Joint Permit Application

September 2017

Prepared for:
Shell Pipeline Company LP
150 North Dairy Ashford
Houston, TX 77079

Submitted by:
AECOM
Foster Plaza 6
681 Andersen Drive, Suite 400
Pittsburgh, PA 15220
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</tr>
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Requirement A

General Information Form (GIF) and Permit Application
## COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

### GENERAL INFORMATION FORM – AUTHORIZATION APPLICATION

Before completing this General Information Form (GIF), read the step-by-step instructions provided in this application package. This version of the General Information Form (GIF) must be completed and returned with any program-specific application being submitted to the Department.

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<tr>
<th>Related ID#s (If Known)</th>
<th>DEP USE ONLY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Client ID#</td>
<td>APS ID#</td>
</tr>
<tr>
<td>Site ID#</td>
<td>Auth ID#</td>
</tr>
<tr>
<td>Facility ID#</td>
<td></td>
</tr>
</tbody>
</table>

### CLIENT INFORMATION

<table>
<thead>
<tr>
<th>DEP Client ID#</th>
<th>Client Type / Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shell Pipeline Company LP</td>
<td>LLP</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Organization Name or Registered Fictitious Name</th>
<th>Employer ID# (EIN)</th>
<th>Dun &amp; Bradstreet ID#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shell Pipeline Company LP</td>
<td>52-2074528</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Individual Last Name</th>
<th>First Name</th>
<th>MI</th>
<th>Suffix</th>
<th>SSN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Van Stone</td>
<td>Stephen</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Additional Individual Last Name</th>
<th>First Name</th>
<th>MI</th>
<th>Suffix</th>
<th>SSN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alley</td>
<td>Pam</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Mailing Address

- **Mailing Address Line 1**: 150 North Dairy Ashford
- **Mailing Address Line 2**: |

<table>
<thead>
<tr>
<th>Address Last Line – City</th>
<th>State</th>
<th>ZIP+4</th>
<th>Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>Houston</td>
<td>Texas</td>
<td>77079</td>
<td>USA</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Client Contact Last Name</th>
<th>First Name</th>
<th>MI</th>
<th>Suffix</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wooten</td>
<td>Robert</td>
<td>B</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Client Contact Title</th>
<th>Phone</th>
<th>Ext</th>
</tr>
</thead>
<tbody>
<tr>
<td>Senior Staff Land Agent</td>
<td>(832) 762-2568</td>
<td></td>
</tr>
</tbody>
</table>

| Email Address | FAX | |
|---------------|-----|-
| Robert.Wooten@shell.com | N/A | |

### SITE INFORMATION

<table>
<thead>
<tr>
<th>DEP Site ID#</th>
<th>Site Name</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Falcon Ethane Pipeline System</td>
</tr>
</tbody>
</table>

| EPA ID# | Estimated Number of Employees to be Present at Site | 0 |

<table>
<thead>
<tr>
<th>Description of Site</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural land, forest, developed land (residential, commercial, and municipal), streams, and wetlands.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>County Name</th>
<th>Municipality</th>
<th>City</th>
<th>Boro</th>
<th>Twp</th>
<th>State</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beaver</td>
<td>Greene and Independence</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>County Name</th>
<th>Municipality</th>
<th>City</th>
<th>Boro</th>
<th>Twp</th>
<th>State</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beaver</td>
<td>Potter and Raccoon</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Site Location Line 1</th>
<th>Site Location Line 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>northern termini: 40.621338, -80.349093, southern termini: 40.514094, -80.309685</td>
<td>western termini: 40.582464, -80.518774</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Site Location Last Line – City</th>
<th>State</th>
<th>ZIP+4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monaca</td>
<td>PA</td>
<td>15061</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Detailed Written Directions to Site</th>
</tr>
</thead>
<tbody>
<tr>
<td>From I-376W take exit 39 toward Monaca/Shipping Port. Turn left onto PA-18S/Hwy 18S and follow for approximately 1.2 miles. This will take you to the northern termini at the Pennsylvania Petrochemical Facility.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Site Contact Last Name</th>
<th>First Name</th>
<th>MI</th>
<th>Suffix</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wooten</td>
<td>Robert</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Site Contact Title</th>
<th>Site Contact Firm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Senior Staff Land Agent</td>
<td>Shell Pipeline Company LP</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mailing Address Line 1</th>
<th>Mailing Address Line 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>150 North Dairy Ashford #A2036G</td>
<td></td>
</tr>
</tbody>
</table>
Mailing Address Last Line – City  State  ZIP+4  
Houston  TX  77079

Phone  Ext  FAX  Email Address  
(832) 762-2568  Robert.Wooten@shell.com

NAICS Codes (Two- & Three-Digit Codes – List All That Apply)  
6-Digit Code (Optional)

Client to Site Relationship  
LESOP

FACILITY INFORMATION

Modification of Existing Facility  
Yes  No

1. Will this project modify an existing facility, system, or activity?  
   [ ]

2. Will this project involve an addition to an existing facility, system, or activity?  
   [ ]

If “Yes”, check all relevant facility types and provide DEP facility identification numbers below.

<table>
<thead>
<tr>
<th>Facility Type</th>
<th>DEP Fac ID#</th>
<th>Facility Type</th>
<th>DEP Fac ID#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air Emission Plant</td>
<td></td>
<td>Industrial Minerals Mining Operation</td>
<td></td>
</tr>
<tr>
<td>Beneficial Use (water)</td>
<td></td>
<td>Laboratory Location</td>
<td></td>
</tr>
<tr>
<td>Blasting Operation</td>
<td></td>
<td>Land Recycling Cleanup Location</td>
<td></td>
</tr>
<tr>
<td>Captive Hazardous Waste Operation</td>
<td></td>
<td>Mine Drainage Trmt/LandRecyProjLocation</td>
<td></td>
</tr>
<tr>
<td>Coal Ash Beneficial Use Operation</td>
<td></td>
<td>Municipal Waste Operation</td>
<td></td>
</tr>
<tr>
<td>Coal Mining Operation</td>
<td></td>
<td>Oil &amp; Gas Encroachment Location</td>
<td></td>
</tr>
<tr>
<td>Coal Pillar Location</td>
<td></td>
<td>Oil &amp; Gas Location</td>
<td></td>
</tr>
<tr>
<td>Commercial Hazardous Waste Operation</td>
<td></td>
<td>Oil &amp; Gas Water Poll Control Facility</td>
<td></td>
</tr>
<tr>
<td>Dam Location</td>
<td></td>
<td>Public Water Supply System</td>
<td></td>
</tr>
<tr>
<td>Deep Mine Safety Operation -Anthracite</td>
<td></td>
<td>Radiation Facility</td>
<td></td>
</tr>
<tr>
<td>Deep Mine Safety Operation -Bituminous</td>
<td></td>
<td>Residual Waste Operation</td>
<td></td>
</tr>
<tr>
<td>Deep Mine Safety Operation -Ind Minerals</td>
<td></td>
<td>Storage Tank Location</td>
<td></td>
</tr>
<tr>
<td>Encroachment Location (water, wetland)</td>
<td></td>
<td>Water Pollution Control Facility</td>
<td></td>
</tr>
<tr>
<td>Erosion &amp; Sediment Control Facility</td>
<td></td>
<td>Water Resource</td>
<td></td>
</tr>
<tr>
<td>Explosive Storage Location</td>
<td></td>
<td>Other: Ethane Pipeline</td>
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</tr>
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</table>

Latitude/Longitude Point of Origin  

<table>
<thead>
<tr>
<th>Latitude/Longitude</th>
<th>Degrees</th>
<th>Minutes</th>
<th>Seconds</th>
<th>Latitude</th>
<th>Degrees</th>
<th>Minutes</th>
<th>Seconds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Point of Origin</td>
<td>40</td>
<td>38</td>
<td>35</td>
<td>80</td>
<td>21</td>
<td>18</td>
<td></td>
</tr>
</tbody>
</table>

GPS  
Horizontal Accuracy Measure  
Feet +/-3  --or--  Meters

Horizontal Reference Datum Code  
North American Datum of 1927
North American Datum of 1983
World Geodetic System of 1984

Horizontal Collection Method Code  
GIS DR
Reference Point Code  
CNTAR
Altitude  
Feet  ~684 to 1,298  --or--  Meters

Altitude Datum Name  
The National Geodetic Vertical Datum of 1929
The North American Vertical Datum of 1988 (NAVD88)

Altitude (Vertical) Location Datum Collection Method Code  
TOPO

Geometric Type Code  
POINT
Data Collection Date  
2015-2017

Source Map Scale Number  
1 Inch(es)  =  2,000 Feet

--or--  Centimeter(s)  =  Meters

PROJECT INFORMATION

Project Name  
Falcon Ethane Pipeline System

Project Description  
Installation of an ethane pipeline to bring product to the Pennsylvania Petrochemical Plant in Monaca, Pennsylvania.

Project Consultant Last Name  
Shearer

Project Consultant First Name  
Natalie

Project Consultant MI  
L

Project Consultant Suffix  

Consulting Firm  
AECOM Technical Services, Inc.

Mailing Address Line 1  
Foster Plaza 6

Mailing Address Line 2  
Foster Plaza 6  681 Andersen Drive

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<table>
<thead>
<tr>
<th>Time Schedules</th>
<th>Project Milestone (Optional)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sept./October 2018</td>
<td>Start of Construction</td>
</tr>
<tr>
<td>Fall 2018</td>
<td>Start tree clearing</td>
</tr>
<tr>
<td>Spring 2019-Fall 2019</td>
<td>Full construction</td>
</tr>
<tr>
<td>Spring 2020</td>
<td>Commissioning</td>
</tr>
<tr>
<td>Fall 2019-Spring 2020</td>
<td>Restoration</td>
</tr>
</tbody>
</table>

1. Have you informed the surrounding community and addressed any concerns prior to submitting the application to the Department? ☒ Yes ☐ No

2. Is your project funded by state or federal grants? ☐ Yes ☒ No

   **Note:** If “Yes”, specify what aspect of the project is related to the grant and provide the grant source, contact person and grant expiration date.
   - Aspect of Project Related to Grant: ________________________________
   - Grant Source: ________________________________
   - Grant Contact Person: ________________________________
   - Grant Expiration Date: ________________________________

3. Is this application for an authorization on Appendix A of the Land Use Policy? (For referenced list, see Appendix A of the Land Use Policy attached to GIF instructions) ☐ Yes ☒ No

   **Note:** If “No” to Question 3, the application is not subject to the Land Use Policy. If “Yes” to Question 3, the application is subject to this policy and the Applicant should answer the additional questions in the Land Use Information section.

### LAND USE INFORMATION

**Note:** Applicants are encouraged to submit copies of local land use approvals or other evidence of compliance with local comprehensive plans and zoning ordinances.

1. Is there an adopted county or multi-county comprehensive plan? ☒ Yes ☐ No

2. Is there an adopted municipal or multi-municipal comprehensive plan? ☒ Yes ☐ No

3. Is there an adopted county-wide zoning ordinance, municipal zoning ordinance or joint municipal zoning ordinance? ☒ Yes ☐ No

   **Note:** If the Applicant answers “No” to either Questions 1, 2 or 3, the provisions of the PA MPC are not applicable and the Applicant does not need to respond to questions 4 and 5 below. If the Applicant answers “Yes” to questions 1, 2 and 3, the Applicant should respond to questions 4 and 5 below.

4. Does the proposed project meet the provisions of the zoning ordinance or does the proposed project have zoning approval? ☐ Yes ☒ No

   **Note:** If zoning approval has been received, attach documentation.

5. Have you attached Municipal and County Land Use Letters for the project? ☒ Yes ☐ No
**COORDINATION INFORMATION**

**Note:** The PA Historical and Museum Commission must be notified of proposed projects in accordance with DEP Technical Guidance Document 012-0700-001 and the accompanying Cultural Resource Notice Form.

**If the activity will be a mining project** (i.e., mining of coal or industrial minerals, coal refuse disposal and/or the operation of a coal or industrial minerals preparation/processing facility), respond to questions 1.0 through 2.5 below.

**If the activity will not be a mining project,** skip questions 1.0 through 2.5 and begin with question 3.0.

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0 Is this a coal mining project? If “Yes”, respond to 1.1-1.6. If “No”, skip to Question 2.0.</td>
<td>□  Yes □ No</td>
<td></td>
</tr>
<tr>
<td>1.1 Will this coal mining project involve coal preparation/processing activities in which the total amount of coal prepared/processed will be equal to or greater than 200 tons/day?</td>
<td>□  Yes □ No</td>
<td></td>
</tr>
<tr>
<td>1.2 Will this coal mining project involve coal preparation/processing activities in which the total amount of coal prepared/processed will be greater than 50,000 tons/year?</td>
<td>□  Yes □ No</td>
<td></td>
</tr>
<tr>
<td>1.3 Will this coal mining project involve coal preparation/processing activities in which thermal coal dryers or pneumatic coal cleaners will be used?</td>
<td>□  Yes □ No</td>
<td></td>
</tr>
<tr>
<td>1.4 For this coal mining project, will sewage treatment facilities be constructed and treated waste water discharged to surface waters?</td>
<td>□  Yes □ No</td>
<td></td>
</tr>
<tr>
<td>1.5 Will this coal mining project involve the construction of a permanent impoundment meeting one or more of the following criteria: (1) a contributory drainage area exceeding 100 acres; (2) a depth of water measured by the upstream toe of the dam at maximum storage elevation exceeding 15 feet; (3) an impounding capacity at maximum storage elevation exceeding 50 acre-feet?</td>
<td>□  Yes □ No</td>
<td></td>
</tr>
<tr>
<td>1.6 Will this coal mining project involve underground coal mining to be conducted within 500 feet of an oil or gas well?</td>
<td>□  Yes □ No</td>
<td></td>
</tr>
<tr>
<td>2.0 Is this a non-coal (industrial minerals) mining project? If “Yes”, respond to 2.1-2.6. If “No”, skip to Question 3.0.</td>
<td>□  Yes □ No</td>
<td></td>
</tr>
<tr>
<td>2.1 Will this non-coal (industrial minerals) mining project involve the crushing and screening of non-coal minerals other than sand and gravel?</td>
<td>□  Yes □ No</td>
<td></td>
</tr>
<tr>
<td>2.2 Will this non-coal (industrial minerals) mining project involve the crushing and/or screening of sand and gravel with the exception of wet sand and gravel operations (screening only) and dry sand and gravel operations with a capacity of less than 150 tons/hour of unconsolidated materials?</td>
<td>□  Yes □ No</td>
<td></td>
</tr>
<tr>
<td>2.3 Will this non-coal (industrial minerals) mining project involve the construction, operation and/or modification of a portable non-metallic (i.e., non-coal) minerals processing plant under the authority of the General Permit for Portable Non-metallic Mineral Processing Plants (i.e., BAQ-PGPA/GP-3)?</td>
<td>□  Yes □ No</td>
<td></td>
</tr>
<tr>
<td>2.4 For this non-coal (industrial minerals) mining project, will sewage treatment facilities be constructed and treated waste water discharged to surface waters?</td>
<td>□  Yes □ No</td>
<td></td>
</tr>
<tr>
<td>2.5 Will this non-coal (industrial minerals) mining project involve the construction of a permanent impoundment meeting one or more of the following criteria: (1) a contributory drainage area exceeding 100 acres; (2) a depth of water measured by the upstream toe of the dam at maximum storage elevation exceeding 15 feet; (3) an impounding capacity at maximum storage elevation exceeding 50 acre-feet?</td>
<td>□  Yes □ No</td>
<td></td>
</tr>
</tbody>
</table>
3.0 Will your project, activity, or authorization have anything to do with a well related to oil or gas production, have construction within 200 feet of, affect an oil or gas well, involve the waste from such a well, or string power lines above an oil or gas well?  If “Yes”, respond to 3.1-3.3.  If “No”, skip to Question 4.0.

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3.1 Does the oil- or gas-related project involve any of the following: placement of fill, excavation within or placement of a structure, located in, along, across or projecting into a watercourse, floodway or body of water (including wetlands)?

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3.2 Will the oil- or gas-related project involve discharge of industrial wastewater or stormwater to a dry swale, surface water, ground water or an existing sanitary sewer system or storm water system?  If “Yes”, discuss in Project Description.

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3.3 Will the oil- or gas-related project involve the construction and operation of industrial waste treatment facilities?

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4.0 Will the project involve a construction activity that results in earth disturbance?  If “Yes”, specify the total disturbed acreage.

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.0</td>
<td>Total Disturbed Acreage 305.39</td>
<td></td>
</tr>
</tbody>
</table>

5.0 Does the project involve any of the following?  If “Yes”, respond to 5.1-5.3.  If “No”, skip to Question 6.0.

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5.1 Water Obstruction and Encroachment Projects – Does the project involve any of the following: placement of fill, excavation within or placement of a structure, located in, along, across or projecting into a watercourse, floodway or body of water?

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5.2 Wetland Impacts – Does the project involve any of the following: placement of fill, excavation within or placement of a structure, located in, along, across or projecting into a wetland?

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5.3 Floodplain Projects by the commonwealth, a Political Subdivision of the commonwealth or a Public Utility – Does the project involve any of the following: placement of fill, excavation within or placement of a structure, located in, along, across or projecting into a floodplain?

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6.0 Will the project involve discharge of stormwater or wastewater from an industrial activity to a dry swale, surface water, ground water or an existing sanitary sewer system or separate storm water system?

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

7.0 Will the project involve the construction and operation of industrial waste treatment facilities?

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8.0 Will the project involve construction of sewage treatment facilities, sanitary sewers, or sewage pumping stations?  If “Yes”, indicate estimated proposed flow (gal/day).  Also, discuss the sanitary sewer pipe sizes and the number of pumping stations/treatment facilities/name of downstream sewage facilities in the Project Description, where applicable.

