



# 2011 Minerals Yearbook

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**UNITED KINGDOM**

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# THE MINERAL INDUSTRY OF THE UNITED KINGDOM

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In 2011, the United Kingdom's gross domestic product (GDP) was \$2.392 trillion in real terms at official exchange rates. This was an increase of 0.8% compared with that of 2010. Within the European Union (EU), the United Kingdom's economy was ranked second after Germany's in terms of GDP based on purchasing power parity. The country's heavy industry was composed of companies that produced automotive and aviation products, chemicals, and machine tools. These industries relied on many imported metal ores, concentrates, and refined metals, as well as on industrial minerals and mineral fuels. The mineral fuels sector, which included coal, natural gas, and petroleum, was significant in the United Kingdom's mineral industry (U.S. Central Intelligence Agency, 2012).

In 2010 (the latest year for which data were available), the country accounted for about 2.5% of the world's refined nickel production (including nickel content of chemicals). In 2011, the United Kingdom produced 2% of the world's crude salt output and 1.16% of the world's potash output (Jasinski, 2012; Kostick, 2012; Kuck, 2012, p. 51.22).

## Minerals in the National Economy

The United Kingdom's mineral sector served domestic economic needs, but the country's mining and processing companies also played an important role in global mineral prospecting, mineral development, and mineral commodity trade. The London Metal Exchange remained the world's leading central market for nonferrous metals.

## Government Policies and Programs

The 1971 Minerals Act, as amended, is the statute that governs the development and exploitation of mineral deposits. Minerals, as defined in Section 209 of the Act, include all minerals and materials in or under the land of a kind ordinarily worked for removal by underground or surface workings; they do not, however, include peat cut for purposes other than for sale. Mineral development is specifically addressed in the Town and Country Planning (Minerals) Regulations, 1971, and the Town and Country Planning (Minerals) Act, 1981. Mineral rights to mineral fuels, such as coal, petroleum, and uranium, belong to the state. The Coal Authority is authorized to license open pit and underground mines to the private sector subject to restrictions on their size and the payment of a royalty on the amount of coal produced.

Most other mineral rights in England, Scotland, and Wales are privately owned with the exceptions of gold and silver, which are vested in the Royal Family. A different situation regarding mineral rights applies to Northern Ireland where, under the Mineral Development Act (Northern Ireland), 1969, the rights to work minerals and to license others to do so are vested in the state.

The Government of the United Kingdom had ratified the Kyoto Protocol. The EU, however, decided to meet Kyoto requirements as a whole, rather than as individual signatories, with each member state given a different emissions target by the EU (British Geological Survey, 2010).

## Production

The production of most minerals decreased in 2011 compared with their output levels in 2010, which continued the trend of 2 years in a row and 4 years for crude steel production. Crude steel production decreased by 2.3% and that of pig iron decreased by 8.4% compared with their 2010 levels of production. The production of primary aluminum increased by an estimated 14.5%, and the production of secondary aluminum decreased by 3.36%; the United Kingdom's total production of aluminum increased by 3.3%. In the industrial minerals sector, barite production decreased by 6%, and cement production decreased by an estimated 21.5%; the production levels for coal and coke remained about the same as in 2010. Natural gas production decreased by an estimated 3.4%, and crude petroleum production decreased by 1.9%, which continued the trend of decreasing production for at least the past 7 years (table 1).

## Structure of the Mineral Industry

Domestic and foreign-owned corporations produced minerals and mineral-based commodities. Table 2 is a list of major mineral industry facilities.

## Mineral Trade

The United Kingdom was a net importer of coal, iron and steel, natural gas, crude petroleum, and petroleum products in 2011. It exported metal manufactures valued at \$7.78 billion.<sup>1</sup> The value of the country's iron and steel and nonferrous metals exports was \$9.42 billion and \$13.4 billion, respectively. The United Kingdom became a net importer of natural gas in 2004, of crude petroleum in 2005, and of refined petroleum products in 2006 after many years of self-sufficiency (Office for National Statistics, 2012, p. 12, 35).

