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**GEOLOGY OF UPPER ADIT
VULTURE MINERAL CLAIM GROUP
SLOCAN MINING DIVISION
CODY, B.C.
NTS 82 F/14 E
LATITUDE 49°58'N, LONGITUDE 117°09'W**

SUB-RECORDER
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**Locke B. Goldsmith, P.Eng., P.Geo.
Consulting Geologist**

January 31, 1993

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

22,791

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Geology and Soil Geochemistry (Pb-Ag), Scale 1:2000

Geology of Vulture Upper Adit, Scale 1:500

**GEOLOGY OF UPPER ADIT
VULTURE MINERAL CLAIM GROUP
SLOCAN MINING DIVISION
CODY, B.C.**

SUMMARY

A lode which has been mined in the first 60 metres of the Vulture upper adit terminates at a fault and granitic dyke. Movement on the fault appears to be left-lateral with the south side downdropped. A soil geochemical anomaly at 1+00N 1+50E may be derived from the subcrop of the offset northern portion of the mineralization.

A program of soil geochemistry and hand trenching to detail the anomaly is recommended at an estimated cost of \$17,600.

PROPERTY, LOCATION, ACCESS

The Vulture group of reverted crown granted mineral claims is located 2.5 km due east of the former mining settlement of Cody, B.C., on the north slope of Carpenter Creek. Access is via paved road eastward from New Denver for 13 km to three Forks, and thence southeasterly for 5 km to Sandon, and an additional 2 km to Cody on gravel roads. Logging and mining roads pass through the southwestern corner of the property.

The property consists of the following reverted crown granted claims.

| <i>Claim Name</i> | <i>Former Lot Number</i> | <i>Tenure Number</i> | <i>Date of Record</i> |
|-------------------|--------------------------|----------------------|-----------------------|
| Vulture | 4482 | 256946 | March 15, 1990 |
| Vulture Fr | 4483 | 256329 | March 23, 1990 |
| Vult | 3672 | 256330 | " " |
| Empire No. 5 | 1580 | 255924 | November 12, 1982 |

HISTORY

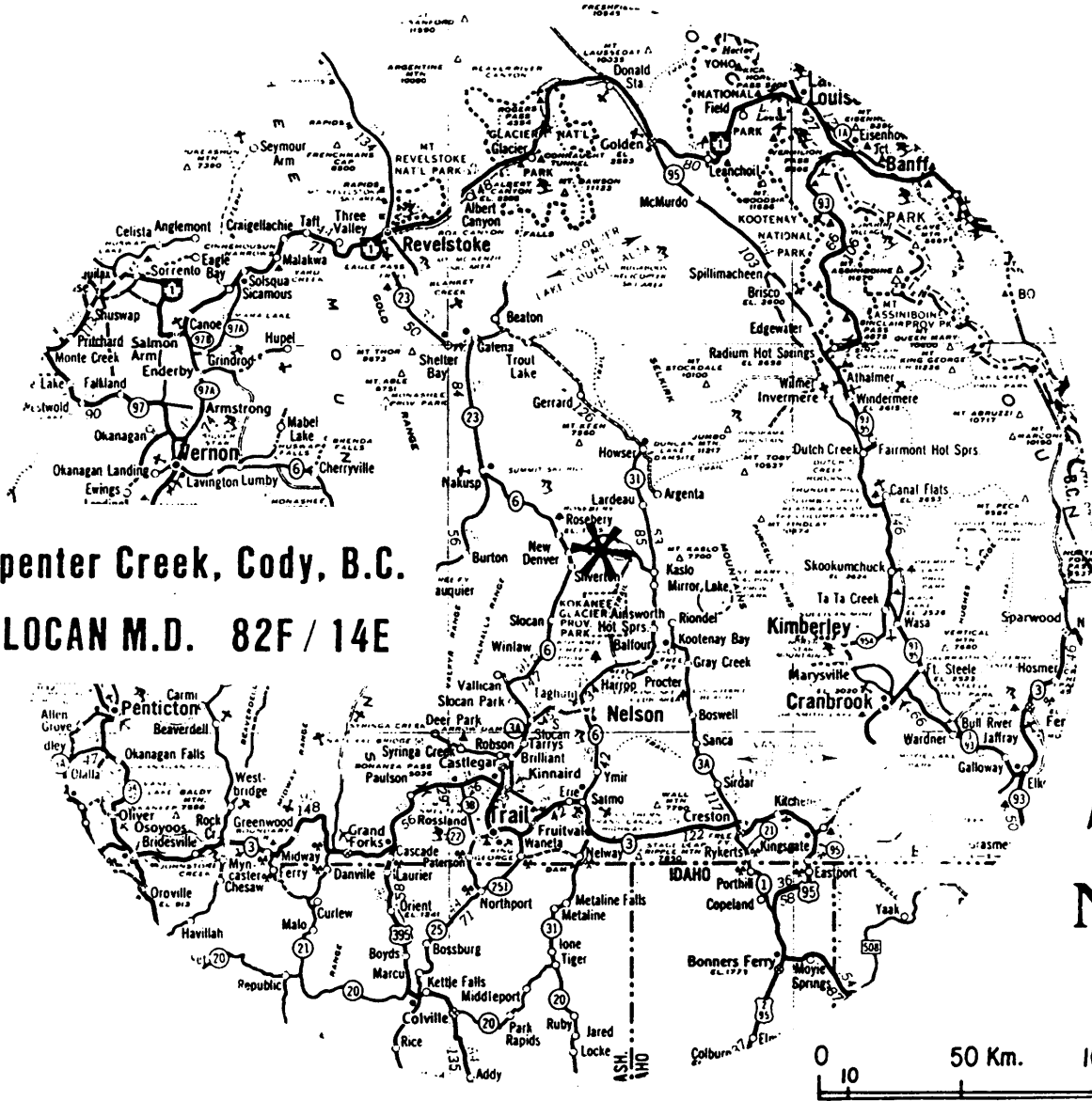
Most underground work was completed on the Vulture claim before 1900 (Min. of Mines, 1952). An exploration crosscut to the northwest at approximately 65 metres from the portal appears to have been driven at a later time. Stopes extend for 60 metres from the portal. University of B.C. MINDEP computer files show production from the Vulture lode as:

| Short Tons | Ag oz/ton | Pb % | Zn % |
|------------|-----------|------|------|
| 585 | 89.4 | 69.5 | 14.4 |

A map notation (Lakes, 1942) shows 583 tons grading 90 oz/ton Ag and 70% Pb which corroborates the MINDEP reference.

No production records are available for the Empire No. 5 claim. An adit near 0+25S, 2+25E is the only evidence of mining activity which was observed.

VULTURE GROUP



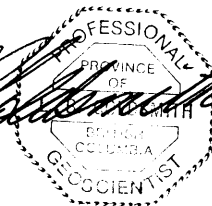
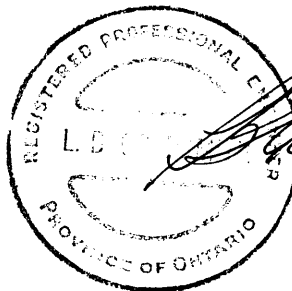
Carpenter Creek, Cody, B.C.
SLOCAN M.D. 82F / 14E

To accompany report by

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

JANUARY 1993

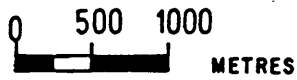
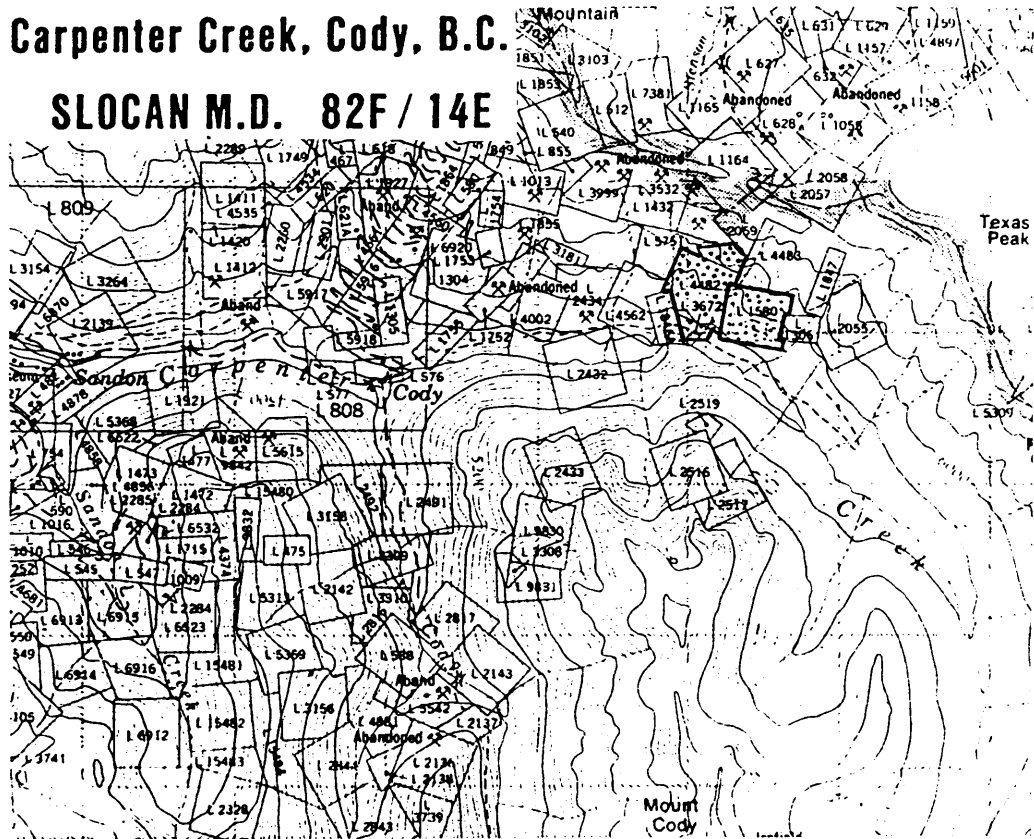
LOCATION MAP