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.0</td>
<td>Estimated Proposed Flow (gal/day)</td>
<td></td>
</tr>
</tbody>
</table>

8.0.1 Was Act 537 sewage facilities planning submitted and approved by DEP?  If “Yes” attach the approval letter.  Approval required prior to 105/NPDES approval.

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.0.1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

9.0 Will the project involve the subdivision of land, or the generation of 800 gpd or more of sewage on an existing parcel of land or the generation of an additional 400 gpd of sewage on an already-developed parcel, or the generation of 800 gpd or more of industrial wastewater that would be discharged to an existing sanitary sewer system?

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

9.0.1 Was Act 537 sewage facilities planning submitted and approved by DEP?  If “Yes” attach the approval letter.  Approval required prior to 105/NPDES approval.

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.0.1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

10.0 Is this project for the beneficial use of biosolids for land application within Pennsylvania?  If “Yes” indicate how much (i.e. gallons or dry tons per year).

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.0</td>
<td>Gallons Per Year (residential septage)</td>
<td>Dry Tons Per Year (biosolids)</td>
</tr>
</tbody>
</table>

11.0 Does the project involve construction, modification or removal of a dam?  If “Yes”, identify the dam.

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.0</td>
<td>Dam Name</td>
<td></td>
</tr>
</tbody>
</table>
12.0 Will the project interfere with the flow from, or otherwise impact, a dam?  
If “Yes”, identify the dam.  
12.0.1 Dam Name  

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

13.0 Will the project involve operations (excluding during the construction period) that produce air emissions (i.e., NOX, VOC, etc.)?  If “Yes”, identify each type of emission followed by the amount of that emission.  
13.0.1 Enter all types & amounts of emissions; separate each set with semicolons.  

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>13.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

14.0 Does the project include the construction or modification of a drinking water supply to serve 15 or more connections or 25 or more people, at least 60 days out of the year?  If “Yes”, check all proposed sub-facilities.  
14.0.1 Number of Persons Served  
14.0.2 Number of Employee/Guests  
14.0.3 Number of Connections  
14.0.4 Sub-Fac: Distribution System  
14.0.5 Sub-Fac: Water Treatment Plant  
14.0.6 Sub-Fac: Source  
14.0.7 Sub-Fac: Pump Station  
14.0.8 Sub Fac: Transmission Main  
14.0.9 Sub-Fac: Storage Facility  

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

15.0 Will your project include infiltration of storm water or waste water to ground water within one-half mile of a public water supply well, spring or infiltration gallery?  

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>15.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

16.0 Is your project to be served by an existing public water supply?  If “Yes”, indicate name of supplier and attach letter from supplier stating that it will serve the project.  
16.0.1 Supplier’s Name  
16.0.2 Letter of Approval from Supplier is Attached  

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>16.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

17.0 Will this project involve a new or increased drinking water withdrawal from a stream or other water body?  If “Yes”, should reference both Water Supply and Watershed Management.  
17.0.1 Stream Name  

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>17.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

18.0 Will the construction or operation of this project involve treatment, storage, reuse, or disposal of waste?  If “Yes”, indicate what type (i.e., hazardous, municipal (including infectious & chemotherapeutic), residual) and the amount to be treated, stored, re-used or disposed.  
18.0.1 Type & Amount  

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>18.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

19.0 Will your project involve the removal of coal, minerals, etc. as part of any earth disturbance activities?  

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>19.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

20.0 Does your project involve installation of a field constructed underground storage tank?  If “Yes”, list each Substance & its Capacity.  **Note:** Applicant may need a Storage Tank Site Specific Installation Permit.  
20.0.1 Enter all substances & capacity of each; separate each set with semicolons.  

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>20.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

21.0 Does your project involve installation of an aboveground storage tank greater than 21,000 gallons capacity at an existing facility?  If “Yes”, list each Substance & its Capacity.  **Note:** Applicant may need a Storage Tank Site Specific Installation Permit.  
21.0.1 Enter all substances & capacity of each; separate each set with semicolons.  

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>21.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
22.0 Does your project involve installation of a tank greater than 1,100 gallons which will contain a highly hazardous substance as defined in DEP's Regulated Substances List, 2570-BK-DEP2724? If "Yes", list each Substance & its Capacity. **Note:** Applicant may need a Storage Tank Site Specific Installation Permit.

22.0.1 Enter all substances & capacity of each; separate each set with semicolons.

23.0 Does your project involve installation of a storage tank at a new facility with a total AST capacity greater than 21,000 gallons? If "Yes", list each Substance & its Capacity. **Note:** Applicant may need a Storage Tank Site Specific Installation Permit.

23.0.1 Enter all substances & capacity of each; separate each set with semicolons.

24.0 Will the intended activity involve the use of a radiation source?  

---

**CERTIFICATION**

I certify that I have the authority to submit this application on behalf of the applicant named herein and that the information provided in this application is true and correct to the best of my knowledge and information.

Type or Print Name  

Signature  

Date

Stephen Van Stone  
Attorney-in-Fact

11/9/17  
Title
COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
and
DEPARTMENT OF ARMY CORPS OF ENGINEERS
(Baltimore, Philadelphia, and Pittsburgh Districts)

JOINT APPLICATION FOR
PENNSYLVANIA CHAPTER 105 WATER OBSTRUCTION AND ENCROACHMENT PERMIT AND
U.S. ARMY CORPS OF ENGINEERS SECTION 404 PERMIT

Before completing this form, please read the step-by-step instructions
and Section F Application Completeness Checklist provided with this Joint Permit package.

<table>
<thead>
<tr>
<th>AGENCY USE ONLY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application ID# (Assigned by DEP)</td>
</tr>
<tr>
<td>Program Application No.</td>
</tr>
</tbody>
</table>

SECTION A. APPLICATION TYPE
STANDARD ☒ SMALL PROJECTS ☐

SECTION B. APPLICANT IDENTIFIER

Applicant Name
Shell Pipeline Company LP
Employer ID# (EIN) 52-2074528

Consulting Firm
AECOM Technical Services, Inc.
Employer ID# (EIN) 95-2661922

SECTION C. PROJECT LOCATION DATA AND STATUS
Name of stream and/or body of water and Chapter 93 designation.
See Table 3 in the Wetland and Watercourse Delineation Report in Requirement L.

Corps District where project will occur.
☒ Pittsburgh (Ohio River Basin) ☐ Baltimore (Susquehanna River Basin) ☐ Philadelphia (Delaware River Basin)

Name of the U.S.G.S. 7 1/2 Minute Quadrangle Map where project is located: Aliquippa, Beaver, Hookstown, Midland, and East Liverpool South

Indicate location of project: Latitude 40.643207 ; Longitude -80.355187

Project type, purpose and need: To construct approximately 25 miles of 12-inch and 5 miles of 16-inch ethane pipeline for the purpose of transporting raw materials (ethane) to the Pennsylvania Petrochemical Plant located in Monaca, Pennsylvania

HAS ANY PORTION OF PROPOSED PROJECT BEEN AUTHORIZED? ☐ yes ☒ no ___________ date authorized
If yes, attach description of those portions of the project that have been authorized and identify dates of authorization.

SECTION D. AQUATIC RESOURCE IMPACT TABLE
HAS ALL INFORMATION INCLUDED ON THE IMPACT TABLE BEEN PROVIDED? ☒ yes ☐ no
If NO, indicate the information not included and the reason. Also attach a completed Aquatic Resource Impact Table (3150-PM-BWEW0557) worksheet or equivalent.

- Project Information:
- Corps / 404: 
- DEP / 105: 

- 1 -
### SECTION E. COMPLIANCE REVIEW

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

Is the applicant (owner and/or operator) currently in violation of any permits issued by the Department?  
If yes, please provide:

1. Permit Number:  
2. Nature of the violation (if any):  
3. Status of violation (i.e., schedule for compliance, etc.):  

### SECTION F. APPLICATION COMPLETENESS CHECKLIST

Applicant must place an entry - Y = Yes, N = No, N/A = Not Applicable - in each left side column space. See Section 105.13 for additional details. If you are applying under the Small Projects Application format, place an entry in only those comments prefixed by an asterisk (*).

<table>
<thead>
<tr>
<th>REQUIREMENT</th>
<th>Applicant Entry</th>
<th>DEP Use Only</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. GIF and permit application properly signed, sealed and witnessed</td>
<td>*Y</td>
<td></td>
</tr>
<tr>
<td>b. Application Fee &amp; Worksheet enclosed (see Section G.)</td>
<td>*Y</td>
<td></td>
</tr>
<tr>
<td>d. Cultural Resource Notice (Notice, return receipt and PHMC review letter, as appropriate)</td>
<td>*Y</td>
<td></td>
</tr>
<tr>
<td>e. PASPGP-5 Reporting Criteria Checklist</td>
<td>*Y</td>
<td></td>
</tr>
<tr>
<td>f. Bog Turtle Habitat Screening (copy of “No Effect” determination from the Army Corps of Engineers OR copy of documented clearance from the US Fish and Wildlife Service)</td>
<td>*N/A</td>
<td></td>
</tr>
<tr>
<td>g. Pennsylvania Natural Diversity Inventory (signed PNDI Receipt showing Avoidance Measures or Potential Impacts and proof of delivery to the appropriate jurisdictional agency(ies) where further coordination is required, as appropriate)</td>
<td>*Y</td>
<td></td>
</tr>
<tr>
<td>h. Plans (site plan including cross sections and profiles for Subsections 151, 191, 231, 261)</td>
<td>*Y</td>
<td></td>
</tr>
<tr>
<td>i. Location map</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>j. Project description narrative including PNDI avoidance measures (if applicable) AND Aquatic Resource Impact Table</td>
<td>*Y</td>
<td></td>
</tr>
<tr>
<td>k. Color photographs with map showing location taken</td>
<td>*Y</td>
<td></td>
</tr>
<tr>
<td>l. Environmental Assessment form</td>
<td>*Y</td>
<td></td>
</tr>
<tr>
<td>m. Erosion and Sediment Control Plan and approval letter</td>
<td>Y-PLAN</td>
<td></td>
</tr>
<tr>
<td>n. Hydrologic and hydraulic analysis</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>o. Stormwater Management Analysis with consistency letter</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>p. Floodplain Management Analysis with consistency letter</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>q. Risk Assessment</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>r. Professional engineer’s seal and certification</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>s. Alternative analysis</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>t. Mitigation plan</td>
<td>Y</td>
<td></td>
</tr>
</tbody>
</table>
SECTION G. DETERMINATION OF APPLICATION FEES (DEP FEES ONLY)

The fee required for a project authorized under this permit shall be consistent with 25 PA Code §105.13 (relating to regulated activities – information and fees). To determine the application fee, please complete the Chapter 105 Fee(s) Calculation Worksheet (3155-PM-BWEW0553). Please provide the completed worksheet and a check for the applicable fee(s) made payable to the "Commonwealth of Pennsylvania Clean Water Fund."

SECTION H. ADJOINING PROPERTY OWNERS

Please list the name and address of all property owners whose land adjoins the project property.

<table>
<thead>
<tr>
<th>NAME</th>
<th>ADDRESS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Please see attached table

SECTION I. CERTIFICATION AND SIGNATURE (see Instructions for clarification of signature requirements)

I certify under penalty of law that the information provided in this permit registration is true and correct to the best of my knowledge and information and that I possess the authority to undertake the proposed action. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. (If any of the information and/or plans is found to be in error, falsified, and/or incomplete, this authorization/verification may be subject to modification, suspension, or revocation in accordance with applicable regulations.)

I certify that the project proposed in this application complies with and will be conducted in a manner that is consistent with the approved Coastal Zone Management program of the Commonwealth of Pennsylvania. (Only portions of Erie, Bucks, Philadelphia and Delaware Counties are in the Coastal Zone).

I grant permission to the agencies responsible for authorization of this work, or their duly authorized representative, to enter the project site for inspection purposes during working hours. I will abide by the conditions of the permit or license if issued and will not begin work without the appropriate authorization.

Signature of Applicant/Owner          Date

Stephen Van Stone, Attorney-in-Fact

Typed / Printed Name & Title of Applicant/Owner

Signature of Witness

Typed / Printed Name & Title of Witness

SEAL
Permanent Right-of-Way: The stream crossing will be conducted "in the dry" and the method used (pump and dam/flag) will be determined on site depending on the conditions at the time. The trench will be dug in the dry stream bed and placed a minimum of five feet below stream bed depth. Following construction, the area will be restored to its original conditions. Construction controls will be installed in this area to aid in revegetation and stabilization.

For the wetland, a trench will be dug in the dry stream bed and the stream will be restored to its original contour. Erosion control blankets will be installed in this area to aid in revegetation and stabilization. An erosion control blanket will be placed over the area to aid in revegetation and stabilization. The area above the pipe and within the travel lane will be maintained as an herbaceous wetland. During construction the portion of the wetland located within the travel lane will have a 10-ft-wide timber mat placed across the resources in the travel lanes to facilitate equipment crossings. Following construction, the mats will be removed. A trench will be dug through the upland floodway. Following construction the area will be restored to original contours. Excavated control blankets will be installed in this area to aid in revegetation and stabilization.

Pipeline/PROW: For the stream, the stream crossing will be conducted "in the dry" and the method used (pump and dam/flag) will be determined on site depending on the conditions at the time. The trench will be dug in the dry stream bed and placed a minimum of five feet below stream bed depth. Following construction, the area will be restored to its original conditions. For the wetland, a trench will be dug in the wetland and the stream will be restored to its original contour. Erosion control blankets will be placed in this area to aid in revegetation and stabilization. An erosion control blanket will be placed in this area to aid in revegetation and stabilization. An erosion control blanket will be placed in this area to aid in revegetation and stabilization. An erosion control blanket will be placed in this area to aid in revegetation and stabilization.
TABLE 1
AQUATIC RESOURCES IMPACT TABLE - REVISED NOVEMBER 2017
BEAVER COUNTY, PENNSYLVANIA IMPACTS

<table>
<thead>
<tr>
<th>Resource Crossing</th>
<th>Latitude</th>
<th>Longitude</th>
<th>Resource ID (Unique Identifier)</th>
<th>Feature Name</th>
<th>Feature Type (Stream, Floodway, Wetland)</th>
<th>Aquatic Resource Type</th>
<th>Chapter XI Designation</th>
<th>Pipeline or Access Road Crossing Length (ft)</th>
<th>Stream Width</th>
<th>Length of Stream within Temporal Work Area (ft)</th>
<th>Temporal Work Area (Wetland)</th>
<th>Herringbone (Floodway)</th>
<th>Erosion Control Blanket</th>
<th>Erosion Control Mat</th>
<th>Temporary Workspace</th>
<th>Restoration of Temporal Work Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>41.04660</td>
<td>-80.47294</td>
<td>S-PA-170222-MRK-001</td>
<td>Wetland</td>
<td>Unnamed</td>
<td>Stream</td>
<td>0.00</td>
<td>50.00 - 50.50, 20.24</td>
<td>195.00</td>
<td>17.96</td>
<td>57.48</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>12</td>
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<td>S-PA-170222-MRK-002</td>
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<td>Stream</td>
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<td>50.00 - 50.50, 20.24</td>
<td>195.00</td>
<td>17.96</td>
<td>57.48</td>
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<td>13</td>
<td>41.04464</td>
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<td>S-PA-170222-MRK-003</td>
<td>Wetland</td>
<td>Unnamed</td>
<td>Stream</td>
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<td>50.00 - 50.50, 20.24</td>
<td>195.00</td>
<td>17.96</td>
<td>57.48</td>
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<td>17.96</td>
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<td>57.48</td>
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</tr>
</tbody>
</table>

**Notes:**
- Pipeline: a trench will be dug in the wetland and the topsoil will be segregated. The pipeline will be placed a minimum of four feet deep. Following construction the segregated topsoil will be returned and the wetland will be restored. The area above the pipe and within the PROW will be maintained as PROW. Following construction the portion of the wetland located within the travel lane will have a 10-ft-wide timber mat placed in the travel area across the stream to allow for construction equipment crossing. Following construction the mats will be removed.
- Pipeline: the stream crossings will be conducted “in the dry” and the method used (pump and dam/flume) will be determined on site depending on the conditions at the time. The trench will be dug in the dry stream bed and placed a minimum of five feet below stream bed depth. Following construction, the stream will be restored to its original contours. Additionally, a 10-ft-wide timber mat will be placed in the travel lane across the stream to allow for construction equipment crossing. Following construction the timber mat will be removed.
- Pipeline: the stream crossings will be conducted “in the dry” and the method used (pump and dam/flume) will be determined on site depending on the conditions at the time. The trench will be dug in the dry stream bed and placed a minimum of four feet below stream bed depth. Following construction, the stream will be restored to its original contours. Additionally, a 10-ft-wide timber mat will be placed in the travel lane across the stream to allow for construction equipment crossing. Following construction the timber mat will be removed.
- Pipeline: the stream crossings will be conducted “in the dry” and the method used (pump and dam/flume) will be determined on site depending on the conditions at the time. The trench will be dug in the dry stream bed and placed a minimum of four feet below stream bed depth. Following construction, the stream will be restored to its original contours. Additionally, a 10-ft-wide timber mat will be placed in the travel lane across the stream to allow for construction equipment crossing. Following construction the timber mat will be removed.

**Erosion Control Blanket:**
- Erosion control blankets will be placed on the floodway to help stabilize the area during revegetation.

**Temporary Workspace:**
- The topsoil will be segregated. The pipeline will be placed a minimum of four feet deep. Following construction the segregated topsoil will be returned and the wetland will be restored to original contours and the area above the pipe and within the PROW will be maintained as PROW. Following construction the portion of the wetland located within the travel lane will have a 10-ft-wide timber mat placed in the travel area across the stream to allow for construction equipment crossing. Following construction the mats will be removed.

