

DENMARK, THE FAROE ISLANDS, AND GREENLAND

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DENMARK

Denmark is a modern market economy with traditional agriculture and industries and active foreign trade. Real gross domestic product growth rate was 1.8% in 2002. The country was a net exporter of food and energy. The extraction of natural gas and oil from the North Sea was most active in the mineral industry. Denmark lacked metallic mineral resources but had large reserves of industrial minerals.

Danish Steel Works (Dansteel) stopped all melting and rolling operations at Havnevej that produced plate and merchant bar and was on the verge of bankruptcy in June 2002. The mill operated two electric arc furnaces with a meltshop capacity of 850,000 metric tons per year (t/yr) and two continuous casting lines. The plate mill had a capacity of 500,000 t/yr. The production capacity for merchant bar was 240,000 t/yr. Talks to find a buyer made little progress. Three Commonwealth of Independent States-based steelmakers, such as in Russia and Ukraine, had shown interest in acquiring the plate mill as a stand-alone operation. AT Holdings, which was a Danish investment company, was a likely bidder. Around 1,100 workers were employed directly by the plant, and thousands more, in supporting industries. Its subsidiary Danstål Armering, which was the largest reinforcement fabricator in Scandinavia, was likely to survive the difficulties and continued to operate normally. Dan Spray, which was a spray-formed tool steelmaker at Taastrup, did not declare bankrupt (Metal Bulletin, 2002a).

In a later development, AT Holdings signed a preliminary agreement with Dansteel's receiver to carry out due diligence on the company prior to taking control in October. Resumption of production was expected in November. The works was expected to begin operating at 50% of its previous capacities because of Denmark's relatively high electricity costs. The products would continue to be distributed in Europe, mainly in the Scandinavian market and the United Kingdom. AT Holdings did not acquire Dan Spray (Metal Bulletin, 2002d).

AT Holdings adopted a new name Dalum Holdings in October because of the incorporation of Dansteel with its other business interests. The new owner of Dansteel was Jysk Staalindustri ApS (a Danish financial holding company), which would not restart melting operations but imported billet and slab from NLMK of Russia to feed its rolling mills. Ramping up production to full capacities was planned by April 2003 (Metal Bulletin, 2002b).

Denmark's 20-year ban on the use of aluminum and steel drink cans came to an end in January when importers and domestic producers were allowed to use aluminum and steel cans for beer

and soft drinks. A number of new regulations had been put in place to ensure the highest possible recycling rate. Aluminum's greater scrap value made recycling aluminum cans more viable than steel cans. Denmark did not have any can recycling plant in 2002, and the used aluminum cans in the country had to be exported to Germany or Sweden (Metal Bulletin, 2002c).

Denmark was the third largest oil producer in Western Europe after Norway and the United Kingdom. In 2002, oil output for the Danish part of the North Sea rose by 13% compared to a forecast made in December 2001 (Alexander's Gas & Oil Connections, 2002a§¹).

Statoil of Norway sold its assets in the Danish North Sea to DONG, which was the Danish state oil company, for \$120 million in July. The sale included a 40% interest in the Siri field, a 45.7% interest in the Stine field, and an 18.8% interest in the Lulita field. Statoil's share of the average production for 2002 was 7,000 barrels per day from the fields being sold (Hugin Online, 2002§).

Meanwhile, two DONG-operated fields, Cecille and Nini, were due to start flowing to the Siri platform in the summer of 2003. DONG signed a contract with Saipem of the United Kingdom and Bladt Industries of Denmark for the construction and installation of the platforms and the establishment of the pipeline connections between the two fields and the Siri platform. Development costs were expected to be \$329 million. The total recoverable oil reserves in the two fields were estimated to be 65 million barrels of crude oil (Alexander's Gas & Oil Connections, 2002b§).

Statoil's new \$45.7 million diesel oil unit at its Kalundborg refinery near Copenhagen was 3 months ahead of schedule. With the new unit, diesel sulfur content was cut by 80% from 0.005% to 0.001%. Production was 1 million metric tons per year of almost sulfur-free diesel to be sold to the German market (Oil & Gas Journal, 2002).

