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Caption: Gold Hill Operations Plan & Report
By--Marion E. Price, P.E.

Attention: Dr. Duane Brown, President &
Laurence Turley, General Manager

Subjects: (1) Progress Report of Phase I
(2) Recommendations for Phase II; &
(3) An outline for Phase III at the
Gold Hill property

On November 4th the Major underground workings at Gold Hill were mapped on a scale of 1" = 50' by Brunton and tape with the assistance of Bill Brawner and John Hamilton. The field sketches and notes will be reduced to final form as soon as possible, and these will be submitted to you at that time. From an early evaluation of this work the other reconnoitering and sampling which have been done to date, it does appear that the Gold Hill property warrants an accelerated program of development and evaluation.

In this specific connection it is considered that all of the endeavors to date (including Dr. Brown's onsite experiences of some 18-years ago) have been of a reconnaissance nature, but now it does appear that a more formal pre-feasibility study and evaluation is in order. It is not often that a mining property shows the development potential which is apparent at Gold Hill, and it is considered a fortunate circumstance that the endeavors enumerated hereinafter can be commenced and accelerated so easily and smoothly. For purposes of ready reference and specific individual itemization, the following should be considered in sequence:

PHASE II

(1) SURFACE ACCESS ROADS:

The portal of the Lower Adit is only four (4)-miles off an oiled highway via a mine road which currently requires a modest amount of work to make it readily passable for Phase II logistics. No rock work or heavy bulldozing is required at this time, though some realignment and grade corrections will be required for any Phase III (operational) activities. Even the two (2) locked gates can be tolerable during the Phase II, however they must be replaced by cattle guards in the future.

Except for the last half-mile (1/2 mile) of this mine road, a major portion of work can be done with a motor patrol passing in and out. A smaller machine should be selected in order to maneuver around some of the loose rubble from the inner bank to the outer shoulder and there emplace it as a berm.

This same work could be done using a dozer with an angle blade, though the final surface would not be so smooth.

The last half-mile (1/2 mile) of road does require a measure of additional construction which includes the removal of some large boulders and the filling of ruts with imported material. Also needed is a parking and turn around area below the portal of the Lower Adit. This work should be done prior to grading with the motor patrol, and it can well be done using the small International loader now onsite provided that it is repaired as necessary and restored to its full operational capability. This machine is ideal for removing the large rocks as necessary and for digging loose material from nearby banks and filling ruts. After this work is done, it can be graded effectively.

(2) SURFACE ACCESS TRAILS and OTHER IMPROVEMENTS:

(a) Turnaround and parking area below Lower Adit: This can be established readily using the track loader described above, for it is basically a cut-and-fill operation. At the same time, all of the tanks and other equipment in the canyon can be removed to higher ground where they are not vulnerable to flash flooding.

(b) Landing and parking area below the Lyon Adit: A level parking area is needed here and this can also be constructed using the loader for cut-and-fill.

(c) Trail to Lyon Adit from landing in above: Access from this area to the old haulage road can be established fairly easily using the track loader, and it may be possible to upgrade this old road so that the loader can be taken all the way up to the old ore plat below the Lyon Adit;

(d) Trail from loading plat to the portal of the Lyon Adit: A new trail must be dug from the plat level up to the portal level of the old upper trail.

(e) Upper Lyon Trail: Upgrade this old trail to the portal by digging and recribbing as necessary in order to establish a good level footpath.

(f) New trail from Lyon Adit to crest of outcrop: This will require digging some new trails in part and upgrading old ones in part.

(g) Trail from crest of outcrop down to the portal of the Lower Adit: This will require digging some new trail in part and some rehabilitation of the old pack trail in part.

(h) Trail from the portal of the Lower Adit down to the turnaround and parking area in (2) (a) hereinbefore: Once the portal has been cleaned out and parking area established, it will be an easy matter to connect them with a good new trail.

(i) Dig a new trail down to the Gold Dust portal and clear brush in the canyon approaching the portal.

(j) Dig a trail from the vicinity of the Lyon Adit up to the old Mineral Location Monument so that it can be easily tied into the projected surveying.

(k) Cut a helicopter pad near the road along the west flank of the mountain

and set a windsock nearby. Notify the Maricopa County Sheriff of the coordinates of this site as soon as they are determined by surveying as in Part 5 hereinafter and also provide a topographic map of the site.

(3) UNDERGROUND ACCESS:

(a) Clear the portal of the Lower Adit using the loader and a measure of hand work.

(b) Clear the first cave in the Lyon Adit by hand using a wheelborrow to tram the muck to the surface. ~~Timber~~ ^{plank} across the overhead and log with heavy logging; this will require at least two (2) sets.

(c) Partially clear the second cave in the Lyon Adit by hand mucking into the immediately-adjacent hanging wall crosscut. Sample the crosscut completely first, however.

(d) Once reasonable access through the Lyon Adit has been established, plank across the open raises in order to provide end-to-end access on this level.

(e) Plank across the under hand stopes on the Lower Adit level, setting new stulls if necessary.

