DENVER SILVER INC.

A REPORT ON AN EXAMINATON

of the

MOLLIE HUGHES PROPERTY

SLOCAN MINING DIVISION

New Denver, B.C.

By
T.L. Sadlier-Brown
January 30, 1980

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#### SUMMARY

The Mollie Hughes property consists of 20 crown granted and two post mineral claims situated at New Denver, B.C. Three silver bearing quartz veins are known on the claim group; the Kincora, Real Idea, and the Pinto. All cut quartz monzonite intrusive rock, strike north-westerly and dip moderately to steeply northeast. Production totalling 2828 tons of ore containing 829 oz. of gold and 303,529 oz. of silver was derived from the Kincora. Sampling of exposures on the Real Idea vein suggest that this vein may constitute ore similar in character and grade to the Kincora. A program of work totalling \$224,000 is recommended.

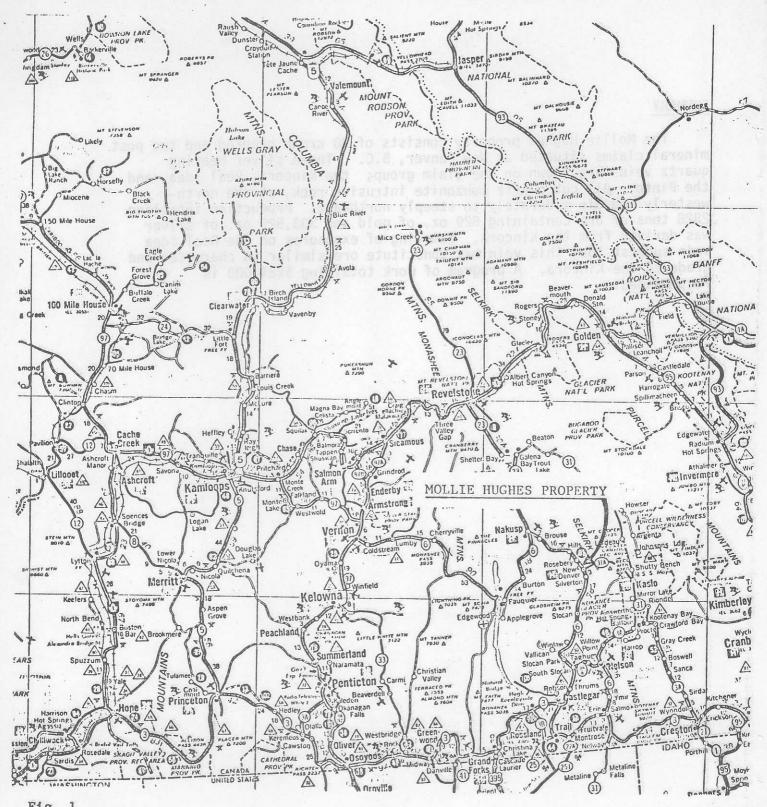


Fig. 1
LOCATION MAP: MOLLIE HUGHES PROPERTY

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#### 1.0 INTRODUCTION

#### 1.1 Claims and Ownership

The property known as the Mollie Hughes Claim group consists of twenty crown granted and two post mineral claims. Names and lot or record numbers of the claims which comprise the group are as follows:

```
Kincora
                        2104 (C.G.)
Real Idea No. 2
                        2105 (C.G.)
                   L.
Mollie Hughes
                        2106 (C.G.)
                   L.
Pinto
                   L.
                        2107 (C.G.)
Tryon
                   L.
                        2108 (C.G.)
Muriel 1 and 2
                   Record No. 786,
Milo 1 and 2
                               788, 789
Sharon K. No. 1
                         966
Sharon K. No. 2
                         967
Susan L. No. 1
                         968
Susan L. No. 2
                         969
Stephanie A. No. 1
                         970
Stephanie A. No. 2
                         971
Libby J.
                         972
Sweet Grass
                         952
Ivan
                         953
Alps
                         954
Wilmer Fr.
                         957
```

All the claims are held directly by Denver Silver Inc.

