EAO Application July 1998

Summary

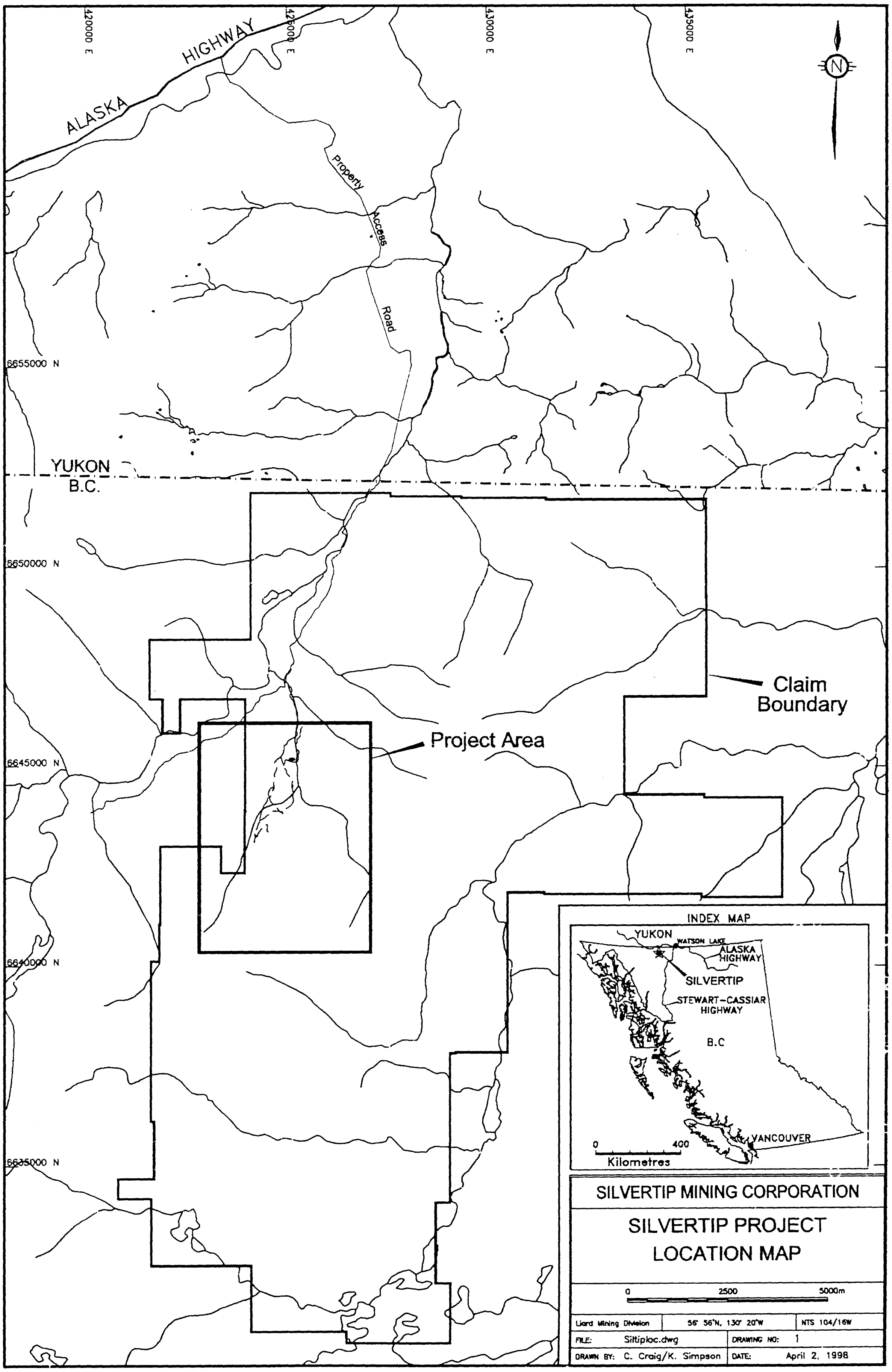
887605

The Silvertip Project in northern British Columbia is a precious and base metals deposit containing a current total resource of 2.57 million tonnes at 6.40% Pb, 8.80% Zn, and 325 grams per tonne Ag with Au credits at 0.63 g/t. It is Silvertip Mining Corporation's intention to develop an open pit and underground mine on the deposit in 1999 to feed a dense media plant and flotation mill producing high value lead and zinc concentrates.

Work during 1997 on the Silvertip Project included 8,594 metres of diamond drilling and extensive geological evaluation using geophysical techniques. Additionally, work continued on the collection of environmental data to expand the existing environmental baseline. Examination of the orebody indicates that some 740,000 tonnes of this high value resource will be suitable for open-pit mining, the remainder to be accessed by underground development. An extensive program of metallurgical test work during 1997 and early 1998 confirmed the suitability of the ore for dense media separation (DMS) and identified a suitable flotation treatment route for the DMS concentrate. Work continues on confirmation of recoveries and grades of flotation product.

The initial concept for this orebody was to pre-treat the ore by DMS and ship the pre-concentrate off site for treatment. However, by the end of 1997, conditions in the metal markets were such that neither the Faro Mine nor the Sa Dena Hes mine, both in the Yukon, could reasonably be considered as possible custom milling facilities for Silvertip ore. As a consequence, it is Silvertip Mining's intention to move the Imperial Metals Goldstream Mill from Revelstoke up to the Silvertip site. This 1,500 tonne per day mill is capable of treating in excess of 2,000 tonnes per day of the softer, higher grade Silvertip ore by conventional crushing, grinding, and flotation. A preliminary mill site, tailings dam site, and open pit with associated waste dump have been outlined in the attached plan.

The Company is currently completing a pre-feasibility study to confirm the commercial viability of such a proposal. Initial economic evaluations indicate that the proposal has considerable merit both financially and technically and the Company is moving forward on the permitting aspects of the project. Timely receipt of project certification is critical to the success of this mine and SMC staff have been in consultation with many of the concerned agencies in an effort to move the process forward in a timely and efficient manner.


