Sunoco Pipeline L.P.

If Interim report, Subject to Change as Additional Information Becomes Available
If Interim Report, this Report is cumulative, containing information from previous reports in addition to new information and may change
SPLP PENNSYLVANIA PIPELINE PROJECT
HORIZONTAL DIRECTIONAL DRILLING – INADVERTENT RETURN REPORT FORM

INTERIM REPORT	**IF INTERIM, SEE NOTE ABOVE.**	**NOTES:**	**Interim Report 51:** On 8/10/2020 at approximately 1530 hours, drilling fluid emerged within wetland WL-H17, and entered streams S-H11 and S-H10. The drilling fluid continued to flow down S-H10 and entered pond H3 (Marsh Creek Reservoir). The drill was in the ream phase at the time of release, with a volume of 7,712 gallons of drilling fluid released (The initial notification of the inadvertent return was estimated to be 1,000 gallons. This estimate was provided by the onsite PG and was based on the surface dimensions of the emergence, approximately 10' x 20' and several inches deep. The number was revised after discussion with the driller and collection of survey data.). Drilling was immediately stopped upon discovery of the IR. Two turbidity curtains were installed at the confluence of S-H10 (UNT to Marsh Creek) and pond H3 (Marsh Creek Reservoir). Ten sand bag and silt fence dams were constructed within S-H10 (UNT to Marsh Creek). Crew members began cleanup and recovery of the drilling fluid starting at the location of the IR release point working their way towards pond H3 (Marsh Creek Reservoir). Crew members used pumps and hand tools to recover the drilling fluid and transport it to onsite storage tanks. Stream water was pumped and used to spray remaining bentonite pockets within stream S-H10 (UNT to Marsh Creek). On 8/11/2020, a subsidence feature was discovered at the location of the inadvertent return, within wetland WL-H17. On 8/12/2020 the subsidence was filled with approximately 26 cubic yards of flowable fill. As of 8/17/2020, one containment dam remains within S-H10, the containment structure remains in place at the initial IR location, and two turbidity curtains remain at the confluence of stream S-H10 and pond H3. Drilling fluid has been recovered from WL-H17, S-H11 and S-H10. Additional survey is in progress to implement a recovery plan for drilling fluid within pond H3. No drilling is in process. As of 8/31/2020, the containment structure remains in place at the initial IR location and two turbidity curtains remain at the confluence of stream S-H10 and pond H3. Drilling fluid has been recovered from WL-H17, S-H11, and S-H10. On 12/19/20 two earth features were discovered near the HDD S3-0290 drill alignment. The contractor placed a total of 41 cubic yards of flowable fill within the earth features. Feature one received 13 cubic yards of flowable fill. Feature two received 28 yards of flowable fill. Additional geophysical survey was completed at this site. These features, along with HDD S3-0290 alignment will continue to be monitored by Professional Geologists (PGs), Environmental Inspection (EIs), and Contractor. On 12/28/2020, during geophysical survey, five, small diameter, shallow earth features were observed between HDD S3-0290 staging area and the recently stabilized earth features at station 14825+70. The five features are within the alignment of HDD S3-0290. Also, settling over the recently stabilized earth feature 1 at 14825+50 was observed. An exploratory excavation at the five features was conducted with no evidence that the features were connected to a larger feature below the ground surface. The area of exploratory excavation was backfilled and stabilized with erosion control blanket. An additional 1.5 cubic yards of flowable fill was placed within earth feature 1 at 14825+50. Earth feature 1 and earth feature 2, 14825+30, were stabilized with erosion control blanket. The area will continue to be monitored by Professional Geologist (PG), Environmental Inspection (EI) and Contractor. As of 6/1/2021, additional environmental surveys and assessments are being completed and results are being compiled. The geophysical survey has been completed. The Environmental Inspector (EI), Professional Geologist (PG) and Contractor will continue to monitor the IR/subsidence location as well as installed best management practices (BMPs). Per the emergency permit, the contractor began grouting the annulus on the south end of the HDD on 6/9/2021. On 6/9/2021 at approximately 0945 hours, during annulus grouting operations, discolored groundwater mixed with native soil began emerging from within the existing sand bag containment structure. Contractor personnel will use a 4-inch pump to maintain the discolored fluid during grouting operations. The 6/9/2021 IR of native soils mixed with groundwater remained within containment during grouting operations and ceased emerging at 1120. On 6/10/2021 at 1044 hours, during annulus grouting operations, approximately 20 gallons of native soils mixed with groundwater emerged at two locations outside of the primary sandbag containment structure within WL-H17 (PEM). Grouting activity was immediately ceased. By hand, the contractor installed four sandbag dams: two around the 6/10/2021 IR emergence locations, one within stream S-H10 (UNT to Marsh Creek), and one within stream S-H11 (UNT to Marsh Creek). Three 3-inch pumps were used to pump native soils and groundwater, now mixed with some stream water, to a vacuum truck. All clean-up activities were completed by 1215 hours. The sand bag dam at the furthest downstream location (near checkpoint 11) was demobilized and removed. The sand bag dam within stream S-H11 (UNT to Marsh Creek) was removed from the flowing channel and staged on the stream bank. The two sand bag containments around the IR emergence locations will remain in place. On 6/12/2021 at 1005 hours, during annulus grouting operations, approximately 50 gallons of native soils mixed with groundwater emerged within the limit of disturbance. The 6/12/2021 IR occurred in an upland location outside of the existing sandbag containment structure. Grouting activity was immediately ceased. The contractor installed a sand bag containment structure around the 6/12/2021 IR location. PADEP representative Abdel Nassani arrived onsite. Grouting operations resumed at 1040 hours. Between 1050 and 1055 hours the 6/12/2021 upland IR location reactivated and an additional 10 gallons of discolored water emerged. The sand bag containment was expanded. At 1105 hours, the 8/10/2020 IR location reactivated within existing sand bag containment. At 1126 hours, the 6/12/2021 IR location reactivated and 5 gallons of discolored groundwater emerged within existing sand bag containment. The IR reactivation ceased at 1133 hours. Approximately 30 gallons of discolored groundwater was recovered from the sandbag containment at the 6/12/2021 IR location. Grouting operations at the south end of the HDD were completed at 1500 hours on 6/12/2021. Grouting of the annulus at the north HDD staging area began on 6/17/2021 and was completed on 6/18/2021. As of 8/3/2021, the contractor is preparing for restoration of Wetland WL-H17 and anomaly proofing is in process. Environmental Inspection, Professional Geologist (PG) and contractor will continue to monitor the area.

