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PRINTED: 07/20/2001

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES AZMILS DATA

PRIMARY NAME: GOLD PRINCE MINE

ALTERNATE NAMES:

HENRY CLAY
PAT PRICE
MURPHY
BASIN

COCHISE COUNTY MILS NUMBER: 79

LOCATION: TOWNSHIP 14 S RANGE 27 E SECTION 27 QUARTER N2
LATITUDE: N 32DEG 11MIN 37SEC LONGITUDE: W 109DEG 34MIN 39SEC
TOPO MAP NAME: DOS CABEZAS - 7.5 MIN

CURRENT STATUS: PRODUCER

COMMODITY:

GOLD LODE
LEAD SULFIDE
SILVER
COPPER SULFIDE
ZINC SULFIDE

BIBLIOGRAPHY:

KEITH, S.B., 1973, AZBM BULL. 187, P. 61
ADMMR GOLD PRINCE MINE FILE
ADMMR GEOLOGY FILE -PHELPS DODGE RPT ASSAY
USBM 1949 MINERALS YEARBOOK
AZBM BULL 137, 1934, P 119-120
MINES HANDBOOK 1922-26

GOLD PRINCE MINE

COCHISE COUNTY

5 Sketches - map cabinet, Sec. 5

ABM Bull. 137 p. 117

AEC 172-478 p. 24

ABM Bull. 187, p. 30

Cochise County MILS Index #79

AKA: Henry Clay, Pat Price, murphy, Basin

See: Map I-1310-B p. 51; Mineral Deposit Map of the Silver City 1° x 2° Quad., NM & AZ

Dos Cabezas 7' Quad (included in file)

Gold Price its self
is T145 R27E
Sec 27+22.



Jumbo Spring

Peak 7836

Turkey Spring

Mascot Mine

Dos Cabezas Catchment

Howard Peak

Gold Prince Mine

GOLD PRINCE
TR4S R27E Sec. S1/2 22 N1/2 2

Philadelphia Canyon

USMM 1
5778

Lary Mine

33

34

35

Grave

Bean Draw

BM 5205

BM 5217

BM 5147

Dos Cabezas

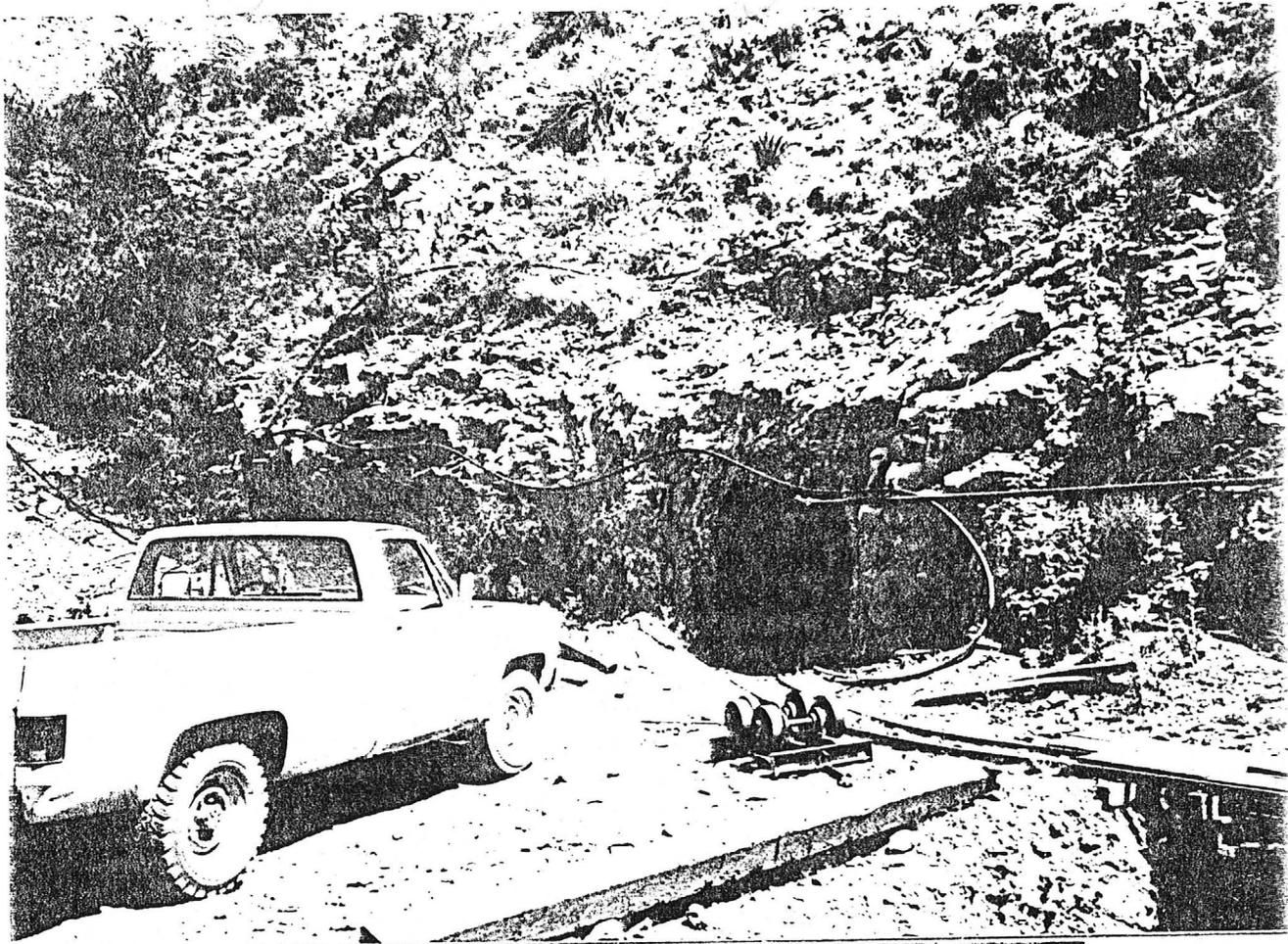
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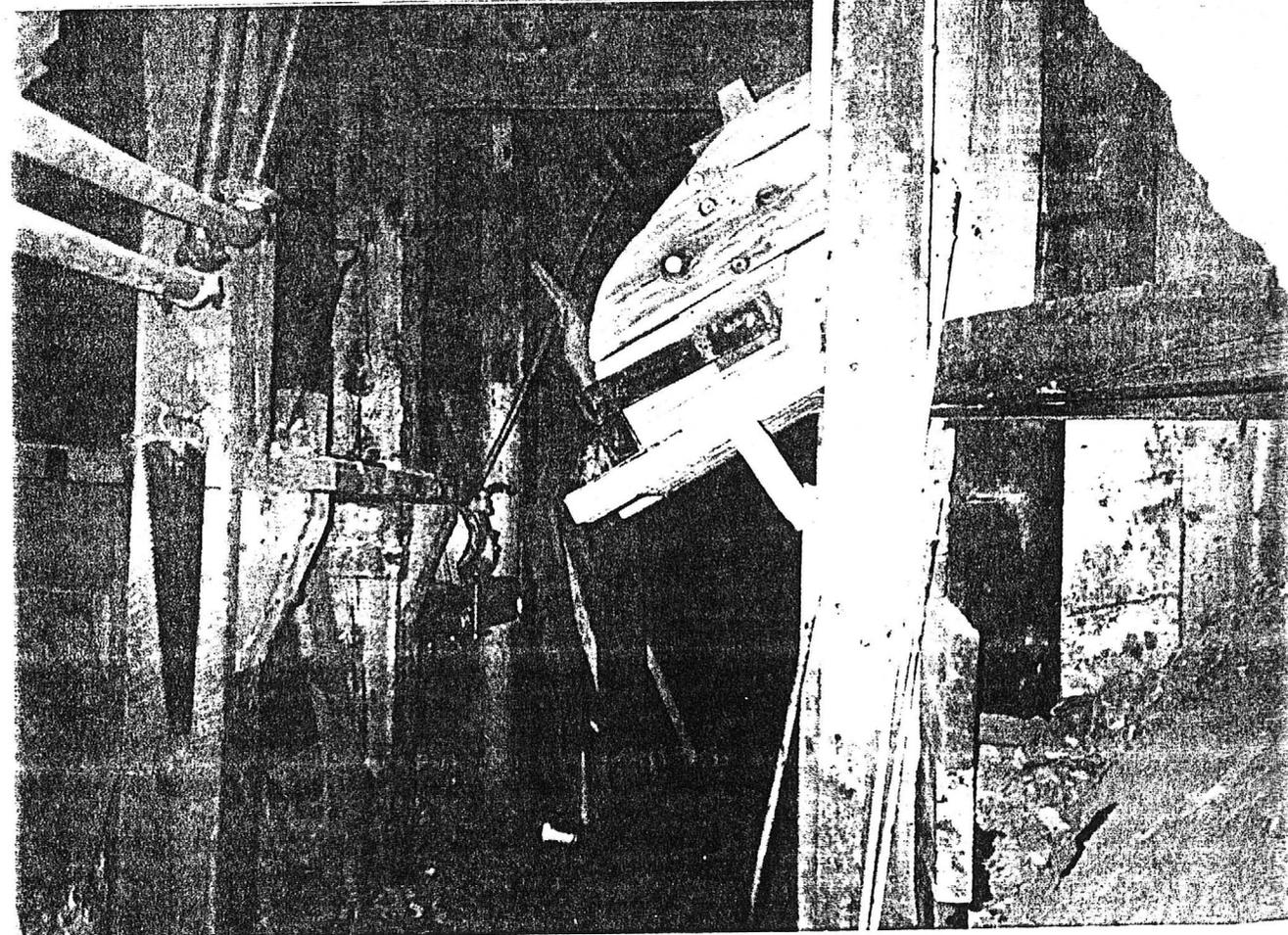
5226

5079

5072



A-60-70
3 RD. LIEVIEL
1989



A-60-72
3 RD. LIEVIEL
1989

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES

INFORMATION FROM MINE CARDS IN MUSEUM

ARIZONA

MMK 847 Gold ore

COCHISE CO.

DOS CABESOS

Gold PRINCE MINE File)

MILS # 79

4-AKA'2

K 09
 JMS



Col. Purice (F)

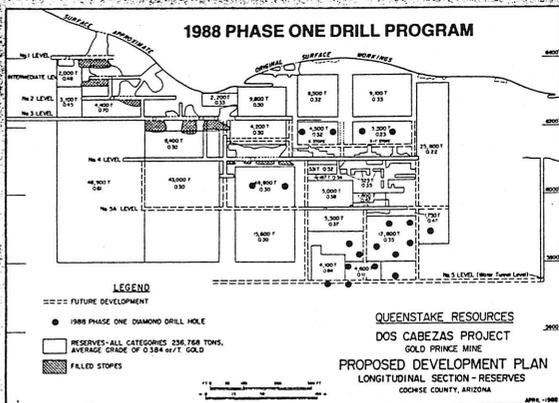
Dos Cabezas, Arizona

In 1987, Queenstake conducted an intensive underground sampling program at the Gold Prince Mine, aggregating over 600 samples. All principal structures were sampled at 5 or 10 foot centers. Following the sampling program, underground rehabilitation, construction of surface facilities, installation of services and mining equipment acquisition were completed.

A 6,000 foot underground diamond drilling program is planned at the mine to evaluate the extensions of ore reserves defined in Queenstake's 1987-1988 mapping and sampling program and by 9,000 feet of previous diamond drilling done by Phelps Dodge Corporation between 1983 and 1986. A series of three en echelon gold bearing quartz-sulfide veins will be tested in the program, with the goal of bringing the reserves to the drill indicated category. A feasibility study will then be undertaken to evaluate the deposit and define a mining development plan.

Drilling will be conducted by a contractor using a new underground drill recently purchased by Queenstake. The drilling will be done from both existing underground drill stations on the 5A Level and from new stations being constructed on the 5A and 4 Levels of the mine. The vein system will be tested along nearly 1000 feet of strike length and 500 feet of vertical extent.

Preliminary flotation and cyanidation test work conducted by Bateman Metallurgical Laboratories in Sparks, Nevada has been completed, with satisfactory gold recoveries using a combination gravity-flotation-cyanidation circuit. Additional testing is planned to further define grinding and selective flotation variables for the ores. Column leach cyanide testing is planned on near surface stockwork-hosted oxide ores which may be amenable to open pit heap leach technology.

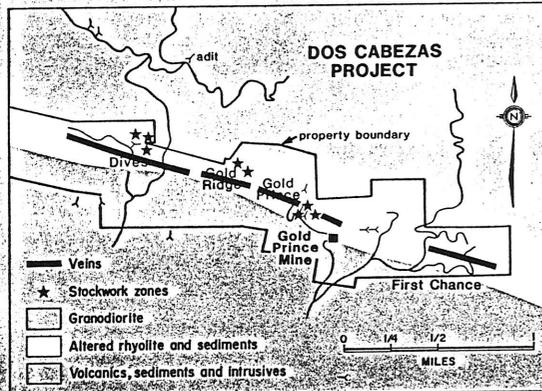


Mine equipment purchases from former operator Phelps Dodge Corporation helped to speed the project to completion at substantial savings over projected equipment costs.



View from the Gold Prince Mine, Dos Cabezas, looking past the home of Kay and Lewis Stickradt (head of mine security) to the flats.

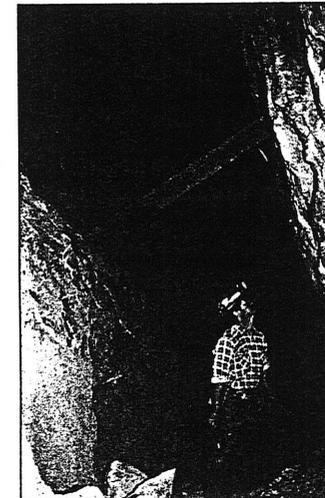
Additional claim locations made by Queenstake have almost doubled the project area, including both lode and mill site locations.



The mine rehabilitation program was directed by Mine Manager, Al Voirin, with Project Geologist, Tim Pearson.



Al Voirin, Dos Cabezas mine manager (l) and Tim Pearson, project geologist (r), inspecting Dos Cabezas structure.



Dave Hembree, Queenstake's U.S. manager of exploration, examining underground workings in the Gold Prince Mine, Dos Cabezas project. In 1988, a 6,000 foot underground drilling program is planned to define reserves for a production decision.

plant was commissioned and commenced operation during the year, markedly improving the gold recovery.

In total 247,000 cubic yards of gravel at a grade of 0.012 ounces of gold per cubic yard were mined and processed resulting in the production of 2,984 fine ounces of gold.

The 1989 mine plan of nine upstream cuts will produce approximately 300,000 cubic yards of gravel for an increase over 1988 production.

Black Hills Creek, Yukon

The Black Hills Creek operation processed 154,500 cubic yards of gravel grading 0.011 ounces per cubic yard. The trommel/slucice recovery plant operated between April and October producing 1,735 fine ounces of gold.

In 1989 an infill drilling program consisting of 110 drill holes will be carried out on the McCrimmon reserve to further define and augment current estimates of 330,000 cubic yards of gravel of 0.019 ounces per cubic yard.

GOLD PRINCE (H), GOLD MOUNTAIN (F)

HARD ROCK EXPLORATION AND DEVELOPMENT PROJECTS

Dos Cabezas Mine, Arizona

In early 1988 the number 4 and 5A levels of the Gold Prince Mine were rehabilitated, surface facilities constructed and services installed. A 4,870 foot underground diamond drilling program, completed in December 1988, tested the reserves below the 5A level and demonstrated that mineralization is geologically complex and further exploration is required to establish proven reserves.

Metallurgical testwork completed by Bateman Metallurgical Laboratories has shown that a combined gravity-flotation circuit on the Gold Prince ore yields a 97.8% recovery.

In early December 1988 a test shipment of 500 tons, grading 0.338 ounces per ton gold, was shipped as silica flux to the Phelps Dodge smelter in Playas, New Mexico. It is currently planned to ship 500 tons of gold bearing silica flux per month until June 1989 when there will be three working stopes developed. At that time production will increase to 1,000 tons per month. The cash flow pro-

vided by this operation will fund the exploration effort to prove up reserves both at depth and along strike of the Gold Prince vein system and in the adjacent Gold Ridge and Arizona Klondike mines.

Argus Project, California

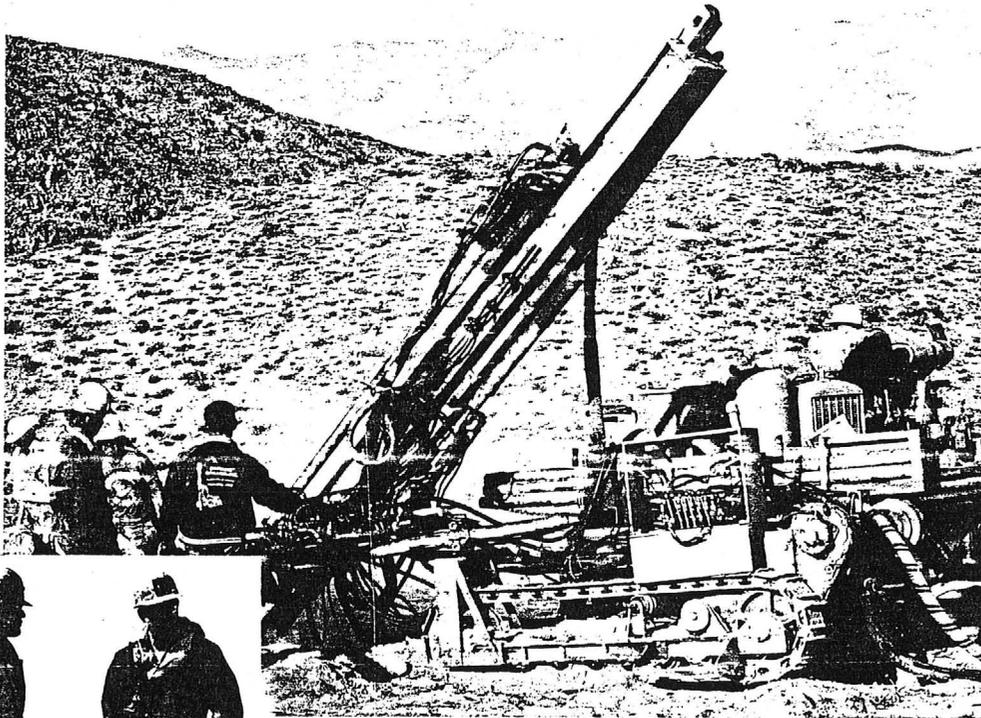
Project exploration in 1988 consisted of 8,225 feet of reverse circulation drilling, backhoe trenching and mapping to evaluate the Davenport vein system for bulk tonnage gold mineralization. Reserves in all categories at the Davenport deposit are now estimated to exceed 1,200,000 tons at a grade of 0.054 ounces of gold per ton. There is potential for an additional 600,000 tons of lower grade in the Hermosa area.

Metallurgical column leaching test work on bulk samples of Davenport ore yielded recoveries of 85.7% in 44 days on minus 1/2 inch crushed ore. Preliminary engineering studies included ore reserve definition, mine design and cost estimation. Environmental baseline studies were carried out to evaluate vegetation, wildlife and reclamation requirements.



Dos Cabezas, Arizona. Miner Bill Eddins slabbing down loose rock after recent blast in No. 9 stope, 80 feet above the 5A level. The vein is dipping at 60°, and in this location has a true width of 6 feet and an average grade of 0.35 ounces gold per ton.

Argus-Davenport Property, California. Track mounted reverse circulation machine drilling on the Davenport fissure-vein zone. During 1988, 31 holes were completed totalling 8,225 feet.



