



# Hiland Crude, LLC

2.9-mile Crude Oil Pipeline – Williams County

Case No. PU-21-353

Topsoil Removal Inspection Report



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January 21, 2022

RE: Case No. PU-21-353  
Hiland Crude, LLC  
2.9-mile Crude Oil Pipeline  
Williams County  
Topsoil Removal Inspection Report

Mr. Victor Schock  
Public Utility Analyst  
North Dakota Public Service Commission  
600 East Boulevard Avenue, Dept. 408  
Bismarck, ND 58505-0480

Dear Mr. Schock:

Attached is the Topsoil Removal Inspection Report for the above referenced project. This report includes the following:

1. Executive Summary
2. Inspection Report
3. Appendix A – Photo Location Map
4. Appendix B - Photographs

Sincerely,

A handwritten signature in blue ink, appearing to read "Matthew Schaible".

Matthew Schaible, PE  
Short Elliott Hendrickson Inc.  
4719 Shelburne Street, Suite 6  
Bismarck, ND 58503-5677

Engineers | Architects | Planners | Scientists

Short Elliott Hendrickson Inc., 4719 Shelburne Street, Suite 6, Bismarck, ND 58503  
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**EXECUTIVE SUMMARY**

Date: 01/13/2022

Project: Hiland Crude, LLC 2.9-mile Crude Oil Pipeline

Initial site visit was conducted by Inspector to document Topsoil Removal for construction of PU-21-353 Hiland Crude LLC 2.9-mile Crude Oil Pipeline. Inspector was onsite to document existing conditions throughout construction right of way, existing vegetation, topsoil removal methods, equipment being utilized, contractor correspondence, and depth checks of topsoil.

Documentation was conducted to verify contractor is able to successfully understand and demonstrate segregation of topsoil and subsoil in order to return disturbance area within construction right of way back to original conditions within reasonable means.

Prior to construction beginning, Hiland Crude LLC construction superintendent, Kinder Morgan chief inspector, and Kelstral Engineering field inspection was able to go through day's plans. Plans included first prepping approach entrance crossing wood mats and would be followed by topsoil ripping by dozer and shoving into windrow RT of pipeline centerline. Additional dozer and excavator arrived on site to assist in moving topsoil in windrow. Following topsoil being removed, underground borings and pipeline trench excavation will begin coincided with pipe staging and welding.

No concerning issues were identified during inspection. Inspector only had to notify contractor foreman and equipment operator of one location at approximately STA 6+60, 30 feet each way where topsoil depth check thinned out less than 5 Inches. Contractor was notified dozer ripper prongs won't need to go any deeper once topsoil transition to subsoil is reached. Contractor is to adjust appropriately to maintain segregation and avoid over cutting.

Inspector stayed on site during until operators was able to demonstrate proficiency in topsoil removal and segregation methods.