REPORT DATE:	Current as of 8/3/2021			**HDD ALIGNMENT #**	PA-CH-100.0000-RD		
PROJECT SITE:	PPP 6 - S3-0290 - Milford Rd./Little Conestoga Rd			**HDD COMPANY:**	Michels Directional Crossing		
DATE AND TIME WHEN IR WAS INITIALLY DISCOVERED				**DATE:**	8/10/2020	**TIME:**	1530
LOCATION: STREET	427-423 Green Valley Rd, Downingtown, PA 19335			**MUNICIPALITY:**	Upper Uwchlan	**COUNTY:**	Chester
LATITUDE:	40.0794	**LONGITUDE:**	-75.7104	**FROM STATION:**	14824+00	**TO STATION**	14824+00
STREAM NAME:	S-H10 (UNT to Marsh Creek), S-H11 (UNT to Marsh Creek)			**POND / LAKE NAME:**	Pond H3 (Marsh Creek Reservoir)	**WETLAND NAME:**	WL-H17 (PEM, PFO)
DEP PERMIT Nos. (102 AND 105)	E&S Permit # ESG0100015001, Water Obstruction Permit E15-862						
CORPS PERMIT NO.	PASPGP-5 (issued April 12, 2017)						
IR TRACKING ID:	PPP6_PA-CH-0100.0000-RD_MilfordRd_IRInterim_51_080421						
IS AUGUST 8, 2017 ORDER APPLICABLE?	**YES**	**LISTED IN WHICH EXHIBIT?**	3	**DESCRIPTION IN EXHIBIT**	HDDs for Reevaluation		

COMPLETE THE FOLLOWING QUESTIONS IF APPLICABLE:

1. IS THE IR ON-GOING? Provide dates, times, and duration of all IRs.	**NO**	**NOTE:**	On 8/10/20 at approximately 1530 hours, approximately 7,712 gallons of drilling fluid emerged within WL-H17, and entered streams S-H11 and S-H10. The drilling fluid continued to flow down S-H10 and entered pond H3 (Marsh Creek Reservoir). The IR ceased emerging after drilling was stopped. The 6/9/2021 IR of native soils mixed with groundwater remained within containment during grouting operations and ceased emerging at 1120. The 6/10/2021 IR of native soils mixed with groundwater ceased emerging after grouting operations stopped at 1044 hours. 6/12/2021 IR of native soils mixed with groundwater ceased emerging at 1133 hours.
2. HAS THE IR CEASED? Provide date and time for each IR.	**YES**	**NOTE:**	On 8/10/20 at approximately 1530 hours, approximately 7,712 gallons of drilling fluid emerged within WL-H17, and entered streams S-H11 and S-H10. The drilling fluid continued to flow down S-H10 and entered pond H3 (Marsh Creek Reservoir). The IR ceased emerging after drilling was stopped. The 6/9/2021 IR of native soils mixed with groundwater remained within containment during grouting operations and ceased emerging at 1120. The 6/10/2021 IR of native soils mixed with groundwater ceased emerging after grouting operations stopped at 1044 hours. 6/12/2021 IR of native soils mixed with groundwater ceased emerging at 1133 hours.
3. WHEN WAS DRILLING STOPPED? Provide date and time for each IR.	Drilling was immediately stopped on 8/10/2020 at approximately 1530 hours.		
4. VOLUME OF IR (CURRENT ESTIMATE)?	Approximately 7,712 gallons of drilling fluid on 8/10/2020. On 6/9/2021, approximately 100 gallons of native soils mixed with groundwater emerged and remained within existing containment. On 6/10/2021, approximately 20 gallons of native soils mixed with groundwater. On 6/12/2021, approximately 95 gallons of native soils mixed with groundwater.		
4A. DOES THIS VOLUME RELEASE REPRESENT A TOTAL VOLUME RELEASED SINCE THE RELEASE BEGAN?	**YES**	**NOTE:**	Approximately 7,712 gallons of drilling fluid emerged on 8/10/2020. On 6/9/2021, approximately 100 gallons of native soils mixed with groundwater emerged and remained within existing containment. On 6/10/2021, approximately 20 gallons of native soils mixed with groundwater. On 6/12/2021, approximately 95 gallons of native soils mixed with groundwater.
5. HAS THIS VOLUME CHANGED SINCE THE LAST REPORT? IF SO, HOW?	**YES**	**NOTE:**	On 6/9/2021, approximately 100 gallons of native soils mixed with groundwater emerged and remained within existing containment. On 6/10/2021, approximately 20 gallons of native soils mixed with groundwater. On 6/12/2021, approximately 95 gallons of native soils mixed with groundwater.
6. WHAT IS THE DURATION OF EACH IR? Provide dates and times.	The IR ceased emerging on 8/10/2020 at 1530 hours after the IR was discovered and drilling was stopped. On 6/9/2021, native soils mixed with groundwater emerged at approximately 0945 hours, and then from 1015 to 1120 hours. The 6/10/2021 IR of native soils mixed with groundwater ceased when grouting operations were stopped at 1044 hours. On 6/12/2021, the upland IR of native soils mixed with groundwater began at 1005 hours and ceased at 1133 hours.		
7. WHAT STEPS WERE TAKEN TO STOP EACH IR? Provide dates and times.	Two turbidity curtains were installed at the confluence of S-H10 (UNT to Marsh Creek) and pond H3 (Marsh Creek Reservoir). Ten sand bag and silt fence dams were constructed within S-H10 (UNT to Marsh Creek). Crew members began clean up and recovery of the drilling fluid starting at the location of the IR release point working their way towards pond H3 (Marsh Creek Reservoir). Crew members used pumps and hand tools to recover the drilling fluid and transport it to onsite storage tanks. Stream water was pumped and used to spray remaining bentonite pockets within stream S-H10 (UNT to Marsh Creek). On 6/9/2021, a 4-inch pump was used to maintain the discolored groundwater. On 6/10/2021, sandbag and silt fence dams were set up around the two IR locations and within S-H10 and S-H11, and three 3-inch pumps were used to pump discolored groundwater to a vacuum truck. On 6/12/2021, a sandbag dam was constructed around the upland IR location and discolored groundwater was recovered using a vacuum truck.		
8. WHAT REVISIONS TO THE DRILLING WERE IMPLEMENTED PRIOR TO EACH RESUMPTION OF DRILLING? Provide dates and times.			
8a. What was the technical basis for resuming drilling?			