## Commodity Review

### Metals

**Gold.**—The number of licenses for exploration and development of gold mines in the United Kingdom was 24. The number of leases remained constant at four. The more

<sup>1</sup>Where necessary, values have been converted from the British pound sterling (£) to U.S. dollars (US\$) at the average rate of £0.624=US\$1.00 and from the euro area euro (€) to U.S. dollars (US\$) at the average rate of €0.719=US\$1.00 for 2011.

active areas of exploration were in Cononish in Perthshire County, Scotland, and in the Counties of Armagh and Omagh in Northern Ireland. In Scotland, Scotgold Resources plc of Australia had licenses from Mines Royal (the license-granting authority in the United Kingdom) for the areas around Glen Lyon, Glen Orchy, and Inverliever, and the company owned the gold and silver assets of the Cononish deposit near Tyndrum.

In Northern Ireland, the Omagh (formerly Cavanacaw) deposit located 10 kilometers (km) southwest of the town of Omagh was owned by Omagh Minerals Ltd., which was a wholly owned subsidiary of Galantas Gold Corp. of Canada. The deposit had a proven and probable reserve of 367,310 metric tons (t) grading 7.52 grams per metric ton gold across a width of 4.43 meters (m) within the designated open pit area. Galantas had been granted exploration licenses to the west and north of its existing license and currently held licenses for an area totaling 460 square kilometers.

Conroy Diamonds and Gold plc was exploring in the Clontibret district. The district is located on the border of Northern Ireland and the Republic of Ireland near Co. Monaghan (British Geological Survey, 2011, p. 49–50).

### **Industrial Minerals**

The United Kingdom remained a significant producer of such minerals as barite and calcareous material for cement, clays, and fluorspar.

**Barite.**—The United Kingdom's barite production was dominated by M-I Drilling Fluids (UK) Ltd., which operated the underground Foss Mine near Aberfeldy in Perthshire County, Scotland. The production of this mine accounted for most of the production in the United Kingdom; the remaining output of barite was confined to the Southern Pennine Orefield where barite was derived as a byproduct of fluorspar mining. Barite production from the mine decreased by 6% in 2011 (British Geological Survey, 2011, p. 25; 2012, p. 25).

**Fluorspar.**—Glebe Mines Ltd. was the United Kingdom's only domestic producer of fluorspar (calcium fluoride), and it supplied the country's two fluorochemical producers with acid-grade fluorspar. Glebe's operations were based on surface extraction and processing in the Southern Pennine Orefield. Glebe operated the Cavendish Mill near Stoney Middleton to produce acid-grade fluorspar together with byproduct barite and lead concentrate. Glebe Mines' ore reserves were estimated to be about 1.2 million metric tons (Mt) (British Geological Survey, 2011, p. 48; 2012, p. 43).

### **Mineral Fuels**

**Coal.**—Coal production in the United Kingdom increased (although only slightly) in 2011, making it 4 years in a row that an increase in production had been achieved against the long-term trend of production decreases. Coal Authority licenses for opencast sites in production totaled 35 and included 19 in Scotland, 9 in England, and 7 in Wales. Scottish Coal Co Ltd. was the leading opencast coal mining company in the United Kingdom and the second ranked net coal producer (table 1; British Geological Survey, 2011, p. 33).

The generation of electricity accounted for the majority of the country's total coal consumption. About one-third of all electricity generated in the United Kingdom was supplied by coal (British Geological Survey, 2011, p. 33).

**Natural Gas and Petroleum.**—In July, Egdon Resources plc. reported that its operation at the Kirkleathan gasfield was producing and selling gas to the utilities company Sembcorp Industries Ltd. The gasfield is situated onshore in Kirkleathan, North Yorkshire. Egdon had received approval in 2009 and redeveloped the gasfield during 2010 (Egdon Resources plc., 2012, p. 10).

In June, Maersk Oil UK Ltd. (Maersk) authorized an investment of \$1 billion for the field development plan in the Golden Eagle area in the United Kingdom's North Sea. Maersk had a nonoperating interest in the field of 31.56%, and its share of reserves was expected to be about 45 million barrels of crude oil. First oil was expected in 2014 and production rates were expected to be between 60,000 and 65,000 barrels per day. The Golden Eagle area comprised the Golden Eagle and Peregrine fields, which are located 110 km northeast of Aberdeen. Nexen Inc. (the operator of the field) estimated that the Golden Eagle area has 140 million to 150 million barrels of oil equivalent in gross recoverable contingent resources. This resource would make it one of the largest oil discoveries in the United Kingdom's North Sea in recent years (Maersk Oil Ltd., 2011).

