completion of this project. If you can wangle a saving for non-highway use on the 55 gallons thus purchased, go ahead and take 'er; the gas will be consumed in mowing down sagebrush and mountain ranges, miles from a highway and on mining claims which aren't state highways by a darnsight.

Sincerely,

r.
Enc.

Box 517, Ontario.
March 1, 1944

Mr. F.A. Steeble
Portland Office

Dear Fred:

Herewith the payroll for the second half of Feb. Have worked everything out this time, and I hope correctly. There are several points which puzzle me a bit and the mere mention of them should serve to sufficiently call them to your attention.

The SIAC deductions have been figured at 1¢ per elapsed calendar day. Should it be per day worked instead? In computing the mens deductions for withholding tax, I did not include the amounts deducted for meals. Should this be done or did I do it right? Seems to me, though, that in the case of the cook, where grub is furnished gratis, that there is a slightly different basis--or am I drawing too fine a point? Phillips, the new miner worked two days less than a full period and I computed his deductions on the same basis as the others (table A-3). Last summer I recall you had quite a session with the State brass-hats over this point but fail to recall the ultimate decision. Have unhappy feeling that I should have used table A-5. Form W-4 for Phillips is attached. Also please note that Garris now is claiming only half his deduction---he's got the Little Woman working now.

The boys apparently feel safer if the checks come here first, so better shoot them over here and let them squander them among the sage. The Coos Bay checks for the boys arrived in the mail today.

Sincerely,

r
enclosures

STATE DEPARTMENT OF GEOLOGY AND
MINERAL INDUSTRIES

STATE ASSAY LABORATORY
402 E. 1 STREET
GRANTS PASS, OREGON

Camp Calcite
Feb 27th 1944

Mr. Earl K. Nixon
Portland Office

Dear Earl:

Herewith a brief outline of my activities on the calcite project:

<u>Date</u>	<u>Remarks</u>	<u>Odometer Reading</u>
5	Drove panel truck with Garris & Swanson to Portland.	47847
6	Sunday	
7	Loaded truck at office and drove to Pendleton.	48058
8	Drove to Baker. Met Wag. Picked up equipment.	48324
9	Drove to Ontario with Wag. Prepared for trip.	48434
10	Drove out to claims, unloaded and back to Vale.	48547
11	In Vale and Ontario assembling supplies.	48650
12	Saw Atty Swan. Loaded up truck. Saw OPA.	48667
13	Truck left for camp. Sam and unloaded.	48667
14	Drove to camp with cook, set up camp.	48700
15	General reconnaissance of district.	48760
16	Excavated along several veins, tried cleaving out likely looking crystals.	48770
17	Drove to Ontario, picked up supplies and miner, returned to camp, road very sloppy.	48780
18	Roughed out road to Bombsight 1.7 miles long. Truck broke down but repaired ok.	48900
19.	Started digging at two points on Bombsight.	48920
20	Sunday. Prospected along Dry Creek. Got water.	48933
21	Started for town, broke down and walked 11 miles to nearest farmhouse, spent night there.	48941
22	Got mechanic. Repaired truck. Drove to Ontario.	48949
23	In Ontario buying supplies, answering mail.	49008
24	Drove to camp. Got water. Set up forge. Prospected. Boys still working on Bombsight.	49012
25	Worked on Bombsight all day	49083
26	Crew busy on Bombsight all day. Tried to locate vein with help of cook in afternoon. 2" of snow.	49090
27	Sunday. Hauled water, sharpened steel, etc.	49115
28	Crew working on Bombsight all day. Snow.	49115
29	Crew working on Bombsight all day. Snow.	49120

Respectfully submitted

STATE DEPARTMENT OF GEOLOGY AND
MINERAL INDUSTRIES

STATE ASSAY LABORATORY
402 E. 1 STREET
GRANTS PASS, OREGON

Camp Calcite
Feb. 27, 1944

Mr. F.A. Steeble
Portland Office

Dear Fred:

Attached are the ESSO and Associated gas slips for February covering gasoline purchases for the V-8 panel truck, and a tankful or two for the Chev which was delivered to Coos Bay. Also enclosed is the ESSO invoice covering the 55 gallons received from the Ontario bulk plant.

Mileages for the Ford for the month are shown in detail on work sheet, but in brief, are as follows:

47847 Feb 5th Start of Calcite Project
49120 Feb 28th (Estimated)

1273 Miles driven in panel truck on Calcite project during month of February.

Am sort of jumping the gun on this biz, since weather and work conditions are such that one does his office chores when and where he can. My desk is my lap and my lap sits on my folding cot which in turn sits against the far wall of a leaky 12-14 wall tent. Its snowing outside, my boots are drying by the air-tite stove heated with Utah lump and dinner will be ready in half an hour.

Life in the West !

Sincerely,

r
enclosures

STATE DEPARTMENT OF GEOLOGY AND
MINERAL INDUSTRIES

STATE ASSAY LABORATORY
402 E. 1 STREET
GRANTS PASS, OREGON

Box 517, Ontario
February 27, 1944

Mr. Charles W. Swan
Vale, Oregon.

Dear Mr. Swan:

This department requires the owner's or lessee's written permission to enter upon the premises of any mining property to conduct a program of exploration such as that which I outlined to you in your office recently. Would you, therefore, please complete the enclosed exploration agreements in triplicate and return them to me at Ontario? One copy, signed by our Director, Mr. Earl K. Nixon, will be returned to you as promptly as possible.

We have established camp at a point about nine miles south of Twin Springs and have been doing general reconnaissance work in the district. We have found numerous outcrops of calcite, some of which show evidences of containing material capable of producing suitable crystals.

Enclosed is a copy of Dr. Lowry's report on the calcite occurrences in this district which you may find of interest.

Sincerely yours,

Ralph S. Mason
Mining Engr. for the Dept.

R
enclosures

STATE DEPARTMENT OF GEOLOGY AND
MINERAL INDUSTRIES

STATE ASSAY LABORATORY
402 E. 1 STREET
GRANTS PASS, OREGON

Camp Calcite
Feb. 27th 1944

Dr. Wallace D. Lowry
571 6th Ave.
Eugene, Oregon.

