THE MINERAL INDUSTRY OF

CROATIA

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Petroleum production and refining were the dominant components of Croatia's minerals industry. Although the country produced small quantities of ferrous and nonferrous metals, the output was insufficient for domestic requirements. The output of industrial minerals for chemical and construction industries, however, was sufficient for most of the country's domestic requirements.

The downturn of world markets that stemmed from the Asian and Russian financial crises of 1998 and the Kosovo situation in the neighboring republic of Serbia and Montenegro contributed to Croatia's economic stagnation in 1999. The gross domestic product, as measured in U.S. dollars, declined by 10% compared with that of 1998. Also, industrial production during the same period declined by 1.4% (Central Bureau of Statistics, 2000, p. 4). The total value of output of the mining and quarrying sector of industry registered a 1.9% increase compared with that of 1998; the output of petroleum and natural gas, however, declined by about 1%, and that of coal and peat declined further into insignificance (table 1). In particular, the production of petroleum declined by 7%.

Industrija Nafte d.d. Zagreb (INA), which was Croatia's stateowned oil company, operated domestic oilfields and gasfields southeast of Zagreb near the Hungarian border and along the Adriatic coast. The country's primary source of petroleum came from imports via the Adria pipeline that runs from Omisali on the Adriatic coast toward Sisak (refinery) to the east and then northward towards Hungary. The latest available data for Croatia's net imports of petroleum (1998) indicated a net import that amounted to more than 3.4 million metric tons (Mt). Natural gas, which increasingly was expected to meet Croatia's future energy needs, also was imported via the pipeline that extends from the Slovenian border. During the year, discussions were reported between INA and German and Hungarian oil and gas companies about the construction of a new gas supply network in the Baranja region of eastern Croatia (U.S. Energy Information Administration, 1999).

Croatia no longer mined metal ores, and metal production was based largely on domestic and foreign secondary raw materials. The output of such metals as steel and aluminum fell by 26%

and 16%, respectively; ferrochromium was not produced in 1999. Croatia operated steel mills at Split on the Adriatic coast (Jadranska Zelejzara Split) and at Sisak (SP MK Zeljezare Sisak d.d.). The future operational status of Zaljezara Sisak, which was the country's steel pipemaker with capacities to produce 170,000 metric tons per year (t/vr) of welded pipe and 85,000 t/yr of seamless pipes, was among the chief concerns of the steel industry during the year. In August, the European Commission (EC) imposed a 6-month long 31.2% duty on imports of Croatian seamless steel pipes in response to the country's alleged dumping of steel pipes in European Union (EU) markets. The duty remained in place despite Croatia's appeals to the EC. Because most of Croatia's steel was exported to the EU, the imposed duty resulted in on-again/off-again interruptions of production at Sisak. At yearend, a decision was reached to cease most operations at the plant until the duty's rescission. Zaljezara Sisak spokespersons indicated that should the EU continue to impose the duty after the 6-month period, a difficult process of finding new markets would have be undertaken (Metal Bulletin, 1999a, b).

The aggregated volume of mine output of industrial minerals registered an increase of about 6% in 1999 compared with that of 1998 (Crostat, 2000). Mined bentonite, ceramic clays, gypsum, and pumice showed substantial increases of 11%, 19%, 32%, and 45%, respectively. In 1999, the production of cement, which amounted to more than 2.7 Mt, also rose by 18% compared with that of 1998.

References Cited

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Metal Bulletin, 1999a, Croatian tubemaker blames closure on EU duties: Metal Bulletin, no. 8435, December 20, p. 22.

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TABLE 1 CROATIA: PRODUCTION OF MINERAL COMMODITIES 1/2/

(Metric tons unless otherwise specified)

