



2013 Minerals Yearbook

AUSTRIA

THE MINERAL INDUSTRY OF AUSTRIA

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Austria is a highly developed industrialized country in Central Europe that borders the Czech Republic, Germany, Hungary, Italy, Liechtenstein, Slovakia, Slovenia, and Switzerland. Out of approximately 4,500 mining sites in the country, only a few large-scale mines were in operation in 2013. The Erzberg open pit iron ore mine at Eisenerz in the State of Styria and the underground tungsten mine at Mittersill in the State of Salzburg continued to be the two main metal mines in operation in Austria. In June, a new open pit magnesite mine was reopened in Hohentauern by Styromagnesit Steirische Magnesitindustrie GmbH after being closed for 20 years. In October, the Wolfsberg lithium mine was reopened after 25 years and the first ore was extracted by its majority owner Global Strategic Metals of Australia for sampling. Assaying work was carried out at the Rotgulden Mine in southwestern Austria by Noricum Gold Ltd. of the United Kingdom for high-grade gold, silver, and copper, and the previously closed mine was expected to be reopened in the near future owing to the positive prospective results obtained (Geologische Bundesanstalt, 2013c; Embassy of Austria, 2014; Kolroser and others, 2014, p. 17; Global Strategic Metals NL, undated; Noricum Gold Ltd., undated a, b).

Austria continued to play an important role in mineral markets on a world scale for graphite, magnesite, talc, and tungsten, despite being a relatively small mining country. Excluding production (if any) in the United States¹ in 2013, Austria was the fourth-ranked producer of magnesite in the world and the fifth-ranked producer of tungsten and accounted for 4.2% and about 1.1%, respectively, of world production (table 1; Geologische Bundesanstalt, 2013b; Bray, 2014; Shedd, 2014).

Industrial minerals production continued to be an important component of Austria's mineral industry, with the importance of construction minerals increasing significantly in recent decades. The country produced dolomite, graphite, gypsum, kaolin, lime, limestone, magnesite, salt, silica (quartz) sand, and talc. Salt mines still provided an important portion of domestic supply. Both natural gas and crude petroleum were produced in Austria, but domestic output met only a small portion of national demand for mineral fuels. Coal extraction ended in 2006, and nuclear energy was banned in the country in 1978. Austria had a significant mineral (including metals) processing sector, as well as a significant capacity to recover metals from secondary sources (tables 1, 2; Euracoal, 2013, p. 61; Geologische Bundesanstalt, 2013a, d; Rajal, 2014, p. 43).

Minerals in the National Economy

In 2013, Austria's gross domestic product (GDP) increased by 0.4%, which was a deceleration from a 0.7% rate of growth in 2012. The slowdown was owing mainly to external factors,

particularly to stagnation in the Eurozone and the associated decrease in exports to the country's European Union (EU) trading partners. The nominal GDP in 2013 was \$428.3 billion, up from \$407.6 billion in 2012 (International Monetary Fund, 2014, p. 4; Österreichische Nationalbank, 2014, p. 4; World Bank, The, 2014).

According to preliminary data for 2013, the approximate value of the country's marketed mineral industry production was \$32.2 billion (EUR25.2 billion²), which was about 7.5% of the country's GDP. This constituted a decrease of 6.3% from a revised value of \$33.2 billion (8.1% of the GDP) in 2012. Of the total in 2013, the value of marketed production by the natural gas and petroleum sector (including production of petroleum refinery products) was \$14 billion compared with about \$15.5 billion in 2012; the ferrous metals sector (including the manufacturing of iron and steel and possibly including the production of ferroalloys), about \$8.9 billion compared with about \$9.2 billion in 2012; the nonferrous metals sector, about \$4.6 billion compared with about \$5.0 billion in 2012; the building materials, ceramics, and stone sector, about \$4 billion compared with \$4.1 billion in 2012; and the mining and quarrying sector, about \$0.65 billion compared with \$0.6 billion in 2012. According to an index of the real value of production with a base year of 2010, the real value of production by the natural gas and petroleum sector decreased by 10.2% in 2013 compared with that of 2012; that of the ferrous metals sector, by 6.9%; and the mining and quarrying sector, by 3.7%. On the other hand, the real value of production by the nonferrous metals sector increased by 0.9%, and that of the building materials, ceramics, and stone sector, by 0.2% in 2013 (Österreichisches Institut für Wirtschaftsforschung, 2014a, c; Wirtschaftskammer Österreich, 2014, p. 50).

In 2013, employment in the mineral industry increased slightly. There were 41,614 employees in the entire industry, including mining support services, and they accounted for about 1.2% of the total number of employees in the country compared with 41,313 and about 1.2%, respectively, in 2012. During 2013, average employment in the ferrous metals sector was 14,512 workers compared with 14,178 workers in 2012; in the building materials, ceramics, and stone sector, 13,316 compared with 13,471 in 2012; the nonferrous metals sector, 5,997 compared with 5,944 in 2012; the natural gas and petroleum sector, 2,177 compared with 2,262 in 2012; and the mining and quarrying sector, 1,745 compared with 1,754 in 2012 (Wirtschaftskammer Österreich, 2013, p. 35, 47, 51; 2014, p. 33–36, 47, 51; Österreichisches Institut für Wirtschaftsforschung, 2014b).

²Where necessary, values have been converted from euro area euros (EUR) to U.S. dollars (US\$) at an average rate of EUR0.783=US\$1.00 for 2013 and EUR0.809=US\$1.00 for 2012.

¹U.S. data were withheld to avoid disclosing company proprietary data.

Government Policies and Programs

The basis of Austria's mining law is the Mineralrohstoffgesetz (MinroG) (Federal Law BGBl. I No. 38/1999), or "Mineral Resources Law" of 1999, as amended by Federal laws BGBl. I No. 21/2002, BGBl. I No. 112/2003, BGBl. I No. 85/2005, BGBl. I No. 84/2006, BGBl. I No. 113/2006, BGBl. I No. 115/2009, BGBl. I No. 65/2010, BGBl. I No. 111/2010, and BGBl. I No. 144/2011; and by the publication BGBl. I No. 83/2003. The MinroG applies to mineral exploration, production, and processing and the use of geologic structures for holding or storing substances, such as liquid and gaseous mineral fuels. Three environmental laws apply to mineral production and processing operations: the Remediation Act of 1989 (BGBl. No. 299/1989), as last amended in 2011 by BGBl. I No. 15/2011; the Environmental Information Act of 1993 (BGBl. No. 495/1993), as last amended in 2012 by BGBl. I No. 50/2012; and the Environmental Impact Assessment Act of 2000 (BGBl. No. 697/1993), as last amended in 2012 by BGBl. I No. 77/2012 (Bundeskanzleramt Österreich, 2010; Schmelz and Rajal, 2012; Bundesministerium für Wissenschaft, Forschung, und Wirtschaft, 2014a, p. 23–26; undated).

