

5.0 BAKER MINE (Chappelle Claims)

. Summary

In 1974, DOX optioned the Chappelle claims from Kennco Explorations (Western) Limited. The property located 270 km north of Smithers contains a small high-grade epithermal gold-silver vein. In 1980, DOX decided to place the property into production at a rate of 90 tpd, on the basis of a three year operating life. The ensuing mining and milling operation which officially commenced on 1981 May 1, terminating on 1983 December 1, resulted in the milling of 77.5 k t from which were recovered 1,190 kg (38.24 k ounces) of gold and 23,060.4 kg (740 k ounces) of silver. The operation was an innovative one, requiring the transportation of all equipment and supplies by aircraft from Smithers to an airstrip near the mine. The principal present asset on the Chappelle claims is the mining infrastructure, particularly the Baker mill, which is currently intact (Figure 6). The infrastructure could be very valuable to other gold-silver bearing properties in the immediate area, of which three are at various stages of exploration and development.

. Introduction

The Baker mine property interest, infrastructure and related support facilities (Baker assets) are owned by DOC. Since the Baker assets could be attractive to a buyer interested in acquiring all DOX assets, they are offered on an optional basis. Specifically, the Baker assets include the Chappelle claims and the infrastructure thereon; the airstrip at Sturdee Valley and connecting road - providing the buyer becomes the principal user; the hangar and fueling facilities at Smithers, and a Twin Otter aircraft. The facilities at Smithers, including the aircraft may be more attractive at this time as an acquisition by a related business, and buyers are currently being sought for these assets.

. Location and Access

The Chappelle claims, which contain the former producing Baker gold-silver mine, are situated about 270 km north of Smithers, BC in the central portion of the Toodoggone gold belt, (Figure 7). The claims are centred at latitude 57°16'N; longitude 12°06'W. The mine lies at an elevation of about 1,700 m in a sub-Alpine environment.

Access to the property is by aircraft to the 1,625 m gravel airstrip at Sturdee Valley which is suitable for Hercules aircraft. A 15 km gravel road connects the airstrip to the mine-site.

• Property and Title

The property consists of 158 Chappelle claims and one mining lease (10 claims), owned 100% by DOC, and subject to terms and conditions of an option agreement with Kennco Explorations (Western) Limited ("Kennco") dated 1977 March 1. Expiry dates on the claims currently fall in 1987-93.

Terms of the agreement between Kennco and DOX (assumed by DOC) provide that Kennco has the right to a 50% interest in net proceeds from production, after DOC has recovered all its pre-production and post-production capital costs plus interest.

• Geology and Mineral Deposits

Discovery of high-grade epithermal gold-silver mineralization on the Chappelle, and nearby Lawyers claims, occurred in 1969-70 when Kennco was carrying out a porphyry-copper oriented exploration program in the district. Kennco carried out the early evaluation work and eventually optioned the Chappelle claims to DOX in 1974 March. The Lawyers claims were optioned by Kennco to Semco Mining Corporation in 1978 who assigned the agreement to Serem Inc. in 1979.

Exploration and geologic studies by industry and government during the past 15 years have led to the recognition of the Toodoggone gold district, within a northwesterly elongated pile of complexly intercalated volcanic and volcanic-sedimentary rocks ('Toodoggone Group') of Lower to Middle Jurassic age and underlying older rocks. The district is approximately 80x35 km in areal extent and centred on Baker Mine.

Gold and silver occurrences in the district include epithermal veins and silicified breccia zones which are commonly in strongly faulted and altered environments.

• Chappelle Claims

The Chappelle claims are underlain by Toodoggone group rocks, Takla volcanic rocks of Late Triassic age, Asitka group calcareous rocks of Permian age and Omineca Intrusions ranging from quartz monzonite to granodiorite in composition of Jurassic and Cretaceous age.

Seven auriferous quartz vein systems have been discovered within an area 2 km square on the Chappelle claims, only one of which (Vein A - now mined out) contains values of economic interest based on exploration completed to date.

The decision to place the Baker Mine into production occurred in 1980 February. The ensuing mining and milling operation which officially commenced on 1981 May 1, terminating on 1983 December 1, resulted in

the milling of 77.5 k t from which were recovered 1190 kg (38.24 k ounces) of gold and 23,060 kg (740 k ounces) of silver.

In the period 1974-9, DOX spent \$2.25 M in exploration and development work which included 8,690 m of drilling in 96 holes, plus underground exploration work. Following start of production, a further 4,270 m of surface and underground exploration drilling was completed in 65 holes. Most of the work was concentrated on Vein A and its extensions. Other vein systems were test drilled with 2-8 holes per vein without obtaining significant encouragement.

. Outside Properties (not owned by DOX)

Three nearby properties in early to advanced stages of exploration have obtained encouraging results. These are (1) the Lawyers property being explored by Serem Inc., (2) the Energex Minerals Ltd. property optioned by Kidd Creek Mines Ltd. ("Energex/Kidd Creek"), and (3) the International Shasta Resources ground optioned by Newmont Mines Limited ("Shasta/Newmont"). (Figure 7).

