680338

Summary on the

Sibola and Twinkle Lake Claims
Omineca Mining Division
N.T.S. 93E/14

- for -

Kingsvale Resources Ltd.
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Prepared by:

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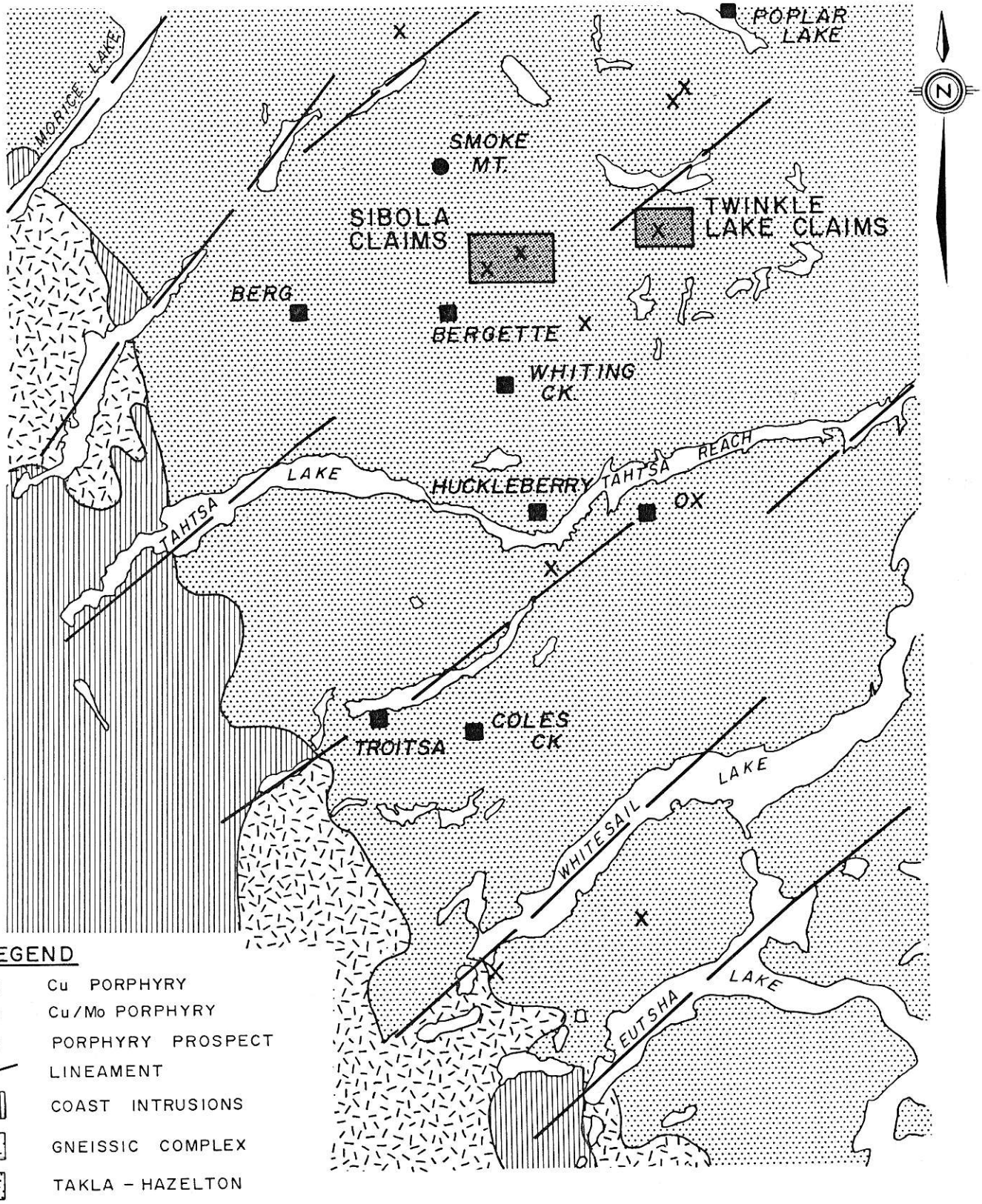

FIGURE 1. LOCATION OF THE SIBOLA AND TWINKLE LAKE CLAIMS WITHIN THE TAHTSA PORPHYRY DISTRICT.

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Km

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INTRODUCTION

The Sibola and Twinkle Lake claims cover two separate porphyry Cu/Mo prospects on the north flank of the Sibola Range in the Tahtsa Lake porphyry district. Nearby porphyry deposits include the Berg, Bergette, Whit, Huckleberry, Poplar Lake and Ox Lake.

Both properties are road accessible and occur within areas of gentle to moderate relief.

