



CONTACT INFORMATION

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Arizona Department of Mines and Mineral Resources Mining Collection

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PRINTED: 03/26/2002

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES AZMILS DATA

PRIMARY NAME: RUTH MINE AND MILL

ALTERNATE NAMES:

PATENTED CLAIMS MS 1264
RUTH-MEACHAM

YAVAPAI COUNTY MILS NUMBER: 1134

LOCATION: TOWNSHIP 13 N RANGE 2 W SECTION 32 QUARTER NE
LATITUDE: N 34DEG 27MIN 50SEC LONGITUDE: W 112DEG 29MIN 03SEC
TOPO MAP NAME: GROOM CREEK - 7.5 MIN

CURRENT STATUS: PAST PRODUCER

COMMODITY:

ZINC
SILVER
LEAD
GOLD
COPPER
GEMSTONE

BIBLIOGRAPHY:

USGS GROOM CREEK QUAD
BLM MINING DISTRICT SHEET 247
YAVAPAI MAGAZINE MAY 1918 P 3
ADMMR RUTH MINE AND MILL FILE
LINDGREN, W. ORE DETS OF JEROME & BRADSHAW
MTN QUADS USGS BULL 782 1926 P 116
ADMMR RUTH MINE COLVO FILE

03/20/90

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES FILE DATA

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[REDACTED]

RUTH MEACHAM

Pb, Zn, Au, Ag

Yavapai

13 - 4

T 13 N, R 2 W

B. N. Meacham, 337 Termino Ave., Long Beach, Calif. '45

RUTH MINE & MILL

YAVAPAI COUNTY

ABM Bull. 137 p. 43

USGS Bull. 782 p. 116

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES

INFORMATION FROM MINE CARDS IN MUSEUM

ARIZONA

MM-K084 Galena

Yavapai Co.
10 mi. S. of Prescott
Hassayampa Dist.,
Ruth-Meacham Mine

MILS # 1134

2-PPA's

Ruth mine + mill (P-1)

This specimen is now catalogued in the ADMR Museum (see K number).

L-3

Ruth Mine Mill #1

MINERAL SPECIMEN FOR DEPARTMENT OF LIBRARY ARCHIVES

K084

(Do not write
in this space)

(Wrap each specimen separately, or place it in a substantial
bag, by itself, with a number attached, identical with the
number on this card.)

Ore _____

Cabinet _____

No. _____

Specimen No. 6, collected by Carl G. Barth, Jr.

Field Engineer

Name of ore Lead Gold Ore

Operator H. Stump and Assoc.

Minerals contained Galena, Sphalerite

Mine active or inactive Active

Chalcopyrite, Gold, Silver

If inactive, when operated _____

Gangue Quartz

Specimen presented by _____

Depth at which taken 100 feet

Date March 15, 1940

Approximate mineral content (in terms of
average per ton) _____

Notes (Any general information regarding
the history of the property.) _____

A very early location

Name of mine or claim _____

Group Ruth- Meacham Mine

District Hassayampa

Location (distance and direction by high-
way from what town) 10 mi. S Prescott.

Owner of property B.N. Meacham

If more space is desired for notes, use
other side.

116 402

9.0 x 9.0 x 5.5

NAME OF MINE: RUTH

COUNTY: YAVAPAI C

DISTRICT: Hassayampa

OWNER: Calari Mining Co.

METALS: ZN, Cu, Ag, Au

OPERATOR AND ADDRESS:

MINE STATUS

DATE:

DATE:

5/1/44 H. Stump, Box 182, Prescott

5/1/44

Milling dump

11/44 B. N. Meacham, Box 182,
Prescott

May 1944

Changing mill

2/45 W. L. Smith (Calari Mng.
Co.), Prescott (Box 182)

11/44

financing

2/45

Developing

1. Ruth Mine

2. Yavapai County, Arizona

3. W. L. Smith, Prescott, Arizona

4. W. R. Jones on September 8, 1948, and G. J. Duff later.

5.

6. Gold-lead-silver

7. Considered of no interest. The principal difficulty will continue to be the small size and the irregularity of the ore shoots.

8.

Addendum by G. J. Duff - May 21, 1951: I visited this property later on, and while Smith still had a crew working, he had shipped no ore and I doubt very much if he will ever make a producing mine out of it.

Stump, H. & Assoc.,
Box 665, 1741 Marshall Place
Prescott, Arizona Long Beach, Calif. 12-29-39

See RUTH MEACHAM - Re Field Engineers Report

See RUTH MEACHAM - Re assays of mine

Stump, Harley, 2725 Atlantic Ave., Long Beach, Calif. 1-20-43
See RUTH MINE - Re "C" loan application

See RUTH MINE - Re transfer of quota & premium 2-24-44

SMITH, Walter L.
325 W. 3rd St.
Long Beach, Calif.

See RUTH - re gas, etc. 3-29-45

Walter L. Smith of Long Beach, California, is addressed at Box 182, Prescott, Arizona. He is general manager at the Ruth mine of the Calari Mining Company in Arizona.

SEP 10 1943

(148)

RUTH MINE & MILL

YAVAPAI COUNTY

This property inactive.

Mark Gemmill
5-27-57

James F. Collins, Box 579, Prescott - option on Ruth Mine & Mill. Calari Mining Co.
also has unpatented mining claims in the area - and near St. Theresa - (Golden Eagle claim)
4-29-71 JHJ Note

THE RUTH GROUP.

Hassayampa Mining District.

Yavapai County, Prescott, Arizona.

by W. L. Smith

The Ruth Group of mining claims consists of three, one patented, two locations, and a tunnel location, with a 5 acre mill site, in the Prescott National Forest $7\frac{1}{2}$ miles southwest of Prescott, Arizona, on the County Road which intersects the property. It is accessible over the State Highway #89 six miles out of the city, then 1 and $7/16$ miles on the County road. This road passes through the camp-site, on Indian Creek. It's splendid accessibility is out of the ordinary, the camp ideally located, and in the large timber section of the Forest. The supply source, Prescott, is reached in about twenty minutes of average driving time, and this obviates maintenance of boarding house etc, the miners residing at their homes in Prescott. It also provides for rapid delivery of essential supplies as well as a short haul for Santa Fe R.R. ore loading.

The elevation approximates 5800 feet, weather for the most part ideal, temperatures dropping to a low average of 16-18 above zero during the month of January, snow fall for the past three years not more than 30" total which does not lie on the ground, rainfall normally $13\frac{1}{2}$ " , and not more than three days of lost mining time by reason of storms during any year.

Water in ample quantity for mining has been developed, and local stull timber available in any quantity. Ponderosa pine, oak, and some Juniper.

The Ruth Mine is locally well known and has considerable old history. It was started in the 80's as a gold mine, and the original shaft sunk 306' in the early days produced gold until the lead and zinc came in at comparatively shallow depth after which it was no longer considered as a gold mine, yet gold persists on assays to the bottom of the shaft. A mill was built and operated for some time saving lead and zinc concentrate, but litigation put and end to the operation and the property lay idle for 25 years in the hands of an owner who did nothing in the way of development beyond a single stope which netted him some \$16,000 after freight and smelter deductions and which provided him with sufficient funds to live the life of a hermit for years. We acquired the property from this old recluse.

In the old operations a shaft was sunk on the incline of the vein 306 at 45* and 5 lateral drifts driven from the shaft, the longest drift 220 feet on the vein which is still mineralized in the face of this drift, and considerable stoping is in evidence. This ore was evidently shipped, as the remaining dump of 3000 tons or more shows evidence of sorting. Good values remain. The history of this old operation is not available.

Under the supervision of the writer an adit tunnel 467 feet as a crosscut was driven to contact the old workings. The vein was struck at this point and then the vein was drifted on to a total length of 794 feet making contact with the old stope referred to above and connecting up with all old workings. This old stope about 90 feet in length, and twenty feet high is regarded as the upper horizon of the main silver lead shoot as it has been drifted on at (52) lower depth where it becomes 136' in length and is now blocked of four sides, from which we are taking out at this time a high grade of silver lead, and the shoot continues downward.

If this drift of 136 feet is added to the length of the east drift on the same level the length of the ore shoot may be considered as 356' in total length, however the east drift runs considerable higher in zinc than that part of the shoot upon which we are at present active.

N.B. average of zinc in silver-lead about 3 1/2 %.

But, 1500 feet east of the Ruth shaft another shallow shaft was sunk on the vein, 60' in depth and the Laboratory records show that from this shaft " a 50% lead spud in hard quartz was removed which assayed, - gold-0.20--silver 69.12 ozs, lead 68.2%. This shaft is in a spot inaccessible for operations without the construction of 1500 feet of new road which has not been done. An access road presents no problem, requiring perhaps two days of Bulldozer work.

The vein is a true fissure in Pre-Cambrian, (Bradshaw) granite, the mineralization in a glassy quartz in the middle of the fissure with impregnated gouge on both foot and hanging walls. At 192 feet of depth on the incline of 45 degree dip of vein the fissure width is six feet between walls of solid granite not requiring timber with exception of an occasional stull when slabs occur. This vein is traceable for miles.

Our nearest active neighbor, the Iron King of Shattuck-Den now producing 300 tons daily, or more, were not so fortunate in the upper levels of their operation being required to go to considerable depth before getting their ore, and did not at any time encounter ore of the grade and quality we are at present producing. Our location is at the approximate head of the Bradshaw chain which extends southwesterly for 75 miles and which has considerable mining history, including the Walker district, the Iron King, the Crown King, the Big Bug district, the Thunderbolt, the Silver King, and numerous others. The district lying south of the Ruth on both sides of the Hassayampa River within an area of six miles or so is replete with prospect holes, none of any depth but in which is found some famous old diggings, as the Jersey Lily, the Blue Dick, the Railroad, etc, the Jersey Lily hauling gold ore to Seligman with ox-teams in the early days when the Hassayampa was the scene of much activity. The district has many prospects worthy of investigation, owned by oldtimers who merely file exemptions, or do their assessment work with a single stick of powder as the spirit moves them. We purchased the Custom Laboratory of E.E.Hand located on the Ruth mill site and have in our hands several hundred assay determinations on prospects in the local territory.

As to the prospect of the Ruth from its present stage of development, the following set up of values found and of record afford a basis for consideration. See attached assays. Assays from 'A to G' were made by E.E.Hand assayer of A.S. & R. Co at El Paso for many years. Additional assays were made by John Herr of Wickenburg, and T. E. Harper of Prescott which indicate tenor and character of the ore. From the Alice shaft to the Ruth is 1500 feet and from the Ruth to the G.B. shaft is approximately another 1100 feet. Thus the vein is showing to be mineralized in different pits, shafts and shallow cuts over a distance of 2600 feet in length from the Alice to the G.B.Shaft.

About 90 feet of water stands in the original shaft which could be evacuated at the rate of about 8 feet per day, as a pump is installed in same and the water being used for drilling. The legend is that the mine when dry does not make more than 3 to 5 barrels of water per 24 hrs. our operations have lowered the water 116 feet from where we found it.

The fissure widens with increasing depth, and the statement of miners who have worked in the bottom of the shaft is unanimous that it is 7' wide at the bottom and the fissure largely filled with ore of the character of assay 'F'. This is quite apparent upon inspection of the east drift now open at the 185' level, ^{? 165'?} (refer to Eagle-Picher assay).

The writer has not proposed to use the original shaft for future operations, nor use same for any other purpose than the hoisting of waste by means of the skip and hoist installed. The development has been carried to the point where it is now feasible to sink in the ore 141', reach the same depth, and provide for the ore to be hoisted to the main tunnel level, waste to go out via the skip. This plan is exhibited on the map attached.

There is accumulated in the past and present operations, on the dumps, readily available for milling, approximately 9000 tons represented by 5000 tons on the G.B. dump, repeated assays giving a value of \$8.00 in gold. The Ruth dump of 3000 tons estimated, with a value of \$20, and about 1500 tons on the Portal dump at lesser value. This tonnage assumes an assay value of in excess of \$100,000 with milling ore available at numerous locations in the workings, and in the present operations the impregnated gouge and sorted out grade is being added to the dump at the rate of about ten tons per day, the shipping grade being transferred to the Bin.

A mill constructed at this location should take into consideration the prospective opportunity of doing some custom milling. The numerous prospects in the area have no outlet or market for their small operations except the 59 mile haul to Wickenburg, or the roundabout of 50 miles to Humboldt, and all of them must pass through our camp enroute. The location of the Ruth is ideal and very advantageous in this respect, and as before recited we have considerable data on all of the prospects in the area.

