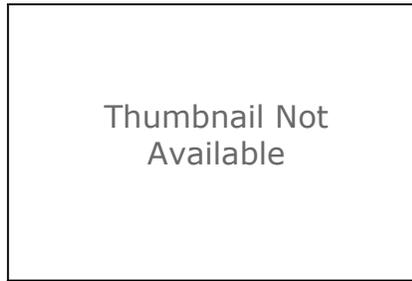


Potentiometric Surface Map of the Bedrock Aquifers of Morgan County, Indiana

Shapefile



Tags

Potentiometric surface, static water level, groundwater, water wells, water table, bedrock, Indiana Department of Natural Resources (IDNR), Division of Water (DOW), Morgan County, Indiana, USA

Summary

Display and/or analyses requiring spatial distribution of potentiometric surface elevations in Morgan County.

Description

This file is a digital geospatial polyline coverage of bedrock potentiometric surface elevations mapped for Morgan County in Indiana.

Credits

It is requested that the Indiana Department of Natural Resources, Division of Water be cited in any products generated from this data.

Use limitations

Acknowledgement of the following agency in products derived from these data: Indiana Department of Natural Resources, Division of Water. This map was compiled by staff of the Indiana Department of Natural Resources, Division of Water using data believed to be reasonably accurate. However, a degree of error is inherent in all maps. This product is distributed "as-is" without warranties of any kind, either expressed or implied. The maps are intended for use only at the published scale. The information on these media is proprietary to the State of Indiana, Indiana Department of Natural Resources, Division of Water. Any copying, adaptation, or distribution of these data without the expressed written consent of IDNR-DOW is discouraged. It is not recommended that these data be used for purposes other than the general estimate of static water level elevations. Site specific conditions may vary considerably from mapped estimates.

Extent

West -86.687981 **East** -86.248975
North 39.635094 **South** 39.338379

Scale Range

Maximum (zoomed in) 1:50,000

Minimum (zoomed out) 1:500,000

ArcGIS Metadata ►

Topics and Keywords ►

THEMES OR CATEGORIES OF THE RESOURCE [geoscientificInformation](#)

* CONTENT TYPE [Downloadable Data](#)

EXPORT TO FGDC CSDGM XML FORMAT AS RESOURCE DESCRIPTION [No](#)

PLACE KEYWORDS [Morgan County, Indiana, USA](#)

THEME KEYWORDS [Morgan County, Indiana](#)

THEME KEYWORDS [bedrock](#)

THEME KEYWORDS [static water level](#)

THEME KEYWORDS [groundwater](#)

THEME KEYWORDS [water wells](#)

THEME KEYWORDS [Indiana Department of Natural Resources \(IDNR\)](#)

THEME KEYWORDS [Division of Water \(DOW\)](#)

[Hide Topics and Keywords ▲](#)

Citation ►

TITLE [Potentiometric Surface Map of the Bedrock Aquifers of Morgan County, Indiana](#)

PUBLICATION DATE [2012-09-12 00:00:00](#)

CREATION DATE [2012-07-20 00:00:00](#)

REVISION DATE [2016-09-15 00:00:00](#)

EDITION [2](#)

PRESENTATION FORMATS [digital map](#)

FGDC GEOSPATIAL PRESENTATION FORMAT [vector digital data](#)

SERIES

NAME [Bedrock Potentiometric Surface Map](#)

ISSUE [PSM 14-B](#)

OTHER CITATION DETAILS

This map was compiled from multiple unpublished work maps based on USGS quadrangles at 1:24,000 scale: Bargersville, Bridgeport, Cope, Eminence, Gosport, Hall, Hindustan, Martinsville, Maywood, Modesto, Mooresville East, Mooresville West, Morgantown, Paragon, Plainfield, and Quincy.