Based on their general location and on the results of earlier work carried within the area of the claims by Hudson Bay Oil & Gas and Noranda, the properties are viewed as having an excellent exploration potential. An initial 3-phase exploration, estimated to cost $146,000 is recommended.

LOCATION, TOPOGRAPHY, ACCESSIBILITY

The Sibola claims are situated on the north flank of the Sibola Range, approximately 70km southwest of Houston, B. C. Relief within the claim area is gentle to moderate. Elevations range from slightly less than 3400 ft. a.s.l. to approximately 4200 ft. a.s.l.

The Sibola claims can be reached by travelling south from Houston along the Owen Lake/Nadina River road to sign post 80K, thence southerly along the Tahtsa Lake road, past Nadina Lake, to Twinkle Lake (20km±). From this point the

Berg Property access road is followed westerly for about 7km to the center of the claim area. The Berg road is rough with several wash-outs, although this section probably is traversable by motorbike or ATV. A recent logging road, which joins the Tahtsa Lake road from the east, may provide alternate road access into the area.

The Twinkle Lake claims straddle the Tahtsa Lake road and are centered about 3km north of Twinkle Lake. Relief within the claim area is low. The mean elevation is about 3300 ft. a.s.l.

Both claim groups are covered for the most part by mature stands of spruce, pine and balsam. No logging has occurred to date within the area of the claims although recent timber cruise lines and timber marks are evident in both areas which suggest that logging could be imminent. Considerable logging has taken place and is currently taking place east of the Twinkle Lake claims, toward the Shelford Hills, and north of the Twinkle Lake claims, in the general vicinity of Poplar and Dual Lakes.

CLAIMS

The Sibola Property is comprised of four contiguous claims totalling 72 units and the Twinkle Lake Property, two contiguous claims totalling 40 units. Claim particulars are as follows:

Claim Name	Units	Record No.	Expiry Date
Sibola #1	18	12965	Feb. 9/92
Sibola #2	18	12966	Feb.10/92
Sibola #3	18	12967	Feb.11/92
Sibola #4	18	12968	Feb.11/92
Twinkle Lake #1	20	12969	Feb.13/92
Twinkle Lake #2	20	12970	Feb.13/92

The registered owner of the above claims is G.D. Belik of 664 Sunvalley Drive, Kamloops, B. C.

GENERAL GEOLOGICAL SETTING

The Sibola and Twinkle Lake claims occur within the Tahtsa Porphyry District which contains a number of significant calc-alkaline porphyry copper and porphyry copper/moly deposits (Figure No. 1). The deposits occur within and adjacent to small porphyritic stocks or plugs which intrude Hazelton volcanics and sediments or older plutonic rocks. The deposits usually are accompanied by distinct pyritic halos and generally display well-developed concentric zones of hydrothermal alteration (potassic, phyllic, argillic, propylitic).

All of the deposits in the district that have been radiometrically dated have yielded ages ranging between 74 Ma and 80 Ma (Upper Cretaceous) except the Berg which yielded an age of 50± Ma (Eocene). Although it has not been dated, the Smoke Mt. deposit is inferred to be Eocene as well.

This deposit is associated with a strongly altered, sub-volcanic, porphyritic, trachyte plug which grades upward and latterly into flows, tuffs and volcanic breccias of the Eocene, Ootsa Lake Group. Similar high-level plugs and associated Ootsa Lake volcanics occur elsewhere in the district.

Structurally, a strong northeasterly fabric is suggested by numerous lineaments and the northeast trend of many lakes and valleys in the Tahtsa District (Figure 1). Seraphim and Hollister* postulate that a strong system of northeast-trending tensional faults and fracture zones developed in Tahtsa region between major northwesterly, through going shear zones and that these tensional features controlled subsequent emplacement of the porphyry intrusions.

*paper No. 5 in Porphyry Deposits of the Canadian Cordillera (1976)

EXPLORATION HISTORY

Areas encompassing the Sibola and Twinkle Lake claims were staked in 1973 by Hudson Bay Oil and Gas as a result of reconnaissance soil and silt sampling and reconnaissance I.P. carried out in 1972. Follow-up soil geochemistry and detailed I.P./Resistivity/Magnetic surveys carried out in 1973 identified four main targets referred to by claim names as the Slide, Sylvia, Bog and Pam. These claims were

aligned in a general east-west direction (Slide on the west, Pam on the east) parallel to a broad pediment-like area flanking the Sibola Range to the north and northeast.

