



2014 Minerals Yearbook

AUSTRIA

THE MINERAL INDUSTRY OF AUSTRIA

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Austria is a landlocked and highly industrialized European Union (EU) member state in Central Europe that borders the EU countries of the Czech Republic and Germany to the north, Hungary and Slovakia to the east, Italy and Slovenia to the south, and the non-EU countries of Liechtenstein and Switzerland to the west. The country lies at the eastern end of the Alps; the western and southern parts of Austria are dominated by the mountain range, while the lower lying eastern States are situated within the Danube Basin. Of approximately 4,500 mining sites in the country, only a few large-scale mines were in operation in 2014. 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 the country (Geologische Bundesanstalt, 2014e; Embassy of Austria, 2015; European Union, 2015).

Austria continued to play an important role in mineral markets on a world scale for graphite, magnesite, and tungsten. Excluding production (if any) in the United States¹ in 2014, Austria was the fourth-ranked producer of magnesite in the world and the seventh-ranked producer of tungsten and accounted for 2.6% and about 1.0%, respectively, of world production (table 1; Geologische Bundesanstalt, 2014d, h; Bray, 2016, p. 97; Shedd, 2016, p. 175).

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. Large occurrences of clay, limestone, and sand and gravel were found throughout the country. Austria produced clay, 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 the country, but domestic output met only about 10% of national consumption of mineral fuels. Geothermal energy sources were being developed in eastern and southeastern Austria. The country had a substantial mineral (including metals) processing sector regionally, as well as a substantial capacity to recover metals from secondary sources (tables 1, 2; Geologische Bundesanstalt, 2014a–c, f, g; Bundesministerium für Wissenschaft, Forschung, und Wirtschaft, 2015a, p. 3–7).

Minerals in the National Economy

Austria's gross domestic product (GDP) increased by 0.4% in 2014, which was slightly above the 0.3% (revised) rate of growth in 2013, and continued to lag economic growth in the euro area. The nominal GDP in 2014 was \$436.9 billion. The country's economy had stagnated since the second quarter of 2012 in large part owing to lower growth in exports, in particular to the country's EU trading partners, as well as weak domestic consumption and

investment (European Commission, 2015a, p. 104; 2015b, p. 3; Österreichische Nationalbank, 2015, p. 4, 8; Statistics Austria, 2015, p. 1–3; World Bank, The, 2015).

The real gross value added by the mining and quarrying sector, which accounted for about 0.5% of the total value added in 2014, decreased by 5.1% in 2014 compared with a decrease of 0.2% in 2013. The gross value added by manufacturing, which made up 19.2% of the total value added in 2014, increased by 1.3% compared with a decrease of 0.4% in 2013. The gross value added of construction, which accounted for 6.4% of the total value added, decreased by 2.0% after decreasing by the same percentage in the previous year (Österreichisches Institut für Wirtschaftsforschung, 2015a, b; Wirtschaftskammer Österreich, 2015, p. 46).

Austria's marketed mineral industry production was approximately \$31.9 billion (EUR25.0 billion²) in 2014, which was about 7.6% of the country's GDP, compared with a revised value of \$32.8 billion or 8.0% of the GDP in 2013. Of the total value of mineral production in 2014, the value of output of the natural gas and petroleum sector (including production of petroleum refinery products) was \$12.9 billion, compared with \$14.0 billion in 2013; the ferrous metals sector (including manufacturing of iron and steel and possibly including production of ferroalloys), \$9.7 billion, compared with \$9.6 billion in 2013; the nonferrous metals sector, \$4.6 billion, compared with \$4.6 billion in 2013; the building materials, ceramics, and stone sector, \$4.0 billion, the same as in 2013; and the mining and quarrying sector, \$688 million, compared with \$649 million in 2013. The real value of production by the ferrous metals sector increased by 12.3% in 2014; the mining and quarrying sector, by 10.2%; and the natural gas and petroleum sector, by 0.2%. On the other hand, the real value of production by the nonferrous metals sector decreased by 2.7% and that of the building materials, ceramics, and stone sector, by 1.5% (Österreichisches Institut für Wirtschaftsforschung, 2015c; Wirtschaftskammer Österreich, 2015, p. 50).

In 2014, employment in the mineral industry decreased slightly. There were 37,226 employees in the entire industry, including mining support services, and they accounted for about 1.1% of the total number of employees in the country. Average employment in the ferrous metals sector increased by 3.4% to 14,663 workers during 2014; in the building materials, ceramics, and stone sector, it decreased by 2.4% to 13,001; in the nonferrous metals sector, it increased by 2.0% to 6,115; in the natural gas and petroleum sector, it increased by 1.8% to 2,217; and in the mining and quarrying sector, it decreased by 0.2% to 1,715 workers (Wirtschaftskammer Österreich, 2014, p. 33, 35, 47, 51; 2015, p. 33, 35, 47, 51; Österreichisches Institut für Wirtschaftsforschung, 2015d, e).

² Where necessary, values have been converted from euro area euros (EUR) to U.S. dollars (US\$) at an average rate of EUR0.784=US\$1.00 for 2014 and EUR0.783=US\$1.00 for 2013.

¹ U.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, which applies to mineral exploration, production, and processing of minerals and the use of geologic structures for holding or storing substances, such as liquid and gaseous mineral fuels. Austria's mineral resources are legally classified into three main categories: Bergfreie (free mineral raw materials), Bundeseigene (state-owned mineral raw materials), and Grundeigene (other mineral raw materials). The Bergfreie minerals include 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, magnesite, marble, silica sand, and talc. The holder of the mining license for minerals in this category holds ownership of resources of the licensed deposit. The Bundeseigene minerals include mineral fuels, such as petroleum and natural gas, and related materials, such as uranium and salt. The resources in this category are state owned, no matter who is awarded a license to extract and produce them. The Grundeigene minerals include stone, sand, and gravel not included in the first category and feldspar. The resources in this category belong to the owner of the land, but a mining license is required for extraction (Bundesministerium für Wissenschaft, Forschung, und Wirtschaft, 2015a, p. 14–16, 19–26; 2015d).

