# PROPERTY FILE 015407

# 1989 "SNAPSHOT" REVIEW FORM



# PROPERTY/PROJECT

# AUTHORS

W. W. Cummings, P. Eng.

A. A. Petancic

Name	: Silver Queen
NTS	: 54° N 126° 45'W
Claims	: 50
Acreage	: APP 3200 acres
Commodities	: Au-Ag-Cu-Pb-Zn

#### AGREEMENTS

Joint Venture Agreement between New Nadina (40%) and Houston Metals (60%) dated January 12, 1987; Houston Metals is entitled to recover 250% of exploration cost from 80% of production before New Nadina participates to its full 40%.

### HISTORY

Past Exploration Techniques	By Whom	Amount	Туре	Cost
I.P. Magnetometer D.D.	New Nadina New Nadina New Nadina			
Past Development (if any)	By Whom	Amount	Туре	Cost
Nadina Exploration Bradina Joint Venture	placed mine in production 1972 at 500 tpd			
Past Production (if any)	By <u>Whom</u>	Tonnage(s)	Method	Grade
	Bradina J.V.	200,000	U.G. Mine	*

\*The Silver Queen Mine produced in 1978/73 : 3,257 oz gold, 438,797 oz silver, 11,132,704 lbs zinc, 1,547,181 lbs lead, 892,898 lbs copper, and 34,769 lbs cadmium from about 208,000 tons of ore and development muck.

# Reasons for shut-down

Mine and metallurgical problems

## GEOLOGY

Regional

Property underlain by late Mesozoic to early Tertiary volcanic flows and pyroclastics, near SW. rim of a caldera formed by the Francois Lake group (upper Cretaceous)

Local

Dacita flows and Tuffs, cut by a microdiorite sill or dyke, form the top of Mine Hill. Dykes are pulaskite, a syenite porphyry which are post-ore, and andesite. Rhyolite underlies the dacite.



# Alteration/Ore Forming Minerals

Regional alteration - pervasive pyrite - propyllite is locally intense. Near veins - intense propyllitization with or without shearing and small dykes, particularly in the hanging wall side.

Veins are epithermal - with Fe rich rhodocrosite chalcedonic quartz pyrite, sphalerite, minor chalcopyrite, tennantite, tetrahedrite. Au, Ag grades increase to the south-east.

### CURRENT EXPLORATION RESULTS

### 1987 - 1988

- i) Geology Surface drilling located the Camp Zone a series of veins with high Ag contained in silver minerals (argentite and ruby silver). 2590 decline cut No. 3 Vein 200' below main (2600) level - good Au-Ag-Zn ore and access for deep drilling - Development and drilling also located the NG3 Vein - a possible major extension of the No. 3 Vein which has been explored for over 4000 feet.
- ii) Metallurgy:

Hydrometallurgical "scalping" approach along the following lines is being tested: bulk rougher concentrate will be oxidized and leached to yield a copper -zinc-iron-arsenic pregnant solution and a copper-lead-iron-silver-gold residue.

Zinc and copper will be put in solution and recovered in the form of precipitates, gold and silver will be recovered by cyanidation from solid residue.

#### Reserves

Geological, possible, probable and/or proven:1Proven (No. 3 vein below 2,600' elevation):2Number of zones:1Number of sample points:2

Average grade: Average thickness: Cut-off grade: 1,900,000 tons 200,000 tons 17 4,000 feet of drift, +80 surface D.D.H. +70 U.G. D.D.H. \$189.00 N.S.R. 5 ft. \$130 N.S.R.

N.S.R. = Net Smelter Return to the Mine

Costs

Recent exploration costs, i.e. (relating to above)	\$10,000,000
Projected exploration costs of program to development (if any)	\$1,500,000 (subject to review)
Projected development costs given positive economics	\$30,000,000
Projected operating costs given positive economics	<b>\$110 - 130/ton</b>

