Mountain Valley Stream Biological Conditions EA Report											
Project Name H-600 Pipeline Spread D AFE 124300132				2	Spread	H-6	600 Pipeline	Spread D			
Contractor Precision			Precision				Report #	32	21		
Enviror	Environmental Auditor Kyle Gillow Date/Time 10/25/2023 13							/25/2023 12	:07 PM		
Stre	am ID	S-N13		Crossing Start D	10/25/2023	Cross	sing Completion Date 10/27/2023			27/2023	
Mi	lepost	t 123.11		Pre-Con Assessment Date 10/24/2023		Post-	Post-Con Assessment Date 10/2			29/2023	
S	Station	ion 6500+36		Bankfull Width (ft.) 2.0		Riffle:Pool Complexes Present?			No		
State		ate WV		Stream Classification Intermittent			,				
С	County Nicholas 303(d) Impairment Listing No										
Resource Post-Crossing Conditions											
1	Were	all app	licable resou	rce specific crossing condi	ion	s satisfied?					See Below
	Time of Year Restrictions (TOYR)? Yes Mussel Relocation? N/A										
2		This question is not applicable in WV.									
3	Which crossing methods were utilized during the stream crossing? (If so select one or more) Dam & Pump X Flume X Cofferdam Conventional Bore Horizontal Directional Drill (HDD) Bore										
4	Was the top 1-foot (12-inches) of streambed substrate segregated and stockpiled separate from trench spoils?						Yes				
5	Was excess material not needed for backfill removed and disposed of in an upland area? Yes							Yes			
6	Was the top 12-inches of backfill made with clean native stream substrate?						Yes				
7	Was the pre-construction survey data utilized during restoration in attempt to re-establish pre-construction contours?					Yes					
8	Were any field modifications to the stream implemented by project or regulatory personnel to address potential drainage or bank restoration limitations?					No					
9	Were impervious trench breakers/plugs properly installed within 25-feet of top-of-bank to prevent subsurface erosion to or from the resource area?						Yes				
10	Was permanent seed and stabilization material (straw or matting) applied to riparian areas and stream banks prior to re-establishing flow to the impact area of the channel?						Yes				
11	Was t	Was the time of disturbance minimized by conducting resource work continuously to completion? Yes						Yes			
12		Have civil surveys been scheduled to verify as-built conditions meet pre-construction conditions in accordance with the project Mitigation Framework and federal/state permit requirements?						Yes			
13	1 3 1						N/A				
14	Did any unauthorized discharges to unpermitted resources occur during the crossing? If so, explain the corrective actions implemented in the Comments section and include additional photos.					No					
				Biological Conditio						Pre-Con	Post-Con
15		minant Mud/Silt	-	pe (select one):Bedrock, Boul	der (>10"), Cobble (2-	·10"), Gra	avel (0.1-2"), Sai	nd	Mud/Silt/Cl ay	Mud/Silt/Cl ay
16	Channel Conditions:Rating: 1-Optimal (80-100% stable banks), 2-Sub-optimal (60-80% stable banks), 3-Marginal (40-60% stable banks), 4-Poor (20-40% stable banks), 5-Severe (0-20% stable banks, highly eroded or unvegetated banks						2				
17	Riparian Buffer Zone within ROW and ≤50 ft. from Stream Top-of-Bank: Rating: 1-Optimal (60-100% heavy vegetative cover), 2-Sub-optimal (30-60% mixed vegetated coverage), 3-Marginal (<30% vegetative coverage), 4-Poor (Mowed/maintained area or farmland, impervious area, sparsely vegetated coverage, etc.)					4					

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	Biological Co	nditions Co	ntinued		Pre-Con	Post-Con
18	Instream Habitat Conditions: Examples: Varied substrate sizes, varied combination of water velocities & depths, presence of woody/leafy debris, stable substrate with low amount of mobile particles, low embeddedness, shade protection, undercut banks, root mats, Varied combination of water velocities, submerged aquatic vegetation Rating: 1-Optimal (Habitat conditions present in >50% of resource), 2-Suboptimal (Habitat conditions in 30-50% of resource), 3-Marginal (Habitat conditions in 10-30% of resource), 4-Poor (Habitat conditions in 0-10% of resource)					4
19	Channel Alterations: Examples: Straighte along banks, concrete/gabions/concrete block, r agricultural impacts Rating: 1-Negligible (unalte channel alterations), 3-Moderate (40-80% of	nanmade emba ered/natural stre	nkments, constrictions w/in channel, li am), 2-Minor (20-40% of resource dis	ivestock or rupted by	1	2

Additional Notes

Stream S-N13 has a time of year restriction (TOYR) prohibiting construction between Sept. 15th to March 31st. A waiver has been obtained from the appropriate agencies to allow construction within this window.

10/25/23 - The top 12" of soil between the high water marks was placed in super sacks, and stockpiled just upstream. The flume along with the dam and pump around were setup. The feature had minimal flow passing through the flume.

