

**Lonesome Creek NGL Pipeline Project, ONEOK Bakken Pipeline  
(PSC Case No. PU-15-137)**

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**Permit Compliance Review**

NDPSC Contract No.: PU-713-15-EE

Reporting Period: August 21, 2015 – September 10, 2015

Prepared By: Houston Engineering, Inc. / Josh Kadrmaz, Environmental Engineer, Emmy  
Baskerville, Environmental Scientist and Bart Schultz, Project Manager

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**General:**

Houston Engineering, Inc. (HEI) was contractually hired by the North Dakota Public Services Commission (NDPSC) to complete the construction inspection activities, as part of the 8-inch Lonesome Creek NGL Pipeline Project, (PSC Case No. PU-15-137). Following is a summary of the work completed to date and the anticipated timeframe for the completion of the permit compliance review. One environmental compliance site visit has been completed, and one additional compliance inspection will occur after construction is complete. This field inspection report is for the initial site visit which occurred during September 2015.

**Summary of Activities / Items Completed to Date:**

The first site visit was completed in September following the initial site construction. The focus of this first site visit was environmental compliance inspection on areas of the wind project that were actively under construction. HEI met with Curt Kaman and Dennis Anderson, TIR Safety Professionals for ONEOK; and Tim Swan, ONEOK Partners, to receive safety orientation and review the status of construction. HEI and Curt then drove the ROW extent to review the active construction site. With the exception of the newly acquired ROW in Section 36, the alignment had already been stripped of topsoil and graded. The majority of the co-located 16-inch Cherry Creek Line had already been assembled and was waiting pressure testing and inspection. Only those portions of the NGL pipeline that were designated to be directionally bored had been assembled. Anticipated stages of construction to follow include: 1.) directionally boring both pipelines, 2.) excavate and backfill the Cherry Creek Pipeline, 3.) assemble, excavate, and backfill the NGL pipeline and 4.) reclaim the ROW.

The first environmental compliance visit targeted erosion control, wetland avoidance, and tree and shrub mitigation during construction. HEI utilized maps and data from the applicant to aid in the identification of the exclusion, avoidance and selection criteria, as outlined within the permit. All wetland crossings were marked and bounded with silt fence, in preparation for boring. Where disturbed areas were adjacent to existing wetlands or drainages, silt fence and biorolls were installed. Earthen check dams and diversions were evident in steeply sloped areas to slow runoff and reduce the potential for erosion. Curt noted that a large rainfall event had occurred earlier in the week, which had overwhelmed some of the BMPs. Repair and replacement activities to address and strengthen BMPs were observed.

A temporary access road was constructed over Wetland 02, using wooden mats. Curt stated that they had not impacted any trees greater than 1 inch in diameter. See provided Photographs 1 through 6 for documentation.

During the inspection it was noted that the alignment along the section line between Sections 7 and 8 had shifted east from the alignment shown in the figures provided to HEI from the initial application. Curt stated that the change was made during the application process to more closely co-locate with the Cherry Creek Line. HEI personnel requested an updated alignment with avoidance areas from Tim for review.

All areas observed under construction had appropriately placed erosion control measures (silt fencing and bio-roll). No indications of potential stormwater violations were observed where BMPs had failed. Reporative measures were to be implemented to address failed BMP's.

**Future Activities for the next reporting period:**

HEI will complete one final permit compliance site visit after construction ends to verify that all permit compliance issues have been addressed, focusing on road restoration and restoration of open soil areas. Based on the current pace of construction, HEI anticipates that this compliance visit will take place in the late summer or early fall of 2016 to ensure vegetation has been reestablished in disturbed areas.

# Photos

LONESOME CREEK 8" NGL PIPELINE PROJECT

PHOTOGRAPHS



**Photograph 1:** Viewing southward from Sta. 108+00 (MP 2.0) at approach to Wetlands 1 and 2 prior to "right-of-way" activities.



**Photograph 2:** (Close up view of Photograph 1) Viewing southward from Sta. 108+00 at approach to Wetlands 1 and 2 prior to "right-of-way" activities. The 12 clumps (bushes) of Russian Olive will be removed. However, the travel lane will avoid impacts to the trees in the background.



**Photograph 3:** Viewing southward from near Sta. 110+00 (MP 2.1) across Wetlands 1 and 2 at ongoing work to begin installation of travel lane through Wetland 2.



**Photograph 4:** Viewing southward from Sta. ~118+00 (MP 2.2) at the installation of a travel lane through Wetland 2.

**LONESOME CREEK 8" NGL PIPELINE PROJECT**

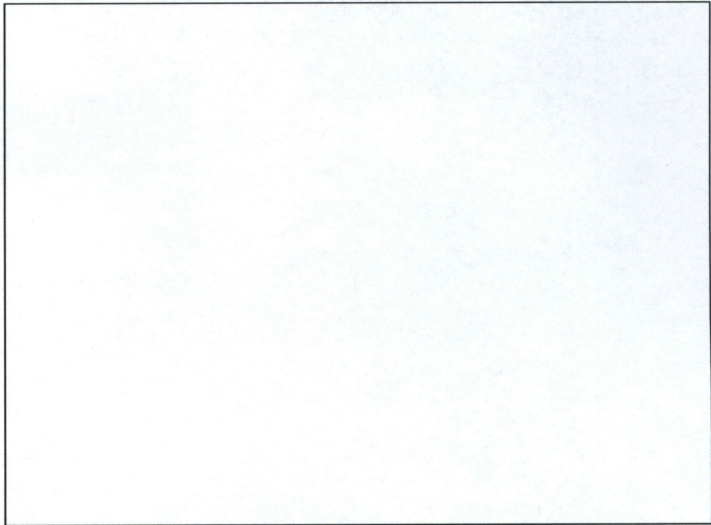
**PHOTOGRAPHS**



**Photograph 5:** (Close up view of Photograph 5) Viewing southward from Sta. ~118+00 (MP 2.2) at the installation of a travel lane through Wetland 2



**Photograph 6:** Viewing southward from Sta. 121+50, (MP 2.3) viewing the completed travel lane between the trees with no impacts to woody vegetation. Wetlands 2 and 1 are in the background.





**Photo 7:**  
Looking west at  
pipe line ROW  
in Section 36,  
south of the  
plant.



**Photo 8:**  
Looking east at  
east-west portion  
of pipe line  
ROW in Section  
31. 18-inch  
Cherry Creek  
Line (green) is  
assembled.  
Portions of  
Cherry Creek  
and NGL to be  
bored under  
138<sup>th</sup> Ave NW  
are also shown.



