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Arizona Department of Mines and Mineral Resources Mining Collection

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TENNESSEE-SCHUYLKILL October 2, 1942

Chloride, Mohave Co. Elgin B. Holt

PRODUCTION POSSIBILITY

OWNER: Tennessee-Schuylkill Corp., Chloride, Arizona.
N. A. Wimer, Pres.
W. C. Wimer, Manager.

METALS: Lead, zinc, gold and silver.

LOCATION

This property is located one mile east of Chloride, Arizona, at the western foot of the Cerbat Mountains. It is an old producer of zinc, lead, gold and silver ore; its total production being estimated at around $20,000,000. It is now equipped with a 175-ton selective flotation mill, and power is furnished from Boulder Dam.

PRODUCTION, 1941

	Tons	Au, oz. per ton.	Ag, ozs. per ton.	pb,%	Zn,%
Ore milled -	45,150.00	0.071	2.63	5.44	6.56
Pb conc.-----	6,596.28	0.400	15.43	36.69	4.80
Zn conc.-----	4,616.58	0.065	2.89	0.42	53.84
Tails--------	33,910.40	0.008	0.12	0.10	0.54

PRODUCTION, 1942, First ½ YEAR

Ore milled -	10,025.00	0.069	2.63	4.91	5.83
Pb conc.-----	1,245.22	0.458	18.53	38.97	0.49
Zn conc.-----	892.98	0.063	2.69	0.51	53.87
Tails -------	7,886.80	0.008	0.11	0.10	0.53

Concentrates are trucked from mill to Kingman, over a paved highway, a distance of 23 miles; lead concentrates being shipped to the El Paso Smelting Works and zinc concentrates to Amarilla, Texas.

MEN NOW EMPLOYED

During the Spring months, 1942, 90 men were employed in mine and mill; but at the time of my visit, Oct. 1, 1942, only 42 men were employed in the mine and 9 in the mill, due to a shortage of laborers.

I talked to both N. A. Wimer, and his son, W. C. Wimer, Manager, of this property. They gave me the following information concerning the serious handicaps under which they have been operating:

They stated that the production rate fell to 83 tons of ore milled per day during September, 1942, due to shortage of laborers, labor difficulties, etc. That all this was due to the fact that three large defense projects,

within a few hours auto travel of this property, pay much higher wages than their company can afford to pay at present metal prices.

RATE OF PAY

Attached hereto is a detailed statement, furnished me by Mr. N. A. Wimer, showing how the rate of pay has gradually increased at this property from January 1, 1941, to August 15, 1942. Wimer stated that notwithstanding the fact that a raise of 6 cents per hour had been granted, to apply on all labor, just prior to August 20, 1942, a strike was called on that date, with a demand for an additional increase of 6 cents per hour, to be effective on August 15, 1942. He further stated that Jerome M. Kelleher, U. S. Commissioner, conciliation Service, Department of Labor, 1522 W. Encanto, Phoenix, Arizona, was called in by the company, through the War Production Board, Zinc Branch, and a settlement was made in four days, by the granting of a slight advance, as shown on page No. 5, of the said detailed statement mentioned, furnished me by Mr. Wimer, and which is attached hereto as stated. On August 25th, per Wimer, organizers representing U. M. W. A., District 50, arrived at Chloride and eventually presented the company with many new demands, including one for an increase in wages another 6 cents per hour, retroactive to August 15, 1942. But the company refused to recognize the said union as the proper bargaining agency for its employees.

The union then took a strike vote, with reported result that authority has been placed in the hands of a committee to call a strike of the employees, if and when the said committee considers such action necessary to the best interests of the workmen and in order to obtain a satisfactory agreement. The above is the status of the labor situation at the Tennessee property at the time this report is being prepared.

However, on September 22, 1942, the U. M. W. A. organizers caused the Tennessee crew to stay off duty for one shift in order to hold a meeting. This caused the mill to close for practically 24 hours.

EXPLORATORY WORK BEING RETARDED

I asked Mr. W. C. Wimer what was being done with a view to opening up new ore reserves in the mine. He answered as follows: "The labor situation underground is such that miners cannot be spared for new development work in waste. The only development that can be done is that in ore, which will help maintain the tonnage. The rest of the crew is mining already developed ore. When the crew is large enough to maintain the present capacity, the company plans to put men on development work with the hope of increasing the ore reserves which will eventually lead to increased production."

Elgin B. Holt.

May 7 ✓

Tennessee Schuylkill ~~Exhibit Company~~

Located - 1/2 mile above the town of Chloride Mohave Co. Arizona, and 25 miles from Kingman this property is developed by a 1400 ft shaft and drifts with crosscuts and a 200 ft winze below the 1400 ft level making a total depth of 1600 ft.