[Hide Citation ▲](#)

Citation Contacts ▶

RESPONSIBLE PARTY

ORGANIZATION'S NAME IDNR Division of Water, Resource Assessment Section
 INDIVIDUAL'S NAME Jerry Unterreiner
 CONTACT'S ROLE originator

RESPONSIBLE PARTY

ORGANIZATION'S NAME Indiana Department of Natural Resources, Division of Water
 CONTACT'S ROLE publisher

CONTACT INFORMATION ▶

ADDRESS
 TYPE
 DELIVERY POINT Indianapolis, Indiana, USA

[Hide Contact information ▲](#)

[Hide Citation Contacts ▲](#)

Resource Details ▶

DATASET LANGUAGES English (UNITED STATES)
 DATASET CHARACTER SET utf8 - 8 bit UCS Transfer Format

STATUS completed
 SPATIAL REPRESENTATION TYPE vector

* PROCESSING ENVIRONMENT Microsoft Windows 7 Version 6.1 (Build 7601) Service Pack 1; Esri ArcGIS 10.4.1.5686

CREDITS

It is requested that the Indiana Department of Natural Resources, Division of Water be cited in any products generated from this data.

ARCGIS ITEM PROPERTIES

* NAME BED_PSM_Morgan_County_IN
 * SIZE 1.257
 * LOCATION file:///\\2UA5071LJT\C\$\Users\RSchmidt\Desktop\New folder\BED_PSM_Morgan_County_IN.shp
 * ACCESS PROTOCOL Local Area Network

[Hide Resource Details ▲](#)

Extents ▶

EXTENT

GEOGRAPHIC EXTENT
 BOUNDING RECTANGLE
 EXTENT TYPE Extent used for searching
 * WEST LONGITUDE -86.687981
 * EAST LONGITUDE -86.248975
 * NORTH LATITUDE 39.635094
 * SOUTH LATITUDE 39.338379
 * EXTENT CONTAINS THE RESOURCE Yes

EXTENT IN THE ITEM'S COORDINATE SYSTEM

- * WEST LONGITUDE 526888.401500
- * EAST LONGITUDE 564449.401560
- * SOUTH LATITUDE 4354594.600472
- * NORTH LATITUDE 4387304.364530
- * EXTENT CONTAINS THE RESOURCE Yes

[Hide Extents ▲](#)

Resource Points of Contact ►

POINT OF CONTACT

INDIVIDUAL'S NAME Jerry Unterreiner
 ORGANIZATION'S NAME Indiana Department of Natural Resources, Division of Water
 CONTACT'S POSITION Resource Assessment Section
 CONTACT'S ROLE point of contact

CONTACT INFORMATION ►

PHONE

VOICE 317-232-4222
 FAX 317-233-4579

ADDRESS

TYPE both
 DELIVERY POINT 402 W. Washington Street W264
 CITY Indianapolis
 ADMINISTRATIVE AREA Indiana
 POSTAL CODE 46204
 COUNTRY US

HOURS OF SERVICE

8:15am - 4:15pm M-F except Government Holidays

[Hide Contact information ▲](#)

[Hide Resource Points of Contact ▲](#)

Resource Maintenance ►

RESOURCE MAINTENANCE

UPDATE FREQUENCY not planned

[Hide Resource Maintenance ▲](#)

Resource Constraints ►

LEGAL CONSTRAINTS

ACCESS CONSTRAINTS other restrictions

OTHER CONSTRAINTS

The Indiana Department of Natural Resources, Division of Water has compiled this data set using data believed to be reasonably accurate. However, the Division makes no representation as to the accuracy, completeness, or usefulness of the data or data set. A degree of error is inherent in all maps. This map is intended for use only at the published scale. Reference to any specific commercial product, process, or service does not constitute an endorsement, recommendation, or favoring by the Division. Copyright 2016,

Indiana Department of Natural Resources, Division of Water, All Rights Reserved. Any copying, adaptation, or distribution of these data without the expressed written consent of the Indiana Department of Natural Resources, Division of Water is discouraged.

OTHER CONSTRAINTS

This file is available to anyone, but access may be contingent on written request, specific terms relevant to the agency or person making the request, and/or current freedom of information statutes in the State of Indiana.

