

80-749 27

GEOLOGICAL

PRELIMINARY REPORT OF THE

SOL 1114, BUCK 1113, BUCK II 1116, CHIEF 1115,

HELENA 1104, BOSS 1112 and DEKA I 1102

MINERAL CLAIMS

LILLOOET MINING DIVISION

BRIDGE RIVER, B. C.

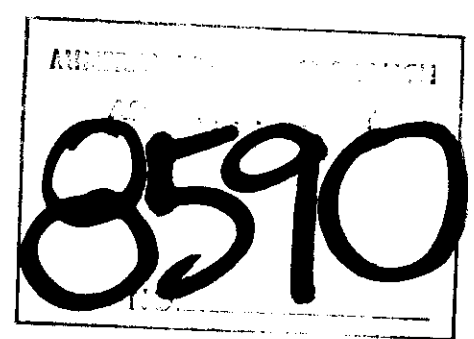
NTS 92J 15W & 15E

50° 50' N

122° 45' W

PREPARED FOR

SOLITAIRE RESOURCES CORPORATION



JAMES M. LOGAN

GEOLOGIST

LOCKE B. GOLDSMITH, P. ENG.

CONSULTING GEOLOGIST

ARCTEX ENGINEERING SERVICES

NOVEMBER 1980

TABLE OF CONTENTS

	Page
Abstract	1
Introduction	2
Claims Status	4
Physical Work	6
General Geology	8
Description of Rock Units	8
Structure	12
Mineralization	12
Conclusions	14
Recommendations	15
Cost Estimate	16
Statement of Qualifications	17
Engineers' Certificate	18
References	19
Cost Statement	20

FIGURES

	Page
Figure 1 Location Map	3
Figure 2 Claims Map	5
Figure 3 Location Map - Physical Work	7

APPENDIX

Assay Certificates

- 1 -

ABSTRACT

The following mineral claims: Sol 1114, Buck 1113, Buck II 1116, Chief 1115, Helena 1104, Boss 1112 and Deka I 1102, located in the area surrounding Gold Bridge, B.C. are owned by Solitaire Resources Corporation. Underlying rocks are predominantly from Permian(?) to Jurassic in age. The south-eastern claims are underlain by the western-most edge of the Bendor (granodiorite) intrusive of post Lower Cretaceous age. Indications of mineralization (stibnite float) are present in the Boss mineral claim, believed to be genetically related to the Bendor intrusive.

Detailed mapping, prospecting and hand trenching are proposed to conduct an exploration program to locate the source and evaluate the potential for further work. Recommended also, is to maintain the Buck and Deka I in good standing until they can be evaluated with respect to the Carpenter Lake copper discovery.

INTRODUCTION

Regional geological mapping and prospecting was carried out in late June - early July, 1980 and again in mid-October, 1980 to cover the areas of the following mineral claims and/or fractions: Sol 1114, Buck 1113, Buck II 1116, Chief 1115, Helena 1104, Boss 1112 and Deka I 1102 for Solitaire Resources Corporation. The purpose of the work was to locate and map any anomalous mineralization and to locate claim posts in hopes of correcting discrepancies in regard to over-staking which occurred earlier this year.

Road rehabilitation was also carried out during the October period on the Sol 1114 mineral claim; in conjunction with work carried out by Tamarind Holdings Corporation, to afford easy access into the Chief and Boss mineral claims.

The mineral claims and/or fractions are situated in the Lillooet Mining Division, N.T.S. co-ordinates 92J 15W & 15E, at distances varying from less than 1 kilometer to 7.5 kilometers from Gold Bridge, B.C. (see figure 1).

Widespread exploration has occurred in the general Gold Bridge-Bralorne area as early as the 1930's as a result of development of the Bralorne Mine. Present interest though, has been rejuvenated by the recent copper discovery made just outside of Gold Bridge on the north shore of Carpenter Lake.

