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ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES AZMILS DATA

PRIMARY NAME: GROWLER MINE

ALTERNATE NAMES:
COPPER HILL GROUP

PIMA COUNTY MILS NUMBER: 146

LOCATION: TOWNSHIP 14 S RANGE 7 W SECTION 34 QUARTER NE
LATITUDE: N 32DEG 10MIN 00SEC LONGITUDE: W 112DEG 58MIN 30SEC
TOPO MAP NAME: KINO PEAK - 15 MIN

CURRENT STATUS: PAST PRODUCER

COMMODITY:
COPPER SULFIDE
LEAD SULFIDE
SILVER
GOLD LODE

BIBLIOGRAPHY:
AZBM BULL. 189, P. 121, 1974
ADMMR GROWLER MINE FILE
ADMMR GROWLER COLVO FILE

03/20/90

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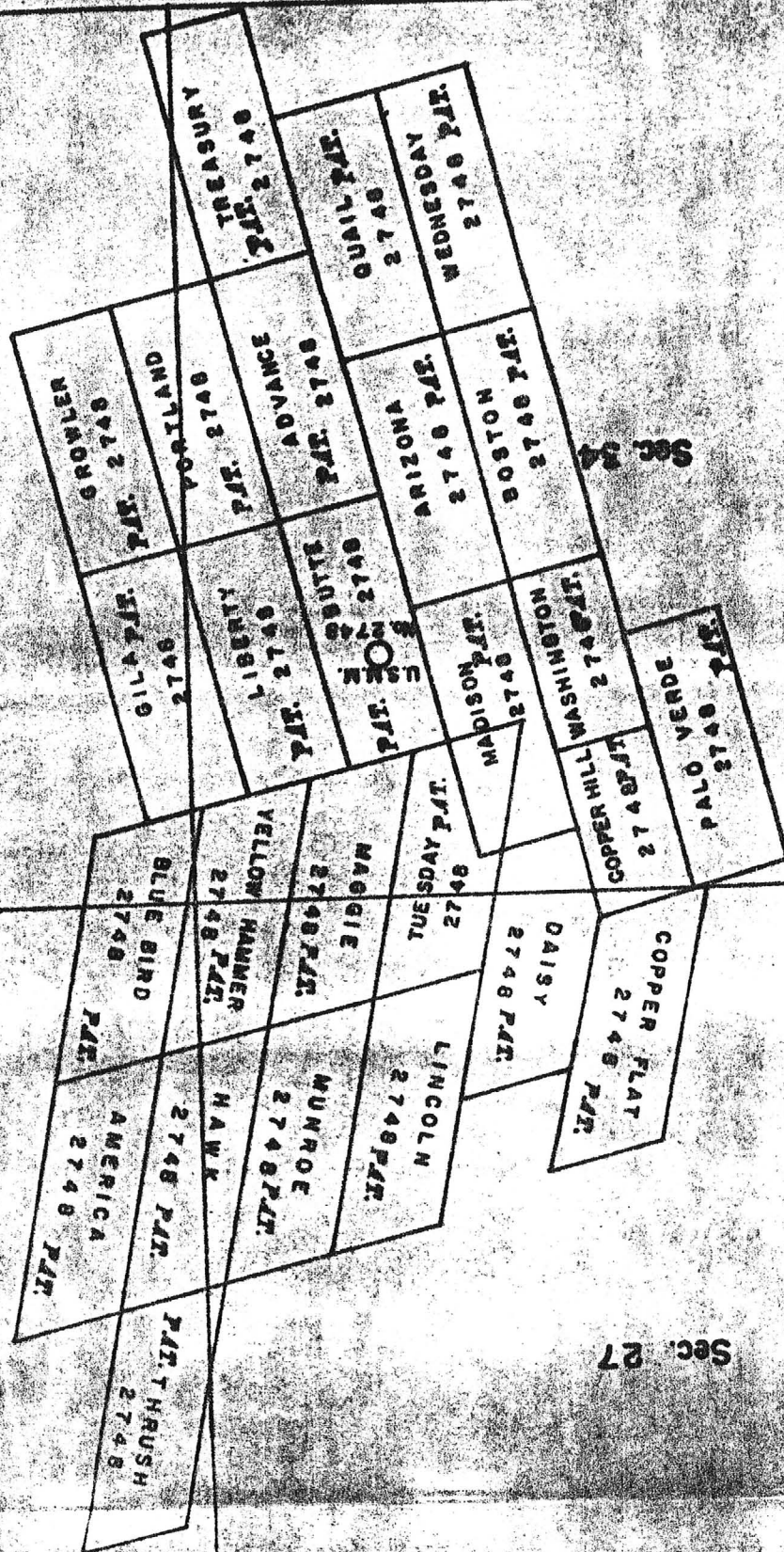
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Sec. 35



