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2019 Minerals Yearbook

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The Mineral Industry of Spain

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Spain is endowed with metallic mineral resources, such as copper, gold, iron, lead, nickel, silver, tungsten, and zinc. In 2019, Spain was the world's leading producer of strontium (celestite), accounting for 41% of the world's production, and the sole producer of sepiolite. Spain was the world's second-ranked producer of fuller's earth (19%), third-ranked producer of industrial sand and gravel (11%), fourth-ranked producer of iron oxide pigments (excluding United States production), sixth-ranked producer of feldspar (3.4%) and fluorspar (1.9%, excluding United States production), and seventh-ranked producer of gypsum (4.7%) (Ministerio para la Transicion Ecologica y el Reto Demografico, 2019, p. 6; Brioche, 2021a, b; Crangle, 2021; Dolley, 2021; McRae, 2021; Ober, 2021; Simmons, 2021).

Minerals in the National Economy

In 2019, Spain's real gross domestic product (GDP) increased by 2.0% compared with that in 2018; the nominal GDP was $1.39 trillion.[1] In 2018 (the latest year for which data were available), the total value of Spain's mineral commodity production was $4.1 billion, which was a 6.3% increase from that in 2017, and the mineral industry employed 29,890 people. The production of metallic minerals was valued at $1.44 billion (a 4.4% increase from that in 2017); quarry products, $1.09 billion (a 6.0% increase from that in 2017); industrial minerals, $970 million (a 17% increase from that in 2017); and ornamental rocks, $436 million (a 1.7% decrease from that in 2017). The production of coal and hydrocarbons was valued at $106.3 million and $73.2 million, respectively, which was a combined decrease of 9% compared with that in 2017 (Ministerio para la Transicion Ecologica y el Reto Demografico, 2019, p. 7, 9, 16, 25–31; International Monetary Fund, 2020, p. 3, 39).

Government Policies and Programs

The main laws regulating Spain's mineral industry include the Mining Law of July 21, 1973, and the Hydrocarbon Law of October 7, 1998. The Ministerio de Industria, Energia y Turismo (MIET) [Ministry of Industry, Energy and Tourism] is responsible for proposing and implementing Government policies on energy and industrial development. The Secretaria de Estado de Energia [Secretary of State for Energy] is responsible for the development of energy and mining policy. The Ministerio de Economia y Competitividad [Ministry of Economy and Enterprise], through the Institute Geologico y Minero de Espana (IGME) [Geological and Mining Institute of Spain], is responsible for the study and characterization of mineral deposits and regulating environmental mine planning, recovery, and remediation operations (Instituto Geológico y Minero de España, 2020; Secretaria de Estado de Energia, 2021).

Production

In 2019, significant increases in production included that of mined lead (concentrate, Pb content), which increased by 200%; mined zinc (Zn content), by 77%; secondary blister copper, by 54%; natural gas, by 41%; and smelter tin (secondary), by 28%. Significant decreases in production included that of metallurgical grade fluorspar, which decreased by 71%; crude petroleum, by 54%; silicomanganese, by 37%; ferromanganese, by 36%; copper (electrowon and solvent extraction), by 32%; primary aluminum, by 31%; mined tungsten (W content), by 30%; mica, by 28%; fluorspar (submetallurgical grade), by 26%; feldspar (including pegmatite), by 19%; naphtha, by 18%; sea salt (including evaporated), by 16%; sepiolite, by 15%; pig iron, crude magnesite, and potash (K_2O content), by 14% each; and bentonite clay and primary blister copper, by 10% each. The country did not produce coal in 2019. Data on mineral production are in table 1.

Structure of the Mineral Industry

Spain's mineral industry was composed of domestic private companies and international companies that had direct investments in Spanish companies or had subsidiaries in Spain. Repsol S.A. was the leading mineral fuels company in Spain. Other significant companies were Alumina Española S.A., which was a joint venture between Alcoa Inc. (60%) and Alumina Ltd. (40%) and the only producer of alumina; it also operated the San Ciprian aluminum refinery. Orvana Minerals Corp. of Canada owned OroValle Minerals S.L., which in turn owned and operated the El Valle-Boinas and Carles (EVBC) underground gold-copper-silver mines in the Rio Narcea gold belt in northern Spain. First Quantum Minerals Ltd. of Canada, which owned Cobre Las Cruces S.A., operated the Cobre Las Cruces copper mine and refinery in Seville Province. Glencore plc of Switzerland operated the San Juan de Nieva lead smelter in Asturias Province through its wholly owned subsidiary Asturiana de Zinc S.A. Table 2 is a list of major mineral industry facilities.