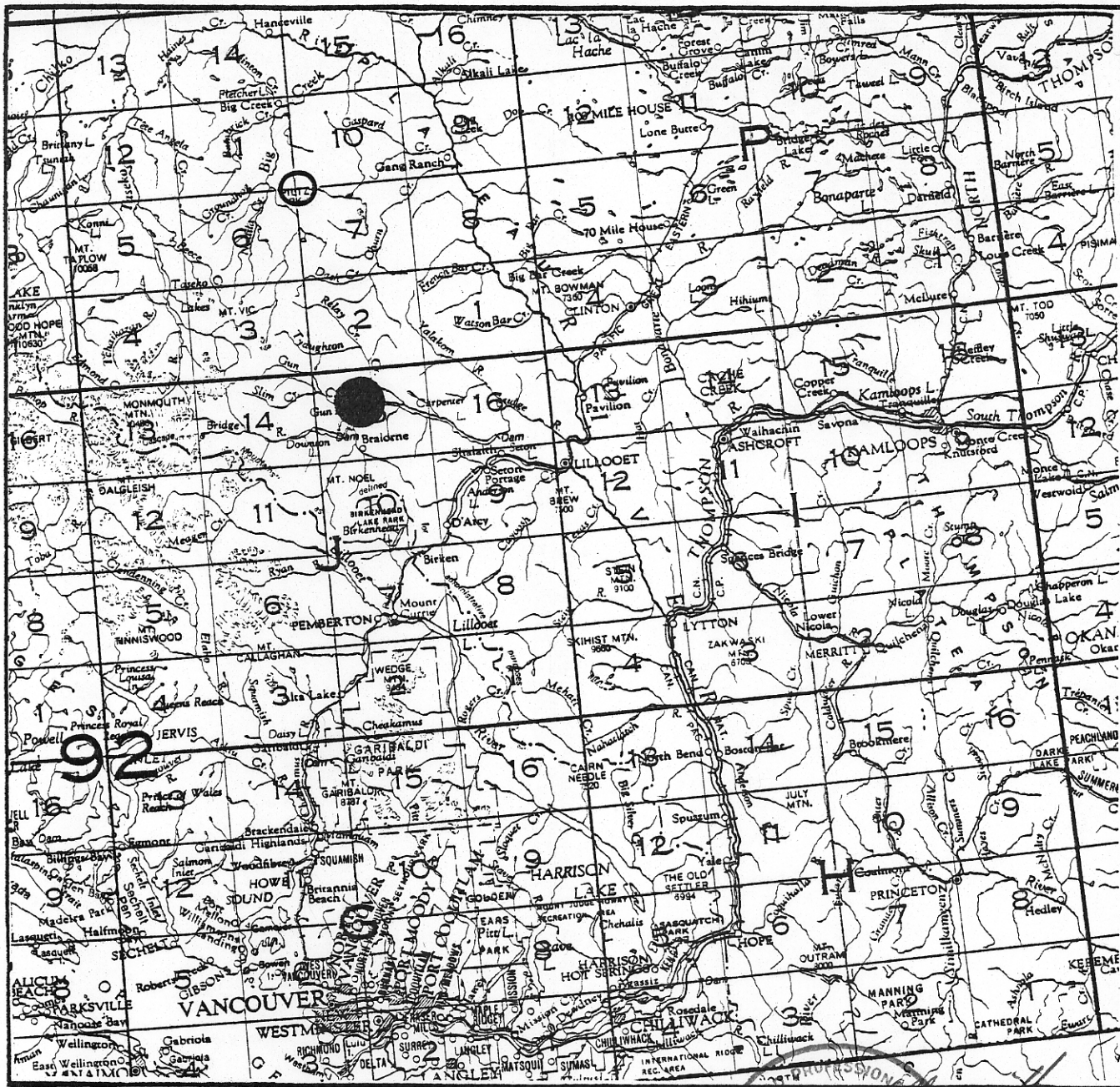


Figure 1

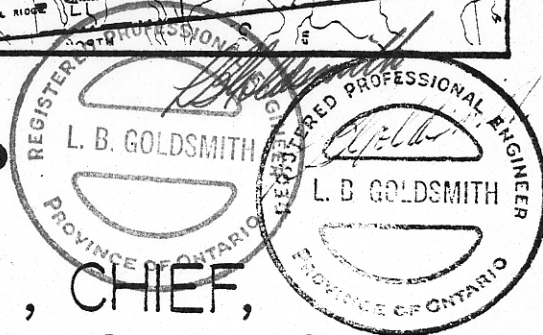
LOCATION MAP

BUCK, DEKA, BUCK II, CHIEF,
 HELENA, BOSS & SOL CLAIMS
 Bridge River, B.C. Lillooet M.D.

SOLITAIRE RESOURCES CORP.

ARCTEX ENGINEERING SERVICES

JULY 1980



CLAIMS STATUS

The Sol 1114, Buck 1113, Buck II 1116, Chief 1115, Helena 1104, Boss 1112, and Deka I 1102 mineral claims and/or fractions cover ground situated in the immediate vicinity of Gold Bridge, B.C.; as far west as Gun Lake, east to Mount Truax and north-south between Carpenter Lake and Kingdom Lake respectively (see figure 2).

An attempt to locate claim lines and posts was initiated but this proved to be too time consuming and when finally located were usually found to be more confusing than helpful.

The eastern claim lines for both the Buck 1113 and Deka I 1102 claims are located inside the claim lines of Wayside Ext. 1 and 2 respectively. Whereas both Helena 1104 and Sol 1114 claim posts are located in a cairn as shown on the map. No claim lines or posts were located for Chief 1115 or Boss 1112 claims.

The claim areas, therefore, as outlined on the regional map correspond to areas as depicted by the claim map only.

