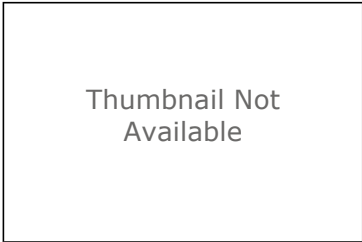


Potentiometric Surface Map of the Unconsolidated Aquifers of Marshall County, Indiana

Shapefile



Tags

Marshall County, Indiana, USA, unconsolidated potentiometric surface

Summary

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

Description

This file is a digital geospatial polyline coverage of the unconsolidated potentiometric surface elevations mapped for Marshall County in Indiana.

Credits

There are no credits for this item.

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 express written consent of IDNR-DOW is discouraged. It is not recommended that these data be used for purposes other than general estimate of static water level elevations. Site specific conditions may vary considerably from mapped estimates.

Extent

West -86.469215 **East** -86.050208
North 41.481488 **South** 41.169206

Scale Range

Maximum (zoomed in) 1:5,000
Minimum (zoomed out) 1:150,000,000

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 Marshall County, Indiana, USA
- THEME KEYWORDS unconsolidated potentiometric surface
- Hide Topics and Keywords ▲

Citation ►

- TITLE Potentiometric Surface Map of the Unconsolidated Aquifers of Marshall County, Indiana
- PUBLICATION DATE 2013-05-13 00:00:00
- EDITION 1
- EDITION DATE 2013-05-13
- PRESENTATION FORMATS digital map

SERIES

NAME Unconsolidated Potentiometric Surface Map

ISSUE PSM 24-A

OTHER CITATION DETAILS This map was compiled from multiple unpublished work maps based on USGS quadrangles at 1:24,000 scale: Argos, Bourbon, Bremen, Culver, Donaldson, Inwood, La Paz, Mentone, Nappanee West, Plymouth, Rutland, and Walkerton.

[Hide Citation ▲](#)

Citation Contacts ►

RESPONSIBLE PARTY

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

INDIVIDUAL'S NAME Glenn E. Grove,

CONTACT'S ROLE originator

RESPONSIBLE PARTY

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

CONTACT'S ROLE publisher

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CONTACT'S ROLE point of contact

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

[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 XP Version 5.1 (Build 2600) Service Pack 3; Esri ArcGIS 10.1.1.3143

ARCGIS ITEM PROPERTIES

*NAME unc_psm_marshall_co_in
*SIZE 0.498
*LOCATION file://
\\iotfilp19pw\dnr\dow\common\RA_FILES_ONLINE\24_Marshall\24_Marshall_County_PSM_shapefiles\unc_psm_marshall_co_in.shp
*ACCESS PROTOCOL Local Area Network

[Hide Resource Details ▲](#)

Extents ►

EXTENT

DESCRIPTION
publication date

TEMPORAL EXTENT

DATE AND TIME 2013-05-13 00:00:00

EXTENT

GEOGRAPHIC EXTENT

BOUNDING RECTANGLE
WEST LONGITUDE -85.224803
EAST LONGITUDE -84.80548
SOUTH LATITUDE 39.709138
NORTH LATITUDE 40.012109

EXTENT

GEOGRAPHIC EXTENT

BOUNDING RECTANGLE
EXTENT TYPE Extent used for searching
* WEST LONGITUDE -86.469215
* EAST LONGITUDE -86.050208
* NORTH LATITUDE 41.481488
* SOUTH LATITUDE 41.169206
* EXTENT CONTAINS THE RESOURCE Yes

EXTENT IN THE ITEM'S COORDINATE SYSTEM

* WEST LONGITUDE 544523.767300
* EAST LONGITUDE 579298.549600
* SOUTH LATITUDE 4557971.454300
* NORTH LATITUDE 4592346.289600
* EXTENT CONTAINS THE RESOURCE Yes

[Hide Extents ▲](#)

Resource Points of Contact ►

POINT OF CONTACT

INDIVIDUAL'S NAME Glenn E. Grove
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CONTACT'S POSITION Resource Assessment Section
CONTACT'S ROLE point of contact

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[Hide Resource Points of Contact ▲](#)

Resource Maintenance ►

RESOURCE MAINTENANCE

UPDATE FREQUENCY not planned

[Hide Resource Maintenance ▲](#)

Resource Constraints ►

LEGAL CONSTRAINTS

LIMITATIONS OF USE

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 2013, Indiana Department of Natural Resources, Division of Water All Rights Reserved Any copying, adaptation, or distribution of these data without the express 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 express written consent of IDNR-DOW is discouraged. It is not recommended that these data be used for purposes other than 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 7.11.2

[Hide Spatial Reference](#) ▲

Spatial Data Properties ►

VECTOR ►

*LEVEL OF TOPOLOGY FOR THIS DATASET geometry only

GEOMETRIC OBJECTS

FEATURE CLASS NAME unc_psm_marshall_co_in
*OBJECT TYPE composite
*OBJECT COUNT 37

[Hide Vector](#) ▲

ARCGIS FEATURE CLASS PROPERTIES ►

FEATURE CLASS NAME unc_psm_marshall_co_in
*FEATURE TYPE Simple
*GEOMETRY TYPE Polyline
*HAS TOPOLOGY FALSE
*FEATURE COUNT 37
*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.