Queenstake Chairman, Richard C. Atkinson (r), and consultant geologist, Eric Ostensoe, during the Northwest Mine Tour. Investment analysts visited Golden Sitka's Chichagof property and Queenstake's Pine Creek placer gold property.

Buckskin National, Nevada. Hand specimen of silicified breccia ore from the Bell vein — a classic example of a bonanza grade epithermal vein system. This specimen has a grade of 2 to 3 ounces gold per ton and 20 to 30 ounces silver per ton.



GOLD PRINCE (F)

GOLD RIDGE (F)

TO OUR SHAREHOLDERS:

Highlights of the Third Quarter

- 1988 production projected at 13,800 ounces gold — a record!
- Cash position at September 30 of \$1.96 million, a 16% increase over previous year.
- Dividend of 2½¢ declared November 18, 1988 and payable January 6, 1989.
- First shipment of gold bearing silica flux from Dos Cabezas.
- Buckskin National Mine project back on track — legal dispute settled.

FINANCIAL

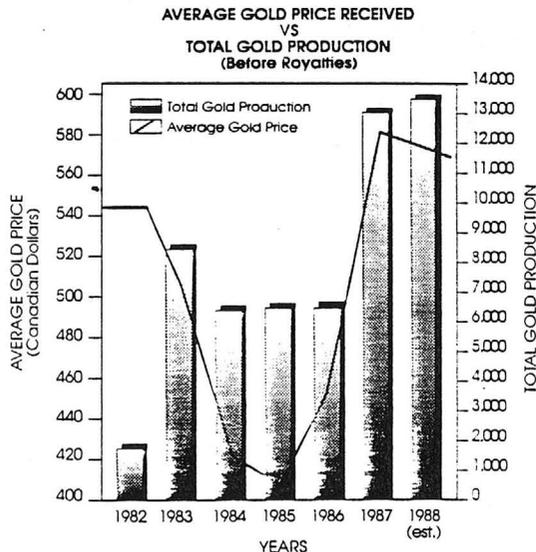
Gold sales for the nine month period to September 30, 1988 were 11,555 fine ounces, with a further 980 ounces added to inventory, for a total of 12,535 fine ounces produced. This is 29% above the 9,683 fine ounces of gold produced during the comparable period last year.

The Company realized an average gold price of US \$460 per ounce as a result of successful hedging operations covering 39% of sales to September 30, a premium of US \$23 per ounce over the average world gold price. Revenue for the nine month period was \$6.3 million, an increase of 49% over last year. Direct operating costs per fine ounce produced increased by only 1%. Consequently, cash flow from operations for the nine month period of \$1.3 million exceeded last year's comparable figure by 45%.

The most significant use of funds in the third quarter was an expenditure of \$228,000 on the surface and underground exploration programs at Dos Cabezas, Arizona, as well as \$285,829 expended on placer exploration programs in the Atlin and Cariboo districts of British Columbia.

General and administrative costs have increased over last year, due to growth in the size and activities of the Company, coupled with a more active investor relations program.

A dividend payment of 2½¢ per share has been declared payable on and after January 6, 1989 to shareholders of record on December 15, 1988 provided that in lieu of cash, shareholders of record holding 1,001 or more shares will be paid a stock dividend of fully paid and non-assessable shares of the capital of the Company based on the average closing price of shares of the Company on The Toronto Stock Exchange for the 5 trading days preceding December 15, 1988 (the "Issue Price") and further provided that fractions of shares will be rounded up or down, as the case may be, to the nearest whole number.



OPERATIONS FROM PLACER MINING DIVISION

Gold production from the 1988 placer mining season is projected to be a total of 13,800 fine troy ounces. This is a second consecutive record production year. Distribution of production was 43% from the Pine Creek Mine, B.C., 23% from the Moyie River Mine, B.C. and 34% from the two mines in the Klondike region, Yukon.

An early April, 1988 start to the processing of the winter ore stockpile at the Moyie River Property, located in south-eastern British Columbia, resulted in much earlier cash flow from operations than experienced in previous years. This continuous winter mining operation at Moyie will provide an ore stockpile which will generate revenue by May, 1989 and, combined with additional mining equipment on site, is projected to increase 1989 Moyie production by one-third. The Pine Creek operation, located in northern British Columbia, will also be starting the 1989 season with a large amount of pre-stripping completed and an ore stockpile.

Queenstake carried out exploration programs, including 3,000 feet of drilling on its operating mines and on six properties in the Yukon and British Columbia in 1988. An active placer exploration and acquisition program will be continued in 1989 to expand gold reserves.

HARDROCK EXPLORATION/DEVELOPMENT PROJECTS

Dos Cabezas Project, Cochise County, Arizona

(100% Queenstake)

Material derived from the underground exploration program has been shipped as gold bearing silica flux to Phelps Dodge's Hidalgo Smelter at Playa, New Mexico, 120 miles from the Dos Cabezas property. The initial shipment of approximately 500 tons at 0.37 ounces gold per ton was made the first week of November. Silica flux, with precious metal value, is in high demand by the local copper smelters. In excess of 83% of the gold value in the flux will be received, thereby, generating immediate cash flow from this project for ongoing exploration and development, without incurring the cost and delays of environmental permitting or construction of a mill facility.

Drilling is ongoing on the 5A Level, with 4,200 feet drilled in 15 holes to date. Additional drilling is underway from the 4 Level in order to evaluate a target believed to contain in excess of 100,000 tons of reserves above the previously worked stopes to the west of the present workings on the 5A Level.

Surface mapping and sampling is proceeding in preparation for a surface diamond drilling program on the upper Gold Prince vein system and the adjacent Gold Ridge and Arizona Klondike mines, scheduled for early 1989. A surface trench sample from the Arizona Klondike claims averaged 0.27 ounces per ton gold over 30 feet of length in a highly oxidized shear zone within Cretaceous carbonates and clastic sediments. This zone has a strike length of over 1,750 feet and represents one of the prime exploration targets on the property.

As exploration continues at Dos Cabezas a better understanding of the complex geology and ore deposition is being achieved, resulting in a more efficient drill program and mine development.

Argus Project, Inyo County, NE of Randsburg, California

(40% Queenstake, 60% Childs International)

As a result of the 1988 exploration/drilling program, reserves in the Davenport area are now estimated to exceed 1,200,000 tons at 0.054 ounces per ton gold. The potential for an additional 600,000 tons in another zone at 0.03 ounces per ton gold to a depth of 200 feet will be evaluated in 1989.

Engineering studies including open pit modelling, mine plant design, equipment sizing, and capital/operating cost are ongoing to generate input for a prefeasibility study. Environmental baseline studies have been completed and it is believed that there will not be any adverse environmental aspects with the proposed mine plan.

1987 ANNUAL REPORT

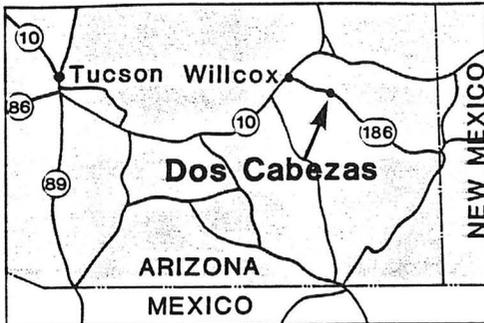
Dos Cabezas, Arizona

In 1987, Queenstake conducted an intensive underground sampling program at the Gold Prince Mine, aggregating over 600 samples. All principal structures were sampled at 5 or 10 foot centers. Following the sampling program, underground rehabilitation, construction of surface facilities, installation of services and mining equipment acquisition were completed.

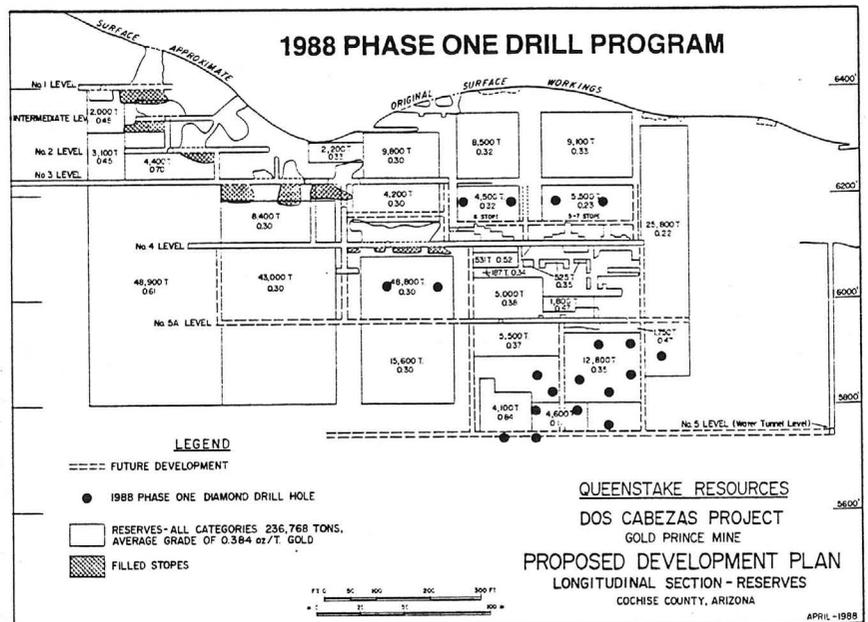
A 6,000 foot underground diamond drilling program is planned at the mine to evaluate the extensions of ore reserves defined in Queenstake's 1987-1988 mapping and sampling program and by 9,000 feet of previous diamond drilling done by Phelps Dodge Corporation between 1983 and 1986. A series of three en echelon gold bearing quartz-sulfide veins will be tested in the program, with the goal of bringing the reserves to the drill indicated category. A feasibility study will then be undertaken to evaluate the deposit and define a mining development plan.

Drilling will be conducted by a contractor using a new underground drill recently purchased by Queenstake. The drilling will be done from both existing underground drill stations on the 5A Level and from new stations being constructed on the 5A and 4 Levels of the mine. The vein system will be tested along nearly 1000 feet of strike length and 500 feet of vertical extent.

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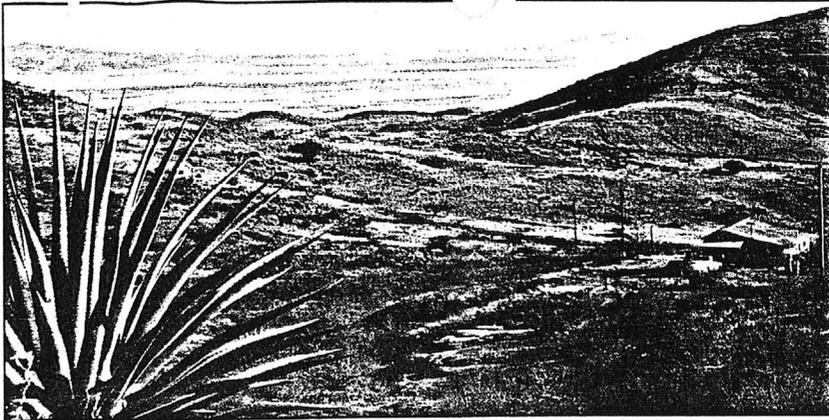


GOLD PRINCE (P)



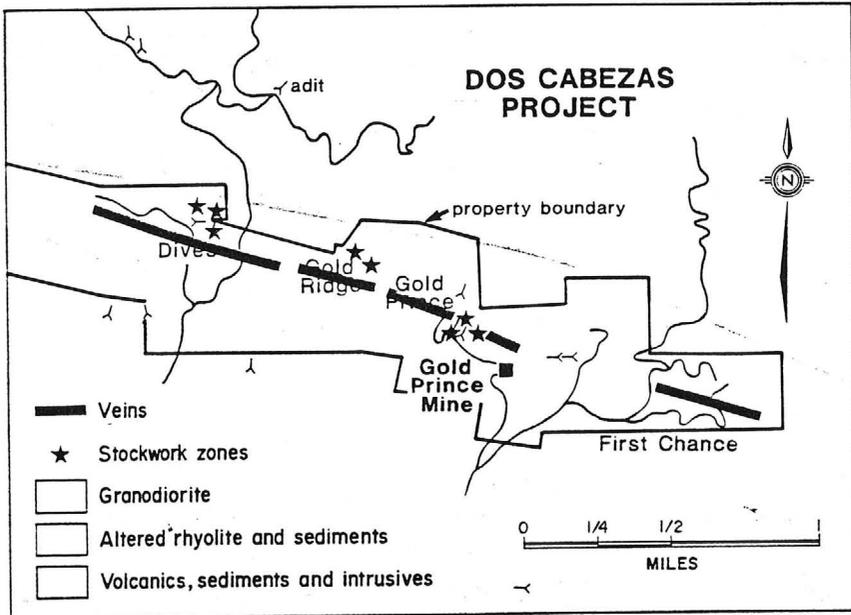
Mine equipment purchases from former operator Phelps Dodge Corporation helped to speed the project to completion at substantial savings over projected equipment costs.





View from the Gold Prince Mine, Dos Cabezas, looking past the home of Kay and Lewis Stickradt (head of mine security) to the flats.

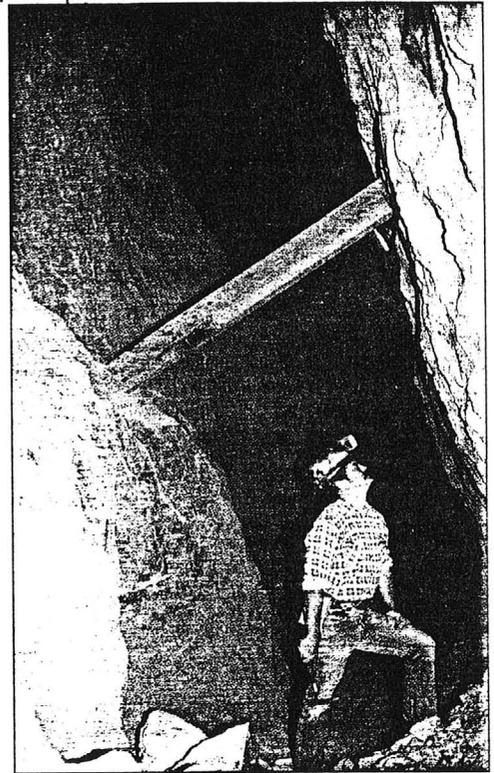
Additional claim locations made by Queenstake have almost doubled the project area, including both lode and mill site locations.



The mine rehabilitation program was directed by Mine Manager, Al Voirin, with Project Geologist, Tim Pearson.



Al Voirin, Dos Cabezas mine manager (l) and Tim Pearson, project geologist (r), inspecting Dos Cabezas structure.



Dave Hembree, Queenstake's U.S. manager of exploration, examining underground workings in the Gold Prince Mine, Dos Cabezas project. In 1988, a 6,000 foot underground drilling program is planned to define reserves for a production decision.

[Handwritten signature]

and ribs give a weighted average grade of 0.534 ounces of gold per ton over a vein width of 5.4 feet. The vein contains a 0.5 to 2.0 foot wide footwall sulfide zone of massive pyrite, galena and sphalerite which has assayed up to 5.83 ounces of gold per ton, and consistently over 1.0 ounces of gold per ton. Drill hole GP-16 intercepted the vein 65 feet below the 5A Level, and including the 40 feet of vein exposed in the raise above the level, gives over 100 feet of dip length on the vein structure. On the 4 level 120 feet above the 5A Level on the dip of the vein, the structure assays 0.251 ounces of gold per ton over an average width of 5.5 feet along the 25 feet of exposed vein.

Metallurgical test work completed by Bateman Metallurgical Laboratories has shown that a combined gravity-flotation circuit on the Dos Cabezas vein material yields a 97.8% gold recovery. A gravity concentrate of 3.46 ounces of gold per ton and a flotation concentrate on the gravity tails of 1.282 ounces of gold per ton were produced with 3.52 and 3.25 ounces of silver per ton, respectively, also recovered. The bulk samples from the raise and drift will be sent to a local smelter as silica flux for additional metallurgical testing.

Queenstake Resources, Ltd 1988 - Second Quarter Report

- **Dos Cabezas Project, Arizona, exploration drilling and underground development**

The 1988 exploration/development program at the Dos Cabezas, Arizona project is proceeding with underground diamond drilling and exploration drifting underway. The diamond drilling program, slated to total 6,000 feet, is being conducted from the 5A Level of the mine and is targeted to bring the reserves to a level of confidence sufficient for a mine feasibility decision. The drilling program is testing the extensions of reserves defined by over 9,000 feet of diamond drilling conducted by Phelps Dodge between 1984 and 1986 and by recent sampling completed by Queenstake. Preliminary drill results have indicated that additional reserves are possible in en echelon veins within the overall Dos Cabezas shear zone which averages 100 to 200 feet in width at the Gold Prince Mine.

An 80 foot exploration drift has been driven on the No. 2 vein structure on the Gold Prince 5A Level, revealing a typical Dos Cabezas shoot. A test raise was driven on the east end of the mineralization and has been carried up for forty feet above the drift back. Chip channel samples of the raise faces

ARIZONA DEPT. OF MINES & MINERAL RESOURCES
STATE OFFICE BUILDING
416 W. CONGRESS, ROOM 161
TUCSON, ARIZONA 85701

NAME OF MINE: GOLD PRINCE
 OWNER:

COUNTY: Cochise
 DISTRICT:
 METALS: Au, Ag, Pb, Zn

E

OPERATOR AND ADDRESS		MINE STATUS	
Date:		Date:	
11/44	Thos. Bean, Dos Cabezas	11/44	Developing
		2/46	Idle
9/46	Wm. Dorsey, Dos Cabezas	9/46	Developing
12/46	W. R. Shanklin, San Antonio, Texas	10/46	Shipping
		12/46	Idle
3/47	W. R. Shanklin, Dos Cabezas	3/47	Developing

SUTTON Inc.
 SUTTON, STEELE AND STEELE (OWNERS)
 Dallas, Texas

'44

MINE - GOLD PRINCE - Dos Cabezas, Cochise Co. - on southerly slope of Dos Cabezas Mountains - General bearing east to west.

