043/= ... June 7, 1989

:

ċ

÷

1

860101

Pagel

1

- ----

•

ς,

į

EXPLORATION AND DEVELOPMENT PROPOSAL

PARCEL B

TWEEDSMUIR RECREATION AREA - LINDQUIST LAKE SITE

INTRODUCTION

Equity Silver Mines Limited, holder of Free Miners licence #280626 has prepared a proposal to explore and develop Parcel B in Tweedsmuir Recreation Area - Lindquist Lake site in response to the "Call for Proposals" issued on April 19,1989 by the Honourable Jack Davis, Minister of Energy, Mines and Petroleum Resources.

Ň

Development of this resource is of particular interest, perhaps critical, to Equity Silver Mines Limited and to the community of Houston, B.C. as economic reserves at the present minesite will be depleted by mid 1992.

Format for this proposal follows the sequence outlined on pages 2 & 3 of the "Call for Proposals".

SUMMARY

Equity Silver Mines Ltd. is actively engaged in mining 42km south of the community of Houston and is carrying out exploration programs between the present minesite and Lindquist Lake.

The company is associated with Placer Dome Inc., a mining company active throughout Canada and the world that can provide a large pool of expertise for property development.

The Company has an agreement with Dr. Franc R. Joubin (associated with the discovery and early development of the Lindquist Lake property) and his partner Dr. Ronald D. Johnson to obtain geological information on the property. Drs. Joubin and Johnson will act in the capacity of consultants for exploration and development of the Lindquist property if Equity Silver Mines Limited should have this proposal accepted.

The company is in a strong financial position to fund exploration and development of the Deer Horn - Lindquist Lake property.

The proposal to process Lindquist Lake ore at the present Equity Silver mill provides a unique opportunity to minimize mining disturbance at Lindquist Lake and utilize an already disturbed area outside the Park for milling and tailing disposal. Timing of development provides an economic opportunity to the community of Houston as well as Equity Silver by continuing a mining operation in the area beyond 1992 when economic reserves at the present minesite are scheduled for depletion.

2

The company is at the forefront in control of acid mine drainage and reclamation of disturbed minesites.

During the exploration period surface disturbance will be minimal and confined to drill sites and campsites. Servicing will be confined to helicopters or the current access road. All sites will be kept clean and will be reclaimed as soon as no longer required.

If the property should proceed to production disturbance will be confined to a small area adjacent to any underground adits, a campsite, the present road access from Whitesail Lake and temporary ore stockpiles. Once reserves have been depleted disturbed areas would be reclaimed.

GENERAL PROPOSAL OUTLINE

The proposal calls for exploration to commence in early summer (July) of 1989 with a budget designed to partially confirm indicated reserves at the Deer Horn minesite and systematically explore the remainder of the claims by surface techniques. In 1990 a large exploration program would be carried out to allow preparation of a feasibility report and other documents related to wildlife, the environment and any historical interest during the winter of 1990-1991.

The conceptual plan for development of the property would be to provide new ore reserves to support the present complex located 42 km south east of Houston. Ore would be transported from the Lindquist Lake site via a road and barge system. A campsite would be located in a suitable area near the mine portal and personnel would be transported to and from the site for periods similar to other fly-in/fly-out mining operations in the Omineca Mining division.

Mining would be carried out by underground methods. Disturbance would be limited to a small area near the present adit, a small campsite and the existing roadway from Whitesail Lake.

Development of the property would commence following a favourable feasibility report and issuance of required permits and would coincide with depletion of surface reserves at the present Equity Silver minesite.

PRINCIPALS INVOLVED & GENERAL INFORMATION

The Principal, Equity Silver Mines Limited will be referred to throughout this proposal as the Company:

Vancouver Office: Equity Silver Mines Ltd. 1600 - 1055 Dunsmuir Street, Vancouver, British Columbia Mailing Address: P.O.Box 49330, Bentall Postal Station Vancouver, B.C. V7X 1P1

i

.

Mine Office:	Exploration Office:
P.O.Box 1450,	Suite 13 - 1155 Melville St.
Houston, B.C. VOJ 120	Vancouver, B.C. V6E 4C4

Directors:

Winslow W. Bennett, C. Henry Brehaut, Clifford A. Grandison, Hugh J. Matheson, Anthony J. Petrina, Conrad A. Pinette, John Racich.

