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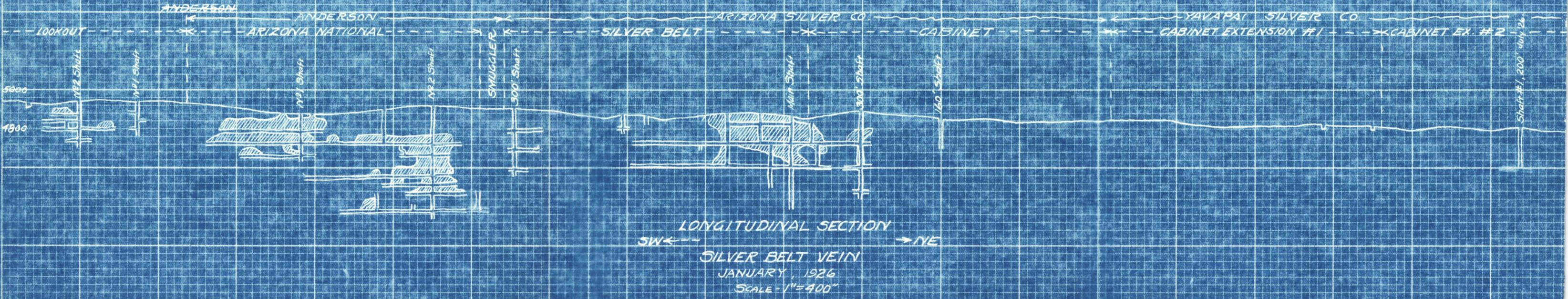
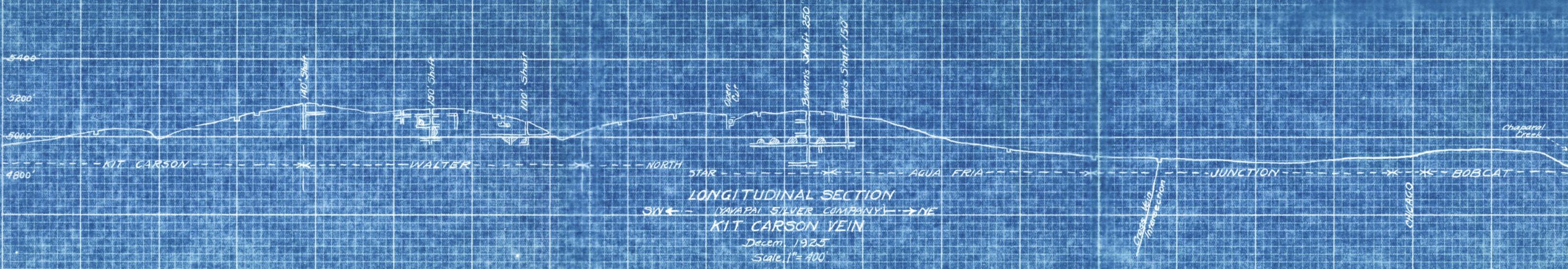
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Shaft #1, 200 July 26

CHIEAGO

Chaparral Creek

REPORT ON ARIZONA NATIONAL MINE

(Called Anderson Mine)

Location: Big Bug District - 1 mi. west of Humboldt, Ariz.
Claims: Two - Arizona National and Smuggler Fraction
Owner: Frank Andrews
Operators: Double "O" Metals Co. - O.O. Smith & Lundquist
Visited: July 13th, 1929 by G. J. Harbauer.

GEOLOGY:

Formation is blocky amphybolite schist and fine grained diorite. The vein strikes N 20° E and dips 70° W and ranges in width from a few inches to several feet.

Vein minerals consist of gangue of drusy quartz, some calcite, much pale brown ankerite with manganese, and some barite.

The ore minerals are galena and sphalerite, with a little pyrite and chalcopyrite.

The principal value is silver which occurs as argentite disseminated thru the galena and also in silver bearing tetrahedrite.

The ore occurs in small chutes and bunches making it necessary to do a larger amount of development work to keep ore in sight.