**Restoration of Temporal Work Area:**
- The area above the pipe and within the PROW will be maintained as PROW. Following construction the portion of the wetland located within the travel lane will have a 10-ft-wide timber mat placed in the travel area across the stream to allow for construction equipment crossing. Following construction the mats will be removed.

**Pipeline:**
- A trench will be dug in the wetland and the topsoil will be segregated. The pipeline will be placed a minimum of four feet deep. Following construction the segregated topsoil will be returned and the wetland will be restored. Erosion control blankets will be placed on the floodway to help stabilize the area during revegetation.

**Temporary Workspace:**
- The topsoil will be segregated. The pipeline will be placed a minimum of four feet deep. Following construction the segregated topsoil will be returned and the wetland will be restored to original contours and the area above the pipe and within the PROW will be maintained as PROW. Following construction the portion of the wetland located within the travel lane will have a 10-ft-wide timber mat placed in the travel area across the stream to allow for construction equipment crossing. Following construction the mats will be removed.
Pipeline: The stream crossings will be conducted “in the dry” and the method used (pump and dam/flume) will be determined on site depending on the conditions at the time. The trench will be dug in the dry stream bed and will be placed in the minimum four feet below stream bed depth. Following construction, the stream will be restored to its original condition. For the wetland, a timber mat will be placed in the wetland and the topsoil will be segregated. The pipeline will be placed in a minimum of four feet deep. Following construction, the pipeline will be restored to its original condition and the area above the pipe will be maintained as a wetland. Additionally, during construction the portion of the area located within the travel lane will have 10-ft-wide timber mats placed over it so that equipment can cross. Once construction is complete, the timber mats will be removed. The upland floodway will also be restored to original contours. An erosion control blanket will be placed in this area to facilitate stability and vegetation growth.
### TABLE 1

<table>
<thead>
<tr>
<th>Resource Crossing</th>
<th>Chapter 93 (Req H)</th>
<th>Feature ID (Unique Identifier)</th>
<th>Stream Name</th>
<th>Feature Type (Stream, Floodway, Method)</th>
<th>Aquatic Resource Type</th>
<th>Crossing Type</th>
<th>Pipeline or Access Road</th>
<th>Crossing Length (ft)</th>
<th>Stream Width</th>
<th>Length of Stream within Right-of-Way (ft)</th>
<th>Erosion Control</th>
<th>Area within Floodway (ft²)</th>
<th>Area within Right-of-Way (ft²)</th>
<th>Temporal Workspace</th>
<th>Area within PROW (ft²)</th>
<th>Drainage-Related Activities</th>
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<td>46</td>
<td>GP-5, GP-8</td>
<td>0.23</td>
<td>HOU-TAR-51</td>
<td>HOU-TAR-51: There are culverts at the existing access road here. However, the rock construction entrance will temporarily impact a portion of the Stream located within the travel lane. Access to this area will not be restricted.</td>
<td>Floodway, Permanent</td>
<td>Stream</td>
<td>100.22</td>
<td>48.98</td>
<td>360.29</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>150.30</td>
<td>290.50</td>
<td>Pipeline: the stream crossing will be conducted in the dry stream, and the method used (pump and dam/flume) will be determined on site depending on the conditions at the time. The trench will be dug in the dry stream bed and placed a minimum of five feet below stream bed depth. Following construction, the stream will be reconnected to its original course. Additionally, a Tribe-wide blanket will be placed to prevent erosion control failure.</td>
<td>389.54</td>
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<td>47</td>
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<td>HOU-TAR-52</td>
<td>HOU-TAR-52: There are culverts at the existing access road here. However, the rock construction entrance will temporarily impact a portion of the Stream located within the travel lane. Access to this area will not be restricted.</td>
<td>Floodway, Permanent</td>
<td>Stream</td>
<td>95.00</td>
<td>48.98</td>
<td>214.75</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>18.00</td>
<td>33.98</td>
<td>Pipeline: the stream crossing will be conducted “in the dry” and the method used (pump and dam/flume) will be determined on site depending on the conditions at the time. The trench will be dug in the dry stream bed and placed a minimum of five feet below stream bed depth. Following construction, the stream will be reconnected to its original course. Additionally, a Tribe-wide blanket will be placed to prevent erosion control failure.</td>
<td>21.65</td>
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<td>48</td>
<td>GP-5, GP-8</td>
<td>0.23</td>
<td>HOU-TAR-53</td>
<td>HOU-TAR-53: There are culverts at the existing access road here. However, the rock construction entrance will temporarily impact a portion of the Stream located within the travel lane. Access to this area will not be restricted.</td>
<td>Floodway, Permanent</td>
<td>Stream</td>
<td>15.00</td>
<td>48.98</td>
<td>360.29</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>Pipeline: the streams identified in this area will be excavated “in the dry” and the method used (pump and dam/flume) will be determined on site depending on the conditions at the time. The trench will be dug in the dry stream bed and placed a minimum of five feet below stream bed depth. Following construction, the stream will be reconnected to its original course. Additionally, a Tribe-wide blanket will be placed to prevent erosion control failure.</td>
<td>16.00</td>
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<tr>
<td>49</td>
<td>GP-5, GP-8</td>
<td>0.23</td>
<td>HOU-TAR-54</td>
<td>HOU-TAR-54: There are culverts at the existing access road here. However, the rock construction entrance will temporarily impact a portion of the Stream located within the travel lane. Access to this area will not be restricted.</td>
<td>Floodway, Permanent</td>
<td>Stream</td>
<td>66.00</td>
<td>48.98</td>
<td>360.29</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>Pipeline: the stream crossing will be conducted “in the dry” and the method used (pump and dam/flume) will be determined on site depending on the conditions at the time. The trench will be dug in the dry stream bed and placed a minimum of five feet below stream bed depth. Following construction, the stream will be reconnected to its original course. Additionally, a Tribe-wide blanket will be placed to prevent erosion control failure.</td>
<td>16.00</td>
</tr>
</tbody>
</table>

**Notes:**
- **Chapter 93 (Req H)**: The stream crossing will be conducted “in the dry” and the method used (pump and dam/flume) will be determined on site depending on the conditions at the time. The trench will be dug in the dry stream bed and placed a minimum of five feet below stream bed depth. Following construction, the stream will be reconnected to its original course. Additionally, a Tribe-wide blanket will be placed to prevent erosion control failure.
- **Pipeline:** The stream crossing will be conducted “in the dry” and the method used (pump and dam/flume) will be determined on site depending on the conditions at the time. The trench will be dug in the dry stream bed and placed a minimum of five feet below stream bed depth. Following construction, the stream will be reconnected to its original course. Additionally, a Tribe-wide blanket will be placed to prevent erosion control failure.
- **Erosion Control:** Any area located within the PROW will be maintained as PEM. Additionally, during construction the portion of the PROW located within the travel lane will be impacted. 10-foot-wide timber mats placed over the wetland to allow construction equipment to cross over. Once construction is complete, the Timber mats will be removed and the area will be restored to original contours. Erosion control blankets will be placed in this area to facilitate stability and vegetation growth.
- **Temporary Workspace:** The stream is located in a TSW. 15-foot wide timber mats will be placed over the stream to allow equipment crossing. This construction is complete, and the mats will be removed. The upland floodway will be restored to original contours. An erosion control blanket will be placed in this area to facilitate stability and vegetation growth.
- **Permanent Right-of-Way:** The wetland will be segregated during construction. Following construction it will be returned and the wetland will be restored to original contours. Any area located within the PROW will be maintained as PEM. Additionally, during construction the portion of the PROW located within the travel lane will be impacted. 10-foot-wide timber mats placed over the wetland to allow construction equipment to cross over. Once construction is complete, the Timber mats will be removed and the area will be restored to original contours. Erosion control blankets will be placed in this area to facilitate stability and vegetation growth.
HOU-TAR-53: 10-foot-wide timber mats will be placed over the wetland to allow construction equipment to cross over it. Following construction, the mats and sock will be removed. The upland floodway will also be restored to original conditions following construction. Excess water will be allowed to facilitate stability and vegetation growth.

HOU-TAR-54: the temporary access road is located along the edge of the LOD. The stream will be crossed with 10-feet-wide timber mats to facilitate equipment crossing. Following construction, the road will be restored to its original state. GP-8 31 of 54 SS157

The upland floodway will be restored to original conditions following construction. Excess water will be allowed to facilitate stability and vegetation growth. GP-8 26 of 54 SS158

The temporary access road is located along the edge of the LOD. The stream will be crossed with 10-feet-wide timber mats to facilitate equipment crossing. Following construction, the road will be restored to its original state. GP-8 31 of 54 SS157
TABLE 1
AQUATIC RESOURCES IMPACT TABLE - REVISED NOVEMBER 2017
BEAVER COUNTY, PENNSYLVANIA

<table>
<thead>
<tr>
<th>Resource Crossing</th>
<th>Feature Type (Stream, Floodway, Method)</th>
<th>Feature Name</th>
<th>Feature ID (Unique Identifier)</th>
<th>Feature Description</th>
<th>Chapter 93 Designation</th>
<th>Chapter 93 Access Road</th>
<th>Pipeline or Stream within Length of Impact (ft.)</th>
<th>Stream Width</th>
<th>Area within Stream Width Temporarily Worked Over (ac)</th>
<th>Area Within Temporarily Worked Over (ac)</th>
<th>DAPI Impact</th>
<th>Cores Impacted</th>
<th>Cores Impacted</th>
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<td>10.1</td>
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<td>241.10</td>
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<td>WWF</td>
<td>4.50</td>
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<td>1004.77</td>
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<td>51.03</td>
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<td>Pipeline: the stream crossing will be conducted &quot;in the dry&quot; and the method used (pump and dam/flume) will be determined on site depending on the conditions at the time. The trench will be dug in the dry stream bed and placed a minimum of four feet below stream bed depth. Following construction, the stream will be restored to its original contours. Additionally, a 10-ft-wide timber mat will be placed in the travel area across the stream to allow for construction equipment crossing. Following construction the timber mat will be removed. The upland floodway will also be restored to original conditions following construction. Erosion mats will be removed to facilitate stability and vegetation growth.</td>
<td>0.00</td>
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<td>Floodway</td>
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<td>55.20</td>
<td>Pipeline: the stream crossing will be conducted &quot;in the dry&quot; and the method used (pump and dam/flume) will be determined on site depending on the conditions at the time. The trench will be dug in the dry stream bed and placed a minimum of five feet below stream bed depth. Following construction, the stream will be restored to its original contours. Additionally, a 10-ft-wide timber mat will be placed in the travel area across the stream to allow for construction equipment crossing. Following construction the timber mat will be removed. The upland floodway will also be restored to original conditions following construction. Erosion mats will be removed to facilitate stability and vegetation growth.</td>
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<td>Pipeline: the stream crossing will be conducted &quot;in the dry&quot; and the method used (pump and dam/flume) will be determined on site depending on the conditions at the time. The trench will be dug in the dry stream bed and placed a minimum of five feet below stream bed depth. Following construction, the stream will be restored to its original contours. Additionally, a 10-ft-wide timber mat will be placed in the travel area across the stream to allow for construction equipment crossing. Following construction the timber mat will be removed. The upland floodway will also be restored to original conditions following construction. Erosion mats will be removed to facilitate stability and vegetation growth.</td>
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<td>Floodway</td>
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<td>29.87</td>
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<td>Pipeline: a trench will be dug through the upland floodway and the topsoil will be segregated. The pipeline will be placed a minimum of four feet deep. Following construction, the segregated topsoil will be returned and the wetland will be restored to original contours and the area above the pipe and within the footprint of the proposed pipeline will be restored to original conditions following construction. Erosion mats will be removed to facilitate stability and vegetation growth.</td>
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<td>0.00</td>
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<td>Pipeline: the stream crossing will be conducted &quot;in the dry&quot; and the method used (pump and dam/flume) will be determined on site depending on the conditions at the time. The trench will be dug in the dry stream bed and placed a minimum of five feet below stream bed depth. Following construction, the stream will be restored to its original contours. Additionally, a 10-ft-wide timber mat will be placed in the travel area across the stream to allow for construction equipment crossing. Following construction the timber mat will be removed. The upland floodway will also be restored to original conditions following construction. Erosion mats will be removed to facilitate stability and vegetation growth.</td>
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AQUATIC RESOURCES IMPACT TABLE - REVISED NOVEMBER, 2017

TABLE 1

FALCON ETHANE PIPELINE SYSTEM
DIADEME COUNTY, PENNSYLVANIA

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<th>Feature ID (Unique Identifier)</th>
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<th>Impact</th>
<th>Resource Type</th>
<th>Aquatic Designation</th>
<th>Stream Width</th>
<th>Channel MC</th>
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<th>Water Temperature (°C)</th>
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10-ft-wide timber mats will be laid across the stream for this temporary access road crossing. Following construction the mats will be removed. The upland floodway will also be returned to original conditions following construction. Erosion mats will be installed to facilitate stability and vegetation growth.

**Pipeline/PROW:** The stream crossings will be conducted "in the dry" and the method used (pump and dam/flume) will be determined on site depending on the conditions at the time. The trench will be dug in the dry stream bed and placed a minimum of five feet below stream bed depth. Following construction, the stream will be restored to its original contours. Additionally, 10-ft-wide timber mats will be placed across the channel. All areas will be restored to pre-construction conditions. Erosion control blankets will be installed to facilitate stability and vegetation growth.

**September 30, 2017**

**Note:** Although there is no permanent above-ground ROW for HDDs, the permanent impact area is captured within the "Area Within Permanent Right-of-Way" column.
Requirement B

Application Fee
PART ONE: WATER OBSTRUCTIONS AND ENCROACHMENTS

SECTION A. APPLICATION FEES

- **WATER OBSTRUCTION AND ENCROACHMENT PERMIT** (Joint Permit Application)
  Some activities or structures within a project may also qualify for an accumulation of General Permit fees, please mark the box above indicating an Individual Water Obstruction and Encroachment Permit AND the corresponding fee(s) in the General Permit section below those. Activities or structures not qualifying for a General Permit fee must include a disturbance fee.

- **Administrative Filing Fee**: $1,750 +
  - **Temporary Disturbance** ($400/0.1ac) = 0.6 acres x $4,000 = $2,400 +
  - **Permanent Disturbance** ($800/0.1ac) = 0.7 acres x $8,000 = $5,600 = $8,000

  WOE FEE subtotal (a) $9,750

- **GENERAL PERMIT(S)** (select activity/structure(s) below, see page 4 for “#” explanation)
  Some activities or structures within a project requiring an Individual Water Obstruction and Encroachment Permit may qualify for an accumulation of General Permit fees, please mark the corresponding fee(s) below but not the box above indicating a General Permit.

  - **GP-1** Fish Habitat Enhancement Structures = $50 = $___
  - **GP-2** Small Docks and BoatLaunching Ramps = $175 = $___
  - **GP-3** Bank Rehabilitation, Bank Protection and Gravel Bar Removal = $250 = $___
  - **GP-4** Intake and Outfall Structures = $200 = $___
  - **GP-5** Utility Line Stream Crossings = 1 (#) x 90 (#) = $22,500
  - **GP-6** Agricultural Crossings and Ramps = $50 = $___
  - **GP-7** Minor Road Crossings = $350 = $___
  - **GP-8** Temporary Road Crossings = 98 (#) = $17,150
  - **GP-9** Agricultural Activities = $50 = $___
  - **GP-10** Abandoned Mine Reclamation = $500 = $___

  - **Replacement of Water Obstructions and Encroachments** $750 +
    - **Temporary Disturbance** ($400/0.1ac) = _____ acres x $4,000 = $___ +
    - **Permanent Disturbance** ($800/0.1ac) = _____ acres x $8,000 = $___ = $___

  - **GP-15** Private Residential Construction in Wetlands = $750 +
    - **Temporary Disturbance** ($400/0.1ac) = _____ acres x $4,000 = $___ +
    - **Permanent Disturbance** ($800/0.1ac) = _____ acres x $8,000 = $___ = $___

  GP(s) FEE subtotal (b) $39,650

  - **PART ONE: SECTION A. APPLICATION FEE(S) subtotal (a+b=c)** $49,400

SECTION B. OTHER FEES

- **Environmental Assessment for Waived Activities** ($105.13(c)(2)(iv)) = $500 $0
- **Amendment to Water Obstruction and Encroachment Permit**
  - **Major Amendment** = $500 +
    - **Temporary Disturbance** = _____ acres x $4,000 = $___ + $0
    - **Permanent Disturbance** = _____ acres x $8,000 = $___ = $0
  - **Minor Amendment** = $250 $0

  Transfer of Water Obstruction and Encroachment Permit does not require submission of this form; see **Application for Transfer of Permit / Submerged Lands License Agreement (3150-PM-BWEW-0016)**

  - **PART ONE: SECTION B. OTHER FEE(S) subtotal (d)** $0

  - **PART ONE: FEE(S) TOTAL (c+d=e)** $49,400

DEP USE ONLY

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- 2 -
### PART TWO: DAM SAFETY (USE ONE FEE SHEET PER DAM)

#### SECTION A. APPLICATION FEES

**DAM PERMIT APPLICATION – NEW DAM**

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<th>Size</th>
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**STAGED CONSTRUCTION**

NO. OF STAGES BEYOND INITIAL STAGE _____ X APPLICATION FEE _____ X 0.90 (90%)

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**DAM PERMIT APPLICATION – MODIFICATION OF DAM**

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**STAGED CONSTRUCTION**

NO. OF STAGES BEYOND INITIAL STAGE _____ X APPLICATION FEE _____ X 0.85 (85%)

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**DAM PERMIT APPLICATION – OPERATION & MAINTENANCE OF EXISTING DAM**