**Photo 9:**  
Looking south in  
Section 31 at  
erosion control  
at a drainage  
swale along the  
ROW.



**Photo 10:**  
Looking southwest at silt fence and mulch upstream of Wetland 01 in Section 6.



**Photo 11:**  
Vegetation in Wetland 01, looking west.



**Photo 12:**  
Looking south from the northern end of directional bore, proposed under Wetland 04.



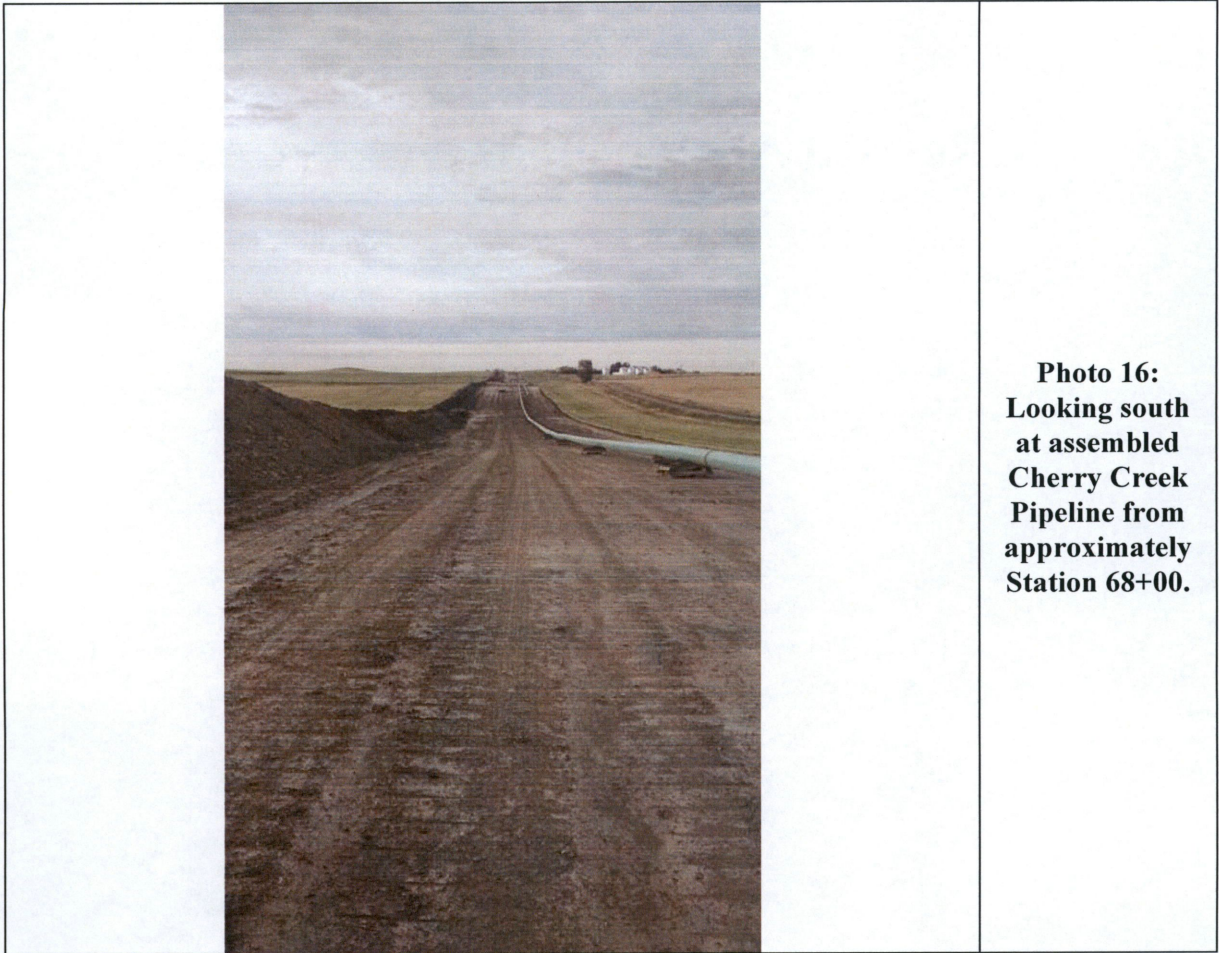
**Photo 13:**  
Looking west at agricultural dam to the west of the ROW alignment and north of Wetland 03.



**Photo 14:**  
Looking south at Cherry Creek pipe line in Section 8. Topsoil and subsoil windrows are being used to provide a gutter for stormwater control.



**Photo 15:**  
Looking northwest at south end of proposed directional bore, under Wetland 04.



**Photo 16:  
Looking south  
at assembled  
Cherry Creek  
Pipeline from  
approximately  
Station 68+00.**

# Revised Alignment Sheets

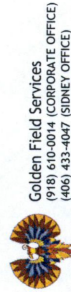
LONESOME CREEK NGL (8" PIPELINE)  
AFE NO.: 023.131.5660.010009

MOP: 1440 P.S.I.G.

PRELIMINARY ALIGNMENT SHEETS  
MCKENZIE COUNTY, NORTH DAKOTA

JULY 8, 2015

**ISSUED FOR CONSTRUCTION**



Golden Field Services  
(918) 610-0014 (CORPORATE OFFICE)  
(405) 433-0017 (SIDNEY OFFICE)



ONEOK  
BAKKEN PIPELINE  
A SUBSIDIARY OF ONEOK PARTNERS



PI LIST		
PID	Station	Description
1	0+00	BEGIN STA.
2	2+00	P.I. < 89°28'09" LT.
3	64+78	P.I. < 89°58'20" RT.
4	113+41	P.I. < 4°32'46" LT.
5	124+23	P.I. < 4°21'28" LT.
6	140+16	P.I. < 6°50'08" RT.
7	163+49	P.I. < 3°52'42" LT.
8	184+13	P.I. < 6°11'56" RT.
9	195+19	END STA.

BORE LIST				
NUMBER	BORE	STA. FROM	STA. TO	TOTAL LENGTH
1	138TH AVE NW	10+07	11+75	168'
2	137TH AVE NW	61+14	63+44	230'
3	24TH ST NW	88+86	91+07	221'
4	WETLAND (WE102 & WE103)	117+97	121+68	371'
5	WETLAND (WE104)	171+64	174+88	324'

Prepared By:



**ONEOK**  
BAKKEN PIPELINE  
A SUBSIDIARY OF ONEOK PARTNERS

PI AND BORE LIST  
LONESOME CREEK NGL (8" PIPELINE)

SCALE:

