CONTACT INFORMATION
Mining Records Curator
Arizona Geological Survey
1520 West Adams St.
Phoenix, AZ 85007
602-771-1601
http://www.azgs.az.gov
inquiries@azgs.az.gov

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Arizona Department of Mines and Mineral Resources Mining Collection

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05/19/88

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES FILE DATA

PRIMARY NAME: BACHMANN MICA

ALTERNATE NAMES:

MOHAVE COUNTY MILS NUMBER: 252A

LOCATION: TOWNSHIP 38 N RANGE 16 W SECTION 31 QUARTER --
LATITUDE: N 36DEG 39MIN 15SEC LONGITUDE: W 114DEG 02MIN 56SEC
TOPO MAP NAME: VIRGIN PEAK - 15 MIN

CURRENT STATUS: EXP PROSPECT

COMMODITY:
MICA

BIBLIOGRAPHY:
ADMMR BACHMANN MICA FILE

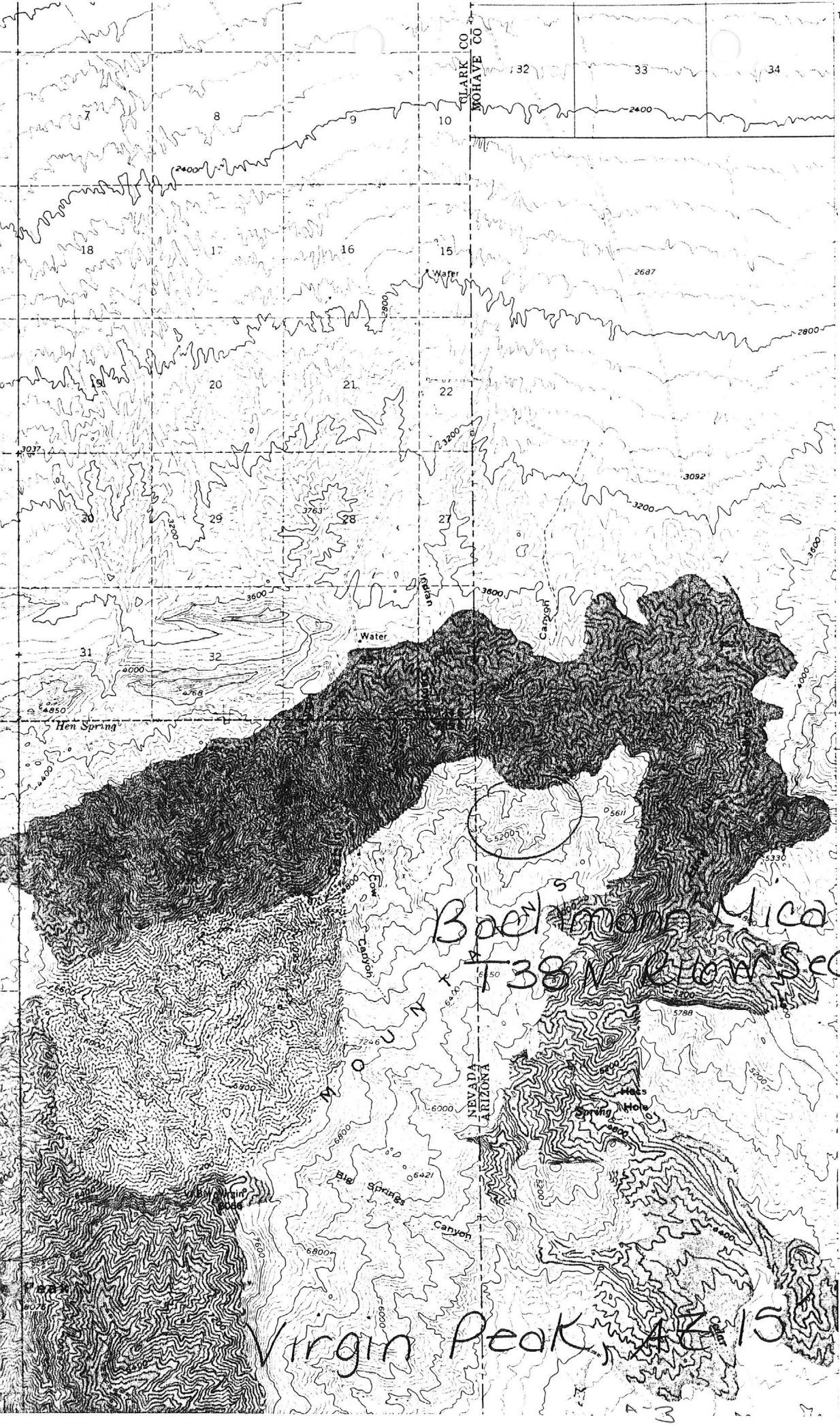
BACHMANN MICA

REFERENCES

MOHAVE COUNTY
T38N R16W Sec. 31

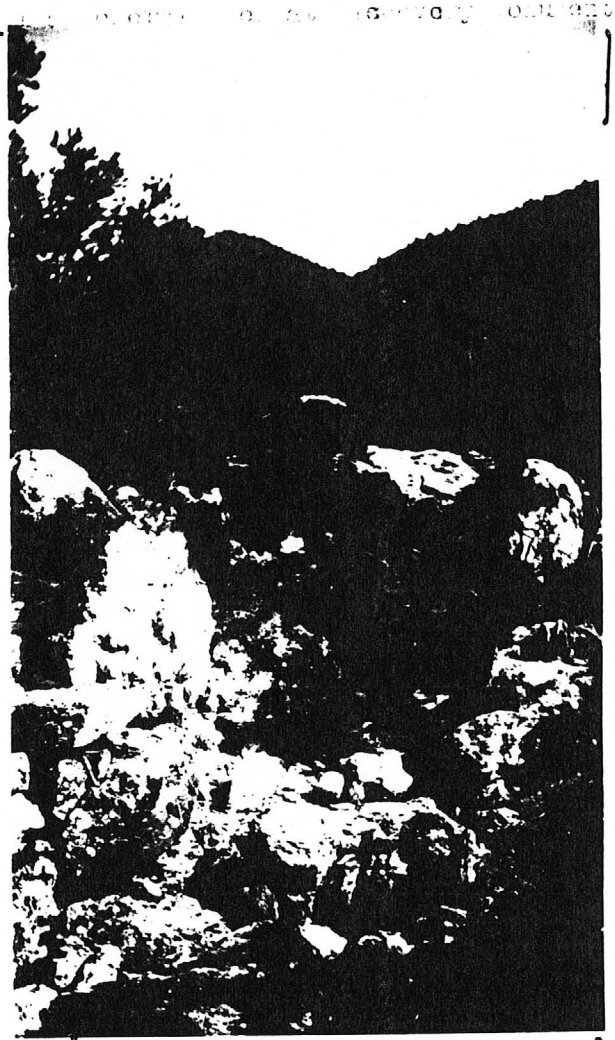
Mohave County MILS Index #252A

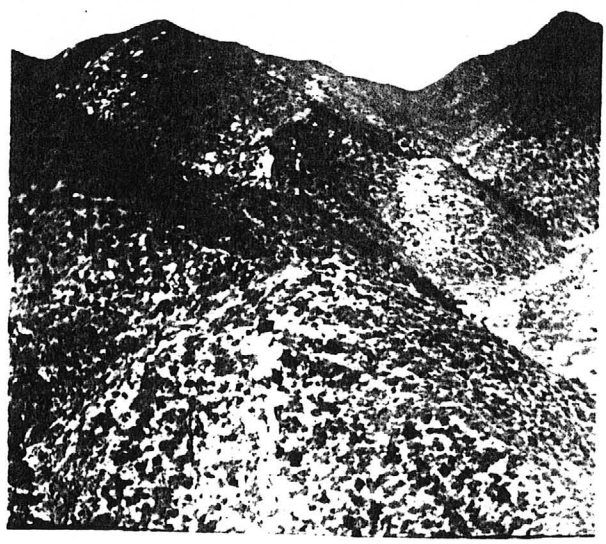
Virgin Peak, AZ 15' Topo (included in file)