(f) Sample the winze below the level of the Lower Adit. Caution: This may be a touchy chore and should be undertaken only by experienced personnel.

(4) ESTABLISHING SURVEY STATIONS:

Note 1: Stations are already set at the respective portals of the Lower, Lyon, and Gold Dust Adits as a part of the underground mapping on 11-4-81.

(a) After the trails are in, survey stations can be set in the vicinity of all other adits, crosscuts, shaft collars, and surface workings.

(b) A permanent Bench Mark should be set near the crest of the outcrop in a select location where a level working area is afforded and from which there is optimum visibility in all directions.

(c) Materials: A standard brass plug should be used for the Bench Mark while the surface stations can consist of 1-1/2 - foot lengths of rebar (#3 or #4) driven into the ground or into cracks in the rocky outcrops. They should be flagged and marked individually with stamped or engraved metal tags wired on. It is estimated that twenty-five (25) surface stations will be required plus approximately ten (10) portal and/or collar stations in addition to those already set. All of the foregoing should be established with some degree of permanence for future surveying reference.

Note 2: The setting of these survey stations can actually be an ongoing part of the trail cutting activities of Part 3 hereinbefore.

(5) SURFACE SURVEYING:

Once the major access has been accomplished via road improvement and ancillary construction, minor access has been provided by cutting new trails and/or upgrading old ones, and a suitable Bench Mark plus other pertinent survey stations have been established, an EDM (Electronic Distance Measurement) survey

should be contracted for this work to be performed by a licenced Arizona land surveyor. This survey will accomplish the following:

- (1) Establish Bench Mark elevation and grid coordinates;
- (2) Establish a N-S Base Line from the Bench Mark;
- (3) Tie the Bench Mark to the old VSLM for patented claim reference;
- (4) Tie in all surface, portal, and collar survey stations as to their respective elevations and coordinates;
- (5) Establish grid coordinates for the windsock of the heliport for reporting to the Maricopa County Sheriff;
- (6) Produce a finished plat of a scale 1" = 50' on which the Brunton and tape survey of the underground workings (same scale) can be superimposed; and
- (7) Provide a profile from the Lyon Adit up and over the outcrop and down to the Lower Adit to the same scale (Vertical = Horizontal = 1" : 50').

As a matter of recapitulation, the aforelisted performances will provide for and/or accomplish the following:

- (1) Major surface access via upgraded roads;
- (2) Major surface access via new and/or upgraded old trails;
- (3) Parking and turnaround areas;
- (4) Emergency air access via helicopter;
- (5) A surface grid which correlates the patented lode mining claims (per the old Mineral surveys) together with all surface workings and underground portals and/or shaft collars;
- (6) Correlation of surface and underground surveys;
- (7) Horizontal and vertical controls for future detailed samplings and ore reserve calculations; and
- (8) Control data for future exploration and development drilling programs, both surface and underground. (Phase III)

(6) SAMPLING PROGRAM:

Once the foregoing have been realized it will be possible to begin a program of both surface and underground sampling and a specific plotting of each sample as to width and tenor. These data are necessary before any ore reserve calculations can be made or any future mining program formulated. Also in this same connection, the rejects from the sample preparations (for assaying and/or other analytical work) will provide a good and reasonably representative fraction of the deposit to be used for metallurgical testing.

For present purposes of projection, no drilling is anticipated, thus all of

the samples taken will be cut from surface, near-surface, and underground exposed of the vein in place. Whether or not any drilling is required in order to round out the sampling program will be determined during Phase II evaluations, and, if required, will be relegated to Phase III activities.

(7) METALLURGICAL TESTING:

- (a) Rejects from sample preparation in Part (6);
- (b) Special test lots from surface quartz samplings; and
- (c) Special test lots from underground gouge ores from the following possible sources:
 - (1) From the old ore chutes;
 - (2) From old backfill;
 - (3) From overhead sluff onto the drift levels; and
 - (4) From the old underhand stope. Apropos the letter (7-C-4), this material should indicate a transition from oxide to sulphide mineralizations. This relationship must be considered very carefully with respect to Phase III planning and projections.

PHASE III

A positive evaluation of the Phase II activities leads naturally to a number of very precise considerations further downstream, though it is premature to consider them until and unless the foregoing have been accomplished. As a matter of outlining them in a very trite fashion, however they are enumerated as follows:

A. Full Feasibility Study: (a Technical Study)

- 1. Details of the mining operation;
- 2. Metallurgical design; and
- 3. Continuing exploration and mine development.

B. Financing for "A" above per those cost estimates which will be determined by the full feasibility study; and

C. Details for construction, shakedown, and operation of both mine and mill from a functional viewpoint as contrasted to the technical dissertation in "A" above.

EPILOGUE

In order to accomplish the many details within the broad limits of the foregoing structuring as an ongoing step-by-step endeavor, it will first be necessary to (1) establish an operating entity, (2) to project an operating budget and (3) to provide the funds which will enable the conduct of certain specific activities. It has been stated hereinbefore and is repeated here for

emphasis that the Gold Hill property does exhibit unusual operation potentials which are worthy of continuing exploration and development, and it was noted also that there is an unusual showing of ore which is at least partially developed.

