

Underground Coal Mine Emissions (2019)



Tags

underground coal mines, methane emission, methane capture

Summary

Depicts annual liberated, captured, and net methane emissions from underground coal mines in the United States in 2019.

Description

This data set reports the annual liberated, captured, and net methane emissions from underground coal mines in the United States in 2019. The source of the data is U.S. Environmental Protection Agency (EPA) Greenhouse Gas Reporting Program (GHGRP). The data were obtained using EPA's GHG Query Builder (<https://enviro.epa.gov/query-builder/ghg>), by selecting subject area "Underground Coal Mines" and table "FF_Summary_SOURCE".

Credits

Environmental Protection Agency

Use limitations

None

Extent

West	-110.730126	East	-78.912658
North	40.667163	South	33.261510

Scale Range

Maximum (zoomed in)	1:50,000
Minimum (zoomed out)	1:20,000,000

Topics and Keywords

THEMES OR CATEGORIES OF THE RESOURCE climatologyMeteorologyAtmosphere, environment, geoscientificInformation

* CONTENT TYPE Downloadable Data

EXPORT TO FGDC CSDGM XML FORMAT AS RESOURCE DESCRIPTION No

TEMPORAL KEYWORDS 2019

THEME KEYWORDS underground coal mines, methane emission, methane capture

Citation

TITLE Underground Coal Mine Emissions (2019)

PUBLICATION DATE 2019

PRESENTATION FORMATS * digital map

OTHER CITATION DETAILS

The data were obtained using EPA's GHG Query Builder (<https://enviro.epa.gov/query-builder/ghg>), by selecting subject area "Underground Coal Mines" and table "FF_Summary_SOURCE".

Citation Contacts

RESPONSIBLE PARTY

INDIVIDUAL'S NAME Longwen Ou and Hao Cai

ORGANIZATION'S NAME Argonne National Laboratory

CONTACT'S ROLE originator

CONTACT INFORMATION

PHONE

VOICE 630-252-6932 and 630-252-2892

ADDRESS

TYPE

DELIVERY POINT Argonne National Laboratory

E-MAIL ADDRESS oul@anl.gov and hcai@anl.gov

Resource Details

DATASET LANGUAGES * English (UNITED STATES)

DATASET CHARACTER SET utf8 - 8 bit UCS Transfer Format

STATUS completed

SPATIAL REPRESENTATION TYPE * vector

* PROCESSING ENVIRONMENT Version 6.2 (Build 9200) ; Esri ArcGIS 10.8.0.12790

CREDITS

Environmental Protection Agency

ARCGIS ITEM PROPERTIES

* NAME UndergroundCoalMineEmissions_2019

Extents

EXTENT

GEOGRAPHIC EXTENT

BOUNDING RECTANGLE

EXTENT TYPE Extent used for searching

* WEST LONGITUDE -110.730126

* EAST LONGITUDE -78.912658

* NORTH LATITUDE 40.667163

* SOUTH LATITUDE 33.261510

* EXTENT CONTAINS THE RESOURCE Yes

TEMPORAL EXTENT

DATE AND TIME 2019

EXTENT IN THE ITEM'S COORDINATE SYSTEM

* WEST LONGITUDE -12326421.241795

* EAST LONGITUDE -8784516.905704

* SOUTH LATITUDE 3930066.707269

* NORTH LATITUDE 4963371.547485

* EXTENT CONTAINS THE RESOURCE Yes

Resource Points of Contact

POINT OF CONTACT

INDIVIDUAL'S NAME Longwen Ou and Hao Cai
ORGANIZATION'S NAME Argonne National Laboratory
CONTACT'S ROLE originator

CONTACT INFORMATION

PHONE

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ADDRESS

TYPE

DELIVERY POINT Argonne National Laboratory

E-MAIL ADDRESS oul@anl.gov and hcai@anl.gov

Resource Maintenance

RESOURCE MAINTENANCE

UPDATE FREQUENCY not planned

Resource Constraints

CONSTRAINTS

LIMITATIONS OF USE

None

Spatial Reference

ARCGIS COORDINATE SYSTEM

- * TYPE Projected
- * GEOGRAPHIC COORDINATE REFERENCE GCS_WGS_1984
- * PROJECTION WGS_1984_Web_Mercator_Auxiliary_Sphere
- * COORDINATE REFERENCE DETAILS