420000 E
425000 E
430000 E
435000 E
ALASKA HIGHWAY
Property Access Road
N
6655000 N
6650000 N
6645000 N
6640000 N
6635000 N
YUKON
B.C.
Claim Boundary
Project Area
INDEX MAP
YUKON
WATSON LAKE
ALASKA HIGHWAY
SILVERTIP
STEWART-CASSIAR HIGHWAY
B.C
VANCOUVER
0
400
Kilometres
SILVERTIP MINING CORPORATION
SILVERTIP PROJECT
LOCATION MAP
0
2500
5000m
Liard Mining Division
56° 56'N, 130° 20'W
NTS 104/16W
FILE: Siltiploc.dwg
DRAWING NO: 1
DRAWN BY: C. Craig/K. Simpson
DATE: April 2, 1998

History

The Silvertip property, formerly known as Midway, has been intermittently explored since 1955 when high grade silver values were returned from Silvertip Hill. Exploration on the property from 1956 to 1968 consisted of mapping, soil sampling, line cutting, drilling, geophysical surveys, and underground development. The property lay dormant until 1981 when Regional Resources Limited restaked the claims. Throughout most of the 1980's and early 1990, Regional Resources continued to explore the mineralization from both surface and underground. A significant program of diamond drilling was carried out and a massive sulphide resource was identified.

In 1996, Silvertip Mining Corporation (SMC or the Company), a wholly owned subsidiary of Imperial Metals Corporation, acquired the Silvertip property by purchase of Regional Resources Limited. Subsequently, SMC carried out a $2 million exploration program on the property which included 8,594 metres of diamond drilling, seismic, and various other supportive studies. In addition, SMC carried out extensive metallurgical test work to identify a suitable treatment process for this high grade deposit.

At the end of 1997, SMC's updated resource calculation (Appendix 1), based on the mineral resource classification guidelines published by the Canadian Institute of Mining and Metallurgy was as follows:

Classification	Tonnes Millions	Silver grams/tonne	Lead %	Zinc %	Gold grams/tonne
Measured and Indicated Resource	1.12 M	378	7.7	9.5	0.85
Inferred Resource	1.45 M	284	5.4	8.3	0.46
Total Resource	2.57 M	325	6.4	8.8	0.63

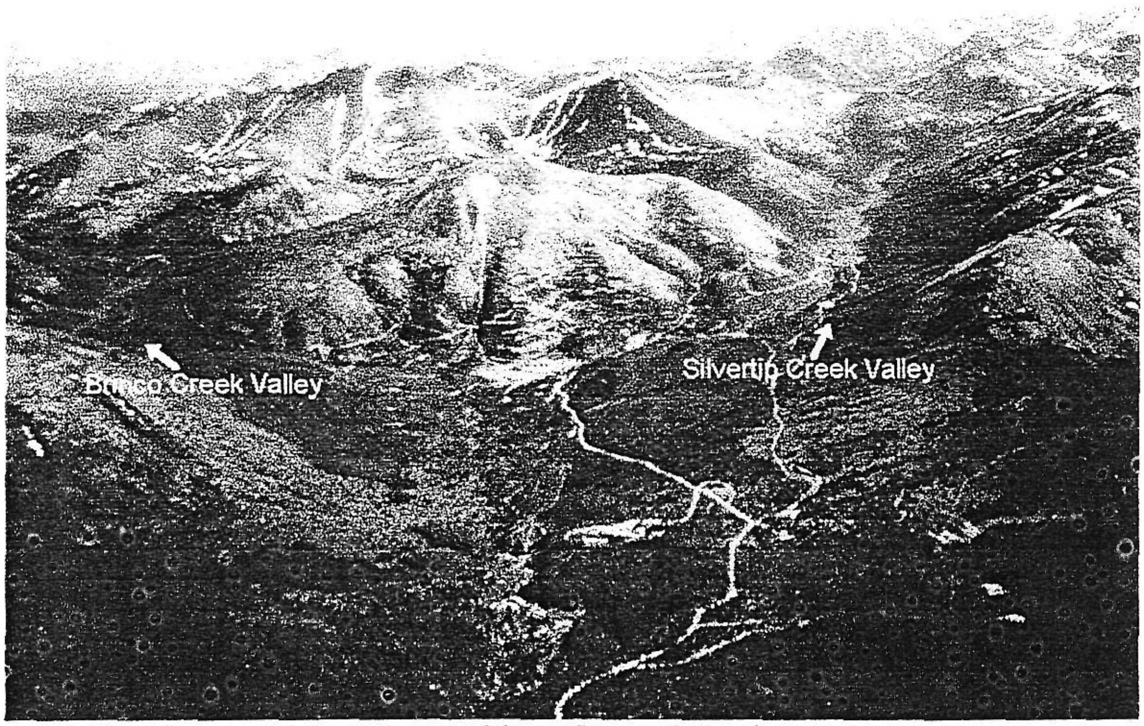
The substantial exploration potential which exists on the property dictates continuation of exploration to the Northeast and South of known zones as plans for development proceed. Exploration will involve mapping, continued development of geophysical techniques such as seismic, surface and underground drilling, and mining.

During 1997, SMC commenced supplementing the existing baseline environmental database by initiating the first part of a two year environmental study on the site designed to complete the information requirements of the BCEAA process. These studies encompassed meteorology, hydrology, water quality, stream sediment and benthic invertebrate, fisheries and wildlife components. Reclamation activities were also undertaken, consisting of re-sloping, reseeding and planting previously disturbed exploration areas (see Appendix 2).

Current Development Proposal

The Company is proposing to enter the Environmental Assessment Process (EA) through submission of this application with a view to constructing a mine and mill facility during 1999 and commence production in late 1999 or early 2000. An examination of the ore resource indicates at least 740,000 tonnes of high grade ore can be economically mined by open pit reducing start up risk. The remaining 1.8 million tonnes of the currently identified resource would then be mined by underground methods. Regional Resources during its period of underground exploration identified some problems in control of the hanging wall during their underground work. Consequently, the opportunity to commence mine and mill operations using easily accessible open pit ore provides a realistic development scenario for this orebody. It is the Company's intention to move Imperial Metals' 100% owned Goldstream flotation mill from the Revelstoke area to the Silvertip Project. This mill which currently consists of rod, ball, and regrind mills, column and conventional flotation cells, etc. will require some upgrading plus the addition of a crushing and dense media separation (DMS) circuit to operate efficiently on Silvertip ore.

