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March 21, 2022

VIA FERC ELECTRONIC FILING

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street NE
Washington, DC 20426

Re: Rover Pipeline LLC and Energy Transfer Partners, L.P.
Docket No. IN17-4
Answer and Denial to Order to Show Cause and Notice of Proposed Penalty

Dear Secretary Bose:

Enclosed, please find for filing in the above-referenced docket the Answer and Denial of Rover Pipeline LLC and Energy Transfer LP to Order to Show Cause and Notice of Proposed Penalty of ("Answer and Denial").[1] As part of the Answer and Denial, transmitted herewith are:

- Appendix A: Key of Witness Descriptions and Names (Priv)
- Appendix B: Index of Cited Evidentiary Materials Not Cited In Enforcement Staff Report
- Appendix C: Cited Materials (Public)
- Appendix D: Cited Materials (Priv)

Appendix A and D contain investigatory materials and information that are being filed non-publicly in accordance with sections 1b.9, 1b.20, and 388.112 of the Commission's rules, 18 C.F.R. §§ 1b.9, 1b.20, 388.112 (2012), and the Freedom of Information Act, 5 U.S.C. § 552. These appendices include contain sensitive and personally identifiable information that is privileged and confidential under 5 U.S.C. §§ 552(b)(4) and (b)(7) and 18 C.F.R. §§ 1b.20 and 388.112.

[1] The Commission's December 16, 2021 Order to Show Cause and Notice of Proposed Penalty was directed, in part, to Energy Transfer Partners, L.P. That entity no longer exists (and has not for several years). This Answer and Denial is therefore filed on behalf of Energy Transfer LP, the successor-in-interest of Energy Transfer Partners, L.P.

If you have any questions regarding this filing or request, please contact the undersigned at WScherman@gibsondunn.com or at 202-887-3510.

Respectfully submitted,

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UNITED STATES OF AMERICA

BEFORE THE

FEDERAL ENERGY REGULATORY COMMISSION

Rover Pipeline, LLC, Energy Transfer Partners, L.P.	)))))	Docket No. IN17-4-000

ANSWER AND DENIAL OF ROVER PIPELINE, LLC AND ENERGY TRANSFER LP TO ORDER TO SHOW CAUSE AND NOTICE OF PROPOSED PENALTY

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March 21, 2022

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I. INTRODUCTION

Assume that the Commission votes 5-0 to approve a contract with a vendor that will oversee and implement upgrades to FERC's IT systems. The contract specifies certain FERC requirements for the final product, sets the schedule for accomplishing those results, and then states that the vendor, its contractors, and its subcontractors will abide by the agreement's provisions as well as all applicable laws, rules, and regulations. As is common for this type of work, the vendor then hires a contractor who, in turn, hires subcontractors, each of whom agrees to abide by the agreement between the Commission and the vendor, plus all applicable laws, rules and regulations. Now assume that employees of a subcontractor use the Commission's computer systems to engage in market manipulation in FERC jurisdictional markets while they test and implement the IT upgrades. The subcontractor employees engage in this conduct despite being trained in appropriate practices, despite having third-party contract inspectors watching over them, and despite it being directly contrary to FERC's policies and practices. The subcontractor employees know their conduct is unlawful so they also hide it from their employer, the contractor, the vendor, and FERC, including by carrying the manipulation out at night, because they know they would be fired—or worse—if caught.

Does anyone really think that Chairman Glick and the other Commissioners could fairly be blamed, much less held liable, for the subcontractor's market manipulation? Does anyone really think that the Department of Justice could pursue civil or criminal penalties against the Commissioners? Well, if the Office of Enforcement's theory of liability were to prevail here, the

Chairman and Commissioners would be in need of good lawyers to defend against those possible charges of wrongdoing.[1]

This analogy is fully on-point. After a nearly five-year investigation, the Enforcement Staff Report[2] identifies *no evidence whatsoever* connecting either Respondent—Rover Pipeline, LLC ("Rover") or Energy Transfer LP[3] ("Energy Transfer," and, together with Rover, the "Respondents")—to the use of unapproved products during construction of the Rover Pipeline Project ("Project" or "Pipeline"), including no evidence anyone at either company even knew about such wrongdoing. Not a single piece of evidence. None.

Instead, the Staff Report consists of false and misleading attempts to pin blame on Rover for deliberate improper acts of third-parties—the employees of an independent subcontractor. It was no secret to the Commission that Rover would need to rely on a contractor and its subcontractors to build the Pipeline. The Commission approved that plan. Every major pipeline project developer in North America has used contractors and subcontractors to build its pipelines. The truth—which the Staff Report ignores—is that no one at Rover or Energy Transfer knew about, approved, authorized, or condoned *any of the alleged wrongful activity.* In fact, the persons who allegedly engaged in that conduct hid it because they knew Respondents forbade it. Enforcement Staff's investigation produced not a single piece of evidence showing otherwise. But the Staff Report never acknowledges this crucial point. This lack of candor should be quite troubling to the Commission.

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[1] In fact, only a full-throated application of sovereign immunity would stand between the five Commissioners and their liability for the unlawful actions of the subcontractors' employees.

[2] *Rover Pipeline, LLC*, 177 FERC ¶ 61,182, App. A, Enforcement Staff Report and Recommendation (2021) [hereinafter "Staff Report" or "Report"].

[3] Energy Transfer, L.P., is the successor of named Respondent, Energy Transfer Partners, L.P.

Enforcement Staff consistently mislead the Commission by repeatedly stating that "Rover . . . intentionally include[ed] diesel fuel and other toxic substances and unapproved additives in the drilling mud."[4] Enforcement Staff attribute actions to "Rover" incessantly, even though it *knows* that the alleged acts it is relating were performed by employees of an independent subcontractor of Rover's independent contractor, *and not by Rover or Energy Transfer.* This lack of candor by Enforcement Staff is troubling.

The Staff Report relies on a boundless "This is the House that Jack Built" theory of liability that would allow the Commission to penalize Rover for any independent unlawful acts that any individual committed while working for any subcontractor that worked for any Rover contractor on the Project, regardless of Rover's lack of involvement in, or approval or even knowledge of, those acts. A fair and objective assessment of the facts—most of which the Staff Report categorically omits—demonstrates that *Rover's* actions were entirely legitimate. And apart from the Staff Report's *legal* shortcomings, many of its factual assertions are incorrect and marred by witness-credibility concerns.[5] No enforcement action against either Respondent is warranted.

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[4] Staff Report at 4, 43; *see also id*. at 5 (similar).

[5] The Commission states that Respondents must "set forth every defense relied upon," *Rover Pipeline, LLC*, 177 FERC ¶ 61,182 at 3, n. 11. Respondents reserve the right to conduct discovery capable of identifying arguments other than those made here. Respondents also reserve the right to conduct discovery on, and re-advance, arguments made herein that the Commission may reject or decline to set for hearing. Enforcement Staff have repeatedly refused Respondents' requests for the disclosure of exculpatory materials, or for preliminary discovery, claiming that such requests are "premature." Letter from Katherine Walsh, Office of Enforcement, FERC to William Scherman, Gibson, Dunn & Crutcher LLP at 1 (June 4, 2019) ("As you are aware, discovery by the subject of an investigation during the investigative stage is neither appropriate or permitted."). And the Commission has repeatedly ignored Respondents' requests that the Commission enforce its *Brady* Policy and compel Enforcement Staff to disclose all of the exculpatory evidence in its possession. Unlike most other enforcement cases, the vast majority of evidence here does not originate with Respondents, and the vast majority of witnesses are not Respondents' employees. Further, many of the due process issues identified below will be proven through documents and information solely and exclusively in the possession of the Commission. Accordingly, if the Commission approves an enforcement action, Respondents intend to take discovery on all issues raised herein and in the Staff Report, and they will advance arguments warranted by the results of that discovery. The Commission is also reminded that it has been under a legal obligation to preserve all documents, data, and information related to the Rover project and its investigation since at least mid-2014.

* * *

A brief preview of certain specifics shows why this case should not go forward. Rover provided the Commission with an application and implementation plan making clear that, consistent with long-standing industry practice, Rover would engage qualified independent contractors to build the Rover Pipeline. Accordingly, Rover engaged Precision Pipeline LLC ("Precision") as its prime contractor for the Project, which included responsibility for building the portion of the pipeline to be installed beneath the Tuscarawas River. Precision, in turn, awarded a subcontract to Pretec Directional Drilling ("Pretec") including responsibility for Horizontal Directional Drilling ("HDD") at, among other places, the Tuscarawas River. Pretec was itself an independent contractor. Pretec foremen oversaw the Tuscarawas River HDD work, and Pretec engaged its own permanent and temporary employees to carry out the work. Rover's contract with Precision did not give Rover control over Precision or its subcontractors. Instead, Precision agreed under that contract to direct the work on the pipeline, and Precision represented that any subcontractors it hired would have the requisite capability, experience, and expertise to perform the work, and that they would comply with applicable law. This is standard industry practice.

The Staff Report intentionally obscures these relationships between the various separate entities. It repeatedly conflates the actions by representatives of independent third-parties with "Rover's conduct," and it describes the obligations of independent third parties as the obligations of "Rover personnel."[6] But the only individuals who, according to the Staff Report, "intentionally include[d] diesel fuel and other toxic substances and unapproved additives in the drilling mud while drilling under the Tuscarawas River,"[7] were the *Pretec* HDD crew members.[8] And even

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[6] *E.g.,* Staff Report at 5, 8.

[7] *Id.* at 4.

[8] *See, e.g.*, *id.* at 20, 38.

then, the Staff Report grossly overstates the number of individuals who allegedly engaged in that conduct. Similarly, the Staff Report's allegations as to monitoring the Project's right-of-way and disposing of contaminated drilling mud are directed solely at the actions and inactions of *Pretec's* "HDD crews."[9] At bottom, there is neither evidence nor reason to believe that anyone at Rover had any involvement with, approved, or even knew contemporaneously of the alleged wrongdoing.

In addition to the Staff Report ignoring the complete absence of evidence capable of implicating Respondents in the alleged wrongdoing, it omits the disquieting lengths to which Enforcement Staff went to try to find this non-existent connection. Enforcement Staff's efforts included handing out free offers to shield from any consequence each individual who might have engaged in wrongdoing. This was a textbook rush to judgment: Enforcement Staff assumed that the party within the investigators' jurisdiction was culpable and then worked backwards to build a case to vindicate that assumption. Before even knowing whether those who allegedly acted improperly did so at Rover's behest, and before even knowing what relevant information any individual could provide the government in return for a free pass, Enforcement Staff assured members of the work crews that *they* were safe from liability. They would not be held accountable for their own actions if they testified. Free of consequences for their actions, some of these third party employees have admitted that they acted improperly, according to the Staff Report. But even with every reason and free reign to blame Respondents for involvement in the misconduct, *not one witness* has alleged that Rover or Energy Transfer was aware of, approved, authorized, or condoned the alleged wrongdoing. Not one. The Commission should ask: Why didn't Enforcement Staff tell us this?

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[9] *Id.* at 34; *id*. at 35 (same).

Even though Enforcement Staff have firmly established after all of their work that the alleged wrongdoers acted without Respondents knowledge, the Staff Report goes to great lengths to protect the guilty by leaving their names unmentioned. As if "changing the names to protect the guilty" were suddenly a thing, the Staff Report anonymizes the admitted wrongdoers. For example, the foreman of the night crew admitted wrongdoing, but the Staff Report only refers to him by his title: the "Night Crew Foreman." *See* Staff Report, at 19-26.[10] On the other hand, the Staff Report freely names and blames employees of Respondents despite no evidence they knew of wrongdoing.

The Commission has been left in the mud on the full extent of Enforcement Staff's upside-down investigatory strategy of immunizing the wrongdoers in favor of pursuing liability against the certificate holder and its parent company, neither of which knew about the rogue activities. Enforcement Staff repeatedly failed to comply with the Commission's *Brady* policy, which requires turning over exculpatory materials, including records about formal or informal agreements that protected the actual wrongdoers from liability. Rover has made eleven requests for *Brady* materials to either Enforcement Staff or the Commission since September 2018. The most recent request, on March 10, 2022, is still pending.[11] Despite these repeated requests, Enforcement Staff have withheld numerous categories of *Brady* materials within their possession. This, even though Enforcement Staff recently conceded the "absence of information" showing that

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[10] The same names are withheld here based on Enforcement Staff's treatment of them as confidential. A non-public appendix provides the names for each position. *See* Key of Witness Descriptions and Names provided herewith as Appendix A.

[11] Rover Pipeline, LLC's and Energy Transfer, L.P.'s Renewed Motion to Compel Disclosure of Exculpatory Materials and Require In Camera Inspection, *Rover Pipeline, LLC*, Docket No. IN17-4-000 (Feb. 22, 2022); Rover Pipeline, LLC's and Energy Transfer, L.P.'s Motion for Leave to Answer and Answer in Support of Renewed Motion to Compel Disclosure of Exculpatory Materials and Require In Camera Inspection, *Rover Pipeline, LLC*, Docket No. IN17-4-000 (Mar. 10, 2022).

Rover or Energy Transfer played any role in the alleged violations here.[12] There is no legal basis for the Commission to follow suit. Respondents expect the Commission to follow the law. The *Brady* materials must be produced immediately.

What the Report *does* reveal is a stunning rush to judgment in a desperate attempt to blame the innocent for the alleged deliberate misdeeds of third parties multiple steps removed from those who stand charged. This blame game and rush to judgment was preordained and started the very first day of the Commission's investigation. On June 1, 2017 the then-Commission Chairman issued a press release blaming Rover for the presence of diesel fuel in the drilling mud.[13] This was before a single witness had been interviewed or any material facts had been gathered.[14] Since then, Enforcement Staff have been on a mission to find facts, any facts, to support the then-Chairman's public statements about Rover's alleged culpability. That mission and Enforcement Staff's pursuit of it have never wavered, resulting in the Staff Report. It is time to put a stop to this canard. The Commission should dismiss this matter and decline to institute an enforcement action.[15]

II. FACTUAL BACKGROUND

A. The Rover Pipeline

The Rover Pipeline spans 713 miles and was built to transport 3.25 billion cubic feet per day of natural gas from the Marcellus and Utica Shale production areas in West Virginia, Ohio,

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[12] Response to Respondent's Renewed Motion to Compel, *Rover Pipeline, LLC*, Docket No. IN17-4-000, at 2 (Mar. 2, 2022).

[13] Joint Statement of Acting Chairman Cheryl A. LaFleur and Commissioner Colette D. Honorable on Tuscarawas River Horizontal Directional Drill – Drilling Fluid Composition, *Rover Pipeline, LLC*, Docket No. CP15-93-000 (June 1, 2017).

[14] *Id.*

[15] Respondents also raise numerous procedural defenses, including that all of the alleged violations here are or soon will be past the statute of limitations. *See* Section III.G, *infra*. Respondents also contend that, if the Commission insists on moving forward, it must bring an action in federal district court for a variety of reasons, including the explicit text of the Natural Gas Act, and multiple constitutional provisions. *See* Section III.F, *infra*.

and Pennsylvania to markets around the United States as well as the Union Gas Dawn Storage Hub in Ontario, Canada.[16] The Project (now fully operational) was designed to gather natural gas from processing plants in West Virginia, Eastern Ohio, and Western Pennsylvania and transport it to pipeline interconnects in West Virginia, Eastern Ohio, and the Midwest Hub near Defiance, Ohio, with the remainder going to local markets in Michigan or Canada via the Vector Pipeline.[17] The Project consists of nine supply laterals and three mainlines (Mainline A and B, and the Market Segment).[18] It is one of the largest natural gas pipeline projects ever undertaken. The Pipeline, which the market heavily utilizes, has quickly assumed a vital role in meeting the Nation's natural gas supply needs.

The Order to Show Cause involves a small segment of this Project: a few thousand feet at the Tuscarawas River crossing in Stark County, Ohio. To minimize potential environmental effects to waterbodies along the pipeline route, Rover proposed, and FERC approved, using the environmentally preferred HDD method to install pipe beneath 45 different waterbody crossings.[19] Rather than dig an open trench into which the pipeline is lowered and then covered with the disturbed soil, the HDD method involves tunneling beneath the surface from one side of a waterbody to the other. The tunneling starts at an angle to the surface until it is deep below the lowest level of the waterbody. The tunnel's path is planned so that it can level off and run safely beneath the waterbody before angling back up to the surface on the other side. The construction

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[16] *See Rover Pipeline, LLC*, 158 FERC P 61,109 ¶ 1 (2017).

[17] *Id.* ¶ 10 ("The Rover Pipeline Project consists of nine supply laterals and three mainlines (Mainline A and B, and the Market Segment). Generally, the supply laterals will transport gas from receipt points in the Marcellus and Utica shale supply areas in West Virginia, Pennsylvania, and Ohio to delivery points along Mainlines A and B, which will mostly run parallel from Harrison County, Ohio, to the Midwest Hub in Defiance County, Ohio.").

[18] *Id.*

[19] *Id.* ¶ 177.

of this path—roughly the profile of the inside of a bathtub—starts with a small-diameter pilot hole from one side of the waterbody to the other. The diameter of the hole is gradually expanded by pulling successively larger drill heads (known as "bore reamers") through the initial pilot hole until the bore hole is large enough to insert the product pipe and pull it through from one end to the other.[20]

Consistent with long-standing industry practice, Rover specified in its application that it would engage independent contractors to build the pipeline, including the HDD work under the Tuscarawas River.[21] Rover was also transparent about the role these independent contractors would play during construction, including their responsibility for helping to minimize environmental effects. Before Rover filed its Certificate application in 2015, it submitted a preliminary draft resource report, which gave an overview of construction staffing. It showed that the pipeline was to be installed using multiple construction spreads, with smaller work crews for the HDDs, compressor stations, and meter stations. The timing for completion of particular parts of the Project would vary depending on each contractor's capabilities, available workforce, and optimized construction logistics. The estimated peak project construction work force was between 7,500 and 10,000 workers.[22]

Rover's Contingency Plan also highlighted the role of independent contractors in the HDD process specifically. Rover disclosed in its HDD Contingency Plan that it would require these

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[20] *Pipelines: A Crucial Piece of Modern Infrastructure, Am. Petroleum Inst. Energy*, at 4 (last visited Mar. 15, 2022), https://www.api.org/-/media/APIWebsite/oil-and-natural-gas/primers/Horizontal%20Directional%20Drilling%20HDD%20Operations%20White%20Paper.pdf?la=en&hash=87ECB03D2D25B28DE401D6A23DA1C74D387339A7.

[21] Application of Rover Pipeline, LLC for a Certificate of Public Convenience and Necessity, at 43, *Rover Pipeline, LLC*, Docket No. CP15-93-000 (Feb. 20, 2015).

[22] Resource Report 1 General Project Description (Preliminary Draft – July 2014), at 1-15, *ET Rover Pipeline Co.*, Docket No. PF14-14, (July 29, 2014).

contractors to "specifically address the general elements of this plan before commencing any HDD operations."[23] It also gave primary responsibility for monitoring HDD activities to the HDD contractor, who would work in coordination with the Construction and Environmental Inspectors, who themselves were independent contractors. Inspectors were responsible for field inspections and monitoring wetlands and waterbodies for evidence of release, while "continuous monitoring of the drilling mud, drilling mud pressures, and return flows" was to be conducted "by the Contractor."[24]

Rover similarly made clear in its FERC Implementation Plan that contractors, subcontractors, and vendors would perform the construction work. The Implementation Plan explicitly stated that contractors would fill the following roles: Spread Superintendent, Spread Foreman, Spread Environmental Coordinator, Environmental Foreman, and Key-Right-of-Way Land Agents.[25] The Commission approved each of these plans.[26]

B. Rover Entered Into an Appropriate and Compliance-Oriented Contract with Precision for Project Construction

On February 2, 2017, FERC issued a certificate of public convenience and necessity under Section 7 of the Natural Gas Act ("NGA"). 15 U.S.C. § 717f(e). A little more than a month later, on March 3, 2017, the Commission issued Rover a notice to proceed with construction.[27] Precision's scope of work covered Spread A, which included the Tuscarawas River crossing and

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[23] Final Environmental Impact Statement for Rover Pipeline, at App. G1-5, *Rover Pipeline, LLC*, Docket No. CP15-93-000 (July 29, 2016) [hereinafter "Final EIS"].

[24] *Id*. at App. G1-6.

[25] Implementation Plan and Request for Notice to Proceed with Preconstruction/Construction Activities, *Rover Pipeline, LLC*, Docket No. CP15-93-000, at 26 (Feb. 6, 2017) [hereinafter "Implementation Plan"].

[26] *See* Notice to Proceed with Construction, *Rover Pipeline, LLC*, Docket No. CP15-93-000 (Mar. 3, 2017).

[27] *Id.*

associated HDD.[28] Precision is one of the largest, most respected pipeline prime contractors in the world, and the Staff Report includes no evidence that Precision knew about, authorized, approved, or condoned the alleged wrongdoing here either.

The contract between Precision and Rover specified that Precision, as an independent contractor of Rover, would employ and take responsibility for "direct[ing] any persons performing any work" under the contract.[29] Precision represented that it had the "requisite expertise for performing the Work," that "its agents, employees and subcontractors have the capability, experience, expertise and means required to perform the Work," that the "Work [would] be performed using personnel equipment and materials qualified and/or suitable to do Work requested," and that Rover was "relying on [Precision's] expertise and knowledge in its performance of the Work."[30]

Precision further agreed that it would perform work in accordance with industry standards and would "comply with all valid applicable federal, state and local laws, ordinances and regulations thereunder."[31] Precision "certifie[d] that unless specifically exempted, all products, commodities or services . . . have been furnished in compliance with all applicable laws and regulations."[32] Precision also promised that it would "assure that each of its permitted subcontractors complies with said requirements as well."[33]

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[28] *See* Precision Fixed Fee Master Construction Agreement (Nov. 28, 2016), MASTEC0051598–52057 at MASTEC0051598 [hereinafter "Master Construction Agreement"].

[29] *Id. at* MASTEC0051628 ¶ 32.

[30] *Id.* at MASTEC0051610 ¶ 6(b)

[31] *Id.* at MASTEC0051610 ¶¶ 6(a), 6(d).

[32] *Id.* at MASTEC0051626 ¶ 25.

[33] *Id.*

Contrary to Enforcement Staff's assertions,[34] the contract did not place construction speed ahead of compliance. In fact, the parties expressly agreed in their contract that time requirements were both reasonable and realistic.[35] The contract included a standard "time being of the essence" clause, which it defined as working "regularly, diligently and uninterruptedly" to finish the various tasks by the completion dates.[36] Time-is-of-the-essence clauses have been standard fare for centuries,[37] and they are regular features of construction contracts across a variety of industries.[38] The parties agreed that the work would be done diligently and in a "workmanlike" manner with the "utmost regard for safety of life and property," making compliance a cornerstone of this contract.[39] The contract did not penalize Precision if it failed to meet the in-service date; rather, it continued to provide payment for time and materials for work after that date.[40]

Precision awarded one of its subcontracts to Pretec,[41] giving that subcontractor responsibility for the "spread A" HDD crossings, which included the Tuscarawas River crossing.

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[34] Staff Report at 5 (stating that the alleged "violations were the product of a corporate culture . . . that favored speed and construction progress over regulatory compliance" and claiming that "[t]his culture was fueled by Rover's execution of a $1.5 billion 'time is of the essence' contract with a prime construction contractor").

[35] Master Construction Agreement at MASTEC0051609 ¶ 3. In addition, Precision witnesses have consistently testified that the schedule was "achievable." Poteete Test. at 96:15–19 ("Q. Did you have any concerns with the schedule for the Rover Pipeline project? A. I did not. Q. Why not? A. We felt like it was achievable."); Rooney Test. at 93:8–10 ("Q. And by accepting the contract you felt like you could meet that schedule? A. That's correct.").

[36] Master Construction Agreement at MASTEC0051609 ¶ 3.

[37] *See, e.g.*, *Steele v. Branch*, 40 Cal. 3 (Ca. 1870) ("Time may be made of the essence of a contract.").

[38] *See Linan-Gay Const. Co., Inc. v. Housing Auth. of City of Camden*, 995 F. Supp. 520, 523–24 (D.N.J. 1998) ("'Time is of the essence' clauses, or provisions using different language to state clearly the same idea, are common in contract law. They tend to appear in real estate contracts and construction contracts.").

[39] Master Construction Agreement at MASTEC0051953 ¶ 2.2.

[40] Rooney Test. at 63:1–4 ("If we don't meet the schedule, obviously it extends the job. I mean, there – there's no monetary penalties for not meeting the schedule.").

[41] Precision Pipeline, LLC and Pretec Directional Drilling, LLC Intracompany Agreement Executed (Mar. 10, 2017), MASTEC0051574.

Precision and Pretec negotiated their own contract; Rover was not a party to that agreement, nor did Rover control its terms.[42]

Moreover, Rover did not control the manner in which either Precision or Pretec carried out the Tuscarawas HDD work. This is because, as noted, Precision was an independent contractor. Pretec, also an independent sub-contractor of Precision, was yet another step removed from Rover. Instead of Rover having control over Precision or Precision's subcontractors, Precision's contract with Rover included Precision's promise that any subcontractors it hired would have the requisite capability, experience, and expertise to perform the work, and that they would comply with applicable law.[43]

Rover personnel did not control the day-to-day construction operations either. Precision and Pretec—not Rover—created a schedule, taking into account the Project's target completion date.[44] Precision and Pretec—not Rover—also determined how much manpower they would need,[45] what resources the project would require,[46] and whether any adjustments to the schedule were necessary.[47] Pretec gave Precision updates on the construction status and Precision passed those updates along to Rover through progress reports and phone calls.[48] Pretec's foremen were in charge of the Tuscarawas HDD site.[49] Consistent with the plans Rover submitted to the Commission and that the Commission approved, Rover monitored construction through the use of

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[42] *Id.*; Mahmoud Test. at 36:15–17.

[43] Master Construction Agreement at MASTEC0051610 ¶ 6(b).

[44] Poteete Test. at 99:10–13.

[45] Banta Test. at 51:7–9.

[46] Mahmoud Test. at 36:15–21.

[47] Banta Test. at 49:13–51:5.

[48] Poteete Test. at 77:18–78:8; Mahmoud Test. at 112:20–22.

[49] Night Crew Foreman Test. at 46:8-9, 48:6–7.

on-site inspectors, including the Day Utility Inspector, the Night Utility Inspector, and the Lead Environmental Inspector Spread A.

C. Drilling at the Tuscarawas HDD Proceeded According to Plan

As noted, the FERC Certificate was issued on February 2, 2017.[50] Rover immediately filed the Implementation Plan and requested permission to commence construction, which FERC granted a month later.[51] The March 3, 2017 letter granting that permission states that "in considering this notice to proceed," FERC had evaluated Rover's plan and all supplemental information required from the Certificate. FERC authorized construction because "[t]he Implementation Plan and [] supplements included the information necessary to meet the pre-construction conditions of the Commission's February 2, 2017 Order Issuing Certificate."[52] With the FERC Certificate and the March 3 staff authorization in hand, construction began.[53]

The drilling started a bit later than anticipated, on March 18, 2017—*i.e.*, two weeks after the notice to proceed. Contrary to Enforcement Staff's characterizations, the Staff Report cites no evidence that Rover "applied heavy pressure"[54]—or any pressure at all—on Precision or Pretec over this delay. In fact, and further contrary to the materials that Enforcement Staff cite, contemporaneous emails on March 18, 2017 demonstrate that Precision and Pretec took steps to "document our challenges" in the event that Rover *in the future* asked questions about the delay in starting the drill.[55]

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[50] *Rover Pipeline, LLC*, 158 FERC ¶ 61,109 (2017) (order issuing certificate).

[51] Notice to Proceed with Construction, *Rover Pipeline, LLC*, Docket No. CP15-93-000 (Mar. 3, 2017).

[52] *Id.* at 1.

[53] Notice of Commencement of Construction, *Rover Pipeline, LLC*, Docket No. CP15-93-000 (Mar. 14, 2017).

[54] Staff Report at 15.

[55] *See* Email from Bobby Poteete (Precision) to Bill Colson (Pretec) (Mar. 18, 2017), MASTEC010222; s*ee also* Staff Report at 16 n. 76–77.

In any event, the period relevant here is several weeks *after* the drill started. By then, progress was going well; in fact, the pace at the Tuscarawas site was going faster than expected. The Night Crew Foreman at the Tuscarawas HDD site testified that while there were no "set goals," he knew the deadline was "somewhere around July."[56] And by mid-April 2017 the drill under the Tuscarawas River was already nearly complete, having progressed from the initial pilot hole all the way to a 42-inch reaming pass.[57] The Night Crew Foreman, who would often compare his night shift's progress with that of the day shift,[58] testified that "actually, that drill was going good."[59] The Day Utility Inspector, who tracked and submitted the drill progress in daily reports, believed that the spread A section was running two weeks ahead of schedule.[60] That is consistent with other workers, such as the Night Crew Mud Technician, being told that the drill was ahead of schedule.[61]

The issues the drilling encountered were common to the HDD method, including lost "returns" of drilling mud. During drilling operations, drilling fluid is injected through the drill pipe where it flows down to, and out of, the drilling head. The fluid then typically travels through the drilled path back up to the surface, that is it "returns," carrying debris and cuttings with it back to the top of the opening in the ground. It is not uncommon, though, for drills to lose returns for

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[56] Night Crew Foreman Test. at 49:15–16; 53:3–6.

[57] Night Crew Driller Test. at 32:12–13;143:21–25 ("Q. Was there anything that signaled to you whether you guys were doing a good job, behind schedule, on schedule? A. Well, I thought we were doing pretty good because we were almost done with our 42 inch pass.").

[58] Night Crew Foreman Test. at 47:19–25; 48:16–21.

[59] *Id*. at 53:22.

[60] Day Utility Inspector Test. at 37:6–17 ("They was making good progress. Actually, we was about two weeks ahead . . . . All I know is about two weeks ahead at one time. As far as the progress that we should have had done, that we was ahead of it.").

[61] Night Crew Mud Technician Test. at 154:12–19; *See also* Lead Environmental Inspector Spread A Test. at 71:10-15 (explaining that at his "level" nothing was communicated regarding the schedule beyond what days would be working days).

hours, days, or for the entire length of a drill, depending on conditions underground. These can occur when unknown fissures in the ground cause the drilling fluid to leave the drill path and, at times, come up to the surface elsewhere in the form of "inadvertent release" or "IRs." Pretec's HDD crew lost returns about 90 feet into the drill at the Tuscarawas River, which was located adjacent to a nearby wetland.[62] The lost returns did not have much impact on the drilling progress, though. The crews adjusted by making more mud, sometimes going through more than a dozen pallets in a single shift.[63]

Rover personnel did not place any undue "pressure" on the Pretec crews to make progress on the drill. The Staff Report does not point to a single communication from Rover or any of its employees urging that the drill be sped up. Tension on the site arose instead for reasons entirely unconnected—and unknown—to Respondents: personal conflicts among the subcontractor's employees. The Night Crew Foreman testified he was worried that two contract employees on his shift wanted his job, and so they tried to make him look bad by causing problems on the rig during his shift.[64] The Day Crew Foreman was young, and more experienced drillers thought he was eager to prove himself.[65] Complicating matters, rumors were rampant among the crew members that the Day Crew Foreman allegedly was having an affair with the wife of the Day Crew Driller.[66]

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[62] Night Crew Foreman Test. at 32:17–21.

[63] Night Crew Mud Technician Test. at 36:13–18.

[64] Night Crew Foreman Test. at 69:10–11 ("[The Night Crew Mud Technician] thought that he probably should have my job instead of me having it."); *id.* at 71:25-72:2 ("It got to the point where my production was going down because of them, and it was getting noticeable, you know.").

[65] *Id.* at 47:21–23 ("Like running a ship, I guess he was the captain, and I was just skipper or whatever."); Night Crew Mud Technician Test.at 86:9-12 (It was [the Day Crew Foreman]'s rig."); Day Utility Inspector Test. at 135:10-15 ("I mean, [the Day Crew Foreman] is a young kid, and he will do anything to make it work.").

[66] Day Crew Foreman Test. at 140:21–22 (Aug. 15, 2017) ("I had – yes, I had an affair with his wife.").

That development—unknown to Rover—created a high-stress work environment for the day crew during the period leading up to the lost returns of drilling fluid.[67]

Not only was the drilling beneath the Tuscarawas River well ahead of schedule, the remainder of the Rover Project was running behind schedule,[68] delayed by unprecedented levels of rainfall and flooding.[69] In short, neither Respondent was putting time pressure—either directly or indirectly—on any of the persons who, according to the Staff Report, put unapproved substances into the ground at the Tuscarawas River drill site.

D. Rover, Precision and Pretec Acted Diligently in Detecting and Remediating the Inadvertent Release

On April 13, 2017, during the Day Utility Inspector's daily walk of both the entry and exit sides of the right of way at the Tuscarawas River site, he noticed something different in a recently-flooded portion of the right-of-way, but he could not determine whether the anomaly was drilling mud.[70] He put on waders and, after making his way through the still-hip-deep water he discovered an IR (which, as noted above, stands for an inadvertent return or release of drilling fluid).[71] The Day Utility Inspector immediately called the Day Crew Foreman, and the crew shut down the drilling rigs and mud pumps.[72] He next contacted Boyd (the HDD Chief) and the Lead Environmental Inspector Spread A.[73] Buffy Thomason made arrangements to notify Ohio EPA

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[67] Day Utility Inspector Test. 135:18–25; 136:1–11 ("So you all know the personal issues between [the Day Crew Foreman and the Day Crew Driller], and nothing would surprise me between anybody on that crew. That's the worst drill site I have ever been around in my life, ever. It was a time bomb waiting to happen.").

[68] Colson Test. at 96:3–13.

[69] Email from Bobby Poteete re Rainfall (Mar. 7, 2017), MASTEC0021074; Email from Bill Colson re Schedule (Mar. 31, 2017), MASTEC0024946.

[70] Day Utility Inspector Test. at 71:3–72:2.

[71] *Id.* at 72:4–12.

[72] *Id.* at 72:17–24.

[73] *Id.* at 72:22–25.

the same day.[74] The Lead Environmental Inspector Spread A called the FERC monitor, Gary Anderson, and met him at the site.[75] The following day, Kurt Kollar of the Ohio EPA issued a Notice of Violation.[76] All of this occurred within 48 hours. In accordance with the Certificate Order, Rover docketed the report of the IR to FERC on April 18, 2017.[77]

Precision and Pretec immediately began containment and clean-up efforts for the IR.[78] They began mud recovery on Sunday, April 16, 2017, after building an access road to bring in vacuum trucks.[79] By April 18, 2017, the clean-up crews had installed a 2,500-foot-long piping system from the wetland back to the drilling area, both to help with clean-up and to control future migration of the drilling fluids. These crews followed the processes outlined in Rover's approved contingency plan[80] by installing fencing to keep mud from spreading, and using pumps and vacuum trucks to remove the mud and dispose of it properly.[81]

Precision and Pretec spent more than $6 million on direct remediation costs.[82] Rover spent approximately $15 to $20 million more on indirect remediation and additional environmental controls. In addition to properly and efficiently responding to the inadvertent release, Rover and

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74 Email from Buffy Thomason to Thomas Gunter (Apr. 13, 2017 1:53 PM), THDD-00011382.

75 Lead Environmental Inspector Spread A Test. at 22:11–22.

76 *See* Notice of Violation, Division of Environmental Response, Investigation and Enforcement, Ohio Environmental Protection Agency (Apr. 14, 2017), THDD-00000255.

77 *See* Letter from Kelly Allen, Rover Pipeline, LLC to Kimberly Bose, FERC re Inadvertent Release, *Rover Pipeline, LLC*, Docket No. CP15-93-000 (Apr. 18, 2017).

78 Director of Environmental Compliance Test. at 32:21–25 ("Q. At that job – at that juncture, who was in charge of the IR – I'm sorry, the containment and the cleanup of the IR? A. It was Pretec and Precision working in conjunction.").

79 Ex. 32 to Director of Environmental Compliance Test. at MASTEC0003125.

80 *See* Rover Pipeline LLC Horizontal Directional Drill Contingency Plan (Apr. 2015), *Rover Pipeline, LLC*, Docket No. CP15-93-000; Mahmoud Test. at 122:1–123:22.

81 Director of Environmental Compliance Test. at 34:1–35:2.

82 Tuscarawas IR Cleanup Summary (Oct. 15, 2017), MASTEC0058126.

Precision implemented more processes and procedures, over and above what the FERC originally required for the Project.

After the IR, Rover contracted with GeoEngineers to review the drill plans for all remaining Project HDDs in order to verify the appropriateness of their design or recommend modifications that would allow for successfully completing the HDDs while minimizing the potential for IRs.[83] Rover added more inspection resources to the HDD sites, reaffirming that all inspectors, including the new additional inspectors, had stop-work authority and the authority to add controls where necessary to avoid and minimize environmental impacts.[84] Rover also added drilling fluid engineers to assist in developing a drilling fluid program that would help minimize circulation loss and combat pressure from reactive clays and shale.[85]

At the Tuscarawas site, Rover committed to increased environmental protection measures, and it drilled to a greater depth so that the tunnel for the pipeline remained within sedimentary bedrock over the length of the crossing.[86] Rover also committed to all the recommended additional monitoring and third-party inspection requirements from JD Hair's Report Recommendations.[87] The Office of Energy Projects (OEP) approved Rover's updated plans for the Tuscarawas site on December 14, 2017 and authorized Rover to resume drilling at the site.[88] Rover did so. When

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[83] *See* Letter from Rover to FERC re Inadvertent Release, *Rover Pipeline, LLC,* Docket No. CP15-93-00 (June 28, 2017).

[84] *Id.*

[85] Rover Response to FERC and JD Hair Report, at 11, *Rover Pipeline, LLC*, Docket No. CP15-93-000 (Aug. 4, 2017).

[86] *Id.*

[87] Rover Response to HDD Recommendations, Tuscarawas River HDD, *Rover Pipeline, LLC*, Docket No. CP15-93-000 (Nov. 16, 2017).

[88] FERC Authorization to Resume HDD Activities, *Rover Pipeline, LLC*, Docket No. CP15-93-000 (Dec. 14, 2017).

additional IRs occurred, Rover took actions in accordance with the approved plans, remained in constant communication with the OEP, and exercised care and caution in moving forward. The OEP acknowledged all of this in its January 24, 2018 letter.[89] OEP acknowledged that Rover acted in accordance with its approved HDD Contingency plans when it encountered a loss of drilling fluid upon the resumption of operations and expressed appreciation for "Rover's efforts to cautiously approach drilling activities."[90]

E. Rover Promptly and Cooperatively Investigated the Possibility of Diesel Fuel in the Drilling Mud near the Work Site

Separate from Rover's and Precision's immediate and appropriate response to the inadvertent release, Rover worked closely with the Ohio EPA and FERC when allegations of diesel fuel in the drilling mud came to light. Meanwhile, the Ohio EPA received an anonymous tip that diesel fuel was present in the drilling mud that had inadvertently returned to the surface at the Tuscarawas site. Kollar, the Ohio EPA On-Scene Coordinator, responded to the complaint and began his investigation by sampling the drilling mud. On Friday, May 12, Ohio Department of Natural Resources agent Scott Angelo was on site for an inspection, and a worker approached him claiming that someone had contaminated the soil with diesel fuel.[91] The worker also told Angelo that he had called the Ohio EPA hotline earlier in the week.[92] Angelo called Kollar, who confirmed that they had received an anonymous tip earlier in the week, and had collected soil samples for testing.[93] Ohio EPA agent Ed Gortner notified Buffy Thomason, a Rover employee, of the hotline

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[89] FERC Stop Work Order, *Rover Pipeline, LLC*, Docket No. CP15-93-000 (Jan. 24, 2018).

[90] *Id.*

[91] Ohio Department of Natural Resources Report (May 13, 2017).

[92] *Id.*

[93] *Id.*

tips on or around that same day (May 12).[94] This was the first time Rover was informed of the possibility of diesel fuel in the mud that had inadvertently returned. Ohio EPA agent Gortner characterized the source of the reports as "Crazy Ohioans," adding that their investigation would likely find nothing.[95]

It is undisputed that this marked the first time any Rover employee had reason to suspect that anyone had misused diesel fuel at the Tuscarawas site. Enforcement Staff point to no evidence suggesting otherwise. The Lead Environmental Inspector Spread A and HDD inspectors (the Day Utility Inspector and the Night Utility Inspector) were providing regular reports,[96] none of which mentioned any use or suspected use of diesel, or any other non-approved additives. Despite the vague nature of the tip and agent Gortner's expressed skepticism, Rover immediately took action.[97] Joey Mahmoud, Rover's Executive Vice President for Engineering and Construction, called Steve Rooney, President of Precision, and asked for an immediate investigation and inquiry to see if anyone on the site "had witnessed or made such a claim."[98] Rooney responded that he had talked to his people and had them conduct interviews at the site to see if diesel was used improperly, and the interviews turned up no evidence anyone was aware of such misuse.[99]

It was not until May 26, 2017 that Rover received information documenting the presence of petroleum hydrocarbon constituents in the drilling mud at the site of the inadvertent release.

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[94] Thomason Test. at 112:7–114:19.

[95] *Id.* at 114:16-115:4.

[96] Lead Environmental Inspector Spread A Test. at 17:8–18:7; Day Utility Inspector Test. at 32:7–10; Night Utility Inspector Test. at 27:16–25.

[97] *Id*. at 150:1–13.

[98] *Id.* at 150:15–17.

[99] *Id*. at 151:8–19.

Specifically, the Ohio EPA notified Rover and FERC that its testing detected those constituents.[100] The Ohio EPA noted, based on those tests results, that the contamination did not constitute an imminent threat to human health and the environment.[101] In fact, none of the Ohio EPA's tests revealed levels of Diesel Range Organics ("DRO") that would trigger remediation requirements. Instead, this testing detected DRO levels *below* the report limit, which means they exceeded the smallest quantity the lab is capable of detecting but were below the level that qualifies as a positive test result. The Ohio EPA's later samples contained a low-level amount of DROs. The Ohio EPA did not conduct the further testing needed either to determine whether the limited DROs detected were consistent with diesel fuel, or to rule out other possible low-level sources of DROs, such as background levels in the local environment or the bentonite clay that is used to make the drilling fluid.

Upon learning of the Ohio EPA's test results, Rover promptly contracted with an environmental firm, Weavertown Environmental Group, to conduct sampling at the IR site.[102] Rover subsequently contracted with Groundwater & Environmental Services, Inc. ("GES") to complete the additional sampling. GES's extensive testing of the area went far beyond the testing performed by the Ohio EPA. Rover's testing program was able to document the presence of limited amounts of diesel fuel, which the Ohio EPA's method of testing had been unable to establish. The results also showed that the diesel fuel was limited in quantity and confined to one area within the inadvertent release site, with no widespread contamination of the larger site. *No diesel contamination was detected at the drilling site*; diesel was only detected in the IR.

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[100] Letter from Lisa Owings, Office of Enforcement, FERC to William Scherman, Counsel for Rover Pipeline LLC and Energy Transfer Partners, L.P. re Document Preservation Notice, at 1 (June 1, 2017).

[101] *Id.*

[102] Mahmoud Test. at 151:11–24.

Based on the testing data, which did not show that diesel fluid (or other petroleum hydrocarbons) entered the slurry as part of the HDD process or that there was a widespread impact, Rover initially raised two possible scenarios in a report to FERC on August 4, 2017.[103] First, Rover suggested that the results could be explained by an inadvertent and unreported spill or leak of diesel fuel from the equipment used to clean up the IR. This was unlikely, given the significant oversight and presence of inspectors at the site, but various diesel-burning vehicles were used as part of the remediation process. Second, Rover considered the possibility of a deliberate and malicious act by individuals opposed to the pipeline project.[104] Although also unlikely, this second explanation was plausible too, particularly in light of the fact that around the time of the anonymous tips, law enforcement intercepted an anti-Rover activist who was trespassing on the IR site and secretly surveilling it. This person was a member of a group of protesters, called the "Water Protectors," who have deliberately damaged property in the past while protesting.[105]

At the time, these two scenarios seemed much more likely than deliberate subcontractor malfeasance. Rover had provided training for each of the subcontractors at the site and had arranged for on-site round-the-clock inspectors.[106] Rover had made clear in its contracts, policies and trainings that no additives were to be used. And nothing in any of the reports from Pretec, Precision, or the inspectors suggested that a subcontractor at the Tuscarawas site had deviated from agreed-upon procedures.[107] Pretec employees denied such conduct. It was only much later that some of them admitted to using unapproved additives.

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[103] Response to JD Hair Report, *Rover Pipeline, LLC*, Docket No. CP15-93-000 (Aug. 4, 2017).

[104] *Id.*

[105] Letter to Ohio EPA re Director's Final Findings and Orders (July 14, 2017).

[106] *See* III.B, *infra*.

[107] *See* III.A.1, *infra*.

F. Enforcement Staff's Allegations Against Respondents

Enforcement Staff's Report alleges that Respondents violated the NGA, the Commission's Regulations, and the Commission's Certificate Order in three ways.

First, Enforcement Staff allege that "Rover HDD crews" "intentionally added toxic diesel fuel, hydraulic oil, contaminated containment fluids, and unapproved lubricants such as 'soap sticks' and 'burritos' to combat drilling difficulties and keep up with drilling progress demands."[108] According to Enforcement Staff, the use of unapproved additives violated NGA Section 7, which required Rover to comply with the conditions contained in the Commission's Certificate Order, which in turn required Rover to comply with the Final Environmental Impact Statement ("EIS"). The Final EIS stated that only "a slurry of naturally occurring, non-toxic bentonite clay and water would be pressurized and pumped through the drilling head to lubricate the drill bit, remove drill cuttings, and hold the hole open."[109]

Second, Enforcement Staff allege that "Rover HDD crews at the Tuscarawas River failed to monitor the right-of-way."[110] Enforcement Staff allege that this supposed failure to monitor the right-of-way violated the Certificate Order's condition that "Rover 'follow the construction procedures and mitigation measures described in its application,'" which in turn "required Rover to 'closely and continually' monitor the HDD activities and to conduct, as feasible, 'visual and pedestrian field inspection along the drill path,' including monitoring the wetlands and waterbodies for evidence of a release."[111]

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[108] Staff Report at 33.

[109] *Id*. (citing Final EIS at 2-31).

[110] *Id*. at 34.

[111] *Id*. at 35.

Finally, Enforcement Staff "found that Rover improperly disposed of the drilling mud released during the IR that was contaminated with toxic diesel fuel and hydraulic oil."[112] Enforcement Staff point specifically to the "initial disposal of the contaminated drilling mud from the IR at a local sand and gravel pit and a local quarry,"[113] actions undertaken by Pretec, not Rover. Enforcement Staff do not challenge the appropriateness of Rover's later remediation.

III. ARGUMENT

A. Respondents Are Not Liable for the Alleged Discharge of Diesel or Other Unapproved Additives

The record shows that the alleged misuse of diesel and other additives was confined to a few individuals, each of whom: (i) worked for a third party, (ii) knew it was wrong to use diesel in the manner they did, and (iii) deliberately hid the misconduct from Rover and its inspectors. Enforcement Staff offered each wrongdoer a free pass, promising not to hold them accountable for their actions and making it clear that Enforcement Staff were trying to make a case against Respondents. Some of those promises were formal; others were apparently informal and off-the-record. But as to the key witnesses, there is no doubt that Enforcement Staff offered them immunity, despite their apparent wrongdoing, because Enforcement Staff's goal from the very start was to get Rover.

Letting the wrongdoers off the hook was a risky gamble, one that Enforcement Staff lost. Prosecutors hand out immunity sparingly, and for good reason. They do not immunize first and ask questions later. Instead, they routinely wait until after they have received a proffer of what the witness is able to say. This usually comes through a witness's counsel or under a "Queen for a day" arrangement, which only gives the witness limited protection—the government will not use

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[112] *Id.* at 35.

[113] *Id.* at 35–36.

the witness's truthful statements against him in a future prosecution. The purpose is to make sure the witness is reliable, has information useful to the investigation, and can assist in investigating others. It also ensures that if the witness lies or shades his testimony, he loses his immunity.

That did not happen here. Instead, before having a proffer in hand, Enforcement Staff gave these persons assurances that they would not face consequences for their wrongdoing if they testified. As a result, the grants of immunity left Enforcement Staff empty-handed. That's because the witnesses candidly admitted that Rover had no involvement in, or knowledge of, the violations. In fact, the witnesses explained that they hid their actions to avoid getting in trouble with their employer or others. As a result of Enforcement Staff starting their investigation with their minds made up based upon the original statements from the Chairman at the time—*i.e.*, with the preordained notion that Rover was culpable—their investigative tactics have effectively ensured that those who are at fault will not face consequences. And it also leaves Enforcement Staff grasping at straws with a proposed enforcement action against parties that acted properly.

1. There Is No Evidence that Respondents Knew of, Condoned, Directed, or Were in Any Way Complicit in the Criminal Acts of Third Parties

There is no evidence that anyone at Rover knew of or is in any way responsible for the alleged criminal and otherwise improper acts of the independent subcontractor's employees. None. Even though Enforcement Staff granted immunity to all of the witnesses on which they rely, no witness connected the alleged misconduct to any Rover or Energy Transfer employee. No witness testified that *anyone* at Rover or Energy Transfer knew about or directed the surreptitious use of unapproved additives. And although Enforcement Staff have collected more than 87,000 pages of Respondents' documents, and even more from Precision and Pretec, they have not come up with a single email, text message, or other document even hinting that a Rover employee knew

about, condoned, encouraged, or directed either Precision or Pretec's employees to engage in the illegal conduct at issue here.

Enforcement Staff gloss over this basic failure of proof by repeatedly conflating Rover with third parties, including subcontractor employees. Indeed, throughout the Staff Report, they repeatedly make statements that "Rover . . . intentionally added diesel fuel and other toxic substances and unapproved additives to the drilling mud,"[114] "Rover HDD crew members have admitted under oath to" using unapproved additives,[115] and that "Rover HDD crew members add[ed] diesel fuel to the drilling mud."[116] Not one of the crew members who allegedly added unapproved items was a Rover employee. All of them worked for Pretec, the independent subcontractor responsible for drilling under the Tuscarawas River.

In addition to conflating Rover with its subcontractors, Enforcement Staff try to impute knowledge to Rover through the false assertion that the use of unapproved additives was "openly discussed."[117] But the *evidence* shows the exact opposite: the Pretec employees who admit misusing diesel did so secretly on a limited number of occasions, without Rover's knowledge or

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[114] Staff Report at 5.

[115] *Id*. at 6, 20.

[116] *Id*. at 22.

[117] *Id*. at 6, 23, 41. Enforcement Staff's first presentation to Rover in August 2018 indicated that the Pretec crews concealed their activities. Rover requested copies of that presentation and other *Brady* material, noting that "Enforcement Staff's presentation directly alleged an effort by Rover's contractors and subcontractors to conceal their alleged wrongful acts, including from Rover." *See* Letter to Enforcement Staff re Non-Public Investigation of Rover Pipeline, LLC (Sept. 7, 2018). Enforcement Staff never produced that PowerPoint and instead produced a movie file that does not contain all of the information in the PowerPoint presentation. Rover pointed out to Enforcement Staff that Pretec crews concealing their alleged bad acts from Rover is exculpatory, and ever since Enforcement Staff have switched the description of their findings to no longer admit that the crews concealed their acts. Instead, Enforcement Staff allege that the actions were "discussed openly" with the implication that Rover must have known about the bad acts. The Commission should be greatly concerned with Enforcement Staff's attempt to change their factual findings after realizing that the findings undercut their case, as well as by Enforcement Staff's apparent belief that they did *not* have to disclose such materials pursuant to the Commission's *Brady* policy.

permission. They consistently stated they were well aware that using diesel in the way the witnesses described was wrong and that they therefore tried to hide it from others, including Rover. The Night Crew Foreman testified that he knew he was not supposed to use additives,[118] and that he "knew it was wrong" to use the diesel.[119] The Night Crew Mud Technician testified to saying "[t]his sucks" when the Night Crew Foreman told him to use diesel.[120] And he did not tell the day shift workers that the night shift used diesel, because "common sense dictates it's a no-no."[121] The Night Crew Mud Technician stated that he avoided conversations about diesel, because he "knew he wasn't really supposed to be doing it."[122] Night Crew Laborer #1 similarly testified that he did not hear talk from other workers of any diesel in the mud.[123] The Night Crew Driller testified that the drillers "just don't talk about" the diesel, and that "if they knew about it, they weren't talking about it with – around the wrong people."[124]

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[118] Night Crew Foreman Test. at 108:6–9 ("Q. Okay. Did you record your use of that? A. No. Q. Why Not? A. Because we weren't supposed to use it.").

[119] Night Crew Foreman Test. at 128:1–19 (9 Q. I just want to get a sense, at the time, this first time you were doing it, was it something like, hey, I better be quiet about this because I know I'm not supposed to do it, or was it like, hey, [the Day Crew Driller] told me he did it during the day shift, I guess it's okay, we might as well just go ahead and do it, or somewhere in the middle? I don't want to put words in your mouth. A. Yeah, I don't know what I was thinking. I knew it was wrong. Q. What do you mean wrong? You know it – A. I knew I shouldn't be putting it down there.").

[120] Night Crew Mud Technician Test. at 127:19–24 ("Q. That first time, do you -- do you remember that very first time that he asked you to do that? A. (Nodded head.) Q. When he asked you to do it, what did you say back to him when he asked you to do it? A. This sucks, but I said okay.").

[121] Night Crew Mud Technician Test. at 132:3–10.

[122] Night Crew Mud Technician Test. at 146:20–147:7.

[123] Night Crew Laborer #1 Test. at 50:15–21 (Q. Did you ever -- we talked about you -- how you saw [the Night Crew Foreman] put diesel in the mud. Did you ever hear anything on the radio about diesel in the mud? A. No. Q. You never heard anybody else talk about putting diesel in the mud? A. No.")

[124] Night Crew Driller Test. at 114:8–21.

Why didn't Enforcement Staff tell the Commission about all of this? Because the truth would destroy their case. And the truth would embarrass those former Commissioners who had already prejudged Rover's guilt.

The wrongdoers apparently hid the alleged use of diesel from the inspectors, in particular, the Day Utility Inspector testified that the drillers knew he would make them "do it by the book," so if the foreman was going to use additives, he was "not going to have [the Day Utility Inspector] around while he's using them."[125] The Day Utility Inspector testified repeatedly and unequivocally that he "never heard anything about diesel being in the bentonite" until shortly before his deposition,[126] and that he never saw anyone use unapproved additives.[127] As noted above, other aspects of the Day Utility Inspector's testimony are central to Enforcement Staff's case, making these statements particularly damning. Similarly, the Night Crew Mud Technician testified that the Night Utility Inspector, the nighttime HDD Inspector, "was never over there when [the use of diesel] was going on."[128] For his part, the Night Utility Inspector testified that he heard a driller make a joke about adding diesel on a single occasion,[129] but that he never saw anyone put diesel in the drilling mud.[130]

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[125] Day Utility Inspector Test. at 114:19–25.

[126] Day Utility Inspector Test. at 87:34; *see also id*. at 83:3–4, 130:11–20 ("Q. So you don't remember hearing anything while you still worked at the Tusc? A. Nobody said anything about diesel fuel being in it. Q. Okay, did anybody say anything about diesel fuel? A. Nobody ever said anything to me about diesel fuel. Q. Did you overhear others talking about it? A. No, I never heard anybody talking about it until" shortly before the deposition).

[127] Day Utility Inspector Test. at 92:4–7 ("Q. Let me ask you this. Did you ever see anyone use additives, not diesel, other additives in that mud there at the Tusc? A. I did not."); 92:11–24; 93:9–10 ("If they was putting soap sticks down there, I wasn't aware of it.").

[128] Night Crew Mud Technician Test. at 142:8–12.

[129] Night Utility Inspector Test. 68:2–4 ("Q. That's the only time you ever discussed diesel in the drilling mud at the Rover Pipeline? A. To my knowledge, yeah.").

[130] Night Utility Inspector Test. at 66:20–22 ("Q. During your time at the Tusc, did you ever see anyone put diesel in the drilling mud? A. No.").

In addition, the testimony that Enforcement Staff generated shows that the subcontractors who knew about the misuse of diesel did not report it either up their chain of command or to the inspectors.[131] Day Crew Laborer #1 claims he told Pretec's Day Crew Foreman that the Night Crew Mud Technician used diesel; and the Day Crew Laborer #1 said he expected the foreman to fire the Night Crew Mud Technician.[132] But the Day Crew Foreman testified that he had no knowledge of the Night Crew Mud Technician using diesel,[133] so he obviously did not report such use. This testimony thus reveals a factual dispute over what the Day Crew Foreman knew, but the point of universal consistency here is that nobody reported diesel use to anyone above the Day Crew Foreman employed by the independent subcontractor. In addition, the Night Crew Mud Technician stated that he never even saw anyone from Energy Transfer.[134] When asked about that company and Rover, Day Crew Laborer #1 testified that he "didn't know who those people were."[135] Consistent with Rover's contractual arrangements with Precision, Rover personnel did not directly supervise Precision's day-to-day activities; rather, they appropriately relied on the

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[131] Night Crew Laborer #1 Test. at 52:23–53:1 ("Q. When was the first time that you reported to anyone that you saw [the Night Crew Foreman] put diesel in the mud? A. When I met with the company-side lawyers in Mansfield, Pennsylvania."); Day Utility Inspector Test. at 130:11–18 ("Q. Okay. So you don't remember hearing anything while you still worked at the Tusc? A. Nobody said anything about diesel fuel being in it. Q. Okay. Did anybody say anything about diesel fuel? A. Nobody ever said anything to me about diesel fuel."); *see also* Night Crew Mud Technician Test. at 134:6–25.

[132] Day Crew Laborer #1 Test. at 93:6–25 ("Q. And how did it -- how did the diesel come up in conversation? A. I brought it up to him and asked him if he was going to fire [the Night Crew Mud Technician]. Q. And what did he say? A. It's being taken care of . . . . Q. Was it your understanding that [the Night Crew Mud Technician] was going to get fired after that conversation? A. Yes."); *see also id*. at 92:5–7; 99:2–9.

[133] Day Crew Foreman Test. at 146:19–147:2.

[134] Night Crew Mud Technician Test. at 155:13–19 ("Q. Your opinion of ETP/ETC, what did you think of them as a company? A. Of ETC? Q. Yeah. A. I never met anybody from ETC, honestly. Q. They were never around? A. Not to my knowledge.").

[135] Day Crew Laborer #1 Test. at 106:5–9 ("Q. Okay. Was there any -- were you aware of whether there was any frustration from ETP about the IR? A. From who? Q. Energy Transfer Partners, Rover. A. I didn't know who those people were.").

contractors for information regarding the Tuscarawas site, consistent with the work plan approved by the Commission.[136]

One thing in particular is clear from all of this. Whatever knowledge certain independent subcontractor personnel working on-site may have had about the use of diesel, they did not openly discuss it, and nobody provided such information to either Rover or Energy Transfer. The evidence flatly refutes that anyone from either Respondent even knew that anyone at Pretec was engaged in any wrongdoing.

2. Rover Did Not Pressure Anyone to Prioritize Speed over Compliance

Enforcement Staff also seek to hold Respondents accountable for the actions of the third-party employees by arguing that Rover prioritized speed over compliance. Apart from the legal question of whether "pressure" to complete a job on-time can ever make a company liable for the deliberately unlawful actions of another, this factual allegation is demonstrably false. At the time of the actions at issue here, Pretec was roughly two weeks *ahead* of schedule at the Tuscarawas site.[137] It would have made no sense to pressure them to move faster because they were not the long pole in the tent—they were ahead of other drill teams on other parts of the line.

None of the evidence to which Enforcement Staff point can withstand scrutiny either. Enforcement Staff rely on standard contractual boilerplate, frequently referred to as a "time is of the essence" clause, requiring work to be completed by a specific date.[138] Time-is-of-the-essence

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[136] Mahmoud Test. at 111:24–112:14 ("Q. Who is the contractor? A. Precision. Q. And the sub? A. Pretec. Q. And who was in charge on-site? A. I don't know. Q. Did you ever know? A. No. Q. Who would you go to for answers about what was happening at that site, if you didn't know who was in charge sort of on the ground? A. Leon or Stacy. Q. What if you wanted to hear directly from the contractor or the subcontractor? A. I would go to probably Steve Rooney to have that arranged."); *see* II.B, *infra*.

[137] Day Utility Inspector Test. at 37:6–17; Day Crew Foreman Test. at 120:10–11 (noting they were "like 10 ½ days ahead of schedule before the IR happened").

[138] Staff Report at 5, 11.

clauses have been around for centuries and are ubiquitous in construction and real estate contracts.[139] In fact, anyone who has ever bought a home probably signed a contract specifying that "time is of the essence" with respect to securing financing and obtaining other approvals in time to meet a closing date.[140] Enforcement Staff cannot seriously contend that inclusion of this common contractual term means Rover sacrificed compliance for the sake of speed.

Enforcement Staff point to a grab bag of allegations that they claim added up to a "strained work environment" that supposedly filtered down from Rover executives to Precision, from Precision to Pretec's General Manager, and from Pretec's General Manager to the individuals who allegedly used unapproved additives.[141] For support, they point to a statement by Mahmoud in August 2016—some *eight months* before the alleged Pretec employee conduct—that the Company was "operating under a 'necessity to race to market.'"[142] They claim that Rover's "self-imposed four-month schedule" to complete the pipeline led to unnecessary pressure on the crews.[143] And they allege that Pretec employees were financially motivated to complete the project on time, accompanied by worries about penalties for late performance.[144]

Noticeably absent from Enforcement Staff's Report is a *single* piece of testimony that any Pretec employee felt even indirect pressure from Rover for not going fast enough, or for not putting

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[139] *See Linan-Gay Const. Co. v. Hous. Auth. of City of Camden*, 995 F. Supp. 520, 523–24 (D.N.J. 1998) ("'Time is of the essence' clauses, or provisions using different language to state clearly the same idea, are common in contract law. They tend to appear in real estate contracts and construction contracts.").

[140] *See* Jim Jordan, *What 'time is of the essence' means*, THE BUSINESS JOURNALS (July 13, 2011) ("A 'time is of the essence' clause seems to be one of those provisions that appears in virtually every lease, purchase agreement and loan document."), https://www.bizjournals.com/atlanta/real_talk/2011/07/time-is-of-the-essence.html (last accessed Mar. 15, 2022).

[141] Staff Report at 5.

[142] *Id*. at 10.

[143] *Id*. at 5.

[144] *Id*. at 12.

speed ahead of compliance.[145] To the contrary, the witnesses testified that they *did not* feel pressured. Pretec's General Manager testified that, regardless of where things stood with the schedule, no one pressured him, and that pressure would not have changed the drilling process.[146] He also testified he had no financial incentive to meet the in-service date,[147] and he did not know of any consequences if it was not met.[148] The Night Crew Foreman who testified to misusing diesel similarly failed to recall any instance of pressure from Rover or executives at either Precision or Pretec.[149] Similarly, Pretec's Director of Environmental Compliance testified that he was unaware of consequences for not meeting the in-service date,[150] and that "he never had a conversation about deadlines with my boss for the construction project."[151] The Day Crew Foreman testified there were no incentives to finish early and that he was not aware of any penalties for taking too long.[152]

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[145] *See id*. at 15–18 & 36–37 (sections alleging that Rover pressed Pretec employees to put speed ahead of compliance).

[146] Colson Test. at 46:7–10 ("Q. Did you get pressure from [Bobby Poteete, the Vice President of Precision] if you were behind schedule? A. No ma'am, not really.").

[147] *Id*. at 40:10–13 ("Q. Did you, yourself, have any sort of like financial or other gain to be met from meeting the in-service date? A. No.").

[148] *Id*. at 40:4–5 ("Q. But what happens if they don't meet the in-service date? A. I can't speak to that.").

[149] Night Crew Foreman Test. at 53:12–22.

[150] Director of Environmental Compliance Test. at 120:3–5 ("Q. What did you understand to be the consequences if you knew, if [the in-service] date was not met? A. On this project, I don't know.").

[151] Director of Environmental Compliance Test. at 124:15–19 ("Q. So you would, just take a moment to think about your interactions with your bosses and how, if at all, the need to move things along quickly was conveyed. A. I never had a conversation about deadlines with my boss for the construction project."); *id*. at 120:14–22 ("Q. Okay, generally speaking, do you understand the company that you work for, Precision to be under the gun for penalties if the in-service date is not completed? A. Yes, I mean, can be. I mean, it's not black and white because different contracts, different projects. So they can be, yes. Q. Okay. Is that not something that's conveyed to you out in the field by your bosses or otherwise? A. It is not – it was not on this project, correct.").

[152] Day Crew Foreman Test. at 120:20–121:4 ("Q. Okay. Now, were there any incentives to finish earlier? A. As far as? Q. If you finish earlier, you get a bonus? A. No, absolutely not. Q. Were there any penalties if you took too long? A. I don't think – for who? Me? Q. Anybody. A. No, not that I'm aware of. Especially not for me. Q. Like for instance, would you have – perhaps the contract of something like that that Pretec had? A. I don't

Enforcement Staff seek to refute this with communications, but they cover the *wrong* time period and are not from either Respondent. The Staff Report points to text messages between Colson and his foreman urging the crew to start digging.[153] But those text messages were sent March 18-20, *two weeks* before the alleged misconduct. None of the text messages is to or from a Respondent's employee, nor do any of these texts show pressure from Respondents to work faster. In fact, the only reference to Respondents at all is a statement by a Precision executive that he wanted to "document" any problems in case Respondents asked questions in the future. Moreover, by the time that, per the Staff Report, employees decided to use diesel and other unapproved additives, the drilling had long since started and the pace at the Tuscarawas site was ahead of schedule, not behind. Not surprisingly, then, there is nothing to show pressure by Rover or anyone else to work faster at the time that matters here, and none of the persons who testified to the misconduct said that Rover pressured them to move faster or cut corners.

In short, Enforcement Staff's allegations that Rover caused misconduct by pressuring Pretec employees to cut corners and put speed ahead of compliance is pure bunk.

3. Rover Is Not Strictly Liable for the Alleged Criminal Acts of a Subcontractor's Employees

As noted earlier, the Staff Report repeatedly uses the word "Rover" to sweep in individuals separate from, and independent of, Rover. Most notably, the Staff Report states incorrectly that "**Rover**"—not others—"**intentionally** includ[ed] diesel fuel and other toxic substances and unapproved additives in the drilling mud."[154] These false assertions highlight a fundamental flaw

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know. Q. You were never told anything about that? A. Nope."); *id*. at 122:24–123:8; *see also* Night Utility Inspector Test. at 86:24–87:1 ("Q. Were bonuses expected for particularly quick of effective drilling? A. Nothing that I heard of.").

[153] Staff Report at 16–18.

[154] *Id*. at 4 (emphasis added); *see also id*. at 5 ("Enforcement Staff . . . found that Rover: (1) intentionally added diesel fuel").

in the Staff Report: Nobody at Rover engaged in the illegal conduct that Enforcement Staff allege. Persons unaffiliated with either Respondent are the only ones who may have engaged in that conduct, and they hid it from Respondents.

The Staff Report also makes a brief and wholly inadequate argument that Respondents are nonetheless liable for the actions of others. The Staff Report contends that "Rover, as the Certificate holder, is responsible for any violations of the Certificate Order."[155] By this, the Staff Report means Rover should be held responsible for anything a non-Rover-person did at the project site that Rover itself could not do under the Certificate Order. Enforcement Staff's reasoning here is deeply flawed, as the analogy at the start of this Answer demonstrates.

Enforcement Staff have not identified a single case in which a company that engaged an independent contractor was held liable for that contractor's employees' intentional and prohibited misconduct, particularly where the company implemented precautions against the conduct and the pertinent federal authority approved those precautions. Imposing liability in those circumstances would be contrary to general principles of law governing independent contractors. *Pusey v. Bator*, 762 N.E.2d 968, 972 (Ohio 2002) ("[A]n employer of an independent contractor generally is not liable for the negligent acts of the independent contractor."); *see also Laderer v. St. Rita's Med. Ctr.*, 702 N.E.2d 476, 480 (Ohio Ct. App. 1997) (noting that under Ohio law, a hiring party is not vicariously liable for the torts of an independent contractor).

Imposing liability for *intentional* misconduct by an independent contractor's employees is particularly inappropriate. *See, e.g.*, *Castellanos v. Tommy John, LLC*, 321 P.3d 218, 233 (Utah 2014) ("Where the owner acted reasonably in hiring an independent-contractor security company and had no prior knowledge that the security company's employees were committing intentional

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[155] *Id*. at 39.

torts against its patrons, we see no reason to expand the nondelegable duty exception to the nonliability rule for independent contractors."). In fact, the Staff Report does not identify a single case in which FERC has imposed liability on a certificate holder for a third party's intentionally unlawful actions where the certificate holder's instructions did not allow that conduct. Nor are Respondents aware of any case where FERC imposed strict liability for intentional misconduct outside the familiar context of an employer being liable for acts of *its own* employees.

The only cases on which the Staff Report relies to impose vicarious liability fail to support the theory that Respondents can be held liable for the misconduct here. The Staff Report cites three FERC matters to support its theory: *Berkshire Power Co. LLC et al.*,[156] *City of Dover, New Hampshire*,[157] and *Trafalgar Power, Inc.*[158] None allows the Commission to hold Respondents liable for intentional illegal actions by persons (i) whom Respondents neither employed nor hired in another capacity, and (ii) who acted in direct violation of Rover's rules and policies.

The first of these authorities—*Berkshire Power*—has no precedential value. The Staff Report is citing to a Stipulation and Consent Agreement, not a ruling in a contested proceeding. Putting that aside, the facts in *Berkshire Power* were materially different.

Berkshire operated a power plant within FERC's jurisdiction. Berkshire agreed that it violated an anti-manipulation rule under the Federal Power Act. That is, it admitted to repeatedly concealing from ISO New England Inc. ("ISO-NE"), over an extended period of time, periods when the power plant was unavailable to supply power due to plant maintenance and associated outages. The Project General Manager directed the scheme, and Berkshire agreed that his intent

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[156] 154 FERC ¶ 61,259, at P 22 (2016).

[157] 19 FERC ¶ 61,231, at 61,452 (1982).

[158] 49 FERC ¶ 61,140, at 61,597 (1989).

could be attributed to it. Importantly, this General Manager, employed at the time by another company, "had a long history with the Plant."[159] He "had supervised its construction," "served in capacities including its general manager and/or plant manager" for more than 10 years, and "had served as Berkshire's owner's representative in various capacities."[160] "Plant employees viewed him as the ultimate decision maker at the Plant, and he prepared Berkshire's offers for the power markets, directed the Plant's maintenance program, and managed all communications with ISO-NE and Berkshire's lead market participant."[161]

The Staff Report mentions none of this important context when it quotes a statement from *Berkshire Power* that Berkshire "is responsible for actions taken by its agents and its agents' employees."[162] As noted, unlike here, the person who intentionally violated FERC's regulation in *Berkshire Power* had a history of being the Respondent's agent, both expressly and through apparent authority.[163] In fact, in a predecessor Reliability-Must-Run agreement with ISO-NE, Berkshire had identified the same Project General Manager as having "full authority to deal with all day-to-day matters arising under th[e] Agreement," and Berkshire had previously agreed that "[a]cts and omissions of representatives shall be deemed to be acts of omissions of the Party."[164] Finally, Berkshire had an affirmative obligation to notify the ISO of "any changes to the offer

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[159] 154 FERC ¶ 61,259, Stipulation at P 8.

[160] *Id.*

[161] *Id.*, Stipulation at P 11.

[162] Staff Report at 39 & n. 205 (quoting and citing *Berkshire Power*, 154 FERC ¶ 61,259, P 22).

[163] *See also* 154 FERC ¶ 61,259, Stipulation at P 29 ("oversight of and control over management of the Plant was within the real or apparent scope of" the Projects General Manager's employment).

[164] 154 FERC ¶ 61,259, Stipulation at P 14.

parameters that occur in real time," which Berkshire itself undeniably failed to satisfy.[165] The undisputed facts here are therefore nothing like those in *Berkshire Power*.

The second case on which the Staff Report places improper reliance is *Trafalgar Power, Inc.* The Staff Report quotes *Trafalgar Power* for two related propositions: "Corporations act through their employees or contractors and are responsible for the actions and inaction of those workers," and blaming a contractor for a license violation "does not relieve the licensee of its responsibility."[166] Again, the context in which the Commission made those statements demonstrates why this matter is distinguishable. The hydroelectric plant licensee there (Trafalgar) was held responsible for violating its license's "run-of-river requirement" on 40 separate days. Trafalgar knew of an abnormal number of plant shutdowns that were "well beyond what could be considered acceptable."[167] In fact, "the licensee was aware that these relay problems were occurring from the start of project operations."[168]

The Commission explained that because Trafalgar knew of these recurrences, it "had the responsibility as licensee for taking necessary measures, including modifying operations or project structures, to deal with this operational problem."[169] The Commission thus found Trafalgar's *own* remedial steps insufficient.[170] When it came to the *penalty*, Trafalgar claimed that it "relied heavily on its project engineer."[171] It was in this different context that the Commission addressed

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165 *Id.*, Stipulation at P 16.

166 Staff Report at 39 (quoting 49 FERC ¶ 61,140, at 61,597).

167 49 FERC P 61140, PP 61595–96.

168 *Id.* P 61596.

169 *Id.*

170 *Id.* P 61597.

171 *Id.*

Trafalgar's responsibility for the project engineer's actions. Moreover, unlike the facts here, Trafalgar hired the project engineer "as the authorized agent for the licensee," and he "served as the licensee's contact with FERC to ensure compliance with the Commission's regulatory requirements."[172] As a result of these very different facts, his "contact with FERC and his actions during the violation period were the actions of Trafalgar."[173] Finally, these statements in the opinion were not even necessary to the outcome, because "Trafalgar's highest officials had actual notice of the violations," including Trafalgar's President.[174]

That leaves the Staff Report with *City of Dover*. The *Dover* opinion does not support imposing liability here, either. In fact, *Dover* has nothing to do with liability, much less a licensee's liability for violations committed by others. Instead, that opinion was about good cause for missing a filing deadline. The City of Dover missed the deadline to file a competing license application for a hydropower project. It appealed the denial of its request for an extension of time, claiming it had relied on an error that one of its consultants made in calculating the due date. The Staff Report simply quotes a general statement from *Dover* that "Parties are responsible for their agents' acts as well as their own."[175] But the sentence immediately before it explained that an applicant, "absent extraordinary circumstances," cannot "escape responsibility for *its* acts or omissions simply because they were performed on the incorrect *counsel* of a consultant, attorney, employee, or other agent."[176]

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[172] *Id.*

[173] *Id.*

[174] *Id.* PP 61597–98.

[175] Staff Report at 39 (quoting 19 FERC P 61231, P 61454).

[176] 19 FERC P 61231, P 61454.

These differences fully distinguish *Dover* from this matter. In *Dover*, the City itself—not a third party—missed the City's deadline. Here, third parties far removed from Respondents engaged in the conduct at issue. In *Dover*, the third party's role was to give counsel to the City on the act or omission at issue (filing an application for an alternative license). Here, Respondents are not trying to blame others for advice that Respondents ultimately had the choice whether to follow. The others in this matter hid their actions from Respondents. And in *Dover*, the Commission declined to grant the City's request for something it had no right to (an extension of a deadline it missed); the Commission did not hold the City liable, much less penalize it, based on illegal conduct by a third party that contravened the City's directions.

In addition to relying on inapt authority, the Staff Report mischaracterizes Respondents' position on this question of liability for others' misconduct. The Staff Report predicts that "Rover will argue that the subcontractor Pretec is solely liable for the addition of diesel fuel and other contaminants to the drilling mud."[177] That is wrong. It misses where the responsibility for the violations principally relies: with the *individuals* whose conduct violated the law as well as company rules and policies. In Enforcement Staff's zeal to find a company to blame for misuse of diesel fuel, they gave free passes to the real wrongdoers.

Respondents have not disputed that certificate holders must comply with *their* Certificates. Rover did exactly that. The Staff Report here quotes the Certificate Order as directing that: "all company personnel involved with construction and restoration, environmental inspectors, and contractor personnel will be informed of the Environmental Inspector's authority and will be trained on the implementation of the environmental mitigation measures appropriate to their jobs

[177] Staff Report at 38.

before becoming involved with construction and restoration activities."[178] That quotation is irrelevant to the violations the Staff Report alleges. Rover did each of the things in this passage: it informed all personnel involved in the Project of the Environmental Inspector's authority, and it trained personnel on the environmental mitigation measures appropriate to their jobs before they began working.

The Staff Report seeks to hold Rover liable for *something else*—and Rover did not sign up for that something else in proceeding under its Certificate Order. The Certificate Order does not say that Rover assumed *strict liability* for the illegal conduct of employees of subcontractors or contractors, nor does it say that Rover will be strictly liable for conduct that these wrongdoers hid from Rover for fear of being terminated for violating their instructions. None of the Staff Report's authorities supports liability on that ground.

B. Respondents Adequately Monitored the Right-Of-Way

The Staff Report is also wrong when it states, in a scant two paragraphs, that "Rover HDD crews at the Tuscarawas River failed to monitor the right-of-way," and thereby violated Section 7(e) of the NGA, the Commission's implementing regulation at 18 C.F.R. § 157.20, and the Commission's Certificate Order.[179]

As is routine in certificate orders, this one included standards and procedures to minimize the risk of an IR. Also, in recognition of the fact that IRs nevertheless occur with regularity in HDD projects, the Certificate included a contingency plan to contain, remedy and clean up after

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[178] *Id.*

[179] *Id.* at 34–35.

an IR.[180] Rover required its contractors to follow every precaution in the Certificate Order and its environmental impact plan.

Rover provided for proper construction supervision, including through right-of-way monitoring. Importantly, Rover contracted to have an HDD inspector, whom Cleveland Integrity Services (CIS) hired, on site *at all times*. These inspectors received clear guidance at the start of the Project on their roles and responsibilities. The Night Utility Inspector and Day Utility Inspector did not begin their inspection work until they received a series of FERC compliance documents to review, including the FERC Certificate and the HDD Contingency Plan. They also received training on their day-to-day duties and how to submit daily compliance and progress reports.[181] The Inspectors also attended daily safety meetings.[182]

The inspectors' presence was meaningful. For example, during the day shift, the Day Utility Inspector inspected both sides of the river, covering the various areas that should be inspected:

> I was all over. I would be on one side of the river, and then I would drive around to the other side of the river and make sure things was going good. And then I would probably sit over there for a little while and then go back to rig side, and, you know, I'd go in the drill cab, you know. Then I would take a walk down into the woods, just to -- just to look around.[183]

The Night Utility Inspector walked the right of way early in his shift before darkness made it unsafe to do so. The Night Utility Inspector inspected both sides of the river "generally every night" and "would generally drive around to both sides periodically" where he could "watch the

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[180] Rover Pipeline LLC Horizontal Directional Drill Contingency Plan, *Rover Pipeline, LLC*, Docket No. CP15-93-000 (Apr. 2015); Notice to Proceed with Construction, *Rover Pipeline, LLC*, Docket No. CP15-93-000 (Mar. 3, 2017).

[181] Day Utility Inspector Test. at 27:13–29:3; Night Utility Inspector Test. at 15:21–11, 27:3–12, 52:10–54:20.

[182] Night Utility Inspector Test. at 24:25–25:9.

[183] Day Utility Inspector Test. at 40:8–15.

progress and . . . make sure things were being done properly."[184] The Night Utility Inspector was particularly "concerned with walking the right of way" when the drill had lost returns, to make sure that there was no IR.[185] When the drill at the Tuscarawas site began losing returns, the inspectors, as well as other employees, walked the right of way daily to check for signs of any IR.[186] The Lead Environmental Inspector Spread A confirmed seeing inspectors or drillers walking the line, as did the Day Crew Foreman.[187] Day Crew Laborer #2 testified that after they started losing returns, "[s]omebody was walking it anywhere between three and four times a day," and that he would "walk it first thing and in the morning and in the evening, and any other time [he] was free."[188] And the Day Utility Inspector testified that "everybody started looking . . . combing the area."[189]

Consistent with FERC certificate requirements, the Day Utility Inspector and the Night Utility Inspector provided daily feedback on compliance and safety issues, and they documented construction progress in their daily reports.[190] HDD Chief Chris Boyd followed up with them via

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[184] Night Utility Inspector Test. at 29:24–30:4.

[185] Night Utility Inspector Test. at 20:23–21:16.

[186] Day Crew Driller Test. at 94:3–11 ("Q. But you had lost returns for the vast majority of the time; right? A. Yep. So we had somebody walking, he kept track of that. Q. What do you mean, walking? A. To check for IRs. Q. Who did you have doing that? A. Alex, Derek would walk sometimes. I walked once or twice."); *see also* Night Utility Inspector Test. at 21:17–22:1.

[187] Lead Environmental Inspector Spread A Test. at 56; *see also* Day Crew Foreman Test. at 62:20–24 ("We walked the right-of-way. I mean pretty much, I mean, me, [the Day Utility Inspector], my inspector, I'm sure Alex went for a walk, Keith probably, [the Night Crew Foreman] did, whoever. I mean, pretty much everybody would, but me and [the Day Utility Inspector], [the Day Utility Inspector] was really adamant about it.").

[188] Day Crew Laborer #2 Test. at 31:13–18.

[189] Day Utility Inspector Test. at 68:1–3.

[190] Day Utility Inspector Test. at 32:7–10; Night Utility Inspector Test. at 27:16–25.

phone or email if he had a question about those reports or if he wanted more written detail.[191] The Inspectors were also required to take daily photographs of the site.[192]

Both the Day Utility Inspector and the Night Utility Inspector understood environmental compliance, and they made the requirements clear to the workers. Their responsibilities included observing and reporting environmental issues.[193] Far from failing to monitor and report them, the inspectors raised compliance issues with the crews and escalated them up to the Lead Environmental Inspector. The Day Utility Inspector enforced these requirements with the day crew.[194] And he brought issues to the Lead Environmental Inspector several times.[195] Similarly, if the Night Utility Inspector noticed that someone was not complying with FERC guidance, he would reprimand them or report it directly to Boyd.[196] In a March 19, 2017 email to inspectors (including the Night Utility Inspector and the Day Utility Inspector), Boyd reiterated that inspectors had stop work authority for safety and environmental issues, and that inspectors were to document and report any construction activities taking place on site.[197]

Enforcement Staff generally cherry pick the witnesses' testimony, crediting only the parts that conform to their pre-fixed view of the facts, and discarding everything inconsistent.[198] While

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[191] Night Utility Inspector Test. at 55–56; *see also* Day Utility Inspector Test. at 58:24–59:6

[192] Day Utility Inspector Test. at 107:3–11; Night Utility Inspector Test. at 59:15–21.

[193] Day Utility Inspector Test. at 31:23–33:2 (part of the Day Utility Inspector's duty was to observe and report any environmental issues).

[194] Day Utility Inspector Test. at 33:13–15 (describing the environmental compliance at the site as "good" and explaining that "[o]verall, [the drillers did] exactly what I told them to do 90 percent of the time.").

[195] Day Utility Inspector Test. at 32:12–19.

[196] Night Utility Inspector Test. at 28:4–17.

[197] Email from Chris Boyd re Inspector Roles and Responsibilities (Mar. 19, 2017), CIS0001816.

[198] This too should concern the Commission. Enforcement Staff are not forthright in their "Report" which allegedly sets forth "factual findings." They consistently ignore and fail to acknowledge information that directly undercuts their case. Is this really what the Commission means when it says that it holds enforcement Staff to the "highest ethical standard"?

this problem infects all of their allegations, it is particularly evident with respect to their treatment of the Day Utility Inspector and the Night Utility Inspector. For example, Enforcement Staff repeatedly allege that the Day Utility Inspector, the day shift inspector, knew about the use of diesel. Enforcement Staff point to the testimony of the Day Crew Driller, who allegedly "testified that Rover's Day Utility Inspector contemporaneously showed him an image of what the Day Crew Driller believed was the Day Crew Foreman putting diesel fuel in the drilling mud."[199] Elsewhere, they point to the testimony of the Night Crew Driller who testified that the Day Utility Inspector "openly discussed adding diesel fuel to the drilling mud" and "expressed no concern" about the conduct.[200] When asked about this during his deposition, the Day Utility Inspector categorically denied having any "pictures of [the Day Crew Foreman] pumping anything down the drill pipe or the mud tank or whatever."[201] He also testified that he never spoke to anyone or saw anyone use diesel or other unapproved substances.[202]

So do Enforcement Staff think the Day Utility Inspector is reliable, or do they think he's not reliable? If it is the former, then his testimony flatly contradicts the testimony of Enforcement Staff's key witnesses for the allegations discussed above. If it is the latter, then Enforcement Staff are in even more trouble because they rely almost exclusively on the Day Utility Inspector's testimony as evidence that Rover was not properly monitoring the right-of-way.[203] Enforcement Staff seek to avoid this knot by asking the Commission to find the Day Utility Inspector credible

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[199] Staff Report at 26.

[200] *Id*. at 23.

[201] Day Utility Inspector Test. 86:5–7.

[202] *Id*. at 87:3–4; 83:3–4; 92:4-7; 130:11–22.

[203] Staff Report at 35.

when what he says suits Enforcement Staff's purposes but not credible when what he says is exculpatory to Respondents.

The right-of-way monitoring efforts extended beyond the actions of the HDD inspectors and further demonstrates that Respondents acted appropriately. In accordance with the FERC-approved plans, Rover also contracted with independent environmental inspectors from Kestrel Field Services to assist with environmental compliance.[204] These inspectors were highly qualified. The Lead Environmental Inspector Spread A had approximately 16 years of experience in the pipeline industry, and he worked on multiple major pipelines.[205] This includes four to five years of field experience as an inspector, and three to four years as a contractor.[206] On a typical day, the Lead Environmental Inspector Spread A attended a 5:30 a.m. meeting with other environmental and safety inspection personnel, and then would be "basically outside" on the spread performing inspections, including inspecting the drills two to three times a day.[207] By the time of his deposition, the Lead Environmental Inspector Spread A had a team of four environmental inspectors reporting to him, and they performed tasks such as inspecting the right-of-way for issues like erosion control and storm water.[208] His own supervisor (Gunter, the chief environmental inspector for the project), visited the spread occasionally too.[209]

In addition to these third-party inspectors, FERC's own inspectors monitored the site regularly, conducting "daily inspections of the authorized portions of the construction right-of-

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[204] Lead Environmental Inspector Spread A Test. at 12:1-10; 14:16.

[205] *Id*. at 16:4–8.

[206] *Id*. at 15:8–17.

[207] *Id*. at 31:1–33:17.

[208] *Id*. at 18:23–19:23.

[209] *Id*. at 17:8–25.

way and extra work areas and document[ing] compliance with the Project's environmental requirements."[210] The Ohio EPA had the power to monitor the site as well.[211]

The environmental plans allowed for this extensive, multi-layered form of oversight to ensure that the Project would be monitored around the clock. What is more, FERC Project Staff knew and approved of this environmental program—a program devised and refined *with FERC* involvement over the course of two years. All of this shows that Rover's supervision of the site was sufficient, and that the monitoring of the right away was appropriate.

According to Enforcement Staff, the Day Utility Inspector "confirmed that crews were not monitoring the right-of-way as required," and the Staff Report suggests that not immediately discovering the IR equates with a failure to monitor the right-of-way.[212] That is wrong. The Day Utility Inspector and the Lead Environmental Inspector Spread A both testified that the terrain on the exit side—where the IR occurred—was difficult at the best of times, with a steep ravine flattening into a wetland; so much so that the Day Utility Inspector lost 30 pounds walking the area.[213] The Day Utility Inspector further testified that the area flooded due to heavy rain just two or three weeks before the IR,[214] enough to make the area inaccessible until the waters receded. As the Staff Report concedes, the HDD Contingency Plan contained in the Final EIS required

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[210] FERC's Environmental Compliance Program Summary Report, *Rover Pipelines, LLC*, Docket No. CP15-93-000 (Apr. 3, 2017).

[211] *See* Rover Pipeline 401 Water Quality Certification pg. 62 issued by OEPA Director Craig Butler (Feb. 24, 2017) ("any authorized representative of the director shall be allowed to inspect the authorized activity at reasonable times to ensure that it is being or has been accomplished in accordance with the terms and conditions of this certification.").

[212] Staff Report at 35 (citing Day Utility Inspector Test. 111–12); *see* JD Hair Report at JDHAIR0007, JDHAIR0088.

[213] Lead Environmental Inspector Spread Test. at 30:725, 58:14–22; Day Utility Inspector Test. at 68:1–19.

[214] Day Utility Inspector Test. at 75:16–77:3.

monitoring of HDD activities "*as feasible*."[215] Even if inspectors had somehow managed to access the wetland despite these significant obstacles, signs of the IR would have been obscured until the flood waters began to recede. What is more, *FERC's own* inspections did not discover the inadvertent release. Rather, consistent with appropriate monitoring efforts, the Day Utility Inspector discovered the IR and exercised his stop work authority in response.[216]

There is no basis for Enforcement Staff's allegations of inadequate right-of-way monitoring.

C. Rover Is Not Liable for Any Improper Disposal of Contaminated Drilling Mud

Staff concluded that *Rover* improperly disposed of the contaminated drilling mud released during the IR.[217] However, this again treats Rover, its contractors, its subcontractors, and employees of all three groups as one and the same. Rover did not dispose of drilling mud in the first instance; Rover's independent subcontractor did so without any knowledge by Rover of any alleged shortcomings. Precision and Pretec were aware that only drilling fluid comprised of solely bentonite and water could be disposed of as "clean fill" (*i.e.*, at a location other than a licensed facility).[218] Precision's and Pretec's personnel conducted the clean-up of the inadvertent release—not Rover's personnel.[219] The Pretec and Precision crews began working immediately to contain

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[215] Staff Report at 35 (emphasis added).

[216] Day Utility Inspector Test. at 72:22–25.

[217] Staff Report at 35.

[218] *See* Director of Environmental Compliance Test. at 72:17–20 ("My understanding, in the state of Ohio, if you use water or bentonite, disposal can be done as a clean fill. If agents, additives are introduced, then it's got to go to a licensed facility.").

[219] *Id.* at 32:21–25 ("Q. At that job – at that juncture, who was in charge of the IR – I'm sorry, the containment and the cleanup of the IR? A. It was Pretec and Precision working in conjunction.").

and clean up the IR following its discovery on April 13, 2017.[220] Within days, those crews began hauling truckloads of drilling mud to the approved locations.[221] It was not until weeks later that Rover became aware of the presence of diesel fuel in the drilling mud.[222] Indeed, Enforcement Staff allege that Rover was informed of the potential contamination around May 12, 2017—long after contractors initially disposed of materials at those locations.[223] Just as there is no evidence that Rover knew of, condoned, or authorized the use of diesel fuel or hydraulic fluid in the drilling mud, there is no evidence Rover in any way took part in improper disposal of such mud.

Once Rover became aware of the potential diesel contamination, Rover undertook a massive effort to test for and remove the contaminated drilling mud from those locations and dispose of it at a licensed facility. Indeed, Rover spent millions undertaking this effort even though the level of diesel contamination found was well below the level of contamination that requires such measures.[224] Rover fully remediated the Beach City and Oster disposal sites in August and September 2017, respectively, in accordance with plans approved by the Ohio EPA.[225] Therefore, Rover complied with the requirement to properly dispose of the drilling mud and Staff's allegations are without merit.

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220 *Id.* at 36:18–39:4 (discussing Precision and Pretec's efforts to contain the IR when the Director of Environmental Compliance arrived at the site).

221 *See* Ex. 32 to Director of Environmental Compliance Test. at MASTEC0003125 ("Sunday April 16th 2017 – Easter Sunday road completed to IR site by mid-morning / first truck load starting to be loaded at 10:40 a.m. – first truck disposal at pit at 12:15").

222 *See* Section II.E, *supra*.

223 Staff Report at 27.

224 *See* Ex. 52 to Boultinghouse Test. (Letter from Kevin Erwin, Rover Pipeline to Craig Butler, Ohio EPA (Jul. 14, 2017)).

225 *See* Letter from Kevin Erwin, Rover Pipeline to Terry Turpin (Sept. 11, 2017).

D. There Is No Basis to Hold Energy Transfer Liable

The Staff Report begins with Enforcement Staff's proposed findings of fact and law "regarding the investigation of Energy Transfer Partners, L.P. . . . and its subsidiary Rover Pipeline, LLC (jointly Rover)."[226] The rest of the Staff Report is silent as to Energy Transfer—Enforcement Staff simply assume that Energy Transfer is liable if Rover is liable.[227] In fact, throughout the course of this investigation Enforcement Staff have referred to Rover and Energy Transfer as "collectively, Rover."[228] Not once have Enforcement Staff explained the legal basis for conflating the two. Energy Transfer is, as FERC recognizes, "Rover's parent company,"[229] making it a separate entity. Whatever the viability of a case against Rover, it would not support imposing liability on Energy Transfer, because it is well established that "a parent corporation . . . is not liable for the acts of its subsidiaries."[230] Because Enforcement Staff have advanced no basis for the Commission to make an exception to this time-honored rule, any theory for holding Energy Transfer liable is now waived.

E. Imposing Penalties on Rover or Energy Transfer Would Contravene Public Policy

Penalizing either Respondent would also be contrary to public policy. As explained above, neither Rover nor any of its employees engaged in the wrongdoing at issue here.[231] Rover

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[226] Staff Report at 4.

[227] *See generally* Staff Report.

[228] *See id.* ("Energy Transfer Partners, L.P. (Energy Transfer) and its subsidiary Rover Pipeline, LLC (jointly Rover)"); FERC Preliminary Findings Letter at 1 (May 10, 2019); FERC Show Cause Recommendation Letter at 1 (Jan. 19, 2021).

[229] *Rover Pipeline, LLC*, 158 FERC P 61,109 ¶ 238 (2017).

[230] *United States v. Bestfoods*, 524 U.S. 51, 61 (1998).

[231] *See*, *e.g.*, Section III.A.2, *supra*.

developed appropriate, FERC-approved compliance plans.[232] Rover engaged an experienced contractor, who committed that all services provided under its agreement would be "furnished in compliance with all laws and regulations."[233] Rover saw to it that all personnel who worked on site were trained, and it engaged independent environmental inspectors with stop-work authority to monitor compliance.[234] There was no reason to believe that the Night Crew Foreman, a Pretec employee with 20 years of experience,[235] would pump diesel into the hole when he "knew it was wrong,"[236] or that the Night Crew Mud Technician, who understood that "common sense dictates" using diesel for such a purpose is "a no-no," would follow the Night Crew Foreman's lead.[237]

Upon learning of the IR, Rover promptly notified the Ohio EPA and the FERC monitor and immediately began a thorough cleanup effort costing Pretec and Precision more than $6 million in direct costs, and costing Rover between $15 million and $20 million in indirect remediation and additional environmental controls.[238] Presumably if Enforcement Staff thought Rover knew then about diesel being put in the drilling mud, it would now be seeking to hold Rover accountable for omitting that from its reports. No such charge could be shown, and Enforcement Staff make none.

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[232] *See* Section II.B, *supra*.

[233] Master Construction Agreement at MASTEC0051626 ¶ 25; *see* Section II.B., *supra.*

[234] *See* Sections II.E and III.B, *supra*.

[235] Night Crew Foreman Test. at 23:5–8.

[236] *Id.* at 128:16–17.

[237] Night Crew Mud Technician Test. at 132:3–10; 146:20–147:7.

[238] *See* Section II.D, *supra*.

Rover cooperated fully with the Staff's investigation, producing more 87,000 pages of documents and arranging depositions with four witnesses at Enforcement Staff's request.[239] Rover's lack of knowledge of the conduct is confirmed by its initial skepticism that someone might have intentionally misused diesel at the drill site.[240] Rover nonetheless conducted a thorough and open-minded internal investigation, sharing the evidence it uncovered with Enforcement Staff.[241] Rover notified Enforcement Staff when two vacuum truck drivers working on the cleanup said they understood that another Pretec employee, the Day Crew Laborer #2, admitted to using diesel, and Rover provided further information to FERC when the Night Crew Foreman ultimately admitted misusing diesel after initially denying it. In fact, on several occasions Rover implored Enforcement Staff to conduct a thorough and complete investigation.[242]

Holding Rover liable under these circumstances would be punitive without a purpose. Rover did what was required and expected to promote environmental compliance. The wrongdoing occurred behind Rover's back despite—not as a result of—Rover's appropriate, FERC-approved compliance plan. There is no deterrent value in punishing certificate holders for harm they did not cause and took appropriate steps to prevent.

Enforcement Staff's approach also flips on its head long-standing government enforcement policy to pursue individual wrongdoers in cases of alleged corporate wrongdoing. Earlier this

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239 The Staff Report suggests that Rover could have scheduled witnesses for interviews earlier and criticizes Rover for taking "nearly a year" to respond to multiple information requests and subpoenas, Staff Report at 30, but Rover was able to begin scheduling the witness interviews within two months of the referral to Enforcement, and Rover's production timing was appropriate to the scope and complexity of the investigation.

240 *See* Section II.E., *supra*.

241 *Id*.

242 *See, e.g.,* Letter from William Scherman to Demetra Anas et al., Office of Enforcement, Fed. Energy Regul. Comm'n, Re Response of Rover Pipeline, LLC and Energy Transfer Partners, L.P. to Office of Enforcement's November 3, 2017 Letter at 1 (Nov. 27, 2017).

month Attorney General Merrick Garland, speaking about corporate prosecutions, "made it clear that the [Justice] Department's first priority . . . is to prosecute the individuals who commit and profit from corporate malfeasance . . . because corporations only act through individuals," and the prospect of individual liability "is the best deterrent to corporate crime."[243] This reinforces policies pre-dating this investigation, including then-Deputy Attorney General Sally Yates's statements in a 2015 memorandum on "Individual Accountability for Corporate Wrongdoing," that DOJ policy holds that "[o]ne of the most effective ways to combat corporate misconduct is by seeking accountability from the individuals who perpetrated the wrongdoing."[244] Accordingly, the Yates memo required criminal *and* civil attorneys to "focus on individual wrongdoing from the very beginning of any investigation of corporate misconduct," which is "the most efficient and effective way to determine the facts and extent of any corporate misconduct" and "maximize[s] the chances that the final resolution of an investigation uncovering the misconduct will include civil or criminal charges against not just the corporation but against culpable individuals as well."[245] These policies have been codified in the Justice Manual.[246]

In Alice in Wonderland fashion, Enforcement Staff elected at the outset to protect the individual wrongdoers from liability in favor of pursuing penalties solely against a separate company that did not engage in, encourage, or even know about the violations. That followed the

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[243] Attorney General Merrick B. Garland Delivers Remarks to the ABA Institute on White Collar Crime (Mar. 3, 2022), https://www.justice.gov/opa/speech/attorney-general-merrick-b-garland-delivers-remarks-aba-institute-white-collar-crime.

[244] *See* S. Yates, Individual Accountability for Corporate Wrongdoing, at 1 (Sept. 9, 2015), https://www.justice.gov/archives/dag/file/769036/download.

[245] *Id.* at 4.

[246] Justice Manual, § 9-28.010, Foundational Principles of Corporate Prosecution, https://www.justice.gov/jm/jm-9-28000-principles-federal-prosecution-business-organizations.

then-Chairman's directive blaming Rover from the day the investigation started.[247] Penalizing a company under these facts would send the message that crews who work for a subcontractor or a contractor of the company can commit crimes without consequences, secure in the knowledge that only the certificate holder will be penalized. That encourages wrongdoing.

No penalty is needed to protect local residents or landowners, because Rover and Precision have already made the expenditures needed to remediate by cleaning up the IR. An added penalty would be unjust, especially given that Rover participated in this remediation as part of a project that the Commission has already determined, after thorough analysis, is in the public interest.[248]

Rover wants to be clear. It condemns anyone's misuse of diesel fuel or other unapproved additives on a construction site. The authorities with jurisdiction over the actions of the wrongdoers should fully investigate that conduct and seek punishment according to the law. What should *not* happen is a rush to judgment the likes of Enforcement Staff's actions here, spurred by the then-Chairman's statement. There is no evidence, whatsoever, that Rover was even aware of the misconduct that the Staff Report describes.

Enforcement Staff's misguided zeal to punish the entity holding a certificate is highlighted by another fact. The things that the Pretec employees said they did were so far outside what Rover allowed or anticipated that the Certificate Order does not even address them. Each of those employees testified that diesel and other unapproved additives were added to the drill-stem, *not* the drilling mud. In fact, the testimony shows that when this occurred, the mud pump hose was

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[247] Joint Statement of Acting Chairman Cheryl A. LaFleur and Commissioner Colette D. Honorable on Tuscarawas River Horizontal Directional Drill – Drilling Fluid Composition, *Rover Pipelines LLC*, Docket No. CP15-93-000 (June 1, 2017).

[248] *Rover Pipeline, LLC*, 158 FERC ¶ 61,109 (Feb. 2, 2017) (certificate order) ("We find that the benefits that the Rover Pipeline Project will provide to the market outweigh any adverse effects on existing shippers, other pipelines and their captive customers, and on landowners and surrounding communities. Consistent with the criteria discussed in the Certificate Policy Statement and subject to the environmental discussion below, we find that the public convenience and necessity requires approval of Rover's proposal, as conditioned in this order.").

disconnected from the drill-stem and not operating. Indeed, Enforcement Staff's allegation that the crew used diesel as a lubricant and cleaner for a "balled up" drill demonstrates that their intent could not have been to mix it in with the bentonite mud, which would have diluted its effectiveness (assuming it had any). None of this, of course, absolves those individuals from the consequences of their actions. Rather, it shows that their actions were so far afield of the activity covered in Rover's Certificate Order that the conduct went beyond the reach of the very environmental condition that Enforcement Staff claim was violated.

F. Any Claims Must Be Tried in Federal District Court in the First Instance

Respondents acknowledge that the Commission has recently rejected the argument that the claims that the Commission authorizes as part of an enforcement action must be tried in the first instance in federal court.[249] Respondents respectfully think that the Commission's prior authority and rulings on this point are wrong, and is making the follow arguments to preserve them for adjudication in federal court if the Commission rejects them again.

1. The Commission Lacks the Authority to Adjudicate Alleged Violations under the NGA

The unambiguous text in Section 24 of the NGA provides that any action to adjudicate a violation of a FERC order or rule must be brought in a federal district court. Section 24 provides:

> The District Courts of the United States and the United States courts of any Territory or other place subject to the jurisdiction of the United States shall have *exclusive jurisdiction of violations of this chapter or the rules, regulations, and orders thereunder*, and of all suits in equity and actions at law brought to enforce any liability or duty created by, or to enjoin any violation of, this chapter or any rule, regulation, or order thereunder.[250]

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[249] *See, e.g.*, *Rover Pipeline, LLC*, 178 FERC ¶ 61,028 at PP 31–92 (2022).

[250] 15 U.S.C. § 717u (emphasis added).

This provision guarantees Respondents the right to have a federal court—not a FERC officer—adjudicate the alleged violations here. Indeed, under established precedent, district courts are *presumed* to possess authority to adjudicate civil penalty claims, "unless [that authority] is in express terms placed exclusively elsewhere,"[251] yet nothing in the NGA "express[ly]" grants FERC jurisdiction to conduct an administrative adjudication to determine a *violation*. Just the opposite, in fact. Section 24 expressly grants federal district courts "exclusive jurisdiction of violations of this chapter [*i.e.*, the NGA] or the rules, regulations, and orders thereunder[.]"[252]

The plain language of Section 24 is consistent with the overall regulatory scheme. The NGA grants FERC two distinct types of authority, each with a delineated role for federal courts. FERC exercises traditional *regulatory* authority by issuing final orders, such as licensing orders, rate-making orders, or orders in other contexts (*i.e.*, apart from the context of possible "violations" giving rise to civil penalties under either statute). *See, e.g.*, 15 U.S.C. 717d(a) (FERC may "fix . . . by order" "just and reasonable rate[s]" for the transportation and sale of natural gas); *id.* § 717f(a) (FERC may "by order direct a natural-gas company to extend or improve its transportation facilities"); *id.* § 717g(a) (FERC "may determine by order the accounts in which particular outlays or receipts shall be entered, charged, or credited").

When FERC issues orders or conducts hearings in its regulatory capacity, aggrieved persons may challenge the order in federal courts of appeals under the judicial review provisions

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[251] *Lees v. United States*, 150 U.S. 476, 478–79 (1893).

[252] 15 U.S.C. § 717u.

included in Section 19 of the NGA.[253] That review is deferential. The Commission's findings in such cases are treated as conclusive if supported by "substantial evidence."[254]

FERC also has a *law enforcement* role. FERC has authority to investigate possible violations of the NGA before initiating enforcement proceedings in federal district court. Section 14 of the NGA, for example, grants the Commission authority to "investigate any facts" it finds "necessary or proper" in order "to determine whether any person" has violated the NGA.[255] In exercising its regulatory or investigative authority, FERC may hold "hearings" before either its ALJs or the full Commission,[256] to "assess" a "proposed penalty."[257] But the power to "assess" a "proposed penalty" is not the power to adjudicate violations or impose legally binding penalties for them; as explained above, the NGA reserves those powers exclusively to the federal district courts.

A comparison to the Federal Power Act ("FPA") confirms this reading. As with the NGA, Congress vested jurisdiction over violations of the FPA in the federal district courts. In a small universe of FPA cases on this law enforcement side of the agency, Congress granted *FERC* jurisdiction to adjudicate violations and impose penalties through the administrative hearing process. And when Congress *intended* this agency path for adjudicating violations, it expressly authorized the Commission to make "a determination of [the] violation . . . on the record after an

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[253] 15 U.S.C. § 717r.

[254] In other cases, the Commission has stated that a "reading of section 24 of the NGA that requires district courts to conduct de novo review of the Commission's enforcement orders would also render other sections of the NGA meaningless or contradictory." *Rover Pipeline, LLC*, 178 FERC ¶ 61,028 at P 40. In particular, the Commission has stated that Section 19 would be "meaningless" under Respondents' reading of the statute. But that is obviously not the case. Section 19 applies to a host of hearings and orders that FERC undertakes in its capacity as a regulator.

[255] 15 U.S.C. § 717m(a).

[256] *See, e.g.*, 15 U.S.C. § 717n(e).

[257] 15 U.S.C. § 717t-1.

opportunity for an agency hearing pursuant to [APA § 554]."[258] That language carves out a narrow exception to the district courts' exclusive jurisdiction of violations.

Congress did not include any such carve-out in the NGA. Instead, the NGA's civil penalty provision, Section 22,[259] permits FERC only to "assess" a penalty that the Commission has "proposed," while preserving the district courts' express authority to adjudicate violations under Section 24.[260] Section 22 does so in precisely the same terms the FPA uses—by granting the Commission authority to "assess[]" the penalty "after notice and opportunity for public hearing."[261] And the FPA uses this same language in the large category of civil penalty claims that must then be adjudicated in the district court.[262]

Remarkably, the Commission has taken the position that because the NGA does not explicitly provide for *de novo* review in federal district court, that option is unavailable.[263] That has it exactly backwards: The default is that *federal courts* have authority to adjudicate civil penalties unless that authority is expressly placed in an administrative tribunal.[264] Not the other way around. Congress granted FERC authority to adjudicate a small universe of violations in the FPA; no similar provision exists in the NGA. FERC therefore lacks that power.

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[258] 16 U.S.C. § 823b(d)(2).

[259] 15 U.S.C. § 717t-1.

[260] Under the implied repeal doctrine, moreover, a "repeal" of Section 24—enacted in 1938—will not be presumed unless the "intention of the legislature to repeal [is] clear and manifest." *Watt v. Alaska*, 451 U.S. 259, 267 (1981). The NGA's civil penalty provision, enacted in 2005, does not mention administrative adjudication in a way that would override the default of exclusive federal court jurisdiction. 15 U.S.C. § 717t-l. This shows that Congress's grant of civil penalty authority to FERC did not impliedly repeal the district court's exclusive jurisdiction of violations.

[261] *Compare* 15 U.S.C. § 717t-1 *with* 16 U.S.C. § 823b(c).

[262] In the FPA, Congress limited FERC's ability to conduct an administrative hearing to situations where the *accused*—not FERC—"elect[s]" an ALJ hearing in lieu of the default district court proceeding. 16 U.S.C. § 823b(d)(3). Under the NGA, the adjudication occurs in district court without requiring the accused to elect that forum.

[263] *Rover Pipeline, LLC*, 178 FERC ¶ 61,028 at P 48.

[264] *See Lees v. United States*, 150 U.S. 476, 478–79 (1893).

The legislative history supports the argument that all violations must be adjudicated in federal court. Senator Domenici was chairman of the Senate Energy Committee when the Energy Policy Act of 2005 ("EPAct 2005") amended the NGA to give FERC enhanced authority to bring NGA enforcement actions. He has explained that the NGA process for establishing violations and imposing penalties was intended to be consistent with the preexisting vesting of exclusive jurisdiction in the federal district courts to adjudicate violations under the other statutes administered by FERC—the Natural Gas Policy Act and the FPA:

> Mr. Cornyn: . . . Did [EPAct 2005] bring about any change in the standards of review which would attach to enforcement proceedings under these new authorities?
>
> Mr. Domenici: . . . [T]here was no intent to change the standard of review which would attach to any enforcement proceeding. *The longstanding practice has been for the accused party to have rights to a de novo review of the charges in Federal court. Such rights are necessary to ensure that the agency does not act as both prosecutor and judge in any enforcement proceeding.* That right is clear, not just in the case law but in other statutes administered by the FERC, including the Federal Power Act and the Natural Gas Policy Act. There is no suggestion and there can be no inference that we intended to change that standard with our enhanced market oversight provisions in the Natural Gas Act.

154 Cong. Rec. S9468 (daily ed. Sept. 25, 2008) (emphasis added). The legislative history therefore supports that Congress meant what it said in Section 24: federal courts have "exclusive jurisdiction of violations of this chapter or the rules, regulations, and orders thereunder."

FERC has sought to construe narrowly Section 24's grant of "exclusive jurisdiction" to district courts by confining it to (1) "collection action[s]" and (2) "injunction[s]."[265] But Section 24 instead extends the district courts' "exclusive jurisdiction" to three—not just two—categories: (1) "violations of [the NGA]"; (2) "all suit[s] . . . and actions" to "enforce any liability or duty

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[265] *Energy Transfer Partners, L.P.*, 121 FERC ¶ 61,282 at P 58 (2007).

created by" the NGA; and (3) "suits . . . to enjoin any violation" thereof.[266] FERC's reading would thus impermissibly render Section 24's separate grant to district courts of "exclusive jurisdiction of violations"[267] superfluous.

Nor can Section 24 be read as merely the exclusion of *state* court jurisdiction.[268] If that were the provision's *only* effect, federal court jurisdiction would hardly be "exclusive," because district courts, under this view, would somehow "share" that jurisdiction with FERC and its ALJs. It would also conflict with the meaning of the same word—"exclusive"—in the NGA's judicial review provision, which indisputably works to divest *FERC* of jurisdiction.[269]

FERC has also argued that because the Energy Policy Act of 2005 did not include a venue provision alongside the new civil-penalty remedy, Congress meant to deprive district courts of the power to adjudicate civil penalties.[270] But Congress had no need to add a venue provision; Section 24 already specifies that venue for enforcement actions is the district where either "the violation occurred" or the "defendant is an inhabitant."[271] Certain other NGA provisions have "internal" venue clauses, but NGA provisions authorizing penalties for violations do not. Most notably, the criminal penalty provision,[272] does not have its own venue clause because—as is true of civil

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[266] 15 U.S.C. § 717u.

[267] *Id*.

[268] Defs. Opp. to Plts. Mot. for Summ. J. at 9, *Total Gas & Power N. Am, Inc. v. FERC*, Case No. 16-cv-1250 (S.D. Tex. June 9, 2016); *Rover Pipeline, LLC*, 178 FERC ¶ 61,028 at P 48.

[269] 15 U.S.C. § 717r(b). This judicial review provision authorizes judicial review of FERC orders in the courts of appeals, who have "jurisdiction . . . to affirm[], modify[], or set[] aside [FERC] order[s]" "upon the filing of a petition" for review. *Id.* "Until the record . . . ha[s] been filed," the courts of appeals exercise that jurisdiction concurrently with FERC, which also may "modify or set aside . . . any finding or order." *Id.* § 717r(a). "[U]pon the filing of the record," however, the court of appeals' jurisdiction to review orders becomes "exclusive" (*id.* § 717r(b))—*i.e*., FERC's concurrent jurisdiction ceases. It is thus *FERC's* jurisdiction, and not solely the jurisdiction of state courts that is excluded by the judicial review provision's reference to "exclusive" jurisdiction.

[270] *Rover Pipeline, LLC*, 178 FERC ¶ 61,028 at P 51.

[271] *See* 15 U.S.C. § 717u.

[272] *id*. § 717t,

penalties—Section 24 already specifies the venue for actions to adjudicate and impose liability for all NGA violations.

FERC has also supported its misreading of the plain language of the statute by relying on case law that is completely beside the point. For example, many of the cases that FERC has cited in other matters pre-date Congress's addition of a civil penalty provision to the NGA in 2005 and refer to FERC's finding of "violations" in the course of exercising its traditional regulatory authority in the rate-making certification contexts. *E.g.*, *Transcon. Gas Pipe Line Corp. v. FERC*, 998 F.2d 1313 (5th Cir. 1993); *Walker Op. Corp. v. FERC*, 874 F.2d 1320 (10th Cir. 1989). Similarly, FERC relies on language in some district court cases describing the court's "role" as "one of mere enforcement" of a FERC order. *See, e.g.*, *Tenn. Gas Pipeline Co. v. Mass. Bay Transp. Auth.*, 2 F. Supp. 2d 106, 109 (D. Mass. 1998). But these cases typically involve collateral attacks by landowners on certificate orders that authorize construction or operation of pipelines or other infrastructure. They do not involve an agency adjudication as to whether the certificate holder violated the NGA, and the imposition of civil penalties.

2. A FERC Administrative Adjudication Would Violate Multiple Constitutional Provisions, Further Requiring Pursuit of this Action Only in Federal District Court

Permitting FERC to adjudicate its allegations through an in-house administrative proceeding, moreover, "would raise a multitude of constitutional problems."[273] The principle of constitutional avoidance thus supports an interpretation of the NGA requiring FERC to prove its claims in federal district court. And even if that interpretation is rejected, the constitutional deficiencies in FERC's proposed procedures compel FERC to proceed in federal district court.

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[273] *See Clark v. Martinez*, 543 U.S. 371, 380–81 (2005).

Article II: Appointments Clause. A proceeding before an ALJ to resolve disputed facts and then apply the relevant law would violate the Appointments Clause of Article II because FERC ALJs are "inferior officers" of the United States who have been improperly appointed by the FERC Chairman, rather than the Commission acting as a whole. The Appointments Clause authorizes Congress to invest the appointment of "inferior Officers" in the President, in courts of law, or in "the Heads of Departments."[274] Every federal official with an ongoing position "established by Law" and who exercises "significant authority pursuant to the laws of the United States is an 'Officer of the United States,' and must, therefore, be appointed in the manner prescribed by" the Clause.[275]

FERC now concedes that its ALJs are "inferior officers" and thus subject to the Appointments Clause.[276] FERC insists that their appointment by the Chairman qualifies as appointment by the "Head of [a] Department."[277] But when a federal agency ("Department") has multiple members (*i.e.*, commissioners), its "Head" is the commission acting collectively, not the Chairman or any member acting alone.[278] As a result, setting this matter for administrative hearing before a FERC ALJ would violate the Constitution. For example, in *Free Enterprise Fund*, the Supreme Court rejected the argument that the full Securities and Exchange Commission could not constitutionally appoint SEC ALJs.[279] In other cases, FERC has argued that the Court did not hold

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[274] U.S. Const. art. II, § 2, cl. 2.

[275] *Buckley v. Valeo*, 424 U.S. 1, 125–26 (1976) (per curiam).

[276] *Total*, 176 FERC ¶ 61,026 at P 193 ("[T]he Commission finds that its ALJs are 'Officers of the United States,' subject to the Appointments Clause."); *id*. at PP 197–98; *see also Rover*, 178 FERC ¶ 61,028 at PP 60, 65 (same).

[277] *Total,* 176 FERC ¶ 61,026 at P 198; *see also Rover*, 178 FERC ¶ 61,028 at PP 67–69.

[278] *See Free Enter. Fund v. PCAOB*, 561 U.S. 477, 511–13 (2010) ("As a constitutional matter, . . . a multimember body may . . . be the 'Hea[d]' of a 'Departmen[t]' that it governs.").

[279] *Free Enter. Fund*, 561 U.S. at 511–12.

that an ALJ *must* be appointed by a full multi-member commission. But lower courts are bound by the Supreme Court's reasoning in deciding a case, not just the outcome.[280] Here, the Court's reasoning defeats FERC's position. The bases for the Court's holding were the following characteristics of the SEC: (1) "[t]he Commission's powers are generally vested in the Commissioners jointly, not the Chairman alone"; (2) "[t]he Commissioners do not report to the Chairman, who exercises administrative and executive functions subject to the full Commission's policies"; (3) "[t]he Chairman is also appointed from among the Commissioners by the President alone, which means that he cannot be regarded as 'the head of an agency' for purposes of the Reorganization Act"; and (4) "[t]he Commission as a whole, on the other hand, does meet the requirements of the [Reorganization] Act."[281] These characteristics led the Court to conclude that it was the SEC collectively that could constitutionally appoint the SEC ALJs. The Court did not reach the nonsensical result that the SEC has one "Head" for some purposes (the Chairman) and a different "Head" for others (the Chairman together with the other Commissioners), much less that it has two different "Heads" for the same purpose (appointing ALJs). Following the Court's reasoning in *Free Enterprise Fund*, the SEC Chairman is not a "Head of Department" and thus cannot appoint the SEC ALJs.

FERC is like the SEC in all relevant respects. Just like the SEC, FERC's powers are vested by the NGA in the Commissioners collectively, not in the Chairman alone.[282] As with the SEC, the other FERC Commissioners do not report to the Chairman, who is responsible only "for the

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[280] *See Seminole Tribe of Fla v. Florida*, 517 U.S. 44, 67 (1996) ("When an opinion issues for the Court, it is not only the result but also those portions of the opinion necessary to that result by which we are bound.").

[281] *Free Enter. Fund*, 561 U.S. at 512 (citations omitted).

[282] *See, e.g.*, 15 U.S.C. § 717b(a) (authorizing "the Commission" to "promulgate regulations"); *id.* § 717c(a) (vesting jurisdiction over rates and charges with "the Commission"); *id.* § 717m(a) (authorizing "[t]he Commission" to investigate violations of the NGA).

executive and administrative operation of the Commission."[283] Just like the SEC Chairman, the FERC Chairman is designated from among "[o]ne of the [Commission] members . . . by the President" alone,[284] meaning the FERC Chairman also "cannot be regarded as 'the head of an agency' for purposes of the Reorganization Act."[285] And just like the SEC, it is FERC collectively that meets the requirements of the Reorganization Act because the Commission members are "appointed by the President, by and with the advice and consent of the Senate."[286] Thus, *Free Enterprise Fund* compels the conclusion that the FERC's ALJs are not appointed in compliance with the Appointments Clause.

Article II: FERC ALJs' Multiple Layers Of Removal Protection. The Supreme Court has held that Congressional authorization of more than one layer of tenure protection for "inferior officers" is "contrary to Article II's vesting of the executive power in the President" and thus "contravene[s] the Constitution's separation of powers."[287] FERC's ALJs operate in violation of Article II because they enjoy multiple layers of protection from removal. FERC ALJs may be removed only for "good cause established and determined by the [MSPB]."[288] Members of the MSPB, in turn, may be removed only for "inefficiency, neglect of duty, or malfeasance in office."[289] In addition, FERC Commissioners, who can remove ALJs only with the approval of the MSPB, themselves enjoy removal protections and "may be removed by the President only for

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[283] 42 U.S.C. § 7171(c).

[284] *id*. § 7171(b)(1),

[285] *Free Enter. Fund*, 561 U.S. at 512 (citing 5 U.S.C. § 904).

[286] 42 U.S.C. § 7171(b)(1).

[287] *Free Enter. Fund*, 561 U.S. at 492, 496.

[288] 5 U.S.C. § 7521(a).

[289] *Id.* § 1202(d).

inefficiency, neglect of duty, or malfeasance in office."[290] Thus, FERC ALJs have three layers of protection from removal, allowing them to exercise significant adjudicatory power without accountability to the President. *See generally Cochran v. Securities & Exchange Comm'n*, 20 F.4th 194 (5th Cir. 2021) (en banc) (reviving a challenge to the removal protections of Securities & Exchange Commission ALJs). The Commission should not ignore the recent *Cochran* ruling and earlier cases.

Seventh Amendment And Article III. The Seventh Amendment and Article III also give Respondents the right to require FERC to prove its allegations that Respondents violated the NGA in district court. The Seventh Amendment guarantees the right to a jury trial in actions "brought to enforce statutory rights that are analogous to common-law causes of action ordinarily decided in English law courts in the late 18th century, as opposed to those customarily heard by courts of equity or admiralty."[291] Because a "civil penalty was a type of remedy at common law that could only be enforced in courts of law," "the Seventh Amendment require[s] a jury trial" in any action that seeks such penalties.[292]

Article III[293] likewise entitles Respondents to a federal district court proceeding because "the question whether the Seventh Amendment permits Congress to assign its adjudication to a tribunal that does not employ juries as factfinders requires the same answer as the question whether Article III allows Congress to assign adjudication of that cause of action to a non-Article III

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[290] 42 U.S.C. § 7171(b)(1).

[291] *Granfinanciera, S.A. v. Nordberg*, 492 U.S. 33, 42 (1989).

[292] *Tull v. United States*, 481 U.S. 412, 420, 422–23 (1987).

[293] Article III provides that "[t]he judicial Power of the United States shall be vested in one Supreme Court, and in such inferior Courts as the Congress may from time to time ordain and establish" and that "[t]he Judges, both of the supreme and inferior Courts, shall hold their Offices during good Behaviour, and shall, at stated Times, receive for their Services, a Compensation, which shall not be diminished during their Continuance in Office." U.S. Const. art. III, § 1.

tribunal."[294] Thus, under Article III, this proceeding implicates "[t]he judicial Power of the United States" and must be conducted by a judge with life tenure and salary security[295]—protections "incorporated into the Constitution to ensure the independence of the Judiciary from the control of the Executive and Legislative Branches of government."[296]

The "public rights" exception to this regime—which permits Congress to assign the initial adjudication of certain matters to an administrative agency when "the Government sues in its sovereign capacity to enforce public rights created by statut[e]"[297]—does not apply. To determine if a public or private right is at stake, a court must weigh (1) "'the extent to which the essential attributes of judicial power are reserved to Article III courts'"; (2) "'the origins and importance of the right to be adjudicated'"; and (3) "'the concerns that drove Congress to depart from the requirements of Article III.'"[298]

These factors demonstrate the private nature of the rights that FERC is seeking to enforce in this action: FERC ALJs exercise substantial judicial power by determining the amounts of NGA civil penalties, subject only to review for "substantial evidence,"[299] and Congress never articulated any concern warranting removal of NGA violations from the traditional jurisdiction of Article III courts subject to the right to a jury trial. Indeed, Congress expressly approved of district court adjudication of materially identical violations under the FPA.[300] Yet Congress provided no reason

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294 *Granfinanciera*, 492 U.S. at 53.

295 U.S. Const. art. III, § 1.

296 *N. Pipeline Constr. Co. v. Marathon Pipe Line Co*., 458 U.S. 50, 59 (1982) (plurality op.).

297 *Atlas Roofing Co. v. Occupational Safety & Health Review Comm'n*, 430 U.S. 442, 450 (1977).

298 *Wellness Int'l Network, Ltd. v. Sharif*, 575 U.S. 665, 678–79 (2015) (quoting *Commodity Futures Trading Comm'n v. Schor,* 478 U.S. 833, 851 (1986)).

299 *See, e.g.*, *Statement of Admin. Policy Regarding the Process for Assessing Civil Penalties*, 117 FERC ¶ 61,317 at P 7 (2006); 15 U.S.C. § 717r(b).

300 18 C.F.R. § 1c.1; 16 U.S.C. § 824v; *id.* § 823b(d)(3).

why a different administrative procedure was needed for such claims under the NGA; as FERC concedes, "the legislative history of the [Energy Policy Act of 2005] does not discuss the grant of NGA civil penalty authority in any detail,"[301] and thus does not justify the departure from Article III and the Seventh Amendment that would result if FERC's interpretation of the NGA were adopted.

Due Process. The Fifth Amendment's Due Process Clause precludes FERC from subjecting Plaintiffs to an administrative adjudication because FERC's practices and procedures already have denied, and will continue to deny, Plaintiffs "impartial adjudicators," and will subject them to a tribunal lacking the appearance or reality of justice.

It is well established that a "fair trial in a fair tribunal is a basic requirement of due process."[302] Due process protects against not only unfairness, but also "the probability of unfairness," and such proceedings "'must [also] satisfy the appearance of justice.'"[303] Due process requires an "impartial" adjudicator, thus barring a prosecutor from serving as judge in the same case. *Id.* That requirement also is not satisfied, and due process is lacking, when an adjudicator's "mind is 'irrevocably closed'" before the hearing has even begun.[304] "[D]isinterested factfinding and evenhanded adjudication" are particularly "essential" here because of the "serious" nature of "[t]he fines assessed."[305] The NGA imposes substantial monetary penalties—up to $1,000,000 per day per violation.[306] 15 U.S.C. § 717t-1(a). Those penalties quickly exceed any benefit that could be realized from engaging in the purportedly illegal conduct.

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[301] *Energy Transfer Partners*, 121 FERC ¶ 61,282 at P 55.

[302] *In re Murchison*, 349 U.S. 133, 136 (1955).

[303] *Id*. at 135–36.

[304] *NEC Corp. v. United States,* 151 F.3d 1361, 1373 (Fed. Cir. 1998).

[305] *Int'l Union, United Mine Workers of Am. v. Bagwell*, 512 U.S. 821, 837–38 (1994).

[306] 15 U.S.C. § 717t-1(a).

The Commission violates the Constitution's due process requirement by failing to provide either the appearance or the reality of a fair tribunal. Under the Commission's procedures, the very Advisory Staff who communicate *ex parte* with Enforcement Staff during the investigation phase are permitted to advise the Commissioners and FERC's ALJs during the adjudicatory phase. Because FERC does not keep records of *ex parte* communications between Enforcement Staff and Advisory Staff, Respondents have no assurance against Advisory Staff being biased by these *ex parte* communications with Enforcement Staff— nor is there a safeguard against Advisory Staff providing biased advice to FERC's decisionmakers in subsequent *ex parte* communications with those adjudicators. Moreover, Enforcement Staff have stated publicly that "attorneys who serve as investigative staff have an attorney-client relationship with the Commission."[307] Thus, communications between the Enforcement Staff and the Commissioners (and their staff) create the kind of relationship that never would or could exist in an impartial process.

The result of this bias is undeniable. During the entire 15-year period since Congress enacted civil penalties for NGA violations, FERC has always issued an Order to Show Cause, found that a violation has occurred, and proposed penalties in contested proceedings after Enforcement Staff have issued a 1b.19 Notice. Indeed, the *only* time FERC has ever terminated proceedings after Enforcement Staff have issued a 1b.19 Notice is when Enforcement Staff reversed their position after an Order to Show Cause was issued—based on an undeniable calculation error that the respondent pointed out— and "*recommend[ed]* that the Commission vacate the Order to Show Cause and assess no penalty."[308]

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[307] Written Testimony of Larry R. Parkinson, Director, Office of Enforcement, FERC, Before the Energy and Commerce Committee, Energy and Power Subcommittee, U.S. House of Representatives, at 1 (June 3, 2015).

[308] *Footprint Power LLC*, 166 FERC ¶ 61,150 at P 7 (2019) (emphasis added).

Instead of heeding Congress's express grant to federal district courts of "exclusive jurisdiction" to adjudicate alleged NGA violations,[309] the Commission contends it can adjudicate Respondents' action through a process slanted in favor of the Enforcement Staff. In that proceeding, FERC ALJs do not apply the Federal Rules of Civil Procedure and Evidence, but rather FERC's own evidentiary rules.[310] In the Commission's view, these rules give FERC ALJs free reign to admit hearsay evidence—including evidence derived from the Enforcement Staff's *ex parte* depositions of witnesses—which Respondents may lack any meaningful opportunity to rebut.[311] And despite this low standard for admissibility of prosecution evidence in FERC hearings, the Commission maintains that its ALJs are also free to prevent respondents from gaining access to relevant exculpatory evidence by, for example, permitting FERC's Enforcement Staff to claim privilege without producing a privilege log.[312] Respondents thus may never see all of the exculpatory evidence necessary to defend themselves.[313]

FERC's own Commissioners—the same set of officials who will have *already* concluded that the Enforcement Staff made out a *prime facie* case of a violation based on extensive and allegedly privileged *ex parte* discussions—then purport to review the ALJ's findings in "appeals"

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[309] *See* Section III.E.1, *supra*.

[310] 18 C.F.R. § 385.101.

[311] *Id.* § 385.509(a).

[312] *E.g.*, Order Confirming Ruling at P 7, *BP Am. Inc.*, *Rover Pipeline, LLC*, Docket No. IN13-15-000 (July 3, 2014) (permitting Enforcement Staff to not produce privilege log of documents withheld during discovery in recent market manipulation case—despite the requirement it do so in FERC's own regulations, 18 C.F.R. § 385.410(d)(2)(i)—because it would have been "unduly burdensome and it would take staff resources away from preparing for the hearing").

[313] Despite FERC purported policy of disclosing this *Brady* evidence, *Brady v. Maryland*, 373 U.S. 83 (1963), through June 2014, Enforcement Office had provided exculpatory material in only four cases since EPAct 2005 increased its authority.

from the ALJ's decision.[314] It is thus hardly surprising that FERC cannot point to a single instance in which these procedures have *ever* resulted in a finding by the Commission that no violation of the NGA (or the other main statutes FERC administers) has occurred and that no civil penalty is warranted. And under the Commission's view, all this fact-finding will be subject only to highly deferential "substantial evidence" review in a court of appeal—thus potentially allowing FERC to compel Respondents to pay tens of millions of dollars even if the preponderance of the evidence shows that no violation occurred.[315]

There is no doubt that this impermissible process has denied, and will continue to deny, Respondents an "impartial" adjudication in a tribunal with both "the appearance" and the reality "of justice," and thus an agency adjudication would violate due process.[316] There is no denying that Enforcement Staff has the ultimate home court advantage at every step of the process. This is yet another reason these allegations should be tried in federal district court.

G. Enforcement Staff's Allegations Will Be Time-Barred by the Statute of Limitations

Enforcement Staff's allegations will soon be time-barred by the five-year statute of limitations set forth in 28 U.S.C. § 2462 ("Section 2462").[317] That section provides that "an action,

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[314] *Statement of Admin. Policy Regarding the Process for Assessing Civil Penalties*, 117 FERC ¶ 61,317 at P 7 (2006).

[315] *Columbia Gas Transmission Corp. v. FERC*, 448 F.3d 382, 385 (D.C. Cir. 2006) (substantial evidence standard requires "'less than a preponderance of the evidence'"); *see also Consol. Edison Co. v. NLRB*, 305 U.S. 197, 229 (1938) (standard equates with "more than a mere scintilla" of evidence of a violation). *See, e.g.*, *BP America Inc.*, 173 FERC ¶ 61,239, P 15 (2020) ("[W]e continue to find that Opinion No. 549 properly found that Enforcement Staff had the burden of proof and, therefore, the burden of persuasion requiring proof by a preponderance of the evidence of a claim of manipulation.").

[316] *In re Murchison*, 349 U.S. at 134–36 (quoting *Offutt*, 348 U.S. at 14).

[317] Because the NGA, 15 U.S.C. § 717 et seq., does not include a statute of limitations for alleged violations of the Act, FERC's proposed enforcement action against Respondents is subject to the general federal five-year statute of limitations set forth in 28 U.S.C. § 2462. *See* Prohibition of Energy Market Manipulation, Final Rule, Order No. 670, FERC Stats. & Regs. ¶ 31,202 at P 62, *reh'g denied*, 114 FERC ¶ 61,300 (2006) ("We note . . . that

suit or proceeding for the enforcement of any civil fine, penalty, or forfeiture, pecuniary or otherwise, shall not be entertained unless commenced within five years from the date when the claim first accrued[.]" Enforcement Staff's allegations are 1) that Rover's subcontractor's employees added unapproved substances in the drilling mud between April 2 through April 13, 2017;[318] 2) Respondents failed to monitor the right-of-way prior to the discovery of the IR on April 13, 2017;[319] and 3) Rover failed to improperly dispose of drilling mud (but, as noted above, the drilling mud was properly disposed of by no later than September 2017). There is no dispute that the claims first accrued, and the statute of limitations clock begins, at the time of the alleged wrongful acts.[320] The first two allegations will be time-barred unless the Commission filed an action in federal district court for "the enforcement of any civil . . . penalty, or forfeiture . . . " by April 13, 2022.[321] The final allegation will be time-barred if the Commission does not bring a federal court action by the end of September 2022.

1. To Satisfy the Requirements of 28 U.S.C. § 2462, FERC Must Bring an Action in a Federal District Court before the Five Year Statute of Limitations expires

In its Show Cause Order, the Commission stated its intention either to assess a penalty on the record alone, or to conduct a hearing before a FERC ALJ, rather than pursuing a case in federal

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when a statutory provision under which civil penalties may be imposed lacks its own statute of limitations the general statute of limitations for collection of civil penalties, 28 U.S.C. [§] 2462, applies.").

318 Staff Report at 33.

319 *Id.* at 26-27, 34–35.

320 *See* Order Establishing Hearing; *Rover Pipeline, LLC*, 178 FERC ¶ 61,028 P 29 ("Respondents and the OE staff agree that the claims 'accrued' when the alleged violations occurred.").

321 *See United States v. Core Labs., Inc.*, 759 F.2d 480, 483 (5th Cir. 1985). *See also Gabelli v. SEC,* 568 U.S. 442, 448 (2013) ("[T]he most natural reading of the statute" is that "the five-year clock begins to tick—when a defendant's allegedly [violative] conduct occurs.").

district court.[322] The Commission lacks the authority to make a legally-binding determination that Respondents violated the NGA. Rather, such a determination must be made by a federal district court.

As discussed in greater detail in the next section, the unambiguous text in Section 24 of the NGA vests federal district courts with "exclusive jurisdiction of [NGA] violations."[323] Indeed, under established precedent, district courts are presumed to possess authority to adjudicate civil penalty claims, "unless [that authority] is in express terms placed exclusively elsewhere."[324] Yet nothing in the NGA "express[ly]" grants FERC jurisdiction to conduct an administrative adjudication to determine a violation. Under the NGA's civil penalty provision, FERC may hold a "hearing" to "assess[]" a "proposed penalty,"[325] but to give legal effect to that proposed penalty, it must bring an action in district court for a *de novo* determination whether Respondents violated the NGA and whether a penalty is warranted.

Because FERC therefore lacks the authority under the NGA to impose a legally binding penalty, the requirement in Section 2462 that "an action, suit or proceeding for the enforcement of any civil fine, penalty, or forfeiture [be] commenced within five years" can only be satisfied by "commenc[ing]" an action in the only venue with such authority, a federal district court.[326]

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[322] *Rover Pipeline, LLC*, 177 FERC ¶ 61,182, at P 5 (2021) (Order to Show Cause and Notice of Proposed Penalty).

[323] "The District Courts of the United States . . . shall have exclusive jurisdiction of violations of this chapter or the rules, regulations, and orders thereunder, and of all suits in equity and actions at law brought to enforce any liability or duty created by, or to enjoin any violation of" those same provisions. 15 U.S.C. § 717u. The NGA's civil penalty authority parallels Section 24's language by making civil penalties applicable to any person that "violates this chapter, or any rule, regulation, restriction, condition or order made or imposed by the Commission under authority of this chapter." *Id*. § 717t-1(a).

[324] *Lees v. United States*, 150 U.S. 476, 478–79 (1893).

[325] 15 U.S.C. § 717t-1(b), (c).

[326] 28 U.S.C. § 2462.

This is consistent with applicable case law. As the Commission has previously conceded, whatever procedures are used prior to the assessment of a penalty, Section 24 of the NGA requires the Commission to file a collection action in district court to collect any penalty that has been assessed after an administrative action is final.[327] That is precisely the procedure the Fifth Circuit addressed in *Core Labs*, where the court concluded that even when a government enforcement action proceeds in stages—*e.g.*, it includes an agency adjudicatory proceeding followed by a district court collection action—the district court collection action is subject to the initial five-year statute of limitations.[328] Rover has not entered into any agreement with the Office of Enforcement or the Commission that would have the effect of tolling the statute of limitations, and none of the procedures so far implemented by the Commission have tolled or satisfied the statute of limitations.

2. Even if a Federal District Court Case Is Not Deemed Necessary, Filing the Show Cause Order is Inadequate; the Matter Must Be Set for Hearing within the Five Year Statute of Limitations

Notwithstanding the foregoing arguments, if the Commission erroneously concludes that an in-house adjudication is sufficient to satisfy Section 2462, the operative act would be a Commission order setting this matter for hearing, and not the Commission's March 18, 2021 Order to Show Cause and Notice of Proposed Penalty. In order for an action to be deemed adequate to stop the limitations clock from ticking, the action must include a trial-type hearing that entails an opportunity to fully litigate the issues. In other words, filing the Show Cause Order alone is inadequate to stop the clock.

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[327] *Statement of Admin. Policy Regarding the Process for Assessing Civil Penalties*, 117 FERC ¶ 61,317 at P 7 n. 20 (2006) ("Although the NGA is silent on procedures for assessing civil penalties, the NGA does provide for enforcement of Commission rules and regulations in district court under NGA section 20(a) and collection actions in district court under NGA section 24." (citations omitted)).

[328] *Core Labs.*, 759 F.2d at 483–84.

The D.C. Circuit's ruling in *3M Co. v. Browner* is illustrative of this point.[329] In that case, the D.C. Circuit determined that an agency adjudication by the U.S. Environmental Protection Agency to enforce the Toxic Substances Control Act ("TSCA") was a "proceeding" within the meaning of Section 2462. It explained that the "[c]ivil penalty proceedings under TSCA emulate judicial proceedings: a complaint is brought, the defendant answers, motions and affidavits are filed, depositions are taken, other discovery pursued, a hearing is held, evidence is introduced, findings are rendered and an order assessing a civil penalty is issued."[330] In other words, the "proceeding" must be "adversarial adjudications" and emulate judicial proceedings.[331]

The Commission's Order to Show Cause is insufficient to satisfy the statute of limitations. While the Order to Show Cause provides Rover an opportunity to respond to Enforcement Staff's allegations, it does not permit Rover to conduct discovery, confront witnesses, or litigate any of the facts that are in material dispute. And, *absent another Commission order setting this matter for hearing*, Rover may never have that opportunity. The process initiated by the Order to Show Cause is not a proceeding because it is not the beginning of an "adversarial adjudication."[332] Indeed, inherent in an adjudicatory process is that the prosecution will provide the defendant with all relevant facts, and the defendant will have an opportunity to seek discovery and provide refuting evidence. Neither requirement is satisfied here. The Commission has conceded that the Order to Show Cause does not need to include a full description of the allegations, but only enough facts to

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[329] *3M Co. (Minn. Mining & Mfg.) v. Browner*, 17 F.3d 1453 (D.C. Cir. 1994).

[330] *Id.* at 1456–57.

[331] *Id.* at 1459 n.11.

[332] *See Fed. Energy Reg. Comm'n v. Barclays Bank, PLC*, 2017 WL 4340258 (E.D. Cal. Sept. 29, 2017) (finding that an Order to Show Cause under the FPA was not a "proceeding").

put the Respondents on notice.[333] And Respondents have not been afforded an opportunity for discovery or to present rebuttal evidence. The adjudicatory process starts when the Commission sets this matter for a hearing.

Furthermore, for the adjudication process to begin, Rover must be presented with an opportunity, as required by the NGA, to litigate the numerous genuine issues of disputed material fact in this case, which must be investigated through discovery and testimony. The only possible Commission action that might have satisfied the statute of limitations would be an order setting this matter for hearing, where Rover would be guaranteed discovery and other due process protections.[334]

The Commission's arguments to the contrary are inapt. The Commission in other cases has pointed to 18 C.F.R. § 385.209(a)(2), which states that the "Commission may initiate a proceeding against a person by issuing an order to show cause." But the regulation's colloquial use of the word "proceeding" does not control. Indeed, the question is what "proceeding" means in Section 2462, not how the Commission characterizes its own process. Furthermore, because Section 2462 is not specific to FERC's core statutes and it instead governs penalty provisions throughout the U.S. Code, FERC's interpretation of what type of a notice qualifies as a "proceeding" is not entitled to any deference.[335]

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[333] *Total*, 176 FERC ¶ 61,026 at P. 122 ("Notice does not require that every single instance upon which agency action is based be articulated.").

[334] *Id.* §§ 385.401–385.510 (providing for rights to discovery, present evidence, examine witnesses, and rules governing admissibility).

[335] *Barclays Bank,* 2017 WL 4340258, at *9 ("This statute of limitations is not specific to the FPA or the Anti–Manipulation Rule. Rather, it governs many penalty provisions throughout the U.S. Code. Congress did not delegate administrative authority to any particular agency to administer this statute of limitations, which is generally applicable to all federal agencies. Consequently, this Court does not owe Chevron or other deference" to FERC "regarding the interpretation of § 2462." (internal quotation marks, citations, and alterations omitted)).

Furthermore, the Commission's reliance on the Fourth Circuit's recent decision in *FERC v. Powhatan Energy Fund* is misguided.[336] In *Powhatan*, the Fourth Circuit held that, under the FPA, the statute of limitations in Section 2462 does not begin to run until 60 days after the issuance of a penalty assessment order by the Commission.[337] Putting aside that *Powhatan* is poorly reasoned and wrongly decided, the decision relies on statutory language unique to the FPA, which, according to that court, restricts the Commission's ability to bring a case in federal district court before certain procedural steps have occurred.[338] The NGA, the Act at issue here, does not contain any language restricting the ability of the Commission to bring a case in federal district court. Indeed, the NGA expressly confers "exclusive jurisdiction" on the federal district courts to hear this type of case.[339] As such, any reliance by the Commission on *Powhatan* would be inapposite.[340]

H. Even Assuming Violations Occurred Here By Rover, Enforcement Staff's Recommended Remedies and Sanctions Are Vastly Exaggerated

The Commission need not address remedies and sanctions because, as explained above, even if a violation occurred here, there is no basis on which to hold *Rover* accountable. But if the Commission somehow ignores all of the evidence and reaches this topic, it should reject Enforcement Staff's proposed penalty. Enforcement Staff's recommended penalty is badly flawed, based on an incomplete and improper assessment of the evidence, and fails to take into

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336 *FERC v. Powhatan Energy Fund, LLC*, 949 F.3d 891, 899 (4th Cir. 2020).

337 *Id.* at 898–99.

338 *Id.* at 895 ("If the subject of an [Order to Show Cause ("'OSC'")] elects the Default Option, then the case proceeds to a formal adjudication before an ALJ. . . . Limited judicial review of the ALJ's determination is available in the applicable court of appeals. . . . On the other hand, if, after receiving an OSC, a party elects the Alternate Option . . . the case is channeled into an abbreviated agency proceeding . . . . Then, if the violator does not pay the amount set forth in this penalty assessment order (PAO) in full within 60 calendar days, FERC must 'institute an action in the appropriate district court of the United States for an order affirming the assessment of the civil penalty.'") (quoting 16 U.S.C. § 823b(d)(3)(B)) (internal citations omitted).

339 15 U.S.C. § 717u; *see* Section III.E.1, *supra*.

340 *Gabelli v. SEC*, 568 U.S. 442, 448 (2013).

account the *tens of millions of dollars* that Rover and its contractor, Precision, paid to remediate the alleged harms.

1. Enforcement Staff Do Not Even Attempt to Apply the Commission's Penalty Guidelines

Enforcement Staff recommend that the Commission depart from the its Penalty Guidelines[341] when fashioning a penalty here because "the environmental, safety and regulatory harms" here "are not specifically considered by the Penalty Guidelines."[342] Enforcement Staff offer no explanation or support for this claim other than their claim that the Penalty Guidelines "focuses largely on the pecuniary . . . harms . . . or the resulting pecuniary gain to the violator."[343] More to the point, Enforcement Staff depart from the Penalty Guidelines for the simple reason that a Guidelines calculation does not result in more than a de minimis penalty, as explained below. This "departure" allows the Enforcement Staff to recommend a whopping $40,000,000 civil penalty in a case where there is no evidence whatsoever that Rover knew about, approved, authorized, or condoned after-the-fact the alleged violations. Nor is there any evidence of any ongoing environmental harms at all, because Rover and Precision have paid tens of millions of dollars to remediate any conceivable environmental harm. Enforcement Staff's proposed fine of $40,000,000 for conduct that Respondents did not know about or condone, and for which they have already spent tens of millions of dollars remediating, is simply incredible.

Enforcement Staff's position also ignores that Enforcement Staff have previously recommended using the Penalty Guidelines to address similar non-pecuniary harms, including in

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[341] Revised Policy Statement on Penalty Guidelines, 132 FERC ¶ 61,216 (2010) [hereinafter "Penalty Guidelines"].

[342] Staff Report at 40.

[343] *Id.*

the factually-related Stoneman House matter.[344] In that case, the Enforcement Staff alleged false statements (i.e., regulatory harms) and the removal of a potentially historic house (environmental/historical harms). As Rover demonstrated in the Stoneman House matter, a fair and honest application of the Commission's Penalty Guidelines would result in a penalty roughly 3% the size of Enforcement Staff's recommended penalty in that case.

In proposing its $40,000,000 penalty, Enforcement Staff describe five factors they claim support their proposed penalty: (1) the seriousness of the violation, (2) the Respondents' "demonstrated commitment to compliance," (3) whether the Respondents' self-reported the violation, (4) Respondents' cooperation, and (5) whether there was reliance on FERC Staff guidance.[345] In so doing, they cite to the Commission's May 15, 2008 Revised Policy Statement on Enforcement, apparently ignoring that the Commission's 2010 Revised Policy Statement on Penalty Guidelines supersede that guidance and apply the same factors with "greater fairness, consistency, and transparency":

> The modified Penalty Guidelines will play a significant role in our determinations of civil penalties and will add greater fairness, consistency, and transparency to our enforcement program. These Penalty Guidelines continue to base penalties on the same factors as those present in our policy statements on enforcement, but do so in a more focused manner by assigning specific and transparent weight to each factor. For example, we will continue to base penalties on the seriousness of the violation, measured in large part by the harm or risk of harm caused, an organization's efforts to remedy the violation, as well as other culpability factors, such as senior-level involvement, prior history, compliance, self-reporting, and cooperation. While these factors remain the same, organizations will now know with more certainty how each is applied. At the same time, the modified Penalty Guidelines do not

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[344] *Rover Pipeline, LLC*, 174 FERC ¶ 61,208 (Mar. 18, 2021), Chatterjee Concurrence at P 2 ("I believe that the proposed civil penalties in the amount of $20,160,000, which were calculated with reference to the Commission's Revised Policy Statement on Penalty Guidelines, would be excessive in this matter."); Order, Danly Concurrence at P 1 n.1 ("[T]he order proposes a penalty at the highest end of the range provided by the Penalty Guidelines [using Enforcement Staff's proposed factors]. I would be particularly interested in any evidence offered regarding remedy and whether imposing the highest possible penalty permitted by the Penalty Guidelines under OE Staff's allegations is appropriate given the facts alleged.").

[345] Staff Report at 40–42.

> restrict our discretion to make an individualized assessment based on the facts presented in a given case.[346]

Why do Enforcement Staff dislike "fairness, consistency and transparency"? Even setting aside that the Penalty Guidelines are a more appropriate vehicle for assessing a proposed penalty as discussed below, Enforcement Staff's analysis of the five factors demonstrates their rush to judgment and apparent desire to penalize Rover for the actions of third parties.

Enforcement Staff claim that "a significant fine is necessary given the seriousness of the violation."[347] In support, they claim that "several Rover HDD crew members admitted" to using unapproved additives, including diesel fuel "into the drilling mud."[348] And they claim that the alleged failure to monitor the right of way further contributed to the potential harms. But these claims flatly ignore the relevant evidence. No one denies that the misuse of unapproved additives, including diesel fuel, is a serious issue. It is. But it is not a serious violation by Rover. The uncontroverted evidence shows that the alleged wrong-doers were third-party independent subcontractors, not Rover employees. In fact, there is no evidence whatsoever that Rover knew about these alleged actions until well after the fact.[349] And the evidence shows that the crews *were* monitoring the right of way to the fullest extent possible.[350] The area where the IR occurred was unsafe for foot passage in the days leading up to the IR due to extensive river flooding.[351] And the evidence shows that the IR was discovered once the waters had receded[352] So, while the alleged malfeasance *by third-parties* is *serious*, it does not justify a "significant fine" *against Rover*.

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[346] Penalty Guidelines at P 2.

[347] Staff Report at 41.

[348] *Id.* at 41.

[349] *See* Section III.A.1, *supra*.

[350] *See* Section III.B, *supra*.

[351] *See* Section III.B, *supra*; Day Utility Inspector Test. at 69:19–20; 76:19–77:3.

[352] Day Utility Inspector Test. at 76:19–77:6.

Moreover, Enforcement Staff completely ignore the significant resources that Rover and Precision dedicated to, and the tens of millions of dollars they spent, remediating the problem. No matter how the Commission calculates a proposed penalty, that alone counsels against a "significant penalty" and instead suggests either no penalty or a minimal penalty is appropriate.

Enforcement Staff further claim that "Rover's compliance program for the Rover Pipeline Project ineffective and superficial" and that its executives "fueled a culture among its contracts and at the Project site that favored speed and construction progress over regulatory compliance."[353] It states that Rover "did not self-report" the alleged violations and "engaged in obstructionist conduct during the investigation."[354] All of this too is wrong. Rover's compliance program for this project was robust; it was approved by FERC Staff; FERC Staff attended the trainings; and FERC Staff had its own representative on-site who was unable to detect or report the alleged violations. Rover will also show that *Rover* conducted the testing and studies necessary to show the presence of *diesel* in the IR, *Rover* reported the alleged confession of the Night Crew Foreman to Enforcement Staff, *Rover* complied with all of Enforcement Staff's requests, and *Rover* did so while simultaneously cleaning up and remediating the environmental issues discussed in the report.

Further, Enforcement Staff's claim that Rover was "obstructionist" because its production of documents and witnesses took time rings hollow when Enforcement Staff granted immunity to the alleged wrongdoers in their zeal to seek a penalty against Rover; repeatedly misled the Commission by conflating Rover and others; and misstated both the law and the facts. It also ignores that Enforcement Staff have refused for *more than three years* to disclose to Rover exculpatory information in Enforcement Staff's possession. Who is obstructionist?

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[353] Staff Report at 42.

[354] *Id.*

Contrary to Enforcement Staff's position, none of these factors justify a "significant penalty" against Rover. In fact, the actual facts here, applied "fairly, consistently, and transparently" justify either no penalty or a minimal penalty.

2. Guidelines Penalty Calculation

The Commission might well ask itself: What would be the result if Enforcement Staff had used the Penalty Guidelines? The answer is a maximum penalty of about $80,000.

Because the core allegations are alleged order violations, the correct Penalty Guideline is § 2B1.1, whose title is Penalty Guideline for Fraud, Anti-Competitive Conduct and Other Rule, Tariff and *Order Violations*.[355] Section 2B1.1 starts with a "base violation level" of six.[356] No enhancement for "loss" is appropriate. An increase based on "loss" applies if—and only if— "the loss exceeded $5,000[.]"[357] There was no loss here.[358] The Ohio EPA has certified that the drilling mud was fully cleaned up from the wetland and that no contamination of the underlying soil occurred, and has also certified that the contaminated material was fully removed from the quarry where it was originally deposited. The Staff Report is therefore correct not to allege any "loss."

Furthermore, Rover and its contractor Precision expended tens of millions of dollars remediating the IR. Even though the Staff Report does not (and could not plausibly) call the IR itself a violation warranting an enforcement action, this remediation surely must qualify as "[a]n organization's significantly enhanced" response efforts "that go beyond what is required to attain

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[355] Penalty Guidelines § 2B1.1, Application Note 2.

[356] Penalty Guidelines § 2B1.1(a).

[357] *Id.* § 2B1.1(b)(1).

[358] The Penalty Guidelines define loss as "the greater of actual loss or intended loss." Penalty Guidelines § 2B1.1, Application Notes 2(A). And "[a]ctual loss means the reasonably foreseeable pecuniary harm that resulted from the violation." *Id.* § 2B1.1, Application Notes 2(A)(i). Importantly, "pecuniary harm does not include emotional distress, harm to reputation, or other non-economic harm." *Id.* § 2B1.1, Application Notes 2(A)(iii). Nor, for that matter, is there any "gain" to Rover or Energy Transfer.

compliance."[359] Thus, even if there had been *some* harm here, it would have needed to be offset by the amounts Rover and Precision spent to remediate the IR. The Commission has found that "to the extent the violation is causing harm, remedial action to limit the harm will reduce the penalty" and that "the Penalty Guidelines provide us with enough flexibility to consider remedial measures in our penalty determinations."[360] So not only does the Staff Report ignore the absence of loss, it fails to account for the offsetting millions of dollars Respondents spent on remediation.