CONSTRAINTS

LIMITATIONS OF USE

Acknowledgement of the following agency in products derived from these data: Indiana Department of Natural Resources, Division of Water. This map was compiled by staff of the Indiana Department of Natural Resources, Division of Water using data believed to be reasonably accurate. However, a degree of error is inherent in all maps. This product is distributed "as-is" without warranties of any kind, either expressed or implied. The maps are intended for use only at the published scale. The information on these media is proprietary to the State of Indiana, Indiana Department of Natural Resources, Division of Water. Any copying, adaptation, or distribution of these data without the expressed written consent of IDNR-DOW is discouraged. It is not recommended that these data be used for purposes other than the general estimate of static water level elevations. Site specific conditions may vary considerably from mapped estimates.

[Hide Resource Constraints ▲](#)

Spatial Reference ►

ARCGIS COORDINATE SYSTEM

```
* TYPE Projected
* GEOGRAPHIC COORDINATE REFERENCE GCS_North_American_1983
* PROJECTION NAD_1983_UTM_Zone_16N
* COORDINATE REFERENCE DETAILS
  PROJECTED COORDINATE SYSTEM
    WELL-KNOWN IDENTIFIER 26916
    X ORIGIN -5120900
    Y ORIGIN -9998100
    XY SCALE 450445547.3910538
    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 26916
    WELL-KNOWN TEXT PROJCS["NAD_1983_UTM_Zone_16N",GEOGCS
["GCS_North_American_1983",DATUM["D_North_American_1983",SPHEROID
["GRS_1980",6378137.0,298.257222101]],PRIMEM["Greenwich",0.0],UNIT
["Degree",0.0174532925199433]],PROJECTION["Transverse_Mercator"],PARAMETER
["False_Easting",500000.0],PARAMETER["False_Northing",0.0],PARAMETER
["Central_Meridian",-87.0],PARAMETER["Scale_Factor",0.9996],PARAMETER
["Latitude_Of_Origin",0.0],UNIT["Meter",1.0],AUTHORITY["EPSG",26916]]
```

REFERENCE SYSTEM IDENTIFIER

```
* VALUE 26916
```

- * CODESPACE EPSG
- * VERSION 6.13(3.0.1)

[Hide Spatial Reference ▲](#)

Spatial Data Properties ►

VECTOR ►

- * LEVEL OF TOPOLOGY FOR THIS DATASET geometry only

GEOMETRIC OBJECTS

- FEATURE CLASS NAME BED_PSM_Morgan_County_IN
- * OBJECT TYPE composite
- * OBJECT COUNT 259

[Hide Vector ▲](#)

ARCGIS FEATURE CLASS PROPERTIES ►

- FEATURE CLASS NAME BED_PSM_Morgan_County_IN
- * FEATURE TYPE Simple
- * GEOMETRY TYPE Polyline
- * HAS TOPOLOGY FALSE
- * FEATURE COUNT 259
- * SPATIAL INDEX TRUE
- * LINEAR REFERENCING FALSE

[Hide ArcGIS Feature Class Properties ▲](#)

[Hide Spatial Data Properties ▲](#)

Data Quality ►

SCOPE OF QUALITY INFORMATION ►

- RESOURCE LEVEL dataset

[Hide Scope of quality information ▲](#)

DATA QUALITY REPORT - COMPLETENESS OMISSION ►

MEASURE DESCRIPTION

In conducting the mapping, the author(s) evaluated hundreds of water well records, especially those having relatively complete information on well location, static water level, well depth, ground elevation, and lithology. There were areas in the county with sparse information because of lack of well records or incomplete records.

[Hide Data quality report - Completeness omission ▲](#)

DATA QUALITY REPORT - QUANTITATIVE ATTRIBUTE ACCURACY ►

MEASURE DESCRIPTION

The mapping was conducted after a thorough documentation of well locations and water well record details.

[Hide Data quality report - Quantitative attribute accuracy ▲](#)

DATA QUALITY REPORT - ABSOLUTE EXTERNAL POSITIONAL ACCURACY ►
 DIMENSION horizontal

MEASURE DESCRIPTION

The locations of many wells were field checked and the locations posted on 7.5 minute topographic maps. Visual confirmation of wells was not always possible. Many locations were based only on the street address, driving directions, or other location information provided on the well record.

[Hide Data quality report - Absolute external positional accuracy ▲](#)

[Hide Data Quality ▲](#)

Lineage ►

PROCESS STEP ►
 DESCRIPTION

Data were selected by careful evaluation of water well records to determine if the wells were field located and if they contained complete and reasonable information.

