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PRINTED: 01/17/2003

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES AZMILS DATA

PRIMARY NAME: COPPER QUEEN 1

ALTERNATE NAMES:

YAVAPAI COUNTY MILS NUMBER: 130A

LOCATION: TOWNSHIP 14 N RANGE 9 W SECTION 20 QUARTER NW
LATITUDE: N 34DEG 32MIN 24SEC LONGITUDE: W 113DEG 13MIN 40SEC
TOPO MAP NAME: BAGDAD - 15 MIN

CURRENT STATUS: PAST PRODUCER

COMMODITY:

ZINC

COPPER SULFIDE

CADMIUM

BIBLIOGRAPHY:

ADMMR COPPER QUEEN 1 MINE FILE

AZBM BULL 180 MIN. & WATER RES. AZ 1969 P 99

ADMMR COLVO FILE

USGS PP 550A P A4

COPPER QUEEN MINE

YAVAPAI COUNTY
Eureka District
T14N R9W Sec 20

Active Mine List	Nov. 1967	- 31 men				
"	"	"	April 1968	- 41 men		
"	"	"	Oct. 1968	- 48 men		
"	"	"	April 1969	- Dev. - Rex Ricks, et al, Box 351, Mayer		
"	"	"	Oct. 1969	- Dev. -	"	"
"	"	"	May 1970	- Dev. -	"	"
"	"	"	Oct. 1970	- not active		

ABM Bull. 180, p. 99

*

phases occur as deposits along fractures and include pyrite and pyrrhotite with manganosiderite, and pyrite and sphalerite with barite.

Sediment samples recovered along the ridge axis contain a small amount of hydrothermal Mn. These samples also contain abundant benthic foraminifers and other larger fauna. A massive deposit of hydrothermal nontronite was sampled at 41°31'N. This deposit is similar to other seabed hydrothermal deposits and probably formed from 20-50° C fluid.

Hydrothermal activity is widespread along the axis of the northern two-thirds of the Gorda Ridge. Nearly all the evidence indicates rather low temperature activity with the possible exception of the sparse sulfides, sulfates, and talc deposits from 42°28'N. We have no data that suggest how long-lived these hydrothermal systems may be, if they are currently active, or if massive sulfide deposits are present.

COPPER QUEEN LOGE - Yavapai

**VOLCANIC AND HYDROTHERMAL SYSTEMS:
EARLY PROTEROZOIC MASSIVE SULFIDE
DEPOSITS, BAGDAD, ARIZONA**

Clay M. Conway, Thomas J. Connelly,*
and Lori C. Robison

A cluster of Zn-Cu massive sulfide deposits at Bagdad, Arizona, is hosted in an Early Proterozoic (about 1740 Ma) 3-km-thick submarine volcanic succession. A lower basalt is overlain by rhyolite, which intertongues with and is overlain by mixed volcanic, volcanoclastic, and sedimentary rocks. This overturned stratified section constitutes a steeply dipping homocline with little internal folding and faulting. Metamorphism to lower amphibolite facies occurred before 1700 Ma.

The main ore bodies of the district (Old Dick, Bruce, Copper Queen) and cross-cutting faults and breccia zones are marginal to a central bulge in the exposure belt of rhyolite. Major alteration zones lie both within and next to the rhyolite bulge. Granophyre semiconformably intrudes the basalt close to the base of the rhyolite bulge. Offset apparently decreases upsection on one fault, and breccia zones are apparently fault controlled, evidence that faulting and brecciation were contemporaneous with volcanism.

*Thomas J. Connelly, 912 W. 14th Street, Tempe, AZ 85281.

Several types of alteration occur in the area. Epidote-quartz alteration (+Si, +Ca, -K, -Na, -Fe, -Mg, -base metals) is a widespread semiconformable alteration in the basalt. Chlorite alteration (+Fe, +Mg, -Si, -Ca, -K, -Na, +base metals), locally imposed on earlier epidote-quartz alteration, has affected both basalt and rhyolite but is more common in basalt. Quartz-sericite alteration (+Si, +K, -Fe, -Na, -Ca) is the most common alteration in rhyolite and is most intense in the upper parts of rhyolite lenses.