Notwithstanding those good indicators which augur well for the future of the property, the situation is now on "dead center" and something must be done in order to get it moving forward. The really good weather is now at hand, and all of the surveying, road work, trail building, and surface sampling can be done with much greater ease and efficiency now than would be possible during hot weather. Thus, in order to achieve these ends a number of steps have been outlined hereinbefore, and they are hereinafter recapitulated and reorganized somewhat in terms of their implementation:

I Operating Entity:

- (a) Field operations by Brawner and Hamilton (hereinafter "B&H") operating individually or as a partnership;
- (b) Contract motor patrol for major road work;
- (c) Contract licenced land surveyor;
- (d) Technical supervision by Promet;
- (e) Insurance and Liability: To each his own;
- (f) Financing: By owners; and
- (g) Accounting: As agreed and arranged.

It is projected that "B&H" will have a general free hand to conduct the actual road work and trail building plus the physical underground work, and Promet will advise only as to its adequacy. As to sampling, however, Promet will direct precisely as to the mode and methods to be employed with "B&H" doing most of the physical work and transporting the samples to the World Wide Refineries in Phoenix.

II Items of Work to be Performed and Budget:

<u>Item</u>	<u>By</u>	<u>Est Time</u>	<u>Est Cost</u>	<u>Cumulative</u>
(1) Repair Front End Loader	B&H	3 days	\$ 500	500
(2) Preliminary Road Work After Loader Repair	B&H	1 week	\$ 750	1250
(3) Motor Patrol After (2) has been completed	Contract	2 days	\$ 650 work \$ 150 moving	2050
(4) Helipad & Windsock	B&H	1 day	\$ 350	2400
(5) Parking & Turnaround	B&H	1-1/2 days	\$ 250	2650
(6) Cutting New Trails and/or Rehabilitating old ones	B&H	1 week +	\$1,000	3650

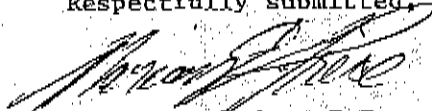
<u>Item</u>	<u>By</u>	<u>Est Time</u>	<u>Est Cost</u>	<u>Cumulative</u>
(7) Setting Survey Stations & B.M.	B&H	2 days(-)	\$ 250	3900
(8) Surface Surveying After (7)	Contract	3 days	\$1,500	5400
(9) Office Work After (8)	Contract	3 days	\$ 450	5950
(10) First Cave, Lyon Tunnel	B&H	2 days	\$ 400	6350
(11) Timbering After (10) (3 sets)	B&H	1 week	\$1,000	7350
(12) Second Cave, Lyon Tunnel	B&H	1/2 day	\$ 100	7450
(13) Planking & Walkways, Lyon	B&H	1 week(-)	\$ 900	8350
(14) Portal Lower Tunnel	B&H	1/2 day	\$ 150	8500
(15) Planking Lower Tunnel	B&H	2 days	\$ 500	9000
(16) Examining Winze & Under Stopes	Promet	2 days	\$ 500	9500
(17) 200 - Samples - Cutting	B&H	1 month*	\$2,500	12,000
(18) 200 - Samples - Analytical	Promet	6 weeks	\$4,500	16,500
(19) Metallurgical Testing	Promet	2 weeks	\$1,500	18,000
(20) Administrative Overhead for 3 Month Program	All	Approx 3 Months	\$2,000	20,000
(21) Contingent Fee	All	Approx 3 Months	\$5,000	<u>25,000</u>
TOTAL FOR PROGRAM				\$25,000

* Integrated and ongoing time factor

The foregoing provides for a daily allowance of \$75.00 each for Brawner and Hamilton during the conduct of the Phase II activities plus a built-in cost for their hand tools and materials. An allowance of \$500 is estimated for repair of the track loader, and beyond that the only allowance built-in is for fuel. Once repaired, it is expected that the loader will be used as needed at no additional cost for machine use per se. In this same connection, it is projected that Promet's analytical and metallurgical testing reimbursements are at cost to the World Wide Refineries facility in Phoenix, and this cost is calculated to include the cost of good canvas sample sacks. Costs for other contract services are considered to be reasonable and ongoing with the final months of 1981, however they would probably be subject to a 10% escalation surcharge during the first quarter of 1982.

In the foregoing, it is anticipated that the Phase II activities will project in a positive manner toward a full-feasibility study and evaluation (Phase III) for some scale of operation. This may or may not be expanded to include some exploratory and development drilling at depth, though drilling is certainly indicated for a longer-range scope of activities. In this connection it is believed that an oxide ore operation may be possible at the outset and this could phase into a sulphide operation at some point downstream. This judgement is based purely on observation of the strong vein showing at Gold Hill and the inference that such a structure can project to substantial depth. It is in this carefully considered connection that I recommend the Gold Hill project for your further study, recommendations, and appropriate actions.

Respectfully submitted;



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