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Item 2

4590 0002

RENO OFFICE
RECONSTRUCTION FINANCE CORPORATION
MINING SECTION
FIELD REPORT

Docket No. D-ND-4149

Date Application Received — October 6, 1942
Date of Field Examination — July 9-10, 1943
Date of Report — July 25, 1943

NAME AND ADDRESS OF APPLICANT

Missouri Monarch Consolidated Mines Company
302 Bay Street
Toronto, Ontario, Canada

NAME AND ADDRESS OF CORRESPONDENT

Same

LOCATION OF MINE

Spruce Mountain, Elko County, Nevada, 45 miles south of Wells, Nevada, a station on the S.P. Railroad, and W.P. Railroad. Tobar, a station on W.P. Railroad, is nearer by about 15 miles. Both railroad points reached by fair County road.

CHARACTER OF PROJECT

This is an old mine with seven thousand feet of workings done largely through tunnels. It has produced a large tonnage of lead-silver ore since its discovery in the late 1860's. The loan is requested for financing development in an area of virgin territory west of the faulted segments that have been worked out.

APPLICANT'S INTEREST IN OR OWNERSHIP OF PROPERTY

Owners of about 1340 acres of patented mining claims.

CHARACTER AND RELIABILITY OF APPLICANT

The officers and principal stockholders in the corporation are undoubtedly men of high standing and character. Mr. H. H. Cazier of Wells, Nevada, a small stockholder, and local representative of the Canadian officials of the Company, is reliable and competent. It is suggested that Mr. Cazier be made the Correspondent for the Company if a loan is granted. In fact, it should be insisted upon.

Mr. Alonzo Knudsen, former superintendent, now lives at Metropolis, a few miles north of Wells. He is also a small stockholder, and thoroughly acquainted with the mine. His advice and direction should be obtained in organizing the work if a loan is granted. Both men express their willingness to cooperate.

LOAN REQUESTED

Loan requested is $20,000.00.

LOAN RECOMMENDED

Loan recommended is $9,000.00.

DESCRIPTION OF PROPERTY

The mine lies on the northeast slope of Spruce Mountain at an elevation of about 8000 feet. This is about 2000 feet above the valley floor, and 3000 feet below the summit of the mountain. The terrain is characterized by its high relief, its steep slopes cut by deep canyons.

Limestone is the predominant rock formation, with minor areas of granitic intrusives. Tertiary volcanics are entirely absent. The

Black Forest mine is the only part of the Applicant's extensive holdings that is considered in this report.

Messrs. Cazier and Knudsen, acting for the Applicant, accompanied Mr. Overton and the writer to the property and remained with us during the inspection. The application does not designate any specific plan or program as a basis for a loan. Mr. Knudsen, however, explained that it was the Company's plan to drive a drift northeasterly from a point in the highest level, west of No. 2 fault, to intersect an area adjacent to the "Dutch Fissure".

Reference is made to the Plan map accompanying this report. This is the original map as published in University of Nevada Bulletin No. 7 issued by the Nevada State Bureau of Mines, and Mackay School of Mines, entitled "Spruce Mountain District, Elko County, and Cherry Creek (Egan Canyon) District, White Pine County, by F. C. Schrader, Geologist, U.S. Geological Survey". I have added to this the development work done west of No. 2 fault, and the cross sections E-E' and D-D', also colored the various levels. The cross sections E-E' and D-D' are my own interpretations, and should not be taken too literally as there are a number of errors in the original map and complete checking was not practicable.

It will be noted that Mr. Schrader made no attempt to define the structure west of No. 2 fault. This was first done by Mr. W. K. Landwehr, geologist for the American Smelting and Refining Company, who financed the raise from "A" level to "AA" level. This was done since 1939, and the Smelter repaid from ores stoped from "AA" level.

The map and cross sections indicate conclusively that the ore is made in a certain favorable bed at points where pre-mineral fissures cut it. The "Dutch" fissure has proven the most productive. Minor amounts of ore occur in the fissures in the limestones below the "ore bed".

