NAME OF PROPERTY NOM DE LA PROPRIÉTÉ

DIAMOND BELLE

OBJECT LOCATED - Diamond Belle vein.

UNCERTAINTY 100 m
FACTEUR D'INCERTITUDE
Mining Division Omineca

Lat. 54°05'37"

Long. 126°42'20"

Long.

Coast, Range 5

Mining Division
Division minière
County
Comté

Township or Parish Canton ou paroisse

Lot Lot Sec Concession or Range Concession ou rang

Sec Tp. Sect. Ct.

R. *R.*

District District

OWNER OR OPERATOR/PROPRIÉTAIRE OU EXPLOITANT

and the control of th

DESCRIPTION OF DEPOSIT/DESCRIPTION DU GISEMENT

The host rocks consist of kaolinized and pyritized dacitic volcanic breccia. The Mine Hill microdiorite sill crops out a few hundred feet to the west of the major veins and a pulaskite dyke strikes northwesterly through the area cutting the shear vein and the extreme north end of the Cole vein. The Diamond Belle vein has been the focus of most of the early exploration, the Cole shaft being located on this vein at a point about 250 feet west of Cole Lake. The vein averages 2 to 3 feet wide and strikes about 130 degrees over the central part; the southeasterly part swings in an easterly direction before pinching out and the northwest segment is deflected along the east contact of a pulaskite dyke which strikes about 150 degrees. The ore minerals are mainly sphalerite, galena, and pyrite, with accessory chalcopyrite and a gangue composed of cherty quartz, carbonate minerals such as rhodochrosite, and some barite.

The 30-called "shear vein" was uncovered near the east end of the Diamond Belle vein about 150 feet west of Cole Lake. This vein is steeply dipping like the Diamond Belle vein, but

see Card 2

Associated minerals or products - Zinc, lead, copper, gold, Minéraux ou produits associés

HISTORY OF EXPLORATION AND DEVELOPMENT HISTORIQUE DE L'EXPLORATION ET DE LA MISE EN VALEUR

The property is located at Cole Lake, 2 miles north of the southeast end of Owen Lake, some 20 miles south of Houston. The property adjoins the Silver Queen group (93 L/2, AG 1) on the northeast.

The Diamond Belle group, comprising the Black Bear, Diamond Belle, and Burro claims, was staked in 1915 by Messrs. Cole, James, and Brown.

The Federal Mining & Smelting Company, of Wallace, Idaho, optioned the Silver Queen and Diamond Belle in 1923. Some 500 feet of drifting was done on the Silver Queen before the option was dropped in August 1924. No further activity was reported until 1928 when Owen Lake Mining and Development Co., Limited, optioned the Silver Queen, Diamond Belle, and Midnight groups and acquired neighboring claims, in part by staking and in part by option, bringing the company holdings to some 67 claims. A shaft was sunk 85 feet on the Diamond Belle group and 120 feet of drifting done from the bottom. The option was given up in 1930 when N.A. Timmins relinquished his option on a controlling interest in the Owen Lake company.

The Diamond Belle group of 22 claims was optioned from J. Goold and W. Henderson by Frontier Exploration Limited in 1966. Work by the company included geophysical and geochemical surveys, trenching, and diamond drilling totalling 250 feet in 3 holes. An aeromagnetic survey was carried out in 1969.

Northgate Exploration Limited held an option on the property during the early part of 1970. Deep diamond drilling, 2,005 feet in 5 holes, was carried out under the option agreement in searching for a sulphide replacement orebody. Work by Frontier included magnetometer and electromagnetic surveys and extensive trenching. Diamond drilling during the year totalled 10,674 feet in 17 holes; percussion drilling totalled 1,280 feet in 17 holes. Work by Frontier during 1971-72 included magnetometer and electromagnetic surveys, 2,200 feet of diamond drilling in 5 holes and 1,700 feet of percussion drilling in 5 holes.

continued reverse Card 2

511426

MAP REFERENCES/RÉFÉRENCES CARTOGRAPHIQUES

#Geology of the Diamond Belle, Frontier Exploration Limited, Sc. 1":1/8 mile, Fig. 39, Geology, Exploration, and Mining, 1972, p. 367, British Columbia, Dept. of Mines.

Geology of the Owen Lake Area, Sc. 1":2,000 ft., Fig. 21 - accomp. rept. by Church, 1969.

Map 69-1, Smithers, Hazelton, and Terrace Areas, (Geol. compilation), Sc. 1":4 miles - British Columbia Dept. of Mines.

Map 671 A, Houston, (Geol.), Sc. 1":4 miles (1942).

Map 5301 G, Owen Lake, (Aeromag.), Sc. 1":1 mile.

*Map 93 L/2 W, Owen Lake, (Topo.), Sc. 1:50,000.

REMARKS/REMARQUES

Comp./Rev. By Comp./rév. par	DMacR	DMacR			
Date <i>Date</i>	11-75	11-86	-		

REFERENCES/BIBLIOGRAPHIE

Church, B.N.; Diamond Belle; Geology, Exploration, and Mining; British Columbia Dept. of Mines 1969, pp. 139-141; 1970, pp. 139-140; 1972, pp. 366-370.

