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EQUITY SILVER MINES LIMITED

March 27, 1989

MEMORANDUM

TO: ENGINEERING SUPERVISOR  
FROM: Mine Geologist  
RE: DEER HORN PROPERTY (LINDQUIST LAKE) PROPOSAL

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INTRODUCTION

The Lindquist Lake gold-silver-tungsten property situated in northwest portion of Tweedsmuir Park has been unavailable for exploration and development because of its location within park boundaries. The Ministry of Energy, Mines and Petroleum Resources will solicit proposals sometime after mid April from individuals and companies wishing to explore and possibly develop this property. It is thought that a 100-square-kilometre area surrounding the deposit will be made available and that a performance bond may be required. Proposals will be evaluated based on: individuals and companies involved; their knowledge of and background in the area; type of proposal; level of funding.

It is also thought that an area within the park bounded on the south by height-of-land of the Chikamin Range and elsewhere by Tweedsmuir Park boundaries will be made available by the provincial government for exploration and evaluation of mineral showings. Land in this area will be made available in 2km x 2km blocks defined by UTM grids on existing 1:50000 topographic maps. One location post will have to be placed as close as possible to a pre-designated corner of each block.

RECOMMENDATIONS

1. That the work programme as outlined below be submitted to the provincial government as a proposal for exploration and possible development of the Lindquist Lake property and surrounding area.
2. That Franc Joubin, mining geologist and discoverer of the gold-silver showing, not be invited to participate in the proposed work programme. Although he may have access to drilling and metallurgical information which may assist Equity in preparing a work programme, it is felt that his involvement with Equity would make an additional unnecessary complication.
3. That Comaplex Resources of Calgary, a company who also has a long time interest in the property, not be invited to participate in Equity's work programme. Their past involvement in this property is unknown at this time.

PROPERTY HISTORY

Following is a history of the Lindquist Lake gold-silver-tungsten property:

1. Property located in Tweedsmuir Park, west central British Columbia at latitude 53 degrees 22 minutes North and Longitude 127 degrees 17 minutes West in NTS map-area 93E/6.
2. Discovery of tungsten (scheelite) in dioritic and volcanic talus was made in September, 1943 by Messrs. B.R. and Robert Harrison, D. Roumieu and F. Corcoran of Wistaria, B.C. Six claims were staked on this showing.
3. Discovery of gold-bearing telluride veins was made by Franc Joubin in July of 1944 during examination of the tungsten showing. Additional ground was staked to protect this showing.
4. Property optioned by Pioneer Gold Mines who conducted surface trenching and diamond drilling on gold-bearing veins during summers of 1944, 1945 and 1946. Their option was allowed to terminate in 1946 due to heavy cash payments under the terms of the option. Subsequent work by the owners extended the surface vein 1000 feet beyond previously known exposures.
5. Property sold to Deer Horn Mines Limited in 1951. Preparations for active development were subsequently carried out from 1951 to 1953. Underground development began in late 1954 and continued until November 1955 when operations were suspended.
6. Deer Horn Mines continued to hold the property which by 1967 consisted of 30 Crown granted mineral claims and mineral claim fractions. No additional development work was done by Deer Horn Mines after 1955.
7. In 1974 the NDP provincial government rescinded a policy which allowed staking and mineral exploration in Class B provincial parks such as Tweedsmuir. Assessment work requirements were "frozen" on recorded claims but annual taxes were still due on Crown granted claims. Deer Horn Mines encountered financial difficulties in the early 1970's due to the failure of the company to find additional ore on their Cross Lake operation. In addition to Deer Horn's Cross Lake silver production, the company milled silver ore from Patricia Silver Mines starting in September of 1970. By September, 1973, however, the Cross Lake operation was shut down. Deer Horn did not pay the annual taxes on the Lindquist Lake

property after 1967, so in 1974 these claims reverted to the crown. Deer Horn cancelled their Ontario charter and ceased to exist in October, 1978.

8. The provincial government plans to invite proposals for exploration and possible development of the Lindquist Lake property sometime after mid April, 1989.

