



2012 Minerals Yearbook

IRELAND

THE MINERAL INDUSTRY OF IRELAND

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In 2012, the gross domestic product (GDP) of Ireland was \$210.4 billion, which was an increase of about 0.9% compared with that of 2011. The banking and housing crisis that had affected the country since 2009 continued to depress the economy and particularly affected Ireland's industrial and services sectors, including the mineral industry. The general unemployment rate rose to 14.7%. In 2012, Ireland's total exports decreased by 6% to \$119 billion¹ from \$126 billion in 2011. Ireland accounted for 0.5% of all imports of mineral fuels, lubricants and related materials to the European Union (EU) and 0.3% of all such exports from the EU to non-EU countries. Ireland also received 0.4% of the imports of raw materials to the EU and provided 0.9% of the exports of raw materials from the EU. Ireland traded mostly with its EU partners, as 58.9% of all Irish exports went to EU members and 66.9% of its imports came from EU members.

In 2012, the United States imported \$33.4 billion and exported \$7.4 billion worth of goods and services from and to Ireland, respectively, principally chemicals, computers and electronic products, miscellaneous manufactured goods, and nonelectrical machinery. Ireland's main export partners, in terms of their share of the total value of all exports, were the United States (18%), the United Kingdom (17.4%), Belgium (15.6%), Germany (8.4%), Switzerland (5.8%), and France (5%). Ireland was part of the European Monetary Union, and, consequently, its official currency was the euro (€) (U.S. Central Intelligence Agency, 2013; European Commission, 2014a–f; U.S. Census Bureau, 2014).

Minerals in the National Economy

According to Ireland's Department of Communications, Energy and Natural Resources, mining in Ireland is highly cyclical and responsive to international commodity price movements. The mineral industry employed directly an estimated 1,300 people and produced an output valued at about \$556 million in 2012. There were five operating mines in Ireland. They were, in order of the value of output, the Tara lead and zinc mine in Navan, Co. Meath, which was owned by Boliden Tara Mines Ltd. (a subsidiary of Boliden AB of Sweden) and was the leading zinc mine, by production tonnage, in the EU; the Lisheen lead and zinc mine, which was owned by Vedanta Resources plc of the United Kingdom; the Drummond and Knocknacran gypsum mines in Co. Monaghan, which were owned by Irish Gypsum Ltd. (a subsidiary of Saint Gobain Group of France); and the Galmoy lead and zinc mine in Co. Kilkenny, which was owned by Galmoy Mines Ltd. (a subsidiary of Lundin Mining Corp. of Canada) (Department of Communications, Energy and Natural Resources, 2012, 2013; U.S. Central Intelligence Agency, 2013).

¹Where necessary, values have been converted from euro area euros (€) to U.S. dollars (US\$) at an average exchange rate of € 0.7778=US\$1.00.

Production

In 2012, Ireland's mine production of lead and zinc decreased by 5% and 1%, respectively. Alumina production remained at the same level as in 2011. Ireland was the principal zinc producer in the EU and a significant producer of lead. Ireland was ranked 10th in the world (by tonnage of output) in the mine production of zinc and 13th in the mine production of lead (table 1; Department of Communications, Energy and Natural Resources, 2013, p. 1; Guberman, 2013; Tolcin, 2013).

Structure of the Mineral Industry

Although Ireland was a significant producer of lead and zinc in the EU, the mining and the mineral-processing industry contributed only a small percentage of the country's GDP. Companies were mostly privately owned. The Exploration and Mining Division of the Department of Communications, Energy and Natural Resources is responsible for both the technical management of the state mineral licensing and leasing system and for promoting the mineral industry. The major mineral industry facilities and their capacities are listed in table 2 (Department of Communications, Energy and Natural Resources, 2013, p. 1).

CRH plc is an Irish conglomerate that was formed by the union of Cement Ltd. and Roadstone Ltd. to form Cement Roadstone Holdings plc. The name was changed to CRH plc in 1987. In 2012, CRH owned several Irish construction materials companies that produced principally cement, construction aggregates, lime, and limestone. CRH had previously owned Premiere Periclase plc (a seawater-magnesia-producing plant) but sold the operation to RHI AG of Austria in the second half of 2011 (CRH plc, 2012, p. 45; 2014).