President - Mr. Edwin G. Steele, Sutton, Steele and Steele, Inc.,
 Dallas, Texas

GOLD HILL 1, 2, 3, 4, 5 & HIGHLONESOME

Au

Cochise

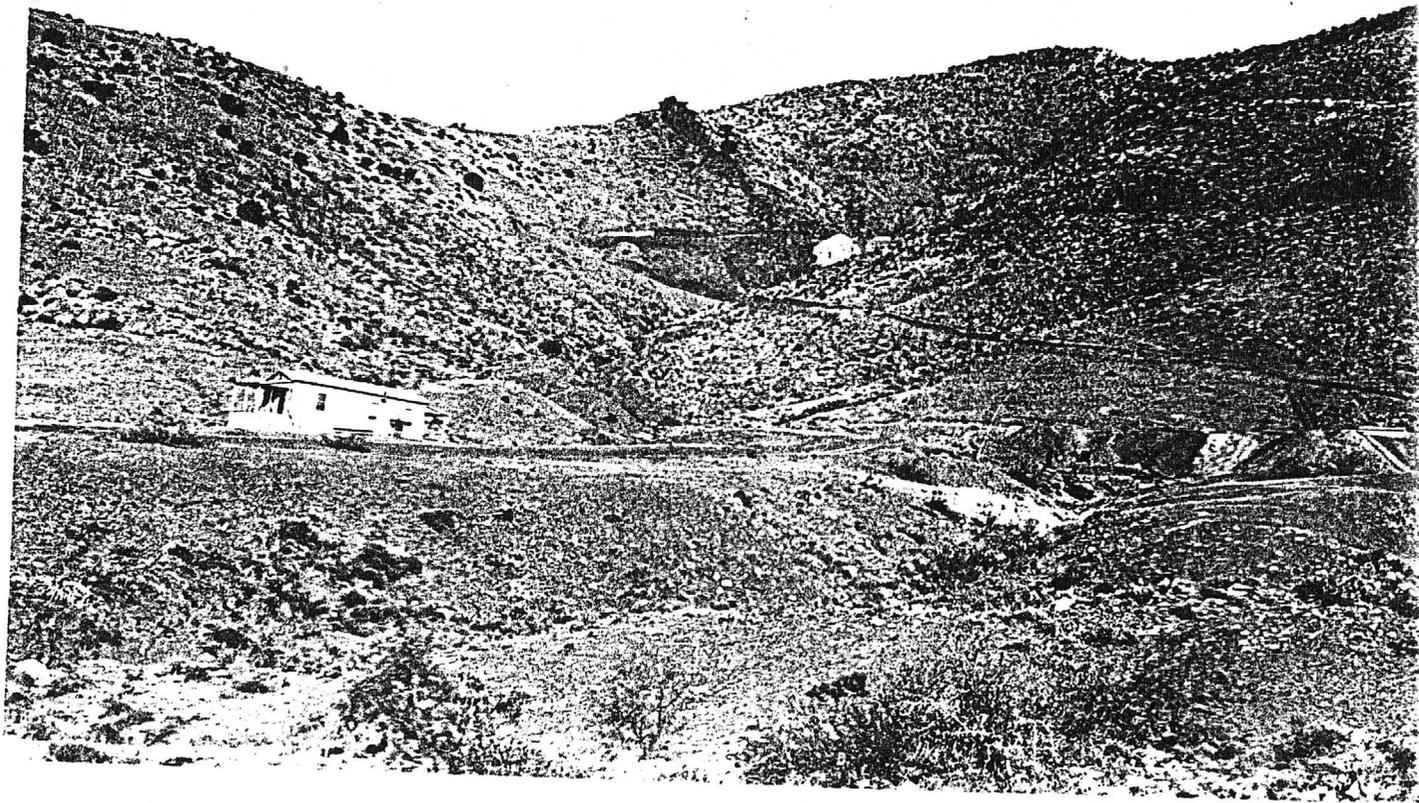
2 - 2

Sec. 11, T 14 S, R 26 E

Ralph Parker et al, Wilcox, Ariz.

'46

A-60-7 GOLD PRINCE 1997



MINE VISIT REPORT

MINE: Gold Prince

DATE: 5/12/89

COUNTY: Cochise

ENGINEER: Nyal Niemuth
Ken Phillips

Property Overview

Information From: Al Voiran - Queenstake's Manager at Gold Prince

No production occurred in May.
Current activity consists of developing two-3,000-5,000 ton stopes for June.
Grades of 1/3 ounces Au common in the silica flux produced.
Generally no penalties for Pb or Fe but occasionally however, minor aluminum penalty.

Presently 15 employees including management are employed.

Underground Tour

Geologist Thomas Pierson provided the following information.

Activity is currently on levels 3, 4 and 5. Levels 1 and 2 were mined by previous generations.

Principal development and drilling is on level 4 and 5.

Exploration drilling has been the principal activity until recently. Queenstake's management has now asked that they produce 1,000 tons/month.

.05 to .15 Au oz/ton material is currently being stockpiled for later shipping or milling. Material above .15 is blended to produce .3 grade material for shipping as siliceous flux to Phelps Dodge's Hidalgo smelter.

Current underground work uses rail, 1-ton cars and overshot muckers. Ore is coming from shrink stoping, slushed to ore cars, then trammed in cars on the 5A level. A front end loader is used to load highway trucks.

Planned development below the 6A level will be a 10' x 11' decline to access the number 1 and 2 veins for the next 300'. Ore haulage will be by 10-ton underground trucks. One-half and one yard LHDs will be used on the new lower levels to minimize waste mined. A composite plan of the underground workings was obtained for our files.

Mineralogy/Geology

The mineralized system is within the Apache Pass fault zone. Tensional openings are filled with quartz veins. Although veins are known in the older

granites only those hosted in limestones are currently being developed.

Fluid inclusion work has not been done but the mineralization is thought to be mesothermic. Rock contacts are clean and basically unaltered. Vein geometry and ore grade distribution are controlled by the complex, curved sigmoidal geometry of the faulting. Veins are curvilinear, both on strike and on dip. Generally the vein systems are west striking and of steep to moderate dips to the south.

Mineralogy of the vein consists of mainly quartz with minor calcite, pyrite, pyrrhotite, chalcopyrite, galena, and sphalerite. The highest reported copper assay on shipment was .4%. Although gold is associated with pyrite and pyrrhotite it is usually within pyrite grains. Although free gold is occasionally seen, it is typically less than 30 microns in size. Mineralized widths up to 28 feet are reported in drilling but typical stope widths were 8-10 feet. Large up to 30 feet wide, mostly barren quartz veins are conspicuous in outcrop to the south of the main mineralized zone. Occasionally a foot of mineralization grading .04 Au, occurs next to the hanging wall. Frequently fault contact of all the vein systems will consist of graphitic gouge. The graphite has been mobilized out of reduced back shales in the sedimentary section (??).

One deep hole was drilled on the vein system when Phelps Dodge had the property. It (probably?) tested the continuity of the veins and mineralization at depth. Detailed surface program of geologic mapping has been conducted. A "wild cat" surface drill program has been proposed to some possible targets that were mapped further west.



Nyal Niemuth, Mining Engineer

GOLD PRINCE MINE

COCHISE COUNTY

MG WR 2/26/88: John Taylor of the State Mine Inspector's office reports that he received a start-up notice for the Gold Prince mine (file) Cochise County from Queenstake Resources.

NJN WR 4/8/88: John Dowis (card) reported that our address for Annette and Mary Jo Mowinkle (card), owners of the Gold Prince (file) Cochise County, is incorrect. I have obtained their correct one: 9050 N. 40th Street, Phoenix, Arizona 85028 phone 996-6961.

GOLD PRINCE MINE

COCHISE COUNTY

MG WR 2/7/87: Mr. Terry Antoniuk (c) of Toronto was in to review the Gold Prince (file) Cochise County. He reports that his company (Rayrock Yellow knife Resources Inc.) has been asked by Queenstake Resources to participate in the exploration and development of the Gold Prince mine. (The property package apparently also includes the First Chance, Gold Ridge and Dives areas; all in files of Cochise County.) Mr. Antoniuk expressed the hope that enough tonnage could be developed to supply a 200 to 400 tpd mill on the property.

MG WR 3/13/87: Have learned that Rayrock's proposal to Queenstake Resources was rejected. Apparently Apex Energy Co of Canada (c) is interested in making an offer to Queenstake for joint work on the Gold Prince (file) Cochise Co.

MG WR Messrs. Bill Peters (card) and Ed Jucevic prepared a report recently on the Gold Prince mine (file) Cochise Co. I believe this work was done for Queenstake Resources (card). I understand that Queenstake wants to have some fill-in drilling done to compliment Phelps Dodge's earlier drilling. Apparently Apex Energy of Canada has been dropped from consideration as a venture partner.

MG WR 6/13/87: Correction concerning my last entry dated 5/29/87 in the Gold Prince file (Cochise Co): The report prepared by Messrs. Peters and Jucevic was done several years ago for the Mowinckle family, owners of the property. The report was done just prior to negotiation of an agreement with Phelps Dodge.

MG WR 10/31/87: Learned that Queenstake Resources Ltd (card) has completed a detailed sampling program at the Gold Prince mine (file) Cochise County. The company has apparently hired a superintendent and plans to add five men.

NJN WR 11/6/87: Mike Pawlowski, geologist, Phelps Dodge Morenci branch, reported that Phelps Dodge is actually paying for flux and is looking for sources. They may try to get Echo Bay at Congress (file) Yavapai County to ship flux to a Phelps Dodge smelter.

GOLD PRINCE MINE

COCHISE COUNTY

NJN WR 3/21/86: Phelps Dodge is closing their operation at the Gold Prince (f) Cochise Co. at the end of March reported Michael Pawolski. They will be leaving some .5 - 2 oz/ton gold ore developed but unmined. It is now known whether they will let a subcontractor mine their developed reserve or just cut the property loose.

NJN WR 6/27/86: Dan Maxwell (c) reported that a Canadian resource group outbid him for the rights to the Gold Prince (f) Cochise County. The Canadian group apparently obtained the rights to the property by promising the owners that they would construct a mill there.

CJH WR 11/14/86: Visitor, Herbert Kuglmeir (c). Used BLM microfiche to check on the legal descriptions of his claim group. He reported that the Gold Prince mine, Dos Cabezas district, Cochise Co (MILS #79) formerly leased to Queenstake Resources Ltd. of Vancouver, .B.C. Canada.

CJH WR 11/28/86: Dona Anderson, Consultant, Green Valley, Az (c). Don reported that the following addresses and phone numbers need changing in our files: Ms Annette Mowinckle and the lessee of her Gold Prince, Gold Ridge and Dives properties in the Dos Cabezas district, Cochise Co, Queenstake Resources Ltd.

NJN WR 11/24/86: David Hembree, Senior Mine Geologist, Queenstake Resources Ltd (c) P O Box 50098, Reno, Nevada 89513, 702-356-3888, reported that Queenstake has just leased the Gold Prince Mine (file) Cochise County from Annette Mowinckle. He reported they have about 200,000 tons of 1/2 au/ton ore blocked out. They are not sure if they will ship precious metal silica flux to Phelps Dodge smelter or if they will process the ore in some other fashion. Queenstake is planning to examine the surrounding properties (Gold Ridge - file and Dives - file) Cochise County.

MG WR 1/16/87: Provided file information on the Gold Prince mine (Cochise Co) to Mr. Terry Antoniuk of Rayrock Resources, Toronto. He reports the current lessee, Queenstake Resources, is seeking a partner.

GOLD PRINCE MINE

COCHISE COUNTY

Mr. Stickradt has been connected with Gold Prince for some time. Mr. Luis Stickradt says there is no change at the Gold Prince. GWI WR 6-5-65

Visited the Gold Prince mine - no one home. GWI WR 10-8-66

Mine visit - Gold Prince Mine - L. Stickradt GWI WR 2-8-71

Mine visit - Gold Prince Mine. GWI WR 4-12-71

Mine visit - Gold Prince mine. GWI WR 6-7-71

Mine visit at Gold Prince mine. L. Stickradt who lives in company house was not at home. GWI WR 3/19/75

WR CJH 6/17/83: Canudo Sena, Deputy State Mine Inspector reports that the Phelps Dodge crew working on the Edith Mine, Jerome District, is now being transferred to the Gold Prince Mine, T14S R27E Dos Cabezas District, Cochise County where retimbering is in progress. The open workings will be sampled.

MG WR 4/6/84: Mr. Lewis Strickradt reports he shipped 46 rail cars from the Gold Prince mine (Cochise Co) during 1949-50.

CJH WR 7/12/85: Visitor: Herbert Kuglmeier (c) reported that six plus Phelps Dodge employees are working the Gold Prince mine, Dos Cabezas district, Cochise County (f) and shipping 1200 plus/mo of smelter flux to Douglas averaging \$1 million in au. This is rumor and undocumented.

CJH WR 3/21/86: Eddie Martin, Asst. State Mine Inspector (c) reported that his office had received a letter from Stan Holmes, P.D. Safford Br (c) to the effect that active mining ceased at the Gold Prince Mine, Dos Cabezas district on March 7, 1986. Equipment will be removed from the mine and returned to the Safford property of Phelps Dodge no later than March 28. The lease agreement for the mine has been terminated effective the end of March. It will revert to the owners: Ms. Annette Mowinckle % Green and Slade, 26335 Carmel Ranchos Blvd., Carmel, Ca 93923 and Ms. Mary Jon Mowinckle, 9050 N. 40th St, Phx, Az 85028.

ABSTRACTED FROM ADMMR ACTIVE MINES DIRECTORY, 1992

Cochise County

QUEENSTAKE RESOURCES USA INC.

Gold Prince T14S R27E Sec. 22

P.O. Box 217, 241 S. Haskell Suite 102, Willcox, AZ 85644 - Phone 384-4337 -
Employees - 6 - Located 17 miles southeast of Willcox - Underground gold mine
- Producing gold bearing silica flux for copper smelter.

President Gordon Gutrath
Mine Superintendent Alfred Voirin

ABSTRACTED FROM ADMMR ACTIVE MINES DIRECTORY, 1991

QUEENSTAKE RESOURCES USA INC.

Gold Prince Mine T14S R27E Sec. 22

P.O. Box 217, 241 S. Haskell Suite 102, Willcox, AZ 85644 - Phone
384-4337 - Employees: 5 - Located 17 miles southeast of Willcox -
Underground gold mine - In development to produce gold bearing silica
flux for copper smelter.

President Gordon
C. Gutrath
Mine Superintendent Alfred
Voirin
Project Geologist.....Tim
Pearson

ABSTRACTED FROM ADMMR ACTIVE MINES DIRECTORY, 1990

QUEENSTAKE RESOURCES USA INC.

Gold Prince Mine T14S R27E Sec. 22

P.O. Box 217, 241 S. Haskell Suite 102, Willcox, AZ 85644 - Phone
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Underground gold mine - In development to produce gold bearing silica
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President Gordon C. Gutrath
Mine Superintendent Alfred Voirin
Project Geologist.....Tim Pearson

ABSTRACTED FROM ADMMR ACTIVE MINES DIRECTORY, 1989

QUEENSTAKE RESOURCES USA INC.

Gold Prince Mine

T14S R27E Sec. 22

P.O. Box 217, 241 S. Haskell Suite 102, Willcox 85644 - Phone 384-4337 -
Employees 16 - Located 17 miles southeast of Willcox - Underground gold
mine - Producing gold bearing silica flux for copper smelter.

President Gordon C. Gutrath
Mine Superintendent Alfred Voirin
Project Geologist.....Tim Pearson

ABSTRACTED FROM ADMMR ACTIVE MINES DIRECTORY, 1988

QUEENSTAKE RESOURCES USA INC.

Gold Prince Mine

T14S R27E Sec. 22
P.O. Box 217, 241 S. Haskell Suite 102, Willcox 85644 - Phone 384-4337 -
Employees 21 - Located 17 miles southeast of Willcox - Underground gold mine
under development.

President Gordon C. Gutrath
Mine Superintendent Alfred Voirin

Date Printed: 12/14/92

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES

VERBAL INFORMATION SUMMARY

Information from: Alfred Vorin

Company: Queenstake Resources

Address: P.O. Box 217
City, State ZIP: Wilco AZ 85644
Phone: 602-384-4337

MINE: Gold Prince

ADMMR Mine File: Gold Prince Mine
County: Cochise
AzMILS Number: 79

SUMMARY

Mr. Vorin reported that the mine has been shut down and they are selling off the equipment. The track, pipe, and wiring is being left in the mine and a watchman will be located at the mine site.

Negotiations are underway with another Canadian company to take over and operate the mine.

The operation has been dropped from our Directory of Active Mines for 1993.

Ken A. Phillips, Chief Engineer

Date: December 14, 1992

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES

VERBAL INFORMATION SUMMARY

1. Mine file: GOLD PRINCE
2. Mine name if different from above:
3. County: Cochise
4. Information from: Al Vorin

Company: Queenstake Resources USA Inc.

Address: P.O. Box 217

Wilcox, AZ 85644

Phone: 384-4337

5. Summary of information received, comments, etc.:

Mr. Vorin reports the company is mining a 1500 ton pillar and producing ore from development headings made for diamond drilling. They hope to ship 500 tons in February and another 500 tons per month thereafter. I informed him of the publication of USGS Bull 1676 "Volcanic and Structural Control of Mineralization in the Dos Cabezas Mountains of Southeastern Arizona". He invited the department engineers to come visit their operation.

Date: January 27, 1989

Nyal J. Niemuth, Mining Engineer

NEWS RELEASE

News Release 89-1

August 31, 1989

12g Exemption # 82-565

OPTION AGREEMENT SIGNED ON THE DOS CABEZAS PROPERTY

ARGUS PROJECT REVERTS TO QUEENSTAKE

Dos Cabezas Project, Willcox, Arizona

Queenstake Resources Ltd. is pleased to announce that an option to earn a 50% interest in the Dos Cabezas property has been granted to PBX Resources Ltd. (VSE:PBX) of Vancouver. Under the terms of the agreement PBX is required to spend U.S. \$1.5 million on exploration and development over a three year period and will become vested with a 25% interest once U.S. \$750,000 has been spent. Queenstake will remain the operator of the project.

The Dos Cabezas property, located near the town of Willcox in south eastern Arizona, consists of 59 patented and unpatented claims with 70 acres of deeded surface land encompassing the principal former producing mines of the Dos Cabezas District. Queenstake's work to date has defined a mineral inventory of 106,000 tons grading 0.37 ounces of gold per ton in the Gold Prince Mine. Queenstake is carrying out development work to ship up to 1,000+ tons per month of gold-bearing silica flux to the Phelps Dodge Hidalgo Smelter in Playas, New Mexico. Revenue from these shipments is used to partially fund on-going mine development and exploration.

The objective of the exploration and development program to be funded by PBX is to increase proven reserves, work toward a production rate of 200-300 tons per day and carry out a feasibility study to determine whether bulk shipping of ore should continue or if an on-site milling facility is justified. Currently, Queenstake receives credit for 85% of the gold from smelter shipments due to the high quality of the silica.

The aforementioned agreements are subject to the approval of the Boards of both companies.

Argus Project, Ridgecrest, California

The Argus property, which was being developed under an option agreement with Childs International Inc., an Australian real estate and financial concern, has reverted to Queenstake with Childs International retaining a 10% post payout net profits interest capped at U.S. \$550,000. Childs International spent in excess of U.S. \$500,000 over the past two years pursuant to the option agreement, however they have advised Queenstake that they are unprepared to fund their ongoing obligations. The Argus is currently estimated to contain 1.2 million tons of drill proven reserves grading 0.054 ounces of gold per ton and .8 million tons of drill inferred reserves grading 0.035 ounces of gold per ton on the Davenport vein structure.

TSE SYMBOL:



9th Floor
850 West Hastings Street
Vancouver, B.C. V6C 1E1
Telephone: (604) 684-1218
Facsimile: (604) 684-9959

Column leach testing on bulk samples of Davenport ores indicate +85% gold recoveries in 44 days at $-\frac{1}{2}$ inch crushing with no agglomeration necessary and low reagent consumption. Grinding index testing and cyanide detoxification tests have also been run on the Davenport ores, yielding very favourable results.

Environmental baseline studies have been completed, including vegetation, wildlife, archaeology and soils surveys. Final permitting leading to production has been estimated to require four to six months of preparation and processing.

Queenstake is presently carrying out water resource evaluation studies on the property and will continue to advance the project to production feasibility.