Drawn By: LONESOME CREEK

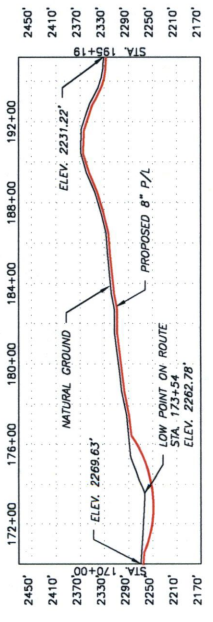
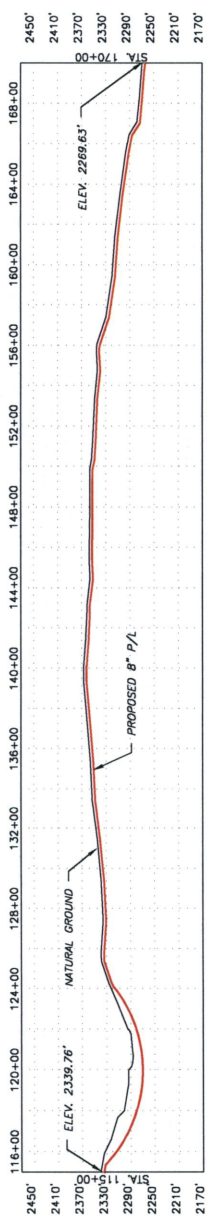
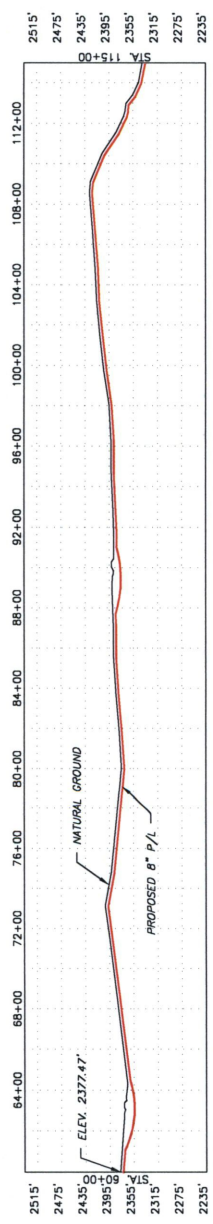
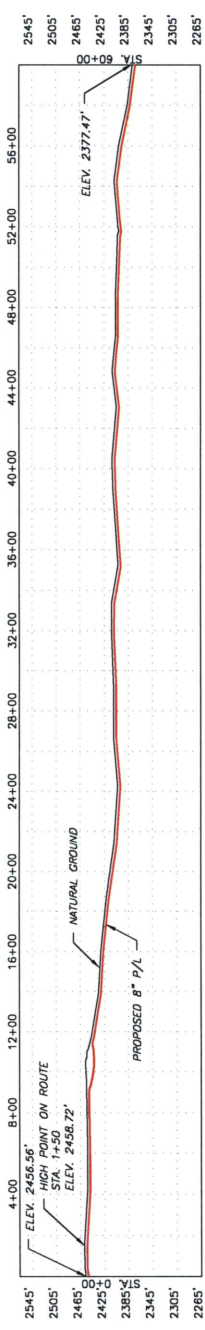
Checked By: JFE #

Prepared By:



**Golden**  
Field Services, Inc.  
(918) 610-0014

SHEET




**ONEOK**  
 BAKKEN PIPELINE  
 A SUBSIDIARY OF ONEOK PARTNERS

**PROFILE SHEETS FOR SHEETS 1, 2, 3 AND 4**

SCALE: HORIZ. 1" = 100' VERT. 1" = 10'  
 DRAWN BY: J.T.S.  
 CHECKED BY: J.H.E.

PROJECT: PROFILE\_1

Prepared by:  **Golden Field Services, Inc.**  
 (918) 610-0014

SHEET







**LEGEND**

- POINT OF INTERSECTION
- FENCE LINE
- GAS PIPELINE
- TELEPHONE LINE
- MATCHLINE
- FOUND CORNER
- FOUND 1/4 CORNER
- SET CORNER
- MILE POST
- BORE
- USA
- WETLAND
- WATERBODY
- WOODY VEGETATION

**NOTES**

1. THE BENCHMARKS SHOWN ON THIS DRAWING ARE TO BE USED FOR ALL MEASUREMENTS UNLESS OTHERWISE NOTED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ACCURACY OF ALL BENCHMARKS AND FOR OBTAINING ANY NECESSARY PERMITS FOR THE CONSTRUCTION OF ANY BENCHMARKS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY NECESSARY PERMITS FOR THE CONSTRUCTION OF ANY BENCHMARKS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY NECESSARY PERMITS FOR THE CONSTRUCTION OF ANY BENCHMARKS.

**ENVIRONMENTAL NOTES**

1. Environmental Sensitive Areas (ESA), Sensitive Habitat, and Wetlands have been identified on this drawing. The contractor shall be responsible for obtaining any necessary permits for the construction of any structures or facilities within these areas. The contractor shall be responsible for obtaining any necessary permits for the construction of any structures or facilities within these areas.

**BILL OF MATERIAL**

NO.	DESCRIPTION	QUANTITY	UNIT
1	8" DIA. 12' LONG	1	EA.
2	8" DIA. 12' LONG	1	EA.

**REVISIONS**

NO.	DESCRIPTION	BY	DATE

**TEST SECTION**

REF.	DRAWING NO.	DRAWING TITLE

**REFERENCE DRAWINGS**

REF. DRAWING NO. DRAWING TITLE

TRACT NUMBER: 170+00  
OWNER NAME: ETHEL LARSON FAMILY TRUST  
DESC.: S1/2 OF SEC. 8, T149N, R100W  
RODDAGE: 152.66 RODS



**PIPE DETAIL**

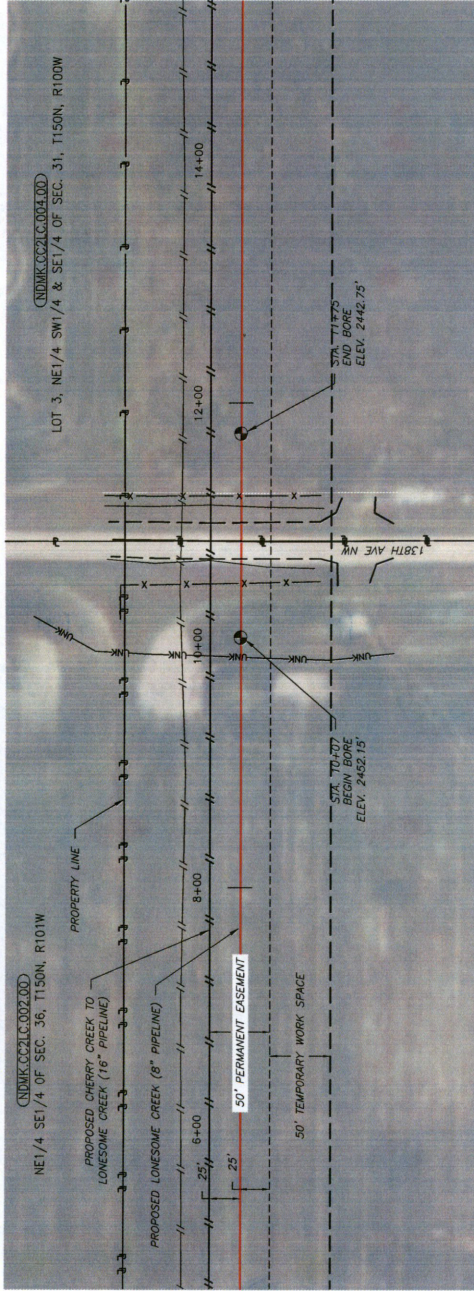
STATION	COVER	PIPE	METHOD
170+00	4" MIN. COV.	OPEN CUT	
171+64	15" MIN. COVER	BORE	
174+98	4" MIN. COVER	OPEN CUT	
192+00	4" MIN. COVER	OPEN CUT	