Austria's mineral resources are legally classified into the following three main categories: Bergfreie (free mineral raw materials), Bundeseigene (state-owned mineral raw materials), and Grundeigene (other mineral raw materials). The Bergfreie category includes metallic ores, such as iron ore and tungsten (scheelite); oil shale; and many industrial minerals, including clays (such as bentonite and kaolin), diatomite, graphite, gypsum, limestone, marble that contains at least 95% calcium carbonate, magnesite, silica sand that contains at least 80% SiO₂, and talc. The holder of the mining license for minerals in the Bergfreie category has ownership of those minerals in the deposit for which one has a license to mine. The Bundeseigene classification includes mineral fuels, such as oil and natural gas, and related materials, such as uranium, and all salt, whether contained in brines, solution, or rock salt. The resources in this category are state owned, no matter who is awarded a license to extract and produce them. The Grundeigene classification includes stone, sand, and gravel not included in the first category and feldspar. The resources in this category are owned by the owner of the land, who must still obtain a license before producing any of these mineral commodities (Bundesministerium für Wissenschaft, Forschung, und Wirtschaft, 2014a, p. 17–19).

In 2013, the Federal Ministry of Science, Research, and Economy prepared the Austrian Minerals Strategy at the request of the National Council of Austria, and it is similar to the Raw Materials Initiative of the European Commission. The primary objective was to ensure and to improve the supply of minerals to Austria's industrial sector, given its heavy dependence on raw materials. The Minerals Strategy was based on the following three goals: (1) to secure supplies of minerals from domestic resources (realization of the Austrian Mineral Resources Plan); (2) to secure supplies of minerals from non-EU countries (raw material partnerships); and (3) to promote resource efficiency—for example, substitution, recycling, and development of new

methods with reduced mineral input (Bundesministerium für Wissenschaft, Forschung, und Wirtschaft, 2014c).

The Austrian Mineral Resources Plan is a core element of the new Austrian minerals policy. Its main purpose is to identify mineral occurrences and conflict-free areas in Austria (defined in terms of not being in contradiction with land use planning) where these mineral resources are located. Mineral-rich areas that did not coincide with "no-go" or conflict zones were to be handed over to the authorities and declared as raw material safeguarding areas. As of 2013, more than 245 occurrences of metallic ores and industrial minerals qualified as safeguarded areas per the plan. The Government placed particular emphasis on the identification of conflict-free occurrences of construction materials such as sand, gravel, and crushed stone (Bundesministerium für Wissenschaft, Forschung, und Wirtschaft, 2014b).

In February 2013, a new Energy Emergency Act of 2012 (Energieelenkungsgesetz 2012) came into force that incorporated the EU Regulation 994/2010 concerning measures to safeguard gas supply security in the EU. The act empowered the Federal Minister of Science, Research, and Economy to implement management measures for liquid and solid fuels, electricity, and gas when supply scarcities arise that cannot be adequately addressed by markets. In the spring of 2013, the Federal Government adopted a draft Federal Energy Efficiency Act that incorporated the new EU Directive 2012/27/EU20 on energy efficiency. Measures in the draft included specific efficiency requirements for enterprises, energy suppliers, and the Federal Government. A national monitoring facility was to be established to evaluate energy savings (Rajal, 2014, p. 35–36).

The production or use of nuclear energy was prohibited in Austria. According to the Federal Act on the Prohibition of the Use of Nuclear Fission for the Energy Supply in Austria of 1978, the construction of any electricity-producing facility using nuclear sources was prohibited and existing facilities were not to be put into operation. In 1997, the Parliament declared Austria to be a nuclear-free country (European Commission, 2014, p. 62; Rajal, 2014, p. 43).

Production

Data on Austria's mineral production are in table 1. Although the Austrian economy registered a positive growth rate of 0.4% in 2013, the total value of mineral output declined by 6.3% compared with that of 2012. Reduced demand from the country's European trading partners as well as lower domestic demand from some key industries, such as the steel industry and downstream industries, had a dampening effect on mineral production in the country. Price increases on world markets for mineral fuels and increasing demand for raw materials from developing countries in 2013 contributed to rising energy costs in Austria, as in 2012, and also adversely affected the competitiveness of its mineral industry (Kolroser and others, 2014, p. 17).

Of the two major minerals produced in Austria, tungsten ore (gross weight) output increased by nearly 30%, while magnesite (crude) output decreased by about 8%. Minerals with significant production increases in 2013 compared with those of 2012 included refined secondary lead, the output of which increased

by 58%; marl, 26%; tungsten in concentrate (W content), 20%; basalt, 17%; salt brines, 16%; serpentinite, 15%; and quartz, 10%. On the other hand, production of oil shale decreased by 68%; natural gas (marketable), 21%; gypsum and anhydrite, almost 20%; rock salt, 17%; and bitumen, 15% (table 1).

Structure of the Mineral Industry

Table 2 is a list of the major mineral industry facilities. Owing to a lack of publicly available information, the table does not include many of the small- and medium-scale (“Mittelstand”) family-owned mineral production and processing companies that accounted for most of the producers of industrial minerals in Austria.

The number of active mining and quarrying operations in Austria decreased slightly in 2013. There were reportedly 1,056 mining and quarrying operations and 3 operations that produced natural gas and (or) crude petroleum in 2013 compared with 1,124 and 3, respectively, in 2012. Of the mining and quarrying operations in 2013, 1,044 produced industrial minerals (1,121 in 2012), including 1,031 open pit mines or quarries (1,106 in 2012), 9 underground (nonsalt) industrial mineral mines (11 in 2012), and 4 underground salt mines (4 in 2012); 2 mines produced iron ore and micaceous iron oxide (2 in 2012); and 1 mine produced nonferrous metals (tungsten) in both 2012 and 2013. Almost all the mineral companies operating in Austria were privately owned, but the Government owned 100% of the currently nonproducing coal company Graz-Koflacher Eisenbahn und Bergbaugesellschaft GmbH and 31.5% of the oil and gas company OMV Aktiengesellschaft (table 2; Bundesministerium für Wissenschaft, Forschung, und Wirtschaft, 2013, p. 17; 2014a, p. 13).

Mineral Trade

Austria continued to be an open economy in terms of aggregate export and import flows. The country’s exports increased by 1.5% to \$160.2 billion in 2013 whereas its imports decreased by 1.5% to \$166 billion. European countries, including Russia and Turkey, and in particular other EU member states, continued to be Austria’s main trading partners. European countries overall accounted for 80.2% of Austria’s total exports and 81.4% of its total imports in 2013, by value, whereas the EU member countries accounted for 68.8% of exports and 71.1% of imports. Germany was Austria’s leading trading partner, commanding a 30.1% share of its exports and 37.3% of its imports. Italy was Austria’s second most important trading partner, accounting for 6.5% of exports and 6.1% of imports, followed by the Czech Republic, France, Hungary, and Poland (Wirtschaftskammer Österreich, 2014, p. 62–65).

