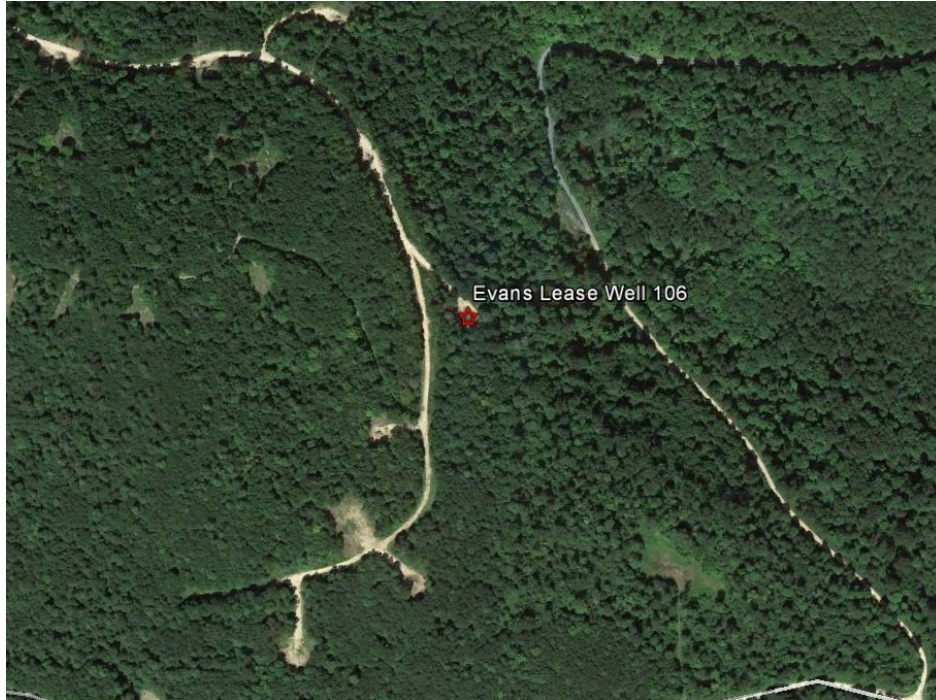


# **Sliverville Oil Company, LLC Underground Injection Control Permit Application**



## **Evans Lease Well 106 Lafayette Township, McKean County, PA**



**Moody**  
and Associates, Inc.

11548 Cotton Road  
Meadville, PA 16335  
814-724-4970

*Submitted: January 19, 2018*

---

# Permit Application and General Information



 <b>United States Environmental Protection Agency</b> <b>Underground Injection Control</b> <b>Permit Application</b> <i>(Collected under the authority of the Safe Drinking Water Act. Sections 1421, 1422, 40 CFR 144)</i>		I. EPA ID Number		
			T/A	C
Read Attached Instructions Before Starting <b>For Official Use Only</b>				
Application approved mo    day    year	Date received mo    day    year	Permit Number	Well ID	FINDS Number
<div style="border: 1px solid black; height: 20px;"></div>	<div style="border: 1px solid black; height: 20px;"></div>	<div style="border: 1px solid black; height: 20px;"></div>	<div style="border: 1px solid black; height: 20px;"></div>	<div style="border: 1px solid black; height: 20px;"></div>
II. Owner Name and Address			III. Operator Name and Address	
Owner Name Sliverville Oil Company, LLC			Owner Name Jay Pecora	
Street Address 42 Parkway Lane		Phone Number (814) 368-8480	Street Address 42 Parkway Lane	
City Bradford		State PA	City Bradford	
ZIP CODE 16701		State PA	ZIP CODE 16701	
IV. Commercial Facility		V. Ownership		VI. Legal Contact
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		<input checked="" type="checkbox"/> Private <input type="checkbox"/> Federal <input type="checkbox"/> Other		<input checked="" type="checkbox"/> Owner <input type="checkbox"/> Operator
VII. SIC Codes				
1381- Drilling Oil & Gas Wells				
VIII. Well Status (Mark "x")				
<input type="checkbox"/> A Operating	Date Started mo    day    year <div style="border: 1px solid black; height: 20px;"></div>		<input checked="" type="checkbox"/> B. Modification/Conversion	<input type="checkbox"/> C. Proposed
IX. Type of Permit Requested (Mark "x" and specify if required)				
<input checked="" type="checkbox"/> A. Individual <input type="checkbox"/> B. Area		Number of Existing Wells <div style="border: 1px solid black; height: 20px;"></div>	Number of Proposed Wells <div style="border: 1px solid black; height: 20px;"></div>	Name(s) of field(s) or project(s) <div style="border: 1px solid black; height: 20px;"></div>
X. Class and Type of Well (see reverse)				
A. Class(es) (enter code(s))	B. Type(s) (enter code(s))	C. If class is "other" or type is code 'x,' explain		D. Number of wells per type (if area permit)
II	R	<div style="border: 1px solid black; height: 20px;"></div>		<div style="border: 1px solid black; height: 20px;"></div>
XI. Location of Well(s) or Approximate Center of Field or Project				XII. Indian Lands (Mark 'x')
Latitude		Longitude		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Deg    Min    Sec	Deg    Min    Sec	Township and Range		
41    52    17.6	78    41    33.9	Sec    Twp    Range    1/4 Sec	Feet From    Line    Feet From    Line	
XIII. Attachments				
(Complete the following questions on a separate sheet(s) and number accordingly; see instructions) For Classes I, II, III, (and other classes) complete and submit on a separate sheet(s) Attachments A--U (pp 2-6) as appropriate. Attach maps where required. List attachments by letter which are applicable and are included with your application.				
XIV. Certification				
I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (Ref. 40 CFR 144.32)				
A. Name and Title (Type or Print) Jay J. Pecora, Chief Executive Manager			B. Phone No. (Area Code and No.) (814) 368-8480	
C. Signature 			D. Date Signed 1-9-18	

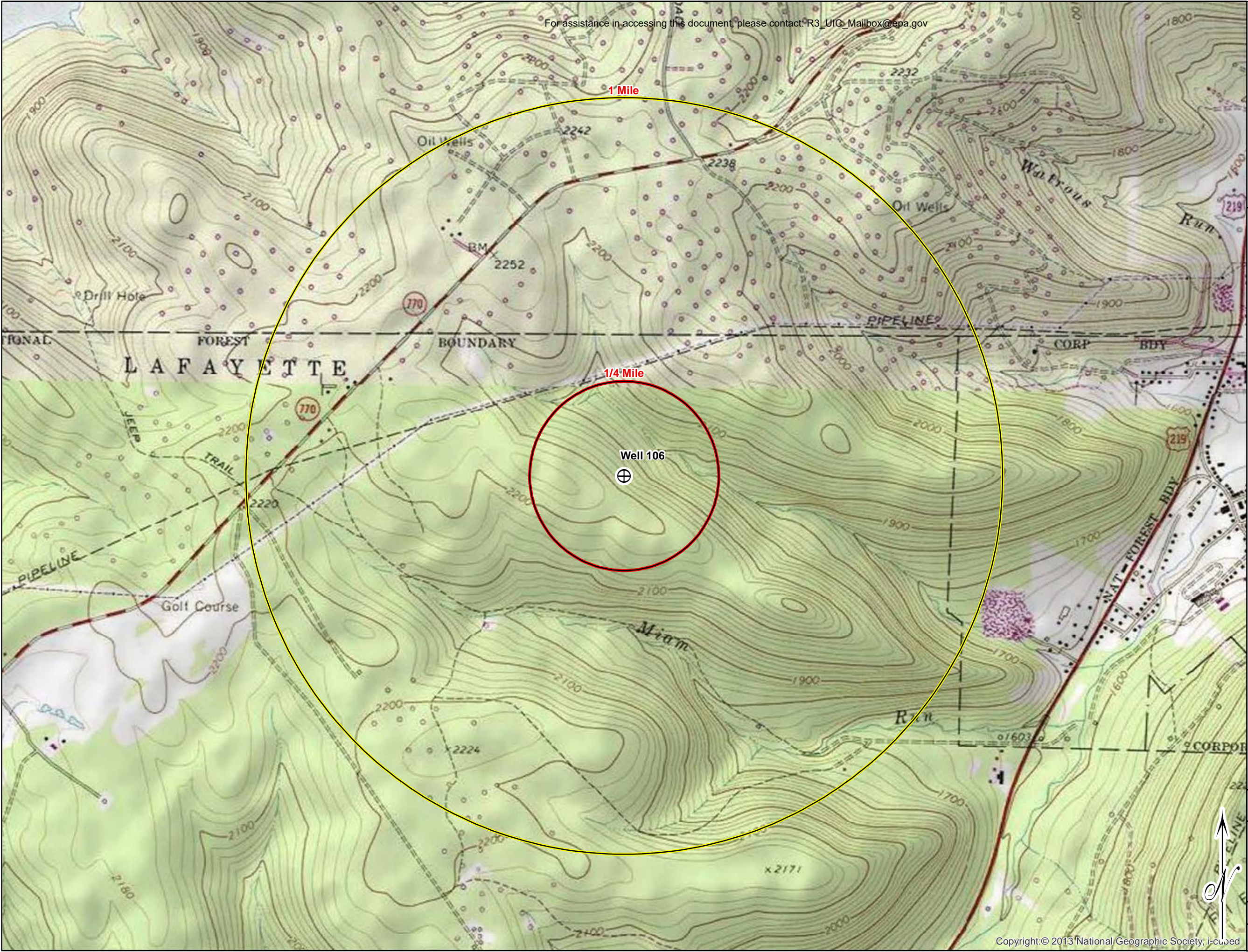
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## General Information

Sliverville Oil Company, LLC (Sliverville) is proposing to permit their existing Evans Well 106 (Permit Number: 37-083-56582-00-00) as a Class II, Type R Underground Injection Control (UIC) well. The well is located in Lafayette Township, McKean County, Pennsylvania. The well is located on a lease currently owned and operated by Sliverville. Sliverville intends to dispose of production fluids, produced via conventional oil and gas operations into the Lewis Run Formation. Figure 1 and Figure 2 shows the location of the well. The current well permit and records have been attached in Appendix A.

Injectivity testing was conducted on the well from July 17, 2017 to August 16, 2017. The cumulative injection total was 2,479 barrels of fluid injected at an average rate of 3.443 barrels per hour (bbl/hr). The maximum rate of injection was 15 bbl/hr.





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**FIGURE 1**

Topographic

Location Map

Evans Well 106

UIC Permit Application  
Lafayette Townships  
McKean County, Pennsylvania

Prepared for:  
Sliverville Oil Company, LLC

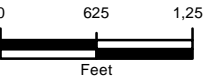
**LEGEND**

- ⊕ Well 106 Location
- 1/4 Mile Buffer
- 1 Mile Buffer

**Map Reference:**

This exhibit is based on the ESRI USA Topographic Map. ESRI.com USGS Topographic 7.5 Minute Quadrangles: Lewis Run and Bradford, PA.

Scale: 1 in = 1,250 ft



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**Moody**  
and Associates, Inc.

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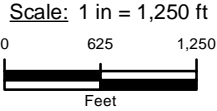
**FIGURE 2**  
Topographic  
Location Map  
Evans Well 106

UIC Permit Application  
Lafayette Townships  
McKean County, Pennsylvania

Prepared for:  
Sliverville Oil Company, LLC

- LEGEND**
- ⊕ Well 106 Location
  - 1/4 Mile Buffer
  - 1 Mile Buffer

**Map Reference:**  
This exhibit is based on the World Imagery - Esri and its data suppliers



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## Attachment Pages

**ATTACHMENT A.....Area of Review Methods**

**ATTACHMENT B.....Maps of Well/ Area and Area of Review**

**ATTACHMENT C.....Corrective Action Plan and Well Data**

**ATTACHMENT E.....Name and Depth of USDWs**

**ATTACHMENT G.....Geological Data on Injection and Confining Zones**

**ATTACHMENT H.....Operating Data**

**ATTACHMENT M.....Construction Details**

**ATTACHMENT P .....Monitoring Program**

**ATTACHMENT Q.....Plugging and Abandonment Plan**

**ATTACHMENT R.....Necessary Resources**



# **ATTACHMENT A**

## **Area of Review Methods**

---

## Area of Review Methods

Moody and Associates, Inc. (Moody) completed this permit on behalf of Sliverville Oil Company, LLC (Sliverville) with information obtained from Sliverville and referenced cites. The fixed radius method was used to determine the area of review. Based on permit guidance, a fixed radius of 0.25 mile was used. A 0.25 mile buffer from the center of the proposed injection well was determined via ArcGIS 10.3. Data from the following references were examined and used in completing this permit:

- Pennsylvania Internet Record Imaging System (PAIRIS):  
<https://edwin.onbaseonline.com/1500AppNet/Login.aspx>
- Pennsylvania Department of Environmental Protection (PADEP):  
<http://www.depgis.state.pa.us/emappa/>
- Pennsylvania Groundwater Information System (PAGWIS):  
<http://www.dcnr.state.pa.us/topogeo/groundwater/pagwis/records/index.htm>
- Pennsylvania Spatial Data Access (PASDA):  
<http://www.pasda.psu.edu>
- Pennsylvania Department of Environmental Protection (PaDEP)  
<http://www.dep.pa.gov/Pages/default.aspx>
- U.S. Fish & Wildlife Service National Wetlands Inventory  
<https://www.fws.gov/wetlands/>
- Pennsylvania Department of Conservation and Natural Resources  
<http://www.gis.dcnr.state.pa.us/geology/index.html>
- Pennsylvania Oil and Gas Mapping  
<http://www.depgis.state.pa.us/PaOilAndGasMapping/OilGasWellsStrayGasMap.html>
- DEP Spud Report  
[http://www.depreportingservices.states.pa.us/ReportServer/Pages/ReportViewer.aspx?/Oil\\_Gas/Spud\\_External\\_Data](http://www.depreportingservices.states.pa.us/ReportServer/Pages/ReportViewer.aspx?/Oil_Gas/Spud_External_Data)
- DCNR Open File Report OFOG 15-01.2 (Map 10)  
<http://www.dcnr.state.pa.us/topogeo/publications/digitaldata/index.htm#oil>
- USGS Mineral Resources On-line Spatial Data. Geologic Units in McKean County, Pennsylvania. <http://mrdata.usgs.gov/geology/state/fips-unit.php?code=f42083>
- Fettke, C. R. 1941. *Music Mountain Oil Pool and Other Oil Pools in Lafayette Township, McKean County, Pennsylvania*. Commonwealth of Pennsylvania Department of Internal Affairs, Progress Report 125
- Fettke, C. R. 1951. *Oil and Gas Field Atlas of the Bradford Quadrangle, Pennsylvania*. Commonwealth of Pennsylvania Department of Internal Affairs, Special Bulletin 5
- Shultz, C.H. 1999. *The Geology of Pennsylvania*. Pittsburgh Geological Survey and Pittsburgh Geological Society.

# **ATTACHMENT B**

## **Maps of Well/ Area and Area of Review**



## **Area of Review Maps**

Based on the references noted in Attachment A and information provided by Sliverville, there are two pipeline/conduit's, an erosion and sediment control facility, and three abandon oil wells within one mile of the proposed well and included on Figure 3. There were no surface water intakes or discharge structures, hazardous waste treatments, groundwater wells, mines, quarries, storage or disposal facilities.

### **Oil and Gas Wells:**

A search of the references (Attachment A) was conducted to determine the locations of oil and gas wells within area of review. The results of those searches are shown on the attached Oil and Gas Well Maps (Figure 4 and 5). Table 1 includes oil and gas well information from the search.

### **Injection Well:**

A search of the references (Attachment A) was conducted to determine the locations of injection wells within the area of review. There were no injection wells found.

### **Surface Water:**

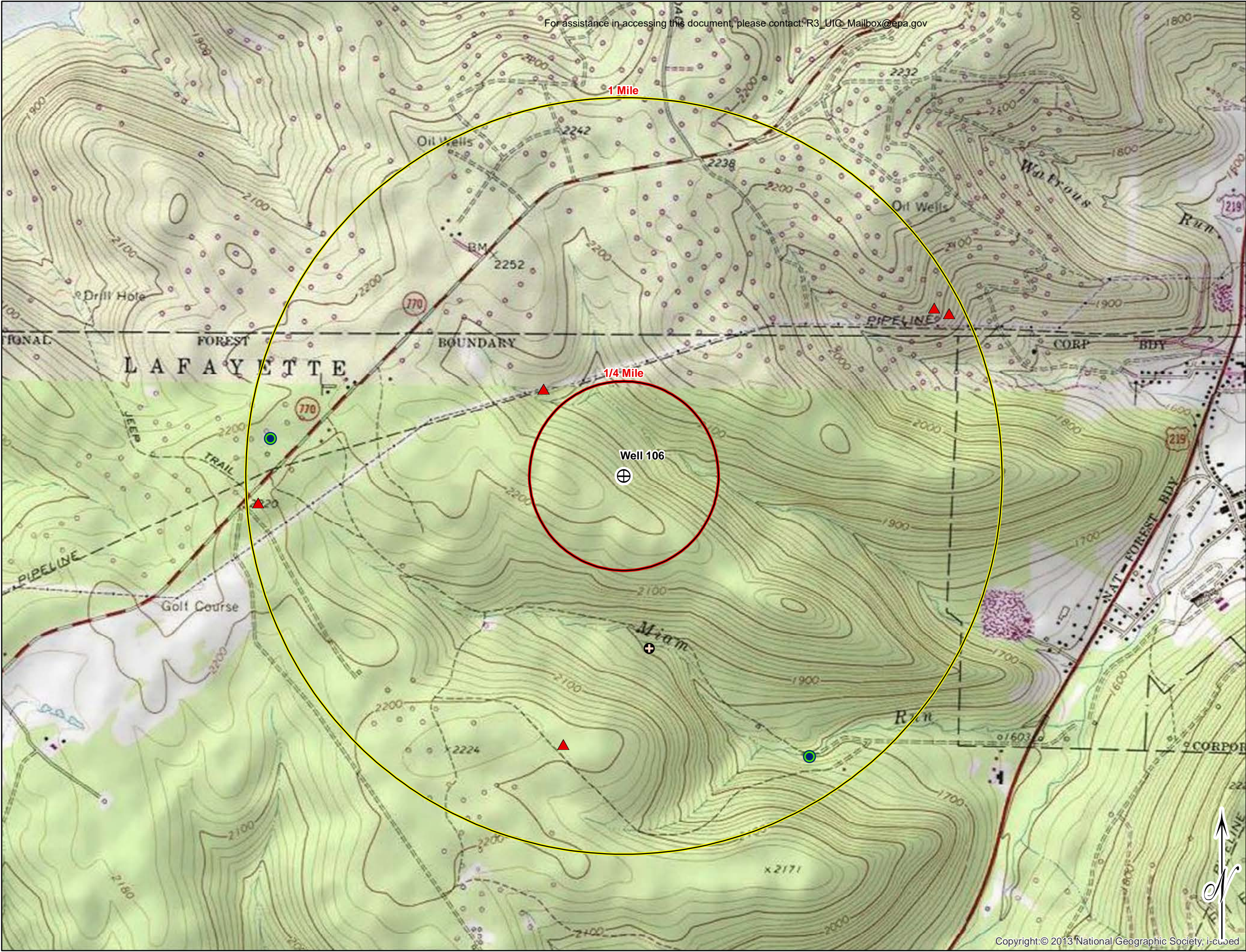
Based on the Chapter 93 designated use data from PASDA, there is one tributary to Lewis Run that extends through the area of review. Lewis Brook crosses the area of review from northwest to southeast. It is approximately 600 feet northeast of Well 106 at its closest point. Lewis Brook has a Chapter 93 designated use of High Quality, Cold Water Fishes (HQ-CWF).

Based on the National Wetland Inventory data collected from PASDA, there are no wetlands mapped within one mile of the proposed injection well. Figure 6 shows the location of surface water in the area.

### **Injection Formation and Proposed Well:**

- Initial Pressure at Top of Injection Formation:
- Injection Rate:
- Specific Gravity of Injection Fluid: 1.12
- Permeability:
- Reservoir Thickness: 30ft (Ground Elevations from 198ft to 168ft)
- Porosity:
- Surface Elevation: 2178ft
- Depth to Injection Zone: Ground Elevation of 198ft
- Depth to Lowermost Underground Source of Drinking Water: Ground Elevation of 1971ft





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**FIGURE 3**

Structures and  
Facilities  
Evans Well 106

UIC Permit Application  
Lafayette Townships  
McKean County, Pennsylvania

Prepared for:  
Sliverville Oil Company, LLC

**LEGEND**

- ⊕ Well 106 Location
- ▲ Abandoned/Orphaned Oil Wells
- Water Pipeline or Conduit -ENCL
- ⊕ Erosion/Sedimentation Control Facility
- 1 Mile Buffer
- 1/4 Mile Buffer

**Map Reference:**

This exhibit is based on the ESRI USA Topographic Map. ESRI.com USGS Topographic 7.5 Minute Quadrangles: Lewis Run and Bradford, PA.

Scale: 1 in = 1,250 ft  
0 625 1,250  
Feet

Project #: 14-554-AF

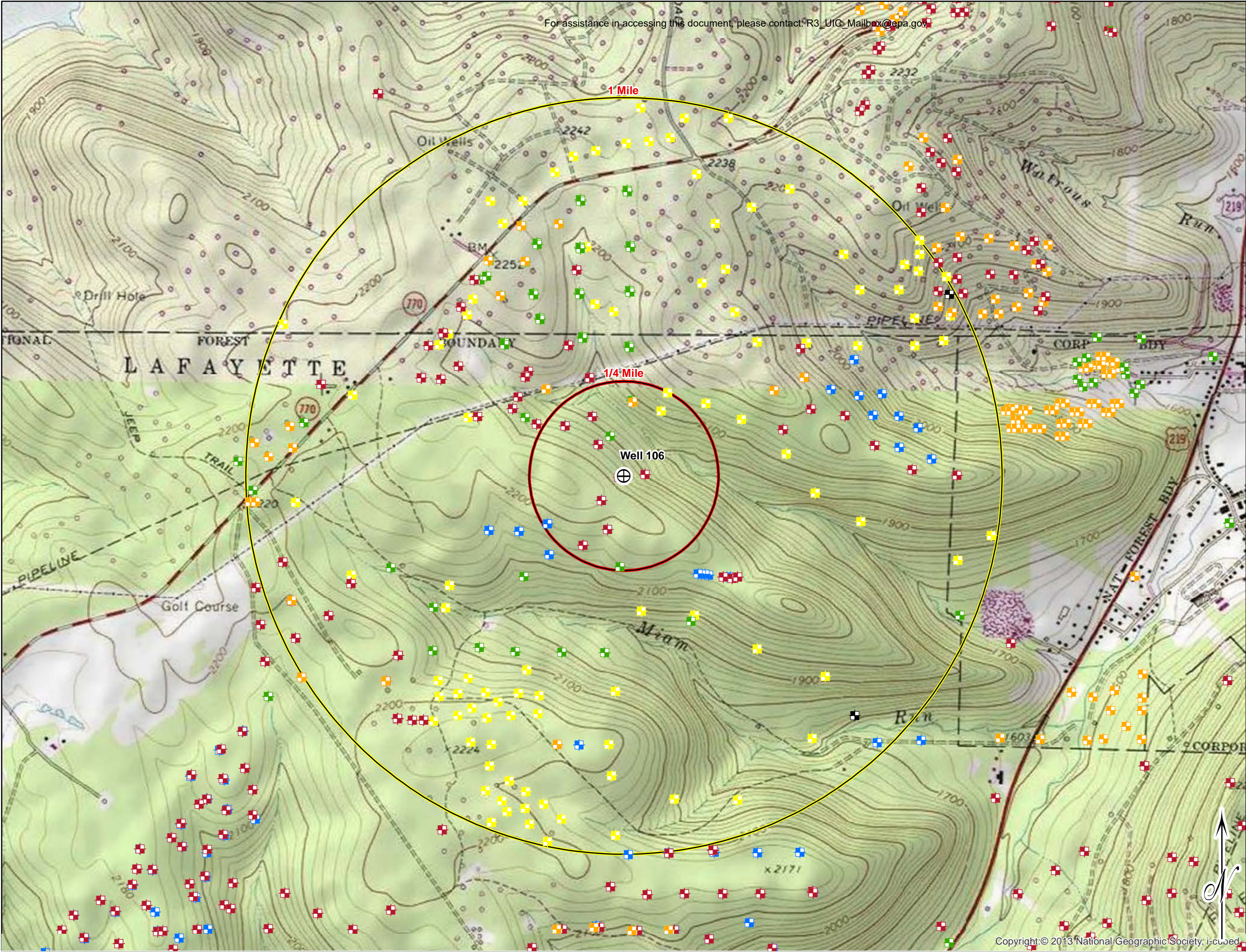
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**FIGURE 4**  
1 Mile Buffer  
Well Location Map  
Evans Well 106

UIC Permit Application  
Lafayette Townships  
McKean County, Pennsylvania

Prepared for:  
Sliverville Oil Company, LLC

**LEGEND**

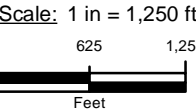
- ⊕ Well 106 Location
- Abandoned/Orphaned Oil/Gas Wells
- Active Oil/Gas Wells
- Plugged Oil/Gas Wells
- Reported But Not Drilled
- Oil/Gas Fields and Pools \*
- Old Wells (Fettke Publications)\*\*
- 1/4 Mile Buffer
- 1 Mile Buffer

**Notes:**

\*Approx. location of wells found in maps located on Map-46 Oil and Gas Field and Pool Names  
\*\*Approx. location of wells found in maps located in Bradford Oil and Gas Atlas.

**Map Reference:**

This exhibit is based on the ESRI USA Topographic Map. ESRI.com USGS Topographic 7.5 Minute Quadrangles: Lewis Run and Bradford, PA.



Project #: 14-554-AF

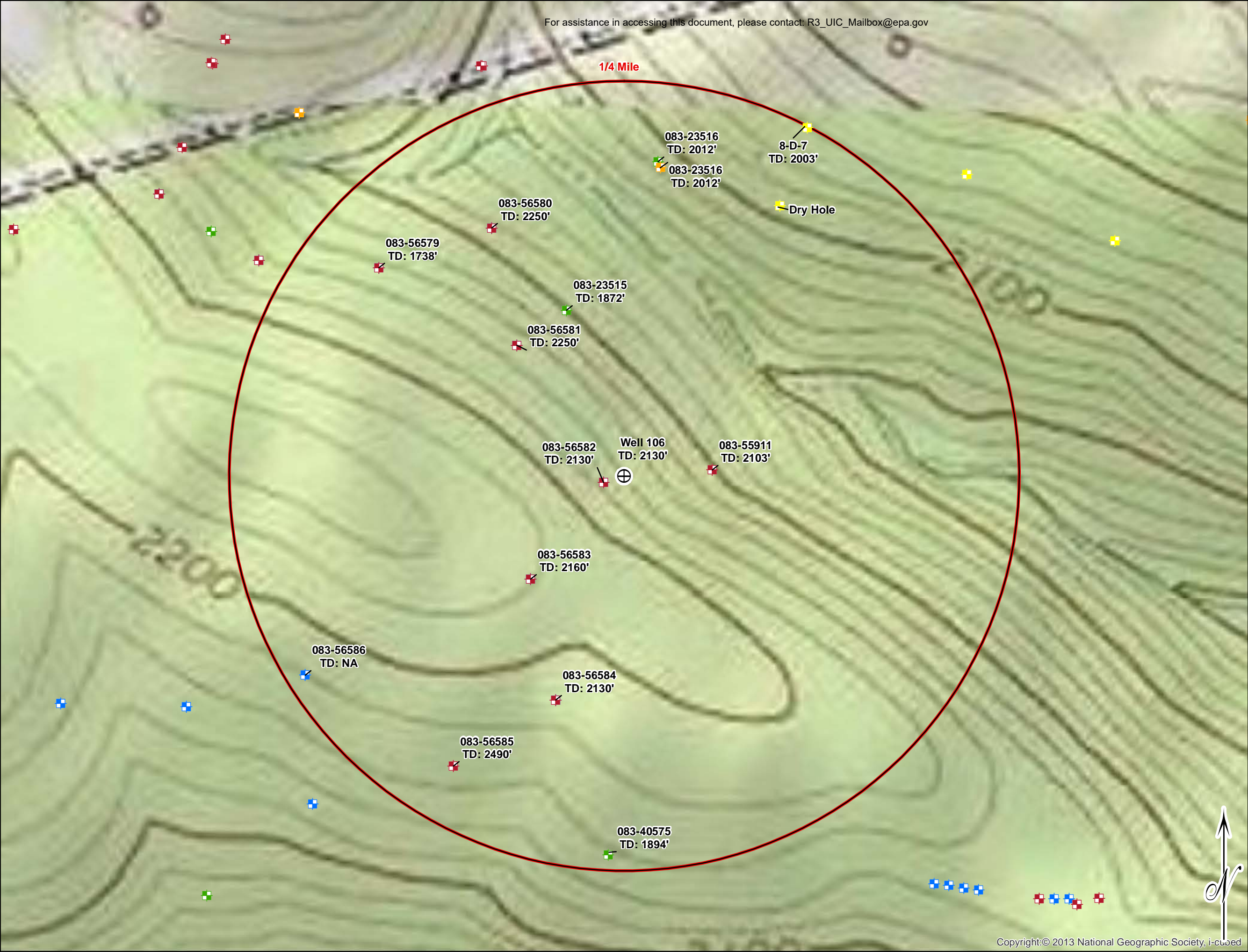
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**FIGURE 5**

1/4 Mile Buffer  
Well Location Map  
Evans Well 106

UIC Permit Application  
Lafayette Townships  
McKean County, Pennsylvania

Prepared for:  
Sliverville Oil Company, LLC

**LEGEND**

- Well 106 Location
- Abandoned/Orphaned Oil/Gas Wells
- Active Oil/Gas Wells
- Plugged Oil/Gas Wells
- Reported But Not Drilled
- Old Wells (Fettke Publications)\*\*
- 1/4 Mile Buffer

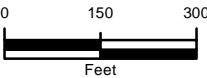
**Notes:**

\*\*Approx. location of wells found in maps located in Bradford Oil and Gas Atlas.  
TD - Total Depth in Feet

**Map Reference:**

This exhibit is based on the ESRI USA Topographic Map. ESRI.com USGS Topographic 7.5 Minute Quadrangles: Lewis Run and Bradford, PA.

Scale: 1 in 300 ft



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## Oil and Gas Wells

Evans Well 106

Silvertown Oil Company, LLC

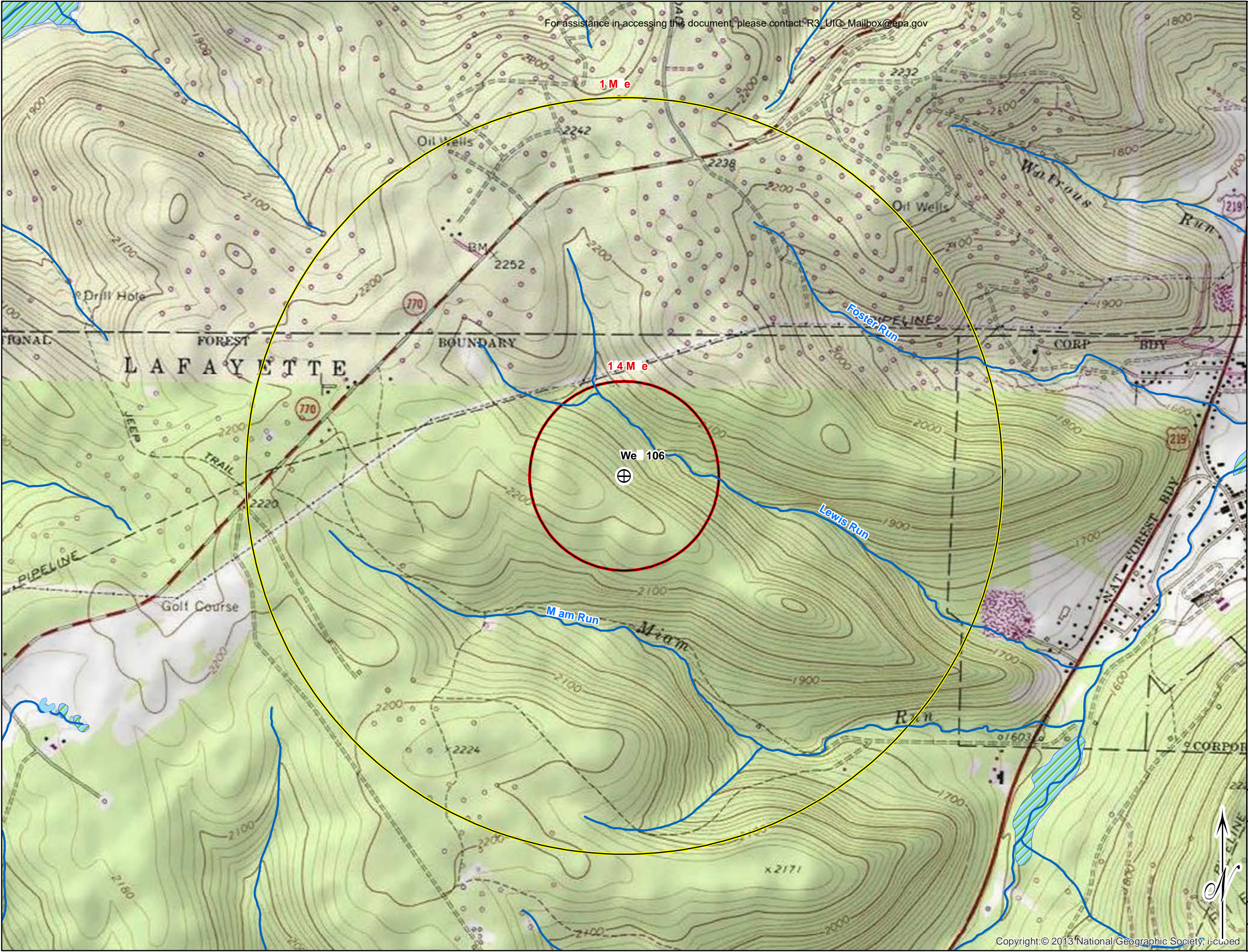
Lafayette Township, McKean County, PA

**Table 1**

<b>Permit Number / API</b>	<b>Operator</b>	<b>Farm Name</b>	<b>Total Depth Formation</b>	<b>Well Type</b>	<b>Municipality</b>	<b>Status</b>
083-23515	Minard Run Oil Co	Flood 3 Warrant 3903 A-2	Bradford 3rd	Injection	Lafayette	Plugged OG Well
083-23516	Minard Run Oil Co	Flood 3 Warrant 3903 3A 3	41530	Injection	Lafayette	Plugged OG Well
083-40575	HL Murry Drilling Co & US Gold Co	USFS Music Mountain VE-9	41530	Oil	Lafayette	Plugged OG Well
083-55911	Horizontal Exploration LLC	Swamp Angel 3 HF 2	Lewis Run	Comb. Oil & Gas	Lafayette	Active
083-56579	Pecora Enterprises	Evans 103	Lewis Run	Oil	Lafayette	Active
083-56580	Pecora Enterprises	Evans 104	Lewis Run	Oil	Lafayette	Active
083-56581	Pecora Enterprises	Evans 105	Lewis Run	Oil	Lafayette	Active
083-56582	Pecora Enterprises	Evans 106	Lewis Run	Oil	Lafayette	Active
083-56583	Pecora Enterprises	Evans 107	Lewis Run	Oil	Lafayette	Active
083-56584	Pecora Enterprises	Evans 108	Lewis Run	Oil	Lafayette	Active
083-56585	Pecora Enterprises	Evans 109	Lewis Run	Oil	Lafayette	Active
083-56586	Pecora Enterprises	Evans 110	NA	Oil	Lafayette	Proposed But Never Materialized
*8-D-7	Minard Run Oil Co	Brown Lot 4	Lewis Run	Unknown	Lafayette	Unknown
*Dry Hole	Unknown	Unknown	Unknown	Unknown	Lafayette	NA

\* Information came from Table 1 in Fettke, C.R. 1951. Oil and Gas Field Atlas of the Bradford Quadrangle, Pennsylvania. Commonwealth of Pennsylvania Department of Internal Affairs, Special Bulletin 5





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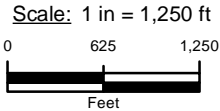
**FIGURE 6**  
Surface Water Map  
Evans Well 106

UIC Permit Application  
Lafayette Townships  
McKean County, Pennsylvania

Prepared for:  
Sliverville Oil Company, LLC

- LEGEND**
- ⊕ Well 106 Location
  - Streams
  - Wetlands
  - 1/4 Mile Buffer
  - 1 Mile Buffer

**Map Reference:**  
This exhibit is based on the ESRI USA Topographic Map. ESRI.com USGS Topographic 7.5 Minute Quadrangles: Lewis Run and Bradford, PA.



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# **ATTACHMENT C**

## **Corrective Action Plan and Well Data**

---

## **Corrective Action and Well Data**

A search of the referenced sites listed in Attachment A and information provided by Sliverville was conducted to determine the locations of oil and gas wells within the area of review. The results of those searches are shown on the attached Oil and Gas Well Maps (Figure 4 & 5) in Attachment B. A tabulation of the requested data has been included as Table 2. Available completion reports and well records have been attached in Appendix A.

There were some wells found while conducting the search of the above referenced that had limited information available. For this reason, Sliverville will use monitoring wells to monitor fluid level changes to insure injected water does not migrate into USDWs.

Sliverville will utilize two existing active oil wells (083-56581 and 083-56583) for monitoring fluid levels in the injection zone (Lewis Run sand). Figure 7 shows the proposed monitoring locations. Figure 8 is a generalized geologic cross section through the area of review and shows the approximate location of the average bottom of casings, approximate location of the top of the Lewis Run formation and the trigger levels. The Completion report, well reports and records for the proposed UIC well have been included in Appendix A.

All wells will be monitored quarterly. Injection will cease three days prior to monitoring in Well 106 and any well that is also used for production will stop production for at least three days prior to fluid level assessment. The following are action trigger levels for the fluid within the wells:

- If the fluid level has risen to 500 feet below the average bottom of surface casing (500 feet) within any monitoring well (1000 feet from surface), monitoring will be changed from quarterly to monthly.
- If the fluid level has risen to within 50 feet below the average bottom of surface casing within any monitoring well (550 feet from surface), the UIC well will be shut down and EPA will be immediately notified. A modified operation plan will be submitted to EPA prior to reinitiating injection operations. The following six months will consist of monthly monitoring of the injection system and monitoring wells. Following the six months of monitoring, if the fluid levels have consistently stayed below 500 feet below the average bottom of surface casing (1000 feet from surface), quarterly monitoring will be resumed.