The ground between No. 1 and No. 2 faults is a down dropped block, and was mined out by the early locators. The block east of No. 1 fault was discovered and mined later through the Lower (E) tunnel. The area west of No. 2 fault is virtually virgin territory.

The favorable ore bed is a limestone stratum from 10 to 20 feet thick. It is more or less porous in places, varying in color from white, through gray to brown. In the immediate vicinity of the ore it is often dark brown. Overlying this bed in immediate contact with it is a thick stratum of blue black limestone, massive compact, and easily recognized. It is an excellent marker, and is barren of ore, except in small quantities where the stronger fissures cut it.

The Applicant's proposal to drive a drift from "AA" level northeast, keeping west of No. 2 fault, to intersect the "Dutch" fissure was not approved, primarily because the objective point would be either at the surface or very close to it. This was checked by Brunton survey and aneroid readings. Access to "AA" level is through at least 150 feet of raises, which together with a long drift, and haulage would make mining costs abnormally high. This view was accepted by Messrs. Cazier and Knudsen.

The ore occurs as replacement bodies in limestone. It is composed of lead carbonate, iron oxide, lime, and a small percentage of silica. Occasional nodules of galena occur. Silver occurs in the ratio of about 1.1 oz. to each per cent of lead. The ore carries a below average treatment charge because of its high iron and low silica content.

Fourteen hundred tons were mined from "AA" level west of No. 2 fault, which averaged 15.3 oz. of silver, 13.65% lead, .6% copper, and 1.6 zinc, having an average net smelter value of $18.25 per ton. If the Applicant is entitled to the "A" premium, the total net value is about $25.00 per ton.

It will be noted that the ore bed dips from "AA" level toward the Lower (E) level, but remains above it. West of No. 2 fault it has

has been encountered only at "AA" level. Cross section D-D' is intended to show its probable position. It is now proposed to raise either from D level, or from the short raise from E level which takes off from the cross cut west of the section. A well defined fissure, carrying values, in the limestone below the bed is exposed in the above mentioned cross cut. The geological factors and structural features indicate the area in the vicinity of E tunnel, but above it, and west of No. 2 fault, to be potentially ore bearing. It is not practical to continue to mine down the bed from "AA" level.

No samples were taken, as all the ore had been cleaned from drifts and stopes, and smelter settlement sheets are available. No sorting is necessary.

E Tunnel is open and in good condition, with track, air pipes, etc. However, the air is bad in the cross cut west of D section, as the ventilation is through "D" level connections just east of the section. At the portal of E tunnel is a substantial power house and living quarters for a dozen men. Two compressor units capable of a combined production of 500 to 600 cubic feet per minute are installed in the power house. The compressor units are Diesel powered; one, 85 H.P., and one, 125 H.P, and in good condition. The Company has on hand all the air drills, steel, etc., necessary to start operations.

The problem presented, resolves itself into the following factors:

(1) Developing new territory west of No. 2 fault in the expectation of finding new ore bodies.
(2) Mining and shipping the ores that may be found.
(3) Financing labor and supplies to accomplish the above.

It seems reasonable to assume that ore will be found at the proper horizon in the territory adjacent to section D-D', especially near the south end. The presence of a major fissure, carrying values, and a number of minor cross fractures exposed on E level, together with the fact that ore in paying quantities is known to occur west of No. 2 fault is the basis of the assumption.

It is the writer's opinion that 100 feet of raises and 250 feet of drifting will be the outside limit of exploration work necessary to determine the actual conditions. It may be done with less.

The cost estimate is as follows:

6 men @ $10.00 per day for 90 days	$5400
Overhead, supplies, etc.	3600
Total	$9000

It involves putting up a raise from D level to reach the "ore bed", and drifting and cross cutting in block 600' - 1000' south - 600' - 800' west. This plan is selected in preference to raising from E level on account of ventilation problems.