Commodity Review

Metals

Bauxite and Alumina.—In 2012, United Company RUSAL (RUSAL) of Russia reported production of 1,927,000 metric tons (t) at its alumina refinery located on Aughinish Island on the south side of the Shannon estuary near Limerick City. The refinery was operated by Aughinish Alumina plc and was producing at 99% of capacity. RUSAL also reported that a 3-year contract had been signed with Norsk Hydro ASA of Norway to buy bauxite from Mineracao Rio do Norte S.A. (MRN) (a subsidiary of Vale S.A. of Brazil). RUSAL estimated that, with this supply, the Aughinish alumina refinery would have enough sweetening bauxite to achieve its production targets through 2015. Sweetening bauxite is a bauxite mineral of a higher quality than that used during refining; it is added during the alumina-making process to boost alumina production (United Company RUSAL, 2013, p. 15, 32).

Lead and Zinc.—Boliden Tara Mine’s operation in Navan, Co. Meath, produced about 170,000 t of zinc and about 35,000 t of lead in 2012. Since the mine began its operations in 1977, production had totaled 80.7 million metric tons (Mt) at an average grade of 8.2% zinc and 1.9% lead. The mine’s Joint Ore Reserves Committee (JORC)-classified ore reserves (proven and probable) were 14 Mt grading 7.2% zinc and 1.7% lead. The mine employed 718 people in 2012 (Boliden AB, 2013, p. 89, 117; Department of Communications, Energy and Natural Resources, 2013, p. 1).

Galmoy Mines ceased underground mining operations at its mine in Galmoy in October 2012. The total mine production of lead and zinc for 2012 amounted to 142,000 t at grades of 14% zinc and 2.4% lead. The ore was processed at the Lisheen Mine operations located in Co. Kilkenny (Lundin Mining Corp., 2013; Department of Communications, Energy and Natural Resources, 2013, p. 1).

In 2012, Vedanta Resources reported that the Lisheen Mine had produced 1.4 Mt of ore grading 11% zinc and 1.95% lead. The mine produced 321,000 t of zinc concentrates grading 53.3% zinc and 41,000 t of lead concentrates grading 60.3% lead. Since mining began at Lisheen in 1999, a total of about 19.72 Mt of ore grading an average of 11.8% zinc and 2% lead had been mined (Department of Communications, Energy and Natural Resources, 2013, p. 1).

Industrial Minerals

CRH reported that it owned 2 cement installations, a lime quarry, and 102 other types of quarries or pits in Ireland from which it extracted aggregates for construction, including sand and gravel. All the company’s other extraction operations were located abroad, although it had processing facilities in Ireland to which it imported raw materials and at which it manufactured construction materials and components (CRH plc, 2013, p. 20).

Gypsum.—Irish Gypsum extracted gypsum from two sites in southern Co. Monaghan. The company reported that it had extracted less than 300,000 t of gypsum in 2012. The continued collapse of the construction market in Ireland appeared to be a leading reason for the continued decrease in gypsum production. The gypsum was crushed and blended locally and then supplied to Irish Gypsum’s plaster mill and plaster board plant in Kingscourt (Department of Communications, Energy and Natural Resources, 2013, p. 1).

Outlook

Ireland will likely remain a major producer of zinc ore and a significant producer of alumina and lead ore in the EU. Exploration activity for gold, lead, and zinc is also expected to continue.

Oil and gas exploration and further development of the energy and renewable energy sectors will likely become a priority in Ireland in the near future. Consequently, interest

in exploring for petroleum and natural gas offshore Ireland is likely to increase.

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TABLE 1
IRELAND: PRODUCTION OF MINERAL COMMODITIES¹

(Thousand metric tons unless otherwise specified)