DEVELOPMENT:

The vein is opened up by two inclined shafts. The older, or South shaft, being 230' deep and the newer, or North shaft, extending to a depth of 370'. There are three levels driven from the South shaft, and six levels from the North shaft. The fourth level driven from the North shaft is being extended South to get under the South shaft to which it will be connected by a raise. After this connection is made this level will be continued South to develop an ore chute which was encountered on upper levels. The ore will be hoisted thru the South shaft. On the sixth level of the North shaft a raise is being driven from the North end to open up an ore chute that was opened up in the adjoining property and which extended into the Anderson ground.

PRODUCTION:

The mine has produced quite a number of cars of high grade

ore and concentrates and the operators hope to be producing again in about a month. The last carload of concentrates assayed as follows:

<u>Ag. 239 ozs.,</u>	<u>Cu. 1.5%</u>	<u>Pb. 26.0%</u>	<u>Zn. 24.0%</u>
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Some of the direct smelting ore assays about:

<u>Ag. 100 ozs.,</u>	<u>Cu. 0.33%</u>	<u>Pb. 12.9%</u>	<u>Zn. 10.7%</u>
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Insol. 47.2

EQUIPMENT:

The north shaft is equipped with a 15 H.P. distillate hoist and two small compressors driven by hot head oil engines.

There is a hoist on the south shaft also. A 50 ton flotation mill is located near the South shaft and extra flotation cells are on hand to be used for making a zinc concentrate, should this be found advantageous.

Heretofore, a mixed concentrate has been made as the smelter did not penalize for zinc up to 15% and part of the zinc has been dropped in the tailings to keep the zinc near the 15% mark., thus avoiding the penalty. It has been found lately, however, that some of the zinc carries good silver values which makes it more profitable to save the zinc and pay the penalty for the excess.

Flotation tests on this ore and actual milling experience show a good extraction and a good separation can be made of the lead and zinc. No large production can be expected from this mine, but one car per month of lead-zinc concentrates or one-half car each of lead and zinc concentrates may be expected. The ratio of concentration is about 20 to 25 into one. Some direct smelting lead ore may be produced from time to time also.

REPORT ON ARIZONA NATIONAL MINE

(Called Anderson Mine)

- Copied* *W. G. Lester*
- LOCATION - Big Bug District - 1 mi. west of Humboldt, *Ariz.*
- CLAIMS - Two - Arizona National and Smuggler Fraction
- OWNER - Frank Andrews
- OPERATORS - Double "O" Metals Co. - O.O. Smith & Lundquist
- VISITED - July 13th, 1929 by G. J. Harbauer.
- GEOLOGY - Formation is blocky amphybolite schist and fine grained diorite. The vein strikes N 20° E and dips 70° W and ranges in width from a few inches to several feet.
- Vein minerals consist of gangue of drusy quartz, some calcite, much pale brown ankerite with manganese, and some barite.
- The ore minerals are galena and sphalerite, with a little pyrite and chalcopyrite.
- The principal value is silver which occurs as argentite disseminated thru the galena and also in silver bearing tetrahedrite.
- The ore occurs in small chutes and bunches making it necessary to do a larger amount of development work to keep ore in sight.
- DEVELOPMENT - The vein is opened up by two inclined shafts. The older, or South shaft, being 230' deep and the newer, or North shaft, extending to a depth of 570'. There are three levels driven from the South shaft, and six levels from the North shaft. The fourth level driven from the North shaft is being extended South to get under the South shaft to which it will be connected by a raise. After this connection is made this level will be continued South to develop an ore chute which was encountered on upper levels. The ore will be hoisted thru the South

DEVELOPMENT (continued)

shaft. On the sixth level of the North shaft a raise is being driven from the North end to open up an ore chute that was opened up in the adjoining property and which extended into the Anderson ground.