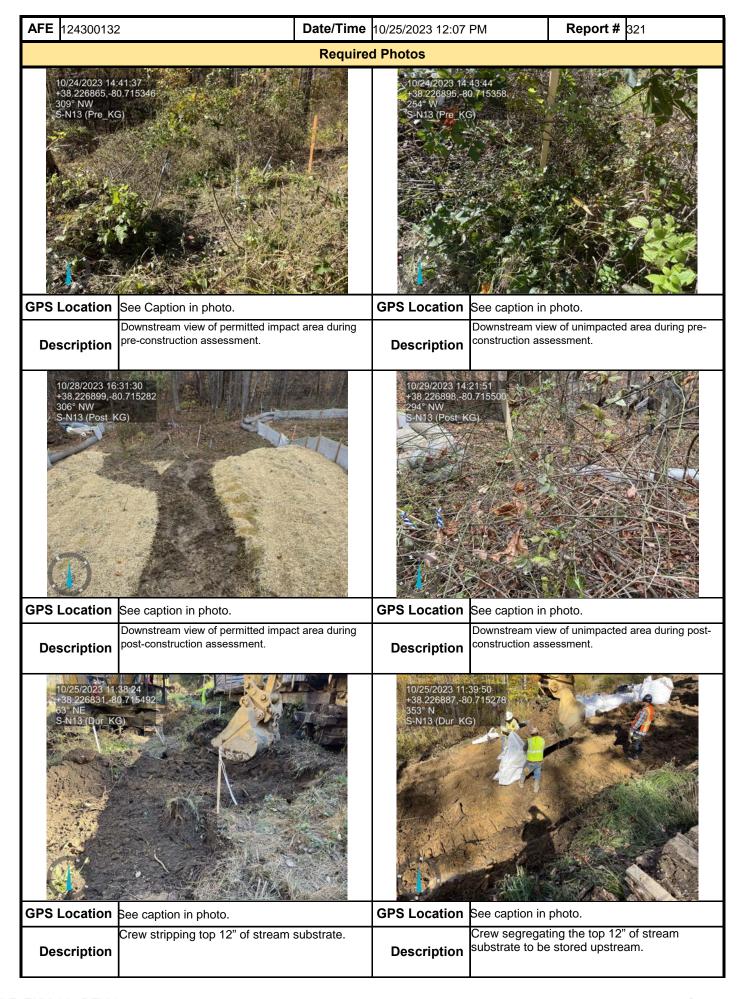
10/26/23 - Blasting crew drilled and blasted through ditch line of the features. The ditch line ran through the confluence of S-N13 and S-N13 Braid. Trenching began once blasting was completed.

10/27/23 – Once trenching was completed through the features, the ditch was prepped with sandbags and a section of pipe crossing both S-N13 and S-N13 Braid was lowered in. Restoration of S-N13 began with the padding of the pipe beyond both 10' buffer zones and installing trench breakers on the coming in and going away side of the stream. The top 12" of soil was restored and verified by survey to pre-construction specifications. The environmental crew seeded and installed curlex on the banks with silt fence at the 10' buffer zones on the coming in and going away sides. The flume and dam were removed with the feature continuing to have minimal flow.

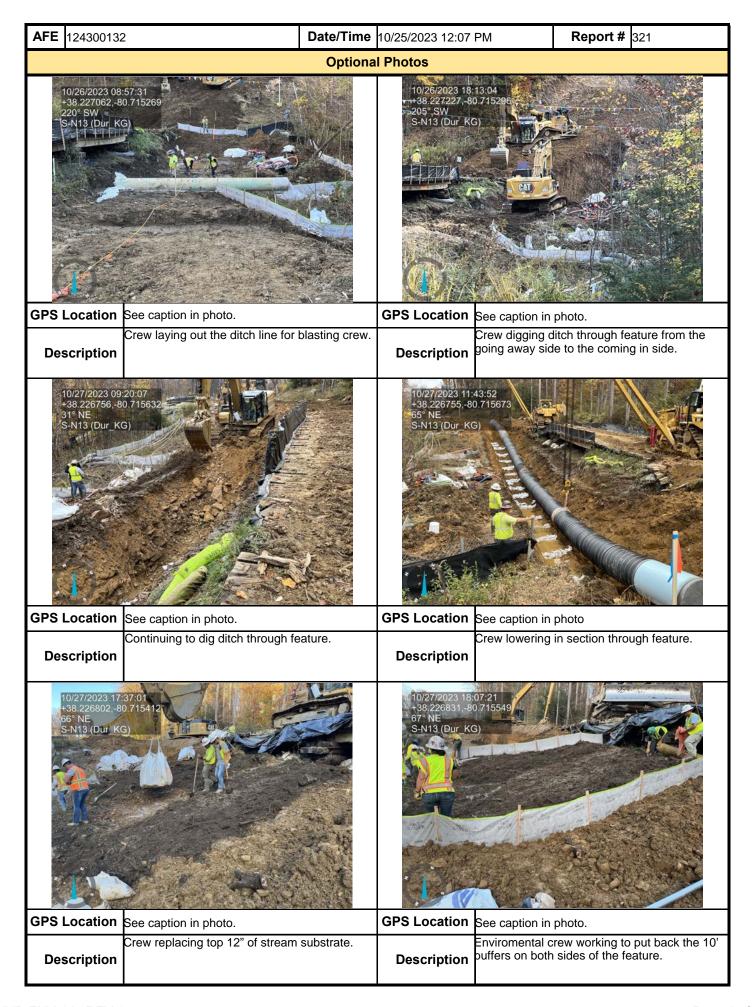
In accordance with the Mountain Valley Pipeline Comprehensive Stream and Wetland Monitoring, Restoration and Mitigation Framework, this independent report was completed to document the on-site monitoring of instream invertebrate and fisheries resources during all construction activity related to waterbody and wetland crossings, and document instream conditions and any impacts to the resources.

Name	Signature	Company	Date
Kyle Gillow	1/0	SWCA	10/29/2023

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