The Buzzard oilfield in the Outer Moray Firth was again the most prolific oilfield on the United Kingdom Continental Shelf (UKCS). The North Sea holds Europe's largest natural gas and petroleum reserves. At the end of 2009, the United Kingdom's estimated proven crude oil reserves totaled 3.6 billion barrels, which was the largest within the EU; the reserves were located mostly offshore on the UKCS. Most of the country's production had come from basins located east of Scotland in the central North Sea. The northern North Sea, east of the Shetland Islands, also contains considerable reserves, and smaller deposits are located in the North Atlantic Ocean. Besides these offshore assets, the country had the Wytch Farm field, which was the largest onshore oilfield in Europe (British Geological Survey, 2011, p. 75; U.S. Energy Information Administration, 2012).

### **Outlook**

The United Kingdom's mineral production continued to decrease overall, and its industrial and manufacturing sectors are likely to continue to import the raw minerals they need for the foreseeable future. The country is likely to continue to be a leading European producer of crude oil and refined products, although mostly for its own consumption. Gold and mixed sulfide ores exploration will likely continue, particularly in Northern Ireland. North Sea offshore natural gas and petroleum exploration is expected to continue. The steel industry's production will reflect the international trends in demand.

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TABLE 1  
 UNITED KINGDOM: PRODUCTION OF MINERAL COMMODITIES<sup>1</sup>

(Metric tons unless otherwise specified)

| Commodity   | 2007                 | 2008                 | 2009                | 2010                | 2011                 |
|---|----------------------|----------------------|---------------------|---------------------|----------------------|
| METALS  |                      |                      |                     |                     |                      |
| Aluminum, metal:  |                      |                      |                     |                     |                      |
| Primary   | 364,600              | 326,000              | 253,000             | 186,000             | 213,000 <sup>e</sup> |
| Secondary   | 193,900              | 205,200              | 288,397             | 311,741             | 301,250              |
| Total   | 558,500              | 531,200              | 541,397             | 497,741             | 514,000 <sup>e</sup> |
| Iron and steel:   |                      |                      |                     |                     |                      |
| Iron ore and concentrate, manganese:                    |                      |                      |                     |                     |                      |
| Gross weight  | 300                  | 100                  | --                  | --                  | --                   |
| Fe content, 54% Fe                                      | 162                  | 54                   | --                  | --                  | --                   |
| Metal:  |                      |                      |                     |                     |                      |
| Pig iron  | 10,960               | 10,137               | 7,671               | 7,233               | 6,625                |
| thousand metric tons                                    |                      |                      |                     |                     |                      |
| Steel:  |                      |                      |                     |                     |                      |
| Crude   | 14,300               | 13,500               | 10,079              | 9,709               | 9,478                |
| Hot-rolled  | 10,170               | 9,517                | 7,091               | 8,395               | 7,963                |
| do.   |                      |                      |                     |                     |                      |
| Lead:   |                      |                      |                     |                     |                      |
| Mine output, Pb content <sup>e</sup>                    | 300                  | 300                  | 300                 | 300                 | 300                  |
| Metal:  |                      |                      |                     |                     |                      |
| Smelter, bullion from imported concentrate <sup>e</sup> | 36,000               | 36,000               | 36,000              | 36,000              | 36,000               |
| Refined: <sup>c</sup>                                   |                      |                      |                     |                     |                      |
| Primary <sup>2</sup>                                    | 119,000 <sup>3</sup> | 139,000 <sup>3</sup> | 135,000             | 150,000             | 150,000              |
| Secondary <sup>4</sup>                                  | 144,000 <sup>3</sup> | 144,000 <sup>3</sup> | 144,000             | 144,000             | 144,000              |
| Total   | 263,000 <sup>3</sup> | 283,000 <sup>3</sup> | 279,000             | 294,000             | 294,000              |
| Nickel, metal <sup>5</sup>                              | 34,100               | 41,000               | 38,700 <sup>r</sup> | 38,000 <sup>r</sup> | 52,046               |

See footnotes at end of table.