#### 1.2 Location and Access

The claims lie between elevations of 530 and 1200 meters above sea level on the south facing lower slope of Mount Carpenter one kilometer north of the town of New Denver B.C. They are traversed by both highway 6 and the unused north and south branch of the C.P.R. The upper workings are conveniently accessible from the highway and from a parallel road which follows a power line right of way. The lower workings lie on the Kincora claim which fronts on Slocan lake. They may be reached by a trail which follows the lake shore from New Denver or by boat from the lake itself.

Forest cover is predominantly coniferous and climate in the area is temperate, both typical of the major valleys of the west Kootenay area.

#### 1.3 History

The original claims were staked in the late 19th century and crown granted in 1898. Production of silver and gold was first

first recorded in the following year and persisted on a modest scale until 1940. Most of the ore was derived from the Kincora Lode. Since the 1940's sporadic mining is said to have been conducted by lessors but records of this are unavailable.

In 1973 a company known as Dyke Mines Ltd. (NPL) was formed to carry out development on the Mollie Hughes property. Some surface work was done and underground workings, principally the Kincora adit, were rehabilitated. The company did not achieve production, however, and the property remained idle until Denver Silver began work during the summer of 1979. Road construction and underground work was carried out. Crosscutting was in progress at the time of the visit.

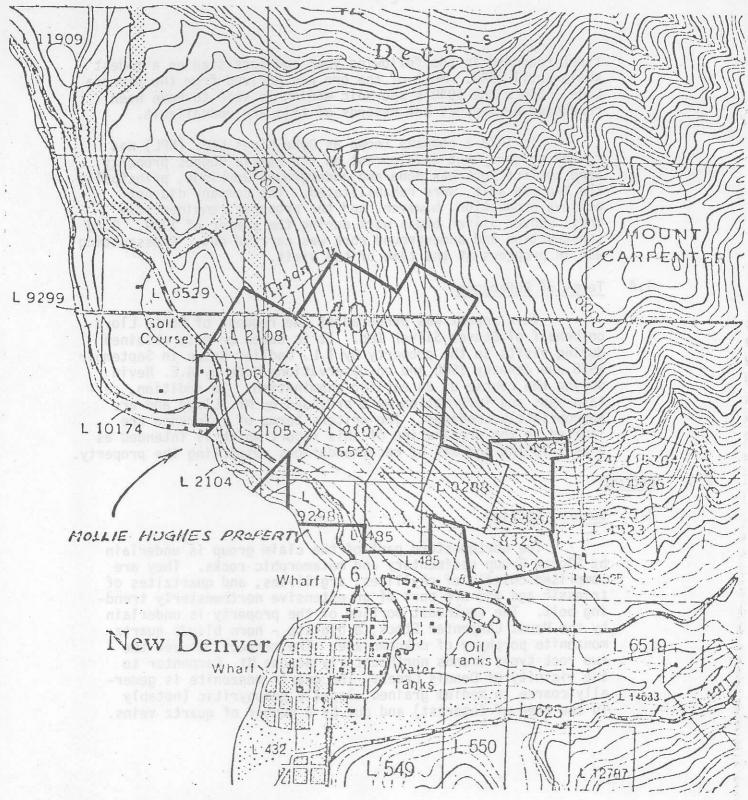
#### 1.4 Terms of Reference

This report was prepared at the request of Monte Lloyd on behalf of Denver Silver Inc. It is based on data obtained during visits to the property by T.L. Sadlier-Brown in September 1978 and January 1980 and on observations made by A.E. Nevin during the course of an earlier examination. In addition, certain maps and information were provided by Mr. Lloyd and are appropriately credited. The writers terms of reference are limited to the preparation of this report which is intended as a description and set of recommendations respecting the property.