## Oil and Gas Data

Evans Well 106

Silvertown Oil Company, LLC

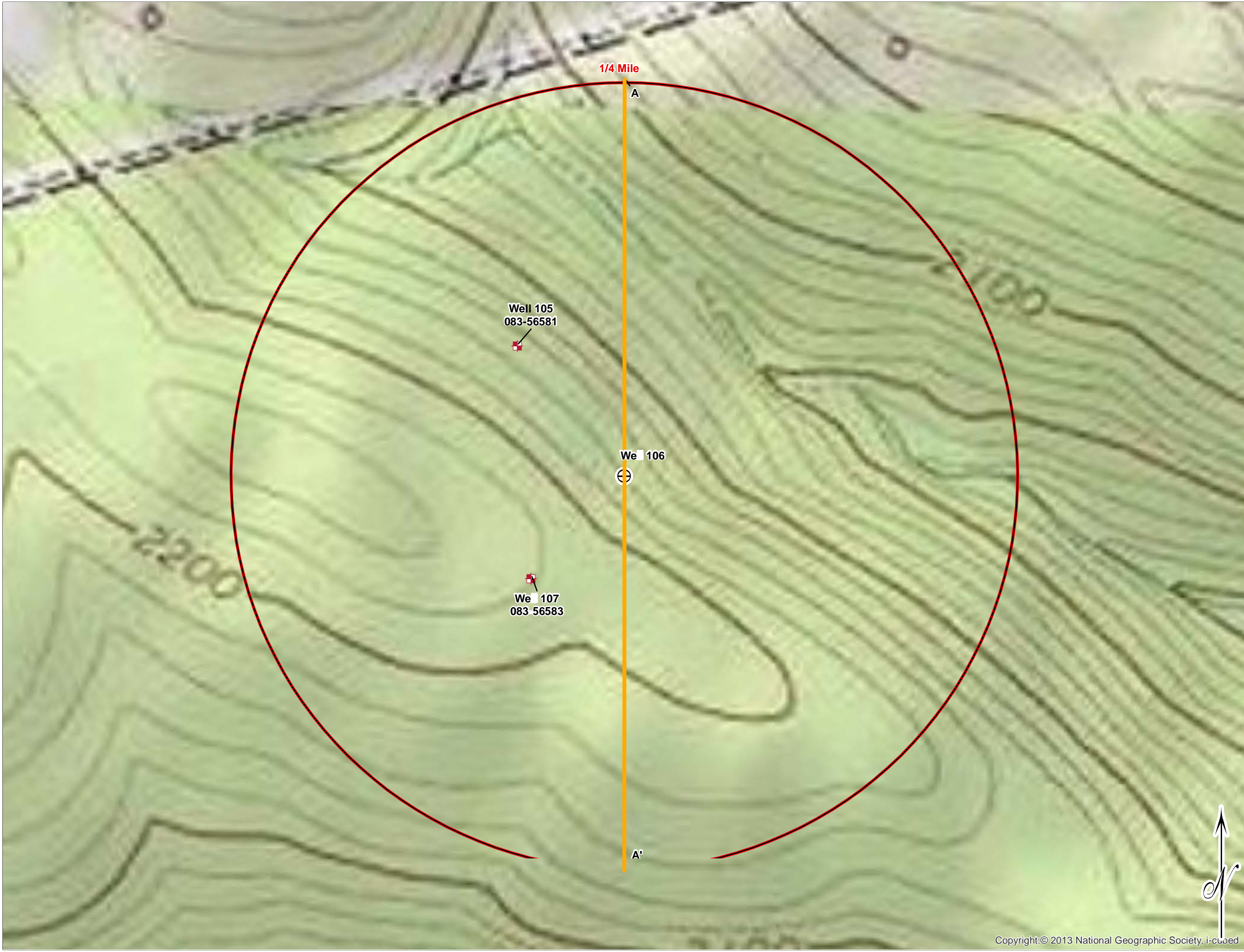
Lafayette Township, McKean County, PA

**Table 2**

Permit Number / API	Operator	Farm Name	Municipality	County	Well Type	Status	Date Drilled	Total Measured Depth (ft)	Total Depth Formation
083-23515	Minard Run Oil Co	Flood 3 Warrant 3903 A-2	Lafayette	McKean	Injection	Plugged OG Well	6/16/1966	1872	Bradford 3rd
083-23516	Minard Run Oil Co	Flood 3 Warrant 3903 3A 3	Lafayette	McKean	Injection	Plugged OG Well	7/26/1966	2012	41530
083-40575	HL Murry Drilling Co & US Gold Co	USFS Music Mountain VE-9	Lafayette	McKean	Oil	Plugged OG Well	1/1/1901	1894	41530
083-55911	Horizontal Exploration LLC	Swamp Angel 3 HF 2	Lafayette	McKean	Comb. Oil&Gas	Active	3/14/2013	2103	Lewis Run
083-56579	Pecora Enterprises	Evans 103	Lafayette	McKean	Oil	Active	9/5/2014	1738	Lewis Run
083-56580	Pecora Enterprises	Evans 104	Lafayette	McKean	Oil	Active	9/10/2014	2250	Lewis Run
083-56581	Pecora Enterprises	Evans 105	Lafayette	McKean	Oil	Active	9/12/2014	2250	Lewis Run
083-56582	Pecora Enterprises	Evans 106	Lafayette	McKean	Oil	Active	9/19/2014	2130	Lewis Run

<b>Permit Number / API</b>	<b>Operator</b>	<b>Farm Name</b>	<b>Municipality</b>	<b>County</b>	<b>Well Type</b>	<b>Status</b>	<b>Date Drilled</b>	<b>Total Measured Depth (ft)</b>	<b>Total Depth Formation</b>
083-56583	Pecora Enterprises	Evans 107	Lafayette	McKean	Oil	Active	9/24/2014	2160	Lewis Run
083-56584	Pecora Enterprises	Evans 108	Lafayette	McKean	Oil	Active	9/26/2014	2130	Lewis Run
083-56585	Pecora Enterprises	Evans 109	Lafayette	McKean	Oil	Active	10/2/2014	2490	Lewis Run
083-56586	Pecora Enterprises	Evans 110	Lafayette	McKean	Oil	Proposed But Never Materialized	<Null>	NA	NA
*8-D-7	Minard Run Oil Co	Brown Lot 4	Lafayette	McKean	Unknown	Unknown	11/11/2016	2003	Lewis Run
*Dry Hole	Unknown	Unknown	Lafayette	McKean	Unknown	NA	Unknown	Unknown	Unknown

\* Information came from Table 1 in Fettke, C.R. 1951. Oil and Gas Field Atlas of the Bradford Quadrangle, Pennsylvania. Commonwealth of Pennsylvania Department of Internal Affairs, Special Bulletin 5



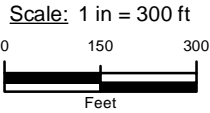
**FIGURE 7**  
Monitoring  
Well Location Map  
Evans Well 106

UIC Permit Application  
Lafayette Townships  
McKean County, Pennsylvania

Prepared for:  
Sliverville Oil Company, LLC

- LEGEND**
- ⊕ Well 106 Location
  - ⊕ Monitoring Well Locations
  - Cross Section
  - 1/4 Mile Buffer

**Map Reference:**  
This exhibit is based on the ESRI USA Topographic Map. ESRI.com USGS Topographic 7.5 Minute Quadrangles: Lewis Run and Bradford, PA.



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# **ATTACHMENT E**

## **Name and Depth of USDWs**



## **Name and Depth of USDWs**

A search of the references noted in Attachment A and of information provided by Sliverville was completed for the area of review. The search did not show any groundwater wells within 0.25 miles of the proposed injection well.

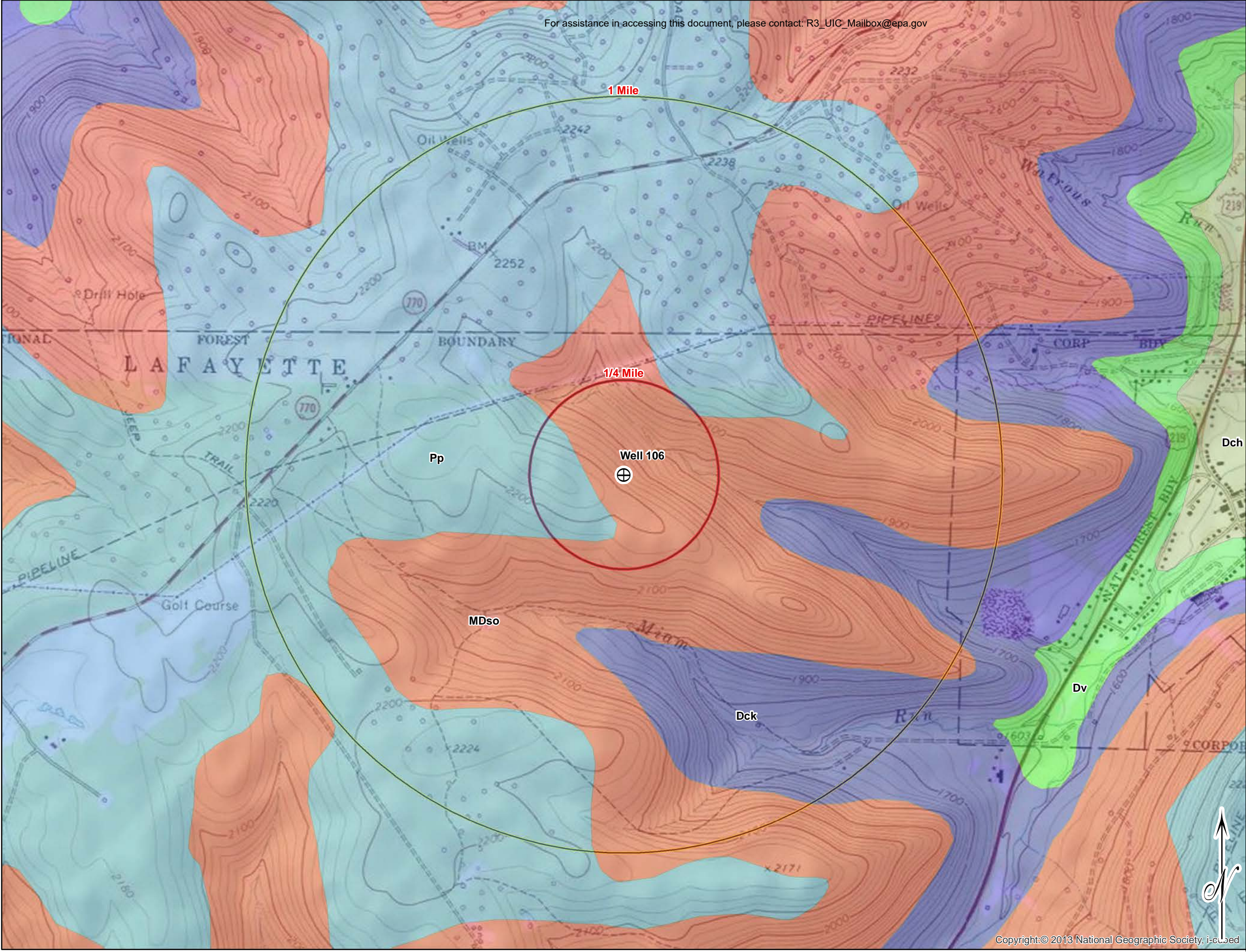
There are 2 bedrock formations in the area of review, the Pocono Formation (also known as the Shenago though Oswayo formation, undivided) and the Pottsville Formation. The Pocono Formation is Devonian to Mississippian in age. The Pocono Formation includes greenish gray, olive buff sandstone and siltstone, and gray shale in varying proportions. This Pottsville Formation, which overlies the Pocono Formation, is Pennsylvanian in age. The Pottsville Formation consists of predominantly gray sandstones and conglomerates. The Pottsville and Pocono formations supply water for bedrock wells within this area. Figure 9 shows the bedrock geology in the area.

A review of the surrounding oil and gas well logs showed that the surface casing strings extend to between 230 and 520 feet below ground surface (bgs), and fresh water was encountered between 70 and 205 feet bgs (Table 3). Based on this information, the base of the USDW has been set at 300 feet bgs. Monitoring trigger levels have been established to the average bottom of the surface casing for wells in the area cased to below 230 feet (468 feet) to further ensure protection of USDWs. Additional information on monitoring has been included in Attachment C.

The closest public water supply is located in Lewis Run, Pennsylvania, approximately 1.25 miles east of the proposed injection well. Lewis Run is supplied by Bradford City Water Authority.

The closest groundwater well is located approximately 0.8 mile northwest of the proposed UIC well. The well is owned by Taylor/Tharp Sub Contractors and is used for domestic use (Figure 10).





For assistance in accessing this document, please contact: R3\_UIC\_Mailbox@epa.gov

**FIGURE 9**

Bedrock  
Geology Map  
Evans Well 106

UIC Permit Application  
Lafayette Townships  
McKean County, Pennsylvania

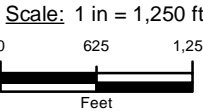
Prepared for:  
Sliverville Oil Company, LLC

**LEGEND**

- ⊕ Well 106 Location
- Dck Catskill Formation
- Dch Chadakoin Formation
- Pp Pottsville Formation
- MDso Shenango/Oswayo Formation
- Dv Venango Formation
- 1/4 Mile Buffer
- 1 Mile Buffer

**Map Reference:**

This exhibit is based on the ESRI USA Topographic Map. ESRI.com USGS Topographic 7.5 Minute Quadrangles: Lewis Run and Bradford, PA.



Project #: 14-554-AF

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and Associates, Inc.

Drawn by:	Checked by:	Date:	Revision:
JCB	ESE	1/9/2018	0



## Surface Casing Data

Evans Well 106

Sliverville Oil Company, LLC

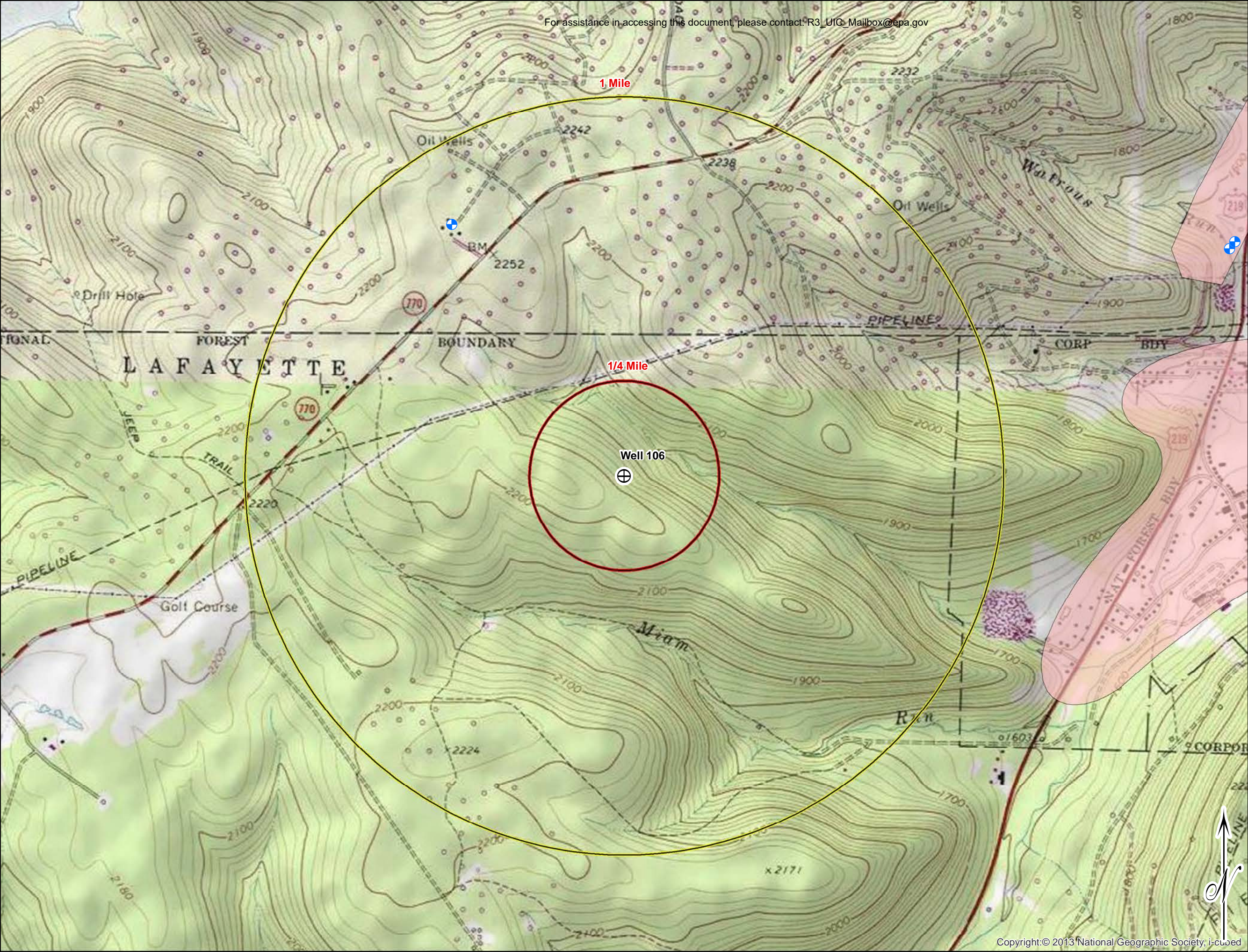
Lafayette Township, McKean County, PA

**Table 3**

<b>Permit Number / API</b>	<b>Operator</b>	<b>Farm Name</b>	<b>Fresh GW encountered (ft below surface)</b>	<b>End of Surface Casing (ft below surface)</b>	<b>Total Measured Depth (ft)</b>
083-23515	Minard Run Oil Co	Flood 3 Warrant 3903 A-2	NA	411	1872
083-23516	Minard Run Oil Co	Flood 3 Warrant 3903 3A 3	NA	401	2012
083-40575	HL Murry Drilling Co & US Gold Co	USFS Music Mountain VE-9	Unknown	Unknown	1894
083-55911	Horizontal Exploration LLC	Swamp Angel 3 HF 2	NA	520	2103
083-56579	Pecora Enterprises	Evans 103	70	488	1738
083-56580	Pecora Enterprises	Evans 104	100	518	2250
083-56581	Pecora Enterprises	Evans 105	170	514	2250
083-56582	Pecora Enterprises	Evans 106	85	456	2130
083-56583	Pecora Enterprises	Evans 107	80	453	2160
083-56584	Pecora Enterprises	Evans 108	80	464	2130
083-56585	Pecora Enterprises	Evans 109	205	455	2490
083-56586	Pecora Enterprises	Evans 110	NA	NA	NA
*8-D-7	Minard Run Oil Co	Brown Lot 4	NA	230	2003
*Dry Hole	Unknown	Unknown	NA	NA	Unknown
<b>PA Well ID</b>	<b>Driller</b>	<b>Owner</b>			
540545	KELLNER WELL DRILLING	Taylor/Tharp Sub Contractors	181	40	200

\* Information came from Table 1 in Fettke, C.R. 1951. Oil and Gas Field Atlas of the Bradford Quadrangle, Pennsylvania. Commonwealth of Pennsylvania Department of Internal Affairs, Special Bulletin 5





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**FIGURE 10**  
Water Well Location Map  
Evans Well 106

UIC Permit Application  
Lafayette Townships  
McKean County, Pennsylvania

Prepared for:  
Sliverville Oil Company, LLC

**LEGEND**

- ⊕ Well 106 Location
- ⊕ Water Well Locations
- Public Water Supply
- 1/4 Mile Buffer
- 1 Mile Buffer

**Map Reference:**

This exhibit is based on the ESRI USA Topographic Map. ESRI.com USGS Topographic 7.5 Minute Quadrangles: Lewis Run and Bradford, PA.

Scale: 1 in = 1,250 ft  
0 625 1,250  
Feet

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# **ATTACHMENT G**

## **Geological Data on Injection and Confining Zones**



---

## **Geological Data on Injection and Confining Zones**

Evans Lease Well 106 (Well 106) is drilled and completed into the Bradford group, specifically the Lewis Run sand. The Bradford group is Upper Devonian in age and consists of interbedded sandstone, siltstone and shale (Shultz). The Lewis Run sand acts as the reservoir rock for the Lewis Run pool and is located approximately 100 feet below the Bradford Third sand. The Lewis Run sand is profiled for Well 106 at approximately 1,980 feet below the surface with a confining layer approximately 60 feet thick above and a confining layer at least 20 feet thick below. The Lewis Run sand is described as a chocolate-brown sandstone, ranging from 6 to 12 feet in thickness (Fettke, 1941). A generalized stratigraphic column has been included as Figure 11.

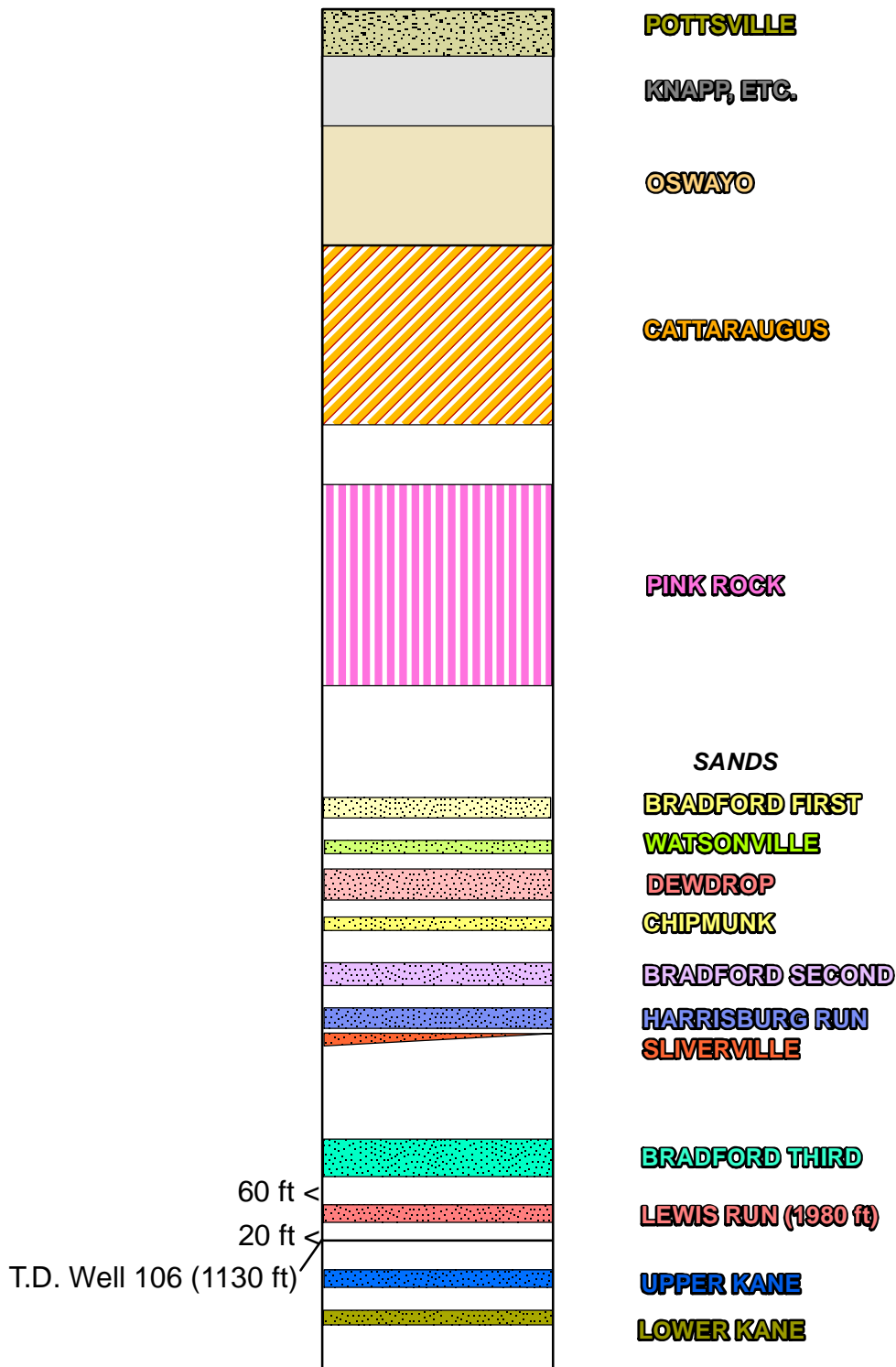
The oil and gas sands in this area were deposited in shallow marine areas, in a near shore/continental shelf type setting. The sand bodies were deposited as elongated lenses, representing off-shore sand bars or dunes (Fettke, 1941). The siltstone and shale between the sandstone lenses act as confining layers and limit the upward migration of fluids from the injection zone (Lewis Run sand). The Bradford anticline, located just to the southeast of the injection well acts as an additional structural barrier. The anticline will trap fluids at the top of the fold, below rocks with low permeability.

Structurally, this area is comprised of broad asymmetrical synclines and anticlines, with long axes trending northeast to southwest (Fettke, 1938). The Bradford anticline is located approximately 2,200 feet southeast of the proposed injection well.

A fracture trace analysis was completed by Moody for the area surrounding Well 106. Fracture traces are linear zones of concentrated, nearly vertical cracks formed in the bedrock that are naturally occurring and expressed on the ground surface. These geologic features are identified using stereoscopic aerial photography and other remote sensing techniques, including LiDAR-derived digital elevation models and infrared aerial photography. The analysis was completed to determine the prevalence, orientation, and extent of lineaments identified. The linear features identified during the analysis are included on Figure 12.

Based on data obtained from the fracture trace analysis there are two lineaments within the area of review. The first is approximately 3,360 feet in length in an approximate north-south orientation. The southernmost 625 feet of the lineament extends in to the northern area of review, and is approximately 780 feet north-northwest of Well 106 at its closest approach. The second lineament is approximately 8,600 feet in length and is oriented northwest-southeast. The northeasternmost 2,187 feet of the lineament extends through the northern half of the area of review, and is approximately 900 feet northeast of Well 106 at its closest approach.





Reference:  
Adapted from columnar section  
in Oil and Gas Atlas for Bradford, PA  
(Fettke, 1951)

Prepared for:  
Sliverville Oil Company, LLC

Scale:  
**SCHEMATIC NOT  
TO SCALE**

**FIGURE 11**  
**GENERALIZED STATIGRAPHIC COLUMN**  
Evans Well 106  
UIC Permit Application  
Lafayette Township, McKean County, Pennsylvania

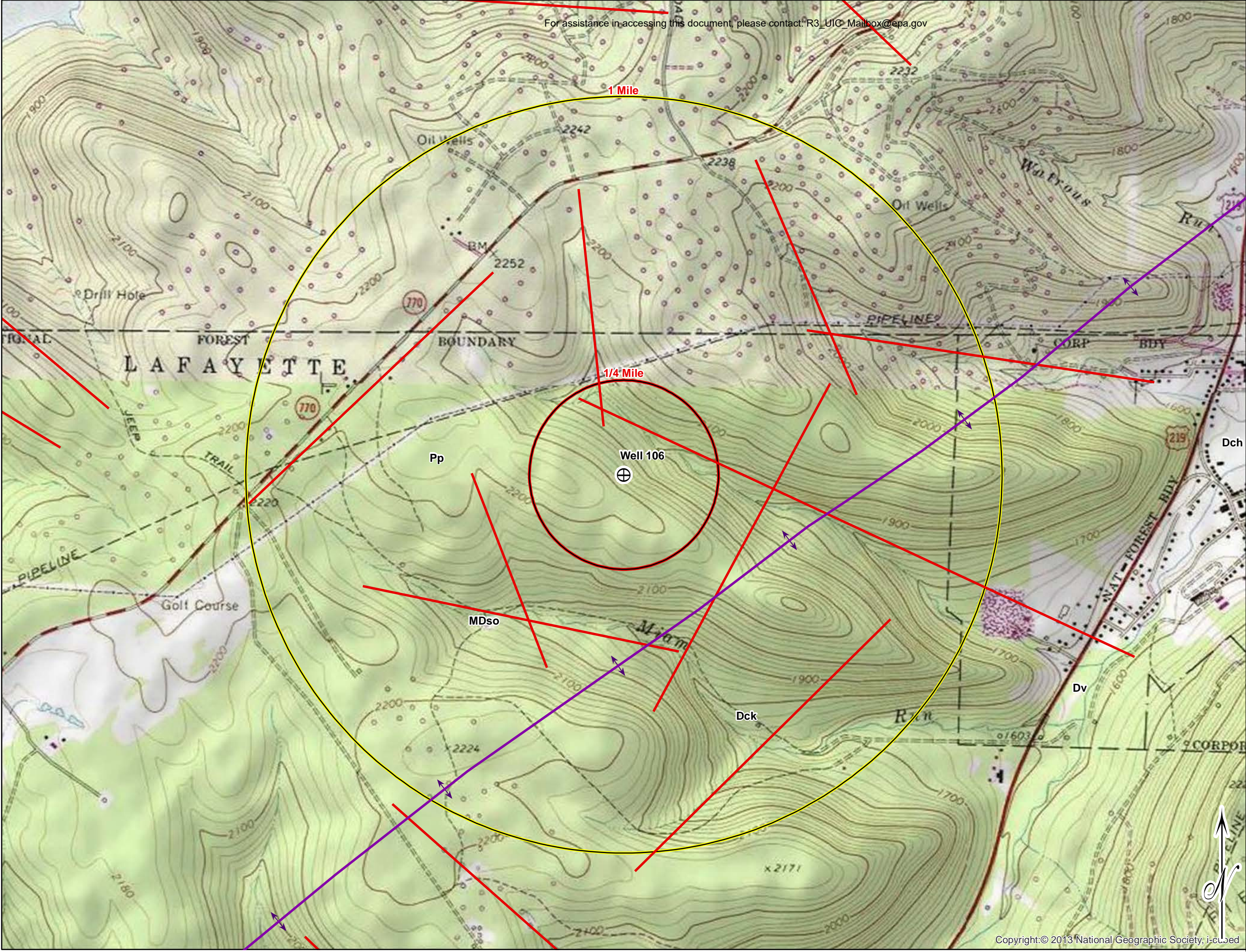
Project #: 14-554-AF

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JCB	ESE	1/9/2018	0

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## FIGURE 12

Fracture Trace  
Analysis Map  
Evans Well 106

UIC Permit Application  
Lafayette Townships  
McKean County, Pennsylvania

Prepared for:  
Sliverville Oil Company, LLC

### LEGEND

- ⊕ Well 106 Location
- Apparent Fractures\*\*
- ↕ Anticline
- 1/4 Mile Buffer
- 1 Mile Buffer

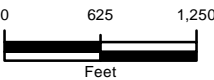
### Notes:

\*\* Apparent fractures are drawn from aerial photography and are not field verified.

### Map Reference:

This exhibit is based on the ESRI USA Topographic Map. ESRI.com USGS Topographic 7.5 Minute Quadrangles: Lewis Run and Bradford, PA.

Scale: 1 in = 1,250 ft



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# **ATTACHMENT H**

## **Operating Data**

---

## Operating Data

Sliverville is proposing to inject a maximum of 1,000 bbls/day. The maximum injection pressure will be 1733 psi (see calculation below). A copy of Sliverville analytical results for their production fluid has been included for your review.

Sliverville will utilize a series of monitoring wells to monitoring fluid level changes. Additional information on the monitoring plan is located in Attachment C.

### *Calculation of Maximum Injection Pressure*

#### MIP Calculation

$$\text{MIP} = \{[\text{FG} - 0.433 \text{ psi/ft} \times (\text{SG} + 0.050)] \times (\text{depth})\} - 14.7 \text{ psg}$$

Fracture Gradient (FG) (if unknown, 0.8psi)	1.23
Specific Gravity (SG)=	1.12
Depth to top of injection zone(ft)=	1980
Maximum Injection Pressure (psig)=	1,417.61

Breakdown Pressure:	2468	psi
Feet below surface:	2010	feet
Fracture gradient:	1.23	psi/ft





1803 Philadelphia St.  
Indiana, PA 15701  
P: (724) 463-TEST  
F: (724) 465-4209  
PADEP: 32-00382

1276 Bentleyville Rd.  
Van Voorhis, PA 15366  
P: (724) 258-TEST  
F: (724) 258-8376  
PADEP: 63-04247

1200 River Avenue  
Williamsport, PA 17701  
P: (570) 321-9002  
F: (570) 321-1957  
PADEP: 41-04880

27 January 2015

**Work Order: 5010170**

**Project: UIC Testing**

Pecora Enterprises  
Attn: Jay Pecora  
42 Parkway Lane  
Bradford, PA 16701

## Report of Analysis

Client Sample ID	Lab Sample ID	Matrix	Date Sampled	Date Received	Sample Notes
Sample	5010170-01	Water	01/02/2015 14:20	01/06/2015 14:15	

### Report Narrative

The results contained in this report are only representative of the samples received. Environmental Service Laboratories, Inc. is not responsible for use or interpretation of the data included herein.

### Definitions

Zz	Laboratory not accredited for analysis in the specified matrix.
R	Received out of recommended hold time.
D	The reported value is from a dilution.
ND	Less than reporting limit
RL	Reporting Limit
CFU	Colony Forming Units

### Certifications

Analyses performed by Environmental Service Laboratories, Inc., Indiana PA unless otherwise specified.

Environmental Service Laboratories, Inc., Indiana, PA/TNI Certification #32-00382

### Approved By

DRAFT REPORT  
DATA SUBJECT TO CHANGE





1803 Philadelphia St.  
Indiana, PA 15701  
P: (724) 463-TEST  
F: (724) 465-4209  
PADEP: 32-00382

1276 Bentleyville Rd.  
Van Voorhis, PA 15366  
P: (724) 258-TEST  
F: (724) 258-8376  
PADEP: 63-04247

1200 River Avenue  
Williamsport, PA 17701  
P: (570) 321-9002  
F: (570) 321-1957  
PADEP: 41-04880

Pecora Enterprises  
42 Parkway Lane  
Bradford, PA 16701

Reported: 01/27/2015 13:23

**Lab Sample ID#:** 5010170-01  
**Sample Type:** Water  
**Sample Source:** Grab  
**Sampler:** Client  
**Client Sample ID:** Sample

**Sample Date:** 01/02/2015 14:20  
**Receipt Date:** 01/06/2015 14:15

Analyte	Sample Result	Units	Data Qualifier	RL	Method	Analyst/Certification	Analysis Date/Time
<b>General Chemistry</b>							
Alkalinity, Total (CaCO <sub>3</sub> )	ND	mg/L		20.0	SM2320 B-97	ABO	01/06/15 16:24
Chloride	107000	mg/L	D	5.00	SM4500-Cl D-97	SMM	01/08/15 20:28
pH	4.89	S.U.	R	1.00	SM4500-H B-00	ABO	01/06/15 16:22
Specific Conductance	272200	umhos/cm		1.0	SM2510 B-97	JMF	01/06/15 22:23
Specific Gravity	1.12		Zz		-	ZTR	01/23/15 11:43
Total Dissolved Solids	223000	mg/L		25	SM2540 C-97	LMB	01/08/15 13:30
<b>Total Metals</b>							
Barium	ND	mg/L	D	0.500	EPA200.7 4.4	SFS	01/08/15 14:13
Calcium	18500	mg/L	D	50.0	EPA200.7 4.4	SFS	01/08/15 14:13
Hardness	57400	mg/L			SM2340 B-97	SFS	01/08/15 14:13
Iron	39.4	mg/L	D	1.00	EPA200.7 4.4	SFS	01/08/15 14:13
Magnesium	2750	mg/L	D	50.0	EPA200.7 4.4	SFS	01/08/15 14:13
Manganese	20.2	mg/L	D	0.500	EPA200.7 4.4	SFS	01/08/15 14:13
Sodium	49900	mg/L	D	125	EPA200.7 4.4	SFS	01/14/15 14:55






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**SAMPLE REQUEST & CHAIN OF CUSTODY**

PAGE OF

Page 3 of 6

<b>HEADQUARTERS</b> 1803 Philadelphia St. Indiana, PA 15701 (724) 463-TEST FAX: (724) 465-4209		<b>SOUTHERN DIVISION</b> 1276 Bentleyville Road Van Voorhis, PA 15366 (724) 258-TEST FAX: (724) 258-8376		<b>NORTHERN DIVISION</b> 1200 River Avenue Williamsport, PA 17701 (570) 321-9003 FAX: (570) 321-1957	
<b>FOR INTERNAL LABORATORY USE ONLY</b>					

5010170

THE UNDERSIGNED PURCHASER HEREBY AGREES TO PAY SERVICE CHARGES ON ACCOUNTS OVER 31 DAYS OLD.

1. THESE SERVICE CHARGES WILL ACCRUE AT THE RATE OF 1 1/2% PER MONTH (18% PER ANNUM OR THE MAXIMUM ALLOWED BY LAW.)

2. THE UNDERSIGNED PURCHASER AGREES TO PAY, IN THE EVENT HIS ACCOUNT BECOMES DELINQUENT AND IS TURNED OVER TO ANY ATTORNEY FOR COLLECTION, REASONABLE ATTORNEY'S FEES PLUS ALL COURT AND ATTENDANT COLLECTION COSTS.

**Project Notes:**

### ***UIC Testing***

Sampled By: (Signature) 1-2-15 2:30 pm

Relinquished By: (Signature) Date/ Time

Received By: (Signature) 1-6-15 . 1415 Date/ Time

Relinquished By: (Signature) Date/ Time

Received By: (Signature) Ethan Date/ Time 1-6-15 1433

Relinquished By: (Signature) Date/ Time

Received By: (Signature) \_\_\_\_\_ Date/ Time \_\_\_\_\_

Company/Name: Pecora Enterprises  
Jay Pecora

Contact Person:	
Address:	42 Parkway Lane Bradford, PA 16701

Phone: 814-368-8480

Cell#

Lab Use Only: Correct Preservation: Y N / N/A

Correct Container: Y / N / N/A

11.4 I

TEMPERATURE:



**Theresa Ortiz**

**From:** Alicia Furey <AFurey@moody-s.com>  
**Sent:** Thursday, December 18, 2014 09:18  
**To:** Theresa Ortiz; Gabriel Taylor  
**Subject:** RE: Bottle set for UIC testing

Log it under Pecora Enterprises.

**From:** Theresa Ortiz [mailto:tortz@envlabs.com]  
**Sent:** Thursday, December 18, 2014 9:14 AM  
**To:** Alicia Furey; Gabriel Taylor  
**Subject:** RE: Bottle set for UIC testing

Alicia,

When we log this sample in will it be under Moody Meadville or will it be under Jay Pecora? I just like to know ahead of time so there is no delay on getting them logged in and its done correctly..

Thanks,  
Theresa

**From:** Alicia Furey [mailto:AFurey@moody-s.com]  
**Sent:** Wednesday, December 17, 2014 9:35 AM  
**To:** Theresa Ortiz; Gabriel Taylor  
**Subject:** RE: Bottle set for UIC testing

Ok. Thanks.

**From:** Theresa Ortiz [mailto:tortz@envlabs.com]  
**Sent:** Wednesday, December 17, 2014 9:21 AM  
**To:** Alicia Furey; Gabriel Taylor  
**Subject:** FW: Bottle set for UIC testing

Dear Alicia,

We can complete the list of analyticals for UIC testing, However in order for the results to be valid for the Hydrogen Sulfide and the Dissolved Oxygen they should be done in the field.  
I can get a set of bottles sent to the address below today.

Thank you,  
Theresa Ortiz

**From:** Alicia Furey [mailto:AFurey@moody-s.com]  
**Sent:** Wednesday, December 17, 2014 8:56 AM  
**To:** Theresa Ortiz  
**Subject:** Bottle set for UIC testing

Trisha,



Good morning. Can you complete the attached list of analytics for UIC testing?

If you can, could you please send a bottle set, per the attached list, to the following address:

Jay Pecora  
42 Parkway Lane  
Bradford, PA 16701

Thanks,

***Alicia Furey, G.I.T.***

**Environmental Scientist**

Moody and Associates, Inc.

11548 Cotton Road

Meadville, PA 16335

E-mail: [afurey@moody-s.com](mailto:afurey@moody-s.com)

Office: (814) 724-4970

Mobile: (814) 795-6037

Fax: (814) 724-4973

Web: [www.moody-s.com](http://www.moody-s.com)

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# SUBCONTRACT ORDER

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Environmental Service Laboratories, Inc.

5010170

## SENDING LABORATORY:

Environmental Service Laboratories, Inc.  
1803 Philadelphia Street  
Indiana, PA 15701  
Phone: 724-463-8378  
Fax: 724-465-4209  
Project Manager: Jessica Stile

## RECEIVING LABORATORY:

Summit Environmental Technologies, Inc.  
3310 Win Street  
Cuyahoga Falls, OHIO 44223  
Phone : (330) 253-8211  
Fax: (330) 253-4489

Analysis	Due	Expires	Laboratory ID	Comments
----------	-----	---------	---------------	----------

Sample ID: 5010170-01	Water	Sampled: 01/02/2015 14:20		
-----------------------	-------	---------------------------	--	--

TOC	01/20/2015 14:00	01/30/2015 14:20		
-----	------------------	------------------	--	--

Containers Supplied:

Released By

Date

Received By

Date

Release



5010170

Received By

Date



# **ATTACHMENT M**

## Construction Details

## Construction Details

The following is information provided by Sliverville on the conversion of Evans Well 106 to a UIC well. Figure 13 shows the current well schematic for the UIC well.

### Specifications to note:

- Open Hole: 6 1/4 inch
- Casing -outside diameter: 6 5/8"
- Weight of 6 5/8 Inch Casing: 23 lb. /ft.
- Yield of Cement: "1 A" (yield measured in: ft.cubed / a sack)
- Area Calculation: 0.1782 ft. squared
- Packer Depth Setting: 1940 ft. Measured Depth (MD)
- Cement Depth: Top of Cement MD = 157 ft.  
Bottom of Cement = 456 ft.

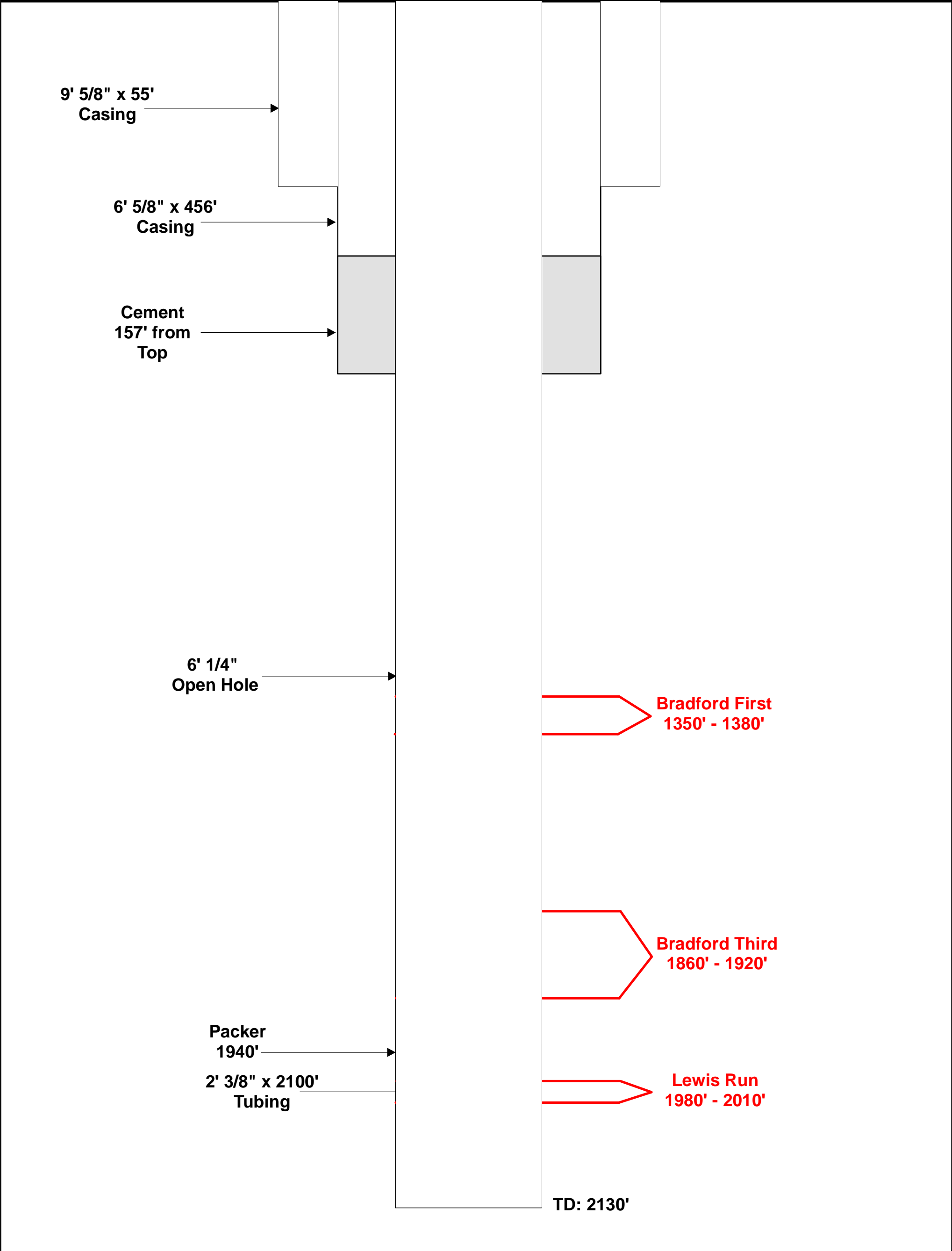
**Cement Calculation:** 299 ft. (x) .1782 ft. squared = 53.3 cubic feet = 53.3 ft. cubed / 1 % by cement yield = 53 Sacks of cement in true open hole (with the 10% excess); therefore (53 Sacks x 10%) = 58 total sacks of cement. The well should be cemented with 58 sacks of Class A Type I cement with 2% CaCl<sub>2</sub> per sack. It was reported that 55 sacks of cement were used which agrees with the calculation.