The equipment consists of a large hoist, compressor steel headframe, ~~great~~ number cars, motors, etc a well equiped machine shop, blacksmith shop, timber framing shed, change house, offices, assay labatory, etc, etc.

A 150 ton flotation mill with all the necessary accessories.

The metals produced are lead and zinc with a small value in gold and silver.

The ore, at the mill head, assays lead 3%, zinc 7.5%, gold .03 oz, silver 2.5 oz. per ton.

The ratio of concentration is 10 to 1, making a concentrate of lead assaying form 55% to 65% lead, and a zinc concentrate assaying 55% zinc.

At present 150 tons of ore is milled per day.

(over)

The mine is developed ahead of the requirments of the mill. It is claimed there is now blocked out 150000 tons of ore, and plans are now being made to construct a 250 ton mill. Mr N. A. Weimer is now in washington. D.C. consulting with Metal Reserve officials.

The company employs a total of 97 persons, 62 of the 97 persons are employed underground, 10 in the mill, 17 in repair shops and other surface work, 8 persons in the office and Engineering work.

The company is willing to enter into a contract to do custom work, so more of the small mines can get into production.

Mr Frank. C. Cassidy is in charge of the operations. Mr Cassidy has done a splended job, in the short time he has been on the property, getting it up to the present production with large ore reserves to draw from.

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine TENNESSEE-SCHUYLKILL Date October 2, 1942

District Chloride, Mohave Co. Engineer Elgin B. Holt

Subject: PRODUCTION POSSIBILITY

OWNER: Tennessee-Schuylkill Corp., Chloride, Arizona.
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I asked Mr. W. C. Wimer what was being done with a view to opening up new ore reserves in the mine. He answered as follows: "The labor situation underground is such that miners cannot be spared for new development work in waste. The only development that can be done is that in ore, which will help maintain the tonnage. The rest of the crew is mining already developed ore. When the crew is large enough to maintain the present capacity, the company plans to put men on development work with the hope of increasing the ore reserves which will eventually lead to increased production."

Elgin B. Holt.

May 25, 1942

OPERATING MINES,
Mohave County

To: J. S. Coupal

From: Elgin B. Holt

DEPT. MINERAL RESOURCES
RECEIVED
JUN 3 1942
PHOENIX ARIZONA

TENNESSEE-SCHUYLKILL CORP., Chloride, Arizona.
N. A. Wimer, Pres.
J. L. Fisher, General Manager.
Fred B. Eichelberger, Asst. Sec. & Treas.
H. E. Tucker, Mine Supt.
W. L. Witt, Mill Supt.
Metals: Lead, zinc, gold & silver.
Men employed in mine & mill: 90.
Production rate, during March and April, 1942: 135 tons ore per day.
Mill, Type & Capacity: Selective flotation, 150 tons daily.
Power: Electric, from Citizens Utilities Co., Kingman, Ariz.

Production, 1941:

	Tons	Au, ozs. per ton.	Ag, ozs. per ton	Pb.%	Zn, %
Ore milled -	45,150.00	0.071	2.63	5.44	6.56
Pb conc.----	6,596.28	0.400	15.43	36.69	4.80
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Tails ------	33,910.40	0.008	0.12	0.10	0.54

Prod., 1942, 1st ¼ year:

Ore milled -	10,025.00	0.069	2.63	4.91	5.83
Pb conc. ---	1,245.22	0.458	18.55	38.97	0.49
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Tails ------	7,886.80	0.008	0.11	0.10	0.53

Concentrates are trucked from mill over paved highway to Kingman a distance of 23 miles; lead concentrates being shipped to the El Paso Smelting Works and zinc concentrates to Amarillo, Texas.

Mr. Fisher stated that the mill is now operating under former capacity; also that he has no present plans for increased production of plant; that all he is trying to do is to get back to former production. He is now running two crews on diamond drill work with a view to finding new ore reserves. Some new ore has already been found by this diamond drill work.

DEPT. MINERAL RESOURCES
RECEIVED
JUN 3 1942
PHOENIX ARIZONA

PRODUCTION POSSIBILITY SURVEY

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine TENNESSEE-SCHUYLKILL Date October 2, 1942

District Chloride, Mohave Co. Engineer Elgin B. Holt

Subject:

PRODUCTION POSSIBILITY

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N. A. Wimer, Pres.
W. C. Wimer, Manager.

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PRESENT PRODUCTION RATE

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Elgin B. Holt.

