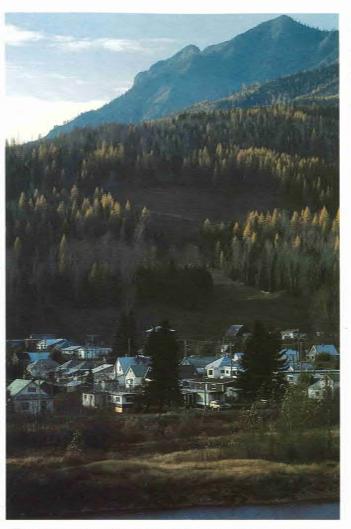
OUR PHILOSOPHY

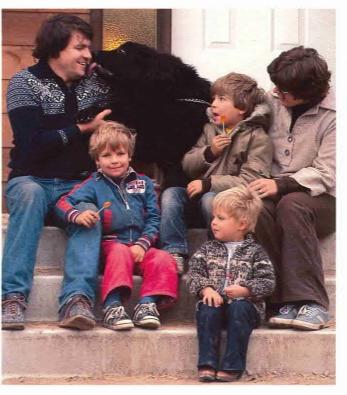
Crows Nest Resources is committed to profitable resource development in a socially and environmentally responsible manner. This simple statement sums up the corporate and operating philosophies. The company strives to be recognized not only as a reputable supplier by its customers, but also as a leading corporate citizen by its employees, publics and governments. CNRL believes these objectives can be achieved through efficient management of five major activities: human resources, community, environment, research and modern technology.

With the assistance and participation of all employees, Crows Nest Resources will attempt to develop, through its policies and programs, a more pleasant, rewarding and challenging work place.

Within the community, Crows Nest Resources emphasizes programs and activities that involve the employee and family. The company's support programs are designed to complement the communities' efforts in the areas of health, education and culture.



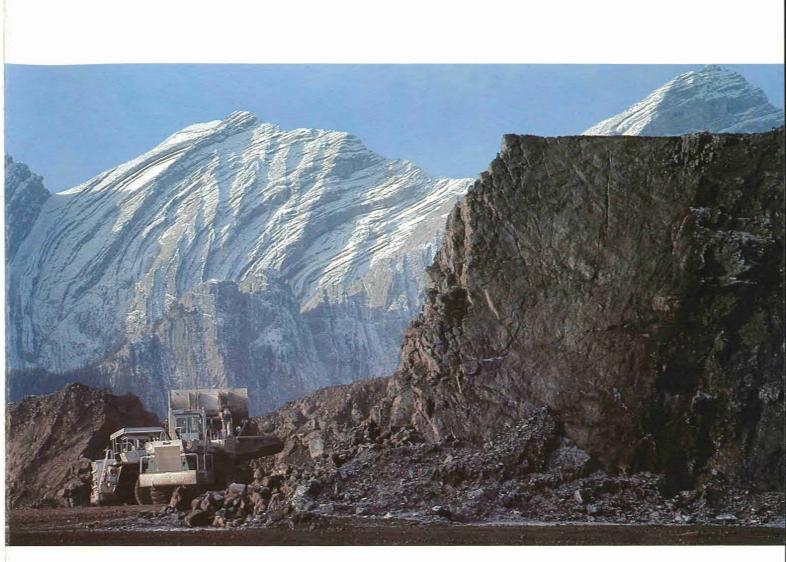
▲▼ Employees and their families live in modern, picturesque communities where year-round recreation opportunities abound and services meet almost every conceivable need.



Crows Nest Resources will be a leader in the coal industry with its environmental programs by demonstrating, through the design, construction and operation of its mines, that coal can be mined and processed in a manner that is in harmony with the environment. The company will not only meet but, insofar as it is desirable and economically feasible, surpass legislated environmental standards in mining operations and will support environmental research projects, preferably in co-operation with governments, the coal industry and the public.

To maintain a competitive position, Crows Nest Resources is committed to supporting national and international technical research into coal mining, processing and utilization. To the fullest extent possible, the company will co-ordinate its research programs with those of governments and other industry members to optimize overall cost effectiveness.

Through commitment to these goals and programs by the company's management and staff, Crows Nest Resources will earn recognition as a 'new kind of coal company'.