Sec. 27

Sec. 26

GROWLER MINE

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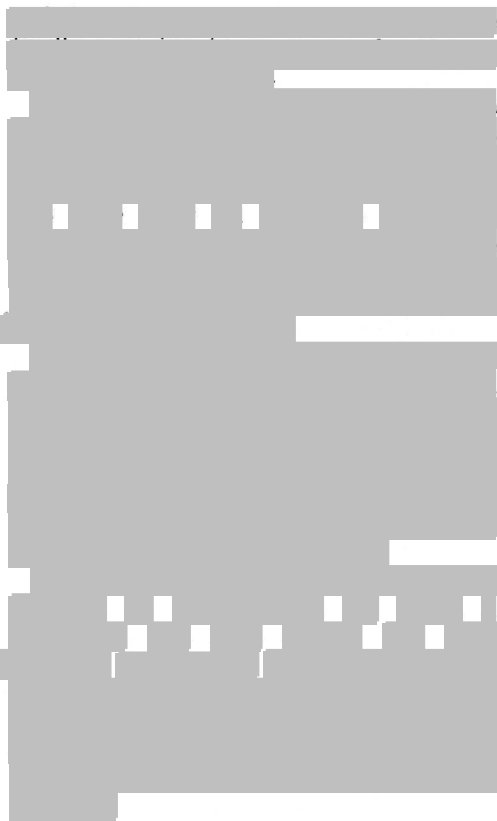
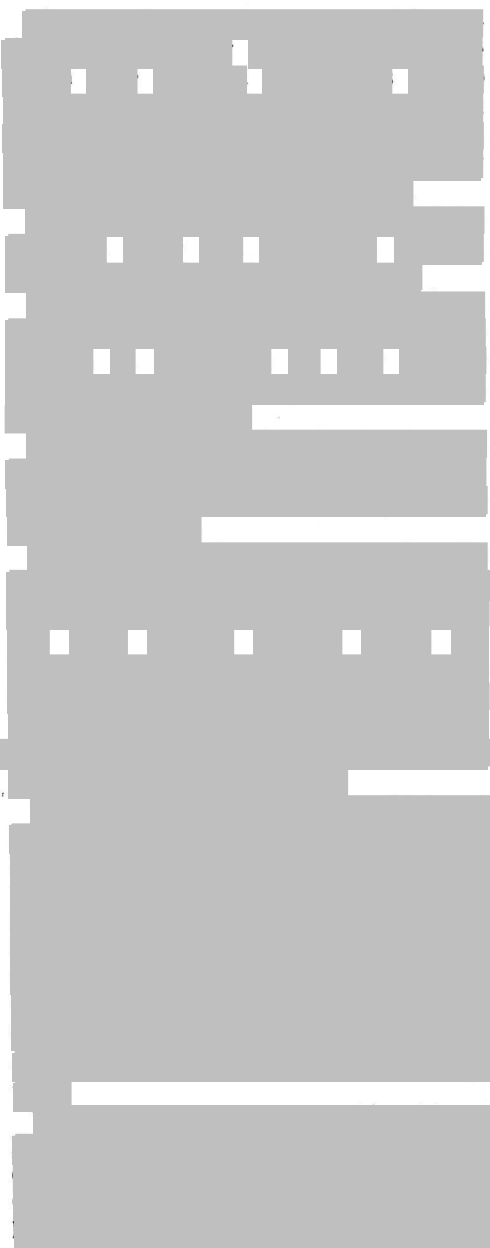
T14S, R7W, SEC 27, 34

Arizona Mining Journal, December 1918, p. 20

" " " December 15, 1922, p. 21

MILS GROWLER MINE

Organ Pipe Area Has Record Of Major Mining Production



(Special report from Dave Rees, Ajo.)

Rambler No. 6
Uns.

Rambler No. 5
Uns.

Rambler No. 25
Uns.

Rambler No. 26
Uns.

Ransome No. 1
Uns.

Ransome No. 2
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Ransome No. 3
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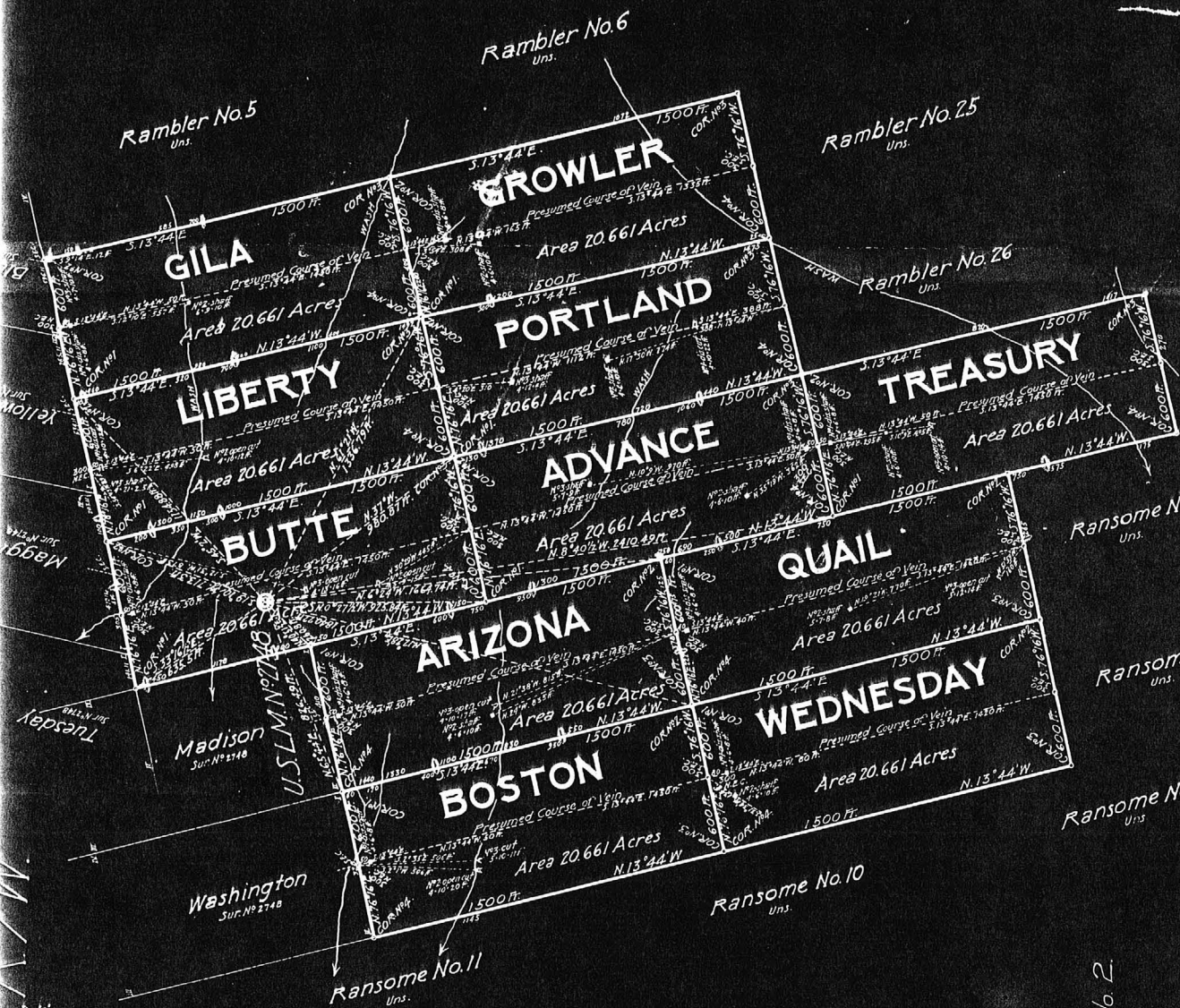
Ransome No. 10
Uns.