Boehmont Mica
T 38 N R 10 W Sec. 31

Virgin Peak 4E 15



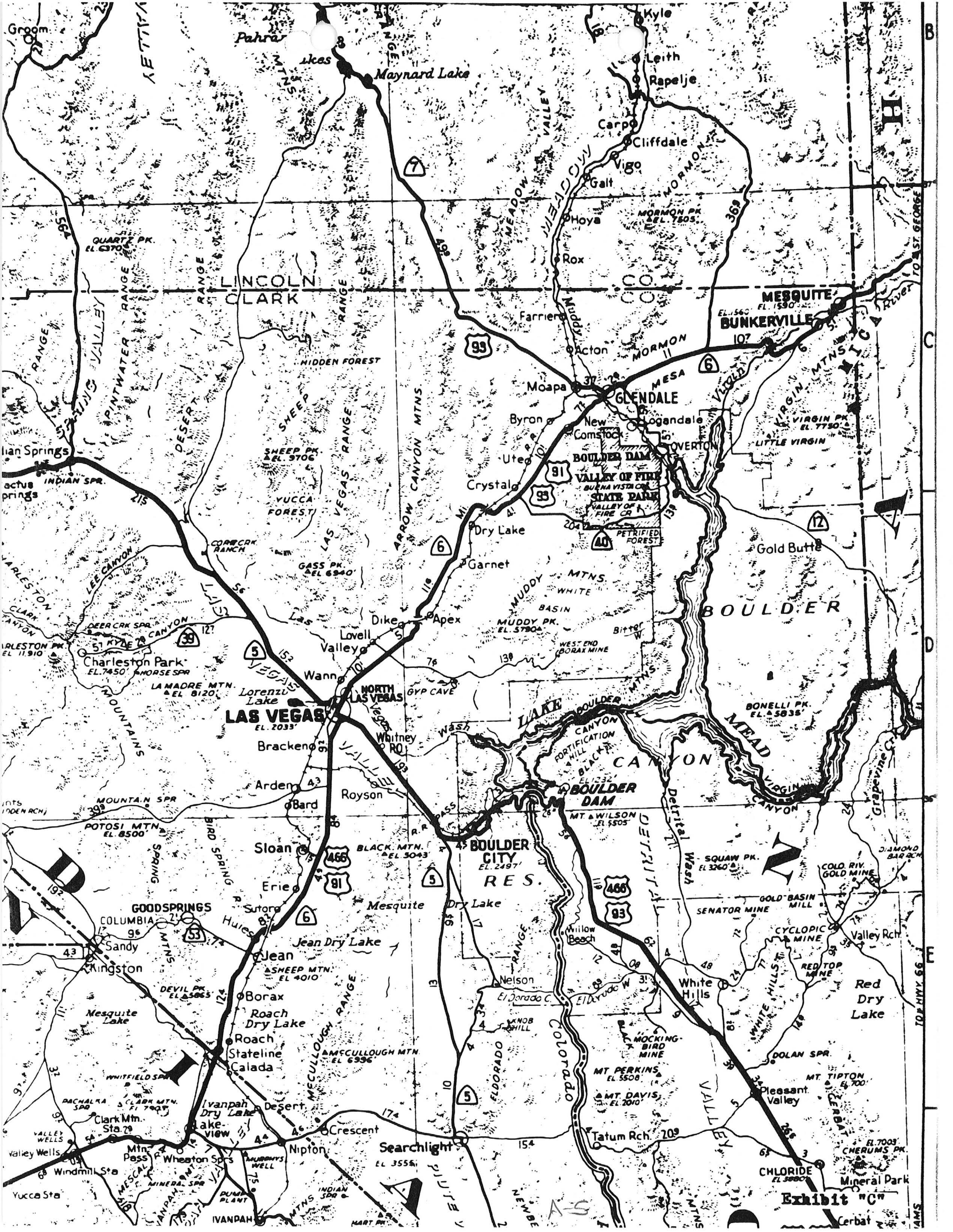


GREAT WESTERN MICA CORPORATION

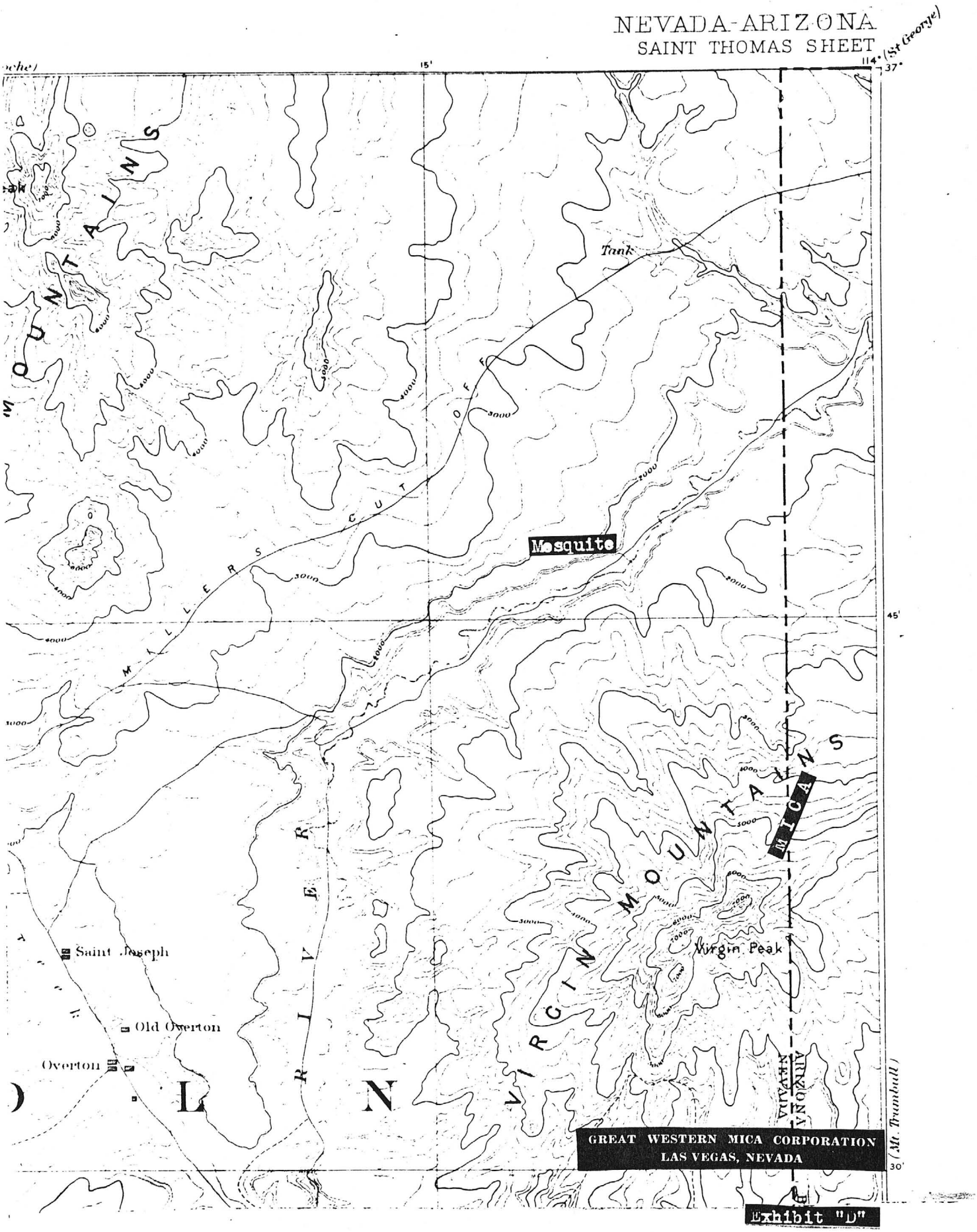
LAS VEGAS, NEVADA

Exhibit "J"

A-4



Groom
Pahranagat Lakes
Maynard Lake
Kyle
Leith
Rapelje
Carp
Cliffdale
Vigo
Galt
Hoya
Rox
MEADOW VALLEY
MORMON
MORMON PK EL. 7505
QUARTZ PK. EL. 6370
LINCOLN CO.
CLARK CO.
MESQUITE EL. 1590
BUNKERVILLE
Farrier
Acton
Muddy
Moapa
GLENDALE
Byron
New Comstock
Logandale
OVERTON
Ute
Crystal
BOULDER DAM
VALLEY OF FIRE STATE PARK
PETRIFIED FOREST
VIRGIN MTNS
VIRGIN PK EL. 7750
LITTLE VIRGIN
Gold Butte
Dry Lake
Garnet
MUDDY MTNS.
WHITE BASIN
MUDDY PK. EL. 5790
WEST END BORAX MINE
Bitter
BOULDER
HIDDEN FOREST
SHEEP RANGE
SHEEP PK. EL. 9706
YUCCA FOREST
LAS VEGAS RANGE
ARROW CANYON MTNS
GASS PK. EL 6940
PINTWATER RANGE
DESERT RANGE
SPRING VALLEY
RANGE
Indian Springs
INDIAN SPR.
Cactus Springs
LEE CANYON
CHARLESTON
CLARK CANYON
DEER CRK SPR
KYLE CANYON
CHARLESTON PK EL 11,910
Charleston Park EL. 7450
HORSE SPR
LA MADRE MTN. EL 8120
MOUNTAINS
Lorenzi Lake
LAS VEGAS EL. 2033'
Dike
Apex
Lovell
Valley
Wann
NORTH LAS VEGAS
GYP CAVE
Whitney P.O.
Bracken
Arden
Bard
Royson
MOUNTAIN SPR
POTOSI MTN. EL. 8500
SPRING
BIRD SPRING
Sloan
BLACK MTN. EL 5043
BOULDER CITY EL 2497'
RES.
LAKE MEAD
BOULDER CANYON
FORTIFICATION HILL
BLACK CANYON
BOULDER DAM
MT WILSON EL 5505
Detrital Wash
SQUAW PK. EL 3260
BONELLI PK. EL 5835
VIRGIN CANYON
Grapevine
DIAMOND BAR RCH
COLO. RIV. GOLD MINE
GOLD BASIN MILL
SENATOR MINE
CYCLOPIC MINE
Valley Rch
RED TOP MINE
Red Dry Lake
Erie
Sutor
GOODSPRINGS
COLUMBIA
Sandy
Kingston
Jean
Jean Dry Lake
Mesquite
Dry Lake
SHEEP MTN. EL 4010
DEVIL PK EL 5065
Borax
Roach Dry Lake
Roach
Stateline
Calada
McCULLOUGH RANGE
McCULLOUGH MTN. EL 6996
Mesquite Lake
WHITFIELD SPR
PACHALKA SPR
CLARK MTN.
Clark Mtn. Sta.
Ivanpah Dry Lake
Desert
Lake View
Crescent
Nipton
Searchlight EL 3555
VALLEY WELLS
Valley Wells
Mtn. Pass
Wheaton Sprs
Windmill Sta
Yucca Sta
MESCAL
MINERAL SPR
MURPHYS WELL
PUMP PLANT
IVANPAH
INDIAN SPR.
HART PK
ELDORADO
RANGE
KNOB HILL
Nelson
El Dorado C.
Colorado
Willow Beach
MOCKING-BIRD MINE
MT. PERKINS EL 5508
MT. DAVIS EL 2010
Tatum Rch.
DETRITAL VALLEY
White Hills
WHITE HILLS
DOLAN SPR.
MT. TIPTON EL 7100
CERBAT
Pleasant Valley
CHERUMS PK. EL 7003
CHLORIDE EL 3880
Mineral Park
Cerbat
Exhibit "C"
A-5
TO ST. GEORGE
TO HWY. 66
NEWBERRY
PIUTE


NEVADA-ARIZONA
SAINT THOMAS SHEET
(St George)
(Mt. Trumbull)
15'
114°
37°
45'
30'
MOUNTAINS
Tank
MILLERS CUT OFF
Mesquite
VIRGIN MOUNTAINS
MICA
Virgin Peak
RIVER
Saint Joseph
Old Overton
Overton
NEVADA
ARIZONA
GREAT WESTERN MICA CORPORATION
LAS VEGAS, NEVADA
Exhibit "D"

A-6

NAME: Bachman Claims [redacted] COUNTY:

T N R W SEC. DISTRICT:

Mineralization: 13 mi SE of Hwy 91 in Virgin Mts on New. Borders

Geology:

Type Operation:

Production:

References:

Fld. Notes MLRW. Mun. & Proc. File Index Map (#305)

Mohave Cty Card File

ARIZONA DEPARTMENT OF MINERAL RESOURCES
MINERAL BUILDING, FAIRGROUNDS
PHOENIX, ARIZONA

August 20, 1958

To the Owner or Operator of the Arizona Mining Property named below:

Bachmann Mica (Mohave County) (Property) — mica (ore)

We have an old listing of the above property which we would like to have brought up to date.

Please fill out the enclosed Mine Owner's Report form with as complete detail as possible and attach copies of reports, maps, assay returns, shipment returns or other data which you have not sent us before and which might interest a prospective buyer in looking at the property.

Frank P. Knight

FRANK P. KNIGHT,
Director.

Enc: Mine Owner's Report

B-2

DR. O. K. BACHMANN, President

JOHN G. BECKER, Secretary-Treasurer

GREAT WESTERN MICA CORPORATION

LAS VEGAS, NEVADA

Reply to:
42 West Palm Lane
Phoenix, Arizona

March 29, 1945

Mr. Chas H. Dunning, Director
Department of Mineral Resources
State of Arizona
304 Home Builders Bldg.
Phoenix, Arizona

Dear Mr. Duning:

Re: Access Road to
Great Western Mica Corporation
Claims in Western Arizona-Nevada

Replying to your letter of March 14, 1945 relative to the above caption access road, we are attaching herewith a copy of of our application for Access Road to Raw Material.

Submitted to the Federal Works Agency, Bureau of Bublic Roads, Phoenix, Arizona, March 26, 1945.

Any assistance your department can do to help the development and production of the Mica Deposit in interest of industry in the West, shall be appreciated by this Corporation.

Yours very truly

GREAT WESTERN MICA CORPORATION

By John G Becker
John G. Becker
Secretary-Treasurer

JGB/gb

B 3

DR. O. K. BACHMANN, President

JOHN G. BECKER, Secretary-Treasurer

GREAT WESTERN MICA CORPORATION

LAS VEGAS, NEVADA

Reply to:
42 West Palm Lane
Phoenix, Arizona

March 17, 1945.

PUBLIC ROADS ADMINISTRATION
Mr. C. C. Morris, District Engineer
720 Phelan Building
San Francisco 2, California

Dear Sirs:

Re: Form PR-DA-3 Application for Access Road to Raw Material. By GREAT WESTERN MICA CORPORATION Mohave County, Arizona.

We are herewith transmitting for your consideration, Application for access road to the above caption Mica Mining Operation, with supporting data; towit:

Form PR-DA-3, Executed by the officers of the GREAT WESTERN MICA CORPORATION (A Nevada Corporation), Head Quarters, 103 Freemont Ave. Las Vegas, Nevada. Present mailing address, 42 West Palm Lane, Phoenix, Arizona.

Supporting Data:

Exhibit "A". Certificate of Incorporation, Date November, 19, 1945.

Exhibit "B". Copy of mining Deed Quite - Claim. Transferred to the GREAT WESTERN MICA CORPORATION, February 16, 1945.

Exhibit "C". General map, showing location approximately 13 miles South East of Mesquite, Nevada.

Exhibit "D". Portion of Saint Thomas Sheet, Nevada-Arizona, Topography by the U. S. Geological and Powell Survey, April, 1886, Reprinted 1916. Showing the location and elevation.

Exhibit "F" Excerpt from U. S. Geo. Survey, By E. W. Parker a Mica MINERAL RESOURCES OF THE UNITED STATES - 1893 - Pages 753 - 755. Showing the kind of Mica removed in 1894 and the potentiallities of the Property.

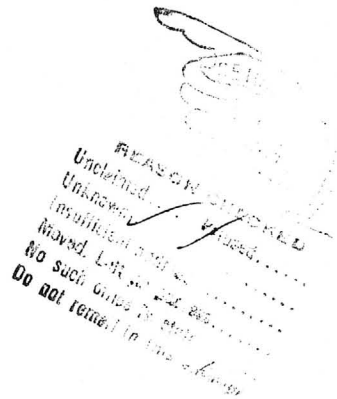
Exhibit "G". Excerpt from UNITED STATES DEPARTMENT OF THE INTERIOR U. S. Geological Survey - Bulletin 740 - Pages 105 - 106 Nevada and Page 47. Arizona. MICA REPORTS OF THE UNITED STATES - By Douglas S. Sterrett, 1923. Stating work done by Mr. Daniel Boulli in 1893, and the dispossion of sheet mica removed at the time.

B-4

Dr. O.K. Bachmann, Pres.

Great Western Mica Corporation

Las Vegas, Nevada



B-5

DR. O. K. BACHMANN, President JOHN G. BECKER, Secretary-Treasurer

GREAT WESTERN MICA CORPORATION

LAS VEGAS, NEVADA

Page 2. Road Application - Great Western Mica Corporation.

Exhibit "H". Copy of REPORT ON THE O. K. BACHMANN:- GROUP OF MINING CLAIMS - CLARK COUNTY, STATE OF NEVADA, By Dr. Geo. Wallace Walker, Consulting Engineers and Geologists, 947 West IIth. Place, Los Angeles, Calif. October 16th. 1942. Stating the Tonnage Potentiallities, as being Several Millions of tons of Mica.

Exhibit "I". Copy of Letter by Colohial Mica Corporation, signed by E. J. Wemlinger, Western Field Representative, dated April 26, 1944. In which he describes the dykes and their sizes and the possiblities of large operation.

Exhibit "J". Photographs, of the Deposits and Geology, and the type of mountains and road building conditions.

Exhibit "K". One of the many markets for ground mica, for uses in the Plactic, Non-metalics, Gypsum, Chemical, Petroleum, Rubber, Electrical, Paint, Building material, Roofing and Talc. Industries.

Exhibit "L". Available used equipment, which may be had from surplus lists, and/or on rental basis.

Exhibit "M". Available Mining Labor, this type of open pit mining lends itself well to those minors, who are unable to work underground, because of some disability. We perfer Ex-Sea-Bees and Ex-Army Engineers.

Pursuant to the fact that we have this Mica Property with unlimited Potentiallities, and the market demanding Mica products in large quanties for the war effort and civilian needs, we urge that an access road be granted at an early date, so that this Corporation can move in mining and grinding equipment to supply the market demand.