NEW INCREASE PAY SCALE IN EFFECT JANUARY 1, 1941

RATE OF PAY - HOURLY BASIS

	Straight Time					Over Time				
Hours worked	8	8	8	8	8	8	8	Pay 7 day week	Daily scale if full time worked	
Rate per hour	.46	3.68	3.68	3.68	3.68	3.68	5.52	5.52	$29.44	$4.20-4/7	Janitor, Crusherman Etc.
" " "	.52	4.16	4.16	4.16	4.16	4.16	6.24	6.24	$33.28	$4.75-3/7	Muckers, Etc.
" " "	.58	4.64	4.64	4.64	4.64	4.64	6.96	6.96	$37.12	$5.30-2/7	Miners, B.Mill Etc.
" " "	.64	5.12	5.12	5.12	5.12	5.12	7.68	7.68	$40.96	$5.85-1/7	Hoistmen, Etc.
" " "	.74	5.92	5.92	5.92	5.92	5.92	8.88	8.88	$47.36	$6.76-4/7	Shift Bosses

TENNESSEE-SCHUYLKILL CORPORATION,
Chloride, Arizona.

-/-

NEW INCREASE PAY SCALE IN EFFECT MAY 16, 1941

RATE OF PAY - HOURLY BASIS

	Straight Time					Over Time		Pay 7 Day week	Daily scale if full time worked	
Hours worked	8	8	8	8	8	8	8			
Rate per hour .52	4.16	4.16	4.16	4.16	4.16	6.24	6.24	$33.28	$4.75-3/7	Janitor, Crusherman, etc
" " " .58	4.64	4.64	4.64	4.64	4.64	6.96	6.96	$37.12	$5.30-2/7	Mucker, etc.
" " " .64	5.12	5.12	5.12	5.12	5.12	7.68	7.68	$40.96	$5.85-1/7	Miners, B. Mill etc.
" " " .70	5.60	5.60	5.60	5.60	5.60	8.40	8.40	$44.80	$6.40	Holstmen, etc.
" " " .80	6.40	6.40	6.40	6.40	6.40	9.60	9.60	$51.20	$7.31-3/7	Shift Bosses

NEW INCREASE IN PAY SCALE IN EFFECT FEBRUARY 1, 1942

RATE OF PAY - HOURLY BASIS

	Straight Time					Over Time			
Hours worked		8	8	8	8	8	8	8	
Rate per hour	.55	4.40	4.40	4.40	4.40	4.40	6.60	6.60	Janitor, Crusherman, etc.
" " "	.81	4.88	4.88	4.88	4.88	4.88	7.32	7.32	Muckers, Etc.
" " "	.67	5.36	5.36	5.36	5.36	5.36	8.04	8.04	Miners, B. Mill, etc.
" " "	.73	5.84	5.84	5.84	5.84	5.84	8.76	8.76	Hoistmen, Etc.
" " "	.83	6.64	6.64	6.64	6.64	6.64	9.96	9.96	Shift Bosses

Pay 7 day week	Daily scale if full time worked
$35.20	$5.02-6/7
$39.04	$5.57-5/7
$42.88	$6.12-4/7
$46.72	$6.67-3/7
$53.12	$7.58-6/7

NEW INCREASE IN PAY SCALE IN EFFECT AUGUST 1, 1942

RATE OF PAY - HOURLY BASIS

	Straight Time					Over Time				
Hours Worked		8	8	8	8	8	8	8	Pay 7 day week	Daily scale if full time worked	
Rate per hour	.61	4.88	4.88	4.88	4.88	4.88	7.32	7.32	$39.04	$5.57-5/7	Surface Labor
" " "	.67	5.36	5.36	5.36	5.36	5.36	8.04	8.04	$42.88	$6.12-4/7	Muckers, Crushermen.
" " "	.73	5.84	5.84	5.84	5.84	5.84	8.76	8.76	$46.72	$6.67-3/7	Miners, Ball Mill, Winze Hoist, etc.
" " "	.79	6.32	6.32	6.32	6.32	6.32	9.48	9.48	$50.56	$7.22-2/7	Hoistmen, etc.
" " "	.89	7.12	7.12	7.12	7.12	7.12	10.68	10.68	$56.96	$8.13-5/7	Mill Foreman

NEW INCREASE IN PAY SCALE IN EFFECT AUGUST 15, 1942

RATE OF PAY - HOURLY BASIS

	Straight Time					Over Time				
Hours worked		8	8	8	8	8	8	8	Pay 7 Day week	Daily scale if full time worked	
Rate per hour	.61	4.88	4.88	4.88	4.88	4.88	7.32	7.32	$39.04	$5.57-5/7	Janitor, Crusherman, etc
" " "	.67	5.36	5.36	5.36	5.36	5.36	8.04	8.04	$42.88	$6.12-4/7	Muckers, etc.
" " "(78)	73.6	5.89	5.89	5.89	5.89	5.89	8.83	8.83	$47.11	$6.73	Miners, B. Mill etc.
" " "(79)	80.5	6.44	6.44	6.44	6.44	6.44	9.66	9.66	$51.52	$7.36	Hoistmen, etc.