	9. WAS THE DRILLING RESUMED? Provide dates, times, and duration for each IR.	**NO**	**NOTE:**	
	9A. IF SO, HAS ANOTHER IR OCCURRED? If YES, provide dates and times for each IR.	**NO**	**NOTE:**	
	10. HAS IR BEEN CONTAINED? If YES, Provide dates, times, and measures for each IR.	**YES**	**NOTE:**	Two turbidity curtains were installed at the confluence of S-H10 (UNT to Marsh Creek) and pond H3 (Marsh Creek Reservoir). Ten sand bag and silt fence dams were constructed within S-H10 (UNT to Marsh Creek) on 8/10/2020. The 6/9/2021 IR remained within existing containment. On 6/10/2021, sandbag containments were constructed around the two IR locations and sandbag and silt fence dams were constructed within S-H10. A sandbag dam was constructed within S-H11. On 6/12/2021, sandbag containment was constructed around the upland IR location.
	11. HAS A FISH KILL OCCURRED? If YES, Provide dates, times, and measures for each IR.	**NO**	**NOTE:**	
	12. ARE FISH AND OR OTHER AQUATIC LIFE IN DISTRESS?	**NO**	**NOTE:**	
	13. AS OF THE DATE OF THIS REPORT, DOES DRILLING FLUID REMAIN IN THE WETLAND OR WATERCOURSE?	**YES**	**NOTE:**	Drilling fluid remains in pond H3 (Marsh Creek Reservoir)
	14. IS THERE NOTICEABLE HIGH LEVELS OF TURBIDITY IN THE WATERCOURSE? If YES, Provide dates, times, and duration for each IR.	**YES**	**NOTE:**	Drilling fluid remains in pond H3 (Marsh Creek Reservoir)
	15. HAS FLUID LOSS OCCURRED? (IF KNOWN) If YES, Provide dates, times, and duration for each loss of fluid.	**YES**	**NOTE:**	500 gallon loss on 3/3/2020.
	16. CORRECTIVE MEASURES IMPLEMENTED NOT PREVIOUSLY LISTED ABOVE? Provide dates and times for each IR.			
	17. DESCRIPTION OF IMPACTS INCLUDING TIMES, DATES, AND DURATION OF EACH IMPACT.	Drilling fluid emerged within wetland WL-H17, and entered streams S-H11 and S-H10. The drilling fluid continued to flow down S-H10 and entered pond H3 (Marsh Creek Reservoir) on 8/10/20. On 6/9/2021, discolored groundwater was maintained using a pump. On 6/10/2021, discolored groundwater emerged within WL-H17 and entered S-H10 and S-H11. Discolored groundwater was recovered using pumps on 6/10/21. On 6/12/21, discolored groundwater was recovered using pumps and vacuum trucks.		