Dear Wally:

Greetings and salutations from the heart of Malheur county ! Too bad you can't be here with us, we're having one swell time, no foolin'. Camp lies just under the Iceland Spars 1 and 2, at the end of the road. Wag guided us in here, pointed to the calcite face way up on the hill and said here we were and let's get back to town--which we did almost immediately. It took us the better part of a day to locate No. 3 and Swan's claim about a mile to the north. Swan's "Bombsight" lies directly above Dugger's claim down in the canyon, and after knocking out a few rocks have managed to put the panel job right up on top of the ridge above the cut--some road and a very steep pull at the last.

I believe you said that the lake beds were tough. Boy that's no word for them. They are all ribbed with lime veinlets, cemented with impregnated lime, the material is tough and rubbery, and so resistant that a moil either won't penetrate it or sticks so tight that you have to dig it out with a pick. Actually the stuff is a type of cement or concrete, with little chert pebbles thrown in for aggregate. At one spot we are drifting while at another we are trying to sink, progress at both places being measured in inches per day, or less. We have put in a few light pops with varied success. Some of the holes bootleg while other loosen ten shovels full of muck--ho hum.

The road out here is a nightmare when its warm, but merely rough and long when its frozen. The truck quit me cold 10 miles out from Twin Springs one day and I had to walk it in to the nearest farmhouse after help--arriving just at dark. The truck goes into the shop every time I hit town--it would fall apart en route otherwise. The weather has been quite good on the whole. Usually it is clear and cold, with flurries of snow every few days, which lasts about half a day. We have three tents, including the cook's, with board floors and coal fired air-tight stoves.

How are you coming with Lane county? Has Hamblen broken the ground for his new plant or is he still tooling up? Better get a drilling project lined up so we can keep our present crews together. Yours for bigger and better crystals!

STATE DEPARTMENT OF GEOLOGY AND
MINERAL INDUSTRIES

STATE ASSAY LABORATORY
402 E. 1 STREET
GRANTS PASS, OREGON

Camp Calcite
Feb. 27, 1944

Mr. Norman S. Wagner
Baker Office.

Dear Wag:

Here we sit in the mud. One day it snows, the next day it melts, and the third day is clear and cold. Yesterday we had three inches of snow and today she's melting fast--tomorrow we'll have to walk to work. This country dries off fast, though, but I hate to think of what it would be like after a week's rain.

Have two faces going up on Swan's claim--one to be a drift if we ever get going, the other is intended to be a shaft, although progress so far has been so slow that neither will be anything unless we hit easier going. What we need is a compressor and light jackhammer equipped with a paving breaker or moil point. We finally got desperate the other day and decided that shock or no we were going to put in some light pops. We checked the calcite before and after the blast and could determine no alteration, although there may have been some incipient and invisible fracturing.

To date we have not recovered one crystal that even looked half-way decent. Some portions of the veins look quite clear but they are all too closely fractured. Apparently some of this fracturing has been the result of frost action along the mud seams. We are considerably below the frost line at one point but still the vein is fractured. Our biggest problem is to remove parts of the vein without damaging them, and then to trim them out so the interior of the chunks can be seen. I wrote the Portland office and they (Fay) suggested digging deeper---what the Sam Hill kind of an answer is that?

Fay said that he had written you re some calcite float between Huntington and Ontario near the Snake river. Have you taken a look at it yet? The cook keeps telling me about calcite veins outcropping here and there and yesterday we went out to look for one which he was sure was only two miles from camp---we never found it, which I suppose was to be suspected.

This morning about a half dozen twin motored, twin finned planes came over, flying pretty low and quite spread out, there was an overcast at about 1000 feet and they were under that---practically hedge-hopping. Apparently they were searching for something for we heard them cruising about for some time in the distance.

Sincerely,

STATE DEPARTMENT OF GEOLOGY AND
MINERAL INDUSTRIES

STATE ASSAY LABORATORY
402 E. 1 STREET
GRANTS PASS, OREGON

Box 517 Ontario.
Feb. 27, 1944

Mr. M.P. Tanning.
420 South 4th Street
Boise, Idaho.

Dear Mr. Tanning:

Responding to your letter of the 5th, in regard to granting us permission to carry on a program of exploration on your calcite holdings in Malheur county.

Our project is limited both by time and funds to such an extent that it would be impossible for us to do any work on your claims after April 5th. Our present plans call for our finishing up work here sometime within the next month, possibly much sooner, and once this project is complete and camp is broken it is extremely doubtful that any further work will be done on calcite in this area.

It would appear to me that since the Montana people have not as yet done any development or exploration work on the claims in question, and with the expiration date for the option only a matter of a few weeks off, that they will not be exercising their option. This observation is based only on the fact that anyone desiring to inspect the claims with the thought of purchasing them would need a much longer time than the few days remaining under the option.

If this foregoing assumption is correct it would seem to me that it might be advisable to write the party in Montana and tell them that we are anxious to develop a producing calcite property in this district for reasons of an extreme national emergency, and that if they are not going to exercise their option or do any exploration work that they permit you to give us written permission to do such work as is necessary. An alternative course would be for them to give us this permission direct under the terms of their option, which I imagine allows them to have such work done. You would stand to benefit in either case and most certainly it would benefit the war effort.

Sincerely yours,

Ralph S. Mason
Box 517, Ontario.

GOVERNING BOARD:

W. H. STRAYER, CHAIRMAN . . . BAKER
ALBERT BURCH MEDFORD
S. H. WILLISTON PORTLAND

EARL K. NIXON
DIRECTOR
F. W. LIBBEY
MINING ENGINEER
JOHN ELIOT ALLEN
GEOLOGIST
H. C. HARRISON
CHIEF CHEMIST



STATE DEPARTMENT OF GEOLOGY
AND MINERAL INDUSTRIES

702 WOODLARK BUILDING
PORTLAND 5, OREGON
26 February 1944

FIELD OFFICES:

2101 COURT STREET, BAKER
NORMAN S. WAGNER
FIELD GEOLOGIST
714 EAST "H" STREET, GRANTS PASS
RAY C. TREASHER
FIELD GEOLOGIST

TO: R.S.M.