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¹References that include a section mark (§) are found in the Internet References Cited sections.

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FAROE ISLANDS

The Faroese economy depended heavily on fishing industry. The Faroe Islands have no significant mineral resources, and offshore oil and natural gas exploration was currently (2002) the only activity. Oil discoveries offshore might lay the basis for a diversified economy in the future.

BG Group of the United Kingdom withdrew from a partnership led by Amerada Hess exploring off the Faroe Islands in 2001. The group later discovered the first Faroese oil and gas. The oil find could make the islands less dependent on their fishing industry (Alexander's Gas & Oil Connections, 2002§).

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GREENLAND

Greenland's economy relied on fishing and exports of fish and support from the Danish Government. Since 1999, more money had been spent every year in exploration for mineral resources and hydrocarbon. Mineral exploration was focused on base metals, diamond, gold, industrial minerals, iron, nickel, and platinum-group metals.

Through the Geological Survey of Denmark and Greenland (GEUS), about \$4.8 million was spent annually on geologic mapping. A hyperspectral geophysical survey was among the planned activities for 2002. Applications covering a total of more than 5,000 square kilometers (km²) of ground in six license areas had been made (Mining Journal, 2002a).

Extensive geologic investigations of a gold deposit discovered in a valley that is located 40 kilometers (km) from Nanortalik in South Greenland, a bankable feasibility study, and an environmental impact assessment were completed by an unnamed mining company in 2002. The mine was expected to start in 2003. An environmental baseline study was performed on natural resource use in the Nanortalik area by fishing, hunting, sheep farming, and tourism. Conflicts of interest could arise in the vicinity of the mine site and in surrounding areas (Danish Environment Newsletter, 2002§).

Crew Development Corp. of Canada announced an independent resource estimate for the Nalunaq gold project in southern Greenland based on the results of surface and underground fieldwork to the end of 2001. Measured and indicated resources over a 1.5-meter mining width were 596,000 metric tons (t) at 20.6 grams per metric ton (g/t) gold and inferred resources were 378,000 t at 15.7 g/t gold. A

feasibility study was to be completed in the second quarter of 2002 with an environmental impact assessment to be finalized thereafter. Mining was based on a long-hole method, and the most appropriate process for gold extraction was by gravity separation and leaching (Business Wire, 2002§).

Crew's development plan for its 82% owned Nalunaq project called for shipping ore to other gold-processing plants in the first 2 to 4 years. Capital costs were estimated to be \$9.7 million for the early stage of development. An operation of mining 350 metric tons per day of ore and producing 2,800 kilograms per year of gold was recommended. The project had about 40,000 t of ore stockpiled containing 620 kilograms of gold. A further 10,000 to 15,000 t of development ore was expected to be extracted. A mining permit was pending. Mine construction was expected to start in the first half of 2003. Crew's \$8 million credit facility with Standard Bank London was approved for the project (Mining Journal, 2002b).

Crew signed a memorandum of understanding with Richmond Mines Inc. of Canada for the treatment of high-grade ore shipped from Nalunaq at Richmond's Nugget Pond Mill facility in Newfoundland. Ore would be processed in batches of 10,000 dry metric tons minimum at a fixed unit cost per dry metric ton. After the processing of the stockpile, Crew would have the option to use excess capacity at the Nugget Pond Mill between 2004 and 2007 (Crew Development Corp., 2002).

The Government reduced the corporate tax to 30% from 35% and launched a licensing round in oil exploration off western Greenland in April. BG Group of the United Kingdom might participate in exploring oil on the waters off Greenland's western coast. A group led by Statoil and another group led by Phillips Petroleum Co. relinquished licenses in the Fylla and the Sisimiut-West blocks, which are located 150 km west of Nuuk, off western Greenland, at the end of 2001, and the Government released their data acquired during exploration (Oil & Gas Journal, 2002). Statoil did not intend to bid for a new license and neither did Phillips Petroleum. The GEUS estimated that Greenland could contain around 500 million barrels of oil.