Respectfully submitted

GREAT WESTERN MICA CORPORATION

By John G Becker
John G. Becker,
Secretary-Treasurer

JGB/gb

State of Nevada Department of State

I, MALCOLM McEACHIN, *Secretary of State of the State of Nevada, do hereby certify that* GREAT WESTERN MICA CORPORATION *did on the* NINETEENTH *day of* NOVEMBER, 19 43, *file in this office the original Articles of Incorporation; that said Articles are now on file and of record in the office of the Secretary of State of the State of Nevada, and further, that said Articles contain all the statements of facts required by the law of said State of Nevada.*

In Witness Whereof, I have hereunto set my hand and affixed the Great Seal of State, at my office in Carson City, Nevada, this NINETEENTH *day of* NOVEMBER,

A. D. 19 43.

Malcolm McEachin

Secretary of State

By ....., *Deputy*

L-8

Exhibit "A"

MINING DEED QUIT-CLAIM

THIS INDENTURES, made this 28th. day of October, in the year one thousand, nine hundred and Fourty-three, between O. K. Bachmann of 3511 Honolulu Avenue, La Crescenta, California, the party of the first part, and John G. Becker, of 1211 South Madison Street, San Angelo, Texas, the party of the second part,

WITNESSETH, that party of the first part, for and in consideration of the sum of Ten ($10.00) Dollars, lawful money of the United States, to him in hand paid by the party of the second part, the receipt whereof is hereby acknowledged, does by these presents sell, confirm and quit-claim unto the said party of the second part, and to his heirs and assigns all of Fourty-five percent (45%) of all those certain MICA and other valuable minerals quartz mining claims, sitiated in the Unknown Mining District, Clark County, State of Nevada, and more particularly described as follows; (unreadable word) almost directly South of an outstanding Peak about ½ mile, one mile(about) easterly of Colin Canyon, ½ mile easterly of Mesquite water supply, About 1 miles S. of an old orchard. An unvivided Fourty-five (45%) interest in and to the O. K. Bachmann Lode Mining Claims, the location notice of which is recorded in Book 15, Page 457 Notices of Mining Locations, in the Office of the County Recorder of the County of Clark, State of Nevada, and recorded in Book 3?, Page 180 of the (Deeds) Mining Records of said (Unknown) Mining District.

AND; all of Fourty-five percent (45%) of all of those following, to-wit;

O. K. Bachmann # 1 # 145,787 Book 15 of M. R. Page 457
O. K. Bachmann # 2 # 145,788 Book 15 of M. R. Page 458
O. K. Bachmann # 3 # 145,789 Book 15 of M. R. Page 459
O. K. Bachmann # 4 # 147,810 Book 15 of M. R. Page 435 and
O. K. Bachmann # 5 # 147,811 Book 15 of M. R. Page 436

TOGETHER, with all dips, spurs, angles and variations and all metals therein and all the rights, privileges and franchise thereto, appendant and appurtenant, or therewith usually had and enjoyed; and also all and singular the tenement, hereditaments and appurtenantances thereto belonging, or in any wise appertaining, and the rents, issues and profits thereof; and also all the estate, right, title, interest, property, possession, claim and demand whatsoever, as well in law as in equity of the said party of the first part, of, in or to the said premises, and every part and parcel thereof, with the appurtenance.

TO HAVE AND TO HOLD, all and singular the said premises, together with the appurtenances and privileges thereunto, unto the said party of the second part, his heirs and assigns forever.

IN WITNESS WHEREOF, the said party of first part has hereunto set his hand the day and year first above written.

/s/ Dr. O. K. Bachmann
O. K. Bachmann

STATE OF CALIFORNIA)
COUNTY OF LOS ANGELES, ss.

On this 5th day of November, 1943, before me, undersigned, a Notary Public in and for said County, personally appeared O. K. Bachmann known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged that he executed the same.

WITNESS my hand and offical seal, /s/ Lillian Gisland Giscopuzzo
Notary Public in and for
Said County and State.

My commission expires:
Sept. 13, 1946.

B 8

Exhibit "B"

MINERAL RESOURCES OF THE UNITED STATES

- - - -

1893 - Pages 753 - 755

"Nevada. - During 1893, 300 pounds of uncut mica were shipped from the Czarine Mine, near Rioville, Nevada. All of this was sent to Hamburg, Germany, to be cut. In February, 1894, 200 pounds were shipped to Syracuse, New York in April 1894, 1000 pounds were shipped to Syracuse. All of this was cleaned of waste, so far as practicable, and was supposed to cut from 2 by 3 inches to 8 by 10 inches, a good portion of it being estimated to cut about 3 by 5 inches. No returns had been received by the shipper, Mr. Daniel Bouelli, up to the time of making his report. In addition to the Czarine mine, Mr. Bouelli has other claims, chief among which are the "Pioneer" and "Princess" mine. In his report to the Survey Mr. Bouelli says: 'The mica mines of which the Pioneer and Princes are among the best, (there being some other smaller deposits) were discovered by me about twenty years ago. They are situated in the Virgin Range in the St. Thomas mining district, Lincoln County, Nevada. The Pioneer is about 15 miles slightly north of east from Rioville, which is at the head of stream navigation on the Colorado river, at its confluence with the Rio Virgin. The Princess is about 1 mile northeast from the Pioneer. The Pioneer group is at an altitude of 5000 feet, near springs and accessible to wagons. About $600. has been expended in development work, and the probility is that $1,000. worth of work is needed to strike the mica below the influence of surface dislocations. The mica occurs in hard glassy quartz rock of which there is an outcrop 200 feet wide and 600 feet long. The surrounding rocks are systematic gneiss and granular schists. The Princess is a smaller reef of white quartz, with solid micabetter laminated, surrounding by dark-colored tourmaline and biotite abound and pyrite and other associations of tin are at hand. These claims have been worked very little of late years. The Czarine was discovered and located in May 1891. On this claim there is now a shaft on an incline following the dip of the mica 27 feet. This was found unsafe and another shaft of 35 feet is now directly over the point towards which the dip of the mica seam leads and will be sunk vertically until the surface crush of the inclosing rock is penitrated and crystals show no break. Here also the mica occurs in and along the side of a heavy outcrop of white quartz, in a country rock of gneiss, carrying various charistic minerals. The mouscovite or white mica seems to follow the division plane of the stratification, along the line or axis of the uplift of rock fold. This line runs north and south, slightly east and north of the main trend of the range, thus running into Arizona a few miles north of Rioville, in fact, the mica belt forms the boundry line between Nevada and Arizona for about 50 miles. The mica, mostly small, is abundant, but marketable sizes are rare and not to be had without a good deal of hard work.'"

By J. A. Parker - mica - U.S. Geo. Survey.

Exhibit "F"

B-9

UNITED STATES DEPARTMENT OF THE INTERIOR

-o-O-o-

U. S. GEOLOGICAL SURVEY

- - -

Bulletin 740.

Pages 105 - 106. Nevada

-v-

MICA DEPOSITS OF THE UNITED STATES

By Douglas B. Sterrett, 1923

- - - - - - - - - - - - - -

Deposits of mica in Nevada are mentioned in the literature, but apparently the only attempt to work any of them was made by Daniel Bouelli, of Mioville, Nev. in 1893 and 1894. Mr. Bouelli furnished (Parker, E.W. Mica - U. S. Geol. Survey, Mineral Resources 1893. P.P. 753-754. 1894) to the Geological Survey from which the following notes have been abstracted. In 1893 and 1894, 500 pounds of sheet mica was shipped from Nevada to Hamburg, Germany and 1300 pounds to Syracuse, N. Y. This mica had been Trimmed of excess waste and was expected to yield sheets 2 by 3 inches to 8 by 10 inches, a good porportion of which were 3 by 5 inches.

The deposits are in the Virgin Range, Lincoln County about 15 miles east of Mioville. Mioville is at the mouth of Virgin River, on Colorado River. One of the claims, the Pioneer, is about 5000 foot above sea level, near springs, and is accessable to wagon.

A belt of mica-bearing rocks crops out along the Virgin Range in a north by east direction, extending northward into Arizona.

Page 47. - Arizona

-v-

The mica belt in the Virgin Range, in Southern Nevada is said to extend north by east from Nevada into Arizona, but there has been no report of the opening of any prospects on the Arizona side.

- - - -

Exhibit "G"

Reply to 947 West 71 th Place Los Angeles, Calif.

GEO. W. WALKER, E.M.B.A. METALLIC BY-PRODUCTS OIL & MINERALS

Geo. W. Walker & Associates

CONSULTING ENGINEERS AND GEOLOGISTS

LOS ANGELES, CALIF.

February I6 th I943.

Defense Plant Corporation
700 Park Ave
Boulder City
Nevada.

Attention of Mr John G.Beeker.

Dear Sir;-

I found your letter awaiting my arrival home from an extensive examination in Arizona, we had to leave before we were through, on account of snow conditions occurring while [illegible]

In reply to your letter of the I[illegible] inst will state:- myself and Associate are extremely busy in examinations of properties containing Strategic Minerals. We are booked ahead for some time, mostly in the northern part of the State and Arizona. These properties are chiefly in the snow belt. However we have a temporary lull awaiting snow conditions.

We are closing up some extensive re-search work on a large mineral rock deposition in which the Government is vitally interested, this is a mineral paint pigment which resists acid, gasoline, salt water and other deleterious substances, it is also fire-proof. We have made a test in which we painted a garage roof, then poured gasoline on it, then set it on fire, the fire went out when the gas was burnt off the roof, leaving it intact. We shouldhave this work completed in a few days, or by the end of this week. We will set our work back long enough to investigate the property named, the weather shouldbe favorable in the location given.

This is our procedure in our examinations:- and expenses,

Myself and Associate make a cursory inspection of the property, for which we chargeTwo hundred and fifty ($250-) dollars. Should we decide against the geological structures and mineral showing, we are through, as we cant make a mine if it is not there, ""Figs dont grow on apple trees"", we will decide this in one day on the property.

Should the Geology be favorable, and some work done on the structure, we will spend enough time on the property to give it the required attention. Our minimum charge for an examination is Five hundred ($500-) dollars, this includes the report. We compile the maps and report on our return to Los Angeles, we allow four(4) days from the time leaving and returning to Los Angeles, extra time on the property (if needed) is at the rate of Seventy five ($75-) dollars per day for myself and Associate. We require One Hundred($100.00) advance expense money, for which we account to our client. lodging and board to be furnished during the examination. Should this meet with your approval, please let us know, and we will write or wire you the date for our arrival at Las Vegas.

Trusting we can be of service to you, and assist you in deciding the true merits of your property. The writer has been in the Field for upwards of Fifty years, mining and examination of properties for clients.

Yours very Sincerely Dr G Wallace Walker.

Exhibit "H" — Dr G Wallace Walker

B-11

GEO. W. WALKER & ASSOCIATES
Consulting engineers and geoligists
Los Angeles, Calif.

OCTOBER 16th, 1942

REPORT ON THE O. K. BACHMANN :- GROUP OF MINING CLAIMS CLARK COUNTY, STATE OF NEVADA

By G. Wallace Walker

****

PRELUDE

The subject matter of this report is Mica, more commonly termed Muscovite. It is a product of the Granitic Pegmatites and occurs in irregularly dessiminated structures, appearing in bunches of foils, or in book form, generally between foot and hanging walls of elongated Schists or Gneiss formations. The surrounding country rocks are usually composed of various stratified Pegmatites, Schists, Gneisses, Orthoclase, Quartz, Feldspars and other aggregates of varying thickness, usually found in lenticular formation. The Schists generally form the foot and hanging walls, being permeated more or less with fine particles of mica. These Schists stratas are mostly in book form of from ¼ to ½ inch in thickness.

Some Mica formations contain accessory minerals, Biotite, Gem-Stones, Beryl, etc. Mica or Muscovite, owes its usefulness to its transparancy for many of the purposes for which it is used. It is used in Plastics, has great resistence to heat and weathering, being in great demand as a non-conductor of electricity. Book mica and punch mica are in great demand, especially

B-12

during the present war period. Small sheets find ready use and are split into thin lamellae, then cut into proper form for the particular uses for which they are applied, the scrap from the trimmings is usually ground and used for wall-board aggregates, also used in insulating purposes, etc. The quantity of trimmed mica obtained from deposits, not allowing for larger sheets of book mica, are found not to exceed two per cent.

Occasionally plates of mica have been found five to six feet in diameter, but this is a rare occurrence.

****

The property embraced in this report lies in a Virgin mountain range a distance of approximately 95 miles in a north-easterly direction from Las Vegas.

ROADS. Highway 66 passes through Barstow from Los Angeles continuing from Barstow through Baker and Las Vegas on Highway 91.

At a point between Bunkerville and Mesquite a distance of approximately 80 miles north-easterly from Las Vegas, the road to the mine turns abruptly easterly for a distance of about eleven miles over a dirt and gravel road to Bachmann Canyon, at the foot of which is a camp-site; from this point a road to the mining property has to be constructed to the mining claims.

At the present time travel is over a trail for a distance of about two and a half miles more or less.

B-B

TOPOGRAPHY:

The topography of the claims is over a series of mountain peaks and depressions, which occur in seriatum throughout the range. A light growth of manzanita, scrub-pine and oak are scattered over the terrain and descend to the mountain side to the valley area.

ELEVATION:

The elevation at the junction of Highway #91 at the place where the road turns easterly to the mining property is 1.650 ft. (Aneroid). At the easterly end of the road at its present terminus is 3.640 ft. (Aneroid). At the summit of the ridge highest point 5.010 ft. (Aneroid) at the outcroppings of the various ledges 4.950 (Aneroid) at the canyon below the lode it is 4.525 ft.

