RIGHT-OF-WAY HORIZONTAL REPRESENTATION (2D)

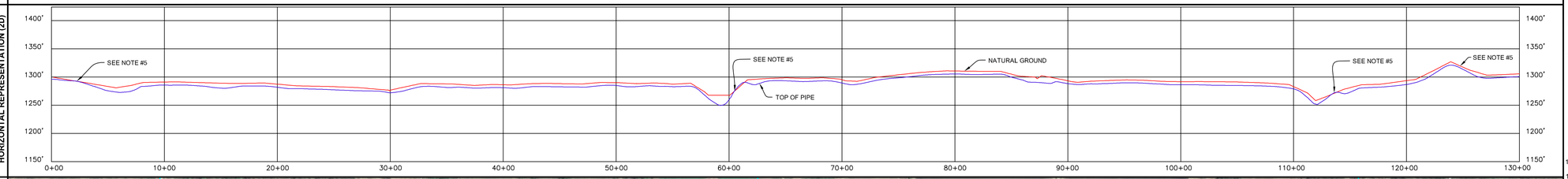
TRACT NUMBER
OWNERSHIP/AGENCY
LENGTH
APPLICABLE DWG. NO.

0+00 | PS-ND-WL-0095.0000 | 2+65 | ML-ND-WL-0095.0000 | RD-ND-WL-0095.0000 COUNTY ROAD 7 (76TH STREET NE) | 7+53 | ML-ND-WL-0096.0000 | 21+26 | ML-ND-WL-0097.0000 | 34+45 | ML-ND-WL-0098.0000 | RD-ND-WL-0098.0000 75TH ST STREET NE | 61+14 | ML-ND-WL-0099.0000 | RD-ND-WL-0099.0000 COUNTY ROAD 9 | 87+67 | ML-ND-WL-0100.0001 | 114+92 | ML-ND-WL-0100.0002 | 127+73 | ML-ND-WL-0100.0003 | 130+00

LAND USE

PIPELINE PROFILE

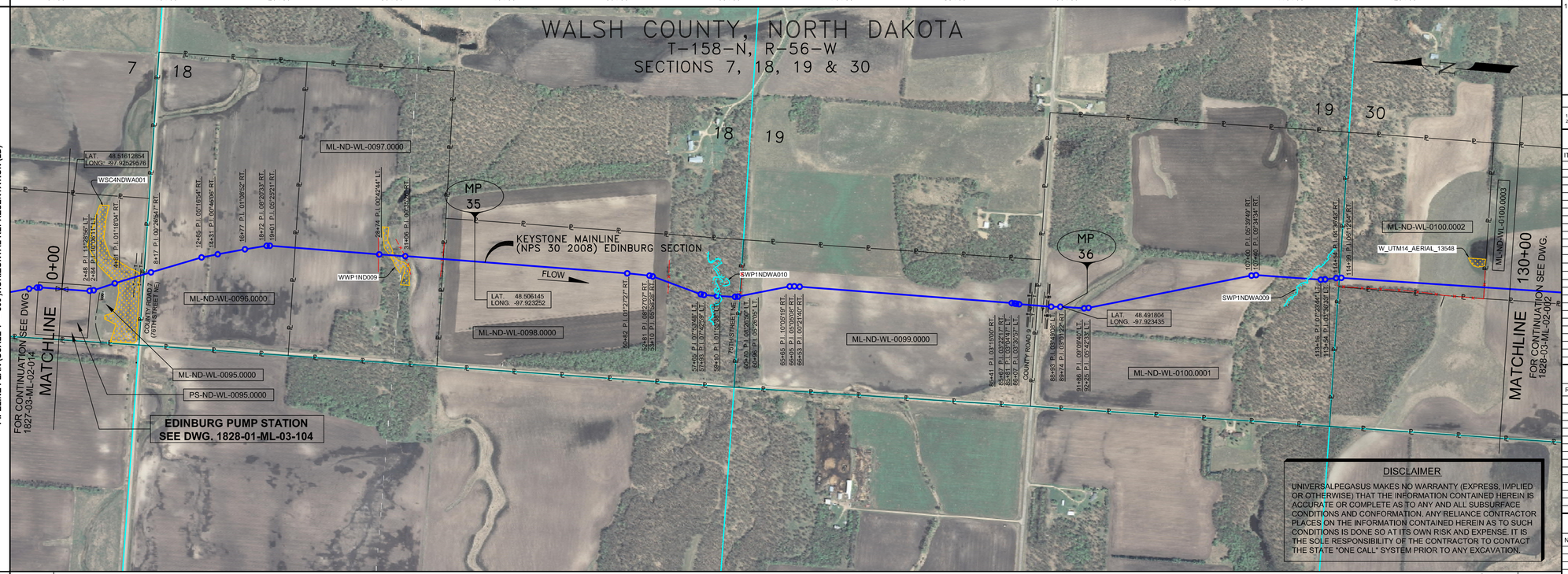
HORIZ. 1"=500' VER. 1"=100'
HORIZONTAL REPRESENTATION (2D)



