

Ambient-Radionuclides of New Jersey, Series DGS05-2, Edition 201400114

Metadata also available as

Metadata:

- [Identification Information](#)
- [Data Quality Information](#)
- [Spatial Data Organization Information](#)
- [Spatial Reference Information](#)
- [Entity and Attribute Information](#)
- [Distribution Information](#)
- [Metadata Reference Information](#)

Identification_Information:

Citation:

Citation_Information:

Originator:

New Jersey Department of Environmental Protection (NJDEP), NJ Geological and Water Survey (NJGWS)

Publication_Date: 20040315

Title:

Ambient-Radionuclides of New Jersey, Series DGS05-2, Edition 201400114

Edition: 20140114

Geospatial_Data_Presentation_Form: vector digital data

Series_Information:

Series_Name: Digital Geodata Series

Issue_Identification: DGS05-2

Publication_Information:

Publication_Place: Trenton, NJ

Publisher: New Jersey Department of Environmental Protection (NJDEP)

Online_Linkage: <<http://www.state.nj.us/dep/njgs/geodata/index.htm>>

Online_Linkage: <<http://www.nj.gov/dep/gis/listall.html>>

Description:

Abstract:

Radioisotopes (radionuclides) are unstable isotopes of specific elements that emit radioactivity. Alpha particles (symbol α) are a type of ionizing radiation

ejected by the nuclei of some unstable atoms. These particles are essentially a helium nucleus having two protons and two neutrons. Most alpha emitters occur naturally in the environment. For example, the decay of naturally occurring uranium and thorium include many radioactive daughters that decay via alpha emission. Radionuclides are present in varying amounts in nearly all rocks, soils, and water. Human activity can also release radioactive substances into the environment. The radionuclides sampled for in this project are as follows: Gross Beta Dissolved as Cs-137, Alpha Radioactivity Water Dissolved as Th-230, Radium 226 Dissolved as Radon Method, Alpha Radioactivity 2 Sigma Precision Est as Th-230, Beta Radioactivity 2 Sigma Precision Est as Cs-137, and Radium 226 2 Sigma Precision Est Water Dissolved. The unit of measurement is picocuries per liter, pCi/L. This update (2013) includes the data from the completed second sampling cycle of all 150 wells which comprise the redesigned NJAGWQMN.

Purpose:

Ground-water quality data from the Ambient Ground Water Quality Monitoring Network was and is being collected to increase our understanding of water quality as it relates to the geologic character of various aquifers and non-point source impacts from land use. This data set was established to allow all interested parties easy access to the network data in a visual format.

Supplemental Information:

New Jersey's Ambient Ground-Water Quality Network (AGWQN) is a cooperative program between the New Jersey Department of Environmental Protection (NJDEP) and United States Geological Survey (USGS) that started in 1983 when it was discovered that the ambient ground-water quality data was needed, yet lacking, in New Jersey. Since its inception, over 500 existing and installed wells have been sampled. Historically, chemical and physical parameters analyzed included: 1) Field parameters such as pH and specific conductance, 2) Major ions, 3) Metals, 4) Nutrients, 5) Radioactivity, and 6) Volatile organic compounds. In the redesigned shallow-well network described below pesticides have also been added. During the first few years an intensive ground-water survey was conducted in a northern valley-fill aquifer system (> 50 wells, data not in this dataset) and some regional sampling was conducted in the coastal plain of southern New Jersey. In 1986 a lack of data in the northern bedrock portion of the state was recognized and finalized goals for the network were established. Those goals were: 1) Determine chemical ranges of ground-water constituents within and between rock types, 2) Determine geochemical reasons for the differences observed, and 3) Determine long term trends in ambient water quality by resampling using an 8 to 20 year cycle.

-99999 implies the constituent was detected but the concentration could not be quantified or was estimated below the reporting limit and the confidence in the

concentration determination is not acceptable for standard reporting. Note: an estimated value can also be designated for other reasons. See the annual USGS Water-Data Reports NJ-(year of interest) for the estimated values and an explanation. The actual estimated value is not shown in this database. A zero (0) implies no sampling was performed for that parameter.

Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 1987

Ending_Date: 2013

Currentness_Reference: ground condition

Status:

Progress: Complete

Maintenance_and_Update_Frequency: As needed

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: -75.593271

East_Bounding_Coordinate: -73.890308

North_Bounding_Coordinate: 41.357794

South_Bounding_Coordinate: 38.849424

Keywords:

Theme:

Theme_Keyword_Thesaurus: ISO 19115 Topic Category

Theme_Keyword: environment

Theme:

Theme_Keyword_Thesaurus: EPA GIS Keyword Thesaurus

Theme_Keyword: Ambient

Theme_Keyword: Ground Water

Theme_Keyword: Land Use

Theme_Keyword: NJDEP

Theme_Keyword: NJGS

Theme_Keyword: Radionuclide

Theme_Keyword: Water

Theme_Keyword: Well

Theme:

Theme_Keyword_Thesaurus: User

Theme_Keyword: NJDEP

Theme_Keyword: Water Quality Monitoring Locations

Place:

Place_Keyword_Thesaurus: None

Place_Keyword: State of New Jersey

Access_Constraints: None

Use_Constraints:

New Jersey Department of Environmental Protection (NJDEP)

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Point_of_Contact:
Contact_Information:
Contact_Person_Primary:
Contact_Person: Bousenberry, Raymond
Contact_Organization: NJDEP, NJGWS
Contact_Position: Research Scientist 2
Contact_Address:
Address_Type: mailing and physical address
Address: 29 Arctic Pkwy, P.O. Box 420, Mail Code: 29-01
City: Trenton
State_or_Province: NJ
Postal_Code: 08625
Contact_Voice_Telephone: 609-984-6587
Contact_Electronic_Mail_Address: Raymond.Bousenberry@dep.nj.gov
Contact_Instructions: via email
Security_Information:
Security_Classification_System: FIPS Pub 199
Security_Classification: No Confidentiality
Security_Handling_Description: Standard Technical Controls

Data_Quality_Information:
Logical_Consistency_Report: Tests for integrity have not been performed
Completeness_Report:
No information on the features represented regarding omissions, selection criteria, generalization, definitions used, and other rules used to derive the data set.
Positional_Accuracy:
Horizontal_Positional_Accuracy:
Horizontal_Positional_Accuracy_Report: None
Lineage:
Process_Step:
Process_Description:
This update (2014) includes the data from the completed second sampling cycle of all 150 wells which comprise the redesigned NJAGWQMN
Process_Date: 2013
Process_Contact:
Contact_Information:
Contact_Person_Primary:
Contact_Person: Bousenberry, Raymond
Contact_Organization: NJDEP, NJGWS
Contact_Position: Research Scientist 2

Contact_Address:

Address_Type: mailing address

Address: 29 Arctic Pkwy, P.O. Box 420, Mail Code: 29-01

City: Trenton

State_or_Province: NJ

Postal_Code: 08625-0420

Contact_Voice_Telephone: 609-984-6587

Contact_Electronic_Mail_Address: Raymond.Bousenberry@dep.nj.gov

Contact_Instructions: via email

Process_Step:

Process_Description:

This update (2007) includes the data from the remaining 57 wells (sampled in 2003 and 2004) out of the 150 wells which comprise the redesigned NJAGWQMN. This data completes one full sampling cycle of the network.

Process_Date: 2007

Process_Contact:

Contact_Information:

Contact_Person_Primary:

Contact_Person: Bousenberry, Raymond

Contact_Organization: NJDEP, NJGWS

Contact_Position: Research Scientist 2

Contact_Address:

Address_Type: mailing address

Address: 29 Arctic Pkwy, P.O. Box 420, Mail Code: 29-01

City: Trenton

State_or_Province: NJ

Postal_Code: 08625-0420

Contact_Voice_Telephone: 609-984-6587

Contact_Electronic_Mail_Address: Raymond.Bousenberry@dep.nj.gov

Contact_Instructions: via email

Spatial_Data_Organization_Information:

Direct_Spatial_Reference_Method: Vector

Point_and_Vector_Object_Information:

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: Entity point

Point_and_Vector_Object_Count: 150

Spatial_Reference_Information:

Horizontal_Coordinate_System_Definition:

Planar:

Grid_Coordinate_System:
Grid_Coordinate_System_Name: State Plane Coordinate System
State_Plane_Coordinate_System:
SPCS_Zone_Identifier: 2900
Planar_Coordinate_Information:
Planar_Coordinate-Encoding_Method: coordinate pair
Coordinate_Representation:
Abscissa_Resolution: 0.000100
Ordinate_Resolution: 0.000100
Planar_Distance_Units: survey feet
Geodetic_Model:
Horizontal_Datum_Name: North American Datum of 1983
Ellipsoid_Name: Geodetic Reference System 1980
Semi-major_Axis: 6378137.000000
Denominator_of_Flattening_Ratio: 298.257222
Vertical_Coordinate_System_Definition:
Altitude_System_Definition:
Altitude_Datum_Name: North American Vertical Datum of 1988
Altitude_Resolution: 0.000100
Altitude_Distance_Units: feet
Altitude-Encoding_Method:
Explicit elevation coordinate included with horizontal coordinates

