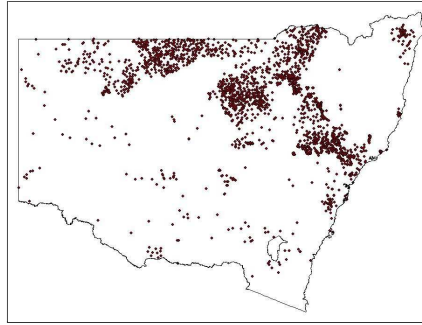


Geothermal Borehole Database

File Geodatabase Feature Class



Tags

NSW, Geothermal, Renewable Energy, Geology, Points

Summary

This feature class shows all of the boreholes in New South Wales that have temperature readings of underlying geology.

Description

The Geological Survey of NSW developed the Geothermal Borehole Database and Geothermal 2, 3 and 5km temperature maps in 2015-2016 as part of the Renewable energy resource maps for the NSW Renewable Energy Action Plan, Annual Report 2015. The aim of the Geothermal Borehole Database and the Renewable energy resource and maps were to;

- (i) Develop an up-to-date NSW borehole temperature database from all available internal and external data sources
- (ii) Extrapolate temperature readings from varying depths to 2, 3 and 5km levels using calculations
- (iii) Produce statewide temperature maps from the Geothermal Borehole Database for 2, 3 and 5km depths illustrating high and low temperature areas.

Note: Both open file and confidential boreholes were used to create the statewide temperature maps at 2, 3 and 5km levels. However confidential boreholes have been omitted from this feature class.

Credits

Nelson, M.D.
Jaworska, J.
Gammidge, L.

Use limitations

Please refer to the 'Resource Constraints' section for limitations of use.

Extent

West 141.025791 **East** 153.344963
North -28.559569 **South** -36.398451

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](#)

THEME KEYWORDS [RENEWABLES-Geothermal](#)

[Hide Topics and Keywords ▲](#)

Citation ▶

TITLE [Geothermal Borehole Database](#)

PUBLICATION DATE [2016-07-25 00:00:00](#)

REVISION DATE [2018-11-30 00:00:00](#)

EDITION [1.3](#)

EDITION DATE [2018-11-30](#)

PRESENTATION FORMATS * [digital map](#)

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

OTHER CITATION DETAILS

It is recommended that this dataset be referred to as:

Wade S.L., Barry C.M., Nelson M.D. & Gammridge L. (compilers) 2018. Renewable energy map of New South Wales, Version 1.3 (Digital Dataset). Geological Survey of New South Wales, Maitland.

Please note that raw data has been collated from various sources (see lineage statement).

[Hide Citation ▲](#)

Citation Contacts ▶

RESPONSIBLE PARTY

INDIVIDUAL'S NAME [Director of Geoscience Information](#)

ORGANIZATION'S NAME [NSW Resources and Geoscience, Geological Survey of NSW](#)

CONTACT'S ROLE [publisher](#)

CONTACT INFORMATION ▶

PHONE

VOICE [02 4063 6723](#)

ADDRESS

TYPE

DELIVERY POINT [516 High Street](#)

CITY [Maitland](#)

ADMINISTRATIVE AREA [New South Wales](#)

POSTAL CODE [2320](#)

COUNTRY [AU](#)

E-MAIL ADDRESS geoscience.info@geoscience.nsw.gov.au

ONLINE RESOURCE

LOCATION <http://www.resourcesandgeoscience.nsw.gov.au>

NAME NSW Resources and Geoscience website

DESCRIPTION The website of the NSW Department of Planning & Environment, Division of Resources and Geoscience

FUNCTION PERFORMED information

[Hide Contact information ▲](#)

[Hide Citation Contacts ▲](#)

Resource Details ►

DATASET LANGUAGES * English (AUSTRALIA)

DATASET CHARACTER SET utf8 - 8 bit UCS Transfer Format

STATUS completed

SPATIAL REPRESENTATION TYPE * vector

* PROCESSING ENVIRONMENT Version 6.2 (Build 9200) ; Esri ArcGIS 10.4.0.5524

CREDITS

Nelson, M.D.

Jaworska, J.

Gammidge, L.