The rhyolite bulge, faults, breccia zones, and granophyre suggest the presence of a felsic volcanic center. Heat from shallow magma may have driven hydrothermal systems, which altered stratified rocks and formed sea-floor sulfide deposits as volcanism progressed. The range of alteration types in the area may reflect variation in space and time of an evolving long-lived volcano-hydrothermal system.

Two different hydrothermal systems probably controlled ore formation at the Old Dick-Bruce and the Copper Queen deposits. The Old Dick-Bruce ore bodies lie at the basalt-rhyolite contact, above a series of stacked chlorite lenses in the basalt. Thin layers composed of varying amounts of sulfides, sericite, and chert are common at the tops of the chlorite lenses. These features are interpreted as resulting from continuous hydrothermal activity, including exhalation on the sea-floor, during repetitive deposition of basalt flows and volcanoclastic material. The system culminated in the formation of the Old Dick and Bruce ore bodies in a period of quiescence between basalt and rhyolite volcanism. The Copper Queen deposit, on the other hand, lies above highly silicified rhyolite and has little associated chlorite. Silicified upper parts of rhyolite layers may have been sealed caps of hydrothermal systems. Massive sulfides (such as the Copper Queen deposit) and spatially related breccia zones may have formed when these caps ruptured and allowed venting of hydrothermal fluids.

**CHARACTERISTICS OF AND EXPLORATION FOR
Sn-W GRANITES IN THE
PRECAMBRIAN ARABIAN SHIELD**

Edward A. du Bray

Peraluminous granitoid plutons emplaced in the eastern part of the Precambrian Arabian

COPPER QUEEN MINE

YAVAPAI COUNTY
EUREKA DIST.

The 500-foot vertical shaft at the Copper Queen mine of Cyprus Mines Corporation, Bagdad, Arizona, has been completed and stations cut at the 300 and 450-foot levels. The contract crew of Centennial Development Company is now preparing to crosscut to the veins on both levels. The distance is estimated at 100 feet from the shaft at the 300-foot level, and 140 feet on the 450 level. At the corporation's OLD DICK mine, production continues at a normal rate, with the zinc-copper ore being mined mainly from the 650 and 800-foot levels. Shaft sinking is in progress at about 860 feet and will be continued to open a new level at 950 feet. Curtis Sundeen is resident manager, directing work at both properties.

Taken from MINING WORLD, February 1961, p 39

Active 10-1961 -	A. A. Friedman, Res. Mgr.,	Cyprus Mining Corp.,	Bagdad, Ariz.
" 2-1962 -	"	Expl."	" "
" 10-1962 -	"	" "	" "

Visited Old Dick - Copper Queen Mine & Mill. Interviewed Allan Hunt, Mgr. and Joe Sierakoski. Supt. The mill is taking about 7600 tpm, 5100 from the Old Dick and 2500 from the Copper Queen. 115 employees. The present ore bodies are expected to run thru June or July the work after that will be mostly exploratory.

EGW WR 2/25/65

Wally Nelson reported that exploration was finished at the King. Mining at the Queen is expected to be complete by years end at which time the shaft will be extended. It is impossible to mine and sink simultaneously.

FTJ. WR 9/15/65

* Visited Cyprus Mining Corp. (Copper Queen). Joe Sierakoski was underground with Cyprus Mining Corp. Gen Mgr. W. J. Rundle. Mill operating 1 shift-day -flotation only. Mining from both Old Dick and Queen about 70 to 80 TPD combined. Will continue to mine as long as ore holds out. Present production from the 150' level. Exploration carried on on the 250' level. Cyprus has started a new \$800,000 project. This consists of a new 2200' shaft. This will be located about 1000'* SW of the Old Dick shaft. At present a diamond drill is putting down a 9" pilot hole to the 950' level. If on line the hole will be reamed to 15" and will be used both as pilot and ventilation. Raising has already started from the 950' and sinking to the 2200' level, from that level, will start when the raise hole through. When raise is finished, pulling pillars from the Old Dick and Queen is planned. The Queen is the higher grade of the two but the ground is quite incompetent and difficult to handle. Sinking is to be by the company not contracted out, expect to complete in 18 mon or two years.