PROJECTED COORDINATE SYSTEM

WELL-KNOWN IDENTIFIER 102100

X ORIGIN -22041257.77387803

Y ORIGIN -30241100

XY SCALE 144148035.89861274

Z ORIGIN -100000

Z SCALE 10000

M ORIGIN -100000

M SCALE 10000

XY TOLERANCE 0.001

Z TOLERANCE 0.001

M TOLERANCE 0.001

HIGH PRECISION true

LATEST WELL-KNOWN IDENTIFIER 3857

WELL-KNOWN TEXT PROJCS["WGS_1984_Web_Mercator_Auxiliary_Sphere",GEOGCS
["GCS_WGS_1984",DATUM["D_WGS_1984",SPHEROID
["WGS_1984",6378137.0,298.257223563]],PRIMEM["Greenwich",0.0],UNIT
["Degree",0.0174532925199433]],PROJECTION["Mercator_Auxiliary_Sphere"],PARAMETER
["False_Easting",0.0],PARAMETER["False_Northing",0.0],PARAMETER
["Central_Meridian",0.0],PARAMETER["Standard_Parallel_1",0.0],PARAMETER
["Auxiliary_Sphere_Type",0.0],UNIT["Meter",1.0],AUTHORITY["EPSG",3857]]

REFERENCE SYSTEM IDENTIFIER

- * VALUE 3857
- * CODESPACE EPSG
- * VERSION 8.8(9.3.1.2)

Spatial Data Properties

VECTOR

- * LEVEL OF TOPOLOGY FOR THIS DATASET geometry only
- GEOMETRIC OBJECTS
 - FEATURE CLASS NAME UndergroundCoalMineEmissions_2019
 - * OBJECT TYPE point
 - * OBJECT COUNT 69

ARCGIS FEATURE CLASS PROPERTIES

- FEATURE CLASS NAME UndergroundCoalMineEmissions_2019
- * FEATURE TYPE Simple
- * GEOMETRY TYPE Point
- * HAS TOPOLOGY FALSE
- * FEATURE COUNT 69
- * SPATIAL INDEX TRUE
- * LINEAR REFERENCING FALSE

Distribution

DISTRIBUTION FORMAT

- * NAME File Geodatabase Feature Class

Fields

DETAILS FOR OBJECT UndergroundCoalMineEmissions_2019

- * TYPE Feature Class
- * ROW COUNT 69

FIELD OBJECTID

- * ALIAS OBJECTID
- * DATA TYPE OID
- * WIDTH 4
- * PRECISION 0
- * SCALE 0
- * FIELD DESCRIPTION
 - Internal feature number.
- * DESCRIPTION SOURCE
 - Esri
- * DESCRIPTION OF VALUES
 - Sequential unique whole numbers that are automatically generated.

FIELD facility_name

- * ALIAS facility_name
- * DATA TYPE String
- * WIDTH 8000
- * PRECISION 0
- * SCALE 0
- FIELD DESCRIPTION
 - Name of reporting facility.
- DESCRIPTION SOURCE
 - EPA

FIELD facility_id

- * ALIAS facility_id
- * DATA TYPE Integer
- * WIDTH 4
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

A facility's Greenhouse Gas Reporting Program identification number (GHGRP ID).

DESCRIPTION SOURCE

EPA

FIELD address1

- * ALIAS address1
- * DATA TYPE String
- * WIDTH 8000
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

First line of address information.

DESCRIPTION SOURCE

EPA

FIELD address2

- * ALIAS address2
- * DATA TYPE String
- * WIDTH 8000
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

Second line of address information.

DESCRIPTION SOURCE

EPA

FIELD city

- * ALIAS city
- * DATA TYPE String
- * WIDTH 8000
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

The name of the city in which the reporting facility is located.

DESCRIPTION SOURCE

EPA

FIELD county

- * ALIAS county
- * DATA TYPE String
- * WIDTH 8000
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

The standardized name of the county where the facility is located.