CLAIM MAP

Carpenter Creek, Cody, B.C.

SLOCAN M.D. 82F/14E

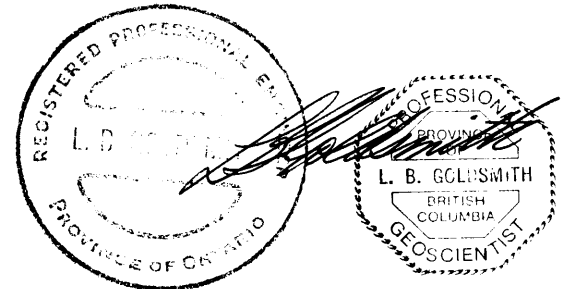


1 : 50,000

VULTURE GROUP

MINERAL CLAIMS

| Name | Lot No. | Tenure No. |
|--------------|---------|------------|
| Vulture | 4482 | 256946 |
| Vulture Fr | 4483 | 256329 |
| Vult | 3672 | 256330 |
| Empire No. 5 | 1580 | 255924 |



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Consulting Geologist

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GENERAL GEOLOGY AND MINERALIZATION

The claims are underlain by argillite of the Triassic-Jurassic Slocan sediments. Where noted on and near the claims the bedding trends $330^{\circ} 46-60^{\circ}\text{NE}$. Granitic sills, up to 2 m in width, appear to be parallel to bedding. Foliation at $312^{\circ} 42^{\circ}\text{NE}$ is peneconcordant to bedding. One shear zone with an attitude of $085^{\circ} 85-90^{\circ}\text{SE}$ was observed near the mouth of the adit on the Empire No. 5 claim, where silver-lead-zinc sulphides are present in a dump. Some specimens contain mostly pyrite. Sulphides were not observed in outcrops, although rusty bands in argillite trend 085° . Assays of selected material contain approximately 20 oz Ag/ton, 27% Pb, and 22% Zn.

GEOLOGY OF THE VULTURE UPPER ADIT

At the adit portal and on the hillside upslope to the north of the portal, the bedding and foliation strike northwesterly and dip moderately northeasterly. A lode which strikes 050° and dips $40^{\circ}-50^{\circ}$ southeast has been mined from the portal for approximately 60 metres. The lode is cut off by a fault zone which parallels a vertical east-west granitic dyke. Initial observations suggest that movement on the fault is left-lateral with the major dislocation being along the dip component. To the north of the fault a crosscut to the northwest has exposed an unmineralized fracture zone which was explored by 15 metres of drift. The main drift extends for an additional 70 metres. A narrow fracture without obvious mineralization was followed for the first 40 metres, at which point a 10-metre wide fracture zone oriented $330^{\circ} 72^{\circ}\text{NE}$ crosses the drift. In the last 20 metres of drift there is no evidence of a northeasterly fracture direction.

Interpretation of a dip slip movement on the structure at the end of the mineralization suggests that a northern lode segment could be located above and to the east of the drift. A silver-lead anomaly which was detected by soil geochemistry at 1+00N 1+50E could be derived from the offset portion. Alternatively, a mineralized fissure parallel to the Vulture lode may be located near 1+00N 1+50E and 0+00 1+00E where anomalous silver and threshold lead values were obtained.

CONCLUSIONS

Interpretation of structural geology and soil geochemistry indicate that silver-lead mineralization is concealed beneath shallow overburden approximately 60 metres east of the Vulture adit.