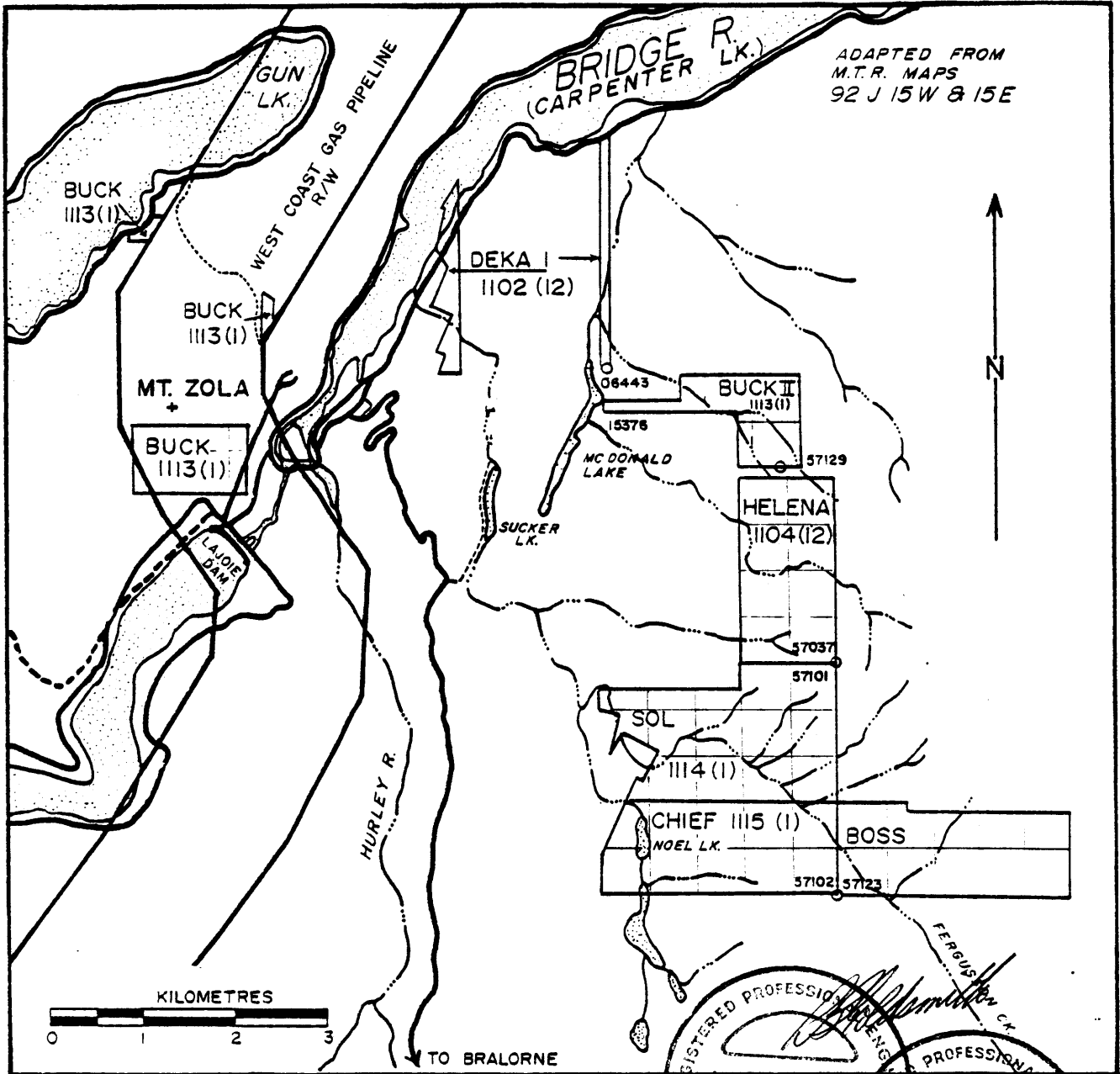


Figure 2

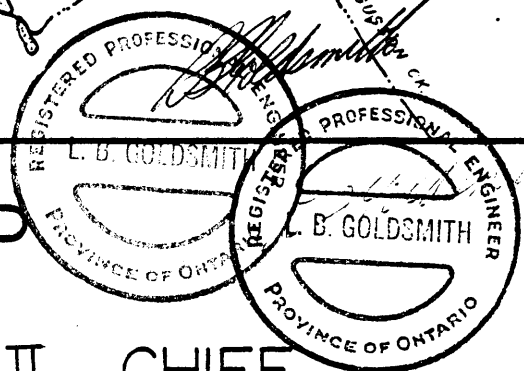
CLAIM MAP

BUCK, DEKA, BUCK II, CHIEF,
 HELENA, BOSS & SOL CLAIMS
 Bridge River, B.C. Lillooet M.D.

SOLITAIRE RESOURCES CORP.

ARCTEX ENGINEERING SERVICES

JULY 1980



PHYSICAL WORK

Road rehabilitation during October, 1980 was carried out on the Mount Truax cat road. The original cat road was (reportedly) built by Joe Rankin and Associates in 1965. The road was reopened (to 4-wheel drive vehicles) a total of 6.7 kilometers, 4.0 kilometers of which was on the Sol and Boss mineral claims (see Figure 3). Improvements consisted of: removing trees, boulders and sloughed banks from the road surface, widening and clearing switch-backs, filling washed-out sections, clearing two approaches to allow creek crossings, and construction of a short (approximately 100 meters) detour bypassing a potential wash-out section of the road. After rehabilitation, the road at its narrowest point is 3.65 meters wide.

