**Attachment A**

**Area of Review Methods**

**SAMMY-MAR LLC Povlik Injection Well**

Area of Review Methods

The size of the area of review was determined by a fixed radius of one quarter mile as required by permit application. In addition, maps with a half mile and one (1) mile radius were prepared. Maps detailing the area of review are in Attachment B. Research was conducted by:

1. Survey by Fox and Fox, Inc, registered professional surveyors
2. Conversations with surface landowners by Fox and Fox and representatives of Dannic Energy\*, SAMMY-MAR and Rock Run Enterprises an environmental consulting company.
3. Research of Pennsylvania Bureau of Oil and Gas well records, conducted by Fox and Fox, Dannic Energy\*, SAMMY-MAR and Rock Run Enterprises
4. Research of Pennsylvania Geological Survey’s publications covering the area of review by Fox and Fox, Dannic Energy\*, SAMMY-MAR and Rock Run Enterprises
5. Resource Identification and Wetland Delineation Report prepared by Todd Fantaskey of Northeast Soil Services an environmental consulting firm and made part of Attachment B.

Using the results from the above research, topographic and tax maps displaying surface features such as buildings, streams, water sampling sites and the location of the proposed injection well were prepared for and included in Attachment B.

The same research used to map the area of review was used to provide data on the geology of the injection zone and the confining formations described in Attachment G.

Because the Povlik injection well is a new well, Sammy Mar does not have any measurements for reservoir pressure, porosity, permeability for the Povlik well, but used the research from the Pennsylvania Geological Survey and offset well data to provide this information; this is also in Attachment G.

An injection test was performed on an offset well to try and determine injection volume, rate and max injection pressure; this information is found in Attachment H.

\*Dannic Energy is a sister company of Sammy-Mar and originally started the research of the AOR turning all its findings over to Sammy-Mar after its establishment.

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