ARCGIS ITEM PROPERTIES

* NAME Geothermal_borehole_database

* LOCATION file://\\Maitlfp11

\\group\Geosurvey\GeoInfo\GeoSpatial\Products\Mapping\State\NSW Renewables\2019
\Online data\RenewablesData.gdb

* ACCESS PROTOCOL Local Area Network

[Hide Resource Details ▲](#)

Extents ►

EXTENT

GEOGRAPHIC EXTENT

BOUNDING RECTANGLE

EXTENT TYPE Extent used for searching

* WEST LONGITUDE 141.025791

* EAST LONGITUDE 153.344963

* NORTH LATITUDE -28.559569

* SOUTH LATITUDE -36.398451

* EXTENT CONTAINS THE RESOURCE Yes

EXTENT IN THE ITEM'S COORDINATE SYSTEM

* WEST LONGITUDE 141.025791

* EAST LONGITUDE 153.344963

* SOUTH LATITUDE -36.398451

* NORTH LATITUDE -28.559569

* EXTENT CONTAINS THE RESOURCE Yes

[Hide Extents ▲](#)

Resource Points of Contact ►

POINT OF CONTACT

INDIVIDUAL'S NAME Director of Geoscience Information
ORGANIZATION'S NAME NSW Resources and Geoscience, Geological Survey of NSW
CONTACT'S ROLE publisher

CONTACT INFORMATION ►

PHONE

VOICE 02 4063 6723

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DELIVERY POINT 516 High Street

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POSTAL CODE 2320

COUNTRY AU

E-MAIL ADDRESS geoscience.info@geoscience.nsw.gov.au

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LOCATION <http://www.resourcesandgeoscience.nsw.gov.au>

NAME NSW Resources and Geoscience website

DESCRIPTION The website of the NSW Department of Planning & Environment, Division of Resources and Geoscience

FUNCTION PERFORMED information

Hide Contact information ▲

Hide Resource Points of Contact ▲

Resource Maintenance ►

RESOURCE MAINTENANCE

UPDATE FREQUENCY unknown

SCOPE OF THE UPDATES dataset

Hide Resource Maintenance ▲

Resource Constraints ►

LEGAL CONSTRAINTS

LIMITATIONS OF USE

THE FOLLOWING LIMITATION APPLIES TO THE DERIVATIVE WORKS AND PLATFORM OF DELIVERY:

<http://www.planning.nsw.gov.au/Copyright-and-Disclaimer>

CONSTRAINTS

LIMITATIONS OF USE

Please refer to the 'Resource Constraints' section for limitations of use.

Hide Resource Constraints ▲

Spatial Reference ►

ARCGIS COORDINATE SYSTEM

* TYPE Geographic

* GEOGRAPHIC COORDINATE REFERENCE GCS_GDA_1994

* COORDINATE REFERENCE DETAILS

GEOGRAPHIC COORDINATE SYSTEM

WELL-KNOWN IDENTIFIER 4283
X ORIGIN -400
Y ORIGIN -400
XY SCALE 999999999.99999988
Z ORIGIN -100000
Z SCALE 10000
M ORIGIN -100000
M SCALE 10000
XY TOLERANCE 8.9831528411952133e-009
Z TOLERANCE 0.001
M TOLERANCE 0.001
HIGH PRECISION true
LEFT LONGITUDE -180
LATEST WELL-KNOWN IDENTIFIER 4283
WELL-KNOWN TEXT GEOGCS["GCS_GDA_1994",DATUM["D_GDA_1994",SPHEROID
["GRS_1980",6378137.0,298.257222101]],PRIMEM["Greenwich",0.0],UNIT
["Degree",0.0174532925199433],AUTHORITY["EPSG",4283]]

REFERENCE SYSTEM IDENTIFIER

- * VALUE 4283
- * CODESPACE EPSG
- * VERSION 8.3.4(3.0.1)

[Hide Spatial Reference ▲](#)

Spatial Data Properties ►

VECTOR ►

- * LEVEL OF TOPOLOGY FOR THIS DATASET geometry only

GEOMETRIC OBJECTS

- FEATURE CLASS NAME Geothermal_borehole_database
- * OBJECT TYPE point
- * OBJECT COUNT 3137

[Hide Vector ▲](#)

ARCGIS FEATURE CLASS PROPERTIES ►

- FEATURE CLASS NAME Geothermal_borehole_database
- * FEATURE TYPE Simple
- * GEOMETRY TYPE Point
- * HAS TOPOLOGY FALSE
- * FEATURE COUNT 3137
- * 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 - ABSOLUTE EXTERNAL POSITIONAL ACCURACY ►

- MEASURE NAME GSNSW testing and editing

CONFORMANCE TEST RESULTS

TEST PASSED Yes

RESULT EXPLANATION

Geological data has been sourced from internal reports and external sources. The authors have endeavoured to ensure the accuracy of the points by sourcing original information where possible, however accuracy is dependent on the original reports. More recent points should be more accurate and for definitive accuracy readings refer to the GSNSW drillhole database.