This Report was made for Ethyl Corp in 1938 when they were considering producing their own lead.
A.B.C.

(COPY)

REPORT
on
WRIGLEY MINE

LOCATION.

This property is located about 16 miles north-easterly from the town of Kingman, in the Wallapai mining district, county of Mohave, State of Arizona. The road to mine is a good graveled and graded highway except for the last two miles, which can easily be put in good shape. Kingman is on the main line of the Samta Fe Railway.

HOLDINGS.

This property consists of 6 lode mining claims held by United States patent. These claims are known as the Gold, Silver, Lead, Copper Antimony and Zinc.

GEOLOGY.

The country rock of this area is granite. This granite is the main component of the Cerbat Range.

Two veins are found on this property with a general course of about north 40 degrees west. A canyon between the two veins, indicate that the vein on the south west side of the canyon has been faulted from the top of the vein on the north east side. A further indication of this being a faulted segment is that a caved shaft on the southerly end of the property did not encounter the vein below a shallow depth.

It is quite probably that the main vein on the Wrigley property is a continuation of the IXL vein from which a large production of silver-lead ore was made.

ADJOINING PROPERTIES.

About one mile to the north is the C.O.D. Mine from which a large tonnage of silver-lead-zinc ores has been produced. About 2000 feet to the south-east is the IXL Mine which has produced a large tonnage of silver-lead-zinc ores. On the other side of the property to the south-west is the Keyston Mine, a large producer of silver ores.

ORE VALUES AND TONNAGE.

There is no ore of any value that has been developed.

Samples taken gave the following results:-

No.	Description	Width	Au. Oz.	Ag. Oz.	Pb%
442	Silver Claim, 100' E. of W. end Cut.	4'	0.01	0.4	None
443	Silver Claim, Shaft 20' Deep 8' feet Down on footwall side of shaft.	3'	0.01	1.2	7.0
444	Next to #443 toward hanging wall	2'	0.08	1.5	2.0

Samples taken gave the following results:- (Continued)

No.	Description	Width	Au. Ozs.	Ag. Ozs.	Pb. %
445	Xcut tunnel, 20' south shaft at depth 20'	4'	0.03	3.1	8.4
446	Lead claim, Cut near south west end	3'	0.12	0.9	9.5
447	Grab dump of 40' shaft near south east end of lead claim.		0.03	0.3	None
448	Open cut near southwest end of Zinc Claim	8'	0.03	1.1	2.0
449	Dump from deep shaft on Zinc Claim Oxidized material on small section dump		0.01	0.1	None

ORE VALUES AND TONNAGE. (continued)

Shipping ore can be sorted from samples 443 and 445. Samples 448 and 449 are from what is probably faulted segment of main vein. Sample 446 may be from same ore shute as samples rre and 445 or may be another ore shute.

Samples 443 and 445 were mainly galena. This was due to this zone being protected from oxidizing water by an overlying fault. Sample 446 was carbonate ore.

DEVELOPMENT.

Most of the work except for shallow cuts, shafts and tunnels was on the southwest vein or faulted segment of the north east vein. It is indicated that the shafts and inclines on this vein hit the fault zone at a shallow depth. This is indicated by the dumps. These workings were either caved or water level was close to the surface.

No depth has been attained at any point on the north east vein. The greatest depth attained at any point is in the cross-cut tunnel and this is about 20' vertically from the surface. Ore shows in this tunnel.

The deep shaft on the Zinc claim is caved at the surface. It is variously reported to be 200 feet and 400 feet deep. The dump would indicate from 800 to 1000 feet of work.

EQUIPMENT.

There is no equipment on the property.

OPERATING CONDITIONS.

The operating conditions in this area are good. It is close to the town of Kingman and the railway. Water is quite plentiful and enough water can probably be developed in the canyon for a mill. All equipment and supplies can be obtained from Kingman or Coast points.