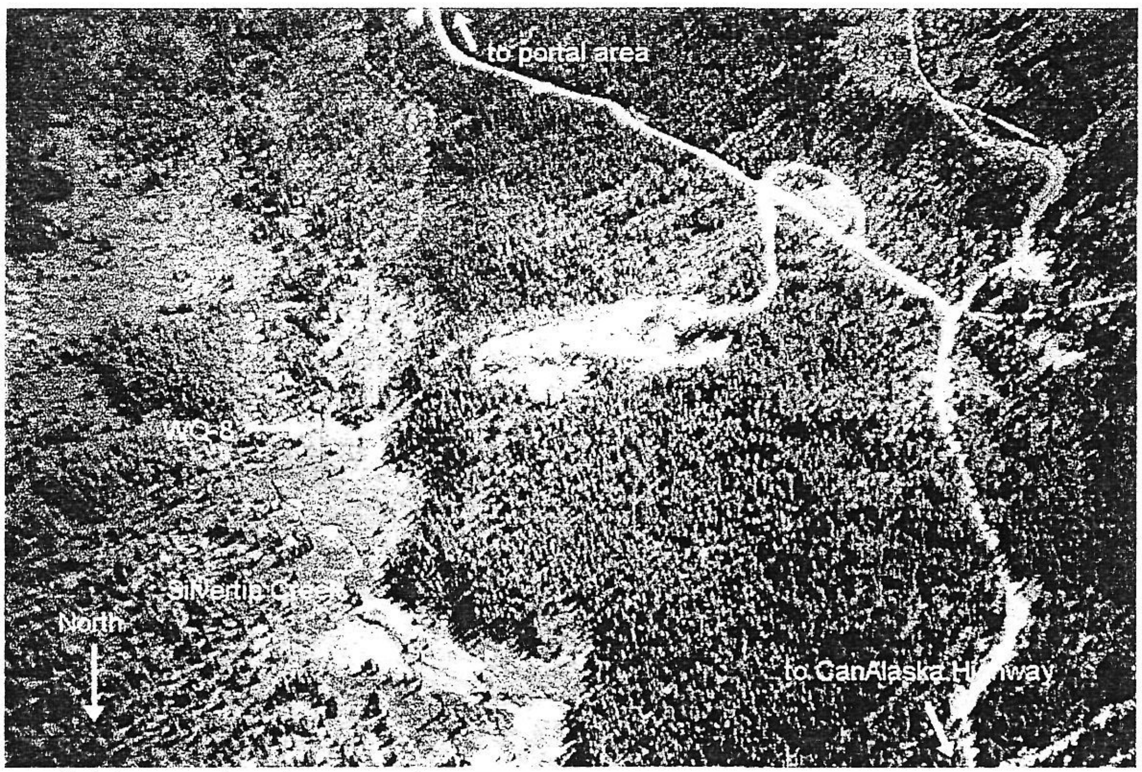
No economic source of power has been identified close to the project area. As a consequence, the Company is considering both hydro-electric and diesel generation for the property. The possibility of damming the Silvertip Creek Valley and storing water behind a waste rock dam for the purpose of generating power is being examined. It is anticipated that some 5 megawatts of power will be required for operation of the mill and camp. The current camp facilities will be insufficient for permanent use and it is intended to extend the camp sufficiently to accommodate a crew of 80 men on a 7 in 7 day out basis and move it to the mill site.



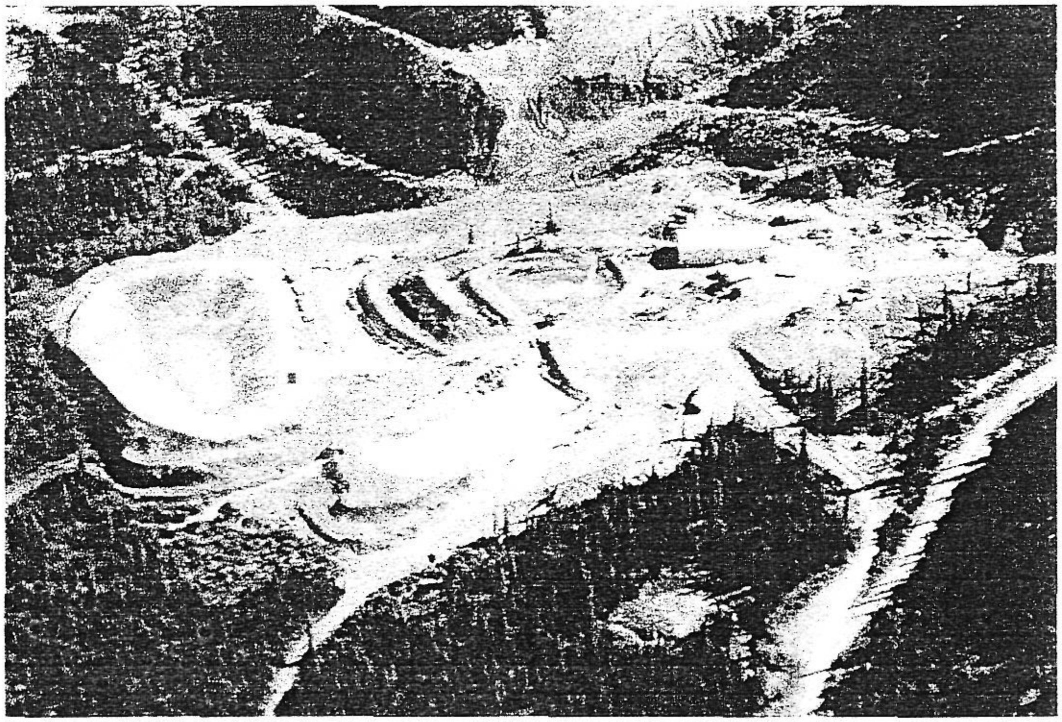
The Silvertip property is located south of the confluence of Silvertip and Brinco creeks.
The Cassiar mountains are visible in the background. Looking south.