LEGEND

- KEYSTONE PIPELINE
- STATE BOUNDARY
- COUNTY/TOWNSHIP
- SECTIONS
- NATIONAL OR STATE RESERVATION BOUNDARY
- PROPERTY LINE
- FENCE
- EXCLUSIONARY FENCE
- POWER LINE
- TELEPHONE LINE
- BURIED CABLE
- WATER LINE
- SANITARY SEWER LINE
- STORM SEWER / DRAIN
- FOREIGN PIPELINE
- RAILROAD
- HIGHWAY / ROAD
- STREAM / DITCH
- WETLAND
- INTERSTATE ROUTE
- U.S. ROUTE
- STATE ROUTE
- POINT OF INTERSECTION (PI)
- PIPELINE MILEPOST
- DIRECTION OF FLOW
- HOUSE
- BUILDING
- WATER WELL
- MAINLINE VALVE
- ML-XX-XX-0000.0000 TRACT NUMBER

PIPELINE PLAN (SCALE 1" = 500')HORIZONTAL REPRESENTATION (2D)



DISCLAIMER

UNIVERSALPEGASUS 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 CONTRACTOR PLACES ON THE INFORMATION CONTAINED HEREIN AS TO SUCH CONDITIONS IS DONE SO AT ITS OWN RISK AND EXPENSE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE STATE "ONE CALL" SYSTEM PRIOR TO ANY EXCAVATION.

PIPELINE SCHEMATIC

- HEAVYWALL PIPE
- WELD FITTING
- TRANSITION PIECE
- CASING PIPE
- CONCRETE COATING
- SET-ON WEIGHTS
- PIPELINE WARNING SIGN
- PIPELINE MARKER
- MATERIAL ITEM
- GROUNDING MAT
- ZINC RIBBON
- AERIAL MARKER
- CATHODIC TEST STATION
- MAINLINE VALVE
- CHECK VALVE
- O.C. OPEN CUT
- BR. BORE
- D DRINKING WATER USA
- E ECOLOGICAL USA
- H HIGHLY POPULATED AREA
- K OPERATOR (KEYSTONE) DEFINED
- O OTHER POPULATED AREA
- S SOURCE WATER PROTECTION AREA
- W WELLHEAD PROTECTION AREA

HORIZONTAL STATIONS (2D)