Officers:

Winslow W. Bennett, Chairman of the Board Anthony J. Petrina, President and Chief Executive Officer John Racich, Vice-President John A. Eckersley, Secretary Bernice D.Larade, Treasurer Murray A. Gordon, Comptroller Sheryl A. Thomson, Assistant Secretary

Corporate Financial Background:

Authorized capital 2,400,000 non-voting cumulative redeemable convertible preferred shares without par value; 40,000,000 Class A common shares without par value; 20,000,000 Class B common shares with par value of \$.01 each; Class B shares are convertible to Class A one-for-one.

Shares outstanding at 31 Dec 1988:

1,538,000 Preferred shares - Series 1;

30,742,000 Class A Common;

1,780,000 Class B Common;

Major Interest - Placer Dome Inc. owns 58.8% of the issued common shares of the Company.

A copy of Equity Silver Mines Ltd. 1988 annual report is included as Attachment 2.

Mining Experience and Capability

The Company has operated an open pit and mill complex 42 km SE of Houston, B.C. continuously since 1980. Initial milling rate was 5000tpd and is currently approximately 9000tpd. Ore is treated to produce a copper-silver-gold concentrate. A carbon-in-leach scavenger circuit recovers gold from concentrator tailing in the form of dore.

The Company contracts management, technical and administrative services from Placer Dome at cost. Placer Dome operates 18 open pit and underground mines worldwide and employs 5500 people, therefore a large pool of expertise is available at cost to the Company for mine development.

Exploration Experience

The Company has carried out a "grass roots" exploration program from the minesite south of Houston since 1982. Initial efforts were concentrated in the area of the minesite, but have expanded well beyond over the past several years. \$662,000 was spent on 1988 exploration. The 1989 exploration program is budgeted at \$700,000 and will explore and evaluate properties near Prince

Rupert, Terrace, Cedarvale, Houston and a general area within 100km of the minesite.

On April 17,1989 the Company located fourteen one-post mineral claims, comprising 232 units, in the Tweedsmuir Recreation Area adjacent and proximal to the Lindquist Lake Site.

Ň

A separate exploration program is managed from the Company's Vancouver office. This program is Canada wide and is budgetted to spend \$3,000,000 in 1989. 1988 expenditure was \$3,900,000 with detailed studies on 26 properties-6 diamond drilled.

Reclamation Experience

1

The Company carries out a progressive reclamation program at the minesite south of Houston. As sections of waste dump are completed, they are covered with overburden/till and revegetated. The Company has twice been commended by the Ministry of Energy, Mines and Petroleum Resources for outstanding achievement in reclamation.

The Company has a representative on the B.C Task Force on AMD (Acid Mine Drainage), the B.C. Technical and Advisory Committee on Reclamation and a National Committee, MEND (Mine Environment Neutral Drainage), composed of industry and government representatives working to control acid mine drainage.

The Company participates on a minesite Surveillance Committee, composed of Provincial and Federal Government agencies (WMB, MEMPR, EPS, DFO) as well as the Municipality of Houston and the Buck Flats Residents Association (a group living 10-40 km downstream of the minesite.

The Company has prepared a decommissioning and closure plan for the minesite that is currently under review by the above noted Government

agencies. \$3,000,000 was set aside in 1988 as partial funding to manage acid mine drainage after mine closure. Similar amounts are being set aside annually to 1992 when minesite reserves are expected to be depleted.

•

EXPLORATION BUDGET - LINDQUIST LAKE

The first year (1989) exploration program totals \$288,000 and is itemized in Attachment 1 - "Proposed Budget - Year 1".

The second year program (1990) is proposed at \$1,800,000 and is expected to provide the required delineation to prepare a feasibility study.

EXPLORATION PLANS - LINDQUIST LAKE

The exploration program is designed to provide a preliminary review of the entire property in 1989. Included are geophysical surveys (magnetic, electromagnetic and induced polarization), geochemical surveys (soil, silt and rock), geological mapping, metallurgical testwork and diamond drilling. Diamond drilling would be from surface on 5 sections, 75m apart with 5 holes per section and would partially confirm indicated reserves. Metallurgical testwork (including petrographic and mineralogic studies) will evaluate metal recoveries and provide information necessary for development of a preliminary mill flow sheet.