TABLE 1—Continued  
 UNITED KINGDOM: PRODUCTION OF MINERAL COMMODITIES<sup>1</sup>

(Metric tons unless otherwise specified)

| Commodity   | 2007                | 2008                | 2009                 | 2010                 | 2011                 |
|---|---------------------|---------------------|----------------------|----------------------|----------------------|
| INDUSTRIAL MINERALS                                 |                     |                     |                      |                      |                      |
| Barite <sup>6</sup>                                 | 53,000              | 43,000              | 36,000 <sup>e</sup>  | 33,000               | 31,000               |
| Cement, hydraulic <sup>e</sup>                      | 11,890 <sup>3</sup> | 10,071 <sup>3</sup> | 10,000               | 10,000               | 7,850                |
| Clays:  |                     |                     |                      |                      |                      |
| Fire clay <sup>e</sup>                              | 338 <sup>3</sup>    | 180                 | 129                  | 150                  | 100                  |
| Kaolin, china clay <sup>7</sup>                     | 1,671               | 1,355               | 1,060 <sup>e</sup>   | 900                  | 1,000                |
| Ball clay and pottery clay <sup>e,8</sup>           | 1,022 <sup>3</sup>  | 1,020               | 727                  | 1,000                | 1,000                |
| Other, including shale                              | 10,104              | 8,459               | 5,310                | 4,721                | 5,483                |
| Feldspar, china stone <sup>e</sup>                  | 1,000               | 500                 | 400                  | 500                  | 500                  |
| Fluorspar, all grades <sup>e,9</sup>                | 45,000              | 37,000              | 19,000               | 26,000               | --                   |
| Gypsum and anhydrite <sup>e</sup>                   | 1,700               | 1,700               | 1,700                | 1,700                | 1,700                |
| Lime, hydrated and quicklime <sup>e</sup>           | 1,500               | 1,500               | 1,500                | 1,500                | 1,500                |
| Nitrogen, N content of ammonia <sup>e</sup>         | 1,100               | 1,100               | 1,100                | 1,100                | 1,100                |
| Potash, KCL product                                 | 712,000             | 673,000             | 673,000 <sup>e</sup> | 700,000 <sup>r</sup> | 770,000              |
| Salt: <sup>e</sup>                                  |                     |                     |                      |                      |                      |
| Rock  | 2,000               | 2,000               | 2,000                | 2,000                | 2,000                |
| From brine  | 1,000               | 1,000               | 1,000                | 1,000                | 1,000                |
| In brine, sold or used as such                      | 2,800               | 2,800               | 2,800                | 2,800                | 2,800                |
| Sand and gravel, common sand and gravel             | 93,236              | 85,473              | 65,800               | 66,800               | 62,000               |
| Sodium compounds, carbonate, n.e.s. <sup>e,10</sup> | 1,000               | 1,000               | 1,000                | 1,000                | 1,000                |
| Stone:  |                     |                     |                      |                      |                      |
| Chalk   | 7,566               | 5,874               | 4,047                | 3,626 <sup>r</sup>   | 3,500 <sup>e</sup>   |
| Dolomite  | 7,622               | 5,509               | 3,164                | 4,540 <sup>r</sup>   | 4,500 <sup>e</sup>   |
| Igneous rock  | 58,909              | 53,489              | 44,618               | 44,876 <sup>r</sup>  | 45,000 <sup>e</sup>  |
| Limestone   | 83,491              | 74,143              | 60,111               | 60,207 <sup>r</sup>  | 61,000 <sup>e</sup>  |
| Sandstone   | 16,806              | 12,255              | 12,335               | 11,556 <sup>r</sup>  | 11,500 <sup>e</sup>  |
| Slate, including fill                               | 1,428               | 1,058               | 683                  | 695 <sup>r</sup>     | 700 <sup>e</sup>     |
| Total   | 175,822             | 152,328             | 124,958              | 125,500 <sup>r</sup> | 126,000 <sup>e</sup> |
| Talc, soapstone, pyrophyllite                       | 3,000               | 2,000               | 3,000                | 3,000                | 4,000                |
| Titanium, titanium dioxide <sup>e</sup>             | 200                 | 200                 | 200                  | 200                  | 200                  |
| MINERAL FUELS AND RELATED MATERIALS                 |                     |                     |                      |                      |                      |
| Coal, anthracite and bituminous                     | 17,030              | 17,912              | 18,054               | 18,159               | 18,492               |
| Coke: <sup>e</sup>                                  |                     |                     |                      |                      |                      |
| Metallurgical                                       | 4,000               | 4,000               | 4,000                | 4,000                | 4,000                |
| Breeze, all types                                   | 250                 | 250                 | 250                  | 250                  | 250                  |
| Gas, natural, marketable <sup>11</sup>              | 76                  | 74                  | 68                   | 59                   | 57                   |
| Peat <sup>e</sup>                                   | 885                 | 760                 | 887                  | 1,004 <sup>r</sup>   | 1,000                |
| Petroleum:  |                     |                     |                      |                      |                      |
| Crude <sup>12</sup>                                 | 597,870             | 507,850             | 484,643              | 430,791              | 422,568              |
| Refinery products                                   | 627,333             | 612,632             | 578,014 <sup>r</sup> | 565,422 <sup>r</sup> | 565,000 <sup>e</sup> |