**Packer:** A packer is set at a measured depth (M.D) of 1940 ft.



Ground Surface

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Notes:

Prepared for:  
Sliverville Oil Company, LLC

Map Reference:  
This exhibit is based on the well completion report.

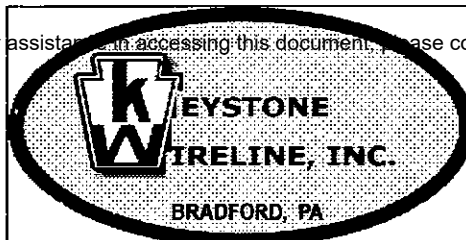
Scale:  
**SCHEMATIC NOT TO SCALE**

**FIGURE 13**  
**INJECTION WELL SCHEMATIC**  
**Evans Well 106**  
**UIC Permit Application**  
**Lafayette Township, McKean County, Pennsylvania**

Project #: 14-554-AF			
Drawn by:	Checked by:	Date:	Revision:
JCB	ESE	2/3/2017	0

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## TOP OF CEMENT LOG

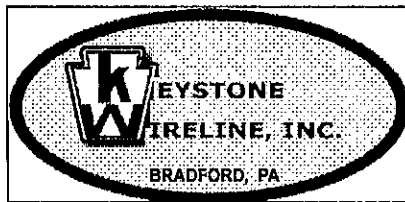
Company PECORA ENTERPRISES Well EVANS 106 Field EVANS County MCKEAN State PA	Company PECORA ENTERPRISES		
	Well EVANS 106		
	Field EVANS		
	County MCKEAN State PA		
	Location: API #: 37-083-56582-00-00		
	LEWIS RUN QUAD. LAT.-41-52-17.62 LONG.-78-41-33.88		Other Services
	TWP: LAFAYETTE		Elevation
	Permanent Datum	GROUND LEVEL	Elevation 2178'
	Log Measured From	TOP OF 7" COLL. 0.7' ABOVE P.D.	
	Drilling Measured From	TOP OF 7" CASING COLLAR	
			K.B. D.F. G.L. 2178'
Date	9-28-2014		
Run Number	ONE		
Depth Driller	2135.6'		
Depth Logger	2135.6'		TRUCK DEPTHS
Bottom Logged Interval	2130.6'		MAST 151
Top Log Interval	0'		
Casing Driller	7" @ 455'		
Casing Logger	7" @ 455'		
Bit Size	6.25"		
Type Fluid in Hole	WATER/OIL	@ 1870'	
Density / Viscosity	N/A		
pH / Fluid Loss	N/A		
Source of Sample	N/A		
Rm @ Meas. Temp	N/A		
Rmf @ Meas. Temp	N/A		
Rmc @ Meas. Temp	N/A		
Source of Rmf / Rmc	N/A		
Rm @ BHT	N/A		
Time Circulation Stopped	N/A		
Time Logger on Bottom	14:30		
Maximum Recorded Temperature	72 DEG F		
Equipment Number	155		
Location	BRADFORD PA		
Recorded By	MR. C. RIIRNS		



All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

Comments

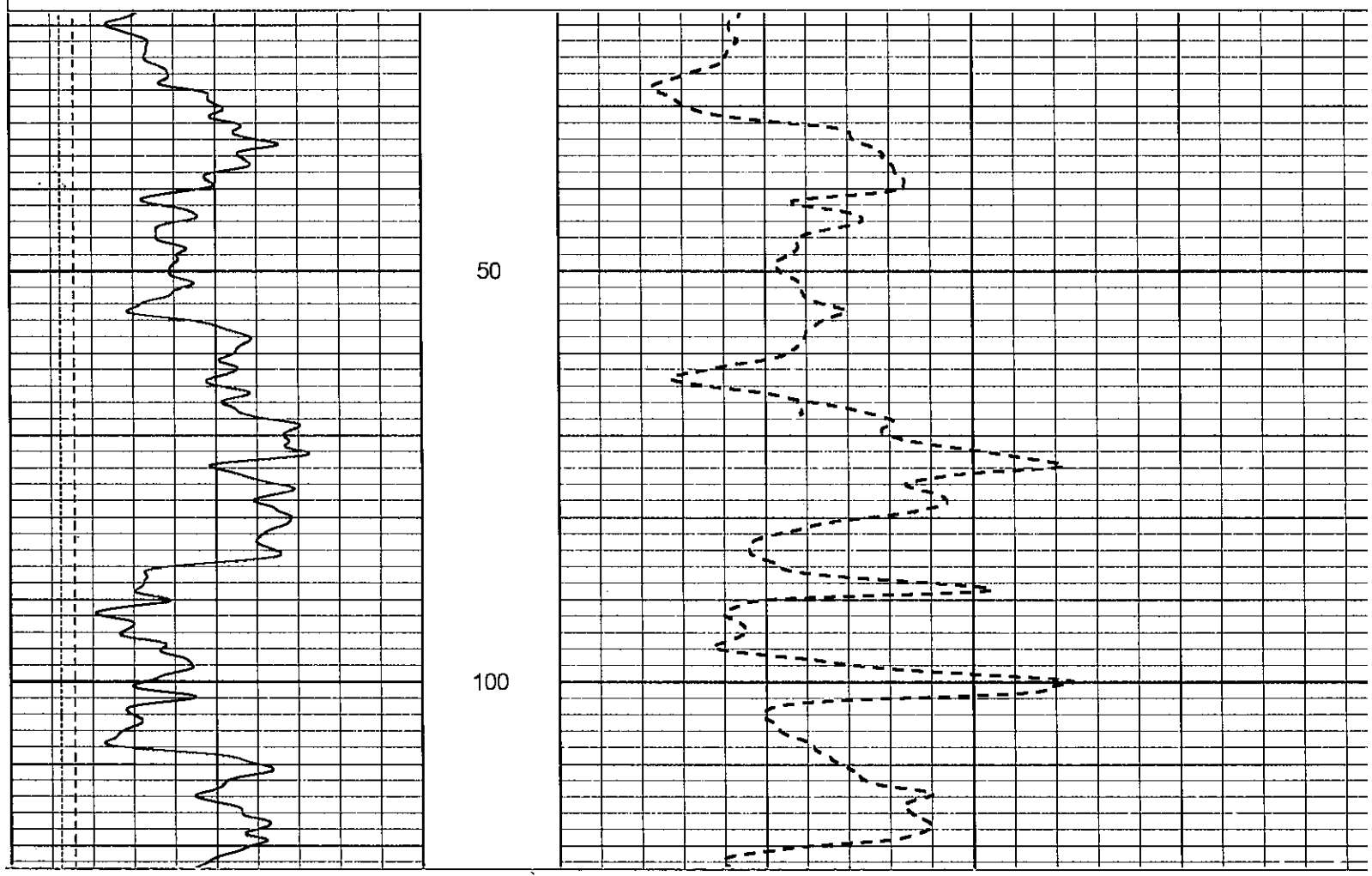
2.68 G/CC MATRIX DENSITY 1.0 G/CC FLUID DENSITY  
LOGGED OFF OF KEYSTONE MAST UNIT 151  
CREW: ADAMS/CARPENTER  
THANK YOU FOR USING KEYSTONE WIRELINE!!

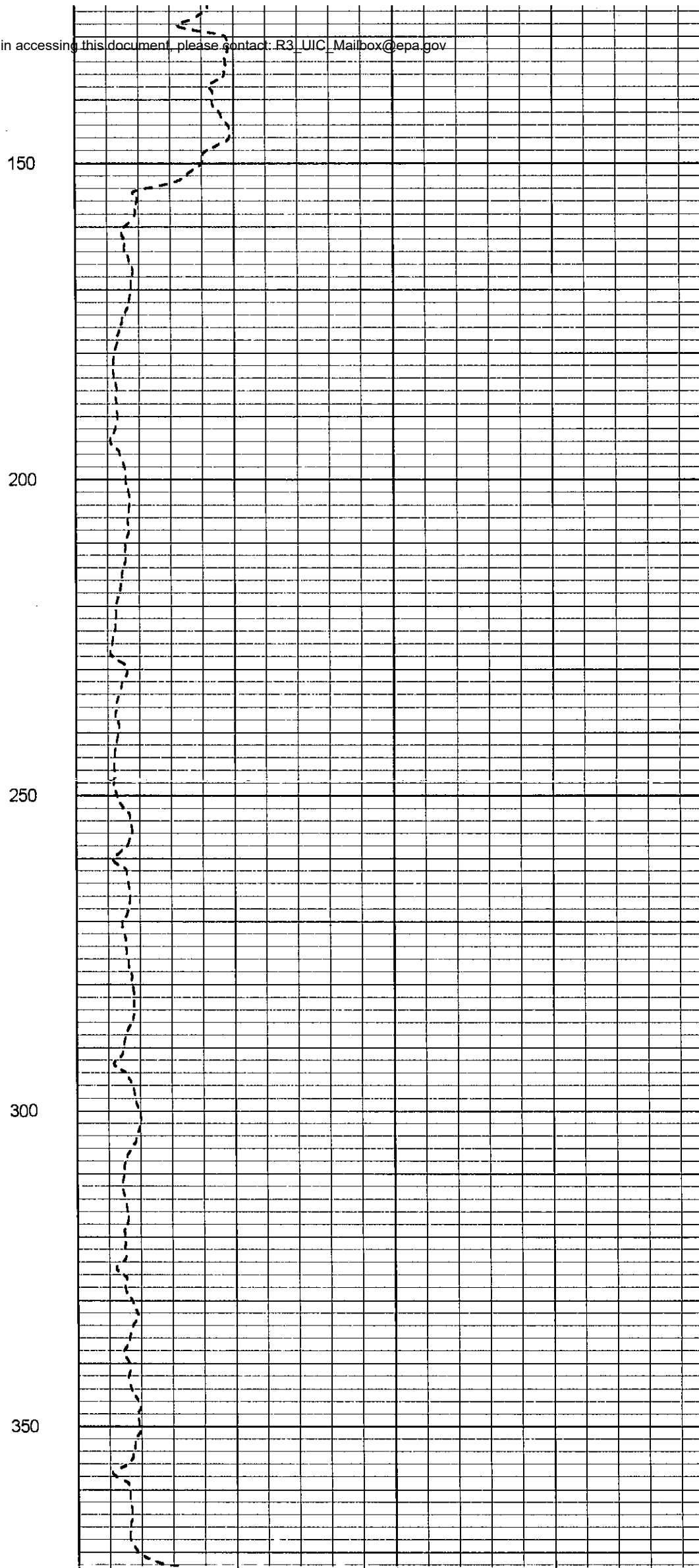
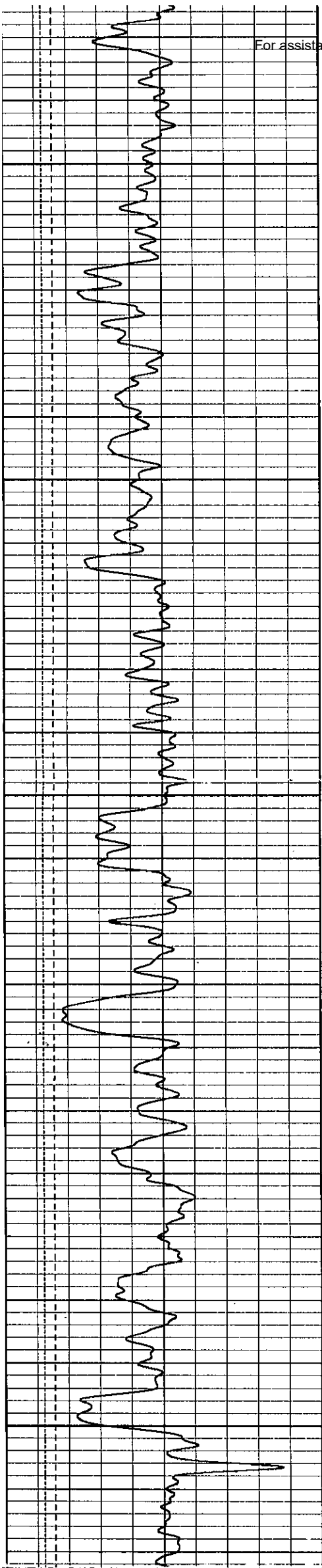


CEMENT TOP LOG

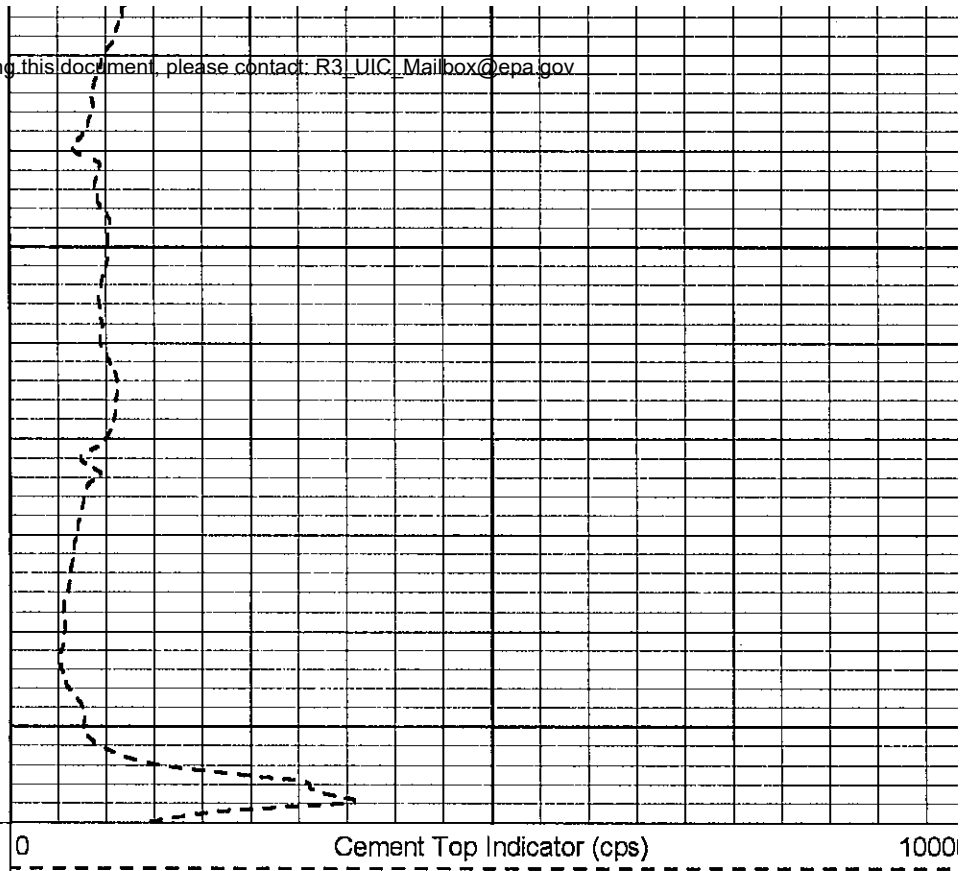
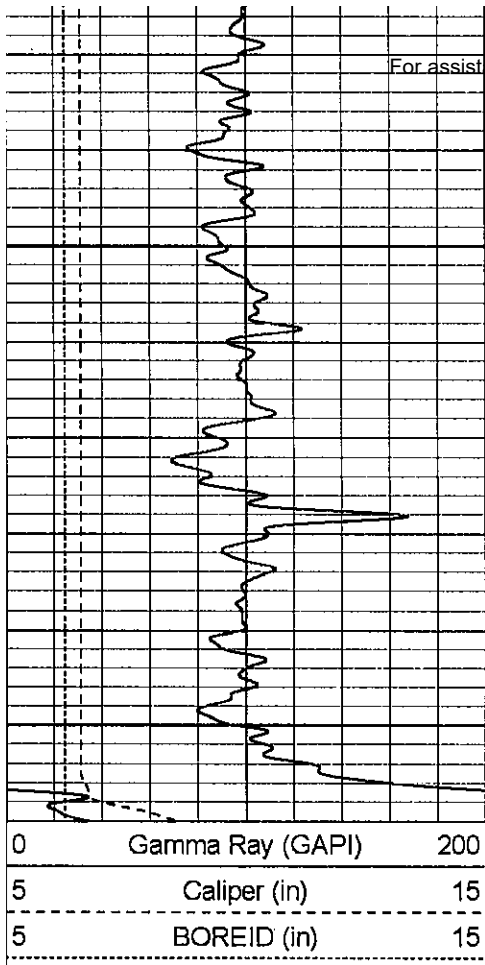
Database File:	pecora enterprise evans 106.db
Dataset Pathname:	106/run1/pass3.1
Presentation Format:	ajaxceme
Dataset Creation:	Thu Sep 25 15:49:05 2014 by Calc SOC 120430
Charted by:	Depth in Feet scaled 1:240

0	Gamma Ray (GAPI)	200	0	Cement Top Indicator (cps)	1000
5	Caliper (in)	15			
5	BOREID (in)	15			









Company	PECORA ENTERPRISES
Well	EVANS 106
Field	EVANS
County	MCKEAN
State	PA

# **ATTACHMENT P**

## **Monitoring Program**



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## Underground Injection Control Monitoring Plan

The flow rate and cumulative injected volume of produced water will be monitored with a totalizing flow meter, sized to measure the anticipated range of flow rates. Installation of the measuring device will be in accordance with manufacture's specifications. Calibration and preventive maintenance of the measuring device will be conducted per the manufacture's recommendations. Visual inspections will be conducted prior to startup and periodically during operation to check for issues with the connections, water well pump discharges, flow meter, hoses, pump, piping, holding tanks, fittings, etc.

Flow data and support information will be recorded on a daily basis and/or per truckload. Metering data will be compared to truckload data. If any variances occur, they will be reconciled. Recorded information may include, but not be limited to the following: site, location, date, meter ID, times, flow measurements, transport volume, truck load information, etc. In addition to these items, the operator will note any issues identified and corrective actions taken during the daily inspection. Calibration and preventive maintenance activities will be recorded as performed.

A dual pen chart recorder will be used to continuously monitor the injection pressure and annular pressure. Pressure information will be monitored and recorded 24 hours per day, 7 days per week. If the annular pressure reaches a level which equals the down-hole pressure, or the down-hole pressure exceeds the fracture gradient, an automatic high pressure shut off valve will halt any further injection. Operation of the injection well will not recommence until the cause of the pressure increase has been located and rectified. Installation of the recording device and shut off valve will be in accordance with manufacture's specifications. Calibration and preventive maintenance of the recording device and shut off valve will be conducted per the manufacture's recommendations. Visual inspections will be conducted prior to startup and periodically during operation to check for issues.

Sliverville will utilize two existing active oil wells (083-56581 and 083-56583) for monitoring fluid levels in the injection zone (Lewis Run sand). Figure 7 shows the proposed monitoring locations. Figure 8 is a generalized geologic cross section through the area of review and shows the approximate location of the average bottom of casings, approximate location of the top of the Lewis Run formation and the trigger levels. The Completion report, well reports and records for the proposed UIC well and monitoring wells have been included in Appendix A.

All wells will be monitored quarterly. Any well that is also used for production will stop production for at least one week prior to fluid level assessment. The flowing are action trigger levels for the fluid within the wells:

- If the fluid level has risen to 500 feet below the average bottom of surface casing (500 feet) within any monitoring well (1000 feet from surface), monitoring will be changed from quarterly to monthly.
- If the fluid level has risen to within 50 feet below the average bottom of surface casing within any monitoring well (550 feet from surface), the UIC well will be shut down and EPA will be immediately notified. A modified operation plan will be submitted to EPA prior to reinitiating injection operations. The following six months will consist of monthly monitoring of the injection system and monitoring wells. Following the six months of monitoring, if the fluid levels have consistently stayed below 500 feet below the average bottom of surface casing (1000 feet from surface), quarterly monitoring will be resumed.



# **ATTACHMENT Q**

## **Plugging and Abandonment Plan**

# **ATTACHMENT R**

## **Necessary Resources**



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## **Necessary Resources**

Sliverville has obtained an Irrevocable Standby Letter of Credit No. S-715 up to the aggregate amount of 15,007.40 which shall be deposited into a Standby Trust Fund (the Fund). The Fund has been established to assure compliance with the plugging and abandonment requirements established by the EPA. The Irrevocable Standby Letter of Credit and Standby Trust Agreement are included below.



## HAMLIN BANK AND TRUST COMPANY

*Established 1863*

### IRREVOCABLE STANDBY LETTER OF CREDIT S-715

U.S. Environmental Protection Agency  
Underground Injection Control  
Financial Responsibility Requirement

To: Regional Administrator  
Environmental Protection Agency, Region 3  
1650 Arch Street, Philadelphia, PA 19103-2029

Dear Sir or Madam:

We hereby establish our Irrevocable Standby **Letter of Credit No. S-715** in your favor, at the request and the account of **Sliverville Oil Company, LLC** with an address and place of business at 42 Parkway Lane, Bradford, PA 16701, up to the aggregate amount of Fifteen Thousand Seven Dollars and 40/100 Dollars, (\$15,007.40), available upon presentation of:

1. Your sight draft, bearing reference to this Letter of Credit No.S-715 and
2. Your signed statement reading as follows: "I certify that the amount of the draft is payable pursuant to regulations issued under authority of the Safe Drinking Water Act."

This Letter of Credit is effective as of December 21, 2017, and shall expire on December 21, 2018, but such expiration date shall be automatically extended for a period of at least one year on December 21, 2018, and each successive expiration date, unless, at least 120 days before the current expiration date, we notify both you and Sliverville Oil Company, LLC by certified mail that we have decided not to extend this Letter of Credit beyond the current expiration date. In the event you are so notified, any unused portion of the credit shall be available upon presentation of your sight draft for 120 days after the date of receipt by both you and Sliverville Oil Company, LLC as shown on the signed return receipts.

Whenever this Letter of Credit is drawn on under and in compliance with terms of this credit, we shall duly honor such draft upon presentation to us, and we shall deposit the amount of the draft directly into the standby trust fund of Sliverville Oil Company, LLC in accordance with your instructions.

W. Graham Namen  
(Officer Signature)

Dec 21, 2017  
(Date)

W. Graham Namen  
(Printed Officer Name)

Loan Officer  
(Title)



**CERTIFICATE OF ACKNOWLEDGMENT  
FOR  
STANDBY TRUST FUND AGREEMENT**

STATE OF Pennsylvania  
COUNTY OF McKean

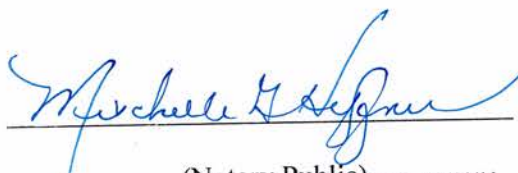
On this 21<sup>st</sup> day of December, 2017, before me personally came  
Jay Pecora to me known, who, being by me duly sworn, did depose  
(Owner or Operator)

and say that he/she resides at 42 Parkway Lane, Bradford PA 16701,  
(Address)

that he/she is Chief Executive Manager of Sliverville Oil Company, LLC  
(Title) (Corporation)

the corporation described in and which executed the above instrument; that he/she knows the seal  
of said corporation; that the seal affixed to such instrument in such corporate seal; that it was so  
affixed by order of the Board of Directors of said corporation, and that he/she signed his/her  
name thereto by like order.



  
(Notary Public)  
COMMONWEALTH OF PENNSYLVANIA  
NOTARIAL SEAL  
Mischelle G. Heffner, Notary Public  
Smethport Boro, McKean County  
My Commission Expires Aug. 27, 2021  
MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES

US EPA ARCHIVE DOCUMENT



## STANDBY TRUST AGREEMENT

U.S. Environmental Protection Agency  
Underground Injection Control  
Financial Responsibility Requirement

THIS TRUST AGREEMENT (the "Agreement") is entered into as of 12/21/17 by and between Sliverville Oil Company, LLC (Terra), owner or operator, a Pennsylvania corporation / partnership / association / proprietorship (the "Grantor"), and Hamlin Bank & Trust Company (the "Trustee"), a Pennsylvania corporation/financial institution.

Whereas, the United States Environmental Protection Agency ("EPA"), an agency of the United States Government, has established certain regulations applicable to the Grantor, requiring that an owner or operator of an injection well shall provide assurance that funds will be available when needed for plugging and abandonment of the injection well or wells,

Whereas, the Grantor has elected to establish a trust to provide all or part of such financial assurance for the facility or facilities identified herein, and

Whereas, the Grantor, acting through its duly authorized officers, has selected the Trustee to be the trustee under this Agreement, and the Trustee is willing to act as trustee,

NOW THEREFORE, the Grantor and the Trustee agree as follows:

*Section 1. Definitions.* As used in this Agreement: (a) The term "Grantor" means the owner or operator who enters into this Agreement and any successors or assigns of the Grantor. (b) The term "Trustee" means the Trustee who enters into this Agreement and any successor Trustee. (c) Facility or activity means any "underground injection well" or any other facility or activity that is subject to regulation under the Underground Injection Control Program.

*Section 2. Identification of Facilities and Cost Estimates.* This Agreement pertains to the facilities and cost estimates identified on attached Schedule A.

*Section 3. Establishment of Fund.* The Grantor and the Trustee hereby establish a trust fund (the "Fund") for the purpose of assuring compliance with the plugging and abandonment requirements established by EPA for the facilities identified on Schedule A. The Underground Injection Control regulations which govern the authorization to inject include a requirement for such financial assurance that the well or wells shall be plugged and abandoned at the time designated by EPA. The Grantor and the Trustee acknowledge that the Fund and all expenditures from the Fund shall be to fulfill the legal obligations of the Grantor under such regulations, and not any obligation of EPA. The Grantor and the Trustee intend that no third party have access to the Fund except as herein provided. The Fund is established initially as consisting of the property, which is acceptable to the Trustee, described in Schedule B attached hereto. Such property and any other property subsequently transferred to the Trustee is referred



to as the Fund, together with all earnings and profits thereon, less any payments or distributions made by the Trustee pursuant to this Agreement. The Fund shall be held by the Trustee, IN TRUST, as hereinafter provided. The Trustee shall not be responsible, nor shall it undertake any responsibility, for the amount or adequacy of any additional payments necessary to discharge any liabilities of the Grantor established by EPA, nor shall the Trustee have any duty to collect such additional amounts from the Grantor.

*Section 4. Payment for Plugging and Abandonment.* The Trustee shall make payments from the Fund only for the costs of plugging and abandonment ("P&A") of the injection wells covered by this Agreement and the associated P&A Plan, only after EPA has advised the Trustee that work has been completed under the P&A Plan that complies with 40 C.F.R. § 144.28 and/or § 144.52. The Trustee shall not refund to the Grantor any amounts from the Fund unless and until EPA has advised the Trustee that the P&A Plan has been successfully completed. The Trustee shall not release any funds to the Grantor that are necessary to cover liability for any injection wells covered by this Agreement that remain unplugged.

*Section 5. Payments Comprising the Fund.* Payments made to the Trustee for the Fund shall consist of cash or securities acceptable to the Trustee.

*Section 6. Trustee Management.* The Trustee shall invest and reinvest the principal and income of the Fund and keep the Fund invested as a single fund, without distinction between principal and income, in accordance with general investment policies and guidelines which the Grantor may communicate in writing to the Trustee from time to time, subject, however, to the provisions of this Section. In investing, reinvesting, exchanging, selling, and managing the Fund, the Trustee shall discharge his duties with respect to the trust fund solely in the interest of the beneficiary and with the care, skill, prudence, and diligence under the circumstances then prevailing which persons of prudence, acting in a like capacity and familiar with such matters, would use in the conduct of an enterprise of a like character and with like aims; *except that:*

- (i) Securities or other obligations of the Grantor, or any other owner or operator of the facilities, or any of their affiliates as defined in the Investment Company Act of 1940, as amended, 15 U.S.C. 80a-2.(a), shall not be acquired or held, unless they are securities or other obligations of the Federal or a State government;
- (ii) The Trustee is authorized to invest the Fund in time or demand deposits of the Trustee, to the extent insured by an agency of the Federal or State government; and
- (iii) The Trustee is authorized to hold cash awaiting investment or distribution uninvested for a reasonable time and without liability for the payment of interest thereon.

*Section 7. Commingling and Investment.* The Trustee is expressly authorized in its discretion:

- (a) To transfer from time to time any or all of the assets of the Fund to any common, commingled, or collective trust fund created by the Trustee in which the Fund is eligible to participate, subject to all of the provisions thereof, to be commingled with the assets of other



trusts participating therein; and (b) To purchase shares in any investment company registered under the Investment Company Act of 1940, 15 U. S. C. 80a-1 *et seq.*, including one which may be created, managed, underwritten, or to which investment advice is rendered or the shares of which are sold by the Trustee. The Trustee may vote shares in its discretion.

*Section 8. Express Powers of Trustee.* Without in any way limiting the powers and discretions conferred upon the Trustee by the other provisions of this Agreement or by law, the Trustee is expressly authorized and empowered: (a) To sell, exchange, convey, transfer, or otherwise dispose of any property held by it, by public or private sale. No person dealing with the Trustee shall be bound to see to the application of the purchase money or to inquire into the validity or expediency of any such sale or other disposition; (b) To make, execute, acknowledge, and deliver any and all documents of transfer and conveyance and any and all other instruments that may be necessary or appropriate to carry out the powers herein granted; (c) To register any securities held in the Fund in its own name or in the name of a nominee and to hold any security in bearer form or in book entry, or to combine certificates representing such securities with certificates of the same issue held by the Trustee in other fiduciary capacities, or to deposit or arrange for the deposit of such securities in a qualified central depository even though, when so deposited, such securities may be merged and held in bulk in the name of the nominee of such depository with other securities deposited therein by another person, or to deposit or arrange for the deposit of any securities issued by the United States Government, or any agency or instrumentality thereof, with a Federal Reserve bank, but the books and records of the Trustee shall at all times show that all such securities are part of the Fund; (d) To deposit any cash in the Fund in interest-bearing accounts maintained or savings certificates issued by the Trustee, in its separate corporate capacity, or in any other banking institution affiliated with the Trustee, to the extent insured by an agency of the Federal or State government; and (e) To compromise or otherwise adjust all claims in favor of or against the Fund.

*Section 9. Taxes and Expenses.* All taxes of any kind that may be assessed or levied against or in respect of the Fund and all brokerage commissions incurred by the Fund shall be paid from the Fund. All other expenses incurred by the Trustee in connection with the administration of this Trust, including fees for legal services rendered to the Trustee, the compensation of the Trustee to the extent not paid directly by the Grantor, and all other proper charges and disbursements of the Trustee shall be paid from the Fund.

*Section 10. Annual Valuation.* The Trustee shall annually, at least 30 days prior to the anniversary date of establishment of the Fund, furnish to the Grantor and to the appropriate EPA Regional Administrator a statement confirming the value of the Trust. Any securities in the Fund shall be valued at market value as of no more than 60 days prior to the anniversary date of establishment of the Fund. The failure of the Grantor to object in writing to the Trustee within 90 days after the statement has been furnished to the Grantor and the EPA Regional Administrator shall constitute a conclusively binding assent by the Grantor, barring the Grantor from asserting any claim or liability against the Trustee with respect to matters disclosed in the statement.



*Section 11. Advice of Counsel.* The Trustee may from time to time consult with counsel, who may be counsel to the Grantor, with respect to any question arising as to the construction of this Agreement of any action to be taken hereunder. The Trustee shall be fully protected, to the extent permitted by law, in acting upon the advice of counsel.

*Section 12. Trustee Compensation.* The Trustee shall be entitled to reasonable compensation for its services as agreed upon in writing from time to time with the Grantor.

*Section 13. Successor Trustee.* The Trustee may resign or the Grantor may replace the Trustee, but such resignation or replacement shall not be effective until the Grantor has appointed a successor trustee and this successor accepts the appointment. The successor trustee shall have the same powers and duties as those conferred upon the Trustee hereunder. Upon the successor trustee's acceptance of the appointment, the Trustee shall assign, transfer, and pay over to the successor trustee the funds and properties then constituting the Fund. If for any reason the Grantor cannot or does not act in the event of the resignation of the Trustee, the Trustee may apply to a court of competent jurisdiction for the appointment of a successor trustee or for instructions. The successor trustee shall specify the date on which it assumes administration of the trust in a writing sent to the Grantor, the EPA Regional Administrator, and the present Trustee by certified mail 10 days before such change becomes effective. Any expenses incurred by the Trustee as a result of any of the acts contemplated by this Section shall be paid as provided in Section 9.

*Section 14. Instructions to the Trustee.* All orders, requests, and instructions by the Grantor to the Trustee shall be in writing, signed by such persons as are designated in the attached Exhibit A or such other designees as the Grantor may designate by amendment to Exhibit A. The Trustee shall be fully protected in acting without inquiry in accordance with the Grantor's orders, requests, and instructions. All orders, requests, and instructions by the EPA Regional Administrator to the Trustee shall be in writing, signed by the EPA Regional Administrators of the Regions in which the facilities are located, or their designees, and the Trustee shall act and shall be fully protected in acting in accordance with such orders, requests, and instructions. The Trustee shall have the right to assume, in the absence of written notice to the contrary, that no event constituting a change or a termination of the authority of any person to act on behalf of the Grantor or EPA hereunder has occurred. The Trustee shall have no duty to act in the absence of such orders, requests, and instructions from the Grantor and/or EPA, except as provided for herein.

*Section 15. Notice of Nonpayment.* The Trustee shall notify the Grantor and the appropriate EPA Regional Administrator, by certified mail within 10 days following the expiration of the 30-day period after the anniversary of the establishment of the Trust, if no payment is received from the Grantor during that period. After the pay-in period is completed, the Trustee shall not be required to send a notice of nonpayment.



*Section 16. Amendment of Agreement.* This Agreement may be amended by an instrument in writing executed by the Grantor, the Trustee, and the appropriate EPA Regional Administrator, or by the Trustee and the appropriate EPA Regional Administrator if the Grantor ceases to exist.

*Section 17. Irrevocability and Termination.* Subject to the right of the parties to amend this Agreement as provided in Section 16, this Trust shall be irrevocable and shall continue until terminated at the written agreement of the Grantor, the Trustee, and the EPA Regional Administrator, or by the Trustee and the EPA Regional Administrator if the Grantor ceases to exist. Upon termination of the Trust, all remaining trust property, less final trust administration expenses, shall be delivered to the Grantor.

*Section 18. Immunity and Indemnification.* The Trustee shall not incur personal liability of any nature in connection with any act or omission, made in good faith, in the administration of this Trust, or in carrying out any directions by the Grantor or the EPA Regional Administrator issued in accordance with this Agreement. The Trustee shall be indemnified and saved harmless by the Grantor or from the Trust Fund, or both, from and against any personal liability to which the Trustee may be subjected by reason of any act or conduct in its official capacity, including all expenses reasonably incurred in its defense in the event the Grantor fails to provide such defense.

*Section 19. Choice of Law.* This Agreement shall be administered, construed, and enforced according to the laws of the State of Pennsylvania.

*Section 20. Interpretation.* As used in this Agreement, words in the singular include the plural and words in the plural include the singular. The descriptive headings for each Section of this Agreement shall not affect the interpretation or the legal efficacy of this Agreement.

IN WITNESS WHEREOF the parties below have caused this Agreement to be executed by their respective representatives duly authorized and their seals to be hereunto affixed and attested as of the date first above written.

GRANTOR

Sliverville Oil Company, LLC

Jay Pecora

By: JAY J. PECORA

[Print name]

Its: Chief Executive Manager

[Title]

Attest:

Christine G. Buidick

Its: Operations

[Title]

[SEAL]

TRUSTEE

Hamlin Bank + Trust Company

Stacy Wallace

By: Stacy Wallace

[Print name]

Its: Trust Officer

[Title]

Attest:

Valerie L. Radtke

Its: Assistant Trust Officer

[Title]

[SEAL]

Before me came the individual whose identity I confirmed as Jay Pecora, and whose true signature is set forth above; wherefor have I set my hand and seal this 21<sup>st</sup> day of Dec., 2017.

Before me came the individual whose identity I confirmed as Stacy Wallace, and whose true signature is set forth above; wherefor have I set my hand and seal this 21<sup>st</sup> day of Dec., 2017.

Mischelle G. Heffner

COMMONWEALTH OF PENNSYLVANIA  
NOTARY PUBLIC  
Mischelle G. Heffner, Notary Public  
Smethport Boro, McKean County  
My Commission Expires Aug. 27, 2021  
MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES

Mischelle G. Heffner

COMMONWEALTH OF PENNSYLVANIA  
NOTARY PUBLIC  
Mischelle G. Heffner, Notary Public  
Smethport Boro, McKean County  
My Commission Expires Aug. 27, 2021  
MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES

( ) This bank/institution has the authority to act as trustee and its trust activities are examined and regulated by a State or Federal agency.

US EPA ARCHIVE DOCUMENT



## SCHEDULE A

### Identification of Facilities and Cost Estimates

Schedule A is referenced in the Standby Trust Agreement dated 12/21/2017 by and between Sliverville Oil Company, LLC, the "Grantor" and Hamlin Bank Trust Co, the "Trustee."

(Name of owner or operator)

(Name of trustee)

EPA identification number

Name of facility

Evans Well 106 API: 37-083-56582-00-00

Address of facility

41° 52' 17.6" -78° 41' 33.9"

Current plugging and abandonment cost estimate

Date of estimate

EPA identification number

NA

Name of facility

NA

Address of facility

NA

NA

Current plugging and abandonment cost estimate

NA

Date of estimate

NA

# APPENDIX A

## Completion Reports and Well Reports

### Completion Reports

083-23515  
083-23516  
083-55911  
083-56579  
083-56580  
083-56581  
083-56582  
083-56583  
083-56584  
083-56585

### Location Plats

083-23515  
083-55911  
083-56579  
083-56580  
083-56581  
083-56582  
083-56583  
083-56584  
083-56585  
083-56586

### Plugging Certificates

083-23515  
083-23516  
083-40575



# Completion Reports

DM--OG---11-57

# COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF MINES

Oil and Gas Division  
HARRISBURG

083-23515

QUADRANGLE: Bradford ☐ 7 1/2' ☒ 15'

PERMIT NO. MRO-14 McK3515

MAP REFERENCE: Topo. Project

KIND OF WELL: Water  
(OIL, GAS, OTHER)

## WELL RECORD

COMPANY: Minard Run Oil Company

ADDRESS: P. O. Box 18, Bradford Pa.

FARM Flood 3 ACRES 150 \* see below

WELL (FARM) NO. #3A-2 CO. SERIAL NO. \_\_\_\_\_

ELEVATION: 1778' LEASE: \_\_\_\_\_

TOWNSHIP: Lafayette COUNTY: McKean

DRILLING COMMENCED: 6/16/66 DRILLING COMPLETED: 7/22/66

PRODUCTION: \_\_\_\_\_

ROCK PRESSURE: \_\_\_\_\_ psig. \_\_\_\_\_ hrs.

WELL TREATMENT: (Shooting, Acidizing, Fracturing, Etc.)

Hydrafrac

CEMENTING DATA: (Size Pipe, Depth, No. Bags, Date)

1 1/2" pipe

104' 6" = 20 bags

7/14/66

RESULTS AFTER TREATMENT: \_\_\_\_\_

ROCK PRESSURE AFTER TREATMENT: \_\_\_\_\_

REMARKS:

\* Part of Wt. 3902 and Wt. 2265 of 2,337 acres.