The cost of mining the ore, once encountered, delivered in the bins at the portal is estimated at $8.00 per ton.

The average metal content of 1393 tons shipped from west of the fault is 13.65% Pb, and 15.3 oz. of silver, for which the smelter would pay $10.93 for the lead, and $10.30 for the silver, a total of $21.23. Smelter deductions should not average over $3.00, leaving $18.23 as the smelter value. The A premium on the lead would amount to $7.10, bringing the total value to $25.33.

RECAPITULATION

Smelter value Pb =	$10.93
" " Ag =	10.30
Total smelter value =	21.23
A Premium	7.10
Total net	$28.33

Deductions

Smelter	$ 3.00
Freight	3.00
Hauling	3.00
Mining	8.00
Total	$17.00

Total net	$28.33
Total deductions	17.00
	$11.33 net profit

It would take about 800 tons to pay off a $9000 loan.

LABOR

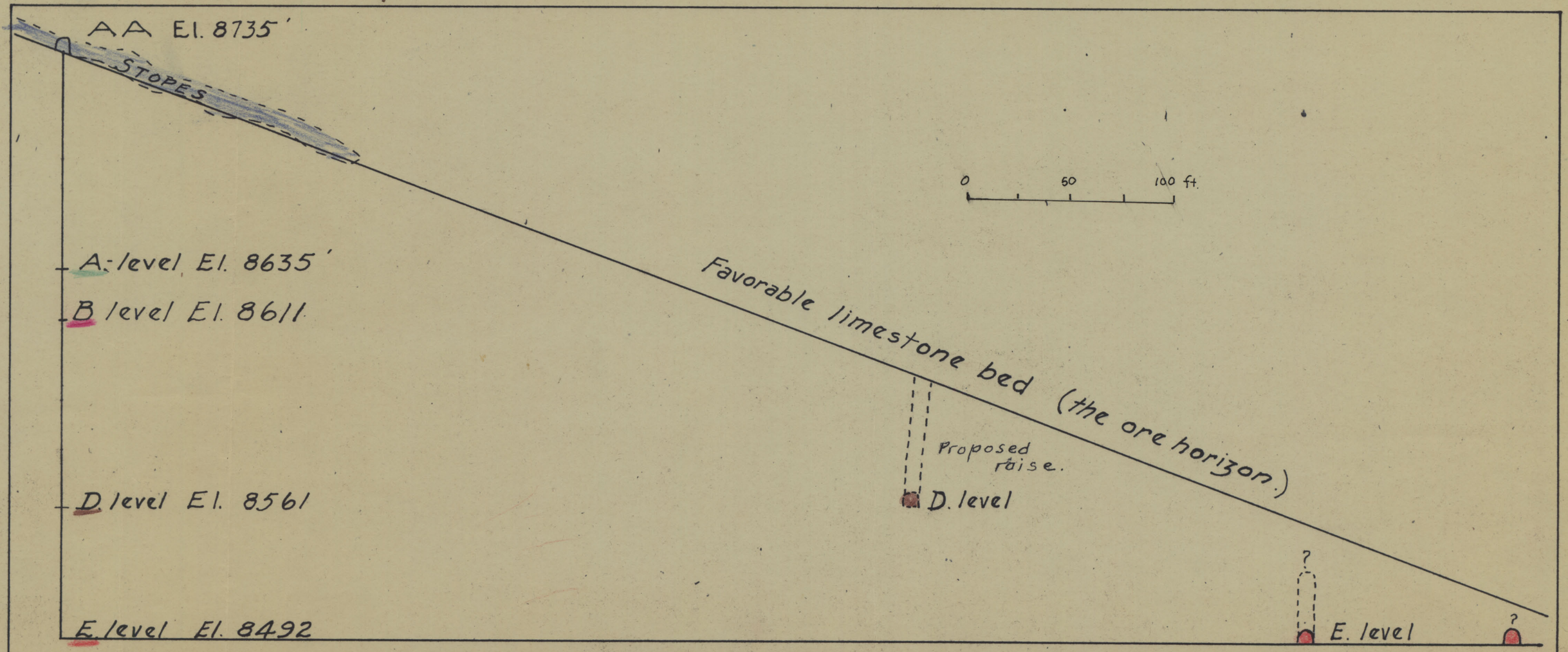
Both Knudsen and Cazier believe they can recruit enough of their old crew locally to operate under the plan outlined. Knudsen, former superintendent, will direct initial operations personally, and visit the property from time to time, but cannot be there all the time. Cazier will act as correspondent and attend to the buying and clerical work, both without regular pay.