- (1) The Lawyers ("Serem") property contains three mineralized zones: Amethyst Gold Breccia ("AGB"), Duke's Ridge and Cliff Creek. Most of the exploration work done to date includes surface drilling and underground development on the AGB Zone, which has most recently been calculated to contain 509,600 t grading 7.23 g Au/t and 243.8 g Ag/t. The Lawyers property is directly connected to the Baker Mine by road, the distance from the AGB Zone to the Baker Mine mill being 15 km. Expenditures to date on the property approximate \$6 M.
- (2) The Energex/Kidd Creek properties contain several gold-silver bearing showings. The most encouraging of these is in the Bonanza-Ridge area, where trench samples along 24.5 m averaged 24.7 g Au/t and 2.6 g Ag/t. Additional trenching suggests the showing has horizontal dimension of 15 by 40 metres with an unknown dip. Expenditures to date by Kidd Creek are reportedly \$1.7 M.
- (3) Recently Newmont announced encouraging results from the Sha-Shas claim group, the best being a drill intercept of 11.3 m grading 7.17 g Au/t and 153.3 g Ag/t and another of 5.0 m grading 22.59 g Au/t and 261.6 g Ag/t. The property lies about 11 km by road (including a proposed extension) from the Baker Mine mill.

. Economic Considerations

The principal asset on the Chappelle claims is the Baker mill, which is currently intact. The mill with a nominal capacity of 90 tpd, has operated at 110 tpd during periods of high mill utility. Should conditions warrant, DOX estimates that, through some modifications, the mill throughput could be increased to 160 tpd. Such modifications would cost \$1.3 M in 1983 dollars.

The estimated capital cost includes a provision of \$0.5 M for additional tailings pond capacity. Based on operating experience at Baker Mine, DOX estimates that the operating cost of a 160 tpd operation would be about \$175/t expressed in current dollars. Assuming that ore would need to be trucked to the Baker mill for processing from a nearby property, it is estimated that the transportation cost would be less than \$1/t km.

As a guide to the value of existing Baker Mine infrastructure, the following data (Table 3) are provided on actual construction costs (mostly 1980\$). Excluded are the capital cost of the Company's Twin Otter aircraft, hangar and fueling facilities at Smithers, which cost approximately \$2.3 M.

Table 3

Baker Mine Infrastructure Value
(\$'000s)

	Actual Construction Cost <u>(1980\$)</u>
Operating Buildings	3,311
Service Buildings	907
Roads & Runway	1,044
Campsite	1,369
Production Equipment	3,883
Power Generation	1,179
Mining Equipment	432
Rolling Stock	<u>2,002</u>
	14,127

Independent Evaluation

The Company retained Robertson to advise of the appraised value of the mining properties held by the Company. Robertson's opinion as to the appraised value of the Company's holdings in these properties was \$24,427,000 as at September 30, 1983.

A copy of this valuation report has been filed with the securities authorities in each province in Canada. This report will also be available for inspection at the registered office of the Company during ordinary business hours while the securities offered by this prospectus are in the course of distribution to the public and for a period of 30 days thereafter.

Major Project — The Lawyers

The Lawyers property is a gold-silver project located in the Toadoggone River area of north-central British Columbia, approximately 175 miles north of the town of Smithers. The property is accessible only by air although it would be practical to construct a 50 mile road which would connect the property to a provincial highway if a mine is put into production.

Gold and silver values were first discovered in the area in 1968 as a result of a regional geochemical program conducted by Kennco Explorations, (Western) Ltd. ("Kennco"). Further exploration work established both the Lawyers property and the Baker Mine which lies approximately five miles to the south-east of the Lawyers. The Baker Mine, which is operated by Du Pont of Canada Exploration Ltd., commenced commercial production of gold and silver in March 1981 and is currently producing at the rate of 100 tons per day.

Pursuant to an agreement dated May 15, 1979, Kennco optioned the Lawyers property to Semco Mining Corporation ("Semco") subject to a retained 20% interest entitling Kennco to 20% of net profit on production from the property after recovery of preproduction expenditures. On July 25, 1979, Serem obtained an assignment of this agreement from Semco, subject to a 5% net profit interest, and formed a joint venture in 1980 (with a formal agreement entered into on January 1, 1981) with Agnico-Eagle Mines Ltd. ("Agnico-Eagle") and Sudbury Contact Mines Ltd. ("Sudbury Contact") with the Company as operator. Major work programs were carried out under this agreement during 1980 and 1981. After the 1981 work program, Agnico-Eagle and Sudbury Contact elected not to participate in future programs relating to the property and, accordingly, will have their interests diluted as expenditures continue to be made until such time as their aggregate joint venture interest reaches 20%. Thereafter Agnico-Eagle and Sudbury Contact will be entitled to receive 20% of the net profits realized by the joint venture after recovery of preproduction expenditures.