Mineral Trade

The total value of Spain's exports was $486.0 billion in 2019 compared with $498.6 billion in 2018. In 2018, which was the latest year for which data were available, exports of mineral products amounted to $5.7 billion compared with $4.5 billion in 2017. Exports of petroleum and petroleum derivatives totaled $25.0 billion in 2018 compared with $20.9 billion in 2017; iron and steel exports, $10.3 billion ($9.4 billion in 2017); nonferrous metal manufactures, $7.3 billion ($7.1 billion in 2017);

[1]Where necessary, values have been converted from euro area euros (EUR) to U.S. dollars (US$) at the annual average exchange rates of EUR0.8937=US$1.00 for 2019, EUR0.8467=US$1.00 for 2018, and EUR0.8850=US$1.00 for 2017.

ceramic and similar products, \$5.1 billion (\$4.7 billion in 2017); cement and lime, \$1.3 billion (\$1.2 billion in 2017); and natural gas exports, \$716.9 million (\$564 million in 2017) (Instituto Nacional de Estadística, 2020, p. 362; International Monetary Fund, 2020, p. 44).

The total value of Spain's imports was \$447.0 billion in 2019 compared with \$460.0 billion in 2018, and Spain had a net trade deficit of \$38.9 billion in 2019. Imports of mineral products were valued at \$9.8 billion in 2018 compared with \$8.5 billion in 2017. Petroleum and petroleum derivative imports totaled \$43.8 billion in 2018 compared with \$34.4 billion in 2017; iron and steel, \$10.9 billion (\$9.2 billion in 2017); natural gas, \$9.2 billion (\$8.0 billion in 2017); nonferrous metal products, \$5.7 billion (\$5.0 billion in 2017); coal, \$1.8 billion (\$2.1 billion in 2017); ceramic and similar products, \$1.1 billion (\$932 million in 2017); cement and lime, \$176 million (\$168 million in 2017) (Instituto Nacional de Estadística, 2020, p. 362; International Monetary Fund, 2020, p. 44).

Spain's imports from the United States were valued at about \$15.2 billion in 2019 compared with about \$13.1 billion in 2018. Petroleum products, including crude oil, fuel oil, and natural gas, accounted for \$3.1 billion; natural gas liquids, about \$428 million; nonferrous metals, about \$210 million; copper, \$161 million; coal and related fuels, about \$112 million; finished metal shapes, about \$99 million; drilling and oilfield equipment, about \$86 million; manufactured mineral supplies, \$66 million; and excavating machinery, \$36 million. Spain's exports to the United States were valued at about \$16.8 billion in 2019 compared with \$17.2 billion in 2018. Fuel oil and petroleum products accounted for \$1.6 billion; iron and steel products, about \$439 million; stone, sand, and cement, \$403 million; finished metal shapes, \$197 million; excavating machinery, \$131 million; bauxite and aluminum, \$75 million; drilling and oilfield equipment, \$69 million; steelmaking equipment, about \$50 million; zinc, about \$35 million; and coal and related fuels, about \$27 million (U.S. Census Bureau, 2021a, b).

Commodity Review

Metals

Aluminum.—In July 2019, PARTER Capital Group AG of Switzerland acquired the Aviles and La Coruña aluminum smelters from Alumina Española. The two smelters had a combined capacity of 180,000 metric tons per year (t/yr). In February 2019, Alcoa curtailed both the smelters after reaching an agreement with the workers regarding a dismissal process. The country's aluminum production was estimated to have decreased to 240,000 metric tons (t) in 2019, or by 31%, owing to the curtailment of the two smelters. Alcoa continued to operate the San Ciprian smelter, which had a capacity of 228,000 t/yr (table 1; Alcoa Corp., 2020, p. 10, 40).

Copper.—In 2019, First Quantum Minerals reported that copper production at the Cobre Las Cruces copper mine decreased by 32% compared with that in 2018. The decrease in production was the result of a land slippage incident in January that interrupted mining operations until August. In 2019, the mine processed 1.35 million metric tons (Mt) of copper ore at an average grade of 4.17% copper compared with 1.54 Mt at an average grade of 4.95% copper in 2018. Copper cathode production (electrowon) totaled 48,090 t in 2019 compared with 70,738 t in 2018. During the temporary suspension, the company continued refinery operations using low-grade ore stockpiles; however, refinery throughput was negatively affected by wet ore and a ball mill failure in September. Production levels returned to near 2018 levels in the fourth quarter of 2019. The company reported that 2020 was expected to be the final year of open pit production at the Las Cruces operation. First Quantum planned to continue a near-mine resource exploration program at Las Cruces at yearend. The company also continued with research on the technical and economic feasibility of a polymetallic refinery project (First Quantum Minerals Ltd., 2020, p. 7, 28–29).