## 2.0 GEOLOGY

# 2.1 General Setting

The northwestern part of the claim group is underlain by Slocan Group sedimentary and metamorphic rocks. They are comprised chiefly of phyllites, argillites, and quartzites of triassic age and are part of an extensive northwesterly trending belt. The southeast portion of the property is underlain by the Mount Carpenter Stock, a biotite - horn blende quartz monzonite porphyry of unknown age. The contact between the two rock types trends northeasterly across Mt. Carpenter to the vicinity of Dennis Creek. The quartz monzonite is generally coarse to medium grained, locally porphyritic (notably in the area of interest) and cut by a number of quartz veins.



CLAIM MAP:

MOLLIE HUGHES PROPERTY

These tend to have a preferred attitude and may or may not contain sulphides carrying values in silver, gold, lead, zinc, and copper.

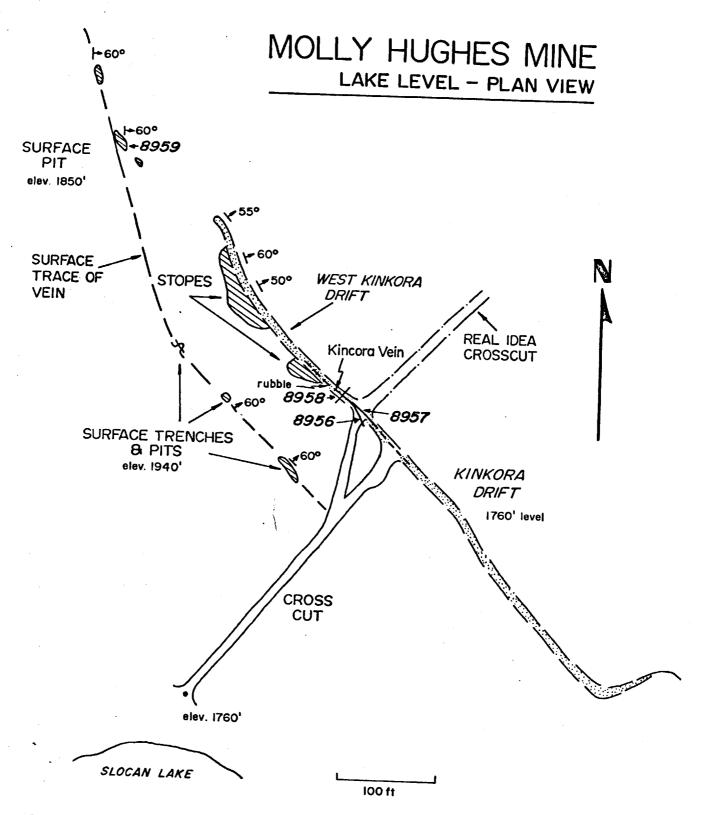
Of the numerous veins known and tested on the property several appear to be of economic interest. They are the Kincora, the Real Idea, the Gold, the Mollie Hughes and the Pinto. The bulk of the early production from the property was derived from the Kincora Lode which is the lowest and most southerly. Some stoping has been carried out along a drift on the Real Idea but no production information has been obtained for the Gold, Mollie Hughes or the Pinto by the writer. The veins are essentially quartz filled fissures. Slickensides suggest movement parallel to the dip and post-vein faulting has produced both left lateral offsets and normal faults downdropped to the east. Thickness of the veins varies from 10 cm (4") to about 0.5 m (1.5 ft.) Silver and gold values occur in steep or vertical shoots within the veins. The shoots may be separated by lower grade vein material laterally but continuity down the dip of the veins is characteristically good in this district. Vein material carries galena, native silver, and freibergite with values ranging to over 100 oz/ton silver and 0.50 oz/ton gold. Average grade of recorded production from the Mollie Hughes Mine between 1899 and 1940 is 107 oz/ton Ag and 0.29 oz/ton Au. $^{1}$ 

#### 2.2 The Kincora Vein

The Kincora Vein strikes and dips southwesterly at 50 to 60°. It varies in width from about 0.1 M to over 0.5 M and produced virtually all of the ore from which the published returns were derived.