RECOMMENDATIONS

Reconnaissance soil geochemistry should be completed over the remainder of the property, with detailed sampling in the vicinity of 1+00N 1+50E, where hand trenching should be commenced.

COST ESTIMATE

| | |
|---------------------------------|--------------|
| Trenching | \$ 5,000 |
| Geochemical sampling | 2,000 |
| Geological mapping, supervision | 3,000 |
| Analyses | 1,500 |
| Vehicle, fuel | 1,000 |
| Room, board | 1,000 |
| Report | <u>2,500</u> |
| | 16,000 |
| Contingencies @ 10% | <u>1,600</u> |
| TOTAL | \$17,600 |

Results of each Phase should be compiled into an engineering report; continuance to the subsequent Phase should be contingent upon favourable conclusions and recommendations by an engineer.



Respectfully submitted,

Locke B. Goldsmith

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



Vancouver, B.C.
January 31, 1993

ENGINEER'S CERTIFICATE

LOCKE B. GOLDSMITH

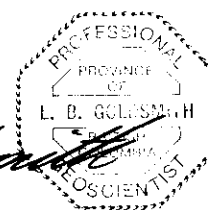
1. I, Locke B. Goldsmith, am a registered Professional Engineer in the Province of Ontario, and a Registered Professional Geologist in British Columbia and the State of Oregon. My address is 301, 1855 Balsam Street, Vancouver, B.C.
2. I have a B.Sc. (Honours) degree in Geology from Michigan Technological University, a M.Sc. degree in Geology from the University of British Columbia, and have done postgraduate study in Geology at Michigan Tech and the University of Nevada. 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 a Fellow of the Geological Association of Canada.
3. I have been engaged in mining exploration for the past 35 years.
4. I have authored the report entitled, "Geology of Upper Adit, Vulture Mineral Claim Group, Slocan Mining Division, Cody, B.C.", dated January 31, 1993. The report is based upon fieldwork and research supervised by the author.
5. The claim is owned by myself and associates.
6. 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,

Locke B. Goldsmith

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



Vancouver, B.C.
January 31, 1993

REFERENCES

Lakes, Arthur, 1942. Reference map of productive properties, Sandon Section, Slocan District, B.C.
Scale 1"=1200'.

MINDEP Files, University of British Columbia.

Minister of Mines, 1952, p. A 175.

COST STATEMENT, 1992 PROGRAM**Personnel**

| | | |
|---|---------------|------------|
| L.B. Goldsmith, 1/2 Oct 10, 1/2 Jan 28, 1/2 29, 1/2 31, total 2 days @ \$440/day | \$ 880.00 | |
| C. Donald-Hill, 1/2 Oct 10 @ \$250/day | 125.00 | |
| G. Bennet, 1/2 Oct 10 @ \$250/day | <u>125.00</u> | |
| | 1,130.00 | \$1,130.00 |

Transportation

| | | |
|---|--------------|--------|
| 4x4 vehicle, 1/2 days @ \$45/day | 22.50 | |
| 753 km @ \$0.35/km | 263.55 | |
| Gas | <u>88.00</u> | |
| | 374.05 | 374.05 |
| \$374.05 divided by 2.5 days = \$149.62/day | | |