The next step is to determine whether any enhancement for "duration" is appropriate. Enforcement Staff allege ongoing violations that lasted for several months until the drilling mud was removed from the quarries. No duration modifier is warranted. But assume, for the sake of argument, that it is. In that event, a base violation level of 6, plus the duration enhancement of 4, would yield a base penalty of $20,000.

The next step is to calculate the minimum and maximum modifiers that would be applied to the base penalty to calculate the penalty range.

In the Stoneman House proceeding, the Enforcement Staff invoked the much larger size of Energy Transfer, the parent company, to justify a stiff enhancement based on the size of the violator. But the alleged violator is Rover, the certificate holder. In Stoneman, Enforcement Staff tried to justify this by a combination of misusing Mahmoud's testimony and referencing Energy Transfer's size. As Rover explained in its response to the Stoneman House SCO, Mahmoud testified that the "total team" for the Rover Project is "somewhere around 1,800 people."[361] And Enforcement Staff acknowledged that this 1,800 people includes "only 25 – 50 Energy Transfer

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[359] Penalty Guidelines at P 158.

[360] *Id.* at P 157.

[361] *Rover Pipeline*, 174 FERC ¶ 61,208 at 81 n.356.

employees."[362] The rest are third-parties, including consultants, contractors, and inspectors.[363] Employees of *other* organizations do not count toward the enhancement. Rather, by the enhancement's express terms, the first requirement is that "the *organization* had 1,000 or more employees," not that 1,000 or more persons from other organizations participated in a project.[364] Enforcement Staff recommended adding 4 points to the culpability score in that matter, but the guidelines instead suggest an enhancement of 1 point.[365]

Contrary to Enforcement Staff's claims here, Rover deserves credit for its compliance program. The Penalty Guidelines provide that "hav[ing] an effective compliance program" means that "an organization . . . exercise[s] due diligence to prevent and detect violations" and "otherwise promote[s] an organizational culture that encourages a commitment to compliance with the law."[366] Rover meets this standard, both in general and in this specific context. Rover, through Energy Transfer, enforces a robust set of compliance guidelines and policies, including annual recertification of Energy Transfer's Code of Business conduct by every employee, including those who worked on this Project,[367] and making a confidential ethics helpline available to employees 24 hours a day / 7 days a week.[368]

On the project itself, Rover had a robust compliance program that Commission Staff approved. Each member of the project was trained in environmental and safety compliance, and Commission Staff approved of and attended those trainings. Rover hired multiple independent

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[362] *Id.*

[363] Mahmoud Test. at 26–27.

[364] Penalty Guidelines § 1C2.3(b)(2)(A) (emphasis added).

[365] *Id.* § 1C2.3(b)(5) (for between 10 and 49 employees).

[366] *Id.* § 1B2.1(a).

[367] Energy Transfer Partners, L.P. Sixth Amended and Restated Code of Business Conduct and Ethics at 12, 16 (Apr. 2017).

[368] Energy Transfer Family of Partnerships Employee Handbook at 15 (Jan. 2018).

third-party inspection contractors to provide multi-layered inspection of the project. Contrary to Enforcement Staff's allegations, each of those inspectors was trained in his job responsibilities and was provided with full "stop work" authority in the event of any environmental or safety concerns. The fact that this multi-layered approach did not identify the alleged violations here is proof of the extent to which the wrong-doers *concealed* their activities from those inspectors. After all, they managed to hide it from the FERC representative on-site at the Tuscarawas site too.[369]

In addition, when another problem arose at the Tuscarawas site in mid-May 2017, Rover took immediate steps to rectify it, including—over the objections of its contractors—stopping work at that location and terminating the night crew. Rover then directed its contractors to do a full-day stand down of the entire project—all 10,000+ employees—for a refresher on environmental and safety compliance. Moreover, when the diesel allegations were raised, Rover immediately began investigating the allegations and repeatedly urged Enforcement Staff to fully investigate the matter.[370] Far from a "weak and ineffectual" compliance program, Rover's Commission-approved compliance program was robust. Because Rover acted with the diligence expected by the Penalty Guidelines, it should receive the full 3 point reduction that those Guidelines permit.

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[369] It is further concerning that while the Enforcement Staff appear to have informally talked with the FERC Monitor present at the Tuscarawas, the Enforcement Staff do not appear to have recorded formal testimony from this individual or informed the Commission as to what this (and other individuals treated similarly) told Enforcement Staff. Rover suspects that Enforcement Staff chose not to have recorded formal testimony because it would undercut their case and tend to exculpate Rover. The Commission should be highly concerned by this, and other efforts by Enforcement Staff, to limit the information on the record to what they believe would be helpful to them.

[370] *See* Letter from William Scherman to Demetra Anas et al., Office of Enforcement, Fed. Energy Regul. Comm'n, Re Response of Rover Pipeline, LLC and Energy Transfer Partners, L.P. to Office of Enforcement's November 3, 2017 Letter at 1 (Nov. 27, 2017).

Enforcement Staff also errs in asserting that "Rover did not self-report the violations"; in fact, Rover reported the most critical information to the Commission. The Commission has emphasized that "a self-report constitutes a *voluntary* disclosure."[371] And the Commission has explained that "[b]y voluntarily disclosing information that otherwise would not have to be disclosed, organizations should receive some mitigation credit."[372] Here, Rover clearly *voluntarily* disclosed information that "would not have to be disclosed" and so deserves "some mitigation credit."[373]

First, Rover voluntarily provided the Commission the results of its testing that showed the presence of *diesel fuel* in the IR. The Enforcement Staff err when it claims that the Commission learned of "the presence of diesel fuel" when "it was notified by the Ohio EPA on May 26, 2017."[374] On the contrary, the Ohio EPA's testing only showed the presence of diesel-range organics.[375] While that may be *consistent* with diesel fuel, it might also be *consistent* with something else. This flaw contaminated the Commission's investigation from day one. Rover *voluntarily* engaged in extensive testing of the drill site and the IR, and voluntarily ran the additional tests that neither the Ohio EPA nor the Commission ran. And it was Rover that determined that the substance was *actually* diesel fuel, and it was Rover that *voluntarily* provided that information to the Commission.

Second, it was Rover that *voluntarily* notified Enforcement Staff as soon as Rover learned of reports that employees of the independent sub-contractor Pretec had apparently admitted to

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[371] Penalty Guidelines at P 148 (emphasis in the original).

[372] *Id.*

[373] *Id.*

[374] Staff Report at 42.

[375] *See, e.g.*, Boultinghouse Test. at 52:25–53:3 ("Q. And just because there's the presence of a diesel range organic, does that mean that these tests also show that there was diesel fuel? A. No.").

putting diesel fuel into the drill hole (including early reports that Rover could not ultimately corroborate). *The Staff Report does not mention this critical fact.* Rover deserves, at the very least, "some mitigation credit" for its voluntary disclosures. Accordingly, Rover should be credited with 1 point for "self-reporting."

What would happen, though, if the Commission rejected Respondents' positions on these factors? Assume, for purposes of the Penalty Guideline calculation, no credits for a compliance program or self-reporting, a one-point enhancement for alleged obstruction, the duration modifier (a +4 modifier for "more than 50 days"), and Enforcement Staff's proposed organizational size enhancement from the Stoneman House case. Even with all of those adverse assumptions, the "fair, consistent, and transparent" output of the penalty guidelines is a maximum penalty of $80,000—approximately 0.2% of Enforcement Staff's unwarranted recommendation.

Illustrative Penalty Calculation

Fraud, Anti-Competitive Conduct and Other Rule, Tariff and Order Violations		
Violation Level	Base Violation level	6
	Loss Modifer	0
	Volume/Duration Modifer	4
	Transparency Modifer (+/= 16)	N/A
	Net Base Violation Level:	**10**
Base Penalty (Greater of loss/gain or Violation Table)		$20,000
Culpability Score	Base Culpability (=5)	5
	High-Level Tolerance (≤+5)	4
	Prior History of Violations (≤+2)	0
	Order Violation (≤+2)	0
	Obstruction (≤+3)	1
	Effective Compliance Program (≤-3)	0
	Self-reporting (≤-2)	0
	Full Cooperation (≤-1)	0
	Avoidance of Trial (≤-1)	0
	Acceptance of Responsibility (≤-1)	0
	Net Score:	10
Minimum Culpability Score Multiplier		2.00
Maximum Culpability Score Multipler		4
Penalty Range	**Minimum Penalty** $40,000	**Maximum Penalty** $80,000

IV. CONCLUSION

For all of the foregoing reasons, the Commission should close this matter by declining to initiate an enforcement action. Should the Commission decide to initiate such an action, it must do so in federal district court. And any assessment of a proposed penalty should be in accordance with the Penalty Guidelines; *i.e.*, no more than $80,000.

Respectfully submitted,

/s/ *William S. Scherman*

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March 21, 2022

APPENDIX B: INDEX OF CITED EVIDENTIARY MATERIALS THAT WERE NOT CITED IN ENFORCEMENT STAFF'S REPORT

Document Description	Filename	Volume
Letter from Katherine Walsh, Office of Enforcement, FERC to William Scherman, Gibson, Dunn & Crutcher LLP at 1 (June 4, 2019)	20190604 OE to Rover	Priv.
Rover Pipeline, LLC's and Energy Transfer, L.P.'s Renewed Motion to Compel Disclosure of Exculpatory Materials and Require In Camera Inspection, Rover Pipeline, LLC, Docket No. IN17-4-000 (Feb. 22, 2022)	Rover Reply to Enforcement Brady Response (3-10)	Pub.
Response to Respondent's Renewed Motion to Compel, Rover Pipeline, LLC, Docket No. IN17-4-000 (Mar. 2, 2022)	Enforcement Staff's Response to Renewed Motion	Pub.
Joint Statement of Acting Chairman Cheryl A. LaFleur and Commissioner Colette D. Honorable on Tuscarawas River Horizontal Directional Drill – Drilling Fluid Composition, Rover Pipeline, LLC, Docket No. CP15-93-000 (June 1, 2017)	20170601 letter	Pub.
Rover, Report of ET Rover Pipeline LLC for Documents Submittal In Compliance with 18 C.F.R. Section 157.21(f), Docket No. PF14-14 (July 29, 2014)	20140729_Public-Final Rover Draft RR1_07_28_14	Pub.
Notice of Commencement of Construction, Rover Pipeline, LLC, Docket No. CP15-93-000 (Mar. 14, 2017)	20170314-5132 - Notice of Commencement	Pub.
Email from Bobby Poteete (Precision) to Bill Colson (Pretec) (Mar. 18, 2017) MASTEC010222	MASTEC0010222	Priv.
Email from Bobby Poteete re Rainfall (March 7, 2017) MASTEC0021074	MASTEC0021074	Priv.
Email from Bill Colson re Schedule (March 31, 2017) MASTEC0024946	MASTEC0024946	Priv.
Email from Buffy Thomason to Thomas Gunter (Apr. 13, 2017 1:53 PM) THDD-00011382.	THDD-00011382	Priv.
Rover Pipeline, LLC, Notice of Violation, Division of Environmental Response, Investigation and Enforcement, Ohio Environmental Protection Agency (Apr. 14, 2017) (THDD-00000255).	THDD-00000255	Priv.
Letter from Kelly Allen, Rover Pipeline LLC to Kimberly Bose, FERC re Inadvertent Release, Docket No. CP15-93-000 (Apr. 18, 2017).	20170418 Rover Ltr to FERC re Notice of Violation	Pub.
Director of Environmental Compliance Notes, Ex. 32 (Apr. 16, 2017) MASTEC0003125	MASTEC0003125_201704 notes	Priv.

Rover Pipeline LLC Horizontal Directional Drill Contingency Plan, Rover Pipeline, LLC, Docket No. CP15-93-000 (Apr. 2015)	HDD Contingency Plan April 2015	Pub.
Tuscarawas IR Cleanup Summary (Oct. 15, 2017) MASTEC0058126	MASTEC0058126	Priv.
Letter from Rover to FERC re Inadvertent Release, Docket No. CP15-93-00 (June 28, 2017)	20170628-5153_Public-Final Rover HDD Letter_06_28_17	Pub.
FERC Authorization to Resume HDD Activities, Docket No. CP15-93-000 (Dec. 14, 2017).	20171214-3061 FERC Auth to Resume	Pub.
FERC Stop Work Order, Docket No. CP15-93-000 (Jan. 24, 2018)	20180124 FERC Stop Work Order	Pub.
Rover Response to FERC and JD Hair Report, Docket No. CP15-93-000 (Aug. 4, 2017)	20170804 Response to J.D. Hair Report	Pub.
Rover, Letter to Ohio EPA re Director's Final Findings and Orders (July 14, 2017)	20170714 Rover ltr to OH EPA	Pub.
Rover, Letter to Enforcement Staff re Non-Public Investigation of Rover Pipeline LLC (Sept 7, 2018)	20180907 September 7, 2018 Brady Letter to Enforcement (NON PUBLIC)	Priv.
FERC's Environmental Compliance Program Summary Report, Docket No. CP15-93-000 (Apr. 3, 2017)	20170403 Compliance Summary Report	Pub.
Email from Chris Boyd re Inspector Roles and Responsibilities (Mar. 19, 2017) CIS0001816	20170319 Email from Boyd (CIS0001816)	Priv.
Rover Pipeline 401 Water Quality Certification, issued by OEPA Director Craig Butler (Feb. 24, 2017)	Rover Pipeline 401	Pub.
Letter from Kevin Erwin, Rover Pipeline to Terry Turpin dated September 11, 2017	20170911 Letter from Erwin to Turpin	Pub.
Letter from William Scherman to Demetra Anas et al., Office of Enforcement, Fed. Energy Regul. Comm'n, Re Response of Rover Pipeline LLC and Energy Transfer Partners, L.P. to Office of Enforcement's November 3, 2017 Letter (Nov. 27, 2017)	20171127 Letter to Enforcement	Priv.
Written Testimony of Larry R. Parkinson, Director, Office of Enforcement, FERC, Before the Energy and Commerce Committee, Energy and Power	Parkinson Testimony	Pub.

Subcommittee, U.S. House of Representatives (June 3, 2015)		
Energy Transfer Partners, L.P. Sixth Amended and Restated Code of Business Conduct and Ethics (Apr. 2017)	ET Bus. Ethics	Pub.
Energy Transfer Family of Partnerships Employee Handbook (Jan. 2018)	ET Employee Handbook	Pub.
Letter from Lisa Owings, Office of Enforcement, FERC to William Scherman, Counsel for Rover Pipeline LLC and Energy Transfer Partners, L.P. re Document Preservation Notice, at 1 (June 1, 2017)	20170601 Document Preservation Letter to Rover	Priv.
Ohio Department of Natural Resources Officer Narrative Attachment to the Investigatory Case Report (May 13, 2017)	ODNR Report	Priv.
Investigative Testimony of Leon Banta	Banta, Leon	Priv.
Investigative Testimony of William Colson	Colson, William	Priv.

ET ROVER PIPELINE
An ENERGY TRANSFER Company

ET ROVER PIPELINE LLC

Rover Pipeline Project

RESOURCE REPORT 1
General Project Description

FERC Docket No. PF14-14 -000

Preliminary Draft - July 2014

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LIST OF FIGURES

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LIST OF ACRONYMS

API	American Petroleum Institute
ASME	American Society for Mechanical Engineers
ATWS	Additional temporary workspace
Bcf/d	billion cubic feet per day
CFR	Code of Federal Regulations
ET Rover	ET Rover Pipeline LLC
FERC or Commission	Federal Energy Regulatory Commission
HDD	horizontal directional drill
hp	horsepower
MLV	mainline valve
MP	Milepost
NDE	non-destructive examination
NEPA	National Environmental Policy Act
NGA	Natural Gas Act
Plan	ET Rover's Upland Erosion Control, Revegetation, and Maintenance Plan
Pre-Filing Process	FERC Pre-Filing Review Process
Procedures	ET Rover's Waterbody and Wetland Construction and Mitigation Procedures
Project	Rover Pipeline Project
SCADA	Supervisory Control and Data Acquisition
SPR Procedures	Spill Prevention and Response Procedure
U.S.	United States
USDOT	United States Department of Transportation
USGS	United States Geological Survey

RESOURCE REPORT 1—GENERAL PROJECT DESCRIPTION	
Filing Requirement	**Location in Environmental Report**
• Describe and provide location maps of all jurisdictional facilities, including all aboveground facilities associated with the project (such as: meter stations, pig launchers/receivers, valves), to be constructed, modified, abandoned, replaced, or removed, including related construction and operational support activities and areas such as maintenance bases, staging areas, communications towers, power lines, and new access roads (roads to be built or modified).	Section 1.3 Appendix 1A
• Describe the length and diameter of the pipeline, the types of aboveground facilities that would be installed, and associated land requirements.	Section 1.3
• Identify other companies that must construct jurisdictional facilities related to the project, where the facilities would be located, and where they are in the Commission's approval process. (§ 380.12(c)(1))	Section 1.11
• Identify and describe all nonjurisdictional facilities, including auxiliary facilities, that will be built in association with the project, including facilities to be built by other companies. (§ 380.12(c)(2)) • (i) Provide the following information: (A) A brief description of each facility, including as appropriate: Ownership, land requirements, gas consumption, megawatt size, construction status, and an update of the latest status of Federal, state, and local permits/approvals; (B) The length and diameter of any interconnecting pipeline; (C) Current 1:24,000/1:25,000 scale topographic maps showing the location of the facilities; (D) Correspondence with the appropriate State Historic Preservation Officer (SHPO) or duly authorized Tribal Historic Preservation Officer (THPO) for tribal lands regarding whether properties eligible for listing on the National Register of Historic Places (NRHP) would be affected; (E) Correspondence with the United States (U.S.) Fish and Wildlife Service (and National Marine Fisheries Service, if appropriate) regarding potential impacts of the proposed facility on federally listed threatened and endangered species; and (F) For facilities within a designated coastal zone management area, a consistency determination or evidence that the owner has requested a consistency determination from the state's coastal zone management program. (ii) Address each of the following factors and indicate which ones, if any, appear to indicate the need for the Commission to do an environmental review of project-related nonjurisdictional facilities. A) Whether or not the regulated activity comprises ``merely a link'' in a corridor type project (e.g., a transportation or utility transmission project). (B) Whether there are aspects of the nonjurisdictional facility in the immediate vicinity of the regulated activity which uniquely determine the location and configuration of the regulated activity. (C) The extent to which the entire project will be within the Commission's jurisdiction. (D) The extent of cumulative Federal control and responsibility.	Section 1.11

RESOURCE REPORT 1—GENERAL PROJECT DESCRIPTION	
Filing Requirement	**Location in Environmental Report**
• Provide the following maps and photos: (§ 380.12(c)(3)) (i) Current, original United States Geological Survey (USGS) 7.5-minute series topographic maps or maps of equivalent detail; (ii) Original aerial images or photographs or photo-based alignment sheets based on these sources:	Appendix 1A
• Include large scale (1:3,600 or greater) plot plans of each compressor station, identifying the location of the nearest noise-sensitive areas (schools, hospitals, or residences) within 1 mile of the compressor station, existing and proposed compressor and auxiliary buildings, access roads, and the limits of areas that would be permanently disturbed. (§ 380.12(c)(4))	Pending Resource Report 9
• Identify facilities to be abandoned, and state how they would be abandoned, how the site would be restored, who would own the site or right-of-way after abandonment, and who would be responsible for any facilities abandoned in place. (§ 380.12(c)(5))	Section 1.8
• Describe and identify by milepost, proposed construction and restoration methods to be used in areas of rugged topography, residential areas, active croplands, sites where the pipeline would be located parallel to and under roads, and sites where explosives are likely to be used. (§ 380.12(c)(6))	Section 1.6
• Describe estimated workforce requirements, including the number of pipeline construction spreads, average workforce requirements for each construction spread and meter or compressor station, estimated duration of construction from initial clearing to final restoration, and number of personnel to be hired to operate the proposed project. (§ 380.12(c)(7))	Section 1.5
• Describe reasonably foreseeable plans for future expansion of facilities, including additional land requirements and the compatibility of those plans with the current proposal. (§ 380.12(c)(8))	Section 1.8
• Describe all authorizations required to complete the proposed action and the status of applications for such authorizations. Identify environmental mitigation requirements specified in any permit or proposed in any permit application to the extent not specified elsewhere in this section. (§ 380.12(c)(9))	Section 1.10
• Provide the names and mailing addresses of all affected landowners and certify that all affected landowners will be notified as required in Sec. 157.6(d). (§ 380.12(c)(10))	Section 1.9 (Submitted under separate cover as Privileged and Confidential)

This is a preliminary draft report of Resource Report 1 which is being submitted to the Federal Energy Regulatory Commission (FERC or Commission) as part of the National Environmental Policy Act of 1969 (NEPA) FERC Pre-Filing Review Process (Pre-Filing Process). One of the goals of the Pre-Filing Process is to allow the applicant to receive comments from stakeholders in the development of a project and to keep stakeholders informed of project design before submittal of the formal application to the FERC and other federal and state agencies.

1.0 PROJECT DESCRIPTION

1.1 INTRODUCTION

ET Rover Pipeline LLC (ET Rover), a subsidiary of Energy Transfer, will be seeking authorization from the FERC pursuant to Section 7(c) of the Natural Gas Act (NGA) to construct, own, and operate the proposed Rover Pipeline Project (Project). The Rover Pipeline Project, as currently proposed, is a new natural gas pipeline system that will consist of approximately 585.9 miles of Supply Laterals and Mainlines, 10 compressor stations, and associated meter stations and other aboveground facilities that will be located in parts of West Virginia, Pennsylvania, Ohio, and Michigan. The Project will extend from the vicinity of New Milton, Doddridge County, West Virginia to the United States (U.S.)/Canada border near East China, St. Clair County, Michigan. An additional 14.5 miles of 42-inch diameter pipeline will extend from the U.S./Canada border to the Union Gas Dawn Hub, in the vicinity of Beaver Meadow, Ontario, Canada.[1]

On June 26, 2014, in compliance with the requirements of 18 Code of Federal Regulations (CFR) §157.21(b), ET Rover requested FERC to begin its review of the Project using the FERC's Pre-Filing Process. The Pre-Filing Process initiates the FERC's review of the Project in its early design stages in order to satisfy the requirements of NEPA. As part of the Pre-Filing Process, the FERC, with input from federal and state agencies and other stakeholders, will analyze environmental impacts, alternatives, and mitigation measures as a prelude to submittal of ET Rover's application and the development of the FERC's Environmental Impact Statement for the Project. This will allow the FERC, and other federal and state resource management agencies to identify and resolve environmental issues associated with the preliminary design of the Project. Agencies may participate in the Pre-Filing Process by providing assistance in the identification and resolution of concerns, and participating in agency and public information meetings. On June 27, 2014, FERC approved ET Rover's request and assigned Docket No. PF14-14-000 to the Project.

In addition to facilitating preparation of the NEPA documentation for the Project, the Pre-Filing Process will also facilitate compilation of technically consistent reports, exhibits and other documentation to support consultation requests and applications to federal and state resource management agencies for

[1] Because the Canadian facilities will be authorized under Canadian regulations, only the U.S. facilities are addressed in this Resource Report.

clearances, approvals, and permits. At the conclusion of the Pre-Filing Process, ET Rover will file its certificate application under Section 7(c) of the NGA.

Among other requirements, the FERC regulations require that the certificate application includes an Environmental Report, consisting of up to 13 Resource Reports as described in 18 CFR § 157.14(a)(6-a), 380.3, and 380.12. Each Resource Report describes a particular aspect of the environment and evaluates the potential effects of the Project on that particular aspect. This preliminary draft Resource Report 1 describes the Project facilities; land requirements; procedures for construction, restoration, operation, and maintenance of Project facilities; as well as environmental permits and clearances that will be required, non-jurisdictional facilities, future plans and abandonment, and cumulative impacts.

The Project is currently under development and detailed design is pending completion of civil and environmental surveys that are currently underway. As such, many details of the Project design are not yet completely defined and will be provided in a subsequent draft of this Resource Report that will be submitted in the fourth quarter 2014.

1.2 PURPOSE AND NEED

The U.S. Energy Information Administration's (EIA) Annual Energy Outlook 2013 Early Release projects U.S. natural gas production to increase from 23.0 trillion cubic feet in 2011 to 33.1 trillion cubic feet in 2040, a 44 percent increase. Almost all of this increase in domestic natural gas production is due to projected growth in shale gas production, which grew from 7.8 trillion cubic feet in 2011 to 16.7 trillion cubic feet in 2014. The availability of large trend and increased quantities of shale gas is predicted to continue for the next 100 plus years, allowing U.S. consumers to rely upon and plan for low cost supplies of natural gas. According to the most current and relevant government and industry supply/consumption indexes (including the U.S. Department of Energy), the supplies will continue to outpace domestic consumption for many years, allowing for the export of natural gas.

The Rover Pipeline Project originated as a result of discussions with producers who have active production and processing capacity as well as significant stranded gas in the Marcellus and Utica Shale areas of West Virginia, Pennsylvania, and Ohio desiring to move their production to markets in the Gulf Coast, Midwest and Canada. Thus, the Project has been designed to enable the flow of natural gas from producer processing plants and interconnections in Pennsylvania, West Virginia, and Ohio to interconnections with Energy Transfer's existing Panhandle Eastern Pipe Line and other Midwest pipeline interconnects near Defiance, Ohio, direct connections with local markets in and around Detroit, Michigan and a connection into the Canadian gas trading hub located in Dawn Canada.

As currently proposed, the Project will have the capacity to transport 3.25 billion cubic feet per day (Bcf/d) of natural gas. ET Rover held an open season that concluded on July 25, 2014. ET Rover has executed precedent agreements with shippers representing 3.1 Bcf/d, and fully expects to contract the remaining capacity prior to in-service or as interruptible flows after initial start-up.

1.3 LOCATION AND DESCRIPTION OF PROPOSED FACILITIES

The Project as currently proposed will consist of the following components and facilities:

- Supply Laterals:
  - Six Supply Laterals consisting of approximately 203.6 miles of 36- and 42-inch- diameter pipeline in West Virginia, Pennsylvania, and Ohio, including 17.5 miles of dual 42-inch pipeline along one lateral;
  - Approximately 78,600 horsepower (hp) at six new compressor stations to be located in Doddridge and Marshall counties, West Virginia; Washington County, Pennsylvania; and Noble, Monroe, and Harrison counties, Ohio, and
  - Various new receipt meter stations on the supply laterals.
- Mainline:
  - Approximately 191.4 miles of dual 42-inch diameter pipelines in Ohio;
  - Approximately 139,100 hp at three new compressor stations to be located in Carroll, Wayne, and Crawford, counties, Ohio; and
  - Two new delivery meter stations at the Midwest Hub in Defiance county, Ohio.
- Market Segment:
  - Approximately 190.9 miles of 42-inch diameter pipeline in Ohio and Michigan;
  - Approximately 25,000 hp at one new compressor station to be located in Defiance County, Ohio; and
  - Two new delivery meter stations in Washtenaw and Livingston counties, Michigan.

A general location map of the Project facilities is shown on Figure 1.3-1.

Included under separate cover in Appendix 1A are Map Books, containing U.S. Geological Society (USGS) topographic maps and aerials showing the preliminary location of the Project components. As project design is finalized, additional maps and drawings will be provided, showing the construction and operational work space, aboveground facilities, contractor yards, access roads, and horizontal directional drill (HDD) locations.

1.3.1 PIPELINE FACILITIES

The Project will include construction of a total of approximately 585.9 miles of new pipeline in the U.S., including a total of approximately 203.6 miles on the Supply Laterals, 191.4 miles on the Mainline, and 190.9 miles on the Market Segment (see Table 1.3-1). Dual 42-inch-diameter pipelines will be installed on the Cadiz Lateral and along the Mainline for a total of 208.9 miles of dual pipelines. The pipelines will be operated at a maximum allowable operating pressure of 1,440 pounds per square inch gauge. To the extent practicable, the Project pipelines will be constructed parallel and adjacent to other existing pipelines or utility lines. Based on preliminary design, 50-60 percent of the 585.9 miles of new pipeline will be adjacent (or parallel) to existing rights-of-way (e.g. pipelines, electric transmission lines, roadways, etc.).

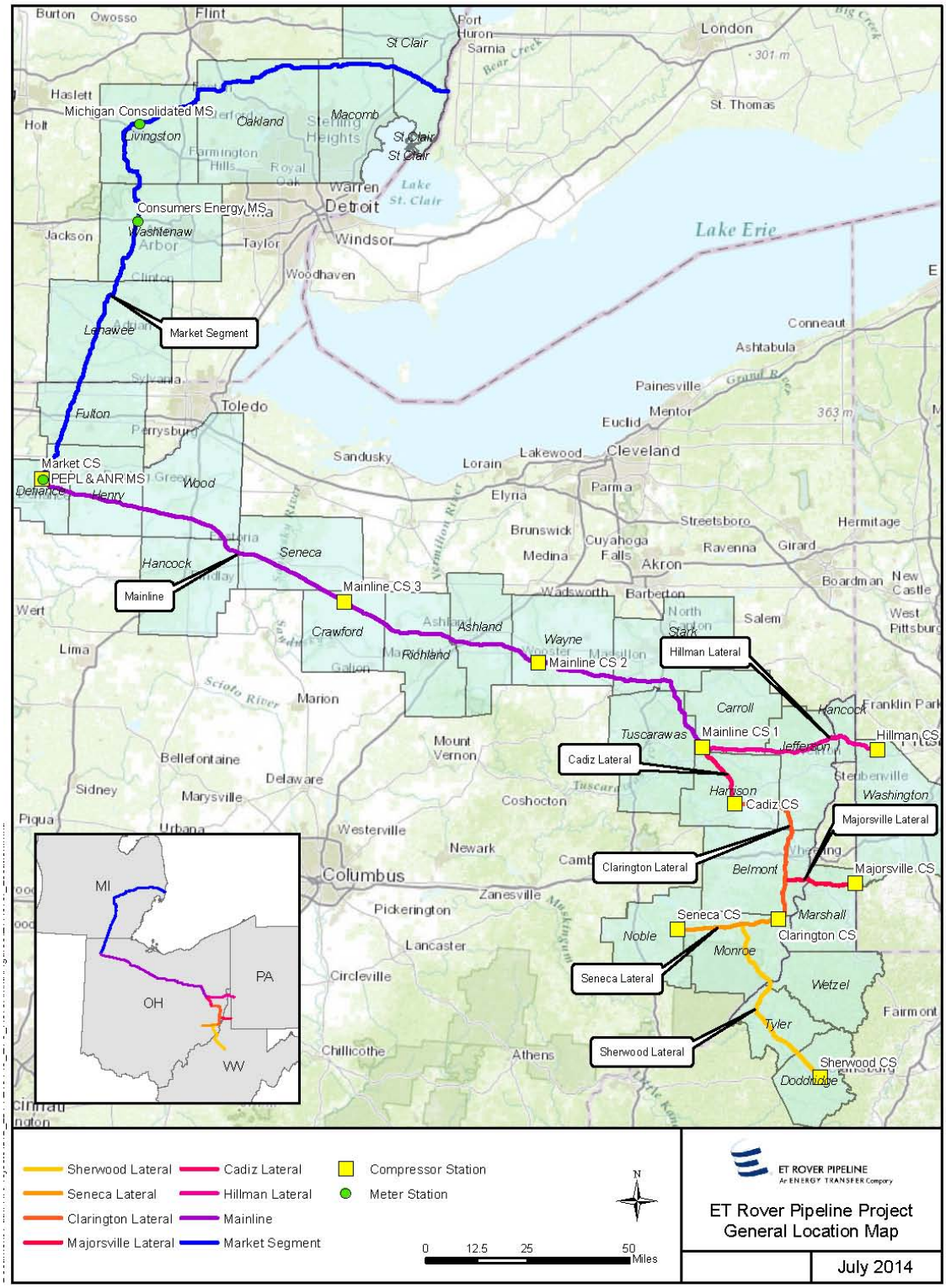

Figure 1.3-1 Rover Pipeline Project General Location Map

TABLE 1.3-1
Pipeline Facilities

Pipeline Segment	Pipeline Diameter (inches)	County, State	Approximate Length (mi)
Supply Laterals:			
Sherwood Lateral	36	Doddridge, Tyler, Wetzel, WV	33.5
		Monroe, OH	17.5
Seneca Lateral	42	Noble, Monroe, OH	25.7
Clarington Lateral	42	Monroe, Belmont, Jefferson, and Harrison, OH	43.7
Majorsville Lateral	36	Marshall, WV	12.6
		Belmont, OH	6.1
Cadiz Lateral	42[1]	Harrison and Carroll, OH	17.5
Hillman Lateral	36	Washington, PA	6.0
		Hancock, WV	5.7
		Jefferson and Carroll, OH	35.3
		Supply Laterals Subtotal	***203.6***
Mainlines:			
Mainline	42[1]	Carroll, Tuscarawas, Stark, Wayne, Ashland, Richland, Crawford, Seneca, Hancock, Wood, Henry, and Defiance, OH	***191.4***
Market Segment	42	Defiance, Henry, and Fulton, OH	27.1
		Lenawee, Washtenaw, Livingston, Oakland, Macomb, and St. Clair, MI	163.8
		Mainline Subtotal	**382.3**
		PROJECT TOTAL	**585.9**

1 Includes dual 42-inch pipelines.

1.3.1.1 Supply Laterals

Sherwood Lateral

The Sherwood Lateral consists of construction of approximately 51.0 miles of 36-inch diameter natural gas pipeline commencing in Doddridge County, West Virginia and extending in a generally northerly direction to an interconnect with the Seneca Lateral (Seneca Lateral milepost [MP] 16.0) in Monroe County, Ohio.

Seneca Lateral

The Seneca Lateral consists of construction of approximately 25.7 miles of 42-inch diameter natural gas pipeline commencing in Noble County, Ohio and extending east to the interconnect with the Clarington Lateral in Monroe County, Ohio.

Clarington Lateral

The Clarington Lateral consists of construction of approximately 43.7 miles of 42-inch natural gas pipeline commencing at the interconnect with the Seneca Lateral in Monroe County, Ohio, extending in a generally northerly direction and terminating at the interconnect with the Cadiz Lateral in Harrison County, Ohio.

Majorsville Lateral

The Majorsville Lateral consists of construction of approximately 18.7 miles of 36-inch diameter natural gas pipeline commencing in Marshall County, West Virginia and extending west to an interconnect with the Clarington Lateral (Clarington Lateral MP 11.4) in Belmont County, Ohio.

Cadiz Lateral

The Cadiz Lateral consists of construction of approximately 17.5 miles of dual 42-inch diameter natural gas pipelines commencing at the interconnect with the Clarington Lateral in Harrison, Ohio, extending northwest to the interconnect with the Mainline in Carroll County, Ohio.

Hillman Lateral

The Hillman Lateral consists of construction of approximately 47.0 miles of 36-inch diameter natural gas pipeline commencing in Washington County, Pennsylvania and extending west through Hancock County, West Virginia and into Ohio, terminating at the interconnect with the Mainline and Cadiz Lateral in Carroll County, Ohio.

1.3.1.2 Mainlines

Mainline

The Mainline consists of construction of approximately 191.4 miles of dual 42-inch diameter natural gas pipelines that originate at the Leesville Compressor Station in Carroll County, Ohio and terminate at the Midwest Hub in Defiance County, Ohio.

Market Segment

The Market Segment includes construction of approximately 190.9 miles of 42-inch diameter natural gas pipeline commencing at the end of the Mainline in Defiance County, Ohio, extending north through Michigan, and terminating at the U.S./Canada border in St. Clair County, Michigan.

1.3.2 ABOVEGROUND FACILITIES

1.3.2.1 Compressor Stations

ET Rover proposes to construct six new compressor stations on the Supply Laterals, three new compressor stations on the Mainline, and one new compressor station on the Market Segment. The compressor stations are listed on Table 1.3-2 by MP. Their general location is shown on Figure 1.3-1.

TABLE 1.3-2
Compressor Station Facilities

MP	Pipeline Segment	Station	County, State	Nameplate Rating (hp)
Supply Laterals:				
0.0	Sherwood Lateral	Sherwood Compressor Station	Doddridge, WV	14,400
0.0	Seneca Lateral	Seneca Compressor Station	Noble, OH	22,000
0.0	Clarington Lateral	Clarington Compressor Station	Monroe, OH	7,700
0.0	Majorsville Lateral	Majorsville Compressor Station	Marshall, WV	8,600
0.0	Cadiz Lateral	Cadiz Compressor Station	Harrison, OH	19,400
0.0	Hillman Lateral	Hillman Compressor Station	Washington, PA	6,500
			Supply Laterals Subtotal	***78,600***
Mainlines:				
0.0	Mainline	Mainline Compressor Station 1	Carroll, OH	58,100
54.5	Mainline	Mainline Compressor Station 2	Wayne, OH	*40,000*
107.5	Mainline	Mainline Compressor Station 3	Crawford, OH	41,000
			Mainline Subtotal	***139,100***
0.0	Market Segment	Market Compressor Station	Defiance, OH	***25,000***
			PROJECT TOTAL	***242,700***

Facilities at each compressor station site will include natural gas-fired compressors, a compressor building, an office/control/utility building, a storage/maintenance building, gas and utility piping, separators, gas coolers or heaters (at some locations), safety equipment, an emergency generator, and parking areas. The locations and plot plans of each compressor station will be provided in future submittals.

1.3.2.2 Receipt and Delivery Meter Stations

Meter stations will be installed at various pipeline interconnections to measure the receipt or delivery of natural gas. The locations for the Receipt Meter Stations on the Supply Laterals are still under development and will be provided in future submittals. The general location for the Delivery Meter Stations along the Mainline and Market Segment are listed by MP in Table 1.3-3 and shown on Figure 1.3-1.

TABLE 1.3-3
Meter Station Facilities

MP	Pipeline Segment	Station	County, State
Supply Laterals:		*Pending*	
0.0	Sherwood Lateral	Sherwood Compressor Station	Doddridge, WV
0.0	Seneca Lateral	Seneca Compressor Station	Noble, OH
0.0	Clarington Lateral	Clarington Compressor Station	Monroe, OH
0.0	Majorsville Lateral	Majorsville Compressor Station	Marshall, WV
0.0	Cadiz Lateral	Cadiz Compressor Station	Harrison, OH
0.0	Hillman Lateral	Hillman Compressor Station	Washington, PA
Mainlines:			
191.0	*Mainline*	Midwest Hub - PEPL Delivery Meter Station	Defiance, OH
191.0	*Mainline*	Midwest Hub – ANR Delivery Meter Station	Defiance, OH
72.0	*Market Segment*	Consumers Energy Delivery Meter Station	Washtenaw, MI
103.0	*Market Segment*	Michigan Consolidated Meter Station	Livingston, MI

Typical equipment installed at each meter station includes a supply line, emergency bypass line, meter runs, pressure regulation (if required), overpressure protection, gas heaters, and a discharge line. Meter run piping and components will be located outside the receipt or delivery meter building. Electrical power will be provided for building cooling, lighting, ventilation, and control equipment. A small satellite dish may be installed for Supervisory Control and Data Acquisition (SCADA). Telephone service also will be required for voice communications and SCADA backup.

1.3.2.3 Other Aboveground Facilities

Other associated aboveground facilities include mainline valves (MLV), and launchers and receivers. The locations of these facilities will be provided in future submittals.

Mainline Valves

MLVs will be installed at intermediate locations along the Project and at the beginning and end of each pipeline segment, as required to meet operational needs and the design requirements specified by the U.S. Department of Transportation (USDOT) in 49 CFR §192.179(a) – Transmission Line Valves. MLVs will be installed within the permanent pipeline right-of-way, or at the compressor or meter station sites, and will most likely be buried with only the valve operators and blowoffs extending above the ground surface. To the extent practicable, the MLVs will be located near existing roads to enable easy access from public roadways and reduce the requirement for construction of new access roads. Each MLV will be contained within a fenced, gated, and locked area.

Launchers and Receivers

A launcher will be installed at the beginning of each pipeline segment and a receiver at the end of each pipeline segment (or vice versa) to accommodate in-line inspection tools (smart pigs) for the periodic internal inspection of the pipeline during operations. Similar to the MLVs, the launchers and receivers will be installed within the permanent pipeline right-of-way, or at the compressor or meter station sites. The launcher/receiver will extend the pipeline aboveground to facilitate the insertion/removal of the in-line inspection tools.

1.3.3 DESIGN STANDARDS

All pipeline facilities and associated appurtenances will be designed, constructed, tested, operated, and maintained to conform to or exceed the requirements of the USDOT in 49 CFR Part 191 and 192, Transportation of Natural and Other Gas by Pipeline, Minimum Safety Standards, Annual Reports, Incident Reports, and Safety-related Condition Reports; 18 CFR § 380.15, Site and Maintenance Requirements; and other applicable federal and state regulations.

The Supply Lateral, Mainline, and Market Segment pipelines will be constructed of carbon steel pipe that has been manufactured in accordance with the American Petroleum Institute's (API) specifications for seamless and welded steel line pipe for use in conveying gas in the natural gas industries (API 5L). The pipe will be protected from external corrosion by a fusion-bonded epoxy coating and an impressed current cathodic protection system. The pipe will be internally coated to protect against internal corrosion and to increase the flow efficiency of the pipeline, thus reducing fuel consumption and compression horsepower required to transport a given volume of gas in the pipeline, ultimately reducing greenhouse gas emissions associated with the Project.

1.3.4 STATUS OF FIELD SURVEYS

Detailed civil, biological, and cultural field surveys began in mid-June 2014 and will continue through late October/mid-November 2014. The survey corridor is 400 feet wide to accommodate the construction right-of-way, additional temporary work space (ATWS), and minor route changes that may be required. Environmental components of the survey program include delineations of wetlands and waterbodies, identification of threatened and endangered species or their habitat, surveys for cultural resources within the area of potential effect, identification of nearby water supply wells and residences, and noise surveys at the compressor station and HDD sites. The results of these surveys will be included in a future submittal of draft Resource Report 2, Water Use and Quality; Resource Report 3, Vegetation and Wildlife, including threatened and endangered species; Resource Report 4, Cultural Resources; Resource Report 8, Land Use, Recreation, and Aesthetics; and Resource Report 9, Air Quality and Noise.

1.4 LAND REQUIREMENTS

The Project will result in the temporary disturbance to existing land use during construction and, to a lesser degree, in the future during operation and maintenance of the Project. A preliminary estimate of land requirements for the Project is summarized in Table 1.4-1 and is further described in the following sections.

TABLE 1.4-1
Construction and Operation Land Requirements

Facility	County, State	Construction (acres)	Operation (acres)
Supply Laterals:			
Sherwood Lateral[1]	Doddridge, Tyler, Wetzel, WV	517.73	203.03
	Monroe, OH	270.45	106.06
Seneca Lateral[1]	Noble, Monroe, OH	397.18	155.76
Clarington Lateral[1]	Monroe, Belmont, Jefferson, and Harrison, OH	675.36	264.85
Majorsville Lateral[1]	Marshall, WV	194.73	76.36
	Belmont, OH	94.27	36.97
Cadiz Lateral[2]	Harrison and Carroll, OH	292.09	127.27
Hillman Lateral[1]	Washington, PA	92.73	36.36
	Hancock, WV	88.09	34.55
	Jefferson and Carroll, OH	545.55	213.94
Access Roads[3]	Various	242.42	12.12
Pipeyards[4]	Various	115.0	0.0
Sherwood and Majorsville Compressor Stations[5]	Doddridge, Marshall, WV	30.0	30.0
Seneca, Clarington, and Cadiz Compressor Stations[5]	Noble, Monroe, Harrison, OH	45.0	45.0
Hillman Compressor Station[5]	Washington, PA	15.0	15.0
	Supply Laterals Subtotal	*3,615.6*	*1,357.3*
Mainlines:			
Mainline[6]	Carroll, Tuscarawas, Stark, Wayne, Ashland, Richland, Crawford, Seneca, Hancock, Wood, Henry, and Defiance, OH	3,549.60	1,392.0
Access Roads[3]	Various	230.3	6.06
Pipeyards[4]	Various	150.0	0.0
Mainline Compressor Stations 1, 2 and 3[7]	Carroll, Wayne, and Crawford, OH	105.0	105.0
PEPL and ANR Delivery Meter Stations[8]	Defiance, OH	3.0	3.0
	Mainline Subtotal	*4,037.9*	*1,506.1*
Market Segment[1]	Defiance, Henry, and Fulton, OH	418.82	164.24
	Lenawee, Washtenaw, Livingston, Oakland, Macomb, and St. Clair, MI	2,531.46	992.73
Access Roads[3]	Various	206.06	3.64
Pipeyards[4]	Various	105.0	0.0
Market Compressor Station[7]	Defiance, OH	35.0	35.0

TABLE 1.4-1
Construction and Operation Land Requirements

Facility	County, State	Construction (acres)	Operation (acres)
Consumers Energy and Michigan Consolidated Delivery Meter Stations[8]	Washtenaw, Livingston, MI	3.0	3.0
	Market Segment Subtotal	*3,299.3*	*1,198.6*
	PROJECT TOTAL	**10,952.8**	**4,061.9**

1 Nominal construction right-of-way for single pipeline = 125 feet, plus an allowance for ATWS; Operational right-of-way = 50 feet.
2 Nominal construction right-of-way for dual 42-inch pipelines = 135 feet, plus an allowance for ATWS; Operational right-of-way = 60 feet.
3 Estimate based on anticipated construction requirements and an average access road width of 20 feet.
4 Estimate based on anticipated acres required for pipeyards.
5 Estimate based on acquiring approximately 15 acres for each compressor station.
6 Nominal construction right-of-way for dual 42-inch pipelines = 150 feet due to predominance of agricultural land; Operational right-of-way = 60 feet.
7 Estimate based on acquiring approximately 35 acres for each compressor station.
8 Estimate based on approximately 1.5 acres for each meter station.

Note: Actual land requirements to be provided following completion of surveys and detailed engineering design.

1.4.1 PIPELINE FACILITIES

Installation of the pipeline will be accomplished along the construction right-of-way as a moving assembly line as described in Section 1.6.1. Construction of the Supply Laterals, Mainline, and Market Segment will require acquisition of construction work areas consisting of the permanent easement, temporary construction right-of-way, ATWS, and access roads to the construction work areas and temporary contractor yards. Following construction, all construction work areas will be restored and revegetated. ET Rover will retain a 50- to 60-foot-wide permanent easement for operation of the pipeline(s).

1.4.1.1 Construction Right-of-Way

Appendix 1B includes typical right-of-way cross-sections for construction in uplands, agricultural land, and wetlands for locations where one pipeline or dual pipelines will be installed. ET Rover is proposing to use a construction right-of-way width that will provide for safe working conditions and efficient pipe installation for the 36- and 42-inch-diameter pipe, as well as locations where two 42-inch-diameter pipelines will be installed, while also protecting sensitive environmental resources. The dimensions of ET Rover's typical construction rights-of-way are based on the following considerations:

- Trench depths will typically range from 7 to 15 feet depending on soil conditions and land use and to maintain a minimum of 3 feet of cover over the top of the 36- and 42-inch-diameter pipe.

- In wetlands and agricultural lands, the trench may be up to 15 feet deep due to saturated soils, to allow for additional cover over the pipeline for the addition of set-on or saddle bag-type weights to maintain negative buoyancy, or to avoid interference with deep tilling practices and/or irrigation systems in agricultural fields. In all agricultural lands, ET Rover is committed to burying the pipeline with a minimum or 48 inches of cover to minimizes interference with agricultural practices.
- The trench width at the ground surface will range between 20 and 45 feet to maintain stable trench walls and accommodate deeper trenches in the various soil conditions.
- Storage for trench spoil and topsoil will require between 30 and 60 feet (depending on the width and depth of the trench and topsoil stripping) to prevent sloughing of the spoil back into the trench and maintain safe work areas for construction workers. In environmentally sensitive areas, spoil can be placed in nearby ATWS to reduce right-of-way width requirements.
- The equipment work area typically will require approximately 65 feet for efficient pipe installation and to accommodate:
    - The large equipment used to install 42-inch-diameter pipe – A 583 or 594-sized sideboom used to maneuver and install the pipe requires a minimum of about 25 feet of right-of-way to accommodate the partially extended counterweight needed to offset the 80-foot-long, 42-inch-diameter pipe joints.
    - Automatic welding – ET Rover will most likely use automatic welding to weld the pipe joints together before lowering the pipe into the trench. This involves use of portable shelters, commonly referred to as "sheds" or "shacks," that are leapfrogged down the right-of-way by sidebooms during mainline welding operations. The standard width of these sheds is between 10 and 12 feet, not including maneuvering room for the side boom to move the sheds down the right-of-way.
    - A travel lane – The travel lane is essential for efficient pipeline construction and allows equipment and support crews to pass around construction activities. During pipe laying activities, the travel lane allows sidebooms to leapfrog along the right-of-way, allowing for longer segments of pipe to be installed. For short distances and in environmentally sensitive areas, the travel lane can be reduced although ATWS is often required outside of the sensitive areas for pipe makeup and/or spoil storage.

The construction right-of-way width and temporary land requirements for installation of the Supply Laterals, Mainline, and Market Segment will differ according to the type of terrain encountered, construction methods that will be used, and environmental sensitivity of the land being crossed. Based on its construction experience involving the installation of 36- and 42-inch-diameter pipe, and evaluation of the environmental sensitivity of the land being crossed, ET Rover is requesting use of the following typical construction right-of-way widths:

- 150 feet in agricultural land (i.e., full right-of-way topsoil segregation).

- 125 feet in upland areas (i.e., non-sensitive environmental areas where adequate workspace is available to expedite construction and install long sections of pipe);
- 135 feet in upland areas where dual 42-inch pipelines will be installed (i.e., non-sensitive environmental areas where adequate workspace is available to expedite construction and install long sections of pipe);
- 75 feet in forested wetlands where the crossing length is less than 500 feet (i.e., manageable distance for drag section or constrained construction) and where soil conditions are stable;
- 95 feet in forested wetlands where the crossing length is less than 500 feet (i.e., manageable distance for drag section or constrained construction), where dual 42-inch pipelines will be installed, and where soil conditions are stable;
- 100 feet in emergent and scrub-shrub wetlands where a single pipeline will be installed; and
- 120 feet in emergent and scrub-shrub wetlands where dual 42-inch pipelines will be installed.

The second pipeline on the Cadiz Lateral and Mainline will be installed approximately 20 feet from the first pipeline and within the same construction work area used for the first pipeline.

The Supply Laterals, Mainline, and Market Segment will be installed parallel or adjacent to other pipeline or electric transmission lines to the extent feasible. Generally, the ET Rover pipelines will be installed approximately 50 feet from the existing pipeline or transmission line structure and the permanent easements for the ET Rover pipelines and existing utility line will abut each other. The temporary construction right-of-way may overlap existing pipeline and electric transmission rights-of-way, where approved by the utility, while providing a safe separation distance between the ET Rover pipelines and existing pipelines and/or utility lines.

1.4.1.2 Additional Temporary Workspace

ATWS will be required where an obstacle prevents the normal placement of spoil and the placement of pipe sections immediately adjacent to the pipe trench (for example, at a waterbody crossing or road crossings), where additional volumes of spoil will be generated in areas where a reduced right-of-way is being used (for example, a wetland crossings), or where additional construction operations will be performed (for example, at HDDs).

ATWS typically will be required on both sides of road, railroad, wetland, and waterbody crossings; at truck turnarounds, at hydrostatic test water withdrawal pump locations, at pipe tie-ins, at HDD entry and exit points, at foreign pipeline or other utility crossings, and for staging and fabrication of drag sections. The size and configuration of each ATWS is unique and dependent upon the existing conditions at each work location (e.g., available or accessible space, the presence of buildings and other structures, crossing angle, crossing depth, length of crossing, terrain, or the presence of trees or sensitive habitat).

1.4.1.3 Access Roads

Access roads are used to transport construction workers and materials to the construction work area from public interstate, state, and county highways/roads. These access roads include private roads and/or two-tracks that may require minor modification or improvement to safely support the expected loads associated with the movement of construction equipment and materials to and from the public roadways to the construction right-of-way. Modifications or improvements to these access roads may include grading or other minor maintenance to prevent rutting during use, placement of additional gravel or crushed stone on the existing surface, enlargement to accommodate the pipeline equipment, such as stringing trucks, and/or installation of board or timber mats that will be removed upon completion of construction.

1.4.1.4 Pipe Storage and Contractor Yards

Pipe storage yards are typically used to stockpile pipe and fabricate concrete weights. Contractor yards typically are used to stage construction operations, fabricate piping assemblies, store materials, and park equipment, and for the temporary construction offices. Depending upon the condition of these yards and their current use, some surface grading, drainage improvements, placement of surface materials (i.e., crushed rock), and creation of internal roadways may be required. To the extent feasible and available, ET Rover will lease yards that have been previously disturbed for other industrial purposes or during construction of other projects.

1.4.1.5 Operations Easement

Following construction of the Supply Laterals, Mainline, and Market Segment, ET Rover will maintain a permanent easement along the pipeline to allow for inspection and maintenance of the pipeline during operation. ET Rover will retain a permanent easement of 50 feet where one pipeline will be installed and 60 feet where dual pipelines will be installed to provide adequate room to maintain the larger diameter pipeline(s) and to provide a buffer between adjacent pipelines and the Rover pipeline(s), as well as between the dual Rover pipelines where they will be installed.

1.4.2 ABOVEGROUND FACILITIES

ET Rover will purchase or lease land for the aboveground facilities. The compressor and meter stations will be located adjacent to the pipelines; the MLVs and launchers/receivers will be located within the permanent easement for the pipeline or at the compressor or meter station sites.

1.5 CONSTRUCTION SCHEDULE AND COMPLIANCE PROCEDURES

1.5.1 CONSTRUCTION SCHEDULE

ET Rover plans to commence construction in January 2016, pending receipt of all applicable permits and clearances. The Supply Laterals and Mainline are scheduled to be in-service in December 2016. The Market Segment is scheduled to be in-service no later than June 2017.

ET Rover will install the pipeline using multiple construction spreads, and smaller work crews for the HDDs, compressor stations, and meter stations. The order in which each facility will be constructed may vary, depending upon the capabilities of each contractor, available workforce, and optimized construction logistics. The estimated peak Project construction work force is expected to be 7,500-10,000 workers. Approximately 30-50 workers will be hired to operate the new pipeline system.

1.5.2 COMPLIANCE ASSURANCE MEASURES

To ensure that construction of the Project facilities will comply with mitigation measures identified in ET Rover's applications and supporting documentation, the FERC's environmental conditions, and the requirements of other federal and state permitting agencies, ET Rover will include, whenever appropriate, environmental requirements in its construction drawings and specifications. To solicit accurate bids for pipeline construction, ET Rover will provide these specifications and advance versions of the Construction Drawing Package to qualified prospective pipeline contractors. Contractors selected to perform work on the Project will receive copies of specifications and a Construction Drawing Package containing pipeline and aboveground facility drawings designated as being approved for construction.

For those mitigation measures that address pre-construction surveys and clearances, ET Rover will include pertinent correspondence documenting compliance with these mitigation measures in the Construction Drawing Package. For those mitigation measures that address permit conditions from federal, state, and local agencies, ET Rover will include copies of permits and related drawings in the Construction Drawing Package. For those mitigation measures that, in part, address post-construction requirements, ET Rover will include instructions and documentation that will be provided to operating personnel following the completion of construction. These maintenance instructions will include copies of pertinent permits with particular reference to long-term permit conditions and reporting requirements.

ET Rover will require the selected contractors to install the proposed facilities according to ET Rover's standard specifications, the Construction Drawing Package, and the terms of a negotiated contract. To support the application of proper field construction methods, ET Rover will prepare its Project-specific *Upland Erosion Control, Revegetation and Maintenance Plan* (Plan) and *Waterbody and Wetland Construction and Mitigation Procedures* (Procedures) to address the site-specific conditions in the Project area. The Project-specific Plan and Procedures are based on the FERC's 2013 Plan and Procedures and deviations from, or additions to, the FERC Plan and Procedures will be identified for approval prior to implementation.

In addition, ET Rover will develop a *Spill Prevention and Response Procedure* (SPR Procedure) that provides procedures for hazardous materials transportation, handling, storage, spill prevention, and spill response; a *Horizontal Directional Drill Contingency Plan* (HDD Plan) that addresses HDD operations, as well as the containment and cleanup of inadvertent releases of drilling fluids; and a *Winter Restoration Plan*.

ET Rover will conduct environmental training sessions for all ET Rover construction management and contractor personnel prior to and during the pipeline installation. While this training will focus on implementation of the Plan, Procedures, SPR Procedure, HDD Plan, and Winter Restoration Plan, it will also include instructions on the implementation of other mitigation measures, as appropriate.

ET Rover will employ full-time Environmental Inspectors for each construction spread for the duration of Project construction, and one Chief Environmental Inspector for the entire Project. The Environmental Inspectors will have duties consistent with those contained in Paragraph II.B. (Responsibilities of Environmental Inspectors) of the Plan, including ensuring compliance with environmental conditions attached to the certificate that is ultimately issued by the FERC for the Project, Project environmental designs and specifications, and environmental conditions attached to other permits or authorizations. ET Rover will provide training for its Environmental Inspectors regarding proper field implementation of the Plan and Procedures, hazardous materials management, and other mitigation measures. For purposes of quality assurance and compliance with mitigation measures, other applicable regulatory requirements, and ET Rover specifications, ET Rover also will be represented on each construction spread by a Chief Construction Inspector, and one or more Craft Inspectors.

ET Rover's Engineering and Project Management departments are responsible for designing and constructing facilities in compliance with regulatory and non-regulatory requirements and agreements. The Construction Site Manager will address any issues of noncompliance with mitigation measures or other regulatory requirements. If technical or management assistance is required, the Chief Inspector will request assistance from the appropriate ET Rover department or division. ET Rover's Operations department will be responsible for long-term Project maintenance and regulatory compliance.

ET Rover, upon a request from FERC, will fund a third-party environmental compliance monitoring program that will be managed by the FERC. The overall objective of the compliance monitoring program will be to: assess environmental compliance during construction to achieve a high level of compliance throughout the Project construction; assist the FERC staff in screening and processing requests for variances during construction; and create and maintain a database of daily reports documenting compliance. Final details regarding staffing and implementation of the compliance monitoring program will be developed in consultation with the FERC prior to the commencement of construction and as part of the initial Implementation Plan documenting how ET Rover will comply with mitigation measures identified in the Order that may be issued by the FERC for the Project.

1.6 CONSTRUCTION PROCEDURES

1.6.1 PIPELINE FACILITIES

Construction of the Project will follow industry-accepted practices and procedures, as further described below. Generally, construction of the Project pipelines will follow a set of sequential operations as shown in Figure 1.6-1, Typical Pipeline Construction Sequence. In this typical pipeline construction scenario, the construction spread proceeds along the pipeline right-of-way in one continuous operation. The entire process will be coordinated in such a manner as to minimize the total time a tract of land is disturbed and therefore exposed to erosion and temporarily precluded from normal use.

To minimize the impacts of construction disturbance, ET Rover will implement its Plan and Procedures as required with any deviations approved by the FERC. The following sections provide descriptions of activities along a typical construction spread, as well as other specialized construction methods that will be used to install the pipeline at waterbody, road, and railroad crossings, and in wetland, residential, and agricultural areas.

1.6.1.1 Typical Upland Pipeline Construction Procedures

Described below are the activities associated with conventional construction for large-diameter pipelines. Where the second 42-inch-diameter pipeline will be installed, clearing and grading will be conducted for both pipelines in a single pass. One pipeline will be assembled and installed from stringing through backfill and rough cleanup, and then the second pipeline will be installed in a similar manner. Final restoration and cleanup will be completed following installation of both pipelines. The dual pipelines will be installed concurrently in areas requiring specialized crews, such as road/railroad crossings, foreign pipeline crossings, congested residential areas, HDD crossings, and other bored crossings.

<u>Surveying</u>

The initial step in preparing the right-of-way for construction is the civil survey. A civil survey crew will stake the outside limits of the construction right-of-way, the centerline location of the pipeline, drainage centerlines and elevations, highway and railroad crossings, and any temporary extra workspace, such as lay down areas or at stream crossings. The “One Call” system of each state will be contacted and underground utilities (e.g., cables, conduits, and pipelines) will be located and flagged. Affected landowners will be contacted and requested to permit ET Rover agents to enter property prior to surveying and staking of the centerline and workspaces for construction.

Figure 1.6-1 Typical Pipeline Construction Sequence

Clearing and Grading

Following surveying, the right-of-way will be cleared. Large obstacles such as trees, rocks, brush, and logs will be removed. Timber and other vegetation debris may be chipped for use as erosion-control mulch, burned, sold, or otherwise disposed of in accordance with applicable state and local regulations, and landowner easement agreements. Burning will be conducted in such a manner as to minimize the fire hazard and prevent heat damage to surrounding vegetation. Fences will be cut and braced along the right-of-way, and temporary gates will be installed to control livestock and limit public access.

The right-of-way will then be graded where necessary to create a reasonably level working surface to allow safe passage of construction equipment and materials, and for operation of pipe fabrication and installation equipment. During the grading operation, temporary flume pipes will be installed as necessary to maintain surface drainage. Temporary erosion control measures, such as silt fencing and interceptor dikes, will be installed during topsoil and subsoil removal. Conserved topsoil will typically be stockpiled along one side of the right-of-way, allowing the other side to be used for access, material transport, and pipe assembly.

Trenching

To bury the pipeline underground, it will be necessary to excavate a trench. The trench will be excavated with a rotary trenching machine, a track-mounted backhoe, or similar equipment. Generally, the trench bottom will be excavated at least 12 inches wider than the diameter of the pipe. The sides of the trench will be sloped with the top of the trench up to 20 feet across, or more, depending upon the stability of the native soils. The trench will be excavated to a sufficient depth to allow a minimum of 3 feet of soil cover between the top of the pipe and the final land surface after backfilling. Additional cover will be provided at crossings of waterbodies, agricultural lands, roads, and railroads. Excavated soil will typically be stockpiled along the trench (the "spoil" side) and away from the construction traffic and pipe assembly area (the "working" side). Where the pipeline is adjacent to an existing pipeline, the spoil will be placed on the same side of the trench as the existing pipeline. No working equipment will operate over the active pipeline.

If it becomes necessary to remove water from the trench, it will be pumped to a well-vegetated upland area (where practical) outside of the construction work area and/or filtered through a filter bag or siltation barrier.

Stringing

Steel pipe will be procured in nominal 40-foot, 60-foot, and 80-foot lengths, or "joints," protected with an epoxy coating applied at the factory or at a coating yard (the beveled ends will be left uncoated for welding) and shipped to strategically located materials storage areas, or "pipeyards." The individual joints will be transported to the right-of-way by truck and placed along the excavated trench in a single, continuous line, easily accessible to the construction personnel on the working side of the trench, typically opposite the spoil side. This will allow the subsequent lineup and welding operations to proceed efficiently. At stream crossings, the amount of pipe required to span the stream will be stockpiled in temporary extra work spaces on one or both banks of the stream.

Pipe Bending

The pipe will be delivered to the job site in straight joints. While some induction bends may be used, some bending of pipe will be required to allow the pipeline to follow natural grade changes and direction changes of the right-of-way. Prior to welding, selected joints will be bent in the field by track-mounted hydraulic bending machines.

Pipe Assembly and Welding

Following stringing and bending, the joints of pipe will be placed on temporary supports, adjacent to the trench. ET Rover will use automatic welding to join multiple pipe joints together, where appropriate, and tie-in welds where needed at road, railroad, stream or wetland crossings. The pipe joints will be carefully aligned and welded together using multiple passes for a full penetration weld. Only qualified welders will be allowed to perform the welding. Welders and welding procedures will be qualified according to applicable American Society for Mechanical Engineers (ASME), API, and 49 CFR Part 192 Standards.

Non-Destructive Examination and Weld Repair

To ensure that the assembled pipe will meet or exceed the design strength requirements, 100 percent of the pipeline girth welds will be visually inspected and tested for integrity using non-destructive examination (NDE) methods such as radiography (X-ray) or ultrasound, in accordance with API standards. Welds displaying unacceptable slag inclusions, void spaces, or other defects will be repaired or cut out and re-welded.

Coating Field Welds, Inspection, and Repair

Following welding, the previously uncoated ends of the pipe at the joints will be cleaned and epoxy coated in accordance with ET Rover's specifications. The coating on the completed pipe section will be inspected and any damaged areas will be repaired.

Pipe Lowering

The completed section of pipe will be lifted off the temporary supports and lowered into the trench by side-boom tractors or equivalent equipment. Prior to lowering the pipe, the trench will be inspected to ensure that it is free of rocks and other debris that could damage the pipe or the coating, and that the trench and pipe configurations are compatible, and then the pipe will be lowered-in. In rocky areas, if the bottom is not smooth, a layer of soil may be placed on the bottom of the trench to protect the pipe. Concrete set-on or saddle bag type weights will be used if required for negative buoyancy in areas of saturated soils.

Padding and Backfilling

After the pipe is lowered into the trench, the trench will be backfilled. Previously excavated materials will be pushed back into the trench using bladed equipment or backhoes. Where the previously excavated material contains large rocks or other materials that could damage the pipe or coating, clean fill and/or protective coating (rock shield) will be placed around the pipe prior to backfilling. Segregated topsoil, where applicable, will be placed after backfilling the trench with subsoil. Following backfilling in

agricultural land, grassland, and open land, or in specified areas, a small crown may be left in certain areas to account for any future soil settling that might occur. Excess soil will only be distributed in upland areas evenly on the right-of-way, while maintaining existing contours.

A caliper pig run will be completed after backfill to ensure there are no dents or damage to the pipe as a result of the construction and backfill process.

Hydrostatic Test and Final Tie-In

Following backfilling of the trench, the pipeline will be hydrostatically tested in a manner that meets or exceeds the requirements of 49 CFR 192 to ensure that it is capable of safely operating at the design pressure. Test segments of the pipeline will be capped and filled with water. Surface water used for testing will be drawn through a screened intake in accordance with ET Rover's Procedures. The water in the pipe will be pressurized and held for a minimum of 8 hours in accordance with the Pipeline and Hazardous Materials Safety Administration requirements identified in 49 CFR Part 192. Any loss of pressure that cannot be attributed to other factors, such as temperature changes, will be investigated. Any leaks detected will be repaired and the segment will be retested.

Upon completion of the test, the water may be pumped to the next pipe segment for testing, or the water may be discharged. The test water will be discharged through an energy-dissipating device in compliance with ET Rover's Procedures, and any state-specific requirements included in the applicable state discharge permits. Once a segment of pipe has been successfully tested and dried, the test cap and manifold will be removed, and the pipe will be connected to the remainder of the pipeline.

Test water will contact only new pipe, and no chemicals will be added. No desiccant or chemical additives will be used to dry the pipe. ET Rover will implement applicable requirements of its Procedures regarding hydrostatic testing, as well as any specifications listed in individual state permits. Unless expressly permitted or approved, there will be no direct discharge into state-designated exceptional value waters or scenic rivers.

Cleanup and Restoration

Post-construction restoration activities will be undertaken in accordance with the applicable measures in the Plan and Procedures, other permit or agency requirements, and requirements in the landowner easement agreements. After a segment of pipe has been installed, backfilled, and successfully tested, the right-of-way, ATWS, and other disturbed areas will be finish-graded, and the construction debris will be disposed of properly. The surface of the right-of-way disturbed by construction activities will be graded to match original contours and to be compatible with surrounding drainage patterns, except at those locations where permanent changes in drainage will be required to prevent erosion, scour, and possible exposure of the pipeline. Segregated topsoil will be returned to its original horizon, unless otherwise requested by the landowner. Temporary and permanent erosion and sediment control measures, including silt fencing, diversion terraces, and vegetation, will be installed at that time. Private and public property, such as fences, gates, driveways, and roads that have been disturbed by the pipeline construction will be restored to original or better condition.

1.6.1.2 Wetland Construction Procedures

ET Rover has considered minimizing potential impacts to wetlands during selection of its proposed route and will avoid or minimize wetland crossings to the extent practicable. Where wetlands cannot be avoided, crossings of jurisdictional wetlands will be done in accordance with federal and state permits and approvals, and the Procedures, including any deviations requested by ET Rover and approved by the FERC.

Operation of construction equipment in wetlands will be limited to that needed to clear the right-of-way, dig the trench, fabricate the pipe, install the pipe, backfill the trench, and restore the right-of-way (see all versions of Figure 2 in Appendix 1B). ET Rover will segregate the topsoil over the trench up to 12 inches in depth in wetlands where hydrologic conditions permit this practice. Segregated topsoil will be placed in the trench following subsoil backfilling. In accordance with the Procedures, fuel will not be stored within 100 feet of wetlands or other waterbodies unless otherwise approved by the FERC or the Environmental Inspector. Restoration and monitoring of wetland crossings will be conducted in accordance with the Procedures to ensure successful wetland revegetation.

Unsaturated Wetland Crossings

In crossing unsaturated wetlands (wetlands without standing water or saturated soils), construction will be similar to the typical upland construction described above, with additional measures to protect wetland resources. If normal construction equipment begins to rut or would result in mixing of wetland topsoil and subsoil, low ground pressure equipment will be used, or temporary board or timber equipment mats will be installed to allow passage of equipment with minimal disturbance of the surface and vegetation. Trees will be cut to grade, but stumps will only be removed from the trenchline and from the working side where necessary for safety. Topsoil over the pipe trench will be segregated from subsoils. A vegetation buffer zone may be left between the wetland and the upland construction areas, except for the pipe trench and travel lane and as site-specific conditions warrant. Erosion control measures such as silt fences, interceptor dikes, and straw/hay bale structures will be installed and maintained to minimize sedimentation into off-right-of-way areas. Trench plugs will be installed where necessary to prevent the unintentional draining of water from the wetland. Upon completion of construction, the right-of-way will be restored and a 10-foot wide strip centered on the pipeline will be maintained in an herbaceous state.

Saturated Wetland Crossings

Saturated wetlands include those with standing water at the time of construction. Topsoil segregation will not be practical in saturated wetlands. Equipment mats or timber mats will be used to facilitate equipment movement through and work within the wetland. Otherwise, construction will be similar to that described above for unsaturated wetlands

1.6.1.3 Waterbody Construction Procedures

ET Rover will follow its Procedures to limit water quality and aquatic resource impacts during and following construction. Construction activities will be scheduled so that the pipeline trench is excavated

as close to pipe laying activities as possible. In accordance with ET Rover's Procedures and where the pipeline will not be installed using HDD, the duration of construction across perennial waterbodies will be limited to 48 hours (24 hours to cross the waterbody and 24 hours for restoration) across minor waterbodies (10 feet wide or less) and intermediate waterbodies (between 10 and 100 feet wide). Banks will be returned to as near to pre-construction conditions as possible within 24 hours of completion of each open-cut crossing. Any deviations in timing that would result in extended crossing durations will be identified in advance by ET Rover and notification made to FERC with site-specific justification.

Construction methods at waterbody crossings will vary with the characteristics of the waterbody encountered and will be performed consistent with applicable permits and authorizations. Pipe will be installed to provide a minimum of 5 feet of cover from the waterbody bottom to the top of the pipeline. The bottom of the pipeline trench will be excavated to a width of at least 12 inches greater than the diameter of the pipe or to a greater width to allow proper backfill beneath and along the sides of the pipeline.

Trench spoil will be placed on the bank above the high water mark for use as backfill. Excavated spoil that is stockpiled in the construction right-of-way will be at least 10 feet from the stream bank or in approved ATWS, and will be surrounded by sediment control devices to prevent sediment from returning to the waterbody.

Where the pipeline is prefabricated for installation across the waterbody, the pipeline segment will be long enough to extend for a minimum 10 feet past the high banks on each side of the waterbody before raising in elevation to the normal trench level. The pipeline may be weighted with buoyancy concrete control weights, saddle bag type weights and/or screw anchors to obtain sufficient negative buoyancy of the pipeline. All adjacent pipelines will be protected as necessary.

Normal backfill cover requirements will be met and backfill compacted so that it will be equal to or above that of the adjacent undisturbed areas. Ditch plugs of crushed stone, sandbags, or dry soil may also be used to keep backfill from sloughing in toward the center of the waterbody. All waterbody banks will be restored to as close to the original grade as possible, while preventing long-term erosion. All erosion control materials or other materials used for the crossing will be removed from the waterbody, and excavated material not required for backfill will be removed and disposed of at an upland site.

ET Rover will use the open-cut crossing method where appropriate. Dry-ditch waterbody crossing methods (i.e., dam and pump and flume) will be used where feasible depending upon the actual conditions encountered at the time of construction or where required by federal or state agencies. Major waterbodies (e.g., those greater than 100 feet wide), navigable waters, or sensitive waterbodies identified by federal and state agencies, will be crossed using HDD. The proposed crossing method for each waterbody will be provided in future submittals.

Open-Cut Crossing Method

An open-cut waterbody crossing will use methods similar to conventional upland open-cut trenching. The open-cut construction method will involve excavation of the pipeline trench across the waterbody, installation of a prefabricated segment of pipe, and backfilling of the trench with native material. No effort will be made to isolate the stream flow from the construction activities. Depending upon the width of the crossing and the reach of the excavating equipment, excavation and backfilling of the trench will generally be accomplished using backhoes or other excavation equipment operating from one or both banks of the waterbody. If necessary for reach, the equipment may operate within the waterbody. Equipment in the waterbody will be limited to that needed to complete the crossing. All other construction equipment will cross the waterbody using equipment bridges, unless otherwise allowed by the Procedures for minor waterbody crossings.

In areas where man-made drainages have been created to facilitate agriculture practices (e.g., field or pasture drains), these drainage features will be rerouted or temporarily blocked during trenching to prevent downstream or off right-of-way sedimentation of natural waterbodies. These man-made crossings will be completed as part of mainline construction. For intermittent or ephemeral crossings, pipe will be strung and welded along the trench line. Trench plugs will remain on either side of the crossing or flumes will be installed to maintain water flow during rain events. When the welded pipe string is ready for installation, the trench plugs or flumes will be removed temporarily to allow the pipe to be placed in the trench, the trench will be backfilled, and the banks restored.

Dam and Pump Crossing Method

The dam and pump method involves installation of temporary dams upstream and downstream of the waterbody crossing. The temporary dams typically will be constructed using sandbags and plastic sheeting. Following dam installation, appropriately sized pumps will be used to dewater and transport the stream flow around the construction work area and trench. Intake screens will be installed at the pump inlets to prevent entrainment of aquatic life, and energy dissipating devices will be installed at the pump discharge point to minimize erosion and stream bed scour. Trench excavation and pipeline installation will then commence through the dewatered portion of the waterbody channel. Following completion of pipeline installation, backfill of the trench, and restoration of stream banks, the temporary dams will be removed, and flow through the construction work area will be restored. This method is generally only appropriate for those waterbody crossings where pumps can adequately transfer the stream flow volume around the work area and there are no concerns about the passage of sensitive species. Where this method is used, ET Rover will ensure its contractor has redundant pump(s) available on location.

Flume Crossing Method

The flume crossing method is similar to a dam and pump, and will consist of temporarily directing the flow of water through one or more flume pipes placed over the area to be excavated. This method allows excavation of the pipe trench across the waterbody completely underneath the flume pipes without disruption of water flow in the stream. Stream flow will be diverted through the flumes by constructing two bulkheads, using sand bags or plastic dams, to direct the stream flow through the flume pipes. Following completion of pipeline installation, backfill of the trench, and restoration of stream banks, the

bulkheads and flume pipes will be removed. This crossing method generally minimizes the duration of downstream turbidity by allowing excavation of the pipeline trench under relatively dry conditions.

1.6.1.4 Horizontal Bore and HDD Crossing Methods

Horizontal bore and HDD are trenchless crossing methods that may be used for crossings under roads, railroads, sensitive resources, and waterbodies.

Horizontal Bore Method

To complete a horizontal bore, two pits will be excavated, one on each side of the feature to be bored. A boring machine will be lowered into one pit, and a horizontal hole is bored to a diameter approximately two inches larger than the diameter of the pipe (or casing, if required) at the depth of the pipeline installation. The pipeline section and/or casing will be pushed through the bore to the opposite pit. If additional pipeline sections are required to span the length of the bore, they will be welded to the first section of the pipeline in the bore pit before being pushed through the bore.

Because the horizontal bore method involves pits on each side of the feature, this method is primarily used for crossings of roads or railroads. However, adjacent waterbodies or wetlands will typically be included within the length of the bore. Some elevated or channelized waterbodies, such as irrigation ditches, may also be successfully bored, depending upon the groundwater level in the area.

HDD

HDD has been in use since the 1980's as a means to install pipelines under major roadways, and under rivers and at shore approaches to eliminate pipeline exposure from erosion and scour and eliminate impacts to water quality from construction activities that would otherwise occur within the waterbody. Pipelines up to 60 inches in diameter have been successfully installed using this method. The length of pipeline that can be installed by HDD depends upon underlying soil and rock conditions, pipe diameters, and available technology and equipment sizes. An HDD may not be appropriate for every site condition encountered.

HDD involves drilling a pilot hole along a prescribed path and then enlarging that hole using reaming tools to achieve a hole large enough to accommodate the pipe. The reaming tools are attached to the drill string at the exit point of the pilot hole and then rotated and drawn back to the drilling rig, thus progressively enlarging the pilot hole with each pass. During this process, drilling fluid consisting of bentonite clay and water is maintained in drilling pits within the construction work area and will be continuously pumped into the hole to remove cuttings and maintain the integrity of the hole between the HDD entry and exit points. Once the hole has been sufficiently enlarged, a prefabricated segment of pipe will be attached behind the reaming tool on the exit side of the crossing and pulled back through the drill hole to the drill rig, completing the crossing.

There is the potential for an inadvertent release of drilling mud (frac-out) during execution of an HDD. To minimize the potential for a frac-out, ET Rover construction personnel and the contractor will conduct

visual and pedestrian inspections along the drill path and will continuously monitor drilling mud pressures and return flows. In accordance with the HDD Plan, ET Rover's contractor will take immediate action to control any inadvertent releases. Depending on the amount of fluid released and its location, these actions include containing the release with containment structures if a large volume is released, cleaning up the affected area, and making adjustments to the composition of the drilling fluid to minimize or prevent recurrence.

Because it is necessary to prefabricate a section of pipe above ground that is equal to the length of the HDD, additional work space beyond the HDD temporary work area may be needed. Where the HDD and the abutting portion of the right-of-way are in or near parallel alignment, the pull section will be pre-fabricated within the construction right-of-way and no extra work space will be required for the pull section. If the abutting right-of-way is not aligned with the HDD, an extra work space (sometimes referred to as a "false right-of-way") will be required.

An access path along or near the permanent right-of-way between the HDD entry and exit points may be needed for the temporary deployment of telemetry cable, and for water access. Surface disturbance will be limited to understory only and avoided as much as possible. No large trees will be cut for the temporary access. Newer technology uses a global positioning satellite drill head that transmits the location of the drill head back through the stem to the operator to maintain the hole along the prescribed path. Older technology uses electric-grid guide wires (or Tru-Tracker wires) that are hand-laid across the land surface and along the pipeline centerline to help guide the drill bit along the predetermined HDD path. In thickly vegetated areas, some vegetation may be trimmed using hand tools to allow placement of these electric-grid guide wires. Ground and vegetation disturbance will be minimal and no trees will be cut for guide wire installation. Access for installation of the guide wires for the Tru-Tracker will be along or near the centerline and within the permanent right-of-way.

Pumps for obtaining water for the drilling process and/or for hydrostatic testing of the pipeline may require an access path within the permanent right-of-way between the HDD entry and exit points, except where shorter access to the water is available along another access path. This access path will be used to set up the pumps on the banks of the waterbody and to lay the water pipe from the waterbody to the drilling operation or the pipe. Disturbance of these areas will be limited to foot traffic and the occasional truck or all-terrain vehicle to move pumps and water piping in and out. In forested areas, no large-diameter trees (greater than 6 inches in diameter at breast height) will be cut and the access path will be limited to 6 feet, 10 feet, or 15 feet in width depending on environmental resources that might be affected. Because no clearing other than selective understory trimming will be conducted, and no grading or excavation will occur along these access paths, land disturbance is minimal.

The locations where HDDs are proposed will be provided in future submittals that will also identify the hydrostatic test water source for the HDD, access paths, and alternate open-cut crossing plans should the HDD need to be abandoned due to unsatisfactory subsoil and geo-technical conditions. Generally, if the HDD should fail at the proposed location, the HDD entry/exit points will be re-evaluated and relocated to an adjacent area, and the HDD will be attempted again. ET Rover will notify all appropriate federal and

state agencies and obtain approval to complete the HDD at the new location or to implement the alternate open-cut crossing plan should the HDD fail at the second location.

Geotechnical investigations for all HDDs will be completed after landowner easements have been acquired and before construction. ET Rover will submit the results of geotechnical investigations when completed.

1.6.1.5 Road and Railroad Crossings

Traffic on major roads and railroads will be maintained during installation of the pipe by use of horizontal bore or HDD. The pipeline will be installed at a depth of at least 5 feet below a road surface and at least 10 feet below the rail of a railroad, and will be designed to withstand anticipated external loadings. At points of access to the right-of-way from hard-surfaced roads, a stone pad will be installed as a construction entrance to control dirt tracking onto the highway.

Private roads will be crossed using an open cut and then restored to pre-construction conditions or better. If an open-cut across a road requires extensive construction time, steel plates will be used across the trench and/or provisions will be made for temporary detours or other measures to maintain access and safe traffic flow during construction.

1.6.1.6 Foreign Pipeline Crossings

The Project pipelines will require crossings under foreign pipelines and gathering lines. Generally, the Project pipelines will be installed under most existing foreign pipelines due to their large size, and soil cover and separation requirements. This will require careful excavation around and under the foreign pipeline using equipment and hand-held tools, and supporting the foreign pipeline as necessary to allow the Project pipeline to be slipped under the foreign pipeline. The larger spoil volumes from increased excavation depths at these pipeline crossings and the preference not to place spoil or construction equipment over existing pipelines will require additional temporary work space at most crossings. Precautions will be taken to ensure that the existing pipelines are positively identified, not damaged, and the pipeline crossing area is safe during construction. These precautions include:

- Contacting One Call to locate all known pipelines and utilities;
    - Locating the precise location of the existing pipelines prior to excavation using a hand-held magnetometer and/or by probing;
    - Scanning the edges of the right-of-way prior to grading with Passive Inductive Locating equipment to insure that no unknown foreign pipelines cross into the construction work area;
    - Notifying operators of the existing pipelines of proposed construction and providing the companies with the opportunity to be present during work around their pipelines;
    - Avoiding mechanized excavation within 3 feet of existing pipelines and completing excavations by hand shoveling;

- Keeping construction equipment and spoil piles away from the existing pipeline centerline, to the extent practicable;
- Temporarily supporting existing pipelines for the length of the span exposed by the crossing excavation;
- Inspecting existing pipelines before and after pipe installation to ensure there is no damage to the existing pipelines or coatings that could compromise integrity;
- Installing test leads on both lines for future monitoring of cathodic protection systems;
- Maintaining the minimum separation distance between the existing and proposed pipeline as specified by the USDOT; and

- Following safety requirements of the foreign pipeline crossing operator.

In the event of accidental damage to a foreign pipeline during construction, ET Rover will coordinate with the foreign pipeline operator to implement appropriate measures for maintaining the structural integrity of both pipelines and minimizing undesirable effects to human health and the environment.

1.6.1.7 Residential Areas

Where residences are located in close proximity to the edge of the construction right-of-way, ET Rover will reduce construction workspace areas as practicable to minimize inconvenience to property owners. In residential yards, topsoil will either be conserved or imported as an alternative to topsoil segregation and conservation. If construction requires the removal of private property features, such as gates or fences, the landowner or tenant will be notified prior to the action. Following completion of major construction, the property will be restored. Property restoration will be in accordance with any agreements between ET Rover and the landowner.

All structures that are within 50 feet of the construction work areas will be identified and provided in future submittals. Site-specific residential plans also will be submitted for residences that are within 25 feet of the construction work areas.

1.6.1.8 Commercial and Industrial Areas

Where commercial or industrial areas are near the construction work area, ET Rover will work with its contractor to maintain traffic flow on public roads and avoid unnecessary or lengthy delays.

1.6.1.9 Agricultural Areas

ET Rover will conserve topsoil in actively cultivated and rotated cropland, and improved pastureland, and in other areas at the specific request of the landowner or land management agency. In compliance with the Plan, at least 12 inches of topsoil will be segregated in agricultural areas where the topsoil is greater than 12 inches deep. Where topsoil is less than 12 inches deep, the actual depth of the topsoil will be

determined by visual inspection and the entire topsoil layer will be removed, and segregated. Topsoil segregation will be performed in consultation with the landowner and may include the entire construction right-of-way or the ditch plus spoil side.

ET Rover has assumed, and is committed to using, full right-of-way topsoil segregation in all agricultural areas and temporarily stockpiling all topsoil in a separate windrow on the construction right-of-way as shown on Figures 3, 3-ALT, 3-ALT-DUAL, 3-DUAL1, and 3-DUAL2 in Appendix 1B. ET Rover will install the pipe at a minimum depth of 4 feet to accommodate deep tilling (e.g., using parabolic plows), or to maintain existing water or drainage systems. Rock will not be used as upper backfill in rotated or permanent cropland. ET Rover is currently developing plans for repair of drainage tile systems that will be affected by construction and will provide these plans in subsequent submittals.

1.6.1.10 Other Construction Procedures

Certain conditions that may be encountered will require the use of special construction techniques, as further described below.

Blasting

If bedrock is encountered and requires removal, several conventional (non-explosive) techniques are available, including: conventional excavation with a backhoe; ripping with a dozer followed by backhoe excavation; or hammering with a pointed backhoe attachment followed by backhoe excavation.

If it is determined that the bedrock cannot be removed by conventional techniques, blasting may be required. If blasting is required, it will be conducted in accordance with applicable state blasting codes and any local blasting requirements. The state licensed contractors will meet or exceed all applicable requirements governing the use of explosives. The specific blasting procedures will depend on the relative hardness and volume of the rock to be removed, its fracture susceptibility, and the specifics of the location. ET Rover will prepare a Blasting Plan that will be provided in subsequent submittals.

Rugged Terrain

In areas with steep side slopes, ATWS may be needed to grade slopes to accommodate pipe bending limitations. In these areas, slopes will be cut down and, after the pipeline is installed, returned to their original contours during right-of-way restoration. In areas where the pipeline crosses laterally across the face of a slope, cut-and-fill grading may be required to establish a safe, flat work surface to install the pipeline.

Trench Dewatering

In most cases, trench dewatering will be limited to the removal of storm water collected in the pipe trench. In uplands, storm water will typically be removed from the trench prior to lowering the pipe into place. The storm water will be pumped from the trench to a well vegetated area down-gradient of the trench or through a sediment filter. The trench will be dewatered in a manner that will not cause erosion and will not result in heavily silt-laden water flowing into any waterbody or wetland. The storm water

will be discharged to an energy dissipation/filtration dewatering device, such as a hay bale structure or filter bag. The dewatering structure will be removed as soon as possible after completion of the dewatering activities. Trench plugs will be used where necessary to separate the upland trench from adjacent wetlands or waterbodies to prevent the inadvertent draining of the wetland or diversion of water from the waterbody into the pipe trench.

1.6.2 ABOVEGROUND FACILITIES

Typical construction activities associated with the installation of the aboveground facilities are summarized below. No special construction methods will be required for the installation of the aboveground facilities.

1.6.2.1 General Construction Procedures

Construction activities and storage of construction materials and equipment will be confined within the compressor station and meter interconnect site boundaries or at one of the approved staging/pipeyards. Debris and wastes generated from the construction will be disposed of as appropriate and all surface areas disturbed will be restored in a timely manner. The aboveground facilities will be constructed in accordance with ET Rover construction standards and specifications as more generally described in the paragraphs that follow.

1.6.2.2 Foundations

Excavation will be performed as necessary to accommodate the new reinforced concrete foundations for the new compressors, launching and receiving facilities, metering equipment, and buildings. Subsurface friction piles may be required to support the foundations, depending upon the bearing capacity of the underlying soils and anticipated equipment loads. Forms will be set, rebar installed, and the concrete poured and cured in accordance with applicable industry standards. Backfill will be compacted in place, and excess soil will be used elsewhere or distributed around the site to improve grade.

1.6.2.3 Equipment

The compression, piping and other equipment will be shipped to the site by truck. The equipment will be offloaded using cranes or front-end loaders, or both. The equipment will then be positioned on the foundations, leveled, grouted where necessary, and secured with anchor bolts.

All non-screwed piping associated with the aboveground facilities will be welded, except where connected to flanged components. All welders and welding procedures will be qualified in accordance with API standards. All welds in large diameter gas piping systems will be examined using radiography, ultrasound, or other approved NDE methods to ensure compliance with code requirements.

All aboveground piping surfaces will be cleaned and painted in accordance with ET Rover construction specifications. All paint inspection and cleanup will be conducted in accordance with federal and/or regulatory requirements and best engineering practices.

1.6.2.4 Launcher and Receiver Facilities

Launcher and receiver facilities will consist of a section of aboveground piping that will be designed to accommodate the in-line inspection tools (smart pigs) that will be placed into the pipe for periodic internal inspections of the pipeline during operations.

1.6.2.5 Mainline Valves

The MLVs will be located within the permanent pipeline easement and at the new compressor station sites in accordance with USDOT safety requirements. The installation of the MLVs will meet the same standards and requirements established for the construction of the compressor stations and the pipeline. MLVs will be located as close to existing roads as possible to minimize impact to property and to provide easy access for ET Rover operations and maintenance personnel. All MLV sites will be fenced, gated, and locked.

1.6.3 RESTORATION

Following construction of the Project, the areas disturbed by construction will be restored to their original condition and use, to the greatest extent practicable. All aboveground facilities will be fenced and converted to industrial use.

1.6.3.1 Pipeline Right-of-Way

Upon completion of pipeline installation, the surface of the right-of-way disturbed by construction activities will be graded to match original contours and to be compatible with surrounding drainage patterns, except at those locations where permanent changes in drainage will be required to prevent erosion, scour, and possible exposure of the pipeline. HDD entry and exit pits will be backfilled and the disturbed ground surface similarly graded. Segregated topsoil will be replaced, and soils that have been compacted by construction equipment traffic will be disked. Temporary and permanent erosion control measures will be installed at this time in accordance with ET Rover's Plan and Procedures.

<u>Uplands</u>

In most upland locations, excluding actively cultivated cropland, an herbaceous vegetative cover will be re-established by seeding disturbed areas using seed mixes appropriate to the Project area as recommended by the local soil conservation districts, landowner, or land management agency. Depending upon the time of year, a seasonal variety, such as ryegrass, may be used until a more permanent cover can be established. Steep slopes and stream banks may require erosion control fabric or revetments to prevent erosion until a vegetative cover is established. In accordance with ET Rover's

Plan, revegetation success will be monitored, and reseeding, fertilizing, and other measures will be employed until a cover equivalent to approximately 80 percent of similar, adjacent areas is achieved. Temporary and interim erosion control measures will be removed once 80 percent cover is achieved.

Actively cultivated cropland may be left unseeded at the request of the landowner. Pasture will be reseeded with a similar species or mixture.

Residential and commercial lawns will be reseeded or sodded, depending upon the original grass variety. Shrubs and small trees on residential properties will be temporarily transplanted and replaced, where practicable, and where allowed within the permanent easement. Forested areas will be allowed to recover within the temporary work areas.

Wetlands

Original surface hydrology will be re-established in wetlands by backfilling the pipe trench and grading the surface with backhoes or similar equipment operating from the equipment mats, or low-ground-pressure tracked vehicles, depending upon the ambient water level, degree of soil saturation, and the bearing capacity of the soils. Segregated topsoil from the trench will be replaced in unsaturated wetlands. Roots and stumps will not be removed in the areas outside of the pipe trench during construction, unless required for safety, thus allowing the wetland to recover more rapidly. Generally, wetlands disturbed by construction will be allowed to re-vegetate naturally.

1.6.3.2 Aboveground Facilities

The areas inside the fence at the aboveground facilities most likely will be permanently converted to industrial use. Most areas in and around the buildings, meters, and associated piping and equipment will be covered with crushed rock (or equivalent) to minimize the amount of maintenance required. Roads and parking areas may be crushed rock, concrete, or asphalt. Other ground surfaces will be seeded with a grass that is compatible with the climate and easily maintained. Disturbed areas outside the fence will be restored as described above for the pipeline right-of-way.

1.6.3.3 Access Roads

Existing access roads that were modified and used during construction will be returned to original or better condition upon completion of Project construction. New temporary access roads constructed specifically for the Project will be removed, the surface graded to original contours, and the land restored to its original use in accordance with the Plan and any permit requirements or landowner agreements. Permanent access roads will be maintained as required to facilitate access to the pipeline facilities and in compliance with any landowner and federal/state requirements.

1.6.3.4 Pipe Storage and Contractor Yards

Upon completion of construction, all temporary facilities (e.g., trailers, sheds, latrines, pipe racks, fencing, and gates) will be removed from the pipe storage and contractor yards. Unless otherwise requested by the landowner, each site will be graded to original contours and seeded if appropriate, so that the land is restored to its pre-construction condition.

1.7 OPERATIONS AND MAINTENANCE PROCEDURES

ET Rover will operate and maintain the Project facilities in compliance with USDOT regulations set forth at 49 CFR § 192, FERC's regulations at 18 CFR § 380.15, and maintenance provisions of ET Rover's Plan and Procedures.

1.7.1 PIPELINE

Operational activities on the Rover Pipeline will primarily consist of routine maintenance of the right-of-way, and inspection, repair, and cleaning of the pipeline. Periodic aerial and ground inspections by ET Rover personnel will be used to identify conditions requiring maintenance, including:

- Soil erosion that may expose the pipe;
- Dead vegetation that may indic ate a leak in the pipeline;
- General conditions of vegetation cover and erosion control measures;
- Unauthorized encroachment on the right-of-way, such as buildings and other substantial structures; and
- Other conditions that could present a safety hazard or require preventive maintenance or repairs.

The cathodic protection system for the ET Rover pipelines will be monitored and inspected periodically to ensure proper and adequate corrosion protection. The ET Rover pipelines will be designed to allow the use of internal inspection technology (e.g., smart pigging) in compliance with ET Rover's pipeline integrity management program. Appropriate responses to conditions observed during internal inspections will be taken as necessary.

In upland areas, ET Rover will maintain vegetation on the permanent right-of-way by mowing, cutting, and trimming, except in areas of actively cultivated cropland. Large brush and trees will be periodically removed near the pipeline.

In accordance with ET Rover's Procedures, ET Rover will not conduct vegetation maintenance over the full width of the permanent right-of-way in wetlands and will allow a riparian strip of at least 25 feet wide as measured from the waterbody's mean high water mark to permanently revegetate. However, to facilitate periodic pipeline corrosion/leak surveys in these areas, a corridor centered on the pipeline and

up to 10 feet wide may be maintained in an herbaceous state. In addition, trees within 15 feet of the pipeline that are greater than 15 feet in height may be selectively cut and removed from the permanent right-of-way.

Maintenance of the permanent right-of-way across wetlands or waterbodies crossed by HDD will be limited to aerial or pedestrian inspection to ensure there has been no encroachment on the right-of-way. No mowing or other vegetative clearing will be required.

In compliance with the Plan, routine vegetation maintenance within the permanent easement will not occur more frequently than every three years and not between April 15 and August 1 of any year. Vegetation maintenance will not normally be required in agricultural or grazing areas.

In accordance with USDOT regulations, the pipeline facilities will be clearly marked at line-of-sight intervals and at crossings of roads, railroads, waterbodies, and other key points. The markers will clearly identify the presence of the pipeline and provide a toll-free telephone number and address where a company representative can be reached 24 hours a day/7 days a week in the event of an emergency or prior to any excavation in the area of the pipeline by a third party. As part of its effort to prevent any third party damage to the pipeline, ET Rover will participate in the One Call systems in West Virginia, Pennsylvania, Ohio, and Michigan.

1.7.2 ABOVEGROUND FACILITIES

1.7.2.1 Compressor Stations

ET Rover will operate and maintain the proposed compressor stations in accordance with USDOT requirements and standard procedures designed to ensure the integrity and safe operation of the facilities and to maintain firm natural gas transportation service. In addition to on-site operation and maintenance activities, the compressor stations will be linked to a central control system through a SCADA system, which will monitor the pipeline system on a 24-hour basis. In accordance with USDOT requirements, ET Rover proposes to establish and follow routine maintenance and operations procedures to ensure that the stations operate safely. Standard ET Rover operations at compressor stations will include activities such as the calibration, maintenance, and inspection of equipment, as well as the monitoring of pressure, temperature, and vibration data, and traditional landscape maintenance such as mowing and the application of fertilizer, etc. Standard ET Rover operations will also include the periodic checking of safety and emergency equipment and cathodic protection systems.

1.7.2.2 Meter Stations

ET Rover personnel will perform routine checks of the new receipt and delivery meter stations, including calibration of equipment and instrumentation, inspection of critical components, and scheduled and preventative maintenance of equipment. Safety equipment, such as pressure-relief devices, will be tested for proper operation. Corrective actions will be taken for any identified problems.

All interconnect sites will be equipped with relief valves or pressure-protection devices to protect piping from overpressure in the event that site or unit control systems fail. A telemetry system will notify local personnel and personnel at ET Rover's gas control headquarters of the activation of safety systems and alarms. These personnel will then instruct maintenance personnel to investigate and take proper corrective actions.

1.8 FUTURE PLANS AND ABANDONMENT

ET Rover has no plans for future expansion. However, if market conditions change such that an expansion is justified, ET Rover will seek the appropriate authorization from FERC and other federal, state, and local agencies.

At the end of the useful life of the Project, ET Rover will obtain the necessary permission to abandon its facilities in accordance with regulations that exist at the time of abandonment and any landowner requirements.

1.9 AFFECTED LANDOWNERS

In June 2014, ET Rover began contacting landowners regarding the Project and began to request permission to conduct field surveys along the preliminary route. In June 2014, ET Rover also invited landowners within a 0.5-mile of the preliminary route to attend Open Houses at the following locations and times:

TABLE 1.9-1
Open House Locations

Date	Town	County	State
July 8, 2014	New Martinsville	Wetzel	West Virginia
July 8, 2014	Imperial	Allegheny	Pennsylvania
July 9, 2014	Woodsfield	Monroe	Ohio
July 9, 2014	Wooster	Wayne	Ohio
July 10, 2014	Cadiz	Harrison	Ohio
July 10, 2014	Tiffin	Seneca	Ohio
July 14, 2014	Defiance	Defiance	Ohio
July 14, 2014	Fenton	Genesee	Michigan
July 15, 2014	Chelsea	Washtenaw	Michigan
July 15, 2014	Richmond	St. Clair	Michigan

The Open Houses provided information on the Project, its purpose and preliminary design, as well as answers to questions that are most commonly asked regarding the proposed route, safety, and protection

of sensitive resources. Attendance ranged from 50 to over 200 people at each Open House. In addition to the specific location of the pipeline on an individual property, the two most common concerns were repair of drainage tiles in agricultural land in Ohio and complaints about recent construction of the Line 6B Project in Michigan, which is adjacent in some locations to the proposed Project. In response, ET Rover is evaluating methods for drainage tile repair and alternates to paralleling Line 6B in Michigan.

A list of names and addresses of all affected landowners is submitted under Appendix 1C as *Privileged and Confidential*. Affected landowners include all landowners whose land will be crossed or used for construction activities and landowners abutting the construction right-of-way, ATWS, aboveground facility sites, access roads, pipe and contractor yards; and landowners or residents within 1.0 mile of the proposed compressor stations. ET Rover will provide updates of the landowner listing as needed to reflect any changes.

1.10 PERMITS AND APPROVALS

The construction, operation, and maintenance of the Project will require permits and regulatory approvals from various federal, state, and local agencies, as well as consultations with Native American tribes and other interested parties. Consultations were initiated with other federal and state agencies on June 25, 2014, and these consultations will continue throughout the Project review and permitting period. The applicable federal, state, and local permits and approvals, responsible agencies, and the filing status and schedule for these permits and approvals are summarized in Table 1.10-1. Copies of pertinent agency correspondence with respect to the Project will be provided in future submittals.

TABLE 1.10-1
Permits and Approvals

Agency and Contact Information	Permit/Consultation	Anticipated Submittal Date	Anticipated Receipt of Approval/Permit
FEDERAL			
FERC	Section 7(c) Section 3(a) Presidential Permit for border crossing	January 2015	December 2015
U.S. Army Corps of Engineers Huntington District Pittsburgh District Buffalo District Detroit District	Permit - Section 404 of the Clean Water Act (CWA) Permit - Section 10 of the Rivers & Harbors Act	January 2015	December 2015
U.S. Environmental Protection Agency	As part of delegation of Section 404/401 to MIDEP, may provide comments on the project	January 2015	December 2015
U.S. Department of Transportation Federal Highway Administration National Scenic Byways Program	Under Title 23, 162 USC, may provide comment on crossings of America's (scenic) byways.	January 2015	December 2015
U.S. Forest Service Wayne National Forest	Wayne National Forest, may provide comments on crossing within Forest Service (FS) boundary. No FS-owned land is crossed.	January 2015	December 2015
U.S. Fish & Wildlife Service West Virginia Ecological Services Field Office Pennsylvania Ecological Services Field Office Ohio Ecological Services Field Office East Lansing Ecological Services Field Office	Consultation - Section 7 Endangered Species Act Consultation - Migratory Bird Treaty Act and Bald and Golden Eagle Protection Act	Initiated June 25, 2014	December 2015
WEST VIRGINIA			
West Virginia Department of Environmental Protection Division of Water and Waste Management	Section 401 Water Quality Certification. NPDES Construction Stormwater approval Hydrostatic test water discharge permit	January 2015 3rd quarter 2015 2nd quarter 2016	December 2015 December 2015 3rd quarter 2016
Division of Air Quality	Air permit	January 2015	1st quarter 2016
West Virginia Division of Natural Resources Office of Land and Streams	Permit for crossings of regulated waterbodies, if applicable	1st quarter 2015	December 2015
West Virginia Division of Culture and History	Consultation Section 106 National Historic Preservation Act	Initiated June 25, 2014	December 2015

TABLE 1.10-1
Permits and Approvals

Agency and Contact Information	Permit/Consultation	Anticipated Submittal Date	Anticipated Receipt of Approval/Permit
PENNSYLVANIA			
Pennsylvania Department of Environmental Protection Southwest (Pittsburgh) Regional Office	Erosion & Sediment Control General Permit (ESCGP) BDWM GP-8 Temporary Road Crossing Permit BDWM GP-5 Utility Line Crossing Permit NPDES – Hydrostatic Test Water Discharge Permit/Approval Air Permit	3rd quarter 2015 3rd quarter 2015 3rd quarter 2015 2nd quarter 2016 January 2015	December 2015 December 2015 4th quarter 2015 3rd quarter 2016 1st quarter 2016
Pennsylvania Department of Conservation and Natural Resources Bureau of Recreation and Conservation	Consultation - State listed species	Initiated June 25, 2014	December 2015
Pennsylvania Fish and Boat Commission	Consultation - State listed species	Initiated June 25, 2014	December 2015
Pennsylvania Game Commission	Consultation - State listed species	Initiated June 25, 2014	December 2015
Pennsylvania Historical & Museum Commission	Consultation Section 106 National Historic Preservation Act	Initiated June 25, 2014	December 2015
OHIO			
Ohio Environmental Protection Agency Division of Surface Water	Section 401 Water Quality Certification Isolated Wetland Permits, if required NPDES Stormwater Permit NPDES Hydrostatic Test Discharge Permit	January 2015 January 2015 3rd quarter 2015 2nd quarter 2016	December 2015 December 2015 4th quarter 2015 3rd quarter 2016
Division of Air Pollution Control	Air Permit	January 2015	1st quarter 2016
Ohio Department of Natural Resources	Consultation - State listed species	Initiated June 25, 2014	December 2015
Ohio State Historic Preservation Office Resource Protection and Review	Consultation Section 106 National Historic Preservation Act	Initiated June 25, 2014	December 2015
Stark County Park District	Consultation - Crossing of the Ohio & Erie Canalway at the Tuscarawas River.	Initiated June 25, 2014	December 2015

TABLE 1.10-1
Permits and Approvals

Agency and Contact Information	Permit/Consultation	Anticipated Submittal Date	Anticipated Receipt of Approval/Permit
MICHIGAN			
Michigan Dept. of Environmental Quality Water Resources Division Lansing District Office Jackson District Office Southeast Michigan District Office	Delegated 401/404. Inland Lakes and Streams (Part 301) and Wetland (Part 303) Permit Soil Erosion & Sedimentation Control (SESC) approval Water Withdrawal Permit Groundwater (hydrostatic) Discharge Permit Coastal Zone Management consistency (St. Claire River) Submerged Lands Permit (St. Claire River)	January 2015 3rd quarter 2015 2nd quarter 2016 2nd quarter 2016 January 2015 January 2015	January 2015 4th quarter 2015 3rd quarter 2016 3rd quarter 2016 January 2015 January 2015
Michigan Department of Natural Resources	Consultation - State listed species Pinkney State Recreation Area crossing Holly State Recreation Area crossing Horseshoe Lake State Game Area crossing Polly Ann Trail (converted railroad) crossing	Initiated June 25, 2014	December 2015
Michigan State Housing Development Authority Historic Preservation	Consultation Section 106 National Historic Preservation Act	Initiated June 25, 2014	December 2015

1.11 RELATED NON-JURISDICTIONAL FACILITIES

Non-jurisdictional facilities are those facilities that are related to the Project and may include electric distribution or other support systems that may be constructed to provide electricity or other services to the compressor or meter stations. Electric utilities may need to install additional distribution lines that will be constructed adjacent to existing utility or road rights-of-way to provide electric power to the compressor and meter stations. These facilities will be constructed by the owner/operator in accordance with applicable federal and state regulations. ET Rover is in the process of identifying non-jurisdictional facilities that may be constructed in conjunction with the Project and these non-jurisdictional facilities will be identified in future submittals.

The FERC uses a four factor test to determine whether there is sufficient federal control and responsibility over a project as a whole to warrant environmental analysis of Project-related non-jurisdictional facilities. These factors are:

- whether or not the regulated activity comprises "merely a link" in a corridor type project (e.g., a transportation or utility transmission project);
- whether there are aspects of the non-jurisdictional facility in the immediate vicinity of the regulated activity which uniquely determine the location and configuration of the regulated activity;
- the extent to which the entire project will be within the Commission's jurisdiction; and
- the extent of cumulative federal control and responsibility.

The extent to which any identified non-jurisdictional facilities warrant environmental analysis will be addressed in future submittals.

1.12 CUMULATIVE IMPACTS

In accordance with NEPA, ET Rover will consider the cumulative impacts of the Project and other projects in the general Project area. Cumulative impacts represent the incremental effects of the proposed action when added to other past, present, or reasonably foreseeable future actions, regardless of what agency or person undertakes such other actions. The purpose of the cumulative impact analysis is to identify and describe potential cumulative impacts that could result from the construction and operation of the Project in conjunction with these other projects. For this analysis, ET Rover will consider the Project area to include all counties crossed by the Project.

Other projects and proposed actions considered in this cumulative impact analysis may differ from the proposed Project in type, magnitude, and duration, but occur in or near the areas affected by the Project. Other projects included in this analysis will be based on the likelihood of completion, and only recently completed projects, those with ongoing impacts, or those that are "reasonably foreseeable" future actions will be considered. An action must meet the following three criteria to be included in the cumulative impacts analysis:

- Impact a resource area potentially affected by the proposed Project;
- Cause this impact within all, or part of, the proposed Project area; and
- Cause this impact within all, or part of, the time span for the potential impact from the proposed Project.

Two types of past, present, and reasonably foreseeable future projects will be evaluated. These project types include other natural gas pipeline projects and unrelated transportation or utility projects that are

proposed or occurring in the vicinity of the Project. For example, shippers for this Project have existing facilities in the Project area that include gas wells, field gathering lines, gas treatment and production line compression and may construct additional gathering lines to connect to the ET Rover pipelines. All of these shale and non-shale projects are regulated under federal, state, and local laws. The potential impacts associated with these projects that are most likely to be cumulatively significant would be those related to wetlands and waterbodies, vegetation and wildlife (including federally and state-listed endangered and threatened species), land use, air quality, and noise.

ET Rover is in the process of identifying other projects in the Project area and will be provide an analysis of potential cumulative impacts in a future submittal.

APPENDIX 1A

Aerial and Topographic Map Books (Submitted under Separate Cover)

APPENDIX 1B

Typical Drawings

APPENDIX 1C

List of Landowners and Other Stakeholders

Submitted as:

Privileged and Confidential

DO NOT RELEASE

ROVER PIPELINE
An ENERGY TRANSFER Company

March 14, 2017

Ms. Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, D.C. 20426

Re: OEP/DG2E/Gas Branch 4
Rover Pipeline LLC (Rover Pipeline Project)
Panhandle Eastern Pipe Line Company, LP (Panhandle Backhaul Project)
Trunkline Gas Company, LLC (Trunkline Backhaul Project)
FERC Docket Nos. CP15-93-000, CP15-94-000, and CP15-96-000
Notice of Commencement of Construction

Dear Ms. Bose:

On February 2, 2017, the Federal Energy Regulatory Commission ("FERC" or "Commission") issued an Order Issuing Certificate ("Order") for the Rover Pipeline, Panhandle Backhaul, and Trunkline Backhaul Projects (collectively "Applicants").

In compliance with Ordering Paragraph (F) (2) of the Order issued in the above-referenced dockets, and Section 157.20(c) (2) of the Commission's regulations, Applicants submit for filing their Notice of Commencement of Construction as follows:

- Rover Pipeline Project on March 4, 2017;
- Panhandle Backhaul Project on March 9, 2017;
- Trunkline Backhaul Project on March 9, 2017.

This filing is being submitted electronically to the Commission's eFiling website pursuant to the Commission's Order No. 703, Filing via the Internet Guidelines issued on November 15, 2007 in FERC Docket No. RM07-16-000. Any questions or comments regarding this filing should be directed to the undersigned at (713) 989-2606.

Respectfully submitted,

/s/ Kelly Allen

Mr. Kelly Allen, Manager
Regulatory Affairs Department

cc: Ms. Stephanie Schumacher – FERC Office of Energy Projects
Mr. Kevin Bowman - FERC Office of Energy Projects

1300 Main Street Houston, TX 77002
Phone: 713-989-7000

OATH STATEMENT

Mr. Kelly Allen, being duly sworn on his oath, deposes and says that he has read the foregoing information and that the facts and statements contained therein are true and correct to the best of his knowledge, information, and belief, and that he has full power and authority to sign this filing.

Kelly Allen

Mr. Kelly Allen, Manager
Regulatory Affairs Department
Rover Pipeline LLC
Panhandle Eastern Pipe Line Company, LP
Trunkline Gas Company, LLC

Subscribed and sworn to before me this 14th day of March 2017.

Name: Jessica Miller
Title: Notary Public in the State of Texas

JESSICA MILLER
Notary Public, State of Texas
My Commission Expires
July 29, 2018

My Commission Expires: July 29, 2018

FEDERAL ENERGY REGULATORY COMMISSION
ENVIRONMENTAL COMPLIANCE MONITORING PROGRAM
SUMMARY REPORT

ROVER PIPELINE, PANHANDLE BACKHAUL, AND TRUNKLINE BACKHAUL PROJECTS
DOCKET Nos.: CP15-93-000, CP15-94-000, and CP15-96-000

For the Period: Ending March 11, 2017

On February 2, 2017, the Federal Energy Regulatory Commission (FERC) published an Order Issuing Certificates (Certificates) to Rover Pipeline LLC (Rover), Panhandle Eastern Pipe Line Company, LP (Panhandle), and Trunkline Gas Company (Trunkline) to construct and operate pipeline, compression, metering facilities, and related infrastructure as part of the Rover Pipeline, Panhandle Backhaul, and Trunkline Backhaul Projects (Projects). The Rover Pipeline Project facilities consist of approximately 700 miles of new natural gas pipeline in 510 miles of new rights-of-way and multiple aboveground facilities located in Pennsylvania, West Virginia, Ohio, and Michigan. The Panhandle Backhaul Project consists of piping modifications at existing facilities located in Indiana and Illinois. The Trunkline Backhaul Project consists of piping modifications at existing facilities in Illinois, Tennessee, and Mississippi. In accordance with its Certificates, Rover, Panhandle, and Trunkline agreed to fund a third-party Compliance Monitoring Program during construction of its Projects.

This report provides a summary of the activities performed by the FERC Compliance Monitors as well as the construction variances approved for the Project. This report also provides a summary of rainfall data, selected construction photographs, and a GANTT chart depicting construction progress.

COMPLIANCE REPORT SUMMARY TABLE

Compliance Level	Number of Reports this Reporting Period	Cumulative Number of Reports
Acceptable	28	28
Communication	9	9
Problem Area	1	1
Noncompliance	0	0
Serious Violation	0	0
Level 1 Variance Approvals	0	0
Level 2 Variance Approvals	0	0
Level 3 Variance Approvals	0	0
Total Reports	**38**	**38**

Report Compliance Level Definitions:

- ***Acceptable*** *– documented activity or area is in compliance with the Project's environmental requirements and mitigation measures have been adequately implemented.*
- ***Communication*** *– documentation of relevant meetings between the FERC Compliance Monitor and landowners, agencies, Constitution's representatives, Environmental Inspectors, or other noteworthy conversations or communications.*
- ***Problem Area*** *– generally incidents that are accidental or unforeseeable, are not out of compliance with the Project's environmental requirements, but may become out of compliance if not addressed in a timely manner.*
- ***Noncompliance*** *– activity or area that is not in compliance with Project specifications or that places sensitive resources at unnecessary risk.*
- ***Serious Violation*** *- activity or area that is not in compliance with Project specifications which results in substantial harm to sensitive resources or poses serious risk to sensitive resources.*

Variance Level Definitions:

- ***Level 1 Variance*** *– reviewed and approved or denied by the Compliance Monitors. These requests are for site-specific, minor, performance-based changes to Project specifications or mitigation measures that provide equal or better protection to environmental resource.*
- ***Level 2 Variance*** *– reviewed and approved or denied by the Compliance Manager. These requests involve Project changes that would affect an area outside of the previously approved work area and could affect sensitive resources.*
- ***Level 3 Variance*** *– reviewed and approved or denied by the Federal Energy Regulatory Commission (FERC). These requests involve Project-wide changes to mitigation measures, areas beyond the previously surveyed corridor, permanent structures, or changes to site specific crossing plans.*

SUMMARY OF PROJECT ACTIVITIES

The FERC Compliance Monitors conducted daily inspections of the authorized portions of the construction right-of-way and extra work areas and documented compliance with the Project's environmental requirements. The majority of the compliance activities focused on tree felling activities as well as review of project documents and familiarization with access points to the right-of-way. The Compliance Monitors and Compliance Manager also attended safety and environmental training and coordinated with Rover's environmental management staff and Environmental Inspectors (EIs) to discuss issues and to clarify interpretations of the Project's environmental requirements.

RAINFALL SUMMARY

Gauges referenced below are part of NOAA's Global Historical Climatology Network (GHCN). All daily station data can be found here: https://gis.ncdc.noaa.gov/maps/ncei/summaries/daily. Precipitation amounts listed in inches; N/A represents no data collected.

STATION	Sun. 3/5/2017	Mon. 3/6/2017	Tues. 3/7/2017	Wed. 3/8/2017	Thurs. 3/9/2017	Fri. 3/10/2017	Sat. 3/11/2017	TOTAL
Middlebourne[1]	0.00	Trace	0.14	0.58	0.00	0.38	0.05	**1.15**
Wheeling[2]	N/A	0.00	N/A	0.43	0.00	N/A	N/A	**0.43**
Uhrichsville[3]	0.00	0.01	0.50	0.70	0.00	0.38	0.00	**1.59**
Dover[4]	0.00	N/A	0.42	0.50	0.00	0.34	0.00	**1.26**
Wooster[5]	0.00	0.00	0.53	0.48	0.00	0.30	0.00	**1.31**
Bucyrus[6]	0.00	0.01	0.64	0.07	0.00	0.10	0.00	**0.82**
McClure[7]	0.00	0.00	0.25	0.03	0.00	Trace	0.00	**0.28**
Morenci[8]	0.00	0.00	0.17	0.03	0.00	0.00	N/A	**0.20**
Chelsea[9]	0.00	0.00	0.10	0.00	0.00	0.00	0.00	**0.10**

[1] – Located in Middlebourne, WV ~3.3 miles northeast of MP 20.1 of Sherwood Lateral (39.470309°, -80.856841°).

[2] – Located in Wheeling, WV ~5.4 miles north of MP 12.4 of Majorsville Lateral (40.056303, -80.727857).

[3] – Located in Uhrichsville, OH ~6.6 miles southwest of MP 18.0 of Mainline Spread 1 (40.405235°, -81.343191°).

[4] – Located in Dover, OH ~7.4 miles southwest of MP 29.7 of Mainline Spread A (40.530037°, -81.460953°).

[5] – Located in Wooster, OH ~2.8 miles northeast of MP 68.2 of Mainline Spread B (40.783300°, -81.916594°).

[6] – Located Bucyrus, OH ~9.8 miles southwest of MP 123.4 of Mainline Spread C (40.811599°, -82.968847°).

[7]- Located in McClure, OH ~3.9 miles north of MP 184.2 of Mainline Spread D (41.328233°, -83.908801°).

[8]- Located in Morenci, MI ~1.0 mile west of MP 28.2 of Market Segment Spread 7 (41.721562°, -84.214805°).

[9]- Located in Chelsea, MI ~3.4 miles from MP 77.0 of Market Segment Spread 8 (42.325942°, -84.013314°).

PROJECT COMMUNICATIONS

Below is a summary of the Communication Reports posted by the Compliance Monitor this reporting period.

Date	Report #	Start MP	End MP	Compliance Level	Construction Method	Report Summary
3/2/2017	MajorsvilleLateral_02Mar2017_SK	21.7	21.7	Communication	Clearing	The Compliance Monitor noted that the approved width of Access Road 19 (MP 21.7) was not properly marked and identified. The access road was identified with survey stakes marking only one side of the unimproved field road. Clearing crews and inspection staff were currently utilizing this access road.
3/4/2017	ContractorYard _04Mar2017_SK	NA	NA	Communication	Other (see notes)	The Chief Inspector notified the Compliance Monitor of noncompliance issue at the Belmont Contractor Yard. Crew members placed stone and rocks in wetland during surfacing of the Contractor yard. Rover Environmental Inspector (EI) to write a noncompliance report for importing the rock/stone into the wetland.
3/4/2017	MajorsvilleLateral_04Mar2017_SK	5.0	5.2	Communication	Clearing	The Compliance Monitor verified that clearing activities had not begun on properties located between MP 5.0 - MP 5.2 of the Majorsville Lateral. Compliance Monitor also met with the Lead EI to discuss recent communications between Rover and the property owner regarding routing shifts and/or mitigation measures. The Lead EI informed Compliance Monitor that no clearing activities would be initiated on this property until further notice from Rover supervisors.
3/9/2017	SherwoodLateral_09Mar2017_GH	NA	NA	Communication	Other (see notes)	The Lead EI provided a preliminary notification of an upcoming variance request regarding a new contractor yard.
3/10/2017	MainlineSpread B Pipe A_10Mar2017_GA	94.8	95.2	Communication	Grading	The grade crew was starting to remove topsoil along the right-of-way and the Compliance Monitor spoke to the EI about ensuring that rutting did not mix topsoil and subsoil. Rover was also hauling the mats down the right-of-way to build an air bridge across an existing pipeline.

Date	Report #	Start MP	End MP	Compliance Level	Construction Method	Report Summary
3/10/2017	CadizLateral_10Mar2017_BL	3.5	3.5	Communication	Clearing	The Compliance Monitor received a phone call from Lead EI regarding activity outside of approved Access Road PAR 1A within the Rover Cadiz Compressor Station. Rover planned to issue a noncompliance report (see below).
3/11/2017	MainlineSpread A Pipe A_11Mar2017_GA	20.7	20.9	Communication	Other (see notes)	The Compliance Monitor had a communication with the Lead EI to inspect and document the area to the east of Crane Rd SW. There was rutting in the wetlands from vehicles within the wetland on and off of the right-of-way from a lumber company hired by the landowner. Additionally, a stream was redirected onto the right-of-way by the lumber company.
3/11/2017	BurgettstownLateral_11Mar2017_BL	16.1	16.1	Communication	Clearing	The Compliance Monitor reviewed and discussed access and entrance and exit points for the Ohio River horizontal directional drill (HDD) with Lead EI. Given the limited width of the current access road leading into the HDD box, Rover will request a variance. Additionally, the monitor spoke with Buffy Thomason regarding the exit point, which is within an existing pond and verified that Rover has been permitted to fill temporarily during drilling activities.
3/11/2017	CadizLateral_11Mar2017_BL	3.5	3.5	Communication	Clearing	The Compliance Monitor had a communication with Chief EI regarding the company-reported non-compliance at Cadiz Compressor Station identified on 3/10/2017 (noted above). Rover determined that the area in question was in fact part of the approved footprint of the Cadiz Compressor Station. Therefore, Rover indicated it would not report the incident as a noncompliance. Based on our review, we agree that the gravel was placed within the approved limits of disturbance of the compressor station.

REPRESENTATIVE PHOTOS

Felled timber - Acceptable (Spread 7, MP 56.0 – March 11, 2017).

No access property staking - Acceptable (Sherwood Lateral, MP 10.9 – March 10, 2017).

Tree felling - Acceptable (Seneca Lateral, MP 14.9 – March 8, 2017).

Timber processing - Acceptable. (Mainline Spread 1, MP 1.4 – March 13, 2017).

NONCOMPLIANCES AND PROBLEM AREAS

FERC Issued

Noncompliances

No noncompliances were documented by the FERC Compliance Monitors in the period ending March 11, 2017.

Problem Areas

One Problem Area was documented by the FERC Compliance Monitors in the period ending March 11, 2017. The Compliance Monitor wrote a Problem Area Report on March 7, 2017 for insufficient marking of an access road (TAR 19) at MP 21.7 on the Majorsville Lateral where crews were driving beyond the approved limits of disturbance. The Lead EI was notified. The issue was previously identified as a communication report (see above), but was elevated to a Problem Area upon further consultation with the FERC Project Manager.

TAR 19 marked with only one stake - Problem Area (Majorsville Lateral, MP 21.7 – March 7, 2017)

Rover Issued

Noncompliances

The compliance team was made aware of five Rover-issued Noncompliance Reports during this reporting period. The first was issued on February 21, 2017 for unauthorized tree felling within an HDD exclusion zone near Interstate 70 along Mainline Spread 1 at MP 18.0. Two others were issued for grading within a wetland at the Clarington and Spread 1 contractor yards. The others were issued for lack of erosion control devices (MP 12.4) and lack of slope breakers (MP 12.3). The Compliance Monitors and Manager were not made aware of any Rover-issued Problem Areas during this reporting period.

Problem Areas

No problem areas were documented by Rover in the period ending March 11, 2017.

VARIANCES

No variances were approved during this reporting period.

CONSTRUCTION PROGRESS – Estimated from Compliance Monitor Reports and Contractors' Scatter Sheets

Milepost	Sherwood Lateral	CGT Lateral	Seneca Lateral	Berne Lateral	Clarington Lateral	Majorsville Lateral	Burgetts-town Lateral	Cadiz Lateral	Mainline Spread 1	Mainline Spread A	Mainline Spread B	Mainline Spread C	Mainline Spread D	Market Spread 7	Market Spread 8	% Complete
Tree Felling																60%
Clearing																5%
Grading																
Trenching																
Stringing																
Bending																
Welding																
Lowering																
Backfilling																
Clean-up																
Seeding/Mulch																
Road Bores																
Resource Tie-ins																
Upland Tie-ins																
Compliance Monitor Reports																
Aboveground Facilities[1] & Specialized Crossings	Sherwood CS CGT Tie-in Sherwood Receipt	CGT Delivery	Seneca CS Sherwood Tie-In 3 New MS	Berne Receipt	Clarington CS Cadiz Tie-in Majorsville Tie-In	Majorsville CS Majorsville Receipt	Burgettstown CS	Cadiz CS	Mainline CS 1		Mainline CS 2	Mainline CS 3	ANR Delivery	Defiance CS	Consumers Energy Delivery	

Notes: CS = Compressor Station, MS=Meter Station

[1] MLVs are located along each of the laterals and mainlines

Legend	Activity This Week/ Incomplete		Activity Complete		Not Applicable		Compliance Monitor Reports	

Document Content(s)

ROVER PIPELINE
An ENERGY TRANSFER Company

April 18, 2017

Ms. Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, D.C. 20426

Re: OEP/DG2E/Gas Branch 4
Rover Pipeline LLC (Rover Pipeline Project)
Panhandle Eastern Pipe Line Company, LP (Panhandle Backhaul Project)
Trunkline Gas Company, LLC (Trunkline Backhaul Project)
FERC Docket Nos. CP15-93-000, CP15-94-000, and CP15-96-000
Correspondence with the Ohio Environmental Protection Agency

Dear Ms. Bose:

On February 2, 2017, the Federal Energy Regulatory Commission ("FERC" or "Commission") issued an Order Issuing Certificate ("Order") for the Rover Pipeline, Panhandle Backhaul, and Trunkline Backhaul Projects (collectively "Applicants").

In compliance with Environmental Condition No. 8, Appendix B of the FERC Order, Rover Pipeline LLC ("Rover") is submitting herein for filing with the Commission correspondence with the Ohio Environmental Protection Agency ("Ohio EPA") regarding inadvertent releases at two horizontal directional drilling locations. The attached Ohio EPA forms are used to describe the circumstances of the releases and are not the final agency assessments. This filing is being submitted electronically to the Commission's eFiling website pursuant to the Commission's Order No. 703, Filing via the Internet Guidelines issued on November 15, 2007 in FERC Docket No. RM07-16-000. Any questions or comments regarding this filing should be directed to the undersigned at (713) 989-2606.

Respectfully submitted,

/s/ Kelly Allen

Mr. Kelly Allen, Manager
Regulatory Affairs Department

cc: Mr. Kevin Bowman - FERC Office of Energy Projects

1300 Main Street Houston, TX 77002
Phone: 713-989-7000

ROVER PIPELINE
An ENERGY TRANSFER Company

April 17, 2017

Mr. Aaron Wolfe
Mr. Kurt Kollar
Ohio Environmental Protection Agency
Division of Environmental Response, Investigation and Enforcement
2195 Front Street
Logan, Ohio 43138

Subject: Response to Notices of Violation
1704-70-0756 and 1704-76-0751

Dear Mr. Wolfe and Mr. Kollar:

Please find enclosed signed copies of the Notices of Violation sent to Rover Pipeline LLC on March 14, 2017 for inadvertent returns of horizontal directional drilling fluid at two locations in Ohio. We appreciate your collaboration and your time and effort in providing guidance in the remediation of the two sites. If you have any questions or need additional information, please contact me at 713-989-2844 or at buffy.thomason@energytransfer.com.

Sincerely,

Buffy Thomason
Senior Project Manager - Environmental

Ohio Environmental Protection Agency

Division of Environmental Response, Investigation and Enforcement ER PROGRAM

NOTICE OF VIOLATION

Ohio EPA Incident Number:	1704-70-0756	Date of Discovery:	04/14/2017

Entity:	Rover Pipeline LLC Attn: Buffy Thomason				
Address:	1300 Houston, Texas 77002				
Phone:	979-571-3113	Cellular:		Email:	buffy.thomason@energytransfer.com

This is to advise that due to circumstances noted below you have responsibility for one or more violations of the following Ohio Revised Code chapters: ☐ 3704, ☐ 3714, ☐ 3734, ☐ 3750, ☐ 6109, ✓ 6111, or ✓ Ohio Administrative Code 3745-1-04.

Description of violation(s) / incident circumstances:

Release of an estimated 50,000 gallons of drilling fluids from a Horizontal Directional Drilling operation for the installation of a natural gas pipeline. The break out point for the dilling fluids was located within a wetland in Richland County, Mifflin Township, Ohio. The drilling fluids accumulated within an estimated 30,000 square foot area of the wetland. The drilling fluids which included bentonite and cuttings from the natural formation coated the area with a layer of mud and impacted water quality. The surface water within the wetland is "Waters of the State" of Ohio. The unauthorized release of the drilling fluid, a pollutant, into "Waters of the State" of Ohio is a violation of ORC 6111. The release also violated OAC 3745-1-04 "Free Froms" rule by the deposit of sludge, adverse affect to aquatic life and discoloration of the water.

Note: Notice of a violation is not a final action of the Director and is not a necessary prerequisite to a violator's liability for or obligation to address the violation. Citation of a violation in this notice does not preclude the Ohio Environmental Protection Agency (Ohio EPA) from citing additional violations. Each day of each violation is a separate offense. Actual costs incurred by Ohio EPA or its contractor, if any, may be invoiced to the responsible party for reimbursement as authorized by law. Appropriate responses include abatement, assessment or remedial responses, as needed, to address the violation. Initial abatement actions are given below.

Initial abatement actions to be taken by entity:

1. Terminate the release of additional drilling fluids into the wetland and "Waters of the State" of Ohio;
2. Establish and maintain appropriate containment points to prevent the migration of mud from impacted area;
3. Remove drilling fluids and the mud that settled out from impacted area of wetland;
4. Follow procedures provided the Rover Pipeline HDD Contingency Plan for Corrective Actions; and,
5. Properly dispose of all generated waste in accordance with all applicable laws and regulations.

Note: Ohio EPA does not assume liability for any abatement, assessment or remedial responses by entity. Ohio EPA reserves the right, pursuant to chapters 3704, 3714, 3734, 3745, 3750, 6109 and 6111 of the Ohio Revised Code and any other applicable state or federal laws or regulations, to require further site assessment and abatement to address release(s) of hazardous wastes, hazardous substances, industrial wastes or other wastes, pollutants or contaminants into the environment at or from the above designated site. Ohio EPA also reserves the right to seek civil penalties, reimbursement of costs, and any other appropriate legal or equitable relief for any violation.

By signing below the party acknowledges receipt of the Notice of Violation but does not admit the fact of or liability for any violation.

Signature of receipt of this notice:	Buffy Thomason	(indicate refusal to sign)	☐
Printed name of above:	Buffy Thomason	Date:	Emailed on: 04/14/17

Issuing OSC:	Aaron Wolfe	Phone:	614-867-1055	Email:	Aaron.Wolfe @epa.ohio.gov

Pursuant to applicable law, Ohio EPA may request the Attorney General to commence action for legal and equitable remedies, or civil or criminal penalties, or both, whenever there is cause to believe that any person or any source of pollution is violating or has violated any applicable provision of Chapters 3704, 3714, 3734, 3745, 6109, 6111, or other provisions of the Ohio Revised Code administered by Ohio EPA or any rule or order of Ohio EPA, and administrative remedies taken have been or appear likely to be ineffective.

The following penalties may be assessed based on violation of an applicable Ohio Revised Code section:

Chapter 3704: Air Pollution Control
Violations may result in civil penalties of not more than $25,000 for each day of each violation.

Chapter 3714: Construction and Demolition Debris
Violations may result in civil penalties of not more than $10,000 for each day of each violation.

Chapter 3734: Solid and Hazardous Wastes
Violations may result in civil penalties of not more than $25,000, $10,000, or $250 for each day of each violation, depending on the section violated.

Chapter 3750: Emergency Planning
Violations may result in civil penalties of not more than $25,000 for each violation or $10,000 for each day of violation, depending on the section violated.

Chapter 6109: Safe Drinking Water
Violations may result in civil penalties of not more than $10,000 for each day of each violation.

Chapter: 6111: Water Pollution Control
Violations may result in civil penalties of not more than $10,000 per day of violation.

Criminal fines and/or imprisonment may also be assessed in accordance with sections 3704.99, 3714.99, 3734.99, 3750.99, 6109.99, and/or 6111.99 of the Ohio Revised Code.

Ohio Environmental Protection Agency

Division of Environmental Response, Investigation and Enforcement ER PROGRAM

NOTICE OF VIOLATION

Ohio EPA Incident Number:	1704-76-0751	Date of Discovery:	04/13/2017

Entity:	Rover Pipeline, LLC		Attn: Buffy Thomason		
Address:	1300 Main Street Houston TX 77002				
Phone:		Cellular:	979.571.3113	Email:	buffy.thomason@energytransfer.com

This is to advise that due to circumstances noted below you have responsibility for one or more violations of the following Ohio Revised Code chapters: ☐ 3704, ☐ 3714, ☐ 3734, ☐ 3750, ☐ 6109, ✓ 6111, or ✓ Ohio Administrative Code 3745-1-04.

Description of violation(s) / incident circumstances:

Release of an estimated 2 million gallons of drilling fluids from a Horizontal Directional Drilling project for the installation of a natural gas pipeline. The break out point for the dilling fluids was located within a Category 3 wetland adjacent to the Tuscarawas River in Stark County, Navarre, Ohio. The drilling fluids accumulated within an estimated 500,000 square foot area of the wetland. The drilling fluids which included bentonite and cuttings from the natural formation coated the area with a layer of mud and impacted water quality. The surface water within the wetland is "Waters of the State" of Ohio. The unauthorized release of the drilling fluid, a pollutant, into "Waters of the State" of Ohio is a violation of ORC 6111. The release also violated OAC 3745-1-04 "Free Froms" rule by the deposit of sludge, adverse affect to aquatic life and discoloration of the water.

Note: Notice of a violation is not a final action of the Director and is not a necessary prerequisite to a violator's liability for or obligation to address the violation. Citation of a violation in this notice does not preclude the Ohio Environmental Protection Agency (Ohio EPA) from citing additional violations. Each day of each violation is a separate offense. Actual costs incurred by Ohio EPA or its contractor, if any, may be invoiced to the responsible party for reimbursement as authorized by law. Appropriate responses include abatement, assessment or remedial responses, as needed, to address the violation. Initial abatement actions are given below.

Initial abatement actions to be taken by entity:

1. Terminate the release of additional drilling fluids into the wetland and "Waters of the State" of Ohio;
2. Establish and maintain appropriate containment points to prevent the migration of mud from impacted area;
3. Remove drilling fluids and mud that settled out from impacted area of wetland;
4. Follow procudures provided the Rover Pipeline HDD Contingency Plan for Corrective Actions; and,
5. Properly dispose of all generated waste in accordance with all applicable laws and regulations.

Note: Ohio EPA does not assume liability for any abatement, assessment or remedial responses by entity. Ohio EPA reserves the right, pursuant to chapters 3704, 3714, 3734, 3745, 3750, 6109 and 6111 of the Ohio Revised Code and any other applicable state or federal laws or regulations, to require further site assessment and abatement to address release(s) of hazardous wastes, hazardous substances, industrial wastes or other wastes, pollutants or contaminants into the environment at or from the above designated site. Ohio EPA also reserves the right to seek civil penalties, reimbursement of costs, and any other appropriate legal or equitable relief for any violation.

By signing below the party acknowledges receipt of the Notice of Violation but does not admit the fact of or liability for any violation.

Signature of receipt of this notice:	Buffy Thomason	(indicate refusal to sign)	☐
Printed name of above:	Buffy Thomason	Date:	Emailed on: 04/14/2017

Issuing OSC:	Kurt Kollar	Phone:	216-789-9282	Email:	kurt.kollar @epa.ohio.gov

Pursuant to applicable law, Ohio EPA may request the Attorney General to commence action for legal and equitable remedies, or civil or criminal penalties, or both, whenever there is cause to believe that any person or any source of pollution is violating or has violated any applicable provision of Chapters 3704, 3714, 3734, 3745, 6109, 6111, or other provisions of the Ohio Revised Code administered by Ohio EPA or any rule or order of Ohio EPA, and administrative remedies taken have been or appear likely to be ineffective.

The following penalties may be assessed based on violation of an applicable Ohio Revised Code section:

Chapter 3704: Air Pollution Control
Violations may result in civil penalties of not more than $25,000 for each day of each violation.

Chapter 3714: Construction and Demolition Debris
Violations may result in civil penalties of not more than $10,000 for each day of each violation.

Chapter 3734: Solid and Hazardous Wastes
Violations may result in civil penalties of not more than $25,000, $10,000, or $250 for each day of each violation, depending on the section violated.

Chapter 3750: Emergency Planning
Violations may result in civil penalties of not more than $25,000 for each violation or $10,000 for each day of violation, depending on the section violated.

Chapter 6109: Safe Drinking Water
Violations may result in civil penalties of not more than $10,000 for each day of each violation.

Chapter: 6111: Water Pollution Control
Violations may result in civil penalties of not more than $10,000 per day of violation.

Criminal fines and/or imprisonment may also be assessed in accordance with sections 3704.99, 3714.99, 3734.99, 3750.99, 6109.99, and/or 6111.99 of the Ohio Revised Code.

Document Content(s)

FEDERAL ENERGY REGULATORY COMMISSION
WASHINGTON, D.C. 20426

OFFICE OF ENERGY PROJECTS

In Reply Refer To:
OEP/DG2E/Gas 4
Rover Pipeline, LLC
Rover Pipeline Project
Docket No. CP15-93-000
§ 375.308(x)

June 1, 2017

Joey Mahmoud
Senior Vice President
Rover Pipeline LLC
1300 Main Street
Houston, TX 77002

Re: Tuscarawas River Horizontal Directional Drill - Drilling Fluid Composition

Dear Mr. Mahmoud:

On May 10, 2017, the Federal Energy Regulatory Commission (FERC or Commission) suspended further horizontal directional drill (HDD) activity on the Rover Pipeline Project following an inadvertent return of approximately 2 million gallons of drilling fluid during completion of the HDD of the Tuscarawas River (approximate milepost 42 of Mainlines A and B, Stark County, Ohio). Commission staff continue to investigate the underlying reasons for this occurrence, environmental impacts, and Rover Pipeline LLC's (Rover) environmental compliance oversight.

On May 26, 2017, the Ohio Environmental Protection Agency (Ohio EPA) notified FERC staff and Rover of the presence of petroleum hydrocarbon constituents, commonly found in diesel fuel, in samples of drilling fluid from various locations near the HDD of the Tuscarawas River. While the Ohio EPA has concluded that the diesel fuel contamination does not constitute an imminent threat to human health and the environment, there are nevertheless still concerns regarding the potential long-term environmental impacts resulting from the presence of the diesel fuel.

The confirmed presence of petroleum hydrocarbons in the samples taken by Ohio EPA also suggests a violation of Environmental Condition No. 1 of the Commission's February 2, 2017 *Order Issuing Certificates* (Order) in the above referenced docket. This condition requires Rover to adhere to construction procedures as described in its application and identified in the Commission's Environmental Impact Statement (EIS). As stated in Rover's application and discussed in the EIS (see section 4.2.3.5), Rover

committed to use drilling fluid composed only of a "slurry made of nontoxic/non-hazardous bentonite clay and water." Based on this representation, the EIS thus concluded that due to the non-toxic contents of the drilling fluid, inadvertent releases would likely result in minimal environmental impacts.

Based on the results of the sampling conducted by Ohio EPA, the Commission's Office of Enforcement will immediately initiate an investigation to determine the underlying facts that led to the presence of petroleum hydrocarbons in the drilling fluid. Rover is reminded of the data preservation directive in Commission staff's May 10 letter, which includes the requirement that Rover preserve and maintain all documents and information related to the composition, acquisition, preparation, and disposal of the drilling fluid used at Rover's HDD of the Tuscarawas River. We also expect Rover's full and immediate cooperation with the Commission's Office of Enforcement regarding this investigation.

Commission staff will continue to coordinate with Ohio EPA to identify appropriate testing, remediation, and monitoring steps to ensure protection of the environment consistent with the Commission's Order. As stipulated in Environmental Condition No. 2 of the Commission's Order, the Director of OEP has delegated authority to take additional actions as necessary to ensure that Rover complies with all environmental conditions of its certificate, including additional measures to mitigate adverse environmental impacts resulting from project construction and operation.

If you have any questions, please contact Rich McGuire, Director, Division of Gas-Environment & Engineering, at (202) 502-6177.

Sincerely,

Terry L. Turpin
Director
Office of Energy Projects

cc: Public File, Docket No. CP15-93-000

ROVER PIPELINE
An ENERGY TRANSFER Company

June 28, 2017

Mr. Terry L. Turpin, Director
Federal Energy Regulatory Commission
Office of Energy Projects
888 First Street, N.E.
Washington, D.C. 20426

Re: OEP/DG2E/Gas Branch 4
Rover Pipeline LLC (Rover Pipeline Project)
FERC Docket No. CP15-93-000
Submittal of Third-Party Analyses for the I-77, I-71, Indian Fork, Prairie Lane, Maumee River, Norfolk Southern, Sandy Creek, and State Highway 241 HDDs

Dear Mr. Turpin:

On May 10, 2017, the Federal Energy Regulatory Commission's (FERC or "Commission) Office of Energy Projects (OEP) staff issued a letter (Letter) to Rover Pipeline LLC (Rover) regarding the inadvertent release of non-toxic bentonite clay and water slurry (Inadvertent Release) that occurred in connection with the Tuscarawas River horizontal directional drill (HDD) on the Rover Pipeline Project (Project). The Letter stated that pending a further staff order, Rover may only conduct HDD activities as identified in the Letter.

On May 16, 2017, Rover submitted a letter to FERC requesting permission to proceed with remaining drills, particularly the Middle Island Creek (MP 23.7) and Captina Creek HDDs, and explained the additional measures that Rover was beginning to institute to further minimize the potential for and impact of inadvertent releases along the Project. Rover also committed to the third-party review as requested in the Letter. FERC responded on May 25, 2017, denying Rover's request to proceed with the Middle Island Creek (MP 23.7) and Captina Creek HDDs. Rover has since completed the Request For Proposal (RFP) process and FERC chose J. D. Hair & Associates, Inc. (J. D. Hair) as the third-party contractor. J. D. Hair has begun the process of reviewing the information regarding the Tuscarawas River HDD.

As previously discussed, GeoEngineers, Inc. (GeoEngineers) has been contracted by Rover to review the drill plans for the remaining HDDs along the Project, to verify the current design or recommend modifications that will improve the probability of successfully completing the HDDs while minimizing the potential for an inadvertent release. This includes locations where the HDDs will be located directly adjacent to a current or previously completed HDD within the dual 42-inch pipeline segments (Mainlines A and B and Supply Connector Lines A and B), as is the case with the Tuscarawas River HDD location. Additionally, GeoEngineers will provide a supervisory level of onsite control over the drilling process at the HDD locations associated with sensitive resources. At these locations, GeoEngineers will work with the drilling contractor and assist in making decisions to advance the drill or stop the drill based on a careful analysis of the drilling pressures, evaluation of the surface by visual observations for inadvertent releases, both by pedestrian survey and aerial review by drone, and will manage the HDD based upon real time conditions. Rover will also require a minimum of two additional inspection resources to monitor for inadvertent releases as well as for surface erosion. These inspectors will have stop-work authority and the ability to add controls where necessary to avoid and minimize impacts to the environment. In addition, Rover will provide weekly detailed drilling reports to the FERC staff on all HDDs.

1300 Main Street Houston, TX 77002
Phone: 713-989-7000

In the May 16, 2017 letter, Rover submitted the Middle Island Creek (MP 23.7) and Captina Creek HDD GeoEngineers technical analysis reports, which both opined that the currently proposed drill plans are acceptable. On June 26, 2017, Rover submitted the reports for the Unnamed Tributary to Wolf Creek, Honey Creek, U.S. Highway 30, U.S. Highway 42, and Highway 151 HDDs. GeoEngineers has indicated that in its professional judgement there is a high likelihood for a qualified construction contractor to successfully complete each of these crossings. Rover's construction contractor will implement each of GeoEngineers' recommendations, as set forth in the technical review reports, to further facilitate successful installation of the HDD at each of these locations. Moreover, GeoEngineers will provide a supervisory level of onsite control over the drilling process at both of these locations.

Additionally, attached herein, are GeoEngineers technical analysis reports for the following HDDs:

- I-77
- I-71
- Indian Fork
- Prairie Lane
- Maumee River
- Norfolk Southern
- Sandy Creek
- State Hwy 241

<u>I-77 HDD</u>
The I-77 HDD location consists of two 42-inch pipelines (Mainlines A and B), which will cross beneath I-77, a perennial stream and a county road in Stark County, Ohio. Construction of the Mainline A crossing is complete. GeoEngineers is not providing onsite supervision at this location as no sensitive resources are located nearby. GeoEngineers has indicated in the attached report that in its professional judgement there is a high likelihood for a qualified construction contractor to successfully complete the Line B crossing. Rover's construction contractor will implement GeoEngineers' recommendations as set forth in the technical review report to the greatest extent practicable, to further facilitate successful installation of the HDD at this location.

<u>I-71 HDD</u>
The I-71 HDD location consists of two 42-inch pipelines (Mainlines A and B), which will cross beneath I-71, Township Road 1153, a sewer line, and a series of fiber optic and phone lines in Ashland County, Ohio. Construction of the Mainline A crossing is complete. GeoEngineers is not providing onsite supervision at this location as no sensitive resources are located nearby. GeoEngineers has indicated in the attached report that in its professional judgement there is a high likelihood for a qualified construction contractor to successfully complete the Line B crossing. Rover's construction contractor will implement GeoEngineers' recommendations as set forth in the technical review report to the greatest extent practicable, to further facilitate successful installation of the HDD at this location.

<u>Indian Fork HDD</u>
The Indian Fork HDD location consists of two 42-inch pipelines (Mainlines A and B), which will cross beneath Indian Fork, an electric power line, a private road, five wetland areas, and five existing pipelines in Tuscarawas County, Ohio. The Line A Indian Fork HDD is underway. GeoEngineers is providing a supervisory level of onsite control over that drilling process, and will do the same for the Line B crossing. GeoEngineers has indicated in the attached report that in its professional judgement there is a high likelihood for a qualified construction contractor to successfully complete the Line B crossing. Rover's construction contractor will implement GeoEngineers' recommendations as set forth

in the technical review report to the greatest extent practicable, to further facilitate successful installation of the HDD at this location.

Prairie Lane HDD
The Prairie Lane HDD location consists of two 42-inch pipelines (Mainlines A and B), which will cross beneath Prairie Lane, an unnamed tributary to Killbuck Creek, an intermittent stream identified as an unnamed tributary to Jennings Ditch, a private road, wetlands, electric power lines, and telephone lines in Wayne County, Ohio. The Line A Prairie Lane HDD is complete. GeoEngineers provided a supervisory level of onsite control over that drilling process, and will do the same for the Line B crossing. GeoEngineers has indicated in the attached report that in its professional judgement there is a high likelihood for a qualified construction contractor to successfully complete the Line B crossing. Rover's construction contractor will implement GeoEngineers' recommendations as set forth in the technical review report to the greatest extent practicable, to further facilitate successful installation of the HDD at this location.

Maumee River HDD
The Maumee River HDD location consists of two 42-inch pipelines (Mainlines A and B), which will cross beneath the Maumee River, State Highway 424, wetlands, and streams in Henry County, Ohio. The Line A Maumee River HDD is complete. GeoEngineers provided a supervisory level of onsite control over that drilling process, and will do the same for the Line B crossing. GeoEngineers has indicated in the attached report that in its professional judgement there is a high likelihood for a qualified construction contractor to successfully complete the Line B crossing. Rover's construction contractor will implement GeoEngineers' recommendations as set forth in the technical review report to the greatest extent practicable, to further facilitate successful installation of the HDD at this location.

Norfolk Southern HDD
The Norfolk Southern HDD location consists of two 42-inch pipelines (Mainlines A and B), which will cross beneath the Norfolk Southern Railroad, Killbuck Creek, and cable telephone lines in Wayne County, Ohio. The Norfolk Southern HDD is complete. GeoEngineers is not providing onsite supervision at this location as no sensitive wetlands are located nearby. GeoEngineers has indicated in the attached report that in its professional judgement there is a high likelihood for a qualified construction contractor to successfully complete the Line B crossing. Rover's construction contractor will implement GeoEngineers' recommendations as set forth in the technical review report to the greatest extent practicable, to further facilitate successful installation of the HDD at this location.

Sandy Creek HDD
The Sandy Creek HDD location consists of two 42-inch pipelines (Mainlines A and B), which will cross beneath Sandy Creek, a private road, three forested wetland areas, and an existing pipeline in Tuscarawas County, Ohio. The Line A Sandy Creek HDD is underway. GeoEngineers is providing a supervisory level of onsite control over that drilling process, and will do the same for the Line B crossing. GeoEngineers has indicated in the attached report that in its professional judgement there is a high likelihood for a qualified construction contractor to successfully complete the Line B crossing. Rover's construction contractor will implement GeoEngineers' recommendations as set forth in the technical review report to the greatest extent practicable, to further facilitate successful installation of the HDD at this location.

State Highway 241 HDD
The State Highway 241 HDD location consists of two 42-inch pipelines (Mainlines A and B), which will cross beneath two unnamed tributaries to North Fork Sugar Creek, and an existing pipeline in Wayne County, Ohio. Construction of the Mainline A crossing is underway. GeoEngineers is not

providing onsite supervision at this location as no sensitive resources are located nearby. GeoEngineers has indicated in the attached report that in its professional judgement there is a high likelihood for a qualified construction contractor to successfully complete the Line B crossing. Rover's construction contractor will implement GeoEngineers' recommendations as set forth in the technical review report to the greatest extent practicable, to further facilitate successful installation of the HDD at this location.

In addition to employing GeoEngineers and committing to the third-party review by J. D. Hair, Rover has taken a number of steps to prevent Inadvertent Releases in the future. Rover has mobilized additional construction/environmental personnel at each HDD site to increase pedestrian surveillance for potential Inadvertent Releases to ensure discovery at the earliest possible time. Rover has also expanded the pedestrian inspection radius to monitor for Inadvertent Releases on surrounding properties, and is now deploying aerial drones to assist with additional patrolling for inadvertent releases at each HDD site. Rover has memorialized these enhanced measures and procedures in a Supplemental HDD Contingency Plan (Supplemental HDD Plan) that Rover has shared with the Commission, Ohio EPA, drilling contractors and environmental inspectors. Rover has required drilling contractor staff for the above mentioned HDD locations to implement the Supplemental HDD Plan.

Rover has also republished its hotline number via general circulation media, including recurrent listings in local newspapers, and has redistributed the hotline number via personal and/or written communications to the landowners within one mile of each HDD. Rover will continue to encourage local community leaders to distribute the hotline number and website. In addition to the hotline, each stakeholder located along the right-of-way has a direct phone number to the right-of-way agents supporting the construction in the field.

For the reasons discussed herein, Rover respectfully requests that FERC allow Rover to continue HDD operations at the locations for which reports have been submitted to date, including those herein, as depicted in the table below. Meeting Rover's project schedule is critical to the producers in the region and the many customers across the United States that are making plans and are relying on gas deliveries.

Third-Party Analyses for Rover Pipeline Horizontal Directional Drills

Pipeline Segment	Crossing Name	Revised Approx. Entry Milepost	Total Length (feet)	Third Party Analysis Submittal Date	FERC Notice to Proceed Date
Clarington Lateral	Captina Creek	5.44	2,067	5/16/2017	
Majorsville Lateral	Ohio River	12.00	2,665		
Sherwood Lateral	Highway 50	1.46	2,502		
Sherwood Lateral	Middle Island Creek	14.46	2,145		
Sherwood Lateral	Middle Island Creek	24.78	2,744	5/16/2017	
Supply Connector Line B	Highway 151	16.67	2,660	6/16/2017	
Mainline B	Indian Fork	24.75	4,097	6/28/2017	
Mainline B	Sandy Creek	35.59	1,610	6/28/2017	
Mainline B	Interstate 77	39.88	1,689	6/28/2017	
Mainline B	Tuscarawas River	41.83	4,616		
Mainline B	Stream at Highway 241	53.51	2,042	6/28/2017	
Mainline B	Prairie Lane	68.22	2,129	6/28/2017	
Mainline B	Norfolk Southern Railroad	68.80	1,787	6/28/2017	

Mr. Terry L. Turpin, Director
June 28, 2017

Pipeline Segment	Crossing Name	Revised Approx. Entry Milepost	Total Length (feet)	Third Party Analysis Submittal Date	FERC Notice to Proceed Date
Mainline B	State Highway 3 (S Columbus Road)	71.42	2,198		
Mainline B	U.S. Highway 30 (West Lincoln Way)	76.84	2,098	6/16/2017	
Mainline B	Interstate 71	91.82	1,399	6/28/2017	
Mainline B	U.S. Highway 42 / Railroad	94.68	1,349	6/16/2017	
Mainline B	Black Fork Mohican River	95.60	1,995		
Mainline B	UT to Wolf Creek	140.50	1,742	6/16/2017	
Mainline B	Honey Creek	135.53	1,847	6/16/2017	
Mainline B	Sandusky River	142.31	1,817		
Mainline B	Interstate 75	170.45	3,484		
Mainline B	State Route 109 / S. Fork Turkeyfoot Creek	190.58	2,704		
Mainline B	Maumee River	200.93	2,399	6/28/2017	
Market Segment	State Route 52 (Austin Road)	62.62	2,767		
Market Segment	Interstate 94	75.09	2,144		
Market Segment	Portage River	84.79	2,288		

Rover appreciates the efficient review of the RFPs performed by FERC, and all indications are that FERC and J. D. Hair are proceeding expeditiously with its review and analysis of the Tuscarawas River HDD and Inadvertent Release. Rover requests that FERC accept the additional data as provided herein and attached and continue to consider its request to restart the HDDs for which the analyses have been provided as soon as practicable. Rover will continue to provide information and the engineering analysis as well as additional recommendations for the remaining HDDs and will supplement this request as the data becomes available.