FTJ WR 1/7/66

COPPER QUEEN LODE

YAVAPAI COUNTY
EUREKA DIST.

Paul Allen, V.P., Cyprus Mines Corp., says they are drilling at
Copper Queen near Old Dick Mine.

12-7-59
FPK

Cyprus Mining Company is making plans for sinking a 500-foot shaft
on the Copper Queen property, located 3,000 feet south of the Old Dick
shaft at Bagdad, Arizona. Sinking operations are to start early in
1960.

MINING WORLD, December, 1959.

Cyprus Mines reported to be sinking 600 ft. shaft on Copper Queen property
about 1 mile south of their office (at Old Dick?) Centennial Development
Co. has the contract. Has been working a month or two. Reported by
Charlie Corey of Copco.

Harry Spencer is Pres. of Centennial Dev. Co.

FPK - Memo - 4-15-60

*

LEAD-ZINC QUESTIONNAIRE

October _____ 1957.

Do you approve of the Emergency Lead-Zinc Committee's seeking relief for the lead-zinc industry and has it your authorization to speak for you? Yes

What Arizona Mines and Mills in the lead-zinc class do you control?

(1) Old Dick Mine

(2) Copper Queen Mine

Which ones are operating? (1) Old Dick (2) _____

If not operating, when shut down? (1) _____ (2) In Exploration & Development

Number employed, prior to shut-down, in mine, mill or sections thereof producing lead or zinc ores? (1) _____ (2) _____

Number so employed on January 1, 1957? (1) 55 (2) none

Number so employed on October 1, 1957? (1) 50 (2) none

Remarks _____

Cyprus Mines Corporation
Company

By: C. R. Suddan, Pres. Mgr.
Signature

Please fill in NOW, tear off, and mail to:

Arizona Department of Mineral Resources
Mineral Building, Fairgrounds
Phoenix, Arizona

DEPARTMENT OF MINERAL RESOURCES

STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine Copper Queen

Date August 31, 1960

District Bureka, Navapai County

Engineer Travis T. Lane

Subject: Development Progress

At the time of a recent visit (August 26th) to the Old Dick mine of Cyprus Mines, Inc. the following information concerning the company's nearby Copper Queen project was obtained from Joe Bierkoski, Mine Supt.:

The vertical shaft has been completed to 500' and stations cut at 300' and 450' with sump below the 450' level. The vein strikes about $N 45^{\circ} E$ and dips about $70^{\circ} W$. The contract crew is now cutting out pockets at the stations preparatory to crosscutting to the vein - estimated 100' from the shaft on the 300' level and 140' from the shaft on the 450' level. 7 men are employed.

*

COPPER QUEEN LODE

YAVAPAI COUNTY
EUREKA DIST.

Visited the Old Dick Mine and Mill of Cyprus Mines, Inc. and discussed the current operations with Curtis Sundeen, Supt. The milling rate is about normal at 240 TPD. Grade of mill feed ranges around 14% zinc and 3.5% copper. The ore supply is coming from the 400' and 650' level and some from the 525' level, also from the development heading on the 800' level. On this level the ore shoot was first encountered at 250' south from the shaft and at the time of visit was continuing in the face at 300' from the shaft.

The company recently (Feb. 1) began developing by shaft a mineralized area disclosed by diamond drilling in the Copper Queen property some 2 miles distant from the Old Dick mine. The shaft is being sunk on contract by the Centennial Development Co. of Eureka, Utah with Branch Office at 810 W. Grant Road., Tucson, Arizona. This company has contracted a number of recent shaft jobs in the state at the Orphan Mine, Banner Mining Company's shaft, the Christmas Mine shaft, etc. Harold Spencer is the principal. The foreman on the Copper Queen job is Charles Stubblefield. At the time of this visit the shaft had reached a depth of 300' and a station was being cut at that point. The objective is 500' depth including a sump of 50' below a 450' station cutout. The work is going forward at 2 shifts per day with a total labor force of 7 men (including Stubblefield). A Cryderman mucker is used. The anticipated completion date of the contracted work is about the first of August this year.