Work would commence at the start of August 1989 and would likely continue through September 1989. Mapping would include underground work in 1989 if the present adit only requires minimal rehabilitation, otherwise underground mapping would be delayed into 1990. Surface disturbance during the exploration period would be kept to an absolute minimum - small camp and surface drill

sites, which will be reclaimed as soon as sites are no longer required. Trenching will not be considered. Servicing will be entirely by helicopter in 1989. A six man crew is employed to carry out the Company's 1989 exploration program and would be readily available to work on the Lindquist Lake program.

.

Providing the 1989 program is encouraging, the 1990 exploration program would be designed to fully delineate the known ore zones for a feasibility study during the winter of 1990-1991. Drilling would also examine on-strike and down-dip potential of the known zones as well as any additional zones located during the 1989 program. Surface disturbance would again be minimized to camp and drill sites that would be reclaimed as soon as no longer needed. Servicing would likely utilize the present 10km road from Whitesail Lake as well as helicopters. Drill moves would utilize helicopters.

The general program presented is based on the expectation that previous hard information is no longer available. If previous work such as diamond drilling, surveying and geological mapping is available, the Company would modify the proposed program to incorporate this data and likely reduce the amount of work required. The Company has an agreement with Dr. Franc R. Joubin and Dr. Ronald D. Johnson whereby the Company will exchange a small Net Smelter Interest in the Lindquist Lake property for geological data and expertise. Dr.Joubin identified the original gold showings on the property and was associated with past exploration and development of the property.

If the Equity Silver Mines proposal is accepted, expeditious processing of required work permits is required to allow the 1989 program to proceed as budgeted. It is imperitive and expected that mineral title would not be jeopardized if the proposed program is delayed due to permitting.

CONCEPTUAL PLANS FOR THE RECOVERY OF RESOURCES

The Equity Silver Mines Ltd. proposal is based on reserves indicated in the "Call for Proposals". The Company would expect to be able to modify plans for recovery of resources if reserves differ from those indicated.

The general plan is to mine the ore zones by underground methods and then transport the ore by a combination of truck and barge to be processed at the present Equity mill 42km southeast of Houston.

Mining would be carried out year round at a nominal 200tpd rate with ore stockpiled at the mine over winter. Ore would be trucked 10km from the mine at Lindquist Lk. to the south end of Whitesail Lk., barged 60km to Andrews Bay on Ootsa Lake and then trucked 120km to the Equity Silver mill via the present Wistaria/Houston/Equity road system. Total distance is 190km. Some possibility exista to shorten the barge haul if forestry development is carried across Ootsa Lake and down Whitesail Lake in the near future. The possibility also exists to drastically reduce the road haul with a more direct route from Francois Lk. to the Equity mill.

Some modifications may be required to present mill circuits, however any changes are not expected to be difficult or costly. Tailing would be discharged to existing impoundments at the present millsite. Subject to metallurgical testwork gold and silver would be recovered in the form of dore bars. Previous work indicated that excellent gold and siver recoveries could be achieved at a fairly coarse grind. Recovery of tungsten and base metals is uncertain but would be evaluated during the 1989-1990 exploration programs.

Personnel would be housed in a temporary campsite located close to the mine. Transportation would be by boat while Whitesail Lk. is open and by air when it is frozen over.

Mine life for the indicated reserves is 3.8 yr at a 200tpd mining rate. While 200tpd is the suggested rate this could be modified if mining proves to be relatively easy or if reserves are increased.

2

METAL RECOVERY FROM OLD MILL TAILINGS

4

Relevency of this section is unknown at present. Presence of tailings is not mentioned in available reports, but if present could be subjected to metallurgical testwork to determine if metals can be recovered.

Material dumped at the portal of the underground adit would be evaluated for recovery of metals and processed if suitable.