LIST ANY NOTIFICATIONS OF INCIDENT MADE TO WATER INTAKES, WATER WELL OWNERS AND LANDOWNERS, INCLUDING DATE AND TIME WHEN EACH NOTIFICATION OCCURRED:									
NAME:	2 Private Well Owners	**DATE:**	8/11/2020	**TIME:**		**PUBLIC OR PRIVATE:**	Private	**NOTE:**	Letters sent.
NAME:	1 Public Water Supply	**DATE:**	8/10/2020	**TIME:**	1625	**PUBLIC OR PRIVATE:**	Public	**NOTE:**	Informed of release on 8/10, letter sent on 8/11.
NAME:	2 Private Well Owners	**DATE:**	6/9/2021	**TIME:**		**PUBLIC OR PRIVATE:**		**NOTE:**	Letters sent.
NAME:	1 Public Water Supply	**DATE:**	6/9/2021	**TIME:**	1225	**PUBLIC OR PRIVATE:**		**NOTE:**	Left voicemail and letter sent.
NAME:	2 Private Well Owners	**DATE:**	6/10/2021	**TIME:**		**PUBLIC OR PRIVATE:**		**NOTE:**	
NAME:	1 Public Water Supply	**DATE:**	6/10/2021	**TIME:**	1352	**PUBLIC OR PRIVATE:**		**NOTE:**	Let voicemail and letter sent.
NAME:	2 Private Well Owners	**DATE:**	6/12/2021	**TIME:**		**PUBLIC OR PRIVATE:**		**NOTE:**	
NAME:	1 Public Water Supply	**DATE:**	6/12/2021	**TIME:**	1625	**PUBLIC OR PRIVATE:**		**NOTE:**	Left voicemail 6/12, letter sent 6/14.

NAME OF ALL PERSON(S) PROVIDING INFORMATION FOR THIS REPORT AND CONTACT INFORMATION							
NAME:	Josh Prosceno	**PHONE:**	570-336-9606	**EMAIL:**	josh.prosceno@tetratech.com	**TITLE:**	LEI
NAME:	Chris Cable	**PHONE:**	518-533-9847	**EMAIL:**	chris.cable@tetratech.com	**TITLE:**	Environmental Inspection Manager
NAME:		**PHONE:**		**EMAIL:**		**TITLE:**	
NAME:		**PHONE:**		**EMAIL:**		**TITLE:**	
NAME:		**PHONE:**		**EMAIL:**		**TITLE:**	

IMPACTED RESOURCE(S)					
RESOURCE:	**WETLAND WL-H17**	**SURFACE WATER CLASSIFICATION OR WETLAND TYPE:**	**PEM/PFO**	**WHAT STEPS HAVE BEEN TAKEN TO ELIMINATE OR MITIGATE THE IMPACTS?**	Sandbag and silt fence containment constructed at release point. Drilling fluid recovered using hand tools and pumps.
RESOURCE:	**STREAM S-H10**	**SURFACE WATER CLASSIFICATION OR WETLAND TYPE:**	**DRAINS TO HQ-TSF**	**WHAT STEPS HAVE BEEN TAKEN TO ELIMINATE OR MITIGATE THE IMPACTS?**	Sandbag and silt fence containments constructed within stream. Drilling fluid recovered using hand tools and pumps.
RESOURCE:	**STREAM S-H11**	**SURFACE WATER CLASSIFICATION OR WETLAND TYPE:**	**DRAINS TO HQ-TSF**	**WHAT STEPS HAVE BEEN TAKEN TO ELIMINATE OR MITIGATE THE IMPACTS?**	Sandbag and silt fence containments constructed within stream. Drilling fluid recovered using hand tools and pumps.
RESOURCE:	**POND H3**	**SURFACE WATER CLASSIFICATION OR WETLAND TYPE:**	**HQ-TSF**	**WHAT STEPS HAVE BEEN TAKEN TO ELIMINATE OR MITIGATE THE IMPACTS?**	Two turbidity curtains were installed at the confluence of S-H10 and pond H3.
RESOURCE:		**SURFACE WATER CLASSIFICATION OR WETLAND TYPE:**		**WHAT STEPS HAVE BEEN TAKEN TO ELIMINATE OR MITIGATE THE IMPACTS?**	
RESOURCE:		**SURFACE WATER CLASSIFICATION OR WETLAND TYPE:**		**WHAT STEPS HAVE BEEN TAKEN TO ELIMINATE OR MITIGATE THE IMPACTS?**	
RESOURCE:		**SURFACE WATER CLASSIFICATION OR WETLAND TYPE:**		**WHAT STEPS HAVE BEEN TAKEN TO ELIMINATE OR MITIGATE THE IMPACTS?**	