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### SECTION B. OTHER FEES

- **Letter of Amendment or Authorization**
  - Major (≥$250,000)
    - Size A: $14,700
    - Size B: $8,700
    - Size C: $4,400
  - Minor (<$250,000)
    - Size A: $1,300
    - Size B: $1,000
    - Size C: $650
- **Major Dam Design Revision**
  - Size A: $4,700
  - Size B: $3,200
  - Size C: $1,700
- **Environmental Assessment**
  - Environmental Assessment for Dam Removal (§105.12(a)(16))
    - Size A: $500
  - Non-Jurisdictional Dams
    - Size A: $900
- **Letter of Amendment or Authorization**
  - Size A: $1,400
  - Size B: $1,000
  - Size C: $900
- **Transfer of Dam Permit**
  - Proof of Financial Responsibility: $300
- **Annual Registration**
  - Hazard 1: $1,500
  - Hazard 2: $1,500
  - Hazard 3: $800

### PART TWO: FEE(S) TOTAL (a+b=c)

FEE TOTAL: $0

DEP USE ONLY

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Requirement C

Acts 14/67/68/127 Notifications and Receipts
FedEx®

Your package has been delivered

Tracking # 770223557314

Ship date: Tue, 9/12/2017
Delivered: Wed, 9/13/2017 8:53 am

Natalie L. Shearer
AECOM
Pittsburgh, PA 15220
US

Delivered to: Receptionist/Front Desk

Service type: FedEx Priority Overnight
Packaging type: FedEx Box
Number of pieces: 1
Weight: 2.00 lb.
Special handling/Services: Deliver Weekday

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Thank you for your business.
September 11, 2017

Beaver County Board of Commissioners
Beaver County Court House
810 Third Street
Beaver, PA 15009

Via FedEx: 7702 2355 7314

Dear County Commissioners:

Shell Pipeline Company LP (SPLC) retained AECOM Technical Services, Inc. (AECOM) to provide design and permitting services. This notice is to inform you of SPLC’s intent to construct an ethane pipeline under a Pennsylvania Erosion and Sediment Control General Permit (ESCGP-2) for Earth Disturbance Associated with Oil & Gas Exploration, Production, Processing or Treatment Operations or Transmission Facilities and a Chapter 105 Water Obstruction and Encroachment Joint Permit coverage from the Pennsylvania Department of Environmental Protection (PADEP) for the following project:

- **Project Name:** Falcon Ethane Pipeline System
- **Project Description:** Installation of approximately 19 miles of 12-inch ethane pipeline and 3.7 miles of 16-inch ethane pipeline for the purpose of delivering product to the Shell Pennsylvania Petrochemical Facility in Monaca, Pennsylvania.
- **Applicant Name:** Shell Pipeline Company LP
- **Applicant Contact:** Robert Wooten
  150 North Dairy Ashford #A2036G
  Houston Texas, 77079
  Phone: (832) 762-2568
- **Site Location:** See attached Location Map.
- **Municipality/County:** Greene, Independence, Potter, and Raccoon Townships, Beaver County, PA

Enclosed is a Location Map, a copy of the General Information Form (GIF), a copy of the ESCGP-2 Notice of Intent (NOI) Form, and the Erosion & Sediment Control (E&SC) plan drawings completed by AECOM on behalf of the applicant. If desired, AECOM will also furnish the E&SC Narrative and detail drawings. DEP invites you to review the attached form and to comment on the accuracy of answers provided with regard to land use aspects of this project. Please be specific to DEP and focus on the relationship to local ordinances. If you wish to submit comments to DEP, you must respond within 30 days to the DEP regional office referenced in this letter. If you do not submit comments by the end of the comment period, DEP will assume that there are no substantive conflicts and proceed with the normal application review process.

This letter is intended to satisfy the requirements of Pennsylvania Acts 14, 67, 68, and 127 and the Pennsylvania Municipalities Planning Code. Section 1905-A of the Commonwealth Administrative Code, as amended by Act 14, requires that each applicant for a PADEP permit must give written notice to the municipality(ies) and the county(ies) in which the permitted activity is located. The written notices shall be

aecom.com
received by the municipality(ies) and county(ies) at least 30 days before the PADEP may issue or deny the permit.

Acts 67 and 68, which amended the Municipalities Planning Code to support sound land use practices and planning efforts, direct state agencies to consider comprehensive plans and zoning ordinances when reviewing applications for permitting of facilities or infrastructure, and specify that state agencies may rely upon comprehensive plans and zoning ordinances under certain conditions as described in Sections 619.2 and 1105 of the Municipalities Planning Code.

Please submit any comments concerning this project within 30 days from the date of receipt of this letter to the PADEP, Southwest Regional Office, 400 Waterfront Drive, Pittsburgh, PA 15222-4745.

For more information about this land use review process, please contact me at 412-503-4595 or visit www.depweb.state.pa.us (Keyword: Land Use Reviews).

Sincerely,

Natalie L. Shearer, M.S., QEP
Natural Resources Lead
AECOM

Enclosures: Location Map, General Information Form (GIF), ESCGP-2 NOI Form, and E&SC plan drawings
Your package has been delivered

Tracking # 770223618504

Ship date: Tue, 9/12/2017

Natalie L. Shearer
AECOM
Pittsburgh, PA 15220
US

Delivery date: Wed, 9/13/2017 9:08 am

Brian Herron & Kim Moore
Green Township
262 Pittsburgh Grade Road
HOOKSTOWN, PA 15050
US

Shipment Facts

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All weights are estimated.

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Natalie L. Shearer, M.S., QEP
Natural Resources Lead
AECOM

Enclosures: Location Map, General Information Form (GIF), ESCGP-2 NOI Form, and E&SC plan drawings
**Your package has been delivered**

**Tracking # 770223680500**

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**Natalie L. Shearer**  
AECOM  
Pittsburgh, PA 15220  
US

**Daniel McLaughlin & Debra Shafer**  
Independence Township  
116 School Rd  
ALIQUIPPA, PA 15001  
US

**Shipment Facts**

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**Project Name:** Falcon Ethane Pipeline System  
**Project Description:** Installation of approximately 19 miles of 12-inch ethane pipeline and 3.7 miles of 16-inch ethane pipeline for the purpose of delivering product to the Shell Pennsylvania Petrochemical Facility in Monaca, Pennsylvania.  
**Applicant Name:** Shell Pipeline Company LP  
**Applicant Contact:** Robert Wooten  
150 North Dairy Ashford #A2036G  
Houston Texas, 77079  
Phone: (832) 762-2568  
**Site Location:** See attached Location Map.  
**Municipality/County:** Greene, Independence, Potter, and Raccoon Townships, Beaver County, PA

Enclosed is a Location Map, a copy of the General Information Form (GIF), a copy of the ESCGP-2 Notice of Intent (NOI) Form, and the Erosion & Sediment Control (E&SC) plan drawings completed by AECOM on behalf of the applicant. If desired, AECOM will also furnish the E&SC Narrative and detail drawings. DEP invites you to review the attached form and to comment on the accuracy of answers provided with regard to land use aspects of this project. Please be specific to DEP and focus on the relationship to local ordinances. If you wish to submit comments to DEP, you must respond within 30 days to the DEP regional office referenced in this letter. If you do not submit comments by the end of the comment period, DEP will assume that there are no substantive conflicts and proceed with the normal application review process.

This letter is intended to satisfy the requirements of Pennsylvania Acts 14, 67, 68, and 127 and the Pennsylvania Municipalities Planning Code. Section 1905-A of the Commonwealth Administrative Code, as amended by Act 14, requires that each applicant for a PADEP permit must give written notice to the municipality(ies) and the county(ies) in which the permitted activity is located. The written notices shall be
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Please submit any comments concerning this project within 30 days from the date of receipt of this letter to the PADEP, Southwest Regional Office, 400 Waterfront Drive, Pittsburgh, PA 15222-4745.

For more information about this land use review process, please contact me at 412-503-4595 or visit www.depweb.state.pa.us (Keyword: Land Use Reviews).

Sincerely,

\[Signature\]

Natalie L. Shearer, M.S., QEP
Natural Resources Lead
AECOM

Enclosures: Location Map, General Information Form (GIF), ESCGP-2 NOI Form, and E&SC plan drawings
### Shipment Facts

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- **Applicant Contact:** Robert Wooten  
  150 North Dairy Ashford #A2036G  
  Houston Texas, 77079  
  Phone: (832) 762-2568
- **Site Location:** See attached Location Map.
- **Municipality/County:** Greene, Independence, Potter, and Raccoon Townships, Beaver County, PA

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For more information about this land use review process, please contact me at 412-503-4595 or visit www.depweb.state.pa.us (Keyword: Land Use Reviews).

Sincerely,

Natalie L. Shearer, M.S., QEP
Natural Resources Lead
AECOM

Enclosures: Location Map, General Information Form (GIF), ESCGP-2 NOI Form, and E&SC plan drawings
FedEx®

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Ship date: Tue, 9/12/2017
Natalie L. Shearer
AECOM
Pittsburgh, PA 15220
US

Delivered: 09/13/2017 08:37 AM
Signed for By: D.STONE

Delivery date: Wed, 9/13/2017 8:37 am
David Dushac & Daisy Stone
Raccoon Township
1234 State Route 18
ALIQUIPPA, PA 15001
US

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Thank you for your business.
September 11, 2017

David Dushac, Chairman of Board
of Supervisors
Daisy Stone, Township
Administrator
Raccoon Township
1234 State Route 18
Aliquippa, PA 15001

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Natalie L. Shearer, M.S., QEP
Natural Resources Lead
AECOM

Enclosures: Location Map, General Information Form (GIF), ESCGP-2 NOI Form, and E&SC plan drawings
Requirement D

Cultural Resource Coordination

Please see the Requirement D PDF
PHMC Correspondence and Cultural Resources Reports
PHMC Correspondence and Architectural History Reports
Requirement E

PASPGP-5 Reporting Criteria Checklist
PASPGP-5 REPORTING CRITERIA CHECKLIST

The following questionnaire must be completed (instructions on pages 1-6) and submitted as part of all DEP Chapter 105 applications / registrations to determine the appropriate Federal Pennsylvania State Programmatic General Permit-5 (PASPGP-5) review procedure. Incomplete submissions, including lack of certification signature, will be returned.

Applicant / Project Name: Shell Pipeline Company LP/Falcon Ethane Pipeline Project  
County(s): Beaver

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<tr>
<th>SECTION A: ELIGIBILITY DETERMINATION</th>
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<tr>
<td>YES ☐ NO ❌ 1. Does the proposed work associated with the Single and Complete Project temporarily and/or permanently impact greater than 1.0 acre of waters and/or wetlands, and/or result in the loss of greater than 1,000 linear feet of stream channel(s)?</td>
</tr>
<tr>
<td>YES ☐ NO ❌ 2. Is any of the proposed work located waterward of the ordinary high water mark (OHWM) of any of the ineligible waterbodies identified in the instructions?</td>
</tr>
<tr>
<td>YES ☐ NO ❌ 3. Has any portion of the proposed work been denied a DEP Chapter 105 Permit, a State Water Quality Certification as required under Section 401 of the Clean Water Act, or a Coastal Zone Consistency Determination?</td>
</tr>
<tr>
<td>YES ☐ NO ❌ 4. Does the proposed work result in the diversion of more than 10,000 gallons per day of surface water or groundwater into or out of the Great Lakes Basin (Lake Erie Watershed)?</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>SECTION B: REPORTING ACTIVITY DETERMINATION</th>
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</thead>
<tbody>
<tr>
<td>YES ☐ NO ❌ 1. Does the proposed work associated with a Single and Complete Project, including any attendant features, permanently and/or temporarily impact greater than 0.5 acre of waters of the United States, including jurisdictional wetlands?</td>
</tr>
<tr>
<td>YES ☐ NO ❌ 2a. Does the application/registration include any proposed Single and Complete Projects permanently impacting greater than 250 linear feet of streams, rivers, or other watercourses (excluding wetlands)?</td>
</tr>
<tr>
<td>YES ☐ NO ❌ 2b. Is the Single and Complete Project for stream bank stabilization, rehabilitation, protection and/or enhancement and propose impacts of greater than 500 linear feet of stream channel(s)?</td>
</tr>
<tr>
<td>YES ☐ NO ❌ 2c. Does the Single and Complete Project qualify for DEP GP-1 for Fish and Enhancement Structures?</td>
</tr>
<tr>
<td>YES ☐ NO ❌ 2d. Is the project covered by a programmatic State Water Quality Certification issued by DEP - that is conditioned upon receiving approval by the Environmental Review Committee?</td>
</tr>
<tr>
<td>YES ☒ NO ☐ 3. Does the application/registration include any Single and Complete Projects that propose the permanent conversion of greater than 0.10 acre of forested and/or shrub-scrub wetlands in association with a regulated activity?</td>
</tr>
<tr>
<td>YES ☐ NO ❌ 4. If the application/registration is for a utility line, do any of the single and complete projects in waters of the United States, including jurisdictional wetlands, exceed 500 linear feet (excluding overhead lines)?</td>
</tr>
<tr>
<td>YES ☒ NO ☐ 5. Is this application/registration to place a buried utility line in waters and/or wetlands in a manner that the utility line will run parallel to or along a stream bed?</td>
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SECTION B: REPORTING ACTIVITY DETERMINATION (CONT)

6. Is the application/registration associated with a Single and Complete Project whereby a previous Department of the Army authorization has been issued through an Individual Permit, a Nationwide Permit, or a PASPGP processed by the Corps as a Category III/Reporting Activity? If YES, please complete the following table.

<table>
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<tr>
<th>Authorization Type</th>
<th>Authorization Number</th>
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7a. Is the proposed project located in waterways occupied by Federally listed, proposed, or candidate mussels or fish, or in waters of the United States within 300 feet of these listed waterways? See instructions for list of waterways.

7b. If 7a is yes, have you received documented clearance from the USFWS, or a Section 7 of the Endangered Species Act (ESA) “no effect” determination from the Corps? Documented clearance from the USFWS could indicate “no effect” or “the project or activity will not affect Federally listed species.”

8a. Does the project propose impacts to Federally regulated wetlands in a county that requires bog turtle screening procedures? See instructions for list of counties.

8b. If 8a is YES, have you received documented clearance from the USFWS, or a Section 7 ESA “no effects” determination from the Corps? Documented clearance from the USFWS could indicate “no effect” or “the project or activity will not affect Federally listed species.”

9a. Does the completed Pennsylvania Natural Diversity Inventory (PNDI) search receipt identify a potential conflict(s) for a Federally listed species?

9b. If YES for 9a, have you received additional documented Section 7 ESA clearance, or do you agree, through signing of the PNDI receipt, to comply with all avoidance measures identified on the PNDI receipt associated with Federally listed species for the proposed work?

10. Is the proposed work associated with maintenance dredging of a reservoir’s design storage capacity, including the removal of accumulated sediments? This corresponds to activities authorized pursuant to Section 7 of the Dam Safety and Encroachments Act (DSEA), 32 P.S. § 693.1, et seq., and the rules and regulations promulgated there under in the PA Bulletin (codified at 25 PA. Code, Chapter 105, § 105.131(c)).

11a. If the DEP Chapter 105 application/registration requires submittal of a Cultural Resources Notification Form as part of the application/registration, have you included the response letter from the State Historic Preservation Officer (SHPO), i.e., Pennsylvania Historic and Museum Commission (PHMC) with your application/registration?

11b. Has the PHMC determined that archaeological or other cultural resources are believed to exist within the permit area?

11c. If yes for 11b, have you received follow-up documented clearance from PHMC, or a Section 106 “no effect” determination from the Corps?

12a. Does the proposed work occur in a component of the National Wild and Scenic River System or in a river officially designated by Congress as a “Study River” for possible inclusion in the System? See instructions for listing.

12b. If yes for 12a, have you received a written determination from the Federal agency with direct management responsibility for such river that the proposed activity will not adversely affect any Wild and Scenic River including study rivers?

13. Does the proposed project require the preparation of an Environmental Impact Statement?

14. Does the proposed regulated activity or area of indirect impact (secondary impact) extend across state boundaries (i.e., the work in not wholly located within the Commonwealth of Pennsylvania)?
SECTION B: REPORTING ACTIVITY DETERMINATION (CONT)

15. Is the proposed work authorized pursuant to DEP Chapter 105 permits in conjunction with coal and non-coal mining permits issued by the DEP District Mining Offices (Bureau of Mining and Reclamation), including activities authorized pursuant to Chapter 105 Waiver 4 [25 Pa. Code §105.12(a)(4)] and GP-101 and GP-102?

   YES ☐ NO ☒ 16. Is the proposed work associated with the construction of a Mitigation Bank or In Lieu Fee site developed to meet the requirements of the Corps and EPA April 10, 2008 Compensatory Mitigation for Losses of Aquatic Resources: Final Rule?

   YES ☐ NO ☒ 17. Will the proposed work alter, use, build upon, attempt to possess, or that may harm or impair any existing or proposed Corps Civil Works project, and any Corps-owned or managed property?

   YES ☐ NO ☒ 18a. Does the Single and Complete Project involve the construction or expansion of a residential, commercial or institutional subdivision or development?

   YES ☐ NO ☒ 18b. Does greater than 0.25 acre of wetland(s) exist within the property boundary that are not proposed to be directly impacted as part of this application/registration? If YES, provide wetland acreage: 20 acres.

   YES ☐ NO ☒ 18c. Are you proposing to protect the wetland area(s) through a deed restriction or conservation easement that follows the Corps' Model Protective Covenant?

   YES ☐ NO ☒ 19. Does the proposed work temporarily impact waters and/or wetlands that will remain in place for more than 1 year?

   YES ☐ NO ☒ 20. Do you have any other pending applications/registrations with the DEP or Corps that are necessary for this total proposed project to function and meet its intended purpose? If YES, provide following information.