Based on the use of the Goldstream mill, it is expected that the plant could treat approximately 1500 - 2000 tonnes per day. Certain horizons of the waste and ore are considered to be potentially acid generative and as a consequence the Company intends to pursue a preventative approach by storing such material underwater either in the flooded open pit or in a flooded tailings/waste storage facility to be built in the Silvertip Creek valley. Total mine life based on the currently known resource would be 4-5 years; however, assuming this orebody is typical of other Manto style deposits it is likely that mine life can be extended well beyond this time frame.

On closure of the property, it is intended to permanently flood the surface and underground workings and the tailings/waste dump facility. This approach will prevent the onset of oxidation of the potentially acid generative materials and the associated leaching of metals. Suitable spillways will be included to ensure sustainability of the structures and to minimize the requirements for long term maintenance. All disturbed slopes, with the exception of the open pit high wall, would be re-contoured and seeded to restore productivity of the area. Plant and equipment would be removed, buildings taken down and foundations broken up and buried. The site would then be graded and seeded/planted with native species.



Existing campsite and access road.



Present day portal site; 3 settling ponds, Fold-Away shop, high grade stock pile, dry, core shack and fuel storage.

Geological Syncpsis

Silvertip Mineralised Zones

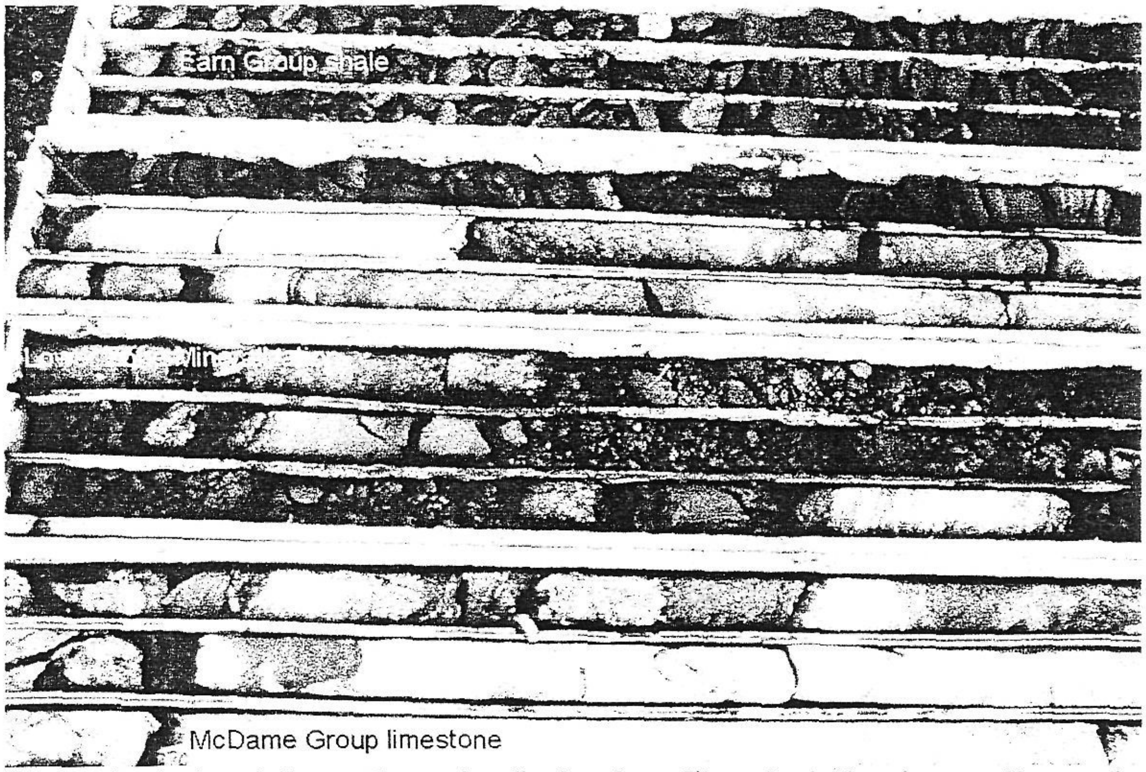
Silvertip mineralization occurs as silver-lead-zinc massive sulphide, formed as high temperature (300°C +) Manto replacement in limestone. Deposition of the sulphides was in Palaeozoic platformal sediments of the Omineca Belt, in northern British Columbia. It is a blind deposit, discovered fortuitously by drilling unrelated surface showings which had caused the geochemical anomalies, which originally drew explorationists to the area.

The total resource, as published by Silvertip Mining Corporation in January 1998 (Appendix 3), is shown at (measured, indicated and inferred):