<sup>e</sup>Estimated; estimated data are rounded to no more than three significant digits; may not add to totals shown. <sup>r</sup>Revised. do. Ditto. -- Zero.

<sup>1</sup>Table includes data available through December 20, 2012.

<sup>2</sup>Produced entirely from imported bullion and includes the lead content of alloys.

<sup>3</sup>Reported figure.

<sup>4</sup>Includes a small quantity of primary lead from domestic concentrate.

<sup>5</sup>Refined nickel.

<sup>6</sup>Includes witherite.

<sup>7</sup>Sales, dry weight.

<sup>8</sup>Salable product.

<sup>9</sup>Proportions of grades not available; probably about two-thirds acid grade.

<sup>10</sup>Not elsewhere specified.

<sup>11</sup>Methane, excluding gas flared or reinjected.

<sup>12</sup>Excludes gases and condensates.

TABLE 2  
UNITED KINGDOM: STRUCTURE OF THE MINERAL INDUSTRY IN 2011

(Thousand metric tons unless otherwise specified)

| Commodity           | Major operating companies and major equity owners   | Location of main facilities <sup>1</sup>   | Annual capacity |
|---------------------|---|--|-----------------|
| <b>Aluminum:</b>    |   |  |                 |
| Primary             | Rio Tinto Alcan Ltd.  | Lynemouth Smelter, Northumberland County, England  | 169             |
| Do.                 | do.   | Locchaber Smelter, Fort William County, Scotland   | 41              |
| Do.                 | Anglesey Aluminium Metal Ltd. (Rio Tinto Corp., 51%, and Kaiser Aluminum and Chemical Corp., 49%) | Holyhead, Gwynedd County, Wales  | 144             |
| Secondary           | Hydro Aluminium Deeside Ltd. (Hydro Aluminium AS)   | Wrexham, Clwyd County, Wales   | 60              |
| Do.                 | Cohen Alloys Ltd.   | Glasgow, Scotland  | NA              |
| Do.                 | Coleshill Aluminium Ltd.  | Coleshill, Warwickshire, England   | NA              |
| Do.                 | Dolgarrog Aluminium Ltd.  | Dolgarrog, Conwy, Gwynedd County, Wales  | 9               |
| Barite              | M-I Drilling Fluids (UK) Ltd.   | Foss Mine, near Aberfeldy, Perthshire County, Scotland   | 50              |
| Do.                 | Glebe Mines Ltd. (on care-and-maintenance status by beginning of 2011)                            | Arthurton West, Bow Rake, High Rake, and Watersaw Mines, Southern Pennine Orefield, Derbyshire County, England | 15              |
| Celestite           | Bristol Minerals Co. Ltd.   | Yate, Avon County, England   | 30              |
| Cement              | Lafarge Cement UK, Ltd. (Lafarge Group)   | Aberthaw plant, East Aberthaw, Barry, South Glamorgan County, Wales  | 500             |
| Do.                 | do.   | Barnstone plant, near Langar, Nottinghamshire County, England  | -- <sup>2</sup> |
| Do.                 | do.   | Cauldon plant, near Leek, Staffordshire County, England  | 1,000           |
| Do.                 | do.   | Cookstown plant, Cookstown, County Tyrone, Northern Ireland  | 500             |
| Do.                 | do.   | Dunbar plant, Dunbar, East Lothian, Scotland   | 1,000           |
| Do.                 | do.   | Hope plant, Hope Valley, Derbyshire County, England  | 1,300           |
| Do.                 | do.   | Northfleet plant, Northfleet, Kent County, England   | 1,000           |
| Do.                 | do.   | Westbury plant Westbury, Wiltshire County, England   | 700             |
| Do.                 | Castle Cement Ltd. (Heidelberg Cement AG, 100%)   | Ketton plant, Rutland County, near Stamford, Lincolnshire County, England                                      | 1,400           |
| Do.                 | do.   | Padeswood plant, Mold, Flintshire County, Wales  | 1,400           |
| Do.                 | do.   | Ribblesdale plant, Clitheroe, Lancashire County, England   | 1,400           |
| Do.                 | CEMEX UK Operations, Ltd. (CEMEX, S.A.B. de C.V., 100%)   | Rugby plant, Rugby, Warwickshire County, England   | 1,800           |
| Do.                 | do.   | Barrington plant, Barrington, Cambridgeshire County, England   | 300             |
| Do.                 | do.   | South Ferriby plant, North Lincolnshire County, England  | 800             |
| Do.                 | Tarmac Buxton Lime and Cement Industries Ltd.   | Tunstead plant, Buxton, Derbyshire County, England   | 800             |
| <b>Clay:</b>        |   |  |                 |
| Ball clay           | WBB Minerals (S.C.R.-Sibelco NV)  | Various operations in northern and southern Devon County, England  | 500             |
| Do.                 | Imerys Group  | Operations in Bovey and Wareham Basins, Dorset County, England   | 300             |
| China clay (kaolin) | do.   | Mines and plants in Cornwall and Devon Counties, England   | 3,000           |
| Do.                 | WBB Minerals (S.C.R.-Sibelco NV)  | Mines and plants in Cornwall County, England   | 1,000           |