[Hide Process step ▲](#)

PROCESS STEP ►
 WHEN THE PROCESS OCCURRED 2012-08-22 00:00:00
 DESCRIPTION

After selection of water well records was complete, specific well data and other maps and reports were considered in the mapping process. For example, ground elevation, static water level, well depth, aquifer top and bottom elevation and lithology were obtained from well records. Other maps and reports included regional potentiometric surface elevations, hydrogeologic settings, groundwater availability, bedrock topography, and surface topography. The U.S. Geological Survey (USGS) publication Ground-water resources of the glacial outwash along the White River, Johnson and Morgan counties, Indiana, USGS Water Resources Investigations 82-4016, and the IDNR-DOW publication Bedrock Aquifer Systems of Morgan County, Indiana, Aquifer Systems Map 70-B, April 2010 were two specific publications utilized.

[Hide Process step ▲](#)

SOURCE DATA ►
 DESCRIPTION

Water well records from the IDNR-DOW well record database; USGS topography maps; various consultant geotechnical reports.

RESOLUTION OF THE SOURCE DATA

SCALE DENOMINATOR 1

SOURCE CITATION ►

TITLE Potentiometric Surface Map of the Bedrock Aquifers of Morgan County, Indiana

PUBLICATION DATE 2012-09-12 00:00:00

CREATION DATE 2012-07-20 00:00:00

REVISION DATE 2016-09-23 00:00:00

EDITION 2

SERIES

NAME Potentiometric Surface Map

ISSUE PSM 14-B

RESPONSIBLE PARTY

INDIVIDUAL'S NAME Jerry Unterreiner

ORGANIZATION'S NAME IDNR Division of Water, Resource Assessment Section

CONTACT'S ROLE point of contact

RESPONSIBLE PARTY

ORGANIZATION'S NAME Indiana Department of Natural Resources, Division of Water

CONTACT'S ROLE publisher

CONTACT INFORMATION ►

ADDRESS

TYPE

CITY Indianapolis, IN

*Hide Contact information ▲**Hide Source citation ▲**Hide Source data ▲**Hide Lineage ▲***Geoprocessing history ►**

PROCESS

PROCESS NAME

DATE 2012-04-25 13:16:03

TOOL LOCATION C:\Program Files\ArcGIS\Desktop10.0\ArcToolbox\Toolboxes\Spatial Analyst Tools.tbx\Contour

COMMAND ISSUED

Contour Bed_Krig J:\!Potentiometric\Morgan\Krig\Bed_Krig_contour.shp 10 0 1

INCLUDE IN LINEAGE WHEN EXPORTING METADATA No

PROCESS

PROCESS NAME

DATE 2012-08-23 07:14:33

TOOL LOCATION C:\Program Files\ArcGIS\Desktop10.0\ArcToolbox\Toolboxes\Data Management Tools.tbx\CalculateField

COMMAND ISSUED

CalculateField BED_PSM_Morgan_Co_IN Static_E [CONTOUR] VB #

INCLUDE IN LINEAGE WHEN EXPORTING METADATA No

PROCESS

PROCESS NAME

DATE 2016-11-17 15:17:38

TOOL LOCATION c:\program files (x86)\arcgis\desktop10.3\ArcToolbox\Toolboxes\Analysis Tools.tbx\Clip

COMMAND ISSUED

Clip "BED_PSM\Contours\BED_PSM_Morgan_County_IN" Morgan M:\! Potentiometric\Morgan\3_Working\Morgan\BED_PSM_Morgan_County_IN_Clip.shp #

INCLUDE IN LINEAGE WHEN EXPORTING METADATA No

PROCESS

PROCESS NAME

DATE 2016-11-17 15:19:18

TOOL LOCATION c:\program files (x86)\arcgis\desktop10.3\ArcToolbox\Toolboxes\Analysis Tools.tbx\Erase