The value of Austria’s exports of raw materials (including nonfuel minerals and nonmineral raw materials, such as wood) remained about the same as in 2012 at \$4.85 billion and had a 3.1% share of total exports in 2013. The value of the country’s imports of raw materials decreased to \$7.5 billion from about \$7.9 billion, with its share in total imports decreasing to 4.5% from 4.8% in 2012. The value of Austria’s exports of fuels and energy (including mineral fuels and electricity) decreased to \$4.3 billion in 2013 from \$5.6 billion in 2012, with its share

in total exports decreasing to 2.7% from 3.7%. The value of the country’s imports of fuels and energy decreased to about \$18.9 billion from \$21.4 billion, with its share in total imports decreasing to 11.4% from 13.0%. Thus, Austria’s trade balance for energy, fuels, and raw materials (including most of the mineral trade balance as a subset) was –\$17.2 billion in 2013 compared with –\$18.9 billion in 2012. Detailed information about whether petroleum refinery products were included in the above trade balance was not available, and other processed mineral products (such as pig iron and steel) were not included (Wirtschaftskammer Österreich, 2013; 2014, p. 60–61).

As processed metals and industrial mineral products accounted for a greater proportion of the total value of output of Austria’s mineral industry than did mineral raw materials, examination of trade data for nonfuel mineral-based manufactured products specifically is also useful. Manufactured ferrous metals (including iron and steel and possibly ferroalloys) made up 5.4% of all exports in 2013; nonferrous metals (including such products as aluminum and tungsten carbide, metal, and oxide powders), 2.5%; and nonmetallic mineral products (estimated to include such products as cement), 1.7%. In terms of imports, their shares were 2.7%, 2.5%, and 1.4%, respectively. Austria’s exports of manufactured ferrous metals decreased in value to about EUR3.5 billion (\$4.5 billion) in 2013 from about EUR3.8 billion (\$4.7 billion) in 2012, and exports of nonferrous metals decreased to about \$4.1 billion from \$4.4 billion. Exports of nonmetallic mineral products increased to \$2.7 billion from about \$2.5 billion. Imports of ferrous metals decreased in value in 2013 to about \$4.5 billion from about \$4.7 billion in 2012; nonferrous metals, to \$4.2 billion from \$4.6 billion; and industrial mineral products, to EUR1.791 billion (\$2.29 billion) from EUR1.793 billion (\$2.22 billion). Thus, Austria’s trade balance for processed mineral products remained about the same at \$4.6 billion in 2013. The trade surplus in this sector of the mineral industry was not enough to overcome the country’s overwhelming trade deficit in energy, fuels, and raw materials, however (Wirtschaftskammer Österreich, 2013, p. 60–61; 2014, p. 60–61).

In 2013, Austria’s exports to the United States were valued at \$9.8 billion and Austria’s imports from the United States totaled \$3.5 billion. Austria’s exports to the United States included, in order of value, iron and steel mill products (\$151.3 million), bauxite and aluminum (\$99.5 million), iron and steel manufactures (\$72.4 million), nonferrous metals (\$31.6 million), sulfur and nonmetallic minerals (\$14 million), petroleum products (\$8.6 million), other precious metals (\$6.6 million), and fertilizers (\$6 million). Austria’s imports from the United States included, in order of value, metallurgical-grade coal (\$87.5 million), nonferrous metals (\$39.2 million), copper (\$34.1 million), iron and steel mill products (\$6.4 million), nonmonetary gold (\$5.3 million), fertilizers (\$4.4 million), and other precious metals (\$4.2 million) (U.S. Census Bureau, 2014a, b).

Commodity Review

Metals

Aluminum.—AMAG Austria Metall AG planned to complete the construction of a new hot-rolling aluminum plant and to expand the capacity of its existing aluminum production facilities in Ranshofen by the end of 2014 through the AMAG 2014 expansion project, which it initiated in 2012. During 2013, the company completed the construction of buildings for the new hot-rolling mill and plate center and the erection of the first plant components such as the homogenizing furnaces and the solution annealing and aging furnaces. AMAG Austria Metall expected these investments to increase its production capacity to slightly more than 225,000 metric tons per year (t/yr) of aluminum metal by the end of 2014, from 150,000 t/yr in 2012 (AMAG Austria Metall AG, 2014, p. 7, 45, 53).

Gold.—Noricum Gold Ltd. of the United Kingdom held two mining licenses in Rotgulden and Schonberg. The Rotgulden gold and precious metals project, which was located on the border of the States of Carinthia and Salzburg in southwestern Austria, was Noricum Gold's most advanced project in the country, whereas Schonberg was still at the initial soil-sampling stage. In 2011, the company had conducted a surface drilling program at the Rotgulden Mine. In early 2013, it re-assayed cores from two locations drilled in the 1990s, with Hole 2F yielding results of 4.6 meters (m) at 14.42 grams per metric ton (g/t) gold and 96.04 g/t silver. In the fourth quarter of 2013, Noricum Gold completed a drilling campaign that comprised 1,335 m across 25 holes. In November, the company reported results from very high-grade intersections of 3.9 m at 51.54 g/t gold to greater widths of 6 m at 17.41 g/t gold. Altenberg, which was one of three additional highly prospective target areas in the Rotgulden project, returned grades of up to 86.4 g/t gold, 1,011 g/t silver, and 9.87% copper from extensive sampling. In December 2013, Noricum Gold was granted a 5-year extension of its 63 Rotgulden mining licenses by Austria's mining authority, the Federal Ministry of Science, Research, and Economy (Noricum Gold Ltd., 2013a, b; 2014a, b).

Iron Ore.—Production at the Styrian Erzberg Mine, which was the largest open pit mine in central Europe by both operational size and production volume and which contained the largest siderite deposit in the world, increased by 8% to 2.32 million metric tons (Mt) owing to increased demand from Austria's steel industry. Employment increased to 188 miners in 2013 as a result. A hydroelectric power station became operational at the site and provided about one-third of the mine's electricity needs in 2013. VA Erzberg GmbH, which was the owner of the Erzberg Mine, was evaluating the potential to increase reserves by using alternative extraction techniques in place of its current blast surface mining method that uses explosives (Kolroser and others, 2014, p. 17, VA Erzberg GmbH, 2014a, b).

Tungsten.—Mittersill, which was owned by Wolfram Bergbau und Hütten AG (a subsidiary of Sandvik AB of Sweden) continued to be the largest tungsten ore mine in Europe in terms of the size of reserves. In 2013, the mine returned to full production and extracted 488,440 metric tons (t) of tungsten

ore compared with 376,460 t in 2012, when demand for tungsten had decreased. Correspondingly, 3,514 t of tungsten concentrate was produced, which was up from 2,760 t in 2012. Concentrate was used in Wolfram's conversion plant in St. Martin, Styria (Wolfram Bergbau und Hütten AG, 2013; Kolroser and others, 2014, p. 17).