Any questions or comments regarding this filing should be directed to the undersigned at (713) 989-2710.

Respectfully submitted,

/s/ Joey Mahmoud

Mr. Joey Mahmoud, Executive VP - Engineering

Attachments

cc: Mr. Rich McGuire - FERC Office of Energy Projects,
Mr. Kevin Bowman - FERC Office of Energy Projects

ROVER PIPELINE

July 14, 2017

Craig W. Butler
Director, Ohio EPA
50 West Town Street, Suite 700
Columbus, Ohio 43215

Re: Director's Final Findings and Orders in the Matter of Rover Pipeline, LLC

Dear Director Butler,

Rover Pipeline, LLC ("Rover") has carefully reviewed the Director's Final Findings and Orders ("DFFOs") dated July 7, 2017. In response, Rover voluntarily submits with this letter the following plans requested in the DFFOs:

- *Rover's Supplement to the Horizontal Directional Drill Contingency Plan, Ohio* pursuant to DFFOs at V.1.
- *Rover's Material Removal Plan, Oster and Beach City Quarries* pursuant to DFFOs at V.3.
- *Rover's Tuscarawas River Wetland Restoration Plan* pursuant to DFFOs at V.4.
- *Rover's Construction Storm Water Pollution Prevention Plan* pursuant to DFFOs at V.8.

Although Rover is voluntarily submitting these plans, it respectfully submits that the DFFOs are based in part on incomplete data and inaccurate analysis and, as a result, there remain factual disagreements between Rover and Ohio EPA. Accordingly, Rover suggests a meeting between representatives of Rover and the Ohio EPA to discuss the implementation of these plans, the other requests made in the DFFOs, and the results of Rover's comprehensive testing initiative. Below Rover provides additional information regarding some of the factual disagreements between Rover and the Ohio EPA in the hope that Rover and Ohio EPA can proceed from a shared set of facts.

Alleged Diesel Contamination

Of the factual disagreements between Rover and Ohio EPA, the most notable is Ohio EPA's claim that there is wide-spread contamination by diesel fuel of the drilling fluids at the Tuscarawas River Horizontal Direct Drill ("HDD") site and at the location of the April 13, 2017 inadvertent release ("IR") associated with that HDD. That is simply not borne out by the data.

As you know, Ohio EPA took samples of drilling fluids from around the Tuscarawas HDD entry and exit points and the IR site (roughly in the middle of the entry and exit points of the

HDD near the Tuscarawas River) over four days in April and May. The drilling fluids Ohio EPA sampled are a mixture of bentonite clay and water—at the IR site, they also contain "cuttings" from the HDD bore hole. Ohio EPA tested certain of the drilling fluid samples from the IR site for Diesel Range Organics ("DROs"). Ohio EPA then expanded its testing of other samples to include volatile organic compounds ("VOCs"), and semi-volatile organic compounds ("SVOCs"). The problem is that the test results Ohio EPA has provided alone can neither confirm nor disprove the presence of diesel fuel. A positive DRO result simply indicates the presence of hydrocarbons containing between 10 and 28 carbon rings. Although that *could* indicate diesel fuel, it could also result from naturally occurring substances ranging from decaying plants to coal (both of which are abundant in this area). The same is true for VOCs and SVOCs, which simply test for hydrocarbon compounds that may indicate diesel, but could also indicate natural substances.

The test results Ohio EPA has provided Rover do not establish diesel contamination of Rover's drilling fluids. The samples taken by Ohio EPA on April 18, May 9 and May 12 show only slightly elevated DRO in two locations and extremely low levels elsewhere: the two highest detections were 233 mg/kg of DRO at IR Grid C1-D1 and 256 mg/kg of DRO at the IR Mud 54 Return, but both were well below the Ohio EPA's own action level of 380 mg/kg. Similarly, the samples taken by Ohio EPA on May 19 only show VOCs and SVOCs, including at IR Grid A3. All of these results could be from naturally occurring substances. For example, Rover's testing of coal deposits in the HDD bore hole show not only elevated levels of DRO, but also the same VOCs and SVOCs found by Ohio EPA. In addition, a review of the Ohio Department of Natural Resources data shows dozens of oil and gas wells within a mile of IR. Because the drilling fluids at the HDD site include "cuttings" from the bore hole, it is entirely possible that the DRO and VOC/SVOC results are indicative of that coal or some other naturally occurring substance, and not diesel fuel. In fact, Ohio EPA has not shared with Rover any data suggesting they did the requisite analysis for diesel fuel. Without gas chromatography analysis, there is no way of knowing whether Ohio EPA's results are from naturally occurring substances or from diesel.

Rover has initiated its own comprehensive testing program, including gas chromatography analysis. Rover even asked Ohio EPA to participate in that testing. Even though Ohio EPA ultimately declined to participate, Rover has proceeded with its own testing.

Rover's testing to date has confirmed that there is no diesel present at the HDD entry and exit points or in the majority of the drilling fluid remaining at the IR. Thus, Rover has found no data to substantiate Ohio EPA's allegations that diesel fuel was added to the mud during drilling. Indeed, if that were true, Rover's testing would have identified trace amounts of diesel fuel in all or substantially all of its samples. But that is not what the testing shows.

Rover's testing results did, however, show that there are two discrete locations at the IR site that have tested positive for diesel. One is the IR Grid A3 location that Ohio EPA tested for VOCs and SVOCs, and the other is the IR Grid C1-D1 location that Ohio EPA tested for DRO.[1] These are discrete locations are small—a few dozen square yards each—and, separated from each other by several hundred feet. Accordingly, and given that there is no diesel signature in samples taken from the HDD site and other locations in the IR, Rover's data to date suggests that this diesel fuel was deposited *after* the IR occurred and not as an additive.

Notably, the two locations that tested positive for diesel are two of the locations that Ohio EPA tested after it apparently received anonymous tips that there was diesel fuel "added to" the drilling fluids. The Ohio EPA has not shared any information about the anonymous tips, so Rover cannot address those allegations specifically. However, the testing results and sequence of events are also consistent with someone intentionally introducing trace amounts of diesel to the IR clean-up site for nefarious purposes. Indeed, at the time of the alleged anonymous tips, a well-known anti-Rover, anti-Dakota Access activist trespassed on the IR site and surreptitiously surveilled the site and cleanup efforts until he was intercepted by law enforcement. This anti-Rover activist is a member of the so-called "Water Protectors," a group that literally destroyed the very water and land they claimed to be protecting while protesting the Dakota Access pipeline.

In any event, the drilling fluids have been removed from both of these discrete locations where diesel fuel was detected and Rover is conducting additional testing to ensure that no traces of diesel remain. In addition, Rover is continuing to review and validate its other test results.

Rover's Environmental Best Management Practices

The DFFOs do not accurately express the view that Rover takes this situation seriously, and that Rover is conducting itself properly with its construction activities. To the contrary, Rover takes this situation very seriously and has implemented a variety of best practices and enhanced procedures to ensure that any additional issues are identified and remediated as promptly as possible. These are, of course, in addition to the best practices and other procedures that Rover has had in place throughout this project.

For example, Rover has hired a third-party geotechnical firm to assess and monitor its HDDs, to ensure that the HDDs are executed in the most efficient, effective and environmentally conscious manner possible. Rover has also added significant new assets to help identify potential inadvertent releases, such as aerial evaluation and drone technology, an expansion of

[1] The soil beneath these two locations has been tested and does not contain any diesel fuel.

its ground-level evaluation radius to include adjacent properties, and new staff to assist in the evaluations and assessments on the ground.

Rover has also employed 31 additional Environmental Inspectors along the project route, for a total of 62 Environmental Inspectors, along with a Chief Environmental Inspector and Assistant Chief Environmental Inspector. In May, Rover conducted a project-wide environmental compliance retraining to reiterate the need to protect environmental resources. Rover has and continues to conduct daily environmental training at each crew's daily tail gate or job safety analysis meetings. These meetings are intended to remind the workforce of their environmental responsibilities and compliance obligations as well as the work to be accomplished that day and how that work may affect the environmental conditions at the job site.

* * *

Rover reiterates that its policy is to cooperate fully with all regulators, and Rover regrets the apparent disconnect between its desire to comply with lawful requests and the Ohio EPA's view that Rover has not been cooperative. While there remain disagreements between Rover and Ohio EPA with respect to the DFFOs, Rover looks forward to working with Ohio EPA to resolve those differences.

Sincerely,

Kevin Erwin
General Counsel
Rover Pipeline, LLC

ROVER PIPELINE
An ENERGY TRANSFER Company

August 4, 2017

Mr. Terry Turpin
Federal Energy Regulatory Commission
Office of Energy Projects
888 First Street, N.E.
Washington, D.C. 20426

Re: OEP/DG2E/Gas Branch 4
Rover Pipeline LLC (Rover Pipeline Project)
FERC Docket No. CP15-93-000
Response to J.D. Hair Report and FERC Letter Orders

On May 10, 2017, the Federal Energy Regulatory Commission's ("FERC" or "Commission") Office of Energy Projects ("OEP") staff issued a letter to Rover Pipeline LLC ("Rover") regarding the inadvertent release ("IR") of non-toxic bentonite clay and water slurry ("slurry") that occurred in connection with the Tuscarawas River horizontal directional drill ("HDD"). The May 10, 2017 letter precluded Rover from beginning additional HDDs along the Rover Pipeline Project ("Project").

On July 12, 2017, OEP staff issued a second letter regarding the IR. The July 12, 2017 letter referred to the potential presence of petroleum hydrocarbons in the slurry at the Tuscarawas River HDD IR, and requested that Rover develop a set of protocols to prevent future slurry contamination as a prerequisite to in-service authorization and permission to proceed with the remaining HDDs along the Project route. On July 31, 2017, OEP staff reiterated that request in a letter regarding the completion of the third-party contractor independent report ("Report") completed by J.D. Hair & Associates ("JDHA") regarding the inadvertent release ("IR") of non-toxic bentonite clay and water slurry ("slurry") that occurred in connection with the Tuscarawas River HDD.

J.D. Hair Third-Party Analysis

The July 31, 2017 letter referenced measures addressed in the Report for Rover to implement before the suspended HDD activities may resume along the Rover Pipeline Project ("Project"). These measures are as follows:

> JDHA recommends the following to minimize the risk of environmental impact due to an IR occurring during the drilling of the second planned (Line B) crossing of the Tuscarawas River, and future project HDDs:
>
> 1. For the Tuscarawas Crossing:
> - Design the HDD path at a greater depth so that it remains within sedimentary bedrock over the duration of the crossing; and

- Maximize the horizontal offset between the two alignments to the extent practical to minimize the risk of drilling fluid flow into previously established flow paths;

2. For the Tuscarawas and all remaining HDDs:
   - Use an annular pressure tool during HDD operations so that the actual annular pressure can be monitored and steps can be taken to reduce annular pressure as necessary;
   - Retain the services of a drilling fluid engineer or specialist that can assist PDD in developing a drilling fluid program to help minimize circulation loss, combat reactive clays and shale to minimize annular pressure;
   - PDD and Rover need to provide documentation at the level specified in Energy Transfer's Pipeline Construction Specification and the Horizontal Directional Drilling Contingency Plan; and
   - Use third party inspectors for independent monitoring and documenting HDD operations, as well as full-time inspectors to check for inadvertent releases of drilling fluid.

Rover commits to the measures listed under Item 1 and will design the HDD path at a greater depth so that it remains within sedimentary bedrock over the duration of the crossing and maximize the horizontal offset between the two alignments to the extent practical to minimize the risk of drilling fluid flow into previously established flow paths. An analysis by the third-party firm GeoEngineers, Inc. will be submitted for review by OEP.

Rover commits to the measures listed under Item 2 for all remaining HDDs along the Project, as incorporated into the *Supplement to the Horizontal Directional Drill Contingency Plan – Ohio* ("Supplemental HDD Plan") attached herein.

Under Sections 3.0 and 4.0 of the Supplemental HDD Plan, Rover states that it will utilize an annular pressure tool during the pilot phase and continuously monitor annular flow and injection pressures during all phases of an HDD; will provide documentation per Energy Transfer Company's Pipeline Construction Specification and the Supplemental HDD Plan; will retain the services of a drilling fluid engineer to assist in development of a drilling fluid program; and will employ a third-party firm to monitor drilling operations, as well as an HDD Inspector at each site to oversee the drilling site operations.

In Section 6.0, Rover reiterates that it will retain the services of a drilling fluid engineer or specialist that can assist in developing a drilling fluid program to help minimize circulation loss, and combat reactive clays and shale to minimize annular pressure.

Revisions to the Supplemental HDD Plan and Appendix A that have occurred since the previously submitted version are denoted by redlined text. The Supplemental HDD Plan and Appendix A were also revised to reflect modifications requested by the Ohio Environmental Protection Agency (Ohio EPA). While the Supplemental HDD Plan specifically addresses the HDDs in Ohio in Appendix A, the Supplemental HDD Plan will be utilized for the remaining HDDs along the Project route.

Additional Protocols

The request for additional protocols as noted in the July 12 and 21, 2017 letters arises from concerns that petroleum hydrocarbons present at the IR could have been introduced as part of the HDD process. Based on the evidence Rover has reviewed to date, however, Rover does not believe that to have been the case. To be clear, Rover has never requested nor approved of the addition of diesel fuel (or any other petroleum hydrocarbons) to the bentonite slurry used for its HDDs. Rover takes these allegations extremely seriously. If Rover were to discover that a contractor or one of its employees intentionally added such materials to the slurry in violation of Rover's approved protocols and HDD plans, Rover would take all appropriate action available under the law. However, as discussed below, the testing results and evidence to date do not support the allegations. Simply put, the data is at best inconclusive—it could reflect an intentional introduction of diesel, an unreported spill, or sabotage. Given the gravity of the allegations, Rover has taken steps to address all of these potential scenarios.

In an effort to understand where such petroleum hydrocarbons may have originated, Rover has reviewed the sampling data issued by the Ohio Environmental Protection Agency ("Ohio EPA") and has conducted extensive additional sampling. Following the IR, a grid system was derived on site to facilitate the initial assessment and documentation of the restoration activities. This grid system was also utilized during the Rover sampling efforts. Please refer to the enclosed *Summary Report for Tuscarawas Inadvertent Return (IR) Samples – July 2017* detailing the testing Rover conducted at the Tuscarawas River HDD IR site, as well as the cover letter provided to the Ohio EPA, which further details the analysis of the data and subsequent conclusions.

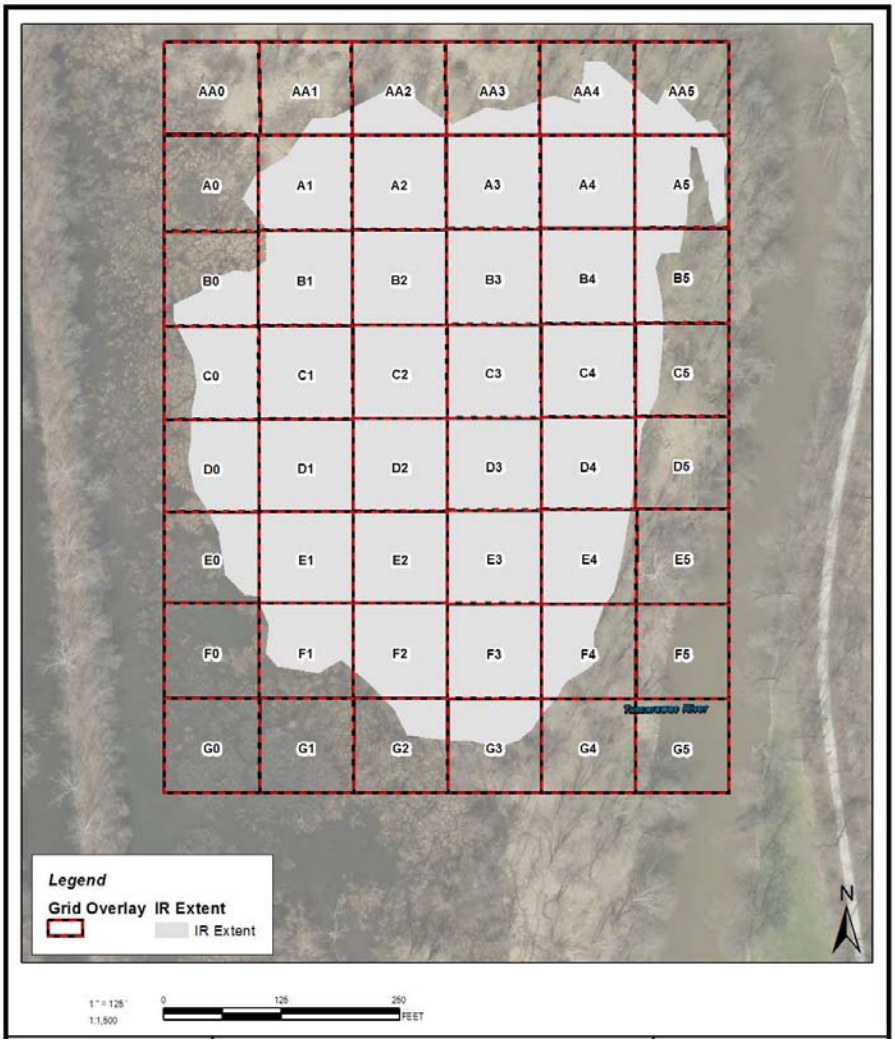

Figure 1 – Grid Overlay

To be clear, Rover's testing did confirm the presence of small amounts of diesel in and around Grid A3 and Grid C1/D1 (see Figure 1). This data alone, however, does not demonstrate that diesel fluid (or other petroleum hydrocarbons) entered the slurry as part of the HDD process, or that there was a widespread impact. Rather, this testing data is equally consistent with a limited, low-volume release in and around samples collected within the center of Grid A3. Rover theorizes that these diesel concentrations could have been caused by an inadvertent and unreported spill or leak from equipment operating during the clean-up of the IR, or it could have been the deliberate or malicious act of individuals opposed to the project. Given the extensive inspection and oversite at this and other sites along the project, it is difficult to imagine that this occurred from an unreported spill or

leak. Nonetheless, Rover is deeply troubled by any of these potential scenarios and has taken steps to address these possible sources.

First, with respect to the possibility of an unreported spill during cleanup, Rover will reiterate to all employees and contractors that all construction must adhere to the requirements of its FERC certificate, the *Spill Prevention and Response Procedures* and the *Project Specific Wetland and Waterbody Construction and Mitigation Measures*, both of which were approved by FERC prior to the commencement of construction. These construction plans require secondary containment for equipment working within or near wetlands and waterbodies, and require the prompt notification following a spill of hazardous materials. While Rover has no evidence that the diesel was the result of a spill or failed containment, it will remind its employees and contractors of these requirements to reassert their importance.

Second, with respect to the possibility that someone introduced diesel into the mud at the IR site for malicious purposes, Rover has hired security to oversee the Tuscarawas HDD site and has increased scrutiny of all personnel entering and leaving all HDD sites.

Third, Rover has committed to having a third-party engineer on-site at each of the proposed drills to oversee the drilling operations. In addition, Rover will employ an HDD Inspector to be present on all HDD sites to oversee management of the site during each shift at locations where drilling will operate 24 hours a day. This personnel, as well as Environmental Inspectors along each construction spread, will be present and accountable to report any occurrences observed that may be inconsistent with the construction plans and commitments made to the relevant agencies.

Finally, in the event there is some other possible source Rover has not yet considered, Rover has also submitted a *Horizontal Direction Drill (HDD) Sampling Plan* to OEP staff and the Ohio EPA for the testing of slurry in all HDDs in Ohio for petroleum hydrocarbons. If such testing returns positive results, Rover will conduct testing to determine, if possible, the source of those hydrocarbons.

Rover respectfully requests that this letter and associated attachments be accepted as a complete response to the recommendations presented in the July 31, 2017 from OEP and in the associated JDHA report and the request for proposed protocols to avoid contamination of drilling fluid for the remaining HDDs along the Project route and respectfully requests that FERC continue to consider its request to commence with the remaining HDDs. Any questions or comments regarding this filing should be directed to the undersigned at (713) 989-2812.

Respectfully submitted,

/s/ Chris Sonneborn

Mr. Chris Sonneborn, Senior VP - Engineering

Attachments

cc: Mr. Rich McGuire - FERC Office of Energy Projects,
Mr. Kevin Bowman - FERC Office of Energy Projects
Mr. Craig Butler – Ohio Environmental Protection Agency

ROVER PIPELINE
An ENERGY TRANSFER Company

ROVER PIPELINE LLC

Rover Pipeline Project

SUPPLEMENT TO THE HORIZONTAL DIRECTIONAL DRILL CONTINGENCY PLAN OHIO

August 2017

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APPENDICES

1.0 INTRODUCTION

This Horizontal Directional Drill (HDD) Contingency Plan provides procedures and steps to address inadvertent release of a non-toxic clay and water slurry used in horizontal directional drilling beneath wetlands and waterbodies. The non-toxic clay and water slurry consists primarily of fresh water, with high-yield bentonite added to achieve the necessary properties, such as viscosity. Bentonite is composed of clay minerals mined primarily in Wyoming reserves and is not considered a hazardous material by the U.S. Environmental Protection Agency. Additives may be utilized to adjust the consistency of the drilling fluid per the recommendations of the third-party engineer (see Section 3 below). Therefore, in the event of a release into a wetland or waterbody, there will be no adverse environmental impact other than a temporary increase in turbidity from the bentonite and the efforts to contain and collect the release. While drilling parameters will be established to maximize circulation and minimize risk of these inadvertent releases, the possibility of lost circulation and releases cannot be eliminated. This plan has been prepared to address containment procedures in the event of an inadvertent release. It also includes measures that would be implemented in the event that the HDD cannot be successfully completed. Unless otherwise specified, Rover Pipeline LLC (Rover) will implement the following plan for the Rover Pipeline Project (Project) in consultation with the Contractor, Construction Inspector, and Environmental Inspector.

Elements of this plan include:

- Best Management Practices
- Monitoring Procedures
- Notification Procedures
- Corrective Action
- Contingency Plan

Rover will require its HDD contractor(s) to specifically address the general elements of this plan before commencing any HDD operations.

2.0 PLANNED HDD CROSSINGS

The HDD method of construction is utilized to avoid disturbing surface and shallow subsurface features (such as waterbodies, wetlands, vegetation, manmade structures, and public use and protected areas) between two construction areas and is the preferred method proposed by Rover for crossing major waterbodies. The HDD method typically involves establishing workspaces in upland areas on both sides of the feature(s) to be crossed and confining the work and equipment to these areas. The process commences with the drilling of a pilot hole in an arced path beneath the feature, using a drill rig positioned on the entry side of the crossing. When the pilot hole is completed, reamers are attached and are used to enlarge the hole in one or more passes until its diameter is sufficient to accommodate the pipeline. As the hole is being reamed, a pipe section long enough to span the entire crossing is fabricated (staged and welded) on one side of the crossing (typically the exit side) and then hydrostatically tested to ensure the integrity of the welds. When the reaming is complete, the prefabricated pipe section is pulled through the pre-reamed drilled hole back to the entry side.

A drill head equipped with a global positioning system (GPS) may be used to transmit the drill location to an operator in order to help guide the drill through the prescribed path. In cases where the drill head is not equipped with this technology, foot traffic would be required between HDD entry and exit points to place guide wires to track the progress and guide the movement of the drilling cutterheads. These guide wires would be placed in upland and wetland areas but would not be laid on the bed of any waterbodies.

HDD requires prefabricated pipeline, which may necessitate additional workspace if the right-of- way is not directly aligned with the HDD. Between the HDD entry and exit sites, Rover is limited to conducting minor brush clearing, less than 3 feet wide, using hand tools only, to facilitate the use of the HDD tracking system or acquisition of water for the makeup of the HDD slurry. Access paths to the water source in support of drilling operations can typically be routed in a meandering fashion, thereby avoiding trees and any substantial clearing.

Throughout the drilling process, a slurry of naturally occurring, non-toxic bentonite clay and water would be pressurized and pumped through the drilling head to lubricate the drill bit, remove drill cuttings, and hold the hole open. This process is intended to circulate the non-toxic clay and water slurry through the annulus of the bore hole and back to a collection area at the drilling site, where it is reused in the HDD process. This non-toxic clay and water slurry has the potential to be inadvertently released to the surface. The pipeline route would be monitored and the circulation of the non-toxic clay and water slurry would be observed throughout the HDD operation for indications of an inadvertent release. If a release is observed or suspected, Rover would immediately implement corrective actions. The corrective actions that Rover would implement if it uses the HDD method, including the steps it would take to clean-up and dispose of a release, are outlined below.

During the HDD operation, it is possible to encounter an abnormal condition, such as a geologic formation of unconsolidated soils, glaciated material, fractured rock, coal seams, reclaimed grounds, or where a large void is detected etc., where there is a partial or total loss of circulation. During the pilot phase, annular pressures will be monitored during the drilling operations. Once the pilot drilling is complete, annular flow is adjusted to preserve the borehole integrity, and the flow to the entry/exit pits is closely monitored for fluid returns. The contractor would attempt to regain returns by retracting the drilling apparatus ("swab the bore hole") in an attempt to create a seal along the bore walls to form a closed system to retain the fluid. In the event of loss of pressure during the pilot phase, the HDD contractor will pull back (or "trip") the bottom-hole-assembly out of the hole until pressure is regained or until there is evidence that no inadvertent release has occurred. During the reaming phase of the HDD, the entry and exit pits will be closely monitored for fluid returns.

Additionally, while drilling through unconsolidated materials or glaciated material, a diminished flow of drilling fluid or loss in annular pressure may be presented. If that occurs, the HDD contractor will retract drill stem to a point that previous drilling fluid returns were present, in efforts to clean the bore hole. In this process, the drill stem and drill tools are retracted to clean the hole behind the drilling apparatus in an effort to remove any potential cuttings/material behind the tool that could create a blockage in the bore path, which might be slowing or stopping fluid returns. Upon fluid returns to the entry/exit pit, the drilling activities will then be advanced back through the bore hole to recommence drilling operations. The drilling fluid is closely monitored to ensure the proper bentonite mixture is being used allowing the wall cake to form down hole along the bore path.

During the drilling operations, unconsolidated soils uptake portions of the drilling fluids and water from the bentonite mixture forming a wall cake. The wall cake assists in sealing off the outside area of the bore hole to mitigate infiltration of waters/materials into the bore hole. In addition, in these circumstances, the monitoring procedures detailed below in Section 4.0 below would be executed.

It is possible for HDD operations to fail, primarily due to encountering unexpected geologic conditions during drilling or the pipe becoming lodged in the hole during pullback operations. Potential causes for abandoning a drill hole include the loss of drill bits or pipe down the hole due to a mechanical break or failure, a prolonged release of the non-toxic clay and water slurry that cannot be controlled, failure of the HDD pullback where a section of pipe cannot be retracted and has to be abandoned, or an inability to

correct a severe curvature of the pilot hole drill path. In any event, reasonable attempts would be made to overcome the obstacles preventing successful completion of the drill. Such measures could include re-drilling the pilot hole in a slightly different location or re-conditioning of the pilot hole. Rover would be required to seek approval from the Federal Energy Regulatory Commission (FERC), the U.S. Army Corps of Engineers, the Ohio Environmental Protection Agency (Ohio EPA) and potentially other applicable agencies prior to abandoning any proposed HDD crossing in favor of a new location, or using another construction method should the second attempt fail. If an HDD hole were to be abandoned, Rover would seal and grout with cement the upper 30 feet of the bore hole(s) at a minimum, subject to a site-specific evaluation of the geologic formation to determine the length of the bore hole to be grouted, and with the top 5 feet filled with soil to allow for revegetation. In the event that an HDD crossing cannot be completed at the proposed location, Rover would coordinate with appropriate agencies and propose an alternative location to the FERC.

Extensive geotechnical data testing pertaining to the feasibility of the proposed HDD crossings was conducted during the planning phase of the proposed HDDs. These studies are used to design the HDDs with the highest possible level of success given the observed geologic formations. The location and basic results of the geotechnical reports are identified on the HDD plan and profile drawings included in Appendix B.

The staging areas for the HDDs have been limited to the minimum needed to construct the crossing. Additionally, the entry and exit locations have been sited with maximum design depth clearance to provide the greatest buffer between the sensitive resource and the drilling activity/installed pipe. Further, these layouts have been designed to minimize the potential for impacts to waterbodies and wetlands by providing no less than 50 foot buffers to the sensitive resource, except where the 50-foot buffer cannot be maintained due to topographic or site-specific conditions. The combination of the buffer and the depth of the pipe beneath the sensitive resource is expected to minimize and avoid any adverse impacts.

Please refer to Appendix A for the proposed HDD locations for the Project and specific information pertaining to each.

3.0 BEST MANAGEMENT PRACTICES

Rover will employ a number of best management practices (BMPs) to reduce the probability of and severity of inadvertent returns.

1. Rover approaches HDDs with the mindset of preplanning for, and being fully prepared to immediately respond to, an inadvertent return. While the HDDs are designed to maximize their potential for success, inadvertent returns may still occur. Rover will thus be cognizant and prepared to respond quickly to minimize any impacts from the inadvertent return.

2. Rover has identified known resources including, but not limited to wetlands, waterbodies, public drinking water sources, etc. during the planning stages of the project, and has designed the HDDs to avoid impacts to those areas foremost by use of the HDD construction method. Rover has designed the HDDs to maximize the separation between the pipeline path and the features present within the HDD segment, including the proximity to the entry and exit locations of the HDD, to the greatest extent possible given topographic, residential, environmental, technological, and other constraints.

3. These resources are protected secondarily by stormwater BMPs utilized at the HDD entry and exit points to reduce the possibility of off-right-of-way sedimentation into any nearby sensitive areas.

These BMPs are also utilized along the pipeline right-of-way, and include, but are not limited to:

- Effective perimeter controls, including the installation of silt fence and other erosion control devices (ECDs) surrounding the perimeter of the entry and exit "drill pads"
- Installation of slope breakers in areas where ground disturbance leading to or from the HDD location may cause sedimentation downslope.
- Installation of silt fence and other ECDs at wetland or waterbody edges near the HDD location to further protect the resources.
- Utilization of sediment ponds or traps when design parameters of perimeter controls are exceeded
- Proper trench dewatering techniques for trenches leading to or from the HDD location, using a filter bag and silt fence/straw bale structure and sediment ponds or traps as dewatering structures to comply with applicable water quality standards. There will be no turbid discharges to waters of the state resulting from dewatering operations.
- Use of secondary containment for pumps or equipment within 50 feet of a wetland or waterbody.
- Relevant sections of the Rain Water and Land Development Manual
- Timely reclamation and stabilization of the areas following construction, with temporary ECDs maintained and monitored until final stabilization is achieved, at which time any necessary permanent ECDs would be installed.

These ECDs as well as others utilized along the pipeline or at aboveground facilities are also detailed in the construction typical drawings included in Appendix C, and in the Rover Upland Erosion Control, Revegetation and Maintenance Plan (Rover Plan) and Rover Wetland and Waterbody construction and Mitigation Procedures (Rover Procedures) included in Appendix D.

4. Rover will have on-site, prior to drilling, an appropriate supply of materials and equipment to contain an inadvertent return at both sides of the HDD. This would include, but not be limited to:

   - straw bales
   - silt fence
   - sand bags
   - Hand tools
   - pumps and hoses
   - vacuum truck(s)
   - backhoe
   - bulldozer
   - equipment mats
   - aqua barriers
   - sheet piling

5. If these items become necessary, an appropriate number of pumps will be staged to volumetrically control the current release, as well as any further anticipated releases. Additional equipment and supplies will be brought in to supplement and provide for redundancy of critical systems in case of mechanical failure or an increase in the severity of a situation. In addition, pumps or other active relief systems will be continuously monitored while in use. Rover will utilize the equipment on-site in compliance with the Spill Prevention and Response Procedures approved for the Project.

6. In addition to the overall safety and environmental training required for the Project, which is required and documented for all employees and contractors, Rover will provide training to ensure that personnel associated with the HDD are knowledgeable concerning this plan and other applicable

construction plans approved for the Project. All training will occur on-site and the training events and attendees will be documented. This effort will include the third-party monitors on-site, who will be present and available for questions. In addition, records of occurrences and attendees of job safety analysis meetings will be documented.

7. The utilization of bore path relief wells will be evaluated by a third-party inspection firm for all proposed HDDs.

8. Rover will collect the non-toxic clay and water slurry returns at the drill entry location systematically for analysis.

9. Rover will retain the services of a drilling fluid engineer or specialist who will assist in developing a drilling fluid program to help minimize circulation loss, and combat reactive clays and shale to optimize annular flow.

10. Rover will monitor annular flow and injection pressure on a continuous basis to identify any significant, rapid variances, which may be a sign of reduction or loss of circulation.

4.0 MONITORING PROCEDURES

HDD activities will be closely and continually monitored by the Contractor, the Construction Inspector, and the Environmental Inspector, or any combination of the three. Monitoring and sampling procedures will include:

- Visual and pedestrian field inspection along the drill path, to the extent allowable by the terrain, including monitoring the wetlands and waterbodies for evidence of release,
- Use of drones to inspect the area along and adjacent to the HDD drill path when inadvertent returns are suspected,
- Continuous monitoring of the non-toxic clay and water slurry, drilling pressures, and return flows by the Contractor,
- Consistent recording of drill status information regarding drill conditions, pressures, returns, and progress during the course of drilling activities, consistent with Rover's Engineering Standards for Pipeline Construction,
- Consistent recording of all pedestrian and drone inspections along the drill path and surrounding area including time of inspection, documentation of all observations of sensitive resources, and people conducting the inspection. and
- Continuous, 24-hour monitoring of pumps being utilized on-site.

While performing an HDD, the HDD contractor will closely monitor all down hole pressures during the pilot phase along with the entry/exit pits during the reaming process to ensure fluid returns are returning. While performing an HDD crossing of a wetland, waterbody, or ditch, the crew will closely and frequently monitor the right-of-way and surrounding areas with pedestrian search and/or the use of aerial drones. Regarding inspection, Rover's Engineering Standards for Pipeline Construction state:

> The construction areas will be checked each time that downhole pressure, fluid flow rates or any other variable indicate an unplanned leak may have occurred. In addition, the construction areas and ground areas above the drill path will be checked a minimum of twice daily for signs of unplanned leaks or seeps. A written record shall be maintained by Contractor of all inspections and submitted with his daily report to Company Representative.

Rover will adhere to the company standards by inspecting the right-of-way a minimum of twice daily for signs of inadvertent returns. And Rover will exceed the company standards by inspecting the drill path, on and off the right-of-way (approximately 100 feet with landowner permission) once an hour while there is a loss of returns during drilling operations. These inspections will be conducted by contractor personnel under the supervision of an on-site Rover HDD Inspector.

In addition, regarding monitoring and subsequent documentation, Rover's Engineering Standards for Pipeline Construction state:

A. Contractor shall at all times maintain monitoring equipment that will accurately locate and continuously monitor the drill bit and pre-reaming cutters within the tolerances specified herein. All records of in-progress monitoring of the pilot hole will be transmitted to Company on a daily basis in a format that allows easy interpretation by Company. Records shall include bottom hole assembly composition, drilling fluid flow and pressure readings, torque and tension readings while reaming, pilot hole and down hole survey data and position calculations and drilling / reaming penetration rates.

B. Contractor shall continuously monitor the alignment and profile throughout the HDD operation and shall provide drawings with sufficient detail to show vertical depth, horizontal distance and bearing of the pilot string, referenced to survey control points provided by Company. Contractor will submit digital pilot hole data to Company on a daily basis. Immediately upon completion of the pilot hole boring pass, Contractor shall submit to Company the plan and profile of the HDD boring in sufficient detail and of appropriate accuracy to permit Company to confirm acceptability of the boring. Company shall review the drawings prior to reaming and pullback operations.

Rover and its contractors shall adhere to the company standards by monitoring and documenting the drilling process.

Should an inadvertent return be found in a wetland, waterbody, or ditch; the drilling operations will immediately halt until the inadvertent return is adequately contained. The monitoring of the right-of-way along with all findings will be documented.

In the event that pedestrian searches for inadvertent release are inadequate due to limited traversable terrain, a remote controlled aerial drone will be utilized for ground surveillance. The drone will be flown the length of the HDD drill path with concentrated focus on the areas that pedestrian search is not practical and during daylight hours. The FAA has instituted certain guidelines for the use of drone flights.

- Class G airspace
- Must keep the aircraft in sight (visual line-of-sight)
- Must fly under 400 foot elevation
- Must fly during the day time hours
- Must fly at or below 100 mph
- Must yield right of way to manned aircraft
- Must not fly over persons
- Must not fly from a moving vehicle

- Drones must be registered with the Federal Drone Registration and all guidelines closely adhered to.

Drone flight use and rules can be found at
https://www.faa.gov/uas/getting_started/fly_for_work_business/

During the flight of the drone, the right-of-way and up to .25 mile each side of centerline along the HDD bore path will be flown, provided line-of-sight between the drone and the pilot is obtainable.

In the event an inadvertent return is identified using the drone, all HDD operations will be halted. Providing the inadvertent return is in a location that can be accessed through approved landowners along the permanent easement of the right-of-way, the crew will contain the inadvertent return with silt fence, straw bales and/or sand bags. Provided adequate access can be obtained, the HDD contractor and/or its subcontractor will utilize vacuum trucks, pumps and hand tools as needed to clean-up the inadvertent return. Upon containment of the inadvertent return, the drilling operations will commence as the clean-up efforts continue.

In the event an inadvertent return is located outside of the previously approved right-of-way boundaries, the HDD contractor will work closely with Rover to obtain landowner and agency permission to access the area to begin the clean-up efforts.

Similar investigation techniques will be implemented during nighttime operations, with the exception of drone flights, as long as they can be conducted safely.

In addition, inspection by a third-party firm will be utilized to monitor the drilling process on-site within the drilling equipment cabin along with the contractor for all remaining HDDs along the Project (see Appendix A). This third-party firm will provide guidance to the contractor and help to ensure that the drilling is conducted cautiously and skillfully to minimize the potential for an inadvertent return. The third-party firm will routinely report to the agencies involved with the HDDs.

5.0 NOTIFICATION PROCEDURES

Rover will contact all landowners within 1 mile of the proposed HDDs to inform them that they are near an HDD location and to request that they inform Rover of any apparent bentonite/water slurry on the surface of the ground or within a wetland or waterbody. Rover will also inform them that they may notice drones in the proximity as inspections are conducted, and Rover will request their permission to perform pedestrian surveys as necessary if an inadvertent return is suspected. Rover has provided all affected and adjacent landowners and local residents with the Rover hotline number (888-844-3718) on multiple occasions in mailings, and via newspapers and local media, and Rover will provide the residents surrounding the HDDs with this number again to facilitate communication. Rover has also provided the Ohio EPA with the Rover hotline number to help facilitate communication if the Ohio EPA receives calls concerning a possible inadvertent return or other concern.

For all inadvertent releases of the non-toxic clay and water slurry, the Construction Inspector or Environmental Inspector will immediately notify Rover's Construction Manager and Environmental Project Manager.

Upon detection of an inadvertent release to ground surface or wetlands/waterbodies, Rover will contain the release as described below (see Section 6.0 - Corrective Action).

Rover's Environmental Project Manager will notify FERC and the Ohio EPA upon discovery by telephone and e-mail of any inadvertent release.
Rover will notify the Ohio EPA immediately as practicable:

- via telephone call to the EPA Spill Hotline (800-282-9378) and
- via telephone call to the Ohio EPA Section 401/Stormwater Manager (614-644-2001).

Rover will also notify FERC via email and phone call to the FERC Project Manager and FERC Compliance Monitor.

If the inadvertent release occurs in a wetland or waterbody, Rover will also notify the U.S. Army Corps of Engineers (Pittsburgh, Huntington, or Buffalo Districts) via email.

Rover will provide details regarding the location and nature of the release, corrective actions being taken, and whether the release poses any threat to public health and safety.

Rover will also immediately contact the landowner(s) affected by the inadvertent release and will continue to coordinate with them concerning actions necessary to contain and remediate the release.

6.0 CORRECTIVE ACTION

Upon discovery of a loss of circulation or sign of a down-hole pressure drop, the contractor shall notify the on-site Rover representative, begin to reduce down-hold pressure as practicable, and conduct a detailed examination of the drill path and adjacent area for evidence of an inadvertent release. At the first sign of release of the non-toxic clay and water slurry, immediate actions to manage and control the release will be implemented as prescribed by this plan. Depending on the location and the amount of fluid being released, corrective actions may include the following:

- If public health and safety are threatened by an inadvertent release, drilling operations will be immediately shut down until the threat is eliminated. Upon discovery of an IR within a sensitive area, a temporary suspension of drilling operations will take place until measures are in place to manage, control, and contain the release.
- Evaluating the release to determine if containment structures are warranted and can effectively contain the release. When making this determination, Rover will also consider if placement of containment structures will cause additional adverse environmental impact. Secondary containment, supporting 110 percent of the primary volume will also be designed and installed as practicable.
- Placing containment structures at the affected area to prevent migration of the release.
- If the amount of the release is large enough to allow collection, collecting the non-toxic clay and water slurry released into containment structures and returning it to either the drilling operations or an approved disposal site by hose or tanker.
- If the amount of the release is not large enough to allow collection, diluting the affected area with fresh water and allowing it to dry. Steps will be taken to prevent silt-laden water from flowing into a wetland or waterbody.
- If a wetland or waterbody release occurs, initiating an inspection to determine the potential movement of released non-toxic clay and water slurry within the wetland or waterbody.
- If a wetland or waterbody release occurs, monitoring of the release will be documented by the Environmental Inspector. Rover will keep photographs of release events on record.
- Upon completion of the drilling operations, consulting with applicable regulatory agencies and develop a site-specific plan to determine any final clean-up requirements for the inadvertent

release.

- Depending upon the type and duration of an inadvertent release, if necessary impacts to benthic and/or aquatic communities will be remediated to restore the function of the community. Additionally, site-specific plans will be developed to offset or mitigate any long-term impacts to the aquatic environment via mitigation or some other form of mitigation to replace the loss of function or value.
- For any impacts to public or private water supplies, Rover will provide temporary or permanent, short or long-term replacement of the water supply until the water supply is restored to its pre-inadvertent release condition.

The following measures will be implemented to minimize or prevent further release, contain the release, and clean-up the affected area:

- The Contractor will determine and implement any modifications to the drilling technique or, in consultation with a drilling fluid engineer, evaluate modifications to the composition of non-toxic clay and water slurry (e.g., viscosity of the non-toxic clay and water slurry by increasing mineral content) and possible supplemental additives to minimize or prevent further releases of the non-toxic clay and water slurry.
- If a release occurs within a wetland or waterbody, reasonable measures, within the limitation of directional drilling technology and the Contractor's capability, will be taken to reestablish drilling return circulation.

In the event of an inadvertent release in a stream, several contingency procedures are possible, depending on the width and flow of the stream at the time of the inadvertent release. These contingency procedures, which are further defined below, include the installation of a:

- turbidity curtain,
- dam and pump section,
- flumed section,
- stand pipe, or
- relief well.

Each stream within the proposed HDD paths along the Rover Pipeline are listed in Table 3 in Appendix A, as well as each potential contingency measure that may be employed at each stream. Use of the contingency measures below largely depends on the current status of the stream at the time of an inadvertent return. Stream characteristics vary widely throughout the year, and are further defined by droughts, floods, atypical seasonable conditions, heavy storms, the influx of water from tributaries higher in the watershed, upstream dam releases, upstream water use, anticipated precipitation events, etc. While Table 3 indicates the contingency measures that may be possible, each measure will be evaluated at the time an inadvertent return occurs to determine which method is the most practicable and efficient at that time.

Turbidity Curtain

A turbidity curtain may be used in streams that have slow moving current to reduce the turbidity. This method would most likely be effective on small, temporary releases, or as a temporary measure while other methods are employed.

Dam and Pump Section

Consideration will be given to a dam and pump process to keep the flow of the waterbody from being inundated with the non-toxic clay and water slurry. In the event a dam and pump is proposed, the upstream portion will be dammed off with sand bags, aqua-barrier, or similar materials to halt the flow of the waterbody. Upon installation of the dam structure, pumps will be utilized to divert the flow of water from the upstream flow around the inadvertent return and the water will be released in the downstream portion of the waterbody via discharge hoses.

While the upstream flow is halted/diverted, a dam will be placed as a containment on the downstream side of the inadvertent return. These structures would be left in place during the cleanup, and possibly during the remainder of the drill if it is deemed necessary and is manageable. Use of this process would require personnel to monitor the pumps at all times.

Flumed Section

The flume method is similar to a dam and pump, and will consist of temporarily directing the flow of water through one or more flume pipes placed over the area to be excavated. This method would allow the material to be isolated from the waterbody without disruption of water flow in the stream. Stream flow will be diverted through the flumes by constructing two bulkheads, using sand bags or plastic dams, to direct the stream flow through the flume pipes. These structures would be left in place during the cleanup, and possibly during the remainder of the drill if it is deemed necessary and is manageable. A flumed section may be possible to use in wider or deeper streams, or streams with higher flows than a dam and pump method.

Stand Pipe

Should the need arise, a containment ring structure or stand pipe (e.g. vertical concrete culvert) shall be used to contain the inadvertent return and act as a collection point. This method may also be employed in the event that an inadvertent return occurs in an open water area. This may be utilized in a dam and pump or flumed section once the dams are in place and clean-up commences. This containment and collection point will allow for pumping of the non-toxic clay and water slurry out of the waterbody should the inadvertent return continue during drilling operations. The use of various pumps such as 3-inch or 4-inch style trash pumps, 6-inch or greater high flow pumps or hydraulic driven submersible pumps will be utilized for pumping of the non-toxic clay and water slurry from the point of the inadvertent return to the drill rig fluid reclaimer, vacuum trucks or portable containment tanks.

Relief Well

Relief wells can be utilized during the drilling process to help relieve downhole annular drilling fluid pressures which may also reduce the risk of an IR. The theory behind their use is that they effectively shorten the drilling fluid circulation path and, therefore, the pressure required to circulate drilling fluid through the hole. In the event that an IR does occur, they can provide a preferential pathway for drilling fluid flow to help reduce the risk of IR occurring in other locations.

Relief wells are typically installed after completion of the pilot hole so that they can be located directly over the drilled HDD alignment. The construction of relief wells generally includes drilling a hole vertically down from the surface in order to intersect the drill path and setting a casing to within a few feet of the top of the HDD drill path. The wells need to be designed to accommodate the anticipated drilling fluid flow rates with diameters ranging from 6 to 18 inches and can be fitted with valves to

control the flow, particularly if more than one relief well is installed along the HDD alignment. The valves can allow for control of which well the drilling fluid surfaces. Each relief well would be sufficiently staffed so that drilling fluid returns can be monitored and the pumps, hoses and generators required to collect the drilling fluid returns can be attended to. If the well locations are inaccessible by tanker truck, the collected drilling fluid may have to be pumped a significant distance where it can be stored for recycling and reuse or hauled off-site for disposal.

The effectiveness of relief wells is highly dependent on location, construction, subsurface conditions and conditions within the directionally drilled hole. Rover's third-party engineer's experience with the efficacy of relief wells has been mixed and there are risks to the HDD that must be considered. These risks include concentrating a significant volume of cuttings in the directionally drilled hole in the vicinity of the relief well and the unravelling or overmining of the soil in the vicinity of the relief well as a result of drilling fluid returns along the outside of the casing. The overmining of the soil around the casing is more problematic in granular soils and can lead to ground subsidence and possibly cause the relief well casing to subside into and obstruct the HDD drill path if the casing cannot be extracted. If at all possible, the relief well casing should be grouted in place to seal the annular space between the formation and the casing.

Other Contingency Measures

Other contingency procedures that could be employed during an inadvertent return in a stream would include changes to the drilling procedure or to the bentonite mixture. Reductions in the drilling pressures may be possible to reduce or eliminate the inadvertent return. In addition or, or if a reduction of drilling pressures is not possible, adding #16 granulated bentonite to the drilling fluid and circulating it into the formation could create a seal (i.e. wall cake) that can reduce or prevent inadvertent releases. To assist in this manner, Rover will retain the services of a drilling fluid engineer or specialist that can assist in developing a drilling fluid program to help minimize circulation loss, and combat reactive clays and shale to minimize annular pressure.

7.0 CONTINGENCY PLAN

If the corrective actions described above do not correct the problem, Rover may opt to abandon the drill hole and consider alternate measures. An HDD attempt will be considered failed if:

- circulation is insufficient to maintain the integrity of the borehole,
- circulation losses present an imminent risk to human health or the environment, or
- the borehole location cannot be maintained within the required limits.

In the event of borehole failure, the borehole will be properly abandoned as described in Section 7.1 below, and a decision will be made regarding whether to re-attempt the HDD crossing, or use another crossing method, as described in Section 7.2 below.

7.1 ABANDONMENT

In the event the drill hole is to be abandoned the following procedures will be implemented to seal the abandoned drill hole:

- grout will be pumped into the hole to completely seal and fill the upper 30 feet of hole entirely with grout;

- compacted soil will be placed in the top 5 feet of the hole; and
- the location will be graded to the original contour.

The above abandonment procedures will be discussed with the appropriate permitting and regulatory agencies prior to implementation.

7.2 ALTERNATE CROSSING LOCATIONS AND METHODS

If the HDD cannot be completed at the proposed location, the HDD will be re-attempted at an alternate location. Before a determination is made on an alternate crossing location, an effort will be made to identify and assess the reason for the drill failure. This may be critical for the selection of the alternate crossing.

Considerations of alternative locations include, but are not limited to, the following:

- horizontal relocation of the drill hole,
- changing of the drill profile (depth of hole),
- changing drill procedures (slurry viscosity/pressure/flow velocity, bit rotation/velocity, etc), and/or
- additional soil borings and geo tech evaluation.

If the entry and exit points need to be relocated, consideration will be given to:

- Stream bank type, flow width, depth, velocity and flow volume,
- Surrounding topography,
- Condition of riparian areas,
- Condition and extent of wetlands, if any, on each side of the alternate crossing,
- Aquatic biota,
- Downstream water uses, and/or
- Entry and exit angles for the HDD path.

These and other factors will be considered and discussed with the appropriate regulatory agencies to secure the appropriate approvals. Final selection of the alternate crossing location will be submitted to FERC, along with the required supporting data.

Alternate crossing methods, if determined to be necessary, may include:

- open cut,
- auger boring,
- pipe jacking, or
- microtunneling.

Additional federal, state, and local permitting may be required to construct via an alternate method. Final selection of the alternate crossing method, as well as documentation of any required amended permits or clearances, will be submitted to FERC or review and approval, along with the required supporting data.

Appendix A

Rover HDD Site Information

1. Proposed Horizontal Direction Drills

The Rover Pipeline Project (Project) includes 43 horizontal directional drills (HDDs) within Ohio as detailed in Table 1 below. These HDDs will occur at 24 locations, with separate drills proposed for Mainlines A and B, and Supply Connector Lines A and B within the sections of dual pipelines along the Project.

Rover will complete the drills in the dual pipeline areas separately, not as bundles, as the lines will be installed approximately 20 feet apart. The drills for the second line may not be installed immediately after the first as Rover's schedule requires Line A to be in-service prior to Line B. Rover may have as many as 24 drilling rigs on the Project concurrently.

Table 1. Proposed Horizontal Direction Drills (HDD) Locations - Ohio

Pipeline Segment	Crossing Name	Pipeline Diameter (inches)	Approx. Entry MP	Approx. Exit MP	Total Length (feet)	Anticipated Duration
Burgettstown Lateral	Ohio River	36	16.13	14.78	7,124	6-8 months
Clarington Lateral[2]	Captina Creek	42	5.44	5.82	2,067	4-6 months
Clarington Lateral	Interstate 70	42	18.38	17.93	2,419	4-6 months
Majorsville Lateral[2]	Ohio River	24	12.00	12.50	2,665	4-6 months
Sherwood Lateral	Ohio River	36	36.10	35.01	5,757	6-8 months
Supply Connector Lines A/B[1,2]	Highway 151	42	16.67	16.16	2,660	4-6 months
Mainlines A/B[1,2]	Indian Fork	42	24.75	25.53	4,097	6-8 months
Mainlines A/B[1,2]	Sandy Creek	42	35.59	35.90	1,610	2-3 months
Mainlines A/B[1,2]	Interstate 77	42	39.88	39.56	1,689	2-3 months
Mainlines A/B[1,2]	Tuscarawas River	42	41.83	42.70	4,616	4-6 months
Mainlines A/B[1,2]	Stream at Highway 241/UT at Sugar Creek	42	53.51	53.13	2,042	4-6 months
Mainlines A/B[1,2]	Prairie Lane	42	68.22	67.82	2,129	4-6 months
Mainlines A/B[1,2]	Norfolk Southern Railroad	42	68.80	69.13	1,787	2-3 months
Mainlines A/B[1,2]	State Highway 3 (S Columbus Road)	42	71.42	71.84	2,198	4-6 months
Mainlines A/B[1,2]	U.S. Highway 30 (West Lincoln Way)	42	76.84	76.45	2,098	4-6 months
Mainlines A/B[1,2]	Interstate 71	42	91.82	92.06	1,399	2-3 months
Mainlines A/B[1,2]	U.S. Highway 42 / Railroad	42	94.68	94.43	1,349	2-3 months
Mainlines A/B[1,2]	Black Fork Mohican River	42	95.60	95.97	1,995	2-3 months
Mainlines A/B[1,2]	UT to Wolf Creek	42	140.50	140.83	1,742	2-3 months
Mainlines A/B[1,2]	Honey Creek	42	135.53	135.88	1,847	2-3 months
Mainlines A/B[1,2]	Sandusky River	42	142.31	142.66	1,817	2-3 months
Mainlines A/B[1,2]	Interstate 75	42	170.45	169.79	3,484	4-6 months
Mainlines A/B[1,2]	State Route 109 / S. Fork Turkeyfoot Creek	42	190.58	191.09	2,704	4-6 months
Mainlines A/B[1,2]	Maumee River	42	200.93	200.47	2,399	4-6 months

[1] HDD locations will involve two HDDs for Lines A and B.
[2] HDDs will be monitored by a third-party inspection firm.

Rover will give special consideration and provide additional precautions, including intensified monitoring and inspection, and enlisting the assistance of a third-party inspection firm to monitor the drilling activities at the proposed HDDs. Table 2 below describes these resources along the project route.

Table 2. Rover Pipeline - Wetlands in the Vicinity of the HDDs

HDD	Wetland ID	Enter Mile Post	County	Wetland Type	ORAM Score	ORAM Category	Delineated Acres
Burgettstown Lateral							
Ohio River - West Bank	None	16.0	Jefferson	--	--	--	--
Clarington Lateral							
Captina Creek	None	5.4	Monroe	--	--	--	--
Interstate 70	None	18.4	Belmont	--	--	--	--
Majorsville Lateral							
Ohio River - West bank	None	12.5	Belmont	--	--	--	--
Sherwood Lateral							
Ohio River - West bank	None	36.0	Monroe	--	--	--	--
Supply Connector Lines A and B							
Highway 151	W2ES-HR-260	16.7	Harrison	PEM	30	2	1.21
Mainlines A and B							
Indian Fork	W7H-TU-255	24.8	Tuscarawas	PFO	70.5	3	2.46
Indian Fork	W7H-TU-254	24.8	Tuscarawas	PFO	70.5	3	1.77
Indian Fork	W7H-TU-252	24.8	Tuscarawas	PFO	70.5	3	3.50
Indian Fork	W7H-TU-253	24.8	Tuscarawas	PFO	70.5	3	0.33
Indian Fork	W7H-TU-251	24.8	Tuscarawas	PFO	78	3	1.84
Indian Fork	W7H-TU-247	24.8	Tuscarawas	PFO	60.5	3	0.86
Indian Fork	W7H-TU-246	24.8	Tuscarawas	PEM	12	1	0.03
Indian Fork	W2H-TU-202	24.8	Tuscarawas	PEM	11	1	0.07
Sandy Creek	W1M-TU-195	35.6	Tuscarawas	PFO	54	2	0.72
Sandy Creek	W3H-TU-224	35.6	Tuscarawas	PEM	44	2	0.22
Interstate 77	None	39.9	Stark	--	--	--	--
Tuscarawas River	W1M-ST-180	41.8	Stark	PEM	47	2	6.94
Tuscarawas River	W1M-ST-179	41.8	Stark	PEM	56	2	0.82
UT Sugar Creek	None	53.5	Wayne	--	--	--	--
Prairie Lane	W3H-WA-143	68.2	Wayne	PEM	15	1	29.12
Norfolk Southern Railroad	None	68.8	Wayne	--	--	--	--
State Highway 3	None	71.4	Wayne	--	--	--	--
U.S. Highway 30	None	76.8	Wayne	--	--	--	--
Interstate 71	None	91.8	Wayne	--	--	--	--
U.S. Highway 42	None	94.7	Ashland	--	--	--	--
Black Fork Mohican River	W4H-AS-122	95.6	Ashland	PFO	50.5	2	10.67
Black Fork Mohican River	W4H-RI-131	95.6	Richland	PFO	56	2	9.87

Table 2. Rover Pipeline - Wetlands in the Vicinity of the HDDs

HDD	Wetland ID	Enter Mile Post	County	Wetland Type	ORAM Score	ORAM Category	Delineated Acres
Honey Creek	W7H-SE-220	135.5	Seneca	PFO	52	2	1.48
UT Wolf Creek	W3H-SE-111	140.5	Seneca	PEM	54.5	2	0.20
UT Wolf Creek	W3H-SE-115	140.5	Seneca	PFO	43	2	0.17
UT Wolf Creek	W3H-SE-116	140.5	Seneca	PFO	50	2	0.38
Sandusky River	None	142.3	Seneca	--	--	--	--
Interstate 75	W8H-WO-220	170.5	Wood	PEM	60	3	0.16
Interstate 75	W8H-WO-221	170.5	Wood	PEM			0.16
Interstate 75	W8H-WO-222	170.5	Wood	PEM	53	2	0.07
South Fork Turkey Creek	None	190.6	Henry	--	--	--	--
Maumee River	W8H-HE-123	200.9	Henry	PFO	57	2	0.49
Maumee River	W8H-HE-116	200.9	Henry	PEM	66	3	0.53
Maumee River	W8H-HE-117	200.9	Henry	PFO	66	3	0.70

In addition, Table 3 below shows the streams within HDD paths within Ohio.

Table 3. Rover Pipeline – Streams in the Vicinity of the HDDs

HDD	Stream ID	Mile Post	County	Waterbody Name[1]	Flow	OWHM Width (feet)	Contingency Options[2]
Ohio River - West Bank	S-Ohio River 3	15.5	Jefferson	Ohio River	Perennial	1,127.0	5, 6
Captina Creek	S4H-BE-507	5.6	Monroe	Captina Creek	Perennial	40.0	1, 4, 5, 6
Interstate 70	S7H-BE-392	18.2	Belmont	UT to Brush Run	Ephemeral	7.0	2, 3, 5, 6
Ohio River - West bank	S-Ohio River 2	12.1	Belmont	Ohio River	Perennial	1,321.0	5, 6
Ohio River - West bank	S-Ohio River 1	34.5	Monroe	Ohio River	Perennial	1,813.0	5, 6
Highway 151	None	--	Harrison	--	--	--	
Indian Fork	S7H-TU-248	25.3	Tuscarawas	Indian Fork	Perennial	45.0	1, 4, 5, 6
Sandy Creek	S1M-TU-193	35.7	Tuscarawas	Sandy Creek	Perennial	42.0	1, 4, 5, 6
Interstate 77	S1M-TU-172	39.8	Stark	UT to Tuscarawas River	Perennial	3.5	2, 3, 5, 6
Tuscarawas River	S1M-ST-175	42.2	Stark	Tuscarawas River	Perennial	55.0	1, 4, 5, 6
UT Sugar Creek	S2H-WA-134	53.2	Wayne	UT to North Fork of Sugar Creek	Intermittent	5.0	2, 3, 5, 6
UT Sugar Creek	S2H-WA-135	53.3	Wayne	UT to North Fork of Sugar Creek	Ephemeral	3.0	2, 3, 5, 6
UT Sugar Creek	S2H-WA-175	53.4	Wayne	UT to North Fork of Sugar Creek	Perennial	13.0	1, 2, 3, 5, 6
Prairie Lane	S1M-WA-144	67.9	Wayne	UT to Jennings Ditch	Intermittent	5.0	2, 3, 5, 6
Norfolk Southern Railroad	S1M-WA-147	68.2	Wayne	UT to Killbuck Creek	Perennial	19.0	1, 3, 4, 5, 6
State Highway 3	S3H-WA-149	71.6	Wayne	UT to Killbuck Creek	Ephemeral	2.0	2, 3, 5, 6
State Highway 3	S3H-WA-150	71.6	Wayne	UT to Killbuck Creek	Perennial	6.0	2, 3, 5, 6
U.S. Highway 30	None	--	Wayne	--	--	--	
Interstate 71	None	--	Wayne	--	--	--	
U.S. Highway 42	None	--	Ashland	--	--	--	
Black Fork Mohican River	S4H-AS-123	95.8	Ashland	Black Fork Mohican River	Perennial	100.0	1, 4, 5, 6
Honey Creek	S7H-SE-222	135.7	Seneca	Honey Creek	Perennial	66.0	1, 4, 5, 6
UT Wolf Creek	140.67	140.42	Seneca	UT to Wolf Creek	Perennial	60.0	1, 4, 5, 6
Sandusky River	S7H-SE-232	142.5	Seneca	Sandusky River	Perennial	170.0	1, 4, 5, 6
Interstate 75	None	--	Wood	--	--	--	
South Fork Turkey Creek	S1M-HE-170	191.0	Henry	South Turkeyfoot Creek	Perennial	24.0	1, 3, 4, 5, 6
South Fork Turkey Creek	S4H-HE-406	191.5	Henry	UT To South Turkeyfoot Creek	Perennial	5.0	2, 3, 5, 6

Table 3. Rover Pipeline – Streams in the Vicinity of the HDDs

HDD	Stream ID	Mile Post	County	Waterbody Name[1]	Flow	OWHM Width (feet)	Contingency Options[2]
Maumee River	S8H-HE-118	200.6	Henry	Maumee River	Perennial	400.0	1, 4, 5, 6

[1] UT = Unnamed Tributary"
[2] Contingency Options (See Section 6.0 of the Supplemental HDD Plan):
1. Turbidity Curtain
2. Dam and Pump
3. Flume
4. Stand Pipe
5. Relief Well
6. Other measures

These sensitive resources will be specifically observed within the inspections conducted in the case of a suspected inadvertent return, with the process described in Section 4 of the *Supplement to the Horizontal Directional Drill Contingency Plan – Ohio* (Supplemental HDD Plan).

2. Equipment On-Site

Each HDD location will have equipment on-site to immediately respond to an inadvertent return as effectively as possible, which would be solely dedicated to the potential occurrence of an inadvertent return and will thus be available at all times. The materials and equipment used would be replaced on-site with equivalent numbers and amounts of materials and equipment to provide redundancy in case of equipment failure or an increase in the release. This equipment includes, but would not be limited to:

- a vacuum truck,
- two 4-inch pumps with secondary containment material,
- a 6-inch pump with secondary containment material,
- at least two light towers,
- a frac tank,
- 4-inch poly pipe,
- 20 feet of suction hose,
- 200 feet of discharge hose,
- four hand shovels and squeegees,
- 100 sand bags,
- 20 straw bales,
- 100 feet of silt fence,
- two rolls of plastic sheeting, and
- a spare submersible hydraulic pit pump, hydraulic drive motor and hoses.

In addition, on each pipeline spread, the equipment below is present and could be rapidly obtained. This equipment will also be staged at HDDs involving wetlands or waterbodies (see Table 4 below for locations where the Wetland and Waterbody and Waterbody IR Response Equipment will be maintained).

- a skid steer,
- a bulldozer
- vacuum trucks ,
- additional frac tanks,
- silt sock,
- silt fence,
- sand bags,
- corrugated pipe,
- additional containment materials,
- truck and/or digging mats, and
- sheet piling.

Further, the following equipment and materials are readily available from local vendors and could also be quickly obtained:

- 6-inch and 8-inch pumps, suction hose and discharge hose,
- additional frac tanks,
- hydraulic drive motors and hydraulic pit pumps,
- small equipment: mini-excavators, excavators, skid steers, morookas and small buggies for hauling items,
- sand bags, loads of rock, loads of gravel, loads of sand from local resources,
- silt fence, straw bales, turbidity curtains, plywood for structures, silt bags,
- vacuum trucks,
- boat or pontoon,
- high-density polyethylene pipe, various sizes, and
- additional containment resources (e.g., grain bins).

3. Inadvertent Releases

Rover has experienced inadvertent returns within sensitive resources along the Rover Pipeline Project at the following HDD locations:

- Indian Fork HDD
- I-70 HDD
- Black Fork Mohican HDD
- Tuscarawas River HDD
- Prairie Lane HDD
- Highway 151 HDD
- Sandy Creek HDD

Each occurrence is detailed below. Each location has been documented in terms of the conditions and events leading up to the inadvertent release, the containment and clean-up of the location, and the precautions and plans enacted to minimize the potential for future occurrences while recommencing drilling. The extent of the affected areas has been documented as baseline data to use in evaluating restoration of each area.

Indian Fork HDD

While the contractor was drilling on the pilot phase of the crossing (4,118 feet – 133 joints) The crew was shut down due to not being able to access the exit side of the drill due to flood conditions from April 5-8, 2017. The pilot hole drilling parameters were maintaining a mud pump pressure of 550 pounds per square inch (psi) while pumping 651 gallons per minute (gpm). The 8-inch mud motor requires this flow rate for optimum performance while drilling through a rock formation. On April 8th, the crew was able to access the exit side of the drill and a small inadvertent return was located approximate 90 feet from the exit point of the HDD on joint 130 (4,028 feet). The crew halted operations and placed containments around the inadvertent return and began cleaning up the exit side drill pad area to be able to access the area of the inadvertent return with vacuum trucks and equipment.

Upon proper containment and clean-up of the inadvertent return, the crew removed the bottom hole assembly and added a 30-inch reamer. The crew began the back reaming process while monitoring the area of the inadvertent return with no additional issues to the point or inadvertent return.

On April 19, 2017 while pull reaming with the 30-inch reamer, the crew lost returns on joint 63 and the crew lost full returns to the pit. The crew continued to check the right-of-way and the point of inadvertent return with no inadvertent return identified. The crew tripped the 30-inch ream back towards exit side to joint 90, regaining full returns back to the exit pit.

On April 20, 2017 the crew continued the 30-inch pull ream on joint 63 with full returns to the exit pit. In the event returns are lost, the crew will continue to trip the reamer back towards face until returns are gained. The crew and inspection continues to walk the right-of-way to monitor the area for any additional inadvertent returns with no additional inadvertent returns found to date.

The inadvertent return and site has been completely cleaned up and the contractor is monitoring the site as drilling operations continue.

I-70 HDD

On April 07, 2017, a complete loss of circulation occurred on the I-70 HDD. At that time, the contractor extracted all 56 joints of drill pipe (1,797-ft) from the bore path to attempt to regain circulation. While tripping joint 25 out of the hole, approximately 50 percent of the circulation started to come back to the HDD entry. The contractor continued to remove (trip) the drill string all the way out of the hole to attempt to ensure the bore path was clean and reduce downhole pressures. Once extracted, the bottom hole assembly, consisting of an 8-inch mud motor with a 12.25-inch tungsten-carbide-insert drill bit was inspected and advanced back into the bore path. While tripping joint 37 back to bottom, a reduction in circulation was noticed at the entry. While tripping joint 49, a complete loss of circulation was encountered at the entry.

Crew members walked the bore path and did not detect an inadvertent return. The bottom hole assembly was progressed to the bottom of the hole and recommenced the drilling of the pilot hole. After drilling part of joint 58, an inadvertent return was located approximately 300 ft west of the centerline. The pilot hole drilling parameters had been maintaining a mud pump pressure of 550 psi while pumping 651gpm. The 8-inch mud motor requires this flow rate for optimum performance while drilling through a rock formation. The contractor constructed a hay bale containment around the release to contain the material.

On the morning of April 10, 2017, the contractor started to pump the non-toxic clay and water slurry downhole while crew members watched the centerline and the area that had been contained. Crew members did not find any signs of a release so the pilot hole was recommenced. Upon drilling one additional joint of drill pipe with the same pilot hole drilling parameters as the previous joints drilled, another release of the non-toxic clay and water slurry was located in the same vicinity as the first release, on a sloped area adjacent to I-70, allowing the slurry to migrate to a small stream close to the release point. The stream carried the slurry down the slope to a culvert running under I-70 where the slurry entered a pond on the discharge side of the culvert. The contractor ceased all operations and a sand bag wall was constructed to contain the material that released to the surface. The contractor installed environmental control measures and constructed sand bag dams in order to contain the non-toxic clay and water slurry around the entire perimeter of the release in order to keep any non-toxic clay and water slurry from migrating away from the point of release.

Rover coordinated with the Ohio Department of Transportation (ODOT) and the Ohio Environmental Protection Agency (EPA) to contain and remove the material. The contractor received permission from

ODOT District 11 to temporarily divert traffic with a lane closure on I-70 near the release. Vacuum trucks could then safely pull over and park on the shoulder of I-70 while the non-toxic clay and water slurry were pumped into vacuum truck. The vacuum truck was assisted by a 6-inch pump in secondary containment that was placed near the release of fluids.

Once all of the non-toxic clay and water slurry were reasonably contained and pumped into vacuum trucks to be recycled/hauled off, the contractor commenced completion of the pilot hole. The contractor continued the monitoring efforts by walking the centerline and looking for signs of a release. The location of where the bottom hole assembly was located during the release (joint 58) was approximately 119-ft deeper than the HDD entry location. With an elevation change of this nature in a rock formation, it was not anticipated to see a release of the non-toxic clay and water slurry to the surface. The contractor continued to remove the fluids that continue to exit at the surface in the contained area.

Black Fork Mohican HDD

On March 20, 2017, a partial loss of circulation occurred on the Black Fork Mohican River HDD Crossing. At that time, the contractor was drilling on the pilot phase of the crossing. On Joint 59 (1,829 feet), all fluid returns were lost to the rig. The crew halted operations and performed the pedestrian survey of the right-of-way. A small inadvertent return was found on the exit side of the HDD crossing in the very soft soils and with the bottom hole assembly at a shallow point on the bore profile. The crew contained the inadvertent return and worked on cleaning up the inadvertent return as drilling commenced. The crew tripped back 5 joints in an effort to establish returns to the rig. Once back on bottom, the bottom-hole-assembly consisting of an 8-inch mud motor with a 12.25-inch tungsten-carbide-insert drill bit was advanced back along the bore path. The bottom hole assembly was progressed to the bottom of the hole and drilling of the pilot hole was recommenced while crew members and inspection team continually walked along the centerline of the bore path and to the outer limits of the right-of-way. The pilot hole drilling parameters were maintaining a mud pump pressure of 550 psi while pumping 651 gpm. The 8-inch mud motor requires this flow rate for optimum performance while drilling through a rock formation. The crew completed the pilot hole process while monitoring and cleaning the area of the inadvertent return.

Through the entire back reaming process, the inadvertent return was maintained and cleaned as the non-toxic clay and water slurry presented into this area. On April 4, 2017 upon completion of the back reaming process, the crew moved the rig around to the exit side to pull the product pipe string back through (pulling from southeast to northwest).

From April 5th to April 10, 2017 the crew was on standby as the area was flooded. On April 11, 2017 the crew began transferring joints of drill stem to the pipe side in order to have the adequate number of joints to begin the 48-inch barrel reamer swab pass. Once the swab pass was completed and pipe pull commenced pulling from joint 68, on joint 45 (pulling back to the rig from joint 68 to the end of joint 1) non-toxic clay and water slurry started appearing at the point of the inadvertent return. The inadvertent return was contained and pullback commenced again. While pulling pipe, the pullback was halted periodically to suck up the non-toxic clay and water slurry with vacuum trucks and pit pumps to transfer mud back to the reclaimer. During the pullback, the crew experienced mechanical issues with the self-priming pit pump, which clogged due to debris and heavy drill cuttings and drill fluids (leaves, sticks, etc.). During the pullback operations through an area that had been flooded, with loose soil conditions,

and as the product pipe was getting closer to the surface an additional inadvertent return developed due to the heavy fluids and cuttings. This created pressure downhole in front of the barrel reamer leading the pipe, causing the additional inadvertent return. This additional inadvertent return occurred approximately 80 feet closer to the rig (to the northeast of the first inadvertent return) and 10 feet offset to the west of the centerline, 186 feet from the entry pit.

Upon completion of the pullback of the product pipe, the inadvertent return containment was adjusted and total clean-up of the inadvertent return commenced. The HDD of Line A is complete, clean-up at the inadvertent release has been concluded, and the contractor has demobilized from the site, and will return to install Line B at a later date.

Tuscarawas River HDD

On March 19, 2017, a complete loss of circulation occurred on the Tuscarawas River HDD. At that time, the contractor was drilling on the pilot phase of the crossing. On Joint 6 (186 feet), all fluid returns were lost to the rig. The crew extracted the 6 joints out of the hole in efforts to regain the returns. Once extracted, the bottom-hole-assembly, consisting of an 8-inch mud motor with a 12.25-inch tungsten-carbide-insert drill bit, was inspected and advanced back into the bore path. The crew searched the area of the right-of-way in front of the drill rig as well as behind and lateral of the running line, and no surface returns were found.

The bottom hole assembly was progressed to the bottom of the hole and recommenced the drilling of the pilot hole while crew members and inspection team continually walked along the centerline of the bore path and to the outer limits of the right-of-way. The pilot hole drilling parameters were maintaining a mud pump pressure of 550 psi while pumping 651gpm. The 8-inch mud motor requires this flow rate for optimum performance while drilling through a rock formation. Through the completion of the pilot hole process, no returns to the rig or to the surface at any location throughout or along the right-of-way were found.

On the afternoon of March 25, 2017 the pilot hole phase was completed (150 joints). The pilot hole tools were removed and a 30-inch hole opener was installed to begin the back reaming phase upon approval of the bore profile. The bore profile was accepted and the 30-inch back reaming (reaming from joint 150 to joint 1) began the evening of March 25, 2017.

From March 25-26, 2017 as the crew was back reaming the first 16 joints (496 feet), the crew noticed full returns to the exit pit. As the crew continued back reaming, on joint 135 of 150, all returns were lost. The crew halted operations to perform additional pedestrian survey of the right-of-way and area looking for inadvertent returns, none found. The crew began to trip the reamer back to the surface in efforts to regain returns. From joint 136 to 150, returns continued to return to the exit pit. The crew inspected the reamer and all downhole tooling connections and began to trip back to the bottom of the bore path. On joint 135, all returns were lost again. The crew continued to back ream as they also began to increase the thickness of the non-toxic clay and water slurry in efforts to seal off any crack/fissure or crevasses that the returns could have flowed into. The crew continually searched and monitored the right-of-way for signs of inadvertent returns with nothing being found. The crew continued with the back reaming from joint 135 to joint 1 (exit side to the rig side) with no returns and no inadvertent returns found.

On April 3, 2017 the 30-inch reamer was removed and a 42-inch reamer was added to the tail string. As the reamer assembly was entered into the exit pit and bore path, cutting hole from joint 150 to joint 136, the crew experienced full returns to the exit pit. On joint 135, all fluid returns were lost again. The crew continued to monitor the right-of-way and still no returns to the pit or any surface returns were found. The crew continued to back ream from joint 136 to joint 11 with no returns to the entry pit or the exit pit.

On April 13, 2017 all drilling operations halted as an inadvertent return was found near the west bank of the Tuscarawas River. Crews commenced containment and notification efforts.

The use of grain bin panels and reinforced silt fence is being installed as a containment and point of evacuation of returns.

Status of Clean-Up

1. Actions taken for remediation of the inadvertent return:

- A road to access the inadvertent return location was constructed (0.12 mile rock and 0.25 mile of drag line mats) with two turn around and staging points built of drag line mats. The road was started on Friday, April 14th and completed the morning of Sunday, April 16th. While access was being constructed, clean-up equipment and materials were being staged. The last several hundred feet was matted to allow trucks to back into the inadvertent return site as close as possible.
- Clean up of the non-toxic clay and water slurry was started mid-morning Sunday, April 16th after the access road was completed. Six-inch and three-inch trash pumps were in place, assisting vacuum trucks to remove material from the inadvertent return location and continued until near dark. Laborers used brooms, squeegees, and other hand tools to push the non-toxic clay and water slurry to pump suction locations. Supervision continued adjusting the clean-up process as needed, pump set ups, trucking, etc. to maximize efficiency of clean-up activities. Also on this date, a hard plastic line (HDP) was finished, running for approximately 1750 feet, from the drill entry point across the Tuscarawas River, to the inadvertent return location to return reclaimed fluid from the inadvertent return to the drill entry.
- On Monday, April 17th, a company that specializes in the use of centrifuges was brought onsite to determine the feasibility of use of this equipment in the inadvertent return clean-up process. It was determined the set up and equipment footprint is too large to mobilize to the location and would not separate fluids from solids adequately to pass a paint sieve test. In addition, this process would not reduce work, but rather add a step to it. This is determined to not be a viable solution.
- Stand by pumps, vacuum trucks, materials, and equipment were onsite for use as needed, or as replacements, should any be necessary.

2. Continued clean-up procedures:

At this time and for the foreseeable future the plan will be composed of the following elements:

- The contractor has crews manning three 6-inch pumps moving fluids to two vacuum trucks.
- Crew size is 5 laborers and one operator at each pump.
- Additional laborers are manning hoses at each truck being loaded.
- Six-inch trash or hydraulic pumps will be utilized.
- The contractor has a crew manning a 6-inch hydraulic pump at this time.

- The contractor's pump is moving fluids to the small reclaimer on site near the inadvertent return and the reclaimed fluids are pumped across the river to the drill entry side.
- The contractor will continue with grain bin containment and pump set-up.
- The contractor will have at least 10 frac-tanks on site entry and/or exit side to receive the non-toxic clay and water slurry from the reclaimer or brought by trucks.
- The team will monitor progress and assess additional pumps would be viable with limited narrow access with truck hauling. If pumps are added, labor will be added at same number per pump as above.
- Daily morning task assignments will be made and discussed prior to start of work daily.
- Eight vacuum trucks are hauling fluids to disposal facility.
- If disposal turnaround time requires additional trucks to maintain 2 trucks being filled at any given time, trucks will be added.
- A hi-vac rig was added for removing fluids with a 4-inch flexible suction hose.
- Use of the hi-vac truck will continue until deemed unfeasible due to loss of suction capabilities; addition of an in-line 3-inch pump is being considered to lengthen the suction reach.
- Labor will be added if it will speed up the clean-up.
- Daily information regarding numbers of trucks, loads hauled, volumes through reclaimer to rig side, persons assigned to clean-up and other pertinent information will be maintained.
- Consideration is being given to a small office/trailer for base control on site.

Rover will maintain sufficient allocation of resources and will continue with the remediation efforts continuously on a daily basis, weather permitting, until completion.

In addition, Rover has brought in a mini-excavator (e.g. CAT 304E2 CR) with rubber tracks, as used in residential landscapes and golf courses. Rover also intends to use a slightly larger excavator (e.g. CAT 314) with a 60-inch clean-up bucket to extract the material, and a small marooka (e.g. IHI IC34 Crawling Carrier) to haul the material to the staging area for temporary storage and permanent removal from the site.

A length of 8-in high density polyethylene (HDPE) pipe not to exceed 10 feet (an "HDPE mop board"), will be affixed to the excavator bucket to be used in the manner of a squeegee. The pipe would gather mud towards the excavator by grazing the area over the vegetation, with the idea of minimizing impacts to vegetation and creating very little impact to topsoil. Using the pipe and the bucket will allow the operator to maneuver the tool safely around trees and efficiently remove the mud while reducing vegetative and soil impacts that might be incurred using a metal blade. This is a similar activity to what is being done by hand at this point. But, the equipment will cover more area efficiently with the length of the pipe, and with the area that can be covered quickly by each reach of the bucket, than could be accomplished by multiple people working by hand. The mud would be guided to areas where intake pipes of collection pumps are located.

Rover believes the mini-excavator and/or the slightly larger excavator and small marooka will increase the speed of the clean-up while not causing more soil disturbance than the existing foot traffic, since the minimal weight of the small excavators is distributed on the tracks, which are rubber to further minimize impacts. The ground pressure will be so minimal that mats will most likely not be necessary. In fact, positioning and moving mats may create more of an impact than the mini-excavator alone. However, mats will be utilized if it is determined that they would provide additional protection for the soil or resident or recovering vegetation. The small excavators would be utilized in all areas where they can

maneuver around trees. Rover does not intend to cut trees to utilize the small excavators. However, if in coordination with the OEPA Inspector, FERC Compliance Monitor, and Rover Environmental Inspector, that removal of trees is necessary, the following U.S. Fish parameters will be utilized:

1. If possible, avoid cutting potential roost trees, especially those 16 inches diameter at breast height and larger which could serve as bat maternity roost trees.
2. If cutting potential roost trees is unavoidable, cut them before May to avoid impacts to non-volant pups. Pregnant bats may begin giving birth to pups as early as May, especially this year due to the warm spring weather. Pups are unable to fly for several weeks after they are born and they would therefore be unable to flee if a tree they were in was cut.

Biologists will be on-site to assess the daily clean-up progress and will also document any damaged or removed trees. These records will also be used to base the progress of recovery of the area after clean-up is complete.

Resuming HDD operations:

A fluid reclaimer is onsite near the inadvertent return. Additional mats were placed near the inadvertent return to allow for the set up and working room needed for this equipment. One mobile tank has also been placed on mats near the reclaimer and can be used for fluids that flow through the reclaimer and provide additional storage capacity.

The current primary containment is constructed out of grain bin wall material consisting of tin walls with sand bag securement on the inside portion of the walls. The height of the walls is four feet tall with a capacity of 192,000 gallons. A secondary containment structure with walls approximately 120 feet by 120 feet and 4 feet tall has been constructed primarily with plywood around the already constructed grain bin containment to use as additional containment space should the initial grain bin fail or over flow. This will provide a containment with the capacity to hold 323,158 gallons. Also, the current annulus of the bore path has a capacity of 287,765 gallons in addition to these containments.

There is great concern with building the structure at a height greater than four feet. Should someone be working within the area of the containment and a significant inadvertent return occur, the person(s) could become trapped, as there would limited access and egress. In addition, there is concern with expanding the secondary containment structure and thereby increasing the potential surface area to be potentially affected by another inadvertent return.

Therefore, the use of 3-4-inch trash pumps, 6-inch high flow pumps (equivalent or larger) or hydraulic submersible pumps is proposed to be utilized in conjunction with the secondary containment and with the pumps in the main containment source. The placement of additional pumps, should they be required, would be placed in a secondary containment for the pump. The pump would utilize discharge hoses to transfer the non-toxic clay and water slurry from the containment to the portable tanks for storage and disposal.

Redundant pumps and extra silt fence, hoses, etc. will be retained on site in case additional containment is required. Additional pumps, equipment, containment boxes and/or portable storage tanks will be obtained from local resources as needed, adding to the equipment and resources on site.

In addition, Rover will adhere to the Supplemental HDD Plan during the remaining drilling operations. Rover will utilize the third-party monitors as described in the Supplemental HDD Plan and will utilize a

separate crew for pedestrian inspections of the HDD drill path than the clean-up crews, to not detract from the clean-up activities. If an inadvertent return were to occur within the Tuscarawas River or a tributary thereof, Rover would implement the procedures detailed in Section 6 of the Supplemental HDD Plan. Per those procedures, a containment ring structure will be staged on-site at the Tuscarawas River for use in case an inadvertent return occurs within the river.

Additional inadvertent returns occurred within and directly adjacent to the secondary containment surrounding the originally affected area during ongoing drilling operations. A second containment area was constructed of grain bin wall material to house the material and manage it as it surfaced during continued drilling. Other inadvertent returns were temporary contained with straw bales or silt fence and the material was removed as soon as possible as they have occurred. Rover continues to clean the affected area. Please refer to the Wetland Restoration Plan for more details concerning this effort.

Highway 151 HDD

On April 15, 2017, the drilling of the pilot hole was commenced for the Highway 151 HDD. Though anticipating rock, after field verification revealed a discrepancy in the depth of cover an upland drain near the drill entry, the contractor opted to proceed with the Rover approved profile using a jet assembly in an attempt to control the downhole pressures up until the rock interface would be encountered along the bore path, at which point the jet assembly would be tripped out and the rock tooling would be tripped back in. The jetting assembly consisted of a 12.25-inch milled-tooth style drill bit. While drilling the pilot hole, a small inadvertent release occurred approximately 40 feet in front of the drill rig while circulation was maintained at the HDD entry location. The area was contained and the pilot hole was recommenced. Near the end of the shift with joint 5 on the rig, a second release occurred and a small pit was made in order to contain the fluids coming to the surface. The pilot hole drilling parameters were maintaining a mud pressure of 150-200 psi while pumping 305 gpm.

After taking Sunday off, the crew recommenced drilling operations on the morning of April 17, 2017. As joint 5 of the pilot hole was being drilled using the same drilling parameters as before, another fluid release was noticed in a pond outside of the workspace. All drilling operations came to a halt and the project team was notified.

At the first and second inadvertent return locations, a small sump was made in order to collect the fluids coming to the surface. A pump (in secondary containment) was placed near the sump and the material was pumped back to the drill rig to be recycled. Silt fence was installed to help prevent fluids from traveling along the surface and into the pond. Also, a pump in secondary containment was positioned near the release and used to pump the material that is on the bottom of the pond.

In order to continue operations, the contractor believed the best efforts to mitigate the inadvertent release was to install wash-over casing. The contractor mobilized a load of 16-inch steel casing to the Hwy 151 HDD. Prior to installing the casing, the jet assembly would have to be extracted from the bore path and an 8-inch mud motor with a 12.25-inch tungsten-carbide-insert drill bit would be added to make up the bottom hole assembly. This bottom hole assembly would be progressed back to the bottom of the hole and drilling would be recommenced until the rock interface is encountered along the bore path. Based on the Geotechnical Data Report prepared by Terracon Consultants, Inc. specifically for the Hwy 151 HDD, the contractor estimated that the rock interface would be encountered within the next 100 feet drilled in accordance to bore log D1-D, which was taken near the HDD entry location. Drilling parameters with the

bottom hole assembly were estimated to be pumping 651-GPM with 550-psi of mud pressure. Once the bottom hole assembly drilled through a competent rock; the contractor would temporarily stop drilling and install the casing.

The plan was enacted as described above. The casing was installed by welding each joint of 16-inch casing (each joint is approximately 40-ft in length) together, then the drill rig rotated the casing and applied the required forces to "wash-over" the drill string. As the casing was installed, the non-toxic clay and water slurry was pumped at about 300 gpm in order to lubricate the casing and prevent it from hanging-up as it is progressed along the bore path. The process continued until the casing progressed to the rock, with the intention of it acting as a sleeve and conductor for the non-toxic clay and water slurry during the pilot hole phase of drilling.

As the casing was installed, non-toxic clay and water slurry presented in the pond. The pressures created by installing the casing caused the inadvertent return to migrate to another location in the pond. It was determined that the casing would not be installed further and drilling resumed. Once pilot drilling recommenced, there was an initial flow of non-toxic clay and water slurry to the entry pit and the original inadvertent return point and the second point of release in the pond stopped flowing. Currently there is no flow coming through the casing to the entry point and it is all flowing into the containment around the original point of inadvertent and is being systematically pumped back to the entry point for cleaning and reuse down hole.

Prairie Lane HDD

On Wednesday April 19, 2017, while drilling the pilot hole with the bottom hole assembly, consisting of an 6 3/4-inch mud motor with a 10 5/8-inch tungsten-carbide-insert drill bit, a partial loss of circulation occurred on the Prairie Lane HDD. At station 3584+00, Joint 65 (2,015 feet) approximately 110 feet from the exit point. The crew halted operations and performed the pedestrian survey of the right-of-way. A small inadvertent return was found on the exit side of the HDD crossing in the very soft soils and with the bottom hole assembly at a shallow point on the bore profile. The crew contained the inadvertent return within 20 minutes of the surfacing of the inadvertent return. The crew utilized erosion control devices including wattles, straw bales, sand bags, and installed silt fence around the inadvertent return.

On Thursday April 20, 2017, removal of the non-toxic clay and water slurry began, and drilling recommenced. The bottom hole assembly was progressed to the bottom of the hole while crew members and inspection team continually walked along the centerline of the bore path and to the outer limits of the right-of-way to ensure no further inadvertent returns were surfaced.

On Saturday April 22, 2017 drilling continued with the pilot and ongoing recovery of the non-toxic clay and water slurry. At 13:50, a small amount of non-toxic clay and water slurry had migrated to the stream and all drilling activities halted. The crew constructed two plastic-wrapped portable dams to start the evacuation of the non-toxic clay and water slurry from the stream.

While completing the clean-up of the inadvertent return and maintaining recovery, the pilot pass was completed. Once pilot pass was completed and the back reaming began, the circulation of the non-toxic clay and water slurry returned to the rig.

A second inadvertent return occurred during the second reaming pass of the drill on May 4, 2017. The containment structure had been retained in place within the channelized stream as a precaution against such an occurrence and the release was completely contained. Rover intends to retain the containment structure within the channelized stream until drilling is complete in case another inadvertent return should occur.

Sandy Creek HDD

On June 2, 2017, an inadvertent return occurred at the Sandy Creek HDD location in Tuscarawas County, Ohio. Approximately 1,500 gallons was released during reaming operations on the drill. The material surfaced in an agricultural field, but reached three adjacent wetlands, including two forested wetlands and one palustrine emergent wetland (W1M-TU-192A, W3H-TU-255, and W1M-TU-192B).

The contractor contained the release and removed the material from the site immediately.

Inadvertent Releases in Upland Areas

Inadvertent releases have also occurred within upland areas in the following locations.

- An inadvertent release occurred at the Sugar Creek HDD (Stream at Highway 241 HDD) along the Mainlines near Station Number 2826+00 in Wayne County, Ohio. The contractor was performing pilot drilling operations with a jetting assembly. The contractor had just began the pilot hole drilling operations and the assembly was shallow. The release was discovered in an upland area adjacent to the drill box on May 3, 2017. The contractor responded immediately and tripped out of the hole to relieve pressure before proceeding forward. The area was immediately contained and cleaned.

- An inadvertent release occurred at the Sherwood Lateral Ohio River HDD on the west side in Monroe County, Ohio near Station Number 1905+00. The contractor was performing pilot drilling operations with a jetting assembly. The release occurred on May 3, 2017 at the edge of State Route 7 within the drill path. The contractor responded immediately and tripped out of the hole to relieve pressure before proceeding forward. The area was immediately contained and cleaned.

- An inadvertent release occurred at the Interstate 71 HDD along the Mainlines near Station 4859+40 in Ashland County, Ohio on May 4, 2017. The occurrence was located approximately 20 feet off of the centerline in an upland, cultivated field. The contractor installed silt fence and sandbags around area. The contractor recommenced drilling on the second reaming pass.

- Three inadvertent returns have occurred at the Highway 241 HDD location in Wayne County. None of the material released reached any wetlands or waterbodies. The first occurred on May 4, 2017 and was reported as approximately 35-50 gallons. The second occurred on May 19, 2017 and was reported to be approximately 380 gallons. The third occurred on July 10, 2017 and was reported to be approximately 50 gallons. On each occasion, the contractor contained the releases and removed the material.

- An inadvertent return occurred on May 4, 2017 at the Prairie Lane HDD location in Wayne County. The release was reported to be approximately 20 gallons and it surfaced in the containment being maintained at the site for that purpose. The material was removed immediately.

- Three inadvertent returns occurred at the Wolf Creek HDD location in Seneca County. The first occurred on May 8, 2017 and was reported to be approximately 200 gallons and occurred within an agricultural field. The second occurred on May 27, 2017 and was reported to be approximately 20 gallons. The third occurred on June 1, 2017 and was reported to be approximately 30 gallons. The latter two inadvertent returns occurred within the secondary containment of the exit drill pad. he material was contained immediately and removed in each instance.

- An inadvertent return occurred at the Sandusky River on June 6, 2016. The release was reported to be approximately 50 gallons, and it occurred within the drill entrance pad, which was within silt fence containment. The material was removed immediately.

4. HDD Contingency Summary

Table 4 below is a matrix summarizing the contingency planning that was developed and is currently in progress for the HDDs along the Rover Pipeline. In addition, please refer to Table 3 above for a description of the potential contingency measures that Rover may employ at each waterbody associated with an HDD. These contingency measures are described in Section 6.0 of the Supplemental HDD Contingency Plan.

Table 4. Rover Pipeline – HDD Contingency Matrix

Crossing Name	Entry MP	County	Drill Status Line A or Single Line[2]	Drill Status Line B[2]	Third-Party Engineering Plan Review	Third-Party On-Site Engineer	IR Response Equipment On-Site	Wetland and Waterbody IR Response Equipment On-Site[3]	Landowner Notifications within 1 Mile	Drone Inspections
Burgettstown Lateral										
Ohio River	16.13	Jefferson	In Progress	N/A	N/A	N/A	Yes	Yes	Yes	N/A
Clarington Lateral										
Captina Creek	5.44	Monroe	Pending	N/A	Yes	Yes	Yes	Yes	Yes	Yes
Interstate 70	18.38	Belmont	Complete	N/A	N/A	N/A	Yes	Yes	Yes	N/A
Majorsville Lateral										
Ohio River	12.00	Belmont	Pending	N/A	Yes	Yes	Yes	Yes	Yes	N/A
Sherwood Lateral										
Ohio River	36.10	Monroe	In Progress	N/A	N/A	N/A	Yes	Yes	Yes	N/A
Supply Connector Lines A/B										
Highway 151[1]	16.67	Harrison	Complete	Pending	Yes	Yes	Yes	Yes	Yes	N/A
Mainlines A/B										
Indian Fork[1]	24.75	Tuscarawas	In Progress	Pending	Yes	Yes	Yes	Yes	Yes	Yes
Sandy Creek[1]	35.59	Tuscarawas	Complete	Pending	Yes	Yes	Yes	Yes	Yes	N/A
Interstate 77[1]	39.88	Stark	Complete	Pending	Yes	Yes	Yes	Yes	Yes	N/A
Tuscarawas River[1]	41.83	Stark	In Progress	Pending	Yes	Yes	Yes	Yes	Yes	Yes
Stream at Highway 241/UT at Sugar Creek[1]	53.51	Wayne	In Progress	Pending	Yes	Yes	Yes	Yes	Yes	Yes
Prairie Lane[1]	68.22	Wayne	Complete	Pending	Yes	Yes	Yes	Yes	Yes	N/A
Norfolk Southern Railroad[1]	68.80	Wayne	Complete	Pending	Yes	Yes	Yes	Yes	Yes	N/A
State Highway 3 (S Columbus Road) [1]	71.42	Wayne	In Progress	Pending	Yes	Yes	Yes	Yes	Yes	N/A

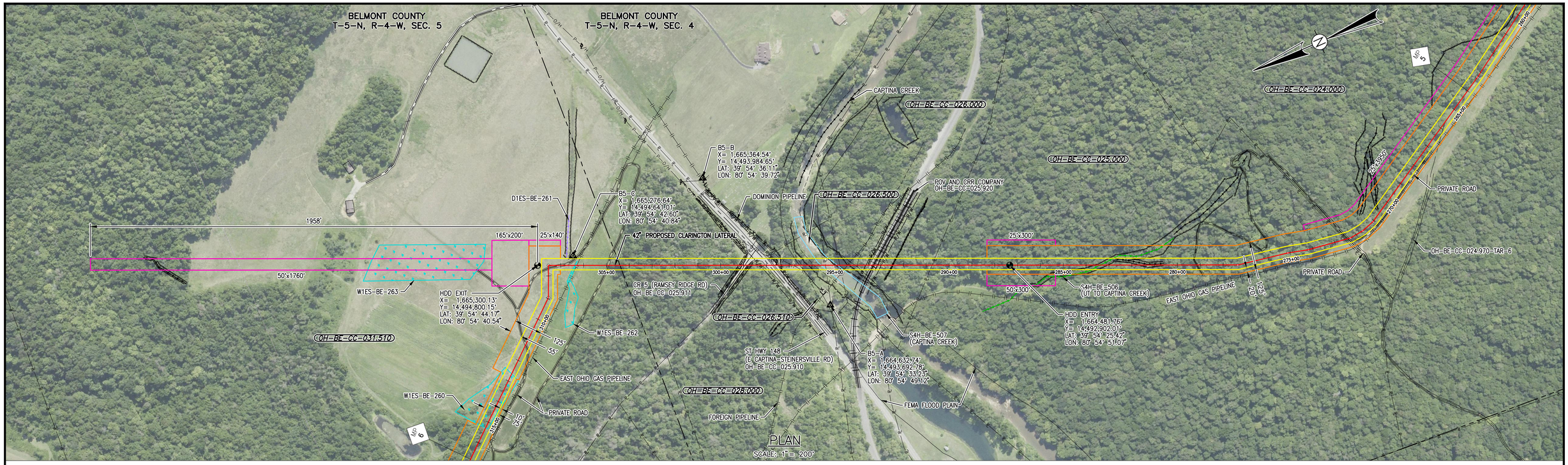
Table 4. Rover Pipeline – HDD Contingency Matrix

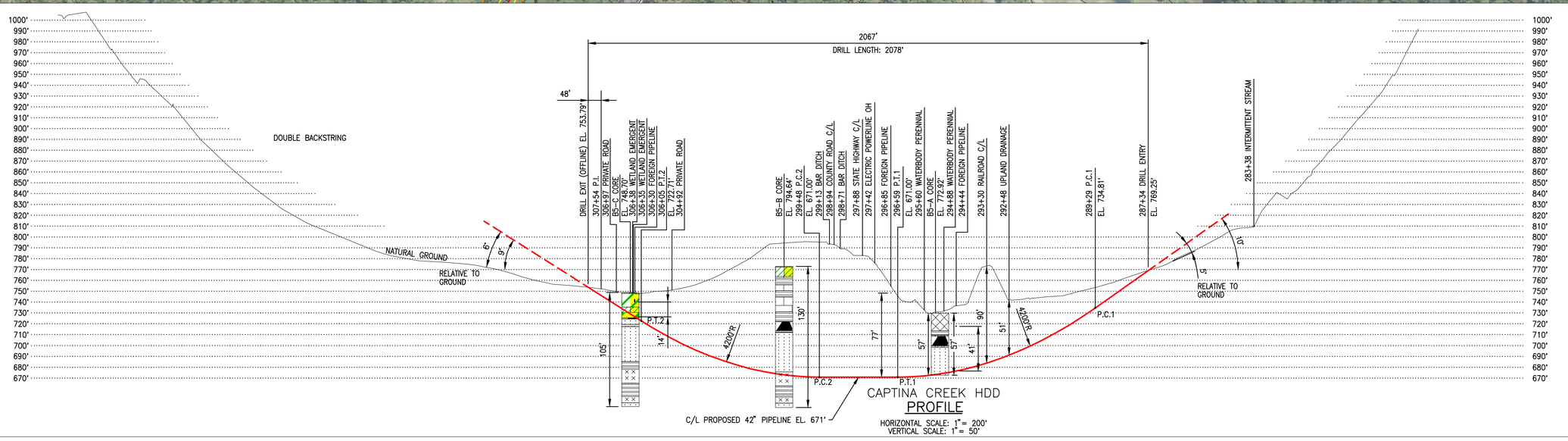
Crossing Name	Entry MP	County	Drill Status Line A or Single Line[2]	Drill Status Line B[2]	Third-Party Engineering Plan Review	Third-Party On-Site Engineer	IR Response Equipment On-Site	Wetland and Waterbody IR Response Equipment On-Site[3]	Landowner Notifications within 1 Mile	Drone Inspections
U.S. Highway 30 (West Lincoln Way) [1]	76.84	Wayne	Complete	Pending	Yes	Yes	Yes	N/A	Yes	Yes
Interstate 71[1]	91.82	Wayne	Complete	Pending	Yes	Yes	Yes	N/A	Yes	N/A
U.S. Highway 42 / Railroad[1]	94.68	Ashland	Complete	Pending	Yes	Yes	Yes	N/A	Yes	N/A
Black Fork Mohican River[1]	95.60	Ashland/ Richland	Complete	Pending	Yes	Yes	Yes	Yes	Yes	Yes
Honey Creek[1]	135.53	Seneca	Complete	Pending	Yes	Yes	Yes	Yes	Yes	N/A
UT to Wolf Creek[1]	140.50	Seneca	In Progress	Pending	Yes	Yes	Yes	Yes	Yes	N/A
Sandusky River[1]	142.31	Seneca	In Progress	Pending	Yes	Yes	Yes	Yes	Yes	N/A
Interstate 75[1]	170.45	Wood	Complete	Pending	Yes	Yes	Yes	Yes	Yes	Yes
State Route 109 / S. Fork Turkeyfoot Creek[1]	190.58	Henry	Complete	Pending	Yes	Yes	Yes	Yes	Yes	Yes
Maumee River[1,]	200.93	Henry	Complete	Pending	Yes	Yes	Yes	Yes	Yes	N/A

[1] HDD locations will involve two HDDs for Lines A and B.
[2] Status as of July 9, 2017.
3 A list of Wetland and Waterbody IR Response Equipment is included above under the Equipment Section on page

Appendix B

HDD Plan and Profile Drawings





SEE CL-P4-41 CAPTINA CREEK HDD GEO REPORT FOR GEOTECHNICAL CORE DETAILS.

SPECIFICATIONS:

CARRIER PIPE: 42.000" O.D. X 0.864" W.T. X-70
A.P.I. 5L PSL 2, DSAW, W/ 14-16 MILS FBE AND 26 MILS ARO
HYDROSTATIC PRE-TEST PRESSURE: 2160 PSIG MIN – 2220 PSIG MAX
DESIGN PRESSURE: MAOP 1,440 PSIG
LOCATION CLASS: 1
DESIGN FACTOR: 0.5

GENERAL NOTES:

1) GRID PROJECTION BASED UPON UTM COORDINATE SYSTEM, ZONE 17 (GRID UNITS IN FEET) GEODETIC DATUM: NAD 1983, CENTRAL MERIDIAN.
2) CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL FOREIGN PIPELINE CROSSINGS AND COVER PRIOR TO CONSTRUCTION.
3) FOOT ACCESS FOR HDD GUIDED WIRE WILL BE REQUIRED 100 FT TO 200 FT BOTH SIDES OF CENTERLINE. HAND CLEARING OF TREES 3" DIAMETER AND SMALLER.
4) CONTRACTOR TO PROVIDE AS-BUILT DRAWING AND INFORMATION WITHIN 10 DAYS FROM BOREHOLE COMPLETION AND SHALL INCLUDE THE FOLLOWING AT A MINIMUM:
   - CAD (2010 OR HIGHER) AND PDF FILE OF PIPING PLAN AND PROFILE
   - TABLE OF PILOT HOLE DATA USED TO CREATE PLAN AND PROFILE DRAWINGS

CONTRACTOR HDD PLAN NOTES:

CONTRACTOR'S PROPOSED HDD PLAN AND ANY OF ITS SUBCONTRACTORS, VENDORS, OR SUPPLIERS UTILIZED TO PERFORM HORIZONTAL DIRECTIONAL DRILLS SHALL BE SUBMITTED TO COMPANY FOR APPROVAL A MINIMUM OF 30 DAYS PRIOR TO START OF DRILLING OPERATIONS. PLAN SHALL INCLUDE AT MINIMUM:

- CONTRACTORS' SITE SPECIFIC BORE PLAN AND PROFILE, SHOWING FOREIGN PIPELINES AND UTILITIES WITH FIELD VERIFIED ELEVATIONS, TOP OF BORE SEPARATION FROM UNDERGROUND UTILITIES, ROADS AND OTHER FEATURES, PLANNED MINIMUM DRILL RADIUS WITH PC AND PT POINTS
- CONTRACTORS EQUIPMENT AND SITE LAYOUT
- DRILLING PLAN AT A MINIMUM TO INCLUDE THE FOLLOWING: PILOT HOLE DRILL TOLERANCES, ANTICIPATED DOWN HOLE PRESSURE RANGE, EXPECTED PILOT AND REAMING PROCESS, EXPECTED PULL LOADS, SAFETY, GUIDANCE SYSTEM, CONTINGENCY PLANS, INADVERTENT RETURNS PLAN WITH NOTIFICATION PROCEDURES
- DRILLING FLUID AND POTENTIAL ADDITIVES (PROVIDE MSDS), AUTHORIZED DISPOSAL LOCATION (COMPANY TO APPROVE)
- BREAKOVER PROFILE WITH MINIMUM RADIUS, PIPE SUPPORT EQUIPMENT LOCATION WITH PIPE ELEVATION (COMPANY WILL EVALUATE PIPE STRESS) AND MAXIMUM ROLLER SPACING
- WATER SOURCE TO BE USED

ENVIRONMENTAL NOTES:

1) EROSION/SEDIMENT CONTROL STRUCTURES TO BE INSTALLED AND MAINTAINED TO MINIMIZE IMPACTS TO WETLANDS OR WATERBODIES.
2) ANY ON-LAND TRENCH DEWATERING TO BE DIRECTED TO WETLAND FILTER BAG AND/OR DEWATERING STRUCTURE IN AN UPLAND AREA TO MINIMIZE EROSION OF SEDIMENTATION TO WETLANDS/WATERBODIES.
3) PRE-CONSTRUCTION CONTOURS TO BE RE-ESTABLISHED FOR ALL DISTURBED AREAS. ALL DISTURBED AREAS TO BE RESTORED AND/OR REVEGETATED AS APPLICABLE.
4) EROSION/SEDIMENTATION CONTROL STRUCTURES TO REMAIN IN PLACE UNTIL RESTORATION AND REVEGETATION ARE DEEMED SUCCESSFUL.

LEGEND:

- PROPOSED PIPELINE
- PERMANENT EASEMENT
- TEMPORARY WORK SPACE
- ADDITIONAL TEMPORARY WORK SPACE
- ACCESS PATH
- GEOTECH CORE

ENVIRONMENTAL LEGEND:

- PERENNIAL STREAM
- EPHEMERAL STREAM
- INTERMITTENT STREAM
- NATURAL DRAINAGE
- WATERBODY
- WETLAND EMERGENT
- WETLAND FORESTED
- WETLAND SCRUB SHRUB

DWG. NO.	REFERENCE DRAWING TITLE
CL-P3-1007	ALIGNMENT

NO.	REVISION – DESCRIPTION	BY	DATE	CHK'D	APP'D
0	ISSUED FOR CONSTRUCTION	KMA	7-25-16	PCW	JHR

STATE OF OHIO JEFFREY H. RICHARDSON E-76936 REGISTERED PROFESSIONAL ENGINEER

PROJECT CONSULTING SERVICES, INC. DBA PROJECT MANAGEMENT & CONSULTING, INC. 3300 WEST ESPLANADE AVE., S., SUITE 500 METAIRIE, LA 70002-5174 (504) 832-3700 FAX (504) 833-4940 www.projectconsulting.com

DWG. STATUS	CHECKED BY	CHECKED DATE	APPROVED BY	APPROVED DATE	BY	DATE
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CONSTR.	SM	4-25-16	LB	4-25-16		
CADDS	PLOT DATE:					
	FILE NAME:					

		BY	DATE
P.L./STA. NO.			
ACCOUNT NO.			
CONSTRUCTION YEAR	2016		
DESIGN		JHR	
DRAWN		GJD	11-21-14
ASBUILT			
FILE NO.			
SCALE: NOTED			

ROVER PIPELINE LLC

ROVER PIPELINE PROJECT
42" CLARINGTON LATERAL – NG PIPELINE
CAPTINA CREEK HDD
M.P. 5.44 TO M.P. 5.82
BELMONT, OHIO

PROJECT NO. 588000000008
PREVIOUS DWG. NO.
SHEET 1 OF 1
DWG. NO. CL-P4-41 (0)
SHEET 1 OF 1

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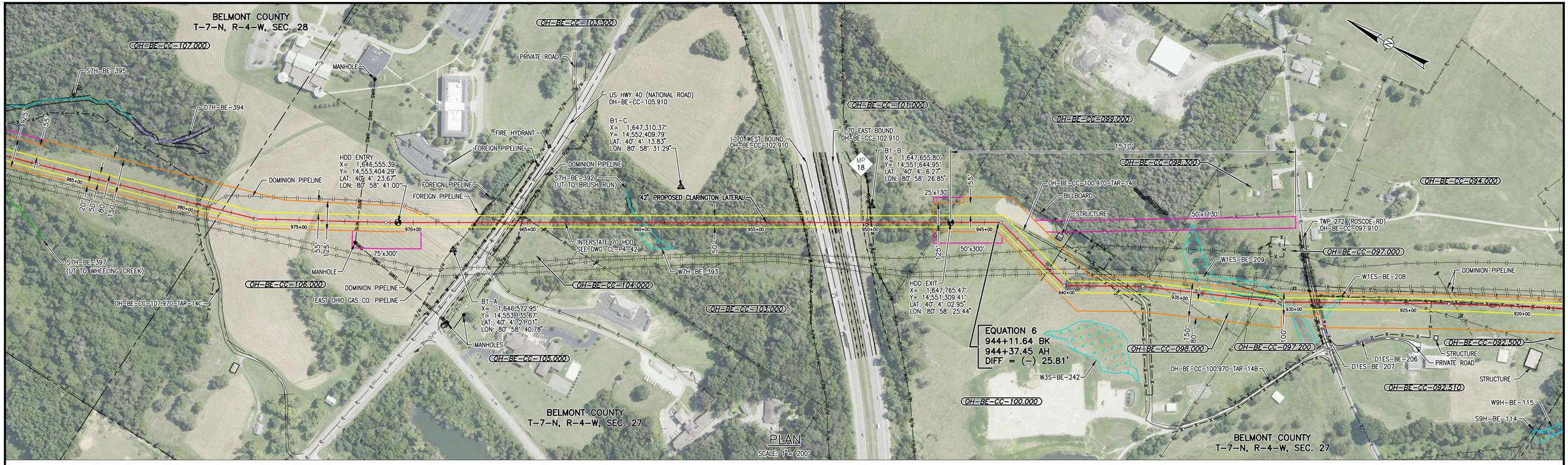

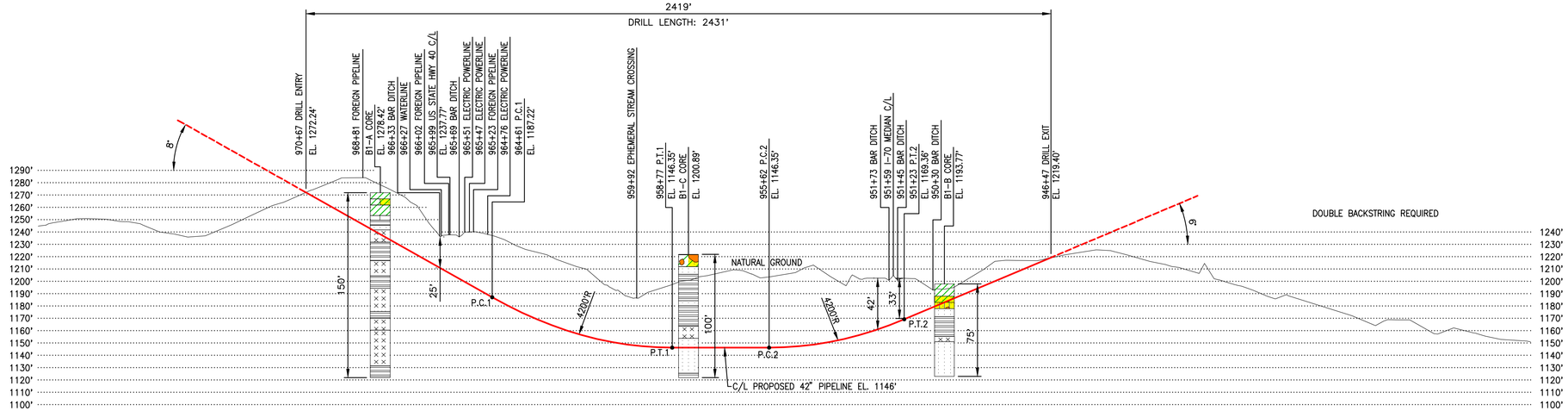

INTERSTATE 70 HDD

PROFILE

HORIZONTAL SCALE: 1"= 200'
VERTICAL SCALE: 1"= 50'

LEGEND

- LEAN CLAY
- LEAN CLAY WITH SAND
- LIMESTONE
- SHALE
- SANDSTONE
- SILTSTONE
- TOPSOIL
- SILTY GRAVEL WITH SAND
- CLAYEY GRAVEL WITH SAND
- SANDY LEAN CLAY
- SILTY SAND WITH GRAVEL

SEE CL-P4-42 INTERSTATE 70 HDD GEO REPORT FOR GEOTECHNICAL CORE DETAILS.

SPECIFICATIONS:

CARRIER PIPE: 42.000" O.D. X 0.864" W.T. X-70
A.P.I. 5L PSL 2, DSAW, W/ 14-16 MILS FBE AND 26 MILS ARO
HYDROSTATIC PRE-TEST PRESSURE: 2160 PSIG MIN - 2220 PSIG MAX
DESIGN PRESSURE: MAOP 1,440 PSIG
LOCATION CLASS: 3
DESIGN FACTOR: 0.5

GENERAL NOTES:

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- ADDITIONAL TEMPORARY WORK SPACE
- ACCESS PATH
- GEOTECH CORE

ENVIRONMENTAL LEGEND:

- PERENNIAL STREAM
- EPHEMERAL STREAM
- INTERMITTENT STREAM
- NATURAL DRAINAGE
- WATERBODY
- WETLAND EMERGENT
- WETLAND FORESTED
- WETLAND SCRUB SHRUB

DWG. NO.	REFERENCE DRAWING TITLE
CL-P3-1021	ALIGNMENT

NO.	REVISION - DESCRIPTION	BY	DATE	CHK'D	APP'D
0	ISSUED FOR CONSTRUCTION	KMA	7-25-16	PCW	JHR

STATE OF OHIO — JEFFREY H. RICHARDSON — E-76936 — REGISTERED PROFESSIONAL ENGINEER — 4/5/16

PROJECT CONSULTING SERVICES INC.
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DWG. STATUS	CHECKED BY	CHECKED DATE	APPROVED BY	APPROVED DATE	BY	DATE
PREL'Y						
BID	SM	8-5-15	LB	8-5-15		
CONSTR.	SM	4-25-16	LB	4-25-16		
CADDS	PLOT DATE:					
	FILE NAME:					

P.L./STA. NO.			
ACCOUNT NO.			
CONSTRUCTION YEAR			2016
	BY	DATE	
DESIGN	JHR		
DRAWN	KMA		10-1-14
ASBUILT			
FILE NO.			
SCALE: NOTED			

ROVER PIPELINE LLC

ROVER PIPELINE PROJECT
42" CLARINGTON LATERAL - NG PIPELINE
INTERSTATE 70 HDD
M.P. 17.93 TO M.P. 18.38
BELMONT, OHIO

PROJECT NO. 588000000008
PREVIOUS DWG. NO.
SHEET 1 OF 1
DWG. NO. CL-P4-42
SHEET 1 OF 1
0

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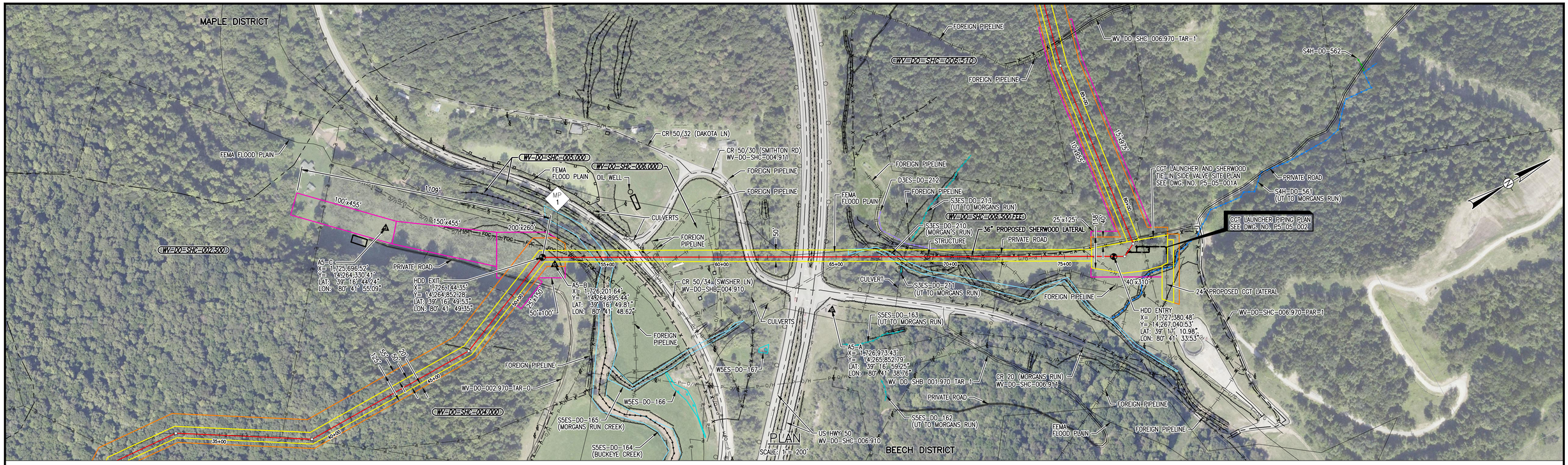
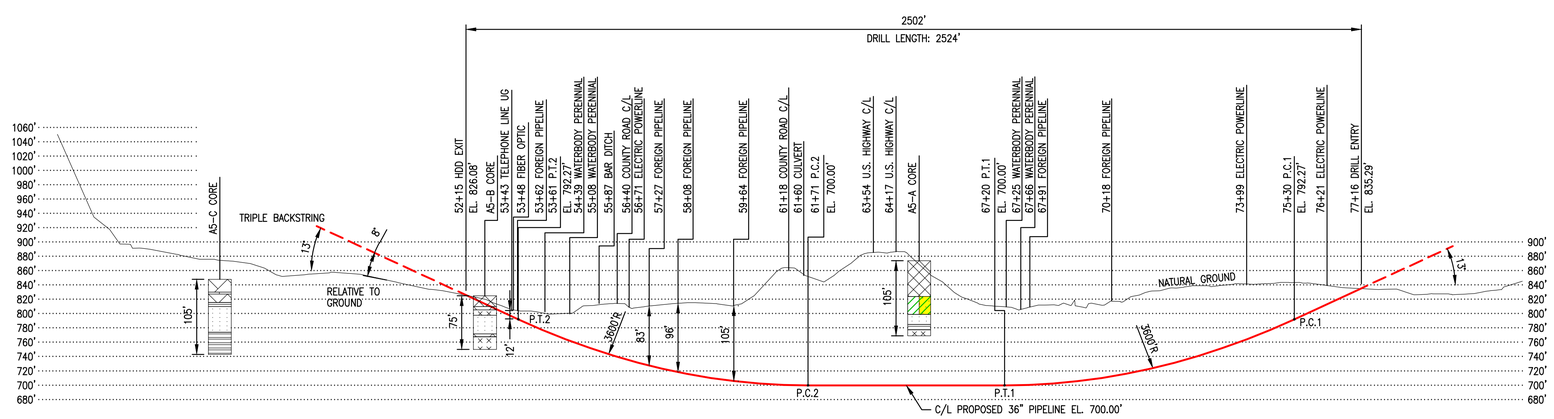
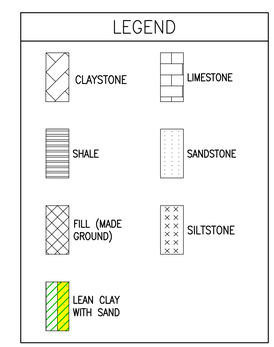




U.S. HIGHWAY 50 HDD

PROFILE

HORIZONTAL SCALE: 1"= 200'
VERTICAL SCALE: 1"= 100'



SEE SW-P4-37 SHERWOOD HIGHWAY 50 HDD GEO REPORT FOR GEOTECHNICAL CORE DETAILS.

SPECIFICATIONS:

CARRIER PIPE: 36.000" O.D. X 0.750" W.T. X-70
A.P.I. 5L PSL 2, DSAW, W/ 14-16 MILS FBE AND 40 MILS ARO
HYDROSTATIC PRE-TEST PRESSURE: 2160 PSIG MIN – 2220 PSIG MAX
DESIGN PRESSURE: MAOP 1,440 PSIG
LOCATION CLASS: 1
DESIGN FACTOR: 0.5

GENERAL NOTES:

1) GRID PROJECTION BASED UPON UTM COORDINATE SYSTEM, ZONE 17 (GRID UNITS IN FEET) GEODETIC DATUM: NAD 1983, CENTRAL MERIDIAN.
2) CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL FOREIGN PIPELINE CROSSINGS AND COVER PRIOR TO CONSTRUCTION.
3) FOOT ACCESS FOR HDD GUIDED WIRE WILL BE REQUIRED 100 FT TO 200 FT BOTH SIDES OF CENTERLINE. HAND CLEARING OF TREES 3" DIAMETER AND SMALLER.
4) CONTRACTOR TO PROVIDE AS-BUILT DRAWING AND INFORMATION WITHIN 10 DAYS FROM BOREHOLE COMPLETION AND SHALL INCLUDE THE FOLLOWING AT A MINIMUM:
   - CAD (2010 OR HIGHER) AND PDF FILE OF PIPING PLAN AND PROFILE
   - TABLE OF PILOT HOLE DATA USED TO CREATE PLAN AND PROFILE DRAWINGS

CONTRACTOR HDD PLAN NOTES:

CONTRACTOR'S PROPOSED HDD PLAN AND ANY OF ITS SUBCONTRACTORS, VENDORS, OR SUPPLIERS UTILIZED TO PERFORM HORIZONTAL DIRECTIONAL DRILLS SHALL BE SUBMITTED TO COMPANY FOR APPROVAL A MINIMUM OF 30 DAYS PRIOR TO START OF DRILLING OPERATIONS. PLAN SHALL INCLUDE AT MINIMUM:

- CONTRACTORS' SITE SPECIFIC BORE PLAN AND PROFILE, SHOWING FOREIGN PIPELINES AND UTILITIES WITH FIELD VERIFIED ELEVATIONS, TOP OF BORE SEPARATION FROM UNDERGROUND UTILITIES, ROADS AND OTHER FEATURES, PLANNED MINIMUM DRILL RADIUS WITH PC AND PT POINTS
- CONTRACTORS EQUIPMENT AND SITE LAYOUT
- DRILLING PLAN AT A MINIMUM TO INCLUDE THE FOLLOWING: PILOT HOLE DRILL TOLERANCES, ANTICIPATED DOWN HOLE PRESSURE RANGE, EXPECTED PILOT AND REAMING PROCESS, EXPECTED PULL LOADS, SAFETY, GUIDANCE SYSTEM, CONTINGENCY PLANS, INADVERTENT RETURNS PLAN WITH NOTIFICATION PROCEDURES
- DRILLING FLUID AND POTENTIAL ADDITIVES (PROVIDE MSDS), AUTHORIZED DISPOSAL LOCATION (COMPANY TO APPROVE)
- BREAKOVER PROFILE WITH MINIMUM RADIUS, PIPE SUPPORT EQUIPMENT LOCATION WITH PIPE ELEVATION (COMPANY WILL EVALUATE PIPE STRESS) AND MAXIMUM ROLLER SPACING
- WATER SOURCE TO BE USED

ENVIRONMENTAL NOTES:

1) EROSION/SEDIMENT CONTROL STRUCTURES TO BE INSTALLED AND MAINTAINED TO MINIMIZE IMPACTS TO WETLANDS OR WATERBODIES.
2) ANY ON-LAND TRENCH DEWATERING TO BE DIRECTED TO WETLAND FILTER BAG AND/OR DEWATERING STRUCTURE IN AN UPLAND AREA TO MINIMIZE EROSION OF SEDIMENTATION TO WETLANDS/WATERBODIES.
3) PRE-CONSTRUCTION CONTOURS TO BE RE-ESTABLISHED FOR ALL DISTURBED AREAS. ALL DISTURBED AREAS TO BE RESTORED AND/OR REVEGETATED AS APPLICABLE.
4) EROSION/SEDIMENTATION CONTROL STRUCTURES TO REMAIN IN PLACE UNTIL RESTORATION AND REVEGETATION ARE DEEMED SUCCESSFUL.

LEGEND:

- PROPOSED PIPELINE
- PERMANENT EASEMENT
- TEMPORARY WORK SPACE
- ADDITIONAL TEMPORARY WORK SPACE
- ACCESS PATH
- GEOTECH CORE

ENVIRONMENTAL LEGEND:

- PERENNIAL STREAM
- EPHEMERAL STREAM
- INTERMITTENT STREAM
- NATURAL DRAINAGE
- WATERBODY
- WETLAND EMERGENT
- WETLAND FORESTED
- WETLAND SCRUB SHRUB

DWG. NO.	REFERENCE DRAWING TITLE
SW-P3-1001A	ALIGNMENT SHEET
SW-P3-1001	ALIGNMENT SHEET
SW-P3-1000	ALIGNMENT SHEET

NO.	REVISION – DESCRIPTION	BY	DATE	CHK'D	APP'D
0	ISSUED FOR CONSTRUCTION	NLM	7-25-16	CRF	JHR

JEFFREY H. RICHARDSON REGISTERED 9/16/2015 20965 STATE OF WEST VIRGINIA PROFESSIONAL ENGINEER

PROJECT CONSULTING SERVICES, INC.
3300 WEST ESPLANADE AVE. S., SUITE 500
METAIRIE, LA 70002-7606
(504) 833-5321 - fax (504) 833-4940
www.projectconsulting.com

DWG. STATUS	CHECKED BY	CHECKED DATE	APPROVED BY	APPROVED DATE	BY	DATE
PREL'Y						
BID	SM	8-5-15	LB	8-5-15		
CONSTR.	SM	4-25-16	LB	4-25-16		
CADDS	PLOT DATE:					
	FILE NAME:					

		BY	DATE
P.L./STA. NO.			
ACCOUNT NO.			
CONSTRUCTION YEAR	2016		
DESIGN		JHR	
DRAWN		MFZ	11-25-14
ASBUILT			
FILE NO.			
SCALE: NOTED			

ROVER PIPELINE LLC

ROVER PIPELINE PROJECT
36" SHERWOOD LATERAL – NG PIPELINE
U.S. HIGHWAY 50 HDD
M.P. 0.99 TO M.P. 1.46
DODDRIDGE, WEST VIRGINIA

PROJECT NO. 588000000013
PREVIOUS DWG. NO.
SHEET 1 OF 1
DWG. NO. SW-P4-37 0
SHEET 1 OF 1

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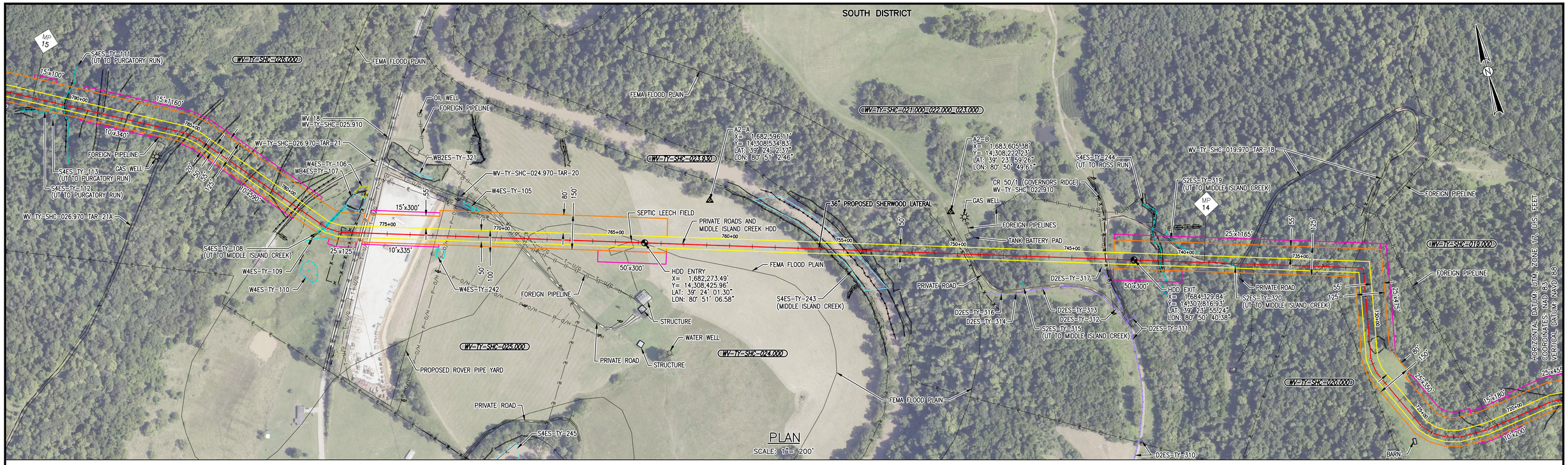
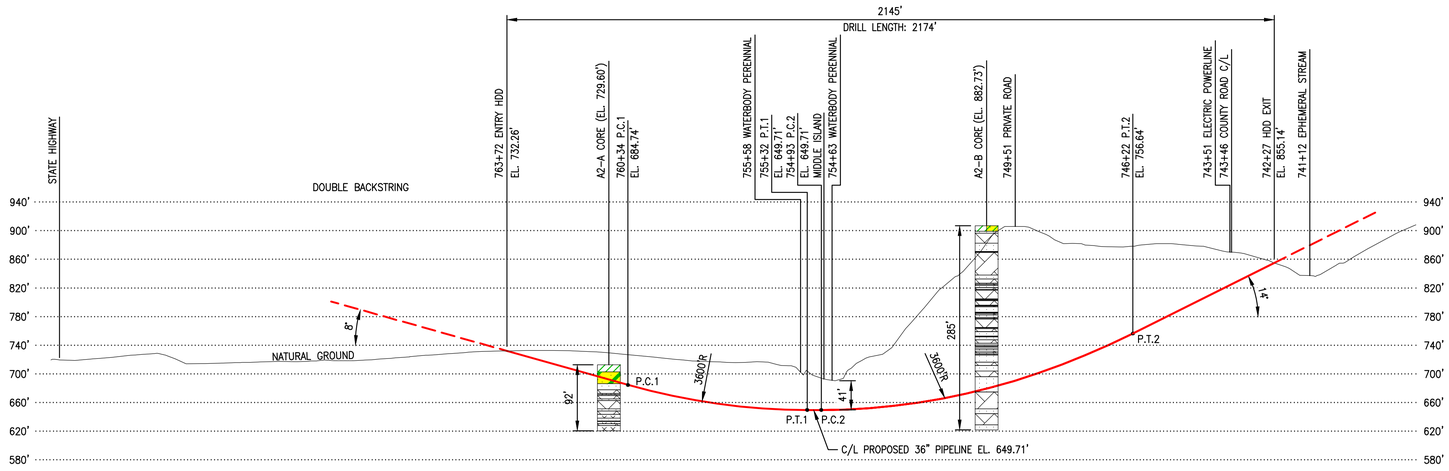
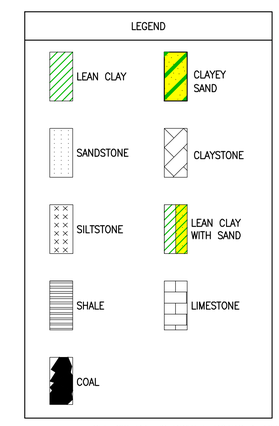




PRIVATE ROADS & MIDDLE ISLAND CREEK HDD

PROFILE

HORIZONTAL SCALE: 1"= 200'
VERTICAL SCALE: 1"= 100'



SEE SW-P4-38 PRIVATE ROADS & MIDDLE ISLAND CREEK HDD GEO REPORT FOR GEOTECHNICAL CORE DETAILS.

SPECIFICATIONS:

CARRIER PIPE: 36.000" O.D. X 0.750" W.T. X-70
A.P.I. 5L PSL 2, DSAW, W/ 14-16 MILS FBE AND 40 MILS ARO
HYDROSTATIC PRE-TEST PRESSURE: 2160 PSIG MIN - 2220 PSIG MAX
DESIGN PRESSURE: MAOP 1,440 PSIG
LOCATION CLASS: 1
DESIGN FACTOR: 0.5

GENERAL NOTES:

1) GRID PROJECTION BASED UPON UTM COORDINATE SYSTEM, ZONE 17 (GRID UNITS IN FEET) GEODETIC DATUM: NAD 1983, CENTRAL MERIDIAN.
2) CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL FOREIGN PIPELINE CROSSINGS AND COVER PRIOR TO CONSTRUCTION.
3) FOOT ACCESS FOR HDD GUIDED WIRE WILL BE REQUIRED 100 FT TO 200 FT BOTH SIDES OF CENTERLINE. HAND CLEARING OF TREES 3" DIAMETER AND SMALLER.
4) CONTRACTOR TO PROVIDE AS-BUILT DRAWING AND INFORMATION WITHIN 10 DAYS FROM BOREHOLE COMPLETION AND SHALL INCLUDE THE FOLLOWING AT A MINIMUM:
   - CAD (2010 OR HIGHER) AND PDF FILE OF PIPING PLAN AND PROFILE
   - TABLE OF PILOT HOLE DATA USED TO CREATE PLAN AND PROFILE DRAWINGS

CONTRACTOR HDD PLAN NOTES:

CONTRACTOR'S PROPOSED HDD PLAN AND ANY OF ITS SUBCONTRACTORS, VENDORS, OR SUPPLIERS UTILIZED TO PERFORM HORIZONTAL DIRECTIONAL DRILLS SHALL BE SUBMITTED TO COMPANY FOR APPROVAL A MINIMUM OF 30 DAYS PRIOR TO START OF DRILLING OPERATIONS. PLAN SHALL INCLUDE AT MINIMUM:

- CONTRACTORS' SITE SPECIFIC BORE PLAN AND PROFILE, SHOWING FOREIGN PIPELINES AND UTILITIES WITH FIELD VERIFIED ELEVATIONS, TOP OF BORE SEPARATION FROM UNDERGROUND UTILITIES, ROADS AND OTHER FEATURES, PLANNED MINIMUM DRILL RADIUS WITH PC AND PT POINTS
- CONTRACTORS EQUIPMENT AND SITE LAYOUT
- DRILLING PLAN AT A MINIMUM TO INCLUDE THE FOLLOWING: PILOT HOLE DRILL TOLERANCES, ANTICIPATED DOWN HOLE PRESSURE RANGE, EXPECTED PILOT AND REAMING PROCESS, EXPECTED PULL LOADS, SAFETY, GUIDANCE SYSTEM, CONTINGENCY PLANS, INADVERTENT RETURNS PLAN WITH NOTIFICATION PROCEDURES
- DRILLING FLUID AND POTENTIAL ADDITIVES (PROVIDE MSDS), AUTHORIZED DISPOSAL LOCATION (COMPANY TO APPROVE)
- BREAKOVER PROFILE WITH MINIMUM RADIUS, PIPE SUPPORT EQUIPMENT LOCATION WITH PIPE ELEVATION (COMPANY WILL EVALUATE PIPE STRESS) AND MAXIMUM ROLLER SPACING
- WATER SOURCE TO BE USED

ENVIRONMENTAL NOTES:

1) EROSION/SEDIMENT CONTROL STRUCTURES TO BE INSTALLED AND MAINTAINED TO MINIMIZE IMPACTS TO WETLANDS OR WATERBODIES.
2) ANY ON-LAND TRENCH DEWATERING TO BE DIRECTED TO WETLAND FILTER BAG AND/OR DEWATERING STRUCTURE IN AN UPLAND AREA TO MINIMIZE EROSION OF SEDIMENTATION TO WETLANDS/WATERBODIES.
3) PRE-CONSTRUCTION CONTOURS TO BE RE-ESTABLISHED FOR ALL DISTURBED AREAS. ALL DISTURBED AREAS TO BE RESTORED AND/OR REVEGETATED AS APPLICABLE.
4) EROSION/SEDIMENTATION CONTROL STRUCTURES TO REMAIN IN PLACE UNTIL RESTORATION AND REVEGETATION ARE DEEMED SUCCESSFUL.

LEGEND:

- PROPOSED PIPELINE
- PERMANENT EASEMENT
- TEMPORARY WORK SPACE
- ADDITIONAL TEMPORARY WORK SPACE
- ACCESS PATH
- GEOTECH CORE

ENVIRONMENTAL LEGEND:

- PERENNIAL STREAM
- EPHEMERAL STREAM
- INTERMITTENT STREAM
- NATURAL DRAINAGE
- WATERBODY
- WETLAND EMERGENT
- WETLAND FORESTED
- WETLAND SCRUB SHRUB

DWG. NO.	REFERENCE DRAWING TITLE
SW-P3-1015	ALIGNMENT
SW-P3-1014	ALIGNMENT

NO.	REVISION - DESCRIPTION	BY	DATE	CHK'D	APP'D
0	ISSUED FOR CONSTRUCTION	NLM	7-25-16	CRF	JHR

JEFFREY H. RICHARDSON REGISTERED 9/15/16 20985 STATE OF WEST VIRGINIA PROFESSIONAL ENGINEER

PROJECT CONSULTING SERVICES, INC.
3300 WEST ESPLANADE AVE., S., SUITE 500
METAIRIE, LA 70002-7408
(504) 833-5321 Fax (504) 833-4940
www.projectconsulting.com

DWG. STATUS	CHECKED BY	CHECKED DATE	APPROVED BY	APPROVED DATE	BY	DATE
PREL'Y						
BID	SM	8-5-15	LB	8-5-15		
CONSTR.	SM	4-25-16	LB	4-25-16		
CADDS	PLOT DATE:					
	FILE NAME:					

P.L./STA. NO.
ACCOUNT NO.
CONSTRUCTION YEAR 2016

	BY	DATE
DESIGN	JHR	
DRAWN	KMA	9-11-14
ASBUILT		

FILE NO.
SCALE: NOTED

ROVER PIPELINE LLC

ROVER PIPELINE PROJECT
36" SHERWOOD LATERAL - NG PIPELINE
PRIVATE ROADS & MIDDLE ISLAND CREEK HDD
M.P. 14.06 TO M.P. 14.46
TYLER COUNTY, WEST VIRGINIA

PROJECT NO. 588000000013
PREVIOUS DWG. NO.
SHEET 1 OF 1
DWG. NO. SW-P4-38 (D)
SHEET 1 OF 1

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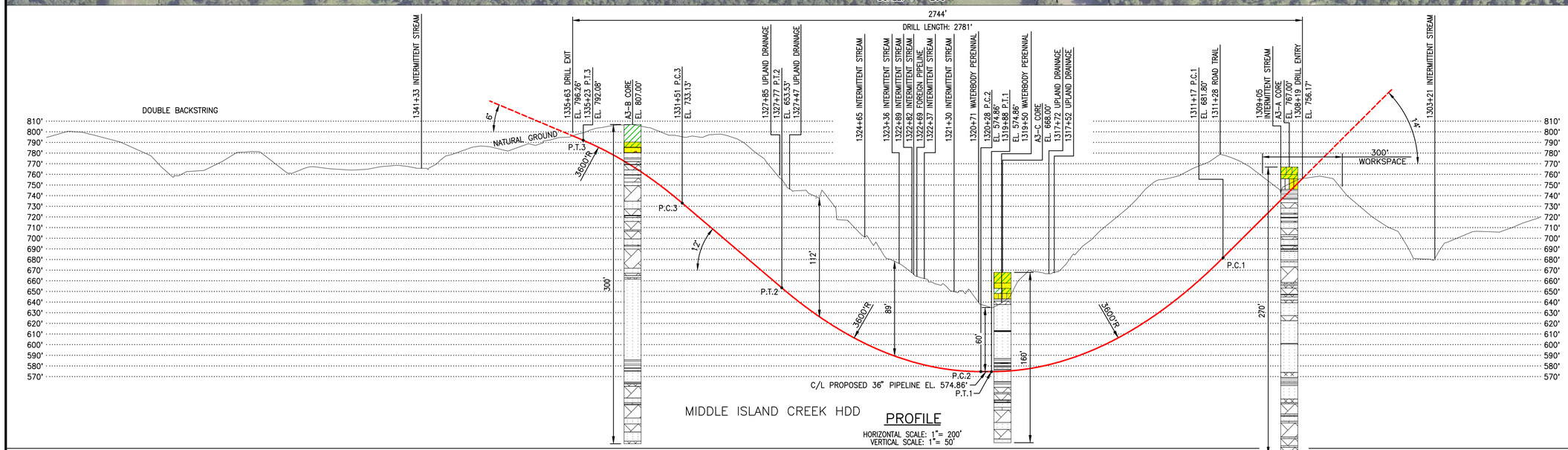


SEE SW-P4-39 MIDDLE ISLAND CREEK HDD GEO REPORT FOR GEOTECHNICAL CORE DETAILS.

SPECIFICATIONS:

CARRIER PIPE: 36.000" O.D. X 0.750" W.T. X-70
A.P.I. 5L PSL 2, DSAW, W/ 14-16 MILS FBE AND 26 MILS ARO
HYDROSTATIC PRE-TEST PRESSURE: 2160 PSIG MIN – 2220 PSIG MAX
DESIGN PRESSURE: MAOP 1,440 PSIG
LOCATION CLASS: 1
DESIGN FACTOR: 0.5

GENERAL NOTES:

1) GRID PROJECTION BASED UPON UTM COORDINATE SYSTEM, ZONE 17 (GRID UNITS IN FEET) GEODETIC DATUM: NAD 1983, CENTRAL MERIDIAN.
2) CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL FOREIGN PIPELINE CROSSINGS AND COVER PRIOR TO CONSTRUCTION.
3) FOOT ACCESS FOR HDD GUIDED WIRE WILL BE REQUIRED 100 FT TO 200 FT BOTH SIDES OF CENTERLINE. HAND CLEARING OF TREES 3" DIAMETER AND SMALLER.
4) CONTRACTOR TO PROVIDE AS-BUILT DRAWING AND INFORMATION WITHIN 10 DAYS FROM BOREHOLE COMPLETION AND SHALL INCLUDE THE FOLLOWING AT A MINIMUM:
   - CAD (2010 OR HIGHER) AND PDF FILE OF PIPING PLAN AND PROFILE
   - TABLE OF PILOT HOLE DATA USED TO CREATE PLAN AND PROFILE DRAWINGS

CONTRACTOR HDD PLAN NOTES:

CONTRACTOR'S PROPOSED HDD PLAN AND ANY OF ITS SUBCONTRACTORS, VENDORS, OR SUPPLIERS UTILIZED TO PERFORM HORIZONTAL DIRECTIONAL DRILLS SHALL BE SUBMITTED TO COMPANY FOR APPROVAL A MINIMUM OF 30 DAYS PRIOR TO START OF DRILLING OPERATIONS. PLAN SHALL INCLUDE AT MINIMUM:

- CONTRACTORS' SITE SPECIFIC BORE PLAN AND PROFILE, SHOWING FOREIGN PIPELINES AND UTILITIES WITH FIELD VERIFIED ELEVATIONS, TOP OF BORE SEPARATION FROM UNDERGROUND UTILITIES, ROADS AND OTHER FEATURES, PLANNED MINIMUM DRILL RADIUS WITH PC AND PT POINTS
- CONTRACTORS EQUIPMENT AND SITE LAYOUT
- DRILLING PLAN AT A MINIMUM TO INCLUDE THE FOLLOWING: PILOT HOLE DRILL TOLERANCES, ANTICIPATED DOWN HOLE PRESSURE RANGE, EXPECTED PILOT AND REAMING PROCESS, EXPECTED PULL LOADS, SAFETY, GUIDANCE SYSTEM, CONTINGENCY PLANS, INADVERTENT RETURNS PLAN WITH NOTIFICATION PROCEDURES
- DRILLING FLUID AND POTENTIAL ADDITIVES (PROVIDE MSDS), AUTHORIZED DISPOSAL LOCATION (COMPANY TO APPROVE)
- BREAKOVER PROFILE WITH MINIMUM RADIUS, PIPE SUPPORT EQUIPMENT LOCATION WITH PIPE ELEVATION (COMPANY WILL EVALUATE PIPE STRESS) AND MAXIMUM ROLLER SPACING
- WATER SOURCE TO BE USED

ENVIRONMENTAL NOTES:

1) EROSION/SEDIMENT CONTROL STRUCTURES TO BE INSTALLED AND MAINTAINED TO MINIMIZE IMPACTS TO WETLANDS OR WATERBODIES.
2) ANY ON-LAND TRENCH DEWATERING TO BE DIRECTED TO WETLAND FILTER BAG AND/OR DEWATERING STRUCTURE IN AN UPLAND AREA TO MINIMIZE EROSION OF SEDIMENTATION TO WETLANDS/WATERBODIES.
3) PRE-CONSTRUCTION CONTOURS TO BE RE-ESTABLISHED FOR ALL DISTURBED AREAS. ALL DISTURBED AREAS TO BE RESTORED AND/OR REVEGETATED AS APPLICABLE.
4) EROSION/SEDIMENTATION CONTROL STRUCTURES TO REMAIN IN PLACE UNTIL RESTORATION AND REVEGETATION ARE DEEMED SUCCESSFUL.

LEGEND:

- PROPOSED PIPELINE
- PERMANENT EASEMENT
- TEMPORARY WORK SPACE
- ADDITIONAL TEMPORARY WORK SPACE
- ACCESS PATH
- GEOTECH CORE

ENVIRONMENTAL LEGEND:

- PERENNIAL STREAM
- EPHEMERAL STREAM
- INTERMITTENT STREAM
- NATURAL DRAINAGE
- WATERBODY
- WETLAND EMERGENT
- WETLAND FORESTED
- WETLAND SCRUB SHRUB

DWG. NO.	REFERENCE DRAWING TITLE
SW-P3-1025	ALIGNMENT
SW-P3-1026	ALIGNMENT

NO.	REVISION – DESCRIPTION	BY	DATE	CHK'D	APP'D
0	ISSUED FOR CONSTRUCTION	NLM	7-25-16	CRF	JHR

JEFFREY H. RICHARDSON REGISTERED PROFESSIONAL ENGINEER 20986 STATE OF WEST VIRGINIA 9/15/16

PROJECT CONSULTING SERVICES, INC.
3300 WEST COPLANDE AVE., S. SUITE 500
MARYVILLE, TENNESSEE 37801
(504) 832-5321 Fax (504) 833-4840
www.projectconsulting.com

DWG. STATUS	CHECKED BY	CHECKED DATE	APPROVED BY	APPROVED DATE	BY	DATE
PREL'Y						
BID	SM	8-5-15	LB	8-5-15		
CONSTR.	SM	4-25-16	LB	4-25-16		
CADDS	PLOT DATE:					
	FILE NAME:					

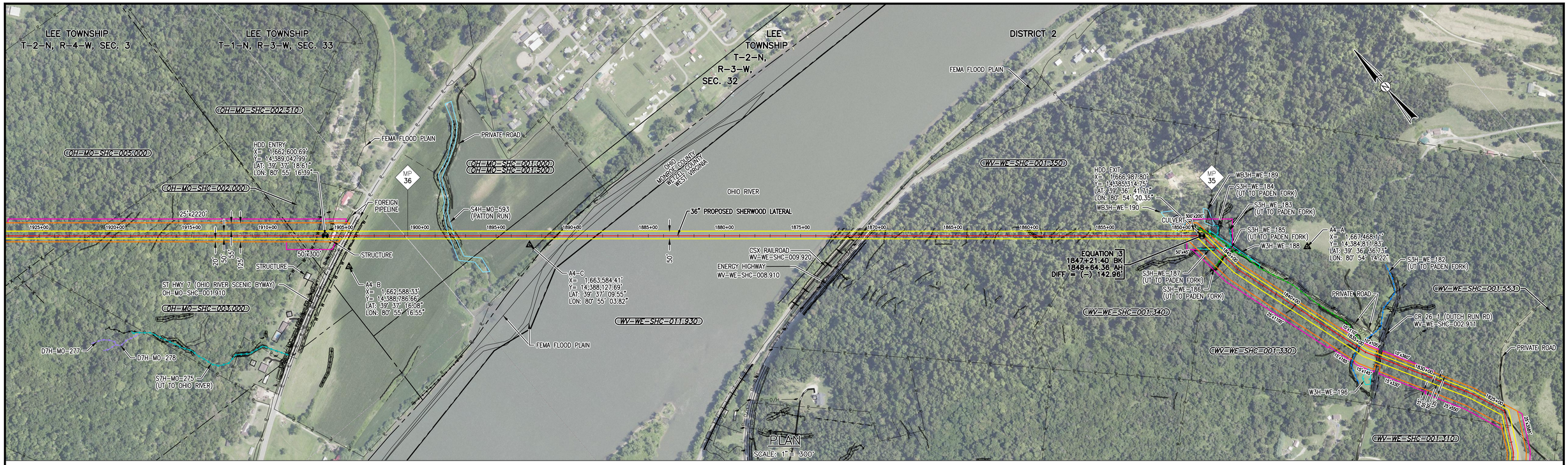
P.L./STA. NO.			
ACCOUNT NO.			
CONSTRUCTION YEAR			2016
	BY	DATE	
DESIGN	JHR		
DRAWN	KMA	9-12-14	
ASBUILT			
FILE NO.			
SCALE: NOTED			

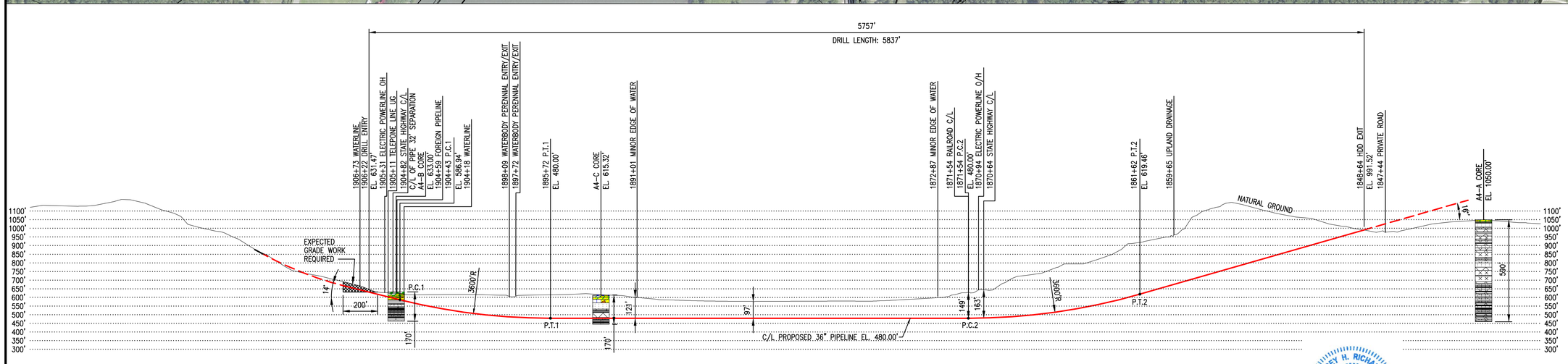
ROVER PIPELINE LLC

ROVER PIPELINE PROJECT
36" SHERWOOD LATERAL – NG PIPELINE
MIDDLE ISLAND CREEK HDD
M.P. 24.78 TO M.P. 25.30
TYLER, WEST VIRGINIA

PROJECT NO. 588000000013
PREVIOUS DWG. NO.
SHEET 1 OF 1
DWG. NO. SW-P4-39
SHEET 1 OF 1
0

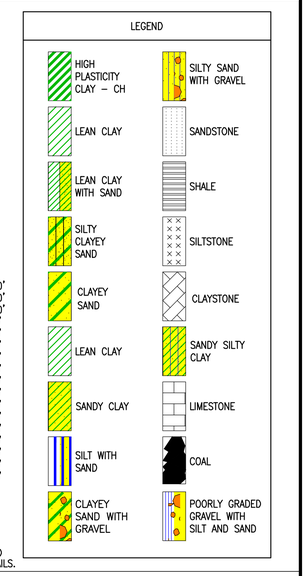
09-01-16 8:44 14138 40 NLM





OHIO RIVER HDD
PROFILE

HORIZONTAL SCALE: 1"= 300'
VERTICAL SCALE: 1"= 300'



SEE SW-P4-40 SHERWOOD OHIO RIVER HDD GEO REPORT FOR GEOTECHNICAL CORE DETAILS.