The Federal Ministry of Science, Research, and Economy (BMWF) regulates mineral exploration and extraction in Austria. According to Sec. 119 of MinroG, the BMWF's authorization is required for any mining activities begun on the surface. No separate operating permit is generally required. Under the Environmental Impact Assessment (EIA) Act, an EIA must be conducted when hydrocarbon exploration exceeds 500,000 cubic meters per day (250,000 cubic meters per day in a special protected area). EIA decisions are issued by the BMWF and the government of the State where the site of petroleum or natural gas exploration or extraction is located (Rajal and Schmelz, 2015).

The Austrian Mineral Resources Plan constituted a core element of the new Austrian Minerals Policy. The strategy was aimed at securing the supply of minerals to Austria's industrial sector, given its heavy dependence on raw materials, from both EU and non-EU sources and increasing resource use efficiency. The main purpose of the mineral resources plan was to identify mineral occurrences and conflict-free areas in Austria (defined in terms of not being in contradiction with land-use planning) that contained mineral resources. Such domestic areas were designated as raw material safeguarding areas under State or municipal authority (Bundesministerium für Wissenschaft, Forschung, und Wirtschaft, 2015b, c).

In July 2014, the Parliament passed the Federal Energy Package and enacted the Federal Energy Efficiency Act of 2012 ("Bundes-Energielenkungsgesetz") to transpose the EU Directive on Energy Efficiency 2012/27/EU through increased energy efficiency obligations for business enterprises, energy suppliers, and the Federal Government. Also in July 2014, the Parliament passed an amendment to the Electricity Tax Act ("Elektrizitätsabgabegesetz") in order to support national energy production from renewable energy sources. The amendment

exempted producers of renewable energy from taxation for own-use production up to 25,000 kilowatthours per year (Rajal and Tuttinger, 2015, p. 34–35).

Production

Data on Austria's mineral production are in table 1. Of the two major minerals produced in Austria, magnesite (crude) output increased by 6%, while tungsten ore (gross weight) output increased by 3%. Minerals whose production showed significant change from 2013 included nickel, whose output increased by about 98%; rock salt, by 33%; gasoline, by 21%; quartz, by 19%; dolomite and oil shale, by 17% each; gypsum and anhydrite, by 15%; quartz sand, by 13%; granite and granulite, by 12%; and secondary aluminum, marketed lime, and basalt, by 8% each. The production of residual fuel oil decreased by 15%; that of gneiss, by 12%; natural gas liquids and kerosene and jet fuel, by 11% each; and kaolin, by 9% (table 1).

Structure of the Mineral Industry

Table 2 is a list of the major mineral industry facilities. Many mineral producers and processors (including most of the producers of industrial minerals) in Austria are small- and medium-scale ("Mittelstand") family-owned companies and are not listed in table 2 owing to the lack of available information concerning their production capacities.

There was a slight increase in the number of active mining and quarrying operations in Austria in 2014. There were reportedly 1,148 mining and quarrying operations and 2 operations that produced natural gas and (or) crude petroleum in 2014 compared with 1,056 and 3, respectively, in 2013. Of the mining and quarrying operations in 2014, 1,134 produced industrial minerals (1,044 in 2013), including 1,131 open pit mines or quarries (1,031 in 2013), 10 underground (nonsalt) industrial mineral mines (9 in 2013), and 4 underground salt mines (4 in 2013). Two mines produced iron ore and micaceous iron oxide, and one mine produced nonferrous metals (tungsten) in both 2013 and 2014. Almost all the mineral companies operating in Austria were owned privately, but the Government owned 100% of the currently nonproducing coal company Graz-Köflacher Eisenbahn und Bergbaugesellschaft GmbH and 31.5% of the oil and gas company OMV Aktiengesellschaft (table 2; Bundesministerium für Wissenschaft, Forschung, und Wirtschaft, 2014, p. 13; 2015a, p. 9).

Mineral Trade

The total value of Austria's exports increased by 1.7% to \$163.1 billion in 2014, while its imports decreased by 0.8% to \$165.4 billion. European countries including Russia and Turkey, and in particular, other EU member states, continued to be Austria's main trading partners. Europe accounted for 79.8% of Austria's total exports and 80.7% of its total imports in 2014, by value, whereas the EU member states accounted for 68.8% of exports and 71.3% of imports. Germany was Austria's leading trading partner, accounting for a 29.8% share of its exports and 37.4% of its imports (Wirtschaftskammer Österreich, 2015, p. 59, 62, 64).

The value of Austria's exports of raw materials (including nonfuel minerals and nonmineral raw materials, such as wood) decreased slightly to \$4.8 billion in 2014 and accounted for 3.0% of total exports in 2014 compared with 3.1% in 2013. The value of the country's imports of raw materials decreased to \$7.4 billion in 2014 from \$7.5 billion in 2013 and accounted for 4.4% of total imports in 2014. The value of exports of fuels and energy (including mineral fuels and electricity) decreased to \$4.0 billion in 2014 from \$4.3 billion in 2013 and made up 2.4% of total exports in 2014. The value of imports of fuels and energy decreased to \$16.6 billion in 2014 from \$18.9 billion in 2013 and made up 10.1% of total imports in 2014. Thus, Austria's trade balance for energy, fuels, and raw materials (including most of the mineral trade balance as a subset) was -\$15.2 billion in 2014 compared with -\$17.2 billion in 2013 (Wirtschaftskammer Österreich, 2014, p. 60–61; 2015, p. 60–61).

