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Item 2

THE ADELAIDE MINE

Controlled by the estate of

THE GLASGOW & WESTERN EXPLORATION COMPANY, Ld.

Joseph Ralph,
416 Walker Bank Bdg.,
Salt Lake City.

Introductory.

The Adelaide-Star Mines, Limited, is a subsidiary concern of The Glasgow & Western Exploration Company, Limited, all interests of which are now in liquidation.

The Adelaide property is situated about 12 miles in a southerly direction from the town of Golconda, Humbolt County, Nevada and consists of six patented and seven un-patented claims.

The following brief description of the Adelaide property is not extended with any aim whatever to the nature of a report. As attorney-in-fact for the Liquidator of the Glasgow & Western Exploration Company's interests the writer is occupying an interested position from the vendor's standpoint, and all that is aimed at is a brief covering of salient features so that, taking them at a face value, any interested party can intelligently determine whether to make detailed personal examination or not.

By reason of domestic conditions relating to estates interested in The Adelaide-Star Mines, Limited, it is extremely desirable to have all affairs relating thereto wound up and settled. In furtherance of which object an extremely moderate sale figure will be entertained.

Anyone visiting the Adelaide will find some conditions existing which, in justice to the property, merits a brief explanation, viz., the site of the old Golconda reduction plant and the dismantled narrow-gauge railroad bed which previously figured as the transport avenue between mine and smelter.

The Adelaide claim is on the extreme southern end of a patented group which covers a mineralized belt of about 6,000 feet strike distance. About twenty years ago extensive exploitation of a body of copper ore was prosecuted upon this claim. Subsequent history being that about 45,000 tons of 3% ore was extracted.

Experience demonstrated that the ore was refractory to ordinary processes of concentration. Failure from both technical and commercial standpoints therefore resulted from an indulgence in costly reduction plants and transport facilities before (a) the mine was sufficiently developed, and (b) experimenting with the metallurgical technicilities after building the reduction plant instead of doing so previously.

Although worthless from any practical point of view the Golconda reduction plant was imposing in appearance from the standpoint of a county assessor. Furthermore: the insurance companies demanded that watchmen should be on the property day and night to insure validity of fire policies. In 1913, therefore, the plant in question was scrapped and sold.

The road from Golconda to the Adelaide mine is a good one of easy grade, and with the development of motor transport as now available it is a technical commonplace that, with a limited output, lacking any outside augmentation of revenue, such means is far more economical than the operation of a railway. And as wash-outs had seriously affected the roadbed, and the taxation authorities appear to consider a railroad a railroad whether operative or only representing two lines of dormant rails, the line in question was sold and the rails removed.

Although confessing to scant respect for those responsible for the fiasco of the Adelaide reduction plant at Golconda, the writer has only one object in sketching the aforegoing brief history in this semi-public statement, viz., to explain a situation upon which evidences remain which will impel any investigator to ascertain for himself without proceeding very far in any serious examination.

In approaching the Adelaide property from a mining standpoint it is suggested that the following perspective should govern in a broad sense:- (a) Eliminate from purview the original Adelaide ore-body, and (b) consider the Road Side ore-body, with its contiguous characteristics - hereafter briefly described - as an individual entity from a mining standpoint.

The writer believes that if no graveyard of metallurgical plant existed at Golconda, nor any dismantled road-bed remained to connect it with the Adelaide property; and that if an investigator arrived at the mine finding only thereon the showing which now exists at the Road Side workings; and with no influences to dampen his interests from a historical standpoint, he would immediately conclude that the set of conditions open to his observation would justify his close attention.

G E O L O G Y.

The following geological description of the Adelaide property is from U.S. Geological Survey Bulletin 414 - 1909 - by F.L. Ransome, page 63.

