



2011 Minerals Yearbook

IRELAND

THE MINERAL INDUSTRY OF IRELAND

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In 2011, the gross domestic product (GDP) of Ireland was \$183.9 billion based on purchasing power parity, which was an increase of about 0.7% compared with that of 2010. 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 14.4%.

In 2011, Ireland's total exports increased by 7.8% to \$118.7 billion. Ireland's main export partners, in terms of their share of the total value of all exports, were the United States (22.3%), the United Kingdom (16.2%), Belgium (15.3%), Germany (7.1%), France (5.7%), and Switzerland (4.2%), and at least 53% of Ireland's imports, in terms of value, originated in the European Union (EU). Ireland was part of the European Monetary Union, and, consequently, its official currency was the euro (€) (U.S. Central Intelligence Agency, 2012).

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 industry employs directly an estimated 1,300 people and produced an output valued at about \$556 million.¹ 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 Anglo American 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, 2012a, b; U.S. Central Intelligence Agency, 2012).

Production

In 2011, Ireland's mine production of lead, alumina, and zinc increased by 29.7%, 3.4%, and 0.4%, respectively. 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 12th in the mine production of lead. The Galmoy Mine was scheduled to close in 2009, but mining of remnant high-grade ore continued in 2011. The company planned to cease operations in the first half of 2012 (table 1; Department of Communications, Energy and Natural Resources, 2012a, p. 1; Guberman, 2012; Tolcin, 2012).

¹Where necessary, values have been converted from euro area euros (€) to U.S. dollars (US\$) at an average exchange rate of € 0.719= US\$1.00.

Structure of the Mineral Industry

Although Ireland was a significant world producer of lead and zinc, mines 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.

Commodity Review

Metals

Bauxite and Alumina.—In 2011, United Company RUSAL of Russia reported a record production of 1,927,000 metric tons (t) at its alumina refinery, which was located on Aughinish Island on the south side of the Shannon estuary near Limerick City and operated by Aughinish Alumina plc. An increase in the demand for alumina in the world market was the main reason for the increase in production. The alumina was obtained by treating bauxite ore using the Bayer process (United Company RUSAL, 2012, p. 30).

Lead and Zinc.—Boliden Tara Mine's operation in Navan, Co. Meath, which was the leading zinc mine in Europe and the 11th ranked in the world (by production tonnage), produced 163,935 t of zinc in 2011. The company reportedly planned to invest to increase productivity and to enact cost-cutting measures to increase its profitability. The mine employed 696 people. The mine's Joint Ore Reserves Committee (JORC)-classified ore reserves (proven and probable) were 16 million metric tons grading 7.1% zinc and 1.8% lead (Boliden AB, 2012, p. 37; Department of Communications, Energy and Natural Resources, 2012a, p. 1).

The Galmoy Mine produced 32,071 t of zinc and 8,791 t of lead in 2011. The mine recommenced operations in June 2010, and it was scheduled to continue operations until 2012 (Department of Communications, Energy and Natural Resources, 2012a, p. 1; Lundin Mining Corp., 2012).

In 2011, Xtrata Zinc (a subsidiary of Xtrata plc of Switzerland) had 18 rigs on its Pallas Green exploration project in Co. Limerick, which was probably the largest drilling program ever undertaken in Ireland, according to the Department of Communications, Energy and Natural Resources, Exploration and Mining Division. In July 2011, Xtrata purchased all the interest that its partner, Minco plc., had in the Pallas Green joint venture for \$19.4 million and became the sole owner of the project. Xtrata indicated a potential start date of 2017 for a mine at Pallas Green (Department of Communications, Energy and Natural Resources, Exploration and Mining Division, 2012a, p. 3).

Industrial Minerals

Gypsum.—Irish Gypsum extracted gypsum from two sites in southern Co. Monaghan. The continued collapse of the construction market in Ireland appeared to be a leading cause 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. Additional material was supplied to the Irish agricultural and cement industries (Department of Communications, Energy and Natural Resources, 2012a, p. 2).

Mineral Fuels

Although the Government had stated its interest in exploration offshore Ireland, such exploration has never received the same level of interest as offshore Norway or the United Kingdom, despite similarities of geology. Previous offshore oil exploration ventures were not very successful.