0+00 CENTERLINE OF MLV EDINBURG MLV-02-002 | 2+48 P.I. 11°29'56" LT. | 2+65 PUMP STATION PROPERTY LINE | 2+86 P.I. 10°06'11" LT. | 4+85 P.I. 01°18'04" RT. | 5+18 BEGIN SLOUGH | 6+21 END SLOUGH | 6+18 BEGIN SLOUGH | 6+48 TELEPHONE LINE | 6+71 TELEPHONE LINE | 7+39 EDGE OF ROAD 7+53 COUNTY ROAD 7 (76TH STREET NE) | 7+63 EDGE OF ROAD | 8+17 P.I. 00°26'54" RT. | 12+85 P.I. 05°16'54" RT. | 14+31 P.I. 00°46'00" RT. | 16+77 P.I. 01°08'52" RT. | 18+72 P.I. 05°20'53" RT. | 19+91 P.I. 05°25'21" RT. | 28+65 FENCE (BARBED WIRE) | 29+74 P.I. 00°42'44" LT. | 29+80 BEGIN SLOUGH | 29+95 CL SLOUGH | 30+13 END SLOUGH | 30+58 BEGIN SLOUGH | 31+06 P.I. 05°32'28" RT. | 34+40 FENCE (BARBED WIRE) | 50+82 P.I. 01°27'27" RT. | 52+81 P.I. 08°27'07" RT. | 53+10 P.I. 05°58'28" RT. | 54+61 FENCE (BARBED WIRE) | 57+65 P.I. 07°53'48" LT. | 57+80 EDGE OF ROAD SHIELD | 58+10 P.I. 01°15'38" LT. | 58+19 P.I. 01°15'38" LT. | 58+30 CL CREEK | 58+40 END SLOUGH | 58+69 END ROCK SHIELD | 59+10 P.I. 05°20'05" LT. | 60+70 P.I. 08°28'59" LT. | 60+96 P.I. 05°20'05" LT. | 61+04 EDGE OF ROAD | 61+14 FENCE (BARBED WIRE) | 61+17 FENCE (BARBED WIRE) | 61+24 EDGE OF ROAD | 65+65 P.I. 10°05'19" RT. | 66+05 P.I. 05°20'08" RT. | 66+53 P.I. 00°21'49" RT. | 70+30 BEGIN SLOUGH | 71+00 END SLOUGH | 71+30 BEGIN SLOUGH | 71+50 END SLOUGH | 85+41 P.I. 03°15'00" RT. | 85+47 P.I. 03°15'00" RT. | 85+61 P.I. 03°32'47" LT. | 86+07 P.I. 03°35'57" LT. | 86+37 P.I. 03°35'57" LT. | 87+00 TELEPHONE LINE | 87+16 OVERHEAD | 87+27 ROAD BAR DITCH | 87+39 TELEPHONE LINE | 87+54 EDGE OF ROAD | 87+61 EDGE OF ROAD 9 | 87+81 EDGE OF ROAD | 88+11 ROAD BAR DITCH | 88+18 OVERHEAD | 88+50 TELEPHONE LINE | 88+64 WATER SUPPLY LINE | 88+71 FIBER OPTIC CABLE | 88+93 P.I. 03°40'09" LT. | 89+74 P.I. 03°01'22" RT. | 90+27 BEGIN SLOUGH | 90+88 CL SLOUGH | 91+06 END SLOUGH | 91+86 P.I. 09°09'40" LT. | 92+25 P.I. 05°42'39" LT. | 102+00 P.I. 05°39'49" RT. | 107+40 P.I. 09°34'34" RT. | 109+27 FENCE (ELECTRIC) | 111+32 BEGIN ROCK SHIELD | 111+35 END ROCK SHIELD | 111+95 CL CREEK | 112+21 BEGIN ROCK SHIELD | 112+48 END ROCK SHIELD | 113+54 P.I. 07°22'44" LT. | 113+76 P.I. 03°36'33" LT. | 114+54 P.I. 04°36'43" RT. | 114+99 P.I. 06°12'04" RT. | 127+73 FENCE (BARBED WIRE) | MATCHLINE 130+00

SLOPE STATIONS (3D)