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

DATA QUALITY REPORT - COMPLETENESS OMISSION ►

MEASURE NAME GSNSW testing and editing

CONFORMANCE TEST RESULTS

TEST PASSED Yes

RESULT EXPLANATION

The Geothermal Borehole Database is complete and lists all of the open file publically available information. Confidential boreholes have been omitted from the data due to confidentiality agreements.

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

[Hide Data Quality ▲](#)

Lineage ►

LINEAGE STATEMENT

The Geothermal Borehole Database was compiled from;

1. Industry submitted reports to DIGS (Digital Imaging Geological System). The NSW Resources & Geoscience Division document archive database which is available to the public online, making available non-confidential reports and other important documentary material.
2. New South Wales, Department of Primary Industries, Water (previously the NSW Office of Water), Groundwater borehole database and the Pinneena Groundwater DVD.
3. New South Wales extract of the OZTemp database Geoscience Australia (Public info), which is an updated and improved version of the AUSTHERM05 borehole temperature database previously described by Chopra and Holgate (2005).
4. Habermehl, M.A. (2001). Wire-line Logged Waterbores in the Great Artesian Basin Wire-line logged waterbores in the Great Artesian Basin, Australia—Digital data of logs and waterbore data acquired by AGSO. Bureau of Rural Sciences, Canberra.

Note: Both open file and confidential boreholes were used to create the statewide temperature maps at 2, 3 and 5km levels. However confidential boreholes have been omitted from this feature class.

Calculating temperature at 2, 3 and 5km was achieved by using the following methods for different types of data.

1. A single temperature reading at depth (1) the following equation was used Geothermal gradient (per km) = ((Raw Temp_C - Surface_Soil Correction)*1000/ Depth of Temp)).

Temperature at 2km = (Geothermal gradient*2) + Surface/Soil Correction.

Temperature at 3km = (Geothermal gradient*3) + Surface/Soil Correction.
Temperature at 5km = (Geothermal gradient*5) + Surface/Soil Correction.

**Note. All values use the calculated equation as selection criteria to determine if that value will be mapped - see Temperature Selection Criteria

2. Two temperature readings at various depths (2) the above equation method was used on most reliable data. The author compared the two data points and chose the most reliable data to be mapped. The selection was made using a hierarchy system in which the most reliable data included a higher reliability ranking, more accurate testing method, greater TSC recording (Time since circulation) or the depth value closest to 2km.

3. Three or more temperature readings at various depths (>2) the line of best fit method was used. A line of best fit was plotted and the Slope and Intercept was calculated. Using the Slope and Intercept, temperature at 2,3 and 5km was calculated using $y = mx + b$. In the case in which a temperature value plotted markedly differently to the others from the same borehole that value was omitted from the Slope and Intercept calculations.

Temperature Selection Criteria

Due to the unconsolidated nature of sediments and the frequent presence of shallow aquifers, minimum depth and temperature values for each geothermal temperature map (2, 3 and 5km) were used as selection criteria to eliminate unrealistic data values. Individual boreholes were analysed and had to meet both criteria ranges to be included in each temperature map creation. As outlined below.

2km; Raw temperature depth reading >250m, calculated temperature at 2km >30 C
3km: Raw temperature depth reading >500m, calculated temperature at 2km >30 C
5km: Raw temperature depth reading >1000m, calculated temperature at 2km >30 C

Note: This dataset has been reviewed as part of the NSW Renewable Energy Mapping Project update (version 1.3, November 2018), with no updates required.