<table>
<thead>
<tr>
<th>Application / Registration Number / Type</th>
<th>Project Name</th>
<th>Date of Submittal to DEP (mm/dd/yyyy)</th>
<th>DEP / CCD Reviewing Office</th>
<th>Corps Reviewing Office</th>
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   YES ☐ NO ☒ 21. Are you proposing to do work in the Delaware River (upstream from the U.S. Route 202 Bridge in New Hope, Pennsylvania.) and/or the Lehigh River (from the mouth to Francis E. Walter Dam, located in Carbon and Luzerne County, Pennsylvania between March 15 and June 30? 

   YES ☐ NO ☒ 22a. Does the proposed work occur in any of the waters listed in the instructions?

   YES ☐ NO ☒ 22b. Will you comply with all of the identified conservation measures?

   *****
SECTION C: CERTIFICATION

I certify that the information provided on this form is true and correct to the best of my knowledge and information. If any of the information and/or plans is found to be in error, falsified, and/or incomplete, your Chapter 105/PASPGP-5 authorization/verification may be subject to modification, suspension, or revocation in accordance with applicable regulations.

[Signature of Applicant]

[Date: 11/09/17]

Stephen Van Stone
Attorney-In-Fact

Name Typed or Printed

****

IMPERVIOUS SURFACE DATA FOR CORPS

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<td><strong>1a.</strong></td>
<td>Is your project located in the Corps of Engineers Philadelphia District (Delaware River Watershed), or in Chester, Lancaster, or York County?</td>
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<td>YES ☐</td>
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<tr>
<td><strong>1b.</strong></td>
<td>Does your project propose impervious surfaces within waters and wetlands? If YES, provide area of impervious surface within the footprint of waters and wetlands: 5,779.23 square feet</td>
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<tr>
<td>YES ☒</td>
<td>NO ☐</td>
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</tbody>
</table>

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1c.</strong></td>
<td>Does any part of your project propose the removal of any impervious surfaces? If YES, provide area of impervious surface being removed: ________ square feet</td>
</tr>
<tr>
<td>YES ☐</td>
<td>NO ☒</td>
</tr>
</tbody>
</table>

FOR DEP USE ONLY

[DEP / District Manager Signature]

[Date]

[Name Typed or Printed]

[Permit Number]
Requirement F

Bog Turtle Habitat Screening

(This requirement is not applicable due to the Project’s location in counties where bog turtles do not occur)
Requirement G
PNDI Search and Approval

Please see the Requirement G PDF
DCNR Correspondence and Botanical Survey Reports
PFBC Correspondence
PGC Correspondence and Northern Harrier/Short Eared Owl Survey Report
USFWS Correspondence and Bat Mist Net, Bald Eagle, and Mussel Survey Reports
Requirement H

Plans
FALCON ETHANE PIPELINE SYSTEM

EROSION AND SEDIMENT CONTROL SITE SPECIFIC PLANS

BEAVER COUNTY, PA

PREPARED FOR:
SHELL PIPELINE COMPANY LP
150 N DAIRY ASHFORD RD
HOUSTON, TX 77079

SEPTEMBER, 2017
REVISED: NOVEMBER, 2017

PREPARED BY:
AECOM
FOSTER PLAZA 6
681 ANDERSEN DRIVE
SUITE 400
PITTSBURGH, PA 15220

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REDISTRIBUTED WITHOUT PRIOR PERMISSION. NEITHER THE OPERATOR NOR
THE OWNER MAKE ANY WARRANTY AS TO THE CORRECTNESS OR
COMPLETENESS OF THE INFORMATION CONTAINED ON THIS DRAWING, AND
THE USER ASSUMES ALL RISK OF LOSS TO PERSONS AND PROPERTY AS A
RESULT OF RELIANCE THEREON.
NOTES:
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3. EXISTING GRADE INFORMATION BASED ON FIELD SURVEY PROVIDED BY PERCHERON, LLC.
4. PIPELINE LOCATED 4 FEET MINIMUM BELOW EXISTING GRADE.
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A = 3.00'
B = 3.00'
C = 2.08'
D = 0.10'

PROPOSED ETHANE PIPELINE

SCALE: 1" = 50'

FALCON ETHANE PIPELINE SYSTEM
SCIO TO JUNCTION
SS090 - RESOURCE CROSSING #2
GREENE TOWNSHIP
BEAVER COUNTY,
PA

DATE: 09/14/17
BY: IMM

SPLC–GOM–AE–SA124554

REV.

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SCALE: 1" = 50'
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SCALE: 1" = 50'

PROPOSED ETHANE PIPELINE

PROPOSED ETHANE PIPELINE

FALCON ETHANE PIPELINE SYSTEM

SS093 - RESOURCE CROSSING #5
GRENCE TOWNSHIP
BEAVER COUNTY,
PA

DATE: 09/14/17
BY: MMM

REV.

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5. PIPELINE LOCATED 4 FEET MINIMUM BELOW WETLANDS AND 5 FEET BELOW BOTTOM OF STREAM.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.95'</td>
<td>1.33'</td>
<td>0.42'</td>
<td>0.20'</td>
</tr>
<tr>
<td>1.60'</td>
<td>1.00'</td>
<td>0.30'</td>
<td>0.00'</td>
</tr>
</tbody>
</table>
NOTES:
1. FOR RESOURCE IMPACTS SEE AQUATIC RESOURCE TABLE INCLUDED IN APPLICATION PACKAGE
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3. EXISTING GRADE INFORMATION BASED ON FIELD SURVEY PROVIDED BY PERCHERON, LLC.
4. PIPELINE LOCATED 4 FEET MINIMUM BELOW WETLANDS AND 5 FEET BELOW BOTTOM OF STREAM.

FALCON ETHANE PIPELINE SYSTEM
SCIO TO JUNCTION

SS095 - RESOURCE CROSSING #7B
GREENE TOWNSHIP
BEAVER COUNTY, PA

DATE: 09/14/17
BY: IMM

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PROPOSED TIMBER MAT(S) OR APPROVED EQUAL (TYP)

NOTES:
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PROPOSED WATERBAR (TYP.)

PROPOSED TRENCH PLUG (TYP.)

PROPOSED ETHANE PIPELINE

A = 2.25'
B = 1.75'
C = 0.95'
D = 0.20'

5' MIN
NOTES:
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4. PIPELINE LOCATED 4 FEET MINIMUM BELOW EXISTING GRADE.
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\[ \begin{align*}
A &= 6.30' \\
B &= 3.50' \\
C &= 2.17' \\
D &= 0.70' \\
\end{align*} \]

PROPOSED ETHANE PIPELINE

SCALE: 1" = 50'

FALCON ETHANE PIPELINE SYSTEM

SCIO TO JUNCTION

SS098 - RESOURCE CROSSING #8A

GREENE TOWNSHIP

BEAVER COUNTY, PA

DATE: 09/14/17

BY: IMM

REV: [1]
NOTES:
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A = 19.33'
B = 19.00'
C = 1.83'
D = 0.80'

PROPOSED ETHANE PIPELINE

FALCON ETHANE PIPELINE SYSTEM
SCIO TO JUNCTION

SS100 - RESOURCE CROSSING #9
GREENE TOWNSHIP
BEAVER COUNTY, PA

DATE: 09/14/17
BY: IMM

REVISOR: XIAOZHANG LI
REV. 0
DATE: 09/14/17
ISSUED FOR PERMIT

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A = 2.50'
B = 1.50'
C = 1.20'
D = 0.20'

TIMBER MAT(S) OR APPROVED EQUAL
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\[ \begin{align*}
A &= 3.00' \\
B &= 2.00' \\
C &= 0.90' \\
D &= 0.10'
\end{align*} \]

PROPOSED ETHANE PIPELINE

NOTES:

SCALE: 1" = 50'

FALCON ETHANE PIPELINE SYSTEM

SCIO TO JUNCTION

SS102 – RESOURCE CROSSING #11
GREENE TOWNSHIP
BEAVER COUNTY, PA

DATE: 09/14/17
BY: IMM

REV. 1

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A = 6.00'  
B = 3.00'  
C = 1.80'  
D = 0.30'  

TIMBER MAT(S) OR APPROVED EQUAL

PROPOSED ETHANE PIPELINE

SCIO TO JUNCTION

FALCON ETHANE PIPELINE SYSTEM

SS103 - RESOURCE CROSSING #12
GREENE TOWNSHIP
BEAVER COUNTY, PA

DATE: 09/14/17  
BY: IMM

REV. 0  
ISSUED FOR PERMIT  
11/10/17 REVISED PER DEP COMMENTS ON 10/11

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RESOURCES CROSSING 17
S-PA-161122-CMS-001
FLOODWAY

PROPOSED TRENCH-PLUG (TYP.)
PROPOSED WATERBAR (TYP.)

2429+00
2430+00
2431+00
2432+00

PROPOSED EROSION CONTROL BLANKET (TYP.)
PROPOSED COMPOST FILTER SOCK (TYP.)

S-PA-161122-CMS-001

NOTES:
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A = 14.75'
B = 14.00'
C = 3.50'
D = 0.30'

TIMBER MAT(S) OR APPROVED EQUAL

SCALE: 1" = 50'

FALCON ETHANE PIPELINE SYSTEM
SCIO TO JUNCTION

SS109 - RESOURCE CROSSING #18
GREENE TOWNSHIP
BEAVER COUNTY,
PA

DATE: 09/14/17
BY: IMK

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RESOURCES CROSSING 19
S-PA-161122-CMS-005

PROPOSED TRENCH PLUG (TYP.)

PROPOSED COMPOST FILTER SOCK (TYP.)

PROPOSED WATERBAR (TYP.)

PROPOSED TIMBER MAT(S) OR APPROVED EQUAL (TYP.)

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SCALE: 1" = 50'

A = 20.00'
B = 8.00'
C = 3.85'
D = 0.20'

PROPOSED ETHANE PIPELINE

FALCON ETHANE PIPELINE SYSTEM

SCIO TO JUNCTION

SS110 - RESOURCE CROSSING #19
GREENE TOWNSHIP
BEAVER COUNTY,
PA

DATE: 09/14/17
BY: IMM
SPLC-GOM-AE-SA124574

REV. 0

REV. DATE DESCRIPTION OF REVISION DWN CHK APP
1 11/10/17 REVISED PER DEP COMMENTS ON 10/11 TLM NS JR
0 9/14/17 ISSUED FOR PERMIT IMM NS BW

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\[ A = 3.00' \]
\[ B = 1.00' \]
\[ C = 1.20' \]
\[ D = 0.20' \]
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FALCON ETHANE PIPELINE SYSTEM
SCIO TO JUNCTION

SS114 - RESOURCE CROSSING #23
RACCOON TOWNSHIP
BEAVER COUNTY, PA

DATE: 09/14/17
REV.

BY: IMM

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5. PIPELINE LOCATED 4 FEET MINIMUM BELOW WETLANDS AND 5 FEET BELOW BOTTOM OF STREAM.

A = 5.00'
B = 2.00'
C = 1.00'
D = 0.00'
NOTES:
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S–PA–160111–JLK–002
FLOODWAY

A = 2.75'
B = 2.00'
C = 1.05'
D = 0.30'
NOTES:
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S-PA-160111-JLK-001
FLOODWAY

A = 2.50°
B = 2.00°
C = 0.30°
D = 0.10°
NOTES:
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PROPOSED ETHANE PIPELINE

A = 5.00'
B = 2.00'
C = 1.80'
D = 0.30'

5' MIN

FALCON ETHANE PIPELINE SYSTEM

SCIO TO JUNCTION

SS120 - RESOURCE CROSSING #29
RACCOON TOWNSHIP
BEAVER COUNTY, PA

DATE: 09/14/17
BY: IMM

REV.

09/14/17 ISSUED FOR PERMIT

REV.

11/10/17 REVISED PER DEP COMMENTS ON 10/11

TLM NS JR
IMM NS BW

DWN CHK APPR

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NOTES:
1. FOR RESOURCE IMPACTS SEE AQUATIC RESOURCE TABLE INCLUDED IN THIS APPLICATION PACKAGE.
2. WETLAND INFORMATION BASED ON FIELD DELINEATION PERFORMED BY AECOM.
3. EXISTING GRADE INFORMATION BASED ON FIELD SURVEY PROVIDED BY PERCHERON, LLC.
4. PIPELINE LOCATED 4 FEET MINIMUM BELOW EXISTING GRADE.
5. PIPELINE LOCATED 4 FEET MINIMUM BELOW WETLANDS AND 5 FEET BELOW BOTTOM OF STREAM.

A = 6.50'
B = 3.00'
C = 1.70'
D = 0.20'

PROPOSED ETHANE PIPELINE

S-PA-151104-MRK-006

TIMBER MAT(S) OR APPROVED EQUAL

SCALE: 1" = 50'

FALCON ETHANE PIPELINE SYSTEM

SS121 - RESOURCE CROSSING #30
RACCOON TOWNSHIP
BEAVER COUNTY,
PA

DATE: 09/14/17

BY: IMM

REV. 1

SPLC-GOM-AE-SA124585

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NOTES:
1. For resource impacts see aquatic resource table included in this application package.
2. Wetland information based on field delineation performed by AECOM.
3. Existing grade information based on field survey provided by Percheron, LLC.
4. Pipeline located 4 feet minimum beneath existing grade.
5. Pipeline located 4 feet minimum below wetlands and 5 feet below bottom of stream.

A = 4.00'
B = 2.00'
C = 3.20'
D = 0.20'

PROPOSED ETHANE PIPELINE
NOTES:
1. FOR RESOURCE IMPACTS SEE AQUATIC RESOURCE TABLE INCLUDED IN THIS APPLICATION PACKAGE
2. WETLAND INFORMATION BASED ON FIELD DELINEATION PERFORMED BY AECOM.
3. EXISTING GRADE INFORMATION BASED ON FIELD SURVEY PROVIDED BY PERCHERON, LLC.
4. PIPELINE LOCATED 4 FEET MINIMUM BENEATH EXISTING GRADE.
5. PIPELINE LOCATED 4 FEET MINIMUM BELOW WETLANDS AND 5 FEET BELOW BOTTOM OF STREAM.

S-PA-170510-CBA-001
FLOODWAY
A = 5.75'
B = 2.25'
C = 1.00'
D = 0.00'
NOTES:
1. FOR RESOURCE IMPACTS SEE AQUATIC RESOURCE TABLE INCLUDED IN THIS APPLICATION PACKAGE
2. WETLAND INFORMATION BASED ON FIELD DELINEATION PERFORMED BY AECOM.
3. EXISTING GRADE INFORMATION BASED ON FIELD SURVEY PROVIDED BY PERCHERON, LLC.
4. PIPELINE LOCATED 4 FEET MINIMUM BELOW EXISTING GRADE.
5. PIPELINE LOCATED 4 FEET MINIMUM BELOW WETLANDS AND 5 FEET BELOW BOTTOM OF STREAM.

\[\begin{align*}
A &= 9.50' \\
B &= 5.00' \\
C &= 3.40' \\
D &= 0.40'
\end{align*}\]

PROPOSED ETHANE PIPELINE

FALCON ETHANE PIPELINE SYSTEM
SCIO TO JUNCTION

SS124 - RESOURCE CROSSING #33
RACCOON TOWNSHIP
BEAVER COUNTY, PA

DATE: 09/14/17
BY: IMM

REV. 1

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NOTES:
1. FOR RESOURCE IMPACTS SEE AQUATIC RESOURCE TABLE INCLUDED IN THIS APPLICATION PACKAGE
2. WETLAND INFORMATION BASED ON FIELD DELINEATION PERFORMED BY AECOM.
3. EXISTING GRADE INFORMATION BASED ON FIELD SURVEY PROVIDED BY PERCHERON, LLC.
4. PIPELINE LOCATED 4 FEET MINIMUM BENEATH EXISTING GRADE.
5. PIPELINE LOCATED 4 FEET MINIMUM BELOW WETLANDS AND 5 FEET BELOW BOTTOM OF STREAM.
NOTES:
1. FOR RESOURCE IMPACTS SEE AQUATIC RESOURCE TABLE INCLUDED IN THIS APPLICATION PACKAGE
2. WETLAND INFORMATION BASED ON FIELD DELINEATION PERFORMED BY AECOM.
3. EXISTING GRADE INFORMATION BASED ON FIELD SURVEY PROVIDED BY PERCHERON, LLC.
4. PIPELINE LOCATED 4 FEET MINIMUM BENEATH EXISTING GRADE.
5. PIPELINE LOCATED 4 FEET MINIMUM BELOW WETLANDS AND 5 FEET BELOW BOTTOM OF STREAM.

PROPOSED COMPOST FILTER SOCK (TYP.)
PROPOSED EROSION CONTROL BLANKET (TYP.)
PROPOSED TIMBER MAT(S) OR APPROVED EQUAL (TYP.)
PROPOSED TRENCH PLUG (TYP.)

RESOURCES CROSSING 35
S-PA-151120-JLK-001

RESOURCES CROSSING 35
S-PA-151120-JLK-002

SCALE: 1" = 50'
COMPOST FILTER Sock (TYP.)
PROPOSED TIMBER MAT(S) OR APPROVED EQUAL (TYP.)
PROPOSED EROSION CONTROL BLANKET (TYP.)
PROPOSED WATERBAR (TYP.)

RESOURCES CROSSING 36
S-PA-151120-JLK-004

NOTES:
1. FOR RESOURCE IMPACTS SEE AQUATIC RESOURCE TABLE INCLUDED IN THIS APPLICATION PACKAGE
2. WETLAND INFORMATION BASED ON FIELD DELINEATION PERFORMED BY AECOM.
3. EXISTING GRADE INFORMATION BASED ON FIELD SURVEY PROVIDED BY PERCHERON, LLC.
4. PIPELINE LOCATED 4 FEET MINIMUM BELOW WETLANDS AND 5 FEET BELOW BOTTOM OF STREAM.