Ransome No. 11
Uns.

Sheet No. 2.

664 710
696 608

8161-51-1



Mineral Survey No

2748

Lot No

Land District

PLAT

OF THE CLAIM OF

KNOWN AS THE

IN

MINING DISTRICT,

COUNTY,

Containing an Area of

Acres.

Scale of 500

Feet to the inch.

Variation

SUBMITTED

190

BY

U.S. Mineral Surveyor,

The Original Field Notes of the Survey of the Mining Claim of
known as the

from which this plat has been made under my direction, have been examined and approved, and are on file in this Office; and I hereby certify that they furnish such an accurate description of said Mining Claim as will, if incorporated into a patent, serve fully to identify the premises, and that such reference is made therein to natural objects or permanent monuments as will perpetuate and fix the locus thereof.

I further certify that Five Hundred Dollars worth of labor has been expended or improvements made upon said Mining Claim by claimant or grantors, and that said improvements consist of

that the location of said improvements is correctly shown upon this plat, and that no portion of said labor or improvements has been included in the estimate of expenditures upon any other claim.

And I further certify that this is a correct plat of said Mining Claim made in conformity with said original field notes of the survey thereof, and the same is hereby approved.

U.S. Surveyor General's Office.

U.S. Surveyor General for

190



UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

Organ Pipe Cactus National Monument

In reply refer to:
L3023

August 5, 1955

file
Mr. Charles H. Dunning
817 W. Madison St.
Phoenix, Arizona

Dear Mr. Dunning:

We have your letter of August 2 with regard to appraisal of the 22 mining claims we have previously discussed. Since you have established the definite price of \$400 for which you will make the appraisal, it is now necessary for me to request approval and ask for the necessary funds. It will consequently be some little time before we could make a definite commitment. In the meantime, you might like to have the following information:

1. The GLO plat of T. 14 S., R. 7 W., GSRM, shows 26 mineral claims under M. S. No. 2748 and lists them as follows, including the numbers: 1. Thrush, 2. America, 3. Hawk, 4. Munroe, 5. Lincoln, 6. Daisy*, 7. Copper Flat*, 8. Palo Verde, 9. Copper Hill*, 10. Tuesday, 11. Maggie, 12. Yellow Hammer*, 13. Blue Bird, 14. Gila, 15. Liberty, 16. Butte, 17. Madison, 18. Washington, 19. Boston, 20. Arizona, 21. Advance, 22. Portland, 23. Growler, 24. Quail, 25. Wednesday, 26. Treasury. We do not have a detailed plat of the claims themselves but there must undoubtedly be one available that can be secured if we go ahead with the appraisal. The four claims marked with an asterisk are under different ownership than those we are interested in purchasing.

2. The present owner of the 22 claims is G. T. Alley, of Ajo, Arizona, and his title is recorded in Deed Book 26, Page 413, County Recorder's Office, Pima County, Tucson. The first definite record of title we have is when the entire 26 claims were transferred from ownership of George H. Morrill to Albert I. Long by Warranty Deed of February 17, 1930, which was recorded in Pima County on March 24, 1930, Deed Book 146, Page 2. We, unfortunately, do not have the patent number but can possibly secure it before the appraisal is made.

3. You may be sure that if the appraisal is undertaken we will furnish all of the guide service required. Due to the nature of the terrain I can see no possibility of the need for any long hikes or climbs on foot.