FROM: F.W.L.

Thank you for your letter dated February 23. I was much interested in the conditions in the deposits you describe. If you secure some good specimens, please send them over when convenient.

I have heard from Wagner in reply to my letter about the possibility of finding Iceland Spar float between Huntington and Ontario. He is going to spend a couple of days in the field and see what he can find out.

I hope you received my letter about Mr. Briggs and that you have been able to get a wire off to him so that connections may be made. I hope that the Ford will give you no further trouble, at least when you are so far removed from a garage.

Sincerely yours,

A handwritten signature in blue ink, appearing to read "F. W. Libbey".

F. W. Libbey
Acting Director

FWL:ff



STATE DEPARTMENT OF GEOLOGY
AND MINERAL INDUSTRIES

702 WOODLARK BUILDING
PORTLAND 5, OREGON

February 25th, 1944

Mr. Ralph S. Mason,
Ontario
Oregon

Dear Ralph:

Thanks for sending the revised payroll, which cleans up the matter very satisfactorily. Neither Mr. Libbey or I could figure out whether the men worked 8 hours or 16 hours on Sunday, or why they should be paid for straight time and then get time-and-a-half for overtime in addition.

On the payroll for the second half of the month I shall make the necessary deductions, the detail of which is shown on the copy of the revised payroll which is enclosed with this letter. It worked out rather queerly—Swanson was overpaid \$4.50 on his earnings, but the withheld tax was not changed, but in Garri's case he was overpaid \$4, but the revised figures reduce his tax \$4, so that the net to him is the same.

X I sent the checks for the men's time at Coos Bay to you the other day, and no doubt you have received them by now. If the men want their pay checks sent to Marshfield, shall I send them to the office there and the wives will call for them, or should they be sent direct to their home addresses? If the latter, will you ask the men for their correct addresses, as sometimes they change from the time the exemption certificate was signed.

Your expense account is going through the routine, and I trust the Board of Control will not hold it up. It was an awful job preparing the voucher, as some of the items were Capital Outlay, and I had to segregate each item and then explain on the voucher what had happened. I trust they will rush it through. You've had to spend a lot of your own money.

The enclosed bills from Standard Oil Co. are puzzling us, but we presume they have something to do with the change to bulk rations on the gas. Will you let me know what the bills represent, and why the gasoline had to be purchased (if it was for the truck) from the Spokane office rather than the local filling station? As you know, the Board of Control has a contract with Standard Oil, and it may have some effect on the price charged.

I'm sorry to have to bother you with all this detail, as you have your hands full as it is, but hope after we get straightened out there will be no recurrence.

fas/
encls.

Yours,

Fred A. S.



STATE DEPARTMENT OF GEOLOGY
AND MINERAL INDUSTRIES

702 WOODLARK BUILDING
PORTLAND 5, OREGON

February 23rd 1944

Mr. Ralph S. Mason
Box 517
Ontario, Oregon

Dear Ralph:

Enclosed are paychecks for Swanson and Garris on the Coos Bay account. Not having any other instructions, it seemed best to send them to Ontario and let the men do as they wished (or rather, do what they are able to do) with them.

Has the weather moderated any in your section? It was very spring-like here yesterday - 60 deg.F. on my front porch, and Wally says California has moved to Eugene. Hope it keeps up.

Yours,

Fua

fas/
encls. checks 2

GOVERNING BOARD:

W. H. STRAYER, CHAIRMAN . . . BAKER
ALBERT BURCH MEDFORD
S. H. WILLISTON PORTLAND

EARL K. NIXON
DIRECTOR

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JOHN ELIOT ALLEN
GEOLOGIST

H. C. HARRISON
CHIEF CHEMIST



STATE DEPARTMENT OF GEOLOGY
AND MINERAL INDUSTRIES

702 WOODLARK BUILDING
PORTLAND 5, OREGON

23 February 1944

FIELD OFFICES:

2101 COURT STREET, BAKER

NORMAN S. WAGNER
FIELD GEOLOGIST

714 EAST "H" STREET, GRANTS PASS

RAY C. TREASHER
FIELD GEOLOGIST

Mr. Ralph S. Mason
Box 517
Ontario, Oregon

Dear Ralph:

Am just in receipt of wire from Mr. Nixon reading as follows:

"CHARLES A BRIGGS 2ND OF DONALD M MURRAY CO 14 EAST 46TH
STREET DESIRES VISIT MALHEUR CALCITE JOB ABOUT WEEKEND
MARCH FIFTH BRIGGS NEEDS TO KNOW HOW ADDRESS MASON TO GIVE
MASON 3 OR 4 DAYS NOTICE OF ARRIVAL ONTARIO HAVE MASON
WIRE BRIGGS NEW YORK."

You should wire Mr. Briggs as soon as you receive this letter, telling him the day, say the 29th of this month, when you will make it a point to be in Ontario to receive a wire from Briggs. He should, in his wire to you, state definitely when he will arrive in Ontario. I assume that when you learn the exact time that Briggs will arrive at Ontario that you should then meet him and take him out to camp. Other than the above telegram, I have nothing to go on except a letter in the calcite file which came to Mr. Nixon a few days before he left, stating that the above company, Donald M. Murray Company, is interested in obtaining a supply of optical calcite. I hope that this will reach you in time and that I have made myself plain. Probably you would have figured it out entirely satisfactorily without my explanation.

Best wishes.

Sincerely yours,

F. W. Libbey

F. W. Libbey
Acting Director

FWL:ff

P. S. How often do you get your mail and how? Are you obliged always to go to Ontario for it, or is there someone who brings it out to you? Why do you have Ontario rather than Vale as a postoffice address?

F.W.L.

New York N.Y.



STATE DEPARTMENT OF GEOLOGY
AND MINERAL INDUSTRIES

702 WOODLARK BUILDING
PORTLAND 5, OREGON

February 21st 1944

Mr. Ralph S. Mason
Ontario Oregon

Dear Ralph:

96¹⁰ 74¹⁰ 1272
Enclosed are paychecks for Swanson, Garriss and Harris on the calcite project, which the Board of Control put through in accordance with our letter of explanation the other day, of which letter a copy was sent you.