COMMAND ISSUED

Erase BED_PSM_Morgan_County_IN_Clip "BED_PSM\No Data Zones\BED_Limited_Data_Nonaquifer_Coverage_Morgan" M:\! Potentiometric\Morgan\3_Working\Morgan\BED_PSM_Morgan_County_IN_final_clip.shp #

INCLUDE IN LINEAGE WHEN EXPORTING METADATA No

PROCESS

PROCESS NAME

DATE 2016-12-01 15:17:21

TOOL LOCATION c:\program files (x86)\arcgis\desktop10.3\ArcToolbox\Toolboxes\Analysis Tools.tbx\Erase

COMMAND ISSUED

Erase "BED_PSM\Contours\BED_PSM_Morgan_County_IN" "BED_PSM\No Data Zones\BED_Limited_Data_Nonaquifer_Coverage_Morgan" M:\! Potentiometric\Morgan\3_Working\Morgan\BED_PSM_Morgan_County_IN_final_clip2.shp #

INCLUDE IN LINEAGE WHEN EXPORTING METADATA No

Hide Geoprocessing history ▲

Distribution ►

DISTRIBUTOR ►

CONTACT INFORMATION

INDIVIDUAL'S NAME Jerry Unterreiner

ORGANIZATION'S NAME Indiana Department of Natural Resources, Division of Water

CONTACT'S POSITION Resource Assessment Section

CONTACT'S ROLE distributor

CONTACT INFORMATION ►

PHONE

VOICE 317-232-4222

FAX 317-233-4579

ADDRESS

TYPE both

DELIVERY POINT 402 W. Washington Street W264

CITY Indianapolis

ADMINISTRATIVE AREA Indiana

POSTAL CODE 46204

COUNTRY US

HOURS OF SERVICE

8:15am - 4:15pm M-F except Government Holidays

[Hide Contact information ▲](#)

[Hide Distributor ▲](#)

DISTRIBUTION FORMAT

* NAME Shapefile

TRANSFER OPTIONS

* TRANSFER SIZE 1.257

[Hide Distribution ▲](#)

Fields ►

DETAILS FOR OBJECT [BED_PSM_Morgan_County_IN ►](#)

* TYPE Feature Class

* ROW COUNT 259

FIELD [FID ►](#)

* ALIAS FID

* 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.

[Hide Field FID ▲](#)

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.

[Hide Field Shape ▲](#)

FIELD Static_E ►

- * ALIAS Static_E
- * DATA TYPE SmallInteger
- * WIDTH 4
- * PRECISION 4
- * SCALE 0

FIELD DESCRIPTION

Bedrock potentiometric surface contour lines of static water levels.

[Hide Field Static_E ▲](#)

[Hide Details for object BED_PSM_Morgan_County_IN ▲](#)

[Hide Fields ▲](#)

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 2017-03-01

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 2017-02-27 10:35:45
 LAST MODIFIED IN ARCGIS FOR THE ITEM 2017-03-01 62:05:00

AUTOMATIC UPDATES

HAVE BEEN PERFORMED Yes
 LAST UPDATE 2017-03-01 06:18:35

ITEM LOCATION HISTORY

ITEM COPIED OR MOVED 2017-02-27 10:35:45
 FROM M:\!
 Potentiometric\Morgan\3_Working\Morgan\BED_PSM_Morgan_County_IN_final_clip2
 TO \\iotisip01pa\dnr\gis\$\!
 Potentiometric\Morgan\1_Web_Products\BED_PSM_Morgan_County_IN_final_clip2

[Hide Metadata Details ▲](#)

Metadata Constraints ►

LEGAL CONSTRAINTS

ACCESS CONSTRAINTS other restrictions

OTHER CONSTRAINTS

This metadata file is intended to accompany the subject geospatial data set. This file may be updated, and the most recent version is available by contacting the IDNR Division of Water.

[Hide Metadata Constraints ▲](#)**Thumbnail and Enclosures ►**

ENCLOSURE

ENCLOSURE TYPE File

DESCRIPTION OF ENCLOSURE original metadata

ORIGINAL METADATA DOCUMENT, WHICH WAS TRANSLATED yes

SOURCE METADATA FORMAT fgdc

[Hide Thumbnail and Enclosures ▲](#)**FGDC Metadata (read-only) ▼**