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. Manufactured ferrous metals (including iron and steel and possibly including ferroalloys) made up 5.4% of all exports in 2014; nonferrous metals (including such products as aluminum and tungsten carbide, metal, and oxide powders), 2.4%; and nonmetallic mineral products (including such products as cement), 1.7%. In terms of imports, their shares were 2.7%, 2.5%, and 1.5%, respectively. Austria's exports of manufactured ferrous metals increased in value to \$8.8 billion in 2014, and that of nonmetallic mineral products increased to \$2.8 billion. Exports of nonferrous metals decreased to \$3.8 billion. Imports of ferrous metals remained about the same at \$4.5 billion and that of nonferrous metals at \$4.2 billion. Imports of industrial mineral products increased to \$2.4 billion. Thus, Austria's trade balance for processed mineral products decreased to about \$4.3 billion in 2014. The trade surplus in this sector of the mineral industry, however, was not enough to overcome the country's overwhelming trade deficit in energy, fuels, and raw materials (Wirtschaftskammer Österreich, 2014, p. 60–61; 2015, p. 60–61).

Austria's exports to the United States were valued at \$10.8 billion and its imports from the United States totaled \$3.8 billion in 2014. Mineral exports to the United States included, in descending order of value, iron and steel mill products (\$177.3 million), bauxite and aluminum (\$118.2 million), iron and steel manufactures (\$93.7 million), advanced iron and steel products (\$59.7 million), nonferrous metals (\$42.5 million), sulfur and nonmetallic minerals (\$21.5 million), petroleum products (\$8 million), fertilizers (\$7 million), and other precious metals (\$5.4 million). Mineral imports from the United States included, in descending order of value, nonferrous metals (\$70 million), metallurgical grade coal (\$47.9 million), copper (\$20.1 million), finished metal shapes (\$14.1 million), iron and steel mill products (\$6.3 million), nonmonetary gold (\$4.4 million), other iron and steel products (\$4 million), fertilizers (\$3.3 million), aluminum and alumina (\$2.3 million), and other precious metals (\$1.4 million) (U.S. Census Bureau, 2015a, b).

Commodity Review

Metals

Aluminum.—AMAG Austria Metall AG's global sales of aluminum and aluminum products increased by 6.9% to 375,900 metric tons (t) in 2014; of the total, 352,100 t was exported, which was an increase of 6.8%. The company's casting division delivered two-thirds of its shipment volume to the automotive industry. In September 2014, AMAG launched a new hot-rolling mill in Ranshofen in the State of Upper Austria, and completed the construction of a new plate production center at the end of the year as part of its AMAG 2014 expansion project, which it had initiated in 2012. The production capacity of the company's rolling division increased to 225,000 metric tons per year (t/yr) of aluminum metal in 2014 from 150,000 t/yr in 2012 as a result of this expansion. The division's shipments increased to 170,000 t in 2014 from 158,000 t in 2013. In November 2014, the company initiated the AMAG 2020 project that entailed an investment of EUR300 million (\$383 million) to increase capacity to more than 300,000 t/yr. AMAG expected to begin operating a new cold-rolling mill in 2017 (AMAG Austria Metall AG, 2015, p. 9, 10, 17, 43).

Gold.—Noricum Gold Ltd. of the United Kingdom held two mining licenses in Rotgülden and Schonberg. In 2014, based on exploration results that confirmed the presence of up to eight veins along a 3-kilometer (km) strike, the company decided to focus its drilling program on the Schonberg project, which was centered on the towns of Knittelfeld and Flatschach. Soil sampling covering 2.5 km of strike formed the basis of Noricum's first 2,000-meter (m) drilling program in Schonberg. Results contained up to 3.82 parts per million (ppm) of gold and 8,640 ppm of copper. In September 2014, Noricum Gold began drilling at Weissenbachgraben, which was one of the three mining license areas in Schonberg. The company's Rotgülden mine target, which had produced gold in the past, remained prospective. Rock-chip sampling at the Altenberg prospect of the license area indicated grades of up to 86.4 grams per metric ton (g/t) gold and 1,000 g/t silver. Noricum Gold planned to conduct a 2,500-m surface diamond drilling program at Rotgülden before its authorization expired in November 2018 (Noricum Gold Ltd., 2015a, p. 3; 2015b, c).

Iron and Steel.—VA Erzberg GmbH's production of iron ore increased by 3.8% to reach 2.4 million metric tons (Mt) in 2014. The company annually processed about 9 Mt of rock to produce iron, which was then supplied to voestalpine Stahl GmbH's plants in Linz and Donawitz to produce steel. Voestalpine Stahl produced 5.7 Mt and sold 5.1 Mt of crude steel in the business year 2013–14; the company's steel output and sales were both record highs (VA Erzberg GmbH, 2014, p. 1; voestalpine Stahl GmbH, 2014, p. 3; Bundesministerium für Wissenschaft, Forschung, und Wirtschaft, 2015a, p. 29).

In May 2014, VA Erzberg launched its new, fully automated iron ore storage at the Styrian Erzberg Mine. The \$16 million project was the biggest investment in the mine in 30 years. Compared with the previous method of storage of tipping of the fine ore by heavy-duty trucks and further transportation by wheel loader, the automated storage was expected to improve ore quality by increased homogenization

and to achieve cost optimization and significant carbon emissions reduction of nearly 1,000 tons of CO₂ per year (VA Erzberg GmbH, 2014, p. 1).

