

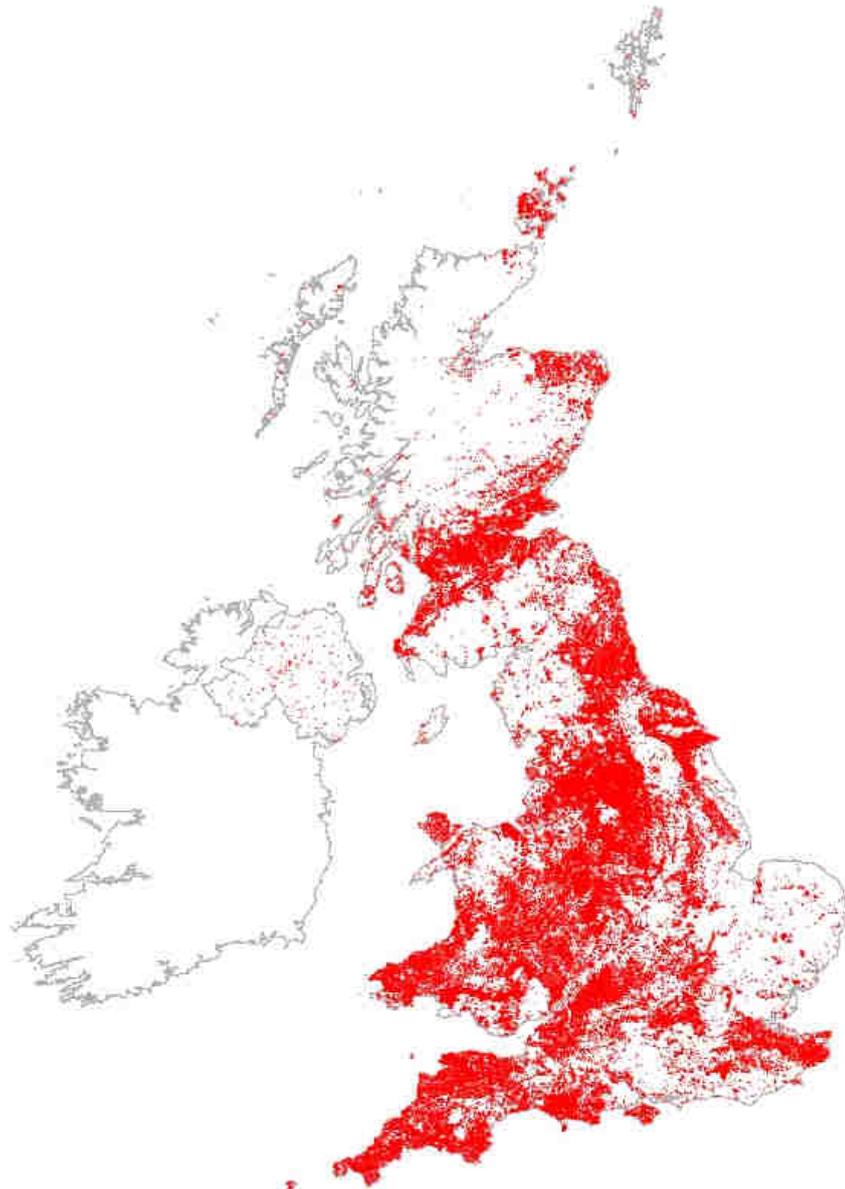


**British
Geological Survey**

NATURAL ENVIRONMENT RESEARCH COUNCIL

User Guide for the BRITPITS dataset

Open Report OR/11/07



BRITISH GEOLOGICAL SURVEY

OPEN REPORT OR/11/07

User Guide for the BRITPITS dataset

D G Cameron

The National Grid and other Ordnance Survey data are used with the permission of the Controller of Her Majesty's Stationery Office.
Licence No: 100017897/2010.

Keywords

Mines, Quarries, Minerals, Commodity, Britain, Database, Wharfs, Rail Depots, Oilwells, Gaswells.

Front cover

Distribution of BRITPITS records: 25 January 2011

Bibliographical reference

CAMERON, D. G.. 2011. User Guide for the BRITPITS dataset. *British Geological Survey Open Report, OR/11/07*. 27pp.

Copyright in materials derived from the British Geological Survey's work is owned by the Natural Environment Research Council (NERC) and/or the authority that commissioned the work. You may not copy or adapt this publication without first obtaining permission. Contact the BGS Intellectual Property Rights Section, British Geological Survey, Keyworth, e-mail ipr@bgs.ac.uk. You may quote extracts of a reasonable length without prior permission, provided a full acknowledgement is given of the source of the extract.

Maps and diagrams in this book use topography based on Ordnance Survey mapping.

BRITISH GEOLOGICAL SURVEY

The full range of our publications is available from BGS shops at Nottingham, Edinburgh, London and Cardiff (Welsh publications only) see contact details below or shop online at www.geologyshop.com

The London Information Office also maintains a reference collection of BGS publications, including maps, for consultation.

We publish an annual catalogue of our maps and other publications; this catalogue is available online or from any of the BGS shops.

The British Geological Survey carries out the geological survey of Great Britain and Northern Ireland (the latter as an agency service for the government of Northern Ireland), and of the surrounding continental shelf, as well as basic research projects. It also undertakes programmes of technical aid in geology in developing countries.

The British Geological Survey is a component body of the Natural Environment Research Council.