### PROPERTY GEOLOGY

The property lies along an eastern contact of the Coast Range Batholith. Here, pink granodiorite, quartz diorite and diorite intrude sediments and volcanics of Skeena and Gamsby Groups. At the contact, which may be the locus of a normal fault, quartz diorite which may be a marginal phase of the granodiorite intrudes and metamorphoses slates and intercalated volcanic rocks such as lava, fragmental volcanics and tuffs. Slates have been metamorphosed to andalusite schist with intercalated tuffaceous argillite and pale green thinly bedded tuff. These rocks strike north 70 to 80 degrees west and dip 50 degrees to 75 degrees southwest into the intrusive contact. Foliation in the quartz diorite also dips southwest.

Basic dykes which cross-cut intrusive rocks and sediments also occur on the property. Several north-trending faults displace a large quartz vein and the quartz diorite-sediment contact.

The quartz diorite-sediment contact forms an embayment of Gamsby Group rocks on the property, making contact metamorphic effects more intense in the immediate vicinity of the embayment. This contact is thought to dip south. Gamsby Group volcanic rocks are postulated to occupy a thrust panel that structurally overlies sedimentary rocks of the Skeena Group.

### PROPERTY MINERALIZATION

#### Introduction

Three distinct occurrences of mineralization are present on this property. They are:

1. A two-to 20-foot-wide faulted quartz vein traced for 2600 feet along an east-west strike, dipping 20 to 45 degrees north and containing pyrite, galena, pyrrhotite, sphalerite, and chalcopyrite plus the telluride minerals hessite (silver telluride) and altaite (lead telluride). Gold occurs commonly associated with hessite and to a lesser extent as a residual mineral in cavities and veinlets.
2. A 150-foot-wide fault-alteration zone striking east-west, dipping approximately 60 degrees south and consisting of parallel bands of silicified and sericitized rock. Within this zone is a system of subparallel gold-silver veins and stringer zones

which vary from one to six feet wide (veins) and thirteen to fifteen feet wide (stringer zones). The quartz vein intersects the fault zone at depth.

3. Quartz stringers containing tungsten mineralization (scheelite). These stringers occur in both dioritic intrusive rocks and metamorphosed sediments and volcanics of the Gamsby and Skeena Groups.

Mineralization occurs above timber line which is at an approximate elevation of 3700 feet (1130m).

#### Gold and Silver Mineralization

A two-to 20-foot-wide quartz vein called the Main vein in foliated quartz diorite can be traced for 2600 feet in a westerly direction across the property. This vein is faulted and dips 20 degrees to 45 degrees north towards Gamsby Group volcanic rocks. Metallic vein minerals are pyrite, galena, sphalerite, chalcopyrite, pyrrhotite and the telluride minerals hessite and altaite. Gold usually is associated with hessite. A second gold-bearing structure is called the Contact vein and may actually be a fault zone up to 150 feet wide. Within it is sericitized and silicified rock with quartz zones containing stringers of gold and silver. This structure strikes easterly, dips 55 degrees to 60 degrees south and occurs 100 feet south of the sedimentary-intrusive contact. The Main vein intersects the Contact vein at a depth of 200 feet. The Contact vein is open to depth and along strike to the west; it may be faulted on the east. The Main vein is open to the east and west. It breaks into stringers where it intersects the Contact vein at depth.

The Main vein has been traced by surface trenching and diamond drilling. It is segmented by several north-trending faults with displacements less than 100 feet. Tonnage is contained in six blocks ranging from 78 feet to 270 feet long, 6 feet to 19 feet wide and 50 feet to 100 feet deep. Tonnage and grade of Main vein is:

88,950 tons @ 0.26oz Au/ton; 6.25oz Ag/ton

Tonnage in the Contact vein was determined by a strike length of 720 feet, average width of 9 feet and a drill-indicated depth of 170 feet. Tonnage and grade of Contact vein is:

100,000 tons @ 0.407oz Au/ton; 12.25oz Ag/ton

Total indicated reserves are:

171,378 tonnes @ 10.5g/t Au; 293g/t Ag

If 1g Au is equivalent to 41g Ag (used in Southern Tail underground feasibility study):

171,378 tonnes @ 723.5g Ageq

### Tungsten Mineralization

Tungsten occurs as scheelite in quartz stringers hosted by dioritic and volcanic rock and was found in two talus areas 1400 feet (440m) west of the gold-silver zones. Volcanic rock (metamorphosed tuff and flows of Gamsby Group) as well as slate and shale of the Skeena Group contain andalusite, epidote, chlorite and zoisite and have been intensely fractured and cut by a stockwork of scheelite-bearing quartz stringers. Stockwork veins vary from less than one inch to four inches wide but are commonly one to two inches wide. Scheelite is in small grains in diorite and as crystals up to one and a half inches long in volcanic rock.