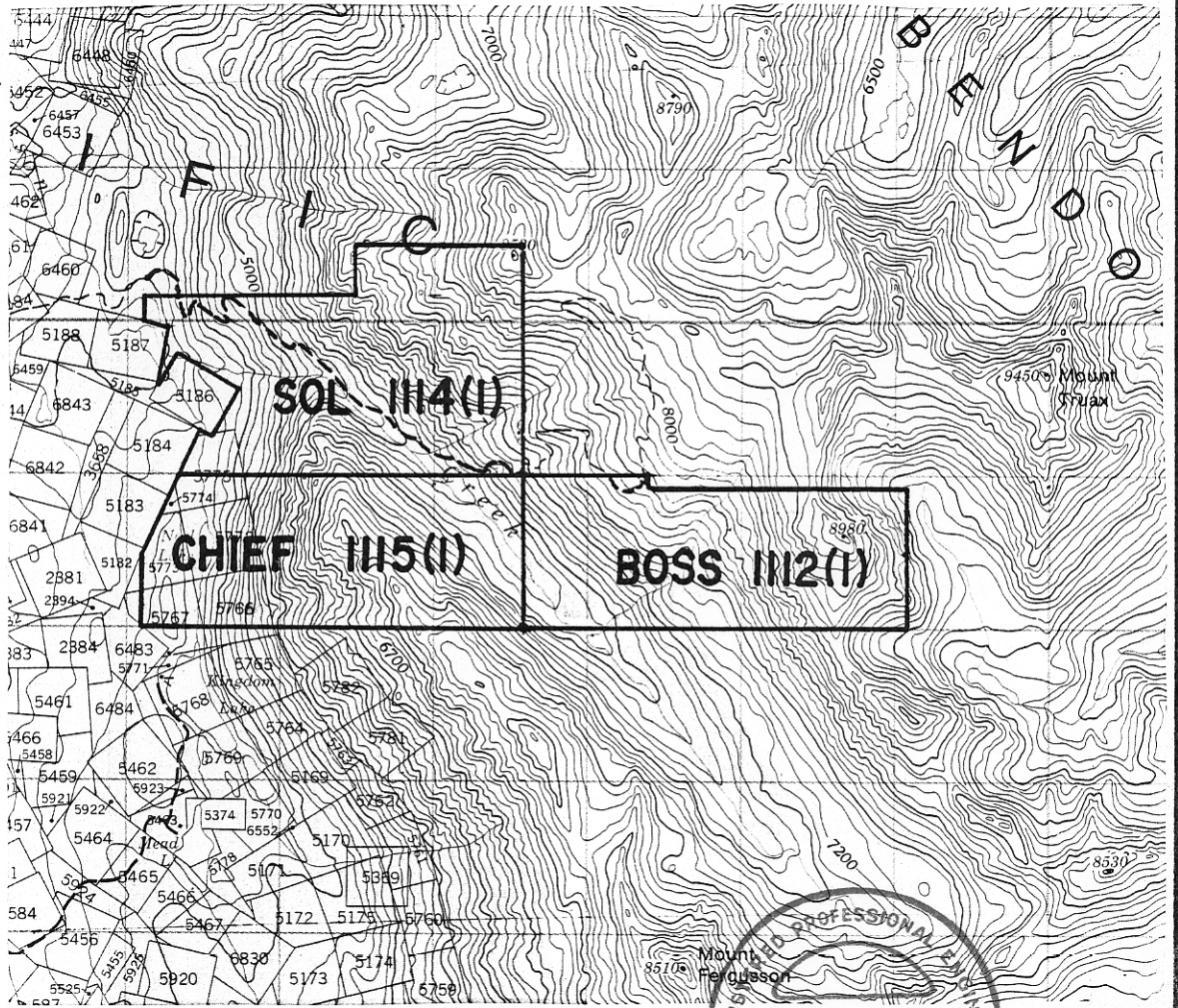


Fig. 3 **LOCATION MAP**
PHYSICAL WORK

SOL & BOSS CLAIMS

BRIDGE RIVER, B. C.


LILLOOET M.D.

 Extent road rehabilitation

SOLITAIRE RESOURCES CORP.



0 500 1000
metres



ARCTEX ENGINEERING SERVICES

NOVEMBER 1980

GENERAL GEOLOGY

The Bridge River district lies on the eastern margin of the great belt of Coast Range batholithic intrusives. The mineral deposits of the district are believed to probably be (genetically) related to these intrusives.

C.E. Cairnes' Map 430 (1935) shows the general geological relationships of the area to be a syncline within a major northwesterly trending anticlinal arch. The arch is formed mainly of Permian age(?), Fergusson Series strata consisting of sediments and intercalated volcanic rocks. Within the syncline are considerable thicknesses of younger formations, Triassic and Jurassic in age (also sediments and intercalated volcanic rocks). The Bralorne and Present intrusives (Jurassic[?]) are contained along or closely paralleling the main synclinal axis. The Bendor intrusives (post Lower Cretaceous) are the youngest and representative of the great Coast Range batholithic complex.

DESCRIPTION OF ROCK UNITS

A. Fergusson Series (1 & 2)

This series consists of sediments (1) and intercalated volcanic rocks (2).

- (1) The sediments are mainly thinly interbedded chert and argillite. The thin bands of chert vary from 1/4 of an inch up to several inches thick, separated by only a film of argillite, or as thin lenses and/or films of chert between bands of ar-

gillite.

