#### THE MINERAL INDUSTRY OF

# **A**USTRIA

### By Harold R. Newman

Although the mining industry has maintained a long tradition in Austria, metal mining sector activity has declined during the past few years. All the metal mines, except for the iron ore operation at Erzberg and the tungsten operation at Mittersill, were closed. Most of the growth in the mineral resources area was in the private sector production of industrial minerals. This sector produced a number of important minerals, which included graphite and talc. Austria was one of the world's largest sources of high-grade graphite. The open pit Oberdorf Mine of Graz-Koflacher Eisenbahn und Bergbaugesellschaft GmbH was the only lignite mine with any significant production (table 1).

Partial privatization of State-owned industries was underway; a portion of the mineral industry, however, was still under Government control (table 2).

Dependent on foreign trade, Austria has had an open economy closely linked to the economies of other European Union member states, particularly Germany. In terms of trade of goods and services, the United States was Austria's third largest trade

partner, after Germany and Italy. The trade balance between Austria and the United States is listed in table 3.

Because of Austria's long history of minerals exploration and a strong mining tradition, geologic conditions are fairly well known. Future mining activities will most likely be concentrated in industrial minerals mainly for domestic consumption. The chances of finding new and workable basemetal deposits are probably small.

For more-extensive coverage of the mineral industry of Austria, see the 2001 Minerals Yearbook, volume III, Mineral Industries of Europe and Central Eurasia.

### **Major Source of Information**

Bundesministerium für Wirtschaft und Arbeit Denisgasse 31 1200 Vienna, Austria

TABLE 1
AUSTRIA: PRODUCTION OF MINERAL COMMODITIES<sup>1</sup>

(Thousand metric tons unless otherwise specified)

Commodity		1998	1999	2000	2001	2002 <sup>e</sup>
METALS						
Aluminum, metal, secondary	tons	116,500	143,000	158,100	150,000 e	150,000 e
Copper, refined:						
Primary	do.	1,000	5,000	1,000	1,000 e	1,000
Secondary	do.	71,000	77,573	78,000	68,000 <sup>e</sup>	64,000 <sup>e</sup>
Total	do.	72,000	82,573	79,000	70,000 <sup>e</sup>	70,000 <sup>e</sup>
Gold, metal <sup>e</sup>	kilograms	100	100	100	50	50
Iron and steel:						
Iron ore and concentrate:						
Gross weight		1,797	1,752	1,859	1,843	1,900
Fe content		500 <sup>e</sup>	553	586	581	600
Metal:						
Pig iron		4,022	3,913	4,318	4,375	4,669 <sup>2</sup>
Ferroalloys, electric arc furnace <sup>e</sup>		12	12	12	9	10
Crude steel		5,298	5,213	5,725	5,887	6,208 <sup>2</sup>
Semimanufactures		4,640	4,657	5,035	5,251	5,300
Lead, refined, secondary <sup>e</sup>	tons	$23,100^{-2}$	24,500	24,000	22,000	20,000
Manganese, Mn content of domestic iron ore <sup>e</sup>	do.	24,000	20,000	20,000	18,000	16,000
Tungsten, mine output, W content of concentrate	do.	1,423	1,610	1,600 e	1,237 <sup>r</sup>	1,400
INDUSTRIAL MINERALS						
Cement, hydraulic		3,789	3,817	3,799	3,863	3,800
Clays:						
Illite		186	190 <sup>e</sup>	305	300 e	300
Kaolin:						
Crude		298	152	119	90 <sup>e</sup>	100
Marketable <sup>e</sup>		100 <sup>2</sup>	50	50	40	45
Other <sup>e</sup>		2,800	2,600	2,600	2,600	2,600

See footnotes at end of table.