During 1974 and 1975 HBOG drilled 50 small-diameter, percussion holes to test selected target areas within three of the claim groups to a maximum depth of 250 feet. Results filed by HBOG for assessment credit do not include drill logs but do include assay results (Cu,Mo,Pb,Zn,Ag) for most of the holes. Of the drill holes reported by HBOG, ten failed to reach bedrock, twenty-one were not mineralized, thirteen contained significant intercepts of anomalous copper values (0.02% - 0.2% Cu) and one (hole S-8) intersected a well mineralized interval averaging 0.34% copper, 0.02% molybdenum and 5.0 grams/tonne silver over the entire bedrock interval of 207 feet. Assay results have not been found for five of the holes.

In 1976 HBOG carried out a 4-line I.P. survey around hole S-8 on the Sylvia claims and confirmed the presence of a broad, very strong, easterly-trending, chargeability anomaly extending beyond the area tested by drilling. The anomaly was open to the east, west and south. A smaller, untested, satellite anomaly to the north was also identified.

No further work is reported to have been carried out by HBOG and all claims held by HBOG in the area subsequently lapsed.

The following is a brief description and comments on work carried out by HBOG on the Slide, Sylvia, Bog and Pam claims. Work carried out by Noranda on the Tara claims, which adjoined the Slide claims to the east, is also discussed.

Slide

The Slide claims occur on the west end of the trend and appear to have been staked to cover a broad I.P. anomaly associated locally with anomalous copper values in soils and silts. The area appears to be almost totally concealed by overburden with local thick accumulations of bouldery gravel and sand.

Results of the early geophysical and geochemical surveys are not available but appear to have identified a broad target at least 1.0km long. Five percussion holes were drilled in 1974 along centers approximately 400 meters apart. Three failed to reach bedrock and the remaining two were not mineralized. No subsequent work was carried out.

Sylvia

The Sibola claim group covers most of the original Sylvia claims held by HBOG. Although specific results of earlier surveys carried out by HBOG on the Sylvia claims have not been made public, a description of previous work, filed in a geophysical report for assessment

credit in 1976, indicates that the claims were staked as a result of "reconnaissance and detailed geophysical surveys in 1973 which outlined a strongly anomalous I.P. response with coincident magnetics and an associated attractive geochemical pattern". Drilling carried out by HBOG in 1974 and 1975 tested the strongest part of the main anomaly with mixed results. Hole S-8 encountered mineralized granodiorite and quartz monzonite which, as previously noted, averaged 0.34% Cu, 0.02% Mo and 5.0 g/tonne Ag across 207 feet. Two holes to the north and two holes to the west failed to reach bedrock. Of the remaining holes, eight were not mineralized and three contained anomalous concentrations of copper.

A follow-up I.P. survey in 1976 revealed that drill hole S-8 occurs on the north flank of a strong, easterly-trending, chargeability anomaly. The anomaly extends beyond the area of drilling and is open to the south, east and west. There is a good possibility that this chargeability high forms only a small outer part of a very extensive, perhaps annular-shaped, chargeability zone encompassing several square kilometers.

Tara

The Tara claims were staked by Noranda in 1974 to cover a small parcel of ground situated between the Slide claims to the west and the Sylvia claims to the east. The

ground was originally held by HBOG but was allowed to lapse in 1974. The ground, for the most part, is now covered by the Sibola claim group.

In 1975 Noranda drilled five widespaced core holes within the central part of the property. According to a report filed for assessment credit, four holes intersected strongly altered (quartz/sericite/pyrite) feldspar porphyry and one intersected propylitic altered diorite. The two easterly holes (both in altered porphyry) contained low grade copper mineralization with no appreciable molybdenum. Gold assays are not given.

The area drilled by Noranda occurs about 3.5km southwest of drill hole S-8 and 1.3km to 2.0km east of the area tested by drilling on the former Slide claims. The intervening ground has not been tested by drilling although parts of these areas have been surveyed by Noranda and HBOG. Results, however, are not available.

Bog

The Bog claims probably were staked by HBOG to cover a I.P. anomaly and/or stream sediment anomaly. The claims were situated within a relatively flat, locally marshy area, centered about 4.5km east of the western boundary of the Sibola claims. No work was ever filed by HBOG.

Pam

The former Pam claims are covered by the Twinkle Lake

#1 and Twinkle Lake #2 claims. Information on the geology of the property or the results of early survey work are not available but the claims appear to have been staked by HBOG in 1973 to cover a coincident geophysical/geochemical target. Drill reports filed by HBOG for assessment indicate that 29 percussion holes were completed within the central part of the property in 1974 and 1975. Several of these holes intersected low grade copper mineralization over their entire length with local concentrations of molybdenum and silver. The mineralization appears to be primarily developed along the east side of a northerly-trending swampy draw. The best hole (P-23) averaged 0.11% Cu, 0.013% Mo and 2.0 grams/tonne Ag over 240 feet.