WICKENBURG & PRESCOTT ORE MARKETS
J.W."Jack"Branch
March 29, 1938

Settlement of Lot No. 183
Classification: Ore

Shipper: Charles S. Scholey, Trustee
Address: Prescott, Arizona

Net Weight of Lot 9688 lbs.
Moisture: 2.0 percent: 192 lbs.

Name of Claim: Wrigley
Mining District:
County:

Net dry weight: 9496 lbs.

Equivalent in tons(2000 lbs.): 4.748 Tons

PAYMENTS PER TON

	Assay		Amount paid for		Rate	Value
Gold:	0.04	ozs.	All -	0.04 oz. at	$ 32.20	$ 1.29
Silver:	8.7	ozs.	95% -	8.265 oz. at	.64	5.29
Copper:		Pct.		lbs. at		
Lead:	24.0	Pct.		405.0 lbs. at	.031	12.56

Value per ton at shipping point $ 19.14

Freight Rateper ton: $ 4.50
Smelter-Treatment per ton: 6.00

$10.50 $ 10.50

Net smelter value per dry ton: $ 8.64

Total net smelter value of 4.748 Net Dry Tons at $ 8.64 $ 41.02

(Minimum $2.00 per ton) Brokerage: $9.50
Sampling-Assaying: 5.75

$ 15.25 $ 15.25

Approved by:

Net amount Due Shipper: $25.77

EXHIBIT A

to
Application of

VICTORY MINES & MILLING COMPANY

to

RECONSTRUCTION FINANCE CORPORATION

for a

PRELIMINARY DEVELOPMENT LOAN

The Victory No.2 group of mines comprising the: ZINC, LEAD, COPPER, ANTIMONY, SILVER, GOLD are situated in the Stockton Hill Section of the Wallapai Mining District, Mohave County, Arizona. To describe the location more definitely, they are located in the I.X.L. Basin about midway between the C.O.D. and Banner group of mines, T.23 N., R. 17 W., G & S.R.M., Arisona. The railroad station is at Kingman which is 17 miles distant from the mines.

The road to the mines is in good, passable condition and will offer no difficulties to the transportation operation. There is very rarely snow enough in the winter time to interfere seriously with freighting.

EXHIBIT A

The mining property held by the applicant, Victory Mines & Milling Company, under lease and option to purchase consists of 6 patented lode mines, located in Sections 32 and 33, T. 23 N., R. 17 W., G. & S.R.M., Arizona, all embraced in U.S. Mineral Survey No.3333, the names of which and the books and pages where the United States patents thereof are to be found of record in the Office of the County Recorder of Mohave County, Arizona, being as follows, to wit:

NAME	BOOK OF DEEDS	PAGE
ZINC	28	347
COPPER	28	347
ANTIMONY	44	189
LEAD AND East ½ of SILVER	33	425
GOLD and West ½ of SILVER	33	426

EXHIBIT B

to

Application of

VICTORY MINES & MILLING COMPANY

to

RECONSTRUCTION FINANCE CORPORATION

for a

PRELIMINARY DEVELOPMENT LOAN

Geology of the Victory No. 2 Group.

The prevailing rocks in the vicinity of the mines are broadly speaking members of the granitic series constituting the pre-Cambrian complex. Associated with the granitic rocks are various types of schists. The granitic rocks usually have a banded gneissoid structure. This granite was classified by Schrader (in Bulletin 397) as granite gneiss. This granite gneiss consitutes the greater part of the mountains in the Stockton Hill section. This basal granite has been intruded by various rocks such as granite porphyry, diabase quartz, monzonite and other unclassified.

The mineral bearing veins are fillings in the fissures, which almost always, in this vicinity, follow the lines of structural weakness at the contacts of the intrusive porphyries with the older granitic rocks. It would appear from the wide zones of rock brecciation and shearing and subsequent alteration that the points for mineral deposition may be anywhere within a zone 20 to 30 feet or more in width. The foot wall of the vein or fracture zone is at various points: Granite gneiss, monzonite and a rock of diorite nature provisionally classed as dioritic granite; these three classes are intruded by rocks given the field classification granite porphyry. These are medium grained to aphanitic in texture and are usually light colored and of a more acid type than th foot wall rocks. The type of the foot wall rock seems to have no bearing on the width of the vein, most of the fracturing evidently being in the granite porphyries. The outcrops show quartz and strongly altered granitic rocks extensively kaolinized and bleached. The water level stands relatively high in this neighborhood, being from 20 to 40 feet from the surface. The quartz of the outcrops shows oxides or iron and manganese; at places shows evidence of leaching by its honeycomb structure and by the presence of pyrite casts. Some of the quartz shows copper carbonate stains which indicate copper minerals at depth. All ores in the district contain some copper minerals, with the galena and zinc blend.