If you will let me know how you figure the overtime, we can tell whether or not there has to be an adjustment on the next payroll. However, as stated, probably your figures are correct, but we don't know how you arrived at them.

how

As soon as I hear from you in regard to your expense account, about which I wrote you, we will put it through for payment.

Hope you haven't had too much of the cold spell which has been prevalent east of the mountains. Regards from all.

Yours,

L. A. S.

fas/
encls. 3 checks

[Handwritten scribbles and signatures]

STATE DEPARTMENT OF GEOLOGY AND
MINERAL INDUSTRIES

STATE ASSAY LABORATORY
402 E. 1 STREET
GRANTS PASS, OREGON

Camp Calcite
Feb. 20, 1944

Miss June Roberts
Portland Office

Dear June:

Would you please send me the following items along
with the next batch of mail for Camp Calcite?

20-30 inter-office half sheets
20-30 white bond second sheets 8½x11

This will also acknowledge with many thanks the safe
arrival of the Brunton and loose-leaf pads as requested.

Thank you.

Sincerely,

r.

STATE DEPARTMENT OF GEOLOGY AND
MINERAL INDUSTRIES

STATE ASSAY LABORATORY
402 E. 1 STREET
GRANTS PASS, OREGON

Camp Calcite
Feb. 20 1944

Mr. Earl K. Nixon
Portland Office

Dear Earl:

Just a line or two to bring you up to date on the way things are going.

We are working at two likely looking points on the Bombsight claim. One spot is in the face of an old cut which has a ten foot face with a 12 inch vein along one wall. We are planning on going ahead with this face, eventually getting underground. The rock is ribbed with lime and very tough and we are milling and picking it down, being careful to work the face away from the veing first, relieving any strain on the calcite. The second spot is on a parallel vein about 100 feet farther up the hill. This showed up originally as a small outcrop with some large crystals. We have stripped the veing which varies in width from six to 30 inches, on both sides to a depth of several feet and have been carefully stripping off the loose chunks which have apparently been cleaved by frost action. The crystals are predominantly fractured though not otherwise clouded or colored and we are in hopes of reaching the undisturbed zone within a few feet.

We have been having considerable difficulty in breaking up large chunks which have dirty surfaces. If we smack them in the face with a singlejack we ruin any possibility of recovering perfect crystals. We have tried cleaving them with the tools at hand but have met with only indifferent success. A sharp, hard blow on the back of a knife blade sometimes cleaves a fairly large chunk beautifully, but too often it merely dulls the blade and ruins the chunk. We have brought several large chunks down to camp in the truck to work on at odd moments but the problem still stares us in the face.

Weather still mainly clear and cold. The road is easily passable during early morning but nearly impassable in afternoon when an inch or so of the muck thaws. Last night it froze an inch of ice which gives you some idea of what it can do here.

Sincerely,

STATE DEPARTMENT OF GEOLOGY AND
MINERAL INDUSTRIES

STATE ASSAY LABORATORY
402 E. 1 STREET
GRANTS PASS, OREGON

Camp Calcite
Feb. 20, 1944

Mr. F.A. Steeble
Portland Office

Dear Fred:

Replying to yours of the 12th re out of State travel. The extent of my travels in Idaho would be a short trip to Boise with possibly a night's lay-over there. This is all pretty ephemeral at the time, since the trip hinges on not being able to get permission to enter on some fellow's claims by mail or phone. When in town tomorrow I will try and remember to get the amount of bus or train fare from Ontario to Boise and enclose it with this letter so that you may have a basis for making an application should the necessity arise.

Sincerely,

STATE DEPARTMENT OF GEOLOGY AND
MINERAL INDUSTRIES

STATE ASSAY LABORATORY
402 E. I STREET
GRANTS PASS, OREGON

Camp Calcite
Feb. 20, 1944

Mr. F.A. Steeble
Portland Office

Dear Fred:

Respon ding to yours of the 14th and thanking you for the 33 enclosures which arrived just as I cashed in my last coupons at the town pump. At the present rate of gas consumption on this project, we should have just about enough gas to finish this project up provided it only lasts until the middle of March, and bring the panel job back home. By having the crew walk to work instead of driving them certain economies in gas consumption can be effected, but this is only practicable should a serious shortage become apparent.

While in Onario a few days ago I succeeded in having the local OPA board authorize bulk transfer of gas on our truck coupons without any folderol at all and fifteen minutes later I was headed out for camp with a fifty gallon drum of 80 gas in the back of the truck. Darn lucky I managed to get it too because I used 3/4 of a tank just getting out to camp--the road was that tough. I hope you have a sizeable depreciation figure set up on the panel job--she sure takes an awful beating in country like this.

A secondary benefit which might be derived by having optional bulk transfer privileges for all fleet units lies in the fact that any coupons unused at the close of a ration period could be expended in buying gas in drums which could be used to ease the pinch during the next quarter etc.

Will repay Wag the borrowed gas ducats provided I have any left. Many thanks for your untiring efforts in keeping us gassed up.

Sincerely,

r.

GOVERNING BOARD:

W. H. STRAYER, CHAIRMAN . . . BAKER
ALBERT BURCH MEDFORD
S. H. WILLISTON PORTLAND

EARL K. NIXON
DIRECTOR

F. W. LIBBEY
MINING ENGINEER
JOHN ELIOT ALLEN
GEOLOGIST

H. C. HARRISON
CHIEF CHEMIST



STATE DEPARTMENT OF GEOLOGY
AND MINERAL INDUSTRIES

702 WOODLARK BUILDING
PORTLAND 5, OREGON

19 February 1944

FIELD OFFICES:

2101 COURT STREET, BAKER
NORMAN S. WAGNER
FIELD GEOLOGIST

714 EAST "H" STREET, GRANTS PASS

RAY C. TREASHER
FIELD GEOLOGIST

Mr. Ralph S. Mason
P. O. Box 517
Ontario, Oregon

Dear Ralph:

As you know, Earl is in the east and will not return until about March 6. Referring to your letter to him dated February 16, I can appreciate the problems you have in connection with reducing the size of the large pieces of calcite in seeking possible optical grade material. My comments may not be pertinent, since I have never been on the ground. However, I should think that you would need to get some depth on the deposit before you would get away from some of the surface influences. It is possible, of course, that such depth might be considerable, but judging from all the material I have seen so far, I would think that there isn't a very good chance of finding what you are looking for except by getting away from the surface or by getting to a place where the vein narrows. Whether or not any one of the veins in the area, or any part of one of the veins contains less staining than the others, I do not know. I suppose you have investigated this possibility.