  
Inspector's Signature



**INSPECTOR'S DIARY**

Project: PU-21-353 Hiland Crude, LLC 2.9-mile Crude Oil Pipeline		Contractor: Kinder Morgan	
Date: 01/13/2022	Day: Thursday	Subcontractor: Silver Fox	
Weather: Cloudy, ESE 10mph		Temp: 25 F	Inspector: Brandon Myran
<b>Work Activities:</b> <p>* Day's work included prepping of tie-in to walking wood mats to cross Co Hwy 42 ditch after frozen topsoil was stripped by dozer with use of 3 prong rippers and use of front end blade. Topsoil was windrowed on right (RT) side of pipeline centerline along edge of construction right of way (ROW). Topsoil and subsoil are frozen.</p> <p>* Majority of work consisted of topsoil ripping by dozer, making multiple passes, offsetting from previous pass and crossing perpendicular doing the same. Topsoil within pipeline 75 feet wide corridor is ripped prior to dozing pushing topsoil to RT side of work zone along ROW lathe where snow has already been piled within last 4 to 8 feet within ROW.</p>			
<b>Labor Force:</b> <p>Kinder Morgan: 1- Construction Manager (Scott Koenning), 1-Chief Inspector (Philip Strothers) Silver Fox Energy: 1- Superintendent (Eli Klukowski), 2- Dozer Operators, 1-Spotter, 1- Excavator Operator Kestral Engineering: 1-Inspector (JD Godwin)</p>			
<b>Contractor Correspondence:</b> <p>* 1045 Brandon Myran met with Philip Strother. Philip says JP Godwin is the main field inspector who would be the one to discuss plan of operations and address any concerns to.</p> <p>* 1050 Brandon Myran meets with JP Godwin, Eli Klukowski, 1 Dozer operator for Silver Fox Energy, and 1 spotter for Silver Fox. Eli says they plan to first start by prepping landing tied to wood approach mats crossing the east side ditch of Co Hwy 42. Once topsoil is stripped and pushed to RT of pipeline centerline, dozer operator will bridge the tie in to the mats with subsoil. Once completed, dozer operator will start at LT edge ROW following green painted lathe (See P12).</p> <p>* 1115 Brandon Myran talks with JP Godwin again to verify understanding of intent maintaining topsoil segregation from subsoil. If operator is overcutting topsoil, ripping and blade elevation would needed correcting to avoid mixing. Topsoil windrow is planned to be placed next to snow pile which has already been bladed to RT of pipeline centerline. Once pipeline excavation begins later on, subsoil will be windrowed LT of pipeline centerline. Brandon relays that the intent is make sure topsoil isn't mixed with subsoil and that placement back of topsoil and re-vegetation results in the work zone matching surrounding landscape just like pre-existing conditions or better.</p> <p>* 1210 Brandon Myran and JP Godwin talk with dozer operator after he has removed topsoil near approach entrance. Subsoil is exposed and appears tan to gray in color (See P4). Operator agrees he notices the difference from darker brown topsoil showing signs of organics (small roots). All soil that has been ripped up is frozen. Operator says he still has to clean up the approach to the wood mats before starting long stretches of topsoil ripping.</p> <p>* 1355 Dozer operator reaches end of 250 foot of ripped section. Dozer operator says they will start clearing ripped topsoil pushing to RT of pipeline centerline. Brandon says once cleared they will be able to determine depth of topsoil and if additional removal is needed by either ripping or dozer blade.</p> <p>* 1415 Brandon Myran meets dozer operator, spotter, and JD Godwin to look at cross section of topsoil removal. Brandon measures approximately 5 IN of topsoil at STA 6+60, 35 Left (LT) of pipeline centerline. The ripper and removal was going to about 12 IN, so Brandon lets operator know that if topsoil thins out he will have to adjust removal operation to avoid mixing of topsoil and subsoil.</p> <p>* 1500 Brandon Myran talks with Phillip Strother and Scott Koenning. Brandon lets him know of conversation if JP Godwin, dozer operator, and spotter.</p>			
<b>Other Remarks:</b> <p>* Silver Fox Energy has staging yard located within 500 feet of Project Start along the west side of Co Hwy 42. This area is where 8 IN steel pipe will be delivered and stored until pipe can be staged along pipeline alignment for welding operations.</p> <p>* At end of site visit, Brandon Myran spoke with JP Godwin and lets Eric Klukowski know operators are to continue topsoil removal methods as discussed and as they are currently conducting. Operators with a small section have demonstrated that they understood the topsoil segregation intent and what they are to look for in soil transitions. Operators can continue operations. JP Godwin as field inspector, also understood the expected outcome and will verify operations to continue as discussed. Any subsoil excavation if encountered should remain segregated and placed on LT of the pipeline centerline. Brandon also reiterates that soil removed to not cross the pipeline ROW limits.</p>			

  
Inspector's Signature



**INSPECTOR'S DIARY**

Date: 01/13/2022

Project: PU-21-353 Hiland Crude, LLC 2.9-mile Crude Oil Pipeline Contractor or Sub: Kinder Morgan

**Work Performed & Location:**

\* Previous work on 01/12/2022 included windrowing of snow piling right (RT) of pipeline centerline along construction Right of Way (ROW) starting at Co Hwy 42 and ending at approximately STA 21+00 (See P26). Also completed was installment of walking wood mats crossing the east side ditch of Co Hwy 42.