Outlook

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

Ireland began to show some economic growth in 2011, and growth was expected to continue in 2012; however, the ongoing euro currency crisis may affect Ireland's chances of a sustained

recovery. This may have direct implications for the recovery of domestic consumption and for the construction sector. Oil and gas exploration and further development of the energy sector and of renewable energy will likely continue to be a priority, and interest in exploring for petroleum and gas off the shores of Ireland is likely to increase.

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TABLE 1
IRELAND: PRODUCTION OF MINERAL COMMODITIES¹

(Thousand metric tons unless otherwise specified)

Commodity	2007	2008	2009	2010	2011	
METALS						
Alumina ^e	1,800	1,890 ^r	1,240 ²	1,864 ²	1,927 ²	
Lead:						
Mine output, Pb content	metric tons	54,100	50,200	43,000	39,100	50,700
Metal, refined, secondary ^e	do.	22,500	20,000	19,000	19,000	18,000
Silver, mine output, Ag content	kilograms	4,000 ^e	8,462 ^r	8,000	3,818	6,109
Zinc, mine output, Zn content	metric tons	400,898	398,200	357,000 ²	342,500	344,000
INDUSTRIAL MINERALS³						
Cement, hydraulic		5,000 ^r	3,900 ^{r,e}	2,600	2,290 ^e	2,200 ^e
Gypsum ^e		700	600 ^r	400	300	300
Lime ^e		300	300	300	300	300
Sand and gravel: ^{e,4}		12,000	25,000	20,000	10,000	7,000
Stone and other quarry products: ^e						
Limestone	million metric tons	1	1	1	1	1
Other ⁵	metric tons	36,000 ^r	60,000 ^r	45,000	40,000	25,000
MINERAL FUELS AND RELATED MATERIALS						
Gas, natural, marketed ^e	million cubic meters	566 ²	502 ²	413 ²	402 ²	356 ²
Peat: ^{e,6}						
For horticultural use		500	500	500	500	500
For fuel use, milled peat ⁷		3,800	3,800	3,800	4,991 ³	3,707 ³
Total		4,300	4,300	4,300	5,500	4,200
Briquets		300	300	300	238 ²	192 ²
Petroleum refinery products: ⁸						
Liquefied petroleum gas	thousand 42-gallon barrels	405	387	380	482 ^r	566
Naphtha ^e	do.	900	900	900	237 ^{r,3}	144 ³
Gasoline, motor	do.	4,987	4,797	3,687 ^r	3,996 ^r	4,360
Distillate fuel oil	do.	8,989	8,726	7,702 ^r	9,616 ^r	9,481
Residual fuel oil	do.	8,070	7,469	6,023 ^r	8,154 ^r	8,991
Refinery fuel and losses	do.	798	872	694 ^r	980 ^r	752
Total ^e	do.	24,100	23,200	19,400	23,465 ²	24,294 ²

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

¹Table includes data available through October 10, 2012.

²Reported figure.

³Ireland also produces significant quantities of synthetic diamond and is a major supplier to the United States. Output, however, is not quantitatively reported, and general information is inadequate to make reliable estimates of output.

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 2011

(Thousand metric tons unless otherwise specified)

Commodity		Major operating companies and major equity owners	Location of main facility	Annual capacity
Alumina		Aughinish Alumina plc (United Company RUSAL)	Aughinish Island, Co. Limerick	1,800
Cement		Irish Cement Ltd.	Plants in Co. Limerick and Platin	2,000
Gypsum		Irish Gypsum Ltd.	Drummond mine, Co. Monaghan	NA
Do.		do.	Knocknacran mine, Co. Monaghan	NA
Lead-zinc, concentrate		Anglo American plc	Lisheen Mine, Co. Kilkenny	160
Do.		Boliden AB	Tara Mine, Navan, Co. Meath	215
Do.		Galmoy Mines Ltd. (Lundin Mining Corp.)	Galmoy Mine, Co. Kilkenny	135
Natural gas	million cubic meters	Star Energy Group plc. [Petroliam Nasional Berhad (PETRONAS) 100%]	Kinsale Head Field, Celtic Sea	2,100
Nitrogen, N content of ammonia		Irish Fertilizer Industries	Plant at Marino Point	450
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., do. Ditto. NA Not available.