The argillite is dark grey to black or greenish-grey and in places dark reddish-purple in colour. Carbonaceous argillite is also present particularly where shearing has occurred.

The chert varies from light grey, green, pink to almost black in colour.

- (2) The volcanic rocks or greenstones occur as large bands of dark greenish, mottled dark reddish and greenish, fine-grained rocks. The lava flows are basaltic to andesitic in composition containing calcite and/or quartz-filled amygdules and are commonly intersected by calcite veinlets. A small pod of recrystallized dull grey-coloured limestone was observed outcropping in association with these lavas.

Metamorphism of these rocks, especially those located adjacent to the Bendor intrusives, has produced very hard, massive dark green rocks.

B. Noel Formation (3)

This formation consists mainly of massive, greenish coloured argillaceous rocks, with banded argillaceous and tuffaceous sediments also present.

Several lenses of cherty sediments which in places appear to be siliceous breccia/tuff were also encountered adjacent to Gun Lake. Several green volcanic, presumably andesitic in composition, outcrops containing disseminated

pyrite occur throughout the unit.

C. Hurley Formation (4)

Only a single outcrop was located (within the area designated by C.E. Cairns) which contains rock of the Hurley Formation.

This outcrop consists of a fine-grained, dark grey, almost massive argillite which appears to be similar to the argillite of the Noel Formation.

D. President Intrusive - Serpentine (5)

The unit consists predominately of serpentine and minor talc, and exhibits major shearing. Only two outcrops were located both off the property. The northern-most (see map) outcrop contains a small lens of peridotite along the eastern extremity of the outcrop.

E. Bralorne Intrusives (6) and (7)

The Bralorne intrusives consist of two rock lithologies believed to be differentiation products, a gabbro/augite diorite (6) and soda granite (7).

(6) The gabbro(?) / augite diorite is medium to coarse-grained, approaching gabbro in composition and texture. The rock consists almost completely of equal amounts of plagioclase and augite; some samples are serpentinized slightly, while others in close proximity are quite fresh. This intrusive outcrops in Buck II 1116 claim. The eastern-most outcrop forms a prominent ridge (north-south) where the rock is finer-grained, unaltered and quite mafic.

- (7) The soda granite is limited to a single outcrop in the Buck II 1116 claim adjacent to the above-mentioned augite diorite. The rock is a medium-grained granular textured, pinkish-white colour, composed almost completely of feldspar and quartz. Muscovite and/or sericite and calcite are also present in small amounts. The rock outcrops are massive and well jointed in three directions.

F. Bendor Intrusives (8)

The rocks encountered belonging to this unit were mainly hornblende-biotite-quartz-diorite (8). The rock has a composition of granodiorite (C.E. Cairns).

The granodiorite is mostly medium- to coarse-grained, light coloured and massive. Along the borders of the intrusion, the rock is finer-grained and slightly more mafic.

The rock is well jointed generally in three directions, two dipping at high angles (almost 90°) and the third dips at very low angles (almost horizontal). Present along this approximately horizontal jointing plane in several localities are narrow zones of minor shearing containing small amounts of pyrite and in places thin quartz veins.

Large blocks of undigested sediments of the Fergusson Series, and dykes(?) of feldspar porphyrite are present within the granodiorite.

STRUCTURE

The general structure of the Bridge River area is a syncline which lies within a major anticlinal arch trending northwesterly (Drysdale, from C.E. Cairnes, 1935).

The general attitude of the formation strikes northwesterly and dips vertically or at very steep angles. In the northeastern area (Buck II 1113 and Helena 1104 claims) of study, the trend is more nearly northerly.

No direct evidence of faulting was observed but shearing was noted at several localities.

Along the contact of the Fergusson Series - Noel Formation in the Buck 1113 claim, the argillites are carbonaceous, the chert lenticular/nodular and sheared semi-parallel to the contact.

Along the northern contact of the sediments (Fergusson Series) with the granodiorite intrusive (Bendor) in the Chief 1115 claim, the argillites are carbonaceous, contain minor amounts of disseminated pyrite and narrow bands of quartz (recrystallized chert[?]).

Within the Bendor intrusive localized shearing is contained in the horizontal dipping, jointing planes; in particular in the Chief 1115 and Sol 1114 claims.

MINERALIZATION

All mineralization encountered with the exception of minor disseminated pyrite was sampled and sent for assay and therefore will be discussed individually. The Assay Certif-

icate is located in Appendix A.

A grab sample (Boss S-3) of mineralized quartz float was taken from the Boss 1112 claim (see map for location). The quartz is vuggy, generally white to light brown in colour, exhibits comb structures and several pieces are banded (chert-like in appearance). Visible mineralization is restricted to stibnite and minor amounts of stibiconite (yellow oxidation products). The stibnite varies from fine-grained massive, to coarse-grained crystalline columns elongated parallel to the vein structure.