There are several parallel and cross veins within the boundaries of the group but, since only superficial work was done on them, no detailed study was made of them at the time of my examination of the property.

The evidence disclosed by the structure of the veins indicates rock movements of considerable magnitude. The wide zone of alteration and shearing indicates favorable condition for ore deposition.

The main vein can be easily traced by its outcrop through the claims of the Victory Group.

Copies from U.S. Bulletin No. 397

Stockton Hill District.
General Outline.
Location and History.

The Stockton Hill District joins the Cerbat district on the east, and is about parallel and co-extensive with it north and south, being situated on the opposite slope of the mountains. It is about four miles in width and but a little more than that in length. It ranges in elevation from 3500 ft. at the edge of the Wallapai Valley on the east to 5500 ft. at the crest of the range. The principal and oldest camp is Stockton Hill, situated in the foothills in the easterly part of the district, ten miles north of Kingman at an elevation of about 4800 ft. It dates from the early sixties, when the principal veins were first discovered and began to produce. In former days much of the ore was shipped to Sawnsea Wales but later was treated in the Mineral Park and Cerbat mills and shipped to the smelter in San Francisco and to New Mexico. At present ore is hauled by wagon to Berry or Kingman, whence it is shipped, mostly to Needles. The district is reported to have produced many million dollars worth of ore.

Topography & Geology

The topography shown in part in the sketch map (fig. 16) is generally rough, but the mines are nearly all accessible by wagon roads, mostly of easy grades. The drainage issues eastward into the Hualapai Valley mainly through several short side galleys or transverse washes - the Canyon Station, C.O.D., I.X.L. (known as the I.S.L. Basin from the width and open character of its middle part), Cupel Treasure Hill and Maywell.

In their upper parts most of the washes contract into V-shaped gulches; the country rock is of the pre-Cambrian gneiss and schist complex. It is reddish brown and iron stained and is intruded by dykes of granite porphyry, diabase and other rocks of mostly basic character. The schistosity trends about N. 30 degrees East and dips usually vertically or at a steep angle to the northwest.

Quoting from Bulletin 397
Mines in I.X. L. Basin:

I.X.L. Basin is an open-like basin shaped area situated in the upper part of I.X.L. Wash, about 1½ miles north of Stockton Hill. It contains several small mines and prospects, about all of which are situated on the same vein or lode. The principal mines (1906) are the K.P. and the J.F.T. The K.P. mine is located in the southern part of the basin on open ground at 4700 feet elevation. The mine is new. It is owned by Messrs. Kimberly and Potts, of Kingman. As the water level is at about 40 ft. below the surface the development consists of shallow shafts and surface openings.

The country rodk is the pre-Cambrian gneiss complex. The deposit forms a vein or lode about 65 ft. in width, which dips about 75 degrees N.E. and is reported to have a horizontal extent of nearly two miles, many locations being made on it. The gangue or filling of the fissure consists essentially of crushed or brecciated vein quartz and crushed and altered coarse granitic quartz and feldspar. The croppings consist of similar material, locally silicified and stained reddish brown and black by iron and manganese oxides. The lode carries a width of about seven feet of concentrated ore. The ore is low grade. It contains principally galena and is said to average about 60% lead. It contains some gold, silver and copper, the copper occuring as bornite and salco-pyrite.

The J.F.T. Mine, located in the upper or northwestern part of the basin, is said to be developed to a depth of about 200 feet. It is reported to have been a good producer, and its ore is said to contain copper, silver and gold.

EXHIBIT B

to
Application of

VICTORY MINES & MILLING COMPANY

to

RECONSTRUCTION FINANCE CORPORATION
for a

PRELIMINARY DEVELOPMENT LOAN

The principal developments on the Victory No. 2 group are: a four hundred foot double compartment shaft and a shaft one hundred fourteen feet deep. Besides these there are a number of shallow shafts and open cuts along the vein; all these shallow shafts are either caved or have water in them at 15 to 20 feet depths at this date.

The collar set and two sets below the collar set of the four hundred foot shaft were originally on filledground; the fill surrounding them has caved and blocks the shaft at the surface. The shaft could be recovered at nominal expense by replacing the caved sets. The water level at this point is about twenty feet below the surface. The shaft below the water, according to experience in the district, is most likely in good shape and the cost of recovering it should be very little more than the cost of pumping. Reports from persons who were familiar with the property at the time of the shaft was sunk agree that on the two hundred foot level there was a good showing of lead ore and that at the four hundred foot level the only work done was a seventy foot cross-cut which was not of sufficient lenght to penetrate the ore bearing vein.