2.57 million tonnes, grading 325 g/t Ag, 6.4 % Pb, 8.8% Zn, 0.63 g/t Au

Stratigraphy

Upper Devonian Earn Group - carbonaceous argillite, shale, sandstone.
~~~~~~~~~~~~~~~~ *unconformity* ~~~~~~~~~~~~
Middle Devonian McDame Group - fossiliferous limestone. Hosts mineralization.



Typical unconformity-hosted Lower Zone mineralization from Silver Creek deposit area. Sharp sedimentary unconformity contact indicated by pen. This 7.25 m interval grades 635 g/t Ag, 8.22% Zn, 6.79% Pb, 1.48 g/t Au.

The McDame limestone was karst-eroded in Late Devonian times, before the Earn Group clastic sediments were deposited. The end product of the karsting was a cave system, partly filled with limestone rubble breccias, and Earn mudstone which percolated down from the paleosurface. Strata dip gently to moderately to the east and south, and are cut by steep, northerly striking faults.

Mineralisation

Massive sulphides are dominantly pyrite, with lessor sphalerite, galena, and sulphosalts. Massive sulphide bodies are concentrated at the McDame-Earn unconformity, generally forming stratabound tubes tens to hundreds of metres long, tens of metres wide, and exceptionally up to 20 metres thick. Various types of breccias are commonly associated, but are not ubiquitous. Locally, tubes can spread out into discontinuous sheets at the unconformity. The best mineralized areas are recognized to be where the unconformity is 'elevated', such as local horsts or paleo-topographic highs. Sulphides also occur deeper in the limestone, possibly as offshoots of feeder systems to the unconformity Mantos. As yet no large feeder chimneys have been identified.
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Alteration

There is no consistent relationship of alteration with mineralization. Limestone observed next to massive sulphides may be recrystallized, bleached, silicified (decalcification) or dolomitized, but frequently is pristine. Conversely, thoroughly altered, fractured and veined limestone may be completely barren of sulphides.

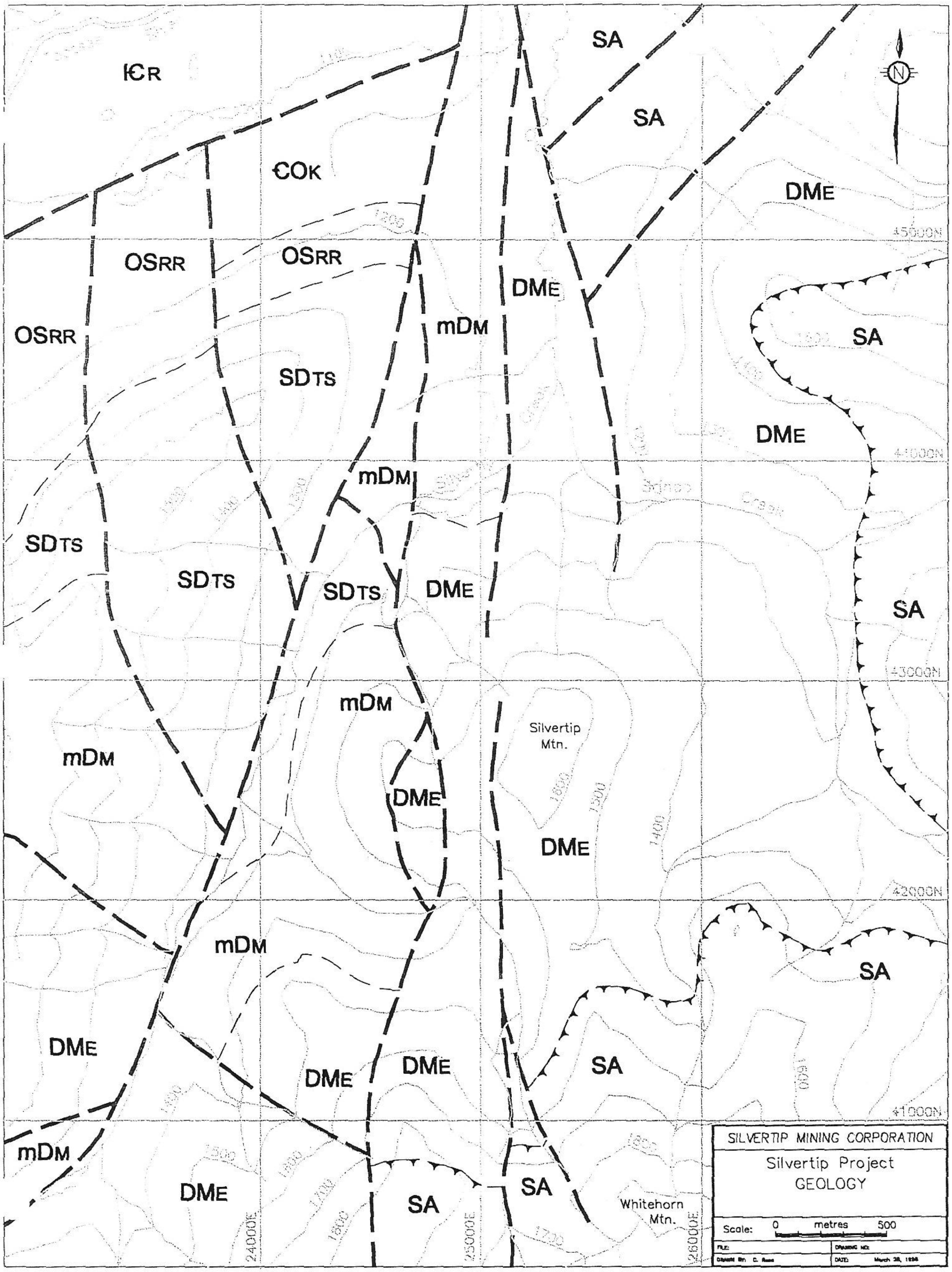
Genetic model

A hidden, Late Cretaceous felsic intrusion (70 Ma) generated a metalliferous hydrothermal fluid system (see schematic block model), concurrent with regional extensional faulting. Fluids were initially hot, acidic, and reducing, providing solubility and ability to transport metals. Fluids migrated up through the limestone, channeled along steep faults or fractures, until capped by impermeable Earn shales. The fluids then migrated along the unconformity or other stratigraphic or structural pathways, locally dissolving limestone and depositing sulphides. Complex sulphide textures and mineral paragenesis attest to a long-lived, multi-phase event, characterized by fluctuating fluid-rock reaction conditions.

Important 'ground-preparation' includes secondary permeability provided by reactivation of old structures, that originally localized paleokarst breccia deposits. Overall geometry of the massive sulphide tubes is reminiscent of limestone dissolution features and groundwater channeling, suggesting that this ground preparation is the fundamental control on unconformity related mantos. Steep structures may have been important for transporting fluids rapidly from depth, but assumed to be of secondary importance closer to the unconformity, within the realm of enhanced porosity and solution collapse features.

Lower Mississippian to Upper Permian and Upper Triassic	SYLVESTER ALLOCHTHON	SA	basalt, gabbro, serpentinite, chert argillite, chert, slate, greenstone,
Upper Devonian to Lower Mississippian	EARN GROUP	DME	sandstone, conglomerate siltstone, shale carbonaceous argillite
Middle (to Upper?) Devonian	McDAME GROUP	mDM	fossiliferous limestone, dolostone
Silurian to Lower Devonian	TAPIOCA SANDSTONE (informal)	SDTS	dolostone, quartzite dolomitic siltstone-sandstone
Ordovician to Silurian	ROAD RIVER GROUP	OSRR	carbonaceous, partly calcareous slate, siltstone, black limestone
Middle? or Upper Cambrian to Lower Ordovician	KECHIKA GROUP	ꞒOK	argillaceous limestone, calcareous slate, siltstone
Lower Cambrian	ATAN GROUP Rosella Formation	lꞒR	limestone, dolomitized limestone Archeocyathid-bearing

Legend and stratigraphic column to accompany geology map.



SILVERTIP MINING CORPORATION
Silvertip Project
GEOLOGY
Scale: 0 metres 500
DATE: March 28, 1998
lCR
COK
OSRR
SDTS
mDM
DME
SA
Silvertip Mtn.
Whitehorn Mtn.
Silver Creek
4500N
4400N
4300N
4200N
4100N
24000E
25000E
26000E

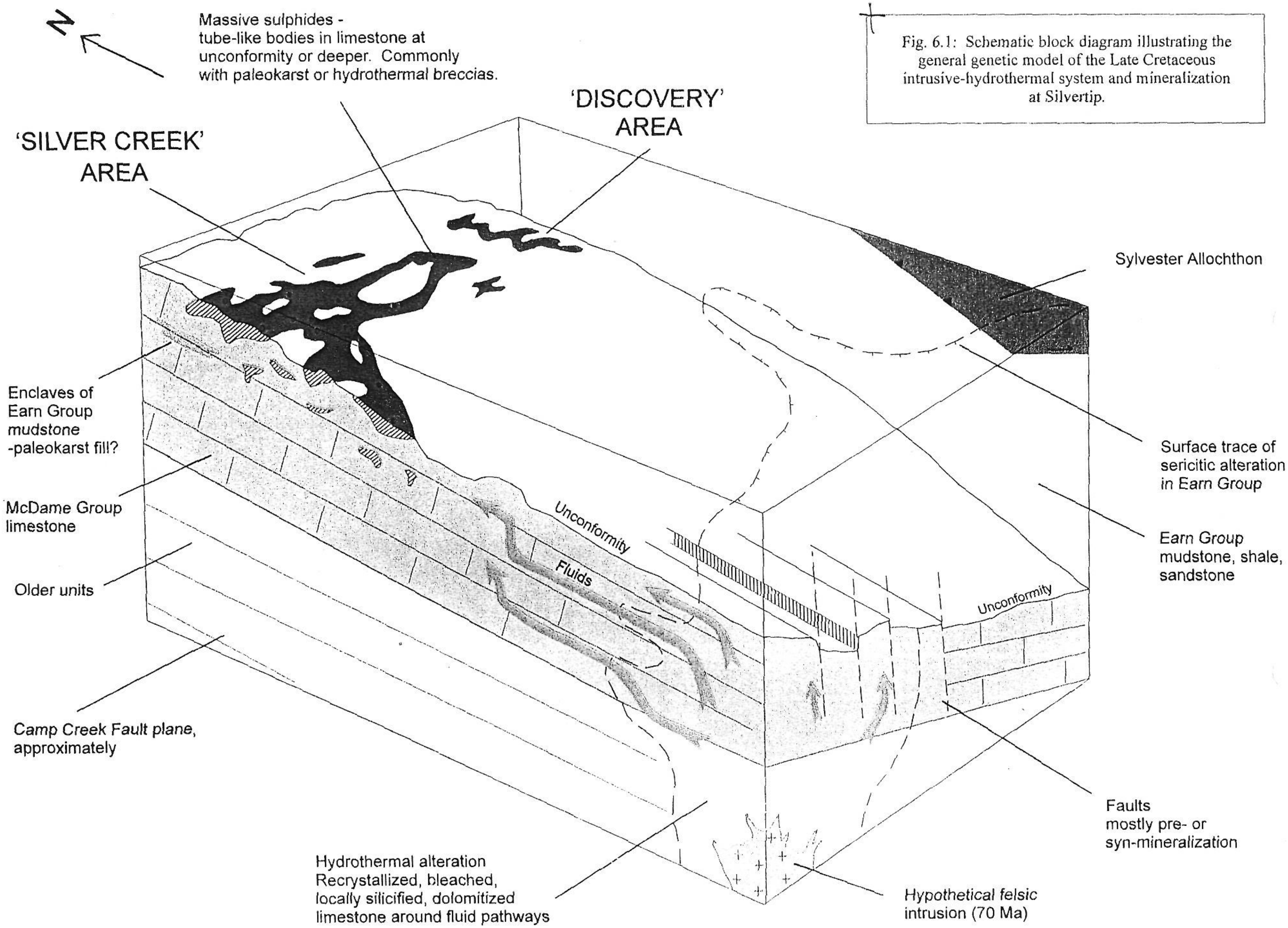
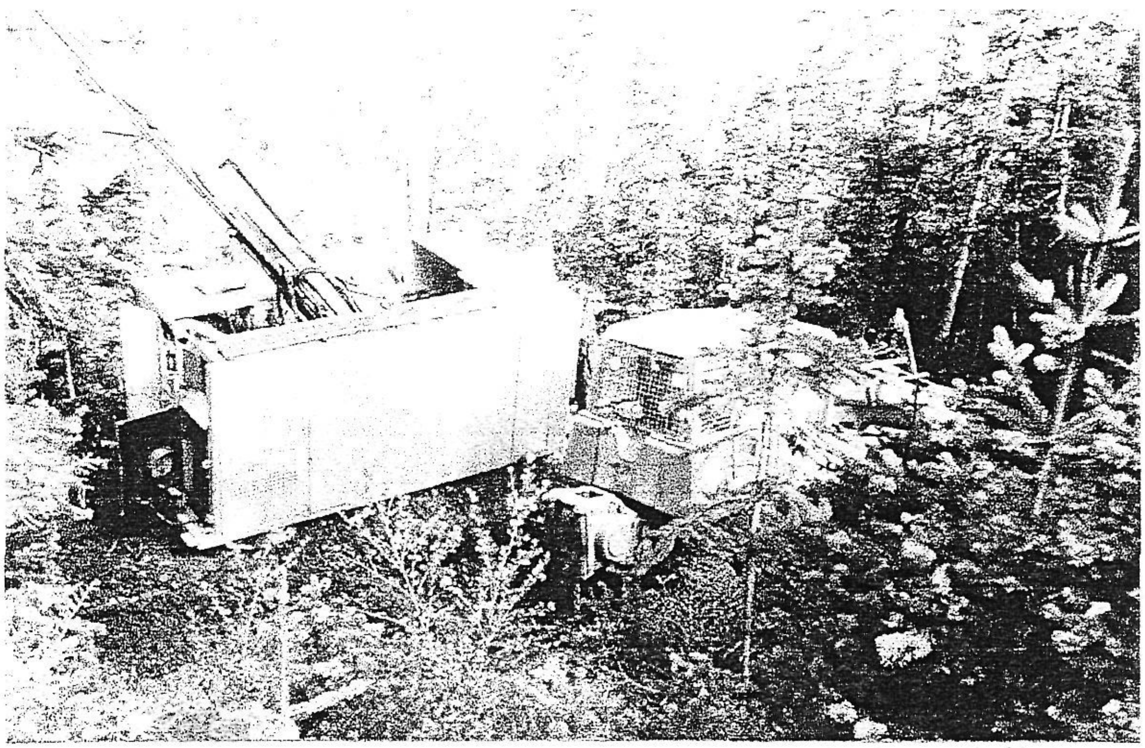