With an expenditure of approximately \$100,000 in development over the past three years, and having reached the productive stage the writer is prepared to exhibit evidence that the Ruth has the potential of being and becoming the Big mine of Prescott, and a profitable operation in the hands of intelligent management NOW.

ZONA DEPARTMENT OF MINERAL RESOURCES

Mineral Building, Fairgrounds

Phoenix, Arizona

1. Information from: Robert R. Kaye
Address: 5523 N. Homestead Lane, Scottsdale 85253
2. Mine: Ruth, Anna, Alice 3. No. of Claims - Patented 1 (Ruth)
Unpatented 2
4. Location: See map
5. Sec 32 Tp 13N Range 2W 6. Mining District Hassayampa
7. Owner: Robert R. Kaye and Cathryne A. Beardsley
8. Address: 5523 N. Homestead Lane, Scottsdale, Arizona 85253
9. Operating Co.: None
10. Address: _____
11. President: _____ 12. Gen. Mgr.: _____
13. Principal Metals: silver, lead, copper 14. No. Employed: _____
15. Mill, Type & Capacity: _____
16. Present Operations: (a) Down (b) Assessment work (c) Exploration
(d) Production (e) Rate _____tpd.
17. New Work Planned: _____

18. Misc. Notes: Mr. Kaye reported he and his partner own the Ruth patented
(except for 4 acres in the SE corner) and the Anna lode to the north and
the Alice lode to the south. All three are on the same vein. He hopes
to interest someone in evaluating the property when silver prices improve.

The claims were previously held by B. N. Meacham.

Date: October 5, 1982

Ken A. Phillips
(Signature) (Field Engineer)

10:00 A.M.

PHOENIX, ARIZONA

1. Robert R. Kaye and Cathryne A. Beardsley,

Name

5523 N. Homestead Lane,

Address

Scottsdale, Arizona

85253

City

State

Zip

T-13 N.

R. 2. W.

SEC. 29.

SEC. 28.

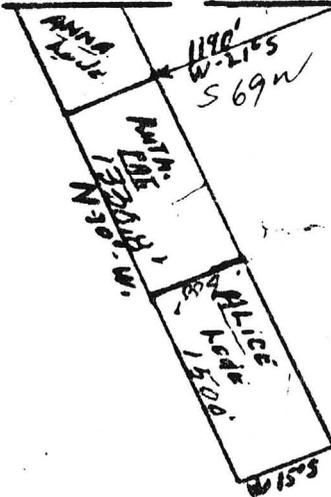
RECEIVED
B.L.M. AZ STATE OFFICE
25 13
SEP 7 1979

10:00 A.M.
PHOENIX, ARIZONA

Oct 3 80

SEC. 32

SEC. 33.



1. Name of Claim(s): ANNA beds + MILICE beds.

T. I Harper, Prescott, Laborat. J.

ASSAYER

EDWIN E. HAND, JR.

CHEMIST

CUSTOM ASSAY OFFICE

RUTH MINE, P. O. BOX 182

PRESCOTT, ARIZONA

1948.

I hereby certify that the samples described below received from

The Ruth Mine.

assay as follows:

SAMPLE NO.	OWNER'S MARK	GOLD		SILVER		PERCENTAGE OF		TOTAL VALUE PER TON
		OZS.	VALUE	OZS.	VALUE	Pb.	Zn.	
1	Ruth Drift 467		\$4.18		\$18.77	\$10.50		\$32.95
2	" " 100'		1.61		11.25	84.50		97.36
3	" " 160'		4.50		18.90	175.00		198.50
4	Ruth Stope		3.50		10.98	81.90		106.38
5	" "		2.45		10.12	39.02		51.59
6	" Vein U.C.		1.40		22.41	78.00		101.81
7	165'L at 110'		2.40		10.41	51.15		61.56
8	165'L W face Gold only		14.70					14.70

GOLD AT \$ 35.00

SILVER AT \$.90¢

Lead \$.1765

Zinc .15¢

CHARGE \$

*assays of T. E. Harper
Prescott -*

John Herr, Wickenburg Ore Market.

ASSAYER

EDWIN E. HAND, JR.

CHEMIST

CUSTOM ASSAY OFFICE

RUTH MINE, P. O. BOX 182

1947.

PRESCOTT, ARIZONA

I hereby certify that the samples described below received from

The Ruth Mine.

assay as follows:

SAMPLE NO.	OWNER'S MARK	GOLD		SILVER		PERCENTAGE OF		TOTAL VALUE PER TON
		OZS.	VALUE	OZS.	VALUE	Pb	Zn	
2	175' High Zinc	0.13	\$4.18	20.3	\$18.27	3.0%	51.8%	\$171.78
3	160' in Drift	0.05	1.61	12.5	11.25	24.2%	----	89.80
4	170' " "	0.14	4.50	21.0	18.90	50%	----	182.25
	Thirty pound sample from East drift at 165' Level, Mill Test by Eagle-Picher, Sahuarita.							
	90% recovery--	0.12	\$4.20	15	\$13.50	22%	17%	\$133.49

GOLD AT \$ 25.00

SILVER AT \$.90¢

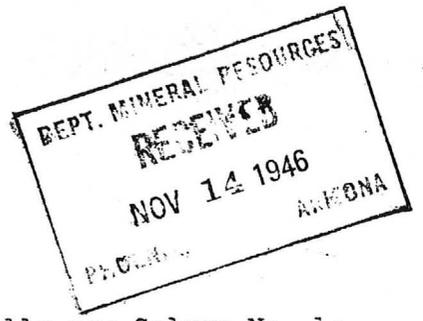
Lead \$.1765

Zinc .15¢

CHARGE \$ _____

*assays of John Herr
Wickenburg Ariz.*

NAME OF COMPANY Balari Mining Co
 NAME OF MINE "Ruth mine"



(1) Production - January 1st to June 30, 1946, inclusive.

Producers shipping ore direct to smelters or to custom mills use Column No. 1; producers operating their own mill use Column No. 2.

COLUMN NO. 1				COLUMN NO. 2			
Tons	% Cu	% Pb	% Zn	Tons	% Cu	% Pb	% Zn
Crude Ore				Copper Conc. Lead Conc. Zinc Conc.			

(2) Average Price Received for Metals in Above Production

This to be the total of the selling price plus premiums.

Copper $\text{\$/lb}$ Conn. Valley as base
 Lead $\text{\$/lb}$ N.Y. as base
 Zinc $\text{\$/lb}$ East St. Louis as base

(3) What do you estimate your production would have been, January 1st to June 30, 1946, if the metal price had been:

Cu 14 3/8¢/lb. Conn. Valley; Lead 8.25¢/lb. N.Y.; Zinc 8.25¢/lb East St. Louis (with no premiums)

COLUMN NO. 1		COLUMN NO. 2	
Crude Ore	Tons	Copper Conc.	Tons
		Lead Conc.	Tons
		Zinc Conc.	Tons

(4) What do you estimate your production would have been, January 1st to June 30, 1946, if the metal prices had been:

Cu 16¢/lb. Conn. Valley; Lead 11¢/lb. N.Y.; Zinc 9.50¢/lb. East St. Louis (with no premiums)

COLUMN NO. 1		COLUMN NO. 2	
Crude Ore	Tons	Copper Conc.	Tons
		Lead Conc.	Tons
		Zinc Conc.	Tons

(5) If a metal Conservation Price Plan, similar to the present Premium Price Plan, were made permanent for at least five years,

- (a) What would your yearly production of ore or concentrates be?
- (b) Would such a plan cause you to expand your exploration-development program? If so, how much?
- (c) What effect would such a plan have in increasing your ore reserves?
- (d) In view of low tariffs, how would such a plan promote a healthy mining industry?

Handwritten note: Employing 150 men; may times; no ore production in 1946

DEPARTMENT OF MINERAL RESOURCES

**REPORT TO OPA ON
ACTIVE MINING PROJECT**

DEPT. MINERAL RESOURCES
RECEIVED
AUG 2 1945
Filing Information
ARIZONA

Date July 30, 1945
 Name of Mine Buckhorn
 Owner or Operator B. S. Hall
 Address 441 E. 4th St. Kingman, Ariz.
 Mine Location Kingman - Coconino Arizona

File System.....
 File No.....
 This chart to be used for gallons of gasoline required per month.

PRESENT OPERATIONS: (check X)

Production ; Development ; Financing.....; Sale of mine.....;
 Experimental (sampling).....; Owner's occasional trip.....;
 Other (specify).....

PRODUCTION: Past and Future.

Tons

Approx. tons last 3 months
 Approx. present rate per 3 months
 Anticipated rate next 3 months
 If in distant future check (X) here

EQUIPMENT OPERATED:

Type	Quantity or Horse Power	Miles or Hours Per Month	Gallons Required Per Month
Personal Cars	2000
Light or Service Trucks
Ore Hauling Trucks
Compressors
Other Mine or Mill Eqpt.

PRODUCT PRODUCED OR CONTEMPLATED: Name metals or minerals.

REMARKS:

Mr. Hall is the manager of the subject operation of the Buckhorn Mine, Humboldt Co. Ariz. and is in Federal Government service.
Application Approved

ARIZONA DEPARTMENT OF MINERAL RESOURCES

By [Signature]
 Engineer

Encl

September 4, 1945

Mr. William S. Corey
10236 Mt. Gleason Avenue
Tujunga, California

Dear Mr. Corey:

We have your inquiry regarding the Ruth Mine near Prescott.

I have personally been somewhat familiar with this mine for many years and while it may be a worthy prospect I would consider it too speculative for the type of money you mention. It might be all right for someone who could afford a loss or take pleasure in taking it off their income.

Furthermore we know nothing about the deal or proposition being submitted to the prospective investors and, as you know, many a good prospect has failed for other reasons than lack of ore.

We cannot approve selling any speculative stock to returning soldiers. Of course they have as much right to speculate as anyone but the money was given them for other purposes.

Yours very truly,

Chas. H. Dunning
Director

CHD:LP

CALARI MINING CO.

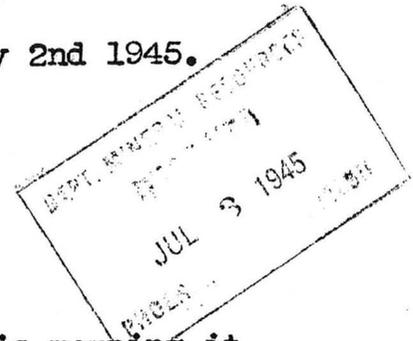
Operating Ruth Lead & Zinc Mine, Prescott, Ariz.

GENERAL OFFICES: 406 KRESS BUILDING

LONG BEACH 2, CALIFORNIA

July 2nd 1945.

Department of Mineral Resources
304 Home Builders Bldg.
Phoenix, Arizona.



Att. Mr. Chas Dunning.

In conversation with Mr. Nebeker this morning it was suggested that I write you in confirmation of a certain application made by a Mr. W.H. Carter of Prescott for a Certificate of Necessity for the operation of his Truck.

We have employed Mr. Carter to haul in and set up for the sinking of a prospect shaft just below Cordes on the Black Canyon Highway. He has several loads of machinery and equipment to transport and has an application on file now for the Certificate. We are anxious for this work to proceed, and will appreciate any expedition that can be given his papers.

This letter will serve to verify any representations Mr. Carter has made.

Respectfully,

Genl. Mgr.

June 30, 1945

Mr. William B. Carter
P. O. Box 1687
Prescott, Arizona

Dear Mr. Carter

I notice from your letter of June 28 that you have bought the truck from Mr. Gallagher and have made your application for gas in your own name and probably have sent this application down to the Highway Transport Department, Security Building, Phoenix, but we have not as yet received your application from that department for our O.K.

Inasmuch as I will not be here this coming week, should it come in, Mr. Dunning will take care of it. I will be in Prescott Monday morning at which time, if you wish, I can take this matter up with you.

Yours very truly,

A. C. Nebeker
Field Engineer

ACN:LP

June 28, 1945

Mr. James C. Gallagher
c/o W. L. Smith
Ruth Mine
Box 1686
Prescott, Arizona

Dear Mr. Gallagher:

Your application has been returned
to you by the O.D.T. with instructions.

Yours very truly,

A. C. Nebeker
Field Engineer

ACN:LP



OFFICE OF DEFENSE TRANSPORTATION

Highway Transport Department
328 Security Building
Phoenix, Ariz.

June 23, 1945

Mr. Jim C. Gallagher
Box 1426
Prescott, Arizona

Dear Sir:

We are returning herewith your application for a Certificate of War Necessity, in which you list your operation as mining in Yavapai County. Before we can give this request proper consideration, it will be necessary that you secure a recommendation from the Arizona Department of Mineral Resources, certifying the amount of miles and motor fuel necessary to carry on your operations, and also certifying that this operation of your truck is necessary in that district.