In 2019, Proyecto Riotinto, which was a wholly owned subsidiary of Atalaya Mining Plc (Atalaya) of Cyprus, operated an open pit copper mine located in the Pyritic belt, in Huelva, about 65 kilometers northwest of Seville. The company processed 10.5 Mt of ore grading 0.49% copper and produced 44,950 t of copper (Cu content in concentrate) in 2019, which was a 6.7% increase from the 42,114 t produced in 2018. The company expected to complete an expansion project at the mine by January 2020; the expansion project was expected to increase the annual production capacity of mined ore to 15 million metric tons per year (Mt/yr) from 10.5 Mt/yr. Atalaya owned a 10% interest in the Proyecto Touro copper project, which was a brownfield copper project under development by Cobre San Rafael S.L. In November, Atalaya also executed the option to acquire 12.5% of Explotaciones Gallegas del Cobre S.L., which was an exploration property adjacent to the Touro copper project (Atalaya Mining Plc, 2020, p. 21–22, 87).

Lead and Zinc.—Minas de Aguas Teñidas S.A.U. (MATSA), which was a 50–50 joint venture between Mubadala Investment Co. of the United Arab Emirates and Trafigura Mining Group of Singapore, operated three polymetallic mines and an ore treatment plant in the Province of Huelva. In 2019, the company produced 4.3 Mt of copper and polymetallic ore compared with 4.32 Mt in 2018. The company mined 2.03 Mt of ore from the Magdalena Mine, 1.8 Mt of ore from the Aguas Tenidas Mine, and 470,000 t of ore from the Sotiel Mine. MATSA processed 4.3 Mt of ore in 2019 and delivered about 528,000 t of concentrate, of which 66% was copper concentrate, 29% was zinc concentrate, and 5% was lead concentrate. The mineral concentrates were marketed by Trafigura (Minas de Aguas Tenidas, 2020, p. 4, 6, 14–15, 20).

Cantabrica Del Zinc S.L. (CDZ), which was a 50–50 joint venture between Aldesa Group of Spain and Emerita Resources Corp. of Canada, continued exploration at the Plaza Norte zinc project in the Cantabria region in the Reocin mining district. In 2019, the company began its first diamond-drilling campaign. CDZ targeted four areas for drilling—the Mercadal area, the Queveda area, the San Miguel area, and the Yuso area. In 2017, the CDZ was awarded exploration concessions for 120 claims totaling 3,600 hectares for an initial term of 3 years, with the option to renew (Emerita Resources Corp., 2020, p. 1–2).

In 2019, Europa Metals Ltd. of Australia continued exploration at the Toral project. In March, Europa Metals announced the results of a scoping study. The scoping study was for a processing plant with a design capacity of 450,000 t/yr and a 15-year production plan. As of December 2018, the deposit was estimated to have an inferred mineral resource of 16 Mt grading 3.9% zinc, 3.1% lead, and 24 grams per metric ton silver at a cutoff grade of 4% zinc, and containing 640,000 t of zinc, 510,000 t of lead, and approximately 400,000 kilograms of silver (Europa Metals Ltd., 2020, p. 12–14).

Lithium.—In 2019, Tecnologia Extremena Del Lito S.L., which was a joint venture between Infinity Lithium Corp. of Australia (75%) and Valoriza Mineria S.A. (25%; a subsidiary of Sacyr S.A. of Spain), continued the development of the San Jose lithium project. In March, Infinity Lithium had acquired an additional 25% interest in Tecnologia Extremena Del Lito S.L., which increased Infinity Lithium's total interest to 75%. In August, the company announced the results of a prefeasibility study. According to the study, the project was expected to produce 525,000 t/yr of lithium concentrate from an open pit and to include a plant with the capacity to produce 16,500 t/yr of battery-grade lithium hydroxide. Production was expected to average about 15,000 t/yr of lithium hydroxide in the first 10 years. The project was estimated to have a 30-year lifespan. The Joint Ore Reserves Committee (JORC)-compliant indicated mineral resource of the deposit was estimated to be 59 Mt grading 0.29% lithium and 217 parts per million (ppm) tin at a cutoff grade of 0.1% lithium (Infinity Lithium Corp., 2019, p. 4, 7, 10; 2020, p. 2–3).