I have been told that Iceland Spar is fairly common as float in lake bed material in the general locality between Huntington and Ontario near the Snake River. I am asking Wagner to investigate the matter and you may hear later what he finds out, if anything.

Wally is still in Eugene. We have heard nothing from John Allen since the first week of this month. Plans are now to terminate the field work at Coos Bay as soon as the drilling now under way on Southport is completed.

Sincerely yours,

F. W. Libbey
Acting Director

FWL:ff



STATE DEPARTMENT OF GEOLOGY
AND MINERAL INDUSTRIES

702 WOODLARK BUILDING

PORTLAND 5, OREGON

February 18th 1944

Mr. Ralph S. Mason,
Ontario, Oregon

Dear Ralph:

We received your letter and the payroll this morning, and the latter is going forward to Salem today, although neither Mr. Libbey nor I have been able to figure out the overtime as you have it. I called up Mr. Young, the Assistant Budget Director, and asked if it would be possible to submit the payroll as you have rendered it, with a letter of explanation, and make any adjustments necessary in the payroll for the second half of the month. A copy of our letter to the Budget Division is attached. It really will be necessary for the Secretary of State's office (that being the official auditor's department) to make the final decision, but Mr. Young will pass on the letter to them with the payroll.

I note that although you say Sunday work calls for double pay, you have charged 8 hours at the straight rate, and 8 hours overtime, but even so we make it more, as for instance Garris should have \$28 instead of \$20. Will you let me know how you figure this overtime, so this matter won't come up again? You are probably right in your figures, but the payroll submitted to Salem is on a different form, and we have to make it plain how we arrive at the figures.

I am quite sure you must have a copy of the Withholding Tax book containing the tables, as you asked me for it and I happened to have an extra copy in the folder. However, another copy is going forward to you by separate mail.

In a conversation with the SIAC this morning, they inform me it is necessary to have a breakdown on the time spent on surface mining and on underground work. The rate on the former is \$4.50, but on the latter it is \$8.00, which is certainly plenty high, so the less time spent on underground work the better for us financially. However, that is an engineering matter and out of my line, except as regards figuring the amounts due SIAC.

I wrote you about the optional bulk delivery of gasoline the other day and Mr. Nixon also wrote you: just take your coupon book to the nearest ration board and they will stamp it, so there should be no difficulty about that.

I haven't been able to check closely on your expense account, but am afraid some of your charges for lodging and meals need more explanation before you will be paid. Do these charges cover the two Coos Bay men? This refers to the charges of Feb. 5th and 6th in Portland for lodging and meals,

\$5.60 and \$3 respectively, as well as to some of the other items.

Sorry to load this grief on you in addition to your other worries, but am afraid it can't be helped.

Mr. Ralph S. Mason,
Ontario, Oregon

Yours,

Dear Ralph:

We received your letter and the payroll this morning, and the latter is going forward to Salem today, although neither Mr. Lipsey nor I have been able to figure out the overtime as you have it. I called up Mr. Young, the Assistant Budget Director, and asked if it would be possible to submit the payroll as you have rendered it, with a letter of explanation, and make any adjustments necessary in the payroll for the second half of the month. A copy of our letter to the Budget Division is attached. It really will be necessary for the Secretary of State's office (that being the official auditor's department) to make the final decision, but Mr. Young will pass on the letter to them with the payroll.

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STATE DEPARTMENT OF GEOLOGY AND
MINERAL INDUSTRIES

~~320-37 W. OAK STREET~~

PORTLAND, OREGON

702 WOODLARK BUILDING

February 18th 1944

Budget Division,
State of Oregon,
Salem, Oregon

Gentlemen:

Early this month one of our engineers, Ralph S. Mason, took a crew of two men to Malheur County to work on the calcite exploration project, the cost of which is to be charged to the Strategic and Critical Minerals allocation under Special Requests.

We are today in receipt of the first payroll and are calling your attention to the payments for overtime, the detail for which is given on Mr. Mason's original payroll, a copy of which is attached to this letter. This overtime is somewhat involved, and we quote from Mr. Mason's letter:

"Perhaps a word or two of explanation is in order about the basis of computation for the current payroll. All men save the cook are being nicked a dollar a day for grub, get time and a half for everything over 40 per hours per week, and double time for hours worked on Sunday. We probably won't be working on Sundays very much but there are times (as on the 13th when we moved in) when we will be doing work on Sunday. The cook gets 75¢ an hour with grub furnished. He will be doing miscellaneous surface work from time to time in addition to his culinary duties".

We have endeavored to verify Mr. Mason's figures with regard to overtime for two of the men (the cook not being included) but are unable to do so, and consequently are submitting the figures as given us by Mr. Mason, with the intention of making whatever adjustment is necessary in the payroll for the second half of the month. In each man's case we figure there is more due than he has allowed. The hitch in the case arises from the fact that the work is being done in a very remote region and it would take at least a week, or more, to get Mr. Mason's explanation of the charges. The men are working under difficulties, living in tents and working in the snow, and if their paychecks were unduly delayed it might result in our losing both of them. They are not local men from Malheur County, but are part of the crew that has been working in Coos County, and both of them have been with us for several months.

Under the circumstances, it was our thought to submit the payroll as rendered by Mr. Mason for your decision, and make any necessary adjustment in the payroll for 2/15-2/29. You will note we are paying this Department the \$20 withheld from the two men's wages for meals, the idea being

STATE DEPARTMENT OF GEOLOGY AND
MINERAL INDUSTRIES

-2-

to credit our GMM account, sec. 7 ch. 179 OL 1937 with the amount, and charge the cost of the food against it, so the subsistence feature may be as nearly balanced as possible. If this is not agreeable, please advise us how you wish it handled.