**ENVIRONMENTAL CONDITIONS**

STATION	COVER	PIPE	METHOD
170+00	4" MIN. COV.	OPEN CUT	
171+64	15" MIN. COVER	BORE	
174+98	4" MIN. COVER	OPEN CUT	
192+00	4" MIN. COVER	OPEN CUT	

FILE: SHEET 4  
FROM: STA. 170+00 TO: STA. 195+19  
VERT. SCALE: 1" = 40'  
DATE: 06/20/15 SHEET: 4 of 4

ONEOK ENERGY SERVICES  
Golden Field Services  
LONESOME CREEK NGL (8" PIPELINE)  
AFE NO.: 023.131.5660.010009

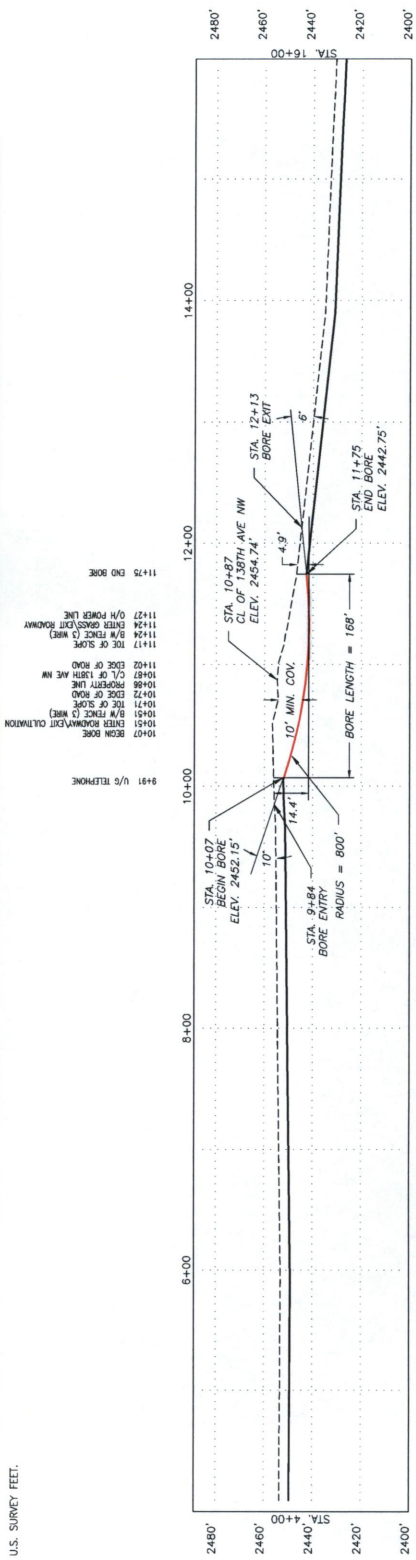


NOTES:

1. SPILL PREVENTION: CONTRACTOR WILL MAINTAIN AN EMERGENCY SPILL KIT IN PROXIMITY TO THE CONSTRUCTION AREA.
2. EROSION AND SEDIMENT CONTROL: CONTRACTOR WILL SUPPLY AND MAINTAIN EROSION CONTROL STRUCTURES, SLOTTED CURBS AND SILT TRAPS. CONTRACTOR SHALL MAINTAIN ACCESS TO ADJACENT AREAS AND STAGING AREAS. HDD PIT SHORING (IF REQUIRED) PER OSHA STANDARDS. CONTRACTORS SHALL COMPLY WITH STORM MANAGEMENT PLAN.
3. INSTALLATION: THE PIPE SECTION FOR THE HDD CROSSING TO BE MADE UP WITHIN THE TEMPORARY USE AREA SHOWN.
4. CLEAN UP / SUBSTITUTION / RESTORATION: ALL DISTURBED AREAS TO BE RETURNED TO APPROXIMATE ORIGINAL CONTOURS.
5. GOLDEN FIELD SERVICES MAKES NO WARRANTY (EXPRESS, IMPLIED OR OTHERWISE) THAT THE INFORMATION CONTAINED HEREIN IS ACCURATE, COMPLETE, OR CURRENT. CONTRACTOR SHALL VERIFY SURFACE CONDITIONS AND INFORMATION CONTAINED HEREIN AS TO SUCH CONDITIONS IS DONE SO AT ITS OWN RISK. CONTRACTOR SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN THE STATE "ONE CALL" SYSTEM PRIOR TO ANY EXCAVATION.

METHOD OF INSTALLATION: HORIZONTAL DIRECTIONAL DRILL  
 PERMIT REQUIREMENTS: MCKENZIE COUNTY  
 OUTSIDE DIAMETER: 8.622'  
 PIPE MATERIAL: ERW-60  
 WALL THICKNESS: 0.219"  
 MINIMUM BURIED DEPTH: 5 FT & 30-40 MILS ARO  
 MOP: 1440 P.S.I.G.

DRILL PIPE REQUIRED: 168 LF  
 BASIS OF BEARING - UTM 13 NORTH, MGD 83, U.S. SURVEY FEET.



SCALE: HORIZONTAL: 1" = 50'  
 VERTICAL: 1" = 50'

NOTE: STATIONING SHOWN MAY BE DIFFERENT FROM ACTUAL STATIONING AT CONSTRUCTION.

