EVALUATION REPORT
ON THE
ROCKLAND MINE
LYON COUNTY, NEVADA

by
J.P. ELWELL ENGINEERING LTD.

July 28th, 1981

EVALUATION REPORT
ON THE
ROCKLAND MINE
Lyon County, Nevada

for

RED LEDGE MINING CORP.
114A Catherine Lane
Grass Valley, California

by

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SUMMARY

The Rockland Mine, located in the Pine Grove area of Lyon Co., Nevada, consists of 20 located claims situated at an altitude of 7500-8000 feet.

The mine dates from its discovery in 1869 and was operated intermittently by various companies up to 1918 when it closed due to high costs. It was reopened in the 1930's with the increase in the price of gold but closed permanently with the outbreak of World War II. Production records are very incomplete, but one estimate is a total value of $700,000 in gold and silver up to 1921.

Geologically, the Rockland Mine is underlain by granitic intrusives which are cut by a north-south trending rhyolite dike dipping at 45° to 70° to the east. The dike is brecciated and partially replaced with vein quartz which carries most of the gold-silver values. The vein has been mined from a series of adit levels over a strike length of about 1000 feet and a vertical range of 900 feet with an unknown amount of stoping below the bottom level by a winze said to be 300 feet deep. The vein averages 3 feet in width, and from old mill records and recent sampling the grade probably averaged 0.25 - 0.30 oz/ton Au, and about 10 oz/ton Ag. Recent sampling indicates the altered wall rock adjoining the vein carries significant silver values.

Although there are no proven ore reserves, the property offers good possibilities for the development of additional reserves both along strike of the vein and at depth below the existing workings.

A program of exploration is proposed for the property consisting of geological mapping and sampling, rehabilitation and survey of the old workings and some diamond drilling. This program is estimated to cost $100,000.

If successful, a second phase of work would be initiated provisionally estimated at $250,000.

INTRODUCTION

On July 9th, 1981, the writer made a reconnaissance examination of the surface and accessible underground workings of the Rockland Mine located in Lyon County, Nevada. Background information on the property was provided by Mr. Hans Madeisky, geologist, who had previously prospected and sampled the underground workings, and who accompanied the writer on the recent visit. The reports and other information referred to is acknowledged under "References".

This report was prepared for Red Ledge Mining Corp., 114A Catherine Lane, Grass Valley, California.

LOCATION AND ACCESS

The Rockland Mine is located in Lyon County, Nevada, about 20 miles south of Yerington in the Pine Grove district, at an altitude range of 7500 to 8000 feet.

Access is by way of all weather gravel road for all but the last 2 miles which is rough, with steep grades, but passable to two wheel drive pick-ups and trucks.

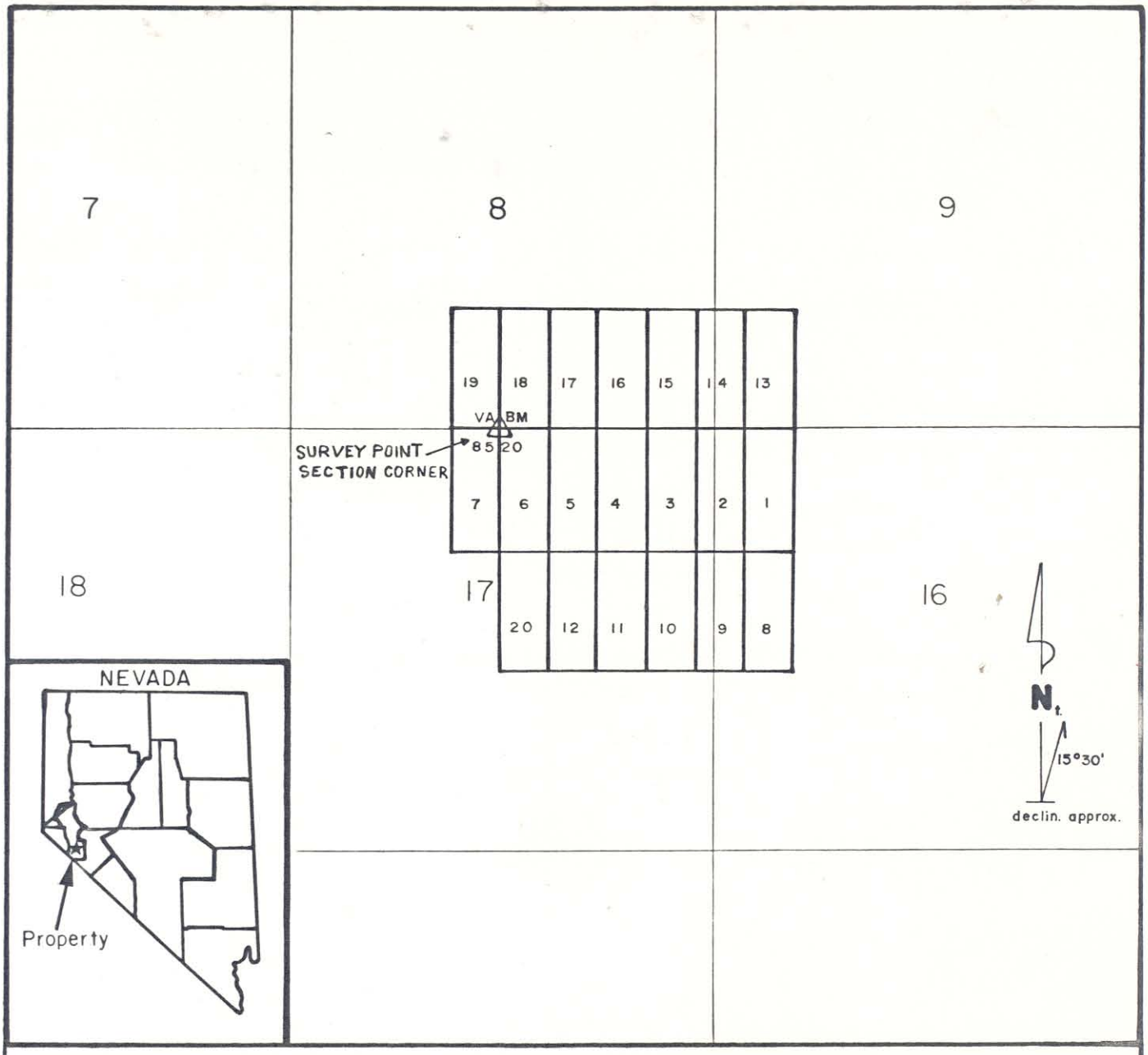
TOPOGRAPHY, ETC.