Recorded lode metal production is given by the B.C. Dept. of Mines (index 3, 1971, p.206) as follows:

Year	Tons shipped	Au recov.	Ag recov.	Pb Recov.	Zn Recov.
1899-1940	2828	829 oz.	303,520 oz.	38137 1ь.	3458 <b>4</b> 1b.



SAMPLE Nº	OZ/T	TON Au.	After Map by M. Lloyd
8956 8957 8958 8959	75.81 126.75 22.31 53.65	.035	FIGURE 3

The vein is accessed by a crosscut at the 537 M (1760 Ft.) level (just above the level of Slocan Lake) which intersects the vein 107 metres from the portal. From the intersection drifts extend both northwest and southeast. Neither drift was accessible at the time of the visit but information provided by company personnel indicates that stoping was carried out in both drifts. Two flooded sub levels were also mined but are presently inaccessible.

Work on the crosscut to the "Real Idea" vein was underway at the time of the visit. The crosscut intersects the Kincora just northwest of an old shaft which has been filled with boulders. The recent work has exposed fresh vein material at and near the intersection. Two samples of it were taken. No 8957 is a representative grab sample of mineralized vein material from the roof at the intersection. It produced 126.75 oz/ton Ag and .095 oz/ton Au. Sample No 8958 is a channel sample across the Kincora structure immediately northwest of the crosscut. It represents 2 feet of vein, gouge and altered wall rock which includes 8 to 10 cm of quartz vein material. The sample assayed 22.31 oz/ton Ag and .035 oz/ton Au. Sample 8956 is representative material from a splay off the Kincora vein intersected by the new crosscut. It assayed 75.81 oz/ton Ag and .035 oz/ton Au.

Northwest of the new crosscut caved material from the old stopes has blocked the drift and prevented sampling in this area. A surface exposure located about 100 metres to the northwest however indicates that the mineralization persists at least this far. Sample No 8959 consists of vein material taken by M. Lloyd from a pit which is now filled in with road ballast. It assayed 53.65 oz/ton Ag and 0.095 oz/ton Au.

#### 2.3 Mollie Hughes and Gold Vein Areas

Immediately north of the Kincora portal in an area bounded by the CPR railway tracks, highway 6 and the west limit of the claim group are a considerable number of old workings. These include adits,pits, and shafts which have been driven on several veins which cut a sequence of deformed metasedimentary rocks near their contact with the Mount Carpenter stock. The structures on which many of these workings have been driven appear to be somewhat less persistent than either the Kincora or Real Idea veins, the other lodes examined by the writer. In addition, all of the veins in the area, including the two better known ones have been subjected to high angle faulting resulting in minor offsets in some of the veins and complicating their relationship with one another. Nevertheless sampling indicates that they contain silver values which must be considered economically significant. The following is a summary of samples taken from this area:

Sample No.	Description of Locality	<u>Values</u>	<u>Ag</u>	<u>Au</u>
8951	Quartz vein material from short adit at railway grade south of Tryon Creek. Vein cuts porphyritic intrusive near metasediment contact, strikes 69°, and dips NW 60-70°.		19.20	.085
8952	Quartz vein material from adit driven into south bank of Tryon Creek about 60 m east of railway grade. Vein is 5 cm wide and exposed in an ascending tunnel driven south from main adit.		34.26	.040
8953	Vein material from near face of offset segment of main adit above. Vein is 10 to 15cm wide. Drift appears to end in a caved stope. Wide, strikes NE. Main drift appears to end at caved stope.	·	1.20	.004

### Samples (cont'd)

Sample No.	Description of Locality	<u>Values</u> Ag	<u>Au</u>
8954	Grabs sample of vein material from adit on structure referred to as the Mollie Hughes Vein. Strikes southerly and has been opened up in a series of pits and trenches in a row near and sub parallel to the highway. Vein is sinuous and varies widely in strike and dip. Cuts both intrusive and metamorphic rocks.	45.27	.035
8955	Porphyritic wall rock from adjacent vein at sample 8954 site.	0.46	.005

Although narrow veins and stringers abound in the area discussed in the foregoing two structures appear to have received most of the attention. They are the "Gold Vein", from which samples 8952 was derived and the Mollie Hughes Vein from which sample 8954 was taken.

