

**Guided Activity: Historical Documents**  
**Moshannon State Forest Fieldwork**  
**August 15, 2015**

Although using maps and aerial photography can indicate broad areas of likely historic oil and gas development, exploring historical documents can help narrow the scope of these regions. This activity is designed to walk you through the process of using historical documents to identify the locations of specific wells. There are a diversity of historic documents that could be useful in this effort such as land deeds, property surveys, and land transfer documents. The resources that we will explore in this exercise include United States Geological Survey (USGS) publications, well records, well logs, and well plats.

**Part I: USGS Publications**

USGS publications provide a broad summary of the regional geology and the natural resource (oil, gas, mineral) development in an area. Annual publications by the USGS include reports on Mineral Resources, Annual Bulletins, Contributions to Economic Geology, and Regional Geology.

Older USGS publications can be accessed using open access databases such as Hathi Trust or Google Books. Using these resources you can type in keywords (i.e. “USGS Huston Township oil gas well”) and also limit the scope of your search by identifying a time period. Since we are exploring oil and gas development in Huston Township during the 1950s we will limit our search to USGS publications between 1950 and 1959.

We will begin by taking a look at the most relevant USGS publication that contained the keywords in our search, the “Progress Report 157 Oil and Gas Developments in Pennsylvania in 1959” The Progress Report publications provide descriptive and graphic information on developments in natural resource exploration throughout the United States each calendar year. These resources include information on oil and gas production, in addition to other minerals.

Q1: Identify which chapter(s) in the table of contents would be applicable in our search for information on potential oil and gas development in Huston Township.

Navigate to the “Deep-Sand Developments” chapter. Read the chapter and locate information relevant to historic oil and gas development in Huston Township.

Q2: Record information relevant to historic oil and gas development of deep formations in Huston Township in the 1950s.

Navigate to the “Shallow-Sand Developments” chapter. Read the chapter and locate information relevant to historic oil and gas development in Huston Township.

Q3: Record information relevant to historic oil and gas development of shallow formations in Huston Township in the 1950s.

From this USGS document, we have now established that the greatest density of deep drilling operations, which exploited gas in the Oriskany Sandstone, was in Clearfield County. In the exploration area, three gas pools were explored, including the following:

1. Benzette-Driftwood Pool located to the north along the Chesnut Ridge Anticline
2. Rockton Pool located to the south along the Chesnut Ridge Anticline
3. Boone Mountain Pool located to the west on the edge of the Sabinsville Anticline

These three gas pools were recognized to constitute a larger gas production known as the Punxsutawney-Driftwood Field that extend nearly 50 miles from western Cameron County to northeastern Indiana County.

In the Rockton Pool of the Punxsutawney-Driftwood Field, the deep-sand reservoirs (Upper Devonian and older) were developed for natural gas by the drilling of two gas wells by the New York State Natural Gas Corporation. These wells were two of nearly 30 wells which were developed in this field during the late 1950s.

Now, we will take a closer look at the well records, well logs, and well plats for these two wells.

## **Part II: Well Records**

Information on specific wells can be located through Pennsylvania’s Department of Environmental Protection (PA DEP) and Department of Conservation of Natural Resources (PA DCNR). The DEP and DCNR archive well records, production reports, and well maps online on the Oil and Gas Electronic Reporting Website and the Well Information System. Using these databases it is possible to search for information about wells drilled during a specific year. Searching for more information on the two gas wells drilled in 1957 and 1959 on Gordon Road near the intersection with Anderson Creek Road provided several relevant documents.

A well record and well plat exist from a gas well drilled in 1957 in Huston Township. Well records and maps provide a specific well location (latitude and longitude), which is useful to know prior to fieldwork. Use the well record and well plat to answer the following questions.

Q7: What is the location of the well drilled under the name Helen D.S. Gordon on Gordon Road?

Q8: At what depth did drillers encounter the Onondaga Chert?

Q9: At what depth did drillers encounter the Oriskany Sandstone?

Q10: At what depths did operators encounter gas?

Another gas well was drilled two years later, in 1959, in Huston Township. Use the well record and well plat for this well to answer the following questions.

Q7: What is the location of the well drilled under the farm name PA Department of Forests and Waters on Gordon Road?

Q8: At what depth did drillers encounter the Onondaga Chert?

Q9: At what depth did drillers encounter the Oriskany Sandstone?

Q10: At what depths did operators encounter gas?

### **Part III: References**

USGS publications

<http://www.hathitrust.org>

<http://www.books.google.com>

Well records

<https://www.paoilandgasreporting.state.pa.us/publicreports/>

[http://www.dcnr.state.pa.us/topogeo/econresource/oilandgas/resrefs/wis\\_home/](http://www.dcnr.state.pa.us/topogeo/econresource/oilandgas/resrefs/wis_home/)

Historic newspaper archives

<http://www.chroniclingamerica.loc.gov>