EXPLORATION POTENTIAL

The Sibola and Twinkle Lake claims occur within a major porphyry belt with relatively easy access and favourable topography. Although the results of exploration work carried out to date on these properties in large part are unavailable, it is clear that both properties contain significant porphyry-type Cu and Cu/Mo mineralization and that the potential for enhancing and expanding areas of known mineralization and the potential for developing new targets in adjacent areas are excellent. A systematic, staged exploration program

designed to evaluate this potential is recommended.

RECOMMENDED PROGRAM

An initial 3-phase exploration program is recommended. This program is designed to delineate and priority rate specific geological, geophysical and geochemical targets for a follow-up drill program.

Phase I

- prospect creeks, ridges and hills along the north flank of the Sibola Range, extending east from the former Slide claims to the Twinkle Lake claims.
- sample creeks (silt and pan cons) along traverse routes.
- rock sampling and a few preliminary reconnaissance soil lines.
- tie in old drill sites and roads and sample drill core or old drill cuttings
- stake additional prospective ground if available

Phase II

- lay out an initial grid over areas selected from Phase I consisting of approximately 60km of cut line spaced at 200 meter to 400 meter intervals with an additional 15km to 20km of base line and tie lines.
- carry out geological mapping, soil sampling and I.P./ Resistivity/Magnetic surveys over established grid