[Hide Lineage ▲](#)

Geoprocessing history ▼

Distribution ►

DISTRIBUTOR ►

CONTACT INFORMATION

INDIVIDUAL'S NAME Director of Geoscience Information

ORGANIZATION'S NAME NSW Resources and Geoscience, Geological Survey of NSW

CONTACT'S ROLE publisher

CONTACT INFORMATION ►

PHONE

VOICE 02 4063 6723

ADDRESS

TYPE

DELIVERY POINT 516 High Street

CITY Maitland

ADMINISTRATIVE AREA New South Wales

POSTAL CODE 2320

COUNTRY AU

E-MAIL ADDRESS geoscience.info@geoscience.nsw.gov.au

ONLINE RESOURCE

LOCATION <http://www.resourcesandgeoscience.nsw.gov.au>

NAME NSW Resources and Geoscience website
DESCRIPTION The website of the NSW Department of Planning & Environment,
Division of Resources and Geoscience
FUNCTION PERFORMED information

Hide Contact information ▲

Hide Distributor ▲

DISTRIBUTION FORMAT

* **NAME** File Geodatabase Feature Class
VERSION 10.3.1

Hide Distribution ▲

Fields ►

DETAILS FOR OBJECT [Geothermal_borehole_database](#) ►

* **TYPE** Feature Class
* **ROW COUNT** 3137

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.

Hide Field [OBJECTID](#) ▲

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 [Groundwater_Hole_ID](#) ►

- * ALIAS Groundwater hole ID
- * DATA TYPE String
- * WIDTH 254
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

Groundwater borehole identification number from; DPI Office of Water.
<http://allwaterdata.water.nsw.gov.au/water.stm>, DPI Office of Water PINNEENA WQ DVD Version 11.1, Geoscience Australia. OZTemp Well Temperature Data and Habermehl, M.A. (2001). Wireline Logged Waterbores in the Great Artesian Basin, Australia—Digital data of logs and waterbore data acquired by AGSO. Bureau of Rural Sciences, Canberra.

DESCRIPTION SOURCE

GSNSW

[Hide Field Groundwater_Hole_ID](#) ▲

FIELD [Hole_Name](#) ►

- * ALIAS Hole name
- * DATA TYPE String
- * WIDTH 254
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

The general name of the borehole from either internal or external sources

DESCRIPTION SOURCE

GSNSW

[Hide Field Hole_Name](#) ▲

FIELD [Company](#) ►

- * ALIAS Company
- * DATA TYPE String
- * WIDTH 254
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

The original company who drilled the borehole.

DESCRIPTION SOURCE

GSNSW

[Hide Field Company](#) ▲

FIELD [DIGS_Report_ID](#) ►

- * ALIAS DIGS report ID
- * DATA TYPE String
- * WIDTH 254
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

New South Wales Department of Planning & Environment, Resources and Geoscience, Geological Survey of NSW - Digital Imaging Geological System (DIGS) identification number

DESCRIPTION SOURCE

GSNSW

[Hide Field DIGS_Report_ID ▲](#)

FIELD Confidentiality ►

- * ALIAS Confidentiality
- * DATA TYPE String
- * WIDTH 254
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

The status of the borehole files and reports. Only open file information is displayed and available for download.

DESCRIPTION SOURCE

GSNSW

[Hide Field Confidentiality ▲](#)

FIELD Basin_At_Top ►

- * ALIAS Basin at top
- * DATA TYPE String
- * WIDTH 254
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

Sedimentary basin in which drilling first commenced

DESCRIPTION SOURCE

GSNSW

[Hide Field Basin_At_Top ▲](#)

FIELD Basin_At_Bottom ►

- * ALIAS Basin at bottom
- * DATA TYPE String
- * WIDTH 254
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

Sedimentary basin in which drilling reached borehole total depth

DESCRIPTION SOURCE

GSNSW

[Hide Field Basin_At_Bottom ▲](#)

FIELD Hole_Type ►

- * ALIAS Hole type
- * DATA TYPE String
- * WIDTH 254
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

The type of the borehole (petroleum, stratigraphic, coal, CSM, waterbore, geothermal or unknown)

DESCRIPTION SOURCE

GSNSW

[Hide Field Hole_Type ▲](#)

FIELD [Total_Depth ▶](#)

- * ALIAS Total depth (m)
- * DATA TYPE Double
- * WIDTH 8
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

The total depth (m) in which the borehole reached.

