



- PETROLEUM WELL SYMBOLS**
- The following symbols include all of the primary petroleum well symbols used by the Indiana Geological Survey. These symbols may be modified using the five modifiers listed below to provide additional information about the status or source data for a particular well. This list may include symbols not shown on this particular map.
- permitted location
  - ◇ dry hole
  - oil
  - oil and gas
  - gas storage
  - gas storage formerly oil
  - gas storage formerly gas
  - water injection (waterflood)
  - water injection formerly oil
  - water injection formerly gas
  - water injection formerly oil and gas
  - observation
  - observation and/or formerly gas
  - observation formerly gas storage
  - salt water disposal
  - salt water disposal formerly oil
  - salt water disposal formerly gas storage
  - potable water supply
  - nonpotable water supply
  - nonpotable water supply formerly oil
  - nonpotable water supply formerly gas
  - waste disposal
  - temporarily abandoned new well
  - confidential well
  - lost workover
  - boring
  - stratigraphic/structure test
  - surface location of deviated hole
  - nothing known, old Trenton well from map

- SYMBOL MODIFIERS**
- Modifiers (shown here in red for clarity) may be added to any standard IGS well symbol to denote the following five criteria.
- abandoned
  - completion type uncertain
  - location uncertain
  - temporarily abandoned
  - dially completed

- FIELD BOUNDARY SYMBOLS**
- Gas storage project boundary: encloses wells classified in a single gas storage project, but is not intended to indicate the extent of the gas storage reservoir.
  - Petroleum field boundary: encloses wells classified in a single field, but is not intended to indicate the extent of producing reservoirs.
  - New Albany Shale (NAS) gas field boundary: encloses wells classified in a single NAS field, but is not intended to indicate the extent of producing reservoirs.

**PETROLEUM WELL DATA LABELS**

Petroleum well data labels, displayed to the upper right of the petroleum wells on this map, represent the total depth of the associated well. In densely drilled areas, it is not possible to post well data labels for all wells present because the labels would overlap well symbols and other labels, making the map unreadable. For a more complete representation of well data in such areas, the IGS provides Petroleum Well Location Maps at larger scales.

**ACCURACY OF WELL LOCATIONS**

Location coordinates of wells contained within the Indiana Geological Survey's Petroleum Database Management System (PDMS) and their corresponding locations as shown on maps are believed to be reasonably accurate when portrayed on a scale of 1 inch to 1 mile. Although the coordinates for a great many locations in the database have been very accurately determined, past practices and inherent limitations on the accuracy with which a well was spotted on a 1:24,000-scale USGS topographic map have resulted in well coordinates that locate wells a small distance from their actual locations. Depending on circumstances, this distance could be as great as 100 feet, or rarely, somewhat more. In general, such locations are sufficiently accurate for most petroleum exploration and field mapping purposes. Additionally, it is important to note that new and revised data continually are being entered into the PDMS and, despite the use of careful procedures and proofing of the entered data, human error always remains a possibility. Every effort is made to correct errors and discrepancies whenever they are identified, but it is the responsibility of the user to verify any information to the extent it is deemed important.

**DATA AVAILABILITY**

Paper copies, as well as digital Adobe Acrobat formats, are available for purchase through the Publications Sales Office of the Indiana Geological Survey, Indiana University. Larger-scale maps, optionally showing additional well information may also be obtained from the IGS. Availability may depend on the current status of information contained in the IGS's Petroleum Database Management System. Prices for larger-scale maps vary depending on the amount of custom preparation needed to produce the map. Requests for specific well information should be directed to the Subsurface Geology Section, Indiana Geological Survey.

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**CARTOGRAPHIC INFORMATION**

Digital cartography by Kevin P. Russell, GISP

Basemap features digitized from U.S. Geological Survey topographic quadrangle maps; scale 1:24,000. Projection: Universal Transverse Mercator (UTM), Zone 16. Horizontal Datum: North American Datum of 1983 (NAD83).

Well locations from the Indiana Geological Survey's Petroleum Database Management System, revised June 2013.

Hydrographic features from USGS National Hydrography Dataset Local Resolution data.

