

February 14, 2018

Via Electronic and First Class Mail

Ed J. Muzic, P.E.

Civil Engineer Manager; Dam Safety, Waterways and Wetlands Section
Department of Environmental Protection
South-central Regional Office
909 Elmerton Avenue
Harrisburg, PA 17110

Re: Reevaluation Report Supplement
Yellow Breeches Creek Re-Evaluation (S2-0250)
Permit No. E21-449
Upper Allen Township, Cumberland County

Dear Mr. Muzic:

In compliance with the Corrected Stipulated Order dated August 10, 2017 (Order), a Reevaluation Report on the above-referenced horizontal directional drill (“HDD”) was submitted to the Department on November 27, 2017. The Department requested more information and modification of the Reevaluation Report by letter dated December 19, 2017, which was provided by SPLP on January 23, 2018. On February 8, 2018, the Department via email requested that SPLP provide an update to SPLP’s efforts to identify water supply wells adjacent to the HDD profile, and that SPLP review and respond to a public comment regarding the Fracture Trace Analysis within the Reevaluation Report. Please accept this letter and attachments as a response to this request.

SPLP has completed the verification of all water supplies within 450 feet (ft) of the HDD profile. The attached supplemented Adjacent Features Analysis section from the Reevaluation Report and updated Water Supply Illustration presents this information.

SPLP’s hydrogeology contractor, Skelly and Loy, has provided a review of the public comment regarding the Fractures Trace Analysis. Their review response is attached.

We therefore request that the Department approve the Reevaluation Report for Yellow Breeches Creek (S2-0250) as soon as possible.

Sincerely,

Matthew Gordon
Project Director

Attachments:

- 1-Adjacent Features Analysis
- 3-Water Supply Illustration
- 2-Skelly and Loy, Fracture Trace Analysis

ATTACHMENT 1

ADJACENT FEATURES ANALYSIS SUPPLEMENT

ADJACENT FEATURES ANALYSIS

The crossing of Yellow Breeches Creek is located in Cumberland County, approximately 5.6 miles south of Harrisburg, PA. The pipeline route follows parallel to two (2) previously existing Sunoco pipelines.