FORMATION	TOP	BOTTOM	GAS AT	OIL AT	WATER AT (Fresh or Salt Water)	REMARKS
Earth wash	0	5				
Sand	5	90				
Slate & lime shells	90	145				
Slate & sand lime	145	215				
Slate & lime shells	215	266				
Shale	266	408				
Slate	408	416				
Shale	416	543				
Slate & lime	543	630				
Slate	630	640				
Slate & lime shells	640	890				
Shale	890	945				
Slate	945	1010				
Slate & lime	1010	1180				
Sand	1180	1217				
Sandy lime	1217	1255				

RECEIVED  
AUG 17 1966  
GEOLOGIC SURVEY

(Over)



FORMATION	TOP	BOTTOM	GAS AT	OIL AT	WATER AT (Fresh or Salt Water)	REMARKS
Lime shells	1255	1285				
Slate & lime shells	1285	1380				
Sand	1380	1390				
Slate & lime	1390	1457				
Slate	1457	1482				
Sandy lime	1482	1504				
Slate	1504	1518				
Sand	1518	1530				
Slate	1530	1600				
Slate & lime	1600	1699				
Lime	1699	1752				
Slate & lime	1752	1778				
Sand	1778	1793				
Slate	1793	1844				
Sand	1844	1858				
Slate	1858	1872				

7.0.

Date August 11, 1966, 19

APPROVED MINARD RUN OIL COMPANY, Owner

By *E. J. Beck*  
Vice President for  
Production & Engineering

SAVED TO DISK BY  
8/11/66 10:00 AM  
0377 10013

COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF MINESOil and Gas Division  
HARRISBURGQUADRANGLE: Bradford ☐ 7 1/2' ☒ 15'PERMIT NO. MR0-14 McK-3512MAP REFERENCE: Topo. ProjectKIND OF WELL: Water  
(OIL, GAS, OTHER)

## WELL RECORD

COMPANY: Minard Run Oil CompanyADDRESS: P.O. Box 18 - Bradford, Pa. 16701FARM Flood #3 WARRANT 2268 ACRES 150 belwo \* seeWELL (FARM) NO. #3A-3 CO. SERIAL NO.ELEVATION: 1922' LEASE:TOWNSHIP: Lafayette COUNTY: McKean  
DRILLING COMMENCED: 7/26/66 DRILLING COMPLETED: 8/27/66

PRODUCTION:

ROCK PRESSURE: \_\_\_\_\_ psig. \_\_\_\_\_ hrs.

WELL TREATMENT: (Shooting, Acidizing, Fracturing, Etc.)

Hydrafrac

RESULTS AFTER TREATMENT:

ROCK PRESSURE AFTER TREATMENT:

REMARKS:

\* Part of Wt. 3903 and Wt. 2265 of 2,337 acres

7/26/66

FORMATION	TOP	BOTTOM	GAS AT	OIL AT	WATER AT (Fresh or Salt Water)	REMARKS
Earth wash	0	5				
Slate	5	15				
Sand	15	20				
Crevice	20	25				
Slate	25	100				
Sand & crevice	100	130				
Slate	130	155				
Sand	155	165				
Slate	165	205				
Sandy lime	205	215				
Lime shells & slate	215	320				
Sand	320	333				
Slate & lime shells	333	395				
Shale	395	406				
Sand	406	420				
Lime	420	435				
Shale	435	520				

RECEIVED

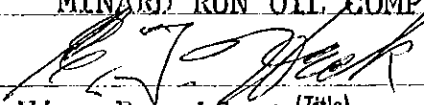
SEP 21 1966

GEOLOGIC SURVEY

(Over)



FORMATION	TOP	BOTTOM	GAS AT	OIL AT	WATER AT (Fresh or Salt Water)	REMARKS
Slate	520	550				
Sand & lime	550	580				
Red rock	580	600				
Lime	600	630				
Shale	630	690				
Lime	690	700				
Shale & lime shells	700	722				
Snad	722	732				
Slate & lime	732	790				
Shale	790	805				
Slate & lime shells	805	965				
Shale	965	1103				
Slate & lime shells	1103	1260				
Slate	1260	1308				
Sandy lime	1308	1338				
Slate	1338	1345				
Sand	1345	1385				
Slate & lime shells	1385	1445				
Sandy lime	1445	1495				
Slate	1495	1519				
Lime	1519	1556				
Slate & lime shells	1556	1626				
Sand	1626	1641				
Slate	1641	1662				
Sand	1662	1674				
Slate & lime shells	1674	1922				
Sand	1922	1933				
Slate	1933	1986				
Sand	1986	1997				
Slate	1997	2012				

Date September 3, 19 66APPROVED MINARD RUN OIL COMPANY, OwnerBy   
Vice President (Title)  
Production & Engineering



**pennsylvania**  
DEPARTMENT OF ENVIRONMENTAL  
PROTECTION

For assistance in accessing this document, please contact: R3\_UIC\_Mailbox@epa.gov

COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS MANAGEMENT

## Well Record

DEP USE ONLY	
Site ID	Client Id
Client Id	Sub Facility Id

### WELL INFORMATION

Well Operator Horizontal Exploration, LLC		DEP ID# 298987	Well API # 37-083-55911-00-00		Well Farm Name Swamp Angel	Well # 3-HF2
Address 665 Philadelphia St. Suite 010		LAT 41°52' 18"		NAD 83	Project Number OEI-1	Serial #
City Indiana		LONG - 78°41' 29"			County McKean	
State PA	Zip 15701	Municipality Lafayette		USGS 7.5 min. quadrangle map Lewis Run		Section 2
Phone 724-349-6690	Fax 724-349-6711	Email				

Check the appropriate Submission: ☒ Original Well Record ☐ Amended Well Record

Well Type	<input type="checkbox"/> Gas <input type="checkbox"/> Oil <input checked="" type="checkbox"/> Combination Oil & Gas <input type="checkbox"/> CBM <input type="checkbox"/> Injection <input type="checkbox"/> Disposal <input type="checkbox"/> Storage	Wellbore Conditioning: 10 BBL Water/LCM 20 BBL 9/GL Gel 200 LCM
Well Orientation	<input checked="" type="checkbox"/> Vertical <input type="checkbox"/> Deviated from Vertical (Top & Side views & Deviation Survey must be attached)	
Drill Method(s)	<input checked="" type="checkbox"/> Rotary - Air <input type="checkbox"/> Rotary - Mud <input type="checkbox"/> Cable Tool <input type="checkbox"/> Other	
Drilling Started 3-14-2013	Surface Elev. 2096 ft. GW Depth 0 ft.	
Drilling Complete 3-18-2013	True Vertical Depth 2100 ft. Depth of DFGW 0 ft.	
Date Well Completed 3-20-2013	Total Measured Depth 2103 ft. DFGW decided by: 0	

### CEMENT

Cement returned on surface casing? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If No, provide depth to top of cement and method used to determine:
Cement returned on coal protective casing? <input type="checkbox"/> Yes <input type="checkbox"/> No	If No, provide depth to top of cement and method used to determine: <input type="checkbox"/> NA
Cement returned on intermediate casing? <input type="checkbox"/> Yes <input type="checkbox"/> No	If No, provide depth to top of cement and method used to determine: <input type="checkbox"/> NA

Casing String	Type/Class of Cement (Lead/Tail)	Slurry Temp F°	Amount of Cement (sks) (Lead/Tail/Total)	WOC hrs	WT PPG	Yd m3 /sk	Gas Migration Controls Used
Conductor	Sanded In / N/A	°	/ /				What controls were used if any (additives/ hardware. Specify type and depth applicable).
Surface	Type I /	35 °	/ / 100				
Coal Protective	/	°	/ /				
Intermediate	/	°	/ /				
Production	/	°	/ /				
	/	°	/ /				
If additional strings attach form(s)			Total				

### CASING AND TUBING

Hole Size	Pipe Size	Wt. #/ft.	Grade Casing / Tubing Type	Thread / Weld - New/ Used	Amount in Well (ft.)	CO	R	Hardware - Baskets / Packer / Centralizers (Total/String)			Date Run
								Type	Size	Depth	
12.25	9 5/8	32	J-55	X -	53	US	N	N/A			3-14-13
8 7/8	7"	20	J-55	X -	520	US	N	Guide Shoe	1/7	520	3-15-13
				-				Centralizers	4/7	480-120	3-15-13
				-							
				-							

If any casing is welded, provide the name(s) of the welder(s):

### PLUG-BACK/WELLBORE ALTERATION

Fill Material & Plugs	Depth		Date	Casing & Tubing	
	From	To		Size	Pulled

ENVIRONMENTAL PROTECTION  
WARREN DISTRICT OFFICE



# LOG OF FORMATIONS

Well API#: 37-083-55911-00-00

(If you will need more space than this page, please photocopy the blank form before filling it in.)

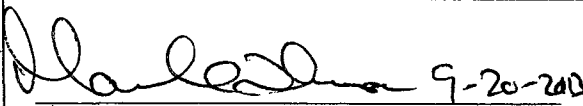
Formation Name or Lithology	Top (feet)	Bottom (feet)	Gas at (feet)	Oil at (feet)	Water at (fresh / brine; ft.)	Source of Data
Dirt/Rock	0	30				Drillers Log
Shale	30	210				
Red Rock	210	240				
Red Rock/Shale	240	270				
Red Rock	270	330				
Red Rock/Shale	330	360				
Sand/Shale	360	390				
Shale	390	480				
Shale/Red Rock	480	540				
Shale	540	1440				
Sand/Shale	1440	1470				
Shale	1470	1710				
Sand/Shale	1710	1740				
Sand/3 <sup>rd</sup> Bradford	1740	1800				
Shale	1800	1890				
Sand/Lewis Run	1890	1920				
Shale	1920	2100				
TD	2100					

If no show of oil, gas or water, explain why:

## WELL SERVICE COMPANIES (Provide the name, address, and telephone number of all well service companies involved.)

Casing Source	Cementing Company	Hardware Supplier	Logging Company
Name Fairmont Supply	Name R&R Ventures LTD	Name R&R Ventures LTD	Name Penn Gold
Address 140 Doran Rd	Address 15640 Tionesta Rd.	Address 15640 Tionesta Rd.	Address 7 Main St.
City - State - Zip WARREN PA 16365	City - State - Zip PLEASANTVILLE PA 16341	City - State - Zip PLEASANTVILLE PA 16341	City - State - Zip BRADFORD PA 16701
Phone 814-723-3200	Phone 814-589-7051	Phone 814-589-7051	Phone 814-3687119

I do hereby certify to the best of my knowledge, information and belief that the well identified on this Well Record has been properly cased and cemented in accordance with the requirements of 25 Pa. Code Chapter 78 and any conditions contained in the permit for this well. In addition, I do hereby certify that any casing which is attached to a blow-out preventer with a pressure rating greater than 3,000 psi has passed a pressure test in accordance with 25 Pa. Code §78.84(f). I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Driller	Well Operator's Signature	DEP USE ONLY
Name Howard Drilling	 Printed Name / Title: Mark A. Thompson / President	Reviewed by:
Rig 1		
Address 59 Howard Lane		
City - State - Zip MOUNT JEWETT PA 16740		
Phone 8147786196	Date: 9-19-13	Comments: T. Aug 12-26-13



**pennsylvania**  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS MANAGEMENT

## Completion Report

DEP USE ONLY	
Site ID	Primary Facility ID
Client ID	Sub Facility Id

Well Information							
Well Operator Horizontal Exploration, LLC		DEP ID# 298987	Well API # 37 - 083-55911-00-00		Well Farm Name Swamp Angel		Well # 3-HF2
Address 665 Philadelphia St. Suite 010			LAT - 41° 52' 18.07"	NAD 83	Project Number OEI-1		Serial #
			LONG - 78° 41' 29.08"				
City Indiana	State PA	Zip Code 15701	Municipality Lafayette		County McKean		
Phone 724-3496690	Fax 724-349-6911		Email		USGS 7.5 min. quadrangle map Lewis Run		Section 2
Check the appropriate submission: <input checked="" type="checkbox"/> Original Completion Report <input type="checkbox"/> Amended Completion Report							
STIMULATION BASE FLUID							
List Water Management Plan Source(s)			Water Management Plan ID		Volume (Gallons)		
1. N/A			<div style="border: 2px solid black; padding: 10px; text-align: center;"> <b>RECEIVED</b>   <b>SEP 27 2013</b>             Environmental Protection Northwest Regional Office         </div>				
2.							
3.							
4.							
5.							
6.							
			DEP Biologist Review/Date	Total Gallons of Water Used	Water	Recycled	
Other Base Fluid(s) Used						Quantity and /UOM	
1.						/	
2.						/	
Total Quantity all Fluid(s)						/	
STIMULATION/PRODUCTION INFORMATION (WELL)							
Radioactive tracers used? <input type="checkbox"/>		24 Hr. Open-Flow (MCF/Day) / Date N/A /		24 Hr. Shut-in Pressure/ Date N/A /		Completion Date: 3-27-13	
Specify Tracer							
Well Products:	<input checked="" type="checkbox"/> Gas Btu	<input checked="" type="checkbox"/> Oil API G	<input type="checkbox"/> Condensate API G	<input type="checkbox"/> Other	<input type="checkbox"/> GOR		
WELL SERVICE COMPANIES							
Perforation Company		Frac Company		Plug Drill Out/Flow Back Company			
Name S.W. Neilly Corp.		Name Howard Drilling		Name			
Address 350 Minard Run		Address 59 Howard Lane		Address			
City - State - Zip Bradford, PA 16701		City - State - Zip Mt. Jewett, PA 16740		City - State - Zip			
Phone 814-362-4443		Phone 814-778-6196		Phone			
I do hereby certify to the best of my knowledge, information and belief that the information contained on this Completion Report is true and correct. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.							
Well Operator's Signature				DEP USE ONLY			
 Printed Name / Title: Mark A. Thompson / President				Reviewed by:  Date: 12-26-13			
				Comments: <b>RECEIVED</b>			



**Rev. 5/2012**

Well API# 37-083-55911-00-00

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Please insert additional copies of this page if additional rows/stages are needed.

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Well API# 37-083-95911-00-00

**STIMULATION INFORMATION / STAGE**

Complete a separate record for each stimulation stage. (Please insert additional lines for additional stages or additional pages as applicable).

Stg #	Stimulation Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Proppant Type	Proppant Mesh Size(s)
1	3/27/2013	20	1,700	2,300	950	Sand	20/40
2	3/27/2013	20	1,600	1,250	1,000	Best Sand	20/40
3	3/27/2013	15	1,800	1,750	1,100	Best Sand	20/40
4	3/27/2013	20	1,800	1,800	1,100	Best Sand	20/40
5	3/27/2013	20	2,000	1,100	1,550	Best Sand	20/40
6	3/27/2013	20	2,800	2,000	1,500	Best Sand	20/40
7	3/27/2013	18	1,900	2,100	1,450	Best Sand	20/40
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COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS MANAGEMENT

# Well Record

DEP USE ONLY	
Site ID	Client ID
Client ID	Sub Facility ID

## WELL INFORMATION

Well Operator Pecora Enterprises		DEP ID# 22321	Well API # 37-083-56579- -		Well Farm Name Evans	Well # 103
Address 42 Parkway Lane			LAT 41°52' 24"	NAD 83	Project Number	Serial #
City Bradford			State PA	Zip 16701	County McKean	
Phone 814-368-8480	Fax 814-368-8480	Email rattler7@verizon.net			USGS 7.5 min. quadrangle map Lewis Run	Section 2

Check the appropriate Submission: ☒ Original Well Record ☐ Amended Well Record

Well Type	<input type="checkbox"/> Gas <input checked="" type="checkbox"/> Oil <input type="checkbox"/> Combination Oil & Gas <input type="checkbox"/> CBM <input type="checkbox"/> Injection <input type="checkbox"/> Disposal <input type="checkbox"/> Storage	Wellbore Conditioning:
Well Orientation	<input checked="" type="checkbox"/> Vertical <input type="checkbox"/> Deviated from Vertical (Top & Side views & Deviation Survey must be attached)	
Drill Method(s)	<input checked="" type="checkbox"/> Rotary - Air <input type="checkbox"/> Rotary - Mud <input type="checkbox"/> Cable Tool <input type="checkbox"/> Other	
Drilling Started 9/5/2014	Surface Elev. 2140 ft.	
Drilling Complete 9/9/2014	True Vertical Depth 1740 ft.	Depth of DFGW 70 ft.
Date Well Completed 9/25/2014	Total Measured Depth 1738 ft.	DFGW decided by: 0

## CEMENT

Cement returned on surface casing?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If No, provide depth to top of cement and method used to determine:
Cement returned on coal protective casing?	<input type="checkbox"/> Yes <input type="checkbox"/> No	If No, provide depth to top of cement and method used to determine: <input checked="" type="checkbox"/> NA
Cement returned on intermediate casing?	<input type="checkbox"/> Yes <input type="checkbox"/> No	If No, provide depth to top of cement and method used to determine: <input checked="" type="checkbox"/> NA

Casing String	Type/Class of Cement (Lead/Tail)	Slurry Temp F°	Amount of Cement (sks) (Lead/Tail/Total)	WOC hrs	Wt PPG	Yld #3 /sk	Gas Migration Controls Used
Conductor	/ sanded in	0 °	/ /		0	0	What controls were used if any (additives/ hardware. Specify type and depth applicable).  OCT 02 2014
Surface	Type 1 / Class A	60 °	/ / 65	14	15	1	
Coal Protective	/	°	/ /				
Intermediate	/	°	/ /				
Production	/	°	/ /				
If additional strings attach form(s)			Total				

## CASING AND TUBING

Hole Size	Pipe Size	Wt. #/ft.	Grade Casing / Tubing Type	Thread / Weld - New/ Used	Amount in Well (ft.)	CO	R	Hardware - Baskets / Packer / Centralizers (Total/String)	Depth	Date Run
12.25	9 5/8	32.3#	2720	T - N	38				9 5/8	9/5/2014
8 3/4	6 5/8	23#	1620	T - N	423			Guide shoe and centralizers 50'	6 5/8	9/6/2014
6.25	4.5	17#	1400	T - U	488			Packer	4.5	9/25/2014
6.25	2.375	4.9#	1800	T - U	1703			Pump barrel	2.375	9/25/2014

If any casing is welded, provide the name(s) of the welder(s):

## PLUG-BACK/WELLBORE ALTERATION

Fill Material & Plugs	Depth		Date	Casing & Tubing		
	From	To		Size	Pulled	Left
RECEIVED						
OCT 06 2014						

ENVIRONMENTAL PROTECTION  
WARREN DISTRICT OFFICE

## LOG OF FORMATIONS

Well API#: 37-083-56579-\_\_-\_\_

(If you will need more space than this page, please photocopy the blank form before filling it in.)

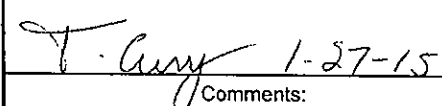
Formation Name or Lithology	Top (feet)	Bottom (feet)	Gas at (feet)	Oil at (feet)	Water at (fresh / brine; ft.)	Source of Data
Dirt/Sand stone	-----0	30				driller's log
shale	30	300				
shale/red rock	300	390			F 70	
red rock	390	450				
shale	450	510				
shale/red rock	510	540				
shale	540	630				
shale/Venango sand/shale	630	660				
shale	660	930				
shale/red rock	930	960				
red rock	960	990				
shale	990	1320				
shale/ Bradford 2 <sup>nd</sup> sand	1320	1380				
shale	1380	1500				
shale/broken sand	1500	1530				
shale	1530	1740				

If no show of oil, gas or water, explain why:

## WELL SERVICE COMPANIES (Provide the name, address, and telephone number of all well service companies involved.)

Casing Source	Cementing Company	Hardware Supplier	Logging Company
Name Bradford Pipe	Name Howard Drilling, LLC	Name	Name Gemini Wireline
Address 230 Chestnut St.	Address P O BOX N	Address	Address 344 High St
City - State - Zip BRADFORD Pa 16701	City - State - Zip MT JEWETT PA 16740	City - State - Zip	City - State - Zip BRADFORD Pa 16701
Phone 814 362-6501	Phone 814-778-5820	Phone	Phone -8143620230

I do hereby certify to the best of my knowledge, information and belief that the well identified on this Well Record has been properly cased and cemented in accordance with the requirements of 25 Pa. Code Chapter 78 and any conditions contained in the permit for this well. In addition, I do hereby certify that any casing which is attached to a blow-out preventer with a pressure rating greater than 3,000 psi has passed a pressure test in accordance with 25 Pa. Code §78.84(f). I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

<b>Driller</b>		<b>Well Operator's Signature</b>		<b>DEP USE ONLY</b>	
Name Howard Drilling, LLC	Rig	Printed Name / Title: Jay J. Pecora / Partner Date: 9/23/2014		Reviewed by:	
Address P O Box N				 Comments:	
City - State- Zip MT JEWETT PA 16740					
Phone 814-778-5820					



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DEPARTMENT OF ENVIRONMENTAL PROTECTION

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DEPARTMENT OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS MANAGEMENT

## Completion Report

DEP USE ONLY	
Site ID	Primary Facility ID
Client ID	Sub Facility ID

Well Information					
Well Operator Pecora Enterprises		DEP ID# 22321	Well API # 37 - 083-56579- -		Well Farm Name Evans
Address 42 Parkway Lane		LAT - 41° 52' 24.63" LONG - 78° 41' 43.91"		NAD 83	Well # 103
City Bradford		State PA	Zip Code 16701	Project Number Serial #	
Municipality Lafayette		County McKean		Section 2	
Phone 814-368-8480		Fax 814-368-8480	Email ratter7@verizon.nett		USGS 7.5 min. quadrangle map Lewis Run
Check the appropriate submission: <input checked="" type="checkbox"/> Original Completion Report <input type="checkbox"/> Amended Completion Report					
STIMULATION BASE FLUID					
List Water Management Plan Source(s)		Water Management Plan ID		Volume (Gallons)	
1. N/A					
2.					
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5.					
6.					
DEP Biologist Review/Date		Total Gallons of Water Used		Water	Recycled
Other Base Fluid(s) Used					Quantity and /UOM
1.					/
2.					/
Total Quantity all Fluid(s)					/
STIMULATION/PRODUCTION INFORMATION (WELL)					
Radioactive tracers used? <input type="checkbox"/> Specify Tracer		24 Hr. Open-Flow (MCF/Day) / Date we don't do this /		24 Hr. Shut-in Pressure: / Date WE Don't do this /	
Completion Date: 9/23/2014					
Well Products: <input type="checkbox"/> Gas Btu		<input checked="" type="checkbox"/> Oil API G		<input type="checkbox"/> Condensate API G	
<input type="checkbox"/> Other		<input type="checkbox"/> GOR			
WELL SERVICE COMPANIES					
Perforation Company		Frac Company		Plug Drill Out/Flow Back Company	
Name S W Neilly Corp, AIR NOTCHING Company		Name Howard Drilling, LLC		Name	
Address 350 Minard Run PO BOX 414		Address P O BOX N		Address	
City - State - Zip Bradford, PA 16701		City - State - Zip Mt Jewett, PA 16740		City - State - Zip	
Phone 814-362-4443		Phone 814-778-5820		Phone	
I do hereby certify to the best of my knowledge, information and belief that the information contained on this Completion Report is true and correct. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.					
Well Operator's Signature		DEP USE ONLY			
Reviewed by:		Date:			
Comments:		12-3-14			
Printed Name / Title Jay J. Pecora / Partner		Date: 10/9/2014			

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DEPARTMENT OF ENVIRONMENTAL PROTECTION  
WARREN DISTRICT OFFICE



—

Trial	Control (n=10)	MCI (n=10)	AD (n=10)
1	95	85	75
2	95	85	75
3	95	80	70
4	95	75	65
5	95	75	65

~~007 15 2014~~

ENVIRONMENTAL PROTECTION  
WATER DISTRICT OFFICE

Well API# 37-083-56579-\_\_-\_\_

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Please insert additional copies of this page if additional rows are needed.

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U.S. DEPARTMENT OF JUSTICE

Well API# 37-083-56579- -

**STIMULATION INFORMATION / STAGE**

Complete a separate record for each stimulation stage. (Please insert additional lines for additional stages or additional pages as applicable).

Stg #	Stimulation Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Proppant Type	Proppant Mesh Size(s)
1	9/23/2014	20	1,150	1,730	609	20/40	80 sacks
2	9/23/2014	20	1,450	2,350	595	20/40	80 sacks
3	9/23/2014	20	1,600	2,350	798	20/40	80 sacks
4	9/23/2014	20	1,700	1,180	857	20/40	80 sacks
5	9/23/2014	20	1,750	1,220	1,051	20/40	80 sacks
6	9/23/2014	20	2,100	2,330	1,096	20/40	80 sacks
7	9/23/2014	20	1,900	1,600	876	20/40	80 sacks
8	9/23/2014	20	2,000	1,870	1,130	20/40	80 sacks
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ENVIRONMENTAL PROTECTION  
WARREN DISTRICT OFFICE





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PROTECTION

COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS MANAGEMENT

2324173

## Well Record

DEP USE ONLY	
Site ID	Client Id
Client Id	Sub Facility Id

## WELL INFORMATION

Well Operator Pecora Enterprises	DEP ID# 22321	Well API # 37-083-56580-	Well Farm Name Evans	Well # 104
Address 42 Parkway Lane		LAT 41°52' 25" LONG - 78°41' 38"	Project Number	Serial #
City Bradford	State PA	Zip 16701	Municipality Lafayette	County McKean
Phone 814-368-8480	Fax 814-368-8480	Email rattler7@verizon.net	USGS 7.5 min. quadrangle map Lewis Run	Section 2

Check the appropriate Submission: ☒ Original Well Record ☐ Amended Well Record

Well Type	<input type="checkbox"/> Gas <input checked="" type="checkbox"/> Oil <input type="checkbox"/> Combination Oil & Gas <input type="checkbox"/> CBM <input type="checkbox"/> Injection <input type="checkbox"/> Disposal <input type="checkbox"/> Storage	Wellbore Conditioning:
Well Orientation	<input checked="" type="checkbox"/> Vertical <input type="checkbox"/> Deviated from Vertical (Top & Side views & Deviation Survey must be attached)	
Drill Method(s)	<input checked="" type="checkbox"/> Rotary - Air <input type="checkbox"/> Rotary - Mud <input type="checkbox"/> Cable Tool <input type="checkbox"/> Other	
Drilling Started 9/10/2014	Surface Elev. 2102 ft.	
Drilling Complete 9/12/2014	True Vertical Depth 2250 ft.	GW Depth 100 ft.
Date Well Completed 9/29/2014	Total Measured Depth 2250 ft.	DFGW decided by: 0

## CEMENT

Cement returned on surface casing? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If No, provide depth to top of cement and method used to determine:
Cement returned on coal protective casing? <input type="checkbox"/> Yes <input type="checkbox"/> No	If No, provide depth to top of cement and method used to determine: <input checked="" type="checkbox"/> NA
Cement returned on intermediate casing? <input type="checkbox"/> Yes <input type="checkbox"/> No	If No, provide depth to top of cement and method used to determine: <input checked="" type="checkbox"/> NA

Casing String	Type/Class of Cement (Lead/Tail)	Slurry Temp F°	Amount of Cement (sks) (Lead/Tail/Total)	WOC hrs	WT PPG	Yd /#3 /sk	Gas Migration Controls Used
Conductor	/ sanded in	0 °	/ /		0	0	What controls were used if any (additives/ hardware. Specify type and depth applicable).
Surface	Type 1 / Class A	59 °	/ / 70	14	15	1	
Coal Protective	/	°	/ /				
Intermediate	/	°	/ /				
Production	/	°	/ /				
	/	°	/ /				
If additional strings attach form(s)			Total				

## CASING AND TUBING

Hole Size	Pipe Size	Wt. #/ft.	Grade Casing / Tubing Type	Thread / Weld - New/ Used	Amount in Well (ft.)	CO	R	Hardware - Baskets / Packer / Centralizers (Total/String)	Size	Depth	Date Run
12.25	9 5/8	32.3#	2720	T - N	52				9 5/8	52.7	9/10/2014
8 3/4	7	23#	1620	T - N	419			Guide shoe and centralizers 50'	7	419	9/10/2014
6.25	4.5	17#	1400	T - U	518			Packer	4.5	518	9/29/2014
6.25	2.375	4.9#	1800	T - U	1965			Pump barrel	2.375	1965	9/29/2014

If any casing is welded, provide the name(s) of the welder(s):

## PLUG-BACK/WELLBORE ALTERATION

Fill Material & Plugs	Depth		Date	Casing & Tubing		
	From	To		Size	Pulled	Left

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OCT 27 2014

ENTERED BY: [illegible]  
DATE: 10/1/2014

## LOG OF FORMATIONS

Well API#: 37-083-56580-\_\_-\_\_

(If you will need more space than this page, please photocopy the blank form before filling it in.)

Formation Name or Lithology	Top (feet)	Bottom (feet)	Gas at (feet)	Oil at (feet)	Water at (fresh / brine; ft.)	Source of Data
Dirt/Sand stone	-----0	30				driller's log
sand/shale	30	60				
shale	60	240				
shale/red rock	240	270				
red rock	270	390				
shale/red rock	390	420				
shale	420	540				
shale/red rock	540	570				
shale	570	600				
shale/Venango sand	600	630				
shale	630	930				
shale/red rock	930	960				
red rock/shale	960	990				
shale	990	1200				
shale/Bradford first sand	1200	1230				
shale	1230	1290				
shale/Bradford first sand	1290	1320				
shale	1320	1770				
shaleBradford third sand	1770	1800				
Bradford third sand	1800	1830				
shale	1830	1920				
shale/Lewis Run sand	1920	1950				
shale	1950	2250				

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BRADFORD COUNTY  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
STATE OF PENNSYLVANIA

If no show of oil, gas or water, explain why:

## WELL SERVICE COMPANIES (Provide the name, address, and telephone number of all well service companies involved.)

Casing Source	Cementing Company	Hardware Supplier	Logging Company
Name Bradford Pipe	Name Howard Drilling, LLC	Name	Name Nabors
Address 230 Chestnut St.	Address P O BOX N	Address	Address 344 High St
City - State - Zip BRADFORD Pa 16701	City - State - Zip MT JEWETT PA 16740	City - State - Zip	City - State - Zip BRADFORD Pa 16701
Phone 814 362-6501	Phone 814-778-5820	Phone	Phone -8143620230

I do hereby certify to the best of my knowledge, information and belief that the well identified on this Well Record has been properly cased and cemented in accordance with the requirements of 25 Pa. Code Chapter 78 and any conditions contained in the permit for this well. In addition, I do hereby certify that any casing which is attached to a blow-out preventer with a pressure rating greater than 3,000 psi has passed a pressure test in accordance with 25 Pa. Code §78.84(f). I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

<b>Driller</b>		<b>Well Operator's Signature</b>		<b>DEP USE ONLY</b>	
Name Howard Drilling, LLC	Rig			Reviewed by:	
Address P O Box N					
City - State - Zip MT JEWETT PA 16740					
Phone 814-778-5820					
		Printed Name / Title: Jay J. Pecora / Partner		Date: 9/23/2014	
				Comments:	



COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS MANAGEMENT

DEP USE ONLY	
Site ID	Primary Facility ID
Client ID	Sub Facility ID

## Completion Report

Well Information							
Well Operator Pecora Enterprises		DEP ID# 22321	Well API # 37 - 083-56580- -		Well Farm Name Evans		Well # 104
Address 42 Parkway Lane		LAT - 41° 52' 25.98"		NAD 83	Project Number		Serial #
City Bradford		State PA	Zip Code 16701	Municipality Lafayette		County McKean	
Phone 814-368-8480	Fax 814-368-8480	Email raller7@verizon.nett		USGS 7.5 min. quadrangle map Lewis Run		Section 2	
Check the appropriate submission: <input checked="" type="checkbox"/> Original Completion Report <input type="checkbox"/> Amended Completion Report							
STIMULATION BASE FLUID							
List Water Management Plan Source(s)				Water Management Plan ID		Volume (Gallons)	
1. N/A							
2.							
3.							
4.							
5.							
6.							
DEP Biologist Review/Date				Total Gallons of Water Used		Water	Recycled
Other Base Fluid(s) Used						Quantity and /UOM	
1.						/	
2.						/	
Total Quantity all Fluid(s)						/	
STIMULATION/PRODUCTION INFORMATION (WELL)							
Radioactive tracers used? <input type="checkbox"/>		24 Hr. Open-Flow (MCF/Day) / Date we don't do this /		24 Hr. Shut-in Pressure: / Date WE Don't do this /		Completion Date: 9/26/2014	
Specify Tracer							
Well Products: <input type="checkbox"/> Gas Btu		<input checked="" type="checkbox"/> Oil API G		<input type="checkbox"/> Condensate API G		<input type="checkbox"/> Other	
						<input type="checkbox"/> GOR	
WELL SERVICE COMPANIES							
Perforation Company		Frac Company		Plug Drill Out/Flow Back Company			
Name S W Neilly Corp, AIR NOTCHING Company		Name Howard Drilling, LLC		Name			
Address 350 Minard Run PO BOX 414		Address P O BOX N		Address			
City - State- Zip Bradford, PA 16701		City - State - Zip Mt Jewett, PA 16740		City - State - Zip			
Phone 814-362-4443		Phone 814-778-5820		Phone			
I do hereby certify to the best of my knowledge, information and belief that the information contained on this Completion Report is true and correct. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.							
Well Operator's Signature				DEP USE ONLY			
				Reviewed by:			
				Date:			
Printed Name / Title: Jay J. Pecora / Partner				Comments:			
Date: 10/9/2014				12-3-14			

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DEPARTMENT OF ENVIRONMENTAL PROTECTION  
WARREN DISTRICT OFFICE



Well API# 37-083-56580-\_\_-\_\_

## PERFORATION RECORD

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ADMINISTRATIVE PROTECTION  
DISTRICT OFFICE

Well API# 37-083-56580-\_\_\_\_-\_\_\_\_

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Please insert additional copies of this page if additional rows are needed.

Well API# 37-083-56580- -

**STIMULATION INFORMATION / STAGE**

Complete a separate record for each stimulation stage. (Please insert additional lines for additional stages or additional pages as applicable).

Stg #	Stimulation Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Proppant Type	Proppant Mesh Size(s)
1	9/26/2014	20	1,450	2,100	960	20/40	65 sacks
2	9/26/2014	20	1,550	1,410	950	20/40	65 sacks
3	9/26/2014	20	1,605	1,631	1,122	20/40	65 sacks
4	9/26/2014	20	1,700	1,180	1,042	20/40	65 sacks
5	9/23/2014	20	1,980	1,367	1,021	20/40	65 sacks
6	9/26/2014	20	2,250	3,500	1,387	20/40	65 sacks
7	9/26/2014	20	2,480	1,600	1,048	20/40	65 sacks
8	9/26/2014	20	2,480	1,850	1,238	20/40	65 sacks
9	9/26/2014	20	1,950	1,400	1,504	20/40	60 sacks
10	9/26/2014	20	1,850	1,706	1,246	20/40	60 sacks
11	9/26/2014	20	2,100	3,934	995	20/40	80 sacks
12	9/26/2014	20	2,000	1,417	1,250	20/40	80 sacks
13	9/26/2014	20	2,450	3,550	1,208	20/40	150 sacks
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ENVIRONMENTAL PROTECTION  
WARREN DISTRICT OFFICE





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PROTECTION

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DEPARTMENT OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS MANAGEMENT

## Well Record

DEP USE ONLY	
Site ID	Client Id
Client Id	Sub Facility Id

### WELL INFORMATION

Well Operator Pecora Enterprises	DEP ID# 22321	Well API # 37-083-56581- -	Well Farm Name Evans	Well # 105
Address 42 Parkway Lane		LAT 41°52' 22" LONG - 78°41' 37"	Project Number	Serial #
City Bradford	State PA	Zip 16701	Municipality Lafayette	County McKean
Phone 814-368-8480	Fax 814-368-8480	Email rattler7@verizon.net	USGS 7.5 min. quadrangle map Lewis Run	Section 2

Check the appropriate Submission: ☒ Original Well Record ☐ Amended Well Record

Well Type <input type="checkbox"/> Gas <input checked="" type="checkbox"/> Oil <input type="checkbox"/> Combination Oil & Gas <input type="checkbox"/> CBM <input type="checkbox"/> Injection <input type="checkbox"/> Disposal <input type="checkbox"/> Storage	Wellbore Conditioning:
Well Orientation <input checked="" type="checkbox"/> Vertical <input type="checkbox"/> Deviated from Vertical (Top & Side views & Deviation Survey must be attached)	
Drill Method(s) <input checked="" type="checkbox"/> Rotary - Air <input type="checkbox"/> Rotary - Mud <input type="checkbox"/> Cable Tool <input type="checkbox"/> Other	
Drilling Started 9/16/2014 Drilling Complete 9/18/2014 Date Well Completed 10/1/2014	
Surface Elev. 2159 ft. True Vertical Depth 2250 ft. Total Measured Depth 2250 ft.	GW Depth 170 ft. Depth of DFGW 170 ft. DFGW decided by: 0

### CEMENT

Cement returned on surface casing? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If No, provide depth to top of cement and method used to determine:						
Cement returned on coal protective casing? <input type="checkbox"/> Yes <input type="checkbox"/> No	If No, provide depth to top of cement and method used to determine: <input checked="" type="checkbox"/> NA						
Cement returned on intermediate casing? <input type="checkbox"/> Yes <input type="checkbox"/> No	If No, provide depth to top of cement and method used to determine: <input checked="" type="checkbox"/> NA						
Casing String	Type/Class of Cement (Lead/Tail)	Slurry Temp F°	Amount of Cement (sks) (Lead/Tail/Total)	WOC hrs	Wt PPG	Yld #/sk	Gas Migration Controls Used
Conductor	/ sanded in	0°	/ /		0	0	What controls were used if any (additives/hardware. Specify type and depth applicable).  <b>RECEIVED</b> 11/1/2014 Environmental Protection Department
Surface	Type 1 / Class A	58°	/ / 70	14	15	1	
Coal Protective	/	°	/ /				
Intermediate	/	°	/ /				
Production	/	°	/ /				
If additional strings attach form(s)			Total				

### CASING AND TUBING

Hole Size	Pipe Size	Wt. #/ft.	Grade Casing / Tubing Type	Thread / Weld - New/ Used	Amount in Well (ft.)	CO	R	Hardware - Baskets / Packer / Centralizers (Total/String)			Date Run
								Type	Size	Depth	
12.25	9 5/8	32.3#	2720	T - N	58				9 5/8	58.7	9/16/2014
8 3/4	7	23#	1620	T - N	421			Guide shoe and centralizers 50'	7	421	9/16/2014
6.25	4.5	17#	1400	T - U	514			Packer	4.5	514	9/29/2014
6.25	2.375	4.9#	1800	T - U	2025			Pump barrel	2.375	2025	9/29/2014

If any casing is welded, provide the name(s) of the welder(s):

### PLUG-BACK/WELLBORE ALTERATION

Fill Material & Plugs	Depth		Date	Casing & Tubing		
	From	To		Size	Pulled	Left

## LOG OF FORMATIONS

Well API#: 37-083-56581-\_-

(If you will need more space than this page, please photocopy the blank form before filling it in.)