In February 2013, Wolfram Bergbau und Hütten put into operation a new sorting technology, which allowed the production of an additional 100,000 t of tungsten ore. The company's investment activity in 2013 was focused on the modernization of its machinery. New reserves were developed by core drilling, which maintained reserves in the Mittersill Mine at about the same level as in 2012 (Bundesministerium für Wissenschaft, Forschung, und Wirtschaft, 2014a, p. 33).

Industrial Minerals

Graphite.—Historically, Austria's graphite production was at its peak in the 1960s, when annual output by eight facilities reached more than 100,000 t, but production had decreased since then. In 2013, graphite deliveries to special markets were undertaken by the Grafitbergbau Kaisersberg GmbH in St. Stefan ob Leoben, where extraction resumed in 2008, but the exact amounts of extraction or deliveries were not reported (Bundesministerium für Wissenschaft, Forschung, und Wirtschaft, 2014a, p. 34).

Limestone.—Limestone production in Austria took place at 61 locations and reached a total of 7.2 Mt in 2013. The Steyrling limestone plant provided about one-half of burnt lime production in Austria. In February 2013, voestalpine Stahl GmbH (the owner of the plant) contracted BT-Wolfgang Binder GmbH for the quarry logistics project at Steyrling. Under the contract, BT-Wolfgang Binder would supply and install all handling and conveying equipment as well as the necessary structural steelwork, such as conveyor bridges, a screening facility, and transfer towers, by mid-2014. The primary goal of the project was to assure long-term extraction by the Steyrling limestone plant with the installation of new quarry logistics that would maintain its extraction rate of about 1.2 million metric tons per year (Mt/yr) while also reducing dust emissions. The extraction of the raw limestone would be switched from face extraction to sublevel benching with a gravity shaft-gallery mining system (AT Mineral Processing, 2013, p. 44; Bundesministerium für Wissenschaft, Forschung, und Wirtschaft, 2014a, p. 61).

In 2013, Kanzel Steinbruch Dennig GmbH produced about 400,000 t of lime for use in street and road construction at its Steinbruch plant in the municipality of Gratkorn. The company has produced lime, along with chippings, gravel, hydraulic construction stone, and sand, in Gratkorn since 1936 (Bundesministerium für Wissenschaft, Forschung, und Wirtschaft, 2014a, p. 61).

Lithium.—The first ore was mined at the Wolfsberg Lithium Project by Global Strategic Metals NL (formerly known as East Coast Minerals NL) of Australia after the Weinebene Mine in Wolfsberg in the State of Carinthia was reopened in 2013 after 25 years. In December 2011, Global Strategic Metals had acquired an 80% share in ECM Lithium Holdings AT, whose

wholly owned subsidiary ECM Lithium AT GmbH owned the Wolfsberg project. In February 2013, the company was granted a lithium mining license for the project, which allowed it to extract two 500-t bulk samples in the northern part of the area, referred to as “Zone 1.” Global Strategic Metals started bulk sampling in February and expected to complete it in November. The company reported that Zone 1 had a measured Joint Ore Reserves Committee (JORC) code-compliant resource of 3.7 Mt grading 1.5% lithium oxide, an indicated JORC code-compliant resource of 3.2 Mt at a grade of 1.5%, and an inferred JORC code-compliant resource of 10.0 Mt at a grade of 1.6% (Feary, 2011; Proactive Investors, 2013; Schmerlaib, 2013; Global Strategic Metals NL, undated).

Magnesium Compounds.—Two companies continued to extract most of the magnesite in Austria: RHI AG, and Styromagnesit Steirische Magnesitindustrie GmbH. RHI, a leading global producer of refractory products, operated five plants and three magnesite mines (two underground and one open pit), and Styromagnesit Steirische Magnesitindustrie operated four magnesite mines (two underground and two open pit). Magnesite production decreased by 8% in 2013 owing to lower demand from Europe, although domestic demand remained stable (Kolroser and others, 2014, p. 17, 18).

In 2013, Styromagnesit Steirische Magnesitindustrie began consolidation of its operations. The company produced 31,500 t of caustic calcined magnesite through two kilns, a liquefied bed furnace, and multideck ovens, and planned to expand its deliveries to Austria’s steel mills. Styromagnesit Steirische Magnesitindustrie also extracted 120,000 t of raw magnesite, which was provided by the Kaintaleck Mine (45,000 t), the Angerer underground mine (32,000 t), the Wald am Schoberpass Mine (30,000 t), and the Hohentauern Mine (10,000 t). The company opened a new open pit mine in Hohentauern in June, where the last mine had been closed in the early 1990s. Total reserves of the Hohentauern Mine were estimated to be between 10 and 13.6 million cubic meters containing more than 5 Mt of magnesite. Styromagnesit Steirische Magnesitindustrie planned to increase production at Hohentauern to 20,000 t/yr during the next 2 years (Bundesministerium für Wissenschaft, Forschung, und Wirtschaft, 2014a, p. 37, 38; Kolroser and others, 2014, p. 17).

Veitsch-Radex GmbH & Co OG, which was a wholly owned subsidiary of RHI, produced about 570,000 t of raw magnesite at its Breitenau, Hochfilzen, and Millstätter Alpe Mines in 2013. The company also extracted 8,000 t of raw dolomite at its Schipflalm dolomite mine during the year (Bundesministerium für Wissenschaft, Forschung, und Wirtschaft, 2014a, p. 38).

RHI made environmental investments in three of its plants in late 2013. The company constructed a waste gas purification plant at Trieben, which contained thermal afterburning and desulfurization and dust removal filters for shaft furnaces and tunnel kilns. RHI also renovated the pitch impregnation facility at Radenthein. Finally, the construction of a plant for the recovery of tailings was started at the Hochfilzen plant. The site contained about 1.8 Mt of tailings, which had been stored when a flotation plant operated at Hochfilzen (Kolroser and others, 2014, p. 17; RHI AG, 2014, p. 49, 61).

Marl.—Marl extraction in Austria was undertaken by six privately owned companies in the States of Carinthia, Salzburg, Tyrol, and Upper Austria. Workers employed in this activity increased from 25 in 2012 to 38 in 2013, as marl production reached 1,353,236 t, which was an increase from 1,072,743 t in 2012 (Bundesministerium für Wissenschaft, Forschung, und Wirtschaft, 2014a, p. 63).

Mineral Fuels and Related Materials

In 2012 (the latest year for which comprehensive data were available), Austria’s primary energy supply was met by crude oil and petroleum products (36%), renewable energy sources (30%), natural gas (22%), and solid fuels (10%). The country’s power generation mix was dominated by hydropower (63%), gas-fired generation (14%), and coal and lignite (9%). The country was dependent on imports for about 64% of its energy needs, which represented a decreasing trend. In 2013, crude petroleum production remained steady whereas natural gas production decreased significantly (European Commission, 2014, p. 59–62; Fachverband der Mineralölindustrie Österreichs, 2014, p. 11; Honore, 2014, p. 78).