Thank you very much for your interest and as soon as any further, definite information is available I will contact you again. We should be able to give you all of the advance notice that is required.

Yours very truly,

James M. Eden
James M. Eden
Superintendent

GROWLER MINE
Pima County, Arizona.

File: 32-112-1-4

The Growler Mine is located 21 miles by road south of Ajo.

Copper Hill Shaft Area:

The Copper Hill workings are in a zone of metamorphosed sediments that strike E-NE and appear to dip steeply. To the south is quartzite, flanked on the north by limestone and alteration products of limestone perhaps 75 feet wide. The limestone is altered to marble and much silicate rock - garnet, diopside, epidote, wollastonite, and tremolite, and also massive iron oxides. The whole is well oxidized at the surface. The heavy hematite shows copper stain in places in the shallow tunnel and flat structures filled with cross-fiber gypsum. Silicious and silicate rocks containing copper stain is on the dump.

The shallow inclined tunnel was sampled by F. E. Small. 28 samples cut at 5 ft intervals gave an average value of 0.015 gold, 0.14 oz silver, 1.56% copper.

Samples from the main vertical shaft by Small to the bottom at 256 feet average: 0.7 silver, 7.56% copper, and gold 0.01 except at the bottom of the shaft where he gives the gold content 0.91 oz. Small gives no description or exact location of his samples, therefore they are of little value.

Yellow Hammer Shaft:

The Yellow Hammer Shaft is about 1/2 mile easterly from the Copper Hill workings. It inclines on a fissure with some gouge at angles ranging from 30 to 50 degrees. This shaft is reported to be 330 feet deep with levels at incline depth at 85, 190, 280, and 300 feet. The drifts on these levels are short, the maximum length north and south being about 80 feet on the 85 ft level. The fissure zone strikes a little east of north and varies from pinch to 4 feet in width. The assay section by Small gives the following averages for the vein- no widths given but evidently taken over very narrow widths.

85 level north for 80 feet:

Walls:	Gold 0.02,	silver 0.11,	copper 0.90%
Main orebody:	"	tr	" 15.42%

85 level south for 85 feet:

Average -	Gold 0.09,	silver 0.17,	copper 7.45%
-----------	------------	--------------	--------------

190 level south for 25 feet:

"	0.65	"	0.65	"	3.42%
---	------	---	------	---	-------

1. Growler Mine
2. Pima County, Arizona
- 3.
4. Messrs. Hannon and Stone
5. Sometime in April 1947
6. Copper, gold, and silver
7. "The dump samples taken do not support the high gold assays of the lower level though such ore may have been shipped. It seems a little unusual that high gold assays are shown by Small in only the bottom workings of both the Copper Hill and Yellow Hammer shafts."
8. _____

* * * * *

THE EAGLE-PICHER MINING & SMELTING COMPANY
MIAMI, OKLAHOMA



INTRA-COMPANY
CORRESPONDENCE

TO Grover Duff - Tucson Office
FROM John W. Chandler - Miami Office
SUBJECT: Exploration Work

DATE April 6, 1951

Dear Grover:

We are presently compiling a record of all the mines and prospects which we have examined for the Company during the past 10 years.

Starting with 1940, and listing the work done by years, such as 1940, 1941, 1942, etc., we would like to have the following information tabulated:

1. Name of property
2. Location - (State and County)
3. Who it was submitted by
4. Who made the examination
5. Time spent on the examination
6. Metals involved
7. General conclusions drawn from examination
8. Remarks - Under this heading could be shown whether we have done drilling or any other work in addition to the examination. Give brief outline. If the property subsequently became a mine unit and was operated so state.

We do not have a complete file in this office on all properties examined by the Company and we will combine your report with the one being made up from our files to make the final report complete. I would appreciate it if you could put someone on this work until it is completed, sending me three copies of your tabulation.

Best regards,

Jack.
John W. Chandler.

JWC/jm

4-25-51 - Mr. Chandler will send us a list of the properties on which they have reports in their files, and we will then send him the information on the others.

GJD

OFFICE
817 W. MADISON ST.
PHONE ALPINE 3-6272

CHARLES H. DUNNING
MINING ENGINEER
PHOENIX, ARIZONA

RESIDENCE
1635 W. EARLL DR.
PHONE AMHERST 5-1132

October 17, 1955.

Mr. James M. Eden, Superintendent,
Organ Pipe Cactus National Monument,
Ajo, Arizona.

Dear Mr. Eden:

Subject: Appraisal of Mining Claims
on the Monument.

Pursuant to your request, and to contract previously entered into, I have examined a group of patented mining claims situated in your Monument, west of Ajo, Arizona.

The purpose of the examination was to establish a fair cash value for the above claims.

The overall group consists of 26 claims, but four claims in the general group are under separate ownership and are not included in this appraisal.

LOCATION

Prints of the original patent map are attached to this report. The four claims that are not included are designated in red. The names of the claims that are included, and their individual acreage, are not repeated here as it is simpler to refer to the map.

The location of the group is in T14S - R7W - G&SR Meridian. This is in the Growler Mining District, and Growler Mountains, west of Ajo. The quarter corner of sections 27 and 34, established since the patent, is on the Copper Hill Claim, and is marked approximately on the map.

Considerable information as to acreage, value of improvements (mining development work) etc., is in text on the map, and will not be included here.

Appraisal of Mining Claims on the Monument.
Page 2.