Formation Name or Lithology	Top (feet)	Bottom (feet)	Gas at (feet)	Oil at (feet)	Water at (fresh / brine; ft.)	Source of Data
Dirt/Sand stone	-----0	30				driller's log
gravel/shale	30	60				
shale	60	300			F 170	
shale	300	360				
shale/red rock	300	360				
red rock	360	420				
red rock/shale	420	450				
shale	450	570				
shale/red rock	570	630				
shale	630	930				
shale/red rock	930	960				
red rock	960	990				
shale	990	1350				
shale/Bradford first sand	1350	1380				
shale	1380	1530				
shale/Bradford second sand	1530	1560				
Bradford second sand/shale	1560	1590				
shale	1590	1830				
shale/Bradford third sand	1830	1860				
Bradford third sand	1860	1890				
Bradford third sand/shale	1890	1920				
shale	1920	1980				
shale/Lewis Run sand	1980	2010				
shale	2010	2250				

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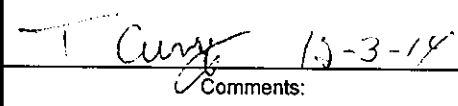
ENVIRONMENTAL PROTECTION  
WARREN DISTRICT OFFICE

If no show of oil, gas or water, explain why:

## WELL SERVICE COMPANIES (Provide the name, address, and telephone number of all well service companies involved.)

Casing Source	Cementing Company	Hardware Supplier	Logging Company
Name Bradford Pipe	Name Howard Drilling, LLC	Name	Name Nabors
Address 230 Chestnut St.	Address P O BOX N	Address	Address 344 High St
City - State - Zip BRADFORD Pa 16701	City - State - Zip MT JEWETT PA 16740	City - State - Zip	City - State - Zip BRADFORD Pa 16701
Phone 814 362-6501	Phone 814-778-5820	Phone	Phone -8143620230

I do hereby certify to the best of my knowledge, information and belief that the well identified on this Well Record has been properly cased and cemented in accordance with the requirements of 25 Pa. Code Chapter 78 and any conditions contained in the permit for this well. In addition, I do hereby certify that any casing which is attached to a blow-out preventer with a pressure rating greater than 3,000 psi has passed a pressure test in accordance with 25 Pa. Code §78.84(f). I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Driller	Well Operator's Signature	DEP USE ONLY
Name Howard Drilling, LLC		Reviewed by:
Address P O Box N		
City - State - Zip MT JEWETT PA 16740		
Phone 814-778-5820		
	Printed Name/Title: Jay J. Pecora / Partner	Date: 9/23/2014
		Comments:



**pennsylvania**  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

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COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS MANAGEMENT

# Completion Report

DEP USE ONLY	
Site ID	Primary Facility ID
Client ID	Sub Facility ID

Well Information							
Well Operator Pecora Enterprises		DEP ID# 22321	Well API # 37 - 083-56581- -		Well Farm Name Evans		Well # 105
Address 42 Parkway Lane		LAT - 41° 52' 22.12"		NAD 83	Project Number		Serial #
City Bradford		State PA	Zip Code 16701	Municipality Lafayette		County McKean	
Phone 814-368-8480	Fax 814-368-8480	Email ratler7@verizon.net		USGS 7.5 min. quadrangle map Lewis Run		Section 2	
Check the appropriate submission: <input checked="" type="checkbox"/> Original Completion Report <input type="checkbox"/> Amended Completion Report							
STIMULATION BASE FLUID							
List Water Management Plan Source(s)			Water Management Plan ID		Volume (Gallons)		
1. N/A							
2.							
3.							
4.							
5.							
6.							
			DEP Biologist Review/Date	Total Gallons of Water Used	Water	Recycled	
Other Base Fluid(s) Used						Quantity and /UOM	
1.						/	
2.						/	
Total Quantity all Fluid(s)						/	
STIMULATION/PRODUCTION INFORMATION (WELL)							
Radioactive tracers used? <input type="checkbox"/> Specify Tracer		24 Hr. Open-Flow (MCF/Day) / Date we don't do this /		24 Hr. Shut-in Pressure / Date WE Don't do this /		Completion Date: 10/1/2014	
Well Products: <input type="checkbox"/> Gas Blu		<input checked="" type="checkbox"/> Oil API G		<input type="checkbox"/> Condensate API G		<input type="checkbox"/> Other	
						<input type="checkbox"/> GOR	
WELL SERVICE COMPANIES							
Perforation Company		Frac Company		Plug Drill Out/Flow Back Company			
Name S W Neilly Corp, AIR NOTCHING Company		Name Howard Drilling, LLC		Name			
Address 350 Minard Run PO BOX 414		Address P O BOX N		Address			
City - State - Zip Bradford, PA 16701		City - State - Zip Mt Jewett, PA 16740		City - State - Zip			
Phone 814-362-4443		Phone 814-778-5820		Phone			
I do hereby certify to the best of my knowledge, information and belief that the information contained on this Completion Report is true and correct. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.							
Well Operator's Signature				DEP USE ONLY			
				Reviewed by:  Date: 12-15-14			
Printed Name / Title: Jay J. Pecora / Partner				Comments:			
Date: 10/17/2014							

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ENVIRONMENTAL PROTECTION  
WARREN DISTRICT OFFICE



Well API# 37-083-56581- -

## PERFORATION RECORD

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## STIMULATION FLUID ADDITIVES

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Please insert additional copies of this page if additional rows are needed.

Well API# 37-083-56581-\_\_\_\_

**STIMULATION INFORMATION / STAGE**

Complete a separate record for each stimulation stage. (Please insert additional lines for additional stages or additional pages as applicable).

Stg #	Stimulation Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Proppant Type	Proppant Mesh Size(s)
1	10/1/2014	20	1,500	1,750	950	20/40	75 sacks
2	10/1/2014	20	1,500	1,400	980	20/40	75 sacks
3	10/1/2014	20	1,600	1,000	975	20/40	75 sacks
4	10/1/2014	20	1,700	1,500	1,000	20/40	75 sacks
5	10/1/2014	20	2,000	2,270	1,100	20/40	80 sacks
6	10/1/2014	20	2,250	1,800	970	20/40	75 sacks
7	10/1/2014	20	1,900	2,500	1,075	20/40	80 sacks
8	10/1/2014	20	2,000	1,500	1,100	20/40	80 sacks
9	10/1/2014	20	2,300	1,700	1,150	20/40	80 sacks
10	10/1/2014	20	1,950	1,535	1,150	20/40	60 sacks
11	10/1/2014	20	1,900	1,500	1,125	20/40	60 sacks
12	10/1/2014	20	2,300	2,429	1,400	20/40	100 sacks
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PROTECTION

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DEPARTMENT OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS MANAGEMENT

DEP USE ONLY	
Site ID	Client Id
Client Id	Sub Facility Id

2328640

## Well Record

WELL INFORMATION											
Well Operator Pecora Enterprises			DEP ID# 22321		Well API # 37-083-56582- -			Well Farm Name Evans		Well # 106	
Address 42 Parkway Lane			LAT 41°52' 17"		NAD 83		Project Number		Serial #		
City Bradford			State PA		Zip 16701		Municipality Lafayette		County McKean		
Phone 814-368-8480			Fax 814-368-8480		Email rattler7@verizon.net			USGS 7.5 min. quadrangle map Lewis Run		Section 2	
Check the appropriate Submission: <input checked="" type="checkbox"/> Original Well Record <input type="checkbox"/> Amended Well Record											
Well Type <input type="checkbox"/> Gas <input checked="" type="checkbox"/> Oil <input type="checkbox"/> Combination Oil & Gas <input type="checkbox"/> CBM <input type="checkbox"/> Injection <input type="checkbox"/> Disposal <input type="checkbox"/> Storage								Wellbore Conditioning:			
Well Orientation <input checked="" type="checkbox"/> Vertical <input type="checkbox"/> Deviated from Vertical (Top & Side views & Deviation Survey must be attached)											
Drill Method(s) <input checked="" type="checkbox"/> Rotary - Air <input type="checkbox"/> Rotary - Mud <input type="checkbox"/> Cable Tool <input type="checkbox"/> Other											
Drilling Started 9/19/2014			Surface Elev. 2178 ft.			GW Depth 85 ft.					
Drilling Complete 9/23/2014			True Vertical Depth 2130 ft.			Depth of DFGW 85 ft.					
Date Well Completed 10/7/2014			Total Measured Depth 2130 ft.			DFGW decided by: 0					

CEMENT									
Cement returned on surface casing? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			If No, provide depth to top of cement and method used to determine: 157' Cement top bond log						
Cement returned on coal protective casing? <input type="checkbox"/> Yes <input type="checkbox"/> No			If No, provide depth to top of cement and method used to determine: <input checked="" type="checkbox"/> NA						
Cement returned on intermediate casing? <input type="checkbox"/> Yes <input type="checkbox"/> No			If No, provide depth to top of cement and method used to determine: <input checked="" type="checkbox"/> NA						
Casing String	Type/Class of Cement (Lead/Tail)	Slurry Temp F°	Amount of Cement (sks) (Lead/Tail/Total)		WOC hrs	WT PPG	Yld #3 /sk	Gas Migration Controls Used	
Conductor	/ sanded in	0 °	/	/		0	0	What controls were used if any (additives/ hardware. Specify type and depth applicable).  OCT 20 2014	
Surface	Type 1 / Class A	55 °	/	/ 55	14	15	1		
Coal Protective	/	°	/	/					
Intermediate	/	°	/	/					
Production	/	°	/	/					
If additional strings attach form(s)			Total						

CASING AND TUBING											
Hole Size	Pipe Size	Wt. #/ft.	Grade Casing / Tubing Type	Thread / Weld - New/ Used	Amount in Well (ft.)	CO	R	Hardware - Baskets / Packer / Centralizers (Total/String)			Date Run
								Type	Size	Depth	
12.25	9 5/8	32.3#	2720	T - N	55				9 5/8	55	9/19/2014
8 3/4	6 5/8	23#	1620	T - N	456			Guide shoe and centralizers 50'	6 5/8	456	9/19/2014
6.25	4.5	17#	1400	T - U	1940			Packer	4.5	1940	10/7/2014
6.25	2.375	4.9#	1800	T - U	2100			Pump barrel	2.375	2100	10/7/2014

If any casing is welded, provide the name(s) of the welder(s):

PLUG-BACK/WELLBORE ALTERATION										
Fill Material & Plugs					Depth		Date	Casing & Tubing		
					From	To		Size	Pulled	Left
								RECEIVED		
								OCT 22 2014		

## LOG OF FORMATIONS

Well API#: 37-083-56582- -

(If you will need more space than this page, please photocopy the blank form before filling it in.)

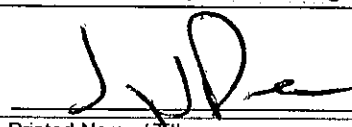

Formation Name or Lithology	Top (feet)	Bottom (feet)	Gas at (feet)	Oil at (feet)	Water at (fresh / brine; ft.)	Source of Data
Dirt/Sand stone	-----0	30				driller's log
shale	30	60				
shale/sand /shale	60	90			F 85	
shale	90	120				
shale/sand/shale	120	150				
shale	150	300				
shale/red rock	300	330				
red rock	330	480				
shale	480	540				
shale/red rock	540	570				
red rock/shale	570	600				
shale	600	930				
shale/ red rock	930	960				
red rock	960	990				
shale	990	1350				
shale/Bradford first sand	1350	1380				
shale	1380	1860				
shale/Bradford third sand	1860	1890				
Bradford third sand/shale	1890	1920				
shale	1920	1980				
shale/Lewis Run sand	1980	2010				
shale	2010	2130				

If no show of oil, gas or water, explain why:

## WELL SERVICE COMPANIES (Provide the name, address, and telephone number of all well service companies involved.)

Casing Source	Cementing Company	Hardware Supplier	Logging Company
Name Bradford Pipe	Name Howard Drilling, LLC	Name	Name Gemini Wireline
Address 230 Chestnut St.	Address P O BOX N	Address	Address 344 High St
City - State - Zip BRADFORD Pa 16701	City - State - Zip MT JEWETT PA 16740	City - State - Zip	City - State - Zip BRADFORD Pa 16701
Phone 814 362-6501	Phone 814-778-5820	Phone	Phone -8143620230

I do hereby certify to the best of my knowledge, information and belief that the well identified on this Well Record has been properly cased and cemented in accordance with the requirements of 25 Pa. Code Chapter 78 and any conditions contained in the permit for this well. In addition, I do hereby certify that any casing which is attached to a blow-out preventer with a pressure rating greater than 3,000 psi has passed a pressure test in accordance with 25 Pa. Code §78.84(f). I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Driller		Well Operator's Signature		DEP USE ONLY	
Name Howard Drilling, LLC	Rig	 Printed Name / Title: Jay J. Pecora / Partner		Reviewed by:	
Address P O Box N				 Comments:	
City - State- Zip MT JEWETT PA 16740					
Phone 814-778-5820		Date: 9/23/2014			



**pennsylvania**  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS MANAGEMENT

## Completion Report

DEP USE ONLY	
Site ID	Primary Facility ID
Client ID	Sub Facility ID

Well Information							
Well Operator Pecora Enterprises		DEP ID# 22321		Well API # 37 - 083-56582- -		Well Farm Name Evans	
Address 42 Parkway Lane		LAT - 41° 52' 17.62"		NAD 83		Project Number	
City Bradford		State PA		Zip Code 16701		County McKean	
Phone 814-368-8480		Fax 814-368-8480		Email ratter7@verizon.nett		USGS 7.5 min. quadrangle map Lewis Run	
						Section 2	
Check the appropriate submission: <input checked="" type="checkbox"/> Original Completion Report <input type="checkbox"/> Amended Completion Report							
STIMULATION BASE FLUID							
List Water Management Plan Source(s)				Water Management Plan ID		Volume (Gallons)	
1. N/A							
2.							
3.							
4.							
5.							
6.							
				DEP Biologist Review/Date		Total Gallons of Water Used	
						Water	
						Recycled	
Other Base Fluid(s) Used						Quantity and /UOM	
1.						/	
2.						/	
Total Quantity all Fluid(s)						/	
STIMULATION/PRODUCTION INFORMATION (WELL)							
Radioactive tracers used? <input type="checkbox"/>		24 Hr. Open-Flow (MCF/Day) / Date we don't do this /		24 Hr. Shut-in Pressure: / Date WE Don't do this /		Completion Date: 10/7/2014	
Specify Tracer							
Well Products: <input type="checkbox"/> Gas Btu		<input checked="" type="checkbox"/> Oil API G		<input type="checkbox"/> Condensate API G		<input type="checkbox"/> Other	
						<input type="checkbox"/> GOR	
WELL SERVICE COMPANIES							
Perforation Company		Frac Company		Plug Drill Out/Flow Back Company			
Name S W Neilly Corp, AIR NOTCHING Company		Name Howard Drilling, LLC		Name			
Address 350 Minard Run PO Box 414		Address P O BOX N		Address			
City - State- Zip Bradford, PA 16701		City - State - Zip Mt Jewett, PA 16740		City - State - Zip			
Phone 814-362-4443		Phone 814-778-5820		Phone			
I do hereby certify to the best of my knowledge, information and belief that the information contained on this Completion Report is true and correct. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.							
Well Operator's Signature				DEP USE ONLY			
				Reviewed by:  Date: 12-15-14			
Printed Name / Title: Jay J. Pecora / Partner				Comments:			
Date: 10/17/2014							

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ENVIRONMENTAL PROTECTION  
WARREN DISTRICT OFFICE



10

[illegible]

## STIMULATION FLUID ADDITIVES

Please insert additional copies of this page if additional rows are needed.

Well API# 37-083-56582- -

**STIMULATION INFORMATION / STAGE**

Complete a separate record for each stimulation stage. (Please insert additional lines for additional stages or additional pages as applicable).

Stg #	Stimulation Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Proppant Type	Proppant Mesh Size(s)
1	10/7/2014	20	1,921	2,468	1,728	20/40	150 sacks
2							
3							
4							
5							
6							
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**pennsylvania**  
DEPARTMENT OF ENVIRONMENTAL  
PROTECTION

COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS MANAGEMENT

2358639

## Well Record

DEP USE ONLY	
Site ID	Client Id
Client Id	Sub Facility Id

WELL INFORMATION												
Well Operator Pecora Enterprises			DEP ID# 22321		Well API # 37-083-56583- -			Well Farm Name Evans		Well # 107		
Address 42 Parkway Lane			LAT 41°52' 14"		LONG - 78°41' 37"		NAO 83		Project Number		Serial #	
City Bradford			State PA		Zip 16701		Municipality Lafayette			County McKean		
Phone 814-368-8480			Fax 814-368-8480		Email rattler7@verizon.net			USGS 7.5 min. quadrangle map Lewis Run			Section 2	
Check the appropriate Submission: <input checked="" type="checkbox"/> Original Well Record <input type="checkbox"/> Amended Well Record												
Well Type <input type="checkbox"/> Gas <input checked="" type="checkbox"/> Oil <input type="checkbox"/> Combination Oil & Gas <input type="checkbox"/> CBM <input type="checkbox"/> Injection <input type="checkbox"/> Disposal <input type="checkbox"/> Storage												
Well Orientation <input checked="" type="checkbox"/> Vertical <input type="checkbox"/> Deviated from Vertical (Top & Side views & Deviation Survey must be attached)												
Drill Method(s) <input checked="" type="checkbox"/> Rotary - Air <input type="checkbox"/> Rotary - Mud <input type="checkbox"/> Cable Tool <input type="checkbox"/> Other												
Drilling Started 9/24/2014			Surface Elev. 2217 ft.			GW Depth 80 ft.			Wellbore Conditioning:			
Drilling Complete 9/26/2014			True Vertical Depth 2160 ft.			Depth of DFGW80 ft.						
Date Well Completed			Total Measured Depth 2160 ft.			DFGW decided by: 0						

CEMENT									
Cement returned on surface casing? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			If No, provide depth to top of cement and method used to determine: 108' Cement top bond log						
Cement returned on coal protective casing? <input type="checkbox"/> Yes <input type="checkbox"/> No			If No, provide depth to top of cement and method used to determine: <input checked="" type="checkbox"/> NA						
Cement returned on intermediate casing? <input type="checkbox"/> Yes <input type="checkbox"/> No			If No, provide depth to top of cement and method used to determine: <input checked="" type="checkbox"/> NA						
Casing String	Type/Class of Cement (Lead/Tail)	Slurry Temp F°	Amount of Cement (sks) (Lead/Tail/Total)		WOC hrs	WT PPG	Yld #/sk	Gas Migration Controls Used	
Conductor	/ sanded in	0 °	/ /			0	0	What controls were used if any (additives/ hardware. Specify type and depth applicable):	
Surface	Type 1 / Class A	58 °	/ / 75		14	15	1		
Coal Protective	/	°	/ /						
Intermediate	/	°	/ /						
Production	/	°	/ /						
If additional strings attach form(s)			Total						

CASING AND TUBING											
Hole Size	Pipe Size	Wt. #/ft.	Grade Casing / Tubing Type	Thread / Weld - New/ Used	Amount in Well (ft.)	CO	R	Hardware - Baskets / Packer / Centralizers (Total/String)			Date Run
								Type	Size	Depth	
12.25	9 5/8	32.3#	2720	T - N	45				9 5/8	45.3	9/24/2014
8 3/4	6 5/8	23#	1620	T - N	453			Guide shoe and centralizers 50'	6 5/8	453	9/24/2014

If any casing is welded, provide the name(s) of the welder(s):

PLUG-BACK/WELLBORE ALTERATION								
Fill Material & Plugs			Depth		Date	Casing & Tubing		
			From	To		Size	Pulled	Left
20' 25' 30' 35' 40' 45' 50' 55' 60' 65' 70' 75' 80' 85' 90' 95' 100'								
20' 25' 30' 35' 40' 45' 50' 55' 60' 65' 70' 75' 80' 85' 90' 95' 100'								
20' 25' 30' 35' 40' 45' 50' 55' 60' 65' 70' 75' 80' 85' 90' 95' 100'								
20' 25' 30' 35' 40' 45' 50' 55' 60' 65' 70' 75' 80' 85' 90' 95' 100'								

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PAID BY DEPARTMENT OF ENVIRONMENTAL PROTECTION

## LOG OF FORMATIONS

Well API#: 37-083-56583-\_-\_-

(If you will need more space than this page, please photocopy the blank form before filling it in.)


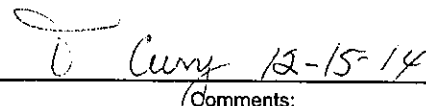
Formation Name or Lithology	Top (feet)	Bottom (feet)	Gas at (feet)	Oil at (feet)	Water at (fresh / brine; ft.)	Source of Data
Dirt/Sand stone	-----0	30				driller's log
shale/shale	30	60				
shale	60	120			F 80	
shale/sandstone	120	150				
shale	150	180				
shale/sandstone	180	210				
shale	210	360				
shale/red rock	360	390				
redrock/shale/red rock	390	420				
red rock	420	510				
red rock/shale	510	540				
shale	540	600				
shale/ red rock	600	630				
red rock/shale	630	660				
red rock/shale	660	690				
shale	690	1290				
shale/Bradford First sand	1290	1320				
shale	1320	1380				
shale/stray sand	1380	1410				
shale	1410	1890				
shale/bradford Third sand	1890	1920				
Bradford Third sand	1920	1950				
shale	1950	2040				
shale/Lewis Run sand	2040	2070				
shale	2070	2160				

If no show of oil, gas or water, explain why:

## WELL SERVICE COMPANIES (Provide the name, address, and telephone number of all well service companies involved.)

Casing Source	Cementing Company	Hardware Supplier	Logging Company
Name Bradford Pipe	Name Howard Drilling, LLC	Name	Name Gemini Wireline
Address 230 Chestnut St.	Address P O BOX N	Address	Address 344 High St
City - State - Zip BRADFORD Pa 16701	City - State - Zip MT JEWETT PA 16740	City - State - Zip	City - State - Zip BRADFORD Pa 16701
Phone 814 362-6501	Phone 814-778-5820	Phone	Phone -8143620230

I do hereby certify to the best of my knowledge, information and belief that the well identified on this Well Record has been properly cased and cemented in accordance with the requirements of 25 Pa. Code Chapter 78 and any conditions contained in the permit for this well. In addition, I do hereby certify that any casing which is attached to a blow-out preventer with a pressure rating greater than 3,000 psi has passed a pressure test in accordance with 25 Pa. Code §78.84(f). I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

<b>Driller</b>		<b>Well Operator's Signature</b>		<b>DEP USE ONLY</b>	
Name Howard Drilling, LLC	Rig	 Printed Name / Title: Jay J. Pecora / Partner		Reviewed by:	
Address P O Box N				 Comments:	
City - State - Zip MT JEWETT PA 16740					
Phone 814-778-5820		Date: 10/20/2014			


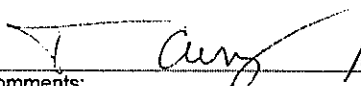


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DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS MANAGEMENT

## Completion Report

DEP USE ONLY	
Site ID	Primary Facility ID
Client ID	Sub Facility ID

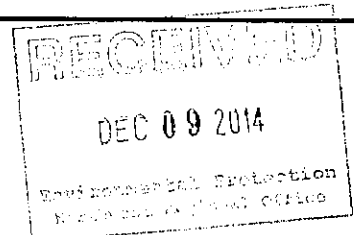
Well Information							
Well Operator Pecora Enterprises		DEP ID# 22321		Well API # 37 - 083-56583- -		Well Farm Name Evans	
Address 42 Parkway Lane		LAT - 41° 52' 14.40"		NAD 83		Project Number	
City Bradford		State PA		Zip Code 16701		County McKean	
Phone 814-368-8480		Fax 814-368-8480		Email rattler7@verizon.nett		USGS 7.5 min. quadrangle map Lewis Run	
						Section 2	
Check the appropriate submission: <input checked="" type="checkbox"/> Original Completion Report <input type="checkbox"/> Amended Completion Report							
STIMULATION BASE FLUID							
List Water Management Plan Source(s)				Water Management Plan ID		Volume (Gallons)	
1. N/A							
2.							
3.							
4.							
5.							
6.							
				DEP Biologist Review/Date		Total Gallons of Water Used	
						Water	
						Recycled	
Other Base Fluid(s) Used						Quantity and /UOM	
1.						/	
2.						/	
Total Quantity all Fluid(s)						/	
STIMULATION/PRODUCTION INFORMATION (WELL)							
Radioactive tracers used? <input type="checkbox"/>		24 Hr. Open-Flow (MCF/Day) / Date Specify Tracer		24 Hr. Shut-in Pressure/ Date WE Don't do this /		Completion Date: 11/10/2014	
Well Products: <input type="checkbox"/> Gas Btu		<input checked="" type="checkbox"/> Oil API G		<input type="checkbox"/> Condensate API G		<input type="checkbox"/> Other	
						<input type="checkbox"/> GOR	
WELL SERVICE COMPANIES							
Perforation Company		Frac Company		Plug Drill Out/Flow Back Company			
Name S W Neilly Corp, AIR NOTCHING Company		Name Howard Drilling, LLC		Name			
Address 350 Minard Run PO Box 414		Address P O BOX N		Address			
City - State - Zip Bradford, PA 16701		City - State - Zip Mt Jewett, PA 16740		City - State - Zip			
Phone 814-362-4443		Phone 814-778-5820		Phone			
I do hereby certify to the best of my knowledge, information and belief that the information contained on this Completion Report is true and correct. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.							
Well Operator's Signature				DEP USE ONLY			
 Printed Name / Title: Jay J. Pecora / Partner				Reviewed by:  Date: 12-15-14 Comments:			
Date: 12/5/2014							

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Page 1 of \_\_\_\_\_

DEC 12 2014

ENVIRONMENTAL PROTECTION  
WARREN DISTRICT OFFICE





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Well API# 37-083-56583- -

[illegible]

## STIMULATION FLUID ADDITIVES

[illegible]

Well API# 37-083-56583- -

**STIMULATION INFORMATION / STAGE**

Complete a separate record for each stimulation stage. (Please insert additional lines for additional stages or additional pages as applicable).

Stg #	Stimulation Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Proppant Type	Proppant Mesh Size(s)
1	11/10/2014	20	1,500	1,700	857	20/40	80 sacks
2	11/10/2014	20	1,500	1,700	850	20/40	80 sacks
3	11/10/2014	20	1,800	1,600	1,100	20/40	80 sacks
4	11/10/2014	10	1,450	2,750	1,075	20/40	50 sacks
5							
6							
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DEPARTMENT OF ENVIRONMENTAL  
PROTECTION

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DEPARTMENT OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS MANAGEMENT

## Well Record

DEP USE ONLY	
Site ID	Client Id
Client Id	Sub Facility Id

WELL INFORMATION												
Well Operator Pecora Enterprises			DEP ID# 22321		Well API # 37-083-56584-			Well Farm Name Evans		Well # 108		
Address 42 Parkway Lane			LAT 41°52' 10"		LONG - 78°41' 35"		NAD 83		Project Number		Serial #	
City Bradford			State PA		Zip 16701		Municipality Lafayette			County McKean		
Phone 814-368-8480			Fax 814-368-8480		Email rattler7@verizon.net			USGS 7.5 min. quadrangle map Lewis Run			Section 2	
Check the appropriate Submission: <input checked="" type="checkbox"/> Original Well Record <input type="checkbox"/> Amended Well Record												
Well Type		<input type="checkbox"/> Gas <input checked="" type="checkbox"/> Oil <input type="checkbox"/> Combination Oil & Gas <input type="checkbox"/> CBM <input type="checkbox"/> Injection <input type="checkbox"/> Disposal <input type="checkbox"/> Storage										
Well Orientation		<input checked="" type="checkbox"/> Vertical <input type="checkbox"/> Deviated from Vertical (Top & Side views & Deviation Survey must be attached)										
Drill Method(s)		<input checked="" type="checkbox"/> Rotary - Air <input type="checkbox"/> Rotary - Mud <input type="checkbox"/> Cable Tool <input type="checkbox"/> Other										
Drilling Started 9/29/14			Surface Elev. 2187 ft.			GW Depth 80 ft.			Wellbore Conditioning:			
Drilling Complete 10/2/2014			True Vertical Depth 2130 ft.			Depth of DFGW 60 ft.						
Date Well Completed			Total Measured Depth 2130 ft.			DFGW decided by: 0						

CEMENT								
Cement returned on surface casing?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		If No, provide depth to top of cement and method used to determine: 102' Cement top bond log				
Cement returned on coal protective casing?		<input type="checkbox"/> Yes <input type="checkbox"/> No		If No, provide depth to top of cement and method used to determine: <input checked="" type="checkbox"/> NA				
Cement returned on intermediate casing?		<input type="checkbox"/> Yes <input type="checkbox"/> No		If No, provide depth to top of cement and method used to determine: <input checked="" type="checkbox"/> NA				
Casing String	Type/Class of Cement (Lead/Tail)	Slurry Temp F°	Amount of Cement (sks) (Lead/Tail/Total)		WOC hrs	WT PPG	Yld m3 /sk	Gas Migration Controls Used
Conductor	/ sanded in	0°	/ /			0	0	What controls were used if any (additives/ hardware. Specify type and depth applicable).
Surface	Type 1 / Class A	58°	/ / 88		14	15	1	
Coal Protective	/	°	/ /					
Intermediate	/	°	/ /					
Production	/	°	/ /					
	/	°	/ /					
If additional strings attach form(s)			Total					

CASING AND TUBING											
Hole Size	Pipe Size	Wt. #/ft.	Grade Casing / Tubing Type	Thread / Weld - New/ Used	Amount in Well (ft.)	CO	R	Hardware - Baskets / Packer / Centralizers (Total/String)		Depth	Date Run
				-				Type	Size		
12.25	9 5/8	32.3#	2720	T - N	48				9 5/8	48	9/29/2014
8 3/4	6 5/8	23#	1620	T - N	464			Guide shoe and centralizers 50'	6 5/8	464	9/30/2014
				-							
				-							

If any casing is welded, provide the name(s) of the welder(s):

PLUG-BACK/WELLBORE ALTERATION								
Fill Material & Plugs			Depth		Date	Casing & Tubing		
			From	To		Size	Pulled	Left
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DEPARTMENT OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS MANAGEMENT

OCT 28 2014

## LOG OF FORMATIONS

Well API#: 37-083-56584-\_-\_-

(If you will need more space than this page, please photocopy the blank form before filling it in.)

Formation Name or Lithology	Top (feet)	Bottom (feet)	Gas at (feet)	Oil at (feet)	Water at (fresh / brine; ft.)	Source of Data
Dir/Sand stone	-----0	30				driller's log
shale	30	90				
shale/sandstone	90	120				
sandstone/shale	120	150				
shale	150	300				
shale/red rock	300	330				
red rock	330	480				
shale	480	570				
shale/red rock	570	600				
red rock	600	630				
red rock/shale	630	660				
shale/red rock	540	600				
red rock	600	630				
red rock/shale	630	660				
shale	660	1350				
shale/Bradford First sand	1350	1380				
shale	1380	1560				
shale/Bradford Second sand	1560	1590				
shale	1590	1860				
shale/Bradford Third sand	1860	1890				
Bradford Third sand	1890	1920				
shale	1920	2130				

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OCT 21 2014

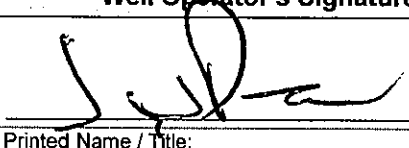
PULASKI COUNTY PROTECTION  
WATER CONTROL DISTRICT OFFICE

If no show of oil, gas or water, explain why:

## WELL SERVICE COMPANIES (Provide the name, address, and telephone number of all well service companies involved.)

Casing Source	Cementing Company	Hardware Supplier	Logging Company
Name Bradford Pipe	Name Howard Drilling, LLC	Name	Name Gemini Wireline
Address 230 Chestnut St.	Address P O BOX N	Address	Address 344 High St
City - State - Zip BRADFORD Pa 16701	City - State - Zip MT JEWETT PA 16740	City - State - Zip	City - State - Zip BRADFORD Pa 16701
Phone 814 362-6501	Phone 814-778-5820	Phone	Phone -8143620230

I do hereby certify to the best of my knowledge, information and belief that the well identified on this Well Record has been properly cased and cemented in accordance with the requirements of 25 Pa. Code Chapter 78 and any conditions contained in the permit for this well. In addition, I do hereby certify that any casing which is attached to a blow-out preventer with a pressure rating greater than 3,000 psi has passed a pressure test in accordance with 25 Pa. Code §78.84(f). I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Driller	Well Operator's Signature	DEP USE ONLY
Name Howard Drilling, LLC		Reviewed by:
Rig		
Address P O BOX N		Comments:
City - State - Zip MT JEWETT PA 16740		
Phone 814-778-5820	Printed Name / Title: Jay J. Pecora / Partner	Date: 10/20/2014



**pennsylvania**  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS MANAGEMENT

DEP USE ONLY	
Site ID	Primary Facility ID
Client ID	Sub Facility ID

2328637

## Completion Report

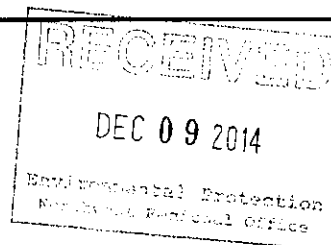
Well Information							
Well Operator Pecora Enterprises		DEP ID# 22321	Well API # 37 - 083-56584-		Well Farm Name Evans		Well # 108
Address 42 Parkway Lane			LAT - 41° 52' 10.42"	NAD 83	Project Number		Serial #
City Bradford		State PA	Zip Code 16701	Municipality Lafayette		County McKean	
Phone 814-368-8480	Fax 814-368-8480	Email ratier7@verizon.net		USGS 7.5 min. quadrangle map Lewis Run		Section 2	
Check the appropriate submission: <input checked="" type="checkbox"/> Original Completion Report <input type="checkbox"/> Amended Completion Report							
STIMULATION BASE FLUID							
List Water Management Plan Source(s)			Water Management Plan ID		Volume (Gallons)		
1. N/A							
2.							
3.							
4.							
5.							
6.							
			DEP Biologist Review/Date	Total Gallons of Water Used	Water	Recycled	
Other Base Fluid(s) Used					Quantity and /UOM		
1.					/		
2.					/		
Total Quantity all Fluid(s)					/		
STIMULATION/PRODUCTION INFORMATION (WELL)							
Radioactive tracers used? <input type="checkbox"/>		24 Hr. Open-Flow (MCF/Day) / Date we don't do this /		24 Hr. Shut-in Pressure./ Date WE Don't do this /		Completion Date: 11/14/2014	
Specify Tracer							
Well Products: <input type="checkbox"/> Gas Btu		<input checked="" type="checkbox"/> Oil API G		<input type="checkbox"/> Condensate API G		<input type="checkbox"/> Other	
						<input type="checkbox"/> GOR	
WELL SERVICE COMPANIES							
Perforation Company		Frac Company		Plug Drill Out/Flow Back Company			
Name S W Neilly Corp, AIR NOTCHING Company		Name Howard Drilling, LLC		Name			
Address 350 Minard Run PO BOX 414		Address P O BOX N		Address			
City - State - Zip Bradford, PA 16701		City - State - Zip Mt Jewett, PA 16740		City - State - Zip			
Phone 814-362-4443		Phone 814-778-5820		Phone			
I do hereby certify to the best of my knowledge, information and belief that the information contained on this Completion Report is true and correct. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.							
Well Operator's Signature				DEP USE ONLY			
				Reviewed by:  Date: 12-15-14			
Printed Name / Title: Jay J. Pecora / Partner				Comments:			
Date: 12/5/2014							

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Page 1 of \_\_\_\_\_

DEC 12 2014

ENVIRONMENTAL PROTECTION  
WARREN DISTRICT OFFICE



Well API# 37-083-56584-\_\_-\_\_

[illegible]



Well API# 37-083-56584-\_\_-\_\_

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Please insert additional copies of this page if additional rows are needed.

Well API# 37-083-56584-\_\_-\_\_

**STIMULATION INFORMATION / STAGE**

Complete a separate record for each stimulation stage. (Please insert additional lines for additional stages or additional pages as applicable).

Stg #	Stimulation Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Proppant Type	Proppant Mesh Size(s)
1	11/14/2014	20	1,800	1,750	1,100	20/40	80 sacks
2	11/14/2014	20	1,800	1,660	1,225	20/40	80 sacks
3	11/14/2014	20	1,950	2,200	1,200	20/40	80 sacks
4	11/14/2014	20	2,150	1,250	1,250	20/40	80 sacks
5	11/14/2014	20	2,300	2,200	1,180	20/40	80 sacks
6	11/14/2014	20	2,000	3,220	1,400	20/40	60 sacks
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**pennsylvania**  
DEPARTMENT OF ENVIRONMENTAL  
PROTECTION

COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS MANAGEMENT

2324169

## Well Record

DEP USE ONLY	
Site ID	Client Id
Client Id	Sub Facility Id

### WELL INFORMATION

Well Operator Pecora Enterprises		DEP ID# 22321	Well API # 37-083-56585- -		Well Farm Name Evans	Well # 109
Address 42 Parkway Lane			LAT 41°52' 8"	NAD 83	Project Number	Serial #
City Bradford			State PA	Zip 16701	County McKean	
Phone 814-368-8480	Fax 814-368-8480	Email rattler7@verizon.net			USGS 7.5 min. quadrangle map Lewis Run	Section 2

Check the appropriate Submission: ☒ Original Well Record ☐ Amended Well Record

Well Type	<input type="checkbox"/> Gas <input checked="" type="checkbox"/> Oil <input type="checkbox"/> Combination Oil & Gas <input type="checkbox"/> CBM <input type="checkbox"/> Injection <input type="checkbox"/> Disposal <input type="checkbox"/> Storage	Wellbore Conditioning:
Well Orientation	<input checked="" type="checkbox"/> Vertical <input type="checkbox"/> Deviated from Vertical (Top & Side views & Deviation Survey must be attached)	
Drill Method(s)	<input checked="" type="checkbox"/> Rotary - Air <input type="checkbox"/> Rotary - Mud <input type="checkbox"/> Cable Tool <input type="checkbox"/> Other	
Drilling Started 10/3/14	Surface Elev. 2176 ft.	
Drilling Complete 10/9/2014	True Vertical Depth 2490 ft.	GW Depth 205 ft.
Date Well Completed	Total Measured Depth 2490 ft.	DFGW decided by: 0

### CEMENT

Cement returned on surface casing? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If No, provide depth to top of cement and method used to determine:
Cement returned on coal protective casing? <input type="checkbox"/> Yes <input type="checkbox"/> No	If No, provide depth to top of cement and method used to determine: <input checked="" type="checkbox"/> NA
Cement returned on intermediate casing? <input type="checkbox"/> Yes <input type="checkbox"/> No	If No, provide depth to top of cement and method used to determine: <input checked="" type="checkbox"/> NA

Casing String	Type/Class of Cement (Lead/Tail)	Slurry Temp F°	Amount of Cement (sks) (Lead/Tail/Total)	WOC hrs	WPPG	Yld #/s /sk	Gas Migration Controls Used
Conductor	/ sanded in	0 °	/ /		0	0	What controls were used if any (additives/ hardware. Specify type and depth applicable).
Surface	Type 1 / Class A	55 °	/ / 87	14	15	1	
Coal Protective	/	°	/ /				
Intermediate	/	°	/ /				
Production	/	°	/ /				
If additional strings attach form(s)			Total				

### CASING AND TUBING

Hole Size	Pipe Size	Wt. #/ft.	Grade Casing / Tubing Type	Thread / Weld - New/ Used	Amount in Well (ft.)	CO	R	Hardware - Baskets / Packer / Centralizers (Total/String) Type Size Depth	Date Run
12.25	9 5/8	32.3#	2720	T - N	52			9 5/8 52.4	10/6/2014
8 3/4	6 5/8	23#	1620	T - N	455			Guide shoe and centralizers 50' 455	10/6/2014
				-					
				-					

If any casing is welded, provide the name(s) of the welder(s):

### PLUG-BACK/WELLBORE ALTERATION

Fill Material & Plugs	Depth		Date	Casing & Tubing		
	From	To		Size	Pulled	Left

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OCT 16 2014  
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## LOG OF FORMATIONS

Well API#: 37-083-56585-\_\_-\_\_

(If you will need more space than this page, please photocopy the blank form before filling it in.)

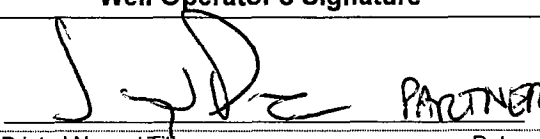
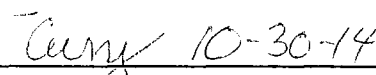
Formation Name or Lithology	Top (feet)	Bottom (feet)	Gas at (feet)	Oil at (feet)	Water at (fresh / brine; ft.)	Source of Data
Dirt/Sand stone	-----0	30				driller's log
shale	30	300			F 205	
shale/red rock	300	330				
red rock	330	450				
shale	450	540				
shale/red rock	540	570				
red rock	570	660				
shale	660	1050				
shale/red rock	1050	1080				
shale	1080	1380				
shale/Bradford Second sand	1380	1410				
shale	1410	1860				
shale/Bradford Third sand	1860	1890				
Bradford Third sand	1890	1920				
Bradford Third sand/shale/stray	1920	1950				
shale/Bradford First sand	1950	2010				
shale/Lewis Run sand	2010	2040				
shale	2040	2490				

If no show of oil, gas or water, explain why:

## WELL SERVICE COMPANIES (Provide the name, address, and telephone number of all well service companies involved.)

Casing Source	Cementing Company	Hardware Supplier	Logging Company
Name Bradford Pipe	Name Howard Drilling, LLC	Name	Name Keystone Wireline
Address 230 Chestnut St.	Address P O BOX N	Address	Address 344 High St
City - State - Zip BRADFORD Pa 16701	City - State - Zip MT JEWETT PA 16740	City - State - Zip	City - State - Zip BRADFORD Pa 16701
Phone 814 362-6501	Phone 814-778-5820	Phone	Phone -8143620230

I do hereby certify to the best of my knowledge, information and belief that the well identified on this Well Record has been properly cased and cemented in accordance with the requirements of 25 Pa. Code Chapter 78 and any conditions contained in the permit for this well. In addition, I do hereby certify that any casing which is attached to a blow-out preventer with a pressure rating greater than 3,000 psi has passed a pressure test in accordance with 25 Pa. Code §78.84(f). I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Driller		Well Operator's Signature		DEP USE ONLY	
Name Howard Drilling, LLC	Rig	 Printed Name / Title: Jay J. Pecora / Partner		Reviewed by:	
Address P O Box N				 Comments:	
City - State- Zip MT JEWETT PA 16740					
Phone 814-778-5820					





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DEPARTMENT OF ENVIRONMENTAL PROTECTION

2358637

COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS MANAGEMENT

# Completion Report

DEP USE ONLY	
Site ID	Primary Facility ID
Client ID	Sub Facility Id

Well Information								
Well Operator Pecora Enterprises		DEP ID# 22321		Well API # 37 - 083-56585- -		Well Farm Name Evans		Well # 109
Address 42 Parkway Lane		LAT - 41° 52' 8.20"		NAD 83		Project Number		Serial #
City Bradford		State PA	Zip Code 16701	Municipality Lafayette		County McKean		
Phone 814-368-8480		Fax 814-368-8480		Email ratler7@verizon.net		USGS 7.5 min. quadrangle map Lewis Run		Section 2
Check the appropriate submission: <input checked="" type="checkbox"/> Original Completion Report <input type="checkbox"/> Amended Completion Report								

STIMULATION BASE FLUID			
List Water Management Plan Source(s)	Water Management Plan ID	Volume (Gallons)	
1. N/A			
2.			
3.			
4.			
5.			
6.			
	DEP Biologist Review/Date	Total Gallons of Water Used	Water Recycled
Other Base Fluid(s) Used			Quantity and /UOM
1.			/
2.			/
Total Quantity all Fluid(s)			/

STIMULATION/PRODUCTION INFORMATION (WELL)			
Radioactive tracers used? <input type="checkbox"/>	24 Hr. Open-Flow (MCF/Day) / Date we don't do this /	24 Hr. Shut-in Pressure/ Date WE Don't do this /	Completion Date: 11/19/2014
Specify Tracer			
Well Products: <input type="checkbox"/> Gas Btu	<input checked="" type="checkbox"/> Oil API G	<input type="checkbox"/> Condensate API G	<input type="checkbox"/> Other <input type="checkbox"/> GOR

WELL SERVICE COMPANIES		
Perforation Company	Frac Company	Plug Drill Out/Flow Back Company
Name S W Neilly Corp, AIR NOTCHING Company	Name Howard Drilling, LLC	Name
Address 350 Minard Run PO BOX 414	Address P O BOX N	Address
City - State - Zip Bradford, PA 16701	City - State - Zip Mt Jewett, PA 16740	City - State - Zip
Phone 814-362-4443	Phone 814-778-5820	Phone

I do hereby certify to the best of my knowledge, information and belief that the information contained on this Completion Report is true and correct. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

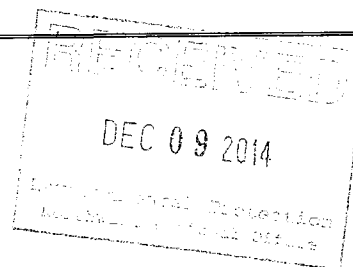
Well Operator's Signature	DEP USE ONLY
 Printed Name / Title: Jay J. Pecora / Partner Date: 12/5/2014	Reviewed by:  Date: 12-15-14 Comments:

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Page 1 of \_\_\_\_\_

DEC 26 2014

ENVIRONMENTAL PROTECTION  
WARREN DISTRICT OFFICE



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Well API# 37-083-56585- -

[illegible]

## STIMULATION FLUID ADDITIVES

[illegible]

Well API# 37-083-56585-\_\_-\_\_

**STIMULATION INFORMATION / STAGE**

Complete a separate record for each stimulation stage. (Please insert additional lines for additional stages or additional pages as applicable).