Commodity ²	2008	2009	2010	2011	2012 ^c	
METALS						
Alumina	1,890	1,240	1,864	1,926	1,927 ³	
Lead:						
Mine output, Pb content	metric tons	50,200	43,000	39,100	50,700	47,000 ³
Metal, refined, secondary ^c	do.	20,000	19,000	19,000	18,000	18,000
Silver, mine output, Ag content	kilograms	8,462	8,000	3,818	6,109	6,000
Zinc, mine output, Zn content	metric tons	398,200	357,000	342,500	344,000	337,500 ³
INDUSTRIAL MINERALS						
Cement, hydraulic ^c		3,900	2,600	2,290	2,200	2,200
Gypsum ^e		600	400	300	300	300 ³
Lime ^e		300	300	300	300	300
Sand and gravel ^{e,4}		25,000	20,000	10,000	7,000	7,000
Stone and other quarry products: ^e						
Limestone	million metric tons	1	1	1	1	1
Other ⁵	metric tons	60,000	45,000	40,000	25,000	25,000
MINERAL FUELS AND RELATED MATERIALS						
Gas, natural, marketed	million cubic meters	502	413	402	356	350
Peat: ^{e,6}						
For horticultural use		500	500	500	500	500
For fuel use, milled peat ⁷		3,800	3,800	4,991 ³	3,707 ³	3,700
Total		4,300	4,300	5,500	4,200	4,200
Briquets		300	300	238	192 ³	190
Petroleum refinery products: ⁸						
Liquefied petroleum gas	thousand 42-gallon barrels	387	380	482	566	560
Naphtha ^c	do.	900	900	237 ³	144 ³	140
Gasoline, motor	do.	4,797	3,687	3,996	4,360	4,300
Distillate fuel oil	do.	8,726	7,702	9,616	9,481	9,400
Residual fuel oil	do.	7,469	6,023	8,154	8,991	9,000
Refinery fuel and losses	do.	872	694	980	752	750
Total ^e	do.	23,200	19,400	23,465	24,294	24,100

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

¹Table includes data available through August 15, 2013.

²In addition to the commodities listed, Ireland also produces lime, limestone, seawater magnesia, and significant quantities of synthetic diamond. Output, however, is not quantitatively reported on a regular basis, and general information is inadequate to make reliable estimates of output.

³Reported figure.

⁴Excludes output by local authorities and road contractors.

⁵Includes clays for cement production, fire clay, granite, marble, rock sand, silica rock, and slate.

⁶Includes production by farmers and by the Bord Na Mona (Government Peat Board).

⁷Includes milled peat used for briquet production.

⁸From imported crude oil.

TABLE 2
IRELAND: STRUCTURE OF THE MINERAL INDUSTRY IN 2012

(Thousand metric tons unless otherwise specified)

Commodity		Major operating companies and major equity owners	Location of main facility	Annual capacity
Aggregates		Roadstone Wood Ltd. (CRH plc, 100%)	Tallagh, South Dublin	10,600
Alumina		Aughinish Alumina plc (United Company RUSAL, 100%)	Aughinish Island, Co. Limerick	1,990
Cement		Irish Cement Ltd. (CRH plc, 100%)	Plants in Limerick and Co. Louth	3,500
Diamond, industrial		Element Six Ltd. (De Beers Group, 100%)	Shannon, Co. Clare	NA
Do.		Sandvik Hyperion AB (Sandvik AB, 100%)	Dublin	NA
Gypsum		Irish Gypsum Ltd. (Saint Gobain S.A. 100%)	Mines in Knocknacran and Drummond, Co. Monaghan	NA
Lead-zinc, concentrate		Vedanta Lisheen Mining Ltd. (Vedanta Resources plc, 100%)	Lisheen Mine, Co. Kilkenny	187
Do.		Boliden Tara Mines Ltd. (Boliden AB, 100%)	Tara Mine, Navan, Co. Meath	215
Do.		Galmoy Mines Ltd. ¹ (Lundin Mining Corp., 100%)	Galmoy Mine, Co. Kilkenny	135
Lime		Clogrennane Lime Ltd. (CRH plc, 100%)	Plants in Co. Carlow and Co. Claire	500
Limestone		Roadstone Wood Ltd. (CRH plc, 100%)	Tallagh, South Dublin	NA
Magnesia		Premier Periclase Ltd. (RHI Group, 100%)	Drogheda, Co. Louth	73
Natural gas	million cubic meters	Star Energy Group plc. (Petroliam Nasional Berhad (PETRONAS) 100%)	Kinsale Head field, Celtic Sea	2,100
Peat		Bord Na Mona [Government Peat Board]	Production mainly in the Midlands	4,200
Petroleum, refined	42-gallon barrels per day	ConocoPhillips Whitegate Refinery Ltd.	Whitegate, near Cork	71,000

Do. Ditto. NA Not available.

¹Mine closed at end of 2012.