Fig. 6.1: Schematic block diagram illustrating the general genetic model of the Late Cretaceous intrusive-hydrothermal system and mineralization at Silvertip.

Exploration and development strategy

Mining costs are critical at Silvertip, so delineation of high grade/high tonnage chimney(s), and open pittable mineralization is important. The 1997 exploration program was successful in identification and delineation of a zone with open pit potential, however future exploration strategies will likely focus more on the discovery of feeder chimneys.

With no obvious controls on geometry, or means of predicting the hydrothermal or paleokarst plumbing system, exploration will proceed by simply following known tubes to possible chimney feeders, as in classic Manto mines in the southern US and Mexico. The Gilman Colorado, model suggests that Silvertip tubes may coalesce down dip, where they would be fed by vertical conduits, which may lie in fault planes. Santa Eulalia in Mexico, is another classic example of this type of system development. Mines in these districts have historically produced over several decades, but individual mines rarely ever had more than 1 or 2 million tonnes of known reserves on their books at any time, as exploration and discovery are strongly linked to ongoing development.



Drilling on a tight grid was necessary for identification and delineation of open pittable reserves.

Mining

Currently, it is intended to commence operations from a high strip ratio open pit, to be established on the north slope of Silvertip Mountain adjacent to the Silvertip Creek Valley. The ore in this area is overlain by 60 metres of clastic sedimentary rock comprised mainly of shale and sandstone with lessor conglomerate of shales with limited quantities of sandstone. The strip ratio in this area is in excess of 26-1 and in order to produce some 740,000 tonnes of mill feed, it will be necessary to move 19.6 million tonnes of waste and place this in a dump in the Silvertip Creek Valley. Subsequently, when stripping ratios become uneconomic, it is intended to move the mining operation underground by the use of room and pillar, cut and fill, and limited open stoping techniques. Cemented backfill will be used underground to provide localized support, along with extensive use of rock bolts, mesh, and other support methods. Hanging wall and foot wall contacts of the orebody are irregular and likely to prove difficult to mine selectively. As a consequence, the inclusion of a DMS circuit within the mill will smooth grades to flotation by early rejection of waste products included during mining. Manto deposits have a history of significant expansion through ongoing underground exploration and development. The Company expects Silvertip to be no exception to this rule, and as a consequence plans considerable exploration both through surface and underground diamond drilling and drifting during mining operations.

Operations in both the open pit and underground will be below the water table. As a consequence, the open pit and underground workings will require de-watering and pumping. This water will be treated as necessary to reduce levels of dissolved metals and suspended solids prior to discharge. The orebody and a proportion of the waste rock from the open pit have been identified as Potentially Acid Generating (PAG). A program of waste rock categorization (Appendix 4) is currently underway and tonnages and Neutralizing Potential Ratios (NPR) are being calculated. As a consequence the waste dump will be designed as a flooded structure to incorporate the mill tailings and PAG waste rock. Non Acid Generative (NAG) rock will be used for the exposed buttress of the dam and a till core will be incorporated on the upstream side. On closure, the open pit and underground workings will be flooded to prevent oxidation of the exposed rock and potential leaching. The open pit will bottom out in the underlying limestone, thereby providing additional buffering in the system to offset oxidation which may occur in the exposed highwall above the flood level.