STATE OF WEST VIRGINIA — JEFFREY H. RICHARDSON — REGISTERED — 9/15/16 — 20965 — PROFESSIONAL ENGINEER

SPECIFICATIONS:

CARRIER PIPE: 36.000" O.D. X 0.750" W.T. X-70
A.P.I. 5L PSL 2, DSAW, W/ 14-16 MILS FBE AND 26 MILS ARO
HYDROSTATIC PRE-TEST PRESSURE: 2160 PSIG MIN – 2220 PSIG MAX
DESIGN PRESSURE: MAOP 1,440 PSIG
LOCATION CLASS: 1
DESIGN FACTOR: 0.5

GENERAL NOTES:

1) GRID PROJECTION BASED UPON UTM COORDINATE SYSTEM, ZONE 17 (GRID UNITS IN FEET) GEODETIC DATUM: NAD 1983, CENTRAL MERIDIAN.
2) CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL FOREIGN PIPELINE CROSSINGS AND COVER PRIOR TO CONSTRUCTION.
3) FOOT ACCESS FOR HDD GUIDED WIRE WILL BE REQUIRED 100 FT TO 200 FT BOTH SIDES OF CENTERLINE. HAND CLEARING OF TREES 3" DIAMETER AND SMALLER.
4) CONTRACTOR TO PROVIDE AS-BUILT DRAWING AND INFORMATION WITHIN 10 DAYS FROM BOREHOLE COMPLETION AND SHALL INCLUDE THE FOLLOWING AT A MINIMUM:
   - CAD (2010 OR HIGHER) AND PDF FILE OF PIPING PLAN AND PROFILE
   - TABLE OF PILOT HOLE DATA USED TO CREATE PLAN AND PROFILE DRAWINGS

CONTRACTOR HDD PLAN NOTES:

CONTRACTOR'S PROPOSED HDD PLAN AND ANY OF ITS SUBCONTRACTORS, VENDORS, OR SUPPLIERS UTILIZED TO PERFORM HORIZONTAL DIRECTIONAL DRILLS SHALL BE SUBMITTED TO COMPANY FOR APPROVAL A MINIMUM OF 30 DAYS PRIOR TO START OF DRILLING OPERATIONS. PLAN SHALL INCLUDE AT MINIMUM:

- CONTRACTORS' SITE SPECIFIC BORE PLAN AND PROFILE, SHOWING FOREIGN PIPELINES AND UTILITIES WITH FIELD VERIFIED ELEVATIONS, TOP OF BORE SEPARATION FROM UNDERGROUND UTILITIES, ROADS AND OTHER FEATURES, PLANNED MINIMUM DRILL RADIUS WITH PC AND PT POINTS
- CONTRACTORS EQUIPMENT AND SITE LAYOUT
- DRILLING PLAN AT A MINIMUM TO INCLUDE THE FOLLOWING: PILOT HOLE DRILL TOLERANCES, ANTICIPATED DOWN HOLE PRESSURE RANGE, EXPECTED PILOT AND REAMING PROCESS, EXPECTED PULL LOADS, SAFETY, GUIDANCE SYSTEM, CONTINGENCY PLANS, INADVERTENT RETURNS PLAN WITH NOTIFICATION PROCEDURES
- DRILLING FLUID AND POTENTIAL ADDITIVES (PROVIDE MSDS), AUTHORIZED DISPOSAL LOCATION (COMPANY TO APPROVE)
- BREAKOVER PROFILE WITH MINIMUM RADIUS, PIPE SUPPORT EQUIPMENT LOCATION WITH PIPE ELEVATION (COMPANY WILL EVALUATE PIPE STRESS) AND MAXIMUM ROLLER SPACING
- WATER SOURCE TO BE USED

ENVIRONMENTAL NOTES:

1) EROSION/SEDIMENT CONTROL STRUCTURES TO BE INSTALLED AND MAINTAINED TO MINIMIZE IMPACTS TO WETLANDS OR WATERBODIES.
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4) EROSION/SEDIMENTATION CONTROL STRUCTURES TO REMAIN IN PLACE UNTIL RESTORATION AND REVEGETATION ARE DEEMED SUCCESSFUL.

PROJECT CONSULTING SERVICES, INC.
3300 WEST ESPLANADE AVE., S. SUITE 500
METAIRIE, LA 70002-7606
(504) 833-5321 Fax (504) 833-4940
www.projectconsulting.com

LEGEND:
- PROPOSED PIPELINE
- PERMANENT EASEMENT
- TEMPORARY WORK SPACE
- ADDITIONAL TEMPORARY WORK SPACE
- ACCESS PATH
- GEOTECH CORE

ENVIRONMENTAL LEGEND:
- PERENNIAL STREAM
- EPHEMERAL STREAM
- INTERMITTENT STREAM
- NATURAL DRAINAGE
- WATERBODY
- WETLAND EMERGENT
- WETLAND FORESTED
- WETLAND SCRUB SHRUB

DWG. NO.	REFERENCE DRAWING TITLE
SW-P3-1037	ALIGNMENT
SW-P3-1036	ALIGNMENT

NO.	REVISION – DESCRIPTION	BY	DATE	CHK'D	APP'D
0	ISSUED FOR CONSTRUCTION	NLM	7-25-16	CRF	JHR

STATE OF OHIO — JEFFREY H. RICHARDSON — E-76936 — REGISTERED — 9/15/16 — PROFESSIONAL ENGINEER

PROJECT CONSULTING SERVICES, INC.
DBA PROJECT MANAGMENT & CONSULTING, INC.
3300 WEST ESPLANADE AVE., S. SUITE 500
METAIRIE, LA 70002-7606
(504) 833-5321 Fax (504) 833-4940
www.projectconsulting.com

DWG. STATUS	CHECKED BY	CHECKED DATE	APPROVED BY	APPROVED DATE	BY	DATE
PREL'Y						
BID	SM	8-5-15	LB	8-5-15		
CONSTR.	SM	4-25-16	LB	8-5-15		
CADDS	PLOT DATE:					
	FILE NAME:					

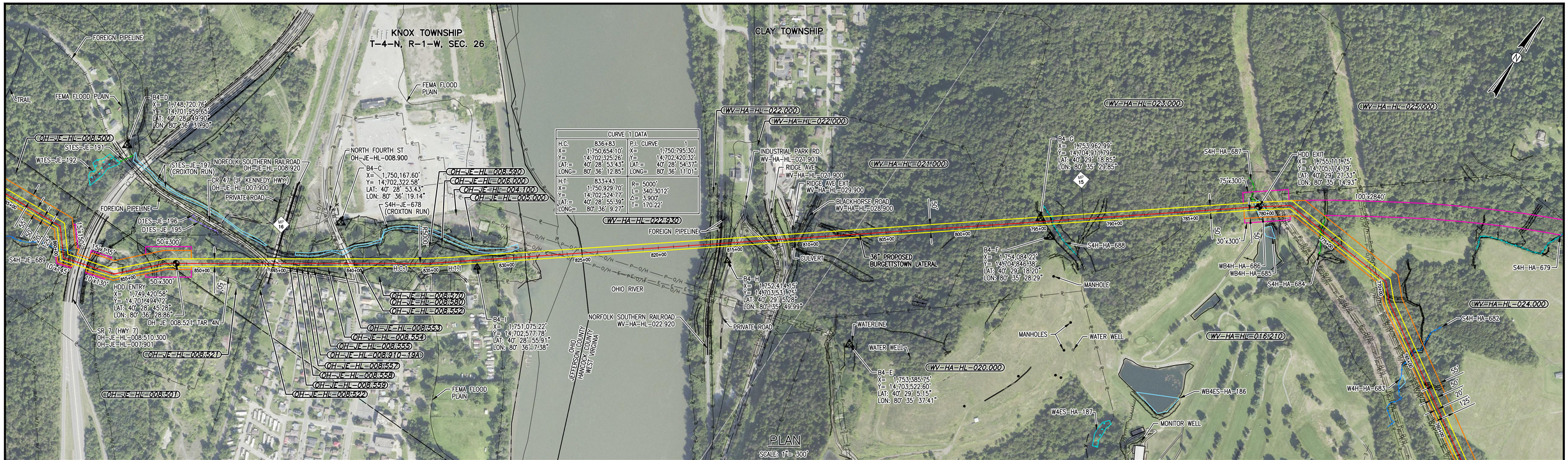
P.L./STA. NO.			
ACCOUNT NO.			
CONSTRUCTION YEAR			2016
	BY	DATE	
DESIGN	JHR		
DRAWN	KMA		10-17-14
ASBUILT			
FILE NO.			
SCALE: 1"= 300'			

ROVER PIPELINE LLC

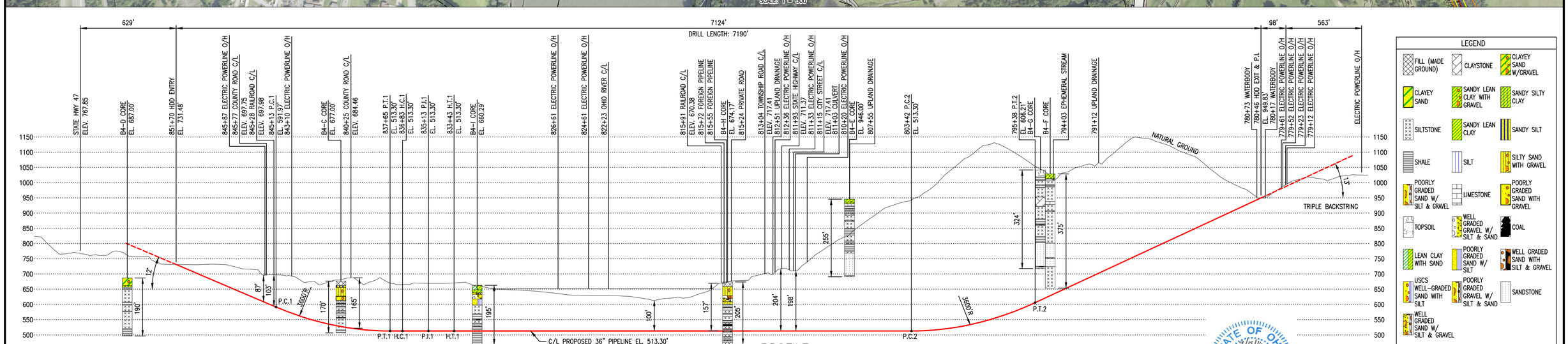
ROVER PIPELINE PROJECT
36" SHERWOOD LATERAL – NG PIPELINE
OHIO RIVER HDD
M.P. 35.01 TO M.P. 36.10
WETZEL, WEST VIRGINIA TO MONROE, OHIO

PROJECT NO. 588000000013
PREVIOUS DWG. NO.
SHEET 1 OF 1
DWG. NO. SW-P4-40 (0)
SHEET 1 OF 1

07-22-16 14:35 14138 26 NLM



CURVE 1 DATA	
H.C. 836+83	P.I. CURVE 1
X= 1,750,654.10'	X= 1,750,795.30'
Y= 14,702,125.26'	Y= 14,702,420.32'
LAT= 40° 28' 53.43"	LAT= 40° 28' 54.37"
LONG= 80° 36' 12.85"	LONG= 80° 36' 11.01"
H.T. 833+43	R= 5000'
X= 1,750,929.70'	L= 340.3012'
Y= 14,702,524.77'	Δ= 3.900°
LAT= 40° 28' 55.39"	T= 170.22'
LONG= 80° 36' 9.27"	



LEGEND

FILL (MADE GROUND) · CLAYSTONE · CLAYEY SAND W/GRAVEL · CLAYEY SAND · SANDY LEAN CLAY WITH GRAVEL · SANDY SILTY CLAY · SILTSTONE · SANDY LEAN CLAY · SANDY SILT · SHALE · SILT · SILTY SAND WITH GRAVEL · POORLY GRADED SAND W/ SILT & GRAVEL · LIMESTONE · POORLY GRADED SAND WITH GRAVEL · TOPSOIL · WELL GRADED GRAVEL W/ SILT & SAND · COAL · LEAN CLAY WITH SAND · POORLY GRADED SAND W/ SILT · WELL GRADED SAND WITH SILT & GRAVEL · USCS WELL-GRADED SAND WITH SILT · POORLY GRADED GRAVEL W/ SILT & SAND · SANDSTONE · WELL GRADED SAND W/ SILT & GRAVEL

SEE BG-P4-45 BURGETTSTOWN OHIO RIVER HDD GEO REPORT FOR GEOTECHNICAL CORE DETAILS.

SPECIFICATIONS:

CARRIER PIPE: 36.000" O.D. X 0.750" W.T. X-70
A.P.I. 5L PSL 2, DSAW, W/ 14-16 MILS FBE AND 40 MILS ARO
HYDROSTATIC PRE-TEST PRESSURE: 2160 PSIG MIN – 2220 PSIG MAX
DESIGN PRESSURE: MAOP 1,440 PSIG
LOCATION CLASS: 3
DESIGN FACTOR: 0.5

GENERAL NOTES:

1) GRID PROJECTION BASED UPON UTM COORDINATE SYSTEM, ZONE 17 (GRID UNITS IN FEET) GEODETIC DATUM: NAD 1983, CENTRAL MERIDIAN.
2) CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL FOREIGN PIPELINE CROSSINGS AND COVER PRIOR TO CONSTRUCTION.
3) FOOT ACCESS FOR HDD GUIDED WIRE WILL BE REQUIRED 100 FT TO 200 FT BOTH SIDES OF CENTERLINE. HAND CLEARING OF TREES 3" DIAMETER AND SMALLER.
4) CONTRACTOR TO PROVIDE AS-BUILT DRAWING AND INFORMATION WITHIN 10 DAYS FROM BOREHOLE COMPLETION AND SHALL INCLUDE THE FOLLOWING AT A MINIMUM:
   - CAD (2010 OR HIGHER) AND PDF FILE OF PIPING PLAN AND PROFILE
   - TABLE OF PILOT HOLE DATA USED TO CREATE PLAN AND PROFILE DRAWINGS

CONTRACTOR HDD PLAN NOTES:

CONTRACTOR'S PROPOSED HDD PLAN AND ANY OF ITS SUBCONTRACTORS, VENDORS, OR SUPPLIERS UTILIZED TO PERFORM HORIZONTAL DIRECTIONAL DRILLS SHALL BE SUBMITTED TO COMPANY FOR APPROVAL A MINIMUM OF 30 DAYS PRIOR TO START OF DRILLING OPERATIONS. PLAN SHALL INCLUDE AT MINIMUM:

- CONTRACTORS' SITE SPECIFIC BORE PLAN AND PROFILE, SHOWING FOREIGN PIPELINES AND UTILITIES WITH FIELD VERIFIED ELEVATIONS, TOP OF BORE SEPARATION FROM UNDERGROUND UTILITIES, ROADS AND OTHER FEATURES, PLANNED MINIMUM DRILL RADIUS WITH PC AND PT POINTS
- CONTRACTORS EQUIPMENT AND SITE LAYOUT
- DRILLING PLAN AT A MINIMUM TO INCLUDE THE FOLLOWING: PILOT HOLE DRILL TOLERANCES, ANTICIPATED DOWN HOLE PRESSURE RANGE, EXPECTED PILOT AND REAMING PROCESS, EXPECTED PULL LOADS, SAFETY, GUIDANCE SYSTEM, CONTINGENCY PLANS, INADVERTENT RETURNS PLAN WITH NOTIFICATION PROCEDURES
- DRILLING FLUID AND POTENTIAL ADDITIVES (PROVIDE MSDS), AUTHORIZED DISPOSAL LOCATION (COMPANY TO APPROVE)
- BREAKOVER PROFILE WITH MINIMUM RADIUS, PIPE SUPPORT EQUIPMENT LOCATION WITH PIPE ELEVATION (COMPANY WILL EVALUATE PIPE STRESS) AND MAXIMUM ROLLER SPACING
- WATER SOURCE TO BE USED

ENVIRONMENTAL NOTES:

1) EROSION/SEDIMENT CONTROL STRUCTURES TO BE INSTALLED AND MAINTAINED TO MINIMIZE IMPACTS TO WETLANDS OR WATERBODIES.
2) ANY ON-LAND TRENCH DEWATERING TO BE DIRECTED TO WETLAND FILTER BAG AND/OR DEWATERING STRUCTURE IN AN UPLAND AREA TO MINIMIZE EROSION OF SEDIMENTATION TO WETLANDS/WATERBODIES.
3) PRE-CONSTRUCTION CONTOURS TO BE RE-ESTABLISHED FOR ALL DISTURBED AREAS. ALL DISTURBED AREAS TO BE RESTORED AND/OR REVEGETATED AS APPLICABLE.
4) EROSION/SEDIMENTATION CONTROL STRUCTURES TO REMAIN IN PLACE UNTIL RESTORATION AND REVEGETATION ARE DEEMED SUCCESSFUL.

STATE OF OHIO · JEFFREY H. RICHARDSON · E-76936 · REGISTERED · PROFESSIONAL ENGINEER · 9/15/16

PROJECT CONSULTING SERVICES, INC.
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3300 WEST ESPLANADE AVE., S., SUITE 500
METAIRIE, LA 70002-7426
(504) 833-5321 Fax (504) 833-4940
www.projectconsulting.com

LEGEND:

- PROPOSED PIPELINE
- PERMANENT EASEMENT
- TEMPORARY WORK SPACE
- ADDITIONAL TEMPORARY WORK SPACE
- ACCESS PATH
- GEOTECH CORE

ENVIRONMENTAL LEGEND:

- PERENNIAL STREAM
- EPHEMERAL STREAM
- INTERMITTENT STREAM
- NATURAL DRAINAGE
- WATERBODY
- WETLAND EMERGENT
- WETLAND FORESTED
- WETLAND SCRUB SHRUB

DWG. NO.	REFERENCE DRAWING TITLE
BG-P3-1018	ALIGNMENT
BG-P3-1017	ALIGNMENT
BG-P3-1016	ALIGNMENT

NO.	REVISION – DESCRIPTION	BY	DATE	CHK'D	APP'D
0	ISSUED FOR CONSTRUCTION	KMA	7-25-16	PCW	JHR

STATE OF OHIO · JEFFREY H. RICHARDSON · 70986 · REGISTERED · PROFESSIONAL ENGINEER · 9/15/16

PROJECT CONSULTING SERVICES, INC.
3300 WEST ESPLANADE AVE., S., SUITE 500
METAIRIE, LA 70002-7426
(504) 833-5321 Fax (504) 833-4940
www.projectconsulting.com

DWG. STATUS	CHECKED BY	CHECKED DATE	APPROVED BY	APPROVED DATE	BY	DATE
PREL'Y						
BID	SM	8-5-15	LB	8-5-15		
CONSTR.	SM	4-25-16	LB	4-25-16		
CADDS	PLOT DATE:					
	FILE NAME:					

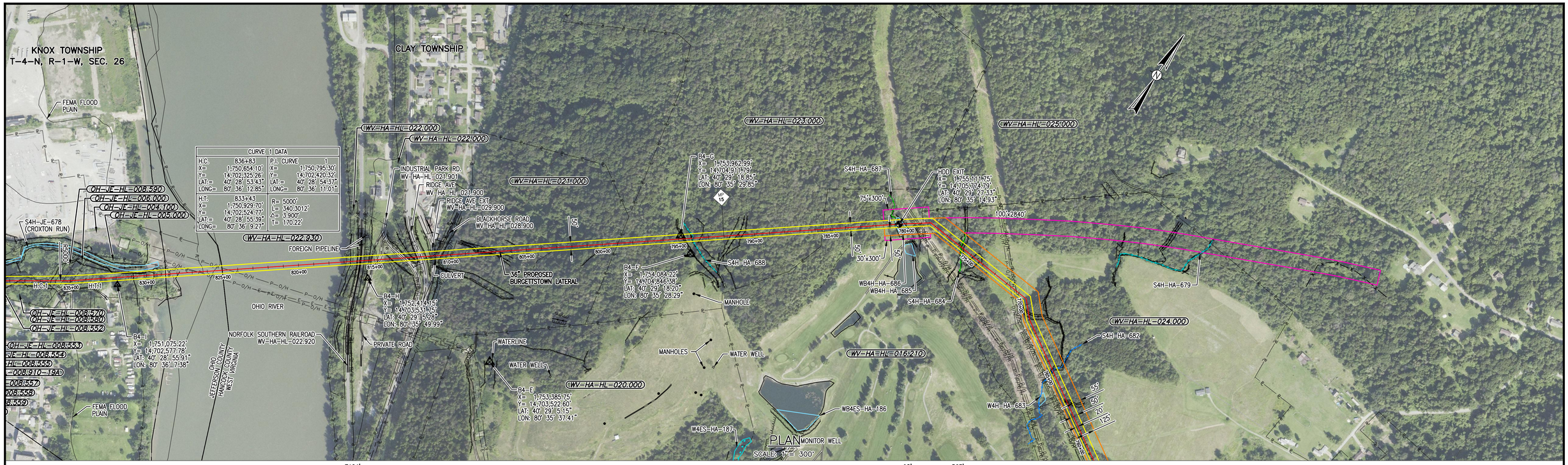
		BY	DATE
P.I./STA. NO.			
ACCOUNT NO.			
CONSTRUCTION YEAR	2016		
DESIGN		JHR	
DRAWN		KMA	9-12-14
ASBUILT			
FILE NO.			
SCALE: NOTED			

ROVER PIPELINE LLC

ROVER PIPELINE PROJECT
36" BURGETTSTOWN LATERAL – NG PIPELINE
OHIO RIVER HDD
M.P. 14.78 TO M.P. 16.13
HANCOCK, WEST VIRGINIA TO JEFFERSON, OHIO

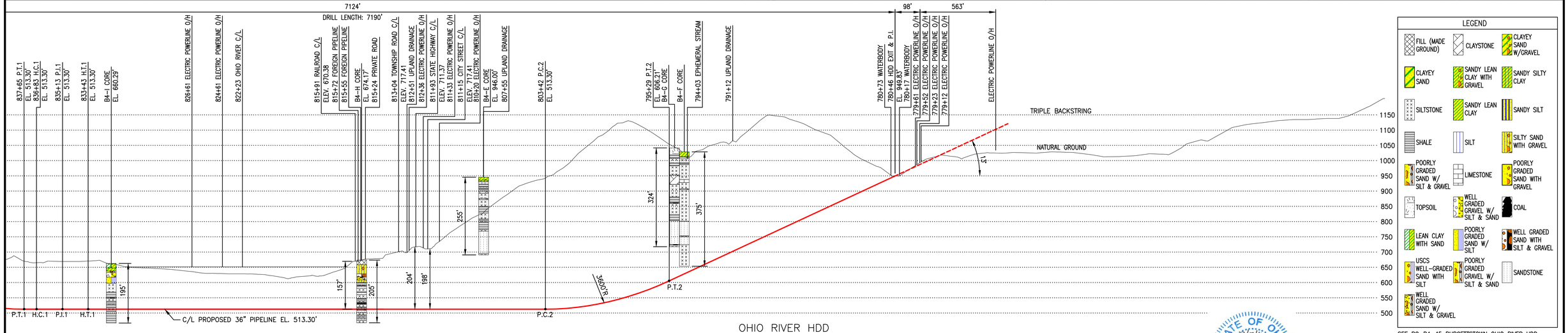
PROJECT NO. 588000000009
PREVIOUS DWG. NO.
SHEET 1 OF 1
DWG. NO. BG-P4-45 (0)
SHEET 1 OF 2

08-03-16 7:54 14138 47 KMA



CURVE 1 DATA			
H.C.	836+83	P.I. CURVE	1
X=	1,750,654.10'	X=	1,750,795.30'
Y=	14,702,325.26'	Y=	14,702,420.32'
LAT.=	40° 28' 53.43"	LAT.=	40° 28' 54.37"
LONG=	80° 36' 12.85"	LONG=	80° 36' 11.01"
H.T.	833+43	R=	5000'
X=	1,750,929.70'	L=	340.3012'
Y=	14,702,524.77'	Δ=	3.900°
LAT.=	40° 28' 55.39"	T=	170.22'
LONG=	80° 36' 9.27"		

DRILL LENGTH: 7190'



OHIO RIVER HDD

PROFILE

HORIZONTAL SCALE: 1" = 300'
VERTICAL SCALE: 1" = 100'

LEGEND

FILL (MADE GROUND) · CLAYSTONE · CLAYEY SAND W/GRAVEL · CLAYEY SAND · SANDY LEAN CLAY WITH GRAVEL · SANDY SILTY CLAY · SILTSTONE · SANDY LEAN CLAY · SANDY SILT · SHALE · SILT · SILTY SAND WITH GRAVEL · POORLY GRADED SAND W/ SILT & GRAVEL · LIMESTONE · POORLY GRADED SAND WITH GRAVEL · TOPSOIL · WELL GRADED GRAVEL W/ SILT & SAND · COAL · LEAN CLAY WITH SAND · POORLY GRADED SAND W/ SILT · WELL GRADED SAND WITH SILT & GRAVEL · USCS WELL-GRADED SAND WITH SILT · POORLY GRADED GRAVEL W/ SILT & SAND · SANDSTONE · WELL GRADED SAND W/ SILT & GRAVEL

SEE BG-P4-45 BURGETTSTOWN OHIO RIVER HDD GEO REPORT FOR GEOTECHNICAL CORE DETAILS.

SPECIFICATIONS:

CARRIER PIPE: 36.000" O.D. X 0.750" W.T. X-70
A.P.I. 5L PSL 2, DSAW, W/ 14-16 MILS FBE AND 40 MILS ARO
HYDROSTATIC PRE-TEST PRESSURE: 2160 PSIG MIN – 2220 PSIG MAX
DESIGN PRESSURE: MAOP 1,440 PSIG
LOCATION CLASS: 3
DESIGN FACTOR: 0.5

GENERAL NOTES:

1) GRID PROJECTION BASED UPON UTM COORDINATE SYSTEM, ZONE 17 (GRID UNITS IN FEET) GEODETIC DATUM: NAD 1983, CENTRAL MERIDIAN.
2) CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL FOREIGN PIPELINE CROSSINGS AND COVER PRIOR TO CONSTRUCTION.
3) FOOT ACCESS FOR HDD GUIDED WIRE WILL BE REQUIRED 100 FT TO 200 FT BOTH SIDES OF CENTERLINE. HAND CLEARING OF TREES 3" DIAMETER AND SMALLER.
4) CONTRACTOR TO PROVIDE AS-BUILT DRAWING AND INFORMATION WITHIN 10 DAYS FROM BOREHOLE COMPLETION AND SHALL INCLUDE THE FOLLOWING AT A MINIMUM:
   - CAD (2010 OR HIGHER) AND PDF FILE OF PIPING PLAN AND PROFILE
   - TABLE OF PILOT HOLE DATA USED TO CREATE PLAN AND PROFILE DRAWINGS

CONTRACTOR HDD PLAN NOTES:

CONTRACTOR'S PROPOSED HDD PLAN AND ANY OF ITS SUBCONTRACTORS, VENDORS, OR SUPPLIERS UTILIZED TO PERFORM HORIZONTAL DIRECTIONAL DRILLS SHALL BE SUBMITTED TO COMPANY FOR APPROVAL A MINIMUM OF 30 DAYS PRIOR TO START OF DRILLING OPERATIONS. PLAN SHALL INCLUDE AT MINIMUM:

- CONTRACTORS' SITE SPECIFIC BORE PLAN AND PROFILE, SHOWING FOREIGN PIPELINES AND UTILITIES WITH FIELD VERIFIED ELEVATIONS, TOP OF BORE SEPARATION FROM UNDERGROUND UTILITIES, ROADS AND OTHER FEATURES, PLANNED MINIMUM DRILL RADIUS WITH PC AND PT POINTS
- CONTRACTORS EQUIPMENT AND SITE LAYOUT
- DRILLING PLAN AT A MINIMUM TO INCLUDE THE FOLLOWING: PILOT HOLE DRILL TOLERANCES, ANTICIPATED DOWN HOLE PRESSURE RANGE, EXPECTED PILOT AND REAMING PROCESS, EXPECTED PULL LOADS, SAFETY, GUIDANCE SYSTEM, CONTINGENCY PLANS, INADVERTENT RETURNS PLAN WITH NOTIFICATION PROCEDURES
- DRILLING FLUID AND POTENTIAL ADDITIVES (PROVIDE MSDS), AUTHORIZED DISPOSAL LOCATION (COMPANY TO APPROVE)
- BREAKOVER PROFILE WITH MINIMUM RADIUS, PIPE SUPPORT EQUIPMENT LOCATION WITH PIPE ELEVATION (COMPANY WILL EVALUATE PIPE STRESS) AND MAXIMUM ROLLER SPACING
- WATER SOURCE TO BE USED

ENVIRONMENTAL NOTES:

1) EROSION/SEDIMENT CONTROL STRUCTURES TO BE INSTALLED AND MAINTAINED TO MINIMIZE IMPACTS TO WETLANDS OR WATERBODIES.
2) ANY ON-LAND TRENCH DEWATERING TO BE DIRECTED TO WETLAND FILTER BAG AND/OR DEWATERING STRUCTURE IN AN UPLAND AREA TO MINIMIZE EROSION OF SEDIMENTATION TO WETLANDS/WATERBODIES.
3) PRE-CONSTRUCTION CONTOURS TO BE RE-ESTABLISHED FOR ALL DISTURBED AREAS. ALL DISTURBED AREAS TO BE RESTORED AND/OR REVEGETATED AS APPLICABLE.
4) EROSION/SEDIMENTATION CONTROL STRUCTURES TO REMAIN IN PLACE UNTIL RESTORATION AND REVEGETATION ARE DEEMED SUCCESSFUL.

STATE OF OHIO · JEFFREY H. RICHARDSON · E-76935 · REGISTERED · PROFESSIONAL ENGINEER · 9/15/16

PROJECT CONSULTING SERVICES INC.
DBA PROJECT MANAGEMENT & CONSULTING, INC.
3300 WEST ESPLANADE AVE., S., SUITE 500
METAIRIE, LA 70002-7606
(504) 833-5321 FAX (504) 833-4940
www.projectconsulting.com

LEGEND:

- PROPOSED PIPELINE
- PERMANENT EASEMENT
- TEMPORARY WORK SPACE
- ADDITIONAL TEMPORARY WORK SPACE
- ACCESS PATH
- GEOTECH CORE

ENVIRONMENTAL LEGEND:

- PERENNIAL STREAM
- EPHEMERAL STREAM
- INTERMITTENT STREAM
- NATURAL DRAINAGE
- WATERBODY
- WETLAND EMERGENT
- WETLAND FORESTED
- WETLAND SCRUB SHRUB

DWG. NO.	REFERENCE DRAWING TITLE
BG-P3-1018	ALIGNMENT
BG-P3-1017	ALIGNMENT
BG-P3-1016	ALIGNMENT

NO.	REVISION – DESCRIPTION	BY	DATE	CHK'D	APP'D
0	ISSUED FOR CONSTRUCTION	KMA	7-25-16	PCW	JHR

STATE OF OHIO · JEFFREY H. RICHARDSON · 20965 · REGISTERED · 9/15/16 · PROFESSIONAL ENGINEER · WEST VIRGINIA

PROJECT CONSULTING SERVICES INC.
3300 WEST ESPLANADE AVE., S., SUITE 500
METAIRIE, LA 70002-7606
(504) 833-5321 Fax (504) 833-4940
www.projectconsulting.com

DWG. STATUS	CHECKED BY	CHECKED DATE	APPROVED BY	APPROVED DATE	BY	DATE
PRELIM						
BID	SM	8-5-15	LB	8-5-15		
CONSTR.	SM	4-25-16	LB	4-25-16		
CADDS	PLOT DATE:					
	FILE NAME:					

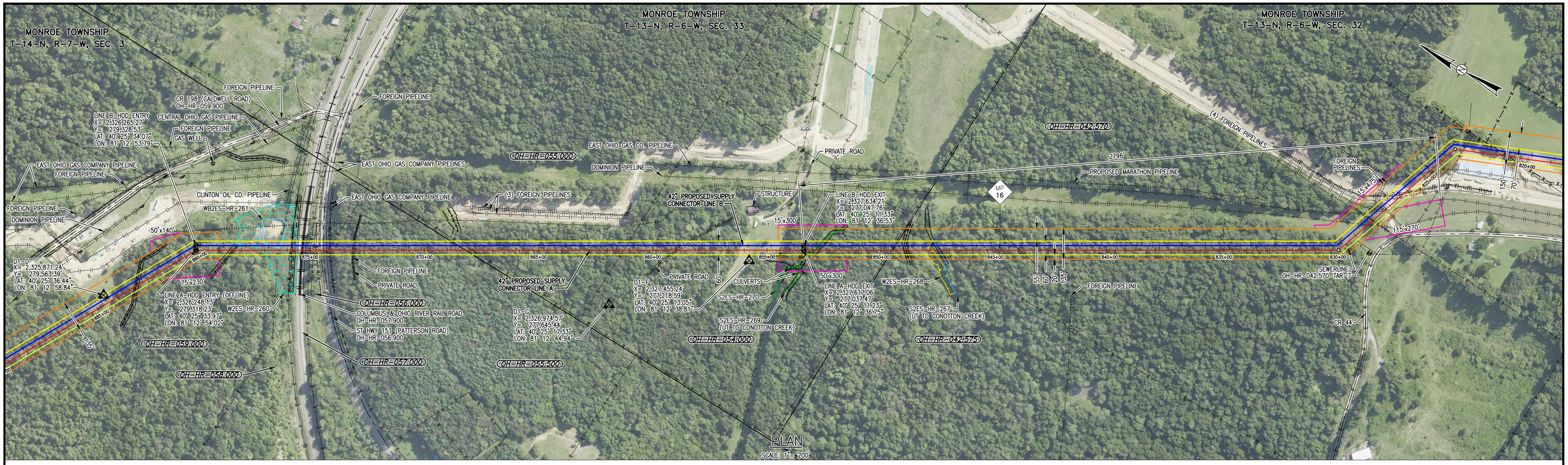
		BY	DATE
P.I./STA. NO.			
ACCOUNT NO.			
CONSTRUCTION YEAR	2016		
DESIGN		JHR	
DRAWN		KMA	9-12-14
ASBUILT			
FILE NO.			
SCALE: NOTED			

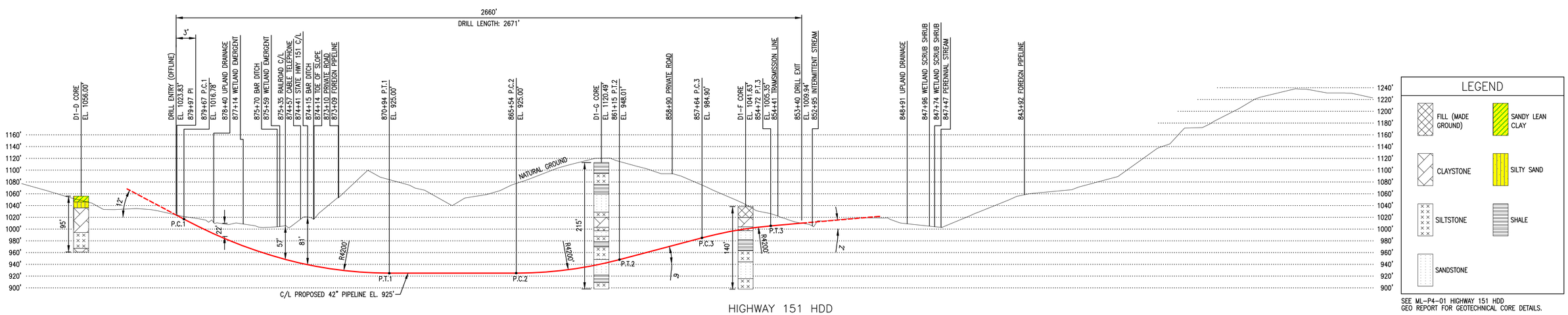
ROVER PIPELINE LLC

ROVER PIPELINE PROJECT
36" BURGETTSTOWN LATERAL – NG PIPELINE
OHIO RIVER HDD BACKSTRING
M.P. 14.78 TO M.P. 16.13
HANCOCK, WEST VIRGINIA TO JEFFERSON, OHIO

PROJECT NO. 588000000009
PREVIOUS DWG. NO.
SHEET 1 OF 1
DWG. NO. BG-P4-45_BS 0
SHEET 2 OF 2

09-27-16 13:31 14138 48 MFZ





SEE ML-P4-01 HIGHWAY 151 HDD GEO REPORT FOR GEOTECHNICAL CORE DETAILS.

HIGHWAY 151 HDD

PROFILE

HORIZONTAL SCALE: 1"= 200'
VERTICAL SCALE: 1"= 80'

SPECIFICATIONS:

CARRIER PIPE: 42.000" O.D. X 0.864" W.T. X-70
A.P.I. 5L PSL 2, DSAW, W/ 14-16 MILS FBE AND 40 MILS ARO
HYDROSTATIC PRE-TEST PRESSURE: 2160 PSIG MIN – 2220 PSIG MAX
DESIGN PRESSURE: MAOP 1,440 PSIG
LOCATION CLASS: 1
DESIGN FACTOR: 0.5

GENERAL NOTES:

1) GRID PROJECTION BASED UPON OHIO STATE PLANE COORDINATE SYSTEM, NORTH ZONE (GRID UNITS IN FEET) GEODETIC DATUM: NAD 1983, CLARKE SPHEROID, 1866.
2) CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL FOREIGN PIPELINE CROSSINGS AND COVER PRIOR TO CONSTRUCTION.
3) FOOT ACCESS FOR HDD GUIDED WIRE WILL BE REQUIRED 100 FT TO 200 FT BOTH SIDES OF CENTERLINE. HAND CLEARING OF TREES 3" DIAMETER AND SMALLER.
4) CONTRACTOR TO PROVIDE AS-BUILT DRAWING AND INFORMATION WITHIN 10 DAYS FROM BOREHOLE COMPLETION AND SHALL INCLUDE THE FOLLOWING AT A MINIMUM:
   - CAD (2010 OR HIGHER) AND PDF FILE OF PIPING PLAN AND PROFILE
   - TABLE OF PILOT HOLE DATA USED TO CREATE PLAN AND PROFILE DRAWINGS

CONTRACTOR HDD PLAN NOTES:

CONTRACTOR'S PROPOSED HDD PLAN AND ANY OF ITS SUBCONTRACTORS, VENDORS, OR SUPPLIERS UTILIZED TO PERFORM HORIZONTAL DIRECTIONAL DRILLS SHALL BE SUBMITTED TO COMPANY FOR APPROVAL A MINIMUM OF 30 DAYS PRIOR TO START OF DRILLING OPERATIONS. PLAN SHALL INCLUDE AT MINIMUM:

- CONTRACTORS' SITE SPECIFIC BORE PLAN AND PROFILE, SHOWING FOREIGN PIPELINES AND UTILITIES WITH FIELD VERIFIED ELEVATIONS, TOP OF BORE SEPARATION FROM UNDERGROUND UTILITIES, ROADS AND OTHER FEATURES, PLANNED MINIMUM DRILL RADIUS WITH PC AND PT POINTS
- CONTRACTORS EQUIPMENT AND SITE LAYOUT
- DRILLING PLAN AT A MINIMUM TO INCLUDE THE FOLLOWING: PILOT HOLE DRILL TOLERANCES, ANTICIPATED DOWN HOLE PRESSURE RANGE, EXPECTED PILOT AND REAMING PROCESS, EXPECTED PULL LOADS, SAFETY, GUIDANCE SYSTEM, CONTINGENCY PLANS, INADVERTENT RETURNS PLAN WITH NOTIFICATION PROCEDURES
- DRILLING FLUID AND POTENTIAL ADDITIVES (PROVIDE MSDS), AUTHORIZED DISPOSAL LOCATION (COMPANY TO APPROVE)
- BREAKOVER PROFILE WITH MINIMUM RADIUS, PIPE SUPPORT EQUIPMENT LOCATION WITH PIPE ELEVATION (COMPANY WILL EVALUATE PIPE STRESS) AND MAXIMUM ROLLER SPACING
- WATER SOURCE TO BE USED

ENVIRONMENTAL NOTES:

1) EROSION/SEDIMENT CONTROL STRUCTURES TO BE INSTALLED AND MAINTAINED TO MINIMIZE IMPACTS TO WETLANDS OR WATERBODIES.
2) ANY ON-LAND TRENCH DEWATERING TO BE DIRECTED TO WETLAND FILTER BAG AND/OR DEWATERING STRUCTURE IN AN UPLAND AREA TO MINIMIZE EROSION OF SEDIMENTATION TO WETLANDS/WATERBODIES.
3) PRE-CONSTRUCTION CONTOURS TO BE RE-ESTABLISHED FOR ALL DISTURBED AREAS. ALL DISTURBED AREAS TO BE RESTORED AND/OR REVEGETATED AS APPLICABLE.
4) EROSION/SEDIMENTATION CONTROL STRUCTURES TO REMAIN IN PLACE UNTIL RESTORATION AND REVEGETATION ARE DEEMED SUCCESSFUL.

LEGEND:

- PROPOSED MAINLINE A
- PROPOSED MAINLINE B
- PERMANENT EASEMENT
- TEMPORARY WORK SPACE
- ADDITIONAL TEMPORARY WORK SPACE
- ACCESS PATH
- GEOTECH CORE

ENVIRONMENTAL LEGEND:

- PERENNIAL STREAM
- EPHEMERAL STREAM
- INTERMITTENT STREAM
- NATURAL DRAINAGE
- WATERBODY
- WETLAND EMERGENT
- WETLAND FORESTED
- WETLAND SCRUB SHRUB

DWG. NO.	REFERENCE DRAWING TITLE
ML-P3-1019	ALIGNMENT
ML-P3-1018	ALIGNMENT

NO.	REVISION – DESCRIPTION	BY	DATE	CHK'D	APP'D
0	ISSUED FOR CONSTRUCTION	MFZ	7-25-16	CRF	JHR

STATE OF OHIO 9/15/16 JEFFREY H. RICHARDSON E-76938 REGISTERED PROFESSIONAL ENGINEER

PROJECT CONSULTING SERVICES, INC.
DBA PROJECT MANAGEMENT & CONSULTING, INC.
3300 WEST ESPLANADE AVE., S., SUITE 500
METAIRIE, LOUISIANA 70002
(504) 833-5321 fax (504) 833-4940
www.projectconsulting.com

DWG. STATUS	CHECKED BY	CHECKED DATE	APPROVED BY	APPROVED DATE	BY	DATE
PREL'Y						
BID	SM	8-5-15	LB	8-5-15		
CONSTR.	SM	4-25-16	LB	4-25-16		
CADDS	PLOT DATE:					
	FILE NAME:					

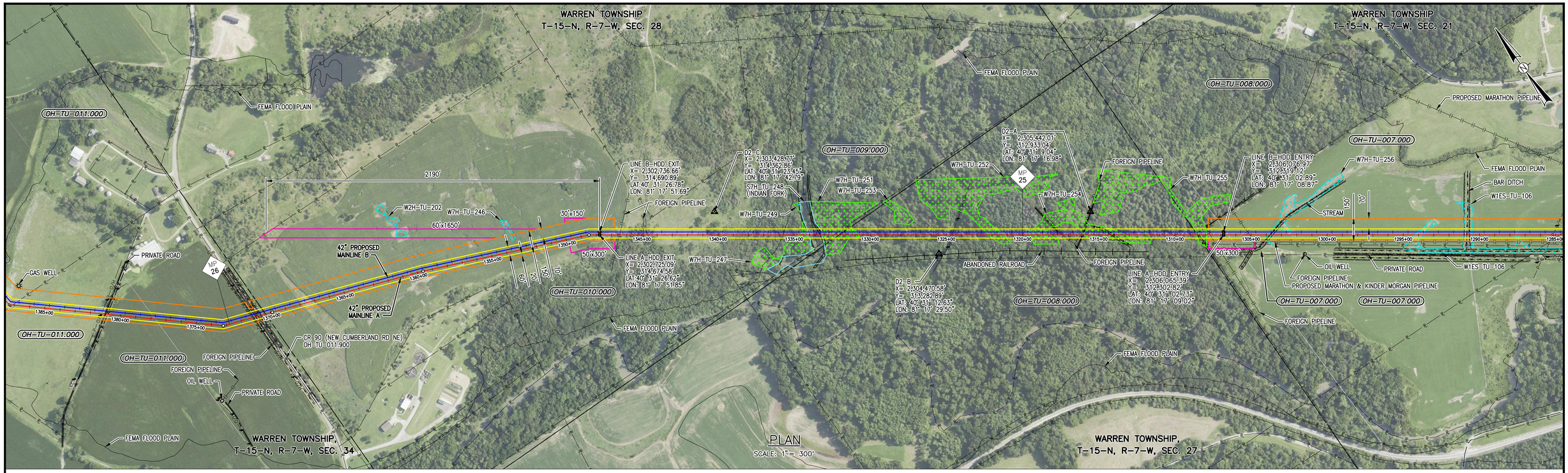
		BY	DATE
P.L./STA. NO.			
ACCOUNT NO.			
CONSTRUCTION YEAR	2016		
DESIGN		JHR	
DRAWN		NLM	10-1-14
ASBUILT			
FILE NO.			
SCALE: NOTED			

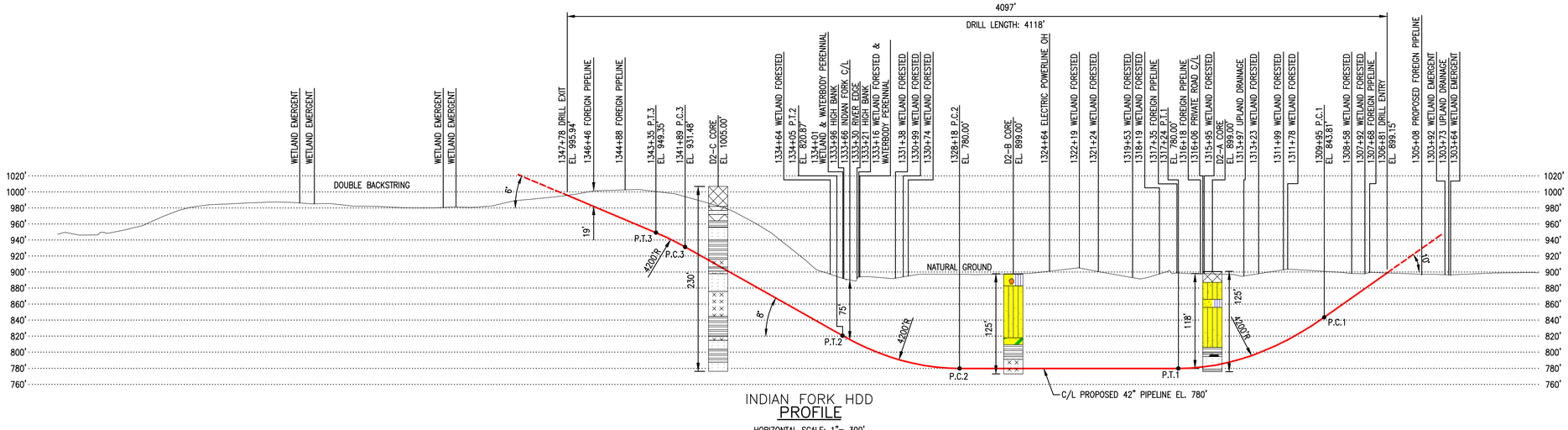
ROVER PIPELINE LLC

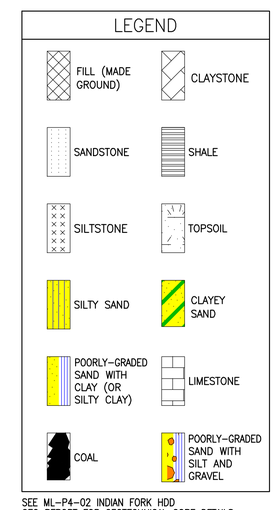
ROVER PIPELINE PROJECT
42" DUAL SUPPLY CONNECTOR LINE A & B – NG PIPELINE
HIGHWAY 151 HDD
M.P. 16.16 TO M.P. 16.67
HARRISON, OHIO

PROJECT NO. 588000000008
PREVIOUS DWG. NO.
SHEET 1 OF 1
DWG. NO. ML-P4-01 (0)
SHEET 1 OF 1

09-29-16 11:58 14138 47 KMA







SEE ML-P4-02 INDIAN FORK HDD GEO REPORT FOR GEOTECHNICAL CORE DETAILS.

SPECIFICATIONS:

CARRIER PIPE: 42.000" O.D. X 0.864" W.T. X-70
A.P.I. 5L PSL 2, DSAW, W/ 14-16 MILS FBE AND 40 MILS ARO
HYDROSTATIC PRE-TEST PRESSURE: 2160 PSIG MIN – 2220 PSIG MAX
DESIGN PRESSURE: MAOP 1,440 PSIG
LOCATION CLASS: 1
DESIGN FACTOR: 0.5

GENERAL NOTES:

1) GRID PROJECTION BASED UPON OHIO STATE PLANE COORDINATE SYSTEM, NORTH ZONE (GRID UNITS IN FEET) GEODETIC DATUM: NAD 1983, CLARKE SPHEROID, 1866.
2) CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL FOREIGN PIPELINE CROSSINGS AND COVER PRIOR TO CONSTRUCTION.
3) FOOT ACCESS FOR HDD GUIDED WIRE WILL BE REQUIRED 100 FT TO 200 FT BOTH SIDES OF CENTERLINE. HAND CLEARING OF TREES 3" DIAMETER AND SMALLER.
4) CONTRACTOR TO PROVIDE AS-BUILT DRAWING AND INFORMATION WITHIN 10 DAYS FROM BOREHOLE COMPLETION AND SHALL INCLUDE THE FOLLOWING AT A MINIMUM:
   - CAD (2010 OR HIGHER) AND PDF FILE OF PIPING PLAN AND PROFILE
   - TABLE OF PILOT HOLE DATA USED TO CREATE PLAN AND PROFILE DRAWINGS

CONTRACTOR HDD PLAN NOTES:

CONTRACTOR'S PROPOSED HDD PLAN AND ANY OF ITS SUBCONTRACTORS, VENDORS, OR SUPPLIERS UTILIZED TO PERFORM HORIZONTAL DIRECTIONAL DRILLS SHALL BE SUBMITTED TO COMPANY FOR APPROVAL A MINIMUM OF 30 DAYS PRIOR TO START OF DRILLING OPERATIONS. PLAN SHALL INCLUDE AT MINIMUM:

- CONTRACTORS' SITE SPECIFIC BORE PLAN AND PROFILE, SHOWING FOREIGN PIPELINES AND UTILITIES WITH FIELD VERIFIED ELEVATIONS, TOP OF BORE SEPARATION FROM UNDERGROUND UTILITIES, ROADS AND OTHER FEATURES, PLANNED MINIMUM DRILL RADIUS WITH PC AND PT POINTS
- CONTRACTORS EQUIPMENT AND SITE LAYOUT
- DRILLING PLAN AT A MINIMUM TO INCLUDE THE FOLLOWING: PILOT HOLE DRILL TOLERANCES, ANTICIPATED DOWN HOLE PRESSURE RANGE, EXPECTED PILOT AND REAMING PROCESS, EXPECTED PULL LOADS, SAFETY, GUIDANCE SYSTEM, CONTINGENCY PLANS, INADVERTENT RETURNS PLAN WITH NOTIFICATION PROCEDURES
- DRILLING FLUID AND POTENTIAL ADDITIVES (PROVIDE MSDS), AUTHORIZED DISPOSAL LOCATION (COMPANY TO APPROVE)
- BREAKOVER PROFILE WITH MINIMUM RADIUS, PIPE SUPPORT EQUIPMENT LOCATION WITH PIPE ELEVATION (COMPANY WILL EVALUATE PIPE STRESS) AND MAXIMUM ROLLER SPACING
- WATER SOURCE TO BE USED

ENVIRONMENTAL NOTES:

1) EROSION/SEDIMENT CONTROL STRUCTURES TO BE INSTALLED AND MAINTAINED TO MINIMIZE IMPACTS TO WETLANDS OR WATERBODIES.
2) ANY ON-LAND TRENCH DEWATERING TO BE DIRECTED TO WETLAND FILTER BAG AND/OR DEWATERING STRUCTURE IN AN UPLAND AREA TO MINIMIZE EROSION OF SEDIMENTATION TO WETLANDS/WATERBODIES.
3) PRE-CONSTRUCTION CONTOURS TO BE RE-ESTABLISHED FOR ALL DISTURBED AREAS. ALL DISTURBED AREAS TO BE RESTORED AND/OR REVEGETATED AS APPLICABLE.
4) EROSION/SEDIMENTATION CONTROL STRUCTURES TO REMAIN IN PLACE UNTIL RESTORATION AND REVEGETATION ARE DEEMED SUCCESSFUL.

LEGEND:

- PROPOSED MAINLINE A
- PROPOSED MAINLINE B
- PERMANENT EASEMENT
- TEMPORARY WORK SPACE
- ADDITIONAL TEMPORARY WORK SPACE
- ACCESS PATH
- GEOTECH CORE

ENVIRONMENTAL LEGEND:

- PERENNIAL STREAM
- EPHEMERAL STREAM
- INTERMITTENT STREAM
- NATURAL DRAINAGE
- WATERBODY
- WETLAND EMERGENT
- WETLAND FORESTED
- WETLAND SCRUB SHRUB

DWG. NO.	REFERENCE DRAWING TITLE
ML-P3-2008	ALIGNMENT
ML-P3-2007	ALIGNMENT

NO.	REVISION – DESCRIPTION	BY	DATE	CHK'D	APP'D
0	ISSUED FOR CONSTRUCTION	MFZ	7-25-16	CRF	JHR

STATE OF OHIO 41611 JEFFREY H. RICHARDSON E-76936 REGISTERED PROFESSIONAL ENGINEER

PROJECT CONSULTING SERVICES, INC.
DBA PROJECT MANAGEMENT & CONSULTING, INC.
3300 WEST ESPLANADE AVE., S., SUITE 500
METAIRIE, LA 70002-7001
(504) 832-3223 FAX (504) 833-4940
www.projectconsulting.com

DWG. STATUS	CHECKED BY	CHECKED DATE	APPROVED BY	APPROVED DATE	BY	DATE
PREL'Y						
BID	SM	8-5-15	LB	8-5-15		
CONSTR.	SM	4-25-16	LB	4-25-16		
CADDS	PLOT DATE:					
	FILE NAME:					

		BY	DATE
P.L./STA. NO.			
ACCOUNT NO.			
CONSTRUCTION YEAR	2016		
DESIGN		JHR	
DRAWN		NLM	9-18-14
ASBUILT			
FILE NO.			
SCALE: NOTED			

ROVER PIPELINE LLC

ROVER PIPELINE PROJECT
42" DUAL MAINLINE A & B – NG PIPELINE
INDIAN FORK HDD
M.P. 24.75 TO M.P. 25.53
TUSCARAWAS, OHIO

PROJECT NO. 588000000008
PREVIOUS DWG. NO.
SHEET 1 OF 1
DWG. NO. ML-P4-02 (0)
SHEET 1 OF 1

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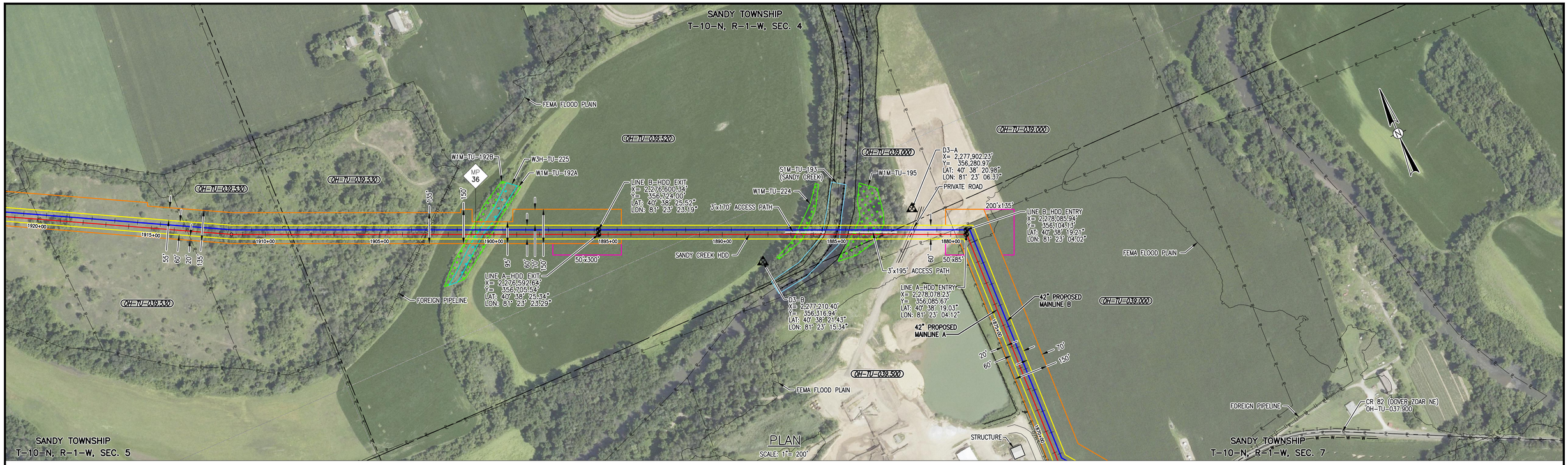

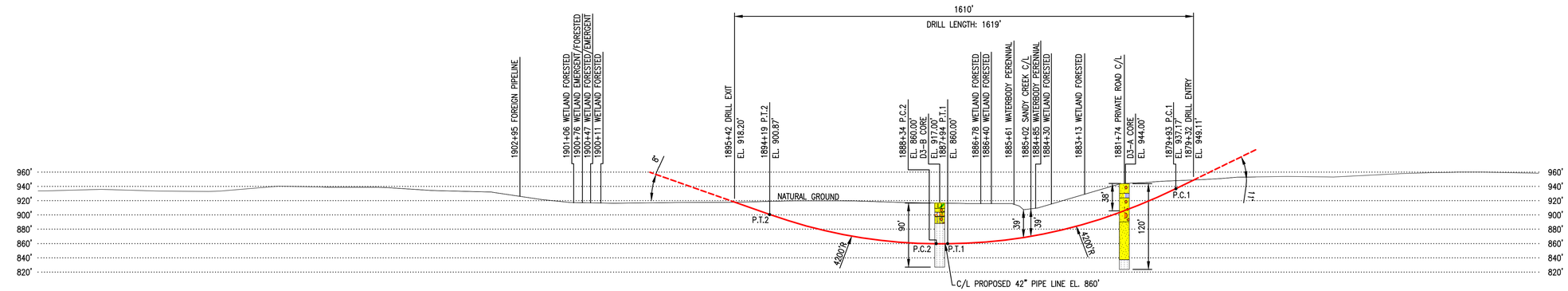

SANDY CREEK

PROFILE

HORIZONTAL SCALE: 1" = 200'
VERTICAL SCALE: 1" = 80'

LEGEND

- TOPSOIL
- SILTY SAND WITH GRAVEL
- SILTY CLAYEY SAND
- SANDSTONE
- POORLY GRADED SAND WITH GRAVEL
- POORLY-GRADED SAND WITH CLAY (OR SILTY CLAY)
- SILTY SAND WITH GRAVEL
- USCS POORLY-GRADED SAND WITH SILT
- CLAYEY SAND W/GRAVEL

SEE ML-P4-03 SANDY CREEK HDD GEO REPORT FOR GEOTECHNICAL CORE DETAILS.

SPECIFICATIONS:

CARRIER PIPE: 42.000" O.D. X 0.864" W.T. X-70
A.P.I. 5L PSL 2, DSAW, W/ 14-16 MILS FBE AND 40 MILS ARO
HYDROSTATIC PRE-TEST PRESSURE: 2160 PSIG MIN – 2220 PSIG MAX
DESIGN PRESSURE: MAOP 1,440 PSIG
LOCATION CLASS: 1
DESIGN FACTOR: 0.5

GENERAL NOTES:

1) GRID PROJECTION BASED UPON OHIO STATE PLANE COORDINATE SYSTEM, NORTH ZONE (GRID UNITS IN FEET) GEODETIC DATUM: NAD 1983, CLARKE SPHEROID, 1866.
2) CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL FOREIGN PIPELINE CROSSINGS AND COVER PRIOR TO CONSTRUCTION.

GENERAL NOTES CONT.:

3) FOOT ACCESS FOR HDD GUIDED WIRE WILL BE REQUIRED 100 FT TO 200 FT BOTH SIDES OF CENTERLINE. HAND CLEARING OF TREES 3" DIAMETER AND SMALLER.
4) ROUTING OF ACCESS PATHS THROUGH FORESTED AREAS TO OBTAIN WATER FOR HDDS OR PIPELINE TESTING MAY VARY TO MINIMIZE IMPACTS TO TREES, BUT WILL BE NO MORE THAN 3 FT WIDE AND WILL GENERALLY FOLLOW THE PIPELINE CENTERLINE.
5) CONTRACTOR TO PROVIDE AS-BUILT DRAWING AND INFORMATION WITHIN 10 DAYS FROM BOREHOLE COMPLETION AND SHALL INCLUDE THE FOLLOWING AT A MINIMUM:
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   - TABLE OF PILOT HOLE DATA USED TO CREATE PLAN AND PROFILE DRAWINGS

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- CONTRACTORS EQUIPMENT AND SITE LAYOUT
- DRILLING PLAN AT A MINIMUM TO INCLUDE THE FOLLOWING: PILOT HOLE DRILL TOLERANCES, ANTICIPATED DOWN HOLE PRESSURE RANGE, EXPECTED PILOT AND REAMING PROCESS, EXPECTED PULL LOADS, SAFETY, GUIDANCE SYSTEM, CONTINGENCY PLANS, INADVERTENT RETURNS PLAN WITH NOTIFICATION PROCEDURES
- DRILLING FLUID AND POTENTIAL ADDITIVES (PROVIDE MSDS), AUTHORIZED DISPOSAL LOCATION (COMPANY TO APPROVE)
- BREAKOVER PROFILE WITH MINIMUM RADIUS, PIPE SUPPORT EQUIPMENT LOCATION WITH PIPE ELEVATION (COMPANY WILL EVALUATE PIPE STRESS) AND MAXIMUM ROLLER SPACING
- WATER SOURCE TO BE USED

ENVIRONMENTAL NOTES:

1) EROSION/SEDIMENT CONTROL STRUCTURES TO BE INSTALLED AND MAINTAINED TO MINIMIZE IMPACTS TO WETLANDS OR WATERBODIES.
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4) EROSION/SEDIMENTATION CONTROL STRUCTURES TO REMAIN IN PLACE UNTIL RESTORATION AND REVEGETATION ARE DEEMED SUCCESSFUL.

LEGEND:

- PROPOSED MAINLINE A
- PROPOSED MAINLINE B
- PERMANENT EASEMENT
- TEMPORARY WORK SPACE
- ADDITIONAL TEMPORARY WORK SPACE
- ACCESS PATH
- GEOTECH CORE

ENVIRONMENTAL LEGEND:

- PERENNIAL STREAM
- EPHEMERAL STREAM
- INTERMITTENT STREAM
- NATURAL DRAINAGE
- WATERBODY
- WETLAND EMERGENT
- WETLAND FORESTED
- WETLAND SCRUB SHRUB

DWG. NO.	REFERENCE DRAWING TITLE
ML-P3-2018	ALIGNMENT

NO.	REVISION – DESCRIPTION	BY	DATE	CHK'D	APP'D
0	ISSUED FOR CONSTRUCTION	MFZ	7-25-16	CRF	JHR

STATE OF OHIO
JEFFREY H. RICHARDSON
E-76936
9/15/16
REGISTERED PROFESSIONAL ENGINEER

Project Consulting Services, Inc.
DBA PROJECT MANAGEMENT & CONSULTING, INC.
3300 WEST MT. HOPE HIGHWAY, SUITE 500
LANSING, MI 48911 (517) 393-7426
(504) 833-5321 Fax (504) 833-4940
www.projectconsulting.com

DWG. STATUS	CHECKED BY	CHECKED DATE	APPROVED BY	APPROVED DATE	BY	DATE
PREL'Y						
BID	SM	8-5-15	LB	8-5-15		
CONSTR.	SM	4-25-16	LB	4-25-16		
CADDS	PLOT DATE:					
	FILE NAME:					

P.L./STA. NO.
ACCOUNT NO.

CONSTRUCTION YEAR		2016
	BY	DATE
DESIGN	JHR	
DRAWN	NLM	9-24-14
ASBUILT		

FILE NO.
SCALE: NOTED

ROVER PIPELINE LLC

ROVER PIPELINE PROJECT
42" DUAL MAINLINE A & B – NG PIPELINE
SANDY CREEK HDD
M.P. 35.59 TO M.P. 35.90
TUSCARAWAS, OHIO

PROJECT NO. 588000000008
PREVIOUS DWG. NO.
SHEET 1 OF 1
DWG. NO. ML-P4-03 (0)
SHEET 1 OF 1

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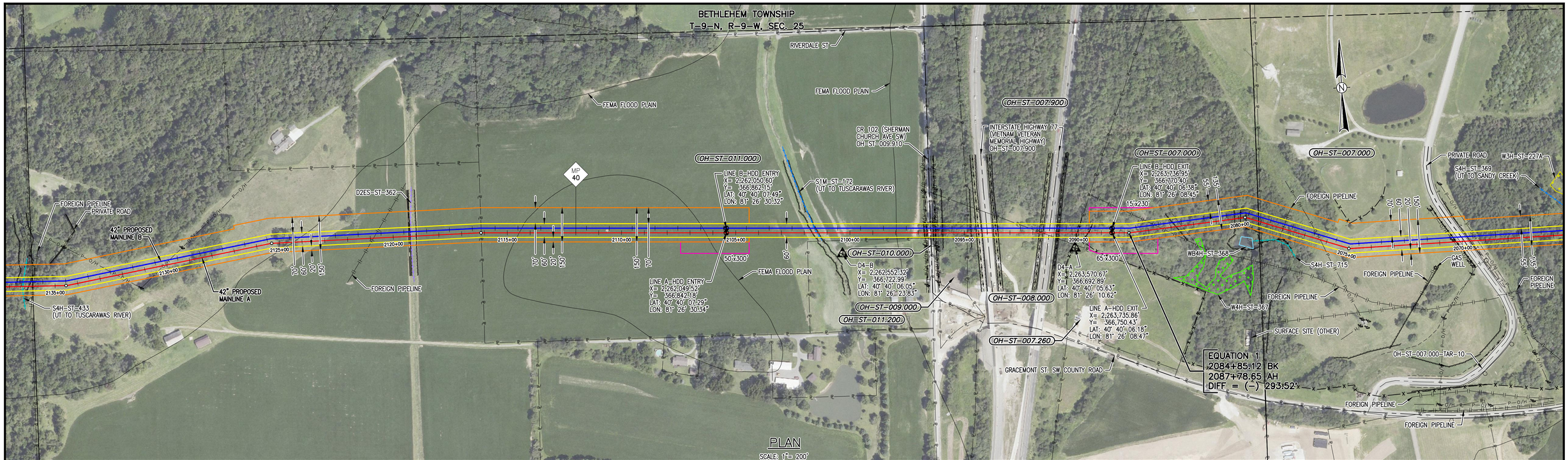

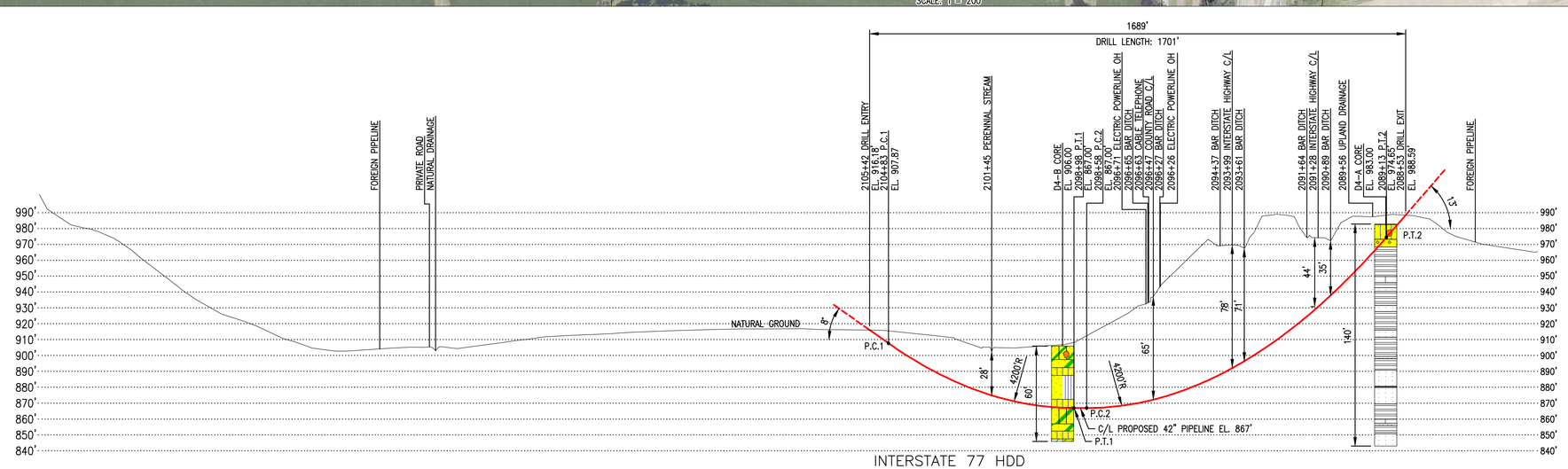

INTERSTATE 77 HDD
PROFILE

HORIZONTAL SCALE: 1"= 200'
VERTICAL SCALE: 1"= 40'

LEGEND

- SILTY CLAYEY SAND W/GRAVEL
- LEAN CLAY WITH SAND
- LIMESTONE
- CLAYEY SAND
- TOPSOIL
- SANDSTONE
- SILTY SAND
- WELL-GRADED SAND
- SILTSTONE
- POORLY-GRADED SAND WITH CLAY (OR SILTY CLAY)
- SILTY SAND WITH GRAVEL
- SILTY CLAYEY SAND
- SHALE

SEE ML-P4-04 I-77 HDD GEO REPORT FOR GEOTECHNICAL CORE DETAILS.

SPECIFICATIONS:

CARRIER PIPE: 42.000" O.D. X 0.864" W.T. X-70
A.P.I. 5L PSL 2, DSAW, W/ 14-16 MILS FBE AND 40 MILS ARO
HYDROSTATIC PRE-TEST PRESSURE: 2160 PSIG MIN - 2220 PSIG MAX
DESIGN PRESSURE: MAOP 1,440 PSIG
LOCATION CLASS: 1
DESIGN FACTOR: 0.5

GENERAL NOTES:

1) GRID PROJECTION BASED UPON OHIO STATE PLANE COORDINATE SYSTEM, NORTH ZONE (GRID UNITS IN FEET) GEODETIC DATUM: NAD 1983, CLARKE SPHEROID, 1866.
2) CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL FOREIGN PIPELINE CROSSINGS AND COVER PRIOR TO CONSTRUCTION.
3) FOOT ACCESS FOR HDD GUIDED WIRE WILL BE REQUIRED 100 FT TO 200 FT BOTH SIDES OF CENTERLINE. HAND CLEARING OF TREES 3" DIAMETER AND SMALLER.
4) CONTRACTOR TO PROVIDE AS-BUILT DRAWING AND INFORMATION WITHIN 10 DAYS FROM BOREHOLE COMPLETION AND SHALL INCLUDE THE FOLLOWING AT A MINIMUM:
   - CAD (2010 OR HIGHER) AND PDF FILE OF PIPING PLAN AND PROFILE
   - TABLE OF PILOT HOLE DATA USED TO CREATE PLAN AND PROFILE DRAWINGS

CONTRACTOR HDD PLAN NOTES:

CONTRACTOR'S PROPOSED HDD PLAN AND ANY OF ITS SUBCONTRACTORS, VENDORS, OR SUPPLIERS UTILIZED TO PERFORM HORIZONTAL DIRECTIONAL DRILLS SHALL BE SUBMITTED TO COMPANY FOR APPROVAL A MINIMUM OF 30 DAYS PRIOR TO START OF DRILLING OPERATIONS. PLAN SHALL INCLUDE AT MINIMUM:

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- CONTRACTORS EQUIPMENT AND SITE LAYOUT
- DRILLING PLAN AT A MINIMUM TO INCLUDE THE FOLLOWING: PILOT HOLE DRILL TOLERANCES, ANTICIPATED DOWN HOLE PRESSURE RANGE, EXPECTED PILOT AND REAMING PROCESS, EXPECTED PULL LOADS, SAFETY, GUIDANCE SYSTEM, CONTINGENCY PLANS, INADVERTENT RETURNS PLAN WITH NOTIFICATION PROCEDURES
- DRILLING FLUID AND POTENTIAL ADDITIVES (PROVIDE MSDS), AUTHORIZED DISPOSAL LOCATION (COMPANY TO APPROVE)
- BREAKOVER PROFILE WITH MINIMUM RADIUS, PIPE SUPPORT EQUIPMENT LOCATION WITH PIPE ELEVATION (COMPANY WILL EVALUATE PIPE STRESS) AND MAXIMUM ROLLER SPACING
- WATER SOURCE TO BE USED

ENVIRONMENTAL NOTES:

1) EROSION/SEDIMENT CONTROL STRUCTURES TO BE INSTALLED AND MAINTAINED TO MINIMIZE IMPACTS TO WETLANDS OR WATERBODIES.
2) ANY ON-LAND TRENCH DEWATERING TO BE DIRECTED TO WETLAND FILTER BAG AND/OR DEWATERING STRUCTURE IN AN UPLAND AREA TO MINIMIZE EROSION OF SEDIMENTATION TO WETLANDS/WATERBODIES.
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4) EROSION/SEDIMENTATION CONTROL STRUCTURES TO REMAIN IN PLACE UNTIL RESTORATION AND REVEGETATION ARE DEEMED SUCCESSFUL.

LEGEND:

- PROPOSED MAINLINE A
- PROPOSED MAINLINE B
- PERMANENT EASEMENT
- TEMPORARY WORK SPACE
- ADDITIONAL TEMPORARY WORK SPACE
- ACCESS PATH
- GEOTECH CORE

ENVIRONMENTAL LEGEND:

- PERENNIAL STREAM
- EPHEMERAL STREAM
- INTERMITTENT STREAM
- NATURAL DRAINAGE
- WATERBODY
- WETLAND EMERGENT
- WETLAND FORESTED
- WETLAND SCRUB SHRUB

DWG. NO.	REFERENCE DRAWING TITLE
ML-P3-2022	ALIGNMENT

NO.	REVISION - DESCRIPTION	BY	DATE	CHK'D	APP'D
0	ISSUED FOR CONSTRUCTION	MFZ	7-25-16	CRF	JHR

STATE OF OHIO 7/25/16 JEFFREY H. RICHARDSON E-76936 REGISTERED PROFESSIONAL ENGINEER

Jeffrey H. Richardson

PROJECT CONSULTING SERVICES, INC.
DBA PROJECT MANAGEMENT & CONSULTING, INC.
3300 WEST EDPLANDS AVE., S., SUITE 500
CHARLESTON, WV 25312
(304) 803-5321 Fax (304) 803-4940
www.projectconsulting.com

DWG. STATUS	CHECKED BY	CHECKED DATE	APPROVED BY	APPROVED DATE	BY	DATE
PREL'Y						
BID	SM	8-5-15	LB	8-5-15		
CONSTR.	SM	4-25-16	LB	4-25-16		
CADDS	PLOT DATE:		FILE NAME:			

P.L./STA. NO.			
ACCOUNT NO.			
CONSTRUCTION YEAR			2016
	BY	DATE	
DESIGN	JHR		
DRAWN	KMA	9-18-14	
ASBUILT			
FILE NO.			
SCALE: NOTED			

ROVER PIPELINE LLC

ROVER PIPELINE PROJECT
42" DUAL MAINLINE A & B - NG PIPELINE
INTERSTATE 77 HDD
M.P. 39.87 TO M.P. 39.56
STARK, OHIO

PROJECT NO. 588000000008
PREVIOUS DWG. NO.
SHEET 1 OF 1
DWG. NO. ML-P4-04 (0)
SHEET 1 OF 1

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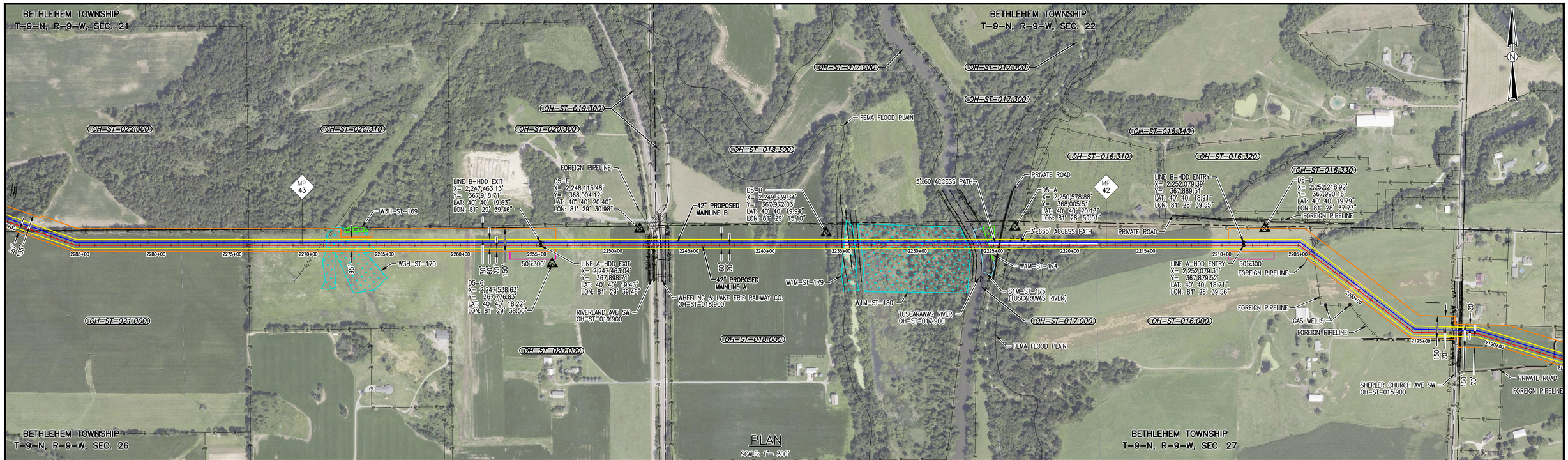

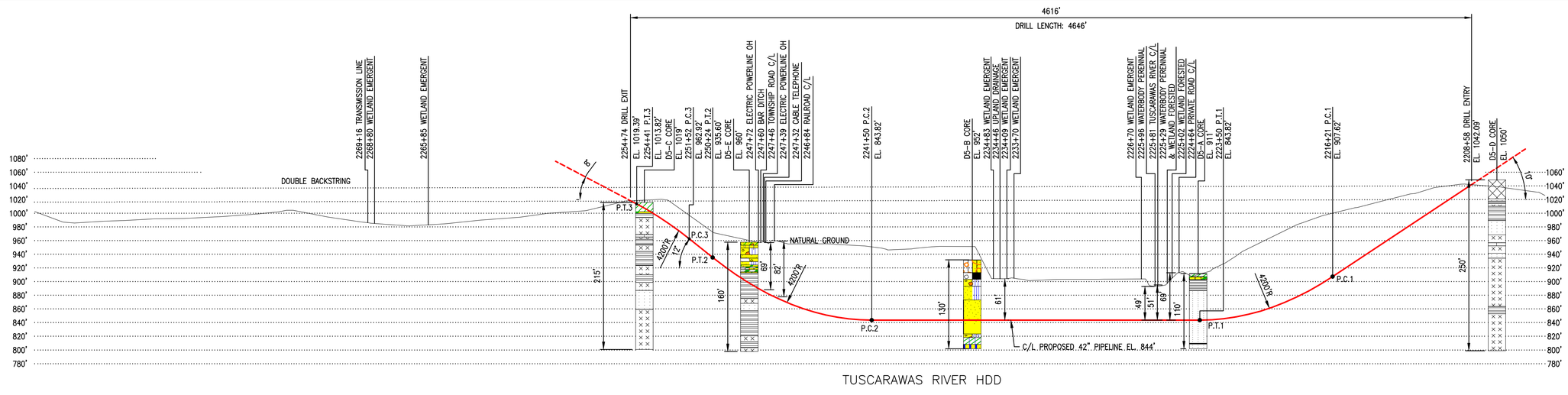

TUSCARAWAS RIVER HDD

PROFILE

HORIZONTAL SCALE: 1"= 300'
VERTICAL SCALE: 1"= 80'

LEGEND

TOPSOIL
LEAN CLAY
SILTY CLAYEY SAND
SHALE
SANDSTONE
LEAN CLAY WITH SILT
FILL (MADE GROUND)
HIGH PLASTICITY CLAY – CH
SILTY GRAVEL WITH SAND
WELL-GRADED GRAVEL WITH SILT AND SAND
WELL-GRADED SAND WITH SILT & GRAVEL
POORLY-GRADED SAND WITH SILT (OR SILTY CLAY)
USCS POORLY-GRADED SAND WITH SILT
SANDY SILT
WELL-GRADED GRAVEL W/SAND
SANDY LEAN CLAY
FAT CLAYEY SAND
SILTSTONE
LIMESTONE
SILTY SAND WITH GRAVEL
SANDY LEAN CLAY W/GRAVEL
CLAYEY SAND W/GRAVEL
SILT WITH SAND

SEE ML-P4-05 TUSCARAWAS RIVER HDD GEO REPORT FOR GEOTECHNICAL CORE DETAILS.

SPECIFICATIONS:

CARRIER PIPE: 42.000" O.D. X 0.864" W.T. X-70
A.P.I. 5L PSL 2, DSAW, W/ 14-16 MILS FBE AND 40 MILS ARO
HYDROSTATIC PRE-TEST PRESSURE: 2160 PSIG MIN – 2220 PSIG MAX
DESIGN PRESSURE: MAOP 1,440 PSIG
LOCATION CLASS: 2
DESIGN FACTOR: 0.5

GENERAL NOTES:

1) GRID PROJECTION BASED UPON OHIO STATE PLANE COORDINATE SYSTEM, NORTH ZONE (GRID UNITS IN FEET) GEODETIC DATUM: NAD 1983, CLARKE SPHEROID, 1866.
2) CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL FOREIGN PIPELINE CROSSINGS AND COVER PRIOR TO CONSTRUCTION.

GENERAL NOTES CONT.:

3) FOOT ACCESS FOR HDD GUIDED WIRE WILL BE REQUIRED 100 FT TO 200 FT BOTH SIDES OF CENTERLINE. HAND CLEARING OF TREES 3" DIAMETER AND SMALLER.
4) ROUTING OF ACCESS PATHS THROUGH FORESTED AREAS TO OBTAIN WATER FOR HDDS OR PIPELINE TESTING MAY VARY TO MINIMIZE IMPACTS TO TREES, BUT WILL BE NO MORE THAN 3 FT WIDE AND WILL GENERALLY FOLLOW THE PIPELINE CENTERLINE.
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   - TABLE OF PILOT HOLE DATA USED TO CREATE PLAN AND PROFILE DRAWINGS

CONTRACTOR HDD PLAN NOTES:

CONTRACTOR'S PROPOSED HDD PLAN AND ANY OF ITS SUBCONTRACTORS, VENDORS, OR SUPPLIERS UTILIZED TO PERFORM HORIZONTAL DIRECTIONAL DRILLS SHALL BE SUBMITTED TO COMPANY FOR APPROVAL A MINIMUM OF 30 DAYS PRIOR TO START OF DRILLING OPERATIONS. PLAN SHALL INCLUDE AT MINIMUM:

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- CONTRACTORS EQUIPMENT AND SITE LAYOUT
- DRILLING PLAN AT A MINIMUM TO INCLUDE THE FOLLOWING: PILOT HOLE DRILL TOLERANCES, ANTICIPATED DOWN HOLE PRESSURE RANGE, EXPECTED PILOT AND REAMING PROCESS, EXPECTED PULL LOADS, SAFETY, GUIDANCE SYSTEM, CONTINGENCY PLANS, INADVERTENT RETURNS PLAN WITH NOTIFICATION PROCEDURES
- DRILLING FLUID AND POTENTIAL ADDITIVES (PROVIDE MSDS), AUTHORIZED DISPOSAL LOCATION (COMPANY TO APPROVE)
- BREAKOVER PROFILE WITH MINIMUM RADIUS, PIPE SUPPORT EQUIPMENT LOCATION WITH PIPE ELEVATION (COMPANY WILL EVALUATE PIPE STRESS) AND MAXIMUM ROLLER SPACING
- WATER SOURCE TO BE USED

ENVIRONMENTAL NOTES:

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2) ANY ON-LAND TRENCH DEWATERING TO BE DIRECTED TO WETLAND FILTER BAG AND/OR DEWATERING STRUCTURE IN AN UPLAND AREA TO MINIMIZE EROSION OF SEDIMENTATION TO WETLANDS/WATERBODIES.
3) PRE-CONSTRUCTION CONTOURS TO BE RE-ESTABLISHED FOR ALL DISTURBED AREAS. ALL DISTURBED AREAS TO BE RESTORED AND/OR REVEGETATED AS APPLICABLE.
4) EROSION/SEDIMENTATION CONTROL STRUCTURES TO REMAIN IN PLACE UNTIL RESTORATION AND REVEGETATION ARE DEEMED SUCCESSFUL.

LEGEND:

- PROPOSED MAINLINE A
- PROPOSED MAINLINE B
- PERMANENT EASEMENT
- TEMPORARY WORK SPACE
- ADDITIONAL TEMPORARY WORK SPACE
- ACCESS PATH
- GEOTECH CORE

ENVIRONMENTAL LEGEND:

- PERENNIAL STREAM
- EPHEMERAL STREAM
- INTERMITTENT STREAM
- NATURAL DRAINAGE
- WATERBODY
- WETLAND EMERGENT
- WETLAND FORESTED
- WETLAND SCRUB SHRUB

DWG. NO.	REFERENCE DRAWING TITLE
ML-P3-3004	ALIGNMENT
ML-P3-3003	ALIGNMENT

NO.	REVISION – DESCRIPTION	BY	DATE	CHK'D	APP'D
0	ISSUED FOR CONSTRUCTION	MFZ	7-25-16	CRF	JHR

STATE OF OHIO 4/5/16 JEFFREY H. RICHARDSON E-76936 REGISTERED PROFESSIONAL ENGINEER

Jeffrey H. Richardson

PROJECT CONSULTING SERVICES, INC.
DBA PROJECT MANAGEMENT & CONSULTING, INC.
3300 WEST EDPLANADE AVE., L, SUITE 500
MIDDLEBURG HEIGHTS, OHIO
(304) 843-1021 Fax (304) 843-4940
www.projectconsulting.com

DWG. STATUS	CHECKED BY	CHECKED DATE	APPROVED BY	APPROVED DATE	BY	DATE
PREL'Y						
BID	SM	8-5-15	LB	8-5-15		
CONSTR.	SM	4-25-16	LB	4-25-16		
CADDS	PLOT DATE:					
	FILE NAME:					

P.L./STA. NO.
ACCOUNT NO.

CONSTRUCTION YEAR	BY	DATE
2016		
DESIGN	JHR	
DRAWN	NLM	9-25-14
ASBUILT		
FILE NO.		
SCALE: NOTED		

ROVER PIPELINE LLC

ROVER PIPELINE PROJECT
42" DUAL MAINLINE A & B – NG PIPELINE
TUSCARAWAS RIVER HDD
M.P. 41.83 TO M.P. 42.70
STARK, OHIO

PROJECT NO. 588000000008
PREVIOUS DWG. NO.
SHEET 1 OF 1
DWG. NO. ML-P4-05 (0)
SHEET 1 OF 1

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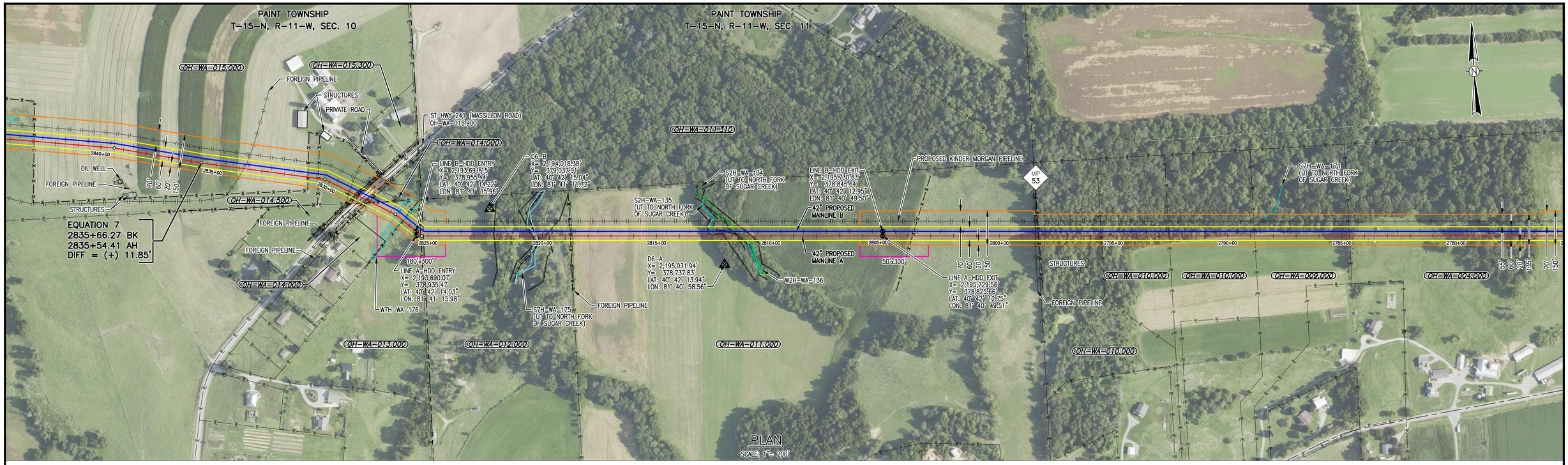

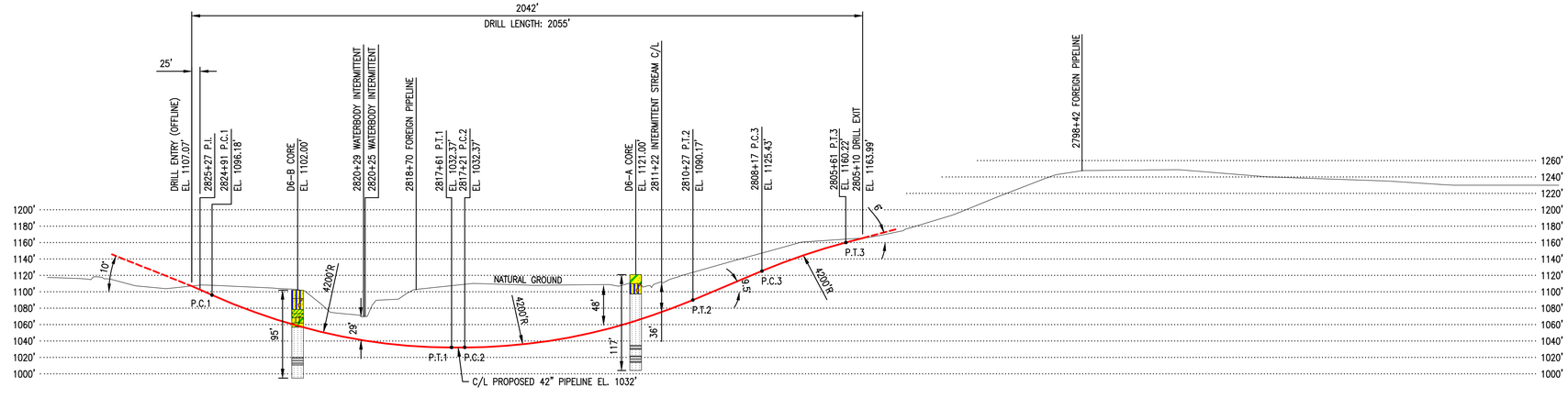

STREAM AT HIGHWAY 241 HDD

PROFILE

HORIZONTAL SCALE: 1"= 200'
VERTICAL SCALE: 1"= 80'

LEGEND

- SANDY SILT
- CLAYEY SAND W/GRAVEL
- SANDY SILT WITH GRAVEL
- SANDSTONE
- SANDY LEAN CLAY
- CLAYEY SAND
- SANDY LEAN CLAY WITH GRAVEL
- SHALE
- SILTY CLAYEY SAND

SEE ML-P4-06 NEAR HIGHWAY 241 HDD GEO REPORT FOR GEOTECHNICAL CORE DETAILS.

SPECIFICATIONS:

CARRIER PIPE: 42.000" O.D. X 0.864" W.T. X-70
A.P.I. 5L PSL 2, DSAW, W/ 14-16 MILS FBE AND 26 MILS ARO
HYDROSTATIC PRE-TEST PRESSURE: 2160 PSIG MIN - 2220 PSIG MAX
DESIGN PRESSURE: MAOP 1,440 PSIG
LOCATION CLASS: 1
DESIGN FACTOR: 0.5

GENERAL NOTES:

1) GRID PROJECTION BASED UPON OHIO STATE PLANE COORDINATE SYSTEM, NORTH ZONE (GRID UNITS IN FEET) GEODETIC DATUM: NAD 1983, CLARKE SPHEROID, 1866.
2) CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL FOREIGN PIPELINE CROSSINGS AND COVER PRIOR TO CONSTRUCTION.
3) FOOT ACCESS FOR HDD GUIDED WIRE WILL BE REQUIRED 100 FT TO 200 FT BOTH SIDES OF CENTERLINE. HAND CLEARING OF TREES 3" DIAMETER AND SMALLER.
4) CONTRACTOR TO PROVIDE AS-BUILT DRAWING AND INFORMATION WITHIN 10 DAYS FROM BOREHOLE COMPLETION AND SHALL INCLUDE THE FOLLOWING AT A MINIMUM:
   - CAD (2010 OR HIGHER) AND PDF FILE OF PIPING PLAN AND PROFILE
   - TABLE OF PILOT HOLE DATA USED TO CREATE PLAN AND PROFILE DRAWINGS

CONTRACTOR HDD PLAN NOTES:

CONTRACTOR'S PROPOSED HDD PLAN AND ANY OF ITS SUBCONTRACTORS, VENDORS, OR SUPPLIERS UTILIZED TO PERFORM HORIZONTAL DIRECTIONAL DRILLS SHALL BE SUBMITTED TO COMPANY FOR APPROVAL A MINIMUM OF 30 DAYS PRIOR TO START OF DRILLING OPERATIONS. PLAN SHALL INCLUDE AT MINIMUM:

- CONTRACTORS' SITE SPECIFIC BORE PLAN AND PROFILE, SHOWING FOREIGN PIPELINES AND UTILITIES WITH FIELD VERIFIED ELEVATIONS, TOP OF BORE SEPARATION FROM UNDERGROUND UTILITIES, ROADS AND OTHER FEATURES, PLANNED MINIMUM DRILL RADIUS WITH PC AND PT POINTS
- CONTRACTORS EQUIPMENT AND SITE LAYOUT
- DRILLING PLAN AT A MINIMUM TO INCLUDE THE FOLLOWING: PILOT HOLE DRILL TOLERANCES, ANTICIPATED DOWN HOLE PRESSURE RANGE, EXPECTED PILOT AND REAMING PROCESS, EXPECTED PULL LOADS, SAFETY, GUIDANCE SYSTEM, CONTINGENCY PLANS, INADVERTENT RETURNS PLAN WITH NOTIFICATION PROCEDURES
- DRILLING FLUID AND POTENTIAL ADDITIVES (PROVIDE MSDS), AUTHORIZED DISPOSAL LOCATION (COMPANY TO APPROVE)
- BREAKOVER PROFILE WITH MINIMUM RADIUS, PIPE SUPPORT EQUIPMENT LOCATION WITH PIPE ELEVATION (COMPANY WILL EVALUATE PIPE STRESS) AND MAXIMUM ROLLER SPACING
- WATER SOURCE TO BE USED

ENVIRONMENTAL NOTES:

1) EROSION/SEDIMENT CONTROL STRUCTURES TO BE INSTALLED AND MAINTAINED TO MINIMIZE IMPACTS TO WETLANDS OR WATERBODIES.
2) ANY ON-LAND TRENCH DEWATERING TO BE DIRECTED TO WETLAND FILTER BAG AND/OR DEWATERING STRUCTURE IN AN UPLAND AREA TO MINIMIZE EROSION OF SEDIMENTATION TO WETLANDS/WATERBODIES.
3) PRE-CONSTRUCTION CONTOURS TO BE RE-ESTABLISHED FOR ALL DISTURBED AREAS. ALL DISTURBED AREAS TO BE RESTORED AND/OR REVEGETATED AS APPLICABLE.
4) EROSION/SEDIMENTATION CONTROL STRUCTURES TO REMAIN IN PLACE UNTIL RESTORATION AND REVEGETATION ARE DEEMED SUCCESSFUL.

LEGEND:

- PROPOSED MAINLINE A
- PROPOSED MAINLINE B
- PERMANENT EASEMENT
- TEMPORARY WORK SPACE
- ADDITIONAL TEMPORARY WORK SPACE
- ACCESS PATH
- GEOTECH CORE

ENVIRONMENTAL LEGEND:

- PERENNIAL STREAM
- EPHEMERAL STREAM
- INTERMITTENT STREAM
- NATURAL DRAINAGE
- WATERBODY
- WETLAND EMERGENT
- WETLAND FORESTED
- WETLAND SCRUB SHRUB

DWG. NO.	REFERENCE DRAWING TITLE
ML-P3-3014	ALIGNMENT

NO.	REVISION - DESCRIPTION	BY	DATE	CHK'D	APP'D
0	ISSUED FOR CONSTRUCTION	MFZ	7-25-16	CRF	JHR

STATE OF OHIO 9/15/14 JEFFREY H. RICHARDSON E-76936 REGISTERED PROFESSIONAL ENGINEER

Project Consulting Services, Inc.
DBA PROJECT MANAGEMENT & CONSULTING, INC.
3300 WEST ESPLANADE AVE., S., SUITE 500
METAIRIE, LA 70002-7406
(504) 833-5321 Fax (504) 833-4940
www.projectconsulting.com

DWG. STATUS	CHECKED BY	CHECKED DATE	APPROVED BY	APPROVED DATE	BY	DATE
PREL'Y						
BID	SM	8-5-15	LB	8-5-15		
CONSTR.	SM	4-25-16	LB	4-25-16		
CADDS	PLOT DATE:					
	FILE NAME:					

P.I./STA. NO.
ACCOUNT NO.

CONSTRUCTION YEAR	BY	DATE
2016		
DESIGN	JHR	
DRAWN	NLM	10-1-14
ASBUILT		
FILE NO.		
SCALE: NOTED		

ROVER PIPELINE LLC

ROVER PIPELINE PROJECT
42" DUAL MAINLINE A & B - NG PIPELINE
STREAM AT HIGHWAY 241 HDD
M.P. 53.13 TO M.P 53.51
WAYNE, OHIO

PROJECT NO. 588000000008
PREVIOUS DWG. NO.
SHEET 1 OF 1
DWG. NO. ML-P4-06 (0)
SHEET 1 OF 1

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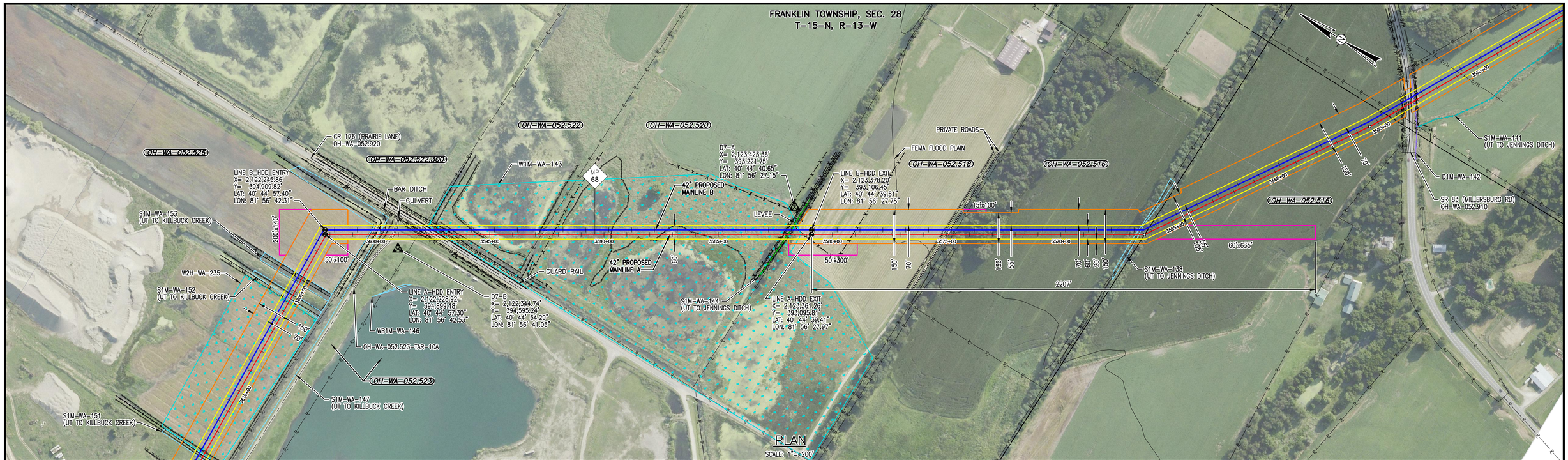
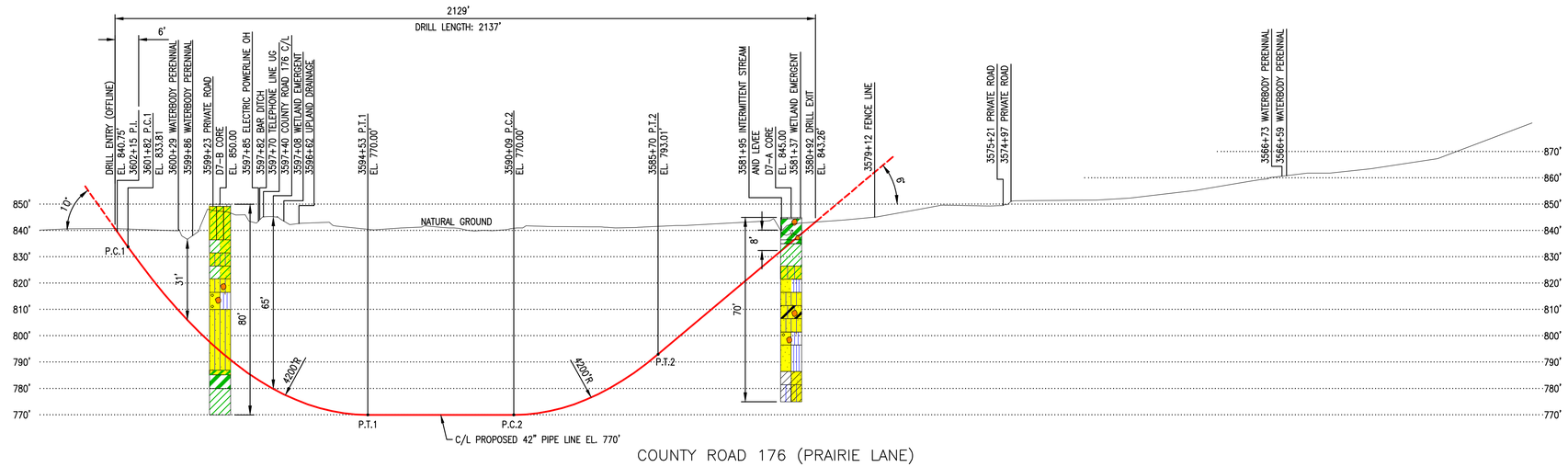
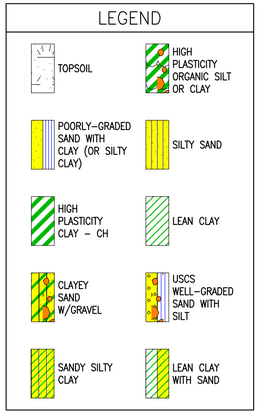




COUNTY ROAD 176 (PRAIRIE LANE)

PROFILE

HORIZONTAL SCALE: 1"= 200'
VERTICAL SCALE: 1"= 25'



SEE ML-P4-07 PRAIRIE LANE HDD GEO REPORT FOR GEOTECHNICAL CORE DETAILS.

SPECIFICATIONS:

CARRIER PIPE: 42.000" O.D. X 0.864" W.T. X-70
A.P.I. 5L PSL 2, DSAW, W/ 14-16 MILS FBE AND 40 MILS ARO
HYDROSTATIC PRE-TEST PRESSURE: 2160 PSIG MIN - 2220 PSIG MAX
DESIGN PRESSURE: MAOP 1,440 PSIG
LOCATION CLASS: 1
DESIGN FACTOR: 0.5

GENERAL NOTES:

1) GRID PROJECTION BASED UPON OHIO STATE PLANE COORDINATE SYSTEM, NORTH ZONE (GRID UNITS IN FEET) GEODETIC DATUM: NAD 1983, CLARKE SPHEROID, 1866.
2) CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL FOREIGN PIPELINE CROSSINGS AND COVER PRIOR TO CONSTRUCTION.
3) FOOT ACCESS FOR HDD GUIDED WIRE WILL BE REQUIRED 100 FT TO 200 FT BOTH SIDES OF CENTERLINE. HAND CLEARING OF TREES 3" DIAMETER AND SMALLER.
4) CONTRACTOR TO PROVIDE AS-BUILT DRAWING AND INFORMATION WITHIN 10 DAYS FROM BOREHOLE COMPLETION AND SHALL INCLUDE THE FOLLOWING AT A MINIMUM:
   - CAD (2010 OR HIGHER) AND PDF FILE OF PIPING PLAN AND PROFILE
   - TABLE OF PILOT HOLE DATA USED TO CREATE PLAN AND PROFILE DRAWINGS

CONTRACTOR HDD PLAN NOTES:

CONTRACTOR'S PROPOSED HDD PLAN AND ANY OF ITS SUBCONTRACTORS, VENDORS, OR SUPPLIERS UTILIZED TO PERFORM HORIZONTAL DIRECTIONAL DRILLS SHALL BE SUBMITTED TO COMPANY FOR APPROVAL A MINIMUM OF 30 DAYS PRIOR TO START OF DRILLING OPERATIONS. PLAN SHALL INCLUDE AT MINIMUM:

- CONTRACTORS' SITE SPECIFIC BORE PLAN AND PROFILE, SHOWING FOREIGN PIPELINES AND UTILITIES WITH FIELD VERIFIED ELEVATIONS, TOP OF BORE SEPARATION FROM UNDERGROUND UTILITIES, ROADS AND OTHER FEATURES, PLANNED MINIMUM DRILL RADIUS WITH PC AND PT POINTS
- CONTRACTORS EQUIPMENT AND SITE LAYOUT
- DRILLING PLAN AT A MINIMUM TO INCLUDE THE FOLLOWING: PILOT HOLE DRILL TOLERANCES, ANTICIPATED DOWN HOLE PRESSURE RANGE, EXPECTED PILOT AND REAMING PROCESS, EXPECTED PULL LOADS, SAFETY, GUIDANCE SYSTEM, CONTINGENCY PLANS, INADVERTENT RETURNS PLAN WITH NOTIFICATION PROCEDURES
- DRILLING FLUID AND POTENTIAL ADDITIVES (PROVIDE MSDS), AUTHORIZED DISPOSAL LOCATION (COMPANY TO APPROVE)
- BREAKOVER PROFILE WITH MINIMUM RADIUS, PIPE SUPPORT EQUIPMENT LOCATION WITH PIPE ELEVATION (COMPANY WILL EVALUATE PIPE STRESS) AND MAXIMUM ROLLER SPACING
- WATER SOURCE TO BE USED

ENVIRONMENTAL NOTES:

1) EROSION/SEDIMENT CONTROL STRUCTURES TO BE INSTALLED AND MAINTAINED TO MINIMIZE IMPACTS TO WETLANDS OR WATERBODIES.
2) ANY ON-LAND TRENCH DEWATERING TO BE DIRECTED TO WETLAND FILTER BAG AND/OR DEWATERING STRUCTURE IN AN UPLAND AREA TO MINIMIZE EROSION OF SEDIMENTATION TO WETLANDS/WATERBODIES.
3) PRE-CONSTRUCTION CONTOURS TO BE RE-ESTABLISHED FOR ALL DISTURBED AREAS. ALL DISTURBED AREAS TO BE RESTORED AND/OR REVEGETATED AS APPLICABLE.
4) EROSION/SEDIMENTATION CONTROL STRUCTURES TO REMAIN IN PLACE UNTIL RESTORATION AND REVEGETATION ARE DEEMED SUCCESSFUL.

LEGEND:

- PROPOSED MAINLINE A
- PROPOSED MAINLINE B
- PERMANENT EASEMENT
- TEMPORARY WORK SPACE
- ADDITIONAL TEMPORARY WORK SPACE
- ACCESS PATH
- GEOTECH CORE

ENVIRONMENTAL LEGEND:

- PERENNIAL STREAM
- EPHEMERAL STREAM
- INTERMITTENT STREAM
- NATURAL DRAINAGE
- WATERBODY
- WETLAND EMERGENT
- WETLAND FORESTED
- WETLAND SCRUB SHRUB

DWG. NO.	REFERENCE DRAWING TITLE
ML-P3-3029	ALIGNMENT

NO.	REVISION - DESCRIPTION	BY	DATE	CHK'D	APP'D
0	ISSUED FOR CONSTRUCTION	MFZ	7-25-16	CRF	JHR

STATE OF OHIO 9/15/16 JEFFREY H. RICHARDSON E-76936 REGISTERED PROFESSIONAL ENGINEER

PROJECT CONSULTANT SERVICES, INC.
DBA PROJECT MANAGEMENT & SERVICES, INC.
3300 WEST ESPLANADE AVE., S. SUITE 300
METAIRIE, LA 70002-7406
(504) 833-5327 - Fax (504) 833-4940
www.projectconsulting.com

DWG. STATUS	CHECKED BY	CHECKED DATE	APPROVED BY	APPROVED DATE	BY	DATE
PREL'Y						
BID	SM	8-5-15	LB	8-5-15		
CONSTR.	SM	4-25-16	LB	4-25-16		
CADDS	PLOT DATE:					
	FILE NAME:					

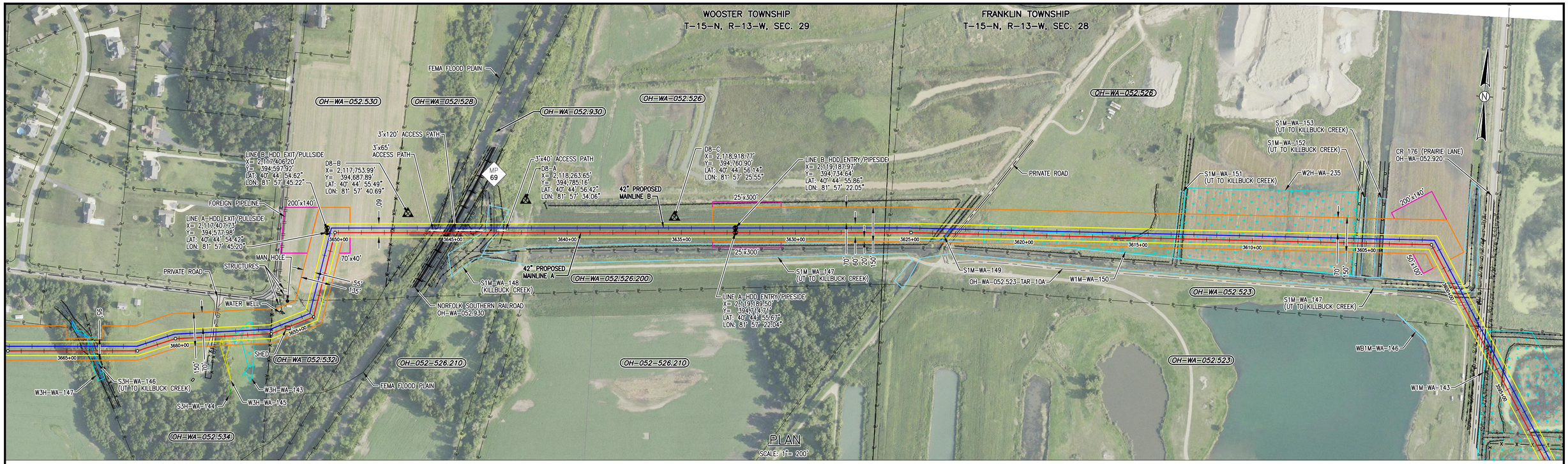
		BY	DATE
P.L./STA. NO.			
ACCOUNT NO.			
CONSTRUCTION YEAR	2016		
DESIGN		JHR	
DRAWN		KMA	9-8-14
ASBUILT			
FILE NO.			
SCALE: NOTED			

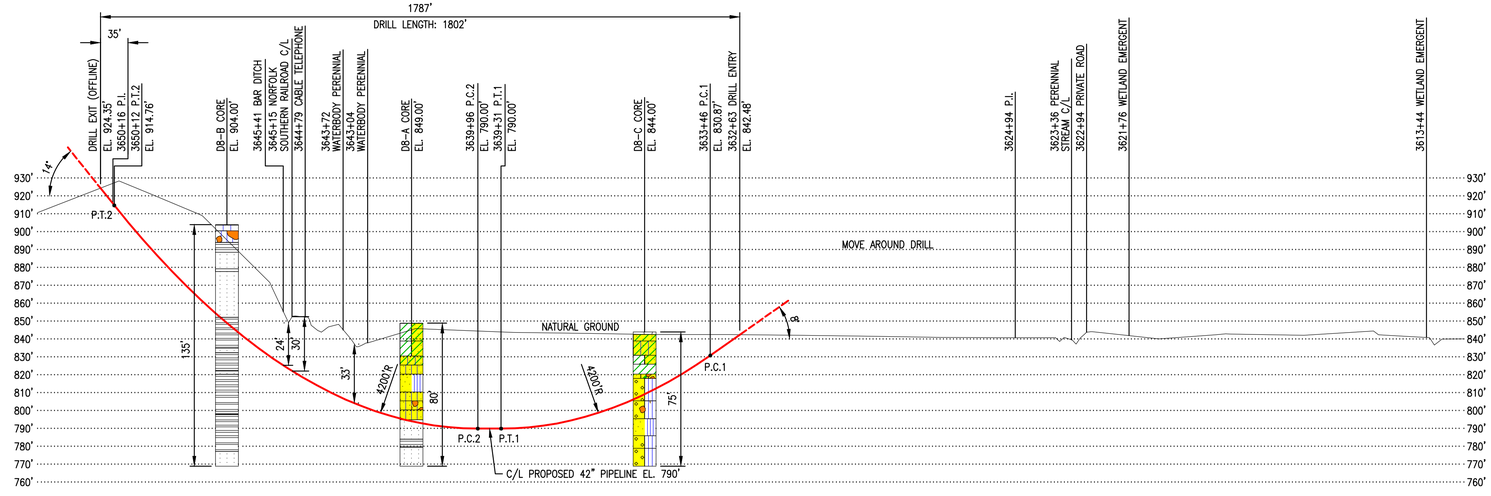
ROVER PIPELINE LLC

ROVER PIPELINE PROJECT
42" DUAL MAINLINE A & B - NG PIPELINE
PRAIRIE LANE/C.R. 176 HDD
M.P. 67.82 TO M.P. 68.22
WAYNE, OHIO

PROJECT NO. 588000000008
PREVIOUS DWG. NO.
SHEET 1 OF 1
DWG. NO. ML-P4-07 0
SHEET 1 OF 1

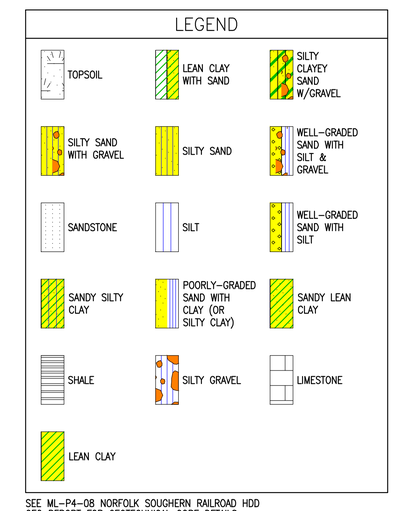
07-26-16 9:39 14138 40 KMA





NORFOLK SOUTHERN RAILROAD HDD
PROFILE

HORIZONTAL SCALE: 1"= 200'
VERTICAL SCALE: 1"= 40'



SEE ML-P4-08 NORFOLK SOUGHERN RAILROAD HDD GEO REPORT FOR GEOTECHNICAL CORE DETAILS.

SPECIFICATIONS:

CARRIER PIPE: 42.000" O.D. X 0.864" W.T. X-70
A.P.I. 5L PSL 2, DSAW, W/ 14-16 MILS FBE AND 40 MILS ARO
HYDROSTATIC PRE-TEST PRESSURE: 2160 PSIG MIN – 2220 PSIG MAX
DESIGN PRESSURE: MAOP 1,440 PSIG
LOCATION CLASS: 2
DESIGN FACTOR: 0.5

GENERAL NOTES:

1) GRID PROJECTION BASED UPON OHIO STATE PLANE COORDINATE SYSTEM, NORTH ZONE (GRID UNITS IN FEET) GEODETIC DATUM: NAD 1983, CLARKE SPHEROID, 1866.
2) CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL FOREIGN PIPELINE CROSSINGS AND COVER PRIOR TO CONSTRUCTION.

GENERAL NOTES CONT.:

3) FOOT ACCESS FOR HDD GUIDED WIRE WILL BE REQUIRED 100 FT TO 200 FT BOTH SIDES OF CENTERLINE. HAND CLEARING OF TREES 3" DIAMETER AND SMALLER.
4) ROUTING OF ACCESS PATHS THROUGH FORESTED AREAS TO OBTAIN WATER FOR HDDS OR PIPELINE TESTING MAY VARY TO MINIMIZE IMPACTS TO TREES, BUT WILL BE NO MORE THAN 3 FT WIDE AND WILL GENERALLY FOLLOW THE PIPELINE CENTERLINE.
5) CONTRACTOR TO PROVIDE AS-BUILT DRAWING AND INFORMATION WITHIN 10 DAYS FROM BOREHOLE COMPLETION AND SHALL INCLUDE THE FOLLOWING AT A MINIMUM:
   - CAD (2010 OR HIGHER) AND PDF FILE OF PIPING PLAN AND PROFILE
   - TABLE OF PILOT HOLE DATA USED TO CREATE PLAN AND PROFILE DRAWINGS

CONTRACTOR HDD PLAN NOTES:

CONTRACTOR'S PROPOSED HDD PLAN AND ANY OF ITS SUBCONTRACTORS, VENDORS, OR SUPPLIERS UTILIZED TO PERFORM HORIZONTAL DIRECTIONAL DRILLS SHALL BE SUBMITTED TO COMPANY FOR APPROVAL A MINIMUM OF 30 DAYS PRIOR TO START OF DRILLING OPERATIONS. PLAN SHALL INCLUDE AT MINIMUM:

- CONTRACTORS' SITE SPECIFIC BORE PLAN AND PROFILE, SHOWING FOREIGN PIPELINES AND UTILITIES WITH FIELD VERIFIED ELEVATIONS, TOP OF BORE SEPARATION FROM UNDERGROUND UTILITIES, ROADS AND OTHER FEATURES, PLANNED MINIMUM DRILL RADIUS WITH PC AND PT POINTS
- CONTRACTORS EQUIPMENT AND SITE LAYOUT
- DRILLING PLAN AT A MINIMUM TO INCLUDE THE FOLLOWING: PILOT HOLE DRILL TOLERANCES, ANTICIPATED DOWN HOLE PRESSURE RANGE, EXPECTED PILOT AND REAMING PROCESS, EXPECTED PULL LOADS, SAFETY, GUIDANCE SYSTEM, CONTINGENCY PLANS, INADVERTENT RETURNS PLAN WITH NOTIFICATION PROCEDURES
- DRILLING FLUID AND POTENTIAL ADDITIVES (PROVIDE MSDS), AUTHORIZED DISPOSAL LOCATION (COMPANY TO APPROVE)
- BREAKOVER PROFILE WITH MINIMUM RADIUS, PIPE SUPPORT EQUIPMENT LOCATION WITH PIPE ELEVATION (COMPANY WILL EVALUATE PIPE STRESS) AND MAXIMUM ROLLER SPACING
- WATER SOURCE TO BE USED

ENVIRONMENTAL NOTES:

1) EROSION/SEDIMENT CONTROL STRUCTURES TO BE INSTALLED AND MAINTAINED TO MINIMIZE IMPACTS TO WETLANDS OR WATERBODIES.
2) ANY ON-LAND TRENCH DEWATERING TO BE DIRECTED TO WETLAND FILTER BAG AND/OR DEWATERING STRUCTURE IN AN UPLAND AREA TO MINIMIZE EROSION OF SEDIMENTATION TO WETLANDS/WATERBODIES.
3) PRE-CONSTRUCTION CONTOURS TO BE RE-ESTABLISHED FOR ALL DISTURBED AREAS. ALL DISTURBED AREAS TO BE RESTORED AND/OR REVEGETATED AS APPLICABLE.
4) EROSION/SEDIMENTATION CONTROL STRUCTURES TO REMAIN IN PLACE UNTIL RESTORATION AND REVEGETATION ARE DEEMED SUCCESSFUL.

LEGEND:

- PROPOSED MAINLINE A
- PROPOSED MAINLINE B
- PERMANENT EASEMENT
- TEMPORARY WORK SPACE
- ADDITIONAL TEMPORARY WORK SPACE
- ACCESS PATH
- GEOTECH CORE

ENVIRONMENTAL LEGEND:

- PERENNIAL STREAM
- EPHEMERAL STREAM
- INTERMITTENT STREAM
- NATURAL DRAINAGE
- WATERBODY
- WETLAND EMERGENT
- WETLAND FORESTED
- WETLAND SCRUB SHRUB

DWG. NO.	REFERENCE DRAWING TITLE
ML-P3-3030	ALIGNMENT

NO.	REVISION – DESCRIPTION	BY	DATE	CHK'D	APP'D
0	ISSUED FOR CONSTRUCTION	MFZ	7-25-16	CRF	JHR

STATE OF OHIO
9/9/16
JEFFREY H. RICHARDSON
E-76936
REGISTERED PROFESSIONAL ENGINEER

PCS
Project Consulting Services, Inc.
DBA PROJECT MANAGEMENT & CONSULTING, INC.
3300 WEST ESPLANADE AVENUE, SUITE 500
METAIRIE, LOUISIANA 70002
(504) 833-5321 Fax (504) 833-4940
www.projectconsulting.com

DWG. STATUS	CHECKED BY	CHECKED DATE	APPROVED BY	APPROVED DATE	BY	DATE
PREL'Y						
BID	SM	8-5-15	LB	8-5-15		
CONSTR.	SM	4-25-16	LB	4-25-16		
CADDS	PLOT DATE:					
	FILE NAME:					

P.L./STA. NO.
ACCOUNT NO.

CONSTRUCTION YEAR		2016
	BY	DATE
DESIGN	JHR	
DRAWN	KMA	9-9-14
ASBUILT		
FILE NO.		
SCALE: NOTED		

ROVER PIPELINE LLC

ROVER PIPELINE PROJECT
42" DUAL MAINLINE A & B – NG PIPELINE
NORFOLK SOUTHERN RAILROAD HDD
M.P. 69.13 TO M.P. 68.80
WAYNE, OHIO

PROJECT NO. 588000000008
PREVIOUS DWG. NO.
SHEET 1 OF 1
DWG. NO. ML-P4-08 (0)
SHEET 1 OF 1

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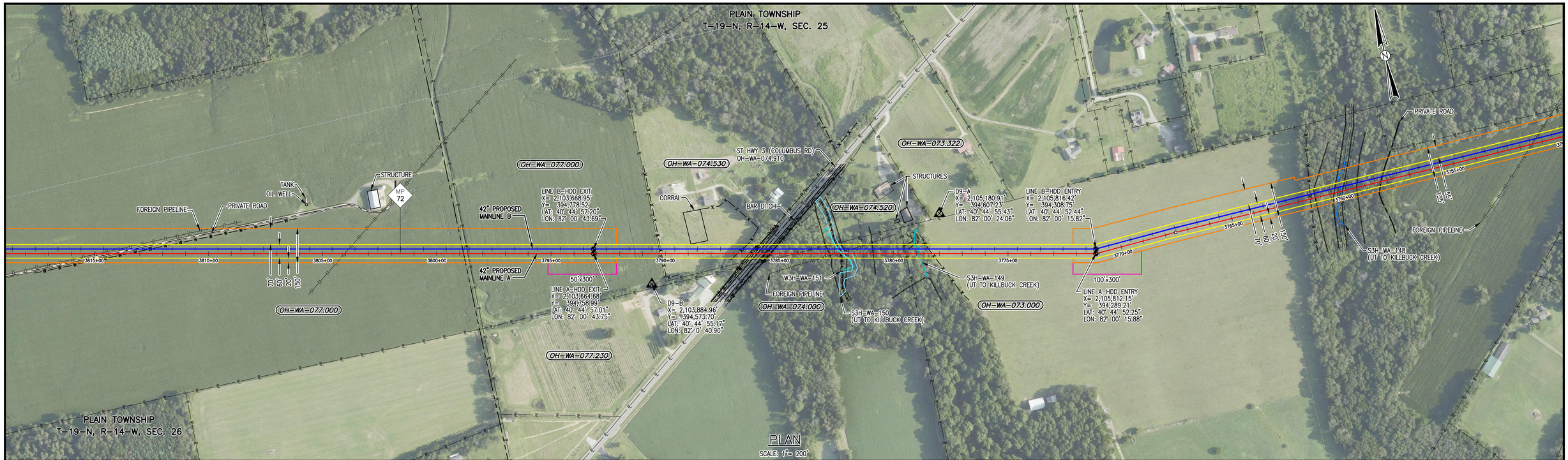
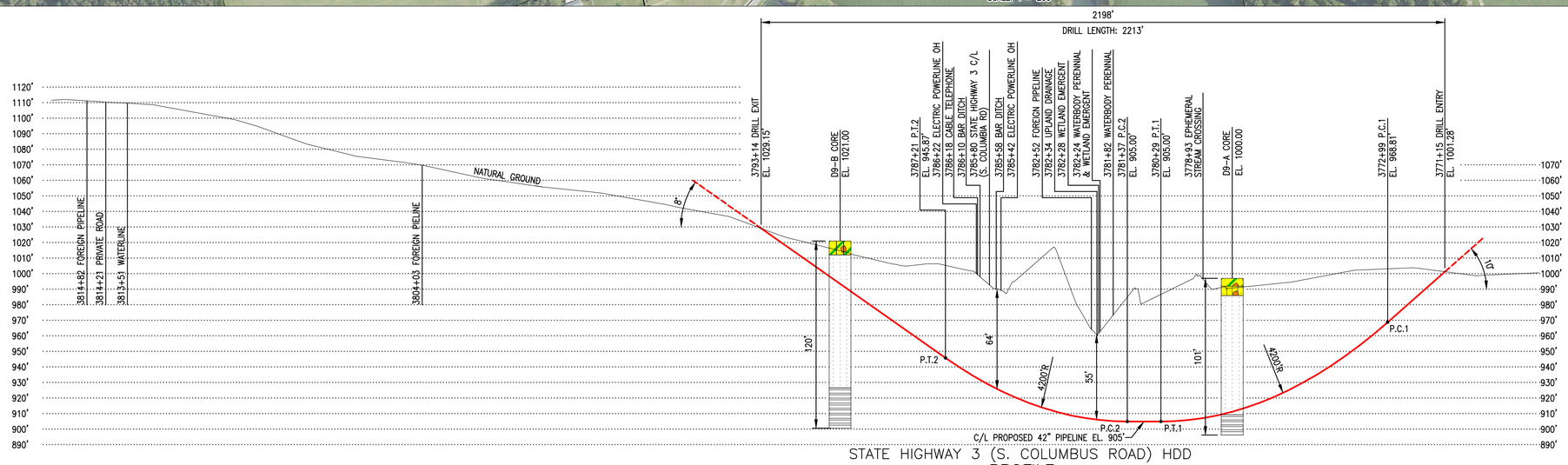
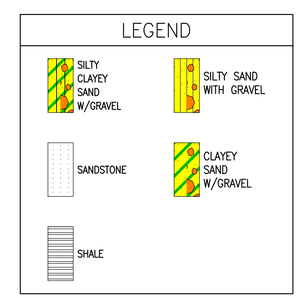




STATE HIGHWAY 3 (S. COLUMBUS ROAD) HDD

PROFILE

HORIZONTAL SCALE: 1"= 200'
VERTICAL SCALE: 1"= 40'



SEE ML-P4-09 COLUMBUS ROAD HDD GEO REPORT FOR GEOTECHNICAL CORE DETAILS.

SPECIFICATIONS:

CARRIER PIPE: 42.000" O.D. X 0.864" W.T. X-70
A.P.I. 5L PSL 2, DSAW, W/ 14-16 MILS FBE AND 26 MILS ARO
HYDROSTATIC PRE-TEST PRESSURE: 2160 PSIG MIN – 2220 PSIG MAX
DESIGN PRESSURE: MAOP 1,440 PSIG
LOCATION CLASS: 3
DESIGN FACTOR: 0.5

GENERAL NOTES:

1) GRID PROJECTION BASED UPON OHIO STATE PLANE COORDINATE SYSTEM, NORTH ZONE (GRID UNITS IN FEET) GEODETIC DATUM: NAD 1983, CLARKE SPHEROID, 1866.
2) CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL FOREIGN PIPELINE CROSSINGS AND COVER PRIOR TO CONSTRUCTION.
3) FOOT ACCESS FOR HDD GUIDED WIRE WILL BE REQUIRED 100 FT TO 200 FT BOTH SIDES OF CENTERLINE. HAND CLEARING OF TREES 3" DIAMETER AND SMALLER.
4) CONTRACTOR TO PROVIDE AS-BUILT DRAWING AND INFORMATION WITHIN 10 DAYS FROM BOREHOLE COMPLETION AND SHALL INCLUDE THE FOLLOWING AT A MINIMUM:
   - CAD (2010 OR HIGHER) AND PDF FILE OF PIPING PLAN AND PROFILE
   - TABLE OF PILOT HOLE DATA USED TO CREATE PLAN AND PROFILE DRAWINGS

CONTRACTOR HDD PLAN NOTES:

CONTRACTOR'S PROPOSED HDD PLAN AND ANY OF ITS SUBCONTRACTORS, VENDORS, OR SUPPLIERS UTILIZED TO PERFORM HORIZONTAL DIRECTIONAL DRILLS SHALL BE SUBMITTED TO COMPANY FOR APPROVAL A MINIMUM OF 30 DAYS PRIOR TO START OF DRILLING OPERATIONS. PLAN SHALL INCLUDE AT MINIMUM:

- CONTRACTORS' SITE SPECIFIC BORE PLAN AND PROFILE, SHOWING FOREIGN PIPELINES AND UTILITIES WITH FIELD VERIFIED ELEVATIONS, TOP OF BORE SEPARATION FROM UNDERGROUND UTILITIES, ROADS AND OTHER FEATURES, PLANNED MINIMUM DRILL RADIUS WITH PC AND PT POINTS
- CONTRACTORS EQUIPMENT AND SITE LAYOUT
- DRILLING PLAN AT A MINIMUM TO INCLUDE THE FOLLOWING: PILOT HOLE DRILL TOLERANCES, ANTICIPATED DOWN HOLE PRESSURE RANGE, EXPECTED PILOT AND REAMING PROCESS, EXPECTED PULL LOADS, SAFETY, GUIDANCE SYSTEM, CONTINGENCY PLANS, INADVERTENT RETURNS PLAN WITH NOTIFICATION PROCEDURES
- DRILLING FLUID AND POTENTIAL ADDITIVES (PROVIDE MSDS), AUTHORIZED DISPOSAL LOCATION (COMPANY TO APPROVE)
- BREAKOVER PROFILE WITH MINIMUM RADIUS, PIPE SUPPORT EQUIPMENT LOCATION WITH PIPE ELEVATION (COMPANY WILL EVALUATE PIPE STRESS) AND MAXIMUM ROLLER SPACING
- WATER SOURCE TO BE USED

ENVIRONMENTAL NOTES:

1) EROSION/SEDIMENT CONTROL STRUCTURES TO BE INSTALLED AND MAINTAINED TO MINIMIZE IMPACTS TO WETLANDS OR WATERBODIES.
2) ANY ON-LAND TRENCH DEWATERING TO BE DIRECTED TO WETLAND FILTER BAG AND/OR DEWATERING STRUCTURE IN AN UPLAND AREA TO MINIMIZE EROSION OF SEDIMENTATION TO WETLANDS/WATERBODIES.
3) PRE-CONSTRUCTION CONTOURS TO BE RE-ESTABLISHED FOR ALL DISTURBED AREAS. ALL DISTURBED AREAS TO BE RESTORED AND/OR REVEGETATED AS APPLICABLE.
4) EROSION/SEDIMENTATION CONTROL STRUCTURES TO REMAIN IN PLACE UNTIL RESTORATION AND REVEGETATION ARE DEEMED SUCCESSFUL.

LEGEND:

- PROPOSED MAINLINE A
- PROPOSED MAINLINE B
- PERMANENT EASEMENT
- TEMPORARY WORK SPACE
- ADDITIONAL TEMPORARY WORK SPACE
- ACCESS PATH
- GEOTECH CORE

ENVIRONMENTAL LEGEND:

- PERENNIAL STREAM
- EPHEMERAL STREAM
- INTERMITTENT STREAM
- NATURAL DRAINAGE
- WATERBODY
- WETLAND EMERGENT
- WETLAND FORESTED
- WETLAND SCRUB SHRUB

DWG. NO.	REFERENCE DRAWING TITLE
ML-P3-3033	ALIGNMENT

NO.	REVISION – DESCRIPTION	BY	DATE	CHK'D	APP'D
0	ISSUED FOR CONSTRUCTION	MFZ	7-25-16	CRF	JHR

STATE OF OHIO JEFFREY H. RICHARDSON E-76936 REGISTERED PROFESSIONAL ENGINEER

PROJECT CONSULTING SERVICES, INC.
DBA PROJECT MANAGEMENT & CONSULTING, INC.
5300 WEST ESPLANADE AVE., S., SUITE 500
METAIRIE, LA 70002-7606
(504) 833-5321 - fax (504) 833-4940
www.projectconsulting.com

DWG. STATUS	CHECKED BY	CHECKED DATE	APPROVED BY	APPROVED DATE	BY	DATE
PREL'Y						
BID	SM	8-5-15	LB	8-5-15		
CONSTR.	SM	4-25-16	LB	4-25-16		
CADDS	PLOT DATE:					
	FILE NAME:					

P.L./STA. NO.
ACCOUNT NO.

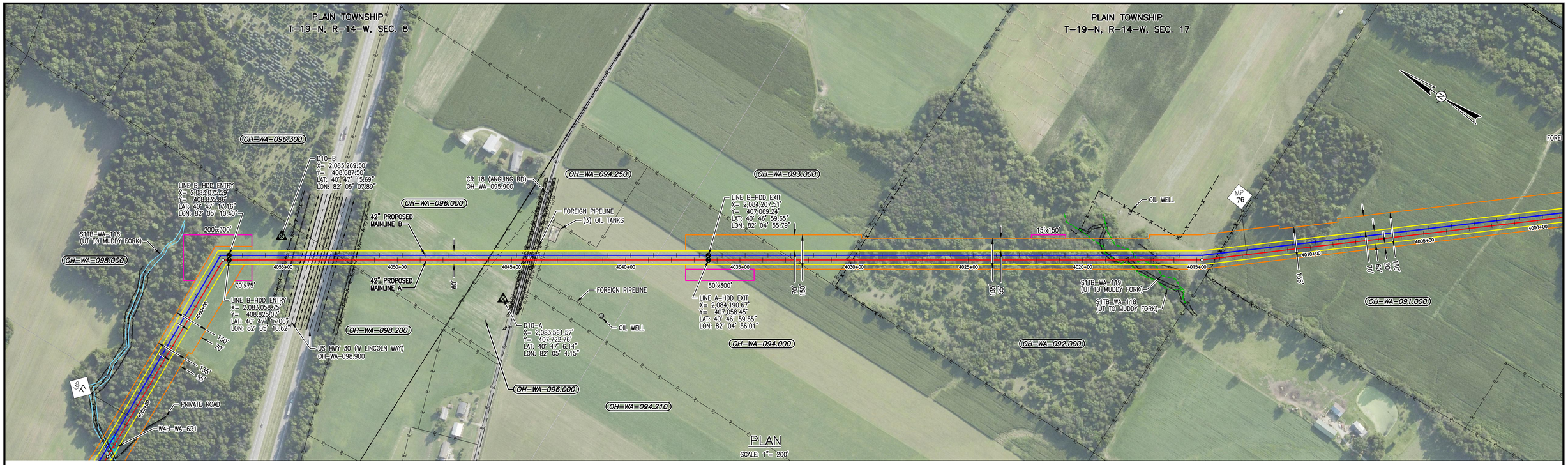
CONSTRUCTION YEAR		2016
	BY	DATE
DESIGN	JHR	
DRAWN	KMA	9-9-14
ASBUILT		
FILE NO.		
SCALE: NOTED		

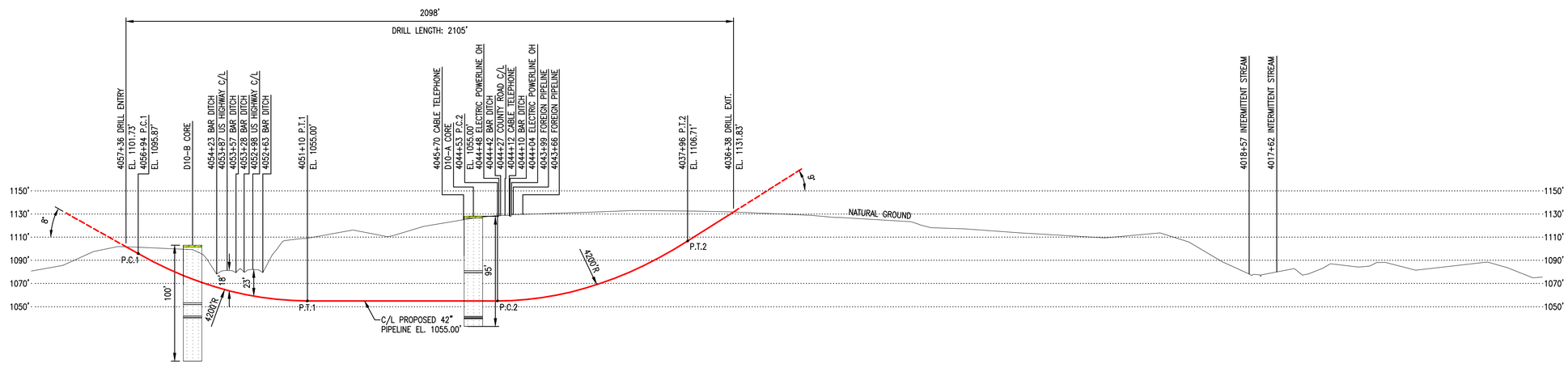
ROVER PIPELINE LLC

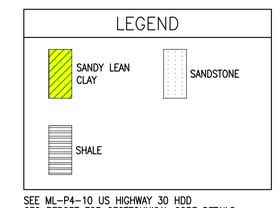
ROVER PIPELINE PROJECT
42" DUAL MAINLINE A & B – NG PIPELINE
STATE HIGHWAY 3 (S COLUMBUS RD) HDD
M.P. 71.42 TO M.P. 71.84
WAYNE, OHIO

PROJECT NO. 58800000008
PREVIOUS DWG. NO.
SHEET 1 OF 1
DWG. NO. ML-P4-09 (0)
SHEET 1 OF 1

07-23-16 14:28 14138 40 KMA







SEE ML-P4-10 US HIGHWAY 30 HDD GEO REPORT FOR GEOTECHNICAL CORE DETAILS.

US HIGHWAY 30 HDD

PROFILE

HORIZONTAL SCALE: 1"= 200'
VERTICAL SCALE: 1"= 50'

SPECIFICATIONS:

CARRIER PIPE: 42.000" O.D. X 0.864" W.T. X-70
A.P.I. 5L PSL 2, DSAW, W/ 14-16 MILS FBE AND 40 MILS ARO
HYDROSTATIC PRE-TEST PRESSURE: 2160 PSIG MIN - 2220 PSIG MAX
DESIGN PRESSURE: MAOP 1,440 PSIG
LOCATION CLASS: 1
DESIGN FACTOR: 0.5

GENERAL NOTES:

1) GRID PROJECTION BASED UPON OHIO STATE PLANE COORDINATE SYSTEM, NORTH ZONE (GRID UNITS IN FEET) GEODETIC DATUM: NAD 1983, CLARKE SPHEROID, 1866.
2) CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL FOREIGN PIPELINE CROSSINGS AND COVER PRIOR TO CONSTRUCTION.
3) FOOT ACCESS FOR HDD GUIDED WIRE WILL BE REQUIRED 100 FT TO 200 FT BOTH SIDES OF CENTERLINE. HAND CLEARING OF TREES 3" DIAMETER AND SMALLER.
4) CONTRACTOR TO PROVIDE AS-BUILT DRAWING AND INFORMATION WITHIN 10 DAYS FROM BOREHOLE COMPLETION AND SHALL INCLUDE THE FOLLOWING AT A MINIMUM:
   - CAD (2010 OR HIGHER) AND PDF FILE OF PIPING PLAN AND PROFILE
   - TABLE OF PILOT HOLE DATA USED TO CREATE PLAN AND PROFILE DRAWINGS

CONTRACTOR HDD PLAN NOTES:

CONTRACTOR'S PROPOSED HDD PLAN AND ANY OF ITS SUBCONTRACTORS, VENDORS, OR SUPPLIERS UTILIZED TO PERFORM HORIZONTAL DIRECTIONAL DRILLS SHALL BE SUBMITTED TO COMPANY FOR APPROVAL A MINIMUM OF 30 DAYS PRIOR TO START OF DRILLING OPERATIONS. PLAN SHALL INCLUDE AT MINIMUM:

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- CONTRACTORS EQUIPMENT AND SITE LAYOUT
- DRILLING PLAN AT A MINIMUM TO INCLUDE THE FOLLOWING: PILOT HOLE DRILL TOLERANCES, ANTICIPATED DOWN HOLE PRESSURE RANGE, EXPECTED PILOT AND REAMING PROCESS, EXPECTED PULL LOADS, SAFETY, GUIDANCE SYSTEM, CONTINGENCY PLANS, INADVERTENT RETURNS PLAN WITH NOTIFICATION PROCEDURES
- DRILLING FLUID AND POTENTIAL ADDITIVES (PROVIDE MSDS), AUTHORIZED DISPOSAL LOCATION (COMPANY TO APPROVE)
- BREAKOVER PROFILE WITH MINIMUM RADIUS, PIPE SUPPORT EQUIPMENT LOCATION WITH PIPE ELEVATION (COMPANY WILL EVALUATE PIPE STRESS) AND MAXIMUM ROLLER SPACING
- WATER SOURCE TO BE USED

ENVIRONMENTAL NOTES:

1) EROSION/SEDIMENT CONTROL STRUCTURES TO BE INSTALLED AND MAINTAINED TO MINIMIZE IMPACTS TO WETLANDS OR WATERBODIES.
2) ANY ON-LAND TRENCH DEWATERING TO BE DIRECTED TO WETLAND FILTER BAG AND/OR DEWATERING STRUCTURE IN AN UPLAND AREA TO MINIMIZE EROSION OF SEDIMENTATION TO WETLANDS/WATERBODIES.
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4) EROSION/SEDIMENTATION CONTROL STRUCTURES TO REMAIN IN PLACE UNTIL RESTORATION AND REVEGETATION ARE DEEMED SUCCESSFUL.

LEGEND:

- PROPOSED MAINLINE A
- PROPOSED MAINLINE B
- PERMANENT EASEMENT
- TEMPORARY WORK SPACE
- ADDITIONAL TEMPORARY WORK SPACE
- ACCESS PATH
- GEOTECH CORE

ENVIRONMENTAL LEGEND:

- PERENNIAL STREAM
- EPHEMERAL STREAM
- INTERMITTENT STREAM
- NATURAL DRAINAGE
- WATERBODY
- WETLAND EMERGENT
- WETLAND FORESTED
- WETLAND SCRUB SHRUB

DWG. NO.	REFERENCE DRAWING TITLE
ML-P3-3038	ALIGNMENT

NO.	REVISION - DESCRIPTION	BY	DATE	CHK'D	APP'D
0	ISSUED FOR CONSTRUCTION	MFZ	7-25-16	CRF	JHR

STATE OF OHIO — 9/15/16 — JEFFREY H. RICHARDSON — E-76936 — REGISTERED PROFESSIONAL ENGINEER

PROJECT CONSULTING SERVICES, INC.
DBA PROJECT MANAGEMENT & CONSULTING, INC.
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METAIRIE, LA 70002-7406
(504) 833-5321 Fax (504) 833-4940
www.projectconsulting.com

DWG. STATUS	CHECKED BY	CHECKED DATE	APPROVED BY	APPROVED DATE	BY	DATE
PREL'Y						
BID	SM	8-5-15	LB	8-5-15		
CONSTR.	SM	4-25-16	LB	4-25-16		
CADDS	PLOT DATE:					
	FILE NAME:					

P.L./STA. NO.
ACCOUNT NO.

CONSTRUCTION YEAR 2016	BY	DATE
DESIGN	JHR	
DRAWN	KMA	9-10-14
ASBUILT		

FILE NO.
SCALE: NOTED

ROVER PIPELINE LLC

ROVER PIPELINE PROJECT
42" DUAL MAINLINE A & B - NG PIPELINE
US HIGHWAY 30 HDD
M.P. 76.45 TO M.P. 76.84
WAYNE, OHIO

PROJECT NO. 588000000008
PREVIOUS DWG. NO.
SHEET 1 OF 1
DWG. NO. ML-P4-10 (0)
SHEET 1 OF 1

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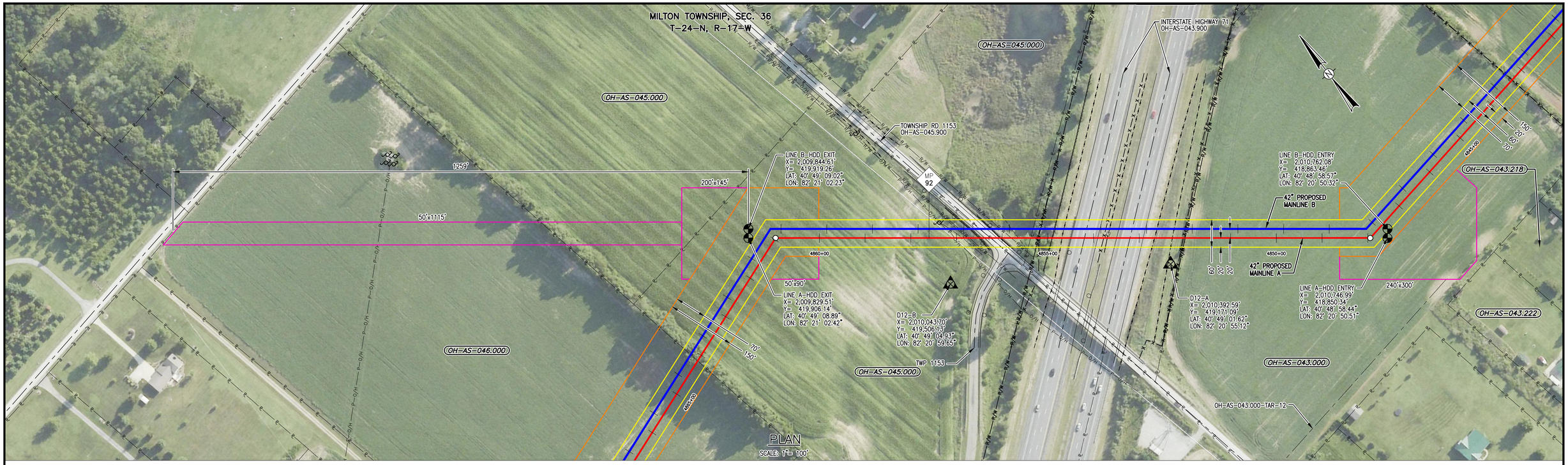
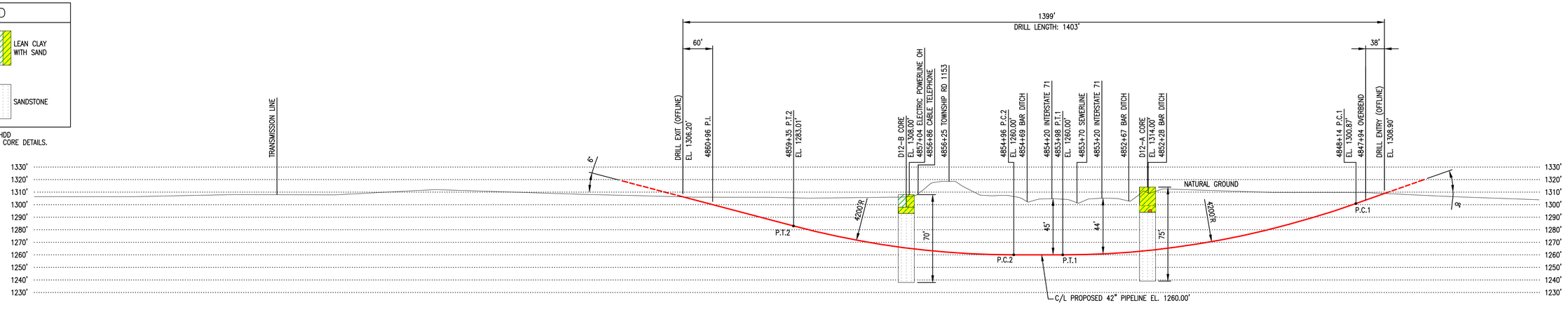


LEGEND

- SANDY LEAN CLAY
- LEAN CLAY WITH SAND
- SANDY LEAN CLAY WITH GRAVEL
- SANDSTONE

SEE ML-P4-12 INTERSTATE 71 HDD GEO REPORT FOR GEOTECHNICAL CORE DETAILS.



INTERSTATE 71 HDD

PROFILE

HORIZONTAL SCALE: 1"= 100'
VERTICAL SCALE: 1"= 40'

SPECIFICATIONS:

CARRIER PIPE: 42.000" O.D. X 0.864" W.T. X-70
A.P.I. 5L PSL 2, DSAW, W/ 14-16 MILS FBE AND 26 MILS ARO
HYDROSTATIC PRE-TEST PRESSURE: 2160 PSIG MIN – 2220 PSIG MAX
DESIGN PRESSURE: MAOP 1,440 PSIG
LOCATION CLASS: 2
DESIGN FACTOR: 0.5

GENERAL NOTES:

1) GRID PROJECTION BASED UPON OHIO STATE PLANE COORDINATE SYSTEM, NORTH ZONE (GRID UNITS IN FEET) GEODETIC DATUM: NAD 1983, CLARKE SPHEROID, 1866.
2) CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL FOREIGN PIPELINE CROSSINGS AND COVER PRIOR TO CONSTRUCTION.
3) FOOT ACCESS FOR HDD GUIDED WIRE WILL BE REQUIRED 100 FT TO 200 FT BOTH SIDES OF CENTERLINE. HAND CLEARING OF TREES 3" DIAMETER AND SMALLER.
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- CONTRACTORS' SITE SPECIFIC BORE PLAN AND PROFILE, SHOWING FOREIGN PIPELINES AND UTILITIES WITH FIELD VERIFIED ELEVATIONS, TOP OF BORE SEPARATION FROM UNDERGROUND UTILITIES, ROADS AND OTHER FEATURES, PLANNED MINIMUM DRILL RADIUS WITH PC AND PT POINTS
- CONTRACTORS EQUIPMENT AND SITE LAYOUT
- DRILLING PLAN AT A MINIMUM TO INCLUDE THE FOLLOWING: PILOT HOLE DRILL TOLERANCES, ANTICIPATED DOWN HOLE PRESSURE RANGE, EXPECTED PILOT AND REAMING PROCESS, EXPECTED PULL LOADS, SAFETY, GUIDANCE SYSTEM, CONTINGENCY PLANS, INADVERTENT RETURNS PLAN WITH NOTIFICATION PROCEDURES
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- BREAKOVER PROFILE WITH MINIMUM RADIUS, PIPE SUPPORT EQUIPMENT LOCATION WITH PIPE ELEVATION (COMPANY WILL EVALUATE PIPE STRESS) AND MAXIMUM ROLLER SPACING
- WATER SOURCE TO BE USED

ENVIRONMENTAL NOTES:

1) EROSION/SEDIMENT CONTROL STRUCTURES TO BE INSTALLED AND MAINTAINED TO MINIMIZE IMPACTS TO WETLANDS OR WATERBODIES.
2) ANY ON-LAND TRENCH DEWATERING TO BE DIRECTED TO WETLAND FILTER BAG AND/OR DEWATERING STRUCTURE IN AN UPLAND AREA TO MINIMIZE EROSION OF SEDIMENTATION TO WETLANDS/WATERBODIES.
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4) EROSION/SEDIMENTATION CONTROL STRUCTURES TO REMAIN IN PLACE UNTIL RESTORATION AND REVEGETATION ARE DEEMED SUCCESSFUL.

