

Robert Squires - Squires Consulting LLC
Landowner Advocate

Opening Statement for May 5, 2021 Subcommittee on Civil Rights and Civil Liberties Hearing:
“Pipelines Over People (Part II): Midship Pipeline’s Disregard for Landowners in Its Pathway”

My name is Robert Squires and I work in the Oil and Gas industry on the side of landowners who are affected or crossed by natural gas pipeline projects including the Midship project and several others. I received bachelor’s degrees in the fields of sociology and geography from Kent State University and received my master’s degree in geography from Kent State University as well. I work closely with other landowner advocates, landowner representatives, and landowners themselves to help document issues with construction and restoration, notify the company and FERC of these issues, as well as help guide the landowners through cumbersome FERC processes.

I began working on the Midship project in June 2018, a few months before FERC approved the project in August 2018. Since then, there have been many noteworthy events that have led us to where we are today. Some of these include:

- August 13, 2018: FERC Issues Certificate Order to Midship approving the project. (*See Attachment 1*).
- September 4, 2018: Midship initiates condemnation proceedings in Western and Eastern Districts of Oklahoma (US Federal Court).
- February 2019: Midship begins construction.
- March 2019: Landowners and Central Land Consulting begin filing complaints to FERC regarding Midship’s construction activities.
- July 3, 2019: FERC orders Stop-Work Order on Midship for dozens of repeated or unresolved construction-related noncompliances. (*See Attachment 2*).
- July 31, 2019: FERC allows Midship to resume construction activities. (*See Attachment 3*).
- April 1, 2020: Midship requests to place the pipeline into service. (*See Attachment 4*).
- April 7, 2020: Central Land Consulting opposes Midship’s request to place the project into service and cites project-wide restoration issues and ongoing non-compliant activity. (*See Attachment 5*).
- April 13 / 14, 2020: Midship, the FERC Compliance Monitor, Central Land Consulting, and various landowners conduct joint inspections and site visits to certain tracts. These inspections indicate that there are ongoing compliance issues and restoration issues throughout much of the project. (*See Attachment 6*).
- April 16, 2020: Rich McGuire of FERC’s Office of Energy Projects approves Midship’s request to place the project into service under the stipulation that Midship complete all remaining restoration activities by June 30, 2020. (*See Attachment 7*).

- June 5, 2020: Midship files a temporary restraining order against Sandy Creek Farms claiming that Sandy Creek Farms flooded the Midship easement.
- June 16, 2020: Midship's contractor, Strike LLC, sues Sandy Creek Farms for alleged interference with construction. In August 2020, Judge Charles Goodwin finds no evidence of interference relating to these claims, yet the lawsuit remains pending.
- August 2020: Midship again files a contempt motion against Sandy Creek Farms for alleged interference related to ongoing and uncontrolled flooding throughout 2020 (basis of Strike lawsuit). Judge Charles Goodwin finds no evidence of interference.
- August 11, 2020: Midship reports to FERC that all restoration activities are complete project wide. (*See Attachment 8*).
- September 2020 to Present: Landowners and their consultants begin work to show that Midship HAS NOT completed restoration work and have left their properties in extremely poor condition. (*See Attachment 9*).
- November / December 2020: Midship remobilizes to various properties and reports to FERC that they have now finished restoration and that there is no matting left on the Sandy Creek Farms or Mark Morris properties.
- November 2020: Within 1 week of Midship's demobilization from Mark Morris' property and their assertion that all remaining construction debris has been removed (in Midship status report accession no. 20201118-5122), Mr. Morris excavates parts of the Midship right-of-way and unearths significant amounts of construction debris. (*See Attachment 10*).
- November 18, 2020: FERC requires Midship to create a "Restoration Assessment Plan" for Mark Morris and Sandy Creek Farms' properties. FERC requires Midship to respond with a plan within 7 days of the date of the letter. (*See Attachment 11*).
- November 25, 2020: Midship responds to FERC's "Restoration Assessment Plan" request and states 1.) Midship already completed all debris removal on the Morris tract, and 2.) Midship does not believe there is any debris left on the Sandy Creek Farms tract. (*See Attachment 12*).
- November 25 / 30, 2020: Central Land Consulting and the respective landowners submit their own restoration plans in response to FERC's November 18, 2020 request. To my knowledge, FERC has never commented on either Midship's response or CLC's response to the November 18, 2020 restoration plan requests. (*See Attachment 13*).
- December 2020: Midship hires Terrace Bidwell as their expert in the condemnation cases. Mr. Bidwell reports to have visited all 81 properties in four days and states that he finds "No discernible (insert issue here)" on nearly every property. Further, he provides extremely low-quality, negative photos that several landowners assert are not of their property. (*See Attachment 14*).
- January 15, 2021: Landowners and CLC respond to the Bidwell Report on the FERC docket and highlight many logistical, integrity, and scientific concerns related to the report and conclusions drawn by Mr. Bidwell. (*See Attachment 15*).
- February / March 2021: Midship remobilizes and demobilizes from the Sandy Creek Farms Property leaving behind a partially finished and muddy mess. Midship reports that

all debris removal was completed on March 5, 2021 (in their March 26, 2021 status report accession no. 20210326-5030). (*See Attachment 16*).

- March 18, 2021: FERC files an Order on Environmental Compliance to Midship. This Order “directs Midship Pipeline Company, LLC (Midship) to take immediate action to remedy unresolved restoration issues on certain landowner tracts.” The Order also directs Midship to “complete the required restoration as soon as possible and no later than 60 days from the date of this Order.” (*See Attachment 17*).
- March 23, 2021: Midship files Summary Judgement Motion (5 days after FERC ordered Midship to work with landowners to resolve the outstanding issues) to dispose of condemnation cases in one fell swoop which would effectively bar landowners from testifying to the value of their land.
- May 3, 2021: 15 Days remaining on Compliance Order. Midship has remobilized to some properties but have not meaningfully addressed the underlying restoration issues listed in the FERC Order. (*See Attachment 18*).

If there is any takeaway from the above timeline of events, it is that Midship has proven themselves to be a company that is unable to be regulated. Not only have they treated the landowners poorly and their lands even poorer, but they disregard orders from FERC time and time again. Even more disturbing is the fact that FERC allows them to disregard its orders with no repercussions.

Until March 18, 2021, there had been no inkling of repercussions towards Midship’s repeated dismay for accepted regulations and construction practices. The March 18, 2021 Order makes clear that FERC has the ability and jurisdiction to hold Midship accountable. Chairman Glick states in the Order:

“There must be consequences when the certificate holder fails to adequately fulfill those responsibilities. For instance, we can refer the matter to the Office of Enforcement for civil penalties. We can also consider whether to revoke the certificate of public convenience and necessity itself. In my opinion, both options should be on the table if Midship fails to promptly resolve its outstanding obligations to landowners.”

Even with the March 18, 2021 Order Midship continues to skirt its responsibilities as the project sponsor. On every property they have conducted additional work (approximately 30% of those listed in the March 18 Order), Midship has attempted band-aid repairs on issues that need surgery. They have failed to consult with the affected landowners and their work reflects this. Every landowner will tell you the same thing, Midship approached them with an initial offer, the landowner wanted more, Midship came back a month later with a lower offer, the landowner said no, Midship said we will condemn you and you will have no say-so; the landowners did not sign and were thus brought into an eminent domain proceeding. This initial unreasonableness carried over into nearly every aspect of the project from that moment forward. These Oklahoma landowners are not averse to the oil and gas industry. Many of them have several pipelines or

wells on their property already or work in the industry themselves. They just want to be treated fairly. Every landowner I have talked to echoes the sentiment that they have been taken advantage of through complex processes, legal intimidation, and Midship's ability to manipulate the facts on the ground.

The only thing any landowner wants is for their land to be restored to how it was before Midship came through. Unfortunately, Midship and its contractors have show over and over again that they are unwilling and unable to complete such a task.

Attachment 1

Midship FERC Certificate

164 FERC ¶ 61,103
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Kevin J. McIntyre, Chairman;
Cheryl A. LaFleur, Neil Chatterjee,
and Richard Glick.

Midship Pipeline Company, LLC

Docket No. CP17-458-000

ORDER ISSUING CERTIFICATE

(Issued August 13, 2018)

1. On May 31, 2017, Midship Pipeline Company, LLC (Midship) filed an application pursuant to section 7(c) of the Natural Gas Act (NGA)¹ and Part 157 of the Commission's regulations² for authorization to construct and operate the Midcontinent Supply Header Interstate Pipeline Project (MIDSHIP Project), a new interstate pipeline system. The project is designed to provide up to 1,440 million standard cubic feet (MMcf) per day of firm transportation capacity from the South Central Oklahoma Oil Province and the Sooner Trend Anadarko Basin Canadian and Kingfisher gas plays in the Anadarko Basin in Oklahoma to existing natural gas pipelines near Bennington, Oklahoma, for subsequent transport to Gulf Coast and Southeast markets. In conjunction with this project, Midship filed a *pro forma* FERC NGA Gas Tariff for Commission approval. Midship also requests a blanket certificate under Part 157, Subpart F of the Commission's regulations to perform certain routine construction activities and operations, as well as a blanket certificate under Part 284, Subpart G of the Commission's regulations to provide open-access firm and interruptible interstate natural gas transportation services on a self-implementing basis with pre-granted abandonment for such services. As discussed below, the Commission will grant the requested authorizations, subject to conditions.

I. Background and Proposal

2. Midship, a new company organized under Delaware laws with its principal place of business in Texas, is wholly-owned by Midship Holdings, LLC, which is indirectly owned by Cheniere Energy, Inc. and one or more funds or companies managed or owned

¹ 15 U.S.C. § 717f(c) (2012).

² 18 C.F.R. pt. 157 (2017).

by EIG Management Company. Midship does not currently own any pipeline facilities, nor is it engaged in any natural gas transportation operations. Upon commencement of operations proposed in its application, Midship will become a natural gas company within the meaning of section 2(6) of the NGA,³ and, as such, will be subject to the jurisdiction of the Commission.

A. The MIDSHIP Project

3. Midship proposes to construct an approximately 199.7-mile mainline pipeline in Oklahoma, including compressor stations, metering and regulation (M&R) stations, and appurtenant facilities, and 34.4 miles of lateral pipeline and appurtenant facilities. Specifically, Midship proposes to construct the following facilities as described below.

1. Mainline Pipeline

4. The MIDSHIP Project mainline will comprise approximately 199.7 miles of 36-inch-diameter pipeline beginning at the Okarche Gas Processing Plant near Okarche, Oklahoma, and ending at interconnects with existing interstate natural gas pipelines near the Town of Bennington, Oklahoma. The mainline will be rated for a Maximum Allowable Operating Pressure (MAOP) of up to 1,480 pounds per square inch gauge (psig).

2. Compressor Stations

5. The MIDSHIP Project will include the following three mainline compressor stations:

a. Calumet Compressor Station

6. The Calumet Compressor Station will be located in Canadian County, Oklahoma, at, approximately, milepost (MP) 17.6. This compressor station will be ISO-rated for 28,160 horsepower (hp) and will include two Solar Centaur 50 gas-fired turbine units (6,130 hp each), one Solar Mars 100 gas-fired turbine unit (15,900 hp), and two gas-fired emergency generators (Caterpillar G3512).

b. Tatums Compressor Station

7. The Tatums Compressor Station will be located in Garvin County, Oklahoma, at approximately MP 99.4 and will be ISO-rated for 44,230 hp. This station will include two Solar Taurus 70 gas-fired turbine units (10,915 hp each), one Solar Titan 130 gas-fired turbine unit (22,400 hp), and two gas-fired emergency generators (Caterpillar G3512).

³ 15 U.S.C. § 717a(6) (2012).

c. Bennington Compressor Station

8. The Bennington Compressor Station will be located in Bryan County, Oklahoma, at approximately MP 198.4. This compressor station will be ISO-rated for 42,260 hp and will include two Solar Centaur 50 gas-fired turbine units (6,130 hp each), one Solar Titan 250 gas-fired turbine unit (30,000 hp), and two gas-fired emergency generators (Caterpillar G3512).

3. Meter Facilities/Receipt Taps

9. The MIDSHP Project will include the following meter facilities and receipt taps along the mainline pipeline:

Receipt Meter Stations/Taps:

- Okarche/Mark West Meter Station at MP 0.0 (2 receipt meters)
- Canadian Valley Receipt Tap at MP 10.6
- Cana Meter Station at MP 15.2
- Iron Horse Meter Station at MP 47.5
- Bradley Receipt Tap at MP 74.1
- Grady Meter Station at MP 78.8
- Wildhorse Receipt Tap at MP 94.7

Delivery Meter Stations:

- Natural Gas Pipeline Company, LLC (“NGPL”) 801 Meter Station at MP 119.1
- NGPL Meter Station at MP 198.4
- Bennington Meter Station at MP 199.6 (2 delivery meters) at interconnections with Midcontinent Express Pipeline LLC and Gulf Crossing Pipeline Company.

4. Appurtenant Facilities

10. The company will construct the following appurtenant facilities on the mainline pipeline:

- Eight (8) standalone mainline valves

- One (1) pig launcher at MP 0.0
- One (1) pig receiver at the Bennington Meter Station at MP 199.7

5. Lateral Pipeline Facilities

11. The MIDSHIP Project will include two lateral pipelines, the Chisholm and Velma Laterals. The Chisholm Lateral will consist of 20.5 miles of 30-inch-diameter pipeline and will be located entirely in Kingfisher County, Oklahoma, with a tie-in to the mainline near MP 0.0, and appurtenant facilities including a pig launcher, a pig receiver, a standalone valve, and receipt meter. The Velma Lateral will consist of 13.8 miles of 16-inch-diameter pipeline and will be located in Stephens, Carter, and Garvin Counties, Oklahoma, with a tie-in to the mainline at the Tatum Compressor Station near MP 99.4, and appurtenant facilities including a pig launcher, a pig receiver, a booster station, a meter station, and receipt taps. Both laterals will be rated for an MAOP of up to 1,480 psig. The Sholem booster station will be located along the Velma Lateral in Stephens County, Oklahoma, at approximate MP VE6.8. This booster station will be rated for 3,750 hp. One meter station, the Velma Meter Station at MP VE13.6, will be constructed on the Velma Lateral. One receipt tap, the Chisholm receipt tap, will be constructed at CH0.0 on the Chisholm Lateral, and two receipt taps, the Velma and Sholem receipt taps, will be constructed at VE0.0 and VE6.8, respectively, on the Velma Lateral.

12. Of the project's 1,440 MMcf total design capacity, 925 MMcf (approximately 64 percent) is subscribed by four shippers under precedent agreements. Midship executed precedent agreements with Marathon Oil Company (Marathon), Gulfport Energy Corporation (Gulfport), and Devon Gas Services, L.P. (Devon) as foundation shippers for firm transportation totaling 850 MMcf per day, each for a minimum term of 10 years. The remaining 75 MMcf per day is subscribed by Corpus Christi Liquefaction, an affiliated entity. All shippers have elected to pay negotiated rates. Midship also held an open season to solicit additional interest in firm transportation on the project, and continues to market the remaining capacity.⁴

13. Midship requests approval of its proposed *pro forma* tariff. Midship will offer firm transportation, interruptible transportation, and interruptible park and loan services under the terms and conditions of its proposed Rate Schedules FTS, ITS, and PALS, and proposes initial minimum and maximum recourse reservation rates for each of its proposed services, usage rates for its firm transportation service, and minimum and maximum recourse rates for its interruptible and parking and lending services. Midship requests a blanket certificate pursuant to Part 284, Subpart G of the Commission's regulations authorizing Midship to provide open-access firm and interruptible interstate

⁴ See Midship's Data Responses dated June 27, 2018, and July 25, 2018.

natural gas transportation services on a self-implementing basis with pre-granted abandonment for such services.⁵ Midship also requests a blanket certificate pursuant to section 157.204 of the Commission's regulations, authorizing Midship to construct, operate, acquire, and abandon certain facilities as described in Part 157, Subpart F.⁶

II. Notice, Interventions and Comments

14. Notice of Midship's application was published in the *Federal Register* on June 21, 2017 (82 Fed. Reg. 28,313). Southern Company Services, Inc., Devon Gas Services, L.P., and Gulfport Energy Corporation filed timely, unopposed motions to intervene.⁷

15. Two of the shippers, Gulfport Energy Corporation and Devon Gas Services, L.P. filed comments supporting the project.⁸ Other commenters have raised numerous issues, including concerns regarding use of eminent domain and environmental impacts including crop damage, lost agricultural production, safety, and surface watershed protection.

III. Discussion

16. Midship's proposal to construct and operate facilities to transport natural gas in interstate commerce subject to the jurisdiction of the Commission is subject to the requirements of subsections (c), and (e) of NGA section 7.⁹

⁵ 18 C.F.R. § 284.221 (2017).

⁶ 18 C.F.R. § 157.204 (2017).

⁷ Timely, unopposed motions to intervene are granted by operation of Rule 214 of the Commission's Rules of Practice and Procedures. *See* 18 C.F.R. § 385.214 (2017).

⁸ In addition, shippers Gulfport, Devon and Marathon each filed in July 2018, requests for expedited approval of the MIDSHIP project noting that any delay in construction of the project would create a "detrimental delay in the ability of large quantities of stranded gas in the South Central Oklahoma Oil Province and Sooner Trend Anadarko Basin Canadian and Kingfisher gas plays to reach market." Marathon Oil Pipeline, Request for Expedited Commission Approval, Docket No. CP17-458-000 (July 23, 2018).

⁹ 15 U.S.C. §§ 717f(b), 717f(c) and 717f(e) (2012).

A. Application of Certificate Policy Statement

17. The Certificate Policy Statement provides guidance for evaluating proposals to certificate new construction.¹⁰ The Certificate Policy Statement establishes criteria for determining whether there is a need for a proposed project and whether the proposed project will serve the public interest. The Certificate Policy Statement explains that in deciding whether to authorize the construction of major new natural gas facilities, the Commission balances the public benefits against the potential adverse consequences. The Commission's goal is to give appropriate consideration to the enhancement of competitive transportation alternatives, the possibility of overbuilding, subsidization by existing customers, the applicant's responsibility for unsubscribed capacity, the avoidance of unnecessary disruptions of the environment, and the unneeded exercise of eminent domain in evaluating new pipeline construction.

18. Under this policy, the threshold requirement for pipelines proposing new projects is that the pipeline must be prepared to financially support the project without relying on subsidization from its existing customers. The next step is to determine whether the applicant has made efforts to eliminate or minimize any adverse effects the project might have on the applicant's existing customers, existing pipelines in the market and their captive customers, or landowners and communities affected by the route of the new pipeline. If residual adverse effects on these interest groups are identified after efforts have been made to minimize them, the Commission will evaluate the project by balancing the evidence of public benefits to be achieved against the residual adverse effects. This is essentially an economic test. Only when the benefits outweigh the adverse effects on economic interests will the Commission proceed to consider the environmental analysis where other interests are addressed.

19. As discussed above, the threshold requirement for pipelines proposing new projects is that the applicant must be prepared to financially support the project without relying on subsidization from its existing customers. Midship is a new company with no existing shippers. Thus, there is no potential for subsidization on Midship's system or degradation of service to existing customers. In addition, there is no evidence that the MIDSHIP project will adversely affect other pipelines or their customers. The project is not intended to replace service on other pipelines, moreover, no pipeline company or their captive customers have protested Midship's application.

20. We are additionally satisfied that Midship has taken appropriate steps to minimize adverse impacts on landowners and surrounding communities. Approximately 54 percent of the pipeline route is collocated with other pipeline, utility or road corridors. In

¹⁰ *Certification of New Interstate Natural Gas Pipeline Facilities*, 88 FERC ¶ 61,227 (1999), *clarified*, 90 FERC ¶ 61,128, *further clarified*, 92 FERC ¶ 61,094 (2000) (Certificate Policy Statement).

addition, Midship engaged in public outreach during the pre-filing process. It worked with all interested stakeholders, solicited input on any concerns and engaged in re-routes where practicable to minimize impacts on landowners and communities. Specifically, Midship incorporated 28 route variations into its proposed route for various reasons, including landowner requests, avoidance of sensitive resources, or engineering considerations.¹¹

21. A commenter expressed concerns about easement negotiations and the possible misuse of eminent domain. We note that Midship may not start construction without satisfying a number of requirements for obtaining a notice to proceed with construction; a certificate order does not authorize a company to construct at its own schedule. We also note that Midship has expressed its commitment to working collaboratively with landowners to acquire necessary property rights. In the event affected landowners are unable to reach agreement with Midship, Midship, pursuant to NGA section 7(h), may acquire the needed property rights through the eminent domain process in state or federal court.¹² In such a proceeding, the court will take into account the fair market value of the necessary property rights in deciding the compensation due. The sufficiency of compensation is a contractual matter or, if agreement is not reached, a matter for a court with appropriate jurisdiction and not an area over which the Commission has jurisdiction. The timing of eminent domain proceedings is likewise a matter for a court with appropriate jurisdiction and not an issue over which the Commission has jurisdiction. Accordingly, for purposes of our consideration under the Certificate Policy Statement, we find that Midship has taken sufficient steps to minimize impacts on landowners and surrounding communities.

22. Several intervenors and commenters support Midship's proposed project,¹³ and no comments were filed questioning the need for the project. Under the Certificate Policy Statement and Commission precedent, precedent agreements are significant evidence of project need or demand.¹⁴ Here, Midship has entered into long-term precedent agreements with four customers for a total of 925 MMcf per day of firm transportation capacity – about 64 percent of the system's capacity. This is a substantial demonstration

¹¹ Final EIS at 3-3 to 3-6.

¹² See generally, *Mountain Valley Pipeline LLC*, 161 FERC ¶ 61,043, at PP 59-62 (2017), *on reh'g*, 163 FERC ¶ 61,197, at PP 48-51 (2018).

¹³ See *supra* P 11, n.8.

¹⁴ Certificate Policy Statement, 88 FERC at 61,748; see also *Minisink Residents for Environmental Preservation and Safety v. FERC*, 762 F.3d 97, 110, n.10 (D.C. Cir. 2014) (affirming that the Commission may reasonably accept the market need reflected by the applicant's precedent agreement with shippers).

of market demand, both in general and in the context of the total design capacity of the MIDSHIP Project.¹⁵ Moreover, Midship has no existing customers from whom it could recover any of the costs associated with the unsubscribed capacity. Additionally, Midship's recourse rates will be based on the design capacity of the constructed pipeline. These factors operate to place all risk for any unsubscribed capacity solely upon Midship, assuring the Commission that the project will not go forward unless it is financially viable.¹⁶ Under these circumstances, Midship has sufficiently demonstrated a need for the project.

23. As discussed above, Midship's proposed project will serve a demonstrated demand for the transportation of natural gas. Based on the benefits the project will provide and the minimal adverse impacts on existing shippers, other pipelines and their captive customers, and landowners and surrounding communities, we find, consistent with the Certificate Policy Statement and NGA section 7(c), that the public convenience and necessity requires approval of the project, subject to the environmental and other conditions in this order.

B. Blanket Certificates

24. Midship requests a Part 284, Subpart G blanket certificate in order to provide open-access transportation services. Under a Part 284 blanket certificate, Midship will not require individual authorizations to provide transportation services to particular customers. Midship filed a *pro forma* Part 284 tariff to provide open-access transportation services. Since a Part 284 blanket certificate is required for Midship to offer these services, we will grant Midship a Part 284 blanket certificate, subject to the conditions imposed herein.

25. Midship has also applied for a Part 157, Subpart F blanket certificate. The Part 157 blanket certificate gives an interstate pipeline NGA section 7 authority to automatically, or after prior notice, perform certain activities related to the construction, acquisition, abandonment, and replacement and operation of pipeline facilities. Since a Part 157 blanket certificate is required for Midship to perform these activities, we will grant Midship a Part 157 blanket certificate, subject to the conditions imposed herein.

¹⁵ See e.g. *NEXUS Gas Transmission, LLC*, 160 FERC ¶ 61,022, at P 41 (2017), *order on rehearing*, 164 FERC ¶ 61,054 (2018) (finding need for a new pipeline system that was 59 percent subscribed).

¹⁶ Certificate Policy Statement, 88 FERC at 61,746; and *Constitution Pipeline Company, LLC*, 149 FERC ¶ 61,199, at P 28 (2014).

C. Initial Rates

26. In its initial filing, Midship proposed an initial maximum recourse reservation charge of \$11.8666/Dth for firm transportation service, an initial usage charge of \$0.00/Dth, and a recourse rate of \$0.3901/Dth for interruptible transportation service (IT), authorized overrun service, and parking and loan service (PAL). In support of the proposed initial recourse rates, Midship submitted a cost of service and rate-design study showing the recourse rate was calculated using a total first year cost of service of \$205,054,918¹⁷ divided by billing determinants of 17,280,000 Dth.¹⁸ Midship developed its proposed cost of service based on a 50-50 debt/equity capital structure, a cost of debt of 7.75 percent, a return on equity of 14.00 percent and a depreciation rate of 2.50 percent.¹⁹ Midship estimates that the total cost of construction for the project will be about \$1,025,219,819.

27. In response to a November 24, 2017 Commission data request, Midship identified \$1,191,467 of non-labor O&M costs in Account Nos. 853, 857, 864 and 865.²⁰ Consistent with the Commission's regulation requiring straight fixed-variable rate design (SFV),²¹ these are variable costs, which should not be recovered through the reservation charge.²² Accordingly, Midship must recalculate its recourse reservation charge to recover only fixed costs when it files actual tariff records and recalculate its usage charge to recover its variable costs.

28. In a January 30, 2018 response to a staff data request, Midship provided an adjusted cost of service and recalculated its initial recourse reservation charge to reflect changes in the federal tax code, as per the Tax Cuts and Jobs Act of 2017,²³ which became effective January 1, 2018. Midship's work papers show that the tax code change

¹⁷ A credit of \$200,000 has been applied to the total cost of service in order to allocate costs to interruptible transportation services.

¹⁸ Application at Exhibit N, p. 3.

¹⁹ Application at Exhibit K and N.

²⁰ Midship's November 28, 2017 Response to Question No. 2 of FERC Data Request Dated November 24, 2017.

²¹ 18 C.F.R. § 284.7(e) (2017).

²² *Columbia Gulf Transmission, LLC*, 152 FERC ¶ 61,214 (2015); and *Dominion Transmission, Inc.*, 153 FERC ¶ 61,382 (2015).

²³ Pub. L. No. 115-97, 131 Stat. 2054 (Dec. 22, 2017).

reduces the estimated cost of service to \$185,260,871, the initial recourse reservation charge to \$10.7211 per Dth, and the initial Rate Schedule ITS, Overrun and Rate Schedule PAL rates to \$0.3525 per Dth.

29. On March 15, 2018, the Commission issued the Revised Policy Statement on Treatment of Income Taxes.²⁴ The Revised Policy Statement finds that an income tax double recovery results from granting a Master Limited Partnership (MLP) a separate income tax allowance and a pre-tax return on equity (ROE), and accordingly, establishes a policy that MLPs are not permitted to recover an income tax allowance in their cost of service.²⁵ The Revised Policy Statement also explains that other partnership and pass-through entities not organized as an MLP should, if claiming an income tax allowance, address the double-recovery concern. In an April 17, 2018 response to an April 6, 2018 staff data request, Midship confirms a proposed income tax allowance of \$24,273,309, as indicated in its Updated Exhibit N. Midship states that it is not an MLP; rather, it is a Delaware limited liability company, a pass-through entity for income tax purposes, and that the income tax allowance proposed as part of its cost of service does not apply to income tax incurred in Midship's own name. To explain why its proposal to include an income tax allowance will not result in a double recovery of income taxes Midship states that "corporations that are subject to federal and state income taxes own an overwhelming majority of the equity interests in Midship."

30. The Commission finds Midship's filings (including its April 17, 2018 response to the data request) have not adequately addressed the double recovery concern and has therefore failed to sufficiently support its request for a separate income tax allowance. Accordingly, because Midship's filings have not provided sufficient justification, Midship must revise its work papers to remove the proposed income tax allowance, and revise its tariff to reflect initial recourse rates calculated to reflect this change at least 60 days prior to the commencement of interstate service. In the alternative, Midship may provide, no later than 180 days prior to commencement of service, additional and detailed arguments as to why Midship is entitled to an income tax allowance, for review and further order by the Commission.²⁶ The additional information provided by Midship should describe in detail the pipeline's ownership structure, including the percentage of

²⁴ *Inquiry Regarding the Commission's Policy for Recovery of Income Tax Costs*, FERC Stats. & Regs. ¶ 35,060 (2018) (Revised Policy Statement).

²⁵ *Id.* P 2.

²⁶ *See also Trailblazer Pipeline Co. LLC*, 164 FERC ¶ 61,074 (2018).

the equity interests owned by corporations, individuals and other entities.²⁷ Addressing all applicable Commission precedent, Midship should describe how its different ownership interests are relevant to the income tax allowance issue and the extent to which the double-recovery concern raised by *United Airlines*²⁸ applies to each of Midship's ownership interests (including the corporate ownership interests).²⁹ Among other issues, Midship should specifically explain why its ownership interests should be distinguished from an MLP's ownership interests for purposes of evaluating the *United Airlines* double-recovery concern.³⁰

31. The Commission has reviewed Midship's proposed cost of service and initial rates, as updated in its data responses, and generally finds them reasonable for a new pipeline. Therefore, as discussed above, the Commission accepts Midship's proposed recourse rates, modified as required above, as the initial rates for service on the pipeline.

D. Fuel

32. Midship states it will recover Fuel, Lost, and Unaccounted for (FL&U) gas on a system-wide basis through a FL&U percentage, which will be subject to an annual tracking mechanism. Midship proposes to set an initial FL&U charge at 0.80 percent, which includes fuel, lost and unaccounted for gas and any imbalances due to meter equipment tolerances between receipt and delivery point meters. Midship states that each year it will make a fuel tracker filing pursuant to section 4 of the NGA to true-up any differences between the fuel retained from shippers and the actual fuel consumed. The Commission finds the initial retainage percentage reasonable and therefore accepts Midship's retainage percentage for service on the pipeline.

E. Three-Year Filing Requirement

33. Consistent with Commission precedent, Midship must file a cost and revenue study no later than three months after the end of its first three years of actual operation to

²⁷ Midship states that corporations own an "overwhelming majority of the equity interests." However, Midship does not provide the actual percentage of corporate ownership or how this corporate ownership fits within Midship's ownership structure.

²⁸ *United Airlines v. FERC*, 827 F.3d 122 (D.C. Cir. 2016).

²⁹ See also *Trailblazer Pipeline Co. LLC*, 164 FERC ¶ 61,074 (2018).

³⁰ See, e.g., *Enable Mississippi River Transmission, LLC*, 164 FERC ¶ 61,075, at PP 29-40 (2018).

justify its existing cost-based firm and interruptible recourse rates.³¹ In its filing, the projected units of service should be no lower than those upon which Midship's approved initial rates are based. The filing must include a cost and revenue study in the form specified in section 154.313 of the Commission's regulations to update cost of service data.³² Midship's cost and revenue study should be filed through the eTariff portal using a Type of Filing Code 580. In addition, Midship must include as part of the eFiling description, a reference to Docket No. CP17-458-000 and the cost and revenue study.³³ After reviewing the data, the Commission will determine whether to exercise its authority under NGA section 5 to investigate whether the rates remain just and reasonable. In the alternative, in lieu of this filing, Midship may make a NGA general section 4 rate filing to propose alternative rates to be effective no later than three years after the in-service date for its proposed facilities.

F. Negotiated Rates

34. Midship states that it will provide service to the project's shippers under negotiated rate agreements pursuant to negotiated rate authority in its General Terms and Conditions (GT&C) section 6.31. Midship must file either its negotiated rate agreements or tariff records setting forth the essential terms of the agreements in accordance with the *Alternative Rate Policy Statement*³⁴ and the Commission's negotiated rate policies.³⁵

³¹ *Bison Pipeline, LLC*, 131 FERC ¶ 61,013, at P 29 (2010); *Ruby Pipeline, LLC*, 128 FERC ¶ 61,224, at P 57 (2009); *MarkWest Pioneer, L.L.C.*, 125 FERC ¶ 61,165, at P 34 (2008).

³² 18 C.F.R. § 154.313 (2017).

³³ *Electronic Tariff Filings*, 130 FERC ¶ 61,047, at P 17 (2010).

³⁴ *Alternatives to Traditional Cost-of-Service Ratemaking for Natural Gas Pipelines; Regulation of Negotiated Transportation Services of Natural Gas Pipelines*, 74 FERC ¶ 61,076 (1996), *clarification granted*, 74 FERC ¶ 61,194 (1996), *order on reh'g and clarification*, 75 FERC ¶ 61,024, *reh'g denied*, 75 FERC ¶ 61,066, *reh'g dismissed*, 75 FERC ¶ 61,291 (1996), *petition denied sub nom. Burlington Res. Oil & Gas Co. v. FERC*, 172 F.3d 918 (D.C. Cir. 1998).

³⁵ *Natural Gas Pipelines Negotiated Rate Policies and Practices; Modification of Negotiated Rate Policy*, 104 FERC ¶ 61,134 (2003), *order on reh'g and clarification*, 114 FERC ¶ 61,042 (2006), *reh'g dismissed and clarification denied*, 114 FERC ¶ 61,304 (2006).

Midship must file the negotiated rate agreements or tariff records at least 30 days, but not more than 60 days, before the proposed effective date for such rates.³⁶

G. Tariff

35. Midship submitted revised *pro forma* tariff records on March 12, 2018 (March 12 Tariff Filing),³⁷ which it further revised in its March 30, 2018 supplemental filing, to make typographical and formatting revisions. As discussed below, some of Midship's proposed revisions are acceptable; other tariff provisions require further revision.

Acceptable Tariff Revisions

36. The following revised *pro forma* tariff records filed in both the March 12, 2018 Response to Data Request and the March 30 Supplemental Filing reflect current Commission policy. Accordingly, Midship shall make these proposed revisions in its compliance filing:

- a. Midship proposes to revise Sections 5.1.4.B.2, and 6.19.7 of its *pro forma* tariff to clarify Midship's methodology on assessing refunds to non-offending shippers for penalties associated with Unauthorized Overrun Gas and to update Section 5.1.4.B.2(a) of its *pro forma* tariff to reflect the index location from "Platt's Monthly Price Guide" to "Platt's Gas Daily - Final Daily Price Survey."
- b. Midship proposes to revise Section 5.3 (Rate Schedule PALS) and Section 6.1 (Definitions) to update the correct references as it had inadvertently stated incorrect references in Section 5.3.1(C) and Section 6.1.15 of Midship's *pro forma* tariff.
- c. Midship proposes to revise Section 6.2.1.d to update its Gas Quality description to remove an incorrect reference to H₂S.
- d. Midship proposes to strike Section 6.10.3.a(i)(3) and include imbalance payback with the scheduling priorities of all interruptible services as well as adding that Operational Transactions will have a lower scheduling priority than firm transportation services.

³⁶ Pipelines are required to file any service agreement containing non-conforming provisions and to disclose and identify any transportation term or agreement in a precedent agreement that survives the execution of the service agreement.

³⁷ See Midship's March 12, 2018 Response to Data Request.

Docket No. CP17-458-000

- 14 -

- e. Midship proposes to eliminate Section 6.16.7 in its entirety, as the facilities proposed in Midship's section 7(c) application in Docket No. CP17-458 do not include electric power compression. In the event Midship seeks to add electric power compression, Midship states that it will file tariff records to comply with section 154.403 of the Commission's regulations.
- f. Midship proposes to revise Section 6.17 (Invoicing and Payment) of the GT&C of its *pro forma* tariff to delete the reference to "Operational Control Provisions" which was inadvertently included in Midship's tariff.
- g. Midship proposes to revise Section 6.22 to provide clarification between a regulatory right of first refusal (ROFR) provided pursuant to the Commission's regulations and a Contractual ROFR.
- h. Midship proposes to revise Section 6.24.2 of the GT&C of its *pro forma* tariff to conform with section 154.401 of the Commission's regulations.
- i. Midship proposes to revise Appendix A of the form FTS Service Agreement to align with the Appendix A format described in Section 5.1.2.D (Rate Schedule FTS) of Midship's *pro forma* tariff.
- j. Midship proposes to revise ITS Service Agreement to replace the reference to MDTQ with contracted interruptible capacity, consistent with Section 5.2.5. In addition, Midship is revising Appendix A of the form ITS Service Agreement to align with Appendix A of the form FTS Service Agreement for consistency purposes.

Section 6.10: Nominations, Confirmations, Scheduling

37. Revised GT&C section 6.10.3 (Scheduling) contains Midship's proposed scheduling priorities. Midship proposes to schedule mainline capacity first and, to the extent receipt or delivery point capacity is constrained, it will allocate point capacity. Midship will schedule mainline capacity and receipts and deliveries based on five categories: (a) firm primary receipt and delivery points within the path; (b) firm secondary receipt or delivery points within the path; (c) firm secondary receipt or delivery points outside the path; (d) Operational Transactions as defined in Section 6.11; and (e) interruptible services including imbalance payback and overrun service from firm contracts, based on the effective rate.

38. We approve Midship's proposed scheduling priorities, with one exception. Midship uses the term "payback," which is not defined in its tariff and is not a service. Midship must either remove these payback provisions from section 6.10.3 or list it last among the other scheduling priorities.

Section 6.22: Pre-Granted Abandonment – ROFR

39. In Order No. 636-B, the Commission clarified that the right of first refusal permits the existing capacity holder to elect to retain a volumetric portion of its capacity subject to the right of first refusal.³⁸ Midship is directed to further revise the proposed sections 6.22.2.b.iv and 6.22.2.b.v to clarify that shippers may elect to exercise their ROFRs for all or a volumetric portion of capacity.

North American Energy Standards Board (NAESB)

40. GT&C section 6.26, NAESB Standards, implements the NAESB Wholesale Gas Quadrant Version 3.0 business practice standards that the Commission incorporated by reference in its regulations.³⁹ To ensure consistency with the NAESB standards, Midship is directed to revise its tariff accordingly to:

- (1) revise the text of GT&C section 6.20.11.d.vi.2.b to provide that: For recall notification provided to Transporter after 5:00 p.m. and prior to 7:00 a.m., Transporter should provide notification to all affected Replacement Shippers no later than 8:00 a.m. after receipt of such recall notification (Central Clock Time);
- (2) change the reference from “General Standards and Location Data Downloads.” to “General.” in GT&C section 6.26, NAESB Standards;
- (3) include definition 0.2.5 in a section titled “Definitions:” under the heading “Additional Standards: – General.” in GT&C section 6.26, NAESB Standards;
- (4) remove definition 0.2.5 from section titled “Gas-Electric Operational Communications:” in GT&C section 6.26, NAESB Standards;
- (5) include a new section titled “Location Data Download” under the heading “Additional Standards:” in GT&C section 6.26, NAESB Standards;

³⁸ See *Algonquin Gas Transmission Co.*, 94 FERC ¶ 61,383, at p. 62,440 (2001) (noting that Order No. 636-B clarified that the ROFR process permits the existing capacity holder to retain a volumetric portion of its capacity and reiterating that “the regulatory right of first refusal permits the capacity holder to elect to retain a volumetric portion of its capacity, regardless of the terms of any tariff”).

³⁹ *Standards for Business Practices of Interstate Natural Gas Pipelines; Coordination of the Scheduling Processes of Interstate Natural Gas Pipelines and Public Utilities*, Order No. 587-W, FERC Stats. & Regs. ¶ 31,373 (2015), *order on reh’g*, 154 FERC ¶ 61,207 (2016).

- (6) include dataset 0.4.4* and standards 0.3.23, 0.3.24, 0.3.25, 0.3.26, 0.3.27, 0.3.28, and 0.3.29 in the new section titled “Location Data Download;”
- (7) remove dataset 0.4.4* from section titled “Operating Capacity and Unsubscribed Capacity;”
- (8) remove standards 0.3.23, 0.3.24, 0.3.25, 0.3.26, 0.3.27, 0.3.28, and 0.3.29 from section titled “General Standards and Location Data Downloads;”
- (9) include an asterisk [*] for standard 5.3.56 in GT&C section 6.26, NAESB Standards;
- (10) remove standard 5.3.73 from section titled “Standards Incorporated by Reference: – Capacity Release Standards;” in GT&C section 6.26, NAESB Standards, because the text of the standard is included in GT&C section 6.20.14; and,
- (11) include standard 5.3.73 in the section titled “Standards Not Incorporated by Reference and their Location in Tariff;” in GT&C section 6.26, NAESB Standards.

GT&C Section 6.8 Force Majeure

41. GT&C section 6.8.3 includes in the definition of *force majeure* “the inability of Transporter’s pipeline system to deliver gas....” The above phrase is overly broad and could include circumstances that are not both unexpected and outside the pipeline’s control, which conflicts with established Commission policy.

42. Midship’s proposed definition of *force majeure* events also includes “acts of civil or military authority (including, but not limited to, courts, the government or any administrative or regulatory agencies)....” This proposed language conflicts with Commission policy because it can be interpreted to include regular, periodic maintenance activities required to comply with government actions as *force majeure* events. The Commission has clarified the basic distinction as to whether outages resulting from governmental actions are *force majeure* or non-*force majeure* events.⁴⁰ The Commission found that outages necessitated by compliance with government standards concerning the regular, periodic maintenance activities a pipeline must perform in the ordinary course of

⁴⁰ *Kinder Morgan Louisiana Pipeline LLC*, 154 FERC ¶ 61,145, at P 30 (2016); *TransColorado Gas Transmission Co., LLC*, 144 FERC ¶ 61,175, at PP 35-43 (2013); and *Gulf South Pipeline Co., LP*, 141 FERC ¶ 61,224, at PP 28-47 (2012), *order on reh’g*, 144 FERC ¶ 61,215, at PP 31-34 (2013).

business to ensure the safe operation of the pipeline, including the Pipeline and Hazardous Materials Safety Administration's integrity management regulations, are non-*force majeure* events requiring full reservation charge credits. Outages resulting from one-time, non-recurring government requirements, including special, one-time testing requirements after a pipeline failure, are *force majeure* events requiring only partial crediting.⁴¹ Midship must revise GT&C section 6.8.3 to comply with Commission policy, as discussed above.

GT&C Section 6.28 Discounting

43. GT&C Section 6.28 provides that usage charges are subject to discounting. In Midship's response to the Commission's February 27, 2018 Data Request, Midship stated "In its sole discretion, Midship may at any time, on a non-discriminatory basis, determine that it will offer discounted transportation rates, including usage charge base rates, to Shippers. Such discounted rates shall not be greater than the maximum rate or less than the minimum rate for the applicable service as set forth in Section 4 of its Tariff."

44. The Commission does not permit pipelines to offer discounts below their minimum rates, which are based on the variable costs allocated to the service to which the rate applies. Therefore, a pipeline such as Midship, using an SFV rate design, cannot discount its usage charges because those usage charges only contain variable costs. Accordingly, Midship must remove usage charges from GT&C Section 6.28.

H. Accounting

45. Midship proposes to capitalize a total allowance for funds used during construction (AFUDC) of \$85,783,575 as part of its MIDSHP Project.⁴² Midship explains that it began accruing costs associated with the project on October 28, 2016.⁴³

46. AFUDC is a component part of the cost of constructing Midship's facilities. Gas Plant Instruction 3(17) prescribes a formula for determining the maximum amount of AFUDC that may be capitalized as a component of construction cost.⁴⁴ That formula, however, is not applicable here, as it uses prior year book balances and cost rates of borrowed and other capital that either do not exist or could produce inappropriate results for initial construction projects of newly created entities such as Midship. Therefore, to

⁴¹ See *Algonquin Gas Transmission, LLC*, 153 FERC ¶ 61,038, at P 104 (2015).

⁴² Application at 14 and Exhibit K.

⁴³ Application at 1.

⁴⁴ 18 C.F.R. pt. 201 (2017).

ensure that the amounts of AFUDC are properly capitalized in this project, we will require Midship to capitalize the actual costs of borrowed and other funds for construction purposes, not to exceed the amount of debt and equity AFUDC that would be capitalized based on the overall rate of return approved.⁴⁵

I. Environmental Analysis

1. Pre-filing and Application Review

47. On November 9, 2016, Commission staff granted Midship's request to use the pre-filing process in Docket No. PF17-3-000. As part of the pre-filing review in that docket, on January 27, 2017, the Commission issued a *Notice of Intent to Prepare an Environmental Impact Statement for the Planned Midcontinent Supply Header Interstate Pipeline Project, Request for Comments on Environmental Issues, and Notice of Public Scoping Sessions*. The NOI was published in the *Federal Register* on February 2, 2017, and mailed to over 1,100 interested parties on the environmental mailing list (including federal, state, and local government representatives and agencies; elected officials; environmental and public interest groups; Native American tribes; affected property owners; other interested parties; and local libraries and newspapers).

48. The NOI briefly described the project and environmental review process, provided a preliminary list of issues Commission staff identified, invited written comments on the environmental issues that should be addressed in the draft environmental impact statement (EIS), listed the date and location of four public scoping sessions⁴⁶ to be held in the project area, and established a February 27, 2017 closing date for receipt of comments.

49. On March 22, 2017, the Commission issued a *Supplemental Notice of Intent to Prepare an Environmental Impact Statement for the Planned Midcontinent Supply Header Interstate Pipeline Project and Request for Comments on Environmental Issues Related to New Pipeline Lateral and Booster Station* (Supplemental NOI) to seek comments on additional facilities Midship identified as part of the project, specifically the Velma Lateral and Sholem Booster Station. The Supplemental NOI was published in the *Federal Register* on March 28, 2017, and mailed to over 1,260 interested parties on the updated environmental mailing list. The Supplemental NOI briefly described the new facilities, invited newly affected landowners to participate in the environmental review process, and established an April 21, 2017, closing date for receipt of comments.

⁴⁵ See *Weaver's Cove Energy, LLC*, 112 FERC ¶ 61,070 (2005).

⁴⁶ Commission staff held the public scoping sessions between February 13 and 16, 2017, in Durant, Ardmore, Elmore City, and El Reno, Oklahoma.

50. Six people commented on the project at the scoping sessions. In addition to the comments received at the scoping sessions, nearly 30 written comments from federal, state, and local agencies; elected officials; environmental and public interest groups; potentially affected landowners; and other interested stakeholders were received. The comments were placed into the public record for the project for consideration in the draft EIS. Major issues raised include the potential for induced seismicity; possible alternative routes; and potential impacts on agricultural lands, cattle grazing, threatened and endangered species, surface water and groundwater resources, air quality and noise, and safety.⁴⁷

51. The pre-filing review ended on May 31, 2017, when Midship filed its application with the Commission under NGA section 7(c) seeking authorization to construct and operate the project.

52. To satisfy the requirements of the National Environmental Policy Act of 1969 (NEPA),⁴⁸ Commission staff evaluated the potential environmental impacts of the proposed project in an EIS. The U.S. Environmental Protection Agency (EPA) participated as a cooperating agency in the preparation of the EIS. Cooperating agencies have jurisdiction by law or special expertise with respect to resources potentially affected by the proposals and participate in the NEPA analysis.

53. Commission staff issued the draft EIS on February 9, 2018, which addressed the issues raised during the scoping period and up to the point of publication. Notice of the draft EIS was published in the *Federal Register* on February 16, 2018, establishing a 45-day public comment period ending on April 2, 2018.⁴⁹ The draft EIS was mailed to the environmental mailing list for the project. Commission staff held four public comment sessions between April 12 and 15, 2018, to receive comments on the draft EIS.⁵⁰ Four people provided oral comments at these sessions. We also received nine written comment letters from federal and state agencies; Native American tribes; companies/organizations; and individuals in response to the draft EIS. The transcripts of the public comment sessions and all written comments on the draft EIS are part of the public record for the project.

⁴⁷ Table 1.3-1 of the final EIS provides a detailed and comprehensive list of issues raised during and after scoping.

⁴⁸ 42 U.S.C. §§ 4321 *et seq.* (2012). *See also* the Commission's NEPA-implementing regulations at Title 18 of the Code of Federal Regulations, Part 380.

⁴⁹ 83 Fed. Reg. 7030 (Feb. 16, 2018).

⁵⁰ Commission staff held the public comment sessions in Durant, Ardmore, Elmore City, and El Reno, Pennsylvania.

Docket No. CP17-458-000

- 21 -

54. On June 19, 2018, Commission staff issued the final EIS for the project, and a public notice of the availability of the final EIS was published in the *Federal Register*.⁵¹ The final EIS addresses all substantive comments received on the draft EIS.⁵² The final EIS was mailed to the environmental mailing list for the project.⁵³ The final EIS addresses geology; soils; water resources; wetlands; vegetation, wildlife, and fisheries; special status species; land use, recreation, and visual resources; socioeconomics; cultural resources; air quality and noise; reliability and safety; cumulative impacts; and minor route alternatives/variations incorporated into the project's design. As of August 1, 2018, no comments have been received on the final EIS.⁵⁴

2. Major Environmental Issues Addressed in the EIS

55. The final EIS concludes that construction and operation of the project will result in some adverse environmental impacts, but impacts will be reduced to less-than-significant levels with the implementation of Midship's proposed, and Commission staff's recommended, mitigation measures (now adopted as the 22 conditions in the appendix to this order). This determination is based on a review of the information provided by Midship and further developed from data requests; field investigations; scoping; literature research; alternatives analyses; and contacts with federal, state, and local agencies, as well as Native American tribes and individual members of the public. Major issues of concern addressed in the final EIS are summarized below and include: geology and seismic hazards; groundwater, surface water, and wetlands; vegetation, wildlife, and aquatic species; threatened, endangered, and other special status species; land use concerns; socioeconomics; cultural resources; air quality and noise; safety; cumulative impacts; and alternatives.

a. Geology and Seismic Hazards

56. Before and after the draft EIS was issued, we received comments regarding pipeline safety due to the recent trend of increased frequency and magnitude of induced earthquakes. According to the *Susceptibility of the Midship Pipeline to Damage from*

⁵¹ 83 Fed. Reg. 30,165 (June 27, 2018).

⁵² Appendix O of Volume II of the final EIS includes responses to comments on the draft EIS. No comments were received or new issues raised after the close of the comment period.

⁵³ The distribution list is provided in Appendix A of the final EIS.

⁵⁴ By letter dated July 30, 2018, the EPA noted that it had provided detailed comments on the draft EIS and, based on its review of the Final EIS, the "EPA has no further comments."

Seismic Events in Oklahoma report (Seismic Report) prepared for the project, the potential for soil liquefaction in the project area is very low and models indicate that stresses on the pipeline associated with earthquake ground wave propagation will be within acceptable limits. Modern gas transmission pipelines have been shown to perform well in seismically active areas and, based on Pipeline and Hazardous Materials Safety Administration pipeline incident data, the increased frequency and magnitude of earthquakes has not increased pipeline failures in Oklahoma. In addition, as stated in the final EIS, Midship must design and construct the pipeline and associated facilities in accordance with applicable U.S. Department of Transportation (DOT) regulations (Title 49 of the Code of Federal Regulations [CFR], Part 192) and applicable federal and state standards and design requirements, which will allow the project facilities to withstand probable seismic hazards.⁵⁵

57. The final EIS concludes that, with Midship's implementation of the Commission's *Upland Erosion Control, Revegetation, and Maintenance Plan* (Plan) and *Wetland and Waterbody Construction and Mitigation Procedures* (Procedures); Midship's *Karst Mitigation Plan, Blasting Plan*, and other proposed mitigation measures,⁵⁶ coupled with the findings in the Seismic Report, impacts on geologic resources will be adequately avoided or minimized.⁵⁷ We agree with this conclusion.

b. Groundwater, Surface Water, and Wetlands

58. The U.S. Department of the Interior (DOI) commented on the draft EIS, including a recommendation that Midship develop a spring and well water quality sampling plan with recommended sampling parameters. The final EIS recommends, and we require in Environmental Condition 12, that Midship file a spring and well water quality sampling plan before commencing construction. If construction-related activity affects the yield or water quality of a well or spring, Midship will work with the landowner to repair or restore the well or spring and provide an alternate water source until repairs are made, or provide compensation to the owner for damages.⁵⁸

59. We agree with the final EIS's conclusion that the project will not significantly affect groundwater resources because most of the construction will involve shallow, temporary, and localized excavation; and potential impacts on groundwater resources will be avoided, minimized, or mitigated by using construction techniques and mitigation

⁵⁵ See Final EIS at 4-15.

⁵⁶ *Id.* at 4-13 to 4-15.

⁵⁷ *Id.* at 5-2.

⁵⁸ See Midship's Final Resource Report 2 at 2-9 (May 2017).

measures described in the Plan and Procedures, Midship's *Karst Mitigation Plan* and *Blasting Plan*, and the environmental conditions in the appendix to this order.⁵⁹ Midship will also prevent or adequately minimize inadvertent spills and leaks of hazardous materials into groundwater resources during construction and operation by adhering to its *Spill Prevention and Response Procedures*.

60. The pipeline facilities and construction workspace will cross 407 waterbodies (58 perennial waterbodies, 121 intermittent waterbodies, 213 ephemeral waterbodies, and 15 ponds). Of these, 53 waterbodies are in the workspace, but are not crossed by the pipeline, and 15 are associated with access roads (5 of which are also crossed by the pipeline). Midship will install the pipeline across 327 waterbodies via the open-cut crossing method and 17 waterbodies via the horizontal directional drill (HDD) method.

61. Three of the five major waterbody crossings (greater than 100 feet wide) will be crossed using the HDD method, and the remaining two (an unnamed pond and an unnamed tributary to Caddo Creek) will be crossed using the open-cut crossing method. To reduce the potential environmental impacts associated with the open-cut crossing of the unnamed tributary to Caddo Creek, the final EIS recommends, and we require in Environmental Condition 14, that Midship file a feasibility assessment for shifting the pipeline route to minimize the crossing length or conduct the crossing using an alternative crossing method.

62. The project will cross 21 waterbodies listed as impaired for their designated use, including 17 along the mainline, one along the Chisholm Lateral, and three along the Velma Lateral. The mainline crosses the Nationwide Rivers Inventory-listed Blue River, which supports the least darter (a U.S. Fish and Wildlife Service [FWS]-identified fishery of special concern); the Canadian River, which supports the federally listed (threatened) Arkansas River shiner; and the Canadian River and the 300-foot-wide riparian buffer on either side of the river, which is designated as critical habitat for the Arkansas River shiner. Further, the mainline crosses sensitive fisheries at Pennington Creek, which is a state designated cool water aquatic community and a High Quality Water. Midship will minimize impacts by using the HDD method to cross the Blue River, Canadian River, and Pennington Creek.

63. We agree with the final EIS's conclusion that, with the implementation of the construction techniques and mitigation described in the Plan and Procedures, protective measures Midship developed, and the environmental conditions in the appendix to this order, project construction and operation will not result in significant impacts on surface water resources.⁶⁰

⁵⁹ See Final EIS at 5-4.

⁶⁰ *Id.* at 5-5.

64. Construction of the project pipeline facilities will affect 3.5 acres of wetlands, including 0.1 acre of palustrine-forested wetlands, 2.7 acres of palustrine-emergent wetlands, and 0.6 acre of palustrine-scrub-shrub wetlands. Construction or operation of the aboveground facilities, contractor yards, or access roads will not affect any wetlands. Although the project will convert some forested and scrub-shrub wetlands to emergent wetlands, it will not result in any permanent loss of wetlands.

65. Construction and operation-related impacts on wetlands will be mitigated by Midship's compliance with the Procedures, any U.S. Army Corps of Engineers (COE) section 401 and 404 permit conditions, and, if required by the COE, implementing any required mitigation to offset unavoidable impacts on wetlands through the creation, restoration, enhancement, or preservation of wetlands.

66. We support the final EIS's conclusion that, although minor adverse and long-term effects on wetlands will occur, project construction and operation will result in minor impacts on wetlands that will be appropriately mitigated and reduced to less-than-significant levels with adherence to the Procedures.⁶¹

c. Vegetation, Wildlife, and Aquatic Species

67. Project construction will affect 3,198.8 acres of vegetated lands, including 462.4 acres of upland forest and 0.1 acre of forested wetland. After construction, Midship will seed the construction workspace and revegetate disturbed workspaces in accordance with the Plan and Procedures. During operations, Midship will maintain vegetation along the rights-of-way to facilitate routine patrols and emergency access to the pipeline centerline. Project operation will impact 1,438.5 acres of vegetated lands, including 192.6 acres of upland forest and 0.1 acre of forested wetlands (which will be permanently converted to non-forested wetlands).

68. We support the final EIS's conclusion that impacts on vegetation, including forested areas, will be reduced to less-than-significant levels, by restoring temporary workspaces and the permanent right-of-way and collocating the pipeline routes with existing, maintained rights-of-way through the majority of large forested areas.⁶² Midship will further mitigate impacts on forested and non-forested vegetation types, as well as the introduction or spread of noxious weeds or invasive plant species, through adherence to the measures in the Plan and Procedures.

69. The final EIS concludes, and we agree, that construction and operation of the

⁶¹ *Id.* at 5-7.

⁶² *Id.* at 5-8.

project will not significantly impact wildlife resources, based on the presence of suitable adjacent habitat available for use; the temporary nature of pipeline construction; the relatively low amount of habitat converted to developed land; and the impact avoidance, minimization, and mitigation measures Midship proposed (e.g., Midship's implementation of the measures in the Plan and Procedures and its *Spill Prevention and Response Procedures*).⁶³ In addition, we support the final EIS's conclusion that the project will result in some temporary impacts on aquatic resources, which will be minimized and adequately mitigated with implementation of Midship's impact avoidance, minimization, and mitigation measures, including adherence to multiple resource protection plans.⁶⁴

d. Threatened, Endangered, and Other Special Status Species

70. Based on FWS input, seven federally listed species (the black-capped vireo, least tern, piping plover, rufa red knot, whooping crane, Arkansas River shiner, and American burying beetle), and critical habitat for the Arkansas River shiner, potentially occur in the project area. Based on state resource agency input, no state-listed species potentially occur in the project area. The final EIS concludes that the project would have *no effect* on the rufa red knot and, with implementation of Midship's proposed mitigation measures, the project *is not likely to adversely affect* the remaining six federally listed species or the Arkansas River shiner critical habitat.⁶⁵ The final EIS recommends, and we require in Environmental Conditions 17 and 18, that Midship conduct updated surveys for the American burying beetle during the 2018 active season and that Midship not begin construction until the Commission staff receives written comments from the FWS regarding the proposed action and completes section 7 of the Endangered Species Act consultation with the FWS, if required.

e. Land Use

71. Project construction will affect 3,340.7 acres. About 91 percent will be used for the pipeline facilities. The remaining acreage will be associated with aboveground facilities (4 percent), access roads (3 percent), and contractor yards (2 percent). During operation, 1,474.4 acres will be within the new permanent pipeline right-of-way, aboveground facilities, and permanent access roads.

72. Project construction will affect about 939 acres of agricultural land, of which

⁶³ *Id.* at 5-9.

⁶⁴ *Id.* at 5-10.

⁶⁵ *Id.* at 5-11 to 5-12.

about 413 acres will be retained during project operation. The mainline will cross seven pecan groves, but will cross no other known specialty agricultural areas or organic farm operations. Agricultural land in the construction rights-of-way will generally be taken out of production for one growing season. Following construction, all cropland, hay field, and pastureland used will be restored, and prior agricultural uses will be allowed to continue within the permanent pipeline right-of-way.⁶⁶ Midship has tried to minimize impacts on pecan groves by avoiding them, and will continue to work with individual landowners through the easement process to avoid and minimize impacts where these trees are present; where avoidance is not possible, Midship will compensate landowners for loss of pecan trees removed during construction.⁶⁷

73. The project will cross or be within 0.25 mile of three areas that support recreation or special interests: Historic Route 66 (a scenic highway), the Texoma/Washita Arm of the Tishomingo Wildlife Management Area, and the Nationwide Rivers Inventory-listed Blue River. Midship will use the HDD method to cross Historic Route 66 and the Nationwide Rivers Inventory-listed Blue River, avoiding direct impacts on these features. The project will pass about 0.2 mile north of the Texoma/Washita Arm of the Tishomingo Wildlife Management Area in an area of mixed open land and forest near Mainline Milepost 146.0. Therefore, the final EIS concludes, and we agree, that the project will not directly impact the Tishomingo Wildlife Management Area during construction or operation.

74. In the draft EIS, we recommended that Midship provide updated information regarding conservation easements crossed by the project. Because additional conservation easements might be identified, the final EIS recommends, and we require in Environmental Condition 19, that Midship file updated information before beginning construction regarding properties the project will cross that are enrolled in Natural Resources Conservation Service, Farm Service Agency, or other conservation programs, including any proposed mitigation measures developed in consultation with the landowner and/or the administering agency.

75. The draft EIS recommended that Midship provide a visual screening plan to reduce the visibility of the Bennington Compressor Station from the nearest homes. In response, Midship provided a Landscape Management Plan for the Bennington Compressor Station that includes detailed plans for visually screening the compressor station from the nearest home using a combination of native grasses and deciduous, evergreen, and ornamental trees.

76. We support the final EIS's conclusion that, with adherence to Midship's proposed

⁶⁶ *Id.* at 4-100.

⁶⁷ *Id.* at 4-101.

impact avoidance, minimization, and mitigation plans, as well as the environmental conditions included in the appendix to this order, the overall impacts of the project on land use and visual resources will be adequately minimized.⁶⁸

f. Socioeconomics

77. The EPA submitted comments on the draft EIS regarding potential air quality and noise impacts of the aboveground facilities, and potential visual impacts of the Calumet and Tatums Compressor Stations, on environmental justice communities. Emissions from the project's aboveground facilities will meet air quality requirements and comply with required air emissions permits, and the facilities will be designed and constructed to avoid intrusive noise levels at residences, recreational areas, and other special interest areas. Therefore, the final EIS concludes, and we agree, that operating the aboveground facilities will not significantly impact air quality or noise for any population, including environmental justice populations.⁶⁹ Furthermore, and as described in section 4.8.8 of the final EISs, the existing vegetation at the Calumet and Tatums Compressor Stations provides sufficient visual screening from nearby residences; therefore, no additional visual screening plans or mitigation were required.⁷⁰

78. Traffic will temporarily increase due to construction workers commuting to the project area, as well as construction vehicles and vehicles delivering equipment and materials traveling to the construction right-of-way. In its response to the recommendations in the draft EIS, Midship committed to providing a traffic management plan before project construction begins that details specific measures to minimize impacts on traffic, including identification of traffic control measures and personnel, emergency access management procedures, off-site vehicle parking areas, alternative worker transportation methods (e.g., bussing to construction worksites), and a communication plan for notifying emergency services personnel, school systems, and the public about the location and duration of road closures.⁷¹

79. The final EIS concludes that project construction will not have significant adverse impacts on local populations, housing, employment, or the provision of community services, and that, although the project will affect some areas that meet the criteria for environmental justice areas, there is no evidence that the project will cause adverse and

⁶⁸ *Id.* at 5-16.

⁶⁹ *Id.* at 4-124.

⁷⁰ *Id.* at 4-108.

⁷¹ *Id.* at 4-117.

disproportionate impacts on minorities or low income populations.⁷² The final EIS concludes, and we agree, that the project will not have significant adverse impacts on the socioeconomic conditions of the project area.

g. Cultural Resources

80. Midship identified 36 isolated finds and 58 cultural resources in the area of potential effect. The cultural resources identified included 49 archaeological sites and 9 historic architectural resources. The State Historic Preservation Office concurred that the historic archaeological sites and architectural resources are not eligible for listing in the National Register of Historic Places; the Oklahoma Archeological Survey concurred that identified pre-contact archaeological sites are not eligible for listing in the National Register of Historic Places, and the project subsequently avoided one site.⁷³ The EIS concurred with these findings.⁷⁴

81. Commission staff and Midship consulted 18 federally-recognized Native American tribes, as well as several other non-governmental organizations and other potentially interested parties.

82. To ensure our responsibilities under section 106 of the National Historic Preservation Act are met, the final EIS recommends, and we include as Environmental Condition 20, that Midship not begin construction until it completes any additional required surveys, and appropriate parties review survey reports and treatment plans (if necessary). The final EIS concludes, and we agree, that Midship's studies and impact avoidance and minimization measures, as well as the environmental conditions in in the appendix to this order, will ensure that any adverse effects on cultural resources will be appropriately mitigated.⁷⁵

h. Air Quality and Noise

83. Air contaminants associated with construction of the project include emissions from fossil-fueled vehicles and off-road construction equipment, HDD activities, fugitive dust, and open burning. Construction emissions will be temporary, occurring over the duration of construction activity, and will be emitted at different times and locations along the length of the proposed pipelines and at the aboveground facility sites.

⁷² *Id.* at 5-16.

⁷³ *Id.* at 4-131.

⁷⁴ *Id.* at 5-17.

⁷⁵ *Id.* at 5-17.

Section 4.11.1.3 of the final EIS concludes, and we agree, that construction emissions would not result in a significant impact on air quality.⁷⁶

84. Project operation will result in air emissions from stationary equipment, including emissions of oxides of nitrogen, carbon monoxide, particulate matter, sulfur dioxide, volatile organic compounds, greenhouse gases, and hazardous air pollutants. The results of the air quality modeling analyses demonstrate that emissions from the Calumet, Tatums, and Bennington Compressor Stations and the Sholem Booster Station, when combined with background air quality concentrations, will be below the National Ambient Air Quality Standards. Because Midship will be required to acquire applicable air permits, based on the air quality modeling analysis, and with Midship's proposed mitigation measures, the EIS concludes that air quality impacts from project operation, although long-term, will not result in a significant impact on local and regional air quality or cause or contribute to a violation of applicable air quality standards.⁷⁷

85. We received a comment on the draft EIS regarding the potential risk of exposure to radon gas should a rupture of the pipeline occur due to seismic activity. As described in section 4.1.4.1 of the final EIS, seismic events are not anticipated to affect a modern arc-welded pipeline.⁷⁸ Further, radon gas within the pipeline will be reduced through processing to make the gas pipeline quality. Therefore, we support the conclusion of the final EIS that the risk of exposure to radon is not significant.⁷⁹

86. Construction noise associated with the pipeline will be spread over the length of the pipeline route and will not be concentrated at any one location for an extended time, except at the proposed HDD sites. Construction noise associated with compressor, booster, and meter station installation will be concentrated near each site and will extend for several months, but will vary depending on the specific activities taking place at any given time. With the implementation of Midship's proposed noise mitigation measures, the estimated noise attributable to HDD equipment operations will meet the Commission's noise criteria (day-night sound level of 55 decibels on the A-weighted scale) at the nearest noise-sensitive area (NSA) at all of the HDD locations, except for the Pennington Creek HDD. The final EIS concludes that the proposed mitigation is reasonable and that the noise attributable to the HDD activities will have a moderate but short-term impact on NSAs near the Pennington Creek HDD. The final EIS recommends, and we require in Environmental Condition 21, that Midship file HDD noise assessments for the North Canadian River; Oklahoma, Kansas and Texas Railroad;

⁷⁶ *Id.* at 4-139.

⁷⁷ *Id.* at 5-18.

⁷⁸ *Id.* at 4-10.

⁷⁹ *Id.* at 5-18.

Docket No. CP17-458-000

- 31 -

Blue River; and Rock Creek HDDs to ensure that the final proposed site-specific noise mitigation measures will effectively reduce noise attributable to HDD activities at the nearest NSAs to levels consistent with Midship's estimates.

87. Project operation will have a long-term effect on noise levels near the compressor stations, booster station, and meter stations. The noise associated with some of these facilities is likely to be perceptible at some nearby NSAs; however, Midship will implement mitigation measures at the compressor stations and booster station to minimize continuous noise levels from these facilities at nearby NSAs. To ensure that the noise levels during compressor and booster station operation meet the FERC sound criterion of 55 decibels on the A-weighted scale at NSAs, the final EIS recommends, and we require in Environmental Condition 22, that Midship file noise surveys at full load conditions and install additional noise controls if the levels are exceeded.

88. We support the final EIS's conclusion that project construction and operation will not result in significant noise impacts on residents and the surrounding environment based on the analyses conducted and with implementation of the proposed mitigation measures and the environmental conditions included in the appendix to this order.⁸⁰

i. Safety

89. Before and after we issued the draft EIS, we received comments regarding the potential effects of a pipeline rupture. The risk of a pipeline rupture at any given location is extremely low, as identified in section 4.12.2 of the final EIS. The DOT publishes rules that define high consequence areas where a gas pipeline accident could considerably harm people and their property and require an integrity management program to minimize the potential for an accident. Midship will follow federal safety standards for pipeline class locations based on population density. The DOT regulations are designed to ensure adequate safety measures are implemented to protect all populations.

90. The DOT requires that each operator establish and maintain liaisons with appropriate fire, police, and public officials to learn the resources and responsibilities of each organization that may respond to a natural gas pipeline emergency, and to coordinate mutual assistance. The operator must also establish a continuing education program to enable customers, the public, government officials, and those engaged in excavation activities to recognize a gas pipeline emergency and report it to the appropriate public officials. Midship will provide the required training to local emergency service personnel before the pipeline is placed in service.⁸¹

91. Midship will design, construct, operate, and maintain the proposed pipelines and aboveground facilities in accordance with, or in exceedance of, DOT Minimum Federal Safety Standards in 49 C.F.R. Part 192 and other applicable federal and state

⁸⁰ *Id.* at 5-20.

⁸¹ *Id.* at 4-164.

regulations.⁸² We support the conclusion of the final EIS that Midship's implementation of the above measures will ensure compliance with the DOT's regulations regarding public safety and the integrity of the proposed facilities.⁸³

j. Cumulative Impacts

92. Project construction, combined with other recently completed or proposed projects or actions, will have some long-term cumulative impacts on forested wetlands and forested uplands with respect to the vegetative communities and associated wildlife habitats.⁸⁴ Operating the new aboveground facilities, in particular the three compressor stations, will contribute to cumulative impacts on air emissions and, where they are near other existing or future facilities, on noise levels.⁸⁵ Due to specialized construction techniques, the relatively short construction timeframe in any one location, and resource protection and mitigation plans designed to minimize and control environmental impacts for the project, the final EIS concludes,⁸⁶ and we agree, that minimal cumulative impacts will occur.

k. Alternatives

93. The final EIS evaluated the no-action alternative, system alternatives, route alternatives, and aboveground facility site alternatives.⁸⁷ The final EIS concludes that there are no known natural gas pipeline systems proposed in the region that would meet the objectives of the MIDSHIP Project. Although there are several existing natural gas pipeline systems that operate nearby, most operate at or near capacity and none are configured to receive and deliver natural gas based on the requirements of the MIDSHIP Project shippers. Moreover, to use any system alternative, additional pipeline looping, compression, and laterals would be needed, which would likely have similar environmental impacts as the project. Therefore, none of these pipeline systems would offer a significant environmental advantage.

94. The draft EIS recommended that Midship assess the feasibility of route adjustments or alternative construction techniques to minimize impacts on a dike on a landowner's property. In response, Midship incorporated a route variation to avoid

⁸² *Id.* at 5-19.

⁸³ *Id.* at 5-20.

⁸⁴ *Id.* at 4-180 to 4-181.

⁸⁵ *Id.* at 4-187 to 4-190.

⁸⁶ *Id.* at 5-21.

⁸⁷ *Id.* at 3-1-7.

crossing the dike, as well as documentation that the landowner finds the route variation acceptable. After filing its application, Midship also identified and incorporated an alternative location for its Sholem Booster Station based on landowner input. No comments were received regarding possible alternative sites for the three new compressor stations, and no significant impacts have been identified at their proposed sites.

95. Midship incorporated 28 route variations into the proposed route evaluated in the final EIS in response to input from its environmental and engineering staff and landowner consultations, and to address constructability issues identified during field surveys. No comments were received on the draft EIS that suggested a major route alternative, and no major route alternatives were identified that would offer environmental advantages over the proposed route.

I. Environmental Analysis Conclusion

96. We have reviewed the information and analysis contained in the final EIS regarding potential environmental effects of the project, as well as other information in the record. We are adopting the environmental recommendations in the final EIS and include them as conditions in the appendix to this order. Compliance with the environmental conditions appended to our orders is integral to ensuring that the environmental impacts of approved projects are consistent with those anticipated by our environmental analyses. Thus, Commission staff carefully reviews all information submitted. Commission staff will only issue a notice to proceed with an activity when satisfied that the applicant has complied with all applicable conditions. We also note that the Commission has the authority to take whatever steps are necessary to ensure the protection of environmental resources during construction and operation of the project, including authority to impose any additional measures deemed necessary to ensure continued compliance with the intent of the conditions of the order, as well as the avoidance or mitigation of unforeseen adverse environmental impacts resulting from project construction and operation.

97. Based on our consideration of this information and the discussion above, we agree with the conclusions presented in the final EIS and find that the project, if constructed and operated as described in the final EIS, is an environmentally acceptable action. Further, for the reasons discussed throughout the order, as stated above, we find that the project is in the public convenience and necessity.

98. Any state or local permits issued with respect to the jurisdictional facilities authorized herein must be consistent with the conditions of this Certificate. The Commission encourages cooperation between interstate pipelines and local authorities. However, this does not mean that state and local agencies, through application of state or

local laws, may prohibit or unreasonably delay the construction or operation of facilities approved by this Commission.⁸⁸

99. The Commission on its own motion received and made a part of the record in this proceeding all evidence, including the application, and exhibits thereto, and all comments and upon consideration of the record,

The Commission orders:

(A) A certificate of public convenience and necessity is issued to Midship in Docket No. CP17-458-000 authorizing it to construct and operate the proposed MIDSHIP project, as described and conditioned herein, and as more fully described in the application.

(B) The certificate authority granted in Ordering Paragraph (A) is conditioned on Midship's:

(1) completion of construction of the proposed facilities and making them available for service within two years of the date of this order pursuant to section 157.20(b) of the Commission's regulations;

(2) compliance with all applicable Commission regulations including, but not limited to Parts 154, 157, and 284, and paragraphs (a), (c), (e), and (f) of section 157.20 of the Commission's regulations;

(3) compliance with the environmental conditions in the appendix to this order; and

(4) prior to commencement of construction, filing a written statement affirming that it has executed firm contracts for the volumes and service terms equivalent to those in its precedent agreements.

(C) Midship's initial recourse rates, retainage percentage, and *pro forma* tariff are approved, as conditioned and modified above. Provided, however, in lieu of revising

⁸⁸ See 15 U.S.C. § 717r(d) (state or federal agency's failure to act on a permit considered to be inconsistent with Federal law); see also *Schneidewind v. ANR Pipeline Co.*, 485 U.S. 293, 310 (1988) (state regulation that interferes with FERC's regulatory authority over the transportation of natural gas is preempted) and *Dominion Transmission, Inc. v. Summers*, 723 F.3d 238, 245 (D.C. Cir. 2013) (noting that state and local regulation is preempted by the NGA to the extent it conflicts with federal regulation, or would delay the construction and operation of facilities approved by the Commission).

its initial recourse rates to remove the proposed income tax allowance, Midship, in the alternative, may provide, no later than 180 days prior to commencement of service, for review and further order by the Commission, additional and detailed arguments as to why Midship is entitled to an income tax allowance.

(D) Midship shall file actual tariff records that comply with the requirements contained in the body of this order at least 60 days prior to the commencement of interstate service consistent with Part 154 of the Commission's regulations.

(E) Within three (3) months after its first three years of actual operation, as discussed herein, Midship must make a filing to justify its existing cost-based firm and interruptible recourse rates. Midship's cost and revenue study should be filed through the eTariff portal using a Type of Filing Code 580. In addition, Midship is advised to include as part of the eFiling description, a reference to Docket No. CP17-458-000 and the cost and revenue study.

(F) Midship is directed to file its negotiated rate agreements no less than 30 days or more than 60 days before service commences.

(G) Midship shall adhere to the accounting and reporting requirements discussed in the body of the order.

(H) Midship shall notify the Commission's environmental staff by telephone or e-mail of any environmental noncompliance identified by other federal, state or local agencies on the same day that such agency notifies Midship. Midship shall file written confirmation of such notification with the Secretary of the Commission (Secretary) within 24 hours.

(I) Midship's request for a blanket construction certificate under Subpart F of Part 157 of the Commission's regulations is granted.

(J) Midship's request for a blanket transportation certificate under Subpart G of Part 284 of the Commission's regulations is granted.

By the Commission. Commissioner Glick is dissenting with a separate statement attached.

(S E A L)

Kimberly D. Bose,
Secretary.

Docket No. CP17-458-000

- 37 -

Appendix

Environmental Conditions for the Midcontinent Supply Header Interstate Pipeline Project

As recommended in the final environmental impact statement (EIS) and otherwise amended herein, this authorization includes the following conditions. The section number in parentheses at the end of a condition corresponds to the section number in which the measure and related resource impact analysis appears in the final EIS.

1. Midship shall follow the construction procedures and mitigation measures described in its application and supplements (including responses to staff data requests) and as identified in the EIS, unless modified by this Order. Midship must:
 - a. request any modification to these procedures, measures, or conditions in a filing with the Secretary of the Commission (Secretary);
 - b. justify each modification relative to site-specific conditions;
 - c. explain how that modification provides an equal or greater level of environmental protection than the original measure; and
 - d. receive approval in writing from the Director of the Office of Energy Projects (OEP) **before using that modification.**
2. The Director of OEP, or the Director's designee, has delegated authority to address any requests for approvals or authorizations necessary to carry out the conditions of this Order, and take whatever steps are necessary to ensure the protection of environmental resources during construction and operation of the project. This authority shall allow:
 - a. the modification of conditions of this Order;
 - b. stop-work authority; and
 - c. the imposition of any additional measures deemed necessary to ensure continued compliance with the intent of the conditions of this Order as well as the avoidance or mitigation of unforeseen adverse environmental impact resulting from project construction and operation.
3. **Prior to any construction**, Midship shall file an affirmative statement with the Secretary, certified by a senior company official, that all company personnel, environmental inspectors (EI), and contractor personnel will be informed of the EIs' authority and have been or will be trained on the implementation of the

environmental mitigation measures appropriate to their jobs **before** becoming involved with construction and restoration activities.

4. The authorized facility locations shall be as shown in the EIS, as supplemented by filed alignment sheets. **As soon as they are available, and before the start of construction**, Midship shall file with the Secretary any revised detailed survey alignment maps/sheets at a scale not smaller than 1:6,000 with station positions for all facilities approved by this Order. All requests for modifications of environmental conditions of this Order or site-specific clearances must be written and must reference locations designated on these alignment maps/sheets.

Midship's exercise of eminent domain authority granted under the Natural Gas Act of 1938 (NGA) section 7(h) in any condemnation proceedings related to this Order must be consistent with these authorized facilities and locations. Midship's right of eminent domain granted under NGA section 7(h) does not authorize it to increase the size of its natural gas facilities to accommodate future needs or to acquire a right-of-way for a pipeline to transport a commodity other than natural gas.

5. Midship shall file with the Secretary detailed alignment maps/sheets and aerial photographs at a scale not smaller than 1:6,000 identifying all route realignments or facility relocations, and staging areas, pipe storage yards, new access roads, and other areas that would be used or disturbed and have not been previously identified in filings with the Secretary. Approval for each of these areas must be explicitly requested in writing. For each area, the request must include a description of the existing land use/cover type, documentation of landowner approval, whether any cultural resources or federally listed threatened or endangered species would be affected, and whether any other environmentally sensitive areas are within or abutting the area. All areas shall be clearly identified on the maps/sheets/aerial photographs. Each area must be approved in writing by the Director of OEP **before construction in or near that area**.

This requirement does not apply to extra workspace allowed by the Federal Energy Regulatory Commission's *Upland Erosion Control, Revegetation, and Maintenance Plan* and/or minor field realignments per landowner needs and requirements that do not affect other landowners or sensitive environmental areas such as wetlands.

Examples of alterations requiring approval include all route realignments and facility location changes resulting from:

- a. implementation of cultural resources mitigation measures;
- b. implementation of endangered, threatened, or special concern species mitigation measures;

- c. recommendations by state regulatory authorities; and
 - d. agreements with individual landowners that affect other landowners or could affect sensitive environmental areas.
6. **Within 60 days of the acceptance of the authorization and before construction begins**, Midship shall file an Implementation Plan with the Secretary for review and written approval by the Director of OEP. Midship must file revisions to the plan as schedules change. The plan shall identify:
- a. how Midship will implement the construction procedures and mitigation measures described in its application and supplements (including responses to staff data requests), identified in the EIS, and required by this Order;
 - b. how Midship will incorporate these requirements into the contract bid documents, construction contracts (especially penalty clauses and specifications), and construction drawings so that the mitigation required at each site is clear to on-site construction and inspection personnel;
 - c. the number of EIs assigned per spread, and how the company will ensure that sufficient personnel are available to implement the environmental mitigation;
 - d. company personnel, including EIs and contractors, who will receive copies of the appropriate material;
 - e. the location and dates of the environmental compliance training and instructions Midship will give to all personnel involved with construction and restoration (initial and refresher training as the project progresses and personnel change), with the opportunity for OEP staff to participate in the training session(s);
 - f. the company personnel (if known) and specific portion of Midship's organization having responsibility for compliance;
 - g. the procedures (including use of contract penalties) Midship will follow if noncompliance occurs; and
 - h. for each discrete facility, a Gantt or PERT chart (or similar project scheduling diagram), and dates for:
 - i. the completion of all required surveys and reports;
 - ii. the environmental compliance training of on-site personnel;
 - iii. the start of construction; and
 - iv. the start and completion of restoration.

7. Midship shall employ a team of EIs (i.e., three or more or as may be established by the Director of OEP) per construction spread. The EIs shall be:
 - a. responsible for monitoring and ensuring compliance with all mitigation measures required by this Order and other grants, permits, certificates, or other authorizing documents;
 - b. responsible for evaluating the construction contractor's implementation of the environmental mitigation measures required in the contract (see condition 6 above) and any other authorizing document;
 - c. empowered to order correction of acts that violate the environmental conditions of this Order, and any other authorizing document;
 - d. a full-time position, separate from all other activity inspectors;
 - e. responsible for documenting compliance with the environmental conditions of this Order, as well as any environmental conditions/permit requirements imposed by other federal, state, or local agencies; and
 - f. responsible for maintaining status reports.
8. **Beginning with the filing of its Implementation Plan**, Midship shall file updated status reports with the Secretary on a **weekly** basis until all construction and restoration activities are complete. On request, these status reports will also be provided to other federal and state agencies with permitting responsibilities. Status reports shall include:
 - a. an update on Midship's efforts to obtain the necessary federal authorizations;
 - b. the construction status of each spread, work planned for the following reporting period, and any schedule changes for stream crossings or work in other environmentally sensitive areas;
 - c. a listing of all problems encountered and each instance of noncompliance observed by the EIs during the reporting period (both for the conditions imposed by the Commission and any environmental conditions/permit requirements imposed by other federal, state, or local agencies);
 - d. a description of the corrective actions implemented in response to all instances of noncompliance;
 - e. the effectiveness of all corrective actions implemented;

- f. a description of any landowner/resident complaints that may relate to compliance with the requirements of this Order, and the measures taken to satisfy their concerns; and
 - g. copies of any correspondence received by Midship from other federal, state, or local permitting agencies concerning instances of noncompliance, and Midship's response.
9. Midship must receive written authorization from the Director of OEP **before commencing construction of any project facilities**. To obtain such authorization, Midship must file with the Secretary documentation that it has received all applicable authorizations required under federal law (or evidence of waiver thereof).
10. Midship must receive written authorization from the Director of OEP **before placing the project into service**. Such authorization will only be granted following a determination that rehabilitation and restoration of the right-of-way and other areas affected by the project are proceeding satisfactorily.
11. **Within 30 days of placing the authorized facilities in service**, Midship shall file an affirmative statement with the Secretary, certified by a senior company official:
 - a. that the facilities have been constructed in compliance with all applicable conditions, and that continuing activities will be consistent with all applicable conditions; or
 - b. identifying which of the conditions in this Order Midship has complied with or will comply with. This statement shall also identify any areas affected by the project where compliance measures were not properly implemented, if not previously identified in filed status reports, and the reason for noncompliance.
12. **Prior to construction**, Midship shall file with the Secretary, for review and written approval by the Director of OEP, a spring and well water quality sampling plan. The plan shall incorporate the following sampling parameters, or provide sufficient explanation as to why a specific parameter would not provide information relevant to restoring wells and springs affected by construction of the project:
 - a. total dissolved solids;
 - b. total suspended solids;
 - c. pH;
 - d. specific conductance;

- e. arsenic;
 - f. metals (including beryllium, cadmium, chromium, iron, lead, and vanadium);
 - g. major ions (including calcium, chloride, potassium, sodium, and sulfate);
 - h. nitrate and nitrite;
 - i. total petroleum hydrocarbons;
 - j. explosive residue compounds (U.S. Environmental Protection Agency method[s] 8330[a]); and
 - k. fecal coliform (if the well head is opened for sampling purposes).
(*Section 4.3.1.7*)
13. **Prior to construction**, Midship shall file with the Secretary, for review and written approval by the Director of OEP, an updated *Horizontal Directional Drill Procedures and Mud Monitoring Plan* that revises section 10.4.2 to confirm it would test all non-municipal water sources prior to being used for drilling mud and that revises section 10.4.4 to confirm it would conduct laboratory sampling of drilling fluid for inorganic and organic environmental contaminants prior to reuse or disposal. (*Section 4.3.2.5*)
14. **Prior to construction**, Midship shall file with the Secretary, for review and written approval by the Director of OEP, the results of a feasibility assessment for shifting the pipeline alignment to minimize the crossing length of waterbody S-BR-TAS-17/10/25-07 at Mainline Milepost 181.1, or implementing an alternative crossing method (e.g., dam-and-pump, flume, horizontal directional drill [HDD]). (*Section 4.3.2.6*)
15. **Prior to construction**, Midship shall file with the Secretary, for review and written approval by the Director of OEP, a complete set of revised HDD profile and plan drawings, including all geotechnical analyses and detailed mapping of cleared areas, mud pits, and/or pipeline assembly areas, as required in the Commission's *Wetland and Waterbody Construction and Mitigation Procedures* section V.B.6.d. (*Section 4.3.2.6*)
16. **Prior to construction**, Midship shall file with the Secretary additional justification for use of the additional temporary workspace associated with the waterbodies identified in bold in table 4.3.2-8 of the EIS, for review and written approval by the Director of OEP. (*Section 4.3.2.6*)
17. **Prior to construction**, Midship shall complete species-specific surveys for the American burying beetle (ABB) during the ABB's 2018 active season. If these

- surveys identify the presence of ABB in the project area, Midship shall not begin construction of the MIDSHP Project **until**:
- a. Midship files with the Secretary a project-specific mitigation plan for the ABB that demonstrates how avoidance and mitigation will be accomplished; and
 - b. the FERC staff receives documentation of U.S. Fish and Wildlife Service (FWS) concurrence with the plan. (*Section 4.7.1.7*)
18. Midship shall not begin construction of the MIDSHP Project **until**:
- a. the FERC staff receives comments from the FWS regarding the MIDSHP Project;
 - b. the FERC staff completes Endangered Species Act consultation with the FWS; and
 - c. Midship has received written notification from the Director of OEP that construction or use of mitigation may begin. (*Section 4.7.1.8*)
19. **Prior to construction**, Midship shall file with the Secretary, for review and written approval by the Director of OEP, an updated list of properties crossed by the MIDSHP Project that are enrolled in Natural Resources Conservation Service, Farm Service Agency, or other conservation programs, including any proposed mitigation measures Midship will implement to maintain the status of properties enrolled in these programs based on its consultation with the landowner(s) and the administering agency(ies). (*Section 4.8.4*)
20. Midship shall not begin construction of facilities and/or use of staging, storage, or temporary work areas and new or to-be-improved access roads **until**:
- a. Midship files with the Secretary:
 - i. the remaining cultural resources survey report(s);
 - ii. site evaluation report(s) and avoidance/treatment plan(s), as required; and
 - iii. comments on the cultural resources reports and plans from the Oklahoma State Historic Preservation Office and interested Indian tribes.
 - b. The Advisory Council on Historic Preservation is afforded an opportunity to comment if historic properties would be adversely affected.

- c. The FERC staff reviews and the Director of OEP approves the cultural resources reports and plans, and notifies Midship in writing that treatment plans/mitigation measures (including archaeological data recovery) may be implemented and/or construction may proceed.

All materials filed with the Commission containing **location, character, and ownership** information about cultural resources must have the cover and any relevant pages therein clearly labeled in bold lettering “**CUI/PRIV – DO NOT RELEASE.**” (*Section 4.10.5*)

21. **Prior to construction of the North Canadian River; Oklahoma, Kansas and Texas Railroad; Blue River; and Rock Creek HDDs**, Midship shall file with the Secretary, for review and written approval by the Director of OEP, an HDD noise mitigation plan to reduce the projected noise level attributable to the proposed drilling operations at noise-sensitive areas (NSA) with predicted noise levels above 55 decibels on the A-weighted scale (dBA). During drilling operations, Midship shall implement the approved plan, monitor noise levels, and make all reasonable efforts to restrict the noise attributable to the drilling operations to no more than 55 dBA day-night sound level at the NSAs. (*Section 4.11.2.2*)
22. Midship shall file noise surveys with the Secretary **no later than 60 days** after placing the Calumet, Tatums, and Bennington Compressor Stations and the Sholem Booster Station in service. If a full load condition noise survey is not possible, Midship shall provide an interim survey at the maximum possible horsepower load and provide the full load survey **within 6 months**. If the noise attributable to the operation of any of the compressor or booster stations under interim or full horsepower load conditions exceeds a day-night sound level of 55 dBA at any nearby NSAs, Midship shall file a report on what changes are needed and shall install the additional noise controls to meet the level **within 1 year** of the in-service date. Midship shall confirm compliance with the above requirement by filing a second noise survey with the Secretary **no later than 60 days** after it installs the additional noise controls. (*Section 4.11.2.2*)

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Midship Pipeline Company LLC

Docket No. CP17-458-000

(Issued August 13, 2018)

GLICK, Commissioner, *dissenting*:

In today's order, the Commission grants Midship Pipeline Company LLC's (Midship) request for authorization to construct and operate its Midcontinent Supply Header Interstate Pipeline Project (Project), which is designed to provide up to 1,440 million standard cubic feet (MMcf) per day of incremental firm transportation capacity from the Anadarko Basin in Oklahoma to Gulf Coast and Southeast markets.¹ The Commission concludes that the Project is required by the public convenience and necessity and that it will not have a significant effect on the environment.² In reaching these conclusions, the Commission relies exclusively on precedent agreements for only 64 percent of the Project's proposed transportation capacity—59 percent excluding affiliated agreements³—and fails to consider the harm from the Project's contribution to climate change.⁴

Before issuing a certificate of public convenience and necessity under section 7 of the Natural Gas Act (NGA), the Commission must find both that the pipeline is needed, and that, on balance, the pipeline's potential benefits outweigh its potential adverse impacts.⁵ As I have stated previously,⁶ I believe that today's order fails to comply with

¹ *Midship Pipeline Company LLC*, 164 FERC ¶ 61,103, at P 1 (2018).

² *Id.* PP 23, 95.

³ *Id.* P 22.

⁴ EIS 4-191-4-192 (“[W]e cannot determine whether the [Project’s] contribution to climate change would be discretely or cumulatively significant.”).

⁵ 15 U.S.C. § 717f (2012).

⁶ *Florida Southeast Connection, LLC*, 164 FERC ¶ 61,099 (2018) (Glick, Comm’r, dissenting); *PennEast Pipeline Company, LLC*, 164 FERC ¶ 61,098 (2018) (Glick, Comm’r, dissenting); *Spire STL Pipeline LLC*, 164 FERC ¶ 61,085 (2018) (Glick, Comm’r, dissenting); *NEXUS Gas Transmission, LLC*, 164 FERC ¶ 61,054 (2018) (Glick, Comm’r, dissenting).

Docket No. CP17-458-000

- 2 -

our obligations under the NGA and the National Environmental Policy Act.¹

For these reasons, I respectfully dissent.

Richard Glick
Commissioner

¹ 42 U.S.C. § 4321 *et seq.* (2012); *see Florida Southeast Connection, LLC*, 164 FERC ¶ 61,099 at 2–3 (Glick, Comm’r, dissenting) (In analyzing the environmental impacts of a proposed project, under the NGA and NEPA, “the Commission must determine whether the impacts are ‘significant’ and whether those impacts can be mitigated. Only then will the Commission determine whether the project is environmentally acceptable.”); *id.* at 5–8.

Document Content(s)

CP17-458-000.DOCX.....1-47

Attachment 2

July 3, 2019 North Spread Shut Down Order

FEDERAL ENERGY REGULATORY COMMISSION
WASHINGTON, D.C. 20426

OFFICE OF ENERGY PROJECTS

In Reply Refer To:
OEP/DG2E/Gas 1
Midship Pipeline Company, LLC
Midcontinent Supply Header Interstate
Pipeline Project
Docket No. CP17-458-000

July 3, 2019

Ms. Karri Mahmoud
Manager, Regulatory Affairs
Midship Pipeline Company, LLC
700 Milam Street, Suite 1900
Houston, TX 77002

Re: MIDSHIP Project North Spread Non-compliances

Dear Ms. Mahmoud:

Based on my staff's recent compliance inspection during the week of June 17, 2019, consultation with our Third-Party Compliance Monitors (Compliance Monitors), and review of Midship Pipeline Company, LLC's (Midship) weekly construction reports, I have significant concerns with Midship's environmental compliance on the North Spread of the Midcontinent Supply Header Interstate Pipeline Project (Project). The North Spread consists of Mileposts (MP) 0.0-119.0, the 20.5-mile-long Chisholm Lateral, and the 13.8-mile-long Velma Lateral across Kingfisher, Canadian, Grady, Stephens, Carter and Garvin Counties, Oklahoma. Along the North Spread, Midship has failed to comply with the environmental conditions of the Commission's August 13, 2018 Order issuing Certificate for the Project, as detailed below. Further, Midship has not acted timely in bringing the North Spread project areas back into compliance at locations where non-compliance reports were issued by both the Compliance Monitors and Midship's Environmental Inspectors.

Between May 30 and June 30, the Commission's Compliance Monitors documented 62 non-compliances on the North Spread, of which 17 non-compliances remain unresolved. The types of non-compliances detailed below cannot continue. Further, I am particularly concerned that Midship has continued to clear and grade additional right-of-way on the North Spread without resolving the ongoing compliance concerns raised by my staff and the Compliance Monitors. Therefore, to ensure that environmental compliance on active portions of the North Spread is regained before new sections of the right-of-way are disturbed, I am requiring **Midship to immediately stop**

work on the remaining segments of the North Spread between MPs 66 and 119 (including the Velma Lateral) where clearing and grading have not occurred.

Furthermore, **within seven days of the date of this letter**, Midship must provide evidence of corrective action for all unresolved non-compliance incidents. In addition, Midship **must** provide a detailed plan for restoring the upper 12 inches of topsoil to pre-construction levels and grade due to the high loss of topsoil from erosion and mixing with subsoil at numerous identified locations on the North Spread. I am requiring these actions under the provisions of condition 2 of the Commission's Order and due to the circumstances described below.

Along the North Spread, Midship has failed to demonstrate compliance with required mitigation measures for protecting resources outlined in the FERC *Upland Erosion Control, Revegetation, and Maintenance* (Plan) and *Wetland and Waterbody Construction and Mitigation Procedures* (Procedures). During a compliance inspection the week of April 29, 2019, and during a conference call on June 3, 2019, my staff raised compliance concerns with Midship's management regarding the North Spread after issuance of numerous non-compliance reports following several significant rain events in April and May 2019. At that time, Midship's management committed to resolve the non-compliances in a timely manner, increase environmental crews from 5 to 13 crews to improve the installation and maintenance of erosion control devices, and increase the number of Environmental Inspectors along this spread. Since those discussions, and despite weather improvements since May 2019, my staff has seen an additional decline in the level of compliance along the North Spread, including a number of unresolved non-compliance locations where Midship's crews have failed to address the identified non-compliance locations since May 2019, inadequately repaired affected resources, or failed to install sufficient erosion controls.

Documentation in Midship's and our Compliance Monitors' weekly reports has shown multiple areas of new and repeated noncompliance areas, such as lack of erosion control maintenance, improper installation of erosion control devices, sediment eroding into wetlands and waterbodies, loss of topsoil due to erosion and inadequate stabilization after disturbance, topsoil and subsoil mixing, failing to adequately stabilize waterbody banks, and generally failing to address problem areas and non-compliances timely, or in some cases, at all. In regards to proper topsoil stabilization, which is required by Sections IV.B.4 and IV.B.6 of FERC's Plan, our Compliance Monitors estimated that between MP 0.0 and 30.0, Midship's crews have failed to adequately stabilize approximately 25 percent of the segregated topsoil. Additionally, between MPs 30.3 and 33.3, MPs 34.5 and 34.7, MPs 35.2 and 47.5, and 48.6 and 65.0, Midship's crews have failed to implement any topsoil stabilization measures. Between May 30, 2019 and June 30, 2019, a total of 27 non-compliances were written by the Commission's Compliance Monitors for topsoil erosion and the mixing of topsoil and subsoil. Six of those non-compliances were written in repeat locations.

Docket No. CP17-458-000

3

On the North Spread, eight waterbody locations have received repeated problem area or non-compliance reports. The reports document sediment entering the waterbody from the right-of-way, project-related bank erosion, inadequate erosion control device installation/maintenance, inadequate signage marking wetland and waterbody boundaries, and equipment parked overnight within 100 feet of a wetland or waterbody without proper secondary containment, which are violations of Sections II.B.2 and IV.F.3 of the FERC Plan and IV.A.1.d and VI.A.4 of the FERC Procedures. Additionally, due to the rain events during April and May 2019, several locations were documented where equipment construction mats had floated off the right-of-way. The Compliance Monitors have documented at least nine accessible locations where Midship's construction mats have remained for over a month without being retrieved.

Only after Midship resolves the documented non-compliance incidents and regains environmental compliance on the North Spread, will staff consider re-issuing a notice to proceed for the segments of the right-of-way between MPs 66 and 119 where clearing and grading activities have not occurred.

If you have any questions, please contact Elaine Baum, environmental project manager, at (202) 502-6467 or Danny Laffoon, Gas Branch 1 Chief, at (202) 502-6257

Sincerely,



Terry L. Turpin
Director
Office of Energy Projects

Document Content(s)

CP17-458-000 North Spread Letter.PDF1

Attachment 2.1

Midship's Response to Shut Down Order



July 26, 2019

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

Re: Midship Pipeline Company, LLC
Docket No. CP17-458-000
OEP/DG2E/Gas 1
Response to FERC Letter dated July 3, 2019, and Request for Notice to Proceed – Supplement

Dear Ms. Bose:

On May 31, 2017, Midship Pipeline Company, LLC (“Midship”) submitted its Application for a Certificate of Public Convenience and Necessity and Related Authorizations pursuant to Section 7(c) of the Natural Gas Act, as amended, and the regulations of the Federal Energy Regulatory Commission (“Commission”) for the construction and operation of the Midcontinent Supply Header Interstate Pipeline Project (“Midship Project”). On August 13, 2018, FERC issued an Order Granting Certificate for the Midship Project.

On July 3, 2019, the Commission issued a letter to Midship (“July 3 letter”) requiring that Midship immediately stop work on the remaining segments of the North Spread between MPs 66 and 119 (including the Velma Lateral) where clearing and grading have not occurred.

Midship is herein providing supplemental information to the July 19, 2019, filing. Midship is also providing an updated Soils Restoration Plan as Attachment B. As noted in Appendix 2 of this document, additional areas have been hydromulched since the July 19, 2019, filing. Midship has added two additional crews and approximately 8.5 miles remain to be hydromulched. The contractor for the North Spread estimates that this activity should be completed within 3 days.

Should you have any questions about the instant filing, please feel free to contact the undersigned at (713) 375-5000.

Respectfully Submitted,

/s/ Karri Mahmoud

Karri Mahmoud
Director, Regulatory Project Development
Midship Pipeline Company, LLC

Enclosures

FERC Comment 1:

Regarding **Task 1**- Is the “centerline sampling work” specific to areas where top soil has not already been stripped? Clarify if ‘centerline’ should be ‘immediately adjacent to the right-of-way with the landowners approval’, or if this is meant to be specific to areas where topsoil has already been stripped, and then lost.

Midship Response:

Midship’s consultant will obtain samples from the edge of the right of way where topsoil has not been stripped. The consultant will make all attempts to stay within the permitted right of way by moving sample points a limited distance along the edge of the right of way. However, if there are no areas available within the permitted right of way, Midship will work with the landowners to seek approval for off right of way access, typically approximately 5 – 10 feet off right of way.