\* 1100 Initial work began at prepping tie-in to wood mats along east side of Co Hwy 42 with subsoil after topsoil was stripped and windrowed RT of pipeline centerline (See P3). Inspector checked depth of existing topsoil near tie-in to wood mats with use of tape measure. Topsoil measured at 6 inches (See P4). Topsoil and subsoil was observed as frozen. Day's planned work area starting at Co Hwy 42 to approximately STA 21+00 consists of hay crop which has already been harvested. Majority of visible vegetation is less than 6 inches high. Within the first section of topsoil stripping, it was observed that subsoil appeared as a light tan to gray in color compared to dark brown topsoil (See P31, P33, P34). Subsoil appears to be a sandy lean loam.

\* Prior to start of topsoil stripping beyond entrance location, Brandon Myran walked day's planned area to make initial field observations (See P9-P26). Construction ROW area consisted of crop land previously used for hay production. For reference of existing vegetation, Brandon Myran used tape measure to record existing vegetation (See P19, P20).

**\* Method of Removal:**

- 1308-1330 Dozer operator starts making passes on left edge of pipeline work zone from STA 4+50 to STA 7+00 using 3 prong ripper spaced 3 feet apart each on dozer. Plan is to only make 250 foot stretches at a time. Dozer makes 2 passes (1 down and 1 back) offsetting slightly from the previous pass in order to minimize size of frozen topsoil chunks and continues from left of centerline to right of centerline (See P27, P28, P29).
- 1330-1350 Dozer than starts ripping topsoil perpendicular (See P30) from pipeline alignment to have cross ripping starting at STA 4+50 and shifting toward STA 7+00.
- 1400-1410 Dozer starts shoving topsoil from Left of Centerline to Right of Centerline (See P31).
- John Deere Excavator begins assisting by pulling topsoil from Left of Centerline to more of center of pipeline. Excavator operator is assisting at this point until they get closer to next ditch crossing where wood mats will be used.
- Topsoil windrow was approximately 30 feet RT of pipeline centerline leaving between 2-5 feet left from edge of construction zone which were marked out with green lathe.

\* Silver Fox Energy continues clearing of topsoil within the construction right of way as equipment tracking continues breaking down frozen topsoil into smaller chunks. Subsoil becomes more apparent as work continues.

**CONTRACTOR EQUIPMENT:**

- Silver Fox: (1) John Deere 872GP Grader, (1) John Deere 850L WLT Dozer
- (1) John Deere 300G Excavator, (1) John Deere 850L LGP Dozer

  
Inspector's Signature



**INSPECTOR'S DIARY**

Date: 01/13/2022

Project: PU-21-353 Hiland Crude, LLC 2.9-mile Crude Oil Pipeline Contractor or Sub: Kinder Morgan

Photo Description:
Photo Name: Description: Picture#, Station, AH=Ahead Stationing, BK=Back Stationing, RT= Right, LT = Left, PI = Point of Intersection, ROW = Construction Right of Way
P1 – STA 5+50 BK, Begin Topsoil Removal
P2 – STA 3+80 BK, Topsoil Removal
P3 – STA 4+11 BK, Topsoil Removal
P4 – STA 3+20, Topsoil Measured Depth
P5 – STA 4+11 BK, Topsoil Windrow
P6 – Equipment, John Deere 872GP Grader
P7 – Equipment, John Deere 300G LC Excavator
P8 – Equipment, John Deere 850L LGP Dozer
P9 – STA 4+11 AH
P10 – STA 7+00 RT and Snow Windrow
P11 – STA 7+00 BK
P12 – STA 7+00 AH, LT ROW
P13 – STA 11+00 AH
P14 – STA 12+42 PI, LT View
P15 – STA 12+42 PI, AH
P16 – STA 12+42 PI, BK
P17 – STA 12+42 AH, LT ROW
P18 – STA 12+42 AH, RT ROW
P19 – STA 12+42 AH, Existing Vegetation
P20 – STA 12+42, Existing Vegetation
P21 – STA 15+10 AH
P22 – STA 15+10 AH, RT ROW and Snow Windrow
P23 – STA 17+81 AH
P24 – STA 17+81 BK
P25 – STA 21+95 AH, End of Snow Removal
P26 – STA 21+95 BK, End of Snow Removal
P27 – STA 6+00 AH LT, Longitudinal Topsoil Ripping
P28 – STA 6+00 BK LT, Longitudinal Topsoil Ripping
P29 – STA 6+50 BK, Longitudinal Topsoil Ripping
P30 – STA 6+00 BK, Perpendicular Topsoil Ripping
P31 – STA 6+60 Topsoil Removal
P32 – STA 5+20 Topsoil Removal
P33 – STA 4+11 AH, Topsoil Removal
P34 – STA 4+11, Existing Subsoil