British Geological Survey offices

BGS Central Enquiries Desk

Tel 0115 936 3143 Fax 0115 936 3276
email enquiries@bgs.ac.uk

Kingsley Dunham Centre, Keyworth, Nottingham NG12 5GG

Tel 0115 936 3241 Fax 0115 936 3488
email sales@bgs.ac.uk

Murchison House, West Mains Road, Edinburgh EH9 3LA

Tel 0131 667 1000 Fax 0131 668 2683
email scotsales@bgs.ac.uk

Natural History Museum, Cromwell Road, London SW7 5BD

Tel 020 7589 4090 Fax 020 7584 8270
Tel 020 7942 5344/45 email bgs_london@bgs.ac.uk

Columbus House, Greenmeadow Springs, Tongwynlais, Cardiff CF15 7NE

Tel 029 2052 1962 Fax 029 2052 1963

Maclean Building, Crowmarsh Gifford, Wallingford OX10 8BB

Tel 01491 838800 Fax 01491 692345

Geological Survey of Northern Ireland, Colby House, Stranmillis Court, Belfast BT9 5BF

Tel 028 9038 8462 Fax 028 9038 8461

www.bgs.ac.uk/gsni/

Parent Body

Natural Environment Research Council, Polaris House, North Star Avenue, Swindon SN2 1EU

Tel 01793 411500 Fax 01793 411501
www.nerc.ac.uk

Website www.bgs.ac.uk

Shop online at www.geologyshop.com

Contents

Contents.....	i
1 Introduction.....	1
2 Background.....	1
3 What the dataset shows	2
3.1 Who would benefit from the dataset?.....	2
3.2 Field descriptions.....	2
3.2.1 Table -MQ_PIT.....	2
3.2.2 Table MQ_PIT_BODY_COMMOD_END_USE.....	4
3.2.3 Table MQ_PIT_BODY_COMMODITY.....	4
3.2.4 Table MQ_WORKED_BODY_AT_PIT.....	5
3.2.5 Table DIC_OPERATOR.....	6
3.2.6 Dictionary Table BGS_DIC_COMMODITY.....	7
3.2.7 Dictionary table BGS_DIC_END_USE.....	11
3.2.8 Dictionary Table BGS_DIC_END_USE_CATEGORY.....	17
3.2.9 Dictionary Table BGS_DIC_MIN_SITE_TYPE.....	19
3.2.10 Dictionary Table BGS_DIC_MQ_PIT_STATUS.....	20
4 Coverage.....	21
5 Technical information.....	21
6 Data history.....	21
7 Limitations.....	21
8 Contact information.....	22

1 Introduction

The BGS BRITPITS database contains records of mineral workings covering the whole of the United Kingdom and Northern Ireland. The coverage includes both active, inactive and ceased sites and also a range of mineral operations, including mines, quarries, onshore oil and gas fields, together with wharfs and rail depots handling mineral products and industrial processes which produce a mineral product. The coverage of the country is complete as far as active and inactive sites is concerned as this information is updated yearly on behalf of the Department of Communities and Local Government (DCLG) by surveying local authorities and industry sources.

Currently (2011) BGS is conducting a systematic survey of former mineral workings using historical Ordnance Survey mapping and BGS field mapping to locate ceased mineral workings.

2 Background

The original data was originally compiled by BGS and its predecessors by Robert Hunt, Keeper of Mining Records, at the Museum of Practical Geology, as part of the Memoirs of the Geological Survey and Museum of Practical Geology. In Volume 2 Part 2, 1848, of this series, he produced a list of UK lead mines and their production 1845 and 1846. Later, Hunt included a list of collieries in a separate and original Mineral Statistics publication of 1854, and by 1856 he had included a list of building stone quarries as well as collieries and some metalliferous mines. This publication subsequently, on the value of this data to the legislation of mineral operations being recognised, became separate lists of mines and quarries published by the Inspectorate of Mines from 1897. Latterly under the aegis of the Ministry of Fuel and Power (MFP) the last edition was produced in 1948. This was the last comprehensive list, although it was followed by specialist publication such as the 'Sources of Road Aggregate in Great Britain' published by the Department of Scientific and Industrial Research, and 'The Guide to the Coalfields' published by the trade association journal Colliery Guardian, together with the MFP (1948 - 1993). There followed a hiatus until 1984 when BGS staff took the decision to recommence publication of the list of mines and quarries as the Directory of Mines and Quarries and gather the disparate sources of information in one comprehensive publication. Eight editions of the Directory have been produced since then, at three or four year intervals. In 1987, It was decided that the information collected for the publication should be databased and the BRITPITS database was set up to accommodate the active as well as inactive and closed workings listed in the previous Directories. The database was designed to allow production of the Directory as well as holding other unpublished information and the first data loading took place in 2000. The design has been altered since then in light of user comments and the need to store extra data not originally envisaged.

Subsequently the information on currently active sites has been updated continually with the cooperation of both local authorities and the minerals industry. Currently an annual survey of Minerals Planning Authorities, on behalf of the Department of Communities and Local Government, Scottish Government and Welsh Assembly Government, is supplemented with a three yearly survey of the minerals operators.

This information has been used to produce the hard copy editions of the Directory of Mines and Quarries and is subsequently included in the BRITPITS Database.

3 What the dataset shows

The dataset shows the location of active, inactive and ceased mineral workings in Great Britain and Northern Ireland, including details of the local authority, together with the lithologies worked at site and the name of the current or most recent operator where known. Mineral workings include quarries, mines, oil and gas wells and industrial operations producing mineral products such as blast furnace slag or desulphogypsum. The database also includes, for convenience and use in central and local government surveys, the locations of mineral handling sites such as wharfs and rail depots handling marine dredged sand and gravels or crushed rock.

The lithological information for surface workings is based on the current version of the BGS Digital Geological Map of Great Britain at 1:50 000 (DiGMapGB - 50) digital data set, used for its nationwide coverage. Information for underground workings is taken from the relevant BGS 1:10 000 mapping, and reservoir rocks for oil and gas are identified by colleagues at BGS.

3.1 WHO WOULD BENEFIT FROM THE DATASET?

The data is currently used by Central Government (DCLG) and other bodies such as the Office for National Statistics, the Scottish Parliament and Welsh Assembly Government, BGS and its value-added resellers (VARs). The BGS enquiry service use the data to locate former mineral working localities. The minerals industry use the database for various commercial purposes.

3.2 FIELD DESCRIPTIONS

The full database contains the following tables. Typically BGS only delivers the fields which have been highlighted, however, this can vary on request. Where a 'Code' field is shown, this will be populated from the relevant Dictionary table.

Please contact digitaldata@bgs.ac.uk if you require additional information.