REV.	DATE	DESCRIPTION	GFS	SIGNATURE	DATE	Prepared For:
			DRAWN	MM	05/22/15	ONEOK BAKKEN PIPELINE A SUBSIDIARY OF ONEOK PARTNERS
			CHECKED	ON	05/22/15	
			APPROV.			
			SCALE			
			DWG. NAME			

LOT 3, NE 1/4 SW 1/4 & SE 1/4 OF SEC. 31, T150N, R100W

LOT 3, NE 1/4 SW 1/4 & SE 1/4 OF SEC. 31, T150N, R100W

NE 1/4 SE 1/4 OF SEC. 36, T150N, R101W

PROPERTY LINE

PROPOSED CHERRY CREEK TO LONESOME CREEK (16" PIPELINE)

LONESOME CREEK (16" PIPELINE)

PROPOSED LONESOME CREEK (8" PIPELINE)

50' PERMANENT EASEMENT

50' TEMPORARY WORK SPACE

25'

STA. 70+07 BEGIN BORE ELEV. 2452.15'

STA. 11+75 END BORE ELEV. 2442.75'

138TH AVE NW

11+91 U/G TELEPHONE

11+07 BEGIN BORE

11+24 B/M FENCE (3 MBS)

11+24 EXTER BROWNKWENT OULTRANN

11+24 TOE OF SLOPE

11+24 EDGE OF ROAD

10+87 C/O 138TH AVE NW

10+88 PROPERTY LINE

10+72 EXTER BROWNKWENT OULTRANN

10+51 B/M FENCE (3 MBS)

10+51 TOE OF SLOPE

10+51 EDGE OF ROAD

10+40 EXTER BROWNKWENT OULTRANN

10+40 BEGIN BORE

STA. 10+07 BEGIN BORE ELEV. 2452.15'

STA. 9+84 BORE ENTRY RADIUS = 800'

14.4'

10'

10' MIN. COV.

BORE LENGTH = 168'

STA. 10+87 END BORE ELEV. 2454.74'

STA. 12+13 BORE EXIT

6'

STA. 11+75 END BORE ELEV. 2442.75'

2480'

2460'

2440'

2420'

2400'

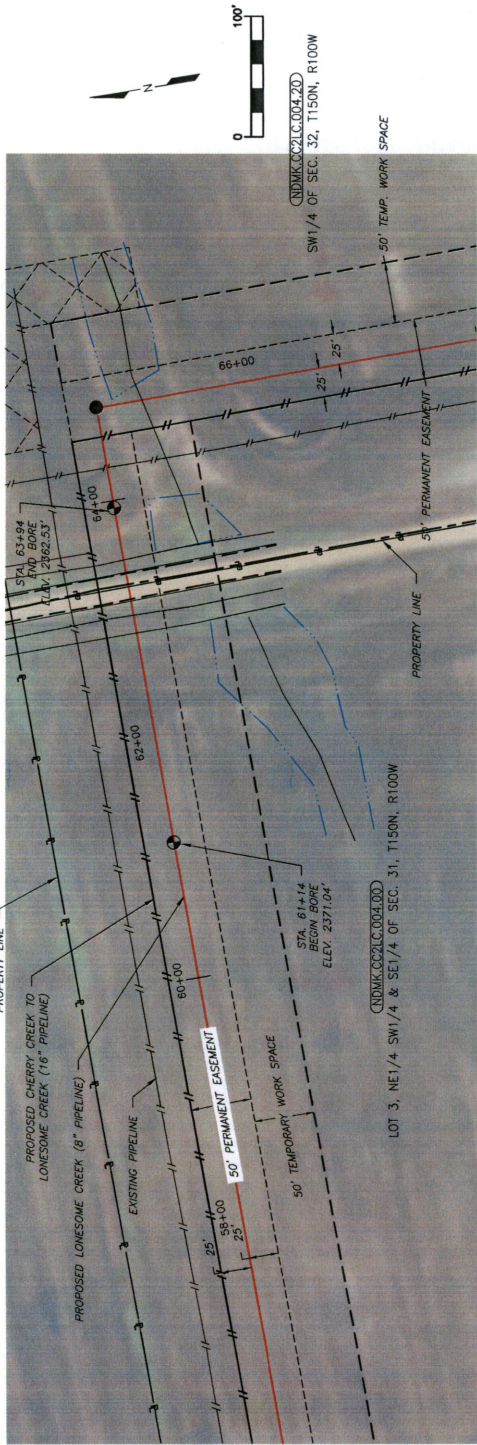
6+00

8+00

10+00

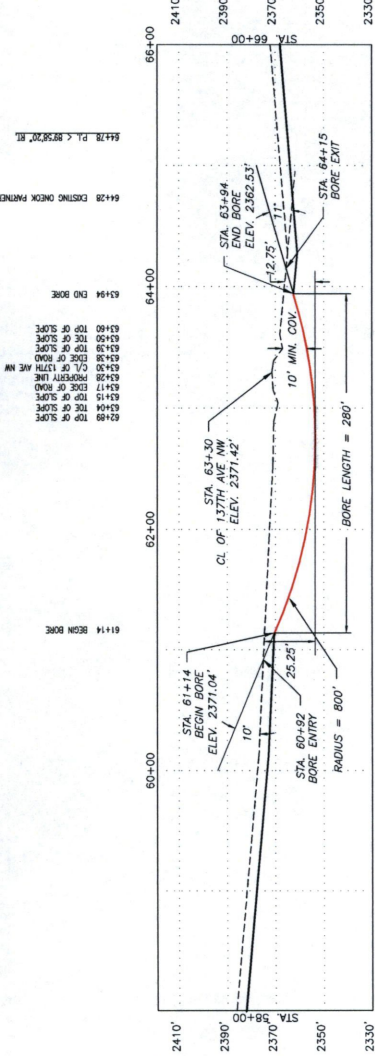
12+00

14+00



- NOTES:
1. SPILL PREVENTION: CONTRACTOR WILL MAINTAIN AN EMERGENCY SPILL KIT IN PROXIMITY TO THE CONSTRUCTION AREA.
  2. EROSION AND SEDIMENT CONTROL: CONTRACTOR WILL SUPPLY AND INSTALL SEDIMENT CONTROL STRUCTURES OF STRAW BALES AND/OR SILT FENCES ALONG DOWN GRADIENT SIDES OF WORK AREAS AND STAGING AREAS. HDD PIT SHORING (IF REQUIRED) PER OSHA REGULATIONS. CONTRACTORS SHALL COMPLY WITH STORM MANAGEMENT PLAN.
  3. INSTALLATION: THE PIPE SECTION FOR THE HDD CROSSING TO BE MADE UP WITHIN THE TEMPORARY USE AREA SHOWN.
  4. CLEAN-UP/ STABILIZATION/ RESTORATION: ALL DISTURBED AREAS TO BE RETURNED TO APPROXIMATE ORIGINAL CONTOURS.
  5. GROUND FIELD SERVICES MAKES NO WARRANTY (EXPRESS, IMPLIED OR OTHERWISE) THAT THE INFORMATION CONTAINED HEREIN IS ACCURATE OR COMPLETE AS TO ANY AND ALL SUBSURFACE CONDITIONS AND CONFORMATION. ANY RELIANCE CONTRACTORS PLACE ON THIS INFORMATION IS SOLELY AT THEIR OWN RISK AND EXPENSE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE STATE "ONE CALL" SYSTEM PRIOR TO ANY EXCAVATION.

METHOD OF INSTALLATION: HORIZONTAL DIRECTIONAL DRILL PERMIT REQUIREMENTS: MCKENZIE COUNTY  
 OUTSIDE DIAMETER: 8.625"  
 WALL THICKNESS: 0.219"  
 COATING: 14-16 MILS FBE & 30-40 MILS ARO  
 MOP: 1440 P.S.I.G.  
 DRILL PIPE REQUIRED: 280 LF  
 BASIS OF BEARING - UTM 13 NORTH, MAD 83, U.S. SURVEY FEET.