If you are hauling for a producer, a letter from him your truck is required will be appreciated.

Yours very truly,

OFFICE OF DEFENSE TRANSPORTATION

A handwritten signature in cursive script, appearing to read "E. C. Corbell".

E. C. Corbell
District Manager

Enc.

P. O. Box 1687
Prescott, Arizona
June 28, 1945

Dear Mr. Nebeker,

Jim Gallagher recently submitted an application for gas ration on truck that has been turned down as you see. So I just paid him for truck and am applying in my name for gas ration. We are working for Mr. W. L. Smith of the Ruth Mine and are starting to sink a shaft two miles out of Cordes and are being held up because of the gas for the truck. This is the matter on which I called you about from Prescott today. Since I talked to you the application for Gallagher's gas has been returned.

Will you please see that this gets proper consideration as soon as possible?

Sincerely thanking you I remain,

Wm H. Carter
William H. Carter

CALARI MINING CO.

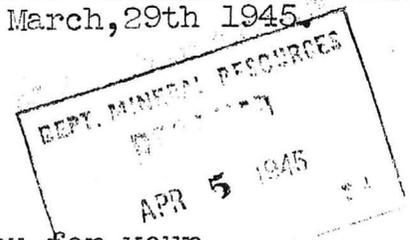
Operating Ruth Lead & Zinc Mine, Prescott, Ariz.

GENERAL OFFICES: 406 KRESS BUILDING

LONG BEACH 2, CALIFORNIA

March, 29th 1945

Mr. A. C. Nebeker
P.O.Box 1771
Prescott, Arizona.



Dear Mr. Nebeker:

First, let me thank you for your courtesy in suggesting Mr. Coupal for the purposes of the appraisal I discussed with you over the Phone. I am already in receipt of a letter from Mr. Coupal.

Then, let me impose on you again with the enclosures herewith. When I finally pulled out of that 20" of snow I got caught in at the Ruth camp, I called at your office but found you were to be out of town all that week. I forwarded my Certificate of War Necessity as issued in California with the enclosed application to the Office of O.D.T. at Phoenix in the hope that I might get results, not knowing at that time of the rule of which they write in the letter enclosed.

Will you kindly add your endorsement to these papers and forward same to the Phoenix office and I trust I will find returns at Lock Box 182 when I return to Prescott which will be about April 4th or 5th.

I just have about enough gas to get as far as Kirtland Junction and may walk in from there.

My need for gas for April, may and June you will note I set at 200 gallons. This is because I will have to make about three round trips to Los Angeles in that quarter hauling back supplies and personal effects after which my needs will not be so great.

Thanking you in advance, for the favor, I am,

Sincerely,

325 West 3rd St
Long Beach, Calif.

Halter L. Smith

*Just to show that some
people appreciate what we
do for them*

WILLIAM S. COREY
10236 MT. GLEASON AVENUE
TUJUNGA, CALIFORNIA

8-30-45
Tujunga

Dept of Mineral Resources
304 Home Builders Bldg
Phoenix Arizona.

Dear Sir:

I would like some information on the Ruth mine located about 17 or 14 miles from Prescott Arizona as I understand there is a party in Long Beach Calif. that is selling shares in the mine to Soldiers that just returned from Overseas duty now if it is a on the level deal & the mine is O.K. all well & good but if not I don't think it is the right thing to do. "what do you think?"

I have a friend that already bought some shares, & was going to buy more but I stopped him until we find out more about the deal, You know more about Arizona mines than I do as I have never been there. as I have been mining in Death Valley Owens

Valley Calif for about 20 years on Tale,
Gold, & Silver, But if the Ruth mine
is such a thing & my friend wants
to see it, I will take him down & look
it over. But first if you have any
information that is either Good or Bad
I would sure like to get it.

The Division of Mines of Calif told
me to write to you.

Well I hope to hear from you
soon & wish you the best of luck
I remain

yours Truly

Wm J. Carey.

10236 Mt Gleason Ave

Tujunga

Calif.

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine Ruth Mine & Mill

Date April 14, 1944

District Hassayampa of Yavapai

Engineer B. W. Brown

Subject: Present status of operations at the Ruth

DEPARTMENT OF MINERAL RESOURCES
FIELD ENGINEERS
APR 17 1944
ARIZONA

I examined the Ruth mill today. It is not operating and the mine is not operating but both are being prepared for operation. Harley Stump is working two men in the mill and has enlarged it considerably and changed the flow sheet to handle a larger anticipated tonnage. It is a very interesting mill setup and to anyone not familiar with Tri-state milling practice it looks like a nightmare at first glance. I am very anxious to see it in operation. Stump intends to continue milling the dump until he has the "bugs" ironed out but is making very definite plans and preparations to reopen the Ruth shaft along the lines suggested by the State Mine Inspector. (The shaft was condemned)

The flowsheet is briefly as follows:

Ore from the bin feeds at a set rate on to a shaking grizzly. Oversize from the grizzly feeds the jaw which is set over the primary rolls. The grizzly pass falls on a shaking screen. Oversize from the screen goes directly to the primary rolls - undersize to the sump beneath the rolls. The sump feed is raised by a bucket elevator to a trommel for classification, oversize from the trommel returning to the circuit at the primary rolls. The trommel pass feeds to three rougher jig units. Tails go to waste. Rough concentrates go to secondary rolls with the same routine of bucket elevation and overhead trommel classification. The trommel pass goes to a battery of cleaner jigs and the discharge of these secondary jigs makes a pass over a table with a middling return to the secondary rolls ----- or maybe I'm mixed up. What I don't follow: Stump expects to make a clean cut separation in his final jigs. The table acts only as a tailings tre

He has installed a 20,000 gallon redwood tank and is pumping from the mine. The whole operation looks a lot more substantial and less like the "shoestring" it did last summer.

Put this mine definitely on the active list.

Bill

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine Ruth Mine & Mill

Date April 14, 1944

District Hassayampa of Yavapai

Engineer B. W. Brown

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He has installed a 20,000 gallon redwood tank and is pumping from the mine. The whole operation looks a lot more substantial and less like the "shoestring" it did last summer.

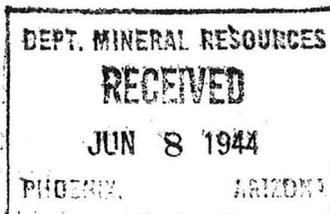
Put this mine definitely on the active list.

Bill

June 6, 1944

B. W. Brown
Box 1431
Prescott, Ariz.

Mr. Harley Stump
Prescott, Arizona



Dear Mr. Stump;

I was greatly gratified at my recent visit to the Ruth by the evident progress you have made with both the mine and the mill. The property is beginning to shape up very well along the lines and plans which you had outlined to me last fall.

At your request and for your assistance I am herewith making a resume of my recent visit to the property.

The mine is not yet in shape for operating as you know, but a working hoist is installed as, also, is track and pipe to the pumping station on the 160 level. This will serve you while you are retimbering and widening the first 150 feet of the shaft, which I understand is your present plan for putting the shaft in good operating condition. It is my understanding that the shaft is a little over 300 ft deep, and I believe that the U.S.G.C. Bulletin 782, also, reports a depth of 300 feet. As my examination of the mine was restricted by water to above the third level, I am not in a position to say much about the mine. I did see in my examination what appeared to be bunches of good lead-zinc ore. If these lenses persist below and hold up to the assay values you reported to me (over \$50 per ton) then I see no reason why the property cannot be put on a paying basis with the ore in sight, this, of course, being predicated on an acceptable mill recovery.

Which brings us to a resume of your mill. The mill is situated in an excellent relationship to the mine. You now have water storage of capacity amply large to insure constant mill operation not affected by minor pump shutdowns or repairs. A set of secondary rolls has now been installed as has, also, five new jig cleaner cells. Your mill capacity has been measurably increased by the introduction of classification into the circuit. It might be well

to describe the general flow, in passing:

1. Ore feeds to primary jaw crusher set over primary rolls which are, in turn, set over a sump.
2. Bucket elevator lifts from sump to overhead trommel. Oversize returns to rolls for crushing.
3. Trommel-pass feeds to 3 rougher jigs.
4. Rougher concentrates gravity-feed to secondary sump where muck is again elevated to another trommel for finer classification. Oversize to secondary rolls set over secondary sump for further crushing.
5. Trommel-pass runs the gauntlet of five cleaner jigs.
6. Waste from cleaner cells may go to table for check on recovery.

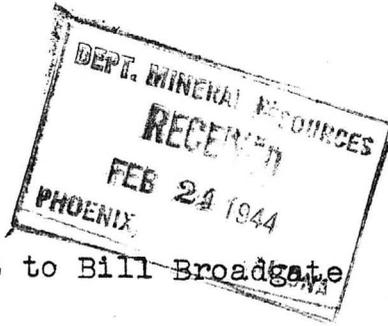
The mill was not operating at the time of my visit and was undergoing minor repairs on the primary elevator. In the concentrate box under cleaner-cell # 1 I found a lead-iron concentrate that appeared to be relatively clear of zinc blends. Under cell #2 was a zinc-iron concentrate seemingly free of galena. The third cell was a middling cell and the final two were trap cells. Discharge from the last trap cell would indicate a good recovery of basic values.

In closing, I would recommend certain minor changes in your mill which I believe you are now contemplating. You will recall that on my previous visit to the property I believed that your crushers would crowd your elevators. I am still of the opinion and am still recommending a larger bucket feed and an increase in sump size where practical.

Very truly yours,

E. W. Brown, E.M.

February 23, 1944



MEMORANDUM

To: J. S. Coupal transmit to Bill Broadgate

From: B. W. Brown

Subject: Delay part of Landon Strobel in action on transfer of premium Ruth Mine, Yavapai Co.

Several weeks ago Mr. Harley Stump requested by air mail that the quota and premium assigned to the Ruth mine be transferred to his name as sole operator of the mine. He is getting impatient for an answer. This transfer of ownership is just a matter of office routine and shouldn't take so long. Maybe there is something Bill could do to speed it along on its way.

B. W. Brown

March 2, 1944

MEMORANDUM

TO: B. W. Brown

RUTH MINE PREMIUM TO
HARLEY STUMP

FROM: J. S. Coupal

I just received a memorandum from Bill Broadgate as follows:

"Stump should have the permission in about the next mail."

JSC:LP

February 24, 1944

MEMORANDUM

TO: W. C. Broadgate

FROM: J. S. Coupal

TRANSFER OF PREMIUM
RUTH MINE, YAVAPAI COUNTY
TO HARLEY STUMP AS SOLE OWNER

I am quoting a copy of memorandum just received from B. W. Brown regarding the delay on the part of the Quota Committee on transfer of the premium from the Ruth Mine, Yavapai County, to Mr. Harley Stump, who is the sole operator of the mine.

The memorandum from Brown is as follows:

"Several weeks ago Mr. Harley Stump requested by air mail that the quota and premium assigned to the Ruth mine be transferred to his name as sole operator of the mine. He is getting impatient for an answer. This transfer of ownership is just a matter of office routine and shouldn't take so long. Maybe there is something Bill could do to speed it along on its way."

"B. W. Brown"

WASHINGTON, D.C.
Feb. 28, 1944

SUBJECT: Transfer of Premium,
Ruth Mine to Harley Stump.
Coupal's memo Feb. 24, 1944



Stump should have the permission in about the next mail.

Bill Broadgate



Ruth Meacham Mine,
Docket No. E-N.D.-4398,
Prescott, Arizona,
January 15, 1943.

Dept. of Mineral Resources State of Arizona,
413 Home Builders Building,
Phoenix, Arizona.

Dear Sirs:

In writing of the ore bodies in the Ruth Mine, I will try to give you the description, size and assays of samples that I personally cut.

On the S. E. end of the 100 ft. level there was fair mill ore, but it would have to be timbered to work. On the N. W. heading a streak of high grade about 8 in. wide and about 30 in. of mill ore. On the 150 ft. level in the floor of the drift a vein of zinc sulphide ore showed and extended for a distance judged to be 25 ft. where it ran in to a wall. I don't know how far it went from there; it was as wide as 30 in. and assayed 9.5% lead and 55.4% zinc. This vein was cross cut by a raise from the 175 ft. level. On the 175 ft. level there is a good showing of zinc in the floor and wall of drift. On the 250 Ft. level a cross cut about 6 ft. deep was driven in hanging wall showing about 24 in. of zinc in the bottom of the cross cut and about 8 in. in the roof. This vein was traced to the 290 ft. level and was 36 in. wide. This same vein was traced S. E. in what was used for hanging wall about 75 ft. A sample cut from this 290 Ft. level assayed 22.1% lead and 19.9% zinc. It was reported later by a miner that worked in there, that the vein was 7 ft. wide.