3.2.1 Table -MQ_PIT

Field name	Field description
PIT_ID	Identifier of a pit (quarry or other mineral working)
PIT_NAME	The name of the mining or quarrying operation
PIT_STATUS_CODE	Code obtained from DIC_MQ_PIT_STATUS to indicate the status of operation of the site
ALTERNATIVE_NAME	Any alternative or subsidiary names applied to the workings or names of pits subsumed into the current working area
PARENT_PIT_ID	Identification number of the main site in the BRITPITS database, if a pit is or has been worked in a complex, or is a satellite site
OPERATOR_CODE	Identifying Code of Operator from BGS_DIC_OPERATOR
MPA_CODE	Code obtained from DIC_MPA to indicate within which Mineral Planning Authority the site resides
BNG_REF	100 km Ordnance Survey square identification
BNG_EASTING	British National Grid coordinates for the Easting of the working void or mine entrance in Metres (6 figure): tolerance of 5m
BNG_NORTHING	British National Grid coordinates for the Northing of the working void or mine entrance in Metres (6 figure): tolerance of 5m
ING_REF	100 km OS square identification
ING_EASTING	Irish National Grid coordinates for the Easting of the working void or mine entrance in Metres (6 figure): tolerance of 5m
ING_NORTHING	Irish National Grid coordinates for the Easting of the working void

	or mine entrance in Metres (6 figure): tolerance of 5m
LATITUDE	Latitude, measured in decimal degrees north of the Equator
LONGITUDE	Longitude, measured in decimal degrees East of the Greenwich
ADDRESS_1	Address field for single locational feature, e.g. a Farm house
ADDRESS_2	Address field for a road or street name
ADDRESS_3	Other habitation which can help to locate site
ADDRESS_4	Other habitation which can help to locate site
ADDRESS_5	Nearest village or suburb of POST_TOWN, to site
LOCATION	Name of the nearest feature, village, or town where the pit is situated identified using 1:50,000 topographic map
POST_TOWN	Nearest large town or position in address of active site
POST_COUNTY	Current county as used in address of active site or actual 'county' of inactive sites.
POSTCODE	Post code of site for operational workings which receive postal deliveries only
TEL_NO	Telephone number of site if known
FAX_NO	Facsimile number of site, if known
EMAIL	e-mail address of operator at site, if known
COUNTRY	Current country e.g. Wales
UPDATE_SOURCE	Name and/or number of map or other reference material used to provide source information for compiling a record or additional data to update the record
SITE_TYPE_CODE	Code obtained from DIC_MIN_SITE_TYPE to indicate the type of mineral working
SOLID_DRIFT	Whether the working is in bedrock, superficial deposits or is from an artificial source
NOTES	Free text notes containing any other relevant information on the site
FORMER_COUNTY_CODE	Identifying Code of old administrative area from BGS_DIC_FORMER_COUNTY
TRANSFER	
DESIGNATION	Indicates whether the site is in an Environmental Designation area such SSSI, SAC, AONB etc.
DATE_SITE_OPENED	Date of first working, if known, format DD/MM/YYYY. If only the year is known, then 1/1/xxxx is the format recorded.
DATE_SITE_CLOSED	Date of last working, if known, format DD/MM/YYYY. If only the year is known, then 31/12/xxxx is the format recorded
DATA_COLLECTOR_ID	The Windows or Oracle login name of a member of staff who initiated capture and attribution of the data record (Data Attributer).
SPONSOR_ORG_CODE	The code name of the organisation funding the data capture.(e.g. BGS, English Heritage).
USER_ENTERED	The Windows or Oracle login name of a member of staff who has loaded the data record
DATE_ENTERED	Date of loading the record to the database
USER_UPDATED	The Windows or Oracle login name of a member of staff who has updated the information altering the record
DATE_UPDATED	Date of updating any part of the information of the record in the database

3.2.2 Table MQ_PIT_BODY_COMMOD_END_USE

Field name	Field description
PIT_ID	Identifier of a pit (quarry or other mineral working)
WORKED_BODY_NO	Identification number of a bodyy worked in the site
COMMODITY_CODE	Code for commodity worked at site from BGS_DIC_COMMODITY
END_USE_CODE	Code of end use of mineral product from site, e.g. 184 (Flagstone), taken from BGS_DIC_END_USE
COMMENTS	Free text notes containing any other relevant information
USER_ENTERED	The Windows or Oracle login name of a member of staff who has loaded the data record
DATE_ENTERED	Date of loading the record to the database
USER_UPDATED	The Windows or Oracle login name of a member of staff who has updated the information altering the record
DATE_UPDATED	Date of updating any part of the information of the record in the database

3.2.3 Table MQ_PIT_BODY_COMMODITY

Field name	Field description
PIT_ID	Identifier of a pit (quarry or other mineral working)
WORKED_BODY_NO	Identification number of the body, or bodies worked in the site
COMMODITY_CODE	Code for commodity worked at site from BGS_DIC_COMMODITY
USER_ENTERED	The Windows or Oracle login name of a member of staff who has loaded the data record
DATE_ENTERED	Date of loading the record to the database
USER_UPDATED	The Windows or Oracle login name of a member of staff who has updated the information altering the record
DATE_UPDATED	Date of updating any part of the information of the record in the database

3.2.4 Table MQ_WORKED_BODY_AT_PIT

Field name	Field description
PIT_ID	Identifier of a pit (quarry or other mineral working)
WORKED_BODY_NO	Identification number of a body worked in the site
BS812_LITHOL_CODE	British Standard code for building stones.
COALFIELD_CODE	Code of Name of British coalfield taken from BGS_DIC_COALFIELD.
LITHOSTRAT_CODE	Code of geological body worked at site. From BGS_LEX_LITHOSTRAT_UNIT_Vx
LITHOLOGY	Free text description of the rock type worked, in a particular WORKED BODY.
CHRONOSTRAT	Age of period, e.g. 'Carboniferous'
LITHOSTRAT	Body worked from BGS_LEX_LITHOSTRAT_Vx. Former names are included where this is helpful to the non geological user E.g. White Chalk Subgroup (Upper Chalk). Used in site description for production of Directory of Mines and Quarries.
BGS_ROCKNAME	Rock name of WORKED_BODY in BGS DIGMAP 50 k layer. Derived from the 'ROCK' field.
MAX_CHRONOSTRAT_CODE	Code of maximum age of WORKED_BODY from BGS Lexicon
MIN_CHRONOSTRAT_CODE	Code of minimum age of WORKED_BODY from BGS Lexicon
LEX_FORMATION	Description of the parent body Formation - LITHOSTRAT as derived from DIGMAPGB50 and the BGS LEXICON. The lithostratigraphic unit may itself be a formation (Only a temporary solution for product delivery until a denormalised view of the lexicon with these ranks).
LEX_SUBGROUP	Description of the parent Formation as derived from DIGMAPGB50 and the BGS LEXICON. The lithostratigraphic unit may itself be a subgroup (Only a temporary solution for product delivery until a denormalised view of the lexicon with these ranks)
LEX_GROUP	Description of the parent Formation or subgroup as derived from DIGMAPGB50 and the BGS LEXICON. The lithostratigraphic unit may itself be a group (Only a temporary solution for product delivery until a denormalised view of the lexicon with these ranks)
USER_ENTERED	The Windows or Oracle login name of a member of staff who has loaded the data record
DATE_ENTERED	Date of loading the record to the database
USER_UPDATED	The Windows or Oracle login name of a member of staff who has updated the information altering the record
DATE_UPDATED	Date of updating any part of the information of the record in the database