Mining in the open pit will be by contractor during the warmer weather. Conventional drill blast techniques will be employed with haulage by eighty-six tonne haul trucks. Open pit operations will be carried out during the summer months only. Sufficient blasted ore will be stockpiled near the primary crusher to allow a loader to feed the mill during the winter months. During underground operations, drill and blast techniques will include both room and pillar and open stope mining with post fill. Ore will be hauled from underground up the existing decline and the trucks will dump to the stockpile area during the summer and direct into the primary crusher on surface during the winter months. Because of the scale of the operation, this surface stockpile will need to contain up to 250,000 tonnes of ore, most particularly at the end of open pit operations in year 1. The stockpile will be established above the crusher in the mill yard and when increasing strip ratios in the open pit operations make open pit ore less attractive, stockpile size will reduce towards zero as underground mining takes over. All drainage from the stockpiles will be contained within the mill yard drainage containment area and pumped back to the tailings pond if unsuitable for discharge.

Metallurgical Test Work

The orebody at Silvertip has been the subject of extensive metallurgical test work, commencing with a program initiated by Regional Resources through Lakefield in the mid 1980's. On adoption of the project by Silvertip Mining Corporation in 1996, a complete reassessment of the project metallurgy was undertaken using available high-grade ore from the surface stockpile. Flotation test work was carried out in parallel by both West Coast Mineral Testing of Vancouver and Robertson Research in the UK. Initial results on these high grade samples indicated that good quality saleable concentrates could be made from this ore, but not without some difficulties in the flotation process.

At the same time a program to confirm the ore's suitability for Dense Media Separation (DMS) was undertaken. Detailed heavy media test work showed that up to 40% of typical run of mine material could be rejected prior to milling with low metal losses (less than 2% of contained metals.) As a consequence the decision was taken to carry out all subsequent test work on pre-concentrated ore to simulate the effect of feeding DMS material to the milling circuit.

Subsequently, with the availability of fresh core from the 1997 drilling program, new typical metallurgical composites were made up, treated by gravity separation (jigging) to simulate DMS upgrading and a further metallurgical program carried out. Extensive bench scale tests on jig concentrates both in Canada and the UK started to show improved metallurgical response, producing relatively clean high grade lead/silver and zinc concentrates, albeit at lower than desirable recoveries. Test work in the UK moved from Robertson Research to CSMA Minerals Laboratories in Cornwall and test work has continued including the first of a number of lock cycle tests to be carried out. This test demonstrated that a 64.5% lead concentrate could be made at a recovery of 80.4% containing 2303 grams of silver with a silver recovery to the lead concentrate of 69.2%. The zinc concentrate assayed 60.7% zinc at a recovery of 84.7%. In a plant operation, it could be expected that the zinc concentrate grade could be reduced with a corresponding increase in zinc recovery.

Further work is required to determine methods of increasing silver recovery to the lead concentrate and a program is being designed with this in mind. Any such program will include a mineralogical study and fractional assays of the test work products to determine silver deportment, followed by further batch scale and lock cycle test work. Additional lead regrind test work may also improve lead / silver metallurgy. Whilst zinc metallurgy is satisfactory, the relationship between zinc concentrate grade and recovery should be further investigated. A higher zinc recovery at a lower concentrate grade may produce a better economic result.

Concentrate Transport, Sales and Marketing

Concentrate Transport

The lead and zinc concentrates produced at the mine will be stored and loaded separately within the mill building. Also included within the building will be the weigh scale, separated from the concentrate by a pony wall. Empty concentrate trucks will pull onto the weigh scale and the driver will remove the pot covers and load concentrate into the transport pots using a captive loader. These pots would be similar in design to those used for the Faro and Sa Dena Hes operations in the Yukon. On completion of loading the driver can consult the digital scale readout to ensure that overloading has not taken place. Any spillage in the weigh scale area will be totally contained within the concentrate load out area. The scale will be constructed such that the ramps, in and out, direct all run off and wash water back into the scale area sump, where it can be pumped back into the concentrate thickeners. Similarly the scale can be used as an wash down area if required to clean off spilled concentrate and avoid tracking outside the scale area. Prior to transport, pot lids will be secured in place to avoid concentrate loss through wind blown dusting. The concentrate haul will be contracted out to a third party transportation firm. An emergency procedures and spill contingency plan will be put in place for the concentrate haul to ensure an appropriate level of response is available in the event of an accident involving a loss of concentrate. Concentrate shipments will be made in lots of 40 to 50 tonnes by 8to 10 axle B-trains with GVW's of 63,500 to 77,000 kgs, which at the projected rate of production will require 7 to 10 loads per day.