I will say that I have available all of the manpower I will need for this and future operations from residents living nearby. We will need very little if any machinery; possibly some minor repairs, but that is about all.

If you will look at assays No. 256 -3/20-41 and No. 260 you will see that the mine was able to furnish ore in large enough quantities to operate more than one shift. Mr. Hand, who did the assay work is a graduate of Colorado School of Mines and a registered assayer in the State of Arizona.

Yours truly,

Harley Stump
Harley Stump

Prescott, Arizona,
January 15, 1943.

Dept. of Mineral Resources, State of Arizona,
413 Home Builders Building,
Phoenix, Arizona.

Dear Sirs:

I am enclosing some assay sheets that are borrowed from the assayer, Mr. Edwin E. Hand, Jr. who ran these assays for the mine. I don't know who or how the samples were cut but if they will be of any value in procuring the loan, you may use them. If not, kindly return them.

Yours truly,

Harley Stump
Harley Stump

January 11, 1943

MEMORANDUM

RUTH MEACHAM MINE

TO: A. C. Nebeker

FROM: Earl F. Hastings

We have an application on hand for review from Harold E. Ketchum and Harley Stump on the above property, for unwatering. There is very little information as to ore deposition, extent and so forth and the application is in general too vague to impress the RFC engineers.

It is believed that Mr. Stump is quite familiar with the underground workings on this mine. It is suggested that he address a letter to the Department thoroughly describing the width, character and if possible the value of the ore on each level. Its lateral extent and the amount of stoping should be described.

A seven foot vein of sphalerite is claimed to exist on the 306 foot level but the origin of this information is not given. If Mr. Stump has personally seen it he should so state. We are inclined to recommend this loan; however, we know that in spite of our recommendation the loan would not be approved in Washington by reason of lack of specific information.

Rather than write Mr. Stump we are sending this memorandum to you that you may see the applicant and discuss with him the various items necessary for the proper evaluation of the property. All the above information over Mr. Stump's signature would probably constitute substantiation of our recommendation.

We will hold this application pending reply from you.

Ruth meadow

January 21, 1943

Mr. Harold E. Ketchum
2725 Atlantic Avenue
Long Beach, California

Dear Mr. Ketchum:

Subject: Loan Application

This letter is to correct your impression as to the function of Mr. A. C. Nebeker of Prescott, Arizona. Mr. Nebeker is not an agent for the Reconstruction Finance Corporation as stated in your application Exhibit B, Paragraph A, but is a Field Engineer for the Department of Mineral Resources.

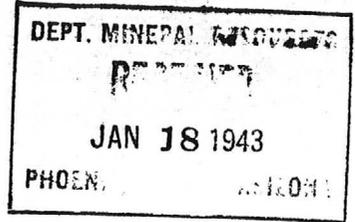
Your application has been reviewed by the Department and such reports as we have in our file have been appended. The total of information is not, however, very specific or complete, even though we had Mr. Nebeker contact Harley Stump and obtain a statement over his signature in an attempt to obtain definite data.

Very truly yours,

Earl F. Hastings
Projects Engineer

EFH:BA
cc:W.B.Gohring

Jan 16th, 1943.



Ruth Mine

To Earl F. Hastings

From, A. C. Nebeker

I went out and saw Mr Stump and gave him the instruction in getting additional data for their loan application on the Ruth Mine. You may already have a letter from him.

e

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine RUTH - Zn., Pb. Date January 20, 1943
District Hassayampa Engineer Earl F. Hastings
Subject: Reconstruction Finance Corporation
Preliminary Development Loan

Docket No. C-MD-Phoenix 125
Date Application Received January 11, 1943
Date of Field Examination December 29, 1939 (Barth)
September 24, 1942 (Nebeker)
Date of Report January 20, 1943

1. Name and address of applicant (correspondent):
Harold E. Ketchum and Harley Stump, 2725 Atlantic Ave., Long Beach, California.
2. Character of project and estimated cost thereof:
Zn., Pb. Unwater and repair Ruth shaft and laterals therefrom \$5,000.00.
3. Location of property:
Hassayampa Mining District, 7½ miles south of Prescott, Yavapai County, Arizona.
4. Applicant's interest in or ownership of property:
Applicants are partnership holding 5 year lease from August 7, 1942. Royalty is 20% on dump and 15% on mined ores.
5. Loan requested:
\$5,000.00.
6. Loan Recommended:
None. (Provisional. See "A" and "I" following).
7. Comments:

(A) Application has been made for a Development Loan, Docket B-ND-4398. This docket should be studied and compared before final decision.

(B) Added to the docket is:

1. Brief Report by C. N. Barth (deceased) formerly Field Engineer for the Department of Mineral Resources, dated December 29, 1939.
2. Brief report by A. C. Nebeker, Field Engineer, Department of Mineral Resources, dated September 24, 1942.
3. Letter from Harley Stump with list of assays bearing on application.

(C) Based upon current American Smelting & Refining Co. standard settlement the following returns can be calculated (slide rule calculations) on milling dump ores assaying, as reported by A. J. Gunn, su. 0.01 ozs., ag. 1.95 ozs., pb. 0.3%, zn. 9.7% the following:

Pb. conc. - 85% pb. recovery, 90% au. in pb. cts., 50% recoverable ag. in pb. cts. Ratio 100 to 1. Value P/T ore =	\$0.94
Gr. premium pay on 413 # @ \$.0275 =	<u>0.11</u>
	\$1.05
Zn. conc. - 90% zn. recovery, 50% recoverable ag. in zn. conc. Ratio 5.7 to 1. Value P/T ore =	\$6.00
Gr. premium pay on 736# zn. @ \$.0275=	<u>3.52</u>
	\$9.52

Total net value P/T at Railroad shipping point \$10.57. This rough estimate is very optimistic as to recovery and smelter penalties.

(D) The dump values need be increased somewhat to represent mineable ore underground as the dump reportedly consists of shipping rejects. A true anticipated value cannot be placed on ore in place as the shipping record is unknown and there is no available assay map of the workings. If the smelter "test" lot, reported by E.E. Hand, Jr., can be used as a criteria the mill heads from mined ore will be appreciably higher than the value above calculated for the dump material.

(E) The data submitted is inconclusive in its entirety and cannot be fitted into a pattern from which production calculations can be reached. There does appear from reports, to have been shipments in excess of 2300 tons made; there are 3,000 tons of low-grade ore and 2,000 tons of waste on the dump, and there are some 3,000 tons of mill ore in stopes. Estimating the material removed by development at 4500 tons the stoped area has yielded in excess of 5,800 tons of ore, a part of which remains broken in the mine. Appraising the ratio of quantity and value of such material as can be assumed from the exhibits a commercial mill feed can be anticipated, though its extent or volume is not possible to estimate. This condition detracts from favorable recommendation.

(F) Favorable aspects are the facts that milling machinery, though not standard, is on the premises and that production can be attained in a relatively short time following the exposure of ore in the mine.

(G) The applicant states that finances for dump milling operations are already arranged. Returns from such operations will not accrue to the credit of a loan repayment account. This separate operation will confuse accounting of both income and disbursements.

(H) General Summary.

1. The royalties under the terms of the lease are exorbitant for such low-grade ores as can be anticipated.
2. An analysis of the application intimates, but does not prove, commercial ores available.
3. A diesel driven pump for this initial work seems unwarranted. A rented pump jack driven by one of the engines on the premises should suffice. The request detracts from the ingenuity of the operating management.
4. The entire application lacks logic, coherence, and specific, substantiated data.

January 20, 1943

(I) This loan cannot be recommended, but it is suggested that the application be reopened following a successful milling operation on dump material and a genuine effort by the leasees to make accessible the mine with proceeds they anticipate from such milling operations.

ARIZONA DEPARTMENT OF MINERAL RESOURCES

Earl F. Hastings - Projects Engineer

September 22, 1942

MEMORANDUM

TO: A. C. Nebeker

FROM: Earl F. Hastings

I am enclosing a report by Carl Barth on the Ruth Mine. Mr. Harold E. Ketchum of Long Beach, California, who is interested in the property, was in the office today and outlined conditions there.

From the above two sources I believe that this will fit in with your current investigation of prospective immediate producers. I suggest that you visit the Ruth at an early date, as we can benefit from your report, not only in connection with the Army-Navy Munitions Survey, but also in helping Mr. Ketchum obtain an R.F.C. loan.

Incidentally, Mr. Ketchum is also interested in the Black Canyon Association regarding which I sent a memorandum to you several days ago.

E.F.H.

RUTH MINING PROPERTY

LOCATION,-

This property is situated in the Hassayampa Mining District, Yavapai County, Arizona six miles south of Prescott, Arizona.

ROADS,-

The Green Creek highway passes thru the property which is a gravel road $1\frac{1}{2}$ miles off of the Main Highway to Prescott.

CLIMATE,-

The elevation is 6,700 which is in the timber zone around Prescott. The climate is mild in summer and winter. There is some snow in winter but seldom enough to interfere with mining operations.

TIMBER,-

The ground is heavily covered with pine and oak timber which can be used for mining purposes.

WATER,-

Drinking water is available from a well on the property and water for milling can be secured from the Gold Blossom Shaft approximately 600 feet from the mine dump. Water flows in the creek normally from December to June.

PROPERTY,

The Ruth property consists of 120 acres of patented mineral land, The Ruth Patented Lode claim of 20 acres, The ANNA Lode Claim, The ALICE Lode claim and the RUTH Millsite.

RUTH SHAFT,-

The Ruth shaft is the main working. It is sunk on an angle of 45 degrees to a depth of 306 feet. There are four levels of drifts totaling about 1,000 feet in length. There is approximately 3,000 tons of milling ore now in the stopes. The unmined ore in the drifts runs approximately \$4.00 Gold, \$20.00 Silver, 1.9% Copper 19% Lead and 81% Zinc. These values are taken from Averages of Smelter returns, Carload Samples and Smelter Test Lots. These results were no doubt taken from selected ore and the run of the mine would be somewhat less.

RUTH ORE DUMP,-

At the mouth of the RUTH shaft a dump of milling ore is located. While this dump contains 5,000 tons approximately 3,000 tons is good milling ore. Assays of this ore indicate that the values are Gold & Silver \$1.50 Lead $1\frac{1}{2}\%$ Zinc $7\frac{1}{2}\%$

EQUIPMENT,-

There is a complete floatation mill on the RUTH MILLSITE. At the RUTH shaft there is a hoist compressor, pump, pipe rails lumber and miscellaneous material.

PROPOSED OPERATION,-

It is proposed to move a part of the equipment from the present mill and set up a mill at the RUTH ORE DUMP. In addition to the equipment on the site it will be necessary to secure a set of finishing rolls and a five cell finishing jig. The mill as set up would have a capacity of 100 tons of ore in 24 hours.

by -

Harold E. Ketchum

Ruth Mining Property

July 10, 1942

LOCATION - This property is situated in the Hassayampa Mining District, Yavapai County, Arizona, six miles south of Prescott, Arizona.

ROADS - The Groom Creek highway passes thru the property which is a gravel road $1\frac{1}{2}$ miles off of the Main Highway to Prescott.

CLIMATE - The elevation is 5,700 which is in the timber zone around Prescott. The climate is mild in summer and winter. There is some snow in winter but seldom enough to interfere with mining operations.

TIMBER - The ground is heavily covered with pine and oak timber which can be used for mining purposes.

WATER - Drinking water is available from a well on the property and water for milling can be secured from the Gold Blossom Shaft approximately 800 feet from the mine dump. Water flows in the creek normally from December to June.

PROPERTY - The Ruth property consists of 120 acres of patented mineral land, The Ruth Patented Lode claim of 20 acres, The ANNA Lode Claim, The ALICE Lode claim and the RUTH Millsite.

RUTH SHAFT - The Ruth shaft is in the main working. It is sunk on an angle of 45 degrees to a depth of 306 feet. There are four levels of drifts totaling about 1,000 feet in length. There is approximately 3,000 tons of milling ore now in the stopes. The unmined ore in the drifts runs approximately \$4.00 Gold, \$20.00 Silver, 1.9% Copper, 19% Lead and 21% Zinc. These values are taken from Averages of Smelter returns, Carload Samples and Smelter Test Lots. These results were no doubt taken from selected ore and the run of the mine would be somewhat less.