Stg #	Stimulation Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Proppant Type	Proppant Mesh Size(s)
1	11/19/2014	20	1,300	2,175	925	20/40	75 sacks
2	11/19/2014	20	1,550	1,500	1,390	20/40	75 sacks
3	11/19/2014	20	1,550	1,375	919	20/40	75 sacks
4	11/19/2014	20	1,800	1,425	1,230	20/40	75 sacks
5	11/19/2014	20	1,650	1,850	1,180	20/40	80 sacks
6	11/19/2014	20	1,400	2,350	1,202	20/40	50 sacks
7	11/19/2014	20	2,200	3,425	1,540	20/40	100 sacks
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## Location Plats

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41° 52' 30"

WARRANT 2265

WARRANT 3903

MINARD RUN OIL COMPANY

J. F. MAGEE - LEASE

MINARD RUN OIL CO. LEASE

PENNZOIL CO.

BURNS BROS.

STOVER & STOVER

PENNZOIL CO.

PENNZOIL CO.

LONGITUDE 78° 45'

U.S. Route 219

N 6° 50' E 7025'

N 88° 30' E 2400'

W 01° 21' N

Topo Mark for Lewis Run 7 1/2" Quad (Sec. 2)

Plugging

New Location ☒

Drill Deeper ☐

Abandonment ☐

Re-drill ☐

PENNZOIL CO.

KENDALL REFG. CO.

PENNZOIL CO.

LATITUDE 41° 45'

Company MINARD RUN OIL COMPANY

Address P. O. BOX 18, BRADFORD, PENNA.

Farm FLOOD 3

Tract Acres Lease No.

Well (Farm) No. 3-23 Co. Serial No.

Angle of Deviation, if any Lewis Run 7 1/2"

Elevation 2,000' (TOPO) Quadrangle BRADFORD

County MC KEAN Township LAFAYETTE

Engineer G. B. GARTS Sec 2

Engineer's Registration No. 5246-E (0416)

File No. Drawing No.

Date JUNE 28, 1966 Scale 1" = 1,000'

COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF MINES  
OIL AND GAS DIVISION  
HARRISBURG

WELL LOCATION MAP

DEPT. FILE NO. MRO-14

1. Denotes Values of Well on U.S. Topographic Map.

Scale 15' ☒ 7 1/2' ☐

WORKABLE COAL SEAMS TO BE PENETRATED

NAME OF SEAM OWNER OF SEAM

KB 511542

\* PART OF WARRANTS 2265 AND 3903

RFW 8-1-66.

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MAY 20 1992

PA GEOLOGICAL SURVEY  
(Oil & Gas Geology Division)



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DEPARTMENT OF ENVIRONMENTAL PROTECTION  
Office of Oil and Gas Management Program

**WELL LOCATION PLAT**

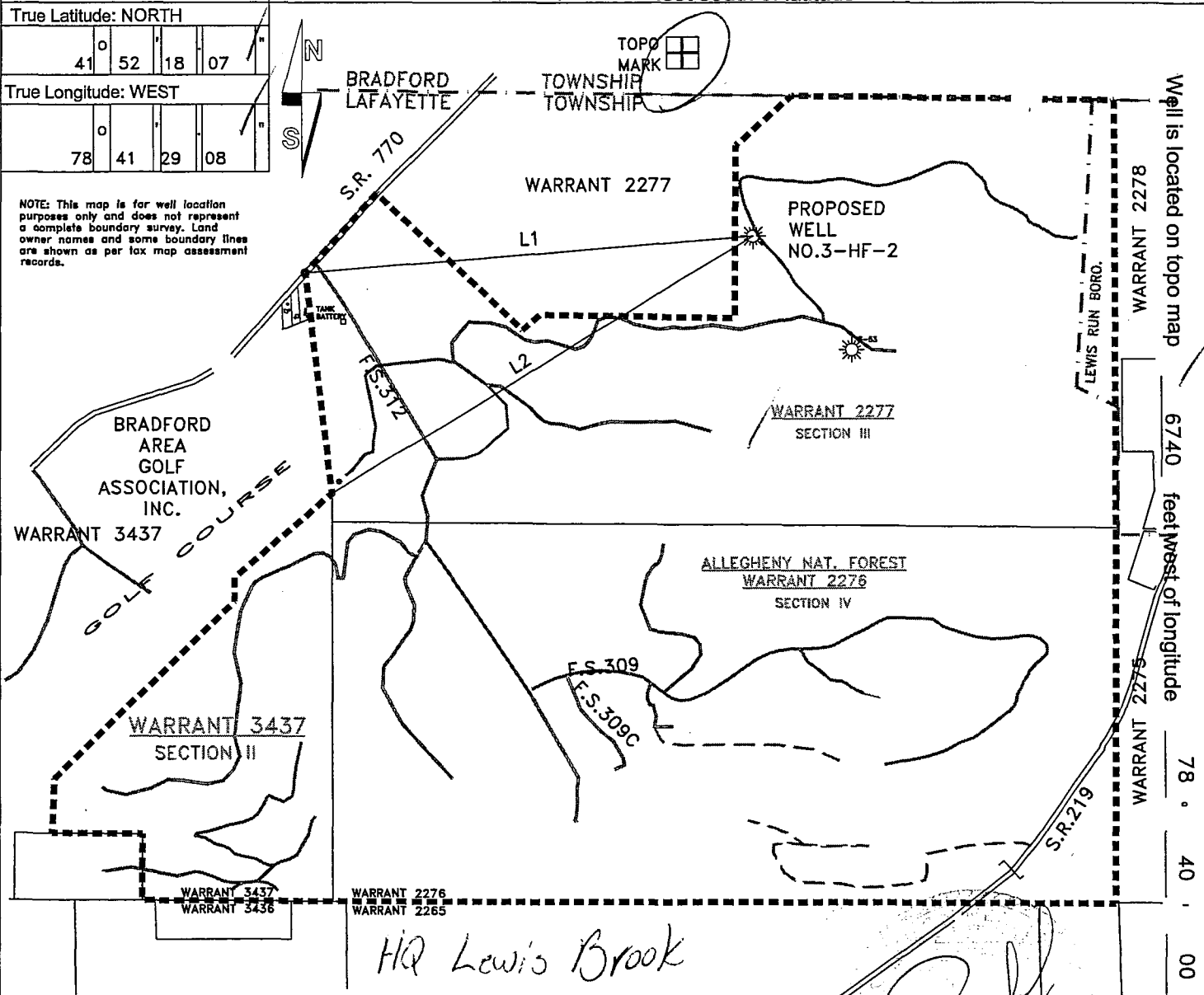
PAGE 1 Surface Location

USE ONLY	Auth ID #	110
	Permit #	023-55911
	Project #	OEI-1

Denotes location of top of well on topo map.	
True Latitude: NORTH	
41° 52' 18" 07"	
True Longitude: WEST	
78° 41' 29" 08"	

Well is located on topo map 1207 feet south of latitude 41° 52' 30"

NOTE: This map is for well location purposes only and does not represent a complete boundary survey. Land owner names and some boundary lines are shown as per tax map assessment records.



**LEGEND**

- LEASE UNIT LINE
- TRACT LINES
- ROADS
- ☀ WATER WELLS
- TOP HOLE LOCATION

LINE	BEARING	DISTANCE
L1	S 85°22'23" W	5711.17'
L2	S 58°43'19" W	6258.19'

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OCT 31 2012

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NORTHWEST REGIONAL OFFICE

Applicant / Well Operator Name: <b>HORIZONTAL EXPLORATION, LLC</b>		DEP ID#:	Well(Farm) Name: <b>SWAMP ANGEL</b>		Well #: <b>3-HF-2</b>	Serial #:
Address: <b>665 PHILADELPHIA ST., SUITE 0010 INDIANA, PA. 15701</b>		County: <b>McKEAN 42</b>		Municipality: <b>LAFAYETTE TOWNSHIP</b>	Well Type: <b>COMB.</b>	
911 address of well site: <b>N/A</b>		USGS 71/2 Quadrangle Map Name: <b>LEWIS RUN</b>		Map Section: <b>2</b>	Surface Elevation: <b>2096 ft.</b>	
Surveyor or Engineer: <b>RONALD L. FOX, PLS</b>	Phone #: <b>814-745-2861</b>	Dwg #: <b>627712-3-2</b>	Date: <b>SEPT. 4, 2012</b>	Scale: <b>1" = 2000'</b>	Tract Acreage: <b>2429</b>	
Lat. & Long Metadata: <b>GPS</b>	Accuracy: <b>Submeter</b>	Datum: <b>Nad 83</b>	Elevation Metadata Method: <b>Topo</b>	Accuracy: <b>+/-10</b>	Datum: <b>NGVD 1929</b>	Survey Date: <b>8-2-12</b>

## Page 2 Notifications

- 2 -





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COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS MANAGEMENT

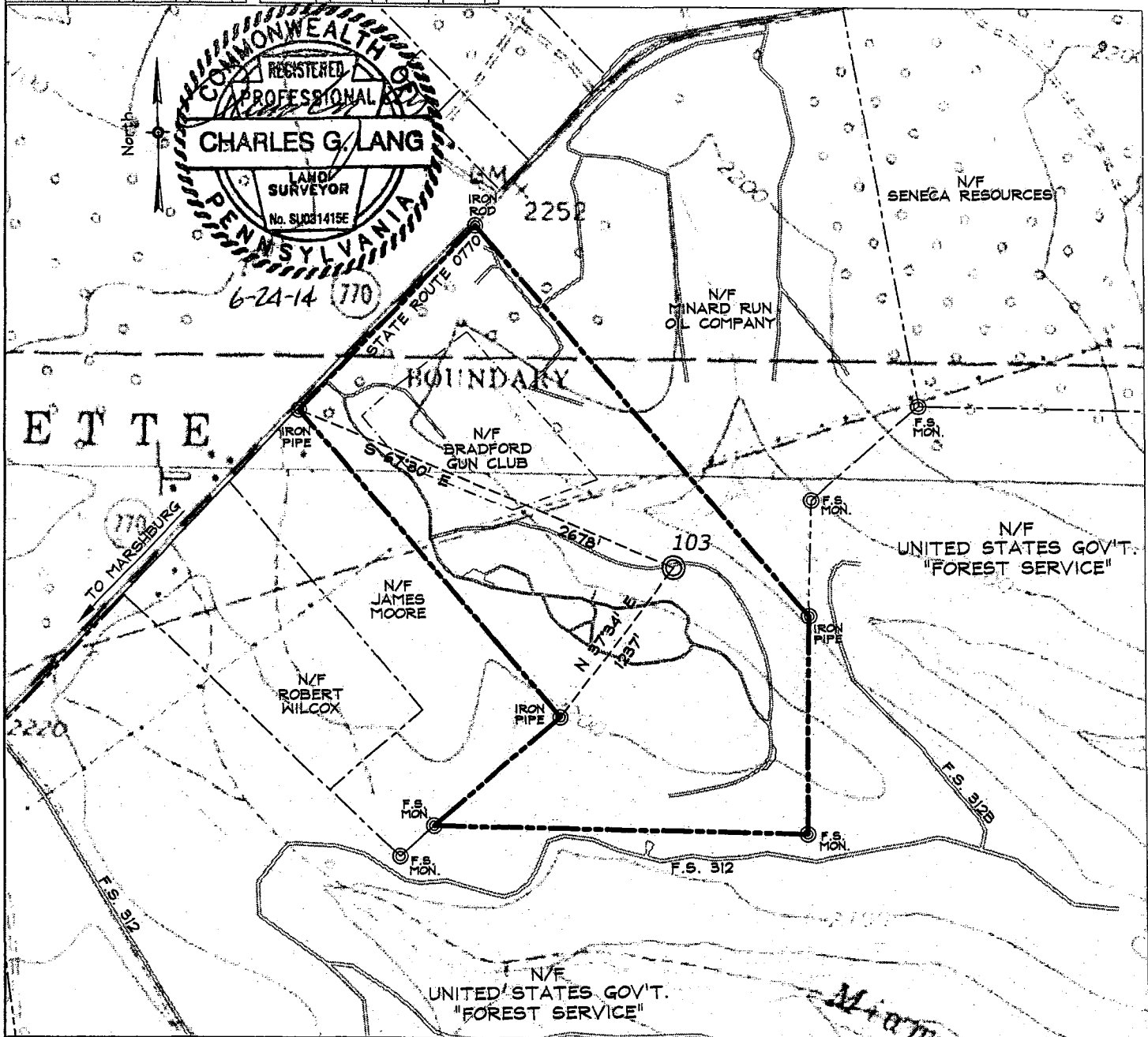
## WELL LOCATION PLAT

PAGE 1 Surface Location

DEP	Auth ID #	G:
USE	Permit #	C:
ONLY	Project #	

Top Hole Well is located on topo map 543 feet south of latitude 41° 52' 30"

Surface Hole Coordinates	Surface Hole Coordinates	<input type="checkbox"/> TH <input type="checkbox"/> Denotes location of Surface Hole of well on topo map.
True Latitude: NORTH	True Longitude: WEST	
41° 52' 24.63"	78° 41' 43.91"	



Top Hole Well is located on topo map

7861 feet west of longitude 78° 40' 00"

Applicant/Well Operator Name: <b>PECORA ENTERPRISES</b>		DEP ID # <b>22321</b>	Well (Farm) Name: <b>EVANS</b>		Well # <b>103</b>	Serial #
Address: <b>42 PARKWAY LANE, BRADFORD, PA. 16701</b>			County: <b>McKEAN</b>	Municipality: <b>LAFAYETTE TOWNSHIP</b>	Well Type: <b>OIL</b>	
911 address of well site: <b>N/A</b>			USGS 7½' Quadrangle Map Name: <b>LEWIS RUN, PA</b>	Map Section: <b>2</b>	Surface Elevation: <b>2140 ft.</b>	
Surveyor or Engineer: <b>CHARLES G. LANG, PLS</b>	Phone #: <b>814-368-4139</b>	Dwg #: <b>04046-103</b>	Date: <b>02-27-13</b>	Scale: <b>1" = 1000'</b>	Tract Acreage: <b>163± ACRES</b>	
Lat. & Long Metadata Method: <b>SURVEY GRADE GPS</b>		Accuracy: <b>± 10 ft.</b>	Datum: <b>NAD83</b>	Elevation Metadata Method: <b>SURVEY GRADE GPS</b>	Accuracy: <b>± 10 ft.</b>	Datum: <b>NAVD88</b>
					Survey Date: <b>10-12</b>	

# WELL LOCATION PLAT

For assistance in accessing this document, please contact: R011C Mailbox@epa.gov

DEP Statewide toll-free phone number for reporting cases of water contamination which may be associated with development of oil and gas resources is **1-866-255-5158**.

[illegible]



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DEPARTMENT OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS MANAGEMENT

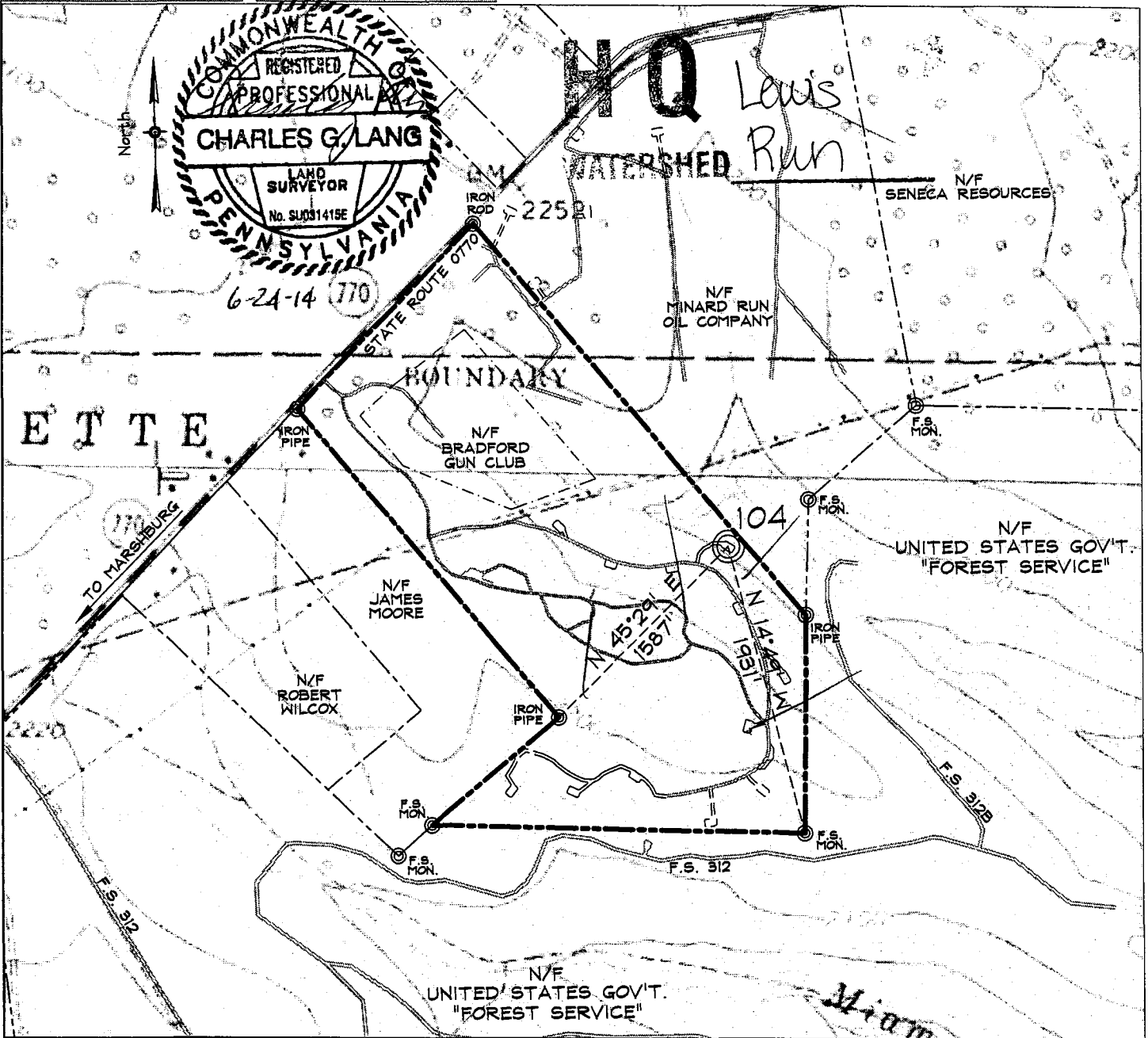
## WELL LOCATION PLAT

PAGE 1 Surface Location

DEP	Auth ID #	ACH
USE	Permit # 50580	8/12/14
ONLY	Project #	

Top Hole Well is located on topo map 406 feet south of latitude 41° 52' 30"

Surface Hole Coordinates	Surface Hole Coordinates	TH
True Latitude: NORTH	True Longitude: WEST	<input checked="" type="checkbox"/> Denotes location of Surface Hole of well on topo map.
41° 52' 25.98"	78° 41' 38.94"	



Top Hole Well is located on topo map

7485 feet west of longitude 78° 40' 00"

Applicant/Well Operator Name: <b>PECORA ENTERPRISES</b>		DEP ID # <b>22321</b>	Well (Farm) Name: <b>EVANS</b>		Well # <b>104</b>	Serial #
Address: <b>42 PARKWAY LANE, BRADFORD, PA. 16701</b>			County: <b>McKEAN</b>	Municipality: <b>LAFAYETTE TOWNSHIP</b>	Well Type: <b>OIL</b>	
911 address of well site: <b>N/A</b>			USGS 7½ Quadrangle Map Name: <b>LEWIS RUN, PA 0416</b>	Map Section: <b>2</b>	Surface Elevation: <b>2102 ft.</b>	
Surveyor or Engineer: <b>CHARLES G. LANG, PLS</b>	Phone #: <b>814-368-4139</b>	Dwg #: <b>04254.104</b>	Date: <b>08-09-13</b>	Scale: <b>1" = 1000'</b>	Tract Acreage: <b>163± ACRES</b>	
Lat. & Long Metadata Method: <b>SURVEY GRADE GPS</b>		Accuracy: <b>± 10 ft.</b>	Datum: <b>NAD83</b>	Elevation Metadata Method: <b>SURVEY GRADE GPS</b>	Accuracy: <b>± 10 ft.</b>	Datum: <b>NAVD88</b>
					Survey Date: <b>08-13</b>	

DEP Statewide toll-free phone number for reporting cases of water contamination which may be associated with development of oil and gas resources is **1-866-255-5158**.

- 2 -





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DEPARTMENT OF ENVIRONMENTAL PROTECTION

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OFFICE OF OIL AND GAS MANAGEMENT

## WELL LOCATION PLAT

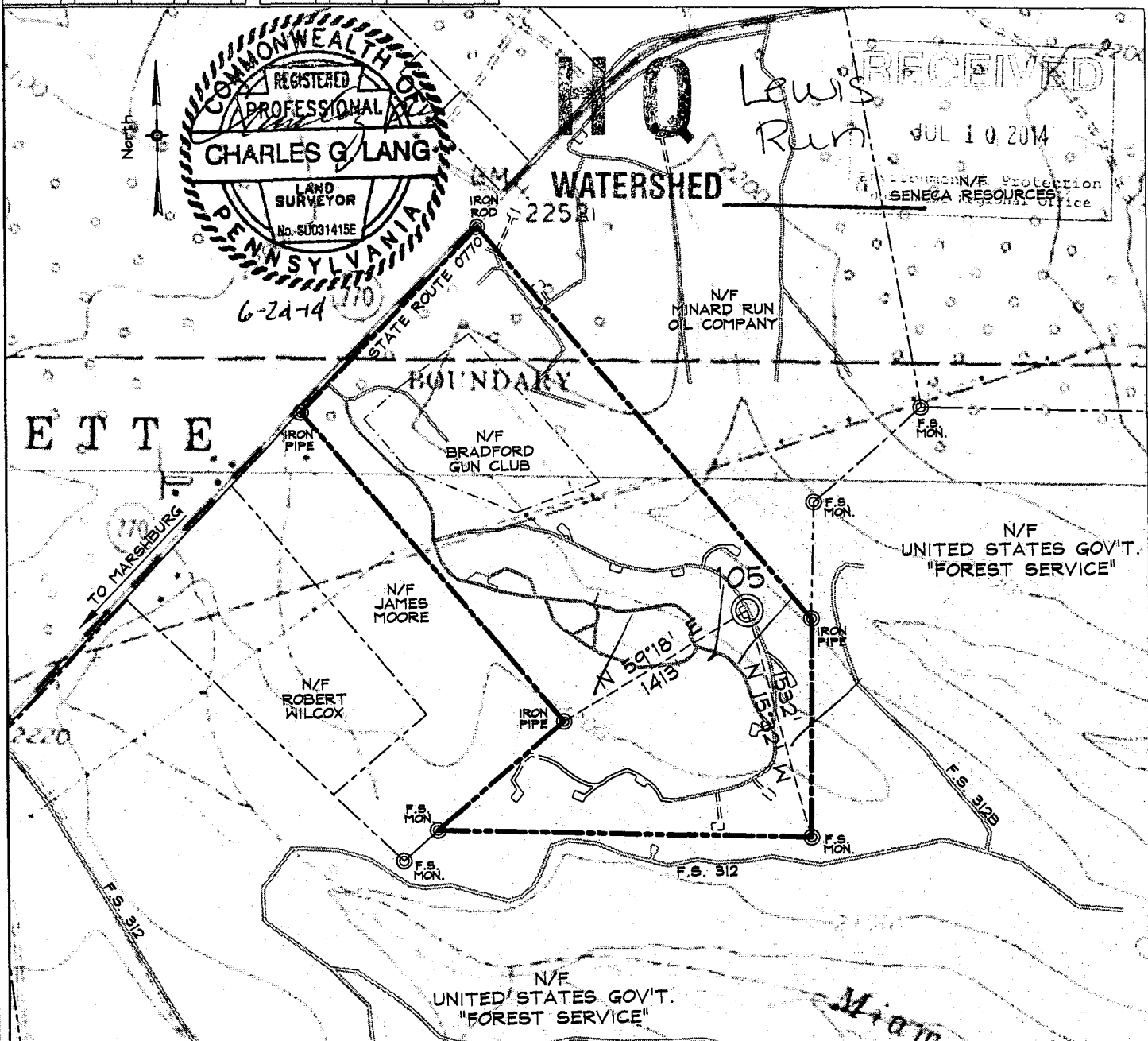
PAGE 1 Surface Location

DEP	Auth ID #	ACM
USE	Permit #	083-56581
ONLY	Project #	8/12/14

083-56581

Top Hole Well is located on topo map 797 feet south of latitude 41° 52' 30"

Surface Hole Coordinates		Surface Hole Coordinates		TH Denotes location of Surface Hole of well on topo map.
True Latitude: NORTH		True Longitude: WEST		
41	52	22	12	
78	41	37	78	



Top Hole Well is located on topo map

7398 feet west of longitude 78° 40' 00"

Applicant/Well Operator Name: <b>PECORA ENTERPRISES</b>		DEP ID # <b>22321</b>	Well (Farm) Name: <b>EVANS</b>	Well #: <b>105</b>	Serial #:
Address: <b>42 PARKWAY LANE, BRADFORD, PA. 16701</b>		County: <b>McKEAN</b>	Municipality: <b>LAFAYETTE TOWNSHIP</b>	Well Type: <b>OIL</b>	
911 address of well site: <b>N/A</b>		USGS 7½ Quadrangle Map Name: <b>LEWIS RUN, PA 0416</b>	Map Section: <b>2</b>	Surface Elevation: <b>2159 ft.</b>	
Surveyor or Engineer: <b>CHARLES G. LANG, PLS</b>	Phone #: <b>814-368-4139</b>	Dwg #: <b>04254.105</b>	Date: <b>08-09-13</b>	Scale: <b>1" = 1000'</b>	Tract Acreage: <b>163± ACRES</b>
Lat. & Long Metadata Method: <b>SURVEY GRADE GPS</b>	Accuracy: <b>± 10 ft.</b>	Datum: <b>NAD83</b>	Elevation Metadata Method: <b>SURVEY GRADE GPS</b>	Accuracy: <b>± 10 ft.</b>	Datum: <b>NAVD88</b>
				Survey Date: <b>08-13</b>	

**WELL LOCATION PLAT**

DEP Statewide toll-free phone number for reporting cases of water contamination which may be associated with development of oil and gas resources is **1-866-255-5158**.

- 2 -



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OFFICE OF OIL AND GAS MANAGEMENT

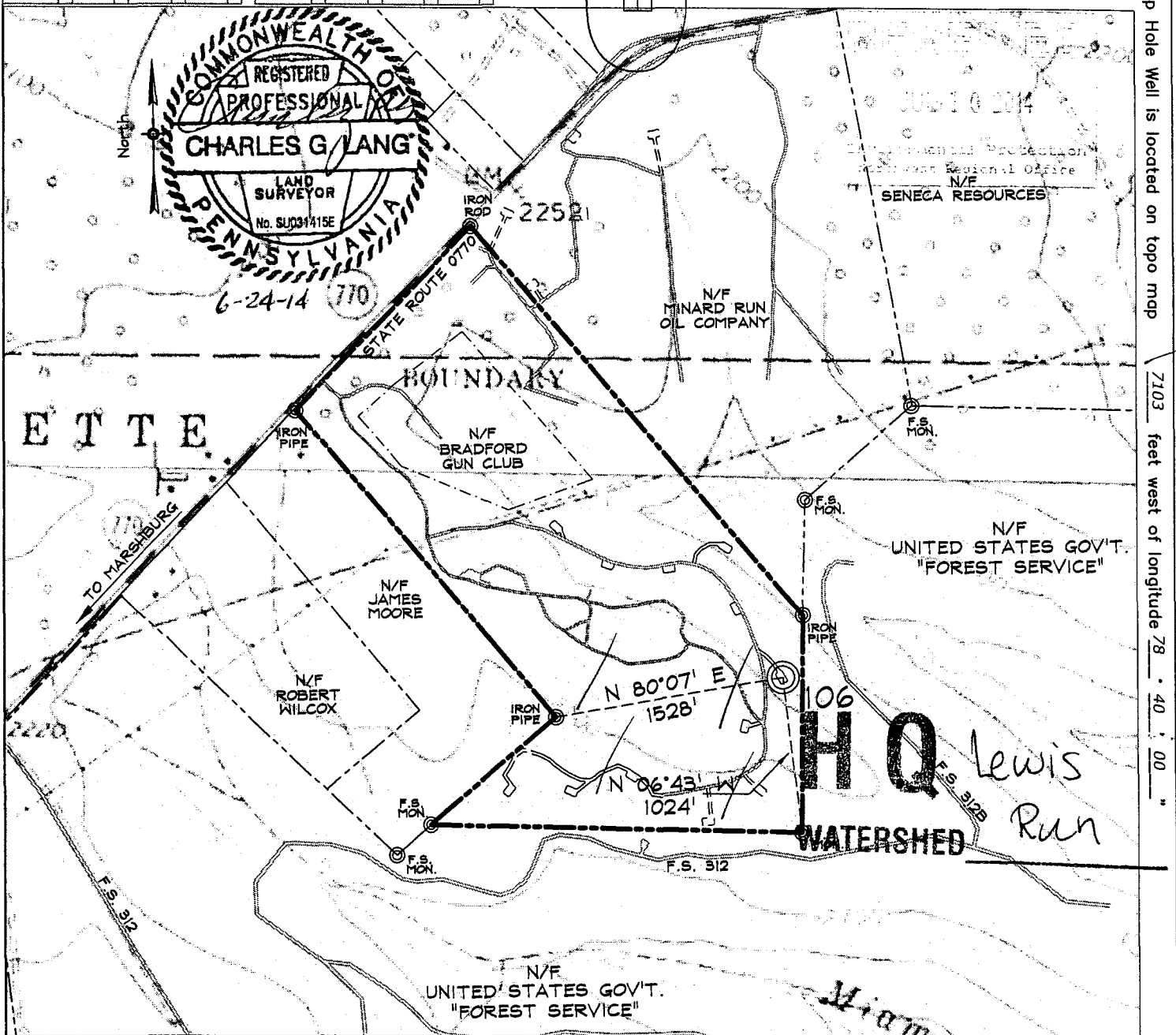
**WELL LOCATION PLAT**

PAGE 1 Surface Location

DEP	Auth ID #	ACN
USE	083-5658	8/18/14
ONLY	Project #	

Top Hole Well is located on topo map 1253 feet south of latitude 41° 52' 30"

Surface Hole Coordinates	Surface Hole Coordinates	TH
True Latitude: NORTH	True Longitude: WEST	<input type="checkbox"/> Denotes location of Surface Hole of well on topo map.
41° 52' 17.62"	78° 41' 33.88"	<input checked="" type="checkbox"/>



Top Hole Well is located on topo map

7103 feet west of longitude 78° 40' 00"

Applicant/Well Operator Name: <b>PECORA ENTERPRISES</b>		DEP ID # <b>22321</b>	Well (Farm) Name: <b>EVANS</b>		Well #: <b>106</b>	Serial #:
Address: <b>42 PARKWAY LANE, BRADFORD, PA. 16701</b>			County: <b>McKean</b>	Municipality: <b>LAFAYETTE TOWNSHIP</b>	Well Type: <b>OIL</b>	
911 address of well site: <b>N/A</b>			USGS 7½ Quadrangle Map Name: <b>LEWIS RUN, PA 0416</b>	Map Section: <b>2</b>	Surface Elevation: <b>2178 ft.</b>	
Surveyor or Engineer: <b>CHARLES G. LANG, PLS</b>	Phone #: <b>814-368-4139</b>	Dwg #: <b>04254.106</b>	Date: <b>08-09-13</b>	Scale: <b>1" = 1000'</b>	Tract Acreage: <b>163± ACRES</b>	
Lat. & Long Metadata Method: <b>SURVEY GRADE GPS</b>		Accuracy: <b>+/- 10 ft.</b>	Datum: <b>NAD83</b>	Elevation Metadata Method: <b>SURVEY GRADE GPS</b>	Accuracy: <b>+/- 10 ft.</b>	Datum: <b>NAVD88</b>
					Survey Date: <b>08-13</b>	

## Page 2 Notifications

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COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS MANAGEMENT

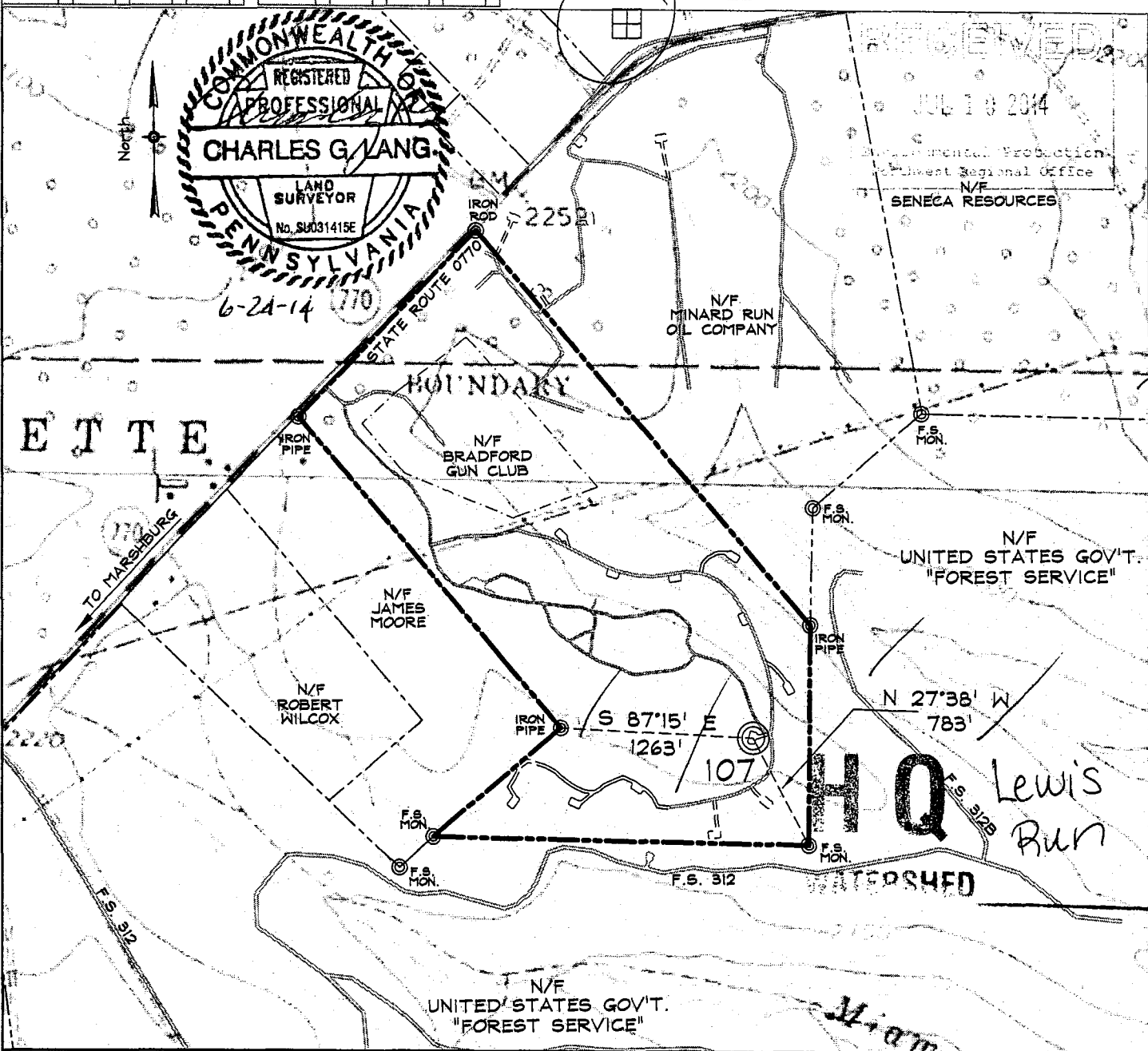
## WELL LOCATION PLAT

PAGE 1 Surface Location

DEP	Auth ID #	ACM 083-5683-118/14
USE	Permit #	
ONLY	Project #	

Top Hole Well is located on topo map 1579 feet south of latitude 41° 52' 30"

Surface Hole Coordinates		Surface Hole Coordinates		TH <input type="checkbox"/> Denotes location of Surface Hole of well on topo map.			
True Latitude: NORTH		True Longitude: WEST					
41	52	14	40	78	41	37	05



Top Hole Well is located on topo map

7343 feet west of longitude 78° 40' 00"

Applicant/Well Operator Name: PECORA ENTERPRISES		DEP ID # 22321	Well (Farm) Name: EVANS		Well # 107	Serial #
Address: 42 PARKWAY LANE, BRADFORD, PA. 16701			County: McKean	Municipality: LAFAYETTE TOWNSHIP	Well Type: OIL	
911 address of well site: N/A			USGS 7½' Quadrangle Map Name: LEWIS RUN, PA 0416	Map Section: 2	Surface Elevation: 2217 ft.	
Surveyor or Engineer: CHARLES G. LANG, PLS	Phone #: 814-368-4139	Dwg #: 04254.107	Date: 08-09-13	Scale: 1" = 1000'	Tract Acreage: 163± ACRES	
Lat. & Long Metadata Method: SURVEY GRADE GPS		Accuracy: +/- 10 ft.	Datum: NAD83	Elevation Metadata Method: SURVEY GRADE GPS	Accuracy: +/- 10 ft.	Datum: NAVD88
					Survey Date: 08-13	

DEP Statewide toll-free phone number for reporting cases of water contamination which may be associated with development of oil and gas resources is **1-866-255-5158**.