#### 2.4 Discussion

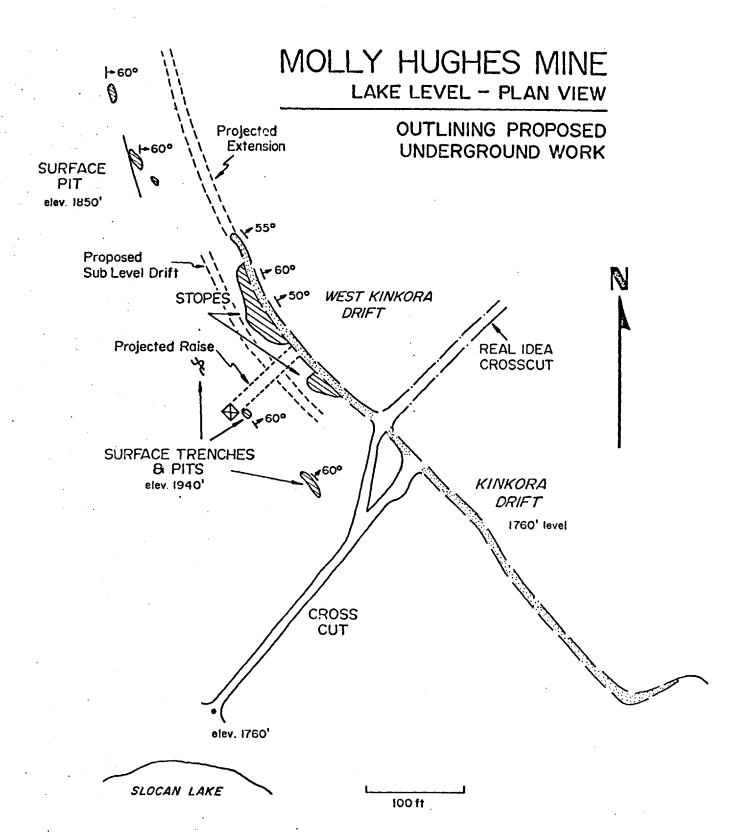
The present sampling corroborates early interest in the veins which occur near the metamorphic - porphyry contact in the lower valley of Tryon Creek. Vein material was found to average 32.9 oz/ton Ag and 0.05 oz/ton Au. No detailed geological maps of the area are known to exist nor is there any data pertaining to frequency and persistence of the mineralized structures. Their economic significance therefore, is unclear.

Recently exposed sections of the Kincora vein gave strong values in silver and fair values in gold. These exposures lie in the section of the Kincora drift at and north of its intersection with the crosscut presently being driven towards the Real Idea Vein. Average grades obtained from sampling the Kincora vein in this area are 69.6 oz/ton Ag and .065 oz/ton Au. The values are slightly lower than, but essentially consistent with those obtained from early production records. The west Kincora vein was, at the time of the visit only accessible in the immediate area of the crosscut as material from stopes has caved and blocked. No firm statement can therefore be made regarding grades or reserves in the northwestern part of the workings.

#### 3.0 CONCLUSIONS AND RECOMMENDATIONS

The metamorphic rocks cut by the "Gold", "Mollie Hughes", and other veins near the west limit of the claim group are hosts for silver mineralization, perhaps particularly in the vicinity of their contact with the Mt. Carpenter porphyry. Vein distribution, structure, and geological relationships are virtually unknown. Access, however, is good and assays from samples obtained in the limited area examined are of sufficient tenor to constitute fair to high grade ore if reserves can be established. A program of detailed topographical and geological mapping of the entire claim group plus underground and surface sampling and trenching in the Tryon Creek area is recommended as a first phase of work. Provision should be made for about 1000 feet of shallow hole diamond drilling as a second phase.