FERC Comment 2:

Regarding **Task 4**- Can you provide additional explanation on how sensitive this equipment is (for example, can it measure within “X” inches)? Also, how are you going to verify the depth after topsoil has been replaced and that it is to the correct level? Will you use some sort of additional electronic means (if so, what?) or conduct field verifications?

Midship Response:

The drones measure XYZ at about +/- 5 cm (2 inches). Therefore, the consultant will be able to determine differences that matter in terms of reclamation and crop growth. The consultant will be able to determine whether there is enough topsoil to meet yield potential based on the quantity of topsoil present before construction. This information will be provided to FERC as an “as-built”.

ATTACHMENT B

Midship Project Topsoil Plan—North Spread
Midship Pipeline Company, LLC

Introduction

The Midship Pipeline Project consists of approximately 200 miles of 36-inch pipeline in Kingfisher, Canadian, Grady, Garvin, Stephens, Carter, Johnston, and Bryan Counties, Oklahoma. An additional 20.5 miles of new 30-inch-diameter pipeline lateral in Kingfisher County and 13.8 miles of new 16-inch-diameter pipeline lateral in Stephens, Carter, and Garvin Counties. The Midship Pipeline Project also includes three new compressor stations and one new booster station in Canadian, Garvin, Bryan, and Stephens Counties; and eight new receipt meters, two new receipt taps, four new delivery meters, and appurtenant facilities.

The Midship Pipeline Project is currently under construction and has been broken into two spreads, divided among two contractors. The North Spread of the Project has seen significant amounts of topsoil lost to water and wind erosion due to insufficient stabilization of topsoil piles and mixing due to insufficient topsoil and subsoil separation. This plan is being prepared to address topsoil recovery and restoration along the North Spread of the Midship Pipeline Project.

Topsoil Erosion Prevention / Stabilization

Midship will recover as much un-stabilized topsoil that has eroded into the active workspace as possible, reshape the topsoil piles, and stabilize the topsoil piles. Topsoil piles will be treated for erosion prevention by applying a compound of hydromulch/tackifier material mixture, with seed combination if stabilization has not already been achieved. Specifications for the materials are provided in **Appendix 1**. As new grade work is performed, and once the top soil piles are segregated during the grade process, all piles will be stabilized with the hydromulch/tackifier material mixture within a three-day period, or sooner if possible in the event of significant rain event in the forecast, to ensure stabilization of the piles.

The hydromulch/tackifier material mixture is being applied to all topsoil piles along the entire North Spread where other stabilization has not been achieved. The hydromulch/tackifier material mixture is being applied at rate of 4,000 lbs./acre with 40 lbs./acre rate of browntop millet seed. The seed mixture is free of noxious weeds. Applying the hydromulch/tackifier material mixture at this rate stabilizes the topsoil piles instantly and prevent further erosion. In the event that the browntop millet does not grow due to current weather conditions, the hydromulch/tackifier material mixture is effective for stabilization of the topsoil piles.

The browntop millet mixture is sourced from Green Seed Co., Springfield, Missouri and is certified by the company to consists of, per 50-pound bag:

- 98% pure browntop millet seed

**Midship Project Topsoil Plan—North Spread
Midship Pipeline Company, LLC**

- 0.5% other crop seed
- 1.0% inert matter
- 0.5% weed seeds
- Noxious weeds per pound: NONE

Midship is currently working on applying the hydromulch/tackifier material mixture to problematic stabilization locations between MP 50 and MP 66. Midship will provide updates on this progress in the weekly construction report submitted to the FERC. Please refer to **Appendix 2** for the current progress of topsoil stabilization.

Topsoil Loss Estimation, Recovery and Replacement

Midship acknowledges that topsoil has been lost to water and wind erosion due to insufficient stabilization of topsoil piles and mixing due to insufficient topsoil and subsoil separation. Midship is working with a natural resource management consulting firm that specializes in soil sampling and pipeline right of way restoration to identify locations where topsoil has been lost and on ensuring areas are restored.

Task 1: Surface Soil Sampling

Centerline topsoil depth measurements will be collected at 750-foot intervals for all areas of the project that require topsoil depth determinations. Midship's consultant will visually evaluate the soil to determine if the appropriate properties are present to justify soil salvage. Midship's consultant will obtain samples from the edge of the right of way where topsoil has not been stripped. The consultant will make all attempts to stay within the permitted right of way by moving sample points a limited distance along the edge of the right of way. However, if there are no areas available within the permitted right of way, Midship will work with the landowners to seek approval for off right of way access, typically approximately 5 – 10 feet off right of way.

Soil cores will be visually evaluated for the following parameters:

- Horizon Depths
- Color
- Lime Content/Effervescence
- Soil texture and structure
- Moisture Consistency
- % Coarse Fragments
- Redoximorphic Features
- Depth to restrictive layer

Midship Project Topsoil Plan—North Spread
Midship Pipeline Company, LLC

Topsoil sample locations will be geo-referenced and digitally recorded. Once completed, topsoil stripping depths for the entire alignment will be determined and analyzed to determine topsoil loss impacts.

Task 2: Stockpile Volume Estimates – Baseline Flight

A high-resolution aerial survey of the current right of way conditions will be conducted. Data from the coverage flights will be processed to produce a high resolution orthoimage, digital surface model (DSM), and 3D mesh.

These datasets will document and report surface conditions of the right of way at the time of the data collection that includes:

- Cleared right of way
- Topsoil stockpile volume estimate
- Current right of way topography

The baseline aerial photography will provide data that will assist to determine quantity of topsoil currently stockpiled and baseline conditions of the right of way. This data will be used to determine impacts of lost topsoil on reclamation efforts moving forward. Data will be obtained through photogrammetry methods which will provide elevation data to calculate volumetric measurements.

Task 3: Data Analysis

Midship’s consultant will provide data analysis of the topsoil depth measures and estimates of the current topsoil stock pile volumes to estimate quantity of lost topsoil. A thorough analysis of impacts of lost topsoil on reclamation potential for both agricultural and pasture land will be conducted on a Tract by Tract basis. Midship’s consultant will evaluate topsoil loss by percentage and determine and recommend alternatives to remedy topsoil losses, if required. Alternative may include the use of soil amendments, addition of biotic soil growth medias and/or topsoil importation. The results and recommendations will be documented in a technical report or memorandum prepared by Midship’s consultant and as a line list per tract.

Task 4: Aerial Assessment 2nd Flight

A second high-resolution aerial survey of the right of way once the topsoil is replaced will be conducted. Midship’s consultant will evaluate the total volume of soil replaced across the right of way by comparing the initial flight elevation data to the second aerial survey. Data from the 2nd aerial survey will be processed to produce a high resolution orthoimage, digital surface model (DSM), and 3D mesh. The drones measure XYZ at about +/- 5 cm (2 inches). These products will

Midship Project Topsoil Plan—North Spread
Midship Pipeline Company, LLC

be compared to the previous flights to obtain estimates of total depth of topsoil replaced across the right of way. The results of these evaluations will be used to update the report created in Task 3 and determine if additional reclamation techniques need to be considered. The consultant will be able to determine differences that matter in terms of reclamation and crop growth. The consultant will be able to determine whether there is enough topsoil to meet yield potential based on the quantity of topsoil present before construction. This information will be provided to FERC as an “as-built”.

Midship’s consultant will document as-built topsoil depths and determine the following:

- Interpolated as-built topsoil depths
- Estimated topsoil depth percentage difference
- Final right of way DSM

Topsoil Replacement

In locations where topsoil replacement actions must be implemented, Midship will work with the landowners and resource agencies (including OAS and SHPO as appropriate) to identify appropriate locations for importing topsoil to ensure all areas are properly restored. As of July 10, 2019, Midship was in communication with the United States Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS) Division of USDA, and the Oklahoma Department of Agriculture, Food, and forestry (ODAFF) to identify any regulatory requirements regarding topsoil in the State of Oklahoma (see records in **Attachment 3**). As additional communications are received, Midship will provide the documentation to FERC. These agencies stated that they do not regulate or require certification for purchasing and using/importing topsoil, with these exceptions:

- USDA stated to not utilize soil from fire ant quarantined counties for import into locations/counties not classified as fire ant quarantined counties
- APHIS stated do not import soils from other states and do not import from quarantined counties

Midship is in the process of identifying private and commercial sources of topsoil for the Midship Project. Midship has identified potential sources of topsoil within the vicinity of the project that may be available to replace topsoil along the Project (see **Appendix 4**). Midship’s consultant will evaluate these sources to determine if they are appropriate sources of topsoil (e.g. weed free, in state sourced, etc.).

In addition to commercial sources of topsoil, Midship has identified topsoil availability at its compressor and meter station locations. At these facilities, topsoil was cut and segregated during

Midship Project Topsoil Plan—North Spread
Midship Pipeline Company, LLC

site preparation. These soils will be tested to ensure they are free of noxious weeds prior to placement along the right of way during restoration.

Topsoil Recovery

Where topsoil has mixed irrecoverably with subsoil, Midship will blade the mixed material into a wind row or separate piles where space allows on the right-of- way of mixed material, and label with appropriate signage placed a minimum of every 200 feet (or closer if necessary) to provide appropriate line of sight. In order to prevent future mixing of topsoil / sub soil or mixed material where workspace is constrained, Midship will apply a minimum 6-inch layer of weed-free straw in between topsoil and subsoil (or mixed topsoil/subsoil) piles to provide a barrier between the layers. This straw layer will also provide a visual cue to restoration operators of the distinct layers upon clean-up and restoration activities. The mixed material (topsoil/subsoil) piles will be returned to the right-of-way during restoration as a layer between the subsoil and prior to topsoil restoration.

Midship has communicated this process for the mixed topsoil segregation to the North Spread contractor and will continue to communicate as new crews come on. During restoration, the topic will be reinforced during morning pre-job meetings and daily inspector meetings (which includes all Midship inspectors including environmental and craft).

**Midship Project Topsoil Plan—North Spread
Midship Pipeline Company, LLC**

Appendix 1 – Hydromulch/tackifier material mixture specifications for the North Spread

Previously provided.

Midship Project Topsoil Plan—North Spread
Midship Pipeline Company, LLC

**Appendix 2 – Locations where hydromulch/tackifier material mixture has been applied along
the North Spread**

| Date | Station Start | Station Stop | Total Footage |
|-------------|----------------------|---------------------|----------------------|
| 5/21/19 | 660+76 | 685+00 | 2,424 |
| 5/21/19 | 685+00 | 715+00 | 3,000 |
| 5/21/19 | 715+00 | 723+74 | 874 |
| 5/21/19 | 1200+64 | 1218+59 | 1,795 |
| 6/4/19 | 1145+00 | 1200+00 | 5,500 |
| 6/5/19 | 1130+00 | 1145+00 | 1,500 |
| 6/8/19 | 1095+43 | 1125+64 | 3,021 |
| 6/10/19 | 1071+00 | 1095+22 | 2,422 |
| 6/11/19 | 1037+00 | 1052+56 | 1,556 |
| 6/11/19 | 1057+24 | 1071+00 | 1,376 |
| 6/13/19 | 1021+08 | 1037+00 | 1,592 |
| 6/15/19 | 960+00 | 962+20 | 220 |
| 6/18/19 | 962+70 | 966+90 | 420 |
| 6/20/19 | 852+87 | 907+14 | 5,427 |
| 6/21/19 | 907+14 | 923+98 | 1,684 |
| 6/22/19 | 966+96 | 1016+48 | 4,952 |
| 6/26/19 | 2017+44 | 2054+05 | 3,661 |
| 6/26/19 | 2054+64 | 2061+40 | 676 |
| 6/27/19 | 2061+40 | 2111+02 | 4,962 |
| 6/28/19 | 2111+51 | 2150+23 | 3,872 |
| 6/29/19 | 2151+10 | 2170+00 | 1,890 |
| 7/2/19 | 1512+00 | 1545+88 | 3,388 |
| 7/5/19 | 1545+88 | 1613+00 | 6,712 |
| 7/7/19 | 23+48 | 80+00 | 5,652 |
| 7/7/19 | 644+50 | 646+50 | 200 |
| 7/7/19 | 1126+22 | 1188+64 | 6,242 |
| 7/7/19 | 1970+44 | 2017+19 | 4,675 |
| 7/7/19 | 1970+44 | 2227+74 | 25,730 |
| 7/7/19 | 2170+00 | 2227+74 | 5,774 |
| 7/7/19 | 2227+74 | 2375+45 | 14,771 |
| 7/7/19 | 2375+45 | 2424+93 | 4,948 |
| 7/7/19 | 2382+28 | 2410+00 | 2,772 |
| 7/7/19 | 2424+93 | 2448+00 | 2,307 |
| 7/11/19 | 2488+01 | 2512+01 | 2,400 |
| 7/11/19 | 2513+16 | 2527+16 | 1,400 |
| 7/12/19 | 1390+41 | 1414+24 | 2,383 |
| 7/12/19 | 1414+24 | 1441+05 | 2,681 |

Midship Project Topsoil Plan—North Spread
Midship Pipeline Company, LLC

| Date | Station Start | Station Stop | Total Footage |
|----------------------------------|----------------------|---------------------|----------------------|
| 7/12/19 | 1672+81 | 1720+00 | 4,719 |
| 7/13/19 | 1328+24 | 1389+87 | 6,163 |
| 7/13/19 | 1763+21 | 1834+91 | 7,170 |
| 7/15/19 | 2599+03 | 2639+21 | 4,018 |
| 7/15/19 | 1327+46 | 1315+00 | 1,246 |
| 7/15/19 | 413+00 | 425+69 | 1,269 |
| 7/15/19 | 2599+03 | 2639+21 | 4,018 |
| 7/16/19 | 426+20 | 452+53 | 2,633 |
| 7/17/19 | 484+04 | 452+53 | 3,151 |
| 7/17/19 | 493+10 | 511+36 | 1,826 |
| 7/17/19 | 511+95 | 540+26 | 2,831 |
| 7/17/19 | 541+12 | 557+32 | 1,620 |
| 7/17/19 | 1052+00 | 1031+69 | 2,031 |
| 7/17/19 | 2646+00 | 2663+00 | 1,700 |
| 7/18/19 | 484+45 | 491+38 | 693 |
| 7/18/19 | 2640+81 | 2646+00 | 519 |
| 7/18/19 | 2663+00 | 2687+00 | 2,400 |
| 7/19/19 | 2760+41 | 2807+00 | 4,659 |
| 7/20/19 | 2687+00 | 2728+00 | 4,100 |
| 7/21/19 | 760+00 | 799+00 | 750 |
| 7/21/19 | 965+00 | 1016+00 | 1,500 |
| 7/21/19 | 2111+00 | 2150+00 | 750 |
| 7/22/19 | 2728+00 | 2759+44 | 3,144 |
| 7/22/19 | 760+00 | 799+00 | 750 |
| 7/22/19 | 564+00 | 563+00 | 100 |
| 7/23/19 | 2807+00 | 2817+16 | 1,016 |
| 7/23/19 | 2817+59 | 2854+00 | 3,641 |
| 7/23/19 | 790+00 | 845+00 | 5,500 |
| 7/23/19 | 671+98 | 680+00 | 802 |
| Mainline Subtotal | | | 219,578 |
| 7/15/2019 | 1078+76 | 1065+00 | 1,376 |
| 7/16/2019 | 1065+00 | 1052+00 | 1,300 |
| 7/18/2019 | 1010+12 | 1031+69 | 2,157 |
| 7/19/2019 | 1010+12 | 964+23 | 4,589 |
| 7/20/2019 | 963+55 | 943+37 | 2,018 |
| 7/20/2019 | 942+64 | 928+64 | 1,400 |
| 7/21/2019 | 927+05 | 892+00 | 3,505 |
| 7/22/2019 | 892+00 | 865+00 | 2,700 |
| 7/22/2019 | 864+00 | 845+00 | 1,900 |
| Chisholm Lateral Subtotal | | | 20,945 |

**Midship Project Topsoil Plan—North Spread
Midship Pipeline Company, LLC**

| Date | Station Start | Station Stop | Total Footage |
|--------------|---------------|--------------|----------------|
| Total | | | 240,523 |

**Midship Project Topsoil Plan—North Spread
Midship Pipeline Company, LLC**

Appendix 3 – Agency contacts

Previously provided.

**Midship Project Topsoil Plan—North Spread
Midship Pipeline Company, LLC**

Appendix 4 – Commercial Sources of Topsoil in the Project Vicinity

| Name | City | County |
|-------------------------|---------------|---------------|
| Hoover Trucking Topsoil | Oklahoma City | Oklahoma |
| Minick Materials | Norman | Cleveland |
| | Oklahoma City | Oklahoma |
| | Edmond | Oklahoma |
| Metro Materials | Norman | Cleveland |
| Campbell's Topsoil | Yukon | Canadian |
| Petty's Topsoil | Duncan | Stephens |

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 Houston, Texas this 26th day of July, 2019.

/s/ Karri Mahmoud

Karri Mahmoud
Midship Pipeline Company, LLC

Attachment 2.2

Midship's Second Response to Shut Down Order



January 20, 2020

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

Re: Midship Pipeline Company, LLC
Docket No. CP17-458-000
OEP/DG2E/Gas 1
Supplement to July 26, 2019, Letter

Dear Ms. Bose:

On May 31, 2017, Midship Pipeline Company, LLC (“Midship”) submitted its Application for a Certificate of Public Convenience and Necessity and Related Authorizations pursuant to Section 7(c) of the Natural Gas Act, as amended, and the regulations of the Federal Energy Regulatory Commission (“Commission”) for the construction and operation of the Midcontinent Supply Header Interstate Pipeline Project (“Midship Project”). On August 13, 2018, FERC issued an Order Granting Certificate for the Midship Project.

On July 26, 2019, Midship submitted a Topsoil Plan for the North Spread of the Project. In this plan, Midship committed to conducting topsoil surveys along the affected area which would serve as a baseline for determining the existing depths of topsoil and to identify areas where topsoil mitigation may need to be conducted. Midship is herein providing the results of this survey to FERC.

Portions of the information submitted in the instant filing include confidential and proprietary information. In accordance with Section 388.112 of the Commission’s regulations, the Company requests that the information submitted be accorded Privileged and Confidential treatment. Accordingly, the material has been marked “CUI/PRIV – Privileged & Confidential – Do Not Release”.

Should you have any questions about the instant filing, please feel free to contact the undersigned at (713) 375-5000.

Respectfully Submitted,

/s/ Karri Mahmoud

Karri Mahmoud
Director, Environmental and Regulatory Projects
Midship Pipeline Company, LLC

Enclosures

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 Houston, Texas this 20th day of January, 2020.

/s/ Karri Mahmoud

Karri Mahmoud
Midship Pipeline Company, LLC

Document Content(s)

MSP_012020_Coverletter.PDF.....1-2

Attachment 2.3

Midship's Topsoil Report Per Shut Down Order

Document Accession #: 20200121-5049

Filed Date: 01/21/2020

File [Report_PC.PDF] cannot be converted. (The generated PDF file size exceeds limit of 250 MB)

File [Chisholm Lateral Topsoil_Part1_PC.PDF] cannot be converted. (The generated PDF file size exceeds limit of 250 MB)

File [Chisholm_Lateral_Topsoil_Part2_PC.PDF] cannot be converted. (The generated PDF file size exceeds limit of 250 MB)

File [Chisholm_Lateral_Topsoil_Part3_PC.PDF] cannot be converted. (The generated PDF file size exceeds limit of 250 MB)

File [Midship_Mainline_Topsoil_Part1_PC.PDF] cannot be converted. (The generated PDF file size exceeds limit of 250 MB)

File [Midship_Mainline_Topsoil_Part2_PC.PDF] cannot be converted. (The generated PDF file size exceeds limit of 250 MB)

File [Midship_Mainline_Topsoil_Part3_PC.PDF] cannot be converted. (The generated PDF file size exceeds limit of 250 MB)

File [Midship_Mainline_Topsoil_Part4_PC.PDF] cannot be converted. (The generated PDF file size exceeds limit of 250 MB)

File [Midship_Mainline_Topsoil_Part5_PC.PDF] cannot be converted. (The generated PDF file size exceeds limit of 250 MB)

File [Midship_Mainline_Topsoil_Part6_PC.PDF] cannot be converted. (The generated PDF file size exceeds limit of 250 MB)

File [Midship_Mainline_Topsoil_Part7_PC.PDF] cannot be converted. (The generated PDF file size exceeds limit of 250 MB)

File [Midship_Mainline_Topsoil_Part8_PC.PDF] cannot be converted. (The generated PDF file size exceeds limit of 250 MB)

File [Midship_Mainline_Topsoil_Part9_PC.PDF] cannot be converted. (The generated PDF file size exceeds limit of 250 MB)

File [Midship_Mainline_Topsoil_Part10_PC.PDF] cannot be converted. (The generated PDF file size exceeds limit of 250 MB)

File [Midship_Mainline_Topsoil_Part11_PC.PDF] cannot be converted. (The generated PDF file size exceeds limit of 250 MB)

File [Midship_Mainline_Topsoil_Part12_PC.PDF] cannot be converted. (The generated PDF file size exceeds limit of 250 MB)

Document Content(s)

Report_PC.PDF.....1
Chisholm_Lateral_Topsoil_Part1_PC.PDF.....2
Chisholm_Lateral_Topsoil_Part2_PC.PDF.....3
Chisholm_Lateral_Topsoil_Part3_PC.PDF.....4
Midship_Mainline_Topsoil_Part1_PC.PDF.....5
Midship_Mainline_Topsoil_Part2_PC.PDF.....6
Midship_Mainline_Topsoil_Part3_PC.PDF.....7
Midship_Mainline_Topsoil_Part4_PC.PDF.....8
Midship_Mainline_Topsoil_Part5_PC.PDF.....9
Midship_Mainline_Topsoil_Part6_PC.PDF.....10
Midship_Mainline_Topsoil_Part7_PC.PDF.....11
Midship_Mainline_Topsoil_Part8_PC.PDF.....12
Midship_Mainline_Topsoil_Part9_PC.PDF.....13
Midship_Mainline_Topsoil_Part10_PC.PDF.....14
Midship_Mainline_Topsoil_Part11_PC.PDF.....15
Midship_Mainline_Topsoil_Part12_PC.PDF.....16

Attachment 3

FERC Order Allowing Midship to Resume Construction Activities

FEDERAL ENERGY REGULATORY
COMMISSION
WASHINGTON, D.C. 20426

OFFICE OF ENERGY PROJECTS

In Reply Refer To:
OEP/DG2E/Gas Branch 1
Midship Pipeline Company, LLC
Midcontinent Supply Header Interstate
Pipeline Project
Docket No. CP17-458-000

July 31, 2019

VIA FERC Service

Ms. Karri Mahmoud
Manager, Regulatory Affairs
Midship Pipeline Company, LLC
700 Milam Street, Suite 1900
Houston, TX 77002

Re: Authorization to Resume Clearing and Grading Activities

Dear Ms. Mahmoud:

I grant Midship Pipeline Company LLC's (Midship) July 19, 2019 request, as supplemented on July 26, 2019, to resume clearing and grading activities between Mainline Mileposts 66 and 119, including the Velma Lateral, for the Midcontinent Supply Header Interstate Pipeline Project. We find that Midship has sufficiently responded to and satisfied the obligations imposed by our July 3, 2019 letter, and has regained environmental compliance on the North Spread. Following field verification from our Compliance Monitors, we have confirmed that Midship has provided sufficient evidence in its response letters that it has implemented or is in process of implementing appropriate corrective actions for all the unresolved non-compliance incidents on the North Spread. We have further confirmed that Midship has properly implemented environmental crew measures and installed sufficient erosion control devices, stabilized topsoil piles, stabilized waterbody banks, and retrieved construction mats which floated off right-of-way (where landowner and applicable agency approval was received) along the North Spread. Additionally, we have reviewed the Midship Project Topsoil Plan included in your request and find it acceptable to restore topsoil to pre-construction levels and grade due to the high loss

of topsoil from erosion and mixing with subsoil at numerous identified locations on the North Spread.

I remind you that Midship must comply with all applicable terms and conditions of its *Order Issuing Certificate*. While we note that it appears Midship has a renewed commitment to abide by these terms and conditions, we note that a relapse of the issues identified in our July 3rd letter may result in additional compliance requirements or restrictions. If you have any questions, please contact Elaine Baum, the environmental project manager, at (202) 502-6467.

Sincerely,

A handwritten signature in black ink, appearing to read "Danny Latoon". The signature is written in a cursive, slightly slanted style.

Danny Latoon
Chief, Gas Branch 1
Division of Gas – Environment and
Engineering

Document Content(s)

CP17-458 Midship NTP Approval.PDF.....1

Attachment 4

Midship's Request to Place the Project into Service



March 31, 2020

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

Re: Midship Pipeline Company, LLC
Docket Nos. CP17-458-000 & CP19-17-000
OEP/DG2E/Gas 1
Request for In Service – Condition 10

Dear Ms. Bose:

On May 31, 2017, Midship Pipeline Company, LLC (“Midship”) submitted its Application for a Certificate of Public Convenience and Necessity and Related Authorizations pursuant to Section 7(c) of the Natural Gas Act, as amended, and the regulations of the Federal Energy Regulatory Commission (“Commission”) for the construction and operation of the Midcontinent Supply Header Interstate Pipeline Project (“Midship Project”). On August 13, 2018, FERC issued an Order Granting Certificate for the Midship Project. On November 14, 2018, Midship submitted an Application for Limited Amendment of Certificate Authority (“Application for Amendment”) pursuant to Section 7(c) of the Natural Gas Act, as amended, and the regulations of the Commission for a minor reroute of the Midship Project authorized on August 13, 2018, under FERC Docket CP17-458-000. On January 25, 2019, FERC issued an Order Amending Certificate for Midship’s proposed minor reroute, amending the August 2018 Order.

On December 20, 2018, the Commission granted Midship Partial Notice to Proceed with Construction and Variance Request Approvals. This approval was based on the Implementation Plans provided to FERC on August 24, 2018, and as supplemented on August 31, 2018; September 7, 12, 14, 21, and 28, 2018; October 5, 10, 12, 16, 17, 18, 19, 26 and 30, 2018; November 2, 6, 7, 8, and 9, 2018; December 4, 2018. On January 23, 2019, the FERC issued approval for use of the Chickasha Contractor Yard. On January 30, 2019, FERC issued NTP with initial site preparation, pre-construction, and construction activities on the Chisholm Lateral, Chisholm Meter Station, and all associated access roads. On February 27, 2019, FERC issued NTP with initial site preparation, pre-construction, and construction activities on the remaining portions of the Project, which included MP 186.3 – 199.7 of the Mainline, Bennington CS, and all associated meter stations and access roads, as well as the 24-inch diameter tie-in piping from the Cana Meter Station to Mainline MP 15.3.

Condition 10 of the above referenced Orders state that Midship must receive written authorization from the Director of OEP before placing the Pipeline into service. Such authorization will only be granted following a determination that rehabilitation and restoration of the right-of-way and other areas affected by the Pipeline are proceeding satisfactorily. Midship is herein providing details in compliance with this condition.

Construction of the Midship Project is completed, and all portions of the pipeline have been lowered in and backfilled. Midship is continuing to work on the final restoration of the project right of way. Restoration activities along the right-of-way and other areas affected by the Midship Project include removal of construction debris, pulling stockpiled topsoil back across the construction right of way, seeding and mulching the disturbed areas, and restoring pre-construction contours and elevations. Total restoration

across the Midship Project have reached 93% complete and the remaining restoration activities are proceeding satisfactorily and in compliance with the FERC's Plan and Procedures. Midship affirms that all remaining activities, including restoration and maintenance of erosion controls, will be consistent with all applicable conditions and in accordance with the Winter Restoration Plan submitted to FERC on January 31, 2020 (reference Accession Number: [20200131-5236](#)). **Table 1** below represents the breakdown of restoration progress by spread for the Midship Project. Provided herein as **Attachment A** are representative photographs of restoration progress along the right-of-way.

| Spread | Restoration Progress % |
|--------------------------------------|------------------------|
| North Spread | |
| Mainline (MP 0.0 – 119.2) | 88 |
| Chisholm Lateral (MP CH 0.0 – 20.36) | 100 |
| Velma Lateral (MP VE 0.0 – 13.6) | 79 |
| South Spread | |
| Mainline (MP 119.2 – 199.6) | 100 |
| Overall Project Completion | 93 |

1. The term "restoration," as used in this table and throughout this document, is defined as replacement of topsoil, reinstallation of contours, and application of seed and mulch.

As detailed in the Winter Restoration Plan submitted to FERC on January 31, 2020 (reference Accession Number: [20200131-5236](#)), restoration of disturbed areas is ongoing and will continue until complete and revegetation is successful as defined by the Federal Energy Regulatory Commission's ("FERC") Upland Erosion Control, Revegetation, and Maintenance Plan ("Plan") and FERC's Wetland and Waterbody Construction and Mitigation Procedures ("Procedures"). However, due to the fact that some restoration occurred outside optimal seeding and germination windows, portions of the work area will not have complete vegetative growth at the time of in service. Midship conducted initial seeding concurrently with restoration and additional reseeding will occur during the spring of 2020 when conditions allow in areas previously seeded that exhibit lack of growth.

Table 2 provides the locations of the remaining areas which require restoration and seeding. These areas are classified for the purposes of restoration as Tier 1 areas. These represent areas that are actively being restored and for which a restoration schedule is already in place.

| | Start Station | End Station | Start MP | End MP | Distance (ft) |
|------------------|---------------|-------------|----------|--------|---------------|
| N. Spread | 1835+93 | 1849+00 | 34.77 | 35.02 | 1,307 |
| | 2150+66 | 2170+15 | 40.73 | 41.10 | 1,949 |
| | 3756+26 | 3813+67 | 71.14 | 72.23 | 5,741 |
| | 3907+34 | 4032+57 | 74.00 | 76.37 | 12,523 |
| | 4032+57 | 4049+23 | 76.37 | 76.69 | 1,666 |
| | 4440+72 | 4675+00 | 84.10 | 88.54 | 23,428 |
| | 4787+00 | 4880+00 | 90.66 | 92.42 | 9,300 |
| | 4880+00 | 4891+60 | 92.42 | 92.64 | 1,160 |
| | 5240+38 | 5250+82 | 99.25 | 99.45 | 1,044 |
| | 5294+11 | 5310+00 | 100.27 | 100.57 | 1,589 |
| | 5310+00 | 5312+00 | 100.57 | 100.61 | 200 |

| | Start Station | End Station | Start MP | End MP | Distance (ft) |
|------------------------|----------------------|--------------------|-----------------|---------------|----------------------|
| Velma Lateral | 8+48 | 19+57 | 0.16 | 0.37 | 1,109 |
| | 133+12 | 144+00 | 2.52 | 2.73 | 1,088 |
| | 144+00 | 197+09 | 2.73 | 3.73 | 5,309 |
| | 380+87 | 385+32 | 7.21 | 7.30 | 445 |
| | 496+88 | 497+49 | 9.41 | 9.42 | 61 |
| | 517+65 | 568+00 | 9.80 | 10.76 | 5,035 |
| Total Remaining | | | | | 72,954 |

Table 3 represents the Tier 2 locations which pose separate challenges for restoration that are outside of the normal restoration schedule. These are typically areas that are in low lying bottoms that have flooded will have to wait for the waters to recede before restoration activities can occur. Please refer to **Attachment B** for photos of Tier 2 locations.

| | Start Station | End Station | Start MP | End MP | Distance (ft) |
|------------------------|----------------------|--------------------|-----------------|---------------|----------------------|
| N. Spread | 3686+51 | 3745+00 | 69.82 | 70.93 | 5,849 |
| | 4999+00 | 5068+95 | 94.68 | 96.00 | 6,995 |
| | 5288+51 | 5294+11 | 100.16 | 100.27 | 560 |
| Velma Lateral | 497+49 | 515+65 | 9.42 | 9.77 | 1,816 |
| | 515+65 | 517+65 | 9.77 | 9.80 | 200 |
| | 568+00 | 575+00 | 10.76 | 10.89 | 700 |
| Total Remaining | | | | | 16,120 |

1. Construction bridges will be required after in-service to facilitate final restoration efforts.

The right of way along the South Spread was restored and seeded in late November – December 2019. However, due to the fact that some restoration occurred outside optimal seeding and germination windows, there are areas that Midship will need to conduct additional restoration activities in spring of 2020. **Table 4** below provides the locations along the South Spread which require additional restoration and re-seeding. Midship is actively monitoring these areas and will provide updates as work progresses.

| Start Station | End Station | Start MP | End MP | Distance (mi) | Activities |
|----------------------|--------------------|-----------------|---------------|----------------------|--|
| 8189+28 | 8659+20 | 155.10 | 164.00 | 8.9 | Address erosion, reseed, monitor sandy soils |
| 8722+56 | 9181+92 | 165.20 | 173.90 | 8.7 | Supplemental seeding |
| 9250+56 | 9546+24 | 175.20 | 180.80 | 5.6 | Address ditch line subsidence |

Midship is committed to building a safe and reliable pipeline. Midship confirms that all sections of the pipeline and facilities have successfully completed hydrostatic testing without any failures. Midship's installation specifications for the pipeline meet or exceed the requirements of 49 CFR Part 192. The pipeline was installed with a minimum of 48" of cover, which exceeds the 30" depth of cover requirement for transmission pipelines per 49 CFR Part 192.

Midship herein confirms that the right of way will continue to be monitored and maintained in accordance with the requirements set forth in the FERC Plan and Procedures and 49 CFR 192. Specifically, any areas of subsidence or erosion will be repaired to ensure the integrity of the pipeline. Midship confirms any parts of the right-of-way that need to be re-disturbed to make repairs to the right of way, these activities will be conducted in accordance with the FERC Plan and Procedures and will be restored. Additionally, Midship will recover any remaining off right-of-way construction mats if and when landowner permission is received and requisite variances are issued.

The Midship Project has reached an overall Project restoration of 93% and herein attests that rehabilitation and restoration of the right-of-way and other areas affected by the Midship Project are proceeding satisfactorily. Midship is committed to ensuring full restoration of the right of way in accordance with FERC's Plan and Procedures as well as the Midship Project's Winter Restoration Plan. In accordance with Condition No. 10 of the above referenced Orders, Midship is herein requesting authorization to place the Midship Project in service. Midship requests authorization at the earliest time possible, but no later than April 17, 2020, in order to meet the needs of its shippers.

Respectfully Submitted,

/s/ Karri Mahmoud

Karri Mahmoud
Director, Environmental and Regulatory Projects
Midship Pipeline Company, LLC

Enclosures

ATTACHMENT A

Representative photographs of restoration progress
along the right-of-way

**Midship Pipeline Project
CP17-450-000 & CP19-17-000
Attachment A**



Facing north on Tract CL-KI-0001.010 (actively cultivated field ["ACF"]) on 02/04/20.



Facing west on Tract CL-KI-0026.000 (ACF) on 02/07/20.

**Midship Pipeline Project
CP17-450-000 & CP19-17-000
Attachment A**



Downstream of Waterbody SKI-025 (S-KI-WCR-17/01/17-01) near MP CH7.6 on 02/08/20 (Tract CL-KI-0039.000).



Upstream of Waterbody SKI-025 (S-KI-WCR-17/01/17-01) near MP CH7.6 on 02/08/20 (Tract CL-KI-0039.000).

**Midship Pipeline Project
CP17-450-000 & CP19-17-000
Attachment A**



Facing east on Tract CL-KI-0076.000 (ACF) on 02/10/20.



Facing south on Tract CN-0014.000 on 11/04/19.

**Midship Pipeline Project
CP17-450-000 & CP19-17-000
Attachment A**



Facing north on Tract CN-0035.000 on 01/15/20.



Downstream of Waterbody SCN-021 (S-CN-WCR-17/01/18-02) near MP 12.2 on 11/05/19 (Tract CN-0055.000).

**Midship Pipeline Project
CP17-450-000 & CP19-17-000
Attachment A**



Upstream of Waterbody SCN-021 (S-CN-WCR-17/01/18-02) near MP 12.2 on 11/05/19 (Tract CN-0055.000).



Downstream of Waterbody SCN-015 (S-CN-WCR-16/12/07-03) near MP 13.3 on 11/05/19 (Tract CN-0059.000).

**Midship Pipeline Project
CP17-450-000 & CP19-17-000
Attachment A**



Upstream of Waterbody SCN-015 (S-CN-WCR-16/12/07-03) near MP 13.3 on 11/05/19 (Tract CN-0059.000).



Downstream of Waterbody SCN-002 (S-CN-AAL-17/01/18-03) near MP 19.3 on 12/04/19 (Tract CN-0083.010).

**Midship Pipeline Project
CP17-450-000 & CP19-17-000
Attachment A**



Facing south on Tract CN-0083.010 on 12/04/19.



Downstream of Waterbody SCN-012 (S-CN-TAS-17/01/19-01) near MP 21.3 on 12/04/19 (Tract CN-0092.010).

**Midship Pipeline Project
CP17-450-000 & CP19-17-000
Attachment A**



Upstream of Waterbody SCN-012 (S-CN-TAS-17/01/19-01) near MP 21.3 on 12/04/19 (Tract CN-0092.010).



Facing south on Tract CN-0106.020 (ACF) on 12/11/19.

**Midship Pipeline Project
CP17-450-000 & CP19-17-000
Attachment A**



Facing north on Tract GR-0109.010 (ACF) on 12/12/19.



Upstream of Waterbody SCR-013 Buggy Creek (S-GR-RFT-16/12/10-1) near MP 34.8 on 03/21/20 (Tract GR-0132.010).

**Midship Pipeline Project
CP17-450-000 & CP19-17-000
Attachment A**



Downstream of Waterbody SCR-013 Buggy Creek (S-GR-RFT-16/12/10-1) near MP 34.8 on 03/21/20 (Tract GR-0132.010).

**Midship Pipeline Project
CP17-450-000 & CP19-17-000
Attachment A**



South top of bank at Waterbody SCR-013 Buggy Creek (S-GR-RFT-16/12/10-1) near MP 34.8 on 03/21/20 (Tract GR-0132.010).



**Midship Pipeline Project
CP17-450-000 & CP19-17-000
Attachment A**

View across Waterbody SCR-013 Buggy Creek (S-GR-RFT-16/12/10-1) near MP 34.8 on 03/21/20 (Tract GR-0132.010).



Facing north on Tract GR-0147.010 on 12/14/19.

**Midship Pipeline Project
CP17-450-000 & CP19-17-000
Attachment A**



Facing north on Tract GR-0178.010 on 01/07/20.



Downstream of Waterbody SGR-031 (S-GR-RKT-16/12/10-10) near MP 54.5 on 01/27/20 (Tract GR-0204.010).

**Midship Pipeline Project
CP17-450-000 & CP19-17-000
Attachment A**



Upstream of Waterbody SGR-031 (S-GR-RKT-16/12/10-10) near MP 54.5 on 01/27/20 (Tract GR-0204.010).



Facing west on Tract CR-0627.000 on 11/25/19.

**Midship Pipeline Project
CP17-450-000 & CP19-17-000
Attachment A**



Facing west on Tract CR-0661.000 on 11/23/19.



Downstream of Waterbody SCR-067 (S-CR-LAG-17/01/09-08) near MP 131.6 on 11/22/19 (Tract CR-0676.000).

**Midship Pipeline Project
CP17-450-000 & CP19-17-000
Attachment A**



Upstream of Waterbody SCR-067 (S-CR-LAG-17/01/09-08) near MP 131.6 on 11/22/19 (Tract CR-0676.000).



Facing west on Tract CR-0679.000 on 11/22/19.

**Midship Pipeline Project
CP17-450-000 & CP19-17-000
Attachment A**



Facing east on Tract CR-0692.000 on 11/19/19.



**Midship Pipeline Project
CP17-450-000 & CP19-17-000
Attachment A**

Downstream of Waterbody SJO-020 (S-JO-AAL-17/01/24-02) near MP 157.8 on 09/18/19 (Tract JO-0806.000).



Facing west on Tract JO-0839.000 on 01/06/20.

**Midship Pipeline Project
CP17-450-000 & CP19-17-000
Attachment A**



Downstream of Waterbody SBR-061 (S-BR-TAS-17/01/16-01) near MP 174.8 on 01/07/20 (Tract BR-0886.000).



Upstream of Waterbody SBR-061 (S-BR-TAS-17/01/16-01) near MP 174.8 on 01/07/20 (Tract BR-0886.000).

**Midship Pipeline Project
CP17-450-000 & CP19-17-000
Attachment A**



Facing northwest on Tract BR-0901.000 on 10/17/19.



Facing west on Tract BR-0931.000 on 01/07/20.

**Midship Pipeline Project
CP17-450-000 & CP19-17-000
Attachment A**



Facing northwest on Tract BR-0941.000 on 10/02/19.



Facing southeast on Tract BR-0980.000 on 10/04/19.

**Midship Pipeline Project
CP17-450-000 & CP19-17-000
Attachment A**



Facing west on Tract BR-1007.000 on 01/13/20.



Aerial view of Calumet Compressor Station in February 2020.

**Midship Pipeline Project
CP17-450-000 & CP19-17-000
Attachment A**



Aerial view of Tatums Compressor Station in February 2020.



Aerial view of Bennington Compressor Station and NGPL Meter Station in February 2020.

**Midship Pipeline Project
CP17-450-000 & CP19-17-000
Attachment A**



MEP skids at Bennington Meter Station in February 2020.



Gulf Crossing skids at Bennington Meter Station in February 2020.

ATTACHMENT B

Representative photographs of Tier 2 areas along the
right-of-way

Midship Pipeline Project
Docket Nos. CP17-458-000 & CP19-17-000
Attachment B



Velma Lateral near MP VL10.0 on 03/27/20 (Tract VL-CR-0032.010).



Velma Lateral near MP VL3.00 on 03/27/20 (Tract VL-ST-0011.000).

Midship Pipeline Project
Docket Nos. CP17-458-000 & CP19-17-000
Attachment B



Velma Lateral near MP VL3.00 on 03/27/20 (Tract VL-ST-0011.000).



Velma Lateral near MP VL3.00 on 03/27/20 (Tract VL-ST-0011.000).

Midship Pipeline Project
Docket Nos. CP17-458-000 & CP19-17-000
Attachment B



Mainline near MP 71.6 on 03/27/20 (Tract ML-GR-0338.000).



Mainline near MP 71.6 on 03/27/20 (Tract ML-GR-0338.000).

Midship Pipeline Project
Docket Nos. CP17-458-000 & CP19-17-000
Attachment B



Mainline near MP 71.7 on 03/27/20 (Tract ML-GR-0338.000).



Mainline near MP 71.7 on 03/27/20 (Tract ML-GR-0338.000).

Midship Pipeline Project
Docket Nos. CP17-458-000 & CP19-17-000
Attachment B



Mainline near MP 71.9 on 03/27/20 (Tract ML-GR-0338.000).



Mainline near MP 100.4 on 03/25/20 (Tract ML-GA-0469.000).

**Midship Pipeline Project
Docket Nos. CP17-458-000 & CP19-17-000
Attachment B**



Mainline near MP 100.4 on 03/25/20 (Tract ML-GA-0469.000).



Mainline near MP 100.4 on 03/25/20 (Tract ML-GA-0469.000).

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 Houston, Texas this 31st day of March, 2020.

/s/ Karri Mahmoud

Karri Mahmoud
Midship Pipeline Company, LLC

Document Content(s)

MSP_03-31-20_InServiceFinal.PDF.....1-37

Attachment 5

Central Land Consulting's Response to Midship's Request to Place the Project into Service



April 7, 2020

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

Re: Midship Pipeline Company, LLC
Docket Nos. CP17-458-000 & CP19-17-000
OEP/DG2E/Gas 1
March 31, 2020 Midship Request for In Service
April 5-6, 2020 Site Inspections by Central Land Consulting

Dear Ms. Bose,

On May 31, 2017, Midship Pipeline Company, LLC submitted its Application for a Certificate of Public Convenience and Necessity and Related Authorizations pursuant to Section 7(c) of the Natural Gas Act, as amended, and the regulations of the Federal Energy Regulatory Commission for the construction and operation of the Midcontinent Supply Header Interstate Pipeline Project. On August 13, 2018, FERC issued an Order Granting Certificate for the Midship Project.

On March 31, 2020, Midship submitted a request to place the Midship Project into service and cites various requirements that have reportedly been met¹. Midship reports:

- 1.) Construction is 100% complete project wide.
- 2.) Backfilling of trenches is 100% complete project wide.
- 3.) Restoration is 93% complete project wide.
- 4.) Restoration is proceeding satisfactorily.

In response to this request, Central Land Consulting, LLC (CLC) conducted site inspections of some properties affected by the Midship Project on April 5 and 6, 2020. In summary, we found:

- 1.) At least 3,000 feet of open trenches on tract GR-0338.000.
- 2.) Unfiltered trench water being pumped directly into a stream (SGR-008).
- 3.) Large rocks and construction materials buried beneath 2-4" of soil.
- 4.) Construction debris and matting scattered throughout workspace and across property.
- 5.) Ponding on and off right-of-way seemingly caused by disruption of existing drainage.
- 6.) Evidence of continual sediment and erosion control violations in multiple locations.
- 7.) Presence of an unknown sheeny contaminant in water inside and near right-of-way.
- 8.) Bank erosion and slipping vegetation along multiple streams.

The above issues are documented below in corresponding Photo Sections 1 through 8.

¹ Midship's March 31, 2020 In Service Request can be viewed at the Commission's website with Accession No. 20200401-5080 at <https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=15500301>

While Midship acknowledges there are “locations of the remaining areas which require restoration and seeding” as well as “locations which pose separate challenges for restoration that are outside of the normal restoration schedule,” the issues that CLC has found extend far beyond “normal restoration.” These are egregious issues that Midship does not want the Commission to see which would explain the extremely limited field-of-view in many of Midship’s in service request photos.

CLC is currently evaluating other affected properties and will supplement when this information has been compiled. There is ongoing consultation with experienced agronomists and soil scientists to investigate the full extent of damages and issues caused by the Midship Project.

These issues are in clear violation of the Commission’s *Plan* and *Procedures* as well as the Clean Water Act. Please see the attached corresponding photos that document these issues as of April 5 and 6, 2020.

Based on these current issues alone, Midship’s in service request **should not** be approved.

Please feel free to contact (330) 312-1060 for any further assistance.

Respectfully Submitted,

/s/ Nate Laps

Nate Laps
President of Operations
Central Land Consulting, LLC

cc: Rich McGuire (FERC)
Terry Turpin (FERC)
Congressman Jamie Raskin

Photo Section 1

Open Trenches

Open Trench

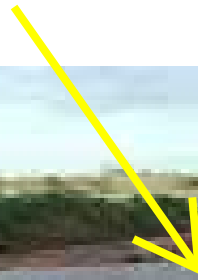


2020-04-05

19:34:25

34.6272333 N . 97.7222750 W

Open Trench



2020-04-06

18:45:58

34.8311806 N , 97.7222444 W

Open Trench



Photo Section 2

Unfiltered Dewatering into SGR-008

Unfiltered, Silt-Laden
Water Pumped into
Creek

Sandy Creek (SGR-008)



Sediment Plume







Photo Section 3

Buried Rocks and Construction Debris



Buried Matting



2020-04-05

18:47:58

51.8310361 N 97.7221444 W



2020-04-05

18:58:11

34.6310361 N 97.722144 W



Photo Section 4

Scattered Construction Debris

Off Right-of-Way Debris





Construction Debris



Off Right-of-Way Debris







Photo Section 5

Ponding On and Off Right-of-Way

Ponding Due to Blocked Drainage Inside Right-of-Way



Ponding Due to Blocked Drainage Inside Right-of-Way



Ponding Due to Blocked Drainage Inside Right-of-Way





Inside Right-of-Way

Off Right-of-Way







2020-04-06

16:33:48

34.8978917 N , 97.7381972 W

Photo Section 6
Continual Sediment and Erosion Control
Violations

Off Right-of-Way



2020-04-05

19:02:34

34.8322417 N 97.7220694 W

Erosion Rills Due to Lack of Vegetation







Ineffective Erosion Control

2020-04-05

19:02:49

34.8322556 N , 97.7220528 W

Ineffective Erosion Control



2020-04-05

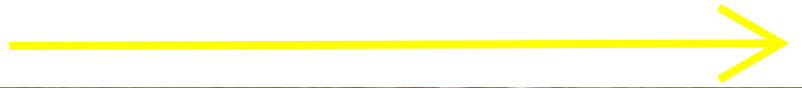
19:05:11

34.8322750 N , 97.7218694 W





Off Right-of-Way



2020-04-06

14:08:23

34.8355333 N , 97.7218028 W

Photo Section 7

Sheeny Contaminant Present in Water

Sheeny Substance Flowing Away from Right-of-Way Less than 100 feet from Irrigation Pond



Sheeny Substance at Edge of Right-of-Way Less than 100 feet from Irrigation Pond



Sheeny Substance Flowing Away from Right-of-Way Less than 100 feet from Irrigation Pond



Sheeny Substance at Edge of Right-of-Way Flowing Towards Irrigation Pond



Sheeny Substance at Edge of Right-of-Way Flowing Towards Irrigation Pond



Sheeny Substance Inside Right-of-Way



Photo Section 8

Bank Erosion

Midship Workspace at Stream Crossing

Trees Falling and Slipping Towards Creek



2020-04-05

19:15:24

34.6271972 N , 97.7214583 W

Trees Falling and Slipping Towards Creek



Unstable Creek Bank Causing Trees and Vegetation to Slide into Creek



Unstable Creek Bank Causing Trees and Vegetation to Slide into Creek



Unstable Creek Bank Causing Trees and Vegetation to Slide into Creek



2020-04-08

17:32:20

34.8940801 N 07.7381462 W

Document Content(s)

4-7-20 CLC - Midship Site Inspection Report Final.PDF.....1-53

Attachment 6

April 13-14 Site Inspection Report with FERC, CLC, and
Midship Two Days Before FERC Approved Midship's
In-Service Request



April 17, 2020

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

Re: Midship Pipeline Company, LLC
Docket Nos. CP17-458-000 & CP19-17-000
OEP/DG2E/Gas 1
April 13 - 14, 2020 Site Inspections by FERC Compliance Team, Central Land Consulting, and Midship

Dear Ms. Bose,

On May 31, 2017, Midship Pipeline Company, LLC submitted its Application for a Certificate of Public Convenience and Necessity and Related Authorizations pursuant to Section 7(c) of the Natural Gas Act, as amended, and the regulations of the Federal Energy Regulatory Commission for the construction and operation of the Midcontinent Supply Header Interstate Pipeline Project. On August 13, 2018, FERC issued an Order Granting Certificate for the Midship Project. On March 31, 2020, Midship submitted a request to place the Midship Project into service and cites various requirements that have reportedly been met.

On April 13¹ & 15², 2020, Midship filed supplemental information regarding their in service request. This filing reiterated Midship's claims that ongoing compliance and environmental issues have either been previously addressed or require only minor restoration and/or monitoring. This filing was submitted to the FERC docket at 5:06 pm EST while site inspections were taking place in Bryan County Oklahoma and had already occurred throughout the south spread. Midship continues to assert that restoration of the south spread is 100% complete which will be shown to be wholly false in this filing. Midship's outright and predetermined denial of the severe issues they witnessed firsthand signals that Midship is utterly disinterested in addressing the mess they have created and concerned only with getting into service.

The FERC Compliance Monitors, specifically Daniel Beisner, witnessed and discussed with Midship to clean up rocks, debris, impeded streams, off right-of-way matting, fill open trenches, fix several creek slips, and repair damaged irrigation systems during these site visits. He also witnessed the horrendous effort at restoration that has taken place on the south spread. **Nearly every property we visited in Bryan County had no topsoil.** In the place of deep, beautiful,

¹ Midship's April 13, 2020 Supplement to Request for In Service can be found on the Commission's website at <https://elibrary.ferc.gov/idmws/common/OpenNat.asp?fileID=15509290>.

² Midship's April 15, 2020 Supplement to Request for In Service can be found on the Commission's website at <https://elibrary.ferc.gov/idmws/common/OpenNat.asp?fileID=15510597>.

soft, black topsoil, Midship has substituted nearly every square foot of workspace surface with compacted grey substratum that is at least 40% rocks. At the bottom of some holes, the original topsoil can be seen buried nearly 30” below the surface. These areas will need the top 24” of material removed and replaced with screened topsoil, an extremely expensive and laborious task.

The FERC Compliance Monitors, Midship, CLC, and our soil scientist have witnessed the same issues that have been filed to the Commission for nearly two years. Rich McGuire, in particular, has received extensive firsthand knowledge of these egregious compliance issues for months. Mr. McGuire relayed to me several times that all concerns must be addressed in order to grant the company in-service. Designate to the Director of the Office of Energy Projects, Rich McGuire, has failed to uphold the FERC Certificate and has knowledge of serious safety concerns and environmental violations.

In light of this knowledge, Mr. McGuire has made a seemingly predetermined decision to place the Midship Project into service. For reasons unknown, he has chosen to ignore landowner concerns once again and rushed to coddle the deceitful and dishonest Midship pipeline into service. **6 of the 12 landowners whose properties were inspected have a pending rehearing request that was granted by FERC on September 30, 2019.** These pending complaints are precursor issues to final outcomes that will be shown in this report.

These issues go far beyond the “less-than-significant” levels of effect that FERC cited when granting Midship their FERC Certificate. In nearly every aspect, Midship has failed to follow the specific provisions contained in the FERC Certificate, FERC Plan, and FERC Procedures. These negligent acts on the parts of Midship, FERC, and FERC’s Compliance Monitors have caused extensive and permanent adverse effects on properties that have been in some families for over 200 years.

On Monday April 13 and Tuesday April 14, 2020, the FERC Compliance Team for the Midship Project met with representatives from Central Land Consulting and Midship and conducted site inspections on tracts owned by 12 landowners on the North and South spreads. The findings of these site inspections as well as Midship’s “resolutions” from their April 13 & 15, 2020 filings are contained herein.

Please feel free to contact (330) 312-1060 for any further assistance.

Respectfully Submitted,

/s/ Nate Laps

Nate Laps
President of Operations
Central Land Consulting, LLC

cc: Rich McGuire (FERC)
Terry Turpin (FERC)
Congressman Jamie Raskin
House Committee on Oversight and Reform



In-ROW and Off-ROW Soil Comparisons

| | |
|--|---------|
| Gene Grounds Tracts: BR-1000, BR-1001 | Page 2 |
| James Anderson Tracts: BR-0994, BR-0995, BR-0996 | Page 6 |
| Sandy Creek Farms Tracts: GR-0336, GR-0338, GR-0340, GR-0340.010 | Page 11 |

Monday April 13, 2020 Site Inspections

| | |
|--|---------|
| 1.) Herriott Tracts: CR-0701, CR-0703, CR-0709 | Page 16 |
| 2.) Chappa Tract: BR-0890 | Page 29 |
| 3.) Childers Tracts: BR-0903, BR-0904, BR-0905 | Page 36 |
| 4.) Ingram Tracts: BR-0988, BR-0990, BR-0992 | Page 47 |
| 5.) Anderson Tracts: BR-0994, BR-0995, BR-0996 | Page 54 |
| 6.) Grounds Tracts: BR-1000, BR-1001 | Page 68 |
| 7.) Risner Tract: BR-1002 | Page 75 |

Tuesday April 14 Site Inspections

| | |
|--|----------|
| 1.) Morris Tract: GR-0353 | Page 88 |
| 2.) Sandy Creek Farms Tracts: GR-0336, GR-0338, GR-0340, GR-0340.010 | Page 103 |
| 3.) Burchfield Tracts: GR-0133, GR-0134, GR-0135 | Page 117 |
| 4.) McComas Tracts: GR-0130.010, GR-0131.010, GR-0132.010 | Page 124 |
| 5.) Luber Tracts: CL-KI-0065, CL-KI-0067 | Page 136 |

Soil Investigations and Comparisons Between Midship ROW and Undisturbed Areas

**Bryan County, Oklahoma
Gene Grounds Soil Investigation
Off-ROW Topsoil is up to 14" Deep
Midship Easement has No Natural Topsoil
and Extremely Compacted with Several
Large Rocks.**



**Bryan County Oklahoma
Off-ROW- 0''-14'' of Natural Topsoil
Compaction - Friable**



**Bryan County Oklahoma
In-ROW - 0" of Natural Topsoil
Compaction - Extreme -
Exceeds the Limit**



Soil Pit Comparison
Bryan County Oklahoma

**Bryan County, Oklahoma
James Anderson Soil Investigation
Off-ROW Topsoil is up to 17" Deep
Midship Easement has No Natural Topsoil
and Extremely Compacted with Several
Large Rocks.**





**Bryan County, Oklahoma
In-ROW - 0" Natural Topsoil
Large Rocks and Mixtures of Soils
Compaction - Extreme**



**Bryan County, Oklahoma
In-ROW - 0" Natural Topsoil
Large Rocks and Mixtures of Soils
Compaction - Extreme**



Bryan County, Oklahoma
Soil Comparison
In-Row
Off-ROW

Grady County, Oklahoma
Sandy Creek Farms Soil Investigation
Off-ROW Topsoil is up to 29” Deep
Midship Easement has no Natural Topsoil and is
Extremely Compacted with Rocks Throughout
Soil



Off-ROW
Topsoil 16" deep
No Compaction - Friable

2020-04-08

00:23:32

34.8442639 N , 97.7249528 W



In ROW
No natural topsoil
Topsoil and subsoil mixed
Compaction exceeded
penetrometer
limit

2020-04-08

00:28:12

34.844444 N , 97.7246333 W



In ROW
No natural topsoil
Topsoil and subsoil mixed
Compaction exceeded
penetrometer
limit

2020-04-08

00:28:05

34.8444361 N , 97.7246861 W



Off-ROW
Topsoil 29" deep
No Compaction - Friable

2020-04-13
23:22:28

34.8395528 N , 97.7214667 W



April 13, 2020 Site Inspection
Estate of Warren & Sammie Herriott
CR-0701.000, CR-0703.000, CR-0709.000
Mile Post: MP 134.5 - 135.75
Carter County, Oklahoma

Issues Reported by CLC Throughout Midship Project:

- 1.) Due to ECD failure, erosion and washouts have occurred discharging into the waterbody used for cattle.
- 2.) The contractors are mixing the topsoil with the subsoil and backfilling the trench.
- 3.) Midship is continually using the landowners private access roads to enter the easement.
- 4.) Midship is allowing silt and sediment from their construction ROW to travel off-ROW and into a wetland and pond
- 5.) The farmer continues to suffer from the erosion causing crop loss and pond contamination. This is a serious issue as it continues to increase the amount of erosion impact.
- 6.) Midship has attempted to reclaim the property, but due to the high loss of topsoil from erosion and mixing with subsoil the property is settling, ponding, and continual erosion outside the easement.
- 7.) Backed up drainage, ponding and erosion discharge into off-row pond and flooding out Pecan trees; Restore and repair drainage, conduct de-compaction mitigation, pond remediation, and replace Pecan trees.

Midship's 4/14/2020 Resolution:

- 1.) "Midship was granted rights to install the pipeline by the FERC Order and the United States District Courts of the Oklahoma. Midship's use of the property was consistent with the court orders. Restoration occurred on 11/26/19. Midship will continue to monitor, report, and correct any restoration issues identified post-construction."
- 2.) "Field review with landowner has been requested; waiting for confirmation from landowner's representative Central Land Consulting (CLC)."

Site Inspection Findings:

- 1.) Ponding throughout the easement.
- 2.) Penetrometer test exceeded 300 psi limit (FERC Plan: V. C. 1-3.)
- 3.) Topsoil (FERC Plan: IV. B. 1-6.)
 - a. 17 - 19" of topsoil in undisturbed areas (verified by existing NRCS soil surveys)
- 4.) Soil Compaction (FERC Plan: V. C. 1-3.)
 - a. Off-ROW Penetrometer reading: Around 150 psi in multiple locations.
 - b. In-ROW Penetrometer reading: 300 psi limit exceeded in every on-ROW location.
- 4.) Rocks mixed into soil.
- 5.) Debris throughout property (FERC Plan: V. A. 6.)
- 6.) Easement area is sunk in 10" - 12" lower than surrounding undisturbed area.











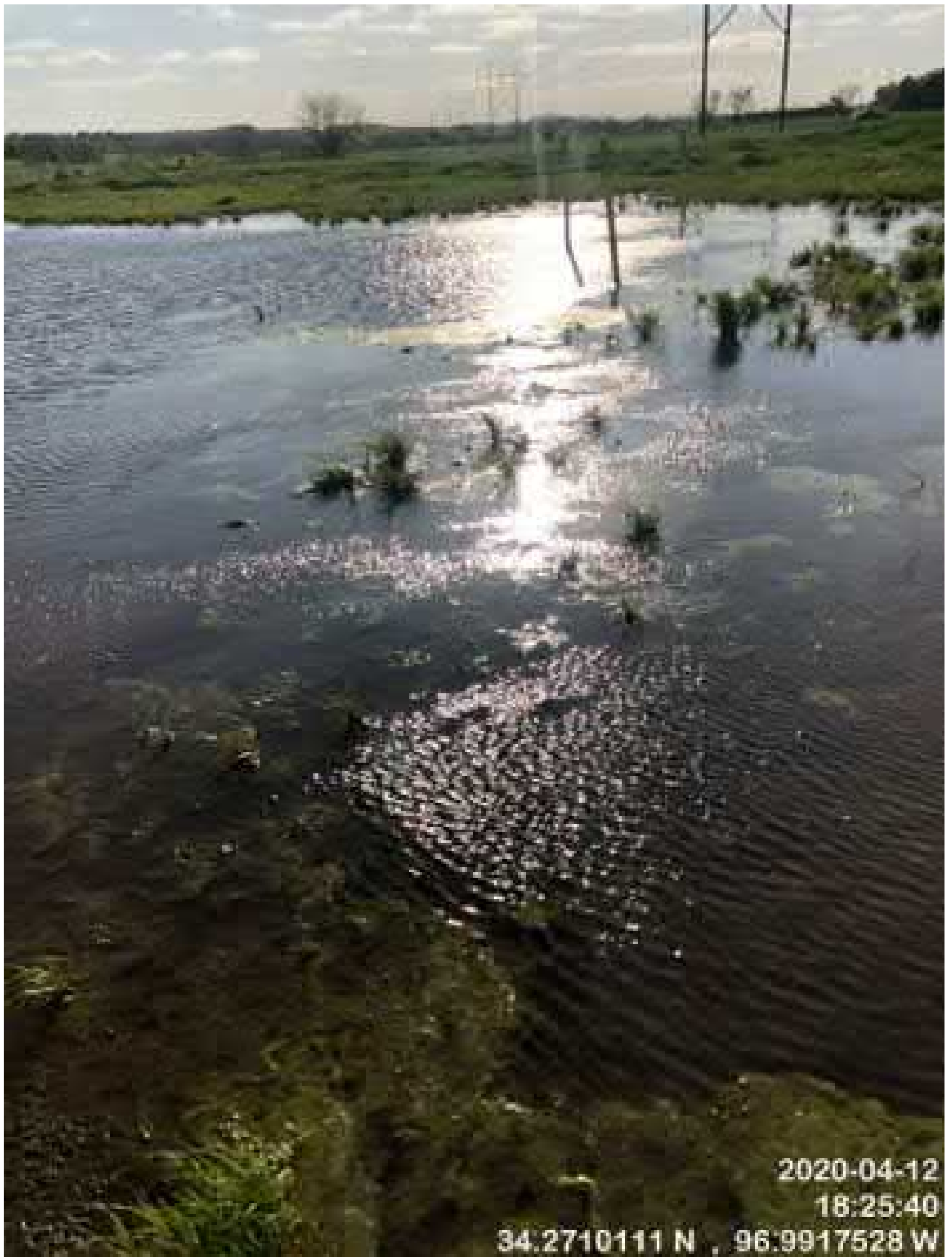












2020-04-12

18:25:40

34.2710111 N , 96.9917528 W



April 13, 2020 Site Inspection
Lee & Anna Chappa
BR-0890.000
Mile Post: MP 176
Bryan County, Oklahoma

Issues Reported by CLC Throughout Midship Project:

- 1.) Mixing of the topsoil and subsoil causing topsoil loss.
- 2.) Due to ECD failure, silt and sediment from construction ROW has traveled into the waterbody used for cattle.
- 3.) Off-ROW sedimentation and construction activity has killed large sections of native Bluestem Grass which is used for cattle feeding
- 4.) Midship is allowing silt and sediment from their construction ROW to travel into multiple water bodies used for cattle water.
- 5.) According to Midship land agents, construction crews are replacing several portions of pipeline in Bryan County. Midship has not documented any pipeline replacement and their multiple test failing. During construction Midship has failed to demonstrate compliance by loss of topsoil due to erosion and inadequate stabilization after disturbance, insufficient de-compaction mitigation, topsoil and subsoil mixing. Midship has not attempted to take action for restoring the upper 12 inches of topsoil to pre- construction levels.
- 6.) Topsoil Loss, Severe Compaction causing ponding. Midship has not attempted to follow any de-compaction mitigation causing severe compaction and ponding.
- 7.) Erosion and lack of revegetation due to Blasting material, subsoil, and topsoil mixing; Remove all mixed soils, large rocks, blasting material. Conduct de-compaction in subsoil and topsoil.

Midship's 4/14/2020 Resolution:

- 1.) "Restoration of this area occurred on 9/22/19. The tract was decompacted prior to topsoil restoration. Midship will conduct additional decompaction testing at this location in April and will remediate if necessary."
- 2.) "As part of typical construction procedures, the pipeline is inspected for anomalies. If any are found, that portion is cut out and replaced. There have been no hydrotest failures anywhere on the system."
- 3.) "The tracts were decompacted prior to topsoil restoration. Midship will conduct additional decompaction testing at this location in April and will remediate if necessary."

Site Inspection Findings:

- 1.) High levels of rock and blasting material mixed into soil. (FERC Plan: V. A. 3-6.)
 - a. Affected areas naturally have between 4 - 6% rock fragments with a maximum size of 74 mm.
 - b. Affected areas naturally have less than 1% rock fragments with a maximum size of 249 mm.
- 2.) Soil Compaction (FERC Plan: V. C. 1-3.)
 - a. Off-ROW Penetrometer reading: Around 160 psi in multiple locations.
 - b. In-ROW Penetrometer reading: 300 psi limit exceeded in every on-ROW location.
- 3.) Severe erosion on and off ROW (FERC Plan: IV. F. 1, 3-4.)
- 4.) Ponding





2020-04-13

12:31:17

34.1752222 N 98.3605028 W











**April 13, 2020 Site Inspection
Misty Tally & Marla Childers
BR-0903.000, BR-0904.000, BR-0905.000
Mile Post: MP 179 - 179.5
Bryan County, Oklahoma**

Issues Reported by CLC Throughout Midship Project:

- 1.) Midship has backfilled and conducted rough cleanup while not replacing the damaged topsoil that has been mixed with the subsoil. In addition, the contractors did not remove the shale, large rocks, and ongoing erosion in the easement.
- 2.) Erosion and lack of revegetation due to Blasting material, subsoil, and topsoil mixing; Remove all mixed soils, large rocks, blasting material. Conduct de-compaction in subsoil and topsoil.

Midship's 4/14/2020 Resolution:

- 1.) "Restoration of this area occurred on 9/19/19. Midship will continue to monitor, report, and correct any restoration issues identified post-construction."
- 2.) "The tracts were decompacted prior to topsoil restoration. Midship will conduct additional decompaction testing at this location in April and will remediate if necessary."

Site Inspection Findings:

- 1.) Soil Compaction (FERC Plan: V. C. 1-3.)
 - a. Off-ROW Penetrometer reading: Around 175 psi in multiple locations.
 - b. In-ROW Penetrometer reading: 300 psi limit exceeded in every on-ROW location.
- 2.) High levels of rock and blasting material mixed into soil. (FERC Plan: V. A. 3-6.)
 - a. In top 20" affected areas naturally have around 6% rock fragments with a maximum size of 74 mm.
 - b. In top 20" affected areas naturally have around 1% rock fragments with a maximum size of 249 mm.



2020-04-13

13:45:42

34.1110500 N, 96.3107833 W



2020-04-13

18:45:51

34.1109056 N , 96.3110111 W















2020-04-13

14:33:42

34.1109167 N , 96.3109361 W





**April 13, 2020 Site Inspection
James & Linda Ingram
BR-0988.000, BR-0990.000, BR-0992.000
Mile Post: MP 194.5 - 195.5
Bryan County, Oklahoma**

Issues Reported by CLC Throughout Midship Project:

- 1.) Midship has backfilled and conducted rough cleanup while not replacing the damaged topsoil that has been mixed with the subsoil. In addition, the contractors did not remove the shale, large rocks, and ongoing erosion in the easement.
- 2.) Midship has changed the lay of the land affecting the topography and drainage patterns. Due to construction not returning the land to its pre-construction condition ponding and additional erosion is occurring.
- 3.) Erosion and lack of revegetation due to blasting material, subsoil, and topsoil mixing; Remove all mixed soils, large rocks, blasting material. Conduct de-compaction in subsoil and topsoil.

Midship's 4/14/2020 Resolution:

- 1.) "Restoration of this area occurred on 7/29/19. Midship will continue to monitor, report, and correct any restoration issues identified post-construction."
- 2.) "The tracts were decompacted prior to topsoil restoration. Midship will conduct additional decompaction testing at this location in April and will remediate if necessary."

Site Inspection Findings:

- 1.) High levels of rock and blasting material mixed into soil. (FERC Plan: V. A. 3-6.)
 - a. Affected areas naturally have less than 1% rock fragments with a maximum size of 74 mm (NRCS).
- 2.) Importation of approx. 31,000 cubic yards of topsoil for 16.69 acres of ROW. (FERC Plan: IV. B. 1-6.)
 - a. Off-ROW topsoil: 14" (verified by existing NRCS soil surveys)
 - b. In-ROW topsoil: 0" found in multiple locations.
- 3.) Soil Compaction (FERC Plan: V. C. 1-3.)
 - a. Off-ROW Penetrometer reading: Around 180 psi in multiple locations.
 - b. In-ROW Penetrometer reading: 300 psi limit exceeded in every off-ROW location.









2020-04-09

15:26:45

34.0017811 N , 96.0768500 W



2020-04-09

15:46:16

34 0006722 N 96.0749194 W



**April 13, 2020 Site Inspection
Anderson Family Trust
BR-0994.000, BR-0995.000, BR-0996.000
Mile Post: MP 195.75 - 196.25
Bryan County, Oklahoma**

Issues Reported by CLC Throughout Midship Project:

- 1.) Midship has backfilled and conducted rough cleanup while not replacing the damaged topsoil that has been mixed with the subsoil. In addition, the contractors did not remove the shale, large rocks, and ongoing erosion in the easement. Gravel road destroyed and creek crossing off of ROW damaged. Midship has not replaced gravel road.
- 2.) Midship has discharged contaminated water in Sulphur creek. Due to construction and erosion the creek is slipping and will continue to slip.
- 3.) The landowner has suffered loss in their farming operations. Many areas continue to have silt, sediment, and creating erosion ditches, some areas where topsoil and subsoil were mixed have only goat weed as cover. These areas did not previously have goatweed.
- 4.) Midship has conducted rough cleanup, but currently the easement continues to suffer from erosion creating sink holes and deep washouts with large ditches at gate crossings.
- 5.) Midship has not reclaimed properly leaving excessive amounts of blasting rock in the soil and has removed the larger rocks creating soil settlement.
- 6.) Topsoil Loss, Severe Compaction causing ponding. Midship has not attempted to follow any de-compaction mitigation causing severe compaction and ponding, blocking waterways.
- 7.) Erosion and lack of revegetation due to Blasting material, subsoil, and topsoil mixing; Remove all mixed soils, large rocks, blasting material. Conduct de-compaction in subsoil and topsoil.

Midship's 4/14/2020 Resolution:

- 1.) "Restoration of this area occurred on 7/14/19. The tract was decompacted prior to topsoil restoration. Midship will conduct additional decompaction testing at this location in April and will remediate if necessary. Midship will continue to monitor, report, and correct any restoration issues identified post-construction."
- 2.) "The tracts were decompacted prior to topsoil restoration. Midship will conduct additional decompaction testing at this location in April and will remediate if necessary."

Site Inspection Findings:

- 1.) High levels of rock and blasting material mixed into soil. (FERC Plan: V. A. 3-6.)
 - a. Affected areas naturally have less than 1% rock fragments with a maximum size of 74 mm (NRCS).
- 2.) Importation of approx. 27.860 cubic yards of topsoil for 12.19 acres of ROW. (FERC Plan: IV. B. 1-6.)
 - a. Off-ROW topsoil: 17" (verified by existing NRCS soil surveys)
 - b. In-ROW topsoil: 0" found in multiple locations.
- 3.) Soil Compaction (FERC Plan: V. C. 1-3.)
 - a. Off-ROW Penetrometer reading: Around 150-180 psi in multiple locations.
 - b. In-ROW Penetrometer reading: 300 psi limit exceeded in every off-ROW location.
- 4.) Construction debris used for creek lining without landowner permission. (FERC Plan: V. A. 3.)







2020-04-07

19:37:35

33.9949139 N, 96.0883250 W









OFF - ROW - 17' Topsoil Depth

2020-04-09

17:27:18

50.9951139 N 96.0615389 W



OFF-ROW - 125" Topsoil

2020-04-09
17:28:08

33.9951361 N, 96.0609667 W





2020-04-08

18:30:08

33.9950372 N 96.0615911 W





2020-04-13
18:04:29

33.9949306 N , 96.0652861 W





**April 13, 2020 Site Inspection
Nolen & Jackie Grounds
BR-1000.000, BR-1001.000
Mile Post: MP 196.5
Bryan County, Oklahoma**

Issues Reported by CLC Throughout Midship Project:

- 1.) Midship has backfilled and conducted rough cleanup while not replacing the damaged topsoil that has been mixed with the subsoil. In addition, the contractors did not remove the shale, large rocks, and ongoing erosion in the easement.
- 2.) The surface is suffering severe settling and erosion from Midship dewatering operations causing damage to the easement area and private property.
- 3.) Erosion and lack of revegetation due to Blasting material, subsoil, and topsoil mixing; Remove all mixed soils, large rocks, blasting material. Conduct de-compaction in subsoil and topsoil.

Midship's 4/14/2020 Resolution:

- 1.) "Restoration of this area occurred on 7/14/19. The tract was decompacted prior to topsoil restoration. Midship will conduct additional decompaction testing at this location in April and will remediate if necessary."
- 2.) "Verbal permission received on 4/14/20 to retrieve off right of way mats. Midship is preparing variance request and will retrieve the mats as soon as approved."
- 3.) "The tracts were decompacted prior to topsoil restoration. Midship will conduct additional decompaction testing at this location in April and will remediate if necessary."

Site Inspection Findings:

- 1.) High levels of rock and blasting material mixed into soil. (FERC Plan: V. A. 3-6.)
 - a. Affected areas naturally have around 1% rock fragments with a maximum size of 74 mm (NRCS)
- 2.) Importation of approx. 3,256 cubic yards of topsoil for 1.73 acres of ROW. (FERC Plan: IV. B. 1-6.)
 - a. Off-ROW topsoil: 14" (verified by existing NRCS soil surveys)
 - b. In-ROW topsoil: 0" found in multiple locations.
- 3.) Soil Compaction (FERC Plan: V. C. 1-3.)
 - a. Off-ROW Penetrometer reading: Around 150 psi in multiple locations.
 - b. In-ROW Penetrometer reading: 300 psi limit exceeded in every off-ROW location.









2020-04-09

19:57:23

33.9929867 N , 96.0514833 W





2020-04-09

20:01:00

33.9925806 N , 96.0516972 W



April 13, 2020 Site Inspection
Bill Risner et al.
BR-1002.000
Mile Post: MP 196.75
Bryan County, Oklahoma

Issues Reported by CLC Throughout Midship Project:

- 1.) Mixing of the topsoil and subsoil causing a loss to the farmer.
- 2.) Midship laid a section of pipe on top of Risner's electric cattle fence causing the entire 1.5 miles of electric fencing to not work, allowing cattle to escape the property.
- 3.) Midship is allowing silt and sediment from their construction ROW to travel off-ROW and into a wetland and pond in the southeast corner of the Risner property.
- 4.) According to Midship land agents, construction crews are replacing several portions of pipeline in Bryan County. Midship has not documented any pipeline replacement and their multiple test failing. During construction Midship has failed to demonstrate compliance by loss of topsoil due to erosion and inadequate stabilization after disturbance, insufficient de-compaction mitigation, topsoil and subsoil mixing. Midship has not attempted to take action for restoring the upper 12 inches of topsoil to pre-construction levels.
- 5.) Erosion and lack of revegetation due to Blasting material, subsoil, and topsoil mixing; Remove all mixed soils, large rocks, blasting material. Conduct de-compaction in subsoil and topsoil.

Midship's 4/14/2020 Resolution:

- 1.) "Restoration, including fencing, in this area occurred on 7/14/19. As part of typical construction procedures, the pipeline is tested for anomalies. If any are found, that portion is cut out and replaced. There have been no hydrotest failures anywhere on the system."
- 2.) "The tracts were decompacted prior to topsoil restoration. Midship will conduct additional decompaction testing at this location in April and will remediate if necessary."

Site Inspection Findings:

- 1.) High levels of rock and blasting material mixed into soil. (FERC Plan: V. A. 3-6.)
 - a. Affected areas naturally have around 1% rock fragments with a maximum size of 74 mm (NRCS)
- 2.) Soil Compaction (FERC Plan: V. C. 1-3.)
 - a. Off-ROW Penetrometer reading: Around 120-160 psi in multiple locations.
 - b. In-ROW Penetrometer reading: 300 psi limit exceeded in every on-ROW location.
- 3.) Severe soil settlement throughout ROW between 10" - 20" deep.
- 4.) Erosion throughout ROW.







2020-04-09

19:17:04

38.0923056 N , 96.0492989 W



2020-04-09

19:17:19

33.9983167 N 96.0491861 W





2020-04-09

19:27:37

33.9923389 N , 96.0490111 W









2020-04-09

19:28:28

33.9922000 N 95.0490194 W





2020-04-09

19:30:38

33.9924361 N, 96.0493389 W



April 14, 2020 Site Inspection
Mark Morris
GR-0353.000
Mile Post: MP 75
Grady County, Oklahoma

Issues Reported by CLC Throughout Midship Project:

- 1.) Road crossing blocked for landowner access, flooded, erosion into the stream, and environmental mats scattered off-row; Dispose of contaminated water, topsoil replacement, removal of mats and wood debris. De-compaction will need to be conducted before replaces topsoil and backfills.

Midship's 4/14/2020 Resolution:

- 1.) "Cleanup/restoration is actively occurring in area. Received verbal approval from landowner on 04/14/20 to remove silt that entered creek. Will address immediately,"

Site Inspection Findings:

- 1.) Larimore Creek Tributary (SGR-019) is partially dammed with sediment that has entered stream and is impeding natural flow and causing drainage issues throughout the property. (FERC Procedures: V. C. 2-3.)
- 2.) Soil Compaction (FERC Plan: V. C. 1-3.)
 - a. Off-ROW Penetrometer reading: Around 180 psi in multiple locations.
 - b. In-ROW Penetrometer reading: 300 psi limit exceeded in every on-ROW location.
- 3.) Large rocks and construction debris buried in ROW and scattered throughout property. (FERC Plan: V. A. 3-6.)
- 4.) Ponding inside and outside ROW.
- 5.) Soil settlement above pipeline.





2020-04-10

17:33:18

34.7906889 N , 97.6948250 W







2020-04-10

17:52:15

34.7938917 N 97.6947472 W



2020-04-10

17:52:44

34.7939500 N , 97.6948250 W





2020-04-14

09:35:01

34.7135259 N 97.6848722 W



2020-04-14

09:35:05

43.7035104 N, -97.8047028 W







2020-04-14

09:50:25

34.7940722 N , 97.6941611 W





April 14, 2020 Site Inspection
Sandy Creek Farms, Inc.
GR-0336.000, GR-0338.000, GR-0340.000, GR-0340.010
Mile Post: MP 70.75 - 72.5
Grady County, Oklahoma

Issues Reported by CLC Throughout Midship Project:

- 1.) Midship is continually using the landowners private access roads to enter the easement.
- 2.) Due to ineffective erosion control devices, excessive ponding and erosion has occurred affecting the private agriculture land.
- 3.) Due to the continual issues concerning erosion control the farmer is suffering several acres of his hayfields.
- 4.) Midship has violated the Clean Water Act discharging silt, sediment, and erosion into Sandy Creek. The creek is slipping in and causing impact outside the Wetland and Waterbody Construction and Mitigation Procedures.
- 5.) Midship has neglected to stabilize the creek bank and has cut down into Sandy Creek. The creek bank and topography has been altered and is affecting the natural flow of Sandy Creek.
- 6.) Midship has ruptured the landowner's waterline three separate times flooding the property with over 60,000 barrels of water onto the private property and three separate locations polluting Sandy Creek. In addition, a large portion of the topsoil has been lost with severe ponding. These several non-compliances have occurred from November 22 - present and are ongoing. Midship and FERC has been notified several times with no supervision of the EI's or Compliance Monitor.
- 7.) Extreme flooding, topsoil loss, altered drainage, and Erosion into Sandy Creek; Remove 57 acres of ponding, restore natural drainage, replace all topsoil, and replace irrigation system.
- 8.) At least 3,000 feet of open trenches; unfiltered water being pumped directly into a stream (SGR-008); buried rocks and construction debris, including matting; scattered construction debris (on and off-ROW); ponding on and off-ROW; continual sediment and erosion control violations; sheeny contaminant present in water - sheeny substance at edge of ROW and flowing away from ROW less than 100 feet from irrigation pond; sheeny substance inside ROW; bank erosion - trees falling and slipping towards creek.

Midship's 4/14/2020 Resolution:

- 1.) "A restraining order and posted bond allows Midship the use of County Road 1510. Restoration activities are ongoing. The creek crossing is complete and the banks have been restored and are stable. Additional stabilization activities may occur as restoration proceeds. Midship will continue to monitor, report, and correct any restoration issues identified post-construction."
- 2.) "Received verbal approval from landowner on 04/14/20 to remove silt that entered creek. Will address immediately,"
- 3.) "Landowner granted verbal permission to retrieve off right of way sediment on 4/14/20. Midship is preparing variance request and will retrieve as soon as approved."

Site Inspection Findings:

- 1.) Trenches remain open and full of water on tract GR-0338. No catch basins found on property.
- 2.) Sandy Creek (SGR-008)
 - a. Unfiltered trench water continues to be pumped directly into Sandy Creek. (FERC Procedures: V. B. 11.)
 - b. Banks are unstable and slipping into stream. (FERC Procedures: V. C. 2-3.)
 - c. Sediment deposited into stream have partially dammed stream impeding natural flow. (FERC Procedures: V. B. 10-11.)
- 3.) Importation of 50,000 - 100,000 cubic yards of topsoil for 26.27 acres of ROW (FERC Plan: IV. B. 1-6.)

- a. Off-ROW topsoil: 16-29" (verified by existing NRCS soil surveys)
- b. In-ROW topsoil: 0" found in multiple locations.
- 4.) Soil Compaction (FERC Plan: V. C. 1-3.)
 - a. Off-ROW Penetrometer reading: Around 150 psi in multiple locations.
 - b. In-ROW Penetrometer reading: 300 psi limit exceeded in every off-ROW location.
- 5.) Large rocks and debris mixed into soil and scattered throughout entire property. (FERC Plan: V. A. 3-6.)
 - a. NRCS indicates very little natural rock throughout soils in this area.
 - 1. Affected cropland areas naturally have 0% rock fragments on GR-0338.



2020-04-06

14:05:34

34.8349222 N . 97.7218083 W











2020-04-14

00:19:28

34.8435333 N , 97.7237556 W











2020-04-14

11:25:34

34.8273972 N , 97.7226861 W





**April 14, 2020 Site Inspection
Wesley & Mary Burchfield
GR-0133.010, GR-0134.010, GR-0135.010
Mile Post: MP 35 - 35.5
Grady County, Oklahoma**

Issues Reported by CLC Throughout Midship Project:

- 1.) Midship has set up dewatering devices and discharging groundwater.
- 2.) Topsoil Loss, Severe Compaction causing ponding. Midship has not attempted to follow any de-compaction mitigation causing severe compaction and ponding.
- 3.) Due to the ineffective ECD's large portions of the farmland have suffered silt, sediment, and erosion. The farmer has suffered crop loss as well as areas of environmental mats throughout the crop fields.
- 4.) Drain tile and water line damage, Repair drain tile and waterline effectively. Ponding due to blocked drainage inside ROW; erosion rills due to lack of vegetation; continual sediment and erosion control violations.

Midship's 4/14/2020 Resolution:

- 1.) "Restoration of this area occurred on 3/13/20. Dewatering effects, if any, were localized and temporary."
- 2.) "The tract was decompacted prior to topsoil restoration. Midship will conduct additional decompaction testing at this location in April and will remediate if necessary."
- 3.) "Midship will continue to monitor, report, and correct any restoration issues identified post-construction."
- 4.) "Midship will repair [drain tiles] during final restoration of this tract."

Site Inspection Findings:

- 1.) No revegetation (FERC Plan: V. D. 1-3.)
- 2.) Erosion rills throughout unvegetated ROW (FERC Plan: IV. F. 1, 3-4.)
- 3.) Ponding inside and outside ROW
- 4.) Holes forming in ROW from soil settlement
- 5.) Soil Compaction (FERC Plan: V. C. 1-3.)
 - a. Off-ROW Penetrometer reading: Around 150 psi in multiple locations.
 - b. In-ROW Penetrometer reading: 300 psi limit exceeded in every on-ROW location.
- 6.) Multiple drain tiles not fixed (FERC Plan: IV. C. 1-4.)





2020-04-14

14:45:31

35.2926639 N , 97.9669500 W



2020-04-14

14:47:20

35.2933083 N 97.9676806 W



2020-04-14

14:48:13

35.2936083 N , 97.9678806 W





2020-04-14

15:19:10

35.294000 N , 97.9679806 W

**April 14, 2020 Site Inspection
Chris & Christy McComas
GR-0130.010, GR-0131.010, GR-0132.010
Mile Post: MP 34.25 - 34.75
Grady County, Oklahoma**

Issues Reported by CLC Throughout Midship Project:

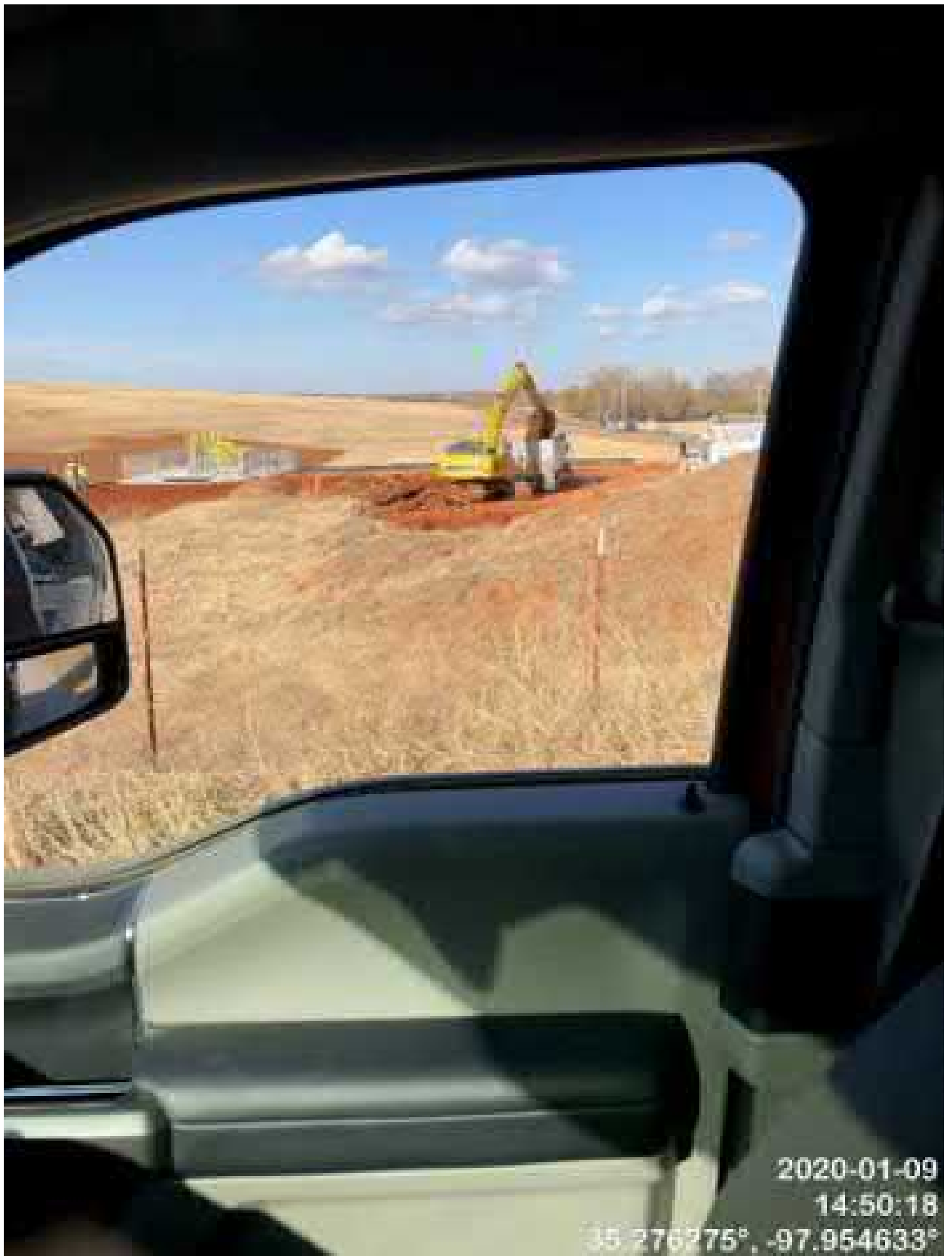
- 1.) Midship has trespassed, conducting survey work, and staking new temporary workspace outside the court order and FERC approved area.
- 2.) Due to Midship's negligence Buggy Creek is destabilized, slipping in with ongoing erosion, depositing silt and sediment into Buggy Creek.
- 3.) Midship has allowed and continues to allow unpermitted silt and sediment from their construction ROW to travel into Buggy Creek on the McComas property
- 4.) Buggy creek continues to suffer from erosion and slips.
- 5.) The landowner is losing several acres of his alfalfa due to the erosion, silt in the fields, and several mats scattered on the property.
- 6.) Midship is discharging large amounts of groundwater out of the shallow water table in order to install their pipeline.
- 7.) Midship has been notified to stop taking the landowners water source for their hydrostatic testing, but they continually keep violating the landowner's rights and laws. We have been in contact with the Oklahoma Water Resource Board and FERC Dispute Resolutions.
- 8.) Buggy Creek slip / severe ponding, several environmental mats scattered off-ROW; Restore creek bank/ Soil remediation and de-compaction

Midship's 4/14/2020 Resolution:

- 1.) "Midship was granted rights to install the pipeline by the FERC Order and the United States District Courts of the Oklahoma. Midship's use of the property was consistent with the court orders. Dewatering effects, if any, were localized and temporary. Restoration of this area occurred on 3/6/20."
- 2.) "Buggy Creek has been stabilized and is not exhibiting signs of slipping or deposition within the creek. Efforts to retrieve any off-ROW material are ongoing. Midship received authorization for the use of water from Buggy Creek from the Oklahoma Water Resources Board."
- 3.) "Landowner granted verbal permission to retrieve mats on 4/14/20. Midship is preparing variance request and will retrieve as soon as approved. Buggy Creek slip will be repaired as soon as area is dry enough to safely bring in equipment."

Site Inspection Findings:

- 1.) Buggy Creek banks unstable and slipping into creek. (FERC Procedures: V. C. 2-3.)
- 2.) On January 9, 2020 around 2-4 pm, approximately 550 cubic yards of topsoil removed and transported off-site to a property unassociated with Midship project.
- 3.) Soil Compaction (FERC Plan: V. C. 1-3.)
 - a. Off-ROW Penetrometer reading: Around 150 psi in multiple locations.
 - b. In-ROW Penetrometer reading: 300 psi limit exceeded in every on-ROW location.







2020-01-09

15:15:50

35.393510°, -97.824444°





2020-01-09

15:17:22

35.393510°, -97.824444°



2020-04-11

12:45:29

35.3934278 N , 97.8242500 W



2020-04-11

12:45:38

35.3933917 N , 97.8243333 W









2020-04-14

15:07:04

35.2901083 N 107.9098333 W



**April 14, 2020 Site Inspection
Terry & Diana Luber
CL-KI-0065.000, CL-KI-0067.000
Mile Post: CH 16.25
Kingfisher County, Oklahoma**

Issues Reported by CLC Throughout Midship Project:

- 1.) Midship has conducted construction activity outside of their approved ROW
- 2.) Ineffective erosion control devices causing silt and sediment to back up damming the water flow for the terraces.
- 3.) Midship has mixed the topsoil and subsoil while topsoil loss continues.
- 4.) Due to the timber cleared and not removed, the timber near the creek has encroached outside the FERC approved area damaging the fence.
- 5.) The landowner has requested multiple times a crossing for his cattle operation. Midship is causing cattle stress and endangerment.
- 6.) Topsoil Loss, Severe Compaction causing ponding. Midship has not attempted to follow any de-compaction mitigation causing severe compaction and ponding. Midship has blocked the terraces and waterways.
- 7.) Creek slip, altered terraces; Remediation of terraces/waterways, restore stabilize creek bank.

Midship's 4/14/2020 Resolution:

- 1.) "Restoration of this area occurred on 2/1/20. The tract was decompacted prior to topsoil restoration. Midship will conduct additional decompaction testing at this location in April and will remediate if necessary."
- 2.) "Midship communicated crossing locations to landowner on multiple occasions. Midship will continue to monitor, report, and correct any restoration issues identified post-construction."
- 3.) "Restoration of this area occurred on 1/05/20. Midship will continue to monitor, report, and correct any restoration issues identified post-construction."

Site Inspection Findings:

- 1.) Altered waterway (FERC Plan: V.A.5.)
 - a. Pre-construction waterway was 1.3' deep, 20' wide at bottom, and 1,175' long. Needs to be re-established with additional importation of topsoil to ensure proper burial depth.
 - b. Pipe will need to be reburied to a greater depth to account for depth of waterway.
- 2.) Multiple pipes in ground
 - a. Two separate pipelines marked by Midship construction and their "one call" team.
 - b. The permanent pipeline signage markers are 66 feet south of the authorized pipeline location, well outside of the permanent easement, while Midship's one-call team marked flags along the authorized route.
 - c. Same site is to be bored by Newfield Exploration for upcoming new pipeline
- 3.) Banks of Winter Creek Tributary (SKI-015) are unstable and slipping into creek. Midship cleared vegetation at creek prior to changing crossing methods to HDD. (FERC Procedures: V.C.2-3.)
- 4.) Soil Compaction (FERC Plan: V.C.1-3.)
 - a. Off-ROW Penetrometer reading: Around 160 psi in multiple locations.
 - b. In-ROW Penetrometer reading: 300 psi limit exceeded in every on-ROW location.



2020-04-08

18:23:52

35.7543222 N , 98.0233167 W





2020-04-08

18:31:34

35.7543306 N 98.0236056 W



2020-04-08

18:39:14

35.7544278 N ; 98.0216528 W



2020-04-14

16:35:31

35.7544861 N , 98.0239250 W



Attachment 6.1

Other Photos Showing the Midship Right-of-Way Shortly
Before Placing the Project into Service



2020-03-23
17:39:09



NO
STOP
PRESS

2020-03-28

10:02:20

34.7905917 N , 97.6945278 W





2020-03-28

10:06:04

34.7934917 N , 97.6946861 W























2020-04-01
21:20:07



2020-04-01
21:20:07





2020-04-01
21:20:08



2020-04-01

21:20:08



2020-04-01
21:20:08





Attachment 7

FERC Order Allowing Midship to Place the Project into
Service

FEDERAL ENERGY REGULATORY COMMISSION
WASHINGTON, D.C. 20426

OFFICE OF ENERGY PROJECTS

In Reply Refer To:
OEP/DG2E/Gas 1
Midship Pipeline Company, LLC
Midcontinent Supply Header Interstate
Pipeline Project
Docket No. CP17-458-000

April 16, 2020

VIA FERC Service

Ms. Karri Mahmoud
Director, Environmental and Regulatory Projects
Midship Pipeline Company, LLC
700 Milam Street, Suite 1900
Houston, TX 77002

Re: Authorization to Commence Service

Dear Ms. Mahmoud:

I grant Midship Pipeline Company, LLC's (Midship) March 31, 2020 request, as supplemented on April 13, and April 15, 2020, to place into service the Midcontinent Supply Header Interstate Pipeline Project in Oklahoma. Your request is in compliance with environmental condition 10 of the Commission's August 13, 2018 *Order Issuing Certificate* (Order) issued to Midship in the above-referenced docket. Based on Midship's recent construction status reports and our third-party compliance monitor field inspections, we find that Midship has adequately stabilized the areas disturbed by construction and that restoration is proceeding satisfactorily.

In addition, we note Midship's commitment to employ the necessary crews to complete the remaining clean-up (such as removal of construction debris) and restoration activities (such as reseeded) by mid-May 2020. Midship has also committed to resolve the remaining trench-line subsidence and outstanding restoration activities delayed due to flooding in lower lying areas by June 30, 2020, specifically on the Sandy Creek Farms property near Mainline Milepost 71, weather permitting. Further, Midship has committed to remove any remaining mats located off right-of-way at the earliest date possible upon receipt of landowner permission. Finally, Midship has committed to re-sampling areas for compaction identified by landowners by April 30, 2020, and it will ensure any identified areas are decompacted properly by June 30, 2020.

We will continue to inspect and monitor the right-of-way to ensure Midship follows through with its Winter Restoration Plan and Topsoil Plan; its commitments to complete the remaining restoration activities in the project area in compliance with Commission's *Upland Erosion Control, Revegetation, and Maintenance Plan* and *Wetland and Waterbody Construction and Mitigation Procedures*; retains adequate construction crews; and provides updates on the progress of its remaining mat removal and decompaction activities, until final restoration is achieved. We also expect that Midship will complete the activities identified above by the dates indicated in its recent filings, and that it will work cooperatively and promptly to address any outstanding landowner identified in the field or by Commission's third-party compliance monitors.

I remind you that Midship must comply with all applicable terms and conditions of the Commission's Order. If you have any questions regarding this approval, please contact Elaine Moran at 202-502-6467.

Sincerely,

A handwritten signature in black ink that reads "Rich McGuire". The signature is written in a cursive style and is positioned above the typed name and title.

Rich McGuire, Director
Division of Gas – Environment and
Engineering

Document Content(s)

CP17-458-000 MIDSHIP In-Service Approval.PDF.....1-2

Attachment 8

Midship's Weekly Status Report That States Midship is
100% Complete With Restoration



August 11, 2020

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

Re: Midship Pipeline Company, LLC
Docket No. CP17-458-000 & CP19-17-000
OEP/DG2E/Gas 1
Pipeline Progress Report for August 1 – 7, 2020

Dear Ms. Bose:

On May 31, 2017, Midship Pipeline Company, LLC (“Midship”) submitted its Application for a Certificate of Public Convenience and Necessity and Related Authorizations pursuant to Section 7(c) of the Natural Gas Act, as amended, and the regulations of the Federal Energy Regulatory Commission (“Commission”) for the construction and operation of the Midcontinent Supply Header Interstate Pipeline Project (“Midship Project”). On August 13, 2018, FERC issued an Order Granting Certificate for the Midship Project (“Order”). FERC granted Midship’s request for in service on April 16, 2020.

In compliance with Condition 8 of the above referenced Order, Midship is herein submitting its weekly construction progress report for the period of August 1 – 7, 2020.

Should you have any questions about the instant filing, please feel free to contact the undersigned at (713) 375-5000.

Respectfully Submitted,

/s/ Karri Mahmoud

Karri Mahmoud
Director, Regulatory Project Development
Midship Pipeline Company, LLC

Enclosures



Midship Pipeline Company, LLC

Midcontinent Supply Header Interstate Pipeline
(Midship) Project

FERC Docket No. CP17-458-000

Weekly Project Progress Report

August 1 – 7, 2020

Midship Pipeline Company, LLC
 Weekly Project Progress Report – August 1 – 7, 2020
 FERC Docket No. CP17-458-000

1.0 Executive Summary

On April 16, 2020, the Federal Energy Regulatory Commission (“FERC”) granted Midship’s request for in service. In accordance with the conditions specified in the in-service authorization, Midship herein submits its weekly Project update for the period of August 1 – 7, 2020.

2.0 Weather

The Project received approximately 0.46 inch of rainfall during the reporting period.

3.0 Environmental Updates

- On August 4, 2020, Midship completed restoration activities between MP 71.14 and 72.23, the Sandy Creek Farms tract.