LEGEND:

- PROPOSED MAINLINE A
- PROPOSED MAINLINE B
- PERMANENT EASEMENT
- TEMPORARY WORK SPACE
- ADDITIONAL TEMPORARY WORK SPACE
- ACCESS PATH
- GEOTECH CORE

ENVIRONMENTAL LEGEND:

- PERENNIAL STREAM
- EPHEMERAL STREAM
- INTERMITTENT STREAM
- NATURAL DRAINAGE
- WATERBODY
- WETLAND EMERGENT
- WETLAND FORESTED
- WETLAND SCRUB SHRUB

DWG. NO.	REFERENCE DRAWING TITLE
ML-P3-4015	ALIGNMENT

NO.	REVISION – DESCRIPTION	BY	DATE	CHK'D	APP'D
0	ISSUED FOR CONSTRUCTION	MFZ	7-25-16	CRF	JHR

STATE OF OHIO — JEFFREY H. RICHARDSON — E-76938 — REGISTERED PROFESSIONAL ENGINEER — 9/15/16

PROJECT CONSULTING SERVICES, INC.
DBA PROJECT MANAGEMENT & CONSULTING, INC.
3300 WEST ESPLANADE AVE., S., SUITE 500
METAIRIE, LOUISIANA 70002
(504) 833-5321 Fax (504) 833-4940
www.projectconsulting.com

DWG. STATUS	CHECKED BY	CHECKED DATE	APPROVED BY	APPROVED DATE	BY	DATE
PREL'Y						
BID	SM	8-5-15	LB	8-5-15		
CONSTR.	SM	4-25-16	LB	4-25-16		
CADDS	PLOT DATE:					
	FILE NAME:					

P.L./STA. NO.
ACCOUNT NO.

CONSTRUCTION YEAR		2016
	BY	DATE
DESIGN	JHR	
DRAWN	NLM	9-30-14
ASBUILT		
FILE NO.		
SCALE: NOTED		

ROVER PIPELINE LLC

ROVER PIPELINE PROJECT
42" DUAL MAINLINE A & B – NG PIPELINE
INTERSTATE 71 HDD
M.P. 91.82 TO M.P. 92.06
ASHLAND, OHIO

PROJECT NO. 588000000008
PREVIOUS DWG. NO.
SHEET 1 OF 1
DWG. NO. ML-P4-12 (0)
SHEET 1 OF 1

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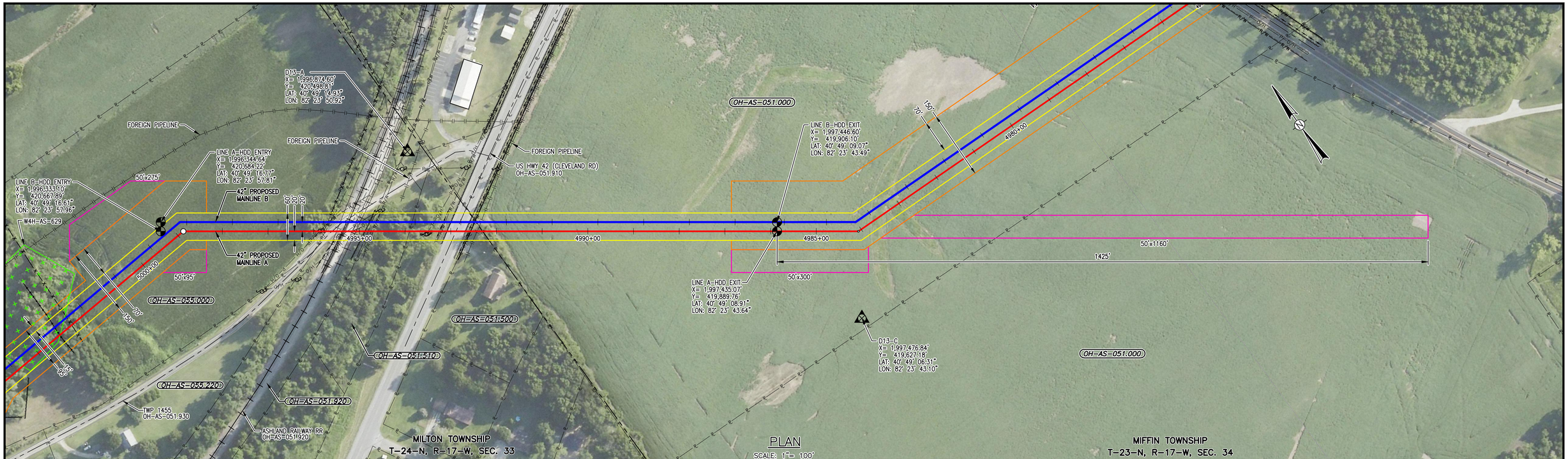
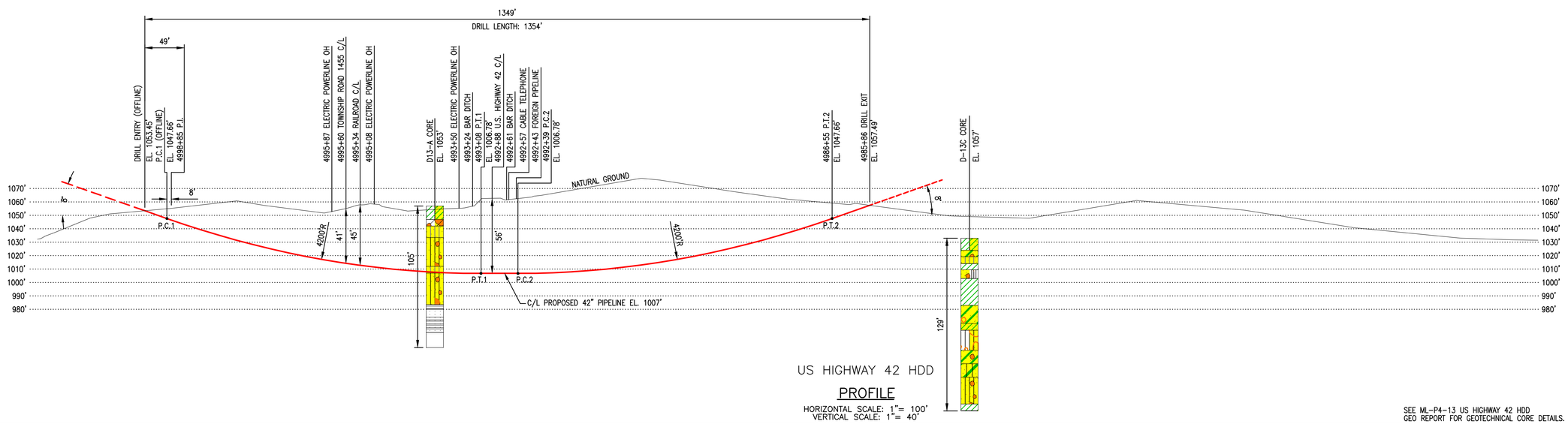


PLAN
SCALE: 1"= 100'



US HIGHWAY 42 HDD

PROFILE

HORIZONTAL SCALE: 1"= 100'
VERTICAL SCALE: 1"= 40'

SEE ML-P4-13 US HIGHWAY 42 HDD GEO REPORT FOR GEOTECHNICAL CORE DETAILS.

LEGEND

- LEAN CLAY WITH SAND
- CLAYEY SAND W/GRAVEL
- LEAN CLAY
- POORLY-GRADED SAND WITH SILT OR GRAVEL
- SILTY SAND WITH GRAVEL
- SILTY GRAVEL WITH SAND
- CLAYEY GRAVEL WITH SAND
- SILTY CLAYEY SAND
- SANDSTONE
- SILTY SAND
- CLAYEY SAND
- SANDY LEAN CLAY
- SHALE

SPECIFICATIONS:

CARRIER PIPE: 42.000" O.D. X 0.864" W.T. X-70
A.P.I. 5L PSL 2, DSAW, W/ 14-16 MILS FBE AND 40 MILS ARO
HYDROSTATIC PRE-TEST PRESSURE: 2160 PSIG MIN - 2220 PSIG MAX
DESIGN PRESSURE: MAOP 1,440 PSIG
LOCATION CLASS: 3
DESIGN FACTOR: 0.5

GENERAL NOTES:

1) GRID PROJECTION BASED UPON OHIO STATE PLANE COORDINATE SYSTEM, NORTH ZONE (GRID UNITS IN FEET) GEODETIC DATUM: NAD 1983, CLARKE SPHEROID, 1866.
2) CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL FOREIGN PIPELINE CROSSINGS AND COVER PRIOR TO CONSTRUCTION.
3) FOOT ACCESS FOR HDD GUIDED WIRE WILL BE REQUIRED 100 FT TO 200 FT BOTH SIDES OF CENTERLINE. HAND CLEARING OF TREES 3" DIAMETER AND SMALLER.
4) CONTRACTOR TO PROVIDE AS-BUILT DRAWING AND INFORMATION WITHIN 10 DAYS FROM BOREHOLE COMPLETION AND SHALL INCLUDE THE FOLLOWING AT A MINIMUM:
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   - TABLE OF PILOT HOLE DATA USED TO CREATE PLAN AND PROFILE DRAWINGS

CONTRACTOR HDD PLAN NOTES:

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- WATER SOURCE TO BE USED

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LEGEND:

- PROPOSED MAINLINE A
- PROPOSED MAINLINE B
- PERMANENT EASEMENT
- TEMPORARY WORK SPACE
- ADDITIONAL TEMPORARY WORK SPACE
- ACCESS PATH
- GEOTECH CORE

ENVIRONMENTAL LEGEND:

- PERENNIAL STREAM
- EPHEMERAL STREAM
- INTERMITTENT STREAM
- NATURAL DRAINAGE
- WATERBODY
- WETLAND EMERGENT
- WETLAND FORESTED
- WETLAND SCRUB SHRUB

DWG. NO.	REFERENCE DRAWING TITLE
ML-P3-4018	ALIGNMENT
ML-P3-4017	ALIGNMENT

NO.	REVISION - DESCRIPTION	BY	DATE	CHK'D	APP'D
0	ISSUED FOR CONSTRUCTION	MFZ	7-25-16	CRF	JHR

STATE OF OHIO — JEFFREY H. RICHARDSON — E-76936 — 4/15/16 — PROFESSIONAL ENGINEER

PROJECT CONSULTING SERVICES, INC.
DBA PROJECT MANAGEMENT & CONSULTING, INC.
3300 WEST ESPLANADE AVE., S., SUITE 500
METAIRIE, LOUISIANA 70002
(504) 830-0321 - Fax (504) 833-4940
www.projectconsulting.com

DWG. STATUS	CHECKED BY	CHECKED DATE	APPROVED BY	APPROVED DATE	BY	DATE
PREL'Y						
BID	SM	8-5-15	LB	8-5-15		
CONSTR.	SM	4-25-16	LB	4-25-16		
CADDS	PLOT DATE:					
	FILE NAME:					

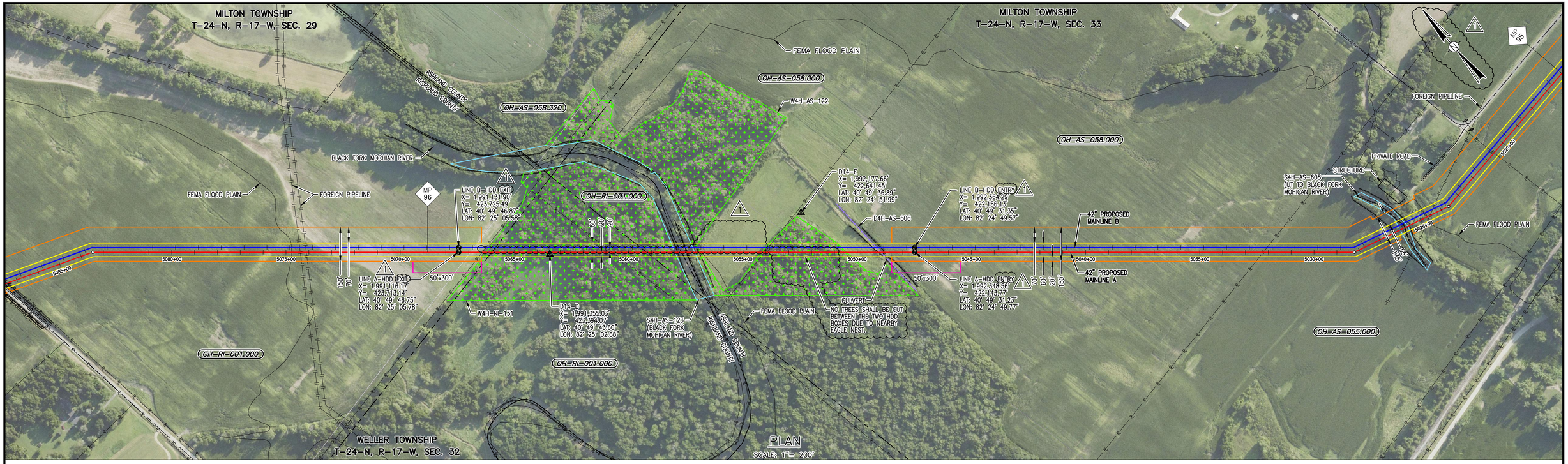
		BY	DATE
P.L./STA. NO.			
ACCOUNT NO.			
CONSTRUCTION YEAR	2016		
DESIGN		JHR	
DRAWN		LRW	9-5-14
ASBUILT			
FILE NO.			
SCALE: NOTED			

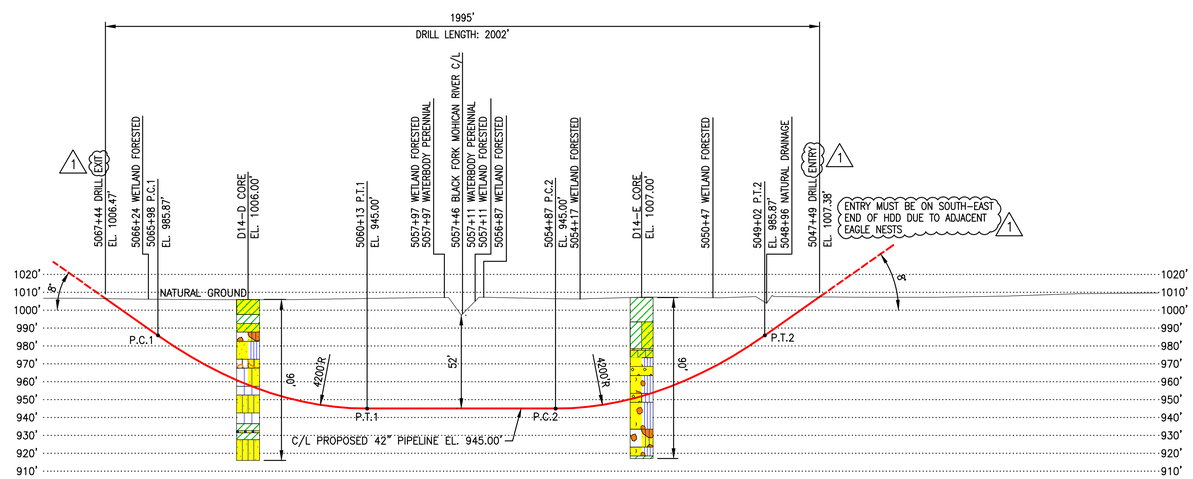
ROVER PIPELINE LLC

ROVER PIPELINE PROJECT
42" DUAL MAINLINE A & B - NG PIPELINE
US HIGHWAY 42 HDD
M.P. 94.43 TO M.P. 94.68
ASHLAND, OHIO

PROJECT NO. 588000000008
PREVIOUS DWG. NO.
SHEET 1 OF 1
DWG. NO. ML-P4-13 (0)
SHEET 1 OF 1

07-23-16 16:05 14138 27 KMA





BLACK FORK MOHICAN RIVER HDD

PROFILE

HORIZONTAL SCALE: 1"= 200'
VERTICAL SCALE: 1"= 40'

LEGEND

SANDY LEAN CLAY	SILT W/ SAND	SANDY SILTY CLAY
LEAN CLAY	SILTY SAND	WELL-GRADED SAND WITH SILT AND GRAVEL
POORLY-GRADED GRAVEL WITH SILT AND SAND	SANDY SILT	WELL-GRADED SAND
POORLY-GRADED SAND WITH SILT	LEAN CLAY WITH SAND	SILT
WELL-GRADED GRAVEL WITH SILT AND SAND	WELL-GRADED SAND WITH SILT	

SEE ML-P4-14 BLACK FORK MOHICAN RIVER HDD GEO REPORT FOR GEOTECHNICAL CORE DETAILS.

SPECIFICATIONS:

CARRIER PIPE: 42.000" O.D. X 0.864" W.T. X-70
A.P.I. 5L PSL 2, DSAW, W/ 14-16 MILS FBE AND 40 MILS ARO
HYDROSTATIC PRE-TEST PRESSURE: 2160 PSIG MIN - 2220 PSIG MAX
DESIGN PRESSURE: MAOP 1,440 PSIG
LOCATION CLASS: 1
DESIGN FACTOR: 0.5

GENERAL NOTES:

1) GRID PROJECTION BASED UPON OHIO STATE PLANE COORDINATE SYSTEM, NORTH ZONE (GRID UNITS IN FEET) GEODETIC DATUM: NAD 1983, CLARKE SPHEROID, 1866.
2) CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL FOREIGN PIPELINE CROSSINGS AND COVER PRIOR TO CONSTRUCTION.

GENERAL NOTES CONT.:

3) FOOT ACCESS FOR HDD GUIDED WIRE WILL BE REQUIRED 100 FT TO 200 FT BOTH SIDES OF CENTERLINE. HAND CLEARING OF TREES 3" DIAMETER AND SMALLER.
4) ROUTING OF ACCESS PATHS THROUGH FORESTED AREAS TO OBTAIN WATER FOR HDDS OR PIPELINE TESTING MAY VARY TO MINIMIZE IMPACTS TO TREES, BUT WILL BE NO MORE THAN 3 FT WIDE AND WILL GENERALLY FOLLOW THE PIPELINE CENTERLINE.
5) CONTRACTOR TO PROVIDE AS-BUILT DRAWING AND INFORMATION WITHIN 10 DAYS FROM BOREHOLE COMPLETION AND SHALL INCLUDE THE FOLLOWING AT A MINIMUM:
   - CAD (2010 OR HIGHER) AND PDF FILE OF PIPING PLAN AND PROFILE
   - TABLE OF PILOT HOLE DATA USED TO CREATE PLAN AND PROFILE DRAWINGS

CONTRACTOR HDD PLAN NOTES:

CONTRACTOR'S PROPOSED HDD PLAN AND ANY OF ITS SUBCONTRACTORS, VENDORS, OR SUPPLIERS UTILIZED TO PERFORM HORIZONTAL DIRECTIONAL DRILLS SHALL BE SUBMITTED TO COMPANY FOR APPROVAL A MINIMUM OF 30 DAYS PRIOR TO START OF DRILLING OPERATIONS. PLAN SHALL INCLUDE AT MINIMUM:

- CONTRACTORS' SITE SPECIFIC BORE PLAN AND PROFILE, SHOWING FOREIGN PIPELINES AND UTILITIES WITH FIELD VERIFIED ELEVATIONS, TOP OF BORE SEPARATION FROM UNDERGROUND UTILITIES, ROADS AND OTHER FEATURES, PLANNED MINIMUM DRILL RADIUS WITH PC AND PT POINTS
- CONTRACTORS EQUIPMENT AND SITE LAYOUT
- DRILLING PLAN AT A MINIMUM TO INCLUDE THE FOLLOWING: PILOT HOLE DRILL TOLERANCES, ANTICIPATED DOWN HOLE PRESSURE RANGE, EXPECTED PILOT AND REAMING PROCESS, EXPECTED PULL LOADS, SAFETY, GUIDANCE SYSTEM, CONTINGENCY PLANS, INADVERTENT RETURNS PLAN WITH NOTIFICATION PROCEDURES
- DRILLING FLUID AND POTENTIAL ADDITIVES (PROVIDE MSDS), AUTHORIZED DISPOSAL LOCATION (COMPANY TO APPROVE)
- BREAKOVER PROFILE WITH MINIMUM RADIUS, PIPE SUPPORT EQUIPMENT LOCATION WITH PIPE ELEVATION (COMPANY WILL EVALUATE PIPE STRESS) AND MAXIMUM ROLLER SPACING
- WATER SOURCE TO BE USED

ENVIRONMENTAL NOTES:

1) EROSION/SEDIMENT CONTROL STRUCTURES TO BE INSTALLED AND MAINTAINED TO MINIMIZE IMPACTS TO WETLANDS OR WATERBODIES.
2) ANY ON-LAND TRENCH DEWATERING TO BE DIRECTED TO WETLAND FILTER BAG AND/OR DEWATERING STRUCTURE IN AN UPLAND AREA TO MINIMIZE EROSION OF SEDIMENTATION TO WETLANDS/WATERBODIES.
3) PRE-CONSTRUCTION CONTOURS TO BE RE-ESTABLISHED FOR ALL DISTURBED AREAS. ALL DISTURBED AREAS TO BE RESTORED AND/OR REVEGETATED AS APPLICABLE.
4) EROSION/SEDIMENTATION CONTROL STRUCTURES TO REMAIN IN PLACE UNTIL RESTORATION AND REVEGETATION ARE DEEMED SUCCESSFUL.

LEGEND:

- PROPOSED MAINLINE A
- PROPOSED MAINLINE B
- PERMANENT EASEMENT
- TEMPORARY WORK SPACE
- ADDITIONAL TEMPORARY WORK SPACE
- ACCESS PATH
- GEOTECH CORE

ENVIRONMENTAL LEGEND:

- PERENNIAL STREAM
- EPHEMERAL STREAM
- INTERMITTENT STREAM
- NATURAL DRAINAGE
- WATERBODY
- WETLAND EMERGENT
- WETLAND FORESTED
- WETLAND SCRUB SHRUB

DWG. NO.	REFERENCE DRAWING TITLE
ML-P3-4019	ALIGNMENT
ML-P3-4018A	ALIGNMENT

NO.	REVISION - DESCRIPTION	BY	DATE	CHK'D	APP'D
1	REVERSE DRILL DUE TO EAGLE NESTS, REMOVE ACCESS PATHS & ADD NOTE TO NOT CUT TREES	NLM	11-18-16	CRF	JHR
0	ISSUED FOR CONSTRUCTION	MFZ	7-25-16	CRF	JHR

STATE OF OHIO 12/16/16 JEFFREY H. RICHARDSON E-76936 REGISTERED PROFESSIONAL ENGINEER

PROJECT CONSULTING SERVICES, INC.
DBA PROJECT MANAGEMENT & CONSULTING, INC.
3300 WEST ESPLANADE AVE., S., SUITE 500
METAIRIE, LA 70002-7406
(504) 833-5321 Fax (504) 833-4940
www.projectconsulting.com

DWG. STATUS	CHECKED BY	CHECKED DATE	APPROVED BY	APPROVED DATE	BY	DATE
PREL'Y						
BID	SM	8-5-15	LB	8-5-15		
CONSTR.	SM	4-25-16	LB	4-25-16		
CADDS	PLOT DATE:					
	FILE NAME:					

		BY	DATE
P.I./STA. NO.			
ACCOUNT NO.			
CONSTRUCTION YEAR	2016		
DESIGN	JHR		
DRAWN	NLM	9-4-14	
ASBUILT			
FILE NO.			
SCALE: NOTED			

ROVER PIPELINE LLC

ROVER PIPELINE PROJECT
42" DUAL MAINLINE A & B - NG PIPELINE
BLACK FORK MOHICAN RIVER HDD
M.P. 95.59 TO M.P. 95.97
ASHLAND & RICHLAND, OHIO

PROJECT NO. 588000000008
PREVIOUS DWG. NO.
SHEET 1 OF 1
DWG. NO. ML-P4-14 (1)
SHEET 1 OF 1

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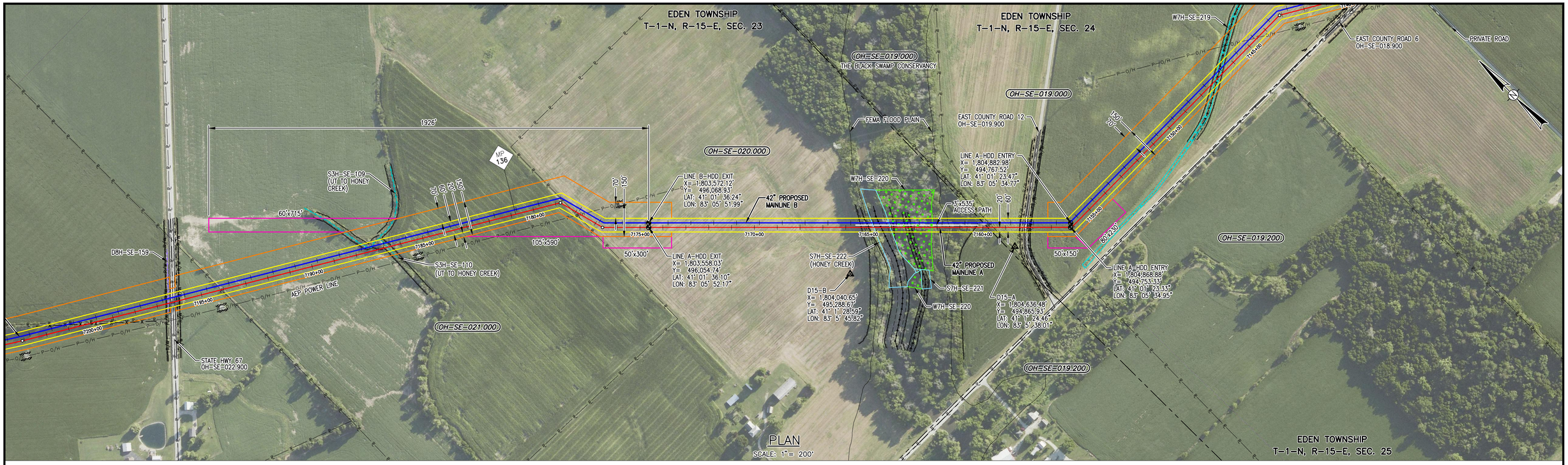

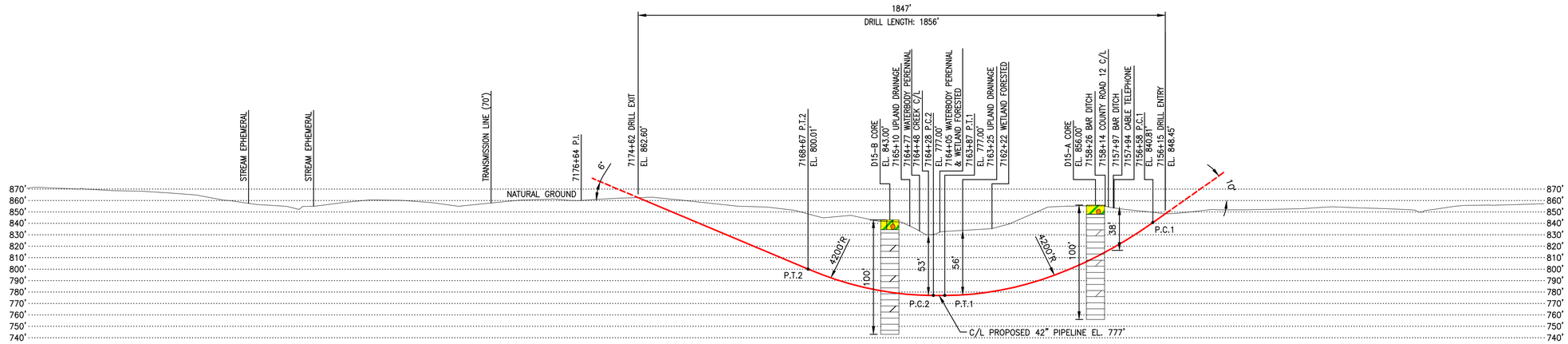

LEGEND

- CLAYEY SAND W/GRAVEL
- DOLOMITE
- SILTY CLAYEY SAND W/GRAVEL

SEE ML-P4-15 HONEY CREEK & COUNTY ROAD 12 HDD GEO REPORT FOR GEOTECHNICAL CORE DETAILS.

HONEY CREEK & COUNTY ROAD 12 HDD

PROFILE

HORIZONTAL SCALE: 1"= 200'
VERTICAL SCALE: 1"= 50'

SPECIFICATIONS:

CARRIER PIPE: 42.000" O.D. X 0.864" W.T. X-70
A.P.I. 5L PSL 2, DSAW, W/ 14-16 MILS FBE AND 40 MILS ARO
HYDROSTATIC PRE-TEST PRESSURE: 2160 PSIG MIN – 2220 PSIG MAX
DESIGN PRESSURE: MAOP 1,440 PSIG
LOCATION CLASS: 1
DESIGN FACTOR: 0.5

GENERAL NOTES:

1) GRID PROJECTION BASED UPON OHIO STATE PLANE COORDINATE SYSTEM, NORTH ZONE (GRID UNITS IN FEET) GEODETIC DATUM: NAD 1983, CLARKE SPHEROID, 1866.
2) CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL FOREIGN PIPELINE CROSSINGS AND COVER PRIOR TO CONSTRUCTION.

GENERAL NOTES CONT.:

3) FOOT ACCESS FOR HDD GUIDED WIRE WILL BE REQUIRED 100 FT TO 200 FT BOTH SIDES OF CENTERLINE. HAND CLEARING OF TREES 3" DIAMETER AND SMALLER.
4) ROUTING OF ACCESS PATHS THROUGH FORESTED AREAS TO OBTAIN WATER FOR HDDS OR PIPELINE TESTING MAY VARY TO MINIMIZE IMPACTS TO TREES, BUT WILL BE NO MORE THAN 3 FT WIDE AND WILL GENERALLY FOLLOW THE PIPELINE CENTERLINE.
5) CONTRACTOR TO PROVIDE AS-BUILT DRAWING AND INFORMATION WITHIN 10 DAYS FROM BOREHOLE COMPLETION AND SHALL INCLUDE THE FOLLOWING AT A MINIMUM:
   - CAD (2010 OR HIGHER) AND PDF FILE OF PIPING PLAN AND PROFILE
   - TABLE OF PILOT HOLE DATA USED TO CREATE PLAN AND PROFILE DRAWINGS

CONTRACTOR HDD PLAN NOTES:

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- CONTRACTORS EQUIPMENT AND SITE LAYOUT
- DRILLING PLAN AT A MINIMUM TO INCLUDE THE FOLLOWING: PILOT HOLE DRILL TOLERANCES, ANTICIPATED DOWN HOLE PRESSURE RANGE, EXPECTED PILOT AND REAMING PROCESS, EXPECTED PULL LOADS, SAFETY, GUIDANCE SYSTEM, CONTINGENCY PLANS, INADVERTENT RETURNS PLAN WITH NOTIFICATION PROCEDURES
- DRILLING FLUID AND POTENTIAL ADDITIVES (PROVIDE MSDS), AUTHORIZED DISPOSAL LOCATION (COMPANY TO APPROVE)
- BREAKOVER PROFILE WITH MINIMUM RADIUS, PIPE SUPPORT EQUIPMENT LOCATION WITH PIPE ELEVATION (COMPANY WILL EVALUATE PIPE STRESS) AND MAXIMUM ROLLER SPACING
- WATER SOURCE TO BE USED

ENVIRONMENTAL NOTES:

1) EROSION/SEDIMENT CONTROL STRUCTURES TO BE INSTALLED AND MAINTAINED TO MINIMIZE IMPACTS TO WETLANDS OR WATERBODIES.
2) ANY ON-LAND TRENCH DEWATERING TO BE DIRECTED TO WETLAND FILTER BAG AND/OR DEWATERING STRUCTURE IN AN UPLAND AREA TO MINIMIZE EROSION OF SEDIMENTATION TO WETLANDS/WATERBODIES.
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4) EROSION/SEDIMENTATION CONTROL STRUCTURES TO REMAIN IN PLACE UNTIL RESTORATION AND REVEGETATION ARE DEEMED SUCCESSFUL.

LEGEND:

- PROPOSED MAINLINE A
- PROPOSED MAINLINE B
- PERMANENT EASEMENT
- TEMPORARY WORK SPACE
- ADDITIONAL TEMPORARY WORK SPACE
- ACCESS PATH
- GEOTECH CORE

ENVIRONMENTAL LEGEND:

- PERENNIAL STREAM
- EPHEMERAL STREAM
- INTERMITTENT STREAM
- NATURAL DRAINAGE
- WATERBODY
- WETLAND EMERGENT
- WETLAND FORESTED
- WETLAND SCRUB SHRUB

DWG. NO.	REFERENCE DRAWING TITLE
ML-P3-5009	ALIGNMENT
ML-P3-5008	ALIGNMENT

NO.	REVISION – DESCRIPTION	BY	DATE	CHK'D	APP'D
0	ISSUED FOR CONSTRUCTION	MFZ	7-25-16	PCW	JHR

STATE OF OHIO 9/16/16 JEFFREY H. RICHARDSON E-76936 REGISTERED PROFESSIONAL ENGINEER

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ISN PROJECT MANAGEMENT & CONSULTING, INC.
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www.projectconsulting.com

DWG. STATUS	CHECKED BY	CHECKED DATE	APPROVED BY	APPROVED DATE	BY	DATE
PREL'Y						
BID	SM	8-5-15	LB	8-5-15		
CONSTR.	SM	4-25-16	LB	4-25-16		
CADDS	PLOT DATE:					
	FILE NAME:					

P.L./STA. NO.
ACCOUNT NO.

CONSTRUCTION YEAR	BY	DATE
2016		
DESIGN	JHR	
DRAWN	KMA	9-4-14
ASBUILT		
FILE NO.		
SCALE: NOTED		

ROVER PIPELINE LLC

ROVER PIPELINE PROJECT
42" DUAL MAINLINE A & B – NG PIPELINE
HONEY CREEK & COUNTY ROAD 12 HDD
M.P. 135.53 TO M.P. 135.88
SENECA, OHIO

PROJECT NO. 588000000008
PREVIOUS DWG. NO.
SHEET 1 OF 1
DWG. NO. ML-P4-15 (0)
SHEET 1 OF 1

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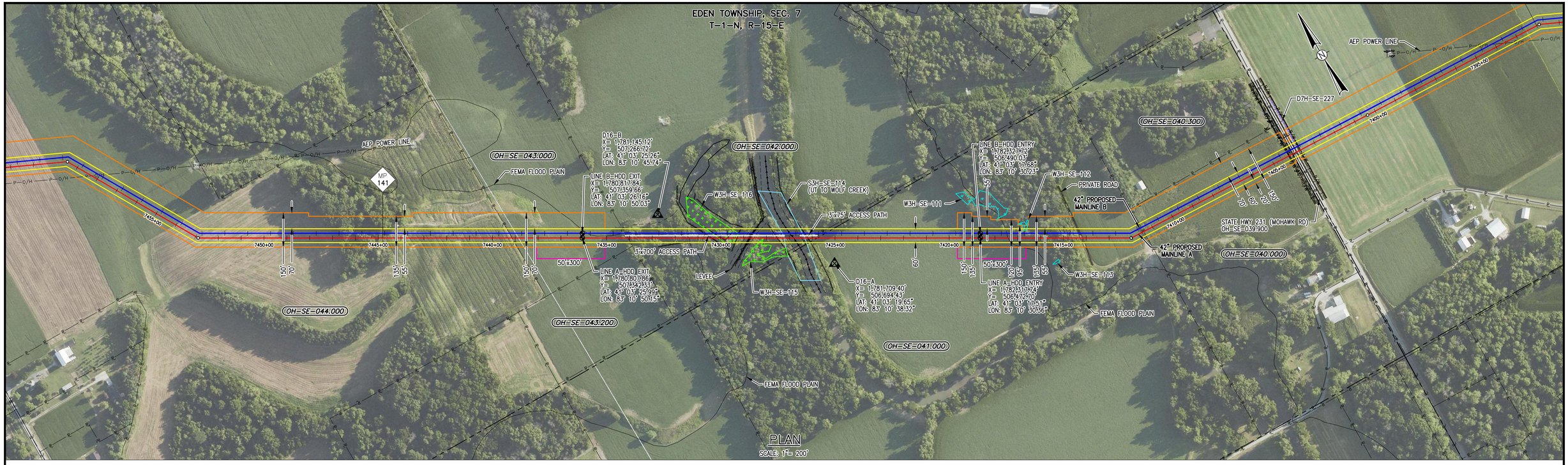

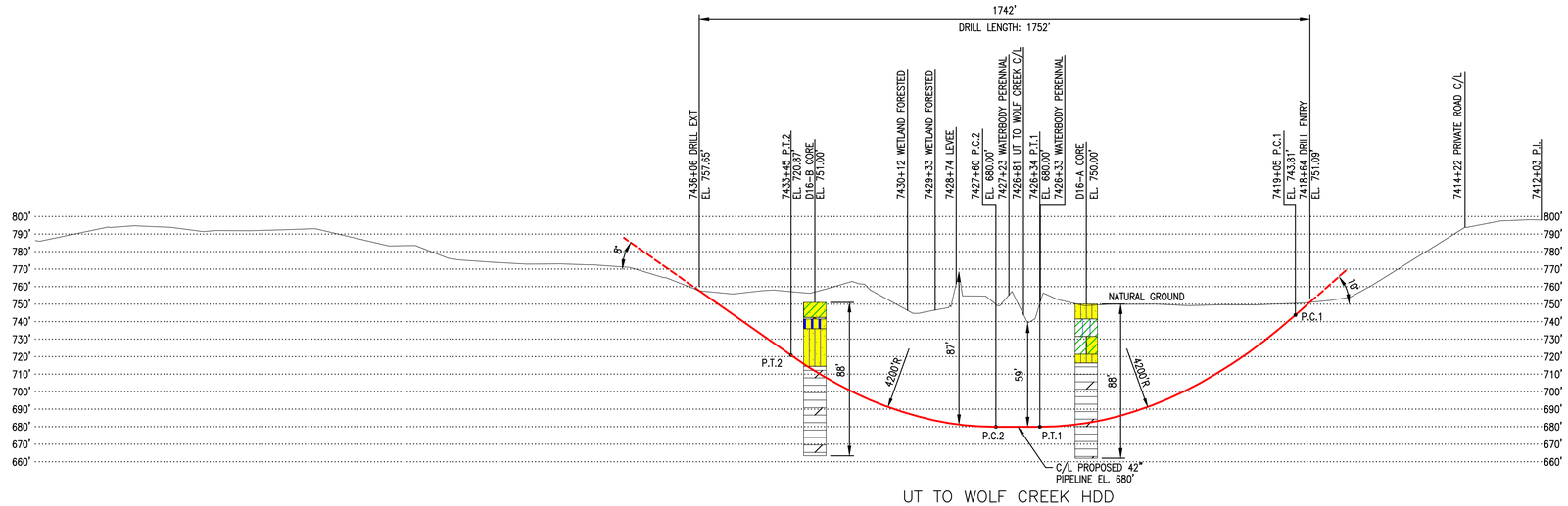

UT TO WOLF CREEK HDD
PROFILE

HORIZONTAL SCALE: 1"= 200'
VERTICAL SCALE: 1"= 40'

LEGEND

- SILTY SAND
- SANDY CLAY
- SILTY CLAY
- CLAYEY GRAVEL
- LEAN CLAY WITH SAND
- SANDY SILT
- DOLOMITE

SEE ML-P4-16 UT TO WOLF CREEK HDD GEO REPORT FOR GEOTECHNICAL CORE DETAILS.

SPECIFICATIONS:

CARRIER PIPE: 42.000" O.D. X 0.864" W.T. X-70
A.P.I. 5L PSL 2, DSAW, W/ 14-16 MILS FBE AND 26 MILS ARO
HYDROSTATIC PRE-TEST PRESSURE: 2160 PSIG MIN - 2220 PSIG MAX
DESIGN PRESSURE: MAOP 1,440 PSIG
LOCATION CLASS: 1
DESIGN FACTOR: 0.5

GENERAL NOTES:

1) GRID PROJECTION BASED UPON OHIO STATE PLANE COORDINATE SYSTEM, NORTH ZONE (GRID UNITS IN FEET) GEODETIC DATUM: NAD 1983, CLARKE SPHEROID, 1866.
2) CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL FOREIGN PIPELINE CROSSINGS AND COVER PRIOR TO CONSTRUCTION.

GENERAL NOTES CONT.:

3) FOOT ACCESS FOR HDD GUIDED WIRE WILL BE REQUIRED 100 FT TO 200 FT BOTH SIDES OF CENTERLINE. HAND CLEARING OF TREES 3" DIAMETER AND SMALLER.
4) ROUTING OF ACCESS PATHS THROUGH FORESTED AREAS TO OBTAIN WATER FOR HDDS OR PIPELINE TESTING MAY VARY TO MINIMIZE IMPACTS TO TREES, BUT WILL BE NO MORE THAN 3 FT WIDE AND WILL GENERALLY FOLLOW THE PIPELINE CENTERLINE.
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   - TABLE OF PILOT HOLE DATA USED TO CREATE PLAN AND PROFILE DRAWINGS

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- CONTRACTOR'S EQUIPMENT AND SITE LAYOUT
- DRILLING PLAN AT A MINIMUM TO INCLUDE THE FOLLOWING: PILOT HOLE DRILL TOLERANCES, ANTICIPATED DOWN HOLE PRESSURE RANGE, EXPECTED PILOT AND REAMING PROCESS, EXPECTED PULL LOADS, SAFETY, GUIDANCE SYSTEM, CONTINGENCY PLANS, INADVERTENT RETURNS PLAN WITH NOTIFICATION PROCEDURES
- DRILLING FLUID AND POTENTIAL ADDITIVES (PROVIDE MSDS), AUTHORIZED DISPOSAL LOCATION (COMPANY TO APPROVE)
- BREAKOVER PROFILE WITH MINIMUM RADIUS, PIPE SUPPORT EQUIPMENT LOCATION WITH PIPE ELEVATION (COMPANY WILL EVALUATE PIPE STRESS) AND MAXIMUM ROLLER SPACING
- WATER SOURCE TO BE USED

ENVIRONMENTAL NOTES:

1) EROSION/SEDIMENT CONTROL STRUCTURES TO BE INSTALLED AND MAINTAINED TO MINIMIZE IMPACTS TO WETLANDS OR WATERBODIES.
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4) EROSION/SEDIMENTATION CONTROL STRUCTURES TO REMAIN IN PLACE UNTIL RESTORATION AND REVEGETATION ARE DEEMED SUCCESSFUL.

LEGEND:

- PROPOSED MAINLINE A
- PROPOSED MAINLINE B
- PERMANENT EASEMENT
- TEMPORARY WORK SPACE
- ADDITIONAL TEMPORARY WORK SPACE
- ACCESS PATH
- GEOTECH CORE

ENVIRONMENTAL LEGEND:

- PERENNIAL STREAM
- EPHEMERAL STREAM
- INTERMITTENT STREAM
- NATURAL DRAINAGE
- WATERBODY
- WETLAND EMERGENT
- WETLAND FORESTED
- WETLAND SCRUB SHRUB

DWG. NO.	REFERENCE DRAWING TITLE
ML-P3-5013	ALIGNMENT

NO.	REVISION - DESCRIPTION	BY	DATE	CHK'D	APP'D
0	ISSUED FOR CONSTRUCTION	MFZ	7-25-16	PCW	JHR

STATE OF OHIO 9/15/16 JEFFREY H. RICHARDSON E-76936 REGISTERED PROFESSIONAL ENGINEER

Project Consulting Services, Inc.
586 Project Management & Consulting, Inc.
3300 Ridgewood Road, Suite 300
Metairie, LA 70002-7408
(504) 833-5321 Fax (504) 833-4940
www.projectconsulting.com

DWG. STATUS	CHECKED BY	CHECKED DATE	APPROVED BY	APPROVED DATE	BY	DATE
PREL'Y						
BID	SM	8-5-15	LB	8-5-15		
CONSTR.	SM	4-25-16	LB	4-25-16		
CADDS	PLOT DATE:					
	FILE NAME:					

P.L./STA. NO.
ACCOUNT NO.

CONSTRUCTION YEAR	BY	DATE
2016		
DESIGN	JHR	
DRAWN	KMA	9-8-14
ASBUILT		
FILE NO.		
SCALE: NOTED		

ROVER PIPELINE LLC

ROVER PIPELINE PROJECT
42" DUAL MAINLINE A & B - NG PIPELINE
UT TO WOLF CREEK HDD
M.P. 140.50 TO M.P. 140.83
SENECA, OHIO

PROJECT NO. 588000000008
PREVIOUS DWG. NO.
SHEET 1 OF 1
DWG. NO. ML-P4-16
SHEET 1 OF 1
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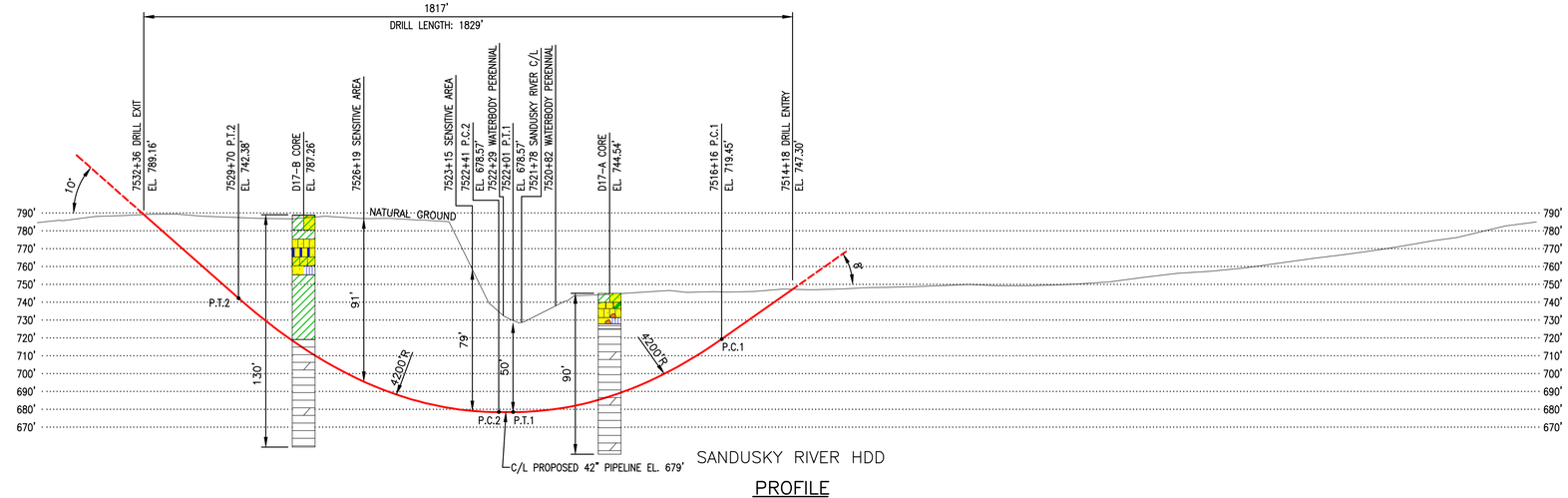

SANDUSKY RIVER HDD

PROFILE

HORIZONTAL SCALE: 1"= 200'
VERTICAL SCALE: 1"= 40'

LEGEND

- TOPSOIL
- LEAN CLAY
- POORLY-GRADED SAND WITH SILT AND GRAVEL
- LEAN CLAY WITH SAND
- POORLY-GRADED SAND WITH SILT
- SHALE
- SILTY SAND
- DOLOMITE
- SANDY SILT
- SILTY CLAYEY SAND
- SANDY SILTY CLAY
- SILTY SAND WITH GRAVEL

SEE ML-P4-17 SANDUSKY RIVER HDD GEO REPORT FOR GEOTECHNICAL CORE DETAILS.

SPECIFICATIONS:

CARRIER PIPE: 42.000" O.D. X 0.864" W.T. X-70
A.P.I. 5L PSL 2, DSAW, W/ 14-16 MILS FBE AND 26 MILS ARO
HYDROSTATIC PRE-TEST PRESSURE: 2160 PSIG MIN – 2220 PSIG MAX
DESIGN PRESSURE: MAOP 1,440 PSIG
LOCATION CLASS: 1
DESIGN FACTOR: 0.5

GENERAL NOTES:

1) GRID PROJECTION BASED UPON OHIO STATE PLANE COORDINATE SYSTEM, NORTH ZONE (GRID UNITS IN FEET) GEODETIC DATUM: NAD 1983, CLARKE SPHEROID, 1866.
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GENERAL NOTES CONT.:

3) FOOT ACCESS FOR HDD GUIDED WIRE WILL BE REQUIRED 100 FT TO 200 FT BOTH SIDES OF CENTERLINE. HAND CLEARING OF TREES 3" DIAMETER AND SMALLER.
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LEGEND:

- PROPOSED MAINLINE A
- PROPOSED MAINLINE B
- PERMANENT EASEMENT
- TEMPORARY WORK SPACE
- ADDITIONAL TEMPORARY WORK SPACE
- ACCESS PATH
- GEOTECH CORE

ENVIRONMENTAL LEGEND:

- PERENNIAL STREAM
- EPHEMERAL STREAM
- INTERMITTENT STREAM
- NATURAL DRAINAGE
- WATERBODY
- WETLAND EMERGENT
- WETLAND FORESTED
- WETLAND SCRUB SHRUB

DWG. NO.	REFERENCE DRAWING TITLE
ML-P3-5015	ALIGNMENT

NO.	REVISION – DESCRIPTION	BY	DATE	CHK'D	APP'D
0	ISSUED FOR CONSTRUCTION	MFZ	7-25-16	PCW	JHR

STATE OF OHIO 9/9/16 JEFFREY H. RICHARDSON E-76936 PROFESSIONAL ENGINEER

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DWG. STATUS	CHECKED BY	CHECKED DATE	APPROVED BY	APPROVED DATE	BY	DATE
PREL'Y						
BID	SM	8-5-15	LB	8-5-15		
CONSTR.	SM	4-25-16	LB	4-25-16		
CADDS	PLOT DATE:					
	FILE NAME:					

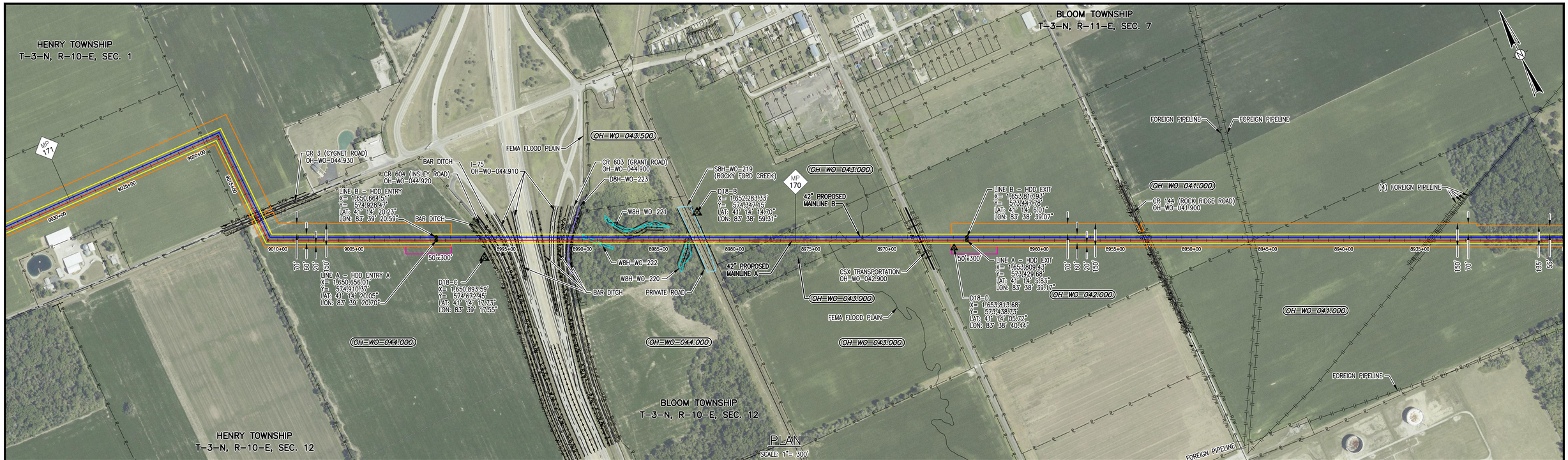
P.L./STA. NO.
ACCOUNT NO.

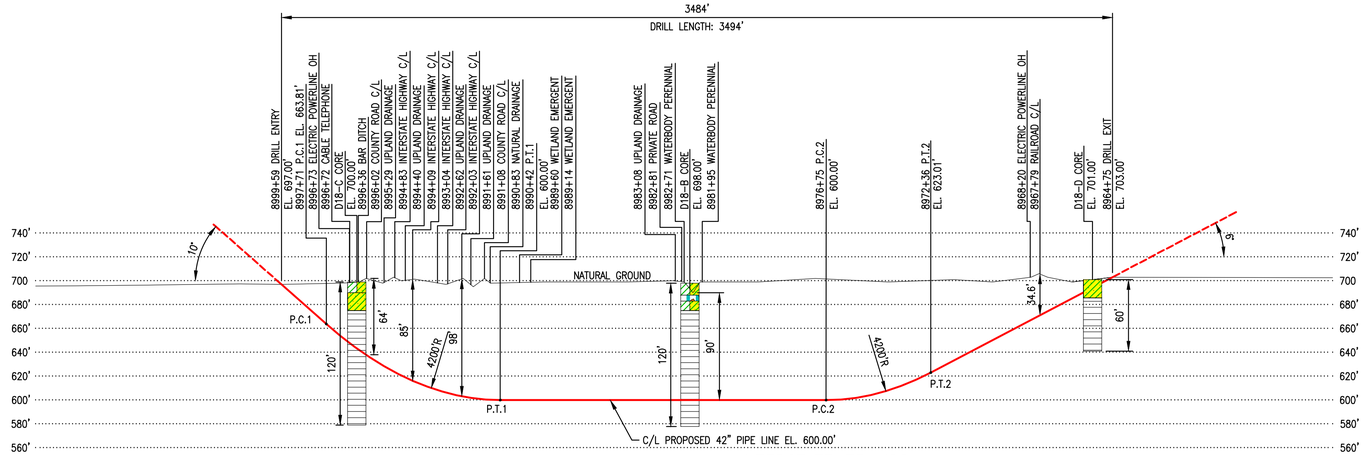
CONSTRUCTION YEAR		2016
	BY	DATE
DESIGN	JHR	
DRAWN	NLM	9-24-14
ASBUILT		
FILE NO.		
SCALE: NOTED		

ROVER PIPELINE LLC

ROVER PIPELINE PROJECT
42" DUAL MAINLINE A & B – NG PIPELINE
SANDUSKY RIVER HDD
M.P. 142.31 TO M.P. 142.66
SENECA, OHIO

PROJECT NO. 588000000008
PREVIOUS DWG. NO.
SHEET 1 OF 1
DWG. NO. ML-P4-17 (0)
SHEET 1 OF 1

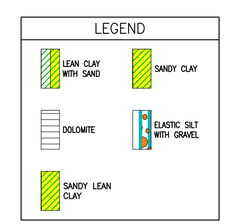




INTERSTATE 75 HDD

PROFILE

HORIZONTAL SCALE: 1"= 300'
VERTICAL SCALE: 1"= 60'



SEE ML-P4-18 INTERSTATE 75 HDD GEO REPORT FOR GEOTECHNICAL CORE DETAILS.

SPECIFICATIONS:

CARRIER PIPE: 42.000" O.D. X 0.864" W.T. X-70
A.P.I. 5L PSL 2, DSAW, W/ 14-16 MILS FBE AND 26 MILS ARO
HYDROSTATIC PRE-TEST PRESSURE: 2160 PSIG MIN - 2220 PSIG MAX
DESIGN PRESSURE: MAOP 1,440 PSIG
LOCATION CLASS: 1
DESIGN FACTOR: 0.5

GENERAL NOTES:

1) GRID PROJECTION BASED UPON OHIO STATE PLANE COORDINATE SYSTEM, NORTH ZONE (GRID UNITS IN FEET) GEODETIC DATUM: NAD 1983, CLARKE SPHEROID, 1866.
2) CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL FOREIGN PIPELINE CROSSINGS AND COVER PRIOR TO CONSTRUCTION.
3) FOOT ACCESS FOR HDD GUIDED WIRE WILL BE REQUIRED 100 FT TO 200 FT BOTH SIDES OF CENTERLINE. HAND CLEARING OF TREES 3" DIAMETER AND SMALLER.
4) CONTRACTOR TO PROVIDE AS-BUILT DRAWING AND INFORMATION WITHIN 10 DAYS FROM BOREHOLE COMPLETION AND SHALL INCLUDE THE FOLLOWING AT A MINIMUM:
   - CAD (2010 OR HIGHER) AND PDF FILE OF PIPING PLAN AND PROFILE
   - TABLE OF PILOT HOLE DATA USED TO CREATE PLAN AND PROFILE DRAWINGS

CONTRACTOR HDD PLAN NOTES:

CONTRACTOR'S PROPOSED HDD PLAN AND ANY OF ITS SUBCONTRACTORS, VENDORS, OR SUPPLIERS UTILIZED TO PERFORM HORIZONTAL DIRECTIONAL DRILLS SHALL BE SUBMITTED TO COMPANY FOR APPROVAL A MINIMUM OF 30 DAYS PRIOR TO START OF DRILLING OPERATIONS. PLAN SHALL INCLUDE AT MINIMUM:

- CONTRACTORS' SITE SPECIFIC BORE PLAN AND PROFILE, SHOWING FOREIGN PIPELINES AND UTILITIES WITH FIELD VERIFIED ELEVATIONS, TOP OF BORE SEPARATION FROM UNDERGROUND UTILITIES, ROADS AND OTHER FEATURES, PLANNED MINIMUM DRILL RADIUS WITH PC AND PT POINTS
- CONTRACTORS EQUIPMENT AND SITE LAYOUT
- DRILLING PLAN AT A MINIMUM TO INCLUDE THE FOLLOWING: PILOT HOLE DRILL TOLERANCES, ANTICIPATED DOWN HOLE PRESSURE RANGE, EXPECTED PILOT AND REAMING PROCESS, EXPECTED PULL LOADS, SAFETY, GUIDANCE SYSTEM, CONTINGENCY PLANS, INADVERTENT RETURNS PLAN WITH NOTIFICATION PROCEDURES
- DRILLING FLUID AND POTENTIAL ADDITIVES (PROVIDE MSDS), AUTHORIZED DISPOSAL LOCATION (COMPANY TO APPROVE)
- BREAKOVER PROFILE WITH MINIMUM RADIUS, PIPE SUPPORT EQUIPMENT LOCATION WITH PIPE ELEVATION (COMPANY WILL EVALUATE PIPE STRESS) AND MAXIMUM ROLLER SPACING
- WATER SOURCE TO BE USED

ENVIRONMENTAL NOTES:

1) EROSION/SEDIMENT CONTROL STRUCTURES TO BE INSTALLED AND MAINTAINED TO MINIMIZE IMPACTS TO WETLANDS OR WATERBODIES.
2) ANY ON-LAND TRENCH DEWATERING TO BE DIRECTED TO WETLAND FILTER BAG AND/OR DEWATERING STRUCTURE IN AN UPLAND AREA TO MINIMIZE EROSION OF SEDIMENTATION TO WETLANDS/WATERBODIES.
3) PRE-CONSTRUCTION CONTOURS TO BE RE-ESTABLISHED FOR ALL DISTURBED AREAS. ALL DISTURBED AREAS TO BE RESTORED AND/OR REVEGETATED AS APPLICABLE.
4) EROSION/SEDIMENTATION CONTROL STRUCTURES TO REMAIN IN PLACE UNTIL RESTORATION AND REVEGETATION ARE DEEMED SUCCESSFUL.

LEGEND:
- PROPOSED MAINLINE A
- PROPOSED MAINLINE B
- PERMANENT EASEMENT
- TEMPORARY WORK SPACE
- ADDITIONAL TEMPORARY WORK SPACE
- ACCESS PATH
- GEOTECH CORE

ENVIRONMENTAL LEGEND:
- PERENNIAL STREAM
- EPHEMERAL STREAM
- INTERMITTENT STREAM
- NATURAL DRAINAGE
- WATERBODY
- WETLAND EMERGENT
- WETLAND FORESTED
- WETLAND SCRUB SHRUB

DWG. NO.	REFERENCE DRAWING TITLE
ML-P3-5043	ALIGNMENT

NO.	REVISION - DESCRIPTION	BY	DATE	CHK'D	APP'D
0	ISSUED FOR CONSTRUCTION	MFZ	7-25-16	PCW	JHR

STATE OF OHIO 9/15/16 JEFFREY H. RICHARDSON E-76936 REGISTERED PROFESSIONAL ENGINEER

PROJECT CONSULTANT & SERVICES, INC.
DBA PROJECT MANAGEMENT & SERVICES, INC.
3300 WEST ESPLANADE AVE., S. SUITE 300
METAIRIE, LA 70002-7406
(504) 833-5327 - Fax (504) 833-4940
www.projectconsulting.com

DWG. STATUS	CHECKED BY	CHECKED DATE	APPROVED BY	APPROVED DATE	BY	DATE
PREL'Y						
BID	SM	8-5-15	LB	8-5-15		
CONSTR.	SM	4-25-16	LB	4-25-16		
CADDS	PLOT DATE:					
	FILE NAME:					

P.L./STA. NO.			
ACCOUNT NO.			
CONSTRUCTION YEAR			2016
		BY	DATE
DESIGN		JHR	
DRAWN		NLM	9-30-14
ASBUILT			
FILE NO.			
SCALE: NOTED			

ROVER PIPELINE LLC

ROVER PIPELINE PROJECT
42" DUAL MAINLINE A & B - NG PIPELINE
INTERSTATE 75 HDD
M.P. 169.79 TO M.P. 170.45
WOOD, OHIO

PROJECT NO. 588000000008
PREVIOUS DWG. NO.
SHEET 1 OF 1
DWG. NO. ML-P4-18
SHEET 1 OF 1
0

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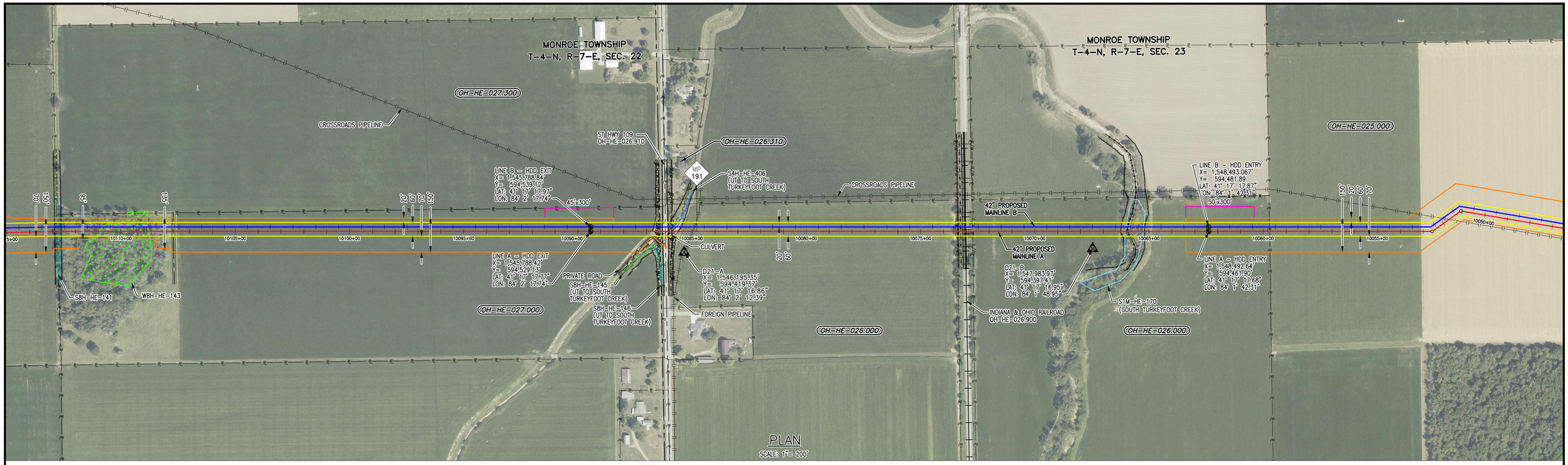
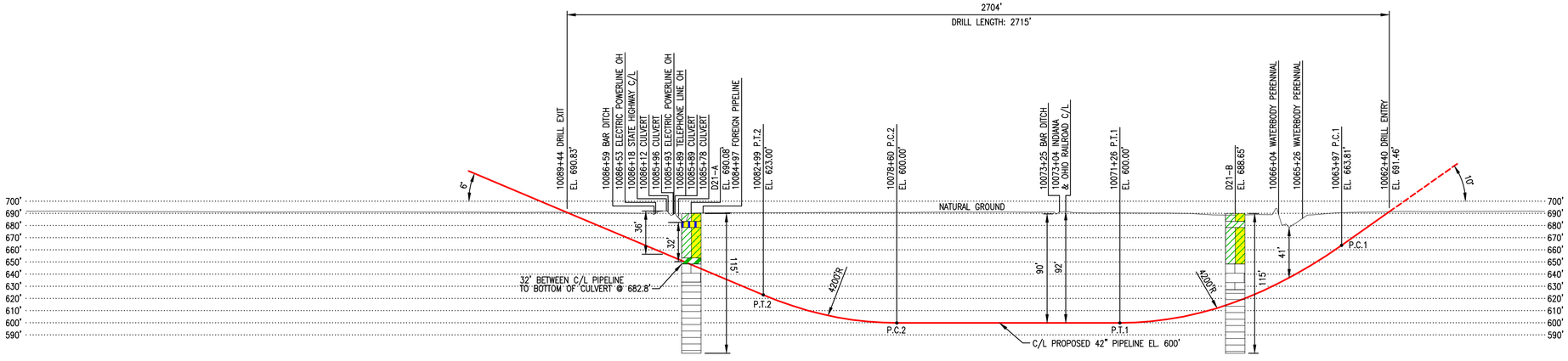
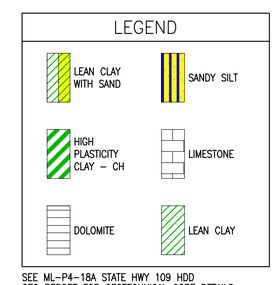




STATE HWY 109 HDD

PROFILE

HORIZONTAL SCALE: 1"= 200'
VERTICAL SCALE: 1"= 50'



SEE ML-P4-18A STATE HWY 109 HDD GEO REPORT FOR GEOTECHNICAL CORE DETAILS.

SPECIFICATIONS:

CARRIER PIPE: 42.000" O.D. X 0.864" W.T. X-70
A.P.I. 5L PSL 2, DSAW, W/ 14-16 MILS FBE AND 26 MILS ARO
HYDROSTATIC PRE-TEST PRESSURE: 2160 PSIG MIN - 2220 PSIG MAX
DESIGN PRESSURE: MAOP 1,440 PSIG
LOCATION CLASS: 1
DESIGN FACTOR: 0.5

GENERAL NOTES:

1) GRID PROJECTION BASED UPON OHIO STATE PLANE COORDINATE SYSTEM, NORTH ZONE (GRID UNITS IN FEET) GEODETIC DATUM: NAD 1983, CLARKE SPHEROID, 1866.
2) CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL FOREIGN PIPELINE CROSSINGS AND COVER PRIOR TO CONSTRUCTION.
3) FOOT ACCESS FOR HDD GUIDED WIRE WILL BE REQUIRED 100 FT TO 200 FT BOTH SIDES OF CENTERLINE. HAND CLEARING OF TREES 3" DIAMETER AND SMALLER.
4) CONTRACTOR TO PROVIDE AS-BUILT DRAWING AND INFORMATION WITHIN 10 DAYS FROM BOREHOLE COMPLETION AND SHALL INCLUDE THE FOLLOWING AT A MINIMUM:
   - CAD (2010 OR HIGHER) AND PDF FILE OF PIPING PLAN AND PROFILE
   - TABLE OF PILOT HOLE DATA USED TO CREATE PLAN AND PROFILE DRAWINGS

CONTRACTOR HDD PLAN NOTES:

CONTRACTOR'S PROPOSED HDD PLAN AND ANY OF ITS SUBCONTRACTORS, VENDORS, OR SUPPLIERS UTILIZED TO PERFORM HORIZONTAL DIRECTIONAL DRILLS SHALL BE SUBMITTED TO COMPANY FOR APPROVAL A MINIMUM OF 30 DAYS PRIOR TO START OF DRILLING OPERATIONS. PLAN SHALL INCLUDE AT MINIMUM:

- CONTRACTORS' SITE SPECIFIC BORE PLAN AND PROFILE, SHOWING FOREIGN PIPELINES AND UTILITIES WITH FIELD VERIFIED ELEVATIONS, TOP OF BORE SEPARATION FROM UNDERGROUND UTILITIES, ROADS AND OTHER FEATURES, PLANNED MINIMUM DRILL RADIUS WITH PC AND PT POINTS
- CONTRACTORS EQUIPMENT AND SITE LAYOUT
- DRILLING PLAN AT A MINIMUM TO INCLUDE THE FOLLOWING: PILOT HOLE DRILL TOLERANCES, ANTICIPATED DOWN HOLE PRESSURE RANGE, EXPECTED PILOT AND REAMING PROCESS, EXPECTED PULL LOADS, SAFETY, GUIDANCE SYSTEM, CONTINGENCY PLANS, INADVERTENT RETURNS PLAN WITH NOTIFICATION PROCEDURES
- DRILLING FLUID AND POTENTIAL ADDITIVES (PROVIDE MSDS), AUTHORIZED DISPOSAL LOCATION (COMPANY TO APPROVE)
- BREAKOVER PROFILE WITH MINIMUM RADIUS, PIPE SUPPORT EQUIPMENT LOCATION WITH PIPE ELEVATION (COMPANY WILL EVALUATE PIPE STRESS) AND MAXIMUM ROLLER SPACING
- WATER SOURCE TO BE USED

ENVIRONMENTAL NOTES:

1) EROSION/SEDIMENT CONTROL STRUCTURES TO BE INSTALLED AND MAINTAINED TO MINIMIZE IMPACTS TO WETLANDS OR WATERBODIES.
2) ANY ON-LAND TRENCH DEWATERING TO BE DIRECTED TO WETLAND FILTER BAG AND/OR DEWATERING STRUCTURE IN AN UPLAND AREA TO MINIMIZE EROSION OF SEDIMENTATION TO WETLANDS/WATERBODIES.
3) PRE-CONSTRUCTION CONTOURS TO BE RE-ESTABLISHED FOR ALL DISTURBED AREAS. ALL DISTURBED AREAS TO BE RESTORED AND/OR REVEGETATED AS APPLICABLE.
4) EROSION/SEDIMENTATION CONTROL STRUCTURES TO REMAIN IN PLACE UNTIL RESTORATION AND REVEGETATION ARE DEEMED SUCCESSFUL.

LEGEND:

- PROPOSED MAINLINE A
- PROPOSED MAINLINE B
- PERMANENT EASEMENT
- TEMPORARY WORK SPACE
- ADDITIONAL TEMPORARY WORK SPACE
- ACCESS PATH
- GEOTECH CORE

ENVIRONMENTAL LEGEND:

- PERENNIAL STREAM
- EPHEMERAL STREAM
- INTERMITTENT STREAM
- NATURAL DRAINAGE
- WATERBODY
- WETLAND EMERGENT
- WETLAND FORESTED
- WETLAND SCRUB SHRUB

DWG. NO.	REFERENCE DRAWING TITLE
ML-P3-6021	ALIGNMENT

NO.	REVISION - DESCRIPTION	BY	DATE	CHK'D	APP'D
0	ISSUED FOR CONSTRUCTION	MFZ	7-25-16	PCW	JHR

STATE OF OHIO JEFFREY H. RICHARDSON E-76936 REGISTERED PROFESSIONAL ENGINEER

Project Consulting Services, Inc. DBA PROJECT MANAGEMENT & CONSULTING, INC. 3300 WEST ESPLANADE AVENUE, Suite 500 METAIRIE, LOUISIANA 70002 (504) 833-5321 Fax (504) 833-4940 www.projectconsulting.com

DWG. STATUS	CHECKED BY	CHECKED DATE	APPROVED BY	APPROVED DATE	BY	DATE
PREL'Y						
BID	SM	8-5-15	LB	8-5-15		
CONSTR.	SM	4-25-16	LB	4-25-16		
CADDS	PLOT DATE:					
	FILE NAME:					

		BY	DATE
P.L./STA. NO.			
ACCOUNT NO.			
CONSTRUCTION YEAR	2016		
DESIGN		JHR	
DRAWN		KMA	9-4-14
ASBUILT			
FILE NO.			
SCALE: NOTED			

ROVER PIPELINE LLC

ROVER PIPELINE PROJECT
42" DUAL MAINLINE A & B - NG PIPELINE
STATE HWY 109 HDD
M.P. 190.58 TO M.P. 191.09
HENRY, OHIO

PROJECT NO. 588000000008
PREVIOUS DWG. NO.
SHEET 1 OF 1
DWG. NO. ML-P4-18A
SHEET 1 OF 1
0

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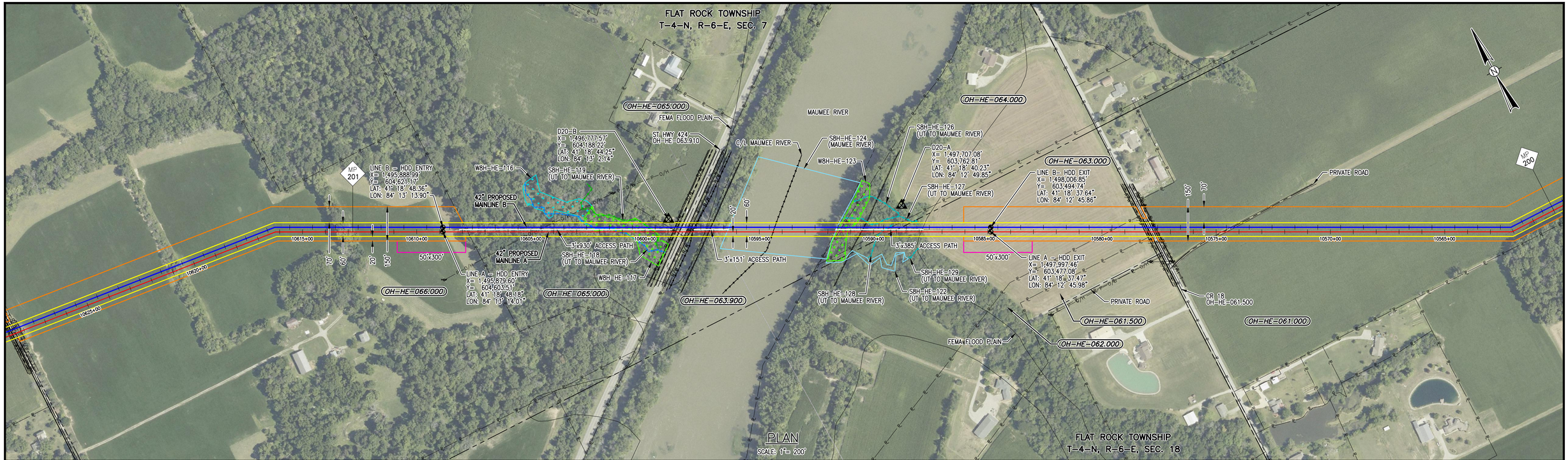
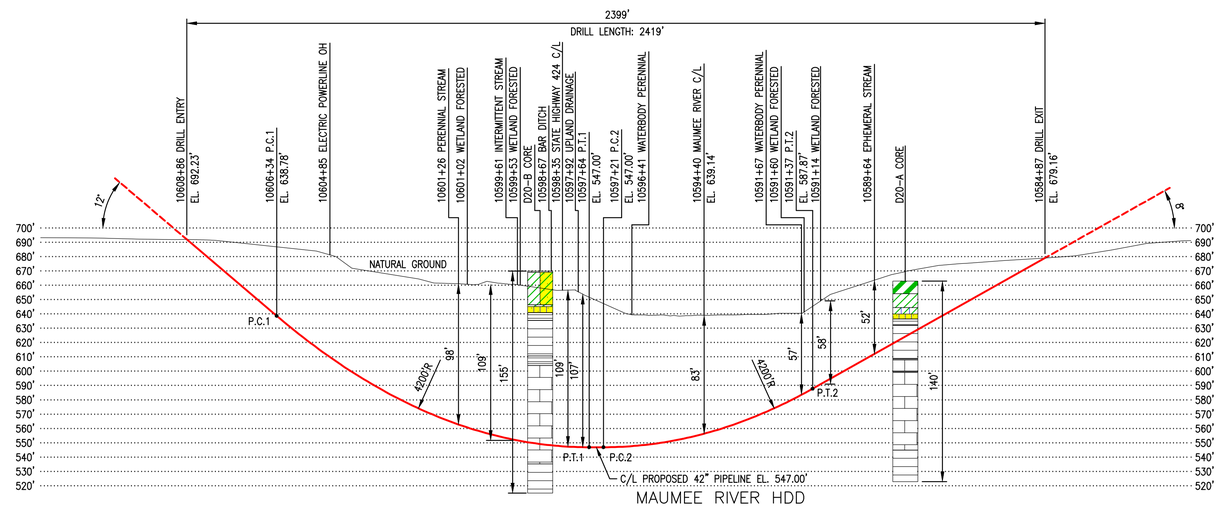




MAUMEE RIVER HDD

PROFILE

HORIZONTAL SCALE: 1"= 200'
VERTICAL SCALE: 1"= 50'

LEGEND

- TOPSOIL
- SILTY CLAY
- SILTY SAND
- DOLOMITE
- SHALE
- LEAN CLAY
- LIMESTONE
- LEAN CLAY WITH SAND
- HIGH PLASTICITY CLAY - CH

SEE ML-P4-20 MAUMEE RIVER HDD GEO REPORT FOR GEOTECHNICAL CORE DETAILS.

SPECIFICATIONS:

CARRIER PIPE: 42.000" O.D. X 0.864" W.T. X-70
A.P.I. 5L PSL 2, DSAW, W/ 14-16 MILS FBE AND 26 MILS ARO
HYDROSTATIC PRE-TEST PRESSURE: 2160 PSIG MIN - 2220 PSIG MAX
DESIGN PRESSURE: MAOP 1,440 PSIG
LOCATION CLASS: 1
DESIGN FACTOR: 0.5

GENERAL NOTES:

1) GRID PROJECTION BASED UPON OHIO STATE PLANE COORDINATE SYSTEM, NORTH ZONE (GRID UNITS IN FEET) GEODETIC DATUM: NAD 1983, CLARKE SPHEROID, 1866.
2) CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL FOREIGN PIPELINE CROSSINGS AND COVER PRIOR TO CONSTRUCTION.

GENERAL NOTES CONT.:

3) FOOT ACCESS FOR HDD GUIDED WIRE WILL BE REQUIRED 100 FT TO 200 FT BOTH SIDES OF CENTERLINE. HAND CLEARING OF TREES 3" DIAMETER AND SMALLER.
4) ROUTING OF ACCESS PATHS THROUGH FORESTED AREAS TO OBTAIN WATER FOR HDDS OR PIPELINE TESTING MAY VARY TO MINIMIZE IMPACTS TO TREES, BUT WILL BE NO MORE THAN 3 FT WIDE AND WILL GENERALLY FOLLOW THE PIPELINE CENTERLINE.
5) CONTRACTOR TO PROVIDE AS-BUILT DRAWING AND INFORMATION WITHIN 10 DAYS FROM BOREHOLE COMPLETION AND SHALL INCLUDE THE FOLLOWING AT A MINIMUM:
   - CAD (2010 OR HIGHER) AND PDF FILE OF PIPING PLAN AND PROFILE
   - TABLE OF PILOT HOLE DATA USED TO CREATE PLAN AND PROFILE DRAWINGS

CONTRACTOR HDD PLAN NOTES:

CONTRACTOR'S PROPOSED HDD PLAN AND ANY OF ITS SUBCONTRACTORS, VENDORS, OR SUPPLIERS UTILIZED TO PERFORM HORIZONTAL DIRECTIONAL DRILLS SHALL BE SUBMITTED TO COMPANY FOR APPROVAL A MINIMUM OF 30 DAYS PRIOR TO START OF DRILLING OPERATIONS. PLAN SHALL INCLUDE AT MINIMUM:

- CONTRACTORS' SITE SPECIFIC BORE PLAN AND PROFILE, SHOWING FOREIGN PIPELINES AND UTILITIES WITH FIELD VERIFIED ELEVATIONS, TOP OF BORE SEPARATION FROM UNDERGROUND UTILITIES, ROADS AND OTHER FEATURES, PLANNED MINIMUM DRILL RADIUS WITH PC AND PT POINTS
- CONTRACTORS EQUIPMENT AND SITE LAYOUT
- DRILLING PLAN AT A MINIMUM TO INCLUDE THE FOLLOWING: PILOT HOLE DRILL TOLERANCES, ANTICIPATED DOWN HOLE PRESSURE RANGE, EXPECTED PILOT AND REAMING PROCESS, EXPECTED PULL LOADS, SAFETY, GUIDANCE SYSTEM, CONTINGENCY PLANS, INADVERTENT RETURNS PLAN WITH NOTIFICATION PROCEDURES
- DRILLING FLUID AND POTENTIAL ADDITIVES (PROVIDE MSDS), AUTHORIZED DISPOSAL LOCATION (COMPANY TO APPROVE)
- BREAKOVER PROFILE WITH MINIMUM RADIUS, PIPE SUPPORT EQUIPMENT LOCATION WITH PIPE ELEVATION (COMPANY WILL EVALUATE PIPE STRESS) AND MAXIMUM ROLLER SPACING
- WATER SOURCE TO BE USED

ENVIRONMENTAL NOTES:

1) EROSION/SEDIMENT CONTROL STRUCTURES TO BE INSTALLED AND MAINTAINED TO MINIMIZE IMPACTS TO WETLANDS OR WATERBODIES.
2) ANY ON-LAND TRENCH DEWATERING TO BE DIRECTED TO WETLAND FILTER BAG AND/OR DEWATERING STRUCTURE IN AN UPLAND AREA TO MINIMIZE EROSION OF SEDIMENTATION TO WETLANDS/WATERBODIES.
3) PRE-CONSTRUCTION CONTOURS TO BE RE-ESTABLISHED FOR ALL DISTURBED AREAS. ALL DISTURBED AREAS TO BE RESTORED AND/OR REVEGETATED AS APPLICABLE.
4) EROSION/SEDIMENTATION CONTROL STRUCTURES TO REMAIN IN PLACE UNTIL RESTORATION AND REVEGETATION ARE DEEMED SUCCESSFUL.

LEGEND:

- PROPOSED MAINLINE A
- PROPOSED MAINLINE B
- PERMANENT EASEMENT
- TEMPORARY WORK SPACE
- ADDITIONAL TEMPORARY WORK SPACE
- ACCESS PATH
- GEOTECH CORE

ENVIRONMENTAL LEGEND:

- PERENNIAL STREAM
- EPHEMERAL STREAM
- INTERMITTENT STREAM
- NATURAL DRAINAGE
- WATERBODY
- WETLAND EMERGENT
- WETLAND FORESTED
- WETLAND SCRUB SHRUB

DWG. NO.	REFERENCE DRAWING TITLE	NO.	REVISION - DESCRIPTION	BY	DATE	CHK'D	APP'D
ML-P3-6031	ALIGNMENT	0	ISSUED FOR CONSTRUCTION	MFZ	7-25-16	PCW	JHR

STATE OF OHIO — JEFFREY H. RICHARDSON — E-76938 — REGISTERED PROFESSIONAL ENGINEER — 4/5/16

PROJECT CONSULTING SERVICES, INC.
DBA PROJECT MANAGEMENT & CONSULTING, INC.
5300 WEST CLEVELAND AVE., S., SUITE 500
CANTON, OHIO 44709
(330) 833-5321 Fax (330) 833-4940
www.projectconsulting.com

DWG. STATUS	CHECKED BY	CHECKED DATE	APPROVED BY	APPROVED DATE	BY	DATE
PREL'Y						
BID	SM	8-5-15	LB	8-5-15		
CONSTR.	SM	4-25-16	LB	4-25-16		
CADDS	PLOT DATE:					
	FILE NAME:					

P.L./STA. NO.
ACCOUNT NO.

CONSTRUCTION YEAR	BY	DATE
2016		
DESIGN	JHR	
DRAWN	NLM	9-4-14
ASBUILT		
FILE NO.		
SCALE: NOTED		

ROVER PIPELINE LLC

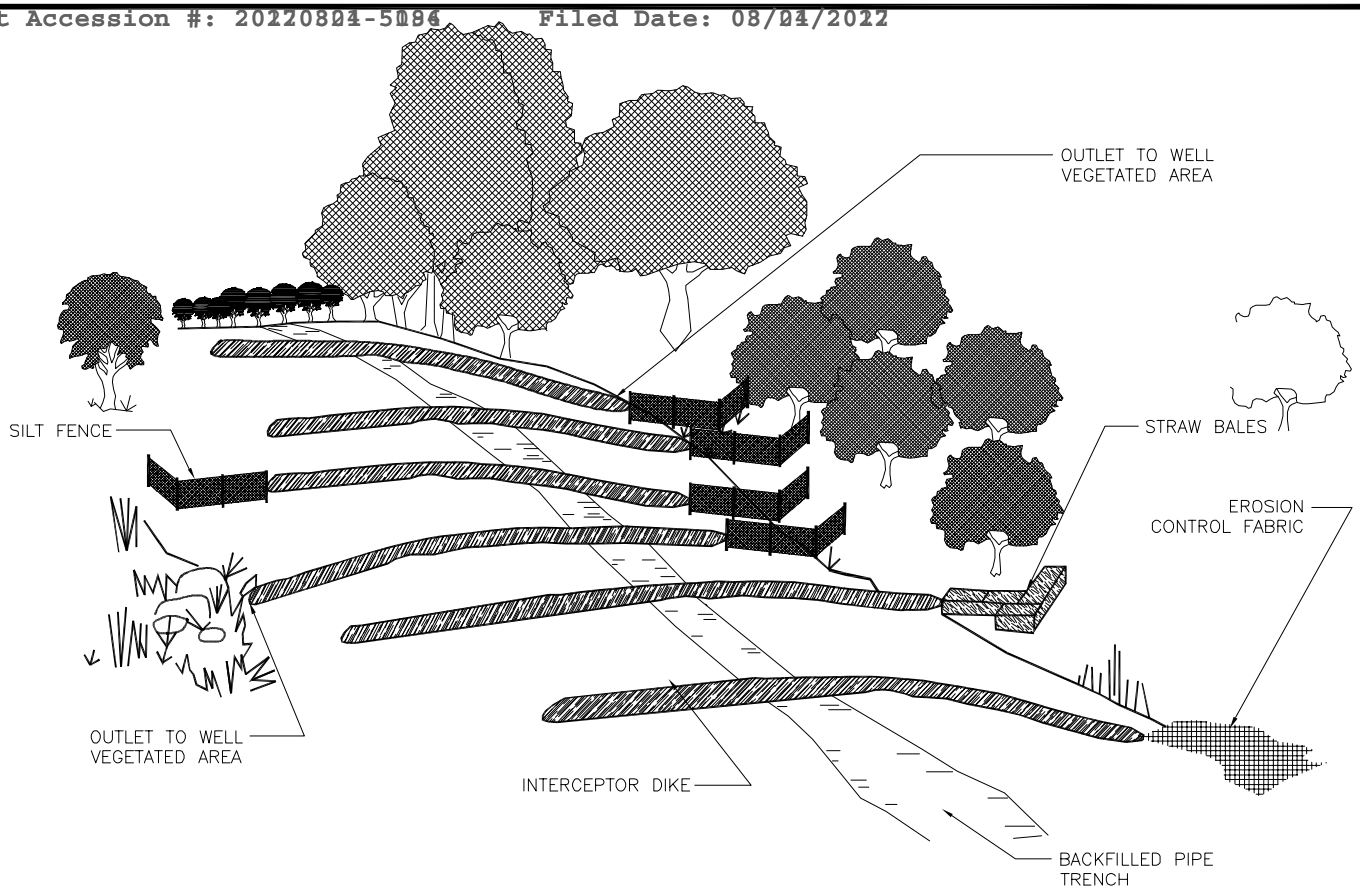
ROVER PIPELINE PROJECT
42" DUAL MAINLINE A & B - NG PIPELINE
MAUMEE RIVER HDD
M.P. 200.47 TO M.P. 200.93
HENRY, OHIO

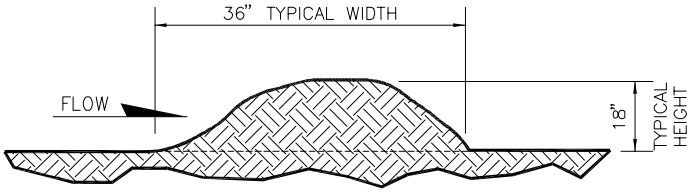
PROJECT NO. 588000000008
PREVIOUS DWG. NO.
SHEET 1 OF 1
DWG. NO. ML-P4-20 (0)
SHEET 1 OF 1

09-15-16 7:60 14138 36 MFZ

Appendix C

Erosion and Sedimentation Control Typical Drawings





CROSS SECTION

SCALE: NOT TO SCALE

INSTALLATION REQUIREMENTS:

- INSTALL PERMANENT INTERCEPTOR DIKES IN ALL AREAS EXCEPT RESIDENTIAL OR AGRICULTURAL AS NECESSARY TO AVOID EXCESSIVE EROSION (UNLESS AUTHORIZED BY LANDOWNER OR LAND MANAGING AGENCY IN AGRICULTURAL OR RESIDENTIAL AREA).
- CONSTRUCT USING EARTH FILLED SACKS, STAKED STRAW BALES, SILT FENCE, OR SOIL FOR TEMPORARY OR COMPACTED EARTH AND ROCK TO PERMANENT.
- INSTALL WITH A 2 – 8% OUTFALL ANGLE.
- FOR TEMPORARY INTERCEPTOR DIKES, POSITION OUTFALL TO PREVENT SEDIMENT DISCHARGE INTO WETLANDS, WATERBODIES, OR OTHER SENSITIVE RESOURCES.
- FILTER RUN–OFF WATER BY CONSTRUCTING AN OUTLET BY USING AN ENERGY DISSIPATING DEVICE (SILT FENCE, STRAW BALES, EROSION CONTROL FABRIC), AS DIRECTED BY THE ENVIRONMENTAL INSPECTOR.

MAINTENANCE REQUIREMENTS:

- INSPECT DURING AND FOLLOWING CONSTRUCTION AND MAKE REPAIRS AS NEEDED AFTER SIGNIFICANT RAIN.
- KEEP THE CHANNEL FREE OF DEBRIS AND OBSTRUCTIONS.
- SEED AND MULCH PERMANENT INTERCEPTOR DIKES FOLLOWING CONSTRUCTION.

PIPELINE, STATION, OR ACCOUNT NUMBER	SCALE NTS	CONST. YR.		PROJECT NO.
FILENUMBER	CADD FILENAME	DRAWN NLM	DATE 8–26	

REV. NO. – DESCRIPTION		BY	DATE	APP.
A	ISSUED FOR REVIEW	NLM	8–26–14	JHR
B	FERC DRAFT FILING	KMA	11–5–14	JHR
C	FERC FILING	KMA	1–15–15	JHR

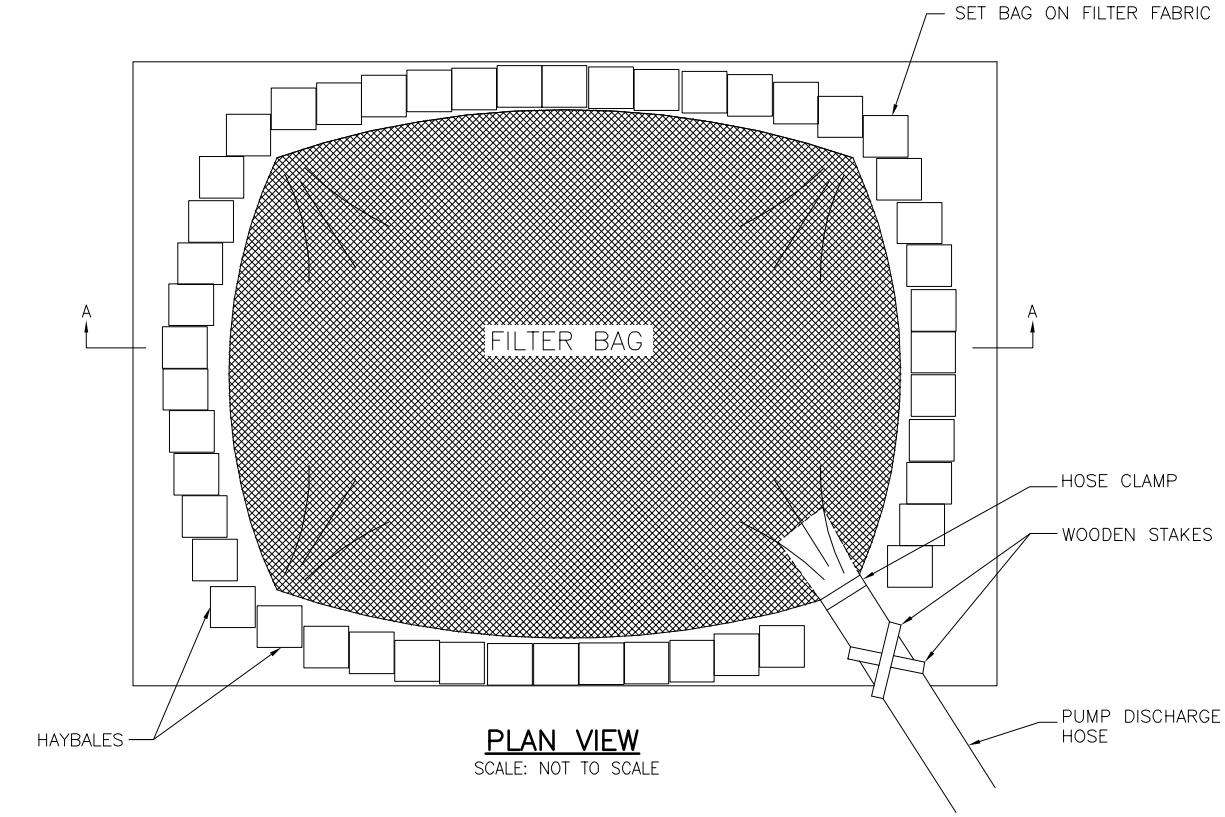
ROVER PIPELINE PROJECT
FIGURE 6
TYPICAL CONSTRUCTION
INTERCEPTOR DIKE

PREVIOUS DWG. NO.
SHT. OF

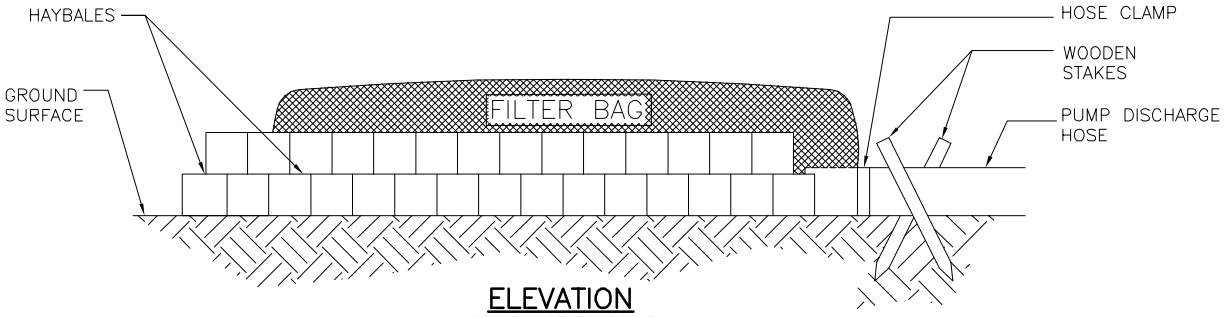
DWG. NO.
FIGURE–6
SHT. OF

C

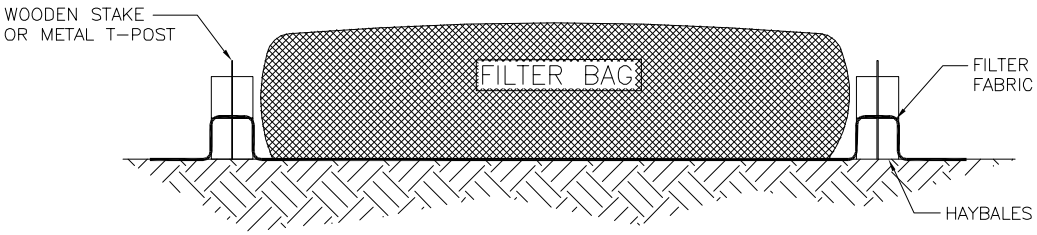
01–14–15 10:21 4 KMA



PLAN VIEW
SCALE: NOT TO SCALE



ELEVATION
SCALE: NOT TO SCALE



SECTION A–A
SCALE: NOT TO SCALE

NOTES:

1. LIMIT ONE (1) DISCHARGE HOSE PER BAG.
2. DISCHARGE RATES SHALL BE SUCH THAT THE CAPACITY OF THE STRUCTURE WILL NOT BE EXCEEDED.
3. REMOVE DEWATERING STRUCTURE AS SOON AS POSSIBLE AFTER COMPLETION OF DEWATERING ACTIVITIES.
4. FOR MAINTENANCE PURPOSES, ONCE THE FILTER BAG IS 50% FULL OF SEDIMENT, IT MUST BE REPLACED. ANY RIPS OR TEARS WILL ALSO REQUIRE REPLACING FILTER BAG.

PIPELINE, STATION, OR ACCOUNT NUMBER	SCALE NTS	CONST. YR.		PROJECT NO.
FILENUMBER	CADD FILENAME	DRAWN NLM	DATE 5–8–17	

REV. NO.	DESCRIPTION	BY	DATE	APP.
A	ISSUED FOR REVIEW	NLM	5–8–17	JHR
B	ISSUED FOR PROJECT USE	NLM	5–9–17	JHR
C	ISSUED FOR PROJECT USE	KMA	7–20–17	JHR

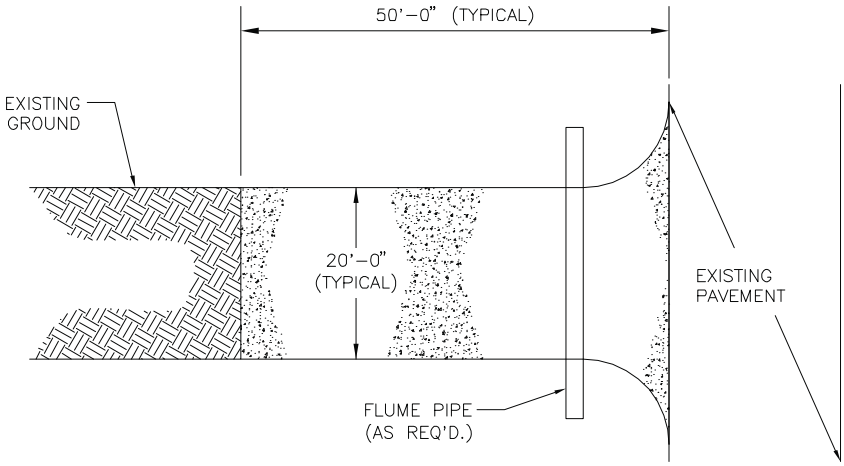
ROVER PIPELINE PROJECT
FIGURE 58
TYPICAL CONSTRUCTION
FILTER BAG OPTION

PREVIOUS DWG. NO.
SHT. OF

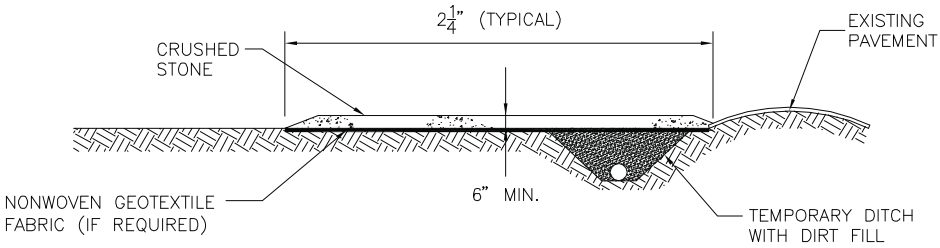
DWG. NO.
FIGURE–58
SHT. OF
C

07–27–17 7:52 6 KMA

FIGURE 16



PLAN VIEW
SCALE: NOT TO SCALE



CROSS SECTION
SCALE: NOT TO SCALE

CONSTRUCTION SPECIFICATIONS:

1. STONE SIZE = 4"–6" (AVG.) CRUSHED STONE.
2. ALL STONE MUST BE PLACED ON NON–WOVEN GEOTEXTILE FABRIC IF USED IN RESIDENTIAL OR ACTIVE AGRICULTURAL AREAS.
3. LENGTH: FIFTY (50) FEET TYPICAL (IF SITE CONDITIONS ALLOW).
   WIDTH: TWENTY (20) FEET TYPICAL.
   THICKNESS: SIX (6) INCHES MINIMUM.
4. ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A DRIVABLE BERM OR OTHER TEMPORARY EROSION CONTROL DEVICE CAN BE USED.
5. THE ENTRANCE SHALL BE PERIODICALLY INSPECTED AND MAINTAINED IN A CONDITION THAT MINIMIZES TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS–OF–WAY. MAINTENANCE MAY INCLUDE PERIODIC TOP DRESSING WITH AN ADDITIONAL STONE OR THE REPAIR/CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ANY SEDIMENT THAT IS SPILLED, DROPPED, WASHED, OR TRACKED ONTO PUBLIC RIGHTS–OF–WAY MUST BE REMOVED AS SOON AS PRACTICAL.

PIPELINE, STATION, OR ACCOUNT NUMBER	SCALE NTS	CONST. YR.		PROJECT NO.
FILENUMBER	CADD FILENAME	DRAWN NLM	DATE 8–26	

REV. NO.	DESCRIPTION	BY	DATE	APP.
A	ISSUED FOR REVIEW	NLM	8–26–14	JHR
B	FERC DRAFT FILING	KMA	11–5–14	JHR

ROVER PIPELINE PROJECT

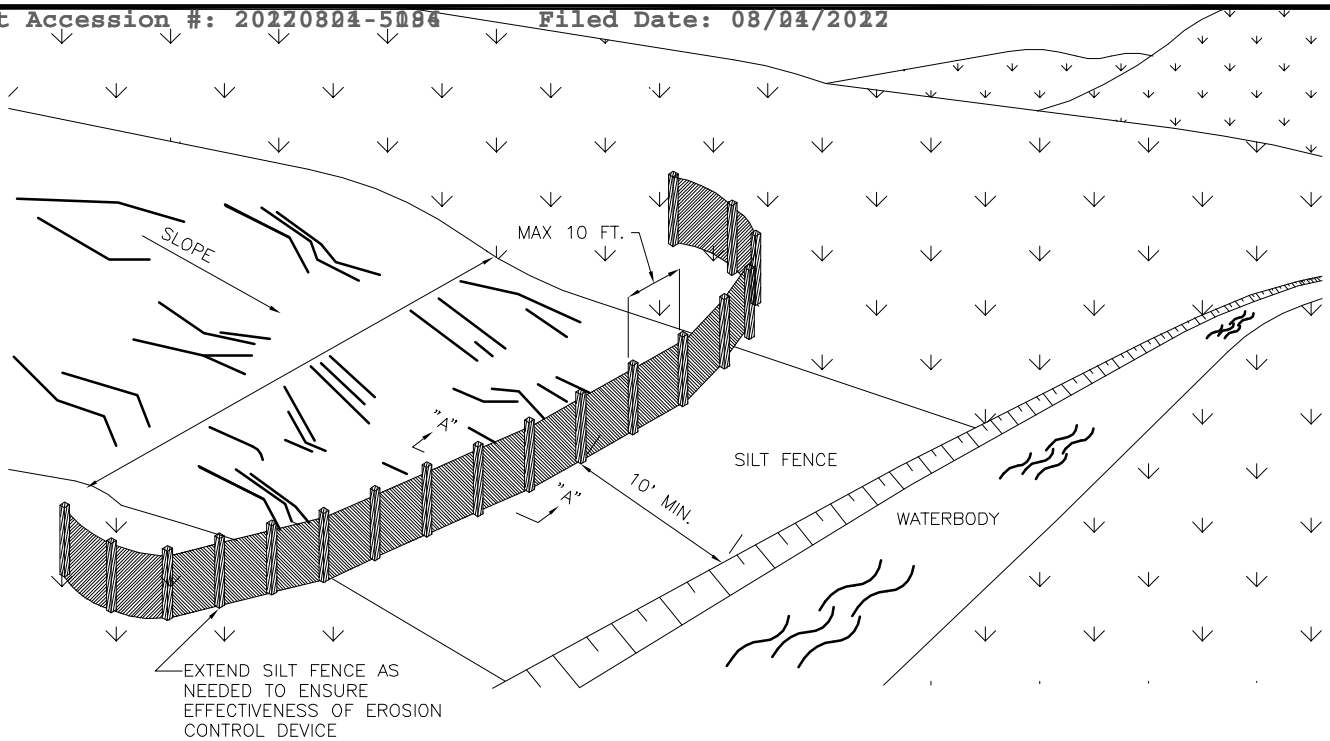
TYPICAL CONSTRUCTION ROCK ACCESS PAD

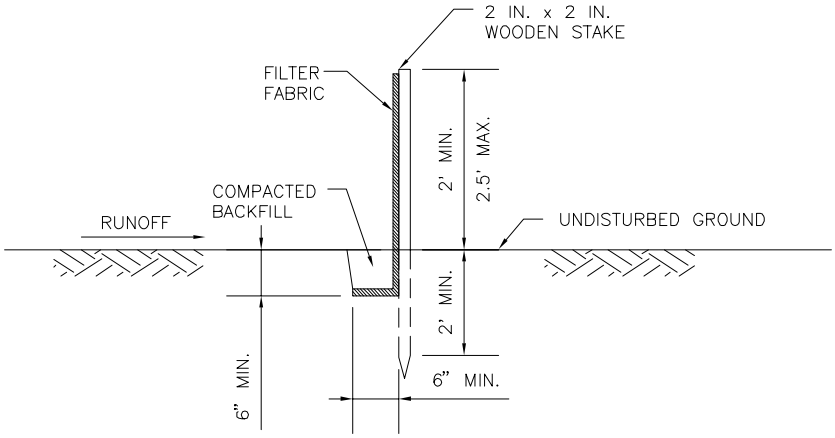
PREVIOUS DWG. NO.
SHT. OF

DWG. NO.
SHT. OF

B

10–30–14 11:49 4 KMA





SECTION–"A"–"A"

SCALE: NOT TO SCALE

NOTES:

1. SILT FENCES ARE TO BE USED IN AREAS WHERE SHEET FLOW OR RELATIVELY SMALL VOLUMES OF WATER CAN BE EXPECTED TO OCCUR. FOR LARGER VOLUMES SUCH AS WITHIN A DEFINED CHANNEL, A CHECK DAM WILL BE REQUIRED.
2. STAKES ARE TO BE PLACED A MAXIMUM OF TEN (10) FT. OR CLOSER AS CONDITIONS REQUIRE.
3. ATTACH FILTER FABRIC AT EACH POST AT A MINIMUM OF THREE (3) LOCATIONS.
4. THE FILTER FABRIC (MIN. OF 1 FT.) IS TO BE ANCHORED IN A 6 INCH X 6 INCH TRENCH WITH WELL COMPACTED BACKFILL OVER THE FABRIC TO PREVENT UNDERMINING.
5. TO ELIMINATE POSSIBLE END FLOW, BOTH ENDS OF THE SILT FENCE SHALL BE TURNED AND EXTENDED UPSLOPE.
6. SILT FENCES ARE TO BE CHECKED AND MAINTAINED ON A REGULAR BASIS. REMOVE ANY BUILD UP OF SEDIMENT WHEN THE HEIGHT OF SEDIMENT EXCEEDS APPROXIMATELY 20% OF THE HEIGHT OF THE BARRIER.
7. MATERIAL SHOULD BE WOVEN GEOTEXTILE FABRIC SUCH AS EXXON GTF 180 OR MOBILE 600X, OR AN APPROVED EQUIVALENT. SECONDARY REINFORCEMENT SUCH AS A CONSTRUCTION BARRIER FENCE OR WIRE MESH CAN ALSO BE USED BEHIND THE FILTER FABRIC.
8. WHERE ANCHORING CONDITIONS FOR THE SILT FENCE ARE POOR, PLACE ANCHORED STRAW BALES ON DOWNSTREAM SIDE OF THE SILT FENCE
9. MAINTENANCE REQUIREMENTS:
   INSPECT SILT FENCE:
   - DAILY IN AREAS OF ACTIVE CONSTRUCTION
   - WEEKLY IN AREAS OF NO CONSTRUCTION
   - WITHIN 24 HOURS FOLLOWING MAJOR RAIN EVENT
   - REPAIR OR REPLACE SILT FENCE AS NEEDED
   - REMOVE ACCUMULATED SEDIMENTS TO AN UPLAND AREA AS NEEDED

PIPELINE, STATION, OR ACCOUNT NUMBER	SCALE NTS	CONST. YR.		PROJECT NO.
FILENUMBER	CADD FILENAME	DRAWN NLM	DATE 8–26	

REV. NO.	DESCRIPTION	BY	DATE	APP.
A	ISSUED FOR REVIEW	NLM	8–26–14	JHR
B	FERC DRAFT FILING	KMA	11–5–14	JHR
C	FERC FILING	KMA	1–15–15	JHR

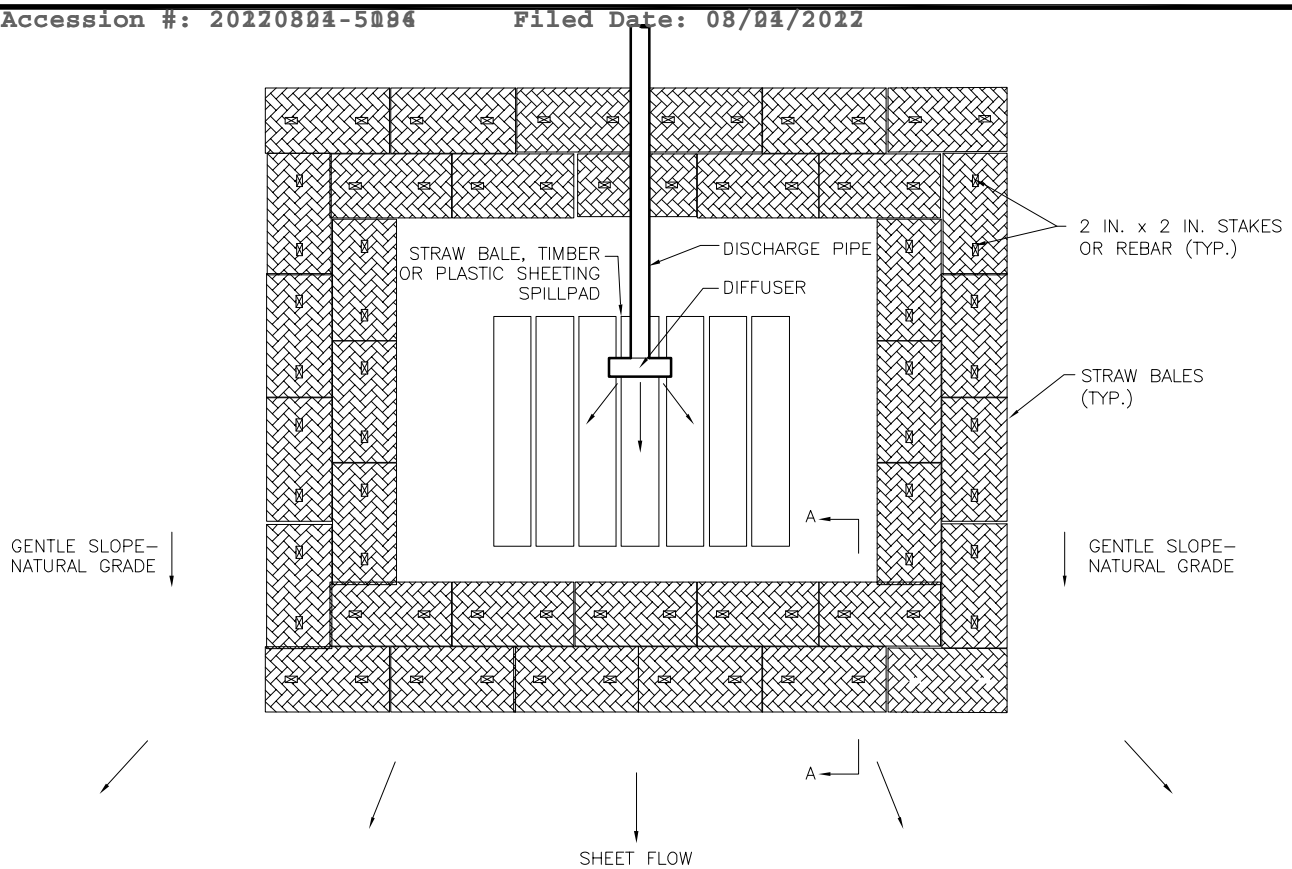
ROVER PIPELINE PROJECT
FIGURE 21
TYPICAL CONSTRUCTION
SILT FENCE
BARRIER

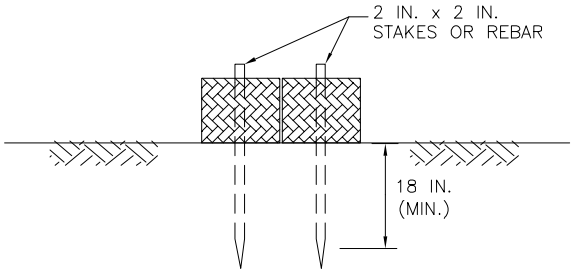
PREVIOUS DWG. NO.
SHT. OF

DWG. NO.
FIGURE–21
SHT. OF

C

01–14–15 11:00 5 KMA





SECTION–"A"–"A"

SCALE: NOT TO SCALE

NOTES:

1. INSTALL A STRAW BALE DEWATERING STRUCTURE WHEREVER IT IS NECESSARY AND AS DIRECTED BY THE ENVIRONMENTAL INSPECTOR TO PREVENT THE FLOW OF HEAVILY SILT LADEN WATER INTO WATER BODIES OR WETLANDS. ALL DEWATERING ACTIVITIES SHALL BE IN ACCORDANCE WITH ENVIRONMENTAL SPECIFICATION AND RELEVANT PERMITS.
2. DISCHARGE SITE SHOULD BE WELL VEGETATED AND LOCATED AT LEAST 50 FEET FROM ANY WATERCOURSE. THE TOPOGRAPHY OF THE SITE SHOULD BE SUCH THAT WATER WILL FLOW INTO THE DEWATERING STRUCTURE AND AWAY FROM ANY WORK AREAS. THE AREA DOWN SLOPE FROM THE DEWATERING SITE MUST BE REASONABLY FLAT OR STABILIZED BY VEGETATION OR OTHER MEANS TO ALLOW THE FILTERED WATER TO CONTINUE AS SHEET FLOW.
3. DIRECT THE PUMPED WATER ONTO A STABLE SPILL PAD CONSTRUCTED OF ROCKFILL. WEIGHTED TIMBERS, OR A WOVEN GEOTEXTILE STAKED TO THE GROUND SURFACE, SUCH AS MIRAGI 600X, TERRAFIX 400W, OR A COMPANY APPROVED EQUIVALENT.
4. DISCHARGE RATES SHOULD BE SUCH THAT THE CAPACITY OF THE STRUCTURE WILL NOT BE EXCEEDED.
5. DISCHARGE WATER SHALL BE FORCED INTO SHEET FLOW IMMEDIATELY BEYOND THE SPILL PAD USING A COMBINATION OF STRAW BALES AND THE NATURAL TOPOGRAPHY. DRIVE TWO (2) STAKES OR REBAR INTO EACH BALE TO ANCHOR THEM IN PLACE.
6. MANUFACTURED FILTER BAGS ARE A SUITABLE ALTERNATIVE TO STRAW BALE STRUCTURES FOR TRENCH DEWATERING. FILTER BAGS SHALL BE INSTALLED AS SPECIFIED BY THE MANUFACTURER. DISPOSE OF FULL FILTER BAGS AT AN APPROVED OFF–SITE FACILITY.

PIPELINE, STATION, OR ACCOUNT NUMBER	SCALE NTS	CONST. YR.		PROJECT NO.
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REV. NO.	DESCRIPTION	BY	DATE	APP.
A	ISSUED FOR REVIEW	NLM	8–26–14	JHR
B	FERC DRAFT FILING	KMA	11–5–14	JHR
C	FERC FILING	KMA	1–15–15	JHR

ROVER PIPELINE PROJECT
FIGURE 22
TYPICAL CONSTRUCTION
STRAW BALE
DEWATERING STRUCTURE

PREVIOUS DWG. NO.
SHT. OF

DWG. NO.
FIGURE–22
SHT. OF
C

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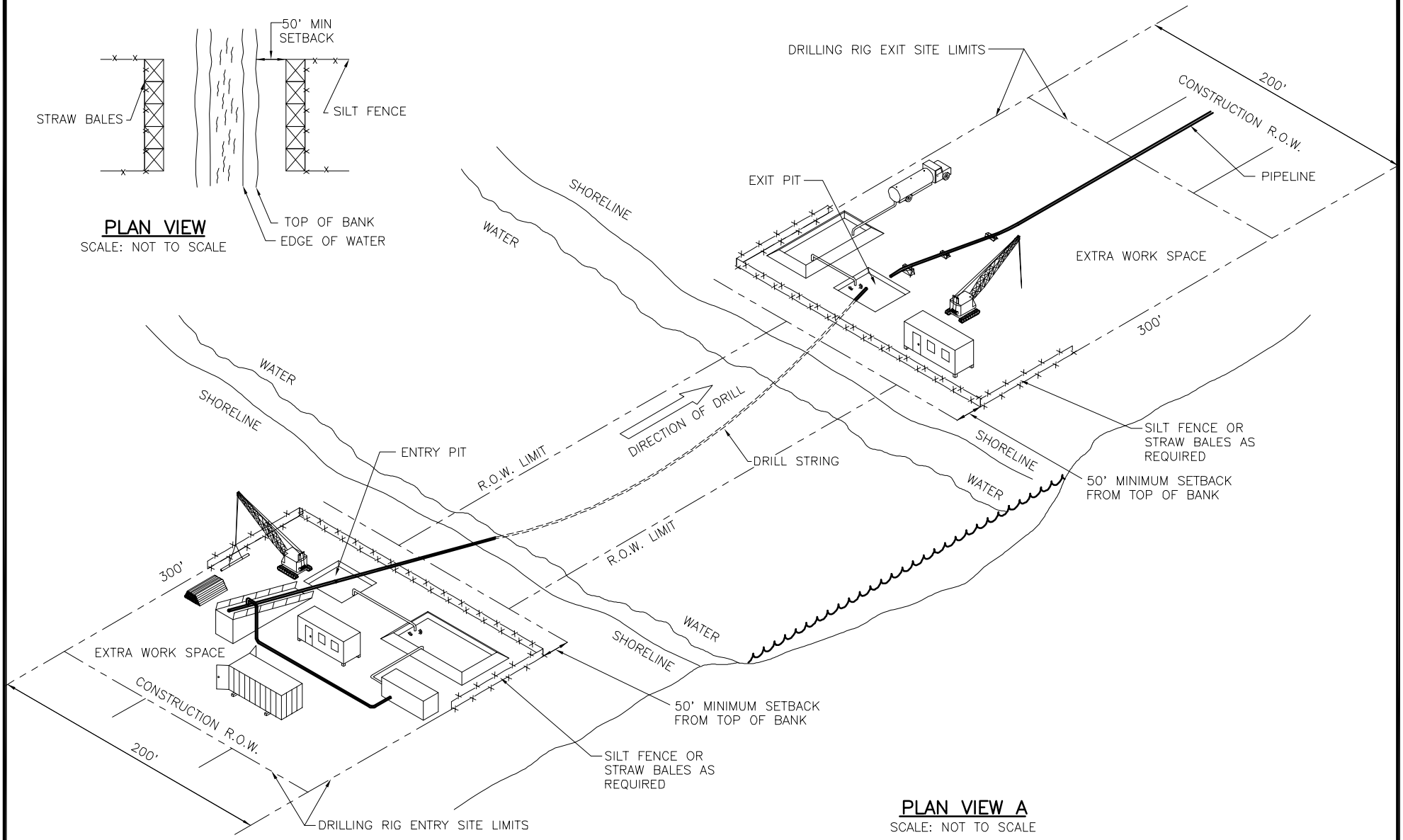
PLAN VIEW
SCALE: NOT TO SCALE



PLAN VIEW A
SCALE: NOT TO SCALE

REFERENCE TYPICAL WATERBODY CROSSING WITH HDD PROFILE

NOTES:

1. EXTRA WORK SPACE NOT LOCATED IN WETLANDS WHEN POSSIBLE.
2. RIGHT-OF-WAY LIMITS AS SHOWN ON ALIGNMENT SHEETS.

PIPELINE, STATION, OR ACCOUNT NUMBER	SCALE NTS	CONST. YR.	
FILENUMBER / CADD FILENAME	DRAWN NLM	DATE 8-26	

REV. NO.	DESCRIPTION	BY	DATE	APP.
A	ISSUED FOR REVIEW	NLM	8-26-14	JHR
B	FERC DRAFT FILING	KMA	11-5-14	JHR
C	FERC FILING	KMA	1-15-15	JHR

ROVER PIPELINE PROJECT
FIGURE 23
TYPICAL CONSTRUCTION WATERBODY CROSSING WITH HDD PLAN

PROJECT NO.
PREVIOUS DWG. NO.
SHT. OF
DWG. NO. FIGURE-23
SHT. OF
C

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Appendix D

Rover Upland Erosion Control, Revegetation and Maintenance Plan and Rover Wetland and Waterbody Construction and Mitigation Procedures

ROVER PIPELINE
An ENERGY TRANSFER Company

ROVER PIPELINE LLC

Rover Pipeline Project

PROJECT SPECIFIC

UPLAND EROSION CONTROL, REVEGETATION AND MAINTENANCE PLAN

February 2015

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Page No.

NOTE: Text boxes have been inserted into this document to identify specific areas where Rover Pipeline LLC (Rover) is proposing modifications to the Federal Energy Regulatory Commission (FERC) Upland Erosion Control, Revegetation and Maintenance Plan, May 2013 (Plan) due to site-specific conditions in the Rover Pipeline Project area.

I. APPLICABILITY

A. The intent of this Plan is to assist project sponsors by identifying baseline mitigation measures for minimizing erosion and enhancing revegetation. Project sponsors shall specify in their applications for a new FERC authorization and in prior notice and advance notice filings, any individual measures in this Plan they consider unnecessary, technically infeasible, or unsuitable due to local conitions and fully describe any alternative measures they would use. Project sponsors shall also explain how those alternative measures would achieve a comparable level of mitigation.

Once a project is authorized, project sponsors can request further changes as variances to the measures in this Plan (or the applicant's approved plan). The Director of the Office of Energy Projects (Director) will consider approval of variances upon the project sponsor's written request, if the Director agrees that a variance:

1. provides equal or better environmental protection;

2. is necessary because a portion of this Plan is infeasible or unworkable based on project-specific conditions; or

3. is specifically required in writing by another federal, state, or Native American land management agency for the portion of the project on its land or under its jurisdiction.

Sponsors of projects planned for construction under the automatic authorization provisions in the FERC's regulations must receive written approval for any variances in advance of construction.

Project-related impacts on wetland and waterbody systems are addressed in the staff's Wetland and Waterbody Construction and Mitigation Procedures (Procedures).

II. SUPERVISION AND INSPECTION

A. ENVIRONMENTAL INSPECTION

1. At least one Environmental Inspector is required for each construction spread during construction and restoration (as defined by section V). The number and experience of Environmental Inspectors assigned to each construction spread shall be appropriate for the length of the construction spread and the number/significance of resources affected.

2. Environmental Inspectors shall have peer status with all other activity inspectors.

3 Environmental Inspectors shall have the authority to stop activities that violate

the environmental conditions of the FERC's Orders, stipulations of other environmental permits or approvals, or landowner easement agreements; and to order appropriate corrective action.

B. RESPONSIBILITIES OF ENVIRONMENTAL INSPECTORS

At a minimum, the Environmental Inspector(s) shall be responsible for:

1. Inspecting construction activities for compliance with the requirements of this Plan, the Procedures, the environmental conditions of the FERC's Orders, the mitigation measures proposed by the project sponsor (as approved and/or modified by the Order), other environmental permits and approvals, and environmental requirements in landowner easement agreements.

2. Identifying, documenting, and overseeing corrective actions, as necessary to bring an activity back into compliance;

3. Verifying that the limits of authorized construction work areas and locations of access roads are visibly marked before clearing, and maintained throughout construction;

4. Verifying the location of signs and highly visible flagging marking the boundaries of sensitive resource areas, waterbodies, wetlands, or areas with special requirements along the construction work area;

5. Identifying erosion/sediment control and soil stabilization needs in all areas;

6. Ensuring that the design of slope breakers will not cause erosion or direct water into sensitive environmental resource areas, including cultural resource sites, wetlands, waterbodies, and sensitive species habitats;

7. Verifying that dewatering activities are properly monitored and do not result in the deposition of sand, silt, and/or sediment into sensitive environmental resource areas, including wetlands, waterbodies, cultural resource sites, and sensitive species habitats; stopping dewatering activities if such deposition is occurring and ensuring the design of the discharge is changed to prevent reoccurrence; and verifying that dewatering structures are removed after completion of dewatering activities;

8. Ensuring that subsoil and topsoil are tested in agricultural and residential areas to measure compaction and determine the need for corrective action;

9. Advising the Chief Construction Inspector when environmental conditions (such as wet weather or frozen soils) make it advisable to restrict or delay construction activities to avoid topsoil mixing or excessive compaction;

10. Ensuring restoration of contours and topsoil;

11. Verifying that the soils imported for agricultural or residential use are certified as free of noxious weeds and soil pests, unless otherwise approved by the landowner;

12. Ensuring that erosion control devices are properly installed to prevent sediment flow into sensitive environmental resource areas (e.g., wetlands, waterbodies, cultural resource sites, and sensitive species habitats) and onto roads, and determining the need for additional erosion control devices;

13. Inspecting and ensuring the maintenance of temporary erosion control measures at least:

    a. on a daily basis in areas of active construction or equipment operation;
    b. on a weekly basis in areas with no construction or equipment operation; and
    c. within 24 hours of each 0.5 inch of rainfall;

14. Ensuring the repair of all ineffective temporary erosion control measures within 24 hours of identification, or as soon as conditions allow if compliance with this time frame would result in greater environmental impacts;

15. Keeping records of compliance with the environmental conditions of the FERC's Orders, and the mitigation measures proposed by the project sponsor in the application submitted to the FERC, and other federal or state environmental permits during active construction and restoration;

16. Identifying areas that should be given special attention to ensure stabilization and restoration after the construction phase; and

17. Verifying that locations for any disposal of excess construction materials for beneficial reuse comply with section III.E.

III. PRECONSTRUCTION PLANNING

The project sponsor shall do the following before construction:

A. CONSTRUCTION WORK AREAS

1 Identify all construction work areas (e.g., construction right-of-way, extra work space areas, pipe storage and contractor yards, borrow and disposal areas, access roads) that would be needed for safe construction. The project sponsor must ensure that appropriate cultural resources and biological surveys are conducted, as determined necessary by the appropriate federal and state agencies.

2 Project sponsors are encouraged to consider expanding any required cultural resources and endangered species surveys in anticipation of the need for activities outside of authorized work areas.

3 Plan construction sequencing to limit the amount and duration of open trench sections, as necessary, to prevent excessive erosion or sediment flow into sensitive environmental resource areas.

B. DRAIN TILE AND IRRIGATION SYSTEMS

1. Attempt to locate existing drain tiles and irrigation systems.

2. Contact landowners and local soil conservation authorities to determine the locations of future drain tiles that are likely to be installed within 3 years of the authorized construction.

3. Develop procedures for constructing through drain-tiled areas, maintaining irrigation systems during construction, and repairing drain tiles and irrigation systems after construction.

4. Engage qualified drain tile specialists, as needed to conduct or monitor repairs to drain tile systems affected by construction. Use drain tile specialists from the project area, if available.

C. GRAZING DEFERMENT

Develop grazing deferment plans with willing landowners, grazing permittees, and land management agencies to minimize grazing disturbance of revegetation efforts.

D. ROAD CROSSINGS AND ACCESS POINTS

Plan for safe and accessible conditions at all roadway crossings and access points during construction and restoration.

E. DISPOSAL PLANNING

Determine methods and locations for the regular collection, containment, and disposal of excess construction materials and debris (e.g., timber, slash, mats, garbage, drill cuttings and fluids, excess rock) throughout the construction process. Disposal of materials for beneficial reuse must not result in adverse environmental impact and is subject to compliance with all applicable survey, landowner or land management agency approval, and permit requirements.

F. AGENCY COORDINATION

The project sponsor must coordinate with the appropriate local, state, and federal agencies as outlined in this Plan and/or required by the FERC's Orders.

1. Obtain written recommendations from the local soil conservation authorities or land management agencies regarding permanent erosion control and revegetation specifications.

2. Develop specific procedures in coordination with the appropriate agencies to prevent the introduction or spread of invasive species, noxious weeds, and soil pests resulting from construction and restoration activities.

3. Develop specific procedures in coordination with the appropriate agencies and landowners, as necessary, to allow for livestock and wildlife movement and protection during construction.

4. Develop specific blasting procedures in coordination with the appropriate agencies that address pre-and post-blast inspections; advanced public notification; and mitigation measures for building foundations, groundwater wells, and springs. Use appropriate methods (e.g., blasting mats) to prevent damage to nearby structures and to prevent debris from entering sensitive environmental resource areas.

G. SPILL PREVENTION AND RESPONSE PROCEDURES

The project sponsor shall develop project-specific Spill Prevention and Response Procedures, as specified in section IV of the staff's Procedures. A copy must be filed with the Secretary of the FERC (Secretary) prior to construction and made available in the field on each construction spread. The filing requirement does not apply to projects constructed under the automatic authorization provisions in the FERC's regulations.

H. RESIDENTIAL CONSTRUCTION

For all properties with residences located within 50 feet of construction work areas, project sponsors shall: avoid removal of mature trees and landscaping within the construction work area unless necessary for safe operation of construction equipment, or as specified in landowner agreements; fence the edge of the construction work area for a distance of 100 feet on either side of the residence; and restore all lawn areas and landscaping immediately following clean up operations, or as specified in landowner agreements. If seasonal or other weather conditions prevent compliance with these time frames, maintain and monitor temporary erosion controls (sediment barriers and mulch) until conditions allow completion of restoration.

I. WINTER CONSTRUCTION PLANS

If construction is planned to occur during winter weather conditions, project sponsors shall develop and file a project-specific winter construction plan with the FERC application. This filing requirement does not apply to projects constructed under the automatic authorization provisions of the FERC's regulations.

The plan shall address:

1. winter construction procedures (e.g., snow handling and removal, access road construction and maintenance, soil handling under saturated or frozen conditions, topsoil stripping);

2. stabilization and monitoring procedures if ground conditions will delay restoration until the following spring (e.g., mulching and erosion controls, inspection and reporting, stormwater control during spring thaw conditions); and

3. final restoration procedures (e.g., subsidence and compaction repair, topsoil replacement, seeding).

IV. INSTALLATION

A. APPROVED AREAS OF DISTURBANCE

1. Project-related ground disturbance shall be limited to the construction right-of-way, extra work space areas, pipe storage yards, borrow and disposal areas, access roads, and other areas approved in the FERC's Orders. Any project-related ground disturbing activities outside these areas will require prior Director approval. This requirement does not apply to activities needed to comply with the Plan and Procedures (i.e., slope breakers, energy-dissipating devices, dewatering structures, drain tile system repairs) or minor field realignments and workspace shifts per landowner needs and requirements that do not affect other landowners or sensitive environmental resource areas. All construction or restoration activities outside of authorized areas are subject to all applicable survey and permit requirements, and landowner easement agreements.

2. The construction right-of-way width for a project shall not exceed 75 feet or that described in the FERC application unless otherwise modified by a FERC Order. However, in limited, non-wetland areas, this construction right-ofway width may be expanded by up to 25 feet without Director approval to accommodate full construction right-of-way topsoil segregation and to ensure safe construction where topographic conditions (e.g., side-slopes) or soil limitations require it. Twenty-five feet of extra construction right-of-way width may also be used in limited, non-wetland or non-forested areas for truck turn-arounds where no reasonable alternative access exists.

   Project use of these additional limited areas is subject to landowner or land management agency approval and compliance with all applicable survey and permit requirements. When additional areas are used, each one shall be identified and the need explained in the weekly or biweekly construction reports to the FERC, if required. The following material shall be included in the reports:

   a. the location of each additional area by station number and reference to previously filed alignment sheets, or updated alignment sheets showing the additional areas;
   b. identification of the filing at FERC containing evidence that the additional areas were previously surveyed; and
   c. a statement that landowner approval has been obtained and is available in project files.

   Prior written approval of the Director is required when the authorized construction right-of-way width would be expanded by more than 25 feet.

B. TOPSOIL SEGREGATION

1. Unless the landowner or land management agency specifically approves otherwise, prevent the mixing of topsoil with subsoil by stripping topsoil from either the full work area or from the trench and subsoil storage area (ditch plus spoil side method) in:

a. cultivated or rotated croplands, and managed pastures;
b. residential areas;
c. hayfields; and
d. other areas at the landowner's or land managing agency's request.

2. In residential areas, importation of topsoil is an acceptable alternative to topsoil segregation.

3. Where topsoil segregation is required, the project sponsor must:

   a. segregate at least 12 inches of topsoil in deep soils (more than 12 inches of topsoil); and
   b. make every effort to segregate the entire topsoil layer in soils with less than 12 inches of topsoil.

4. Maintain separation of salvaged topsoil and subsoil throughout all construction activities.

5. Segregated topsoil may not be used for padding the pipe, constructing temporary slope breakers or trench plugs, improving or maintaining roads, or as a fill material.

6. Stabilize topsoil piles and minimize loss due to wind and water erosion with use of sediment barriers, mulch, temporary seeding, tackifiers, or functional equivalents, where necessary.

C. DRAIN TILES

1. Mark locations of drain tiles damaged during construction.

2. Probe all drainage tile systems within the area of disturbance to check for damage.

3. Repair damaged drain tiles to their original or better condition. Do not use filter-covered drain tiles unless the local soil conservation authorities and the landowner agree. Use qualified specialists for testing and repairs.

4. For new pipelines in areas where drain tiles exist or are planned, ensure that the depth of cover over the pipeline is sufficient to avoid interference with drain tile systems. For adjacent pipeline loops in agricultural areas, install the new pipeline with at least the same depth of cover as the existing pipeline(s).

D. IRRIGATION

Maintain water flow in crop irrigation systems, unless shutoff is coordinated with affected parties.

E. ROAD CROSSINGS AND ACCESS POINTS

1. Maintain safe and accessible conditions at all road crossings and access points during construction.

2. If crushed stone access pads are used in residential or agricultural areas, place the stone on synthetic fabric to facilitate removal.

3. Minimize the use of tracked equipment on public roadways. Remove any soil or gravel spilled or tracked onto roadways daily or more frequent as necessary to maintain safe road conditions. Repair any damages to roadway surfaces, shoulders, and bar ditches.

F. TEMPORARY EROSION CONTROL

Install temporary erosion controls immediately after initial disturbance of the soil. Temporary erosion controls must be properly maintained throughout construction (on a daily basis) and reinstalled as necessary (such as after backfilling of the trench) until replaced by permanent erosion controls or restoration is complete.

1. Temporary Slope Breakers

a. Temporary slope breakers are intended to reduce runoff velocity and divert water off the construction right-of-way. T emporary slope breakers may be constructed of materials such as soil, silt fence, staked hay or straw bales, or sand bags.
b. Install temporary slope breakers on all disturbed areas, as necessary to avoid excessive erosion. Temporary slope breakers must be installed on slopes greater than 5 percent where the base of the slope is less than 50 feet from waterbody, wetland, and road crossings at the following spacing (closer spacing shall be used if necessary):

Slope (%)	Spacing (feet)
5 -15	300
>15 -30	200
>30	100

c. Direct the outfall of each temporary slope breaker to a stable, well vegetated area or construct an energy-dissipating device at the end of the slope breaker and off the construction right-of-way.
d. Position the outfall of each temporary slope breaker to prevent sediment discharge into wetlands, waterbodies, or other sensitive environmental resource areas.

2. Temporary Trench Plugs

Temporary trench plugs are intended to segment a continuous open trench prior to backfill.

a. Temporary trench plugs may consist of unexcavated portions of the trench, compacted subsoil, sandbags, or some functional equivalent.
b. Position temporary trench plugs, as necessary, to reduce trenchline erosion and minimize the volume and velocity of trench water flow at the base of slopes.

3. Sediment Barriers

Sediment barriers are intended to stop the flow of sediments and to prevent the deposition of sediments beyond approved workspaces or into sensitive resources.

a. Sediment barriers may be constructed of materials such as silt fence, staked hay or straw bales, compacted earth (e.g., driveable berms across travelways), sand bags, or other appropriate materials.
b. At a minimum, install and maintain temporary sediment barriers across the entire construction right-of-way at the base of slopes greater than 5 percent where the base of the slope is less than 50 feet from a waterbody, wetland, or road crossing until revegetation is successful as defined in this Plan. Leave adequate room between the base of the slope and the sediment barrier to accommodate ponding of water and sediment deposition.
c. Where wetlands or waterbodies are adjacent to and downslope of construction work areas, install sediment barriers along the edge of these areas, as necessary to prevent sediment flow into the wetland or waterbody.

4. Mulch

a. Apply mulch on all slopes (except in cultivated cropland) concurrent with or immediately after seeding, where necessary to stabilize the soil surface and to reduce wind and water erosion. Spread mulch uniformly over the area to cover at least 75 percent of the ground surface at a rate of 2 tons/acre of straw or its equivalent, unless the local soil conservation authority, landowner, or land managing agency approves otherwise in writing.
b. Mulch can consist of weed-free straw or hay, wood fiber hydromulch, erosion control fabric, or some functional equivalent.
c. Mulch all disturbed upland areas (except cultivated cropland) <u>before</u> seeding if:
   (1) final grading and installation of permanent erosion control measures will not be completed in an area within 20 days after the trench in that area is backfilled (10 days in residential areas), as required in section V.A.1; or
   (2) construction or restoration activity is interrupted for extended periods, such as when seeding cannot be completed due to seeding period restrictions.
d. If mulching <u>before</u> seeding, increase mulch application on all slopes within 100 feet of waterbodies and wetlands to a rate of 3 tons/acre of straw or equivalent.
e. If wood chips are used as mulch, do not use more than 1 ton/acre and add the equivalent of 11 lbs/acre available nitrogen (at least 50 percent of which is slow release).
f. Ensure that mulch is adequately anchored to minimize loss due to wind and water.
g. When anchoring with liquid mulch binders, use rates recommended by the manufacturer. Do not use liquid mulch binders within 100 feet of

wetlands or waterbodies, except where the product is certified environmentally non-toxic by the appropriate state or federal agency or independent standards-setting organization.

h. Do not use synthetic monofilament mesh/netted erosion control materials in areas designated as sensitive wildlife habitat, unless the product is specifically designed to minimize harm to wildlife. Anchor erosion control fabric with staples or other appropriate devices.

V. RESTORATION

A. CLEANUP

1. Commence cleanup operations immediately following backfill operations. Complete final grading, topsoil replacement, and installation of permanent erosion control structures within 20 days after backfilling the trench (10 days in residential areas). If seasonal or other weather conditions prevent compliance with these time frames, maintain temporary erosion controls (i.e., temporary slope breakers, sediment barriers, and mulch) until conditions allow completion of cleanup. If construction or restoration unexpectedly continues into the winter season when conditions could delay successful decompaction, topsoil replacement, or seeding until the following spring, file with the Secretary for the review and written approval of the Director, a winter construction plan (as specified in section III.I). This filing requirement does not apply to projects constructed under the automatic authorization provisions of the FERC's regulations.

In areas where dual pipelines will be installed, Rover will complete final grading, topsoil replacement, and installation of permanent erosion control structures within 20 days after backfilling the second pipeline trench (10 days in residential areas).

2. A travel lane may be left open temporarily to allow access by construction traffic if the temporary erosion control structures are installed as specified in section IV.F. and inspected and maintained as specified in sections II.B.12 through 14. When access is no longer required the travel lane must be removed and the right-of-way restored.

3. Rock excavated from the trench may be used to backfill the trench only to the top of the existing bedrock profile. Rock that is not returned to the trench shall be considered construction debris, unless approved for use as mulch or for some other use on the construction work areas by the landowner or land managing agency.

4. Remove excess rock from at least the top 12 inches of soil in all cultivated or rotated cropland, managed pastures, hayfields, and residential areas, as well as other areas at the landowner's request. The size, density, and distribution of rock on the construction work area shall be similar to adjacent areas not disturbed by construction. The landowner or land management agency may approve other provisions in writing.

5. Grade the construction right-of-way to restore pre-construction contours and leave the soil in the proper condition for planting.

6. Remove construction debris from all construction work areas unless the landowner or land managing agency approves leaving materials onsite for beneficial reuse, stabilization, or habitat restoration.

7. Remove temporary sediment barriers when replaced by permanent erosion control measures or when revegetation is successful.

B. PERMANENT EROSION CONTROL DEVICES

1. Trench Breakers

   a. Trench breakers are intended to slow the flow of subsurface water along the trench. Trench breakers may be constructed of materials such as sand bags or polyurethane foam. Do not use topsoil in trench breakers.
   b. An engineer or similarly qualified professional shall determine the need for and spacing of trench breakers. Otherwise, trench breakers shall be installed at the same spacing as and upslope of permanent slope breakers.
   c. In agricultural fields and residential areas where slope breakers are not typically required, install trench breakers at the same spacing as if permanent slope breakers were required.
   d. At a minimum, install a trench breaker at the base of slopes greater than 5 percent where the base of the slope is less than 50 feet from a waterbody or wetland and where needed to avoid draining a waterbody or wetland. Install trench breakers at wetland boundaries, as specified in the Procedures. Do not install trench breakers within a wetland.

2. Permanent Slope Breakers

   a. Permanent slope breakers are intended to reduce runoff velocity, divert water off the construction right-of-way, and prevent sediment deposition into sensitive resources. Permanent slope breakers may be constructed of materials such as soil, stone, or some functional equivalent.
   b. Construct and maintain permanent slope breakers in all areas, except cultivated areas and lawns, unless requested by the landowner, using spacing recommendations obtained from the local soil conservation authority or land managing agency.

      In the absence of written recommendations, use the following spacing unless closer spacing is necessary to avoid excessive erosion on the construction right-of-way:

Slope (%)	Spacing (feet)
5 -15	300
>15 -30	200
>30	100

   c. Construct slope breakers to divert surface flow to a stable area without causing water to pool or erode behind the breaker. In the absence of a stable area, construct appropriate energy-dissipating devices at the end of

the breaker.

d. Slope breakers may extend slightly (about 4 feet) beyond the edge of the construction right-of-way to effectively drain water off the disturbed area. Where slope breakers extend beyond the edge of the construction right-of-way, they are subject to compliance with all applicable survey requirements.

C. SOIL COMPACTION MITIGATION

1. Test topsoil and subsoil for compaction at regular intervals in agricultural and residential areas disturbed by construction activities. Conduct tests on the same soil type under similar moisture conditions in undisturbed areas to approximate preconstruction conditions. Use penetrometers or other appropriate devices to conduct tests.

2. Plow severely compacted agricultural areas with a paraplow or other deep tillage implement. In areas where topsoil has been segregated, plow the subsoil before replacing the segregated topsoil. If subsequent construction and cleanup activities result in further compaction, conduct additional tilling.

3. Perform appropriate soil compaction mitigation in severely compacted residential areas.

D. REVEGETATION

1. General

a. The project sponsor is responsible for ensuring successful revegetation of soils disturbed by project-related activities, except as noted in section V.D.1.b.

b. Restore all turf, ornamental shrubs, and specialized landscaping in accordance with the landowner's request, or compensate the landowner. Restoration work must be performed by personnel familiar with local horticultural and turf establishment practices.

2. Soil Additives

Fertilize and add soil pH modifiers in accordance with written recommendations obtained from the local soil conservation authority, land management agencies, or landowner. Incorporate recommended soil pH modifier and fertilizer into the top 2 inches of soil as soon as practicable after application.

3. Seeding Requirements

a. Prepare a seedbed in disturbed areas to a depth of 3 to 4 inches using appropriate equipment to provide a firm seedbed. When hydroseeding, scarify the seedbed to facilitate lodging and germination of seed.

b. Seed disturbed areas in accordance with written recommendations for seed mixes, rates, and dates obtained from the local soil conservation authority or the request of the landowner or land management agency. Seeding is not required in cultivated croplands unless requested by the

landowner.

c. Perform seeding of permanent vegetation within the recommended seeding dates. If seeding cannot be done within those dates, use appropriate temporary erosion control measures discussed in section IV.F and perform seeding of permanent vegetation at the beginning of the next recommended seeding season. Dormant seeding or temporary seeding of annual species may also be used, if necessary, to establish cover, as approved by the Environmental Inspector. Lawns may be seeded on a schedule established with the landowner.

d. In the absence of written recommendations from the local soil conservation authorities, seed all disturbed soils within 6 working days of final grading, weather and soil conditions permitting, subject to the specifications in section V.D.3.a through V.D.3.c.

e. Base seeding rates on Pure Live Seed. Use seed within 12 months of seed testing.

f. Treat legume seed with an inoculant specific to the species using the manufacturer's recommended rate of inoculant appropriate for the seeding method (broadcast, drill, or hydro).

g. In the absence of written recommendations from the local soil conservation authorities, landowner, or land managing agency to the contrary, a seed drill equipped with a cultipacker is preferred for seed application.

Broadcast or hydroseeding can be used in lieu of drilling at double the recommended seeding rates. Where seed is broadcast, firm the seedbed with a cultipacker or roller after seeding. In rocky soils or where site conditions may limit the effectiveness of this equipment, other alternatives may be appropriate (e.g., use of a chain drag) to lightly cover seed after application, as approved by the Environmental Inspector.

VI. OFF-ROAD VEHICLE CONTROL

To each owner or manager of forested lands, offer to install and maintain measures to control unauthorized vehicle access to the right-of-way. These measures may include:

A. signs;

B. fences with locking gates;

C. slash and timber barriers, pipe barriers, or a line of boulders across the right-of-way; and

D. conifers or other appropriate trees or shrubs across the right-of-way.

VII. POST-CONSTRUCTION ACTIVITIES AND REPORTING

A. MONITORING AND MAINTENANCE

1. Conduct follow-up inspections of all disturbed areas, as necessary, to determine the success of revegetation and address landowner concerns. At a minimum, conduct inspections after the first and second growing seasons.

2. Revegetation in non-agricultural areas shall be considered successful if upon visual survey the density and cover of non-nuisance vegetation are similar in density and cover to adjacent undisturbed lands. In agricultural areas, revegetation shall be considered successful when upon visual survey, crop growth and vigor are similar to adjacent undisturbed portions of the same field, unless the easement agreement specifies otherwise. Continue revegetation efforts until revegetation is successful.

3. Monitor and correct problems with drainage and irrigation systems resulting from pipeline construction in agricultural areas until restoration is successful.

4. Restoration shall be considered successful if the right-of-way surface condition is similar to adjacent undisturbed lands, construction debris is removed (unless otherwise approved by the landowner or land managing agency per section V.A.6), revegetation is successful, and proper drainage has been restored.

5. Routine vegetation mowing or clearing over the full width of the permanent right-of-way in uplands shall not be done more frequently than every 3 years. However, to facilitate periodic corrosion/leak surveys, a corridor not exceeding 10 feet in width centered on the pipeline may be cleared at a frequency necessary to maintain the 10-foot corridor in an herbaceous state. In no case shall routine vegetation mowing or clearing occur during the migratory bird nesting season between April 15 and August 1 of any year unless specifically approved in writing by the responsible land management agency or the U.S. Fish and Wildlife Service.

6. Efforts to control unauthorized off-road vehicle use, in cooperation with the landowner, shall continue throughout the life of the project. Maintain signs, gates, and permanent access roads as necessary.

B. REPORTING

1. The project sponsor shall maintain records that identify by milepost:

   a. method of application, application rate, and type of fertilizer, pH modifying agent, seed, and mulch used;
   b. acreage treated;
   c. dates of backfilling and seeding;
   d. names of landowners requesting special seeding treatment and a description of the follow-up actions;
   e. the location of any subsurface drainage repairs or improvements made during restoration; and
   f. any problem areas and how they were addressed.

2. The project sponsor shall file with the Secretary quarterly activity reports documenting the results of follow-up inspections required by section VII.A.1; any problem areas, including those identified by the landowner; and corrective actions taken for at least 2 years following construction.

   The requirement to file quarterly activity reports with the Secretary does not apply to projects constructed under the automatic authorization, prior notice, or

advanced notice provisions in the FERC's regulations.

ROVER PIPELINE
An ENERGY TRANSFER Company

ROVER PIPELINE LLC

Rover Pipeline Project

PROJECT SPECIFIC

WETLAND AND WATERBODY CONSTRUCTION AND MITIGATION PROCEDURES

February 2015

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NOTE: Text boxes have been inserted into this document to identify specific areas where Rover Pipeline LLC (Rover) is proposing modifications to the Federal Energy Regulatory Commission (FERC) Wetland and Waterbody Construction and Mitigation Procedures, May 2013 (Procedures) due to site-specific conditions in the Rover Pipeline Project area.

I. APPLICABILITY

A. The intent of these Procedures is to assist project sponsors by identifying baseline mitigation measures for minimizing the extent and duration of project-related disturbance on wetlands and waterbodies. Project sponsors shall specify in their applications for a new FERC authorization, and in prior notice and advance notice filings, any individual measures in these Procedures they consider unnecessary, technically infeasible, or unsuitable due to local conditions and fully describe any alternative measures they would use. Project sponsors shall also explain how those alternative measures would achieve a comparable level of mitigation.

Once a project is authorized, project sponsors can request further changes as variances to the measures in these Procedures (or the applicant's approved procedures). The Director of the Office of Energy Projects (Director) will consider approval of variances upon the project sponsor's written request, if the Director agrees that a variance:

1. provides equal or better environmental protection;

2. is necessary because a portion of these Procedures is infeasible or unworkable based on project-specific conditions; or

3. is specifically required in writing by another federal, state, or Native American land management agency for the portion of the project on its land or under its jurisdiction.

Sponsors of projects planned for construction under the automatic authorization provisions in the FERC's regulations must receive written approval for any variances in advance of construction.

Project-related impacts on non-wetland areas are addressed in the staff's Upland Erosion Control, Revegetation, and Maintenance Plan (Plan).

B. DEFINITIONS

1. "Waterbody" includes any natural or artificial stream, river, or drainage with perceptible flow at the time of crossing, and other permanent waterbodies such as ponds and lakes:

   a. "minor waterbody" includes all waterbodies less than or equal to 10 feet wide at the water's edge at the time of crossing;

   b. "intermediate waterbody" includes all waterbodies greater than 10 feet wide but less than or equal to 100 feet wide at the water's edge at the time of crossing; and

   c. "major waterbody" includes all waterbodies greater than 100 feet wide at the water's edge at the time of crossing.

   d. "ditches" are primarily man-made drainage features that include agricultural ditches and canals in fields and pastures and roadside drainage ditches. Ditches are not considered part of stream systems mapped in the USGS hydrographic database and are not intermittent or perennial stream systems or channelized portions of these stream systems. As such, they typically do not fall under the jurisdiction of the U.S. Army Corps of Engineers (COE). Ditches are temporary in nature and are used to facilitate agriculture practices.

2. "Wetland" includes any area that is not in actively cultivated or rotated cropland and that satisfies the requirements of the current federal methodology for identifying and delineating wetlands.

II. PRECONSTRUCTION FILING

A. The following information must be filed with the Secretary of the FERC (Secretary) prior to the beginning of construction, for the review and written approval by the Director:

1. site-specific justifications for extra work areas that would be closer than 50 feet from a waterbody or wetland; and

2. site-specific justifications for the use of a construction right-of-way greater than 75-feet-wide in wetlands.

B. The following information must be filed with the Secretary prior to the beginning of construction. These filing requirements do not apply to projects constructed under the automatic authorization provisions in the FERC's regulations:

1. Spill Prevention and Response Procedures specified in section IV.A;

2. a schedule identifying when trenching or blasting will occur within each waterbody greater than 10 feet wide, within any designated coldwater fishery, and within any waterbody identified as habitat for federally-listed threatened or endangered species. The project sponsor will revise the schedule as necessary to provide FERC staff at least 14 days advance notice. Changes within this last 14-day period must provide for at least 48 hours advance notice;

3. plans for horizontal directional drills (HDD) under wetlands or waterbodies, specified in section V.B.6.d;

4. site-specific plans for major waterbody crossings, described in section V.B.9;

5. a wetland delineation report as described in section VI.A.1, if applicable; and

6. the hydrostatic testing information specified in section VII.B.3.