3.2.5 Table DIC_OPERATOR

Field name	Field description
OPERATOR_CODE	Code for operator taken from BGS_DIC_OPERATOR
OPERATOR_NAME	Full name and title of operator, e.g. Alexander Russell PLC; this may be a branch or division of a major group of companies
OPERATOR_NAME_1	Surname and title of operator, e.g. Russell PLC to allow sorting
OPERATOR_NAME_2	First name or initials of operator name, e.g. Alexander
PARENT_OP_CODE	Operator code of parent company in a major group of companies
ADDRESS_1	Address field for Company or divisional headquarters where known
ADDRESS_2	Address field for a road or street name for Company or division headquarters where known
ADDRESS_3	Other address for Company or division headquarters where known
ADDRESS_4	Other address for Company or division headquarters where known
ADDRESS_5	Other address for Company or division headquarters where known
TOWN	Town where Company or division headquarters is situated
COUNTY	Current county as used in address of Company or division headquarters.
POSTCODE	Post code of site for Company or division headquarters
COUNTRY	Current country where the Company or division headquarters are based, e.g. Wales
TEL_NO	Telephone number of Company or division headquarters, where known
FAX_NO	Facsimile number of Company or division headquarters, where known
EMAIL	e-mail address of operator at site, where known
WEBPAGE	Webpage of Company or division where known
FORMER_NAME	Name by which the company may have been known unless major changes are involved in a company restructuring in which case a new operator and code will be erected
ACTIVE	Current operational state of the company
NOTES	Any relevant information
TRANSFER	
USER_ENTERED	The Windows or Oracle login name of a member of staff who has loaded the data record
DATE_ENTERED	Date of loading the record to the database
USER_UPDATED	The Windows or Oracle login name of a member of staff who has updated the information altering the record
DATE_UPDATED	Date of updating any part of the information of the record in the database

3.2.6 Dictionary Table BGS_DIC_COMMODITY

This table lists the commodities produced by the site, using the name commonly used for reporting the commodity in the List of Mines and Quarries, Directory of Mines and Quarries and other local or central government planning or statistical registers. Historical commodity names such as 'Smudge' or 'Coprolite' are retained as the site will have been known as a producer of these. For other commodities, e.g. where the commodity is a metallic element or a mineral ore, or predates the reporting of mineral statistics and planning, then that name will be used.

CODE	NAME	DESCRIPTION
AG	Silver	Silver ores
AGA	Agate	Variety of quartz, chalcedony etc, obtained from amygdale in volcanic rock, used as decorative stone or jewellery; includes 'Scotch Pebble'
ALA	Alabaster	Gypsum used as a decorative stone
ALU	Alum	Aluminium Sulphate, Ammonium Sulphate, Potassium Sulphate mixture used to fix dyes
AMM	Abandoned Mine Methane	Methane derived from the voids of former coal mine workings, mainly methane
ANT	Anhydrite	Anhydrous Calcium Sulphate, CaSO ₄
AS	Arsenic	Arsenic ores
AU	Gold	Gold ores
BA	Barium	Barium minerals, unspecified
BAL	Ball Clay	Fine grained, highly plastic, sedimentary clays which fire to a light or near white colour
BAR	Barytes	Barium sulphate, BaSO ₄
BAU	Bauxite	Aluminium ore, Al(OH) ₃
BFS	Blast Furnace Slag	By-product of iron & steel making, a type of secondary aggregate
BI	Bismuth	Bismuth minerals, unspecified
BLA	Blaes	Burnt shale used for paths and tracks and sports grounds, usually red coloured and derived from oil shale or coal workings
CAL	Calcite	Calcium carbonate, CaCO ₃ , in crystalline form, usually associated with metalliferous mineral veins
CBM	Coalbed Methane	Methane abstracted from virgin or unworked coal seams using boreholes
CD	Coal, Deep	Deep or drift mined coal
CEL	Celestite	Strontium sulphate, SrSO ₄ , source of strontium chemicals for use in pyrotechnics, glass, ceramics and pharmaceuticals
CHA	Chalk	Fine-grained sedimentary rock consisting of calcium

		carbonate
CHC	China Clay	Kaolin, a clay derived from the alteration products of granites, comprising principally of kaolinite.
CHS	China Stone	Partly altered (kaolinised), felspar-rich granite lacking iron-bearing minerals, crushed and used as a flux in the pottery industry
CHT	Chert	Chert or Chertstone, SiO ₂ , deposits often result from diagenetic processes in limestones
CHW	China Clay Waste	Secondary aggregate material derived from the waste products of China Clay extraction.
CLA	Clay & Shale	Clays and/or shales used in brick, pipe and tile manufacture, cement manufacture and as construction fill. Also used as source of pottery clay.
CMM	Mine Drainage Gas	Gas derived from the voids of working coal mines, mainly methane
CO	Coal, Surface Mined	Coal derived from surface extraction or from treatment of old colliery spoil tips, formerly known as Opencast Coal
COA	Coal	Coal, unspecified source
COB	Cobalt	Cobalt ores
COL	Colliery Spoil	Coal and other materials as secondary aggregates, or for coal processing. May be termed 'minestone'
COP	Coprolite	Phosphatic nodules, used as phosphate fertiliser
CR	Chromite	Chromium ores
CRA	Crushed Rock	Undifferentiated crushed hard rock used as aggregate
CU	Copper	Copper ores
DIT	Diatomite	Siliceous sediment composed of remains of diatoms (microscopic plants), used as fillers and absorbents (kieselguhr)
DOL	Dolomite	Rock composed mainly of Magnesium carbonate, formed by alteration of limestone by Mg-rich fluids
FBA	Furnace Bottom Ash	By-product of electricity generation, lightweight and secondary aggregate
FEL	Felspar	Pegmatitic Felspar for glass making
FEO	Iron ore	Unspecified iron ores
FIR	Fireclay	Shaley material, derived from fossil soils associated with coal seams, commonly used for refractory products
FLI	Flint	Siliceous concretions, commonly resulting from diagenetic processes in chalk. Used as decorative building stone, or as a component of gravel.
FLU	Fluorspar	Calcium Fluoride, CaF ₂
FUL	Fullers Earth	Sedimentary clay containing a high proportion of a smectite clay mineral, Montmorillonite, with a high cation