Phase III

- fill in or close off anomalies identified by Phase II

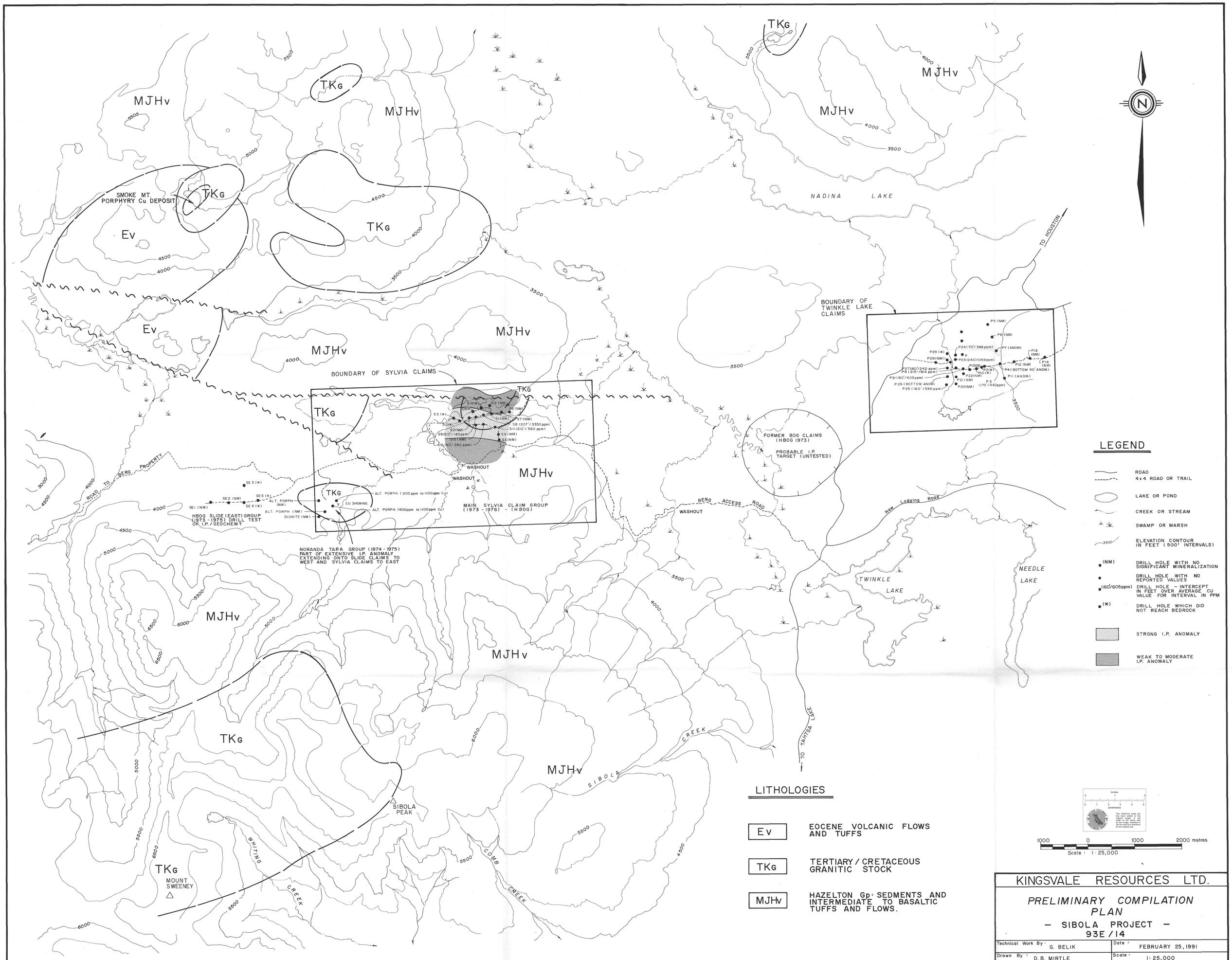
BUDGET ESTIMATE

Phase I		
crew: geologist and assistant		
duration: 20 days including mob/demob		
daily cost: labour	$540	
vehicle	60	
accom and meals	80	
field supplies	20	
	$700/day	
-20 days @ $700/day	$14,000	
-preparation	1,000	
-assays	2,000	
-allowance for additional claim staking	4,000	
Total Phase I	$21,000	$ 21,000
Phase II		
a) grid preparation, soil sampling, geochemical analyses, geological mapping	$26,000	
b) line cutting -60km @ $300/km	18,000	
c) I.P. survey -60km @ $700/km	42,000	
d) Magnetic survey -60km @ $50/km	3,000	
Total Phase II	$89,000	89,000
Phase III		
-modest amount of I.P. work or soil sampling to better define or delineate anomalies	$10,000	
Total Phase III	$10,000	10,000
Total Phases I, II & III		$120,000

-allowance for reports and maps	7,000
-allowance for rental of two ATV's for duration of program	4,000
-allowance of GST, filing assessment work and contingencies	16,000
Estimated Total Cost	$147,000

Respectfully Submitted,

G.D. Belik, M.Sc.


MJHv
TKG
Ev
SMOKE MT. PORPHYRY Cu DEPOSIT
NADINA LAKE
TO HOUSTON
BOUNDARY OF TWINKLE LAKE CLAIMS
BOUNDARY OF SYLVIA CLAIMS
FORMER BOG CLAIMS (HBOG 1973)
PROBABLE I.P. TARGET (UNTESTED)
ROAD TO BERG PROPERTY
BERG ACCESS ROAD
New Logging Road
WASHOUT
MAIN SYLVIA CLAIM GROUP (1973 - 1976) - (HBOG)
HBOG SLIDE (EAST) GROUP (1973 - 1975) DRILL TEST OF I.P./GEOCHEM?
NORANDA TARA GROUP (1974 - 1975) PART OF EXTENSIVE I.P. ANOMALY EXTENDING ONTO SLIDE CLAIMS TO WEST AND SYLVIA CLAIMS TO EAST
ALT. PORPH. (300 ppm to 1100 ppm Cu)
CU SHOWING
ALT. PORPH. (400 ppm to 1100 ppm Cu)
DIORITE (NM)
TWINKLE LAKE
NEEDLE LAKE
TO TAHTSA LAKE
SIBOLA CREEK
COMB CREEK
WHITING CREEK
SIBOLA PEAK
MOUNT SWEENEY
LEGEND
ROAD
4x4 ROAD OR TRAIL
LAKE OR POND
CREEK OR STREAM
SWAMP OR MARSH
ELEVATION CONTOUR IN FEET (500' INTERVALS)
(NM) DRILL HOLE WITH NO SIGNIFICANT MINERALIZATION
DRILL HOLE WITH NO REPORTED VALUES
(160'/605ppm) DRILL HOLE - INTERCEPT IN FEET OVER AVERAGE CU VALUE FOR INTERVAL IN PPM
(*) DRILL HOLE WHICH DID NOT REACH BEDROCK
STRONG I.P. ANOMALY
WEAK TO MODERATE I.P. ANOMALY
LITHOLOGIES
Ev EOCENE VOLCANIC FLOWS AND TUFFS
TKG TERTIARY / CRETACEOUS GRANITIC STOCK
MJHv HAZELTON Gp: SEDMENTS AND INTERMEDIATE TO BASALTIC TUFFS AND FLOWS.
1000 0 1000 2000 metres
Scale : 1 : 25,000
KINGSVALE RESOURCES LTD.
PRELIMINARY COMPILATION PLAN
- SIBOLA PROJECT -
93E/14
Technical Work By : G. BELIK
Date : FEBRUARY 25, 1991
Drawn By : D.B. MIRTLE
Scale : 1 : 25,000
Revision :
Figure No. : 2