HISTORY

The group was located in October, 1909, and patented in May, 1910. Title has passed through several ownerships since then.

There has been no commercial production from any of the 22 claims involved, although ore shipments have been made from one or more of the four claims in the group which are not included in this appraisal.

In addition to the original development as shown on the patent map, a more recent attempt has been made to disclose commercial ore by stripping the surface in several places with a bulldozer.

Titles were not examined in this appraisal but it is generally understood that the 22 claims in question are at present owned by Mr. Tom Alley of Ajo.

GEOLOGY

The terrain consists of a basement of porphyritic quartz-diorite. This rock, no doubt, intrinsically contained a minute amount of copper. As erosion and leaching took place some of the copper was precipitated in favorable spots and channels, resulting in several small and irregular spots of copper, usually in the form of chrysocolla.

No true veins were observed. And no intrusives of the mineralizing type. Nor were there large fractured zones receptive to mineral deposition; nor surface expressions in the form of gozzans or leached areas.

The situation on the four claims not included is somewhat different, and their potential value for mining purposes is somewhat greater.

Appraisal of Mining Claims on the Monument.
Page 3.

PHYSICAL ASPECTS

Most of the acreage is typically desert-mountainous with some flat valleys. Only a few small spots have sufficient soil to be arable.

Scenic characteristics are unusually good. From the "lay" of the country, and the fact that a considerable volume of water was encountered in the Yellow Hammer and Copper Hill shafts (not included) at around 150 feet, I would judge that good wells could be drilled, especially if spots could be found where a basin of gravel extends below the normal water level.

METHODS OF ARRIVING AT APPRAISAL VALUE

It is difficult to place a cash value on an undeveloped mining claim, whether patented or unpatented.

In Arizona a patented mining claim is appraised for tax purposes at about \$10.00 per acre (depending on the County). This is purely an arbitrary figure and it is self-evident that there must be wide variations. Furthermore, the cost of patenting a mining claim is at least \$1,000.00; when one considers that a minimum of \$500.00 must have been spent in improvements (development), and other costs such as survey, legal fees, advertising and acreage price, also amounts to about \$500.00.

The following methods can be considered. None is sufficient nor actual in itself. All must be considered and then the judgment of an experienced person used:

- (a) Accountant's method of capitalizing past expenditures.
- (b) Engineer's method of estimating net value of ore in sight.
- (c) Estimate of what a "prudent man" would be willing to pay for the speculative chances, if he were in the market for such a project, and financed to develop it.

Appraisal of Mining Claims on the Monument.
Page 4.

- (d) It must also be considered what a not-so-prudent man (or so called "sucker ") might pay because of alluring but unsound mining possibilities.
- (e) Special assets other than mining; including water; scenery; accessibility; residential, sub-division; or commercial possibilities; historical interest.

While mining claims are primarily patented for mining purposes, the owner of older patents has unrestricted rights, and we cannot ignore (although we may deplore) that many claims have high value for other than mining purposes, and are so sold and used.

Mining patents are becoming more difficult to obtain and this very fact alone increases the value of older patents.

APPRAISAL VALUE

Reviewing the above methods, it is my opinion:

- (a) Actual expenditures have been well over \$1,000.00. per claim, not including items of equipment, mentioned in the text on the map, that have since been removed.
- (b) There is no ore developed.
- (c) A prudent miner would make no expenditure with hopes of developing commercial ore.
- (d) A not-so-prudent person might see several alluring features, such as the proximity of the big mine at Ajo.
- (e) There are good water possibilities, excellent scenery, reasonable accessibility, and some possibilities of future value for resort, or similar purposes.

CONSIDERING ALL OF THE ABOVE I PLACE A CASH VALUE OF

CHARLES H. DUNNING
MINING ENGINEER

Appraisal of Mining Claims on the Monument.
Page 5.

SEVEN HUNDRED DOLLARS (\$700.00) PER CLAIM FOR EACH OF THE
22 CLAIMS CONSIDERED, IRRESPECTIVE OF THE FACT THAT SOME
OF THE CLAIMS MAY NOT CONTAIN A FULL 20.66 ACRES.

Respectfully submitted,

Charles H. Dunning



*Jeff Milton mine - copper -
surface mining
(See Copper Grant
(file))*

C O P Y

P. O. Box 288
Kingman, Arizona
December 1, 1939

Subject:

ORGAN PIPE CACTUS NATIONAL MONUMENT

This Monum

Mr. J. S. Coupal, Director
Department of Mineral Resources
Capitol Building, Phoenix, Ariz.

Dear Mr. Coupal:

At the request of the Ajo Council, ASMOA, I made a trip through the Organ Pipe Cactus National Monument on October 20, 1939, in company with Mr. Newt Meadows, of Ajo, for the purpose of collecting data concerning the mining possibilities of that vast region, embracing an area 330,690 acres.

On this trip, we visited the old Victoria silver mine, located within the National Monument, at a point about 6 miles northwesterly from the International line near Sonoita. After looking the Victoria over, we returned to Ajo, via the Copper Mountain mining property, located also in the National Monument mentioned, about 23 miles south-southeast of Ajo.

A month previous to this time, I also examined the Sam Clark gold mine, located within the monument about 20 miles south-southwest of Ajo.

Also some years ago I traveled through territory now embraced in the monument, from Ajo to Quitovaquita, situated near the Sonora line, looking over various gold prospects enroute.