RUTH ORE DUMP - At the mouth of the RUTH shaft a dump of milling ore is located. While this dump contains 5,000 tons, approximately 5,000 tons is good milling ore. Assays of this ore indicate that the values are Gold and Silver \$1.50 Lead $1\frac{1}{2}\%$ Zinc $7\frac{1}{2}\%$.

EQUIPMENT - There is a complete flotation mill on the RUTH MILLSITE. At the RUTH shaft there is a hoist compressor, pump, pipe, rails, lumber and miscellaneous material.

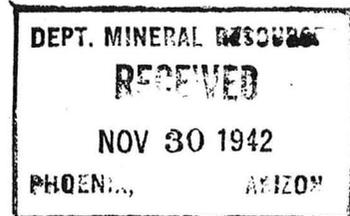
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BY HAROLD E. KETCHUM
LONG BEACH, CALIFORNIA.

RECONSTRUCTION FINANCE CORPORATION
WASHINGTON

November 26, 1942

H. C.



Mr. Earl F. Hastings
Assistant Director &
Projects Engineer
Department of Mineral Resources
413 Home Builders Building
Phoenix, Arizona

Re: Harold E. Ketchum & Harley Stump
Docket No. B-ND-4398

Dear Mr. Hastings:

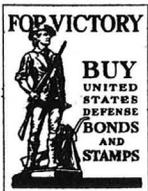
This will acknowledge receipt of your letter of November 13, 1942, in which you enclosed copies of the field engineer's report on the Ruth-Meacham mine, in Yavapai County.

We wish to thank you for submitting this information.

Very truly yours,

Chas. W. Tully

CHAS. W. TULLY
Asst. Chief, Mining Section



September 22, 1942

MEMORANDUM

TO: A. C. Nebeker

FROM: Earl F. Hastings

I am enclosing a report by Carl Barth on the Ruth Mine. Mr. Harold E. Ketchum of Long Beach, California, who is interested in the property, was in the office today and outlined conditions there.

From the above two sources I believe that this will fit in with your current investigation of prospective immediate producers. I suggest that you visit the Ruth at an early date, as we can benefit from your report, not only in connection with the Army-Navy Munitions Survey, but also in helping Mr. Ketchum obtain an R.F.C. loan.

Incidentally, Mr. Ketchum is also interested in the Black Canyon Association regarding which I sent a memorandum to you several days ago.

October 9, 1942

H. E. Ketchum
2725 Atlantic Avenue
Long Beach, California

Subject: Ruth Mine & Mill

Dear Mr. Ketchum:

I was quite surprised to receive your application on a Development loan form, in that all expenditures you outline are in the nature of capital investment rather than development. I asked Mr. Gohring of the RFC if they would accept the application in its present form and he said that he felt you would receive more favorable consideration if you would make your application on the proper form (RFC Form L-197.), of which two copies are included. a

I felt it would be better to follow his suggestion than to take a chance on a negative report through this technicality. I am afraid that I was not explicit enough in outlining the various types of loans to you when you visited the office; otherwise this time would have been saved if you could have filled out the proper form in the first place.

On completion of this alteration return the entire docket to me and we will send it on to Mr. Broadgate in Washington so that he may file it in person thereby assuring you of a much earlier action than you would ordinarily get. You need file only one copy in this case and keep the other for your file.

Very truly yours,

Earl F. Hastings
Assistant Director
& Projects Engineer.

EFH:BA

Enc: 2

November 13, 1942

Reconstruction Finance Corporation
Mine Loan Division
Washington, D. C.

File: Harold E. Ketchum &
Harley Stump
Docket No. B-ND-4398

Gentlemen:

Pursuant to a request by Mr. Ketchum we herewith
enclose copies of the field engineer's report on the
Ruth-Meacham mine, Hassayampa mining district, Yavapai
County.

Please add these to the above docket.

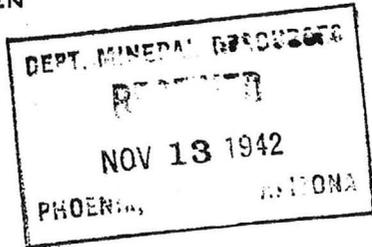
Very truly yours

Earl F. Hastings
Assistant Director &
Projects Engineer

EFH:BA
Encl.
cc: H.E. Ketchum

BLACK CANYON MINING ASSOCIATION

J. H. CHRISTENSEN
RESIDENT MANAGER
GLEATOR, ARIZONA



HAROLD E. KETCHUM
GENERAL MANAGER
LONG BEACH, CALIF.

2725 Atlantic Ave.

November 11 '42

Mr. Earl F. Hastings,
Department of Mineral Resources,
Phoenix, Arizona,

Dear Sir:-

After hearing of the favorable report Mr. Nebecker of Prescott made on the Ruth Dump and Mine we have decided to try to get the R. F. C. to reconsider our application for a \$5,000.00 loan to get the much needed Zinc and Lead on the market.

We have received a letter from Mr. M. W. Woolley, manager of Ore Purchasing for the United States Smelting Refining and Mining Company saying that he will advance 75 to 80% of the estimated value of our concentrates upon receipt of the bill of lading for shipment. He has been on the property, has seen jig concentrates made from the ore and offered to buy them on the spot.

I have written to the R. F. C. and have stated that we would ask you to forward to them copies of the report of Carl G. Barth, Dec. 29 1939 and also the report of Mr. Nebecker.

forward We will appreciate it very much if you will forward the above to

RECONSTRUCTION FINANCE CORPORATION
WASHINGTON D. C.

FILE,- Harold E. Ketchum & Harley Stump
Docket No. B-ND-4398

Very truly yours,


Harold E. Ketchum

HEK/W

November 13, 1942

Mr. Harold E. Ketchum
2725 Atlantic Avenue
Long Beach, California

Dear Mr. Ketchum:

Enclosed is a copy of a letter to the Reconstruction Finance Corporation Mine Loan Division as you requested.

I notice that your docket has a "B" number, which indicates that it is a Development Loan application. According to the plans you outlined I believe that this application will not cover the work you propose to do, unless such plans were altered since our last correspondence; however, in the event that the Reconstruction Finance Corporation disapproves of the form they will no doubt give you an opportunity to reclassify your loan.

If we may be of any further service to you do not hesitate to call on us.

Very truly yours

Earl F. Hastings
Assistant Director and
Projects Engineer

EFH:BA

Enc.

A S S A Y S H E E T.

Date	Number	Description	Gold	Silver	Lead	Zinc	Assay Value
1941			ozs	ozs	%	%	
3/20	258	Day Mill Heads, Belt Feeder	0.04 1.40	1.0 0.71	1.5 1.75	11.1 18.31	\$ 22.17
	260	Night Mill Heads from Classifier	0.06 2.10	2.2 1.56	1.7 1.99	6.1 10.06	15.71
4/21	282	Mine 1st Level West			3.6 4.21	9.3 15.34	19.55
5, 4	288	Hard Ore 5th Level East	0.14 4.90	16.3 11.59	22.1 25.86	19.9 32.83	75.18
6/5	309	Lead Spuds in North Shaft #2	0.20 7.00	76.8 54.64	68.2 79.79		141.43
8/24	347	Low Grade in Mine Chute, Dump			3.5 5.09	7.5 12.37	17.46
		Average		17.7	12.5		
					8.1	19.8	

Values used
 Gold \$ 35.00 per ounce
 Silver 0.7111 per ounce
 Lead 0.0585 per pound
 Zinc 0.0825 per pound
 Copper 0.12 per pound

Edwin R. Hand Jr., E. M.

A S S A Y S H R E T.

Date 1940	Number	Description	Gold ozs	Silver ozs	Copper %	Lead %	Zinc %	Assay Value
		Dump, Pit Sample	0.04	2.2	0.12	1.4	4.6	
			1.40	1.56	0.29	1.64	7.59	\$ 12.48
		Dump, 15 ton Mill Run	0.03	2.6	0.18	1.8	3.3	
			1.05	1.65	0.43	2.11	5.44	10.88
1/15	12	Lead Jig Concentrates	0.24	15.0		8.5		
			8.40	10.67		9.94		29.01
1/29	32	Stope N. R. above 100 level	0.12	13.7		3.7		
			4.20	9.74		4.33		18.27
2/19	51	Shaft N. Side at bottom	0.14	8.1		1.1		
			4.90	5.76		1.29		11.95
8/8	172	H1-Grade	0.12	41.9		32.8	22.3	
			4.20	29.78		38.37	36.79	109.14
8/30	189	Air Shaft Higrade	0.24	17.4		10.3	24.6	
			8.40	12.37		12.05	40.59	73.41
9/13	198	Good Zinc 150-175 level				9.5	55.4	
						11.11	91.41	102.52
	199	Zinc Higrade				2.9	45.8	
						3.39	72.27	75.66
9/26	205	100' Level West	0.20	5.0		7.9	23.9	
			7.00	3.56		9.24	39.43	59.23
10/3	216	Airshaft above 100' Higr Sulph	0.08	20.3		6.7	35.4	
			2.80	14.43		7.84	58.41	83.48
	217	Some Oxidized above Higrade	0.08	24.9		7.3	10.2	
			2.80	17.70		6.54	16.83	45.87

DEPARTMENT OF MINERAL RESOURCES

News Items

Date Mar. 9, 40

Mine Ruth Meacham

Location 5 mi S of Prescott

Owner B. N. Meacham

Address Long Beach

Operating Co. H. Stump & Assoc

Address Box 665, Prescott

Pres. Have unwatered

Genl. Mgr. Ruth Shaft &

Mine Supt. rehabilitated

Mill Supt. Mill - Doing

Principal Metals Small scale

Men Employed raising & milling

Production Rate 10 tons/day

Mill, Type & Capacity

Power, Amt. & Type

Signed

Barth

ASSAYER

EDWIN E. HAND, JR.
 CUSTOM ASSAY OFFICE
 RUTH MINE, P. O. BOX 182
 PRESCOTT, ARIZONA

COPY.

CHEMIST

1939--40.

I hereby certify that the samples described below received from

The Ruth Mine.

assay as follows:

SAMPLE NO.	OWNER'S MARK	GOLD		SILVER		PERCENTAGE OF		TOTAL VALUE PER TON
		OZS.	VALUE	OZS.	VALUE	lead	zinc	
A.	50# spud from Alice shaft.	0.20	\$7.00	69.12	\$62.20	68.2%	-----	\$ 285.92
B	Ludwig-R shaft 5th level	0.12	4.20	----	37.71	32.8%	22.3%	206.21
C	Air shaft stope	0.24	8.40	----	15.66	10.3%	24.6%	123.76
D	100' stope West	0.20	7.00	50-ozs	4.50	7.9%	23.9%	101.71
E	Air shaft above 100 L W.	--	2.80	20 ozs	18.00	6.7%	35.4%	139.70
F	R. shaft 5 L E	0.14	4.90	16-	14.67	22.1%	20%	143.12
G	G.B. Dump Quartz only	0.24	18.40	10.4	9.00	No assay.		17.40

GOLD AT \$ 35.00
 SILVER AT \$.90¢
 Lead \$.1765
 Zinc \$.15¢

Copied from Records of
 E. E. Hand Jr.

CHARGE \$

ASSAYER	CHEMIST
EDWIN E. HAND, JR. CUSTOM ASSAY OFFICE	
RUTH MINE P. O. BOX 182	PRESCOTT ARIZONA

066
 211
 212

DEPARTMENT OF MINERAL RESOURCES

News Items

Date Dec. 29, 39

Mine Ruth - Meacham

Location 8 miles S. of Prescott

Owner B.N. Meacham

Address 337 Terminal Ave.
Long Beach, Calif

Operating Co. H. Stump & Assoc.

Address Long Beach
Box 665, Prescott

Pres. Partnership of

Genl. Mgr. A

Mine Supt.