Tungsten.—The Mittersill tungsten mine, which was owned by Wolfram Bergbau und Hütten AG, a subsidiary of Sandvik AB of Sweden, extracted 499,883 t of tungsten ore in 2014 compared with 487,310 t in 2013 in response to stable sales. The company produced 3,500 t of tungsten concentrate and recovered more than 819 t of WO₃ in tungsten concentrate in 2014, which were wholly processed at Wolfram Bergbau und Hütten's conversion plant in St. Martin, Styria. The mine employed 80 people. The company continued underground exploration core drilling, which identified new reserves at approximately 650 m. Further exploration was planned at this level through investment in new ramp propulsion vehicles (Wolfram Bergbau und Hütten AG, 2014; Bundesministerium für Wissenschaft, Forschung, und Wirtschaft, 2015a, p. 29–30).

Industrial Minerals

Cement.—Austria's cement industry remained relatively small and fragmented with eight companies, most of which were privately or family owned and controlled. There were nine integrated cement plants and two grinding plants, one of which was decommissioned, spread across the country. Lafarge Perlmooser AG, which was owned by Lafarge Cement CE Holding, a joint venture of Lafarge of France and Strabag SE of Austria, was the market leader in Austria with a 32% market share. The company operated two integrated cement plants with a combined capacity of 2 Mt; its Mannersdorf plant in Lower Austria was the largest cement facility in the country. Wietersdorfer & Peggauer Zementwerke was the second largest cement producer in Austria and also operated two cement plants. LEUBE Baustoffe GmbH was a producer of cement, lime, sand and gravel, and ready-mix concrete. The company was one of the few global producers of white cement. Gipswerk Schretter & Cie. GmbH was a medium-sized mineral company that produced gypsum and lime as well as portland cement (Saunders, 2014, p. 43–48; International Cement Review, 2015, p. 42–43).

Cement producers in Austria have increased the use of alternative kiln fuels, such as tires, plastics, waste oil, animal fats, and bone meal in recent years to reach 72% in 2014. Conventional fuels accounted for the remaining 28% of the energy used for cement production—that is, coal accounted for 18% of the industry's energy needs; petcoke, 8%, and petroleum and natural gas, 1% each (International Cement Review, 2015, p. 43).

The proposed merger between Lafarge and Holcim Cement of Switzerland, two leading global cement companies, would merge Holcim Wien with Lafarge Perlmooser and add the import terminal in Vienna supplied by Holcim Slovakia to its assets. In July 2014, Holcim and Lafarge announced that they planned to divest Lafarge's Mannersdorf cement plant along with other plants in Europe and elsewhere as part of their merger to address market competitiveness concerns of regulatory authorities (Global Cement, 2014; International Cement Review, 2015, p. 43).

Clay and Shale.—Two mining sites, which employed 15 people, produced 36,334 t of raw kaolin in 2014. Kaolin has been produced in Austria for more than 200 years, with peak production of 170,000 t and a workforce of 500 employees in the 1960s and 1970s. The mining of kaolin, which was mainly used as filler and carrier material in paper, paints, plastics, and rubber, and in production of ceramic, cosmetic, glass fiber, and pharmaceutical products, has been carried out exclusively since the 1950s by “Kamig” Österreichische Kaolin- und Montanindustrie AG Nfg. Komm. Gesellschaft (Bundesministerium für Wissenschaft, Forschung, und Wirtschaft, 2015a, p. 34).

Graphite.—Austria's graphite production has declined since its peak in the 1960s, when annual output by eight facilities had reached more than 100,000 t. In 2014, Grafitbergbau Kaisersberg GmbH produced graphite for specialty markets in St. Stefan ob Leoben. Extraction had resumed at the site in 2008 (Bundesministerium für Wissenschaft, Forschung, und Wirtschaft, 2015a, p. 32).

Gypsum and Anhydrite.—Eight active mining sites across Austria produced 729,892 t of gypsum and anhydrite in 2014 through both surface and underground mining. They employed a total of 50 people. The main producers were the same as in 2013: Knauf GmbH, Saint-Gobain Rigips Austria GmbH, Moldan Baustoffe GmbH & Co. KG, and Gipswerk Schretter & Cie. Filling work continued in the former Preinsfeld gypsum mine of Gipsbergbau Preinsfeld GmbH. Nachfolger K.G.; there was no extraction at the site (Bundesministerium für Wissenschaft, Forschung, und Wirtschaft, 2015a, p. 32).

Limestone.—Sixty-four mining sites produced a total of 7.9 Mt of limestone in 2014 compared with 61 sites that produced 7.2 Mt in 2013. A total of 381 people were employed in this activity. The main limestone producing companies were Hollitzer Baustoffwerke Betriebs GmbH., Josef Christandl GmbH., Kanzel Steinbruch Dennig Gesellschaft Ltd., Karl Freingruber Gesellschaft Ltd., die GRUBER SAND-KIESSTEINE GMBH, Baumeister Ing. Peter Keckeis GmbH. & Co. KG, Franz Stöckl Gesellschaft Ltd., die Hans Zöchling GmbH and Gebrüder Haider, Bauunternehmung GmbH. In 2014, residual marl stocks were used to complete a rubble landfill on the main floor of Lafarge Cement's Retznei cement plant (Bundesministerium für Wissenschaft, Forschung, und Wirtschaft, 2015a, p. 61).

Lithium.—Global Strategic Metals (GSM) NL obtained mining licenses in perpetuity from the BMFW for the 80%-owned Wolfsberg Lithium Project in the State of Carinthia in April 2014, which was interpreted as a major step towards becoming the second lithium producer in Europe after Portugal. The project comprised 22 original and 32 overlapping exploration licenses and a mining license over 11 mining areas. The 5-year term of the original exploration licenses was extended to December 31, 2019. The inferred resources of the project were 16.9 Mt at 1.6% lithium oxide. GSM had completed its bulk sampling in December 2013 and intended to use some of the mined ore to update the metallurgical test work undertaken by the North Carolina State Minerals Research Laboratory in the 1980s. In January 2014, the company obtained a suspension of the requirement for

annual performance of mining for the years 2014 and 2015 in order to undertake technical studies. In July 2014, GSM announced plans to separate its lithium and silver businesses. In November 2014, this was accomplished by spinning its subsidiary European Lithium Ltd. off as a mining exploration and development company, which was wholly owned by the Wolfsberg Lithium Project. European Lithium planned to begin construction at Wolfsberg by early 2017 and to start production by the end of 2018 (Proactive Investors, 2014a, b; European Lithium Ltd., 2015a–c).