I consider the opening of this shaft and drifting on the two hundred foot level and continuing the cross-cut on the four hundred foot as most essential development work. In the vicinity of the shaft, there are good indications for a body of lead zinc ore.

Work is now being done on the one hundred fourteen foot shaft, whose location is indicated on the accompanying map; the work consists in driving of a cross-cut to cut the quartz vein which shows an outcrop on the surface.

The samples taken were taken principally with the idea in view to test for the presence of lead at several points along the outcrop. In the shallow shaft in which Samples Nos. 2, 3 and 4 were taken was the only place where decent underground samples could be taken. The samples taken at the shaft were channel samples according to standard practice.

The topography of the vein outcrop is such that development must be done by shafts, cross-cuts and drifts as there is not sufficient difference, in surface elevations to make tunneling a practical method.

Quoting from Bulletin 397 on the Geology of the
Mineral Deposits of Mohave County:

C.O.D. Mine

The vein is well known as the C.O.D. Vein. It strikes 85 degrees West and dips about 80 degrees North, and is reported to be more than a mile in length and about six feet in average width. The gangue is mostly

Samples were all taken from the Victory No. 2 Group in I.X.L. Basin.
No. 1 - was from dump of tunnel on "Lead"claim
2 - " " shaft on "Silver" claim - sample 12" wide
3 - " " " " " " " 8" wide
4 - " " " " " " " lead streak
5 - " " cut 175' west of discovery shaft on "Zinc" claim
6 - " " pieces from dump of shaft, near discovery shaft "Copper" claim
7 - " " pieces on dump at discovery shaft "Zinc" claim

(S) S. S. Jones

CERTIFICATE OF ASSAY FROM LABORATORY
R. V. McALLISTER
Kingman, Arizona

H. Frank Nelson

July 11, 1942

Office Number	Owner's Mark	GOLD PER TON Ounces	GOLD PER TON Value	SILVER PER TON Ounces	SILVER PER TON Value	Total Value Gold & Silver
9965	#1	trace	----	0.80	0.28	0.28
9966	2	0.01	0.35	2.90	2.06	2.41
9967	3	0.01	0.35	3.80	2.70	3.05
9968	4	0.02	0.70	8.40	5.96	6.66
9969	5	0.01	0.35	2.20	1.56	1.88
9970	6	trace	----	0.50	0.35	0.35
9971	7	0.02	0.70	5.60	3.97	4.67

Lead Per cent	Zinc Per cent
2.60	1.30
19.10	1.20
32.90	1.50
78.10	0.90
10.10	2.50
1.00	trace
46.20	0.80

(S) R. V. McALLISTER, Registered Assayer

width and are mostly of considerable extent. The norrow shoots are said to be usually rich and the wider ones contain large bodies of milling an concentrating ore. At the 250 foot level the ore shoot is reported to vary from 5 to 7 feet in width and to have averaged about 250 dollars per ton. The ore contains, principally, silver sulphide and gold, with some galena and zinc blende, and below the 250 foot level a little calco pyrite. It is said to be less rich in the sulphide zone than in the oxide zone. Its run of mine roughly computed from October, 1885, to March 6, 1901, is about as follows: Silver 160. ounces and Gold 2. ounc to the ton; Lead 12 to 20%. The production is reported to be $1,300,000 of which silver alone amounted to $1,000,000.

Quoting from Bulletin No. 367.

Banner Group Mine.

Geology and ore deposits:

The country rock is light to iron gray, fine grained gneiss, in which the structure trends about N. 30 degrees East and dips steepley to the Northwest. Toward the veins on the footwall side the rock is red from oxidized pyrite. The fissure vein strikes N. 40 degrees West and dips about 80 degrees Northeast. The croppins consist principally of reddish-brown quartz. The vein averages about 7 or 8 feet in width; the ore varies from about 1 to 3 feet wide and usually occurs on the footwall side of the vein. In the face of the drift at the time of visit it was 2½ feet wide and associated with it on the hanging wall side was a foot or more of gangue composed principally of crushed and altered grantic material, which on being removed by blasting, leaves the intact ore bared in fine condition for loading on the cars. The shoot contains parellel seams of light colored material, which emphasizes the roughly banded character of the ore. The ore in places consists of pure galena, but usually it contains also zinc blende, calco-pyrite and pyrite. The gold in some of it amounts to several ounces a ton. The silver occurs in part as sulphide and native as masses of wire silver which interlace adjacent parts of the ore shoot. The amount of zinc increases in the deeper Northern portion of the mine.