EVALUATION PROCEDURE ►

PUBLICATION DATE 2013-05-13 00:00:00

EDITION 1

[Hide Evaluation procedure](#) ▲

[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 ▶

WHEN THE PROCESS OCCURRED 2013-03-01 00:00:00

DESCRIPTION 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, Unconsolidated topography, and surface topography.

[Hide Process step ▲](#)

PROCESS STEP ▶

WHEN THE PROCESS OCCURRED 2013-03-01 00:00:00

DESCRIPTION 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 2013-03-01 00:00:00

DESCRIPTION A polyline coverage was created using the heads-up method and attributed by Glenn E. Grove. Attribute definitions are described below.

SOURCE DATA ▶

RELATIONSHIP TO THE PROCESS STEP used

SOURCE CITATION ▶

ALTERNATE TITLES IDNR-DOW water well records for domestic and other supply wells submitted by water well drillers from 1959-2012

[Hide Source citation ▲](#)

[Hide Source data ▲](#)

[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 0

SOURCE CITATION ▶

TITLE Potentiometric Surface Map of Marshall County, Indiana

ALTERNATE TITLES Potentiometric Surface Map of Marshall County, Indiana

PUBLICATION DATE 2013-05-13 00:00:00

EDITION 1

FGDC GEOSPATIAL PRESENTATION FORMAT map, vector digital data

SERIES

NAME Unconsolidated Potentiometric Surface Map
ISSUE PSM 24-A

RESPONSIBLE PARTY

ORGANIZATION'S NAME IDNR Division of Water, Resource Assessment Section
INDIVIDUAL'S NAME Glenn E. Grove
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, IN

[Hide Contact information ▲](#)

[Hide Source citation ▲](#)

EXTENT OF THE SOURCE DATA

DESCRIPTION
publication date

[Hide Source data ▲](#)

[Hide Lineage ▲](#)

Geoprocessing history ▶

PROCESS

PROCESS NAME
DATE 2012-02-24 08:45:58
TOOL LOCATION c:\program files\arcgis\desktop10.0\ArcToolbox\Toolboxes\Conversion Tools.tbx\FeatureClassToFeatureClass
COMMAND ISSUED
FeatureClassToFeatureClass "C:\!poteniometric\review\st
joe\07_St_Joseph_County_PSM_shapefiles\UNC_PSM_St_Joseph_CO_IN.shp" "J:\!Potentiometric_Finished\Finished
County_PSM\Finished Counties.mdb\Unconsolidated" St_Joseph_County_PSM_shapefiles # "STATIC_E "STATIC_E" true
true false 4 Short 0 4 ,First,#,C:\!poteniometric\review\st
joe\07_St_Joseph_County_PSM_shapefiles\UNC_PSM_St_Joseph_CO_IN.shp,STATIC_E,-1,-1" #
INCLUDE IN LINEAGE WHEN EXPORTING METADATA No

PROCESS

PROCESS NAME
DATE 2013-02-18 11:30:39
TOOL LOCATION c:\program files\arcgis\desktop10.1\ArcToolbox\Toolboxes\Conversion Tools.tbx\FeatureClassToFeatureClass
COMMAND ISSUED
FeatureClassToFeatureClass "J:\!Potentiometric_Finished\07_St. Joseph\Shapefiles\UNC_PSM_St_Joseph_CO_IN.shp"
C:\!poteniometric\Default.gdb\Marshall unc_marshall_co_in # "STATIC_E "STATIC_E" true true false 4 Short 0
4 ,First,#,J:\!Potentiometric_Finished\07_St. Joseph\Shapefiles\UNC_PSM_St_Joseph_CO_IN.shp,STATIC_E,-1,-1" #
INCLUDE IN LINEAGE WHEN EXPORTING METADATA No