Lang, A.H.; Owen Lake Mining Camp, British Columbia; Summary Report 1929, Pt. A, pp. 77-89, and Fig. 3, Geol. Surv. of Canada.

Reports of Minister of Mines, British Columbia: 1916, p. 159; 1923, p. 116; 1927, p. 139; 1928, p. 170; 1929, p. 171; 1967, p. 109.

Mineral Policy Sector; Corporation Files: "Federal Mining and Smelting Co."; "Owen Lake Mining and Development Co., Limited"; "Frontier Exploration Limited".

Geology, Exploration, and Mining; British Columbia Dept. of Mines: 1971, p. 171.

Exploration in British Columbia; BCDM: 1983, p. 436.

Cummings, W.W.; Report on the Owen Lake property, 24/06/86, in Houston Metals Corporation Statement of Material Facts, 29/10/86.

BCI 93 L - 162

PROVINCE OR TERRITORY

PROVINCE OU TERRITOIRE British Columbia

N.T.S. AREA 93 L/2 RÉGION DU S.N.R.C.

REF. AG 2 RÉF.

NAME OF PROPERTY
NOM DE LA PROPRIÉTÉ

SILVER

DIAMOND BELLE

DESCRIPTION OF DEPOSIT/DESCRIPTION DU GISEMENT (continued)

strikes in a northerly direction. The vein is exposed at intervals for a length of about 700 feet. The mineralization is patchy and discontinuous and appears to be the result of replacement and cavity-filling in a shear zone.

Vein mineralization was intercepted by two diamond drill holes in a zone striking southeasterly parallel to the Diamond Belle vein and located about 250 feet to the northeast. The intersections show 3.4 feet assaying 0.07 ounce per ton gold, 18.6 ounces per ton silver, 1.3 per cent copper, 2.2 per cent lead, and 5.5 per cent zinc, and a second intersection of 2.2 feet assaying 0.11 ounce per ton gold, 6.1 ounces per ton silver, 0.11 per cent copper, 5.89 per cent lead, and 13.87 per cent zinc.

A second southeasterly striking vein was uncovered by trenching immediately west of an old pit 600 feet south of Cole shaft. The vein is partially obscured by thick manganese capping; however, it appears to be narrow and discontinuous, cropping out over a length of 160 feet.

The so-called Bear vein is located in the north central part of the Black Bear claim, approximately 1,000 feet southwest of Cole shaft. Bulldozer trenching in deep glacial drift has traced this southerly striking zone for roughly 220 feet. A chip sample across the most southerly exposure of this vein consists of almost pure amber sphalerite with minor pyrite carrying modest precious metal values.

The so-called 'Barite vein' was uncovered about 500 feet west of the Cole vein system. This vein strikes southeasterly and is exposed discontinuously over a length of 350 feet. A gangue-rich sample across a 42-inch width at the extreme south end of the vein was submitted for detailed analysis and showed: gold, trace; silver, 2.7 ounces per ton; copper, 0.04 per cent; lead, 0.58 per cent; zinc, 1.10 per cent; iron, 12.90 per cent; manganese, 7.80 per cent; calcium, 0.36 per cent; cadmium, trace; arsenic, 0.07 per cent; and antimony, 0.03 per cent. According to company reports, however, a 46-inch-wide sample taken across a northerly part of the vein assayed: gold, .063 ounce per ton; silver, 6.15 ounces per ton; copper, 0.21 per cent; lead, 5.3 per cent; and zinc, 13,2 per cent.

continued ,,,, ,'

Deep drilling by Northgate in 1970 (NGVF series) cut several mineralized zones, the most important of which appears to be the NGV vein located just west of the main road in the southern part of the prospect area. This is a sphalerite-galena rich vein which according to records shows the following values over a 30-inch mineralized length of core: gold, 0.04 ounce per ton; silver, 13.05 ounces per ton; copper, 0.17 per cent; lead, 12.80 percent; and zinc. 10.20 per cent. At surface the vein can be traced over a length of 150 feet with an overall strike of about 160 degrees, dipping 75 degrees northeast. To the west diamond-drill hole NGVF 5 met sporadic mineralization to a depth of about 850 feet in an area below the George Lake lineament (Fig. 39). Additional diamond-drill holes completed by Frontier in 1972 to the north and south of NGVF 5 confirmed the presence of a series of apparently discontinuous veins below the lineament extending along strike for at least several hundred feet. Diamond-drill hole H 4 plunging 45 degrees southwest reportedly intersected a vein in the interval between 109 and 114 feet from the collar which assayed: silver, 3.4 ounces per ton; lead, 4.58 per cent; and zinc, 7.64 per cent.

HISTORY OF EXPLORATION AND DEVELOPMENT (continued) HISTORIQUE DE L'EXPLORATION ET DE LA MISE EN VALEUR

The company name (Frontier) was changed in 1976 to New Frontier Explorations Inc and subsequently to New Frontier Petroleum Corporation. In 1982 the 22 located claims comprising the property were transferred to a subsidiary, Bulkley Silver Resources Ltd. The Earl crosscut adit on the adjacent Silver Queen property was extended 100' towards the Cole vein. Noranda Exploration Company in 1983 carried out an airborne EM survey and metallurgical tests. Bulkley Silver and Cater Energy Inc amalgamated in October 1986 under the name Houston Metals Corporation.