Mill Supt. Gold & Silver

Principal Metals Pb, Zn & Values in

Men Employed 4

Production Rate Examination

Mill, Type & Capacity Huntington Mill
Table & Talc

Power, Amt. & Type Gasoline

Engine 60HP

Signed Bark

DEPARTMENT OF MINERAL INDUSTRIES
Present Operations

Unwatering Ruth Shaft
for re-ventilation.
Reconditioning Mill

New Work Planned

Misc. Notes

Under direction of
H. Stump

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine Ruth - Meacham
District Hassayampa
Former name Ruth (Bulletin 782)
Owner B. A. Meacham
Operator H. Stump & Assoc.
President
Mine Supt.
Principal Metals Pb, Zn, Au, Ag
Production Rate
Power: Amt. & Type Gasoline engine in mill
Operations: Present

Date Dec. 29, 1939
Engineer
Location 8 miles S. of Prescott on
Indian Creek - Sec. 29 & 32 - T. 13
N; R 2 W
Address 337 Termino Ave., Long Beach, Calif.
Address Box 665, Prescott
Gen. Mgr.
Mill Supt.
Men Employed 6
Mill: Type & Cap. Huntington Mill - tables
& flotation - 30-50 tons

Unwatering Ruth shaft - reconditioning mill

Operations Planned

If examination is favorable, development, mining & milling

Number Claims, Title, etc. 120 acre Barth Homestead (1883) Ruth Patented, Anna & Alice
unpatented; 40 acre 1/4 sec. patented

Description: Topog. & Geog. Near junction Indian Creek & Groom Creek - low hills

Mine Workings: Amt. & Condition

Ruth shaft 306'; 1250' lateral work
700' tunnel on Homestead; 450' shaft on Gold Blossom;
450' lateral work (water) as yet not accessible

Geology & Mineralization Ruth vein strike N 30° W, dip 70° N.E. Pre-Cambrian quartz vein in the Bradshaw granite ore shoot appears to be at the junction of several veins - Pb-Zn-Cu-Sulphides

Ore: Positive & Probable, Ore Dumps, Tailings

Dump - 4000 tons, average \$10 all metals

Mine, Mill Equipment & Flow Sheet

No mine equipment, except gasoline driven Jack Pump
Mill - Wheeling crusher - Huntington mill - 2 tables -
Huntington regrind - flotation cells

Road Conditions, Route 6 miles south from Prescott on Hassayampa Highway, thence 2 miles along Wolf Creek Road.

Water Supply Indian Creek & Golden Blossom shaft.

Brief History Homestead patented by F. Barth in 1833. Former owner Ariz-Calif. Eng. Co. 1911 to 19 Purchased by J. W. Beacham about 1927. Shipped 2300 tons sulphide ore 1928-1929

Special Problems, Reports Filed 35% Zn; 15-20% Pb; 1 $\frac{1}{2}$ -3% Cu; 25-40oz. Ag; \$5-10 gold

Remarks Ruth being opened for examination - reached depth 125 feet. Map of claims

If property for sale: Price, terms and address to negotiate.

Bond & lease now in effect.

Signed..... Carl G. Barth, Jr.

Use additional sheets if necessary. Separate sheets on each problem.

27

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Date Dec. 29, 1939

Mine Ruth - Meacham

Engineer —

District Hassayampa

Location 8 miles S. of Prescott
on Indian Creek.

Former name Ruth (Bulletin 782)

Address See 29.32-T13N; R2W
337 Termino Ave.,

Owner B.N. Meacham

Address Long Beach, Calif.

Operator H. Stump & Assoc.

Address Box 665, Prescott

President

Gen. Mgr.

Mine Supt.

Mill Supt.

Principal Metals Pb - Zn - Au - Ag

Men Employed 6

Production Rate

Mill: Type & Cap.

Power: Amt. & Type Gasoline Engine

Huntingdon Mill - Tables
& Flotation - 30-50 Tons

Operations: Present in mill.

Unwatering Ruth Shaft.
Reconditioning Mill

Operations Planned

If examination is favorable
Development, Mining & Milling

Number Claims, Title, etc.

120 Acre Barth Homestead (1883) Ruth Patent
Anna & Alice unpatented; 40 acre $\frac{1}{4}$ Sec. Patented

Description: Topog. & Geog.

near junction Indian Creek, Hassayampa River
Low hills.

Mine Workings: Amt. & Condition

Ruth Shaft 306'; 1250' lateral work.
700' tunnel on Homestead; 450' Shaft on
Gold Blossom; 450' lateral work (water)
as yet not accessible. (over)

Geology & Mineralization Roth Vein Strike N 30° W Dip 70° N.E.
Pre-Cambrian Quartz vein in the Brocks how Granite
Ore shoot appears to be at the junction of
several veins - Pb-Zn-Fe-Sulphides.

Ore: Positive & Probable, Ore Dumps, Tailings

Dump - 4000 tons Average \$10.00 all metals

Mine, Mill Equipment & Flow Sheet

No mine equipment except Gasoline driven Jack Pump
Mill - wheeling crusher - Huntington Mill
2 Tables - Huntington regrind - Flotation Cells

Road Conditions, Route

6 miles south from Prescott on Hassoyampa
Highway - Thence 2 miles along Wolf Creek
Road.

Water Supply

Indian Creek & Golden Blossom Shaft.

Brief History

Homestead Patented by F. Barth 1883
Former owner Ariz-Calif. Mng Co. ¹⁹¹¹ Purchased
by B.N. Meacham about 1927
Shipped 2300 tons sulphide ore - 1928-29.

Special Problems, Reports Filed

35% Zn; 15-20% Pb; 1/2 - 3% Cu; 25-40oz Ag;
\$5-10 Gold.

Remarks

Both Being opened for examination -
Reached depth 125 feet.

Map of Claims

If property for sale: Price, terms and address to negotiate.

Bond & lease now in effect.

Signed

Carl G. Barth Jr.

Use additional sheets if necessary. Separate sheets on each problem.

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Date Dec. 29, 1939

Mine Ruth - Meacham
District Hassayampa
Former name Ruth (Bulletin 782)
Owner B. N. Meacham
Operator H. Stump & Assoc.
President
Mine Supt.
Principal Metals Pb, Zn, Au, Ag
Production Rate
Power: Amt. & Type Gasoline engine in mill
Operations: Present

Engineer
Location 8 miles S. of Prescott on
Indian Creek - Sec. 29 & 32 - T. 13
N; R 2 W
Address 337 Bermino Ave., Long Beach, Calif.
Address Box 665, Prescott
Gen. Mgr.
Mill Supt.
Men Employed 6
Mill: Type & Cap. Huntington Mill - tables
& flotation - 30-50 tons

Unwatering Ruth shaft - reconditioning mill

Operations Planned

If examination is favorable, development, mining & milling

Number Claims, Title, etc. 120 acre Barth Homestead (1883) Ruth Patented, Anna & Alice
unpatented; 40 acre 1/4 sec. patented

Description: Topog. & Geog. Near junction Indian Creek & Groom Creek - low hills

Mine Workings: Amt. & Condition

Ruth shaft 306'; 1250' lateral work
700' tunnel on Homestead; 450' shaft on Gold Blossom;
450' lateral work (water) as yet not accessible

Geology & Mineralization Ruth vein strike N 30° W, dip 70° N.E. Pre-Cambrian quartz vein in the Bradshaw granite ore shoot appears to be at the junction of several veins - Pb-Zn-Au-Sulphides

Ore: Positive & Probable, Ore Dumps, Tailings

Dump - 4000 tons, average \$10 all metals

Mine, Mill Equipment & Flow Sheet

No mine equipment, except gasoline driven Jack Pump
Mill - Wheeling crusher - Huntington mill - 2 tables -
Huntington regrind - flotation cells

Road Conditions, Route 6 miles south from Prescott on Hassayampa Highway, thence 2 miles along Wolf Creek Road.

Water Supply Indian Creek & Golden Blossom shaft,

Brief History Homestead patented by F. Barth in 1833. Former owner Ariz-Calif. Mng. Co. 1911 to 19 Purchased by J. W. Beacham about 1927. Shipped 2300 tons sulphide ore 1928-1929

Special Problems, Reports Filed 35% Zn; 15-20% Pb; 1 1/2-3% Au; 25-40oz. Ag; \$5-10 gold

Remarks Ruth being opened for examination - reached depth 125 feet. Map of claims

If property for sale: Price, terms and address to negotiate.

Bond & lease now in effect.

Signed..... Carl G. Barth, Jr.

Use additional sheets if necessary. Separate sheets on each problem.

Mr. B.N.Meadham,
337 Termino Ave.
Long Beach, Calif.

Prescott, Arizona.
April 30, 1937.

Dear Sir:

I herewith submit the following report on the Ruth Mining
property:

RUTH MINING PROPERTY

LOCATION:

This property is situated in the Hassayampa Mining District, Yavapai County, Arizona. It is located in Sections 29 and 32, about 6 miles south of Prescott, Arizona, and in the same Township.

ROADS:

Prescott, Arizona, is the supply center and railroad shipping point of the mine. To reach the Mine, one goes south on the Prescott-Wickenburg paved highway 6 miles; then $1\frac{1}{2}$ miles down the Green Creek out-off road. This Groom Creek Road is part of the scenic drive through the Prescott National Forest, which leaves Prescott, circles the Forest, and returns to Prescott, a distance of 24 miles.

CLIMATE:

The property is in the heavily timbered portion of the Prescott National Forest. The mill and camp has an elevation of 5700 feet, with the surrounding hills reaching an elevation of 6,000 feet. Prescott is noted as a tourist town for its equitable summer climate. The winters are generally open, although heavy snows are known to occur. Three of the last four winters have been open and mining operations could be carried on daily. Last winter, however, the heavy snow would have made mining difficult, if not impossible, during the month of January.

TIMBER:

The ground is heavily covered with oak and pine. This local timber is suitable for mining purposes. The patented ground will average about 25 cords to the acre, which could be cut and sold as fire wood for \$6.00 to \$8.00 per cord. A small portable sawmill

could be used to furnish dimension timber for mine, mill and camp use. The excess lumber could be easily sold to nearby mining companies.

WATER: Domestic water is obtained from a well on a spring made where a vein crosses Indian Creek. Water for milling purposes is pumped from Indian Creek. In normal years this creek supplies plenty of water from December to June. The summer rains come during July and August and the driest part of the year comes from the middle of September to the middle of October. A small dam is necessary to back up water for the pump. A larger dam anchored to bedrock would furnish more of a supply of water. This dam would need to be probably 10 feet high in the center and about 50 feet long. With this dam in place, normal years would give plenty of water for ten months. The Cold Blossom shaft, while not part of the Ruth property, could be used as an extra source of water. This shaft is 450 feet deep, with some drifts all full of water. A 700-foot pipeline would give gravity flow from this shaft to the mill.

PROPERTY: The Ruth property consists of 120 acres of the Barth patented homestead; the Ruth Patented Lode Claim of nearly 20 acres; the fraction Anna Lode Claim of about 10 acres; the Alice Lode Claim of 20 acres; the fraction Anna Lode Claim of about 10 acres; the Alice Lode Claim of 20 acres (both held by location); and the Ruth Millsite of 5 acres, held by occupancy.

GEOLOGY: Arizona Bureau of Mines, Mineral Technology, Series No. 37, Bulletin No. 137, written by Eldred D. Wilson, J. B. Cunningham and G. M. Butler, on page 25, says that the Ruth is one of the representative types of Pre-Cambrian veins. "These veins are characteristically lenticular in form. Their gangue is shiny milky-white to glassy quartz with Tourmaline and minor amounts of Ankeritic carbonates. Below the zone of oxidation, Pyrite, Chalcopyrite, Sphalerite and Galena are locally present, but generally not abundant. In the primary zone, the gold occurs both as coarse free particles and as

sub-microscopic inter-growths with the sulphides. Some silver is present with the gold. The vein walls show slight alteration. These veins belong to the hypothermal class and were deposited under conditions of high temperature and pressure. Lindgren has pointed out that they are probably genetically connected with the pre-Cambrian Bradshaw granite."

On page 43: "The Ruth deposit, on Indian Creek, three-fourths of a mile north of Hassayampa Creek, is opened by a 300-foot shaft. It has yielded some gold, but its later production, which was made in 1911-1913, 1916 and 1926 has been chiefly lead, zinc, and silver ore and concentrates. This vein occurs in Bradshaw granite, which, near the walls, is schistose soft, probably sericitized and impregnated with tourmaline and pyrite. The vein dips steeply eastward. It consists of coarse-grained milky quartz, with narrow seams of pyrite, ankerite and tourmaline, pyrite, chalcopyrite and sphalerite occur as irregular bunches and streaks in the quartz."

RUTH VEIN: The Ruth vein strikes north $30^{\circ}19'$ W. and dips to the eastward 45° to 60° . It extends the full length of the lode claims about 3750 feet. It is a mineralized porphyry zone 35 to 40 feet wide that splits the Bradshaw granite. In the center of this porphyry zone was found a heavily mineralized fissure, varying from 14 inches to 12 feet in width, all being ore of milling grade. In the center of this fissure is a streak of solid sulphides, varying in width from a few inches to 12 feet and is reported to be 18 inches wide in the bottom of the shaft. These solid sulphides were cobbled and shipped.

No attempt was made to prospect this porphyry zone outside the central fissure. However, holes were drilled in the so-called foot and hanging walls. The cuttings were panned and showed a good galena concentrate. This would lead one to believe that a large tonnage of milling ore may be developed in the porphyry zone outside the central fissure.