III. ENVIRONMENTAL INSPECTORS

A. At least one Environmental Inspector having knowledge of the wetland and waterbody conditions in the project area is required for each construction spread. The number and experience of Environmental Inspectors assigned to each construction spread shall be appropriate for the length of the construction spread and the number/significance of resources affected.

B. The Environmental Inspector's responsibilities are outlined in the Upland Erosion Control, Revegetation, and Maintenance Plan (Plan).

IV. PRECONSTRUCTION PLANNING

A. The project sponsor shall develop project-specific Spill Prevention and Response Procedures that meet applicable requirements of state and federal agencies. A copy must be filed with the Secretary prior to construction and made available in the field on each construction spread. This filing requirement does not apply to projects constructed under the automatic authorization provisions in the FERC's regulations.

1. It shall be the responsibility of the project sponsor and its contractors to structure their operations in a manner that reduces the risk of spills or the accidental exposure of fuels or hazardous materials to waterbodies or wetlands. The project sponsor and its contractors must, at a minimum, ensure that:

   a. all employees handling fuels and other hazardous materials are properly trained;

   b. all equipment is in good operating order and inspected on a regular basis;

   c. fuel trucks transporting fuel to on-site equipment travel only on approved access roads;

   d. all equipment is parked overnight and/or fueled at least 100 feet from a waterbody or in an upland area at least 100 feet from a wetland boundary. These activities can occur closer only if the Environmental Inspector determines that there is no reasonable alternative, and the project sponsor and its contractors have taken appropriate steps (including secondary containment structures) to prevent spills and provide for prompt cleanup in the event of a spill;

   e. hazardous materials, including chemicals, fuels, and lubricating oils, are not stored within 100 feet of a wetland, waterbody, or designated municipal watershed area, unless the location is designated for such use by an appropriate governmental authority. This applies to storage of these materials and does not apply to normal operation or use of equipment in these areas;

f. concrete coating activities are not performed within 100 feet of a wetland or waterbody boundary, unless the location is an existing industrial site designated for such use. These activities can occur closer only if the Environmental Inspector determines that there is no reasonable alternative, and the project sponsor and its contractors have taken appropriate steps (including secondary containment structures) to prevent spills and provide for prompt cleanup in the event of a spill;

g. pumps operating within 100 feet of a waterbody or wetland boundary utilize appropriate secondary containment systems to prevent spills; and

h. bulk storage of hazardous materials, including chemicals, fuels, and lubricating oils have appropriate secondary containment systems to prevent spills.

2. The project sponsor and its contractors must structure their operations in a manner that provides for the prompt and effective cleanup of spills of fuel and other hazardous materials. At a minimum, the project sponsor and its contractors must:

a. ensure that each construction crew (including cleanup crews) has on hand sufficient supplies of absorbent and barrier materials to allow the rapid containment and recovery of spilled materials and knows the procedure for reporting spills and unanticipated discoveries of contamination;

b. ensure that each construction crew has on hand sufficient tools and material to stop leaks;

c. know the contact names and telephone numbers for all local, state, and federal agencies (including, if necessary, the U. S. Coast Guard and the National Response Center) that must be notified of a spill; and

d. follow the requirements of those agencies in cleaning up the spill, in excavating and disposing of soils or other materials contaminated by a spill, and in collecting and disposing of waste generated during spill cleanup.

B. AGENCY COORDINATION

The project sponsor must coordinate with the appropriate local, state, and federal agencies as outlined in these Procedures and in the FERC's Orders.

V. WATERBODY CROSSINGS

A. NOTIFICATION PROCEDURES AND PERMITS

1. Apply to the U.S. Army Corps of Engineers (COE), or its delegated agency, for the appropriate wetland and waterbody crossing permits.

2. Provide written notification to authorities responsible for potable surface water supply intakes located within 3 miles downstream of the crossing at least 1 week before beginning work in the waterbody, or as otherwise specified by that authority.

3. Apply for state-issued waterbody crossing permits and obtain individual or generic section 401 water quality certification or waiver.

4. Notify appropriate federal and state authorities at least 48 hours before beginning trenching or blasting within the waterbody, or as specified in applicable permits.

B. INSTALLATION

1. Time Window for Construction

Unless expressly permitted or further restricted by the appropriate federal or state agency in writing on a site-specific basis, instream work, except that required to install or remove equipment bridges, must occur during the following time windows:

a. coldwater fisheries - June 1 through September 30; and

b. coolwater and warmwater fisheries - June 1 through November 30.

2. Extra Work Areas

a. Locate all extra work areas (such as staging areas and additional spoil storage areas) at least 50 feet away from water's edge, except where the adjacent upland consists of cultivated or rotated cropland or other disturbed land.

b. The project sponsor shall file with the Secretary for review and written approval by the Director, site-specific justification for each extra work area with a less than 50-foot setback from the water's edge, except where the adjacent upland consists of cultivated or rotated cropland or other disturbed land. The justification must specify the conditions that will not permit a 50-foot setback and measures to ensure the waterbody is adequately protected.

Table 1 identifies locations where site-specific conditions at certain waterbody crossings require that extra work areas (referred to as additional temporary work space or ATWS) be located less than 50 feet from the water's edge. Rover will implement all applicable protection measures, such as installation of silt fencing and hay bales along ATWS limits to prevent off-site sedimentation, and any other measures appropriate for stabilizing the ATWS during and after construction.

c. Limit the size of extra work areas to the minimum needed to construct the waterbody crossing.

3. General Crossing Procedures

a. Comply with the COE, or its delegated agency, permit terms and conditions.

b. Construct crossings as close to perpendicular to the axis of the waterbody channel as engineering and routing conditions permit.

c. Where pipelines parallel a waterbody, maintain at least 15 feet of undisturbed vegetation between the waterbody (and any adjacent wetland) and the construction right-of-way, except where maintaining this offset will result in greater environmental impact.

d. Where waterbodies meander or have multiple channels, route the pipeline to minimize the number of waterbody crossings.

e. Maintain adequate waterbody flow rates to protect aquatic life, and prevent the interruption of existing downstream uses.

f. Waterbody buffers (e.g., extra work area setbacks, refueling restrictions) must be clearly marked in the field with signs and/or highly visible flagging until construction-related ground disturbing activities are complete.

g. Crossing of waterbodies when they are dry or frozen and not flowing may proceed using standard upland construction techniques in accordance with the Plan, provided that the Environmental Inspector verifies that water is unlikely to flow between initial disturbance and final stabilization of the feature. In the event of perceptible flow, the project sponsor must comply with all applicable Procedure requirements for "waterbodies" as defined in section I.B.1.

4. Spoil Pile Placement and Control

a. All spoil from minor and intermediate waterbody crossings, and upland spoil from major waterbody crossings, must be placed in the construction right-of-way at least 10 feet from the water's edge or in additional extra work areas as described in section V.B.2.

b. Use sediment barriers to prevent the flow of spoil or silt-laden water into any waterbody.

5. Equipment Bridges

a. Only clearing equipment and equipment necessary for installation of equipment bridges may cross waterbodies prior to bridge installation. Limit the number of such crossings of each waterbody to one per piece of clearing equipment.

b. Construct and maintain equipment bridges to allow unrestricted flow and to prevent soil from entering the waterbody. Examples of such bridges include:

(1) equipment pads and culvert(s);
(2) equipment pads or railroad car bridges without culverts;
(3) clean rock fill and culvert(s); and
(4) flexi-float or portable bridges.

Additional options for equipment bridges may be utilized that achieve the performance objectives noted above. Do not use soil to construct or stabilize equipment bridges.

c. Design and maintain each equipment bridge to withstand and pass the highest flow expected to occur while the bridge is in place. Align culverts to prevent bank erosion or streambed scour. If necessary, install energy dissipating devices downstream of the culverts.

d. Design and maintain equipment bridges to prevent soil from entering the waterbody.

e. Remove temporary equipment bridges as soon as practicable after permanent seeding.

f. If there will be more than 1 month between final cleanup and the beginning of permanent seeding and reasonable alternative access to the right-of-way is available, remove temporary equipment bridges as soon as practicable after final cleanup.

g. Obtain any necessary approval from the COE, or the appropriate state agency for permanent bridges.

6. Dry-Ditch Crossing Methods

a. Unless approved otherwise by the appropriate federal or state agency, install the pipeline using one of the dry-ditch methods outlined below for crossings of waterbodies up to 30 feet wide (at the water's edge at the time of construction) that are state-designated as either coldwater or significant coolwater or warmwater fisheries, or federally-designated as critical habitat.

b. Dam and Pump

(1) The dam-and-pump method may be used without prior approval for crossings of waterbodies where pumps can adequately transfer streamflow volumes around the work area, and there are no concerns about sensitive species passage.

(2) Implementation of the dam-and-pump crossing method must meet the following performance criteria:

(i) use sufficient pumps, including on-site backup pumps, to maintain downstream flows;
(ii) construct dams with materials that prevent sediment and other pollutants from entering the waterbody (e.g., sandbags or clean gravel with plastic liner);
(iii) screen pump intakes to minimize entrainment of fish;
(iv) prevent streambed scour at pump discharge; and
(v) continuously monitor the dam and pumps to ensure proper operation throughout the waterbody crossing.

c. Flume Crossing

The flume crossing method requires implementation of the following steps:

(1) install flume pipe after blasting (if necessary), but before any trenching;

(2) use sand bag or sand bag and plastic sheeting diversion structure or equivalent to develop an effective seal and to divert stream flow through the flume pipe (some modifications to the stream bottom may be required to achieve an effective seal);

(3) properly align flume pipe(s) to prevent bank erosion and streambed scour;

(4) do not remove flume pipe during trenching, pipelaying, or backfilling activities, or initial streambed restoration efforts; and

(5) remove all flume pipes and dams that are not also part of the equipment bridge as soon as final cleanup of the stream bed and bank is complete.

d. Horizontal Directional Drill

For each waterbody or wetland that would be crossed using the HDD method, file with the Secretary for the review and written approval by the Director, a plan that includes:

(1) site-specific construction diagrams that show the location of mud pits, pipe assembly areas, and all areas to be disturbed or cleared for construction;

(2) justification that disturbed areas are limited to the minimum needed to construct the crossing;

(3) identificationn of any aboveground disturbance or clearing between the HDD entry and exit workspaces during construction;

(4) a description of how an inadvertent release of drilling mud would be contained and cleaned up; and

(5) a contingency plan for crossing the waterbody or wetland in the event the HDD is unsuccessful and how the abandoned drill hole would be sealed, if necessary.

The requirement to file HDD plans does not apply to projects constructed under the automatic authorization provisions in the FERC's regulations.

7. Crossings of Minor Waterbodies

Where a dry-ditch crossing is not required, minor waterbodies may be crossed using the open-cut crossing method, with the following restrictions:

a. except for blasting and other rock breaking measures, complete instream construction activities (including trenching, pipe installation, backfill, and restoration of the streambed contours) within 24 hours. Streambanks and unconsolidated streambeds may require additional restoration after this period;

b. limit use of equipment operating in the waterbody to that needed to construct the crossing; and

c. equipment bridges are not required at minor waterbodies that do not have a state-designated fishery classification or protected status (e.g., agricultural or intermittent drainage ditches). However, if an equipment bridge is used it must be constructed as described in section V.B.5.

8. Crossings of Intermediate Waterbodies

Where a dry-ditch crossing is not required, intermediate waterbodies may be crossed using the open-cut crossing method, with the following restrictions:

a. complete instream construction activities (not including blasting and other rock breaking measures) within 48 hours, unless site-specific conditions make completion within 48 hours infeasible;

b. limit use of equipment operating in the waterbody to that needed to construct the crossing; and

c. all other construction equipment must cross on an equipment bridge as specified in section V.B.5.

9. Crossings of Major Waterbodies

Before construction, the project sponsor shall file with the Secretary for the review and written approval by the Director a detailed, site-specific construction plan and scaled drawings identifying all areas to be disturbed by construction for each major waterbody crossing (the scaled drawings are not required for any offshore portions of pipeline projects). This plan must be developed in consultation with the appropriate state and federal agencies and shall include extra work areas, spoil storage areas, sediment control structures, etc., as well as mitigation for navigational issues. The requirement to file major waterbody crossing plans does not apply to projects constructed under the automatic authorization provisions of the FERC's regulations.

The Environmental Inspector may adjust the final placement of the erosion and sediment control structures in the field to maximize effectiveness.

10. Temporary Erosion and Sediment Control

Install sediment barriers (as defined in section IV.F.3.a of the Plan) immediately after initial disturbance of the waterbody or adjacent upland. Sediment barriers must be properly maintained throughout construction and reinstalled as necessary (such as after backfilling of the trench) until replaced by permanent erosion controls or restoration of adjacent upland areas is complete. Temporary erosion and sediment control measures are addressed in more detail in the Plan; however, the following specific measures must be implemented at stream crossings:

a. install sediment barriers across the entire construction right-of-way at all waterbody crossings, where necessary to prevent the flow of sediments into the waterbody. Removable sediment barriers (or driveable berms) must be installed across the travel lane. These removable sediment barriers can be removed during the construction day, but must be re-installed after construction has stopped for the day and/or when heavy precipitation is imminent;

b. where waterbodies are adjacent to the construction right-of-way and the right-of-way slopes toward the waterbody, install sediment barriers along the edge of the construction right-of-way as necessary to contain spoil within the construction right-of-way and prevent sediment flow into the waterbody; and

c. use temporary trench plugs at all waterbody crossings, as necessary, to prevent diversion of water into upland portions of the pipeline trench and to keep any accumulated trench water out of the waterbody.

11. Trench Dewatering

    Dewater the trench (either on or off the construction right-of-way) in a manner that does not cause erosion and does not result in silt-laden water flowing into any waterbody. Remove the dewatering structures as soon as practicable after the completion of dewatering activities.

C. RESTORATION

1. Use clean gravel or native cobbles for the upper 1 foot of trench backfill in all waterbodies that contain coldwater fisheries.

2. For open-cut crossings, stabilize waterbody banks and install temporary sediment barriers within 24 hours of completing instream construction activities. For dry-ditch crossings, complete streambed and bank stabilization before returning flow to the waterbody channel.

3. Return all waterbody banks to preconstruction contours or to a stable angle of repose as approved by the Environmental Inspector.

4. Install erosion control fabric or a functional equivalent on waterbody banks at the time of final bank recontouring. Do not use synthetic monofilament mesh/netted erosion control materials in areas designated as sensitive wildlife habitat unless the product is specifically designed to minimize harm to wildlife. Anchor erosion control fabric with staples or other appropriate devices.

5. Application of riprap for bank stabilization must comply with COE, or its delegated agency, permit terms and conditions.

6. Unless otherwise specified by state permit, limit the use of riprap to areas where flow conditions preclude effective vegetative stabilization techniques such as seeding and erosion control fabric.

7. Revegetate disturbed riparian areas with native species of conservation grasses, legumes, and woody species, similar in density to adjacent undisturbed lands.

8. Install a permanent slope breaker across the construction right-of-way at the base of slopes greater than 5 percent that are less than 50 feet from the waterbody, or as needed to prevent sediment transport into the waterbody. In addition, install sediment barriers as outlined in the Plan.

   In some areas, with the approval of the Environmental Inspector, an earthen berm may be suitable as a sediment barrier adjacent to the waterbody.

9. Sections V.C.3 through V.C.7 above also apply to those perennial or intermittent streams not flowing at the time of construction.

D. POST-CONSTRUCTION MAINTENANCE

1. Limit routine vegetation mowing or clearing adjacent to waterbodies to allow a riparian strip at least 25 feet wide, as measured from the waterbody's mean high water mark, to permanently revegetate with native plant species across the entire construction right-of-way. However, to facilitate periodic corrosion/leak surveys, a corridor centered on the pipeline and up to 10 feet wide may be cleared at a frequency necessary to maintain the 10-foot corridor in an herbaceous state. In addition, trees that are located within 15 feet of the pipeline that have roots that could compromise the integrity of the pipeline coating may be cut and removed from the permanent right-of-way. Do not conduct any routine vegetation mowing or clearing in riparian areas that are between HDD entry and exit points.

In areas where dual pipelines will be installed, Rover will maintain the 20 feet between the pipeline centerlines plus an additional 5 feet on the outside portion of the centerlines for a total of 30 feet.

2. Do not use herbicides or pesticides in or within 100 feet of a waterbody except as allowed by the appropriate land management or state agency.

3. Time of year restrictions specified in section VII.A.5 of the Plan (April 15 – August 1 of any year) apply to routine mowing and clearing of riparian areas.

VI. WETLAND CROSSINGS

A. GENERAL

1. The project sponsor shall conduct a wetland delineation using the current federal methodology and file a wetland delineation report with the Secretary before construction. The requirement to file a wetland delineation report does not apply to projects constructed under the automatic authorization provisions in the FERC's regulations.

This report shall identify:

a. by milepost all wetlands that would be affected;

b. the National Wetlands Inventory (NWI) classification for each wetland;

c. the crossing length of each wetland in feet; and

d. the area of permanent and temporary disturbance that would occur in each wetland by NWI classification type.

The requirements outlined in this section do not apply to wetlands in actively cultivated or rotated cropland. Standard upland protective measures, including workspace and topsoiling requirements, apply to these agricultural wetlands.

2. Route the pipeline to avoid wetland areas to the maximum extent possible. If a wetland cannot be avoided or crossed by following an existing right-of-way, route the new pipeline in a manner that minimizes disturbance to wetlands. Where looping an existing pipeline, overlap the existing pipeline right-of-way with the new construction right-of-way. In addition, locate the loop line no more than 25 feet away from the existing pipeline unless site-specific constraints would adversely affect the stability of the existing pipeline.

3. Limit the width of the construction right-of-way to 75 feet or less. Prior written approval of the Director is required where topographic conditions or soil limitations require that the construction right-of-way width within the boundaries of a federally delineated wetland be expanded beyond 75 feet. Early in the planning process the project sponsor is encouraged to identify site-specific areas where excessively wide trenches could occur and/or where spoil piles could be difficult to maintain because existing soils lack adequate unconfined compressive strength.

Table 2 identifies locations where Rover is requesting approval for a construction right-of-way of greater than 75 feet in wetlands. Installation of large-diameter pipelines requires a construction right-of-way of more than 75 feet due to workspace requirements associated with installing large diameter pipelines, the associated larger equipment size, and soil conditions found in the Project area which tend to slump resulting in wider trenches to achieve adequate depth of cover and difficulty in containing spoil piles. A reduced construction right-of-way would require the pipe and equipment to be located closer to the ditch line posing a safety concern for construction personnel.

4. Wetland boundaries and buffers must be clearly marked in the field with signs and/or highly visible flagging until construction-related ground disturbing activities are complete.

5. Implement the measures of sections V <u>and</u> VI in the event a waterbody crossing is located within or adjacent to a wetland crossing. If all measures of sections V and VI cannot be met, the project sponsor must file with the Secretary a site-specific crossing plan for review and written approval by the Director before construction. This crossing plan shall address at a minimum:

a. spoil control;

b. equipment bridges;

c. restoration of waterbody banks and wetland hydrology;

d. timing of the waterbody crossing;

e. method of crossing; and

f. size and location of all extra work areas.

6. Do not locate aboveground facilities in any wetland, except where the location of such facilities outside of wetlands would prohibit compliance with U.S. Department of Transportation regulations.

B. INSTALLATION

1. Extra Work Areas and Access Roads

a. Locate all extra work areas (such as staging areas and additional spoil storage areas) at least 50 feet away from wetland boundaries, except where the adjacent upland consists of cultivated or rotated cropland or other disturbed land.

Table 1 identifies locations where site-specific conditions at certain wetlands require that extra work areas (referred to as additional temporary work space or ATWS) be located less than 50 feet from the wetland edge or within the wetland. Rover will implement all applicable protection measures, such as installation of silt fencing and hay bales along ATWS limits to prevent off-site sedimentation, and any other measures appropriate for stabilizing the ATWS during and after construction.

b. The project sponsor shall file with the Secretary for review and written approval by the Director, site-specific justification for each extra work area with a less than 50-foot setback from wetland boundaries, except where adjacent upland consists of cultivated or rotated cropland or other disturbed land. The justification must specify the site-specific conditions that will not permit a 50-foot setback and measures to ensure the wetland is adequately protected.

c. The construction right-of-way may be used for access when the wetland soil is firm enough to avoid rutting or the construction right-of-way has been appropriately stabilized to avoid rutting (e.g., with timber riprap, prefabricated equipment mats, or terra mats).

In wetlands that cannot be appropriately stabilized, all construction equipment other than that needed to install the wetland crossing shall

use access roads located in upland areas. Where access roads in upland areas do not provide reasonable access, limit all other construction equipment to one pass through the wetland using the construction right-of-way.

d. The only access roads, other than the construction right-of-way, that can be used in wetlands are those existing roads that can be used with no modifications or improvements, other than routine repair, and no impact on the wetland.

2. Crossing Procedures

a. Comply with COE, or its delegated agency, permit terms and conditions.

b. Assemble the pipeline in an upland area unless the wetland is dry enough to adequately support skids and pipe.

c. Use "push-pull" or "float" techniques to place the pipe in the trench where water and other site conditions allow.

d. Minimize the length of time that topsoil is segregated and the trench is open. Do not trench the wetland until the pipeline is assembled and ready for lowering in.

If conditions allow, such as low flow or unsaturated soils, the trench will be excavated through the wetland before pipe assembly. This will allow for proper topsoil segregation and adequate workspace to safely excavate the trench.

e. Limit construction equipment operating in wetland areas to that needed to clear the construction right-of-way, dig the trench, fabricate and install the pipeline, backfill the trench, and restore the construction right-of-way.

f. Cut vegetation just above ground level, leaving existing root systems in place, and remove it from the wetland for disposal.

The project sponsor can burn woody debris in wetlands, if approved by the COE and in accordance with state and local regulations, ensuring that all remaining woody debris is removed for disposal.

g. Limit pulling of tree stumps and grading activities to directly over the trenchline. Do not grade or remove stumps or root systems from the rest of the construction right-of-way in wetlands unless the Chief Inspector and Environmental Inspector determine that safety-related

construction constraints require grading or the removal of tree stumps from under the working side of the construction right-of-way.

h. Segregate the top 1 foot of topsoil from the area disturbed by trenching, except in areas where standing water is present or soils are saturated. Immediately after backfilling is complete, restore the segregated topsoil to its original location.

i. Do not use rock, soil imported from outside the wetland, tree stumps, or brush riprap to support equipment on the construction right-of-way.

j. If standing water or saturated soils are present, or if construction equipment causes ruts or mixing of the topsoil and subsoil in wetlands, use low-ground-weight construction equipment, or operate normal equipment on timber riprap, prefabricated equipment mats, or terra mats.

k. Remove all project-related material used to support equipment on the construction right-of-way upon completion of construction.

3. Temporary Sediment Control

Install sediment barriers (as defined in section IV.F.3.a of the Plan) immediately after initial disturbance of the wetland or adjacent upland. Sediment barriers must be properly maintained throughout construction and reinstalled as necessary (such as after backfilling of the trench). Except as noted below in section VI.B.3.c, maintain sediment barriers until replaced by permanent erosion controls or restoration of adjacent upland areas is complete. Temporary erosion and sediment control measures are addressed in more detail in the Plan.

a. Install sediment barriers across the entire construction right-of-way immediately upslope of the wetland boundary at all wetland crossings where necessary to prevent sediment flow into the wetland.

b. Where wetlands are adjacent to the construction right-of-way and the right-of-way slopes toward the wetland, install sediment barriers along the edge of the construction right-of-way as necessary to contain spoil within the construction right-of-way and prevent sediment flow into the wetland.

c. Install sediment barriers along the edge of the construction right-of-way as necessary to contain spoil and sediment within the construction right-of-way through wetlands. Remove these sediment barriers during right-of-way cleanup.

4. Trench Dewatering

   Dewater the trench (either on or off the construction right-of-way) in a manner that does not cause erosion and does not result in silt-laden water flowing into any wetland. Remove the dewatering structures as soon as practicable after the completion of dewatering activities.

C. RESTORATION

1. Where the pipeline trench may drain a wetland, construct trench breakers at the wetland boundaries and/or seal the trench bottom as necessary to maintain the original wetland hydrology.

2. Restore pre-construction wetland contours to maintain the original wetland hydrology.

3. For each wetland crossed, install a trench breaker at the base of slopes near the boundary between the wetland and adjacent upland areas. Install a permanent slope breaker across the construction right-of-way at the base of slopes greater than 5 percent where the base of the slope is less than 50 feet from the wetland, or as needed to prevent sediment transport into the wetland. In addition, install sediment barriers as outlined in the Plan. In some areas, with the approval of the Environmental Inspector, an earthen berm may be suitable as a sediment barrier adjacent to the wetland.

4. Do not use fertilizer, lime, or mulch unless required in writing by the appropriate federal or state agency.

5. Consult with the appropriate federal or state agencies to develop a project-specific wetland restoration plan. The restoration plan shall include measures for re-establishing herbaceous and/or woody species, controlling the invasion and spread of invasive species and noxious weeds (e.g., purple loosestrife and phragmites), and monitoring the success of the revegetation and weed control efforts. Provide this plan to the FERC staff upon request.

6. Until a project-specific wetland restoration plan is developed and/or implemented, temporarily revegetate the construction right-of-way with annual ryegrass at a rate of 40 pounds/acre (unless standing water is present).

7. Ensure that all disturbed areas successfully revegetate with wetland herbaceous and/or woody plant species.

8. Remove temporary sediment barriers located at the boundary between wetland and adjacent upland areas after revegetation and stabilization of

adjacent upland areas are judged to be successful as specified in section VII.A.4 of the Plan.

D. POST-CONSTRUCTION MAINTENANCE AND REPORTING

1. Do not conduct routine vegetation mowing or clearing over the full width of the permanent right-of-way in wetlands. However, to facilitate periodic corrosion/leak surveys, a corridor centered on the pipeline and up to 10 feet wide may be cleared at a frequency necessary to maintain the 10-foot corridor in an herbaceous state. In addition, trees within 15 feet of the pipeline with roots that could compromise the integrity of pipeline coating may be selectively cut and removed from the permanent right-of-way. Do not conduct any routine vegetation mowing or clearing in wetlands that are between HDD entry and exit points.

2. Do not use herbicides or pesticides in or within 100 feet of a wetland, except as allowed by the appropriate federal or state agency.

3. Time of year restrictions specified in section VII.A.5 of the Plan (April 15 – August 1 of any year) apply to routine mowing and clearing of wetland areas.

4. Monitor and record the success of wetland revegetation annually until wetland revegetation is successful.

5. Wetland revegetation shall be considered successful if all of the following criteria are satisfied:

   a. the affected wetland satisfies the current federal definition for a wetland (i.e., soils, hydrology, and vegetation);

   b. vegetation is at least 80 percent of either the cover documented for the wetland prior to construction, or at least 80 percent of the cover in adjacent wetland areas that were not disturbed by construction;

   c. if natural rather than active revegetation was used, the plant species composition is consistent with early successional wetland plant communities in the affected ecoregion; and

   d. invasive species and noxious weeds are absent, unless they are abundant in adjacent areas that were not disturbed by construction.

6. Within 3 years after construction, file a report with the Secretary identifying the status of the wetland revegetation efforts and documenting success as defined in section VI.D.5, above. The requirement to file wetland restoration reports with the Secretary does not apply to projects constructed under the

automatic authorization, prior notice, or advance notice provisions in the FERC's regulations.

For any wetland where revegetation is not successful at the end of 3 years after construction, develop and implement (in consultation with a professional wetland ecologist) a remedial revegetation plan to actively revegetate wetlands. Continue revegetation efforts and file a report annually documenting progress in these wetlands until wetland revegetation is successful.

VII. HYDROSTATIC TESTING

A. NOTIFICATION PROCEDURES AND PERMITS

1. Apply for state-issued water withdrawal permits, as required.

2. Apply for National Pollutant Discharge Elimination System (NPDES) or state-issued discharge permits, as required.

3. Notify appropriate state agencies of intent to use specific sources at least 48 hours before testing activities unless they waive this requirement in writing.

B. GENERAL

1. Perform 100 percent radiographic inspection of all pipeline section welds or hydrotest the pipeline sections, before installation under waterbodies or wetlands.

2. If pumps used for hydrostatic testing are within 100 feet of any waterbody or wetland, address secondary containment and refueling of these pumps in the project's Spill Prevention and Response Procedures.

3. The project sponsor shall file with the Secretary before construction a list identifying the location of all waterbodies proposed for use as a hydrostatic test water source or discharge location. This filing requirement does not apply to projects constructed under the automatic authorization provisions of the FERC's regulations.

C. INTAKE SOURCE AND RATE

1. Screen the intake hose to minimize the potential for entrainment of fish.

2. Do not use state-designated exceptional value waters, waterbodies which provide habitat for federally listed threatened or endangered species, or

waterbodies designated as public water supplies, unless appropriate federal, state, and/or local permitting agencies grant written permission.

3. Maintain adequate flow rates to protect aquatic life, provide for all waterbody uses, and provide for downstream withdrawals of water by existing users.

4. Locate hydrostatic test manifolds outside wetlands and riparian areas to the maximum extent practicable.

D. DISCHARGE LOCATION, METHOD, AND RATE

1. Regulate discharge rate, use energy dissipation device(s), and install sediment barriers, as necessary, to prevent erosion, streambed scour, suspension of sediments, or excessive streamflow.

2. Do not discharge into state-designated exceptional value waters, waterbodies which provide habitat for federally listed threatened or endangered species, or waterbodies designated as public water supplies, unless appropriate federal, state, and local permitting agencies grant written permission.

TABLE 1-11
Justification for Additional Temporary Workspace (ATWS) Within 50 feet of a Waterbody or Wetland

Revised MP [1]	Old MP [1]	Approximate Dimensions		Acres	Reason for ATWS	Waterbody / Wetland ID	Flow / Wetland Type [2]	Location of ATWS [3]	Justification
		Width	Length						
Laterals:									
Berne Lateral									
0.55	0.55	25	370	0.21	WETLANDS / STREAM CROSSING	WB4H-MO-655	Pond	BE-P3-1001	ATWS required for optimal crossing of wetlands and stream.
1.89	1.39	25	370	0.21	ST HWY 78 / STREAM CROSSING	S3ES-MO-238	Ephemeral	BE-P3-1002	Only upland location available to facilitate road and stream crossing. ATWS located in uplands primarily consisting of croplands.
3.51	3.01	25	300	0.17	TEXAS EASTERN PIPELINES CROSSING	W7H-NO-424	PEM	BE-P3-1004	Only upland location available between road and wetland crossings.
Burgettstown Lateral									
8.62	8.85	10	115	0.03	STREAM CROSSING	S4H-WA-725	Perennial	BG-P3-1010	ATWS required for 15-foot wide stream crossing at base of slopes on either side.
8.63	8.85	15	120	0.04	STREAM CROSSING	S4H-WA-725	Perennial	BG-P3-1010	ATWS required for 15-foot wide stream crossing at base of slopes on either side.
8.66	8.89	10	75	0.02	STREAM CROSSING	S4H-WA-725	Perennial	BG-P3-1010	ATWS required for 15-foot wide stream crossing at base of slopes on either side.
14.19	14.42	25	205	0.12	SHADY GLEN RD CROSSING	S2ES-HA-212	Intermittent	BG-P3-1016	ATWS required for optimal road crossing.
14.77	14.99	30	300	0.21	OHIO RIVER HDD	WB4ES-HA-686	Pond	BG-P3-1018	ATWS required for HDD crossing
14.77	14.99	75	300	0.52	OHIO RIVER HDD	W4ES-HA-687	Intermittent	BG-P3-1018	ATWS required for HDD crossing
17.79	17.77	10	50	0.01	STREAM CROSSING	S4ES-JE-183	Perennial	BG-P3-1020	AWTS located for optimal crossing of waterbody.
17.8	17.78	15	85	0.03	STREAM CROSSING	S4ES-JE-183	Perennial	BG-P3-1020	ATWS located for optimal crossing of waterbody.
18.25	18.23	25	100	0.06	STREAM CROSSING	S4ES-JE-178	Intermittent	BG-P3-1020	ATWS located for optimal crossing of waterbody.

TABLE 1-11
Justification for Additional Temporary Workspace (ATWS) Within 50 feet of a Waterbody or Wetland

Revised MP [1]	Old MP [1]	Approximate Dimensions		Acres	Reason for ATWS	Waterbody / Wetland ID	Flow / Wetland Type [2]	Location of ATWS [3]	Justification
19.42	19.4	15	95	0.03	STREAM CROSSING	S2ES-JE-201	Ephemeral	BG-P3-1022	AWTS located for optimal crossing of waterbody.
20.67	20.65	10	65	0.01	STREAM CROSSING	S2ES-JE-208	Ephemeral	BG-P3-1023	AWTS located for optimal crossing of waterbody.
20.75	20.73	15	115	0.04	STREAM CROSSING	S2ES-JE-206	Intermittent	BG-P3-1023	AWTS located for optimal crossing of waterbody.
22.71	22.69	10	60	0.01	WAGGONER ROAD / STREAM CROSSING	ST2B-JE-296	Ephemeral	BG-P3-1025	ATWS needed to support Waggonner road crossing and waterbody.
23.24	23.22	25	100	0.06	WETLAND / STREAM CROSSING	S4ES-JE-170	Intermittent	BG-P3-1025	Only available upland location to facilitate crossing of a waterbody and large wetland.
	28.94	15	95	0.03	SIDE SLOPE	S2ST-JE-106	Perennial	BG-P3-1031	ATWS needed to support pipeline construction in steep area.
	28.96	10	100	0.02	SIDE SLOPE	S2ST-JE-106	Perennial	BG-P3-1031	ATWS needed to support pipeline construction in steep area.
33.81		25	190	0.11	WETLAND CROSSING	W4ES-JE-160	PSS	BG-P3-1037	ATWS needed in area of slope leading to large wetland/stream complex in valley.
33.96		25	160	0.09	WETLAND / OHIO RAIL CORP RR CROSSING	W4ES-JE-160	PSS	BG-P3-1037	ATWS needed in area of slope leading to large wetland/stream complex in valley and to for railroad bore.
33.97		25	85	0.05	WETLAND / OHIO RAIL CORP RR CROSSING	W4ES-JE-153	PEM	BG-P3-1037	ATWS needed in area of slope leading to large wetland/stream complex in valley and to for railroad bore.
36.06	36.05	15	100	0.03	WETLAND / STREAM CROSSING	S2TB-CA-273	Perennial	BG-P3-1039	AWTS located for optimal crossing of waterbody.
37.32	37.3	25	100	0.06	STREAM CROSSING	ST2B-CA-229	Perennial	BG-P3-1040	ATWS located for optimal crossing of waterbody.
37.37	37.35	25	100	0.06	STREAM CROSSING	S2TB-CA-229	Perennial	BG-P3-1041	ATWS located for optimal crossing of waterbody.
38.35	38.33	25	100	0.06	WETLAND / STREAM CROSSING	W2ES-CA-154	PSS	BG-P3-1042	ATWS located for optimal crossing of two waterbodies.
38.72	38.7	25	100	0.06	STREAM CROSSING	W4ES-CA-127	PEM	BG-P3-1042	ATWS located for optimal crossing of waterbody.
38.81	38.79	25	100	0.06	WETLAND CROSSING	W4ES-CA-120	PSS	BG-P3-1042	ATWS located for optimal crossing of wetland.
39.65	39.63	25	100	0.06	WETLAND / STREAM CROSSING	S4ES-CA-116	Ephemeral	BG-P3-1043	ATWS located for optimal crossing of two waterbodies.

TABLE 1-11
Justification for Additional Temporary Workspace (ATWS) Within 50 feet of a Waterbody or Wetland

Revised MP [1]	Old MP [1]	Approximate Dimensions		Acres	Reason for ATWS	Waterbody / Wetland ID	Flow / Wetland Type [2]	Location of ATWS [3]	Justification
40.45	40.43	10	100	0.02	STREAM CROSSING	S2TB-CA-238	Perennial	BG-P3-1044	ATWS located for optimal crossing of two waterbodies.
46.97	46.94	10	75	0.02	WETLANDS / STREAM CROSSING	W4ES-CA-151	PEM	BG-P3-1051	ATWS located for optimal crossing of waterbody and wetland.
47.47	47.44	25	425	0.24	STREAM / ACCESS MIDSTREAM PIPELINE CROSSING	S2ES-CA-219	Ephemeral	BG-P3-1051	ATWS located for optimal crossing of a series of waterbodies.
47.69		25	50	0.03	WETLAND CROSSING	W4ES-CA-134	PEM	BG-P3-1051	ATWS needed for crossing of wetland/ stream complex at base on slopes.
47.72		25	50	0.03	STREAM CROSSING	S4ES-CA-133	Intermittent	BG-P3-1051	ATWS needed for crossing of wetland/ stream complex at base on slopes.
Cadiz Lateral - None									
CGT Lateral - None									
Clarington Lateral									
2.96	3.51	10	100	0.02	STREAM CROSSING	S4ES-BE-204	Ephemeral	CL-P3-1004	ATWS needed to support pipeline crossing of a waterbody in steep area.
3.57	4.11	15	350	0.12	PEA VINE CREEK / TWP 106 (E. BROWN PEAVINE RD) CROSSING	S4ES-BE-201	Perennial	CL-P3-1005	ATWS needed to support pipeline crossing of Pea Vine Creek and county road.
3.81	4.36	25	2760	1.58	SIDE SLOPE	S4ES-BE-201	Perennial	CL-P3-1005	ATWS needed to support pipeline construction in steep area.
4.24	4.8	10	130	0.03	STREAM CROSSING	S1ES-BE-215	Intermittent	CL-P3-1006	ATWS needed to support pipeline construction in steep area.
7.07	7.6	25	140	0.08	STREAM CROSSING / SIDE SLOPE	S3ES-BE-179 S3ES-BE-176	Ephemeral Ephemeral	CL-P3-1009	ATWS needed to support pipeline crossing of a waterbody in steep area.
7.71	8.24	25	180	0.1	STREAM CROSSING	S2ES-BE-205	Ephemeral	CL-P3-1009	ATWS needed to support pipeline crossing of a waterbody in steep area.
9.23	9.76	15	300	0.1	STREAM CROSSING	S4H-BE-361	Intermittent	CL-P3-1011	ATWS needed to support pipeline crossing of a waterbody in steep area.
26.58		15	160	0.06	WETLAND CROSSING	W3H-HA-254	PEM	CL-P3-1030	ATWS needed to stage wetland crossing.
26.62		15	50	0.02	TWP 254 (JOCKEY HOLLOW RD) / WETLAND / STREAM CROSSING	W3H-HA-254	PEM	CL-P3-1030	ATWS needed for road and wetland crossing.
26.67		15	140	0.05	TWP 254 (JOCKEY HOLLOW RD) / WETLAND / STREAM CROSSING	W3H-HA-257	PEM	CL-P3-1030	ATWS needed for road and wetland crossing.
Majorsville Lateral									
3.29	3.24	10	100	0.02	STREAM CROSSING	S1ES-MA-179	Ephemeral	MJ-P3-1004	AWTS located for optimal crossing of waterbody.

TABLE 1-11
Justification for Additional Temporary Workspace (ATWS) Within 50 feet of a Waterbody or Wetland

Revised MP [1]	Old MP [1]	Approximate Dimensions		Acres	Reason for ATWS	Waterbody / Wetland ID	Flow / Wetland Type [2]	Location of ATWS [3]	Justification
3.29	3.25	15	110	0.04	STREAM CROSSING	S1ES-MA-179	Ephemeral	MJ-P3-1004	AWTS located for optimal crossing of waterbodies in a relatively steep area.
4.02	3.98	25	125	0.07	CR 7/3 (LOWER STULL ROAD) / STULL RUN CROSSING	S4H-MA-338	Intermittent	MJ-P3-1005	AWTS located for optimal crossing of waterbodies in a relatively steep area.
						S4H-MA-336	Perennial		
9.28	9.26	10	685	0.16	STREAM CROSSING / SIDE SLOPE	S7H-MA-379	Ephemeral	MJ-P3-1010	AWTS located for optimal crossing of waterbodies in a relatively steep area.
15.28	15.2	15	1630	0.56	SIDE SLOPE / CR 46 (NEW CUT RD) CROSSING	S4H-BE-297	Perennial	MJ-P3-1017	ATWS required to facilitate road and stream crossings. Space limited overall due to steep side slopes.
15.44	15.44	25	270	0.15	SIDE SLOPE	S4H-BE-295	Intermittent	MJ-P3-1017	AWTS located for optimal crossing of waterbodies in an area with steep side slopes.
15.47	15.47	15	100	0.03	STREAM CROSSING	S4H-BE-295	Intermittent	MJ-P3-1017	AWTS located for optimal crossing of waterbodies in an area with steep side slopes.
17.27	17.27	10	100	0.02	WETLAND / STREAM CROSSING	W5ES-BE-145	PEM	MJ –P3-1019	ATWS required for stream and wetland crossing. ATWS located in upland area.
17.6	17.59	10	110	0.03	STREAM CROSSING	S5ES-BE-146	Ephemeral	MJ-P3-1019	ATWS required for stream crossing. ATWS is located within upland areas consisting of primarily within cropland, minimizing impacts to forested uplands.
18.81	18.81	25	390	0.22	STREAM / WETLAND / PRIVATE ROAD CROSSING	W4H-BE-312	PEM	MJ-P3-1021	ATWS required for optimal crossing of wetland.
Seneca Lateral									
0.74	0.68	25	290	0.17	TEXAS EASTERN TRANSMISSION PIPELINE / ST HWY 513 (BATESVILLE RD) CROSSING	W7H-NO-424	PEM	SN-P3-1002	Only upland available location between waterbody crossings.
3.29	3.23	25	105	0.06	STREAM CROSSING	S2TB-MO-108	Intermittent	SN-P3-1005	Only upland location available between waterbody and wetland crossings. ATWS required for optimal crossing of wetland.
5.51	5.43	25	290	0.17	SIDE SLOPE	S1H-MO-160	Ephemeral	SN-P3-1007	Only upland location available to facilitate road, wetland, and stream crossings in an area with steep side slopes.
7.85	7.77	25	1310	0.75	SIDE SLOPE	S1TB-MO-140	Intermittent	SN-P3-1009	ATWS required for side slope construction. Stream crosses at a diagonal

TABLE 1-11
Justification for Additional Temporary Workspace (ATWS) Within 50 feet of a Waterbody or Wetland

Revised MP [1]	Old MP [1]	Approximate Dimensions		Acres	Reason for ATWS	Waterbody / Wetland ID	Flow / Wetland Type [2]	Location of ATWS [3]	Justification
10.91	10.79	25	205	0.12	STREAMS CROSSING	S4H-MO-205	Intermittent	SN-P3-1013	Only upland location available between a series of waterbody crossings.
11.0	10.89	25	355	0.2	STREAMS CROSSING	S4H-MO-208	Intermittent	SN-P3-1013	ATWS required for optimal waterbody crossing.
14.32	14.2	25	225	0.13	STREAM CROSSING	S2TB-MO-124	Ephemeral	SN-P3-1016	AWTS required for optimal crossing of a waterbody in an area with steep side slopes.
15.71	15.58	25	665	0.38	SIDE SLOPE	S1TB-MO-147	Ephemeral	SN-P3-1018	AWTS required for optimal crossing of a waterbody in an area with steep side slopes.
16.55	16.42	25	350	0.2	STREAMS / WETLAND CROSSING	S2TB-MO-132	Ephemeral	SN-P3-1018	Only upland location available between waterbody crossings.
17.15	17.02	25	990	0.57	SIDE SLOPE / STREAM CROSSING	S1TB-MO-164	Ephemeral	SN-P3-1019	AWTS required for optimal crossing of a waterbody in an area with steep side slopes.
22.23	22.1	25	190	0.11	STREAM CROSSING	S7H-MO-446	Ephemeral	SN-P3-1025	ATWS required for optimal crossing of a waterbody.
Sherwood Lateral									
1.8	1.64	15	250	0.09	CONSOLE PIPELINE CROSSING	S1ES-DO-219	Ephemeral	SW-P3-1001	ATWS required to facilitate crossing of Console Pipeline.
3.44	2.29	15	230	0.08	EQUITABLE PRODUCTION CO. PIPELINE CROSSING	S4H-DO-249	Intermittent	SW-P3-1003	ATWS required to facilitate crossing of Equitable Production Co. Pipeline Crossing.
3.59	2.44	10	795	0.18	CR 30/3 (JOCKEY CAMP RD) / STREAM / UNKNOWN FOREIGN PIPELINES CROSSING	S1ES-DO-126	Ephemeral	SW-P3-1003	ATWS required to facilitate waterbody crossings in an area of steep side slopes.
4.59	3.48	15	140	0.05	STREAM CROSSING	S2ES-DO-122	Ephemeral	SW-P3-1004	ATWS required to facilitate waterbody crossings in an area of steep side slopes.
4.63	3.52	15	65	0.02	STREAM CROSSING	S2ES-DO-122	Ephemeral	SW-P3-1004	ATWS required to facilitate waterbody crossings in an area of steep side slopes.
5.21	4.11	10	100	0.02	NATURAL DRAINAGE CROSSING	S2ES-DO-124	Ephemeral	SW-P3-1005	ATWS required for optimal crossing of a series of waterbodies.
5.64	4.53	15	320	0.11	STREAM / EQT PIPELINE CROSSING	S4ES-DO-103	Ephemeral	SW-P3-1005	ATWS required to facilitate waterbody crossing in an area of steep side slopes.
5.9	4.76	15	595	0.2	CR 34 (PIGGIN RUN RD) / STREAMS CROSSING	S2ES-DO-108	Intermittent	SW-P3-1005	ATWS required for optimal crossing of a series of waterbodies.

TABLE 1-11
Justification for Additional Temporary Workspace (ATWS) Within 50 feet of a Waterbody or Wetland

Revised MP [1]	Old MP [1]	Approximate Dimensions		Acres	Reason for ATWS	Waterbody / Wetland ID	Flow / Wetland Type [2]	Location of ATWS [3]	Justification
5.91	4.77	10	660	0.15	CR 34 (PIGGIN RUN RD) / STREAMS CROSSING	S1ES-DO-109	Intermittent	SW-P3-1005	ATWS required for optimal crossing of a series of waterbodies.
6.89	5.78	10	385	0.09	STREAM / WETLAND CROSSING	W4H-DO-252	PEM	SW-P3-1006	Only upland location available between waterbody and wetland crossings.
7.73	6.62	15	295	0.1	STREAM CROSSING	S2ES-DO-136	Perennial	SW-P3-1008	ATWS required for optimal crossing of large waterbody in an area of steep side slopes.
7.73	6.62	10	295	0.07	STREAM CROSSING	S2ES-DO-137	Ephemeral	SW-P3-1008	ATWS required for optimal crossing of large waterbody in an area of steep side slopes.
						S2ES-DO-136	Perennial		
7.82	6.71	15	390	0.13	STREAM / EQUITRANS PIPELINE CROSSING	S2ES-DO-136	Perennial	SW-P3-1008	ATWS required for optimal crossing of large waterbody in an area of steep side slopes.
7.82	6.71	10	385	0.09	STREAM / EQUITRANS PIPELINE CROSSING	S2ES-DO-135	Ephemeral	SW-P3-1008	ATWS required for optimal crossing of large waterbody in an area of steep side slopes.
						S2ES-DO-136	Perennial		
8.12	7.02	15	190	0.07	CR 22 (WOLFPEN RUN RD) / STREAM CROSSING	S2ES-DO-131	Ephemeral	SW-P3-1008	ATWS required for optimal crossing of a series of waterbodies.
9.16	8.05	10	295	0.07	STREAM / CR 24 (CAMP MISTAKE RD) CROSSING	S1ES-DO-121	Perennial	SW-P3-1009	ATWS required for optimal crossing of large waterbody in an area of steep side slopes.
9.24	8.13	10	300	0.07	STREAM / CR 24 (CAMP MISTAKE RD) CROSSING	S1ES-DO-121	Perennial	SW-P3-1009	ATWS required for optimal crossing of large waterbody in an area of steep side slopes.
9.24	8.13	15	300	0.1	STREAM / CR 24 (CAMP MISTAKE RD) CROSSING	S1ES-DO-121	Perennial	SW-P3-1009	ATWS required for optimal crossing of large waterbody in an area of steep side slopes.
9.69	8.59	10	55	0.01	STREAM / UNKNOWN FOREIGN PIPELINE CROSSING	S3ES-DO-103	Ephemeral	SW-P3-1010	Only upland location available to facilitate the crossing of several waterbodies and a pipeline in an area of steep side slopes.
10.87	9.75	10	515	0.12	CR 60/2 (SANDY CREEK RD) / EQT PIPELINE / STREAM CROSSING	S3ES-TY-115	Ephemeral	SW-P3-1011	ATWS required for optimal crossing of a series of waterbodies in an area of steep side slopes.
11.08	9.98	15	235	0.08	STREAMS / EQT PIPELINE CROSSING	S3ES-TY-121	Ephemeral	SW-P3-1011	Only upland location available between waterbody crossings.
11.17	10.07	25	440	0.25	STREAM CROSSING / SIDE SLOPE	S3ES-TY-123	Ephemeral	SW-P3-1011	Only upland location available between waterbody crossings.
14.05	12.94	50	300	0.34	PRIVATE ROAD & MIDDLE ISLAND CREEK HDD	S4ES-TY-244	Ephemeral	SW-P3-1014	ATWS required for HDD crossing.

TABLE 1-11
Justification for Additional Temporary Workspace (ATWS) Within 50 feet of a Waterbody or Wetland

Revised MP [1]	Old MP [1]	Approximate Dimensions		Acres	Reason for ATWS	Waterbody / Wetland ID	Flow / Wetland Type [2]	Location of ATWS [3]	Justification
15.15	14.07	10	100	0.02	CR 18/8 (PURGATORY RUN RD) / STREAM CROSSING	S4ES-TY-114	Ephemeral	SW-P3-1015	AWTS required for optimal crossing of a waterbody.
17.65	16.57	15	75	0.03	CR 30/1 (LAUGH RUN RD) CROSSING	S7H-TY-265	Ephemeral	SW-P3-1018	Only available location without interferring with residential property.
19.75	18.67	25	1040	0.6	SIDE SLOPE	S4H-TY-284	Ephemeral	SW-P3-1020	AWTS required for optimal crossing of a waterbody.
23.35	22.27	25	300	0.17	STREAM / CR 10/1 (MARTIN HILL RD) CROSSING	S2ES-TY-115	Intermittent	SW-P3-1024	ATWS required to facilitate waterbody and road crossing.
24.77	23.69	25	285	0.16	MIDDLE ISLAND CREEK HDD	S4H-TY-288	Intermittent	SW-P3-1026	ATWS required for HDD crossing.
24.77	23.69	50	310	0.36	MIDDLE ISLAND CREEK HDD	S4H-TY-288	Intermittent	SW-P3-1026	ATWS required for HDD crossing.
27.82	26.73	25	2300	1.32	SIDE SLOPE	S5ES-TY-127	Ephemeral	SW-P3-1029	ATWS required for pipeline construction in an area of steep side slopes.
34.76	33.67	15	145	0.05	CR 26/1 (DUTCH CAMP ROAD) CROSSING / SIDE SLOPE	W3H-WE-196	PEM	SW-P3-1036	ATWS needed for road crossing. Only 0.0007 of wetland affected.
34.98	33.89	300	200	1.38	OHIO RIVER HDD	WB3H-WE-189	Pond, Manmade	SW-P3-1036	ATWS required for HDD crossing.
39.14	37.41	15	180	0.06	WETLAND / TWP 490 (BREY HOLLOW ROAD) CROSSING	W4H-MO-276	PFO	SW-P3-1040	ATWS required to facilitate the crossing of a wetland complex in an area of steep side slopes.
39.15	37.43	10	180	0.04	WETLAND / TWP 490 (BREY HOLLOW ROAD) CROSSING	W4H-MO-276	PFO	SW-P3-1040	ATWS required to facilitate the crossing of a wetland complex in an area of steep side slopes.
49.24	47.49	25	75	0.04	CR 6 (ALTITUDE MILLER HILL RD) CROSSING	W4H-MO-271	PEM	SW-P3-1051	ATWS required to facilitate the crossing of a waterbody and wetland.
						S4H-MO-270	Perennial		
53.2		10	250	0.05	MARKWEST PIPELINE CROSSING	S2H-MO-247	Ephemeral	SW-P3-1055	ATWS required for pipeline crossing. Stream is along outer edge but not crossed.
53.64	51.95	25	665	0.38	SIDE SLOPE	S9H-MO-136	Ephemeral	SW-P3-1056	ATWS required to facilitate the crossing of two waterbodies.
Mainlines:									
Supply Connector Lines A and B									
7.22	7.47	15	310	0.11	CR 22 (LOWER CLEARFORK ROAD) CROSSING	W4ES-HR-223	PEM	ML-P3-1009	ATWS required for road crossing. No other upland location available. ATWS is located in uplands consistis primarily of croplands and road.
Mainlines A and B									

TABLE 1-11
Justification for Additional Temporary Workspace (ATWS) Within 50 feet of a Waterbody or Wetland

Revised MP [1]	Old MP [1]	Approximate Dimensions		Acres	Reason for ATWS	Waterbody / Wetland ID	Flow / Wetland Type [2]	Location of ATWS [3]	Justification
21.52	21.61	15	70	0.02	WATERBODY / WETLAND CROSSING	W2ST-CA-141	PEM	ML-P3-2003	Only available upland location for optimal crossing of wetland and waterbody.
24.74	24.83	50	300	0.34	INDIAN FORK HDD	W7H-TU-255	PFO	ML-P3-2007	ATWS required for HDD crossing.
32.81	32.85	15	195	0.07	STREAM CROSSING	S4H-TU-381	Intermittent	ML-P3-2015	ATWS required for optimal crossing of multiple streams.
51.84	51.85	15	405	0.14	CR 105 / DOMINION PIPELINE / STREAM CROSSING	S2H-WA-125	Ephemeral	ML-P3-2013	Only available upland location between waterbodies, residences, and cropland.
53.53	53.53	145	300	1	STREAM AT HIGHWAY 241 HDD	W7H-WA-176	PEM	ML-P3-2014	ATWS required for HDD crossing.
67.81	67.92	50	300	0.34	PRAIRIE LANE HDD / CR 176 / PRIVATE ROAD / WATERBODY / WETLAND / LEVEE CROSSING	S1M-WA-144	Intermittent	ML-P3-3029	ATWS required for HDD crossing.
						W1M-WA-143	PEM		
68.21	68.32	50	100	0.11	PRAIRIE LANE HDD	S1M-WA-147	Perennial	ML-P3-3029	ATWS required for HDD crossing.
68.23	68.34	200	140	0.64	PRAIRIE LANE HDD	S1M-WA-153	Perennial	ML-P3-3029	ATWS required for HDD crossing.
68.79	68.9	25	300	0.17	NORFOLK SOUTHERN RAILROAD HDD	S1M-WA-147	Perennial	ML-P3-3030	ATWS required for HDD crossing.
76.85	76.95	200	300	0.67	US HIGHWAY 30 HDD	S1TB-WA-116	Perennial	ML-P3-3038	ATWS required for HDD crossing.
85.01	84.87	15	150	0.05	CR 1575 CROSSING	W7H-AS-105	PEM	ML-P3-4008	ATWS required for road crossing.
93.75	93.6	15	715	0.25	STREAM CROSSING	S1H-AS-131	Perennial	ML-P3-4017	Only available upland location to facilitate stream crossing without interferring with croplands.
94.69	94.57	75	190	0.33	US HIGHWAY 42 HDD	W4H-AS-120	PEM	ML-P3-4018	ATWS required for HDD crossing.
95.98	95.86	50	300	0.34	BLACK FORK MOCHICAN RIVER HDD	W4H-RI-130	PEM	ML-P3-4019	ATWS required for HDD crossing.
						W4H-RI-131	PFO		
135.51	135.29	80	230	0.42	COUNTY ROAD 12 HDD	W7H-SE-219	PEM	ML-P3-5008	ATWS required for HDD crossing.
135.54	135.31	50	150	0.17	COUNTY ROAD 12 HDD	W7H-SE-219	PEM	ML-P3-5008	ATWS required for HDD crossing.
Market Segment									
2.97	2.92	25	505	0.29	CR 166 CROSSING	W4H-DF-229	PFO	MK-P3-7003	Only available location to facilitate crossover without interferring with croplands.
57.47	56.91	25	815	0.47	WETLAND CROSSING	S1K-WA-293	Perennial	MK-P3-8001	ATWS required due to terrain.
						W1K-WA-292	PSS		

TABLE 1-11
Justification for Additional Temporary Workspace (ATWS) Within 50 feet of a Waterbody or Wetland

Revised MP [1]	Old MP [1]	Approximate Dimensions		Acres	Reason for ATWS	Waterbody / Wetland ID	Flow / Wetland Type [2]	Location of ATWS [3]	Justification
61.14	60.58	60	150	0.21	CROSSOVER / WETLAND CROSSING	W2K-WA-167	PEM	MK-P3-8005	ATWS required for wetland crossing. ATWS is located within cropland, minimizing impacts to forested areas.
71.52		25	100	0.06	STREAM CROSSING	W7K-WA-162	PEM	MK-P3-8016	ATWS within wetland needed for 1350-foot crossing of saturated wetland and for perennial stream crossing.
71.57		25	100	0.06	STREAM CROSSING	W7K-WA-162	PEM	MK-P3-8016	ATWS within wetland needed for 1350-foot crossing of saturated wetland and for perennial stream crossing.
71.63		25	100	0.06	STREAM CROSSING	W7K-WA-162	PEM	MK-P3-8016	ATWS within wetland needed for 1350-foot crossing of saturated wetland and for perennial stream crossing.
71.66		25	100	0.06	STREAM CROSSING	W7K-WA-162	PEM	MK-P3-8016	ATWS within wetland needed for 1350-foot crossing of saturated wetland and for perennial stream crossing.
72.35		25	70	0.04	S LIMA CENTER RD / WETLAND CROSSSING	W2K-WA-193	PEM	MK-P3-8017	ATWS within wetland needed as wetland is on both sides of the road and there is no upland workspace available for bored road crossing.
72.38		25	105	0.06	S LIMA CENTER RD / WETLAND CROSSSING	W2K-WA-193	PEM	MK-P3-8017	ATWS within wetland needed as wetland is on both sides of the road and there is no upland workspace available for bored road crossing.
87.05	87.14	45	345	0.36	CROSSOVER	W2K-LI-238	PSS	MK-P3-8033	Only available upland location to facilitate crossover and optimal crossing of large wetland complex and perennial stream.
87.12		25	435	0.25	STREAM CROSSING	W2K-LI-238	PSS	MK-P3-8033	ATWS within wetland needed for 340-foot-long saturated wetland crossing and for crossing of 28-foot-wide stream within the wetland.
						S2K-LI-239	Perennial		
90.94	91.03	25	95	0.05	SPEARS ROAD CROSSING	W5K-LI-419	PEM	MK-P3-8038	Only available upland location for road crossing.

1 Approximate enter milepost (MP). Revised MPs are current based on length; Old MPs correspond to previous submittals.
2 Wetland classification according to Cowardin et al. 1979: PEM = Palustrine Emergent Wetland; PSS = Palustrine Scrub-Shrub Wetland; PFO = Palustrine Forested Wetland.
3 Identifies the drawing number associated with the alignment sheet where the ATWS is located.

TABLE 2. Justification for Construction Right-of-Way Width in Wetlands

Approx. Enter MP	Crossing Length (feet)	Wetland ID	Wetland Type[1]	Construction Right-of-Way Width (feet)	Justification
Market Segment					
87.09	245.46	W2K-LI-238	PSS	100	Rover requests to maintain the previously proposed construction workspace within this wetland. This is the only wetland area that Rover believes it will not be able to construct in a reduced workspace. This wetland includes an open cut crossing of Honey Creek, which is a perennial stream approximately 28 feet wide at the pipeline centerline. The wetland is a saturated floodplain of Honey Creek and is bordered on the south side by the ITC corridor with multiple overhead lines. A portion of the temporary workspace within the ITC corridor was reduced to avoid an overhead power pole. To accommodate the reduced workspace as well as a 46 degree points of inflection on both sides of the ITC corridor, Rover previously requested a 45' x 205' ATWS just south of the ITC corridor. The wetland is bordered to the north by the tract MI-LI-021.500, which is addressed in Environmental Condition 35 below. This tract is proposed for development and Rover has reduced the workspace within the tract to accommodate the storage buildings and retainage pond installed by the landowner within the previously proposed workspace. Rover would not be able to increase the workspace to the north within this tract. Please refer to Comparison Drawing MK-P3-8033-C.
87.12	46.23	W2K-LI-238a	PSS	100	

TABLE 2. Justification for Construction Right-of-Way Width in Wetlands

Approx. Enter MP	Crossing Length (feet)	Wetland ID	Wetland Type[1]	Construction Right-of-Way Width (feet)	Justification

Document Content(s)

September 11, 2017

Terry Turpin, Director
Office of Energy Projects
888 First Street, NE
Washington, D.C. 20426

Re: Rover Pipeline Project, Rover Pipeline LLC's Response to Ohio EPA letter

Dear Mr. Turpin:

This letter responds to the inaccurate and misleading letter the Director of the Ohio Environmental Protection Agency ("Ohio EPA") sent to you on September 7, 2017 ("Letter") concerning Rover Pipeline LLC's ("Rover") request to restart horizontal directional drilling ("HDD") operations.

The Ohio EPA's Letter misrepresents the current state of Rover's extensive compliance activities along the pipeline corridor in Ohio. In doing so, Ohio EPA makes a number of misleading and inaccurate statements regarding Rover's compliance and other misstatements of fact. For the record, Rover has fully cooperated with the Ohio EPA to address *all* the issues raised by the July 7, 2017 Unilateral Order ("Unilateral Order") Ohio EPA issued. Ohio EPA has acknowledged this cooperation and has approved *every* mitigation plan and measure Rover has submitted. Ohio EPA confirmed this to both Rover and FERC Staff several weeks ago and has now "formally" confirmed it in a letter to FERC Staff.[1]

As a result, we read with bewilderment the Ohio EPA Letter. The Letter continues a baffling pattern wherein the Ohio EPA works cooperatively and effectively in private with Rover but renders a series of sensationalist and misleading public communications. Since the first indication of inadvertent releases on the Rover project we have worked closely with Ohio EPA to address their concerns and to address all unintended consequences. In fact, in the attached letter you received the day *after* the Letter, Ohio EPA states that it has *approved all* plans and measures Rover has submitted. This is far from substantial non-compliance which Ohio EPA now alleges.

It is important that the Commission have accurate and complete information regarding Rover's extensive compliance activities along with the collaborative efforts between Ohio EPA and Rover since the Unilateral Order was issued. Here are the facts.

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[1] *See* Attachment A, Letter from H. Kallipolitis, Ohio EPA, to B. Thomason, Energy Transfer Company, re Ohio EPA's Approval of Select Items Required Pursuant to Director's Final Findings and Orders Issued July 7, 2017 (Sept. 8, 2017) (providing a "compliance update regarding plan submittal" which notes the approval of ten plans submitted by Rover); *see also* Letter Order, *Authorization to Commence Service of Phase 1A*, Docket Nos. CP15-93, CP15-94, and CP15-96 (issued August 31, 2017) (indicating Ohio EPA's approval of "Rover's removal activities," and "both the wetland restoration plan and the well monitoring program.").

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First, the Letter contains a number of misstatements of fact. For instance, the Letter claims that Rover released "over 2 million gallons of bentonite drilling fluid into a category 3 wetland." In reality, the volume was almost certainly less than that—somewhere between 250,000 gallons and 2 million gallons—and the wetland was a category 2, not category 3, wetland. The Letter also claims that Rover illegally disposed of contaminated drilling mud containing diesel fuel residuals in unapproved locations and threatened local drinking water in the process. This is inaccurate. At the time Rover commenced disposal of the drilling mud at issue in abandoned quarries, Rover did so with the full knowledge and approval of the Ohio EPA personnel present at the HDD site. Critically, and omitted from the Ohio EPA letter, at the time the drilling mud was relocated Rover had no knowledge that the materials being disposed might contain hydrocarbon materials. Ohio EPA is fully aware of this fact and it was misleading to leave it out of the Letter.

Once allegations regarding the presence of petroleum hydrocarbons in the disposed drilling mud were brought to Rover's attention, Rover immediately undertook comprehensive testing to identify any potential contamination at its disposal locations, ceased disposal of the material at that location at the request of the Ohio EPA, and promptly cleaned up all materials found to have a diesel signature, despite the fact that a majority of the levels of diesel range organics found were below the Ohio EPA's Department of Environmental Response and Revitalization (DERR) action levels, as noted in the Petroleum Contaminated Sites Guidance Document for Emergency Response Actions (ER-013, March 2005), which is a conservative, risk-based standard.

Since that time, Rover has expended enormous time and resources removing those materials from the quarries even though subsequent testing has shown that even the highest concentrations of diesel range organics are below the Ohio EPA's Maximum Allowable Residential Total Petroleum Hydrocarbon (TPH) Concentrations (Type 1 Soil), as noted in the DERR Soil Leaching to Ground water Evaluation for Total Petroleum Hydrocarbons (TPH) Guidance (RR-036, January 14, 2004). Moreover, *none* of the testing to date—Rover's or Ohio EPA's—has shown any threat to or contamination of drinking water supplies. It is simply false for Ohio EPA to state or imply otherwise.

The list of misstatements could go on and on. But beyond these misstatements, the Letter alleges that Rover is somehow incentivized to expedite construction regardless of the environmental and public health consequences. This is a false and malicious assertion. Safety and compliance are always Rover's top priorities and Rover takes these responsibilities extremely seriously. After the inadvertent return at the Tuscarawas, Rover hired GeoEngineers—a nationally recognized expert in HDD—to assess Rover's drilling plans and practices and oversee its drilling operations. Rover took these actions, not because a regulator required it, but because Rover goes above and beyond to ensure that it is operating in accordance with applicable industry best practices. Rover did this before FERC requested that an independent third party conduct such a review. And once FERC suggested that, Rover funded an additional, independent, FERC supervised, third-party review by J.D. Hair. Moreover, Rover is currently implementing the recommendations of both GeoEngineers and

J.D. Hair. In short, Rover is doing all it can do to use long-recognized HDD industry design standards and drilling procedures. Thus, any allegations that Rover would sacrifice safety for expediency are wholly untrue.

Second, the Letter completely mischaracterizes Rover's actions responding to the Unilateral Order. Rover has fully complied with all the substantive requirements of the Unilateral Order on a voluntary basis, despite Rover's belief that the Ohio EPA lacks jurisdiction and the fact that Rover has appealed the Unilateral Order on that basis.

As Ohio EPA has acknowledged, Rover submitted the following plans to Ohio EPA as specified in the Unilateral Order:

- Rover's "Release Prevention and Emergency Response Contingency Plan";
- Rover's "Material Removal Plan-Oster and Beach City Quarries version 3";
- Rover's "Horizontal Directional Drill (HDD) Sampling Plan";
- Rover's "Tuscarawas River Wetland Restoration Plan";
- Rover's "Stark County Sample and Analysis Plan";
- Rover's "Stark County Plan - Ground Water Monitoring Well Installation Work Plan Supplement";
- Rover's "Aqua Massillon Plan";
- Rover's "Work Plan for Installation of Monitoring Wells: Aqua Massillon (Oster Sand and Disposal Pit) and Quarry Plan (Beach City Quarry)";
- Rover's "Quarry Plan";
- Rover's "Stormwater Pollution Prevention Plan" ("SWP3").

Ohio EPA has approved each of these plans. It told FERC Staff and Rover several weeks ago that it has approved each plan. And now the Ohio EPA issued a letter "officially" approving those plans on September 8, 2017—the day after its Letter to FERC underscoring Rover's "substantial noncompliance."

Ohio EPA also has repeatedly acknowledged that Rover has worked cooperatively and tirelessly with the Ohio EPA to address the concerns in the Ohio EPA's Unilateral Order. Indeed, Ohio EPA complemented Rover on its extraordinary work as recently as September 7, 2017, the same date it sent the Letter. Given this fact, it is difficult to understand how that same day Ohio EPA could conclude that Rover "remains in substantial noncompliance with Ohio's July 7, 2017 Orders." As the undisputed facts reveal, these facts are simply untrue.

The only specific example of alleged non-compliance Ohio EPA can even muster surrounds Rover's alleged failure to submit a notice of intent to seek a permit under Ohio's construction storm water program. Although Ohio EPA *now* claims that Rover failed to submit the construction storm water permit application, Ohio EPA agreed that it was not necessary to submit such an application, as long as Rover voluntarily submitted an SWP3 to address the substantive requirements of a storm water protection plan. Rover did just that and

submitted that SWP3 on August 10, 2017. Ohio EPA notified FERC and Rover of its approval of the SWP3 several weeks ago and verified that in the letter on September 8, 2017.

Rover and Ohio EPA explicitly agreed upon this cooperative approach in order to avoid litigation over whether Ohio EPA has jurisdiction to require such a permit. Indeed, litigation should be unnecessary as Rover has voluntarily applied for and received approval of the SWP3. Logically, this should more than satisfy the OEPA. This would suggest that the Letter is a transparent attempt to hinder Rover's ability to restart HDD activities and is designed to exert pressure on the company to submit to state jurisdiction and/or pay an unreasonable civil penalty – putting aside that Ohio has no jurisdiction to do so. That Ohio EPA is now apparently reneging on its earlier agreement is disappointing to say the least.

We respectfully suggest that FERC should not allow its permitting process to be misused in such a manner.

In the end, Rover hopes that Ohio EPA did not submit the Letter because settlement discussions between Rover and Ohio EPA have hit an impasse over Ohio EPA's insistence on extracting an unreasonable and unwarranted civil penalty from Rover as part of any potential settlement (which, again, assumes that Ohio EPA even has the authority to assess such a penalty). Given that Rover and Ohio EPA agreed to continue settlement discussions for 90 days while Rover's appeal of the Unilateral Order is pending, and that another settlement meeting is scheduled in Columbus on September 18th, we hope Ohio EPA's new found views on Rover's alleged non-compliance as expressed in the Letter are not an attempt to gain leverage in settlement negotiations. Regrettably, this appears to be the case. FERC should not become a party to these unsavory tactics.

Rover has no plan or incentive to stop implementing all of the voluntary measures it has committed to implement in response to the Unilateral Order.

Sincerely,

Kevin Erwin
General Counsel
Rover Pipeline LLC

ATTACHMENT A

Ohio Environmental Protection Agency

John R. Kasich, Governor
Mary Taylor, Lt. Governor
Craig W. Butler, Director

September 8, 2017

Buffy Thomason
Energy Transfer Company
1300 Main Street
Houston, Texas 77002

RE: Ohio EPA Approval of Select Items Required Pursuant to Director's Final Findings and Orders dated July 7, 2017

Dear Ms. Thomason:

The purpose of this correspondence is to provide Energy Tranfer Partner's (ETP) a complaince update regarding plan submittal, pursuant to Director's Final Findings and Orders (DFF&Os) issued by Ohio EPA on July 7, 2017. The items listed below are specific to plan submittal orders and the associated status:

A. Pursuant to Section V., Order No. 2 of the DFF&Os, ETP's Release Prevention and Emergency Response Contingency Plan as amended and re-submitted on August 10, 2017, is approved.

B. Pursuant to Section V., Order No. 3 of the DFF&Os, ETP's Quarry Material Removal Plan version 3 as amended and re-submitted on August 4, 2017, at 14:08 EST is approved.

C. Pursuant to Section V., Order No. 5 of the DFF&Os, ETP's HDD Sampling Plan as amended and re-submitted on August 4, 2017, is approved.

D. Pursuant to Section V., Order No. 7 of the DFF&Os, ETP's Wetland Restoration Plan as amended and submitted on August 3, 2017, is approved. A site insection conducted by Ohio EPA on August 22, 2017 and found the majority of the material removed. Ohio EPA will be conducting a following up inspection to ensure no additional removal is warrented.

E. Pursuant to Section V., Order 8 of the DFF&Os, a Storm Water Pollution Prevention Plan was submitted and approved for the remainder of construction.

F. Pursuant to Section V., Order No. 10 of the DFF&Os, ETP's Stark County Plan as amended on August 3, 2017, is approved.

G. Pursuant to Section V., Order No. 12 of the DFF&Os, ETP's Stark Ground Water Monitoring Well Installation Plan as amended and submitted on August 4, 2017, is approved.

H. Pursuant to Section V., Order No. 22 of the DFF&Os, ETP's Aqua Massillon Plan as amended and submitted on August 4, 2017, is approved.

I. Pursuant to Section V., Order No. 24 of the DFF&Os, ETP's Aqua Massilon Ground Water Monitoring Well Installation Plan as amended and submitted on August 4, 2017, is approved.

J. Pursuant to Section V., Order No. 34 of the DFF&Os, ETP's Quarry Plan as amended and submitted on August 4, 2017, is approved.

Please provide recognition of acceptance of this letter and the content therein within 24 hours of receipt. If you have any questions, please do not hesitate to contact me directly at 614-644-2146 or via email at harry.kallipolitis@epa.ohio.gov .

Sincerely

Harry Kallipolitis
401 WQC / Storm Water Manager
Ohio EPA, Division of Surface Water

Document Content(s)

FEDERAL ENERGY REGULATORY COMMISSION
WASHINGTON, D.C. 20426

OFFICE OF ENERGY PROJECTS

In Reply Refer To:
OEP/DG2E/Gas Branch 4
Rover Pipeline, LLC
Rover Pipeline Project
Docket No. CP15-93-000

December 14, 2017

Mr. Kelly Allen
Regulatory Affairs Department Manager
Rover Pipeline, LLC
1300 Main Street
Houston, TX 77002

Re: Authorization to Resume Horizontal Directional Drill Activities

Dear Mr. Allen:

I grant Rover Pipeline, LLC's (Rover) November 27, 2017 request to resume the remaining horizontal directional drilling (HDD) activities at the eight locations identified below. Rover has committed to specific measures to address the recommendations of the JD Hair & Associates reports forwarded to Rover on November 7 and 21, 2017. Commission staff concludes that such measures are consistent with the recommendations included in the J.D. Hair & Associates report. Moreover, Commission staff finds that using these measures will minimize the risk of future inadvertent releases.

Based on staff's review of site-specific plans for the HDDs listed below, as well as our confirmation that Rover continues to implement the protocols referenced in our September 18 and 20, 2017 letters and supplements on October 31, 2017, Rover may resume the following HDD activities at:

1. Highway 109 Crossing;
2. Highway 50 Crossing;
3. Private Roads and Middle Island Creek Crossing;
4. Stream at Highway 241 Crossing;
5. Highway 39 Crossing;
6. UT to Wolf Creek Crossing;

7. Sandusky River Crossing; and
8. Tuscarawas River Crossing.

This authorization for Rover to re-commence certain HDD activities does not bear on or impact the Office of Enforcement's (OE) ongoing investigation into the circumstances of the drilling fluid contamination at the Tuscarawas River HDD site, and the causes thereof. We remind Rover that OE continues to investigate the underlying cause of the drilling mud contamination, and we expect Rover to cooperate fully with OE staff with respect to that investigation.

I also remind you that Rover must comply with all applicable terms and conditions of its *Order Issuing Certificate.* In addition, Rover must comply with all approved plans developed in response to the inadvertent release and drilling mud contamination, such as Rover's Tuscarawas River Wetland Restoration Plan, Aqua Massillon Plan, Quarry Plan, Stark County Sample & Analysis Plan, and Revised HDD Contingency Plan. Failure to comply with the applicable terms and conditions, and approved plans, may result in exercise of the Office of Energy Projects' stop-work authority and/or additional referrals to OE. If you have any questions, please call the environmental project manager, Kevin Bowman, at 202-502-6287; or, with any technical questions related to the HDDs, the project geologist, Anthony J. Rana, at 202-502-8224.

Sincerely,

Danny Tuffaar

for: David Swearingen, Chief
Gas Branch 4
Division of Gas – Environment
and Engineering

cc: Public File; Docket No. CP15-93-000

FEDERAL ENERGY REGULATORY COMMISSION
WASHINGTON, D.C. 20426

OFFICE OF ENERGY PROJECTS

In Reply Refer To:
OEP/DG2E/Gas 4
Rover Pipeline, LLC
Rover Pipeline Project
Docket No. CP15-93-000

January 24, 2018

Chris Sonneborn
Senior Vice President, Engineering
Rover Pipeline LLC
1300 Main Street
Houston, TX 77002

Re: Tuscarawas River Mainline B Horizontal Directional Drill

Dear Mr. Sonneborn:

On December 28, 2017, Rover Pipeline, LLC (Rover) commenced horizontal directional drilling (HDD) activities of the Mainline B crossing of the Tuscarawas River. To date, Rover has completed approximately 1,200 feet of the pilot phase of the HDD. During these operations, some drilling fluid has been lost. According to information you have provided and our monitor's on-site inspections, Rover has taken actions in accordance with its approved HDD contingency plans to attempt to resolve the loss of drilling fluid, but no approach to date has been completely successful. While our understanding is that no fluid has reached the surface, and no impacts on sensitive resources have been documented, the difficult geology at the crossing warrants investigation into other approaches prior to advancing the HDD pilot drill as well as before the subsequent reaming passes. Therefore, Rover is directed to cease advancement of the pilot cutterhead and must provide the following information before further advancement can be authorized:

- Additional details on how Rover plans to address expected drilling fluid losses to subsurface formations present on the both entry and exit side of the drill through the remainder of the pilot drilling phase and during successive reaming passes, and how drilling fluid circulation would be maintained during the remaining phases of drilling;
- A feasibility analysis of the Direct Pipe crossing technique for the Mainline B crossing of the Tuscarawas River at the current crossing location;
- A feasibility analysis of alternate crossing locations of the Tuscarawas River using the HDD and/or Direct Pipe crossing methods for Mainline B. Include a

desktop environmental analysis of pipeline routing and relevant permitting for Mainline B that would be required to reach these alternate crossing locations; and

- A detailed flow diagram and corresponding hydraulic model reflecting the gas volumes and pressure that Rover would be able to provide should the Mainline B crossing not be completed. To complete this, assume that Rover would construct an appropriate crossover to Mainline A within 10 miles upstream and downstream of the Tuscarawas River crossing.

We appreciate Rover's efforts to cautiously approach drilling activities during the Mainline B crossing, and expect that approach to continue. If you have any questions, please call the environmental project manager, Kevin Bowman, at 202-502-6287; or, with any technical questions related to the HDDs, the project geologist, Anthony J. Rana, at 202-502-8224.

Sincerely,

Terry L. Turpin
Director
Office of Energy Projects

cc: Public File, Docket No. CP15-93-000

Document Content(s)

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Rover Pipeline, LLC and	)	Docket No. IN17-4-000
Energy Transfer Partners, L.P.	)	

RESPONSE TO RESPONDENT'S RENEWED MOTION TO COMPEL DISCLOSURE OF EXCULPATORY MATERIALS AND REQUIRE IN CAMERA INSPECTION

On December 16, 2021, pursuant to Rule 209(a)(2) of the Federal Energy Regulatory Commission's ("the Commission") Rules of Practice and Procedure, the Commission ordered Energy Transfer L.P.[1] and its subsidiary Rover Pipeline, LLC (jointly, Respondent) to show cause why it should not be found to have violated Section 7(e) of the Natural Gas Act, 15 U.S.C. § 717f; the Commission's Regulations, 18 C.F.R. § 157.20 (2021); and the Commission's Order Issuing Certificates.[2]

On February 22, 2022, Respondent filed a Renewed Motion to Compel Disclosure of Exculpatory Materials and Require In Camera Inspection ("Motion"), requesting that the Office of Enforcement ("OE") "disclose a complete copy of all investigative materials and any other exculpatory or potentially exculpatory information in the Commission's possession as required by the Commission's *Brady* policy."[3] Respondent also requests an in camera review of "the *entire* investigative record in this matter."[4] As detailed below, Respondent's Motion is an improper discovery request and should be denied.

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[1] Formerly Energy Transfer Partners L.P.
[2] *Rover Pipeline LLC,* 177 FERC ¶ 61,182 (2021).
[3] *See* Motion at 2.
[4] *Id.* at 5.

At all stages of the investigation, OE staff has complied with the Commission's Policy Statement on Disclosure of Exculpatory Materials, 129 FERC ¶ 61,248 (2009) ("Exculpatory Materials Policy"). To date, staff has not identified any exculpatory material and staff is not withholding any exculpatory materials.[5] Respondent argues that the absence of inculpatory information implies that OE staff is withholding exculpatory information. However, an absence of information does not equate to exculpatory information. Contrary to Respondent's assertions, staff has considered and has fully complied with the Exculpatory Materials Policy and staff has not, and is not, deliberately withholding materials in contravention of any Commission rules, regulations, and policies, nor contrary to fundamental fairness and due process.

Respondent's Motion does not simply seek exculpatory information but claims "that Rover is entitled to the *entire* investigative record in this matter."[6] In seeking the entire investigative record, Respondent is attempting to use the Exculpatory Materials Policy to confer discovery rights. But as the Commission's Policy on Exculpatory Materials states "*Brady* is a rule of disclosure, not of discovery."[7] The Commission's Exculpatory Materials Policy does not confer the discovery rights sought by the Motion.

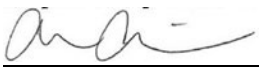
While the Exculpatory Materials Policy does not provide discovery rights, it states that "respondent(s) in a Part 385 enforcement hearing may move the presiding

[5] *See* Letter from D. Mechling, et al., Office of Enforcement, Fed. Energy Reg. Comm'n to William Scherman, et al., Gibson, Dunn & Crutcher LLP, Re: Tuscarawas River – Rover's April 5, 2021 Correspondence to the Commission (Apr. 19, 2021) at 2.
[6] *See* Motion at 2.
[7] *See* Exculpatory Materials Policy, 129 FERC ¶ 61,248, at P 3 (2009).

administrative law judge for disclosure of materials or information the respondent(s) have a reasonable basis to believe are exculpatory. In such a case, the presiding administrative law judge may, if necessary, examine any set of materials in camera to determine if material is subject to Brady disclosure."[8] However, Respondent has not shown a reasonable basis to believe the entire investigative record is potentially exculpatory. Without such a showing, Respondent's request is nothing more than an improper request for discovery.[9]

Accordingly, because staff has complied with the Exculpatory Materials Policy and Respondent improperly attempts to use this disclosure policy to confer broad discovery rights, the Commission should deny Respondent's Renewed Motion to Compel Disclosure of Exculpatory Materials and Require In Camera Inspection.

Respectfully submitted,



Andrea Cerbin
Ambrea Watts
Samantha Spiro
Kirsten Johansson
Division of Investigations
Office of Enforcement
Federal Energy Regulatory Commission

[8] *See id.* P 12.

[9] Although a contested on the record proceeding began when the Order to Show Cause issued, and discovery could be appropriate at some stage during this proceeding, OE Staff maintains that Respondent's request for the entire investigative record is premature before the Commission determines whether to set the matter for a hearing. *See* 18 C.F.R. § 385.401(a) (discovery applies in "proceedings set for hearing.").

CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon each person designated on the official service list compiled by the Secretary in this proceeding.

Dated at Washington, D.C., this 2nd day of March 2022.

Andrea Cerbin
Division of Investigations
Office of Enforcement
Federal Energy Regulatory Commission

Document Content(s)

ENERGY TRANSFER PARTNERS, L.P.

SIXTH AMENDED & RESTATED

CODE OF BUSINESS CONDUCT AND ETHICS

CONTENTS

POLICY OBJECTIVE

Energy Transfer Partners, L.L.C. (the "Company"), the general partner of Energy Transfer Partners GP, L.P. (the "Partnership GP"), the general partner of Energy Transfer Partners, L.P. (the "Partnership"), has adopted a number of policies dealing with business conduct and ethics of the Company, the Partnership GP, the Partnership and the Partnership's subsidiaries (collectively, the "Partnership Group"). We believe that strict adherence to these policies is not only right, but is in the best interest of the Company, its unitholders, its customers, and the industry in general. In all instances, the policies of the Company require that the business of the Partnership Group be conducted in a lawful and ethical manner. Every Employee acting on behalf of the Partnership Group must adhere to these policies.[1] Deviation from these policies can expose the Partnership Group and the individuals involved to criminal actions, fines, injunctions and lawsuits for damages or restitution. Employees who violate the policies will be subject to disciplinary action and/or discharge. Counsel concerning these policies can be obtained from the Employee's immediate supervisor. In any questionable area, an Employee should obtain advice in advance of any action. (See "Reporting Suspected Violations of this Code" below for details.)

DEFINITION OF TERMS

As used herein:

1) "Board" means the Board of Directors of the Company.
2) "Company" means Energy Transfer Partners, L.L.C., a Delaware limited liability company and the general partner of the Partnership GP.
3) "Employee" shall include all employees of the Partnership Group who provide services to or for the benefit of the Partnership Group, and the officers and members of the Board of Directors of the Company.
4) "Family of an Employee" means any close relation by either blood or marriage and any person residing in the same household with the management Employee.
5) "LLC Agreement" means the Amended and Restated Limited Liability Company Agreement of the Company, as amended or restated from time to time.
6) "Organization" means any corporation, individual, partnership or other similar entity.
7) "Partnership" means Energy Transfer Partners, L.P., a Delaware limited partnership.
8) "Partnership Agreement" means the Third Amended and Restated Agreement of Limited Partnership of the Partnership, as amended or restated from time to time.
9) "Partnership Group" means the Company, the Partnership GP, the Partnership and the Partnership's subsidiaries.

[1] *Certain aspects of conduct by our directors are addressed by provisions in the charter documents for the Company and the Partnership. Conduct by a director in accordance with such provisions is consistent with the requirements of this Code.*

10) "Partnership GP" means Energy Transfer GP, L.P., a Delaware limited partnership and the general partner of the Partnership.

11) "Significant Financial Interest," as a minimum standard, means, with respect to a management Employee and such Employee's family (considered as a whole), an ownership interest representing 5% or more of (a) any class of outstanding securities of a firm or corporation, (b) the outstanding ownership interests in a partnership, company or association, or (c) the assets or income, or the right to the assets or income, of such firm, corporation, partnership, company or other association, or any other financial interest deemed material by the Board in its sole discretion.

12) "SEC" means the Securities and Exchange Commission.

13) "Sensitive Payments" means both receipt and disbursements whether or not illegal, and include:

a) receipts from or payments to governmental officials or employees;

b) commercial bribes or kickbacks;

c) amounts received with an understanding that rebates or refunds will be made in contravention of the laws of any jurisdiction, either directly or through a third party;

d) corporate political contributions; and

e) payments or commitments (whether cast in the form of commissions, payments or fees for goods or services received or otherwise) made with the understanding or under circumstances that would indicate that all or part thereof is to be paid by the recipient to governmental officials or employees, or as a commercial bribe, influence payment or kickback.

COMPLIANCE WITH LAWS, RULES AND REGULATIONS

The ethical standards of the Partnership Group rest on obeying the law. Employees must respect and obey the laws of the cities, states and countries in which the Partnership Group operates. This Code of Business Conduct and Ethics obviously cannot mention every law that might be applicable. Although not all individuals are expected to know the details of these laws, it is important for Employees to be familiar with the laws that apply to their respective areas of responsibility, and to know enough to determine when to seek advice from supervisors, managers, the Company's Chief Executive Officer[2] or other appropriate personnel. Because the Company is the general partner of a publicly traded partnership, Employees should be aware of the laws regarding the trading of securities of the Partnership while in possession of material, non-public information relating to the Partnership.

[2] *If there is no Chief Executive Officer, any references to Chief Executive Officer shall include the President or any such other person performing the functions of the chief executive officer.*

CONFLICT OF INTEREST

A "conflict of interest" occurs when an individual's private interest interferes in any way, or even appears to interfere, with the interests of the Partnership Group as a whole.[3] A conflict situation can arise when an Employee takes actions or has interests that may make it difficult to perform his/her work for the Partnership Group objectively and effectively. Conflicts of interest also arise when an Employee, or a member of his/her family, receives improper personal benefits as a result of his/her position in the Partnership Group. Loans to, or guarantees of obligations of, such persons are of special concern. It is impossible to list every circumstance which might give rise to a conflict of interest, or the appearance of a conflict, but some examples are set out below:

1) No Employee or any member of the immediate family living with the Employee should have a Significant Financial Interest in any concern which does business with, or is a competitor of, the Partnership Group, or which is in an adversarial role with the Partnership Group, unless (i) such interest has been fully disclosed in writing to the Employee's immediate supervisor or any of the following executive officers of the Company: Chief Compliance Officer, General Counsel, Chief Financial Officer, President or Chief Executive Officer (each, an "Executive Officer"), and (ii) a determination has been made by the Employee's immediate supervisor or an Executive Officer that such interest, under the circumstances, does not constitute a conflict of interest. An Employee may not approve an invoice from any vendor with whom the Employee has a Significant Financial Interest, even if the determination has been made that such Significant Financial Interest does not constitute a conflict of interest.

2) No Employee should render any managerial, consulting or similar service to any outside concern which does business with, or is a competitor of, the Partnership Group, or which is in an adversarial role with the Partnership Group, unless such activity has received prior specific written approval from the Employee's immediate supervisor or any Executive Officer.

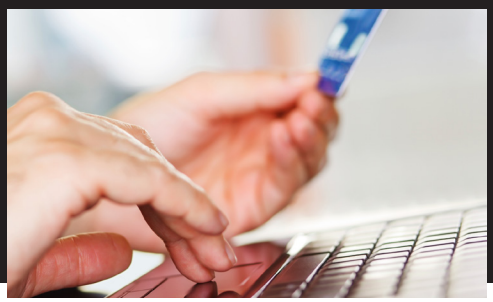
3) No Employee should be obligated either in fact or in appearance, to anyone by accepting any gifts, payments, fees, services, valuable privileges, vacations or pleasure trips without a business purpose, loans (other than conventional loans from conventional lending institutions) or other favors of a material nature from any person or business organization that does or seeks to do business with, or is a competitor of, the Partnership Group.

4) No Employee should conduct business related to an after-hours second job, or outside business, during his/her work hours at the Partnership Group.

You must avoid conflicts of interest unless specific, written pre-approval has been obtained from one of the Company's Executive Officers. In the absence of pre-approval, you must abandon or forfeit the activity or interest that creates the conflict, or seek a waiver pursuant to the provisions of this Code of Business Conduct and Ethics. Any pre-approval for an executive officer must be obtained from the Board of Directors. Conflicts of interest may not always be clear-cut, so if you have a question, you should consult with your supervisor or the Company's General Counsel.

[3] The Partnership Agreement specifies a process for resolution of a conflict of interest between the Company on the one hand and the Partnership and its limited partners on the other. Proper resolution of conflicts of interest or potential conflicts of interest (including any derivative conflict created by an executive officer's ownership of interests in the Partnership or a director's designation by an owner of the Company) in accordance with the process described in the Partnership Agreement is consistent with the requirements of this Code of Business Conduct and Ethics.

SENSITIVE PAYMENTS



It is against the policy of the Partnership Group to authorize payment of or to use Partnership Group funds or personal funds for Sensitive Payments or other similar payment, whether lawful or unlawful, designed to secure special treatment for the Partnership Group. It is also contrary to the policy of the Partnership Group to employ any intermediary to make such payments or to disguise such payment(s) as a commission, refund or in any other manner. Should an Employee become involved in any situation where (i) a request is made for any Sensitive Payment or any bribe, kickback or other payment the propriety of which is questionable, or where (ii) the Employee has any knowledge of payments being made to an agent which are in excess of reasonable fees for services rendered, it is the Employee's responsibility to report the situation immediately to his/her immediate supervisor.

BUSINESS ENTERTAINMENT/SALES PROMOTION ITEMS

The Partnership Group may provide entertainment, when necessary, to customers, potential customers or others involved with business of the Partnership Group. Expenses must be authorized and reasonable. Gifts of a sales promotion nature are also considered proper, when appropriate. If questions arise as to what is appropriate, the Employee should consult his/her immediate supervisor.

ACCEPTANCE OF GIFTS, FAVORS OR OTHER GRATUITIES

The acceptance of gifts and favors of any value are not permitted except that the giving or receipt of common courtesies, sales promotion items, occasional meals, or reasonable entertainment appropriate to the business relationship and associated with business discussions is regarded as consistent with sound business practice; provided, that any gift, favor, entertainment activity or gratuity (collectively, a "Gift") that exceeds $1,000 in value, or any Gift that when aggregated with other Gifts from a single vendor or customer within the previous 12 months exceeds $1,000 in value, may not be accepted by an Employee unless approved in advance by the Company's President following written disclosure by such Employee of (i) the specific nature of the Gift, (ii) the identity of the provider or giver of the Gift, (iii) the estimated value of the Gift, (iv) the estimated value of any other Gift received by such Employee from such provider or giver within the preceding 12 months, and (v) the nature of the business relationship between such provider or giver and the Partnership Group.

PAYMENTS AND GIFTS TO GOVERNMENT OFFICIALS (U.S. OR FOREIGN)

Compliance with the Partnership's Anti-Corruption Policy and the U.S. Foreign Corrupt Practices Act and other anti-corruption laws is required. What is acceptable in the commercial business environment may be entirely unacceptable in dealings with the government (U.S. or foreign). There are strict laws that govern providing gifts, including meals, entertainment, transportation and lodging, to certain government (U.S. or foreign) officials, employees and consultants. Because of the sensitive nature of these relationships, you should not provide gifts or anything of value to government officials, employees and consultants, or members of their families, in connection with Company business without written approval from the Company's Chief Compliance Officer or the Company's Legal Department.

COMPLIANCE WITH INTERNATIONAL TRADE LAWS

The United States government maintains laws and regulations governing the international conduct of companies. Our Partnership has developed a number of policies, supplemental guidelines and manuals to ensure that Employees who are engaged in international activities comply with these laws and regulations. The areas they govern include the following:

Antiboycott Restrictions

The Partnership is prohibited from participating in or providing information in support of "unsanctioned" boycotts, which refers to the Arab League boycott of Israel. Because the Partnership may be required to report all boycott-related requests to the U.S. government (regardless of whether they are accepted or rejected), you are required to promptly report any boycott-related request to the Compliance Department.

Export Controls and Sanctions

The U.S. government maintains restrictions on dealings with governments and persons in certain countries subject to embargo, as detailed in the Partnership policies.

Customs and Imports

U.S. Customs and Border Protection maintains comprehensive regulations designed to control which articles enter into the U.S. Customs territory and to ensure the collection of all required Customs duties. All Employees who work in areas that involve international trade, are required to review and be familiar with the policies, supplemental guidelines and manuals applicable to these activities. In addition, all Employees who may travel internationally are required to become aware of and follow the laws of the country that he or she may travel to.

ANTITRUST

It is against our policy to conduct operations in a manner which could be construed as having antitrust implications. The joining of companies for the purposes of controlling prices or suppressing competition represents actions considered to be those of a trust. Controlling prices would include price fixing which covers actions that have the effect of raising, depressing, fixing, pegging or stabilizing the price of goods or services. Suppressing competition would include any agreement among the Partnership Group and any of its competitors that would divide the market into shares for either the Partnership Group or any competitor.

CONFIDENTIAL INFORMATION

An Employee's obligation to protect the Partnership Group's assets includes maintaining and protecting the confidentiality of information entrusted to the Employee by the Partnership Group, its customers or by third parties because of their position with the Partnership Group, except where disclosure is authorized or legally required. Confidential information includes all non- public information that might be of use to competitors, or harmful to the Partnership Group or its customers, if disclosed. It also includes intellectual property such as trade secrets, as well as business, marketing and operational plans, customer relationships, databases, records, salary information and any financial data and reports that have not been publicly disclosed by the Partnership Group.

Our policy forbids Employees from giving to any member of their family or to any non- Employee, any data or information relating to the contracts, acquisitions, competitive bidding, operations or any decisions, plans, customer-related information and other affairs of the Partnership Group of a material nature, or the use by an Employee of such data or information for the Employee's own benefit or for the benefit of a member of his/her family. For the purposes of this section, the term "non-Employee" means any individual who is not an Employee of the business entity to which such data or information pertains. Nothing in this section, however, shall preclude the authorized provision of such data or information to others pursuant to the routine course of business.

PROTECTION AND PROPER USE OF ASSETS AND PROPRIETARY INFORMATION

All Employees should protect the assets of the Partnership Group and ensure their efficient use. Theft, carelessness and waste have a direct impact on the Partnership Group's profitability. All assets of the Partnership Group should be used only for legitimate business purposes. The use of Company equipment, property or proprietary information in violation of this Code, or for any use other than its intended business use, is prohibited unless otherwise authorized. The intent of this policy extends to the use of computers and communication systems of the

Partnership Group (e.g., mainframe systems, mini-computers/PC's, outside time sharing services, local area networks, facsimile units, telephones, voicemail, etc.). Employees must not pirate or reproduce software applications that are owned by or licensed to the Partnership Group. Employees must observe and support Partnership Group's policies that protect computers and safeguard network systems.

CORPORATE OPPORTUNITIES

Employees are prohibited from (a) taking for themselves personal opportunities that are discovered through the use of Partnership Group property, information or position; (b) using Partnership Group property, information, or position for personal gain; and (c) competing with the Partnership Group. Employees owe a duty to the Partnership Group to advance its legitimate interests when the opportunity to do so arises.

WORK ENVIRONMENT

A good working environment helps support Partnership Group's core values, protects Partnership Group's Employees and allows all of us to reach our fullest potential, both as a company and individually. A good working environment allows us to protect the public and the environment and allows us to responsibly serve our communities. Every Employee is responsible for promoting the most productive and positive working environment, which will contribute to the Partnership Group's continued success.

ETHICAL BEHAVIOR

Every Employee is expected to act with honesty and integrity, in good faith, responsibly, with due care, competence and diligence, without misrepresentation or omission of material facts, and without compromising their independent judgment. Each Employee is required to adhere to the highest ethical standards in fulfilling our responsibilities to, and on behalf of the Partnership Group and its investors. Each Employee is required to deal fairly and honestly with other employees, customers, vendors and third parties. Each Employee should actively encourage ethical conduct among his or her fellow officers, directors and employees. When collecting information or other data on competitors of the Partnership Group, Employees must use only legitimate resources and not take any actions that are illegal, unethical or could cause embarrassment to the Partnership Group. Employees who submit travel and other business expense reports are responsible for the propriety and reasonableness of such expenses, and that ex-

pense reports are submitted promptly, accurately and are properly supported in compliance with the Partnership Group's guidelines for conducting business. Any Employee may always contact any officer of the Partnership, including the Company's Chief Executive Officer, to report any violation or suspected violation of this Code. Any complaint regarding accounting, internal accounting controls or auditing matters (including confidential and anonymous complaints) should be reported via telephone or the website as follows:

Anonymous Reporting Helpline — 800-228-5687 or 888-332-3592
Anonymous Reporting Website — www.energytransfer.ethicspoint.com

An independent third party that the Partnership Group has retained operates this helpline. You do not have to reveal your identity in order to make a report on the helpline. Should you choose to identify yourself, your identity will be kept confidential to the extent permissible by law and feasible to permit an investigation to occur.

FINANCIAL RECORD KEEPING

It is our policy that all books and records of the Partnership Group fully and fairly reflect the assets, liabilities, receipts and expenditures of the Partnership Group. Attempts to create false or misleading records are forbidden. No undisclosed funds or accounts shall be established for any purpose. Knowledge of secret cash funds or slush funds should be reported to the Company's Chief Executive Officer or to the Audit Committee of the Board.

If any Employee believes that the books and records of the Partnership Group are not being maintained in accordance with these requirements, the Employee should report the matter directly to his or her supervisor. If that also is not appropriate or if a satisfactory resolution is not obtained, call 800-228-5687 or 888-332-3592, the Company's toll-free Helpline.

REPORT PREPARATION

Accounting and reporting standards and procedures established by the Partnership Group must be followed to ensure that assets are protected and properly used and that financial records and reports are accurate and reliable. Financial statements published by the Partnership Group must fairly present its operating results and financial position. Improper or fraudulent accounting, documentation or financial reporting are in violation of our policy and may also be in violation of applicable laws. All internal records supporting the financial statements of the Partnership Group must be prepared accurately, completely and properly.

FULL, FAIR, ACCURATE AND TIMELY DISCLOSURE FOR SEC FILINGS

The Partnership Group has established policies and procedures that help to ensure that each SEC report and public communication (including press releases) contains information that is full, fair, accurate, timely and understandable. Every Employee must follow these policies and procedures to ensure that this information is timely, accurate, consistent and credible.

PREVENTION OF INSIDER TRADING

In the normal course of business, an Employee may become aware of material, nonpublic information concerning the Partnership Group and its business activities that a reasonable investor would consider important in determining whether to buy, sell or hold the Partnership's Common Units or other securities. An Employee must not trade Common Units or any of our other securities on the basis of such information before it is made publicly available to investors. An Employee must not provide any such information to any person or entity who is not an Employee, and this prohibition covers disclosure of any such information on an Internet "chat room", "blogging website" or other electronic medium. Trading on information before it is publicly available by any Employee, or any other person or entity who receives such information directly or indirectly from an Employee, is considered "insider trading" and is against the law. Officers and directors of the Partnership Group, and certain other management employees, are held to stricter standards for insider trading under applicable law.

TAX EVASION

It is our policy to comply in all material respects with all applicable tax statutes. It is a violation of our policy for any Employee to take any action to evade taxes related to the operations of the Partnership Group, including withholding or similar taxes on Employee income. It is also a violation of our policy knowingly to assist the Partnership Group, or any individual with whom the Partnership Group has business dealings, to evade taxes. This does not mean, however, that the Partnership Group may not take an aggressive position or resolve doubt in favor of itself as long as there is reasonable support for the position.

POLITICAL CONTRIBUTIONS

The Partnership Group shall be free to take a responsible position and publicize its position on those issues in the political and governmental field which affect the Partnership Group, its unitholders, customers, Employees or pensioners. Furthermore, it is our policy to encourage our Employees, as good citizens, to contribute to the political parties and candidates of their choice and to involve themselves individually. Except as provided herein, the Partnership Group shall not make, directly

or indirectly, any contribution or expenditure in connection with the election or nomination of any candidate for public office. In addition, it is against the intent of this policy for an Employee to solicit contributions from other Employees to be forwarded to political candidates. Nothing under this section shall, however, prevent the establishment and the operation of political action committees as permitted by and in accordance with the regulations of the appropriate Federal and State agencies charged with the enforcement and the administration of the election laws.

CONCEALMENT OF INFORMATION FROM AUDITORS

It is our policy for Employees to provide the Company's Chief Financial Officer and his/her accounting staff and outside auditors with any and all information they request. Since the audit function is a vital tool of management in the conduct of the affairs of the Partnership Group, the concealment of information, whether financial or operational, or allowing misleading information to be provided to the internal accounting staff or outside auditors could result in inaccurate evaluations and improper decisions concerning the activities of the Partnership Group.

WAIVERS

Any waiver of this Code of Business Conduct and Ethics for executive officers or directors may be made only by the Board or a Board committee and will be promptly disclosed as required by law or stock exchange regulation. All other waivers must be approved by the Company's Chief Executive Officer.

REPORTING SUSPECTED VIOLATIONS OF THIS CODE

Every Employee shall first report violations or potential violations of this Code to his or her supervisor(s), or the appropriate officer of the Partnership Group, of the Employee's complaint or concerns. Every officer and director of the Partnership Group, regardless of whether such person is also an Employee, shall report violations or potential violations of this Code to another officer or director of the Partnership Group to whom such person is required to report, one of the Executive Officers, or the Audit Committee, and if appropriate, to the Board of Directors. Because Employees may be reluctant or unable to report such violations or potential violations dealing with a material violation of the securities laws, breach of fiduciary duty or that relate to accounting, internal accounting controls and auditing matters, the Audit Committee has also established procedures providing for the confidential and anonymous reporting of violations to the Audit Committee or such other committee or department established by the Audit Committee for receiving and reviewing reports of violations. Retaliation against any employee who in good faith reports a suspected violation will not be tolerated. All reports of suspected violations will be evaluated by the Audit Committee or persons designated by it to investigate such reports. An investigation of the reported violation will be conducted if the evaluation indicates that there is a likelihood that a problem exists. All Employees are obliged to cooperate

with such investigations and to be truthful and forthcoming in the course of such investigations. Persons violating the standards in this Code, including failure to report fraud, will be subject to appropriate disciplinary action, which may include written notice of a violation, censure by the Board, demotion, suspension, loss of pay, termination, referral for criminal prosecution, and restitution to the Partnership or others for any losses or damages resulting from the violation.

COMPLIANCE PROCEDURES

A copy of this Code of Business Conduct and Ethics will be provided to each Employee.

The Company's Chief Executive Officer will be provided with a current list of Employees to permit proper dissemination of this Code of Business Conduct and Ethics to each Employee and to obtain written confirmation of receipt and understanding thereof.

In order to audit compliance with this policy, each Employee shall furnish to the Company's Chief Executive Officer a written statement in the form attached hereto as Annex "A" setting forth:

1) That the Employee has read and is familiar with this Code of Business Conduct and Ethics;

2) That neither the Employee nor, to the best of the Employee's knowledge, any member of the Employee's family, has had any interest or taken any action which would constitute a violation of this Code of Business Conduct and Ethics; or

3) That the Employee or any family member has an actual or potential violation of this Code of Business Conduct and Ethics that may require a waiver. (Prior disclosures must be updated to reflect any changes in the situation or circumstances.)

All such statements shall be maintained in the files of the Company's Chief Executive Officer. The Company's Chief Executive Officer shall keep a list from year to year of any on-going actual or potential violations and shall review such a list at the time of each annual audit and furnish a copy thereof to the independent auditors of the Company and to the Audit Committee of the Board.

NO IMPLIED CONTRACT/NO THIRD-PARTY BENEFICIARIES/NO EFFECT ON CHARTER DOCUMENTS/AMENDMENTS

This Code of Business Conduct and Ethics is not intended to create any expressed or implied contract with any Employee or third party. In particular, nothing in this document creates any employment contract between the Company and any Employee. Moreover, there are no third- party beneficiaries of this Code of Business Conduct and Ethics. This

Code of Business Conduct and Ethics is not intended to affect any of the rights and powers under the Partnership Agreement of the Partnership or the LLC Agreement of the Company, including without limitation the indemnities and related provisions contained therein. The Company may amend this Code of Business Conduct and Ethics at any time and without prior notice.

PRICE REPORTING

Recent FERC policy statements have set new standards for price reporting in the electricity and natural gas markets. These standards cover matters such as reporting and trading-function independence, price data verification, cooperation with index developers during error resolution processes, and annual data and controls process audits surrounding the price reporting process.

If and to the extent that ETP decides (in its sole discretion) to engage in such price reporting, ETP will implement price controls to ensure safe harbor protection in reporting prices to index developers under applicable rules and regulations at the time of reporting and will ensure that ETP marketing, optimization and Risk Management personnel will adhere to the following controls:

1) **Risk Policy** ETP will maintain a comprehensive Risk Policy that its Employees will follow in reporting data from transactions to index developers. Marketing and optimization personnel must sign an annual certification of their awareness and acknowledgment of the policy.

2) **Source of data** The Risk Management department of the company that is independent from and not responsible for trading and optimization operations will report trade data. The personnel responsible for reporting trade data will also verify the accuracy and completeness of the data before submitting it.

3) **Data reported** Subject to an appropriate confidentiality agreement with the index developer, ETP will report each bilateral, arm's-length transaction between non-affiliated companies in the physical (cash) markets at all trading locations. Physical (cash) market reporting shall not include financial hedges, financial transactions, or swaps or exchanges of gas or electricity. Data will be provided for each transaction separately. For each transaction, the following information will be provided: (a) price; (b) volume; (c) delivery/receipt location; (d) transaction date; (e) term (next day or next month); and (f) a buy/sell indicator within the daily reporting.

   Any errors identified in undertaking such reporting will be corrected as soon as practical.

4) **Error resolution process** ETP will cooperate with the error resolution process adopted by the index developer, including adhering to the process and timeline for submitted corrections and for responding to inquiries from the index developer, given a reasonable amount of time considered. Similar to the original data submission, this will be performed by personnel independent from and not responsible for trading activities.

5) **Data retention and review** ETP will retain all relevant data relating to reported trades for a minimum period of five years. The Risk Management department of the company will be responsible for this function. ETP will have an independent auditor review the implementation of and adherence to data gathering and submission

process adopted by the company at least once annually. The results of the audit will be made available to any index developer to which ETP submits trade data, and ETP shall permit the index developer to recommend changes to improve the accuracy and timeliness of data reporting, given sufficient time and notice.

PROHIBITED TRADING TRANSACTIONS

Employees shall not knowingly make false, fictitious, or fraudulent statements to any regulatory agency or to any registered or approved entity of such agency. Employees shall not manipulate, or attempt to manipulate, the price of any futures contract, financial swap, or any commodity traded on any registered trading platform or traded in interstate commerce. Employees shall not, in connection with the purchase and/or sale of natural gas, electricity, natural gas or electric services, futures contracts, financial swaps, or any commodities in interstate commerce:

1) Directly or indirectly use or employ, or attempt to use or employ, any device, scheme, or artifice to defraud,
2) Make, or attempt to make, any untrue statement of a material fact or to omit to state a material fact necessary in order to make the statement made, in light of the circumstances in which they were made, not misleading, or
3) Engage, or attempt to engage, in any act, practice or course of business that operates or would operate as a fraud or deceit upon any entity.

Prohibited conduct under this Code of Business Conduct and Ethics includes, but is not limited to, delivering, or causing to be delivered, any false, inaccurate, or misleading report of market prices or other market information or conditions that may affect market prices, knowing that, or acting in reckless disregard of whether, the report is false or misleading. Mistakenly transmitting a report in good faith does not violate this prohibition.

POSTING REQUIREMENTS

The Partnership shall make this Code available on or through its website as required by applicable rules and regulations. In addition, the Partnership shall disclose in its Annual Report on Form 10-K that a copy of this Code is available on its website and provide the website address.

ANNEX "A"
CODE OF BUSINESS CONDUCT AND ETHICS STATEMENT

Instructions: Check the appropriate paragraph below and sign where indicated:

To: Chief Executive Officer

I have read and am familiar with the Company's Code of Business Conduct and Ethics (the "Code") and I have checked the appropriate paragraph below:

☐ I have not, and to the best of my knowledge, no member of my family (as defined in the Code) has had any interest or taken any action which would constitute a violation of the policies, contained in the Code.

-or-

☐ I have, or a member of my family has an actual or potential violation of the policies contained in the Code, which is disclosed on the attached statement.

Print Name _____

Signature _____ Dated _____

Document Accession #: 20220321-5196 Filed Date: 03/21/2022

Energy Transfer Family of Partnerships

Employee Handbook

January 2018

ENERGY TRANSFER

SUNOCOLP

A Message To Employees – Welcome!

For those of you who are commencing employment within the Energy Transfer Family of Partnerships, on behalf of the Company, let us extend a warm and sincere welcome. We hope you will enjoy your work here. We are glad to have you with us. Energy Transfer has always recognized that our company's growth and success are the direct result of our employees' contributions. That is why we strive to provide our employees with the best working environment in our industries and we maintain a corporate culture that allows employees at all levels to have fulfilling and rewarding careers.

For those of you who have been with us, thank you for your past and continued service. We all take pride in our unique culture and strong work ethic, which distinguish us from others in our industries. An essential part of maintaining our culture begins with sound policies and guidelines that reinforce our Core Values & Beliefs, support our operational objectives and promote mutual trust and respect among all employees.

We are committed to the policies and procedures outlined in this handbook and their implementation throughout our organization. This handbook should answer many of the questions you may have about policies and guidelines and describe the many employee programs we offer. If you need clarification about a specific policy or program, I encourage you to discuss it with your supervisor or a representative from our Human Resources department.

It is also important to keep in mind that our policies and employee programs are continually reviewed and periodically changed to ensure that the needs of our employees are being met. Revisions and additions to the handbook will be made as needed and will be communicated to all employees. The most current version of the Employee Handbook will always be available on the Company intranet.

We extend to you our personal best wishes for your success and happiness here at Energy Transfer. We understand that it is our employees who provide the services that our customers rely upon, and who will grow and enable us to create new opportunities in the years to come.

Kelcy Warren
Chief Executive Officer
Chairman of the Board of Directors

Company History

Energy Transfer is a Texas-based company that began in 1995 as a small intrastate natural gas pipeline operator and is now one of the largest and most diversified investment grade master limited partnerships in the United States. Growing from roughly 200 miles of natural gas pipelines in 2002 to more than 71,000 miles of natural gas, natural gas liquids (NGLs), refined products, and crude oil pipelines today, the Energy Transfer Family of Partnerships remains dedicated to providing exceptional service to its customers and attractive returns to its investors.

Through several transformative transactions, we have expanded our scope of services. In 2011, we diversified our assets by making a strategic entrance into the NGL business through the acquisition of Louis Dreyfus' NGL storage, fractionation and transportation operations. In 2012, we acquired Southern Union Company, a leading diversified natural gas company, which expanded our national footprint and added more than 20,000 miles of gathering and transportation pipelines to our portfolio. We made a strong entrance into the crude oil and refined products business by acquiring Sunoco, Inc. in 2012, including its interest in Sunoco Logistics Partners L.P. Through the merger with Regency Energy Partners in 2015, we significantly diversified our footprint, both geographically and across business lines. We expanded our reach in the refined products and convenience store business with the acquisition of Susser Holdings Corporation, including its interest in Susser Petroleum Partners LP, (now Sunoco GP, LLC). In April 2017, Energy Transfer Partners and Sunoco Logistics Partners merged, with the combined company called Energy Transfer Partners, creating one of the largest MLPs with a fully integrated midstream/liquids platform. These acquisitions, together with our already robust asset base, have enabled Energy Transfer to become a premier provider of services to producers and consumers of natural gas, NGLs, crude oil, and refined products.

OUR MISSION

The **ENERGY TRANSFER FAMILY OF PARTNERSHIPS** is dedicated to responsibly and safely delivering America's energy through our commitment to upholding our **CORE VALUES AND BELIEFS** in everything we do. We are driven to inspire our employees to create superior value for our customers, our investors, and our unitholders. We also are committed to maintain a unified focus on operating excellence, respecting all others and the communities in which we do business, and creating a sustainable future.

WE® BELIEVE in:

ETHICS AND INTEGRITY

We believe in doing the right thing. We hold our employees to the highest standards of conduct, without compromise. Honesty, integrity and respect in all we do is essential to our success.

EXCELLENCE AND RESULTS

We believe in the continual pursuit of excellence and seek to constantly improve what we do and how we do it. We are accountable for our actions and the resulting outcomes that drive us to achieve superior financial and operating results.

CORPORATE STEWARDSHIP

We believe in giving back to the communities in which we live and work through strategic investments of our business resources, financial contributions and employee volunteerism.

WORKING SAFELY

We believe in putting safety first. The safety of our employees, the communities in which we do business and the environment are our top priorities.

SOCIAL RESPONSIBILITY

We believe in respecting all stakeholder groups in the communities in which we do business by establishing open and honest communications and active community outreach programs in order to facilitate the infrastructure needed to transport a diverse, sustainable and reliable supply of energy to meet the needs of all Americans.

OUR PEOPLE

We believe in a culture of trust, respect and inclusion and we are grounded in the belief that we will succeed together as one. We recognize that people are our most valued resource and we are committed to growing and developing our employees to allow for a workforce that delivers results and exemplifies our values.

ENTREPRENEURIAL MINDSET

We believe in challenging the status quo by creating a creative and flexible environment that stimulates innovation balanced with thoughtful and measured risk-taking to foster growth. We embrace change and are eager to champion new and better ways to operate in a safer, faster and more cost-efficient manner in ever-changing business environments.

ENERGY TRANSFER

Table of Contents

Section 1: Handbook Introduction – Important Information

Energy Transfer has sound policies and procedures that support our culture, our values and promote a positive working environment for all employees. This Employee Handbook is designed to assist you in familiarizing yourself with the benefits and employee programs that our company offers along with the policies and procedures which guide us. This Employee Handbook applies to all employees within the Energy Transfer family of partnerships (other than store level employees), including those who service and/or are employed by Energy Transfer Equity, L.P., Energy Transfer Partners, L.P., Energy Transfer Interstate Holdings, LLC, LaGrange Acquisitions L.P., Energy Transfer Partners, LLC, Panhandle Eastern Pipeline Company LP, Sunoco Logistics Partners GP LLC, Sunoco Partners Lease Acquisition & Marketing, LLC, CDM Resource Management LLC, SEC Energy Products & Services, L.P., Sunoco LP, Sunoco GP, LLC, Sunoco LLC and their subsidiaries, affiliates and other related entities (collectively, "Energy Transfer" or "Company").

Employees are encouraged to read the Employee Handbook thoroughly and retain it for future use. The most current version of the Employee Handbook will always be available on the Company intranet. The Employee Handbook contains only a summary of the Company's policies. In some cases, policies for some Energy Transfer locations may be modified to comply with operational needs and requirements of state or local law.

ENERGY TRANSFER POLICIES AND BENEFITS SUMMARIZED IN THIS EMPLOYEE HANDBOOK ARE SUBJECT TO INTERPRETATION BY ENERGY TRANSFER, AND EXCEPT FOR THE "EMPLOYMENT-AT- WILL" POLICY SET FORTH IN THIS INTRODUCTION, ARE SUBJECT TO CHANGE OR AMENDMENT AT THE COMPANY'S DISCRETION. ENERGY TRANSFER RESERVES THE RIGHT, AT ANY TIME, TO CHANGE, DELETE, DEVIATE FROM, OR ADD POLICIES IN THIS HANDBOOK.

THE INFORMATION CONTAINED IN THIS EMPLOYEE HANDBOOK IS INTENDED ONLY AS A GUIDE AND DOES NOT CONSTITUTE A CONTRACT OR AN EMPLOYMENT AGREEMENT FOR A FIXED OR DEFINED TERM AND CREATES NO CONTRACTUAL RIGHTS. EMPLOYMENT WITH ENERGY TRANSFER REMAINS "AT-WILL" FOR BOTH THE EMPLOYEE AND THE COMPANY. ACCORDINGLY, JUST AS AN EMPLOYEE RETAINS THE RIGHT TO LEAVE EMPLOYMENT AT ANY TIME THE EMPLOYER RETAINS THE RIGHT TO TERMINATE THE EMPLOYEE'S EMPLOYMENT AT ANY TIME WITH OR WITHOUT CAUSE. NO ONE IS AUTHORIZED TO PROVIDE ANY EMPLOYEE WITH AN EMPLOYMENT CONTRACT OR SPECIAL ARRANGEMENT CONCERNING TERMS OR CONDITIONS OF EMPLOYMENT UNLESS THE CONTRACT OR AGREEMENT IS IN WRITING AND SIGNED BY

THE CEO OR THE EXECUTIVE VICE PRESIDENT AND CHIEF HUMAN RESOURCES OFFICER.

UNLESS EXPRESSLY PROVIDED TO THE CONTRARY IN A COLLECTIVE BARGAINING AGREEMENT (CBA) BETWEEN THE COMPANY AND THE BARGAINING UNIT, THE PROVISIONS OF THE CBA AND NOT THE POLICIES CONTAINED HEREIN WILL CONTROL.

THIS EMPLOYEE HANDBOOK REPLACES ALL PREVIOUS HANDBOOKS AND GUIDES, AND SUPERSEDES ALL EARLIER ORAL AND WRITTEN MATERIALS ABOUT ENERGY TRANSFER AND ITS POLICIES UNLESS OTHERWISE INCORPORATED IN THIS HANDBOOK. SHOULD ANY STATEMENT IN THIS EMPLOYEE HANDBOOK CONFLICT WITH FEDERAL, STATE, OR LOCAL LAW, THE RELEVANT LEGAL REQUIREMENTS SHALL SUPERSEDE THESE POLICIES.

MANY MATTERS COVERED BY THIS HANDBOOK, SUCH AS BENEFIT PLAN DESCRIPTIONS, ARE ALSO DESCRIBED IN SEPARATE COMPANY DOCUMENTS. THESE COMPANY DOCUMENTS ARE ALWAYS CONTROLLING OVER ANY STATEMENT MADE IN THIS HANDBOOK OR BY ANY MEMBER OF MANAGEMENT.

Questions regarding this handbook or any Company policy or benefit should be directed to the Human Resources department.

Section 2: Governing Principles of Employment

2-1. Equal Employment Opportunity and Anti-Discrimination Policy

Energy Transfer is an equal opportunity employer that does not discriminate on the basis of race, color, religion, sex, sexual orientation, gender identity, national origin, age, disability, pregnancy, veteran status, citizenship status, or any other characteristic protected by applicable law (including affiliation with someone in a protected class). This policy covers all employees and applicants of the Company. This policy applies to all employment decisions and terms and conditions of employment, including but not limited to recruitment, hiring, placement, promotion, transfer, training, development, compensation, benefits, demotion, discipline and termination. The Company will not tolerate any discrimination prohibited by this policy by anyone at work or engaged in Company business, which includes work related activities such as conventions, seminars, or social events.

Responsibilities & Procedures

All employee must comply with this policy and have a responsibility to promptly report any suspected violations of this policy. Any employees who believe that this policy has been violated should immediately report the issue to his or her direct supervisor. If for any reason the employee is not comfortable reporting the matter to the supervisor, the employee should report the matter to his or her Human Resources representative, any manager, the Executive Vice President and Chief Human Resources Officer or the EthicsPoint Confidential Helpline. The Helpline is available 24 hours per day/7 days per week at 1-888-332-3592 or 1-800-228-5687 or at www.energytransfer.ethicspoint.com. Anonymous reporting is available through the EthicsPoint Confidential Helpline. Energy Transfer's management, at all levels, is responsible for ensuring compliance with this policy in their areas of responsibility. Managers and supervisors who receive complaints, or who observe discriminating conduct, should immediately inform the Human Resources department. All employees are encouraged to consult with the Human Resources department if they have any questions concerning their responsibilities under this policy or other matters related to equal employment opportunities or discrimination in the workplace.

The Company will promptly investigate any reports or allegations of violations of this policy and, where it determines that a violation of policy has occurred, take appropriate corrective and/or preventive action, including discipline, up to and including termination. Even in those instances in which the investigation reveals inappropriate conduct that falls short of unlawful discrimination, discipline or termination may result. The Company will keep information relating to complaints or reports of discrimination and the terms of their resolution as confidential as practicable and protected from unnecessary disclosure.

As explained in the Company's Non-Retaliation Policy, Section 2-3 of this Handbook, the Company will not allow any form of retaliation against individuals who make complaints that a violation of this policy has occurred.

2-2. Anti-Harassment Policy

It is the policy of Energy Transfer, that all employees should enjoy a work environment free from all forms of unlawful discrimination, including harassment. The Company is committed to preventing and correcting harassment in the workplace, and employees are strongly encouraged to report any harassing conduct so that the Company can stop harassment before it becomes severe or pervasive or a violation of any federal, state, or local law. Retaliation against an employee reporting any such conduct will not be tolerated by the Company.

Harassment consists of unwelcome conduct, whether verbal, physical, visual or otherwise, that is based upon a person's protected status, such as sex, pregnancy, sexual orientation, gender identity, race, color, religion, national origin, age, veteran status, disability, protected activity (i.e. opposition to the prohibited discrimination or participation in the statutory complaint procedures) or any other characteristic protected by applicable law. This prohibition applies to all employees, vendors, independent contractors and customers of the Company. The Company will not tolerate any conduct prohibited by this policy from anyone at work or engaged in Company business, which includes work related activities such as conventions, seminars, or social events.

Sexual harassment is defined to include unwelcome sexual advances, requests for sexual favors, and other verbal, visual, or physical conduct of a sexual nature, when:

- Submission to such conduct is made either explicitly or implicitly a term or condition of employment;
- Submission to or rejection of such conduct is used as the basis for employment decisions; or
- Such conduct has the purpose or effect of unreasonably interfering with an individual's work performance or creating an intimidating, hostile or offensive work environment.

Conduct that creates a "hostile" work environment is determined by all the circumstances, which may include the frequency of the conduct, its severity, whether it is physically threatening or humiliating, whether it unreasonably interferes with work performance, and the overall effect on the employee's psychological well-being. Prohibited harassment includes many forms of offensive behavior.

Examples of conduct that is prohibited by this policy include, but are not limited to, the following:

1. Unwanted or unwelcome sexual advances, propositions, or repeated flirtations.

2. Offering or implying an employment-related reward (including, but not limited to a promotion or raise) in exchange for sexual favors or submission to sexual conduct.

3. Threatening or taking of a negative employment action (including, but not limited to termination, demotion, undesirable reassignment, compensation decisions, denial of a leave of absence or retaliation) if sexual conduct is rejected.

4. Physical assaults on another person, including rape, sexual battery, molestation, or attempts to commit these assaults.

5. Unwelcome intentional touching of another person or other unwanted intentional physical contact that is sexual in nature (including patting, pinching, or brushing against another person's body).

6. Asking unwelcome questions or making unwelcome comments about another person's sexual activities, dating, personal or intimate relationships, or appearance.

7. Unwelcome sexually suggestive or flirtatious gifts.

8. Unwelcome sexually suggestive or flirtatious letters, notes, e-mails, instant messages, text messages or voice mails.

9. Conduct or remarks that are sexually suggestive or that demean or show hostility to a person because of the person's gender (including jokes, pranks, teasing, obscenities, obscene or rude gestures or noises, slurs, epithets, taunts, negative stereotyping, threats, blocking of physical movement).

10. Displaying or circulating pictures, objects, or written materials (including graffiti, cartoons, photographs, pinups, calendars, magazines, figurines, novelty items) that are sexually suggestive or that demean or show hostility to a person because of the person's gender.

11. Retaliation for making harassment reports or threatening to report harassment.

Sexual harassment can occur between employees of the same sex. It is prohibited for males to sexually harass females or other males, and for females to sexually harass males or other females. Sexual harassment on the job is prohibited whether it involves co-worker harassment, harassment by a manager or

supervisor, or harassment by persons doing business with the Company or other persons coming into contact with Company employees.

The Company also prohibits harassment on the basis of race, color, national origin, religion, gender, physical or mental disability, age, veteran status, sexual orientation, protected activity, or any other characteristic protected by applicable law. Such prohibited harassment includes but is not limited to the following examples of offensive conduct:

1. Verbal conduct such as making or using threats, epithets, derogatory comments, slurs, explicit or offensive jokes, or comments about characteristics related to one's legally protected status.

2. Visual conduct such as gestures or the display or dissemination of derogatory objects, pictures, articles, posters, cartoons, letters, notes, invitations, or drawings.

3. Written communications containing statements that may be offensive to individuals in a particular protected group, such as racial or ethnic stereotypes or caricatures.

4. Offensive physical conduct such as assault, unwanted touching or impeding or blocking normal movement.

5. Retaliation for making or threatening to make harassment reports to the Company, or for participating in an investigation into harassment allegations.

Responsibilities & Procedures

All employee must comply with this policy and have a responsibility to promptly report any suspected violations of this policy. Any employees who believe that this policy has been violated should immediately report the issue to his or her direct supervisor. If for any reason the employee is not comfortable reporting the matter to the supervisor, the employee should report the matter to his or her Human Resources representative, any manager, the Executive Vice President and Chief Human Resources Officer or the EthicsPoint Confidential Helpline. The Helpline is available 24 hours per day/7 days per week at 1-888-332-3592 or 1-800-228-5687 or at www.energytransfer.ethicspoint.com. Anonymous reporting is available through the EthicsPoint Confidential Helpline.

Energy Transfer's management, at all levels, is responsible for ensuring compliance with this policy in their areas of responsibility. Managers and supervisors who receive a complaint or otherwise learn of harassment or suspected harassment or observe conduct that may be considered harassment, should immediately report the details of this information to his or her manager and the Human Resources department. Any question about whether or not particular

conduct may be deemed to be harassment should be directed to your Human Resources department. Even if the suspected harassment involves persons who work in a department other than that of the manager or supervisor, the manager or supervisor must report it to his or her manager and the Human Resources department.

The Company will promptly investigate any reports or allegations of violations of this policy and, where it determines that a violation of policy has occurred, take appropriate corrective and/or preventive action. Even in those instances in which the investigation reveals inappropriate conduct that falls short of unlawful harassment, discipline or termination may result. The Company will keep information relating to complaints or reports of harassment and the terms of their resolution as confidential as practicable and protected from unnecessary disclosure.

As explained in the Company's Non-Retaliation Policy, Section 2-3 of this Handbook, the Company will not allow any form of retaliation against individuals who make complaints that a violation of this policy has occurred.

2-3. Non-Retaliation Policy

Energy Transfer's policy is to provide employees with a workplace free of retaliation. The Company takes all reports and allegations of retaliation seriously, investigates them promptly and thoroughly, and takes appropriate responsive action. Employees found to have engaged in retaliation are subject to discipline, up to and including discharge.

For the purpose of this policy the term "retaliation" refers to any form of discriminatory or harassing treatment that is directed toward an employee because he or she has raised concerns of unlawful discrimination or harassment, reported violations of the Equal Employment Opportunity and Anti-Discrimination Policy, Anti-Harassment Policy, the Disability Accommodation Policy or the Non-Retaliation Policy, or because he or she has filed a charge, testified, assisted, or participated in any manner in an investigation, proceeding, or hearing concerning reports or allegations of unlawful discrimination or harassment. Prohibited retaliation includes, but is not limited to, termination, demotion, suspension, failure to hire or consider hiring, failure to give equal consideration in making employment decisions, and harassment.

Any employee who believes that he or she has been subjected to retaliation, or who has information about behavior that may violate this policy, the individual should immediately report such behavior to his or her supervisor. If for any reason the employee does not feel comfortable reporting the matter to the supervisor, the employee should report the matter to his or her Human Resources representative, any manager, the Executive Vice President and Chief Human Resources Officer or the EthicsPoint Confidential Helpline. The Helpline is available 24 hours per day/7 days per week at 1-888-332-3592 or 1-800-228-5687 or at

www.energytransfer.ethicspoint.com. Anonymous reporting is available through the EthicsPoint Confidential Helpline.

The Company will not allow any form of retaliation against individuals who make complaints that a violation of this policy has occurred.

2-4. Code of Business Conduct and Ethics

Energy Transfer has adopted a Code of Business Conduct and Ethics that applies to each partnership throughout our family of partnerships. As you are subject to compliance with your applicable code and are required to certify each year that you have read, understood and acknowledged whether or not you are aware of any violations to the code, we urge you to take the time to read the code carefully. In general, each code specifies that each employee must:

- Act with absolute integrity at all times.
- Be accountable for your actions.
- Always conduct business in a legal and ethical manner.
- Take responsibility for the assets of the Company as if they were your own.
- If you are unsure about your actions, ask before you act.
- Report wrong-doing.
- Uphold the code.

If you become aware of any issues or conduct that may be contrary to this code, Energy Transfer's values or any laws or regulations under which we operate, there are several ways you can ask questions or report concerns:

- You may make a report to your supervisor.
- You may use the EthicsPoint confidential Helpline 24 hours per day/7 days per week at 1-888-332-3592 or 1-800-228-5687 or at www.energytransfer.ethicspoint.com. Anonymous reporting is available through the EthicsPoint Confidential Helpline.
- You may contact Energy Transfer's Chief Compliance Officer at officeofethicsandcompliance@energytransfer.com or 214-981-0763.

Employees can access the Code of Business Conduct and Ethics via the Intranet on the Office of Ethics and Compliance page or contact their manager or the Human Resources department to obtain a copy.

2-5. Immigration Reform and Control Act

In compliance with the federal Immigration Reform and Control Act of 1986 (IRCA), our Company is committed to employing only individuals who are authorized to work in the United States.

Each new employee, as a condition of employment, must complete the Employment Eligibility Verification Form I-9 and present original documentation

establishing identity and employment eligibility. If these documents cannot be presented on the employee's first day of employment, then proof of application for the documents must be presented within three business days. Failure to provide documentation as required under the IRCA will result in immediate termination of employment.

2-6. Disability Accommodation

The Company is committed to complying fully with the Americans with Disabilities Act (ADA), as amended by the ADA Amendments Act (ADAAA), and any similar, applicable state and local laws, and ensuring equal opportunity in employment for qualified persons with disabilities. All employment practices and activities are conducted on a non-discriminatory basis, and all employment decisions are based on the merits of the situation in accordance with defined criteria, not the disability of the individual.

The ADA requires that we provide reasonable accommodation so that an individual with a disability can perform the essential functions of the job, complete the job application process, and enjoy equal access to benefits and privileges of employment. The ADA does not require that we give preferential treatment to individuals with disabilities or lessen our qualification standards. Nor does the ADA require the Company to provide an accommodation that would impose an "undue hardship" on the business or cause a direct threat to the health or safety of others. The law does require that we consider reasonable modifications regarding how qualified individuals with disabilities perform the essential functions of their jobs, when the Company knows that the employee or applicant requires a reasonable accommodation.

Reasonable accommodation will be considered for all qualified disabled employees or applicants upon request, where the disability affects the performance of essential job functions. Any employee or applicant requesting a reasonable accommodation should notify his or her supervisor and Human Resources representative.

The Company is committed to complying with these ADA requirements and taking all other actions necessary to ensure equal employment opportunity for persons with disabilities in accordance with other applicable federal, state and local laws. We encourage all employees to help us achieve this objective.

As explained further in Section 2-1 Equal Employment Opportunity and Anti-Discrimination Policy, any employees who believe that this policy has been violated should immediately report the issue to his or her direct supervisor. If for any reason the employee is not comfortable reporting the matter to the supervisor, the employee should report the matter to his or her Human Resources representative, any manager, the Executive Vice President and Chief Human Resources Officer or the EthicsPoint Confidential Helpline. The Helpline is available 24 hours per day/7 days per week at 1-888-332-3592 or 1-800-228-5687

or at www.energytransfer.ethicspoint.com. Anonymous reporting is available through the EthicsPoint Confidential Helpline.

As explained in the Company's Non-Retaliation Policy, Section 2-3 of this Handbook, the Company will not allow any form of retaliation against individuals who request an accommodation under this policy or report that a violation of this policy has occurred.

Section 3: Hiring

3-1. Hiring Overview

The Company expects management to make hiring decisions and manage resources in a way which best achieves Energy Transfer's goals and objectives to ensure compliance with applicable laws and regulations during the hiring process. Supervisors are expected to work with the Human Resources department to fill all vacancies. Sufficient documentation should be kept by hiring managers to demonstrate nondiscriminatory selections and provide to the Human Resources department timely and complete documentation required by policy or law.

3-2. Internal Application Process

Energy Transfer has a job posting program to inform employees of available staff positions. The Company will attempt to fill job vacancies with internal candidates prior to seeking outside candidates. Vacancies will typically be posted concurrently or they may be posted internally for one week prior to being posted externally.

To apply for a posted position, an employee must:

- Be in their current position for one year or more and performing at a satisfactory level;
- Meet the minimum requirements for the position; and
- Not have received a written warning within the past 90 days; employees who have received a verbal warning or that are on probation or suspension may also be prohibited from applying.

Employees are responsible for notifying their supervisor as soon as they apply for an internal posting.

Employees interested in applying for a posted position should submit a resume listing job-related skills and job accomplishments, prior work experience and/or education that qualifies them for the position online via the career page on the Company's website. Candidates will be evaluated on individual performance, conduct, experience, and potential. Length of service, although considered, shall not be the sole determining factor in selecting candidates for promotion.

3-3. Employee Referral Process

Energy Transfer encourages employees to identify candidates that are interested in employment opportunities and refer qualified outside applicants for posted jobs. Employees should obtain permission from the individual before making a referral, share their knowledge of the organization, and not make commitments or oral promises of employment.

An individual interested in the posted position should apply online. Within Energy Transfer, there are different employee referral programs which apply to specific parts of our businesses. For more details on these, please consult your Human Resources representative.

3-4. Hiring Relatives/Employee Relationships

Future Staffing

Energy Transfer Equity, L.P., the owner of the general partners and/or general partner interests of Energy Transfer Partners, L.P. and Sunoco LP, has always recognized that the employment of relatives may cause serious perceived or actual conflicts and problems with favoritism and employee morale. Our family of partnerships is ever evolving, as demonstrated by the transformative changes from the last few years. We must continually review our employment policies to ensure they address the needs and further the goals of our current enterprise. As part of this process, we have reviewed our policy regarding the hiring of relatives and determined that, at this time, having a policy of not hiring Relatives* or individuals in a Consensual Relationship, both terms as defined below, within the same Partnership is the best way to ensure equitable treatment of all employees, avoid potential conflicts of interests and favoritism in employment actions, or the appearance of such and, thereby, prevent any negative impacts to employee morale. Relatives of, or individuals in Consensual Relationship with, a current employee of one Partnership are still eligible for hire in another Partnership. The provision of this policy regarding future staffing will only be applied going forward from the effective date of this policy.

Current Employees

Individuals who are current employees of the same Partnership as of the effective date of this policy and who are Relatives or individuals in a Consensual Relationships will be allowed to remain employed in the same Partnership. However, these employees shall not report to or up through a Relative or an individual they have a Consensual Relationship with. Temporary assignments, not including assignments which are less than 90 days, which place these employees in such prohibited reporting relationships also should be avoided and should occur only if management determines that it is required by business necessity. In other cases, where a conflict or the potential for conflict arises, even if there is no direct

or indirect reporting relationship involved, the parties may be separated by reassignment or terminated from employment, at the discretion of the Partnership.

Definitions

Relative for the purpose of this policy is defined as: spouse, domestic partner, parent, legal guardian, sister, brother, son, daughter, grandchild, grandparent, aunt, uncle, niece, nephew, parent-in-law, sister-in-law, brother-in-law, son-in-law, daughter-in-law, and all relatives of a "step" nature.

Consensual Relationship for the purpose of this policy is defined as: consensual dating, romantic or intimate relationship, significant other relationship or individuals who live in the same household.

Conflicting Relationship for the purpose of this policy is defined as: any past or present relationship, other than Relatives or Consensual Relationships, which may impair objective decision-making or cause conflicts of interest or the appearance of conflicts of interest which may negatively impact the Partnership's business.

Partnerships for the purpose of this policy are the following (each a separate Partnership): ETE/ETP, Dual Drive Technologies, CDM, SEC, and Sunoco.

Responsibilities & Procedures

After the effective date of this policy: (i) all candidates for employment will be asked to disclose whether they are a Relative of or have a Consensual Relationship with a current employee of the Partnership that they are seeking employment with and (ii) any current employee who is aware of the employment of a Relative or an individual he/she has a Consensual Relationship with by the Partnership that the employee is employed by must disclose the relationship to his or her Human Resources representative and immediate supervisor.

If an employee already on the payroll becomes the Relative of or develops a Consensual Relationship with another employee he or she reports to or up through, both employees have the responsibility to immediately report the relationship to his or her Human Resources representative and immediate supervisor at the beginning of the relationship or upon the effective date of this policy (if it has not been previously disclosed). One of the individuals should be transferred to another position where there would be no violation of this policy. If the potential policy violation involves a consensual dating, romantic or intimate relationship between a manager and subordinate, the subordinate should be transferred only if he or she has no objection. If a transfer is not possible, then the Partnership reserves the right to decide consistent with the terms of this policy which employee shall remain with the Partnership.

Management should not assign employees to positions that would create a violation of this policy. If a management decision to assign one or both employees

to a new position creates a potential violation of this policy, both employees have the responsibility to immediately report the relationship to his or her Human Resources representative and immediate supervisor prior to the effective date of the new assignment.

It is impossible for the Company to specifically list every type of Conflicting Relationship which might cause conflicts of interest or the appearance of conflicts of interest which may negatively impact the Partnership's business. Therefore, the Company expects employees to raise to their supervisor or Human Resources representative that an individual they have a Conflicting Relationship with is being considered for employment by the same Partnership they are employed by or that they are reporting to or up through an employee they have a Conflicting Relationship with upon the effective date of this policy or at the beginning of the Conflicting Relationship (both employees in the Conflicting Relationship have a responsibility to raise the issue). Management and Human Resources will review the issue and make a determination regarding what, if any, action is needed.

All employees of the Partnerships must comply with this policy. All managers and supervisors have a responsibility to be knowledgeable about the policy, communicate it to employees, and ensure compliance with the policy in their areas of responsibility. Any manager or supervisor who observes or learns of a relationship that violates this policy has a responsibility to report it immediately to his or her Human Resources representative. If an employee, manager or supervisor is uncertain whether this policy applies to a certain relationship or has any questions regarding this policy, it is the responsibility of that employee, manager or supervisor to contact their Human Resources representative. Any employee, manager or supervisor who fails to comply with any requirement of this policy may be subject to appropriate disciplinary action, up to and including termination.

*This policy prohibiting the hiring of Relatives within the same Partnership does not apply to the hiring of Relatives for the position of crude oil transport driver for Sunoco Partners Lease Acquisition & Marketing, LLC.

3-5. Background Checks and Investigations

The Company recognizes the importance of maintaining a safe and productive workplace with honest, trustworthy, qualified, reliable and nonviolent employees who do not present a risk of serious harm to their coworkers or others. For the benefit of all employees and the Company, in furthering these interests and enforcing the Company's policies, the Company may perform, or request that third parties perform, background checks or other types of investigations. These background checks may be performed at the Company's discretion, during the hiring process or anytime during an employee's employment.

The background checks may include, but are not limited to, social security verification, criminal history, employment history verification, education

verification, driver license status and record, and credit verification. The background checks will be conducted under the guidelines of the Fair Credit Reporting Act (FCRA), for information regarding your rights under the Fair Credit Reporting Act (FCRA), contact your Human Resources department.

Certain states have enacted laws that may conflict with portions of this policy; therefore, the relevant legal requirements shall supersede this policy.

Section 4: New or Re-Employment Information

4-1. Work Eligibility

Our Company complies with the federal Form I-9 requirements for employment eligibility verification. On your first day of work, you must complete Section 1 of federal Form I-9 and within three business days of commencement of employment you must show the required documentation proving that you are eligible to work in the U.S. A new Form I-9 will be completed even if you worked for the Company previously.

4-2. Child Support Reporting Requirements

Federal and state laws require us to report basic information about new employees, including your name, address, and social security number to a state agency designated as the State Directory of New Hires. The State collects this information in an effort to enforce child support orders. Please be advised that if the State determines that you owe child support, it will send us an order requiring us to withhold money from your paycheck to pay your child support obligations. Energy Transfer is required to comply with such orders as a matter of federal and state law.

4-3. Employment Service Date

The purpose of this policy is to define the instances when prior employment service will be recognized (or “Bridged” or “Bridging”) upon the re-employment of a former Employee. Bridging is the act of combining two or more separate and distinct periods of employment with the Company for the purpose of determining total years of eligible service towards the Company’s benefit plans (e.g., vacation, short term disability, service awards, severance, etc.)*.

* The employment service date used for the purpose of determining severance benefits excludes service time from any prior service period with the Company. For the purpose of calculating severance benefits, subject to the exception mentioned in this paragraph, the Company will follow this established Employment Service Date policy to determine the appropriate date. Except in the instance where severance benefits had previously been paid based on prior

years of service with the Company, if a rehired employee meets the eligibility requirements for a bridged service date, the bridged service date will be used to determine severance benefits. If, however, the employee did not meet the eligibility requirements to have the separate employment periods with the Company bridged, then the most recent employment start date will be utilized to determine severance benefits. Unless a particular severance plan provides otherwise, if the employee received severance benefits from the Company prior to being rehired, then the most recent employment start date will be utilized to determine severance benefits. For more information, please contact your Human Resources representative.

POLICY: A Regular Employee (excludes temporary/short-term employees, and interns) with two or more discontinuous periods of employment, interrupted because of termination, shall be eligible for Bridging of prior service time with the Company when the following conditions are met:

- When prior service with the Company is greater than one (1) year, the period from termination to re-hire does not exceed one (1) year (specifically, 365 calendar days from the date of termination, including the date of termination), or;
- When prior service with the Company is less than one (1) year, the period from termination to re-hire does not exceed the prior service period.

Service interrupted for greater than one year (specifically, 365 calendar days from the date of termination, including the date of termination) shall be considered ineligible for Bridging of any prior service with the Company.

Special rules for acquisitions: Unless specifically required by the terms of the purchase agreement, employees acquired as the result of a purchase transaction will receive service credit only for service that was recognized by the acquired company for purposes of determining the acquired employees' benefits eligibility. An employee's service with the Company earned prior to an acquisition by the Company, even if the period between the employee's termination with the Company and his/her acquisition by the Company is less than one year, will not be recognized.

Section 5: Operational Policies

5-1. Employee Classifications

For purposes of this handbook, all employees fall within one of the classifications below. You will be informed of your classifications upon hire and informed of any subsequent changes to your classifications.

A **full time employee** is defined as an employee who works 40 or more hours per week on a regular basis.

A **part-time employee** is defined as an employee who works fewer than 40 hours per week on a regular basis.

Employees are further categorized as either "**exempt**" or "**non-exempt**" for purposes of federal and state wage and hour laws.

Exempt employees do not receive overtime pay; they generally receive the same weekly salary regardless of hours worked subject to certain limited legally permitted deductions. Such salary may be paid less frequently than weekly.

Non-Exempt employees are paid hourly and are entitled to overtime for hours worked over forty (40) in a week. (See overtime policy for information on how the Company pays overtime.)

Temporary Employees—A temporary employee is defined as an employee who is hired for a specific short-term project, or on a short-term freelance basis, per diem, or for work that occurs on an intermittent (irregular) basis or seasonal (recurring annually) work schedule. Temporary employees would include interns, summer hires, students and seasonal employees. Temporary employees generally are not eligible for company benefits, but are eligible to receive Company observed holiday pay and certain statutory benefits. Temporary employees can be on assignment for a maximum period of 6 months. If a temporary employee is needed for more than 6 months, a request must be reviewed by the Human Resources department.

5-2. Hours of Operation

Generally, subject to differing local practices, the hours of operation for Energy Transfer locations are from 8:00 am to 5:00 pm, Monday through Friday. Employees are assigned a work schedule and are expected to begin and end work according to the schedule at their assigned work locations on a regular basis. Each department management can determine adjustments to the work schedule, as described in Section 5-4 below, to accommodate both business and employee needs. The needs of our business may dictate a change in individual work schedules on either a short-term or long-term basis. If this occurs, the Company will provide employees notice of such change.

5-3. Work Locations

At Energy Transfer, we strive to continually collaborate to deliver innovative solutions to customers and business partners and improve our work processes to operate safer, faster and more cost-efficiently. We believe the key to a strong culture of collaboration, innovation, and engagement in open and honest communications is employees being present and working together at our work

locations. For these reasons, our expectation is that every employee will report to and work from his or her assigned work location during his or her regular work schedule. There are a few rare, limited situations within our family of Partnerships where employees' assigned work location may need to be their home – these must be approved by both the employee's Department Head, as defined below, and the Executive Vice President and Chief Human Resources Officer of Energy Transfer in advance of the assignment of the home as a work location.

Any requests to work from home for a specific work day must be approved by an employee's manager prior to the start of the work schedule and should be kept to a minimal, limited basis. Based on the business needs of his or her group or department and other factors, such as, would the employee be likely to work effectively and productively at home, a manager, at his or her discretion, may approve requests to work from home which do not exceed the following:

1. Three (3) consecutive work days, or
2. Ten (10) total work days in a calendar year.

Any request to work from home that exceeds either of the above standards must be approved by the employee's Department Head (which for the purposes of this Policy shall mean the Senior Vice President or Vice President which the employee reports up through) and the Executive Vice President and Chief Human Resources Officer of Energy Transfer.

5-4. Flexible Work Schedules

This policy gives employees the opportunity to request flex schedules suited to their individual needs. Under flextime, employees can choose when they begin and end their work days. All flexible work arrangements must be approved by the appropriate department head.

Types of Arrangements

While employees and supervisors have the freedom to develop arrangements tailored to employee and departmental needs, the following basic requirements must be met:

- Employees must work at their assigned work locations on a regular basis.
- The standard workweek for all full-time regular employees is 40 hours, divided into five days, Monday through Friday, with employees scheduled to work eight hours per day.
- All full-time employees must be scheduled to work during core hours of 9:00 a.m. to 3 p.m.
- Employees' flextime schedules cannot include hours before 6 a.m. or after 7:00 p.m.

- Flextime schedules for nonexempt employees must include an unpaid daily meal period of 30 minutes. Those employees may perform no work during that meal period.

Request Process

Flextime must first be approved by supervisors on a case-by-case basis. Flextime might not be feasible within some departments or for certain positions within departments. Seasonal or cyclical changes in workloads also might restrict the ability of departments to offer flextime during certain times of the year. Employees wishing to work flextime must discuss the matter with their supervisors.

In considering the feasibility of proposed flextime schedules, supervisors should take into account:

- Staffing levels needed to maintain service and production levels;
- The nature of employees' responsibilities;
- The department's capacity to handle changing workloads;
- Employee work records, including punctuality and ability to meet deadlines; and
- Employee's expressed willingness to depart from flextime schedules to accommodate changing situations and staffing needs.

Supervisors and management must take a uniform approach to approving flextime schedules so that similarly situated employees with equivalent work records are treated the same.

Other Requirements/Restrictions

Energy Transfer has the right to cancel or suspend employee flextime privileges at any time, for any reason or for no reason. No employee has an entitlement to a flex-time schedule.

Non-exempt employees can be required to depart from their flextime schedules to work occasional overtime.

5-5. Timekeeping Procedures

Non-Exempt employees must record on a daily basis all actual work hours including any compensable travel time. Exempt employees must record all exception time for each pay period. The Company uses ADP eTime for timekeeping purposes. All Exempt and Non-Exempt employees are required to approve all pre-populated time, and any time manually entered into ADP eTime each pay period to verify the accuracy of those entries. Altering, falsifying, or tampering with time records is prohibited, and subjects the employee to discipline, up to and including discharge.

Exempt employees are required to use their sick days, vacation or jury duty for half day absences that meet the requirements for those leave benefits (see Section 7, Leaves and Time Off for more information) and accurately report such exception time in eTime. Exempt employees who miss partial days of work due to sickness, injury, or personal business and have exhausted all available sick days and vacation, will nonetheless receive their entire salary for that day (unless the absence qualifies as unpaid intermittent or partial day leave under the Family and Medical Leave Act, in which case it may be deducted from the exempt employees' salary on an hourly basis). Please see Section 5-7 for more information regarding permissible deduction to exempt employee salaries.

Non-exempt employees are required to use their sick days, vacations or jury duty in hourly increments (see Section 7, Leaves and Time Off for more information) and accurately report such exception time in eTime. Once all available paid leaves such as sick days, vacation and bereavement leave are exhausted, non-exempt employees will not be paid for time away from work.

Non-exempt employees may not start work until their scheduled starting time.

It is your responsibility to verify your time record to certify the accuracy of all time recorded. Any errors in your time record should be reported immediately to your supervisor.

Accurate time reporting is essential to proper payment of compensation for all hours worked. Consistent with this principle, non-exempt employees should never perform any "off-the-clock" work. "Off-the-clock" work is work an employee performs, but fails to report on their time record. Instructing or allowing employees to work "off-the-clock" is also a violation of this policy and will be subject to discipline, up to and including termination. **If an employee ever believes that he or she is being asked, encouraged, or pressured to perform off-the-clock work or to otherwise not accurately report his/her time, that employee is expected to immediately report that conduct to his/her Supervisor, Human Resources representative, the Executive Vice President and Chief Human Resources Officer, or the EthicsPoint confidential Helpline 24 hours per day/7 days per week at 1-888-332-3592 or 1-800-228-5687 or at www.energytransfer.ethicspoint.com.** The Company will promptly investigate. The Company wants to ensure that each employee is properly paid.

When an employee receives his or her paycheck, the employee should review it carefully to ensure that the employee has been paid for all time worked. **If the employee believes that the paycheck does not reflect the time the employee has worked or is in any other way inaccurate, the employee should promptly report the matter to his Supervisor, Human Resources representative, Executive Vice President and Chief Human Resources Officer, or the EthicsPoint confidential Helpline 24 hours per day/7 days per week at 1-888-332-3592 or 1-800-228-5687 or at www.energytransfer.ethicspoint.com.**

The Company will not tolerate any form of retaliation against any individual who expresses a concern about being paid properly for all time worked or about being asked, encouraged, or pressured to perform off-the-clock work or to otherwise not accurately report time worked.

5-6. Overtime

Like most successful companies, we experience periods of extremely high activity. During these busy periods, additional work is required from all of us. Your supervisor is responsible for monitoring business activity and requesting overtime work if it is necessary. Effort will be made to provide you with adequate advance notice in such situations.

Exempt employees will not be paid for working beyond their regular scheduled hours. Non-exempt employees are entitled to payment for overtime, according to the overtime rules set forth below. Information about the calculation of overtime can be found on the Human Resources page of your Company intranet.

- All overtime work must be approved in advance by the employee's supervisor. Working overtime without permission violates company policy and may result in disciplinary action.
- For purposes of calculating the number of hours an employee has worked in a day or week, our standard workweek begins at 12:00 a.m. (Midnight) on Sunday and ends at 11:59 p.m. on Saturday.

5-7. Safe Harbor Policy for Exempt Employees

It is our policy and practice to accurately compensate employees and to do so in compliance with all applicable state and federal laws. To ensure that you are paid properly and that no improper deductions are made, you must review your pay stubs promptly to identify and report all errors.