Tungsten.—In 2019, Spain's production of mined tungsten (W content in concentrate) decreased to 603 t, or by 30% compared to that in 2018. The decrease was attributed to the decreased production at the Los Santos Mine, which was owned by Almonty Industries Inc. of Canada. In the third quarter of 2019, the company ceased mining operations at the mine and started processing mine tailings owing to planned modifications and maintenance at the processing plant, which was expected to increase recovery rates. The company expected to restart mining operations in late 2020 (table 1; Almonty Industries Inc., 2019, p. 7).

In the fourth quarter of 2019, W Resources Plc of the United Kingdom commenced production at its wholly owned La Parrilla tungsten-tin mine. The mine was expected to ramp up production into early 2020. At full capacity, the mine was expected to process 2 Mt/yr of ore to produce 2,700 t/yr of tungsten concentrate and 500 t/yr of tin concentrate. The company reported total mineral resources at the project to be 49 Mt at a grade of 998 ppm tungsten trioxide (WO_3) and total mineral reserves of 29.8 Mt of ore with a diluted grade of 931 ppm WO_3. The mine life was expected to be more than 11 years (W Resources plc, 2021).

In 2019, Barruecopardo Joint Venture BV, which was a subsidiary of Oaktree Capital Management of the United States (70%) and Ormonde Mining Plc. of Ireland (30%), completed construction of the processing plant and mine infrastructure at the Barruecopardo tungsten mine. The mine was commissioned in the second half of 2019 but encountered startup issues. The project had a capacity of 2,600 t/yr of tungsten trioxide and was expected to have a mine life of 9 years. The mine as planned would be one of the leading tungsten mines in the world (Roberts, 2019; Ormonde Mining Plc., 2020, p. 3).

Industrial Minerals

Strontium.—In 2019, Spain had two active celestite mines—the Aurora Mine, which was owned by Canteras Industriales S.L. and is located in Montevives in the region of Granada, and the Escuzar Mine, which was owned by Solvay Minerales S.A. and is located in the municipalities of Escuzar and Ventas de Huelma. Solvay Minerales was a subsidiary of the Solvay Group of Belgium and had operated the Escuzar Mine since 1990. The Escuzar Mine produced celestite at a grade of between 35% and 54% $SrSO_4$. The final concentrate had a 90% content of $SrSO_4$. The mine employed 27 workers. The Aurora Mine was an open pit mine, and the concentrate produced there had an $SrSO_4$ content of 94%. The reserves of celestine at the Aurora Mine, which was the only operation for which reserve data were available, were reported to be about 4 Mt. The mine employed eight workers (Canteras Industriales S.L., 2016; Solvay Group, 2021).

Mineral Fuels and Related Materials

Uranium.—In 2019, Berkeley Resources Ltd. (Berkeley) of Australia continued with development of the Salamanca uranium project in northwestern Spain. The project included the Alameda, the Gambuta, the Retortillo, and the Zona 7 uranium deposits and was expected to have a production capacity of 1,800 t/yr of uranium. The company was awaiting approval for an urbanism license (which is a type of land use permit) and a construction authorization for the treatment plant. The company planned to continue mine development by beginning construction once the permits and approvals were complete. The total JORC-compliant provable and probable mineral reserves of the Salamanca Mine were reported to be 60.7 Mt of ore at an average grade of 408 ppm triuranium octoxide (U_3O_8) (Berkeley Energia Ltd., 2019, p. 4–6, 67–68).

Outlook

Spain's real GDP growth was projected to decrease in 2020 by 13.7%, before rebounding by 6.9% and 4.4% in 2021 and 2022, respectively. The fallout of the coronavirus disease 2019 (COVID-19) pandemic will likely lower industrial production, including mineral production, in 2020 as companies temporarily suspend, and then restart, operations. As a result of the pandemic, the mineral sector could experience consolidation as entities struggle to remain profitable. However, investment into exploration and development as well as the expansion of current projects are expected to contribute to the continued development of Spain's mineral industry. Industrial materials will likely continue to play a significant role in Spain's mineral industry (International Monetary Fund, 2020, p. 75).