ADDITIONAL INFORMATION			
IF DRILLING RESUMED DOES IT INVOLVE A CHANGE IN EQUIPMENT, DEPTH OR ALIGNMENT?	**NO**	**NOTE:**	
PUBLIC OR PRIVATE WATER SUPPLY - PROXIMITY TO DOWNSTREAM WATER INTAKES?		**NOTE:**	
5	**YES**	**NOTE:**	
LIST AND DESCRIBE MATERIAL(S) RELEASED:	A mixture of bentonite clay and water with native cuttings on 8/10/2021. A mixture of native soils and groundwater on 6/9/2021, 6/10/2021, and 6/12/2021.		
HAS THE ESTIMATED QUANTITY OF THE RELEASE INCREASED SINCE THE LAST REPORT? IF SO, HOW?	**YES**	**NOTE:**	Approximately 7,712 gallons of drilling fluid emerged on 8/10/2020. Approximately 100 gallons of native soils mixed with groundwater was maintained within containment on 6/9/2021. Approximately 20 gallons of native soils mixed with groundwater emerged on 6/10/2021. Approximately 95 gallons of native soils mixed with groundwater emerged on 6/12/2021.
ESTIMATED AERIAL EXTENT OF RELEASE	8/10/2020 - 25'x25' at initial IR release location. 6/9/2021 - Discolored groundwater remained within existing 10'x10' containment structure. 6/10/2021 – Discolored groundwater reached approximately 250'x2' within the stream and approximately 25'x15' outside of the stream. 6/12/2021 - Discolored groundwater reached approximately 30'x10'.		
EXTENT (LINEAR FEET/MILES) OF DOWNSTREAM EDGE OF RELEASE, IF ANY	The 8/10/2020 IR traveled approximately 1,800 feet downstream from S-H10 (UNT to Marsh Creek) into pond H3 (Marsh Creek Reservoir). Extent into pond H3 (Marsh Creek Reservoir) unknown. The 6/10/2021 IR of discolored groundwater traveled approximately 250' down streams S-H10 and S-H11 (UNTs to Marsh Creek)		
DESCRIBE ROOT CAUSE(S) OF IR			
OTHER COMMENTS: NOTE ANY MATERIAL CHANGE IN THE INFORMATION FROM PRIOR REPORTS)			
HAVE THE IMPACTS FROM THE IR BEEN REMEDIATED? Please provide date of remediation.	8/10/2020 - Sandbag and silt fence containment set up at IR location. Ten sandbag and silt fence containments constructed within stream S-H10. Two turbidity curtains installed at the confluence of S-H10 and pond H3. Drilling fluid recovered using hand tools and pumps. As of 8/3/2021, drilling fluid remains in pond H3. Native soils mixed with groundwater from 6/9/2021, 6/10/2021, and 6/12/2021 have been recovered.		

PRINTED NAME, TITLE AND SIGNATURE OF PERSON(s) COMPLETING THIS REPORT							
NAME:	Chris Cable	**TITLE:**	Environmental Inspection Manager	**SIGNATURE:**	Christopher J Cable	**DATE:**	8/4/2021

PADEP USE ONLY			
AUTHORIZATION FROM PADEP OR CCD TO RESUME HDD REQUIRED?		**NOTE:**	
PERMIT AMENDMENT?		**NOTE:**	
PADEP / CCD REVIEWER NAME:		**DATE:**	

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IV. PHOTO DOCUMENTATION

Notes:

View of drilling fluid within WL-H17 at location of IR release point.

8/10/2020

Notes:

View of drilling fluid flowing downstream within stream S-H10 (UNT to Marsh Creek).

8/10/2020

Notes:

View of drilling fluid within stream S-H10 (UNT to Marsh Creek).

8/10/2020

Notes:

View of drilling fluid entering pond H3 (Marsh Creek Reservoir).

8/10/2020

Notes:

View of contractor crew members installing two turbidity curtains at the confluence of stream S-H10 (UNT to Marsh Creek) and pond H3 (Marsh Creek Reservoir).

8/10/2020

Notes:

View of IR release location within WL-H17.

8/17/2020

Notes:

View of sandbag containment within S-H10 (UNT to Marsh Creek).

8/17/2020

Notes:

View of stream S-H10 (UNT to Marsh Creek) following cleanup.

8/17/2020

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Notes:

View of stream S-H10 (UNT to Marsh Creek) following cleanup.

8/17/2020

Notes:

View of stream S-H10 (UNT to Marsh Creek) following cleanup.

8/17/2020

Notes:

View of turbidity curtain at the confluence of stream S-H10 (UNT to Marsh Creek) and pond H3 (Marsh Creek Reservoir).

8/17/2020

Notes:

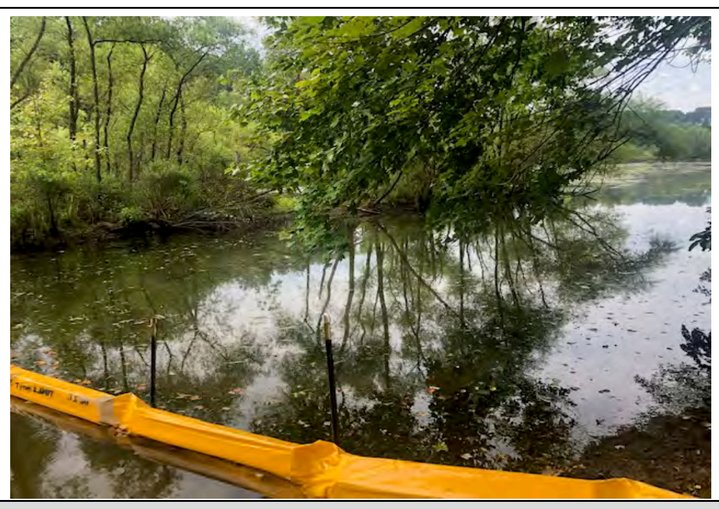
View of pond H3 (Marsh Creek Reservoir).

8/17/2020

Notes:

View of IR release location within WL-H17.

8/17/2020



Notes:

View of turbidity curtain at the confluence of stream S-H10 (UNT to Marsh Creek) and pond H3 (Marsh Creek Reservoir).

8/22/2020

Notes:

View of pond H3 (Marsh Creek Reservoir).

8/24/2020

8/22/2020

Notes:

View of stream S-H10 (UNT to Marsh Creek)

8/24/2020

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Notes:

View of IR release location and containment within WL-H17.