Entity_and_Attribute_Information:
Detailed_Description:
Entity_Type:
Entity_Type_Label: Radionuclides
Entity_Type_Definition: Ambient-Radionuclides
Entity_Type_Definition_Source: NJDEP/NJGWS
Attribute:
Attribute_Label: OBJECTID
Attribute_Definition: Internal feature number.
Attribute_Definition_Source: ESRI
Attribute_Domain_Values:
Unrepresentable_Domain:
Sequential unique whole numbers that are automatically generated.
Attribute:
Attribute_Label: Shape
Attribute_Definition: Feature Geometry
Attribute_Definition_Source: ESRI
Attribute_Domain_Values:

Unrepresentable_Domain: Coordinates defining the features

Attribute:

Attribute_Label: GWSI_Numbe

Attribute_Definition: Groundwater Site Inventory Number

Attribute_Definition_Source: USGS

Attribute_Domain_Values:

Unrepresentable_Domain: Unique

Attribute:

Attribute_Label: MW

Attribute_Definition: Monitoring Well Number

Attribute_Definition_Source: NJDEP/NJGWS

Attribute_Domain_Values:

Unrepresentable_Domain: Unique

Attribute:

Attribute_Label: Hydroname

Attribute_Definition: Name of Aquifer

Attribute_Definition_Source: NJDEP/NJGWS

Attribute_Domain_Values:

Unrepresentable_Domain: Unique

Attribute:

Attribute_Label: Land_Use

Attribute_Definition: Land Use Designation

Attribute_Definition_Source: NJDEP/NJGWS

Attribute_Domain_Values:

Unrepresentable_Domain: Unique

Attribute:

Attribute_Label: Geoname

Attribute_Definition: Name of stratigraphic unit

Attribute_Definition_Source: NJDEP/NJGWS

Attribute_Domain_Values:

Unrepresentable_Domain: Unique

Attribute:

Attribute_Label: GeoAbb

Attribute_Definition: Abbreviation for stratigraphic unit

Attribute_Definition_Source: NJDEP/NJGWS

Attribute_Domain_Values:

Unrepresentable_Domain: Unique

Attribute:

Attribute_Label: County

Attribute_Definition: County Name

Attribute_Definition_Source: NJDEP/NJGWS

Attribute_Domain_Values:
Unrepresentable_Domain: Unique
Attribute:
Attribute_Label: Municipali
Attribute_Definition: Municipality Name
Attribute_Definition_Source: NJDEP/NJGWS
Attribute_Domain_Values:
Unrepresentable_Domain: Unique
Attribute:
Attribute_Label: Latitude
Attribute_Definition: (DDMMSS)
Attribute_Definition_Source: NJDEP/NJGWS
Attribute_Domain_Values:
Unrepresentable_Domain: Unique
Attribute:
Attribute_Label: Longitude
Attribute_Definition: (DDMMSS)
Attribute_Definition_Source: NJDEP/NJGWS
Attribute_Domain_Values:
Unrepresentable_Domain: Unique
Attribute:
Attribute_Label: Easting
Attribute_Definition: State Plane Feet
Attribute_Definition_Source: NJDEP/NJGWS
Attribute_Domain_Values:
Unrepresentable_Domain: Unique
Attribute:
Attribute_Label: Northing
Attribute_Definition: State Plane Feet
Attribute_Definition_Source: NJDEP/NJGWS
Attribute_Domain_Values:
Unrepresentable_Domain: Unique
Attribute:
Attribute_Label: STAID
Attribute_Definition: Station ID Number
Attribute_Definition_Source: USGS
Attribute_Domain_Values:
Unrepresentable_Domain: Unique
Attribute:
Attribute_Label: Dates
Attribute_Definition: Date Sampled

Attribute_Definition_Source: NJDEP/NJGWS

Attribute_Domain_Values:

Unrepresentable_Domain: Unique

Attribute:

Attribute_Label: P03515

Attribute_Definition: Gross Beta, Dissolved as Cs-137 (pCi/L)