See footnotes at end of table.

TABLE 2—Continued  
 UNITED KINGDOM: STRUCTURE OF THE MINERAL INDUSTRY IN 2011

(Thousand metric tons unless otherwise specified)

| Commodity         | Major operating companies and major equity owners                               | Location of main facilities <sup>1</sup>  | Annual capacity  |
|-------------------|---|---|------------------|
| <b>Coal:</b>      |   |   |                  |
| Underground mines | UK Coal plc   | Operations in England include the Daw Mill Colliery, Warwickshire County; the Kellingley Colliery, North Yorkshire County; the Maltby Colliery, Rotherham, Yorkshire County; the Thoresby Colliery, Nottinghamshire County; the Welbeck Colliery, Nottinghamshire County  | 30,000           |
| Do.               | Goitre Tower Colliery Ltd.  | Tower Colliery, Hirwaun, Mid Glamorgan County, Wales  | 500              |
| Surface pits      | Scottish Coal Company Ltd.  | Operations in Scotland include the Broken Cross pit near Douglas, South Lanarkshire County; Chalmerston pit, Dalmellington, East Ayrshire County; Chapelhill pit, South Lanarkshire County; Glentaggart pit, near Douglas, South Lanarkshire; Newbigging Farm pit, near Howgate, Midlothian County; Powharnal pit, near Muirkirk, East Ayrshire County; St. Ninians (Greenbank) pit, northeast of Dunfermline, Fife   | 4,000            |
| Do.               | ATH Resources PLC   | Operations in Scotland include the Grievehill, the Laigh Glenmuir, and the Skares road pits in Ayrshire County; Glenmuckloch pit, Dumfries and Galloway County  | 1,600            |
| Do.               | Celtic Energy Ltd.  | Margam pit, near Bridgend, Mid Glamorgan County, Wales  | 1,000            |
| Do.               | do.   | Nant Helen Extension pit, Abercraf, West Glamorgan, Wales   | 400              |
| Do.               | do.   | Selar pit, Glynneath, West Glamorgan, Wales   | 400              |
| Do.               | Energybuild Ltd.  | Nant-y-Mynydd pit, Neath, West Glamorgan, Wales   | 130              |
| Do.               | H.J. Banks Mining (Banks Group)   | Dehli pit, Stannington, Northumberland County, England  | NA               |
| Fluorspar         | Glebe Mines Ltd.  | Mill at Stoney Middleton, mines in Derbyshire County, England   | 60               |
| Gold              | kilograms Galantas Gold Corp.   | Omagh Mine, near Omagh, County Tyrone, Northern Ireland   | 900 <sup>3</sup> |
| Gypsum            | British Gypsum Ltd.   | Several mines and quarries in England, which include the Barrow Mine, Barrow upon Soar, southeast of Loughborough, Leicestershire County; the Brightling Mine, Robertsbridge, East Sussex County; the Birkshead Mine, Kirby Thore, near Penrith, Cumbria County; the Fauld Mine, Tutbury, near Burton on Trent, Staffordshire County; the Kilvington Quarry, Staunton in the Vale, Kilvington, Nottinghamshire County; the Marbleegis Mine, East Leake, northeast of Loughborough, Leicestershire County; the Newbiggin Mine, Newbiggin, near Kirby Thore, Cumbria County | 3,500            |
| <b>Lead:</b>      |   |   |                  |
| Primary           | Britannia Refined Metals Ltd. (Xstrata plc)                                     | Northfleet, Kent County, England  | 180              |
| Secondary         | Britannia Recycling Ltd. (Xstrata plc)  | Wakefield, West Yorkshire County, England   | 20               |
| Do.               | H.J. Enthoven Ltd. (Quexco Inc, 100%)   | Darley Dale, Derbyshire County, England   | 75               |
| Natural gas       | billion cubic meters per year Numerous domestic and international oil companies | North Sea gasfields   | 100              |