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TABLE 1

SPAIN: PRODUCTION OF MINERAL COMMODITIES[1]

(Metric tons, gross weight, unless otherwise specified)

Commodity[2]		2015	2016	2017	2018	2019
METALS						
Aluminum:						
Alumina		1,630,000 e	1,579,000	1,588,000	1,589,000	1,595,000
Metal, primary[e]		350,000	350,000	350,000	350,000	240,000
Copper:						
Mine:						
Concentrates, Cu content		51,492	94,093	124,689	116,976 r	122,300
Solvent extraction[3]		70,029	73,643	73,664	70,738	48,090
Smelter:						
Primary		286,300	292,300	272,000	284,800	255,700
Secondary		6,900	4,600	11,100	10,600	16,300
Refinery:						
Primary:						
Leaching, electrowon		70,029	73,643	73,664	70,738	48,090
Other		278,300	281,600	260,700	273,200	252,900
Secondary		71,600	74,200	80,800	79,900	85,300
Ferroalloys:						
Ferromanganese		126,200	120,100	132,100	86,200	55,500
Ferrosilicon[e]		80,000	80,000	95,000	95,000	90,000
Silicomanganese		134,400	123,100	138,700	156,100	98,400
Gold, mine, Au content	kilograms	1,800	1,260	1,591	1,992	1,913
Iron and steel:						
Pig iron	thousand metric tons	4,450	4,116 r	4,462	4,521	3,880
Steel, raw steel	do.	14,845	13,616	14,441	14,320 r	13,588
Lead:						
Mine, concentrate, Pb content		1,598 r	4,946	3,268	9,936 r	29,827
Refinery, secondary[e]		165,000	169,000 r	188,000 r	190,000 r	188,000
Nickel, mine, concentrate, Ni content		7,208 r	--	--	--	--
Silicon, metal[e]		24,000	30,000	7,500	7,500	7,500
Silver, mine, Ag content	kilograms	27,287	26,099	30,596	30,000 e	30,000 e
Tin, smelter, secondary	do.	-- r	7,408 r	23,497 r	80,702 r	103,080
Tungsten, mine, concentrate, W content		835	699	564	856 r	603
Zinc:						
Mine, Zn content		49,216 r	76,342	70,451	106,352 r	187,909
Smelter, primary		493,765	495,016	500,253	505,079	507,915
INDUSTRIAL MINERALS						
Cement, hydraulic	thousand metric tons	15,000 e	15,000 e	14,500	16,215 r	16,998
Clay:						
Bentonite		102,000	155,038	177,565	178,463 r	160,477
Common clay	thousand metric tons	8,647 r	8,274 r	8,586 r	8,123 r	8,100
Fuller's earth:						
Attapulgite		25,400 e	25,400 e	25,400 e	28,021 r	30,348
Sepiolite		524,915	524,000	622,000 e	698,058 r	595,448
Kaolin, marketable, crude		350,000	347,258	475,074	474,462 r	450,000
Refractory		459,717	460,000 e	460,000 e	460,000 e	460,000 e
Diatomite[e]		50,000	50,000	50,000	50,000	50,000
Feldspar, includes pegmatite		558,273	634,519	819,218 r	616,229 r	500,000 e
Fluorspar:						
Acid grade		130,647	130,131	125,870	145,428 r	134,970
Submetallurgical grade		2,204	20,861	16,439	11,751 r	8,664
Metallurgical grade		24,635	11,997	12,622	19,009 r	5,533
Gypsum, including anhydrite	thousand metric tons	7,404 r	8,936 r	9,545 r	10,593 r	11,300 e
Iron oxide pigments		10,966 r	11,386 r	8,966 r	1,433 r	1,500 e
Lime[e]	thousand metric tons	1,800	1,800	1,830	1,820	1,800

See footnotes at end of table.

TABLE 1—Continued

SPAIN: PRODUCTION OF MINERAL COMMODITIES[1]

(Metric tons, gross weight, unless otherwise specified)

