THE MINERAL INDUSTRY OF

NEW CALEDONIA

By Travis Q. Lyday

The mineral industry in the French Territory of New Caledonia and Dependencies continued to be dominated by the mining of nickeliferous laterite-saprolite ore. The ore was used for the subsequent production of ferronickel of various commercial grades and of matte containing 75% nickel at the Doniambo smelter at Nouméa, the capital. Minor amounts of cobalt were recovered as a component of nickel matte exports from refining operations at Sandouville, near Le Havre, in northern France. Minor amounts of pit and quarry construction materials also were produced.

New Caledonia was the largest producer of ferronickel in the world and the fourth largest producer of mined nickel after Canada, Indonesia, and Russia. Nickel mining and smelting were the territory's most important resource, accounting for an estimated 25% of the gross domestic product and 80% of exports.

Remaining stocks of chromite concentrate produced at the Tiebaghi Mine continued to be exported. The Tiebaghi Mine, owned and operated by Chromical S.A. in the northern part of the island, was permanently closed in 1992.

Nickel was produced at mines owned by Société Métallurgique le Nickel (SLN), a 90%-owned subsidiary of Metropolitan France's Eramet, with Japan's Nisshin Steel Co. owning the remaining 10%. Smaller independent producers also produced nickel. SLN's production of nickel ore was from the two mining centers of Kouaoua and Thio on the east coast, from the two mining centers of Kaala-Gomen and Népoui-Kopéto on the west coast, and at contractor-operated mines operated by Société Minière Georges Montagnat SA at the Karembe and Tontouta mining centers on the west coast, all on the main island of La Grande Terre. Remaining production was from smaller independent operators, including JC Berton Mines, Nickel Mining Corp. (Groupe Pentacost), Société des Mines de la Tontouta (SMT), and Société Minière du Sud Pacifique (SMSP), with open pit mines at Boakaine, Karembe, Kouaoua, Moeno, Nakety, Ouaco, and Tontouta.

Mine output from the independently operated mines was mainly for export to QNI Ltd.'s Yabulu nickel refinery near Townsville, Queensland; Japanese nickel smelters and refiners; and the Glenbrook ferronickel smelter near Riddle, Oregon; some also was used as feed for the Doniambo smelter. SLN's nickel ore primarily was used as feed for its Doniambo smelter at Nouméa for the production of ferronickel ingots and shot and nickel matte, with minor amounts exported to Japan. Most of the ferronickel production was shipped to consumers in Australia and Japan, and all production of nickel matte was shipped to Eramet's refinery at Sandouville-Le Havre for further processing into high-purity electrolytic nickel and nickel salts.

Eramet, 55% owned by the French Government, announced in November that it would review a proposal whereby it would exchange mining titles in SLN's Koniambo Field, in the northern part of La Grande Terra, for other titles held by Canada's Falconbridge Ltd. in the Poum Field on the southern part of the island. Future production from the Koniambo Field would then be sufficient to supply a new 54,000-metric-ton (t) nickel plant proposed by both Falconbridge and SMSP to be built in the north. The Kanak Socialist Liberation Front, an organization in favor of independence from France, supports the smelter project, and the French Government is anxious to show its support for the local Kanak people prior to a referendum in 1998 on the possible independence for New Caledonia (Mining Journal, 1996a).

Exports of nickel and cobalt ore from New Caledonia to Queensland, Australia, were to be increased following the success of a project to upgrade production in the Calliope Metals Corp.'s nickel and cobalt refinery in Gladstone, Queensland. The project was estimated to cost US$237 million. The pilot-plant tests, carried out in Canada by Sherritt International Inc., found the ore from New Caledonia had metallurgical characteristics that reduce processing time. Consequently, the refinery production was to increase from 1 million metric tons per year (Mt/yr) to 1.2 Mt/yr, consisting of 18,700 t of nickel and 1,890 t of cobalt in a mixed sulfide product (South Sea Digest, 1996).

Reportedly, QNI was to form a joint-venture company with SMT to mine lateritic ore from New Caledonia. QNI was to hold a 67% interest in the new company, to be called Société des Mines de Bogota (SMB), with SMT owning the remaining 33%. Under the terms of the agreement, SMB will acquire 40 of SMT's mining tenements on the Bogota Peninsula for US$28 million to be paid over 15 years. An additional US$32 million was to be spent on development. The new venture will supply approximately 1 million metric tons (Mt) of limonitic ore to QNI's Yabulu refinery at Townsville (Mining Journal, 1996b).

Total proven and probable nickel reserves in New Caledonia were 1 Mt of contained nickel in ore grading greater than 2.7% nickel, with an additional 1 Mt of contained nickel in ore grading 2.5% to 2.7% nickel. These were considered sufficient for at least 40 years of mining at current rates.

In addition to abundant reserves of nickel ore, the island territory is well endowed with other mineral resources. Significant prospects have been reported for antimony, copper, gold, iron ore, lead-zinc, manganese, and phosphate rock. However, none of these has been mined commercially.

References Cited

Mining Journal, 1996a, Eramet's title swap plan...QNI extends its reach: November 15, 1996, v. 327, no. 8404, p. 389-390.

———1996b, QNI's South Seas venture: September 13, 1996, v. 327, no. 8395, p. 205.

South Sea Digest, 1996, Mining and oil: October 18, 1996, v. 16, no. 16, p. 3.

Major Source of Information

Le Service des Mines et L'Energie
Nouméa, New Caledonia

TABLE 1
NEW CALEDONIA: PRODUCTION OF MINERAL COMMODITIES 1/

(Metric tons unless otherwise specified)

Commodity		1992	1993	1994	1995	1996 e/
Cement e/		90,417 2/	90,000	90,000	100,000	100,000
Chromite, gross weight		8,169	--	--	--	--
Cobalt, mine output: e/						
Co content		6,000	6,000	6,000	6,000	6,000
Recovered		800	800	800	800	800
Nickel:						
Ore:						
Gross weight	thousand tons	5,650	5,599	5,729	7,068	8,000
Ni content		113,000	97,092	97,323	121,457	142,200
Metallurgical products:						
Ferronickel:						
Gross weight e/		125,900	145,500	156,100	166,700	162,000
Metal content (nickel plus cobalt)		31,895	36,850	39,488	42,200	41,000
Nickel matte:						
Gross weight e/		10,100	19,800	19,400	18,500	16,800
Metal content (nickel plus cobalt)		7,475	10,883	10,641	10,143	9,850
Stone: e/						
Crude (unspecified)	cubic meters	25,000	25,000	25,000	25,000	25,000
Crushed	do.	125,000	125,000	125,000	125,000	125,000
Sand: e/						
Construction	do.	100,000	100,000	100,000	100,000	100,000
Silica (for metallurgical use)	do.	20,000	20,000	20,000	20,000	20,000

e/ Estimated.
1/ Table includes data available through Mar. 3, 1997.
2/ Reported figure.