NOTE: STATIONING SHOWN MAY BE DIFFERENT FROM ACTUAL STATIONING AT CONSTRUCTION.

REV.	DATE	REVISIONS DESCRIPTION

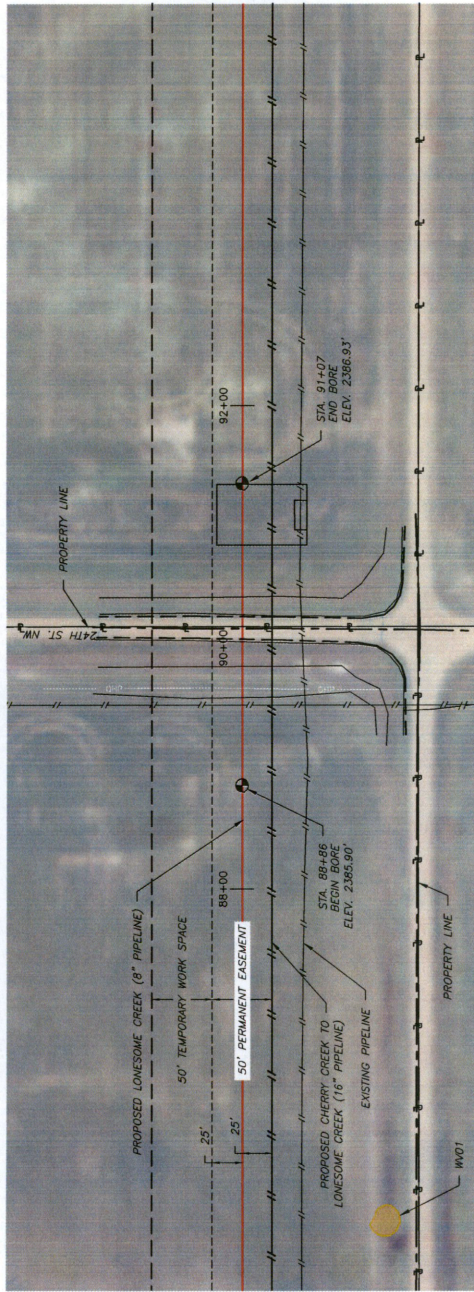
REV.	DATE	REVISIONS DESCRIPTION

DATE	SIGNATURE	DATE	SIGNATURE
05/22/15	BB	05/22/15	
05/22/15		05/22/15	

ONEOK  
 BAKKEN PIPELINE  
 A SUBSIDIARY OF ONEOK PARTNERS

BORE PROFILE OF 137TH AVE NW  
 STA. 61+14 TO STA. 63+94  
 MCKENZIE COUNTY, NORTH DAKOTA

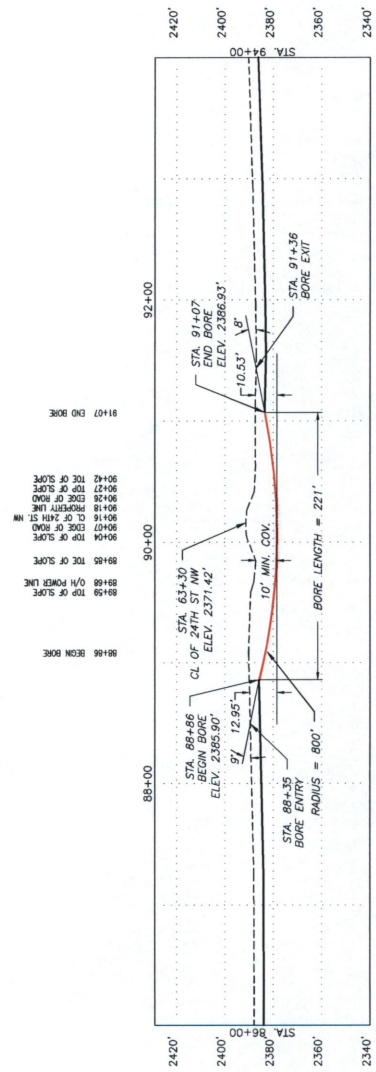
SCALE  
 HORIZONTAL: 1" = 100'  
 VERTICAL: 1" = 50'



- NOTES:
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  2. EROSION AND SEDIMENT CONTROL: CONTRACTOR WILL SUPPLY AND INSTALL SEDIMENT CONTROL STRUCTURES OF STRAW BALES AND/OR SILT FENCES ALONG DOWN GRADIENT SIDES OF WORK PER APPROPRIATE DISTANCE AND PER LOCAL AND FEDERAL REGULATIONS AND OSHA STANDARDS. CONTRACTORS SHALL COMPLY WITH STORM MANAGEMENT PLAN.
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METHOD OF INSTALLATION: HORIZONTAL DIRECTIONAL DRILL  
 PIPE MATERIAL: 16\"/>

DRILL PIPE REQUIRED: 221 LF  
 BASIS OF BEARING - UTM 13 NORTH, NAD 83, U.S. SURVEY FEET.

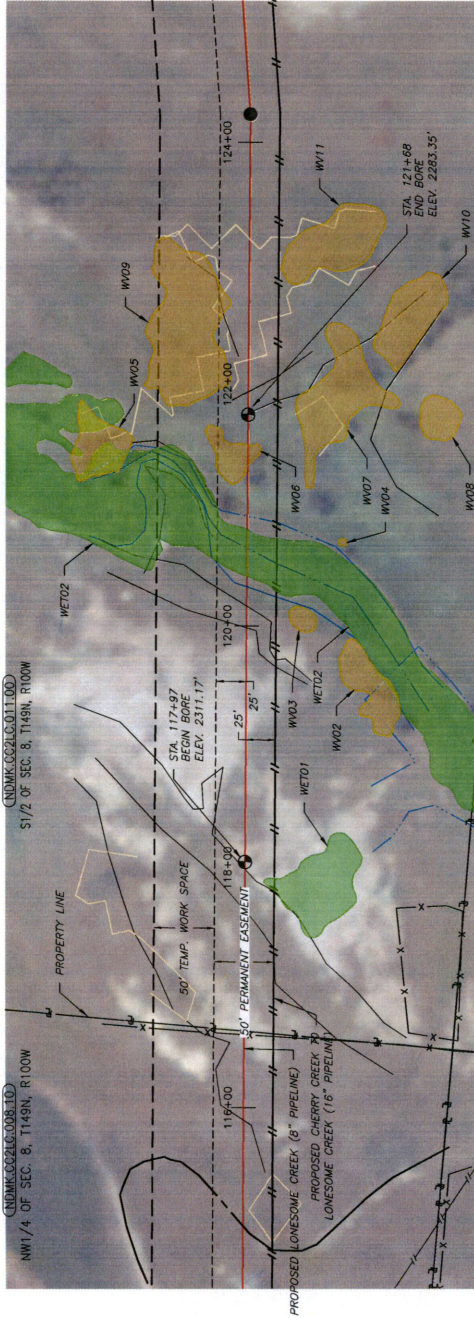


NOTE: STATIONING SHOWN MAY BE DIFFERENT FROM ACTUAL STATIONING AT CONSTRUCTION.

