Past Shallow Coal Mine Workings Metadata

Keywords
Theme: Shallow Workings, Coal, Mining, Underground, Mining Report, Ground Stability

Description
Abstract
Past shallow coal mine workings are derived from the Coal Authority’s records of underground coal mine workings. This dataset has been created by extracting all those underground workings, or parts thereof, whose depth is 30 metres or less from the surface. Shallow workings do not have sufficient overlying strata therefore any movement has the potential to reach the surface and cause damage; approx 50% of the accepted surface hazards are related to shallow workings, both recorded and unrecorded.

Purpose
Mining and geographical data held on the Coal Authority Mining Database.

Supplementary Information
Since 1872, there has been a law that requires all coalmine operators to deposit working plans of the mine with the Government following the cessation of operations. Prior to this date the plans were often destroyed or kept in private ownership due to competition between the mine operators. The Coal Authority has over 120,000 mine plans and it is these underground working that were captured into the GIS as polygons.

Shallow coal mining is defined as lying at a depth of up to 10 x the thickness of coal seam extraction down to a maximum depth of 30 metres (30 metres is the height of a 10 storey building). This is definition is typically extended to 50 metres in one or two areas where the coal is particularly thick; however this dataset currently only refers to 30 metre depths.

Underground workings deeper than 30m do not readily constitute a threat to surface stability due to the ability of the overlying strata to dissipate any movement from within the workings before they reach the surface. However, shallow workings do not have sufficient overlying strata therefore any movement has the potential to reach the surface and cause damage; approx 50% of the accepted surface hazards are related to shallow workings, both recorded and unrecorded.

The National Coal Mining Database, which is based on the records held at The Coal Authority offices in Mansfield, Nottinghamshire, is updated on a regular basis. This dataset has been extracted from this dynamic database on the date stated below and therefore represents a snapshot in time.

Status of the data
Extract of data from the National Coal Mining Database

Data update frequency: As needed

Time period for which the data is relevant
Date and time: 14/08/2014
Description: Dataset export from the National Coal Mining Database

Publication Information
Who created the data: The Coal Authority
Date and time: 26/09/2014
Past Shallow Coal Mine Workings Metadata

Data storage and access information
File name: PastShallowWorkings
Type of data: vector digital data
Data processing environment: Microsoft Windows 7 Version 6.1 (Build 7601) Service Pack 1; ESRI ArcCatalog 10.0 (Build 2800)

Accessing the data
Size of the data:
Data transfer size:

Constraints on accessing and using the data
Access and use constraints: This data, service or application is provided free of charge under the terms and conditions of the Open Government Licence.

The full terms and conditions of the Open Government Licence can be viewed at: http://www.nationalarchives.gov.uk/doc/open-government-licence/

If you need any additional advice please contact the Customer Service Team on +44 (0) 0345 762 6848 or at groundstability@coal.gov.uk.

Details about this document
Contents last updated: 26/09/2014

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Standards used to create this document
Standard name: FGDC Content Standards for Digital Geospatial Metadata
Time convention used in this document: local time

Metadata profiles defining additional information
• ESRI Metadata Profile: http://www.esri.com/metadata/esriprof80.html

Spatial

Horizontal coordinate system
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Projected coordinate system name: British_National_Grid
Geographic coordinate system name: GCS_OSGB_1936

Details

Map Projection Name: Transverse Mercator
Scale Factor at Central Meridian: 0.999601
Longitude of Central Meridian: -2.000000
Latitude of Projection Origin: 49.000000
False Easting: 400000.000000
False Northing: -100000.000000

Planar Coordinate Information
Planar Distance Units: meters
Coordinate Encoding Method: coordinate pair

Coordinate Representation
Abcissa Resolution: 0.000000
Ordinate Resolution: 0.000000

Geodetic Model
Horizontal Datum Name: D_OSGB_1936
Ellipsoid Name: Airy_1830
Semi-major Axis: 6377563.396000
Denominator of Flattening Ratio: 299.324965

Altitude System Definition
Resolution: 0.000100
Encoding Method: Explicit elevation coordinate included with horizontal coordinates

Bounding coordinates
Horizontal
In decimal degrees
West: -2.093566
East: -2.080017
North: 53.469229
South: 53.457809
In projected or local coordinates
Left: 393789.641266
Right: 394687.550000
Top: 396974.679798
Bottom: 395705.349900

Vertical
Minimum elevation: 0.000000
Maximum elevation: 0.000000
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Spatial data description
Vector data information
ESRI description

PastShallowWorkings
ESRI feature type: Simple
Geometry type: Polygon
Topology: FALSE
Feature count: 40361
Spatial Index: TRUE
Linear referencing: TRUE

SDTS description
Feature class: SDTS feature type, feature count
• PastShallowWorkings: G-polygon, 40361

Attributes

Details for PastShallowWorkings
Type of object: Feature Class
Number of records: 40361

Attributes
FID
Alias: FID
Data type: OID
Width: 4
Precision: 0
Scale: 0
Definition: Internal feature number.
Definition Source: ESRI

Shape
Alias: Shape
Data type: Geometry
Width: 0
Precision: 0
Scale: 0
Definition: Feature geometry.
Definition Source: ESRI

OBJECTID
Alias: OBJECTID
Data type: Number
Width: 9

FEATURE_TYPE
Past Shallow Coal Mine Workings Metadata

**Alias:** FEATURE_TYPE  
**Data type:** String  
**Definition:**  
The coal mining feature type  
**Width:** 50

**HYPERLINK**  
**Alias:** HYPERLINK  
**Data type:** String  
**Definition:**  
Web URL for further information  
**Width:** 50

**SHAPE_Length**  
**Alias:** SHAPE_Length  
**Data type:** Float  
**Width:** 19  
**Number of decimals:** 11

**SHAPE_Area**  
**Alias:** SHAPE_Area  
**Data type:** Float  
**Width:** 19  
**Number of decimals:** 11  
**Definition:**  
Area of feature in internal units squared.  
**Definition Source:** ESRI