A second sample (Buck II S-2) of mineralized quartz float was taken from the Buck II 1113 claim. The quartz appears to be recrystallized chert(?) of the Fergusson Series, but the proximity to the soda granite makes this a favourable indicator of further mineralization. The quartz contains traces of a finely disseminated metallic mineral(?) and a black and white oxidation coating (sulphosalt of stibnite[?]) particularly along fracture planes in several pieces of the float sampled.

A third sample (Buck II S-1) was taken from a small outcrop of ankeritic carbonate. The rock contained mariposite, carbonate, quartz and quartz veinlets and traces of pyrite. The sampled outcrop is located above the adit in Buck II 1113 claim.

CONCLUSIONS

The mineralized float (stibnite) located in the Boss mineral claim returned values that may indicate a similar type-deposit as those in the adjacent Windy I mineral claim. If in-situ mineralization of similar grade is present, commercial development could be considered, if done so in cooperation with other deposits within the area (specifically Windy I mineral claim).

Although assay results for Buck II S-2 sample were not encouraging, the float sample was located in close proximity to an outcrop of soda granite. The auriferous-quartz deposits and soda granite are believed to be final differentiate magma of the diorite and therefore this area is of particular interest.

While no mineralization or alteration was observed in the Buck and Dekamieral claims, assessment work should be filed this year. The ground should be held until these areas can be evaluated in the event that recently discovered (Cu) mineralization extends onto these properties.

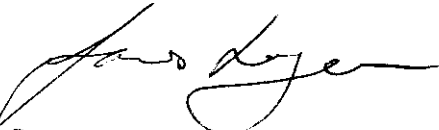
RECOMMENDATIONS

- (1) Further detailed mapping and prospecting of the Boss 1112 mineral claim to: (a) locate the source of the mineralized float, and (b) determine the relationship(s), if any, to the similar showing on the Windy I mineral claim. Specific attention should be paid to horizontal dipping jointing planes (Bendor intrusive) and mineralized float.
- (2) A week-long program of hand-trenching with helicopter support is proposed for the inaccessible area (Boss mineral claim) containing stibnite mineralized float. This would be carried out subsequent to step 1.
- (3) Detailed mapping in the Buck II 1113 mineral claim, with particular interest paid to outcrops of the soda granite.
- (4) An attempt to procure data on the Carpenter Lake copper discovery should be made in conjunction with a literature search particularly of central government files to ascertain the existing data on the property, immediate area and the scope of any previous endeavours.

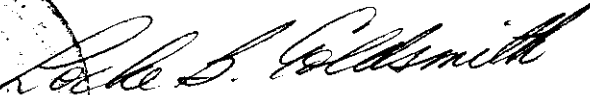
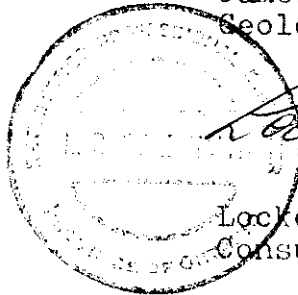
COST ESTIMATE

Detailed geological mapping, prospecting	\$ 15,000.00
Hand-trenching, (one week) with helicopter support	10,000.00
Vehicle, supplies, travel	2,000.00
Assays	500.00
Reporting	2,000.00
Research	1,000.00
Supervision, engineering	2,000.00
	<hr/>
Sub Total	\$ 32,500.00
Contingencies @ 10%	3,250.00
	<hr/>
TOTAL	<u><u>\$ 35,750.00</u></u>

All of which is respectfully submitted,



James M. Logan,
Geologist



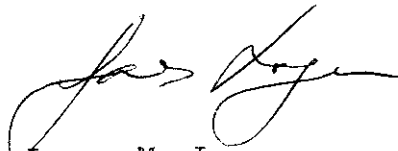
Locke B. Goldsmith, P. Eng.
Consulting Geologist

Vancouver, B.C.
November, 1980

STATEMENT OF QUALIFICATIONS

- (1) I, James M. Logan, of #1 - 1133 Harwood St., Vancouver, B.C. V6E 1R9, am a graduate of Brock University, Ontario with a B.Sc.(Honours) degree in Geology.
- (2) I have been engaged in mining exploration for 5 years.
- (3) I have written the report entitled "Preliminary Report of the Sol 1114, Buck 1113, Buck II 1116, Chief 1115, Helena 1104, Boss 1112 and Deka I 1102 Mineral Claims, Lillooet Mining Division, Bridge River, B.C.", dated November, 1980. The report is based on research and field work conducted and supervised by the author.
- (4) I have no ownership in the property, nor do I own shares of Solitaire Resources Corporation.
- (5) I consent to the use of this report in a prospectus or in a statement of material facts related to the raising of funds.