Magnesium Compounds.—Ten active mining sites (eight in Styria, one in Carinthia, and one in Tyrol), which employed 90 employees, produced 754,096 t of magnesite in Austria in 2014. Styromagnesit Steirische Magnesitindustrie GmbH, which was one of the two main magnesium extractors in Austria, reported that the magnesite market in 2014 was characterized by a slight decrease in demand for caustic burned magnesite and an increase in demand for raw magnesite products. The company produced about 130,000 t of magnesite in 2014; of the total, the Angerer underground mine provided 24,000 t; the Kaintaleck open pit mine, 54,000 t; the Shoher Pass open pit mine, 33,000 t; and the Hoehentauern open pit mine, 17,000 t. Styromagnesit Steirische Magnesitindustrie planned to reduce production costs for raw magnesite by investing in new machinery. It purchased 8 hectares of land adjacent to the premises for the sustainable production of the site in St. Katharein-Oberndorf. Despite this substantial investment, the company regarded the market situation for caustic burned magnesite to be difficult owing to competitive disadvantages that it faced as a result of the mandated carbon emissions tax compared with other international caustic magnesite producers, in particular those in China and Turkey (Bundesministerium für Wissenschaft, Forschung, und Wirtschaft, 2015a, p. 10, 37, 38).

RHI AG, which was a global supplier of high-grade refractory products, mined magnesite and dolomite at three locations in Austria. The company used underground mining in Radenthein, surface mining in Hochfilzen, and both underground and surface mining in Breitenau. In October 2014, RHI commissioned a facility to recover fine tailings from the discontinued flotation process in Hochfilzen, which returned up to 30,000 t of residual materials to the production process per year while also relieving the mine. The company continued to expand its raw mineral production capacities in Austria and Turkey and also acquired new assets in Ireland and Norway to increase its mineral self-sufficiency level to about 80% in 2014 (RHI AG, 2015, p. 1, 7, 41).

The mining of dolomite as a solid rock (mining by drilling and blasting) was reported in 2014 from 44 mining sites, which employed 184 people. The main dolomite producers were Baukontor Gaaden mbH, Quarry Harrer mbH, Dolomite Eberstein Neuper GmbH, Grasmann GesmbH & Co KG, the Brixentaler Sand and Kieswerk Markus Schermer e. U. and Leopold Ottersböck GmbH, Anton Traunfellner GmbH, and Mineral Abbau GmbH. (Bundesministerium für Wissenschaft, Forschung, und Wirtschaft, 2015a, p. 57).

Six privately owned companies were engaged in marl extraction in the States of Carinthia, Salzburg, Tyrol, and Upper Austria. They employed 24 people in 2014 compared

with 38 people in 2013. Marl production decreased by 3.1% to 962,722 t in 2014 (Bundesministerium für Wissenschaft, Forschung, und Wirtschaft, 2015a, p. 8, 57).

A total of 46 enterprises, which employed 69 people, produced 910,132 t of quartz sand in 2014. Most producers were small businesses and medium-sized enterprises. The leading producers were Quarzwerke Österreich GmbH, Quarzsande GmbH, Krempelbauer-Quarzsandwerk St. Georgen Hentschläger & Co.KG., “Kamig” Österreichische Kaolin- und Montanindustrie AG Nfg. Komm. Ges., Karl Wurz GmbH, BRAMAC Dachsysteme International GmbH. About 35,000 t of feldspar was recovered as a byproduct of silica sand mining at Zelking by Quarzwerke Österreich GmbH (Bundesministerium für Wissenschaft, Forschung, und Wirtschaft, 2015a, p. 10, 37).

Mineral Fuels

In 2013 (the latest year for which comprehensive data were available), Austria’s primary energy supply was provided by crude oil and petroleum products (36%), renewable energy sources (in particular, hydropower) (30%), natural gas (21%), and solid fuels including coal (10%). The country was dependent on imports for about 64% of its energy needs (European Commission, 2014, p. 59; 2015c, p. 143, 144).

Natural Gas.—In 2014, natural gas extraction, including petroleum gas, decreased by 9.5% to 1.24 billion cubic meters, of which 992 million cubic meters or about 80% was natural gas and 243 million cubic meters or about 20% was petroleum gas. Though lower than the production volume in 2013, domestic production met about 18% of the nation’s gas consumption of about 7 billion cubic meters, with imports accounting for the remaining 82%. Of total natural gas output, about 76% was extracted from the Vienna Basin in Lower Austria and the remaining 24% from the Molasse zone of Upper Austria. Two companies continued to account for all production in Austria: OMV AG, with approximately an 83% share, and Rohöl-Aufsuchungs AG (RAG), with 17%. Natural gas imports decreased by about 10% to 41.8 billion cubic meters, whereas exports decreased by about 15% to 34.4 billion cubic meters. Fifty-one percent of imports (3.8 billion cubic meters) originated from the Commonwealth of Independent States countries (Russia and Kazakhstan) followed by imports from Norway (Fachverband der Mineralölindustrie Österreichs, 2014, p. 11; 2015, p. 11; Polak and Starlinger, 2015).