GOLD BLOSSOM

VEIN:

This vein strikes N.10° W. and dips 60° to the eastward. It extends through the property for about 2200 feet and intersects the Ruth vein. It is a true fissure vein from 3 to 5 feet wide with a porphyry foot wall and granite hanging wall. As one leaves the intersection of this vein with the Ruth vein, the amount of silver, lead and zinc decreases with an increase in the gold and copper mineralization.

RUTH QUARTZ

VEIN:

This vein appears to strike N.25° E. and dips eastward. It is about 10 feet wide on the surface and intersects the Ruth Vein and the Gold Blossom vein near the intersection of the Ruth and Gold Blossom veins. It extends through the Ruth property about 800 feet. This vein has not been prospected on the Ruth ground, although farther south it has been extensively surface prospected.

DAISY VEIN

SYSTEM:

One-half mile north of the Ruth shaft on the east 40 acres of the homestead, there is a junction of two veins. One strikes N. 14° W. and the other strikes N.40° W. Both dip about 60° eastward. They are true fissure veins with a porphyry footwall and granite hanging wall. This is known as the "Old Spanish Workings" and produced good free gold ore on the surface which was worked in an arrastras and steam stamp mill. At a shallow depth, the ore became base and could not be worked as free gold, so this method was unsuccessful.

OTHER VEINS:

There are several other veins on the property. Many of these veins have been opened on the surface with shallow cuts. In general, they show mineralization, and many will assay up to \$4.00 per ton in gold. However, at the time the work was performed, the prospectors were looking for shipping ore. Some of these veins may prove to contain lenses of milling ore.

There is one vein in particular that may prove of value. This vein runs through the west 80 acres of the homestead for a distance of one half mile. There are some early shallow trenches here, but

no work has been done by the present owners of the property. The owner of a claim adjacent to the homestead on the south has done sufficient work on this vein to apply for a patent to his claim.

VERMICULITE: In the southwestern part of the homestead there is a large outcrop of vermiculite that may prove of economic importance.

THE RUTH SHAFT: The Ruth shaft was sunk in the central fissure of the Ruth vein at the intersection of the Gold Blossom vein and very close to the intersection of the Ruth quartz vein. It is now 306 feet deep on the incline about 45°. Drifts were run on the vein north and south of the shaft for a distance of from 80 to 200 feet on four levels, 50 to 100 feet apart, with the last work being on the 250 ft. level. The underground work totals about 1,000 feet.

As the ore was mined, the solid sulphides were sorted and shipped to the smelter. About 2200 tons were sorted and shipped. During this operation, about 5,000 tons of material were hoisted and placed on the dump. On this amount, probably 3,000 tons would pay to mill. Later the ore was sorted underground and only the shipping ore was hoisted, the milling ore remaining in the stopes underground. There is about as much milling ore in the stopes as in the dump above ground.

The ore is mainly galena and sphalerite. The lead and zinc sulphides carry high values of silver. Some copper and gold is present. (See sheet of assays).

The mine is equipped with a hoist, pumping plant, blower, rails and skip. At the present writing, the mouth of the shaft is caved and the mine is full of seepage water. To operate the mine, it will be necessary to build a new gallows frame, timber the mouth of the shaft for about six sets and pump out the water. When the water is pumped out, the Ruth is considered a dry mine.

ALICE CLAIM: The Alice Claim joins the Ruth Claim on the south and is located on the Ruth vein. A shaft has been dug near the north end line of the Alice claim to cover annual assessment work. It is about 40 feet deep. A sample taken there in 1925 assayed 0.06 oz.

gold and 28.0 oz. silver. This shaft is about 1200 feet south of the Ruth Shaft and still shows mineralization in the Ruth vein.

ANNA CLAIM: The Anna claim is a fraction north of the Ruth claim and south of the Barth homestead. It is located on the Ruth vein. Between the Ruth shaft and the Anna location shaft, a distance of about 500 feet, is a hill which shows many veins. On the top of this hill on the Ruth vein was found a lense of galena ore. Two cars of ore were mined and shipped here from open cuts on the surface. This hill has not been prospected at depth.

North of the Anna shaft is a strong dyke. To the north of the dyke the Ruth vein appears to split into three branches. On one of these branches is a tunnel site. From the portal the Ruth shaft could be reached in about 800 feet at a depth of about 175 feet. This tunnel would prospect the hill at depth, enter the Ruth workings from the north. A track could be built from the mouth of the tunnel so that ore could be trammed from the Ruth workings direct to the mill. Such a tunnel would cover the necessary assessment work on the claim and would cover needed work for patent. It would drain the Ruth workings to a depth of 175 feet, aid in ventilation, and give another needed exit from the Ruth Mine.

DAISY TUNNEL; After the Old Spanish workings were no longer successful, other parties dug a tunnel to cut under this work. Total length of the tunnel is 700 feet, giving a depth of about 85 feet. This tunnel is difficult to keep open as it is inclined to cave at the mouth after wet spells of weather. It was last cleaned out in December, 1936, but has again caved. To prevent this expensive upkeep, it is advisable to work the deposit by shaft.

Just north of the intersection of the two veins mentioned earlier in this report is a perfect vertical fault. This fault occurs about 450 ft. in the tunnel. The vein to the south of the fault shows much movement. The vein is crushed, heavily oxidized and badly leached. About 50 feet south of the fault, the vein widens.

A cross-cut here shows the vein 15 feet wide without reaching the foot-wall. A sample taken here in the roof of the tunnel on the hanging wall side gave an assay of 0.60 oz. of gold over a width of 16 inches with the next 18 inches giving 0.25 oz. gold. See assay sheet.

To the north side of the fault the vein is in place, shows much less crushing and leaching. The vein is about 6 feet wide and slowly narrows until it is about 18 inches wide at the face of the tunnel. No samples were taken here, although the vein shows heavy mineralization.

There is a lense of ore here extending along the vein for about 100 feet south of the fault and 100 feet north of the fault. It will vary in width from 18 inches to 4 feet. Above the tunnel and extending to the stoped out old workings is some ore. The amount is unknown, although it is believed that the free milling zone extended less than 40 feet underground. There has been no work below the tunnel level. If the vein changes with depth to make secondary enrichment possible, it is likely that the values removed from the upper vein may be discovered at greater depth.

The values here are gold associated with chalcopryrite, showing small amounts of lead and silver. This ore can be handled in the same mill with the Ruth ore.

THE RUTH MILL

LOCATION:

The Ruth Mill is ideally located, either as a company mill or a general public custom mill. It is located on the circular forest road through the Prescott National Forest. Every road leading from this Forest Highway goes to some mine or claim. There are numerous claims, containing ore from \$8.00 a ton in gold and silver, some showing streaks of high-grade, awaiting a mill to treat the low-grade to make them profitable.

The Ruth Mill site extends along Indian Creek for 365 feet. The concentrate loading platform is about 50 feet from the Forest Highway.

EQUIPMENT:

The Ruth Mill building is 24 feet by 110 feet. It is equipped with a Wheeling High Speed Crusher #2, Challenge ore feeder, 5 foot Huntington Mill, Simpson Pneumatic Flotation Cells with a low pressure Connersville Blower, a 20 H.P. Mogul, I. H.CO. Engine, an 8 H.P., I.H.Co. Engine, necessary shafting, pulleys and belts. This equipment, with the tables which have been removed, handled 35 tons of Ruth ore in 24 hrs.

To modernize the mill, it is suggested that the following equipment be installed: New ore bin, grizzlies and automatic feed for the crusher; a set of rolls between ore feeder and Huntington mill; a rake or spiral classifier; a set of mechanized flotation cells such as Fahrenwald Flotation Cells; a small filter to handle concentrates. With this equipment added, the mill capacity would be increased to from 50 to 70 tons in 24 hours.

METALLURGY:

The sulphides do not occur in the ore as a solid solution. Each particle of galena, sphalerite, or chalcopyrite occurs as an individual crystal. A grind to 40-mesh will free these crystals so they may be separated.

The shipping ore was milled at the smelter, separating the lead from the zinc. These costs were borne by the shipper.

In order to make a commercial concentrate from the milling ore, it will be necessary to separate the lead from the zinc. In the mill as outlined, such a selective flotation could be made on both the shipping ore and the milling ore. The resulting products would be a high-grade lead concentrate, carrying most of the copper, gold and silver, and a high grade zinc concentrate, carrying some silver. The lead concentrate could be sold to a lead smelter and the zinc concentrate to a zinc smelter.

The last car of ore shipped by the present owner gave a smelter return of copper 0.98%, lead 16.0%, zinc 20.3%, silver 23.85 oz.,

gold 0.05 oz. Using these figures as a basis, and assuming that the values in the mill ore will be in the same proportion, we can calculate the probable mill output. The concentration ratio of the mill ore will vary considerably, but a fair ratio will give one ton of concentrates for each 10 tons of mill ore. Therefore, 50 tons of ore milled daily will give 5 tons of concentrates. These concentrates will be separated into :

2.2 tons	lead concentrates
2.3 "	zinc "

The lead concentrates will approach the following assay:

Lead	-	50%
Copper		3%
Silver		54 oz.
Gold		0.15 oz.

The zinc concentrates will approach the following assay:

Zinc	-	60%
Silver		18 oz.

It is believed there is a larger proportion of chalcopyrite in the mill ore than in the shipping ore. If this is found to be true, the value of copper, gold and silver will be raised in the lead concentrate.

The mill under continuous operation, treating 50 tons of ore daily, should make a recovery of 85 to 90% of the values at a cost not to exceed \$2.00 per ton.

The dump should be sorted and the milling ore delivered to the mill for \$1.00 a ton. It will cost but little more to deliver the broken ore from the stopes underground. New ore should be broken and delivered to the mill for \$4.00 a ton.

The mill, under proper management, should have no difficulty in showing a profit of \$100.00 daily.

ASSAYS:

Since assays have been taken over a period of years, all values are reported at the present price of gold, \$35.00 per ounce; silver \$0.7757 per ounce.

Date	Description	Gold		Silver		Total Value Per Ton
		Ozs.	Value	Ozs.	Value	
9/23/25	Alice Shaft	0.06	\$ 2.10	28.0	\$21.71	\$23.81
9/9/25	Daisy Ore Pit	0.24	8.40	6.0	4.65	13.05
10/14/35	Daisy Highgrade	0.76	26.60	0.7	0.54	27.14
1/10/34	Daisy Tunnel S. of last 4-cut					
	Right 16" Roof	0.60		Copper present		21.00
	Next 18" "	0.25				8.75
	S.of fault					
	Hanging Wall 15"	0.20				7.00
1935	Gold Blossom					
	Dump	0.12	\$ 4.20	5.9	\$ 4.58	8.78
1936	Dump	0.18	6.30	5.8	4.50	10.80
1935	Ruth Dump	0.04	1.40	2.0	1.55	(Lead & Zinc present) 2.95
	Ruth Dump	0.03	1.05	3.2	2.48	3.53
	Ruth Dump Coarse Quartz	0.12	4.20	20.5	15.89	(Copper present) 20.09
		Gold Ozs.	Silver Ozs.	Copper %	Lead %	Zinc %
3/3/26	(Ruth Ore Smelter Returns Car #172927 Carload Sample in Prescott - Smelter Test Lot	0.05	23.85	0.98	16.0	20.3
		0.28	31.0	3.22	21.1	23.5
		0.05	32.0	1.50	22.0	19.0

This report is derived from viewing and assaying the Ruth dump and noting the surface outcrop of the veins. Where I was unable to go underground myself, I took the word of other people.

Much of the condition of the Ruth ore bodies was derived from the statements made by Mr. James Slack of Prescott. Mr. Slack was connected with the operations of the mine, in various capacities, during most of the time that the mine was in operation. He has the reputation of being of unquestionable integrity, and his familiarity with the mine should make his statements real information.

Mr. George H. Wyman, Jr., Mining Engineer, corroborated most of the statements made in his report of September 23, 1925.

CONCLUSION:

Due to the present price of metals, you have a very attractive property. The Ruth dump is an asset of real value. It will enable you to more quickly put your mill in operation and will act as a

reserve ore supply to keep the mill in operation after the mine is reopened.

With judicious management, the mill can be put into operation and the mine reopened for from \$10,000 to \$15,000. There is enough ore of commercial grade in the dumps above ground to cover this amount.

Yours very truly,

(Signed) EDWIN E. HAND, Jr., E.M.

ORE SAMPLES AND SHIPMENTS.

March 1926.

International Smelting Co. Tooele Plant.