Certain employees of the Company are classified as "exempt" from the overtime provisions of the Fair Labor Standards Act by virtue of their job duties and level and type of compensation. Requirements for exempt status generally include, among other things, being paid on a "salary basis." Being paid on a "salary basis" means an employee regularly receives a predetermined amount of compensation each week and that salary cannot be reduced because of variations in the quality or quantity of the employee's work. Subject to certain exceptions, some of which are listed below, an exempt employee must receive the full salary for any workweek in which the employee performs any work, regardless of the number of days or hours worked. Exempt employees do not need to be paid for any workweek in which they perform no work. If the employer makes deductions from an employee's predetermined salary, i.e., because of the operating requirements of the business, that employee is not paid on a "salary basis." If the employee is ready, willing and able to work, deductions may not be made for time when work is not available. The Company's exempt employees' salaries are intended to

include compensation for all hours worked. The Company intends to pay its exempt employees on a salary basis and will not make deductions that are prohibited by the Fair Labor Standards Act.

The general rule is that deductions from the salary of an exempt employee are prohibited, however, there are exceptions to this rule. For example, unless state law requires otherwise, the salary can be reduced for the following reasons:

- One or more full day absences for personal reasons, other than sickness or disability
- One or more full day absences because of sickness or disability (including work-related accidents) if the deduction is made in accordance with a bona fide plan, policy or practice of providing compensation for salary lost due to such sickness or disability.
- To offset any amounts received by an employee as jury fees, witness fees or military pay.
- For penalties or suspensions imposed in good faith for violations of safety rules of major significance.
- For unpaid disciplinary suspensions of one or more full days imposed in good faith for violations of written workplace conduct rules (e.g., a violation of the Company's EEO Policies).
- For portions of the first and last weeks of employment that an employee does not actually work.
- For unpaid leave under the Family and Medical Leave Act (FMLA), including intermittent or partial day leave.
- Any full work week in which the employee does not perform any work.

No language in this Handbook should be construed as requiring or permitting a deduction from an exempt employee's salary inconsistent with federal or state law salary basis requirements.

It is our Company's policy to comply with the salary basis requirements of the FLSA. Therefore, we prohibit all company managers and supervisors from making any improper deductions from the salaries of exempt employees. We want employees to be aware of this policy and that the Company does not allow deductions that violate the FLSA. **If you believe that an improper deduction has been made to your salary, you should immediately report this information to your direct supervisor, or to the Executive Vice President and Chief Human Resources Officer, or the EthicsPoint confidential Helpline 24 hours per day/7 days per week at 1-888-332-3592 or 1-800-228-5687 or at www.energytransfer.ethicspoint.com.**

Reports of improper deductions will be promptly investigated. If it is determined that an improper deduction has occurred, you will be promptly reimbursed for any improper deduction made.

5-8. Travel Time for Non-Exempt Employees

Travel from home to work and travel from work to home generally is non-compensable. However, at times, non-exempt employees may be required to travel for business needs. Below are general guidelines as to whether such time is compensable in those situations. These guidelines are subject to applicable state law. The guidelines below are just that, brief guidelines, and do not address every situation that may arise. If you ever have any questions, please contact your Supervisor or the Human Resources department.

General Rules

Employees must be paid in full for any work they do at any time, including work that is done during otherwise non-compensable travel time. Employees will not be paid for breaks (including meal periods) that are at least 30 consecutive and uninterrupted minutes in length, even if the break is taken during otherwise compensable travel time.

Out-Of-Town Trips Overnight

When business needs require that a non-exempt employee travel overnight for a trip out of town, travel time is considered time worked for compensation purposes if it occurs within the employee's regular work schedule. Compensable time is not only hours worked on regular working days during normal working hours, but also travel time during the corresponding hours on nonworking days. As a result, if an employee regularly works from 9 a.m. to 5 p.m. from Monday through Friday the travel time during these hours is compensable work time on Saturday and Sunday as well as on the other regular working days. Unless the employee is completing work while traveling, travel time for overnight out-of-town trips that occurs outside of normal working hours on any day of the week is not paid. Compensable time does not include time spent in travel away from home outside of regular working hours as a passenger on an airplane, train, boat, bus or automobile. Whether the time spent in travel away from home outside of regular working hours will be compensable if the employee is driving, will depend on factors including whether the employee is required to drive, so please consult with your Human Resources representative if you have questions regarding this issue. In addition, time spent in a hotel once the employee has arrived at the out-of-town location is also non-compensable, unless the employee is completing work during this time.

Out-Of-Town Trips for One Day

When business needs require that a non-exempt employee travel out of town and back during the single day, all travel time is compensable, regardless of whether

during or outside of regular work hours with two exceptions: (i) if an employee travels via public transportation (railroad, bus or, plane), an employee will not be compensated for time spent traveling from home to the station or airport and back, even if it takes longer than regular home to work travel; and (ii) if an employee drives, an employee may be compensated for his/her travel time less the amount of time employee regularly spends commuting to his/her work site.

5-9. Inclement Weather

Due to the nature of our businesses, the Company makes every effort to remain open and operational on all regularly scheduled workdays. Nevertheless, the Company recognizes that there are times when Inclement Weather (defined here as hurricanes, floods, tornados, blizzards, snow or ice storms, and other severe weather related disturbances that cause a major disruption to transportation or business operations) may necessitate the closure of Company offices, facilities, or field operations during regularly scheduled work hours.

When there is Inclement Weather impacting the Company's offices, facilities or field operations, the following provisions will apply:

Notification of Closures for Inclement Weather

Executive management of an office, facility or field operation affected by Inclement Weather (or their delegates) will make all determinations regarding full day closures, delayed openings or early closures at that location. Unless local work schedules require a different practice, the Company will provide notification to employees by 5:30 am local time of any full day closures or delayed openings. Management's determinations regarding closures for Inclement Weather shall be based on the business needs of the organization and the weather conditions impacting the Company's affected office, facility, or field operation location and travel to and from such sites. The time period covered by a closure due to Inclement Weather will be determined by the Company, in its sole discretion.

While it may vary by location, generally employees will be notified of closures through a recorded message on the main telephone line for a location, a group email or voicemail or a notice on the Company intranet. Employees can contact their manager or Human Resources representative for more information regarding how closures will be reported at their assigned work location.

Closure information for offices in Dallas, Houston, or San Antonio will be available to employees on the Employee Information Status Line at 877-728-0411.

Emergency/essential personnel, as determined by local management, are expected to report to work in periods of Inclement Weather in compliance with the guidelines set forth by their department.

Pay for Scheduled Hours during Closures Due to Inclement Weather

Employees assigned and scheduled to report to work at an office, facility or field operation that is closed due to Inclement Weather shall receive regular base pay for scheduled work hours at the office, facility or field operation that is closed, which shall be coded as Inclement Weather Pay.

Employee-Elected Absences for Inclement Weather

If an employee's assigned office, facility or field operation is open but an employee determines that Inclement Weather renders his or her travel to or from work unsafe or the closure of public transportation, schools or child care facilities due to Inclement Weather makes it impossible or impractical for the employee to report to his or her location, the employee may elect to use vacation time to cover the absence or if approved by management under Section 5-3 Work Locations, work from home under the terms of the Work Locations Policy. Employees who choose to remain home when their Company location is open shall notify their supervisor as soon as possible, but no later than the start of the employee's scheduled work hours.

5-10. Paycheck

You will be paid bi-weekly for all the time you have worked during the past pay period.

Your payroll stub itemizes deductions made from your gross earnings. By law, the Company is required to make deductions for Social Security, Medicare, federal income tax and any other appropriate taxes. These required deductions also may include any court-ordered garnishments or other legally required deductions. Your payroll stub will also differentiate between regular pay received and overtime pay received.

If you believe there is an error in your pay, bring the matter to the attention of the Human Resources department or your supervisor immediately so the Company can resolve the matter quickly and amicably.

Your paycheck will be given only to you, unless you request that it be mailed, or authorize in writing another person to accept your check for you.

The Energy Transfer family of partnerships includes entities that do business with the federal government and may be government contractors. To the extent applicable, employees of government contractors must be informed of the following Pay Transparency Nondiscrimination Provision:

The contractor will not discharge or in any other manner discriminate against employees or applicants because they have inquired about, discussed, or disclosed their own pay or the pay of another employee or applicant. However,

employees who have access to the compensation information of other employees or applicants as a part of their essential job functions cannot disclose the pay of other employees or applicants to individuals who do not otherwise have access to compensation information, unless the disclosure is (a) in response to a formal complaint or charge, (b) in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer, or (c) consistent with the contractor's legal duty to furnish information. 41 CFR 60-1.35(c)

5-11. Direct Deposit

Energy Transfer strongly encourages employees to use direct deposit. Direct deposit(s) can be added or changed in Employee Self Service.

Employees adding a new or changing an existing bank account will not go through a pre-note process. The pre-note process required one full pay cycle to process before an employee began receiving funds directly deposited into their new account. This means all new bank account setups will have funds direct deposited into that account with no waiting period. In addition, employees can distribute funds to a maximum of three bank accounts, using either whole dollar amounts or percentages.

Additional pay earnings (e.g., bonus, commission, distribution pay, relocation, etc.) will be included in your regular paycheck as a separate line item, and will be taxed separately according to IRS regulations.

5-12. Wage Garnishments

A wage garnishment is an order from a court or a government agency directing us to withhold a certain amount of money from an employee's paycheck and send it to a person or agency. Depending on applicable state and federal law, wages can be garnished, for among other reasons, to pay child support, spousal support or alimony, tax debts, outstanding student loans, or money owed as a result of a judgment in a civil lawsuit.

If we are instructed by a court or agency to garnish an employee's wages, the employee will be notified of the garnishment at once. Please note that we generally are legally required to comply with these orders. If you dispute or have concerns about the amount of a garnishment, you must contact the court or agency that issued the order.

Section 6: Benefits

6-1. Benefits Overview/Disclaimer

In addition to safe working conditions and competitive pay, it is Energy Transfer's policy to provide a range of benefit plans and supplemental benefit policies to all

eligible employees. These benefits include paid time-off, such as vacations and holidays, insurance and other useful benefits. We are constantly studying and evaluating our benefits to better meet your current needs and future requirements. The next few pages contain a brief outline of the benefits programs Energy Transfer provides for you and your eligible family members.

The descriptions of the insurance and other plan benefits contained herein merely highlight certain aspects of the applicable plans for your general information. The details of those plans are spelled out in the official plan documents, which are available for review upon your request from the Human Resources department. Additionally, the provisions of the plans, including eligibility and benefits provisions, are summarized in the summary plan descriptions ("SPDs"), which may be revised from time to time. Eligibility for benefits, and all other matters under each plan is governed by the terms of the official plan documents over the language of any written descriptions of the plans, including the SPDs, this handbook, or verbal representations regarding the benefit plans that are made by any employee.

Energy Transfer (including the officers and administrators who are responsible for administering the plans) retains full discretionary authority to interpret the terms of the plans, as well as full discretionary authority with regard to administrative matters arising in connection with the plans and all issues concerning benefit terms, eligibility, and entitlement.

The requirements for benefits eligibility follow:

- Regular employees normally scheduled to work at least 35 hours per week will be eligible for all Company benefit plans including, but not limited to medical, dental, vision, supplemental life insurance, STD, LTD, vacation, sick, etc.
- Regular employees normally scheduled to work at least 30 hours per week, but less than 35 hours per week, will be eligible only for medical, dental, and vision benefits.
- Participation in 401(k) is available to all Company employees according to the terms of the plan (except students and interns, who are ineligible to participate).
- All Company employees are eligible for Holiday pay.

While the Company intends to continue to offer benefit plans and a range of supplemental benefits, it reserves the absolute right to modify, amend or terminate any benefit plan or supplemental benefit at any time and for any reason.

If you have any questions regarding your benefits, please contact the Human Resources department.

6-2. Workers' Compensation

On-the-job injuries are generally covered by our Workers' Compensation Insurance Policy, which is provided at no cost to you. If you are injured on the job,

no matter how slightly, report the incident immediately to your Supervisor. Failure to follow Company procedures may affect your ability to receive Workers' Compensation benefits.

Any leave of absence due to a workplace injury runs concurrently with all other Company leaves of absence. Reinstatement from leave is guaranteed only if required by law. Employees who need to miss work due to a workplace injury must also request a formal leave of absence.

6-3. Retirement Plan 401(k) Plan

Eligible employees are able to participate in the Company's Retirement 401(k) Plan. Plan participants may make pre-tax and/or after-tax contributions to this account.

Employees eligible to participate in our plans are encouraged to review the summary plan descriptions (SPDs) available on the Company intranet site describing the benefits in greater detail. Please refer to the Summary Plan Document for detailed plan information. Of course, feel free to speak to the Human Resources department if you have any further questions or would like a hardcopy of the SPD or the plan documents.

6-4. Employee Assistance Plan

In recognition that everyone occasionally experiences personal problems that are difficult to manage without assistance, the Company provides an Employee Assistance Program (EAP) for use by employees and their families.

Participation in the EAP is confidential and does not jeopardize job security or career opportunities. Likewise, participation does not exempt employees from their normal job requirements, nor does it allow exceptions to standard work practices and policies.

EAP Services

The EAP is available to provide assistance to employees and dependent family members who are experiencing depression, marital and family issues, grief, drug and alcohol problems, job-related stress, financial difficulties, and other personal matters. All current employees, regardless of job status or performance, are eligible. Immediate family members also can use EAP services.

Each employee can receive up to three free counseling sessions with an EAP staff person each year. If the EAP counselor recommends additional services or treatment, the employee is referred to an appropriate health care professional. Employees are responsible for paying the cost of the additional counseling or health care treatments and services. However, the EAP counselor will strive to make referrals to health care providers covered by the Company's health plan for employees who are enrolled so an employee's out-of-pocket costs are minimized.

Confidentiality

All information relating to an employee's EAP participation is strictly confidential. EAP records are maintained only by the EAP provider. The EAP provider does not release specific information about an employee's use of EAP services unless the employee gives his or her advance written consent. Statistical data, such as gender, age, and dates of use, is provided to the Company by the EAP. This data is generic in nature, and no names or other identifying statistics are provided. The data is provided to the Company so it can evaluate the EAP's effectiveness.

In the case of a supervisory referral (see referral section), the supervisor is provided with only the following information:

- Whether the employee has contacted the EAP and kept scheduled appointments; and
- When the counseling or treatment is terminated.

All other details of the employee's treatment are confidential. Generally, only the EAP keeps information regarding the employee's assessment and treatment. In the case of supervisory referrals, the supervisor might have reason to record information regarding the referral and its relationship to a corrective action plan. In such cases, the information related to the EAP referral must be kept in a separate confidential file established by the Human Resource department.

Referral Procedures

Employees can receive assistance through self-referral or supervisory referral. To initiate a self-referral or request information, an employee can contact the EAP office directly, 24-hours a day, at 1-800-327-1850 or www.thehartford.com/employeebenefits. Information also is available through the Human Resources department.

A supervisor can refer an employee to the EAP as a part of a corrective action plan intended to improve the employee's job performance and avoid any further disciplinary action. If the employee accepts the offer of help, the supervisor should contact the EAP immediately to schedule an initial appointment. Participation in the EAP is never mandatory.

Training

The EAP and Human Resources department work together to provide information to employees regarding the services available through the EAP. This includes providing EAP information during new hire orientation and mailings to employees' homes.

6-5. Educational Assistance Plan

Energy Transfer is committed to providing employees with a competitive educational assistance plan to encourage you to develop work or career-related skills and abilities, which will benefit both the employee and the Company. We appreciate the dedication that participating employees have made to their continued professional development.

The Plan is designed to reimburse eligible employees for many of their tuition expenses, provided the expenses are for an eligible class(es) considered by management to better qualify an employee for his or her present duties, prepare an employee for advancement opportunities, or be part of the employee's individual development plan to prepare them for certain roles within the Company.

All full-time, regular employees who have completed one year of employment with the Company and are performing at a satisfactory level are eligible to apply for benefits under the Plan. Prior to the course start date, the employee must complete an Educational Assistance Request/Reimbursement Form and submit to their immediate Supervisor and Department Head for approval. Employees approved for educational assistance will be reimbursed 100% of the cost of tuition up to the annual maximum reimbursement of $5,250. Books, fees and miscellaneous expenses are not covered under the Plan.

Please refer to the Educational Assistance Plan and the Request/Reimbursement Form or contact Human Resources for more specific information.

6-6. Continuing Education

Certain positions within the Company require continuing education to maintain various professional licenses or DOT certifications. Employees in certain positions may also benefit the Company by improving their knowledge and skills through technical or professional certification(s). The Company will consider payment for

courses supporting the maintenance of professional licenses and reimbursement for reasonable expenses associated with professional/technical certification if requested in writing and approved in advance by management. General training programs, seminars and workshops that maintain or improve knowledge and skills are also eligible for payment if requested and approved in advance by management.

Section 7: Leaves and Time Off

Energy Transfer has established income protection programs that provide a percentage of an employee's income and job protection during certain approved leaves of absence. Energy Transfer also provides leaves as required by state and federal law and may provide limited leave for other approved reasons.

The below sections address in great detail Energy Transfer's policy regarding different types of leave. In general, Energy Transfer does not approve leaves of absence for greater than six months unless otherwise required by applicable law or regulation, the terms of a collective bargaining agreement, or in the case of medical leaves of absence, the Company is able to reasonably accommodate an Americans with Disabilities Amendment Act (ADAA) – protected disability by reasonably extending the leave.

If an employee receives any legislated benefits, such as State Disability, Social Security, or Worker's Compensation, these benefit amounts are deducted from Company sponsored income protection programs i.e. Sick Days, Short Term Disability (STD), or Long Term Disability (LTD) benefits received.

7-1. Sick Days

Eligible employees, as described in Section 6.1 are eligible to receive up to five (5) paid sick days (up to 40 hours) each year.* Eligible new hires will receive a pro-rated number of days based on hire date in the first year of employment (see schedule below.) If you will be out of work due to illness, you must call in and notify your supervisor as early as possible, but at least by the start of your workday. If you call in sick for three (3) or more consecutive days, you may be required to provide your supervisor with a doctor's note on the day you return to work.

Sick days are available to be taken during the year they are received. Unused sick time cannot be carried over from one year into the next and is not paid out at separation. Sick time cannot be borrowed from an upcoming year.

Sick days may be taken due to your own illness or injury, prior to delivery of a baby, to care for a newborn, to care for an ill spouse, immediate family member, or other dependent, or to attend appointments with health care providers for yourself, your spouse, an immediate family member or other dependent.

* On January 1st of each year, all eligible employees will receive a bank of sick hours according to his/her work schedule as indicated below.

- Employees who work 5x8 or 4x10 schedules will receive 40 hours of sick time.
- Employees who work 12 hour shift schedules will be eligible for 48 hours of sick time.
- Employees who work at least 35, but less than 40 hours per week, are eligible for 35 hours sick time.

Employees eligible for sick time who are hired during the year will receive the following sick time proration based upon their date of hire:

	8 or 10 Hour Employee	**12 Hour Employee**	**Between 35 and 39 hours per week**
Jan/Feb	40 hours	48 hours	35 hours
Mar/Apr	32 hours	36 hours	28 hours
May/Jun	24 hours	24 hours	21 hours
Jul/Aug	16 hours	12 hours	14 hours
Sept/Oct	8 hours	12 hours	7 hours
Nov/Dec	0	0	0

7-2. Short Term Disability (STD)

Energy Transfer provides a short term disability benefit to eligible employees (as described in Section 6.1) who are absent due to an illness or injury. Please consult the Energy Transfer Partners GP, L.P. Short Term Disability Plan for more information.

The STD schedule of benefits is based on years of service as noted below.

STD Schedule of Benefits*				
	% of Employee's Pre-Disability Base Hourly/ Salary Rate(reduced by Other Income Benefits)			
Completed Years of Service	100%	80%	60%	Total Weeks STD Pay
> 6 months and < 1 year	0 weeks	2 weeks	2 weeks	4 weeks
1 – 5 years	3 weeks	8 weeks	15 weeks	26 weeks
6 – 10 years	6 weeks	12 weeks	8 weeks	26 weeks
11 or more years	12 weeks	10 weeks	4 weeks	26 weeks
*Payments begin after elimination period. Available sick and accrued vacation days must be used to satisfy the elimination period. Eligibility Waiting Period for Coverage is 180 Days.				

The STD benefit payments are reduced by workers' compensation payment(s) or statutory short-term disability payments.

In order to be eligible for STD, the employee must request a leave of absence. Employees will be required to submit medical certification to support disability as requested by the Claim Administrator. Required medical certification under this policy may differ from the medical certification required for any other leave of absence requested.

Eligibility

In addition to meeting the eligibility requirements in Section 6.1, employees must meet the criteria below before STD benefits will be approved:

- Employed for at least 180 days beginning with your most recent hire date;
- Regular employee normally scheduled to work at least 35 hours per week;
- Have missed the minimum number of work days (waiting period) according to their eligible class as defined in this section; and,
- Provide the appropriate medical certification.

Eligibility Waiting Period for Coverage

Eligible Active Employees are not eligible for benefits under the Plan until the employee has completed (180) consecutive days as an Active Employee with the Company beginning with the most recent hire date. The time period(s) referenced above are continuous.

Benefits Commence

For Disability caused by Injury or Sickness, benefits commence as follows:

- Class 1 (8 hour shift employee): after the 5th work day (40 hours) absent from work
- Class 2 (10 hour shift employee): after the 4th work day (40 hours) absent from work
- Class 3 (12 hour shift employee): after the 4th work day (48 hours) absent from work

For employees missing work due to hospitalization, outpatient surgery, or a positive Flu diagnosis, STD will begin on the first day of absence. Employees are not required to utilize sick days in these instances.

For hospital confinement, a documented case of the Flu or for an Outpatient Surgical Procedure (determined by surgical code provided to the Claims Evaluator by The Employee's physician), which necessitates a Total Disability after surgery, **benefits commence as follows**:

1. on the first day of hospital admission; or
2. on the first day of a positive Flu diagnosis (as verified by a Physician); or
3. on the date of the Outpatient Surgical Procedure.

This leave is intended for an employee's own personal illness or injury. Absences related to cosmetic or voluntary procedures or self-inflicted injuries or illnesses will not be covered.

Returning From Short Term Disability (STD)

Before returning to work the employee must provide a return-to-work release from the treating physician that indicates the employee is fit to resume work. The employee should submit the return-to-work release to his or her designated Human Resources representative. Employees failing to provide a return to work release from the treating physician will not be permitted to resume work until it is provided and the Company has determined that the employee is fit to return-to-work.

7-3. Long Term Disability (LTD)

Eligible employees (as described in Section 6.1) whose disability continues beyond 26 weeks and who are still deemed disabled by the insurance carrier may receive a benefit of 60% of the employee's current monthly earnings to a maximum monthly benefit of $10,000 per month. Energy Transfer provides this benefit to full-time employees at no cost to employees.

The Long Term Disability plan contains exclusions and limitations. Please refer to the SPD for details.

7-4. Family and Medical Leave

Eligibility

You are eligible to take the leave described within this policy and be restored to the same or an equivalent position upon your return from leave, subject to the terms of the Family and Medical Leave Act ("FMLA"), provided you: (1) have worked for the Company for at least twelve (12) months, and for at least 1,250 hours in the last twelve (12) months; *and* (2) are employed at a worksite that has 50 or more employees within seventy-five (75) miles.

Reasons for Leave

Eligible employees may take a maximum of 12 weeks of unpaid FMLA leave during a 12-month period measured backward from the date an employee uses any FMLA leave for any of the following reasons:

1. Child Care Leave: The birth or placement (adoption or foster care) of a child. Child care leave must be completed within 12 months after the birth or placement. Additionally, spouses employed by the Company may only take a combined total of twelve (12) weeks of Child Care Leave during any 12-month period.

2. Covered Relation's Serious Health Condition: To care for an employee's spouse, qualifying child or parent (called a "covered relation") due to the covered relation's serious health condition. Spouses employed by the Company may only take a combined total of twelve (12) weeks of leave to care for an employee's parent with a serious health condition during any 12-month period.

3. Employee's Serious Health Condition: For a serious health condition that renders the employee unable to perform one or more of the essential functions of his/her position.

4. Qualifying Exigency: Because of a qualifying exigency arising out of the fact that the spouse, son, daughter or parent of the employee is on covered active duty, or has been notified of an impending call to covered active duty in the Armed Forces. Qualifying exigencies may include attending certain military events, arranging for alternative childcare, addressing certain financial and legal arrangements, attending certain counseling sessions and attending post-deployment reintegration briefings.

A serious health condition generally includes an illness, injury, impairment, or physical or mental condition that involves either an overnight stay in a medical care facility, or continuing treatment by a health care provider for a condition that either prevents the employee from performing the functions of the employee's job, or prevents the covered relation from participating in school or other daily activities. Subject to certain conditions, the continuing treatment requirement may be met by a period of incapacity of more than 3 consecutive calendar days combined with at least two visits to a health care provider or one visit and a regimen of continuing treatment, or incapacity due to pregnancy, or a chronic condition. Other conditions may meet the definition of continuing treatment.

Eligible employees may take a maximum of 26 weeks unpaid FMLA leave during a single 12-month period for the following reasons:

Covered Servicemember Care Leave

For employees who are the spouse, son, daughter, parent or next of kin of a covered servicemember to care for the covered servicemember. A covered servicemember is (i) a member of the Armed Forces (including a member of the National Guard or Reserves) who is undergoing medical treatment, recuperation, or therapy, is otherwise in outpatient status, or is otherwise on the temporary disability retired list, for a serious injury or illness; or (ii) a veteran who is undergoing medical treatment, recuperation, or therapy, for a serious injury or illness and who was a member of the Armed Forces (including a member of the National Guard or Reserves) at any time during the period of five years preceding the date on which the veteran undergoes that medical treatment, recuperation or therapy.

In the case of a member of the Armed Forces (including a member of the National Guard or Reserves), the term "serious injury or illness" means an injury or illness that was incurred by the member in the line of duty on active duty in the Armed Forces (or existed before the beginning of the member's active duty and was aggravated by service in the line of duty on active duty in the Armed Forces) and that may render the member medically unfit to perform the duties of the member's office, grade, rank or rating.

In the case of a veteran who was a member of the Armed Forces (including a member of the National Guard or Reserves) at any time during the period of five years preceding the date on which the veteran undergoes medical treatment, recuperation or therapy, the term "serious injury or illness" means a qualifying injury or illness that was incurred by the member in the line of duty on active duty in the Armed Forces (or existed before the beginning of the member's active duty and was aggravated by service in the line of duty on active duty in the Armed Forces) and that manifested itself before or after the member became a veteran.

The single 12-month period will begin on the first day an employee takes FMLA leave to care for a covered servicemember, and will end 12 months after that date.

Employee Notice Responsibilities

If your need for FMLA leave is foreseeable, you must give the Company at least 30 days' prior written notice. If this is not practicable, you must at least give notice as soon as practicable (generally within two (2) business days of learning of your need for leave). Failure to provide such notice may be grounds for delay of leave. Additionally, if you are planning a medical treatment you must consult with the Company first regarding the dates of such treatment and make a reasonable effort to schedule the treatment so as not to disrupt unduly the Company's operations, subject to the approval of the health care provider. Where the need for leave is not foreseeable, you are expected to notify the Company within two (2) business days of learning of your need for leave, except in extraordinary circumstances.

Employees must provide sufficient information for the Company to determine if the leave may qualify for FMLA protection and the anticipated timing and duration of the leave. Sufficient information may include that the employee is unable to perform job functions, the family member is unable to perform daily activities, the need for hospitalization or continuing treatment by a health care provider, or circumstances supporting the need for military family leave. Employees also must inform the Company if the requested leave is for a reason for which FMLA leave was previously taken or certified.

Medical Certification

If you are requesting leave because of your own or a covered relation's serious health condition, or to care for a covered servicemember with a serious injury or illness, you and the relevant health care provider must supply appropriate medical

certification. Employees absent due to the serious injury or illness of a covered servicemember may submit an invitational travel order ("ITO") or invitational travel authorization ("ITA") for the period of time specified in the ITO or ITA.

When you request leave, the Company will notify you of the requirement for medical certification and when it is due (at least fifteen (15) days after you request leave). If you provide at least thirty (30) days' notice of medical leave, you should also provide the medical certification before leave begins. Failure to provide requested medical certification in a timely manner may result in denial of leave until it is provided.

Energy Transfer, at its expense, may require an examination by a second health care provider designated by the Company, if it reasonably doubts the medical certification you initially provide. If the second health care provider's opinion conflicts with the original medical certification, the Company, at its expense, may require a third, mutually agreeable, health care provider to conduct an examination and provide a final and binding opinion. The Company may require subsequent medical recertification. Failure to provide requested certification within fifteen (15) days, if such is practicable, may result in delay of further leave until it is provided.

Certification of Qualifying Exigency

On the first occasion on which an employee requests leave because of a qualifying exigency arising out of the covered active duty or call to covered active duty status of a covered military member, the employee must provide the Human Resources department with active duty orders or other military documentation indicating the employee's qualifying family member is on covered active duty or has been called to covered active duty. On every occasion on which an employee requests leave because of a qualifying exigency, the employee will be required to provide certification regarding the qualifying exigency on appropriate Company forms available from the Human Resources department.

Reporting While on Leave

If you take leave because of your own serious health condition or to care for a covered relation or covered servicemember, you must contact the immediate supervisor on the first and third Tuesday of each month regarding the status of the condition and your intention to return to work. In addition, you must give notice as soon as practicable (within two (2) business days if feasible) if the dates of leave change or are extended or initially were unknown.

The Company's Notice Responsibilities

The Company will inform employees requesting leave whether they are eligible under the FMLA. If an employee is eligible, the notice will specify any additional information required as well as the employee's rights and responsibilities. If an employee is not eligible, a reason will be provided for the ineligibility. The

Company shall also inform employees if leave will be designated as FMLA-protected and the amount of leave counted against their leave entitlement. If the Company determines that a leave is not FMLA-protected, it will notify the employee.

Leave Is Unpaid

FMLA leave is unpaid leave, however you may be eligible for sick pay, salary continuation payments and/or workers' compensation benefits under insurance plans or Company policies. If you are entitled to receive money from these sources, your leave will be considered "paid leave" for the period during which you receive that money. If your leave is "unpaid" leave you will be required to substitute paid time off (accrued vacation and sick days) for "unpaid" FMLA leave as described below.

If you request leave because of a birth, adoption or foster care placement of a child or a qualifying exigency, any accrued paid vacation and sick days first will be substituted for unpaid FMLA leave. If you request leave because of your own serious health condition, to care for a covered relation with a serious health condition, or to care for a covered servicemember with a serious injury or illness, any accrued paid vacation and sick days first will be substituted for any unpaid FMLA.

The substitution of paid leave time for unpaid leave time does not extend the 12-week leave period. Further, in no case can the substitution of paid leave time for unpaid leave time result in your receipt of more than 100% of your salary. Your FMLA leave runs concurrently with other types of leave (i.e., state family leave laws, short-term disability, and paid accrued vacation, etc.). Those other leaves may provide for paid leave. When all available paid leave time is exhausted and the employee’s leave becomes unpaid, the employee’s vacation accrual will stop until the employee returns to work.

Medical and Other Benefits

During an approved FMLA leave, Energy Transfer will maintain your health benefits as if you continued to be actively employed. If paid leave is substituted for unpaid FMLA leave, the Company will deduct your portion of the health plan premium as a regular payroll deduction. If your leave is unpaid, you must pay your portion of the premium. Your health care coverage will cease if your premium payment is more than thirty (30) days late. If your payment is fifteen (15) days late or more, we will send you a letter to this effect. If we do not receive your payment within fifteen (15) days after the date of this letter, your coverage may cease. If you elect not to return to work for at least thirty (30) calendar days at the end of the leave period, you will be required to reimburse the Company for the cost of the health benefit premiums paid by the Company for maintaining coverage during your unpaid leave, unless you cannot return to work because of the serious health

condition of you or a covered relation, the serious injury or illness of a covered servicemember, or other circumstances beyond your control.

Intermittent and Reduced Schedule Leave

For most types of FMLA leave, you do not need to use your FMLA leave entitlement in one block. Leave because of a serious health condition (either your own or a covered relation's) or to care for a covered servicemember with a serious injury or illness may be taken intermittently (in separate blocks of time) or on a reduced leave schedule (reducing the usual number of hours you work per workweek or workday) if medically necessary. Employees may also take FMLA leave on an intermittent or reduced schedule basis in connection with a qualifying exigency arising from the covered active duty or call to covered active duty status of a covered military member. FMLA leave for the birth or placement (adoption or foster care) of a child, however, must be taken in a single consecutive period and may not be taken intermittently or on a reduced schedule.

If leave is unpaid, the Company will reduce your salary based on the amount of time actually worked. In addition, while you are on an intermittent or reduced schedule leave that is foreseeable based on planned medical treatment, the Company may temporarily transfer you to an available alternative position which better accommodates your recurring leave and has equivalent pay and benefits.

Returning From Leave

If an employee takes leave because of his or her own serious health condition (except in the case of intermittent leave), the employee is required to provide a return to work release that indicates the employee is fit to resume work. The employee should submit the return-to-work release to his or her designated Human Resources representative. Employees failing to provide a return to work release from the treating physician will not be permitted to resume work until it is provided.

No Work While on Leave

The taking of another job, either as an employee or an independent contractor, while on FMLA leave or any other authorized leave of absence is grounds for immediate termination, to the extent permitted by law.

State and Local Family and Medical Leave Laws and Other Company Policies

Where State or local family and medical leave laws offer more protections or benefits to employees, the protections or benefits provided by such laws will apply.

Exemption for Highly Compensated Salaried Employees

Upon return from FMLA leave, most employees must be restored to their original or equivalent positions with equivalent pay, benefits and other employment terms.

However, the Company may choose not to return highly compensated salaried employees (highest paid 10% of employees at a worksite or within 75 miles of that worksite) to their former or equivalent positions following a leave if restoration of employment will cause substantial and grievous economic injury to the operations of the Company. (This fact-specific determination will be made by the Company on a case-by-case basis). The Company will notify you if you qualify as a "highly compensated" employee, if the Company intends to deny reinstatement, and of your rights in such instances.

Unlawful Acts by Employers

The FMLA makes it unlawful for any employer to (i) interfere with, restrain, or deny the exercise of any right provided under the FMLA; (ii) discharge or discriminate against any person for opposing any practice made unlawful by the FMLA or for involvement in any proceeding under or relating to the FMLA.

Enforcement

An employee may file a complaint with the U.S. Department of Labor or may bring a private lawsuit against any employer. The FMLA does not affect any Federal or state law prohibiting discrimination or supersede any state or local law or collective bargaining agreement which provides greater family or medical leave rights.

Leave under State Military Leave Laws

A growing number of states provide leave for family members of servicemembers. The entitlements for such leave differ from state to state. Our policy is to comply with such laws in any circumstances where they apply to employees of our Company.

7-5. Personal Leave

If you are ineligible for any other Company leave of absence, Energy Transfer, under certain circumstances, may grant you a personal leave of absence without pay. A written request for a personal leave should be presented to the Human Resources department at least two (2) weeks before the anticipated start of the leave. If the leave is requested for medical reasons, medical certification also must be submitted. Your request will be considered on the basis of staffing requirements and the reasons for the requested leave, as well as your performance and attendance records. Normally, a leave of absence will be granted for a period of up to 30 calendar days each calendar year. Under unusual circumstances a personal leave may be extended if, prior to the end of your leave, you submit a written request for an extension to management and the request is granted. During your unpaid leave of absence, you will not accrue vacation time. We will continue your health insurance coverage during your leave if you submit your share of the monthly premium payments to the Company in a timely manner,

subject to the terms of the plan documents. All accrued vacation must be exhausted prior to taking personal unpaid leave.

When you anticipate your return to work, please notify management of your expected return date. This notification should be made at least one week before the end of your leave.

Upon completion of your personal leave of absence, the Company will attempt to return you to your original job, or to a similar position, subject to prevailing business considerations. Reinstatement, however, is not guaranteed.

Failure to advise management of your availability to return to work, failure to return to work when notified, or your continued absence from work beyond the time approved by the Company will be considered a voluntary resignation of your employment.

7-6. Sick Days and Vacation Time Use While on Leave

All available sick days, when sick is applicable, and accrued vacation must be used for any unpaid status during a leave of absence including unpaid FMLA Leave, unpaid Personal Leave, and the elimination period or the period awaiting approval of a Short Term Disability (STD) Benefit.

In the event the employee misses work due to hospitalization, outpatient surgery, or a positive Flu diagnosis, the employee will receive credit for any sick days and/or vacation that was used during the elimination period (also known as the period awaiting approval of STD Benefit) for the period that has been approved to be covered by STD pay. The supervisor will be required to complete the Payroll Historical Edit form to credit back the time. If an employee's STD Benefit is not approved, any remaining sick days and accrued vacation must be exhausted during the remainder of the unpaid leave.

The Company will not allow use of vacation and/or sick days to fill the gap when the STD Benefit reduces from 100% pay to 80% pay and 60% pay.

Employees must exhaust sick days and accrued vacation time before entering an unpaid leave status. Once an employee has exhausted all available sick days and accrued vacation to cover unpaid leave, the employee will go unpaid for the remainder of the leave (for exempt employees this might not apply with regard to any partial day absences associated with the leave, please see Sections 5-5 and 5-7 or ask your Human Resources representative for more information).

The use of un-accrued vacation will not be allowed for employees on any type of leave of absence.

7-7. Bereavement Leave

Full time and part time (non-temporary) employees are eligible for benefits under this Bereavement Leave policy. An employee who wishes to take time off due to the death of an immediate family member should notify his or her supervisor immediately.

Bereavement leave will normally be granted unless there are unusual business needs or staffing requirements. An employee may, with his or her supervisor's approval, use any available vacation for additional time off as necessary.

Bereavement leave will be paid according to the following schedule:

- Employees may take up to three (3) consecutive days off from regularly scheduled duty with regular pay in the event of the death of the employee's spouse or immediate family member, which includes: father, father-in-law, mother, mother-in-law, son, son-in-law, daughter, daughter-in-law, brother, sister, stepfather, stepmother, stepbrother, stepsister, stepson, stepdaughter, grandparent, grandchild, or any member of the employee's household.

- Employees may take One (1) day off from regularly scheduled duty with regular pay in the event of the death of an extended family member, or in the event that overnight stay is required, two (2) consecutive regularly scheduled work days may be taken off. Examples of extended family members include, but are not limited to: brother-in-law, sister-in-law, aunt, uncle, or spouse's grandparent.

Paid leave days only may be taken on regularly scheduled, consecutive workdays following the day of death. You must inform your Supervisor prior to commencing bereavement leave. In administering this policy, the Company may require verification of death. To be eligible for paid bereavement leave, the employee generally must attend the funeral of the deceased relative.

7-8. Military Leave

If you perform service in the uniformed services, whether on active duty, in the Reserves or National Guard, or any other legally recognized service, you are eligible for a military leave of absence during any period of service. Prior to the start of any military leave of absence, you must provide management and your Human Resources representative with advance notice of your service obligations unless you are prevented from providing such notice by military necessity or it is otherwise impossible or unreasonable for you to provide such notice. You should give management as much advance notice as possible of your need for military leave so we can maintain proper work coverage during your absence. Provided your absence does not exceed applicable statutory limitations, you will retain reemployment rights, accrue seniority and be entitled to certain benefits in accordance with applicable federal and state laws.

If you are required to attend annual Reserves or National Guard duty, and you are a full-time or part-time (non-temporary) employee, you may apply for a paid military leave of absence for this annual training duty. During this paid military leave of absence, you will receive your normal pay reduced by the amount of military pay you receive for the same period of service. This form of modified pay continuation will be provided by the Company for a maximum of 2 scheduled work weeks in any calendar year.

Please ask the Human Resources department for further information about Military Leave, reemployment and benefits, including to address issues or questions regarding deployment situations.

7-9. Jury Duty Leave

Energy Transfer realizes that it is the obligation of all U.S. citizens to serve on a jury when summoned to do so. All eligible employees will be allowed time off to perform such civic service as required by law. You are expected, however, to provide the Company with proper notice of your request to perform jury duty and with your verification of service. You also are expected to keep management informed of the expected length of your jury duty service and to report to work for the major portion of the day if you are excused by the court. Full time and part time (non-temporary) employees taking jury duty leave on a regularly scheduled work day will receive pay for jury duty leave time at the employee's regular straight time rate. The amount received from the court will not be deducted from this amount.

7-10. Holidays

The Company observes ten (10) paid Holidays each year.* All employees are eligible to receive Holiday pay based on their work schedule and active work periods. The Holiday Schedule is published annually and made available to all employees.

*CDM 7/7 or 14/14 shift workers should review the 7/7 and 14/14 Shift Agreement, which identifies the Company observed Holidays and how they are paid.

When Holidays are celebrated on an eligible employee's regularly scheduled work day, the employee will receive Holiday pay based on the scheduled work hours for that day. For example, if a part-time employee works Monday thru Friday at 6 hours per day, then 6 hours of Company observed Holiday time will be paid. If a part-time or temporary employee is not normally scheduled to work on a day of the week that coincides with a Company observed Holiday, then Holiday pay will not be paid. For example, if a part-time employee's regular work schedule is Tuesday, Wednesday and Thursday at 8 hours per day and the Company observed Holiday is on a Friday, then Holiday pay will not apply.

Holiday pay is one (1) regularly scheduled day's pay at the employee's regular straight-time rate. Eligible employees who are called in to work or are scheduled on a Company Holiday will receive pay for the actual time worked that day in addition to the Holiday Pay.
If a Company paid Holiday falls within an eligible employee's approved vacation period, the eligible employee will be paid for the Holiday (at the regular straight-time rate) and use the vacation day at a later time.

If a Company paid Holiday falls within an employee's jury duty or bereavement leave, the eligible employee will be paid for the Holiday (at the employee's regular straight-time rate) instead of being paid jury duty or bereavement leave for that day. For example, an employee who has taken three days bereavement leave and one of those days is a scheduled Company paid Holiday, the employee will receive pay for one day of Holiday and two days of bereavement leave.

7-11. Vacations

We know how hard employees work and recognize the importance of providing time for rest and relaxation. We fully encourage employees to get this rest by taking vacation time. An eligible employee accrues vacation hours monthly and must be an active employee on the last working day of the month in order to earn the accrual for that month.

Employees are required to submit vacation requests to their supervisors. Vacation requests are subject to supervisor approval. Every effort will be made to grant your vacation preference, consistent with our operating schedule. However, in the situation where too many people request the same period of time off, the supervisor has the right to select who may take vacation during that period. Carryover of up to 40 hours of vacation will be permitted. Senior management at their discretion may allow additional carryover due to unusual circumstances. An employee cannot borrow vacation time from the next calendar year. Vacation may be used in half-day increments; however, full-day increments are preferred.

If an employee leaves the Company and has taken more vacation than accrued, this amount can be deducted from the final paycheck. Accrued, unused vacation is paid out upon separation from employment.

Employees eligible to accrue vacation must be regularly scheduled to work at least 35 hours per week. The graduated accrual rate is attained on January 1st of the year the employee reaches the milestone year of service, as shown in the vacation accrual schedule below. New employees will accrue vacation pro-rated based on the number of remaining months in the year employment begins. Days designated as Company Holidays that fall within scheduled vacation will be paid as Holiday and not as vacation.

The vacation accrual schedules below indicate number of eligible vacation weeks granted based on years of service along with their corresponding monthly accrual rate for employees scheduled 40 hours per week, 12-hour shift employees, and employees working between 35 to 39 hours per week.*

Full-Time Vacation Accrual Schedule (40 hour per week schedule)

Years of Service	# of Weeks	Accrual Per Month
0-4	2 Weeks	6.67 hours
5-9	3 Weeks	10 hours
10-19	4 Weeks	13.33 hours
20+	5 Weeks	16.67 hours

Full-Time Vacation Accrual Schedule (35 – 39 hour per week schedule)

Years of Service	# of Weeks	Accrual Per Month
0-4	2 Weeks	5.83 hours
5-9	3 Weeks	8.75 hours
10-19	4 Weeks	11.67 hours
20+	5 Weeks	14.58 hours

12-Hour Shift Vacation Accrual Schedule

Years of Service	# of Hours	Accrual Per Month
0-4	84	7 hours
5-9	126	10.5 hours
10-19	168	14 hours
20+	210	17.5 hours

*** Employees with a work schedule between 35 and 39 hours per week are eligible for 35 hours per week of vacation time based on their years of completed service.**

Section 8: Performance

8-1. Expectations

Each and every employee contributes to the success or failure of our Company. If one employee allows his or her performance to slip, then all of us suffer. We expect everyone to perform to the highest level possible. Poor job performance can lead to disciplinary action, up to and including termination.

8-2. Performance Review

Depending on your position and classification, Energy Transfer endeavors to review your performance annually. This may be more or less frequently, depending on business needs. However, please understand that a positive performance evaluation does not guarantee an increase in salary, promotion, or

continued employment. Compensation increases and the terms and conditions of employment, including job assignments, transfers, promotions, and demotions, are determined by and at the discretion of management.

In addition to these formal performance evaluations, the company encourages you and your Supervisor to discuss your job performance on a frequent and ongoing basis.

Section 9: General Standards of Conduct

9-1. Progressive Discipline

Employees are expected to act in a professional and responsible manner at all times. To avoid any possible confusion, examples of the more obvious unacceptable activities are noted in Section 9-2 below. Additional policies on specific activities follow.

Disciplinary action taken will depend upon the individual circumstances of a situation, such as the seriousness of the offense, previous record of the employee, etc. In most cases, progressive disciplinary measures are employed; however, the progressive discipline steps described below are only a guideline and the Company reserves the right to alter the disciplinary process and terminate or otherwise discipline an employee at any time without following the steps of the progressive discipline process when the Company determines it to be appropriate.

Progressive Discipline Steps

Generally, the first step in the Company's progressive disciplinary system is the oral warning. Depending on the circumstances of misconduct, employees may be first counseled by their supervisors and told which conduct is unacceptable and what improvements are needed before they are subject to an oral warning. A written notice of the oral warning will be placed in the employee's file.

The second step is a written warning. This warning will describe the unacceptable conduct and specify the improvement needed.

The third step is an unpaid suspension or final warning. The length of suspensions will vary, based on such factors as the severity of the offense and the employee's disciplinary record. Employees can be suspended for repeated instances of minor misconduct or for a single serious offense. In the case of exempt employees, no suspension shall be issued that is inconsistent with the exempt employee's salaried status.

A copy of any oral, written or final warning or suspension will be retained indefinitely in the employee's personnel file; however, any warning or suspension will become inactive and will not be considered in assessing future discipline if an

employee has not engaged in any other misconduct for twenty-four (24) consecutive months.

The fourth step is termination. Employees who fail to improve their conduct after imposition of a disciplinary suspension or final warning may be terminated. In addition, an employee whose misconduct is severe enough to warrant immediate termination may be terminated without any of the steps listed above.

Based upon the severity and nature of the conduct, the approach to discipline may vary from the normal approach described above in this policy. For example, certain unacceptable conduct, based upon its severity, may lead to an immediate written warning or suspension without first resorting to lesser levels of discipline.

Investigation

Before imposition of any discipline, an investigation generally will be conducted. During the investigation, employees will be given an opportunity to relate their version of the incident or problem at issue and provide any explanation or justification they consider relevant. All investigations should be documented in writing and forwarded to the Human Resources department.

Supervisors must obtain approval from their supervisor and the Human Resources department before imposing any disciplinary measures more severe than an oral warning and any disciplinary actions should be coordinated through the Human Resources department. The Human Resources department is available for and must be included in investigations that may result in an employee suspension or termination.

An employee who allegedly commits an act(s) of violence, other egregious misconduct, or serious safety violations, including the failure to wear, or misuse of, personal protective equipment, can be suspended immediately, pending the Company's investigation and review of the matter. If the Company determines after its investigation that an employee has not engaged in misconduct he or she will be reinstated with full back pay and no loss of benefits or seniority. Again, in the case of exempt employees, any unpaid suspension will only be imposed if it is consistent with the salary status requirements for exempt employees.

9-2. Workplace Conduct

Every employee is expected to, at all times, act responsibly with honesty, integrity and due care, follow the Company's policies, procedures, and rules of conduct, and maintain proper standards of conduct. The Company's rules, including those listed below help to maintain a safe and desirable working condition for everyone. Unacceptable conduct may subject the offender to disciplinary action, up to and including discharge, in the Company's sole discretion. The following are examples of some, but not all, conduct which can be considered unacceptable:

1. Obtaining employment on the basis of false, omitted or misleading information.
2. Stealing, removing or defacing Company property or a co-worker's property, and/or disclosure of confidential information.
3. Completing another employee's time records.
4. Dishonesty.
5. Violation of safety rules and policies.
6. Violation of Company's Drug and Alcohol-Free Workplace Policy.
7. Fighting, threatening or disrupting the work of others or other violations of Energy Transfer's Workplace Violence Policy.
8. Insubordination or disobedience of a lawful management directive.
9. Use of foul or inappropriate language.
10. Loitering or loafing during work time, leaving a work area without the permission of management, or sleeping while on the job.
11. Violation of the Punctuality and Attendance Policy, including but not limited to irregular attendance, habitual lateness or unexcused absences.
12. Gambling on Company property.
13. Stopping work prior to the end of any shift without management's permission.
14. Willful or careless destruction or damage to Company assets or to the equipment or possessions of another employee.
15. Wasting work materials.
16. Performing work of a personal nature during working time.
17. Violation of the Solicitation and Distribution Policy.
18. Violation of Energy Transfer's Equal Employment Opportunity/Anti-Discrimination, Anti-Harassment or Non-Retaliation Policies.
19. Violation of any Company Information Technology Policies.
20. Unsatisfactory job performance.
21. Any other violation of the applicable Code of Business Conduct and Ethics (i.e., Energy Transfer Equity, L.P. Code of Business Conduct and Ethics, Energy Transfer Partners, L.P. Code of Business Conduct and Ethics, , or Sunoco GP, LLC Code of Business Conduct and Ethics) or any other Company policy.

Obviously, not every type of misconduct can be listed, and this list is illustrative and not exhaustive. Note that all employees are employed at-will, and Energy Transfer reserves the right to impose whatever discipline it chooses, or none at all, in a particular instance.

The Company will deal with each situation individually and nothing in this handbook should be construed as a promise of specific treatment in a given situation. However, Energy Transfer will endeavor to utilize progressive discipline but reserves the right in its sole discretion to terminate an employee at any time for any reason.

The observance of these rules will help to ensure that our workplace remains a safe and desirable place to work. **Any employee who is aware of a violation or**

potential violation, may contact the EthicsPoint confidential Helpline 24 hours per day/7 days per week at 1-888-332-3592 or 1-800-228-5687 or at www.energytransfer.ethicspoint.com.

9-3. Punctuality and Attendance

You were hired to perform an important function at Energy Transfer. As with any group effort, operating effectively takes cooperation and commitment from everyone. Therefore, your attendance and punctuality are very important. Unnecessary absences and lateness are expensive, disruptive and place an unfair burden on your fellow employees and your supervisors. We expect excellent attendance from each of you. Excessive absenteeism or tardiness will result in disciplinary action up to and including discharge.

We do recognize, however, that there are times when absences and tardiness cannot be avoided. In such cases, you are expected to notify your supervisor as early as possible, but no later than the start of your work day. Asking another employee, friend or relative to give this notice is generally improper and constitutes grounds for disciplinary action. Please call, stating the nature of your absence and its expected duration, every day that you are absent (unless management or Human Resources provides you with other instructions).

Unreported absences of three consecutive work days generally will be considered a voluntary resignation of your employment with the Company.

9-4. Employee Dress and Personal Appearance

One of the ways customers evaluate our Company is by the appearance and behavior of our employees. Employees are expected to present themselves in a professional manner that exhibits respect for co-workers and inspires customer confidence.

The Company does not specify uniform dress standards for all locations. Rather, it expects employees to exercise good judgment in maintaining a neat and business-like appearance compatible with their location and work environment. Attire worn must conform to acceptable standards of professionalism, neatness, cleanness and appearance, as solely determined by the Company. It must also comply with all safety standards. Employees are also expected to observe good habits of grooming and personal hygiene.

Any clothing styles, jewelry, body art or professional grooming practices that draw unusual attention, unfavorable comments from customers or coworkers, or cause safety hazards, are unacceptable. Clothing and accessories, including jewelry and body art, that are excessively revealing or sexually provocative, cause a distraction to others, or that display offensive graphics, words or phrases are inappropriate at all times.

Occasionally guests, customers, or Board members will visit our office locations. During these times, professional attire may be required. Employees will generally be notified of these times.

Guidelines may sometimes vary by department, location, or work environment. If you are unsure about what may be considered appropriate attire in your location, contact your supervisor or Human Resources representative for clarification. Your supervisor will also inform you of additional attire requirements to comply with safety regulations.

9-5. Solicitation and Distribution

To avoid distractions, solicitation by an employee of another employee is prohibited while either employee is on working time. "Solicitation" includes attempting to persuade another person to engage in, or refrain from, certain actions such as joining an organization or endeavor, purchasing goods and/or services or donating goods, services or money to an organization. “Working time” is the time an employee is engaged, or should be engaged in performing his/her work tasks for Company, but does not include break times, meal periods and time before and after an employee's regularly scheduled work hours. Solicitation of any kind by non-employees on Company premises is prohibited at all times.

Distribution of advertising material, handbills, printed or written literature of any kind in working areas of the Company is prohibited at all times. "Working areas" do not include break areas, cafeterias, lobbies, designated employee lounges and parking lots. In addition, an employee maybe not distribute literature in any areas while the employee is on working time (as defined in the above paragraph). Distribution of literature by non-employees on Company premises is prohibited at all times.

9-6. Bulletin Boards

Important notices and items of general interest are continually posted on bulletin boards in each work location. Make it a practice to review these frequently. This will assist you in keeping up with what is current at the Company. Employees should seek the approval from their supervisor prior to posting or removing any material from the bulletin board. Only business-related postings are permitted on bulletin boards. No bulletin board may ever be used for non-Company solicitations. Bulletin boards may be used for charitable activities sponsored or officially sanctioned by the Company.

9-7. Publicity/Statements to the Media/External Communications

All media inquiries regarding the Company and its operation must be handled by one of the Company’s designated media representatives in order to control the accuracy and consistency of public statements made by the Company. Only those designated as company spokespeople may provide any information on behalf of

the Company. If you receive a call from a reporter, or are approached by a reporter at one of our locations, please let them know you are not the correct person to handle questions from the media to the Company, and then refer them to one of our designated media representatives identified below. The approved responses to media inquiries to the Company are:

General response:
"I am not the person who can help you, but I can get you in touch with someone who can."

Emergency management response:
"I am not the appropriate person for you to speak with, but Company management has been contacted and a Company spokesperson will be made available shortly."

Please remember when responding to media inquiries on behalf of the Company to eliminate ANY discussions with media beyond the above approved responses, including those that may involve speculations or thoughts on Company activities or information related to an incident or event.

- **No one**, other than approved media representatives of ETE, ETP, or Sunoco, may talk to a reporter on behalf of the Company.
- In responding on behalf of the Company, do not answer any of their questions, provide any employee names or numbers except the approved media contacts, or engage in any kind of conversation about the Company's statement(s) or position(s).
- If the reporter continues to try to ask you questions, you must continue to tell him or her that you are not the appropriate person who can speak on behalf of the Company.
- If a reporter shows up at your site without prior approval from a media representative, please tell them they can't shoot any footage or talk to anyone about the Company's statement(s) or position(s) without approval.

Approved media representatives are:

ETE, ETP:

Primary Contact:	Vicki Granado	(o) 214.981.0761	(c) 214.498.9272
Secondary Contact:	Lisa Dillinger	(o) 214.981.0792	(c) 203.252.8769
Third Contact:	Alexis Daniel	(o) 214.981.0739	(c) 469.475.1704

Sunoco Pipelines:

Primary Contact:	Vicki Granado	(o) 214.981.0761	(c) 214.498.9272
Secondary Contact:	Jeff Shields	(o) 215.977.6056	(c) 215.313.3056

Any employee wishing to write and/or publish an article, paper, or other external publication on behalf of the Company must first obtain approval from the Investor Relations and Communications departments. In addition, no outsourcing of

product development or printed materials should be solicited or approved prior to discussing with Investor Relations or Communications.

9-8. Social Media

We encourage you to support the Energy Transfer family of Partnerships on Facebook, Twitter, You Tube and Instagram! Over the past year we have been building a presence on social media. On these social media pages you'll find information related to our Partnerships, our projects, our assets and general industry news. We'd like to encourage employees to follow, like and share our pages and information. Links to our Facebook, Twitter, Instagram and YouTube accounts are provided on our Intranet.

Social media sites are public places, and employees should avoid inappropriate comments. When using social media, employees of Energy Transfer should be aware that their views may be viewed as a representation of not only themselves, but also the Company they have identified as their employer. Accordingly, you have a responsibility when using social media to 1) be thoughtful of expressing your views and opinions in a respectful and professional manner that will not cast either yourself or the Company in a negative light, and 2) be clear that they are your personal opinions and you do not speak for the Company. Be aware that even if a message is posted anonymously, it may be possible to trace it back to the sender. In addition, do not disclose on social media sites confidential or proprietary Company information, including but not limited to trade secrets, client lists, non-public information about Company projects or information restricted from disclosure by law. When using social media, do not use the Company's or others' trademarks or reproduce the Company's material without first obtaining permission. When in doubt about whether something is confidential or proprietary Company information that should not be disclosed, always ask your management, Human Resources or the Communications Department.

Inappropriate comments made on social media by an employee may result in discipline up to and including termination. Nothing in this section is meant to, nor should it be interpreted to, in any way limit your rights under any applicable federal, state, or local laws, including your rights under the National Labor Relations Act to engage in protected concerted activities with other employees to discuss terms and conditions of employment.

Section 10: Use of Company Property

10-1. Use of Facilities, Equipment and Property, Including Intellectual Property

Equipment essential in accomplishing job duties is often expensive and may be difficult to replace. When using property, employees are expected to exercise

care, perform required maintenance, and follow all operating instructions, safety standards and guidelines.

Please notify your supervisor if any equipment, machines, or tools appear to be damaged, defective, or in need of repair. Prompt reporting of loss, damages, defects, and the need for repairs could prevent deterioration of equipment and possible injury to employees or others. The Supervisor can answer any questions about an employee's responsibility for maintenance and care of equipment used on the job.
Employees also are prohibited from any unauthorized use of the Company's intellectual property, such as audio and video tapes, print materials and software.

Improper, careless, negligent, destructive, or unsafe use or operation of equipment can result in discipline, up to and including discharge.

Further, the Company is not responsible for any damage to employees' personal belongings unless the employee's supervisor provided advance approval for the employee to bring the personal property to work.

10-2. Operation of Vehicles

The Company has vehicle safety policies that sets forth the obligations, responsibilities and requirements of employees who use vehicles owned, leased, rented or controlled by Energy Transfer or private vehicles for Company business. Any exceptions to these policies can only be approved by Officers of the Company.

The purpose of these policies are to promote the safety of those individuals who drive Company vehicles, or personal vehicles for Company business and to communicate expectations for the proper use and maintenance of vehicles.

Safety Commitment and Traffic Laws

It is the policy of Energy Transfer Partners that Company vehicles be maintained in safe operating condition at all times. It is the driver's responsibility to operate Company vehicles or private vehicles used for Company business in a safe manner; and to drive defensively to prevent injuries and property damage. As such, the Company endorses all applicable federal, state and local motor vehicle regulations relating to driver responsibility. Drivers are to comply with all motor vehicle traffic laws, including but not limited to, laws relating to driving while intoxicated and driving under the influence, and laws regarding the use of mobile communications and navigational devices. Any violation of the vehicle safety policies shall be grounds for disciplinary action up to and including termination; and the employee may be held personally and financially responsible for all associated costs attributable to damages to Company property, injury, or damage to the property of others resulting from such action. Failure to comply may result in the revocation of Company driving privileges. **To review the full Vehicle Safety Policy for their Partnership (e.g. ETP or Sunoco), employees can obtain a**

copy of the policy from their manager, their Human Resources representative or by accessing the policy via the Intranet.

The Company expects each driver to drive in a safe and courteous manner pursuant to the following safety rules:

Driver Safety Rules

- Drivers must operate a company vehicle at a speed appropriate to the road, traffic and weather conditions; and also including the driver's mental and physical conditions.
- The use of radar detectors, or similar devices, are prohibited in Company owned or leased vehicles.
- Seat belts are mandatory while operating or riding in Company or private vehicles used in the course of Company business. The operator of the vehicle is responsible for enforcing seat belt use by all occupants. Other occupants in the vehicle share this responsibility. Drivers must ensure that all safety restraints are maintained in good operating condition and under no circumstances should any Driver disable or interfere with the operation of the restraints.
- Drivers are prohibited from operating any Company vehicle while their judgment or faculties are impaired. Such impairment may be caused by consumption of alcoholic beverages, medications, illegal substances, fatigue onset or other causal factors.
- Employees must immediately report to their supervisor any arrests or convictions for driving violations (excluding parking tickets), including but not limited to a DWI or DUI, issued while in a Company or personal vehicle
- Drivers are prohibited from overloading and/or overcrowding any Company vehicle which may result in unsafe operation. It is prohibited to carry more passengers than the number of occupant restraint systems in the vehicle.
- Drivers are prohibited from the transportation of children, minors, hitchhikers or strangers in a Company vehicle.

Employees should contact their Human Resources representative if they have any questions regarding the above driver safety rules.

10-3. Return of Company Property

When an employee's employment with Energy Transfer terminates, for whatever reason, the employee is required to immediately return all Company-owned property used during his/her employment, and all documents, disks, and other materials containing proprietary or confidential information belonging to the Company. This includes without limitation, keys, credit cards, computers, vehicles, communication devices, uniforms, identification cards or badges, and any other equipment, materials, or items purchased, leased, owned, or otherwise belonging to Energy Transfer.

Upon separation, employees must return any originals or duplicates of any written or other tangible items, whether maintained in hard copy, film, microfiche or electronic medium, belonging to the Company, its subsidiaries, affiliates, successors, or assigns, including without limitation, correspondence, reports, memoranda, records, data, charts, notes, devices, specifications, drawings, customer lists, and any other item containing trade secret information or confidential information relating to Company products, services, designs, formulas, developmental or experimental work, computer programs, databases, customers/clients, marketing strategies, business plans, financial information, and employee information. These items are property of Energy Transfer.

Section 11: Information Technology Systems

Information Technology (IT) Policies apply to all IT resources owned or leased by the Company and to any privately owned equipment connected to the Company network and includes, but is not limited to, all Company computer equipment, mobile devices, software, operating systems, storage media, the Company network and network accounts.

All Company provided IT resources, including email, messaging and web-based messaging systems, are not to be considered private and are subject to monitoring, inspection, release and archiving by Company officials at all times. Securing and protecting Company resources from misuse, malicious activity, and theft is the responsibility of all those who manage and use them.

Use of Company IT resources is restricted to purposes related to the Company's mission. Individuals are provided access to IT resources in order to support their duties as employees, official business with the Company, and other Company-sanctioned activities. No one may use any communication or computer system in a manner that may be construed by others as harassing or offensive based on race, color, national origin, sex, sexual orientation, age, disability, religious beliefs or any other characteristic protected by federal, state or local law. Since the Company's communication and computer systems are intended for business use only, these systems may not be used to solicit for religious, political or other non-Company business causes or outside organizations.
Incidental personal use of IT resources must adhere to all applicable Company policies. Under no circumstances may incidental personal use of company-issued IT resources (e.g., laptops, iPads, cell phones, and email system) involve violations of the law, interfere with the fulfillment of a worker's Company responsibilities, or adversely impact or conflict with activities supporting the mission of the Company.

The Company owns the rights to all data and files in any computer, network or other information system used in the Company and to all data and files sent or received using any company resources or using the Company's access to any

computer network, to the extent that such rights are not superseded by applicable laws relating to intellectual property.

The term "Internet" references all electronic communications related to internet resources, including but not limited to web sites, social media interfaces, and blogs. The wide array of resources, services, and interconnectivity available via the Internet provide business opportunities as well as security and privacy risks. Unacceptable use of the Internet by any one individual exposes the Company and all Company users to risks including, but not limited to, productivity erosion, malware attacks, compromise of confidential data, legal action for individuals or the Company, the loss of service, and/or damage to the Company's reputation. Company users could be liable for damages incurred as a result of misusing the Company's IT resources, violating company security and acceptable usage policies, copyright, or licensing agreements.

All Company Information Technology Policies are available on the Company intranet. We urge you to take the time to carefully read and be familiar with these policies.

Section 12: Trade Secrets and Conflicts of Interest

12-1. Confidential Company Information

During the course of work, an employee may become aware of confidential information about Energy Transfer's business, including but not limited to all non-public information, information regarding Company finances, pricing, products and new product development, software and computer programs, contracts, acquisitions, competitive bidding, operations or any decisions or plans, marketing strategies, suppliers, customers and potential customers, and knowledge, skills and abilities of personnel. An employee also may become aware of similar confidential information belonging to the Company's customers and/or third parties. Each applicable Code of Business Conduct and Ethics requires that all such information remain confidential, and particularly not be disclosed to our competitors. Any employee who improperly copies, removes (whether physically or electronically), uses or discloses confidential information to anyone outside of the Company may be subject to disciplinary action up to and including termination. Employees may be required to sign an agreement reiterating these obligations.

12-2. Conflict of Interest and Business Ethics

It is Energy Transfer's policy that all employees avoid any conflict between their private interests and those of the Company. The purpose of this policy is to ensure that the Company's honesty, integrity, business interest and reputation, are not compromised. The fundamental principle guiding this policy is that no employee should have, or appear to have, private interests or relationships that actually or potentially conflict with the best interests of the Company. **This policy is specified**

in each Code of Business Conduct and Ethics, and employees can access the policy via the Intranet, the Company's external website, on the Office of Ethics and Compliance page, or contact their manager or the Human Resources department to obtain a copy.

It is not possible to give an exhaustive list of situations that might involve violations of this policy. However, the situations that would constitute a conflict in most cases include but are not limited to:

- Holding a significant financial interest in any organization or accepting free or discounted goods from any organization that does, or is seeking to do, business with the Company, by any employee who is in a position to directly or indirectly influence either the Company's decision to do business, or the terms upon which business would be done with such organization.
- Holding a significant financial interest in an organization that competes with the Company.
- Being employed by (including as a consultant) or serving on the board of any organization which does, or is seeking to do, business with the Company or which competes with the Company.
- Profiting personally, e.g., through commissions, loans, expense reimbursements or other payments, from any organization seeking to do business with the Company.
- Conducting business related to an after-hours second job or outside business during work hours at the Company.

An employee with any conflict of interest or potential conflict of interest should fully disclose in writing such conflict or potential conflict pursuant to the provisions of the Code.

A conflict of interest would also exist when a member of an employee's immediate family is involved in situations such as those above.

This policy is not intended to prohibit the acceptance of modest courtesies, openly given and accepted as part of the usual business amenities, for example, occasional business-related meals or promotional items of nominal or minor value.

It is the employee's responsibility to report any actual or potential conflict that may exist between the employee (and the employee's immediate family) and the Company by notifying the Office of Ethics and Compliance. If the employee prefers to remain anonymous they may use the EthicsPoint confidential helpline 24 hours per day/7 days per week at 1-888-332-3592 or 1-800-228-5687, or at www.energytransfer.ethicspoint.com **to report any instances of a conflict of interest that may exist within the Company.**

12-3. Outside Employment

Because of Energy Transfer's obligations to its customers, the Company must be aware of any concurrent employment you may have to determine whether or not it presents a potential conflict.

Serving on any public or government board or commission qualifies as employment for purposes of this policy, regardless of whether such service is compensated.

Before beginning or continuing outside employment, employees are required to detail the involvement and to obtain the written approval of their supervisor and forward to Human Resources. Failing to obtain prior approval as described may be cause for disciplinary action, up to and including termination. Employees who are on any type of leave or leave of absence (except military leave), including, without limitation, FMLA leave or Workers' Compensation leave, are prohibited from having outside employment or providing services for any entity in exchange for compensation during their leave.

This Outside Employment Policy does not apply to military service.

Section 13: Health and Safety

13-1. Health and Safety

The health and safety of employees and others on Company property are of critical concern to Energy Transfer. The Company intends to comply with all health and safety laws applicable to our business. To this end, we must rely upon employees to ensure that work areas are kept safe and free of hazardous conditions. Employees are required to be conscientious about workplace safety, including proper operating methods, and recognize dangerous conditions or hazards. Any unsafe conditions or potential hazards should be reported to management immediately, even if the problem appears to be corrected. Any suspicion of a concealed danger present on the Company's premises, or in a product, facility, piece of equipment, process or business practice for which the Company is responsible should be brought to the attention of management immediately.

Periodically, the Company may issue rules and guidelines governing workplace safety and health. The Company may also issue rules and guidelines regarding the handling and disposal of hazardous substances and waste. All employees should familiarize themselves with these rules and guidelines, as strict compliance will be expected.

Any workplace injury, accident, or illness must be reported to the employee's Supervisor as soon as possible, regardless of the severity of the injury or accident.

13-2. Workplace Violence

Energy Transfer is strongly committed to providing a safe workplace. The purpose of this policy is to minimize the risk of personal injury to employees and damage to Company and personal property.
We specifically discourage you from engaging in any physical confrontation with a violent or potentially violent individual. However, we do expect and encourage you to exercise reasonable judgment in identifying potentially dangerous situations.

Prohibited Conduct

Threats, threatening language or any other acts of aggression or violence made toward or by any Company employee WILL NOT BE TOLERATED. For purposes of this policy, a threat includes any verbal or physical harassment or abuse, any attempt at intimidating or instilling fear in others, menacing gestures, flashing of weapons, stalking or any other hostile, aggressive, injurious or destructive action undertaken for the purpose of domination or intimidation. To the extent permitted by law, employees and visitors are prohibited from carrying weapons onto Company premises without the approval by the President of the Company.

Procedures for Reporting a Threat

All potentially dangerous situations, including threats by co-workers, should be reported immediately to any member of management with whom you feel comfortable. Reports of threats may be maintained confidential to the extent maintaining confidentiality does not impede our ability to investigate and respond to the complaints. All threats will be promptly investigated. No employee will be subjected to retaliation, intimidation or disciplinary action as a result of reporting a threat in good faith under this policy.

If the Company determines, after an appropriate good faith investigation, that someone has violated this policy, the company will take swift and appropriate corrective action.

If you are the recipient of a threat made by an outside party, please follow the steps detailed in this section. It is important for us to be aware of any potential danger in our offices. Indeed, we want to take effective measures to protect everyone from the threat of a violent act by an employee or by anyone else. **Employees may also contact the EthicsPoint confidential helpline 24 hours per day/7 days per week at 1-888-332-3592 or 1-800-228-5687 or at www.energytransfer.ethicspoint.com.**

13-3. Workplace Security

It is every employee's responsibility to help keep our workplace secure from unauthorized intruders. Every employee must comply with these security precautions.

- Ensure all Company property, including information, is secure at all times.
- After-hours access to the workplace is limited to those employees who need to work late. If you are going to be working outside of the Company's hours of operation please let your supervisor know.
- Employees are allowed to have an occasional visitor in the workplace. Visitors must sign in and wear an identification badge at all times. Do not leave your visitor unattended in the workplace. No visitor is permitted to engage in any solicitation or distribution of materials whatsoever while on Company property.

13-4. Weapons

As part of Energy Transfer's interest in maintaining a safe work environment, all employees and any invitees or other persons (including, but not limited to, customers, contractors, subcontractors, consultants, and vendors) are prohibited at any time from possessing, carrying, storing or using any weapons: (i) while on or in any property (including Company vehicles) owned, leased or controlled by Company, whether before, after, and during working hours; (ii) while engaged in any Company business or activity with a business purpose, regardless of location; and (iii) while at any Company-related activity, regardless of location; without regard to whether as such persons possess a concealed weapons permit or are otherwise allowed by applicable law to possess, carry, store or use a weapon.

As used in this Weapons Policy ("Policy"), "weapons" shall include, but shall not be limited to, any guns (including handguns, shotguns, rifles, automatic weapons, semi-automatic weapons or other firearms), martial arts weapons, knives (other than pocket knives with blades not exceeding four inches (4") inches in length), explosives, chemicals, and other similar items which may cause harm to another or the possessing, carrying, storing or use of which constitutes a violation under any applicable law.

Possession of a weapon on or in company property may be authorized in writing by the President & Chief Operating Officer (i) to engage in Company sponsored sporting events, which require the use of firearms; and (ii) to allow security personnel or a trained employee to possess, carry, store or use a weapon on Company premises or property, when such possession, carrying, storing or use is deemed to be necessary to secure the safety and security of Company personnel or facilities. In any such circumstance, the authorized weapon should be possessed, carried, stored and used in a manner to ensure the safety of all employees, invitees or other persons. Notwithstanding anything herein to the contrary, an employee with a valid concealed handgun license may (without violating this policy) possess or store a firearm in a locked, personal vehicle in a Company parking lot, parking garage or parking area; provided, however, that without the proper authorization required hereunder, any employee (including those with a valid concealed handgun license) is prohibited from possessing, carrying, storing or using any weapon (including a firearm) in a Company vehicle. **Employees may anonymously report incidents of possession of firearms or**

weapons by contacting the EthicsPoint confidential helpline 24 hours per day/7 days per week at 1-888-332-3592 or 1-800-228-5687 or at www.energytransfer.ethicspoint.com.

Energy Transfer reserves the right to conduct a search of an employee, an employee's personal items, work area, or any vehicle in the employee's possession on, in or in close proximity to any premises or property owned, leased or controlled by Company to determine whether a weapon prohibited by this Policy is present. Any employee who violates this Policy, or any applicable law with respect to carrying, possessing, storing and using a weapon, will be subject to appropriate disciplinary action, up to and including immediate termination.

13-5. What to do in an Emergency

In case of an emergency, such as a fire, earthquake, or accident, your first priority should be your own safety. In the event of emergency causing serious injuries, immediately dial 9-1-1 to alert police and rescue workers of the situation.

If you hear a fire alarm or in case of an emergency that requires evacuation, please proceed quickly and calmly to the emergency exits. The Company will hold periodic drills to familiarize everyone with the routes they should take.

Remember that every second may count – don't return to the workplace to retrieve personal belongings or work-related items. Once you have exited the building, head towards your planned evacuation route as instructed by your supervisor.

13-6. Smoking

As part of the Company's commitment to maintaining a safe and healthy work environment, smoking, including the use of electronic cigarettes and vaporizers, is prohibited on Company premises and in all Company vehicles, with the exception of designated smoking areas.

13-7. Use of Electronic Devices (Cell Phones, Computers, Tablets, GPSs, etc.)

The Energy Transfer Partners Vehicle Safety Policy strongly discourages routine (non-emergency) use of cell phones while operating a vehicle and sending or reading instant messages, texts, and emails while driving is strictly prohibited. If acceptance of a cell phone call is absolutely necessary while the employee is driving, employees must use a hands-free option.

Drivers are strongly encouraged to pull off the roadway to a safe location prior to using or adjusting electronic devices. Under no circumstances should employees feel that they need to place themselves at risk to use an electronic device to fulfill a business need.

Since this policy does not require any employee to use an electronic device while driving, employees who are charged with traffic violations resulting from the use of such devices will be subject to disciplinary action up to and including termination.

Employees should use electronic devices only when it is safe to do so and does not interfere with the safe operation of the vehicle. All employees using a Company or private vehicle for Company business must abide by this policy.

Section 14: Drugs and Alcohol

14-1. Drug and Alcohol-Free Workplace

To help ensure a safe, healthy and productive work environment for our employees and others, to protect Company property, and to ensure efficient operations, the Company has a "Zero Tolerance" policy with regard to drugs and alcohol in the workplace. This policy of zero tolerance applies to all employees. Currently, each partnership within our family implements this zero tolerance policy through its own substance abuse policy and testing procedures. We are in the process of integrating these policies and testing procedures into a uniform policy and set of procedures that will best achieve our goal of maintaining a workplace free of drug and alcohol. Until a singular policy is administered across the partnerships, the below Sections of 14-2 and 14-3 provide information regarding the substance abuse policy and testing procedures which apply to ETE/ETP/CDM/SEC employees. The employees of other partnerships, such as Sunoco, should consult their Human Resources representative for the policy and testing procedures that apply to them.

The unlawful or unauthorized use, abuse, solicitation, theft, possession, transfer, purchase, sale or distribution of controlled substances, drug paraphernalia or alcohol by an individual anywhere on Company premises, while on Company business (whether or not on Company premises) or while representing the Company, is strictly prohibited. Employees are prohibited from reporting to work or working while they are using or under the influence of alcohol or any controlled substances, except when the use is pursuant to a licensed medical practitioner's instructions and the licensed medical practitioner authorized the employee or individual to report to work. This restriction does not apply to responsible drinking of alcohol at business meetings and related social outings.

Violation of this policy will result in immediate termination.

All employees should note that employees have the ability to avoid termination for a violation of the D&A Policy, by self-reporting for treatment. Such self-reporting **MUST OCCUR** prior to either notification of a required testing event or a reasonable suspicion test. Self-reporting for treatment can be arranged through management, the Human Resources department or the Employee Assistance

Program (EAP) - ComPsych Guidance Resources via The Hartford @ 1/800/327-1850

This policy does not prohibit the use of lawfully prescribed prescription drugs. However, each employee shall be responsible for notifying the Human Resources department whenever the use of a prescription or over-the-counter medication may adversely impact his/her safety, the safety of other employees, or impact such employee's ability to perform his or her job function. Employees shall be responsible for discussing safety concerns arising from the use of a particular medicine with their health care practitioners at the time it is prescribed. An employee need not report to the Company the name of any medication or the condition for which it is being used unless you are specifically asked to do so by a Human Resources representative. All information the Company may learn concerning an individual's use of lawful medications and/or the individual's health will be treated as confidential and not released or discussed with anyone other than employees or agents who have a need to know.

We encourage employees to seek assistance before their substance abuse or alcohol misuse renders them unable to perform the essential functions of their jobs, or jeopardizes the health and safety of themselves or any Company employee. As explained in Section 2-5, the Company is committed to providing reasonable accommodation consistent with the requirements of the Americans with Disabilities Act (ADA), as amended by the ADA Amendments Act (ADAAA), and any similar, applicable state and local laws.

14-2. Drug Testing (Only Applies to ETE/ETP/CDM/SEC, See Section 14-1)

The purpose of this policy is to set forth the procedures for identification, testing and management of employee's drug and alcohol abuse and should be followed except where superseded by state or local laws or regulations and is designed to safeguard employee privacy rights to the fullest extent of the law.

The Company has a Zero Tolerance posture with respect to violations of the Drug and Alcohol-Free Workplace Policy (14-1) (the "D&A Policy"). Violation of the Company's D&A Policy will result in immediate termination of employment. As described below the Company does offer employees the opportunity to self-report PRIOR to a testing event.

In order to implement the D&A Policy and comply with applicable DOT requirement, the Company has developed this policy to provide for drug testing in specific instances, including pre-employment, DOT position transfer, post-accident, return to work, reasonable suspicion, and random testing.

The Company will utilize both 9 panel screening and the DOT required 5 panel screening for drug testing events. In instances where a NON-DOT is subject to testing the Company will require a 9 panel screening. DOT employees will have both a 9 panel screen and the DOT 5 panel screen when tested, however, in the

case of random DOT testing or an employee transferring from a Non-DOT to a DOT position only a 5 panel screen will be used.

In the case of DOT-covered testing, to the extent this policy is inconsistent with the Company's DOT Substance Abuse Plan or DOT regulations, that plan and those regulations will control over this policy.

Reasons for Testing

Employees will be drug or alcohol tested as a condition of employment or as a condition of continued employment as follows:

- All new employees will be tested as a condition of employment once a conditional offer of employment has been extended and accepted (i.e. no one is subject to testing until a conditional offer has been made). All offers of employment shall be deemed conditional until the prospective employee tests negative for illegal substances. Prospective employees who have accepted the offer and are covered under DOT will be subjected to both a DOT 5 panel drug screen and a 9 panel drug screen. Prospective employees for positions that are not covered under DOT will only need to submit to the 9 panel drug screen.
- All DOT employees will be subject to random alcohol/drug testing during their employment with Company. The random selection of employees for testing will be based on an appropriate random number system instituted by the drug-testing agent. Random drug testing shall only consist of the DOT 5 panel drug screen.
- If an employee transfers from a Non-DOT regulated position to a DOT regulated position, negative DOT Drug Test result will be required before the transfer is completed, as required in the Company DOT Drug and Alcohol Policy.
- In the case of on-the-job injuries, the employee suffering the injury, as well as any other employee whose actions caused or may have caused or contributed to the injury may be tested.
- Any employee reporting to work in a condition giving a Supervisor reasonable cause to suspect the influence of alcohol, drugs or other hallucinogens or controlled substances.
- Any employee causing extensive or serious damage to any equipment location on company premises.
- Any employee causing extensive or serious damage on any vehicle owned, leased, or rented by the company.

Tested Substances

The Company’s drug and alcohol testing program is limited to testing for:

- Marijuana metabolites/THC
- Cocaine metabolites
- Opiates (including codeine, heroin, morphine)

- Phencyclidine (PCP)
- Amphetamines/Methamphetamine
- Benzodiazepines
- Methadone
- Barbiturates
- Propoxyphene

Licensed Laboratories

Any drug and/or alcohol testing required or requested by the Company will be conducted by a laboratory licensed by the state and certified by the Substance Abuse and Mental Health Services Administration. The employee may obtain the name and location of the laboratory that will analyze the employee's test sample before the employee is scheduled to be tested. Contact information will be provided at the time employee is notified of testing requirements.

Self-Reporting

All employees should note that employees have the ability to avoid termination for a violation of the D&A Policy, by self-reporting for treatment. Such self-reporting **MUST OCCUR** prior to either notification of a required testing event or a reasonable suspicion test. Self-reporting for treatment can be arranged through management, the Human Resources department or the Employee Assistance Program (EAP) - ComPsych Guidance Resources via The Hartford @ 1/800/327-1850.

Notice of Results

If the employee is asked to submit to a drug or alcohol test, the Company will notify the employee of the results within 24 work hours after it receives them from the laboratory if the tests results are positive. To preserve the confidentiality the Company strives to maintain, the employee will be notified in person whether the test was negative or confirmed positive and, if confirmed positive, what the next step will be.

Refusal to test or cooperate

If an employee refuses the Company's request to submit to any required drug and/or alcohol test, the employee will be terminated.

Employees are expected to exercise good faith and cooperate during the collection process according to the collection procedures, and failure to do so may be treated the same as a positive drug test; which will result in termination.

Please see the Company's Substance Abuse Policy and Procedures (Non-DOT) for more information on refusal to test.

Positive Results

If the employee receives notice that the employee's test results were confirmed positive, the employee will be given the opportunity to explain or contest the accuracy of the positive result following the employee's receipt of the test result. In addition, the employee may have the same sample retested at a laboratory of the employee's choice.

Adverse Employment Action

If there is reason to suspect that the employee is working while under the influence of an illegal drug or alcohol, the employee will be suspended without pay until the result(s) of the drug and/or alcohol test(s) are made available to the Company by the testing laboratory. Any suspension of an exempt employee will be consistent with that employee's salaried status. Where drug or alcohol testing is part of a routine physical or random screening, there will be no adverse employment action taken until the test results are in.

Confidentiality

The Company will make every effort to keep the results of drug and alcohol test confidential. Only persons with a need to know the result will have access to them. The employee will be asked for the employee's consent before test results are released to anyone else. Be advised, however, that test result may be used in arbitration, administration hearings and court cases arising as a result of the employee's drug testing. Also, results will be sent to federal agencies as required by federal law. If the employee is to be referred to a treatment facility for evaluation, the employee's test result will also be made available to the employee's counselor. The result of drug testing in the workplace will not be used against the employee in any criminal prosecution.

Costs

The Company will pay the cost of any drug and alcohol testing that it requires or request employees submit to, including retesting of confirmed positive results. Any additional tests the employee requests will be paid for by the employee.

14-3. DOT Substance Abuse Plan (Only Applies to ETE/ETP/CDM/SEC, See Section 14-1)

Energy Transfer has developed and adheres to a Substance Abuse Plan in accordance with 49 CFR parts 199 and 40 for employees who fall within these regulations. This plan covers those employees performing Operations, Maintenance and Emergency Response functions on a regulated pipeline facility. This plan also includes testing during pre-employment, random, post-accident, return-to-duty and administering follow-up tests.

This Federal Mandated Plan is located on the Company's Intranet and is located within each of the field offices for employees' access. The Plan covers the Prevention of Substance Abuse (Anti-Drug and Alcohol) and applies to any and all subsidiaries of Energy Transfer conducting midstream natural gas transportation and storage activities and transportation of hazardous liquids by pipeline.

Section 15: Employee Records

15-1. Employment Records

The Company will strive to maintain current, complete and accurate records on employees in order to conduct business efficiently and comply with federal, state, and local laws and regulations.

Employee records are the property of the Company. Managers and supervisors other than employees in the Human Resources department may only have access to personnel record information on a need-to-know basis. Representatives of government or law enforcement agencies, in the course of their business, may be allowed access to file information. Employees may make appointments with the Human Resources department to review their personnel records.

Please keep your personnel record up to date by informing the Human Resources department or your supervisor of any changes. Also, please inform the Human Resources department or your supervisor of any specialized training or skills you may acquire in the future, as well as any changes to any required visas. Unreported changes of address, marital status, etc. can affect your withholding tax and benefit coverage. Further, an "out of date" emergency contact or an inability to reach you in a crisis could cause a severe health or safety risk or other significant problem.

15-2. Medical Records

We understand the particularly sensitive nature of an employee's medical records, so we do not place any such records in the employee's personnel record. We keep all medical records in a separate and secure place.

If you have any questions about the storage of your medical records or about inspecting your medical records, contact the Human Resources department.

Section 16: Employee Privacy

16-1. Inspections

Energy Transfer reserves the right to require employees while on Company property, or on client property, to agree to the inspection of their persons, personal possessions and property, personal vehicles parked on Company or client property, and work areas. This includes lockers, vehicles, desks, cabinets, work stations, packages, handbags, briefcases and other personal possessions or places of concealment. Employees are expected to cooperate in the conduct of any search or inspection. Employees should have no expectation of privacy whatsoever with regard to (i) offices, desks, vehicles, lockers, or other areas, storage or any equipment provided by the Company, (ii) briefcases, bags, containers or other personal possessions brought onto Company or client property, or (iii) personal vehicles located on Company or client property.

16-2. Camera Phones/Recording Devices

Due to the potential for issues such as invasion of privacy, sexual harassment, and loss of productivity, employees while on working time may not operate a camera phone, tape recorder or other types of voice recording devises or take, distribute, or post pictures, videos or audio recordings (including to record conversations or activities of other employees or management), unless such use is for official Company business. “Working time” is the time an employee is engaged, or should be engaged, in performing his/her work tasks for Company, but does not include break times, meal periods and time before and after an employee's regularly scheduled work hours. Employees also may not take pictures or make recordings of work areas. An exception to the above rule concerning pictures and recordings of work areas would be to engage in activity protected by the National Labor Relations Act including, for example taking pictures of health, safety and/or working condition concerns or of strike, protest and work-related issues and/or other protected concerted activities.

Section 17: Complaint Policies

17-1. Open Door Policy

We want to maintain a positive and pleasant environment for all of our employees. To help us meet this goal, our Company has an open door policy, by which employees are encouraged to report work-related concerns.

If something about your job is bothering you, or if you have a question, concern, idea, or problem related to your work, please discuss it with your immediate supervisor as soon as possible. If for any reason you don’t feel comfortable bringing the matter to your supervisor, feel free to raise the issue with the Human

Resources department or any manager or officer of the Company. **Employees may also contact the EthicsPoint confidential helpline 24 hours per day/7 days per week at 1-888-332-3592 or 1-800-228-5687 or at www.energytransfer.ethicspoint.com.**

We encourage you to come forward and make your concerns known to the Company. We can't work to resolve an issue if we don't know about it.

17-2. Complaint Procedures

Our Company is committed to providing a safe and productive work environment, free of threats to the health, safety and well-being of our workers. These threats include, but are not limited to, harassment, discrimination, violations of health and safety rules, and violence.

Any employee who witnesses or is subject to inappropriate conduct in the workplace may complain to their supervisor, the Human Resources department or any manager of the Company. **Employees may also contact the EthicsPoint confidential Helpline 24 hours per day/7 days per week at 1-888-332-3592 or 1-800-228-5687 or at www.energytransfer.ethicspoint.com.**

Any supervisor or manager who receives a complaint about, hears of, or witnesses any inappropriate conduct is required to immediately notify his/her Human Resource representative.

Inappropriate conduct includes but is not limited to any conduct prohibited by our policies about harassment, discrimination, discipline, workplace violence, health and safety, wages and hours, and drug and alcohol use. In addition, we encourage employees to come forward with any workplace complaint, even if the subject of the complaint is not explicitly covered by our written policies.

We encourage you to move forward with complaints immediately, so we can take whatever action is needed to resolve the issue. Once a complaint has been made, the Human Resources department and management will determine how to handle it, including what investigation is needed. All complaints will be handled as confidentially as possible. When the investigation is complete, the Company will take corrective action, if appropriate.

If you believe that you're being subjected to any kind of negative treatment because you made or were questioned about a complaint, report the conduct immediately to your supervisor, the Human Resources department, or any officer or manager of the Company.

17-3. RESOLVE Program and Mutual Arbitration Agreement

As stated in Energy Transfer's Core Values and Beliefs, we believe in a culture of trust, respect and inclusion and that employees are our most valued resource. One way the Company translates these beliefs into action is the RESOLVE Program, a multi-phase dispute resolution program that includes mandatory, binding arbitration. The Company hopes that the RESOLVE Program will support our commitment to open and honest communications, administering our employment policies fairly and maintaining a workplace where employees can work and advance to their fullest potential.

How does the RESOLVE Program work? Despite our best efforts, situations occasionally arise where an employee disagrees with the implementation, application or enforcement of the policies, practices or rules of the Company as they may pertain to an employee's specific circumstances. In addition, situations may develop where an employee believes that he or she has suffered discrimination, harassment or retaliation in the workplace.

In such situations, the RESOLVE Program encourages employees to use our Open Door Policy to turn to their supervisors or a higher level of management and/or Human Resources representatives for prompt resolution of issues. If an employee and his or her supervisor are unable to resolve a job related problem informally, the Internal Conference Phase of the RESOLVE Program provides a format for the problem to be presented directly to higher level(s) of management in discussions conducted by a trained internal facilitator. If the problem is not resolved to a party's satisfaction internally, and the issue involves legally protected rights, there are phases for external mediation and mandatory, binding arbitration. Parties agree to bring any disputes in arbitration on an individual basis only.

The RESOLVE Program and Mutual Arbitration Agreement ("Agreement") contains all the terms of the RESOLVE Program and is a stand-alone separate agreement from this Employee Handbook. Under the terms of this Agreement, the employer and each employee agree that any covered claims or controversies, past, present, or future, including but not limited to, claims arising out of or related to the employee's application for employment, employment, and/or the termination of employment that the employer may have against the employee or that employee may have against the employer; its parents, subsidiaries and affiliates; its or their predecessors, successors or assigns; the past, present or future officers, directors, general or limited partners, shareholders, members, employees, representatives or agents of any of the previously listed entities, in their capacity as such or otherwise; any benefit plans maintained by any of the previously listed entities; or the past, present, or future sponsors, fiduciaries, administrators, affiliates and agents of such benefit plans; shall be submitted to and settled by final and binding arbitration rather than by a court or jury. This Agreement does not apply to worker's compensation benefit claims, state unemployment or disability insurance compensation claims, claims for benefits under a group health plan, and claims which by applicable federal law are not subject to arbitration agreements.

The RESOLVE Program is applicable to all non-represented employees, both hourly and salaried, and all eligible former employees. The RESOLVE Program is a condition of employment and will be binding on the Company and non-represented employees who continue their employment with the Company after its effective date.

The RESOLVE Program Administrator can be contacted at Resolve.Mailbox@energytransfer.com or by phone at (844) 458-5446.

Section 18: Ending Employment

18-1. Final Paycheck

Although not legally required, should you decide to leave the Company, as a business courtesy, we ask that you provide your Supervisor with at least two (2) weeks advance notice of your departure.

Your final paycheck will include all compensation earned but not paid through the date of termination. You will receive your final paycheck in accordance with state law.

18-2. Continuation of Health Coverage

Our Company offers employees group health insurance coverage as a benefit of employment. If you are no longer eligible for insurance coverage because of a reduction in hours, because you quit, or because you are terminated for reason other than gross misconduct, you and your dependents covered under the plan have the right to continue group health insurance coverage for a specified period of time. You will have to pay the cost of this coverage.

Others covered by your insurance (your spouse and children, for example) also have the right to continue coverage if they are no longer eligible for certain reasons. If you and your spouse divorce or legally separate, or if you die while in our employ, your covered spouse and dependent children losing coverage under the plan may continue coverage under the plan. And once your children lose their dependent status, they may continue their health care as well. In and of these situations, your family members are entitled to continue health care for a specified period of time. They must pay the cost of this coverage.

You will receive an initial notice of your right to continued health insurance coverage when you first become eligible for health insurance under the Company's plan. You will receive an additional notice when your hours are reduced, you quit, or you are terminated. This additional notice will also be provided to any of your family members losing coverage under the plan upon the occurrence of your death, a divorce or loss of dependent status. This second notice will tell you how to choose continuation coverage, what your obligations will be, and how much the

insurance will cost. You must notify the Human Resources department if any of your family members becomes eligible for continued coverage due to an event in which coverage under the plan would otherwise be lost.

18-3. Exit Interview

Employees who resign are requested to participate in an exit interview with the Human Resources department, if possible.

18-4. References

The Company will respond to reference requests through the Human Resources department or its delegate, The Work Number. The Company will provide only information concerning the employee's dates of employment and positions held. Requests for reference information must be in writing. Please refer all requests for references to the Human Resources department.

Only the Human Resources department or its delegate, The Work Number, may respond to requests for references.

Appendix

State Provisions

New York Paid Family Leave Law

Effective January 1, 2018 the State of New York has amended the New York Disability Benefits Law and the Paid Family Leave Benefits Law, as explained more fully below, to require Paid Family Leave benefits for Partnership employees in New York. The Partnership will administer this benefit through the Company's designated Claims Administrator. The administration of this benefit will also include a payroll deduction for all of the Partnership's New York employees, which is explained in further detail below.

For all employees who meet the eligibility requirements and are working in the state of New York, this benefit has been added to your other Partnership offered benefits effective January 1, 2018.

The benefit may be taken for the following types of leaves:

1) Bonding with a newly born, adopted, or fostered child (within 12 months of birth or placement);
2) Care for a family member with a serious health condition; or
3) Assist with family situations arising when your spouse, domestic partner, child, or parent is deployed abroad on active military service or has been notified of an impending military deployment abroad.

Whenever possible, employees are required to provide 30 days' notice of an impending leave. There will be a claim form available for completion when requesting a paid family leave through the Company's designated Claims Administrator.

The eligibility requirements and benefit thresholds are as follows:

Eligibility, as defined by New York State law, will be as follows:

1) Employees with a regular work schedule of 20 or more hours per week are eligible after 26 consecutive weeks of employment.
2) Employees with a regular work schedule of less than 20 hours per week are eligible after working 175 days.
    a. Employees who are eligible for disability benefits under the Company's plans can only receive a combined amount of 26 weeks of disability and Paid Family Leave benefits during a 52-week calendar period.
    b. Employees who do not expect to work for the minimum amount of time required for eligibility may opt out of the Paid Family Leave benefit by completing a Paid Family Leave waiver. The waiver form shall be available at ny.gov/PaidFamilyLeave.

Benefits shall phase in over four years. In 2018, employees are eligible for up to eight weeks of paid leave at 50% of their average weekly wage (AWW), capped at up to 50% of the New York State Average Weekly Wage (SAWW).

1) Example 1: An employee who earns $1,000/week would receive a benefit of $500/week (i.e., 50% $1,000).
2) Example 2: An employee who earns $2,000/week would receive a benefit of $652.96/week (i.e., 50% of the SAWW).

New York State Benefit Phase In Schedule:

Year	Weeks of Leave	Benefit
2018	8 weeks	50% of employee's AWW, up to 50% of SAWW
2019	10 weeks	55% of employee's AWW, up to 55% of SAWW
2020	10 weeks	60% of employee's AWW, up to 60% of SAWW
2021	12 weeks	67% of employee's AWW, up to 67% of SAWW

The amendments require a payroll deduction from each NY employee. For 2018, the deduction is set at 0.126% of an employee's weekly wage and is capped at an annual maximum of $85.56 (for employees earning less than the SAWW (i.e., $1305.92/week), the employee will have an annual contribution amount less than the cap of $85.56, consistent with their actual weekly wages).

Receipt of Employee Handbook

This Employee Handbook is an important document intended to help you become acquainted with the Company and outlines the benefits you receive and the responsibilities you have as an employee. This handbook is intended to provide guidelines and general descriptions and the Company reserves the right to deviate from the policies in this handbook as needed to address the circumstances of individual cases.

Because the Company's operations may change, the contents of this handbook may be changed at any time, with or without notice, in an individual case or generally, at the sole discretion of management.

Please read the following statements and sign below to indicate your receipt and acknowledgment of this Employee Handbook.

I HAVE RECEIVED AND READ A COPY OF COMPANY'S EMPLOYEE HANDBOOK. I UNDERSTAND THAT THE POLICIES, RULES AND BENEFITS DESCRIBED IN IT ARE SUBJECT TO CHANGE AT THE SOLE DISCRETION OF THE COMPANY AT ANY TIME. I UNDERSTAND THAT THIS EMPLOYEE HANDBOOK IS NOT A CONTRACT AND CREATES NO CONTRACTUAL RIGHTS FOR ME. I UNDERSTAND THE COMPANY RETAINS THE RIGHT TO, AT ANYTIME, CHANGE, ADD TO, ELIMINATE OR DEVIATE FROM ANY PROVISION IN THIS HANDBOOK.

I FURTHER UNDERSTAND THAT MY EMPLOYMENT IS TERMINABLE AT WILL, EITHER BY MYSELF OR THE COMPANY, WITH OR WITHOUT CAUSE OR NOTICE, REGARDLESS OF THE LENGTH OF MY EMPLOYMENT OR THE GRANTING OF BENEFITS OF ANY KIND.

I UNDERSTAND MY "AT WILL" EMPLOYMENT STATUS AND THAT NO CONTRACT OF EMPLOYMENT HAS BEEN EXPRESSED OR IMPLIED, AND THAT NO CIRCUMSTANCES ARISING OUT OF MY EMPLOYMENT WILL ALTER MY "AT WILL" STATUS EXCEPT AN EXPRESS WRITTEN AGREEMENT SIGNED BY THE CEO OR THE EXECUTIVE VICE PRESIDENT AND CHIEF HUMAN RESOURCES OFFICER.

I AGREE THAT IF THERE IS ANY PROVISION IN THE EMPLOYEE HANDBOOK OR ANY OF THE POLICIES OR OTHER DOCUMENTS THAT IT REFERENCES THAT I DO NOT UNDERSTAND, I WILL SEEK CLARIFICATION FROM THE HUMAN RESOURCES DEPARTMENT. I UNDERSTAND THAT THE MOST CURRENT VERSION OF THE EMPLOYEE HANDBOOK IS AVAILABLE ON THE COMPANY INTRANET AND IT IS MY RESPONSIBILITY TO REVIEW NEW VERSIONS OF THE EMPLOYEE HANDBOOK WHEN THEY BECOME AVAILABLE ON THE COMPANY INTRANET.

I UNDERSTAND AND AGREE THAT THE COMPANY MAY DEDUCT AMOUNTS THAT I OWE THE COMPANY FROM PAYCHECKS OR OTHER AMOUNTS THE COMPANY OWES ME. THIS AUTHORIZATION DOES NOT APPLY WHERE PROHIBITED BY STATE LAW OR TO DEDUCTIONS FROM SALARY FOR AMOUNTS RELATED TO QUALITY AND QUANTITY OF WORK FOR EXEMPT EMPLOYEES. I AGREE TO ABIDE BY AND BE BOUND TO THIS AUTHORIZATION FOR DEDUCTION.

I UNDERSTAND THAT MY SIGNATURE BELOW INDICATES THAT I HAVE READ AND UNDERSTAND THE ABOVE STATEMENTS AND THAT I HAVE RECEIVED A COPY OF THE COMPANY'S EMPLOYEE HANDBOOK.

Employee's Printed Name: _____ Position: _____

Employee's Signature: _____ Date: _____

Receipt of Equal Employment Opportunity/Anti-Discrimination, Anti-Harassment, and Non-Retaliation Policies

It is the Company's policy to prohibit discrimination or harassment of any employee by any supervisor, employee, customer or vendor on the basis of sex, pregnancy, race, color, religion, national origin, age, disability, veteran status, citizenship status, sexual orientation, gender identity or any other characteristic protected by applicable law. The purpose of these policies is to ensure that at the Company all employees are free from unlawful discrimination and harassment. One type of prohibited harassment is sexual harassment. As described in the Company's Anti-Harassment Policy, examples of prohibited behavior which may constitute sexual harassment include unwelcome sexual advances, requests for sexual favors, obscene gestures, displaying sexually suggestive magazines, calendars or posters, sending sexually explicit e-mails and other unwelcome verbal or physical conduct of a sexual nature, such as unwanted touching of a sexual nature or sexually related comments. Improper conduct also can include sexual joking, vulgar or offensive conversation or jokes, commenting about an employee's physical appearance, conversation about your own or someone else's sex life, or teasing or other conduct directed toward a person because of his or her gender which is sufficiently severe or pervasive to create an unprofessional and hostile working environment.

If you feel that you have been subjected to conduct which violates these policies, you should immediately report the matter to your supervisor, Human Resources representative, the Executive Vice President and Chief Human Resource Offices, or any manager. Employees may also contact the EthicsPoint confidential Helpline 24 hrs per day/7 days per week at 1-888-332-3592 or 1-800-228-5687 or www.energytransfer.ethicspoint.com. Every report of potential discrimination and/or harassment will be fully investigated and corrective action will be taken where appropriate. Violation of these policies will result in disciplinary action, up to and including discharge. All complaints will be kept confidential to the extent possible, but confidentiality cannot be guaranteed. In addition, in accordance with the Company's Non-Retaliation Policy the Company will not allow any form of retaliation against individuals who report potential violations of these policies to management or Human Resources or who cooperate in the investigations of such reports.

I have read and understand Company's Equal Employment Opportunity/Anti-Discrimination, Anti-Harassment, and Non-Retaliation Policies.

Employee's Printed Name: _____ Position: _____

Employee's Signature: _____ Date: _____

Receipt of Information Technology Policies

All Company Information Technology (IT) Policies are available on the Company intranet. We urge you to take the time to carefully read and be familiar with these policies. The Company's information technology, communication and computer systems are intended for official business of the Company and may be used only for work related and other Company-sanctioned activities. This includes IT systems and resources such as the voice mail, e-mail, texting, instant messaging, devices, internet systems, intranet systems and all applications.

I understand that all electronic communications and all data sent, received, or stored on the Company's systems are the property of Energy Transfer. I acknowledge that I have no expectation of privacy in connection with any communication, data or information I send, receive, or store using the Company's information technology systems ("IT Systems") and communication systems. I acknowledge and consent to the Company's monitoring of the Company's IT Systems and communication systems use. I understand that such monitoring can include intercepting, copying, printing, deleting, or reading all data and communications entering, leaving or stored on the Company's IT Systems and communications systems.

Employee's Printed Name: _____ Position: _____

Employee's Signature: _____ Date: _____

Receipt of Alcohol, Drugs, and Controlled Substances Policies

I have read the Company's policies concerning alcohol, drugs, and controlled substances, fully understand them, and agree to comply. I hereby give my voluntary consent for the Company to conduct searches and tests under the conditions described in these policies. Further, I consent to the release of test results to the Company for its use.

Employee's Printed Name: _____ Position: _____

Employee's Signature: _____ Date: _____

Receipt of Vehicle Safety Policy

I have been furnished with a copy of the Company Vehicle Safety Policy. I understand that it is my responsibility to read and understand the obligations, restrictions, and requirements set forth in these policies. I further understand that strict compliance with these policies is expected of me as an employee at all times while conducting company business.

I understand that failure to adhere to the foregoing shall result in disciplinary action by the company up to and including termination of employment.

Employee's Printed Name: _____ Position: _____

Employee's Signature: _____ Date: _____

ROVER PIPELINE
An ENERGY TRANSFER Company

ROVER PIPELINE LLC

Rover Pipeline Project

HORIZONTAL DIRECTIONAL DRILL CONTINGENCY PLAN

April 2015

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1.0 INTRODUCTION

This Horizontal Directional Drill (HDD) Contingency Plan provides procedures and steps to address inadvertent release of drilling mud during horizontal directional drilling beneath wetlands and waterbodies. Drilling mud consists primarily of fresh water, with high yield bentonite added to achieve the necessary properties, such as viscosity. Bentonite is composed of clay minerals mined primarily in Wyoming reserves and is not considered a hazardous material by the U.S. Environmental Protection Agency. Therefore, in the event of a release into a wetland or waterbody, there will be no adverse environmental impact other than a temporary increase in turbidity from the bentonite and the efforts to contain and collect the release. While drilling parameters will be established to maximize circulation and minimize risk of these inadvertent releases, the possibility of lost circulation and releases cannot be eliminated. This plan has been prepared to address containment procedures in the event of an inadvertent release. It also includes measures that would be implemented in the event that the HDD cannot be successfully completed. Unless otherwise specified, Rover Pipeline LLC (Rover) will implement the following plan in consultation with the Contractor, Construction Inspector, and Environmental Inspector.

Elements of this plan include:

- Monitoring Procedures
- Notification Procedures
- Corrective Action
- Contingency Plan

Rover will require its HDD contractor(s) to specifically address the general elements of this plan before commencing any HDD operations.

2.0 PLANNED HDD CROSSINGS

The pipeline alignment drawings show the entry and exit locations and staging areas for the HDD crossings. The staging areas have been limited to the minimum needed to construct the crossing. Additionally, the entry and exit locations have been sited with maximum design depth clearance to provide the greatest buffer between the sensitive resource and the drilling activity/installed pipe. Further, these layouts have been designed to minimize the potential for impacts to waterbodies and wetlands by providing no less than 50 foot buffers to the sensitive resource, except where the 50-foot buffer cannot be maintained due to topographic or site-specific conditions. The combination of the buffer and the depth of the pipe beneath the sensitive resource is expected to minimize and avoid any adverse impacts.

An access path up to 10 feet wide within the permanent right-of-way between the HDD entry and exit points may be needed for access to a water source or as a travel lane. Disturbance will be limited to surface impacts only. This access path will be used to set up pumps for obtaining water for the drilling process and/or for hydrostatic testing of the pipeline on the banks of the waterbody and to lay the water pipe from the waterbody to the drilling operation or the pipe. Disturbance of these areas will be limited to foot traffic and the occasional truck, all-terrain vehicle, or backhoe to move pumps and water piping in and out.

A global positioning satellite drill head is sometimes used, which transmits the location of the drill head back through the stem to the operator to maintain the hole along the prescribed path. Other technology uses electric-grid guide wires (or Tru-Tracker wires) that are hand-laid across the land surface and along the pipeline centerline to help guide the drill bit along the predetermined HDD path. The Tru-Tracker wires must be located parallel to the centerline, but are offset, and must typically be placed outside of the

permanent right-of-way in order to triangulate the location of the drill head. In thickly vegetated areas, some vegetation may be trimmed using hand tools to allow placement of these electric-grid guide wires. Ground and vegetation disturbance will be minimal and no trees over 3 inches diameter at breast height will be cut for guide wire installation.

Please refer to Resource Report 1, Appendix 1A, Table 1A-6 for the proposed HDD locations for the Project.

3.0 MONITORING PROCEDURES

HDD activities will be closely and continually monitored by the Contractor, the Construction Inspector, and the Environmental Inspector, or any combination of the three. Monitoring and sampling procedures will include:

- Visual and pedestrian field inspection along the drill path, to the extent allowable by the terrain, including monitoring the wetlands and waterbodies for evidence of release,
- Continuous monitoring of drilling mud, drilling mud pressures, and returns flows by the Contractor, and
- Periodic recording of drill status information regarding drill conditions, pressures, returns, and progress during the course of drilling activities.

4.0 NOTIFICATION PROCEDURES

For all inadvertent releases of drilling mud, the Construction Inspector or Environmental Inspector will immediately notify Rover's Construction Manager and Environmental Project Manager. Coordination will immediately be initiated with the Federal Energy Regulatory Commission (FERC) Project Manager and the Third Party FERC Monitor.

Upon detection of an inadvertent mud release to ground surface or wetlands/waterbodies, Rover will contain the release as described below (see Section 4.0 - Corrective Action).

Rover's Environmental Project Manager will notify the appropriate agencies immediately upon discovery by telephone, e-mail, and/or facsimile of any inadvertent release to a wetland or waterbody. These agencies may include the:

- U.S. Army Corps of Engineers (Pittsburgh, Huntington, Buffalo, and Detroit Districts)
- West Virginia Department of Environmental Protection
- West Virginia Division of Natural Resources
- Pennsylvania Department of Environmental Protection
- Washington County Conservation District
- Ohio Environmental Protection Agency
- Michigan Department of Environmental Quality

Rover will provide details regarding the location and nature of the release, corrective actions being taken, and whether the release poses any threat to public health and safety.

5.0 CORRECTIVE ACTION

At the first sign of release of drilling fluids (frac-out), the Contractor will take immediate actions to control the release. Depending on the location and the amount of fluid being released, corrective actions may include:

- If public health and safety are threatened by an inadvertent release, drilling operations will be shut down until the threat is eliminated.
- Evaluating the release to determine if containment structures are warranted and can effectively contain the release. When making this determination, Rover will also consider if placement of containment structures will cause additional adverse environmental impact.
- Placing containment structures at the affected area to prevent migration of the release.
- If the amount of the release is large enough to allow collection, collecting the drilling mud released into containment structures and returning it to either the drilling operations or an approved disposal site by hose or tanker.
- If the amount of the release is not large enough to allow collection, diluting the affected area with fresh water and allowing it to dry. Steps will be taken to prevent silt-laden water from flowing into a wetland or waterbody.
- If a wetland or waterbody release occurs, initiating an inspection to determine the potential movement of released drilling mud within the wetland or waterbody.
- If a wetland or waterbody release occurs, collecting drilling mud returns at the drill entry location for future analysis, as required.
- If a wetland or waterbody release occurs, monitoring of the release will be documented by the Environmental Inspector. Rover will keep photographs of release events on record.
- Upon completion of the drilling operations, consulting with applicable regulatory agencies to determine any final clean-up requirements for the inadvertent release.

The following measures will be implemented to minimize or prevent further release, contain the release, and clean up the affected area:

- The Contractor will determine and implement any modifications to the drilling technique or composition of drilling fluid (e.g., viscosity of mud by increasing mineral content) to minimize or prevent further releases of drilling mud.
- If a release occurs within a wetland or waterbody, reasonable measures, within the limitation of directional drilling technology and the Contractor's capability, will be taken to reestablish drilling mud circulation.

6.0 CONTINGENCY PLAN

If the corrective actions described above do not correct the problem, Rover may opt to abandon the drill hole and consider alternate measures. An HDD attempt will be considered failed if:

- circulation is insufficient to maintain the integrity of the borehole,
- circulation losses present an imminent risk to human health or the environment, or
- the borehole location cannot be maintained within the required limits.

In the event of borehole failure, the borehole will be properly abandoned as described in Section 6.1 below, and a decision will be made regarding whether to re-attempt the HDD crossing, or use another crossing method, as described in Section 6.2 below.

6.1 ABANDONMENT

In the event the drill hole is to be abandoned the following procedures will be implemented to seal the abandoned drill hole:

- grout will be pumped into the hole to completely seal and fill the upper 30 feet of hole entirely with grout;
- compacted soil will be placed in the top 5 feet of the hole; and
- the location will be graded to the original contour.

The above abandonment procedures will be discussed with the appropriate permitting and regulatory agencies prior to implementation.

6.2 ALTERNATE CROSSING LOCATIONS

If the HDD cannot be completed at the proposed location, the HDD will be re-attempted at an alternate location. Before a determination is made on an alternate crossing location, an effort will be made to identify and assess the reason for the drill failure. This may be critical for the selection of the alternate crossing.

Considerations of alternative locations include, but are not limited to, the following:

- horizontal relocation of the drill hole,
- changing of the drill profile (depth of hole),
- changing drill procedures (mud viscosity/pressure/flow velocity, bit rotation/velocity, etc), and/or
- additional soil borings and geo tech evaluation.

If the entry and exit points need to be relocated, consideration will be given to:

- Stream bank type, flow width, depth, velocity and flow volume,
- Surrounding topography,
- Condition of riparian areas,
- Condition and extent of wetlands, if any, on each side of the alternate crossing,
- Aquatic biota,
- Downstream water uses, and/or
- Entry and exit angles for the HDD path.

These and other factors will be considered and discussed with the appropriate regulatory agencies to secure the appropriate approvals. Final selection of the alternate crossing location will be submitted to FERC, along with the required supporting data.

One-Page Summary of Testimony of Larry R. Parkinson
Director, Office of Enforcement, Federal Energy Regulatory Commission
Before the Energy and Commerce Committee, Energy and Power Subcommittee
United States House of Representatives
June 3, 2015

Thank you for the opportunity to testify. My name is Larry Parkinson, and I am the Director of the Office of Enforcement of the Federal Energy Regulatory Commission (FERC or the Commission). My office's work can be broken into two stages: an investigative stage (during which staff gathers facts to decide whether to recommend further action by the Commission) and an adjudicative stage (during which the Commission hears facts and arguments and decides whether to impose civil penalties and other remedial measures). The proposed legislation reflected by the discussion draft suggests changes to FERC's regulations governing the investigative stage.

The Commission has a deep commitment to transparency and engagement with the subjects of our investigations, and such subjects have many formal and informal opportunities throughout the investigation to present their facts and defenses to the Commissioners and staff. FERC is one of the most process-oriented and transparent agencies in the federal government when it comes to communicating and sharing information with subjects, but we recognize that too much process and associated delays can impose costs on market participants, the public, and the investigative subjects.

We always are willing to consider changes in the way we conduct investigations, but I would like to raise the following concerns regarding the proposed legislation:

- Subsection 4212(1): The Commission already discloses exculpatory material to subjects. The proposed mandate to disclose "helpful or potentially helpful" materials (possibly including non-factual material) and to ensure that any third party that "assists" with our investigation does the same would pose a tremendous burden on our investigations;
- Subsection 4212(2): The Commission already provides witnesses access to their transcripts on a timely basis and delays such access only when doing so is necessary to preserve the integrity of our fact-finding process. The proposed legislation could be read to undermine our investigative work and infringe the rights of third parties;
- Subsection 4212(3): Existing Commission regulations and policy already wall-off investigatory staff from Commissioners and advisory staff at the adjudicative stage. Erecting a wall at the investigative stage would interfere with the Commissioners' management of the agency and impede access of investigatory staff to subject matter experts at the agency;
- Subsection 4212(4): Subjects already have the right to submit written materials to the Commissioners regarding settlement, or any other topic, at any point in the investigation. Mandating that subjects be allowed to communicate regarding settlement to the same extent as investigatory staff fails to recognize that attorneys who serve as investigative staff have an attorney-client relationship with the Commission and, therefore, are on a different footing than investigative subjects.

Testimony of Larry R. Parkinson
Director, Office of Enforcement
Federal Energy Regulatory Commission
Before the Energy and Commerce Committee
Energy and Power Subcommittee
United States House of Representatives
June 3, 2015

Mr. Chairman, Ranking Member Rush, and members of the Subcommittee: Thank you for inviting me to testify today. My name is Larry Parkinson, and I am the Director of the Office of Enforcement of the Federal Energy Regulatory Commission (FERC or the Commission). I appear before you as a staff witness, and the views I present are not necessarily those of the Commission or any individual Commissioner.

Background

I will begin my testimony today with some background on how the Office of Enforcement—the arm of the Commission tasked with surveilling, investigating, and resolving violations of FERC's authorizing statutes—functions. Our enforcement work can be broken down into two stages. The first is an investigative stage, during which Commission staff analyzes potential misconduct in FERC markets to determine whether a participant in one of those markets may have violated a FERC authorizing statute. Our job at this stage is, simply put, to gather the facts. After we do that, we determine whether those facts and applicable law indicate that we should recommend to the Commission that it proceed with a further action (usually a settlement or enforcement proceeding) that may result in the imposition of civil penalties, disgorgement, and other remedies against that participant.

The second stage is an adjudicative stage. That stage begins if the Commission determines that there is reason to believe that a violation occurred and the investigative subject declines to settle the matter on terms that are in the public interest. During this second stage, staff and the investigative subject present their arguments and facts directly to the Commission, which determines whether civil penalties or other remedies should be imposed. If the Commission concludes that a violation occurred and assesses penalties, the investigative subject can seek review of that conclusion and assessment in federal court (and the procedures for seeking such review depend on whether the investigation arises under the Federal Power Act or the Natural Gas Act).

Those two stages, investigative and adjudicative, are distinct. The purposes of each are different, the applicable rules are different, and the ways in which staff interacts with the Commissioners are different. It is important to keep those distinctions in mind as the Subcommittee considers the proposed changes to the regulations governing our work. This is because the law and procedures that apply to investigative and adjudicative stages are different at federal administrative agencies. And there is a good reason for this: Applying rules from the adjudicative stage to the investigative stage, or vice versa, can undermine good enforcement policy and can interfere with a federal government agency's ability to effectively investigate and enforce federal law.[1]

[1] The differences between the investigative and adjudicative phase of a federal enforcement matter, why those differences are important, and how they work in FERC enforcement cases is explained in more detail in a law review article prepared by Office of Enforcement staff. *See* Allison Murphy, Todd Hettenbach & Thomas Olson, *The FERC Enforcement Process*, 35 ENERGY L.J 283 (2014), *available at* http://www.felj.org/sites/default/files/docs/elj352/15-283-321-Murphyetal-final-11.1.pdf

With that background in mind, my testimony today focuses on the changes that the proposed legislation would mandate to the regulations governing the investigative stage of our work.

The Commission in general, and the Office of Enforcement in particular, has a deep commitment to transparency and engagement with market participants. This commitment has made FERC one of the most process-oriented and transparent agencies in the federal government when it comes to communicating and sharing information with subjects. The Commission's regulations and policy statements give subjects numerous formal, procedural opportunities to present their views at various points in the investigation (in addition to many informal opportunities, as noted below). The first of these procedural opportunities comes after staff completes its initial fact-finding and provides its preliminary findings to the subject. At that point, the subject has the opportunity to draft a response to those findings. If enforcement staff decides to move forward, the subject's response is shared with all members of the Commission.

Second, if the Commission authorizes staff to engage in settlement discussions, the subject has another opportunity to offer its view of the facts and applicable legal theories.

Third, if the matter cannot be settled and staff decides to recommend an enforcement action to the Commission, section 1b.19 of the Commission's regulations requires staff to notify the subject of that intent, to offer the opportunity for response, and to share that response with the Commission.

Fourth, if the Commission determines that there is reason to believe a violation has occurred and issues an Order to Show Cause as to why sanctions should not be imposed, the subject has yet another opportunity to explain its conduct and legal defenses in writing. The Commission considers such explanations before reaching any final determination on whether the subject committed a violation and should be assessed any penalties.

In addition to these formalized processes, our office engages in a great deal of informal back-and-forth with subjects and their counsel. They can, and often do, call or email staff throughout the course of an investigation to discuss the Commission's concerns and to offer relevant analyses, facts, and opinions. In addition, they can, and often do, write to the Commissioners directly during investigations to present their views. This right to submit information throughout the investigatory stage is formally embodied in the Commission's regulations and policy statements.

The formal and informal opportunities that the Commission provides to investigative subjects makes our investigative practice one of the most transparent, if not the most transparent, in the federal government. If anything, there are legitimate questions about whether FERC may have too much process. As important as process is to both the Commission and subjects, too many procedural steps in the course of an investigation can delay resolution of that investigation. Such delays can harm consumers (by delaying the return of unjust profits to market participants affected by unlawful conduct), market transparency (by delaying a public presentation about the types of

market behavior that the Commission has determined to be unlawful), and the subjects themselves (by delaying resolution of the investigation of their conduct).

I now would like to offer my views on section 4212 of the proposed legislation.

Subsection (1)—Disclosure Of Exculpatory Material

I will start with Subsection 4212(1), which would require the Commission to promulgate a rule mandating that staff disclose "any exculpatory materials, potentially exculpatory materials, or materials helpful or potentially helpful" to a subject's defense within seven days of providing a preliminary findings letter. At the outset, I want to make sure that the Subcommittee is aware that the Commission voluntarily adopted a policy mandating disclosure of exculpatory materials more than five years ago. That policy requires enforcement staff to review all materials it receives during an investigation and to provide the subject with any materials that a criminal prosecutor would have to provide pursuant to the United States Supreme Court's decision in *Brady v. Maryland*—that is, to provide the subject with any exculpatory evidence known to the government but unknown to the subject that is "material to guilt or punishment."

The Commission adopted this policy voluntarily. Because there is no Constitutional requirement to have such a policy in a civil enforcement context, not all federal enforcement agencies have adopted policies concerning disclosure of exculpatory information. And those agencies that have adopted such "Brady" policies generally disclose information to subjects *later* in the enforcement proceedings than FERC does. Furthermore, Commission staff takes its disclosure policy seriously—it is trained on how to handle exculpatory material, conducts diligent searches for such materials, carefully

considers any supplemental requests from subjects for additional materials, and promptly elevates any issues to Office of Enforcement management. When staff identifies exculpatory material, it promptly turns over that material to the subject's counsel.

The language in subsection 4212(1) could undermine existing policy and drastically burden and delay our investigations. Most significant, the proposed language goes far beyond any traditional definition of "*Brady* material" by including the term "materials helpful or potentially helpful to the defense." That term is not defined, and it is unclear as to how staff should go about identifying such information (particularly given that the subject may not have disclosed all of its defenses at that stage), but a literal reading of that term could seriously disrupt the investigative process. As a former federal prosecutor and someone with nearly 30 years of experience in federal enforcement work in several federal agencies, I am not aware of any federal agency that operates under such a requirement. Requiring staff to identify and disclose material that could be "helpful or potentially helpful" to a subject would impose difficult and time-consuming judgments that extend well beyond what even criminal prosecutors are required to undertake.

Moreover, this obligation does not appear to be limited to factual material. The plain language appears to include non-factual material such as staff's internal analyses of the evidence and legal memoranda, and it could be read to override the well-established protections for attorney work product, attorney-client communications, and the agency's deliberative process.

Finally, the requirement to ensure disclosure by other federal agencies, state agencies, and non-governmental organizations that "assist" an investigation would be

extraordinarily difficult to administer in many of our cases. While the term "assist" is not defined, it could refer to any instance in which a third party either (1) responds to a data request or subpoena or (2) engages in any discussion with enforcement staff. If so, the proposed legislation may require Commission staff to ensure that such entities—including state regulatory agencies—search through all of their files and produce any information that could be "helpful or potentially helpful" to the subject. Presumably, staff would need to compel the third parties to conduct such searches and to provide substantial guidance regarding the types of materials that must be disclosed. This type of process, which is unprecedented in federal enforcement as far as I am aware, has the potential to cause extraordinary delay in FERC investigations and to compromise the agency's ability to effectively and efficiently resolve enforcement matters.

Subsection (2)—Access To Transcripts

Subsection 4212(2) would require the Commission to provide any entity or person subject to an investigation access within a "reasonable time" to the transcripts of sworn testimony taken during that investigation.[2] I will provide a little background before addressing the substance of this provision. Commission regulations already entitle a witness to a copy of the transcript of his testimony unless there is good cause to deny the request. Staff almost always makes such transcripts available promptly upon request, and it delays access only in the rare instance where there is a threat to the integrity of the fact-

[2] The sworn testimony that enforcement staff takes during an investigation is not considered to be a "deposition" as that term is commonly used in civil litigation. While many aspects of traditional "depositions"—such as attendance and participation by a witness's counsel—are present during FERC investigative testimony, there are other aspects that are not present. Neither FERC's rules nor the rules of other federal enforcement agencies (as far as I am aware) use the term "deposition" to describe investigative testimony.

finding process. In fact, over the past six years, we have conducted more than ninety investigations and have delayed access to transcripts in only about a dozen of those matters.

Accordingly, the issue under the Commission's existing regulations is not *whether* a witness will receive access to his or her transcript. The issue is whether staff (with management review and approval) can delay such access for a short time in certain, rare instances. This is an issue that has been litigated before the Commission, which concluded that such delayed access is appropriate in some circumstances.

The reference to "reasonable period of time" in subsection 4212(2) may simply codify in statute the Commission's existing regulations and practice. On the other hand, I would be greatly concerned if that language was meant to eliminate the good cause standard for delaying access in the few instances when it is necessary to do so.

I would also be very concerned about the language that provides that the subject would be provided access to "*any* deposition *involving* such entity or person." In many cases, such a requirement would problematic if the subsection were read to require the Commission to provide the investigative subject—and not just the witness—access to the transcripts of all testimony taken during an investigation. During the investigative stage, there is often good reason to avoid giving transcripts of testimony taken of one subject to a different and potentially-adverse subject, particularly if, for example, the witness is a whistleblower or the witness's interests are adverse to the company. It is important that individual witnesses can obtain access to their own transcripts—and, in FERC investigations, they can. But it would be harmful to the investigative process and

compromise the rights of individual witnesses to mandate that every investigative subject automatically gets a copy of all testimony, particularly while an investigation is ongoing. No other agency of which I am aware is required to take that approach, and I do not believe FERC investigations should be treated differently in this key respect.

Subsection (3)—Communications With Commissioners And Advisory Staff

Subsection 4212(3) would require that any communications between investigatory staff and the advisory staff regarding the merits of an investigation be in writing and on the record. This would be a dramatic change to existing practice and seriously undermine the Commission's ability to administer its enforcement function.

Under existing FERC regulations, policy, and practice governing the adjudicative stage—which starts when the Commission issues an Order to Show Cause—the Commissioners sit as neutral arbiters and they and the Commission staff who may advise them are walled-off from the investigative staff litigating the matter before them. During the investigative stage, by contrast, the Commission itself is responsible for directing, supervising, and setting priorities regarding the work of Enforcement staff. To perform that function properly in the enforcement context, the Commissioners and their staff need to be able to communicate freely with investigative staff on a wide range of topics, including the types of conduct staff is investigating, the progress of those investigations, the merits of potentially settling those investigations, and many other important judgment calls that arise in complex enforcement cases. All of those types of communications may be considered to fall within the phrase "regarding the merits of the investigation." Requiring that they all be in writing—without the ability to have candid back-and-forth

discussions and oral briefings—would be extraordinarily inefficient and would significantly impede the Commission's exercise of its management responsibilities. Further, requiring that such writing be "on the record" would make candid communication almost impossible—particularly given the lack of any express protections for attorney work product, attorney-client communications, or agency deliberative process in the proposed legislation.

Moreover, erecting a wall between investigative staff and advisory staff during the course of an investigation would deprive the investigative staff of the expertise of other FERC offices (and vice versa) during investigations. This would dramatically change current practice and largely isolate enforcement staff from the rest of the agency. The Commission generally considers all staff outside of the Office of Enforcement to be advisory during the adjudicative stage; therefore, if that model were extended to the investigative stage, the proposed legislation would require that all communications with Commission engineers, analysts, economists, lawyers, and other knowledgeable professionals outside the investigative team be in writing. Virtually every complex FERC investigation involves collaboration with a multi-disciplinary team. Enforcement staff relies on these experts to help analyze data and legal theories and reach thoughtful, informed conclusions about what conduct constitutes a violation, and whether such conduct is (or is not) harmful to FERC-regulated markets. Forbidding oral communications and meetings between investigative staff and the Commission's subject matter experts would seriously impede the ability of the Commission to make informed decisions about enforcement matters and enforcement policy.

Investigators have an essential interest in communicating with advisory staff (and vice-versa). I am confident that no other federal enforcement agency—whether the SEC, CFTC, FTC, or others—is subject to the types of limitations suggested in the proposed legislation. FERC should not be subject to these limitations either. This proposed rule has the potential to severely undermine the Commission's ability to carry out the core enforcement role that Congress has given it.

Subsection (4)—Communications Regarding Settlement

Subsection 4212(4) requires that investigative subjects be allowed to "communicate with the Commissioners regarding the substance of settlement consideration to the same extent as such communications occur between the Commissioners and the investigatory staff of the Commission." As noted earlier, the investigative subject's response to staff's preliminary findings is provided to the Commission for its consideration before the Commission decides whether to authorize enforcement staff to engage in settlement discussions. Moreover, subjects already have the right to submit written materials regarding settlement or any other subject directly to the Commissioners during an investigation. It is not clear what this provision is meant to address, but it fails to recognize that the attorneys in the Office of Enforcement act as *counsel to the Commission* and, as such, have an obligation to provide candid advice to the Commissioners regarding settlement considerations during the investigative stage. I believe it would be a significant mistake to interfere with Commissioners' ability to obtain such candid advice from its own attorneys at that stage by treating investigatory staff and subjects as being on the same footing (as they are during the later adjudicative

stage). And, again, no other enforcement agency of which I am aware has such substantial restrictions on the ability of staff and the heads of the agency to communicate freely.

Conclusion

Thank you for inviting me to testify today on the proposed legislation. FERC's Office of Enforcement welcomes constructive analysis of its policies and procedures and is always willing to consider changes in the way we conduct investigations. The provisions in the proposed legislation, however, would be very harmful to the investigative process and, if enacted, could significantly undermine the Commission's ability to carry out Congress's enforcement goals. I look forward to working with you in the future and am happy to answer any questions you have.

Ohio Environmental Protection Agency

John R. Kasich, Governor
Mary Taylor, Lt. Governor
Craig W. Butler, Director

Certified Mail

Re: Rover Pipeline Project
Permit - Intermediate Approval
401 Wetlands
Crawford, Seneca, Hancock, Wood, Henry, Defiance, Fulton, Ashland, Noble, Monroe, Harrison, Carroll, Tuscarawas, Stark, Wayne, Richland, Belmont, Monroe, and Jefferson Counties
DSW401154852

February 24, 2017

Buffy Thomason
Rover Pipeline LLC
1300 Main St.
Houston, TX 77002

Subject: Rover Pipeline Project
Crawford, Seneca, Hancock, Wood, Henry, Defiance, Fulton, Ashland, Noble, Monroe, Harrison, Carroll, Tuscarawas, Stark, Wayne, Richland, Belmont, Monroe, Jefferson Counties
Grant of a Section 401 Water Quality Certification
Minimal Degradation Alternative
Ohio EPA ID No. 154852

Dear Stakeholders:

I hereby authorize the above referenced project under the following authorities and it is subject to the following modifications and/or conditions:

Section 401 Water Quality Certification

Pursuant to Section 401 of the Federal Water Pollution Control Act, Public Law 95-217, I hereby certify that the above-referenced project will comply with the applicable provisions of Sections 301, 302, 303, 306, and 307 of the Federal Water Pollution Control Act. This authorization is specifically limited to a Section 401 Water Quality Certification (here after referred to as "certification") with respect to water pollution and does not relieve the Certification Holder of further Certifications or Permits as may be necessary under the law. I have determined that a lowering of water quality in the Tiffin, Lower Maumee, Cedar-Portage, Sandusky, Upper Ohio, Upper Ohio Wheeling, Little Muskingum-Middle Island, Tuscarawas, Mohican, Walhonding, and Wills watersheds

(HUC 05030106, 05030101, 05040005, 05040001, 05030201, 05040003, 05040002, 04100011, 04100010, 04100006, 04100009) as authorized by this certification is necessary. I have determined that the project meets public need for impacts to certain wetlands. I have made these determinations based upon the consideration of all public comments, if submitted, and the technical, social, and economic considerations concerning this application and its impact on waters of the state.

PART I ON-SITE WATER RESOURCES AND IMPACTS

A. Watershed Setting

The watersheds are a mix of stream classifications and primary contact water. General land use types crossed by the proposed project include: agricultural, old fields, pipeline ROW, scrub shrub, wooded uplands, wetlands, mining sites and residential lots.

B. Project Description

Rover Pipeline, LLC is proposing a new natural gas pipeline system to move natural gas from producer processing plants in the Marcellus and Utica shale areas of Ohio to interconnections with the existing pipeline system in western Ohio and Michigan. The project will include approximately 369 miles of pipeline in Ohio. Pipeline impacts within the right-of-way have been deemed temporary by the Director of Ohio EPA and will be restored onsite to pre-construction conditions. Impacts that result in a conversion of wetland from forested to non-forested will require conversion mitigation as determined by the U.S. Army Corps of Engineers and referenced in the Nationwide Permit 12 authorization.

C. Impacts

Under the Minimal Degradation Alternative, impacts to waters of the state are as follows as defined by Army Corps of Engineers Nationwide Permit 12:

Pittsburgh District:

According to the Nationwide Permit 12 issued within the Pittsburgh District Regulatory Boundary, the project will involve the temporary discharge of dredged and/or fill material into 32,810 linear feet of 256 streams and 10.60 acres of 68 wetlands, at separate and distinct locations. The discharge or dredged and/or fill material into waters of the U.S. is described in detail within tables below. As indicated in the submitted information, all temporary affected waters of the U.S. will be returned to their pre-construction conditions upon project completion.

Huntington District:

According to the Nationwide Permit 12 issued within the Huntington District Regulatory Boundary, the project will involve the temporary discharge of dredged and/or fill material into 15241.5 linear feet of 286 streams and 64.36 acres of 226 wetlands, at separate and distinct locations. The discharge or dredged and/or fill material into waters of the U.S. is described in detail within tables below. As indicated in the submitted information, all temporary affected waters of the U.S. will be returned to their pre-construction conditions upon project completion.

Buffalo District:

According to the Nationwide Permit 12 issued within the Buffalo District Regulatory Boundary, the project will involve the temporary discharge of dredged and/or fill material into 744.9 linear feet of 89 streams and 13.94 acres of 58 wetlands, at separate and distinct locations. The discharge or dredged and/or fill material into waters of the U.S. is described in detail within tables below. As indicated in the submitted information, all temporary affected waters of the U.S. will be returned to their pre-construction conditions upon project completion. The total amount of impacts appears less in this district because the Buffalo Corps District measured impacts across stream resources as opposed to the width of the stream impact.

Lakes

Lake impacts are not authorized by this certification.