ENVIRONMENTAL PROTECTION AND RECLAMATION

During the exploration period in 1989 and 1990 all surface disturbance would be minimized. Drill sites would be cleaned up and revegetated. Camp sites will be temporary and maintained in a clean, sanitary condition. Burnable garbage will be destroyed in prescribed burners. All other garbage will be taken to disposal sites outside the Recreation Area. All exploration materials will be collected and removed from the Recreation Area. Sewage in the camp areas will be confined to sanitary outdoor toilets that can be buried. Drill waters will be collected at each site in a sump tank and recirculated where feasible. Bentonite based muds will not be used in the drilling process. If hole stabilization is required, non-toxic and biodegradable synthetic polymers will be used. Equipment access will be by helicopter during the 1989 exploration phase so that surface disturbance will be minimized.

A larger program in 1990 would likely utilize Whitesail Lake and the present access road for supplies. This may entail some upgrading of the access road, but without any major additional disturbance. A camp would likely be located near the existing adit. Precautions would be as noted previously for the 1989 program.

Samplos of all major rock types would be subjected to acid generation tests to determine if acid generation is possible.

Should the property proceed to production some additional surface disturbance would be required, though minimal relative to most mining proposals. As a mill site and tailing disposal area is not required within the Recreation Area, disturbance will be confined to mine openings and the areas adjacent, a camp site, the present 10km road access (upgraded to allow truck haulage) from Whitesail Lake to the minesite above Lindquist Lake, a docking area at Whitesail Lake and ore stockpile sites at the minesite and at the south end of Whitesail Lake.

Waste rock produced during mining would be disposed of in the underground workings. Backfill may be required to maintain stability of underground workings. Waste is likely readily available from the scree slopes noted in old reports. Some disturbance may be required in this area, however this would have minimal impact.

Water exiting mine portals would be collected in stilling ponds to ensure settlement of contained silt. Comprehensive water analyses would be carried out on mine drainage water and Lindquist Lake during the exploration stage and subsequent mining period.

ς.

Sewage would be handled similarly to the exploration stage, however a more elaborate system would likely be required, such as a properly sized lagoon. Disposable garbage would be burned in prescribed burners. Other waste

could be taken underground if feasible or else taken outside the Park area for disposal. Camp size will be small as personnel requirements for the indicated 200tpd mining rate will be minimal.

Following completion of mining, mine openings would be sealed, the camp would be removed, roads and surface disturbances including the dock site and sewage lagoon would be recontoured to fit into existing slopes. All disturbed surfaces would be revegetated following completion of recontouring. 2

Equity Silver has carried out reclamation in areas explored from 1982 to the present. This includes recontouring of drill sites and trenches, followed by seeding and fertilizing. As noted previously a very large progressive reclamation program is carried out on disturbed areas at the present minesite.

FUNDING

Funding for the exploration programs in 1989 and 1990 is expected to be obtained with property cash flow. Cash and term deposits at 31 Dec 1988 were \$24,667,000. While metal prices have declined in 1989, a positive cash flow is expected as approximately half of anticipated production has been sold forward at favourable prices.

Arrangements for placing the property in production are premature at this stage. However, the strong cash position of the Company as noted in the previous paragraph allows considerable flexibility in arranging production financing.

REPORTING COMMITTMENT

Reporting requirements as outlined in items 9 and 10 on page 3 of the

ţ

"Call For Proposals" can be readily accommodated and the Company would commit to providing the required information prior to the anniversary date.

REQUIRED DEPOSIT

A deposit cheque for \$28,800 which is 10% of the first years exploration budget is enclosed with this proposal. 2

ECONOMIC IMPORTANCE TO HOUSTON

The District of Houston is dependent on resource industries to remain a thriving community. The forest industry carries the most impact on the community, however mining also provides a significant influence.

The population of Houston was approximately 2800 in 1976 prior to commissioning of the Equity Silver mining complex. The community has a current population of 3900. 200 people are directly employed by Equity Silver and have about 300 to 400 dependents. Neglecting the multiplier effects, approximately 15% of the population of Houston are dependent on Equity Silver remaining a viable operation.

Mining exploration is fairly active in the area but has not located an economic deposit since the Equity Silver operation began in 1980. The Company is continuing an active exploration program in the general area but without success to date. Pacific Houston is continuing an exploration program at the old Bradina property at Owen Lake, 20 km from Houston. However a recent feasibility study on this property was not encouraging.