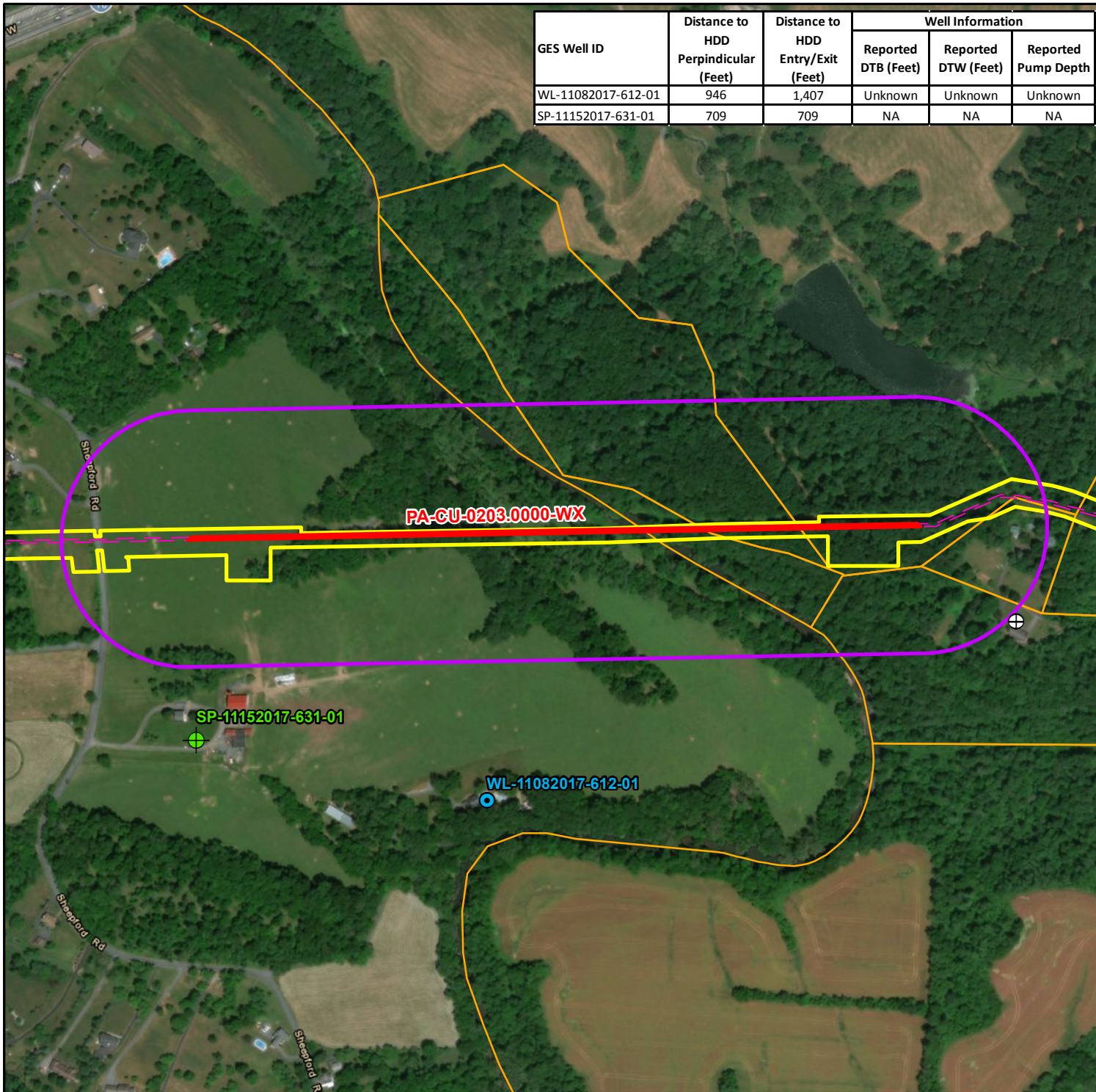
This HDD location is within unmanaged deciduous woodlands and pasture. The HDD would cross under two (2) streams and one (1) wetland, none of which are designated as exceptional value. A 39 acre impoundment occurs approximately 440 ft north of the east HDD entry/exit point.

SPLP has identified all landowners with property located within 450 ft of the HDD alignment. There are seven (7) individual landowners with properties located within 450 ft of the HDD alignment. SPLP sent each of these landowners a notice letter via both certified and first-class mail on October 30, 2017, that included an offer to sample the landowner's private water supply/well in accordance with the terms of the Order and the Water Supply Assessment, Preparedness, Prevention and Contingency Plan. The letter also requested that each landowner contact the Right-of-Way agent for the local area and provide SPLP with information regarding: (1) whether the landowner has a well; (2) where that well is located, and its depth and size if known; and (3) whether the landowner would like to have the well sampled. In accordance with paragraph 10 of the Order, copies of the certified mail receipts for the letters sent to landowners have been provided to Karyn Yordy, Executive Assistant, Office of Programs at the Department's Central Office.

Through these communications and a ground investigation, SPLP has confirmed there are no actively utilized private water wells within 450 ft of the HDD profile under Yellow Breeches Creek. One landowner west of Yellow Breeches Creek, but more than 450 ft south of the HDD profile, has requested testing, and SPLP has completed this testing as requested. Two possible well locations occur east of Yellow Breeches Creek. One of these landowners requested testing and SPLP has located and performed testing of this well. The location of this well is immediately outside the 450 ft buffer. The second possible well location under investigation has been confirmed as an unoccupied residence. The absentee landowner stated that the property has not been occupied for several years and they do not know if the water well is operational. This owner did not request testing and was not interested in establishing an appointment to meet for location of the well and further discussion of water testing. Both of these properties are east and southeast of the east HDD entry/exit point, and therefore any water well located on these properties would be up gradient of the HDD profile and probable direction of groundwater movement. Because of the elevation difference between the west and east entry/exit of this HDD, there is the potential to create a drain for groundwater flows and temporarily lower the groundwater table on the east side of this HDD. The one active well in vicinity of the east HDD exit point will be monitored for reduced water levels or other effects during the HDD.