Values obtained from the west segment of the Kincora vein all tend to substantiate early figures which indicate that this ore might be expected to grade to the order of 100 ounces of silver to the ton. This material is the most accessible on the property and, if sufficient tonnages can be outlined could constitute shipping ore almost immediately. It is therefore recommended that an underground exploration program be initiated to 1/ clean out the drift and evaluate reserves remaining in the old stopes, 2/ access these reserves by rehabilitation of the drift and by driving a raise and sub drift above the present workings.



After Map by M. Lloyd

### 4.0 COST ESTIMATES

An estimate of the cost of carrying out the program described in section 3 is as follows:

# Gold & Mollie Hughes Vein Area

# Phase 1

Property Mapping (Geology & Surface) Underground mapping (Gold & Mollie Hughes Vein) Bulldozer Trenching Surface Drilling,Blasting & Sampling Assays Reporting & Map Preparation Subtotal	11500 2100 3700 2300 800 1500 21900
Contingency allowance ( 10%) Subtotal	<u>2200</u> 24100
Phase 2 (contingent upon results of phase 1)	21100
Diamond Drilling ( 1000 ft.@ \$21/ft.) Contingency	21000 2100
Subtotal	23100
TOTAL	\$47200

# West Kincora Vein

# Re-accessing

Clearing of existing drift Slashing existing drift (92 metres) Rail,timbers,ventilation Labour	\$ 4000 6000 4500 1500
Subtotal (re-accessing West Kincora Vein)	\$ 16000
Raising, sub drift	
Raising (55 metres) Sub drift Timbering (45 metres) Subtotal (to commence mining remaining ore in	18000 23000 5000 \$ 46000
West Kincora stopes 1 & 2)	
West Kincora Drifting, accessing stope 3	
Drifting (40 metres) Raising Timbering	19800 10000 2500
Subtotal (West Kincora Lake level)	\$ 32300
Contingency and allowances for Road, ore bin, etc.	23400
West Kincora TOTAL	\$117,700
GRAND TOTAL	\$164,000

Respectfully submitted

T.L. Sadlier-Brown

<u>APPEN</u>	DIX		
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Suite 401 - 134 Abbott St.

Vancouver, B.C.

Certificate of Assay

File No. 4303D

Date

Jan. 29, 1980

Attention:

V6B 2K4

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Mr. T.L. Sadlier - Brown

Mr hereby Certify that the following are the results of assays made by us upon submitted....

ORE

samples.

Sample Identification	GOLD							
- Complete dentification	Ounces Per Ton	Ounces Per Ton	Percent	Percent	Percent	Percent	Percent	Percent
					ł	ļ		
8951	0.085	19.20						
8952	0.040	34.26		Ì				
8953	0.004	1.20					1	
8954	0.035	45.27						
8955	0.005	0.46						
8956	0.035	75.81						
8957	0.095	126.75						į
8958	0.035	22.31						
8959	0.095	53.65						
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Note: Pulps retained three months.

Rejects retained two weeks.

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#### STATEMENT OF QUALIFICATIONS

- I, Timothy L. Sadlier-Brown hereby certify that:
- 1. I am a consulting geologist and partner in the firm of Nevin Sadlier-Brown Goodbrand Ltd. with offices at 401 134 Abbott Street, Vancouver, B.C., V6B 2K4
- 2. I was educated at Carleton University in Ottawa, Ontario and am a Fellow of the Geological Association of Canada.
- 3. Since 1965 I have acted in the field of exploration geology in positions of responsibility and have been a principal in the firm of Nevin Sadlier-Brown Goodbrand Ltd. since 1972.
- 4. I personally carried out the geological examination and sampling on the Mollie Hughes Prospect as described in this report.
- 5. I hold no interest in the property described herein nor in the securities of Denver Silver Inc. nor do I expect to receive such interest.

T.L. Sadlier-Brown