Coal.—Austria had lignite resources of 333 Mt, the bulk of which were located in western Styria, although they were no longer extracted. Coal production had ended in the country in 2006 when the last active lignite mine at Oberdorf was recultivated. The steel and power industries consumed about 2 Mt of coal imported mainly from the Czech Republic, Poland, Russia, and the United States (Euracoal, 2013, p. 60–61).

Natural Gas.—In 2013, natural gas extraction including petroleum gas decreased by 21.5% to 1.36 billion cubic meters, of which 83% was natural gas and 17% was petroleum gas. Though lower than the production volume in 2012, domestic production met 16% of the nation’s gas needs, with imports accounting for 84%. Of the total production volume, 75% came from the Vienna Basin and 25% from the molasse zone in Upper Austria/Salzburg. Two companies continued to account for all production in Austria: OMV Aktiengesellschaft, with an 82.5% share, and Rohöl-Aufsuchungs Aktiengesellschaft (RAG), with 17.5%. About 6 billion cubic meters of natural gas were imported, and 82% of imports originated from the Commonwealth of Independent States countries, such as Russia and Kazakhstan, which were followed by Norway (Fachverband der Mineralölindustrie Österreichs, 2014, p. 8–11).

In 2013, OMV produced about 1.184 billion cubic meters of natural gas in Austria, which was a decrease from about 1.376 billion cubic meters in 2012. The company’s main objective at its Austria-based operations was to stabilize hydrocarbon production. In 2013, RAG operated 171 fields and had 94 hydrocarbon producing wells in Austria. The company produced 254 million cubic meters of natural gas. In January 2013, RAG founded its wholly owned subsidiary RAG Energy Storage, whose focus was on providing storage capabilities to natural gas producers (OMV Aktiengesellschaft, 2014a, p. 10; 2014b, p. 9; Rohöl-Aufsuchungs Aktiengesellschaft, 2014, 2015).

Petroleum and Petroleum Refinery Products.—In 2013, total crude oil and natural gas liquids (NGLs), which included

condensates and the liquid proportion of natural gas production, fell slightly to 6.5 million barrels (Mbbbl). Crude oil output increased by 1.2% to about 6.0 Mbbbl. Of total crude oil output, 5.2 Mbbbl was extracted from the Vienna Basin and 845,000 bbl came from the molasse zone. OMV provided 85.2% of the output, whereas RAG accounted for the remaining 14.8%. Crude oil imports increased by 4.9% to 55.6 Mbbbl. Austria's major sources of crude oil imports were Kazakhstan, Nigeria, and Russia. These crude oil imports were supplemented by imports of about 45 Mbbbl in finished products, including diesel fuel (28.6 Mbbbl), fuel oil (4.3 Mbbbl), and gasoline (3.6 Mbbbl). Finished product imports originated mainly from Germany, Italy, and Slovakia (Fachverband der Mineralölindustrie Österreichs, 2014, p. 11).

In 2013, OMV produced about 5.7 Mbbbl of petroleum in Austria, which was a decrease from about 5.8 Mbbbl in 2012. The company successfully drilled a new horizontal well in Bockfließ. In 2013, RAG produced about 970,000 bbl of petroleum. In July, the company's Gaiselberg 1 well produced petroleum for the first time in 75 years (OMV Aktiengesellschaft, 2014a, p. 41; 2014b, p. 9; Rohöl-Aufsuchungs Aktiengesellschaft, 2014, 2015).

The Schwechat refinery was the only refinery in the country and one of the largest onshore refineries in Europe with an annual capacity of about 68.6 Mbbbl. In 2013, it processed about 62.1 Mbbbl of crude at a capacity utilization rate of 90%. About 90% of Schwechat's processed crude was imported. The refinery produced diesel fuel (40%), gasoline (21%), fuel oil (14%), petrochemicals (12%), jet fuel (8%), bitumen (4%), and other products (1%) (Fachverband der Mineralölindustrie Österreichs, 2014, p. 11).

Shale Gas.—The State of Lower Austria was estimated to contain shale gas reserves sufficient to meet the country's domestic gas requirements for a period of 30 years, according to previous geologic studies; however, any exploration activity is subject to a strict environmental regulatory process because of concerns about the effects of hydraulic fracturing. OMV planned to undertake two shale-gas exploration wells in the Mistelbach District in 2012; however, the company abandoned its plans for shale-gas exploration in September 2012 because of the proposed environmental inspection law. OMV found the requirement to undertake a detailed environmental inspection before each planned project rendered investment into such projects economically unviable (Natural Gas Europe, 2012).

Outlook

The Austrian economy is forecasted to grow by 1.6% in 2014 and 1.9% in 2015. The concurrent expansion in industrial production is expected to increase demand for raw materials. The anticipated recovery in demand from downstream industries is likely to stimulate mineral industry production. An increase in mining activity was observed in 2013 with the opening of new lithium and manganese mines. Tungsten ore production is expected to reach about 500,000 t in 2014 owing to the expansion of the Mittersill Mine and increased demand from abroad. Similarly, the growing demand from the steel industry is likely to further increase iron ore production at the Erzberg Mine. Magnesite production may reverse its recent decline if

foreign demand for the mineral increases. Lime production is expected to stabilize when the new quarry logistics project at the Steyrling lime plant is completed in 2014. The recovery of Austria's mineral sector is to a large extent dependent on whether the economies of the other EU member states, and in particular, that of Germany, which is Austria's main trading partner, return to robust growth in the coming years. Austria has the potential to become a major lithium producer and exporter if the Wolfram lithium project advances to the extraction phase as planned. The country may also become a modest gold producer if the final results of the Rotgulden gold and precious metals project confirm the preliminary reserve estimates. Mineral fuel production is likely to decrease at a gradual rate (AT Mineral Processing, 2013; Kolroser and others, 2014; Österreichische Nationalbank, 2014).

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TABLE 1
AUSTRIA: PRODUCTION OF MINERAL COMMODITIES¹

(Thousand metric tons unless otherwise specified)