4.0 Overall Restoration Progress

Meter installation at Okarche/Markwest MS site underway.

| Table 1 | |
|---|-------------------------------|
| Midship Project Restoration¹ Progress | |
| Spread | Restoration Progress % |
| North Spread | |
| Mainline (MP 0.0 – 119.2) | 100 |
| Chisholm Lateral (MP CH 0.0 – 20.36) | 100 |
| Velma Lateral (MP VE 0.0 – 13.6) | 100 |
| South Spread | |
| Mainline (MP 119.2 – 199.6) | 100 |
| Overall Project Completion | 100 |

1. The term “restoration,” as used in this table and throughout this document, is defined as replacement of topsoil, reinstallation of contours, and application of seed and mulch.

Midship Pipeline Company, LLC
 Weekly Project Progress Report – August 1 – 7, 2020
 FERC Docket No. CP17-458-000

5.0 Tier 1 Location Progress

| Table 2 | | | | | |
|--|----------------------|--------------------|-----------------|---------------|----------------------|
| Midship Pipeline Tier 1 Locations with remaining restoration activities on the North Spread and Velma Lateral | | | | | |
| | Start Station | End Station | Start MP | End MP | Distance (ft) |
| - | - | - | - | - | - |
| Previous Remaining | | | | | Complete |
| Revised Remaining | | | | | Complete |

6.0 Tier 2 Location Progress

| Table 3 | | | | | |
|--|----------------------|--------------------|-----------------|---------------|----------------------|
| Midship Pipeline Tier 2 Locations with remaining restoration activities¹ on the North Spread and Velma Lateral | | | | | |
| | Start Station | End Station | Start MP | End MP | Distance (ft) |
| - | - | - | - | - | - |
| Previous Remaining | | | | | Complete |
| Revised Remaining | | | | | Complete |

Midship Pipeline Company, LLC
 Weekly Project Progress Report – August 1 – 7, 2020
 FERC Docket No. CP17-458-000

7.0 South Spread Location Progress

| Table 4 | | | | | |
|---|--------------------|-----------------|---------------|----------------------|---|
| Midship Pipeline Locations requiring additional restoration activities on the South Spread | | | | | |
| Start Station | End Station | Start MP | End MP | Distance (mi) | Activities |
| 6494+40 | 7645+44 | 123.0 | 144.8 | 21.8 | Address various areas of erosion, reseed as needed, re-install fences / signs, removal of remaining construction debris, and monitoring sandy soils. Contractor will mobilize equipment to this area and begin to address issues starting week of 08/10/20. Anticipated completion by end of August 2020. |
| 8764+80 | 10348+80 | 166 | 196 | 30 | Address various areas where ditch line subsidence has occurred; heavy equipment mobilized 06/01/20; work completed week of 08/01/20. |

Midship Pipeline Company, LLC
 Weekly Project Progress Report – August 1 – 7, 2020
 FERC Docket No. CP17-458-000

8.0 Mat Retrievals

| Table 5 | | | | |
|--|-------------|----------------------|----------------|---|
| Midship Pipeline Locations of Off Right-of-Way Mats | | | | |
| MP | Tract No. | Landowner Permission | Scheduled Date | Comments |
| OFFLINE | OFFLINE | Yes | 08/04/20 | Bokchito Creek - downstream of pipeline crossing; received OAS and SHPO approvals on 04/15/20 and 04/17/20; submitted variance request on 06/10/20; variance approved on 06/16/20; retrieval completed on 08/04/20. |
| OFFLINE | OFFLINE | Yes | 08/04/20 | Further downstream on Bokchito Creek; received OAS and SHPO approvals on 06/03/20; submitted variance request on 06/10/20; variance approved on 06/16/20; retrieval completed on 08/04/20. |
| 191.5 | BR-0976.000 | Yes | 07/28/20 | Received OAS and SHPO approvals on 06/03/20; submitted variance request on 06/10/20; variance approved on 06/16/20; retrieval completed on 07/28/20. |

9.0 Summary of Problems, Compliance Issues, and Corrective Actions

| Table 6 Compliance Issues | | | | | |
|--------------------------------------|--------------------------|-------------------------|--------------------|--------------------------|-------------------|
| Date | Location (MP) | Compliance Level | Description | Corrective Action | Effective? |
| None. | | | | | |

10.0 Responses to filings made to the Midship Docket

| Table 8 Summary of Claims made by Central Land Consulting, Inc. and Midship Resolution | | | | |
|---|---|---|--|--|
| Date | Landowner | Mile Post Tract Number | Description from CLC Reports | Midship Resolution |
| 12/5/2019 | Sandy Creek Farms | MP 71 GR-0338.000 | Due to ineffective erosion control devices, excessive ponding and erosion has occurred affecting the private agriculture land. | Restoration activities completed on 08/04/20. |
| 12/5/2019 4/20/2020 | Anderson Family Trust | MP 195.8 BR-0994.000 BR-0995.000 BR-0996.000 | 6. Topsoil Loss, Severe Compaction causing ponding. Midship has not attempted to follow any de-compaction mitigation causing severe compaction and ponding, blocking waterways. | Restoration of this area occurred on 7/14/19. The tract was decompacted prior to topsoil restoration. Additional decompaction testing was conducted on 4/24/20. Results indicated additional decompaction was required. Maintenance work, including additional decompaction, was completed week of 08/01/20. Seeding and mulching to be completed week of 08/10/20. Midship will continue to monitor, report, and correct any restoration issues identified post-construction. |
| 3/13/2020 4/07/2020 | Wesley and Mary E. Burchfield Revocable Trust | GR-0134.010 GR-0133.010 | Drain tile and water line damage; Repair drain tile and waterline effectively. Ponding due to blocked drainage inside ROW; erosion rills due to lack of vegetation; continual sediment and erosion control violations | Several attempts were made to locate the drain tile on the north side of Clayton Road via digging and contacting the landowner, but it was not located. Additional maintenance work identified; anticipated completion by |

Midship Pipeline Company, LLC
 Weekly Project Progress Report – August 1 – 7, 2020
 FERC Docket No. CP17-458-000

Table 8
Summary of Claims made by Central Land Consulting, Inc. and Midship Resolution

| Date | Landowner | Mile Post Tract Number | Description from CLC Reports | Midship Resolution |
|-----------------------|-------------------|--|---|--|
| | | | | end of August 2020. |
| 3/13/2020 | Sandy Creek Farms | GR-0338.000 | Extreme flooding, topsoil loss, altered drainage, and Erosion into Sandy Creek; Remove 57 acres of ponding, restore natural drainage, replace all topsoil, and replace irrigation system | Restoration activities completed on 08/04/20. |
| 4/7/2020 4/20/2020 | Sandy Creek Farms | GR-0336.000 GR-0338.000 GR-0340.000 GR-0340.010 | At least 3,000 feet of open trenches; unfiltered water being pumped directly into a stream (SGR-008); buried rocks and construction debris, including matting; scattered construction debris (on and off-ROW); ponding on and off-ROW; continual sediment and erosion control violations; sheeny contaminant present in water - sheeny substance at edge of ROW and flowing away from ROW less than 100 feet from irrigation pond; sheeny substance inside ROW; bank erosion - trees falling and slipping towards creek | Restoration activities completed on 08/04/20. |
| 7/6/20 | Sandy Creek Farms | GR-0336.000 GR-0338.000/ GR-0338.000_TAR41 GR-0340.000 GR-0340.010 | Topsoil loss, rocks and construction debris mixed into soils, soil compaction, surface drainage, waterbody impacts, waterline and electric lines not repaired, drain outlet remains uninstalled. | Restoration activities completed on 08/04/20. |
| 7/6/20 | Various | Various | Various | Midship is currently conducting maintenance activities on both spreads, with scheduled completion in September 2020. |

Midship Pipeline Company, LLC
Weekly Project Progress Report – August 1 – 7, 2020
FERC Docket No. CP17-458-000

11.0 Restoration Photos



Maintenance work near MP VE8.1 on 08/04/20.



Maintenance work near MP 116.3 on 08/05/20.

Midship Pipeline Company, LLC
Weekly Project Progress Report – August 1 – 7, 2020
FERC Docket No. CP17-458-000

12.0 Sandy Creek Farms Photos



08/03/20



08/03/20

Midship Pipeline Company, LLC
Weekly Project Progress Report – August 1 – 7, 2020
FERC Docket No. CP17-458-000



08/03/20



08/03/20

Midship Pipeline Company, LLC
Weekly Project Progress Report – August 1 – 7, 2020
FERC Docket No. CP17-458-000



08/03/20

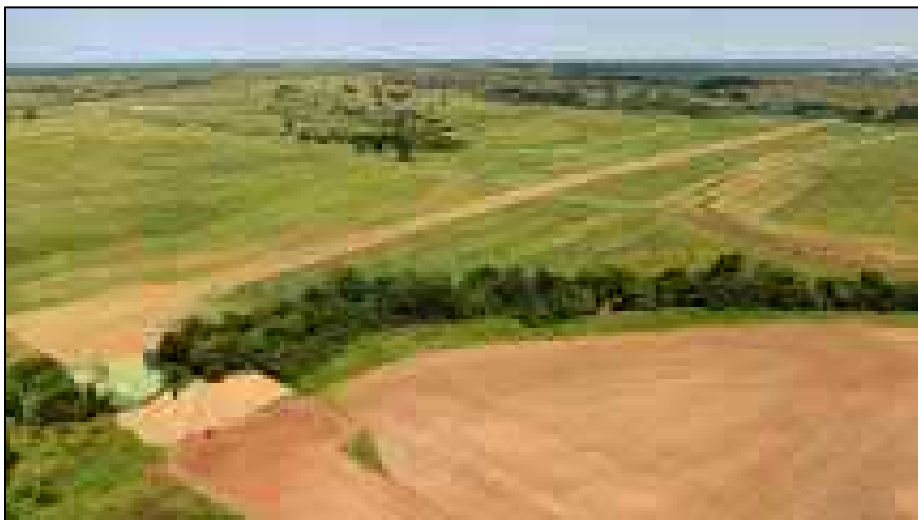


08/04/20

Midship Pipeline Company, LLC
Weekly Project Progress Report – August 1 – 7, 2020
FERC Docket No. CP17-458-000



08/04/20



08/04/20

Midship Pipeline Company, LLC
Weekly Project Progress Report – August 1 – 7, 2020
FERC Docket No. CP17-458-000



08/04/20



08/04/20

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 Houston, Texas this 11th day of August, 2020.

/s/ Christy Flatt

Christy Flatt
Midship Pipeline Company, LLC

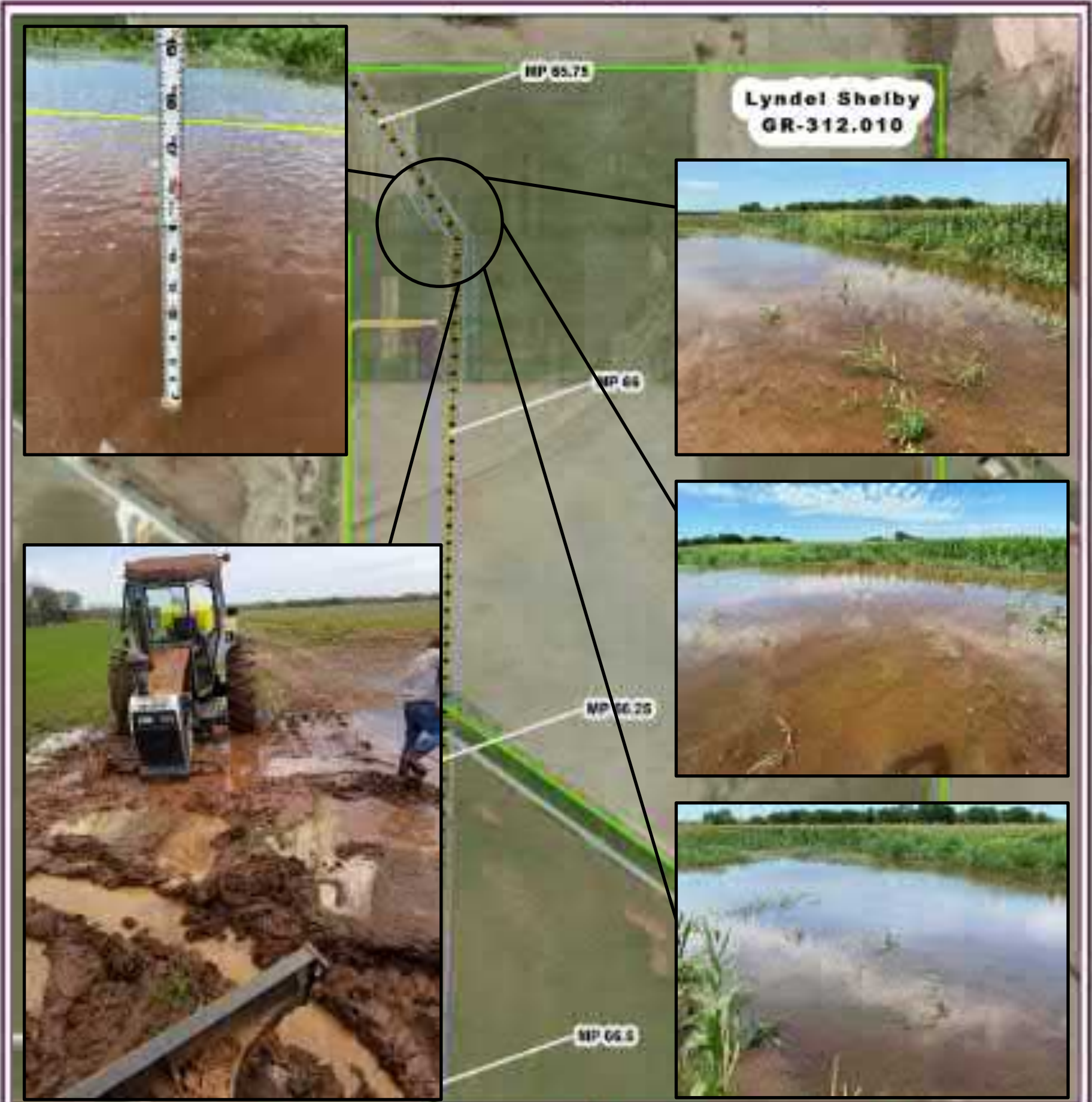
Document Content(s)

20_MSP_081120.PDF.....1-16

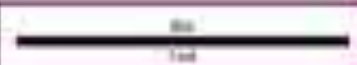
Attachment 9

Examples of Midship's Version of Completed Restoration

Exhibit Prepared for Lyndel Shelby



- +—+— Chisholm Lateral Pipeline
- Parcel Boundary (Approximate)
- Permanent Easement
- Temporary Workspace
- Additional Temporary Workspace
- Temporary Access Road



September 2020

Exhibit Prepared For

Lyndel Shelby

2084 County Road 1450
Bradley, OK 73011

000-16-05N-05W-2-002-09
(152.72 acres)

GR-312.010
(2679.51 FT / 6.51 acres of ROW)

Grady County, Oklahoma

Midship Mainline MP 66

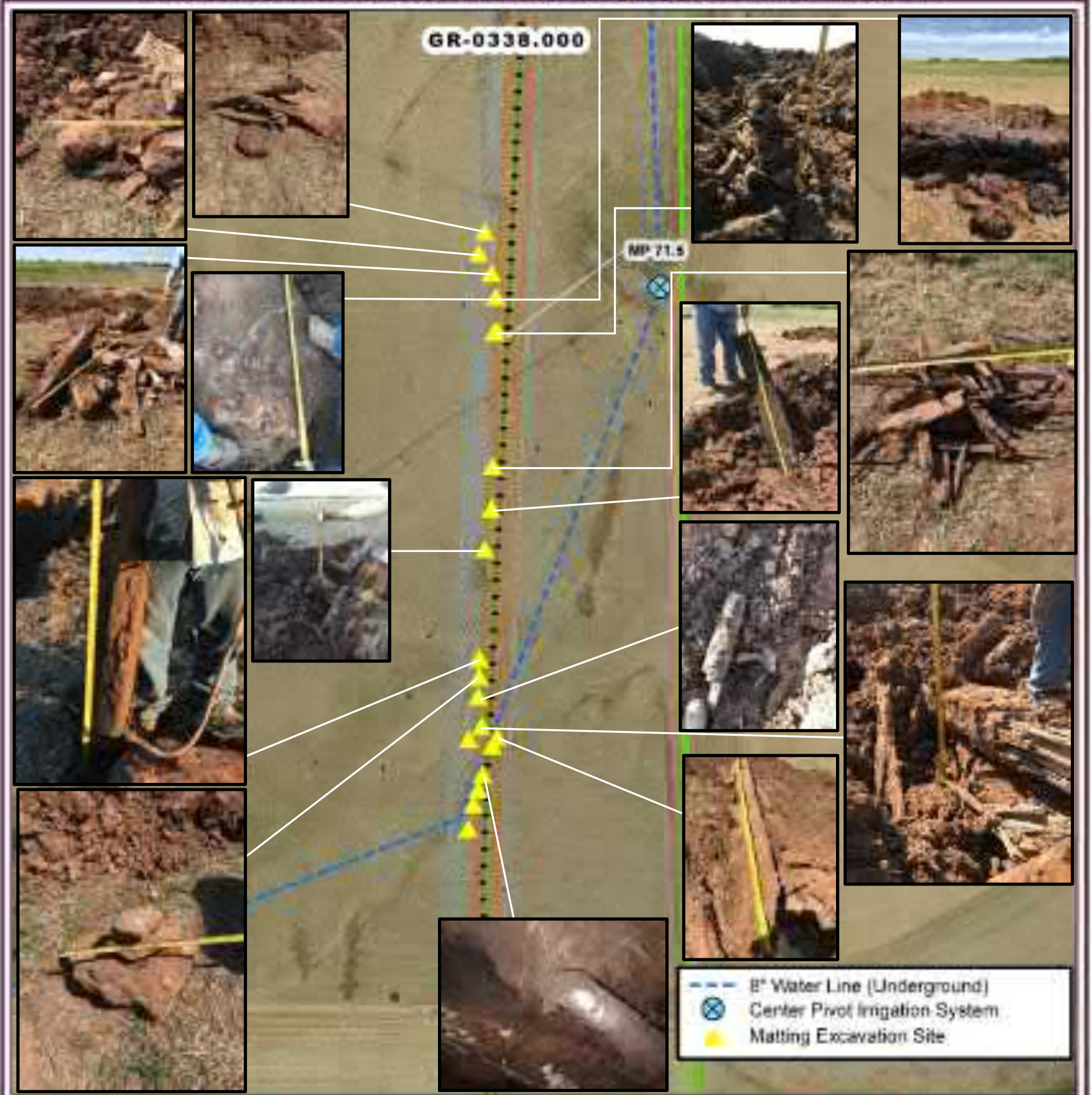
Exhibit Details

Notes

Central Land Consulting, LLC
 Daley Beaman
 6160 S. State St., Suite 200
 Oklahoma City, OK 73106
 Phone: 405.521.1111
 Fax: 405.521.1112
 www.central-land.com

For sale by its owner, subject to the
 availability of the land. This
 exhibit is not a contract. The
 seller is not a broker. The
 information is for informational
 purposes only.

Exhibit Prepared For Sandy Creek Farms, Inc



Midship Pipeline
 Sandy Creek Farms Property Line
 Permanent Easement
 Temporary Workspace
 Additional Temporary Workspace

September 2020

Exhibit Prepared For
SANDY CREEK FARMS INC.
 PO Box 128
 Bradley, OK 73011
 0000-CO-04N-00W-4-001-00
 277.24 Acres Total
 GR-0338.000
 13.04 Acres of ROW
 Grady County, Oklahoma
 Midship Mile Post 71 - 72

Exhibit Details

Notes

Central Land Working, LLC
 8000 S. Broadway
 Oklahoma City, OK 73109
 405-948-1111
 www.centrallandworking.com
 Provided for reference purposes only.
 This is not a survey drawing. The
 information contained herein is not
 to be used for any legal or
 financial purposes.

September 7, 2020 Photo Map Prepared for Mark Morris

Mark Morris
GR-0353.000
0000-26-04N-05W-2-001-00



Large Section of Matting

Legend

- Michie Pipeline
- Parcel Boundary (Approximate)
- Permanent Easement
- Temporary Workspace
- Additional Temporary Workspace
- Temporary Access Road
- Larmore Creek (SGR-019)
- Larmore Creek Tributary (SGR-018)

September 2020

Exhibit Prepared For
MORRIS, MARK A. REV TRUST

Site Address:
 34.7913987, -87.7039447

0000-26-04N-05W-2-001-00
 (228.8 acres)

GR-0353.000
 (2,767.97 feet / 7.55 acres)

GR-0053.000_TARMH
 (2.587 acres)

Cassidy County, Oklahoma

Measuring Station: Mile Post 75.25

Exhibit Details

Photos Contained in this Exhibit Were Taken on September 7, 2020

Notes

Central Land Consulting, LLC
 1000 S. Broadway, Suite 1000
 Oklahoma City, Oklahoma 73101
 Phone: (405) 233-1111
 Fax: (405) 233-1112
 Email: info@central-land.com

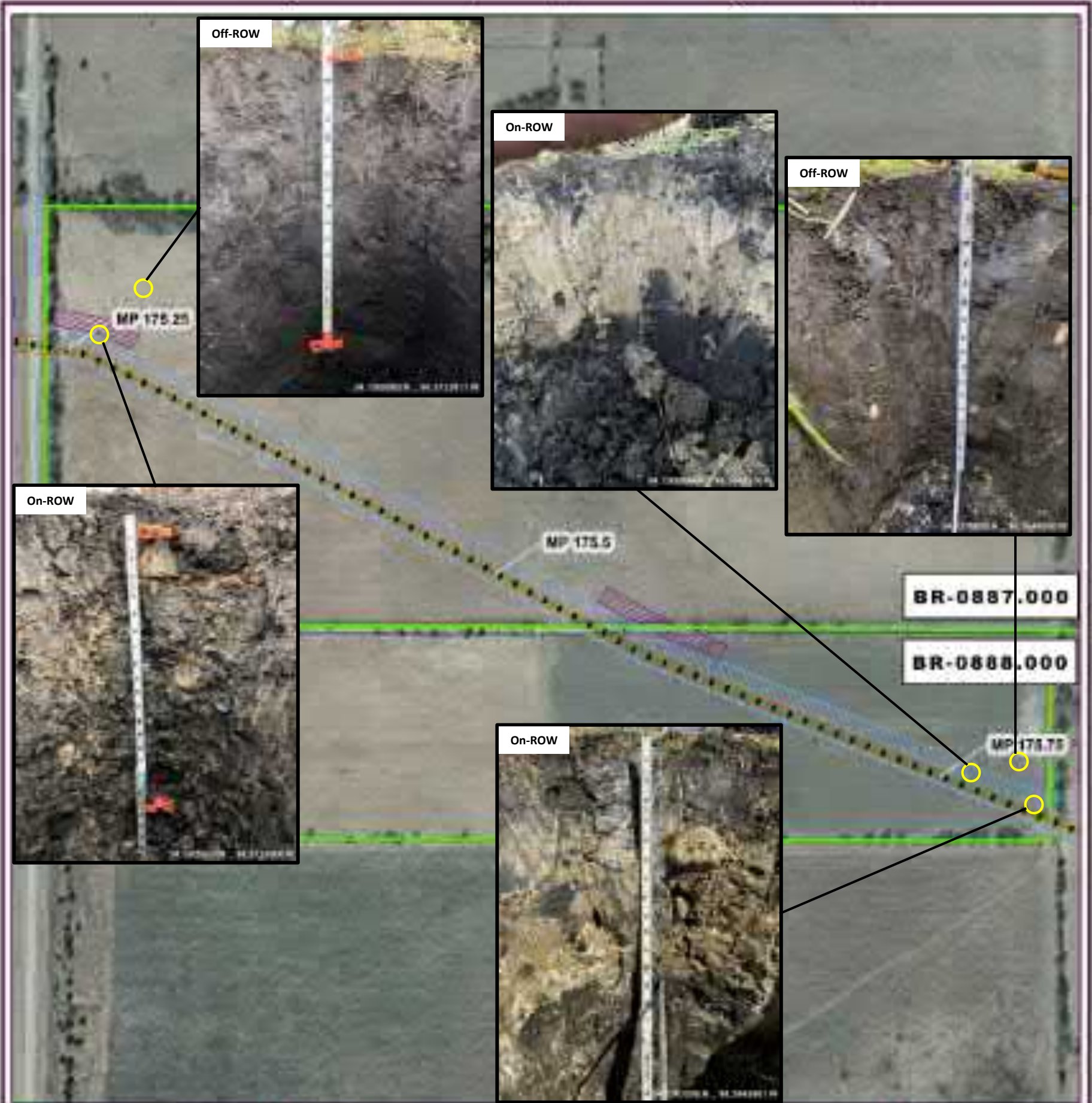
Forced to illustrate purposes only
 This is not a survey product. The
 graphics shown on this map are for
 informational purposes only and
 should not be used for any
 other purpose.

JAMES MCELVANY. TRACT GR-0310.000 (BANK EROSION ON ADJACENT OFF-LINE PROPERTY)

Approximately 3,000 Cubic Yards of Soil Will Be Needed to Fill Riverbank Erosion. Additional Stabilization and Drainage Measures May Be Needed to Avoid Erosion After Restoration.



Soil Dig Photo Map Prepared for Lydia Roper



December 2020

Exhibit Prepared For
 ROOPER, LYDIA L.
 5300 Soils Crossing Rd.
 Okmulgee, OK 74725

000-08-055-006-3-002-01 1/ 98.48 AC
 BR-0887.000 1/ 1,727.05 FT & 4.48 AC of ROW

000-14-055-006-3-001-01 1/ 39.88 AC
 BR-0888.000 1/ 1,345.03 FT & 3.08 AC of ROW

Bryan County, Oklahoma
 Michig. Mainline Mile Post 175.5

Exhibit Details

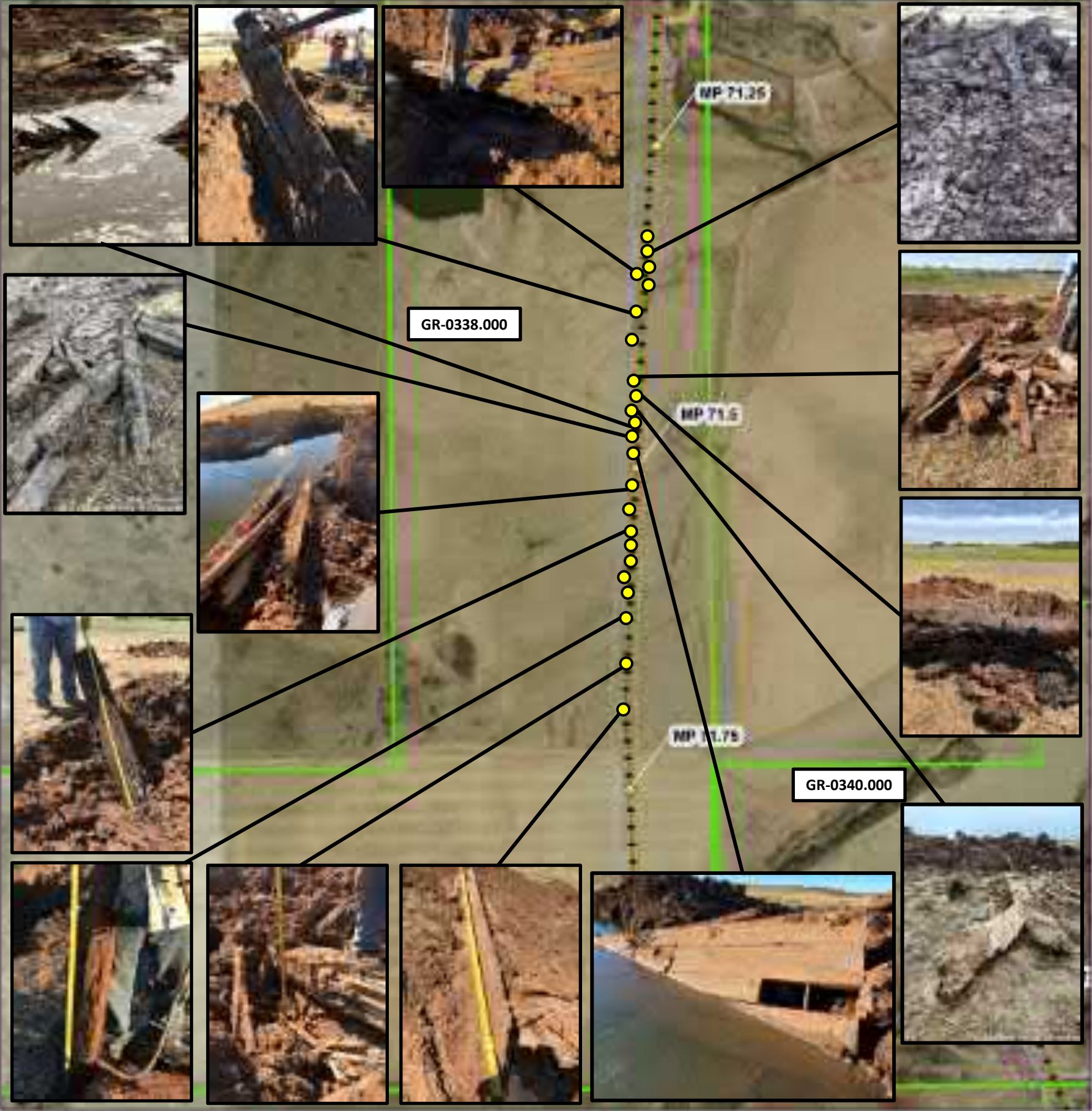
Michig's Contractor Failed to Properly Segregate Soils and Appears to Have Spread Subsoil All Over the Easement and Then Place 1" - 2" of Topsoil on Top

Notes

Central Land Consulting, LLC
 1000 S. Broadway
 Bryan County, OK 74725
 Phone: (918) 838-1111
 Fax: (918) 838-1112

For use by the client only. This is not a survey product. The provider does not warrant the accuracy or reliability of the data provided in this report.

Photo Map Prepared For Sandy Creek Farms, Inc



- Midship Pipeline
- Sandy Creek Farms Property Line
- Permanent Easement
- Temporary Workspace
- Additional Temporary Workspace
- Location of Excavated Matting and/or Debris

Exhibit Prepared For
SANDY CREEK FARMS INC.

PO Box 128
 Bradley, OK 73011

0000-00-04N-05W-4-001-00
 277.24 Acres Total

GR-0338.000
 13.64 Acres of ROW

Grady County, Oklahoma

Midship Mile Post 71 - 72

Exhibit Details

Notes

January 2021

Central Land Consulting, LLC

1000 S. Broadway
 Suite 100
 Oklahoma City, OK 73101

Phone: (405) 233-1111
 Fax: (405) 233-1112
 Email: info@central-land.com

This is not a contract. The price is subject to change without notice.

Buried Matting / Debris Photo Map Prepared for Lyndel Shelby



—+— Midship Pipeline
 Parcel Boundary (Approximate)
 Permanent Easement
 Temporary Workspace
 Additional Temporary Workspace
 Temporary Access Road
● Location of Buried Debris Found
● Photo of Buried Debris Provided



March 2021

Exhibit Prepared For
 Lyndel Shelby
 2084 County Road 1450
 Bradley, OK 73011
 000-18-05N-05W-2-002-09
 (152.72 acres)
 GR-0312.010
 (2679.51 FT / 6.51 acres of ROW)
 Grady County, Oklahoma
 Midship Mainline MP 66

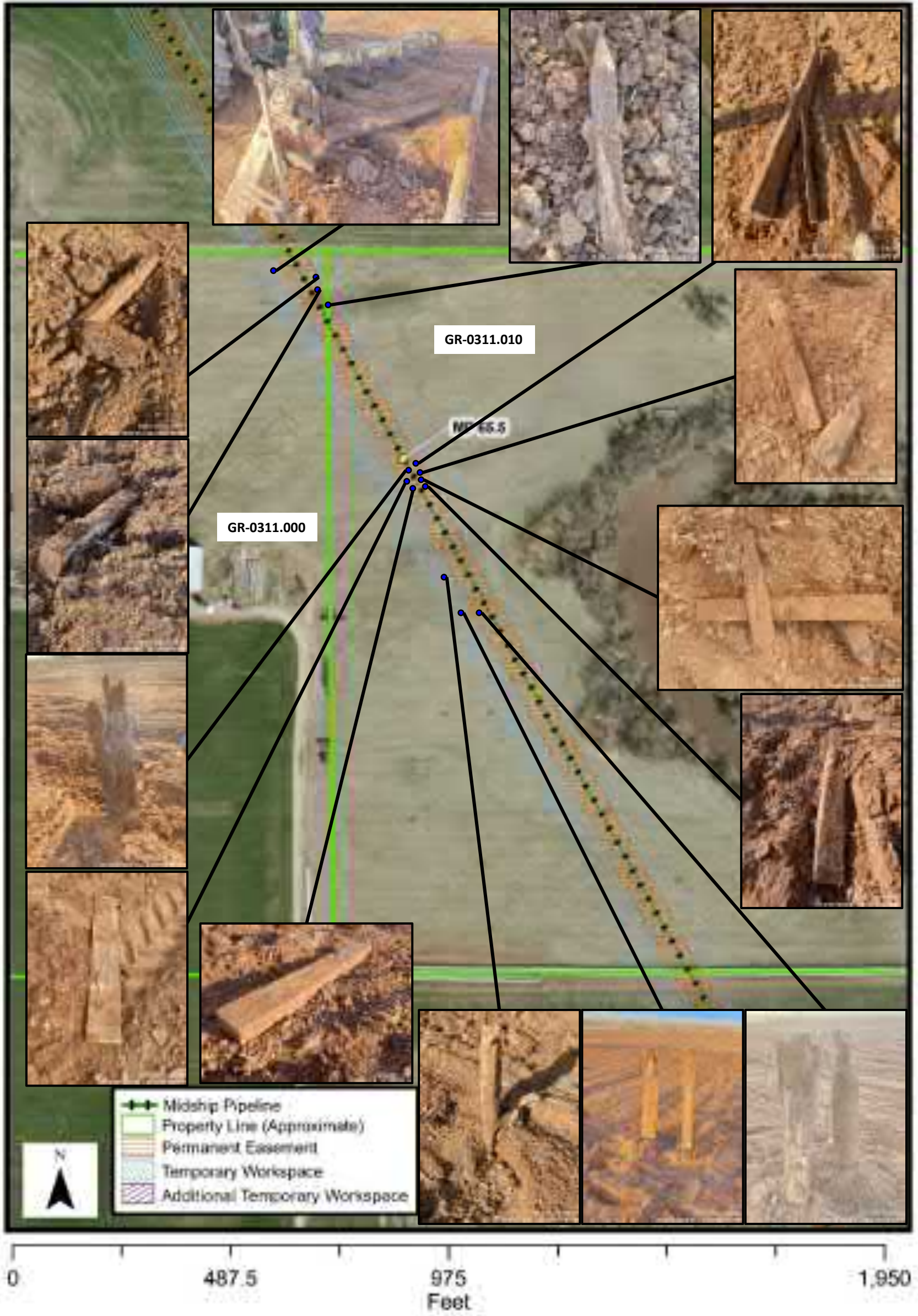
Exhibit Details
 Photos Taken March 11, 2021

Notes


 Central Land Consulting, LLC
 1000 S. Broadway
 Suite 1000
 Oklahoma City, OK 73101
 Phone: (405) 233-1111
 Fax: (405) 233-1112
 Website: www.central-land.com

Provided for illustrative purposes only.
 This is not a survey instrument. The
 graphics shown on this map are based on
 the best available information of staff
 working to prepare this

Buried Matting / Debris Photo Map Prepared for Blackjack Land & Cattle (Toby Barrington)



0 487.5 975 1,950
Feet

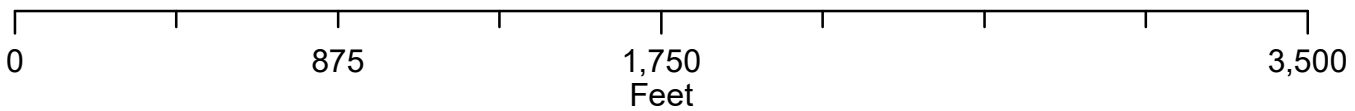
Map Prepared for Terry Luber

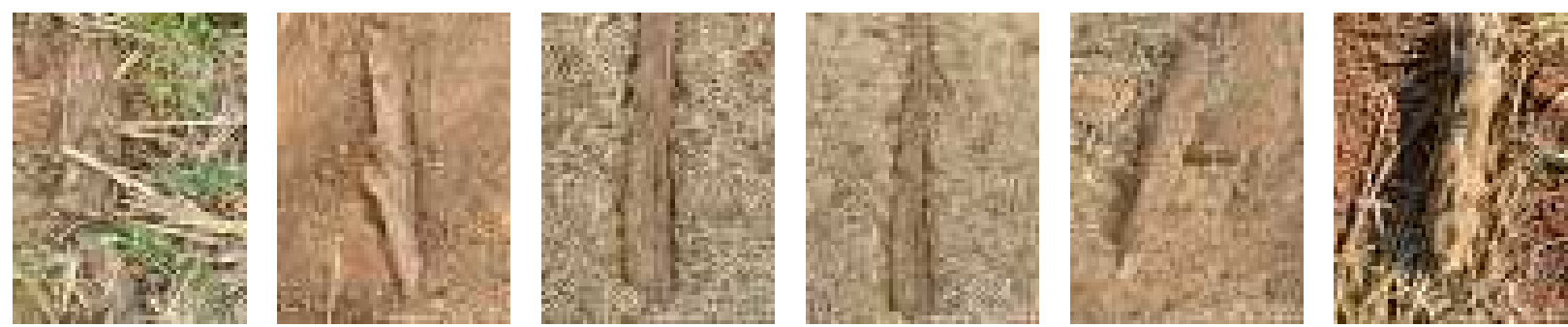
- Midship Pipeline
- Property Line (Approximate)
- Permanent Easement
- Temporary Workspace
- Additional Temporary Workspace

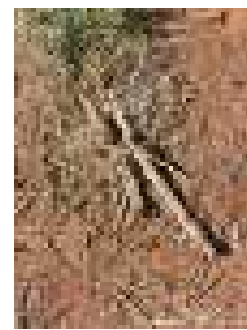
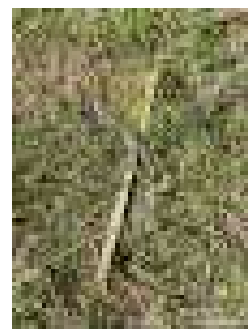
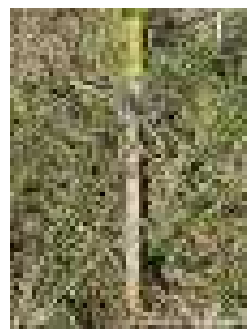
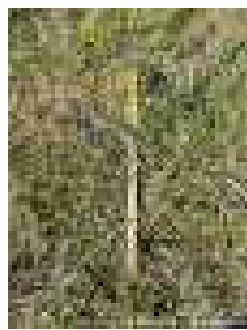
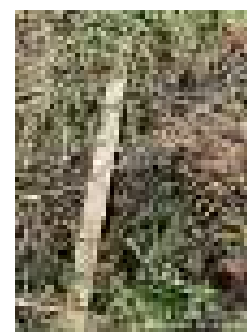
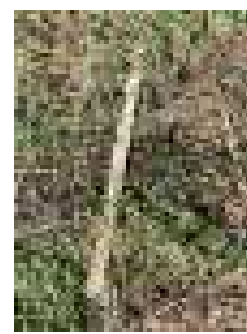
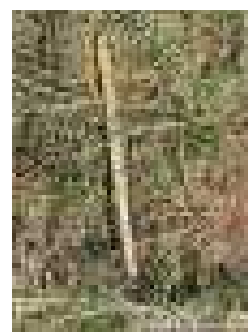
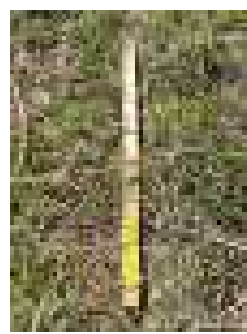
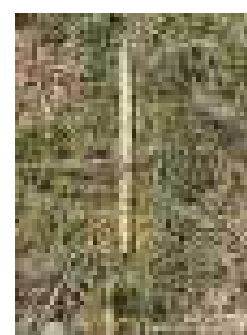
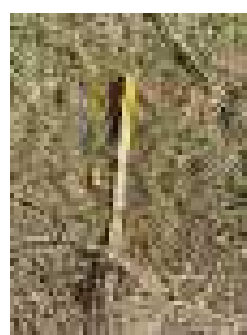
**Each Yellow Point Indicates
Where Matting / Stakes / Construction
Debris Was Found on April 7, 2021.**

See Attached Photos for Documentation.

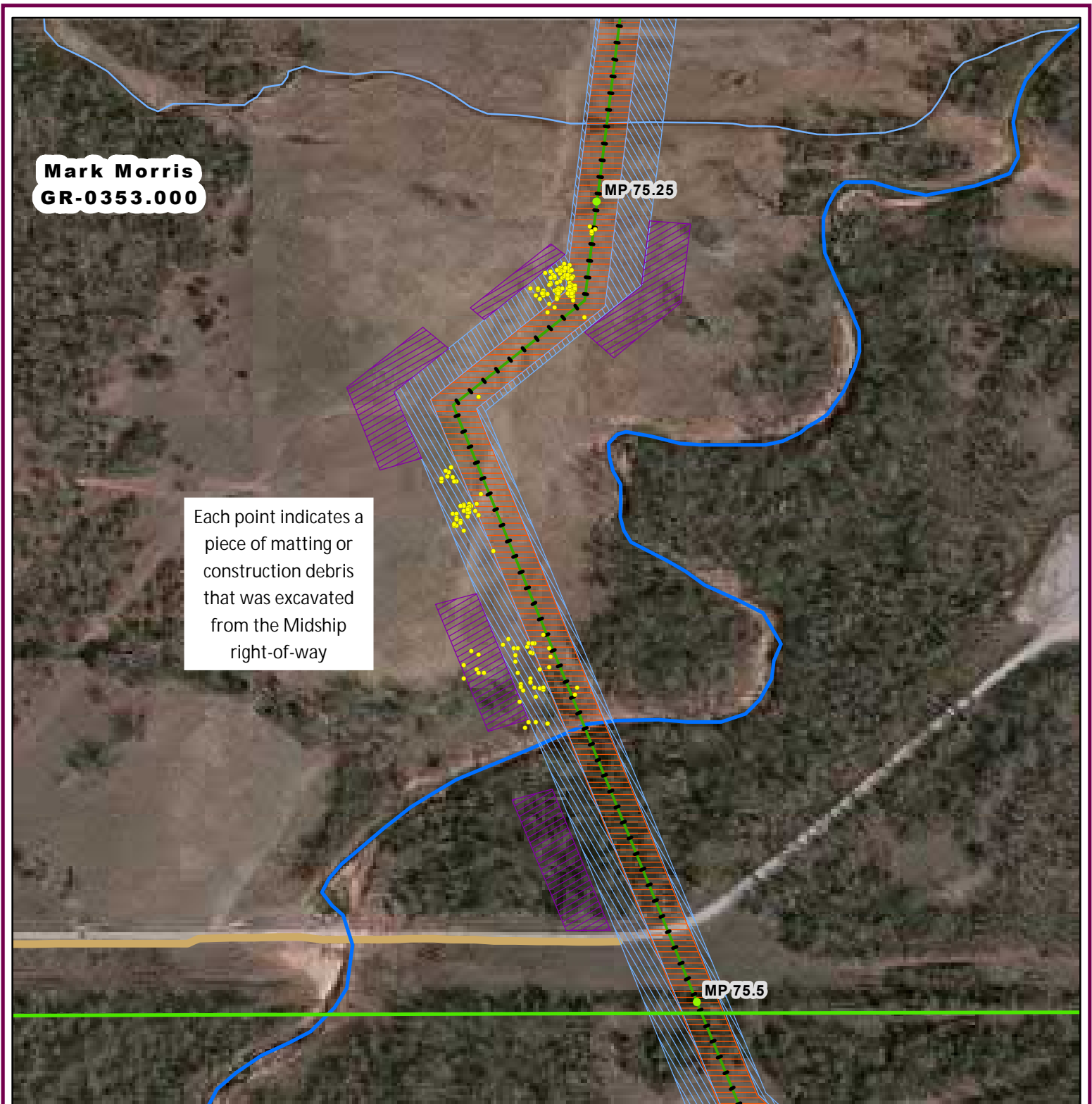
54 Pieces in Total.







April 9, 2021 Matting Location Map Prepared for Mark Morris



Mark Morris
GR-0353.000

Each point indicates a piece of matting or construction debris that was excavated from the Midship right-of-way

- Midship Pipeline
- Parcel Boundary (Approximate)
- Permanent Easement
- Temporary Workspace
- Additional Temporary Workspace
- Temporary Access Road
- Larimore Creek (SGR-019)
- Larimore Creek Tributary (SGR-018)
- Matting Found on April 9, 2021

Exhibit Prepared For
MORRIS, MARK A. REV TRUST

Site Address:
34.791398°, -97.703044°

0000-26-04N-05W-2-001-00
(228.5 acres)

GR-0353.000
(2,767.97 feet / 7.55 acres)

GR-0353.000_TAR44
(2,897 feet)

Grady County, Oklahoma

Midship Mainline Mile Post 75.25

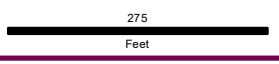
Exhibit Details
Photos Contained Below This Exhibit Were Taken on April 9, 2021.

Notes

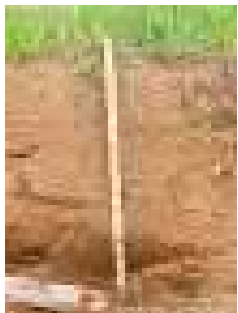
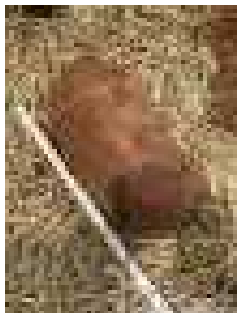
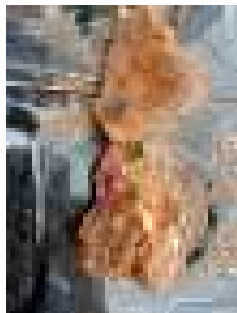
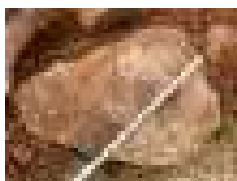
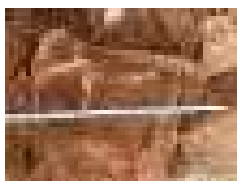
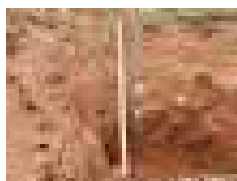
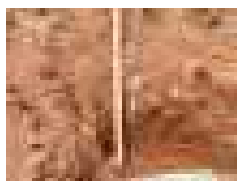
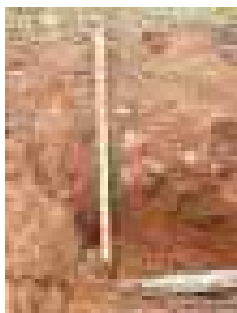
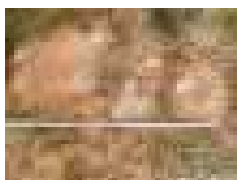
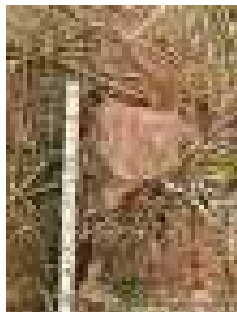
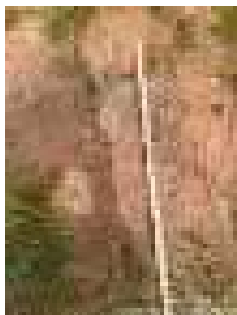
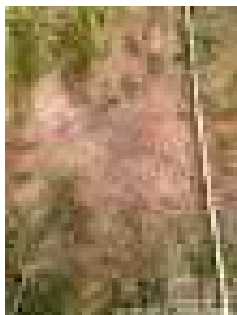
Data Sources:
Grady County, OK, ESRI, USFWS.

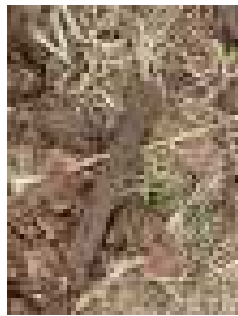
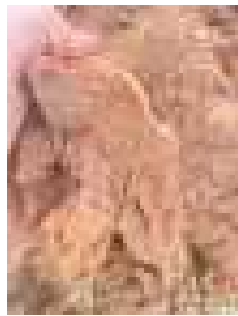
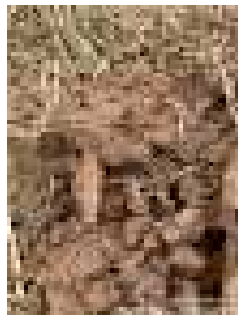
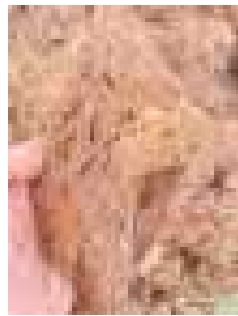
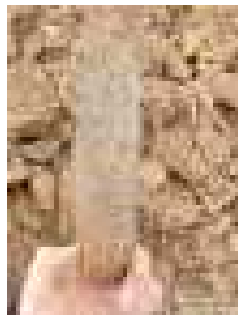
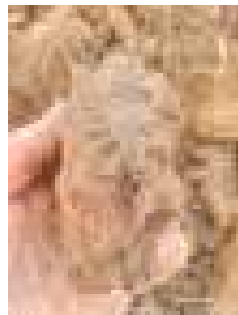
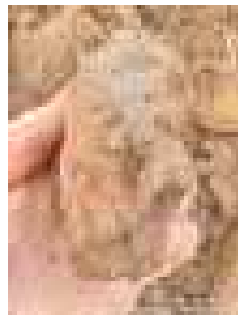
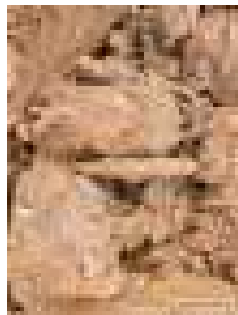
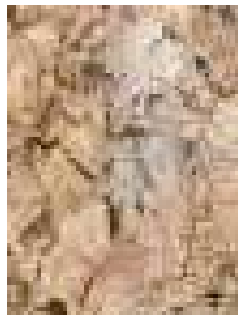
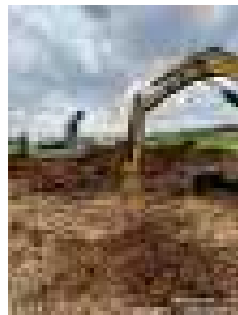
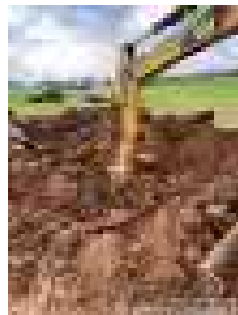
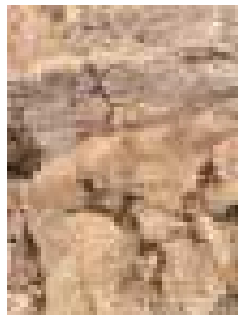
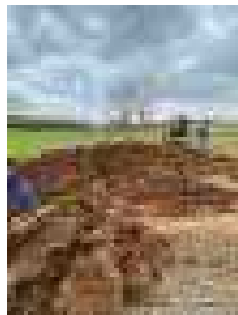
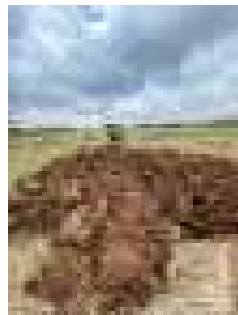
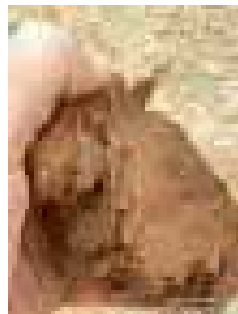
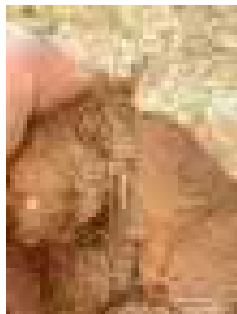
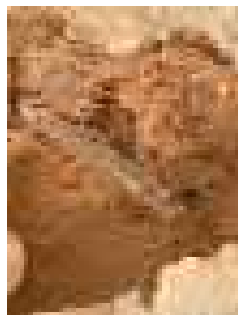
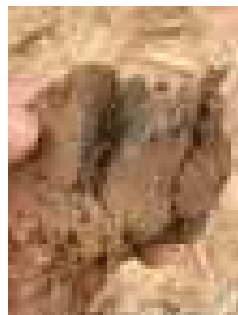
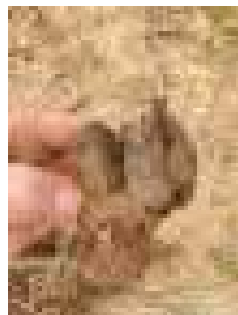
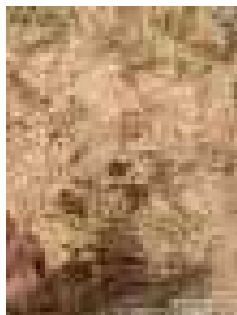
Base Map: ESRI World Imagery

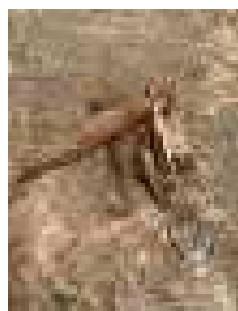
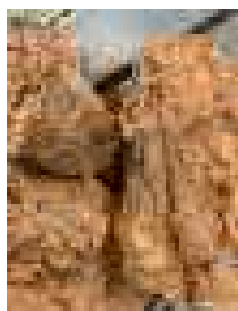
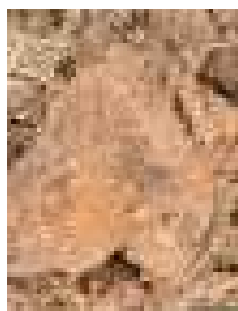
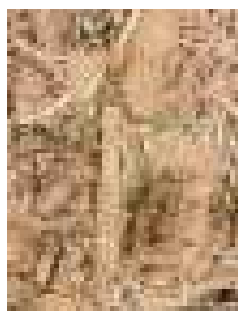
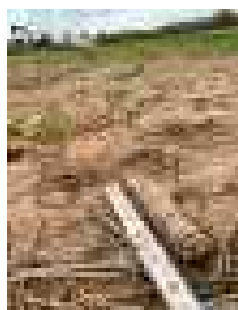
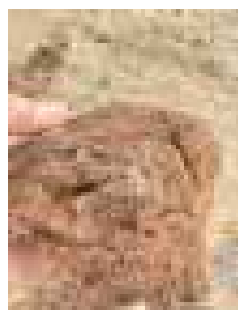
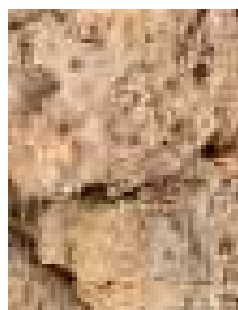
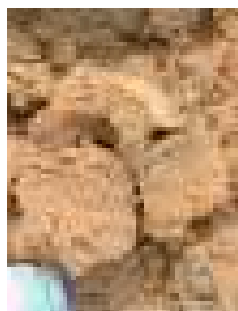
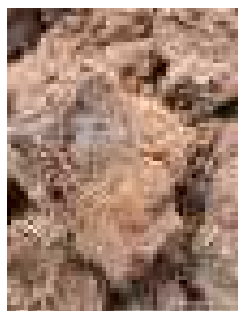
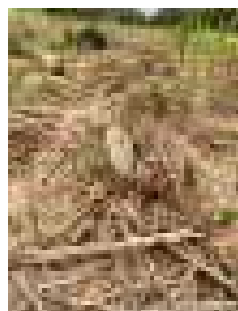
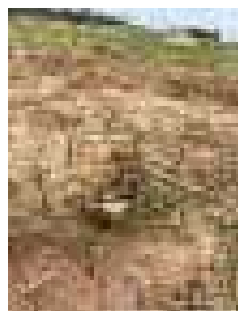
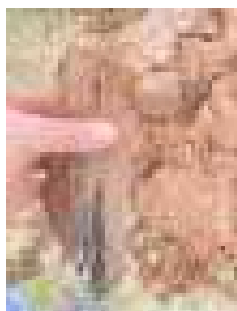
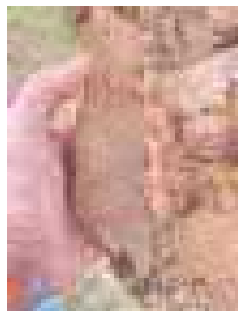
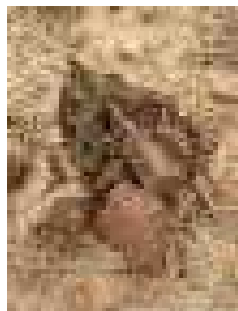
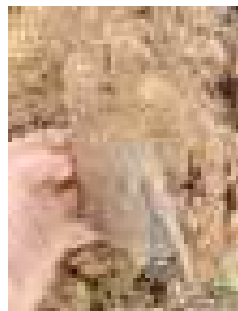
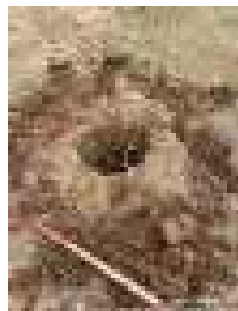
Provided for informative purposes only. This is not a survey product. This graphic should not be used for authoritative definition of legal boundary or property title.

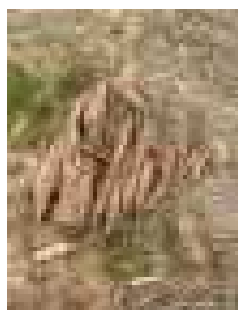
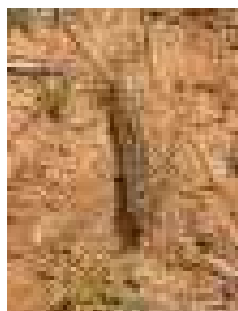
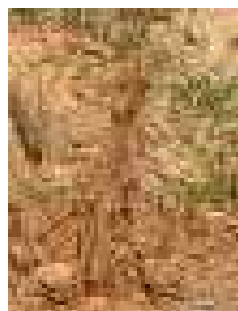
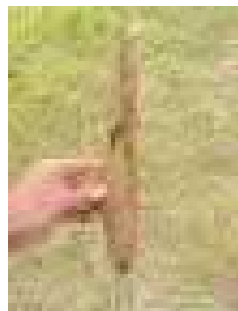
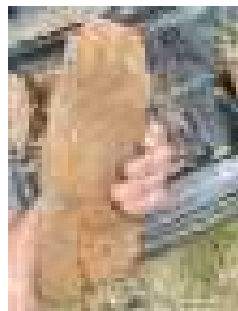


April 2021









Sandy Creek Farms Restoration Status

April 11, 2021

Tract # GR-0338.000

1. Midship most recently mobilized (for the 5th or 6th time) in mid-February to restore the property and remove construction debris, again. The Barrington's granted Midship off-row access approximately 5,000 feet off the right of way for ingress/egress.
 - a. Midship only removed the debris on the surface that the landowner had already excavated.
 - b. Midship demobilized from the site approximately 3 weeks later and left the property in an even worse condition than when they arrived.
 - c. See video during Midship's most recent mobilization: <https://youtu.be/TQ7IY0WvOmA>
2. See video of Midship ROW as of April 10, 2021: <https://youtu.be/fLRab4arVnA>
3. Midship and Suzanne Hickham (Midship construction manager) have stated confidently that ALL matting had been removed during their last mobilization.
4. CLC and the landowners are extremely concerned due to the conditions of the property and the fact that Midship has stated many times that many of the issues have already been addressed and restored. Some of these issues include Sandy Creek erosion, blocked drainage patterns, water table impacts, large ponded areas, copious amounts of matting mixed and debris mixed into the soils, extreme soil compaction, and lost topsoil.
5. The recent inspections identify matting of all sizes as deep as 60" below the surface.
6. CLC has performed a only small portion of the inspections and finding of the matting. Soon, a full inspection will be completed and filed to FERC.
7. By CLC's estimation, approximately 0.3% of the Midship easement on tract GR-0338.000 has been checked for matting to date.

April 9 & 10 Matting Location Map Prepared For Sandy Creek Farms, Inc



**Each Point Indicates Matting
That Was Found On
April 9, 10, or 11, 2021**

GR-0338.000






-  Midship Pipeline
-  Sandy Creek Farms Property Line
-  Permanent Easement
-  Temporary Workspace
-  Additional Temporary Workspace

Exhibit Prepared For
SANDY CREEK FARMS INC.

PO Box 128
Bradley, OK 73011

0000-04-04N-05W-4-001-00
119.37 Acres Total

GR-0336.000
5.06 Acres of ROW

Grady County, Oklahoma

Midship Mile Post 70.75

Exhibit Details

**All Photos Taken on
April 9, 10, & 11, 2021**

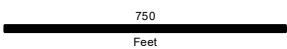
Notes

 Geo-Land Consulting, LLC

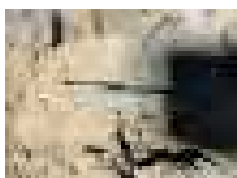
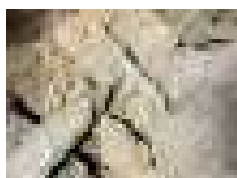
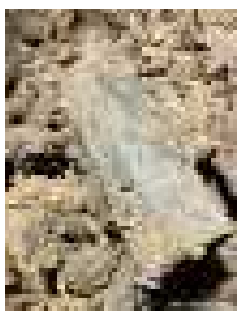
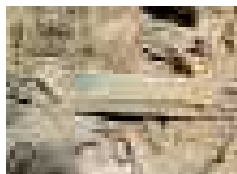
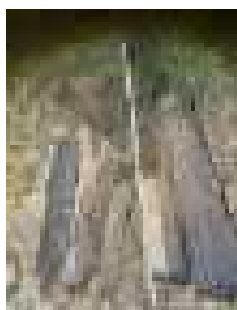
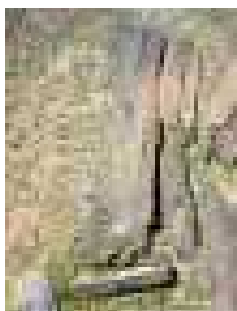
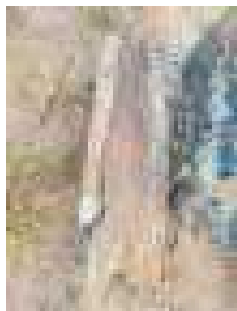
Data Sources:
Grady County, OK, ESRI, USFWS.

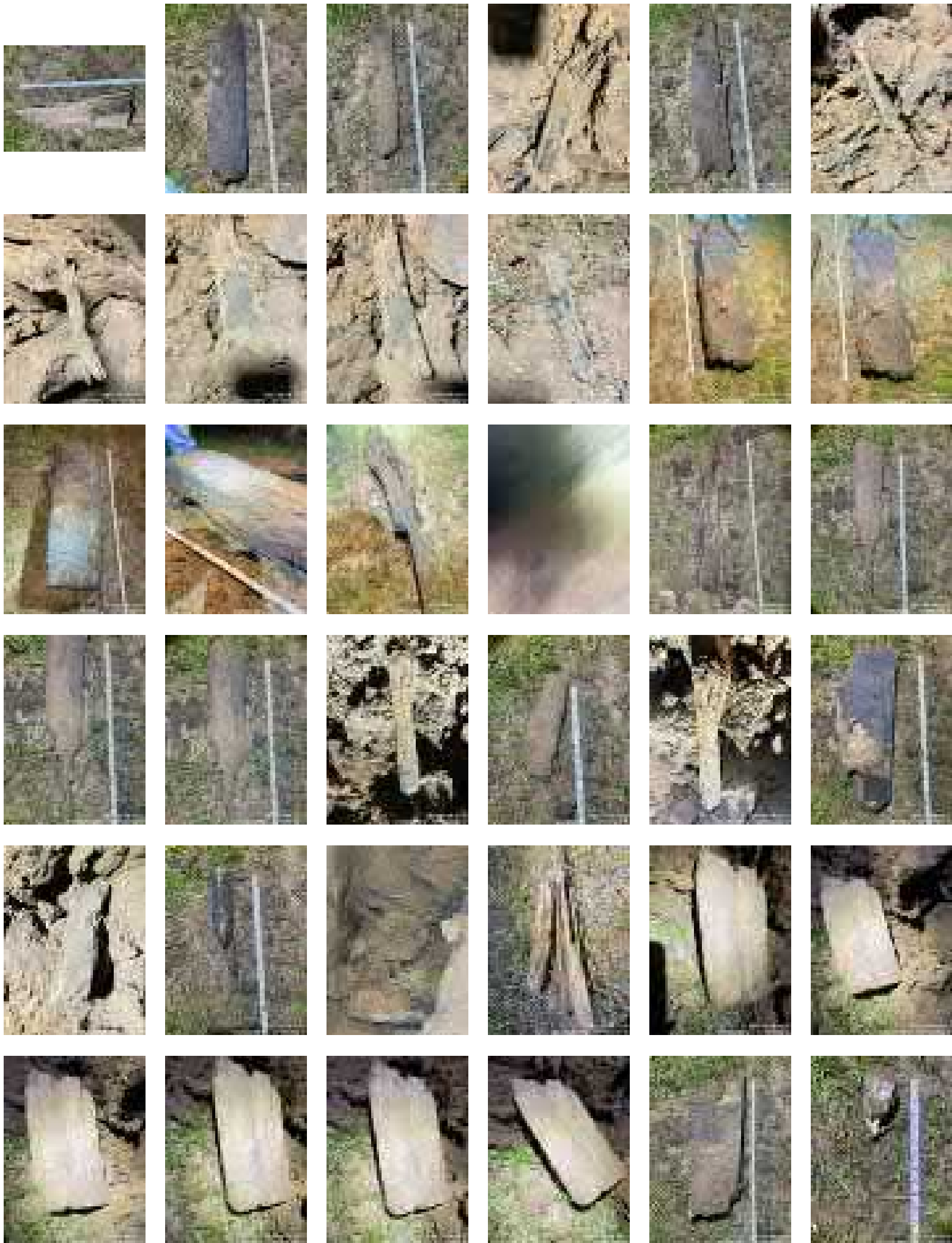
Base Map: ESRI World Imagery

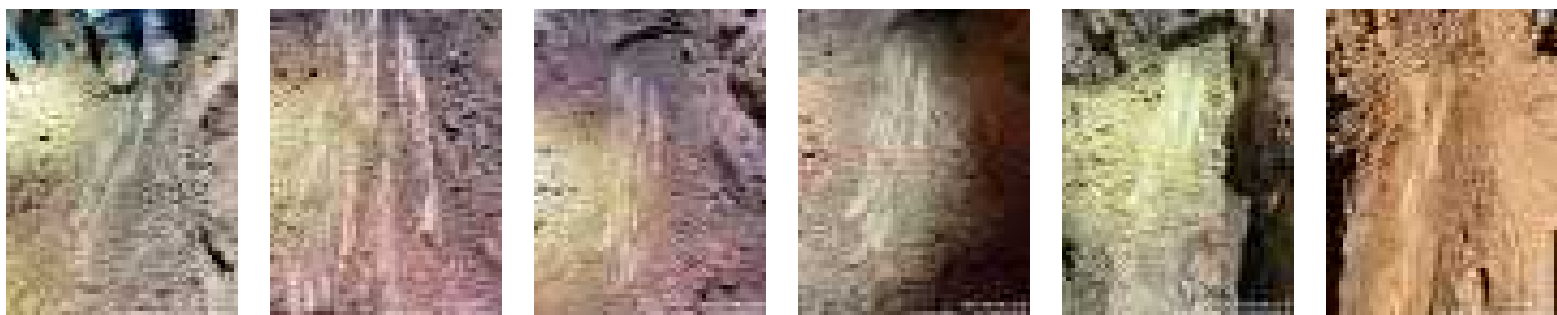
Provided for informative purposes only.
This is not a survey product. This
graphic should not be used for
authoritative definition of legal
boundary or property title.

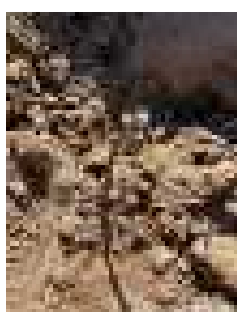
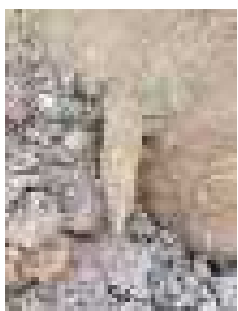
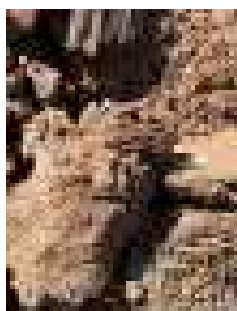
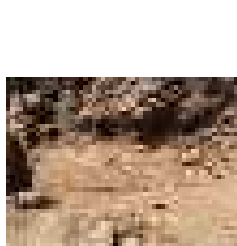
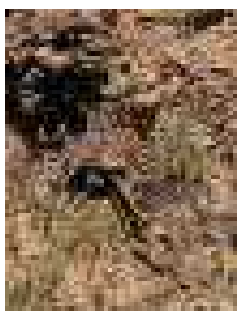
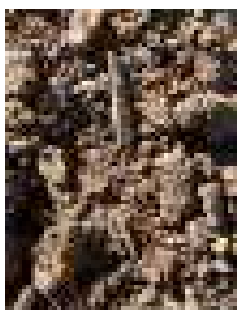
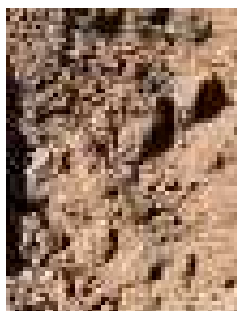
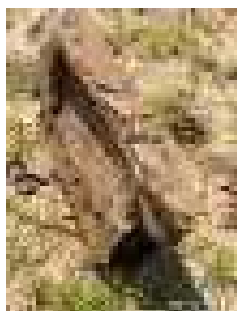


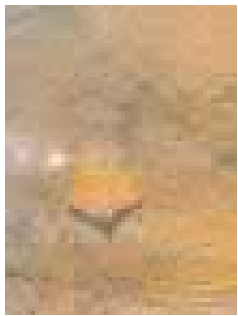
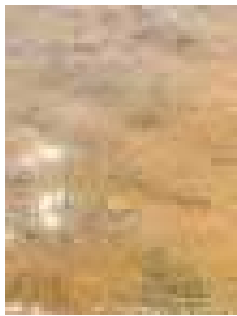
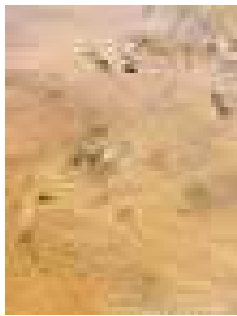
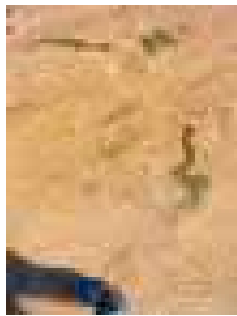
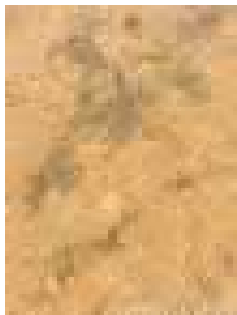
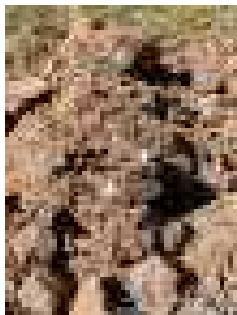
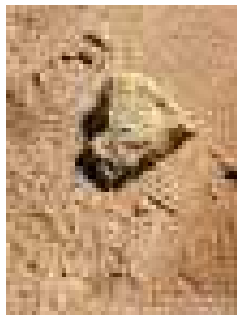
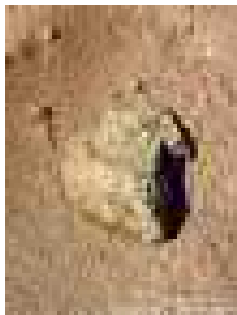
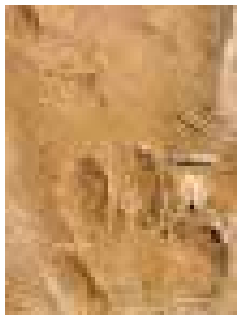
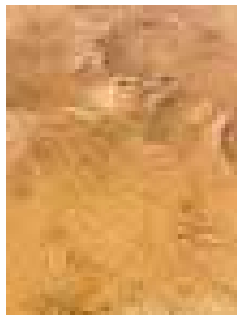
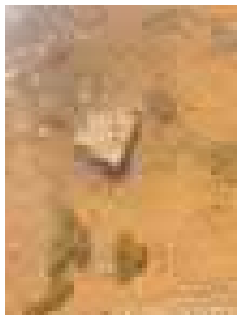
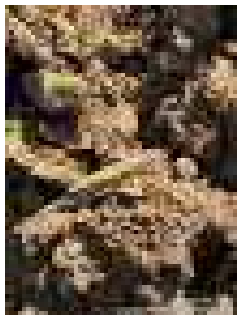
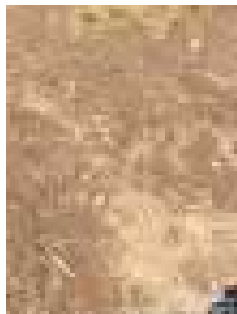
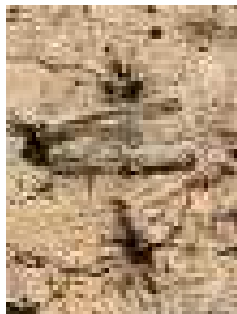
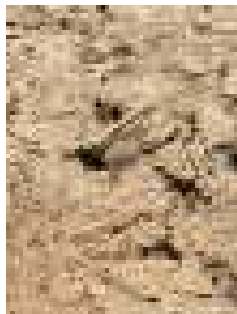
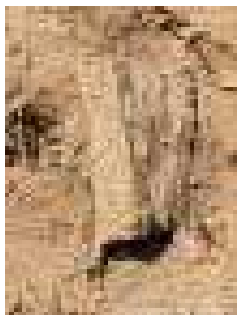
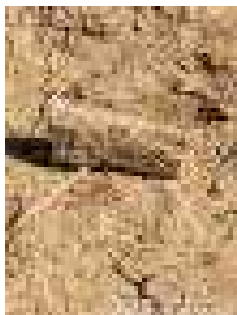
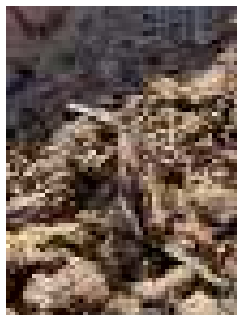
April 2021

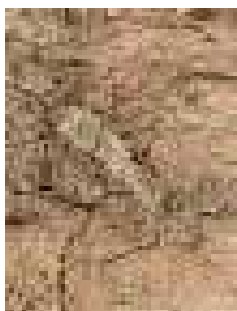
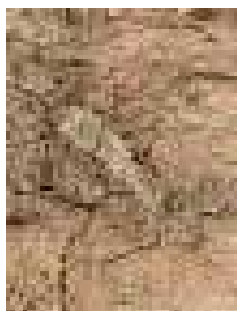
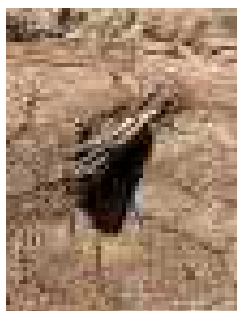
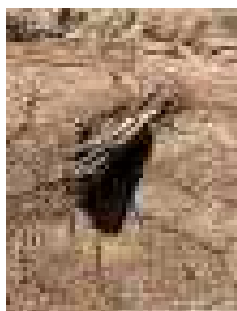
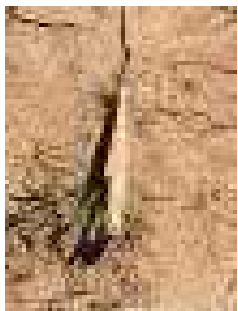
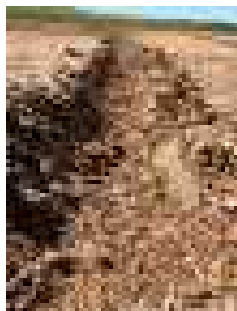


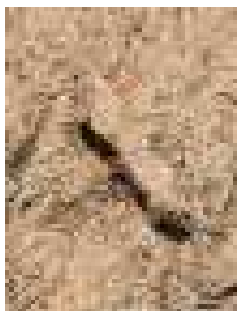
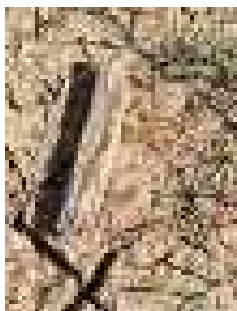
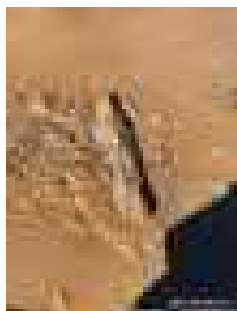
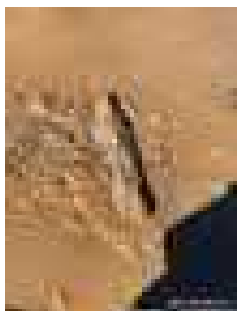
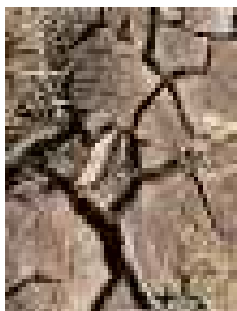
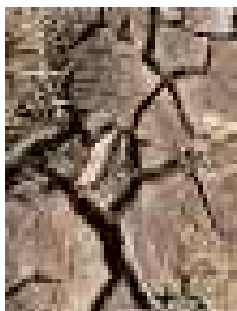
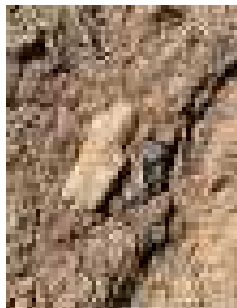
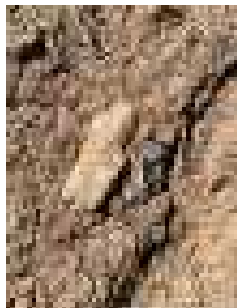
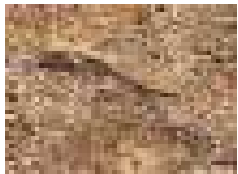


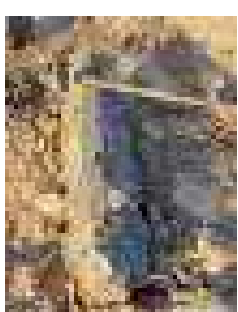
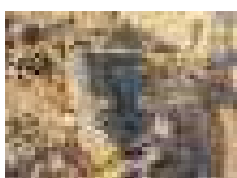
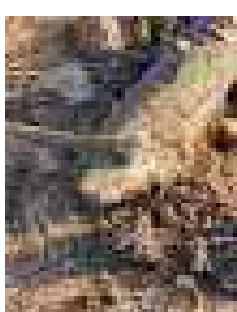
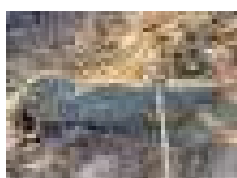
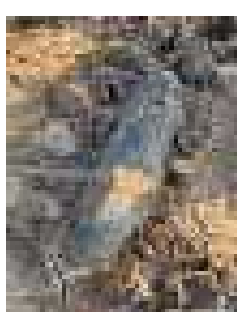
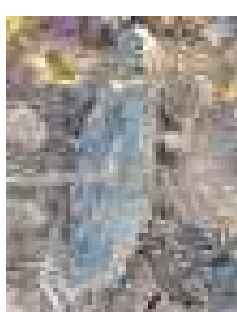
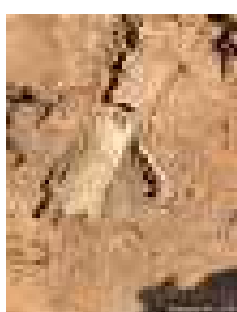
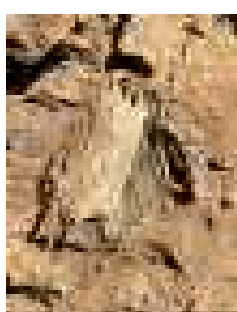
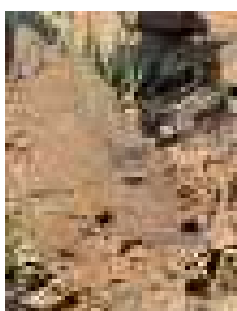
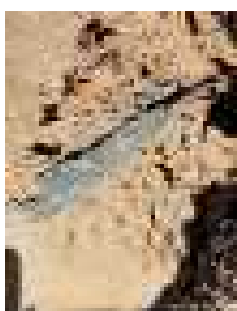
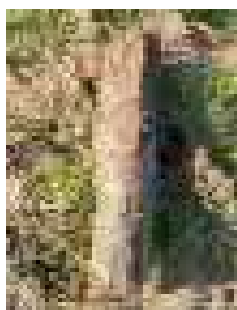
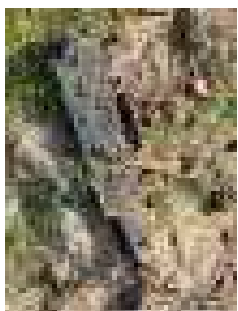
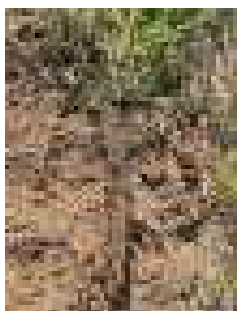
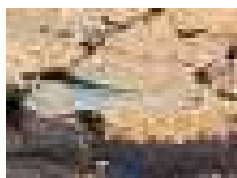
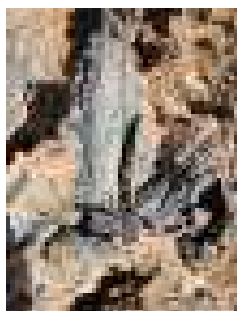
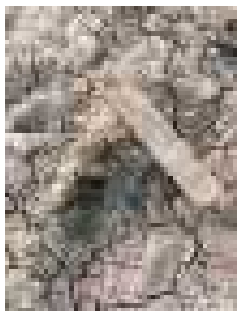
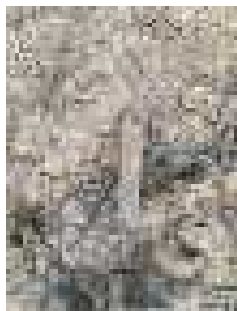












Attachment 10

November 2020 Mark Morris Construction Debris
(After Midship Stated All Debris Had Been Removed)



2020-11-23 11:22

34.7913088 N , 97.6847417 W



2020-11-23 11:22

34.7913088 N , 97.6847417 W



2020-11-23 14:22

34.7941500 N , 97.6947028 W



2020-11-23 14:34

34.7941694 N , 97.6946806 W



2020-11-23 14:49

34.7932917 N , 97.6948611 W



2020-11-23 14:50

34.7932889 N , 97.6948778 W





11-24-2020

10:22 AM

Attachment 11

FERC's Request of Midship to Provide a Restoration Plan on Mark Morris' Property

FEDERAL ENERGY REGULATORY COMMISSION
WASHINGTON, D.C. 20426

OFFICE OF ENERGY PROJECTS

In Reply Refer To:
OEP/DG2E/Gas 1
Midship Pipeline Company, LLC
Midcontinent Supply Header Interstate
Pipeline Project
Docket No. CP17-458-000

November 18, 2020

VIA FERC Service

Ms. Karri Mahmoud
Manager, Regulatory Affairs
Midship Pipeline Company, LLC
700 Milam Street, Suite 1900
Houston, TX 77002

RE: Required Restoration Assessment Plan for Morris Parcels

Dear Ms. Mahmoud:

The Commission received correspondence from Central Land Consulting, LLC, representing Mr. Morris dated October 23, 2020, regarding Midship Pipeline Company, LLC's (Midship) Midcontinent Supply Header Interstate Pipeline Project and post-construction concerns on tracts GR-0353.000 and GR-0355.000. Mr. Morris' concerns include buried construction debris, silt and sediment blocking Larimore Creek and a wetland, dredging of a flood control reservoir to remove construction sediment, and impacts on his cattle due to Midship's revegetation seed mix planted on the right-of-way.

Throughout construction and the ongoing restoration of Midship's project, Commission staff and its third-party compliance monitor routinely inspected Mr. Morris' parcels to ensure Midship's compliance with the environmental conditions of the Commission's August 13, 2018 *Order Issuing Certificate*, including compliance with the Commission's *Upland Erosion Control, Revegetation, and Maintenance Plan*. Our inspections have not documented any remaining construction debris at the surface within the right-of-way; however, Mr. Morris claims that additional construction debris remains buried within the permanent easement. In addition, our compliance monitor has documented the need for Midship to retrieve a construction mat in Larimare Creek located off right-of-way. Further, Mr. Morris' makes claims of sedimentation impacts on Larimare Creek, an associated wetland, and within a flood control reservoir that are outside of the limits of disturbance for this property; therefore, we are unable to confirm the extent of any impacts on these resources. Mr. Morris also states his willingness to

allow Midship access to the off right-of-way locations to conduct the requested restoration activities. Finally, we note that the Commission's compliance monitor is unable to confirm if Johnson grass was included in Midship's seed mix or whether Midship's seed mix has resulting in the death of Mr. Morris' cattle. Based on the information provided in Mr. Morris' recently filed letters and our compliance monitor's inspection of Mr. Morris' parcels, we find that further assessment is warranted to clarify the discrepancies that remain in order for us to determine whether additional restoration measures are required on these parcels.

Therefore, **within 7 days of the date of this letter**, Midship must file a restoration assessment plan to investigate the extent of any buried construction debris remaining within the right-of-way (Mr. Morris claims that he is aware of locations where debris is at least 20 inches deep on the right-of-way); to retrieve construction debris located off right-of-way; to investigate the project sedimentation impacts on Larimare Creek, the wetland, and the flood control reservoir; and to investigate the claim that Midship's seed mix has resulted in the death of Mr. Morris' cattle. This restoration assessment plan must be filed with the Secretary of the Commission for review and written approval by the Director of the Office of Energy Projects, or the Director's designee. Midship shall develop the restoration assessment plan in consultation with Mr. Morris regarding Midship's investigation of his claims of buried construction debris; resolution to retrieve a construction mat in Larimare Creek; investigation of any remaining sedimentation impacts on Larimare Creek, a wetland, and the flood control reservoir; as well as, resolution regarding possible Johnson grass impacts and the seed mix used for Midship's right-of-way on these parcels.

Following our review and approval of the restoration assessment plan, Midship shall implement the plan and file the results of its findings and any additional proposed restoration measures needed on these parcels. Based on the assessment results, Commission staff will determine whether Midship should implement additional measures to remediate any identified issues. If we determine additional measures are necessary, Midship will be required to work with Mr. Morris to establish measures to further remediate any construction debris removal; restore the stream, wetland, and reservoir; and remediate Johnson grass seed mix impacts.

If you have any questions, please contact Elaine Moran, Environmental Project Manager, at (202) 502-6467, or Danny Laffoon, Gas Branch 1 Chief, at (202) 502-6257.

Sincerely,

A handwritten signature in black ink that reads "Rich McGuire". The signature is written in a cursive style with a large initial "R" and "M".

Rich McGuire, Director
Division of Gas – Environment and
Engineering

Document Content(s)

CP17-458-000 MIDSHIP Morris Plan clean.PDF.....1

Attachment 11.1

FERC's Request of Midship to Provide a Restoration Plan on Sandy Creek Farms' Property

FEDERAL ENERGY REGULATORY COMMISSION
WASHINGTON, D.C. 20426

OFFICE OF ENERGY PROJECTS

In Reply Refer To:
OEP/DG2E/Gas 1
Midship Pipeline Company, LLC
Midcontinent Supply Header Interstate
Pipeline Project
Docket No. CP17-458-000

November 18, 2020

VIA FERC Service

Ms. Karri Mahmoud
Manager, Regulatory Affairs
Midship Pipeline Company, LLC
700 Milam Street, Suite 1900
Houston, TX 77002

RE: Required Restoration Assessment Plan for Barrington Tracts

Dear Ms. Mahmoud:

The Commission received a letter from Mr. Barrington dated October 2, 2020, and a letter from CLC Land Consulting, LLC representing Mr. Barrington on October 9, 2020, regarding ongoing impacts on Tracts GR-0336.000, GR-0338.000, and GR-0340.000 resulting from Midship Pipeline Company, LLC's (Midship) Midcontinent Supply Header Interstate Pipeline Project. Mr. Barrington's concerns include impacts on an electric line, buried construction debris, ponding issues, and needed topsoil fill to repair pre-construction contours.

Throughout construction and the ongoing restoration of Midship's project, Commission staff and its third-party compliance monitor routinely inspected Mr. Barrington's Sandy Creek Farm parcels to ensure Midship's compliance with the environmental conditions of the Commission's August 13, 2018 *Order Issuing Certificate*, including compliance with the Commission's *Upland Erosion Control, Revegetation, and Maintenance Plan*. To date, our inspections have not documented that the project impacted the electric lines on Mr. Barrington's property; however, Mr. Barrington has repeatedly filed complaints that Midship has impacted 6,000 feet of electric line for his four center irrigation pivots. Further, while Midship has been actively removing construction debris located on the surface of the Sandy Creek Farm's tracts, Mr. Barrington claims that additional construction debris remains buried within the right-of-way easement. Finally, we note that during our inspection on November 2, 2020, Midship has not restored contours in several areas, including the irrigation line repair site

on the Sandy Creek Farm parcel that has resulted in ponding above the repair and other adjacent areas on the right-of-way. Midship's lead environmental inspector informed our compliance monitor that Mr. Barrington does not want Midship to import topsoil to correct contour issues on this parcel. Based on the information provided in Mr. Barrington's recently filed letters and our compliance monitor's inspection of the Sandy Creek Farm parcels, we find that further assessment is warranted on the Sandy Creek Farm parcels to clarify the discrepancies that remain regarding the restoration required on these parcels.

Therefore, **within 7 days of the date of this letter**, Midship must file a restoration assessment plan to investigate the extent of any electric line impacts, identify the locations of buried construction debris remaining within the right-of-way, and resolve the current ponding on the right-of-way where Midship has failed to return the preconstruction contours. This restoration assessment plan must be filed with the Secretary of the Commission for review and written approval by the Director of the Office of Energy Projects, or the Director's designee. Midship shall develop the restoration assessment plan in consultation with Mr. Barrington regarding Midship's investigation to verify his claims of electric line impacts, investigation of locations of known and remaining buried construction debris, and resolution to restore pre-construction grade of Midship's right-of-way on the Sandy Creek Farm parcels, as well as clarity regarding the dispute for importing topsoil on his property.

Following our review and approval of the restoration assessment plan, Midship shall implement the plan and file the results of its findings and any proposed restoration measures needed on these parcels. Based on the assessment results, Commission staff will determine whether Midship should implement additional measures to remediate any identified issues. If we determine additional measures are necessary, Midship will be required to work with Mr. Barrington to establish measures to remediate any electric line impacts, recover any remaining construction debris, and restore contours with imported topsoil.

If you have any questions, please contact Elaine Moran, Environmental Project Manager, at (202) 502-6467, or Danny Laffoon, Gas Branch 1 Chief, at (202) 502-6257.

Sincerely,



Rich McGuire, Director
Division of Gas – Environment and
Engineering

Document Content(s)

CP17-458-000 MIDSHIP Barrington Plan clean.PDF1

Attachment 12

Midship's Response to FERC's Request to Provide a Restoration Plan on Mark Morris' Property



November 25, 2020

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

Re: Midship Pipeline Company, LLC
Restoration Assessment Plan for Morris Parcels (MP 74.9 to 75.7)
Tract Nos. GR-0353.000 and GR-0355.000
Docket No. CP17-458-000

Dear Ms. Bose:

On August 13, 2018, the Federal Energy Regulatory Commission (“FERC” or “Commission”) issued its Order Issuing Certificate (“Certificate Order”),¹ as amended,² in the above referenced proceeding to Midship Pipeline Company, LLC (“Midship”) for the Midship Pipeline Project (“Midship Pipeline” or “Project”). The Project facilities were constructed and placed in service on April 21, 2020.

On November 18, 2020, the Director of the Division of Gas – Environment and Engineering, issued a letter (“November 18 Letter”) regarding correspondence the Commission received from Central Land Consulting, LLC (“CLC”) dated October 23, 2020 (“CLC Letter”) pertaining to post-construction concerns on tracts GR-0353.000 and GR-0355.000 owned by Mr. and Mrs. Mark Morris (individually and collectively, the “Landowner”). As detailed in the CLC Letter as well as the November 18 Letter, the Landowner’s concerns include (i) buried construction debris remaining within the Midship Pipeline right-of-way (“ROW”) and the retrieval of construction debris located off ROW; (ii) Project sedimentation impacts on Larimore Creek, a wetland and the flood control reservoir; and (iii) impacts on cattle due to Midship’s revegetation seed mix planted on the ROW (collectively, the “CLC Claims”). The November 18 Letter directed Midship to file a restoration assessment plan to investigate the CLC claims.

By way of background, and as further discussed below, on October 15, 2020, Midship met with the Landowner to discuss the required restoration remaining for the property. Many of the restoration issues that were outstanding at that time have since been resolved. Midship will continue to coordinate with the Landowner and the Landowner’s representatives to assess the need for any further restoration and to develop a specific plan to address any future items that may arise. Midship is providing herein responses to each of the CLC Claims.

Claim 1: Buried Construction Debris Within ROW and Retrieval of Debris Off ROW

The Landowner has filed several letters in the above-referenced docket suggesting that construction debris was left on the restored ROW. However, when Midship’s contractor attempted to access the relevant tracts on October 11, 2020 to perform restoration work, the Landowner denied the crews access. Midship representatives subsequently contacted the Landowner and scheduled a follow up meeting at the

¹ *Midship Pipeline Company, LLC*, 164 FERC ¶ 61,103 (2018).

² The Certificate has been amended three times: on January 25, 2019 in Docket No. CP19-17-000, on September 6, 2019 in Docket No. CP17-458-000, and on December 20, 2019 in Docket No. CP17-458-005. *Midship Pipeline Company, LLC*, 166 FERC ¶ 62,039 (2019); *Midship Pipeline Company, LLC*, 168 FERC ¶ 61,147 (2019); *Midship Pipeline Company, LLC*, 168 FERC ¶ 61,147 (2020).

November 25, 2020

Ms. Kimberly D. Bose, Secretary

Page 2

property, which was conducted on October 15, 2020, to discuss the Landowner's restoration concerns and Midship's plan to resolve any outstanding issues.

On November 2, 2020, Midship's contractor remobilized to the property and removed construction debris from the ROW. Accordingly, Midship believes the issue of construction debris on the ROW has been resolved, as all debris has been removed. This work was completed and was noted in Midship's weekly restoration report for this period. Please refer to the photographs of the Landowner's property included in **Attachment A**.

With respect to construction debris located off ROW, during the spring and summer of 2019, when construction of the Midship Pipeline was underway, the Project area experienced unprecedented rain events which caused extensive flooding. These extreme weather events caused some construction mats to be washed off ROW. Midship worked with its contractors to identify the locations of these mats, and secured the necessary landowner permission, agency approvals, and FERC variances to retrieve the off-ROW mats that could be located.

Midship conducted a walkthrough of the Landowner's tracts on April 14, 2020, with the Landowner, a CLC representative, the FERC construction monitor, and Midship's contractor. During this site visit, a 40-foot long construction mat located approximately 50-feet off the east edge of the ROW was observed, and the Landowner made Midship aware of an additional four to six construction mats located in Larimore Creek, approximately 500-feet further east. Midship requested permission from the Landowner to retrieve the off ROW mats. The Landowner and his CLC representative granted verbal permission to retrieve the mats by way of the access road located further into the Landowner's property. Midship relied upon this verbal confirmation from the Landowner and the CLC representative (which was witnessed by several other people) to initiate requests for agency approvals and to file for a variance with FERC to go off ROW to retrieve the mats. Midship received the associated approvals from the Oklahoma Archeological Society on April 15, 2020, and from the Oklahoma State Historic Preservation Office on April 17, 2020. On May 13, 2020, Midship received a variance approval from FERC to retrieve the off ROW mats from the property.

On June 8, 2020, Midship notified CLC via email that crews were ready to mobilize and remove the mats. Shortly thereafter CLC responded via email revoking permission and stating that anyone caught off-ROW would be prosecuted for trespassing. Therefore, as Landowner permission had been rescinded, Midship was unable to retrieve the off ROW mats. Please refer to **Attachment B** for relevant email correspondence with CLC regarding permission to access to the Landowner's property for mat retrieval.

On April 18, 2020, the Landowner submitted a complaint to the Oklahoma Department of Environmental Quality ("ODEQ") and the Oklahoma Corporation Commission ("OCC") regarding construction mats as well as sediment discharges affecting Larimore Creek. The OCC investigated and subsequently closed the complaint on April 21, 2020, without further action.

On September 14, 2020, the Landowner again contacted the OCC regarding the presence of construction mats in Larimore Creek, and the OCC, in turn, contacted Midship. Midship confirmed with the OCC that it was aware of the mats but was unable to retrieve them due to lack of Landowner permission. Midship also discussed this matter with the ODEQ on October 23, 2020. On October 26, 2020, the Landowner sent an email to the ODEQ in which he indicated that he would grant Midship permission to retrieve the mats contingent on Midship performing additional off-ROW work unrelated to retrieval of the mats. Midship could not accommodate this request. On November 18, 2020, ODEQ closed its investigation into the Landowner's complaint. Please refer to **Attachment C** for agency correspondence on this matter.

November 25, 2020
Ms. Kimberly D. Bose, Secretary
Page 3

In October of 2020, Midship was preparing to mobilize its contractor to conduct additional clean up and grading on the Morris property. Midship again requested permission to retrieve the off right of way mats and the Landowner responded with a list of items Midship must agree to that are unrelated to the retrieval of the mats. Midship did not agree to conduct this additional work and mobilized its contractor to conduct the on right of way activities only.

In sum, Midship has repeatedly requested permission to retrieve the mats from off ROW and had crews available in early November to mobilize and conduct this work. Midship will continue to attempt to secure permission from the Landowner to go off ROW to retrieve any remaining construction mats, and could include its already prepared plan for retrieving those mats in a supplement to this response if the Landowner is willing to grant unconditional permission for access to do this work.

Claim 2: Project Sedimentation Impacts on Larimore Creek, a Wetland and the Flood Control Reservoir

The CLC Letter alleges that during Project construction on the Landowner's property, Midship's construction contractors allowed Larimore Creek and an adjacent tributary to "become blocked with sediment which restricted flow and caused the streams to expand into the surrounding wetland."³ Significantly, with respect to the issue of potential Project sedimentation in Larimore Creek, the OCC investigated the Landowner's claims and did not find elevated total dissolved solids ("TDS") (460 ppm TDS was noted at the pipeline crossing and 467 ppm TDS was noted upstream of the crossing). The OCC also noted that neither bank erosion nor silt or sediment build up in the creek were observed, and the complaint was subsequently closed. Please refer to **Attachment C**.

As reflected in the ODEQ correspondence included in **Attachment C**, the Landowner has stated that in order for Midship to be granted permission to retrieve the off ROW mats in Larimore Creek, Midship must dredge his pond, which serves as a flood control reservoir, to remove sediment that may have accumulated during the previous spring and summer flood events. However, there is no indication that there is a nexus between Project construction and the sedimentation that has occurred in the Landowner's pond. Accordingly, Midship has been unable to agree to conduct this work to date and the issue remains unresolved. However, Midship is in communication with the Landowner's representatives in non-jurisdictional negotiations on compensation for an easement and associated issues. Midship will continue these conversations and is optimistic that an agreement may be reached.