Accommodation, Meals

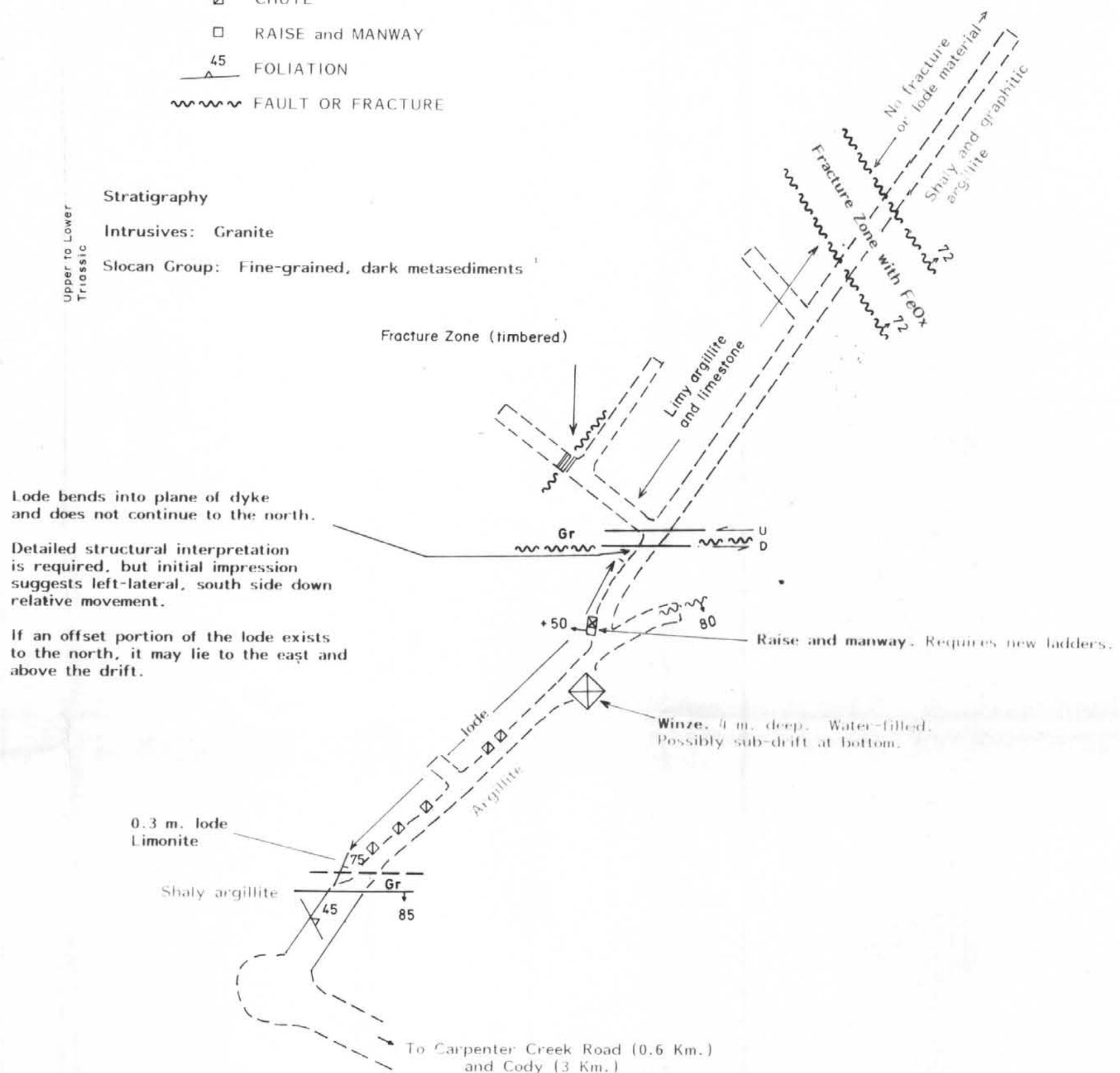
| | | |
|---|--|-------|
| \$85.80 divided by 3 man days = \$28.60/man/day | | 85.80 |
|---|--|-------|

Report

| | | |
|-------------------------------------|-------|-------------------|
| Drafting, word processing materials | | <u>431.75</u> |
| | TOTAL | <u>\$2,021.60</u> |

- KEY**
- ⊠ WINZE
 - ⊞ CHUTE
 - RAISE and MANWAY
 - 45 FOLIATION
 - ~~~~ FAULT OR FRACTURE

Stratigraphy
 Intrusives: Granite
 Slovan Group: Fine-grained, dark metasediments



Lode bends into plane of dyke and does not continue to the north.

Detailed structural interpretation is required, but initial impression suggests left-lateral, south side down relative movement.

If an offset portion of the lode exists to the north, it may lie to the east and above the drift.

**GEOLOGICAL BRANCH
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22,791

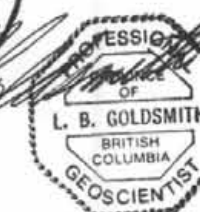
GEOLOGY

VULTURE UPPER ADIT
 E.L. 5180'

VULTURE CLAIM
 L 4482 Record #6301(3)

NTS 82F/14E

Carpenter Creek, Cody BC
 SLOCAN MINING DIVISION



To accompany report by
Locke B. Goldsmith, P. Eng
 January 1993

0 5 10 20 Scale: 1:500
 metres 1 cm. = 5 m.

VULTURE CLAIM GROUP

Carpenter Creek, Cody BC
SLOCAN MINING DIVISION

Geology and Soil Geochemistry (Pb-Ag)

Showing EMP DUMP Grab sample
21.12 oz/ton Ag
27.62% Pb and 25.24% Zn

To accompany report by

Locke B. Goldsmith, P. Eng.

January 1993

Scale: 1:2000 1 cm. = 20 m.

0 20 50 100

metres