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OFFICE OF OIL AND GAS MANAGEMENT

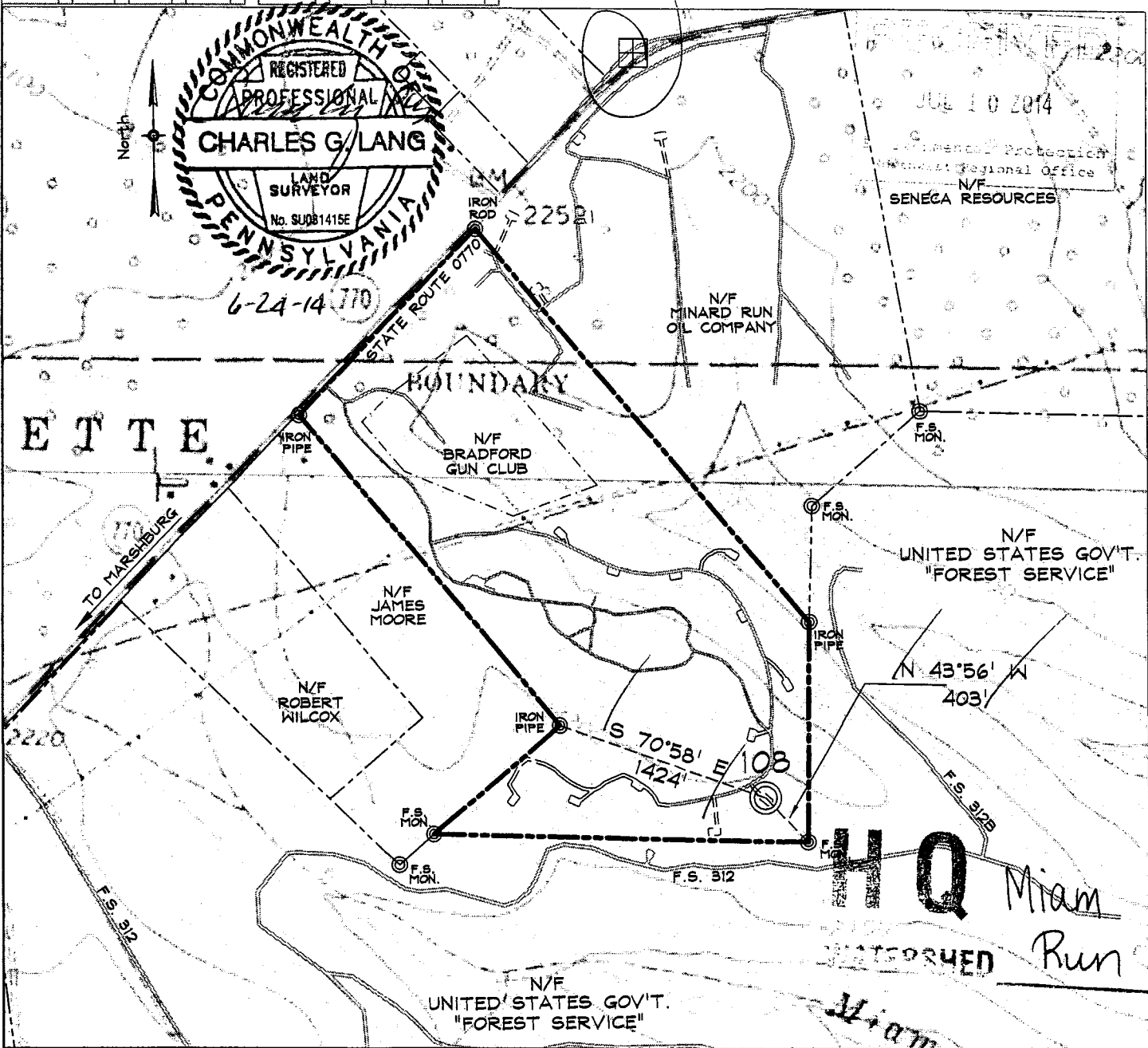
DEP	Auth ID #	ACM
USE	0583-5658	08/18/14
ONLY	Project #	

## WELL LOCATION PLAT

PAGE 1 Surface Location

Top Hole Well is located on topo map 1981 feet south of latitude 41° 52' 30"

Surface Hole Coordinates		Surface Hole Coordinates		TH <input type="checkbox"/> Denotes location of Surface Hole of well on topo map.
True Latitude: NORTH		True Longitude: WEST		
41°	52' 10.42"	78°	41' 35.88"	



Top Hole Well is located on topo map

7254 feet west of longitude 78° 40' 00"

Applicant/Well Operator Name: <b>PECORA ENTERPRISES</b>		DEP ID # <b>22321</b>		Well (Farm) Name: <b>EVANS</b>		Well #: <b>108</b>		Serial #:	
Address: <b>42 PARKWAY LANE, BRADFORD, PA. 16701</b>				County: <b>McKEAN</b>		Municipality: <b>LAFAYETTE TOWNSHIP</b>		Well Type: <b>OIL</b>	
911 address of well site: <b>N/A</b>				USGS 7½' Quadrangle Map Name: <b>LEWIS RUN, PA 0416</b>		Map Section: <b>2</b>		Surface Elevation: <b>2187 ft.</b>	
Surveyor or Engineer: <b>CHARLES G. LANG, PLS</b>		Phone #: <b>814-368-4139</b>		Dwg #: <b>04254.108</b>		Date: <b>08-09-13</b>		Scale: <b>1" = 1000'</b>	
Lat. & Long Metadata Method: <b>SURVEY GRADE GPS</b>		Accuracy: <b>± 10 ft.</b>		Datum: <b>NAD83</b>		Elevation Metadata Method: <b>SURVEY GRADE GPS</b>		Accuracy: <b>± 10 ft.</b>	
						Datum: <b>NAVD88</b>		Survey Date: <b>08-13</b>	

## Page 2 Notifications

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**pennsylvania**  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

For assistance in accessing this document, please contact: R3\_UIC\_Mailbox@epa.gov

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DEPARTMENT OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS MANAGEMENT

# WELL LOCATION PLAT

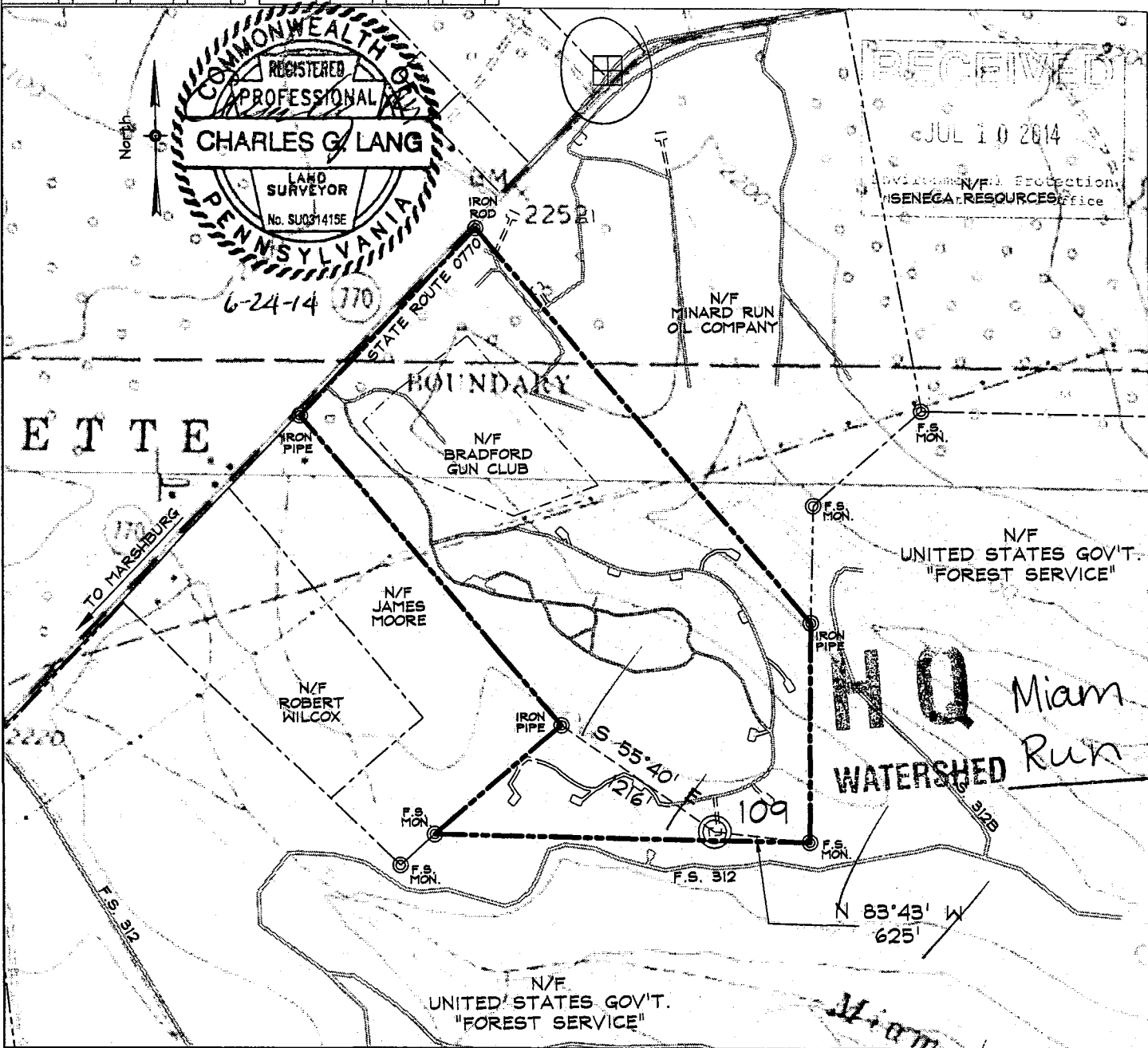
PAGE 1 Surface Location

DEP	Auth ID #:	ACM
USE	Permit #:	083-S6585
ONLY	Project #:	8118/14

Top Hole Well is located on topo map 2206 feet south of latitude 41° 52' 30"

Surface Hole Coordinates		Surface Hole Coordinates	
True Latitude: NORTH		True Longitude: WEST	
41°	52' 08.20"	78°	41' 40.37"

TH Denotes location of Surface Hole of well on topo map.



Top Hole Well is located on topo map

7594 feet west of longitude 78° 40' 00"

Applicant/Well Operator Name: <b>PECORA ENTERPRISES</b>		DEP ID # <b>22321</b>	Well (Farm) Name: <b>EVANS</b>	Well #: <b>109</b>	Serial #:
Address: <b>42 PARKWAY LANE, BRADFORD, PA. 16701</b>		County: <b>McKEAN</b>	Municipality: <b>LAFAYETTE TOWNSHIP</b>	Well Type: <b>OIL</b>	
911 address of well site: <b>N/A</b>		USGS 7½ Quadrangle Map Name: <b>LEWIS RUN, PA 0416</b>	Map Section: <b>2</b>	Surface Elevation: <b>2176 ft.</b>	
Surveyor or Engineer: <b>CHARLES G. LANG, PLS</b>	Phone #: <b>814-368-4139</b>	Dwg #: <b>04254.109</b>	Date: <b>08-12-13</b>	Scale: <b>1"= 1000'</b>	Tract Acreage: <b>163± ACRES</b>
Lat. & Long Metadata Method: <b>SURVEY GRADE GPS</b>	Accuracy: <b>+ - 10 ft.</b>	Datum: <b>NAD83</b>	Elevation Metadata Method: <b>SURVEY GRADE GPS</b>	Accuracy: <b>+ - 10 ft.</b>	Datum: <b>NAVD88</b>
				Survey Date: <b>08-13</b>	

## Page 2 Notifications

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DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS MANAGEMENT

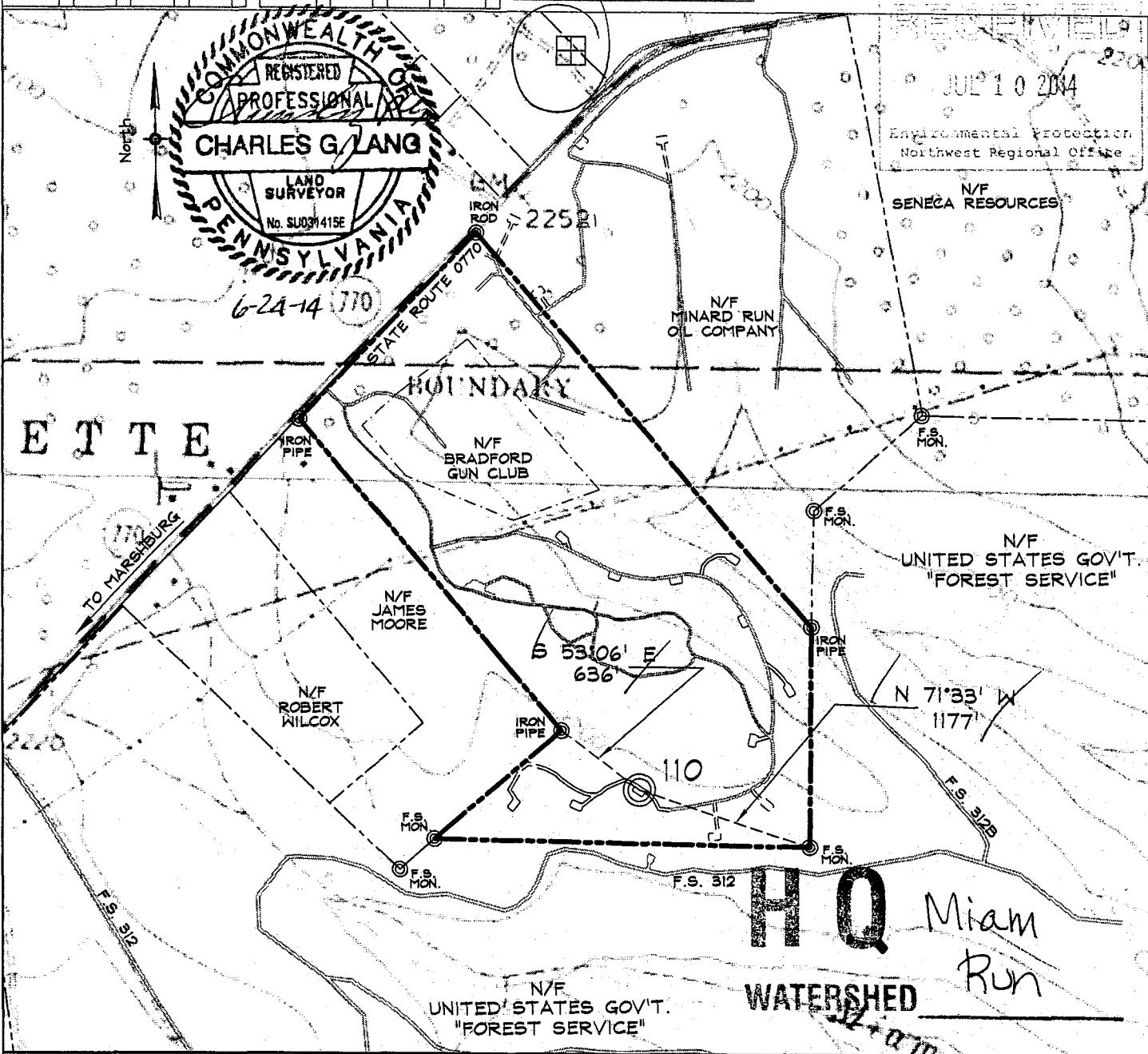
## WELL LOCATION PLAT

PAGE 1 Surface Location

DEP	Auth ID #	ACM 083-56586-818/14
USE	Report #	
ONLY	Project #	

Top Hole Well is located on topo map 1908 feet south of latitude 41° 52' 30"

Surface Hole Coordinates	Surface Hole Coordinates	TH
True Latitude: NORTH	True Longitude: WEST	<input type="checkbox"/> Denotes location of Surface Hole of well on topo map.
41° 52' 11.15"	78° 41' 46.96"	



Top Hole Well is located on topo map

8093 feet west of longitude 78° 40' 00"

Applicant/Well Operator Name: <b>PECORA ENTERPRISES</b>		DEP ID # <b>22321</b>	Well (Farm) Name: <b>EVANS</b>		Well #: <b>110</b>	Serial #:
Address: <b>42 PARKWAY LANE, BRADFORD, PA. 16701</b>			County: <b>McKEAN</b>	Municipality: <b>LAFAYETTE TOWNSHIP</b>	Well Type: <b>OIL</b>	
911 address of well site: <b>N/A</b>			USGS 7½ Quadrangle Map Name: <b>LEWIS RUN, PA 0416</b>	Map Section: <b>2</b>	Surface Elevation: <b>2182 ft.</b>	
Surveyor or Engineer: <b>CHARLES G. LANG, PLS</b>	Phone #: <b>814-368-4139</b>	Dwg #: <b>04254.110</b>	Date: <b>08-12-13</b>	Scale: <b>1"= 1000'</b>	Tract Acreage: <b>163± ACRES</b>	
Lat. & Long Metadata Method: <b>SURVEY GRADE GPS</b>	Accuracy: <b>± 10 ft.</b>	Datum: <b>NAD83</b>	Elevation Metadata Method: <b>SURVEY GRADE GPS</b>	Accuracy: <b>± 10 ft.</b>	Datum: <b>NAVD88</b>	Survey Date: <b>08-13</b>

## Page 2 Notifications

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# Plugging Certificates

COMMONWEALTH OF PENNSYLVANIA  
For assistance contact: Bureau of Oil and Gas Management, R3-16, Mailbox@epa.gov  
DEPARTMENT OF ENVIRONMENTAL RESOURCES  
BUREAU OF OIL AND GAS MANAGEMENT

DER Office Use Only

Code

Oil & Gas Inspector *AK*Date Approved *2/1/98*

INV

EXA

## CERTIFICATE OF WELL PLUGGING

Coal ☐ Operator ☐ Owner ☐ Lessee

Address

Coal ☐ Operator ☐ Owner ☐ Lessee

Address

Coal ☐ Operator ☐ Owner ☐ Lessee

Address

**COMPLETE ABOVE SECTION IF APPLICABLE**

Intake *Lewis Run*

Type of Well

Minard Run Oil Company

Operator Name

P.O. Box 18, Bradford, PA 16701

Address

Lafayette

Municipality

McKean

County

37-083-23515

MRO-14

Permit/Registration Number

Project Number

Flood-3 Warrant 2265

Farm Name

3A2

Well Number

Serial Number

We, the undersigned representatives of the Well Operator certify that we participated in the plugging of the above well, and that the work was started Jan. 2 19 96, and that the well was plugged as follows:

FILLING MATERIAL AND PLUGS	Casing and Tubing				
	FROM	TO	SIZE	PULLED	LEFT
Total depth		2011	8"		41'
Packer		1981	6 1/2"		401'
Cement on packer	1981	1950	1 1/2"	1296'	685'
Rag Packer		1238			
Cement on packer	1238	1138			
Plug in 2"	1238	1138			
Larkin packer		874			Depth of Coal Seam(s), If Any
Cement on packer	874	774			
Plug in 2"	874	774			
Cement	471	371			
Gravel & dirt	371	25			
Cement	25	0			Description of Monument
					2" pipe marker

I certify that the work of plugging and filling said well was completed on the 26th day of Jan., 19 96 and that the above information is true and accurate.

Minard Run Oil Company

2-16-96

(Well Operator)

Date

*E.W. Aharran*

(Qualified Participant) Superintendent

*F.W. Fesenmyer*

(Qualified Participant) President

One copy of this certificate to be mailed to each coal operator, lessee, or owner, if any, and one to the Bureau of Oil and Gas Management, upon completion of plugging.

# Proposed Alternate Method of Casing, Plugging, Venting or Equipping

Minard Run Oil Company  
Well Operator

P.O. Box 18  
Address

Bradford, PA 16701

814-362-3531  
Telephone Number

37-083-23515  
Permit/Registration Number

Flood-3 Warrant 2265  
Farm Name

3A-2  
Project No. MRO-14

Well Number  
Serial Number

Lafayette Twp.  
Municipality

McKean  
County

"Proposed Alternate Method" is subject to provisions stated in the Oil and Gas Act, Section 211, and the Coal and Gas Resource Coordination Act Section 13.

Describe in reasonable detail using written description and diagram: 1. Ways in which proposed method will deviate from standard method. 2. Ways in which proposed method will provide equivalent or greater protection or ways in which the method will accomplish goals of the Oil and Gas Act and regulations adopted pursuant thereto and the Coal and Gas Resource Coordination Act.

With this method, cement plugs are not placed above formations laying between the Bradford 3rd. sand and the Bradford 1st. sand. One reason being the lack of information on these sands. Also there are many old wells in the area, plugged long ago, where these formations were not isolated by cement.

This method does have a 50 ft. cement plug above the Bradford 1st. sand. This we believe will prevent upward movement of fluids from the Bradford 1st. sand and other formations laying between it and the Bradford 3rd. sand. These formations have been open in the wellbores for many years allowing a mixture of fluids and pressure. Putting gel in this section of the hole will prevent any migration of fluids. (See diagrams on back.)

APPROVED:

(Bureau Representative)

FEB 2 1996

Date:

2/2/96

Conditions: Yes ☐ (See Attached) No ☒

APPROVED:

(Coal Owner or Operator)

Date:

Conditions: Yes ☐ (See Attached) No ☐

Signed

(Well Owner or Operator)

Frederick W. Fesenmyer, President

(Print or Type Name and Title)

AUG 31 1998

PA GEOLOGICAL SURVEY  
Oil & Gas Geology Division

Attach proof of Coal Operator Notification

in accessing this document, please contact: R3-UG-Mailbox@epa

**COMMONWEALTH OF PENNSYLVANIA**  
**DEPARTMENT OF ENVIRONMENTAL RESOURCES**  
**BUREAU OF OIL AND GAS MANAGEMENT**

Name 9/6/96 BM

# CERTIFICATE OF WELL PLUGGING

Code	
Oil & Gas Inspector	ZRF
Date Approved	24/6/96
INV	EXA

Coal ☐ Operator ☐ Owner ☐ Lessee

Address

Coal ☐ Operator ☐ Owner ☐ Lessee

Address

Coal ☐ Operator ☐ Owner ☐ Lessee

Address

LEWIS RUN  
200' S 41° 58'  
7000' W 78° 40' (5)  
\*Elevation: 2040'

Intake	
Type of Well	
Minard Run Oil Company	
Operator Name	
P.O. Box 18, Bradford, PA 16701	
Address	
Lafayette Twp.	
Municipality JAN - 2 1996	
McKean	
County	
37-083-23516	
WARREN DISTRICT OFFICE	
MRO-14	
Permit/Registration Number	Project Number
Flood-3	Warrant 9903
Farm Name	
3A-3	
Well Number	Serial Number

We, the undersigned representatives of the Well Operator certify that we participated in the plugging of the above well, and that the work was started Dec. 7 19 95, and that the well was plugged as follows:

FILLING MATERIAL AND PLUGS	FROM	TO	Casing and Tubing		
			SIZE	PULLED	LEFT
Total depth		2011	8"		41'
Packer		1981	6 1/4"		401'
Cement on packer	1981	1950	1 1/2"	1200'	781'
Gel & cement	1375	1275			
Cement plug 1 1/2"		1390			
Cement plug	1390	1290			
Cement	448	348	Depth of Coal Seam(s), If Any		
Gravel & dirt	348	10			
Cement	10	0			
			Description of Monument		
			2" pipe marker		

I certify that the work of plugging and filling said well was completed on the 20th day of Dec., 1995  
and that the above information is true and accurate.

Minard Run Oil Company (Well Operator) SEP 10 1996 1/19/96 Date

PA GEOLOGICAL SURVEY  
Oil & Gas Geology Division

*E.W. Aharrah* *Superintendent*  
E.W. Aharrah (Qualified Participant) Superintendent  
*F.W. Fesenmyer* *President*  
F.W. Fesenmyer (Qualified Participant) President

One copy of this certificate to be mailed to each coal operator, lessee, or owner, if any, and one to the Bureau of Oil and Gas Management, upon completion of plugging.





COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL RESOURCES

DIVISION OF OIL AND GAS  
Room 1205 Kossman Building  
100 Forbes Avenue  
Pittsburgh, Pennsylvania 15222

Office Use Only

2500'S (2)  
7150'W

CERTIFICATE OF PLUGGING WELL

TYPE OF WELL Oil

Coal Operator or Owner

Address

Coal Operator or Owner

Address

Coal Operator or Owner

Address

COMPLETE ABOVE SECTION IF APPLICABLE

Richard B. Herzog

Name of Well Operator

235 So. Kendall Ave., Bradford, Pa. 16701

Address

Nov. 17 19 86

Date

Lafayette

Township

McKean

County

Farm USFS (Wt 2277)

Well (Farm) No. VE-9 Serial No. \_\_\_\_\_

DIVISION REPRESENTATIVE SUPERVISING

COAL REPRESENTATIVE OBSERVING

We, the undersigned representatives of the well operator certify that we participated in the plugging of the above well, and that the work was started Oct. 3 19 86, and that the well was plugged as follows:

FILLING MATERIAL AND PLUGS	FROM	TO	Casing and Tubing		
			SIZE	PULLED	LEFT
Wooden bridge, 10 gals 3A, 45' pea gravel and 5 sacks cement	1700'	1635'	2 3/8"	1894'	None
			6 5/8"	None	378'
Wooden bridge, 10 gals 3A, 45' pea gravel and 5 sacks cement	1100'	1035'	8"	None	35'
Wooden bridge, 10 gals 3A, 45' pea gravel and 5 sacks cement	450'	385'	Depth of Coal Seam, If Any		
Cement bags for bridge, 50' 3A and stones, 1 sack cement	50'	-0-	Description of Monument		
			None		

and that the work of plugging and filling said well was completed on the 6th day of Oct, 19 86

(Well Operator)

(Qualified Participant)

(Qualified Participant)

(Qualified Participant)

PERMIT NO. McK40575

PROJECT NO. MDUSG-12

One copy of this certificate to be mailed to each coal operator or owner, if any, and one to the Division, by registered mail, upon completion of plugging.

DEC 11

12-9-86

## **APPENDIX B**

### All Information on Well 106



**pennsylvania**  
DEPARTMENT OF ENVIRONMENTAL  
PROTECTION

COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS MANAGEMENT

DEP USE ONLY	
Site ID	Client Id
Client Id	Sub Facility Id

2328640

## Well Record

WELL INFORMATION											
Well Operator Pecora Enterprises			DEP ID# 22321		Well API # 37-083-56582- -			Well Farm Name Evans		Well # 106	
Address 42 Parkway Lane			LAT 41°52' 17"		NAD 83		Project Number		Serial #		
City Bradford			State PA		Zip 16701		Municipality Lafayette		County McKean		
Phone 814-368-8480			Fax 814-368-8480		Email rattler7@verizon.net			USGS 7.5 min. quadrangle map Lewis Run		Section 2	
Check the appropriate Submission: <input checked="" type="checkbox"/> Original Well Record <input type="checkbox"/> Amended Well Record											
Well Type <input type="checkbox"/> Gas <input checked="" type="checkbox"/> Oil <input type="checkbox"/> Combination Oil & Gas <input type="checkbox"/> CBM <input type="checkbox"/> Injection <input type="checkbox"/> Disposal <input type="checkbox"/> Storage								Wellbore Conditioning:			
Well Orientation <input checked="" type="checkbox"/> Vertical <input type="checkbox"/> Deviated from Vertical (Top & Side views & Deviation Survey must be attached)											
Drill Method(s) <input checked="" type="checkbox"/> Rotary - Air <input type="checkbox"/> Rotary - Mud <input type="checkbox"/> Cable Tool <input type="checkbox"/> Other											
Drilling Started 9/19/2014			Surface Elev. 2178 ft.			GW Depth 85 ft.					
Drilling Complete 9/23/2014			True Vertical Depth 2130 ft.			Depth of DFGW 85 ft.					
Date Well Completed 10/7/2014			Total Measured Depth 2130 ft.			DFGW decided by: 0					

CEMENT									
Cement returned on surface casing? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			If No, provide depth to top of cement and method used to determine: 157' Cement top bond log						
Cement returned on coal protective casing? <input type="checkbox"/> Yes <input type="checkbox"/> No			If No, provide depth to top of cement and method used to determine: <input checked="" type="checkbox"/> NA						
Cement returned on intermediate casing? <input type="checkbox"/> Yes <input type="checkbox"/> No			If No, provide depth to top of cement and method used to determine: <input checked="" type="checkbox"/> NA						
Casing String	Type/Class of Cement (Lead/Tail)	Slurry Temp F°	Amount of Cement (sks) (Lead/Tail/Total)		WOC hrs	WT PPG	Yld #3 /sk	Gas Migration Controls Used	
Conductor	/ sanded in	0 °	/	/		0	0	What controls were used if any (additives/ hardware. Specify type and depth applicable).  OCT 20 2014	
Surface	Type 1 / Class A	55 °	/	/ 55	14	15	1		
Coal Protective	/	°	/	/					
Intermediate	/	°	/	/					
Production	/	°	/	/					
If additional strings attach form(s)			Total						

CASING AND TUBING											
Hole Size	Pipe Size	Wt. #/ft.	Grade Casing / Tubing Type	Thread / Weld - New/ Used	Amount in Well (ft.)	CO	R	Hardware - Baskets / Packer / Centralizers (Total/String)			Date Run
								Type	Size	Depth	
12.25	9 5/8	32.3#	2720	T - N	55				9 5/8	55	9/19/2014
8 3/4	6 5/8	23#	1620	T - N	456			Guide shoe and centralizers 50'	6 5/8	456	9/19/2014
6.25	4.5	17#	1400	T - U	1940			Packer	4.5	1940	10/7/2014
6.25	2.375	4.9#	1800	T - U	2100			Pump barrel	2.375	2100	10/7/2014

If any casing is welded, provide the name(s) of the welder(s):

PLUG-BACK/WELLBORE ALTERATION										
Fill Material & Plugs					Depth		Date	Casing & Tubing		
					From	To		Size	Pulled	Left

ENVIRONMENTAL PROTECTION  
WARREN DISTRICT OFFICE

## LOG OF FORMATIONS

Well API#: 37-083-56582- -

(If you will need more space than this page, please photocopy the blank form before filling it in.)

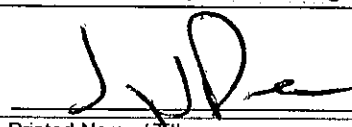

Formation Name or Lithology	Top (feet)	Bottom (feet)	Gas at (feet)	Oil at (feet)	Water at (fresh / brine; ft.)	Source of Data
Dirt/Sand stone	-----0	30				driller's log
shale	30	60				
shale/sand /shale	60	90			F 85	
shale	90	120				
shale/sand/shale	120	150				
shale	150	300				
shale/red rock	300	330				
red rock	330	480				
shale	480	540				
shale/red rock	540	570				
red rock/shale	570	600				
shale	600	930				
shale/ red rock	930	960				
red rock	960	990				
shale	990	1350				
shale/Bradford first sand	1350	1380				
shale	1380	1860				
shale/Bradford third sand	1860	1890				
Bradford third sand/shale	1890	1920				
shale	1920	1980				
shale/Lewis Run sand	1980	2010				
shale	2010	2130				

If no show of oil, gas or water, explain why:

## WELL SERVICE COMPANIES (Provide the name, address, and telephone number of all well service companies involved.)

Casing Source	Cementing Company	Hardware Supplier	Logging Company
Name Bradford Pipe	Name Howard Drilling, LLC	Name	Name Gemini Wireline
Address 230 Chestnut St.	Address P O BOX N	Address	Address 344 High St
City - State - Zip BRADFORD Pa 16701	City - State - Zip MT JEWETT PA 16740	City - State - Zip	City - State - Zip BRADFORD Pa 16701
Phone 814 362-6501	Phone 814-778-5820	Phone	Phone -8143620230

I do hereby certify to the best of my knowledge, information and belief that the well identified on this Well Record has been properly cased and cemented in accordance with the requirements of 25 Pa. Code Chapter 78 and any conditions contained in the permit for this well. In addition, I do hereby certify that any casing which is attached to a blow-out preventer with a pressure rating greater than 3,000 psi has passed a pressure test in accordance with 25 Pa. Code §78.84(f). I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Driller		Well Operator's Signature		DEP USE ONLY	
Name Howard Drilling, LLC	Rig	 Printed Name / Title: Jay J. Pecora / Partner		Reviewed by:	
Address P O Box N				 Comments:	
City - State - Zip MT JEWETT PA 16740					
Phone 814-778-5820		Date: 9/23/2014			





**pennsylvania**  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS MANAGEMENT

## Completion Report

DEP USE ONLY	
Site ID	Primary Facility ID
Client ID	Sub Facility ID

Well Information							
Well Operator Pecora Enterprises		DEP ID# 22321		Well API # 37 - 083-56582- -		Well Farm Name Evans	
Address 42 Parkway Lane		LAT - 41° 52' 17.62"		NAD 83		Project Number	
City Bradford		State PA		Zip Code 16701		County McKean	
Phone 814-368-8480		Fax 814-368-8480		Email ratter7@verizon.nett		USGS 7.5 min. quadrangle map Lewis Run	
						Section 2	
Check the appropriate submission: <input checked="" type="checkbox"/> Original Completion Report <input type="checkbox"/> Amended Completion Report							
STIMULATION BASE FLUID							
List Water Management Plan Source(s)				Water Management Plan ID		Volume (Gallons)	
1. N/A							
2.							
3.							
4.							
5.							
6.							
				DEP Biologist Review/Date		Total Gallons of Water Used	
						Water	
						Recycled	
Other Base Fluid(s) Used						Quantity and /UOM	
1.						/	
2.						/	
Total Quantity all Fluid(s)						/	
STIMULATION/PRODUCTION INFORMATION (WELL)							
Radioactive tracers used? <input type="checkbox"/>		24 Hr. Open-Flow (MCF/Day) / Date we don't do this /		24 Hr. Shut-in Pressure: / Date WE Don't do this /		Completion Date: 10/7/2014	
Specify Tracer							
Well Products: <input type="checkbox"/> Gas Btu		<input checked="" type="checkbox"/> Oil API G		<input type="checkbox"/> Condensate API G		<input type="checkbox"/> Other	
						<input type="checkbox"/> GOR	
WELL SERVICE COMPANIES							
Perforation Company		Frac Company		Plug Drill Out/Flow Back Company			
Name S W Neilly Corp, AIR NOTCHING Company		Name Howard Drilling, LLC		Name			
Address 350 Minard Run PO Box 414		Address P O BOX N		Address			
City - State- Zip Bradford, PA 16701		City - State - Zip Mt Jewett, PA 16740		City - State - Zip			
Phone 814-362-4443		Phone 814-778-5820		Phone			
I do hereby certify to the best of my knowledge, information and belief that the information contained on this Completion Report is true and correct. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.							
Well Operator's Signature				DEP USE ONLY			
				Reviewed by:  Date: 12-15-14			
Printed Name / Title: Jay J. Pecora / Partner				Comments:			
Date: 10/17/2014							

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ENVIRONMENTAL PROTECTION  
WARREN DISTRICT OFFICE

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## STIMULATION FLUID ADDITIVES

Please insert additional copies of this page if additional rows are needed.

Well API# 37-083-56582- -

**STIMULATION INFORMATION / STAGE**

Complete a separate record for each stimulation stage. (Please insert additional lines for additional stages or additional pages as applicable).

Stg #	Stimulation Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Proppant Type	Proppant Mesh Size(s)
1	10/7/2014	20	1,921	2,468	1,728	20/40	150 sacks
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
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40							



COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS MANAGEMENT

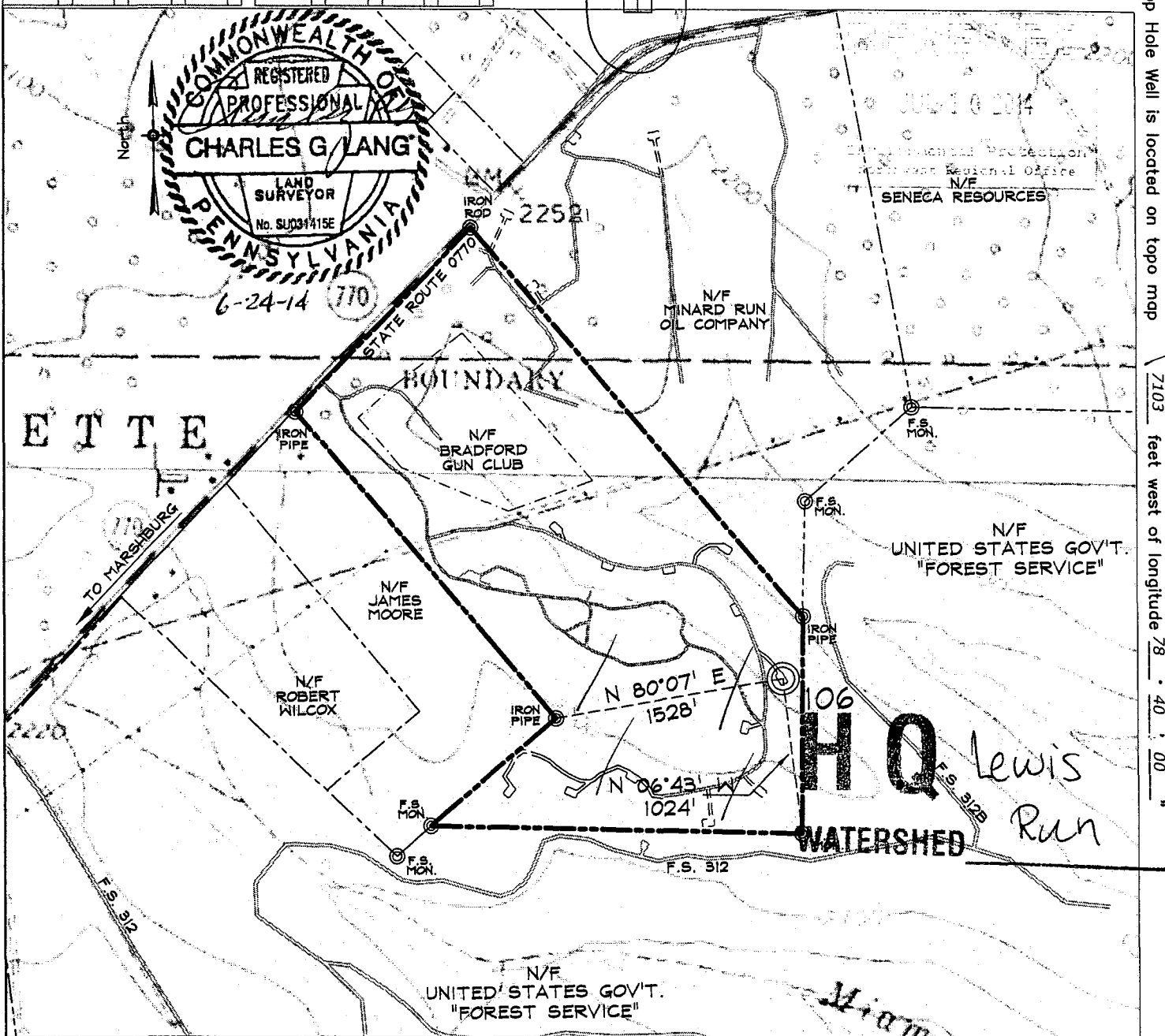
## WELL LOCATION PLAT

PAGE 1 Surface Location

DEP	Auth ID #	ACN
USE	083-5658	8/18/14
ONLY	Project #	

Top Hole Well is located on topo map 1253 feet south of latitude 41° 52' 30"

Surface Hole Coordinates	Surface Hole Coordinates	TH
True Latitude: NORTH	True Longitude: WEST	<input type="checkbox"/> Denotes location of Surface Hole of well on topo map.
41° 52' 17.62"	78° 41' 33.88"	<input checked="" type="checkbox"/>



Top Hole Well is located on topo map

7103 feet west of longitude 78° 40' 00"

Applicant/Well Operator Name: <b>PECORA ENTERPRISES</b>		DEP ID # <b>22321</b>	Well (Farm) Name: <b>EVANS</b>		Well #: <b>106</b>	Serial #:
Address: <b>42 PARKWAY LANE, BRADFORD, PA. 16701</b>			County: <b>McKean</b>	Municipality: <b>LAFAYETTE TOWNSHIP</b>	Well Type: <b>OIL</b>	
911 address of well site: <b>N/A</b>			USGS 7½ Quadrangle Map Name: <b>LEWIS RUN, PA 0416</b>	Map Section: <b>2</b>	Surface Elevation: <b>2178 ft.</b>	
Surveyor or Engineer: <b>CHARLES G. LANG, PLS</b>	Phone #: <b>814-368-4139</b>	Dwg #: <b>04254.106</b>	Date: <b>08-09-13</b>	Scale: <b>1" = 1000'</b>	Tract Acreage: <b>163± ACRES</b>	
Lat. & Long Metadata Method: <b>SURVEY GRADE GPS</b>		Accuracy: <b>+/- 10 ft.</b>	Datum: <b>NAD83</b>	Elevation Metadata Method: <b>SURVEY GRADE GPS</b>	Accuracy: <b>+/- 10 ft.</b>	Datum: <b>NAVD88</b>
					Survey Date: <b>08-13</b>	



## Page 2 Notifications

[illegible]


**KEYSTONE  
WIRELINE, INC.**

BRADFORD, PA

# LOG ANALYSIS

Company PECORA ENTERPRISES Well EVANS 106 Field EVANS County MCKEAN State PA	Company		PECORA ENTERPRISES	
	Well		EVANS 106	
	Field		EVANS	
	County		MCKEAN	State PA
	Location:		API #: 37-083-56582-00-00 LEWIS RUN QUAD. LAT. -41-52-17.62 LONG. -78-41-33.88	
	TWP: LAFAYETTE		Other Services	
Permanent Datum		GROUND LEVEL		Elevation 2178'
Log Measured From		TOP OF 7" COLL. 0.7' ABOVE P.D.		K.B.
Drilling Measured From		TOP OF 7" CASING COLLAR		D.F.
				G.L. 2178'
Date	9-28-2014			
Run Number	ONE			
Depth Driller	2135.6'			
Depth Logger	2135.6'			
Bottom Logged Interval	2130.6'			
Top Log Interval	0'			
Casing Driller	7" @ 455'			
Casing Logger	7" @ 455'			
Bit Size	6.25"			
Type Fluid in Hole	WATER/OIL @ 1870'			
Density / Viscosity	N/A			
pH / Fluid Loss	N/A			
Source of Sample	N/A			
Rm @ Meas. Temp	N/A			
Rmf @ Meas. Temp	N/A			
Rmc @ Meas. Temp	N/A			
Source of Rmf / Rmc	N/A			
Rm @ BHT	N/A			
Time Circulation Stopped	N/A			
Time Logger on Bottom	14:30			
Maximum Recorded Temperature	72 DEG F			
Equipment Number	155			
Location	BRADFORD PA			
Recorded By	MR. C. BURNS			
Witnessed By	MR. PECORA			

All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence or malice, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

### Comments

2.68 G/CC MATRIX DENSITY 1.0 G/CC FLUID DENSITY  
 LOGGED OFF OF KEYSTONE MAST UNIT 151  
 CREW: ADAMS/CARPENTER  
 THANK YOU FOR USING KEYSTONE WIRELINE!!