Respectfully submitted,



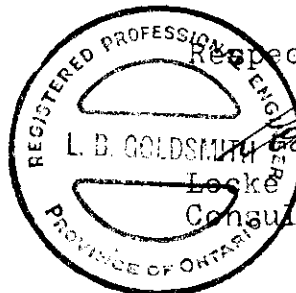
James M. Logan,
Geologist

Vancouver, B.C.
November, 1980

ENGINEER'S CERTIFICATE

- (1) I, Locke B, Goldsmith, am a Registered Professional Engineer in the Province of Ontario and a Registered Professional Geologist in the State of Oregon. My address is #301-1855 Balsam St., Vancouver, B.C. V6K 3M3.
- (2) I have a B.Sc.(Honours) degree in Geology from Michigan Technological University and have done post-graduate study in Geology at Michigan Tech., University of Nevada and the University of British Columbia. I am a graduate of the Haileybury School of Mines and am a Certified Mining Technician. I am a member of the Society of Economic Geologists, the AIME, and the Australasian Institute of Mining and Metallurgy.
- (3) I have been engaged in mining exploration for 22 years.
- (4) I have co-authored the report entitled "Preliminary Report of the Sol 1114, Buck 1113, Buck II 1116, Chief 1115, Helena 1104, Boss 1112 and Deka I 1102 Mineral Claims, Lillooet Mining Division, Bridge River, B.C.", dated November, 1980. The report is based on research and field work conducted and supervised by the author.
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Respectfully submitted,



Locke B. Goldsmith
Locke B. Goldsmith, P. Eng.
Consulting Geologist

Vancouver, B.C.
November, 1980

REFERENCE

Cairnes, C.E.
1935: Geology and Mineral Deposits of the Bridge River
Mining Camp, B.C.; Geol. Surv. Can. Mem. 213.

COST STATEMENT

PERSONNEL

<u>Name</u>	<u>Position</u>	<u>Rate</u>	<u>Days</u>	<u>Cost</u>
J. Logan	Field Geologist	\$ 200	20	\$ 4000.00
I. Francis	Field Prospector	120	14	1680.00

ROOM and BOARD

28 Man Days @ \$30.30	848.40
6 Man Days @ \$30.30	181.60

TRANSPORTATION

Viking Helicopter 1 hour + fuel	394.00
4-wheel Drive @ \$30/day, 20 days	600.00

EQUIPMENT RENTAL

Kumatsu Bulldozer 20 hours @ \$70/hour	1400.00
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ASSAYING

3 Rock Samples: analysed for Au, Ag, Pb, Zn, Sb \$30.50/sample	91.50
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REPORT WRITING

6 Days @ \$200/day	1200.00
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DRAFTING

420.00

REPORT TYPING

40.00

TOTAL

\$ 10855.70

APPENDIX



CHEMEX LABS LTD.

212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1
TELEPHONE: 985-0648
AREA CODE: 604
TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ASSAY

TO: Arctex Engineering c.c.- J. Logan
#207 - 1855 Balsam St.,
Vancouver, B.C.

CERTIFICATE NO. 69196
INVOICE NO. 37431
RECEIVED July 18, 1980
ANALYSED July 30, 1980

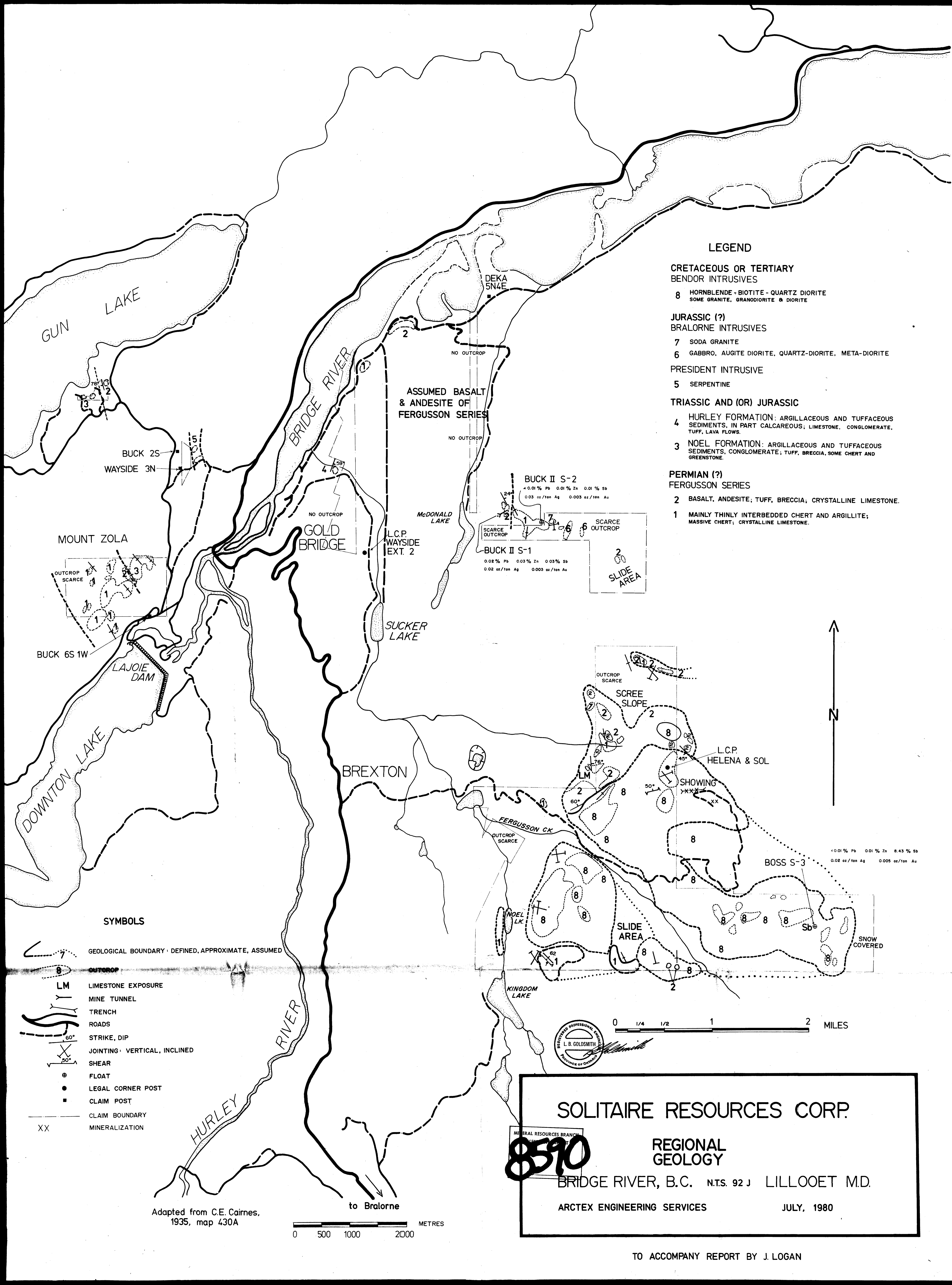
ATTN:

SAMPLE NO. :	%	%	%	oz/ton	oz/ton
	Pb	Zn	Sb	Ag	Au
BUCK II S-1	0.02	0.03	0.03	0.02	0.003
BUCK II S-2	<0.01	0.01	0.01	0.03	0.003
BOSS S-3	<0.01	0.01	8.43	0.02	0.005



MEMBER
CANADIAN TESTING
ASSOCIATION

REGISTERED ASSAYER, PROVINCE OF BRITISH COLUMBIA



LEGEND

**CRETACEOUS OR TERTIARY
BENDOR INTRUSIVES**

- 8 HORNBLENDE-BIOTITE-QUARTZ DIORITE
SOME GRANITE, GRANODIORITE & DIORITE

**JURASSIC (?)
BRALORNE INTRUSIVES**

- 7 SODA GRANITE
- 6 GABBRO, AUGITE DIORITE, QUARTZ-DIORITE, META-DIORITE

PRESIDENT INTRUSIVE

- 5 SERPENTINE

TRIASSIC AND (OR) JURASSIC

- 4 HURLEY FORMATION: ARGILLACEOUS AND TUFFACEOUS
SEDIMENTS, IN PART CALCAREOUS; LIMESTONE, CONGLOMERATE,
TUFF, LAVA FLOWS.
- 3 NOEL FORMATION: ARGILLACEOUS AND TUFFACEOUS
SEDIMENTS, CONGLOMERATE; TUFF, BRECCIA, SOME CHERT AND
GREENSTONE.

**PERMIAN (?)
FERGUSSON SERIES**

- 2 BASALT, ANDESITE; TUFF, BRECCIA; CRYSTALLINE LIMESTONE.
- 1 MAINLY THINLY INTERBEDDED CHERT AND ARGILLITE;
MASSIVE CHERT; CRYSTALLINE LIMESTONE.

BUCK II S-2
 4.01% Pb 0.01% Zn 0.01% Sb
 0.03 oz/ton Ag 0.005 oz/ton Au

BUCK II S-1
 0.02% Pb 0.03% Zn 0.03% Sb
 0.02 oz/ton Ag 0.005 oz/ton Au

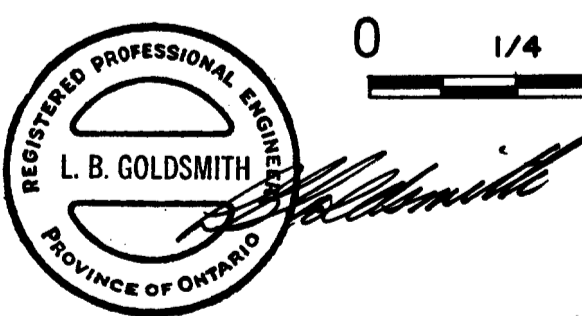
SCARCE OUTCROP

SLIDE AREA



SYMBOLS

- GEOLOGICAL BOUNDARY - DEFINED, APPROXIMATE, ASSUMED
- OUTCROP
- LIMESTONE EXPOSURE
- MINE TUNNEL
- TRENCH
- ROADS
- STRIKE, DIP
- JOINTING: VERTICAL, INCLINED
- SHEAR
- FLOAT
- LEGAL CORNER POST
- CLAIM POST
- CLAIM BOUNDARY
- MINERALIZATION



0 1/4 1/2 1 2 MILES

SOLITAIRE RESOURCES CORP.

REGIONAL
GEOLOGY

BRIDGE RIVER, B.C. N.T.S. 92 J LILLOOET M.D.

ARCTEX ENGINEERING SERVICES JULY, 1980

Adapted from C.E. Cairnes,
1935, map 430A

0 500 1000 2000 METRES

TO ACCOMPANY REPORT BY J. LOGAN