> The main shaft of the Adelaide mine, 300 feet deep, is situated the south side of Gold Run Creek, close to the site of the old settlement of Cumberland. The general country rock is dark calcareous slate, within which is a layer or series of beds of limestone from 50 to 75 feet in total thickness. This bed strikes north and dips 65 degrees east. This limestone layer carries the ore, which in some places occupies the full width from one slate wall to the other, although as a rule the zone contains horses of altered limestone that is nearly free from sulphides. The ore-body is undoubtedly large and has been extensively stoped above the 100 foot level for 400 feet without any indication of a diminution of size. Below this level, which is approximately at the bottom of the zone of partial oxidation, exploratory drifts have been run at vertical intervals of about 50 feet, revealing abundant ore. The bottom level was under water at the time of the visit.
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> The ore is a metasomatic replacement of the limestone and consists of pyrrhotite, chalcopyrite, spalerite, and a little galena, in a gang of garnet, vesuvianite, diopside, calcite, orthoclase, and a very little quartz. Common pyrite is probably not altogether absent, although it does not appear in the specimens of ore collected. The presence of orthoclase is uncommon in this mineralogical association, but adularia has been noted by Spurr and Garry in the altered limestones of the Velardena contact zone. (Ore Deposits of the Velardena District, Mexico. Econ. Geology, vol. 3, 1908, page 708.)
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> At Adelaide the orthoclase is poikilitic and contains inclusions of vesuvianite, garnet, diopside and quartz. The ore is definitely bounded only where it is in contact with the slates. Elsewhere it merges gradually and irregularly

into limestone containing silicates but very little of the sulphide constituents. A banding of the limestone, due to alterations of silica and calcite layers, is common, particularly near the ore, and the bands in places are contorted and crumpled. As a whole the ore is of low grade, averaging about 3 per cent copper; but the quantity available appears to be large, and the difficulties in the way of its successful concentration and treatment will probably be soon overcome.

The present workings do not afford much evidence of secondary enrichment. The old stopes between the 100 foot level and the surface were in mixed sulphide and oxodized ore, but whether chalcocite was present in quantity is not known.

About 600 feet north of the main shaft, on the opposite side of the little creek, is a tunnel that runs north in the ore zone for 2,000 feet. For a distance of 500 or 600 feet from the portal the tunnel is in ore. Beyond this the limestone zone is generaly lean or barren, although there are a few bunches of ore near the face, and some stopes above the tunnel were formerly worked from a now abandoned shaft on the hilltop.

A notable feature of the Adelaide ore bodies, in view of the fact that the nearest area of eruptive rock, (mapped as granite on the Fortieth Parallel Survey map), is fully a mile east of the mine, is their close correspondence to ores of typical contact-metamorphic deposits. The granite rock was not examined in 1908. For at least a quarter of a mile east of the mine the rocks are dark clay slates alternating with thin bedded limestones. All are much crumpled but maintain a generally east dip and are on the whole much less metamorphosed than the limestone beds in which they occur. It is probable that an intrusive mass underlies the sedimentary rocks at the Adelaide mine, and that the hot mineralizing solutions rose along what is now the ore zone, in consequence of favorable fissuring in this particular belt of limestone.

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ADELAIDE NEW WORKINGS.

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On the north side of Gold Run Creek, and distant about 600 feet from the old Adelaide vertical shaft, ore was discovered identical in characteristics and physical relationship to the original exploited body, and over 2,000 feet of adit work was prosecuted from the point of discovery, the first few hundred feet of which was in ore, and is that to which Ransome refers.

The point of interest of this extensive lateral work lies in the fact that although the limestone belt is the undoubted major ore possibility, after following the strike of this belt for a little over 300 feet, the adit diverged about 20 degrees west and headed for a point where it was hoped to intersect what was known as the Peacock fissure, and which lay approximately 200 feet away from the footwall of the main limestone zone.

Altogether, from the point where the adit left the strike inclination of the limestone, over 1,000 feet of exploratory was done with the Peacock fissure as an object, and of which 1,000 feet of work none whatever contributed towards developing the possibility of the continuity of the ore body which was encountered in the first 300 feet of work.