Three routes are presently under consideration for concentrate haulage. These are:

1. Silvertip to Skagway

   Loaded concentrate trucks would travel the 25 km mine access road to the Alaska highway and turn West, passing through Teslin and on to Jakes Corner. The preferred route would then be via Highway 8 to Carcross, a distance of 55 km, and then on to Skagway. As an alternate route, at Jake's Corner concentrate trucks would turn North to McRae and then travel South, passing through Carcross on Highway #2, a distance of 123 km , and then on to Skagway. The total distance one way via Hwy 8 would be 442 km vs. 510 km via the Hwy 2 route. On an annual basis, the additional 136 km on the round trip at 10 trips per day equates to an additional 500,000 km. The incremental cost increase associated with the additional haul distance via the Hwy 2 route would likely be in the order of $700,000 per year.

2. Silvertip to Stewart, B.C

   Upon reaching the Alaska Highway, loaded concentrate trucks would turn East towards Watson Lake. Before reaching Watson Lake, trucks would turn South at Junction 37. Highway 37 passes through Dease Lake and Iskut. At the end of highway 37 at Meziadin Junction, loaded trucks would turn West onto highway 37A and continue into Stewart. This is a total distance of approximately 800 km. A concentrate handling/shipping facility, similar to the one at Skagway, exists at Stewart. Concentrate from the Company's Huckleberry Mine is currently shipped through this facility.

3. Silvertip to Fort Nelson, B.C

   Upon reaching the end of the mine access road, loaded concentrate trucks would travel east on the Alaska Highway. This route passes through Watson Lake as well as smaller communities including Upper Liard, Muncho Lake and Summit Lake and is a total distance of approximately 650 km. At Fort Nelson, concentrate would be off - loaded at B.C. Rail facilities for shipping South via railway transportation.

The most likely route is route (1), West into Skagway, where facilities already exist for storage and ship loading of concentrates. In the recent past material from other mines in the Yukon have been shipped from this port to smelters in BC and the Far East. Under current conditions, the existing facilities would likely be able to accommodate Silvertip concentrates without improvements or modifications to their existing works.

Concentrate Sales and Marketing

The concentrate from the Silvertip mine will be relatively desirable being of high grade with an elevated silver content. The ore contains several lead sulfosalts and stannite, a copper tin sulphide, which to a considerable extent report to the concentrates, particularly the Ag/Pb concentrate. Analyses of the concentrates indicates elevated antimony, arsenic, copper, and bismuth, which will represent dilutent and / or penalty components. The range of the As and Sb analyses has not been adequately investigated to date, but a combined As + Sb grade of greater than 2 % has been observed in Ag/Pb concentrate.

The table below indicates the Company's current assumptions regarding concentrate volumes and quality.

Table of Concentrate Tonnages and Assays

Item	Ag/Pb Conc	Zn conc	
Tonnes / year	51,800	80,600	- dry weight basis
Moisture content	8 %	8 %	- estimated
Ag grams / tonne	2,200	180	
Pb %	60.0	5.0	
Zn %	3.0	60.0	
Cu %	0.2 - 1.6	0.1 - 1.0	
As %	0.2 - > 1.3	0.5	
Sb %	1.5 - 2.3	0.1 - 0.5	
Bi %	0.01 - 1.3	< 0.2	
Sn %	0.5 - 2.0	0.3 - 0.9	
Cd %	< 0.2	< 0.2	
Se ppm	92	78	
Hg ppb	200	7,800	

The above results represent analyses from three test programs on 3 composites. Many of the above results are by semi-quantitative methods, and will need to be better defined through discrete analyses. This is being carried out on the test products from the recently completed locked cycle test. Further work is planned to better define the potentially undesirable elements in the concentrate and to reduce these as far as is possible.