REV.		DATE	GFS		SIGNATURE		DATE	Prepared for
DESCRIPTION	CHECKED	APPROD.	SCALE	DWG. NAME	BB	CN	05/25/15	ONEOK BAKKEN PIPELINE A SUBSIDIARY OF ONEOK PARTNERS

SCALE  
 HORIZONTAL: 1" = 100'  
 VERTICAL: 1" = 50'

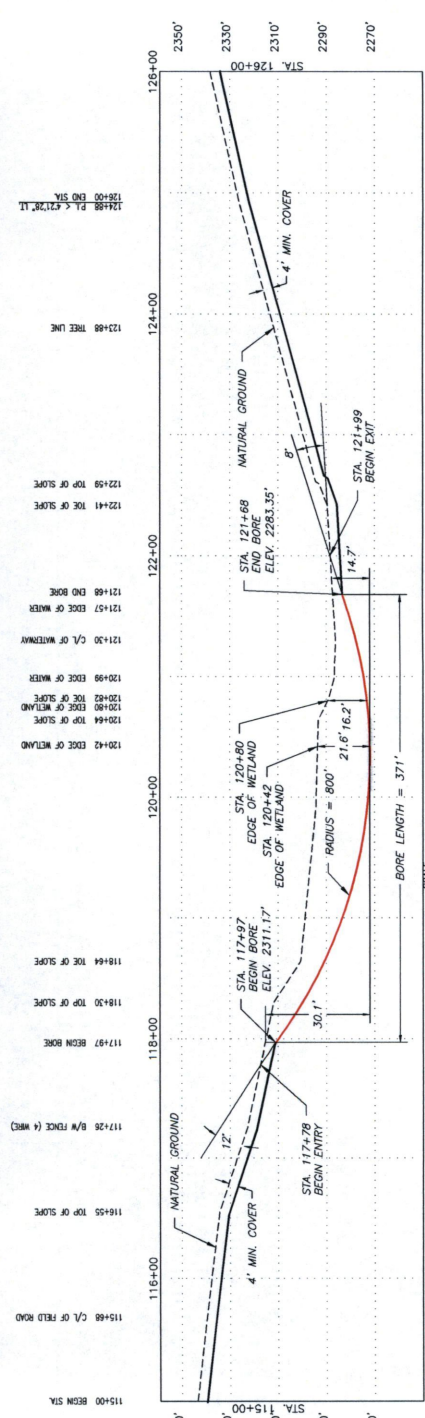
BORE PROFILE OF 24TH ST NW  
 STA. 88+86 TO STA. 91+07  
 MCKENZIE COUNTY, NORTH DAKOTA



- NOTES:
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  4. CLEAN-UP/ STABILIZATION/ RESTORATION: ALL DISTURBED AREAS.
  5. GOLDEN FIELD SERVICES MAKES NO WARRANTY (EXPRESS, IMPLIED OR OTHERWISE) AS TO THE ACCURACY OF THE INFORMATION HEREIN IS ACCURATE OR COMPLETE AS TO ANY AND ALL SUBSURFACE CONDITIONS AND CONFORMATION, ANY RELIANCE CONTRACTOR PLACES ON THE INFORMATION CONTAINED HEREIN IS AT HIS OWN RISK AND EXPENSE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE STATE "ONE CALL" SYSTEM PRIOR TO ANY EXCAVATION.

METHOD OF INSTALLATION: HORIZONTAL DIRECTIONAL DRILL PERMIT REQUIREMENTS: MCKENZIE COUNTY  
 HOLE SIZE: 16" DIA.  
 WALL THICKNESS: 0.210"  
 COATING: 14-16 MILS FBE & 30-40 MILS ARO  
 MOP: 1440 P.S.I.G.  
 DRILL PIPE REQUIRED: 371 LF

BASIS OF BEARING - UTM 13 NORTH, NAD 83, U.S. SURVEY FEET.



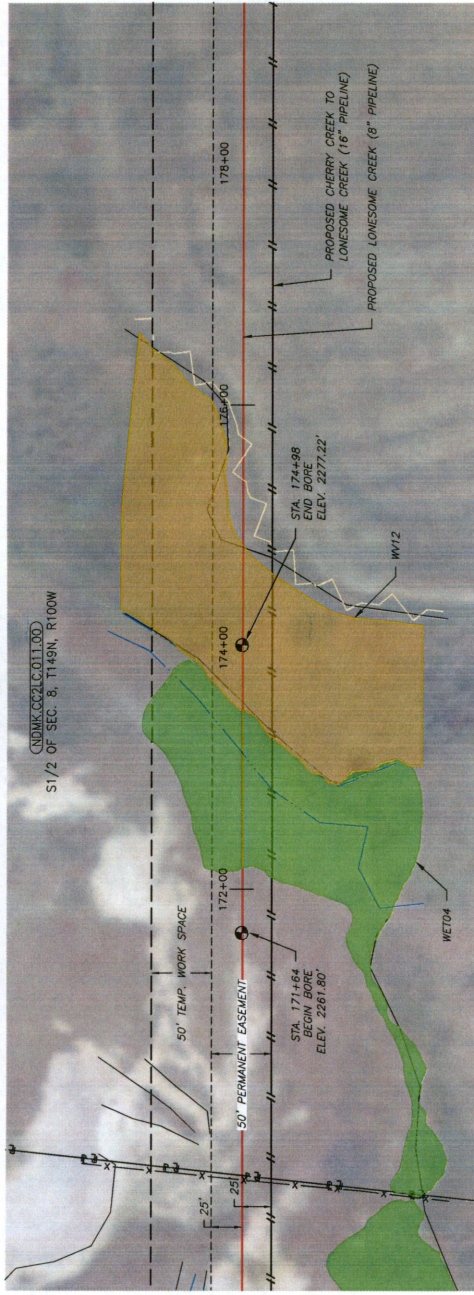
NOTE: STATIONING SHOWN MAY BE DIFFERENT FROM ACTUAL STATIONING AT CONSTRUCTION.