DESCRIPTION SOURCE

GSNSW

[Hide Field Total_Depth ▲](#)

FIELD [Recorded_Hole_Temp ▶](#)

- * ALIAS Recorded hole temp (°C)
- * DATA TYPE Double
- * WIDTH 8
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

The raw temperature (C) in which was recorded down the borehole

DESCRIPTION SOURCE

GSNSW

[Hide Field Recorded_Hole_Temp ▲](#)

FIELD [Depth_Recorded_Temp ▶](#)

- * ALIAS Depth of recorded temp (m)
- * DATA TYPE Double
- * WIDTH 8
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

The depth (m) of the raw temperature reading

DESCRIPTION SOURCE

GSNSW

[Hide Field Depth_Recorded_Temp ▲](#)

FIELD [Surface_And_Soil_Correction_Value ▶](#)

- * ALIAS Surface and soil correction value
- * DATA TYPE Double
- * WIDTH 8
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

The unique surface and soil correction value assigned to each borehole. Information derived from Australian Bureau of Meteorology (BoM) and Gerner and Budd (2015).

DESCRIPTION SOURCE

GSNSW

[Hide Field Surface_And_Soil_Correction_Value ▲](#)

FIELD [Derived_Temp_At_2km_Depth](#) ►

- * ALIAS Derived temp (°C) at 2km depth
- * DATA TYPE Double
- * WIDTH 8
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

The calculated temperature that was used in the generation of the 2km temperature map, if the 2km selection criteria was met.

DESCRIPTION SOURCE

GSNSW

[Hide Field Derived_Temp_At_2km_Depth](#) ▲

FIELD [Derived_Temp_At_3km_Depth](#) ►

- * ALIAS Derived temp (°C) at 3km depth
- * DATA TYPE Double
- * WIDTH 8
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

The calculated temperature that was used in the generation of the 3km temperature map, if the 3km selection criteria was met.

DESCRIPTION SOURCE

GSNSW

[Hide Field Derived_Temp_At_3km_Depth](#) ▲

FIELD [Derived_Temp_At_5km_Depth](#) ►

- * ALIAS Derived temp (°C) at 5km depth
- * DATA TYPE Double
- * WIDTH 8
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

The calculated temperature that was used in the generation of the 5km temperature map, if the 5km selection criteria was met.

DESCRIPTION SOURCE

GSNSW

[Hide Field Derived_Temp_At_5km_Depth](#) ▲

FIELD [Number_Of_Recorded_Temps](#) ►

- * ALIAS Number of recorded temps in hole
- * DATA TYPE String
- * WIDTH 254
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

The number of temperature records for each borehole, determines the method of extrapolation to depth.

DESCRIPTION SOURCE

GSNSW

[Hide Field Number_Of_Recorded_Temps](#) ▲

FIELD [Method_Used_To_Record_Temp](#) ▶

- * ALIAS Method used to record temp
- * DATA TYPE String
- * WIDTH 254
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

Explains how the raw temperature was recorded.
Temperature log: Downhole continuous logging tool using taking multiple measurements
Flow Cell: Surface device used to monitor water parameters during waterbore pumping
Drill Stem Test: Downhole tool and procedure for isolating and testing specific geological formations
BHT: Downhole bottom hole temperature measurement usually taken alongside other wireline logging suite information
- or blank: indicates information was not recorded.

DESCRIPTION SOURCE

GSNSW

[Hide Field Method_Used_To_Record_Temp](#) ▲

FIELD [MGA94_N](#) ▶

- * ALIAS MGA94 N
- * DATA TYPE Double
- * WIDTH 8
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

The Projected Coordinate System - Geocentric Datum of Australia 1994 (MGA94) northing value

DESCRIPTION SOURCE

GSNSW

[Hide Field MGA94_N](#) ▲

FIELD [MGA94_E](#) ▶

- * ALIAS MGA94 E
- * DATA TYPE Double
- * WIDTH 8
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

The Projected Coordinate System - Geocentric Datum of Australia 1994 (MGA94) easting value

DESCRIPTION SOURCE

GSNSW

[Hide Field MGA94_E](#) ▲

FIELD [MGA94_Zone](#) ▶

- * ALIAS MGA94 Zone
- * DATA TYPE Double
- * WIDTH 8
- * PRECISION 0

* SCALE 0

FIELD DESCRIPTION

The Projected Coordinate System - Geocentric Datum of Australia 1994 (MGA94) zone