		exchange capacity.
GAN	Ganister	Siliceous sandstones used in refractory products for steelmaking
GAS	Natural Gas	Gas abstracted from strata other than Coal Measures
GRA	Gravel	Material >4mm. Commonly flint, chert or other siliceous rock, can include limestone, derived from river or glacial transport
GRP	Graphite	Native Carbon used as pigment
GYP	Gypsum	Hydrated Calcium Sulphate, CaSO ₄ .2H ₂ O. Formed from hydration of Anhydrite.
HON	Honestone	Abrasive stone used for sharpening metal blades
IGN	Igneous & Metamorphic Rock	Commodity term which includes fine and coarse grained igneous rock and any metamorphic rock
IOH	Hematite (Iron Ore)	Hematite used for iron making and pigment
IOI	Ironstone (Iron Ore)	Fe-rich limestones used as a source of iron and as building stone
IOO	Ochre (Iron Ore)	Iron ores used for pigment
JET	Jet	Stone comprising diagenetically silicified araucarian wood occurring as isolated masses in finely laminated shales
LFG	Landfill Gas	Gas produced from landfill sites. Not a natural product
LIG	Lignite	Brown Coal, coal in an early stage of coalification
LST	Limestone	Sedimentary rock composed mainly of Calcium carbonate
MAB	Marble	Metamorphosed limestone used for building and decorative stone
MAN	Manganese	Manganese Ores
MBL	Mineral Black	Carbonaceous material used for pigment
MIC	Mica	Mica books or flakes for Industrial use
MIN	Mineral	Unspecified mineral commodity
MSG	Marine Sand & Gravel	Sand & gravel dredged from the sea floor; size range: 0.063 micron - 80mm. Gravel (Coarse aggregate) ranges 4mm - 80mm in size.
OIL	Oil	Crude oil; liquid hydrocarbon used as a feedstock for energy or industrial uses
PB	Lead	Lead ores
PEA	Peat	Decomposed vegetable matter, typically moss, used for fuel or horticulture
PER	Perlite	A glassy rock which is expands on heating, used as thermal or acoustic insulator, filters, filler, or horticultural aggregate

PFA	Pulverised Ash	Fuel	By-product of electricity generation, secondary aggregate
POT	Potash		Potassium-bearing minerals and products, primarily Sylvine, KCl. Usually mined as Sylvinite, a mixture with Halite (NaCl)
PYR	Iron Pyrites		FeS ₂ Iron Pyrites, used in manufacture of Sulphuric acid
QUW	Quarry Waste		Unspecified waste from quarry operations, secondary aggregate
S	Sulphur		Sulphur, unspecified source mineral
SAG	Sand & Gravel		Natural material in a size range: 0.063 micron - 80mm. Gravel (Coarse aggregate) ranges 4mm - 80mm in size. Often silica, flint or chert predominates.
SAL	Salt		Halite, NaCl, either as rock salt from mining operations or precipitated from Brines
SAN	Sand		Sand. Material in a size range: 4mm - 0.063 micron. Generally silica rich, derived from wind, river or glacial transport
SB	Antimony		Antimony Ores
SEC	Secondary		Unspecified secondary minerals, may include recycled Construction and Demolition Waste (CDW), road planings and recycled rail ballast
SEL	Sea Salt		Halite, NaCl, precipitated from seawater
SLA	Slag (inc. BOS and EAF slags)		By-product of steel making, secondary aggregate, can be used for rail ballast etc
SLT	Slate		Fine-grained metamorphic rocks with well developed cleavage, often used for roofing or flooring
SLW	Slate Waste		Waste from slate workings, a secondary aggregate, can be used as fill or decorative stone
SMU	Smudge		A pasty form of decomposed coal used as a black pigment (MHLG definition)
SN	Tin		Tin ores
SOI	Soil		Soil or Topsoil removed from mineral working or construction project as a by-product
SOP	Soapstone		Altered igneous rock used as decorative stone
SPT	Serpentine		Metamorphic rock used as decorative stone
SSA	Silica Sand		Sand containing a high silica content (99%SiO ₂), used in industrial processes
SSR	Silica Rock		Sandstone containing a high silica content used in industrial processes
SST	Sandstone		Sedimentary rock mainly composed of quartz particles, includes sandstones, quartzites, gritstones and conglomerates

STR	Strontianite	Strontium carbonate, SrCO ₃ , source of strontium chemicals for use in pyrotechnics, glass, ceramics and pharmaceuticals
TAL	Talc	Soft metamorphic rock composed mainly of Mg ₃ Si ₄ O ₁₀ (OH) ₂ , used for powders and fillers
TUF	Tufa	Decorative stone produced by Calcium Carbonate precipitation from streams
U	Uranium	Uranium minerals, unspecified
UMB	Umber	Manganese oxide ores used for pigment, also known as 'wad'
VMI	Vein Minerals	Unspecified vein minerals
W	Tungsten	Tungsten ores, also known as Wolfram
WIT	Witherite	Witherite
ZN	Zinc	Zinc ores, unspecified

3.2.7 Dictionary table BGS_DIC_END_USE

This table lists the main uses for the mineral commodity produced at the site.