The topography of the area is typical of this part of Nevada, with eroded and deeply oxidied mountain ridges rising from a level plain. Vegetation is sparse, consisting of desert scrub, etc., and water is only available from drilled wells. There is a well on the property which is said to have had sufficient flow to operate the cyanide plant in the past.

PROPERTY

According to documents reviewed, the Rockland property consists of 20 lode claims, the Marion #1 to #20, located in sections 8,9,16 and 17 of Township 9N Range 26E, Lyon County, Nevada.

A location map drawn from the map on file at the County Seat, Yerington, accompanies this report. Legal Status of the claims has not been reviewed.



RED LEDGE MINING CORP.

Location Map of Marion Claims, Rockland Mine

Township 9 North, Range 26 East (Mt. Diablo Meridian) Lyon County, Nevada, U.S.A.

SCALE 1:2,000

0 20 40 60 80 100 120 140 160 180 200 meters

NOTE — DRAWN FROM LYON CO. CLAIM MAP, LOCATIONS APPROXIMATE.

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EARLY HISTORY

The history of the Rockland Mine is somewhat incomplete, but from what information is available, it was reportedly discovered in 1869, and a ten stamp mill was erected in 1870. This mill was destroyed by fire shortly afterwards. A five stamp mill was erected in 1902 with a 15 ton/day cyanide Plant. This mill proved unsuccessful, and in 1912 the mine was taken over by the Pittsburg-Dolores Co. The mill was re-designed, and apparantly worked successfully until 1918 when operations were suspended.

With the increase in the price of gold in 1932, the property was taken over by the Interstate Mining and Development Company. Production is reported in 1933 and 1934, and it is said that the mine worked until 1941 when all gold mines were closed by government order.

Production figures are vague and incomplete, as much of the gold produced during the late nineteenth and early twentieth century was never reported, but for the period 1870-1879, 2747 tons of ore is reported with a gross value of $74,503. At $20/oz. this would represent a grade of 1.36 oz/ton gold equivalent.

In the period 1915-1917, the company reported a production of 42,597 tons with a gross value of $263,071. Using the same price for gold, this production would have represented a grade of 0.31 oz/ton gold equivalent.

The production for 1933-1934 is given as 443 tons with a gross value of $43,037. At $35.00/oz. for gold at this time, this would indicate a grade of 2.78 oz/ton gold equivalent.

The lack of complete and reliable production figures makes the above grades almost useless for estimating the overall grade of ore mined. The small tonnage, high grade reports may represent select, hand sorted ore, while the grade of 0.31 oz/ton for the 42,597 tons may be more representative of average mine grade.