## $\label{eq:table lagrangian} TABLE \ 1\text{--}Continued$ AUSTRIA: PRODUCTION OF MINERAL COMMODITIES $^1$

(Thousand metric tons unless otherwise specified)

Commodity	1998	1999	2000	2001	2002 <sup>e</sup>
INDUSTRIAL MINERALSContinued					
Graphite, crude tons	10,738	2,635	669	116	120
Gypsum and anhydrite, crude	961	999	946	929	900
Lime <sup>e</sup>	2,000	2,000	2,000	2,000	2,000
Magnesite:					
Crude	723	749	726	681	700
Sintered or dead-burned	325	325	270	202	200
Caustic calcined <sup>e</sup>	60	60	60	60	60
Nitrogen, N content of ammonia <sup>e</sup> tons	400	450	450	440	400
Pigments, mineral, micaceous iron oxide <sup>e</sup> do.	7,000	6,000	6,000	5,000	5,000
Pumice (trass) do.	6,137	4,272	3,961	4,000 e	4,000
Salt: <sup>e</sup>	-,	-,-,-	-,	-,	.,
Rock	1	1	1	1	1
In brine thousand cubic meters	2,700 e	2,692	3,130	2,986	3,000
Sand and gravel:	2,700	2,072	5,150	2,700	3,000
Quartz sand	6,329	6,857	6,985	7,000 <sup>e</sup>	7,000
Other sand and gravel <sup>e</sup>	18,000	18,000	18,000	18,000	18,000
Total	24,329	24,857	24,985	25,000 e	25,000
	24,329	24,837	24,983	23,000	23,000
Sodium compounds, n.e.s., manufactured: <sup>e</sup>	150	150	150	150	150
Soda ash	150	150	150	150	150
Sulfate	100	100	100	100	100
Stone: <sup>3</sup>					
Dolomite	8,978	7,968	7,152	6,172	6,200
Quartz and quartzite	398	409	372	402	400
Other:					
Limestone and marble	20,000 e	26,409	23,824	23,799	24,000
Basalt	5,075	5,201	4,933	5,000 e	5,000
Marl	1,364	1,423	1,559	1,569	1,600
Crushed stone <sup>e</sup>	12,000	12,000	12,000	12,000	12,000
Total	38,439	45,033	42,316	42,368	42,600
Grand total	47,815	53,410	49,840	48,942	49,200
Sulfur, byproduct of petroleum and natural gas tons	9,000 e	9,468	9,646	9,500 e	9,500
Talc and soapstone, crude do.	137,114	1,129,516	133,060	140,000 e	1,400
MINERAL FUELS AND RELATED MATERIALS					
Coal, brown and lignite	1,191	1,137	1,255	1,194	1,200
Coke	1,500	1,400	1,400	1,411 <sup>r</sup>	1,400
Natural gas:					
Gross million cubic meters	1,568	1,791	1,805	1,954	2,000
Marketed <sup>e</sup> do.	1,000	1,000	1,200	1,200	1,200
Oil shale tons	500	496	440	408	400
Petroleum:					
Crude thousand 42-gallon barrels	7,624	6,879	7,024	7,178	7,000
Refinery products:					
Liquefied petroleum gas do.	325	241	186	200 e	200
Gasoline do.	19,540	18,196	15,413	16,000 <sup>e</sup>	16,000
Kerosene and jet fuel do.	3,960	4,256	4,360	4,500 e	4,500
Distillate fuel oil do.	29,019	27,387	25,897	26,000 e	26,000
Residual fuel oil do.	9,710	8,521	6,325	6,000 e	6,000
Unspecified do.	8,393	8,673	14,748	15,000 °	15,000
Refinery fuel and losses do.	4,781	5,497	5,149	5,000 e	5,000
				72,700 °	
Total do.	75,728	72,771	72,078	/2,/00 -	72,700

<sup>&</sup>lt;sup>e</sup>Estimated; estimated data are rounded to no more than three significant digits; may not add to totals shown. <sup>r</sup>Revised.

<sup>&</sup>lt;sup>1</sup>Table includes data available through June 2003.

 $<sup>^2</sup>$ Reported figure.

<sup>&</sup>lt;sup>3</sup>Excludes stone used by the cement and iron and steel industries.