There will be further complications in future on this payroll with regard to State Industrial Accident Commission. We quote further from Mr. Mason's letter:

"Don't know how you have set this project up with respect to SIAC but for your information we will be doing some underground mining, although surface operation will probably constitute the bulk of our work. Do you want me to make a breakdown between surface and underground time put in by the men?"

The SIAC advises us the breakdown will be necessary, as the charge for underground mining is \$8.00 per \$1.00 paid, and for surface mining \$4.50. As underground mining has yet been done, we will charge the present payroll at the \$4.50 rate, but the higher rate may be necessary at times.

We are today in receipt of the first payroll and are calling your attention to the payments for overtime, the details of which is given on Mr. Mason's original payroll, a copy of which is attached to this letter. This payroll is somewhat involved, and we quote from Mr. Mason's letter:

"Perhaps a word or two of explanation is in order about the basis of computation for the current payroll. All men save the cook are paid a day for grub, get time and a half for every thing over 40 per hour per week, and double time for hours worked on Sunday. We probably won't be working on Sundays very much but there are times (as on the 18th when we moved in) when we will be doing work on Sunday. The cook gets 75¢ an hour, grub furnished. He will be doing miscellaneous surface work over time in addition to his ordinary duties."

for Earl K. Nixon, Director

CC: Ralph S. Mason,
Ontario Oregon

We have endeavored to verify Mr. Mason's figures with regard to overtime for two of the men (the cook not being included) but are unable to do so, and consequently are submitting the figures as given us by Mr. Mason, with the intention of making whatever adjustment is necessary in the payroll for the second half of the month. In each man's case we figure there is more due than he has allowed. The hitch in the case arises from the fact that the work is being done in a very remote region and it would take at least a week, or more, to get Mr. Mason's explanation of the charges. The men are working under difficulties, living in tents and working in the snow, and if their paychecks were unduly delayed it might result in our losing both of them. They are not local men from Malheur County, but are part of the crew that has been working in Coos County, and both of them have been with us for several months.

Under the circumstances, it was our thought to submit the payroll as rendered by Mr. Mason for your decision, and make any necessary adjustment in the payroll for 2/15-2/29. You will note we are paying this Department the \$20 withheld from the two men's wages for meals, the idea being

State of Oregon
DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES
702 Woodlark Building
Portland, Oregon

Portland, Oregon
February 17, 1944

Dear Ralph,

Your letter of the 13th has been received and its contents cheerfully noted. It pepped up both Mrs. Owen and me better than a 3 o'clock coke. You can imagine with what alacrity I wrapped up the boiled horse and the carbon paper. Thanks to you and "Wag" we can dream now without those horrible nightmares. And it was no trouble at all.....

Sincerely,

Joyce Priestaf



STATE DEPARTMENT OF GEOLOGY
AND MINERAL INDUSTRIES

702 WOODLARK BUILDING
PORTLAND 5, OREGON

16 February 1944

Mr. Ralph S. Mason
Box 517
Ontario, Oregon

Dear Ralph:

Thanks for your interesting letter of February 13.

This is a hasty note as I am getting out of the office to go east. Steeble has checked up on the "bulk transfer" business and finds that "Ralph should take his coupon book to the nearest ration board and have it stamped." See if this doesn't fix you up.

Am sending you check for \$25 as you requested.

Am depending on you to keep us in the clear on permission to explore on these various groups. Don't be afraid to talk up to an attorney and ask him to put his permission in writing.

I will be back March 6. Meantime take up anything with Mr. Libbey. Best of luck to yourself and the gang.

Sincerely yours,

Director

EKN:jr
Encl.

100
96
112.50
108.00

16
18

24

96

56
1125
56
6750
5625
63000

63

State of Oregon
DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES
702 Woodlark Building
Portland, Oregon

February 16th 1944

Mr. Ralph S. Mason
Ontario Oregon

Dear Ralph:

After chasing from hell to breakfast all over town, I finally managed to get some of your table setting for you, and they are going forward by separate mail. Table knives absolutely are "non est"; the final result is I had to get paring knives (!) and some pseudo-silver knives and spoons. The knives really are sharp, so if your filets mignon are tough they can be whittled down, but don't let the boys try to eat their peas with their knives, otherwise you'll have to consult the SIAC for damages. The steel shovels have been ordered through Salem, although possibly Wag could have got them for you from Basche-Sage Hdwe. Co. in Baker.

The Ford truck got away from Coos Bay before I got the mileage on Feb. 1st; can you figure back and let me have the approximate figure, so I can report to Salem? I am expecting to hear from Salem any day as to why no report, so the sooner I get it, the less chance for a wiggling from S. I hope you got the gas coupons all right; I asked the ration board about bulk transfer, and they said for you to get the nearest ration board to stamp the book of coupons "bulk transfer", and it would be all right. Hope this is the end of your troubles.

FAS/

Yours, *FWS*

STATE DEPARTMENT OF GEOLOGY AND
MINERAL INDUSTRIES

STATE ASSAY LABORATORY
402 E. 1 STREET
GRANTS PASS, OREGON

Camp Calcite
Feb. 16, 1944

Mr. Earl K. Nixon
Portland Office

Dear Earl:

This letter is being written at camp after a day of mining for the blinkety-blank optically pure crystals. We found all sorts of crystals but none of them so far have come anywhere near the standards for the commercially acceptable material. We laid out over a ton of the material today and looked it over carefully, but the stuff is either too checked or contains cloudy inclusion, dirt or voids. We have tried sawing off odd corners of some of the larger lumps with the saws at hand---the hacksaw will eat into it alright but the blade is too short and the back isn't deep enough to tackle a large chunk successfully. The meat saw worked somewhat better but it is much too slow. Frankly I don't know what kind of a blade would be best for such work. Anyblade requiring a frame is practically unsuited for sawing blocks such as we will be bringing out. Some stiff-bladed saw with rather large teeth might do the trick provided it didn't ravel the calcite, which has a disheartening tendency in that direction. As for sawing out likely looking crystals in situ, that is a white horse of a different color. Our best bet at this writing seems to be to try and wedge out a big chunk containing crystal material and deal with it later. The calcite stringers are the toughest, stubbornest animals to do anything with I ever saw.