PROCESS

PROCESS NAME
DATE 2013-04-30 08:40:23
TOOL LOCATION c:\program files\arcgis\desktop10.1\ArcToolbox\Toolboxes\Conversion Tools.tbx\FeatureClassToFeatureClass
COMMAND ISSUED
FeatureClassToFeatureClass J:\!Potentiometric\Marshall\Review\unc_marshall_co_in_review.shp C:\!
poteniometric\Default.gdb\Marshall unc_marshall_co_in_final # "OBJECTID "OBJECTID" true true false 9 Long 0
9 ,First,#,J:\!Potentiometric\Marshall\Review\unc_marshall_co_in_review.shp,OBJECTID,-1,-1;STATIC_E "STATIC_E"
true true false 4 Short 0 4 ,First,#,J:\!
Potentiometric\Marshall\Review\unc_marshall_co_in_review.shp,STATIC_E,-1,-1;Shape_Leng "Shape_Leng" true true
false 19 Double 0 0 ,First,#,J:\!Potentiometric\Marshall\Review\unc_marshall_co_in_review.shp,Shape_Leng,-1,-
1" #

INCLUDE IN LINEAGE WHEN EXPORTING METADATA No

PROCESS

PROCESS NAME

DATE 2013-04-30 09:13:37

TOOL LOCATION c:\program files\arcgis\desktop10.1\ArcToolbox\Toolboxes\Analysis Tools.tbx\Clip

COMMAND ISSUED

Clip unc_marshall_co_in_final Marshall_boundary C:\!potenimetric\Default.gdb\unc_marshall_co_in_final_Cli #

INCLUDE IN LINEAGE WHEN EXPORTING METADATA No

PROCESS

PROCESS NAME

DATE 2013-04-30 09:19:57

TOOL LOCATION c:\program files\arcgis\desktop10.1\ArcToolbox\Toolboxes\Conversion Tools.tbx\FeatureClassToFeatureClass

COMMAND ISSUED

FeatureClassToFeatureClass C:\!potenimetric\Default.gdb\unc_marshall_co_in_final_Cli C:\!potenimetric\Default.gdb\Marshall unc_marshall_co_in_final_CliIP # "OBJECTID "OBJECTID" true true false 4 Long 0 0 ,First,#,C:\!potenimetric\Default.gdb\unc_marshall_co_in_final_Cli,OBJECTID,-1,-1;STATIC_E "STATIC_E" true true false 2 Short 0 0 ,First,#,C:\!potenimetric\Default.gdb\unc_marshall_co_in_final_Cli,STATIC_E,-1,-1;Shape_Leng "Shape_Leng" true true false 8 Double 0 0 ,First,#,C:\!potenimetric\Default.gdb\unc_marshall_co_in_final_Cli,Shape_Leng,-1,-1;Shape_Length "Shape_Length" false true true 8 Double 0 0 ,First,#,C:\!potenimetric\Default.gdb\unc_marshall_co_in_final_Cli,Shape_Length,-1,-1" #

INCLUDE IN LINEAGE WHEN EXPORTING METADATA No

[Hide Geoprocessing history ▲](#)

Distribution ►

DISTRIBUTOR ►

CONTACT INFORMATION

INDIVIDUAL'S NAME Glenn E. Grove

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

CONTACT'S POSITION Resource Assessment Section

CONTACT'S ROLE distributor

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COUNTRY US

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AVAILABLE FORMAT

NAME VPF

FILE DECOMPRESSION TECHNIQUE no compression applied

TRANSFER OPTIONS

ONLINE SOURCE

LOCATION <http://www.in.gov/dnr/water/7256.htm>

TRANSFER OPTIONS

ONLINE SOURCE

DESCRIPTION Data and Map

[Hide Distributor](#) ▲

DISTRIBUTION FORMAT

*NAME Shapefile

TRANSFER OPTIONS

*TRANSFER SIZE 0.498

ONLINE SOURCE

LOCATION none

[Hide Distribution](#) ▲

Fields ►

DETAILS FOR OBJECT [unc_psm_marshall_co_in](#) ►

*TYPE Feature Class

*ROW COUNT 37

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

[Hide Field STATIC_E](#) ▲

[Hide Details for object unc_psm_marshall_co_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 2013-05-13

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 2013-05-08 08:12:41
LAST MODIFIED IN ARCGIS FOR THE ITEM 2013-05-14 74:43:20

AUTOMATIC UPDATES

HAVE BEEN PERFORMED Yes
LAST UPDATE 2013-05-14 07:36:06

ITEM LOCATION HISTORY

ITEM COPIED OR MOVED 2013-05-08 08:12:41
FROM J:\!Potentiometric\Marshall\Shapefiles\unc_psm_marshall_co_in
To \\iotfilp19pw\dnr\dow\common\RA_FILES_ONLINE\24_Marshall\zip file\unc_psm_marshall_co_in

[Hide Metadata Details ▲](#)

Metadata Contacts ►

METADATA CONTACT

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

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E-MAIL ADDRESS rmaier@dnr.IN.gov

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

[Hide Contact information ▲](#)

[Hide Metadata Contacts ▲](#)

Metadata Maintenance ►

MAINTENANCE

UPDATE FREQUENCY not planned

[Hide Metadata Maintenance ▲](#)

FGDC Metadata (read-only) ▼