Under the 1979 agreement with Kennco, Serem has an option, exercisable before January 31, 1988, to purchase a further 5% interest in the property for \$750,000. As Agnico-Eagle and Sudbury Contact have declined further participation in this project, they are not entitled to share in this further interest, if acquired, and, accordingly, the benefit derived from an exercise of this option would accrue solely to Serem. The Company intends to exercise this option if the property is placed into production prior to January 31, 1988 and would thereby increase its interest in the Lawyers to 65%.

Geologically, the property is underlain by a sequence of Jurassic Age volcanics in which mineralization in the form of gold, electrum (gold-silver), native silver and argentite (silver sulphide) occurs in silicified breccia zones traversing the volcanic complex. The bedrock surface is covered for the most part by several feet of rock rubble which is essentially in place.

The most important zone discovered and defined to date, the Amethyst Gold Breccia Zone (the "AGB Zone"), strikes north-south and extends for approximately 2,000 feet with widths up to several hundred feet. The significant mineralization within this zone occurs in a core of more intense silicification toward the footwall of the structure. Since 1979, the Company has completed 34,260 feet of surface diamond drilling, 3,966 feet of trenching, 2,508 feet of underground horizontal adit development on one level of the zone (approximately 300 feet below outcrop) and 7,044 feet of underground definition diamond drilling. Based on this exploration, the drill-indicated

reserves of the AGB Zone (after applying assay cutting factors and an allowance for anticipated mining dilution) have been calculated by the Company and confirmed by Robertson as follows:

	Tons	Grades	
		Gold (oz/ton)	Silver (oz/ton)
Up-graded*	335,275	.280	8.57
Maximum	561,773	.211	7.11

*Up-graded reserves are calculated primarily by deleting marginal blocks while retaining mining continuity.

Preliminary test work by an independent metallurgical laboratory has indicated that overall recoveries of 97% gold and 90% silver using conventional treatment methods may be expected. Based on the foregoing reserves and recovery estimates, the Company has concluded that acceptable operating profits could be derived from the AGB Zone at current metal prices but that reserves must be expanded to provide a viable operating life.

The Company has established two additional zones on the Lawyers property, the Duke's Ridge Zone and the Cliff Creek Zone, which are relatively unexplored but evidence mineralization and silicified breccia with similar potential to that of the AGB Zone at an equivalent stage of exploration. The Company has completed 15,826 feet of trenching and 6,517 feet of surface diamond drilling on these zones.

The Company's 1984 work program is expected to include a second adit level and surface and underground drilling on the AGB Zone and further diamond drilling and trenching on the Cliff Creek and Duke's Ridge Zones.

Other Gold and Silver Projects

Toodoggone

This exploration project which consists of ten groups of claims is located in the general area of the Lawyers and the Baker Mine volcanic belt and is a joint venture of the Company, Agnico-Eagle and Sudbury Contact with the Company as the operator. Agnico-Eagle and Sudbury Contact have elected not to continue participation in the venture and as further monies are expended they will be diluted to an aggregate 5% net profit royalty. Project personnel work out of the Lawyers base camp.

Exploration on the project commenced in 1979 with a regional geochemical program and the Company followed up such program with claim staking and further exploration in anomalous areas through to the end of 1982. Significant gold and silver values have been found or are indicated on several of the groups. One claim group of particular interest indicates gold-silver values occurring in a similar geological environment to that of the Lawyers project situated one mile to the south-east.

The 1984 and 1985 programs for this project include further prospecting, detailed mapping and follow-up trenching and diamond drilling.

Lesperance

The Lesperance project is located approximately 140 miles north-east of Val d'Or, near the village of Desmaraisville on the Senneterre-Chibougamau highway and railway. This project, which commenced with a 1978 airborne survey, and the Entente J-1 and Grevet-Mountain projects described below are part of an extensive basic exploration program carried out under a joint venture agreement between the Company and Société de Développement de la Baie James ("SDBJ"), a crown corporation of the Quebec Government. Under the terms of the joint venture agreement, SDBJ is obligated to contribute to work programs on each of these projects on a pro-rata basis but may elect not to participate in expenditures not contemplated by the original program and thereby suffer dilution.

In the late 1940's, exploration activity in the area resulted in a number of gold discoveries. One of these, Bachelor Lake Gold Mines Inc. ("Bachelor Lake"), has recently been brought into production and a second, the Lac Shortt deposit of Corporation Falconbridge Copper, is now under production development.

Three of the claim groups on the Lesperance project are of particular interest. The first, less than one mile north of the Bachelor Lake property, has gold potential related to a 3,000 foot long geophysical anomaly which has been tested by six drill holes. The most promising result was a 4.9 foot core section which assayed 0.31 ounces of