WATER:

Water is available at all times although at the present time a two inch water-line is not in use. This pipe-line was installed by the Forest Department and when in use conveys water for several miles to the Government Experiment Station where cattle are grazing on the desert area. A water-well could be drilled at several places much nearer to the highway, as there is evidence of water in several places. Lower in the canyon a bedrock tunnel would no doubt furnish considerable water for the village of Bunkerville. The writer is informed that water is hauled to Bunkerville from the Government water station, by people who desire it.

There is also a supply of water in the northwesterly branch of the Bachmann canyon which trends from the main Bachmann Canyon; this could be piped under a pressure head to the proposed new camp-site where the mining operations would commence when the road to the mine is constructed.

GEOLOGY:

The entire mountain area of this district has the appearance of being elevated during the early Pre-Cambrian Era, the rock formation surrounding the mica depositions are of early age. Millions of years have elapsed since the genesis of the rocks were commenced; also the metamorphic changes of the various Spar ingredients which have formed the mica lode contained in this mountain range. Throughout the entire region the rock mass is elongated and lenticular showing mixed formations of Granite, Porphyry, Feldspar, Veinlets, Schists and Gneisses, all of which are in seriatum rotation, these being almost perpendicular and at an angle of about from 80 to 87 degrees. In traversing the Bachmann Canyon before reaching the mineralized zone the country rock is principally Granite. Much of this rock mass has been elevated at a later period especially the filling of Porphyry and Schists which appear spasmodically.

MINERAL DEPOSITS, ORE & DEVELOPEMENT:

The surface of the lode sections shows a capping of Feldsparthic crust, this is impregnated with fine mica. When this crust is broken a few inches deep commercial mica appears; the surface where opened up, shows mica content of about 30 to 50% mica, while in parts of the face of the cut it shows almost pure mica of approximately 75% or more of pure mica. This property has the appearance of containing a tremendous tonnage of commercial mica which may run into millions of tons when properly opened up.

B-15

There are four if not five lodes containing mica; these emenate from the surface of the O. K. Bachmann Claim; some dipping towards the Bachmann canyon, crossing the canyon and are seen traversing the opposite mountain range in a westerly direction.

The principle trend of these lodes are about 35 degrees N-E and S-W, while in an easterly direction the surface croppings are visible as far as the next mountain escarpment.

TONNAGE:

Potentially judging from the various elevations as shown by aneroid calculations, the almost vertical distance from the crest of the outcrops on the O. K. Bachmann claim to the bed of the Bachmann canyon is approximately 480 in depth (aneroid). In measuring the width of the lodes of the Bachmann claim, one lode was 54 ft. or more, another lode width was in excess of 75 ft. across; other lodes were similar in appearance.

There has been very little development work done on the claims, but wherever done the mica content shows evidently to be uniform throughout. It would be unethical to try and make any positive figures of tonnage until the property is opened up more fully; however it is reasonable to say that potentially from a geological standpoint and the surface showings of the various lodes that there should be several millions of tons of mica waiting to be mined.

ROADS:

In the prelude the writer touched lightly the road question. For about seven miles of the road at the turning of the main highway in an easterly direction, the road is in fairly good condition. By passing a grade-blade over the road a few times, the road would be what is often termed a desert boulevard,

B-16

this is a long straight stretch of road over wnich trucks could make good time with a load, for some distance further towards the entrance of the canyon, about three miles the road will have to be re-graded; a bull-dozer will readily put this part of the road in condition, as there are no rocks of any consequence to interfere.

Arriving at the entrance of Bachmann Canyon, which is for the time being the camping place and the end of the road at present.

Continuing a short distance a grader or bull-dozer can be used to construct the road; from this place on, considerable of the road will have to be cut in places through the granite where the canyon is narrow. The stream-bed will have to be crossed several times. Further up the canyon the space is wider and a bull-dozer can again be used, and from this point to where the adit tunnel or open cut will be started on the ore, the road will not be difficult to construct.

CAMP AND MILL-SITE: An excellent camp and mill-site are available close to where the work will commence on the ore-body.

WATER: Water can be brought down under pressure from the N-E-fork of the Bachmann Canyon; this will be enough for all milling purposes and for camp use.

POWER: There is no available operative power in the district. All power must be generated on the ground, either diesel, oil or gasoline.

BUILDINGS & EQUIPMENT: There are no buildings or operating equipment on the property at the present time.

CLIMATIC CONDITIONS: Climatic conditions are such that almost all year operations can be carried on. Occasionally the rain elements

interfere for a few days, snow has been known to fall but only very slightly; it melts as fast as it falls - does not hinder any mining operation.

LABOR CONDITIONS: Although there is a scarcity of labor in general, men are available for mining. The Magnesite plant at Las Vegas is about to discharge great numbers of men who will be available for other work of this nature.

MINING SUPPLIES: Mining supplies can be had at Las Vegas or can be shipped or hauled from either Los Angeles or Salt Lake at a nominal cost. Groceries are available close by, at Las Vegas or at Bunkerville.

RECOMMENDATIONS: The writer suggess the first thing to do, is to make the road passable to the place where the camp buildings are to be erected; also the place where the operations on the ore will be commenced. A suitable place on one of the lodes in the canyon should be chosen, preferably the one at the lowest elevation in altitude, for the reason, that when operations on other lodes higher up the canyon are started, it will be possible to get the mica down to the mill for crushing and sorting at a minimum cost.

When the road is passable a compressor and drilling equipment should be immediately moved in, so that work on opening up the ore bodies can be commenced, for the reason that the time element is an important factor, as contracts for the delivery of mica are crowding for delivery for strategic uses. Buildings adequate for the housing of employees, sleeping and boarding quarters are necessary, so that travel to and from the mine can be eliminated, as much time would be lost in that event; also wear and tear of an

B-18

automobile or truck, also gasoline and tires, at this stringent period of Government rationing. When the road is passable for the purpose mentioned, the bull-dozer or any other road equipment should start at the mill-site and gradually finish the road; starting from the canyon and working down, will be much easier as everything will be a down-hill pull from that end. After the road is passable the heavier machinery for milling operations should be hauled in, and installed as quickly as possible, this for reasons already stated.

During this period a pipe-line of sufficient capacity for all purposes, should be installed, to bring the water to the camp-site from the northeast branch of the Bachmann Canyon. It would be necessary to install a small portable lighting plant, until such times as a larger plant can be installed.

Should a mill be necessary to crush the ore, I would suggest a unit system to commence operations at first, a 50 ton mill would do to start with, as this sized mill on hard rock, should do two times as much on mica; then add other units commensurate with the necessity of filling orders for mica. It might be possible that a Kue-Ken crusher, were one installed at the commencement of operations, would be able to take the place of both crusher and mill, as it may crush the ore so that it will be free from the lode aggregate, such as Schist and Feldspar contained in this deposit.

According to Bulletin #601 of the Kue-Ken Company, the #50 crusher will crush to a 3/8 inch mesh at the rate of $8\frac{1}{2}$ tons on hard rock. Using this for mica will be much larger tonnage; this sized crusher would take a 35 H.P. engine; the difference in elevation would have to be allowed at this altitude where the crusher is to be used. The necessary equipment for the operation of

the mine, also operating expenses for at least 60 days, will be found appended to this report.

RECAPITULATION: In an analysis of the foregoing, the writer fully appreciates the magnitude of this immense potential lode of Muscovite, commonly termed Mica. In order to appreciate this more fully, it would be necessary to visit the property. There are several independent mineral lodes contained in these claims; according to the lease on the property other connecting claims are to be added to the present holdings, as the lode system of the Bachmann Claim extends for many thousand feet over the adjacent mountain range. The writer visualizes many millions of tons of mica will be opened up, all of which can be worked by a gravity system and dumped directly into a large bin, ready for the crusing machine. The entire milling set-up can be operated automatically if properly installed; the mica can be delivered by a belt systemfor sorting, and the scrap mica carried off by the same system to the loading bin.

There are no intricate mining or treatment problems to be discussed as are contained in any other phase of mine operations. It will not be necessary to employ any technical laboratory help, hence the cost of mining operations will be much less than in a quartz mining operation. There are no costly treatment expenses to be considered, as milling and screening operations will make a finished product ready for the market.

The climatic conditions are such that almost a daily operation the year round can be considered. Tentative orders are assured for the entire output of the mine, and with the present

B-20

prevailing prices for the delivery of mica, this should be an advantageous time to operate.

The preliminary costs of road building, camp and other buildings, also operating equipment, should soon be amatorized, leaving a splendid profit on the investment. Mining supplies are available and if necessary, priorities can be obtained from the Government for any special equipment or supplies. I consider it a "Patriotic Duty" for all concerned, to get this property operating at the earliest time possible.

CONCLUSION:

There is nothing the writer can add to the above statements,; it is my honest, earnest opinion, that this enterprise if run on a conservative mining basis, under qualified management, will soon become a handsome profit producing commercial investment.

Therefore I do most earnestly recommend this property for operation, on the lines herein suggested.

Respectfully submitted,

(Signed) G. WALLACE WALKER

Dr. G. Wallace Walker
Geologist & Consulting
Mining Engineer.

THE HARSHAW CHEMICAL COMPANY

GENERAL OFFICES
CLEVELAND, OHIO

445 LAKE SHORE DRIVE
CHICAGO, ILLINOIS
(11)

February 21, 1945

Mr. John G. Becker
Secretary-Treasurer
Great Western Mica Corp.
42 West Palm Lane
Phoenix, Arizona

Dear Mr. Becker:

We appreciate your rather complete letter of February 12th in which you enclosed a sample of Mica from which the previous sample was ground. Selling prices which established these ceilings in this area are, as nearly as we can tell, as follows:

Carlots No. 1 quality MUSCOVITE MICA
#24 Mesh..... @ $40.00 per ton
40-60-80-
100-160 Mesh.... 35.00 per ton
250 Mesh..... 45.00 per ton
750 Mesh..... 60.00 per ton
The above prices are f.o.b Chicago, Ill.
Terms: 30 - 1% - 10, and we receive a
5% Seller's Discount.

The above prices, in general, will of course continue in effect until OPA ceilings are removed; but since these were the going prices when ceilings were established it seems very unlikely that there would be any tendency to drop below this schedule.

We realize that it is a very long freight haul from your mines into the Chicago area, but we do ship a fair size quantity out of here to certain points in Texas so that there might be opportunity there for some equalization. It is hardly conceivable that it would be at all feasible to ship to points for instance any farther East than Cleveland, Ohio in view of grinders being located in South Carolina and at points along the Eastern seaboard. Cleveland, Ohio users will and are paying, for instance for the #250 White Mica, $45.00 per ton, f.o.b Chicago. Similarly Texas users are also paying the freight from Chicago.

Ground Mica up to the present has not been placed on the priority list, although I understand that there is considerable talk of doing so in Washington right at the moment; and if this goes into effect the principal uses which I

Exhibit "K"

B-22

Mr. John G. Becker
Great Western Mica Corp.

February 21, 1945

have in mind would all carry a AA-1 priority.

The Oil Drilling industry, on the whole, are not individually to the best of our knowledge large buyers of Mica. Some have purchased the 40 Mesh material, but chiefly l/c/l quantities. We did, however, a short time ago receive an inquiry from a large refining organization but because of the volume of other business had to decline to quote. They stated that while their use was spasmodic they did need it in a hurry when it was wanted, and asked for quotations in carlot quantities.

If you could arrange to send me a 10# sample of 250 Mesh White Mica I can readily have this evaluated by one of the very largest consumers in this area, and will be glad to report back to you on their findings.

We will await your further advices with renewed interest.

Yours very truly,

THE HARSHAW CHEMICAL COMPANY

G. D. Sinclair
Branch Manager

JB

PHOENIX EQUIPMENT CO.

1517 E. WASHINGTON ST. PHONE 4-4242
PHOENIX -:- ARIZONA

March 1, 1945

John. G. Becker, Pres.
Great Western Mica Corporation
Las Vegas, Nevada.

Dear Sir;

We can furnish completely overhauled one MSO 240 c.f. displacement Chicago Pneumatic Tool Co. Diesel compressor Aproximate weight five tons.

Cost of this unit f.o.b. our Phoenix Shops	$1100.00
Air starting unit complete with receiver compressor and gasolene engine	225.00
Air receiver for MSO 240	175.00

all f.o.b. Phoenix, Arizona.

Bit grinder $17.00 on up depending on elaboration but requiring AA1 priority.

One nearly new CP 54 Stoper	260.00

One 20" attrition Mill available. aprox 5to 6 hundred dollars repaired.

We can supply you with material for your general needs such as pipe, ine cars, &c. We trust we may be of service to you.

Very truly yours,
PHOENIX EQUIPMENT COMPANY.

A. de Lisle.

Exhibit "L"

B-24

WAR MANPOWER COMMISSION
[redacted]
[redacted]
UNITED STATES EMPLOYMENT SERVICE

OFFICE OF THE
LOCAL MANAGER

115 South Fourth
Las Vegas, Nevada
February 16, 1945

Mr. John G. Becker
Secretary-Treasurer
Great Western Mica Corporation
42 West Palm Lane
Phoenix, Arizona

Dear Mr. Becker:

Thank you for your letter of February 12. At the present time we do not have any open-pit mining laborers, jack-hammer operators or bull-dozer operators available for work.