Systematic sampling of the talus zone gave the following grade and tonnage:

21,000 tons per vertical foot @ 0.35% WO<sub>3</sub>

Bedrock samples from a trench excavated in talus gave 0.84% WO<sub>3</sub> over 60 feet at west end and 1.55% WO<sub>3</sub> over 70 feet at east end. No diamond drilling or additional trenching has been done so potential grade and tonnage is not known.

### WORK DONE

A history of work conducted on the property to date is as follows:

1. September, 1943: six claims were staked by Harrison brothers to cover tungsten showing.
2. July, 1944: additional ground staked over gold-silver showing. Outcrop sampling was conducted which indicated a 9-foot by 1600-foot zone of attractive gold-silver grades.
3. July, 1944 to September, 1946: surface trenching and diamond drilling of Main vein. No change in the vein was seen at shallow depths in diorite and a significant tonnage was determined.
4. 1946 to July, 1950: Extension was found to Main vein. The property was sold to Deer Horn Mines Ltd in 1950.
5. 1951 until summer of 1952: no work done. In summer of 1952, old trenches and diamond drill-holes were mapped and bulk samples from Main vein were sent for metallurgical testing. Diamond drilling equipment and supplies were shipped to the property. A road route was located from Lindquist Lake to adit portal.
6. Early 1953: a mining plant (presumably a crusher) was purchased and moved by barge to west end of Whitesail Lake. This coincided with construction of a 12 km road from west end of Whitesail Lake to adit portal (elev.

- 3) Collection of suitable samples for metallurgical testing.
- 4) Evaluation of regional prospects in the Lindquist Lake area. Cost breakdown of this is as follows:

Assume 4-man 25-day camp

a) Sampling and Analyses

i) Heavy minerals: 15 samples @ \$500/sample	\$7500
ii) Soil samples: 1500 samples @ \$12.00/sample	\$18000
iii) Rock sampling: 200 samples @ \$12.00/sample	\$2400
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TOTAL	\$27,900.00

b) Labor

i) 2 laborers - soil sampling 2 x 25 days x \$100/day	\$5000
ii) 1 Senior field assistant 25 days x \$150/day	\$3750
iii) 1 supervisor 25 days x \$200/day	\$5000
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TOTAL	\$13750

c) Camp Costs

i) Food: \$25/person/day x 25 days x 4	\$2500
ii) Mob-demob camp relocation: Houston to Wistaria by road; Wistaria to Deer Horn by helicopter	\$6000
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TOTAL	\$8500

GRAND TOTAL \$50,150

If data evaluation indicates good potential for tonnage, grade and metal recovery, Stage 2 will be implemented.

Stage 2 (Year 2)

This stage is proposed for summer-fall of 1990 and will consist of the following:

- 1) Trenching programme to delineate Contact vein to east and west. Includes 1400m of trench sampling. Cost approximately \$10,000
- 2) Phase I drilling programme to delineate geological reserves. Drilling to be conducted on 100m section intervals and will test the Contact vein along strike to east and west as well as down dip.

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- 3) Feasibility study to determine logistics of barging ore material from southwest end of Whitesail Lake to Wistaria and from there trucking it to Equity minesite.
- 4) Continuing evaluation of regional prospects in the area.
- 5) Cost of drilling, trenching and regional evaluations estimated at \$500,000.

If data evaluation indicates potentially economic mineable tonnages and grades, Stage 3 will be implemented.

Stage 3 (Year 3)

This stage is proposed for summer-fall-winter of 1991 and will consist of the following:

- 1) Establishment of a permanent camp on the property.
- 2) Phase II drilling programme to delineate mining reserves. Drilling will be conducted on 25m section intervals or less where required and will tentatively cost approximately \$2,000,000.
- 3) Mining and milling feasibility study.

A production decision will be made following evaluation of data from Stage 3.

J. Cyr

cc. Mine Manager  
Mine Superintendent

Mine Geologist