1. U.S. Army Corps of Engineers – Pittsburgh District Regulatory Division

Authorized discharge of dredged and/or fill material into waters of the U.S. for LRP-2014-512

Streams Crossed by the Rover Pipeline Project in the Pittsburgh District (LRP-2014-512)

Facility	Revised MP	Waterbody ID	Waterbody Name	Subwatershed Name (HUC 8)	Flow	Crossing Method	Length Within Construction Work Area (ft)	Crossing Width (feet)
Burgettstown Lateral	16.29	S4H-JE-689	UT to Croxton Run	Upper Ohio	Perennial	Open Cut	99.46	3.5
Burgettstown Lateral	16.68	S1ES-JE-194	Croxton Run	Upper Ohio	Perennial	Open Cut	142.48	17.0
Burgettstown Lateral	16.68	S1ES-JE-193	UT to Croxton Run	Upper Ohio	Intermittent	N/A	35.38	5.0
Burgettstown Lateral	16.83	S1ES-JE-188	Righthand Fork Croxton Run	Upper Ohio	Perennial	Open Cut	130.84	8.0
Burgettstown Lateral	17.47	S4ES-JE-185	UT to Croxton Run	Upper Ohio	Ephemeral	Open Cut	195.60	4.0
Burgettstown Lateral	17.59	S4ES-JE-184	UT to Croxton Run	Upper Ohio	Intermittent	Open Cut	129.52	4.0
Burgettstown Lateral	17.81	S4ES-JE-183	Croxton Run	Upper Ohio	Perennial	Open Cut	153.59	9.0
Burgettstown Lateral	18.27	S4ES-JE-179	UT to Croxton Run	Upper Ohio	Intermittent	N/A	74.89	1.5
Burgettstown Lateral	18.28	S4ES-JE-176	UT to Croxton Run	Upper Ohio	Perennial	Open Cut	131.63	4.0
Burgettstown Lateral	18.31	S4ES-JE-175	UT to Croxton Run	Upper Ohio	Ephemeral	Open Cut	283.04	2.0
Burgettstown Lateral	18.98	S4ES-JE-174	UT to Wildcat Hollow	Upper Ohio	Perennial	Open Cut	130.80	4.0
Burgettstown Lateral	19.40	S2ES-JE-200	Wildcat Hollow	Upper Ohio	Perennial	Open Cut	128.39	7.0
Burgettstown Lateral	19.97	S2ES-JE-202	UT to Island Creek	Upper Ohio	Intermittent	Dry, if flowing	132.08	1.5
Burgettstown Lateral	20.24	S2ST-JE-112	UT to Island Creek	Upper Ohio	Perennial	Dry	110.28	3.0
Burgettstown Lateral	20.67	S2ES-JE-208	UT to Hale Run	Upper Ohio	Ephemeral	N/A	4.72	3.0
Burgettstown Lateral	20.70	S2ES-JE-207	UT to Hale Run	Upper Ohio	Intermittent	N/A	22.05	7.0
Burgettstown Lateral	20.72	S2ES-JE-205	Hale Run	Upper Ohio	Perennial	Open Cut	137.62	15.0
Burgettstown Lateral	21.46	S2TB-JE-301	UT to Shelley Run	Upper Ohio	Perennial	Open Cut	157.91	4.0
Burgettstown Lateral	21.49	S2TB-JE-302	UT to Shelley Run	Upper Ohio	Perennial	N/A	132.06	4.0
Burgettstown Lateral	21.88	S2TB-JE-304	Shelley Run	Upper Ohio	Perennial	Open Cut	150.80	15.0
Burgettstown Lateral	21.90	S2TB-JE-305	UT to Shelley Run	Upper Ohio	Intermittent	Open Cut	127.15	5.0
Burgettstown Lateral	22.47	S2TB-JE-294	UT to Shelley Run	Upper Ohio	Perennial	Open Cut	75.37	4.0
Burgettstown Lateral	22.73	S2TB-JE-296	UT to Shelley Run	Upper Ohio	Ephemeral	N/A	4.47	2.0
Burgettstown Lateral	22.74	S2TB-JE-297	UT to Shelley Run	Upper Ohio	Perennial	Open Cut	144.02	7.0
Burgettstown Lateral	22.76	S2TB-JE-299	UT to Shelley Run	Upper Ohio	Intermittent	N/A	79.20	5.0
Burgettstown Lateral	23.28	S4ES-JE-168	UT to Island Creek	Upper Ohio	Perennial	Dry	103.31	4.0
Burgettstown Lateral	23.93	S4ES-JE-173	UT to Island Creek	Upper Ohio	Perennial	Dry	158.06	2.0

Burgettstown Lateral	24.15	S2ES-JE-198	UT to Island Creek	Upper Ohio	Intermittent	Dry, if flowing	126.54	4.0
Burgettstown Lateral	24.50	S2ES-JE-196	UT to Island Creek	Upper Ohio	Intermittent	Dry, if flowing	142.53	4.0
Burgettstown Lateral	24.77	S2ES-JE-195	UT to Island Creek	Upper Ohio	Intermittent	Dry, if flowing	159.75	1.0
Burgettstown Lateral	25.18	S2TB-JE-282	UT to Island Creek	Upper Ohio	Ephemeral	Dry, if flowing	134.57	1.0
Burgettstown Lateral	25.60	S2TB-JE-287	UT to Town Fork	Upper Ohio	Perennial	Open Cut	140.39	5.0
Burgettstown Lateral	26.20	S2TB-JE-288	UT to Town Fork	Upper Ohio	Perennial	Open Cut	102.78	2.5
Burgettstown Lateral	26.21	S2TB-JE-276	UT to Town Fork	Upper Ohio	Perennial	Open Cut	106.99	4.0
Burgettstown Lateral	26.47	S2TB-JE-277	UT to Town Fork	Upper Ohio	Intermittent	Open Cut	130.35	3.0
Burgettstown Lateral	26.60	S2TB-JE-278	UT to Town Fork	Upper Ohio	Perennial	Open Cut	138.33	3.0
Burgettstown Lateral	26.86	S2TB-JE-292	UT to Town Fork	Upper Ohio	Ephemeral	Open Cut	144.23	5.0
Burgettstown Lateral	27.10	S2TB-JE-290	UT to Town Fork	Upper Ohio	Ephemeral	Open Cut	204.05	4.0
Burgettstown Lateral	27.25	S2ST-JE-108	UT to Town Fork	Upper Ohio	Perennial	Open Cut	147.87	1.5
Burgettstown Lateral	27.75	S2ST-JE-110	UT to Clay Lick	Upper Ohio	Perennial	Dry	135.07	3.0
Burgettstown Lateral	28.23	S2ST-JE-111	UT to Clay Lick	Upper Ohio	Perennial	Dry	142.08	8.0
Burgettstown Lateral	28.95	S2ST-JE-106	UT to Clay Lick	Upper Ohio	Perennial	Dry	166.56	6.0
Burgettstown Lateral	29.18	S2ST-JE-104	Clay Lick	Upper Ohio	Perennial	Dry	194.04	2.5
Burgettstown Lateral	30.01	S2ES-JE-193	UT to Grassy Run	Upper Ohio	Intermittent	Dry, if flowing	170.64	4.0
Burgettstown Lateral	30.20	S2ES-JE-192	Grassy Run	Upper Ohio	Intermittent	Dry, if flowing	130.03	4.0
Burgettstown Lateral	30.60	S2ES-JE-191	UT to Leas Branch	Upper Ohio	Perennial	Dry	141.81	4.0
Burgettstown Lateral	31.57	S2TB-JE-285	UT to Salem Creek	Upper Ohio	Perennial	Open Cut	138.22	3.0
Burgettstown Lateral	32.05	S2ST-JE-102	UT to Salem Creek	Upper Ohio	Perennial	Open Cut	176.02	3.0
Burgettstown Lateral	33.56	S4ES-JE-163	UT to Goose Creek	Upper Ohio	Intermittent	Open Cut	137.41	3.5
Burgettstown Lateral	33.74	S4ES-JE-162	UT to Goose Creek	Upper Ohio	Ephemeral	Open Cut	134.81	2.0
Burgettstown Lateral	33.85	S4ES-JE-161	UT to Goose Creek	Upper Ohio	Intermittent	Open Cut	137.74	2.0
Burgettstown Lateral	33.93	S4ES-JE-156	Goose Creek	Upper Ohio	Perennial	Open Cut	128.66	7.5
Burgettstown Lateral	33.94	S4ES-JE-157	UT to Goose Creek	Upper Ohio	Ephemeral	Open Cut	78.02	2.5
Burgettstown Lateral	33.94	S4ES-JE-155	UT to Goose Creek	Upper Ohio	Ephemeral	N/A	176.73	3.0
Burgettstown Lateral	34.28	S2ES-JE-183	UT to Goose Creek	Upper Ohio	Intermittent	Open Cut	121.87	2.0
Burgettstown Lateral	34.75	S2ES-JE-182	UT to Goose Creek	Upper Ohio	Ephemeral	Open Cut	45.74	1.5
Burgettstown Lateral	34.99	S2ES-JE-181	UT to Goose Creek	Upper Ohio	Ephemeral	Open Cut	150.55	2.0
Burgettstown Lateral	35.48	S4ES-JE-164	UT to Elk Lick	Upper Ohio	Perennial	Open Cut	143.08	5.0
Burgettstown Lateral	36.04	S2TB-CA-273	Elk Lick	Upper Ohio	Perennial	Open Cut	130.97	20.0
Burgettstown Lateral	36.07	S2TB-CA-274	UT to Elk Lick	Upper Ohio	Perennial	Open Cut	230.21	5.0
Burgettstown Lateral	36.53	S2ES-CA-159	UT to Elk Lick	Upper Ohio	Ephemeral	Open Cut	130.75	5.0
Burgettstown Lateral	36.78	S2TB-CA-232	UT to Elk Lick	Upper Ohio	Perennial	Open Cut	129.57	3.0
Burgettstown Lateral	37.36	S2TB-CA-229	UT to Elk Lick	Upper Ohio	Perennial	Open Cut	149.79	4.0

Clarington Lateral	0.58	S7H-MO-422	UT to Cat Run	Upper Ohio-Wheeling	Intermittent	N/A	122.07	3.0
Clarington Lateral	0.65	S7H-MO-421	UT to Cat Run	Upper Ohio-Wheeling	Intermittent	Open Cut	102.96	15.0
Clarington Lateral	0.75	S7H-MO-420	Cat Run	Upper Ohio-Wheeling	Perennial	Open Cut	106.13	30.0
Clarington Lateral	1.14	S7H-BE-408	UT to Cat Run	Upper Ohio-Wheeling	Intermittent	Open Cut	127.52	18.0
Clarington Lateral	2.97	S4ES-BE-204	UT to Pea Vine Creek	Upper Ohio-Wheeling	Ephemeral	Open Cut	334.76	3.5
Clarington Lateral	3.07	S4ES-BE-203	UT to Pea Vine Creek	Upper Ohio-Wheeling	Ephemeral	Open Cut	127.94	3.0
Clarington Lateral	3.42	S9H-BE-139	UT to Pea Vine Creek	Upper Ohio-Wheeling	Ephemeral	Open Cut	169.54	7.0
Clarington Lateral	3.50	S4ES-BE-201	Pea Vine Creek	Upper Ohio-Wheeling	Perennial	Open Cut	134.29	10.0
Clarington Lateral	4.27	S1ES-BE-216	UT to Pea Vine Creek	Upper Ohio-Wheeling	Intermittent	Open Cut	140.97	6.0
Clarington Lateral	4.43	S4H-BE-549	UT to Captina Creek	Upper Ohio-Wheeling	Intermittent	Dry, if flowing	134.87	1.5
Clarington Lateral	5.37	S4H-BE-506	UT to Captina Creek	Upper Ohio-Wheeling	Intermittent	Dry, if flowing	517.82	2.0
Clarington Lateral	5.59	S4H-BE-507	Captina Creek	Upper Ohio-Wheeling	Perennial	HDD	69.67	40.0
Clarington Lateral	6.26	S4H-BE-356	Rocky Fork	Upper Ohio-Wheeling	Perennial	Open Cut	139.80	12.0
Clarington Lateral	7.10	S3ES-BE-176	UT to Rocky Fork	Upper Ohio-Wheeling	Ephemeral	N/A	70.84	1.0
Clarington Lateral	7.73	S2ES-BE-205	UT to Rocky Fork	Upper Ohio-Wheeling	Ephemeral	N/A	30.78	1.0
Clarington Lateral	7.75	S2ES-BE-206	UT to Rocky Fork	Upper Ohio-Wheeling	Ephemeral	N/A	115.18	2.5
Clarington Lateral	7.94	S2ES-BE-235	UT to Rocky Fork	Upper Ohio-Wheeling	Ephemeral	N/A	76.22	2.0
Clarington Lateral	8.20	S2ES-BE-237	UT to Rocky Fork	Upper Ohio-Wheeling	Ephemeral	Open Cut	150.11	6.0
Clarington Lateral	8.37	S2ES-BE-239	UT to Rocky Fork	Upper Ohio-Wheeling	Ephemeral	Open Cut	136.73	4.0
Clarington Lateral	8.84	S6H-BE-119	UT to Rocky Fork	Upper Ohio-Wheeling	Intermittent	Open Cut	146.30	4.5
Clarington Lateral	9.27	S4H-BE-361	UT to Anderson Run	Upper Ohio-Wheeling	Intermittent	N/A	194.89	2.0

Clarington Lateral	9.29	S4H-BE-360	UT to Anderson Run	Upper Ohio-Wheeling	Intermittent	Open Cut	142.34	5.0
Clarington Lateral	9.51	S4H-BE-353	UT to Anderson Run	Upper Ohio-Wheeling	Perennial	Open Cut	137.80	4.5
Clarington Lateral	10.04	S4H-BE-351	UT to Anderson Run	Upper Ohio-Wheeling	Perennial	Open Cut	141.48	1.5
Clarington Lateral	10.05	S4H-BE-352	UT to Anderson Run	Upper Ohio-Wheeling	Perennial	N/A	16.48	3.0
Clarington Lateral	10.48	S4H-BE-350	UT to Williams Creek	Upper Ohio-Wheeling	Intermittent	Open Cut	129.22	3.5
Clarington Lateral	11.05	S2H-BE-168	Williams Creek	Upper Ohio-Wheeling	Perennial	Open Cut	126.34	20.0
Clarington Lateral	13.06	S4ES-BE-197	UT to McMahon Creek	Upper Ohio-Wheeling	Perennial	Open Cut	135.11	4.5
Clarington Lateral	13.63	S4ES-BE-198	UT to McMahon Creek	Upper Ohio-Wheeling	Ephemeral	Open Cut	156.67	3.5
Clarington Lateral	13.78	S4ES-BE-199	UT to McMahon Creek	Upper Ohio-Wheeling	Intermittent	Open Cut	144.01	2.0
Clarington Lateral	13.91	S3ES-BE-184	UT to Hutchison Run	Upper Ohio-Wheeling	Ephemeral	N/A	89.12	4.0
Clarington Lateral	14.03	S3ES-BE-183	UT to Hutchison Run	Upper Ohio-Wheeling	Ephemeral	N/A	15.46	3.0
Clarington Lateral	14.08	S3ES-BE-187	Hutchison Run	Upper Ohio-Wheeling	Perennial	Open Cut	134.23	17.0
Clarington Lateral	14.13	S3ES-BE-190	UT to Hutchison Run	Upper Ohio-Wheeling	Ephemeral	N/A	23.64	2.0
Clarington Lateral	15.11	S3ES-BE-170	McMahon Creek	Upper Ohio-Wheeling	Perennial	Open Cut	125.00	25.0
Clarington Lateral	15.38	S3ES-BE-166	UT to Brush Run	Upper Ohio-Wheeling	Perennial	Open Cut	204.15	2.0
Clarington Lateral	15.79	S7H-BE-490	UT to Brush Run	Upper Ohio-Wheeling	Intermittent	Open Cut	120.76	7.0
Clarington Lateral	15.81	S7H-BE-491	UT to Brush Run	Upper Ohio-Wheeling	Intermittent	Open Cut	232.48	12.0
Clarington Lateral	16.22	S2ES-BE-349	UT to Brush Run	Upper Ohio-Wheeling	Intermittent	Open Cut	131.20	2.0
Clarington Lateral	16.61	S3ES-BE-194	Brush Run	Upper Ohio-Wheeling	Perennial	Open Cut	138.94	8.0
Clarington Lateral	16.67	S3ES-BE-199	UT to Brush Run	Upper Ohio-Wheeling	Ephemeral	N/A	73.00	3.0
Clarington Lateral	17.10	S2ES-BE-338	UT to Brush Run	Upper Ohio-Wheeling	Intermittent	Open Cut	130.12	6.0

Clarington Lateral	17.33	S9H-BE-117	UT to Brush Run	Upper Ohio-Wheeling	Intermittent	N/A	111.37	7.0
Clarington Lateral	18.18	S7H-BE-392	UT to Brush Run	Upper Ohio-Wheeling	Ephemeral	HDD	44.47	7.0
Clarington Lateral	18.74	S7H-BE-397	UT to Wheeling Creek	Upper Ohio-Wheeling	Intermittent	Open Cut	387.52	8.0
Clarington Lateral	18.97	S7H-BE-485	UT to Wheeling Creek	Upper Ohio-Wheeling	Intermittent	Open Cut	174.73	4.5
Clarington Lateral	19.16	S2ES-BE-330	UT to Wheeling Creek	Upper Ohio-Wheeling	Ephemeral	Open Cut	150.20	1.5
Clarington Lateral	19.22	S2ES-BE-331	UT to Wheeling Creek	Upper Ohio-Wheeling	Ephemeral	Open Cut	160.50	1.5
Clarington Lateral	19.39	S3H-BE-231	UT to Wheeling Creek	Upper Ohio-Wheeling	Ephemeral	Open Cut	150.40	2.0
Clarington Lateral	19.53	S3H-BE-230	UT to Wheeling Creek	Upper Ohio-Wheeling	Perennial	Open Cut	147.90	14.0
Clarington Lateral	19.95	S4H-BE-358	UT to Wheeling Creek	Upper Ohio-Wheeling	Perennial	Open Cut	142.75	2.5
Clarington Lateral	20.44	S2ES-BE-332	UT to Wheeling Creek	Upper Ohio-Wheeling	Intermittent	Open Cut	211.99	2.3
Clarington Lateral	20.96	S4H-BE-347	Wheeling Creek	Upper Ohio-Wheeling	Perennial	Open Cut	142.86	25.0
Clarington Lateral	21.79	S4ES-BE-195	UT to Wheeling Creek	Upper Ohio-Wheeling	Perennial	Open Cut	188.12	4.0
Clarington Lateral	22.61	S3ES-BE-162	UT to Wheeling Creek	Upper Ohio-Wheeling	Ephemeral	Open Cut	317.85	0.8
Clarington Lateral	22.85	S3ES-BE-163	UT to Wheeling Creek	Upper Ohio-Wheeling	Ephemeral	Open Cut	184.56	0.8
Majorsville Lateral	12.70	S1ES-BE-175	UT to Ohio River	Upper Ohio-Wheeling	Intermittent	Open Cut	88.23	1.5
Majorsville Lateral	12.72	S1ES-BE-176	UT to Ohio River	Upper Ohio-Wheeling	Intermittent	N/A	33.24	1.0
Majorsville Lateral	13.24	S7H-BE-352	UT to Wegee Creek	Upper Ohio-Wheeling	Intermittent	Open Cut	92.53	15.0
Majorsville Lateral	13.32	S7H-BE-353	UT to Wegee Creek	Upper Ohio-Wheeling	Intermittent	Open Cut	76.04	9.5
Majorsville Lateral	14.18	S7H-BE-345	UT to Wegee Creek	Upper Ohio-Wheeling	Ephemeral	Open Cut	76.61	4.0
Majorsville Lateral	14.29	S7H-BE-330	UT to Wegee Creek	Upper Ohio-Wheeling	Ephemeral	Open Cut	76.84	4.5
Majorsville Lateral	14.33	S7H-BE-332	UT to Wegee Creek	Upper Ohio-Wheeling	Ephemeral	Open Cut	59.19	2.5

Majorsville Lateral	14.33	S7H-BE-331	UT to Wegee Creek	Upper Ohio-Wheeling	Ephemeral	Open Cut	75.63	4.5
Majorsville Lateral	14.59	S7H-BE-335	UT to Wegee Creek	Upper Ohio-Wheeling	Intermittent	Open Cut	75.47	6.5
Majorsville Lateral	14.81	S7H-BE-338	UT to Wegee Creek	Upper Ohio-Wheeling	Ephemeral	Open Cut	91.93	5.0
Majorsville Lateral	14.97	S7H-BE-341	UT to Wegee Creek	Upper Ohio-Wheeling	Ephemeral	Open Cut	78.51	5.5
Majorsville Lateral	15.03	S7H-BE-342	UT to Wegee Creek	Upper Ohio-Wheeling	Intermittent	Open Cut	81.44	4.0
Majorsville Lateral	15.36	S4H-BE-297	UT to Stone Coal Run	Upper Ohio-Wheeling	Perennial	N/A	237.22	2.5
Majorsville Lateral	15.39	S4H-BE-296	UT to Stone Coal Run	Upper Ohio-Wheeling	Perennial	Open Cut	103.68	4.5
Majorsville Lateral	15.45	S4H-BE-295	UT to Stone Coal Run	Upper Ohio-Wheeling	Intermittent	Open Cut	93.21	2.0
Majorsville Lateral	15.86	S4H-BE-294	Stone Coal Run	Upper Ohio-Wheeling	Intermittent	Open Cut	79.86	15.0
Majorsville Lateral	16.30	S1ES-BE-162	UT to Wegee Creek	Upper Ohio-Wheeling	Ephemeral	Open Cut	62.55	1.5
Majorsville Lateral	16.61	S1ES-BE-158	UT to Wegee Creek	Upper Ohio-Wheeling	Intermittent	Open Cut	90.09	8.0
Majorsville Lateral	16.64	S1ES-BE-157	UT to Wegee Creek	Upper Ohio-Wheeling	Intermittent	N/A	54.28	1.0
Majorsville Lateral	17.06	S1ES-BE-166	UT to Wegee Creek	Upper Ohio-Wheeling	Intermittent	Open Cut	99.82	5.0
Majorsville Lateral	17.06	S1ES-BE-167	UT to Wegee Creek	Upper Ohio-Wheeling	Intermittent	N/A	43.61	1.5
Majorsville Lateral	17.23	S5ES-BE-142	UT to Wegee Creek	Upper Ohio-Wheeling	Ephemeral	N/A	25.73	3.0
Majorsville Lateral	17.25	S5ES-BE-143	UT to Wegee Creek	Upper Ohio-Wheeling	Perennial	Open Cut	92.07	3.0
Majorsville Lateral	17.61	S5ES-BE-146	UT to Wegee Creek	Upper Ohio-Wheeling	Ephemeral	Open Cut	163.66	2.0
Majorsville Lateral	17.83	S4H-BE-306	UT to Wegee Creek	Upper Ohio-Wheeling	Perennial	N/A	35.21	3.0
Majorsville Lateral	17.84	S4H-BE-305	UT to Wegee Creek	Upper Ohio-Wheeling	Perennial	Open Cut	109.46	8.0
Majorsville Lateral	18.00	S4H-BE-307	UT to Wegee Creek	Upper Ohio-Wheeling	Intermittent	Open Cut	75.07	2.0
Majorsville Lateral	18.15	S4H-BE-311	UT to Wegee Creek	Upper Ohio-Wheeling	Perennial	Open Cut	84.10	5.5

Majorsville Lateral	18.66	S4H-BE-303	UT to Wegee Creek	Upper Ohio-Wheeling	Perennial	Open Cut	87.05	5.0
Majorsville Lateral	18.86	S4H-BE-313	UT to Wegee Creek	Upper Ohio-Wheeling	Perennial	Open Cut	80.50	1.5
Majorsville Lateral	19.15	S5ES-BE-160	UT to Wegee Creek	Upper Ohio-Wheeling	Intermittent	Open Cut	76.40	3.0
Majorsville Lateral	19.19	S5ES-BE-159	UT to Wegee Creek	Upper Ohio-Wheeling	Intermittent	Open Cut	88.06	3.0
Majorsville Lateral	19.38	S5ES-BE-158	UT to Wegee Creek	Upper Ohio-Wheeling	Intermittent	Open Cut	92.43	1.5
Majorsville Lateral	19.59	S5ES-BE-154	UT to Tar Run	Upper Ohio-Wheeling	Intermittent	Open Cut	85.95	2.0
Majorsville Lateral	19.60	S5ES-BE-153	UT to Tar Run	Upper Ohio-Wheeling	Ephemeral	N/A	26.61	1.0
Majorsville Lateral	19.80	S1ES-BE-170	UT to Cumberland Run	Upper Ohio-Wheeling	Ephemeral	N/A	60.56	1.5
Majorsville Lateral	20.31	S1ES-BE-171	Cumberland Run	Upper Ohio-Wheeling	Perennial	Open Cut	83.11	12.0
Majorsville Lateral	20.78	S7H-BE-449	UT to Cumberland Run	Upper Ohio-Wheeling	Ephemeral	Open Cut	79.28	7.0
Majorsville Lateral	20.97	S1ES-BE-185	UT to Cumberland Run	Upper Ohio-Wheeling	Perennial	Open Cut	79.31	8.0
Majorsville Lateral	21.62	S1ES-BE-187	UT to Williams Creek	Upper Ohio-Wheeling	Ephemeral	Open Cut	75.73	3.0
Majorsville Lateral	22.01	S7H-BE-452	UT to Williams Creek	Upper Ohio-Wheeling	Perennial	Open Cut	75.57	22.0
Majorsville Lateral	22.64	S5ES-BE-150	Williams Creek	Upper Ohio-Wheeling	Perennial	Open Cut	85.89	12.0
Majorsville Lateral	23.0	S2ES-BE-367	UT to Williams Creek	Upper Ohio-Wheeling	Intermittent	Open Cut	75.08	4.5
Majorsville Lateral	23.3	S2ES-BE-366	UT to Williams Creek	Upper Ohio-Wheeling	Ephemeral	Open Cut	79.69	2.0
Majorsville Lateral	23.48	S2ES-BE-365	UT to Williams Creek	Upper Ohio-Wheeling	Ephemeral	Open Cut	44.17	3.0
Majorsville Lateral	23.50	S2ES-BE-364	UT to Williams Creek	Upper Ohio-Wheeling	Intermittent	Open Cut	77.12	6.0
Seneca Lateral	6.98	S1TB-MO-142	UT to Sunfish Creek	Little Muskingum-Middle Island	Intermittent	Open Cut	357.44	4.0
Seneca Lateral	7.20	S3ES-MO-263	UT to Sunfish Creek	Little Muskingum-Middle Island	Ephemeral	N/A	53.55	3.0
Seneca Lateral	7.22	S3ES-MO-264	UT to Sunfish Creek	Little Muskingum-Middle Island	Ephemeral	Open Cut	106.80	4.0

Seneca Lateral	7.41	S3TB-MO-100	UT to Sunfish Creek	Little Muskingum-Middle Island	Intermittent	Open Cut	110.30	3.0
Seneca Lateral	7.71	S1TB-MO-140	UT to Sunfish Creek	Little Muskingum-Middle Island	Intermittent	Open Cut	209.48	4.0
Seneca Lateral	8.10	S1TB-MO-139	UT to Sunfish Creek	Little Muskingum-Middle Island	Intermittent	Open Cut	144.30	4.0
Seneca Lateral	8.25	S1TB-MO-138	UT to Sunfish Creek	Little Muskingum-Middle Island	Perennial	Open Cut	215.10	3.0
Seneca Lateral	8.38	S1TB-MO-136	UT to Sunfish Creek	Little Muskingum-Middle Island	Intermittent	Open Cut	167.24	4.0
Seneca Lateral	8.58	S1TB-MO-144	UT to Sunfish Creek	Little Muskingum-Middle Island	Ephemeral	N/A	195.95	7.0
Seneca Lateral	8.80	S1TB-MO-145	UT to Sunfish Creek	Little Muskingum-Middle Island	Ephemeral	Open Cut	167.49	3.0
Seneca Lateral	8.86	S3H-MO-233	UT to Sunfish Creek	Little Muskingum-Middle Island	Ephemeral	N/A	78.20	1.5
Seneca Lateral	9.10	S2TB-MO-119	UT to Wheeler Run	Little Muskingum-Middle Island	Intermittent	Open Cut	106.51	3.0
Seneca Lateral	9.32	S2TB-MO-122	Wheeler Run	Little Muskingum-Middle Island	Perennial	Open Cut	147.43	20.0
Seneca Lateral	9.53	S7H-MO-210	UT to Wheeler Run	Little Muskingum-Middle Island	Intermittent	Open Cut	155.32	12.0
Seneca Lateral	9.88	S2TB-MO-117	UT to Wheeler Run	Little Muskingum-Middle Island	Perennial	Open Cut	143.79	7.0
Seneca Lateral	10.03	S2TB-MO-115	UT to Wheeler Run	Little Muskingum-Middle Island	Intermittent	Open Cut	176.43	4.0
Seneca Lateral	10.23	S2TB-MO-111	UT to Wheeler Run	Little Muskingum-Middle Island	Intermittent	N/A	32.56	3.0
Seneca Lateral	10.42	S7H-MO-257	UT to Wheeler Run	Little Muskingum-Middle Island	Intermittent	Open Cut	178.74	8.0
Seneca Lateral	10.57	S7H-MO-258	UT to Wheeler Run	Little Muskingum-Middle Island	Intermittent	Open Cut	127.08	15.0
Seneca Lateral	10.75	S4H-MO-204	UT to Wheeler Run	Little Muskingum-Middle Island	Intermittent	Open Cut	147.91	2.5
Seneca Lateral	10.86	S4H-MO-205	UT to Wheeler Run	Little Muskingum-Middle Island	Intermittent	Open Cut	132.35	1.5
Seneca Lateral	10.96	S4H-MO-207	UT to Wheeler Run	Little Muskingum-Middle Island	Intermittent	Open Cut	138.10	4.0
Seneca Lateral	11.02	S4H-MO-208	UT to Wheeler Run	Little Muskingum-Middle Island	Intermittent	N/A	84.20	3.0
Seneca Lateral	11.89	S1TB-MO-160	UT to Sunfish Creek	Little Muskingum-Middle Island	Intermittent	Open Cut	135.44	5.0

Seneca Lateral	12.34	S2ES-MO-272	UT to Baker Fork	Little Muskingum-Middle Island	Ephemeral	Open Cut	116.29	6.0
Seneca Lateral	12.42	S2ES-MO-271	UT to Baker Fork	Little Muskingum-Middle Island	Ephemeral	N/A	50.13	2.0
Seneca Lateral	12.57	S3TB-MO-106	Baker Fork	Little Muskingum-Middle Island	Perennial	Open Cut	125.16	30.0
Seneca Lateral	12.66	S2ES-MO-274	UT to Baker Fork	Little Muskingum-Middle Island	Ephemeral	N/A	118.66	3.0
Seneca Lateral	12.86	S3TB-MO-105	UT to Baker Fork	Little Muskingum-Middle Island	Intermittent	Open Cut	130.88	3.0
Seneca Lateral	13.08	S3TB-MO-104	Grassy Creek	Little Muskingum-Middle Island	Perennial	Open Cut	141.57	10.0
Seneca Lateral	13.56	S3TB-MO-103	UT to Death Creek	Little Muskingum-Middle Island	Intermittent	Open Cut	132.35	6.0
Seneca Lateral	13.90	S2TB-MO-128	Death Creek	Little Muskingum-Middle Island	Perennial	Open Cut	115.36	12.0
Seneca Lateral	14.18	S2TB-MO-125	UT to Death Creek	Little Muskingum-Middle Island	Intermittent	Open Cut	245.66	6.0
Seneca Lateral	14.26	S2TB-MO-124	UT to Death Creek	Little Muskingum-Middle Island	Ephemeral	Open Cut	178.49	2.0
Seneca Lateral	14.50	S1TB-MO-156	UT to Sunfish Creek	Little Muskingum-Middle Island	Intermittent	Open Cut	186.21	4.0
Seneca Lateral	14.64	S1TB-MO-158	UT to Sunfish Creek	Little Muskingum-Middle Island	Intermittent	Open Cut	128.02	5.0
Seneca Lateral	14.87	S1TB-MO-155	UT to Sunfish Creek	Little Muskingum-Middle Island	Intermittent	Open Cut	157.56	4.0
Seneca Lateral	15.19	S1TB-MO-152	UT to Piney Fork	Little Muskingum-Middle Island	Intermittent	Open Cut	124.33	2.0
Seneca Lateral	15.34	S1TB-MO-149	UT to Piney Fork	Little Muskingum-Middle Island	Ephemeral	Open Cut	142.52	3.0
Seneca Lateral	15.48	S1TB-MO-148	UT to Piney Fork	Little Muskingum-Middle Island	Ephemeral	Open Cut	142.30	2.0
Seneca Lateral	15.85	S1TB-MO-146	Piney Fork	Little Muskingum-Middle Island	Perennial	Open Cut	123.38	40.0
Seneca Lateral	16.18	S7H-MO-260	UT to Piney Fork	Little Muskingum-Middle Island	Intermittent	Open Cut	126.38	18.0
Seneca Lateral	16.50	S2TB-MO-132	UT to Piney Fork	Little Muskingum-Middle Island	Ephemeral	N/A	65.47	2.0
Seneca Lateral	16.60	S2TB-MO-134	UT to Piney Fork	Little Muskingum-Middle Island	Intermittent	Open Cut	137.24	2.0
Seneca Lateral	17.25	S1TB-MO-163	UT to East Fork	Little Muskingum-Middle Island	Intermittent	Open Cut	220.34	8.0

Seneca Lateral	17.43	S4H-MO-290	UT to East Fork	Little Muskingum-Middle Island	Intermittent	Open Cut	130.67	2.0
Seneca Lateral	17.70	S4H-MO-289	UT to East Fork	Little Muskingum-Middle Island	Intermittent	Open Cut	158.18	6.0
Seneca Lateral	17.84	S2TB-MO-174	East Fork	Little Muskingum-Middle Island	Perennial	Open Cut	127.36	15.0
Seneca Lateral	18.70	S3H-MO-273	UT to Sunfish Creek	Little Muskingum-Middle Island	Intermittent	Open Cut	141.24	3.0
Seneca Lateral	18.73	S3H-MO-271	UT to Sunfish Creek	Little Muskingum-Middle Island	Ephemeral	N/A	72.45	2.0
Seneca Lateral	19.40	S2TB-MO-135	UT to Ackerson Run	Little Muskingum-Middle Island	Intermittent	N/A	29.33	10.0
Seneca Lateral	19.79	S2TB-MO-136	Ackerson Run	Little Muskingum-Middle Island	Perennial	Open Cut	133.69	15.0
Seneca Lateral	20.36	S2TB-MO-138	UT to Ackerson Run	Little Muskingum-Middle Island	Intermittent	Open Cut	194.11	2.0
Seneca Lateral	20.87	S2TB-MO-142	UT to Paine Run	Little Muskingum-Middle Island	Intermittent	Open Cut	196.15	8.0
Seneca Lateral	21.23	S2TB-MO-144	Paine Run	Little Muskingum-Middle Island	Perennial	Open Cut	131.12	6.0
Seneca Lateral	21.49	S2TB-MO-146	UT to Paine Run	Little Muskingum-Middle Island	Intermittent	Open Cut	205.02	4.0
Seneca Lateral	22.11	S7H-MO-447	UT to Paine Run	Little Muskingum-Middle Island	Ephemeral	N/A	30.63	3.0
Seneca Lateral	22.21	S7H-MO-446	UT to Paine Run	Little Muskingum-Middle Island	Ephemeral	Open Cut	125.22	4.0
Seneca Lateral	22.51	S2TB-MO-148	UT to Paine Run	Little Muskingum-Middle Island	Perennial	Open Cut	155.18	6.0
Seneca Lateral	22.89	S2TB-MO-150	UT to Paine Run	Little Muskingum-Middle Island	Intermittent	Open Cut	149.33	8.0
Seneca Lateral	23.38	S2TB-MO-169	Salem Run	Little Muskingum-Middle Island	Intermittent	Open Cut	138.19	1.0
Seneca Lateral	23.69	S2TB-MO-166	UT to Cat Run	Upper Ohio-Wheeling	Intermittent	Open Cut	226.47	3.0
Seneca Lateral	23.93	S2TB-MO-164	UT to Cat Run	Upper Ohio-Wheeling	Perennial	Open Cut	115.16	3.0
Seneca Lateral	23.97	S2H-MO-246	UT to Cat Run	Upper Ohio-Wheeling	Intermittent	N/A	296.14	3.0
Seneca Lateral	24.24	S2TB-MO-161	UT to Cat Run	Upper Ohio-Wheeling	Perennial	Open Cut	91.63	4.0
Seneca Lateral	24.65	S2TB-MO-156	Big Run	Upper Ohio-Wheeling	Intermittent	Open Cut	159.58	2

Seneca Lateral	25.13	S2TB-MO-160	Big Run	Upper Ohio-Wheeling	Perennial	Open Cut	180.29	3.0
Seneca Lateral	25.26	S2TB-MO-159	UT to Big Run	Upper Ohio-Wheeling	Intermittent	Open Cut	170.89	1.5
Seneca Lateral	25.49	S2TB-MO-158	UT to Big Run	Upper Ohio-Wheeling	Intermittent	Open Cut	232.32	3.0
Seneca Lateral	25.56	S7H-MO-444	UT to Big Run	Upper Ohio-Wheeling	Ephemeral	Open Cut	101.88	8.0
Seneca Lateral	25.80	S2H-MO-193	UT to Cat Run	Upper Ohio-Wheeling	Ephemeral	N/A	18.32	0.5
Seneca Lateral	26.13	S7H-MO-417	UT to Cat Run	Upper Ohio-Wheeling	Ephemeral	Open Cut	150.20	6.5
Sherwood Lateral	37.5	S2H-MO-243	UT to Opossum Creek	Little Muskingum-Middle Island	Ephemeral	N/A	45.77	2.5
Sherwood Lateral	37.72	S2H-MO-241	UT to Opossum Creek	Little Muskingum-Middle Island	Ephemeral	Open Cut	123.61	1
Sherwood Lateral	38.89	S4H-MO-278	UT to Opossum Creek	Little Muskingum-Middle Island	Intermittent	Open Cut	143.95	3.0
Sherwood Lateral	39.10	S4H-MO-277	Opossum Creek	Little Muskingum-Middle Island	Perennial	Open Cut	84.38	3.5
Sherwood Lateral	39.60	S7H-MO-295	UT to Opossum Creek	Little Muskingum-Middle Island	Intermittent	Open Cut	132.68	4.5
Sherwood Lateral	39.84	S7H-MO-297	UT to Opossum Creek	Little Muskingum-Middle Island	Ephemeral	Open Cut	108.34	4.5
Sherwood Lateral	39.86	S7H-MO-296	UT to Opossum Creek	Little Muskingum-Middle Island	Intermittent	Open Cut	150.96	9.0
Sherwood Lateral	40.38	S1ES-MO-151	UT to Oliver Run	Little Muskingum-Middle Island	Ephemeral	N/A	91.64	2.0
Sherwood Lateral	40.38	S1ES-MO-152	Oliver Run	Little Muskingum-Middle Island	Intermittent	Open Cut	151.03	11.0
Sherwood Lateral	40.88	S5ES-MO-140	UT to Oliver Run	Little Muskingum-Middle Island	Intermittent	Open Cut	127.35	4.0
Sherwood Lateral	48.60	S2TB-MO-217	UT to Sunfish Creek	Little Muskingum-Middle Island	Intermittent	Open Cut	72.43	2.0
Sherwood Lateral	48.78	S2TB-MO-225	UT to Sunfish Creek	Little Muskingum-Middle Island	Ephemeral	Open Cut	97.96	4.0
Sherwood Lateral	49.22	S4H-MO-270	UT to Sunfish Creek	Little Muskingum-Middle Island	Perennial	Open Cut	157.39	6.0
Sherwood Lateral	49.96	S4H-MO-551	UT to Sunfish Creek	Little Muskingum-Middle Island	Ephemeral	Open Cut	92.65	1.0
Sherwood Lateral	50.27	S7H-MO-286	Sunfish Creek	Little Muskingum-Middle Island	Perennial	Open Cut	138.53	61.0

Sherwood Lateral	50.27	S7H-MO-287	UT to Sunfish Creek	Little Muskingum-Middle Island	Intermittent	Open Cut	43.57	22.0
Sherwood Lateral	51.63	S2TB-MO-201	UT to Piney Fork	Little Muskingum-Middle Island	Intermittent	Open Cut	155.11	3.0
Sherwood Lateral	51.72	S2TB-MO-202	UT to Piney Fork	Little Muskingum-Middle Island	Ephemeral	Open Cut	161.76	1.0
Sherwood Lateral	52.71	S2TB-MO-210	Piney Fork	Little Muskingum-Middle Island	Perennial	Open Cut	126.26	25.0
Sherwood Lateral	53.74	S9H-MO-137	UT to Piney Fork	Little Muskingum-Middle Island	Intermittent	N/A	74.47	6.0
Sherwood Lateral	53.75	S9H-MO-134	UT to Piney Fork	Little Muskingum-Middle Island	Intermittent	Open Cut	170.23	6.5
Burgettstown Lateral	15.47	S-Ohio River 3	Ohio River	Upper Ohio	Perennial	HDD	N/A	1127.0
Majorsville Lateral	12.10	S-Ohio River 2	Ohio River	Upper Ohio-Wheeling	Perennial	HDD	1321.6	1321.6

Wetlands Crossed by the Rover Pipeline Project in the Pittsburgh District (LRP-2014-512)

Pipeline Segment	Revised MP	Watershed (HUC8)	Wetland Resource ID	Crossing Method	Acres Affected During Construction (Temporary)	Acres Affected During Operation	ORAM Category
Burgettstown Lateral	22.48	05030101, Upper OH	W2TB-JE-295	Open Cut	0.101	0.04	2
Burgettstown Lateral	22.74	05030101, Upper OH	W2TB-JE-298	Open Cut	0.107	0.021	2
Burgettstown Lateral	23.27	05030101, Upper OH	W4ES-JE-167	Open Cut	0.133	0	2
Burgettstown Lateral	23.63	05030101, Upper OH	W4ES-JE-172	Open Cut	0.039	0	2
Burgettstown Lateral	25.18	05030101, Upper OH	W2TB-JE-281	Open Cut	0.131	0	2
Burgettstown Lateral	26.21	05030101, Upper OH	W2TB-JE-289	Open Cut	0.125	0	3
Burgettstown Lateral	27.37	05030101, Upper OH	W2ST-JE-109	Open Cut	0.034	0.009	2
Burgettstown Lateral	29.17	05030101, Upper OH	W2ST-JE-105	Open Cut	0.092	0	2
Burgettstown Lateral	30.89	05030101, Upper OH	W2ES-JE-190	Open Cut	0.342	0.103	2
Burgettstown Lateral	31.56	05030101, Upper OH	W2TB-JE-286	Open Cut	0.367	0	2

Burgettstown Lateral	33.02	05030101, Upper OH	W2ST-JE-103	Open Cut	0.088	0	1
Burgettstown Lateral	33.89	05030101, Upper OH	W4ES-JE-160	Open Cut	1.087	0.338	3
Burgettstown Lateral	33.94	05030101, Upper OH	W4ES-JE-153	Open Cut	0.14	0	1
Burgettstown Lateral	34.29	05030101, Upper OH	W2ES-JE-184	Open Cut	0.172	0	1
Burgettstown Lateral	36.77	05030101, Upper OH	W2TB-CA-231	Open Cut	0.124	0	2
Clarington Lateral	0.43	05030106, Upper OH-Wheeling	W7H-MO-406	Open Cut	0.431	0	2
Clarington Lateral	3.22	05030106, Upper OH-Wheeling	W9H-BE-141	Open Cut	0.078	0	2
Clarington Lateral	5.83	05030106, Upper OH-Wheeling	W1ES-BE-263	N/A	0.56	0	2
Clarington Lateral	5.93	05030106, Upper OH-Wheeling	W1ES-BE-260	Open Cut	0.496	0	2
Clarington Lateral	16.94	05030106, Upper OH-Wheeling	W2ES-BE-335	Open Cut	0.145	0	1
Clarington Lateral	17.58	05030106, Upper OH-Wheeling	W1ES-BE-208	Open Cut	0.051	0	1
Clarington Lateral	17.62	05030106, Upper OH-Wheeling	W1ES-BE-209	Open Cut	0.324	0	1
Clarington Lateral	18.85	05030106, Upper OH-Wheeling	W7H-BE-401	Open Cut	0.395	0	2
Clarington Lateral	19.95	05030106, Upper OH-Wheeling	W4H-BE-357	Open Cut	0.244	0.089	2
Clarington Lateral	20.40	05030106, Upper OH-Wheeling	W2ES-BE-333	N/A	0.001	0	1
Clarington Lateral	21.78	05030106, Upper OH-Wheeling	W4ES-BE-196	Open Cut	0.101	0	2
Clarington Lateral	22.84	05030106, Upper OH-Wheeling	W3ES-BE-164	Open Cut	0.022	0	1
Clarington Lateral	22.85	05030106, Upper OH-Wheeling	W3ES-BE-165	Open Cut	0.018	0	1
Clarington Lateral	23.51	05030106, Upper OH-Wheeling	W2ES-BE-341	Open Cut	0.05	0	1
Clarington Lateral	23.65	05030106, Upper OH-Wheeling	W2ES-BE-342	Open Cut	0.053	0	1
Clarington Lateral	25.09	05030106, Upper OH-Wheeling	W1ES-BE-201	Open Cut	0.362	0	2
Clarington Lateral	25.80	05030106, Upper OH-Wheeling	W7H-HA-391	N/A	0.021	0	1
Clarington Lateral	25.80	05030106, Upper OH-Wheeling	W2H-MO-192	Open Cut	0.061	0	1
Clarington Lateral	25.88	05030106, Upper OH-Wheeling	W2H-MO-191	Open Cut	0.014	0	1
Clarington Lateral	25.91	05030106, Upper OH-Wheeling	W2H-MO-190	N/A	0.007	0	1
Clarington Lateral	26.16	05030106, Upper OH-Wheeling	W1ES-HA-258	N/A	0.002	0	2
Clarington Lateral	26.71	05030106, Upper OH-Wheeling	W3H-HA-254	Open Cut	0.070	0	2

Clarington Lateral	26.71	05030106, Upper OH-Wheeling	W3H-HA-255	Open Cut	0.071	0.011	2
Clarington Lateral	27.15	05030106, Upper OH-Wheeling	W3H-HA-258	Open Cut	0.076	0.031	1
Majorsville Lateral	14.18	05030106, Upper OH-Wheeling	W7H-BE-346	N/A	0.013	0	2
Majorsville Lateral	17.25	05030106, Upper OH-Wheeling	W5ES-BE-145	N/A	0.02	0	2
Majorsville Lateral	18.86	05030106, Upper OH-Wheeling	W4H-BE-312	Open Cut	0.168	0	2
Majorsville Lateral	19.39	05030106, Upper OH-Wheeling	W5ES-BE-157	Open Cut	0.023	0	1
Majorsville Lateral	19.56	05030106, Upper OH-Wheeling	W5ES-BE-156	N/A	0.018	0	2
Majorsville Lateral	23.00	05030106, Upper OH-Wheeling	W2ES-BE-370	Open Cut	0.068	0	1
Seneca Lateral	6.98	05030201, Little Muskingum-Middle Island	W3ES-MO-261	Open Cut	0.663	0	1
Seneca Lateral	8.25	05030201, Little Muskingum-Middle Island	W1TB-MO-137	Open Cut	0.684	0	1
Seneca Lateral	8.87	05030201, Little Muskingum-Middle Island	W3H-MO-234	Open Cut	0.163	0	1
Seneca Lateral	9.22	05030201, Little Muskingum-Middle Island	W2TB-MO-120	Open Cut	0.144	0	2
Seneca Lateral	10.05	05030201, Little Muskingum-Middle Island	W2TB-MO-114	N/A	0.038	0	2
Seneca Lateral	10.22	05030201, Little Muskingum-Middle Island	W2TB-MO-112	Open Cut	0.063	0	2
Seneca Lateral	11.52	05030201, Little Muskingum-Middle Island	W4H-MO-209	N/A	0.026	0	2
Seneca Lateral	11.69	05030201, Little Muskingum-Middle Island	W4H-MO-210	Open Cut	0.248	0	2
Seneca Lateral	11.74	05030201, Little Muskingum-Middle Island	W1TB-MO-159	N/A	0.069	0	1
Seneca Lateral	15.18	05030201, Little Muskingum-Middle Island	W1TB-MO-151	Open Cut	0.313	0	2
Seneca Lateral	16.49	05030201, Little Muskingum-Middle Island	W2TB-MO-133	N/A	0.034	0	2
Seneca Lateral	18.01	05030201, Little Muskingum-Middle Island	W2TB-MO-173	Open Cut	0.062	0	2
Seneca Lateral	18.35	05030201, Little Muskingum-Middle Island	W3H-MO-268	Open Cut	0.129	0	1
Seneca Lateral	18.81	05030201, Little Muskingum-Middle Island	W3H-MO-272	Open Cut	0.046	0	1
Seneca Lateral	20.21	05030201, Little Muskingum-Middle Island	W2TB-MO-140	Open Cut	0.026	0.003	2

Seneca Lateral	24.17	05030106, Upper OH-Wheeling	W2H-MO-245	Open Cut	0.026	0	1
Seneca Lateral	24.23	05030106, Upper OH-Wheeling	W2H-MO-244	Open Cut	0.042	0	1
Sherwood Lateral	39.14	05030201, Little Muskingum-Middle Island	W4H-MO-276	Open Cut	0.297	0.097	2
Sherwood Lateral	49.23	05030201, Little Muskingum-Middle Island	W4H-MO-271	Open Cut	0.012	0	2
Sherwood Lateral	51.26	05030201, Little Muskingum-Middle Island	W2TB-MO-196	Open Cut	0.166	0	2
Sherwood Lateral	51.36	05030201, Little Muskingum-Middle Island	W2TB-MO-198	Open Cut	0.074	0	2

2. U.S. Army Corps of Engineers – Huntington District Regulatory Division

Authorized discharge of dredged and/or fill material into waters of the U.S. for LRH-2014-00804

Waterbodies and Wetlands Crossed by the Rover Pipeline Project in the Huntington District (LHR-2014-00804)

Mile Post	Line Segment	Aquatic Resource ID	Latitude	Longitude	Flow Regime or Cowardin Class	Utility Line Crossing Method	Temporary Fill Length of Stream Crossing (lf)	Temporary Fill Area of Wetland Crossing (ac)	Temporary Corridor Wetland Area (ac)	Permanent Corridor Wetland Area (ac)	Regulated Discharge Activity
0.11	Berne	S4H-MO-650	39.770763	81.291347	PER	Open Cut	43	-	-	-	Backfill of trench line
0.49	Berne	W4H-MO-652	39.772661	81.297685	PSS	Open Cut	-	0.012	0.012	0.008	
0.5	Berne	S4H-MO-651	39.772747	81.29794	PER	Open Cut	43	-	-	-	Backfill of trench line
0.5	Berne	W4H-MO-653	39.773009	81.297634	PSS	Open Cut	-	0.042	0.042	0.02	
1.34	Berne	S9H-MO-123	39.782838	81.305564	PER	Open Cut	43	-	-	-	Backfill of trench line

1.76	Berne	S9H-MO-119	39.788136	81.308398	EPH	Open Cut	43	-	-	-	Backfill of trench line
1.83	Berne	S3ES-MO-239	39.789193	81.30906	PER	Open Cut	43	-	-	-	Backfill of trench line
						No Utility Crossing					Temporary Construction Activities
1.88	Berne	W3ES-MO-241	39.789801	81.309375	PEM		-	0.002	0.002	0	
1.95	Berne	S3ES-MO-236	39.790609	81.310142	EPH	Open Cut	43	-	-	-	Backfill of trench line
2.47	Berne	S3ES-MO-223	39.796649	81.315169	EPH	Open Cut	43	-	-	-	Backfill of trench line
2.69	Berne	S7H-NO-434	39.798326	81.318545	INT	Open Cut	43	-	-	-	Backfill of trench line
0.08	Berne/Seneca	W7H-NO-453	39.807325	81.340067	PEM	Open Cut	-	0.024	0.024	0.016	Backfill of trench line
2.95	Berne/Seneca	S1TB-NO-123	39.801061	81.321247	INT	Open Cut	64	-	-	-	Backfill of trench line
3.18	Berne/Seneca	S1TB-NO-122	39.801989	81.325839	PER	Open Cut	64	-	-	-	Backfill of trench line
3.37	Berne/Seneca	S1TB-NO-120	39.802274	81.328185	PER	Open Cut	64	-	-	-	Backfill of trench line
0.78	Berne/Seneca	W7H-NO-424	39.802813	81.330589	PEM	Open Cut	-	0.348	0.348	0.197	Backfill of trench line

3.43	Berne/Seneca	W7H-NO-425	39.802425	81.330073	PEM	No Utility Crossing	-	0.019	0.019	0	Temporary Construction Activities
3.81	Berne/Seneca	S2H-NO-169	39.805181	81.335923	INT	Open Cut	64	-	-	-	
3.86	Berne/Seneca	S4H-NO-292	39.805477	81.336867	INT	Open Cut	64	-	-	-	Backfill of trench line
3.94	Berne/Seneca	S4H-NO-291	39.805858	81.337833	PER	Open Cut	64	-	-	-	
37.89	Burgettstown	S2ES-CA-158	40.442541	80.981807	INT	Open Cut	44	-	-	-	Backfill of trench line
38.09	Burgettstown	S2ES-CA-157	40.443254	80.985338	INT	Open Cut	44	-	-	-	Backfill of trench line
38.1	Burgettstown	S2ES-CA-156	40.443318	80.985448	EPH	Open Cut	44	-	-	-	
38.38	Burgettstown	W2ES-CA-154	40.44396	80.990703	PSS	Open Cut	-	0.112	0.112	0.032	Backfill of trench line
38.38	Burgettstown	S2ES-CA-155	40.443943	80.99073	INT	Open Cut	44	-	-	-	
38.7	Burgettstown	S4ES-CA-123	40.444174	80.996756	EPH	Open Cut	44	-	-	-	Backfill of trench line
38.85	Burgettstown	W4ES-CA-120	40.444173	80.99961	PSS	Open Cut	-	0.356	0.356	0.119	Backfill of trench line
39.67	Burgettstown	S4ES-CA-116	40.442208	81.014814	EPH	Open Cut	44	-	-	-	Backfill of trench line
39.7	Burgettstown	S2TB-CA-241	40.442556	81.01534	PER	Open Cut	44	-	-	-	Backfill of trench line
40.47	Burgettstown	S2TB-CA-237	40.442195	81.030095	PER	Open Cut	44	-	-	-	Backfill of trench line
40.72	Burgettstown	S2TB-CA-236	40.442193	81.034635	PER	Open Cut	44	-	-	-	Backfill of trench line

40.88	Burgettstown	S2TB-CA-234	40.442071	81.036282	PER	Open Cut	44	-	-	-	
41.83	Burgettstown	S2ES-CA-220	40.441312	81.055327	PER	Open Cut	44	-	-	-	Backfill of trench line
42.16	Burgettstown	S2TB-CA-264	40.441688	81.061823	PER	Open Cut	44	-	-	-	Backfill of trench line
42.48	Burgettstown	S2TB-CA-261	40.442147	81.067847	PER	Open Cut	44	-	-	-	Backfill of trench line
43.36	Burgettstown	S2TB-CA-266	40.442527	81.082836	PER	Open Cut	44	-	-	-	Backfill of trench line
43.4	Burgettstown	S2ES-CA-209	40.442539	81.083358	INT	Open Cut	44	-	-	-	
43.71	Burgettstown	S2TB-CA-244	40.44216	81.089419	PER	Open Cut	44	-	-	-	Backfill of trench line
44.29	Burgettstown	S2TB-CA-247	40.442903	81.099515	PER	Open Cut	44	-	-	-	Backfill of trench line
44.82	Burgettstown	S2ES-CA-163	40.444263	81.108945	INT	Open Cut	44	-	-	-	Backfill of trench line
44.82	Burgettstown	W2ES-CA-162	40.444038	81.109563	PEM	Open Cut	-	0.164	0.164	0.032	
44.89	Burgettstown	S2ES-CA-161	40.443933	81.109038	INT	Open Cut	44	-	-	-	Backfill of trench line
44.93	Burgettstown	S2ES-CA-160	40.444083	81.111319	INT	Open Cut	44	-	-	-	Backfill of trench line
45.2	Burgettstown	W2ES-CA-177	40.443845	81.116349	PEM	Open Cut	-	0.13	0.13	0.04	Backfill of trench line
45.2	Burgettstown	S2ES-CA-173	40.44414	81.116275	INT	Open Cut	44	-	-	-	
45.21	Burgettstown	S2ES-CA-176	40.443549	81.116208	INT	Open Cut	44	-	-	-	

45.49	Burgettstown	W2ES-CA-179	40.442351	81.121122	PEM	Open Cut	-	0.223	0.223	0.061	Backfill of trench line
45.49		S2ES-CA-178	40.442482	81.121261	PER	Open Cut	44	-	-	-	
45.85	Burgettstown	W2ES-CA-171	40.442629	81.128042	PEM	Open Cut	-	0.126	0.126	0.032	Backfill of trench line
45.86	Burgettstown	S2ES-CA-169	40.442285	81.127888	PER	Open Cut	44	-	-	-	
46.24	Burgettstown	S2ES-CA-168	40.443065	81.135062	EPH	Open Cut	44	-	-	-	
46.26	Burgettstown	W2ES-CA-166	40.443251	81.135424	PEM	Open Cut	-	0.06	0.06	0.017	Backfill of trench line
46.26	Burgettstown	S2ES-CA-167	40.442894	81.135507	PER	Open Cut	44	-	-	-	
46.56	Burgettstown	S2ES-CA-275	40.44398	81.14079	PER	Open Cut	44	-	-	-	Backfill of trench line
46.91	Burgettstown	S4ES-CA-147	40.446944	81.14615	INT	Open Cut	44	-	-	-	
46.95	Burgettstown	W4ES-CA-151	40.447065	81.146777	PEM	Open Cut	-	0.023	0.023	0.014	Backfill of trench line
46.95	Burgettstown	S4ES-CA-149	40.447115	81.146781	INT	Open Cut	44	-	-	-	
47.13	Burgettstown	S4ES-CA-152	40.446947	81.150085	INT	Open Cut	44	-	-	-	Backfill of trench line
47.41	Burgettstown	S2ES-CA-217	40.447497	81.155333	EPH	Open Cut	44	-	-	-	Backfill of trench line
47.41	Burgettstown	S2ES-CA-214	40.447187	81.155397	INT	Open Cut	44	-	-	-	
47.7	Burgettstown	W4ES-CA-134	40.447601	81.160781	PEM	Open Cut	-	0.095	0.095	0.033	Backfill of trench line
47.7	Burgettstown	S4ES-CA-133	40.447321	81.160819	INT	Open Cut	44	-	-	-	

47.98	Burgettstown	S4ES-CA-136	40.447734	81.166087	EPH	Open Cut	44	-	-	-	Backfill of trench line
48.26	Burgettstown	S4ES-CA-138	40.447724	81.170953	INT	Open Cut	44	-	-	-	Backfill of trench line
48.42	Burgettstown	S4ES-CA-140	40.448464	81.173967	INT	Open Cut	44	-	-	-	Backfill of trench line
48.87	Burgettstown	W4ES-CA-146	40.447705	81.18256	PEM	Open Cut	-	0.022	0.022	0.008	Backfill of trench line
48.87	Burgettstown	S4ES-CA-141	40.448194	81.182487	INT	Open Cut	44	-	-	-	
49.45	Burgettstown	W2ES-CA-165	40.444998	81.192257	PSS	Open Cut	-	2.887	2.887	0.647	Backfill of trench line
49.63	Burgettstown	S2ES-CA-185	40.444221	81.19622	PER	Open Cut	44	-	-	-	Backfill of trench line
50.16	Burgettstown	S2ES-CA-186	40.445801	81.205516	INT	Open Cut	44	-	-	-	
50.29	Burgettstown	W2ES-CA-188	40.446342	81.207725	PEM	Open Cut	-	0.069	0.069	0.014	Backfill of trench line
50.29	Burgettstown	S2ES-CA-189	40.446169	81.207919	INT	Open Cut	44	-	-	-	
50.62	Burgettstown	S2TB-CA-998	40.445894	81.214538	PER	Open Cut	44	-	-	-	Backfill of trench line
50.63	Burgettstown	W2TB-CA-256	40.446085	81.214394	PSS	Open Cut	-	0.513	0.513	0.16	
						No Utility Crossing					Temporary Construction Activities
50.86	Burgettstown	W2TB-CA-254	40.446174	81.220191	PSS		-	0.008	0.008	0	
50.91	Burgettstown	S4H-CA-564	40.446704	81.219298	INT	Open Cut	44	-	-	-	Backfill of trench line

51.29	Burgettstown	S4H-CA-567	40.448152	81.225055	INT	Open Cut	44	-	-	-	Backfill of trench line
0.16	Cadiz Lateral	W1ES-HA-243	40.253198	81.0292	PEM	Open Cut	-	0.042	0.042	0.009	Backfill of trench line
						No Utility Crossing					Temporary Construction Activities
0.44	Cadiz Lateral	W2ES-HA-325	40.252195	81.033941	PEM		-	0.024	0.024	0	
0.44	Cadiz Lateral	S2ES-HA-326	40.251927	81.033579	INT	Open Cut	43.5	-	-	-	Backfill of trench line
						No Utility Crossing					Temporary Construction Activities
1.15	Cadiz Lateral	W7H-HA-481	40.250384	81.046468	PEM		-	0.002	0.002	0	
1.41	Cadiz Lateral	S7H-HA-475	40.24848	81.050406	PER	Open Cut	43.5	-	-	-	Backfill of trench line
1.99	Cadiz Lateral	W4H-HA-426	40.244706	81.060358	PEM	Open Cut	-	0.096	0.096	0.038	Backfill of trench line
2.29	Cadiz Lateral	W4H-HA-425	40.243745	81.065975	PEM	Open Cut	-	0.028	0.028	0.007	Backfill of trench line
2.62	Cadiz Lateral	S4H-HA-427	40.243281	81.071752	PER	Open Cut	43.5	-	-	-	Backfill of trench line
2.88	Cadiz Lateral	S2ST-HR-124	40.24436	81.075492	PER	Open Cut	43.5	-	-	-	Backfill of trench line
28	Clarington Lateral	S4H-HA-345	40.195236	81.047569	PER	Open Cut	44.5	-	-	-	Backfill of trench line
28.34	Clarington Lateral	W4H-HA-344	40.199707	81.049171	PSS	Open Cut	-	0.357	0.357	0.068	Backfill of trench line

28.36		S4H-HA-343	40.20007	81.049288	PER	Open Cut	44.5	-	-	-	
28.73	Clarington Lateral	S4H-HA-667	40.205096	81.051159	PER	Open Cut	44.5	-	-	-	Backfill of trench line
29.34	Clarington Lateral	W2ST-HA-118	40.212644	81.055929	PSS	Open Cut	-	0.111	0.111	0.025	Backfill of trench line
29.37		W2ST-HA-117	40.213072	81.056136	PEM	Open Cut	-	0.387	0.387	0.115	
29.83	Clarington Lateral	W2ST-HA-114	40.218795	81.060257	PFO	Open Cut	-	0.091	0.091	0.035	Backfill of trench line
30.07	Clarington Lateral	S4ES-HA-188	40.220949	81.063482	PER	Open Cut	44.5	-	-	-	Backfill of trench line
30.4	Clarington Lateral	S4ES-HA-191	40.223779	81.067952	EPH	Open Cut	44.5	-	-	-	Backfill of trench line
30.4		S4ES-HA-189	40.223987	81.067951	EPH	Open Cut	44.5	-	-	-	
30.64	Clarington Lateral	S4ES-HA-193	40.226457	81.071332	PER	Open Cut	44.5	-	-	-	Backfill of trench line
	Clarington Lateral					No Utility Crossing					Temporary Construction Activities
31.5		W4H-HA-638	40.235879	81.078708	PEM		-	0.008	0.008	0	
31.53	Clarington Lateral	S8H-HR-203	40.237309	81.077657	PER	Open Cut	44.5	-	-	-	Backfill of trench line
31.8	Clarington Lateral	W8H-HR-200	40.239822	81.080552	PEM	Open Cut	-	0.077	0.077	0.012	

31.8	Clarington Lateral	S8H-HR-199	40.239567	81.081557	INT	Open Cut	44.5	-	-	-	Backfill of trench line
31.88	Clarington Lateral	W8H-HR-198	40.240926	81.082022	PEM	Open Cut	-	0.108	0.108	0.03	
31.91	Clarington Lateral	W8H-HR-798	40.241337	81.082044	PEM	Open Cut	-	0.119	0.119	0.031	
32.13	Clarington Lateral	S8H-HR-196	40.243375	81.085198	EPH	-	0	-	-	-	Backfill of trench line
32.16	Clarington Lateral	S8H-HR-195	40.243681	81.085527	EPH	Open Cut	44.5	-	-	-	Backfill of trench line
32.16		W8H-HR-197	40.242952	81.085996	PEM	Open Cut	-	0.016	0.016	0.003	
18.94	Mainlines A & B	S2ES-CA-230	40.452983	81.234886	EPH	Open Cut	64	-	-	-	
19.01	Mainlines A & B	S2ES-CA-231	40.453769	81.236034	INT	Open Cut	64	-	-	-	Backfill of trench line
19.05	Mainlines A & B	S2ES-CA-232	40.454174	81.236331	PER	Open Cut	64	-	-	-	
19.59	Mainlines A & B	S4ES-CA-210	40.459005	81.243898	INT	Open Cut	64	-	-	-	Backfill of trench line
19.63	Mainlines A & B	S4ES-CA-212	40.459522	81.24415	EPH	Open Cut	64	-	-	-	
19.99	Mainlines A & B	S4ES-CA-208	40.464098	81.242787	INT	Open Cut	64	-	-	-	Backfill of trench line
20.76	Mainlines A & B	S7H-CA-438	40.474152	81.245505	EPH	Open Cut	64	-	-	-	Backfill of trench line
						No Utility Crossing					Temporary Construction Activities
20.87	Mainlines A & B	W7H-CA-440	40.475658	81.246447	PEM		-	0.02	0.02	0	
21.01	Mainlines A & B	W3H-CA-219	40.476424	81.248703	PSS	Open Cut	-	0.051	0.051	0.024	Backfill of trench line

21.01	Mainlines A & B	W2ST-CA-137	40.476119	81.248931	PEM	No Utility Crossing	-	0.01	0.01	0	Temporary Construction Activities
21.02	Mainlines A & B	S2ST-CA-139	40.476505	81.248834	PER	Open Cut	64	-	-	-	Backfill of trench line
21.46	Mainlines A & B	W3H-CA-220	40.481344	81.254105	PFO	Open Cut	-	0.094	0.094	0.045	Backfill of trench line
21.49	Mainlines A & B	S2ST-CA-142	40.481783	81.254426	PER	Open Cut	64	-	-	-	
21.97	Mainlines A & B	W7H-CA-234	40.486104	81.261211	PEM	Open Cut	-	0.238	0.238	0.076	Backfill of trench line
22.09	Mainlines A & B	W7H-CA-233	40.487539	81.262219	PEM	Open Cut	-	0.221	0.221	0.083	Backfill of trench line
22.46	Mainlines A & B	S4ES-CA-205	40.491362	81.266329	PER	Open Cut	64	-	-	-	Backfill of trench line
22.67	Mainlines A & B	S2ES-TU-103	40.493056	81.26896	INT	Open Cut	64	-	-	-	Backfill of trench line
22.72	Mainlines A & B	W2ES-TU-105	40.493742	81.269578	PEM	Open Cut	-	0.238	0.238	0.123	
23.48	Mainlines A & B	W4ES-TU-215	40.504186	81.271564	PEM	Open Cut	-	0.239	0.239	0.114	Backfill of trench line
23.97	Mainlines A & B	W4ES-TU-217	40.509286	81.277443	PEM	Open Cut	-	0.074	0.074	0.028	Backfill of trench line
24.14	Mainlines A & B	W1ES-TU-104	40.51143	81.276887	PSS	Open Cut	-	0.852	0.852	0.363	Backfill of trench line
24.23	Mainlines A & B	S1ES-TU-105	40.512955	81.277636	PER	Open Cut	64	-	-	-	
24.51	Mainlines A & B	W1ES-TU-106	40.514419	81.280752	PEM	Open Cut	-	0.385	0.385	0.13	Backfill of trench line

24.7	Mainlines A & B	W7H-TU-256	40.517039	81.283937	PEM	Open Cut	-	0.172	0.172	0.042	Backfill of trench line
25.26	Mainlines A & B	S7H-TU-248	40.52173	81.293933	PER	HDD	0	-	-	-	-
						No Utility Crossing					Temporary Construction Activities
25.63	Mainlines A & B	W7H-TU-246	40.525119	81.299402	PEM		-	0.047	0.047	0	
						No Utility Crossing					Temporary Construction Activities
25.76	Mainlines A & B	W2H-TU-202	40.526462	81.30151	PEM		-	0.065	0.065	0	
26.56	Mainlines A & B	W4ES-TU-230	40.533474	81.310942	PFO	Open Cut	-	0.038	0.038	0.02	Backfill of trench line
26.57	Mainlines A & B	S4ES-TU-231	40.533519	81.310588	PER	Open Cut	64	-	-	-	Backfill of trench line
26.64	Mainlines A & B	W4ES-TU-232	40.534752	81.310458	PEM	Open Cut	-	0.315	0.315	0.048	Backfill of trench line
26.75		S4ES-TU-233	40.535905	81.311236	PER	Open Cut	64	-	-	-	
27.25	Mainlines A & B	S7H-TU-245	40.54296	81.312931	INT	Open Cut	64	-	-	-	Backfill of trench line
27.33	Mainlines A & B	W1ES-TU-100	40.543641	81.312055	PEM	Open Cut	-	0.052	0.052	0.024	Backfill of trench line
27.35		W1ES-TU-101	40.544127	81.312526	PEM	Open Cut	-	0.018	0.018	0.007	
27.73	Mainlines A & B	W1ES-TU-102	40.549637	81.314103	PEM	Open Cut	-	1.651	1.651	0.421	Backfill of trench line
27.98	Mainlines A & B	S2ES-TU-100	40.552556	81.316388	PER	Open Cut	64	-	-	-	Backfill of trench line
28	Mainlines A & B	W4H-TU-439	40.552653	81.316464	PFO	Open Cut	-	0.976	0.976	0.53	
28.06	Mainlines A & B	W4H-TU-489	40.553328	81.317237	PEM	Open Cut	-	0.188	0.188	0.079	

28.39	Mainlines A & B	W2H-TU-163	40.557082	81.319795	PEM	Open Cut	-	0.259	0.259	0.065	Backfill of trench line
28.6	Mainlines A & B	S2H-TU-159	40.559725	81.322522	PER	Open Cut	64	-	-	-	Backfill of trench line
28.96	Mainlines A & B	W2H-TU-156	40.564312	81.3256	PEM	Open Cut	-	0.113	0.113	0.05	Backfill of trench line
28.97		W2H-TU-155	40.564422	81.326088	PFO	Open Cut	-	0.193	0.193	0.108	
						No Utility Crossing					Temporary Construction Activities
29.03	Mainlines A & B	W2H-TU-157	40.565061	81.326497	PEM		-	0.003	0.003	0	
29.04	Mainlines A & B	W2H-TU-154	40.565514	81.325957	PFO	Open Cut	-	0.338	0.338	0.178	
29.1	Mainlines A & B	S4ES-TU-218	40.566156	81.326995	PER	Open Cut	64	-	-	-	Backfill of trench line
29.22	Mainlines A & B	W4ES-TU-220	40.567484	81.328212	PFO	Open Cut	-	0.06	0.06	0.033	
29.3	Mainlines A & B	W3H-TU-221	40.568479	81.328945	PFO	Open Cut	-	0.139	0.139	0.076	
29.31	Mainlines A & B	W2ES-TU-259C	40.568695	81.329165	PEM	Open Cut	-	0.533	0.533	0.216	
29.4	Mainlines A & B	W3H-TU-222	40.569488	81.329694	PFO	Open Cut	-	0.197	0.197	0.112	Backfill of trench line
29.48	Mainlines A & B	W2ES-TU-259A	40.570965	81.331177	PEM	Open Cut	-	3.003	3.003	0.965	
29.73	Mainlines A & B	S2ES-TU-258	40.57363	81.333443	PER	Open Cut	64	-	-	-	
29.92	Mainlines A & B	W4H-TU-385	40.576352	81.333804	PEM	Open Cut	-	1.418	1.418	0.458	Backfill of trench line
30.95	Mainlines A & B	W4ES-TU-234	40.589607	81.342443	PEM	Open Cut	-	0.108	0.108	0.038	Backfill of trench line

31.09	Mainline A	S4ES-TU-235	40.590451	81.342628	EPH	Open Cut	44.5	-	-	-	Backfill of trench line
31.8	Mainlines A & B	S4ES-TU-241	40.601305	81.343268	PER	Open Cut	64	-	-	-	Backfill of trench line
						No Utility Crossing					Temporary Construction Activities
31.88	Mainlines A & B	W8H-TU-225	40.602475	81.342174	PSS		-	0.022	0.022	0	
32.02	Mainlines A & B	S8H-TU-213	40.604457	81.34164	INT	Open Cut	64	-	-	-	Backfill of trench line
32.03		W8H-TU-214	40.604503	81.341703	PEM	Open Cut	-	0.035	0.035	0.011	
32.16	Mainlines A & B	W8H-TU-210	40.606287	81.343008	PEM	Open Cut	-	0.031	0.031	0.012	Backfill of trench line
						No Utility Crossing					Temporary Construction Activities
32.28	Mainlines A & B	W8H-TU-208	40.607875	81.343581	PEM		-	0.01	0.01	0	
32.8	Mainlines A & B	S4H-TU-382	40.614582	81.348042	EPH	Open Cut	44.5	-	-	-	Backfill of trench line
32.83		S1M-TU-205	40.615646	81.347811	INT	Open Cut	64	-	-	-	
32.92	Mainlines A & B	S1M-TU-204	40.616433	81.348341	INT	Open Cut	64	-	-	-	Backfill of trench line
33.03	Mainlines A & B	W1M-TU-206	40.61751	81.348409	PEM	Open Cut	-	0.077	0.077	0.031	Backfill of trench line
33.03		S4H-TU-672	40.617665	81.349284	INT	Open Cut	64	-	-	-	
						No Utility Crossing					Temporary Construction Activities
33.09	Mainlines A & B	W4H-TU-673	40.618679	81.348743	PEM		-	0.009	0.009	0	
33.32	Mainlines A & B	S1M-TU-209	40.620365	81.352461	INT	Open Cut	64	-	-	-	Backfill of trench line

33.42	Mainlines A & B	S1M-TU-210	40.620796	81.354348	EPH	Open Cut	64	-	-	-	Backfill of trench line
33.85	Mainlines A & B	S1M-TU-199	40.622028	81.362006	PER	Open Cut	64	-	-	-	
33.86	Mainlines A & B	W1M-TU-198	40.622041	81.362275	PEM	Open Cut	-	1.389	1.389	0.465	
33.92	Mainlines A & B	S1M-TU-201	40.622508	81.363113	INT	Open Cut	64	-	-	-	Backfill of trench line
33.94	Mainlines A & B	W1M-TU-203	40.622788	81.363803	PFO	Open Cut	-	0.628	0.628	0.325	
34.48	Mainlines A & B	W3H-TU-223	40.628064	81.371629	PEM	Open Cut	-	0.119	0.119	0.047	Backfill of trench line
34.48	Mainlines A & B	S4H-TU-378	40.627729	81.371549	INT	Open Cut	64	-	-	-	
35.01	Mainlines A & B	S4H-TU-376	40.632222	81.379622	PER	Open Cut	64	-	-	-	Backfill of trench line
35.68	Mainlines A & B	W1M-TU-195	40.639236	81.385855	PFO	HDD-Access	-	0.027	0.027	0	HDD Workspace
35.72	Mainlines A & B	S1M-TU-193	40.639242	81.386672	PER	HDD		-	-	-	-
35.73	Mainlines A & B	W3H-TU-224	40.639517	81.386769	PFO	HDD-Access	-	0.008	0.008	0	HDD Workspace
35.99	Mainlines A & B	W1M-TU-192a	40.640862	81.391466	PFO	Open Cut	-	0.071	0.071	0.038	
36	Mainlines A & B	W3H-TU-225	40.640978	81.391411	PEM	Open Cut	-	0.07	0.07	0.035	Backfill of trench line
36.01	Mainlines A & B	W1M-TU-192b	40.641011	81.391542	PFO	Open Cut	-	0.068	0.068	0.036	
36.96	Mainlines A & B	S1M-TU-190	40.651089	81.401119	PER	Open Cut	64	-	-	-	Backfill of trench line

37.42	Mainlines A & B	W1M-ST-189	40.657612	81.401572	PEM	Open Cut	-	0.532	0.532	0.188	Backfill of trench line
37.69	Mainlines A & B	S1M-ST-182	40.660315	81.405119	EPH	Open Cut	64	-	-	-	Backfill of trench line
37.88	Mainlines A & B	W1M-ST-184	40.662515	81.407404	PFO	Open Cut	-	0.081	0.081	0.028	Backfill of trench line
37.99	Mainlines A & B	W1M-ST-186	40.662838	81.413112	PFO	Open Cut	-	3.185	3.185	1.671	Backfill of trench line
38.05	Mainlines A & B	S1M-ST-188	40.66283	81.410764	PER	Open Cut	64	-	-	-	
38.72	Mainlines A & B	S4H-ST-371	40.666438	81.42173	INT	Open Cut	64	-	-	-	Backfill of trench line
39.04	Mainlines A & B	S3H-ST-226	40.668148	81.426969	INT	Open Cut	44.5	-	-	-	
39.06	Mainlines A & B	W3H-ST-227	40.667954	81.427385	PSS	Open Cut	-	0.309	0.309	0.164	
39.08	Mainlines A & B	S4H-ST-716	40.668281	81.42763	EPH	Open Cut	64	-	-	-	Backfill of trench line
39.09	Mainlines A & B	S4H-ST-369	40.667691	81.427791	PER	Open Cut	64	-	-	-	
						No Utility Crossing					Temporary Construction Activities
39.1	Mainlines A & B	W3H-ST-227A	40.668413	81.428224	PSS		-	0.036	0.036	0	
39.79	Mainlines A & B	S1M-ST-172	40.669083	81.44056	PER	HDD	0	-	-	-	-
40.46	Mainlines A & B	S4H-ST-433	40.668646	81.452885	EPH	Open Cut	64	-	-	-	Backfill of trench line
40.94	Mainlines A & B	S1M-ST-176	40.668366	81.461898	PER	Open Cut	64	-	-	-	Backfill of trench line

42.14	Mainlines A & B	W1M-ST-174	40.672094	81.483655	PFO	HDD-Access	-	0.007	0.007	0	HDD Workspace
42.15	Mainlines A & B	S1M-ST-175	40.671826	81.483779	PER	HDD	0	-	-	-	-
42.94	Mainlines A & B	W3H-ST-170	40.671837	81.49878	PEM	Open Cut	-	0.724	0.724	0.321	Backfill of trench line
44.44	Mainlines A & B	W4H-ST-373	40.673572	81.526679	PEM	Open Cut	-	0.995	0.995	0.327	Backfill of trench line
44.77	Mainlines A & B	W4H-ST-375	40.67392	81.534316	PSS	Open Cut	-	0.138	0.138	0.066	Backfill of trench line
45.2	Mainlines A & B	S9H-ST-102	40.676203	81.540392	EPH	Open Cut	64	-	-	-	Backfill of trench line
45.22	Mainlines A & B	S9H-ST-101	40.676394	81.540783	PER	Open Cut	64	-	-	-	Backfill of trench line
45.74	Mainlines A & B	S1M-ST-168	40.678879	81.54928	INT	Open Cut	64	-	-	-	Backfill of trench line
46.46	Mainlines A & B	S1M-ST-161	40.679956	81.563378	PER	Open Cut	64	-	-	-	Backfill of trench line
46.65	Mainlines A & B	S1M-ST-163	40.679758	81.567196	PER	Open Cut	64	-	-	-	Backfill of trench line
46.77	Mainlines A & B	W1M-ST-164	40.679849	81.569426	PEM	Open Cut	-	0.086	0.086	0.04	Backfill of trench line
47.37	Mainlines A & B	S1H-ST-143	40.684581	81.578498	INT	Open Cut	64	-	-	-	Backfill of trench line
47.37	Mainlines A & B	W1H-ST-144	40.684502	81.578491	PSS	Open Cut	-	0.044	0.044	0.015	

47.55	Mainlines A & B	W4H-ST-191	40.684639	81.581605	PFO	Open Cut	-	0.195	0.195	0.08	Backfill of trench line
47.67	Mainlines A & B	W3H-ST-171	40.685311	81.583909	PFO	Open Cut	-	0.186	0.186	0.087	Backfill of trench line
47.9	Mainlines A & B	S3H-ST-175	40.686633	81.588173	PER	Open Cut	64	-	-	-	Backfill of trench line
						No Utility Crossing					Temporary Construction Activities
47.98	Mainlines A & B	W3H-ST-176	40.686729	81.589424	PEM		-	0.01	0.01	0	
48.09	Mainlines A & B	W4H-ST-187	40.686342	81.591375	PEM	Open Cut	-	0.523	0.523	0.293	Backfill of trench line
48.41	Mainlines A & B	W4H-ST-186	40.686956	81.595778	PEM	Open Cut	-	0.198	0.198	0.079	Backfill of trench line
48.55	Mainlines A & B	W4H-ST-185	40.688996	81.598356	PEM	Open	-	0.267	0.267	0.121	
48.65	Mainlines A & B	W7H-ST-184	40.689777	81.599918	PEM	Open Cut	-	1.248	1.248	0.482	Backfill of trench line
48.68	Mainlines A & B	S7H-ST-186	40.690129	81.600064	PER	Open Cut	64	-	-	-	
						No Utility Crossing					Temporary Construction Activities
48.69	Mainlines A & B	W4H-ST-197	40.69048	81.600125	PEM		-	0.258	0.258	0	
48.78	Mainlines A & B	W4H-ST-198	40.691164	81.601938	PFO	Open	-	0.136	0.136	0.064	
48.78	Mainlines A & B	S4H-ST-199	40.691395	81.600676	PER	Open Cut	64	-	-	-	
48.79	Mainlines A & B	W1H-ST-157	40.691568	81.602666	PEM	Open Cut	-	0.553	0.553	0.314	Backfill of trench line
48.88	Mainlines A & B	W1H-ST-158	40.691984	81.602825	PFO	Open	-	1.055	1.055	0.537	

49.01	Mainlines A & B	S1M-ST-158	40.692681	81.605235	PER	Open Cut	64	-	-	-	Backfill of trench line
49.01	Mainlines A & B	W1M-ST-159	40.69243	81.605315	PFO	Open Cut	-	0.372	0.372	0.202	
50.62	Mainlines A & B	S3H-ST-163	40.694483	81.635674	EPH	Open Cut	64	-	-	-	Backfill of trench line
50.71	Mainlines A & B	W3H-ST-165	40.694893	81.63735	PSS	Open Cut	-	0.03	0.03	0.025	
50.71	Mainlines A & B	W3H-ST-166	40.694639	81.637409	PEM	Open Cut	-	0.051	0.051	0.031	
50.75	Mainlines A & B	W3H-ST-229	40.695124	81.638019	PEM	Open Cut	-	0.181	0.181	0.102	Backfill of trench line
50.75	Mainlines A & B	W4H-ST-402	40.695044	81.637954	PSS	Open Cut	-	0.037	0.037	0.013	
51.07	Mainlines A & B	S4H-ST-189	40.697027	81.643295	INT	Open Cut	64	-	-	-	Backfill of trench line
51.48	Mainlines A & B	W2H-AS-130	40.699236	81.650749	PEM	Open Cut	-	0.036	0.036	0.015	Backfill of trench line
51.49	Mainlines A & B	S2H-WA-129	40.699387	81.650709	EPH	Open Cut	64	-	-	-	
51.76	Mainlines A & B	S2H-WA-125	40.700747	81.657077	EPH	Open Cut	44.5	-	-	-	Backfill of trench line
51.77	Mainline B	S2H-WA-128	40.700728	81.655264	INT	Open Cut	64	-	-	-	
52.43	Mainlines A & B	W2H-WA-133	40.702779	81.66704	PEM	Open Cut	-	0.037	0.037	0.01	Backfill of trench line
53.24	Mainlines A & B	S2H-WA-134	40.703738	81.682739	INT	HDD	0	-	-	-	-
53.27	Mainlines A & B	S2H-WA-135	40.703928	81.683112	EPH	HDD	0	-	-	-	-
53.41	Mainlines A & B	S7H-WA-175	40.703867	81.685926	INT	HDD	0	-	-	-	-
53.53	Mainlines A & B	W7H-WA-176	40.704045	81.68809	PEM	Open Cut	-	0.247	0.247	0.046	Backfill of trench line

53.92	Mainlines A & B	W7H-WA-174	40.705346	81.694999	PEM	Open Cut	-	0.226	0.226	0.038	
53.98	Mainlines A & B	S7H-WA-167	40.705023	81.697641	INT	Open Cut	64	-	-	-	Backfill of trench line
53.98	Mainlines A & B	W7H-WA-172	40.705771	81.696347	PEM	Open Cut	-	0.164	0.164	0.022	
54.08	Mainlines A & B	W7H-WA-166	40.705273	81.698271	PEM	Open Cut	-	0.438	0.438	0.169	Backfill of trench line
54.15	Mainlines A & B	W7H-WA-168	40.704847	81.699249	PEM	Open Cut	-	0.038	0.038	0.017	Backfill of trench line
						No Utility Crossing					Temporary Construction Activities
54.18	Mainlines A & B	W7H-WA-169	40.705225	81.70003	PEM		-	0.032	0.032	0	
55.35	Mainlines A & B	S1H-WA-136	40.703214	81.721241	INT	Open Cut	64	-	-	-	Backfill of trench line
55.35	Mainlines A & B	W1H-WA-137	40.703081	81.721241	PEM	Open Cut	-	0.027	0.027	0.006	
55.54	Mainlines A & B	S1H-WA-139	40.701451	81.723732	INT	Open Cut	44.5	-	-	-	Backfill of trench line
55.55	Mainlines A & B	S1H-WA-138	40.701768	81.724081	INT	Open Cut	64	-	-	-	
						No Utility Crossing					Temporary Construction Activities
55.55	Mainlines A & B	W1H-WA-140	40.701765	81.724062	PEM		-	0.016	0.016	0.004	
55.89	Mainlines A & B	S1H-WA-141	40.703052	81.730107	INT	Open Cut	64	-	-	-	Backfill of trench line
56.72	Mainlines A & B	W3H-WA-141	40.705034	81.745764	PEM	Open Cut	-	0.107	0.107	0.051	Backfill of trench line
56.73	Mainlines A & B	W3H-WA-142	40.704894	81.745902	PFO	Open Cut	-	0.015	0.015	0.006	
57.69	Mainlines A & B	W1TB-WA-102	40.710019	81.76242	PEM	Open Cut	-	0.531	0.531	0.147	

57.75	Mainlines A & B	S1TB-WA-103	40.710104	81.763103	INT	Open Cut	64	-	-	-	Backfill of trench line
57.78	Mainlines A & B	W1TB-WA-104	40.71024	81.764166	PFO	Open Cut	-	1.09	1.09	0.548	
59.69	Mainlines A & B	S1TB-WA-107	40.718741	81.797781	PER	Open Cut	64	-	-	-	Backfill of trench line
60.01	Mainlines A & B	W1TB-WA-108	40.720214	81.802979	PEM	Open Cut	-	0.226	0.226	0.103	Backfill of trench line
60.52	Mainlines A & B	W1TB-WA-113	40.721648	81.812534	PFO	Open Cut	-	0.568	0.568	0.329	Backfill of trench line
60.62	Mainlines A & B	W1TB-WA-111	40.721209	81.814641	PEM	No Utility Crossing	-	0.002	0.002	0	Temporary Construction Activities
60.65	Mainlines A & B	S1TB-WA-110	40.721538	81.815193	PER	Open Cut	64	-	-	-	Backfill of trench line
61.01	Mainlines A & B	S1TB-WA-114	40.72112	81.822174	INT	Open Cut	64	-	-	-	Backfill of trench line
61.79	Mainlines A & B	S2H-WA-143	40.721107	81.836803	PER	Open Cut	64	-	-	-	Backfill of trench line
62.62	Mainlines A & B	W2H-WA-139	40.720779	81.853187	PEM	Open Cut	-	0.05	0.05	0.027	Backfill of trench line
62.91	Mainlines A & B	S2H-WA-138	40.721695	81.857442	PER	Open Cut	64	-	-	-	Backfill of trench line
63.21	Mainlines A & B	W4H-WA-174	40.72265	81.863967	PEM	No Utility Crossing	-	0.036	0.036	0	Temporary Construction Activities

63.32	Mainlines A & B	W4H-WA-175	40.722253	81.866352	PFO	Open Cut	-	0.976	0.976	0.516	
63.37	Mainlines A & B	W4H-WA-176	40.722601	81.866874	PEM	Open Cut	-	0.195	0.195	0.1	Backfill of trench line
63.4	Mainlines A & B	S4H-WA-177	40.722321	81.867518	PER	Open Cut	64	-	-	-	
64.51	Mainlines A & B	S4H-WA-181	40.722222	81.888526	INT	Open Cut	64	-	-	-	
64.51	Mainlines A & B	W4H-WA-183	40.722576	81.888411	PEM	Open Cut	-	0.12	0.12	0.029	Backfill of trench line
64.58	Mainlines A & B	S7H-WA-182	40.722621	81.889425	EPH	Open Cut	44.5	-	-	-	
66.15	Mainlines A & B	W3H-WA-191	40.731847	81.914788	PEM	Open Cut	-	0.059	0.059	0.018	Backfill of trench line
						No Utility Crossing					Temporary Construction Activities
66.17	Mainlines A & B	W3H-WA-192	40.732238	81.915134	PEM		-	0.001	0.001	0	
66.42	Mainlines A & B	S1M-WA-134	40.733819	81.919873	INT	Open Cut	64	-	-	-	Backfill of trench line
67.52	Mainlines A & B	S1M-WA-138	40.740941	81.938242	PER	Open Cut	64	-	-	-	Backfill of trench line
67.83	Mainlines A & B	W1M-WA-143	40.745292	81.942899	PEM	HDD-ATWS	-	0.073	0.073	0.03	HDD Workspace
67.84	Mainlines A & B	S1M-WA-144	40.744524	81.941378	INT	HDD	0	-	-	-	-
68.18	Mainlines A & B	S1M-WA-147	40.74871	81.951996	PER	HDD	0	-	-	-	-
68.27	Mainlines A & B	S1M-WA-153	40.749279	81.945956	PER	Open Cut	64	-	-	-	

68.28	Mainlines A & B	S1M-WA-152	40.749226	81.946259	PER	Open Cut	64	-	-	-	
68.36	Mainlines A & B	W2H-WA-235	40.749296	81.947686	PEM	Open Cut	-	2.621	2.621	0.875	
68.43	Mainlines A & B	S1M-WA-151	40.74926	81.94914	PER	Open Cut	64	-	-	-	Backfill of trench line
68.51	Mainlines A & B	W1M-WA-150	40.748994	81.950672	PEM	Open Cut	-	1.114	1.114	0.622	
68.62	Mainlines A & B	S1M-WA-149	40.748937	81.952808	PER	Open Cut	64	-	-	-	
69.01	Mainlines A & B	S1M-WA-148	40.748475	81.960172	PER	HDD	0	-	-	-	-
69.26	Mainlines A & B	W3H-WA-143	40.747023	81.963693	PEM	Open Cut	-	0.144	0.144	0.085	Backfill of trench line
						No Utility Crossing					Temporary Construction Activities
69.28	Mainlines A & B	W3H-WA-145	40.746955	81.964029	PSS		-	0.023	0.023	0.001	
69.39	Mainlines A & B	W3H-WA-147	40.746772	81.966112	PEM	Open Cut	-	0.059	0.059	0.021	Backfill of trench line
69.39	Mainlines A & B	S3H-WA-146	40.746898	81.96615	PER	Open Cut	64	-	-	-	
69.93	Mainlines A & B	S7H-WA-178	40.747208	81.976571	PER	Open Cut	64	-	-	-	Backfill of trench line
70.06	Mainlines A & B	W7H-WA-179	40.746937	81.978886	PFO	Open Cut	-	0.149	0.149	0.075	
70.07	Mainlines A & B	S7H-WA-180	40.747164	81.979045	INT	Open Cut	64	-	-	-	Backfill of trench line
70.1	Mainlines A & B	W7H-WA-181	40.747188	81.979568	PEM	Open Cut	-	0.978	0.978	0.344	
71.21	Mainlines A & B	S3H-WA-148	40.747929	82.000411	PER	Open Cut	64	-	-	-	Backfill of trench line

71.57	Mainlines A & B	S3H-WA-149	40.748354	82.007137	EPH	HDD	0	-	-	-	-
71.63	Mainlines A & B	S3H-WA-150	40.748604	82.008368	PER	HDD	0	-	-	-	-
73.63	Mainlines A & B	S2TB-WA-100	40.757754	82.043356	INT	Open Cut	64	-	-	-	Backfill of trench line
74.43	Mainlines A & B	S4H-WA-184	40.762449	82.056535	INT	Open Cut	64	-	-	-	Backfill of trench line
75.66	Mainlines A & B	S1M-WA-156	40.77398	82.073538	PER	Open Cut	64	-	-	-	Backfill of trench line
76.09	Mainlines A & B	S1TB-WA-119	40.778871	82.078589	INT	Open Cut	64	-	-	-	Backfill of trench line
76.11	Mainlines A & B	S1TB-WA-118	40.778977	82.078705	INT	Open Cut	64	-	-	-	
77	Mainlines A & B	S1TB-WA-116	40.788548	82.088383	PER	Open Cut	64	-	-	-	Backfill of trench line
77.03	Mainlines A & B	W4H-WA-631	40.788059	82.089712	PEM	Open Cut	-	0.036	0.036	0.033	
77.44	Mainlines A & B	W4H-WA-586	40.787266	82.098506	PEM	Open Cut	-	0.93	0.93	0.333	
77.51	Mainlines A & B	S4H-WA-583	40.787269	82.099303	PER	Open Cut	64	-	-	-	
77.55	Mainlines A & B	W4H-WA-582	40.787844	82.100439	PFO	Open Cut	-	0.33	0.33	0.132	
77.62	Mainlines A & B	W4H-WA-581	40.787756	82.100659	PEM	Open Cut	-	0.445	0.445	0.19	Backfill of trench line
77.86	Mainlines A & B	W4H-WA-632	40.790623	82.103605	PEM	Open Cut	-	3.068	3.068	1.096	
78.03	Mainlines A & B	W3H-WA-153	40.792134	82.106159	PEM	Open Cut	-	0.071	0.071	0.024	Backfill of trench line

78.36	Mainlines A & B	S3H-WA-155	40.794531	82.111063	PER	Open Cut	64	-	-	-	Backfill of trench line
78.62	Mainlines A & B	S4H-WA-467	40.797561	82.114916	PER	Open Cut	64	-	-	-	Backfill of trench line
79.07	Mainlines A & B	S4H-WA-468	40.801079	82.122308	PER	Open Cut	64	-	-	-	Backfill of trench line
79.22	Mainlines A & B	W4H-WA-469	40.80162	82.124573	PEM	Open Cut	-	0.253	0.253	0.092	Backfill of trench line
80.94	Mainlines A & B	W4H-AS-233	40.803427	82.157381	PEM	Open Cut	-	0.288	0.288	0.113	
81.02	Mainlines A & B	S4H-AS-234	40.804306	82.158539	PER	Open Cut	64	-	-	-	Backfill of trench line
81.07	Mainlines A & B	W4H-AS-235	40.804824	82.159111	PFO	Open Cut	-	0.691	0.691	0.383	
81.17	Mainlines A & B	S4H-AS-236	40.805664	82.160723	PER	Open Cut	64	-	-	-	Backfill of trench line
81.24	Mainlines A & B	W4H-AS-237	40.80622	82.16159	PFO	Open Cut	-	0.091	0.091	0.049	
81.31	Mainlines A & B	W2H-AS-121	40.806639	82.163012	PFO	Open Cut	-	0.195	0.195	0.087	Backfill of trench line
81.32	Mainlines A & B	S2H-AS-119	40.806802	82.163057	PER	Open Cut	64	-	-	-	
82.94	Mainlines A & B	S4H-AS-417	40.816194	82.189799	INT	Open Cut	64	-	-	-	Backfill of trench line
83.46	Mainlines A & B	W7H-AS-101	40.812839	82.198714	PEM	Open Cut	-	0.078	0.078	0	Backfill of trench line
83.52	Mainlines A & B	S1H-AS-115	40.81248	82.199335	PER	Open Cut	64	-	-	-	Backfill of trench line

83.74	Mainlines A & B	S1H-AS-113	40.812241	82.203744	PER	Open Cut	64	-	-	-	Backfill of trench line
83.74	Mainlines A & B	W5H-AS-102	40.812707	82.203879	PEM	Open Cut	-	0.066	0.066	0.015	
						No Utility Crossing					Temporary Construction Activities
83.75	Mainlines A & B	W1H-AS-114	40.811958	82.204007	PEM		-	0.021	0.021	0	
83.84	Mainlines A & B	W1H-AS-112	40.811943	82.205815	PEM	Open Cut	-	0.064	0.064	0.026	Backfill of trench line
83.94	Mainlines A & B	S5H-AS-105	40.812527	82.207522	EPH	Open Cut	64	-	-	-	Backfill of trench line
84.25	Mainlines A & B	W2H-AS-108	40.811953	82.215513	PEM	Open Cut	-	0.739	0.739	0.264	
84.26	Mainlines A & B	W2H-AS-107	40.812707	82.216723	PFO	Open Cut	-	0.531	0.531	0.351	
84.33	Mainlines A & B	S2H-AS-109	40.812343	82.214474	PER	Open Cut	64	-	-	-	Backfill of trench line
84.42	Mainlines A & B	S2H-AS-106	40.812032	82.216663	PER	Open Cut	64	-	-	-	
84.53		S2H-AS-103	40.81216	82.218737	INT	Open Cut	64	-	-	-	
84.67	Mainlines A & B	W2H-AS-104	40.812086	82.221522	PEM	Open Cut	-	0.651	0.651	0.365	Backfill of trench line
84.83	Mainlines A & B	W4H-AS-386	40.812185	82.224599	PEM	Open Cut	-	0.185	0.185	0.114	Backfill of trench line
85.69	Mainlines A & B	S4H-AS-388	40.809622	82.240749	EPH	Dry, if flowing	64	-	-	-	Backfill of trench line
86.5	Mainlines A & B	W4H-AS-392	40.805171	82.252752	PEM	Open Cut	-	0.784	0.784	0.289	Backfill of trench line
86.52	Mainlines A & B	S4H-AS-391	40.804876	82.252775	PER	Dry	64	-	-	-	

86.65	Mainlines A & B	S4H-AS-393	40.805161	82.255499	INT	Dry, if flowing	64	-	-	-	Backfill of trench line
87.21	Mainlines A & B	W4H-AS-394	40.805394	82.265863	PEM	Open Cut	-	0.197	0.197	0.051	Backfill of trench line
87.5	Mainlines A & B	W4H-AS-395	40.80497	82.271893	PEM	Open Cut	-	0.129	0.129	0.031	Backfill of trench line
87.62	Mainlines A & B	W4H-AS-396	40.804599	82.273864	PEM	Open Cut	-	0.074	0.074	0.026	Backfill of trench line
89.12	Mainlines A & B	S4H-AS-397	40.80795	82.298412	PER	Dry	64	-	-	-	
89.22	Mainlines A & B	W4H-AS-398	40.808579	82.300112	PEM	Open Cut	-	0.063	0.063	0.021	Backfill of trench line
89.23	Mainlines A & B	W4H-AS-399	40.808841	82.299732	PEM	Open Cut	-	0.118	0.118	0.022	
89.84	Mainlines A & B	S3H-AS-105	40.810617	82.311162	PER	Dry	64	-	-	-	Backfill of trench line
90.26	Mainlines A & B	S3H-AS-106	40.810964	82.319169	PER	Dry	64	-	-	-	Backfill of trench line
90.65	Mainlines A & B	S4H-AS-401	40.812866	82.32673	PER	Dry	64	-	-	-	Backfill of trench line
91.49	Mainlines A & B	W1H-AS-133	40.816007	82.341125	PEM	Open Cut	-	0.158	0.158	0.043	Backfill of trench line
93.55	Mainlines A & B	S1H-AS-131	40.818672	82.37892	PER	Open Cut	64	-	-	-	Backfill of trench line
93.78	Mainlines A & B	S7H-AS-108	40.818184	82.383419	INT	Open Cut	64	-	-	-	Backfill of trench line

93.89	Mainlines A & B	S4H-AS-487	40.818902	82.385154	INT	Open Cut	64	-	-	-	Backfill of trench line
94.08	Mainlines A & B	S7H-AS-114	40.81858	82.388895	INT	Open Cut	64	-	-	-	Backfill of trench line
94.75	Mainlines A & B	W4H-AS-629	40.821399	82.400734	PFO	Open Cut	-	0.229	0.229	0.142	Backfill of trench line
95.19	Mainlines A & B	S4H-AS-608	40.82097	82.408796	PER	Open Cut	64	-	-	-	Backfill of trench line
95.61	Mainlines A & B	W4H-AS-122	40.827599	82.414829	PFO	HDD-Access	-	0.089	0.089	0	HDD Workspace
95.8	Mainlines A & B	S4H-AS-123	40.828709	82.416051	PER	HDD	0	-	-	-	-
95.87	Mainlines A & B	W4H-RI-131	40.828568	82.416988	PFO	HDD-Access	-	0.225	0.225	0	HDD Workspace
96.91	Mainlines A & B	W4H-RI-135	40.837015	82.432678	PEM	Open Cut	-	0.056	0.056	0.018	Backfill of trench line
96.91		S4H-RI-134	40.836866	82.432867	INT	Open Cut	64	-	-	-	
98.62	Mainlines A & B	W4H-RI-145	40.844449	82.462773	PFO	Open Cut	-	0.071	0.071	0.032	Backfill of trench line
99.16	Mainlines A & B	S4H-RI-239	40.845508	82.473218	PER	Open Cut	64	-	-	-	Backfill of trench line
99.2		W4H-RI-241	40.845612	82.473896	PFO	Open Cut	-	0.226	0.226	0.096	
99.38	Mainlines A & B	W4H-RI-140	40.845774	82.477765	PEM	Open Cut	-	0.08	0.08	0.038	Backfill of trench line

99.42	Mainlines A & B	W4H-RI-142	40.845567	82.477995	PFO	No Utility Crossing	-	0.272	0.272	0.165	Temporary Construction Activities
99.82	Mainlines A & B	W4H-RI-137	40.845918	82.48582	PEM	Open Cut	-	0.1	0.1	0.017	Backfill of trench line
100.67	Mainlines A & B	S4H-RI-136	40.844824	82.501688	INT	Open Cut	64	-	-	-	Backfill of trench line
101.04	Mainlines A & B	S7H-RI-135	40.845388	82.508428	INT	Open Cut	64	-	-	-	Backfill of trench line
						No Utility Crossing					Temporary Construction Activities
101.71	Mainlines A & B	W7H-RI-119	40.846237	82.521138	PSS		-	0.036	0.036	0	
101.72	Mainlines A & B	S2H-RI-237	40.846104	82.521282	EPH	Open Cut	64	-	-	-	Backfill of trench line
101.87	Mainlines A & B	S7H-RI-130	40.845845	82.524313	EPH	Open Cut	64	-	-	-	Backfill of trench line
102.11	Mainlines A & B	S7H-RI-131	40.845725	82.528922	EPH	Open Cut	64	-	-	-	Backfill of trench line
102.29	Mainlines A & B	S7H-RI-134	40.845769	82.532199	EPH	Open Cut	64	-	-	-	Backfill of trench line
102.56	Mainlines A & B	S7H-RI-136	40.845701	82.537529	EPH	Open Cut	64	-	-	-	Backfill of trench line
102.78	Mainlines A & B	W7H-RI-140	40.845773	82.541022	PFO	Open Cut	-	0.226	0.226	0.12	
102.79	Mainlines A & B	S7H-RI-137	40.84588	82.541154	INT	Open Cut	64	-	-	-	Backfill of trench line

102.8	Mainlines A & B	W7H-RI-139	40.845498	82.541437	PEM	Open Cut	-	0.321	0.321	0.171	
103.33	Mainlines A & B	S7H-RI-141	40.845599	82.552057	INT	Open Cut	64	-	-	-	Backfill of trench line
103.34	Mainlines A & B	S7H-RI-142	40.845248	82.55234	EPH	-	0	-	-	-	
103.65	Mainlines A & B	S7H-RI-143	40.846981	82.55783	INT	Open Cut	64	-	-	-	Backfill of trench line
104.22	Mainlines A & B	S4H-RI-154	40.849303	82.568252	PER	Open Cut	64	-	-	-	Backfill of trench line
104.55	Mainlines A & B	W4H-RI-152	40.849784	82.574559	PFO	Open Cut	-	0.099	0.099	0.053	Backfill of trench line
104.66	Mainlines A & B	W4H-RI-148	40.85002	82.576736	PFO	Open Cut	-	0.268	0.268	0.153	Backfill of trench line
104.67	Mainlines A & B	W4H-RI-147	40.849837	82.576755	PSS	Open Cut	-	0.079	0.079	0.034	
104.8	Mainlines A & B	W4H-RI-149	40.850232	82.579152	PFO	Open Cut	-	0.038	0.038	0.015	Backfill of trench line
104.9	Mainlines A & B	W6H-RI-103	40.850195	82.58111	PSS	Open Cut	-	0.135	0.135	0.039	Backfill of trench line
						No Utility Crossing					Temporary Construction Activities
105.38	Mainlines A & B	W6H-RI-101	40.850204	82.590101	PFO		-	0.072	0.072	0.005	
105.39	Mainlines A & B	W2H-RI-238	40.850139	82.590754	PEM	Open Cut	-	0.053	0.053	0.013	Backfill of trench line
105.41	Mainlines A & B	W3H-RI-161	40.849894	82.590975	PFO	Open Cut	-	0.332	0.332	0.164	
106.01	Mainlines A & B	W6H-RI-104	40.849959	82.60233	PFO	Open Cut	-	0.053	0.053	0.03	Backfill of trench line

106.29	Mainlines A & B	W6H-RI-105	40.85024	82.607959	PFO	No Utility Crossing	-	0.005	0.005	0	Temporary Construction Activities
106.86	Mainlines A & B	S4H-RI-155	40.847473	82.617844	PER	Open Cut	64	-	-	-	Backfill of trench line
107.72	Mainlines A & B	W7H-RI-148	40.845995	82.633614	PFO	Open Cut	-	0.232	0.232	0.139	Backfill of trench line
108.4	Mainlines A & B	W7H-RI-150	40.846662	82.646992	PEM	No Utility Crossing	-	0.017	0.017	0	Temporary Construction Activities
108.42	Mainlines A & B	W7H-RI-151	40.846226	82.647177	PEM	Open Cut	-	0.168	0.168	0.081	Backfill of trench line
109.3	Mainlines A & B	S7H-RI-154	40.852164	82.661268	PER	Open Cut	64	-	-	-	Backfill of trench line
109.8	Mainlines A & B	S4H-RI-156	40.852488	82.670765	INT	Open Cut	64	-	-	-	Backfill of trench line
110.31	Mainlines A & B	S4H-RI-157	40.852983	82.680486	PER	Open Cut	64	-	-	-	Backfill of trench line
111.08	Mainlines A & B	W6H-RI-107	40.857222	82.693784	PEM	Open Cut	-	0.026	0.026	0.01	Backfill of trench line
111.74	Mainlines A & B	W6H-RI-109	40.863598	82.702643	PEM	Open	-	0.025	0.025	0.009	Backfill of trench line
111.74	Mainlines A & B	S2H-RI-239	40.863695	82.702622	INT	Open Cut	64	-	-	-	
112.54	Mainlines A & B	S7H-RI-155	40.87158	82.712984	INT	Open Cut	64	-	-	-	Backfill of trench line
112.85	Mainlines A & B	S7H-RI-157	40.874829	82.717641	INT	Open Cut	64	-	-	-	Backfill of trench line

114.55	Mainlines A & B	S4H-CR-158	40.885656	82.743035	PER	Open Cut	64	-	-	-	Backfill of trench line
2.19	Seneca	S1TB-MO-127	39.798327	81.305223	PER	Open Cut	44.5	-	-	-	Backfill of trench line
2.87	Seneca	S1TB-MO-128	39.799036	81.29277	INT	Open Cut	44.5	-	-	-	Backfill of trench line
3.31	Seneca	S2TB-MO-108	39.799524	81.284853	INT	Open Cut	44.5	-	-	-	Backfill of trench line
3.45	Seneca	S2TB-MO-110	39.799104	81.282374	INT	Open Cut	44.5	-	-	-	Backfill of trench line
3.57	Seneca	W2TB-MO-109	39.799628	81.281662	PEM	No Utility Crossing	-	0.029	0.029	0.003	Temporary Construction Activities
3.69	Seneca	S1TB-MO-129	39.798779	81.278262	PER	Open Cut	44.5	-	-	-	Backfill of trench line
4.3	Seneca	S1TB-MO-132	39.799681	81.267078	INT	Open Cut	44.5	-	-	-	Backfill of trench line
4.61	Seneca	S1TB-MO-134	39.800687	81.261315	PER	Open Cut	44.5	-	-	-	Backfill of trench line
4.86	Seneca	S1TB-MO-135	39.801543	81.256499	EPH	Open Cut	44.5	-	-	-	Backfill of trench line
5.15	Seneca	W1H-MO-162	39.801714	81.251252	PSS	Open Cut	-	0.045	0.045	0.003	Backfill of trench line
5.16	Seneca	S1H-MO-163	39.800127	81.25107	PER	Open Cut	44.5	-	-	-	
5.75	Seneca	S4H-MO-200	39.802639	81.240063	PER	Open Cut	44.5	-	-	-	Backfill of trench line

5.75	Seneca	W4H-MO-201	39.80262	81.240107	PEM	Open Cut	-	0.049	0.049	0.01	
6.06	Seneca	S4H-MO-203	39.803009	81.234382	EPH	Open Cut	44.5	-	-	-	Backfill of trench line
6.48	Seneca	S7H-MO-207	39.80371	81.226545	INT	Open Cut	44.5	-	-	-	Backfill of trench line
6.5	Seneca	S7H-MO-209	39.804279	81.226511	EPH	Open Cut	44.5	-	-	-	
6.73	Seneca	S3ES-MO-266	39.804153	81.222126	EPH	Open Cut	44.5	-	-	-	Backfill of trench line
35.47	Sherwood	S-Ohio River 1	39.61728	80.914834	PER	HDD	0	-	-	-	Section 10 Crossing
35.95	-Sherwood	S4H-MO-593	39.620799	80.918363	PER	HDD	0	-	-	-	-
36.5	Sherwood	S4H-MO-592	39.625828	80.926777	INT	Open Cut	44	-	-	-	Backfill of trench line
						No Utility Crossing					Temporary Construction Activities
38	Sherwood	W2ES-MO-117	39.637274	80.948423	PEM		-	0.008	0.008	0	
38.04	Sherwood	S4H-MO-267	39.63751	80.948965	INT	Open Cut	44	-	-	-	Backfill of trench line
38.05	Sherwood	S4H-MO-266	39.637648	80.948926	EPH	Open Cut	44	-	-	-	
38.32	Sherwood	S4H-MO-265	39.639428	80.953516	INT	Open Cut	44	-	-	-	Backfill of trench line
42.05	Sherwood	S2TB-MO-221	39.678789	80.98817	INT	Open Cut	44	-	-	-	Backfill of trench line

42.95	Sherwood	S4H-MO-275	39.683517	81.002965	PER	Open Cut	44	-	-	-	Backfill of trench line
43.82	Sherwood	S4H-MO-273	39.692232	81.011979	PER	Open Cut	44	-	-	-	Backfill of trench line
43.83	Sherwood	W4H-MO-272	39.692297	81.01196	PFO	Open Cut	-	0.131	0.131	0.053	
44.58	Sherwood	S7H-MO-283	39.702204	81.014977	INT	Open Cut	44	-	-	-	Backfill of trench line
45.44	Sherwood	S7H-MO-291	39.712141	81.022639	INT	Open Cut	44	-	-	-	Backfill of trench line
45.72	Sherwood	W7H-MO-289	39.716169	81.023804	PEM	Open Cut	-	0.268	0.268	0.075	Backfill of trench line
46.08	Sherwood	S2ES-MO-360	39.719746	81.02676	PER	Open Cut	44	-	-	-	Backfill of trench line
47.42	Sherwood	S2TB-MO-213	39.73703	81.030291	EPH	Open Cut	44	-	-	-	Backfill of trench line
47.66	Sherwood	S2TB-MO-215	39.740136	81.029013	PER	Open Cut	44	-	-	-	Backfill of trench line
47.67		W2TB-MO-216	39.740216	81.028841	PEM	Open Cut	-	0.208	0.208	0.057	
48.54	Sherwood	W2TB-MO-205	39.752636	81.028039	PSS	Open Cut	-	0.186	0.186	0.067	Backfill of trench line
48.54		S2TB-MO-206	39.752623	81.027917	PER	Open Cut	44	-	-	-	
0.13	Sherwood	S4H-HR-613	40.247262	81.085913	EPH	Open Cut	64	-	-	-	
0.13	Sherwood	S4H-HR-615	40.247559	81.085098	EPH	Open Cut	44.5	-	-	-	Backfill of trench line
0.19	Supply Connector	S4H-HR-612	40.247974	81.085872	EPH	Open Cut	64	-	-	-	

0.34	Supply Connector	S2ST-HR-155	40.250337	81.085605	EPH	Open Cut	64	-	-	-	Backfill of trench line
0.42	Supply Connector	S4H-HR-623	40.251039	81.086628	EPH	Open Cut	64	-	-	-	Backfill of trench line
0.66	Supply Connector	S2ST-HR-157	40.254177	81.089224	PER	Open Cut	64	-	-	-	Backfill of trench line
0.67	Supply Connector	W4H-HR-609	40.253938	81.089653	PFO	Open Cut	-	0.225	0.225	0.119	
1.01	Supply Connector	S2ES-HR-254	40.258476	81.091673	INT	Open Cut	64	-	-	-	Backfill of trench line
1.29	Supply Connector	S2ES-HR-252	40.261896	81.094065	PER	Open Cut	64	-	-	-	Backfill of trench line
1.33	Supply Connector	W2ES-HR-251	40.262336	81.094073	PEM	Open Cut	-	0.801	0.801	0.284	
3.13	Supply Connector	S2ST-HR-161	40.28655	81.093667	PER	Open Cut	64	-	-	-	Backfill of trench line
3.13		W2ST-HR-162	40.286728	81.093473	PEM	Open Cut	-	0.107	0.107	0.049	
4.48	Supply Connector	S2ES-HR-255	40.304539	81.09604	PER	Open Cut	64	-	-	-	Backfill of trench line
5.18	Supply Connector	S4H-HR-491	40.313251	81.096313	PER	Open Cut	64	-	-	-	Backfill of trench line
5.36	Supply Connector	W4H-HR-492	40.314838	81.095422	PEM	Open Cut	-	0.524	0.524	0.094	Backfill of trench line
6.92	Supply Connector	W4ES-HR-221	40.336044	81.099876	PEM	Open Cut	-	0.446	0.446	0.186	Backfill of trench line
6.98	Supply Connector	S4ES-HR-222	40.336896	81.099749	PER	Open Cut	64	-	-	-	

7.09	Supply Connector	W4ES-HR-223	40.338115	81.102401	PEM	Open Cut	-	2.203	2.203	0.85	Backfill of trench line
8.38	Supply Connector	W2ST-HR-165	40.353796	81.111446	PEM	Open Cut	-	0.104	0.104	0.027	Backfill of trench line
8.4		S2ST-HR-164	40.353786	81.111738	PER	Open Cut	64	-	-	-	
8.85	Supply Connector	S2ST-HR-167	40.356887	81.119265	PER	Open Cut	64	-	-	-	Backfill of trench line
8.85	Supply Connector	W4H-HR-366	40.35702	81.119149	PEM	Open Cut	-	0.048	0.048	0.026	
8.96	Supply Connector	S4ES-HR-224	40.357637	81.121184	INT	Open Cut	64	-	-	-	Backfill of trench line
10.03	Supply Connector	W4ES-HR-225	40.366522	81.136705	PEM	Open Cut	-	0.099	0.099	0.059	Backfill of trench line
10.11	Supply Connector	S4ES-HR-226	40.367556	81.13716	INT	Open Cut	64	-	-	-	
10.13	Supply Connector	S4ES-HR-228	40.36809	81.13768	PER	Open Cut	64	-	-	-	Backfill of trench line
10.14	Supply Connector	W4ES-HR-229	40.368086	81.137906	PEM	Open Cut	-	0.379	0.379	0.108	
11.33	Supply Connector	W3H-HR-209	40.378104	81.152392	PEM	Open Cut	-	0.013	0.013	0	Backfill of trench line
11.34	Supply Connector	S3H-HR-208	40.378842	81.152134	PER	Open Cut	64	-	-	-	
12.49	Supply Connector	S9H-HR-130	40.391098	81.163809	PER	Open Cut	64	-	-	-	Backfill of trench line
12.49	Supply Connector	W9H-HR-132	40.390863	81.163725	PFO	Open Cut	-	0.368	0.368	0.185	
13.44	Supply Connector	S2ES-HR-264	40.400169	81.174169	EPH	Open Cut	64	-	-	-	Backfill of trench line

13.68	Supply Connector	W2ES-HR-265	40.400508	81.178358	PEM	No Utility Crossing	-	0.049	0.049	0	Temporary Construction Activities
13.69	Supply Connector	S2ES-HR-266	40.400177	81.17862	INT	Open Cut	64	-	-	-	Backfill of trench line
13.94	Supply Connector	S4H-HR-479	40.398721	81.182627	INT	Open Cut	64	-	-	-	Backfill of trench line
13.94	Supply Connector	W2ES-HR-249	40.399558	81.182258	PEM	Open Cut	-	0.188	0.188	0.075	
13.95	Supply Connector	S4H-HR-480	40.398744	81.18283	PER	Open Cut	64	-	-	-	
14.08	Supply Connector	S4H-HR-477	40.398909	81.185195	INT	Open Cut	64	-	-	-	Backfill of trench line
14.1	Supply Connector	W4H-HR-474	40.399181	81.185361	PEM	No Utility Crossing	-	0.024	0.024	0.004	Temporary Construction Activities
14.2	Supply Connector	W4H-HR-476	40.3995	81.186809	PEM	No Utility Crossing	-	0.04	0.04	0.001	Temporary Construction Activities
14.21	Supply Connector	S4H-HR-475	40.399466	81.187411	INT	Open Cut	64	-	-	-	Backfill of trench line
14.5	Supply Connector	S2ES-HR-248	40.402829	81.190365	INT	Open Cut	64	-	-	-	Backfill of trench line
14.78	Supply Connector	S3ES-HR-244	40.404558	81.195179	PER	Open Cut	64	-	-	-	Backfill of trench line
14.81		S5ES-HR-169	40.404989	81.195345	INT	Open Cut	64	-	-	-	
14.83	Supply Connector	W5ES-HR-170	40.40484	81.196081	PEM	No Utility Crossing	-	0.07	0.07	0.014	Temporary Construction Activities
15.08	Supply Connector	S3ES-HR-253	40.407237	81.199547	INT	Open Cut	64	-	-	-	Backfill of trench line

15.09		S3ES-HR-252	40.40726	81.199706	EPH	Open Cut	64	-	-	-	
15.23	Supply Connector	W3ES-HR-257	40.408893	81.200666	PEM	Open Cut	-	0.111	0.111	0.045	Backfill of trench line
15.24	Supply Connector	S5ES-HR-172	40.409033	81.201303	EPH	Open Cut	64	-	-	-	
15.33	Supply Connector	W5ES-HR-171	40.409953	81.201629	PFO	Open Cut	-	0.039	0.039	0.013	Backfill of trench line
16.05	Supply Connector	S2ES-HR-267	40.418217	81.209307	PER	Open Cut	64	-	-	-	Backfill of trench line
16.06		W2ES-HR-268	40.418243	81.209392	PSS	Open Cut	-	0.038	0.038	0.016	
16.15	Supply Connector	S2ES-HR-269	40.419649	81.210002	INT	Open Cut	64	-	-	-	Backfill of trench line
17.33	Supply Connector	S2ST-CA-152	40.433269	81.222483	INT	Open Cut	64	-	-	-	Backfill of trench line
17.33	Supply Connector	S2ST-CA-151	40.433318	81.222067	PER	Open Cut	64	-	-	-	
18.15	Supply Connector	S2ST-CA-144	40.444279	81.227188	PER	Open Cut	64	-	-	-	Backfill of trench line
18.17	Supply Connector	S2ST-CA-145	40.444824	81.227285	INT	Open Cut	64	-	-	-	
18.24	Supply Connector	W3H-CA-216	40.445662	81.226986	PFO	Open Cut	-	0.015	0.015	0.008	
18.24	Supply Connector	W3H-CA-215	40.445832	81.226966	PSS	Open Cut	-	0.096	0.096	0.042	
18.25	Supply Connector	W3H-CA-214	40.445831	81.227298	PEM	Open Cut	-	0.161	0.161	0.101	
18.26	Supply Connector	W3H-CA-216A	40.445908	81.227279	PFO	Open Cut	-	0.02	0.02	0.015	Backfill of trench line
18.28	Supply Connector	S2TB-CA-251	40.445695	81.223185	PER	Open Cut	64	-	-	-	

18.3	Supply Connector	W2ST-CA-150	40.446377	81.227748	PEM	Open Cut	-	0.067	0.067	0.035	

3. U.S. Army Corps of Engineers – Buffalo District Regulatory Division

Authorized discharge of dredged and/or fill material into waters of the U.S. for 2014-00613

Streams Crossed by the Rover Pipeline Project in the Buffalo District (2014-00613)

USACE District	Facility	Stream ID	Stream Name	County	Flow	Length in Construction ROW (feet)	Minimal Degradation Alternative	
							Impact Length (feet)	Impact Type
Buffalo	Mainlines A & B	S7H-CR-158	Broken Sword Creek	Crawford	Intermittent	263.03	12.0	Utility crossing
Buffalo	Mainlines A & B	S7H-CR-159	Honey Creek	Crawford	Intermittent	152.45	15.0	Utility crossing
Buffalo	Mainlines A & B	S7H-SE-214	UT to Silver Creek	Seneca	Intermittent	283.25	8.5	Utility crossing

Buffalo	Mainlines A & B	S3H-SE-110	UT to Honey Creek	Seneca	Ephemeral	98.06	2.0	Utility crossing
Buffalo	Mainline B	S3H-SE-109	UT to Honey Creek	Seneca	Ephemeral	413.16	3.0	Utility crossing
Buffalo	Mainlines A & B	S1M-SE-110	Bells Run	Seneca	Perennial	154.41	5.5	Utility crossing
Buffalo	Mainlines A & B	S1M-SE-105	East Branch Wolf Creek	Seneca	Intermittent	171.01	8.0	Utility crossing
Buffalo	Mainlines A & B	S8H-SE-162	UT to Middle Branch Wolf Creek	Seneca	Intermittent	135.83	4.0	Utility crossing
Buffalo	Mainlines A & B	S8H-SE-163	Middle Branch Wolf Creek	Seneca	Perennial	168.29	15.0	Utility crossing
Buffalo	Mainlines A & B	S1M-SE-125	UT to East Branch Wolf Creek	Seneca	Intermittent	285.54	7.0	Utility crossing
Buffalo	Mainlines A & B	S1M-SE-118	UT to East Branch Wolf Creek	Seneca	Intermittent	179.72	3.0	Utility crossing
Buffalo	Mainlines A & B	S8H-SE-167	UT to East Branch Wolf Creek	Seneca	Perennial	135.24	22.0	Utility crossing
Buffalo	Mainlines A & B	S1M-SE-114	East Branch Wolf	Seneca	Perennial	141.41	21.0	Utility crossing
Buffalo	Mainlines A & B	S8H-SE-169	UT to Plum Creek	Seneca	Intermittent	151.32	12.0	Utility crossing
Buffalo	Mainlines A & B	S8H-SE-170	UT to Harrison Creek	Seneca	Intermittent	160.27	5.5	Utility crossing
Buffalo	Mainlines A & B	S8H-SE-171	UT to Harrison Creek	Seneca	Perennial	163.78	4.8	Utility crossing
Buffalo	Mainlines A & B	S1M-SE-129	Wolf Creek	Seneca	Perennial	218.24	12.0	Utility crossing
Buffalo	Mainlines A & B	S3H-SE-137	UT to Wolf Creek	Seneca	Intermittent	218.27	4.0	Utility crossing
Buffalo	Mainlines A & B	S3H-SE-138	UT to Wolf Creek	Seneca	Perennial	162.05	12.0	Utility crossing
Buffalo	Mainlines A & B	S1M-HA-131	UT to Wolf Creek	Hancock	Ephemeral	150.32	8.5	Utility crossing
Buffalo	Mainlines A & B	S3H-HA-140	East Branch Portage River	Hancock	Perennial	8.56	17.0	Utility crossing
Buffalo	Mainlines A & B	S3H-HA-119	UT to South Branch Portage River	Hancock	Perennial	150.92	3.0	Utility crossing
Buffalo	Mainlines A & B	S8H-HA-216	UT to South Branch Portage River	Hancock	Intermittent	27.59	6.0	Utility crossing
Buffalo	Mainlines A & B	S4H-WO-704	S Fork Portage River	Wood	Perennial	146.66	34.0	Utility crossing
Buffalo	Mainlines A & B	S4H-WO-713	UT to South Branch Portage River	Wood	Perennial	170.36	5.0	Utility crossing
Buffalo	Mainlines A & B	S4H-WO-616	Bull Creek	Wood	Perennial	169.10	10.0	Utility crossing
Buffalo	Mainlines A & B	S4H-WO-415	UT to Bull Creek	Wood	Perennial	175.92	6.0	Utility crossing

Buffalo	Mainlines A & B	S4H-WO-711	UT to Middle Branch Portage River	Wood	Perennial	135.13	6.5	Utility crossing
Buffalo	Mainlines A & B	S4H-WO-627	UT to Middle Branch Portage River	Wood	Perennial	153.86	10.0	Utility crossing
Buffalo	Mainlines A & B	S4H-WO-412	Rader Creek	Wood	Perennial	159.45	12.0	Utility crossing
Buffalo	Mainlines A & B	S4H-WO-619	Needles Creek	Wood	Perennial	152.26	12.0	Utility crossing
Buffalo	Mainlines A & B	S4H-WO-624	North Branch Portage River	Wood	Perennial	245.38	10.0	Utility crossing
Buffalo	Mainlines A & B	S4H-WO-408	Jackson Cutoff Ditch	Wood	Perennial	138.73	27.0	Utility crossing
Buffalo	Mainlines A & B	S8H-HE-155	Hammer Creek	Henry	Perennial	145.12	25.0	Utility crossing
Buffalo	Mainlines A & B	S1M-HE-102	Beaver Creek	Henry	Perennial	145.97	30.0	Utility crossing
Buffalo	Mainlines A & B	S8H-HE-153	UT to Big Creek	Henry	Intermittent	153.10	4.0	Utility crossing
Buffalo	Mainlines A & B	S8H-HE-152	UT to Beaver Creek	Henry	Intermittent	150.09	4.0	Utility crossing
Buffalo	Mainlines A & B	S8H-HE-150	UT to Beaver Creek	Henry	Intermittent	171.00	8.0	Utility crossing
Buffalo	Mainlines A & B	S8H-HE-149	UT to Little Turkeyfoot Creek	Henry	Perennial	152.36	6.0	Utility crossing
Buffalo	Mainlines A & B	S8H-HE-148	UT to Little Turkeyfoot Creek	Henry	Perennial	152.46	5.0	Utility crossing
Buffalo	Mainlines A & B	S8H-HE-147	UT to Little Turkeyfoot Creek	Henry	Perennial	152.77	6.0	Utility crossing
Buffalo	Mainlines A & B	S8H-HE-141	UT to South Turkeyfoot Creek	Henry	Ephemeral	135.08	1.5	Utility crossing
Buffalo	Mainlines A & B	S8H-HE-137	UT to Lost Creek	Henry	Perennial	157.06	7.5	Utility crossing
Buffalo	Mainlines A & B	S8H-HE-135	Lost Creek	Henry	Perennial	150.69	30.0	Utility crossing
Buffalo	Mainlines A & B	S8H-HE-136	UT to Lost Creek	Henry	Intermittent	156.27	4.0	Utility crossing
Buffalo	Mainlines A & B	S8H-HE-139	UT to Lost Creek	Henry	Ephemeral	195.68	2.0	Utility crossing
Buffalo	Mainlines A & B	S8H-HE-138	UT to Lost Creek	Henry	Ephemeral	236.71	2.0	Utility crossing
Buffalo	Mainlines A & B	S8H-HE-140	UT to Lost Creek	Henry	Intermittent	150.09	5.5	Utility crossing
Buffalo	Mainlines A & B	S8H-HE-134	UT to School Creek	Henry	Intermittent	185.70	4.5	Utility crossing
Buffalo	Mainlines A & B	S8H-HE-133	UT to School Creek	Henry	Perennial	315.91	25.0	Utility crossing
Buffalo	Mainlines A & B	S8H-HE-132	UT to School Creek	Henry	Perennial	181.47	9.0	Utility crossing
Buffalo	Mainlines A & B	S8H-HE-131	Wade Creek	Henry	Perennial	180.05	30.0	Utility crossing

Buffalo	Mainlines A & B	S1M-HE-123	UT to Maumee River	Henry	Intermittent	201.56	4.5	Utility crossing
Buffalo	Mainlines A & B	S8H-DE-114	UT to Maumee River	Defiance	Intermittent	209.75	2.0	Utility crossing
Buffalo	Mainlines A & B	S8H-DE-106	UT to Brubaker Creek	Defiance	Perennial	158.18	6.5	Utility crossing
Buffalo	Mainline A	S2H-DE-115	Brubaker Creek	Defiance	Ephemeral	224.34	9.0	Utility crossing
Buffalo	Mainline A	S4H-DE-110	Brubaker Creek	Defiance	Intermittent	159.43	10.5	Utility crossing
Buffalo	Mainline A	S4H-DE-405	UT to Tanby Ditch	Defiance	Intermittent	150.47	4.0	Utility crossing
Buffalo	Mainline A	S8H-DE-105	UT to Webb Run	Defiance	Intermittent	225.56	6.0	Utility crossing
Buffalo	Mainline A	S8H-DE-103	UT to Webb Run	Defiance	Intermittent	205.29	4.0	Utility crossing
Buffalo	Mainline A	S4H-DE-113	UT to Webb Run	Defiance	Intermittent	217.25	9.5	Utility crossing
Buffalo	Market Segment	S3H-DF-100	Mattock Ditch	Defiance	Perennial	167.97	5.6	Utility crossing
Buffalo	Market Segment	S3H-DF-101	Mattock Ditch	Defiance	Perennial	196.93	15.0	Utility crossing
Buffalo	Market Segment	S4H-DF-232	Doty Run	Defiance	Perennial	159.55	4.5	Utility crossing
Buffalo	Market Segment	S4H-HN-100	Coon Creek	Henry	Intermittent	196.28	4.0	Utility crossing
Buffalo	Market Segment	S4H-HN-226	UT to Owl Creek	Henry	Intermittent	178.24	2.0	Utility crossing
Buffalo	Market Segment	S2H-HN-111	UT to Owl Creek	Henry	Perennial	151.50	4.0	Utility crossing
Buffalo	Market Segment	S4H-HN-101	UT to Owl Creek	Henry	Intermittent	153.09	3.0	Utility crossing
Buffalo	Market Segment	S3H-HN-135	Owl Creek	Henry	Perennial	151.85	8.0	Utility crossing
Buffalo	Market Segment	SD4H-FU-211	UT to Brush Creek	Fulton	Intermittent	170.18	2.5	Utility crossing
Buffalo	Market Segment	S4H-FU-103	UT to Brush Creek	Fulton	Intermittent	150.10	5.0	Utility crossing
Buffalo	Market Segment	S4H-FU-213	UT to Brush Creek	Fulton	Intermittent	150.96	5.0	Utility crossing
Buffalo	Market Segment	S4H-FU-224	Brush Creek	Fulton	Perennial	249.45	21.0	Utility crossing
Buffalo	Market Segment	S4H-FU-105	Brush Creek	Fulton	Perennial	57.27	-	other
Buffalo	Market Segment	S4H-FU-215	UT to Old Bean Creek	Fulton	Perennial	167.85	5.0	Utility crossing
Buffalo	Market Segment	S4H-FU-217	UT to Old Bean Creek	Fulton	Perennial	184.68	8.0	Utility crossing
Buffalo	Market Segment	S4H-FU-218	Old Bean Creek	Fulton	Perennial	183.80	14.0	Utility crossing
Buffalo	Market Segment	S4H-FU-219	UT to Old Bean Creek	Fulton	Intermittent	179.41	7.0	Utility crossing

Wetlands Crossed by the Rover Pipeline Project in the Buffalo District (2014-00613)

USACE District	Facility	Wetland ID	Nearest Mile Post[1]	County	Wetland Type	Construction Acreage Onsite	Minimal Degradation Alternative		
							Operation (acres)		Impact Type
							Forested	Non Forested	
Buffalo	Defiance Compressor Station	W3H-DF-201	0.00	Defiance	PEM	0.277		0.138	Fill
Buffalo	Defiance Compressor Station	W3H-DF-203	0.00	Defiance	PEM	0.016		0.008	Fill
Buffalo	Defiance Compressor Station	W3H-DF-204	0.00	Defiance	PEM	0.008		0.004	Fill
Buffalo	Defiance Compressor Station	W3H-DF-205	0.00	Defiance	PEM	0.03		0.015	Fill
Buffalo	Market Segment/Mainline A	W3H-DF-202	0.00	Defiance	PEM	0.13		0.039	Utility Line Crossing
Buffalo	Mainline A	W8H-DE-101	208.00	Defiance	PFO	1.304	0.507		Utility Line Crossing
Buffalo	Mainlines A and B	W4H-CR-159	115.84	Crawford	PEM	0.915		0.196	Utility Line Crossing
Buffalo	Mainlines A and B	W4H-CR-245	118.90	Crawford	PFO	0.51	0.288		Utility Line Crossing
Buffalo	Mainlines A and B	USB-CR-1000	121.39	Crawford	PEM	0.47		0.168	Utility Line Crossing
Buffalo	Mainlines A and B	W7H-CR-160	121.77	Crawford	PEM	0.169		0.059	Utility Line Crossing
Buffalo	Mainlines A and B	W6H-CR-114	122.26	Crawford	PEM	0.023		0.008	Utility Line Crossing
Buffalo	Mainlines A and B	USB-CR-1001	123.40	Crawford	PEM	0.37		0.016	Utility Line Crossing
Buffalo	Mainlines A and B	USB-CR-1002	123.54	Crawford	PEM	0.358		0.111	Utility Line Crossing
Buffalo	Mainlines A and B	USB-CR-1003	123.76	Crawford	PEM	0.155		0.039	Utility Line Crossing
Buffalo	Mainlines A and B	W4H-CR-243	124.28	Crawford	PEM	0.106		0.031	Utility Line Crossing
Buffalo	Mainlines A and B	W4H-CR-165	125.79	Crawford	PEM	0.014		0.012	Utility Line Crossing
Buffalo	Mainlines A and B	W3H-CR-107	127.90	Crawford	PEM	0.065		0.052	Utility Line Crossing
Buffalo	Mainlines A and B	W8H-SE-156	131.93	Seneca	PFO	0.355	0.232		Utility Line Crossing
Buffalo	Mainlines A and B	W8H-SE-158	131.93	Seneca	PEM	0.075		0	N/A
Buffalo	Mainlines A and B	W3H-SE-108	133.59	Seneca	PSS	0.51		0.141	Utility Line Crossing

Buffalo	Mainlines A and B	W7H-SE-217	134.97	Seneca	PEM	0.096		0.002	N/A
Buffalo	Mainlines A and B	W7H-SE-219	135.37	Seneca	PEM	0.113		0.036	Utility Line Crossing
Buffalo	Mainlines A and B	W7H-SE-220	135.66	Seneca	PFO	0.043	0		HDD-Access Path
Buffalo	Mainlines A and B	W2H-SE-234	138.21	Seneca	PFO	0.029	0.029		Utility Line Crossing
Buffalo	Mainlines A and B	W7H-SE-224	138.69	Seneca	PEM	0.208		0.114	Utility Line Crossing
Buffalo	Mainlines A and B	W7H-SE-225	139.64	Seneca	PFO	0.106	0.053		Utility Line Crossing
Buffalo	Mainlines A and B	W3H-SE-112	140.47	Seneca	PEM	0.016		0	N/A
Buffalo	Mainlines A and B	W3H-SE-116	140.72	Seneca	PFO	0.023	0		HDD-Access Path
Buffalo	Mainlines A and B	W7H-SE-229	141.83	Seneca	PEM	0.023		0.004	Utility Line Crossing
Buffalo	Mainlines A and B	W1M-SE-104	144.18	Seneca	PFO	0.054	0		N/A
Buffalo	Mainlines A and B	W1M-SE-127	146.85	Seneca	PFO	0.081	0.036		Utility Line Crossing
Buffalo	Mainlines A and B	W1M-SE-119	147.05	Seneca	PFO	0.484	0.212		Utility Line Crossing
Buffalo	Mainlines A and B	W1M-SE-115	148.36	Seneca	PFO	0.152	0.099		Utility Line Crossing
Buffalo	Mainlines A and B	W8H-SE-172	151.34	Seneca	PFO	0.129	0.07		Utility Line Crossing
Buffalo	Mainlines A and B	W3H-HA-118	159.12	Hancock	PEM	0.033		0.011	Utility Line Crossing
Buffalo	Mainlines A and B	W3H-HA-117	159.24	Hancock	PEM	0.018		0.006	Utility Line Crossing
Buffalo	Mainlines A and B	W8H-HA-218	159.72	Hancock	PSS	0.3		0.126	Utility Line Crossing
Buffalo	Mainlines A and B	W8H-HE-143	191.47	Henry	PFO	0.398	0.232		Utility Line Crossing
Buffalo	Mainlines A and B	W4H-HE-630	197.25	Henry	PFO	0.009	0		N/A
Buffalo	Mainlines A and B	W8H-HE-123	200.59	Henry	PFO	0.01	0		HDD-Access Path
Buffalo	Mainlines A and B	W8H-HE-117	200.76	Henry	PFO	0.055	0		HDD-Access Path
Buffalo	Market Segment	W3H-DF-102	1.34	Defiance	PFO	0.575	0.226		Utility Line Crossing
Buffalo	Market Segment	W1H-DF-118	1.75	Defiance	PFO	0.736	0.298		Utility Line Crossing
Buffalo	Market Segment	W1H-DF-117	2.32	Defiance	PEM	0.043		0.008	Utility Line Crossing
Buffalo	Market Segment	W4H-DF-229	2.98	Defiance	PFO	0.861	0.241		Utility Line Crossing
Buffalo	Market Segment	W3H-DF-103	3.56	Defiance	PEM	0.035		0.007	Utility Line Crossing
Buffalo	Market Segment	W3H-DF-104	3.86	Defiance	PFO	0.149	0.068		Utility Line Crossing

Buffalo	Market Segment	W1H-DF-122	3.90	Defiance	PEM	0.242		0.101	Utility Line Crossing
Buffalo	Market Segment	W1H-DF-121	3.94	Defiance	PFO	0.46	0.182		Utility Line Crossing
Buffalo	Market Segment	W1H-DF-120	4.18	Defiance	PEM	0.03		0.006	Utility Line Crossing
Buffalo	Market Segment	W3H-HN-130	6.10	Henry	PFO	1.206	0.484		Utility Line Crossing
Buffalo	Market Segment	W4H-HN-228	7.42	Henry	PFO	1.082	0.432		Utility Line Crossing
Buffalo	Market Segment	W1H-HE-123	10.46	Henry	PEM	0.02		0.004	Utility Line Crossing
Buffalo	Market Segment	USB-FU-1000	12.54	Fulton	PEM	0.112		0.047	Utility Line Crossing
Buffalo	Market Segment	W3H-FU-237	16.78	Fulton	PFO	0.023	0		Utility Line Crossing
Buffalo	Market Segment	W4H-FU-221	17.28	Fulton	PEM	0.041		0.008	Utility Line Crossing
Buffalo	Market Segment	W2H-FU-112	18.40	Fulton	PEM	0.048		0.009	Utility Line Crossing
Buffalo	Market Segment	W4H-FU-216	21.08	Fulton	PEM	0.035		0.007	Utility Line Crossing

PART II TERMS & CONDITIONS

A. Terms and conditions outlined in this section apply to project and mitigation construction as described in this certification.

B. The Certification Holder shall notify Ohio EPA, in writing, and in accordance with *Part IV* (*NOTIFICATIONS TO OHIO EPA*) of this certification, upon the start and completion of site development and mitigation construction.

C. A copy of this certification shall remain on-site for the duration of the project and mitigation construction activities.

D. In the event of an inadvertent spill, the Certification Holder must immediately call the Ohio EPA Spill Hotline at 1-800-282-9378, as well as the Ohio EPA Section 401/Stormwater Manager (614-644-2001).

E. Unpermitted impacts to surface water resources and/or their buffers occurring as a result of this project must be reported within 24 hours of occurrence to Ohio EPA, Division of Surface Water, Section 401/Stormwater Manager (614-644-2001), for further evaluation.

F. Pesticide application(s) for the control of plants and animals shall be applied in accordance with rule 3745-1-01 of the Ohio Administrative Code, and may require a site specific application permit from Ohio EPA. Such a permit may be obtained by calling 614-644-2001 and speaking with the Toxicology Specialist.

G. This project may affect drinking water wells and potable water intakes. Precautions must be taken to limit any effect on the water supply. Officials at any City/Village along the pipeline route should be notified before beginning the project and activities shall be coordinated with them. Additionally, notice should be given to residential wells within 150' of the right of way easement before activities begin.

H. Any authorized representative of the director shall be allowed to inspect the authorized activity at reasonable times to ensure that it is being or has been accomplished in accordance with the terms and conditions of this certification.

I. In the event that there is a conflict between the certification application, including the mitigation plan, and the conditions within this certification, the condition shall prevail unless Ohio EPA agrees, in writing, that the certification application or other provision prevails.

J. The Certification Holder shall provide electronic maps of the development area and the mitigation area to Ohio EPA 401 WQC and Isolated Wetland Permitting Section within 30 days of the date of this certification. JPEG, TIFF, PDF or BMP files are acceptable. When sending the electronic files, include the Ohio EPA ID Number and the Army Corps of Engineers Number (if applicable). If possible, these electronic maps shall be GIS shape files or Geodatabase files. If this is not possible, the electronic maps shall be in another electronic format readable in GIS (GIF, TIF, etc). The electronic files shall be sent to the following e-mail address: EPA.401Webmail@epa.ohio.gov

If the files are too large to send by e-mail, a disk containing the electronic files shall be mailed to the following address:

Ohio Environmental Protection Agency
Division of Surface Water
Attn: 401/Stormwater Section Manager
50 West Town Street, Suite 700
PO Box 1049
Columbus, OH 43216-1049

K. This proposal may require other permits from Ohio EPA. For information concerning application procedures, contact the Ohio EPA District Office as follows:

Ohio Environmental Protection Agency
Northeast District Office
2110 East Aurora Road
Twinsburg, Ohio 44087
330-963-1200

Additional information regarding environmental permitting assistance at Ohio EPA can be found at http://www.epa.ohio.gov/dir/permit_assistance.aspx

L. Best Management Practices (BMPs)

1. All water resources and their buffers which are to be avoided, shall be clearly indicated on site drawings demarcated in the field and protected with suitable materials (e.g., silt fencing, safety fencing, etc.) prior to site disturbance. These materials shall remain in place and be maintained throughout the construction process.

2. All BMPs for storm water management shall be designed and implemented in accordance with the most current edition of the Ohio Department of Natural Resources Rainwater and Land Development Manual, unless otherwise

required by the National Pollutant Discharge Elimination System (NPDES) general permit for storm water discharges associated with construction activities (construction general permit), if required.

A copy of the Rainwater and Land Development Manual is available at: http://soilwater.ohiodnr.gov/water-conservation/stormwater-management

A copy of the NPDES construction general permit is available at: http://www.epa.ohio.gov/dsw/storm/construction_index.aspx#Construction%20General%20Permit

3. Straw bales shall not be used as a form of erosion/sediment control.

4. Temporary fill shall consist of suitable non-erodible material and shall be stabilized to prevent erosion.

5. Materials used for fill or bank protection shall consist of suitable material free from toxic contaminants in other than trace quantities. Broken asphalt is specifically excluded from use as fill or bank protection.

6. Concrete rubble used for fill or bank stabilization shall be in accordance with ODOT specifications; free of exposed re-bar; and, free of all debris, soil and fines.

7. Chemically treated lumber which may include, but is not limited to, chromated copper arsenate and creosote treated lumber shall not be used in structures that come into contact with waters of the state.

8. All disturbed/impacted wetlands will be restored to pre-construction contours and have the stockpiled topsoil replaced as the upper layer of soil material. The topsoil contains the seed base material for regenerating the preconstruction plant cover of the disturbed areas.

9. Culverts

   a. Where culverts are installed for temporary crossings, the bottom elevations of the stream shall be restored as nearly as possible to pre-project conditions.

M. Wildlife Protection

1. If native mussels and/or mussel beds, not previously identified, are encountered at any time during construction or dredging activities, work must

cease immediately and the Ohio Department of Natural Resources' Division of Wildlife must be contacted for further evaluation.

2. In the event that an eastern massasauga rattlesnake (*Sistrurus catenatus catenatus*) is encountered during construction of the project, work should immediately cease and the Ohio Department of Natural Resources, Division of Wildlife contacted. Caution should be employed during construction and during the snakes' active season (March 15 - November 15).

PART III MITIGATION and RESTORATION OF TEMPORARY IMPACTS

A. Description of Required Mitigation

The applicant shall provide mitigation for impacts to 0.953 acres of Category 3 wetland at a 3:1 ratio by purchasing 3 acres of wetland credits from various ILF programs as described in the table below. Additionally, described in the table below, the applicant will provide 20.6 acres of mitigation for the conversion of forested Category 1 and 2 wetlands.

OHIO OFF-SITE MITIGATION								
USACE District	**HUC (8)**	**Wetland Type**	**Category**	**Acres Operation**	**Ratio**	**Credits Needed**	**Credits Rounded Up**	**Proposed Mitigation Source**
Buffalo	04100006, Tiffin	PFO	2	2.438	1.5	3.7	3.7	TNC ILF Program
Buffalo	04100006, Tiffin	PEM	1	0.165	1.5	0.2	0.2	TNC ILF Program
Buffalo	04100009, Lower Maumee	PFO	2	0.232	1.5	0.3	0.3	TNC ILF Program
Buffalo	04100011, Sandusky	PFO	1	0.036	0.5	0	0.0	TNC ILF Program
Buffalo	04100011, Sandusky	PFO	2	0.983	1.5	1.5	1.5	TNC ILF Program
Buffalo	04100011, Sandusky	PSS	1	0.141	0.5	0.1	0.1	TNC ILF Program
Huntington	05030201, Little Muskingum-Middle Island	PFO	2	0.097	1.5	0.1	0.1	TNC ILF Program
Huntington	05030201, Little Muskingum-Middle Island	PFO	3	0.053	3	0.2	0.2	TNC ILF Program
Huntington	05030201, Little Muskingum-Middle Island	PSS	2	0.098	1.5	0.1	0.1	TNC ILF Program
Buffalo	04100010, Cedar-Portage	PSS	2	**0.126**	1.5	**0.19**	**0.2**	Pearson (Stream + Wetlands Foundation)
Huntington	05040001 - Tuscarawas	PFO	1	0.201	0.5	0.1	0.1	NCRCPD Tuscarawas ILF Program

Huntington	05040001 - Tuscarawas	PFO	2	4.779	1.5	7.17	7.2	NCRCPD Tuscarawas ILF Program
Huntington	05040001 - Tuscarawas	PFO	3	0.119	3	0.36	0.4	NCRCPD Tuscarawas ILF Program
Huntington	05040001 - Tuscarawas	PSS	1	0.072	0.5	0.04	0.0	NCRCPD Tuscarawas ILF Program
Huntington	05040001 - Tuscarawas	PSS	2	1.588	1.5	2.38	2.4	NCRCPD Tuscarawas ILF Program
Huntington	05040001 - Tuscarawas	PSS	3	0.119	3	0.36	0.4	NCRCPD Tuscarawas ILF Program
Huntington	05040002 - Mohican	PFO	1	0.03	0.5	0.02	0.0	Stream + Wetlands ILF Program
Huntington	05040002 - Mohican	PFO	2	1.837	1.5	2.76	2.8	Stream + Wetlands ILF Program
Huntington	05040002 - Mohican	PFO	3	0.249	3	0.75	0.8	Stream + Wetlands ILF Program
Huntington	05040002 - Mohican	PSS	2	0.039	1.5	0.06	0.1	Stream + Wetlands ILF Program
Huntington	05040002 - Mohican	PSS	3	0.034	3	0.1	0.1	Stream + Wetlands ILF Program
Huntington	05040003 - Walhonding	PFO	2	0.92	1.5	1.38	1.4	Stream + Wetlands ILF Program
Huntington	05040003 - Walhonding	PSS	1	0.001	0.5	0	0.0	Stream + Wetlands ILF Program
Huntington	05040005 - Wills	PSS	1	0.003	0.5	0	0.0	Stream + Wetlands ILF Program
Pittsburgh	05030101 - Upper Ohio	PEM	3	0.041	3	0.12	0.1	Stream + Wetlands ILF Program
Pittsburgh	05030101 - Upper Ohio	PFO	2	0.04	1.5	0.06	0.1	Stream + Wetlands ILF Program
Pittsburgh	05030101 - Upper Ohio	PSS	2	0.133	1.5	0.2	0.2	Stream + Wetlands ILF Program
Pittsburgh	05030101 - Upper Ohio	PSS	3	0.338	3	1.01	1.0	Stream + Wetlands ILF Program
Pittsburgh	05030106 - Upper Ohio-Wheeling	PFO	1	0.031	0.5	0.02	0.0	Stream + Wetlands ILF Program
Pittsburgh	05030106 - Upper Ohio-Wheeling	PFO	2	0.089	1.5	0.13	0.1	Stream + Wetlands ILF Program
Pittsburgh	05030106 - Upper Ohio-Wheeling	PSS	2	0.011	1.5	0.02	0.0	Stream + Wetlands ILF Program

B. Timing of Mitigation Requirements

Within 30 days of the date of certification, a copy of the fully executed in-lieu fee program agreements shall be provided to Ohio EPA. Impacts to Category 3 waters of the state shall not occur until the terms of this condition have been met.

C. Description of Required Restoration

The applicant shall complete onsite restoration of wetlands and streams to preexisting contours and conditions unless otherwise stated in this certification.

D. Restoration and Monitoring Plan

As restoration for temporary impacts described in Part I.C of this certification, the Certification Holder shall implement onsite restoration in accordance with the conditions in this certification.

E. Annual Project Update Reports

A project update report shall be submitted to Ohio EPA by December 31 of each year following the date of this certification and until restoration is complete and a restoration monitoring report is ready for submittal. Each update report shall contain, at a minimum, the following information:

1. The status of all of the restoration required for the project as specified in the certification.

2. The status of the filling activities at the development site including dates filling was started and completed, or are expected to be started and completed. If filling activities have not been completed, a drawing shall be provided, which shows the locations and acreage/feet of wetlands/streams that have not yet been filled.

3. Restoration construction start date, completion date, or expected start and completion date;

4. A discussion of the extent to which the restoration has been completed; and

5. Current contact information for all responsible parties including phone number, e-mail, and mailing addresses. For the purposes of this condition, responsible parties include, but may not be limited to the Certification Holder, consultant, and owner.

F. Restoration Reporting

The restoration monitoring period shall commence immediately following completion of restoration construction and shall continue through a two growing season periods.

1. Annual restoration monitoring reports shall be submitted to Ohio EPA by December 31 of the first full year following the end of the first full growing season and completion of restoration construction (e.g., if construction and restoration activities are completed in 2016 then the first monitoring report will be due December 31, 2017). All subsequent reports shall be submitted by December 31st of each of the monitoring years.

2. Each annual restoration monitoring report shall contain the **current contact information** for the Certification Holder, agent, and owner including phone number, e-mail, and mailing addresses.

3. Each annual restoration monitoring report shall clearly identify the specific monitoring period the report is intended to represent, as well as the calendar year the monitoring occurred. The report shall also provide a summary of current restoration status, which compares the previous years' monitoring information with the current report including graphs and tables showing trends, etc.

4. Each annual restoration monitoring report shall include a cover letter. The cover letter shall identify the status of the restoration project and identify any items needing immediate attention or questions for the regulatory agencies.

5. The first restoration monitoring report shall contain a full copy of the final U.S. Army Corps of Engineers 404 permit for the project.

6. Each annual restoration report shall include photographs to be collected as follows:

   a. An adequate number of fixed observation points shall be selected, with no fewer than three fixed observation points per distinct restoration area, to provide representative overviews of each distinct mitigation area.

   b. Photographs shall be taken from these points at the same position and angle during the growing season of each monitoring year. The fixed observation points shall be marked on the base map.

   c. Additional photographs of areas of interest within each distinct restoration area shall be marked on the base map and provided in each monitoring report.

G. Agency Site Visits

The Certification Holder shall arrange on-site restoration meetings with Ohio EPA during the growing season that follows the submittal of the first annual restoration monitoring report. The purpose of this inspection is to determine if the restoration project has been constructed in accordance with the restoration approved by Ohio EPA and the terms and conditions of this certification, as well as to determine

progress toward compliance with the performance goals (see items G and H below) for the onsite restoration. The Certification Holder is responsible for undertaking any modifications identified by Ohio EPA.

H. Stream Monitoring Requirements

a. Stream Stability Rating

Observations of the stream restored channel and banks, including up and downstream, shall be made. Signs of negative effects from the stream mitigation such as excessive bank erosion, sedimentation, headcutting, aggradation, entrenchment, or degradation shall be noted in the annual restoration monitoring report, and corrective actions shall be taken.

I. Wetland Monitoring Requirements

a. Jurisdictional Assessment

U.S. Army Corps of Engineers Wetland Determination Data Forms shall be completed two growing seasons after completion.

J. Restoration Goals – Streams

Within two growing seasons after completion of restoration, the Certification Holder shall have:

1. Demonstrated that all stream crossings have been restored to pre-impact conditions.

2. Demonstrated that the stream restoration channel and banks including up and downstream of the restoration are stable and show no signs of excessive bank erosion, sedimentation, headcutting, aggradation, entrenchment, or degradation.

K. Restoration Goals – Wetlands

Within two growing seasons after completion of restoration, the Certification Holder shall have demonstrated that all wetlands have been restored to pre-impact conditions, including no net increase of invasive species from pre-impact conditions. The preconstruction jurisdictional status of each impacted wetland and number of acres that existed before impacts must be maintained after impacts occur.

L. Contingency Plans

If the restoration areas are not performing as proposed by the end of the two growing seasons of post construction monitoring, the monitoring period may be extended and/or the Certification Holder may be required to revise the existing restoration or seek out new or additional restoration areas.

Ohio EPA may reduce or increase the number of years for which monitoring is required to be conducted based on the effectiveness of the restoration.

PART IV NOTIFICATIONS TO OHIO EPA

All notifications, correspondence, and reports regarding this certification shall reference the following information:

Certification Holder Name: Rover Pipeline LLC
Project Name: Rover Pipeline Project
Ohio EPA ID No.: 154852

and shall be sent to:

Ohio Environmental Protection Agency
Division of Surface Water, 401/IWP Unit
Lazarus Government Center
50 West Town Street
P.O. Box 1049
Columbus, Ohio 43216-1049

You are hereby notified that this action of the director is final and may be appealed to the Environmental Review Appeals Commission pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with the Commission within 30 days after notice of the director's action. The appeal must be accompanied by a filing fee of $70.00, made payable to "Ohio Treasurer Josh Mandel," which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the director within three days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission
77 South High Street, 17th Floor
Columbus, Ohio 43215

Sincerely,

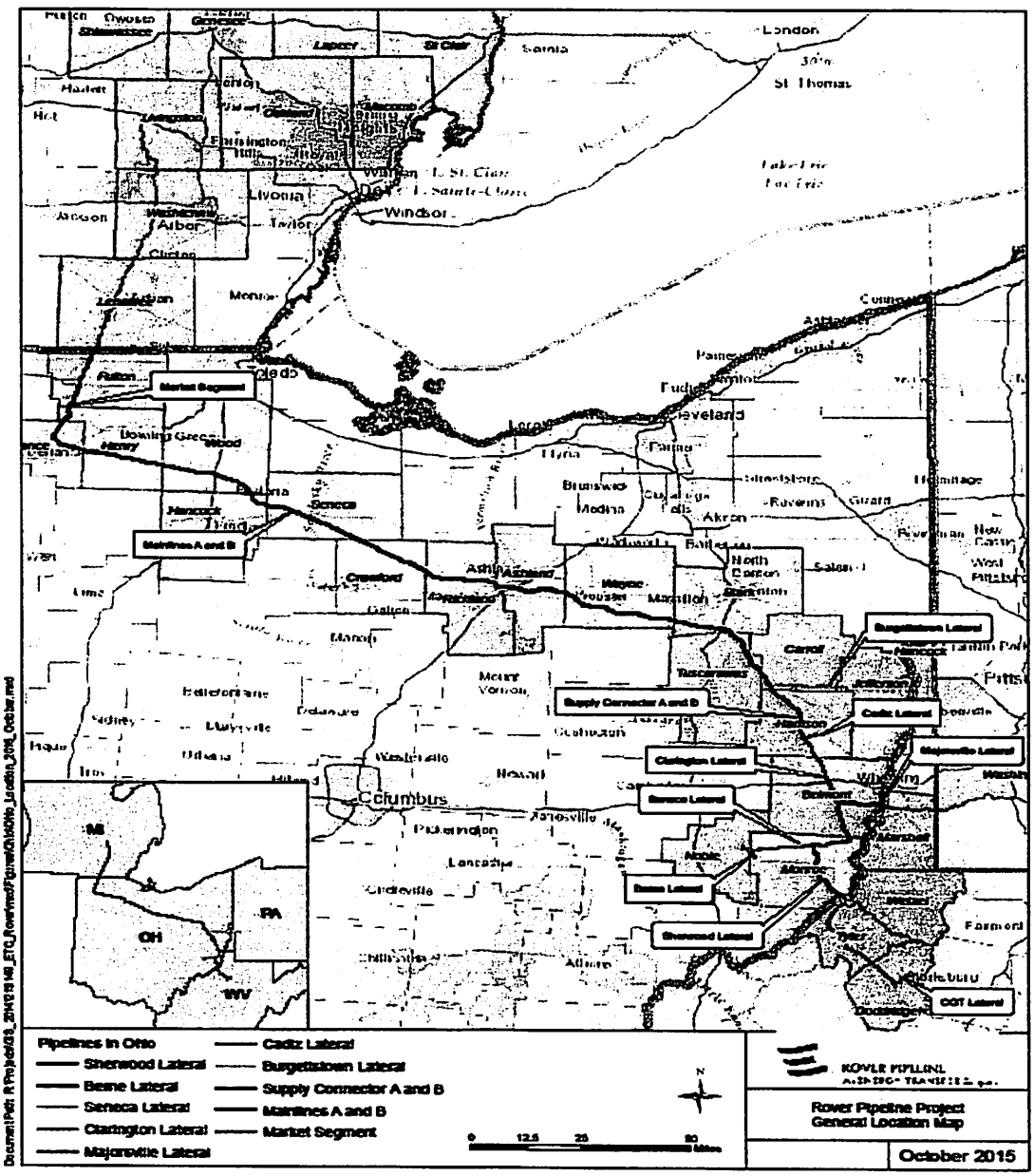
Craig W. Butler
Director

cc: Wes Barnett, Department of the Army, Huntington District, Corps of Engineers
Shawn Blohm, Department of the Army, Buffalo District, Corps of Engineers
Josh Shaffer, Department of the Army, Pittsburgh District, Corps of Engineers
Peter Swenson, U.S. EPA, Region 5
Dan Everson, U.S. Fish & Wildlife Service
John Kessler, ODNR, Office of Real Estate
Dave Snyder, Ohio Historical Preservation Office
Todd Surrena, Ohio EPA, DSW, Section 401/IWP
Jeff Boyles, Ohio EPA, DSW, Section 401/IWP
Jeff DeShon, Ohio EPA, DSW, EAS

Attachments: Site Location Map (project)
Response to Comments

Ohio EPA has developed a customer service survey to get feedback from regulated entities that have contacted Ohio EPA for regulatory assistance, or worked with the Agency to obtain a permit, license or other authorization. Ohio EPA's goal is to provide our customers with the best possible customer service, and your feedback is important to us in meeting this goal. Please take a few minutes to complete this survey and share your experience with us at http://www.surveymonkey.com/s/ohioepacustomersurvey.

ATTACHMENT: Site Location Map (project)



Ohio Environmental Protection Agency

Division of Surface Water
Response to Comments

Project: Rover Pipeline 401 Water Quality Certification (WQC) Application
Ohio EPA ID #: 154852

Agency Contacts for this Project

Division Contact: Todd Surrena, DSW-NEDO, 330-963-1255, todd.surrena@epa.ohio.gov
Public Involvement Coordinator: Mike Settles, PIC, 614-644-2160, michael.settles@epa.ohio.gov

Ohio EPA held a public information session and hearing on September 22, 2016, regarding Rover Pipeline Project's 401 WQC application. This document summarizes the comments and questions received at the public hearing and during the associated comment period, which ended on September 29, 2016.

Ohio EPA reviewed and considered all comments received during the public comment period. By law, Ohio EPA has authority to consider specific issues related to protection of the environment and public health. Often, public concerns fall outside the scope of that authority. For example, concerns about zoning issues are addressed at the local level. Ohio EPA may respond to those concerns in this document by identifying another government agency with more direct authority over the issue.

In an effort to help you review this document, the questions are grouped by topic and organized in a consistent format.

Public Comments

Comment 1: **At the public hearing, representatives from several labor unions spoke in support of the proposed pipeline project. In addition, local union members submitted letters of support.**

Response 1: No response necessary.

Comment 2: **Multiple commenters expressed concerns about the proposed pipeline's route; potential impacts to property values; disposal of fracking wastes; pipeline monitoring and safety; and petroleum industry practices.**

Response 2: The 401 WQC review is limited to potential water resource impacts from the pipeline activity. The applicant has demonstrated that the proposed project will avoid and minimize impacts to waters of the State. Minimization methods include, but are not limited to, narrowed construction right of ways; erosion and sediment controls; use of horizontal directional drilling and other slick bores; anti-seep collars; and construction Best Management Practices (BMPs).

Many agencies are involved in the regulation and oversight of the proposed Rover pipeline project. The table below lists the agencies and their respective authorities.

Issue	Main Regulator
Air pollution	Ohio EPA Division of Air Pollution Control; U.S. Environmental Protection Agency
Eminent domain	State of Ohio laws
Noise	Local zoning organizations; Federal Energy Regulatory Commission
Property values	Local zoning organizations (town, city or county)
Siting of compressor stations and pipelines	Interstate lines (cross one or more states) – Federal Energy Regulatory Commission Intrastate gas pipelines (operate only in Ohio) – Ohio Power Siting Board Gathering lines (carry gas from a processing facility to a fractionation plant, to an interstate or intrastate pipeline) and lines carrying liquids – Local zoning Production lines (installed at the well site) – Ohio Department of Natural Resources
Safety	Interstate and liquids lines – Pipeline and Hazardous Materials Safety Administration Most Ohio pipelines – Public Utilities Commission of Ohio Production lines – Ohio Department of Natural Resources
Truck traffic	Local organizations (town, city or county); Ohio Department of Transportation

Wetlands and streams	Ohio EPA Division of Surface Water; U.S. EPA; U.S. Army Corps of Engineers
Zoning restrictions	Local zoning organizations (town, city or county)

End of Response to Comments

ACTION REQUESTED BY MARCH 18, 2022

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Rover Pipeline, LLC, Energy Transfer Partners, L.P.	))))	Docket No. IN17-4-000

ROVER PIPELINE, LLC's AND ENERGY TRANSFER, L.P.'s MOTION FOR LEAVE TO ANSWER AND ANSWER IN SUPPORT OF RENEWED MOTION TO COMPEL DISCLOSURE OF EXCULPATORY MATERIALS AND REQUIRE IN CAMERA INSPECTION AND REQUEST FOR EXTENSION OF TIME

Rover Pipeline, LLC and Energy Transfer, L.P. (collectively, "Respondents") provide this reply to Enforcement Staff's Response[1] ("Response") to correct the record.[2] Enforcement Staff's claim to have complied with the Commission's *Brady* Policy and Rover's due process rights is transparently self-serving. Their Response broadcasts that they have withheld exculpatory materials in the Commission's possession.[3] Rover's Motion provided a clear and targeted description of six specific categories of *Brady* material that

[1] Response to Respondent's Renewed Motion to Compel Disclosure of Exculpatory Materials And Require In Camera Inspection, *Rover Pipeline LLC*, Docket No. IN17-4-000 (Mar. 2, 2022).

[2] Rover respectfully requests leave to answer Enforcement Staff's Response. The Commission regularly allows answers to answers where the response assists in the decision-making process. 18 C.F.R. § 385.213(a)(2). *See also, e.g.*, *Alliance Pipeline, L.P*, 151 FERC ¶ 61,271 at P 10 (2015) ("[T]he Commission will accept Alliance's answer because it assisted the Commission in its decision-making process."); *Mountain Valley Pipeline, LLC*, 171 FERC ¶ 61,232 at P 17 (2020) (accepting answers that "provide information that has assisted in our decision-making process"). Rover's answer provides important clarifications regarding Enforcement Staff's assertions and concessions that will assist the Commission in its decision-making process.

[3] *See* Policy Statement on the Disclosure of Exculpatory Materials, 129 FERC ¶ 61,248 (2009) ("*Brady* Policy").

Enforcement Staff need to disclose under that Policy.[4] To take just one example, Rover identified a number of informal non-target or non-referral agreements Enforcement Staff reached with witnesses. The agreements were referenced on the record during sworn witness testimony that Enforcement Staff took, as well as in emails Enforcement Staff produced.[5] There is no dispute that the *Brady* Policy compels Enforcement Staff to produce "informal statements by the prosecution that a witness would not be prosecuted in exchange for his testimony."[6] Yet, astonishingly, the Enforcement Staff's Response *entirely* ignores this and every other enumerated category of material in the Motion. And, despite *three years of requests*, Enforcement Staff have *never* denied that these categories of materials are within the Commission's possession, custody, or control.

Having waived any response to the specific categories of improperly withheld materials, the Response again retreats to conclusory assertions that Enforcement "staff has complied" with the *Brady* Policy. Response, at 2; *id.* ("staff has considered and has fully complied with the [*Brady* Policy]"); *id.* at 3 ("staff has complied with the [*Brady* Policy]"). Enforcement Staff's vague assurances ring hollow in light of their failure to address any of Rover's specific identifications of withheld materials. This is amplified by Enforcement Staff's incredible assertion that they have "not identified *any* exculpatory material" over the course of the entire investigation.[7] The Response thus confirms that either Enforcement Staff have not performed an adequate investigation, or Enforcement Staff have not complied with the obligations to disclose

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[4] *See* Attach. 1, Rover Pipeline, LLC and Energy Transfer Partners, L.P. Motion to Compel Disclosure of Exculpatory Materials, Apply Ex Parte Rules, and Require in Camera Inspection, at 14-18 (Apr. 5, 2021) ("Motion").

[5] Motion, at 16-17.

[6] Brady Policy ¶ 4.

[7] Response, at 2 (emphasis added).

materials that are "potentially exculpatory" or "otherwise favorable" to Rover's guilt *or* punishment.[8] Enforcement Staff's claim that they are not "deliberately" withholding *Brady* materials is no answer, Response, at 2, because improper "suppression of evidence favorable to an accused upon request violates due process . . . *irrespective* of the good faith or bad faith of the prosecution."[9]

Enforcement Staff also miss the mark on exculpatory information elsewhere in the investigatory record.[10] After nearly five years of investigation, Enforcement Staff have yet to identify a single person at either Respondent who had contemporaneous knowledge that independent subcontractors working in Ohio were improperly using diesel fuel or other unapproved additives at the horizontal directional drill sites during the construction of the Rover Pipeline. Nor have Enforcement Staff produced a single piece of evidence showing that any person at either company had such knowledge. Thus, they concede there is an "absence of inculpatory information" as to Rover.[11] This "absence of inculpatory information," *id.*, is inherently "potentially exculpatory" or "otherwise favorable" to Rover. Enforcement Staff's extensive and unsuccessful efforts to link Rover to the improper use of diesel or unauthorized additives is powerful evidence that Rover is not responsible for the wrongdoing at issue. And every amount of effort Enforcement Staff took to link Rover to the wrongdoing, only to fail, is reason alone to conclude that the entire investigative record is "potentially exculpatory" or "otherwise favorable" to Rover.

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[8] *Brady v. Maryland*, 373 U.S. 83, 87-88 (1963).

[9] *Brady*, 373 U.S. at 87 (emphasis added).

[10] Response, at 2.

[11] *Id.*

Finally, there is no merit to Enforcement Staff's attempted procedural rope-a-dope on the timing of its *Brady* obligations by claiming that Rover's request is "premature."[12] The *Brady* Policy expressly applies during "Section 1b investigations and administrative enforcement actions under Part 385" of the Commission's Regulations.[13] Additionally, nothing prohibits Respondents from moving the Commission to enforce compliance with the *Brady* Policy at this time.[14] Failing to respond to the issues raised in the Motion for nearly a year condones an ongoing series of due process violations that demands the Commission's urgent intervention.

Respondent's answer to the Commission's Order to Show Cause is due to be filed on March 21, 2022. That is why Respondents' *third Brady* request just to the Commission, filed on February 22, 2002, requested that Respondents receive the *Brady* materials that the Commission is required to produce no later than March 7, 2022. This followed Respondents' April 5, 2021 and April 27, 2021 *Brady* motions *just to the Commission*. The Commission now has had over ten months to respond to these *Brady* motions. Therefore, Respondents request that the Commission produce the *Brady* materials no later March 18, 2022. Respondents further request that the due date for Respondents' answer to the Order to Show Cause be extended to April 18, 2022.

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[12] *Id.* at 3 n.9.

[13] *Brady* Policy ¶ 7.

[14] *See* 18 C.F.R. § 1b.18 ("Any person may, at any time during the course of an investigation, submit documents, statements of facts or memoranda of law for the purpose of explaining said person's position or furnishing evidence which said person considers relevant regarding the matters under investigation.").

CONCLUSION

For the foregoing reasons, Rover respectfully requests that the Motion be granted and Enforcement Staff be required to produce the required information and materials, including but not limited to all categories enumerated in the Motion. Respondents request that the Commission produce the *Brady* materials no later March 18, 2022. Respondents further request that the due date for Respondents' answer to the Order to Show Cause be extended to April 18, 2022.

Respectfully submitted,

/s/ *William S. Scherman*

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Dated: March 10, 2022
Washington, DC

CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon each person designated on the official service list compiled by the Secretary in this proceeding.

Dated at Washington, D.C., this 10th day of March, 2022.

/s/ *Ruth M. Porter*
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