REV.	DATE	REVISIONS DESCRIPTION

DATE	SIGNATURE	GF'S
05/28/15	BP	CHECKED
05/28/15	CR	APPROV.
		SCALE
		DWG. NAME

ONEOK  
 BAKKEN PIPELINE  
 A SUBSIDIARY OF ONEOK PARTNERS

BORE PROFILE OF WETLAND (WET02 & WET01)  
 STA. 117+97 TO STA. 121+68  
 MCKENZIE COUNTY, NORTH DAKOTA

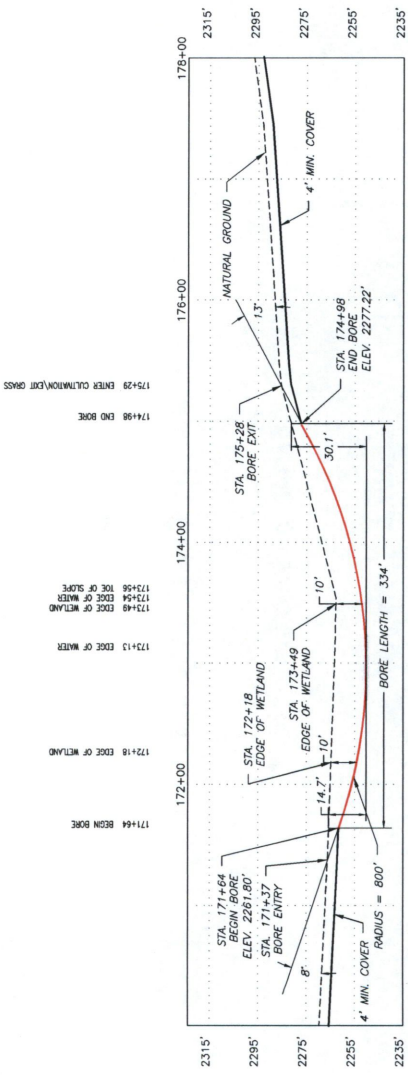


NOTES:

1. SPILL PREVENTION CONTRACTOR WILL MAINTAIN AN EMERGENCY SPILL KIT IN PROXIMITY TO THE CONSTRUCTION AREA.
2. EROSION AND SEDIMENT CONTROL CONTRACTOR WILL SUPPLY AND INSTALL SEDIMENT CONTROL STRUCTURES OF STRAW BALES OR SODS TO PREVENT EROSION AND SEDIMENT FROM WETLAND AREAS AND STAGING AREAS. DO NOT REMOVE OR DESTROY ANY OSHA STANDARDS. CONTRACTORS SHALL COMPLY WITH STORM MANAGEMENT PLAN.
3. INSTALLATION: THE PIPE SECTION FOR THE HDD CROSSING TO BE MADE UP WITHIN THE TEMPORARY USE AREA SHOWN.
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METHOD OF INSTALLATION: HORIZONTAL DIRECTIONAL DRILL  
 PERMIT REQUIREMENTS: MCKENZIE COUNTY  
 OUTSIDE DIAMETER: 8.625"  
 PIPE MATERIAL: ERW-60  
 WALL THICKNESS: 0.219"  
 OPERATING PRESSURE: 15.5 FBE & 30-40 MILS ARO  
 MOP: 1440 P.S.I.G.

DRILL PIPE REQUIRED: 334 LF  
 BASIS OF BEARING - UTM 13 NORTH, IAD 83, U.S. SURVEY FEET.

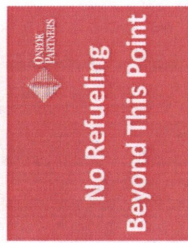
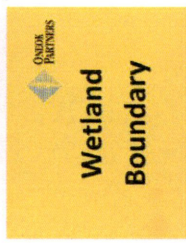
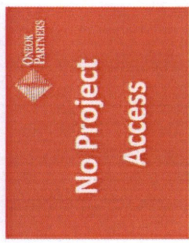
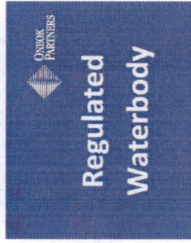











NOTE: STATIONING SHOWN MAY BE DIFFERENT FROM ACTUAL STATIONING AT CONSTRUCTION.

REVISIONS		DATE		SIGNATURE		DATE		PREPARED FOR	
REV.	DATE	DESCRIPTION	GFSS	DRAWN	CHECKED	APP'D.	SCALE	DIVS. NAME	

SCALE		HORIZONTAL: 1" = 100'		VERTICAL: 1" = 50'	
REFERENCE DRAWINGS		ONEOK		BAKKEN PIPELINE	
BORE PROFILE OF WETLAND (WET04)		STA. 171+64 TO STA. 174+98		MCKENZIE COUNTY, NORTH DAKOTA	
A SUBSIDIARY OF ONEOK PARTNERS					



FLUORESCENT FLAGGING AND PAINT COLORS	FEATURES
	ROW - RIGHT OF WAY
	TWS - TEMPORARY WORKSPACE
	ATWS - ADDITIONAL TEMPORARY WORKSPACE
	CENTERLINE
	PI STAKES (DOUBLE LATH)
	BORE ENTRY & EXIT LOCATIONS
	FOREIGN LINES AND UTILITIES ***Lath marked "Approximate"***
	WATERWAYS/WETLANDS
	ENVIRONMENTALLY SENSITIVE AREAS & OTHER RESOURCE SITES - (DO NOT ENTER)

# Field Data

# Loneson Creek NGL Pipeline

Date <u>9-10-15</u>	Day <u>Thursday</u>
Hours Worked _____	
Working Days Charged _____	Total Working Days to Date _____
Reasons for Time not Charged _____	

## Weather

Sunny

## Engineering Staff

Josh Kadomas

## Work in Progress

0730 Arrive on site

0900 Finished safety training and office review of project status. Moving to tour alignment

1130 Finished alignment tour. Most of 18" Cherry Creek line is welded. Portions of 8" NGL line which will be bored have also been strung and welded. SE portion through Section 7 now runs through Section 8.

1200 Visit with Tim Swan, ONEOK. The alignment was revised during the application E3 should have the correct alignment.

1205 Leave Site. Curt will send pre construction pictures of treed areas.


## Contractor's Labor Force

Curt Kamman

Dennis Anderson

Tim Swan

## Contractor's Equipment Summary




**Pr**

**Tim Swan**  
Construction Coordinator

2700 Lincoln Ave. SE, Sidney, MT 59270  
Cell 870-940-9415  
timothy.swan@oneok.com, www.oneok.com

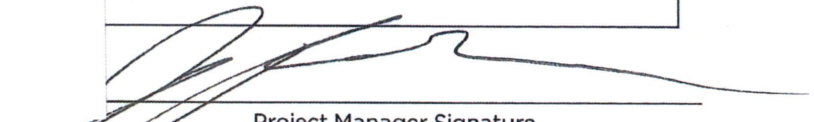
**Dennis Anderson**  
Safety Inspector  
706-867-5047  
deacsa1223@gmail.com

P. O. Box 3059  
Watford City, ND 58854



Safety is every ones responsibility.

55179

  
Project Manager Signature

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