\*See attached map with location of each photo, and attached pages of photo's

  
Inspector's Signature

# Appendix A

Photo Location Map



# Appendix B

Photos

P1 - STA 5+50 BK, Begin Topsoil Removal



P2 - STA 3+80 BK, Topsoil Removal



P3 - STA 4+11 BK, Topsoil Removal



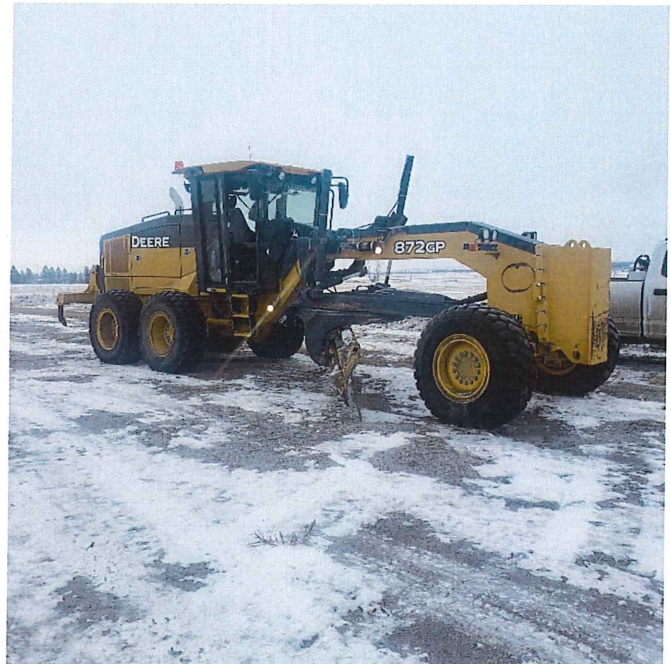
P4 - STA 3+20, Topsoil Measured Depth



P5 – STA 4+11 BK, Topsoil Windrow



P6 – Equipment, John Deere 872GP Grader



P7 – Equipment, John Deere 300G LC Excavator



P8 – Equipment, John Deere 850L LGP Dozer



P9 – STA 4+11 AH



P10 – STA 7+00 RT and Snow Windrow



P11 – STA 7+00 BK



P12 – STA 7+00 AH, LT ROW



P13 - STA 11+00 AH



P14 - STA 12+42 PI, LT View



P15 - STA 12+42 PI, AH



P16 - STA 12+42 PI, BK



P17 - STA 12+42 AH, LT ROW



P18 - STA 12+42 AH, RT ROW



P19 - STA 12+42 AH, Existing Vegetation



P20 - STA 12+42, Existing Vegetation



P21 - STA 15+10 AH



P22 - STA 15+10 AH, RT ROW and Snow Windrow



P23 - STA 17+81 AH



P24 - STA 17+81 BK



P25 – STA 21+95 AH, End of Snow Removal



P26 – STA 21+95 BK, End of Snow Removal



P27 – STA 6+00 AH LT, Longitudinal Topsoil Ripping



P28 – STA 6+00 BK LT, Longitudinal Topsoil Ripping



P29 – STA 6+50 BK, Longitudinal Topsoil Ripping



P30 – STA 6+00 BK, Perpendicular Topsoil Ripping



P31 – STA 6+60 Topsoil Removal



P32 – STA 5+20 Topsoil Removal



P33 – STA 4+11 AH, Topsoil Removal



P34 – STA 4+11, Existing Subsoil





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