We have located the Iceland Spar No. 3, and Swan's "Bombsight" claim both of which lie about a mile to the north of camp. Iceland Spar Nos. 1 & 2 lie just up the hill from camp and the Red Butte Claim located by Ray Jacobs. We plan on doing our first full-scale work on the Bombsight, but have been trying out techniques of mining and extraction on some of the others nearer at hand. We will have to rough out a road up to the Bombsight since it lies some little distance from the road and considerable higher.

The weather has been somewhat uncertain, yesterday was perfect, blue sky, cool, last night it snowed a bit and today has been cloudy and cold. The ground as a whole is quite dry and the roads are slowly drying up--made it out in 2½ hours flat on Monday. The trucker managed to haul out the loadright out to camp, rather than dumping it off at Twin Springs as I had feared he might.

This just about brings you up to date on things happening out this way. More later.

STATE DEPARTMENT OF GEOLOGY AND
MINERAL INDUSTRIES

STATE ASSAY LABORATORY
402 E. 1 STREET
GRANTS PASS, OREGON

Camp Calcite
February 16, 1947

Mr. F.A. Steeble
Portland Office

Dear Fred:

Enclosed are expense vouchers for the first half of this month together with expense blank and two General Fund forms which have been signed. Several vouchers have turned up missing, due no doubt to the rough and tumble life I have been living for the past ten days. Have noted their disappearance on slips of paper--- the vouchers may turn up sooner or later and if so will send them in.

Also enclosed is the payroll in duplicate for the first half of February. Have not completed the forms since I do not have the Withholding Tax Form for computing tax deductions. If you could send me a copy of this form I could complete the payroll at this end. Have secured the vital statistics on the cook and same are contained on the enclosed form W-4.

Perhaps a word or two of explanation is in order about the basis of computation for the current payroll. All men save the cook are being nicked a dollar a day for grub, get time and a half for everything over 40 hours per week, and double time for hours worked on Sunday. We probably won't be working on Sundays very much but there are times (as on the 13th when we moved in) when we will be doing work on Sunday. The cook gets 75¢ an hour with grub furnished. He will be doing miscellaneous surface work from time to time in addition to his culinary duties.

Don't know how you have set this project up with respect to SIAC, but for your information we will be doing some underground mining, although surface operation will probably constitute the bulk of our work. Do you want me to make a break-down between surface and underground time put in by the men?

I mentioned to Early in my last letter that it would be a good idea if the fleet gas allotment could be put on an optional bulk delivery basis. On this job it takes darn near a half tank of gas to drive out here from town, with the same amount of course being consumed on the return trip, all of which leaves us no gas to run around here at camp delivering supplies, chasing after water (nearest is 3 miles away) and numerous other side trips to numerous to mention. If we could buy a 50 gallon drum of gas and bring it out here we would be able to work much more effectively. Can you do anything?

Sincerely,

Enclosures

GOVERNING BOARD:

W. H. STRAYER, CHAIRMAN . . . BAKER
ALBERT BURCH MEDFORD
S. H. WILLISTON PORTLAND

EARL K. NIXON
DIRECTOR
F. W. LISBEY
MINING ENGINEER
JOHN ELIOT ALLEN
GEOLOGIST
H. C. HARRISON
CHIEF CHEMIST



FIELD OFFICES:

2101 COURT STREET, BAKER
NORMAN S. WAGNER
FIELD GEOLOGIST
714 EAST "H" STREET, GRANTS PASS
RAY C. TREASHER
FIELD GEOLOGIST

STATE DEPARTMENT OF GEOLOGY
AND MINERAL INDUSTRIES

702 WOODLARK BUILDING
PORTLAND 5, OREGON

February 14, 1944

Mr. Ralph Mason,
Ontario, Oregon

Dear Ralph,

I forgot to bring your letter down to the office but I shall send it tomorrow. It consisted of a copy of a letter from the Department to Salem or someplace asking about arranging for out-of-state travel and expenses. It also contained a batch of Tax Exemption Certificates, a few of which I am enclosing.

I borrowed a blower from Jack Gyllenburg and I bought and paid for an anvil (\$5.00) and wedges (1.00). These together with the galvanized tub and brace I am sending prepaid to you to be held at the Consolidated Terminal in Ontario.

I have written Fred sending him my receipts and advising him that they were for your project so he can keep his accounts straight.

As it is I received the Basche-Sage bill for powder fuse and caps from him asking if they were mine and if so how come.

Sincerely

NSW:fs

Wag

State of Oregon
DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES
702 Woodlark Building
Portland, Oregon

February 14th 1944

Mr. Ralph S. Mason
Vale Oregon

Dear Ralph:

The request for additional fleet gasoline was granted, and this morning after the new certificate arrived I got the extra coupons.

Enclosed are 33 coupons, good for 5 gallons each, nos. 4165538 to 4165570 inclusive, which will run you about 500 miles. If Wagner ran short after borrowing done by you, perhaps you had better give him some to compensate. As you know, these coupons are not good after March 31st. In all we were granted 425 gallons, or 85 coupons, but of course some has to go to Coos Bay for their needs.

With best regards,

fas/
encls. 33 gas coupons

Yours,

F. J. [signature]

Later: June tells me your address will be Ontario. If you haven't done so already you'd better advise PO at Vale to forward your stuff.

Ontario, Oregon
February 13, 1944

Mr. Earl K. Nixon, Director
State Dept. of Geology
702 Woodlark Bldg.
Portland, Oregon.

Dear Earl:

This expedition is rapidly assuming the aspect of an Everest expedition--we now have our supplies cached at at least two different spots along the line of march, and there is no telling how many more there will be before we finally get to where we are going. An added note of realism to the Everest likeness is a whacking fine snowstorm which rolled in from central Oregon a couple hours ago and which is now brightening up the landscape a bit.