END_USE_CODE	END_USE_NAME	END_USE_DESC
0	Unspecified	End use unknown or not specified
100	Construction Industry	Unspecified uses in the construction industry
105	Natural aggregate	General term for rock used for building and civil engineering structures either in a bound or unbound condition (with cement or bitumen). Applicable to sand & gravel, and crushed rock aggregate
106	As dug aggregate	Unprocessed sand or gravel for general use
107	Crushed rock aggregate	Crushed rock for general aggregate use
108	Graded sand & gravel	Sand & gravel washed or screened for general use
109	Ceramic Flint	Washed flints for specialised uses in the ceramics industry
1108	Floor Sand	Sand used in domestic or public buildings as a floor covering to absorb dirt
111	Construction sand	General term including building, asphaltting and concreting sand
112	Building sand	Sand suitable for use in mortars
113	Asphaltting sand	Sand suitable for use as a filler in asphalt or coated roadstone

114	Concreting sand	Sand suitable for use as fine aggregate in concrete
115	Concrete aggregate	Sand, gravel and crushed rock suitable for use as coarse and fine aggregates in concrete
116	Pre-cast concrete products	Concrete products manufactured on quarry site from concrete aggregate for unspecified use
117	Concrete blocks	Concrete blocks manufactured on quarry site, used for building purposes
118	Ready mixed concrete	Concrete made on quarry site
119	Decorative aggregate	Aggregate processed for decorative purposes, e.g. pebble dashing, pathways, etc, usually selected for colour
120	Roadstone	Material used in road construction, whether bound or unbound, i.e. coated and uncoated
1201	High specification roadstone	High specification material for use as a road surface material, e.g. high PSV
121	Coated roadstone	A road material consisting of graded aggregates coated with tar, bitumen or asphalt. Aggregate may be sold from a quarry for coating at a remote site
122	Bitmac	Coated roadstone
123	Tarmacadam	Coated roadstone
124	Uncoated roadstone	A road material suitable for use in the unbound form in a road structure
125	Macadam	Uncoated roadstone laid and rolled
126	Subbase	Crushed rock used as lower layers of road material
127	Railway ballast	Coarse aggregate used for railway track formations
130	Constructional fill	Unbound aggregate used to provide bulk in civil engineering works
131	Hoggin	Unbound aggregate used as common fill
132	Dust	Fines from crusher for unspecified use
140	Other uses	E.g. filter media, pipe bedding material, rock wool
141	Filter media drainage	Drainage media commonly used in civil engineering
142	Cable Sand	Screened sand for use in filling cable trenches
145	Lightweight aggregate	Lightweight aggregate uses (clay, PFA, etc)
150	Cement manufacture	Material used in the making of cement
151	Limestone/Chalk for Cement manufacture	Limestone or chalk used in the making of cement
152	Mortar manufacture	Material used in the making of mortar
153	Ready-mixed mortar	Mortar made on quarry site

155	Clay for Cement manufacture	Clay or shale used in the making of cement
160	Plaster Industry	Plaster and plasterboard manufacture
161	Plasters	Plaster, mainly applicable to gypsum
162	Plasterboard	Plasterboard, mainly applicable to gypsum
180	Building stone	Natural stone, crude, riven or cut, for use in buildings and monuments
1801	Kerbs, setts	Natural stone, dressed for use as kerbs and setts
1802	Architectural uses	Building stone cut or shaped for architectural details, often indoors, e.g. window sills, worktops or window frames
1803	Reconstituted stone	Quarry materials bound with a cement to resemble a building stone, for architectural and construction uses. Produced as blocks and other products
1804	Millstones	Stone cut for use as grinding stones, usually gritty sandstone, but finer grained rocks may be used for materials other than corn.
1805	Gun Flint	Flints knapped for use in flintlock firearms
1806	Tool	Flint or chert worked for use as a tool, e.g. hand axe or scraper
181	Dimension stone	Natural stone, cut or sawn to specific dimensions for use in construction work
182	Block Stone	Natural stone, crude, taken to another site to be riven or cut for use in buildings and monuments
183	Monumental Stone	Natural stone, riven or cut, for use in monuments
184	Flagstone	Riven or split slabs of natural stone used for pavements, flooring etc, usually a sandstone with micaceous partings
185	Walling stone	Stone used for dry stone or bonded walls (including drystone dyking and hedging stones)
186	Rockery Stone	Natural stone boulders for use in rockeries, often taken from river deposits. Includes cobbles and blocks, slate, limestone pavement etc
187	Decorative stone	Natural stone processed for decoration or production of small artifacts
188	Armourstone	Large natural stone blocks used for coastal defences, etc
189	Landscaping Stone	Large natural boulders for landscaping use. Includes cobbles and blocks, slate, limestone pavement etc
190	Slate	Cleaved slate used for roofing, cladding or decorative purposes
191	Slate Waste	Waste material from slate industry

192	Roofing slate	Cleaved slate for use in roofing
193	Roofing Flags	Fissile flaggy sandstone or limestone, capable of being finely split, used as a roofing material. Also known as 'Stone Slate'
194	Flooring slate	Cleaved slate used for flooring
195	Puddling Clay	Clay used to line water-carrying structures, e.g. canals
196	Landfill Liner	Clay used as landfill liner
197	Sea defenses	Material used in construction of sea defenses
198	Engineering Clay	High-specification clay for use in civil engineering
200	Industrial Use	General or unspecified industrial use other than construction
205	Industrial Carbonate	Crushed or powdered limestone, dolomite or chalk used for industrial processes
210	Chemical Industry	General or unspecified use in the chemical industry
214	Dynamite manufacture	Diatomaceous material, Keiselguhr, used in the manufacture of dynamite
215	Chemical feedstock	Direct use in a chemical process e.g. salt-in-brine, acid-grade fluorspar, sulphur
216	Pharmaceutical industry	General or unspecified use in the pharmaceutical industry
218	Food industry	General or unspecified use in the food industry
220	Lime	Calcined limestone (quicklime, CaO)
230	Dolime	Calcined dolomite (dolime, CaO MgO)
231	Sinter Feed	<5mm dolomite fines for use in steel making
240	Road Salt	Salt for winter road maintenance
250	Water Industry	Unspecified uses in the water industry
255	Aluminium sulphate	Used as a precipitation agent in water purification
300	Agricultural Industry	Unspecified uses in the agricultural industry
310	Agricultural lime	Direct application of chalk, limestone or dolomite for soil conditioning
320	Horticultural Peat	Peat used for horticultural purposes, usually bagged on site
321	Fertiliser direct use	Direct application K- or P-bearing rock as a fertiliser
350	Fertiliser production	Rock used for chemical fertiliser production e.g. phosphate
360	Anti-caking agent	Mineral used to prevent caking of fertiliser granules
370	Topsoil	Soil extracted for landscaping purposes
380	Horticultural sand	Sand used for horticultural applications including