Commodity[2]		2015	2016	2017	2018	2019
INDUSTRIAL MINERALS—Continued						
Magnesite, crude		464,691 r	583,698	788,991 r	738,994 r	634,580
Mica		4,355	5,521	6,333	6,932 r	5,000 e
Nitrogen, ammonia, N content		400,000	410,000	400,000	440,000 r	440,000
Potash, K_2O content		667,959	667,224	788,991 r	603,812 r	519,644
Pumice and related materials		319,769 r	225,913 r	297,651 r	281,746 r	290,000 e
Salt:						
Rock salt	thousand metric tons	3,032 r	3,253	2,870 r	3,200 r	3,084
Sea salt, including evaporated	do.	1,403 r	1,200	1,168 r	1,195 r	1,000 e
Sand and gravel, industrial:						
Quartz	do.	1,102	1,356	1,005	1,041	1,000 e
Unspecified	do.	34,074 r	31,032 r	36,116 r	42,643 r	44,000 e
Soda ash, Na_2SO_4 content:						
Glauberite		1,306,586	1,243,023 r	1,264,246 r	1,382,633 r	1,250,000 e
Thenardite		245,372	211,614 r	254,033 r	275,388 r	250,000 e
Stone:						
Crushed:						
Basalt	thousand metric tons	1,479 r	1,098 r	1,133 r	1,232 r	1,200 e
Chalk	do.	692	694 r	701 r	733 r	730 e
Dolomite	do.	6,796 r	6,016 r	7,404 r	8,488 r	8,500 e
Granite	do.	9,043 r	8,664 r	8,784 r	9,126 r	9,000 e
Limestone	do.	81,865 r	75,192 r	80,439 r	85,500 r	85,000 e
Marble	do.	1,893 r	1,755 r	2,064 r	2,048 r	2,000 e
Marl	do.	5,295 r	5,178 r	5,318 r	6,338 r	6,500 e
Sandstone	do.	1,400	1,450 e	1,450 e	1,450 e	1,450 e
Dimension:						
Porphyry	do.	645	737 r	1,293 r	1,236 r	1,200 e
Slate	do.	1,142	1,195	1,347	1,166	1,120 e
Size and shape unspecified:						
Ophite	do.	2,068 r	1,126 r	1,252 r	1,236 r	1,250 e
Phonolite	do.	582	788 r	691 r	891 r	890 e
Strontium, celestite		116,765	85,599	99,663 r	90,506 r	90,000 e
MINERAL FUELS AND RELATED MATERIALS						
Coal, marketable:						
Anthracite	thousand metric tons	1,127	736	370	294 r	--
Bituminous	do.	631	366	791	483 r	--
Subbituminous	do.	1,319	730	1,833	1,630 r	-- e
Natural gas	thousand cubic meters	11,590	8,045	13,162	93,061 r	131,294
Peat, horticultural use		79,250	113,000	85,000 r	90,000 r, e	90,000 e
Petroleum:						
Crude	thousand 42-gallon barrels	1,641	995	849	622 r	288
Refinery:						
Gasoline	do.	77,666 r	81,504 r	77,632	78,570 r	77,521
Kerosene	do.	73,520 r	68,670 r	73,350	80,539 r	79,611
Naphtha	do.	10,193 r	9,815 r	11,245 r	14,434 r	11,820

[e]Estimated. [r]Revised. do. Ditto. -- Zero.

[1]Table includes data available through January 5, 2021. All data are reported unless otherwise noted. Totals and estimated data are rounded to no more than three significant digits; may not add to totals shown.

[2]In addition to the commodities listed, dunite, lithium, sulfur, and other petroleum refinery products, such as distillate fuel oil, jet fuel, liquefied petroleum gas, lubricants, mined tin, naphtha, petroleum coke, and residual fuel oil, may have been produced, but available information was inadequate to make reliable estimates of output.

[3]The copper content of solvent extraction output at the mine level is the same as electrowon refinery output because copper produced in the solvent extraction and electrowinning process is typically reported only at the refinery level.

TABLE 2
SPAIN: STRUCTURE OF THE MINERAL INDUSTRY IN 2019

(Thousand metric tons unless otherwise specified)