We suggest that you contact this office again ten days to two weeks in advance of the date that you plan to start operations and it may be that we will have these workers available at that time.

Very truly yours,

J. H. McKinster,
Acting Manager

JHM:rc

Exhibit "M"

B-25

INFORMATION
FOR MINE ACCESS ROAD

LOCATION OF MINE:

State Arizona County Mohave Elevation 4,000 feet

Township T-39-N Range R-16-W Section 6

Name of mine or claims GREAT WESTERN MICA CORPORATION
O. K. Bachmann Group of Claim 0 to 5 Inclusive (6 Claims)

MINERAL RESOURCES OF PROPERTY:

Kind of minerals or material MICA - Commercial

Specific nature and extent of sampling, exploration, and development 1891 by Daniel Bonelli.

	TONNAGE	ASSAY OR ANALYSIS
Blocked out	600' x 600' x Depth to be determined.	
Probable		
Possible	Several Millions of Tons.	

PRODUCTION AT MINE:

Operating season 12 months per year.

Present daily production None Number of men employed None

Estimated daily production with proposed access road 100 Tons

Number of men to be employed 12

LOCATION OF MILL OR SMELTER WHERE ORE WILL BE DELIVERED: On the Claims.

Name Great Western Mica Corporation Address Near Mesquite, Nevada

Township T-39-N Range R-16-W Section 6

Distance from mine to mill or smelter On Claims.

Type of transportation Trucks

Daily capacity of mill or smelter Propose 100 Tons.

FINANCIAL INFORMATION: Has any Government loan been granted? None required.

If so, by what agency? - - -

Docket No. Amount of loan

ADDITIONAL INFORMATION:

Where information is not available, draw a line through question. Attach to this form, sheets containing any other information that will aid in determining the need for the proposed access road. If on Government lands, give name of area or administrative agency. Grazing Service -

16—35847-1

Department of Interior

B-26

Form PR-DA-3

APPLICATION FOR ACCESS ROAD TO RAW MATERIAL

Date .....

Project No. .....
(Leave blank)

Serial No. .....
(Leave blank)

TO THE PUBLIC ROADS ADMINISTRATION:

We, the undersigned, hereby make application for access road assistance to serve our property which we believe is essential to the war effort.

We agree to furnish two copies of this application, properly filled out, together with two copies of a map showing the location of the property and the road in question. We will also furnish any other information about this project upon request.

We understand that this application is to be filed with the District Engineer of the Public Roads Administration (whose name and address are on the last page of this form) in the district where the property is located.

We further agree to furnish any additional right-of-way necessary for the proposed road on property owned by the applicant.

GREAT WESTERN MICA CORPORATION
(A Nevada Corp.)
(Name of company)

[illegible]
(Official representative)

John G. Becker

John G. Becker
Secretary-Treasurer
(Street address)
42 West Palm Lane, Phoenix, Arizona
(Town) (State)

3-8196
(Telephone number)

U. S. GOVERNMENT PRINTING OFFICE 16—35847-1

B-262

Colonial Mica Corporation

141 BROADWAY

NEW YORK 6, N. Y.

AGENT FOR
METALS RESERVE COMPANY
WASHINGTON, D. C.

April 26 1944

REPLY TO
COLONIAL MICA CORP.
1151 SOUTH BROADWAY
LOS ANGELES 15, CALIFORNIA

Dr. O. K. Bachmann,
623 West Avenue 26,
Los Angeles, California.

Dear Dr. Bachmann:

This is the first opportunity I have had to write to you since returning from my recent trip to Nevada and to Las Vegas. I hope that you made the return trip from Las Vegas in good time and without mishap.

As I informed you on our return trip from the property, I am rather skeptical about the possibility of your property ~~of~~ producing any worth-while quantity of sheet mica of strategic quality. While it was impossible to cover all of the property during the time available, it appears that the crystallization of the mica is generally small and the crystals are inclined to be structurally defective. On the other hand, there was one location at the far end of the property from which there might be large books of mica produced; large enough to produce some acceptable strategic sheet mica. I would like to see a few shots placed in the pegmatite dyke at this particular place. Colonial Mica Corporation is interested only in strategic mica and in properties from which such mica can be produced.

Your property does, however, contain large tonnages of mica bearing pegmatite in almost vertical dykes varying in width from a few feet to more than 50 feet. The dykes can be traced for several thousand feet along their strike and one of the larger dykes is exposed in a canyon at a depth of several hundred feet below its outcrop on the top of the mountain. This deposit might well be operated for the production of scrap mica at a profit if handled on a relatively large scale and if a screening and/or grinding plant were installed at the mine. On the other hand, I must hasten to point out that I am not qualified to advise you intelligently either regarding the scrap mica market, the market for ground mica and its uses nor about scrap mica grinding equipment and costs.

I do know that a good market exists at the present time for scrap mica and this has been ascertained by us in connection with our efforts to assist the producers of strategic mica to dispose of the inevitable scrap mica produced along with it. But, in any case, I understand that you have already satisfied yourself in your own mind as to this and the other important points mentioned in the preceeding paragraph.

Exhibit "I"

B-27

Needless to say, I sincerely hope that your scrap mica grinding venture will be a successful one if you decide to proceed as planned and if I can help you in any remote manner, I will be glad to do so. However, I had hoped that there might be a possibility for strategic mica production from your property as such mica is still very much on the critical list of minerals necessary to the prosecution of the war.

Very truly yours,

COLONIAL MICA CORPORATION

E. J. Wemlinger
Western Field Representative

EJW:MW

May 27, 1957

No information on this property.

MARK GEMMILL

B-29

File WCB

February 8, 1945

MEMORANDUM

TO: W. C. Broadgate

FROM: Chas. H. Dunning

Mr. John G. Becker of Phoenix has called at the office and asked our advice in obtaining some government aid in financing a mica grinding plant (and an access road) at his mica property in Arizona near the Arizona-Nevada line.

He had written to and received a letter from Senator Scrugham, a copy of which is enclosed.

He talked with Gohring but did not receive much encouragement. He talked with Mr. Bouse of S.W.P.C. and did receive encouragement but our experience with the S.W.P.C. does not make us very optimistic.

There is a great demand for ground mica at a price that should permit a profit to a prudent operator who has a good deposit, whether or not he is able to furnish any strategic sheet or punch mica as a by-product. Ground mica would seem as strategic as sheet mica, as it has a large and important field in wire insulation and roofing and other important strategic uses.

Whether or not Mr. Becker's deposit has the earmarks of being permanent enough to justify a loan we do not know, but as he describes it, it must have.

It would be difficult for us to make a preliminary examination at this time (Holt is on the sick list again) but if he could get proper encouragement from some financing agency, we will arrange for the preliminary.

He has a contract for $28.00 per ton F.O.B. mine for his ground product.

He would require about $15,000 for grinding and separating plant and also a two-mile access road.

We would like to have your advice as to where to aim and when to shoot.

Chas H Dunning

CHD:LP

B-30

This is like so many cases where there is no strategic necessity. Only a long term contract for the product would insure a loan. However, SWPC with Bonsal's OK would probably shoot if there was a fairly good contract and the possibility of getting further contracts.

I feel sure RFC will not touch it.

I probably could help with an SWPC application. I know the Chief Loan Agent fairly well. But I think Bonsal can approve in the field anything under $25,000.

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine Great Western Mica Corp. Date Feb. 27th 1945.

District Engineer A. C. Nebeker

Subject: ----------3 -------

Recommendations;

Ist, Get two miners(Single Jackers) a small tent and supplies, plenty of hand steel, lengths from I8 inches to 36 inches, a blower and anvil, coal and powder. The rock will be hard so they will have to sharpen steel often. These supplies can be taken to the canyon by truck and from there up I get three pach animals to take supplies up to property. Have these men cross the vein in several of the most promising croppings, and also sink a few feet to find out how the vein holds up on its dip.

2nd, See that title is protected by completed location work, and see that monuments are up.

3rd. Gett a good average sample, say 500 lbs, weigh, crush and screen to market size, to get per centage of mica the vein will produce, have sample sent to buyer to find out what kind of contract can be had.

4th, If the above indicates a profitable undertaking, then a mining camp can be built, road built, mining equipment bought and after a stage of development shows enough mica for a mill, themill can then be construct ed.

Signed A. C. Nebeker

A. C. Nebeker.

B-32

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine Great Western Mica Corp. Date Feb. 27th, 1945.

District Northwest Corner Mohave County, Ariz. Engineer A. C. Nebeker.

Subject: Report on Bachmann Group Mica Claims.

Name: This property is known as the O.K. Bachmann Group of Mica Claims. It consists of 6 mining locations, Namely, Bachmann, Bachmann Nos I to 5. The owner being the Great Western Mica Corp. Mr. O.K. Bachmann Pres. and, Mr John G. Becker, Secy, and Tres.

LOcation, These claims are located near the head of a canyon locally known as Cabin Canyon, and approximately I6 miles southeast of the town of Mesquite a small farming town on the Virgin River 8I miles northeast of Las Vages, Nev. The northeast claims are in the northwest corner of Arizona, Mohave County, and the southwest claims lap over into Nevada.

Title, The title is by right of location. The corners appear to be marked with well built monuments, as several monuments are clearly visiable. The location work was atleast attempted on the Bachmann and Bachmann No I claims but is not sufficient to comply fully with the location work required by the laws of Ariz.

Roads, The road at the bridge across the Virgin river at Mesquite to the mouth of Cabin canyon is a fair graveled road and can be made in A-I condition by a round trip with a road grader. The distance from the bridge to the mouth of the canyon being I4 miles. From the mouth of Cabin canyon to the claims, a distance 2g miles, there is no road. The grade up this canyon is not too steep for truck travel, but construction will be expensive, as considerable blasting will be required, and there are many large boulders to move.

The canyon northeast of Cabin canyon should be examined, as this may be an eaisier and less expensive construction.

Water, At this time there is plenty water flowing in Cabin canyon for all Camp and operating requirements, but during the extreme dry months of the year additional water may have to be developed, which I think can be easily done.

Camp, If and when the camp is established, it should be located near the operations, so men would not be worn out climbing trails getting to work.

Climate, The climate is ideal. Operations can be carried on through out the year.

Development Work, There is no development or prospecting work done on this property. Estimate on probable tonnage would be mere guess. All one can see of the deposit is spotted surface showings.

Geology, Topography, The claims are at an elevation of approximately 4500 feet, and straddle a ridge both sides of which are rugged and steep but well covered with a heavy growth of scrub timber.

There is some granite in evidence, but the main formation making up the wall rock of the vein is mica schis t and gneiss. The vein appears to be large lenses of white quartz-felspar- mica with pegmatite structure. These lenses

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine Great Western Mica Corp. Date Feb. 27th, 1945.

District -------2------- Engineer A. C. Nebeker

Subject:

vary in length and width , some six feet wide with outcrop length of 25 feet, other with a width of 50 or more feet with several hunder feet outcrop length. How far these lenses will extend in depth is to be determined. One lense I observed seemed to taper out in the bottom of a 4 foot hole, and on the other hand, I observed at a distance, down the face of a cliff, the vein appeared to be 100 or more feet wide with a depth of approximately 200 feet. These white quartz-mica lenses occur and re-occur many times in a northeasterly and south westerly direction for a visiable distance of ½ miles, indicating a weakened zone in the formation of a long distance, on the strike of the formation, permiting deposition of the vein matter.

It is in these lenses that the muscovite mica occurs in both disseminated crystals and small book form. On both the walls next to the mica schist the mica crystals concentrates most, however the small book form mica makes deeper in the vein. I odserved some of these books would be I inch by 5 inches in size, others would be smaller.

I would estimate that in the most favored lenses the mica will make up about 20% of the vein, and less in the unfavorable lenses. This can only be determined by making a complete cut across the vein, and take a fair sample, weigh and screen the same.

The mica schist walls of the main vein, thickness not determined, appears to be approximately 90% of fine flake white mica. I think it would be advisable to sample and clean a fair sample and send the same to the buyer to find out if it has worth while value.

The mica from this property will most likely be classed as scrap mica. It is possible when the property is developed that a few large size books be recovered which would sweeten the returns.

Costs. On the assumption that the vein will produce 20% mica(which I think plenty liberal), I will estimate the cost of a ton of mica delivered to Forest Park, Ill.

5 tons of mined rock for I ton of mica.

Development and mining at $1.50 per ton,	5 tons	would be	$7.50
Milling and sorting at 2.00	5 tons		10.00
Trucking to Railroad, per ton crude,			.50
R.R. freight on cleaned mica to Forest Park,			16.60
		total	$ 34.60

Bot h mining and milling cos t are apt to be higher than the above during the early stages of operation.
The operator will need a long time contract from the buyer, and at a price better than $85.00 per ton to bail out.

The venture does not appear very promising to this writer, and before any large amount of money be spent on a camp, mine equipment, mill equipment and roads, I recommend the following.

B-34

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine Great Western Mica Corp. Date Feb. 27th, 1945.

District ------2------ Engineer A. C. Nebeker

Subject:

vary in length and width , some six feet wide with outcrop length of 25 feet, other with a width of 50 or more feet with several hunder feet outcrop length. How far these lenses will extend in depth is to be determined. One lense I observed seemed to taper out in the bottom of a 4 foot hole, and on the other hand, I observed at a distance, down the face of a cliff, the vein appeared to be 100 or more feet wide with a depth of approximately 200 feet. These white quartz-mica lenses occur and re-occur many times in a northeasterly and south westerly direction for a visiable distance of 1½ miles, indicating a weakened zone in the formation of a long distance, on the strike of the formation, permiting deposition of the vein matter.