		top dressing
381	Sports sand	Fine sand for applications on sports ground surfaces
400	Ceramics	General use in fired products
410	Structural ceramics	Materials used to produce fired products such as bricks and tiles used for construction
411	Brick manufacture	Clays, shales, fireclays and sand (calcium silicate bricks) used to produce facing, engineering and paving bricks
412	Fireclay for brick manufacture	Includes light coloured or buff, facing, engineering and paving bricks
413	Sand for calcium silicate brick manufacture	Calcium silicate bricks
415	Sand for Brick or Tile manufacture	Sand for use as filler in brick or tile manufacture
416	Tiles	Clay or shale used for tilemaking
417	Pipes	Clay, shale or fireclay used for pipemaking
418	Terra Cotta	Architectural ceramics
450	Pottery	Applicable to clay and shale, fireclay (excluding ball clay and china clay)
460	Whiteware	Ceramics made from ball clay, china clay and silica sand. Excludes bricks, tiles, pipes and pottery.
461	Sanitary Ware	Ceramics made from ball clay or china clay
462	Bentonite	Na-smectite used in a wide range of industrial applications including as a fibre and filler retention aid in paper manufacture and as a bonding agent for foundry sands
470	Refractories	Materials (clays, fireclays, silica sand) for use in refractory applications
500	Fillers	Fine material used as inert filler or coating agent
510	Pigments	Fine material used as colouring agent
520	Paper manufacture	Filler with specific properties used in paper manufacture
530	Chalk whiting	Soft functional filler used e.g. in putty or animal feed
600	Metallurgical Industry	General use in metallurgical processes
610	Foundry Uses	General use as mould/coremaking materials in foundries
611	Foundry sand	Includes non-silica sands such as olivine, zircon and chromite
612	Foundry sand	Sand containing sufficient natural clay for it to have

	(naturally bonded)	bonding properties, includes Moulding and Pig-Bed Sands
650	Metal refining	Metal ores
660	Flux	Chemical flux used e.g. in iron and steel making. Includes limestone, dolomite, metallurgical grade fluorspar
670	Metal Ore	Ore concentrate of specified metal
671	Anealling Ore	Special Iron Ore to be added to steel smelting process
672	Mineral Specimens	Mineral specimens for sale
673	Jewellery	Precious or semi precious stones or metals for use in jewellery
700	Abrasives	Naturally occurring abrasives, including whetstones
710	Abrasive paper	Sandpaper, emery paper etc
720	Blast cleaning	Shot blasting 'sand' including quartz, garnet etc
800	Glass manufacture	General use in the glass making industry, including fluxes
810	Glass sand	Silica sand used for glassmaking
811	Colourless glass sand	Sand with low content of impurities for the manufacture of colourless glass
812	Coloured glass sand	Used in the production of coloured glass e.g. green bottle glass
813	Float glass sand	Used in the production of float glass
814	Sodium silicate manufacture	Used in the manufacture of Sodium silicate for a wide range of industrial mineral applications
820	Rock wool/glass fibre	Rock wool/glass fibre
900	Energy and Hydrocarbon Industry	Unspecified use in the energy, oil and gas industry
910	Petroleum Industry	Unspecified use in the oil and gas industry
911	Drill fluid weighting agent	Heavy mineral used to increase the density of the drilling mud, usually barytes
912	Drilling fluid	Clay used to transport cuttings from the drill to the surface, normally bentonite
920	Energy Sources	Unspecified use to provide energy
921	Methane Gas	Methane for unspecified use
922	Crude Oil	Crude oil for refinery feedstock
923	Condensate	Hydrocarbons in the gaseous state under reservoir conditions, which become liquid when temperature or pressure is reduced. A mixture of pentanes and

		higher hydrocarbons
925	Coal	Coal for unspecified use
926	Generator Coal	Coal supplied to power stations or industry for use in electricity generation
927	Household Coal	Coal supplied for domestic use
928	Coking Coal	Coal used in the preparation of coke
929	Smokeless Fuel	Coal, usually anthracite, for use in smokeless zones
950	Recycling	Recycling of general construction wastes
952	Recycled aggregates	Recycling of construction or demolition wastes to produce secondary aggregates
953	Recycled road planings	Recycling of road planings to produce a coated roadstone
954	Recycled soil	Recycling of soil and topsoil

3.2.8 Dictionary Table BGS_DIC_END_USE_CATEGORY

This table categorises the groups of enduses in the previous table

CODE	TRANSLATION	DESCRIPTION
!	Not Available	Applicable, but try as we might, we can't find a value
-	Not Applicable	Not Applicable
1000	Construction	Material used in the construction industry
1050	Natural Aggregates	Sand, gravel and crushed rock for use in the construction industry
1500	Cement-making material	Material directly used in the manufacture of cement or mortar
1600	Plaster and Plasterboard	Material directly used in the manufacture of a plaster or plasterboard
1700	Structural Clay Products	Material used as a raw material for the manufacture of structural clay products, i.e. Bricks, pipes and tiles
1800	Building and dimension stone, slate	Natural Stone used in a block, flag or slate form for construction or decorative purposes, or artifacts, e.g. millstones
1900	Engineering Clays	Clay or shale with particular properties, used for a civil engineering purpose other than as a fill
2000	Industrial	Material used in the manufacture of a product by an industrial process, or in the treatment of a product
2100	Chemical	Material directly used in the manufacture of a product by an industrial chemical process
2200	Agricultural or Horticultural Materials	Material used for agricultural or horticultural purposes as a fertiliser, soil conditioner or improver