PRODUCTION -

The mine has produced quite a number of cars of high grade ore and concentrates and the operators hope to be producing again in about a month. The last carload of concentrates assayed as follows:

Ag. 239. ozs., Cu. 1.5%, Pb. 26.0%, Zn. 24.0%

Some of the direct smelting ore assays about:

Ag. 100 ozs., Cu. 0.33%, Pb. 12.9%, Zn. 10.7%
Insol. 47.2

EQUIPMENT -

The North shaft is equipped with a 15 H.P. distillate hoist and two small compressors driven by hot head oil engines.

There is a hoist on the south shaft also. A 50 ton flotation mill is located near the South shaft and extra flotation cells are on hand to be used for making a zinc concentrate, should this be found advantageous.

Heretofore, a mixed concentrate has been made as the smelter did not penalize for zinc up to 15% and part of the zinc has been dropped in the tailings to keep the zinc near the 15% mark., thus avoiding the penalty. It has been found lately, however, that some of the zinc carries good silver values which makes it more profitable to save the zinc and pay the penalty for the excess.

Flotation tests on this ore and actual milling experience show a good extraction and a good separation can be made of the lead and zinc. No large production can be expected from this mine, but one car per month of lead-zinc concentrates or one-half car each of lead and zinc concentrates may be expected. The ratio of concentration is about 20 to 25 into one. Some direct smelting lead ore may be produced from time to time also.

Arizona National Mine, Camp Anderson, near Humboldt. Inspected February 25, 1917. Anderson & Birch have been operating for nearly two years. Pete Egbert, Foreman.

Property adjoins Silver Belt Mine on the southwest.

Belt of porphyry running N. E. - S. W., about 25' wide in schist with a slight dip to the west. In the porphyry belt are stringers and lenses of argentiferous galena intercalated with vein matter sometimes carrying a little disseminated galena. The seams of galena are commonly only an inch or two wide and one such stringer is frequently all the visible ore in a five or six foot face. The maximum width of galena I saw exposed was in a short lens one foot wide. The combined width of this lens and the contiguous seams of galena in this face was two feet. Native silver, usually associated with a little calcite, is sometimes visible in the galena. The stringers and lenses may appear anywhere in the 25' belt of porphyry and there is no continuity of ore. Slickensided gouge often accompanies the galena, indicating considerable slipping within the porphyry belt.

The operators estimate that they have developed ground more or less ore bearing for a horizontal length of 600', and that the ore shoot pitches to the S. W. Zinc blende shows up in proximity to the schist.

The incline shaft is 225' deep, with levels at 100' and 200'. The 100' Level has been driven 150' S. W. and 250' N. E. The 200' Level is in 500' S. W. and 200' N. E. A 15 HP gasoline hoist and a small compressor have been installed.

A little stoping has been done. Hitherto practically all the production has come from sorted ore shipped to El Paso. I was unable to learn the approximate amount. Some milling has been done in the small concentration mill but it was apparently unsuccessful and the mill is now being overhauled with a view to adding a flotation plant. It is proposed to mine the whole porphyry belt, sort out the shipping ore and mill most of the remainder. In view of the small proportion of ore to the ground to be broken, the probable economic success of this method is very doubtful.

L. F. S. Holland.

h e

Humboldt

National

ARIZONA MINE, Camp Anderson, between Iron King & McCabe,
Yavapai County. Visited October 9, 1916.

Mr. Peter Egbert, foreman, in charge, was not around. Was informed that the shaft is 250' deep and that drifting is being done on the 200 foot level, where there is a narrow streak showing argentiferous galena in a vein four or five feet wide in places. Only a little drifting has been done so far, on this level.

A Mill has just been installed and is almost ready to run, containing a Huntington Mill and three Wilfley tables; all new. There is a new Chicago Pneumatic Tool Co.'s 14 x 14 Compressor.

The ore in the mill vein appears to show as much zinc blende as galena. The mill man informed me that it was too low grade stuff to start up the mill with, but it has not yet been decided whether a zinc shipping product would be attempted as well as the silver-lead product.

Evidently a small prospect so far. -

*Let us contact
for some year*