RECOMMENDATION

It is the writer's belief that the conditions existent here justify the granting of a $9000 loan, or as much of it as necessary, to explore the territory adjacent to the old workings, and that it will result in the production of appreciable quantities of a strategic metal necessary to the war effort.

Carl Stoddard

CARL STODDARD
Engineer



Cross Section thru D-D looking East. Scale. 50' = 1 inch

R.F.C. B-ND- 4149 C. Stoddard. 7/43 TR'D. TDD.

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? Surface.

Section D-D'

Blge ls

Ore bed

Elev. 8735 AA level.

No 2 fault

No 1 fault.

A level - Elev. 8635

B level Elev. 8611

D level Elev. 8561

E level Elev. 8492

Ore bearing limestone

B

℄ Blue limestone (Marker)

A-A' Section

℄ ore bearing limestone (grey, white, brown)

Dutch level

No 11 fissure

E tunnel

SECTION E-E'

Looking Northeast

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Nevada Monarch Consolidated Mines Corporation

To The Shareholders:

The Balance Sheet previously sent to the shareholders indicated the financial position of the Company at the end of the year and shows the amount expended in diamond drilling at the Black Forest Mine as being $33,658.08, while the supplementary sheet attached shows the individual expenditures in connection with this work.

The diamond drilling was all performed from F. Level and while objectives were not reached in either Nos. 1 or 3 Holes, some interesting ore intersections were encountered and valuable geological information obtained in all three holes. Total footage drilled 3,572 ft.

No. 1 Hole was drilled at -74 degrees bearing approx. S. 45 degrees W. and intersected carbonate ores as indicated by sludges from footage 165-185 of which 180-185' was commercial, assaying 8.3 ozs. Ag, 3.8% Pb and 1.5% Zn. Carbonates were also encountered at footage 275-285, assays of which were too low to be of interest.

Sulphide ore was encountered from footage 600-611 ft. of which a small sample of core assayed .020 ozs. Gold, 6.4 ozs. Ag, 8.8% Pb, 5% Zn., .61% Cu and 24% Arsenic.

Sludge samples assayed as follows:

600-605'	.010 oz. Gold,	6.1 oz. Silver,	.4% Lead,	2% Zinc,	13.8% As
605-610'	.010 oz. Gold,	5.2 oz. Silver,	3.2% Lead,	8.2% Zinc,	21.8% As
610-615'	.010 oz. Gold,	3.0 oz. Silver,	0.6% Lead,	1.5% Zinc,	12.4% As

Small amounts of sulphides were encountered at various places below 600 ft. principally disseminated pyrite with small amounts of galena and sphalerite. Some oxidized streaks were also encountered as deep as footage 852.

Pyrite with galena and sphalerite occurred at footages 897 and 908 and 1135. A small section of core at 898" assayed trace in Gold, 4.6 ozs. Silver, 2.2% Lead, 3.6% Zinc.

6" of core at 1135' assayed: Trace in Gold, 2.6 ozs. Silver, 2.8% Lead, 4.4% Zinc.

The formation passed through consisted of generally Dolomitic rocks; Dolomitized Limestone with small bands of crystalline Limestones some of which were also highly silicified. Much broken ground was encountered and the percentage of core lost was high but sludges of almost every 5 ft. drilled were obtained. A large percentage of these has not yet been assayed.