OMV produced about 1.1 billion cubic meters of natural gas in Austria in 2014 compared with about 1.2 billion cubic meters in 2013. Its proven natural gas reserves in the country amounted to 7.9 billion cubic meters. The company was in the process of transforming into an upstream-focused hydrocarbons company. Its main objective at its Austria-based operations continued to be stabilizing hydrocarbon production. In 2014, RAG operated 150 fields, had 245 hydrocarbon producing and gas storage wells, and drilled 7 new wells in Austria. The company produced 248.7 million cubic meters of natural gas compared with 254 million cubic meters in 2013. Its proven natural gas reserves in Austria amounted to 0.1 billion cubic meters. In January 2014, RAG founded its wholly owned subsidiary RAG Energy Drilling, whose focus was on providing drilling services

to hydrocarbon companies with its E200 and E202 rigs. In April 2014, the company completed the second-stage expansion of the 7Fields underground gas storage facility. 7Fields, which was a joint venture between RAG and E.ON Gas Storage GmbH of Germany, had a storage capacity of 1.7 billion cubic meters of natural gas and allowed E.ON to safeguard the annual gas consumption of about 800,000 customers in Austria and Germany. E.ON thus became the second largest marketer of gas storage capacity in Austria (E.ON Gas Storage GmbH, 2014; OMV Aktiengesellschaft, 2015a, p. 9–10; 2015b, p. 9–10; Rohöl-Aufsuchungs Aktiengesellschaft, 2015a, b; 2015c, p. 5).

Petroleum and Petroleum Refinery Products.—In 2014, total crude petroleum and natural gas liquids (NGLs), which included condensates and the liquid proportion of natural gas production, increased by 3% to 944,826 t. Crude petroleum output increased by 4.1% to about 883,016 t, while NGL output decreased by 10.7% to 61,811 t. Of total crude petroleum output, 764,165 t or 87% was extracted from the Vienna Basin and 118,851 t or 13% came from the Molasse zone of Upper Austria and Salzburg. Nearly all NGL output was extracted from the Vienna Basin. OMV provided about 85% of total output, while RAG accounted for the remaining 15%. Crude petroleum imports decreased by 3.6% to 7.5 Mt. Austria's major sources of crude petroleum imports were Kazakhstan (2.5 Mt or 33%), Libya (1 Mt or 13%), and Saudi Arabia (0.8 Mt or 11%). These imports were supplemented by imports of about 6.2 Mt in finished petroleum products, including diesel, fuel oil, and gasoline. Imports of finished petroleum products originated mainly from Germany (3.3Mt or 53%), Slovakia (0.9 Mt or 15%), and Hungary (0.5 Mt or 8%) (Fachverband der Mineralölindustrie Österreichs, 2014, p. 11; 2015, p. 11).

OMV produced about 5.8 million barrels (Mbbbl) of crude petroleum and NGL in Austria in 2014, which was an increase from 5.7 Mbbbl in 2013. Its proven petroleum and NGL reserves in the country amounted to 45.4 Mbbbl. The company put 15 new wells in operation and finalized 3 field redevelopment projects during the year. RAG produced about 992,000 barrels of crude petroleum in 2014, which was about the same as in 2013. Its proven petroleum reserves amounted to 6.3 Mbbbl (OMV Aktiengesellschaft, 2015a, p. 44; 2015b, p. 9, 10; Rohöl-Aufsuchungs Aktiengesellschaft, 2015c, p. 5).

The Schwechat refinery, which was wholly owned and operated by OMV, was the only refinery in Austria and one of the largest inland refineries in Europe. It processed domestic and imported crude petroleum and produced a full range of petroleum products for domestic consumption and export. Crude petroleum was delivered to Schwechat by pipeline from the Port of Trieste, Italy, through the Transalpine Line (TAL) and the Adriatic-Vienna Pipeline (AWP). In 2014, the refinery processed about 8.6 Mt of crude at a capacity utilization rate of 90%. About 90% of Schwechat's processed crude was imported, while the remaining 10% was supplied by domestic production. The refinery produced 39% diesel, 21% gasoline, 14% fuel oil, 11% petrochemicals, 8% jet fuel, 4% bitumen, and 3% other products. Its output was not sufficient to cover the country's annual demand for gasoline, jet fuel, and diesel oil (International Energy Agency, 2014a, p. 88; Fachverband der Mineralölindustrie Österreichs, 2015, p. 11).

Shale Gas.—The State of Lower Austria was estimated to contain shale gas reserves sufficient to meet the country's domestic gas demand for a period of at least 20 years, thereby reducing the country's need for imported gas. Austria's current regulatory framework was seen as effectively discouraging the development of these resources; the mandatory environmental impact assessment process for each hydraulic fracturing well required a period of 3 to 4 years (Natural Gas Europe, 2012; International Energy Agency, 2014b, p. 10).

Outlook

Austria is likely to remain a significant producer of magnesite and tungsten in Europe and in the world. The country's crude magnesite and tungsten output are expected to continue to increase, but its caustic magnesite output may decrease owing to competitive cost pressures from foreign producers. Aluminum and iron ore production are expected to increase in the coming years as a result of current capacity expansion projects. Austria has the potential to become a major lithium producer and exporter beginning in 2018, if the Wolfsberg lithium project advances to the extraction phase as planned. The country may also become a modest gold producer, if the Rotgülden and Schonberg projects identify precious metal reserves. The growth of industrial minerals output is largely contingent on whether the domestic and European manufacturing and construction sectors return to robust growth in the coming years. Mineral fuels production in Austria is likely to decrease at a gradual rate.