-30-



Gordon C. Gutrath
President

For further information please contact:

John A. McCluskey
Manager, Investor Relations

RECEIVED

SEP 07 1989

QUEENSTAKE RESOURCES LTD.
CONSOLIDATED CASH FLOW STATEMENT
THREE MONTHS ENDED MARCH 31
(UNAUDITED)

	1989	1988
Operating activities		
Net loss	\$ (245,083)	\$ (70,018)
Items not involving cash		
Depreciation and depletion	40,270	7,339
Share of loss of equity investments	4,733	440
Working capital used for operations	(200,080)	(62,239)
Accounts receivable	88,116	98,852
Inventories	(695,025)	(490,013)
Accounts payable	214,454	(16,287)
Cash used for operating activities	(592,535)	(469,687)
Investing activities		
Resource property costs recovered	72,500	—
Expenditures on investments, resource properties and equipment	(881,962)	(348,094)
Cash used for investing activities	(809,462)	(348,094)
Financing activities		
Issue of and subscriptions for shares (net of issue costs)	250,285	546,626
Debt issues	1,295,000	—
Debt repayment	(455,251)	(75,000)
Cash dividends	(28,009)	—
Cash from financing activities	1,062,025	471,626
Decrease in cash	(339,972)	(346,155)
Cash, beginning of period	816,644	2,742,407
Cash, end of period	\$ 476,672	\$2,396,252

On behalf of the Board of Directors


Director


Director

QUEENSTAKE RESOURCES LTD.
CORPORATE INFORMATION

Directors:

Richard C. Atkinson
H. Victor Bradley
Lauch F. Farris
V. Le R. Furlong
Gordon C. Guttrath
Charles W. Laycock
John A. McLallen

Officers and Senior Employees

Richard C. Atkinson, Chairman
John A. McLallen, Chairman Emeritus
Gordon C. Guttrath, President and Chief Executive Officer
J.A. (Jim) Currie, Vice President, Operations
Beverly D. Downing, Vice President, Administration and Corporate Secretary
Doris A. Meyer, Vice President, Finance
John A. McCluskey, Manager, Investor Relations
David R. Hembree, U.S. Exploration Manager
David Genn, Placer Operations Manager
Wayne Lerner, Equipment Manager
Alfred Voirin, Mine Manager, Dos Cabezas

Capitalization:

50,000,000 shares authorized - no par value
9,940,367 issued as at April 30, 1989

Registered and Records Office:

9th Floor, 850 West Hastings Street
Vancouver, B.C. V6C 1E1
Tel: (604) 684-1218
Fax: (604) 684-9959

Regional Offices:

Yukon: 115 Jasper Road
Whitehorse, YT Y1A 2Z8
Tel: (403) 667-4620
Fax: (403) 668-4830

Nevada: Suite 1, 1215 Kleppe Lane
Reno, NV 89431
Tel: (702) 356-3888
Fax: (702) 356-8543

Arizona: 241 South Haskell Avenue
Willcox, AZ 85643
Tel: (602) 384-4337

Registrar & Transfer Agent:

Royal Trust Company
Bentall Centre One
505 Burrard Street
Vancouver, B.C. V7X 1K2

Listings:

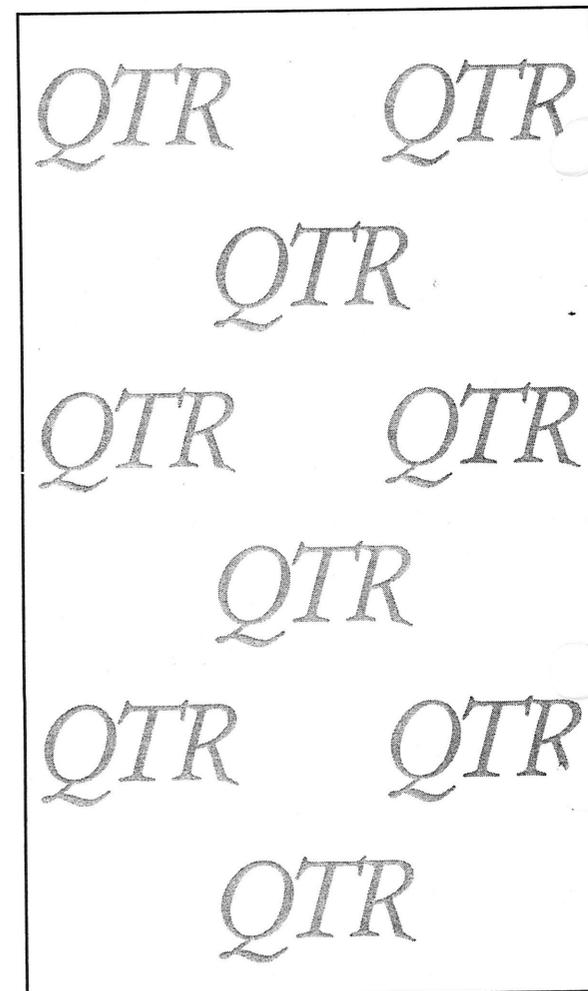
Toronto Stock Exchange — Symbol QTR; OTC in the U.S.
Standard & Poor's Listing
12 G Exemption # 82-565

GOLD PRINCE (f)

RECEIVED
JUN 06 1989



Queenstake Resources Ltd.



**FIRST QUARTER
REPORT 1989**

THE SHAREHOLDERS

The first quarter saw the completion of the Company's winter maintenance program in preparation for the 1989 mining season which commences in late May. The mining camps at our five placer operations opened as scheduled with mild spring weather contributing to a smooth start-up.

Moyie River, B.C.

Located 17 miles south west of the city of Cranbrook, Moyie River is Queenstake's first year round placer operation. During the winter 45,000 cubic yards of ore was stockpiled containing in excess of 2,000 ounces of gold. The first two gold shipments, containing 890 fine ounces, were delivered by May 16th after processing 15,000 cubic yards of this ore. The forecast production for 1989 is 4,600 fine ounces for this operation.

Pine Creek, B.C.

Located 5 miles north east of Atlin, the Pine Creek property commenced pre-production overburden stripping in mid-March. Production commenced May 15th with over 60,000 cubic yards of ore ready for processing. The objective for the season is to produce 5,700 ounces.

Spruce Creek, B.C.

A tributary of Pine Creek, Spruce Creek is located 5 miles east of Atlin. Spruce Creek was purchased in December, 1988 together with mining equipment then in place. Queenstake has developed a mine plan and added additional equipment to increase the scale of the operation to 6,000 ounces per year. Preparatory work began in late March and production is scheduled to commence on June 1st. Our objective is to establish a year round operation at Spruce Creek, and to this end, an exploration program to expand reserves will be carried out in conjunction with production in 1989.

Black Hills, Yukon

The Black Hills operation is located 80 miles south east of Dawson City. Queenstake has produced 14,000 ounces over the past 6 years at Black Hills. During the coming season an extensive exploration and sampling program will be carried out, financed by limited production from mining cuts on an area of the property with well established ore reserves.

M. / May Creek, Yukon

The Maisy May Creek camp opened on April 20 upon completion of road construction from Black Hills. Clearing of overburden is currently underway and production is scheduled to start on May 25th with a target production of 3,700 ounces for 1989.

Dos Cabezas, Arizona

During the first quarter, 1,200 tons of silica flux grading 0.322 ounces of gold per ton were shipped to the Phelps Dodge refinery in Playas, New Mexico. By July, with three working stopes developed, production will increase to 1,000 tons per month. Some 3,000 ounces of gold will be produced at Dos Cabezas during 1989. Cash flow from this operation will be used to fund exploration, to establish additional reserves at depth and along strike of the Gold Prince vein system and at the adjacent Gold Ridge and Dives mines.

Analysis of First Quarter Financial Results

Operating activities during Queenstake's first quarter generally see no gold production but consist of preparing for the new season and selling any gold in inventory from the previous placer mining season. Consequently, almost all operating costs are deferred to be expensed against the new season's placer gold revenues.

Financing activities resulted in \$840,000 of additional long-term debt incurred to acquire the Spruce Creek placer property and to supplement the capital equipment acquired with the property. This additional equipment will result in a substantial increase in output at a lower cost per ounce than achieved previously. The balance of the Spruce Creek acquisition cost was met by the issue of \$200,000 in Queenstake capital stock. This property promises to be Queenstake's most important project in 1989, producing in excess of 25% of the Company's total expected gold production.

Working capital needed to prepare for start-up at all properties is being met from a \$1 million operating line of credit negotiated with a major chartered bank.

On behalf of the Board of Directors



Gordon C. Gutrath
President and Chief Executive Officer
May 30, 1989

QUEENSTAKE RESOURCES LTD. CONDENSED CONSOLIDATED BALANCE SHEET

(UNAUDITED)

	March 31, 1989	December 31, 1988
Current assets	\$ 1,681,827	\$ 1,379,983
Current liabilities	(1,154,549)	(1,005,919)
Working capital	527,278	374,064
Investments	813,821	802,756
Resource properties and equipment	13,903,472	13,226,600
Long-term debt	(1,181,173)	(345,700)
Shareholders' equity	<u>\$14,063,398</u>	<u>\$14,058,196</u>

QUEENSTAKE RESOURCES LTD. CONSOLIDATED STATEMENT OF LOSS THREE MONTHS ENDED MARCH 31

(UNAUDITED)

	1989	1988
Revenues		
Gold sales	\$ 3,211	\$135,483
Interest	11,519	46,083
Management fees and other	26,206	50,397
	<u>40,936</u>	<u>231,963</u>
Costs and expenses		
Direct operating	27,245	141,684
Depreciation and depletion	40,270	7,339
General and administration	184,184	141,111
Interest	29,587	11,407
	<u>281,286</u>	<u>301,541</u>
Operating loss	240,350	69,578
Share of loss of equity investments	4,733	440
Net loss	<u>\$245,083</u>	<u>\$ 70,018</u>
Loss per share	<u>\$ 0.03</u>	<u>\$ 0.01</u>



NEWS RELEASE

Release #88-5

April 7, 1988

DOS CABEZAS PROGRESS REPORT

Initial mine rehabilitation and equipment acquisition for 1988 exploration has been completed in the Gold Prince Mine at Queenstake Resources' Dos Cabezas project in southeastern Arizona. A 6,000 foot underground diamond drilling program is now commencing to evaluate the extensions of reserves defined in Queenstake's 1987-1988 mapping and sampling program and by 9,000 feet of previous diamond drilling done by Phelps Dodge Corporation between 1983 and 1986. A series of three en echelon gold bearing quartz-sulfide veins will be tested in the program, with the goal of bringing the reserves to the drill indicated category.

The drilling will be done from the 5A and 4 Levels of the mine, testing the vein system along nearly 1,000 feet of strike length and 500 feet of vertical extent. The principle drilling target is below the 5A level and above the Water Tunnel level of the mine where present proven and probable reserves are 47,138 tons at 0.366 OPT gold. Also to be evaluated will be the area on the No. 1 vein above the 4 level with probable and possible reserves of 27,614 tons at 0.33 OPT gold, with additional unknown potential on the No. 2 and No. 3 veins. A series of diamond drill holes is also planned to test the veins under the 4 Level, to the west of the 5A workings within favorable host rock units and below old underhand stopes which Queenstake mapped and sampled in late 1987 with very favorable results. This area of the mine may be rapidly developed from existing workings.

Preliminary flotation and cyanidation test work conducted by Bateman Metallurgical Laboratories in Sparks, Nevada have been completed, with a 75.1% gold recovery using a combination gravity-flotation-cyanidation circuit.

Additional testing is planned to further define grinding and selective flotation variables for the ores. Column leach cyanide testing is planned on near surface stockworks-hosted oxide ores which may be amenable to open pit heap leach technology.

Additional claim locations made by Queenstake have doubled the original project area, including both lode and mill site locations. Results for the drilling program are expected by mid June.

-30-

Gordon C. Gutrath
President

ARIZONA DEPT. OF MINES & MINERAL RESOURCES
STATE OFFICE BUILDING
416 W. CONGRESS, ROOM 161
TUCSON, ARIZONA 85701

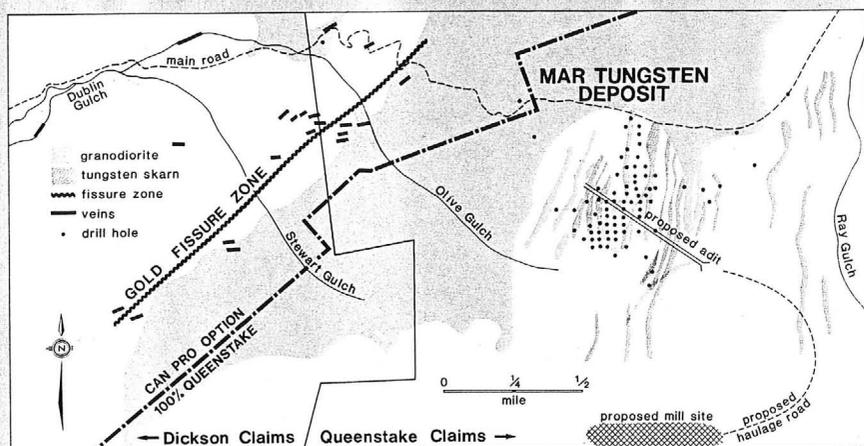
For further information contact Don Sharp, Vice President

drilling and surface sampling program is planned to be carried out in the next few months.

The Mar Gold vein system has been traced for a distance of 20,000 feet. Within this system a shear zone — quartz — sulphide system containing 14 known veins extends over a strike length of 2,500 feet at a width of 900 feet. 1986 drilling by Queenstake produced several drill intersections on the Catto and No. 23 veins grading in excess of one ounce of gold per ton.

Mar Tungsten Property, Yukon

Queenstake's 100% owned Mar Tungsten deposit was explored by Canada Tungsten Mining Corporation from 1978 to 1983 at a cost of \$4 million — including 45,000 feet of diamond drilling — indicating reserves of 6 million tons grading 0.8% WO₃, including sections of higher grade scheelite mineralization. According to recent forecasts of the Canadian government department of Energy, Mines and Resources, "Prices of Tungsten contained in ores and concentrates are forecast to rise over the next three years, increasing from a current range of U.S. \$60-65 to \$90-100 in 1990".

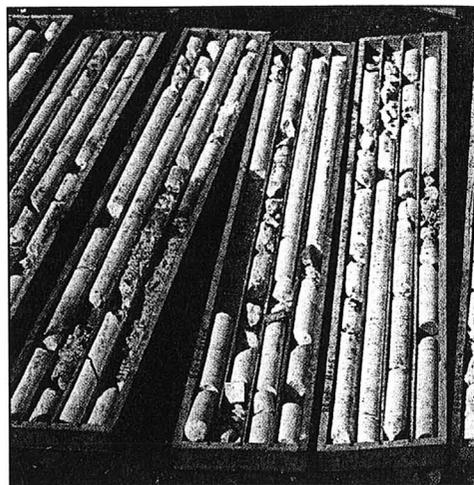


As prices increase, Queenstake will endeavour to develop joint ventures with tungsten consumers for the development of the Mar Tungsten reserves.

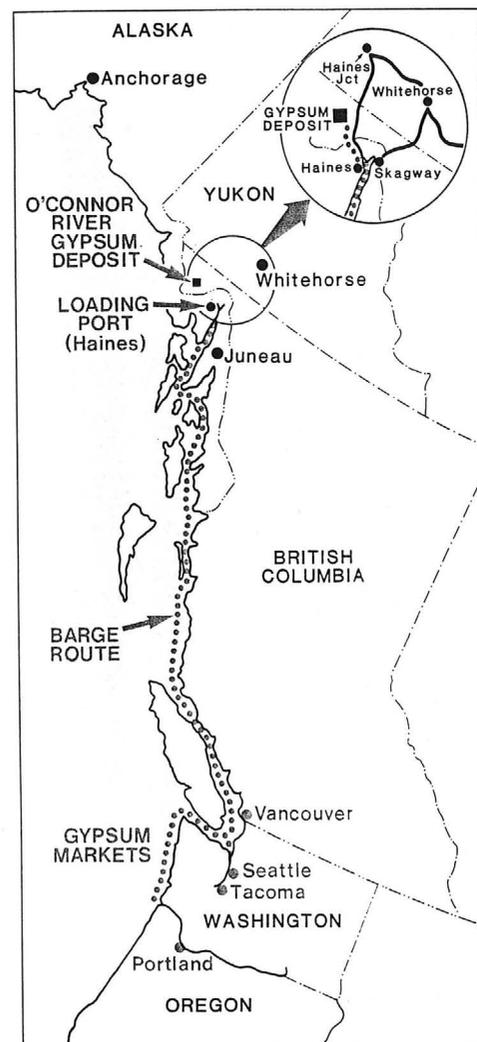
O'Connor River Gypsum Deposit, B.C.

In April, 1988, Haines Gypsum Inc. indicated that it will fund and carry out a large bulk sample/mining program on the O'Connor River deposit in 1988, mining and shipping up to 50,000 tons of gypsum to Pacific Northwest cement and wallboard producers. This program requires the construction of a mine haulage road and preparation of the deposit for mining and shipping.

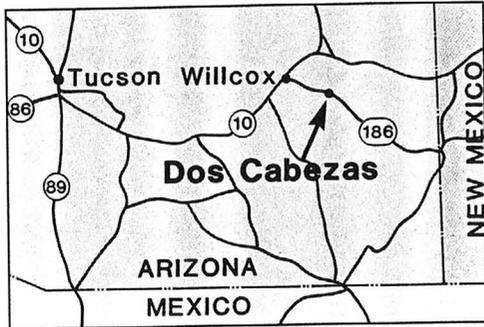
This program is intended to demonstrate the commercial viability of mining the O'Connor River gypsum deposit. Queenstake's 50% participating interest will be reduced marginally in respect of certain capital expenditures of long term benefit made by Haines Gypsum, but the Company retains an option to increase its interest by a further 20% by making a \$175,000 payment to Haines Gypsum.



1986 diamond drilling on the east zone of the O'Connor River gypsum deposit indicated extensive gypsum reserves. A 1988 bulk sampling program is planned to demonstrate economic marketability of the gypsum.



1987 ANNUAL REPORT
Gold Prince(f)



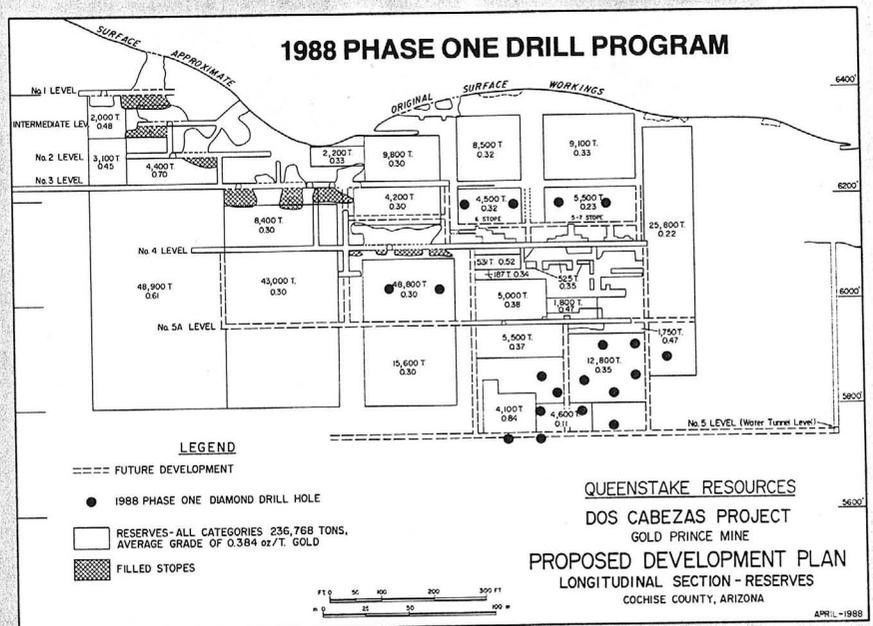
Dos Cabezas, Arizona

In 1987, Queenstake conducted an intensive underground sampling program at the Gold Prince Mine, aggregating over 600 samples. All principal structures were sampled at 5 or 10 foot centers. Following the sampling program, underground rehabilitation, construction of surface facilities, installation of services and mining equipment acquisition were completed.