No. 1 Hole ran into bad ground at footage 1250 and although every effort was made short of reaming the hole, the bit was not recovered and the hole was abandoned for the time being.

No. 2 Hole was drilled from practically the same setup as No. 1 at an angle of -74 degrees but bearing N. 45 degrees W., the purpose being to intersect the sulphides shown in No. 1 at 600-610 ft. The first 150 ft. of this hole was in altered porphyry and altered limestone evidently at the contact of these rocks. Some copper stain and oxides were shown but no commercial assays were obtained from sludges. The balance of the hole was in Dolomites and Crystalline Limestone. The hole was stopped at footage 815 in a rather fine grained silicified limestone similar to a bed showing in E. Level approximately 1000 ft. west of the bottom of this hole. This would suggest a vertical displacement of about 1000 ft. on a fault very close to the collar of the hole. There is also evidence of this fault on the surface, east of the portal of E. Level. This information may be valuable if drilling is undertaken to the northeast.

Hole No. 3 was spotted near the end of F.2 Drift 470 ft. southwest of the collar of Hole No. 1 and was drilled at -20 degrees bearing S. 50 degrees W. for the purpose of cutting the continuation of fissures which carried attractive mineralization where encountered on E. Level. This hole reached a depth of 1507 ft. after passing through some exceptionally bad drilling ground around footage 1063. Valuable geological data was obtained.

An interesting patch of sulphides was shown on one side of the core at footage 378 being a mixture of Iron, Lead and Zinc sulphides. The sludge, however, at footage 375-380 assayed Trace in Gold, 1.2 ozs. Silver, 1.8% Lead, 0.10% Copper 1.0% Zinc.

Interesting sludges were shown at footage 430-450 from much broken core. The sludge from 435-440 assayed 0.01 ozs. Gold, 10.4 ozs. Silver, 2.2% Lead, .81% Copper, 13.3% Zinc.

An effort was made by plotting Holes Nos. 1 and 3 on the same plane to correlate possible faults and ore indications in the cores with those encountered on E. Level, with rather doubtful results.