The above details are mentioned to show that I have first-hand knowledge of the area in question, and that I have personally examined some of the mining locations therein. Furthermore, I have from time to time secured reliable information from a number of Arizona mining men concerning the mineral possibilities of this general area, in which I have no personal interests whatever.

OPINION. - As a result of the above investigations I am pleased to submit my findings

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OPINION. - As a result of the above investigations I am pleased to submit my findings

and opinion concerning the Organ Pipe Cactus National Monument, and the mineral possibilities thereof, as follows:

ORGAN PIPE CACTUS NATIONAL MONUMENT

This Monument was created by Presidential Proclamation on April 13, 1937, under authority of Sec. 2 of the Act of June 8, 1906 (34 Stat. 225). It reserves from all forms of appropriation under the Public Land Laws, subject to existing rights, 330,690 acres, immediately west of the Papago Indian Reservation, for the Organ Pipe Cactus National Monument, to be under the supervision of the National Park Service.

Under date of October 9, 1939, Mr. Fred W. Johnson, Commissioner of the General Land Office, wrote Mr. Albert I. Long, Chairman of the Ajo Council, concerning the said withdrawal, stating: "The lands are not subject to prospecting or location under the United States Mining Laws."

Unquestionably, this withdrawal was sponsored and established in a quiet and clandestine manner, without the knowledge of either the Arizona Congressional Delegation, or a large number of Arizona citizens who are interested in mining and grazing lands in the area withdrawn.

There is no valid way of disputing the above statement; so it would seem, to put it mildly, that the sponsors of this withdrawal used questionable methods in order to gain their ends and have set aside for park purposes, for all time to come, another considerable part of the gradually vanishing Public Domain in this State.

PUBLIC DOMAIN. - According to a corrected list of Arizona lands, as of July 1, 1936, the total area of the State is 72,931,860 acres. After deducting Indian Reservations, National Forests, National Parks and Monuments, Military Reservations, State Lands and Privately Owned Lands, there were at that time only 11,396,260 acres of Public Domain left in this State! Furthermore, since then other withdrawals have been made for various and sundry reasons and purposes, wherein mining is either totally prohibited or restricted.

POTENTIAL MINES. - Within the Organ Pipe Cactus National Monument there are about 10 distinct mineralized areas, carrying gold, silver, lead and copper. Here, small mining operations have been carried on for a long period of years, dating back to Spanish Colonial times.

At the present time there are no large mines being worked within the monument; but that fact is of small importance, as mineralized regions in our Western States, and in all mining countries in the World in fact, often lie dormant for decades, or even for hundreds of years, before any mines of importance are found. For instance, the great copper camp of Ajo, located on the very edge of the monument, -- a camp now producing around 20,000 tons of copper ore daily and supporting a modern city with a population of over 7000 people, was over 75 years in the making after its discovery by white men. So who can tell but that another Ajo, another Gold Roads, another Tonopah, may now lie dormant within the boundaries of the withdrawn lands in question?

COPPER MOUNTAIN. - This property, now consisting of two mining claims only, is owned by M. E. Gibson, of Ajo. It is located 23 miles south-southeast of Ajo. The geologic structure of this property consists of a copper stained and highly mineralized hill of quartz-monzonite, traversed by a number of quartz veins from 4 to 8 feet wide, which have been developed by 15 shafts from 10 to 80 feet deep, one tunnel and various open cuts; and all ore removed from these workings assays, per reliable data furnished me, around 2% copper and \$3.00 gold per ton. These veins might now be worked profitably if further developed and proper metallurgical equipment installed.

Copper mountain was diamond drilled, in 1917, by the American Smelting & Refining Company and others. Three holes were put down, partly by the said company and partly by the owners of that time, M. E. Gibson and W. A. Knox. Drill hole No. 1 was sunk to an inclined depth of 530 feet and averaged, per Mr. Gibson, 1% copper. Hole No. 2, 400 feet deep also averaged about 1% copper. Hole No. 3, 200 feet deep, averaged 1.5% copper; but gold and silver values in these holes were not available.

As a result of the above work at Copper Mountain, about 40 acres of mineralized ground was proven to carry low copper and gold values to a maximum inclined depth of 530 feet, thus indicating a vast amount of ore indeed. However, at the time this work was done (1917), the ore was found to be too low grade to meet the requirements of interested parties at that time. But even then, mill heads at Ajo only averaged slightly in excess of 1% copper and that grade of ore has, more or less, been worked profitably through the years.

On the other hand, as Mr. Albert I. Long points out: "Who can say with the rapid advance of science what technological developments may take place in the near future which would make mineral deposits now below the commercial ore margin, valuable and taxable?"

But the National Park Service people may point out: "What has Copper Mountain got to do with this discussion anyhow, as this withdrawal was made subject to existing rights, etc.?" In answer to this hypothetical question, I will state plainly what it has got to do with it. The present area of Copper Mountain is now only two mining claims, with all surrounding ground withdrawn from mineral entry. No mining company would consider developing this property unless a much larger area could be acquired. So although the Monument must and does respect the two claims mentioned, for all practical purposes these claims are now rendered of no value at all. That is my answer.