Database File: pecora enterprise evans 106.db  
 Dataset Pathname: 106/run1/\_ohint1\_  
 Presentation Format: ajaxlist  
 Dataset Creation: Thu Sep 25 16:08:00 2014  
 Charted by: Depth in Feet scaled 1:75

	VSH		PB		PMA		PHIE		SGAS	
		NEU (pu)		DPOR		RT		SW		SOIL
668	65	7.0	2.59	5.55	2.68	49.0	0.97	100	0	0
669	46	6.5	2.55	7.96	2.68	52.3	4.27	100	0	0
670	18	5.1	2.50	10.80	2.68	59.6	8.85	46	23	31
671	14	4.7	2.46	11.72	2.68	65.9	10.03	39	32	29
672	29	4.3	2.51	10.24	2.68	77.2	7.26	50	21	30
673	14	3.4	2.51	9.93	2.68	92.0	8.55	39	37	25
674	1	2.9	2.54	8.07	2.68	92.3	7.96	41	37	21
675	8	3.9	2.53	8.99	2.68	93.1	8.28	40	32	29
676	9	5.9	2.54	8.59	2.68	87.5	7.81	43	14	43
677	23	8.4	2.61	4.04	2.68	65.6	0.00	100	0	0
678	87	11.7	2.68	0.23	2.68	40.1	0.00	100	0	0
	VSH		PB		PMA		PHIE		SGAS	
		NEU (pu)		DPOR		RT		SW		SOIL



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 Dataset Creation: Thu Sep 25 16:08:00 2014  
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	VSH		PB		PMA		PHIE		SGAS	
		NEU (pu)		DPOR		RT		SW		SOIL
1290	49	6.1	2.56	6.15	2.68	49.4	3.10	100	0	0
1291	58	7.6	2.56	7.26	2.68	49.6	3.08	100	0	0
1292	36	7.3	2.50	10.74	2.68	52.7	6.92	63	0	37
1293	13	6.6	2.45	13.48	2.68	52.3	11.79	37	28	35
1294	25	6.7	2.47	12.22	2.68	50.1	9.16	49	14	38
1295	56	6.2	2.48	11.72	2.68	52.5	5.20	84	0	16
1296	23	5.6	2.43	14.93	2.68	53.8	11.55	37	32	31
1297	18	5.3	2.44	14.57	2.68	53.0	11.90	36	35	29
1298	31	5.9	2.46	13.10	2.68	55.6	8.99	47	18	35
1299	18	5.6	2.44	14.55	2.68	59.6	11.87	35	35	31
1300	15	4.8	2.42	15.31	2.68	60.1	12.99	31	43	25
1301	14	5.2	2.43	14.75	2.68	59.9	12.67	32	40	28
1302	16	5.8	2.48	11.71	2.68	60.7	9.88	41	24	35
1303	22	6.5	2.52	9.79	2.68	60.5	7.64	53	7	40
1304	21	7.0	2.54	8.20	2.68	58.4	6.52	63	0	37
1305	28	7.2	2.58	5.89	2.68	55.8	4.24	100	0	0
1306	45	6.8	2.57	6.53	2.68	55.6	3.59	100	0	0
1307	34	5.7	2.56	7.17	2.68	60.3	4.73	86	0	14
1308	16	4.8	2.51	9.94	2.68	61.6	8.36	48	22	30
1309	23	5.0	2.49	11.07	2.68	63.3	8.53	47	22	32
1310	26	5.4	2.48	12.06	2.68	71.1	8.95	42	23	35
1311	19	5.9	2.47	12.59	2.68	66.2	10.13	38	25	36
1312	39	7.1	2.53	8.67	2.68	59.5	5.30	77	0	23
1313	47	7.6	2.55	7.72	2.68	58.3	4.10	100	0	0
1314	43	7.3	2.57	6.67	2.68	55.2	3.78	100	0	0
1315	50	7.2	2.62	3.46	2.68	56.2	0.00	100	0	0
	VSH		PB		PMA		PHIE		SGAS	
		NEU (pu)		DPOR		RT		SW		SOIL

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 Dataset Creation: Thu Sep 25 16:08:00 2014  
 Charted by: Depth in Feet scaled 1:75

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		NEU (pu)		DPOR		RT		SW		SOIL
1307	40	7.4	2.57	6.40	2.68	49.0	3.43	100	0	0
1388	41	7.0	2.57	6.32	2.68	55.4	3.70	100	0	0
1389	20	6.5	2.53	8.77	2.68	65.2	7.03	56	4	41
1390	14	6.3	2.55	7.56	2.68	69.1	6.52	58	1	40
1391	19	7.4	2.52	9.25	2.68	73.8	7.52	49	1	50
1392	35	7.4	2.54	8.60	2.68	80.8	5.57	63	0	37
1393	22	7.5	2.52	9.42	2.68	86.3	7.38	46	0	54
1394	22	7.5	2.54	8.62	2.68	80.8	6.74	52	0	48
1395	51	7.9	2.56	7.06	2.68	72.3	3.49	100	0	0
1396	69	8.5	2.61	4.02	2.68	69.6	0.00	100	0	0
1397	55	8.1	2.64	2.50	2.68	63.4	0.00	100	0	0
	VSH		PB		PMA		PHIE		SGAS	
		NEU (pu)		DPOR		RT		SW		SOIL

Database File: pecora enterprise evans 106.db

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Dataset Creation: Thu Sep 25 16:08:00 2014

Charted by: Depth in Feet scaled 1:75

	VSH		PB		PMA		PHIE		SGAS	
		NEU (pu)		DPOR		RT		SW		SOIL
1700	27	7.0	2.50	0.21	2.00	33.0	4.33	100	0	0
1701	19	6.5	2.57	6.65	2.68	39.8	5.37	93	0	7
1702	8	6.5	2.51	10.30	2.68	50.4	9.45	47	16	36
1703	12	7.4	2.51	10.14	2.68	55.5	8.96	47	9	43
1704	26	8.9	2.60	4.51	2.68	49.3	0.00	100	0	0
1705	22	10.2	2.62	0.20	2.62	42.6	0.00	100	0	0
	VSH		PB		PMA		PHIE		SGAS	
		NEU (pu)		DPOR		RT		SW		SOIL



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1870	36	8.5	2.37	13.32	2.68	59.8	7.63	54	0	46
1871	43	7.9	2.46	13.39	2.68	59.8	7.63	54	0	46
1872	12	7.8	2.36	19.07	2.68	59.0	16.80	25	41	35
1873	10	7.7	2.37	18.67	2.68	61.5	16.81	24	41	35
1874	14	7.9	2.37	18.75	2.68	64.8	16.17	24	39	37
1875	14	7.9	2.39	17.34	2.68	60.5	14.99	27	34	39
1876	16	8.2	2.40	16.59	2.68	54.8	13.86	31	28	41
1877	15	8.7	2.36	19.29	2.68	48.7	16.46	28	34	38
1878	14	9.1	2.35	19.59	2.68	42.4	16.91	29	33	38
1879	17	8.8	2.37	18.50	2.68	36.6	15.39	34	28	38
1880	8	8.8	2.33	20.75	2.68	29.5	19.19	30	38	32
1881	4	8.7	2.32	21.16	2.68	29.8	20.35	28	41	31
1882	5	8.5	2.33	20.85	2.68	31.2	19.84	29	41	31
1883	4	8.7	2.34	20.17	2.68	22.5	19.33	34	36	30
1884	4	8.4	2.35	19.69	2.68	22.5	18.89	35	36	29
1885	4	8.4	2.37	18.33	2.68	19.9	17.63	40	31	29
1886	5	8.3	2.43	15.16	2.68	22.8	14.47	46	23	31
1887	8	8.0	2.43	15.15	2.68	26.6	13.94	44	24	32
1888	13	8.2	2.36	18.82	2.68	27.3	16.45	37	32	32
1889	13	8.7	2.37	18.66	2.68	27.4	16.30	37	29	34
1890	13	9.0	2.35	19.68	2.68	24.9	17.04	37	30	33
1891	13	9.4	2.36	19.13	2.68	23.0	16.73	39	26	34
1892	10	9.2	2.37	18.70	2.68	23.2	16.75	39	28	33
1893	15	9.2	2.38	17.65	2.68	24.1	15.09	43	22	35
1894	24	9.5	2.44	14.08	2.68	26.1	10.69	58	5	37
1895	18	10.0	2.42	15.60	2.68	29.0	12.80	46	12	42
1896	13	9.8	2.37	18.24	2.68	31.5	15.86	36	25	40
1897	19	9.7	2.37	18.55	2.68	33.7	15.01	36	22	41
1898	21	9.6	2.37	18.75	2.68	35.9	14.80	36	23	42
1899	19	9.4	2.36	18.79	2.68	38.1	15.15	34	25	41
1900	15	9.7	2.36	19.09	2.68	34.6	16.14	33	27	40
1901	18	10.0	2.36	18.85	2.68	29.5	15.45	38	22	40
1902	25	9.9	2.41	16.26	2.68	29.1	12.23	48	10	42
1903	20	9.7	2.54	8.12	2.68	29.2	6.47	90	0	10
1904	41	9.6	2.64	2.44	2.68	26.5	0.00	100	0	0
1905	60	11.1	2.64	2.44	2.68	27.7	0.00	100	0	0
1906	55	12.2	2.64	2.62	2.68	28.8	0.00	100	0	0
VSH		PB		PMA		PHIE		SGAS		
NEU (pu)		DPOR		RT		SW		SOIL		

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	VSH		PB		PMA		PHIE		SGAS	
		NEU (pu)		DPOR		RT		SW		SOIL
2002	79	11.7	2.07	0.63	2.68	19.6	0.00	100	0	0
2003	68	11.2	2.59	5.41	2.68	22.0	1.73	100	0	0
2004	37	9.3	2.46	12.96	2.68	25.7	8.14	77	0	23
2005	12	8.0	2.32	21.18	2.68	31.5	18.73	30	40	30
2006	8	7.6	2.32	21.55	2.68	41.7	19.80	25	47	29
2007	6	7.9	2.32	21.15	2.68	56.1	19.95	21	48	31
2008	8	8.0	2.34	19.94	2.68	64.0	18.36	22	44	34
2009	11	9.0	2.44	14.38	2.68	55.9	12.75	33	20	47
2010	30	10.4	2.55	7.84	2.68	40.9	5.52	90	0	10
2011	56	12.3	2.64	2.52	2.68	32.3	0.00	100	0	0
2012	69	14.4	2.67	0.64	2.68	26.3	0.00	100	0	0
2013	67	13.1	2.60	0.34	2.68	21.8	0.00	100	0	0
	VSH		PB		PMA		PHIE		SGAS	
		NEU (pu)		DPOR		RT		SW		SOIL

# Log Variables

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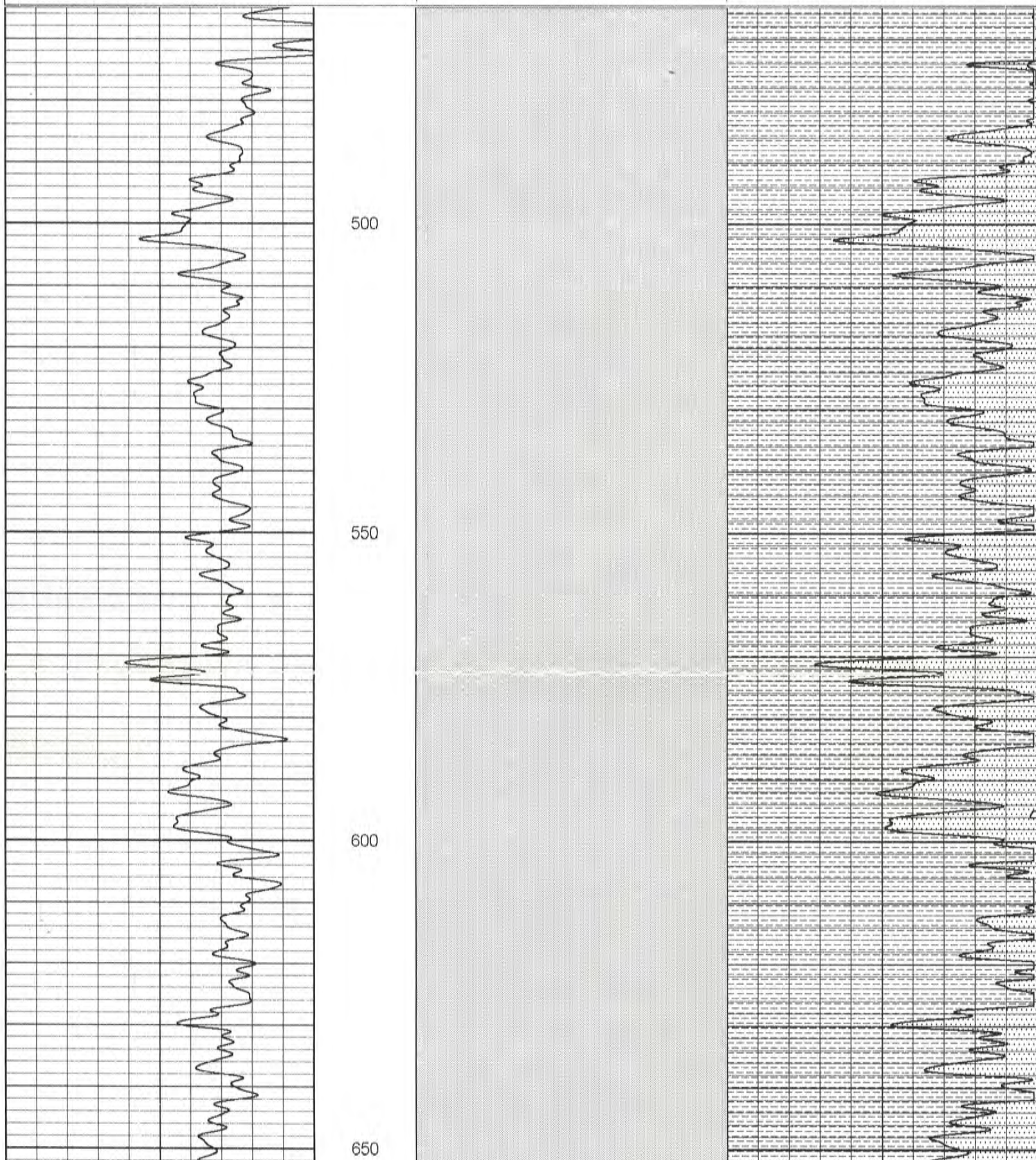
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A	M	Rw Ohm-m	GRCLEAN GAPI	GRSHALE GAPI	RSH Ohm-m	MATRXDEN g/cc	FLUIDDEN g/cc
1	2	0.1	15	155	25	2.68	1
SATEXP	TempGrad DegF/ft	PresGrad psi/ft	DrainArea	GasRecov %	OilRecov %		
2	1	0.25	1	100	100		

Database File: pecora enterprise evans 106.db  
Dataset Pathname: 106/run1/\_ohint1\_  
Presentation Format: ajaxinte  
Dataset Creation: Thu Sep 25 16:08:00 2014  
Charted by: Depth in Feet scaled 1:240



0	GR (GAPI)	200	100	Water Sat (%)	0	0	VSH (%)	100
For assistance in accessing this document, please contact: R3_UIC_Mailbox@epa.gov			0	Gas Sat (%)	100	100	PHIE (%)	0
			0	Oil Sat (%)		100		





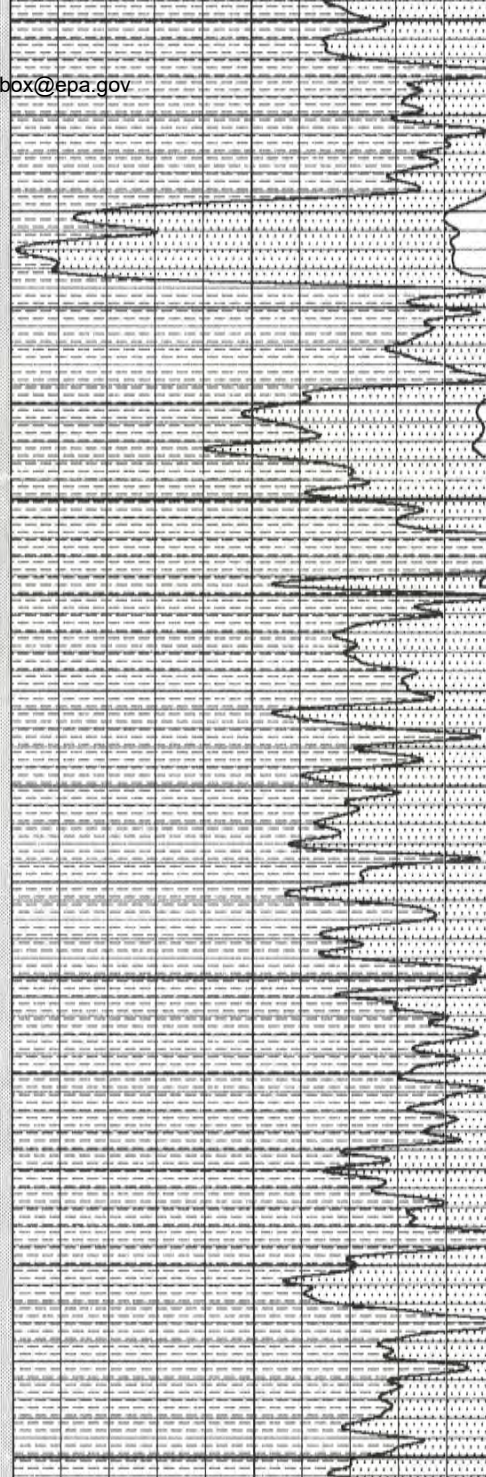
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700

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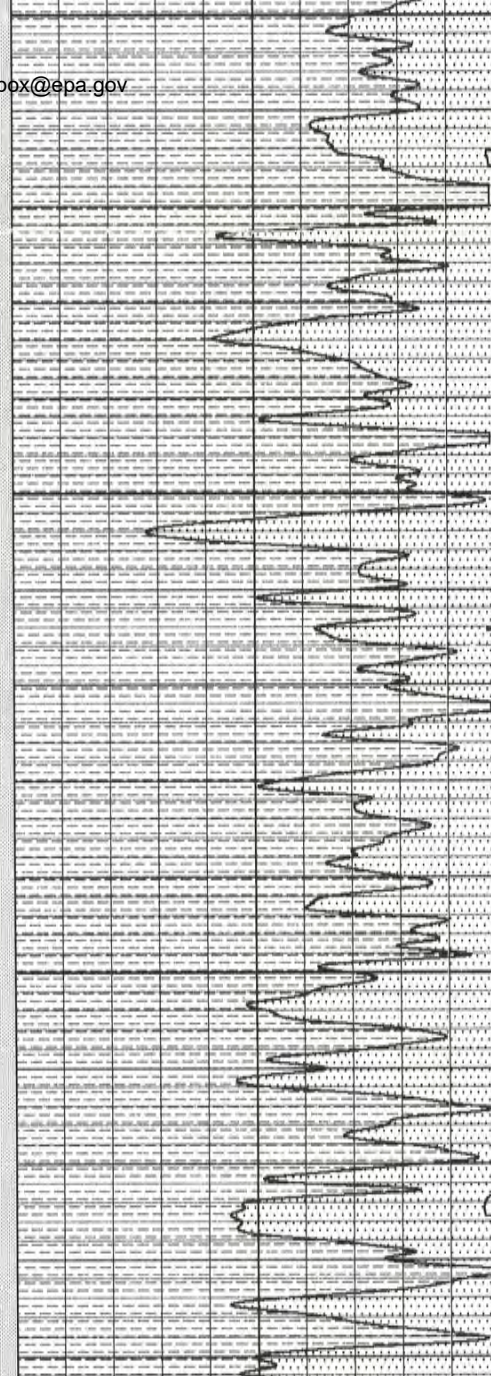


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850

900



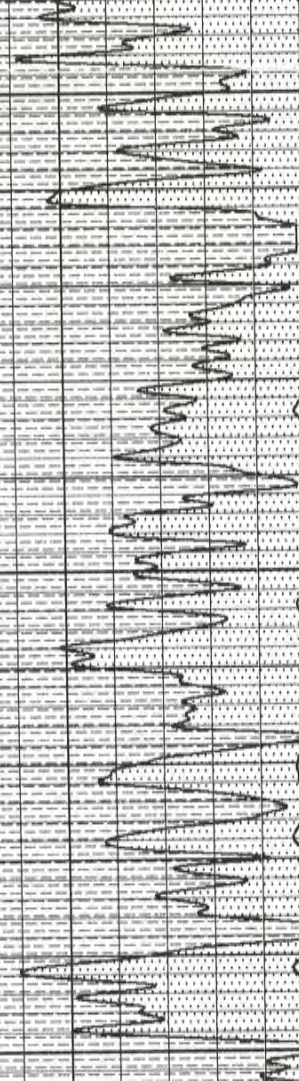
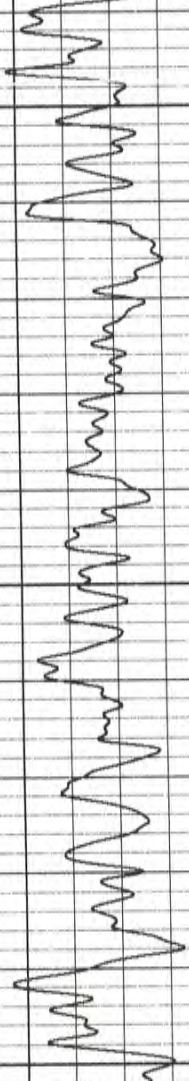


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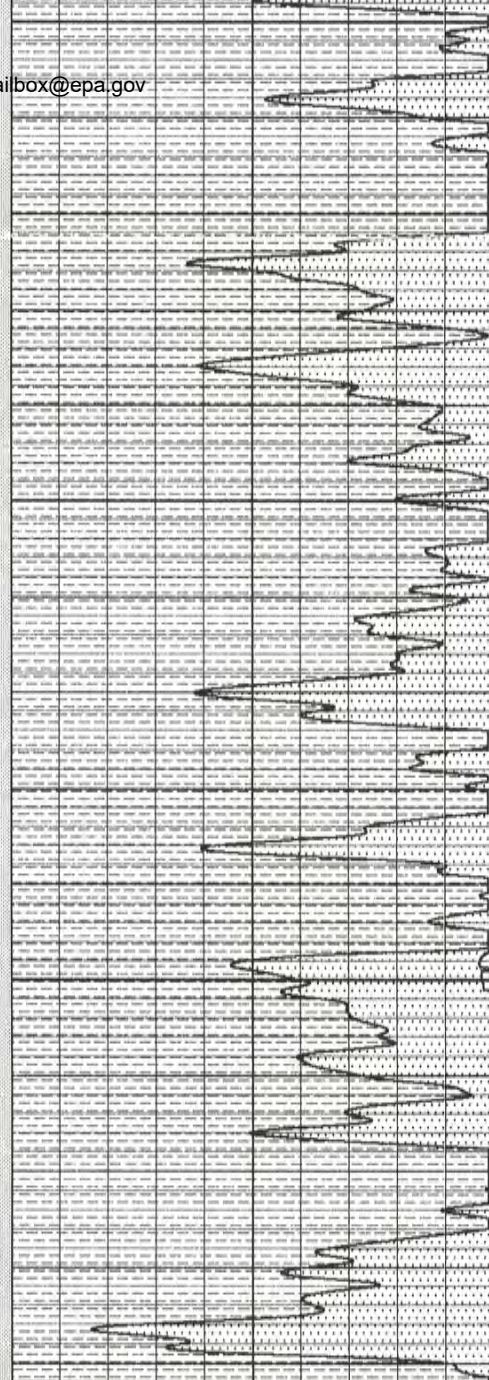
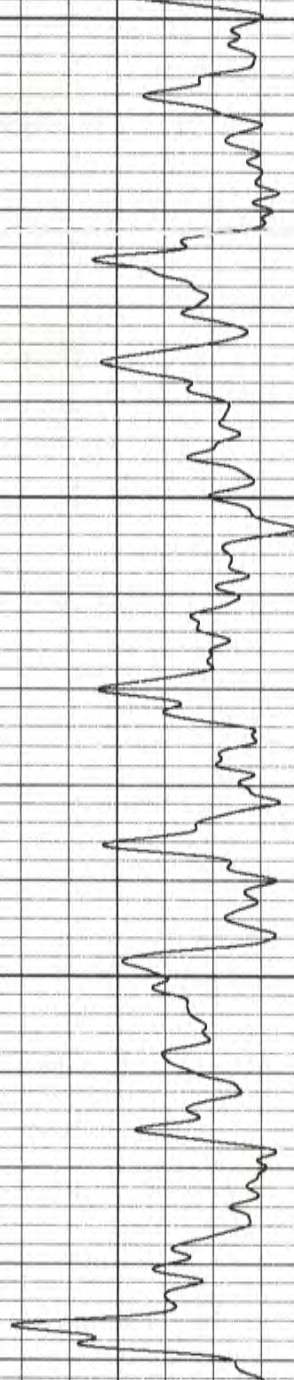


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1100

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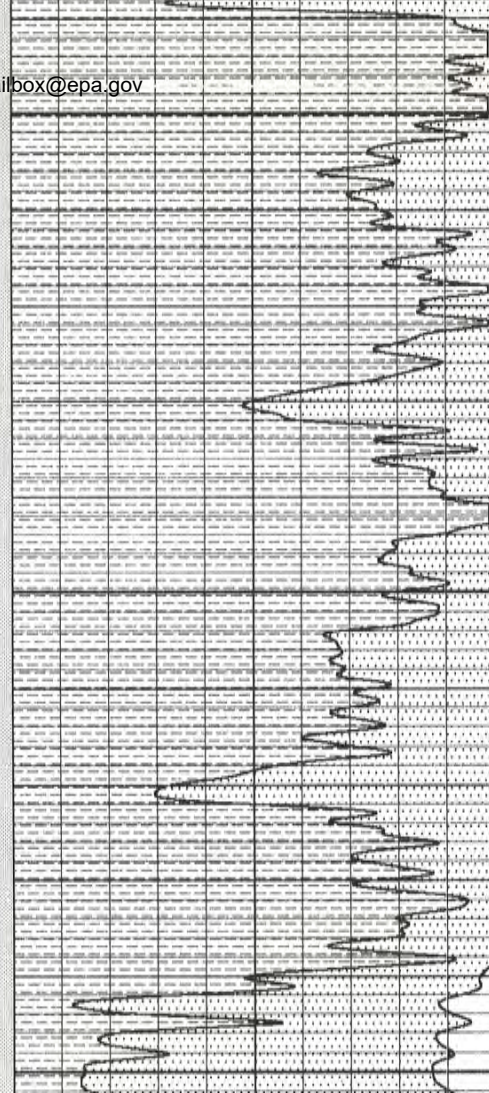
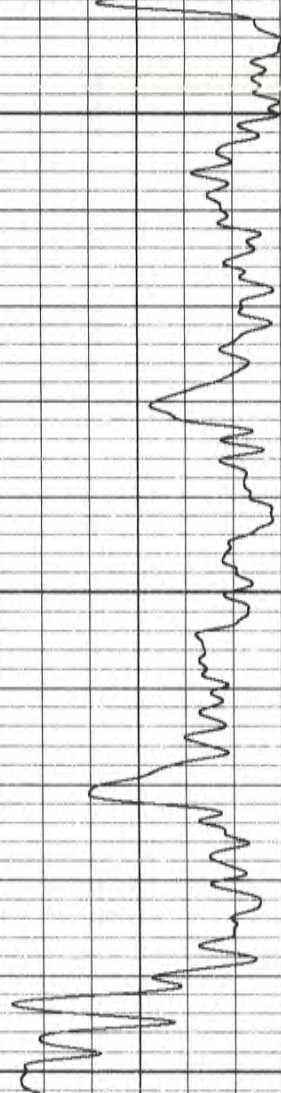


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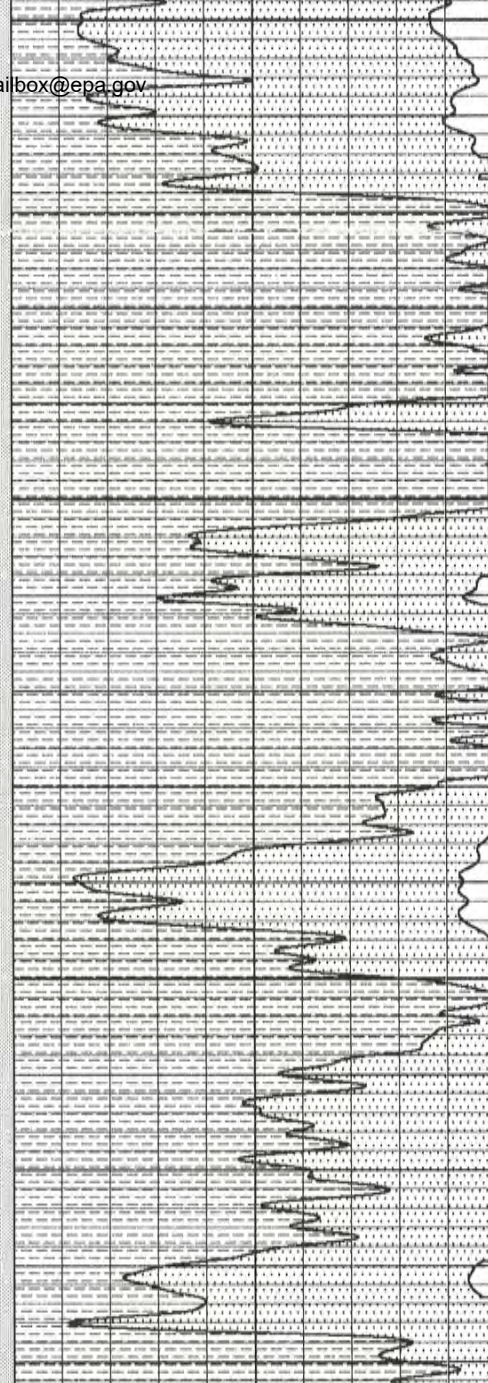


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1350

1400





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1450

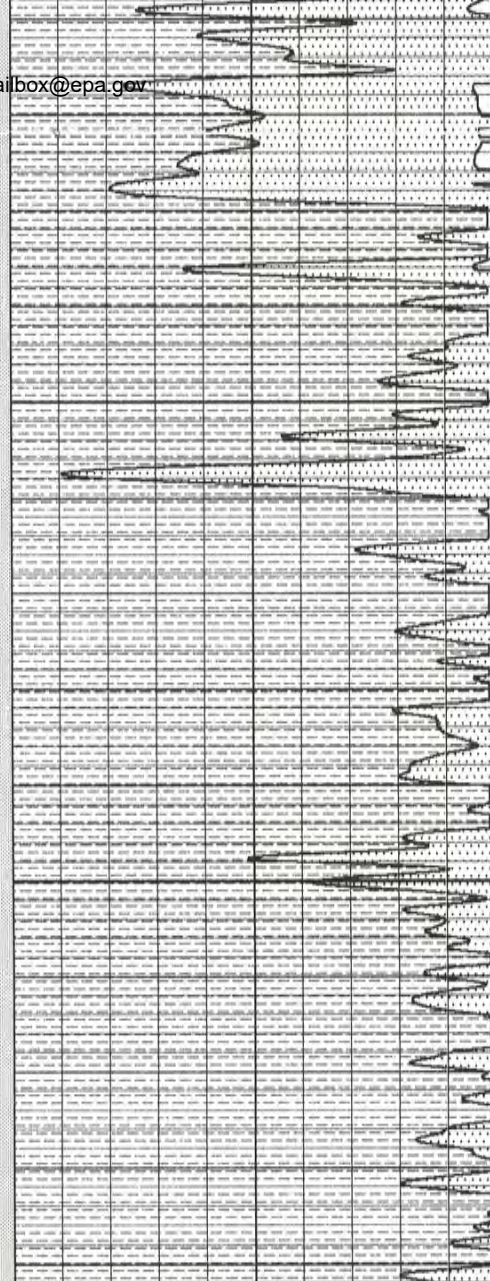
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1550



1600

1650



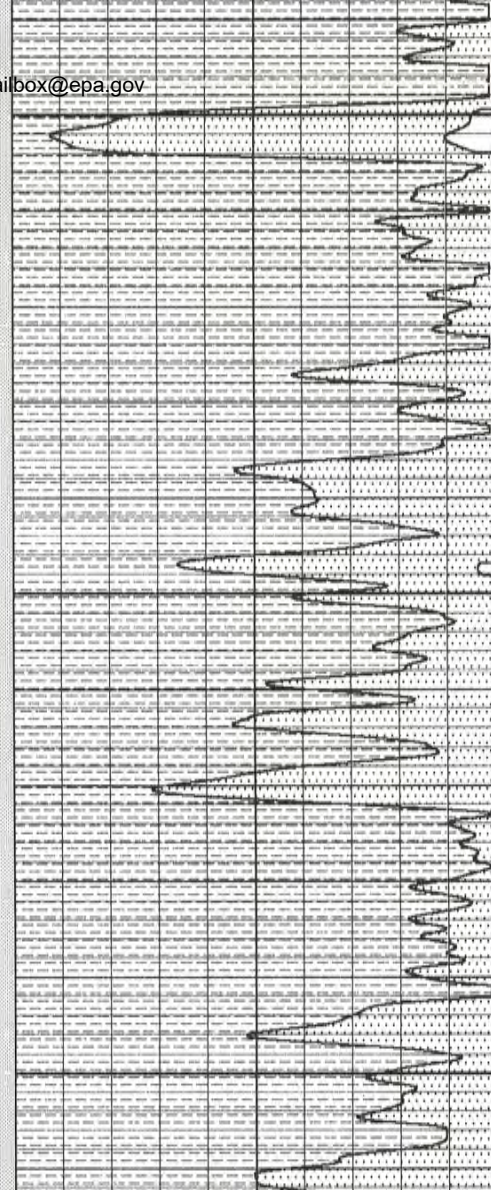


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1700

1750

1800





1850

1900





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1950

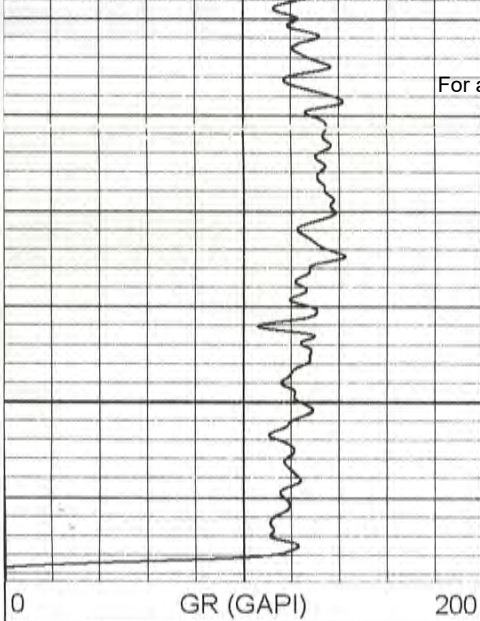
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2100

100	Water Sat (%)	0	0	VSH (%)	100
0	Gas Sat (%)	100	100	PHIE (%)	0
0	Oil Sat (%)	100			



**KEYSTONE  
WIRELINE, INC.**

**BRADFORD, PA**

Company	PECORA ENTERPRISES
Well	EVANS 106
Field	EVANS
County	MCKEAN
State	PA

# HOWARD DRILLING, LLC

## Fracture Treatment Plan

Date 10-2-14

ge # 1 of 1

Customer name Pecora Enterprise

Well # 106

Lease Evans

Plug back to ft.	Notch At Ft.	Packer Set At Ft.	Treatment Interval	Amt of Trmt. Fluid Gallons	Amt of 20x40 Sand SKS	Soap Gallon	Clay Control Gallon/ 1000	Rate BPM	Breakdown Pressure PSI	Treat Avg Pressure PSI	Shut in Pressure PSE	Liquid Frac Gel Used Gal per/1000
Stage # <u>1</u>	<u>2006</u> <u>2008</u>			<u>18,044</u>	<u>150</u>	<u>Per</u> <u>1/4</u> <u>1000</u> <u>1/4</u> <u>Gallon</u>	<u>1/4</u>	<u>20</u>	<u>2468</u>	<u>1921</u>	<u>1728</u>	
Stage #												
Stage #												
Stage #												
Stage #												
Stage #												
Stage #												

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Remarks 1500 Pad with level before sand  
1500 flush

Frac Treatment Prepared By

Frac Treatment Witnessed By

Date of Frac Treatment



Lease # EVANS

Well # 106

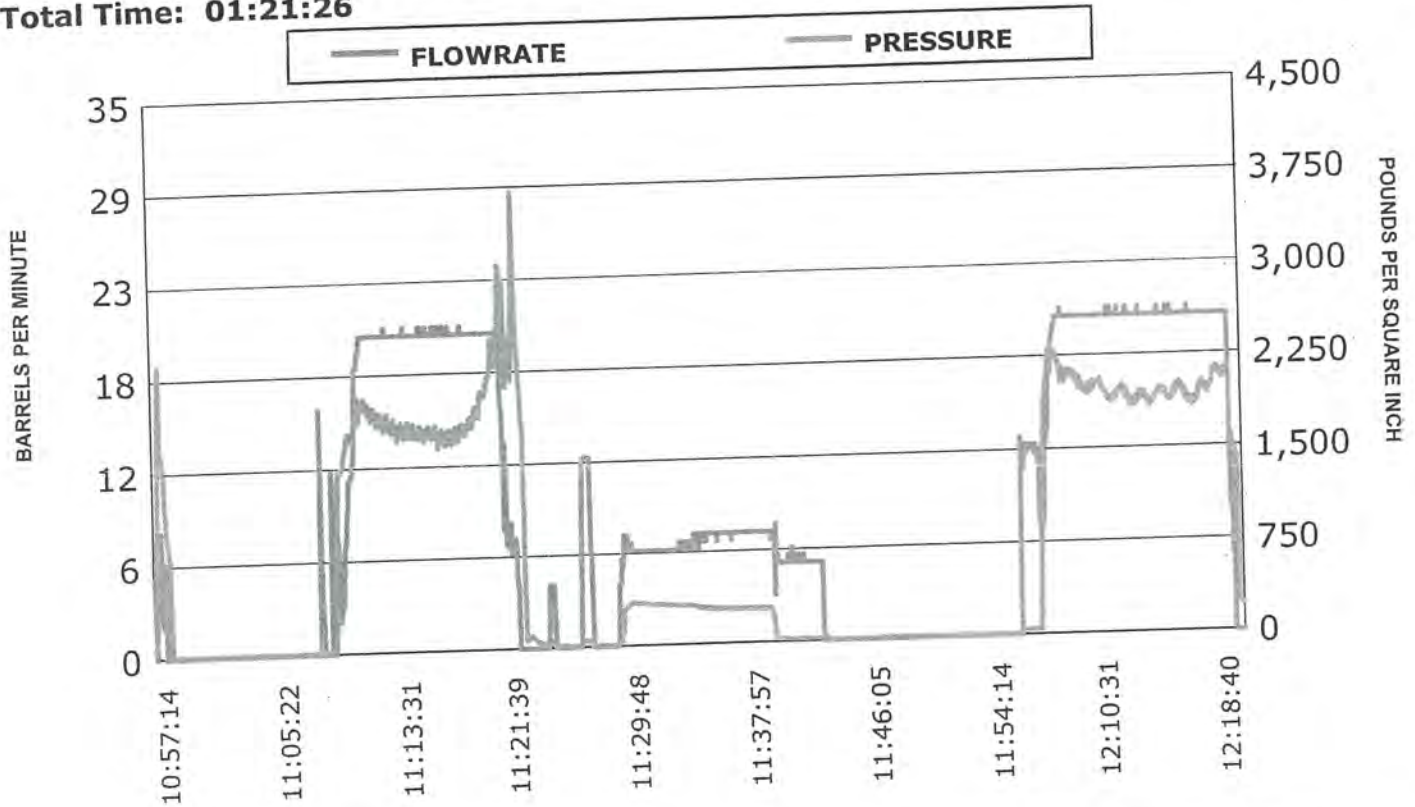
For assistance in accessing this document, please contact: R3\_UIC\_Mailbox@epa.gov

Total Volume: 0 18000  
Total Sand: 0 150

Start Time: 10/07/14 10:57:14

End Time: 10/07/14 12:18:40

Total Time: 01:21:26



TIMESTAMP

COMMENT

Original Data File: ftp://10.0.0.156//Batch/w106\_1/log14100700.csv

PDF Report File:

C:\Users\User\Documents\LeaseFlow\reports\Van\EVANS\_106\14100700\_EVAN  
S\_106.pdf