8/28/2020

Notes:

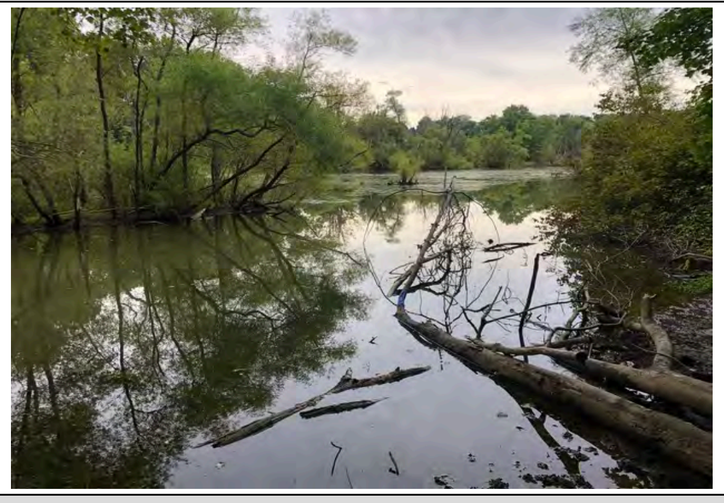
View of stream S-H10 (UNT to Marsh Creek)

8/31/2020

Notes:

View of stream S-H10 (UNT to Marsh Creek)

8/31/2020



Notes:

View of pond H3 (Marsh Creek Reservoir).

8/31/2020

Notes:

View of IR release location and containment within WL-H17.

9/4/2020

Notes:

View of stream S-H10 (UNT to Marsh Creek)

9/5/2020

Notes:

View of turbidity curtain at the confluence of stream S-H10 (UNT to Marsh Creek) and pond H3 (Marsh Creek Reservoir).

9/14/2020

Notes:

View of stream S-H10 (UNT to Marsh Creek)

9/14/2020

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Notes:

View of IR release location and containment within WL-H17.

9/21/2020

Notes:

View of stream S-H10 (UNT to Marsh Creek)

9/21/2020

Notes:

View of IR release location and containment within WL-H17.

9/21/2020

Notes:

View of turbidity curtain at the confluence of stream S-H10 (UNT to Marsh Creek) and pond H3 (Marsh Creek Reservoir).

9/28/2020

Notes:

View of IR release location and containment within WL-H17.

9/28/2020

Notes:

View of IR release location and containment within WL-H17.

10/5/2020

Notes:

View of turbidity curtain at the confluence of stream S-H10 (UNT to Marsh Creek) and pond H3 (Marsh Creek Reservoir).

10/12/2020

Notes:

View of IR release location and containment within WL-H17.

10/19/2020

10/26/2020

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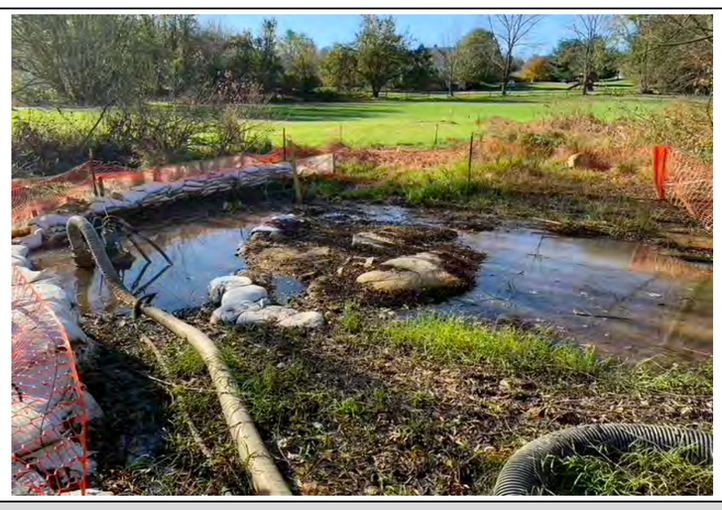

Notes:

View of IR release location and containment within WL-H17.

11/2/2020

Notes:

View of IR release location and containment within WL-H17.

11/9/2020

Notes:

View of IR release location and containment within WL-H17.

11/16/2020

Notes:

View of IR release location and containment within WL-H17.

11/23/2020

Notes:

View of IR release location and containment within WL-H17.

12/1/2020

Notes:

View of earth feature one filled with 13 cubic yards of flowable fill.

12/8/2020

12/15/2020

12/19/2020

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Notes:

View of earth feature two filled with 28 cubic yards of flowable fill.

12/19/2020

Notes:

View of contractor crew members installing erosion control blanket to stabilize earth feature locations.

12/28/2020

Notes:

View of IR release location and containment within WL-H17.

1/5/2021

Notes:

View of IR release location and containment within WL-H17.

1/19/2021

Notes:

View of IR release location and containment within WL-H17.

12/21/2020

Notes:

View of IR release location and containment within WL-H17.

12/29/2020

Notes:

View of IR release location and containment within WL-H17.

1/12/2021

Notes:

View of IR release location and containment within WL-H17.

1/26/2021

If Interim report, Subject to Change as Additional Information Becomes Available

SPLP PENNSYLVANIA PIPELINE PROJECT
HORIZONTAL DIRECTIONAL DRILLING – INADVERTENT RETURN REPORT FORM

Notes:

View of IR release location and containment within WL-H17.

1/30/2021

Notes:

View of IR release location and containment within WL-H17.

2/16/2021

Notes:

View of IR release location and containment within WL-H17.

3/2/2021

Notes:

View of IR release location and containment within WL-H17.

3/16/2021

Notes:

View of IR release location and containment within WL-H17.