DESCRIPTION SOURCE

GSNSW

[Hide Field MGA94_Zone ▲](#)

FIELD [GDA94_Lat ▶](#)

* ALIAS GDA94 Lat

* DATA TYPE Double

* WIDTH 8

* PRECISION 0

* SCALE 0

FIELD DESCRIPTION

The Geographic Coordinate System - Geocentric Datum of Australia 1994 (GDA 1994) latitude value

DESCRIPTION SOURCE

GSNSW

[Hide Field GDA94_Lat ▲](#)

FIELD [GDA94_Long ▶](#)

* ALIAS GDA94 Long

* DATA TYPE Double

* WIDTH 8

* PRECISION 0

* SCALE 0

FIELD DESCRIPTION

The Geographic Coordinate System - Geocentric Datum of Australia 1994 (GDA 1994) longitude value

DESCRIPTION SOURCE

GSNSW

[Hide Field GDA94_Long ▲](#)

FIELD [Source ▶](#)

* ALIAS Source

* DATA TYPE String

* WIDTH 254

* PRECISION 0

* SCALE 0

FIELD DESCRIPTION

The source in which the original data was obtained.

DESCRIPTION SOURCE

GSNSW

[Hide Field Source ▲](#)

[Hide Details for object Geothermal_borehole_database ▲](#)

[Hide Fields ▲](#)

References ►

PORTRAYAL CATALOGUE CITATION ►

TITLE **Geothermal Borehole Database**
PUBLICATION DATE 2016-07-25 00:00:00
REVISION DATE 2018-11-30 00:00:00

EDITION 1.3
EDITION DATE 2018-11-30

PRESENTATION FORMATS digital map
FGDC GEOSPATIAL PRESENTATION FORMAT vector digital data

OTHER CITATION DETAILS

It is recommended that this dataset be referred to as:

Wade S.L., Barry C.M., Nelson M.D. & Gammridge (compilers) 2018. Renewable energy map of New South Wales, Version 1.3 (Digital Dataset). Geological Survey of New South Wales, Maitland.

Please note that raw data has been collated from various sources (see lineage statement).

[Hide Portrayal catalogue citation ▲](#)

[Hide References ▲](#)

Metadata Details ►

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

METADATA IDENTIFIER 7D65AA72-E692-4006-923E-443ED7C8D6C8

SCOPE OF THE DATA DESCRIBED BY THE METADATA * dataset
SCOPE NAME * dataset

* LAST UPDATE 2019-02-11

ARCGIS METADATA PROPERTIES

METADATA FORMAT ArcGIS 1.0
METADATA STYLE ISO 19139 Metadata Implementation Specification
STANDARD OR PROFILE USED TO EDIT METADATA ISO19139

CREATED IN ARCGIS FOR THE ITEM 2016-06-22 17:07:38
LAST MODIFIED IN ARCGIS FOR THE ITEM 2019-02-11 15:29:00

AUTOMATIC UPDATES
HAVE BEEN PERFORMED Yes
LAST UPDATE 2019-02-11 15:29:00

[Hide Metadata Details ▲](#)

Metadata Contacts ►

METADATA CONTACT
INDIVIDUAL'S NAME Director of Geoscience Information

ORGANIZATION'S NAME NSW Resources and Geoscience, Geological Survey of NSW
CONTACT'S ROLE publisher

CONTACT INFORMATION ►

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VOICE 02 4063 6723

ADDRESS

TYPE

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CITY Maitland

ADMINISTRATIVE AREA New South Wales

POSTAL CODE 2320

COUNTRY AU

E-MAIL ADDRESS geoscience.info@geoscience.nsw.gov.au

ONLINE RESOURCE

LOCATION <http://www.resourcesandgeoscience.nsw.gov.au>

NAME NSW Resources and Geoscience website

DESCRIPTION The website of the NSW Department of Planning & Environment, Division of Resources and Geoscience

FUNCTION PERFORMED information

[Hide Contact information ▲](#)

[Hide Metadata Contacts ▲](#)

Metadata Maintenance ►

MAINTENANCE

UPDATE FREQUENCY unknown

[Hide Metadata Maintenance ▲](#)

Thumbnail and Enclosures ►

THUMBNAIL

THUMBNAIL TYPE JPG

[Hide Thumbnail and Enclosures ▲](#)

FGDC Metadata (read-only) ▼