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TABLE 1
AUSTRIA: PRODUCTION OF MINERAL COMMODITIES¹

(Thousand metric tons unless otherwise specified)

Commodity		2010	2011	2012	2013	2014
METALS						
Aluminum, metal, secondary	metric tons	374,837	385,551	383,244	387,415	416,621
Copper, metal, secondary:						
Smelter	do.	92,200	92,200	95,000	94,000 ^e	94,000 ^e
Refined	do.	113,705	112,610	113,578	82,842 ^r	83,190
Iron and steel:						
Iron ore, including micaceous iron oxide:						
Gross weight		2,069	2,207	2,142	2,323	2,437
Fe content		662	706	686	743	780
Metal:						
Pig iron		5,621	5,815	5,751	6,144	6,015
Ferroalloys, electric arc furnace, unspecified ^e		555 ^r	739 ^r	698 ^r	698 ^r	698
Crude steel		6,569	7,474	7,421	7,953	7,876
Semimanufactures, hot-rolled products		6,621	6,874	6,850	7,377 ^r	7,148
Lead, refined, secondary	metric tons	25,499	26,208	24,500 ^r	38,786	37,122
Nickel, including Ni content of ferroalloys ^e	do.	1,900 ^r	1,800 ^r	1,700 ^r	2,090 ^r	4,140
Tungsten ore and concentrate:						
Ore:						
Gross weight	do.	429,748	423,790	376,460	487,310 ^r	499,883
W content ^e	do.	1,110	975 ²	898 ²	1,165 ²	1,200
Concentrate:						
Gross weight	do.	3,812	3,380	2,760	3,514	3,500
W content	do.	977	861	706	850	819
INDUSTRIAL MINERALS						
Aluminum oxide, fused ^e	metric tons	11,500	12,000	12,000	12,000	12,000
Cement:						
Clinker		3,097	3,176	3,206	3,150 ^e	3,200 ^e
Hydraulic		4,254	4,427	4,455	4,385	4,400
Clays:						
Kaolin, crude	metric tons	58,956	56,976	43,174	40,055	36,334
Unspecified, possibly including bentonite, brick clay, and illite		1,860	1,927	1,794	1,700 ^e	1,600 ^e
Diabase (of basaltic rocks)		1,762	2,083	1,881	1,817 ^r	1,795
Feldspar, byproduct of silica processing ^e	metric tons	27,000	27,000	32,000	35,000	35,000
Graphite, crude	do.	420	925	219	200	200 ^e
Gypsum and anhydrite, crude		872	815	792	635	730
Lime, including quicklime		774	801	781 ^r	780 ^r	830 ^e
Of which, marketed		492	528	510 ^{r,e}	510 ^{r,e}	550 ^e
Magnesite:						
Crude		757	868	779	714	754
Sintered or dead burned		264	293	270 ^e	250 ^e	250 ^e
Caustic calcined		52	57	55 ^e	50 ^e	50 ^e
Mica ^{e,3}	metric tons	3,430	3,590	3,400	3,400	3,400
Nitrogen, N content of ammonia ^e		400	400	400	400	NA
Salt (NaCl):						
Brines, gross	thousand cubic meters	3,608	3,809	3,193	3,717	3,847
Evaporated, mechanical heating process		1,072	1,150	952	1,110 ^r	1,150
Rock	metric tons	95	169	222	184	245
Mine output, NaCl content		1,083	1,143 ^r	958 ^r	1,115 ^r	1,154
Sand and gravel:						
Dolomite, loose rocks and gravel		2,620	2,870	2,661	2,709	2,751
Quartz (silica) sand		939	898	820	803 ^r	910
Sand and gravel, unspecified		24,128	25,046	23,980	24,271 ^r	25,722

See footnotes at end of table.

TABLE 1—Continued
AUSTRIA: PRODUCTION OF MINERAL COMMODITIES¹

(Thousand metric tons unless otherwise specified)

Commodity	2010	2011	2012	2013	2014	
INDUSTRIAL MINERALS—Continued						
Sodium compounds, manufactured, n.e.s. ^{c,4}	286	301	300	300	300	
Stone:						
Amphibolite	1,670	1,318	1,145	1,189	1,180	
Basalt, not included in diabase	1,473	1,791	1,363	1,600	1,732	
Dolomite	3,942	3,940	3,606	3,804 ^r	4,462	
Gneiss	1,505	1,435	1,503	1,490	1,305	
Granite and granulite	2,340	3,034	2,704	2,667 ^r	2,974	
Limestone, including marble	21,190	21,571	21,226	21,348 ^r	22,695	
Marl	1,149	1,484	1,073	993 ^r	963	
Quartz, quartzite, and pegmatite	294	285	315	311 ^r	370	
Serpentinite	2,013	1,484	1,311	1,507 ^r	1,621	
Other, including conglomerate and sandstone	38	47	31	22	17	
Sulfur, byproduct of petroleum and natural gas	metric tons	9,873	9,669	10,329	9,789 ^r	9,800 ^c
Talc and leucophyllite (white mica), crude	do.	138,367	132,018	135,665	134,814	131,108
MINERAL FUELS AND RELATED MATERIALS						
Coke	1,388	1,356	1,346	1,348	1,330	
Natural gas:						
Marketable (net)	million cubic meters	1,713	1,591	1,729	1,359	1,245
Natural gas liquids ⁵	thousand 42-gallon barrels	927	846	830	720	643
Oil shale	metric tons	176	132	540	173	203
Petroleum:						
Crude ⁶	thousand 42-gallon barrels	6,167	5,900	5,896	6,235 ^r	6,493
Refinery products: ⁵						
Liquefied petroleum gas	do.	1,011	1,175	826	829	792
Gasoline	do.	12,262	13,071	13,464	12,955	15,619
Kerosene and jet fuel	do.	3,780	4,880	4,890	5,186	4,609
Diesel fuel	do.	20,400	25,100	27,100	25,700	27,230
Distillate fuel oil	do.	6,970	4,270	6,050	6,786	6,449
Residual fuel oil	do.	5,070	4,920	4,110	4,949	4,221
Lubricants and miscellaneous oils	do.	672	501	451	515	607
Bitumen, bituminous mixtures, and other residues	do.	1,770	2,280	2,220	1,890	2,146
Other (unspecified)	do.	1,510	1,220	1,624 ^r	1,653 ^r	1,676
Total	do.	53,445	57,417	60,735 ^r	60,463 ^r	63,349

^cEstimated; estimated data are rounded to no more than three significant digits; may not add to totals shown. ^rRevised. do. Ditto. NA Not available.