Development of the Lindquist Lake property would not provide employment for all people currently employed at Equity and resident in Houston. However a

200tpd operation would employ an estimated 100 to 150 people for an additional 4 years. With surface reserves at the present minesite sufficient to last until mid 1992 this would continue mining employment until 1996. If metal prices improve sufficiently during this period presently uneconomic underground reserves below the Equity surface mine could be developed while a mill is still on site. An extended mine life also provides an additional four years to locate an economic orebody with Equity's annual exploration program. When mine life is terminated the exploration program will be terminated as well.

ATTACHMENT 1 - PROPOSED BUDGET YEAR 1

Page16

1

ţ

PROPOSED BUDGET - YEAR I

FOR PARCEL B - Lindquist Lk.

I. Geological Surveys, Map & Report Preparation & Related Costs		\$ 25,000
. Geophysical Surveys (line-kilometres)		
Ground		
Augnetic		
Electromagnetic		
Induced Polarization		
Radiometric		
Seismic	***************	
Other	······································	
	\$ 15,000	\$ 15,000
	• 15,000	• 15,000
3. Geochemical Surveys (no. of samples analysed for <u>Bi</u> ,	Cu, Pb, Zn, Aq, Au, As, Sb, Hg	
\$ol#1875	45,000	
8oii#1875 Sur# <u>50</u>	1,000	1
##	5,000	
Other	\$ 51,000	\$ 51,000
	\$ 51,000	• 51,000
4. Drilling Surface1360m@\$0/m Undergroundm@\$	136,000	
	\$ 136,000	\$136,000
5. Related Technical Studies		
Sampling/Assaying	25,000	
Petrographic	4 000	
Mineralogic		}
Metailurgic		
	\$ 35,000	\$ 35,000
8. Preparatory/Physical		
Line/Grid (kilometres) 10	5,000	
Trenching (linear metres)		\$ 5,000
•	\$ 5,000	• 5,000
7. Tunnelling, Drifting, Other Lateral Excavation		
8. Other Exploration Development Costs (attach details Survey Control	ed schedules) 11 000	
	11,000	
	\$ 10,000	
•••••••••••••••••••••••••••		
	\$ 21,000	\$21,000
Total Expenditures		\$288,000
L		1

.



٠. ب

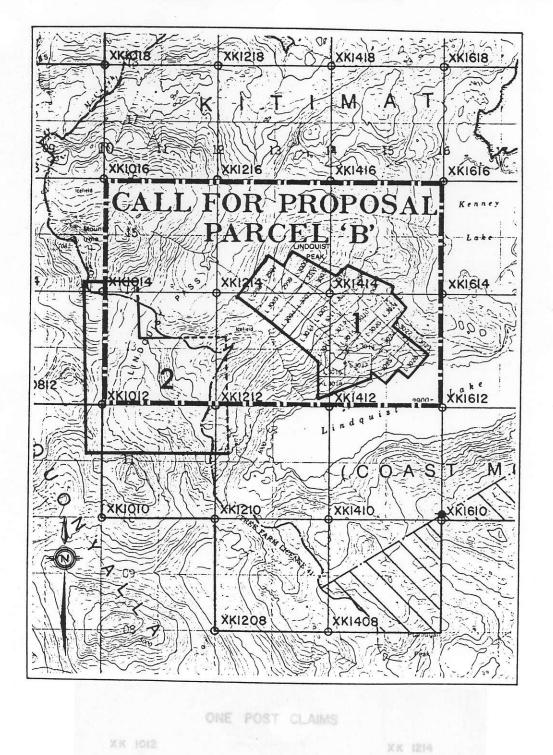
ATTACHMENT 2 - COPY OF 1988 ANNUAL REPORT

Page17

Í

Appendix "B" TWEEDSMUIR RECREATION AREA

LINDQUIST LAKE SITE - PARCEL "B"



1. INCLUDES AREA NOTED AS 1. - SURVEYS CANCELLED. 1976. SEP. 30

XK 1014

XX 1212

2. EXCLUDES AREA NOTED AS 2. - EXISTING MINERAL TITLES. SEE MTR MAP NO. 93E/6W

XK 1412