ATTACHMENT 2

WATER SUPPLY ILLUSTRATION (UPDATED)

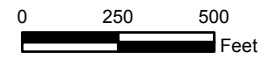
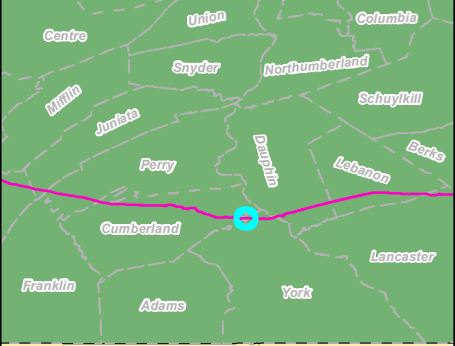


GES Well ID	Distance to HDD Perpendicular (Feet)	Distance to HDD Entry/Exit (Feet)	Well Information		
			Reported DTB (Feet)	Reported DTW (Feet)	Reported Pump Depth
WL-11082017-612-01	946	1,407	Unknown	Unknown	Unknown
SP-11152017-631-01	709	709	NA	NA	NA

Legend

- LOD
- Parcel
- PPP Centerline
- HDD
- 450 foot buffer of HDD alignment
- **Testing locations current as of 02/06/2018**
- GES Testing Location
- GES Spring Testing Location
- Tested, GPS data not acquired

Location



Well Location Map
 HDD# PA-CU-0203.0000-WX
 Cumberland County, PA.

Prepared By: TETRA TECH Date: 2/9/2018

Base Map: ESRI World Imagery, 09/24/2015
 Coordinate System: NAD 83 Stateplane, PA South, Feet

ATTACHMENT 3

FRACTURE TRACE ANALYSIS REVIEW



February 15, 2018

Mr. Matthew Gordon
Sunoco Pipeline, L.P.
535 Fritztown Road
Sinking Springs, Pennsylvania 19608

Re: Re-evaluation Report Supplement
PA DEP Verbal Review Request
Regarding Fracture Trace Analysis
Yellow Breeches Creek Re-
evaluation (S2-0250)
Permit No. E21-449
Upper Allen Township, Cumberland
County

Dear Mr. Gordon:

In response to a request from the Pennsylvania Department of Environmental Protection (PA DEP) dated February 8, 2018, Skelly and Loy, Inc. completed a review of the comment and accompanying data submitted to the PA DEP by Kim Van Fleet, a resident of Lower Frankford Township, Cumberland County, Pennsylvania.

The submittal by Kim Van Fleet consisted of a 1937 aerial image of the crossing of Yellow Breeches Creek showing the general location of the Mariner II pipeline route along with the following comment.

- **Incomplete survey of HDD fracture trace due to cattle in field.**
Upon examination of an old aerial image of this site (Penn Pilot 1937) there is more land surface visible due to less vegetation (see attached). As a consequence the viewer can see shallow depressions and wet soils across the land surface which may show locations of additional fracture traces than indicated on the Satellite image maps found on pages 17 and 18 of attachment 1. If additional fracture traces do exist within proposed HDD location then there is a greater possibility of additional groundwater impacts should this current proposal be approved by DEP. This along with any other inadvertent returns could have lasting impacts for an undetermined period of time on the Yellow Breeches Creek and ground waters of the surrounding area.

We have reviewed the 1937 aerial photo mentioned above. While a few depressions and soil tonal variations indicative of variable soil moisture are apparent, we do not see any "clearly visible" linear features suggesting the presence of high-angle bedrock fracturing (i.e., fracture traces) crossing the HDD bore path or surrounding area. There were also no published fracture trace features that we could reference for this HDD site.

Mr. Matthew Gordon
Page 2
February 15, 2018

We noted that the reviewer did not independently identify any fracture traces on the referenced photo, despite the reviewer's finding that the depressions and areas of wet soils may show fracture trace locations.

We do not see any additional definitive fracture traces crossing the HDD site and our HDD re-evaluation report conclusions remain unchanged.



Sincerely yours,

SKELLY and LOY, Inc.

A handwritten signature in blue ink that reads "Douglas J. Hess".

Douglas J. Hess, P.G.
Director of Groundwater and
Site Characterization Services

cc: Larry Gremminger, SPLP/Gremminger Associates
David Mostoller, RETTEW Associates, Inc.
R17-0296.HYD
File: GORDON_DJH.docx