Claim 3: Impacts on Cattle due to Midship's Revegetation Seed Mix Planted on ROW

The Landowner has claimed that Midship planted Johnson grass on the ROW during restoration which resulted in the death of one of his cows. Midship is unable to find evidence of this claim. The Landowner's tract was initially seeded with the native mix per the National Resources Conservation Service recommendations (see **Attachment D**). Johnson grass was not included in this mix, nor does Midship have any indication it was present in the mix. For winter stabilization, per the Landowner request, winter wheat was used. Midship's environmental inspector has not observed the presence of Johnson grass on the ROW or adjacent areas. Accordingly, there is no other action that Midship can take with respect to this claim.

³ See CLC Letter at 19.

November 25, 2020

Ms. Kimberly D. Bose, Secretary

Page 4

Conclusion

In conclusion, Midship has removed all construction debris from the Project ROW on the Landowner's property and stands ready and willing to retrieve any off-ROW construction mats pending receipt of Landowner permission. Midship will continue to communicate with the Landowner and its representatives with respect to this issue as well as the other issues discussed herein that remain outstanding and will continue to keep the Commission staff informed as to the status of resolution.

Should you have any questions about the instant filing, please feel free to contact the undersigned at (713) 375-5000.

Respectfully submitted,

/s/ Karri Mahmoud

Karri Mahmoud
Director, Environmental and Regulatory Projects
Midship Pipeline Company, LLC

cc: Rich McGuire, Director, Division of Gas-Environment & Engineering

Enclosures

Attachment A
Tract Nos. GR-0353.000 and GR-0355.000

Photos of Restoration Activities on Morris Property

Attachment A

Tract Nos. GR-0353.000 and GR-0355.000

Photos of Restoration Activities on Morris Property



Attachment A

Tract Nos. GR-0353.000 and GR-0355.000

Photos of Restoration Activities on Morris Property



Attachment B
Tract Nos. GR-0353.000 and GR-0355.000

**Email Correspondence with CLC and Midship relating to retrieval of
off right of way mats from Morris Property**

From: Nate Laps <nlaps@centrallandconsulting.com>
Sent: Monday, June 8, 2020 9:56 AM
To: Parker, Jay W. <JWParker@trccompanies.com>
Cc: Jim Privett <Jim.Privett@cheniere.com>; Suzanne Hickham <Suzanne.Hickham@cheniere.com>; Scott Timpone <Scott.Timpone@Cheniere.com>; Victor Favela <Victor.Favela@cheniere.com>; Pete Musgrove <Pete.Musgrove@cheniere.com>; Tom Zabel <tzabel@zflawfirm.com>; Scott Seidl <sseidl@zflawfirm.com>; Vadim Bourenin (Guest) <VBourenin@zflawfirm.com>; Champion, Brett C. <BChampion@trccompanies.com>
Subject: Re: GR-0353.000-Mark A. Morris Rev. Trust-Mat Retrieval

EXTERNAL EMAIL: Do not click on any links or open any attachments unless you trust the sender and know the content is safe.

As I stated several times, without an agreement in writing the landowners have not given you permission. The sheriff will be called if Midship continues to trespass.

Sent from my iPhone

On Jun 8, 2020, at 7:59 AM, Parker, Jay W. <JWParker@trccompanies.com> wrote:

Mr. Laps-

Midship contractors will be entering Mark Morris' property this morning to remove construction mats per your clients wishes and with their verbal consent. Crew members will be on foot when exiting the ROW to the location of the mats. They will then cut the mats into manageable pieces, return to the ROW, and remove them from the property.

Regards,

Jay Parker
Land Manager
Representing the Midship Pipeline

<image001.png>

2087 East 71st Street, Tulsa, OK 74136
C 918 577 7811
jwparker@trccompanies.com
[LinkedIn](#) | [Twitter](#) | [Blog](#) | TRCcompanies.com

-----Original Message-----

From: Parker, Jay W. <JWParker@trccompanies.com>
Sent: Monday, November 2, 2020 10:06 AM
To: Mark Morris <mmorris@morrismotorsports.com>
Cc: Scott Timpone <Scott.Timpone@Cheniere.com>; Suzanne Hickham
<Suzanne.Hickham@cheniere.com>
Subject: RE: [EXTERNAL] FW: Midship Response Email

EXTERNAL EMAIL: Do not click on any links or open any attachments unless you trust the sender and know the content is safe.

Mr. Morris-

At this time, we cannot agree to your stipulations for the off-ROW access. We will perform the work on our ROW of which you were previously notified.

Thank you,

Jay Parker
918 577 7811
jwparker@trccompanies.com

-----Original Message-----

From: Mark Morris <mmorris@morrismotorsports.com>
Sent: Monday, November 2, 2020 9:49 AM
To: Parker, Jay W. <JWParker@trccompanies.com>; Suzanne.Hickham@cheniere.com
Subject: [EXTERNAL] FW: Midship Response Email

This is an EXTERNAL email. Do not click links or open attachments unless you validate the sender and know the content is safe.

Thanks:
Mark Morris
405-224-6113
405-202-0913

-----Original Message-----

From: Nate Laps <landman1407@gmail.com>
Sent: Thursday, October 29, 2020 11:55 PM
To: Mark Morris <mmorris@morrismotorsports.com>
Subject: Midship Response Email

See below



Revised Jay Parker
Response .docx

October 31, 2020

Jay Parker,

I wanted to clarify your email response addressing my concerns and completing restoration. I sent you an email Tuesday relaying my concerns and conditions for your contractors to retrieve mating. I also relayed the many environmental issues of the excessive silt and sediment in the streams and creek, this is affecting my 16-acre pond and Army Corp flood controls. Midship and Strike have buried several environmental mats, portions of mats and rocks in my soils, which are within the floodplain, within the wetland, and downstream in Larimore Creek approximately 1000 feet east of the easement. The area where the mats discharged downstream have several valuable trees and wildlife that would be affected.

Your cleanup work is not just skimming the surface and removing mats, per the FERC requirements, Midship must remove the mating they stuck in the soils, 20'' – 30'' deep. The drainage and streams have been altered that will need extensive remediation, all the silt blocking the water flow in the streams will need removed, and my pond/Army Corp flood controls will need remediated. Several items will need to be properly restored, but so far Midship has not remediated anything properly.

I would agree to granting Midship off-row access if the following could be agreed upon:

Midship would remove all matting within my soils, which is roughly 20'' deep. Replenish topsoil and establish pre-construction grade after mat removal.

Remove all silt and sediment that is blocking up the stream, wetland, and reservoir.

Dredge my reservoir and restore my pond to its pre-construction state.

Agree to compensate me for any loss of trees, damage to the creek and wildlife.

DEQ, OCC, and the FERC personnel and a land owner's representative present during all activities.

Provide me with a detailed plan of all work to be performed, and an agreed start date and completion date of all work.

Please confirm you understand all the above stipulations.....

Thank you,

Mark Morris

Attachment C
Tract Nos. GR-0353.000 and GR-0355.000

**Email Correspondence with Oklahoma agencies relating to Morris
Property**

Karri Mahmoud

From: Sherwood, Chelsey <Sherwood.Chelsey@epa.gov>
Sent: Tuesday, April 21, 2020 2:59 PM
To: Carl Saucier; Gayland Darity; Brad Ice; Michael Rightmire; OCC OG Duncan Office; Shawn Coslett; Ambra Matheson
Cc: ericbruy@yahoo.com; bradleyingram87@gmail.com; Adam Vehe
Subject: RE: Citizen Complaints, Grady County, OK(Sandy Creek Farms Pipeline Project)

EXTERNAL EMAIL: Do not click on any links or open any attachments unless you trust the sender and know the content is safe.

Okay. Thank you for all of the information. I will provide each complainant with the appropriate reference number and give Dan Beisner a call.

Thank you,
Chelsey Sherwood

From: Carl Saucier <Carl.Saucier@occ.ok.gov>
Sent: Tuesday, April 21, 2020 12:53 PM
To: Sherwood, Chelsey <Sherwood.Chelsey@epa.gov>; Gayland Darity <Gayland.Darity@occ.ok.gov>; Brad Ice <Brad.Ice@occ.ok.gov>; Michael Rightmire <Michael.Rightmire@occ.ok.gov>; OCC OG Duncan Office <OGDuncanOffice@occ.ok.gov>; Shawn Coslett <Shawn.Coslett@occ.ok.gov>; Ambra Matheson <Ambra.Matheson@occ.ok.gov>
Cc: ericbruy@yahoo.com; bradleyingram87@gmail.com; adam.vehe@cheniere.com
Subject: FW: Citizen Complaints, Grady County, OK(Sandy Creek Farms Pipeline Project)

Good Afternoon Chelsey,

Michael and I, OCC Oil & Gas Field Inspector and Supervisor, have made an on-site inspection this morning at the reported GPS sites of both complaints. We met with Midship Pipeline Company's Lead Environmental Inspector (LEI), Bradley Ingram(580-823-2093), and Environmental Inspector(EI), Eric Bruyninckx(318-237-39890) at both sites. They reported this Sandy Creek Farms Pipeline Project is regulated by the Federal Energy Regulation Committee (FERC). The FERC regulator is Dan Beisner (785-259-2250) and he should have all the reports concerning this pipeline project called Sandy Creek Farms. The OCC performed a field TDS test on the water or source being pumped out of easement or right of way and it tested 338 ppm TDS. The water was not being pumped into creek. It was being pumped across creek through filters into a low lying area within easement, and was filtering through bagged filters, top soils, and sub soils before entering creek. The creek tested 463 ppm upstream from the creek crossing at the North Site(Barrington complaint). Then the South Site (Morris complaint) appeared to be in the completion stage so we tested the creek in the easement or right of way and it was 460 ppm TDS, and the creek up stream at road crossing was 467 ppm TDS. We did not find any erosion, or silt and sediment build up in the creek from the GPS locations that were sent to us. It was reported the 36" natural gas pipeline is 239 miles long and is currently in use, from Okarche, OK to Durant, Ok. Michael will be initiating and resolving a complaint investigation report (1085)on behalf of the OCC for each complainant. Mr. Morris's complaint will be filed under ITN 18520OGDO30310, and Mr. Barrington's complaint will be filed under ITN 18520OGDO30311. I would recommend calling Mr. Beisner concerning this project and permits associated with this project. Let me know if there is anything else that Michael or myself can help with concerning these complaints.

Thank you,
Carl

From: Gayland Darity
Sent: Monday, April 20, 2020 6:09 PM
To: Carl Saucier <Carl.Saucier@occ.ok.gov>; Michael Rightmire <Michael.Rightmire@occ.ok.gov>; Suzanne Green <Suzanne.Green@occ.ok.gov>
Subject: Fwd: Citizen Complaints, Grady County, OK

Get [Outlook for iOS](#)

From: Sherwood, Chelsey <Sherwood.Chelsey@epa.gov>
Sent: Monday, April 20, 2020 6:05:42 PM
To: Michael.A.Ware@usace.army.mil <Michael.A.Ware@usace.army.mil>; Gayland Darity <Gayland.Darity@occ.ok.gov>; Jaime Brown <Jaime.Brown@deq.ok.gov>; Ferrella March <Ferrella.March@deq.ok.gov>
Cc: Jones, Curry <jones.curry@epa.gov>; Nystrom, Thomas <Nystrom.Thomas@epa.gov>; Eckhart, Jeanne <Eckhart.Jeanne@epa.gov>; Tidmore, Guy <tidmore.guy@epa.gov>
Subject: [External] Citizen Complaints, Grady County, OK

Good Afternoon,

We received two citizen complaints regarding Midship Pipeline Company activities in two different locations ((34.790606°, -97.694641), (34.826555°, -97.716806)) with multiple concerns. I did some quick flowpath (red line) analyses showing the creek (blue line) impacted for each complaint. Please refer to original complaints with image below.

Please let me know if you will be responding to these. Also, I have not yet contacted the two citizens that reported the potential violations. Could you please let me know whose contact information I should give them to follow up with regarding their complaints? Thank you.

-----Original Message-----

4/18/2020 1:40 AM

HQ LEAD NUMBER: FY20-203771-3709-CV

SUBJECT: Regional Tip and/or Complaint - Oklahoma

FROM: mmorris@morrismotorsports.com

TO:

Name: Mark Morris

Phone: 405-202-0913

Alleged Violator's Name: Midship Pipeline Company

Alleged Violator's Address: Bradley, Oklahoma

Alleged Violator's City: Bradley, Oklahoma

Alleged Violator's State: Oklahoma

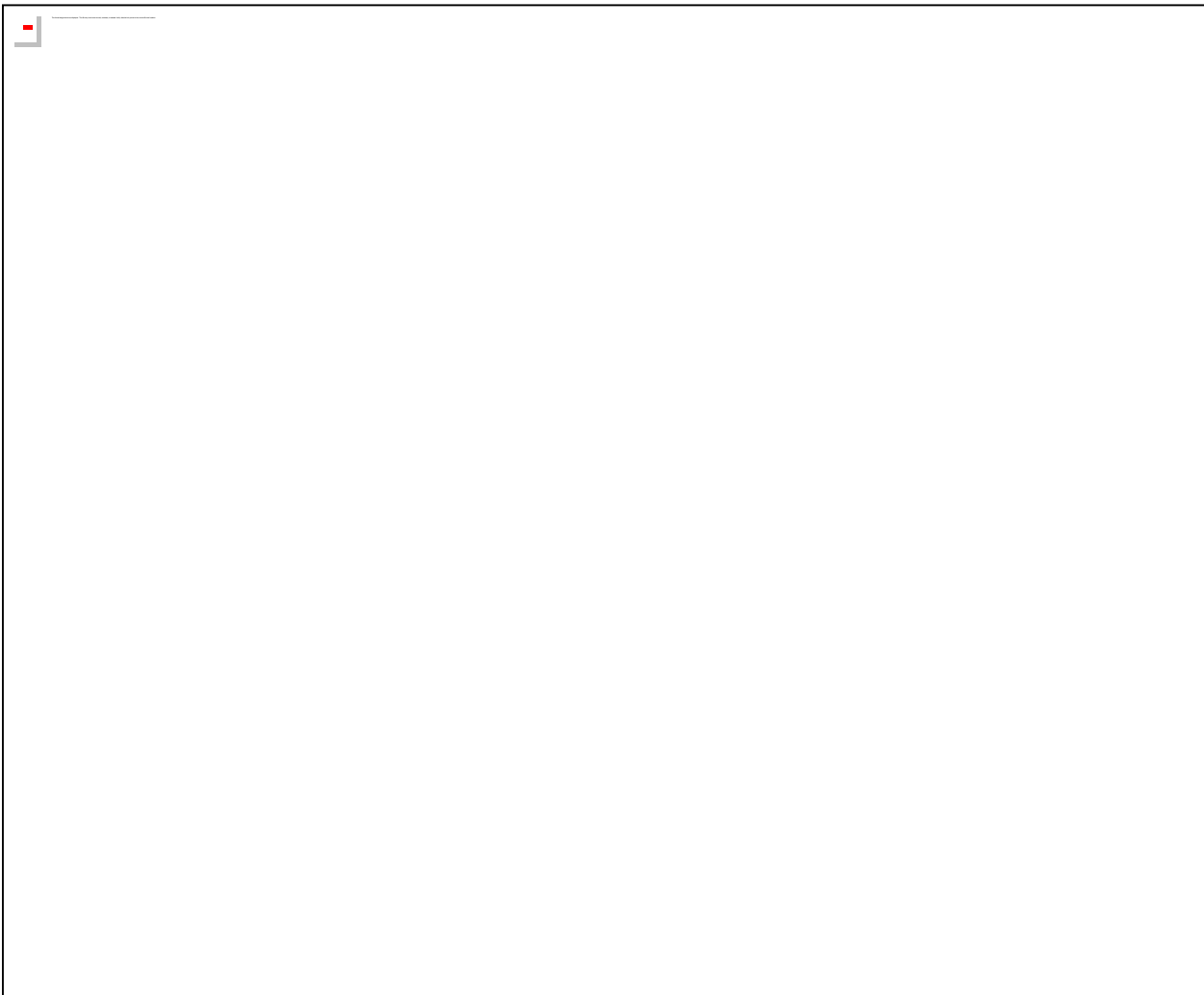
Alleged Violator's Zip: 73011

Submitter IP Address: 24.140.180.145

Tip or Complaint: In Grady County, Oklahoma, near 34.790606°, -97.694641° there is ongoing pipeline construction where the Midship pipeline company is discharging contaminated water into the Larimore Creek. In addition the creek bank is severely slipping in causing the creek to back up and has dammed up the creek from water flowing. There is 10" or so of silt backed up from the construction site causing severe environmental contamination.

Violation Still Occurring? No

State DEP/DEQ/DEM Notified? No



-----Original Message-----

4/18/2020 1:00 AM

HQ LEAD NUMBER: FY20-203770-3709-CV

SUBJECT: Regional Tip and/or Complaint - Oklahoma

FROM: steve.barrington@icloud.com

TO:

Name: Steve Barrington

Phone: 405-973-5681

Alleged Violator's Name: Midship Pipeline Company

Alleged Violator's Address: Bradley, Oklahoma

Alleged Violator's City: Bradley, Oklahoma

Alleged Violator's State: Oklahoma

Alleged Violator's Zip: 73011

Submitter IP Address: 24.140.180.145

Tip or Complaint: In Grady County, Oklahoma, near 34.826555°, -97.716806° there is ongoing pipeline construction where the Midship pipeline company is discharging contaminated water into the Sandy Creek. In addition the creek bank is severely slipping in causing the creek to back up. There is a stream that leads into Sandy creek approximately 200 ft south of the construction work area that the bank is slipping and full of silt erosion. There are serious concerns of environmental impacts and contamination to the Sandy Creek.

Violation Still Occurring? Yes

State DEP/DEQ/DEM Notified? No



Thank you,

Chelsey Sherwood

Life Scientist

U.S. Environmental Protection Agency

Water Resources Section (ECD-WR)

1201 Elm Street, Suite 500

Dallas, TX 75270-2101

Office: 214.665.6452

POLLUTION
 NON POLLUTION

**OKLAHOMA CORPORATION COMMISSION
 INCIDENT AND COMPLAINT INVESTIGATION REPORT**

Form 1085-0
 Rev-2014

Complainant Type: Land Owner

Complainant:

MARK MORRIS

Email: mmorris@morrismotorsports.com

| | | |
|--------------------------------|------|--------------------------------|
| Taken By: Michael Rightmire | | Incident No. 18520OGDO30714 |
| Date 09/14/2020 | Time | Referred From |

Joint Inspection Date: 9/14/2020 12:00:00 AM

Home Phone: Not on file.

Work Phone: (405) 202-0913

FAX No.: Not on file.

Joint Inspection Date: 9/15/2020 12:00:00 AM

Phone No.: (832) 504-4093

Second Number: Not on file.

Operator No.:

Company:

MIDSHIP PIPELINE
 700 Milam Ste 1900
 Houston, TX 77002
 Email:

Lease/Well Name: Well No.: API No: -

Location within Sec.: SW SW NE Sec 26 Twp 04N Rge 05W County: GRADY

General Directions:

Lat: 34.790606

Long: -97.694641

Complaint/Incident Incident Type: Pipeline / Compressors

Source Code(s) & Description(s) **Nature of Complaint:**

76-Trash & Debris TRASH & DEBRIS

Oil Released: bbls Oil Recovered: bbls Water Released: bbls Water Recovered: bbls

Water Body Affected: NO Fish/Wild Kill Reported: N

Response

Investigator: Michael Rightmire Phone No. (580) 656-2407 Initial Response Date: 09/14/2020

Follow Up Dates: 09-15-2020

Investigation Date: 09/15/2020 Mediation Date: Remediation Date: Litigation Date:

Referred To: Referred Date:

Agency of Jurisdiction: Resolved Date: 09/21/2020

Water Body Affected Confirmed Fish/Wildlife Kill Confirmed Incident Confirmation Status:
 Confirmed No Violation

Red-Tagged Date: Removal Date:

Violations. Citation #:

Findings: 9-14-2020 Field Inspector Michael Rightmire recieved an email complaint about trash and debris left in the creek from Midship Pipeline's operations. Field Inspector tried contacting landowner to gain access, but no one answered. Field Inspector left the site and the landowner called back. Landowner stated he could have someone meet the Field Inspector the following day. (9-15-2020)

9-15-2020 Field Inspector met with Supervisor Carl Saucier onsite and gained access from another operator. (Daylight Petroleum pumper) While walking the creek, Field Inspector and Supervisor noticed old wooden seals and plywood in waterway. Piles of wood were also discovered in right-of-way. Field Inspector worked an incident back on 4-20-2020 (18520OGDO30310) and it was determined that this issue fell under FERC's (Federal Energy Regulatory Commission) purview. Field Inspector contacted Adam Vehe (Manager, Project Compliance)(CHENIERE ENERGY) 713-375-5854 and he stated he was aware of the issue of trash and debris left onsite due to construction. He stated that they were not allowed back in by the landowner to resolve this issue. Mr. Vehe also stated that there is a civil case between the landowner and company in the Western District of Oklahoma under case # CIV-18-858-G.

Recommendations: 9-21-2020 Recommend waiting for civil matter to be resolved. Once civil matter is resolved, landowner may contact the Oklahoma Conservation Commission for erosion issues or the ODEQ for any turbidity of water issues. Field Inspector recommends incident be resolved.

Michael Rightmire
580-656-2407

From: Mark Morris <mmorris@morrismotorsports.com>
Date: October 26, 2020 at 8:13:45 PM CDT
To: "jJaime.Brown@deq.ok.gov" <jJaime.Brown@deq.ok.gov>
Cc: "JWParker@trccompanies.com" <JWParker@trccompanies.com>, Janna Chesno <Janna.Chesno@cheniere.com>, Scott Timpone <Scott.Timpone@Cheniere.com>, Suzanne Hickham <Suzanne.Hickham@cheniere.com>

EXTERNAL EMAIL: Do not click on any links or open any attachments unless you trust the sender and know the content is safe.

October 24, 2020

Jamie,

On October 23, 2020, you contacted me regarding the environmental matting and compliance issues relating to the Midship pipeline and contractors, Strike. During construction Midship's contractors allowed Larimore Creek to become blocked with sediment which restricted flow and caused the streams to expand into the surrounding wetland. This expansion has caused extensive flooding events and amounts of sediment and ground debris downstream into Round Creek Site 5 Reservoir. This reservoir was dredged by me in early 2019 to boost its flood control capabilities as the Army Corps of Engineers designed it in the 1960s. In the past 16 months, since Midship begun construction on my property, the reservoir has re-accumulated silt and sediment to levels similar to before the dredging. Currently the reservoir is unable to serve its purpose as a flood control device. Water and sediment that travels into the pond and is now permanently backed up into the nearby wetland and expands considerably after rainfall.

As I discussed with you previously, Midship and Strike have buried several environmental mats, portions of mats and rocks in my soils, which are within the floodplain, within the wetland, and downstream in Larimore Creek approximately 1000 feet east of the easement. The area where the mats discharged downstream have several valuable trees and wildlife that would be affected. All issues above would explain my concerns for granting Midship's contractors off-row. With that being said, I would agree to granting Midship off-row access if the following could be agreed upon:

1. Midship would remove all matting within my soils, which is roughly 20'' deep. Replenish topsoil and establish pre-construction grade after mat removal.

2. Remove all silt and sediment that is blocking up the stream, wetland, and reservoir.
3. Dredge my reservoir and restore my pond to its pre-construction state.
4. Agree to compensate me for any loss of trees, damage to the creek and wildlife.
5. DEQ, OCC, and the FERC personnel and a land owner's representative present during all activities.
6. Provide me with a detailed plan of all work to be performed, and an agreed start date and completion date of all work.

The majority of these stipulation are pretty much standard and I would think Midship would want to abide by them to protect the environment and comply with good construction standards.

Thank you:

Mark Morris

President

Morris Motorsports

4400 South 4th street

Chickasha OK 73023

mmorris@morrismotorsports.com

morrismotorsports.com



SCOTT R. THOMPSON
Executive Director

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY

KYRIL STITT
Governor

11/18/2020

Midship Pipeline
700 Milam Street, Suite 1900
Houston, TX 77002

RE: Complaint number 166571

Dear Adam Vehe:

The Department of Environmental Quality (DEQ) has determined that since this matter is under litigation and access cannot be agreed on, it has been determined that this matter is outside of our agency's jurisdiction. Therefore, this complaint will be closed by our agency.

If we can be of service to you in the future, please do not hesitate to contact us, at (580) 255-6068.

Sincerely,

A handwritten signature in black ink that reads "Jaime Brown". The signature is written in a cursive style.

Jaime Brown
EPS
Duncan DEQ OFFICE

cc: Jennifer Handley, Complaints Manager

Attachment D
Tract Nos. GR-0353.000 and GR-0355.000

NRCS Seeding Guidance



United States Department of Agriculture

October 28, 2016

Andrew J. Chastrow, Director, Environmental and Regulatory Programs
 Capterra Midstream Holdings, Inc.
 260 Milam Street, Suite 1900
 Houston, Texas 77002

Re: Capterra Midstream Holdings, Inc. (20160111) Project

Dear Mr. Chastrow:

This is letter serves as notice regarding the Natural Resource Conservation Service (NRCS) in Oklahoma has been informed of the subject project. NRCS will participate in the pre-filing process by providing requested information regarding biological resources and other pertinent NRCS data to be established in the project area.

Site-specific State Resource Conservation Plan will serve as the NRCS point of contact for this project and will coordinate providing of needed information. Should you be contacted via email at 20160111@ok.aphis.usda.gov or via phone at 405.343.1333.

Resources to be Determined/Requested

- Identification of lands within various landscape initiatives such as the Wetland Reserve Program (WRP) – In order to best determine potential impacts regarding WRP elements, please provide a GIS shapefile with the proposed route of the project.
- Identification of noxious weed species within the Project area – Noxious weeds in Oklahoma include Blue Thistle, Smooth Thistle and Canada Thistle. These are all on the state of Oklahoma's Noxious Weed List. The pre-treatment plan for the species mentioned in the request would be Blue Thistle. All seed products and materials should be free of these species and all equipment that comes into contact with these species should be cleaned before moving onto new sites in order to prevent spread.
- Identification of sensitive soil resources within the Project area – NRCS has responsibility for identification of Prime and Unique Farmlands. As the location and soil will vary across the proposed project area, we will need to know exact locations. In order to best determine potential impacts, please provide a GIS shapefile with the proposed route of the project (same as first bullet).
- Recommendations for re-vegetation seed priorities and application rates – Seed mixtures will vary depending on site conditions. In each case seeding should consider the plant community adjacent to work areas and landowner requests and objectives (if on private lands). Native grass plantings would be recommended due to their fast to establish and low maintenance requirements. Attached is a document detailing guidelines for negative plantings following disturbance via disturbance and provide to project sponsor.

If you have any questions regarding the project or if any further assistance is needed, please feel free to work directly with Ms. Gregory as noted above.

Sincerely,

Gary C. Hall
 State Conservationist

Enclosure – Vegetating Disturbed Site Guidelines

Natural Resources Conservation Service
 100 USDA, Suite 308
 Oklahoma, OK 73174-0308
 Tulsa (405) 742-1294 • Fax (405) 742-1211
 An Equal Opportunity Provider, Employer, and Lender

Vegetating Disturbed Sites



20201125-5099 - 11/25/2020 - 11/25/2020 - 11/25/2020



The following guidelines were developed to aid in re-vegetation of disturbed sites (i.e. pipelines, utility works, transmission lines). These are only recommendations based on NRCS practice standards that have shown to have high levels of success.

Seed Mixtures will vary depending on site conditions, so best results are based on site by site conditions and design. In such cases seeding should consider the soils type, landscape location, the plant community that existed prior to disturbance, the goals of recovery (species to be restored) and the owner's requests and objectives (if on private lands).

Native grass plantings would be recommended due to benefits to wildlife and low maintenance requirements. Species selection should be reflected based on site and area of application. Table 1 provides seeding guidance for developing seeding mixes based on specific sites for the project areas in Oklahoma. Seeding dates should be from December 1 to June 15, with the windows of March and April being the optimum dates. If site conditions or adjacent plant community do not warrant native grass plantings, then introduced species may be considered. Refer to Table 2 for recommendations for introduced plants.

EMERGENCY CONSIDERATIONS

If seeding cannot be accomplished within the specified planting dates, options should be considered to provide for temporary cover and proper planning zones. Options may include:

1. Planting a temporary cover crop including small grains such as wheat (avoid use as they may inhibit seedling germination due to allelopathy) or clover (avoid use unless soil conditions will favor). Temporary covers will require termination with herbicide prior to planting permanent vegetation unless species are planted that self-terminate with frost.
2. Mowing and/or use of hay mulch with adequate amounts of stems and leaf material that results in longevity to last through the dormant winter period, control erosion and help maintain moisture in soil in plant establishment. Recommended sources include: avoid using highly erodible straw (avoid hay), rhyolite will produce to control invasive (i.e. old world bluestem) or noxious species (i.e. must hards). Mulch also will be applied to a more evenly continuous uniform cover of uniform thickness, mass, or

minimum of 20% of the soil surface covered and achieved by crimping, planting in a depth of 2 inches. Mulching should be done on the contour for areas with slopes and where runoff can occur.

- 3. Combination of corn 1 and 2 can provide multiple benefits.

NRCS does not recommend planting outside of established planting dates unless weather total water can be applied readily with established or first frost. If planting is done outside established planting dates, much smaller crops or no-till crops should be included. Seeding rates of crops should be reduced as to not compete for moisture. This will provide soil coverage for erosion control, conserve moisture and suppress weeds. Consideration must be given to use of covers that are used at some time as planting parameters in regards to tillage. It may be difficult as weeds may also have to have some time to germinate early enough to have some season growth in spring is critical.

In all cases, the use of mulch immediately following planting of perennial vegetation should be considered for erosion control in sensitive watersheds and riparian habitat.

Soilbed Preparation

Prepare seedbeds by any method that will result in a loose, smooth, firm seed bed without excessive compaction, heavy, lumpy seedbeds, excessive and without compaction layers (claypan or hardpan). The seedbed is considered firm when you can walk on it without feeling more than 1/2 inch (1.3 cm) of bounce.

When erosion is not a concern, conventional tillage resulting in a loose seedbed, smooth seedbed can be used. Plowing of the seedbed may be needed after tillage operations by rolling or cultipacking prior to planting.

Seedbeds with minimal or no tillage can be used where cover crops are needed, where erosion is of concern, if the conditions may cause tilage or to reduce compaction in critical areas. Plowing into previous crop residues (chop or strip) may not work well due to difficulty for cover seedlings to establish, due to an allelopathic effect and limitation to proper growth stage will be needed. Chemicals can be used without additional tillage to reduce existing vegetation and leave mulch to hold into. If residues are heavy, remove some by grading or tilling or use burning slowly after harvest to pull more of it in contact with the soil surface to speed decomposition. Additional weed control may be required to suppress nearby competition.

Seedbed Methods

Planting methods will be selected based plant to the proper depth on being seed or planting material will contact soil and seed anchors and be firm around the seed or planting material.

Row crop seeds and other bulky seeds need soil be seeded with a grain drill equipped with double disc or similar furrow opener with double bands and press wheels, cultipacker, or drag chains. Seed should be planted 1/2 to 3/4 inch deep.

Legumes and species with small seed should be planted through a legume seed box or other drill equipped to handle small seeds.

Grain drills to plant high cover (no-till) should have the capability to create proper placement of the seed into the soil and firming of soil after placement.

Conventional seedbeds should only be used with prepared (b-c) seedbeds. Cultipacking, rolling, light disking with disk or point scraper, drag chains, or other suitable method to ensure good seed contact with soil is generally needed and preferred following broadcast seeding.

Seeding of burndown grass will be done with traditional seeding equipment into a well prepared no-till seedbed. No-till seeding is a option when access is a concern, although special no-till equipment will be needed. Springs shall be placed 3 inches deep with new spacing not to exceed 20 inches for pasture plantings and 24 inches for annual crop seedings. Springs shall be well distributed in rows and not more than 10 inches apart.

Seed and Fertilizer Application

This option can be used whenever the use of typical planting equipment is not feasible or practical based on site conditions (i.e. shallow, rocky, steep slopes, etc.)

Seeds shall be 100% seed treat or a 100% blend of wood fiber and recycled paper. Treatments shall be applied at manufacturers' recommended rates. Recommended rates:

- (a) A maximum mulch rate of 3,000 lbs per acre will be used on slopes steeper than 3:1
- (b) A maximum mulch rate of 3,500 lbs per acre will be used on slopes steeper than 3:1

Hydro-seeding will be applied in case of the following manner:

One-step Application- Used when seeded in good and clean soil, seeds and adjuvant ingredients (fertilizer, tackifier, fertilizer, seed, and water) shall be mixed in a homogeneous slurry. It is applied in a one-step application. Seed shall be added just prior to application to prevent seed clogging.

Two-step Application- Is used, mix the seed, fertilizer and enough fiber mulch to uniformly cover the application rate and uniformly. Immediately after the seeding application, apply the fiber mulch and fertilizer slurry uniformly over the seeded area at the rates specified in Item (b) above.

Seed Quality and Certification

All seed and planting materials shall meet state quality standards. All seed analyses will be conducted in accordance with the Oklahoma Seed Law and Rules which specify the form and amount of seed analysis permitted. The requirements for a complete analysis report are labeling of analysis to include purity, germination, state of seed, percentage test, and seed content. The germination test used to determine PLG is valid for 6 months after the end of the month the test was made so long as the seed remains in Oklahoma. When seed is purchased and shipped across state lines, the germination test is valid for 6 months after the end of the month in which it was made, according to Federal Seed Law.

If the seed is to be planted later than the normal seed test, a new germination test shall be obtained.

Seed should not contain any toxic identification (marks) (i.e. markers, herbicide or sodium waste (i.e. metal salts))

Fertilizer

All grave plantings done on disturbed sites should be fertilized based on current soil test if feasible. If not, a fertilizer application of 40 lbs/acre N-40 lbs/acre P-20, and 40 lbs/acre K-20 should be applied.

Table 1. Native Perennial Plants and Grasses adapted statewide. Other native species exist but may be limited due to location. Grasses can include other species when shown to be adapted to the location and soils.

| Species Variety | Full Seed/AC PLU Lbs* | Max % in Mixture | Max Est. In Mixture | Comments |
|----------------------------------|-----------------------|------------------|---------------------|----------|
| 1. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 2. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 3. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 4. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 5. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 6. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 7. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 8. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 9. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 10. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 11. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 12. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 13. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 14. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 15. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 16. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 17. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 18. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 19. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 20. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 21. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 22. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 23. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 24. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 25. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 26. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 27. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 28. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 29. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 30. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 31. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 32. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 33. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 34. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 35. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 36. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 37. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 38. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 39. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 40. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 41. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 42. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 43. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 44. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 45. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 46. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 47. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 48. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 49. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 50. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 51. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 52. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 53. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 54. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 55. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 56. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 57. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 58. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 59. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 60. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 61. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 62. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 63. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 64. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 65. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 66. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 67. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 68. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 69. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 70. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 71. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 72. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 73. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 74. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 75. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 76. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 77. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 78. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 79. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 80. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 81. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 82. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 83. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 84. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 85. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 86. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 87. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 88. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 89. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 90. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 91. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 92. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 93. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 94. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 95. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 96. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 97. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 98. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 99. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |
| 100. <i>Andropogon scoparius</i> | 12 | 40 | 1200 | |

*If hydroseeding/hydroseeding - rates should be increased by 150-200%

Calculating Seedling Mixture

In order to compute seeding rates for mixtures, decrease the given Full Seeding Rate for individual species proportional to the percentage of the species desired in the mix. Example:

| Species | Full Seeding Rate | % of Mix | Full PLU/AC |
|----------------------|-------------------|----------|-------------|
| Andropogon scoparius | 12 | 30 | 37 |
| Andropogon scoparius | 12 | 30 | 37 |
| Andropogon scoparius | 12 | 30 | 37 |
| Andropogon scoparius | 12 | 30 | 37 |
| Andropogon scoparius | 12 | 30 | 37 |
| TOTAL | | 100 | 120 |

Table 2. Introduced species

| Species | Order/An. | Planting dates | Remarks |
|--|----------------|---------------------------------------|---|
| bermudagrass spike (Greenfield) Wetland, Oak, Dutch local "common" | 80-85 lbs. | Dec. 1 - June 15 | Adapted to >25 inch rainfall belt |
| bermudagrass - seeded species 'Suymer' 'Kinglet' 'Cherokee' | 8 lbs. PLB | April 15 - June 15 | not on shallow, clayey soils Dates are very important due to reliance on temperatures for germination and early growth. |
| tall fescue | 30 lbs. PLB | Sept. 1 - Oct. 31 Mar. 1 - Apr. 30 | Best of 1-88; pH of 5.0 - 6.0 is optimal. Can be used on rather acid in central part of plate. Not adapted to deep sands. Erosion-control fescues are more hardy than non-erect fescues in acid soils. Can be invasive and more difficult. |
| sweeping begrass | 4 lbs. PLB | Last frost until June 15 | Bestness 2/3 of state. |

CRITERIA FOR DETERMINING STAND ESTABLISHMENT

Introduced grasses and legumes: Usually establish within first growing season. An exception may be observed in
situations which may take 2 years. All other species should be established at end of first growing season. If plants
straggled and died due to frost or drought, evaluations can be made during first growing season.

Native plants: Native grasses and legumes may take more than one growing season to establish and should
not be considered a failure until after the second season. If plants straggled and died due to frost or drought,
evaluations can be made following first growing season.

Number of plants per square foot

Technique should be similar to representative areas of the field and soil conditions. One hundred percent, 2 - 3
square feet with one-foot square quadrats are recommended for recording the plant counts. Count the total number
of plants occurring within the quadrats and divide by 100 to get the number of plants per square foot. More than one
species may be present on large fields because stand establishment is not uniform. Examine those areas of the
planted area that do not meet establishment criteria.

For sipped bermudagrass, pick several areas in the field and count number of live plants found along 100 feet of row.

| SPECIES | Live plants uniformly distributed - Average number per square foot | | |
|----------------------------------|--|--|--------------------------------------|
| | Failure | Questionable / Marginal | Acceptable / Satisfactory |
| Sweeping beggrass, tall fescue | 0 - 0.5 | 0.5 - 1.0 | >1.0 |
| Other seeded grasses and legumes | 0 - 0.5 | 0.5 - 1 | >1.0 |
| Sipped bermudagrass | < 5 live plants per 100 feet of row | 5 - 10 live plants per 100 feet of row | > 10 live plants per 100 feet of row |

Document Content(s)

MSP_112520.PDF.....1

Attachment 12.1

Midship's Response to FERC's Request to Provide a Restoration Plan on Sandy Creek Farms' Property



November 25, 2020

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

Re: Midship Pipeline Company, LLC
Restoration Assessment Plan for Sandy Creek Farms, Inc. (MP 71.14 – 72.23)
Tracts GR-0336.000, 0338.000, 0340.000, 0340.010
Docket No. CP17-458-000

Dear Ms. Bose:

On August 13, 2018, the Federal Energy Regulatory Commission (“FERC” or “Commission”) issued its Order Issuing Certificate (“Certificate Order”),¹ as amended,² in the above-referenced proceeding to Midship Pipeline Company, LLC (“Midship”) for the Midship Pipeline Project (“Midship Pipeline” or “Project”). The Project facilities were constructed and placed in service on April 21, 2020.

On November 18, 2020, the Director of the Division of Gas – Environment and Engineering, issued a letter (“November 18 Letter”) regarding correspondence dated October 2, 2020, received from a landowner, Mr. Ken Barrington (the “Landowner”), as well as correspondence from Central Land Consulting, LLC (“CLC”) representing the Landowner dated October 9, 2020 (“CLC Letter”) pertaining to post-construction concerns on the above-referenced tracts owned by the Landowner. As detailed in the CLC Letter as well as the November 18 Letter, the Landowner’s concerns include (i) buried construction debris remaining within the Midship Pipeline right-of-way (“ROW”); (ii) ponding on the ROW where the preconstruction contours have not been restored; (iii) importing topsoil onto the Landowner’s property; and (iv) electric line impacts (collectively, the “Landowner Claims”). The November 18 Letter directed Midship to file a restoration assessment plan to investigate the Landowner Claims. Midship is herein providing a response to each of these claims below

Claim 1: Buried Construction Debris

The Landowner claims that Midship left construction debris on the ROW and that the ROW has not been restored to pre-construction contours and elevations. Midship’s contractor mobilized to the property in July 2020 to remove construction debris from the ROW. In August 2020, the Landowner excavated in the area of a waterline within Midship’s easement and discovered additional construction buried below the surface. In October 2020, Midship deployed a new contractor to the property to conduct additional restoration work including debris removal and regrading of the ROW. This work was completed on November 6, 2020, as noted in Midship’s weekly restoration report for this period.

On November 16, 2020, the Landowner submitted a One-Call request that was forwarded to Midship Operations to conduct additional digging in the vicinity of the Midship Pipeline. Midship Operations was onsite to observe the Landowner activities and during this time, additional construction debris was found

¹ *Midship Pipeline Company, LLC*, 164 FERC ¶ 61,103 (2018).

² The Certificate has been amended three times: on January 25, 2019 in Docket No. CP19-17-000, on September 6, 2019 in Docket No. CP17-458-000, and on December 20, 2019 in Docket No. CP17-458-005. *Midship Pipeline Company, LLC*, 166 FERC ¶ 62,039 (2019); *Midship Pipeline Company, LLC*, 168 FERC ¶ 61,147 (2019); *Midship Pipeline Company, LLC*, 168 FERC ¶ 61,147 (2020).

Ms. Kimberly Bose
November 25, 2020
Page 2

at a depth of approximately 4 to 6 feet below the surface. Midship Operations excavated the Midship Pipeline using a hydrovac in order to inspect the line. During this inspection, no gas was detected at any location along the exposed line, and no damage was observed to the pipeline. Midship backfilled the excavation of the pipeline with dry backfill material brought in on small buggies via the ROW and the work was done by hand as the Landowner would not allow Midship to use his road to bring material or equipment in to restore the ROW. Midship Operations will continue to monitor the area for any further needed work in the event that the backfill compacts and additional fill is needed to correct for low spots on this excavation.

The Landowner has left his excavation sites open and Midship Operations will continue to monitor these locations for conditions that could endanger the pipeline through loss of supporting material or washouts on the ROW. Midship is not aware of any additional buried construction debris on the Landowner's property and will work with the Landowner to address removal of any additional construction debris should additional material be found. Please refer to the photographs of the property included in **Attachment A**.

Claims 2 and 3: Ponding on the ROW and Importing Topsoil

During the spring and summer of 2019, when construction of the Midship Pipeline was underway, the Project area experienced unprecedented rain events which caused extensive flooding. Wherever possible following these rain events, Midship construction crews retrieved the soil that was washed off ROW and returned it to the soil piles for use during restoration. Additionally, during construction of the Midship Pipeline across the subject property, construction contractors inadvertently cut a waterline which runs across the easement. The combination of extreme weather events and the flooding caused by the breached waterline resulted in a loss of soil which, in turn, caused ponding.

Midship made numerous attempts to gain access to the property to repair the waterline over the past year, however, the Landowner refused access. In October 2020, Midship was able to deploy a contractor to the property to repair and replace the line. The Landowner has tested the restored waterline and no leaks have been detected. Midship completed on November 6, 2020, as noted in Midship's weekly restoration report for this period.

Midship's contractor has mobilized to the property on multiple occasions to address restoration issues and has re-graded the ROW in an effort to return the location to pre-construction contours and elevations. However, due to the extended period during which the area was flooded, additional soil material is required to address the low areas that have resulted in ponding. To date, given pending civil litigation between Midship's contractor and the Landowner as to the cause of such flooding, Midship and the Landowner have not been able to reach an agreement on bringing in additional soil to mitigate for soil losses that may have occurred due to the extended period of flooding on the property. Midship is hopeful that the pending litigation may be resolved in the near term so that Midship and the Landowner may work together to develop a plan for additional topsoil to be imported to the property. Midship will continue to keep the Commission informed as to the status of resolution of this issue.

Claim 4: Impacts to Electric Lines

As reflected in the November 18 Letter, the Landowner alleges that the Project impacted certain electric lines on his property during construction. However, neither Midship nor the third-party compliance monitor have been able to substantiate this claim. Moreover, when Midship's contractor attempted to locate the electric lines in the Project area, neither Midship's contractor nor the Landowner were able to

Ms. Kimberly Bose
November 25, 2020
Page 3

do so. Midship located a conduit, but it did not contain any electric lines. Midship replaced the conduit across the easement in conjunction with its repair of a waterline on the property. This work was completed on November 6, 2020, as noted in Midship's weekly restoration report for this period.

Conclusion

Midship is committed to restoration of its ROW to pre-construction conditions. To that end, Midship has removed all construction debris of which it is aware from the Project ROW on the Landowner's property. Midship will continue to communicate with the Landowner and its representatives with respect to the outstanding issues detailed herein and will make all best efforts to resolve the restoration issues with Landowner. Midship will continue to keep the Commission staff informed as to the status of resolution.

Should you have any questions about the instant filing, please feel free to contact the undersigned at (713) 375-5000.

Respectfully submitted,

/s/ Karri Mahmoud

Karri Mahmoud
Director, Environmental and Regulatory Projects
Midship Pipeline Company, LLC

cc: Rich McGuire, Director, Division of Gas-Environment & Engineering

Enclosures

Attachment A

Tract Nos. GR-0336.000, 0338.000, 0340.000, 0340.010

Photos of Barrington Property (Sandy Creek Farms, Inc.)



Maintenance work on Sandy Creek Farms property near MP 72.1 on 11/05/20.



Maintenance work on Sandy Creek Farms property near MP 72.2 on 11/05/20.



Maintenance work on Sandy Creek Farms property near MP 72.2 on 11/06/20.



Excavations by landowner on Nov 18, 2020, construction debris located 4 – 6 feet below surface



Excavations by landowner on Nov 18, 2020, mats located 4 – 4 feet below surface.



Midship Operations completed backfilling over Midship Pipeline on Nov 19, 2020

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 Houston, Texas this 25th day of November, 2020.

/s/ Karri Mahmoud
Karri Mahmoud

Midship Pipeline Company, LLC

Document Content(s)

MSP_112520_Barrington.PDF.....1

Attachment 13

CLC's Response to FERC's Request of Midship to
Provide a Restoration Plan on Sandy Creek Farms'
Property



November 25, 2020

Ms. Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission (FERC)
888 First Street, NE
Washington, D.C. 20426

Docket # CP17-458, CP19-17

Dear Ms. Bose,

On November 18, 2020, Rich McGuire, the Director of the Division of Gas – Environment and Engineering, issued a letter requesting Midship to file a restoration assessment plan to investigate the extent of any electric line impacts, identify the locations of buried construction debris remaining within the right-of-way, and resolve the current ponding on the right-of-way where Midship has failed to return the preconstruction contours.

On November 25 2020 Midship submitted a letter responding to the Director of the Division of Gas – Environment and Engineering letter regarding Sandy Creek Farms Restoration Assessment Plan. In their response several statements are concerning, but still do not address the restoration issues.

Since Rich McGuire's filing, Midship has not made any attempt to contact the landowner to discuss the issues Rich McGuire raises in his letter. Sandy Creek Farms and their representatives have relayed to the FERC and Midship the importance of all parties communicating towards a resolution, but the past few weeks Midship has not attempted any communication with Sandy Creek Farms.

Midship continues to state that they have removed all matting they are aware of, Midship is attempting to remain ignorant in the fact that matting is buried throughout most if not the entire easement. Midship's operations personnel was present during matting excavation and took several photos on the November 16, 2020 digs, which indicates large matting from 3” down to 72”.

With regards to Midship's claims that the landowners have denied them access which resulted them incapable of performing the work, Midship has always had access to the property through the use of their easement and/or authorized access roads. At no point in time has Sandy Creek Farms ever denied Midship access to their authorized workspaces.

Around October 30, 2020, Steve Barrington of Sandy Creek Farms discussed with the FERC's Compliance Monitor about the additional matting that had not been removed and FERC was aware of the issues. Mr. Barrington asked the FERC Compliance Monitor what the next steps would be to remove the rest of the matting. The FERC Compliance Monitor responded that they were working on a resolution.

Central Land Consulting is submitting a response and restoration plan to both the Director of the Division of Gas, Midship, and Congressman Tom Cole.

Please feel free to contact (330) 312-1060 with any question or for further assistance.

Respectfully Submitted,

/s/ Nate Laps

Nate Laps,
President of Operations
Central Land Consulting, LLC

SANDY CREEK FARMS, INC.

GR-0338.000

+/- 5,518.38 Feet of Pipe

+/- 6.33 Acres of Permanent Easement

+/- 7.31 Acres of Temporary Easement

Mile Post: MP 71

Grady County, Oklahoma

Restoration and Revegetation Plan

November 2020



1.0 INTRODUCTION AND BACKGROUND

The Midship Pipeline Company, LLC (Midship) and its contractors began construction activities on Sandy Creek Farms tract GR-0338.000 on or around February 8, 2019. Midship anticipated completion of the entire 233-mile project in six to nine months.

On July 3, 2019, the Commission issued a letter to Midship ([July 3 Letter](#)) requiring that Midship immediately stop work on the remaining segments of the North Spread between mile posts 66 to 119.

Starting in November 2019, Midship repeatedly ruptured an underground waterline causing GR-0338.000 to flood uncontrollably and created approximately 57 acres of off-ROW ponding.

Throughout winter and into spring 2020, the underground waterline was ruptured several additional times and large-scale flooding continued inside and outside the easement on GR-0338.000. Midship dug additional trenches parallel to the pipeline in order to attempt to control the flooding.

In April of 2020, Central Land Consulting (CLC) actively communicated with Rich McGuire, FERC Director of the Division of Gas- Environment & Engineering and brought to his attention many instances of ongoing non-compliant construction actions. CLC relayed documentation of adverse impacts and their concerns to the FERC and emphasized the importance of ensuring that Midship comply with the Environmental Conditions set forth in the FERC Certificate.

On April 16, 2020, 1 day after conducting site inspections with CLC and Midship (including on the Sandy Creek Farms tracts), Mr. McGuire granted Midship's in-service request. In Mr. McGuire's order approving Midship's in-service request he states ***"we note Midship's commitment to employ the necessary crews to complete the remaining clean-up (such as removal of construction debris) and restoration activities (such as reseeding) by mid-May 2020. Midship has also committed to resolve the remaining trench-line subsidence and outstanding restoration activities delayed due to flooding in lower lying areas by June 30, 2020, specifically on the Sandy Creek Farms property near Mainline Milepost 71."***

Construction and restoration activities continued into the spring and summer of 2020. Midship's contractors demobilized from the Sandy Creek Farms tracts at the end of May 2020 due to additional flooding and accessibility issues.

Midship's construction crews remobilized on July 12, 2020 in attempt to remove remaining sections of buried matting; conduct repairs to the waterline and powerline; restore the grade, contours, and drainage patterns; and in general, complete restoration.

At the end of July 2020, dozers, trackhoes, and other heavy equipment became stuck on several occasions approximately 36" deep in the mud, directly above the pipeline. (*See Exh. A – Safety Concerns*).

On August 11, 2020, Midship filed to the FERC that restoration was complete on tract GR-0338.000.

On August 19, 2020, Sandy Creek Farms, with Midship operations personnel present, excavated the waterline area and multiple other locations throughout the Midship easement. During this process, Sandy Creek Farms uncovered large sections of matting, construction debris, and rocks buried throughout the easement. Additionally, the waterline itself had not been properly repaired and was leaking. This information was filed to the FERC docket on August 21, 2020. (*See Exh. A – Restoration Issues*).

On October 15, 2020, Midship remobilized with a new contractor (S&P) to conduct additional restoration work including matting and debris removal, waterline and powerline repairs, and grading work.

Around October 30, 2020, Steve Barrington discussed with the FERC Compliance Monitor about the additional matting that had not been removed. It became clear that FERC was aware Midship had instructed S&P to not remove any buried matting besides what was around the water line or on the surface. Mr. Barrington asked the FERC CM what the plan was with the rest of the matting that had not yet been removed and FERC CM responded that they were working on a resolution.

On November 6, 2020, S&P demobilized from the Sandy Creek Farms tracts and Midship states that restoration work has been completed in a filing on November 18, 2020.

On November 16, 2020, Sandy Creek Farms, with Midship operations personnel present, excavated several additional areas throughout the Midship easement. During this process, Sandy Creek Farms uncovered many additional large sections of matting and construction debris mixed buried into the soils throughout the easement that was not removed during Midship's latest remobilization to the Sandy Creek Farms tracts. (*See Exh. A – Restoration Issues*).

Midship and its contractors have been actively working on the Sandy Creek Farms tracts for approximately 21 months. Midship construction crews initially ruptured the 8" waterline that connects to all four center-pivots in August 2019. Since then, Midship's construction crews have ruptured the waterline a total of six separate times, in part, leading to the flooding, soil loss, compaction, widespread use of matting, and condition that the property is currently in. Throughout the entire duration of construction, and currently, neither water nor power has been able to be sent to the 4 center-pivot irrigation systems that produce hundreds of acres of high-quality equine Bermudagrass hay.

Sandy Creek Farms and CLC have conducted testing and have performed site inspections to determine restoration. In these findings, there is clear evidence that the easement area has not been restored and is extremely rutted and saturated with mats infested throughout the soils, and the grade is several feet off. As fall approached, the banks of Sandy Creek began to slip and the drainage issues increased. Currently, the tract is in even worse condition than before.

The outstanding issues are:

1. Easement area throughout GR-0338.000 is extremely compacted, rutted, wet, with the pre-construction grade is off by approximately 24" - 36" in depth.
 - Easement is compacted and vegetation is visually impaired.
 - Topsoil depths on-ROW average approximately 4" deep.
 - Topsoil depths off-ROW average approximately 27" deep.
2. Blasting activities were performed on tract GR-0336.000 and GR-0338.000. Blasting rocks, material, and debris are scattered and buried into the upper 12" of soils.
 - Blasting rock found during our recent site inspection indicate rock material size ranges from 6" to 33" in diameter.
 - Large blasting debris found near the waterline.
3. High levels of construction debris, matting, metal spikes, rebar, shovels, trash, and other materials are buried into the soil surface within the upper 24" and have been found as deep as 60".
 - Matting sections range from 8" up to 96" (8 feet).
 - Matting and rebar up buried up to 60" deep and scattered throughout.
 - Matting has been found starting as shallow as 3" and as deep as 60".

2.0 FURTHER IMPACTS IF MIDSHIP REMOBILIZES TO TRACT GR-0338.000

Midship has been actively working on construction and restoration since February 2019. Several attempts have been made by Midship to restore the tract to near its pre-construction condition. Multiple attempts at remobilizing by Midship's contractors consisted only of minor surface cleanup, while attempting to downplay or ignore the bigger issues on the property. The construction crews have relayed to the landowners, and demonstrated by the work conducted, that any excavating, mat removal, or extensive restoration will not be performed deeper than 6 inches, including deep ripping to alleviate soil compaction. Midship had six months of dry summer and fall weather to conduct their restoration activities, yet no substantive work was accomplished.

There are concerns of stress being exerted onto the pipeline due to the repeated and ongoing mobilizations and heavy equipment operations with matting buried throughout the easement and trenchline. Due to the widespread presence of buried matting, Midship's contractors would need to excavate and remove *all* matting and construction debris, up to 60" below the surface from what Sandy Creek Farms has found, all while the pipeline is in service.

Deep ripping would need to be performed in dry conditions, preferably during the summer months, which would mean construction and restoration would be ongoing for another six or seven months, resulting in further adverse impacts to the soils and the landowner's ability to farm the easement.

If Midship decided to attempt another remobilization to restore the property, they would be required to submit a winter construction and restoration plan. The winter construction and restoration plan would address winter construction procedures, snow handling and removal, access road construction and maintenance, soil handling under saturated or frozen conditions, topsoil stripping, stabilization and monitoring procedures if ground conditions will delay restoration until the following spring, mulching and erosion controls, inspection and reporting, storm water control during spring thaw conditions, final restoration procedures, subsidence and compaction repair, topsoil replacement, seeding methodology, among other things. (*See Exhibit B*).

Below is a list of concerns that Sandy Creek Farms has if Midship continues to remobilize.

- There are concerns of stress being exerted onto the pipeline due to the repeated and ongoing mobilizations and heavy equipment operations with matting buried throughout the easement and trenchline.
- Deep ripping would need to be performed in dry conditions, preferably during the summer months, which would mean construction and restoration would be ongoing for another six or seven months, resulting in further adverse impacts to the soils and the landowner's ability to farm the easement.
- If Midship decided to attempt another remobilization to restore the property, they would be required to submit a winter construction and restoration plan.
- Exposed and unrestored soils will continue to result in excessive and uncontrolled erosion and soil loss.

3.0 LANDOWNER SELF-PERFORMANCE

Sandy Creek Farms feels that the solution to these problems is for them to self-perform the final restoration. Due to the repeated unsuccessful remobilizations from Midship's contractor, coupled with Sandy Creek Farms' unlimited access to all necessary resources, such as off-ROW soils and physical access, it would be far more productive and efficient for Sandy Creek Farms to self-perform the work. The matting and construction debris removal would be an extensive process, likely requiring several months, and would be performed throughout the upper 36" of soils outside of the pipeline tolerance zone. Where necessary inside the pipeline's tolerance zone, excavation will be done by using hand tools. Once all matting and construction debris has been removed, Sandy Creek Farms would need to properly dispose of it. This would involve either utilizing a waste pick up service or hauling it to an appropriate waste site. Additionally, after matting and construction debris has been removed, it is likely that the lost volume of the matting will cause the easement to lose a considerable amount of depth, compared to outside the easement. However, Sandy Creek Farms would have the resources to re-establish and smooth the grade five hundred feet to the east and west of the easement and strip small portions of topsoil onto the easement area to match the grade and fill low spots.

Below is a list of restoration-related advantages that will aid in Sandy Creek Farms' restoration of the easement.

- Unlimited access to areas beyond the easement.
- Unlimited access to soils and ability to level the grade beyond the easement.
- Access to build erosion and runoff controls beyond the easement.
- Extensive matting removal up to 36" deep.

4.0 LANDOWNER RESTORATION PROCEDURES

1. WINTERIZATION AND STABILIZING EXPOSED SOILS (IF WORK CANNOT BE PERFORMED UNTIL SPRING)

- a. Drill in winter wheat and install silt fencing, straw bales, slope breakers, or berms, as necessary, to protect sensitive resources.
- b. Apply mulch, as needed, to inhibit erosion of exposed soils.
- c. Install terraces off-ROW paralleling the easement to intersect the drainage patterns and waterways. This method will control and inhibit storm water runoff from entering the easement and guard against excessive erosion that could lead to excessive of topsoil loss.

2. RESTORATION OF SANDY CREEK

- a. Per NRCS recommendations, import 2,610 cubic yards of embankment material, restore the dam west of Sandy Creek and install a 105-foot 24" steel pipe in place of the 15" drain outlet.
- b. Sandy Creek bank remediation by installing 24" drain outlet at an angle from the SW to NE. Sandy Creek flows South to North and the drain outlet will have to discharge storm water with the natural flow of water rather than against it, as it is currently placed.
- c. Install a 60" x 60" anti-seepage collar on the outlet side of the creek bank around the drain outlet to inhibit erosion and movement of the drain pipe.
- d. Tree removal where the creek bank has slipped and timber has fallen into the creek.
- e. Fill in low spots on the northern portion of the creek bank and remove all rip rap after 24" drain outlet is properly re-installed.

3. MATTING AND CONSTRUCTION REMOVAL

- a. Sandy Creek Farms will methodically remove matting and construction debris that is buried inside the right-of-way. The easement will be excavated in sections to minimize the risks of having soils exposed for long periods of time.
- b. All excavation and digging will be performed after the OKIE One Call tickets are approved, the pipeline is flagged, and Midship operations personnel is on site. Environmental matting removal will be performed by carefully excavating and removing mat sections digging approximately 36" deep, parallel to the pipeline, outside the tolerance zone. Where necessary inside the pipeline's tolerance zone, excavation will be done by using hand tools. Smaller materials and construction debris that is noticeable, such as wood fragments, trash, and rebar, will be screened and removed.

4. DISPOSAL OF EXCAVATED MATERIALS

- a. Once all matting and construction debris has been removed, Sandy Creek Farms will need to properly dispose of it. This would involve either utilizing a waste pick up service or hauling it to an appropriate waste site. Weight of excavated debris and matting is expected to be in the realm of 75 to 100 tons.

5. IRRIGATION RESTORATION

- a. Area of waterline crossing will be excavated and reinforced with a foam bridge or other support device to avoid further settlement.
- b. Existing settlement at waterline crossing will be filled in with topsoil once waterline area is backfilled.
- c. Replace electric power line with 350 MCM wiring. Approximately 6,000 feet to connect all four center-pivots.

6. LAND LEVELING

- a. Land leveling will be performed by a laser pan and will require leveling approximately 500' east and west of the easement. This process will involve stripping approximately 2" - 4" of topsoil onto the right-of-way by automatic GPS grade controls with in-the-field design change capabilities.
- b. Approximately 71,500 cubic yards of soil will be needed to smooth grade and fill in lost volume once all matting has been removed. This volume includes SCF's other tracts with respect to land leveling.

7. GRADE, CONTOUR, AND SURFACE DRAINAGE RE-ESTABLISHMENT

- a. Once easement has been leveled to match proximate off-ROW areas, any remaining low spots will need to be filled with imported topsoil of local origin and similar texture.
- b. Grade the construction right-of-way and adjoining off-ROW areas to restore pre-construction drainage patterns and leave the soil in the proper condition for planting.
- c. Re-establish all five drainage patterns to restore proper drainage flow across the irrigated Bermuda fields.

8. SOIL DECOMPACTION

- a. After all excavation, dirt work, and contouring is complete, deep ripping will be performed (weather permitting, dry conditions required).
- b. The deep ripper of choice is the Big Ox 20" 3-shank deep ripper, which will alleviate compaction throughout the topsoil and subsoil up to 20" deep.

9. RESEEDING / HYDROSEEDING

- a. Burn the fields, weather permitting, to kill off any weed seeds and clean the field off.
- b. Late February will need a pre-emergent sprayed throughout field and easement.
- c. Approximately 500 lbs/acre of nitrogen will be applied 7 – 10 day before and after Bermudagrass is planted.
- d. Plant Bermudagrass in March of 2021.
- e. Up to 24 months of supplemental mitigative measures may be required for Bermudagrass to reach full production.

10. MAINTENANCE AND RESTORING SOIL SETTLING

- a. It is expected to see soil subsidence and settlement throughout the easement, especially in the trenchline and where large amounts of matting and debris has been removed. In the case that future subsidence needs to be addressed, additional topsoil will be stripped from outside the right-of-way or imported to mitigate any settling or fill low spots.

11. EQUIPMENT REQUIRED TO CONDUCT RESTORATION WORK

- Single Axle Dump Truck
- Tandem Axle Dump Truck
- Semi with Dump Trailer
- Semi with 3 Axle Lowboy
- Bobcat 335 Mini Excavator
- Bobcat 335 Mini Excavator with Mower
- 160clc John Deere Excavator
- 330clc John Deere Excavator
- EC250 Volvo 65-Foot-Long Reach Excavator
- 333d John Deere Track Skid Steer
- 33d John Deere Track Skid Steer with Mower
- John Deere 650h Dozer
- TD15c Dresser Dozer
- Hydromaxx Farm Drainage Trencher

5.0 LIABILITY AND WARRANT OF RESTORATION AND REVEGETATION

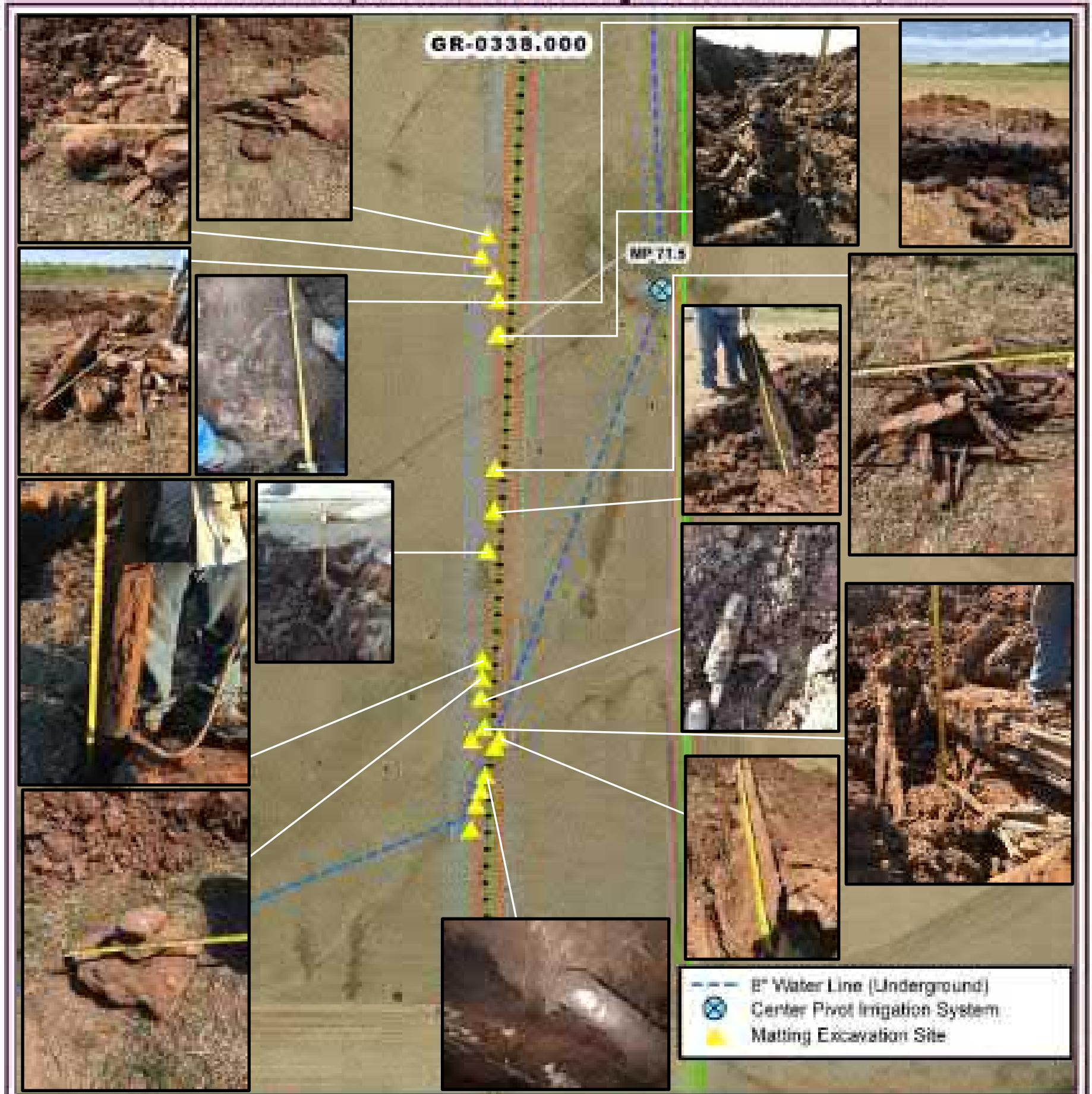
It is our understanding that the FERC and Midship have concerns that if the landowner self-performs the work, Midship would, under FERC, remain liable for the condition of the property and all final restoration. The tract is located in an isolated rural area with several creeks and streams to the north and south. However, Sandy Creek Farms is confident, with the hundreds of acres they own, their expansive operation of irrigated Bermuda hay equipped with advanced farming equipment, that they would be able to complete the work both efficiently and thoroughly.

Sandy Creek Farms, with some help from their local contractors, would be able to conduct the work and take liability and warrant the restoration and revegetation of the tract. If Midship will work with Sandy Creek Farms to compensate for all costs associated with successful restoration of the property, Sandy Creek Farms will take liability in restoring the tract. Once restoration has been completed by Sandy Creek Farms, they will notify FERC to conduct a final inspection of the property to ensure that all restorative measures have been met.

Exhibit A

Documentation of Ongoing Restoration Issues and Safety Concerns on GR-0338.000

Exhibit Prepared For Sandy Creek Farms, Inc



Midship Pipeline
 Sandy Creek Farms Property Line
 Permanent Easement
 Temporary Workspace
 Additional Temporary Workspace

September 2020

Exhibit Prepared For
SANDY CREEK FARMS INC.
 PO Box 128
 Bradley, OK 73011
 0000-00-04H-00W-4-001-00
 277.24 Acres Total
 GR-0338.000
 13.64 Acres of ROW
 Grady County, Oklahoma
 Midship Mile Post 71 - 72

Exhibit Details

Notes

Central Land Consulting, LLC
 1000 S. Broadway
 Oklahoma City, OK 73101
 405-241-0000
 www.central-land.com
 All rights reserved. This document is the property of Central Land Consulting, LLC. It is not to be used for any other purpose without the written consent of Central Land Consulting, LLC.

On November 16, 2020 the Landowners Verified Several Large Sections of Matting Were Found in the Topsoil and as Deep as 60”



Large Sections of Matting Were Found in Several Locations North and South on Tract # GR-0338



**Large Sections of Matting Were Found in Several Locations
North and South on Tract # GR-0338**



November 16, 2020

**Sections of Matting and
Construction Debris**



November 16, 2020

**Flooded Easement Due to the Altered Grade and Drainage
Issues the Will Need Remediated On and Off ROW**



**Flooded Easement Due to the Altered Grade and Drainage Issues
the Will Need Remediated On and Off ROW**



**Sections of the Sandy Creek Bank Have Slipped Causing Erosion
and Timber is Falling into the Creek. The Drainage has Been Altered
Causing Consistent Runoff**



**Excessive Erosion Patterns Have Been Created Causing Stormwater
Runoff and Drainage Issues**



Sandy Creek Farms Tract GR-0338.000

Photos of Safety Concerns in Support of SCF Conducting Final Restoration



July 24, 2010 Video Screenshot



July 14, 2020 Video Screenshot

Exhibit B

NRCS Guidance on Restoration of Construction Sites

Vegetating Disturbed Sites



NRCS - National Resource Conservation Service



The following guidelines were developed to aid in re-vegetation of disturbed sites (i.e., pipelines, lease roads, roadways or lines). These are only recommendations based on NRCS practice standards that have shown to have high levels of success.

Seed mixes will vary depending on site conditions, so best results are based on site by site evaluations and design. In each case seeding should consider soil types, landscape context, the plant community that occurs prior to disturbance, the plant community adjacent to work areas and landowner requests and objectives (if an adjacent party).

Native grass plantings would be recommended due to benefits to wildlife and low maintenance requirements. Species selection should be selected based on site soil area of application. Table 1 provides seeding guidelines for developing seedling mixes based on specific sites for the project area in Oklahoma. Seeding dates should be from December 1 to June 15 with the months of March and April being the optimum dates. If the conditions or adjacent plant community do not warrant soil as grass plantings, then introduced grasses may be considered. Refer to Table 2 for resource selections for introduced plants.

Temporary Cover / Mulch

Seeding cannot be accomplished within the specified planting dates, systems should be considered to provide for temporary cover until grass planting begins. Options may include:

1. Placing a temporary cover crop including small grains such as wheat (avoid species they may inhibit seedling germination due to allelopathy) or brown top millet (typically will terminate soil frost). Temporary covers will require termination with chemicals prior to planting perennial vegetation unless species are planted that self-seed from seed bank.
2. Mulching consists of use of hay materials with adequate amounts of stems and leaf material that results in longevity as well through the winter combination period, so that erosion and deep erosion material go out in plant establishment. Recommended sources include native prairie hay or wheat straw. Avoid hay or mulches with gophers or to contain livestock (i.e., old world livestock) or common species (e.g., sunflower). Mulch should be applied in a reasonably continuous broken cover of uniform thickness, equal to a

minerals of both of one soil surface covered and enriched by carrying planting at a depth of 2 to 3 inches. Seeding should be done on the contour for erosion with a basin and when a runoff can occur.

- 3) Combinations of both 1 and 2 can provide multiple benefits.

MCRTS does not recommend planting outside of established planting depths of 10000-15000 seedlings per acre. If planting is done outside established planting dates, much seedling coverage should be included. Seeding rates of some seeds should be reduced as the soil erodes for seedlings. This will provide soil coverage for erosion control, conserve seedlings and suppress weeds. Consideration should be given to use of cover crop and other soil conservation practices in regard to erosion control. It may be difficult as methods may also have a negative impact on the soil. Seeding early enough before winter season species begin growth in spring is critical.

In all cases, the use of such temporary covering planting of permanent vegetation should be considered to erosion control as a resource maintenance and improvement device.

Soilbed Preparation

Produce seedbeds by any method that will result in a firm, smooth, firm seedbed without excessive soil surface cover, herbicide residue and other contaminants (plastic or mulch). The seedbed is considered firm when you can walk on it without sinking more than 1/2 inch (1/2 inch).

When erosion is not a serious concern, conventional tillage practices such as moldboard, or other methods can be used for planting or pre-planting as long as necessary after tillage operations are completed or subsoiling prior to planting.

Soilbeds with erosion or no erosion can be used where cover-crops are needed. Where erosion is of concern, a no-till seedbed with no-till or no-till subsoiler in mid areas. Planting in no-till areas may require (primary) cover, till and cover may cause difficulty for cover establishment. There is an allelopathic effect and termination is proper growth stage will be needed. Cover-crops can be used without additional tillage to suppress existing vegetation and have a high to seed into. If residues are heavy, remove cover by mowing or haying or use herbicide shortly after harvest or before it is planted with the soil. Reduced speed cover operations. Add local weed control may be required to suppress weed competition.

Planting Methods

Planting methods will be selected that plant to the proper depth, ensure seed or planting material will contact soil and provide uniform seed distribution around the seed or planting material.

When no erosion and other fully grown seed not be needed with a grain drill equipped with double disk or similar in-row opener with double bands and press wheels, cathead, or drag chains. Seed should be planted 2 1/2 to 3 inches deep.

Legumes and species with small seeds should be planted through a legume seed box or other drill equipped in-row planter mode.

Drill used to plant (no-till) should have the capability to ensure proper placement of the seed into the soil and firming of soil after placement.

Broadcast seeding should only be used with prepared (1) or (2) seedbeds. Subsoiling, rolling, light disking with disks pulled straight, drag chains or other methods is necessary to ensure good seed contact with soil to completely reduce soil profile to help broadcast seeding.

Spacing of cover-crops will be done with traditional spacing equipment has a fixed seedbed. No-till spacing is an option when erosion is a concern. A single spaced no-till spacing method will be needed. Spacing should be done 1 to 2 inches deep with power seeding not to exceed 40 inches for pasture plantings and 24 inches for critical areas. Spacing - Spacing shall be well distributed in rows and not more than 10 inches apart.

Hydroseeding / Hydro mulching

This system can be used where use of typical planting equipment is not feasible or impractical based on site conditions (i.e. shallow, rocky, steep slopes, etc.)

1) All seed shall be 100% tested at least once 70 days before use of wood chips and recycled paper. The biter shall be applied at manufacturers' recommended rates. Recommended rates:

- 1) A rate of 100 lbs (45 kg) of seed per acre will be used on slopes steeper than 3:1
- 2) A rate of 75 lbs (34 kg) of seed per acre will be used on slopes 2:1 or shallower

Hydroseeding will be applied in one of the following manner:

One-step Application: Used when conditions are good and there is little, sparse and existing vegetation. Mulch, fertilizer, lime, and water shall be blended to a homogeneous slurry, and applied in a one-step application. Seed shall be added just prior to application to prevent seed loss.

Two-step Application: Is used, whether seed, fertilizer and lime are to be applied to existing or new applications. Immediately after the seed is applied, apply the lime, fertilizer and mulch slurry uniformly over the seeded area at the rates specified in item 1) above.

Seed Certification (Full label)

All seed and planting materials shall meet state quality standards. All seed analyses will be conducted in accordance with the Oklahoma Seed Law and Rules which specify the tests and amounts of tested seeds purchased. The requirements for a contract of analysis report and labeling of all seeds to show the purity, germination, crop of seed, germination test, and actual analysis. The germination test shall be determined (PUB) at a lab for 6 months after the seed is planted. The test will be made so long as the seed remains in Oklahoma. When seed is purchased and shipped across state lines, the germination test is valid for 6 months after the date of first purchase in the state of Oklahoma, according to Federal Seed Law.

When seed is to be planted in or from the current seed test, a new germination test shall be obtained.

Seed should not contain any (1) herbicide, (2) insecticide, (3) fungicide, (4) or other toxic substances (i.e. must be safe).

Fertilizer

All grass plantings done on a disturbed area should be fertilized based on current soil test of phosphorus. If soil is deficient, application of 40 lbs/ac N, 40 lbs/ac P₂O₅, and 40 lbs/ac K₂O should be applied.

Table 1. Annual Perennial Mixes and Mixtures adopted statewide. Other species options exist but may be limited due to location. Rows also include other species when shown to be adapted to the location and soils.

| Species/Variety | Full Rate/lb. PLS Lbs. ^a | Max % in Mixture | Max lbs. in Mixture | Remarks |
|---------------------|--|------------------|---------------------|---------|
| Perennial Ryegrass | 12 | 40 | 14.4 | |
| Timothy | 9 | 30 | 13.5 | |
| Orchardgrass | 9 | 30 | 13.5 | |
| Redtop | 9 | 30 | 13.5 | |
| Smooth Bromegrass | 9 | 30 | 13.5 | |
| Red Fescue | 9 | 30 | 13.5 | |
| Creeping Red Fescue | 9 | 30 | 13.5 | |
| Hard Fescue | 9 | 30 | 13.5 | |
| Sheep Fescue | 9 | 30 | 13.5 | |
| Parrot Fescue | 9 | 30 | 13.5 | |
| Perennial Ryegrass | 12 | 40 | 14.4 | |
| Timothy | 9 | 30 | 13.5 | |
| Orchardgrass | 9 | 30 | 13.5 | |
| Redtop | 9 | 30 | 13.5 | |
| Smooth Bromegrass | 9 | 30 | 13.5 | |
| Red Fescue | 9 | 30 | 13.5 | |
| Creeping Red Fescue | 9 | 30 | 13.5 | |
| Hard Fescue | 9 | 30 | 13.5 | |
| Sheep Fescue | 9 | 30 | 13.5 | |
| Parrot Fescue | 9 | 30 | 13.5 | |

^aTypical seeding rate for turfing - rates should be increased by 250-300%.

Calculating Seeding Mixtures:

In order to compute seeding rates for mixtures, decrease the given Full Seeding Rate for individual species proportional to the percentage of the species desired in the mix. **Example:**

| Species | Full Seeding Rate | % of Mix | Mix Seeding Rate |
|--------------------|-------------------|------------|------------------|
| Perennial Ryegrass | 12 | 30 | 3.6 |
| Timothy | 9 | 30 | 2.7 |
| Orchardgrass | 9 | 30 | 2.7 |
| Redtop | 9 | 30 | 2.7 |
| Smooth Bromegrass | 9 | 30 | 2.7 |
| TOTAL | | 100 | 13.5 |

Table 2. Introduced species

| Species | Fields | Planting dates | Remarks |
|--|---------------|---------------------------------------|---|
| Bromeliads - (Guzmania, Bromelia, Guzmania, Guzmania) Local "common" | 60-80 ha | Dec. 1 - June 10 | Adapted to >25 inch rainfall but |
| Bromeliads - selected species "Guzmania" "Vriesea" "Guzmania" | 8 ha, PLS | April 15 - June 15 | Not on shallow, clayey soils Dries & or very important due to reliance on fertilizers for germination and early growth. |
| Tall grasses | 50 ha, PLS | Sept. 1 - Oct. 31 Mar. 1 - Apr. 30 | Most off-site; pH of 5.5 - 6.5 is optimal. Can be used on water table in central part of state. Not adapted to deep sands. Endophyte-infected species are more hardy than non-endophyte infected species. Can be invasive and spread off-site. |
| Tropic legumes | 8 ha, PLS | Last field until June 10 | Southern 2/3 of state. |

CRITERIA FOR DETERMINING STAND ESTABLISHMENT

Introduced grasses and legumes: Usually establish within first growing season. An increase may be introduced (usually) which may take 2 years. All other cases should be evaluated at end of 3rd growing season. If plants are dead due to frost or drought, evaluation can be made during first growing season.

Native grasses and legumes: Native grasses and legumes may take more than one growing season to establish and should not be considered a failure until after the second season. If plants are dead due to frost or drought, evaluation can be made following first growing season.

Number of plants per square foot

Transplants should be spaced at regular intervals of 40 ft field and well distributed. One fielded planting, 3 - 5 plants per 100 sq ft square quadrats as recommended for recording the plant species. Count the total number of plants occurring within the quadrats and divide by 100 to get the number of plants per square foot. More than one species may be present on large farms and in some areas establishment is not critical. Because these areas of the planted area that do not have establishment of plants.

For sprayed bromeliads, plants are not spaced in the field and count number of live plants found along 100 feet of row.

| SPECIES | One plant uniformly distributed - Average number per square foot | | |
|---|--|---|---|
| | Failure | Questionable / Marginal | Acceptable / Satisfactory |
| Tropic legumes, tall grasses | 0 - 0.2 | 0.3 - 1.0 | >1.0 |
| Other bromeliads grasses and legumes | 0 - 0.2 | 0.2 - 1 | 1.0-3 |
| Sprayed bromeliads | <5 live plants per 100 feet of row | 5 - 10 live plants per 100 feet of row | > 10 live plants per 100 feet of row |



Helping People Help the Land

Reclaiming Disturbed Sites

USDA Natural Resources Conservation Service, Bismarck, North Dakota



*Reclaiming disturbed sites successfully requires careful planning well in advance of the actual disturbance.
(Photo credit: ND Dept of Trust Lands)*

Soils

When revegetating disturbed sites, it is important to know what soils are impacted and ensure that plant species being planted are adapted to those soils. Contact your local NRCS/SCD Field Office for identification of the impacted soils or visit the Web Soil Survey (<http://websoilsurvey.nrcs.usda.gov/app/>) to find the location and soil mapping units. Soil surveys are available for all counties in North Dakota at a scale of 1:24,000. For project areas larger than 3 to 5 acres, the soil survey will provide adequate information for reclamation. Soil survey information is not site specific and does not eliminate the need for onsite investigation of soil properties for projects less than 3 to 5 acres. Soil surveys were designed for general conservation planning, not site specific interpretations.

Topsoil should be stripped from the site and kept separate during the construction. Upon completion of the project, and after replacement, grading, and shaping of the subsoil, the topsoil should be respread on the surface.

NRCS has developed Ecological Site Descriptions (ESD) that contain detailed information on the plant species naturally occurring on those soil mapping units. ESDs for the state are available at: <https://esis.sc.egov.usda.gov/>

Adjacent Land Use

The adjacent land use and vegetation should always be considered when determining proper species for revegetating disturbed sites. If construction is impacting native rangeland, it is important to revegetate with native species adapted to those soils and ecological sites. Planting these disturbed sites with introduced species can have negative impacts on the adjacent land resource. Species such as smooth brome grass, Kentucky bluegrass and crested wheatgrass can invade adjacent native rangeland, usually reducing production and hindering management. If the construction impacts hayland or pastureland, it is important to replant desirable, compatible species. Pastureland and hayland are commonly planted to an

introduced species such as alfalfa, intermediate wheatgrass, crested wheatgrass and smooth brome grass. These species can make productive introduced pastures and hayland. It is critical to consider proper species selection. If cropland is impacted, it is still important to respread the topsoil on the soil surface to restore productivity of the disturbed site.



It is critical that disturbed sites are revegetated with plant species that match the adjacent land use. Do not use introduced species when revegetating disturbances in or adjacent to native sites.

Weed Control

Weeds need to be monitored on the site both during construction and after the site is reclaimed. Precautions should be taken to not introduce invasive weeds into these disturbed sites. Weeds may need to be controlled prior to seeding or after the site is seeded depending on weed species present and degree of infestation. If a weed problem is known to exist, then weed management needs to be considered when planning the species mix. Ensure the planted species and adjacent species are compatible with the selected herbicide.

Erosion Control

Erosion should be controlled at all times and is critical after planting and during plant establishment. Consider planting a cover crop during the part of the growing season that is not suited to planting permanent cover. On smaller areas a weed-free blanket mulch is an option. See NRCS Conservation Practice Mulching in FOTG Section IV - Conservation Practice Standards http://efotg.sc.egov.usda.gov/references/public/ND/484_Standard.pdf.

Species Selection

Plant species should be selected that are adapted to the soils and will provide for the planned land use. Care must be taken to purchase northern adapted species that have been performance tested to survive and be productive in the area. Utilize the NRCS Herbaceous Vegetation Establishment Guide to determine proper species and seeding rates for the seed mix. *See NRCS Herbaceous Vegetation Establishment

Guide http://efotg.sc.egov.usda.gov/references/public/ND/Herbaceous_Veg_Est_Guide.pdf *See Conservation Practice Cover Crop in FOTG Section IV - Conservation Practice Standards http://efotg.sc.egov.usda.gov/references/public/ND/340_standard.pdf



green needlegrass



sideoats grama

'Lodorm' green needlegrass and 'Pierre' sideoats grama (left tray in each photo) established rapidly (25 days after seeding) compared to a native harvest seed source (right tray in each photo).

Proper Seeding of the Site

Once the species have been selected it is crucial to plant them when the best chance for establishment occurs. If the planting is dominated by cool-season species, a spring or late dormant planting date has proven to be the best. If the mix includes warm-season species, it is best to plant late spring after the last chance of frost. The seeding should be done into a firm, weed-free seedbed. Seed should be placed no more than 1/2 inch deep for most species. *See Five Keys for Successful Grass Seeding http://www.nrcs.usda.gov/Internet/FSE_PLANTMATERIALS/publications/ndpmcbr04959.pdf

Management During Establishment

Management during establishment is critical to achieving successful reclamation. A full growing season of deferment (no grazing or haying) is generally a minimum establishment period. Depending upon growing conditions, a second year of deferment may be required. If the reclaimed site involves rangeland or tame pasture which is currently being grazed, temporary fencing may be an option to exclude livestock from the seeded area. If the manager is currently using a prescribed grazing system of some type, adjustments could be made to the livestock rotation to provide the needed deferment period.

Annual weeds usually associated with grass seeding efforts will generally not be a long term problem. As the perennial seeded vegetation becomes established, annual weeds will



Construction activities should leave little to no visible foot print on the land if properly planned and reclaimed (photo credit: USDA Forest Service).

decline. Noxious weeds will need to be controlled as per state law. This could involve spot spraying and/or clipping prior to seed formation.

Seeding Mixes

Example seeding mixtures based upon general soil types would include:

| Native rangeland (loam, clayey and sandy soils) |
|---|
| Western wheatgrass (native cool-season rhizomatous grass) |
| Green needlegrass (native cool-season bunchgrass) |
| Canada wildrye (native cool-season bunchgrass) |
| Sideoats grama (native warm-season rhizomatous grass) |
| Blue grama (native warm-season bunchgrass) |
| Purple prairieclover (native leguminous forb) |

| Native rangeland (sands and shallow soils) |
|---|
| Western wheatgrass (native cool-season rhizomatous grass) |
| Prairie sandreed (native warm-season rhizomatous grass) |
| Little bluestem (native warm-season bunchgrass) |
| Canada wildrye (native cool-season bunchgrass) |
| Blue grama (native warm-season bunchgrass) |
| Narrow-leaf purple coneflower (native forb) |

| Native rangeland (saline and/or sodic affected soils) |
|--|
| Western wheatgrass (native cool-season rhizomatous grass) |
| Slender wheatgrass (native cool-season bunchgrass) |
| Canada wildrye (native cool-season bunchgrass) |
| Blue grama (native warm-season bunchgrass) |
| Western yarrow (native forb) |
| Wyoming big sagebrush (native shrub) – for reclaiming sites within sage grouse habitat |

| Introduced pasture or hayland (all soil types) |
|--|
| When reestablishing tame grass pastures or hayland, use introduced species which are adapted to the soil and match the existing vegetation. This may include intermediate/pubescent wheatgrass (introduced cool-season rhizomatous grass), meadow brome grass (introduced cool-season bunchgrass), crested wheatgrass (introduced cool-season bunchgrass), and alfalfa (introduced leguminous forb). Be aware of the potential for livestock bloat when using alfalfa in pasture mixtures. |

Herbaceous Establishment Guide (NRCS ND) http://efotg.sc.egov.usda.gov/references/public/ND/Herbaceous_Veg_Est_Guide.pdf
 Pasture or Hayland Specification (NRCS ND) http://efotg.sc.egov.usda.gov/references/public/ND/512_specs.pdf
 Range Specification (NRCS ND) http://efotg.sc.egov.usda.gov/references/public/ND/550_specs.pdf

For more information or technical assistance, contact your local Natural Resources Conservation Service Field Office, County Soil Conservation District Office, or USDA-NRCS Plant Materials Center
 3308 University Drive
 Bismarck, ND 58504
 Phone: (701) 250-4330
<http://Plant-Materials.nrcs.usda.gov>

All programs and services are offered on a non-discriminatory basis.

February 2014



SOIL QUALITY – URBAN TECHNICAL NOTE No. 1

Erosion and Sedimentation on Construction Sites



United States
Department of
Agriculture

Natural
Resources
Conservation
Service

Soil Quality Institute
411 S. Donahue Dr.
Auburn, AL 36832
334-844-4741
X-177
Urban Technical
Note No. 1

March, 2000

This is the first note in a series of Soil Quality-Urban technical notes on the effects of land management on soil quality.



Introduction

Soil is a crucial component of rural and urban environments, and in both places land management is the key to soil quality. This series of technical notes examines the urban activities causing soil degradation and sedimentation, and the management practices that protect the functions that urban societies demand from soil. This technical note will focus on soil erosion and sedimentation from construction sites.

Off site damage from sediment is the most critical problem facing construction sites. Erosion, which produces this sediment, is accelerated when soil is disturbed, left bare, and exposed to the abrasive action of wind and water. Unless adequate measures are taken to prevent this abnormal, highly accelerated soil removal, it becomes the most visible and damaging factor in the deterioration of soil quality and the environmental quality of urban areas.

Construction Erosion

Although erosion on construction sites often affects only a relatively small acreage of land in a watershed, it is a major source of sediment because the potential for erosion on highly disturbed land is commonly 100 times greater than on agricultural land (Brady and Weil, 1999). Erosion and sediment damages occur both on and off the construction site, and all of society pays for the destructive impacts.

Erosion Impacts

Construction activities, such as grading and filling, drastically reduce soil quality on construction sites. Left unprotected, sites will be further degraded by erosion and begin to adversely affect the surrounding environment. The goal of soil quality management on construction sites is to revegetate for protection against off-site damage and increase soil organic matter levels to remedy the on-site damage caused by site preparation.

On-site impacts: The loss of topsoil, either by actual removal with heavy equipment or erosion by wind and water, is the worst on-site damage in urban areas. This layer of soil has the highest biological activity, organic matter, and plant nutrients—all key components of healthy soil. The on-site loss of this upper layer of soil nearly eliminates the soil's natural ability to provide nutrients, regulate water flow, and combat pests and disease.

- Loss of nutrients and nutrient holding capacity, results in a less fertile environment for lawns and landscape plants. The organic matter and finer soil particles are responsible for soil fertility and are washed away first, leaving larger, less reactive particles such as sand and gravel.
- As organic matter is lost, soil density increases and compaction occurs. Compaction lowers the infiltration rate of water and reduces the available water holding capacity. This results in poorer growth of lawns, gardens, flowerbeds, shrubs, and trees, as well as making the site more susceptible to drought and requiring more frequent watering. Additionally, soil amendments such as fertilizer and pesticides cannot move into the soil and, instead, run off into nearby lakes and streams. Lower organic matter levels are also associated with weaker soil aggregates and therefore greater risk of further erosion and soil crusting.
- The surface organic matter is also the food source and habitat for beneficial microorganisms and insects. The loss of this material drastically reduces the soils natural ability to control disease and pest outbreaks, increasing the need for pesticides. These microorganisms are also key to removing or buffering toxic elements or contaminants.

Off-site impacts: Erosion from construction sites has off-site environmental and economic impacts. Erosion creates two major water quality problems in surface waters and drainage ways: excess nutrients and excess sediment. These problems adversely impact the health and biological diversity of water bodies. More specifically:

- Excess nutrients impact water quality through eutrophication, a process whereby excess nitrogen and phosphorus causes unwanted biological growth.
- Sediment reduces water quality by making the water turbid (cloudy). Turbidity prevents sunlight from penetrating the water and thus reduces photosynthesis and underwater vegetation. Oxygen levels are reduced in turbid waters, further degrading habitat for fish and other aquatic organisms.
- Sediment can build up in stream channels, lowering flow capacity. The problem of low stream capacity is compounded as runoff increases from newly built-up or paved areas and causes stream channels to receive larger amounts of water in shorter periods of time. This leads to more frequent flooding in areas that never or only rarely flooded in the past. In flood-prone areas, levees may need to be built or enlarged to better protect public safety.
- A financial burden results from clean up of sediment-damaged areas. Taxpayers often bear the cost of removing sediment from public roads, road ditches, culverts or streams; not to mention damage to homes and the safety hazards associated with flooding. Other costs of erosion that are borne by the public are degraded soils, a polluted environment, more runoff, greater need for irrigation, and aesthetically unpleasing sites.

Many local governments enforce regulations to control or prevent erosion from construction sites. State and local laws and the Clean Water Act of 1992 can require contractors to develop detailed erosion and sediment control plans before beginning construction projects over approximately 2.5 acres.

Tool for Estimating Erosion on Construction Sites

Soil loss from sheet and rill erosion on construction sites, mined lands, reclaimed lands, and other highly disturbed areas can be estimated using the Revised Universal Soil Loss Equation (RUSLE) version 1.06. A handbook is available to help the user estimate factor values and apply the computer model (Toy and Foster, 1998).

The person in each NRCS State or Basin Area Office with responsibility for RUSLE (typically the state agronomist) should be contacted for assistance with estimating soil loss on construction sites using RUSLE.

Evaluating Management Practices and Developing Alternative Systems

Erosion control practices and management systems can be evaluated and planned using the RUSLE model. The erosion control

benefits of cover and management practices such as adding mulch, seeding, and sod can be estimated with the RUSLE conservation management (C) factor. Structural and vegetative practices such as straw bales, silt fences, gravel bags, narrow grass strips or buffers, vegetative barriers, terraces and diversions can be evaluated with the RUSLE conservation practice (P) factor.

Alternative management systems, consisting of combinations of cover and structural practices, can be developed with the RUSLE program. Ideally, these management systems will reduce or control erosion and sedimentation and improve soil quality. Each site and management system must be evaluated individually, since erosion estimates will vary depending on climate, soils, topography, and cover conditions.

The RUSLE model also estimates the amount of sediment delivered to the base of a slope (sediment yield) using the RUSLE P factor. Some temporary practices used on construction sites such as a silt fence placed at the base of the slope will not reduce erosion on the slope but will trap some of the sediment leaving that slope. The RUSLE model estimates this sediment yield, as displayed in Table 1.

Table 1. Effects of management practices on controlling erosion on a road bank. Estimated sheet and rill erosion and sediment yield using RUSLE during a construction year in Nashville, TN¹.

| Site Conditions ² | | Soil Loss from Road Bank (t/a/y) | Sediment Yield at Base of Slope (t/a/y) |
|------------------------------|----------------------|----------------------------------|---|
| -1 st 6 mo | 2 nd 6 mo | | |
| Bare | Bare | 400 | 400 |
| Bare | Bare, Silt Fence | 400 | 250 |
| Bare | Mulch, Seeded | 140 | 140 |
| Bare | Sod, Diversion | 40 | 5 |

¹Effects of management will vary under other climatic conditions. For example, soil loss and sediment yield will be 35 % and 80 % less in Chicago and Denver, respectively, than values shown in table.

²Roadside cutbank, 100 ft. long at 30% gradient. Site disturbed from March – June. Soil loss and sediment yield during a single construction season. Soil is a silt loam. Silt fence placed at base of slope. Diversion placed in middle of slope.

Principles of Construction Erosion Control

Prevention of urban erosion is best. Here are some basic principles of erosion control on construction sites (adapted from Brady and Weil, 1999):

1. Divide the project into smaller phases clearing smaller areas of vegetation.
2. Schedule excavation during low-rainfall periods, when possible.
3. Fit development to the terrain.
4. Excavate immediately before construction instead of leaving soils exposed for months or years.
5. Cover disturbed soils as soon as possible with vegetation or other materials (mulch) to reduce erosion potential.
6. Divert water from disturbed areas.
7. Control concentrated flow and runoff to reduce the volume and velocity of water from work sites to prevent formation of rills and gullies.
8. Minimize length and steepness of slopes (e.g. use bench terraces).
9. Prevent sediment movement off-site.
10. Inspect and maintain any structural control measures.
11. Where wind erosion is a concern, plan and install windbreaks.
12. Avoid soil compaction by restricting the use of trucks and heavy equipment to limited areas.
13. Soils compacted by grading need to be broken up or tilled prior to vegetating or placing sod.

It is inevitable that soil will be exposed during construction. However, it is essential that the exposed land is minimized, and cover is established as quickly as possible. Conservation practices that provide immediate permanent cover (sod) or provide intermittent cover (mulches and permanent seeding) drastically reduce soil losses and runoff (Table 2). Other supporting practices such as diversions or terraces change slope

lengths, thus reducing runoff and erosion. These supporting practices provide temporary protection for vegetation or sod until they become established and provide permanent protection for the site. There are other conservation practices available for construction and urban erosion (NRCS Watershed Science Institute, 2000).

Table 2. Effectiveness of various groundcovers in reducing runoff and soil erosion for a single simulated rain event (3.78 in/h) at University of Maryland's turf grass research facility¹ (adapted from Brady and Weil, 1999).

| Material | Soil loss ² (tons/acre) | % of Rainfall Runoff | % Ground Cover Established ³ |
|--|---------------------------------------|-------------------------|--|
| Bare soil with partial cover | 2.97 | 83 | 50 |
| Woven mesh | 0.18 | 68 | 61 |
| Wood shavens in non-woven polyester netting | 0.36 | 74 | 69 |
| Coconut fiber mat | 0.48 | 76 | 58 |
| Straw (2 t/a) | 0.26 | 60 | 76 |
| Grass sod | 0.04 | 28 | NA |

¹Effectiveness will vary at other locations because of differences in climate, soils and topography.

²Soil from Sassafras loamy sand with a 8 % slope and a Matapeake sandy clay loam with a 15% slope.

³Percent vegetation cover established one year after Kentucky 31 fescue grass was seeded and covered by various material.

Conclusion

Soil is important but is often an overlooked component of our urban infrastructure. It is especially important in regulating runoff of storm water and in supporting trees, shrubs, lawns, and gardens. Soil erosion during construction is often a serious problem. Many erosion control practices are available in local soil and water conservation district offices. However, the effects of erosion on construction sites continue to menace society both from on-site and off-site damages. Preventing soil-related problems before they occur is easier and more cost effective than correcting them later. Communities need to work with developers, contractors, and local governments to limit compaction and soil loss during construction operations. The result is a soil functioning properly in the urban landscape.

References

- Brady, N.C., and R.R. Weil. 1999. *The Nature and Properties of Soils*. 12th ed. Prentice Hall. Upper Saddle River, NJ.
- NRCS Watershed Science Institute. 2000. Water related best management practices in the landscape. <ftp://ftp.ftw.nrcs.usda.gov/pub/wssi/UrbanBMPs/index.html>
- Toy, T.J. and G.R. Foster, co-editors. 1998. Guidelines for the use of the Revised Universal Soil Loss Equation (RUSLE) version 1.06 on Mined Lands, Construction Sites, and Reclaimed Lands. USDI-Office of Surface Mining. Denver, CO.

The U. S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, sex, religion, age, disability, political beliefs, sexual orientation, or marital or family status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communications of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call (202) 720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

Document Content(s)

Sandy Creek Farms Restoration Plan 11-25-2020.PDF.....1

Attachment 13.1

CLC's Response to FERC's Request of Midship to
Provide a Restoration Plan on Mark Morris' Property



November 28, 2020

Ms. Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission (FERC)
888 First Street, NE
Washington, D.C. 20426

Docket # CP17-458, CP19-17

Dear Ms. Bose,

On November 18, 2020, Rich McGuire, the Director of the Division of Gas – Environment and Engineering, issued a letter to Midship regarding a “Required Restoration Assessment Plan for Morris Parcels.” Mr. Morris’ concerns include buried construction debris, silt and sediment blocking Larimore Creek and a wetland, dredging of a flood control reservoir to remove construction sediment, and impacts on his cattle due to Midship’s revegetation seed mix planted on the right-of-way.