0+00 CENTERLINE OF MLV EDINBURG MLV-02-002 | 2+48 P.I. 11°29'56" LT. | 2+65 PUMP STATION PROPERTY LINE | 2+86 P.I. 10°06'11" LT. | 4+85 P.I. 01°18'04" RT. | 5+18 BEGIN SLOUGH | 6+21 END SLOUGH | 6+18 BEGIN SLOUGH | 6+48 TELEPHONE LINE | 6+73 TELEPHONE LINE 7+00 CL CREEK (ABOVE) 7+15 10.0' CVR. | 7+39 EDGE OF ROAD 7+53 COUNTY ROAD 7 (76TH STREET NE) | 7+66 EDGE OF ROAD | 8+20 P.I. 00°26'54" RT. | 11+06 5.8' CVR. | 12+88 P.I. 05°16'54" RT. | 14+34 P.I. 00°46'00" RT. | 16+17 6.7' CVR. | 16+80 P.I. 01°08'52" RT. | 18+16 P.I. 05°20'53" RT. | 19+04 P.I. 05°25'21" RT. | 28+69 FENCE (BARBED WIRE) | 29+74 P.I. 00°42'44" LT. | 29+80 BEGIN SLOUGH | 29+90 4.9' CVR. | 29+95 CL SLOUGH | 30+06 END SLOUGH | 30+58 BEGIN SLOUGH | 31+06 P.I. 05°32'28" RT. | 34+44 FENCE (BARBED WIRE) | 35+55 6.2' CVR. | 37+31 M.P. 35 | 37+63 6.7' CVR. | 42+31 5.8' CVR. | 50+88 P.I. 01°27'27" RT. | 52+87 P.I. 08°27'07" RT. | 53+16 P.I. 05°58'28" RT. | 54+67 FENCE (BARBED WIRE) | 57+72 P.I. 07°53'48" LT. | 58+00 P.I. 07°53'48" LT. | 58+10 P.I. 01°15'38" LT. | 58+19 P.I. 01°15'38" LT. | 58+30 CL CREEK | 58+40 END SLOUGH | 58+69 END ROCK SHIELD | 59+10 P.I. 05°20'05" LT. | 60+65 P.I. 08°28'59" LT. | 60+96 P.I. 05°20'05" LT. | 61+11 P.I. 05°20'05" LT. | 61+19 EDGE OF ROAD | 61+24 FENCE (BARBED WIRE) | 61+32 FENCE (BARBED WIRE) | 61+39 EDGE OF ROAD | 65+80 P.I. 10°05'19" RT. | 66+21 P.I. 05°20'08" RT. | 66+69 P.I. 00°21'49" RT. | 70+47 BEGIN SLOUGH | 71+00 END SLOUGH | 71+48 BEGIN SLOUGH | 71+70 END SLOUGH | 74+71 5.1' CVR. | 85+59 P.I. 03°15'00" RT. | 85+69 P.I. 03°15'00" RT. | 85+99 P.I. 03°32'47" LT. | 86+24 P.I. 03°35'57" LT. | 86+48 P.I. 03°35'57" LT. | 87+17 TELEPHONE LINE 7.9' CL CREEK (ABOVE) | 87+31 OVERHEAD | 87+33 ROAD BAR DITCH HT = 25' 8.9' CL CREEK (ABOVE) | 87+45 ROAD BAR DITCH | 87+55 TELEPHONE LINE | 87+72 EDGE OF ROAD | 87+78 EDGE OF ROAD 9 | 87+99 EDGE OF ROAD | 88+29 ROAD BAR DITCH | 88+35 OVERHEAD | 88+51 ROAD BAR DITCH HT = 25' 88+68 TELEPHONE LINE 7.7' CL CREEK | 88+82 WATER SUPPLY LINE 8.1' CL CREEK | 88+89 FIBER OPTIC CABLE CL CREEK | 89+11 P.I. 03°40'09" LT. | 89+22 P.I. 03°01'22" RT. | 90+41 M.P. 36 | 90+45 BEGIN SLOUGH | 91+06 CL SLOUGH | 91+44 END SLOUGH | 92+04 P.I. 09°09'40" LT. | 92+43 P.I. 05°42'39" LT. | 102+19 P.I. 05°39'49" RT. | 107+59 P.I. 09°34'34" RT. | 109+47 FENCE (ELECTRIC) | 111+40 7.8' CVR. | 111+53 BEGIN ROCK SHIELD | 111+95 CL CREEK | 112+21 BEGIN ROCK SHIELD | 112+48 END ROCK SHIELD | 113+76 P.I. 03°36'33" LT. | 114+66 P.I. 04°36'43" RT. | 114+78 P.I. 04°36'43" RT. | 115+23 P.I. 06°12'04" RT. | 125+81 4.6' CVR. | 128+01 FENCE (BARBED WIRE) | MATCHLINE 130+28

PIPELINE DATA

PIPE SLOPE REPRESENTATION (3D)

0+00 FOR PUMP STATION ASSEMBLY MATERIAL SEE DWG. 1828-01-ML-03-104 | 604 270' | 2+70 ② 444' FBE | 5+13 6+22 | 7+15 ③ 80' FBE & ARO BR. | 7+55 | 7+41 EDGE OF ROAD 7+50 COUNTY ROAD 7 (76TH STREET NE) 7+66 EDGE OF ROAD | 8+20 | 11+13-37 13+58 | 29+68 | 30+58 | 34+43 34+48 | 53 | ② 5,303' FBE | 60+98 | 61+76 | ② 2,513' FBE | 86+91 | ③ 160' FBE & ARO BR. | 89+51 | ② 2,615' FBE | 90+41 91+44 | 109+40 | 111+81 112+32 | 114+66 | ③ 80' FBE & ARO O.C. | 115+46 | ② 1,482' FBE | 130+28

CPS (3D)

TEST SECTIONS (3D)

TEST SECTION 1A-3
ILTO-019-2010

ENVIRONMENTAL MITIGATION/RECLAMATION STATIONS (2D)

- TOPSOIL SALVAGE METHOD
- STREAMS
- WETLANDS
- TIMING CONSTRAINTS
- STATIONS
- MONITORING
- RECLAMATION
- SPECIAL CONSIDERATIONS

GENERAL NOTES

1) ALL CHAINAGES ARE IN FEET UNLESS OTHERWISE SPECIFIED.

2) DATUM ELEVATION AND PROJECTION ARE BASED ON MEAN SEA LEVEL AND NAD 83.