TRAVIS P. LANE, WR - 4-30-60

See: MINING WORLD, May, 1960, p 88.

*

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine Copper Queen^v

Date March 23, 1957

District Eureka

Engineer Mark Gemmill

Subject: Present Status

The Copper Queen mine was acquired from the Lawler family several years ago by the Cypress Mining Co. It lies about a mile in an air line in a southwesterly direction from the Old Dick, several miles by road.

*Cypress
Mining Corp.*

The present completed sometime back considerable exploration work on the property consisting mainly of drilling. Information concerning the results of this work is not available but it is understood that they are favourable. Ore from this property would probably be treated at the Old Dick Mill.

Prior production from the Copper Queen has been small. It has consisted of occasional shipment by Lessees from a high grade copper streak.

When last seen the property was idle.

*

COPPER QUEEN LODE

Cu

Yavapai

13-4

S17, T14N, R9W

'47

Lawler Estate
Prescott, Arizona

CYPRESS MINING CO.

MINE: COPPER-QUEEN LODE, Eureka D[#], Yavapai County, 31 Mi NW of
Hillside

OWNERS: Lawler Estate

LESSEES: Mike and Bill Lawler (1947)

OPTION: CYPRESS MINING CO. (12/1952)

Copper Queen ✓ Lawler Estate ✓ Mike and Bill Lawler, Lessees ✓

This property has had production for the past several years by the above lessees making occasional shipments from surface workings, the values being mainly in copper. During this time there had been several stages of deeper development. About three years ago Ernest Dickie took over from the lessees and drove a drift tunnel from north to south cutting the surface workings at about 100 ft. below. Results of this work were not as expected and he gave up the property. Later others joined with the Lawler Brothers in continuing work in the tunnel but without finding shipping ore so gave up. Recently the property has been optioned to the Cypress Mining Co. who are now engaged in drilling operations and continuing southward in the tunnel. No information is available as to their findings but rumors are that some very good ore has been encountered in drill holes which cut the vein some 200 ft. below present workings. That in addition to copper the ore contains considerable zinc.

Report by: Mark Gemmill, Field Engineer

* December 6, 1952

Engineering and Mining Journal—Vol.154, No.3

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine Copper Queen Lode. ✓
District Eureka, Yavapai Co. Ariz.
Subject: Report (Operations)

Date Dec 30th, 1947.
Engineer A. C. Nebeker

Location:

The Copper Queen Lode is located about 31 miles Northwest of Hillside in the Eureka Mining District, Yavapai Co, Ariz. and in the N.W. $\frac{1}{4}$, Sec. 17, T. 14 N. R. 9 W.

Owner:

Lawler Est. ✓ and is being worked by lease agreement by Mike and Bill Lawler. ✓

Roads:

Good road to the property all the way from Prescott, Ariz.

Climate:

Ideal for year around operations.

Water;

Can be had from a spring about $\frac{1}{2}$ mile from the property and timber has to be brought in.

Topography and Geology:

The topography is rough being cut by gullies with steep sides. The geology consists of granite and schist. The vein having both walls schist.

Vein:

The vein is a prominent cropping about 30 feet thick and extends across the country for a thousand feet or more. It appears to be a fine grained quartzite, but could be a re-silicified dike. The strike is S 40 W. with almost vertical dip.

Ores:

* Near the surface are oxide and carbonate of copper ✓ which Mr Lawler claims turns to sulphide in the bottom of the shaft. The shaft was bulkheaded off so I did not see the bottom, but I was in the shaft 60 feet deep where the carbonates and oxides were being mined. The present pay streak is from 6 inches to 1 foot wide which will assay from 20% to 35% copper. The whole vein which has been crossed for 6 feet, carries 5% copper, very little gold or silver.

