RIGHT-OF-WAY HORIZONTAL REPRESENTATION (2D)

TRACT NUMBER
OWNERSHIP/AGENCY

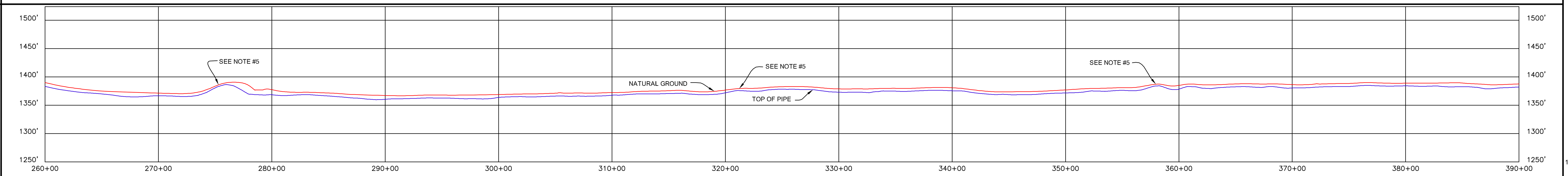
LENGTH
APPLICABLE DWG. NO.

Station	Tract / Crossing
260+00	ML-ND-RS-0384.0000
278+85	RD-ND-RS-0384.0000 COUNTY ROAD 135 (62ND STREET SE)
	ML-ND-RS-0385.0000
305+00	ML-ND-RS-0386.0000
332+07	RD-ND-RS-0386.0000 63RD STREET SE
	ML-ND-RS-0387.0000
358+55	ML-ND-RS-0388.0000
371+76	ML-ND-RS-0389.0000
385+34	RD-ND-RS-0389.0000 64TH STREET SE
	ML-ND-RS-0390.0000
390+00	

LAND USE

PIPELINE PROFILE

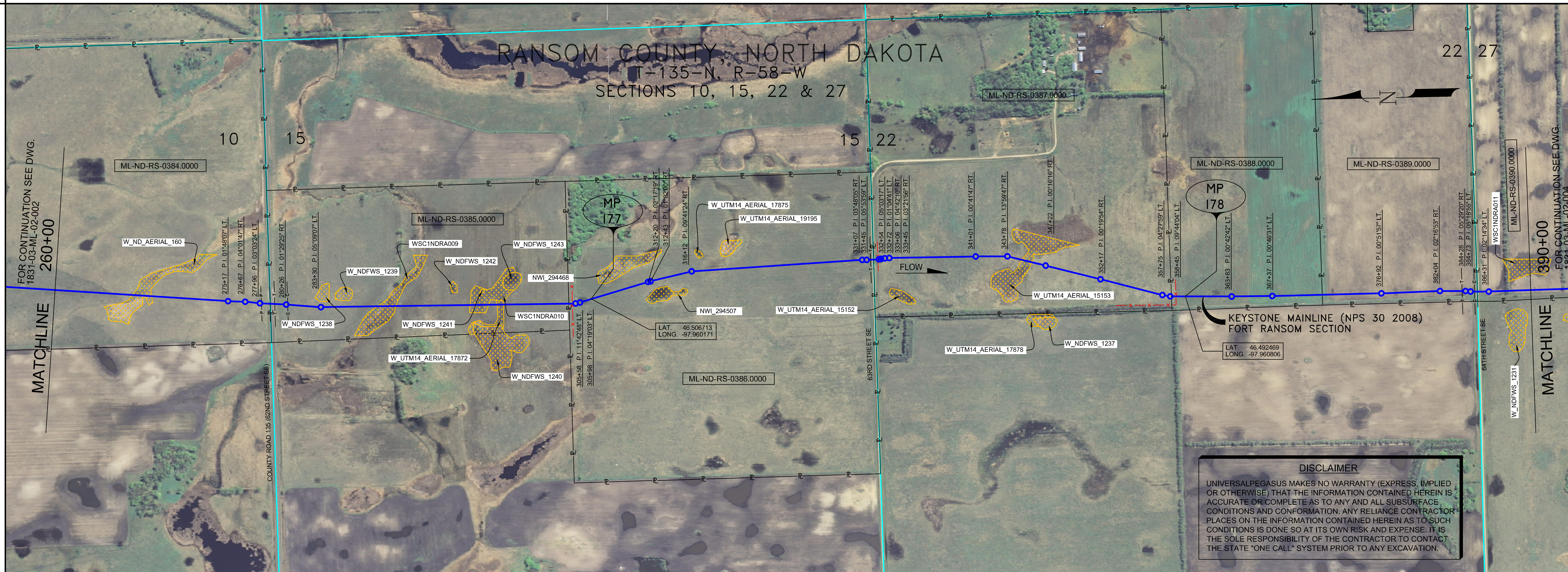
HORIZ: 1"=500' VER: 1"=100'
HORIZONTAL REPRESENTATION (2D)