MINING A MOUNTAIN OF COAL: THE LINE CREEK PROJECT



Crows Nest Resources

A new kind of coal company

Line Creek is the first operational project of a new kind of coal company, Crows Nest Resources Limited. Through a new approach to its surroundings, its business and its people, Crows Nest Resources is committed to earning the respect of the industry and the communities in which it operates.

The company started production in 1897 as the Crows Nest Pass Coal Company. It was later re-named Crows Nest Industries as it pursued forestry as well as coal interests. In 1978 Shell Canada Resources Limited acquired Crows Nest Industries and established Crows Nest Resources as a wholly-owned subsidiary to manage the exploration, development, production, and marketing of metallurgical and thermal coal reserves held by Shell in western Canada.



▲ A pre-1903 mining crew at Coal Creek Mine poses with borse drawn carts used by the original Crows Nest Pass Coal Company

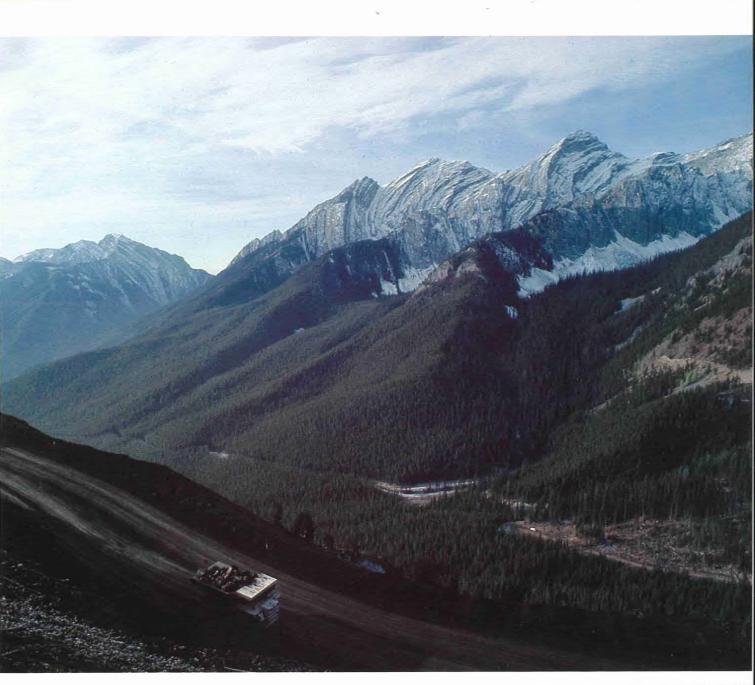
As society becomes less dependent upon conventional oil and gas fuels, Line Creek coal will help meet the growing energy needs around the world. A recent world coal study forecasts that coal production will triple as

it helps meet global energy needs over the next 20 years.

This dramatically increased world demand is for two types of western Canadian coal: thermal (used to fire boilers for generating electricity and other purposes); and metallurgical (transformed into coke and used in the making of steel).

PROJECT **OVERVIEW**

The project, located in southeastern British Columbia, is approximately 25 kilometres (15 miles) north of Sparwood. It includes an open pit mine on Line Creek Ridge, nearby processing plants and coal handling facilities for loading coal trains bound for



▲▶ The open pit mine is located high in the mountains atop Line Creek Ridge where waste rock is removed to expose the coal seams and hauled to the adjacent valley.

port facilities at Roberts Bank near Vancouver.

It is estimated that Line Creek has approximately 200 million tonnes of coal. Reserves lie in seven coal seams, totalling 40 metres in thickness, running through Line Creek Ridge. There are also other major coal deposits nearby.

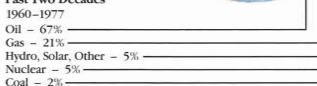
Initial sales contracts were with South Korea for thermal coal and with Japan for metallurgical coal.

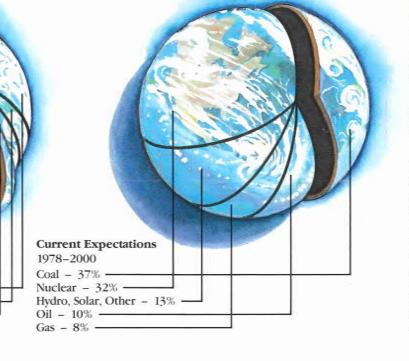
Construction began in May of 1980 following the signing of the first thermal coal contract. Stockpiling of thermal coal began in July 1981, processing was underway in early 1982, and first rail shipment was on February 18, 1982.