MINE WORKINGS

There are no mine plans in existance for the Rockland Mine, but from the old reports available, and visible evidence, the mine was worked through a series of cross-cut adits driven in a westerly direction to cut the vein which strikes generally north-south. Most of the early production came from the 700 tunnel, which is 700 feet below the outcrop. A stope over 1000 feet long is mentioned as having been mined above this level. Later, the 900 level was driven as a cross-cut for 500 to the west to cut the vein, and drifts over the vein were run to the north and south for a total of about 1000 feet with connecting raises to the 700 level.

The 900 is the only accessible level at present and is in good condition, but the examination indicated that most of the vein had been stoped both above and below the level.

A winze has been sunk over the vein from the 900 level for a reported depth of 300 feet, but is is not known how many levels were opened or how much ore was extracted from below the 900 level.

GENERAL AND ECONOMIC GEOLOGY

The Pine Grove region in which the Rockland mine is located is underlain by a batholith of Mesozoic age consisting of granitic rocks composed of quartz diorite, quartz monzonite, granodiorite, etc. Cutting the intrusive rocks is a north to N30°E trending fault filled by a rhyolite dike which dips at 45° to 70° east-northeast. The dike material extrudes as a rhyolite flow over the instrusives.

Mineralization, consisting essentially of gold and silver value with some pyrite is of the epithermal type associated with quartz in the brecciated rhyolite dike. Detailed petrographic studies of the ore

zone have indicated three phases of quartz filling micro fractures and the intersticis of the breccia fragments. Fine grained, disseminated pyrite is associated with the quartz and hypogene silver mineralization has been precipitated as argentite and pyrargyrite. It is suspected that there may have been a fourth phase of quartz which introduced the "high grade" gold mineralization found in certain areas throughout the mine.

SAMPLING

In June 1980, Lacana Mining Corp., carried out a survey and extensive sampling program of the 900 level cross-cuts and drifts, the objective being to determine if the country rock carried sufficient gold-silver values to constitute ore for a large scale, heap leaching project. In the granodiorite of the cross-cut, away from the vein the gold and silver values were fairly consistant at 0.005 and 0.1 oz/ton respectively, but close to the vein, the gold increased to the 0.01 to 0.02 oz/ton range, with silver increasing to the 0.25 to 0.4 oz/ton range.

In June 1981, Mr. Hans Madeisky took 5 samples of altered granite from both the cross-cut and drift. The assays from these samples indicated gold in the 0.06 to 0.006 oz/ton range but 4 of the silver assays averaged 2.5 oz/ton, the remaining ore running 0.83 oz/ton.

During the visit to the mine on July 9th, 1981, the writer took three character samples of material which were assayed for gold and silver. Results are tabulated below.

Sample #	Au. oz/ton	Ag. oz/ton	Description
4062	0.022	0.14	rhyolite breccia from old mill bin.
4063	0.810	28.67	900 level, H.W. qtz. south dept.
4064	0.556	18.55	900 level N. drift qtz. from old slope.

EVALUATION OF THE PROPERTY

The above sample results while too few in member to draw any firm conclusions as to the overall ore grade, do tend to corroborate the production grades quoted for certain tonnages at, different periods of operation in the past (See Early History). To maintain the grades indicated by the old mill runs, the probable mining method was to break the full width of the vein, and sort the high grade vein material in the stopes, with the low grade breccia being gobbed for back fill.

Madeisky's samples indicate that the altered wall rock on each side of the vein carries up to about $20.00 /ton in silver values over a thickness of about 1 foot, and with an average vein width of 3 feet, a 5 foot stoping width could be maintained. The wall rock is competent as indicated by the large open stopes which show no sign of caving, and the vein dip is such that a comparatively low cost shrinkage stoping system would be practical. While this method would result in a lower grade mill run ore that the selecting mining of the past, it is the writer's opinion that the lower overall labor costs together with the higher production rate obtainable, would weigh the economics of the operation in favor of this method.

Ore Reserves

J. Stanly Hodgson, Consulting Mining Engineer states in his report of 1966 that there is a minimum of 25,000 tons of ore available for mining from the existing workings with more than 75,000 tons which could be developed by a low level adit. Grade is estimated to be $40.00/ton at 1966 gold-silver prices.

While there is no way of disproving these tonnages and grades at this time, they should be completely discounted, as Hodgson gives no indication as to how he arrived at the tonnages, or where the 25,000 tons is located. From the data available and from the examination of the mine however, the property appears to offer excellent possibilities for development of new ore reserves by systematic exploration. The prime areas for extensions of the ore zone are —
(a) Along strike - The existing mine workings cover only about 1000 feet of strike length of the vein while Dircksen's geological map indicates over 2000 feet of outcrop of the rhylolite dike.
(b) At Depth below the 900 level - The internal winze has been sunk for 300 feet for to the 1100 feet level, and a small tonnage of very high grade ore has been mined, but the indications are that the levels below the 900 are not extensive along strike, and that the ore had not been bottomed.