Attribute_Definition_Source: NJDEP/NJGWS

Attribute_Domain_Values:

Unrepresentable_Domain: Unique

Attribute:

Attribute_Label: P04126

Attribute_Definition: Alpha Radioactivity Water Dissolved as Th-230 (pCi/L)

Attribute_Definition_Source: NJDEP/NJGWS

Attribute_Domain_Values:

Unrepresentable_Domain: Unique

Attribute:

Attribute_Label: P62636

Attribute_Definition: Gross Alpha Radioactivity 72 hour count (pCi/L)

Attribute_Definition_Source: NJDEP/NJGWS

Attribute_Domain_Values:

Unrepresentable_Domain: Unique

Attribute:

Attribute_Label: P62639

Attribute_Definition: Gross Alpha Radioactivity 30 day count (pCi/L)

Attribute_Definition_Source: NJDEP/NJGWS

Attribute_Domain_Values:

Unrepresentable_Domain: Unique

Attribute:

Attribute_Label: P62645

Attribute_Definition: Gross Beta Radioactivity 30 day count (pCi/L)

Attribute_Definition_Source: NJDEP/NJGWS

Attribute_Domain_Values:

Unrepresentable_Domain: Unique

Attribute:

Attribute_Label: P62642

Attribute_Definition: Gross Beta Radioactivity 72 hour count (pCi/L)

Attribute_Definition_Source: NJDEP/NJGWS

Attribute_Domain_Values:

Unrepresentable_Domain: Unique

Overview_Description:

Entity_and_Attribute_Overview:

-99999 implies the constituent was detected but the concentration could not be quantified or was estimated below the reporting limit and the confidence in the concentration determination is not acceptable for standard reporting. Note: an estimated value can also be designated for other reasons. See the annual USGS Water-Data Reports NJ-(year of interest) for the estimated values and an explanation. The actual estimated value is not shown in this database. A zero (0) implies no sampling was performed for that parameter.

Note: Attribute headings may be truncated in Shapefile format. Additionally, the attribute OBJECTID is changed to FID in the Shapefile format.

Entity_and_Attribute_Detail_Citation:

For detection limits, analytical methods, etc., reference USGS annual reports "Water Resources Data - New Jersey" for the year of interest.

Distribution_Information:

Distributor:

Contact_Information:

Contact_Person_Primary:

Contact_Person: Bousenberry, Raymond

Contact_Organization: NJDEP, NJGWS

Contact_Position: Research Scientist 2

Contact_Address:

Address_Type: mailing address

Address: 29 Arctic Pkwy, P.O. Box 420, Mail Code: 29-01

City: Trenton

State_or_Province: NJ

Postal_Code: 08625

Contact_Voice_Telephone: 609-984-6587

Contact_Electronic_Mail_Address: Raymond.Bousenberry@dep.nj.gov

Contact_Instructions: via email

Resource_Description: Downloadable Data

Distribution_Liability:

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Standard_Order_Process:

Digital_Form:
Digital_Transfer_Information:
Format_Name: AVSHP
Format_Version_Number: 10.x
Transfer_Size: 0.004
Digital_Transfer_Option:
Online_Option:
Computer_Contact_Information:
Network_Address:
Network_Resource_Name: <<http://www.state.nj.us/dep/njgs/geodata/dgs05-2.htm>>
Fees: None

Metadata_Reference_Information:
Metadata_Date: 20140327
Metadata_Future_Review_Date: 20180114
Metadata_Contact:
Contact_Information:
Contact_Person_Primary:
Contact_Person: Bousenberry, Raymond
Contact_Organization: NJDEP, NJGWS
Contact_Position: Research Scientist 2
Contact_Address:
Address_Type: mailing and physical address
Address: 29 Arctic Pkwy, P.O. Box 420, Mail Code: 29-01
City: Trenton
State_or_Province: NJ
Postal_Code: 08625
Contact_Voice_Telephone: 609-984-6587
Contact_Electronic_Mail_Address: Raymond.Bousenberry@dep.nj.gov
Contact_Instructions: via email
Metadata_Standard_Name: FGDC Content Standards for Digital Geospatial Metadata
Metadata_Standard_Version: FGDC-STD-001-1998
Metadata_Time_Convention: local time
Metadata_Extensions:
Online_Linkage: <<http://www.esri.com/metadata/esriprof80.html>>
Profile_Name: ESRI Metadata Profile