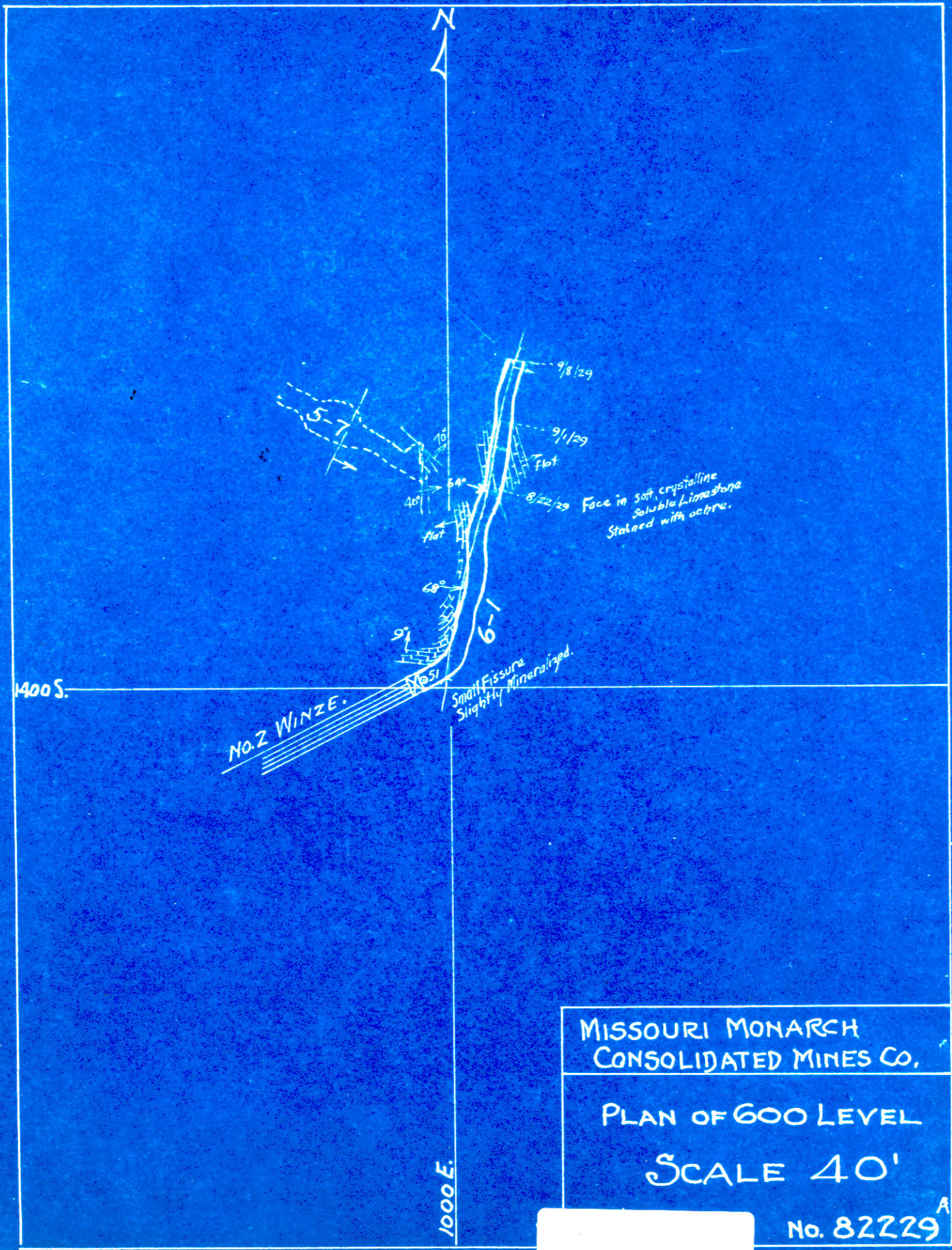
It is fairly certain, however, that the bit in Hole No. 1 is stuck in the Dutch Fissure. The Hole would have to be continued about 300 ft. further to cut the fissure developed by E. 10 and E. 16 Crosscuts with the possibility also of getting ore of a grade similar to that encountered near Station 122 or the intersection of E. 16 Crosscut with E. Level. No. 2 Fault shown on E. Level might also be encountered near this point.

On the whole the information gained by the footage drilled is valuable and warrants a continuation of drilling to greater depth. It is proposed that the surface hole spotted near the Spence Shaft should be drilled next with an objective of not less than 2,500 ft. and Hole No. 1 should be reamed and cased to its present depth and an effort made to continue it for another 1200 ft.

While the possibilities of encountering substantial sulphide orebodies at depth are still promising the mine at the present time is without important ore reserves and must still be considered as being in the exploratory stage.