On November 25, 2020, Midship submitted a letter responding to the Director of the Division of Gas – Environment and Engineering letter regarding Mark Morris Restoration Assessment Plan. In their response, Midship makes several statements attempting to excuse themselves from the situation or blame the landowner for the condition of the property but fail to meaningfully address the restoration issues.

Prior to Mr. McGuire’s letter, on October 15, 2020, Midship met with the landowner to discuss the required restoration remaining on the property. Several of the issues were within the right-of-way, although there are still ongoing restoration issues off-ROW. After the November 2, 2020, remobilization several issues were clear to the landowner including the 4” to 6” depth limit for mat removal and soil de-compaction, vegetation in the winter months, off-ROW mat retrieval, and a lack of a restoration plan relating to off-ROW impacts.

Central Land Consulting is hereby submitting a response and restoration plan to Rich McGuire, Midship, and Congressman Tom Cole relating to Mark Morris’ property (tract no. GR-0353.000).

Please feel free to contact (330) 312-1060 with any questions or for further assistance.

Respectfully Submitted,

/s/ Nate Laps

Nate Laps,
President of Operations
Central Land Consulting, LLC

MARK & MARYLIN MORRIS

GR-0353.000 / GR-0353.000_TAR44

+/- 2,767.97 Feet of Pipe
+/- 3.16 Acres of Permanent Easement
+/- 4.39 Acres of Temporary Easement
Mile Post: Midship Mainline MP 75
Grady County, Oklahoma

Restoration and Revegetation Plan *November 2020*



1.0 INTRODUCTION AND BACKGROUND

The Midship Pipeline Company, LLC (Midship) and its contractors began construction activities on Mark Morris' property (tract no. GR-0353.000) on or around February 8, 2019. Midship anticipated completion of the entire 233-mile project in six to nine months.

In June 2019, Midship had issues with drainage and flooding on and off-ROW. Several areas off-ROW became inaccessible for farming and harvesting due to the excessive flooding and blocked crossing.

On July 3, 2019, the Commission issued a letter to Midship ([July 3 Letter](#)) requiring that Midship immediately stop work on the remaining segments of the North Spread between mile posts 66 to 119.

In the fall of 2019 and into the winter months, several construction mats had discharged into Larimore Creek and adjacent off-ROW fields. In the same timeframe, large amounts of silt and construction debris had discharged onto the farmers wheat field that the farmer currently is still attempting to cleanup.

On April 14, 2020, the Landowner, CLC, Midship and the FERC Compliance Monitor visited the Morris tract attempting to address several issues of restoration. These issues consisted of matting and construction debris in the soils, altered grade and contours, high levels of silt discharged into the creek and streams, and soil compaction. Upon arriving to the property, the group discovered that Mr. Morris sunk his tractor when attempting to cross the easement the day before. ([See Exhibit A. Section 1.](#))

On April 15, 2020 Midship filed supplemental information to their in-service request stating: *"Midship expects that any areas requiring remediation will be completed by the end of June in line with the other outstanding restoration activities currently ongoing."*

On April 16, 2020, one day after completing site inspections with CLC and Midship, Mr. McGuire granted Midship's in-service request. In Mr. McGuire's order approving Midship's in-service request he states, ***"we note Midship's commitment to employ the necessary crews to complete the remaining clean-up (such as removal of construction debris) and restoration activities (such as reseeding) by mid-May 2020."***

Construction and restoration activities continued into the spring and summer of 2020. Midship's contractors remobilized several times since the spring of 2020 attempting to vegetate the easement, remove construction mats, restore altered grade, and de-compact the soils in cultivated areas.

On June 8, 2020, Midship's contractor trespassed off-ROW to retrieve mats and disturbed the stream bank east of the easement inside another co-located pipeline easement. Midship requested permission from the Landowner to retrieve the off-ROW mats and the landowner requested a non-monetary written agreement to protect the off-ROW resources and private property damage, but Midship rejected the landowner's willingness to work with him. The Landowner and CLC representative repeatedly relayed that off-ROW access would be granted upon an agreement. In fact, Midship knowingly received the landowners request to have a written agreement but ignored the request and attempted to retrieve mats off-ROW in spite of this request. The off-ROW disturbance has still not been remediated. This issue is an example of *why* the landowner requested a written agreement for off-ROW access. At no time has the landowner denied Midship and their contractor's access to their approved work area. ([See Exhibit A. Section 2.](#))

On July 8, 202, Mr. Morris, CLC, and attorney Carolyn Elefant witnessed a cow and calf lying dead in the easement. Mr. Morris explained that this was extremely unusual in that when cattle pass, they normally find a secluded area to lay down in anticipation of their passing. Finding these cattle out in the open, inside the easement, with no signs of attack indicated to Mr. Morris that some sort of acute toxicity was behind their deaths. ([See Exhibit A. Section 3.1.](#)) While Midship has stated they are unable to find evidence of this claim, Mr. Morris' tract was initially seeded with a native mix in early summer, but vegetation was struggling to establish. Midship returned to reseed in extremely hot weather conditions of well over 100 degrees. After this seeding, some areas of vegetation began to appear. This event indicates the application of high volumes of nitrogen, that can have a similar toxic effect on cattle compared to Johnsongrass. ([See Exhibit A. Section 3.2.](#))

On September 7, 2020, the landowners found additional construction matting mixed into the soils within the easement and along Larimore creek approximately 1,000 feet east of the easement. During construction on the Morris property, Midship's contractors allowed Larimore Creek and a nearby tributary to become blocked with sediment which restricted flow and caused the streams to expand into the surrounding wetland. This expansion has caused extensive flooding in which the water picked up copious amounts of sediment and ground debris and transported them downstream into Round Creek Site 5 Reservoir. This reservoir, on an adjacent property partially owned by Mr. Morris, was dredged by Mr. Morris in early 2019 to boost its flood control capabilities as the Army Corps of Engineers designed it in the 1960s. In the past months, since Midship began construction, the reservoir has re-accumulated silt and sediment to levels similar to before the dredging. Currently the reservoir is unable to serve its purpose as a flood control device. (*See Exhibit A. Section 4.*)

On September 14, 2020, Mr. Morris again contacted Michael Rightmire from the Oklahoma Corporation Commission (OCC) regarding his previous site visits and lack of investigation. Mr. Morris provided several photos of evidence Mr. Rightmire had missed, including the presence of construction mats in Larimore Creek. OCC in turn contacted Midship for an explanation. Midship stated that they were aware of the mats but were unable to retrieve the mats due to lack of landowner permission and pending litigation. Midship continuously blames the landowner for not allowing off-ROW access, but as Mr. Morris stated in several correspondence, he would grant off-ROW access upon a written agreement.

On September 27, 2020, the Oklahoma Department of Environmental Quality (ODEQ) issued a warning letter for two large construction mats that had discharged from the right of way into Larimore Creek. ODEQ also submitted a warning to Midship for open dumping. (*See Exhibit A. Section 5.*)

From April to November 2020, Mark Morris repeatedly communicated his willingness to allow Midship off-ROW to retrieve construction mats that are approximately 1,000 feet east of the easement along the Larimore Creek bank. In these correspondences, the landowner was open and willing to allow off-ROW access if there was an agreement to ensure that Midship was responsible for any resulting off-ROW impacts. (*See Exhibit A. Section 7.*)

On October 4, 2020, Mark Morris again contacted Jaime Brown, a representative from ODEQ, regarding the construction matting and compliance issues relating to the Midship pipeline and Midship's contractor, Strike. In this correspondence, Mr. Morris had concerns with Midship and Strike burying construction matting, debris, and rocks into the soils which are within the floodplain, wetland, and downstream in Larimore Creek approximately 1,000 feet east of the easement. Mr. Morris has never denied Midship access to their approved work areas and in fact would grant off-ROW access if there was an agreement in place for Midship to take liability of any resulting off-ROW damages.

On October 26, 2020, Mr. Morris sent an email to the ODEQ in which he indicated that he would grant Midship permission to retrieve the off-ROW matting contingent on Midship's performance of additional work related to mat and debris removal *inside* the easement, wetland restoration, and liability of resulting off-ROW damages. Midship declined this request on November 2, 2020 and the matting remains in Larimore Creek. (*See Exhibit A. Section 7.*)

On November 2, 2020, Midship's contractor remobilized in light of the recent evidence provided by the landowner. In their return to the property, Midship's contractor only scraped the surface by removing the matting from the top few inches by hand and covering up any large matting found by the landowner. According to Midship, the issue of construction debris in and on the ROW has been resolved. Midship's contractor stated to the landowner they were only permitted to deep rip 4" – 6" from the surface due to safety and vibrations to the pipeline. This kind of work will not fix the property. (*See Exhibit A. Section 6.*)

On November 23, 2020, Mr. Morris began testing soils and found numerous matting boards buried approximately 3" - 36" deep. Some sections were approximately 48" long. Midship operations were on site during the excavating work and were aware of the matting the landowner had found. The restoration issues continue. Midship has not communicated to the landowner on a resolution, although the landowner has relayed to the FERC and Midship the willingness to discuss a resolution. (*See Exhibit A. Section 4.*)

On November 24, Midship filed a weekly status report for the project in which they describe the work done on Mr. Morris' property: *"Removed debris; repaired grading and ponding issues (completed 11/06/20)."*

In summary, Mr. Morris has repeatedly communicated his willingness to work with Midship and have a basic agreement in place to protect his property from additional impacts, however Midship continues to deny having any written agreement. Midship has shown that if they do not receive permission immediately for off-ROW access, they will do it anyways and leave the landowner to deal with the impacts.

Midship's recent mobilization raises several concerns relating to stabilization and winterization of disturbed or bare soils. As we approach the cold weather, it is highly unlikely that vegetation will succeed. The tract will need proper erosion and storm water controls, stabilization, and final restoration procedures. If the proper winter restoration techniques are not in place, there will be excessive erosion on and off-ROW, topsoil loss, and abundant levels of weeds that would likely spread off-ROW.

Midship states the following in their [November 25, 2020 OEP Response Letter](#):

1. Midship has removed all construction debris from the Project ROW on the Landowner's property.
2. Midship stands ready and willing to retrieve any off-ROW construction mats pending receipt of Landowner permission.
3. Midship will continue to communicate with the Landowner and its representatives with respect to this issue as well as the other issues discussed herein that remain outstanding and will continue to keep the Commission staff informed as to the status of resolution.

In light of Midship's Response Letter, the outstanding issues are:

1. Matting has been found up to 1,000 feet downstream in Larimore Creek. Large sections of matting have been found in soils along with rocks, spikes, and construction debris as deep as 36".
2. Penetrometer testing indicates that compaction remains an issue on the property. Off-ROW penetrometer readings show an average of 150 psi at 12". On-ROW penetrometer readings show an average of 300 psi at 3".
3. Landowner's dig testing on September 7, 2020 and November 23, 2020 indicates that there are numerous matting boards approximately 3" - 36" deep throughout tract GR-0353.000 which was previously cultivated.
4. Topsoil loss and topsoil mixing. Most of the property is considered prime farmland and has 20" of natural topsoil. Recently excavated and tested areas show between 0" to 3" of topsoil remaining.
5. The grade is off 8" - 14" throughout the cultivated fields and will need restored to pre-construction condition.
6. Larimore Creek and its tributary are backed up with silt and sediment. This will need to be cleared out to restore pre-construction flow.
7. Mr. Morris' off-ROW flood control reservoir has been inundated and filled with sediment and organic debris. The flood control reservoir will need to be dredged to remove sediment and debris to restore to pre-construction condition and function.
8. Lack of revegetation and exposed soils as winter approaches, winter restoration and stabilization are required to prevent excessive erosion and additional soil loss.
9. Tin horn crossing collapsed causing loss of ingress/egress. Tin horn stream crossing needs to be rebuilt and fortified.

2.0 FURTHER IMPACTS IF MIDSHIP REMOBILIZES TO TRACT GR-0353.000

Midship has been actively working on construction and restoration since February 2019. Several attempts have been made by Midship to restore the tract to near its pre-construction condition. Several attempts at remobilization have been made by Midship's contractors when the landowner provides evidence of matting, construction debris, or large rocks affecting farming. Midship's attempts at remobilization consisted only of minor surface cleanup, while attempting to downplay or ignore the bigger issues on the property. The construction crews have relayed that Midship will only allow them to remove surface debris and deep rip 4" - 6" deep.

Deep ripping will need to be performed in dry conditions, preferably during the summer months, which would mean construction and restoration would be ongoing for another six or seven months, resulting in further adverse impacts to the soils and the landowner's ability to farm the easement.

If Midship decided to attempt another remobilization to restore the property, they would be required to submit a winter construction and restoration plan. The winter construction and restoration plan would address winter construction procedures, snow handling and removal, access road construction and maintenance, soil handling under saturated or frozen conditions, topsoil stripping, stabilization and monitoring procedures if ground conditions will delay restoration until the following spring, mulching and erosion controls, inspection and reporting, storm water control during spring thaw conditions, final restoration procedures, subsidence and compaction repair, topsoil replacement, seeding methodology, among other things. (*See Exhibit B*).

Below is a list of concerns that Mark Morris has if Midship continues to remobilize.

- Impacts and off-ROW damages, valuable timber loss, and wildlife impacts.
- There are concerns of stress being exerted onto the pipeline due to the repeated and ongoing mobilizations and heavy equipment operations with matting buried throughout the easement and trench line.
- Deep ripping would need to be performed in dry conditions, preferably during the summer months, which would mean construction and restoration would be ongoing for another six or seven months, resulting in further adverse impacts to the soils and the landowner's ability to farm the easement.
- If Midship decided to attempt another remobilization to restore the property, they would be required to submit a winter construction and restoration plan.
- Exposed and unrestored soils will continue to result in excessive and uncontrolled erosion and soil loss.
- Mat retrieval would consist of impacting Larimore creek bank 1,000 feet east of the easement, removal of valuable trees, and disturbing approximately a half-acre of wildlife
- Construction activities over top several co-located pipeline easements

3.0 LANDOWNER SELF-PERFORMANCE

Mark Morris feels that the solution to these problems is for him to self-perform the final restoration. Access on and off ROW to build erosion and runoff controls will be needed. The matting and construction debris removal would be an extensive process, likely requiring a month or more, and would be performed throughout the upper 36" of soils outside of the pipeline tolerance zone. Once all matting and construction debris has been removed, Mark Morris would need to hire his local contractor to remove matting and debris from Larimore creek, perform silt removal from the streams, and dredge the Army Corps flood control reservoir. Mr. Morris has several favorable areas on the west side of the tract to allow for grading and land leveling off-ROW to on-ROW. Sprigging on and off-ROW in February will be performed after all grading and topsoil importation is complete.

Below is a list of restoration-related advantages that will aid in Mark Morris' restoration of the easement.

- Unlimited access to areas beyond the easement.
- Unlimited access to soils and ability to level the grade beyond the easement.
- Access to build erosion and runoff controls beyond the easement.
- Matting removal up to 36" deep.

4.0 LANDOWNER RESTORATION PROCEDURES

- 1. WINTERIZATION AND STABILIZING EXPOSED SOILS (IF WORK CANNOT BE PERFORMED UNTIL SPRING)**
 - a. Performing proper storm water and erosion controls
 - b. If proper planting can be performed stabilize the work areas install apply mulch, as needed, to inhibit erosion of exposed soils.
- 2. RESTORATION OF LARIMORE CREEK, TRIBUTARY, AND ARMY CORPS FLOOD CONTROL RESERVOIR**
 - a. The stream east of the easement will need as much silt removed as possible.
 - b. Army Corps flood control reservoir will need to be dredged.
 - c. All visible matting is to be removed from Larimore creek and the disturbed creek bank will need graded, stabilized, and reseeded with perennial grass.
- 3. MATTING AND CONSTRUCTION REMOVAL**
 - a. Mark Morris will methodically remove matting and construction debris that is buried inside the right-of-way. The easement will be excavated in sections to minimize the risks of having soils exposed for long periods of time.
 - b. All excavation and digging will be performed after the OKIE One Call tickets are approved, the pipeline is flagged, and Midship operations personnel is on site. Construction matting removal will be performed by carefully excavating and removing mat sections digging approximately 36" deep, parallel to the pipeline, outside the tolerance zone.
 - c. Where necessary, inside the pipeline's tolerance zone, excavation will be done by using hand tools. Smaller materials and construction debris that is noticeable, such as wood fragments, trash, and rebar, will be screened and removed.
- 4. DISPOSAL OF EXCAVATED MATERIALS**
 - a. Once all matting and construction debris has been removed, Mark Morris will need to properly dispose of it. This would involve either utilizing a waste pick up service or hauling it to an appropriate waste site. Weight of excavated debris and matting is expected to be in the realm of 30 to 50 tons.
- 5. LAND LEVELING**
 - a. Land leveling will be performed by a laser pan and will require leveling approximately 150' west of the easement. This process will involve stripping approximately 3" - 5" of topsoil onto the right-of-way by automatic GPS grade controls with in-the-field design change capabilities.
- 6. GRADE, CONTOUR, AND SURFACE DRAINAGE RE-ESTABLISHMENT**
 - a. Once easement has been leveled to match proximate off-ROW areas, any remaining low spots will need to be filled with imported topsoil of local origin and similar texture.
 - b. Grade the construction right-of-way and adjoining off-ROW areas to restore pre-construction drainage patterns and leave the soil in the proper condition for planting.
 - c. Approximately 6,500 cubic yards of topsoil will be needed to fill in low spots and to smooth grade easement to match areas outside the easement.

7. SOIL DECOMPACTION

- a. After all excavation, dirt work, and contouring is complete, deep ripping will be performed (weather permitting, dry conditions required).
- b. The deep ripper of choice is the Big Ox 20" deep ripper, which will alleviate compaction throughout the topsoil and subsoil up to 20" deep.
- c. CAT D7 with three-shank ripper will pull the Big Ox ripper to complete de-compaction in one pass.

8. RESEEDING / HYDROSEEDING

- a. Late February will need a pre-emergent sprayed throughout field and easement.
- b. Approximately 200 lbs/acre of nitrogen will be applied 7 – 10 day before and after Bermudagrass is planted.
- c. Pasture-drill Bermudagrass in March of 2021.
- d. Up to 24 months of supplemental mitigative measures may be required for Bermudagrass to reach full production.

9. MAINTENANCE AND RESTORING SOIL SETTling

- a. It is expected to see soil subsidence and settlement throughout the easement, especially in the trench line and where large amounts of matting and debris has been removed. In the case that future subsidence needs to be addressed, additional topsoil will be stripped from outside the right-of-way or imported to mitigate any settling or fill low spots.

10. EQUIPMENT REQUIRED TO CONDUCT RESTORATION WORK

- Three Shank Ripper with D7 Dozer
- Single Axle Dump Truck
- Tandem Axle Dump Truck
- Semi with Dump Trailer
- Semi with 3 Axle Lowboy
- Bobcat 335 Mini Excavator
- Bobcat 335 Mini Excavator with Mower
- 160cl John Deere Excavator
- 330cl John Deere Excavator
- EC250 Volvo 65-Foot-Long Reach Excavator
- 333d John Deere Track Skid Steer
- 33d John Deere Track Skid Steer with Mower
- John Deere 650h Dozer
- TD15c Dresser Dozer
- Hydromaxx Farm Drainage Trencher

5.0 LIABILITY AND WARRANT OF RESTORATION AND REVEGETATION

It is our understanding that the FERC and Midship have concerns that if the landowner self-performs the work, Midship would, under FERC, remain liable for the condition of the property and all final restoration. The tract is located in an isolated rural area with two stream crossings required for access to the interior of the property. Mark Morris has expertise in construction work and has many agriculture businesses that would make him qualified to self-perform the final restoration work. The landowner would be able to conduct the work, take liability, and warrant the restoration and revegetation of the tract. If Midship will work with Mr. Morris to compensate for all costs associated with successful restoration of the property, he will take liability in restoring the tract. Once the restoration work is completed he will notify FERC to conduct a final inspection of the property to ensure that all restorative measures have been met.

Exhibit A

Documentation of Issues on GR-0353.000

Exhibit A

Section 1

Tractor Unable to Cross Easement



Exhibit A

Section 2

Off-ROW Activity on June 8, 2020



Exhibit A
Section 3.1

Cattle Found Dead in Easement



Exhibit A
Section 3.2

Oklahoma State University
Johnsongrass Fact Sheet



Johnsongrass in Pastures: Weed or Forage?

December 2019

Alex Rocateli

Forage System Extension Specialist

Misha Manuchehri

Weed Science Extension Specialist

Oklahoma Cooperative Extension Fact Sheets are also available on our website at: <http://osufacts.okstate.edu>

Johnsongrass (*Sorghum halepense* L.) is a warm-season grass. Originally from the Mediterranean region, it was introduced to North America in the 1800s as a forage alternative. The name “Johnsongrass” refers to Colonel William Johnson, who introduced this species to his river-bottom farm in Alabama in the 1840s. Today, Johnsongrass is found in all states except Minnesota, and is considered a noxious weed in 19 states (NRCS, 2016). Johnsongrass is popularly known as “the weed we love to hate and hate to love.” We “hate to love” it because it is one of the most common weeds in 30 different crops including corn, sorghum, cotton and soybeans. It also serves as a host for several insects, disease pathogens and nematodes of corn and sorghum. On the other hand, we “love to hate” it because it is not only a valuable forage due to its high yield, palatability and quality, but also is successful in reducing soil erosion as a plant cover alternative (Warwick and Black, 1983).

Identification

A Johnsongrass seedling can resemble a corn or sorghum seedling; however, its stems and leaves are narrower and completely hairless. In any developmental stage, Johnsongrass leaves have a very distinct and prominent white mid-vein, which differentiates it from most other grasses (Figure 2a). Adult plants can range in height from 2.5 to 7 feet tall. Johnsongrass is a bunch-type grass, tillering from the crown



Figure 1. Established Johnsongrass along a fence line.

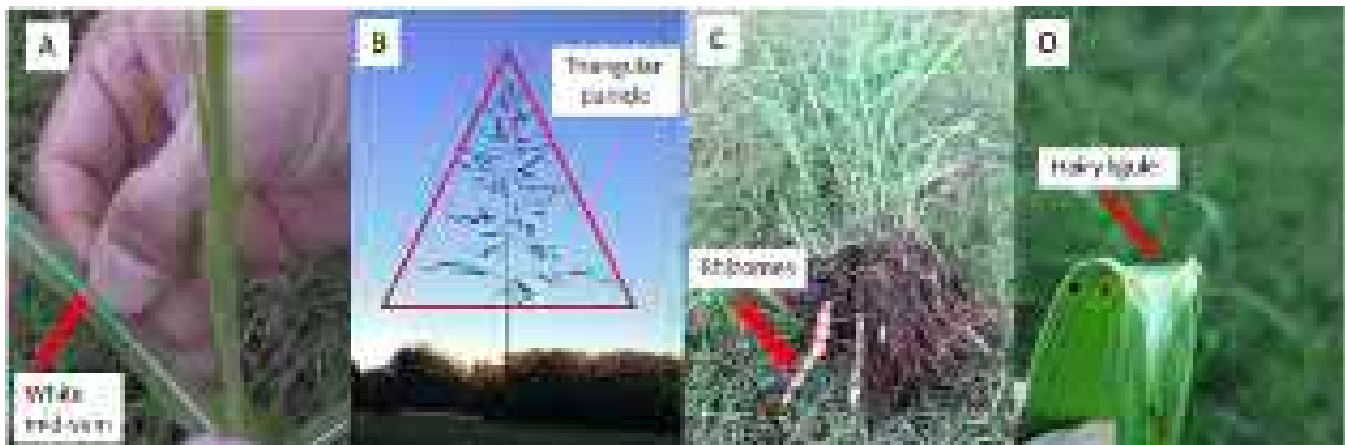


Figure 2. Visual clues to identify Johnsongrass.

of the plant. The flower head is a panicle (highly branched) and can reach up to 1.5 feet long. It has a green central stalk (i.e., rachis) that contains several whorls of two to three lateral branches. The branches are perpendicular to the stem at the bottom and parallel at the top, resulting in a pyramidal-shaped head (Figure 2b). The seeds, which are very small (2 to 3 mm) and egg-shaped, attach to the lateral branches and turn from greenish-violet to dark reddish-brown when mature.

Both roots and rhizomes (i.e., horizontal underground stems) are found on Johnsongrass plants. Most other grass species that resemble Johnsongrass do not contain rhizomes. Rhizomes are white to brown in color and may contain purple spots and nodes covered by brown scaly sheaths (Figure 2c). The leaf collar, where the leaf sheath and leaf blade meet, can serve as a useful identification tool. Pulling the collar back and detaching it from the stem will reveal the presence of a toothed membrane called the ligule. With age, some ligules may develop a fringe of hairs in the upper portion (Figure 2d).

Life Cycle and Adaptability

Johnsongrass is an aggressive perennial. Either new shoots from rhizomes or new seedlings will sprout during early to mid-spring. Seeds start to germinate when soil temperatures reach 70 F; however, new shoots from rhizomes will sprout when soil temperatures are 60 F. Sprouts from rhizomes develop faster than seedlings by taking advantage of rhizome carbohydrates accumulated during the winter. Plants start to produce new rhizomes after five to seven true leaves have developed. This occurs approximately three to six weeks after emergence. Flowering will commence six to nine weeks after emergence, and viable seeds will be produced two to three weeks after flowering. During the fall, Johnsongrass growth ceases when soil temperatures return to 60 F, turning the plant dormant. In Oklahoma, Johnsongrass will start to grow by the end of March, and new rhizomes will start to develop by the end of April. Flowering will start in early June and viable seeds will appear in late June. Additionally, new rhizomes, flowers and seeds will continue to be produced until early November, when plants turn dormant.

Johnsongrass is adapted to a wide range of soil types within a pH range of 5 to 7.5. Therefore, Johnsongrass is mainly found in arable lands, orchards, open waste grounds, roadsides, pastures, irrigated canals and ditches. It grows best in fertile lowland soils. It is not adapted to poorly drained clay soils, but it can tolerate short periods of flooding. Rhizome production also is affected by soil type. Greater rhizome production and depth will occur in lighter-textured soils. For instance, clay soils will allow only half of the rhizomes that are capable of being produced in sandy loam soils. In addition, most rhizomes in clay and sandy loam soils will reach depths of 3 and 5 inches, respectively.

Johnsongrass as a Forage Alternative

Johnsongrass is very competitive and has desirable forage traits. It has relatively high quality and produces comparable yields (2 to 5 tons per acre) to other summer forages. Furthermore, Johnsongrass is highly palatable prior to reproductive growth. However, its palatability and quality quickly decrease after flowering, and cattle will avoid it. Table 1 compares forage dry yield, crude protein (CP), and total digestible nutrients (TDN) among Johnsongrass and other

Table 1. Forage dry yield, crude protein (CP) and total digestible nutrients (TDN) of summer forage crops.

| Summer forage crop | Dry yield (tons/A) | CP (%) | TDN (%) |
|-----------------------|--------------------|--------------|--------------|
| Bermudagrass, common | 2-6 | 9-11 | 50-56 |
| Bermudagrass, coastal | 5-8 | 10-14 | 55-60 |
| Johnsongrass | 2-5 | 10-14 | 55-60 |
| Sudangrass | 2-6 | 9-12 | 55-60 |
| Pearl millet | 2-6 | 9-12 | 55-60 |
| Foxtail millet | 2-3 | 9-12 | 55-60 |
| Sericea lespedeza | 1-3 | 14-17 | 50-55 |

Source: Ball et. al (2007)

common forages. Values demonstrate that Johnsongrass, when correctly managed, can be a good forage option and comparable to bermudagrass and other common perennial forages (introduced and native).

Johnsongrass has some management considerations when used as a forage. The first is its high susceptibility to overgrazing. Cattle often kill Johnsongrass stands by grazing it to the ground. To maintain good Johnsongrass stands in pastures, start grazing or haying before flowering—when plants reach 12 to 18 inches—and stop when plants are grazed down to 6 to 8 inches. As previously discussed, rhizome energy will be very low before flowering; hence, grazing all of the leaves and stems at this stage will eventually starve the plant to death. Keeping a 6- to 8-inch stubble height also will maintain growing points and leaves, assuring regrowth back to 12 to 18 inches if a rest period of 30 to 45 days is allowed. This management strategy will not only help maintain forage quality, but also will maximize animal gain, avoid seed production and decrease infestations in neighboring field crops.

The second consideration is its high potential of nitrate and prussic acid accumulation. Both are poisonous—even lethal—to livestock at high levels. Nitrate and prussic acid poisoning occurs when plants resume growth after undergoing stress. For instance, Johnsongrass will accumulate nitrate or prussic acid after a rainfall that is followed by a severe drought period. The same challenges exist in other sorghums commonly used for hay or grazing. To avoid nitrate and prussic acid poisoning, use the following recommendations:

- [Redacted]
- [Redacted]
- [Redacted]
- [Redacted]
- [Redacted]
- [Redacted]
- [Redacted]
- [Redacted]

For more information on nitrate and prussic acid poisoning consult the fact sheets PSS 2903 Nitrate Toxicity in Livestock (available at: <http://pods.dasnr.okstate.edu/docushare/dsweb/Get/Document-1996/PSS-2903web2013.pdf>) and PSS 2904 Prussic Acid Poisoning (available at: <http://pods.dasnr.okstate.edu/docushare/dsweb/Get/Document-6191/PSS-2904pod2013.pdf>).

Johnsongrass Management

Most producers prefer to control Johnsongrass in their pastures due to the management considerations previously described. Improved forages exist that have faster growth rates than Johnsongrass with no poisoning concerns. Prevention of Johnsongrass is the best line of defense against unwanted plants in pastures. Prevention practices include using weed-free seed, avoiding driving machinery through Johnsongrass stands, cleaning equipment after moving from an infested area and managing field margins. If Johnsongrass does become established; cultural, mechanical and chemical tools can be effective.

The easiest and most profitable way to control established Johnsongrass in pastures is to overgraze or continuously mow. Understanding the changes in rhizome reserves is key for management of Johnsongrass. Rhizome reserves will be minimal—from one to four weeks after emergence—as new sprouts are taking up all of the reserves for leaf and stem growth. Removing the leaves and stems at this stage will leave the plant without energy for regrowth. However, rhizome reserves will be reaching its maximum after flowering, when the plant starts to senesce. Removing leaves and stems at this stage will promote more leaf and stem growth if the weather is suitable for growth.

Mechanical control is another option, but is more expensive. Fall plowing to a depth just below the rhizomes (3 to 5

inches) is very effective because it will bring the rhizomes to the soil surface and expose them to killing temperatures. Disking has the opposite effect. It will increase infestations by cutting the rhizomes into pieces that will eventually sprout as new plants. However, combining disking with proper herbicide applications can effectively control Johnsongrass as wounds promote herbicide absorption. For the best results, make post-emergence applications when Johnsongrass is actively growing and is at least 18 to 24 inches tall and up to the heading stage. See Table 2 for herbicide control options. *Before applying any herbicide, always consult the label for appropriate rates, the addition of surfactants, tank-mix partners, plant-back intervals, geographic restrictions, spray carrier volume, nozzle selection and other special instructions.*

References

- Ball, D.M., C.S. Hoveland and G.D. Cacefield. 2007. *Southern Forages*, 4th ed. Potash and Phosphate Institute and the Foundation for Agronomic Research.
- Natural Resources Conservation Service (NRCS). 2016. PLANTS Database. Available at: <http://plants.usda.gov/core/profile?symbol=SOHA>. Data retrieved on 11/17/2016. United States Department of Agriculture.
- Warwick S.I. and L.D. Black. The Biology of Canadian Weeds. 61. *Sorghum halepense* (L.) PERS. *Can. J. Plant Sci.* 63: 997-1014.

Table 2. Herbicide options for Johnsongrass control in pasture.

| Herbicide Trade Name | Herbicide Common Name | Manufacturer | Mode of Action | Application Timing | Labeled Crops | Rate | Grazing Restrictions |
|----------------------|-----------------------------|---|--------------------------------|-------------------------------|--|-----------------|---|
| Balan DF™ | Benefin | Trademark of Dow AgroSciences | Root Inhibitor | PPI ^a | Alfalfa and clover | 2 to 2.5 lbs/A | No grazing restrictions |
| Outrider® | Sulfosulfuron | Monsanto | ALS Inhibitor | POST | Bermudagrass, Bahiagrass, and pastures west of the Mississippi River | 0.75 to 2 oz/A | No grazing restrictions |
| Pastora® | Nicosulfuron Metsulfuron | Trademark of Dow AgroSciences and Bayer CropScience | ALS Inhibitor ALS Inhibitor | POST | Bermudagrass | 1 to 1.5 oz/A | Do not graze until plants are dry |
| Plateau® | Imazapic | BASF | ALS Inhibitor | POST | All Pastures | 2 to 12 oz/A | No grazing restrictions |
| Roundup PowerMAX® | Glyphosate | Monsanto Synthesis Inhibitor | EPSP Inhibitor | Preplant, PR, ST, WA and POST | Alfalfa (RR), bermudagrass, fescue, winter wheat, and others | 8 to 44 fl oz/A | Restrictions dependent on application timing. READ LABEL |

^a Abbreviations: PPI=preplant incorporated, POST=postemergence, PR=pasture renovation, ST=spot treat, WA; wiper applicator.

The Oklahoma Cooperative Extension Service

WE ARE OKLAHOMA

The Cooperative Extension Service is the largest, most successful informal educational organization in the world. It is a nationwide system funded and guided by a partnership of federal, state, and local governments that delivers information to help people help themselves through the land-grant university system.

Extension carries out programs in the broad categories of agriculture, natural resources and environment; family and consumer sciences; 4-H and other youth; and community resource development. Extension staff members live and work among the people they serve to help stimulate and educate Americans to plan ahead and cope with their problems.

Some characteristics of the Cooperative Extension system are:

- The federal, state, and local governments cooperatively share in its financial support and program direction.
- It is administered by the land-grant university as designated by the state legislature through an Extension director.
- Extension programs are nonpolitical, objective, and research-based information.
- It provides practical, problem-oriented education for people of all ages. It is designated to take the knowledge of the university to those persons who do not or cannot participate in the formal classroom instruction of the university.
- It utilizes research from university, government, and other sources to help people make their own decisions.
- More than a million volunteers help multiply the impact of the Extension professional staff.
- It dispenses no funds to the public.
- It is not a regulatory agency, but it does inform people of regulations and of their options in meeting them.
- Local programs are developed and carried out in full recognition of national problems and goals.
- The Extension staff educates people through personal contacts, meetings, demonstrations, and the mass media.
- Extension has the built-in flexibility to adjust its programs and subject matter to meet new needs. Activities shift from year to year as citizen groups and Extension workers close to the problems advise changes.

Oklahoma State University, as an equal opportunity employer, complies with all applicable federal and state laws regarding non-discrimination and affirmative action. Oklahoma State University is committed to a policy of equal opportunity for all individuals and does not discriminate based on race, religion, age, sex, color, national origin, marital status, sexual orientation, gender identity/ expression, disability, or veteran status with regard to employment, educational programs and activities, and/or admissions. For more information, visit <https://eeo.okstate.edu>.

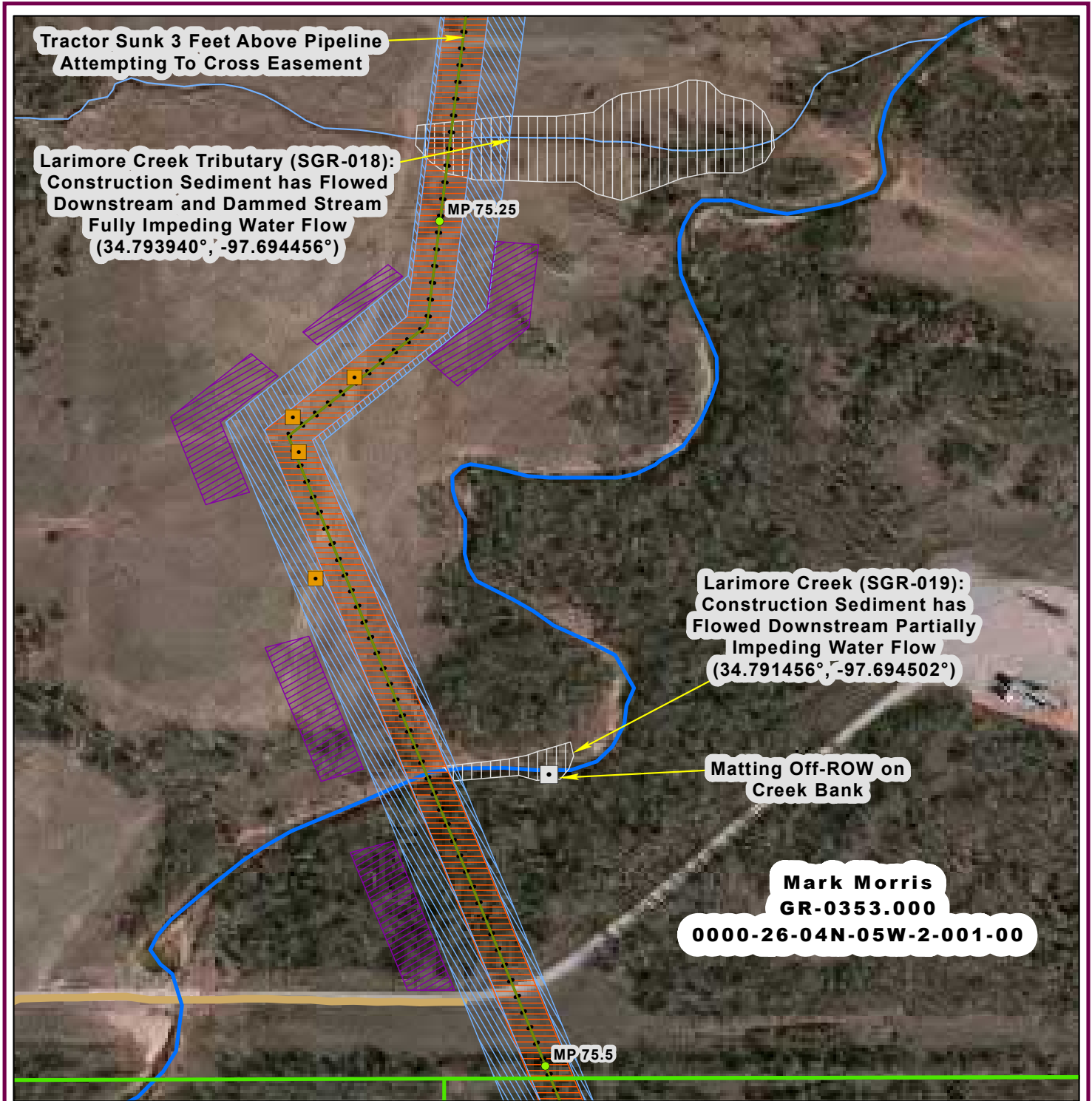
Issued in furtherance of Cooperative Extension work, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, Director of Oklahoma Cooperative Extension Service, Oklahoma State University, Stillwater, Oklahoma. This publication is printed and issued by Oklahoma State University as authorized by the Vice President for Agricultural Programs and has been prepared and distributed at a cost of 20 cents per copy. Revised 1219 GH.

Exhibit A

Section 4

Stream Impacts and Construction Debris

Exhibit Prepared for Mark Morris



■ Midship Pipeline
 Parcel Boundary (Approximate)
 Permanent Easement
 Temporary Workspace
 Additional Temporary Workspace
 Temporary Access Road
— Larimore Creek (SGR-019)
— Larimore Creek Tributary (SGR-018)
 Cathodic Protection Device
 Matting Off-ROW
 Sediment & Stream Backup

Exhibit Prepared For
 MORRIS, MARK A. REV TRUST

Site Address:
 34.791398°, -97.703044°

0000-26-04N-05W-2-001-00
 (228.5 acres)

GR-0353.000
 (2,767.97 feet / 7.55 acres)

GR-0353.000_TAR44
 (2,897 feet)

Grady County, Oklahoma

Midship Mainline Mile Post 75.25

Damages

SGR-018 Fully Blocked with Sediment.
 Water Flow is Impeded.

SGR-019 Partially Blocked with Sediment.
 Water Flow is Partially Impeded.

Matting Off-ROW and on Creek Bank

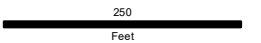
Exhibit Details

Based on Information Gathered from April 2020 Site Inspections

Data Sources:
 Grady County, OK. ESRI. USFWS.

Base Map: ESRI World Imagery

Provided for informative purposes only. This is not a survey product. This graphic should not be used for authoritative definition of legal boundary or property title.



Created: April 20, 2020





September 7, 2020 Photo Map Prepared for Mark Morris



September 2020

Exhibit Prepared For
 MORRIS, MARK A. TRUST

Site Address:
 34, 700-1180', 30' TO 3000'
 0000-26-04N-05W-2-001-00
 (200.0 acres)
 10-1-000-000
 (2,700.00 feet / 1.55 acres)
 OR-0007-000, T-1181
 (2.817 acres)
 Entry Class: 12/01/2018
 Mark Morris in All Post 15.55

Exhibit Details

Photos Contained in this
 Exhibit Were Taken on
 September 7, 2020

Notes

Carroll Land Consulting, LLC
 10000 NE 10th Street
 Portland, OR 97220
 503-253-1111
 503-253-1112
 503-253-1113
 503-253-1114
 503-253-1115
 503-253-1116
 503-253-1117
 503-253-1118
 503-253-1119
 503-253-1120





Exhibit A

Section 5

Oklahoma Department of Environmental Quality Open Dumping Warning and Instructions to Remediate



ENVIRONMENTAL COMPLAINTS AND LOCAL SERVICES
WARNING LETTER

To : Owner Occupant Other RP Complaint No.: 166571 County: Grady

| | | | | | | |
|------------------------------|-------|---------|-------------------|--------------------|-------------------|--|
| Midship Pipeline | | | | | | |
| Name | | Lot | Block | Subdivision | | |
| 700 Milam Street, Suite 1900 | | | | | | |
| Address | | Section | Township | Range | Legal Description | |
| Houston | | TX | 77002 | 34.791564 | -97.703488 | |
| City | State | Zip | Decimal 34.791564 | Decimal -97.703488 | | |

We have received a complaint alleging:
You have allowed solid waste to leave your right of way.

On 9/24/2020, I observed the following conditions:
Date

Two large environmental mats have left your right of way on Latimer Creek and moved onto private property.

Place an "x" in the appropriate box. Citations to relevant statutes and regulations are located on the reverse side of this letter.

This is an apparent violation of:

- Open Burning Open Dumping Fugitive Dust Highway Spill Remediation
- Allowing Sewage to Surface or Discharge Failing to Properly Operate or Maintain Sewage Disposal System
- Installing Unapproved Sewage Disposal System Installing >10 Sewage Disposal Systems w/o Being Certified

Place an "x" in the appropriate box.

You agreed to correct this violation by _____, by doing the following: **OR** This apparent violation should be corrected by 10/09/2020, by doing the following:
Date Date

Removing any solid waste that has moved onto private property and properly disposing of the waste at a DEQ approved landfill. You must also provide landfill receipts for the waste.
 Failure to address this matter by the date listed above may result in further enforcement by the Department. For assistance, please call your local representative at the phone number listed below. Thank you in advance for your time and attention to this matter.

Sincerely,

Signature Receipt acknowledged: _____ (Acknowledgement Date)

Jaime Brown (580) 255-6068 ext. 9/25/2020
Printed Name, Local DEQ Representative DEQ Phone Number Date

Original—Addressee

| Statute/Rule Citation | Summary of Requirements | Normal Time To Correct |
|--|--|---|
| Fugitive Dust | | |
| DEQ Rule: OAC 252:100-29-2(a) | <p style="text-align: center;">--Using Reasonable Precautions--</p> No person shall cause or allow any fugitive dust source to be operated, or any substances to be handled, transported or stored, or any structure constructed, altered, or demolished to the extent that such operation or activity may enable fugitive dust to become airborne and result in air pollution, without taking reasonable precautions [examples listed in OAC 252:100-29-3(1) through (6)] to minimize or prevent pollution. | Immediately |
| DEQ Rule: OAC 252:100-29-2(c)(1) | <p style="text-align: center;">--Visible Fugitive Dust Leaving Property--</p> No person shall cause or allow the discharge of any visible fugitive dust emissions beyond the property line of the property on which the emissions originate in such a manner as to damage or to interfere with the use of adjacent property. | Immediately |
| Highway Spill Remediation | | |
| DEQ Rule: OAC 252:210-1-1(c)(1)-(2) | Any business that provides services to contain, remove and/or remediate spills of hazardous materials on highways in Oklahoma;and Any person who owns or operates those businesses or is employed by them to perform such containment and/or remediation services. | Immediately |
| Open Burning | | |
| DEQ Rule: OAC 252:100-13-5 | The open burning of refuse and combustible materials is prohibited unless conducted in strict accordance with the conditions and requirements contained in 252:100-13-7 and 252:100-13-9. Under no circumstances shall the open burning of tires be allowed. | Immediately |
| Open Dumping | | |
| 27A O.S. § 2-10-301(A)(1) | <p style="text-align: center;">-- Disposing --</p> No person shall dispose of solid waste at any site or facility other than a site or facility for which a permit for solid or hazardous waste disposal has been issued by the Department of Environmental Quality. | 15 days (Immediately for diesel and gasoline spills) |
| 27A O.S. § 2-10-301(A)(2) | <p style="text-align: center;">-- Owning and Operating --</p> No person shall own or operate a site or facility at which solid waste is disposed other than a site or facility for which a permit for solid or hazardous waste disposal has been issued by the Department. | 15 days (Immediately for diesel and gasoline spills) |
| 27A O.S. § 2-10-301(A)(3) | <p style="text-align: center;">-- Transporting --</p> No person shall knowingly transport solid waste to an unpermitted site or facility. | 15 days (Immediately for diesel and gasoline spills) |
| Sewage | | |
| 27A O.S. § 2-6-403(A) | <p style="text-align: center;">-- Installing Unapproved System --</p> No small public sewage system or private individual sewage disposal system shall be constructed or operated unless such system, when constructed, complies with requirements prescribed by the Environmental Quality Board or a person authorized by the Department. | 15 days |
| 27A O.S. § 2-6-501(D) | <p style="text-align: center;">-- Surfacing/Discharging Sewage --</p> The discharge of domestic sewage except to a public or private disposal system approved or authorized by the Department or the surfacing of effluent from any domestic septic system shall be deemed pollution for purposes of the provisions of Section 2-6-105 of this title. | 15 days (Immediately if into a waterway or storm drain) |
| DEQ Rule: OAC 252:641-1-4 | <p style="text-align: center;">-- Operating and Maintaining --</p> On-site sewage disposal systems shall be maintained and operated properly so that sewage or effluent from the system is properly treated and does not surface, pool, flow across the ground or discharge to surface waters. | 15 days |
| DEQ Rule: OAC 252:641-10-3 | <p style="text-align: center;">Mandatory Two Year Maintenance</p> The installer of any aerobic treatment system shall maintain the aerobic treatment system for a period of two years following the date the system was installed at no additional cost to the owner. | 30 days to submit documentation showing maintenance completed |
| 59 O.S. § 1158(A) | <p style="text-align: center;">--Installing >10 Systems w/o Certification--</p> [A]ny person, before [installing] individual sewage disposal systems, shall first obtain certification from the [DEQ]. The provisions of this subsection shall only apply to persons who install more than ten individual sewage disposal systems per calendar year. | Immediately |

Original—Addressee

Exhibit A
Section 6

Minimal Surface Clean Up on November 2, 2020



Exhibit A

Section 7

Recent Correspondence Related to Restoration on Mark Morris' Property

From: Parker, Jay W. JWParker@trccompanies.com
Subject: Re: [EXTERNAL]
Date: October 21, 2020 at 1:38 PM
To: Mark Morris mmorris@morrismotorsports.com
Cc: Suzanne.Hickham@cheniere.com, Scott.Timpone@cheniere.com, Pete.Musgrove@cheniere.com, Champion, Brett C. BChampion@trccompanies.com, tzabel@zflawfirm.com, Vadim Bourenin (Guest) VBourenin@zflawfirm.com, Nate Laps landman1407@gmail.com, nlaps@centrallandconsulting.com

Mr. Morris-

Midships contractor plans to visit the site tomorrow with Midship representatives to review the items that were discussed during the onsite meeting with you.

Jay Parker
Land Manager
Representing Midship Pipeline Company LLC
Mobile-918-577-7811

On Oct 20, 2020, at 4:25 PM, Mark Morris <mmorris@morrismotorsports.com> wrote:

This is an **EXTERNAL** email. Do not click links or open attachments unless you validate the sender and know the content is safe.

Mr. Parker,

Now that four of your Midship representatives have met with my son-in-law and myself to look over the land from one end to the other of the pipe line that crosses my farm and noted the debris of rocks, and wood, the elevation difference and lack of top soil and the silt that went into the pond, I would like to know when should I expect you all to begin this project to clean up and restore my property?

Sincerely,
Mark Morris

From: Mark Morris mmorris@morrismotorsports.com
Subject: FW: [EXTERNAL]
Date: November 2, 2020 at 5:44 PM
To: Nate Laps landman1407@gmail.com

From: Parker, Jay W. <JWParker@trccompanies.com>
Sent: Tuesday, October 27, 2020 8:04 AM
To: Mark Morris <mmorris@morrismotorsports.com>
Subject: Re: [EXTERNAL]

Good morning Mr. Morris,

Please give me a call when you can. Thank you.

Jay Parker
Land Manager
Representing Midship Pipeline Company LLC
Mobile-918-577-7811

On Oct 26, 2020, at 8:13 PM, Mark Morris
<mmorris@morrismotorsports.com> wrote:

This is an **EXTERNAL** email. Do not click links or open attachments unless you validate the sender and know the content is safe.

October 24, 2020

Jamie,

On October 23, 2020, you contacted me regarding the environmental matting and compliance issues relating to the Midship pipeline and contractors, Strike. During construction Midship's contractors allowed Larimore Creek to become blocked with sediment which restricted flow and caused the streams to expand into the surrounding wetland. This expansion has caused extensive flooding events and amounts of sediment and ground debris downstream into Round Creek Site 5 Reservoir. This reservoir was dredged by me in early 2019 to boost its flood control capabilities as the Army Corps of Engineers designed it in the 1960s. In the past 16 months, since Midship begun construction on my property, the reservoir has re-accumulated silt and sediment to levels similar to before the dredging. Currently the reservoir is unable to serve its purpose as a flood control device. Water and sediment that

travels into the pond and is now permanently backed up into the nearby wetland and expands considerably after rainfall.

As I discussed with you previously, Midship and Strike have buried several environmental mats, portions of mats and rocks in my soils, which are within the floodplain, within the wetland, and downstream in Larimore Creek approximately 1000 feet east of the easement. The area where the mats discharged downstream have several valuable trees and wildlife that would be affected. All issues above would explain my concerns for granting Midship's contractors off-row. With that being said, I would agree to granting Midship off-row access if the following could be agreed upon:

1. Midship would remove all matting within my soils, which is roughly 20" deep. Replenish topsoil and establish pre-construction grade after mat removal.
2. Remove all silt and sediment that is blocking up the stream, wetland, and reservoir.
3. Dredge my reservoir and restore my pond to its pre-construction state.
4. Agree to compensate me for any loss of trees, damage to the creek and wildlife.
5. DEQ, OCC, and the FERC personnel and a land owner's representative present during all activities.
6. Provide me with a detailed plan of all work to be preformed, and an agreed start date and completion date of all work.

The majority of these stipulation are pretty much standard and I would think Midship would want to abide by them to protect the environment and comply with good construction standards.

Thank you:
Mark Morris
President

.....
Morris Motorsports
4400 South 4th street
Chickasha OK 73023
mmorris@morrismotorsports.com
morrismotorsports.com

From: Mark Morris <mmorris@morrismotorsports.com>
Subject: FW: FW: [EXTERNAL] Midship Response Email
Date: November 2, 2020 at 6:14 PM
To: Nate Laps <landman1407@gmail.com>

-----Original Message-----

From: Parker, Jay W. <JWParker@trccompanies.com>
Sent: Monday, November 2, 2020 10:06 AM
To: Mark Morris <mmorris@morrismotorsports.com>
Cc: Scott Timpone <Scott.Timpone@cheniere.com>; Suzanne Hickham <Suzanne.Hickham@cheniere.com>
Subject: RE: [EXTERNAL] FW: Midship Response Email

Mr. Morris-

At this time, we cannot agree to your stipulations for the off-ROW access. We will perform the work on our ROW of which you were previously notified.

Thank you,

Jay Parker
918 577 7811
jwparker@trccompanies.com

-----Original Message-----

From: Mark Morris <mmorris@morrismotorsports.com>
Sent: Monday, November 2, 2020 9:49 AM
To: Parker, Jay W. <JWParker@trccompanies.com>; Suzanne.Hickham@cheniere.com
Subject: [EXTERNAL] FW: Midship Response Email

This is an EXTERNAL email. Do not click links or open attachments unless you validate the sender and know the content is safe.

Thanks:
Mark Morris
405-224-6113
405-202-0913

-----Original Message-----

From: Nate Laps <landman1407@gmail.com>
Sent: Thursday, October 29, 2020 11:55 PM
To: Mark Morris <mmorris@morrismotorsports.com>
Subject: Midship Response Email

See below

From: **Nate Laps** landman1407@gmail.com
Subject: Fwd: [EXTERNAL]
Date: November 2, 2020 at 10:43 AM
To: Mark Morris mmorris@morrismotorsports.com

Begin forwarded message:

From: "Parker, Jay W." <JWParker@trccompanies.com>
Subject: Re: [EXTERNAL]
Date: October 21, 2020 at 2:35:28 PM EDT
To: Mark Morris <mmorris@morrismotorsports.com>
Cc: "Suzanne.Hickham@cheniere.com" <Suzanne.Hickham@cheniere.com>, "Scott.Timpone@cheniere.com" <Scott.Timpone@cheniere.com>, "Pete.Musgrove@cheniere.com" <Pete.Musgrove@cheniere.com>, "Champion, Brett C." <BChampion@trccompanies.com>, "tzabel@zflawfirm.com" <tzabel@zflawfirm.com>, "Vadim Bourenin (Guest)" <VBourenin@zflawfirm.com>, Nate Laps <landman1407@gmail.com>, "nlaps@centrallandconsulting.com" <nlaps@centrallandconsulting.com>

Mr Morris,

As we have already discussed your concerns with you directly, we'd prefer to meet with our contractor without your presence so we can openly discuss our options with Strike.

Thank you,

Jay Parker
Land Manager
Representing Midship Pipeline Company LLC
Mobile-918-577-7811

On Oct 21, 2020, at 1:18 PM, Mark Morris <mmorris@morrismotorsports.com> wrote:

This is an **EXTERNAL** email. Do not click links or open attachments unless you validate the sender and know the content is safe.

If you will give me a time I will be there or one of my representatives to see what scope of work you plan.

Sent from my iPhone

On Oct 21, 2020, at 12:38 PM, Parker, Jay W. <JWParker@trccompanies.com> wrote:

Mr. Morris-

Midship contractor plans to visit the site tomorrow with Midship

MIDSNIP contractor plans to visit the site tomorrow with MIDSNIP representatives to review the items that were discussed during the onsite meeting with you.

Jay Parker
Land Manager
Representing Midship Pipeline Company LLC
Mobile-918-577-7811

On Oct 20, 2020, at 4:25 PM, Mark Morris
<mmorris@morrismotorsports.com> wrote:

This is an **EXTERNAL** email. Do not click links or open attachments unless you validate the sender and know the content is safe.

Mr. Parker,

Now that four of your Midship representatives have met with my son-in-law and myself to look over the land from one end to the other of the pipe line that crosses my farm and noted the debris of rocks, and wood, the elevation difference and lack of top soil and the silt that went into the pond, I would like to know when should I expect you all to begin this project to clean up and restore my property?

Sincerely,
Mark Morris

From: Mark Morris mmorris@morrismotorsports.com
Subject: FW: midship
Date: November 4, 2020 at 8:28 PM
To: Nate Laps landman1407@gmail.com

From: Head, Lisa <Lisa.Head@mail.house.gov>
Sent: Wednesday, November 4, 2020 3:57 PM
To: Mark Morris <mmorris@morrismotorsports.com>
Subject: RE: midship

Thank you Mr. Morris.

I will add this to you pending inquiry with FERC.

Lisa

From: Mark Morris <mmorris@morrismotorsports.com>
Sent: Wednesday, November 4, 2020 3:28 PM
To: Head, Lisa <Lisa.Head@mail.house.gov>
Subject: midship

November 4, 2020

To: Lisa Hedrick

Lisa,

I am attaching to this email the letter that was sent to Jamie regarding the stipulations to allowing access to repair and restore my land to its previous conditions prior to the Midship Pipeline crossing my property. You will see in the letter that the damage and matting are 20 or more inches deep.

I met with four Midship representatives and we went over the land and viewed all the damages and I thought we were in agreement as to what was necessary to repair and clean up my land. Two days later there was another meeting without my presence and the cleanup plan was apparently changed and decided that the repair and clean up would not go below 6" of the ground surface. Again, the debris of matting and rock are 20" or more below the ground surface. My son has been there as my witness, observing the cleanup crew for several days. He has witnessed the cleanup crew only going 4" below the ground surface and not removing all the debris. He has spoken to the cleanup crew, saying they need to go deeper to get all the debris. He has been told that the crew can not go deeper than 6" to remove the debris, as if they were to go deeper it would disrupt the pipeline. This was not what we agreed to and it is not my fault the pipeline was rushed into service prior to the proper clean up. Please note that the pipeline is supposed to be 7ft deep with 4ft of cover.

If the land cannot be cleaned properly and restored to its condition prior to the pipeline construction with the pipeline in service, then the pipeline should be shut down and the clean up should be done properly. The matting, wood and rock debris is greater than 20" below the ground surface, digging 6" is not going to clean my land and free it of the trash that was left behind. This is not what was agreed upon to restore my land and it is frankly very upsetting to believe we were finally going to get the land restored only to find that I have again been lied to and all this is only being done for appearance of right when in fact it is just a poor attempt and will not clean my land at all.

Sincerely,

Mark Morris

October 24, 2020

Jamie,

On October 23, 2020, you contacted me regarding the environmental matting and compliance issues relating to the Midship pipeline and contractors, Strike. During construction Midship's contractors allowed Larimore Creek to become blocked with sediment which restricted flow and caused the streams to expand into the surrounding wetland. This expansion has caused extensive flooding events and amounts of sediment and ground debris downstream into Round Creek Site 5 Reservoir. This reservoir was dredged by me in early 2019 to boost its flood control capabilities as the Army Corps of Engineers designed it in the 1960s. In the past 16 months, since Midship begun construction on my property, the reservoir has re-accumulated silt and sediment to levels similar to before the dredging. Currently the reservoir is unable to serve its purpose as a flood control device. Water and sediment that travels into the pond and is now permanently backed up into the nearby wetland and expands considerably after rainfall.

As I discussed with you previously, Midship and Strike have buried several environmental mats, portions of mats and rocks in my soils, which are within the floodplain, within the wetland, and downstream in Larimore Creek approximately 1000 feet east of the easement. The area where the mats discharged downstream have several valuable trees and wildlife that would be affected. All issues above would explain my concerns for granting Midship's contractors off-row. With that being said, I would agree to granting Midship off-row access if the following could be agreed upon:

1. Midship would remove all matting within my soils, which is roughly 20" deep. Replenish topsoil and establish pre-construction grade after mat removal.
2. Remove all silt and sediment that is blocking up the stream, wetland, and reservoir.

reservoir.

3. Dredge my reservoir and restore my pond to its pre-construction state.
4. Agree to compensate me for any loss of trees, damage to the creek and wildlife.
5. DEQ, OCC, and the FERC personnel and a land owner's representative present during all activities.
6. Provide me with a detailed plan of all work to be performed, and an agreed start date and completion date of all work.

The majority of these stipulation are pretty much standard and I would think Midship would want to abide by them to protect the environment and comply with good construction standards.

Thank you,

Mark Morris

Mark Morris
President
Morris Motorsports
4400 South 4th street
Chickasha OK 73023
mmorris@morrismotorsports.com
morrismotorsports.com

Exhibit B

NRCS Guidance on Restoration of Construction Sites

Vegetating Disturbed Sites



The following guidelines were developed as part of an on-going project to improve the quality of the work done by the NRCS. These are only suggestions of the types of work that can be done. They are not intended to be a checklist of work.

These guidelines are being developed by the NRCS. We will share the work of the NRCS with the public and will continue to work with the public to improve the quality of the work done by the NRCS. We will continue to work with the public to improve the quality of the work done by the NRCS.

The NRCS will continue to work with the public to improve the quality of the work done by the NRCS. We will continue to work with the public to improve the quality of the work done by the NRCS. We will continue to work with the public to improve the quality of the work done by the NRCS.

Summary of Work

The following guidelines were developed while the specified planting work, which is intended to provide an opportunity for the public to improve the quality of the work done by the NRCS.

1. Plant new trees and shrubs in areas where they are needed to improve the quality of the work done by the NRCS. The work done by the NRCS will be improved by the planting of new trees and shrubs in areas where they are needed to improve the quality of the work done by the NRCS.
2. Plant new trees and shrubs in areas where they are needed to improve the quality of the work done by the NRCS. The work done by the NRCS will be improved by the planting of new trees and shrubs in areas where they are needed to improve the quality of the work done by the NRCS.

PT notes of 10/17 of the ... performance ... and ... by ... / ... by ... of ...
... .

1. Description of ...

... and ... planning ... of ... and ... by ... / ... by ... of ...
... .

... and ... planning ... of ... and ... by ... / ... by ... of ...
... .

Standard Preparation

... and ... planning ... of ... and ... by ... / ... by ... of ...
... .

... and ... planning ... of ... and ... by ... / ... by ... of ...
... .

... and ... planning ... of ... and ... by ... / ... by ... of ...
... .

Statistical Methods

... and ... planning ... of ... and ... by ... / ... by ... of ...
... .

... and ... planning ... of ... and ... by ... / ... by ... of ...
... .

... and ... planning ... of ... and ... by ... / ... by ... of ...
... .

... and ... planning ... of ... and ... by ... / ... by ... of ...
... .

... and ... planning ... of ... and ... by ... / ... by ... of ...
... .

... and ... planning ... of ... and ... by ... / ... by ... of ...
... .

Environmental Commitments

The system will be used whenever the use of typical practice materials is not feasible or practical based on the conditions of a historic property (36 CFR 60.101)

Materials shall be 100% recycled fiber or a 100% blend of recycled fiber and recycled paper. Products shall be applied at manufacturer recommended rates (Manufacturer's label)

- (c) A minimum use of rate of 1.00L per square foot shall be used on slopes greater than 3:1
- (d) A minimum use of rate of 1.00L per square foot shall be used on slopes greater than 3:1

Collaboration will be required in case of the following scenario:

Emergency Application: When circumstances in general and/or in a specific area, make any existing vegetation fragile, sensitive, or otherwise at risk, and/or when a vegetation survey is required as a pre-application, and/or when a one-day application is required or when a one-day application is not possible due to weather conditions.

Emergency Application: In cases where a one-day application is required, the contractor shall submit a one-day application to the contractor. Immediately after the one-day application, apply the herbicide and take for a one-day application over the required area of the site covered by the herbicide.

Special Handling Requirements

Approved and properly certified shall work with the contractor. All work activities shall be conducted in accordance with the contractor's label and shall include safety and health precautions, and shall include the contractor's label and shall include safety and health precautions. The contractor shall submit a one-day application to the contractor. Immediately after the one-day application, apply the herbicide and take for a one-day application over the required area of the site covered by the herbicide.

If the contractor is not properly certified, the contractor shall submit a one-day application to the contractor.

The contractor shall submit a one-day application to the contractor. Immediately after the one-day application, apply the herbicide and take for a one-day application over the required area of the site covered by the herbicide.

Notes

All work activities shall be conducted in accordance with the contractor's label and shall include safety and health precautions. The contractor shall submit a one-day application to the contractor. Immediately after the one-day application, apply the herbicide and take for a one-day application over the required area of the site covered by the herbicide.

Table 7. Mean Percent Fecal Coliforms and Bacteria Collected. Mean water temperature that may be found in Jordan. Mean sea level value is indicated either to the left or right of the location and date.

| Location | Year | Mean % in Jordan | Mean No. in Jordan | Mean % in |
|----------|------|------------------|--------------------|-----------|
| Jordan | 1970 | 40 | 1000 | |
| | 1971 | 30 | 1000 | |
| | 1972 | 30 | 1000 | |
| | 1973 | 40 | 1000 | |
| | 1974 | 40 | 1000 | |
| | 1975 | 40 | 1000 | |
| | 1976 | 40 | 1000 | |
| | 1977 | 40 | 1000 | |
| | 1978 | 40 | 1000 | |
| | 1979 | 40 | 1000 | |
| 1980 | 40 | 1000 | | |
| 1981 | 40 | 1000 | | |
| 1982 | 40 | 1000 | | |
| 1983 | 40 | 1000 | | |
| 1984 | 40 | 1000 | | |
| 1985 | 40 | 1000 | | |
| 1986 | 40 | 1000 | | |
| 1987 | 40 | 1000 | | |
| 1988 | 40 | 1000 | | |
| 1989 | 40 | 1000 | | |
| 1990 | 40 | 1000 | | |
| 1991 | 40 | 1000 | | |
| 1992 | 40 | 1000 | | |
| 1993 | 40 | 1000 | | |
| 1994 | 40 | 1000 | | |
| 1995 | 40 | 1000 | | |
| 1996 | 40 | 1000 | | |
| 1997 | 40 | 1000 | | |
| 1998 | 40 | 1000 | | |
| 1999 | 40 | 1000 | | |
| 2000 | 40 | 1000 | | |
| 2001 | 40 | 1000 | | |
| 2002 | 40 | 1000 | | |
| 2003 | 40 | 1000 | | |
| 2004 | 40 | 1000 | | |
| 2005 | 40 | 1000 | | |
| 2006 | 40 | 1000 | | |
| 2007 | 40 | 1000 | | |
| 2008 | 40 | 1000 | | |
| 2009 | 40 | 1000 | | |
| 2010 | 40 | 1000 | | |
| 2011 | 40 | 1000 | | |
| 2012 | 40 | 1000 | | |
| 2013 | 40 | 1000 | | |
| 2014 | 40 | 1000 | | |
| 2015 | 40 | 1000 | | |
| 2016 | 40 | 1000 | | |
| 2017 | 40 | 1000 | | |
| 2018 | 40 | 1000 | | |
| 2019 | 40 | 1000 | | |
| 2020 | 40 | 1000 | | |

Mean water temperature that may be found in Jordan. Mean sea level value is indicated either to the left or right of the location and date.

Calculation of Mean Percent Fecal Coliforms

In order to compute mean percent fecal coliforms, determine the given Fecal Coliform Ratio for individual species present and to the percentage of the species checked above and below.

| Species | Mean % in Jordan | Mean No. in Jordan | Mean % in |
|-----------------------|------------------|--------------------|-----------|
| Escherichia coli | 40 | 1000 | |
| Shigella | 30 | 1000 | |
| Salmonella | 40 | 1000 | |
| Staphylococcus aureus | 40 | 1000 | |
| Other | 40 | 1000 | |
| Total | 40 | 1000 | |

Table 2. Irrigation system

| Location | Address | Project Dates | Remarks |
|---|--------------------|-------------------------------------|--|
| Wingspread 1992 15000th Highway, Grant, Washington Local weather | 15000th Highway | Oct. 1 - June 15 | 15000th High with local weather |
| Wingspread - local weather "Wingspread" "Wingspread" "Wingspread" | 15000th Highway | April 15 - June 15 | 15000th High with local weather Date of any repairs or to release or improvements for particular use only given. |
| 15000th | 15000th Highway | April 1 - Oct 31 Mar. 1 - Dec 31 | 15000th High with local weather. Can be used as weather in context of study. For release in this study. Wingspread local weather - local weather study for weather related factors. Can be used as local weather. |
| Wingspread 1992 | 15000th Highway | Local weather June 15 | 15000th High with local weather. |

WINGSPREAD LOCAL WEATHER STUDY DESCRIPTION

Wingspread weather and local weather study. Study includes weather data collection. An example weather data collection station is shown in figure 1. All other stations are similar. All of station data is collected. All data is collected and stored in a local database. All data is collected and stored in a local database. All data is collected and stored in a local database.

Wingspread weather and local weather study. Study includes weather data collection. An example weather data collection station is shown in figure 1. All other stations are similar. All of station data is collected. All data is collected and stored in a local database. All data is collected and stored in a local database.

Number of plants per square foot

Plants should be located in representative areas of 1 m field and well distributed. One hundred plants, 3-5 plants per 1 m² with similar spacing. Plants should be well distributed. One hundred plants, 3-5 plants per 1 m² with similar spacing. Plants should be well distributed. One hundred plants, 3-5 plants per 1 m² with similar spacing.

Plants should be located in representative areas of 1 m field and well distributed. One hundred plants, 3-5 plants per 1 m² with similar spacing. Plants should be well distributed. One hundred plants, 3-5 plants per 1 m² with similar spacing.

| Species | Local plants naturally distributed - Average number per square foot | | |
|----------------------------------|---|---|---|
| | Plants | Wingspread weather | Local weather |
| Wingspread weather 1992 | 1-2 | 1-2 | 1-2 |
| Local weather plants and weather | 1-2 | 1-2 | 1-2 |
| Wingspread weather | 1-2 plants per 1 m ² local weather | 1-2 plants per 1 m ² local weather | 1-2 plants per 1 m ² local weather |



Helping People Help the Land

Reclaiming Disturbed Sites

USDA Natural Resources Conservation Service, Bismarck, North Dakota



*Reclaiming disturbed sites successfully requires careful planning well in advance of the actual disturbance.
(Photo credit: ND Dept of Trust Lands)*

Soils

When revegetating disturbed sites, it is important to know what soils are impacted and ensure that plant species being planted are adapted to those soils. Contact your local NRCS/SCD Field Office for identification of the impacted soils or visit the Web Soil Survey (<http://websoilsurvey.nrcs.usda.gov/app/>) to find the location and soil mapping units. Soil surveys are available for all counties in North Dakota at a scale of 1:24,000. For project areas larger than 3 to 5 acres, the soil survey will provide adequate information for reclamation. Soil survey information is not site specific and does not eliminate the need for onsite investigation of soil properties for projects less than 3 to 5 acres. Soil surveys were designed for general conservation planning, not site specific interpretations.

Topsoil should be stripped from the site and kept separate during the construction. Upon completion of the project, and after replacement, grading, and shaping of the subsoil, the topsoil should be respread on the surface.

NRCS has developed Ecological Site Descriptions (ESD) that contain detailed information on the plant species naturally occurring on those soil mapping units. ESDs for the state are available at: <https://esis.sc.egov.usda.gov/>

Adjacent Land Use

The adjacent land use and vegetation should always be considered when determining proper species for revegetating disturbed sites. If construction is impacting native rangeland, it is important to revegetate with native species adapted to those soils and ecological sites. Planting these disturbed sites with introduced species can have negative impacts on the adjacent land resource. Species such as smooth brome grass, Kentucky bluegrass and crested wheatgrass can invade adjacent native rangeland, usually reducing production and hindering management. If the construction impacts hayland or pastureland, it is important to replant desirable, compatible species. Pastureland and hayland are commonly planted to an

introduced species such as alfalfa, intermediate wheatgrass, crested wheatgrass and smooth brome grass. These species can make productive introduced pastures and hayland. It is critical to consider proper species selection. If cropland is impacted, it is still important to respread the topsoil on the soil surface to restore productivity of the disturbed site.



It is critical that disturbed sites are revegetated with plant species that match the adjacent land use. Do not use introduced species when revegetating disturbances in or adjacent to native sites.

Weed Control

Weeds need to be monitored on the site both during construction and after the site is reclaimed. Precautions should be taken to not introduce invasive weeds into these disturbed sites. Weeds may need to be controlled prior to seeding or after the site is seeded depending on weed species present and degree of infestation. If a weed problem is known to exist, then weed management needs to be considered when planning the species mix. Ensure the planted species and adjacent species are compatible with the selected herbicide.

Erosion Control

Erosion should be controlled at all times and is critical after planting and during plant establishment. Consider planting a cover crop during the part of the growing season that is not suited to planting permanent cover. On smaller areas a weed-free blanket mulch is an option. See NRCS Conservation Practice Mulching in FOTG Section IV - Conservation Practice Standards http://efotg.sc.egov.usda.gov/references/public/ND/484_Standard.pdf.

Species Selection

Plant species should be selected that are adapted to the soils and will provide for the planned land use. Care must be taken to purchase northern adapted species that have been performance tested to survive and be productive in the area. Utilize the NRCS Herbaceous Vegetation Establishment Guide to determine proper species and seeding rates for the seed mix. *See NRCS Herbaceous Vegetation Establishment

Guide http://efotg.sc.egov.usda.gov/references/public/ND/Herbaceous_Veg_Est_Guide.pdf *See Conservation Practice Cover Crop in FOTG Section IV - Conservation Practice Standards http://efotg.sc.egov.usda.gov/references/public/ND/340_standard.pdf



green needlegrass



sideoats grama

'Lodorm' green needlegrass and 'Pierre' sideoats grama (left tray in each photo) established rapidly (25 days after seeding) compared to a native harvest seed source (right tray in each photo).

Proper Seeding of the Site

Once the species have been selected it is crucial to plant them when the best chance for establishment occurs. If the planting is dominated by cool-season species, a spring or late dormant planting date has proven to be the best. If the mix includes warm-season species, it is best to plant late spring after the last chance of frost. The seeding should be done into a firm, weed-free seedbed. Seed should be placed no more than 1/2 inch deep for most species. *See Five Keys for Successful Grass Seeding http://www.nrcs.usda.gov/Internet/FSE_PLANTMATERIALS/publications/ndpmcbr04959.pdf

Management During Establishment

Management during establishment is critical to achieving successful reclamation. A full growing season of deferment (no grazing or haying) is generally a minimum establishment period. Depending upon growing conditions, a second year of deferment may be required. If the reclaimed site involves rangeland or tame pasture which is currently being grazed, temporary fencing may be an option to exclude livestock from the seeded area. If the manager is currently using a prescribed grazing system of some type, adjustments could be made to the livestock rotation to provide the needed deferment period.

Annual weeds usually associated with grass seeding efforts will generally not be a long term problem. As the perennial seeded vegetation becomes established, annual weeds will



Construction activities should leave little to no visible foot print on the land if properly planned and reclaimed (photo credit: USDA Forest Service).

decline. Noxious weeds will need to be controlled as per state law. This could involve spot spraying and/or clipping prior to seed formation.

Seeding Mixes

Example seeding mixtures based upon general soil types would include:

| Native rangeland (loam, clayey and sandy soils) |
|---|
| Western wheatgrass (native cool-season rhizomatous grass) |
| Green needlegrass (native cool-season bunchgrass) |
| Canada wildrye (native cool-season bunchgrass) |
| Sideoats grama (native warm-season rhizomatous grass) |
| Blue grama (native warm-season bunchgrass) |
| Purple prairieclover (native leguminous forb) |

| Native rangeland (sands and shallow soils) |
|---|
| Western wheatgrass (native cool-season rhizomatous grass) |
| Prairie sandreed (native warm-season rhizomatous grass) |
| Little bluestem (native warm-season bunchgrass) |
| Canada wildrye (native cool-season bunchgrass) |
| Blue grama (native warm-season bunchgrass) |
| Narrow-leaf purple coneflower (native forb) |

| Native rangeland (saline and/or sodic affected soils) |
|--|
| Western wheatgrass (native cool-season rhizomatous grass) |
| Slender wheatgrass (native cool-season bunchgrass) |
| Canada wildrye (native cool-season bunchgrass) |
| Blue grama (native warm-season bunchgrass) |
| Western yarrow (native forb) |
| Wyoming big sagebrush (native shrub) – for reclaiming sites within sage grouse habitat |

| Introduced pasture or hayland (all soil types) |
|---|
| When reestablishing tame grass pastures or hayland, use introduced species which are adapted to the soil and match the existing vegetation. This may include intermediate/pubescent wheatgrass (introduced cool-season rhizomatous grass), meadow bromegrass (introduced cool-season bunchgrass), crested wheatgrass (introduced cool-season bunchgrass), and alfalfa (introduced leguminous forb). Be aware of the potential for livestock bloat when using alfalfa in pasture mixtures. |

Herbaceous Establishment Guide (NRCS ND) http://efotg.sc.egov.usda.gov/references/public/ND/Herbaceous_Veg_Est_Guide.pdf
 Pasture or Hayland Specification (NRCS ND) http://efotg.sc.egov.usda.gov/references/public/ND/512_specs.pdf
 Range Specification (NRCS ND) http://efotg.sc.egov.usda.gov/references/public/ND/550_specs.pdf

For more information or technical assistance, contact your local Natural Resources Conservation Service Field Office, County Soil Conservation District Office, or USDA-NRCS Plant Materials Center
 3308 University Drive
 Bismarck, ND 58504
 Phone: (701) 250-4330
<http://Plant-Materials.nrcs.usda.gov>

All programs and services are offered on a non-discriminatory basis.

February 2014



SOIL QUALITY – URBAN TECHNICAL NOTE No. 1

Erosion and Sedimentation on Construction Sites



United States
Department of
Agriculture

Natural
Resources
Conservation
Service

Soil Quality Institute
411 S. Donahue Dr.
Auburn, AL 36832
334-844-4741
X-177
Urban Technical
Note No. 1

March, 2000

This is the first note in a series of Soil Quality-Urban technical notes on the effects of land management on soil quality.



Introduction

Soil is a crucial component of rural and urban environments, and in both places land management is the key to soil quality. This series of technical notes examines the urban activities causing soil degradation and sedimentation, and the management practices that protect the functions that urban societies demand from soil. This technical note will focus on soil erosion and sedimentation from construction sites.

Off site damage from sediment is the most critical problem facing construction sites. Erosion, which produces this sediment, is accelerated when soil is disturbed, left bare, and exposed to the abrasive action of wind and water. Unless adequate measures are taken to prevent this abnormal, highly accelerated soil removal, it becomes the most visible and damaging factor in the deterioration of soil quality and the environmental quality of urban areas.

Construction Erosion

Although erosion on construction sites often affects only a relatively small acreage of land in a watershed, it is a major source of sediment because the potential for erosion on highly disturbed land is commonly 100 times greater than on agricultural land (Brady and Weil, 1999). Erosion and sediment damages occur both on and off the construction site, and all of society pays for the destructive impacts.

Erosion Impacts

Construction activities, such as grading and filling, drastically reduce soil quality on construction sites. Left unprotected, sites will be further degraded by erosion and begin to adversely affect the surrounding environment. The goal of soil quality management on construction sites is to revegetate for protection against off-site damage and increase soil organic matter levels to remedy the on-site damage caused by site preparation.

On-site impacts: The loss of topsoil, either by actual removal with heavy equipment or erosion by wind and water, is the worst on-site damage in urban areas. This layer of soil has the highest biological activity, organic matter, and plant nutrients—all key components of healthy soil. The on-site loss of this upper layer of soil nearly eliminates the soil's natural ability to provide nutrients, regulate water flow, and combat pests and disease.

- Loss of nutrients and nutrient holding capacity, results in a less fertile environment for lawns and landscape plants. The organic matter and finer soil particles are responsible for soil fertility and are washed away first, leaving larger, less reactive particles such as sand and gravel.
- As organic matter is lost, soil density increases and compaction occurs. Compaction lowers the infiltration rate of water and reduces the available water holding capacity. This results in poorer growth of lawns, gardens, flowerbeds, shrubs, and trees, as well as making the site more susceptible to drought and requiring more frequent watering. Additionally, soil amendments such as fertilizer and pesticides cannot move into the soil and, instead, run off into nearby lakes and streams. Lower organic matter levels are also associated with weaker soil aggregates and therefore greater risk of further erosion and soil crusting.
- The surface organic matter is also the food source and habitat for beneficial microorganisms and insects. The loss of this material drastically reduces the soils natural ability to control disease and pest outbreaks, increasing the need for pesticides. These microorganisms are also key to removing or buffering toxic elements or contaminants.

Off-site impacts: Erosion from construction sites has off-site environmental and economic impacts. Erosion creates two major water quality problems in surface waters and drainage ways: excess nutrients and excess sediment. These problems adversely impact the health and biological diversity of water bodies. More specifically:

- Excess nutrients impact water quality through eutrophication, a process whereby excess nitrogen and phosphorus causes unwanted biological growth.
- Sediment reduces water quality by making the water turbid (cloudy). Turbidity prevents sunlight from penetrating the water and thus reduces photosynthesis and underwater vegetation. Oxygen levels are reduced in turbid waters, further degrading habitat for fish and other aquatic organisms.
- Sediment can build up in stream channels, lowering flow capacity. The problem of low stream capacity is compounded as runoff increases from newly built-up or paved areas and causes stream channels to receive larger amounts of water in shorter periods of time. This leads to more frequent flooding in areas that never or only rarely flooded in the past. In flood-prone areas, levees may need to be built or enlarged to better protect public safety.
- A financial burden results from clean up of sediment-damaged areas. Taxpayers often bear the cost of removing sediment from public roads, road ditches, culverts or streams; not to mention damage to homes and the safety hazards associated with flooding. Other costs of erosion that are borne by the public are degraded soils, a polluted environment, more runoff, greater need for irrigation, and aesthetically displeasing sites.

Many local governments enforce regulations to control or prevent erosion from construction sites. State and local laws and the Clean Water Act of 1992 can require contractors to develop detailed erosion and sediment control plans before beginning construction projects over approximately 2.5 acres.

Tool for Estimating Erosion on Construction Sites

Soil loss from sheet and rill erosion on construction sites, mined lands, reclaimed lands, and other highly disturbed areas can be estimated using the Revised Universal Soil Loss Equation (RUSLE) version 1.06. A handbook is available to help the user estimate factor values and apply the computer model (Toy and Foster, 1998).

The person in each NRCS State or Basin Area Office with responsibility for RUSLE (typically the state agronomist) should be contacted for assistance with estimating soil loss on construction sites using RUSLE.

Evaluating Management Practices and Developing Alternative Systems

Erosion control practices and management systems can be evaluated and planned using the RUSLE model. The erosion control

benefits of cover and management practices such as adding mulch, seeding, and sod can be estimated with the RUSLE conservation management (C) factor. Structural and vegetative practices such as straw bales, silt fences, gravel bags, narrow grass strips or buffers, vegetative barriers, terraces and diversions can be evaluated with the RUSLE conservation practice (P) factor.

Alternative management systems, consisting of combinations of cover and structural practices, can be developed with the RUSLE program. Ideally, these management systems will reduce or control erosion and sedimentation and improve soil quality. Each site and management system must be evaluated individually, since erosion estimates will vary depending on climate, soils, topography, and cover conditions.

The RUSLE model also estimates the amount of sediment delivered to the base of a slope (sediment yield) using the RUSLE P factor. Some temporary practices used on construction sites such as a silt fence placed at the base of the slope will not reduce erosion on the slope but will trap some of the sediment leaving that slope. The RUSLE model estimates this sediment yield, as displayed in Table 1.

Table 1. Effects of management practices on controlling erosion on a road bank. Estimated sheet and rill erosion and sediment yield using RUSLE during a construction year in Nashville, TN¹.

| Site Conditions ² | | Soil Loss from Road Bank (t/a/y) | Sediment Yield at Base of Slope (t/a/y) |
|------------------------------|----------------------|----------------------------------|---|
| -1 st 6 mo | 2 nd 6 mo | | |
| Bare | Bare | 400 | 400 |
| Bare | Bare, Silt Fence | 400 | 250 |
| Bare | Mulch, Seeded | 140 | 140 |
| Bare | Sod, Diversion | 40 | 5 |

¹Effects of management will vary under other climatic conditions. For example, soil loss and sediment yield will be 35 % and 80 % less in Chicago and Denver, respectively, than values shown in table.

²Roadside cutbank, 100 ft. long at 30% gradient. Site disturbed from March – June. Soil loss and sediment yield during a single construction season. Soil is a silt loam. Silt fence placed at base of slope. Diversion placed in middle of slope.

Principles of Construction Erosion Control

Prevention of urban erosion is best. Here are some basic principles of erosion control on construction sites (adapted from Brady and Weil, 1999):

1. Divide the project into smaller phases clearing smaller areas of vegetation.
2. Schedule excavation during low-rainfall periods, when possible.
3. Fit development to the terrain.
4. Excavate immediately before construction instead of leaving soils exposed for months or years.
5. Cover disturbed soils as soon as possible with vegetation or other materials (mulch) to reduce erosion potential.
6. Divert water from disturbed areas.
7. Control concentrated flow and runoff to reduce the volume and velocity of water from work sites to prevent formation of rills and gullies.
8. Minimize length and steepness of slopes (e.g. use bench terraces).
9. Prevent sediment movement off-site.
10. Inspect and maintain any structural control measures.
11. Where wind erosion is a concern, plan and install windbreaks.
12. Avoid soil compaction by restricting the use of trucks and heavy equipment to limited areas.
13. Soils compacted by grading need to be broken up or tilled prior to vegetating or placing sod.

It is inevitable that soil will be exposed during construction. However, it is essential that the exposed land is minimized, and cover is established as quickly as possible. Conservation practices that provide immediate permanent cover (sod) or provide intermittent cover (mulches and permanent seeding) drastically reduce soil losses and runoff (Table 2). Other supporting practices such as diversions or terraces change slope

lengths, thus reducing runoff and erosion. These supporting practices provide temporary protection for vegetation or sod until they become established and provide permanent protection for the site. There are other conservation practices available for construction and urban erosion (NRCS Watershed Science Institute, 2000).

Table 2. Effectiveness of various groundcovers in reducing runoff and soil erosion for a single simulated rain event (3.78 in/h) at University of Maryland's turf grass research facility¹ (adapted from Brady and Weil, 1999).

| Material | Soil loss ² (tons/acre) | % of Rainfall Runoff | % Ground Cover Established ³ |
|--|---------------------------------------|-------------------------|--|
| Bare soil with partial cover | 2.97 | 83 | 50 |
| Woven mesh | 0.18 | 68 | 61 |
| Wood shavens in non-woven polyester netting | 0.36 | 74 | 69 |
| Coconut fiber mat | 0.48 | 76 | 58 |
| Straw (2 t/a) | 0.26 | 60 | 76 |
| Grass sod | 0.04 | 28 | NA |

¹Effectiveness will vary at other locations because of differences in climate, soils and topography.

²Soil from Sassafras loamy sand with a 8 % slope and a Matapeake sandy clay loam with a 15% slope.

³Percent vegetation cover established one year after Kentucky 31 fescue grass was seeded and covered by various material.

Conclusion

Soil is important but is often an overlooked component of our urban infrastructure. It is especially important in regulating runoff of storm water and in supporting trees, shrubs, lawns, and gardens. Soil erosion during construction is often a serious problem. Many erosion control practices are available in local soil and water conservation district offices. However, the effects of erosion on construction sites continue to menace society both from on-site and off-site damages. Preventing soil-related problems before they occur is easier and more cost effective than correcting them later. Communities need to work with developers, contractors, and local governments to limit compaction and soil loss during construction operations. The result is a soil functioning properly in the urban landscape.

References

- Brady, N.C., and R.R. Weil. 1999. *The Nature and Properties of Soils*. 12th ed. Prentice Hall. Upper Saddle River, NJ.
- NRCS Watershed Science Institute. 2000. Water related best management practices in the landscape. <ftp://ftp.ftw.nrcs.usda.gov/pub/wssi/UrbanBMPs/index.html>
- Toy, T.J. and G.R. Foster, co-editors. 1998. Guidelines for the use of the Revised Universal Soil Loss Equation (RUSLE) version 1.06 on Mined Lands, Construction Sites, and Reclaimed Lands. USDI-Office of Surface Mining. Denver, CO.

The U. S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, sex, religion, age, disability, political beliefs, sexual orientation, or marital or family status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communications of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call (202) 720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

Document Content(s)

Morris Restoration Plan 11-28-2020 - final.PDF1

Attachment 14

Terrance Bidwell Report

**Cherokee Land Consulting, L.L.C.
TERRILL G. BROWN, Ph.D.
Natural Resources Scientist**

**3302 W. Glencom Rd
Stillwater, OK 74078**

Email: terrill@cherokee-llc.com

Cell: 405-880-2829

Expert Report - Rebuttal

Date: 07 January 2021

Title: Inspection and Evaluation of the Midship Pipeline Right-of-Way

Case: United States District Court for the Western District of Oklahoma, Case No. 5-18-cv-058-C, Midship Pipeline Company, LLC v. Tract No. OK-0304,008, 2,504 Acres of Land, More or Less, Permanent Easement in Canadian County, Oklahoma, et al.

Site Inspection Dates: The site inspections occurred on 17, 18, 19, & 21 December 2020

Scope of Work: This case was described to me by Mr. Tom Zabel and Mr. Todd Brown with the law firm of Zabel Prosser in Houston, Texas. I was asked to evaluate alleged damages claimed by Cherokee Land Consulting on behalf of various landowners as the result of the construction of the Midship Pipeline.

Professional Qualifications

I am Professor Emeritus of Ecological Ecology and Management at Oklahoma State University. In my former position, my responsibilities were to teach, conduct research, and extend the information to private and public land managers. I hold degrees in Forestry, Wildlife Biology, Agronomy, and Ecological Ecology and Management. I am principal of Cherokee Land Consulting, L.L.C., a natural resource consulting firm focused on evaluating surface damages and effects to terrestrial ecosystems. My areas of expertise are rangeland/grassland restoration and management, re-vegetation of disturbed areas, forest restoration and management, fire ecology, wildlife ecology, livestock grazing management, crop damage, and fence evaluation.

I conduct evaluations of surface damages and effects resulting from activities, overgrazing, fertilizer application, oil/water spill, oil well construction, and compaction, and rights-of-way construction and reconstruction. My publications include papers in multiple scientific journals and numerous fact sheets. I have also provided information to popular media on the above subject matter. I have experience in evaluating land surface damages and effects to grasslands, shrublands, and forests in Oklahoma, Kansas, Nebraska, Texas, Colorado, New Mexico, North Dakota, Alaska, Tennessee, Georgia, Florida, New York and Mexico. I have provided reports, depositions, and trial testimony on cases in civil and federal courts. My goal is to present unbiased, science-based findings and to develop evaluations that assess the best of reasonableness.

Scope of Site Inspection and Evaluations

I evaluated portions of the Midstep Pipeline right-of-way (ROW) on the defendants' properties. I evaluated these properties within the context of the defendants' allegations and the oilfield plant community and soil conditions. On some of the defendants' properties, I was unable to physically evaluate the soil condition off of the ROW because the landowner had not granted a variance. I evaluated on and off the ROW the following:

- Topsoil and subsoil mixing
- Vegetation condition
- Root penetration
- Topsoil depth
- Soil Compaction
- Grade elevation change
- Soil erosion

Documents Reviewed in Forming My Opinions

- Central Land Consulting L.L.C. Spreadsheets

- Relevant United States Department of Agriculture (USDA), National Resources Conservation Service (NRCS) (formerly Soil Conservation Service (SCS)) County Soil Surveys
- Aerial photography
- Molehill complaint, and all exhibits.

Overview of Damage Claims

The damage need proposed by Central Land Consulting L.L.C. (CLC) is not supported by evidence such as relevant measurement data collection from those measurements, analysis of these data, and quality control of these data (e.g. statistical models and estimates of probability in declaring significance differences). For example, CLC statements of differences in grade elevation are not supported by data that it could evaluate for comparison, accuracy (resolution), and relevance. Furthermore, there are logical arguments that some data points of alleged changes in grade elevation were made by the use of a drone using LIDAR technology to acquire changes in elevation. This technique is problematic because there are no statements of quality control for LIDAR data in terms of scope and resolution. As such, I cannot evaluate the claims for alleged damages based on CLC's spreadsheets and lack of quantifiable data and relevant information. In summary, the defendant's allegations are not supported by field measurements and appear to be speculation.

In addition, some of the defendant's allegations of soil loss involved the inappropriate use of the USDA NRCS County Soil Surveys in establishing a benchmark for topsoil depth (in the defendant's spreadsheets). The soil depths given for any given soil type are an average for the variety of inferences. They are not specific to an individual property and should never be used in that manner. As such, using soil depth averages for a discrete piece of property (e.g. an individual defendant's property) is inappropriate, misleading, and demonstrates a lack of understanding of how the soil survey is intended to be used. I worked on soil surveys with the United States Department of Agriculture Soil Conservation Service in Colorado and Oklahoma. I am aware of how soil surveys are conducted, interpreted and used. This is not an appropriate use of the soil survey.

The defendant's alleged crop loss as a result of the pipeline construction as it relates to topsoil and subsoil mixing. I found a few small areas on a few state farms that had some mixing that I identified to full title and owner whose names I listed below. It should be noted that research has shown that some mixing of topsoil and subsoil can be even beneficial to crop production if there is a plow pan or a clay layer under the topsoil. In addition, it is reasonable to conclude that some topsoil and subsoil mixing would occur when using heavy equipment, but not enough to affect crop or forage production.

As I inspected the properties, I also looked for differences in plant conditions (e.g. winter wheat) in terms of leaf coloration, leaf density, and leaf height. I did not find differences in actively growing crops such as winter wheat I planted around off the ROP. I also did see some differences in dormant perennial and cool season grasses (e.g. bermuda grass) in terms of stolon density. My observations indicate that there should be no differences in crop production or forage production on and off the ROP. In conclusion, the defendant did not provide supporting documents, photographs, measurements, or sales receipts to support their claim for loss of crop, forage, or hay production.

Dufferinault's Damage Claims Response

CL-01-0024.000

Shaunat M. Rother

- Soil profile is similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

CL-01-0025.000

Karen Schaeffling, Marcia, and Dale Schaeffling

- Soil profile is similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion
- Native grass programming as expected

CL-01-0026.000

Terry Bruce Lohrer and Diana Lohrer

- Soil profile similar on and off the ROW
- Soil compaction in the ROW north of the oil field pad
- Oil field pad is dumping rubber tires ROW
- No discernible mixing of top soil and subsoil in the ROW
- Top soil loss and erosion in the ROW as the result of a gully in the water way in the ROW
- No discernible change in grade
- No discernible erosion

CL-01-0027.000

Terry Bruce Lohrer and Diana Lohrer

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

CL-03-0696.000

Bradley Christian Kristowicki, et al

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

CL-03-0074.000

Edward Miller and Warren J. Miller

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

CL-03-0676.000

**Bernice M. Wall, Trustee of the Bernice M. Wall Living Trust dated June 8, 2002
 Emma M. Bailey, Successor Trustee of the Bernice M. Wall Living Trust dated June
 27, 2002**

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

CL-03-0677.000

E B & I Inc

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

CL-03-0678.000

Mark E. Schaefer, et al

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

CL-01-001.000

State of Mother Soil Nurture Elizabeth Kothar

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

CS-020-000

Clayton J. Hahngehl and Christl L. Hahngehl, Trustees of the Clayton J. Hahngehl Trust, a revocable trust dated the 17th day of May 2004, Christl L. Hahngehl and Clayton J. Hahngehl, Trustees of the Christl L. Hahngehl Trust, a revocable trust dated the 17th day of May 2004

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

CH-0407.000

Tracy G. Hahngehl

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

CH-0412.000

Tracy G. Hahngehl

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

CH-0023.000

Bonnie John Hahngehl, et al

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

CH-0014-0000

Wanda R. Mason and Clifford J. Mason, Jr., Trustees, or their successors in trust, under the Wanda R. Mason Living Trust, dated August 23, 2000, and Clifford J. Mason, Jr. and Wanda R. Mason, Trustees, or their successors in trust, under the C. J. Mason, Jr. Living Trust, dated August 23, 2000

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

CH-0015-0000

Daniel John Rothman, et al

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

CH-0016-0000

Thomas J. Leach, Trustee of the Thomas J. Leach Revocable Trust December 3, 2007

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

CH-0017-0000

Charles A. Snyder and Diane M. Snyder

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

CH-0018-0000

Barry A. Crosby

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

CR-0002.004

Betty A. Crowley

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

CR-0002.000

Thomas D. Jacobs

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

CR-0004.004

John M. Wathen and Marissa E. Fawcett Barber

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

CR-0002.000, CR-0002.000

Allen Dale Steiner and Cindy Ann Sawyer, as Co-Trustees of the Allen Dale and Cindy Ann Steiner Revocable Trust, dated November 20, 2012

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible soil erosion

CR-0004.000

Robert J. and Catherine J. Lee

- Soil profile over gravel on and off the ROW
- Discernible soil compaction in the ROW around the valve station
- Mixing of top soil and subsoil in the ROW
- Discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

01-00710418

Charles Luis Hahn, Supervisor, Trustee of the Myonetta V. Todd Farm Trust No. II

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

01-00710419

John B. Van Tassel

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

01-00710420

Wally J. Johnston and Nancy Johnston and Shirley and Michael Pappas

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

01-00710415

John D. Van Tassel

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

01-01107008

Billy Leagon and Marlene Long

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

01-01107009

Danny T. Johnston and Angela Johnston Christian

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW

- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

GA-04-08-000

Henry T. Christian and Brenda Johannee Christian

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

GA-04-08-000

Henry T. Christian and Brenda Johannee Christian

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

GA-04-08-000

Henry Christian and Johannee Christian, et al

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

GA-04-08-000

Henry Christian, et al

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

GA-04-13-010

Henry C. Starkey, Trustee of the Betty C. Starkey Beneficial Trust dated December 17, 2010, et al

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

GR-0125.020

Betty C. Stachey, Trustee of the Betty C. Stachey Revocable Trust dated December 27, 2010, et al

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

GR-0125.010

Edna M. Vandyke and Barbara J. Westric, Co-Trustees of the Vandyke Family Trust, a revocable trust dated December 15, 2010

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

GR-0125.010 Broughton Farming and Consulting, LLC

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

GR-0125.010

Charles Mackey and Charles Mackey

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

GR-0125.010

Martin Dale Hamrick and Sharon Ann Hamrick, et al

- Wheat planted in field and across the ROW by landowner
- Good stand of wheat on and off the ROW
- Good wheat root penetration on and off the ROW
- Soil profile similar on and off the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible soil compaction in the ROW
- No discernible change in grade
- No discernible erosion
- Very small soil hollows on the ROW over the pipeline in the Bermuda grass pasture. Several small erode channels convey out of the Bermuda grass pasture into the creek channel, readily repaired.

GR-01298.13-01a] MacCowan and Charley D MacCowan

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

GR-0130.0 14**01a] MacCowan and Charley D MacCowan**

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

GR-0131.01]**01a] MacCowan and Charley D MacCowan**

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

GR-0132.01a**01a MacCowan and Arlene MacCowan**

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

GR-0133.01a**01a MacCowan and Arlene MacCowan Living Trees**

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

CR-01316.000

Wesley and Mary E Thornfield Berwickshire Living Trust, Wesley and Mary E Thornfield, Inc.,

co-trustees

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

CR-01394.010

Wesley and Mary E Thornfield Berwickshire Living Trust, Wesley and Mary E Thornfield, Inc.,

co-trustees

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

CR-01397.010

Charles Joe McCoskey,

Justice McCoskey Estate

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

CR-01384.010

Charles Joe McCoskey,

Justice McCoskey Estate

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

CR-01398.010

James L. Vickrey and Nancy L. Vickrey

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

CR-0141000

Joseph L. Wetley and Shirley R. Wetley

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

CR-0141001 (Table)

Joseph L. Wetley and Shirley R. Wetley

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

CR-0147000

The Common Kardecy Living Trust, Common Kardecy, Trustees, et al

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

CR-0149000

Terry Garrett and Wynette Garrett

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

CR-0151000

Terry Lynn Garrett and Wynette Garrett

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

CR-0160000

Wynette G. Elmer

and Marilyn Elmer, Trustees of the Wynette G. Elmer Trust dated Sept. 13, 1991, and any successors thereto

- Soil profile similar on and off the ROW
- Moderate soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW

- No discernible change in grade
- No discernible erosion

GR-00000010

John H. Mayo and Martha Wilson

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

GR-00100000

First National Bank and Trust Company, Corporate Trustee of the James L. McElroy and Linda R. McElroy Irrevocable Trust (dated 24th day of December, 2012)

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- Proclamation, there was a large erosion gully on the far east side field on the southern back of the White River

GR-00100000

McIver Scott and Margaret L. Scott Revocable Trust, McIver Scott and Margaret L. Scott, Trustees

- Soil profile similar to and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

GR-00200010

McIver Scott and Margaret L. Scott Revocable Trust, McIver Scott and Margaret L. Scott, Trustees

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

GR-00300000

Mark A. Morris as Trustee of the Mark A. Morris Revocable Trust dated March 27, 2012, et al

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

- Creek crossing is stabilized with a culvert
- The OFFROADS are in good shape and are performing as intended. However, terraces are not needed when there is permanent vegetative cover up to the field. Terracing is an artifact of historical farming.
- The claim of very large masses (tons) of soil coming downstream from the area around the creek crossing on the pipeline, blocking a pipe channel, and depositing into United States Department of Agriculture (PL-566) spot-burn flow control structure are not supported by evidence or observation of the creek crossing and adjacent area. The claim is also not supported by my knowledge of stream dynamics and erosion control in which I have worked on for over 30 years. In addition, I have aerial photography prior to the pipeline construction that does not support this claim. (also read dredged material byproducts from the pits with permanent vegetation growing.