Commodity	Major operating companies and major equity owners	Location of main facilities	Annual capacity[e]
Alumina	Alumina Española S.A. (Alcoa Inc., 60%, and Alumina Ltd., 40%)	Refinery at San Ciprian, Lugo Province	1,600
Aluminum	do.	Smelter at San Ciprian, Lugo Province	228
Do.	PARTER Capital Group AG	Smelter at Aviles, Asturias Province	93
Do.	do.	Smelter at La Coruña, Galicia Province	87
Cement	A.G. Cementos Balboa S.A. (Grupo Alfonso Gallardo, 100%)	Alconera, Badajoz Province	1,600
Do.	Cementos Cosmos S.A. (Votorantim Group, 100%)	Pontevedra, Lugo Province	650
Do.	do.	Toral de los Vados, Leon Province	1,600
Do.	Cementos Lemona S.A. (CRH Plc, 98.86%)	Lemona, Vizcaya Province	1,250
Do.	Cementos Molins Industrial S.A.U. (Cementos Molins, S.A.)	Sant Vicenç dels Horts, Barcelona Province	1,780
Do.	Cementos Portland Valderrivas S.A.	Alcala de Guidaira, Seville Province	1,450
Do.	do.	Mataporquera, Cantabria Province	830
Do.	do.	Venta de Baños, Palencia Province	815
Do.	Cementos Tudela Veguín S.A. (Masaveu Group)	Carreño, Oviedo, Asturias Province	2,400
Do.	do.	La Robla, Leon Province	850
Do.	do.	Tudela Veguin, Oviedo Province	200
Do.	Cemex España Operaciones S.L.U. (Cemex S.A.B. de C.V.)	Alcanar, Tarragona Province	2,100
Do.	do.	Alicante, Levante Province	1,400
Do.	do.	Buñol, Valencia Province	1,300
Do.	do.	Castillejo, Toledo Province	1,730
Do.	do.	Lloseta, Balearic Islands	700
Do.	do.	Morata de Jalon, Zaragoza Province	1,400
Do.	Sociedad Financiera y Minera, S.A. (HeidelbergCement AG, 99.94%, and Other, 0.6%)	Añorga, Gipuzkoa Province	1,050
Do.	do.	Arrigorriaga, Vizcaya Province	1,100
Do.	do.	Malaga, Malaga Province	1,500
Do.	LafargeHolcim España S.A.U. (LafargeHolcim Ltd., 100%)	Carboneras, Almeria Province	1,500
Do.	do.	Jerez de la Frontera, Cadiz Province	1,000
Do.	do.	Montcada i Reixac, Barcelona Province	900
Do.	do.	Sagunto, Valencia Province	1,700
Do.	do.	Villaluenga de la Sagra, Toledo Province	2,350
Copper:			
Mine, Cu content	Cobre Las Cruces, S.A. (First Quantum Minerals Ltd., 100%)	Cobre Las Cruces Mine in Seville Province	80
Do.	Minas de Aguas Teñidas S.A.U. (MATSA) (Mubadala Development Co., 50%, and Trafigura Group Pte Ltd., 50%)	Mines and plant at Almonaster la Real, Huelva Province	40
Do.	OroValle Minerals S.L. (Orvana Minerals Corp., 100%)	El Valle-Boinas and Carles Mines, Asturias Province	3
Do.	Proyecto Riotinto (Atalaya Mining Plc, 100%)	Mine in Huelva, Andalucia	65
Metal	Atlantic Copper S.A. (Freeport-McMoRan Copper & Gold Inc., 100%)	Smelter in Huelva Province	330
Do.	Cobre Las Cruces S.A. (First Quantum Minerals Ltd., 100%)	Refinery in Seville Province	72
Do.	La Farga	Refinery in Barcelona Province	70
Do.	Metallo Spain (Metallo Group)	Smelter at Berango, Biscay Province	96
Dunite	Pasek España S.A.U.	Mines and plant at Landoy, Ortigueira, La Coruña Province	1,000
Fluorspar	Minera Orgiva S.L.	Mine at Lujar, Granada Province	NA
Do.	Minerales y Productos Derivados S.A. (MINERSA)	Mine and plant at Ribadesella, Asturias Province	140
Gold, mine, Au content kilograms	Kinbauri España S.L.U. (Orvana Minerals Corp., 100%)	El Valle-Boina and Carles Mines, Asturias Province	2,000

See footnotes at end of table.

TABLE 2—Continued
SPAIN: STRUCTURE OF THE MINERAL INDUSTRY IN 2019

(Thousand metric tons unless otherwise specified)