A 6,000 foot underground diamond drilling program is planned at the mine to evaluate the extensions of ore reserves defined in Queenstake's 1987-1988 mapping and sampling program and by 9,000 feet of previous diamond drilling done by Phelps Dodge Corporation between 1983 and 1986. A series of three en echelon gold bearing quartz-sulfide veins will be tested in the program, with the goal of bringing the reserves to the drill indicated category. A feasibility study will then be undertaken to evaluate the deposit and define a mining development plan.

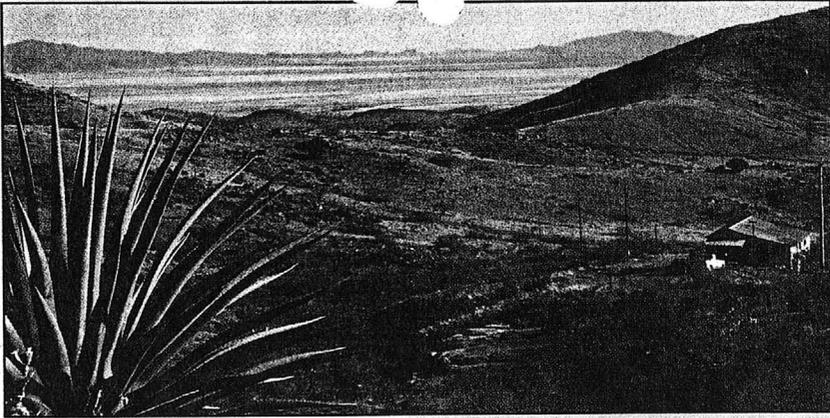
Drilling will be conducted by a contractor using a new underground drill recently purchased by Queenstake. The drilling will be done from both existing underground drill stations on the 5A Level and from new stations being constructed on the 5A and 4 Levels of the mine. The vein system will be tested along nearly 1000 feet of strike length and 500 feet of vertical extent.

Preliminary flotation and cyanidation test work conducted by Bateman Metallurgical Laboratories in Sparks, Nevada has been completed, with satisfactory gold recoveries using a combination gravity-flotation-cyanidation circuit. Additional testing is planned to further define grinding and selective flotation variables for the ores. Column leach cyanide testing is planned on near surface stockwork-hosted oxide ores which may be amenable to open pit heap leach technology.



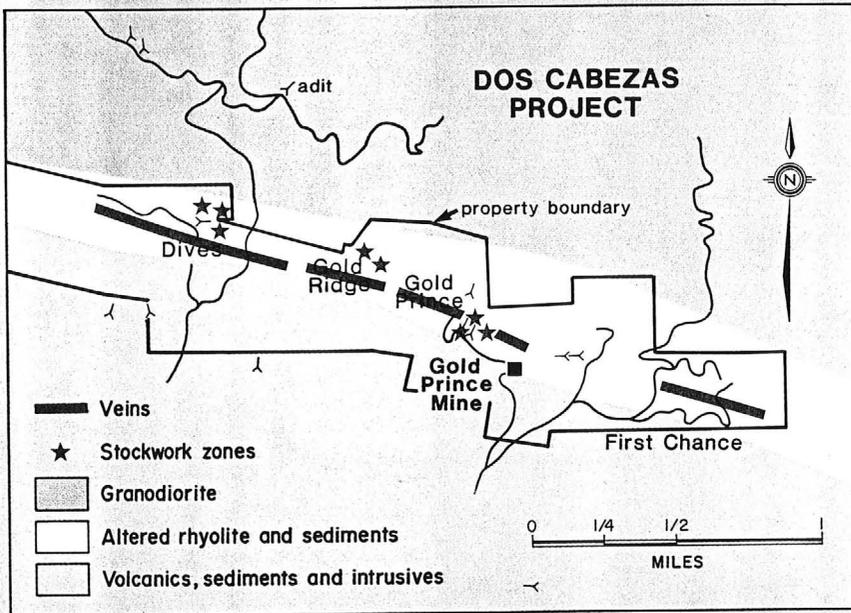
Mine equipment purchases from former operator Phelps Dodge Corporation helped to speed the project to completion at substantial savings over projected equipment costs.





View from the Gold Prince Mine, Dos Cabezas, looking past the home of Kay and Lewis Stickradt (head of mine security) to the flats.

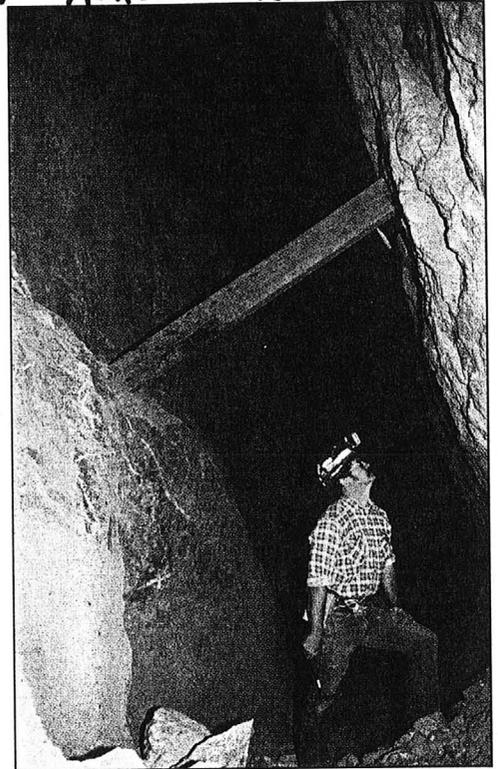
Additional claim locations made by Queenstake have almost doubled the project area, including both lode and mill site locations.



The mine rehabilitation program was directed by Mine Manager, Al Voirin, with Project Geologist, Tim Pearson.

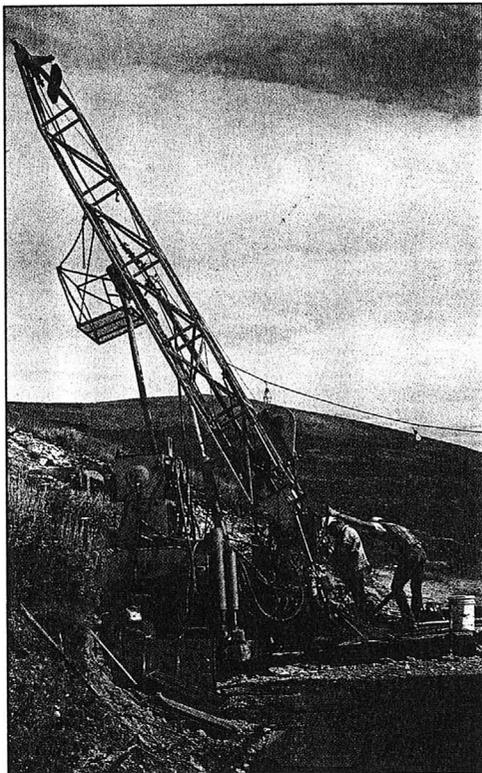


Al Voirin, Dos Cabezas mine manager (l) and Tim Pearson, project geologist (r), inspecting Dos Cabezas structure.



Dave Hembree, Queenstake's U.S. manager of exploration, examining underground workings in the Gold Prince Mine, Dos Cabezas project. In 1988, a 6,000 foot underground drilling program is planned to define reserves for a production decision.

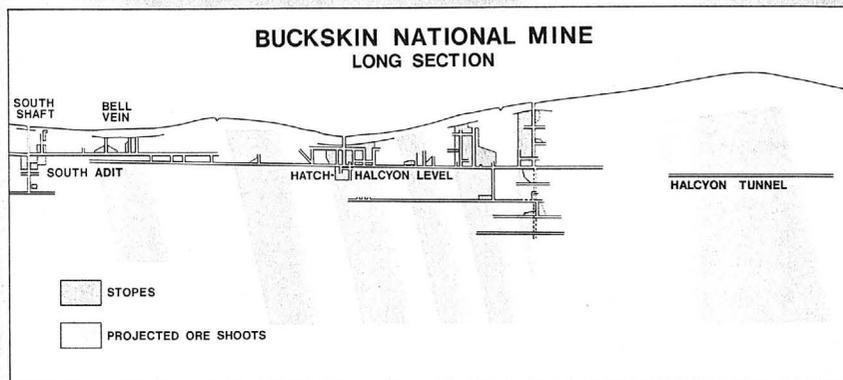




In 1987 a small drill program was completed on the north extension of the Bell vein in the Buckskin National Mine.

Buckskin National Mine, Nevada

In 1988, Queenstake may complete exploration work to exercise its option to earn a 60% interest in the Buckskin National Mine property and will enter into a joint venture with ASARCO for further exploration and development of the property. The principal exploration targets remain the Bell vein (drill indicated and inferred reserves of 138,000 tons grading 0.36 ounces of gold per ton and 3.4 ounces of silver per ton) and the stockwork zone below Buckskin Peak located in previous ASARCO drilling. Recommended future exploration includes surface mapping and sampling to fill gaps in previous exploration work and correlation of Queenstake and ASARCO assay values to refine the continuing exploration model for the Buckskin National property prior to advancing the drill program.



Quartz Hill Property, Montana

Queenstake is currently seeking a joint venture partner to assist with a continuing exploration/reserve addition program on the Quartz Hill property. 1987 diamond drilling through the Hasmark formation yielded a section of promising alteration which requires further exploration. Drill indicated reserves in the northern vein group remain at 102,000 tons grading 12.2 ounces of silver per ton.

WESTMONT JOINT VENTURES

Riverside Pass, California

In 1987, Westmont Mining completed its \$250,000 expenditure requirement to earn a 50% joint venture in the Riverside Pass property. Queenstake retains a 25% working interest.

1988 exploration plans provide for the use of track mounted drills similar to the drill rig shown in the accompanying Mt. Hamilton photo (top right) to carry out reverse circulation and diamond drilling on two gold mineralization targets.



Gold Prince
Cochise Co

QUEENSTAKE RESOURCES LTD. THIRD QUARTER REPORT - 1987

On behalf of the board of directors, I am pleased to present the Company's unaudited September 30, 1987 financial statements and a report on operations to November, 1987.

HIGHLIGHTS

- **Placer Gold Production and Revenue Increase**

The 1987 placer mining season finished with higher than average grade and production rates, yielding record production of 13,150 fine troy ounces of gold, compared to 6,375 ounces from the same period in 1986. Gold production from start-up in June through August 9, 1987, (the reporting cut-off for Queenstake's Second Quarter Report) totalled 4,452 ounces. Gold production for the balance of the season from August 10th to late October was an additional 8,698 ounces.

The 1987 production increase is principally due to the acquisition of the Pine Creek, Atlin, B.C. placer gold property and mining equipment in May, 1987.

- **Chichagof Gold Mines Funding-Golden Sitka Resources Inc.**

The public issue of 2 million common shares of Golden Sitka Resources Inc. (VSE: GSZ) at \$1.50 per share was completed in early October, shortly before the sharp stock market drop in mid-October.

Queenstake's one third joint venture interest in the Chichagof Gold Mines project has now been transferred into a 25.8% shareholding in Golden Sitka, providing funds to bring the project through production feasibility. Mine crews and equipment are now at the site, and exploration/development work will continue this winter on both the Chichagof and Hirst-Chichagof Mines.

- **Dos Cabezas Reserve Evaluation**

Queenstake's mining engineering consultants and mine crews are now completing reserve calculations and planning a program of mine development as well as obtaining metallurgical test data on the Dos Cabezas ore. Depending on the consultant's report and recommendations, the Dos Cabezas project is expected to be advanced to feasibility in early 1988.

- **Argus Drilling Under Way**

A 5,000 foot reverse circulation drilling program is now under way on the Davenport vein on the Argus property. Also, a 3,000 lb. metallurgical sample from the vein has been shipped to Bateman Metallurgical for column cyanide leach testing.

- **Other Projects**

In addition to the foregoing projects, exploration programs are continuing on a number of other properties including:

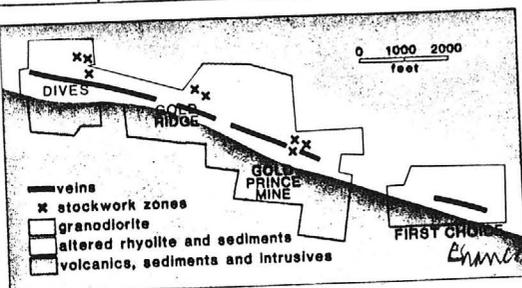
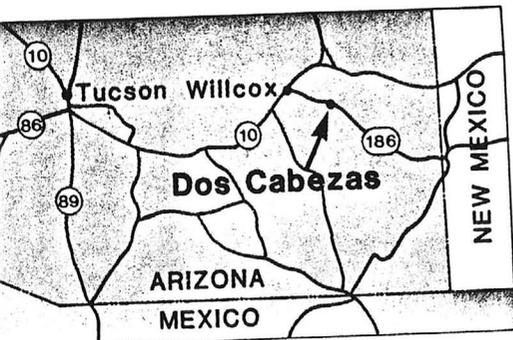
Buckskin National Mines, Nevada
Riverside Pass Property, California
Quartz Hill Property, Montana
Mar Gold Property, Yukon
O'Connor River Gypsum Deposit, B.C.
Various B.C. and Yukon Placers

MANAGEMENT REVIEW

In the aftermath of the October 19, 1987 stock market shocks, the market value of Queenstake's shares has declined sharply even though the Company's revenues, cash flow, earnings, working capital and cash positions have all improved.

The Dos Cabezas mine properties contain both developed and exploratory ore potential of excellent grade and extent. There are a number of mineralized zones along the Gold Prince vein system which may be quickly explored and developed using the recently rehabilitated mine workings with most services still intact. A surface and underground sampling and mapping program is planned for early 1987, to be followed by surface and underground diamond drilling, concentrating upon expanding known reserves and evaluation of the vein stockworks bulk tonnage potential.

The Dos Cabezas mine project is of particular importance to the hardrock exploration program, since it not only has an ore reserve partially developed for mining but also has excellent exploration potential for both high grade vein hosted mineralization and bulk tonnage stockworks and disseminated gold deposits suitable for open pit or bulk tonnage underground mining methods. The mine is unique because it can be placed into production as a silica flux-gold mine within six months and at a very low capital cost compared with a typical hardrock mine of similar size.



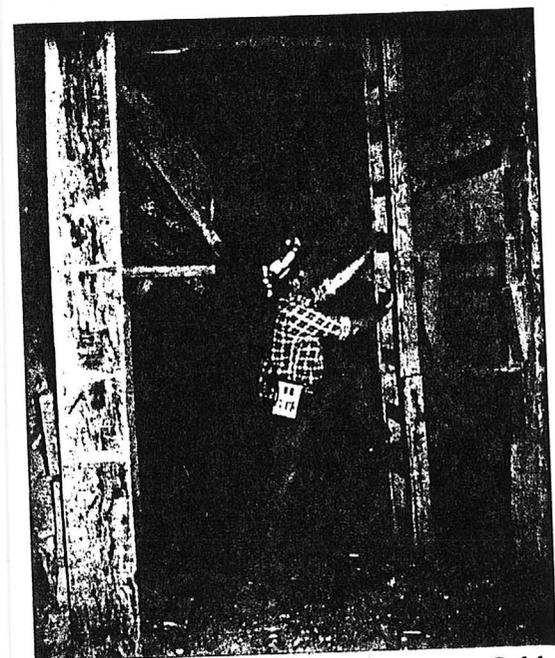
ARGUS GOLD PROPERTY, CALIFORNIA

Queenstake has signed an agreement with Childs International Inc., the American subsidiary of an Australian mining group headed by Barrie Childs of Sydney, New South Wales in which Childs International can earn a 60% interest in Queenstake's Argus gold mines project near Bakersfield, California by spending \$1 million U.S. in exploration, development and production capital on the Argus property by 1989.

The Company has recently completed a review of the Davenport and Arondo Mines on the Argus property. On the Davenport vein, the drill indicated reserves total 423,000 tons grading 0.053 ounces of gold per ton. Potential tonnage in the Davenport (at a 300-foot deep pit limit) is two million tons.

The conceptual mine plan is for open-pit mining and heap-leaching (using carbon-in-column gold recovery from pregnant solutions).

Subject to completion of certain agreements with landowners, a 1987 drilling program is planned for the Davenport property.



Phelps Dodge left the Dos Cabezas - Gold Prince Mine workings in good condition, allowing for a very quick production start.



MINERAL RESERV

The Company is continuing its strategy of reserve acquisitions and extension of existing reserves through intensive exploration programs. Reserves and reserves per share have increased steadily as a result of this strategy.

Based on net issued capital at December 31, 1986 of 6.1 million shares, the Company's per share interest in drill indicated reserves of various commodities is as follows:

Gold	.04 oz./share
Silver	.32 oz./share
Tungsten	.77 stu (15 lbs)/share
Gypsum	1.1 tonnes/share

MINERAL PROPERTIES:

DOS CABEZAS, ARIZONA

Queenstake has recently acquired a 100% leasehold interest in the Dos Cabezas mine properties (twenty contiguous patented mining claims (322 acres) and eleven unpatented lode claims) which contain the principle former producing gold mines (Gold Prince, Gold Ridge and Dives) of the Dos Cabezas mine district of south-eastern Arizona. The Gold Prince was reopened by Phelps Dodge Corporation and from 1984 to March of 1986 produced 14,238 tons of ore at 0.313 ounces per ton gold.

Exploration conducted by Phelps Dodge, including 9,006 feet of diamond core drilling in forty-two holes and extensive, detailed production sampling, has defined about 45,000 tons of reserves grading in the order of 0.40 oz. per ton gold within the area of the rehabilitated mine workings. Sampling and production data supplied by the owners for areas undeveloped by Phelps Dodge indicate additional ore potential to the west of the Phelps Dodge work and in the upper levels of the mine.

In addition to the vein hosted reserves at the Dos Cabezas property, there are wide zones of disseminated and veinlet hosted gold mineralization along the vein system which may provide bulk tonnage ore deposits. An oxidized ore body of this type would be amenable to open-pit mining and cyanide leaching technology. The shear zone which contains this mineralization is over two miles long and from 100 to 500 feet wide. Several wide zones of consistent gold mineralization were intercepted in the Phelps Dodge drilling, confirming the potential for this ore target.

*Gold Prince
Cochise Co*

Queenstake Resources Ltd.
Annual Report 1986

Queenstake Mineral Reserves*

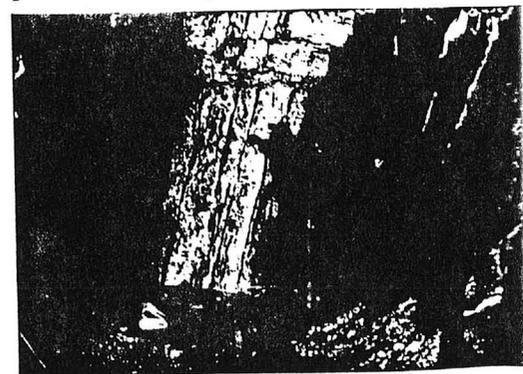
GOLD
VARIOUS PROPERTIES
246,000 troy ounces
74,000 ounces: placer properties
172,000 ounces: hardrock properties

SILVER
QUARTZ HILL and
GOLD KING PROPERTIES
2 million troy ounces

GYPSUM
DONNOR RIVER DEPOSIT
7 million tonnes

TUNGSTEN
MAR DEPOSIT
4.8 million stu
(96 million lbs)

* These figures include mineralization in all reserve categories. Exploitation of the reserves is dependent on development of detailed mining plans and market prices for the commodities.