In summary, while there are no proven ore reserves remaining in the mine, there are excellent possibilities for developing new reserves both latterally and to depth. Based on the mine examinations and reliable data the gold-silver values are fairly consistant along the vein, and taking into account the mining conditions and other factors, the expected overall grade could be economic under todays operating costs and metal prices.

The initial exploration program recommended is outlined below.

RECOMMENDATIONS

Phase I

1. A thorough research of information on the property should be made especially the results of the work done by Lacana Mining Co., in June 1980.

2. Where possible, the underground workings should be re-habilitated, surveyed, geologically mapped, and sampled. Of prime importance would be the opening up of the 700 level, and the drifts below the 900 level.

3. Using air photos, geologically map the surface, and sample the vein outcropping the full length of the rhyolite dike.

4. Conduct orientation geochem and EM surveys on the surface over the known workings. If the results are favorable then the surveys should be continued the full potential strike length. Geochem samples should be analysed for Au, Ag, Hg, Sb, and As.

5. Probe the vein at an elevation about 200 feet below the bottom of the winze with two diamond drill holes drilled from the surface normal to the dip of the vein.

Phase II

If the surface and underground mapping, sampling, geophysics etc., indicates continuation of ore grade mineralization along strike beyond the present workings of the 900 level, then preparation should be made to rehabilitate the drift for haulage initiated.

If the diamond drill holes below the winze indicate a continuation of the gold silver values, then additional holes should be drilling along strike and to a deeper horizon. Concurrently, surface surveys should be carried out to select a site for a low level adit to intersect the vein as deep as possible below the old workings without an excessive length of cross-cut.

Further recommendations will be contingent on an evaluation of the above.

ESTIMATE OF COSTS

Phase I

1.	Research of material on property	$ 2,000
2.	Rehabilitation of old workings allow 4 men, one month	10,000
3.	Materials for above	3,000
4.	Survey, mapping, sampling etc. of underground workings	8,000
5.	Surface geological mapping	4,000
6.	Geochem and EM surveys	8,000
7.	Diamond Drilling - allow 1000 feet @ $30/ft.	30,000
8.	Rehabilitation of water well, installation of pump, etc.	6,000
9.	Trailer comp for crew with light plant, ect.	10,000
10.	Administration, consulting, etc.	10,000
11.	Contingencies	9,000
	TOTAL	$100,000

Phase II

Provisional budget for Phase II as outlined $250,000

July 28th, 1981

J.P. ELWELL ENGINEERING LTD.

REFERENCES

Geology and Mineralization of the Pine Grove - Rockland Mining Districts, Lyon Co. Nevada. — Paul Eric Dircksen, May 1975.

Preliminary Report on the Rockland Gold - Silver Mine, Lyon Co. Nevada — J. Stanly Hodgson, Consulting Mining Engineer - August, 1966.

Mining Districts and Mineral Resources of Nevada - Francis Church Lincoln.

Mineral Resources of Storey And Lyon Co.

Sample data from Lacana Mining Company, 1980.

CERTIFICATE

I, James Paul Elwell, of 4744 Caulfield Drive, West Vancouver, B.C., do hereby certify that:

1. I am a Consulting Mining Engineer residing at 4744 Caulfield Drive, West Vancouver, B.C., and with an office at 1026 - 510 West Hastings Street, Vancouver, B.C. V6B 1L8.

2. I am a graduate in Mining Engineering from the University of Alberta in 1940, and am a Registered Professional Engineer in the Province of British Columbia.

3. I have no personal interest, directly or indirectly in the properties examined or in Red Ledge Mining Corp., securities, nor do I expect to receive directly or indirectly any interest in such property or securities.

4. The findings in the report are derived from data acknowledged under "References" and from a personal examination of the property on July 9th, 1981/

5. The full text of the report and accompanying maps may be reproduced in the Company's Prospectus or Statement of Material Facts.

DATED at VANCOUVER, B.C. this 28th day of July, 1981.

JAMES PAUL ELWELL, P. Eng.

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CERTIFICATE OF ASSAY

TO : ELWELL, J.P.
1026-510 W. HASTINGS ST;
VANCOUVER, B.C.
V6B 1L8

CERT. # : A8112314-001-A
INVOICE # : I8112314
DATE : 25-JUL-81
P.O. # : NONE

Sample description	Prep code	Ag (FA) oz/t	Au (FA) oz/t				
4062	207	0.14	0.022	--	--	--	--
4063	207	28.67	0.810	--	--	--	--
4064	207	18.55	0.556	--	--	--	--

B.L. Swartz

Registered Assayer, Province of British Columbia

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