DESCRIPTION SOURCE

EPA

FIELD county_fips

- * ALIAS county_fips
- * DATA TYPE Integer
- * WIDTH 4
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

A five-digit Federal Information Processing Standard (FIPS) code which uniquely identifies counties and county equivalents in the United States, certain U.S. possessions, and certain freely associated states. The first two digits are the FIPS state code and the last three are the county code within the state or possession.

DESCRIPTION SOURCE

EPA

FIELD state_name

- * ALIAS state_name
- * DATA TYPE String
- * WIDTH 8000
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

Name of State in which the facility is located.

DESCRIPTION SOURCE

EPA

FIELD state

- * ALIAS state
- * DATA TYPE String
- * WIDTH 8000
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

A two-letter code assigned by the U.S. Postal Service to identify the state in which the facility is located.

DESCRIPTION SOURCE

EPA

FIELD zip

- * ALIAS zip
- * DATA TYPE Integer
- * WIDTH 4
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

Five-digit standardized Zip code where the facility is located.

DESCRIPTION SOURCE

EPA

FIELD **latitude**

- * ALIAS latitude
- * DATA TYPE Double
- * WIDTH 8
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

WGS84 'latitude' coordinate with decimal degrees to four places or better.

DESCRIPTION SOURCE

EPA

FIELD **longitude**

- * ALIAS longitude
- * DATA TYPE Double
- * WIDTH 8
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

WGS84 'longitude' coordinate with decimal degrees to four places or better.

DESCRIPTION SOURCE

EPA

FIELD **parent_company**

- * ALIAS parent_company
- * DATA TYPE String
- * WIDTH 8000
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

Name of parent company

DESCRIPTION SOURCE

EPA

FIELD **reporting_year**

- * ALIAS reporting_year
- * DATA TYPE Integer
- * WIDTH 4
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

The reporting year for which the emissions are reported.

DESCRIPTION SOURCE

EPA

FIELD **liberated_ch4**

- * ALIAS liberated_ch4
- * DATA TYPE Double
- * WIDTH 8
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

Facility total annual CH4 liberated (MT CH4).

DESCRIPTION SOURCE

EPA

FIELD captured_ch4

- * ALIAS captured_ch4
- * DATA TYPE Double
- * WIDTH 8
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

Facility total annual CH4 destroyed at the mine and transported offsite (MT CH4).

DESCRIPTION SOURCE

EPA

FIELD net_ch4

- * ALIAS net_ch4
- * DATA TYPE Double
- * WIDTH 8
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

Facility total annual net CH4 emissions to the atmosphere from the mine (MT CH4, calculated as the difference between "liberated_ch4" and "captured_ch4").

DESCRIPTION SOURCE

EPA

FIELD Shape

- * ALIAS Shape
- * DATA TYPE Geometry
- * WIDTH 0
- * PRECISION 0
- * SCALE 0
- * FIELD DESCRIPTION

Feature geometry.

* DESCRIPTION SOURCE

Esri

* DESCRIPTION OF VALUES

Coordinates defining the features.

Metadata Details

- * METADATA LANGUAGE English (UNITED STATES)
- * METADATA CHARACTER SET utf8 - 8 bit UCS Transfer Format

SCOPE OF THE DATA DESCRIBED BY THE METADATA * dataset

SCOPE NAME * dataset

* LAST UPDATE 2023-04-13

ARCGIS METADATA PROPERTIES

METADATA FORMAT ArcGIS 1.0

METADATA STYLE FGDC CSDGM Metadata

STANDARD OR PROFILE USED TO EDIT METADATA FGDC

CREATED IN ARCGIS FOR THE ITEM 2023-04-11

LAST MODIFIED IN ARCGIS FOR THE ITEM 2023-04-13

AUTOMATIC UPDATES

HAVE BEEN PERFORMED Yes

LAST UPDATE 2023-04-12

Metadata Contacts

METADATA CONTACT

INDIVIDUAL'S NAME Longwen Ou and Hao Cai

ORGANIZATION'S NAME Argonne National Laboratory

CONTACT'S ROLE originator

CONTACT INFORMATION

PHONE

VOICE 630-252-6932 and 630-252-2892

ADDRESS

TYPE

DELIVERY POINT Argonne National Laboratory

E-MAIL ADDRESS oul@anl.gov and hcai@anl.gov

Metadata Maintenance

MAINTENANCE

UPDATE FREQUENCY as needed