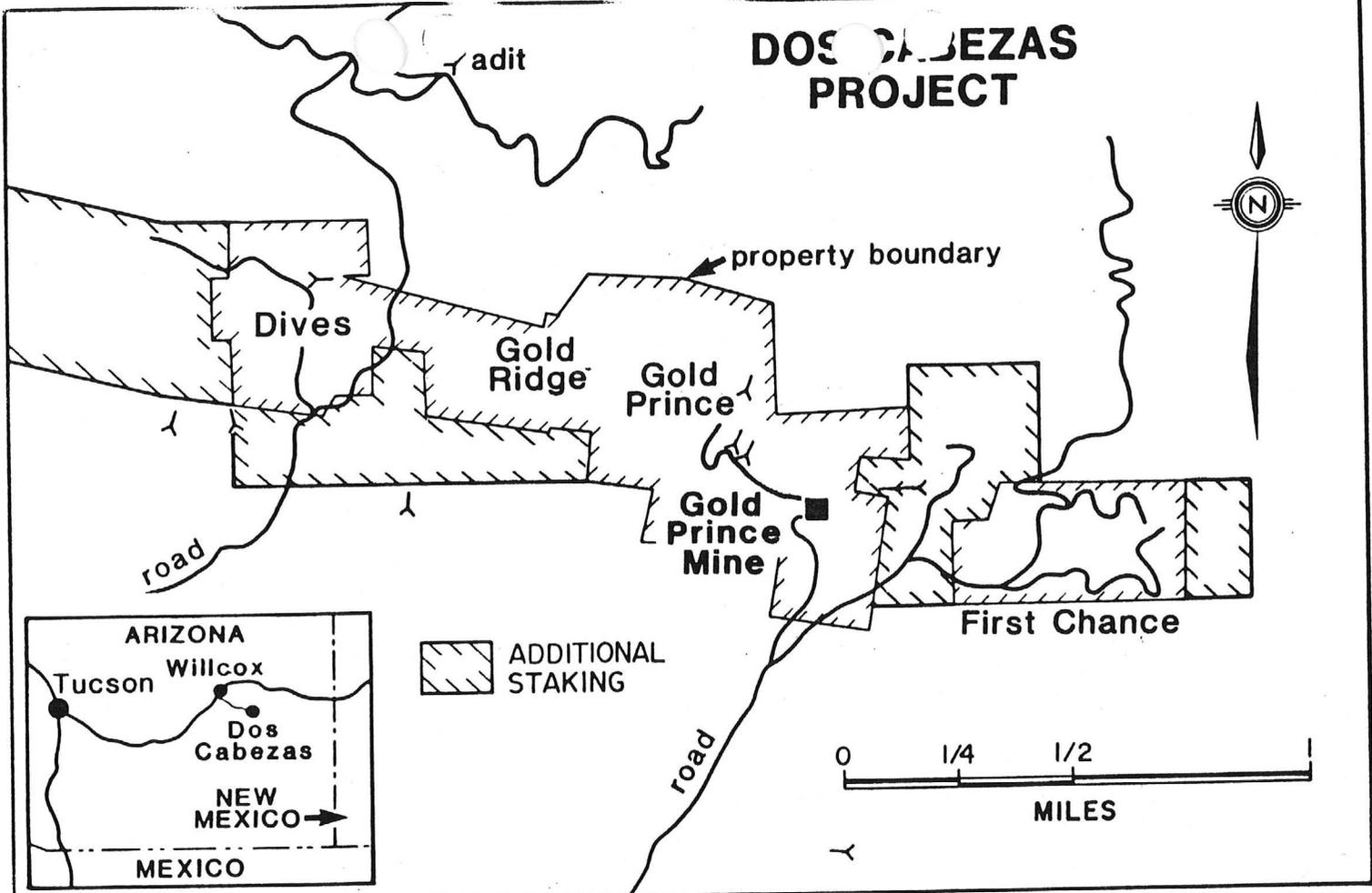


Typical Chichagof ore shoot structure is evident here in the Big Croppings vein, including five foot width and ribbon quartz veining.

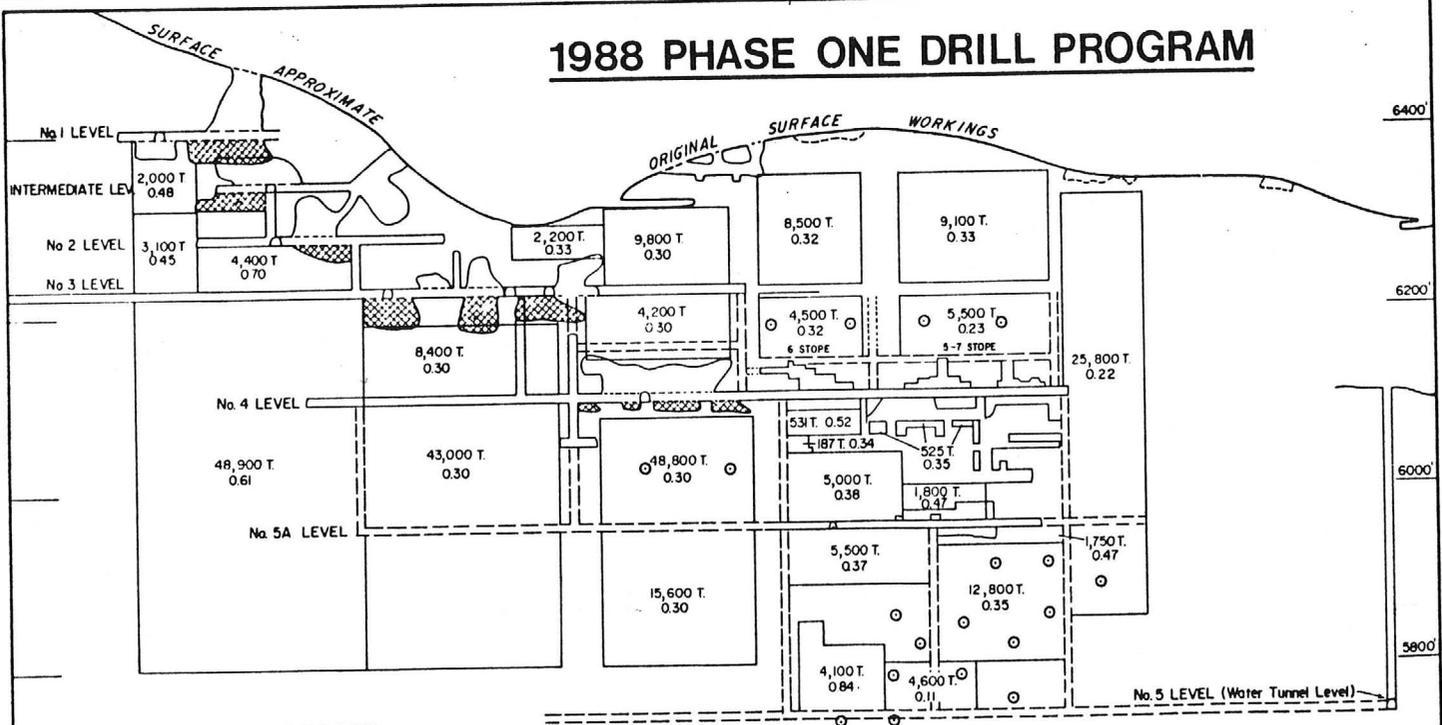
ARIZONA DEPT. OF MINES & MINERAL RESOURCES
STATE OFFICE BUILDING
416 W. CONGRESS, ROOM 161
TUCSON, ARIZONA 85701



DOSE CABEZAS PROJECT



1988 PHASE ONE DRILL PROGRAM



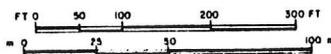
LEGEND

- ==== FUTURE DEVELOPMENT
- 1988 PHASE ONE DIAMOND DRILL HOLE
- RESERVES-ALL CATEGORIES 236,768 TONS, AVERAGE GRADE OF 0.384 oz./T. GOLD
- ▨ FILLED STOPES

QUEENSTAKE RESOURCES

DOSE CABEZAS PROJECT
GOLD PRINCE MINE

PROPOSED DEVELOPMENT PLAN



DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
OWNERS MINE REPORT

11-12-40
A

Date October 13, 1940

Mine Gold Prince ✓

District Dos Cabezos, Cochise Co.

Location

Former name

Owner Outwest Mg. Co. (Ariz. Corp.) ✓ ✓

Address

Operator Same

Address

President C. L. Neyland ✓
Box 26, Dos Cabezos

Gen. Mgr.

Mine Supt. Sam Richmond

Mill Supt. Sam Richmond

Principal Metals Gold, Silver ✓ ✓

Men Employed

Production Rate 25 tons per day.

Mill: Type & Cap.

Power: Amt. & Type Diesel- 35 H.P.

Operations: Present Developing, mining, milling.

Operations Planned Continue present program

Number Claims, Title, etc. 9 unpatented lode claims on public domain.

Description: Topog. & Geog. Side of steep range. Strike E-W

Mine Workings: Amt. & Condition 5 tunnels- 1-1200', 670' 350', 250' #1 open cuts (surface)
Approx. 1000 drifts and stopes.

(over)

Geology & Mineralization Fissure veins in porphyry partly filled, partly replacement. Strike E-W with direction of ridge. Veins stand almost vertical.

Ore: Positive & Probable, Ore Dumps, Tailings No formal estimate. Average working faces in ore on 4, 3, and 2 levels. Width-1ft-12 ft and wider.

Mine, Mill Equipment & Flow Sheet Air compressor and general mine equipment Gibson combination crusher rod mill. Impact and Step amalgamator. Gibson concentrating table.

Road Conditions, Route The mill is on Dos Cabezos-Willcox road, 10.5 miles from mine.

Water Supply Ample. Old Central Copper Co. well- 50 acre mill site.

Brief History Located 50 years ago. Developed and operated at various times, once on considerable scale.

Special Problems, Reports Filed Engrs reports to be furnished.

Remarks Operating as per schedule. Ore was tested and plant designed to handle.

If property for sale: Price, terms and address to negotiate. Neither property or stock of corporation for sale.

Signed Information by: H. C. Lankford.....

Use additional sheets if necessary.

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
OWNERS MINE REPORT

Date June 27-1939

Mine Gold Princess
District Dos Cabezas

Location Dos Cabezas Ariz

Former name

Owner Sutton Steele and Steele

Address

In Charge J. P. Bean
~~Operator~~

Address Box 5 - Dos Cabezas
Ariz.

Gen. Mgr.

President

Mill Supt.

Mine Supt.

Men Employed

Principal Metals

Mill: Type & Cap.

Production Rate

Power: Amt. & Type

Operations: Present

Operations Planned

Number Claims, Title, etc.

9 Claims Possessory Title And is
located on southerly slope of an abrupt Ranged
mountain known as Dos Cabezas mountains
general bearing East to west.

Description: Topog. & Geog.

Mine Workings: Amt. & Condition

Approximately 4000 feet of drift
raise cross cutting. in Fair condition.

Geology & Mineralization The Geology is interesting and quite favorable.
much evidence of movement and Alteration
(Dynamic Action.)

Ore: Positive & Probable, Ore Dumps, Tailings While the ore is not blocked
in 100 foot blocks, one can estimate a large
Tonnage of ~~11 to 12~~^{11 to 12} Million, some have placed
The amount of ~~27,000~~^{27,000} tons to 36,000 tons now available

Mine, Mill Equipment & Flow Sheet I also agree with the above
estimate, and believe it reasonable

Course grind of 60 mesh shows 93% recovery also
Favorable for table and Amalgamation

Road Conditions, Route The Property is situated 17 1/2 miles
from Willcox Arizona, in a southeasterly direction
therefrom and is reached over good road, with
gradient in favor of out haul.

Water Supply
Is dependant locally on the development of
water from Arizona floodlike at distance of
2700' feet from mill site.

Brief History
The Property has produced over a period of many
years, both mill and shipping, I have had as
many as 40 men engaged in shipping.

Special Problems, Reports Filed

Remarks There is plenty of ~~11~~¹¹ ore to run a
50 ton mill several years, also excellent
chances for development.

If property for sale: Price, terms and address to negotiate. For sale, \$350,000
\$50,000 down, balance in 3 years @ 10% 91-025
Smelter return

Signed Wos. P. Bear

MG-5

DEPARTMENT OF MINERAL RESOURCES

STATE OF ARIZONA

OWNERS MINE REPORT

Date June 7, 1939

Mine Gold Prince

District Dos Cabezas

Location Dos Cabezas, Ariz.

Former name

Owner s Sutton Steele and I. Steele

Address

In Charge

Operator T. P. Bean

Address Box 5 - Dos Cabezas, Ariz.

President

Gen. Mgr.

Mine Supt.

Mill Supt.

Principal Metals gold (?)

Men Employed

Production Rate

Mill: Type & Cap.

Power: Amt. & Type

Operations: Present

GOLD PRINCE			
Au, Ag			
Cochise	2 - 2	T 14S, R 27 E	
T. P. Bean, Dos Cabezas			'40

Operations Planned

Number Claims, Title, etc. 9 Claims - possessory title and is located on southerly slope of an abrupt range of mountains known as Dos Cabezas mountains. General bearing east to west

Description: Topog. & Geog.

Mine Workings: Amt. & Condition Approximately 4,000 feet of drift - raise crosscutting in fair condition

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
OWNERS MINE REPORT

MG-5

Date June 7, 1939

1. Mine **GOLD PRINCE**
2. Mining District & County **Dos Cabezas**
3. Former name
4. Location **Dos Cabezas, Arizona**
5. Owners **Sutton Steel and I. Steele**
6. Address (Owner)
7. Operator **T. P. Bean**
8. Address (Operator) **Box 5 - Dos Cabezas, Arizona.**
9. President
10. Gen. Mgr.
11. Mine Supt.
12. Mill Supt.
13. Principal Metals (?) **Gold.**
14. Men Employed
15. Production Rate
16. Mill: Type & Cap.
17. Power: Amt. & Type
18. Operations: Present
19. Operations Planned
20. Number Claims, Title, etc. **9 claims - possessory title and is located on southerly slope of an abrupt range of mountains known as Dos Cabezas mountains. General bearing east to west.**
21. Description: Topography & Geography
22. Mine Workings: Amt. & Condition **Approximately 4,000 feet of drift - raise crosscutting in fair condition.**

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA

Geology & Mineralization The geology is interesting and quite favorable - much evidence of movement and alteration (dynamic action)

Date June 7, 1939

Ore: Positive & Probable, Ore Dumps, Tailings While the ore is not blocked in 100 foot blocks, one can estimate a large tonnage of \$11 to \$12 mill ore. Some have placed the amount of 27,000 to 36,000 tons now available. I also agree with the above estimate and believe it reasonable

Mine, Mill Equipment & Flow Sheet Coarse grind of 60 mesh shows 93% recovery - also favorable for table and amalgamation

Road Conditions, Route The property is situated 17 1/2 miles from Willcox, Arizona, in a southeasterly direction therefrom and is reached over good road with grade in favor of outhaul

Water Supply Is dependent locally on the development of water from Arizona Klondike, a distance of 2700' from mill site.

Brief History The property has produced over a period of many years, both mill and shipping. I have had as many as 40 men engaged in shipping

Special Problems, Reports Filed

Remarks There is plenty of \$11.00 ore to run a 50 ton mill several years, also excellent chances for development

If property for sale: Price, terms and address to negotiate. For sale, \$35,000 - \$5,000 down - balance in 3 years @ 10% gross smelter return

Signed.....Thos. P. Bean.....

5-77- Cochise 2-2

A A 76

DEPARTMENT OF MINERAL RESOURCES
State of Arizona
MINE OWNER'S REPORT

Date... Sept. 6, 1946

- 1. Mine: Gold Hill 1,2,3,4,5. and Highlonesome
- 2. Location: Sec. 11 Twp. 14 S Range 26 E Nearest Town. Wilcox
Distance 8 miles Direction N. W. Road Condition Good
- 3. Mining District & County: Dos Cabezas Cochise
- 4. Former Name of Mine: None
- 5. Owner: Ralph Parker et all
Address: Wilcox, Ariz.
- 6. Operator: None
Address:
- 7. Principal Minerals: Gold
- 8. Number of Claims: 6 Lode Placer
Patented Unpatented
- 9. Type of Surrounding Terrain: Foot hills of Dos Cabezas ~~mont~~ mountains
Elevation of claims from 4810 to 6000
- 10. Geology & Mineralization: White quartz vein about 30 inches in width
striking S 50 E and dipping South from 10 to 55 degrees.
H.W. altered granite and schist also F.W.
- 11. Dimension & Value of Ore Body: Sample taken across vein on Goldhill 4 at elev. 5050
shows

12. Ore "Blocked Out" or "In Sight": None

Ore Probable: to be determined still a prospect

13. Mine Workings—Amount and Condition:

No.	Feet	Condition
Shafts.....		Several open cuts and discovery holes
Raises.....		
Tunnels.....		
Crosscuts.....		
Stopes.....		

14. Water Supply: None

15. Brief History: New work

16. Signature:

17. If Property for Sale, List Approximate Price and Terms Write for terms

(AM)

W. R. SHANKLIN
MINING ENGINEER
SAN ANTONIO, TEXAS

Dallas, Texas
October 5, 1944

Mr. Charles H. Dunning,
304 Home Builders Building,
Phoenix, Ariz.

Dear Mr. Dunning:

Upon receipt of your letter of September 12th, regarding the Gold Prince Mine, I wrote Mr. Dean asking for information. He sent me certain mine reports by geologist named Leonard and an engineer named Hirshfeld. The information was very interesting and as I was coming to Dallas, I brought it along and went to see the owners Sutton, Steele & Steele.

Mr. Wood, who is president of this company, gave me additional information which further excited my interest in the property with the result, that I am planning to leave here for a trip to Arizona to inspect property within about a week.

I certainly appreciate your letter and hope that I can find something that my associates and I can take on. Will at least give it a good going over and while I am out there will make it a point to see you in Phoenix.

With best regards, I am

Very truly yours,

W. R. Shanklin

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine [✓] Gold Hill 1, 2, 3, 4, 5 and
District Dos [✓] Cabezast. Highlonesome, Cochise Co.
Subject: Present Status.

Date Feb. 15, 1956

Engineer Axel L. Johnson

Location Sec. 11 -- T 14 S -- R 26 E. About 8 miles NW of Dos Cabezast.

Owner John E. Mowinckle, Milam Bldg., San Antonio, Texas.

Remarks This is now called the " Gold Prince", and should be filed under
~~"Gold Prince"~~.

ARIZONA DEPARTMENT OF MINERAL RESOURCES
Mineral Building, Fairgrounds
Phoenix, Arizona

1. Information from: mine visit and Mr. Jerry A. Waegli, mine geologist
 Address: _____
2. Mine: GOLD PRINCE 3. No. of Claims - Patented 9
 (Cochise Co.) Unpatented yes (Dos Cabezas)
4. Location: Approx. 2.6 miles from State Highway 186, at head of Bean Canyon (7½' Quad.)
5. Sec SW¼ 22 Tp 14S Range 27E 6. Mining District Dos Cabezas
7. Owner: Mowinckle family (see report of 3/8/84)
8. Address: _____
9. Operating Co.: Small Mines & Mine Development, Phelps Dodge Corp.,
10. Address: P.O. Box 151, Safford, AZ 85546; phone 428-6900
11. VP & Gen. Mgr. Stanley C. Holmes 12. Mine Foreman Clarence Earvin
~~President:~~ ~~Gen. Mgr.:~~
13. Principal Metals: Au-bearing silica flux 14. No. Employed: 10
15. Mill, Type & Capacity: none
16. Present Operations: (a) Down (b) Assessment work (c) Exploration
 (d) Production (e) Rate 1,000 ~~tpm~~ tpm
17. New Work Planned: A new crosscut and underground drilling station. Hope to drill several new exploration holes.
18. Miscl. Notes: There are two shifts operating at the mine. Two stopes are active. Producing from the 4 and 4½ (5A) levels. Difficult to maintain silica(?) grade shipped to Douglas smelter.
Valuable quartz vein and vein breccia is generally 3-5 feet thick and braided in shear zone. Sulfides include abundant chalcopyrite & pyrite with some galena, tetrahedrite(?), sphalerite, and pyrrhotite(?). Other than vein material, best gold values are usually in hanging-wall phyllites (shale). Regional dip of phyllites and quartzites is 70° S. Large, barren quartz dike (big ledge) dips about 80° N; on the 5 level it is reportedly over 100 feet thick. Just below the dump at the 5 level are the ruins of a small mill.