Toward the northwest end of the surface workings occurs a large amount of reddish brown quartz ore, which seems to contain chiefly gold values. This probably represents of the body of rich gold ore reported to have been found in the surface openings of the mine. A short distance north of this locality galena and zinc blende ore with comb quartz and calco-pyrite seem to prevail.

The quotations from U.S.G.S. bulletin were made to establish the fact that there is a lead zinc district surrounding the Victory No.2 properties.

S.S. Jones

November 11, 1944

Mr. Thomas Bardon, President,
Shattuck Denn Mining Corporation,
c/o R. W. Higgins, Chicago Club,
Michigan Blvd. & Van Buren,
Chicago, Illinois.

Re: Tennessee-Schuylkill Mine

Dear Mr. Bardon:

I returned late last night after spending two days at the Tennessee-Schuylkill Mine at Chloride, Arizona.

The mine is 23 miles from the shipping point at Kingman, and trucking of concentrates is on paved road.

Equipment and improvements consist of a number of miners' houses, guest house, excellent office building, the usual number of mine structures, steel headframe, three good electric compressors, Ottumwa double drum 100 HP mine hoist, and a 150 ton selective flotation plant which is generally in good condition.

The Tennessee Shaft, near the south end of the ore zone, is vertical, 1400 feet deep, and is sunk in the footwall. The Schuylkill Shaft, 1450 feet north of the Tennessee Shaft, is 800 feet deep at an 80 degree incline in the ore zone. At present it is used only for ventilation and emergency mine exit.

The vein is a fissure in granite and gneiss, often associated with a quartz porphyry dike. The vein gangue is mostly quartz. Galena and sphalerite are the economic minerals, together with minor quantities of gold, silver and copper. The vein also contains about 10% of pyrite.

The stoped area is about 2000 feet long and extends down to the 1200 foot level with some stoping above the 1300 foot level at the north end of the mine. About one half of the vein area has been stoped, the intervening areas, because of small widths and low grade are not minable. Total extract-

ion to date is 541,750 tons, covering a period from 1901 to the present.

The values in the south or Tennessee end of the vein are chiefly lead and zinc, with but little gold and silver. The Schuylkill ore has more gold, silver and lead than the south end.

Ore reserves as of January 1, 1944 showed 31609 tons of probable ore with a net smelter-mill value of $8.38 per ton, and assay of Gold .06, Silver 2.22, Lead 4.08 and zinc 7.72. A block of ore north of the winze, estimated at 1600 tons, is typical of the better ores on the north end, assays Au. .22, Ag. 4.0, Pb. 9.1, Zn. 7.5, with a net smelter-mill value of $16.27 per ton. Ore in this area must be hoisted through the winze to the 1200 foot level and trammed 1500 feet to the hoisting shaft.

The mine makes about 40 gallons of water a minute. The water contains enough sulfates and acid so that it is rather bad on pumps, pipe lines and mine rails.

The vein is moderately hard, though somewhat shattered. The hanging wall next to the vein is very soft for a depth of several inches to several feet. In general, the ground is heavy, caused by wall swell and the settling down of large blocks of vein on the timber. Stopes must be timbered with square sets and filled. Present costs of mining one square set containing about 13 tons is $35 per set, with about $15 more for filling. Most of the remaining blocks of ground will be expensive to recover, and to properly develop the north end of the mine at depth will entail a program so expensive that it is doubtful if this cost could be returned from proceeds of the ore developed.

Rather than submit more than a general brief report, I have prepared the enclosed figures from the available monthly reports on file at the mine office. The production is based on mill reports and may be slightly different than actual smelter returns. The costs do not include depreciation depletion or general administrative. A study of the monthly costs and net smelter returns indicates for 1943 $10.67 per ton and $6.75 per ton respectively. For eight months of 1944 the costs are $16.47 per ton, net smelter returns of $6.13, an operating revenue including "A" premiums, of $9.73 per ton, and a loss even with "C" premiums.

While costs of operation could be reduced a little, and perhaps some improvement made in mill performance, these could not by any means cover the difference between costs and income with an "A" premium. It is doubtful that future prices will be as much as present ceiling plus "A" premiums.

While the mine is not bottomed, it appears that stope areas on the lower levels are becoming smaller with depth and that remaining ore will be small as compared with past production. Mining at greater depths will mean a high development cost and problems in haulage and ventilation which would offset any possible reduction in present operating cost.

In conclusion, I recommend that we do nothing with the property.

Yours very truly,

SHATTUCK DENN MINING CORPORATION

By

Manager

HFM:B

c.c. S. D. M. Corp.,
New York.