### $\label{eq:table 2} \text{AUSTRIA: STRUCTURE OF THE MINERAL INDUSTRY IN 2002}$

(Thousand metric tons unless otherwise specified)

Commodity	Mailer	I	Annual
Alumina, fused	Major operating companies and major equity owners  Treibacher Schleifmittel AG	Location of main facilities  Plant at Villach	capacity
			100
Aluminum	Aluminum Lend GmbH (Salzburger Aluminium AG, 100%)	Secondary ingot plant at Lend	25
Do.	Austria Sekundär Aluminium GmbH (Amag Austria Metall, 100%)	Secondary ingot plant at Ranshofen	50
Cement	Lafarge Perlmooser AG (Lafarge France, 100%)	Plants at Mannesdorf and Retsnei,	
		Grinding plant at Kirchbichl	2,200
Do.	Wietersdorfer Zemenwerke	Plants at Peggau and Wietersdorf	1,000
Do.	Zementwerk Leube	Plant at Gartenau	700
Do.	SPZ Zemenwerke Eiberg	Plant at Eiberg	600
Do.	Gmundner Zement	Plant at Gmundner	580
Do.	Graz-Koflacher Eisenbahn und Bergbaugesellschaft GmbH	Oberdorf Mine	1,200
	(Government, 100%)		
Copper	Austria Metall AG (Metal Mining Corp. of Canada,	Refinery at Brixlegg	75
	41%; Mount Isa Mines of Australia, 41%; and		
	Government, 18%)		
Ferroalloys (FeV, FeMo, FeNi)	Treibacher Alloymet AG (Treibacher Industries AG,	Plant at Treibach	10
	100%)		
Graphite	Industrie und Bergbaugesellschaft Pryssok & Co KG	Trandorf Mine at Mühldorf	15
Do.	Grafitbergbau Kaiserberg AG	Kaisersberg Mine	3
Do.	do.	Trieben Mine	3
Gypsum	Erste Salzburger Gipswerk-Gesellschaft Christian Moldan	Abtenau and Moosegg Mines	300
	KG		
Do.	Rigips Austria GmbH	Grundlsee, Puchberg, Unterkainisch, and	250
		Weisenbach Mines	
Do.	Knau Gesellschaft GmbH	Hinterstein Mine	160
Iron ore	Voest-Alpine Stahl GmbH (Government, 100%)	Erzberg Mine at Eisenerz	1,000
Lead	Bleiberg Bergwerks-Union AG (Metall Gesellschaft, 74%)	Smelter at Brixlegg	55
Magnesite	Veitsch-Radex AG	Mines at Breitenau, Hochfilzen, and Radentheir	600
Do.	Radex Austria AG (Osterreichische Magnesit AG, 100%)	Millstatteralpe Mine	250
Natural gas million cubic meters	Osterreichische Mineralolverwaltung AG (Government, 100%)	Fields in Vienna Basin	1,500
Nitrogen, N content of ammonia	Agrolinz AG	Plant at Linz	498
Salt	Österreichische Salinen GmbH (Government, 100%)	Mines at Bad Ischl	800
Steel	Voest-Alpine Stahl GmbH (Government, 100%)	Plants at Donawitz and Linz	4,500
Talc	Luzenac Naintsch AG	Mines at Lassing, Rabenwald, and Weisskircher	160
		plants at Oberfeistitz and Weisskirchen	
Tungsten	Wolfram Bergbau und Hütten GmbH (Inmet Mining Corp., 100%)	Mittersill Mine, Felbertal, Salzburg; conversion plant, Bergla	350

 $\label{eq:table 3} \text{UNITED STATES EXPORT AND IMPORT TRADE WITH AUSTRIA}$ 

#### (Million dollars)

	200	2000		2001		2002	
Month	Exports	Imports	Exports	Imports	Exports	Imports	
January	178	250	196	308	170	224	
February	224	243	204	302	202	304	
March	230	270	227	348	439	311	
April	219	267	263	300	220	334	
May	275	288	216	342	236	295	
June	190	256	265	360	174	329	
July	139	273	137	357	93	372	
August	210	274	225	323	135	333	
September	243	240	194	281	191	343	
October	205	306	226	347	169	337	
November	287	292	221	374	212	296	
December	192	267	231	326	188	337	
Total	2,592	3,226	2,605	3,968	2,429	3,815	

Source: U.S. Census Bureau, Foreign Trade Division, April 2003.