Date: August 14, 1985

Mike Greeley
 (Signature) (Field Engineer)

ARIZONA DEPARTMENT OF MINERAL RESOURCES
Mineral Building, Fairgrounds
Phoenix, Arizona

JK

1. Information from: Al Voirin, Shift Boss, Small Mines & Mine Development,
Address: Phelps Dodge Corp., P.O. Box 151, Safford, AZ 85546
2. Mine: GOLD PRINCE 3. No. of Claims - Patented 9
(Cochise Co.) Unpatented _____
4. Location: Approx. 2.6 miles from State Highway 186 at head of Bean Canyon east of
SW $\frac{1}{4}$ 22 Tp 14S Range 27E 6. Mining District Dos Cabezas
Dos Cabezas
5. Sec _____ Tp _____ Range _____ 6. Mining District Dos Cabezas
7. Owner: Annette Mowinckle Moore & Mary John Mowinckle
8. Address: P.O. Box 22-1937, Carmel, CA 93922
9. Operating Co.: Small Mines & Mine Development Division, Phelps Dodge Corp.
10. Address: _____
11. President: _____ 12. Vice President & Gen. Mgr.: Stanley C. Holmes
13. Principal Metals: Au 14. No. Employed: approx. 12
15. Mill, Type & Capacity: none
16. Present Operations: (a) Down (b) Assessment work (c) Exploration
(d) Production (e) Rate _____ tpd.
17. New Work Planned: Continue to drill and define vein structures suitable for
mining as gold-bearing silica flux.
18. Misc. Notes: Another address is M. J. Mowinckle, 9050 N. 40th St., Phoenix, AZ
85028, phone 996-6961.
Phelps Dodge has mapped and extensively sampled the 3,4, and 4 $\frac{1}{2}$ levels.
Vertical intervals between 4 and 4 $\frac{1}{2}$ and 4 $\frac{1}{2}$ and 5 levels respectively are about
130 ft and 230 ft. Portal of the 5-level adit (N $\frac{1}{2}$, Sec. 27) is dammed for water.
All exploration and development now being done on 4 $\frac{1}{2}$ -level, two shifts.
Underground drilling for vein extensions and new vein occurrences. Vein
continuity is a problem. Some good grades occur; a recent hole drilled down
intercepted about 15 ft of a known vein that ran about 1.5 oz Au/ton in the
vicinity of the 5-level.

Veins are comprised of quartz with pyrite and galena. Veins vary greatly
(continued)

Date: March 8, 1984

Mike Greeley
(Signature) (Field Engineer)

in thickness and attitude although the thicker veins dip steeply in a southerly direction. There are many cross veins and some veins are strongly brecciated. Veins commonly pinch out horizontally and vertically. Sulfides were leached and gold was free in the upper levels.

The quartz veining is in a shale and/or shaly siltstone. This shaly sequence is between a Precambrian(?) granite to the south and limestone to the north. Sedimentary units dip southerly. A thick, barren quartz dike occupies the contact between the granite and the shaly sequence.

Gold Pounce

September 12, 1944

Mr. Thomas P. Bean
Box 5
Dos Cabezas, Arizona

Dear Mr. Bean:

We are returning herewith the reports you were kind enough to loan us together with a new copy of each.

We trust that we will be able to help you in making a deal for these properties.

Yours very truly,

Chas. H. Dunning
Director

CHD:LP
Enc.

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine Gold Hill 1, 2, 3, 4, 5 and
Highlonesome
District Dos Cabezas Dist., Cochise Co.

Date Feb. 15, 1956
Engineer Axel L. Johnson

Subject: Present Status.

Location Sec. 11 -- T 14 S -- R 26 E. About 8 miles NW of Dos Cabezas.

Owner John E. Mowinckle, Milam Bldg., San Antonio, Texas.

Remarks This is now called the "Gold Prince", ~~and should be filed under~~
~~"Gold Prince"~~.

T. P. Bean
E. O. Cabelgas

✓
THE GOLD PRINCE MINE
Cochise County
Arizona

The property which is the subject of this report comprises eight unpatented lode mining claims, one of which is important only as a mill-site, situate in the Dos Cabezas Mining District, Cochise County, Arizona, and on the southerly slope of an abrupt range of mountains of the same name, the general bearing of which is North, 60 degrees west. While held under possessory title only, an abstract compiled from the County Records indicates title to be perfect. More than sufficient development work has been performed to warrant patent application, which procedure should be taken when conditions render the cost thereof of no serious consequence. United States Patent would render assessment work unnecessary and lend full security to titles. So long as work at the property is in progress and proper affidavits thereof filed annually, patent application is really only a matter of expediency.

HISTORY OF THE DISTRICT AND PROPERTY.

The district was discovered some sixty, or more, years ago and is quite well and favorably known though operations have been carried on in a more or less desultory fashion, principally by leasers. The old price of gold (\$20.67) was, in part, a deterrent in the matter of serious operations for the reason that the ores of the district were barely economically profitable at that price. The present price of \$35.00 an ounce has worked an important change in the potentialities of the region and some serious operations are in progress as a result. With gold maintaining its present price there is every reasonable expectation that the district will assume quite important proportions as a producer of this element. Of the several promising properties in the district The Gold Prince is the best known and, incidentally, the best developed unit.

GEOLOGY AND MINERALOGY

The geology of the district is interesting and quite favorable. In passing it may be said that the economics involved in the consideration of a mining property are of far greater importance than the pure science thereof, and as this report is compiled with the idea in mind of presenting the operating viewpoint, technical observations will be limited to a brief presentation of those features. On the lower, or footwall side of the vein fractures comprising the vein system itself, is a wide belt of granitoid rocks, very considerably metamorphosed, which contact a wider belt of carboniferous limestones. Between these two rocks, and comprising the contact itself, is a belt of other rocks some three hundred feet in width consisting in part of altered sedimentaries of a schistose character, together with tertiaries such as andesite and rhyolite, the schists being largely graphitic in character. Much evidence of movement and alteration is present, together with some faulting along the lines of fracture. It may be stated that most important mines are made possible by dynamic action at the time of the original occurrence. That is to say, where there is no evidence of such dynamic action, there is much less likelihood of commercial orebodies existing. It follows, therefore, that the mechanics involved in a vein structure are of equal, if not greater importance, than the particular rock family in which the vein occurs. Throughout the immediate vicinity of the Gold Prince there is much evidence of powerful dynamic action, much alteration of the enclosing rocks, obviously several periods of refracturing and mineralization, considerable faulting and shearing and, in brief, evidence of considerable movement over a considerable lateral range. Along the line of contact between the lower granitoid rocks and the limestones lying above are, in the respective order indicated, a strong basic dike some fifty feet in width, then a barren quartz vein of great width, then the two productive veins comprising the Gold Prince series. These four members are parallel to both each other as well as to the general bearing of the

range, itself. The dike referred to is diabase in character and evidently an intrusion, is of great width and is traceable for several miles. In the writer's opinion of dike is responsible entirely for the existence of the fractures comprising the vein system. It no doubt broke through along the line of least resistance and in so doing wrought parallel fracturing along its strike, which secondary fractures were gradually filled with the gangue mineral, quartz. Subsequent reopening and remineralization of these parallel fractures resulted in the interesting types of accompanying minerals now visible in the form of galena, pyrite, chalcopyrite and minute particles of sphalerite, the proportion of the latter, however, being so small as to be negligible. The wide barren quartz vein paralleling the dike, and distant therefrom about 100 feet, is likewise traceable for many miles. In structure it is of collateral interest in that while only about ten feet in thickness at the surface, where penetrated by tunnel #5 some four hundred feet below the surface, it reaches the width of one hundred and ten feet, evidencing extraordinary powerful action of the original fracturing by the dike, which is about the same width, itself, on a comparable horizon. The two veins next in order, and which comprise the productive fractures, are well mineralized as above indicated. It would appear that the productive fractures have tapped a deeper-lying magma which accounts for the presence of the gold-bearing sulfides visible in the gangue mineral. As these sulfides are primary in character, coupled with the fact that as greater depth is reached in the veins the values show no signs of diminution, there is every reasonable expectation that the ore-bodies will be persistent in their downward extension to very considerable depths. The two productive veins are about one hundred feet above the large barren quartz vein, and about ninety feet apart, maintaining their relative positions quite uniformly over a lateral range of more than a mile. While, as stated, there has been considerable faulting, the "throws" are not great, rarely being over twenty feet, the faulting being entirely normal and, what is of greater importance, post-mineral in nature. The two productive veins, to which succeeding remarks will be generally confined, are well mineralized over a distance of more than a mile. As is common in rocks of a schistose character, the orebodies are generally lenticular in formation, in fact are typically lenticular, in both lateral and vertical ranges. These lenses frequently over-lap each other, but as they are always connected both vertically and laterally with succeeding bodies of like character, they offer no especially difficult mining problems. From the Last Chance property to the East, to the Dives on the West--a distance of over a mile, the veins are easily traceable, contain many payshoots which have been worked over the past years, but in every practical sense are very much under-developed. In width the two productive veins will average three and one-half feet, a good stoping width, rendering the removal of much waste unnecessary. Samuel, geologist for Ventures, Ltd., London, England, and Leonard, geologist of the University of Arizona, pronounce the veins mesothermic in character with every expectation of existing values continuing to great depth, in which conclusion the writer concurs. With reference to underground conditions, and with particular reference to details of ore-extraction, timbering, etc., it may be said that the ground stands very well, is not of the "moving" character, and requires very little timbering. Some old stopes in the westerly section of the property have been raised over sixty feet, with only an occasional stull. The shrinkage system of stoping is apparently indicated.

CLIMATIC AND TRANSPORTATION CONDITIONS.

The property is situated seventeen and one-half miles from Wilcox, Arizona, in a southeasterly direction therefrom, and is reached over an excellent road, with gradient in favor of the out-haul. Travel and haulage from railroad at Wilcox, a main-line point, is a matter of only a half hour. Wilcox has an elevation of 4,100 feet. The property lies at an elevation of 5,600 feet. Climatic conditions at this elevation and latitude approximate the ideal and all-year operations can be carried on without interruption. Only an occasional flurry of snow is experienced, the seasonal rainfall is confined

to the summer months and over the past forty years there has not been a single day when operations could not proceed normally.

DEVELOPMENT AND ORE RESERVES.

The property is quite well developed by four adit crosscuts, from which several thousand feet of drifting on the two veins has been performed. These four superimposed levels have been driven in miner-like fashion and represent development work on the veins from outcrops to a vertical depth in excess of four hundred feet. For the past fifteen years the property was worked by tributors and considerable ore was extracted by these operations. As only the higher grade ores would permit such operations, selective mining and hand-sorting was the common practice. The lower grades were either left standing in place, or left on dumps at all four levels. More than fifty liquidations of shipments indicate the value of these shipping ores exceeded an average of 75/100th. oz. The present owners extracted and shipped seven carloads of ores from two levels averaging in excess of one ounce gold per ton. This type of mining has rendered the measurement of un-stoped ores rather difficult, when the lenticular formations of the orebodies are considered. However, and erring on the side of conservatism, it may be said that there now exist in the property, and above the #4 level, in excess of 35,000 tons of commercial ores, the average value of which is placed by the writer at \$11.25 per ton. Of this average value of \$11.25 per ton, 98% is in gold, 2% in silver. The copper content is very small, the chalcopryite representing not over 1/10 of 1%; the lead content will average only 1½%, iron pyrite about 4%. Apparently the gold content is associated with all the sulfides. It is particularly noticeable that where the lead content is higher, the gold content is in direct ratio to the lead. The present owners have carried on some development work in the form of an extension to the east of the #4 level, and a winze to a depth of 50 feet below the same level. It is of interest and importance to note that this development work has proven the continuation of the orebodies to the east, as well as the vertical extension thereof. In brief, while there now exists commercial ores available for immediate extraction to the extent of 35,000 tons, neither the eastwardly or vertical limits of the orebodies has been determined. In the way of definite substantiation of this opinion it may be cited that in the Dives property to the west of the Gold Prince, and on the same vein system, the sixth level of that property is in excellent ore on a horizon some 450 feet below the #4 level of the Gold Prince. In addition to the four levels of the Gold Prince, another crosscut adit has been driven 1,730 feet in length on the easterly line of the property and at a horizon 330 feet below the #4 level, vertically.

In the progress of this work, all of the members of the system were intersected—the dike, the barren quartz vein and the two productive veins. This crosscut is an important piece of development in that it can be made the main haulage level of the property. It was driven some 450 (650) feet to the east of the present face of the #4 level and in a shear zone clearly observable on the surface as well as underground. It is the writer's opinion that a small amount of drifting to the west on the horizon of this #5 adit will encounter the orebodies visible above in the four main levels. This development should be extended as rapidly as circumstances will permit, for there is every evidence that as soon as the zone of disturbance in which the #5 level was driven has been passed, the known orebodies will be encountered. In addition to the value of this #5 level as a main haulage-way, proving the downward extension of the orebodies visible above would add greatly to the tonnage of available ores. This #5 level is connected through to the #4 level tramway by a raise, which is of importance in considering operating methods in that all ores on the #4 level and above can be dropped to the #5 level through this raise and then trammed to the millsite which is situated at the portal of the #5 level.

OPERATION AND MILL PRACTICE.

It is rarely that a property is encountered wherein operating conditions are as favorable as in the Gold Prince. In most mining properties hoisting of mine ores and waste and

pumping of mine waters are the rule rather than the exception. These two items alone represent, on the average, 40% of mining costs. In the case of the Gold Prince neither hoisting of ores or waste, or pumping of mine waters, need be considered for several years--at least not until the ores existing above the #5 level have been extracted. Encountering the known orebodies on the #5 level is simply a matter of less than 200 feet of drifting, the result of which would be to add to the present positive ores an additional tonnage of not less than 50,000 tons. With a fifty ton mill in operation, which is recommended, such ore reserves would provide more than six years' continuous operations before thought would have to be given to sinking below this horizon-- an unusually favorable aspect. Tests have been run on the ores by the Denver Equipment Company and Southwestern Engineering Company, the findings being that the ores are amenable to flotation, with indicated recovery of values in excess of 93%. It is of particular interest, with reference to these mill-tests, that comparatively coarse grinding only is indicated--65 mesh. All operating costs, including mining, milling, insurance and overhead should not exceed \$4.50 per ton. With allowance for losses in recovery, a net profit, per ton, of a minimum of \$5.00 should be accomplished. On this basis, and allowing for all reasonable shutdowns for repairs, etc., a minimum of 15,000 tons should be extracted and treated annually, or an indicated annual profit of \$75,000 available for distribution.

COLLATERAL DATA

The property, and district generally, were studied by Mr. W. Samuel, geologist for Ventures, Ltd., London, England, in 1932-1933. The Gold Prince was at that time under option to this Company (Ventures), but the company took the position that it required all of the various units before it would exercise its various options. Due to legal entanglements, the Dives property could not be obtained, and as this particular unit was second in importance to the Gold Prince, the company retired from the field. The Samuel examination was the most intensive ever carried out in the immediate region, and all the maps and other data incident to this examination are available to us. In general, these data are corroborative of the writer's conclusions. Quoting from the Samuel report: "The sampling indicated ore-shoots of about 35,000 tons above the #4 level running between \$10.00 and \$11.00 per ton at the old gold price. The indications are that neither the east limit nor the downward extension of these shoots have been reached. If ore continues to a reasonable distance to the east on #4 level, and is picked up on the #5 level, some 75,000 tons of better than \$10.00 ore would be definitely indicated. This would justify a 100 ton mill." (End of quotation). The drifting to the east on the #4 level and sinking of winze 50 feet below this level, which development was carried out by present owners since the Samuel report was compiled, bear out the expectation expressed by Samuel. The writer's sampling has been checked by two other engineers recently. J. B. L. Howard, a former employe of Ventures, estimates 26,000 tons above the #4 level of the average value of \$17.02 per ton, dumps not being considered. Sampling by T. P. Bean in 1933 returned an average value of \$15.40 per ton, represented by 76 samples, average width of orebodies having been given as $3\frac{1}{2}$ feet. The writer prefers, however, to confine his estimates to his own calculations, viz., 35,000 tons, including 2,500 tons on dumps, of the average value of \$11.25 per ton, average width of orebodies $3\frac{1}{2}$ feet, as representing the positive ores available for immediate extraction. This tonnage and grade warrant the installation of a fifty ton flotation plant.

GENERAL REMARKS.

In the consideration of a mining property, the two important factors are, (a) available tonnage of positive ores of a commercial grade; (b) potentialities of the property as represented by unexplored territory within the boundaries of the area. In every practical sense, the Gold Prince is underdeveloped, with much area yet to be explored. The positive ores now available can be utilized to retire the purchase price of the property, cost of installation of new fifty ton milling plant, cost of further exploration both eastwardly on the upper levels as well as on the #5 level, and reimburse owners to the extent of more

(5)

than 100% on such over-all costs in the way of profits. The millsite at the portal of the #5 level is suitable for mill installation, is properly graded and all necessary concrete foundations in place. The obvious potentialities expand these definite expectations to a very important extent. The favorable climatic conditions, excellent road adit openings with elimination of all hoisting and pumping charges, positive orebodies to an interesting extent, potentialities of an unusual order and all features of exceptionally attractive nature, render the Gold Prince a property of unusual merit. The acquisition of this property and installation of fifty ton milling plant with the view of placing property in production are strongly recommended.

Respectfully submitted,

(Signed)

I. M. Hirshfeld, Mining Engineer.

Dated: December 19, 1936.

Prepared for
Mr. Edwin G. Steels, President
Sutton, Steele and Steels, Inc.,
Dallas, Texas

W. E. Hawley

F. L. Hawley

Douglas, Arizona, 3/12/43

Mr. Tom P. Bean, Dos Cabezas, Arizona

Gold Prince Claim

In Account With
HAWLEY & HAWLEY
 W. E. Hawley Manager
 Douglas, Arizona
 537 12th St. Box 151
 Shippers' Representatives and Ore Buyers
 Assayers & Chemists

Hayden Ariz. Box 743

El Paso Tex. Box 4

Load ore		10494 lbs gross	R'e'd 3/11/43.
	Tare	480 "	Silver 70.62¢
		10014 " net wet	Copper 11.77¢
Moisture 1.0%		100 "	
		9914 lbs net dry	
		4.957 dry tons	

PAYMENTS PER TON

Gold.... 1.027 ozs. @ \$32.12	32.99
Silver.. 0.8 ozs. - 0.5 ozs. 0.3 @ 70.62¢	.21
Copper.. 0.04%	
Lead.... 0.4%	
	<u>33.20</u>

DEDUCTIONS PER TON

Treatment \$3.50 plus 10% excess smelter payments over \$15.00 per ton	5.32
Copper short 10¢ @ 11.77-2.5¢	.85
Smelter value per ton	<u>27.03</u>

4.957 dry tons @ \$27.03	133.99
Drayage to smelter 5.0 wet tons @ 1.00	5.00
	<u>128.99</u>
Less; sampling & assaying	2.50
10% commission	12.89
	<u>15.39</u>
Sutton, Steele & Steele 10% Royalty	113.60
Balance due shipper	<u>11.36</u>
	<u>102.24</u>

ORE SHIPMENTS

from the GOLD PRINCE MINE, made by present owners (Sutton, Steals & Steele, inc.,) to A.S.& R., El Paso Smelter, showing value in gold and silver only (Gold @ \$32.31825, Silver @ \$.755 less deduction).