2/8/2021

Notes:

View of IR release location and containment within WL-H17.

2/23/2021

Notes:

View of IR release location and containment within WL-H17.

3/9/2021

Notes:

View of IR release location and containment within WL-H17.

3/23/2021

Sunoco Pipeline L.P.

If Interim report, Subject to Change as Additional Information Becomes Available

SPLP PENNSYLVANIA PIPELINE PROJECT
HORIZONTAL DIRECTIONAL DRILLING – INADVERTENT RETURN REPORT FORM

Notes:

View of IR release location and containment within WL-H17.

3/30/2021

Notes:

View of IR release location and containment within WL-H17.

4/13/2021

Notes:

View of IR release location and containment within WL-H17.

4/27/2021

Notes:

View of IR release location and containment within WL-H17.

5/11/2021

Notes:

View of IR release location and containment within WL-H17.

4/6/2021

Notes:

View of IR release location and containment within WL-H17.

4/20/2021

Notes:

View of IR release location and containment within WL-H17.

5/4/2021

Notes:

View of IR release location and containment within WL-H17.

5/17/2021

If Interim report, Subject to Change as Additional Information Becomes Available

SPLP PENNSYLVANIA PIPELINE PROJECT
HORIZONTAL DIRECTIONAL DRILLING – INADVERTENT RETURN REPORT FORM

Notes:

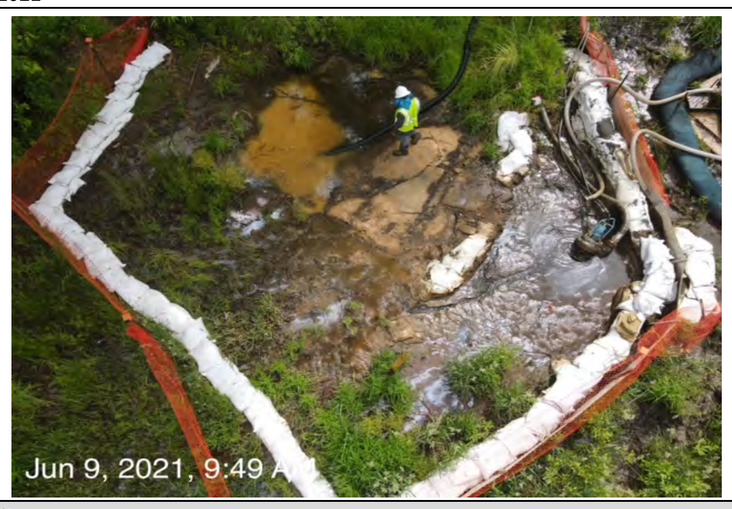
View of IR release location and containment within WL-H17.

5/24/2021

Notes:

View of IR release location and containment within WL-H17.

6/7/2021



Notes:

View of contractor personnel using a 4-inch pump to maintain discolored fluid. Fluid remained within existing sand bag containment.

6/9/2021

Notes:

View of contractor personnel setting up sand bag containment dam in S-H10 (UNT to Marsh Creek).

6/10/2021

Notes:

View of IR release location and containment within WL-H17.

6/1/2021

Notes:

View of discolored fluid emerging within existing sand bag containment.

6/9/2021

Notes:

View of discolored fluid emerging outside of existing sand bag containment.

6/10/2021

Notes:

Vew of contractor personnel using 3-inch pump to pump discolored water to a vacuum truck.

6/10/2021

If Interim report, Subject to Change as Additional Information Becomes Available

SPLP PENNSYLVANIA PIPELINE PROJECT
HORIZONTAL DIRECTIONAL DRILLING – INADVERTENT RETURN REPORT FORM

Notes:

View of S-H10 (UNT to Marsh Creek) and S-H11 (UNT to Marsh Creek) following cleanup.

6/10/2021

Notes:

View of upland IR location.

6/12/2021

Notes:

View of sand bag containment around 9/12/2021 IR location. Contractor personnel used a vacuum truck to recover the fluid

6/12/2021

Notes:

View following cleanup of containment structure at location of 6/12/2021 IR location.

6/12/2021

Notes:

View of primary sand bag containment within Wetland WL-H17.

6/12/2021

Notes:

View of 6/12/2021 upland IR location.

6/21/2021

Notes:

View of primary sand bag containment within Wetland WL-H17.

6/21/2021

Notes:

View of primary sand bag containment within Wetland WL-H17.

6/28/2021

7/6/2021

Sunoco Pipeline L.P.

If Interim report, Subject to Change as Additional Information Becomes Available

SPLP PENNSYLVANIA PIPELINE PROJECT
HORIZONTAL DIRECTIONAL DRILLING – INADVERTENT RETURN REPORT FORM

Notes:

View of primary sand bag containment within Wetland WL-H17.

7/12/2021

Notes:

View of primary sand bag containment within Wetland WL-H17.

7/20/2021

Notes:

View of primary sand bag containment within Wetland WL-H17.