GM-B36-54880

Lucas Marie Eledge and Johnathan

Eledge, Trustees of the Eledge & Johnathan Eledge Eledge Family Trust
 Dated June 27, 2019

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

PL-37-0024-004

Marcella W. Egege, et al

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

PL-37-0025-004

Marcella W. Egege, et al

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

VERIFICATION OF

| | | |
|--------------------|---|-----|
| STATE OF OKLAHOMA, |) | |
| |) | vs. |
| COUNTY OF PAYNE | | |

My opinions and conclusions in this report are made to a reasonable degree of professional certainty in the fields of Agronomy and Pastureland Ecology and Management.


I, Terrence G. Bidwell, of lawful age, being first duly sworn upon oath, would state that I have prepared the above and foregoing report and that it is true and CORRECT to the best of my knowledge and belief.

| |
|---|
|  |
|---|

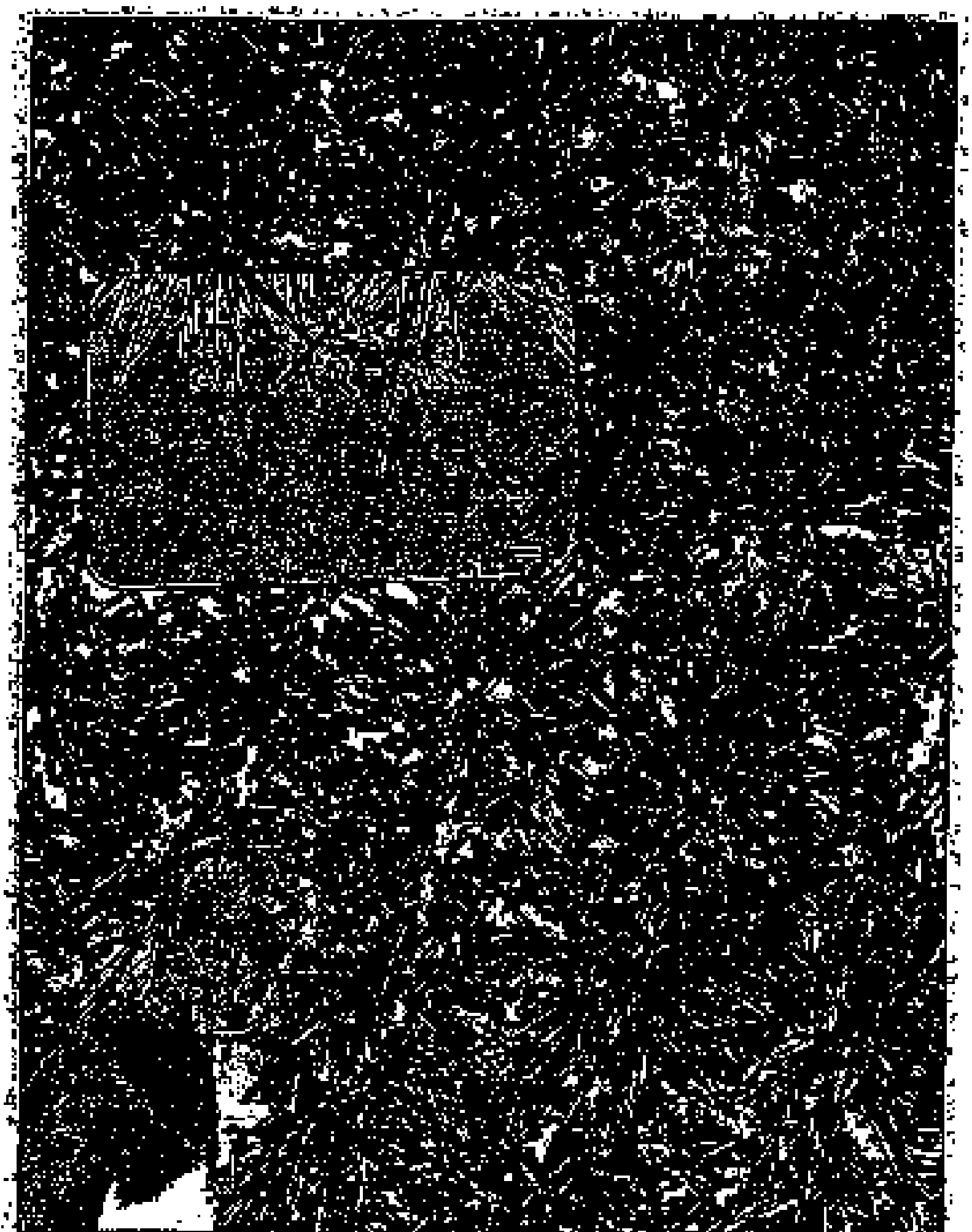
03 January 2021

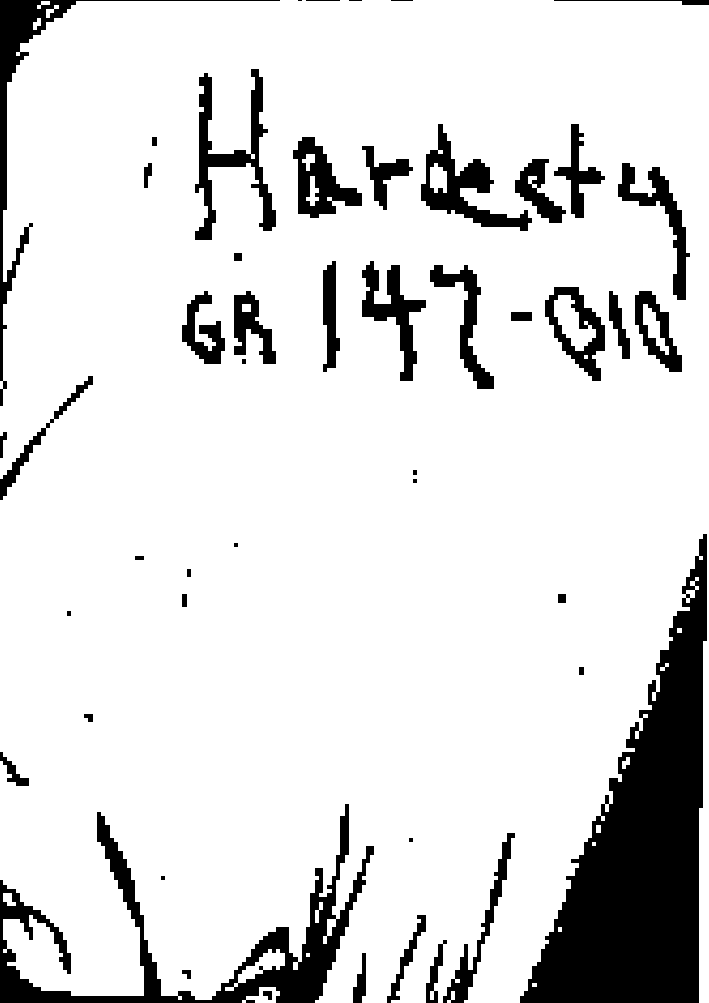
Terrence G. Bidwell

Date

A black and white photograph showing a field of crops, possibly corn, with a white tag in the foreground. The tag has handwritten text. In the background, there are trees and a fence line.

Hardisty
GA 147-010





Hardesty
GR 147-010



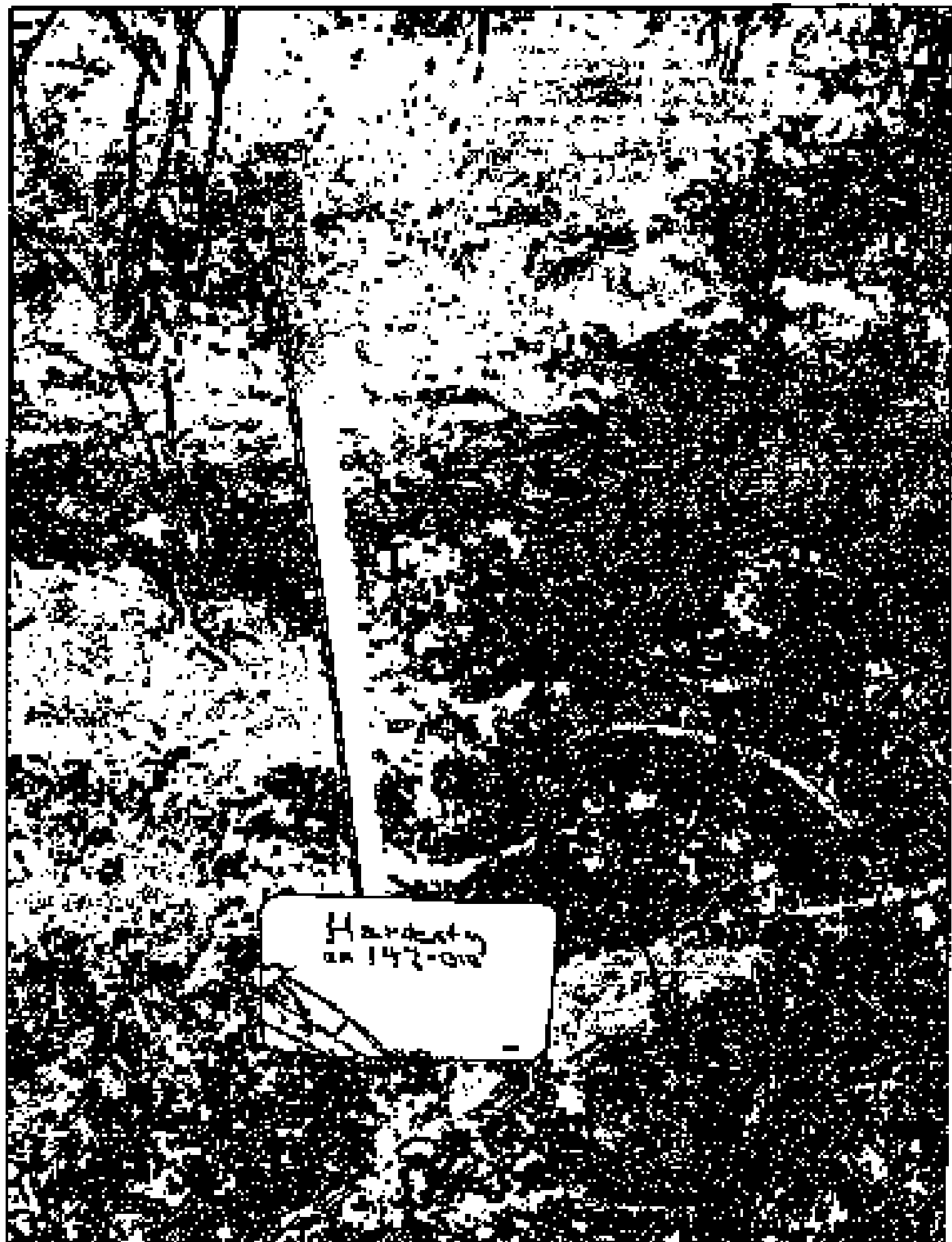
Hardisty
GR 147-010

Hardisty
GA 147-010

100-100000
100-100000

1/2 Barrels of
oil 147-1970



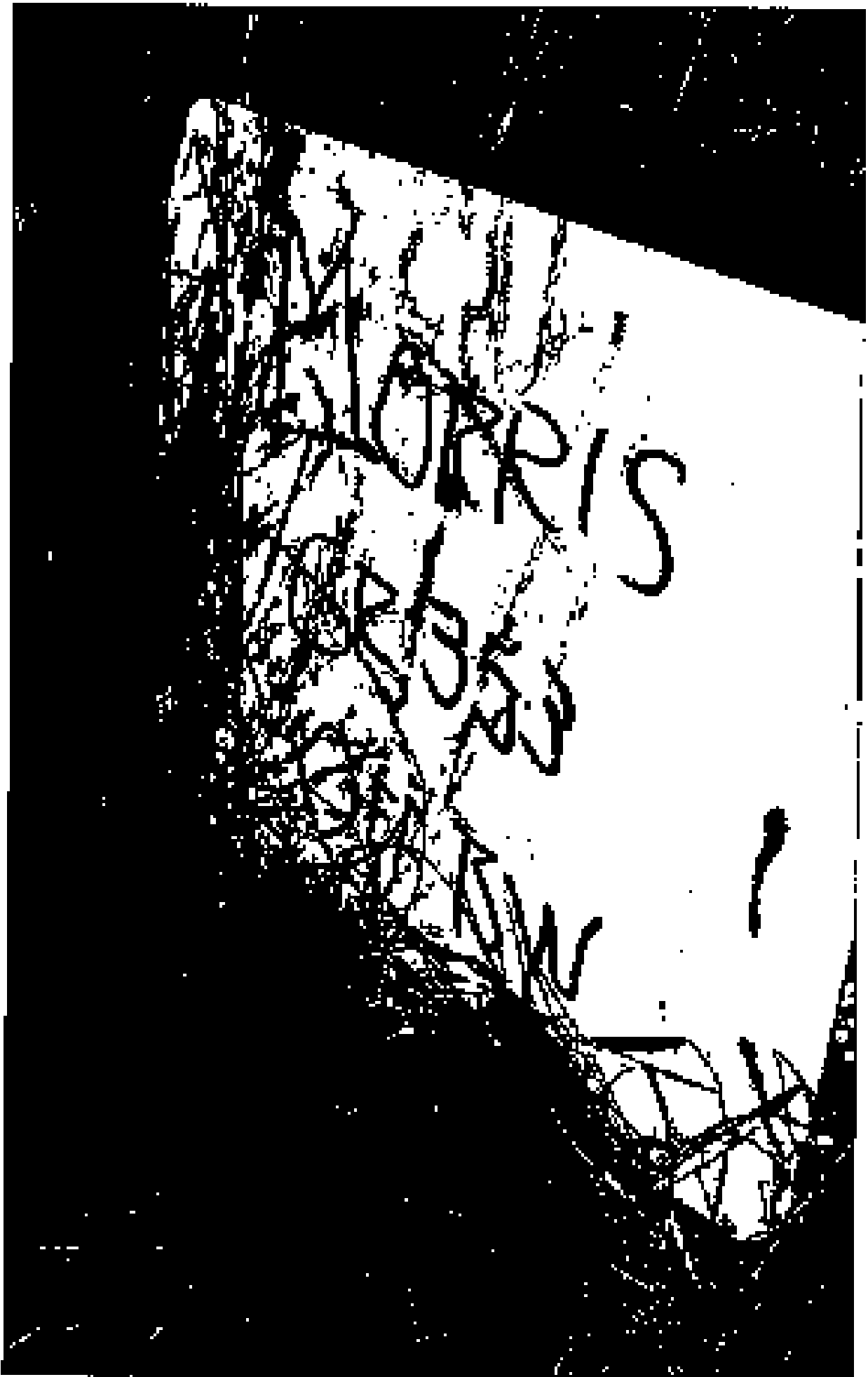


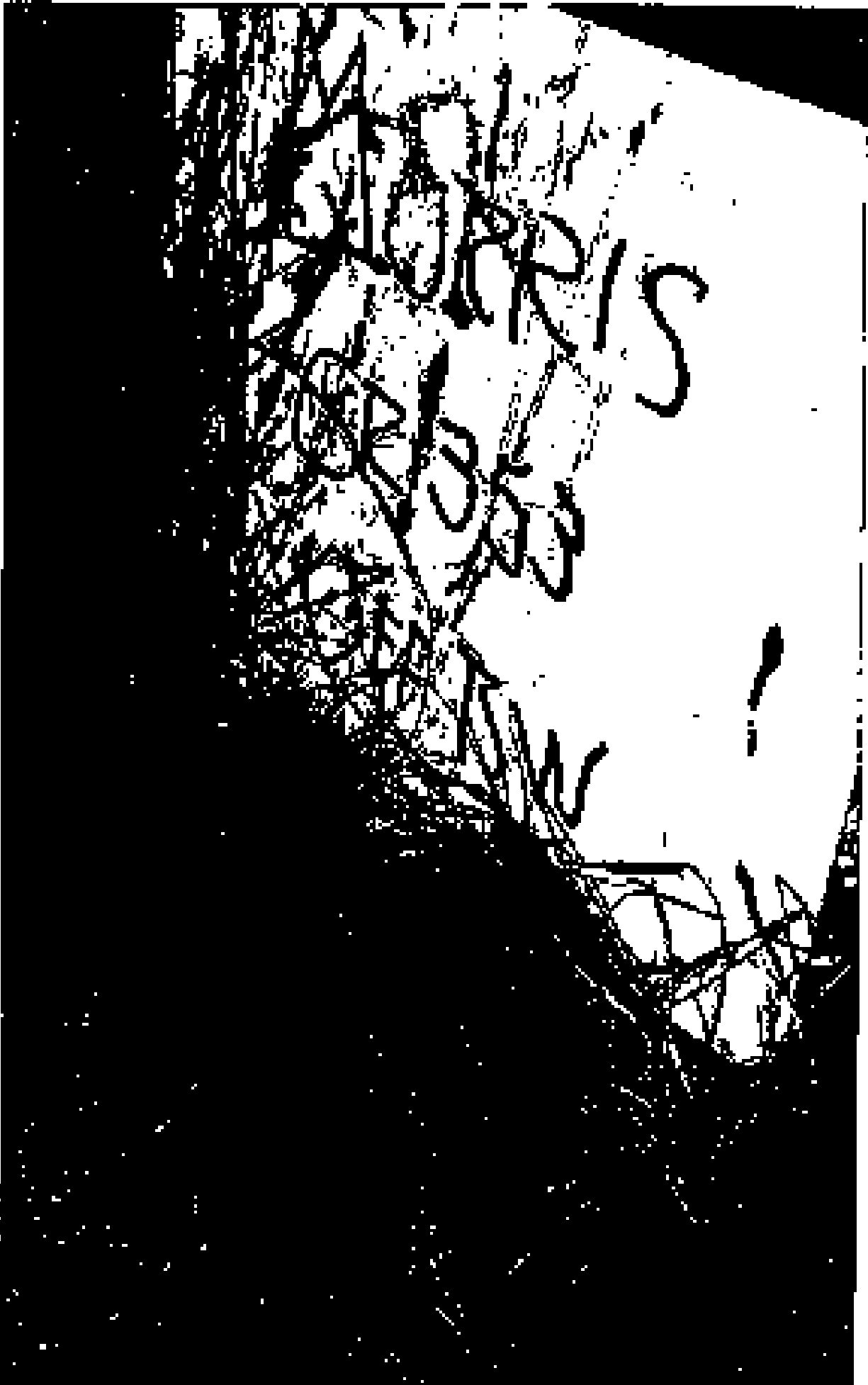
H. x. x. x. x.
147-012

MORRIS
GR 353

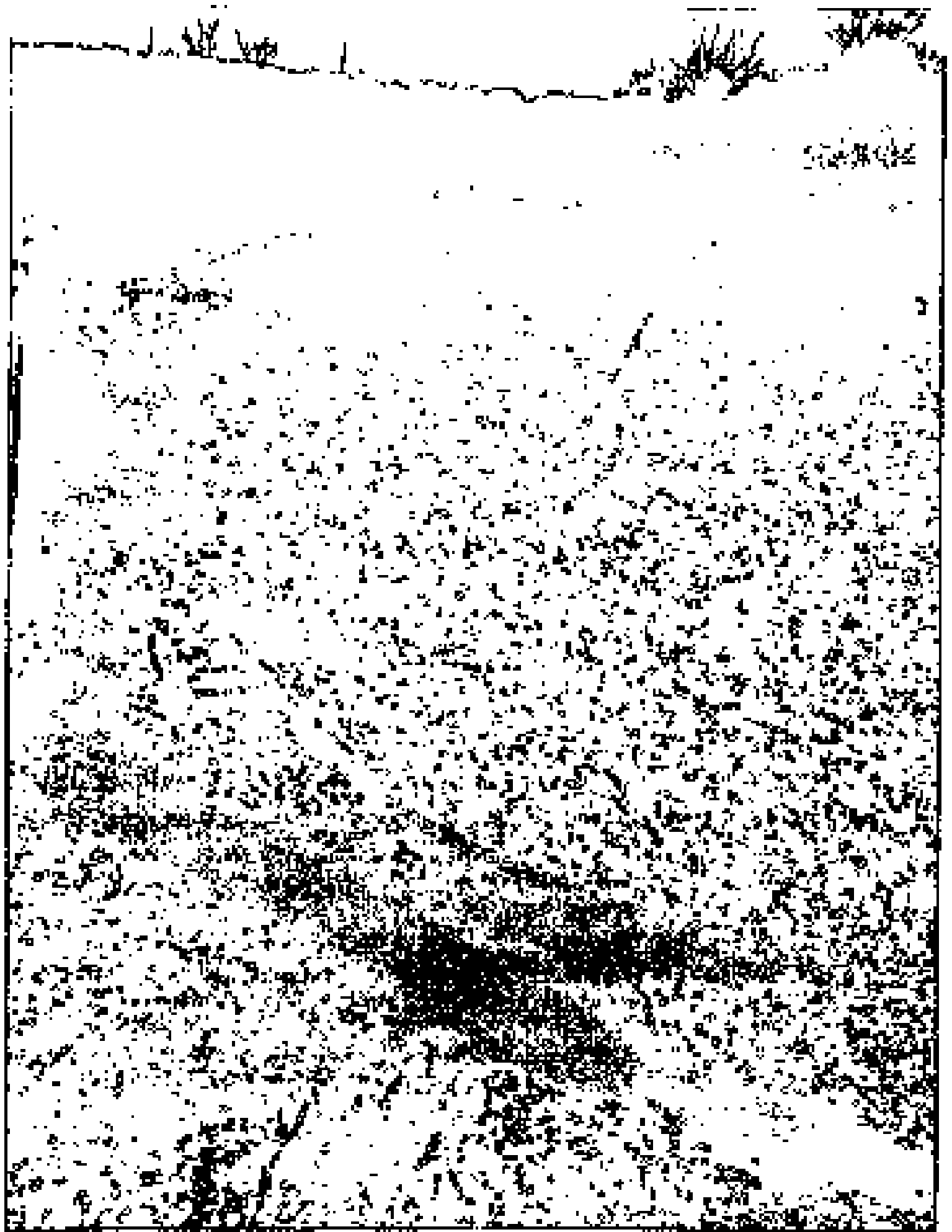
MORRIS
GR 359

MORRIS
GR 350









MORRIS
GR 353

M MORRIS

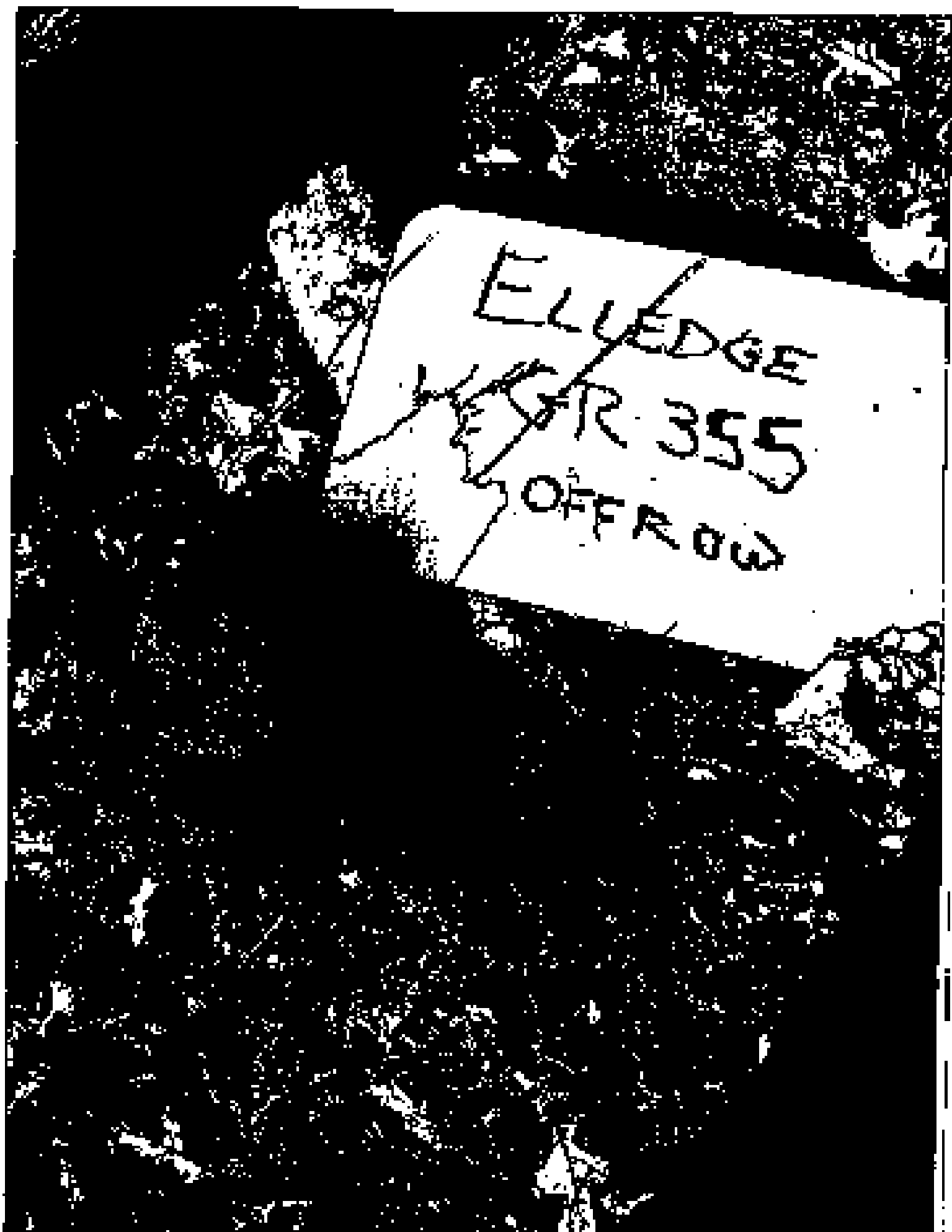
GA 350

OFF ROW

ELLEDGE

GR 355

ON ROW



E L U D G E

355

O F F R O W

SLOT
GR3/3010



MASON.

GR 289.019

CHRISTIAN
444



CHRISTIAN

448

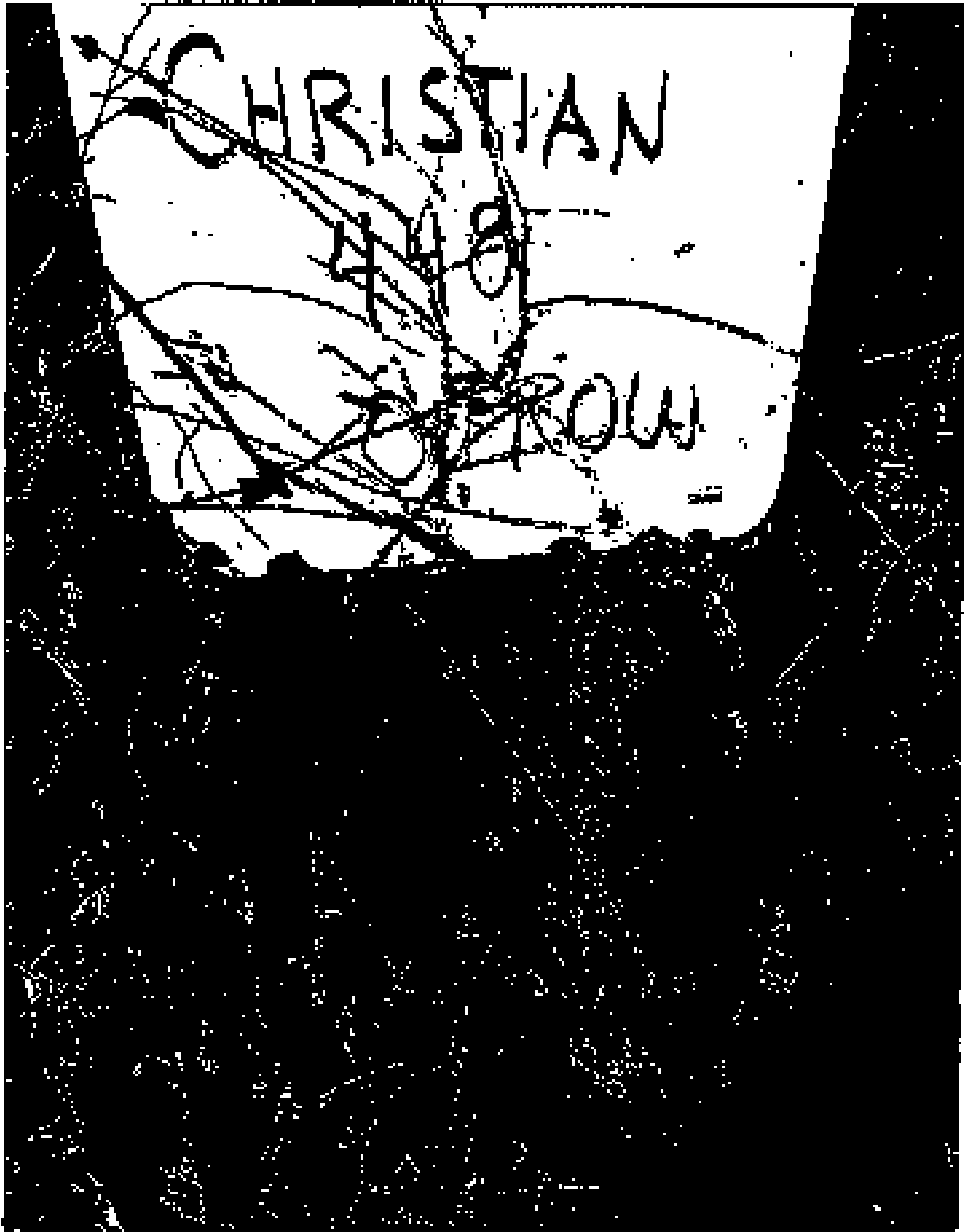
ON ROW

772

CHRISTIAN

188

LOW



CHRISTIAN

~~TOO~~

~~TOO~~

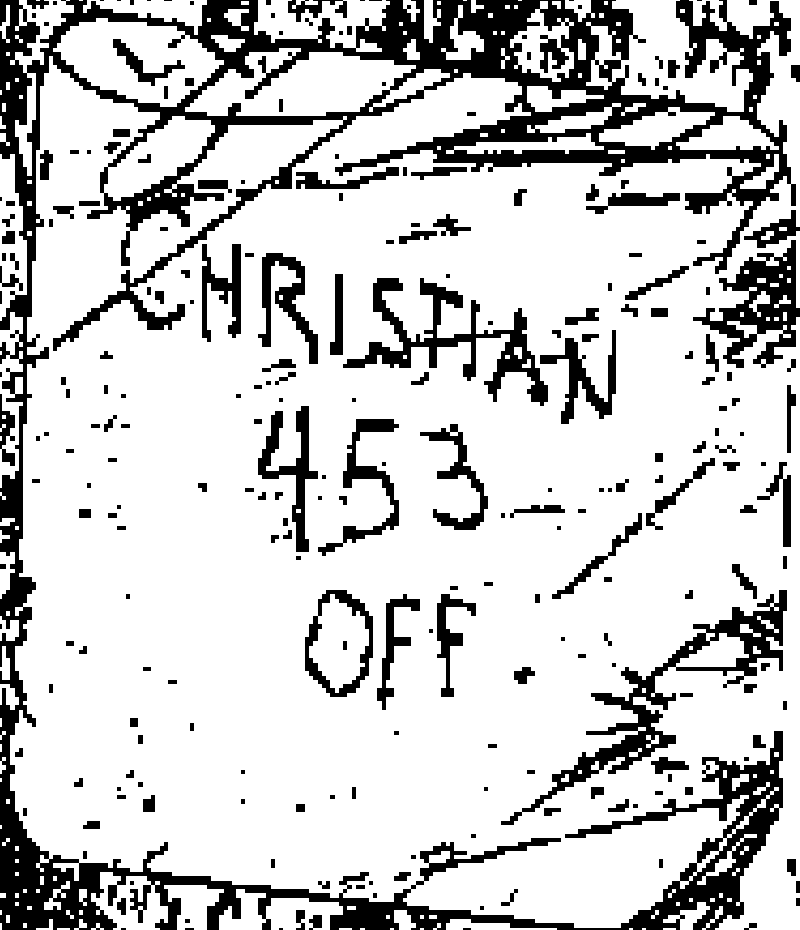


CHRISTIAN

453

ON





CHRISTIAN

453

OFF

REGAN PURTEL

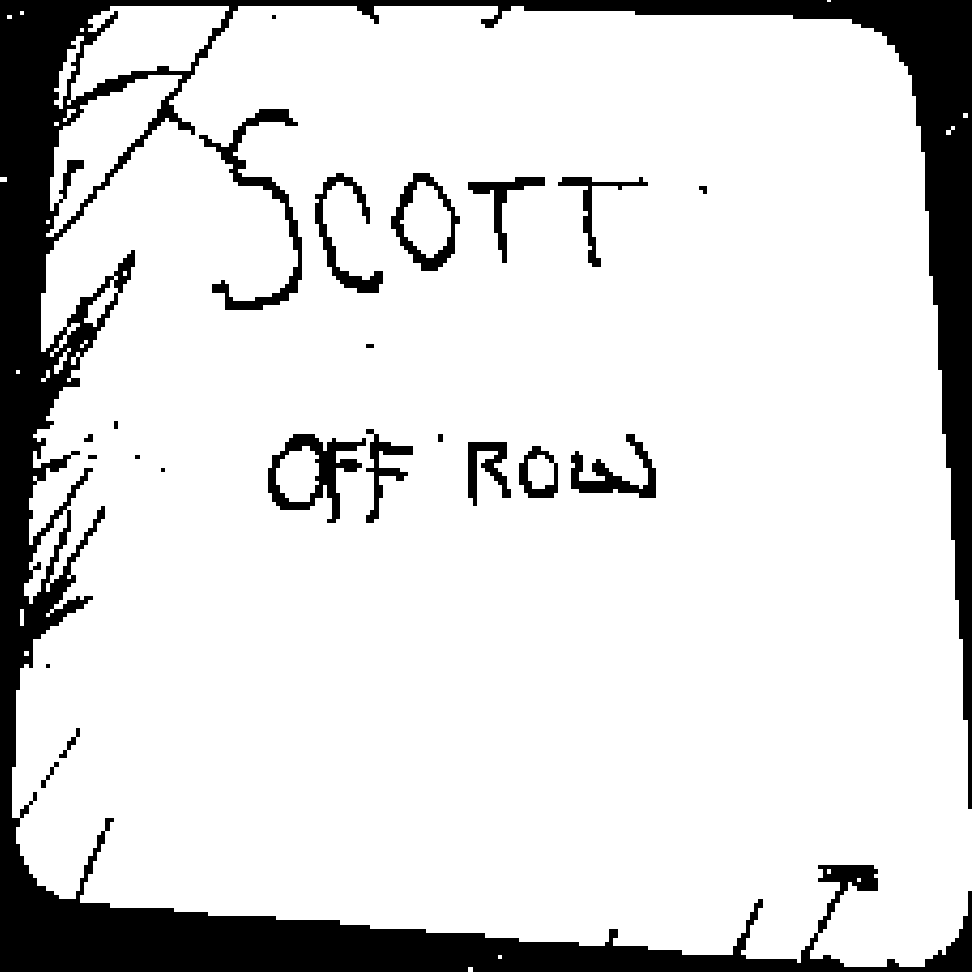
ST0029

ON

REGAN
ST 0024
OFF

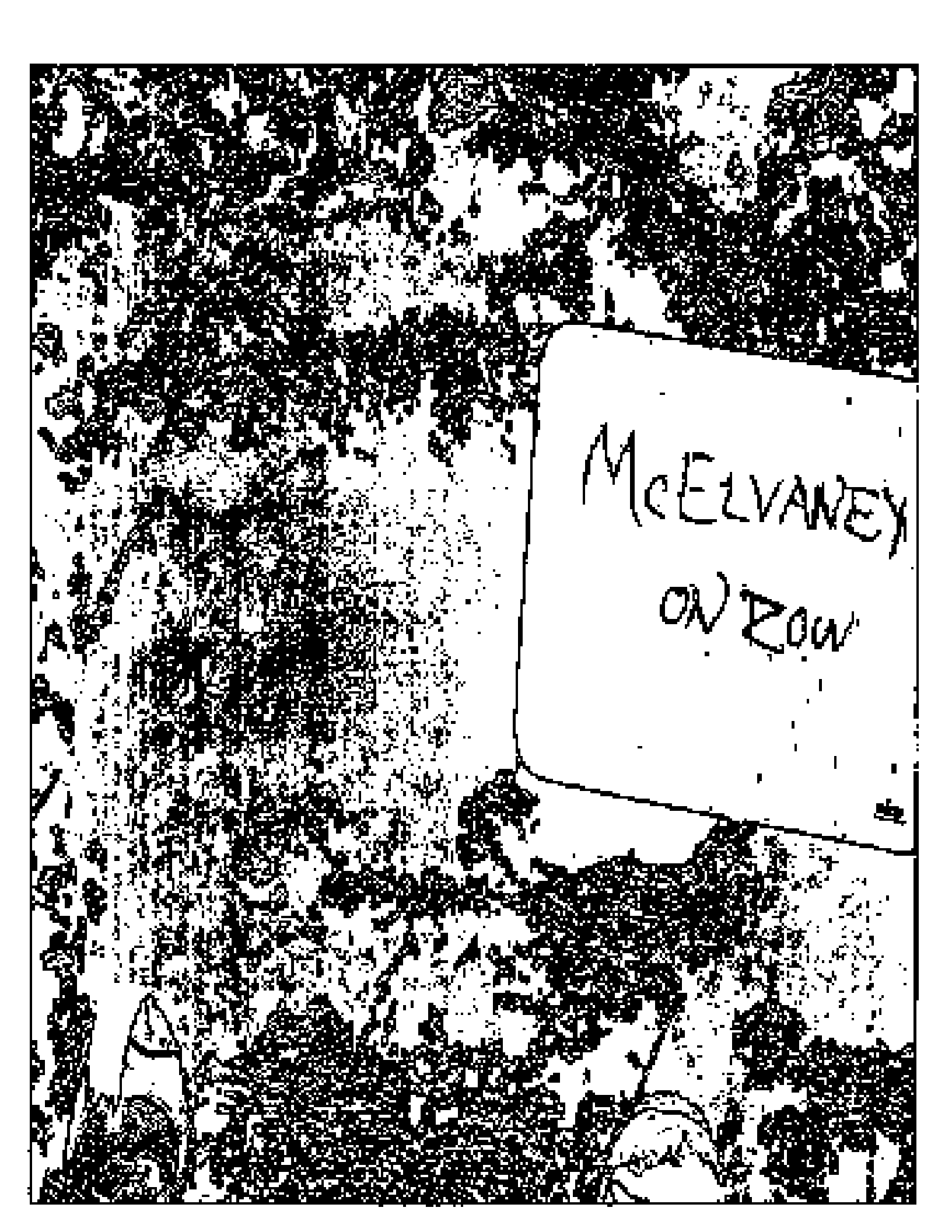
SCOTT

ON ROW



SCOTT

OFF ROW



McELVANEY
ON ROW

McELVANEY
ON ROW







152

FITZGERALD

ON


STARKEY

ON

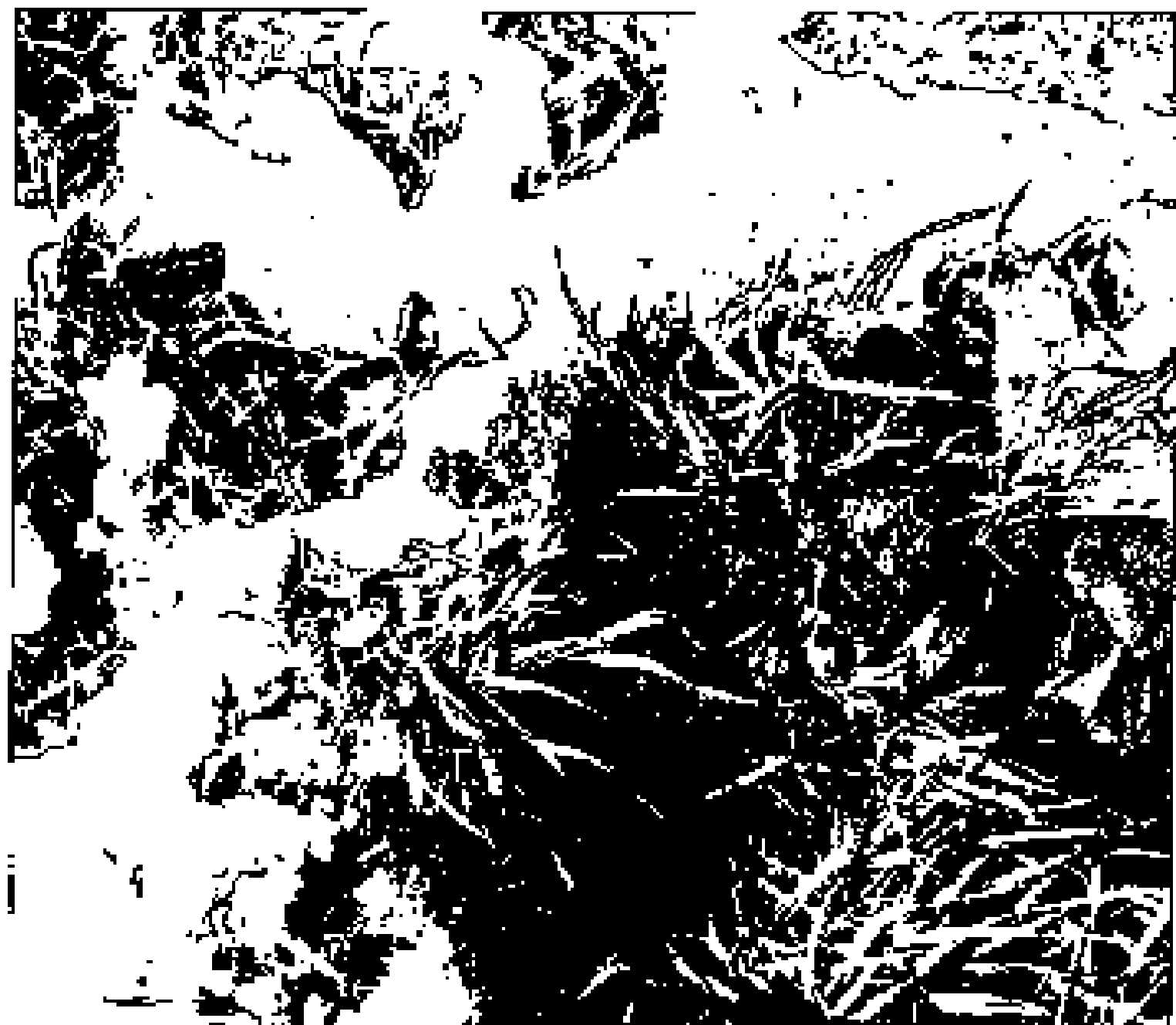
NORTH

FITZGERADA

ON



VONTUNGLIEN
ON



VONTUNGLEN
OIL
KADYH



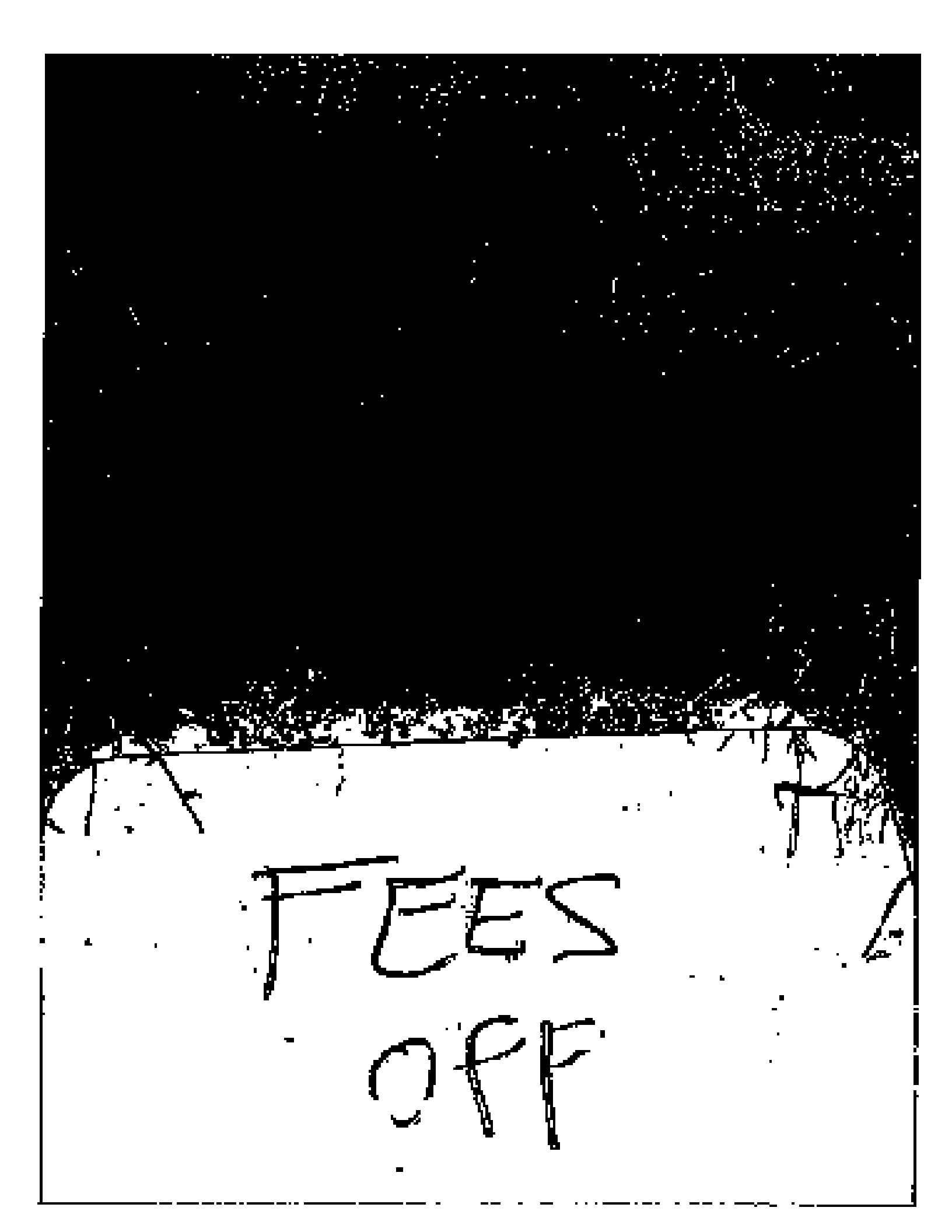
VONTUNGLEN

OL

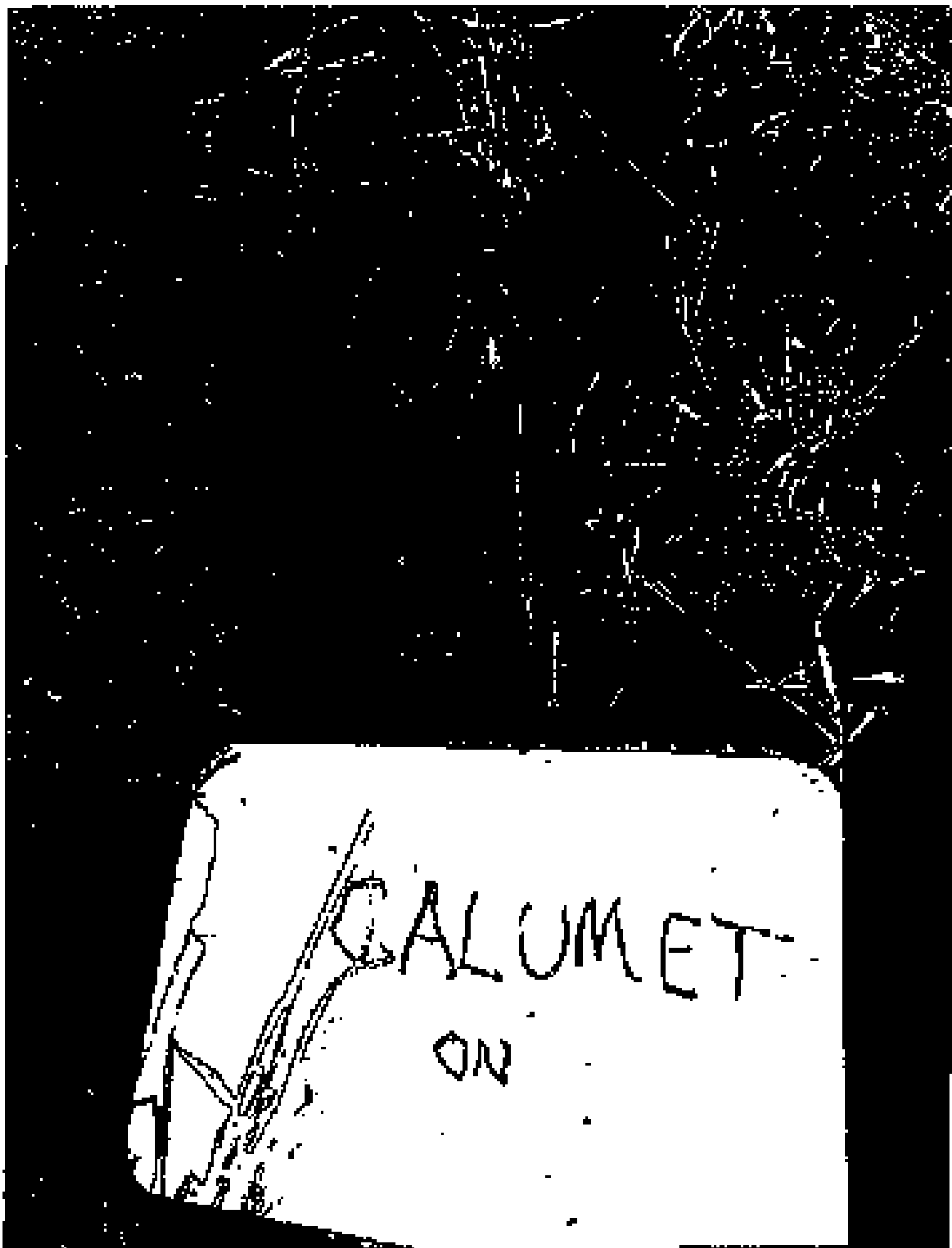
MARYH

VONTUNGLER
RIDDLE
ON





TEES
OFF

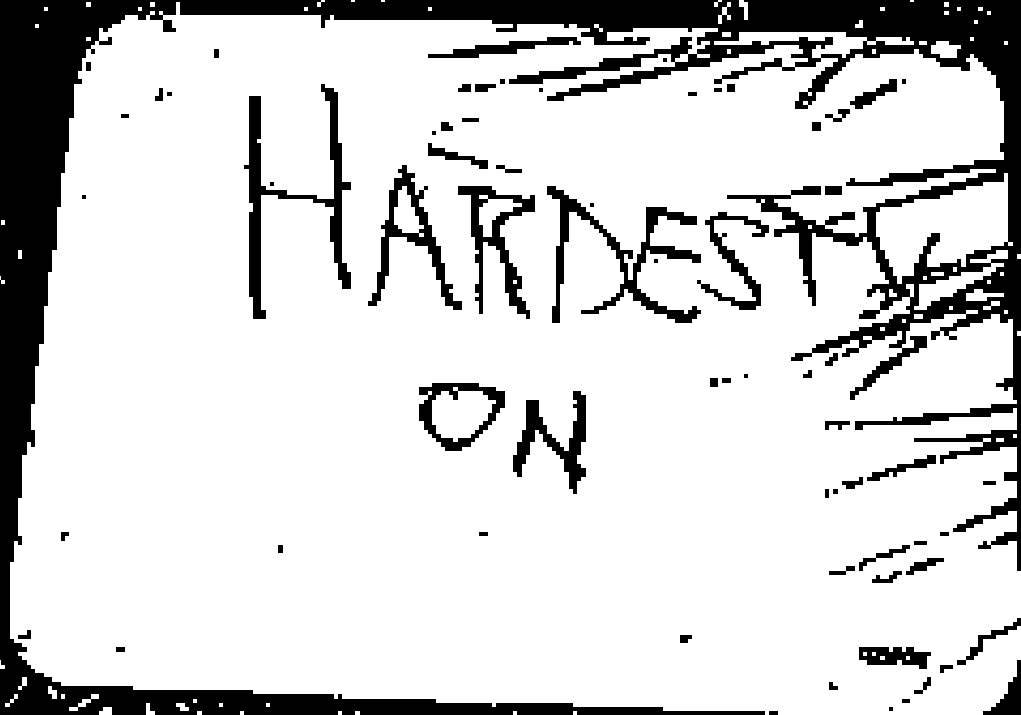


CALUMET
02

VENTRIS

ON

MASSEY
ON



McCORMAS

NO

1000

BIRCHFIELD

ON

McCOMAS
ON

VICKERY
ON

GARRET
ON

177
178

1
11/11/11
11/11

SLOAN

OFF



STOVER
ON

PROOTHER
ON

JACOBS

OR

HUFNAGEL
ON

BRUCE

CROWLEY

ON

SNYDER
ON

LECK

ON

LECK

OFF

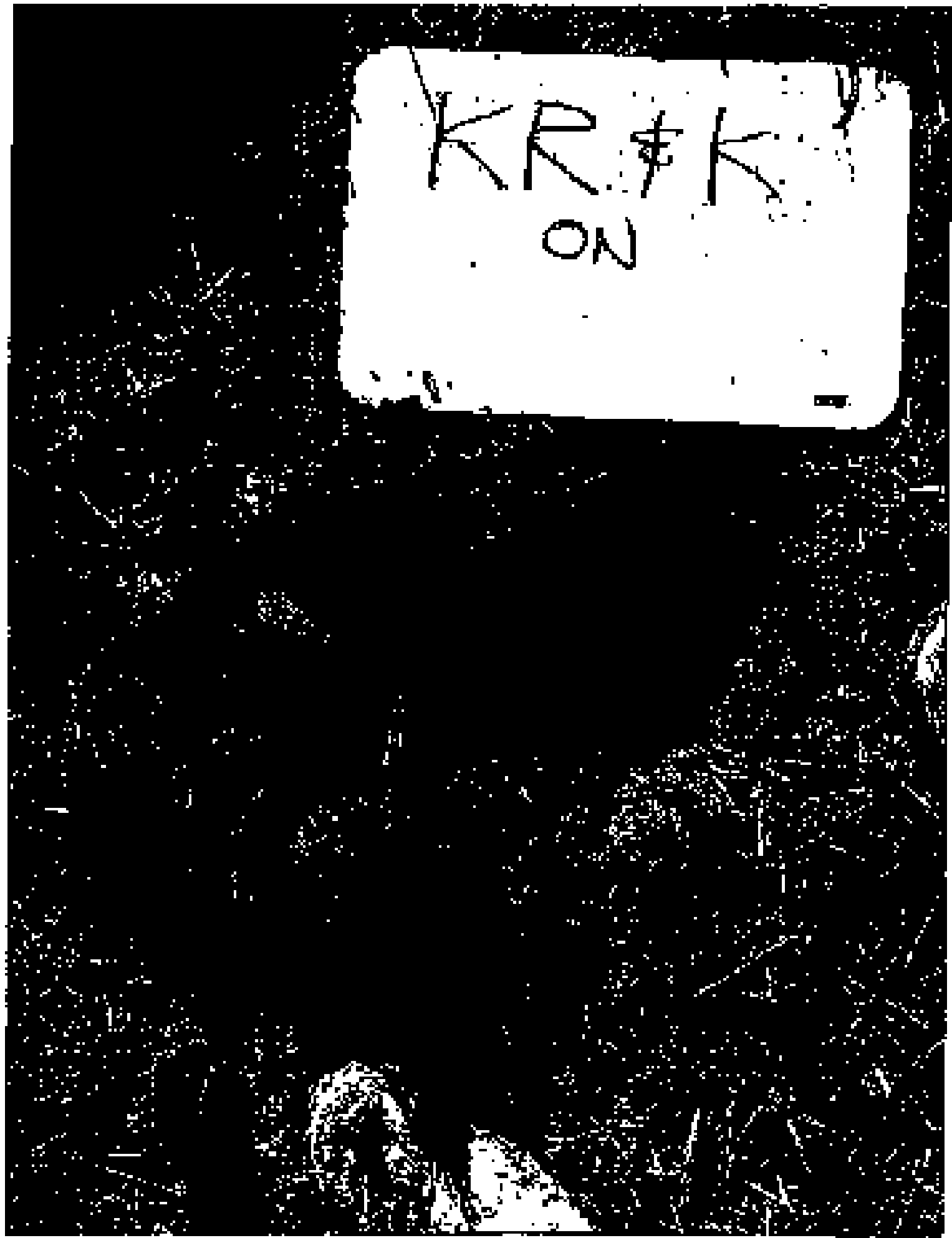
C HUFNAGEL
ON

ROTHER
ON

SCHAEPF

ON

KR#K
ON



E. ROTHER
ON


WOLF
ON

MAS

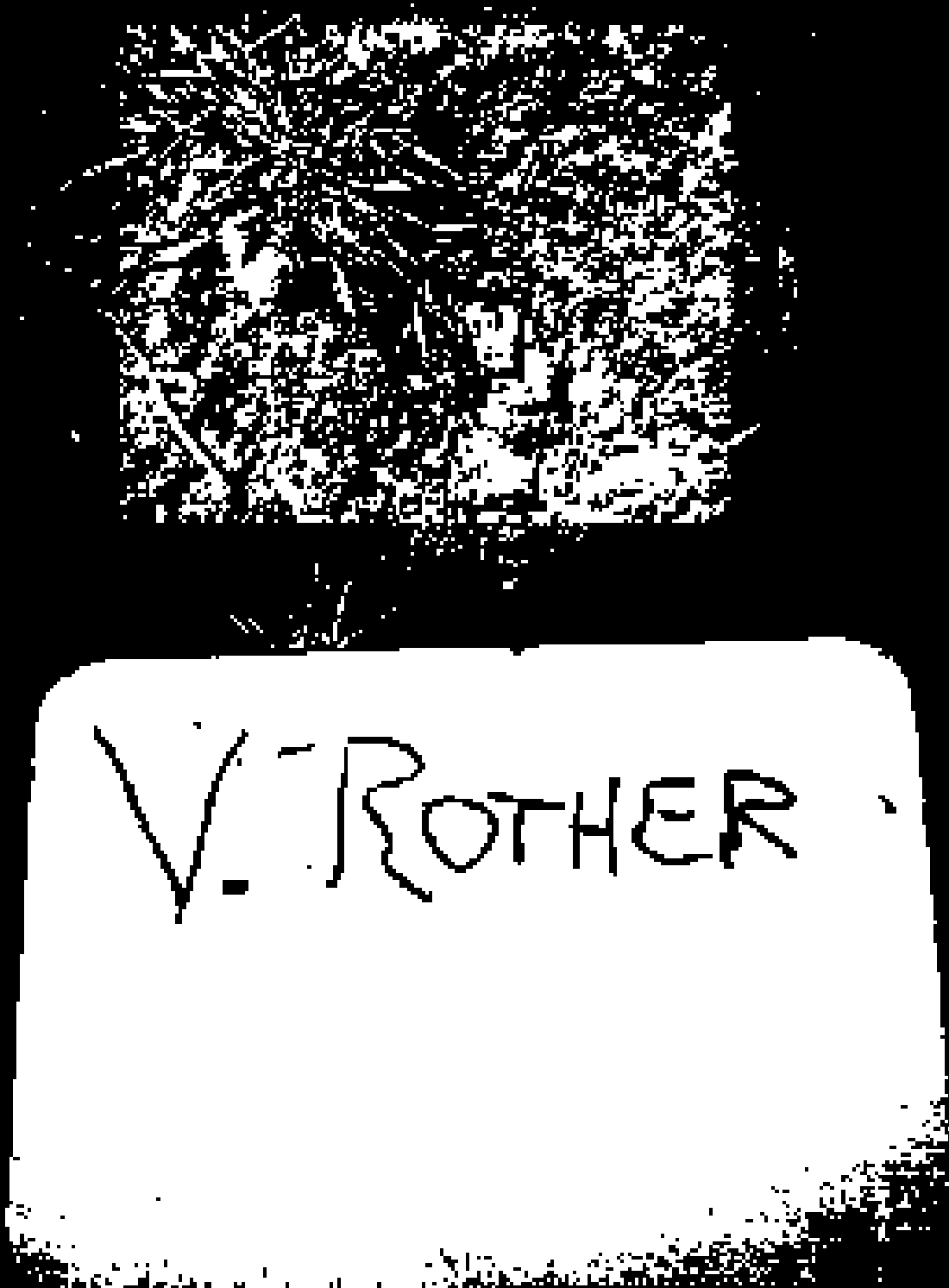
ON

ROTHER LT.

ON

A black and white photograph of a dense forest. The trees are tall and thin, with their branches and leaves creating a complex, textured canopy. In the foreground, a white, rectangular sign with rounded corners is placed on the ground. The sign has the name 'HANSEN' written in large, capital letters on the top line, and 'ON' written in smaller, capital letters on the bottom line. The background is filled with the intricate patterns of the forest's foliage.

HANSEN
ON



V. ROTHER

LUBER
ON

LUBER
ON



LUBER
ON



LUBER

ON

YAN

1954

Attachment 15

Landowners / CLC's Response to Bidwell Report

January 15, 2021

Ms. Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission (FERC)
888 First Street, NE
Washington, D.C. 20426

Docket # CP17-458, CP19-17

Dear Ms. Bose:

On January 3, 2021, Midship's natural resource expert, Mr. Terry Bidwell, Professor Emeritus of Rangeland Ecology and Management at Oklahoma State University, produced a report evaluating damages claimed by landowners arising from the construction of the Midship Pipeline ([See Exh. 1. Bidwell Report](#)). Mr. Bidwell states that he evaluated certain tracts which are located in the counties of Kingfisher, Canadian, Grady, Garvin, and Stephens both on and off the right-of-way (ROW) with respect to 1.) Topsoil and Subsoil Mixing, 2.) Vegetation Condition, 3.) Root Penetration, 4.) Topsoil Depth, 5.) Soil Compaction, 6.) Grade Elevation Change, and 7.) Soil Erosion. Mr. Bidwell states that he conducted his evaluations throughout 4 days spanning December 17, 18, 19, & 21, 2020.

In those 4 days, Mr. Bidwell is reported to have inspected seventy-nine (79) tracts totaling approximately 134,700 linear feet (25.5 miles) of pipeline ROW and approximately 331.2 acres of ROW surface area. By all logic this is an enormous, if not impossible task. In order to 1.) travel to a tract, 2.) walk twice the length of the ROW (from his vehicle and back), and 3.) take notes and conduct evaluations along the way across each of the 79 tracts in 4 days would require great speed, persistence, and perhaps superhuman ability.

We have formulated a conservative estimate of the time needed to conduct such inspections.

| Hours Needed for Mr. Bidwell to Inspect 79 Tracts | | |
|---|--|--------------------------------|
| Category | Description | Total Amount of Time |
| Travel | Drive the speed limit to all 79 sites in sequential order starting with CL-KI-0026.000 and ending with VL-ST-0025.000. No stopping or inspecting. | 7 hours and 55 minutes |
| Walking | Walk the length of the ROW and then back to his vehicle without stopping (approx. 51 miles) at an average rate of 2.89 miles per hour. No stopping, taking notes, conducting inspections, eating, or breaks. | 17 hours and 39 minutes |
| Inspection | Thoroughly inspect, document, collect data, and take notes for the 7 categories of damage claims. Based on 40 minutes for each tract. | 52 hours and 40 minutes |
| Total Estimated Time Needed to Inspect All Properties: | | 78 hours and 14 minutes |
| Total Daylight Hours | 9 hours and 49 minutes of daylight each of the 4 days. | 39 hours and 15 minutes |

Simple math indicates that Mr. Bidwell would likely need approximately double the amount of time he had to conduct inspections on the 79 tracts. Where did he make up this time? *Did he fly to the sites? Did he run up and down the easement while writing his notes? Or did he not meaningfully inspect at all?*

The landowners and CLC are extremely concerned with some of Mr. Bidwell's statements as discussed below. For these reasons, we would like to bring our concerns to the Commission.

- **Access Outside the Right-of-Way**

- Mr. Bidwell states that he was unable to physically evaluate soil conditions off the ROW on some properties "because the landowner had not granted a variance."
 - One of Midship's attorneys, Vadim Bourenin, from Zabel Freeman, communicated with many landowners and asked permission to perform testing on and off the right-of-way. In every instance, the landowners agreed to grant off-ROW access and relayed they would accommodate Midship in any way possible to verify the damages themselves. In some situations, the landowners did not receive a reply from Mr. Bourenin or confirmation of the site visit.
(See Exh. 2. Landowner Emails)
 - Mr. Bidwell does not state which tracts he was unable to access.
 - On all but 1 tract, Mr. Bidwell blanketly states "Soil profile similar on and off the ROW."
 - The outlier tract (CN-0069.000), states "Soil profile **not** similar on and off the ROW." (emphasis added)

- **Copy & Paste Evaluations**

- On a vast majority of all tracts, Mr. Bidwell notes: *(See Exh. 1. Bidwell Report. Page 5 – 17)*
 - "Soil profile similar on and off the ROW"
 - No discernible soil compaction in the ROW
 - No discernible mixing of top soil and subsoil in the ROW
 - No discernible top soil loss in the ROW
 - No discernible change in grade
 - No discernible erosion"
- These assertions are concerning due to the fact that Mr. Bidwell does not provided any evidence to support his conclusions. Mr. Bidwell's failure to provide photos, maps, test results, field notes, spatial data, or any other documentation does not bolster the credibility or accuracy of his report.
- The only supporting documentation contained in Mr. Bidwell's report is a variety of what appear to be low-resolution, negative, black-and-white images that purportedly show the landowners' properties. These images contain no indication of location, time, or what they show.
(See Exh. 1. Bidwell Report. Page 19 – 28)
- It is hard to believe an educated man like Mr. Bidwell would faithfully submit this report, wholly absent of evidence, supporting arguments, logic, and scientific inquiry or conviction to a powerful and upstanding company like Midship – unless that was his job. At face value, this report reeks of another shameful attempt by Midship to distort reality and avoid taking responsibility for the actions of their construction crews.

- **Topsoil & Subsoil Mixing Reported as 'Beneficial to Crop Production'**

Mr. Bidwell states, without citation, in regard to topsoil and subsoil mixing: ". . . I found a few small areas on a few ownerships that had some mixing that I identified on individual landowner observations listed below. It should be noted that research has shown that some mixing of topsoil and subsoil can be even beneficial to crop production . . ." *(See Exh. 1. Bidwell Report. Page 4)*

- In Mr. Bidwell's listed observations, he blanketly states: "No discernible mixing of top soil and subsoil in the ROW" on all but 1 tract (CN-0069.000) where he states: "Mixing of top soil and subsoil in the ROW."
- With regard to Mr. Bidwell's claim that topsoil and subsoil mixing has been proven to be beneficial to crop production, it is unclear if this was a typo or if Mr. Bidwell is ignorant of FERC's regulations.
 - The FEIS and FERC Plan explicitly state the importance to refrain from mixing topsoil and subsoil and the detrimental impacts this can have on crop production.
 - In **Section 4.2.2.1 (Page 4 – 19) of the FEIS** it states: "Construction activities such as clearing, grading, and equipment movement can result in soil compaction and increased susceptibility to erosion. The loss of topsoil from erosion or the mixing of topsoil with the subsoil during construction could result in a loss of soil fertility and impaired revegetation."

- In **Section 4.4.4 (Page 4 – 55) of the FEIS** it states “*During construction, failure to segregate topsoil could result in the mixing of topsoil with the subsoil. This could alter nutrient availability and soil chemistry, thereby inhibiting recruitment of native wetland vegetation after restoration.*”
- **Snow Covered Tracts on Inspection Days**
 - During the time frame that Mr. Bidwell conducted his evaluations and site visits, the FERC Compliance Monitor (FERC CM) also conducted inspections.
 - The FERC CM reported that there was approximately 3 inches of snow covering the northern tracts he inspected in Kingfisher and Canadian counties around the same days that Mr. Bidwell reports to have conducted his inspections. [\(See Exh. 3. FERC CM Report\).](#)
 - If there was actually snow on the ground as the FERC CM reports, Mr. Bidwell’s report is misleading at best. Either Mr. Bidwell was aware of the snow, failed to mention it, and still claimed that he found no discernible evidence, or he did not visit those sites.
- **Conflicts with FERC CM Inspection**
 - Mr. Bidwell reports no issues on any of the 5 tracts owned by Dan Christian (GA-0444 / 445 / 448 / 450 / 453). [\(See Exh. 1. Bidwell Report. Page 11\).](#)
 - In the same time frame, the FERC CM conducted inspections on Dan Christian’s property and issued a problem area violation against Midship. He notes instances of ponding, drainage issues, and unrestored contours throughout the various tracts. [\(See Exh. 3. FERC CM Report\).](#)

The Commission must take compliance issues and landowner concerns seriously. The Commission has the authority to perform any and all acts necessary or appropriate to ensure compliance with the Natural Gas Act, and by association, the FERC Certificate.

Below you will find a particularly egregious selection of Mr. Bidwell’s evaluations on tracts owned by 4 landowners. Additionally, you will find a section of general photos depicting the project around the time of inspections [\(See Exh. 4\)](#) as well as CLC’s complete evaluations and determinations of the same tracts. [\(See Exhs. 5 – 8\)](#). This information is provided to help clarify the conditions of the properties and how pipeline companies like Midship treat landowners through a barrage of litigation, so-called ‘experts’, and administrative intimidation. I ask the Commission to take the reality of landowners seriously. They are being taken advantage of and Midship is testing the waters of how far FERC will let them take it.

Please feel free to contact (330) 312-1060 for any further assistance.

Respectfully Submitted,

/s/ Nate Laps

Nate Laps,
President of Operations
Central Land Consulting, LLC

cc: Jim Ansley Ph.D., Department Head – Rangeland Ecology at Oklahoma State University
Charles R. Hart, Ph.D., President, Society for Range Management
Carol L. Chambers, Ph.D., President, The Wildlife Society
Steve Alspach, State Soil Scientist of Oklahoma
House Committee on Oversight and Reform
Congressman Jamie Raskin, Chairman of the House Subcommittee on Civil Rights and Civil Liberties
Rich McGuire (FERC)

Exhibit 1

Mr. Bidwell's Report with Condensed Photos

**Cherokee Land Consulting, L.L.C.
TERRANCE G. BOWEN, Ph.D.
Natural Resources Scientist**

**3302 W. Glencom Rd
Stillwater, OK 74078**

Email: terr@cherokeeLLC.com

Cell: 405.880.2829

Expert Report - Rebuttal

Date: 02 January 2021

Title: Inspection and Evaluation of the Midship Pipeline Right-of-Way

Cases: United States District Court for the Western District of Oklahoma, Case No. 5-18-cv-058-C, Midship Pipeline Company, LLC v. Tract No. OK-0304,008, 2,504 Acres of Land, More or Less, Permanent Easement in Canadian County, Oklahoma, et al.

Site Inspection Dates: The site inspections occurred on 17, 18, 19, & 21 December 2020

Scope of Work: This case was described to me by Mr. Tom Zabel and Mr. Todlin Edwards with the law firm of Zabel Prosser in Houston, Texas. I was asked to evaluate alleged damages claimed by Cherokee Land Consulting on behalf of various landowners as the result of the construction of the Midship Pipeline.

Professional Qualifications

I am Professor Emeritus of Ecological Ecology and Management at Oklahoma State University. In my former position, my responsibilities were to teach, conduct research, and extend the information to private and public land managers. I hold degrees in Forestry, Wildlife Biology, Agronomy, and Ecological Ecology and Management. I am principal of Cherokee Land Consulting, L.L.C., a natural resource consulting firm focused on evaluating surface damages and effects to terrestrial ecosystems. My areas of expertise are rangeland/grassland restoration and management, re-vegetation of disturbed areas, forest restoration and management, fire ecology, wildlife ecology, livestock grazing management, crop damage, and fence evaluation.

Mid Step Pipeline LLC

3

January 2021

I conduct evaluations of surface damages and effects resulting from activities, encompassing, but not limited to, application, oil/water spill, oil well completion, and compaction, and rights-of-way construction and reconstruction. My publications include papers in multiple scientific journals and numerous fact sheets. I have also provided information to popular media on the above subject matter. I have experience in evaluating land surface damages and effects to grasslands, shrublands, and forests in Oklahoma, Kansas, Nebraska, Texas, Colorado, New Mexico, North Dakota, Alaska, Tennessee, Georgia, Florida, New York and Mexico. I have provided reports, depositions, and trial testimony on cases in civil and federal courts. My goal is to present unbiased, science-based findings and to develop evaluations that meet the best of reasonableness.

Scope of Site Inspection and Observations

I evaluated portions of the Midstep Pipeline right-of-way (ROW) on the defendants' properties. I evaluated these properties within the context of the defendants' allegations and the oilfield plant community and soil conditions. On some of the defendants' properties, I was unable to physically evaluate the soil condition off of the ROW because the landowner had not granted a variance. I evaluated on and off the ROW the following:

- Topsoil and subsoil mixing
- Vegetation condition
- Root penetration
- Topsoil depth
- Soil Compaction
- Grade elevation change
- Soil erosion

Documents Reviewed in Forming My Opinions

- Central Land Consulting L.L.C. Spreadsheets

Dobbs & Hoffman LLC

1

3 January 2021

- Relevant United States Department of Agriculture (USDA), National Resources Conservation Service (NRCS) (formerly Soil Conservation Service (SCS)) County Soil Surveys
- Aerial photography
- Molehill complaint, and all exhibits.

Overview of Damage Claims

The damage need proposed by Central Land Consulting L.L.C. (CLC) is not supported by evidence such as relevant measurement data collection from those measurements, analysis of these data, and quality control of these data (e.g. statistical models and estimates of probability in declaring significance differences). For example, CLC statements of differences in grade elevation are not supported by data that it could evaluate for comparison, accuracy (resolution), and relevance. Furthermore, there are logical arguments that some data points of alleged changes in grade elevation were made by the use of a drone using LIDAR technology to acquire changes in elevation. This technique is problematic because there are no statements of quality control for LIDAR data in terms of scope and resolution. As such, I cannot evaluate the claims for alleged damages based on CLC's spreadsheets and lack of quantifiable data and relevant information. In summary, the defendant's allegations are not supported by field measurements and appear to be speculation.

In addition, some of the defendant's allegations of soil loss involved the inappropriate use of the USDA NRCS County Soil Surveys in establishing a benchmark for topsoil depth (in defendant's spreadsheets). The soil depths given for any given soil type are an average for the variety of inferences. They are not specific to an individual property and should never be used in that manner. As such, using soil depth averages for a discrete piece of property (e.g. an individual defendant's property) is inappropriate, misleading, and demonstrates a lack of understanding of how the soil survey is intended to be used. I worked on soil surveys with the United States Department of Agriculture Soil Conservation Service in Colorado and Oklahoma. I am aware of how soil surveys are conducted, interpreted and used. This is not an appropriate use of the soil survey.

United to Ripper LLC

+

3 January 2022

The defendant alleges crop loss as a result of the pipeline construction as it relates to topsoil and subsoil mixing. I found a few small areas on a few sites that had some mixing that I identified as full lateral landowner observations listed below. It should be noted that research has shown that some mixing of topsoil and subsoil can be even beneficial to crop production if there is a plow pan or a clay layer under the topsoil. In addition, it is reasonable to conclude that some topsoil and subsoil mixing would occur when using heavy equipment, but not enough to affect crop or forage production.

As I inspected the properties, I also looked for differences in plant conditions (e.g. winter wheat) in terms of leaf coloration, leaf density, and leaf height. I did not find differences in actively growing crops such as winter wheat planted around the ROPF. I also did not find differences in dormant perennial and rangeland grasses (e.g. bromus grass) in terms of stolon density. My observations indicate that there should be no differences in crop production or forage production on and off the ROPF. In conclusion, the defendant did not provide supporting documents, photographs, measurements, or sales receipts to support their claim for loss of crop, forage, or hay production.

Publicly Available

1

1 January 2021

Duffinland's Damage Claims Response**CL-01-0024.000****Shaunat M. Rother**

- Soil profile similar on and off the ROW
- No discernible soil erosion in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

CL-01-0025.000**Karen Schmittig, Marcia, and Dale Schmittig**

- Soil profile similar on and off the ROW
- No discernible soil erosion in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion
- Native grass regrowing as expected

CL-01-0026.000**Terry Bruce Lohr and Diana Lohr**

- Soil profile similar on and off the ROW
- Soil eroded in the ROW north of the oil field pad
- Oil field pad is dumping rubber into ROW
- No discernible mixing of top soil and subsoil in the ROW
- Top soil loss and erosion in the ROW as the result of a gully in the water way in the ROW
- No discernible change in grade
- No discernible erosion

CL-01-0027.000**Terry Bruce Lohr and Diana Lohr**

- Soil profile similar on and off the ROW
- No discernible soil erosion in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

Michigan Report no. LLC

6

3 January 2021

CL-03-0696.000**Bradley Christian Kristovich, et al**

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

CL-03-0697.000**Edward Miller and Warren J. Miller**

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

CL-03-0698.000

**Barbara M. Wall, Trustee of the Barbra M. Wall Living Trust dated June 8, 2002
 Emma M. Daley, Successor Trustee of the Barbra M. Wall Living Trust dated June
 27, 2002**

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

CL-03-0699.000**E B S Inc**

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

CL-03-0699.000**Mark E. Schaefer, et al**

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

Hedge Property LLC

J

3 January 2021

CL-01-001.000**State of New York Soil Monitor Elizabeth Kotter**

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

CL-02-001.000

Clyman J. Hahngehl and Charles L. Hahngehl, Trustees of the Clyman J. Hahngehl Trust, a revocable trust dated the 17th day of May 2004, Charles L. Hahngehl and Clyman J. Hahngehl, Trustees of the Charles L. Hahngehl Trust, a revocable trust dated the 17th day of May 2004

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

CH-04-07.010**Tracy G. Matusz**

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

CH-04-12.000**Tracy G. Matusz**

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

CH-0023.000**Boris J. de la Motte, et al.**

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

Richard P. Fisher LLC

8

3 January 2021

CF-2014-0004

Wanda R. Mason and Clifford J. Mason, Jr., Trustees, or their successors in trust, under the Wanda R. Mason Living Trust, dated August 23, 2000, and Clifford J. Mason, Jr. and Wanda R. Mason, Trustees, or their successors in trust, under the C. J. Mason, Jr. Living Trust, dated August 23, 2000

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

CF-2014-0005

Daniel John Rothman, et al

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

CF-2014-0006

Thomas J. Leach, Trustee of the Thomas J. Leach Revocable Trust dated December 3, 2007

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

CF-2014-0007

Charles A. Snyder and Diane M. Snyder

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

CF-2014-0008

Barry A. Crosby

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

Mobile Report List

3 January 2013

CR-0002-006**Betty A. Crowley**

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

CR-0002-000**Thomas D. Jacobs**

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

CR-0004-004**John M. Wathen and Marissa E. Fawcett Barber**

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

CR-0002-000, CR-0002-000

Allen Dale Steiner and Cindy Ann Steiner, as Co-Trustees of the Allen Dale and Cindy Ann Steiner Revocable Trust, dated November 20, 2012

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible soil erosion

CR-0004-000**Robert J. and Patricia J. Lee**

- Soil profile over gravel on and off the ROW
- Discernible soil compaction in the ROW around the valve station
- Mixing of top soil and subsoil in the ROW
- Discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

Mishy-Pearce LLC

10

3/20/2021

01-0071000**Charles Lee Hite, Supervisor, Trustee of the Myrtle V. Todd Farm Trust No. II**

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

01-0071000**John B. Van Tassel**

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

01-0071000**Walter J. Johnston and Nancy Johnston and Shirley and Michael Pappas**

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

01-0071000**John D. Van Tassel**

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

01-0110000**Billy Leonard Melton Long**

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

01-0110000**Dorothy T. Johnston and Myrtle Johnston Christian**

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW

Digging Pipeline 34C

11

Title No. 2021

- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

GA-04-08-000

Henry T. Christian and Brenda Johannee Christian

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

GA-04-08-000

Henry T. Christian and Brenda Johannee Christian

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

GA-04-08-000

Dora Christian and Johannee Christian, et al

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

GA-04-08-000

Dora Christian, et al

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

033-0113-010

Wendy C. Starkey, Trustee of the Betty C. Starkey Beneficial Trust dated December 17, 2010, et al

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

GR-012575 D

Betty C. Stachey, Trustee of the Betty C. Stachey Revocable Trust dated December 27, 2010, et al

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

GR-012575 E

Edna M. Vandyke and Barbara J. Westric, Co-Trustees of the Vandyke Family Trust, a revocable trust dated December 15, 2010

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

GR-012575 F (Proposed Starting and Ending, LLC)

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

GR-012575 G

Charles Mackey and Charles Mackey

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

GR-012575 H

Martin Dale Hamrick and Sharon Ann Hamrick, et al

- Wheat planted in field and across the ROW by landowner
- Good stand of wheat on and off the ROW
- Good wheat root penetration on and off the ROW
- Soil profile similar on and off the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible soil compaction in the ROW
- No discernible change in grade
- No discernible erosion
- Very small soil hollows on the ROW over the pipeline in the Bermuda grass pasture. Several small erode channels convey out of the Bermuda grass pasture into the creek channel, readily repaired.

Hobby Ponds LLC

13

January 2021

GR-01298.13-Clarks J McCasus and Charley D McCasus

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

GR-01300.14**Clarks J McCasus and Charley D McCasus**

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

GR-01310.15**Clarks J McCasus and Charley D McCasus**

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

GR-01320.16**Joe McCasus and Arlene McCasus**

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

GR-0133.16**Wendy and Henry H Barnfield Roseville Living Trust**

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

Wesley & Mary E. Churchill LLC

14

3 January 2021

CR-01313-010

Wesley and Mary E Churchill LLC Beneficial Living Trust, Wesley and Mary E Churchill LLC,
co-trustees

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

CR-01313-011

Wesley and Mary E Churchill LLC Beneficial Living Trust, Wesley and Mary E Churchill LLC,
co-trustees

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

CR-01313-012

Charlie Joe McCosque,
Justice McCosque Estes

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

CR-01313-013

Charlie Joe McCosque,
Justice McCosque Estes

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

CR-01313-014

James L. Vickrey and Kimberly A. Vickrey

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

Mickey R. Kelly et al.

15

3 January 2021

CR-0141000**Ronald L. Winney and Shirley R. Winney**

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

CR-0141001 (Table)**Ronald L. Winney and Shirley R. Winney**

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

CR-0147000**The Common Kardecy Living Trust, Common Kardecy, Trustees, et al**

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

CR-0149000**Terry Garrett and Wynette Garrett**

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

CR-0151000**Terry Lynn Garrett and Wynette Garrett**

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

CR-0160000**Wynette O. Elmer**

and Marilyn Elmer, Trustees of the Wynette O. Elmer Trust dated Sept. 13, 1991, and any successors thereto

- Soil profile similar on and off the ROW
- Moderate soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW

Richard Pysall & LLC

14

January 2021

- No discernible change in grade
- No discernible erosion

GR-0202410

John H. Mayo and Martha Wilson

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

GR-0214000

First National Bank and Trust Company, Corporate Trustee of the James L. McElroy and Linda R. McElroy Irrevocable Trust (dated 24th day of December, 2012)

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- PROHIBITION: There was a large erosion gully on the far east side field on the southern back of the White River

GR-0214000

McIver Scott and Margaret L. Scott Revocable Trust, McIver Scott and Margaret L. Scott, Trustees

- Soil profile similar to and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

GR-0224100

McIver Scott and Margaret L. Scott Revocable Trust, McIver Scott and Margaret L. Scott, Trustees

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

GR-0224100

Mark A. Morris as Trustee of the Mark A. Morris Revocable Trust dated March 27, 2012, et al

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

Milling Pipeline LLC

17

3 January 2021

- Creek crossing is stabilized with a culvert
- The OFFICIALS are in good charge and are performing as intended. However, terraces are not needed when there is permanent vegetation cover up to this level. Terracing is an artifact of historical farming.
- The claim of very large masses (tons) of soil coming downstream from the area around the creek crossing on the pipeline, blocking a side channel, and depositing into United States Department of Agriculture (USDA) spot-burn flow control structure are not supported by evidence or observation of the creek crossing and adjacent area. The claim is also not supported by my knowledge of stream dynamics and erosion control in which I have worked on for over 30 years. In addition, I have aerial photography prior to the pipeline construction that does not support this claim. (also read dredged material byproducts from this area with permanent vegetation growing.

GR-886-54880

Lucas Marie Elledge and Johnathan

Reggie Elledge, Trustees of the Elledge & Johnathan Reggie Elledge Family Trust
Dated June 27, 2019

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

PL-87-0024-004

Marcella W. Regan, et al

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

PL-87-0025-004

Marcella W. Regan, et al

- Soil profile similar on and off the ROW
- No discernible soil compaction in the ROW
- No discernible mixing of top soil and subsoil in the ROW
- No discernible top soil loss in the ROW
- No discernible change in grade
- No discernible erosion

Wills & Associates LLC

18

3 January 2021

VERIFICATION OF

STATE OF OKLAHOMA

)
)

vs.

COUNTY OF PAYNE

My opinions and conclusions in this report are made to a reasonable degree of professional certainty in the fields of Agronomy and Pastureland Ecology and Management.

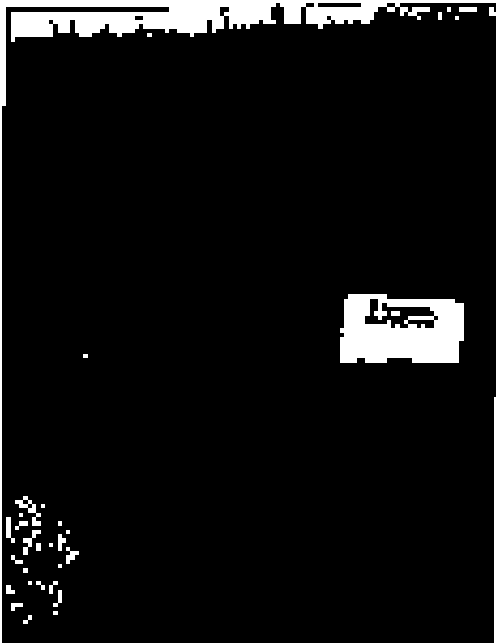
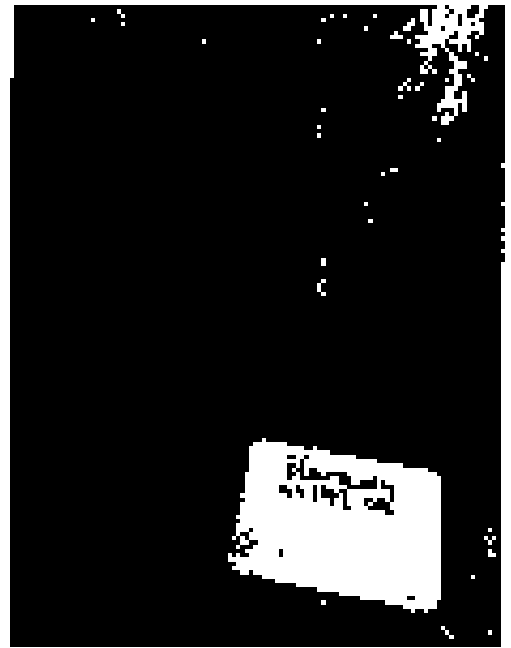
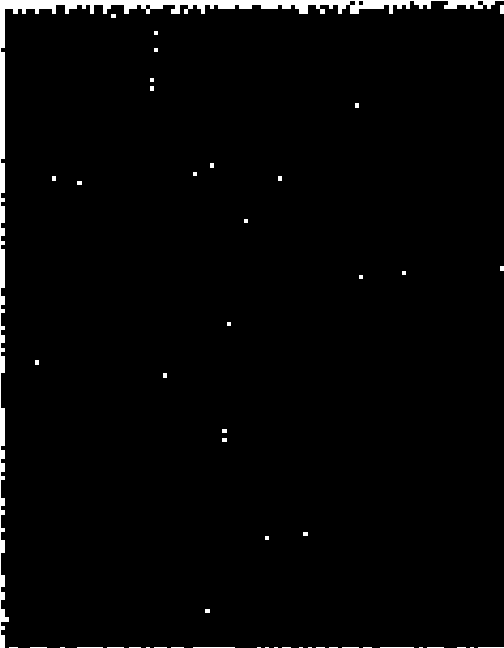
I, Terrence G. Bidwell, of lawful age, being first duly sworn upon oath, would state that I have prepared the above and foregoing report and that it is true and CORRECT to the best of my knowledge and belief.



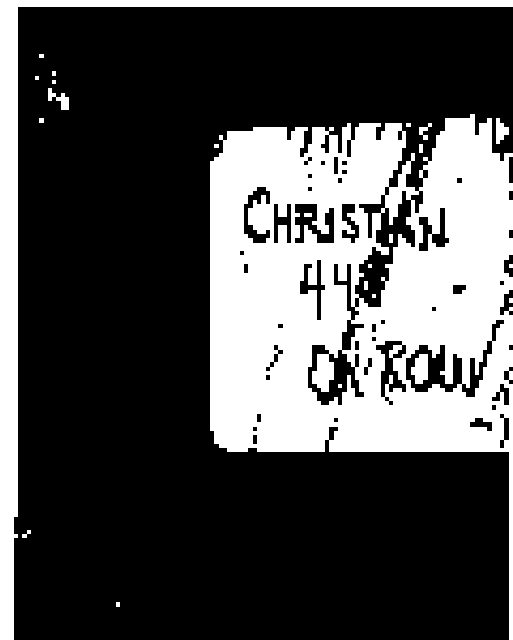
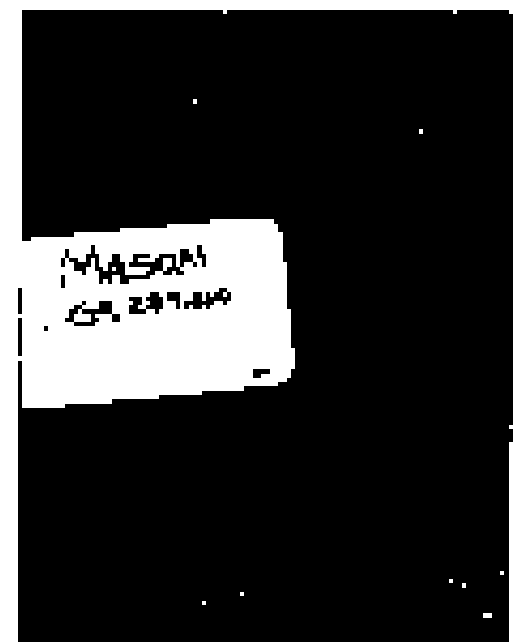
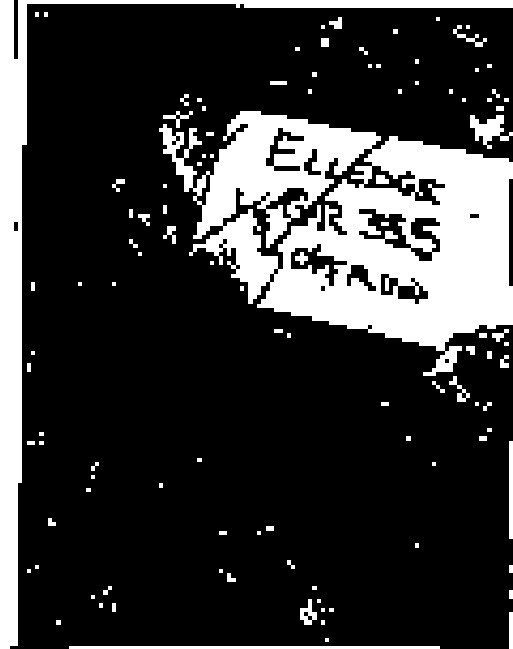
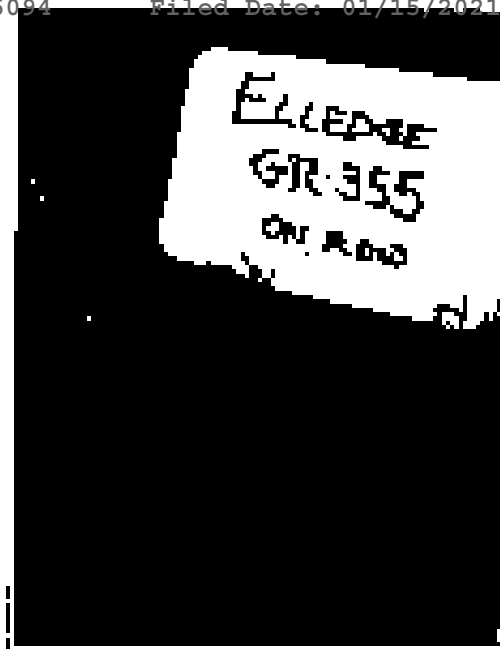
03 January 2021

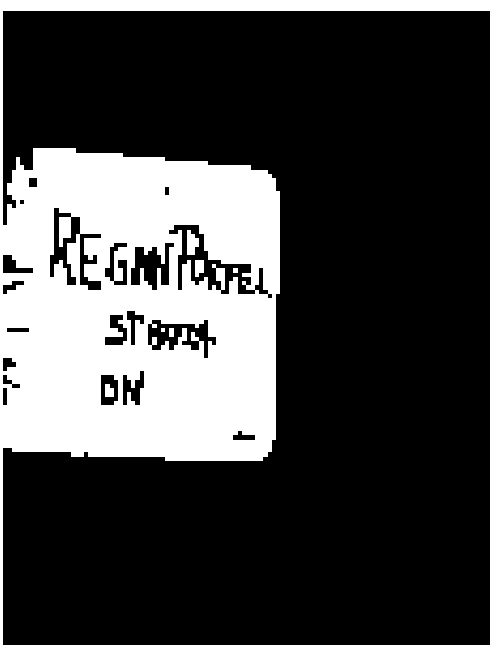
Terrence G. Bidwell

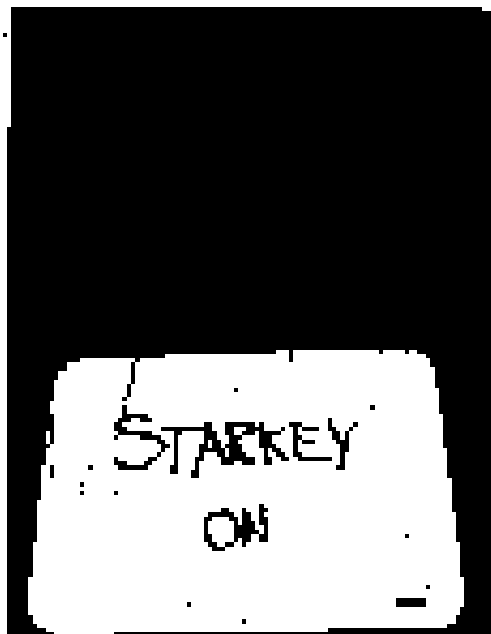
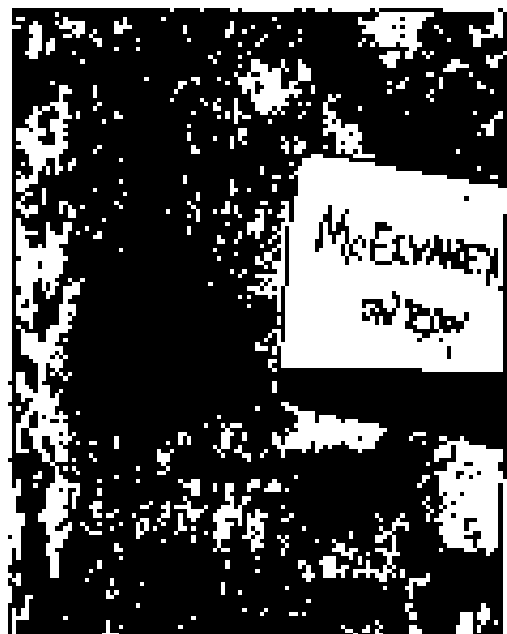
Date

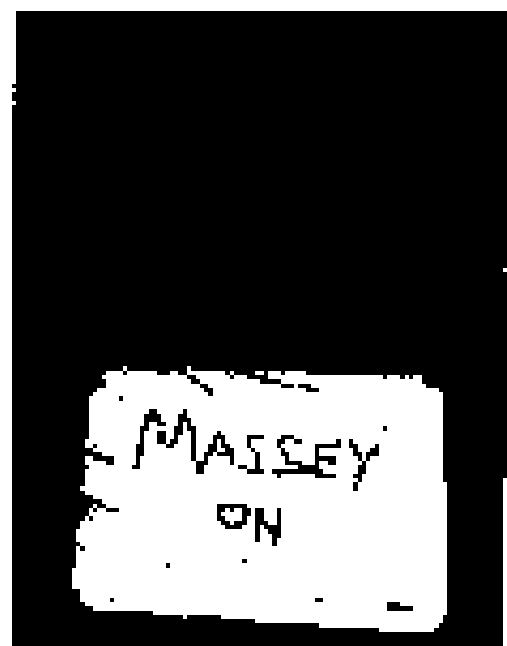
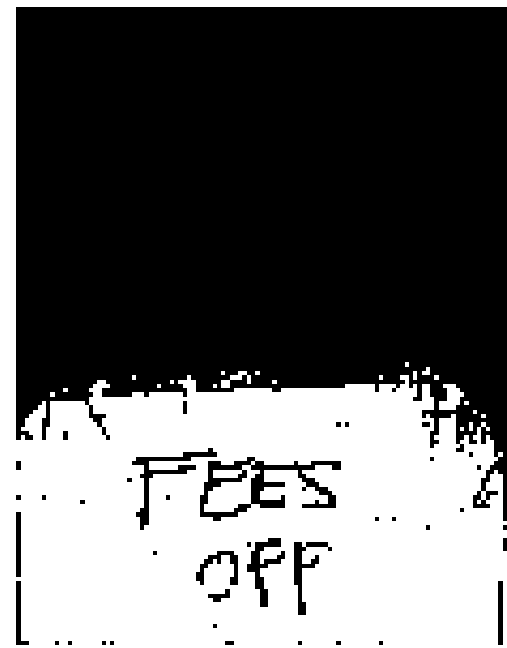
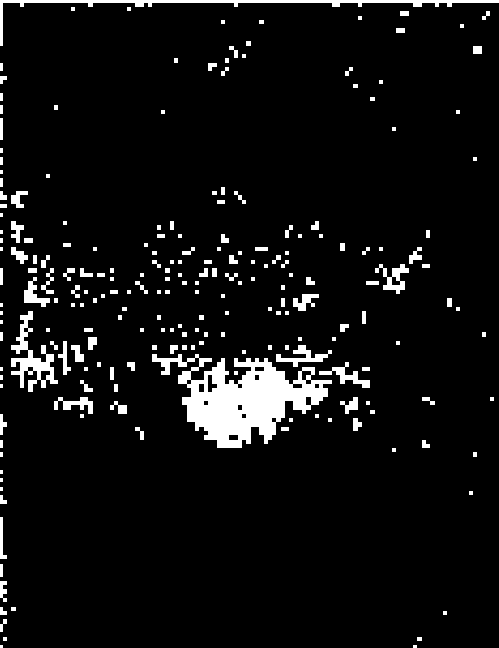
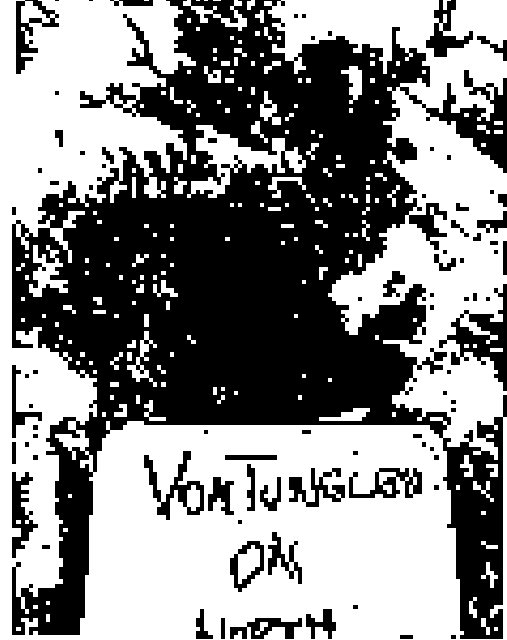
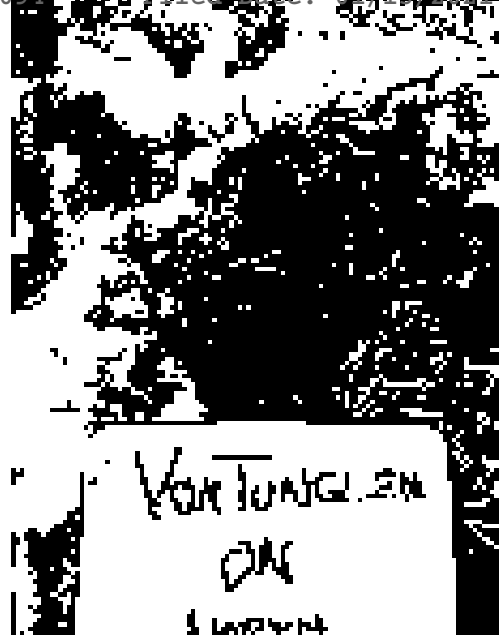


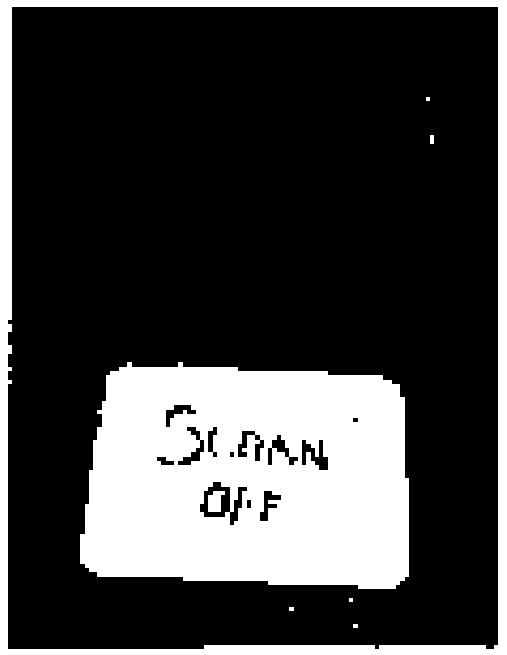
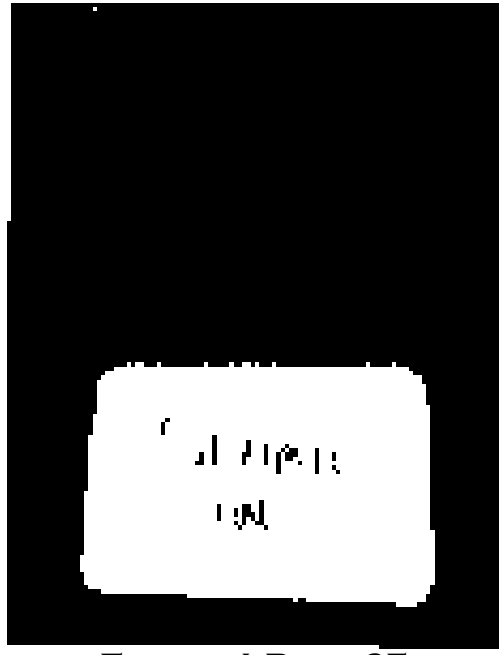












STOVER
ON

ROTHER
ON

JACOBS
ON

HUFNAGEL
ON

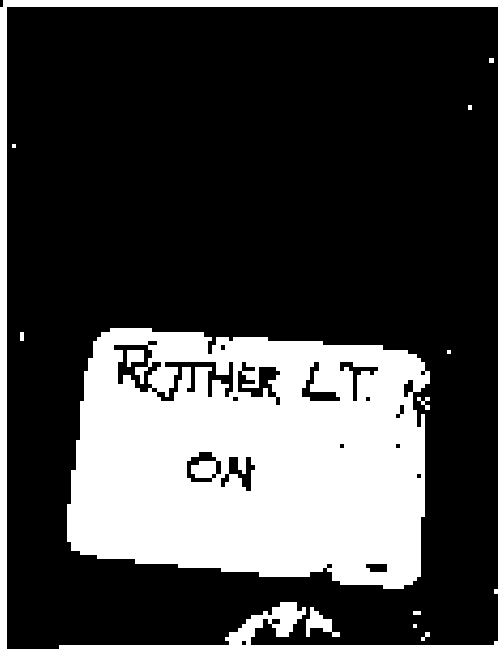
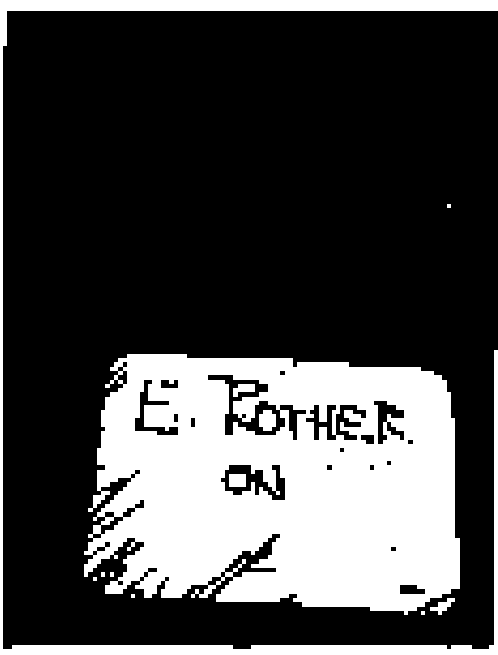
CROWLEY
ON

SNYDER
ON

LECK
ON

LECK
OFF

C HUFNAGEL
ON



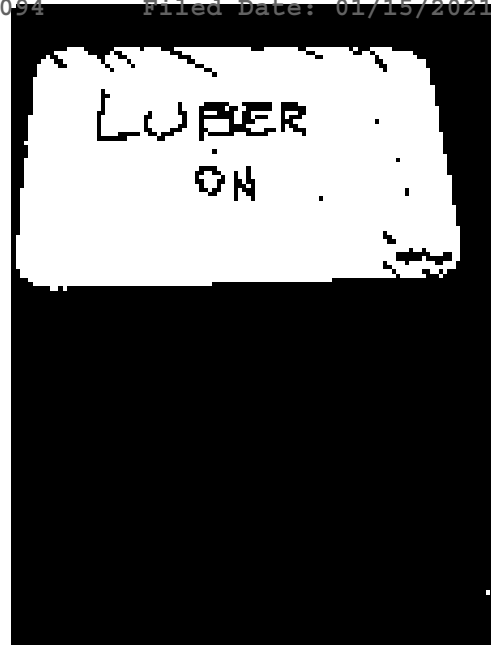


Exhibit 2

Examples of Landowner Correspondence *Granting Access to Expert Site Visits and* Evaluations

From: Thomas J Leck <tjleck.llc@gmail.com>
Date: December 12, 2020 at 11:23:41 AM CST
To: Vadim Bourenin <vbourenin@zflawfirm.com>
Cc: nlaps@centrallandconsulting.com, Danny Leck <dleckfarms@pldi.net>
Subject: RE: case 5:18-cv-858-G; experts visits

Mr Bourenin

By this Email message, I hereby grant permission for representatives of the Midship Pipeline company permission to enter my property for the purpose of inspecting the damages to the property along the Right of Way of their 36 inch pipeline, with the proviso that Midship shall notify me 24 hours prior to the time that the inspection team will be coming onto my property for their inspection. Notification can be made by text message, or by phoning me and leaving a message at (1-302-598-0467).