See footnotes at end of table.

TABLE 2—Continued  
 UNITED KINGDOM: STRUCTURE OF THE MINERAL INDUSTRY IN 2011

(Thousand metric tons unless otherwise specified)

| Commodity                         |                                      | Major operating companies<br>and major equity owners  | Location of main facilities <sup>1</sup>   | Annual<br>capacity |
|-----------------------------------|--------------------------------------|---|--|--------------------|
| Nickel, refined                   |                                      | INCO Europe Ltd. (CVRD INCO Ltd.)   | Clydach Refinery, near Swansea, West<br>Glamorgan County, Wales                          | 30                 |
| Nitrogen, N content<br>of ammonia |                                      | Terra Nitrogen Ltd.   | Billingham, Durham County, England, and<br>Sevenside, near Bristol, Avon County, England | 550                |
| Do.                               |                                      | GrowHow UK Ltd. (Kemira GroHow Oyj)   | Ince, Lancashire County, England   | 400                |
| <b>Petroleum:</b>                 |                                      |   |  |                    |
| Crude                             | million 42-gallon<br>barrels per day | Numerous domestic and international oil companies,<br>which include Apache North Sea Ltd., BG Group,<br>BHP Billiton Ltd., BP p.l.c., Challenger Minerals Inc.,<br>Chevron Corp., ConocoPhillips Corp., Dana Petroleum<br>plc, Eni S.p.A., Exxon Mobil Corp., Hess Corp.,<br>Lundin Britain Ltd., Maersk Oil UK Ltd., Marathon<br>Oil U.K. Ltd., Midmar Energy Onshore Ltd., Nexen<br>Petroleum Inc., Noble Energy (Europe) Ltd., Oilexco<br>Inc., Perenco UK Ltd., Petro-Canada UK Ltd.,<br>Premier Oil plc, Royal Dutch Shell plc, Statoil (U.K.)<br>Ltd., Talisman Ltd., Total S.A., and Tullow Oil (U.K.)<br>Ltd. | North Sea oilfields  | 2                  |
| Refined                           | million<br>42-gallon barrels         | Exxon Mobil Corp.   | Fawley refinery, Southampton, Hampshire County,<br>England                               | 120                |
| Do.                               | do.                                  | Royal Dutch Shell plc   | Stanlow manufacturing complex, Ellesmere Port,<br>Cheshire County, England               | 100                |
| Do.                               | do.                                  | ConocoPhillips Co..   | Humber refinery, South Killingholme, North<br>Lincolnshire County, England               | 90                 |
| Do.                               | do.                                  | Total S.A.  | Lindsey refinery, Killingholme, North Lincolnshire<br>County, England                    | 85                 |
| Do.                               | do.                                  | Chevron Corp.   | Pembroke refinery, Pembroke, Dyfed County,<br>Wales                                      | 82                 |
| Do.                               | do.                                  | Ineos Group   | Grangemouth refinery, Grangemouth, Stirling<br>County, Scotland                          | 80                 |
| Do.                               | do.                                  | BP p.l.c.   | Coryton refinery, Stanford-le-Hope, Essex County,<br>England                             | 80                 |
| Do.                               | do.                                  | Petroplus Holdings AG   | Teesside refinery, Middlesborough, Cleveland<br>County, England                          | 43                 |
| Do.                               | do.                                  | Total S.A., 70%, and Murco Petroleum Ltd., 30%  | Milford Haven, Dyfed County, Wales   | 40                 |
| Do.                               | do.                                  | Eastham Refinery Ltd. (Shell UK Ltd., 50%, and AB<br>Nynas Ltd., 50%)   | Eastham refinery, Ellesmere Port, Cheshire County,<br>England                            | 9                  |
| Do.                               | do.                                  | AB Nynas Ltd.   | Dundee refinery, Dundee, Scotland  | 4                  |
| Platinum-group metals             |                                      | Johnson Matthey plc   | Refineries at Enfield (London) and Royston,<br>Hertfordshire County, England             | NA                 |
| Do.                               |                                      | Vale Acton (Vale Group).  | Acton refinery, London, England  | NA                 |
| Potash                            |                                      | Cleveland Potash Ltd. (Israel Chemicals Ltd.,<br>100%)  | Boulby Mine, Yorkshire County, England   | 1,000              |
| <b>Salt:</b>                      |                                      |   |  |                    |
| Road                              |                                      | do.   | do.  | 600                |
| Rock                              |                                      | British Salt Ltd.   | Middlewich, Cheshire County, England   | 800                |
| Do.                               |                                      | Irish Salt Mining and Exploration Co. Ltd.  | Kilroot Mine, Carrick Fergus, Northern Ireland   | 500                |
| Sand and gravel                   |                                      | Hanson plc (Heidelberg AG, 100%)  | Various offshore and onshore locations   | NA                 |
| Silica sand                       |                                      | WBB Minerals (S.C.R.-Sibelco NV)  | Various operations in Cheshire, Humberside,<br>and Norfolk Counties, England             | 5,000              |
| Do.                               |                                      | Hanson plc  | Various locations  | NA                 |