Commodity		Major operating companies and major equity owners	Location of main facilities	Annual capacity[e]
Lead:				
Mine, Pb content		Minas de Aguas Teñidas S.A.U. (MATSA) (Mubadala Development Co., 50%, and Trafigura Group Pte Ltd., 50%)	Aguas Tenidas, Magdalena, Sotiel Mine and plant at Almonaster la Real, Huelva Province	21
Smelter		Asturiana de Zinc S.A. (Glencore plc, 100%)	Smelter in San Juan de Nieva, Castrillon, Asturias Province	486
Magnesite		Magnesitas de Rubián S.A.	Plant at Monte Castelo	70
Do.		Magnesitas Navarras S.A. (Groupe Roullier, 40%, and Grecian Magnesite S.A., 40%)	Mine at Eugui, plant at Zubiri, Navarre Province	170
Petroleum:				
Crude	42-gallon barrels per day	Repsol S.A.	Oilfield at Albatros	NA
Do.	do.	do.	Oilfield at Poseidon Norte and Sur	NA
Do.	do.	do.	Oilfields at Angula, Boqueron, Casablanca, and Rodaballo	NA
Do.	do.	do.	Oilfield at Lubina	150
Do.	do.	Repsol S.A., 68.67%	Oilfield at Montanazo	150
Refined	do.	BP Plc, 100%	Castellon Refinery, Iberia	110,000
Do.	do.	Compañía Española de Petróleos S.A (International Petroleum Investment Co., 100%)	Refinery at Gibraltar-San Roque, Cadiz Province	245,000
Do.	do.	do.	Refinery at La Rabida, Huelva Province	194,000
Do.	do.	do.	Refinery at Tenerife, Santa Cruz de Terenife Province	90,000
Do.	do.	Refinería de Petróleos del Norte S.A. (Petronor) (Repsol S.A., 85.98%, and Kutxabank S.A., 14.02%)	Refinery at Muskiz, Biscay Province	240,000
Do.	do.	Repsol S.A.	Refinery in La Coruña Province	120,000
Do.	do.	do.	Refinery at Cartagena, Murcia Province	220,000
Do.	do.	do.	Refinery at Puertollano, Cuidad Real Province	150,000
Do.	do.	do.	Refinery in Tarragona Province	186,000
Potash, ore		Iberpotash S.A. (ICL Chemical Ltd.)	Mine and plant at Suria and Balsareny, Barcelona Province	1,000
Sepiolite		Grupo Tolsa S.A.	Mine and plant in Madrid Province	600
Do.		Minería y Tecnología de Arcillas (Grupo SAMCA)	Mines in Zaragoza Province	120
Silver, mine, Ag content	kilograms	Kinbauri España S.L.U. (Orvana Minerals Corp., 100%)	El Valle-Boina and Carles Mines, Asturias Province	6,000
Sodium sulfate		Grupo Industrial Crimidesa S.L.	Mine and plant at Cerezo de Rio Tiron, Burgos Province	700
Steel, raw		ArcelorMittal Corp.	Plants at Aviles and Gijon, Asturias Province; Sagunto, Valencia Province; and Sestao, Biscay Province	8,000
Do.		Compañia Española de Laminacion S.L. (Celsa Group, 100%)	Plant in Barcelona Province	2,500
Do.		Corporación Gerdau Sidenor S.A. (Sidenor) (Gerdau Group, 50%)	Plant at Basaur, Biscay Province	2,500
Do.		do.	Plant at Azkoitia, Gipuzkoa Province	NA
Do.		do.	Plant at Reinosa, Cantabria Province	NA
Do.		do.	Plant at Vitoria, Alava Province	NA
Strontium, celestite		Canteras Industriales S.L.	Aurora Mine and plant at Montevives, Granada Province	50
Do.		Solvay Minerales S.A.	Escuzar Mine and plant, Granada Province	90
Tin:				
Mine, concentrate	metric tons	W Resources Plc	La Parrilla Mine, Caceres-Badajoz Province	500
Metal, secondary	do.	Metallo Spain S.L.U.	Tin smelter in Berango, Biscay Province	50

See footnotes at end of table.

TABLE 2—Continued
SPAIN: STRUCTURE OF THE MINERAL INDUSTRY IN 2019

(Thousand metric tons unless otherwise specified)

Commodity		Major operating companies and major equity owners	Location of main facilities	Annual capacity[e]
Tungsten, mine, concentrate, W concentrate	metric tons	Barruecopardo Joint Venture BV (Oaktree Capital Management, 70%, and Ormonde Mining Plc, 30%)	Barruecopardo Mine, Salamanca Province	2,150
Do.	do.	Daytal Resources Spain S.L. (Almonty Industries Inc.)	Los Santos Mine, Salamanca Province	1,000
Do.	do.	W Resources Plc	La Parrilla Mine, Caceres-Badajoz Province	2,100
Zinc:				
Mine, Zn content		Minas de Aguas Teñidas S.A.U. (MATSA) (Mubadala Development Co., 50%, and Trafigura Group Pte Ltd., 50%)	Three mines and plant at Almonaster la Real, Huelva Province	75
Metal		Asturiana de Zinc S.A. (Glencore plc, 100%)	Electrolytic zinc plant at San Juan de Nieva, Castrillon, Asturias Province	510

[e]Estimated. Do., do. Ditto. NA Not available.