VICTORIA MINE. - As stated, this property, belonging to Michael J. Levy, is located within the Monument, near the Mexican border. The property is an "antigua", having been worked by the early Spaniards and later Mexicans. Mr. Levy and associates have worked the mine from time to time for the last 25 years. It is developed by a shaft 318 feet deep on vein and extracted shipping ore through the years has averaged 300 ounces silver and \$40.00 gold per ton, plus around 14% lead. This mine is now in a depleted condition; but would probably pay again if reopened and new work carried out. All surrounding mineralized ground is now withdrawn and cannot now be located or explored.

OTHER MINES. - There are a number of other mining locations on the monument which have been held by mining men for a number of years. These cover gold, silver, copper and lead outcroppings of ore, the importance of which no man can tell until when and if these properties can be adequately explored. And all of these locations are now handicapped in one way or another by the rules and regulations governing the monument.

Furthermore, even granted that the monument later on may prove of some importance commercially as a recreational area, there is no reason or justice at all in prohibiting mining operations, or even grazing, within the area. For, as to mining, as the cactus mentioned is absolutely worthless for either fuel or for mine timbers, "the only damage that would be done to this cactus by allowing mining on this monument", as Mr. Long states, "would be the occasional cutting down of one to permit the building of roads, and that damage would be slight as there are areas on the monument many miles square on which no organ pipe cactus grows."

As to grazing, inasmuch as the cactus in question is worthless for forage purposes, grazing of cattle or other animals on the monument would not result in any damage at all to the said cactus.

ORGAN PIPE CACTUS. - Now let us take a look at the "organ pipe cactus" itself. It is commonly known to the Indians and Mexicans by the word "pitahya", which is also spelled by the Mexicans, "pitalla"; its fruit being highly esteemed by them. Its scientific name seemingly has not been established, it being called: "Cereus Thurberi" and also "Lemaireocereus Thurberi". This plant is found growing in scattered areas along the desert coastal plains of Sonora, Sinaloa and Nayarit. To a lesser extent it is found in the deserts of southwestern Arizona.

The organ pipe cactus is not found growing in quantity over the entire monument; but it is found in a distinct groves, mainly located around the foot hills of the Growler and other mountain ranges, which occupy about 15% of the total area of the monument. And even these groves are not close together by any means; but cover only a small part of the 15% mountain area mentioned. Within the broad inter-mountain valleys, only a few organ pipe cacti are found.

In proof of the above statement, while Newt Meadows and I were driving through the monument, along the highway leading north from the Mexican border, toward Ajo, he counted 64 organ pipe cactus plants within a 10 mile stretch and about one-quarter of a mile on each side of the road; 45 of these plants being located on one hill. Hence, excluding the grove on the hill, Meadows counted exactly 19 organ pipe cactus plants within 10 miles, which would figure out about four plants per square mile. So it would seem that if all other desert growth should be removed from the inter-mountain valleys, representing 85% of the total area of the monument, leaving the organ pipe cactus plants standing, a tourist would have to use a field glass in order to see from one of these awe-inspiring thorny plants to the other.

In otherwords, the sponsors of the Organ Pipe Cactus National Monument took in entirely too much territory. It would seem, if such a monument is necessary at all, that the main groves of this cactus, located as stated in the hilly sections of the area, could have been covered by a number of small withdrawals ranging from 10 to 40 acres each and aggregating at the most from one to two thousand acres, leaving the balance of the 330,690 acres, as set forth above, for the uses of the mining and cattlemen, many of whom have spent the best parts of their lives in this area.

Very sincerely yours,

(Signed) E. B. Holt
Field Engineer

cc - Ajo Council

CHARLES H. DUNNING

MINING ENGINEER

PHOENIX, ARIZONA

OFFICE

817 W. MADISON ST.
PHONE ALPINE 3-6272

RESIDENCE

1635 W. EARLL DR.
PHONE AMHERST 5-1132

October 17, 1955.

Mr. James M. Eden, Superintendent,
Organ Pipe Cactus National Monument,
Ajo, Arizona.

Dear Mr. Eden:

Subject: Appraisal of Mining Claims
on the Monument.

Pursuant to your request, and to contract previously entered into, I have examined a group of patented mining claims situated in your Monument, west of Ajo, Arizona.

The purpose of the examination was to establish a fair cash value for the above claims.

The overall group consists of 26 claims, but four claims in the general group are under separate ownership and are not included in this appraisal.

LOCATION

Prints of the original patent map are attached to this report. The four claims that are not included are designated in red. The names of the claims that are included, and their individual acreage, are not repeated here as it is simpler to refer to the map.

The location of the group is in T14S - R7W - G&SR Meridian. This is in the Growler Mining District, and Growler Mountains, west of Ajo. The quarter corner of sections 27 and 34, established since the patent, is on the Copper Hill Claim, and is marked approximately on the map.

Considerable information as to acreage, value of improvements (mining development work) etc., is in text on the map, and will not be included here.

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HISTORY

The group was located in October, 1909, and patented in May, 1910. Title has passed through several ownerships since then.

There has been no commercial production from any of the 22 claims involved, although ore shipments have been made from one or more of the four claims in the group which are not included in this appraisal.

In addition to the original development as shown on the patent map, a more recent attempt has been made to disclose commercial ore by stripping the surface in several places with a bulldozer.

Titles were not examined in this appraisal but it is generally understood that the 22 claims in question are at present owned by Mr. Tom Alley of Ajo.