Commodity		2009	2010	2011	2012	2013
METALS						
Aluminum, metal, secondary	metric tons	282,944	374,837	385,551	383,244 ^r	387,415
Copper, metal, secondary:						
Smelter	do.	90,800	92,200	92,200	95,000	94,000 ^e
Refined	do.	96,240	113,705	112,610	113,578	108,050
Iron and steel:						
Iron ore, including micaceous iron oxide:						
Gross weight		2,002	2,069	2,207	2,142	2,323
Fe content		641	662	706	686	743
Metal:						
Pig iron		4,353	5,621	5,815	5,751	6,144
Ferroalloys, electric arc furnace, unspecified ^c		588	637	650	650	650
Crude steel		5,074 ^r	6,569 ^r	7,474	7,421	7,953
Semimanufactures, hot-rolled products		5,394	6,621	6,874	6,850	7,341
Lead, refined, secondary	metric tons	22,197	25,499	26,208	24,504	38,786
Nickel, including Ni content of ferroalloys ^c	do.	700	1,000	1,000	1,000	1,000
Tungsten ore and concentrate:						
Ore:						
Gross weight	do.	344,851	429,748	423,790	376,460	488,440
W content ^c	do.	1,010	1,110	975	898 ²	1,165 ²
Concentrate:						
Gross weight	do.	3,436	3,812	3,380	2,760	3,514
W content	do.	887	977	861 ^r	706 ^r	850
INDUSTRIAL MINERALS						
Aluminum oxide, fused ^c	metric tons	10,000	11,500	12,000	12,000	12,000
Cement:						
Clinker		3,428	3,097	3,176	3,206	3,150 ^e
Hydraulic		4,646	4,254	4,427	4,455	4,385
Clays:						
Kaolin, crude	metric tons	83,980	58,956	56,976	43,174	40,055
Unspecified, possibly including bentonite, brick clay, and illite		1,866	1,860	1,927	1,794	1,700 ^e
Diabase (of basaltic rocks)		2,098	1,762	2,083	1,881	1,801
Feldspar, byproduct of silica processing ^c	metric tons	27,000	27,000	27,000	32,000 ^r	35,000
Graphite, crude	do.	750	420	925	219	200 ^e
Gypsum and anhydrite, crude		911	872	815	792	635
Lime, including quicklime		725	774	801	768 ^{r,e}	764 ^e
Of which, marketed		507	492	528	506 ^{r,e}	503 ^e
Magnesite:						
Crude		545	757	868	779	714
Sintered or dead burned		230	264	293	270 ^e	248 ^e
Caustic calcined		21	52	57	55 ^e	50 ^e
Mica ^{e,3}	metric tons	2,840	3,430	3,590	3,400	3,400
Nitrogen, N content of ammonia ^c		370	400	400	400	400
Salt (NaCl):						
Brines, gross	thousand cubic meters	3,460	3,608	3,809	3,193	3,717
Evaporated, mechanical heating process		1,035	1,072	1,150	952	952
Rock	metric tons	50	95	169	222	184
Mine output, NaCl content		1,038	1,083	1,270	1,064	1,050 ^e
Sand and gravel:						
Dolomite, loose rocks and gravel		2,790	2,620	2,870	2,661 ^r	2,709
Quartz (silica) sand		1,200	939	898	820 ^r	808
Sand and gravel, unspecified		25,722	24,128	25,046	23,980 ^r	24,160

See footnotes at end of table.

TABLE 1—Continued
AUSTRIA: PRODUCTION OF MINERAL COMMODITIES¹

(Thousand metric tons unless otherwise specified)

Commodity	2009	2010	2011	2012	2013
INDUSTRIAL MINERALS—Continued					
Sodium compounds, manufactured, n.e.s. ^{2,4}	275	286	301	300	300
Stone:					
Amphibolite	1,780	1,670	1,318	1,145	1,189
Basalt, not included in diabase	1,744	1,473	1,791	1,363	1,600
Dolomite	3,989 [†]	3,942 [†]	3,940 [†]	3,606 [†]	3,731
Gneiss	1,431	1,505	1,435	1,503	1,490
Granite and granulite	3,078	2,340	3,034	2,704	2,731
Limestone, including marble	22,074	21,190	21,571	21,226 [†]	21,279
Marl	1,508	1,149	1,484	1,073	1,353
Quartz, quartzite, and pegmatite	338 [†]	294	285	315	348
Serpentine	1,751	2,013	1,484	1,311	1,508
Other, including conglomerate and sandstone	22	38	47	31	22
Sulfur, byproduct of petroleum and natural gas metric tons	12,007	9,873	9,669	10,329	10,327
Talc and leucophyllite (white mica), crude do.	111,388	138,367	132,018	135,665 [†]	134,814
MINERAL FUELS AND RELATED MATERIALS					
Coke	1,281	1,388	1,356	1,346	1,348
Natural gas:					
Marketable (net) million cubic meters	1,559 [†]	1,713	1,591	1,729	1,359
Natural gas liquids ⁵ thousand 42-gallon barrels	972	927	846	830	720
Oil shale metric tons	144	176	132	540	173
Petroleum:					
Crude ⁶ thousand 42-gallon barrels	6,371	6,167	5,900	5,896	5,970
Refinery products: ⁵					
Liquefied petroleum gas do.	1,068	1,011	1,175	826	829
Gasoline do.	14,094 [†]	12,262 [†]	13,071 [†]	13,464 [†]	12,955
Kerosene and jet fuel do.	2,480	3,780	4,880	4,890	5,186
Diesel fuel do.	23,600	20,400	25,100	27,100	25,700
Distillate fuel oil do.	5,870	6,970 [†]	4,270 [†]	6,050	6,786
Residual fuel oil do.	5,540	5,070	4,920	4,110	4,949
Lubricants and miscellaneous oils do.	723	672	501	451	515
Bitumen, bituminous mixtures, and other residues do.	2,550	1,770	2,280	2,220	1,890
Other (unspecified) do.	2,020	1,510	1,220	2	3
Total do.	57,945 [†]	53,445 [†]	57,417 [†]	59,113 [†]	58,813

[†]Estimated; estimated data are rounded to no more than three significant digits; may not add to totals shown. [†]Revised. do. Ditto.

¹Table includes data available through December 19, 2014.

²Reported figure.

³Estimated from reported exports minus imports of mica.

⁴Not elsewhere specified. Data could include production of soda ash and sodium sulfate.

⁵Figure converted to barrels from metric tons according to a conversion factor.

Source: U.S. Energy Information Administration, 2014, International Energy Statistics—Units: Washington, DC, U.S. Energy Information Administration. (Accessed December 12, 2014, at <http://www.eia.gov/cfapps/ipdbproject/docs/unitswithpetro.cfm>.)

⁶All figures were converted to barrels from metric tons according to a conversion factor of 7.040 barrels of crude oil per metric ton.

Source: U.S. Energy Information Administration, [undated], International Energy Statistics—Austria: Washington, DC, U.S. Energy Information Administration. (Accessed December 12, 2014, at <http://www.eia.gov/cfapps/ipdbproject/IEDIndex3.cfm?tid=94&pid=57&aid=32>.)