	Gold	Silver	Copper	Lead	Zinc	Insol	Iron	Sulphur	Lime	Speiss
Crude Mill Ore, Mine Sulphides	0.05	23.95	0.98	16.0	20.3	33.2	611	16.9	2.3	Nil
Concentrates, Lead, Table	0.185	40.5	1.15	31.9	14.5	5.8	15.3	25.6	0.9	Nil
Concentrates, Zinc, Table	0.065	27.2	1.32	11.9	25.4	22.8	8.0	21.8	2.5	Nil

May 1940

Orison Smelting & Refining Co, Tucson

	Gold	Silver	Copper	Lead	Zinc	Insol	Iron	Sulphur	Lime	Arsenic
Jig Zinc Concentrates, Sample Rolls set at minus 1/4 inch	trace	11.88	0.98	3.72	40.6		6.4		1.11	0.04

January 1941

United States Smelting, Refining and Mining Co.

Bulk Concentrates, Sample Table & Flotation	0.10	16.4	0.83	10.0	34.5	12.6	9.1	27.0		
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June 1941

Concentrates, Bulk Mill	0.10	29.7	1.30	17.1	26.0	17.2	7.4	22.9	0.90	
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Crude Mine Ore
Taken from level # 5

	0.02	9.20	0.40	9.6	10.8	59.5	4.0	9.6	1.8	
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July 1941

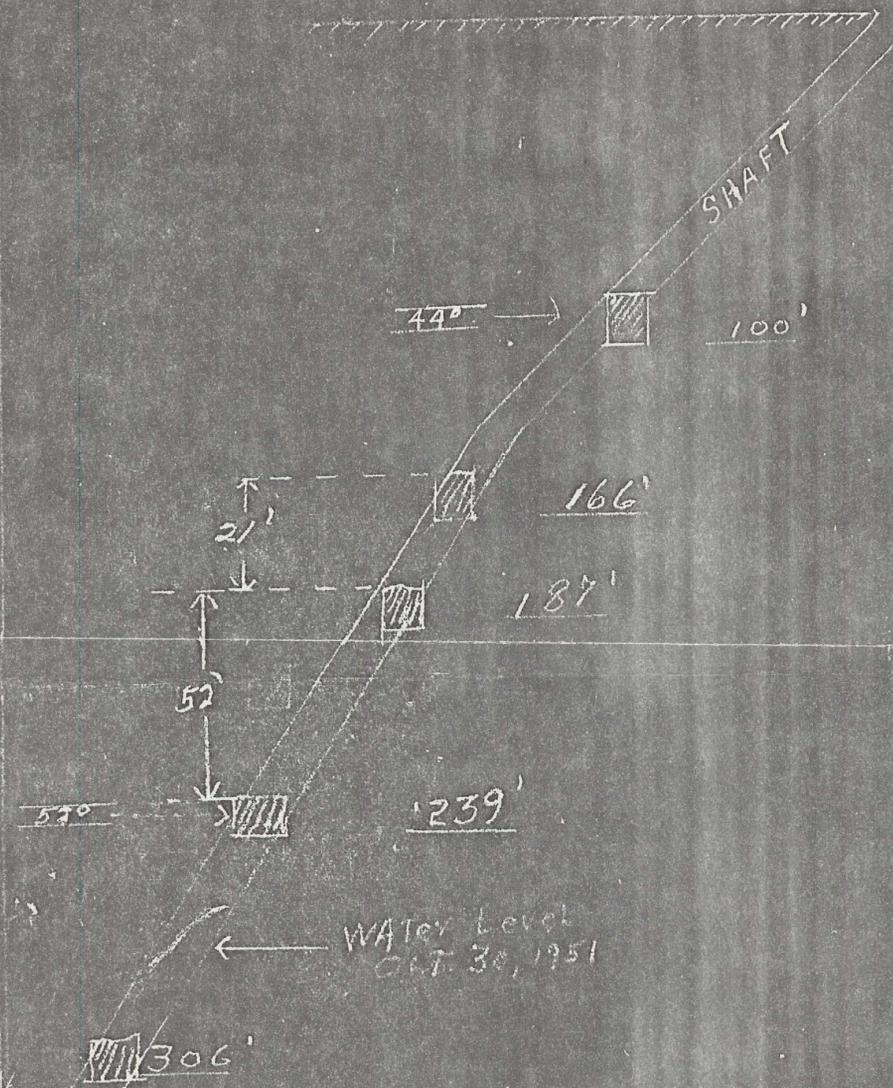
Prescott Ore Market

Crude Mine Ore
Taken from level # 5

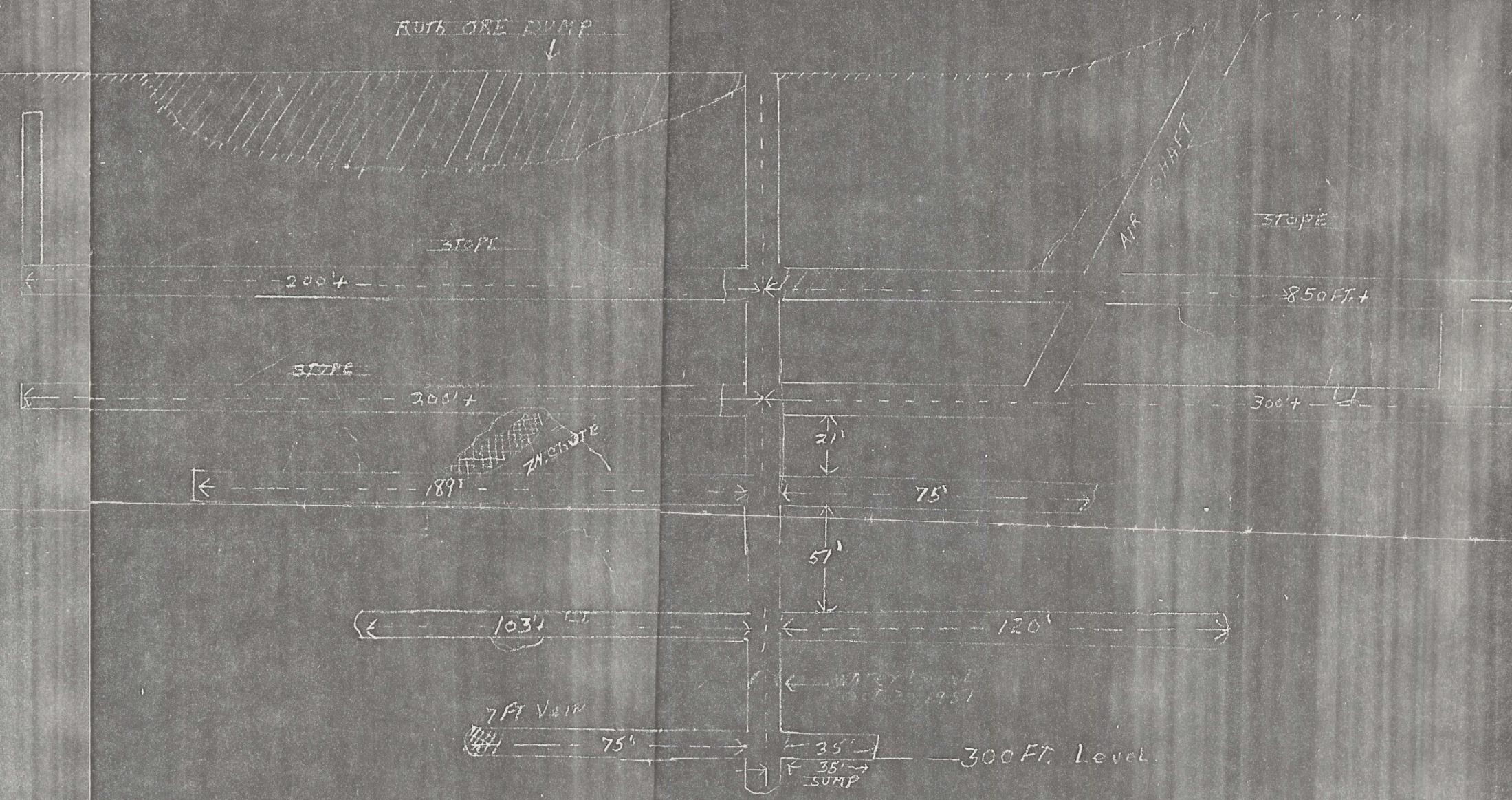
	0.03	11.97		11.0						
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Lead Concentrates
Flotation

	0.08	29.92		23.15						
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CROSS SECTION RUTH SHAFT



LONGITUDINAL SECTION

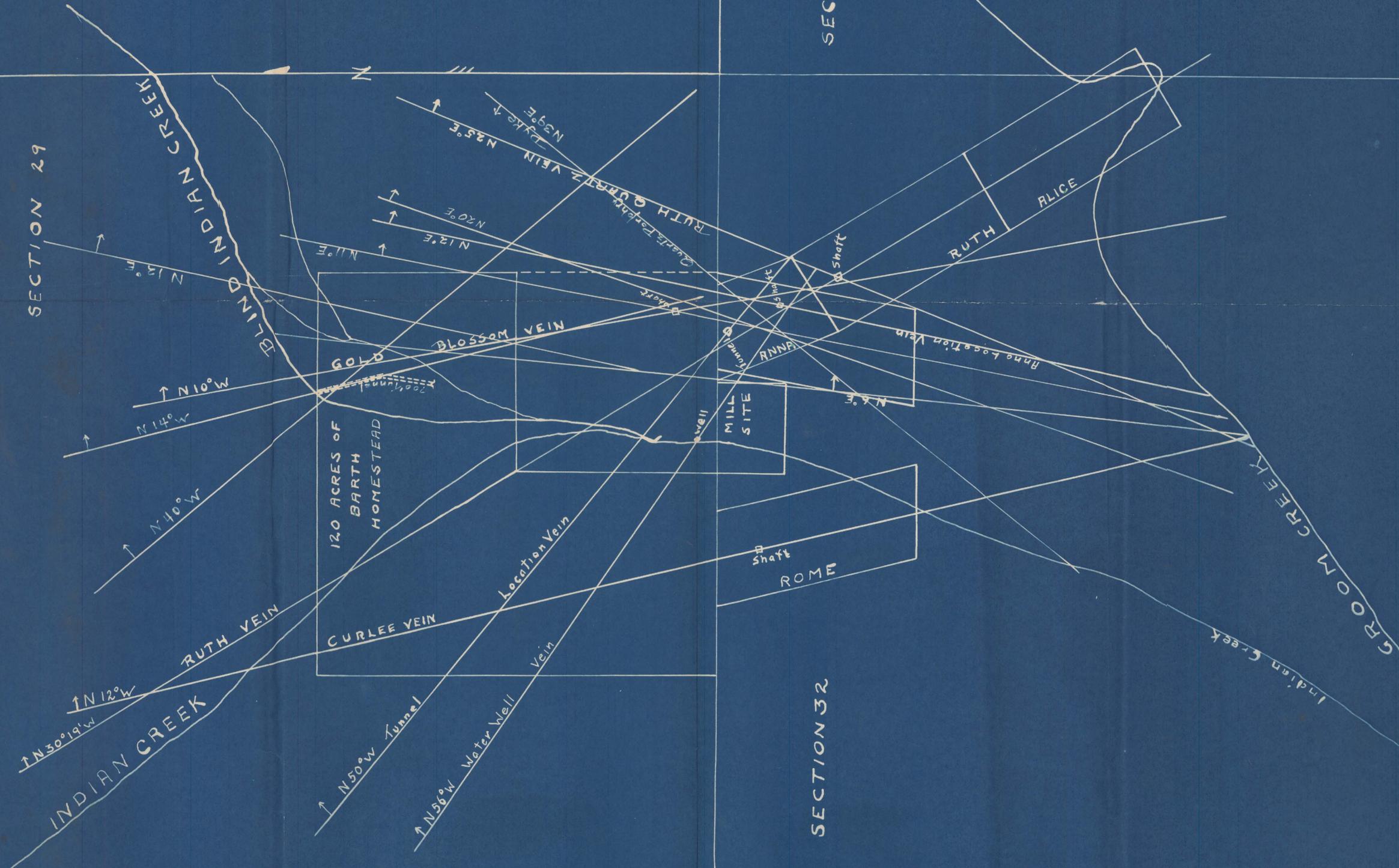
RUTH MINE
 CALARI MINING COMPANY
 SEVEN MILES S.W. OF PRESCOTT ARIZONA
 SCALE 1" = 33'
 OCT 30, 1951
 E. ALBRECHT

SECTION 28

SECTION 29

SECTION 33

SECTION 32



SCALE 1 INCH = 440 FEET
 Edwin E. Hand for E.M.