Coal's Share in Meeting the Increase in Energy Needs

These two globes depict the role that coal has played in meeting the world's increasing energy needs in the past (left), and the increasingly important role it will play in the future (right).

Past Two Decades



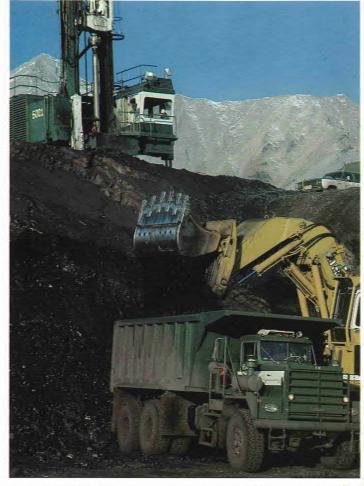




MINING A MOUNTAIN OF COAL: THE LINE CREEK PROJECT

MINING **OPERATIONS**

Line Creek Ridge is truly a mountain of coal



▲ Coal is loaded by bydraulic excavators for transport to the preparation plant.

 This illustration details the multiple bench, open bit mine and shows reclamation of the waste dump progressing concurrently with n operation

> 1. Line Creek Ridge 2. Mine Services Building 3. Multiple Bench Mine Site 4. Coal Seams 5. Canvon Road to Plant 6. Settling Ponds 7. Line Creek 8. Waste Dump Site 9. Reclamation in Progress



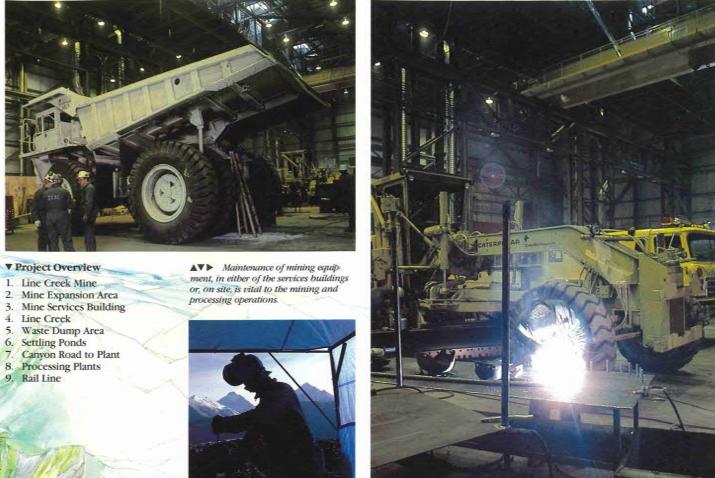
Rising more than 600 metres above the valley floor, it is largely underlain by the Kootenay formation, a major coal bearing sequence of southeastern British Columbia.

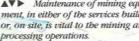
Because of topography and coal seam structure, the operation utilizes a conventional shovel and truck system. This mining method has been well proven in similar western Canadian mines.

The mine is a multiple-bench open pit beginning at 2070 metres above sea level. The waste rock is drilled, blasted and moved to the valley adjacent to Line Creek Ridge. The larger coarse rock tumbles to the valley

floor allowing for continued natural drainage in the valley. The waste dump is designed for long term stability and will be reclaimed progressively during mining operations.

Hydraulic excavators are used to mine and load the coal, minimizing the amount of fines and aiding coal preparation. Waste between the coal seams is removed separately. The coal is hauled some 18 kilometres down Line Creek Canvon by 40 tonne trucks to a breaker station at the plant. The coal then moves by conveyor to the raw coal storage silos and later to the plant for processing as required.







MINE AND PLANT MAINTENANCE

Working out of the most modern shops in the industry. trades and support personnel are organized to give the operation the best in planning and seheduling of preventive maintenance and repair. An automated computer system will assist in co-ordinating maintenance data and scheduling.

Mine and plant service buildings provide employees with a clean and comfortable work environment and have incorporated the latest in energy conserving heat and ventilation systems.

ENVIRONMENTAL PROTECTION



Warehouse and employee change facilities are part of the complex.