TABLE 2
AUSTRIA: STRUCTURE OF THE MINERAL INDUSTRY IN 2013

(Thousand metric tons unless otherwise specified)

Commodity	Major operating companies and major equity owners	Location of main facilities	Annual capacity
Alumina, fused	Treibacher Schleifmittel GmbH (Imerys S.A., 100%)	Plant at Villach, State of Carinthia	60
Aluminum	AMAG Austria Metall AG (B&C Industrieholding GmbH, 52.7%; RLB OÖ Alu Invest GmbH 16.5%; AMAG Employees Private Foundation, 11.1%; Treibacher Industrieholding GmbH, 5%; Esola Beteiligungsverwaltungs GmbH, 4.0%; free floating shares, 10.7%)	Secondary ingot plant at Ranshofen, State of Upper Austria	150
Do.	Hammerer Aluminium Industries GmbH	Secondary extrusion plant at Ranshofen, State of Upper Austria	80
Do.	Hydro Aluminium Nenzing GmbH (Norsk Hydro ASA, 100%)	Secondary plant at Nenzing, State of Vorarlberg	59
Do.	Speedline Aluminium Giesserei GmbH (Swiss Alu Trading AG, 100%)	Secondary plant at Schlins, State of Vorarlberg	49
Do.	Aluminum Lend GmbH (Salzburger Aluminium AG, 100%)	Secondary ingot plant at Lend, State of Salzburg	40
Do.	NEUMAN Aluminium Austria GmbH (CAG Holding GmbH, 100%)	Secondary plant at Marktl, State of Styria	16
Do.	Bavaria Industriekapital AG	Secondary plant at Gleisdorf, State of Styria	NA
Do.	Georg Fischer Automotive AG	Secondary plant at Altenmarkt, State of Salzburg; Secondary plant at Herzogenburg, State of Lower Austria	NA
Do.	Nemak Linz GmbH (Tenedora Nemak S.A. de C.V., 100%)	Secondary plant at Linz, State of Upper Austria	NA
Do.	Almaxal Brüder Tschirk GmbH	Secondary plant at Neudoerfl, State of Burgenland	NA
Do.	Almeta Metallumschmelzwerk GmbH	Secondary plant at Vienna; secondary plant at Sollenau, State of Lower Austria	NA
Calcium carbonate, ground	Omya GmbH (Omya AG, 100%)	Plant at Gummern, State of Carinthia	2,500
Do.	do.	Plants at Golling, State of Salzburg; Neu Pirka, State of Styria; and Ulmerfeld-Hausmending, State of Lower Austria	NA
Cement	Lafarge Perlmooser AG (Lafarge S.A., 70%, and Strabag SE, 30%)	Plant at Mannersdorf, State of Lower Austria; plant at Retznei, State of Styria; grinding plant at Kirchbichl, State of Tyrol	2,200
Do.	w&p Zementwerke GmbH	Plant at Peggau, State of Styria; Plant at Wietersdorf, State of Carinthia	1,100
Do.	Gmundner Zement Produktions- und Handels GmbH	Plant at Gmundnen, State of Upper Austria	800
Do.	Kirchdorfer Zementwerk Hofmann GmbH	Plant at Kirchdorf, State of Upper Austria	800
Do.	Zementwerk LEUBE GmbH	Plant at Gartenau, State of Salzburg	770
Do.	Wopfinger Baustoffindustrie GmbH	Plant at Wopfung, State of Lower Austria	300
Do.	Holcim (Wien) GmbH (Holcim Ltd., 100%)	Plant at Vienna, State of	300
Do.	Holcim (Vorarlberg) GmbH (Holcim Ltd., 100%)	Lorüns grinding plant and cement plant at Bludenz, State of Vorarlberg	200
Chalk	Mühlendorfer Kreidefabrik Margit Hoffman-Ostenhof KG (Omya AG, 100%)	Plant at Müllendorf, State of Burgenland	NA
Clays, including brick clay	Wienerberger AG	Clay mines at Goellersdorf, State of Lower Austria; at Rotenturm and Stooß, State of Burgenland; and at Apfelberg and Weisskirchen, State of Styria	NA
Clays, kaolin, and silica sand	Österreichische Kaolin- und Montanindustrie, Aktiengesellschaft Nfg. Komm.Ges. (KAMIG)	Mines at Weinzierl and Kriechbaum; processing plant at Aisthofen, State of Upper Austria	170
Coal	Graz-Köflacher Eisenbahn- und Bergbaugesellschaft GmbH (Government, 100%)	Oberdorf Mine, Baernbach, State of Styria (closed)	1,200
Copper, refined, secondary	Montanwerke Brixlegg AG (A-Tec Industries AG, 100%)	Plant at Brixlegg, State of Tyrol	120 ^e

See footnotes at end of table.

TABLE 2—Continued
AUSTRIA: STRUCTURE OF THE MINERAL INDUSTRY IN 2013

(Thousand metric tons unless otherwise specified)

Commodity	Major operating companies and major equity owners	Location of main facilities	Annual capacity	
Diabase, basalt	Diabaswerk Saalfelden GmbH (STRABAG SE, 100%)	Mine and plant at Saalfelden, State of Salzburg	NA	
Do.	Klöcher Basaltwerke GmbH & Co KG (ASAMER Holding AG, 100%)	Mines and plants at Kloeck and Oberhaag, State of Styria	NA	
Feldspar	Quarzwirke Österreich GmbH (Quarzwirke GmbH, 100%)	Mine and plant at St. Georgen an der Gusen, State of Upper Austria	NA	
Ferroalloys, FeV, FeMo, FeNi	Treibacher Industrie AG	Plant at Althofen, State of Carinthia	15 ^c	
Graphite, natural	Graphitbergbau Mühlendorf Mörth GmbH	Trandorf Mine at Weinberg and extended to Weinbergwald, State of Lower Austria; mine at Eichenwald, State of Styria	15	
Do.	Grafitbergbau Kaisersberg GmbH	Kaisersberg Mine, State of Styria	3	
Gypsum and anhydrite, natural	Moldan Baustoffe GmbH & Co. KG (Salzburger Sand & Kieswerke GmbH, 100%)	Abtenau and Moosegg Mines, near Kuchl bei Hallein, State of Salzburg	300	
Do.	Saint-Gobain Rigips Austria GmbH (Compagnie de Saint-Gobain, 100%)	Mine at Grundlsee and main plant at Bad Aussee, State of Styria; mine and plant at Puchberg, State of Lower Austria	250	
Do.	Knauf GmbH	Hinterstein Mine, Spital am Pyhrn, State of Upper Austria; mines at Doerfelstein and Tragoess-Oberort, and plant at Weissenbach bei Liezen, State of Styria	160	
Do.	Gipswerk Schretter & Cie. GmbH	Mine at Weissenbach am Lech and plant at Vils, State of Tyrol	NA	
Iron ore	VA Erzberg GmbH (voestalpine AG, 100%)	Erzberg Mine at Eisenerz, State of Styria	3,000	
Iron oxide, micaceous	Kärntner Montanindustrie GmbH	Mine near Waldenstein, State of Carinthia	NA	
Lime	voestalpine Stahl GmbH (voestalpine AG, 100%)	Limestone mine near Kremsmauer Mountain, and plant at Steyrling, State of Upper Austria	1,200	
Do.	Kanzel Steinbruch Dennig GmbH (STRABEG SE, 100%)	Steinbruch plant, municipality of Gratkorn	400 ^c	
Do.	Zementwerk LEUBE GmbH	Limestone mine near Ofenauer Mountain in Golling and plant at Golling, State of Salzburg	300 ^c	
Lithium	ECM Lithium AT GmbH (Global Strategic Metals NL, 100%)	Mine at Wolfsberg, State of Carinthia	NA	
Magnesite, crude	Veitsch-Radex GmbH & Co. OG (RHI AG, 100%)	Mine and plant at Breitenau, State of Styria; Mine at Eichberg, State of Lower Austria; Am Bürgl Mine, area near Weissenstein, State of Tyrol; mine and processing plant at Millstaetter Alpe, State of Carinthia	800	
Do.	Styromagnesit Steirische Magnesitindustrie GmbH	Angerer, Kaintaleck, and Wieser Mines, and plant near Oberdorf an der Laming, State of Styria; Hohentauern Mine in Murtal, State of Styria Wald Mine in the Schoberpass, State of Styria	150	
Do.	CEMEX Austria AG (CEMEX S.A.B. de C.V., 100%)	Mine and plant at Veitsch, State of Styria	NA	
Do.	PRONAT Steinbruch Preg GmbH (Schotter- und Betonwerk Karl Schwarzl Betriebsgesellschaft m.b.H., 100%)	Magnesite and dunite (olivine rock) mine at Gulsen, and plant at Preg, State of Styria	NA	
Natural gas	million cubic meters	OMV Aktiengesellschaft (Free floating shares, 43.3%; Government, 31.5%; International Petroleum Investment Co., 24.9%; own shares, 0.3%)	Main fields in the Vienna Basin, State of Lower Austria, and some fields in the State of Upper Austria	1,500
Do.	do.	Rohöl-Aufsuchungs Aktiengesellschaft (EVN AG, 50%; E.ON Ruhrgas E&P GmbH, 30%; Steirische Gas-Wärme GmbH, 10%; Salzburg AG, 10%)	Main fields in the State of Upper Austria, and some fields in the State of Lower Austria and the State of Salzburg	550 ^c
Nitrogen, N content of ammonia	Borealis Agrolinz Melamine GmbH (Borealis AG, 100%)	Plant at Linz, State of Upper Austria	498	