¹Includes data available through December 1, 2015.

²Reported figure.

³Estimated from reported exports minus imports of mica.

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

⁵Figures converted to barrels from metric tons according to U.S. Energy Information Administration conversion factors.

Source: U.S. Energy Information Administration, 2015, International Energy Statistics—Units: Washington, DC, U.S. Energy Information Administration. (Accessed November 30, 2015, at <https://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, 2015, International Energy Statistics—Europe: Washington, DC, U.S. Energy Information Administration. (Accessed November 30, 2015, at <https://www.eia.gov/cfapps/ipdbproject/IEDIndex3.cfm?tid=5&pid=53&aid=1>.)

TABLE 2
AUSTRIA: STRUCTURE OF THE MINERAL INDUSTRY IN 2014

(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	225
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 Neudörf, 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-Hausmening, State of Lower Austria	NA
Cement	Lafarge Perlmöser 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.	Wietersdorfer & Peggauer Zementwerke GmbH	Plant at Peggau, State of Styria; Plant at Wietersdorf, State of Carinthia	1,200
Do.	Gmundner Zement Produktions- und Handels GmbH	Plant at Hatschek, State of Upper Austria	800
Do.	LEUBE Baustoffe GmbH	Plant at Gartenau, State of Salzburg	770
Do.	Kirchdorfer Zementwerk Hofmann GmbH	Plant at Kirchdorf, State of Upper Austria	500
Do.	Wopfinger Baustoffindustrie GmbH	Plant at Wopfing, State of Lower Austria	300
Do.	Holcim (Wien) GmbH (Holcim Ltd., 100%)	Plant at Vienna	300
Do.	Gipswerk Schretter & Cie. GmbH	Plant at Vils, State of Tyrol	280
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 Göllersdorf, State of Lower Austria; at Rotenturm and Stoob, State of Burgenland; and at Apfelberg and Weißkirchen, State of Styria	NA
Clays, kaolin, and silica sand	Österreichische Kaolin- und Montanindustrie AG	Mines at Weinzierl and Kriechbaum; processing plant at Aisthofen, State of Upper Austria	170
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 2014

(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 Klöch and Oberhaag, State of Styria	NA
Feldspar	Quarzwerte Österreich GmbH (Quarzwerte GmbH, 100%)	Mine and plant at St. Georgen an der Gusen, State of Upper Austria	NA
Ferroalloys, FeV, FeMo, FeNi	Evonik Treibacher GmbH (Treibacher Industrie AG, 50%; Evonik Industries, 50%)	Plant at Althofen, State of Carinthia	65 ^e
Graphite, natural	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 Dörfelstein and Tragöß-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 ^e
Do.	LEUBE Baustoffe GmbH	Limestone mine near Ofenauer mountain in Golling and plant at Golling, State of Salzburg	300 ^e
Lithium	ECM Lithium AT GmbH (Global Strategic Metals NL, 100%)	Mine at Wolfsberg, State of Carinthia	NA ¹
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 Millstätter 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; Hoehentauern 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%)	1,800 ^e
Do.	do.	Rohöl-Aufsuchungs Aktiengesellschaft (EVN AG, 50.025%; E.ON Ruhrgas E&P GmbH, 29.975%; Steirische Gas-Wärme GmbH, 10%; Salzburg AG, 10%)	750 ^e
Nitrogen, N content of ammonia	Borealis Agrolinz Melamine GmbH (Borealis AG, 100%)	Plant at Linz, State of Upper Austria	498
Oil shale	Tiroler Steinölwerke Albrecht GmbH & Co. KG	Mine in the Bächental, near Pertisau am Achensee, State of Tirole	NA

See footnotes at end of table.

TABLE 2—Continued
AUSTRIA: STRUCTURE OF THE MINERAL INDUSTRY IN 2014

(Thousand metric tons unless otherwise specified)

Commodity		Major operating companies and major equity owners	Location of main facilities	Annual capacity
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 ^e
Do.	do.	Rohöl-Aufsuchungs Aktiengesellschaft (EVN AG, 50.025%; E.ON Ruhrgas E&P GmbH, 29.975%; 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 ^e
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
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-Dürrenberg, 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 Mürztal, State of Styria	300
Do.		Böhler Edelstahl GmbH & Co KG (voestalpine AG, 100%)	Plant at Kapfenberg, State of Styria	150 ^e
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 ^e
Do.		Aspanger Bergbau und Mineralwerke GmbH & Co. KG (Wietersdorfer & Peggauer Zementwerke GmbH, 100%)	Leucophyllite mine and mica processing plant at Aspangberg-Zöbern, 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 ^e
Concentrate, W content	metric tons	do.	do.	1,800 ^e
Carbide, powders	do.	do.	Primary and secondary chemical treatment and sintering plant at St. Martin, in the Sulmtal, State of Styria	3,000 ^e
Carbide and metal, powders		Treibacher Industrie AG	Plant at Althofen, State of Carinthia	NA
Metal, powders		Plansee SE (Plansee Holding AG, 100%)	Plants at Liezen, State of Styria, and at Reutte, State of Tirole	NA
Do.	metric tons	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 ^e
Oxides		do.	do.	NA

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

¹Under development.