I am pleased to learn that Midship is making this inspection and will witness the degree of compaction and the associated impacts on water drainage and absorption into the soil, the marked reduction of growth of the Bermuda hay on the ROW, and many bare spots with no growth all. It is my observation that it will require, among other things, a substantial amount of new topsoil to be brought, spread, and graded level with the prevailing field surface on either side of the ROW in order to restore my property to pre-Midship Pipeline conditions.

I await your report.

Best,

Thomas J Leck

Sent from [Mail](#) for Windows 10

From: David Starkey <davidrstarkey@comcast.net>
Date: Friday, January 1, 2021 at 1:51 PM
To: Vadim Bourenin <vbourenin@zflawfirm.com>
Cc: Central Land Consulting <landman1407@gmail.com>
Subject: Fwd: Tract #GR 0115.010 and Tract #GR 0113.010

I have not yet heard anything from you regarding my response below.

David Starkey

Begin forwarded message:

From: David Starkey <davidrstarkey@comcast.net>
Date: December 23, 2020 at 11:44:01 AM CST
To: vbourenin@zflawfirm.com
Cc: landman1407@gmail.com
Subject: Tract #GR 0115.010 and Tract #GR 0113.010

Re your letters to Betty Starkey and me (David Starkey) dated December 11, 2020 referencing the two tracts noted in the Subject line above, I grant permission for the Midship experts to also inspect areas of the Property outside of the condemned by Midship permanent and temporary easements. Please let me know when you plan to make this inspection. Also please cc landman1407@gmail.com on any future communications you may have with me on this subject.

David Starkey

Begin forwarded message:

From: maassman maassman <maassman@pdi.net>

Subject: Inspection

Date: December 19, 2020 at 8:53:33 PM EST

To: "Laps, Nate" <landman1407@gmail.com>

Hi Nate

Jay Parker called me a couple of hours after I spoke with you. He asked if they could do the inspection today since they were working in the area. I knew you wouldn't be able to make it Monday so I told him it was ok. I met him and Terry Bidwell walking into the easement from the south because it was too muddy to drive their ATV's on the lease. It was holding a little water in a few places. They asked about driving outside the easement, I told them if they cut ruts it would erode badly. I don't think they did anything on the easement today.

There was another man there from Midship that said he was here to fix the problems, I think he was Mr Gregory. I told him good luck. He said he hoped he never had to work on another one of these deals again. I told him I didn't think a Judge would ever give permission to start a pipeline project in the future without everything being settled first. I told Mr Bidwell about my concerns with the grass or lack of it on the easement and the runoff problems. Talk to you later.

Tracy

Exhibit 3

FERC Compliance Monitor Report from the Week of Mr. Bidwell's Evaluations That Contradict Mr. Bidwell's Evaluations



COMMUNICATION REPORTS

Communication reports provide documentation of relevant meetings between the Compliance Monitors and landowners, agencies, Midship Project representatives, EIs, and/or contractors. The summary table of communication reports below includes reports issued by the Compliance Monitors and does not include any reports issued by the Midship EIs. The reports issued by the Midship EIs are summarized in the Midship Weekly Reports. The communication and follow-up /reports represented below capture compliance-related information for keeping this weekly summary report relevant to current Midship Project activities.

| SUMMARY OF COMMUNICATION REPORTS FOR THE MIDSHIP PROJECT | | | | |
|--|-------------|---|--------------------------------|--|
| Report Number | Date Issued | Location (Spread or Facility/ Milepost [MP]/ County) | Follow-up Required (Yes or No) | Description |
| EV-8931 | 12/17/2020 | Mainline / North Spread / MP 14.7 to 15.1 / Canadian County | Yes | The Compliance Monitor inspected tract CN-0066.000. The landowner had filed concerns regarding restoration on the FERC docket. The Compliance Monitor noted that the tract was predominately vegetated with mature, native sunflower plants, and some perennial grass was present to a limited extent. No erosion areas were evident; however, additional seeding activities may be needed to establish perennial grass. The Compliance Monitor communicated to the Midship Lead EI that the tract may require additional seeding activities. |
| EV-8932 | 12/17/2020 | Chisholm Lateral / North Spread / MP 19.2 to 19.3 / Kingfisher County | No | The Compliance Monitor inspected tract CL-KI-0079.010. The landowner had filed concerns regarding restoration on the FERC docket. The Compliance Monitor noted that an erosion area was present due to cultivated agricultural field drainage to the north property boundary. Erosion appeared to be attributed to normal, cultivated agricultural practices and associated drainage patterns and not related to project activities. The Compliance Monitor did not observe any debris; however, the tract was covered with approximately three inches of snow. <u>The Compliance Monitor noted that preconstruction contours had been restored. No ponding or low elevation areas were noted. However, the tract was covered in several inches of snow at the time of the inspection and should be re-assessed once the snow has melted.</u> The north property line drainage and associated flume pipes were not obstructed. |
| Hubbard | | | | |
| EV-8933 | 12/17/2020 | Chisholm Lateral / North Spread / MP 16.8 to 17.1 / Kingfisher County | No | The Compliance Monitor inspected tract CL-KI-0069.000. The landowner had filed concerns regarding restoration on the FERC docket. The Compliance Monitor noted that the preconstruction contours appeared restored with no evident of ponding noted at the time of the inspection. <u>However, the tract was covered in several inches of snow at the time of the inspection and should be re-assessed once the snow has melted.</u> |
| Krittenbrink | | | | |



SUMMARY OF COMMUNICATION REPORTS FOR THE MIDSHIP PROJECT

| Report Number | Date Issued | Location (Spread or Facility/ Milepost [MP]/ County) | Follow-up Required (Yes or No) | Description |
|---------------|-------------|--|--------------------------------|---|
| EV-8934 | 12/18/2020 | Mainline / North Spread / MP 66.7 to 66.9 / Grady County | No | The Compliance Monitor inspected tract GR-0314.010. The landowner of the tracts had previously filed concerns about restoration on the FERC docket. The Compliance Monitor noted that construction wood debris had been gathered and removed from the right-of-way. The Compliance Monitor did not note any issues on the tract. |
| EV-8935 | 12/18/2020 | Mainline / North Spread / MP 65.8 to 66.2 / Grady County | No | The Compliance Monitor inspected tract GR-0312.010. The landowner of the tract had previously filed concerns about restoration on the FERC docket. The Compliance Monitor noted that construction wood debris had been gathered and removed from the right-of-way. The Compliance Monitor did not note any issues on the tract. |
| EV-8936 | 12/18/2020 | Mainline / North Spread / MP 71.9 to 72.3 / Grady County | Yes | The Compliance Monitor inspected the previously identified erosion of the waterbody SGR-008 (Sandy Creek) east bank (documented in EV-8922 issued on 12/10/2020) on tract GR-0338.000. The Compliance Monitor noted that the bank had been seeded and stabilized with erosion control fabric. The area will need to be monitored for erosion after storm events. |
| EV-8937 | 12/19/2020 | Mainline / North Spread / MP 106.5 to 106.7/ Carter County | No | The Compliance Monitor inspected tract CR-0514.010. The landowner of the tract had previously filed concerns about restoration on the FERC docket. The Compliance Monitor noted that the tract remained stable as previously reported (EV-7811 issued on 10/21/2020). The Compliance Monitor also noted no areas of erosion or subsidence, that perennial grass was present on the right-of-way, and the waterbody remained stable. |
| EV-8938 | 12/19/2020 | Mainline / North Spread / MP 95.4 to 95.8 / Garvin County | Yes | The Compliance Monitor inspected tracts GA-0444.000 and GA-0445.000. The landowner of the tracts had previously filed concerns about restoration on the FERC docket. The Compliance Monitor noted that the construction debris had been gathered and removed from the right-of-way. <u>Several unrestored contour and ponding areas remained on the tracts which were previously documented in problem area report EV-8928 issued on 12/15/2020. The Midship Lead EI informed the Compliance Monitor that mitigation of the unrestored contour and ponding areas would not be performed at this time.</u> |

Dan Christian



PROBLEM AREA REPORTS

Problem area reports record an observation where an area or activity does not meet the definition of acceptable but is not considered a noncompliance. One problem area report was issued by the Compliance Monitor during this period, as detailed below.

| SUMMARY OF PROBLEM AREA REPORTS FOR THE MIDSHIP PROJECT | | | | |
|---|-------------|---|--------------------------------|--|
| Report Number | Date Issued | Location (Spread or Facility/ MP/ County) | Follow-up Required (Yes or No) | Problem Area Description |
| EV-8928 | 12/15/2020 | Mainline / North Spread / MP 95.4 to 96.2 / Garvin County | Yes | The Compliance Monitor inspected tracts GA-0444.000, GA-0445.000 and GA-0448.000. A problem area report (EV-7697) was issued on 8/27/2020 for the presence of construction debris and erosion. The landowner of the tracts had previously filed concerns about restoration on the FERC docket. The Compliance Monitor noted that low elevation areas were present along the pipeline trench line several locations on tract GA-0444.000 and a small amount of construction related wood debris was present on the tract. Ponding was not observed on tract GA-0444.000. However, the Compliance Monitor did note ponding on tract GA-0445.000. The ponding seemed to be caused by an impeded culvert within the right-of-way. Ponding and construction debris were not noted on tract GA-0448.000. No areas of erosion were noted during the inspection. The Compliance Monitor communicated the observations to the Midship Lead EI. The Midship Lead EI stated that the tracts would be assessed for mitigation. |
| Dan Christian | | | | |



SELECTED PHOTOGRAPHS OF OBSERVED ACTIVITIES



Photo 1: View of mature vegetation on tract CN-0066.000, North Spread, MP 14.8 (see EV-8931 issued on 12/17/2020).



Photo 2: View of non-project related agricultural field drainage gully intersecting the right-of-way on tract CL-KI-0079.010, Chisholm Lateral, North Spread, MP 19.3 (see EV-8932 issued on 12/17/2020).



Photo 3: View of restored contour on tract CL-KI-0069.000, Chisholm Lateral, North Spread, MP 16.9 (see EV-8933 issued on 12/17/2020).



Photo 4: View of debris removal on tract GR-0312.010, North Spread, MP 66.1 (see EV-8935 issued on 12/18/2020).

Exhibit 4

Supporting Evidence to the General Condition of the Midship Project Around the Time of Mr. Bidwell's Evaluations

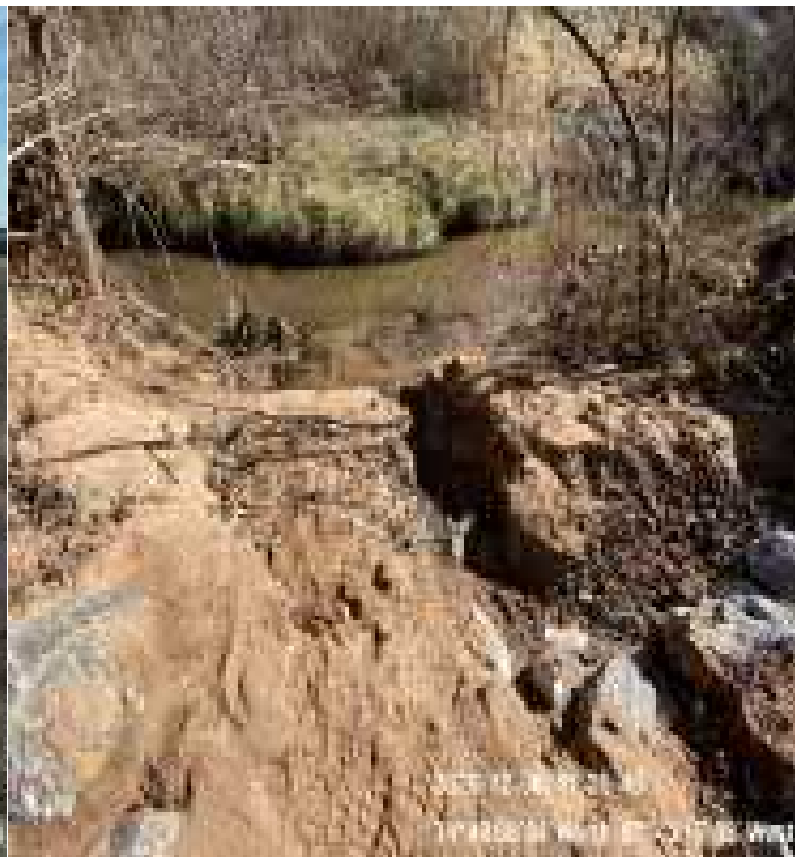






Exhibit 5

McComas Family Tracts: GR-0129.010, GR-0130.010, GR-0131.010, GR-0132.010, GR-0137.010, & GR-0138.010

Mr. Terry Bidwell's Determination on the McComas Tracts:

- **Soil profile similar on and off the ROW**
- **No discernible soil compaction in the ROW**
- **No discernible mixing of topsoil and subsoil on and off the ROW**
- **No discernible topsoil loss in the ROW**
- **No discernible change in grade**
- **No discernible erosion**

Pre-Construction Photos and Google Earth Screenshots

McComas Family Tracts

**GR-0129.010, GR-0130.010, GR-0131.010, &
GR-0132.010**

McComas Tracts GR-0129.010, GR-0130.010, GR-0131.010, & GR-0132.010 Indicating No Ponding or Deficiencies Near the Easement. Compared to Current Condition, This Shows That the Tract Has Not Been Restored Near It's Pre-Construction Condition.



McComas Tracts GR-0137.010 & GR-0138.010 Indicating No Ponding or Deficiencies Near the Easement.
Compared to Current Condition, This Shows That the Tract Has Not Been Restored Near It's Pre-Construction Condition.



McComas Family Property Condition *Prior* to Midship Pipeline Construction

Approximate Location of the Mainline Valve Site Prior to Construction

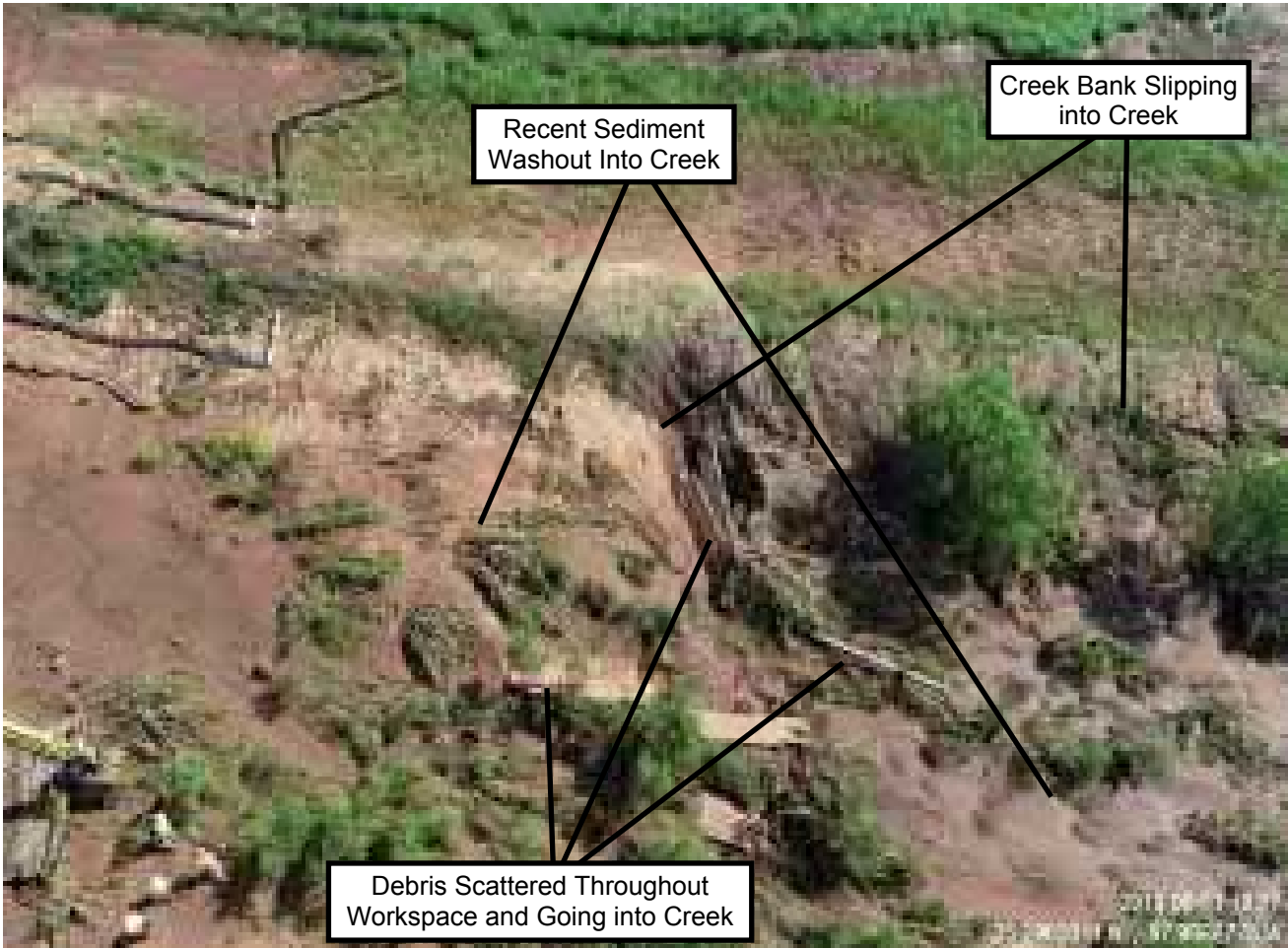


Approximate Location of Midship Pipeline

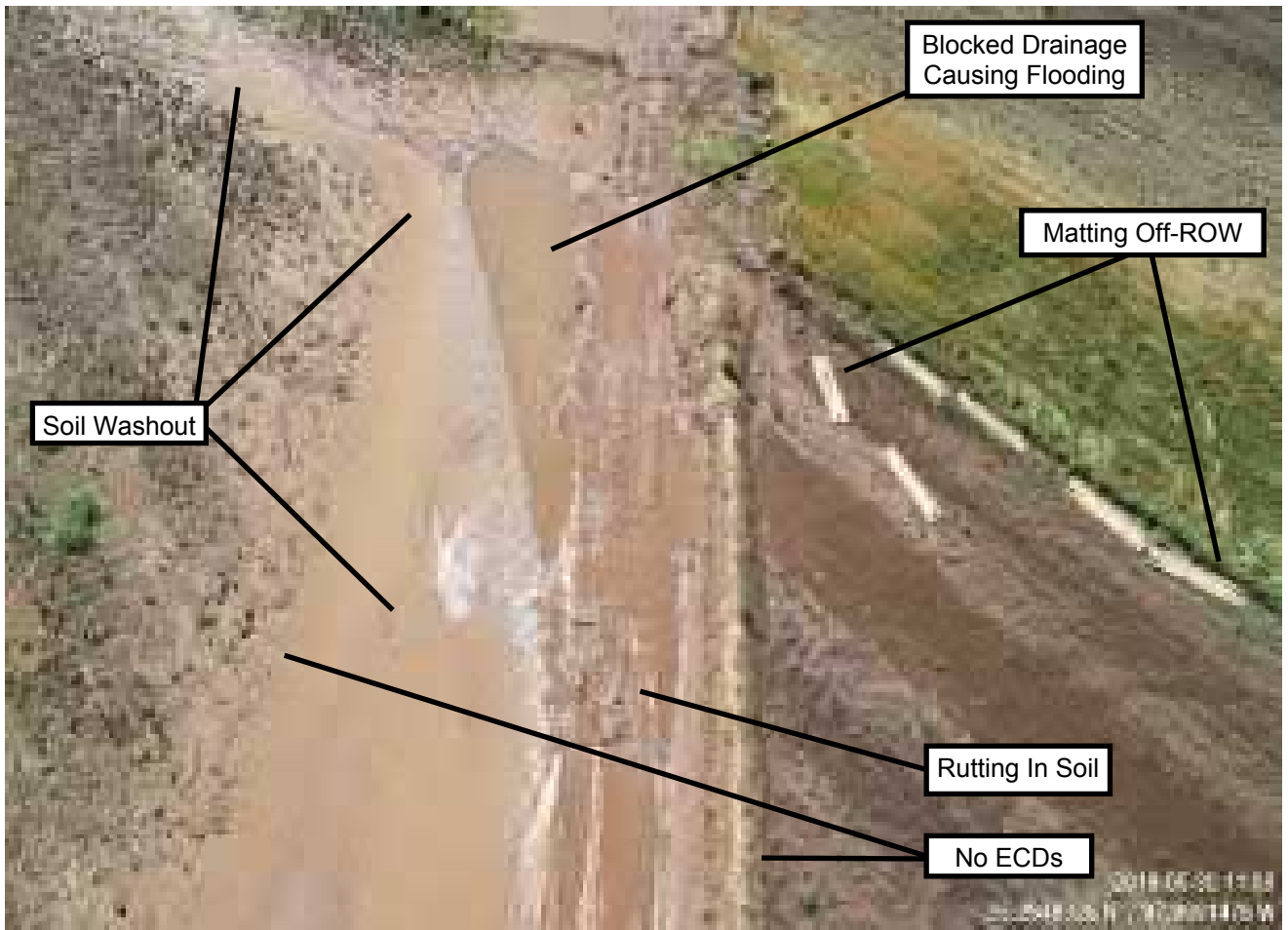
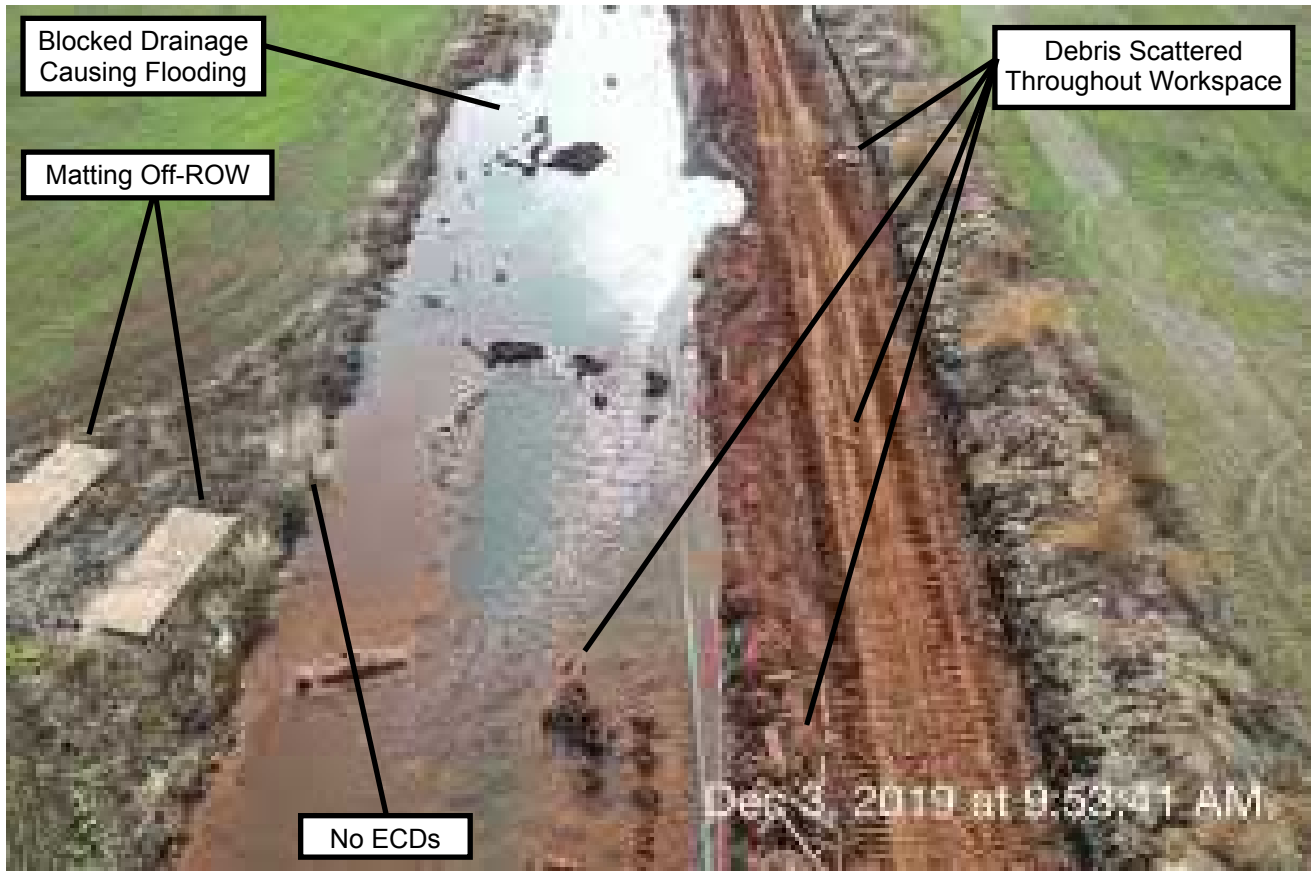


Midship Pipeline Construction on the McComas Tracts

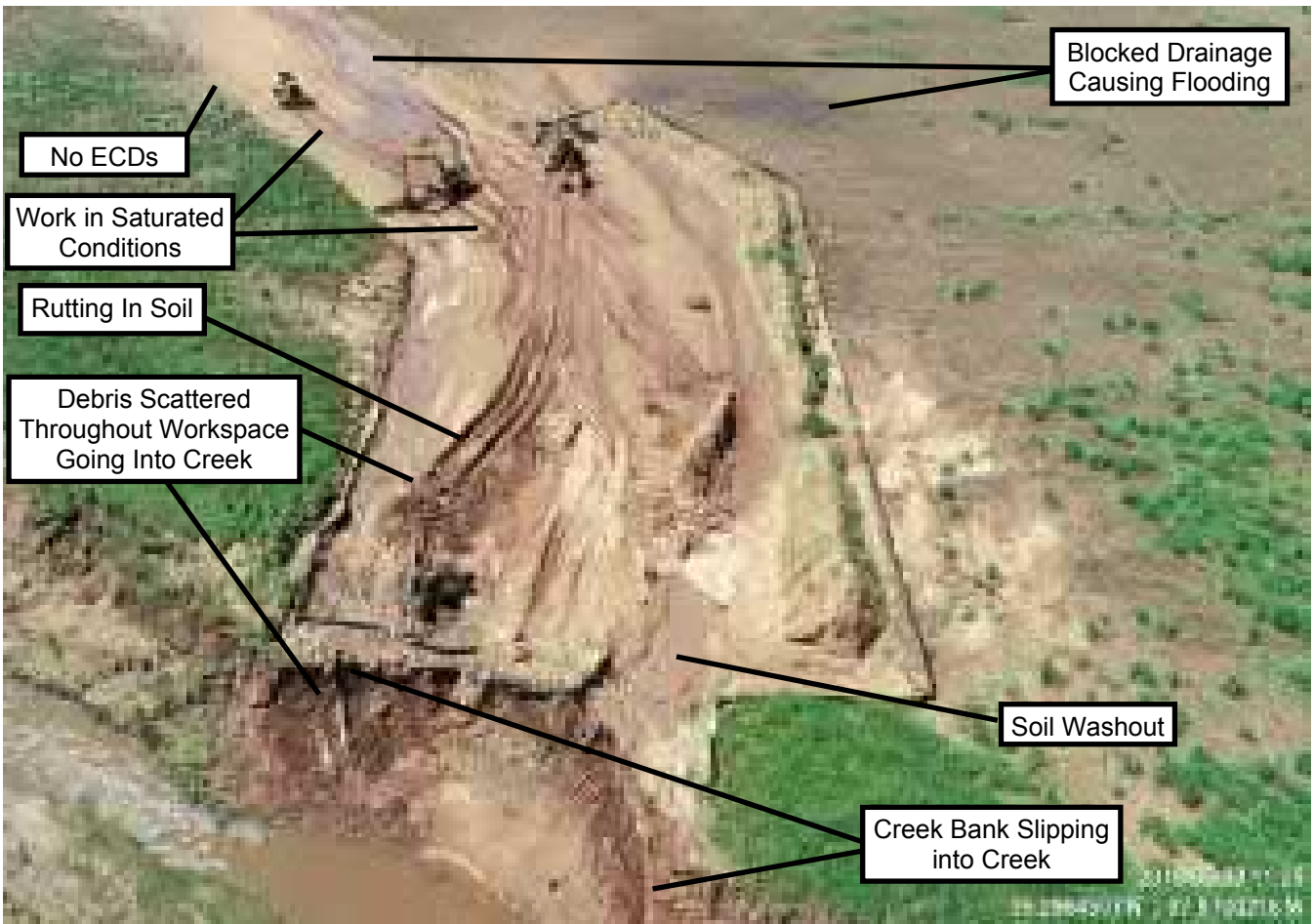
McComas Family Property Condition *During* Midship Pipeline Construction



McComas Family Property Condition *During* Midship Pipeline Construction



McComas Family Property Condition *During* Midship Pipeline Construction



Current Restoration Issues on the McComas Tracts

Ponding in Several Portions of the Easement



2021 01 04 14 40 04
35° 17' 53.09" North, 97° 58' 10.01" West

The Grade Has Not Been Restored Causing Ponding and Additional Compaction



2021 01 04 14 40 31
35° 17' 51.08" North, 97° 58' 11.34" West

The Ponding Has Been Flooding Out the Easement for Several Months



Drainage Issues and Lack of Revegetation



Chairman James Danly states in the December 30, 2020 letter that during the compliance monitor's inspection Buggy Creek was stabilized and no further mitigation was needed. The FERC can make there own determination from the two photos below.



The Stream Will Need Additional Stabilization



Chairman James Dandy states the "topsoil was removed from the McComas' property at the Mainline Valve as the site required leveling, and excess soil had to be hauled offsite; leaving it onsite would not allow the surrounding area to be restored to the appropriate grade." The photos below show differently





GRADE EVALUATION

Basis of Grade Evaluation

Below you will find a grade evaluation.

This evaluation is produced via autonomous drone scanning in which hundreds of individual photos are stitched together to create an orthophoto and elevation model.

The drone's on board GPS system records take-off elevation, flight altitude, as well as distance to the surface as it scans. These factors allow for the computation of relative elevation across the entire area of interest with a small amount of error compared to absolute elevation.

Vertical error is generally between 0.5 to 2 feet but does not have an effect on the relative accuracy of the elevation. This does not mean that individual points are off by 1 to 2 feet but rather the entire map could be 1 to 2 feet off compared to true absolute elevation.

Elevation changes within the area of interest (scanned area) are accurate compared to other areas within the same area of interest.

This evaluation is able to detect changes in elevation and topography down to 0.5”.

The purpose of this grade evaluation is to determine if the contours and relative elevation of areas inside the easement have been restored to near their pre-construction condition.

The evaluation below shows multiple cross-sections of the easement, from off-ROW to off-ROW and picks up on any elevation or grade changes down to 0.5”.

This evaluation can also determine the exact volume needed for topsoil importation in cases where there are low spots.

When it comes to determining whether grading work was adequately done, or topsoil importation is needed, it is impossible to accurately make a judgement based on the human eye.

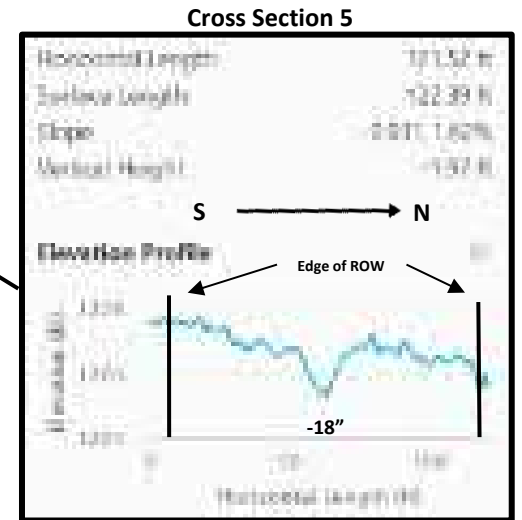
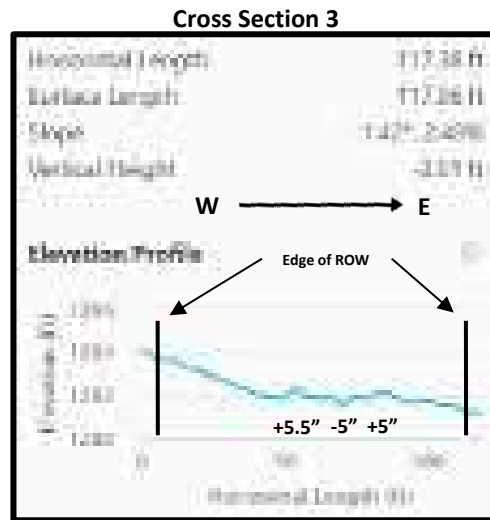
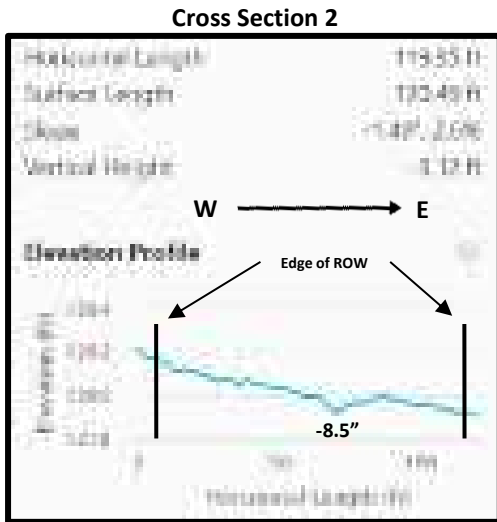
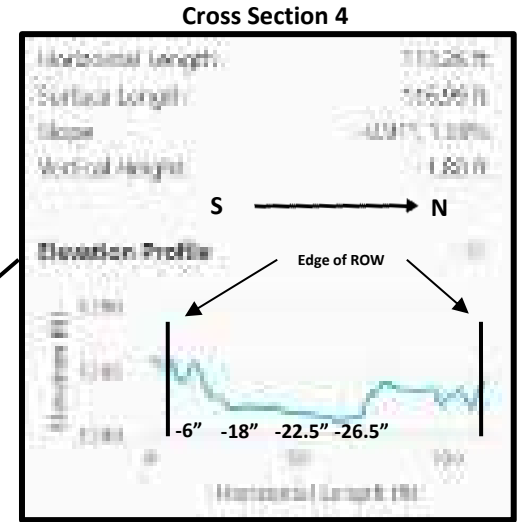
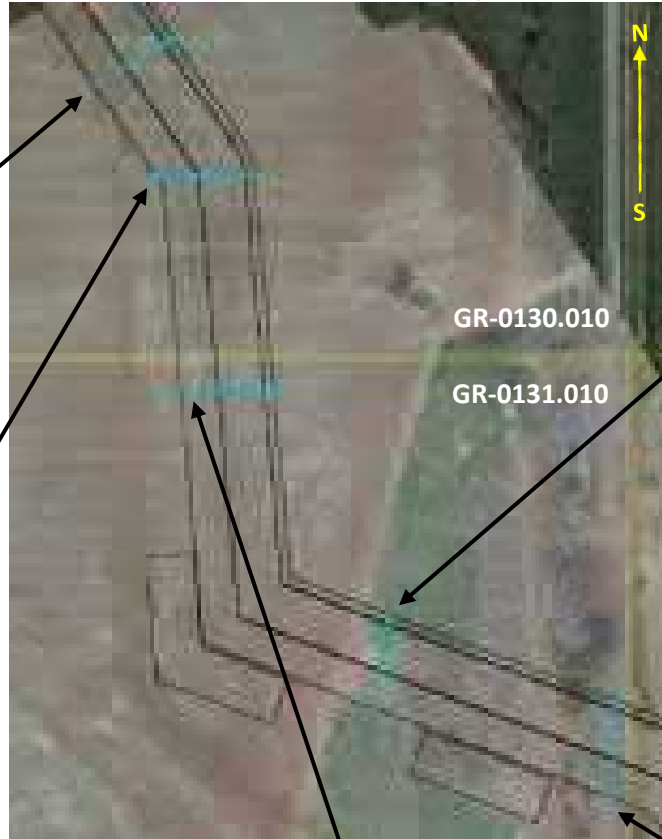
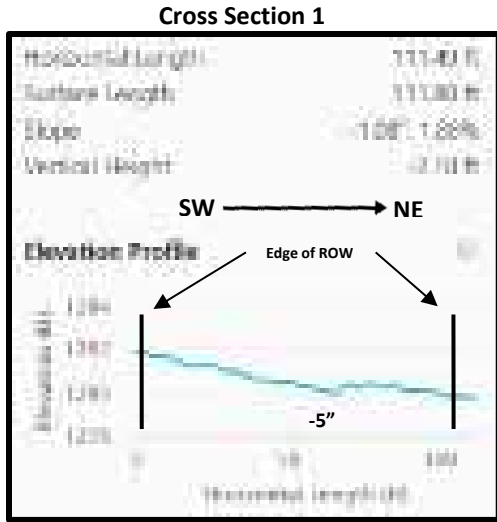
In these situations where inches matter, a reliable, science-based evaluation is necessary to identify and correct the problems.

Grade Requirements Per *FERC Plan*

V.A.5: “Grade the construction right-of-way to restore pre-construction contours and leave the soil in the proper condition for planting.”

Cross Sectional Grade Evaluation for The McComas Family Pertaining to Tracts GR-0130.010 & GR-0131.010.

Data Collected November 21, 2020.





Revegetation Assessment

Basis of Revegetation Assessment

Below you will find an assessment of revegetation.

This evaluation is produced via autonomous drone scanning in which hundreds of individual photos are stitched together to create an orthophoto and elevation model.

“*True Color*” shows the pipeline right-of-way and surrounding area as it appears naturally. Usually, healthy vegetation appears across shades of yellow to green, unhealthy vegetation will appear in shades of textured brown and tan, exposed soil most often appears across shades of gold, brown, and grey, and water often appears black, blue, or murky grey.

From here, the GIS program is taught to interpret what these range of colors and their associated spatial patterns mean through manual classification training.

Once training is completed, the training samples are applied to the entire right-of-way image by utilizing a supervised classification algorithm. This algorithm analyzes groups of pixels based on their color and spatial pattern and identifies what class they would likely fall into based on the training sample.

The output of this process can be seen on the “*False Color*” side. These maps show classes identified as selected colors. Red indicates bare earth, green indicates vegetation, and blue (if present) indicates areas of water.

Areas such as driveways and roads that will not be revegetated are omitted.

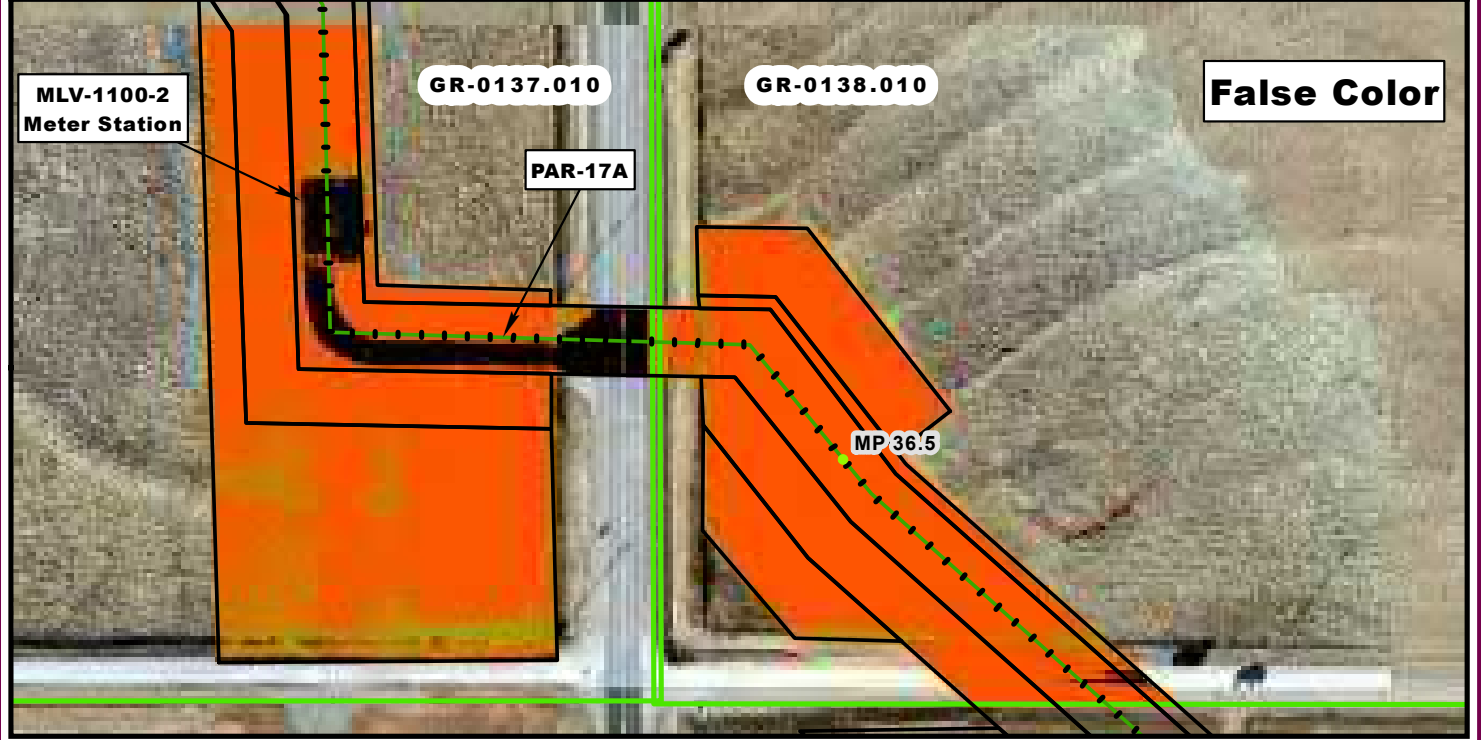
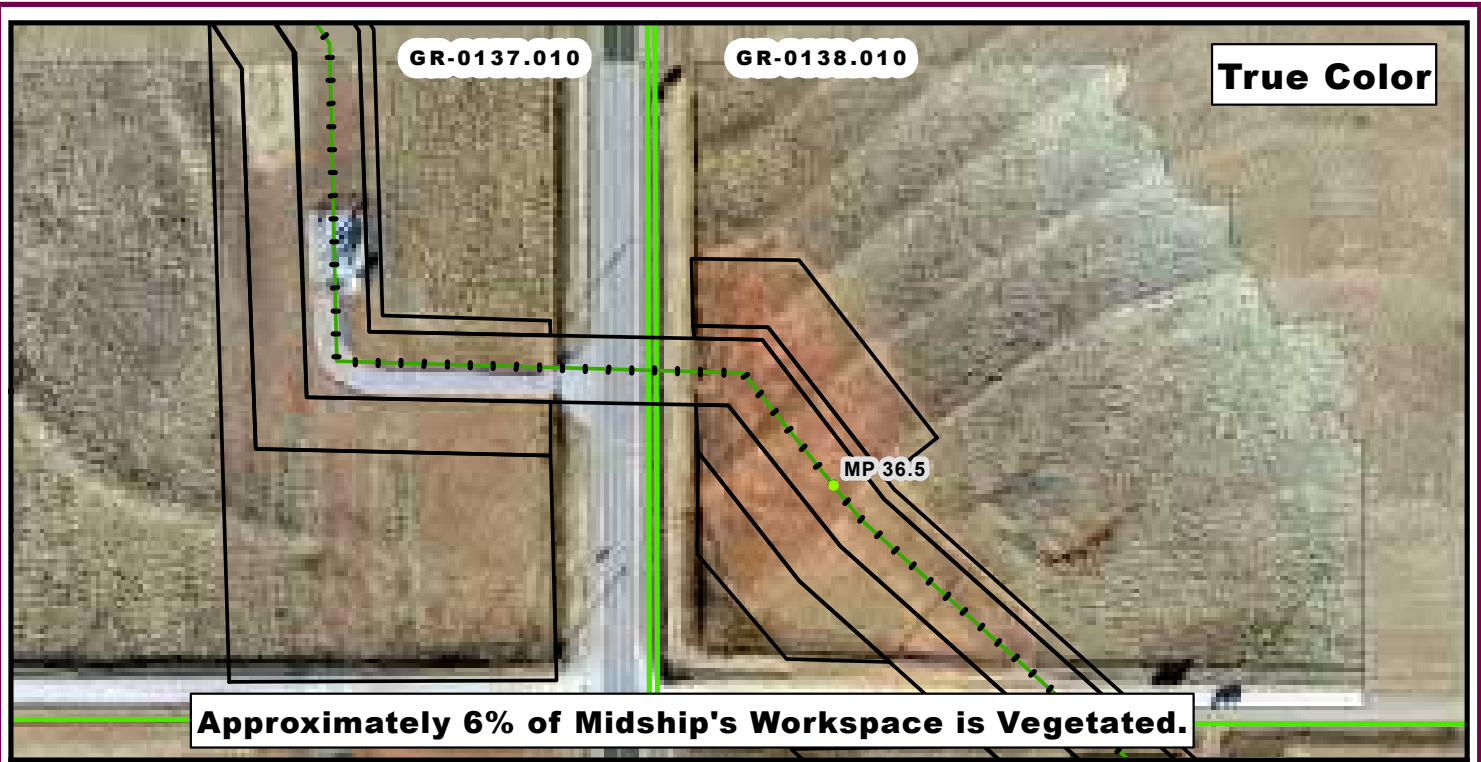
This analysis highlights miniscule differences from pixel to pixel across millions of pixels and allows for area calculations of each class.

Revegetation Requirements Per *FERC Plan*

V.D.1.a.: “The project sponsor is responsible for ensuring successful revegetation of soils disturbed by project-related activities”

VII.A.2.: “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.”

December 9, 2020 Revegetation Exhibit Prepared for Chris & Janice McComas



Midship Pipeline
 Midship Workspace
 Parcel Boundary (Approximate)

December 2020

Exhibit Prepared For
 Chris & Janice McComas
 Site Address: 35.277281°, -97.954715°
 GR-0137.010
 GR-0138.010
 Grady County, Oklahoma
 Midship Mainline Mile Post 36 - 36.5

Exhibit Details
 Approximately 6% of
 Midship's Workspace
 is Vegetated.

Notes
 Aerial data used for imagery
 analysis collected on
 December 9, 2020.

Data Sources:
 Grady County, OK. ESRI. USFWS.
 Base Map: ESRI World Imagery
 Provided for informative purposes only.
 This is not a survey product. This
 graphic should not be used for
 authoritative definition of legal
 boundary or property title.

Exhibit 6

Wesley Burchfield Tracts GR-0133.010, GR-0134.010, & GR-0135.010

Mr. Terry Bidwell's Determination on the Burchfield Tracts:

- **Soil profile similar on and off the ROW**
- **No discernible soil compaction in the ROW**
- **No discernible mixing of topsoil and subsoil on and off the ROW**
- **No discernible topsoil loss in the ROW**
- **No discernible change in grade**
- **No discernible erosion**

**PROPERTY EVALUATION PREPARED FOR
WESLEY & MARY E. BURCHFIELD**

Mile Post: MP 35
Grady County, Oklahoma

Tract: GR-0133.010
+/- 1,704.41 Feet of Pipeline // +/- 4.21 Acres of Right-of-Way

| OUTSTANDING RESTORATION ISSUES | MIDSHIP'S RESOLUTION FROM STATUS REPORTS |
|--|---|
| 1.) Re-grading / dirt work to smooth out easement to match off-ROW areas, the recent grade survey indicates the easement has settled and is affecting the drainage that would naturally discharge across the property. 2.) Persistent flooding / ponding of the easement and surrounding areas 3.) Easement needs re-seeded. Easement is completely bare. (Midship has not told landowners that they can begin farming the easement) 4.) 3 6" drain tiles need repaired (Midship has reported to have fixed one) 5.) Plant health analysis shows several areas of erosion and unhealthy vegetation that will need remediated and revegetated | 12/14/2020: Debris removal completed on 11/16/20. Only one drain tile was located and repaired. |

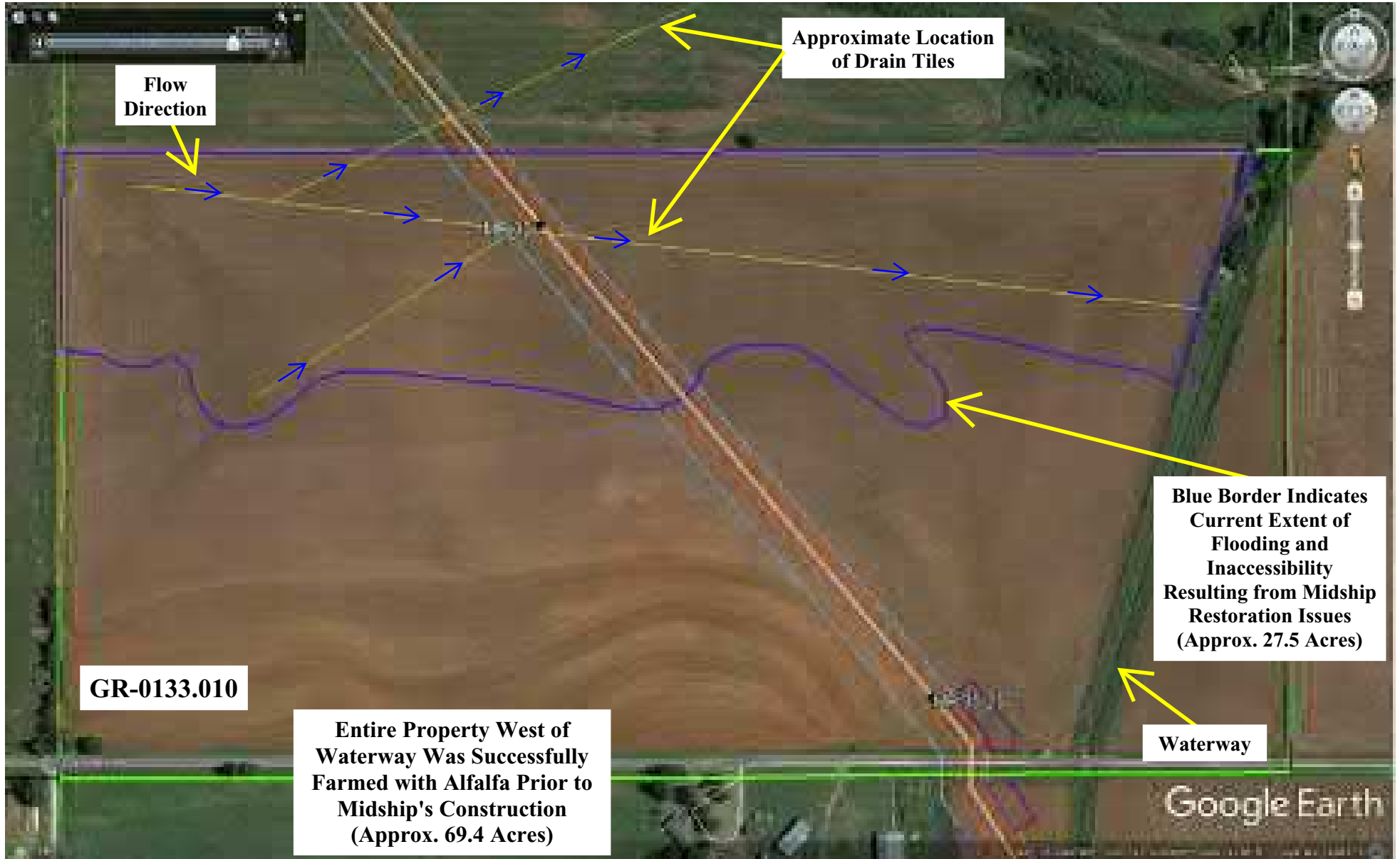
Tract: GR-0134.010
+/- 1,534.27 Feet of Pipeline // +/- 4.27 Acres of Right-of-Way

| OUTSTANDING RESTORATION ISSUES | MIDSHIP'S RESOLUTION FROM STATUS REPORTS |
|---|---|
| 1.) Re-grading / dirt work to smooth out easement to match off-ROW areas, the recent grade survey indicates the easement has settled and is affecting the drainage that would naturally discharge across the property. 2.) Persistent flooding / ponding of the easement and surrounding areas 3.) Easement needs re-seeded. Easement is completely bare. (Midship has not told landowners that they can begin farming the easement) 4.) 3 6" drain tiles need repaired (Midship has reported to have fixed one) 5.) Plant health analysis shows several areas of erosion and unhealthy vegetation that will need remediated and revegetated. | 12/14/2020: Debris removal completed on 11/16/20. Only one drain tile was located and repaired. |

Tract: GR-0135.010
+/- 239.35 Feet of Pipeline // +/- 0.71 Acres of Right-of-Way

| OUTSTANDING RESTORATION ISSUES | MIDSHIP'S RESOLUTION FROM STATUS REPORTS |
|--|---|
| 1.) Re-grading / dirt work to smooth out easement to match off-ROW areas, the recent grade survey indicates the easement has settled and is affecting the drainage that would naturally discharge across the property. 2.) Persistent flooding / ponding of the easement and surrounding areas 3.) Easement needs re-seeded. Easement is completely bare. (Midship has not told landowners that they can begin farming the easement) 4.) 3 6" drain tiles need repaired (Midship has reported to have fixed one) 5.) Plant health analysis shows several areas of erosion and unhealthy vegetation that will need remediated and revegetated | 12/14/2020: Debris removal completed on 11/16/20. Only one drain tile was located and repaired. |

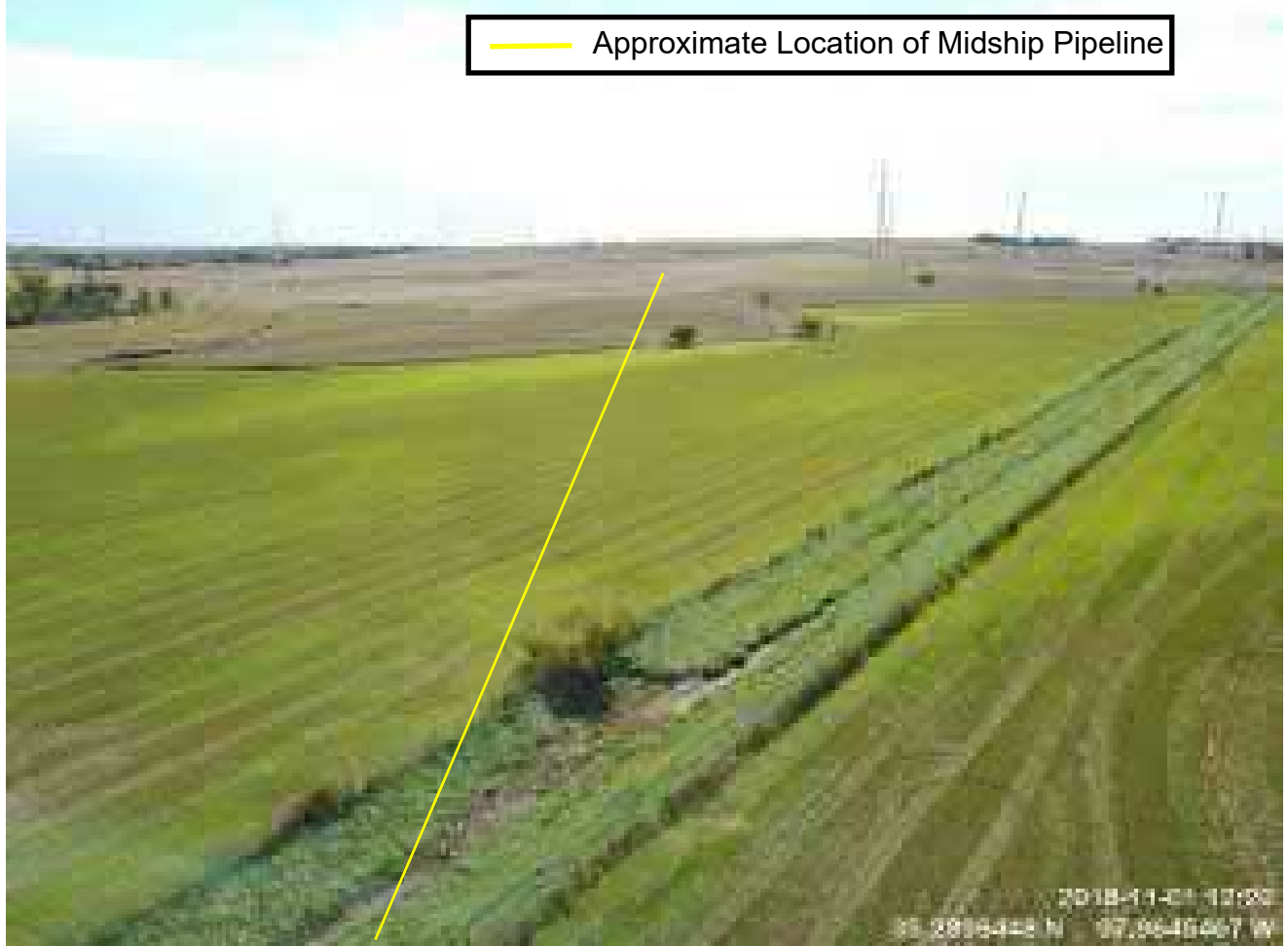
Google Earth Screenshot from 2015 of Burchfield Tract GR-0133.010. No Signs of Flooding or Drainage Issues.



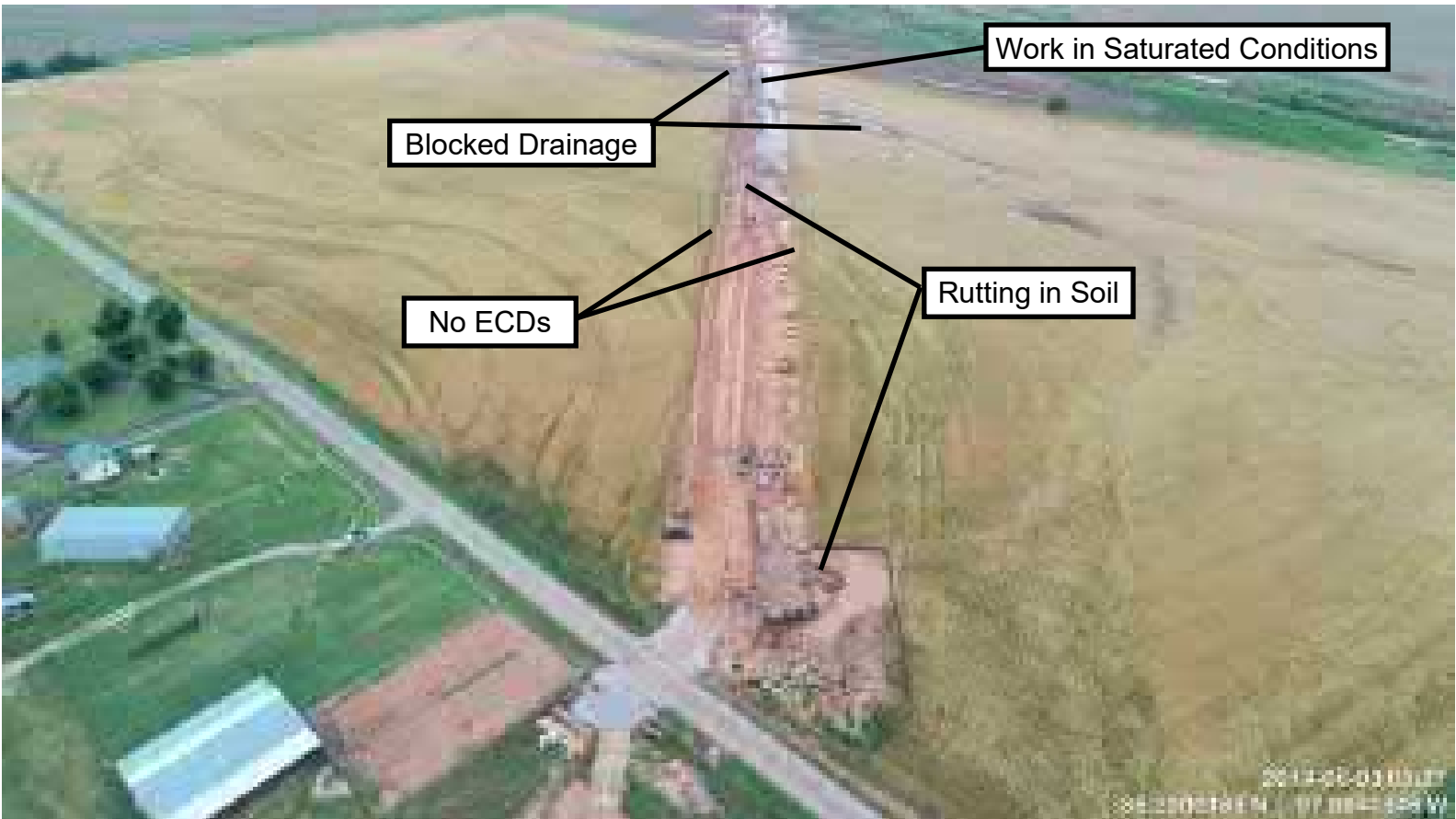
Wesley & Mary Burchfield Property Condition *Prior* to Midship Pipeline Construction



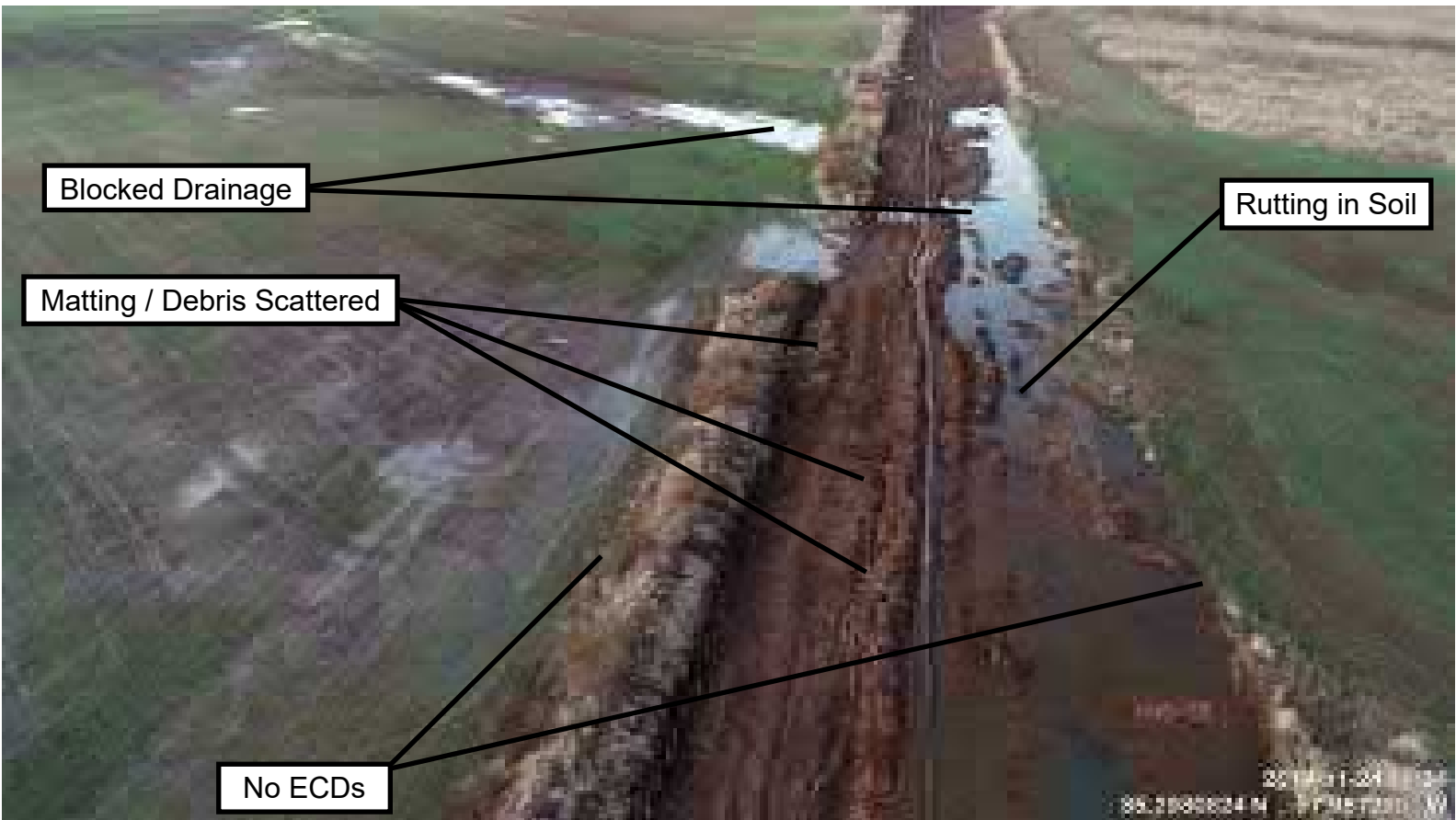
— Approximate Location of Midship Pipeline



Wesley & Mary Burchfield Property Condition *During* Midship Pipeline Construction



Wesley & Mary Burchfield Property Condition *During* Midship Pipeline Construction



January 5, 2021 Live Map Prepared for Wesley and Mary Burchfield



| Annual Yield Prior To Construction <i>(Based on USDA Averages for Grady County)</i> | Yield in 2020 <i>(Based on USDA Averages for Grady County)</i> |
|--|---|
| Approx. 18,044 100-lb Bales | Approx. 9,802 100-lb Bales |

Approximately 27.5 Acres Impacted by Flooding and Disrupted Drainage. This Area has been Persistently Flooded Since November 2019.

Existing Drainage Pattern & Flow Direction

GR-0133.010

MP 35

MP 35.25

Mr. Burchfield Lost Approximately 8,242 Bales of Alfalfa in 2020 Due to Midship's Ongoing Restoration Issues and Resulting Flooding / Inaccessibility.

- Midship Pipeline
- Parcel Boundary (Approximate)
- Permanent Easement
- Temporary Workspace
- Additional Temporary Workspace



December 2020

Exhibit Prepared For

Wesley & Mary E Burchfield Rev Living Trust

Site Address: 35.290294°, -97.964722°

0000-32-10N-07W-3-001-00 // 155.65 ac
GR-0133.010 // 1704.41 ft & 4.21 ac of ROW

0000-05-09N-07W-2-001-00 // 166.32 ac
GR-0134.010 // 1534.27 ft & 4.26 ac of ROW

0000-05-09N-07W-1-006-00 // 5.88 ac
GR-0135.010 // 239.35 ft & 0.71 ac of ROW

Grady County, Oklahoma

Midship Mainline Mile Post 35.5

Exhibit Details

Imagery Collected
January 5, 2021.

Notes

ESRI
Data Sources:
Grady County, OK. ESRI. USFWS.
Base Map: ESRI World Imagery
Provided for informative purposes only. This is not a survey product. This graphic should not be used for authoritative definition of legal boundary or property title.

Wesley & Mary Burchfield Property Condition *After* Midship Pipeline Construction

Large Area of Off-ROW Ponding Due to Impacted Drainage



Large Area of Off-ROW Ponding Due to Impacted Drainage

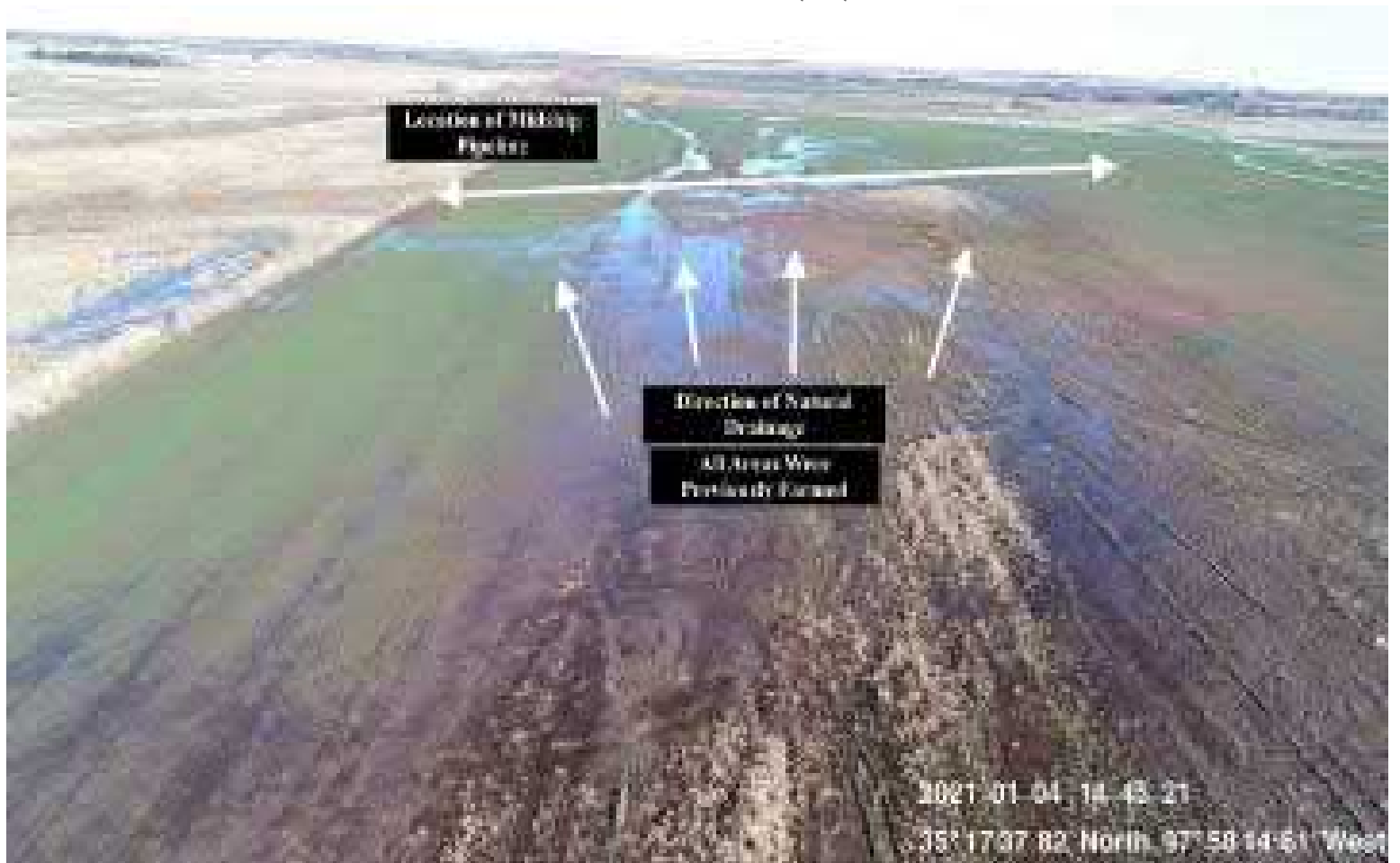


Rocks / Debris Mixed into Soils and Uncovered After Farmer Disked Field



Bare Easement. Improperly Restored Drainage Causing Ponding On-ROW and Off-ROW







COMPACTION TESTING MAP

Purpose of Compaction Testing

A cone penetrometer was used across several locations inside and outside the easement in order to measure soil resistance (i.e. soil compaction).

For cone penetrometers, 300 PSI (lbs/inch²) is the maximum pressure limit that can be exerted on the tool.

A 300-PSI reading means that you are pushing down with 300 pounds per square inch of pressure and unable to further penetrate the soil at a certain depth.
(Example: 300 PSI @ 4")

The depth at which 300 PSI is reached indicates the top of the compacted zone.

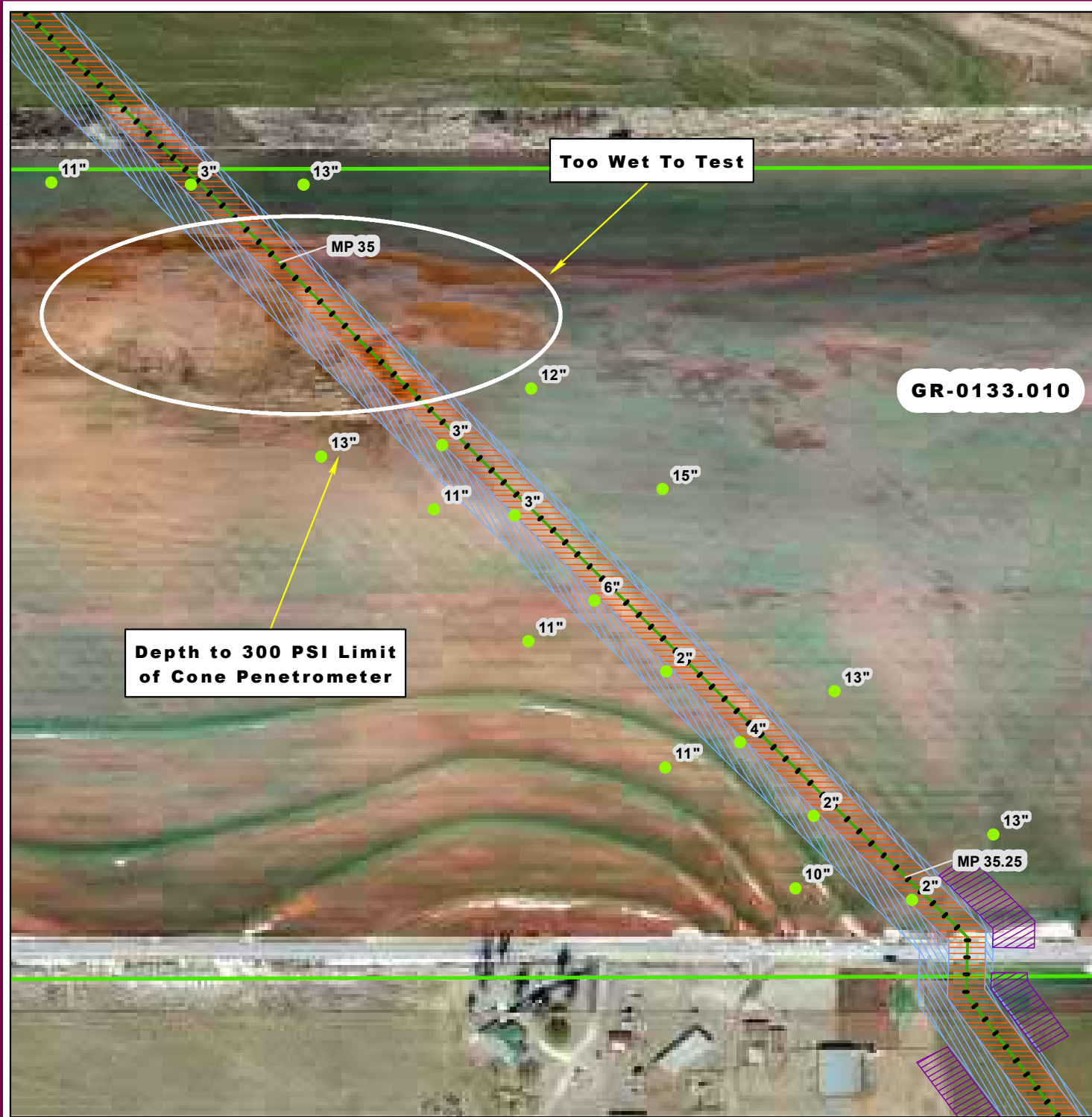
Generally, 200 PSI or below is desirable for optimal crop production and root penetration.

If on-ROW compaction tests do not show similar depth and pressure compared to off-ROW, further compaction mitigation must be performed.

Soil Compaction Requirements Per FERC Plan

- V.C.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.”
- V.C.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.”
- V.C.3: Perform appropriate soil compaction mitigation in severely compacted residential areas.

Soil Compaction Map Prepared for Wesley and Mary Burchfield



- Midship Pipeline
- Permanent Easement
- Temporary Workspace
- Additional Temporary Workspace
- Parcel Boundary (Approximate)

January 2021

Exhibit Prepared For

Wesley & Mary E Burchfield Rev Living Trust

Site Address: 35.290294°, -97.964722°

0000-32-10N-07W-3-001-00 // 155.65 ac
GR-0133.010 // 1704.41 ft & 4.21 ac of ROW

0000-05-09N-07W-2-001-00 // 166.32 ac
GR-0134.010 // 1534.27 ft & 4.26 ac of ROW

0000-05-09N-07W-1-006-00 // 5.88 ac
GR-0135.010 // 239.35 ft & 0.71 ac of ROW

Grady County, Oklahoma

Midship Mainline Mile Post 35.5

Exhibit Details

Map Shows Depth to 300 PSI Limit on Cone Penetrometer Throughout Midship Workspace and Adjacent Off-ROW Areas.

Off-ROW Average: 12.09 Inches
On-ROW Average: 3.13 Inches

Compaction Testing Took Place In December 2020.

Notes

Basemap Imagery Collected January 5, 2021.

Data Sources:
Grady County, OK. ESRI. USFWS.
Base Map: ESRI World Imagery

Provided for informative purposes only. This is not a survey product. This graphic should not be used for authoritative definition of legal boundary or property title.



Revegetation Assessment

Basis of Revegetation Assessment

Below you will find an assessment of revegetation.

This evaluation is produced via autonomous drone scanning in which hundreds of individual photos are stitched together to create an orthophoto and elevation model.

“*True Color*” shows the pipeline right-of-way and surrounding area as it appears naturally. Usually, healthy vegetation appears across shades of yellow to green, unhealthy vegetation will appear in shades of textured brown and tan, exposed soil most often appears across shades of gold, brown, and grey, and water often appears black, blue, or murky grey.

From here, the GIS program is taught to interpret what these range of colors and their associated spatial patterns mean through manual classification training.

Once training is completed, the training samples are applied to the entire right-of-way image by utilizing a supervised classification algorithm. This algorithm analyzes groups of pixels based on their color and spatial pattern and identifies what class they would likely fall into based on the training sample.

The output of this process can be seen on the “*False Color*” side. These maps show classes identified as selected colors. Red indicates bare earth, green indicates vegetation, and blue (if present) indicates areas of water.

Areas such as driveways and roads that will not be revegetated are omitted.

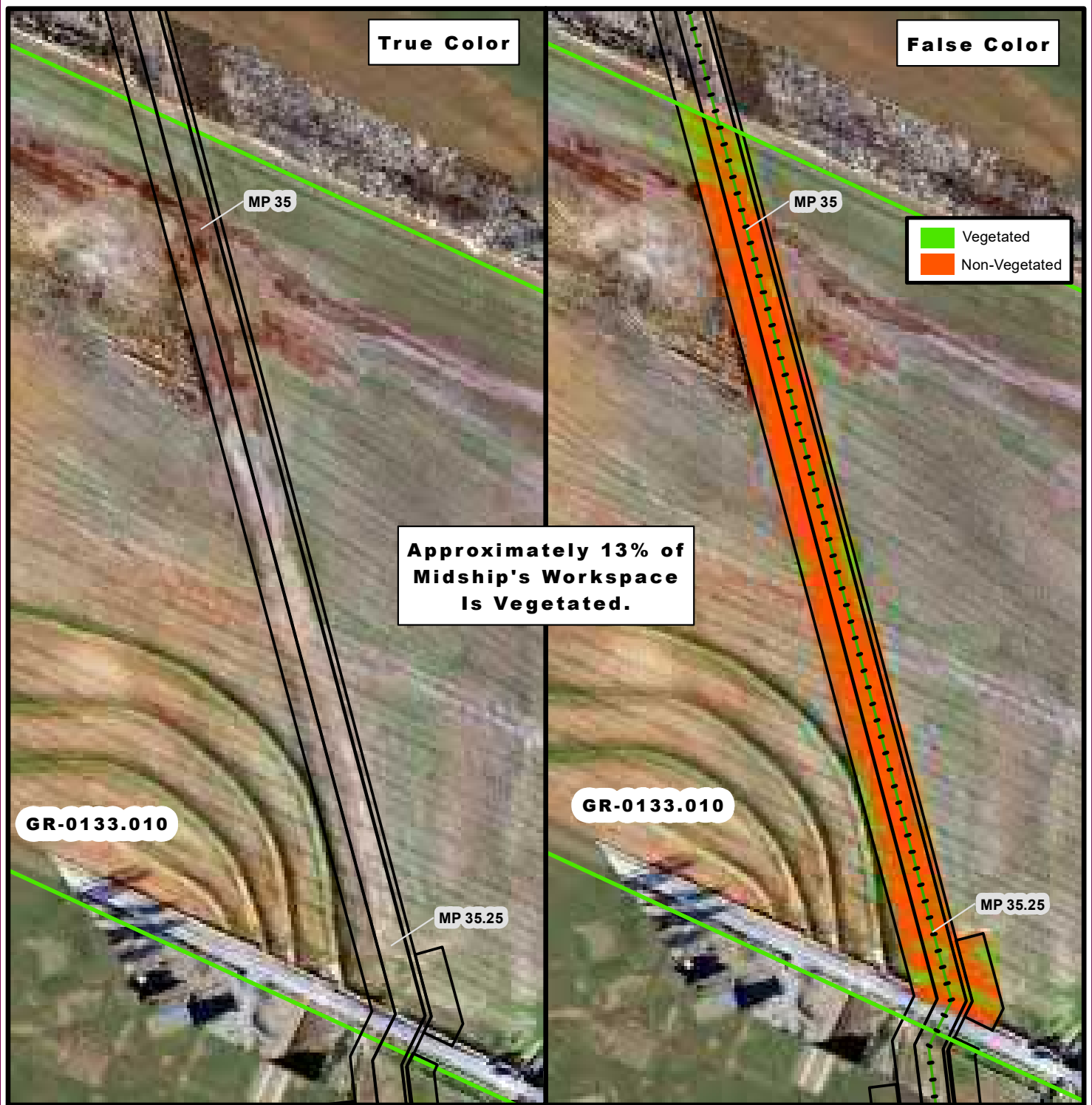
This analysis highlights miniscule differences from pixel to pixel across millions of pixels and allows for area calculations of each class.

Revegetation Requirements Per *FERC Plan*

V.D.1.a.: “The project sponsor is responsible for ensuring successful revegetation of soils disturbed by project-related activities”

VII.A.2.: “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.”

December 8, 2020 Revegetation Exhibit Prepared For Wesley & March Burchfield



—●— Midship Pipeline
 Midship Workspace
 Parcel Boundary (Approximate)

300
Feet

December 2020

Exhibit Prepared For

Wesley & Mary E Burchfield Rev Living Trust

Site Address: 35.290294°, -97.964722°

0000-32-10N-07W-3-001-00 // 155.65 ac
GR-0133.010 // 1704.41 ft & 4.21 ac of ROW

0000-05-09N-07W-2-001-00 // 166.32 ac
GR-0134.010 // 1534.27 ft & 4.26 ac of ROW

0000-05-09N-07W-1-006-00 // 5.88 ac
GR-0135.010 // 239.35 ft & 0.71 ac of ROW

Grady County, Oklahoma

Midship Mainline Mile Post 35 - 35.5

Exhibit Details

Map Shows A Lack of Vegetation Throughout the Easement.

Approximately 13% of Midship's Workspace Is Vegetated.

Data Collected on December 8, 2020.

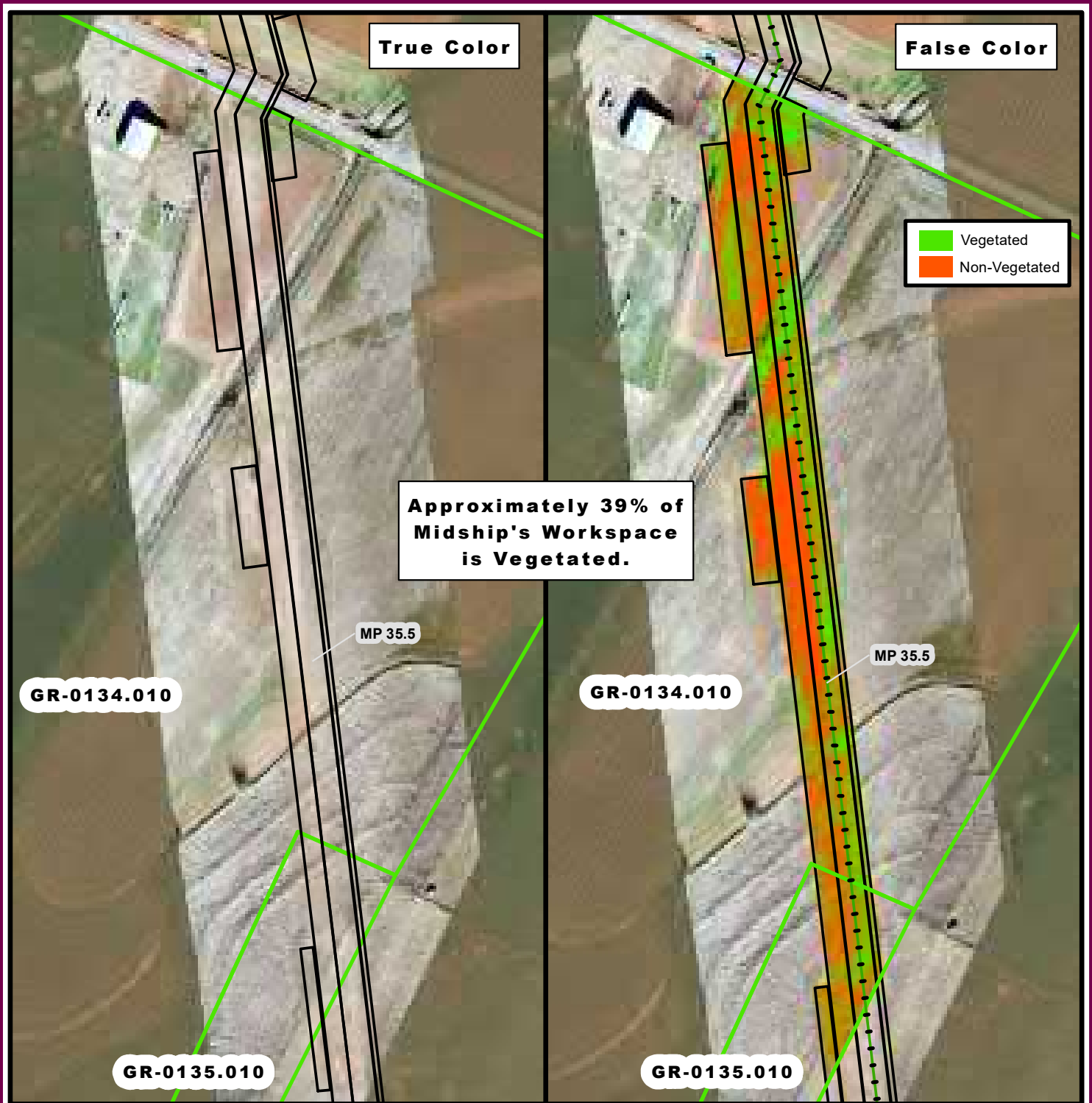
Notes

Aerial data used for imagery analysis collected on December 8, 2020.

Data Sources:
 Grady County, OK. ESRI. USFWS.
 Base Map: ESRI World Imagery

Provided for informative purposes only. This is not a survey product. This graphic should not be used for authoritative definition of legal boundary or property title.

December 9, 2020 Revegetation Exhibit Prepared For Wesley & March Burchfield



—+— Midship Pipeline
 Midship Workspace
 Parcel Boundary (Approximate)

December 2020

Exhibit Prepared For
 Wesley & Mary E Burchfield Rev Living Trust
 Site Address: 35.290294°, -97.964722°
 0000-32-10N-07W-3-001-00 // 155.65 ac
 GR-0133.010 // 1704.41 ft & 4.21 ac of ROW
 0000-05-09N-07W-2-001-00 // 166.32 ac
 GR-0134.010 // 1534.27 ft & 4.26 ac of ROW
 0000-05-09N-07W-1-006-00 // 5.88 ac
 GR-0135.010 // 239.35 ft & 0.71 ac of ROW
 Grady County, Oklahoma
 Midship Mainline Mile Post 35 - 35.5

Exhibit Details
 Map Shows A Lack of Vegetation Throughout the Easement.
 Approximately 39% of Midship's Workspace has Revegetated.
 Data Collected on December 9, 2020.

Notes
 Aerial data used for imagery analysis collected on December 9, 2020.

Field and Surveying, LLC
 Data Sources:
 Grady County, OK. ESRI. USFWS.
 Base Map: ESRI World Imagery
 Provided for informative purposes only. This is not a survey product. This graphic should not be used for authoritative definition of legal boundary or property title.



GRADE EVALUATION

Basis of Grade Evaluation

Below you will find a grade evaluation.

This evaluation is produced via autonomous drone scanning in which hundreds of individual photos are stitched together to create an orthophoto and elevation model.

The drone's on board GPS system records take-off elevation, flight altitude, as well as distance to the surface as it scans. These factors allow for the computation of relative elevation across the entire area of interest with a small amount of error compared to absolute elevation.

Vertical error is generally between 0.5 to 2 feet but does not have an effect on the relative accuracy of the elevation. This does not mean that individual points are off by 1 to 2 feet but rather the entire map could be 1 to 2 feet off compared to true absolute elevation.

Elevation changes within the area of interest (scanned area) are accurate compared to other areas within the same area of interest.

This evaluation is able to detect changes in elevation and topography down to 0.5”.

The purpose of this grade evaluation is to determine if the contours and relative elevation of areas inside the easement have been restored to near their pre-construction condition.

The evaluation below shows multiple cross-sections of the easement, from off-ROW to off-ROW and picks up on any elevation or grade changes down to 0.5”.

This evaluation can also determine the exact volume needed for topsoil importation in cases where there are low spots.

When it comes to determining whether grading work was adequately done, or topsoil importation is needed, it is impossible to accurately make a judgement based on the human eye.

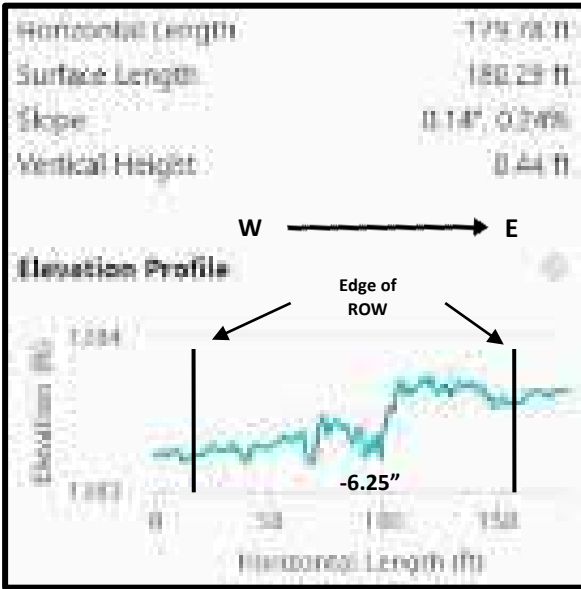
In these situations where inches matter, a reliable, science-based evaluation is necessary to identify and correct the problems.

Grade Requirements Per *FERC Plan*

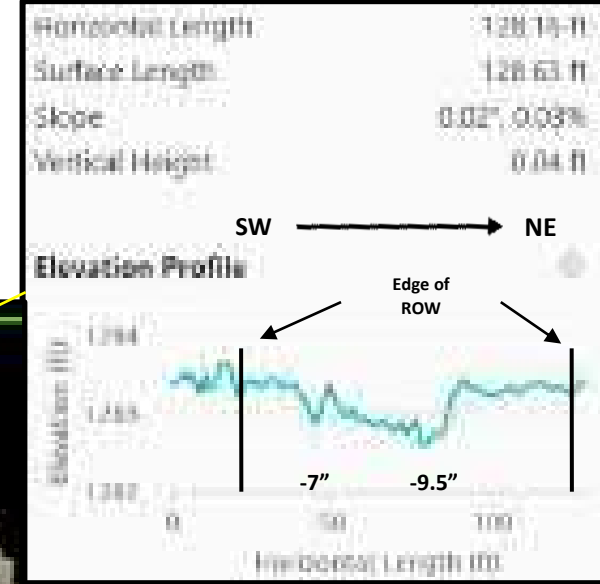
V.A.5: “Grade the construction right-of-way to restore pre-construction contours and leave the soil in the proper condition for planting.”

Document ID: 202101100001
CROSS SECTIONAL GRADE EVALUATION FOR WESLEY & MARY BURCHFIELD PERTAINING TO TRACT GR-0133.010.
 Data Collected December 8, 2020.