A = 4.00'
B = 2.50'
C = 2.08'
D = 0.10'

TIMBER MAT(S) OR APPROVED EQUAL

PROPOSED ETHANE PIPELINE

SCALE: 1" = 50'

FALCON ETHANE PIPELINE SYSTEM
SCIO TO JUNCTION
SS127 - RESOURCE CROSSING #36
RACCOON TOWNSHIP
BEAVER COUNTY, PA

DATE: 09/14/17
BY: IMM

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NOTES:
1. FOR RESOURCE IMPACTS SEE AQUATIC RESOURCE TABLE INCLUDED IN THIS APPLICATION PACKAGE
2. WETLAND INFORMATION BASED ON FIELD DELINEATION PERFORMED BY AECOM.
3. EXISTING GRADE INFORMATION BASED ON FIELD SURVEY PROVIDED BY PERCHERON, LLC.
4. PIPELINE LOCATED 4 FEET MINIMUM BENEATH EXISTING GRADE.
5. PIPELINE LOCATED 4 FEET MINIMUM BELOW WETLANDS AND 5 FEET BELOW BOTTOM OF STREAM.

\[ S-PA-151120-JLK-005 \]
FLOODWAY

\[ A = 6.00' \]
\[ B = 2.00' \]
\[ C = 3.08' \]
\[ D = 0.10' \]
COMPOST FILTER
SOCK (TYP.)

PROPOSED TIMBER MAT(S)
OR APPROVED EQUAL

RESOURCE CROSSING 38
W–PA–160503–MRK–005

NOTES:
1. FOR RESOURCE IMPACTS SEE AQUATIC RESOURCE TABLE INCLUDED IN THIS APPLICATION PACKAGE
2. WETLAND INFORMATION BASED ON FIELD DELINEATION PERFORMED BY AECOM.
3. EXISTING GRADE INFORMATION BASED ON FIELD SURVEY PROVIDED BY PERCHERON, LLC.
4. PIPELINE LOCATED 4 FEET MINIMUM BELOW EXISTING GRADE.
5. PIPELINE LOCATED 4 FEET MINIMUM BELOW WETLANDS AND 5 FEET BELOW BOTTOM OF STREAM.
NOTES:
1. FOR RESOURCE IMPACTS SEE AQUATIC RESOURCE TABLE INCLUDED IN THIS APPLICATION PACKAGE
2. WETLAND INFORMATION BASED ON FIELD DELINEATION PERFORMED BY AECOM.
3. EXISTING GRADE INFORMATION BASED ON FIELD SURVEY PROVIDED BY PERCHERON, LLC.
4. PIPELINE LOCATED 4 FEET MINIMUM BENEATH EXISTING GRADE.
5. PIPELINE LOCATED 4 FEET MINIMUM BELOW WETLANDS AND 5 FEET BELOW BOTTOM OF STREAM.
NOTES:
1. FOR RESOURCE IMPACTS SEE AQUATIC RESOURCE TABLE INCLUDED IN THIS APPLICATION PACKAGE
2. WETLAND INFORMATION BASED ON FIELD DELINEATION PERFORMED BY AECOM.
3. EXISTING GRADE INFORMATION BASED ON FIELD SURVEY PROVIDED BY PERCHERON, LLC.
4. PIPELINE LOCATED 4 FEET MINIMUM BELOW WETLANDS AND 5 FEET BELOW BOTTOM OF STREAM.
NOTES:
1. FOR RESOURCE IMPACTS SEE AQUATIC RESOURCE TABLE INCLUDED IN THIS APPLICATION PACKAGE.
2. WETLAND INFORMATION BASED ON FIELD DELINEATION PERFORMED BY AECOM.
3. EXISTING GRADE INFORMATION BASED ON FIELD SURVEY PROVIDED BY PERCHERON, LLC.
4. PIPELINE LOCATED 4 FEET MINIMUM BENEATH EXISTING GRADE.
5. PIPELINE LOCATED 4 FEET MINIMUM BELOW WETLANDS AND 5 FEET BELOW BOTTOM OF STREAM.
NOTES:
1. FOR RESOURCE IMPACTS SEE AQUATIC RESOURCE TABLE INCLUDED IN THIS APPLICATION PACKAGE
2. WETLAND INFORMATION BASED ON FIELD DELINEATION PERFORMED BY AECOM.
3. EXISTING GRADE INFORMATION BASED ON FIELD SURVEY PROVIDED BY PERCHERON, LLC.
4. PIPELINE LOCATED 4 FEET MINIMUM BENEATH EXISTING GRADE.
5. PIPELINE LOCATED 4 FEET MINIMUM BELOW WETLANDS AND 5 FEET BELOW BOTTOM OF STREAM.
NOTES:
1. FOR RESOURCE IMPACTS SEE AQUATIC RESOURCE TABLE INCLUDED IN THIS APPLICATION PACKAGE
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3. EXISTING GRADE INFORMATION BASED ON FIELD SURVEY PROVIDED BY PERCHERON, LLC.
4. PIPELINE LOCATED 4 FEET MINIMUM BENEATH EXISTING GRADE.
5. PIPELINE LOCATED 4 FEET MINIMUM BELOW WETLANDS AND 5 FEET BELOW BOTTOM OF STREAM.

SCALE: 1" = 50'

TIMBER MAT(S) OR APPROVED EQUAL

A = 5.67'
B = 4.00'
C = 0.66'
D = 0.20'

PROPOSED ETHANE PIPELINE

FALCON ETHANE PIPELINE SYSTEM
JUNCTION TO MONACA

SS134 - RESOURCE CROSSING #43
RACCOON TOWNSHIP
BEAVER COUNTY, PA

DATE: 09/14/17
REVISION: 1

SPLC-GOM-AE-SA124598
NOTES:
1. FOR RESOURCE IMPACTS SEE AQUATIC RESOURCE TABLE INCLUDED IN THIS APPLICATION PACKAGE
2. WETLAND INFORMATION BASED ON FIELD DELINEATION PERFORMED BY AECOM.
3. EXISTING GRADE INFORMATION BASED ON FIELD SURVEY PROVIDED BY PERCHERON, LLC.
4. PIPELINE LOCATED 4 FEET MINIMUM BENEATH EXISTING GRADE.
5. PIPELINE LOCATED 4 FEET MINIMUM BELOW WETLANDS AND 5 FEET BELOW BOTTOM OF STREAM.
NOTES:
1. FOR RESOURCE IMPACTS SEE AQUATIC RESOURCE TABLE INCLUDED IN THIS APPLICATION PACKAGE
2. WETLAND INFORMATION BASED ON FIELD DELINERATION PERFORMED BY AECOM.
3. EXISTING GRADE INFORMATION BASED ON FIELD SURVEY PROVIDED BY PERCHERON, LLC.
4. PIPELINE LOCATED 4 FEET MINIMUM BELOW EXISTING GRADE.
5. PIPELINE LOCATED 4 FEET MINIMUM BELOW WETLANDS AND 5 FEET BELOW BOTTOM OF STREAM.

FALCON ETHANE PIPELINE SYSTEM
JUNCTION TO MONACA

SS136 - RESOURCE CROSSING #45
RACCOON TOWNSHIP
BEAVER COUNTY, PA

DATE: 09/14/17
BY: IMM

SPLC-GOM-AE-SA124600

A = 3.00'
B = 1.50'
C = 0.50'
D = 0.00'

TIMBER MAT(S) OR APPROVED EQUAL
NOTES:
1. FOR RESOURCE IMPACTS SEE AQUATIC RESOURCE TABLE INCLUDED IN THIS APPLICATION PACKAGE
2. WETLAND INFORMATION BASED ON FIELD DELINEATION PERFORMED BY AECOM.
3. EXISTING GRADE INFORMATION BASED ON FIELD SURVEY PROVIDED BY PERCHERON, LLC.
4. PIPELINE LOCATED 4 FEET MINIMUM BENEATH EXISTING GRADE.
5. PIPELINE LOCATED 4 FEET MINIMUM BELOW WETLANDS AND 5 FEET BELOW BOTTOM OF STREAM.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.00'</td>
<td>1.00'</td>
<td>1.50'</td>
<td>0.00'</td>
</tr>
</tbody>
</table>

S-PA-160408-MRK-003

PROPOSED TIMBER MAT(S) OR APPROVED EQUAL (TYP.)

PROPOSED WATERBAR (TYP.)

PROPOSED EROSION CONTROL BLANKET (TYP.)

RESOURCE CROSSING 46

SCALE: 1" = 50'

FALCON ETHANE PIPELINE SYSTEM

JUNCTION TO MONACA

SS137 - RESOURCE CROSSING #46

RACCOON AND POTTERTOWN SHIP
BEAVER COUNTY,
PA

DATE: 09/14/17

REV.

BY: IMM

SPLC-GOM-AE-SA124601
NOTES:
1. FOR RESOURCE IMPACTS SEE AQUATIC RESOURCE TABLE INCLUDED IN THIS APPLICATION PACKAGE
2. WETLAND INFORMATION BASED ON FIELD DELINEATION PERFORMED BY AECOM.
3. EXISTING GRADE INFORMATION BASED ON FIELD SURVEY PROVIDED BY PERCHERON, LLC.
4. PIPELINE LOCATED 4 FEET MINIMUM BENEATH EXISTING GRADE.
5. PIPELINE LOCATED 4 FEET MINIMUM BELOW WETLANDS AND 5 FEET BELOW BOTTOM OF STREAM.

A = 3.13'
B = 1.50'
C = 0.83'
D = 0.20'
NOTES:
1. FOR RESOURCE IMPACTS SEE AQUATIC RESOURCE TABLE INCLUDED IN THIS APPLICATION PACKAGE
2. WETLAND INFORMATION BASED ON FIELD DELINEATION PERFORMED BY AECOM.
3. EXISTING GRADE INFORMATION BASED ON FIELD SURVEY PROVIDED BY PERCHERON, LLC.
4. PIPELINE LOCATED 4 FEET MINIMUM BELOW EXISTING GRADE.
5. PIPELINE LOCATED 4 FEET MINIMUM BELOW WETLANDS AND 5 FEET BELOW BOTTOM OF STREAM.

S-PA-160411-CBA-003

A = 2.17'
B = 1.50'
C = 0.50'
D = 0.00'

TIMBER MAT(S) OR APPROVED EQUAL

FALCON ETHANE PIPELINE SYSTEM
JUNCTION TO MONACA

SS140 - RESOURCE CROSSING #49
POTTER TOWNSHIP
BEAVER COUNTY,
PA

DATE: 09/14/17
BY: IMM

SPLC-GOM-AE-SA124604

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NOTES:
1. FOR RESOURCE IMPACTS SEE AQUATIC RESOURCE TABLE INCLUDED IN THIS APPLICATION PACKAGE
2. WETLAND INFORMATION BASED ON FIELD DELINEATION PERFORMED BY AECOM.
3. EXISTING GRADE INFORMATION BASED ON FIELD SURVEY PROVIDED BY PERCHERON, LLC.
4. PIPELINE LOCATED 4 FEET MINIMUM BENEATH EXISTING GRADE.
5. PIPELINE LOCATED 4 FEET MINIMUM BELOW WETLANDS AND 5 FEET BELOW BOTTOM OF STREAM.
NOTES:
1. FOR RESOURCE IMPACTS SEE AQUATIC RESOURCE TABLE INCLUDED IN THIS APPLICATION PACKAGE
2. WETLAND INFORMATION BASED ON FIELD DELINEATION PERFORMED BY AECOM.
3. EXISTING GRADE INFORMATION BASED ON FIELD SURVEY PROVIDED BY PERCHERON, LLC.
4. PIPELINE LOCATED 4 FEET MINIMUM BENEATH EXISTING GRADE.
5. PIPELINE LOCATED 4 FEET MINIMUM BELOW WETLANDS AND 5 FEET BELOW BOTTOM OF STREAM.
NOTES:
1. FOR RESOURCE IMPACTS SEE AQUATIC RESOURCE TABLE INCLUDED IN THIS APPLICATION PACKAGE
2. WETLAND INFORMATION BASED ON FIELD DELINEATION PERFORMED BY AECOM.
3. EXISTING GRADE INFORMATION BASED ON FIELD SURVEY PROVIDED BY PERCHERON, LLC.
4. PIPELINE LOCATED 4 FEET MINIMUM BENEATH EXISTING GRADE.
5. PIPELINE LOCATED 4 FEET MINIMUM BELOW WETLANDS AND 5 FEET BELOW BOTTOM OF STREAM.
RESOURCES CROSSING 51
W-PA-160728-NLS-001B

PROPOSED TIMBER MAT(S)
OR APPROVED EQUAL (TYP.)

HOU-TAR-53
EX. ACCESS ROAD

NOTES:
1. FOR RESOURCE IMPACTS SEE AQUATIC RESOURCE TABLE INCLUDED IN THIS APPLICATION PACKAGE
2. WETLAND INFORMATION BASED ON FIELD DELINEATION PERFORMED BY AECOM.
3. EXISTING GRADE INFORMATION BASED ON FIELD SURVEY PROVIDED BY PERCHERON, LLC.
4. PIPELINE LOCATED 4 FEET MINIMUM BENEATH EXISTING GRADE.
5. PIPELINE LOCATED 4 FEET MINIMUM BELOW WETLANDS AND 5 FEET BELOW BOTTOM OF STREAM.

SCALE: 1" = 50'

FALCON ETHANE PIPELINE SYSTEM
JUNCTION TO MONACA

SS144 - RESOURCE CROSSING #52
POTTER TOWNSHIP
BEAVER COUNTY,
PA

DATE: 09/14/17
BY: IMM

SPLC-GOM-AE-SA124608

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NOTES:
1. FOR RESOURCE IMPACTS SEE AQUATIC RESOURCE TABLE INCLUDED IN THIS APPLICATION PACKAGE
2. WETLAND INFORMATION BASED ON FIELD DELINEATION PERFORMED BY AECOM.
3. EXISTING GRADE INFORMATION BASED ON FIELD SURVEY PROVIDED BY PERCHERON, LLC.
4. PIPELINE LOCATED 4 FEET MINIMUM BENEATH EXISTING GRADE.
5. PIPELINE LOCATED 4 FEET MINIMUM BELOW WETLANDS AND 5 FEET BELOW BOTTOM OF STREAM.
NOTES:

1. FOR RESOURCE IMPACTS SEE AQUATIC RESOURCE TABLE INCLUDED IN THIS APPLICATION PACKAGE
2. WETLAND INFORMATION BASED ON FIELD DELINEATION PERFORMED BY AECOM.
3. EXISTING GRADE INFORMATION BASED ON FIELD SURVEY PROVIDED BY PERCHERON, LLC.
4. PIPELINE LOCATED 4 FEET MINIMUM BENEATH EXISTING GRADE.
5. PIPELINE LOCATED 4 FEET MINIMUM BELOW WETLANDS AND 5 FEET BELOW BOTTOM OF STREAM.
NOTES:
1. FOR RESOURCE IMPACTS SEE AQUATIC RESOURCE TABLE INCLUDED IN THIS APPLICATION PACKAGE
2. WETLAND INFORMATION BASED ON FIELD DELINEATION PERFORMED BY AECOM.
3. EXISTING GRADE INFORMATION BASED ON FIELD SURVEY PROVIDED BY PERCHERON, LLC.
4. PIPELINE LOCATED 4 FEET MINIMUM BELOW EXISTING GRADE.
5. PIPELINE LOCATED 5 FEET MINIMUM BELOW WETLANDS AND 5 FEET BELOW BOTTOM OF STREAM.

FALCON ETHANE PIPELINE SYSTEM
JUNCTION TO MONACA
SS147 – RESOURCE CROSSING #56A
POTTER TOWNSHIP
BEAVER COUNTY, PA
DATE: 09/14/17
BY: IMM

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NOTES:
1. FOR RESOURCE IMPACTS SEE AQUATIC RESOURCE TABLE INCLUDED IN THIS APPLICATION PACKAGE
2. WETLAND INFORMATION BASED ON FIELD DELINEATION PERFORMED BY AECOM.
3. EXISTING GRADE INFORMATION BASED ON FIELD SURVEY PROVIDED BY PERCHERON, LLC.
4. PIPELINE LOCATED 4 FEET MINIMUM BENEATH EXISTING GRADE.
5. PIPELINE LOCATED 4 FEET MINIMUM BELOW WETLANDS AND 5 FEET BELOW BOTTOM OF STREAM.

Attachement:

**FALCON ETHANE PIPELINE SYSTEM**

**SS147 - RESOURCE CROSSING #56B**

**POTTER TOWNSHIP**

**BEAVER COUNTY, PA**

**DATE: 09/14/17**

**BY: IMM**

---

**PROPOSED WATERBAR (TYP.)**
**PROPOSED COMPOST FILTER SOCK (TYP.)**
**PROPOSED TIMBER MAT(S) OR APPROVED EQUAL (TYP.)**
**PROPOSED EROSION CONTROL BLANKET (TYP.)**

**RESOURCE CROSSING 56**
**S-PA-160418-MRK-002**

**SCALE: 1" = 50'**

**TIMBER MAT(S) OR APPROVED EQUAL**

**S-PA-160418-MRK-002**

**A = 6.00'**
**B = 4.00'**
**C = 1.40'**
**D = .40'**
NOTES:
1. FOR RESOURCE IMPACTS SEE AQUATIC RESOURCE TABLE INCLUDED IN THIS APPLICATION PACKAGE
2. WETLAND INFORMATION BASED ON FIELD DELINEATION PERFORMED BY AECOM.
3. EXISTING GRADE INFORMATION BASED ON FIELD SURVEY PROVIDED BY PERCHERON, LLC.
4. PIPELINE LOCATED 4 FEET MINIMUM BELOW EXISTING GRADE.
5. PIPELINE LOCATED 4 FEET MINIMUM BELOW WETLANDS AND 5 FEET BELOW BOTTOM OF STREAM.