It is in these lenses that the muscovite mica occurs in both disseminated crystals and small book form. On both the walls next to the mica schist the mica crystals concentrates most, however the small book form mica makes deeper in the vein. I odserved some of these books would be I inch by 3 inches in size, others would be smaller.

I would estimate that in the most favored lenses the mica will make up about 20% of the vein, and less in the unfavorable lenses. This can only be determined by making a complete cut across the vein, and take a fair sample, weigh and screen the same.

The mica schist walls of the main vein, thickness not determined, appears to be approximately 90% of fine flake white mica. I think it would be advisable to sample and clean a fair sample and send the same to the buyer to find out if it has worth while value.

The mica from this property will most likely be classed as scrap mica. It is possible when the property is developed that a few large size books be recovered which would sweeten the returns.

Costs. On the assumption that the vein will produce 20% mica(which I think plenty liberal), I will estimate the cost of a ton of mica delivered to Forest Park, Ill.

5 tons of mined rock for I ton of mica.

Development and mining at $I.50 per ton,	5 tons	would be	$7.50
Milling and sorting at 2.00	5 tons		I0.00
Trucking to Railroad, per ton crude,			.50
R.R. freight on cleaned mica to Forest Park,			I6.60
		total	$ 34.60

Bot h mining and milling cos t are apt to be higher than the above during the early stages of operation.

The operator will need a long time contract from the buyer, and at a price better than $35.00 per ton to bail out.

The venture does not appear very promising to this writer, and before any large amount of money be spent on a camp, mine equipment, mill equipment and roads, I recommend the following.

B-35

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine Great Western Mica Corp. Date Feb. 27th 1945.

District Engineer A. C. Nebeker

Subject: ----------3 -------

Recommendations;

Ist, Get two miners(Single Jackers) a small tent and supplies, plenty of hand steel, lengths from 18 inches to 36 inches, a blower and anvil, coal and powder. The rock will be hard so they will have to sharpen steel often. These supplies can be taken to the canyon by truck and from there up I get three pach animals to take supplies up to property. Have these men cross the vein in several of the most promising croppings, and also sink a few feet to find out how the vein holds up on its dip.

2nd, See that title is protected by completed location work, and see that monuments are up.

3rd. Gett a good average sample, say 500 lbs, weigh, crush and screen to market size, to get per centage of mica the vein will produce, have sample sent to buyer to find out what kind of contract can be had.

4th, If the above indicates a profitable undertaking, then a mining camp can be built, road built, mining equipment bought and after a stage of development shows enough mica for a mill, themill can then be construct ed.

Signed A C Nebeker
A. C. Nebeker.

REGISTERED MINING ENGINEER
CERTIFICATE EXPIRES
Aquila Chauncy
NEBEKER
DEC. 31, 19--
ARIZONA, U.S.A.

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine Great Western Mica Corp. Date Feb. 27th, 1945.

District Northwest Corner Mohave County, Ariz. Engineer A. C. Nebeker.

Subject: Report on Bachmann Group Mica Claims.

Name: This property is known as the O.K. Bachmann Group of Mica Claims. It consists of 6 mining locations, Namely, Bachmann, Bachmann Nos I to 5. The owner being the Great Western Mica Corp. Mr. O.K. Bachmann Pres. and Mr John G. Becker, Secy, and Tres.

LOcation, These claims are located near the head of a canyon locally known as Cabin Canyon, and approximately I6 miles southeast of the town of Mesquite a small farming town on the Virgin River 8I miles northeast of Las Vages, Nev. The northeast claims are in the northwest corner of Arizona, Mohave County, and the southwest claims lap over into Nevada.

Title, The title is by right of location. The corners appear to be marked with well built monuments, as several monuments are clearly visiable. The location work was atleast attempted on the Bachmann and Bachmann No I claims but is not sufficient to comply fully with the location work required by the laws of Ariz.

Roads, The road at the bridge across the Virgin river at Mesquite to the mouth of Cabin canyon is a fair graveled road and can be made in A-I condition by a round trip with a road grader. The distance from the bridge to the mouth of the canyon being I4 miles. From the mouth of Cabin canyon to the claims, a distance 2½ miles, there is no road. The grade up this canyon is not too steep for truck travel, but construction will be expensive, as considerable blasting will be required, and there are many large boulders to move.

The canyon northeast of Cabin canyon should be examined, as this may be an eaisier and less expensive construction.

Water, At this time there is plenty water flowing in Cabin canyon for all Camp and operating requirements, but during the extreme dry months of the year additional water may have to be developed, which I think can be easily done.

Camp, If and when the camp is established, it should be located near the operations, so men would not be worn out climbing trails getting to work.

Climate, The climate is ideal. Operations can be carried on through out the year.

Development Work, There is no development or prospecting work done on this property. Estimate on probable tonnage would be mere guess. All one can see of the deposit is spotted surface showings.

Geology, Topography, The claims are at an elevation of approximately 4500 feet, and straddle a ridge both sides of which are rugged and steep but well covered with a heavy growth of scrub timber.

There is some granite in evidence, but the main formation making up the wall rock of the vein is mica schis t and gneiss. The vein appears to be large lenses of white quartz-felspar- mica with pegmatite structure. These lenses

March 1, 1945

MEMORANDUM

TO: A. C. Nebeker

FROM: Chas. H. Dunning

Have received your report on the "Bi-state" mica.

This seems to typically describe many such deposits - some of which might be easier to reach and to ship from.

I am strong for someone starting a mica grinding industry in the state but it would seem more feasible to have such a grinding plant more centrally located - where it could obtain ore from other deposits if the original one played out.

Mr. Becker was in and brought in a schedule of offered prices for the ground product. Any grinding plant would of course produce a portion of each of these sizes and their corresponding prices - just what proportion no one knows.

However I told him I would ask you to revise your report to include a proper proportion of these higher priced products and if that were done the average of the production might be over the hump to show a feasible operation.

So please do this. But just what proportions to use - your guess is as good as mine.

Mrs. Porter is enclosing your schedule for March and you will note that I have passed on to you the trip to Salome, Parker, etc. Do the best you can there - and you will at least get acquainted and let them know we are still alive and at their service. Then you will be in here the week of March 26th.

CHD:LP
Enc.

COLONIAL MICA CORPORATION
141 Broadway
New York 6, N. Y.

April 26, 1944

REPLY TO
Colonial Mica Corp.
1151 South Broadway
Los Angeles 15, Calif.

Agent for
Metals Reserve Company
Washington, D. C.

Dr. O. K. Bachmann
623 West Avenue 26
Los Angeles, California

Dear Dr. Bachmann:

This is the first opportunity I have had to write to you since returning from my recent trip to Nevada and to Las Vegas. I hope that you made the return trip from Las Vegas in good time and without mishap.

As I informed you on our return trip from the property, I am rather skeptical about the possibility of your property producing any worth-while quantity of sheet mica of strategic quality. While it was impossible to cover all of the property during the time available, it appears that the crystallization of the mica is generally small and the crystals are inclined to be structurally defective. On the other hand, there was one location at the far end of the property from which there might be large books of mica produced; large enough to produce some acceptable strategic sheet mica. I would like to see a few shots placed in the pegmatite dyke at this particular place. Colonial Mica Corporation is interested only in strategic mica and in properties from which such mica can be produced.

Your property does, however, contain large tonnages of mica bearing pegmatite in almost vertical dykes varying in width from a few feet to more than 50 feet. The dykes can be traced for several thousand feet along their strike and one of the larger dykes is exposed in a canyon at a depth of several hundred feet below its outcrop on the top of the mountain. This deposit might well be operated for the production of scrap mica at a profit if handled on a relatively large scale and if a screening and/or grinding plant were installed at the mine. On the other hand, I must hasten to point out that I am not qualified to advise you intelligently either regarding the scrap mica market, the market for ground mica and its uses nor about scrap mica grinding equipment and costs.

I do know that a good market exists at the present time for scrap mica and this has been ascertained by us in connection with our efforts to assist the producers of strategic mica to dispose of the inevitable scrap mica produced along with it. But, in any case, I understand that you have already satisfied yourself in your own mind as to this and the other important points mentioned in the preceeding paragraph.....

Very truly yours

COLONIAL MICA CORPORATION

/s/ E. J. Wemlinger

Western Field Representative

B-39

COLONIAL MICA CORPORATION
141 Broadway
New York 6, N. Y.

April 26, 1944

Agent for
Metals Reserve Company
Washington, D. C.

REPLY TO
Colonial Mica Corp.
1151 South Broadway
Los Angeles 15, Calif.

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Very truly yours

COLONIAL MICA CORPORATION

/s/ E. J. Wemlinger

Western Field Representative

B-40

Mr. John G. Becker
Great Western Mica Corp.

February 21, 1945

The Oil Drilling industry, on the whole, are not individually to the best of our knowledge large buyers of Mica. Some have purchased the 40 Mesh material, but chiefly l/c/l quantities. We did, however, a short time ago receive an inquiry from a large refining organization but because of the volume of other business had to decline to quote. They stated that while their use was spasmodic they did need it in a hurry when it was wanted, and asked for quotations in carlot quantities.

If you could arrange to send me a 10# sample of 250 Mesh White Mica I can readily have this evaluated by one of the very largest consumers in this area, and will be glad to report back to you on their findings.

We will await your further advices with renewed interest.

Yours very truly,

THE HARSHAW CHEMICAL COMPANY

/s/ G. D. Sinclair

Branch Manager

JB

Bechtner

March 14, 1945

Mr. John G. Becker
42 West Palm Lane
Phoenix, Arizona

Dear Mr. Becker:

We have examined Mr. Nebeker's report on your "Great Western Mica" mine.

It has been called to our attention that since Mr. Nebeker wrote the report you have succeeded in getting a reduced freight rate to Chicago, from $16.60 per ton to $12.00 per ton. This makes quite a difference.

It also appears that any ground product you might make at the mine would contain a certain proportion of all sizes, and that each size, if properly screened and separated, would command its proper price. In reviewing the offer you have from a Chicago buying concern it seems conservative to consider that the average of these prices would be $45.00 per ton F.O.B. Chicago.

This would give you approximately $15.00 per ton (finished product) net operating profit or $3.00 per mine run ton.

It would be difficult to find any mine with extensive tonnage and greater profit per ton possibilities.

Under these circumstances this department would be glad to recommend or assist you in obtaining an access road or any other help you may need.

Yours very truly,

Chas. H. Dunning
Director

CHD:LP

B-42

1957

Great Western Mica Corp. Nev Corp

John G Becker Secy Treas

42 W Palm Lane Phoenix

Mica deposit

13 mi SE Hy 91 in Virgin Mts

Mohave Co, Arizona

6 claims [illegible]

Mica processing plant to prepare

4 mesh mica for petroleum industry

Market [illegible], $28 per ton FOB mine

Problems - [illegible] small mill built by

proper govt agency to produce 15 tons per day

Access road - 2 mi -

UNITED STATES SENATE

January 29, 1945

Mr. John G. Becker
Secretary-Treasurer
Great Western Mica Corp.
42 West Palm Lane
Phoenix, Arizona

Dear Mr. Becker:

Your letter of January 25, in connection with an access road to your mica property, is at hand.

Public Roads Administration has funds available for building access roads to sources of raw materials. Applications may be filed through the field office of any agency which has authority over public lands. If your mine, for example, is located on an area controlled by the Grazing Service, the application may be obtained from and filed in the local Grazing Service Regional Office.

If you will let me have a copy of the application when it has been filed I shall be glad to follow it up for you.

However, I want to point out that it is necessary that your mica be of a strategic grade in order to have an access road built to the mine, as the War Production Board must certify to the fact that the material is critically required for the war effort.

Sincerely yours,

/s/ J. G. Scrugham

J. G. Scrugham, Chairman
Mining and Minerals Industry
Subcommittee
Senate Small Business Committee

B-4c1

Great Western Mica

February 8, 1945

MEMORANDUM

TO: W. C. Broadgate

FROM: Chas. H. Dunning

Mr. John G. Becker of Phoenix has called at the office and asked our advice in obtaining some government aid in financing a mica grinding plant (and an access road) at his mica property in Arizona near the Arizona-Nevada line.

He had written to and received a letter from Senator Scrugham, a copy of which is enclosed.

He talked with Gohring but did not receive much encouragement. He talked with Mr. Bouse of S.W.P.C. and did receive encouragement but our experience with the S.W.P.C. does not make us very optimistic.

There is a great demand for ground mica at a price that should permit a profit to a prudent operator who has a good deposit, whether or not he is able to furnish any strategic sheet or punch mica as a by-product. Ground mica would seem as strategic as sheet mica, as it has a large and important field in wire insulation and roofing and other important strategic uses.

Whether or not Mr. Becker's deposit has the earmarks of being permanent enough to justify a loan we do not know, but as he describes it, it must have.

It would be difficult for us to make a preliminary examination at this time (Holt is on the sick list again) but if he could get proper encouragement from some financing agency, we will arrange for the preliminary.

He has a contract for $28.00 per ton F.O.B. mine for his ground product.

He would require about $15,000 for grinding and separating plant and also a two-mile access road.