NEVADA MONARCH CONSOLIDATED MINES CORPORATION,

W. M. ARCHIBALD,
President.

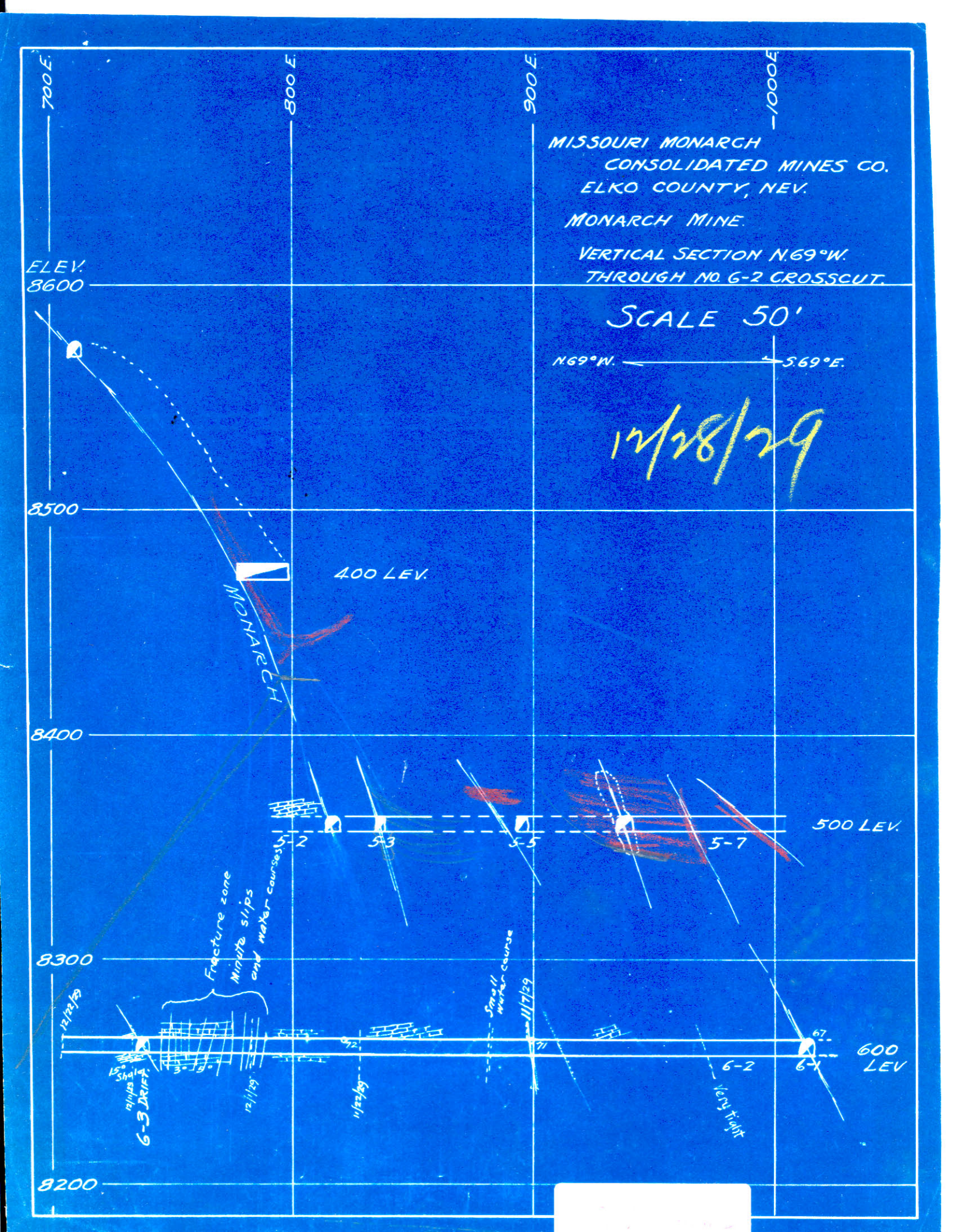


MISSOURI MONARCH CONSOLIDATED MINES CO.

PLAN OF 600 LEVEL

SCALE 40'

No. 82229 A


700 E.
800 E.
900 E.
1000 E.
MISSOURI MONARCH
CONSOLIDATED MINES CO.
ELKO COUNTY, NEV.
MONARCH MINE.
VERTICAL SECTION N.69°W.
THROUGH NO. 6-2 CROSSCUT.
SCALE 50'
N.69°W.
S.69°E.
12/28/29
ELEV.
8600
8500
8400
8300
8200
400 LEV.
MONARCH
500 LEV.
5-2
5-3
5-5
5-7
Fracture zone
Minute slips
and water courses
Small water course
11/7/29
12/22/29
15° Shaft
12/1/29
6-3 DRIFT
12/1/29
11/22/29
11/7/29
6-2
6-1
Very tight
600
LEV

PLAN OF 500 LEVEL
SHOWING DESIGNATION
OF WORKING PLACES
BY NUMBERING.

N

SCALE 40'