**PROPOSED WATERBAR (TYP.)**

**PROPOSED TRENCH PLUG (TYP.)**

**PROPOSED EROSION CONTROL BLANKET (TYP.)**

**PROPOSED TIMBER MAT(S) OR APPROVED EQUAL (TYP.)**

**S-PA-160418-MRK-003**

**TIMBER MAT(S) OR APPROVED EQUAL**

A = 5.00'
B = 2.50'
C = 1.30'
D = 0.30'

**PROPOSED ETHANE PIPELINE**

**FALCON ETHANE PIPELINE SYSTEM**

**JUNCTION TO MONACA**

**SS148 - RESOURCE CROSSING #57**

POTTER TOWNSHIP
BEAVER COUNTY,
PA

**DATE:** 09/14/17

**BY:** IMM

**SPLC-GOM-AE-SA124612**
NOTES:
1. FOR RESOURCE IMPACTS SEE AQUATIC RESOURCE TABLE INCLUDED IN THIS APPLICATION PACKAGE
2. WETLAND INFORMATION BASED ON FIELD DELINEATION PERFORMED BY AECOM.
3. EXISTING GRADE INFORMATION BASED ON FIELD SURVEY PROVIDED BY PERCHERON, LLC.
4. PIPELINE LOCATED 4 FEET MINIMUM BENEATH EXISTING GRADE.
5. PIPELINE LOCATED 4 FEET MINIMUM BELOW WETLANDS AND 5 FEET BELOW BOTTOM OF STREAM.
NOTES:
1. FOR RESOURCE IMPACTS SEE AQUATIC RESOURCE TABLE INCLUDED IN THIS APPLICATION PACKAGE.
2. WETLAND INFORMATION BASED ON FIELD DELINEATION PERFORMED BY AECOM.
3. EXISTING GRADE INFORMATION BASED ON FIELD SURVEY PROVIDED BY PERCHERON, LLC.
4. PIPELINE LOCATED 4 FEET MINIMUM BENEATH EXISTING GRADE.
5. PIPELINE LOCATED 4 FEET MINIMUM BELOW WETLANDS AND 5 FEET BELOW BOTTOM OF STREAM.

SS150 – RESOURCE CROSSING #59
POTTER TOWNSHIP
BEAVER COUNTY, PA
DATE: 09/14/17
BY: IMM

FALCON ETHANE PIPELINE SYSTEM
JUNCTION TO MONACA

REV: [1] SPICX-GOM-AE-SA124614
NOTES:
1. FOR RESOURCE IMPACTS SEE AQUATIC RESOURCE TABLE INCLUDED IN THIS APPLICATION PACKAGE
2. WETLAND INFORMATION BASED ON FIELD DELINEATION PERFORMED BY AECOM.
3. EXISTING GRADING INFORMATION BASED ON FIELD SURVEY PROVIDED BY PERCHERON, LLC.
4. PIPELINE LOCATED 4 FEET MINIMUM BENEATH EXISTING GRADE.
5. PIPELINE LOCATED 4 FEET MINIMUM BELOW WETLANDS AND 5 FEET BELOW BOTTOM OF STREAM.
NOTES:
1. FOR RESOURCE IMPACTS SEE AQUATIC RESOURCE TABLE INCLUDED IN THIS APPLICATION PACKAGE
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3. EXISTING GRADE INFORMATION BASED ON FIELD SURVEY PROVIDED BY PERCHERON, LLC.
4. PIPELINE LOCATED 4 FEET MINIMUM BELOW WETLANDS AND 5 FEET BELOW BOTTOM OF STREAM.
NOTES:

1. FOR RESOURCE IMPACTS SEE AQUATIC RESOURCE TABLE INCLUDED IN THIS APPLICATION PACKAGE
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3. EXISTING GRADE INFORMATION BASED ON FIELD SURVEY PROVIDED BY PERCHERON, LLC.
4. PIPELINE LOCATED 4 FEET MINIMUM BENEATH EXISTING GRADE.
5. PIPELINE LOCATED 4 FEET MINIMUM BELOW WETLANDS AND 5 FEET BELOW BOTTOM OF STREAM.

SCALE: 1" = 50'

FALCON ETHANE PIPELINE SYSTEM
JUNCTION TO MONACA

SS153 - RESOURCE CROSSING #62
POTTER TOWNSHIP
BEAVER COUNTY, PA

DATE: 09/14/17
BY: IMM

REV: 1

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1. For resource impacts see aquatic resource table included in this application package.
2. Wetland information based on field delineation performed by AECOM.
3. Existing grade information based on field survey provided by Percheron, LLC.
4. Pipeline located 4 feet minimum beneath existing grade.
5. Pipeline located 4 feet minimum below wetlands and 5 feet below bottom of stream.

A = 53.75'
B = 45.00'
C = 8.00'
D = 5.00'

See HDD for depth

TIMBER MAT(S)
OR APPROVED
EQUAL

PROPOSED ETHANE PIPELINE
NOTES:
1. FOR RESOURCE IMPACTS SEE AQUATIC RESOURCE TABLE INCLUDED IN THIS APPLICATION PACKAGE
2. WETLAND INFORMATION BASED ON FIELD DELINEATION PERFORMED BY AECOM.
3. EXISTING GRADE INFORMATION BASED ON FIELD SURVEY PROVIDED BY PERCHERON, LLC.
4. PIPELINE LOCATED 4 FEET MINIMUM BENEATH EXISTING GRADE.
5. PIPELINE LOCATED 4 FEET MINIMUM BELOW WETLANDS AND 5 FEET BELOW BOTTOM OF STREAM.

Scale: 1" = 50'

A = 3.00'
B = 2.00'
C = 1.17'
D = 0.20'

FALCON ETHANE PIPELINE SYSTEM
JUNCTION TO MONACA

SS155 — RESOURCE CROSSING #64
POTTER TOWNSHIP
BEAVER COUNTY, PA

DATE: 09/14/17
BY: IMM

REV.

11/10/17 REVISED PER DEP COMMENTS ON 10/11
09/14/17 ISSUED FOR PERMIT

TLM NS JR
IMM NS BW

DESCRIPTION OF REVISION
RESOURCES CROSSING 65 S-PA-151118-JLJK-001 (FLOODWAY IMPACT)

HORIZONTAL DIRECTIONAL DRILL

HDD HOU-12;
SEE DWG # SPLC-GOM-AE-SD118937

NOTES:
1. FOR RESOURCE IMPACTS SEE AQUATIC RESOURCE TABLE INCLUDED IN THIS APPLICATION PACKAGE
2. WETLAND INFORMATION BASED ON FIELD DELINEATION PERFORMED BY AECOM.
3. EXISTING GRADE INFORMATION BASED ON FIELD SURVEY PROVIDED BY PERCHERON, LLC.
4. PIPELINE LOCATED 4 FEET MINIMUM BELOW EXISTING GRADE.
5. PIPELINE LOCATED 4 FEET MINIMUM BELOW WETLANDS AND 5 FEET BELOW BOTTOM OF STREAM.

A = 4.58'
B = 2.50'
C = 0.75'
D = 0.30'

TIMBER MAT(S) OR APPROVED EQUAL

SEE HDD FOR DEPTH

PROPOSED ETHANE PIPELINE

FALCON ETHANE PIPELINE SYSTEM

JUNCTION TO MONACA

SS156 – RESOURCE CROSSING #65
INDEPENDENCE TOWNSHIP
BEAVER COUNTY, PA

DATE: 09/14/17
BY: IMM

REV. 1

SPLC-GOM-AE-SA124620

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SCALE: 1" = 50'
NOTES:
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5. PIPELINE LOCATED 4 FEET MINIMUM BELOW WETLANDS AND 5 FEET BELOW BOTTOM OF STREAM.

SCALE: 1" = 50'

FALCON ETHANE PIPELINE SYSTEM
HOUSTON TO JUNCTION

SS158 - RESOURCE CROSSING #67
INDEPENDENCE TOWNSHIP
BEAVER COUNTY, PA

DATE: 09/14/17

BY: IMM

SPLC-GOM-AE-SA124622

REV.

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3. EXISTING GRADE INFORMATION BASED ON FIELD SURVEY PROVIDED BY PERCHERON, LLC.
4. PIPELINE LOCATED 4 FEET MINIMUM BELOW EXISTING GRADE.
5. PIPELINE LOCATED 4 FEET MINIMUM BELOW WETLANDS AND 5 FEET BELOW BOTTOM OF STREAM.

A = 6.81'
B = 4.50'
C = 1.76'
D = 0.00'

PROPOSED ETHANE PIPELINE
NOTES:
1. FOR RESOURCE IMPACTS SEE AQUATIC RESOURCE TABLE INCLUDED IN THIS APPLICATION PACKAGE
2. WETLAND INFORMATION BASED ON FIELD DELINEATION PERFORMED BY AECOM.
3. EXISTING GRADE INFORMATION BASED ON FIELD SURVEY PROVIDED BY PERCHERON, LLC.
4. PIPELINE LOCATED 4 FEET MINIMUM BELOW WETLANDS AND 5 FEET BELOW BOTTOM OF STREAM.

S-PA-151124-JLK-005

TIMBER MAT(S) OR APPROVED EQUAL

A = 7.60'
B = 5.00'
C = 1.66'
D = 0.20'

5' MIN

PROPOSED ETHANE PIPELINE
NOTES:
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3. EXISTING GRADE INFORMATION BASED ON FIELD SURVEY PROVIDED BY PERCHERON, LLC.
4. PIPELINE LOCATED 4 FEET MINIMUM BENEATH EXISTING GRADE.
5. PIPELINE LOCATED 4 FEET MINIMUM BELOW WETLANDS AND 5 FEET BELOW BOTTOM OF STREAM.

PROPOSED WATERBAR (TYP.)
PROPOSED COMPOST FILTER SOCK (TYP.)
PROPOSED TRENCH PLUG (TYP.)
PROPOSED TIMBER MAT(S) OR APPROVED EQUAL (TYP.)
PROPOSED EROSION CONTROL BLANKET (TYP.)
RESOURCE CROSSING 70
S-PA-151014-MRK-002

A = 2.00'
B = 1.00'
C = 1.00'
D = 0.00'

FALCON ETHANE PIPELINE SYSTEM
HOUSTON TO JUNCTION
SS161 - RESOURCE CROSSING #70
INDEPENDENCE TOWNSHIP
BEAVER COUNTY, PA

DATE: 09/14/17
BY: IMM

SPLC-GOM-AE-SA124625

REV. [ ]
1. FOR RESOURCE IMPACTS SEE AQUATIC RESOURCE TABLE INCLUDED IN THIS APPLICATION PACKAGE
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3. EXISTING GRADE INFORMATION BASED ON FIELD SURVEY PROVIDED BY PERCHERON, LLC.
4. PIPELINE LOCATED 4 FEET MINIMUM BENEATH EXISTING GRADE.
5. PIPELINE LOCATED 4 FEET MINIMUM BELOW WETLANDS AND 5 FEET BELOW BOTTOM OF STREAM.

SCALE: 1" = 50'

FALCON ETHANE PIPELINE SYSTEM
HOUSTON TO JUNCTION
SST62 - RESOURCE CROSSING #71 & #72
INDEPENDENCE TOWNSHIP
BEAVER COUNTY, PA
DATE: 09/14/17
BY: IMM

SPLC-GOM-AE-SA124626
NOTES:
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5. PIPELINE LOCATED 4 FEET MINIMUM BELOW WETLANDS AND 5 FEET BELOW BOTTOM OF STREAM.

SCALE: 1" = 50'

TIMBER MAT(S) OR APPROVED EQUAL

PROPOSED ETHANE PIPELINE

SEE HDD FOR DEPTH

A = 36.33'
B = 30.00'
C = 6.50'
D = 2.50'

FALCON ETHANE PIPELINE SYSTEM

HOUSTON TO JUNCTION

SS163 - RESOURCE CROSSING #73
INDEPENDENCE TOWNSHIP
BEAVER COUNTY, PA

DATE: 09/14/17
BY: IMM

REV. 3.0

DATE: 09/14/17
SPLC-GOM-AE-SA124627

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3. EXISTING GRADE INFORMATION BASED ON FIELD SURVEY
4. PIPELINE LOCATED 4 FEET MINIMUM BENEATH EXISTING GRADE
5. PIPELINE LOCATED 4 FEET MINIMUM BELOW WETLANDS AND 5 FEET BELOW BOTTOM OF STREAM.

S-P A-151013-MRK-002

A = 12.00'
B = 10.00'
C = 2.75'
D = 1.30'

SEE HDD FOR DEPTH

PROPOSED ETHANE PIPELINE

FALCON ETHANE PIPELINE SYSTEM
HOUSTON TO JUNCTION
SS164 - RESOURCE CROSSING #74
INDEPENDENCE TOWNSHIP
BEAVER COUNTY, PA

DATE: 09/14/17
BY: IMM

REV.
SPLC-GOM-AE-SA124628

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5. PIPELINE LOCATED 4 FEET MINIMUM BELOW WETLANDS AND 5 FEET BELOW BOTTOM OF STREAM.

A = 4.50
B = 2.00
C = 1.00
D = 0.00

S-PA-151013-MRK-004

PROPOSED ETHANE PIPELINE

TIMBER MAT(S) OR APPROVED EQUAL

PROPOSED TRENCH PLUG (TYP.)

PROPOSED COMPOST FILTER SOCK (TYP.)

PROPOSED EROSION CONTROL BLANKET (TYP.)

PROPOSED ROCK CONSTRUCTION ENTRANCE (TYP.)

ROCK FILTER

COWPATH ROAD

DISCHARGE TO BE RELOCATED (BY OTHERS)

S-PA-160426-MRK-002

SCALE: 1" = 50

FALCON ETHANE PIPELINE SYSTEM

HOUSTON TO JUNCTION

SS165 - RESOURCE CROSSING #75

INDEPENDENCE TOWNSHIP

BEAVER COUNTY, PA

DATE: 09/14/17

BY: IMM

SPLC-GOM-AE-SA124629

REV.

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5. PIPELINE LOCATED 4 FEET MINIMUM BELOW WETLANDS AND 5 FEET BELOW BOTTOM OF STREAM.

FALCON ETHANE PIPELINE SYSTEM
HOUSTON TO JUNCTION

SS167 – RESOURCE CROSSING #77
INDEPENDENCE TOWNSHIP
BEAVER COUNTY, PA

DATE: 09/14/17
BY: IMM

REVISED PER DEP COMMENTS ON 10/11
ISSUED FOR PERMIT

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4. PIPELINE LOCATED 4 FEET MINIMUM BELOW EXISTING GRADE.
5. PIPELINE LOCATED 4 FEET MINIMUM BELOW WETLANDS AND 5 FEET BELOW BOTTOM OF STREAM.

A = 4.00'
B = 2.00'
C = 1.10'
D = 0.10'

SCALE: 1" = 50'
S-PK-160104-MRK-004

PROPOSED ETHANE PIPELINE

PROPOSED TIMBER MAT(S) OR APPROVED EQUAL (TYP.)
PROPOSED EROSION CONTROL BLANKET (TYP.)
PROPOSED COMPOST FILTER SOCK (TYP.)
PROPOSED TRENCH PLUG (TYP.)
PROPOSED WATERBAR (TYP.)

RESOURCE CROSSING 78
S-PK-160104-MRK-004

FALCON ETHANE PIPELINE SYSTEM
HOUSTON TO JUNCTION
SS168 - RESOURCE CROSSING #78
INDEPENDENCE TOWNSHIP
BEAVER COUNTY, PA

DATE: 09/14/17
BY: IMM

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4. PIPELINE LOCATED 4 FEET MINIMUM BENEATH EXISTING GRADE.
5. PIPELINE LOCATED 4 FEET MINIMUM BELOW WETLANDS AND 5 FEET BELOW BOTTOM OF STREAM.

PROPOSED TRENCH PLUG (TYP.)
PROPOSED WATERBAR (TYP.)
PROPOSED TIMBER MAT(S) OR APPROVED EQUAL (TYP.)
PROPOSED EROSION CONTROL BLANKET (TYP.)

RESOURCES CROSSING 79 S-PA-160322-MRK-004

SCALE: 1" = 50'

TIMBER MAT(S) OR APPROVED EQUAL

A = 9.00'
B = 6.00'
C = 2.50'
D = 0.50'

PROPOSED ETHANE PIPELINE

SS169 - RESOURCE CROSSING #79
INDEPENDENCE TOWNSHIP
BEAVER COUNTY, PA

DATE: 09/14/17
BY: IMM
SPLC-GOM-AE-SA124633

REV. 0 9/14/17 ISSUED FOR PERMIT
REV. 1 11/10/17 REVISIONS PER DEP COMMENTS ON 10/11
NOTES:
1. FOR RESOURCE IMPACTS SEE AQUATIC RESOURCE TABLE INCLUDED IN THIS APPLICATION PACKAGE
2. WETLAND INFORMATION BASED ON FIELD DELINEATION PERFORMED BY AECOM.
3. EXISTING GRADE INFORMATION BASED ON FIELD SURVEY PROVIDED BY PERCHERON, LLC.
4. PIPELINE LOCATED 4 FEET MINIMUM BELOW WETLANDS AND 5 FEET BELOW BOTTOM OF STREAM.

FALCON ETHANE PIPELINE SYSTEM
HOUSTON TO JUNCTION
SST170 - RESOURCE CROSSING #80 & #81
INDEPENDENCE TOWNSHIP
BEAVER COUNTY, PA
DATE: 09/14/17
BY: IMM

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4. PIPELINE LOCATED 4 FEET MINIMUM BENEATH EXISTING GRADE.
5. PIPELINE LOCATED 4 FEET MINIMUM BELOW WETLANDS AND 5 FEET BELOW BOTTOM OF STREAM.