We would like to have your advice as to where to aim and when to shoot.

CHD:LP

B-45

THE HARSHAW CHEMICAL COMPANY

General Offices
CLEVELAND, OHIO

445 Lake Shore Drive
CHICAGO, ILLINOIS
(11)

February 21, 1945

Mr. John G. Becker
Secretary-Treasurer
Great Western Mica Corp.
42 West Palm Lane
Phoenix, Arizona

Dear Mr. Becker:

We appreciate your rather complete letter of February 12th in which you enclosed a sample of Mica from which the previous sample was ground. Selling prices which established these ceilings in this area are, as nearly as we can tell, as follows:

Carlots No. 1 quality MUSCOVITE MICA

#24 Mesh.....	@ $40.00 per ton
40-60-80-100-160 Mesh	35.00 per ton
250 Mesh.....	45.00 per ton
750 Mesh.....	60.00 per ton

The above prices are f.o.b. Chicago, Ill.
Terms: 30 - 1% - 10, and we receive a 5% Seller's Discount.

The above prices, in general, will of course continue in effect until OPA ceilings are removed; but sinces these were the going prices when ceilings were established it seems very unlikely that there would be any tendency to drop below this schedule.

We realize that it is a very long freight haul from your mines into the Chicago area, but we do ship a fair size quantity out of here to certain points in Texas so that there might be opportunity there for some equalization. It is hardly conceivable that it would be at all feasible to ship to points for instance any farther East than Cleveland, Ohio in view of grinders being located in South Carolina and at points along the Eastern seaboard. Cleveland, Ohio users will and are paying for instance for the #250 White Mica, $45.00 per ton, f.o.b. Chicago. Similarly Texas users are also paying the freight from Chicago.

Ground Mica up to the present has not been placed on the priority list, although I understand that there is considerable talk of doing so in Washington right at the moment; and if this goes into effect the principal uses which I have in mind would all carry a AA-1 priority.

B-46

MEMORANDUM

Mar.5th, I945.

To Chas. H. Dunning

From A. C. Nebeker.

I have your request, that I revise my report on the Great Western Mica, to include proper proportions for the different grade products as given in a letter to Mr Becker.

This is a pretty stiff order, and anything written on that order now would be just guess work, as there has been no work done on the property, or samples of average value taken and test made, which would show how much mica grade can be produced from the vein. All we can say now is, they have got some mica.

Five tons of mined rock in some places may produce a ton of mica, and then again in other sections of the vein it will take twenty or more tons of mined rock. The Quartz-Mica vein, or dyke extends along way across the country, but until some sampling is done and work done along the lines I suggested, everything as to tonnage and value is mere guess work. A few hundred dollars spent by the Mica Company finding out more about their property, may save them many thousands of dollars in the end, and I think Mr Becker will agree that the property lacks prospect holes and sampling.

If I should put in a report a lot of figures on tonnage, grades and values of that mica deposit which would be all guess work, and they went to work spent alot of money in equipment and amilling plant, and found they were out on a limb. The Mineral Resources Department engineers would be pegged as responsiblefor the Lemon,

I would suggest that Mr Becker funnish some data on some real samples and screening tests, I could then make a report which might be helpful.

If you think I better go ahead on my present knowledge and revise the report and surround it with a bunch.of, If and When, I will gladely do so.

B-47

MICA DEPOSITS IN NEVADA-ARIZONA:

UNITED STATES DEPARTMENT OF THE INTERIOR - BUREAU OF MINES

Project

January 29, 1943
P. O. Box 1551
Reno, Nevada

GLT/mc

Mr. John G. Becker, Supervising Engineer
Defense Plant Corporation
700 Park Avenue
Boulder City, Nevada

Re: Mica Deposit near Gold Butte Mining District
Twin Springs Wash (near Lake Mead, Nevada)

Dear Mr. Becker:

We do not have in our files any data on the Above mica deposit. However, the U. S. Geological Servey has made a report on an occurence of mica about fifteen miles east-by-north of Rioville, in the Virgin Range. This is bulletin number 740 and the reference is on pages 105 and 106.

This may possibly be the deposit to which you refer. We regret that we do not have a copy of this bulletin to send to you but it may be obtained by applying to the U. S. Geological Survey in Washington, D. C.

Yours very truly

GLENN L. ALLEN,
District Engineer

BY /s/ Glenn M. Thompson
Mining Engineer

UNITED STATES DEPARTMENT OF THE INTERIOR - U. S. GEOLOGICAL SURVEY.
Bulletin 740.
Mica Deposits of the United States. By Douglas B. Sterrett. - 1923
Pages 105 - 106. Nevada.
Deposits of mica in Nevada are mentioned in the literature, but apparently the only attempt to work any of them was made by Daniel Bouelli, of Rioville, Nev. in 1893 and 1894. Mr. Bouelli furnished (Parker, E. W.. Mica - U. S. Geol. Survey, Mineral Resources 1893. P.P. 753-754. 1894) to the Geological Survey from which the following notes have been abstracted. In 1893 and 1894, 500 pounds of sheet mica was shipped from Nevada to Hamburg, Germany and 1300 pounds to Syracuse, N. Y. This mica had benn Trimmed of excess waste and was expected to yield sheets 2 by 3 inches to 8 by 10 inches, a good proportion of which were 3 by 5 inches. The deposits are in the Virgin Range, Lincoln County, about 15 miles east by north of Rioville. Rioville is at the mouth of Virgin River, on Colorado River. One of the claims, the Pioneer, is about 5000 foot above sea level, near springs, and is accessable to wagon. A belt of mica-bearing rocks crops out along the Virgin Range in a north by east direction, extending northward into Arizona.

Page 47. Arizona.
The mica belt in the Virgin Range, in Southern Nevada, is said to extend north by east from Nevada into Arizona, but there has been no report of the opening of any prospects on the Arizona side.

FEB 14 [illegible]

B-48

Exhibit C. Great Western Mica Corporation.

5. (a), 3. Report.

"Geo. W. Walker, E.M., B.A. Metallic By-Products Oil & Minerals.

GEO. W. WALKER & ASSOCIATES

Consulting Engineers and Geoligists

Los Angeles, California

OCTOBER 16th, 1942.

REPORT ON THE
O.K. BACHMANN

GROUP OF MINING CLAIMS, CLARK COUNYT, STATE OF NEVADA
By G. Wallace Walker.

PRELUDE; The subject matter of this report is Mica, more commonly termed Muscovite, It is a product of the Granitic Pegmatites and occurs in irregularly dessiminated structurs, appearing in buboches of Boils, or in book form, generally between foot and hanging walls of elongated Schists or Gneiss formations. The surrounding country rocks are usually composed of various stratified Pegmatites, Schists, Gneisses, Orthoclase, Quartz, Feldspars and other aggregates of varying thickness, usually found in lenticular formation. The Schists generally form the foot and hanging walls, being permeated more or less with fine particles of mica. These Schists stratas are mostly in book form of from $\frac{1}{4}$ to $\frac{1}{2}$ inch in thickness.

Some Mica formations contain accessory minerals, Biotite, Gem-Dtones, Beryl, etc. Mica or Muscovite, owes its usefulnessto its transparancy for many of the purposes fro which it is used, It is in Plastics, has great resistence to heat and weathering, being in great demand as a non-conductor of electricity. Book mica and punch mica are in great demand, especially during the present war period, Small sheets find ready use and are split into thin lamellae, then cut into proper form for the particular uses for which they are applied, the scrap from the trimmings is usually ground and used forwall-board aggregate, also used in insulating purposes, etc. The quanity of trimed mica obtained from deposits, not allowing for larger sheets of book mica, are found not to exceed two percent.

Occassionally plates of mica have been found five to six feet in diameter, but this is a rare occurrence.

The property embraced in this report lies in a Virgin mountain range a distance of approximately 95 miles in a north-easterly direction from Las Vegas.

ROAD: Highway 66 passes through Barstow from Los Angeles continuing from Barstow through Baker and Las Vegas on Highway 91.

At a point between Bunkerville and Mesquite a distance of approximately 80 miles north-Easterly from Las Vegas, the road to the mine turns abruptly easterly for a distance of about eleven miles over a dirt and gravel road to Bachmann Canyon, at the foot of which is a camp-site; from this point a road to the mining property has to be constructed to the mining claims.

At the present time travel is over a trail for a distance of about two and a half miles more or less.

TOPOGRAPHY: The topography of the claims is over a series of mountain peakes and depressions, which occur in seriatum throughout the range. A light growth of manzanita, scrub-pine and oak are scattered over the terrain and descend to the mountain side to the valley area.

MICA DEPOSITS IN NEVADA - ARIZONA; (Continued)

MINERAL RESOURCES of the UNITED STATES - 1893, Pages 753 - 755.

Nevada. - During 1893, 300 pounds of uncut mica were shipped from the Czarina Mine, near Rioville, Nevada. All of this was sent to Hamburg, Germany, to be cut, In February, 1894, 200 pounds were shipped to Syracuse, New York in April 1894, 1000 pounds were shipped to Syracuse. All of this was cleaned of waste, so far as practicable, and was supposed to cut from 2 by 3 inches to 8 by 10 inches, a good portion of it being estimated to cut about 3 by 5 inches. No returns had been received by the shipper, Mr. Daniel Bouelli, up to the time of making his report, In addition to the Czarina mine, Mr. Bouelli has other claims, chief among which are the "Pioneer" and "Princess" mine, In his report to the Survey Mr. Bouelli says:

"The mica mines of which the Pioneer and Princess are among the best. (there being some other smaller deposits) were discovered by me about twenty years ago. They are situated in the Virgin Range in the St. Thomas mining district, Lincolm County, Nevada. The Pioneer is about 15 miles slightly north of east from Rioville, which is at the head of stream navigation on the Colorado river, at its confluence with the Rio Virgin, The Princiss is about 1 mile northeast from the Pioneer. The Pioneer group is at an altitude of 5000feet, near springs and accessible to wagons. About $600. has been expended in development work, and the probability is that $1,000. worth of work is needed to strike the mica below the influence of surface dislocations. The mica occurs in hard glassy quartz rock, of which there is an outcrop 200 feet wide and 600 feet long. The surrounding rocks are systematic gudiss and granular schists.

"The Princess is a smaller reef of white quartz, with solid mica better laminated, surrounding by dark-colored tourmaline and biotite abound and pyrite and other associatáons of tin are at hand. These claims have been worked very little of late years.

"The Czarina was discovered and located in May 1891. On this claim there is now a shaft on an incline following the dip of the mica 27 feet. This was found unsafe and another shaft of 35 feet is now directly over the point towards which the dip of the mica seam leads and will be sunk vertically until the surface crush of the inclosing rock is penetrated and the crystals show no break. Here also the mica occurs in and along the side of a heavy outcrop of white quartz, in a country rock of gneiss, carrying various characteristic minerals. The mouscovite or white mica seems to follow the division plane of the stratification, along the line or axis of the uplift of rock fold. This line runs north and south, slightly east and north of the main trend of the range, thus running into Arizona a few miles north of Rioville, in fact, the mica belt forms the boundry line between Nevada and Arizona for about 50 miles. The mica, mostly small, is abundant, but marketable sizes are rare and not to be had without a good deal of hard work."

B-50

Exhibit C.

5. (a) 3 Report (page 2)

ELEVATION: The elevation at the junction of Highway # 91 at the place where the road turns easterly to the mining property is 1,650 ft. (Aneroid). At the easterly end of the road at its present terminus is 3,640. ft. (Aneroid). At the summit of the ridge highest point 5,610 ft. (Aneroid) at the outcroppings of the various ledges 4.950 (Aneroid) at the canyon below the lode it is 4,525 ft.

WATER: Water is available at all times although at the present time a two inch water-line is not used. This pipe-line was installed by the Forest Department and when in use conveys water for several miles to the Government Experiment Station where cattle are grazing on the desert areas. A water-well could be drilled at several places much nearer to the highway, as there is evidence of water in several places. Lower in the canyon a bed-rock tunnel would no doubt furnish considerable water for the village of Bunkerville. The writer is informed that water is hauled to Bunkerville from the Government water station, by people who desire it.

There is also a supply of water in the northwesterly branch of the Bachmann canyon which trends from the main Bachmann Canyon; this could be piped under a presure head to the proposed new camp-site where the mining operations would commence when the road to the mine is constructed.

GEOLOGY: The entire mountain area of this district has the appearance of being elevated during the early Pre-Cambrian Era, the rock formation surrounding the mica depositions are of early age. Millions of years have elapsed since the genesis of the rocks were commenced; also the metamorphic changes of the various Spar ingredients which have formed the mica lode contained in this mountain range. Throughout the entire region the rock mass is elongated and lenticular showing mixed formations of granite, porphyry, Feldspar, Veinlets, Schists and Gneisses, all of which are in serdatum rotation, these being almost perpendicular and at an angle of about from 80 to 87 degrees. In traversing the Bachmann Canyon before reaching the mineralized zone the country rock is principally Granite. Much rock of this mass has been elevated at a later period especially the filling of Porphyry and Schists which appear spasmodically.

MINERAL DEPOSIT, ORE & DEVELOPMENT: The surface of the lode sections shows a capping of Feldsparthic crust, this is impregnated with fine mica. When this crust is broken a few inches deep commercial mica appears; the surface where opened up, shows mica content of about 30 to 50% mica, while in parts of the face of the cut it shows almost pure mica of approximately 75% or more of pure mica. This property has the appearance of containing a tremendous tonnage of commercial mica which may run into millions of tonswhen properly opened up.