EnCana of Canada would be the first to drill an area of 3,985 km² offshore western Greenland with Nunaoil, which was Greenland's national oil company owned by the Government and DONG, under a 10-year license. The area is located 200 km northwest of Nuuk. EnCana was the sole bidder for a Greenland offshore oil license in 2002. The Greenland waters could hold oil reserves equivalent to those in the North Sea, according to the seismic data company TGS Nopex (Alexander's Gas & Oil Connections, 2002§).

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TABLE 1
 DENMARK: ESTIMATED PRODUCTION OF MINERAL COMMODITIES^{1,2}

(Metric tons unless otherwise specified)

Commodity	1998	1999	2000	2001	2002	
Aluminum metal, secondary	14,000	14,000	16,000	18,000 ^r	18,000	
Cement, hydraulic	2,077,000 ³	1,926,000 ³	2,009,000 ³	2,010,000	2,010,000	
Chalk	425,000	400,000	400,000	1,859,000 ^{r,3}	1,900,000	
Clays:						
Fire clay	20	20	25	25	25	
Kaolin	2,500	2,500	2,500	2,500 ^r	2,500	
Other	6,000	6,000	6,500	6,500	6,000	
Moler, extracted	thousand cubic meters	185	185	234 ^r	231 ^r	230
Gas:						
Manufactured	million cubic meters	1,500	1,500	1,500	1,500	1,500
Natural:						
Gross	do.	9,600	9,600	9,700	8,200 ^r	8,100
Marketable	do.	7,000	7,000	7,100	7,330 ^r	7,300
Iron and steel metal, steel:						
Crude	thousand metric tons	790 ³	748 ³	803 ^{r,3}	746 ^{r,3}	392 ³
Semimanufactures	do.	706 ³	600	549 ^{r,3}	625 ^{r,3}	600
Lime, hydrated and quicklime	116,000	115,000	115,000	115,000 ^r	115,000	
Natural gas plant liquids	thousand 42-gallon barrels	45,000	45,000	46,000	47,000 ^r	48,000
Nitrogen, N content of ammonia	1,600	1,600	1,600	1,600	1,600	
Peat	205,000	200,000	247,000 ^r	287,000 ^r	290,000	
Petroleum:						
Crude	thousand 42-gallon barrels	84,000	84,000	87,860 ³	88,130 ³	88,000
Refinery products:						
Liquefied petroleum gas	do.	1,600	1,600	1,700	1,700	1,700
Gasoline	do.	30,000	30,000	30,000	30,000	30,000
Naphtha	do.	1,200	1,200	1,300	1,300	1,300
Jet fuel	do.	1,800	1,800	2,000	2,000	2,000
Kerosene	do.	100	100	100	100	100
Distillate fuel oil	do.	28,000	28,000	28,200	28,500	28,800
Refinery gas	do.	1,600	1,600	1,700	1,700	1,700
Lubricants	do.	300	300	300	300	300
Residual fuel oil	do.	13,500	13,000	13,000	13,000	13,000
Petroleum coke	do.	60	60	60	60	60
Total	do.	78,200	77,700	78,400	78,700	79,000
Phosphates, crude, gross weight	1,200	1,200	1,300	1,300	1,300	
Salt, all forms	600,000	600,000	605,000	600,000 ^r	600,000	
Sand and gravel:						
Onshore	thousand cubic meters	18,000	18,000	28,066 ^{r,3}	26,684 ^{r,3}	27,000
Offshore	do.	5,000	5,000	715 ^{r,3}	700 ^r	700
Total	do.	23,000	23,000	28,781 ^{r,3}	27,384 ^{r,3}	27,700
Of which, sand, industrial (sales)	do.	50	50	479 ^{r,3}	488 ^{r,3}	490
Stone:						
Dimension (mostly granite)	26,000	26,000	27,000	27,000	25,000	
Limestone:						
Agricultural	700,000	700,000	700,000	700,000	700,000	
Industrial	250,000	250,000	250,000	250,000	250,000	
Sulfur, byproduct	10,000	10,000	10,500	10,500 ^r	11,000	

^rRevised.

¹Table includes data available through July 1, 2003. Estimated data based on sales of domestically produced mineral commodities.

²Estimated data are rounded to no more than three significant digits; may not add to totals shown.

³Reported figure.