Wag took us out to see the Iceland Spar claims the other day--after all the local yokels had declared that the road was absolutely impossible etc. etc.--so we drove clear out to Twin Springs without chains and only got the panel job stuck twice and Wag's coupe once--in a snowdrift. The going from Twins springs on up to the claims--8.75 miles was tougher and much slower, with numerous stops to heave and shove. We arrived on the ground at five, unloaded the truck, took a quick look around and headed back, arriving in Vale at 11:30. Wag tore up a brand new tire and lost his tail pipe, but otherwise we fared quite well. The panel job in particular did a nice job of going thru rough ground although the overhand in back is unhandy when negotiating sharp dips.

After two days of scouting by all four of us, we finally managed to hitch together the essential items for camp and this morning at 3 am a truck load went out on a local truckers dual wheeled tandem axle job. If they make it out to the cache okay, the boys will spend the night, otherwise they will come back. I feel like the skipper at a bomber base waiting for his air crew to come back from a mission---they have been gone nearly fourteen hours now and no news. Early tomorrow I go out with the panel and the cook tags along with his Model A. I plan on returning to Ontario on Wednesday and taking out another load and one more man Thursday.

We will be camping in tents since the distance and difficulty of making the trip from Twin Springs is so great that the project would consist in one long session of truck driving. I got another used 10x12 tent and the Cook has his own camp outfit. I hope that by the time this reaches you that extra gas coupons will have arrived. I have enough gas for two more trips to the dig and that is all. Wag gave me all he could possibly spare, and that on a loan basis.

Too bad we didn't think to check with Wag on the coal situation in Eastern Oregon during our tiff with Hill--they have been limited to a 3 day's supply in Baker and some houses have even had to do without and moved in with the neighbors for indefinite periods. Supply is spasmodic but generally scarce. We managed to get 1½ tons of Utah lump here in Ontario at a price which utterly precludes Coos Bay Coal from ever invading the local market, so have stopped praising the stuff quite so highly.

After several attempts I finally buttonholed Attorney Swan who allegedly jumped the Matevia-Tonning claim, and got his verbal permission to prospect on his ground. He was very cordial and apparently takes quite an interest in local minerals. Hass O.O. Bailey written or called re the status of their suit to quiet title to the Iceland Spar group?

Wag certainly proved to be a friend in need during the entire time we were together. He certainly bustles around makes himself useful. We were able, at long last, to track down the bug in the antimony calculations, with Wagner winning by technicality over Harrison who will no doubt be in a bad mood for weeks to come as a result.

It just occurred to me that it might be a good idea to try and have our future fleet gas allowance placed on an optional bulk transfer basis. This would enable us to take delivery in part in drums which could be hauled to the dig and used for refilling the truck rather than having to run clear in to town every time the tank got low. As I understand it, this requires no great amount of red tape and it could be very convenient in the future.

Please pardon the atrocious letter stock but my stationery supplies are cached at Camp II and this yellow stuff happened to be in the truck so---. I have had some wallet whacking expenses and since it will be some time before the state gets around to reimbursing me for current bills do you suppose you could send me 25 bucks to tide me over. Your original 100 buck will be forthcoming immediately I receive expense check from Fred.

If you decide to come over this way to give the project the once over and find the roads impassable don't be downhearted. The local airport is owned by a woman who will whip you out there and back for 15 dollars, which is darn reasonable, in fact almost as cheap as driving out there. In addition you get a swell overall view of the project.

This letter is somewhat botched up since I have been pounding the printing press myself. Its too bad that hotels object to men having lady friends visit them in their rooms.

Sincerely,

Ontario, Oregon
Feb. 13, 1944

Dear Fred:

Would you please try and locate the following items for me? I have tried to find them locally but they no got, believe it or not. I would like two shovels, round point, No. 2 and made of steel, not anything made of cast like the one we bought here. Also if you can locate some cheap tin tableware, 3 table knives, 3 spoons and 3 forks. This is more of a nuisance than anything and only the dire need for above items forces me to ask you to try and locate them. I have a P.O. Box 517 here in Ontario to which all correspondence and packages should be sent.

You will presently be receiving bills from local suppliers for items and services which were too large for my limited personal expense account. Have explained to each one of them to send bills in triplicate to the Portland office, etc.

Payroll for first half of the month will be coming in as soon after the 15th as humanly possible.

Sincerely

r

State of Oregon
DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES
702 Woodlark Building
Portland, Oregon

February 12th 1944

Dear Ralph:

Roy H. Mills, Secretary of the Board of Control, has the following to say in regard to the possibility of your going to Boise: "We believe you should apply to Governor Snell for an out-of-state travel authorization, making an estimate of the probable expense and giving him a statement as to the necessity for the work outside the state".

If you think it necessary to go to Boise, if you will give us an estimate of the cost we can apply for the travel authorization; if afterward we find it was not necessary, it can be returned for cancellation.

THE ODT promised to have the new War Necessity certificate in our hands yesterday, but it hasn't come yet. Evidently the application has passed, and as soon as we get the certificate we will get the additional gas coupons and forward some of them to you.

Yours,

Later: Just phoned ODT
and they tell me the
certificate will be in
the mail so we get it
Monday

fas

Mr. Ralph S. Mason, Vale, Oregon

Ind

C
O
P
Y

Boise, Idaho
2/5/44

State Dept. of Geology
Portland, Ore.
Gentlemen:

I have your letter of Jan. 31, 1944, addressed to Matevia and myself, stating that you would like to do some exploration work on our Calcite Claims in Malheur County, and in regard to Messrs. Schmeykal and Muckensturm. We consider their lease Null and Void as they have failed to live up to their agreement, and I notified them to that effect last July as soon as I returned to Boise.

On Oct. 5/43 we executed a contract for sale of the property to some Montana people. We put a Deed in Escrow for six months which will expire on April 5, 1944, in the event they do not fulfill their agreement, so until then we are not at liberty to sign the agreement enclosed in your letter.

In the event that this contract expires, we are going to take legal action against Messrs. Schmeykal and Muckensturm to clear our title.

After this is all settled we will be glad to co-operate with you in any manner that we can.

I am located in Boise permanently, and if I can help you in any way I will be glad to do so. If you are interested in coal in Oregon I can show you a couple of good Coal Blossoms that will measure about six to eight feet in depth, as I have some coal leases in Malheur County, and have spent a lot of time and money working this property.

Yours truly,

M. P. Tanning
420 South 4th St.