See footnotes at end of table.



TABLE 2—Continued  
 UNITED KINGDOM: STRUCTURE OF THE MINERAL INDUSTRY IN 2011

(Thousand metric tons unless otherwise specified)

| Commodity      | Major operating companies and major equity owners           | Location of main facilities <sup>1</sup>   | Annual capacity |
|----------------|---|--|-----------------|
| Slate, natural | Alfred McAlpine Slate Ltd. (Welsh Slate Ltd.)               | Operations in Wales include the Penrhyn quarry, Bethesda, Conwy County; the Pen Yr Orsedd quarry, Nantlle, Gwynedd County; quarries at Blaenau Ffestiniog and Cwt y Bugail, Gwynedd County | 1,000           |
| Do.            | Greaves Welsh Slate Company Ltd.                            | Llechwedd Slate Mines, Blaenau Ffestiniog, Gwynedd County, Wales   | NA              |
| Soda ash       | Brunner Mond Group (Tata Chemicals Ltd.)                    | Northwich, Cheshire County, England  | 900             |
| Steel          | Tata Steel Europe (Tata Steel Group)                        | Scunthorpe Works, Scunthorpe, Lincolnshire County, England   | 4,500           |
| Do.            | Tata Steel Europe Teesside Cast Products (Tata Steel Group) | Teesside Works, Redcar, Cleveland County, England  | 3,900           |
| Do.            | Tata Steel Europe Strip Products UK (Tata Steel Group)      | Port Talbot works, Port Talbot, West Glamorgan, Wales  | 3,750           |
| Do.            | Tata Steel Europe Engineering Steels (Tata Steel Group)     | Rotherham Works, Rotherham, South Yorkshire County, England  | 1,200           |
| Do.            | do.   | Stocksbridge Works near Sheffield, South Yorkshire County, England   | NA <sup>4</sup> |
| Do.            | Tata Steel Europe Special Profiles (Tata Steel Group)       | Skinningrove, Carlin How, near Saltburn-by-the-Sea, Cleveland County, England  | NA              |
| Do.            | Celsa Manufacturing Ltd. (Grupo Celsa, 100%)                | Tremorfa Works, Cardiff, South Glamorgan County, Wales   | 850             |
| Stone, crushed | Hanson plc  | 90 quarries in various locations   | 70,000          |
| Tin, ore       | Celeste copper Corp.  | South Crofty Mine, Cornwall County, England  | 400             |

Do., do. Ditto. NA Not available. -- Zero.

<sup>1</sup>May include historic, postal, or preserved counties instead of current regional governments, such as cities, county boroughs, or unitary authorities.

<sup>2</sup>Grinding plant only. Kilns closed in May 2006.

<sup>3</sup>Under construction.

<sup>4</sup>Remelt facilities.