GEOLOGY

The terrain consists of a basement of porphyritic quartz-diorite. This rock, no doubt, intrinsically contained a minute amount of copper. As erosion and leaching took place some of the copper was precipitated in favorable spots and channels, resulting in several small and irregular spots of copper, usually in the form of chrysocolla.

No true veins were observed. And no intrusives of the mineralizing type. Nor were there large fractured zones receptive to mineral deposition; nor surface expressions in the form of gozzans or leached areas.

The situation on the four claims not included is somewhat different, and their potential value for mining purposes is somewhat greater.

PHYSICAL ASPECTS

Most of the acreage is typically desert-mountainous with some flat valleys. Only a few small spots have sufficient soil to be arable.

Scenic characteristics are unusually good. From the "lay" of the country, and the fact that a considerable volume of water was encountered in the Yellow Hammer and Copper Hill shafts (not included) at around 150 feet, I would judge that good wells could be drilled, especially if spots could be found where a basin of gravel extends below the normal water level.

METHODS OF ARRIVING AT APPRAISAL VALUE

It is difficult to place a cash value on an undeveloped mining claim, whether patented or unpatented.

In Arizona a patented mining claim is appraised for tax purposes at about \$10.00 per acre (depending on the County). This is purely an arbitrary figure and it is self-evident that there must be wide variations. Furthermore, the cost of patenting a mining claim is at least \$1,000.00; when one considers that a minimum of \$500.00 must have been spent in improvements (development), and other costs such as survey, legal fees, advertising and acreage price, also amounts to about \$500.00.

The following methods can be considered. None is sufficient nor actual in itself. All must be considered and then the judgment of an experienced person used:

- (a) Accountant's method of capitalizing past expenditures.
- (b) Engineer's method of estimating net value of ore in sight.
- (c) Estimate of what a "prudent man" would be willing to pay for the speculative chances, if he were in the market for such a project, and financed to develop it.

- (d) It must also be considered what a not-so-prudent man (or so called "sucker ") might pay because of alluring but unsound mining possibilities.
- (e) Special assets other than mining; including water; scenery; accessibility; residential, sub-division; or commercial possibilities; historical interest.

While mining claims are primarily patented for mining purposes, the owner of older patents has unrestricted rights, and we cannot ignore (although we may deplore) that many claims have high value for other than mining purposes, and are so sold and used.

Mining patents are becoming more difficult to obtain and this very fact alone increases the value of older patents.

APPRAISAL VALUE

Reviewing the above methods, it is my opinion:

- (a) Actual expenditures have been well over \$1,000.00. per claim, not including items of equipment, mentioned in the text on the map, that have since been removed.
- (b) There is no ore developed.
- (c) A prudent miner would make no expenditure with hopes of developing commercial ore.
- (d) A not-so-prudent person might see several alluring features, such as the proximity of the big mine at Ajo.
- (e) There are good water possibilities, excellent scenery, reasonable accessibility, and some possibilities of future value for resort, or similar purposes.

CONSIDERING ALL OF THE ABOVE I PLACE A CASH VALUE OF

CHARLES H. DUNNING
MINING ENGINEER

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SEVEN HUNDRED DOLLARS (\$700.00) PER CLAIM FOR EACH OF THE
22 CLAIMS CONSIDERED, IRRESPECTIVE OF THE FACT THAT SOME
OF THE CLAIMS MAY NOT CONTAIN A FULL 20.66 ACRES.

Respectfully submitted,

Charles H. Dunning



Mineral Survey N^o 2748LOT N^o

Land District

PLAT

OF THE CLAIM OF

KNOWN AS THE

IN MINING DISTRICT,
COUNTY,

Containing an Area of Acres.
Scale of 500 Feet to the inch.
Variation

SURVEYED 190 BY
U.S. Mineral Surveyor,

The Original Field Notes of the Survey of the Mining Claim of
known as the

from which this plat has been made under my direction, have been examined and approved, and are on file in this Office; and I hereby certify that they furnish such an accurate description of said Mining Claim as will, if incorporated into a patent, serve fully to identify the premises, and that such reference is made therein to natural objects or permanent monuments as will perpetuate and fix the locus thereof.

I further certify that Five Hundred Dollars worth of labor has been expended or improvements made upon said Mining Claim by claimant or grantors, and that said improvements consist of

that the location of said improvements is correctly shown upon this plat, and that no portion of said labor or improvements has been included in the estimate of expenditures upon any other claim.

And I further certify that this is a correct plat of said Mining Claim made in conformity with said original field notes of the survey thereof, and the same is hereby approved.

U.S. Surveyor General's Office.

U.S. Surveyor General for

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Rambler No. 6
Uns.

Rambler No. 5
Uns.

Rambler No. 25
Uns.

Rambler No. 26
Uns.

Ransome No.
Uns.

Ransome
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Ransome No.
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Ransome No. 10
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Ransome No. 11
Uns.

Sheet No. 2.

GROWLER

Area 20.661 Acres

PORTLAND

Area 20.661 Acres

ADVANCE

Area 20.661 Acres

QUAIL

Area 20.661 Acres

WEDNESDAY

Area 20.661 Acres

BOSTON

Area 20.661 Acres

ARIZONA

BUTTE

Area 20.661 Acres

LIBERTY

Area 20.661 Acres

GILA

Area 20.661 Acres

Madison
Sur. No. 2748

Washington
Sur. No. 2748

T14S, R7W.

APPROX.

UNS.

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