There are four if not five lodes containg mica; these emenate from the surface of the O. K. Bachmann Claim; some dipping towards the Bachmann Canyon, crossing the canyon and are seen traversing the opposite mountain range in a westerly direction.

The principal trend of these lodes are about 35 degrees N-E and S-W, while in an easterly direction the surface croppings are visible as far as the next mountain escarpment.

TONNAGE: Potentially judging from the various elevations as shown by aneroid calculations, tha almost vertical distance from the crest of the outcrops on the O. K. Bachmann claim to the bed of the Bachmann canyon is approximately 480 in depth (aneroid). In measuring the width of the lodes of the Bachmann claims, one lode was 54 ft. or more, another lode width was in excess of 75ft. across; other lode lodes were similar in appearance.

Exhibit C.

5. (a) 3 Report (page 3)

There has been very little development work done on the claims, but wherever done the mica content shows evidently to be uniform throughout. It would be unthical to try and make any positive figures of tonnage until the property is opened up more fully; however it is reasonable to say that potentially from a geological standpoint and the surface showings of the various lodes that there should be several millions of tons of mica waiting to be mined.

ROAD: In the prelude the writer touched lightly the road question. For about seven miles of the road at the turning of the main highway in an easterly direction, the road is in a fairly good condition. By passing a grade-blade over the road a few times, the road would be what is often termed a desert boulavard, this is a long straight strech of road over which trucks could make good time with a load, for some distance further towards the entrance of the canyon, about three miles the road will have to be re-graded; a bull-dozer will readily put this part of the road in condition, as there are no rocks of any consequence to interfere.

Arriving at the entrance of Bachmann Canyon, which is for the time being the camping place and the end of the road at present.

Continuing a short distance a grader or bull-dozer can be used to construct the road; from this place on, considerable of the road will have to be cut in places through the granite where the canyon in narrow. The stream-bed will have to be crossed several times, Further up the canyon the space is wider and a bull-dozer can again be used, and from this point to where the adit tunnel or open cut will be started on the ore, the road will not be difficult to construct.

CAMP AND MILL-SITE: An excellent camp and mill-site are available close to where the work will commence on the ore-body.

WATER: Water can be brought down under pressure from the N-E fork of the Bachmann Canyon; this will be enough for all milling purposes and for camp use.

POWER: There is no available operative power in the district. All power must be generated on the ground, either diesel, oil or gasoline.

BUILDING & EQUIPMENT: There are no buildings or operationg equipment on the property at present time.

CLIMATIC CONDITIONS: Climatic conditions are such that almost all year operations can be carried on. Occassionally the rain elements interfere for a few days, snow has been known to fall but only very slightly; it melts as fast as it falls - does not hinder any mining operations.

LABOR CONDITIONS: Although there is a scarcity of labor in general , men are available for mining. The Mahnesite Plant at Las Vegas is about to discharge great number of men who will be available for other work of this nature.

MINING SUPPLIES: Mining supplies can be had at Las Vegas or can be shipped or hauled from either Los Angeles or Salt Lake at a nominal cost. Groceries are available close by, at Las Vegas or at Bunkerville.

RECOMMENDATIONS: The writer suggests the first thing to do, is to make the road passable to the place where the camp buildings are to be erected also the place where the operations on the ore will be commenced. A suitable place on one of the lodes in the canyon should be chosen, perferably the one at the lowest elevation in altitude, for the reason, that when operations on other lodes higher up the canyon are started, it will be possible to get the mica down to the mill for crushing and sorting at a minimum cost.

EXHIBIT C.

5. ¶a¶ 3 Report(Page 4)

When the road is passable a compressor and drilling equipment should be immediately moved in, so that work on opeing up the ore body can be commenced, for the reason that the time element is an important factor, as contracts for the delivery of mica are crowding for delivery for strategic uses. Buildings adequate for the hosing of employees, sleeping and boarding quarters are necessary, so that travel to and from the mine can be eliminated, as much as time would be lost in that event; also wear and tear of an automobile or truck, also gasoline and tires, at this stringent period of Government rationing. When the road is passable for the purpose mentioned, the bull-dozer or any other road equipment should start at the mill-site and grdually finish the road; starting from the canyon and working down, will be much easier as everything will be a down-hill pull from that end. After the road is passable heavier machinery for operations should be hauled in, and installed as quickly as possibel, this for reasons already stated.

During this period a pipe-line od sufficient capacity for all purposes, shoul should be installed, to bring the water to the camp-site from the north-east branch of the Bachmann Canyon. It would be necessary to install a small portable lighting plant, until such time as a larger plant can be installed.

Should a mill be neceassary to crush the ore, I would suggest a unit system to commence operations at first, a 50 ton mill would do to start with, as this sized mill on hard rock, should do two times as much on mica; then add other units commensurate with the necessity of filling orders for mica. It might be possibel that a Kue-Ken crusher, were one installed at the commencement of operations, would be able to take the place of both crusher and mill, as it may crush the ore so that it will be free from the lode agrregate, such as schist and Feldspar contained in this deposit.

According to the Bulletin # 601 of the Kue-Ken Company, the 50 crusher will crush to a 3/8 inch mesh at the rate of 8½ tons on hard rock. Using this for mica mill be much larger tonnage; this sized crusher would take a 35 H.P. enginer; the difference in elevation would have to be allowed at this altitude where the crusher is to be used. The necessary equipment for the operation of the mine, also operting expenses for at least 60 days, will be found appended to this report.

RECAPITULATION: In an analysis of the foregoing, the writer fully appreciates the magnitude of this immence potential lode of Muscovite, commly termed Mica. In order to appreciate this more fully, it would be necessary to visit the property. There are several independent mineral lodes contained in these claims; according to the lease on the property other connecting claims are to be added to the present holdings, as the lode system of the Bachmann Calim extends for many thousand feet over the adjacent mountain range. The writer visualizes many millions of tons of mica will be opened up, all of which can be worked by a gravity system and dump directly into a large bin, ready for the crushing machine. The entire milling set-up can be operated automatically if properly installed; the mica can be delivered by a belt system for sorting, and the scrap mica carried off by the same system to the loading bin.

There are no intricate mining or treatment problems to be discussed as are contained in any other phase of mine operations. It will not be necessary to employ any technical laboratory help, hence the cost of mining operations will be much less than in a quartz mining operation. There are no costly treatment expenses to be considered, as milling and screening operations will make a finished product ready for the market.

The climatic conditions are such that almost a daily operation the year round can be considered. Tentative orders are assured for the entire output of the mine, and with the present prevailing prices for delivery of mica, this should be an advantageous time to operate.

P-53

EXHIBIT C.

5. (a) 3 Report (page 5)

The prelimary costs of road building, camp and other buildings, also operating equipment, should soon be amortized, leaving a splendid profit on the investment. Mining supplies are available and if necessary, priorities can be obtained from the Governemnt for any special equipment or supplies. I consider it a "Patriotic Duty" for all concerned, to get this property operating at the earliest time possible.

CONCLUSION: There is nothing the writer can add to the above statements, it si my honest, earnest opiniom, that this enterprise if run on a conservative mining basis, under qualified management, will soon become a handsome profit producing commercial investment.

Therefore I do most earnestly recommend this property for operation, on the lines herein suggested.

Respectfully submitted,

Signed, G. WALLACE WALKER
DR. G. Wallace Walker
Geologist & Consulting
Mining Engineer.

9. (b) Copy of letter offer to purchase Mica.

"Sigurd Olsen, President
D. A. Olsen, Treasure

Factory at Forest Park, Ill. and E. Rutherford, N. J.	U. S. MICA MFG. CO. Grinders of Mica 1521 - 1527 Circle Ave.	Telephon- Forest 635 and Rutherford 2-2323 FOREST PARK, ILL. July, 9th. 1943

Mr. John G. Becker
San Angelo, Texas

Dear Sir:

We buy Mica Scrap fit for grinding purposes only, in carload lots.

Send us about a half pound sample of the Mica you propose to furnish, let us know what the reight rate is from your shipping point to Forest Park which is within the Chicago switching district and also let us know the price per ton you want for the Mica on cars at your shipping point.

If you have sheet or punch, we beleive you can dispose of it to a very reliable concern located in Chicago.

After we see your sample we shall write to you.

Yours very truly,

U. S. Mica Mfg. Co.

/s/ Sigusr Olsen
Per MS"

ALSO July, 19, 1943

Mr. John G. Becker
San Angelo, Texas

Dear Sir:

We have your letter of July, 12th, and your sample of scrap Mica. The qualitity is very good and we can pay you $30.00 a ton for it FOB our factory at Forest Park, Ill.

B-54

CHD

File WCB.

February 8, 1945

MEMORANDUM

TO: W. C. Broadgate

FROM: Chas. H. Dunning

Mr. John G. Becker of Phoenix has called at the office and asked our advice in obtaining some government aid in financing a mica grinding plant (and an access road) at his mica property in Arizona near the Arizona-Nevada line.

He had written to and received a letter from Senator Scrugham, a copy of which is enclosed.

He talked with Gohring but did not receive much encouragement. He talked with Mr. Bouse of S.W.P.C. and did receive encouragement but our experience with the S.W.P.C. does not make us very optimistic.

There is a great demand for ground mica at a price that should permit a profit to a prudent operator who has a good deposit, whether or not he is able to furnish any strategic sheet or punch mica as a by-product. Ground mica would seem as strategic as sheet mica, as it has a large and important field in wire insulation and roofing and other important strategic uses.

no - too much available as by-product from strategic mining.

Whether or not Mr. Becker's deposit has the earmarks of being permanent enough to justify a loan we do not know, but as he describes it, it must have.

It would be difficult for us to make a preliminary examination at this time (Holt is on the sick list again) but if he could get proper encouragement from some financing agency, we will arrange for the preliminary.

He has a contract for $28.00 per ton F.O.B. mine for his ground product.

He would require about $15,000 for grinding and separating plant and also a two-mile access road.

We would like to have your advice as to where to aim and when to shoot.

Chas H Dunning Feb 10, 1945

This is OK if contract is firm for sufficient quantity to permit the loan to bail out. There is plenty of ground mica for the war effort and it would therefore be impossible to get an endorsement of necessity from WPB for the road or loan from R.F.C.

over

CHD:LP

B-30

This is like so many cases where there is no strategic necessity. Only a long term contract for the product would insure a loan. However, SWPC with Bonner's OK would probably shoot if there was a fairly good contract and the possibility of getting further contracts.

I feel sure RFC will not touch it.

I probably could help with an SWPC application. I know the Chief Loan Agent fairly well. But I think Bonner can approve in the field anything under $25,000.

Bill

INFORMATION
FOR MINE ACCESS ROAD

LOCATION OF MINE:

State Arizona County Mohave Elevation 4,000 feet

Township T-39-N Range R-16-W Section 6

Name of mine or claims GREAT WESTERN MICA CORPORATION O. K. Bachmann Group of Claim 0 to 5 Inclusive (6 Claims)

MINERAL RESOURCES OF PROPERTY:

Kind of minerals or material MICA - Commercial

Specific nature and extent of sampling, exploration, and development 1891 by Daniel Douelli.

	TONNAGE	ASSAY OR ANALYSIS
Blocked out	200' x 600' x Depth to be determined.	
Probable		
Possible	Several Millions of Tons.	

PRODUCTION AT MINE:

Operating season 12 months per year.

Present daily production None Number of men employed None

Estimated daily production with proposed access road 100 Tons

Number of men to be employed 12

LOCATION OF MILL OR SMELTER WHERE ORE WILL BE DELIVERED: On the Claims.

Name Great Western Mica Corporation Address Near Mesquite, Nevada

Township T-39-N Range R-16-W Section 6

Distance from mine to mill or smelter On Claims.

Type of transportation Trucks

Daily capacity of mill or smelter Proposed 100 Tons.

FINANCIAL INFORMATION: Has any Government loan been granted? None required.

If so, by what agency? - - -

Docket No. Amount of loan

ADDITIONAL INFORMATION:

Where information is not available, draw a line through question. Attach to this form, sheets containing any other information that will aid in determining the need for the proposed access road. If on Government lands, give name of area or administrative agency. Grazing Service.

16—35847-1

Department of Interior

B-26

e92-8

Form PR-DA-3

APPLICATION FOR ACCESS ROAD TO RAW MATERIAL

Date .....

Project No. .....
(Leave blank)

Serial No. .....
(Leave blank)

TO THE PUBLIC ROADS ADMINISTRATION:

We, the undersigned, hereby make application for access road assistance to serve our property which we believe is essential to the war effort.

We agree to furnish two copies of this application, properly filled out, together with two copies of a map showing the location of the property and the road in question. We will also furnish any other information about this project upon request.

We understand that this application is to be filed with the District Engineer of the Public Roads Administration (whose name and address are on the last page of this form) in the district where the property is located.

We further agree to furnish any additional right-of-way necessary for the proposed road on property owned by the applicant.

GREAT WESTERN MICA CORPORATION
(A Nevada Corp.)
(Name of company)

[illegible] President
(Official representative)

John G. Becker

John G. Becker
Secretary-Treasurer
(Street address)
42 West Palm Lane, Phoenix, Arizona
(Town) (State)

3-8196
(Telephone number)

U. S. GOVERNMENT PRINTING OFFICE 16—35847-1