3) FIELD PIPE LOCATING REQUIRED TO DETERMINE PLACEMENT OF PIPELINE WITHIN PERMANENT EASEMENT.

4) UNLESS OTHERWISE NOTED, 48 INCHES MINIMUM COVER EXCEPT 36 INCHES IN AREAS OF CONSOLIDATED ROCK.

5) NO ACTUAL AS-BUILT GROUND SHOTS WERE TAKEN AT THIS LOCATION. THE PROFILE REPRESENTS A PROJECTION FROM SHOTS TAKEN AT 150' TO 250' INTERVALS.

6) THE TYPE OF COATING APPLIED TO THE FIELD WELDS DURING THE ORIGINAL CONSTRUCTION WAS TWO COMPONENT LIQUID EPOXY. THE COATING PRODUCTS USED WERE DENSO 7200 OR SPC SP-2888.

7) THE SUBSTANTIAL CONSTRUCTION COMPLETION DATE, BASED ON CALIPER PIG RUN, WAS AUGUST 12, 2009 FOR M.P. 31.03 TO M.P. 66.93 AND AUGUST 16, 2009 FOR M.P. 66.90 TO M.P. 88.54.

8) ORIGINAL IN-SERVICE DATE OF THE KEYSTONE PIPELINE (PHASE 1): JUNE 30, 2010.

9) CPS CALCULATION DATE: MAY 2010.

10) ORION STATION SERIES NUMBER: 1182700.

11) TO DETERMINE THE MILE POST AT A GIVEN LOCATION, ADD THE 3D STATION NUMBER FROM THIS SEGMENT TO STATION NUMBER 1810+69 AND DIVIDE BY 5280.

OPERATING AND TEST PRESSURE

1. THE MAXIMUM OPERATING PRESSURE (MOP)IS 1440 PSIG.
2. THE MINIMUM TEST PRESSURE WAS 1801 PSIG.

BILL OF MATERIALS (3D)

ITEM NO.	DESCRIPTION	QUANTITY
2	30" O.D. X 0.386" W.T., API -5LX-70 W/FBE COATING	12,357'
3	30" O.D. X 0.516" W.T., API -5LX-70 W/FBE COATING & ABRASION RESISTANT OVERCOAT	400'
404	EDINBURG PUMP STATION ASSEMBLY (+270')	1 EA
	PIPELINE MARKERS	5 EA
	PIPELINE WARNING SIGNS	15 EA
	CATHODIC TEST STATION	2 EA
	AERIAL MARKER	1 EA

REFERENCE DRAWINGS

REF. NO.	DRAWING NO.	REV. NO.	DRAWING TITLE
404	1828-01-ML-03-104	06	EDINBURG PUMP STATION
	1828-01-ML-03-105	00	EDINBURG PUMP STATION
	1828-01-ML-03-106	00	EDINBURG PUMP STATION

REVISIONS

NO.	DATE	REV. BY	CHCK BY	APPRD BY	ENV. APPRD	DESCRIPTION
1	5/12/08	UEI	RDG	LAG	SEC	ISSUED FOR CONSTRUCTION
2	6/27/08	UEI	GTC	LAG	SEC	ADDED CROSSING DETAILS
3	10/11/22	UEI				ISSUED FOR AS-BUILT
						1828-03-ML-02-001 REPLACES COVERAGE OF IFC DRAWINGS 1828-03-ML-02-001, 1828-03-ML-02-002

ENGINEERING RECORDS

	INITIAL	DATE		INITIAL	DATE
DRAWN BY	UEI	10/01/04	ENV. APPRD.		
CHECKED BY			APPRD. BY		
			COMPANY APPROVED		

PROFESSIONAL ENGINEER

NAME	STATE	LIC#	REV#	DATE
LOYS A. GRAY, III	ND	PE5714		

SCALE: 0 125 250 500 Feet

TransCanada — In business to deliver

UNIVERSAL PEGASUS INTERNATIONAL

KEYSTONE MAINLINE (NPS 30 2008) EDINBURG SECTION

F/A#	SPREAD	DISCIPLINE
1828	1A	03

AS-BUILT ALIGNMENT

M.P. 34.29 TO M.P. 36.76

SHEET 1 OF 18 SHEETS

STA. 0+00 TO STA. 130+28 (3D)

DRAWING NO. 1828-03-ML-02-001 REV. 3

Z:\00_KEYSTONE_AS_BUILT\14-alignment sheets for North Dakota\ND1828_ASBUILT\ND1828-001.dwg, 3/9/2011 8:42:39 AM, pdfFactory.pc3