See footnotes at end of table.

TABLE 2—Continued
AUSTRIA: STRUCTURE OF THE MINERAL INDUSTRY IN 2013

(Thousand metric tons unless otherwise specified)

Commodity		Major operating companies and major equity owners	Location of main facilities	Annual capacity
Oil shale		Tiroler Steinölwerke Albrecht GmbH & Co. KG	Mine in the Baechental, near Pertisau am Achensee, State of Tyrol	NA
Petroleum, crude	thousand 42-gallon barrels	OMV Aktiengesellschaft (Free floating shares, 43.3%; Government, 31.5%; International Petroleum Investment Co., 24.9%; own shares, 0.3%)	Main fields in the Vienna Basin, State of Lower Austria, and some fields in the State of Upper Austria	6,000 ^c
Do.	do.	Rohöl-Aufsuchungs Aktiengesellschaft (EVN AG, 50%; E.ON Ruhrgas E&P GmbH, 20%; Steirische Gas-Wärme GmbH, 10%; Salzburg AG, 10%)	Main fields in the State of Upper Austria, and some fields in the State of Lower Austria and the State of Salzburg	1,000 ^c
Petroleum, refined products	do.	OMV Aktiengesellschaft (Free floating shares, 43.3%; Government, 31.5%; International Petroleum Investment Co., 24.9%; own shares, 0.3%)	Schwechat refinery, City of Schwechat, State of Lower Austria	68,600 ^c
Rare-earth chemicals and oxides		Treibacher Industrie AG	Plant at Althofen, State of Carinthia	NA
Salt, NaCl content		Salinen Austria AG	Mines at Bad Ischl and Hallstatt, and evaporite saltworks at the Ebensee, State of Upper Austria; mine at Hallein-Dürnborg, State of Salzburg; mine at Hall in Tyrol, State of Tyrol; mine at Altaussee, State of Styria	1,100
Silica sand		Krempelbauer-Quarzsandwerk St. Georgen Hentschläger & Co. KG.	Burger and Knoll-Wizany Mines at Luftenberg, Krempelbauer and Poscher Mines at St. Georgen, and Treffling Mine at Aigen-Engerwitzdorf, State of Upper Austria	NA
Do.		Quarzwerte Österreich GmbH (Quarzwerte GmbH, 100%)	Mine and plant at Melk, State of Lower Austria; mine and plant at St. Georgen an der Gusen, State of Upper Austria	NA
Do.		Quarzsande GmbH (Zementwerk LEUBE GmbH, 100%)	Mine and plant at Eferding, mine at Bruck-Waasen, and mine at Wolfsegg, State of Upper Austria	NA
Steel, crude		voestalpine Stahl GmbH (voestalpine AG, 100%)	Plant at Linz, State of Upper Austria	6,000
Do.		voestalpine Stahl Donawitz GmbH Co & KG (voestalpine AG, 100%)	Plant at Donawitz (near Leoben), State of Styria	1,500
Do.		Breitenfeld Edelstahl AG	Plant at Mitterdorf im Müürztal, State of Styria	300
Do.		Böhler Edelstahl GmbH & Co KG (voestalpine AG, 100%)	Plant at Kapfenberg, State of Styria	150 ^c
Talc and leucophyllite (white mica)		Naintsch Mineralwerke GmbH (Imerys S.A., 100%)	Talc mines at Lassing and Rabenwald, and plant at Oberfeistritz, State of Styria; talc and mica mine at Kleinfestritz, and a plant at Weisskirchen, State of Styria	200 ^c
Do.		Aspanger Bergbau und Mineralwerke GmbH & Co. KG (Wietersdorfer & Peggauer Zementwerke GmbH, 100%)	Leucophyllite mine and mica processing plant at Aspangberg-Zoebern, State of Lower Austria	NA
Tungsten:				
Ore (scheelite), gross weight		Wolfram Bergbau und Hütten AG (Sandvik AB, 100%)	Mine at Mittersill and processing plant at Bergla, in the Felbertauerntal, State of Salzburg	500 ^c
Concentrate, W content	metric tons	do.	do.	1,800 ^c
Carbide, powders	do.	do.	Primary and secondary chemical treatment and sintering plant at St. Martin, in the Sulmtal, State of Styria	3,000 ^c
Carbide and metal, powders	do.	Treibacher Industrie AG	Plant at Althofen, State of Carinthia	NA
Metal, powders	do.	Plansee SE (Plansee Holding AG, 100%)	Plants at Liezen, State of Styria, and at Reutte, State of Tyrol	NA
Do.	do.	Wolfram Bergbau und Hütten AG (Sandvik AB, 100%)	Primary and secondary chemical treatment and sintering plant at St. Martin, in the Sulmtal, State of Styria	3,600 ^c
Oxides	do.	do.	do.	NA

^cEstimated; estimated data are rounded to no more than three significant digits. Do., do. Ditto. NA Not available.