At the base of Line Creek Ridge, the mine services building houses 10 bays, each capable of handling trucks up to a 200 ton capacity. From the centralized bulk lubrication system servicing all bays, to the hot water equipment wash bay, the employee work environment has been considered throughout.

An additional services building is adjacent to the plant on the valley floor and has also been designed with similar concern for the work environment.

Intended to complement the plant operations, it houses a large machine shop and fabrication area centralizing technical and trades skills. Warehouse and employee

change facilities are part of this complex, as well.

Maintenance as well as operations employees benefit from trade upgrading and apprenticeship programs aimed at providing the company with skilled workers. Training not only leads to a safer worker but helps in employee development and well being.



Preparation Plant Flow Chart

1. Truck Dump



▲▼ State-of-the-art technology is employed in the plant to maintain air quality which is sampled regularly.



ENVIRONMENTAL PROTECTION

Research has been underway since 1975 to determine the most appropriate revegetation methods for this particular minesite. This research has resulted in the development of site specific programs and will provide a solid base for concurrent



▼ Hydro-seeding of grasses and legumes is a vital first step in reclamation.

▲ Wildlife is monitored to determine foraging and travel babits

The objective of this program is to protect and maintain wildlife habitat. Reclamation programs are implemented in conjunction with mining activities. Re-sloping, followed by grass and legume seeding are the initial steps to re-establishing vegetation.



Planting of both coniferous and deciduous tree species follow once the grasses are established.

A high level of water and air quality are maintained with the utilization of the most up-to-date technology. Settling ponds equipped with treatment stations ensure high water quality.

In conjunction with government agencies, fisheries assessments, big game travel and distribution, and forage evaluations are ongoing studies aimed at providing knowledge with which to maintain a desirable wildlife habitat.

processing capacity of 2.7 million tonnes. Product quality and consistency is assured through the use of an on-site laboratory to monitor coal moisture, ash content and uniformity of blends.

3

PROCESSING

In the coal processing

Crows Nest Resources

has designed a unique

of both thermal and

metallurgical coal

separately but

simultaneously.

The Plant has a

combined annual

two plant operation for the efficient processing

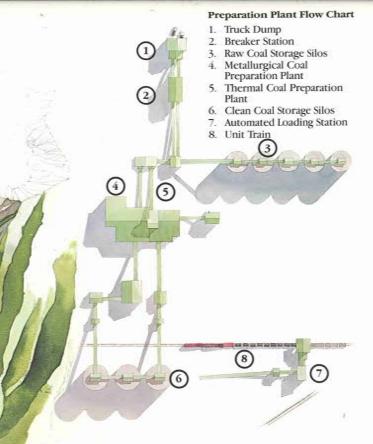
removed from the raw coal.

plant, impurities are

The preparation plants have a closed water system eliminating large tailing ponds. As well, steps to trap dust, treat waste water and properly dispose of waste particles will greatly reduce the levels of air and water emissions that have historically been associated with the coal industry.

Five raw coal storage silos, each holding 5000 tonnes, ensure a steady plant feed of blended coal. The plant can also be fed directly from the breaker station, if required.

Raw coal is sized at the breaker station and sent to the preparation plant where it is cleaned to customers' specifications. The finished product is automatically sampled and then stored in three 13 600 tonne clean



coal silos to await rail shipment. Unit trains consisting of 110 rotary dump cars, each with a capacity of 94 tonnes, are loaded at a rate of 3 000 tonnes per hour. Each car is evenly loaded through computer control and sprayed with a latex cover to minimize dusting enroute to the west coast terminal.

▼ An aerial view shows the processing plant with the load-out silos on the left and raw coal storage silos on the right



▲ Continuous sampling of coal during processing assures customers of bigb quality



LINE CREEK MINE

Project Parameters

Reserves	216 mm tonnes (raw in place)
	71 mm tonnes committed
Production Capacity	1.7 mm tonnes thermal
	1.3 mm tonnes metallurgical
Manpower	555 July 1983
	820 capacity

Contracts

Korea Electric	350,000	tonnes/year
	400,000	tonnes/year
	400,000	tonnes/year
Ssangyong Corporation	350,000	tonnes/year
Japanese Steel Mills	1,000,000	tons/year

For more information please call: Cindy Brunel, Public Affairs Rep. Line Creek Mine - 425-2555