7/26/2021

Notes:

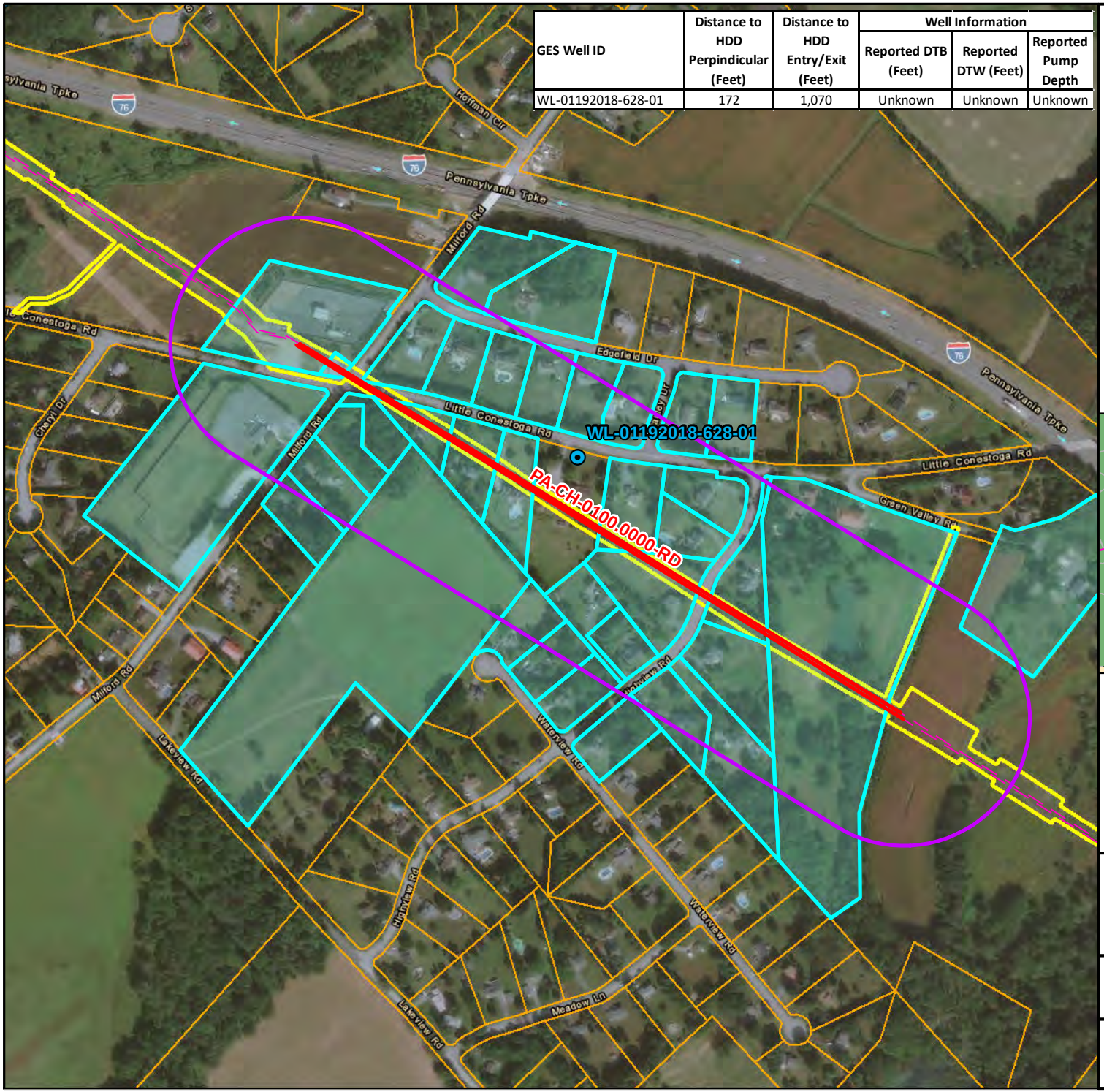
View of primary sand bag containment within Wetland WL-H17.

8/3/2021

PRINTED NAME, TITLE AND SIGNATURE OF PERSON(s) COMPLETING THIS REPORT

NAME:	Chris Cable	**TITLE:**	Environmental Inspection Manager	**SIGNATURE:**	Christopher J Cable	**DATE:**	8/4/2021

GES Well ID	Distance to HDD Perpindicular (Feet)	Distance to HDD Entry/Exit (Feet)	Well Information		
			Reported DTB (Feet)	Reported DTW (Feet)	Reported Pump Depth
WL-01192018-628-01	172	1,070	Unknown	Unknown	Unknown



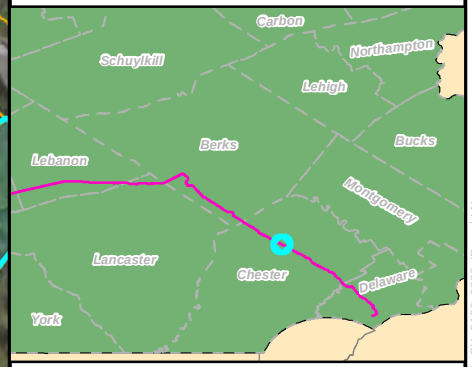
Legend

- LOD
- Parcel
- PPP Centerline
- HDD
- 450 foot buffer of HDD alignment
- Public Water Supply/Landowner Confirmed No Well
- Testing Refused

****Testing locations current as of 08/04/2021**

- GES Testing Location

Location



0 250 500 Feet

Well Location Map
HDD# PA-CH-0100.0000-RD
Chester County, PA.

Prepared By: TETRA TECH

Date: 8/4/2021

Base Map;
ESRI World Imagery, 09/24/2015

Coordinate System: NAD 83 Stateplane, PA South, Feet

P:\GIS\projects\112C03938-PPP\MXD\WellLocations\PA_WellLocations\Wednesday\WellLocation_PA_CH_0100_0000_IR.mxd DN