2300	Ceramics and Refractories	Material used as a raw material for the manufacture of ceramics and refractories, i.e. whiteware or pottery
2400	Fillers, pigments, filters and absorbents	Material directly used in the treatment or enhancement of an industrial product, i.e. paper coatings
2500	Foundry	Material used as a part of the process in the manufacture of a metallic product
2600	Abrasives	Naturally occurring abrasives
2700	Glass manufacture	General use in the glass making industry, including fluxes
2800	Oil Well Drilling	Use as part of the process of exploration or extraction of energy minerals
3000	Energy and Hydrocarbon Industry	Raw materials in the energy industry, including coal, and oil and gases
4000	Metal Industry	Metal ore directly used to produce metals
5000	Jewellery trade and Mineral Specimens	Mineral or rock worked for its decorative purposes
6000	Recycling	Materials recycled for either remanufacture of a similar product or for use in a different product or manner
?	Not Entered	We have not assigned a value yet (and it might not be applicable)

3.2.9 Dictionary Table BGS_DIC_MIN_SITE_TYPE

This table lists the various types of site involved in mineral production and handling

CODE	TRANSLATION	DESCRIPTION
!	Not Available	Not Available - Applicable but try as we might,we can't find a value.
-	Not Applicable	Not Applicable
?	Not Entered	Not Entered - We haven't assigned a value yet
A	Recycling Depot	Site producing recycled material, construction and demolition materials recovered for use as secondary aggregates
C	Copper precipitation pit	Wooden troughs in which scrap iron was placed in order to precipitate copper metal from mine drainage water
L	Liquid or gas extraction	Wellsite, or other surface plant, extracting liquid or gas. Working may be for brine, oil or natural gas
O	Open-pit or surface workings	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit, Opencast Coal Site, Surface Mine
OU	Open-pit and underground	Working is partly surface and partly underground, working the same bodies for the same commodities
P	Power Station	Power station which produces Desulphogypsum and, or, Pulverised Fuel Ash or Furnace Bottom Ash
R	Rail depot	A site where mineral commodities are unloaded from rail trucks and stored
S	Steel Works	Steel works which produce Slags as a byproduct of blast furnace steel smelting
T	Tip	Tip at a mine, quarry or other location from which mineral is being extracted. Working may be termed Slate Waste Tip, Shale Bing, Coal Tip or Coal Bing
U	Underground workings	Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun' Ee' - Scots)
W	Wharf	Sea, river or canal wharf where mineral commodities are unloaded and stored

3.2.10 Dictionary Table BGS_DIC_MQ_PIT_STATUS

This table lists the operational status of the site

CODE	TRANSLATION	DESCRIPTION
?	Not Entered	Not Entered. We have not assigned a value yet (and it might not be applicable).
A	Active	Site which is actively extracting mineral products, or in the case of wharfs and rail depots, is actively handing minerals
C	Ceased	Site which, at date of entry, has ceased to extract minerals. May be considered as 'Closed' by operator. May be considered to have 'Active', 'Dormant' or 'Expired' planning permissions by Mineral Planning Authority
D	Dormant	Site which, at the date of entry, is defined under the Environment Act 1995 as a mineral site where no mineral development has taken place to any substantial extent in, on, or under the site at any time in the period 22nd February 1982 and 6 June 1995.
H	Historic	Historic building stone sites where not currently active and location is not known for certain
I	Inactive	Site which, at date of entry, is not extracting minerals, but which still has a valid planning permission to do so, and can restart at any time. May be considered 'Mothballed' by operator. May be considered to have 'Active' or 'Dormant' planning permission
S	Special	Sites which are used for other purposes than extraction, but which are still covered by the Mines and Quarries Acts, e.g. tourist mines.
T	Tipping	Landfill taking place in void created by mineral extraction. May be considered to have 'Active' planning permissions by Mineral Planning Authority.
Y	Yet to Begin	Sites which have been notified by operators or Mineral Planners but have not started extracting mineral at date of entry. Will be considered to have 'Active' planning permissions by Mineral Planning Authority.

4 Coverage

The database covers Great Britain and Northern Ireland, the Isle of Man and the Channel Islands. BGS is continually updating and correcting the database to constantly improve the quality of the information provided.

5 Technical information

The data is typically supplied as either GIS point format (e.g. Shapefile) or as a table (e.g. MS Excel). The data is supplied with British National Grid Coordinates for UK and Isle of Man sites and Irish National Grid Coordinates for Northern Ireland sites. Channel Island sites are recorded in their own grid coordinates

6 Data history

As the database is constantly updated and concerns currently working sites, it is not considered to have versions.

7 Limitations

- Channel Island and Irish Grid sites, may not plot on a customer's British National Grid GIS without manipulation of the Grid References.
- Data searches may throw up duplicates of sites as the linkages of Commodities and End Uses to Site location is done on a 1 - 1 basis at present. To be improved in updates to database
- Parent Pits and subsidiaries are not well linked. New data sites have been entered using automatic surveys which may not have been obviously associated with larger sites. This being amended where noted.
- Parent Companies and subsidiaries are not well linked. BGS may not be aware of commercial links.
- Use of DiGMapGB - 50 versions can lead to misidentification of sites as the mineral worked may not have been shown on the geological map base if remapping has occurred since the site started working. For example, this is a common occurrence in large recent sand and gravel workings where mapping only shows the remnant worked deposit around the edge of the working, with the underlying non economic material in the centre – 'doughnutting'. The centroid generated by automatic data collection will then record that material as the lithology worked, rather than the actual superficial deposit which was worked away.
- Using DiGMapGB - 50 versions has led to misidentification of sites due to the simplification of the geological shapes at 1:50 000 scale. For example, small exposures which are shown on 1:10 000 or 1:10 560 geological maps as 'sandstone' in small quarry workings through a cap of clay are too small to be visible at 1:50 000 scale so do not appear on the digital data. The automatic collection will therefore appear to be a clay site instead of a sandstone site. Simplification of geological boundaries may also result in the centroid falling on an incorrect lithology if generated by automatic means.

QA procedures are in place to eliminate these problems, however, the large amount of data generated by the automatic surveying will mean that some erroneous data will inevitably slip through. The fact of there being a mineral working site at the point may of be more importance to the customer than the commodity or lithology worked, and that is correctly located by the automatic Survey tool.

8 Contact information

For all data and licensing enquiries please contact:

Central Enquiries

British Geological Survey

Kingsley Dunham Centre

Keyworth

Nottingham

NG12 5GG

Direct tel.: +44(0)115 936 3143

Fax: +44(0)115 9363150

Email: enquiries@bgs.ac.uk