

Operating Data
Zelman#1 Injection Well

The proposed operating rates and volumes are based on:

- (A) Previously accepted fracture gradients for the Chert/Oriskany formations by the EPA. (See attached EPA correspondence)
- (B) Calculations from data obtained during an injectivity test performed on Dannic Energy's Green Glenn #1 well located in Huston Twp, Clearfield County. (See Green Glenn #1 Injection test data and calculations) *Attachment "B"*
- (C) Calculations from reported fracture treatment data on offsets to the proposed Zelman #1 injection well. (See attachment "I" for calculation)

- 1. Proposed Average Daily Injection Rate: 2000 bbls/day
Proposed Average Daily Injection Volume: 2000 bbls
Proposed Average Injection Pressure (Bottom Hole): 5500 psi

Proposed Maximum Daily Injection Rate: 2296 bbls/day
Proposed Maximum Daily Injection Volume: 2296 bbls
Proposed Maximum Injection Pressure: (Bottom Hole): 6575 psi

- 2. The nature of the annulus fluid will be fresh water with corrosion control additives. Corrosion Inhibitor will be Alpha 2278W added at a rate of 2.5 gallons/1000 gallons of water.

- 3. Source of Injected fluid.
The injected fluid will be brines and produced fluids associated with the production of oil and gas. The source of the fluid will be produced fluids from oil & gas operators registered with the Pennsylvania Department of Environmental Resources.

The following four types of fluids will be disposed of at the facility:

Excessive surface waters encountered during drill operations
Produced fluids from shallow upper Devonian wells
Produced fluids from Marcellus wells
Produced fluids from Oriskany wells

- 4. Analysis of Injected fluid.
Attached are analyses of representative samples for each type of fluid to be disposed of at the facility. Additional analyses are attached of Marcellus drill pit and flow back fluids provided by a potential client.