In this exploration for the Peacock fissure various patches of ore were uncovered and exist for observation at this time, some of which are as much as 50 feet long, with width of from 2 to 5 feet, and assaying from 5 to 12 per cent copper.

After groping in this direction for a time the old management came back from the face a distance of about 300 feet, viz., about 725 feet from the portal and, with that line as base, cross-cutted easterly at an angle of about 115 degrees and drove with the object of intersecting at depth another ore body which had some considerable importance on the surface, and which was known as the East Side Workings. The result of which was that after driving about 200 feet the adit again re-entered the main limestone belt.

From the point at which the adit diverged from the strike of the limestone belt on its quest for the Peacock fissure, to the point where it again entered it, a strike distance along the limestone of over 500 feet is involved. And although the ore near the portal undoubtedly persists northerly from the point where the adit diverged, the 500 feet of ground above indicated remains today virgin territory.

The next point of interest is that when the adit drive re-entered the limestone, low but persistent copper value were encountered.

After re-penetrating the limstone about 150 feet the heading was turned to more approximate the strike of the formation, with the result that after thus driving about 100 feet the values became enhanced, the last 50 feet averaging 3 per cent copper, with the width not ascertained, and with the face still in ore. These are roughly the conditions encountered by the development work when a return to the acknowledged zone of mineralization was effected.

As regards the development of the ore body upon which the adit first entered the hillside the following is a brief description:-

Within a distance of about 200 feet four winzes were sunk upon the ore body, and a level connecting them together at about 50 feet in depth. One of these winzes was sunk vertically for a distance, a cross-cut run for about 35 feet, and then the 50 foot level connected with another short vertical lift. In this cross-cut 14 feet assays 3.5 per cent copper.

On the 50 foot level the ore varies in width from 2 to 15 feet, with copper values slightly over 3 per cent.

The 50 foot level is a little over 300 feet long. No ore is in either face, but, significently enough ore is to be seen on the foot-wall side slightly back from one face and on the hanging-wall side close to the other extremity. The writer asserts that examination of exist-conditions on this level leaves little room for doubt that properly

supervised work at these points would bring quick results. A metasomatic replacement, with silicification pronouncedly obscuring many of those characteristics by which the miner is prone to rely upon for his bearings, evidently imposed a situation not properly appreciated.

SUMMARIZATION.

The Adelaide group has about 6,000 feet of ground along the strike of a belt of mineralized limestone.

The old Adelaide main shaft exploited a body of ore on the southly extremity of this belt, extracting about 45,000 tons of 3 per cent ore.

About 400 feet north of the old workings Gold Run Creek evidently marks a substantial faulting factor.

About 200 feet north of Gold Run Creek an open cut shows the existence of an ore body of large proportions with values and metallurgical complexion identical with the original Adelaide ore body.

From this point over 2,000 feet of adit work has been done, the first 300 of which follows the main limestone belt and is in ore.

300 feet from the portal of the adit the heading diverges from the mineralized limestone and heads for subsidiary considerations.

On a strike distance of the limestone of about 850 feet from the portal of the adit the adit again enters the limestone and encounters ore of similar value and characteristics as exposed near the portal.

The limestone belt is the admitted mineralized zone, yet, though ore is found to exist at the points where the adit originally followed it, and is again encountered where the work again re-enters that limestone, the belt in question remains largely virgin from an exploratory point of view.

The writer suggests that the aforegoing represent conditions which merits serious consideration.

This is not a "report". All that has been aimed at in this brief "prospectus" is a summary of conditions, the object being simply sufficient of a description to enable any interested party to decide intelligently whether or not to examine for themselves.

"Ore in sight" represent an exposure on at least three sides. Under this stipulation the Adelaide new workings has no tonnage blocked out. But, with numerous faces of ore exposed, under such term as "probable ore" there is a substantial tonnage. As to the further refinement of "possible ore", the best formula the writer knows of is some footage of exploratory work intelligently supervised.

To anyone looking for a prospect worthy of attention this brief statement of conditions is submitted.

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