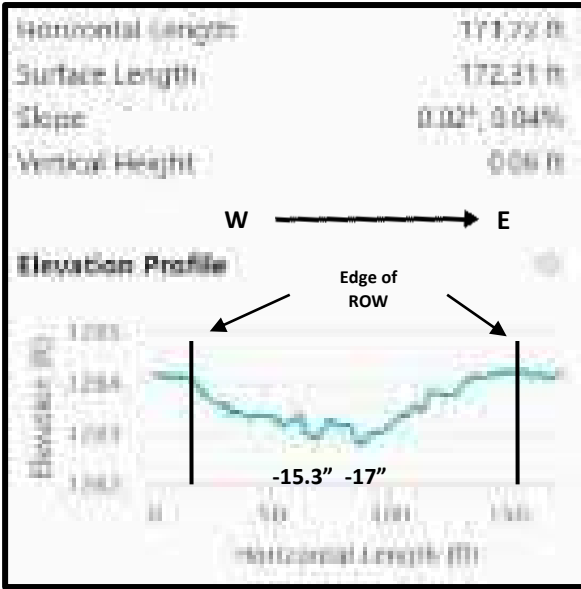
Cross Section 1



Cross Section 2



Cross Section 3



Cross Section 4

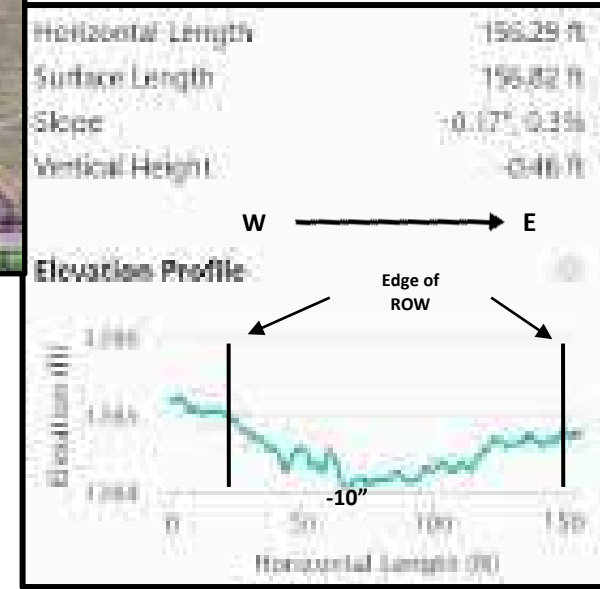


Exhibit Prepared for Wesley and Mary Burchfield



Michie Pipeline
 Parcel Boundary (Approximate)
 Permanent Easement
 Temporary Workspace
 Additional Temporary Workspace

December 2020

Exhibit Prepared For
 Wesley & Mary E Burchfield Rev Living Trust

Site Address: 35.290054° , -97.904732°

0000-02-004-0740-001-00 1/ 155.69 ac
 GR-0132.010 1/ 1734.41 E.S. & 4.21 ac of ROW

0000-05-004-0740-001-00 1/ 166.02 ac
 GR-0134.010 1/ 1834.27 E.S. & 4.26 ac of ROW

0000-06-004-0740-001-00 1/ 5.88 ac
 GR-0135.010 1/ 208.35 E.S. & 0.71 ac of ROW

Grady County, Oklahoma

Midship Mainline Mile Post 35.5

Exhibit Details

Notes

Central Land Consulting, LLC
 2344 Sycamore
 Waskie, Texas, 76781-10748
 Email: info@clc-llc.com
 Phone: 817-251-1111

Approval by the Oklahoma Department of Transportation (ODOT) is required for all projects. This is not a permit to construct. The project owner shall be responsible for obtaining all necessary permits and approvals.



P.O Box 249
Lindsay, OK 73052
Ph. (405)756-4386
Fax (405)756-3391

January 11, 2021

Wesley & Mary Burchfield
Mile Post: MP 35
Grady County, OK

Attn: Wesley & Mary E. Burchfield

RE: *Midship ROW Remediation – Tract 133 (4.21 Acres)*

Please accept our estimate to remediate Midship’s Right-of-Way as described below:

General Conditions – (allowance)-----\$10,000

- Mobilization
- Traffic Control and flagging
- Port-a-potties
- Per Diem
- Demobilization

Ingress / Egress-----\$12,750

- Install access road to the worksite

Underground Drainage Repairs-----\$17,560

- Replace (2) 10” drainage tiles and re-establish drainage pattern across the easement

Matting & Rock Removal-----\$97,500

- Remove rock and matting down to 18”

Import topsoil-----\$330,525

- Provide, haul, and spread approximately 6,121 cubic yards of screened topsoil
- Due to softness of existing ROW, material will be unloaded on adjacent solid ground and pushed into sunken area with dozers
- Repair haul road upon completion of topsoil importation

Easement Grading-----\$15,400

- Spread imported topsoil
- Survey as necessary

Specialty Grading-----\$11,550

- Re-grade northern half of tract to prevent ponding

Soil Compaction Mitigation-----\$7,500

- Rip and loosen top 12" of ROW and all disturbed areas

Stabilizing and Re-seeding-----\$21,300

- Drill in winter wheat and install silt fence, straw bales, slope breakers or berms as necessary
- Apply mulch where needed
- Install terraces off ROW to prevent future erosion

Thank you for your consideration on this project. If you have any questions, feel free to contact me anytime.



Matt Vickers

Vickers Construction, Inc.

405.620.0925

matt@vickersconstruction.com

Exhibit 7

James McElvany Tract: GR-0310.000

Mr. Terry Bidwell's Determination on the McElvany Tract

- **Soil profile similar on and off the ROW**
- **No discernible soil compaction in the ROW**
- **No discernible mixing of topsoil and subsoil on and off the ROW**
- **No discernible topsoil loss in the ROW**
- **Pre-construction, there was a large erosion gully on the east side field on the southwest bank of the Washita River**

INSPECTION PREPARED FOR

JAMES L. MCELVANY & LINDA R. MCELVANY

Mile Post: MP 65.25

Grady County, Oklahoma

Tract: GR-0310.000

+/- 2,028.33 Feet of Pipeline // +/- 4.52 Acres of Right-of-Way

Outstanding Restoration Issues

| OUTSTANDING RESTORATION ISSUES | MIDSHIP'S RESOLUTION FROM STATUS REPORTS |
|--|---|
| <ol style="list-style-type: none"> 1. Matting near the bore site has been found and will need removed within the first 36" 2. Grading work will need to be performed, recent grade survey indicates the contours and grade is off by 12"-18" 3. The drainage patterns have been blocked for several months on the southern portion of the easement, there are new patterns and runoff that flood consistently near the southern fence line, additional grading and possibly drain tiles will need to be installed 4. Revegetation has been an issue for approximately 12 months, de-compacting the soils (weather permitting) with a big ox 20" ripper will alleviate the compacted soils and proper reseeding per NRCS recommendations 5. Repair the fence line and post that has settled due to the consistent flooding and disturbed soils 6. Stabilize all areas of erosion and exposed soils as we approach the winter season. 7. Large slip (200' x 104' x 110' x 17.6' deep) has formed on Washita Riverbank due to increased runoff from Midship easement. Slip needs to be remediated and monitored. | <p>12/18/2020: Maintenance work was completed on 09/29/20. A field visit with the landowner was conducted on 12/09/20. Midship's contractor mobilized to the property to de-compact and re-level the low spots in question, work completed week of 12/14/20.</p> <p>12/17/2020: Maintenance work was completed on 09/29/20. A field visit with the landowner was conducted on 12/09/20. Midship's contractor mobilized to the property to de-compact and re-level the low spots in question, work completed week of 12/14/20.</p> <p>12/16/2020: Maintenance work was completed on 09/29/20. A field visit with the landowner was conducted on 12/09/20. Midship's contractor mobilized to the property to de-compact and re-level the low spots in question, work completed week of 12/14/20.</p> <p>12/14/2020: Maintenance work was completed on 09/29/20. Field evaluation occurred on 12/01/20; no issues were observed. A field visit with the landowner was scheduled for 12/09/20. Update pending.</p> <p>12/08/2020: Maintenance work was completed on 09/29/20. Field evaluation occurred on 12/01/20; no issues were observed. A field visit with the landowner was scheduled for 12/09/20. Update pending.</p> <p>11/24/2020: Grade work is to be complete by the week of 11/30/20. Field evaluation occurred in late August and September.</p> |

McElvany Property Prior to Construction



JAMES MCELVANY, TRACT GR-0310.000 (BANK EROSION ON ADJACENT OFF-LINE PROPERTY)

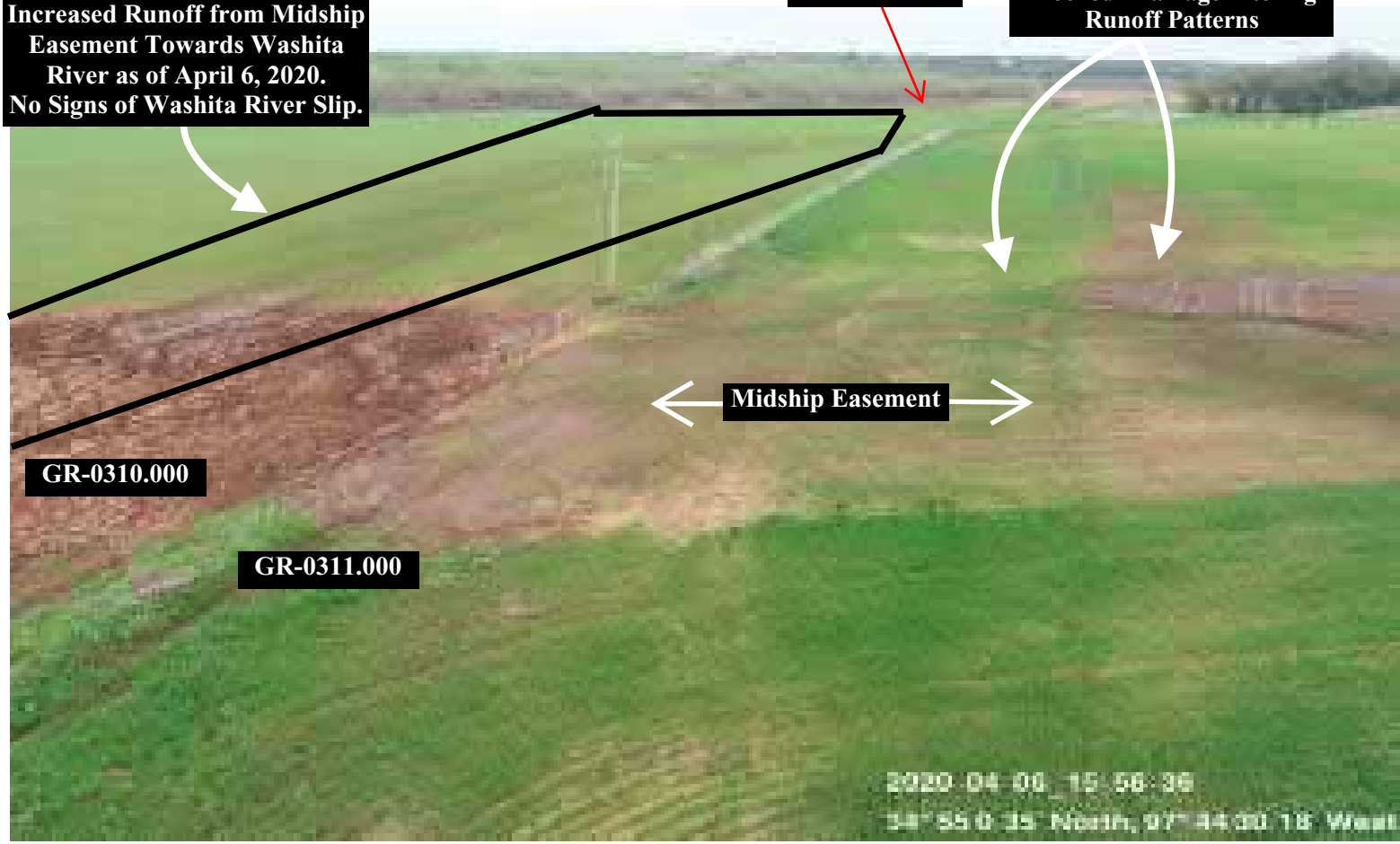
Approximately 3,000 Cubic Yards of Soil Will Be Needed to Fill Riverbank Erosion. Additional Stabilization and Drainage Measures May Be Needed to Avoid Erosion After Restoration.



Increased Runoff from Midship Easement Towards Washita River as of April 6, 2020. No Signs of Washita River Slip.

Washita River

Blocked Drainage Altering Runoff Patterns



Midship Easement

GR-0310.000

GR-0311.000

2020-04-06 15:58:36
34° 55' 0.35" North, 97° 44' 00.18" West

Washita River



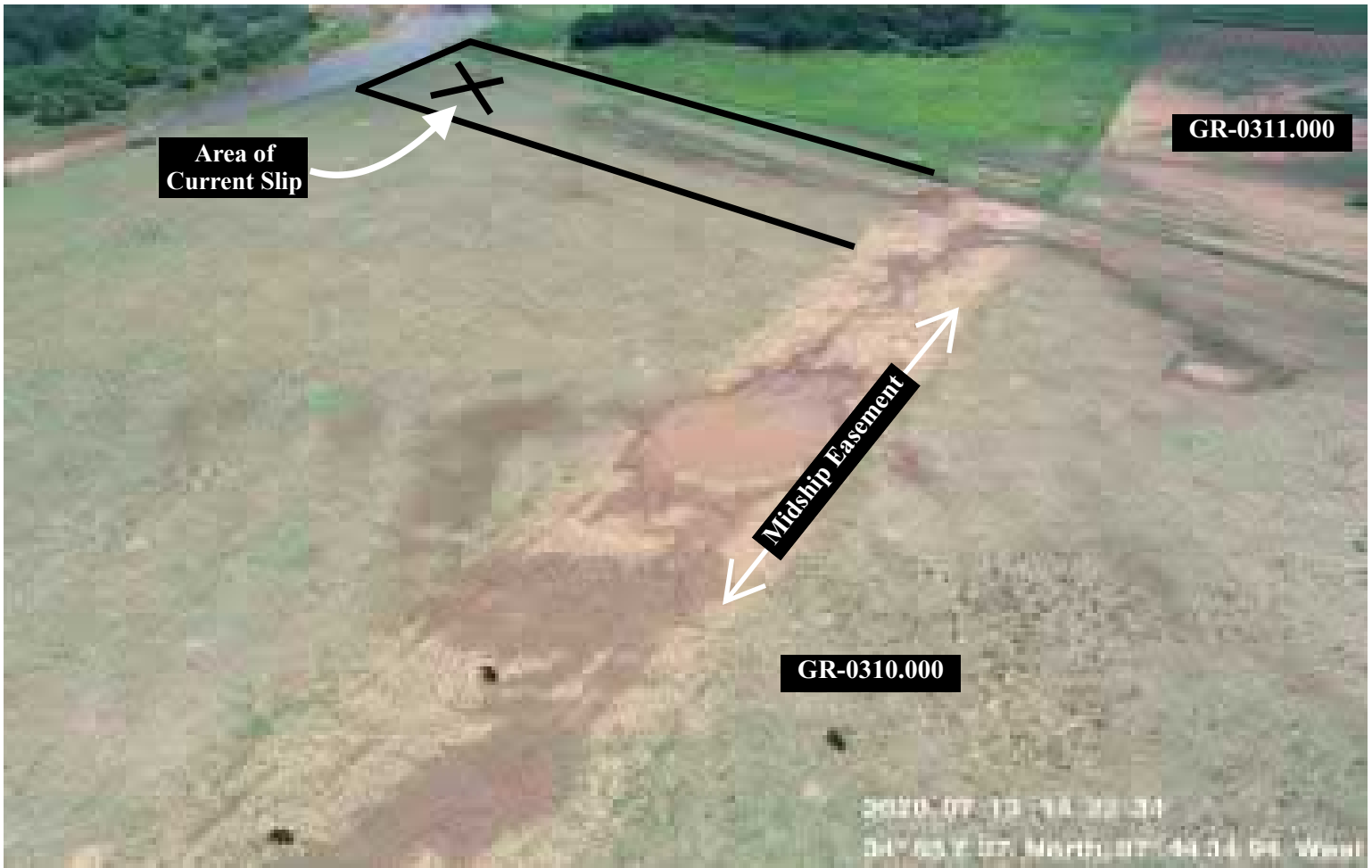
Midship Easement

GR-0310.000

GR-0311.000

Increased Runoff from Midship Easement Towards Washita River as of April 6, 2020. No Signs of Washita River Slip.

2020-04-06 15:58:54
34° 55' 0.85" North, 97° 44' 30.09" West





Revegetation Assessment

Basis of Revegetation Assessment

Below you will find an assessment of revegetation.

This evaluation is produced via autonomous drone scanning in which hundreds of individual photos are stitched together to create an orthophoto and elevation model.

“*True Color*” shows the pipeline right-of-way and surrounding area as it appears naturally. Usually, healthy vegetation appears across shades of yellow to green, unhealthy vegetation will appear in shades of textured brown and tan, exposed soil most often appears across shades of gold, brown, and grey, and water often appears black, blue, or murky grey.

From here, the GIS program is taught to interpret what these range of colors and their associated spatial patterns mean through manual classification training.

Once training is completed, the training samples are applied to the entire right-of-way image by utilizing a supervised classification algorithm. This algorithm analyzes groups of pixels based on their color and spatial pattern and identifies what class they would likely fall into based on the training sample.

The output of this process can be seen on the “*False Color*” side. These maps show classes identified as selected colors. Red indicates bare earth, green indicates vegetation, and blue (if present) indicates areas of water.

Areas such as driveways and roads that will not be revegetated are omitted.

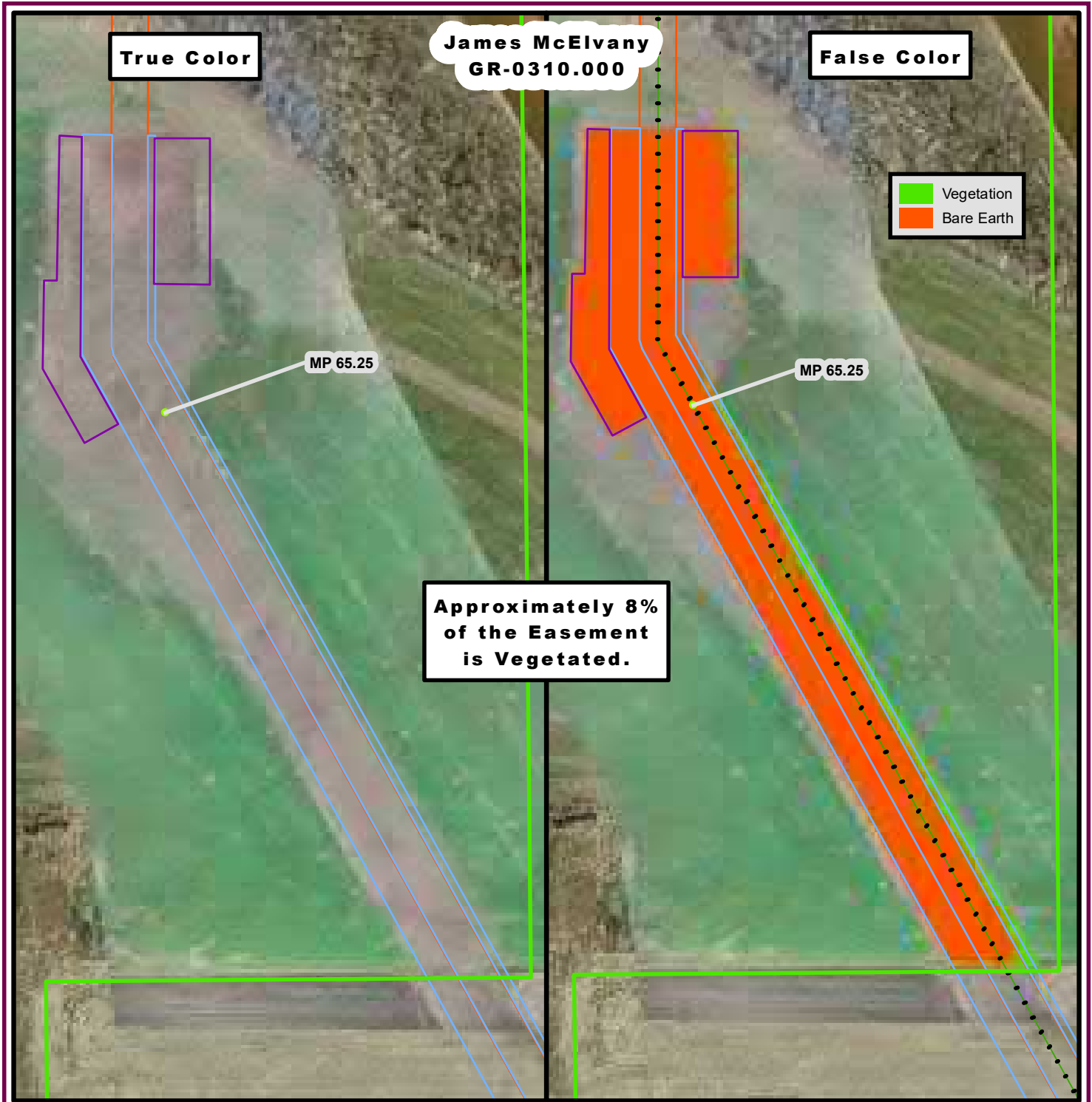
This analysis highlights miniscule differences from pixel to pixel across millions of pixels and allows for area calculations of each class.

Revegetation Requirements Per *FERC Plan*

V.D.1.a.: “The project sponsor is responsible for ensuring successful revegetation of soils disturbed by project-related activities”

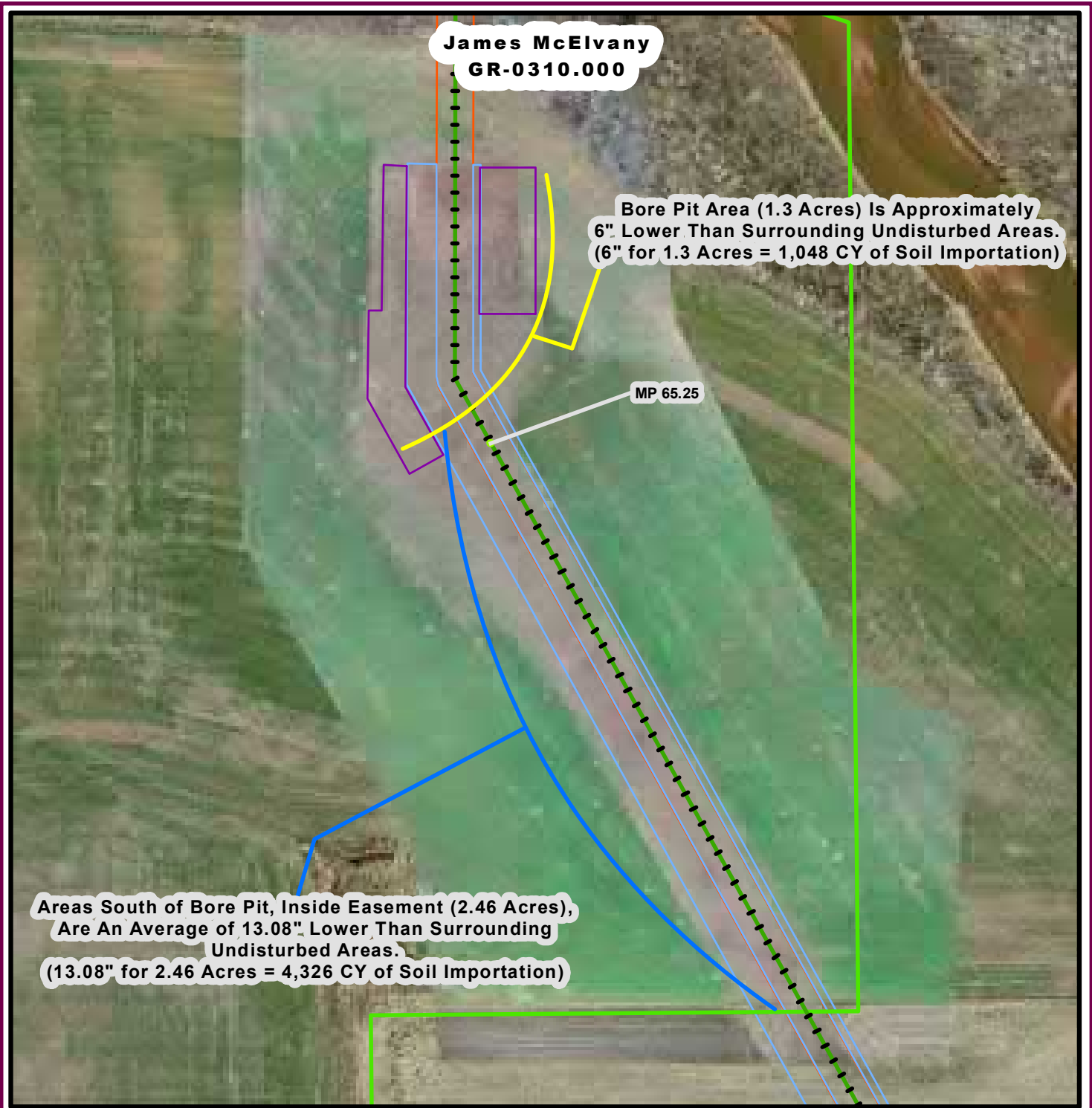
VII.A.2.: “In agricultural areas, revegetation shall be considered successful when upon visual survey, crop growth and vigor are similar to adjacent undisturbed portions of the same field, unless the easement agreement specifies otherwise.”

Revegetation Exhibit Prepared for James McElvany



| | | | |
|--|---|--|--|
| <ul style="list-style-type: none"> Midship Pipeline (Mainline) Parcel Boundary (Approximate) Permanent Easement Temporary Workspace Additional Temporary Workspace | <p>Exhibit Prepared For</p> <p>James McElvany</p> <p>0000-08-05N-05W-3-002-00 (232.29 acres)</p> <p>GR-310.000 (2,028.331 FT / 4.52 acres of ROW)</p> <p>Grady County, Oklahoma</p> <p>Midship Mainline MP 65.25</p> | <p>Exhibit Details</p> <p>Map Shows A Lack of Vegetation Throughout the Easement.</p> <p>Only 8% of the Easement has Revegetated.</p> <p>Data Collected on November 23, 2020.</p> | <p>Notes</p> <p></p> <p>Data Sources: Grady County, OK. ESRI. USFWS.</p> <p>Base Map: ESRI World Imagery</p> <p>Provided for informative purposes only. This is not a survey product. This graphic should not be used for authoritative definition of legal boundary or property title.</p> |
| <p>November 2020</p> | | | |

Exhibit Prepared for James McElvany



| | | | |
|---|--|--|---|
| <ul style="list-style-type: none"> —●— Midship Pipeline (Mainline) Parcel Boundary (Approximate) Permanent Easement Temporary Workspace Additional Temporary Workspace | <p>Exhibit Prepared For</p> <p>James McElvany</p> <p>0000-08-05N-05W-3-002-00 (232.29 acres)</p> <p>GR-310.000 2,028.331 FT / 4.52 acres of ROW)</p> <p>Grady County, Oklahoma</p> <p>Midship Mainline MP 65.25</p> | <p>Exhibit Details</p> <p>Total of 5,374 Cubic Yards of Topsoil Is Needed To Level Grade Across Easement.</p> | <p>Notes</p> <p style="text-align: center;"><small>Environmental Consulting, LLC</small></p> <p style="text-align: center;"><small>Data Sources: Grady County, OK. ESRI. USFWS.</small></p> <p style="text-align: center;"><small>Base Map: ESRI World Imagery</small></p> <p style="text-align: center;"><small>Provided for informative purposes only. This is not a survey product. This graphic should not be used for authoritative definition of legal boundary or property title.</small></p> |
| <div style="display: flex; align-items: center;"> <div style="text-align: center;"> <p>300 Feet</p> <p>December 2020</p> </div> </div> | | | |



COMPACTION TESTING MAP

Purpose of Compaction Testing

A cone penetrometer was used across several locations inside and outside the easement in order to measure soil resistance (i.e. soil compaction).

For cone penetrometers, 300 PSI (lbs/inch²) is the maximum pressure limit that can be exerted on the tool.

A 300-PSI reading means that you are pushing down with 300 pounds per square inch of pressure and unable to further penetrate the soil at a certain depth.
(Example: 300 PSI @ 4")

The depth at which 300 PSI is reached indicates the top of the compacted zone.

Generally, 200 PSI or below is desirable for optimal crop production and root penetration.

If on-ROW compaction tests do not show similar depth and pressure compared to off-ROW, further compaction mitigation must be performed.

Soil Compaction Requirements Per FERC Plan

- V.C.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.”
- V.C.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.”
- V.C.3: Perform appropriate soil compaction mitigation in severely compacted residential areas.

Soil Compaction Exhibit Prepared for James McElvany



- Midship Pipeline (Mainline)
- Parcel Boundary (Approximate)
- Permanent Easement
- Temporary Workspace
- Additional Temporary Workspace

Exhibit Prepared For
 James McElvany
 0000-08-05N-05W-3-002-00
 (232.29 acres)
 GR-310.000
 2,028.331 FT / 4.52 acres of ROW)
 Grady County, Oklahoma
 Midship Mainline MP 65.25

Exhibit Details
 Map Shows Depth to 300 PSI
 Limit on Cone Penetrometer
 Throughout Midship Easement
 and Off-ROW Areas.
 Recent Compaction Testing
 Took Place in December 2020.

Notes

250
Feet

December 2020

Data Sources:
 Grady County, OK. ESRI. USFWS.
 Base Map: ESRI World Imagery
 Provided for informative purposes only.
 This is not a survey product. This
 graphic should not be used for
 authoritative definition of legal
 boundary or property title.



GRADE EVALUATION

Basis of Grade Evaluation

Below you will find a grade evaluation.

This evaluation is produced via autonomous drone scanning in which hundreds of individual photos are stitched together to create an orthophoto and elevation model.

This evaluation is able to detect changes in elevation and topography down to 0.5”.

The purpose of this grade evaluation is to determine if the contours and relative elevation of areas inside the easement have been restored to near their pre-construction condition.

The evaluation below shows multiple cross-sections of the easement, from off-ROW to off-ROW and picks up on any drastic elevation or grade changes down to 0.5”.

This evaluation can also determine the exact volume needed for topsoil importation in cases where there are low spots.

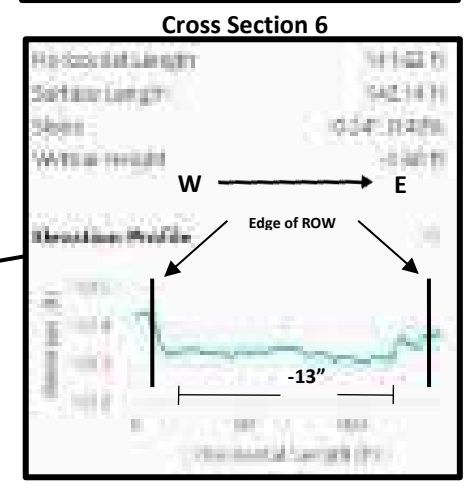
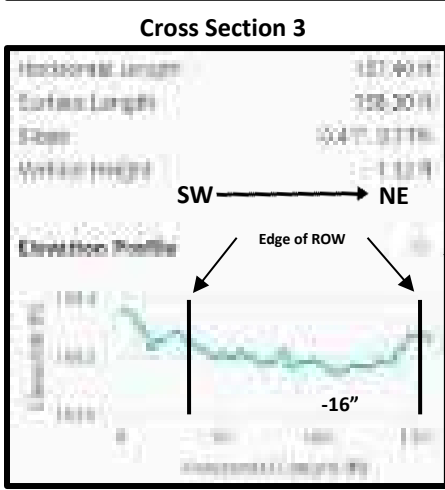
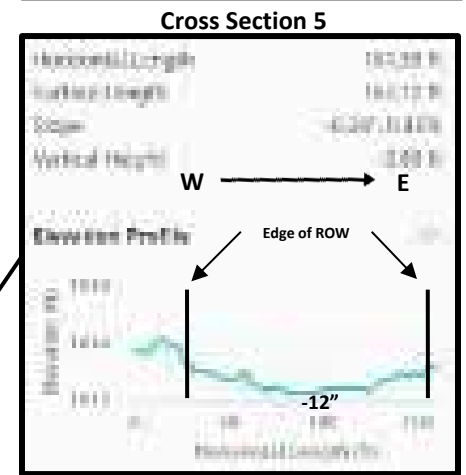
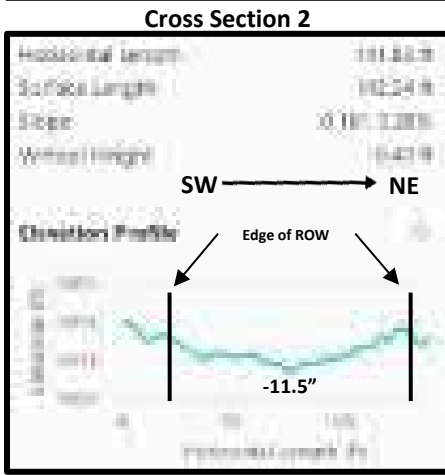
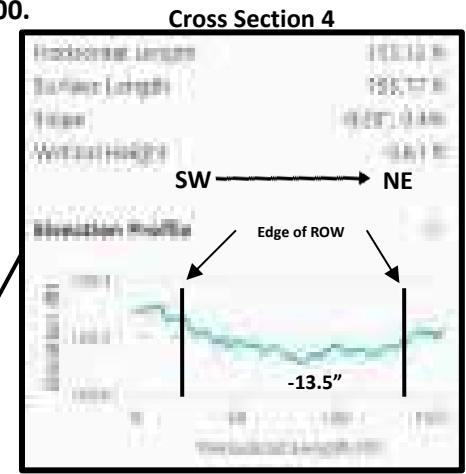
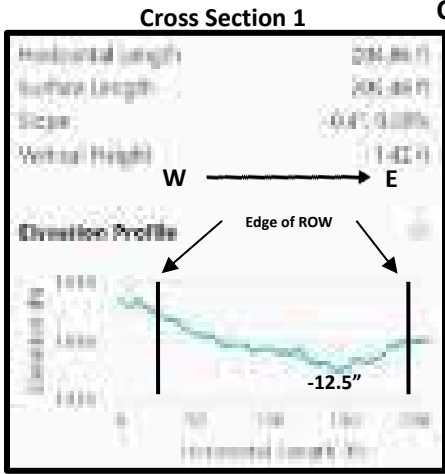
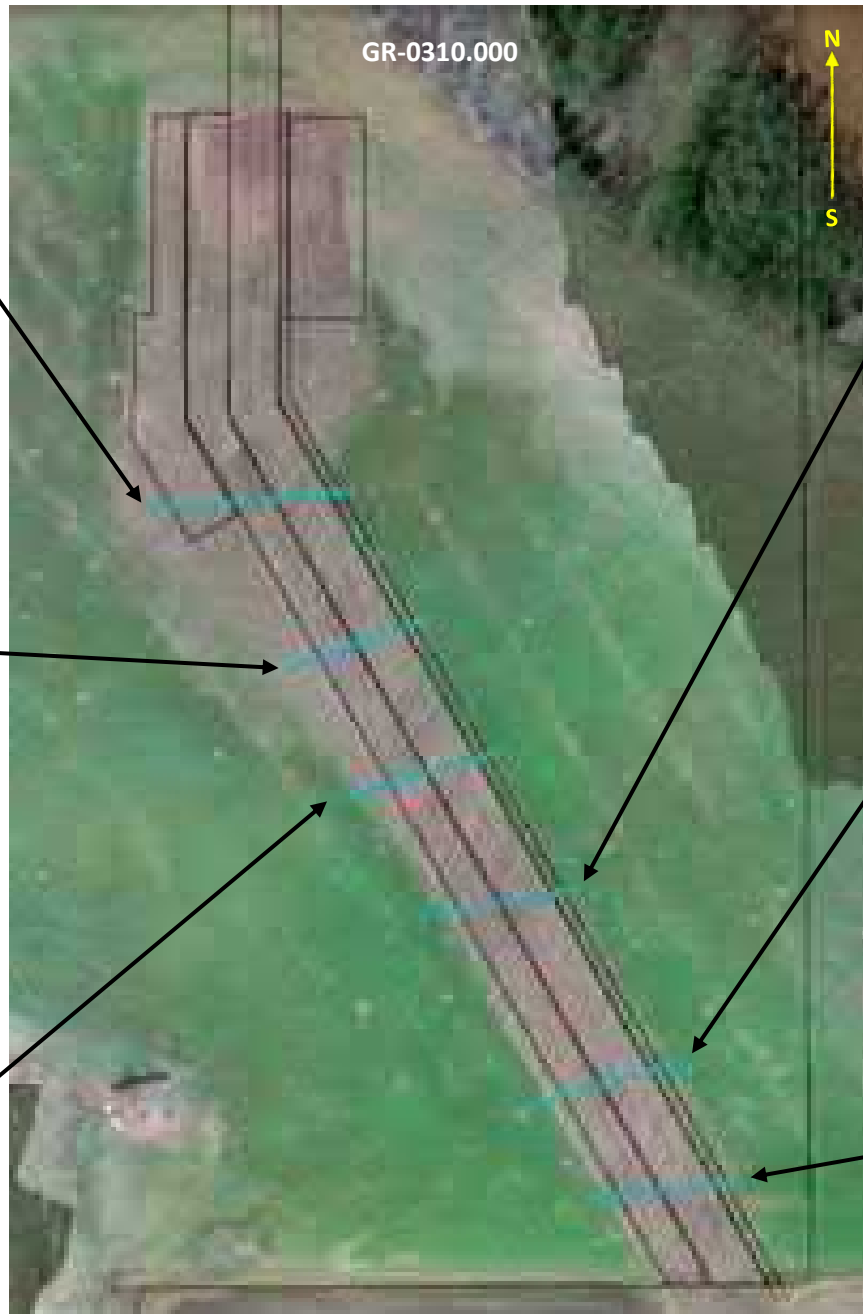
When it comes to determining whether grading work was adequately done, or topsoil importation is needed, it is impossible to accurately make a judgement based on the human eye.

In these situations where inches matter, a reliable, science-based evaluation is necessary to identify and correct the problems.

Grade Requirements Per FERC Plan

V.A.5: “Grade the construction right-of-way to restore pre-construction contours and leave the soil in the proper condition for planting.”

Cross Sectional Grade Evaluation for James McElvany Pertaining to Tract GR-0310.000.
Data Collected November 23, 2020.



**Easement is Mostly Bare.
Approximately 8% of the Easement is Vegetated.
Easement Appears Sunken Compared to Off-ROW.
Easement is Extremely Saturated and Muddy.**



**Easement is Mostly Bare.
Approximately 8% of the Easement is Vegetated.
Easement Appears Sunken Compared to Off-ROW.
Easement is Extremely Saturated and Muddy.**



2020-11-23 10:17
34.9182443 N , 97.7423322 W

**Lack of Vegetation, Drainage Issues Causing Erosion and
Runoff Patterns Towards Washita River**



Off-Row Ponding , Grade and Drainage Issues



**Lack of Vegetation, Drainage Issues Causing Erosion and Runoff
Patterns, Grade has been Altered, Topsoil Importation and Grading
Work Will Be Required**



**Lack of Vegetation, Drainage Issues Causing Erosion and Runoff
Patterns Towards Washita River**



**Lack of Vegetation, Drainage Issues Causing Erosion and
Runoff Patterns Towards Washita River**



2020 07 13 14 22 46

34 55 7 97 North 97 44 30 63 West

Exhibit 8

Mark Morris Tract: GR-0353.000

Mr. Terry Bidwell's Determination on the Morris Tract

- **Soil profile similar on and off the ROW**
- **No discernible soil compaction in the ROW**
- **No discernible mixing of topsoil and subsoil on and off the ROW**
- **No discernible topsoil loss in the ROW**
- **No discernible change in grade**
- **No discernible erosion**
- **Creek crossing is stabilized with a culvert**
- **The terraces are in good shape and are performing as intended. However, terraces are not needed when there is permanent vegetation cover as in the field. Terracing is an artifact of historical farming.**
- **The claim of very large amounts (tons) of soil moving downstream from the area around the creek crossing on the pipeline, blocking a side channel, and depositing into the United State Department of Agriculture (PL-566) upstream flood control structure are not supported by evidence or observation of the. Creek crossing and adjacent area. The claim is also not supported by my knowledge of stream dynamics and erosion control in which I have worked on for over 40 years. In addition, I have aerial photography prior to the pipeline construction that does not support this claim. I observed dredge material upstream from the lake with permanent vegetation growing.**

INSPECTION REPORT PREPARED FOR
MARK & MARYLIN MORRIS

Mile Post: Midship Mainline MP 75
Grady County, Oklahoma

GR-0353.000

+/- 2,767.97 Feet of Pipeline // +/- 3.16 Acres of PERW // +/- 4.39 Acres of TWS

Issues Not Yet Remediated:

1. Matting has been found up to 1,000 feet downstream in Larimore Creek.
2. Large sections of matting have been found in soils along with rocks, spikes, and construction debris as deep as 36".
3. Penetrometer testing indicates that compaction remains an issue on the property. Off-ROW penetrometer readings show an average of 150 psi at 12". On-ROW penetrometer readings show an average of 300 psi at 3".
4. Landowner's dig testing on September 7, 2020 and November 23, 2020 indicates that there are numerous matting boards approximately 3" - 36" deep throughout tract GR-0353.000 which was previously cultivated.
5. Topsoil loss and topsoil mixing. Most of the property is considered prime farmland and has 20" of natural topsoil. Recently excavated and tested areas show between 0" to 3" of topsoil remaining.
6. The grade is off up to 19" throughout the easement area and will need restored to pre-construction condition.
7. Larimore Creek and its tributary are backed up with silt and sediment. This will need to be cleared out to restore pre-construction flow.
8. Mr. Morris' off-ROW flood control reservoir has been inundated and filled with sediment and organic debris. The flood control reservoir will need to be dredged to remove sediment and debris to restore to pre-construction condition and function.
9. Lack of revegetation and exposed soils as winter approaches, winter restoration and stabilization are required to prevent excessive erosion and additional soil loss.
10. Tin horn crossing collapsed causing loss of ingress/egress. Tin horn stream crossing needs to be rebuilt and fortified.
11. Terraces will need installed to pre-construction condition, some areas have low spots and blocking the terraces or drainage patterns.
12. The bottom agriculture land is extremely saturated blocking the landowner from crossing, temporary removal of saturated soils and replacement approximately four acres.

Midship's Resolution from 12/08/2020 Status Report:

"Removed debris; repaired grading and ponding issues; stabilized tract (completed 11/07/20). Midship meeting scheduled with Mr. Morris on December 9, 2020 to identify and discuss any remaining issues."

Mark Morris Tract GR-0353.000 April 2019 Pre-Construction Google Earth Screenshot



Mark Morris Tract GR-0353.000 April 2019 Pre-Construction Google Earth Screenshot (Larimore Creek (SGR-019))



Mark Morris Tract GR-0353.000 April 2019 Pre-Construction Google Earth Screenshot (Larimore Creek Tributary (SGR-018))





- Midship Pipeline
- Parcel Boundary (Approximate)
- Permanent Easement
- Temporary Workspace
- Additional Temporary Workspace
- Temporary Access Road
- Larimore Creek (SGR-019)
- Larimore Creek Tributary (SGR-018)
- Matting Off-ROW
- Sediment & Stream Backup

December 2020

Exhibit Prepared For
 MORRIS, MARK A. REV TRUST

Site Address:
 34.791398°, -97.703044°

0000-26-04N-05W-2-001-00
 (228.5 acres)

GR-0353.000
 (2,767.97 feet / 7.55 acres)

GR-0353.000_TAR44
 (2,897 feet)

Grady County, Oklahoma

Midship Mainline Mile Post 75.25

Damages

SGR-018 & SGR-019 Impeded With Sediment Causing Flooding

Matting Buried On-ROW and Present Off-ROW and on Creek Bank

4 Terraces Need Remediated

Tin Horn Crossing Needs Remediated

Grade is Off by 19" in Some Areas

Severe Soil Compaction

Pond Needs Dredged

Exhibit Details

Based on Information Gathered from December 2020 Site Inspections

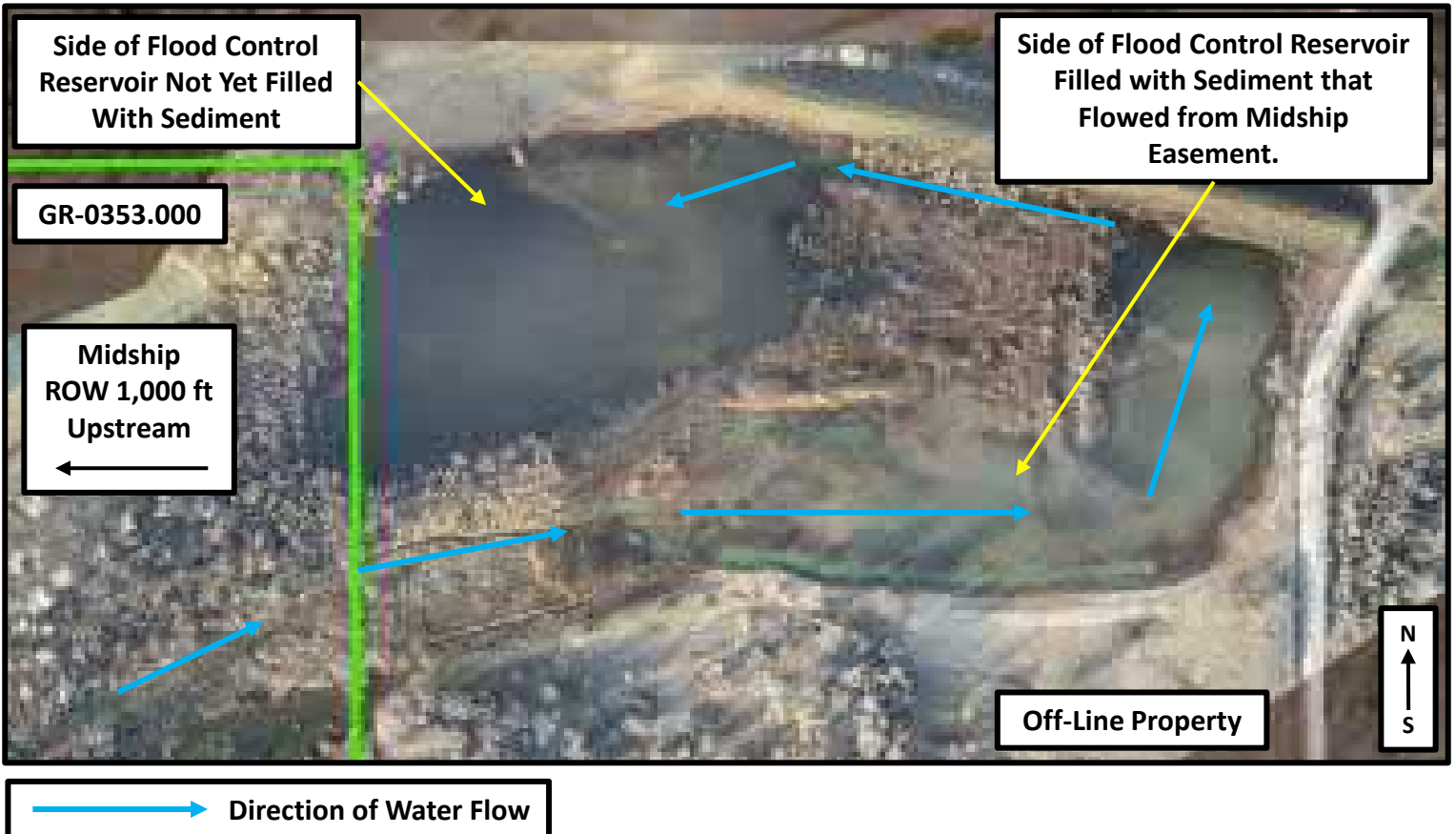
Data Sources:
 Grady County, OK. ESRI. USFWS.
 Base Map: ESRI World Imagery

Provided for informative purposes only. This is not a survey product. This graphic should not be used for authoritative definition of legal boundary or property title.

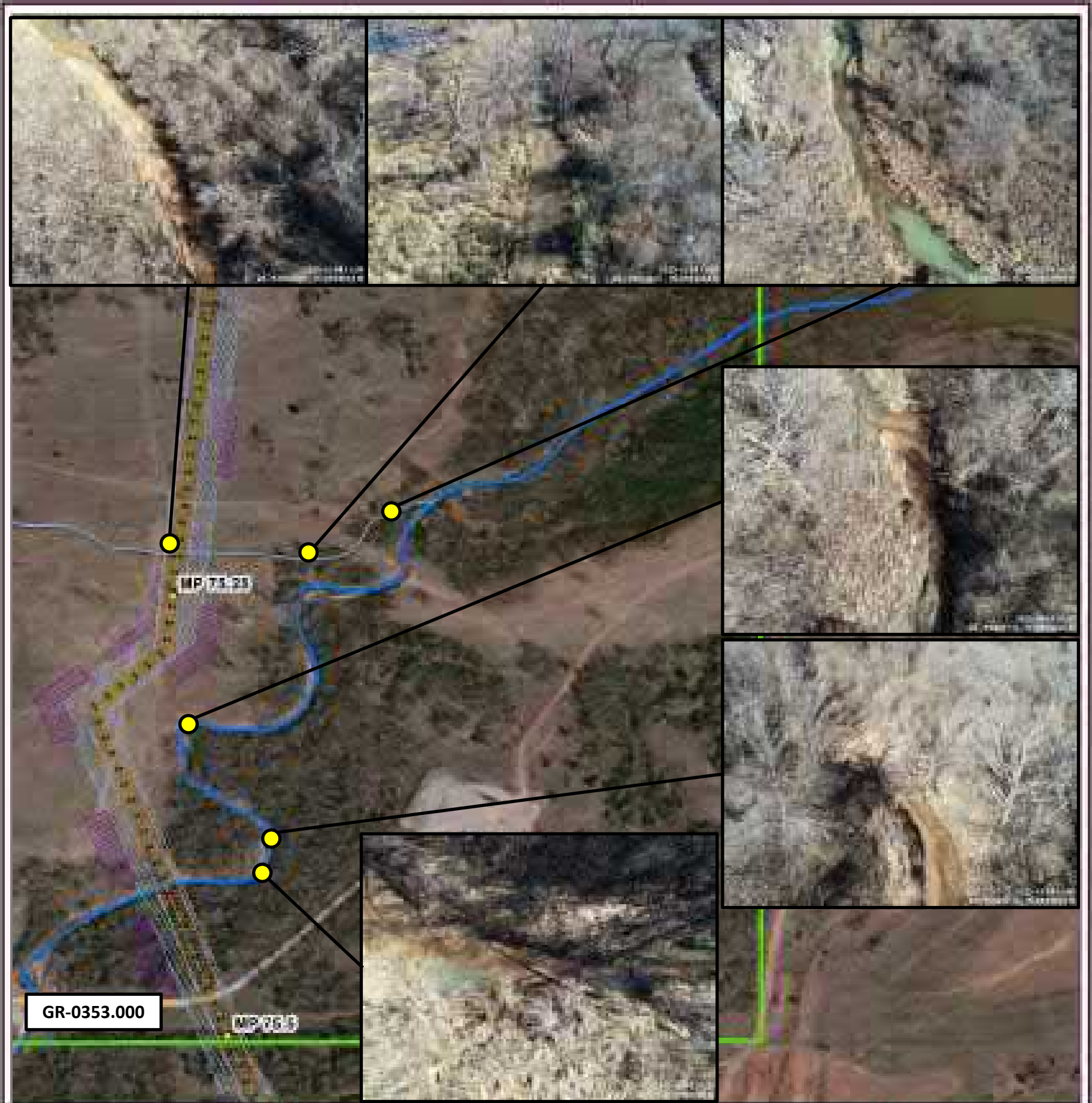
Aerial Imagery of Flood Control Reservoirs from April 2019 (Prior to Midship Construction)



Aerial Imagery of Flood Control Reservoirs from December 11, 2020.



December 8, 2020 Photo Map Prepared for Mark Morris



| | |
|--|-------------------------------------|
| | Michele Pipeline |
| | Parcel Boundary (Approximate) |
| | Permanent Easement |
| | Temporary Workspace |
| | Additional Temporary Workspace |
| | Temporary Access Road |
| | Lattimore Creek (SGR-010) |
| | Lattimore Creek Tributary (SGR-016) |

December 2020

Exhibit Prepared For
 MORRIS, MARK A. REV TRUST

Site Address:
 34 7813057, -47.7330447

0000-00-0494-0000-0-001-00
 (228.5-00000)

GR-0353.000
 (2,767.97 feet / 7.66 acres)

GR-0353.000_TARSH
 (2,007 feet)

Greely County, Oklahoma

Working Machine Map from 15.05

Exhibit Details

Backed Up Streams from Deposited Silt and Sediment Originating in Midship's Workspace.

Notes

Central Land Consulting, LLC

2020 Version
 Draft Parcel, PL 218, 10/14/20

Base Map: 020 World Imagery

Approval by/for/through: [Signature]
 This is not a survey of land. This is only a visual representation of land location in a specific area.

September 7, 2020 Photo Map Prepared for Mark Morris



Michie Pipeline

 Parcel Boundary (Approximate)

 Permanent Easement

 Temporary Workspace

 Additional Temporary Workspace

 Temporary Access Road

 Lattimore Creek (SGR-010)

 Lattimore Creek Tributary (SGR-015)

September 2020

Exhibit Prepared For
 MORRIS, MARK A. BOY TRUST

Site Address:
 34 7813057, -47.7330447
 0000-26-04N-05W-2-001-00
 (228.9-00000)
 GR-0353.000
 (2,767.97 feet / 7.66 acres)
 GR-0353.000_TARSH
 (2,697 feet)
 Greely County, Oklahoma
 Mining Machine Map Parcel 75.25

Exhibit Details
 Photos Contained in this Exhibit Were Taken on September 7, 2020

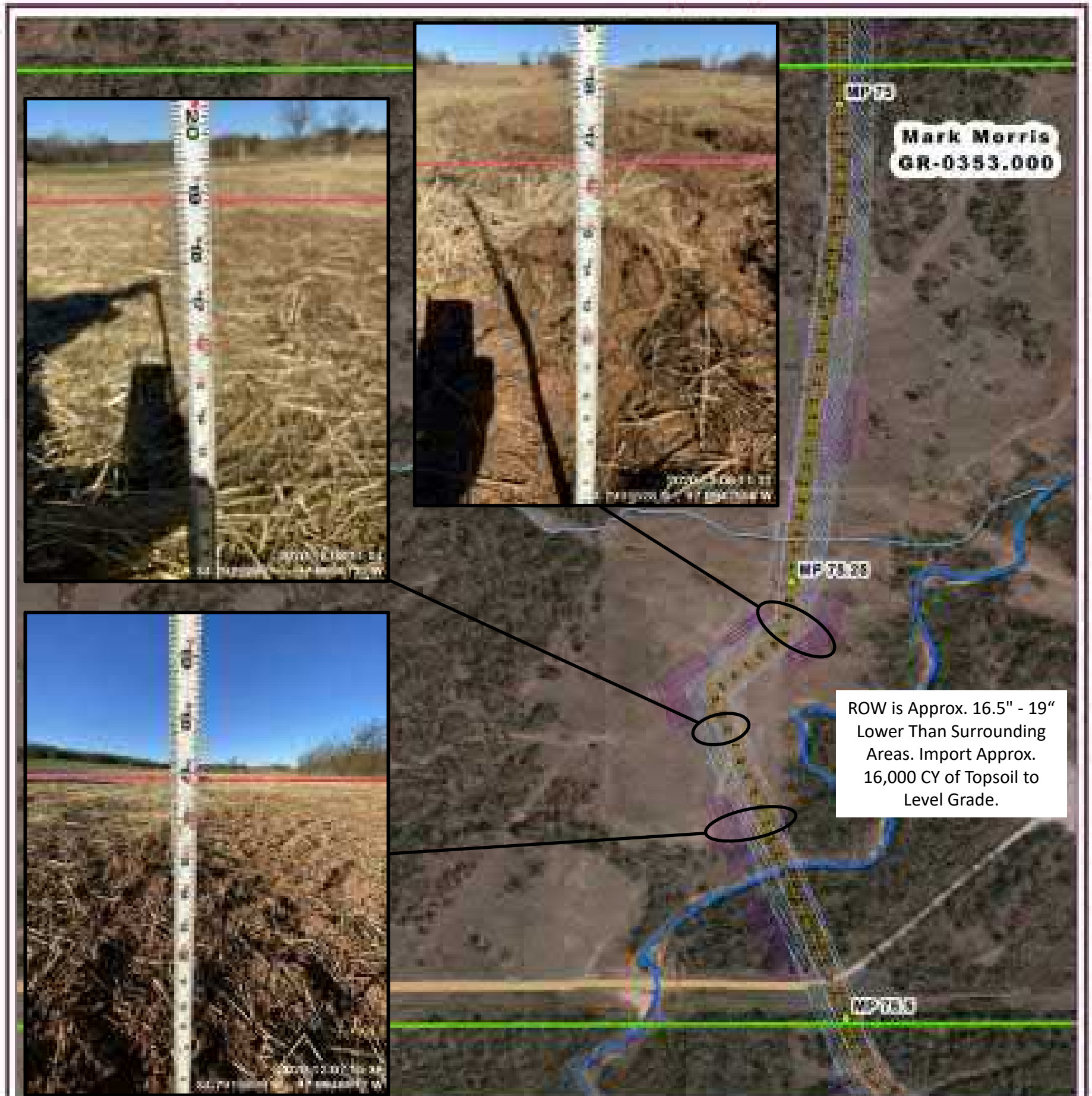
Notes

Central Land Consulting, LLC
 2020 Greely County, OK, 73848
 Base Map: USGS World Imagery
 Approval by Oklahoma Department of Wildlife Conservation (ODWC)
 This is not a permit (10-002). This is only a photo map. It is not a site plan. It is only a photo map. It is not a site plan. It is only a photo map.





December 7, 2020 Grade Difference Photo Map Prepared for Mark Morris



ROW is Approx. 16.5" - 19" Lower Than Surrounding Areas. Import Approx. 16,000 CY of Topsoil to Level Grade.

Legend

- Michie Pipeline
- Parcel Boundary (Approximate)
- Permanent Easement
- Temporary Workspace
- Additional Temporary Workspace
- Temporary Access Road
- Latmore Creek (SGR-010)
- Latmore Creek Tributary (SGR-018)

December 2020

Exhibit Prepared For
 MORRIS, MARKA BOY TRUST

Site Address:
 34 781306F, 4E7, 70004F

0000-26-0494-000-0-001-00
 (228.9-00000)

GR-0353.000
 (2,767.97 feet / 7.65 acres)

GR-0353.000_TARSH
 (2,667 feet)

Greely County, Oklahoma

Mapping Machine Mile Post 15.25

Exhibit Details

Photos Contained in this Exhibit Were Taken on December 7, 2020.

Rope Was Secured On Each Edge of the ROW and The Difference In Grade Height Was Measured.

Notes

Central Land Consulting, LLC

2020 Version
 Draft (Scale: 0% - 100% LDP-00)
 Base Map: 020 World Imagery

Rescaled to Reference: 430000-000
 This is not a scaled product. This product should only be used for illustrative definition of legal location or property line.





| Statute/Rule Citation | Summary of Requirements | Normal Time To Correct |
|--|--|---|
| Fugitive Dust | | |
| DEQ Rule: OAC 252:100-29-2(a) | <p style="text-align: center;">--Using Reasonable Precautions--</p> No person shall cause or allow any fugitive dust source to be operated, or any substances to be handled, transported or stored, or any structure constructed, altered, or demolished to the extent that such operation or activity may enable fugitive dust to become airborne and result in air pollution, without taking reasonable precautions [examples listed in OAC 252:100-29-3(1) through (6)] to minimize or prevent pollution. | Immediately |
| DEQ Rule: OAC 252:100-29-2(c)(1) | <p style="text-align: center;">--Visible Fugitive Dust Leaving Property--</p> No person shall cause or allow the discharge of any visible fugitive dust emissions beyond the property line of the property on which the emissions originate in such a manner as to damage or to interfere with the use of adjacent property. | Immediately |
| Highway Spill Remediation | | |
| DEQ Rule: OAC 252:210-1-1(c)(1)-(2) | Any business that provides services to contain, remove and/or remediate spills of hazardous materials on highways in Oklahoma;and Any person who owns or operates those businesses or is employed by them to perform such containment and/or remediation services. | Immediately |
| Open Burning | | |
| DEQ Rule: OAC 252:100-13-5 | The open burning of refuse and combustible materials is prohibited unless conducted in strict accordance with the conditions and requirements contained in 252:100-13-7 and 252:100-13-9. Under no circumstances shall the open burning of tires be allowed. | Immediately |
| Open Dumping | | |
| 27A O.S. § 2-10-301(A)(1) | <p style="text-align: center;">-- Disposing --</p> No person shall dispose of solid waste at any site or facility other than a site or facility for which a permit for solid or hazardous waste disposal has been issued by the Department of Environmental Quality. | 15 days (Immediately for diesel and gasoline spills) |
| 27A O.S. § 2-10-301(A)(2) | <p style="text-align: center;">-- Owning and Operating --</p> No person shall own or operate a site or facility at which solid waste is disposed other than a site or facility for which a permit for solid or hazardous waste disposal has been issued by the Department. | 15 days (Immediately for diesel and gasoline spills) |
| 27A O.S. § 2-10-301(A)(3) | <p style="text-align: center;">-- Transporting --</p> No person shall knowingly transport solid waste to an unpermitted site or facility. | 15 days (Immediately for diesel and gasoline spills) |
| Sewage | | |
| 27A O.S. § 2-6-403(A) | <p style="text-align: center;">-- Installing Unapproved System --</p> No small public sewage system or private individual sewage disposal system shall be constructed or operated unless such system, when constructed, complies with requirements prescribed by the Environmental Quality Board or a person authorized by the Department. | 15 days |
| 27A O.S. § 2-6-501(D) | <p style="text-align: center;">-- Surfacing/Discharging Sewage --</p> The discharge of domestic sewage except to a public or private disposal system approved or authorized by the Department or the surfacing of effluent from any domestic septic system shall be deemed pollution for purposes of the provisions of Section 2-6-105 of this title. | 15 days (Immediately if into a waterway or storm drain) |
| DEQ Rule: OAC 252:641-1-4 | <p style="text-align: center;">-- Operating and Maintaining --</p> On-site sewage disposal systems shall be maintained and operated properly so that sewage or effluent from the system is properly treated and does not surface, pool, flow across the ground or discharge to surface waters. | 15 days |
| DEQ Rule: OAC 252:641-10-3 | <p style="text-align: center;">Mandatory Two Year Maintenance</p> The installer of any aerobic treatment system shall maintain the aerobic treatment system for a period of two years following the date the system was installed at no additional cost to the owner. | 30 days to submit documentation showing maintenance completed |
| 59 O.S. § 1158(A) | <p style="text-align: center;">--Installing >10 Systems w/o Certification--</p> [A]ny person, before [installing] individual sewage disposal systems, shall first obtain certification from the [DEQ]. The provisions of this subsection shall only apply to persons who install more than ten individual sewage disposal systems per calendar year. | Immediately |

Original—Addressee

Document Content(s)

Landowners and CLC Response to Bidwell Report 1-15-2021.PDF.....1

Attachment 16

Midship's Most Recent Demobilization from Sandy Creek Farms



March 8, 2021

Ms. Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission (FERC)
888 First Street, NE
Washington, D.C. 20426

Docket # CP17-458, CP19-17

RE: Demobilization of Midship's Contractor from Sandy Creek Farms

Dear Ms. Bose,

On April 16, 2020, as a condition of Rich McGuire's *In-Service Approval* of the Midship Project, Midship committed to ***“complete remaining clean-up (such as removal of construction debris) and restoration activities (such as reseeding) by mid-May 2020”*** and additionally ***“resolve the . . . outstanding restoration activities delayed due to flooding in lower lying areas by June 30, 2020, specifically on the Sandy Creek Farms property . . .”***

Midship and its contractors have recently demobilized and left the Sandy Creek Farms tracts. There are serious issues remaining such as ongoing flooding, unrestored contours, matting left buried in the ROW, blocked drainage, hydric soil conditions created by Midship, and a blocked wetland. The soils are extremely wet where Midship's contractors attempted to remediate. Now that the contractors for Midship are off the property, the landowner's contractor will need to remediate the issues and finish the restoration, especially with the beautiful warm weather we are having.

In addition, Rich McGuire and the Office of Energy Projects has not responded or approved the restoration plan filed on November 18, 2020. This has been outstanding for several months, while Midship has not worked with Mr. Barrington or remediate electric impacts, all construction debris and restore contours with imported topsoil.

Since being appointed to head of the Commission, Chairman Glick has taken keen interest in the obvious environmental injustices forced onto landowners by “a couple of LNG projects.” The Chairman publicly stated “We need to have their voices heard, the communities' voices heard. I think they feel like, talking to some folks over the last several years, they don't feel like we care about their plight ... or their conditions.” It seems that the Chairman's goals fit right in with our attempts to have FERC take control of the Midship project.

While Midship attempts to ignore, disagree, and minimize the reality of how they left the property, the Smiths cannot. What is a farmer supposed to do if they cannot farm their land? Until FERC acts on their promises, the landowners will continue to suffer immensely at the hands of Midship.

The Department of Energy, Congressman Tom Cole, and the Public will be notified regarding the egregious actions of Midship and FERC's failure to protect landowners.

Below are photos and inspections of the Sandy Creek Farms tracts that will need immediately addressed by the FERC staff.

Please feel free to contact (330) 312-1060 for any further assistance.

Respectfully Submitted,

/s/ Nate Laps

Nate Laps,
President of Operations
Central Land Consulting, LLC

cc: Rich McGuire, Director, Division of Gas-Environment & Engineering
Department of Energy, Inspector General
Congressman Tom Cole (OK)
House Committee on Oversight and Reform
Congressman Jamie Raskin (MD), Chairman of the House Subcommittee on Civil Rights and Civil Liberties
Félix Muñoz, Jr., House Committee on Agriculture

Excerpt From FERC Plan Regarding Restoration

- 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.

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.

Excerpt From FERC Plan Regarding Restoration

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.









































2021-03-09 08:35

34.8329486 N - 97.7220568 W



2021-03-09 08:39

34.8339588 N - 97.7220137 W





















Attachment 17

FERC Order on Environmental Compliance
(March 18, 2021 Order)

174 FERC ¶ 61,220
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Richard Glick, Chairman;
Neil Chatterjee, James P. Danly,
Allison Clements, and Mark C. Christie.

Midship Pipeline Company, LLC

Docket Nos. CP17-458-000
CP19-17-000

ORDER ON ENVIRONMENTAL COMPLIANCE

(Issued March 18, 2021)

Several landowners impacted by the construction of the Midcontinent Supply Header Interstate Pipeline Project (Midship Project) have asked the Commission to convene a settlement hearing before an administrative law judge or the Commission's Dispute Resolution Service to help resolve a number of outstanding environmental compliance and restoration concerns.¹ This order directs Midship Pipeline Company, LLC (Midship) to take immediate action to remedy unresolved restoration issues on certain landowner tracts, consistent with our jurisdiction, and strongly recommends that Midship engage the Commission's Dispute Resolution Service to assist in negotiations between Midship and certain landowners.

I. Background

On August 13, 2018, the Commission issued Midship a certificate of public convenience and necessity authorizing the construction and operation of the Midship Project (Certificate Order).² The Midship Project is an interstate natural gas

¹ See, e.g., Law Offices of Carolyn Elefant, PLLC's December 3, 2020 Notice of Intent to Not Seek Judicial Review, Update on Impacted Properties and Request for Conference to Facilitate Resolution; Central Land Consulting, LLC's December 23, 2020 Status of Restoration on the Midship Project Letter; Law Offices of Carolyn Elefant, PLLC's March 8, 2021 Request for Dispute Resolution or Settlement Judge to Resolve Outstanding Compliance Issues.

² *Midship Pipeline Co., LLC*, 164 FERC ¶ 61,103 (2018) (Certificate Order). On January 25, 2019, in Docket No. CP19-17-000, Commission staff approved Midship's uncontested amendment request for an approximate 0.8-mile reroute from milepost 195.2 to milepost 195.9 in Bryan County, Oklahoma to avoid a sensitive environmental feature

pipeline system in Oklahoma, consisting of approximately 200 miles of mainline pipeline, including three mainline compressor stations, metering and regulation stations, and appurtenant facilities, and two lateral pipelines totaling approximately 34 miles (the Chisholm and Velma Laterals). After meeting the requirements of the Certificate Order and receiving Commission approval, Midship commenced construction of the project in early 2019.³

3 On July 3, 2019, due to concerns regarding Midship's environmental compliance, Commission staff issued a stop work order, halting construction on segments of the project's North Spread where clearing and grading had not yet occurred.⁴ Commission staff directed Midship to provide evidence of corrective action for all then-pending unresolved instances of non-compliance and to file a detailed plan for restoring topsoil to pre-construction levels and grade at numerous locations on the North Spread.⁵

4 Construction was stopped for nearly a month as Midship worked to resolve the environmental compliance issues on the North Spread. On July 31, 2019, after determining that Midship had satisfied the directives set forth in the stop work order,

and mitigate stakeholder concerns. *Midship Pipeline Co., LLC*, 166 FERC ¶ 62,039 (2019).

³ See *Midship Pipeline Co., LLC*, Partial Notice to Proceed with Construction, Docket No. CP17-458-000 (Dec. 20, 2018) (delegated order) (authorizing Midship to commence construction of mainline mileposts 0.0 to 186.3, the Velma Lateral, and associated aboveground facilities); *Midship Pipeline Co., LLC*, Notice to Proceed with Construction, Docket No. CP17-458-000 (Jan. 30, 2019) (delegated order) (authorizing Midship to commence construction of the Chisolm Lateral); and *Midship Pipeline Co., LLC*, Notice to Proceed with Construction, Docket Nos. CP17-458-000 and CP19-17-000 (Feb. 27, 2019) (delegated order) (authorizing Midship to commence construction of remaining mainline facilities, including mainline mileposts 186.3 to 199.7).

⁴ *Midship Pipeline Co., LLC*, North Spread Non-Compliances, Docket No. CP17-458-000 (July 3, 2019) (delegated order). In total, construction was halted on approximately 67 miles of the pipeline right-of-way (between mainline mileposts 66 and 119 and along the entirety of the 13.8-mile Velma Lateral).

⁵ *Id.* at 2. The Director of the Office of Energy Projects required these actions pursuant to Environmental Condition 2 of the Certificate Order, which allows the Director to take whatever steps are necessary to ensure the protection of environmental resources during construction and operation of the project.

Commission staff authorized Midship to resume clearing and grading activities along the halted segments of the North Spread.⁶

5. Midship completed installation of the project facilities in March 2020. In April 2020, Commission staff authorized Midship to place the project facilities into service, based on staff's determination that restoration was proceeding satisfactorily.⁷ Midship's restoration of the right-of-way is ongoing.⁸

6. On December 22, 2020, Midship de-mobilized its restoration crews from the project right-of-way due to winter conditions.⁹ Midship stated that its crews would re-mobilize in Spring 2021 to resolve any remaining or outstanding restoration issues.

II. Discussion

7. Throughout the restoration process, Commission staff and its environmental compliance monitor have communicated frequently with Midship and its environmental inspection team regarding various issues along the project right-of-way, including issues raised by landowners and the Commission's inspection team. Commission staff's targeted inspections documented that Midship had resolved most of the landowner restoration issues prior to Midship de-mobilizing its restoration contractors in December 2020, as documented in Midship's status reports and the Commission's inspection reports. However, as identified through Commission staff's compliance monitor's inspections and recent filings from landowners, there continue to be outstanding

⁶ *Midship Pipeline Co., LLC*, Authorization to Resume Clearing and Grading Activities, Docket No. CP17-458-000 (July 31, 2019) (delegated order).

⁷ *Midship Pipeline Co., LLC*, Authorization to Commence Service, Docket No. CP17-458-000 (Apr. 16, 2020) (delegated order).

⁸ Midship's restoration activities include removing construction debris, replacing stockpiled topsoil along the construction right-of-way, seeding and mulching disturbed areas, and restoring pre-construction contours and elevations. Midship is required to file weekly status reports until all restoration activities are complete. Certificate Order, 164 FERC ¶ 61,103, Appendix A at Condition 8. Once restoration is complete, Midship will be required to submit quarterly status reports for at least two years following construction, documenting any restoration issues or landowner concerns along the entire project and how it is addressing those issues. *Upland Erosion Control, Revegetation, and Maintenance Plan*, section VII.B.2 (FERC Plan).

⁹ Midship's January 12, 2021 Weekly Report at 2. During winter conditions, most soils are frozen, which significantly impedes restoration activities such as removal of construction debris, restoration of contours, and decompaction.

restoration concerns and deficiencies.¹⁰ Midship has failed to sufficiently resolve several specific restoration issues on agricultural lands throughout the project area. Some of the restoration issues that Midship has attempted to correct have reoccurred or remain unresolved (e.g., construction debris, unrestored contours, and ponding areas) and are adversely impacting landowner agricultural operations.

8. Specifically, there are numerous parcels along the Chisholm Lateral, the Velma Lateral, the mainline North Spread, and, to a lesser extent, the mainline South Spread that have outstanding restoration issues that we believe require immediate remediation to ensure compliance with the Commission's Certificate Order. Although Midship has acknowledged Commission staff's field observations on many parcels and has committed to completing the remediation in Spring 2021 or as requested by the landowner, there are additional unresolved issues first identified in December 2020 that also require Midship's immediate attention. Because winter conditions in Oklahoma will soon cease to be a limiting factor on Midship's ability to proceed with the remaining restoration measures along the right-of-way, this order requires Midship to prepare plans for immediate resolution of all outstanding issues.

9. Appendix A of this order identifies the landowner tracts with outstanding restoration issues that require Midship's immediate attention.¹¹ The outstanding issues are primarily associated with ponding due to trench subsidence or insufficient re-established contours of the right-of-way, but also include erosion, compaction, construction debris on-site, topsoil loss, and lack of revegetation.

10. Within 10 days of this order, Midship is required to file a schedule to promptly resolve the outstanding restoration issues identified in Appendix A. In consultation with the landowners, Midship must complete the required restoration as soon as possible and

¹⁰ Commission staff's compliance monitor has documented these outstanding restoration issues in inspection reports filed to the project docket. *See, e.g.,* Commission staff's February 4, 2021 Environmental Compliance Monitoring Report (covering Jan. 22-28, 2021 reporting period); Commission staff's January 27, 2021 Environmental Compliance Monitoring Report (covering Dec. 20-26, 2020 reporting period).

¹¹ We note that although Midship recently provided the Commission with an update on its restoration progress and responded to landowner concerns regarding some of the landowner tracts identified in the appendices to this order, restoration on these properties is not yet complete. *See* Midship's March 1, 2021 Filing. Since Midship's March 1 filing, a substantial number of landowners have filed in the project docket updating the Commission on the current condition of their respective properties and providing photo documentation of issues they attribute to work performed by Midship's restoration crews. *See, e.g.,* Sandy Creek Farms' March 10, 2021 filings.

no later than 60 days from the date of this order unless Midship provides documentation of a landowner request for delayed restoration and specifies the alternative timeframe in which Midship will conduct the required restoration. Midship's weekly reports must provide a detailed description of any outstanding parcel-specific issues, specify how Midship will correct those issues, and identify expected completion dates.¹² In its reports, Midship must also identify any new restoration concerns or issues that are discovered, even if the newly discovered issues are unrelated to those identified in Appendix A.

¶¶ Appendix B of this order identifies landowner tracts with issues that landowners have brought to the Commission's attention, but which, due to the nature of the concerns, our compliance monitoring program has been unable to confirm in the field. The Commission strongly recommends that Midship engage the Commission's Dispute Resolution Service to assist in negotiations between Midship and certain landowners.¹³

¶¶ The Commission expects Midship to address the restoration issues identified in this order in an expeditious manner. Failure to do so could mean that Midship is out of compliance with its Certificate Order. Outstanding compliance issues may be referred to

¹² The Commission expects the expected completion dates reflected in Midship's weekly reports to be consistent with the schedule Midship is required to submit within 10 days of this order. Midship must justify any expected completion date that departs from the schedule required by this order.

¹³ Should dispute resolution prove unsuccessful, landowners should be aware that the Commission does not have the authority to direct the payment of compensation. *See S.C. Pub. Serv. Auth. v. FERC*, 850 F.2d 788, 789 (D.C. Cir. 1988) ("licensing authority granted to the Commission under the [Federal Power Act] does not include the power to displace existing state tort law with its own rules of liability for damages caused by licensees."). The courts have held that the Natural Gas Act and Federal Power Act should be interpreted consistently. *See Env't Action v. FERC*, 996 F.2d 401, 410 (D.C. Cir. 1993); *Tenn. Gas Pipeline Co. v. FERC*, 860 F.2d 446, 454 (D.C. Cir. 1988); *see also Ark. La. Gas Co. v. Hall*, 453 U.S. 571, 577 n.7 (1981).

Docket Nos. CP17-458-000 and CP19-17-000

- 6 -

the Commission's Office of Enforcement for further investigation.¹⁴ We also remind Midship that it must continue to comply with the environmental conditions set forth in the Certificate Order, including all right-of-way restoration requirements.

The Commission orders:

Within 10 days of the date of this order, Midship shall file with the Secretary a schedule for resolving the outstanding restoration issues identified in Appendix A of this order. Midship shall complete the required restoration as soon as possible and no later than 60 days from the date of this order unless Midship provides documentation of a landowner request for delayed restoration and specifies the alternative timeframe in which Midship will conduct the required restoration. Midship shall complete the required restoration in consultation with the appropriate landowner and, in its weekly reports, Midship shall provide a detailed description of the outstanding parcel-specific issues, specify how Midship will correct those issues, and identify expected completion dates.

By the Commission. Chairman Glick is concurring with a separate statement attached

(S E A L)

Nathaniel J. Davis, Sr.,
Deputy Secretary.

¹⁴ See *Enforcement of Statutes, Regulations and Orders*, 123 FERC ¶ 61,156, at P 6 (2008) (Revised Policy Statement on Enforcement) (“The Commission has a number of enforcement tools at its disposal in overseeing those areas of the electric, natural gas, hydroelectric, and oil pipeline industries within our jurisdiction. These tools include imposition of compliance plans; disgorgement of unjust profits; the ability to condition, suspend, or revoke market-based rate authority, certificate authority, or blanket certificate authority; the ability to refer matters to the Department of Justice for criminal prosecution; and civil penalty authority.”).

Appendix A**Tracts with Outstanding Restoration/Repair Requirements**

| Pipeline Facility | Milepost | Tract | FERC Identified Deficiencies (as of February 24, 2021) |
|--------------------------|-----------------|-----------------------------------|--|
| Chisholm Lateral | 7.3 | CL-KI-0039.000 | Restore preconstruction contours. Correct erosion on east bank of Waterbody SKI-025. ¹ Remove rock debris near the County Road 2880 crossing. |
| Chisholm Lateral | 7.8 | CL-KI-0040.000 | Restore preconstruction contours. Revegetate west bank of Waterbody SKI-026. Remove rock debris near the County Road 2870 crossing. |
| Chisholm Lateral | 13.1 | CL-KI-0056.000 | Restore preconstruction contours at terraces retaining water and correct trench subsidence. Remove rock debris near the County Road 2820 crossing. |
| Chisholm Lateral | 13.6 | CL-KI-0058.000 | Restore preconstruction contours. |
| Chisholm Lateral | 16.0 | CL-KI-0065.000, CL-KI-0067.000 | Restore preconstruction contours, as waterway is eroding. ¹ |
| Chisholm Lateral | 18.3 | CL-KI-0076.000 | Restore preconstruction contours at the terraces retaining stormwater. Restore slope breaker at waterbody SKI-101, as it is retaining stormwater. Repair subsidence near milepost (MP) 18.5. |
| Chisholm Lateral | 19.0 | CL-KI-0077.000 | Restore preconstruction contours, correct terrace ponding. |
| Mainline | 1.0 | CN-0005.000, CN-0006.000 | Restore preconstruction contours, correct ponding areas. |
| Mainline | 2.8 | CN-0014.000 | Correct possible terrace ponding. Tract should be monitored to verify if drainage is adequate. |

Docket Nos. CP17-458-000 and CP19-17-000

- 8 -

| Pipeline Facility | Milepost | Tract | FERC Identified Deficiencies (as of February 24, 2021) |
|--------------------------|-----------------|---|--|
| Mainline | 3.4 | CN-0015.000, CN-0013.000 | Restore preconstruction contours, correct terrace grade. Tract should be monitored to verify if drainage is adequate. |
| Mainline | 7.0 | CN-0030.000, CN-0032.000, CN-0034.000 | Restore preconstruction contours, correct ponding areas. |
| Mainline | 15.0 | CN-0066.000 | Re-seed with native grass mixture. |
| Mainline | 27.3 | CN-107.010 | Correct ponding and trenchline subsidence. Remove construction debris. |
| Mainline | 27.7 | CN-107.020 | Remove construction debris in the cultivated agricultural field. Debris was previously removed, however due to additional cultivation and winter wheat sowing, materials were exposed. |
| Mainline | 32.0 | GR-0119.010 | Correct ponding, subsidence, and revegetate. |
| Mainline | 34.25 | GR-132.010 | Correct ponding. At stream SGR-108, maintain erosion control devices. |
| Mainline | 35.0 | GR-0133.010 | Remove construction debris. Correct ponding, restore preconstruction contours. |
| Mainline | 36.0 | GR-0137.010 | Repair terrace ponding. Correct trenchline subsidence. Correct erosion on the north side of the mainline valve site. Revegetation varies from 10 percent up to 100 percent cover, conduct seed bed preparation and reseed. |

Docket Nos. CP17-458-000 and CP19-17-000

- 9 -

| Pipeline Facility | Milepost | Tract | FERC Identified Deficiencies (as of February 24, 2021) |
|--------------------------|-----------------|---|--|
| Mainline | 39.0 | GR-0147.010 | Varying degrees of revegetation were observed in the rangeland area, from bare areas up to 100 percent revegetation. Conduct seed bed preparation and reseed. Thistle was observed, potential noxious weed requiring implementation of Midship's noxious weed mitigation. Correct ponding, restore preconstruction contours, and correct subsidence. |
| Mainline | 52.5 | GR-0196.010 | Correct erosion and terrace ponding. |
| Mainline | 65.2 | GR-0310.000 | Correct ponding still evident through right-of-way decompaction ripping. Follow-up graded areas need seeding. |
| Mainline | 71.0 | GR-0338.000 | Correct ponding, restore preconstruction contours. Remove known construction debris on the right-of-way. Correct erosion at Sandy Creek. ¹ |
| Mainline | 75.0 | GR-0353.000 | Determine if any remaining construction debris is buried on the right-of-way and remove any material identified. Correct stormwater ponding at an agricultural terrace and several other areas. Correct erosion within a cultivated field. Prepare seed bed and reseed. |
| Mainline | 88.0 | GA-0417.010 | Correct slope breaker outlet erosion; correct terrace ponding. ¹ |
| Mainline | 95.6 | GA-0444.000, GA-0445.000, GA-0448.000 | Restore preconstruction contours, correct ponding, remove construction debris, revegetate previously stabilized erosion. |
| Mainline | 119.5 | CR-0610.000 | Correct erosion, revegetate. |

Docket Nos. CP17-458-000 and CP19-17-000

- 10 -

| Pipeline Facility | Milepost | Tract | FERC Identified Deficiencies (as of February 24, 2021) |
|--------------------------|-----------------|-----------------------------|--|
| Mainline | 120.3 | CR-0612.000 | 0 to 10 percent vegetation present. Prepare seed bed and reseed. |
| Mainline | 121.8 | CR-0617.000 | Conduct final stabilization and revegetation at Waterbody SCR-108. ¹ |
| Mainline | 122.3 | CR-0618.000 | Revegetate and correct erosion. |
| Mainline | 123.5 | CR-0626.000 | Correct erosion and prepare a seed bed and reseed a 200-foot-long bare soil area. ¹ |
| Mainline | 156.8 | JO-0803.000 | Repair slope breakers allowing erosion and stormwater discharge to Little Sandy Creek (SJO-019). ¹ |
| Mainline | 156.8 | JO-0804.000 | Repair slope breakers allowing erosion and stormwater discharge to Little Sandy Creek (SJO-019). ¹ |
| Mainline | 158.0 | JO-0808.000 JO-0810.000 | Correct upland erosion, repair erosion controls adjacent to waterbody SJO-035A and wetland WJO-010. Stabilize eroded waterbody banks at SJO-034/WJO-010. ¹ |
| Mainline | 158.6 | JO-0812.000 | Correct trench line subsidence. |
| Mainline | 159.1 | JO-0820.000 | Correct upland erosion and trenchline subsidence. |
| Mainline | 160.9 | JO-0824.000, JO-0825.000 | Correct trenchline subsidence. |
| Mainline | 161.2 | JO-0829.000 | Correct upland erosion and waterbody SJO-077 bank subsidence. ¹ |
| Mainline | 161.5 | JO-0830.000 | Conduct final stabilization at wetland WJO-007. ¹ |
| Mainline | 175.2 | BR-0888.000 | Restore preconstruction contours. |

Docket Nos. CP17-458-000 and CP19-17-000

- 11 -

| Pipeline Facility | Milepost | Tract | FERC Identified Deficiencies (as of February 24, 2021) |
|--------------------------|-----------------|-------------------------------------|--|
| Mainline | 179.8 | BR-0907.000, BR-0909.000 | Correct trenchline subsidence. Thistle was observed, potential noxious weed requiring implementation of Midship's noxious weed mitigation. |
| Mainline | 194.5 | BR-0990.000, BR-0992.000 | Restore preconstruction contours to mitigate ponding. |
| Mainline | 198.5 | Bennington Compressor Station | Maintain erosion control devices; correct spoil pile erosion. |
| Velma Lateral | 7.6 | VL-ST-0024.000 | Install erosion controls at slope breaker and stabilize Waterbody SCR-231 banks. ¹ |
| Velma Lateral | 8.3 | VL-ST-0026.000 | Correct erosion leading off right-of-way. |
| Velma Lateral | 13.3 | VL-GA- 0045.000 | Stabilize waterbodies SCR-208B and 208C banks. ¹ |

¹ FERC staff, through its inspection reports, previously directed Midship to take immediate corrective action on this issue.

Appendix B**Landowner Concerns¹**

| Pipeline Facility | Milepost | Tract | Landowner Concerns |
|--------------------------|-----------------|---|--|
| Mainline | 28.1 | CN-107.030 | Landowner claims dewatering killed trees (about 730 feet east of a horizontal directional drill exit workspace) and allowed beaver access to impact an off-right-of-way pond. |
| Mainline | 34.25 36.0 | GR-132.010, GR-0137.010 | Landowner claims drain tiles were not restored appropriately. Landowner wants compensation for relocating 840 head of cattle; crop damage; power and waterline for Center Pivot northeast of Buggy Creek Crossing. Midship states that an offer has been made to landowner, landowner states that no offer was received. |
| Mainline | 35.0 35.3 | GR-0133.010, GR-0134.010 | Landowner claims the drain tile is not functioning off right-of-way. Further, there is a discrepancy between the landowner and Midship on other drain tile repairs, ponding terraces, compaction, and contours. Commission staff's compliance monitor did not identify any needed corrective actions beyond the required drain tile repairs. Midship states that an offer has been made to the landowner, landowner states that no offer was received. |
| Mainline | 65.2 | GR-0310.000 | Landowner wants compensation for moving 400 head of cattle, 90 bulls, and 160 calves; 4 dead cows; vet bills; and fencing costs. Landowner claims that off-right-of-way impacts on the banks of the Washita River occurred (approximately 900 feet downstream of the Project crossing). |
| Mainline | 71.0 | GR-0336.000, GR-0338.000, GR-0340.000 | Landowner wants compensation for loss of trees, water table alteration, and electric line repair. |

Docket Nos. CP17-458-000 and CP19-17-000

- 13 -

| | | | |
|--|-------|---|--|
| Mainline | 75.0 | GR-0353.000, GR-0355.000 | Landowner wants off-right-of-way reservoir dredged to remove sediment, and timber mat off right-of-way in waterbody SGR-018 retrieved. Midship states that an offer has been made to landowner, landowner states that no offer received. |
| Mainline | 195.8 | BR-0994.000, BR-0995.000, BR-0996.000 | Landowner claims erosion causing discharge into Sulphur Creek. Landowner claims that the right-of-way contains vegetation species not in its landowner approved seed mix. |
| ¹ This list, which includes issues raised in the record as of March 11, 2021, is not exhaustive nor is it intended to foreclose the addition of subsequently raised landowner concerns. | | | |

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Midship Pipeline Company, LLC

Docket No. CP17-458-000

(Issued March 18, 2021)

GLICK, Chairman, *concurring*:

I concur in today's order requiring Midship Pipeline Company, LLC (Midship) to expeditiously resolve the outstanding restoration issues along the pipeline route. I write separately to express my deep frustration with the disregard that Midship has shown for landowners and communities along the route of the Midcontinent Supply Header Interstate Pipeline Project (Project). As explained in today's order, Midship has failed to adequately restore nearly 50 parcels of land, notwithstanding extensive efforts made to remedy the situation by Commission staff and the affected landowners. These ongoing restoration issues and landowner disputes—identified in Appendices A and B to this order—require Midship's immediate attention and remediation. It is past time for Midship to promptly resolve these issues and allow the landowners to move on with their lives.

On a broader note, we cannot forget that while a certificate of public convenience and necessity provides the holder with significant rights and privileges, it also imposes on the holder concomitant responsibilities, including the responsibility to satisfy every condition in the certificate. There must be consequences when the certificate holder fails to adequately fulfill those responsibilities. For instance, we can refer the matter to the Office of Enforcement for civil penalties.¹ We can also consider whether to revoke the certificate of public convenience and necessity itself.² In my opinion, both options

¹ See *Enforcement of Statutes, Regulations and Orders*, 123 FERC ¶ 61,156, at P 6 (2008) (Revised Policy Statement on Enforcement) (“The Commission has a number of enforcement tools at its disposal in overseeing those areas of the electric, natural gas, hydroelectric, and oil pipeline industries within our jurisdiction. These tools include imposition of compliance plans; disgorgement of unjust profits; the ability to condition, suspend, or revoke market-based rate authority, certificate authority, or blanket certificate authority; the ability to refer matters to the Department of Justice for criminal prosecution; and civil penalty authority.”).

² See *Trunkline LNG Co.*, 22 FERC ¶ 61,245, at 61,444 (1983) (“[T]here can be no question that the Commission has the authority to revoke a certificate for violation of its terms or where the parties refuse to uphold the terms of the original contract on which the

Docket Nos. CP17-458-000 and CP19-17-000

- 2 -

should be on the table if Midship fails to promptly resolve its outstanding obligations to landowners.

For these reasons, I respectfully concur.

Richard Glick
Chairman

certificate was predicated.”).

Document Content (s)

CP17-458-000.DOCX.....1

Attachment 18

Examples of Recent Inadequate Work Conducted by Midship



April 26, 2021

Ms. Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission (FERC)
888 First Street, NE
Washington, D.C. 20426

Docket # CP17-458, CP19-17

RE: Restoration Update on Byron Hardesty Tract GR-0147.010

Dear Ms. Bose,

On March 18, 2021, the Commission submitted an [Order on Environmental Compliance](#) relating to restoration of the Midship Pipeline project. This order directs Midship to take immediate action to remedy unresolved restoration issues on certain landowner tracts within 60 days of the order and strongly recommends that Midship engage the Commission's Dispute Resolution Service to assist in negotiations between Midship and certain landowners.

Byron Hardesty's property (GR-0147.010) has been impacted by Midship and its contractors and restoration has not been completed. CLC encourages the Commission staff to review the photos below and ensure that appropriate measures are taken so the landowner can resume normal farming operations.

The landowners request Midship to coordinate and consult with themselves and CLC on all issues and efforts to successfully restore the properties including those included in the FERC order dated March 18, 2021 as well as others not explicitly listed in the Order. Attached are photos depicting the current condition throughout the Midship right-of-way.

Recently, Midship has mobilized to Byron Hardesty's property under the pretense that they were going to conduct restoration activities that aligned with the March 18, 2021 FERC Order on Environmental Compliance. While it is true that Midship remobilized to the site, their activities are far from aligned with the FERC Order or any of FERC's underlying environmental regulations.

1. The soil that is being imported is NOT being approved by the landowner and much of it appears to be compacted clay / subsoil mixture with chunks of matting and wood debris intermingled with no actual topsoil. Midship is spreading this throughout the surface of their right-of-way to fill in low spots.
2. While Midship has filled in isolated low areas, no contouring work has been conducted.
3. Midship continues to ignore their requirement to de-compact the right-of-way using a "deep tillage implement."
4. Midship has not addressed a stream crossing that is blocked with sediment that had entered during construction and previous mobilizations to the property. This sediment needs to be excavated out of the stream.

CLC and the landowner respectfully request Midship cease all work on his property until the work that has been done can be brought to the attention of FERC and OEP staff. The landowner would like to avoid a situation where they have to extensively fix Midship's subpar repairs as this will be very costly, especially on top of the unaddressed restoration issues.

Please feel free to contact (330) 312-1060 with question or for any further assistance.

Respectfully Submitted,

/s/ Nate Laps

Nate Laps,
President of Operations
Central Land Consulting, LLC

Byron Hardesty
Tract # GR-0147.010
Current Restoration Conditions

Erosion and Runoff Towards the Creek



2021-04-24 17:26:48
North 35° 14' 29.06" West 97° 55' 42.21"

Fill Dirt Mixed Soils Impacting Successful Restoration



2021-04-24 11:30-22

North 35° 14' 26.20" West 97° 55' 39.62"

**Fill Dirt Mixed Soils Impacting Successful Restoration
Muck, Mixed Rocky Soils**



2021-04-24 17:26:55
North 35° 40' 26.79" West 92° 55' 39.90"

**Fill Dirt Mixed Soils Impacting Successful Restoration.
Muck, Mixed Rocky Soils**



2021-04-24 17:29:41
North 35° 14' 26.97" West 97° 55' 39.98"

**Fill Dirt Mixed Soils Impacting Successful
Restoration. Muck, Mixed Rocky Soils with
Matting Material**

2021-04-24 17:46:03

North 35° 14' 24.73" West 97° 55' 38.94"

**Fill Dirt Mixed Soils Impacting Successful Restoration.
Muck, Mixed Rocky Soils**



Fill Dirt Mixed Soils With Additional Erosion



Fill Dirt Mixed Soils Overtop Matting



2021-04-24 17:27:14

North 35° 14' 28.62", West 97° 55' 41.96"



2023-04-24_17:27:43

North 35° 14' 28.21" West 97° 55' 41.57"



April 27, 2021

Ms. Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission (FERC)
888 First Street, NE
Washington, D.C. 20426

Docket # CP17-458, CP19-17

RE: Restoration Update on Donna Coley's Tract CL-KI-0076.000

Dear Ms. Bose,

On March 18, 2021, the Commission submitted an [Order on Environmental Compliance](#) relating to restoration of the Midship Pipeline project. This order directs Midship to take immediate action to remedy unresolved restoration issues on certain landowner tracts within 60 days of the order and strongly recommends that Midship engage the Commission's Dispute Resolution Service to assist in negotiations between Midship and certain landowners.

Donna Coley's property (CL-KI-0076.000) has been impacted by Midship and its contractors and restoration has not been completed. CLC encourages the Commission staff to review the photos below and ensure that appropriate measures are taken so the landowner can resume normal farming operations.

The landowners request Midship to coordinate and consult with themselves and CLC on all issues and efforts to successfully restore the properties including those included in the FERC order dated March 18, 2021 as well as others not explicitly listed in the Order. Attached are photos depicting the current condition throughout the Midship right-of-way.

Recently, Midship has mobilized to Mrs. Coley's property under the pretense that they were going to conduct restoration activities that aligned with the March 18, 2021 FERC Order on Environmental Compliance. While it is true that Midship remobilized to the site, their activities are far from aligned with the FERC Order or any of FERC's underlying environmental regulations.

1. The soil that is being imported is NOT being approved by the landowner and much of it appears to be compacted clay / subsoil mixture with chunks of matting and wood debris intermingled with no actual topsoil. Midship is spreading this throughout the surface of their right-of-way to fill in low spots.
2. While Midship has filled in isolated low areas, no contouring work has been conducted.
3. Midship continues to ignore their requirement to de-compact the right-of-way using a "deep tillage implement."
4. Midship has not addressed a stream crossing that is blocked with sediment that had entered during construction and previous mobilizations to the property. This sediment needs to be excavated out of the stream.

Please feel free to contact (330) 312-1060 with question or for any further assistance.

Respectfully Submitted,

/s/ Nate Laps

Nate Laps,
President of Operations
Central Land Consulting, LLC



2024-04-18 10:50
35.7167944 N - 98.0493167 W



2024-04-18 10:51
35.7167944 N - 98.0493167 W



2024-04-18 10:52
35.7167944 N - 98.0493167 W



2024-04-18 10:52
35.7167944 N - 98.0493167 W













April 22, 2021

Ms. Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission (FERC)
888 First Street, NE
Washington, D.C. 20426

Docket # CP17-458, CP19-17

RE: Restoration Update on KR&K Tract CL-KI-0077.000

Dear Ms. Bose,

On March 18, 2021, the Commission submitted an [Order on Environmental Compliance](#) relating to restoration of the Midship Pipeline project. This order directs Midship to take immediate action to remedy unresolved restoration issues on certain landowner tracts within 60 days of the order and strongly recommends that Midship engage the Commission's Dispute Resolution Service to assist in negotiations between Midship and certain landowners.

KR&K's property (tract CL-KI-0077.000) has been impacted by Midship and its contractors. The lack of effort and disregard for environmental compliance is troubling. Midship has received updated inspection reports and landowner concerns but has not acted in a productive manner to address these issues. Midship continuously attempts to minimize the scope of work. For example, on nearly every tract discussed, Midship claims that only a few loads soil needs to be brought in to fix acres of severe grade issues. Not only is it unproductive to stubbornly minimize the actual amount of work that needs to be completed, but it is also extremely disingenuous to the landowners because they are the ones that continue to suffer as Midship perpetually fools around and wastes the landowner's time and resources.

The landowners have asked Midship numerous times to coordinate and consult with themselves and CLC on all issues and efforts to successfully restore the properties and to prevent problems such as these. However, Midship has not been open to changing their scope and continues to eagerly cut any corner possible. All CLC wants is for Midship to realize and coordinate the real issues and come up with a realistic solution that actually addresses the issues.

Attached are photos depicting the current condition throughout the Midship right-of-way. It is abundantly clear that Midship has plenty of restoration work left to complete. General work includes but is not limited to erosion control, soil decompaction, extreme levels of blasting rock, and grade restoration. Until either Midship or the landowner's contractor can complete the work, the landowners will continue to suffer.

Please feel free to contact (330) 312-1060 for any further assistance.

Respectfully Submitted,

/s/ Nate Laps

Nate Laps,
President of Operations
Central Land Consulting, LLC

KR&K

CL-KI-0077.000

- Several locations near the drainage ditches and low lying areas have construction debris.
- Penetrometer testing show compaction issues still remain.
- Compaction test off-ROW show an average of 190 psi at 10 inches.
- Compaction test inside the right-of-way exceed the 300 psi limit at 4 inches, especially the the temporary workspace.
- Easement area is sunken / has uneven grade compared to undisturbed areas. Topsoil must be stripped from Off-ROW areas to level out easement.
- 5 Terraces are blocked by easement which is causing water to pond and disrupt farming operations.
- 1 terrace is crossed by easement twice, so 6 repairs total. Need to restructure terraces where they cross the easement so that the property drains properly.
- Drainage pattern west of CH 19.5 is blocked and causes ponding during rainfall. Drainage pattern needs to be restored to ensure proper flow. Contours of drainage pattern have not been properly restored.
- Alkali solids are surfacing from underground across portions of the tract due to prolonged ponding and soil saturation. This alters the soil's chemistry and will require additives to correct.










































Soil Compaction Map Prepared for Terry & Kendall Hansen





**Off-Row Natural
Topsoil**

**Fill Dirt Hauled In By
Midship Showing
Subsoil, Rock, and Fill
Dirt**

2021-04-07_20-09-37

North 35° 41' 46.13", West 98° 6' 19.44"

Drainage and Contour Issues

2021-04-07_19-54-49

North 35° 41' 37.63", West 98° 6' 23.01"




2021-04-07_19-54-56

North 35° 41' 37.62", West 98° 6' 23.01"

**Dirt Hauled In By Midship Showing Clay,
Fill, and Gravel Mixed Soils**

2021-04-07_20-10-41

North 35° 41' 46.15", West 98° 6' 19.39"

A large pile of reddish-brown soil and rocks, with a fence and grass in the background. The soil is dark red and appears to be composed of many small, rounded clumps. The rocks are of various sizes, from small pebbles to larger, angular stones. The background shows a green field of grass and a blue sky with a fence line.

2021-04-07_20-10-48

North 35° 41' 46.05", West 98° 6' 19.36"

Mixed, Rocks, Matting Chunks Similar to Current Easement Soils Impacted by Midship

2021-04-07_20-11-05
North 35° 41' 45.06", West 98° 8' 19.30"