A = 3.00'
B = 1.50'
C = 1.20'
D = 0.20'

FALCON ETHANE PIPELINE SYSTEM
HOUSTON TO JUNCTION
SS171 – RESOURCE CROSSING #82
INDEPENDENCE TOWNSHIP
BEAVER COUNTY, PA
DATE: 09/14/17
BY: IMM

REV.
1

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4. PIPELINE LOCATED 4 FEET MINIMUM BENEATH EXISTING GRADE.
5. PIPELINE LOCATED 4 FEET MINIMUM BELOW WETLANDS AND 5 FEET BELOW BOTTOM OF STREAM.
RESOURCES CROSSING 84  
S-PA-151204-MRK-001  
(FLOODWAY IMPACT)

PROPOSED TRENCH  
PLUG (TYP.)

PROPOSED WATERBAR  
(TYP.)

PROPOSED EROSION  
CONTROL BLANKET (TYP.)

NOTES:
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5. PIPELINE LOCATED 4 FEET MINIMUM BELOW WETLANDS AND 5 FEET BELOW BOTTOM OF STREAM.

SCALE: 1" = 50'

FALCON ETHANE PIPELINE SYSTEM
HOUSTON TO JUNCTION

SS173 - RESOURCE CROSSING #84
INDEPENDENCE TOWNSHIP
BEAVER COUNTY, PA

DATE: 09/14/17  SPLC-GOM-AE-SA124637  REV.
BY: IMM
NOTES:
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4. PIPELINE LOCATED 4 FEET MINIMUM BENEATH EXISTING GRADE.
5. PIPELINE LOCATED 4 FEET MINIMUM BELOW WETLANDS AND 5 FEET BELOW BOTTOM OF STREAM.

S-P-A-151204-MRK-002

A = 3.50'
B = 1.50'
C = 1.00'
D = 0.00'

TIMBER MAT(S) OR APPROVED EQUAL

FALCON ETHANE PIPELINE SYSTEM
HOUSTON TO JUNCTION
SS174 - RESOURCE CROSSING #85
INDEPENDENCE TOWNSHIP
BEAVER COUNTY, PA
DATE: 09/14/17
BY: IMM

REVISED PER DEP COMMENTS ON 10/11
ISSUED FOR PERMIT
DESCRIPTION OF REVISION
DWN CHK APP

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5. PIPELINE LOCATED 4 FEET MINIMUM BELOW WETLANDS AND 5 FEET BELOW BOTTOM OF STREAM.

A = 21.00'
B = 15.00'
C = 5.00'
D = 1.00'

S’ MIN

PROPOSED ETHANE PIPELINE

SEE HDD FOR DEPTH

PROPOSED ROCK CONSTRUCTION ENTRANCE (TYP.)
S-PA=151204-MRK-004A

HORIZONTAL DIRECTIONAL DRILL
(HOU=10)

RESOURCE CROSSING 86
S-PA=151204-MRK-003

TIMBER MAT(S) OR APPROVED EQUAL

SERVICE CREEK ROAD

SS175 - RESOURCE CROSSING #86
INDEPENDENCE TOWNSHIP
BEAVER COUNTY, PA

DATE: 09/14/17
BY: IMM
NOTES:
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3. EXISTING GRADE INFORMATION BASED ON FIELD SURVEY PROVIDED BY PERCHERON, LLC.
4. PIPELINE LOCATED 4 FEET MINIMUM BELOW WETLANDS AND 5 FEET BELOW BOTTOM OF STREAM.

SCALE: 1" = 50'

FALCON ETHANE PIPELINE SYSTEM
HOUSTON TO JUNCTION

SS176 - RESOURCE CROSSING #87
INDEPENDENCE TOWNSHIP
BEAVER COUNTY, PA

DATE: 09/14/17
BY: SPLC-GOM-AE-SA124640

REV.
RESOUCCrossing 88
S-PA-151216-MRK-003
PROPOSED TIMBER MAT(S)
OR APPROVED EQUAL (TYP.)
1517+00
1518+00
1519+00
1520+00
RESOUCCrossing 88
S-PA-151216-MRK-004
PROPOSED TRENCH
PLUG (TYP.)
PROPOSED WATERBAR
(TYP.)
PROPOSED EROSION
CONTROL BLANKET (TYP.)
PROPOSED COMPOST
FILTER SOCK (TYP.)

NOTES:
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3. EXISTING GRADE INFORMATION BASED ON FIELD SURVEY PROVIDED BY PERCHERON, LLC.
4. PIPELINE LOCATED 4 FEET MINIMUM BELOWWETLANDS AND 5 FEET BELOW BOTTOM OF STREAM.

SCALE: 1" = 50'

SS177 - RESOURCE CROSSING #88
INDEPENDENCE TOWNSHIP
BEAVER COUNTY,
PA
DATE: 09/14/17
BY: SPLC-GOM-AE-SA124641

FALCON ETHANE PIPELINE SYSTEM
HOUSTON TO JUNCTION

11/10/17 REVISED PER DEP COMMENTS ON 10/11
09/14/17 ISSUED FOR PERMIT
0 REV DATE DESCRIPTION OF REVISION DWN CHK APP
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4. PIPELINE LOCATED 4 FEET MINIMUM BELOW EXISTING GRADE.
5. PIPELINE LOCATED 4 FEET MINIMUM BELOW WETLANDS AND 5 FEET BELOW BOTTOM OF STREAM.
RESOURCES CROSSING 92
S-PA-151216-MRK-007

PROPOSED TIMBER MAT(S)
OR APPROVED EQUAL (TYP.)

PROPOSED TRENCH
PLUG (TYP.)

RESOURCES CROSSING 91
S-PA-151216-MRK-009
FLOODWAY

PROPOSED COMPOST
FILTER SOCK (TYP.)

NOTES:
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SCALE: 1" = 50'

TIMBER MAT(S)
OR APPROVED EQUAL

A = 3.00'
B = 1.00'
C = 0.60'
D = 0.10'

PROPOSED ETHANE PIPELINE

FALCON ETHANE PIPELINE SYSTEM
HOUSTON TO JUNCTION

SS180 - RESOURCE CROSSING #91 & #92
RACCOON TOWNSHIP
BEAVER COUNTY, PA

DATE: 09/14/17
BY: IMM

REV.

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5. PIPELINE LOCATED 4 FEET MINIMUM BELOW WETLANDS AND 5 FEET BELOW BOTTOM OF STREAM.

FALCON ETHANE PIPELINE SYSTEM
HOUSTON TO JUNCTION
SS181 - RESOURCE CROSSING #93
RACCOON TOWNSHIP
BEAVER COUNTY, PA
DATE: 09/14/17
BY: IMM
SPLC-GOM-AE-SA124645

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3. EXISTING GRADE INFORMATION BASED ON FIELD SURVEY PROVIDED BY PERCHERON, LLC.
4. PIPELINE LOCATED 4 FEET MINIMUM BELOW EXISTING GRADE.
5. PIPELINE LOCATED 4 FEET MINIMUM BELOW WETLANDS AND 5 FEET BELOW BOTTOM OF STREAM.

A = 3.50'
B = 1.50'
C = 0.60'
D = 0.10'

TIMBER MAT(S) OR APPROVED EQUAL

PROPOSED ETHANE PIPELINE

FALCON ETHANE PIPELINE SYSTEM
HOUSTON TO JUNCTION

SS182 – RESOURCE CROSSING #94
RACCOON TOWNSHIP
BEAVER COUNTY,
PA

DATE: 09/14/17
BY: IMM

REV. 0

SPLC–GOM–AE–SA124646
NOTES:
1. FOR RESOURCE IMPACTS SEE AQUATIC RESOURCE TABLE INCLUDED IN THIS APPLICATION PACKAGE.
2. WETLAND INFORMATION BASED ON FIELD DELINEATION PERFORMED BY AECOM.
3. EXISTING GRADE INFORMATION BASED ON FIELD SURVEY PROVIDED BY PERCHERON, LLC.
4. PIPELINE LOCATED 4 FEET MINIMUM BELOW EXISTING GRADE.
5. PIPELINE LOCATED 4 FEET MINIMUM BELOW WETLANDS AND 5 FEET BELOW BOTTOM OF STREAM.
NOTES:
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3. EXISTING GRADE INFORMATION BASED ON FIELD SURVEY PROVIDED BY PERCHERON, LLC.
4. PIPELINE LOCATED 4 FEET MINIMUM BELOW EXISTING GRADE.
5. PIPELINE LOCATED 4 FEET MINIMUM BELOW WETLANDS AND 5 FEET BELOW BOTTOM OF STREAM.

S-PA-151209-MRK-002

A = 6.00
B = 2.00'
C = 1.20'
D = 0.20'

PROPOSED ETHANE PIPELINE

S-PA-151209-MRK-004

A = 2.50'
B = 1.50'
C = 1.10'
D = 0.10'

PROPOSED ETHANE PIPELINE

SCALE: 1" = 50'

FALCON ETHANE PIPELINE SYSTEM
HOUSTON TO JUNCTION

SS184 - RESOURCE CROSSING #96
RACCOON TOWNSHIP
BEAVER COUNTY, PA

DATE: 09/14/17

By: IMM

REV.

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0 50' 100'
NOTES:
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3. EXISTING GRADE INFORMATION BASED ON FIELD SURVEY PROVIDED BY PERCHERON, LLC.
4. PIPELINE LOCATED 4 FEET MINIMUM BENEATH EXISTING GRADE.
5. PIPELINE LOCATED 4 FEET MINIMUM BELOW WETLANDS AND 5 FEET BELOW BOTTOM OF STREAM.
NOTES:
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3. EXISTING GRADE INFORMATION BASED ON FIELD SURVEY PROVIDED BY PERCHERON, LLC.
4. PIPELINE LOCATED 4 FEET MINIMUM BELOW EXISTING GRADE.
5. PIPELINE LOCATED 4 FEET MINIMUM BELOW WETLANDS AND 5 FEET BELOW BOTTOM OF STREAM.

FALCON ETHANE PIPELINE SYSTEM
HOUSTON TO JUNCTION

SS186 - RESOURCE CROSSING #98
RACCOON TOWNSHIP
BEAVER COUNTY,
PA

DATE: 09/14/17
BY: IMM

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3. EXISTING GRADE INFORMATION BASED ON FIELD SURVEY PROVIDED BY PERCHERON, LLC.
4. PIPELINE LOCATED 4 FEET MINIMUM BELOW EXISTING GRADE.
5. PIPELINE LOCATED 4 FEET MINIMUM BELOW WETLANDS AND 5 FEET BELOW BOTTOM OF STREAM.

A = 6.40'
B = 3.00'
C = 2.50'
D = 0.50'

scale: 1" = 50'

FALCON ETHANE PIPELINE SYSTEM
HOUSTON TO JUNCTION
SS187 - RESOURCE CROSSING #98
RACCOON TOWNSHIP
BEAVER COUNTY, PA
DATE: 09/14/17
BY: IMM

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3. EXISTING EASEMENT INFORMATION BASED ON FIELD SURVEY PROVIDED BY PERCHERON, LLC.
4. PIPELINE LOCATED 4 FEET MINIMUM BELOW EXISTING EASEMENT.
5. PIPELINE LOCATED 4 FEET MINIMUM BELOW WETLANDS AND 5 FEET BELOW BOTTOM OF STREAM.

A = 1.5'
B = 0.5'
C = 1.0'
D = 0.0'

A = 9.0'
B = 6.0'
C = 2.1'
D = 0.1'

PROPOSED COMPOST FILTER SOCK (TYP.)
PROPOSED EROSION CONTROL BLANKET (TYP.)
PROPOSED TIMBER MAT(S) OR APPROVED EQUAL (TYP.)
PROPOSED TRENCH PLUG (TYP.)

S-PA-151124-MRK-012
S-PA-151124-MRK-011

FALCON ETHANE PIPELINE SYSTEM
HOUSTON TO JUNCTION
SS189 - RESOURCE CROSSING #100
RACCOON TOWNSHIP
BEAVER COUNTY, PA

DATE: 09/14/17
BY: IMM

REVISED PER DEP COMMENTS ON 10/11
ISSUED FOR PERMIT
DESCRIPTION OF REVISION
DWN CHK APP

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3. EXISTING GRADE INFORMATION BASED ON FIELD SURVEY PROVIDED BY PERCHERON, LLC.
4. PIPELINE LOCATED 4 FEET MINIMUM BENEATH EXISTING GRADE.
5. PIPELINE LOCATED 4 FEET MINIMUM BELOW WETLANDS AND 5 FEET BELOW BOTTOM OF STREAM.

SS190 - RESOURCE CROSSING #101
RACCOON TOWNSHIP
BEAVER COUNTY, PA
DATE: 09/14/17
BY: IMM

FALCON ETHANE PIPELINE SYSTEM
HOUSTON TO JUNCTION

A = 1.50'
B = 0.50'
C = 0.50'
D = 0.10'
NOTES:
1. FOR RESOURCE IMPACTS SEE AQUATIC RESOURCE TABLE INCLUDED IN THIS APPLICATION PACKAGE
2. WETLAND INFORMATION BASED ON FIELD DELINEATION PERFORMED BY AECOM.
3. EXISTING GRADE INFORMATION BASED ON FIELD SURVEY PROVIDED BY PERCHERON, LLC.
4. PIPELINE LOCATED 4 FEET MINIMUM BELOW EXISTING GRADE.
5. PIPELINE LOCATED 4 FEET MINIMUM BELOW WETLANDS AND 5 FEET BELOW BOTTOM OF STREAM.

FALCON ETHANE PIPELINE SYSTEM
HOUSTON TO JUNCTION

SS192 – RESOURCE CROSSING #102
RACCOON TOWNSHIP
BEAVER COUNTY, PA

DATE: 09/14/17
BY: IMM

INFORMATION CONTAINED ON THIS DRAWING, AND THE USER ASSUMES ALL RISK OF LOSS TO PERSONS AND PROPERTY AS A RESULT OF RELIANCE THEREON.
NOTES:
1. FOR RESOURCE IMPACTS SEE AQUATIC RESOURCE TABLE INCLUDED IN THIS APPLICATION PACKAGE
2. WETLAND INFORMATION BASED ON FIELD DELINEATION PERFORMED BY AECOM.
3. EXISTING GRADE INFORMATION BASED ON FIELD SURVEY PROVIDED BY PERCHERON, LLC.
4. PIPELINE LOCATED 4 FEET MINIMUM BELOW EXISTING GRADE.
5. PIPELINE LOCATED 4 FEET MINIMUM BELOW WETLANDS AND 5 FEET BELOW BOTTOM OF STREAM.

A = 16.00'
B = 10.00'
C = 2.40'
D = 0.40'

S-PA-151123-MRK-006

FALCON ETHANE PIPELINE SYSTEM

SS193 - RESOURCE CROSSING #103
RACCOON TOWNSHIP
BEAVER COUNTY, PA

DATE: 09/14/17
BY: IMM

REV. 1

{1} 09/14/17 ISSUED FOR PERMIT

REV DATE DESCRIPTION OF REVISION D BN CHK APP

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3. EXISTING GRADE INFORMATION BASED ON FIELD SURVEY PROVIDED BY PERCHERON, LLC.
4. PIPELINE LOCATED 4 FEET MINIMUM BELOW EXISTING GRADE.
5. PIPELINE LOCATED 4 FEET MINIMUM BELOW WETLANDS AND 5 FEET BELOW BOTTOM OF STREAM.

FALCON ETHANE PIPELINE SYSTEM
HOUSTON TO JUNCTION

A = 6.50'
B = 4.00'
C = 2.30'
D = 0.30'

PROPOSED ETHANE PIPELINE
PROPOSED TIMBER MAT(S) OR APPROVED EQUAL (TYP.)

PROPOSED COMPOST FILTER SOCK (TYP.)

RESOURCE CROSSING 105
S-PA-151123-MRK-001

1650+00
1651+00
1652+00
1653+00

PROPOSED WATERBAR (TYP.)

PROPOSED TRENCH PLUG (TYP.)

NOTES:
1. FOR RESOURCE IMPACTS SEE AQUATIC RESOURCE TABLE INCLUDED IN THIS APPLICATION PACKAGE
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3. EXISTING GRADE INFORMATION BASED ON FIELD SURVEY PROVIDED BY PERCHERON, LLC.
4. PIPELINE LOCATED 4 FEET MINIMUM BELOW EXISTING GRADE.
5. PIPELINE LOCATED 4 FEET MINIMUM BELOW WETLANDS AND 5 FEET BELOW BOTTOM OF STREAM.

A = 1.50'
B = 0.50'
C = 0.50'
D = 0.00'

5' MIN

FALCON ETHANE PIPELINE SYSTEM
HOUSTON TO JUNCTION

SS195 - RESOURCE CROSSING #105
RACCOON TOWNSHIP
BEAVER COUNTY, PA

DATE: 09/14/17
BY: IMM

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ISSUED FOR PERMIT

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Requirement I

Location Map
Figure 1

LEGEND

- VALVE
- FACILITY LOCATION
- PROPOSED CADIZ TO SCIO PIPELINE
- PROPOSED NORTHERN END OF JUNCTION TO MONACA PIPELINE PROJECT AREA LAT: 40.62138 LONG: -80.348933
- PROPOSED SOUTHERN END OF JUNCTION TO MONACA PIPELINE PROJECT AREA LAT: 40.62138 LONG: -80.348933
- PROPOSED WESTERN END OF SCIO TO JUNCTION PROJECT AREA LAT: 40.562464 LONG: -80.518774
- PROPOSED NORTHERN END OF JUNCTION TO MONACA PROJECT AREA LAT: 40.62138 LONG: -80.348933
- PROPOSED SOUTHERN END OF JUNCTION TO MONACA PROJECT AREA LAT: 40.562464 LONG: -80.518774
- PROPOSED SCIO TO JUNCTION PROJECT AREA LAT: 40.62138 LONG: -80.348933

COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N TRANSVERSE MERCATOR


COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N TRANSVERSE MERCATOR

1 in = 5 miles


COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N TRANSVERSE MERCATOR

1 in = 5 miles