The ore is shipped to Clarkdale smelter. Shipments are slow as the Lawlers mine by hand methods.

There are ~~two~~ bunk houses on the property.

The property consists on one patented claim.

If the lessee had enough money to equip the property with machinery, and to develop the property on a larger scale, the property has a good chance to become a shipper of considerable ore.

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
OWNERS MINE REPORT

Date June 16, 1939

Mine COPPER QUEEN

District

Location Near Kirkland

Former name

Owner A. A. Akers

Address Kirkland, P. O.

Operator

Address A. A. Akers

President

Gen. Mgr.

Mine Supt.

Mill Supt.

Principal Metals Copper

Men Employed

Production Rate

Mill: Type & Cap.

Power: Amt. & Type

Operations: Present Some

Operations Planned

Number Claims, Title, etc. 8

Description: Topog. & Geog.

Line Workings: Amt. & Condition

Geology & Mineralization

Ore: Positive & Probable, Ore Dumps, Tailings

Mine, Mill Equipment & Flow Sheet

Road Conditions, Route

Water Supply

Brief History

Special Problems, Reports Filed

Remarks Mr. Akers is a friend of mine, and is at mine now doing assessment work.

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

Signed.....EFFIE COMER, Prescott, Ariz., Gen. Del.

Use additional sheets if necessary.

STATUS OF DORMANT MINES

MINE NAME: Copper Queen (Coper Queen)

LOCATION: Eureka District, Yavapai County, Arizona

OWNER AND/OR LEASEE: Owners - J.W. Lawler + M.L. Lynch
Lessee - Goodwin Mining Co.

ADDRESS: Bagdad, Arizona.

APPROXIMATE PRODUCTION (Year of 1945):

COPPER 0 Lbs. LEAD 0 Lbs.
ZINC 0 Lbs. (OTHER) 0

CHECK THE CHIEF CAUSE OF YOUR DISCONTINUED PRODUCTION:

- (A) Easily available ore worked out.
- (B) Increased costs, but have quantity similar to past grade of ore.
- (C) Too close a margin to develop more ore.
- (D) Costs too high and base metal
Markets unstable, unpredictable

If you have ore ready to mine please give your estimate of the amount of metal (name each metal) that you could produce in one year (after allowing 60 days to get started) if there were premiums above present market prices. Name amount with a low premium, and amount at a high premium; such as:

Copper at 22½¢ plus 5¢ premium..... 1,000,000 Lbs.
 Copper at 22½¢ plus 10¢ premium..... 1,500,000 Lbs.

Copper @ 22½¢ plus 5¢ premium 500,000 lbs
Zinc @ 15¢ plus 3¢ premium 500,000 lbs

If you do not have ore ready to mine please discuss the following:

- (A) Do you think a reasonable development program would produce a justified tonnage of commercial ore at above mine?

Yes

- (B) With a premium price (guaranteed for one year) could you carry out such a development program yourself? What premium?

Yes - need 5¢ on copper
and 3¢ on zinc

(C) If you could not do this yourself, would a quick drilling program by some government agency (at government expense) be sufficient?

(D) Or would you prefer a loan plan similar to the arrangements during World War II?

no loans

How about a combination plan in two stages such as follows?

Stage 1: Government engineers review project and, if a little drilling appears to be justified and a preliminary key to the situation, such drilling program to be agreed upon by owner and government engineer, paid for by the government, but let by contract.

Stage 2: If results of drilling (or without drilling) justify underground development and/or production equipment, same to be obtainable via a mortgage loan on property.

Please discuss the above:

Do not need or want anything except price high enough to warrant operation and stability of price assured for reasonable length of time.

SUGGESTIONS:

Nature of small, rich ore deposits in this district assure very high output in terms of pounds of metals per man shift. Need stable assured price to start on access roads, equipment and rehabilitation.

DATE Aug. 10, 1950

SIGNATURE E. G. Green, Supt.
Goodwin Mining Co.