Date 1936	Lot No. AS&R	Dry Wt. Tons	Gold oz.	Silver oz.	Value, net per ton	Credit	Balance -deduss.	Shipper Leaser
5/11	916	30.1775	1.51	2.0	\$49.93	\$1348.93	\$1104.28	
5/21	972	28.4675	1.01	1.2	33.17	796.81	633.89	
5/25	1020	29.45	0.98	1.1	32.12	793.97	631.36	
6/2	1079	23.5275	1.02	1.2	33.49	666.53	517.66	
6/19	1238	25.74	1.29	1.5	42.45	960.87	771.13	
8/8	1653	4.289	1.50	1.5	49.24	184.68	146.39	M. Gutierrez
8/8	1654	5.5085	0.48	0.6	15.59	62.85	34.34	F. Cariveo
8/8	1655	3.562	0.75	0.7	24.39	69.96	46.29	J.M. Miranda
8/8	1656	2.239	7.53	8.1	250.00	570.88	195.82	F. Cariveo
8/8	1657	33.65	1.31	2.1	43.55	1274.33	1031.23	T. Cariveo

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C O P Y

June 5, 1933

The Tidmarsh Engineering Company,
Tucson, Arizona.

Gentlemen:

The following is a geologic report on the Gold Prince mining property which is located on the southerly slope of the Dos Cabezas Range, about three miles northeasterly of Dos Cabezas, Cochise County, Arizona.

The report is based on an examination of the property and surround-area on June 2-4, 1933. It is not a detailed report on the geologic features of the area, but is confined to those particular features of the geology which are of major importance in an initial consideration regarding the probable occurrence of ore bodies at lower horizons in the property than those already mined. Specifically, the report concerns the possible existence of profitable ore bodies between the No. 4 and the No. 5 tunnel levels, a distance, vertically of about three hundred feet.

The conclusion is reached that ore bodies similar in all respects to those encountered in the lower (no. 3 and No. 4 tunnel) levels of the present workings extend downward at least to the No. 5 tunnel level, and possibly to a greater depth. The gold content and general mineral association of fold-pyrite-quartz of the ore deposit, as observed on the No. 3 and No. 4 levels, should continue downward without notable change to the No. 5 level. Any enrichment or impoverishment of the deposit through processes of oxidation and secondary enrichment has occurred above the No. 3 level in the near surface zone of the original deposit.

The property is situated in a very well defined belt of gold-quartz mineralization that extends for several miles easterly and westerly along the Dos Cabezas mountain range. The prevailing rocks of the country and region generally are a series of cretaceous sedimentary beds (shale and sandstone and their alternate equivalents, schist and quartzite, and some limestone) and a younger intrusive coarse-grained granite porphyry, which outcrops extensively to the south of the bedded rocks. The general trend of the bedded formation is easterly-westerly, with a steep northerly dip--about 60 degrees. The contact between the granite and the sedimentary beds occurs a few hundred feet south of and roughly parallel to the vein system or lode of the region generally. The abundance, continuity, and size of the individual quartz veins in this belt or zone of mineralization unquestionably indicate profound fracturing and faulting of the country rock and a long period of vein mineralization. The original fracturing and faulting probably occurred contemporaneously with the intrusion of the granite porphyry, and the gold-bearing quartz vein deposits were formed after the intrusion of this igneous rock and from the same magmatic source. Later fracturing and faulting have ruptured and displaced the general vein system to some extent.

In the Gold Prince property the ore deposit consists of a series of lenticular bodies of gray quartz containing gold and iron pyrite, which make up a vein system of lode confined to an intensely sheared fracture zone in shale country rock. The shear zone is from 35 to 40 feet wide between very definite hanging and footwalls. The individual

lenticular quartz veins range up to five feet in width and about 100 feet in length and occur on both walls in inter-connecting and over-lapping lenses in the sheared and schistose rock within the vein zone. The general strike and dip of individual lenses vary somewhat, and the dip, particularly in some cases, is nearly vertical or even slightly to the north. Veins with these characteristics are typical of deposits in schistose rocks.

The ore bodies were formed mainly by the filling of openings along fissures and only subordinately by replacement of wallrock. Deposition occurred from ascending hydrothermal solutions. There is no evidence that the deposit has been enriched by the solution of gold near the surface and its deposition at lower levels in the property. The surface ore was possibly somewhat richer than the ore which occurs on the No. 3 level and below, owing to the removal of the sulphides and other substances than gold. But oxidation and solution of sulphides does not appear to have extended for more than about 200 feet downward from the surface. The ore exposed on the No. 3 and No. 4 tunnel levels is obviously of primary character--that is, it occurred as originally deposited by the ore-bearing solutions coming from a magmatic source at some distance below. It is therefore expected that the gold value and general character of the ore as it occurs on the No. 4 level should continue downward without notable change for at least 300 feet, or to the No. 5 Tunnel level.

The No. 5 tunnel, the lowest opening in the property, is located well to the east end of the property and obviously was so located primarily to serve milling needs rather than for underground exploratory purposes. The surface geology above this tunnel clearly indicates a widely fractured and somewhat faulted condition of the vein system in this end of the property, a condition which is fully confirmed by underground disclosures in the tunnel. The trend of this fault zone is N. 50 degrees W., dip 60 degrees northeasterly; the zone is some 500 feet wide and intensely sheared. The No. 5 tunnel, which trends due north, intersects the southwesterly border of this fault zone at approximately 900 feet from the portal, and continues obliquely across the zone for about 700 feet, where it passes out of the northeasterly border. The vein through this badly fractured and faulted zone has been completely destroyed, as should be expected. The tunnel can be utilized for exploratory purposes to best advantage only in its first 900 feet; a crosscut tunnel should be started just outside of the intersection of the main tunnel with the southwesterly border of the fault zone. This crosscut to be carried parallel to the fault zone until it encounters the undisturbed portion of the vein system extending through the 300 foot block of unexplored ground between the No. 5 and No. 4 tunnel levels.

If the assays of the samples taken on the No. 3 and No. 4 tunnel levels can be considered as of milling grade, the 300 foot block of ground below, and as far easterly as the No. 5 tunnel should contain a considerable tonnage of such mill grade ore. The exploration of this ground with this end in view is considered justified and is so recommended.

Very truly yours,

(Signed) R. J. Leonard.

September 21, 1933.

My examination of September 17th of the new development work on the No. 4 level of the Gold Prince mining property has more than ever convinced me of the prospective value of the property.

This development of the vein on the east end of the No. 4 level has verified certain previously indicated and accepted geologic conditions of a favorable nature and

has greatly strengthened former conclusions made regarding the occurrence of orebodies downward to the No. 5 level, and probably deeper. Also, this new development on the No. 4 level seems to be indicating a key to the character of occurrence of ore lenses within the vein. This key feature of "rolls, pinches and swells" is one that is more clearly explained orally, and I have so explained it to you. If this feature is being interpreted correctly, it makes the prediction of a similar favorable development on the west end of the No. 4 level almost a certainty.

Thus my opinion of the ore probabilities of the property has been enlarged to include the unprospected ground to the east, and particularly to the west on and above the No. 4 level, as well as the block of ground below the No. 4 level and down to the No. 5 which was the main purpose of the original examination and report.

Very truly yours,

(Signed) R. J. Leonard

C O P Y

June 5, 1933

The Tidmarsh Engineering Company,
Tucson, Arizona.

Gentlemen:

The following is a geologic report on the Gold Prince mining property which is located on the southerly slope of the Dos Cabezas Range, about three miles northeasterly of Dos Cabezas, Cochise County, Arizona.

The report is based on an examination of the property and surround-area on June 2-4, 1933. It is not a detailed report on the geologic features of the area, but is confined to those particular features of the geology which are of major importance in an initial consideration regarding the probable occurrence of ore bodies at lower horizons in the property than those already mined. Specifically, the report concerns the possible existence of profitable ore bodies between the No. 4 and the No. 5 tunnel levels, a distance, vertically of about three hundred feet.

The conclusion is reached that ore bodies similar in all respects to those encountered in the lower (No. 3 and No. 4 tunnel) levels of the present workings extend downward at least to the No. 5 tunnel level, and possibly to a greater depth. The gold content and general mineral association of feld-pyrite-quartz of the ore deposit, as observed on the No. 3 and No. 4 levels, should continue downward without notable change to the No. 5 level. Any enrichment or impoverishment of the deposit through processes of oxidation and secondary enrichment has occurred above the No. 3 level in the near surface zone of the original deposit.

The property is situated in a very well defined belt of gold-quartz mineralization that extends for several miles easterly and westerly along the Dos Cabezas mountain range. The prevailing rocks of the country and region generally are a series of cretaceous sedimentary beds (shale and sandstone and their alternate equivalents, schist and quartzite, and some limestone) and a younger intrusive coarse-grained granite porphyry, which outcrops extensively

Veins with these characteristics are typical of deposits in schistose rocks.

The ore bodies were formed mainly by the filling of openings along fissures and only subordinately by replacement of wall-rock. Deposition occurred from ascending hydrothermal solutions. There is no evidence that the deposit has been enriched by the solution of gold near the surface and its deposition at lower levels in the property. The surface ore was possibly somewhat richer than the ore which occurs on the No. 3 level and below, owing to the removal of the sulphides and other substances than gold. But oxidation and solution of sulphides does not appear to have extended for more than about 200 feet downward from the surface. The ore exposed on the No. 3 and No. 4 tunnel levels is obviously of primary character--that is, it occurred as originally deposited by the ore-bearing solutions coming from a magmatic source at some distance below. It is therefore expected that the gold value and general character of the ore as it occurs on the No. 4 level should continue downward without notable change for at least 300 feet, or to the No. 5 Tunnel level.

The No. 5 tunnel, the lowest opening in the property, is located well to the east end of the property and obviously was so located primarily to serve milling needs rather than for underground exploratory purposes. The surface geology above this tunnel clearly indicates a widely fractured and somewhat faulted condition of the vein system in this end of the property, a condition which is fully confirmed by underground disclosures in the tunnel. The trend of this fault zone is N. 50 degrees W., dip 60 degrees northeasterly; the zone is some 500 feet wide and intensely sheared. The No. 5 tunnel, which trends due north, intersects the southwesterly border of this fault zone at approximately 900 feet from the portal, and continues obliquely across the zone for about 700 feet, where it passes out of the northeasterly border. The vein through this badly fractured and faulted zone has been completely destroyed, as should be expected. The tunnel can be utilized for exploratory purposes to best advantage only in its first 900 feet; a crosscut tunnel should be started just outside of the intersection of the main tunnel with the southwesterly border of the fault zone. This crosscut to be carried parallel to the fault zone until it encounters the undisturbed portion of the vein system extending through the 300 foot block of unexplored ground between the No. 5 and No. 4 tunnel levels.

If the assays of the samples taken on the No. 3 and No. 4 tunnel levels can be considered as of milling grade, the 300 foot block of ground below, and as far easterly as the No. 5 tunnel portal, contain a considerable tonnage of such mill grade ore. The exploration of this ground with this end in view is considered justified and is recommended.

of tunnel construction were designed and arranged to conform with the general conditions of the property and the No. 5 tunnel portal is located on the east end of the property.

downward to the No. 5 level, and probably deeper. Also, this new development on the No. 4 level seems to be indicating a key to the character of occurrence of ore lenses within the vein. This key feature of "rolls, pinches and swells" is one that is more clearly explained orally, and I have so explained it to you. If this feature is being interpreted correctly, it makes the prediction of a similar favorable development on the west end of the No. 4 level almost a certainty.

Thus my opinion of the ore probabilities of the property has been enlarged to include the unprospected ground to the east, and particularly to the west on and above the No. 4 level, as well as the block of ground below the No. 4 level and down to the No. 5 which was the main purpose of the original examination and report.

Very truly yours,

(signed) R. J. Leonard

W. E. Hawley

F. L. Hawley

Douglas, Arizona, 3/12/43

Mr. Tom P. Bean, Dos Cabezas, Arizona

Gold Prince Claim

In Account With
HAWLEY & HAWLEY
 W. E. Hawley Manager
 Douglas, Arizona
 537 12th St. Box 151
 Shippers' Representatives and Ore Buyers
 Assayers & Chemists

Hayden Ariz. Box 743

El Paso Tex. Box 4

Load ore		10494 lbs gross	R'cd 3/11/43.
	Tare	480 "	Silver 70.62¢
		10014 " net wet	Copper 11.77¢
Moisture 1.0%		100 "	
		9914 lbs net dry	
		4.957 dry tons	

PAYMENTS PER TON

Gold.... 1.027 ozs. @ \$32.12	32.99
Silver.. 0.8 ozs. - 0.5 ozs. 0.3 @ 70.62¢	.21
Copper.. 0.04%	
Lead.... 0.4%	
	<u>33.20</u>

DEDUCTIONS PER TON

Treatment \$3.50 plus 10% excess smelter payments over \$15.00 per ton	5.32
Copper short 10¢ @ 11.77-2.5¢	.85
Smelter value per ton	<u>27.03</u>

4.957 dry tons @ \$27.03	133.99
Drayage to smelter 5.0 wet tons @ 1.00	5.00
	<u>128.99</u>
Less; sampling & assaying	2.50
10% commission	<u>12.89</u>
	113.60
Sutton, Steele & Steele 10% Royalty	<u>11.36</u>
Balance due shipper	<u>102.24</u>

C O P Y

June 5, 1933

The Tidmarsh Engineering Company,
Tucson, Arizona.

Gentlemen:

The following is a geologic report on the Gold Prince mining property which is located on the southerly slope of the Dos Cabezas Range, about three miles northeasterly of Dos Cabezas, Cochise County, Arizona.

The report is based on an examination of the property and surround-area on June 2-4, 1933. It is not a detailed report on the geologic features of the area, but is confined to those particular features of the geology which are of major importance in an initial consideration regarding the probable occurrence of ore bodies at lower horizons in the property than those already mined. Specifically, the report concerns the possible existence of profitable ore bodies between the No. 4 and the No. 5 tunnel levels, a distance, vertically of about three hundred feet.

The conclusion is reached that ore bodies similar in all respects to those encountered in the lower (no. 3 and No. 4 tunnel) levels of the present workings extend downward at least to the No. 5 tunnel level, and possibly to a greater depth. The gold content and general mineral association of fold-pyrite-quartz of the ore deposit, as observed on the No. 3 and No. 4 levels, should continue downward without notable change to the No. 5 level. Any enrichment or impoverishment of the deposit through processes of oxidation and secondary enrichment has occurred above the No. 3 level in the near surface zone of the original deposit.

The property is situated in a very well defined belt of gold-quartz mineralization that extends for several miles easterly and westerly along the Dos Cabezas mountain range. The prevailing rocks of the country and region generally are a series of cretaceous sedimentary beds (shale and sandstone and their alternate equivalents, schist and quartzite, and some limestone) and a younger intrusive coarse-grained granite porphyry, which outcrops extensively to the south of the bedded rocks. The general trend of the bedded formation is easterly-westerly, with a steep northerly dip--about 60 degrees. The contact between the granite and the sedimentary beds occurs a few hundred feet south of and roughly parallel to the vein system or lode of the region generally. The abundance, continuity, and size of the individual quartz veins in this belt or zone of mineralization unquestionably indicate profound fracturing and faulting of the country rock and a long period of vein mineralization. The original fracturing and faulting probably occurred contemporaneously with the intrusion of the granite porphyry, and the gold-bearing quartz vein deposits were formed after the intrusion of this igneous rock and from the same magmatic sources. Later fracturing and faulting have ruptured and displaced the general vein system to some extent.

In the Gold Prince property the ore deposit consists of a series of lenticular bodies of gray quartz containing gold and iron pyrite, which make up a vein system of lode confined to an intensely sheared fracture zone in shale country rock. The shear zone is from 35 to 40 feet wide between very definite hanging and footwalls. The individual

lenticular quartz veins range up to five feet in width and about 100 feet in length and occur on both walls in inter-connecting and over-lapping lenses in the sheared and schistose rock within the vein zone. The general strike and dip of individual lenses vary somewhat, and the dip, particularly in some cases, is nearly vertical or even slightly to the north. Veins with these characteristics are typical of deposits in schistose rocks.

The ore bodies were formed mainly by the filling of openings along fissures and only subordinately by replacement of wallrock. Deposition occurred from ascending hydrothermal solutions. There is no evidence that the deposit has been enriched by the solution of gold near the surface and its deposition at lower levels in the property. The surface ore was possibly somewhat richer than the ore which occurs on the No. 3 level and below, owing to the removal of the sulphides and other substances than gold. But oxidation and solution of sulphides does not appear to have extended for more than about 200 feet downward from the surface. The ore exposed on the No. 3 and No. 4 tunnel levels is obviously of primary character—that is, it occurred as originally deposited by the ore-bearing solutions coming from a magmatic source at some distance below. It is therefore expected that the gold value and general character of the ore as it occurs on the No. 4 level should continue downward without notable change for at least 300 feet, or to the No. 5 Tunnel level.

The No. 5 tunnel, the lowest opening in the property, is located well to the east end of the property and obviously was so located primarily to serve milling needs rather than for underground exploratory purposes. The surface geology above this tunnel clearly indicates a widely fractured and somewhat faulted condition of the vein system in this end of the property, a condition which is fully confirmed by underground disclosures in the tunnel. The trend of this fault zone is N. 50 degrees W., dip 60 degrees northeasterly; the zone is some 500 feet wide and intensely sheared. The No. 5 tunnel, which trends due north, intersects the southwesternly border of this fault zone at approximately 900 feet from the portal, and continues obliquely across the zone for about 700 feet, where it passes out of the northeasterly border. The vein through this badly fractured and faulted zone has been completely destroyed, as should be expected. The tunnel can be utilized for exploratory purposes to best advantage only in its first 900 feet; a crosscut tunnel should be started just outside of the intersection of the main tunnel with the southwestly border of the fault zone. This crosscut to be carried parallel to the fault zone until it encounters the undisturbed portion of the vein system extending through the 300 foot block of unexplored ground between the No. 5 and No. 4 tunnel levels.

If the assays of the samples taken on the No. 3 and No. 4 tunnel levels can be considered as of milling grade, the 300 foot block of ground below, and as far easterly as the No. 5 tunnel should contain a considerable tonnage of such mill grade ore. The exploration of this ground with this end in view is considered justified and is so recommended.

Very truly yours,

(Signed) R. J. Leonard.

September 21, 1933.

My examination of September 17th of the new development work on the No. 4 level of the Gold Prince mining property has more than ever convinced me of the prospective value of the property.

This development of the vein on the east end of the No. 4 level has verified certain previously indicated and accepted geologic conditions of a favorable nature and

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has greatly strengthened former conclusions made regarding the occurrence of orebodies downward to the No. 5 level, and probably deeper. Also, this new development on the No. 4 level seems to be indicating a key to the character of occurrence of ore lenses within the vein. This key feature of "rolls, pinches and swells" is one that is more clearly explained orally, and I have so explained it to you. If this feature is being interpreted correctly, it makes the prediction of a similar favorable development on the west end of the No. 4 level almost a certainty.

Thus my opinion of the ore probabilities of the property has been enlarged to include the unprospected ground to the east, and particularly to the west on and above the No. 4 level, as well as the block of ground below the No. 4 level and down to the No. 5 which was the main purpose of the original examination and report.

Very truly yours,

(Signed) R. J. Leonard