Commodity 3/		1995	1996	1997	1998	1999
METALS						
Aluminum:						
Bauxite e/		1,500				
Metal, ingot, primary and secondary		30,944	32,959	17,800	18,283 r/	15,304
Iron and steel, metal:						
Ferrochromium		26,081	10,559	24,231	14,864 r/	
Steel, crude, from electric furnaces		45,373	45,752	68,733	104,854 r/	77,243
Silver	kilograms	75				
INDUSTRIAL MI	NERALS					
Cement	thousand tons	1,708	1,842	2,134	2,294 r/	2,712
Clays:						
Bentonite		7,327	9,728	7,331	7,581	8,441
Ceramic clay e/		10,000	10,000	10,000	5,022 r/4/	6,000 4/
Fire clay, crude e/		2,475 4/	5,000	5,000	5,000	5,000
Gypsum:						
Crude			86,060	102,470	104,660 r/	137,991
Calcined				1,260	1,259 r/	1,236
Lime	thousand tons	81	192	208	216 r/	198
Nitrogen, N content of ammonia	do.	310	307	331	248 r/	318
Pumice and related materials, volcanic tuff	do.	39	64	63	38 r/	55
Quartz, quartzite, glass sand		31,765	43,508	97,563	287 r/	212
Salt, all sources		21,784	18,820	16,620	31,062 r/	18,471
Sand and gravel, excluding glass sand	thousand cubic meters	1,925	1,401	3,853	4,316 r/	3,644
Stone, excluding quartz and quartzite, dimer	nsion stone, crude:					
Ornamental	square meters	1,108,655	1,029,437	1,130,728	1,133,405 r/	1,155,281
Crushed and brown, n.e.s.	thousand cubic meters	5,492	9,099	10,520	11,459 r/	11,871
Other e/	cubic meters	20,000	20,000	20,000	20,000	20,000
Sulfur, byproduct of petroleum e/		15,000	15,000	15,000	15,000	15,000
MINERAL FUELS AND RELA	TED MATERIALS					
Carbon black		27,187	26,735	24,214	22,165 r/	17,589
Coal, bituminous	thousand tons	75	64	49	51 r/	50
Natural gas, gross production	million cubic meters	1,966	1,786	1,717	1,570 r/	1,567
Petroleum, crude:						
As reported	thousand tons	1,500	1,469	1,496	1,389 r/	1,293
Converted e/	thousand 42-gallon barrels	12,000	11,000	11,000 r/	10,400 r/	9,600
Refinery products		5,000,000 e/	4,731,974	5,056,289	5,053,000 r/	5,438,000

e/ Estimated. r/ Revised. -- Zero.

 $^{1/\,} Table$ includes data available through July 2000.

^{2/} Estimated data are rounded to no more than three significant digits.
3/ In addition to commodities listed, common clay also was produced, but available information was inadequate to make reliable estimates of output levels.

^{4/} Reported figure.

${\bf TABLE~2}$ CROATIA: STRUCTURE OF THE MINERALS INDUSTRY IN 1999

(Thousand metric tons unless otherwise specified)

				Annual
	Commodity	Major operating companies	Location of main facilities	capacity
Alumina		Jadral, Jadranski Aluminijum	Jadral Alumina Plant	150
Aluminum		Boris Kidric Tvornica Lakih Metala	Smelter at Sibenik	75
Do.		Top-Tvornica Olovni i Aluminjskikh	Semimanufactures producer at Savska	NA
Bauxite		Jadral, Jadranski Aluminijum	Mines in at Obrovac, Drnis, and other locations	450
Coal, bitumi	nous	Istarski Ugljenokopi Rasa	Mines at Labin and Potpican	500
Cement		Dalmacija Cement	Sv. Jurai plant at Kastel Sucurac	1,300
Do.		do.	Sv. Kajo plant at Solin	750
Do.		do.	Majdan plant at Solin Majdan	780
Do.		Istra Cement International D.D.	Plant at Pula	70
Do.		Tvornica Cementa Koromacno	Plant at Koromacno	420
Do.		Tvornica Cementa Umag D.D.	Cement plant at Umag	480
Do.		Nasicecement D.D.	Nacise plant at Tajnovac	840
Natural gas	million cubic feet	do.	Main natural gasfields at Bogsic Lug, and Molve	70,000
Petroleum:			Oilfields in Croatia and Slovenia:	
Crude 1	housand barrels per day	Industrija Nafted.d. Zagreb (INA)	Benicanci, Zutica, Struzec, Ivanic, Grad, Lendava,	70
			and other locations	
Do.	do.	do.	Refineries at Urinj and Rijeka	160
Do.	do.	do.	Refinery at Sisak	150
Pig iron		Metalurski Kombinat Zeljezara Sisak	2 blast furnaces at Sisak	235
Salt	cubic meters	Solana Pag, Solana Ante Festin	Marine salt: Pag Island	13
Steel, crude		SP MK Zeljezare Sisak d.d.	Plant at Sisak	401
Do.		Jadranska Zelejzara Split	Plant at Split	120
NA Not ava	ilabla			

NA Not available.