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)
- MP 95 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)



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

STATION/DESCRIPTION — PIPELINE DATA

HORIZONTAL STATIONS (2D)

Station	Description
MATCHLINE 260+00	
266+36	BEGIN SLOUGH
267+39	CL SLOUGH
268+52	END SLOUGH
275+17	P.I. 01°48'07" LT.
276+67	P.I. 04°01'47" RT.
277+96	P.I. 03°03'24" LT.
278+09	OVERHEAD POWERLINE
278+70	EDGE OF ROAD
278+85	CL COUNTY ROAD 135 (62ND STREET SE)
279+00	EDGE OF ROAD
279+25	FIBER OPTIC CABLE
280+26	P.I. 01°29'25" RT.
280+39	TELEPHONE LINE
283+30	P.I. 05°09'07" LT.
288+21	BEGIN SLOUGH
288+99	CL SLOUGH
289+81	END SLOUGH
296+48	BEGIN SLOUGH
297+79	CL SLOUGH
299+30	END SLOUGH
305+31	FENCE (BARBED WIRE)
305+58	P.I. 11°42'48" LT.
305+98	P.I. 04°19'03" LT.
312+20	P.I. 02°17'19" RT.
312+43	P.I. 01°02'00" RT.
316+12	P.I. 09°41'24" RT.
331+07	P.I. 03°48'05" RT.
331+45	P.I. 05°53'59" LT.
331+80	TELEPHONE LINE
332+00	EDGE OF ROAD
332+07	CL 63RD STREET SE
332+16	EDGE OF ROAD
332+44	FENCE (BARBED WIRE)
332+54	P.I. 05°03'17" LT.
332+72	P.I. 01°04'41" LT.
333+06	P.I. 04°42'10" RT.
333+45	P.I. 03°21'56" RT.
341+01	P.I. 00°41'47" RT.
343+78	P.I. 13°59'47" RT.
345+01	BEGIN SLOUGH
345+43	CL SLOUGH
345+95	END SLOUGH
347+22	P.I. 00°16'16" RT.
352+17	P.I. 00°19'54" RT.
357+75	P.I. 04°27'59" LT.
358+45	P.I. 09°44'04" LT.
358+94	FENCE (BARBED WIRE)
363+83	P.I. 00°42'42" LT.
367+37	P.I. 00°46'31" LT.
376+92	P.I. 00°51'57" LT.
382+04	P.I. 02°16'53" RT.
383+98	TELEPHONE LINE
384+28	P.I. 05°29'20" RT.
384+73	P.I. 05°18'55" LT.
385+07	FIBER OPTIC CABLE
385+25	EDGE OF ROAD
385+34	CL 64TH STREET SE
385+43	EDGE OF ROAD
386+31	P.I. 02°14'34" LT.
MATCHLINE 390+00	

SLOPE STATIONS (3D)

Station	Description
MATCHLINE 260+34	
261+64	6.1' CVR.
266+72	BEGIN SLOUGH
267+75	CL SLOUGH
268+88	END SLOUGH
275+54	P.I. 01°48'07" LT.
277+04	P.I. 04°01'47" RT.
278+35	P.I. 03°03'24" LT.
278+47	OVERHEAD POWERLINE, HT. = 17'
	8.0' CVR.
278+89	EDGE OF ROAD
279+09	CL COUNTY ROAD 135 (62ND STREET SE)
279+24	EDGE OF ROAD
279+39	FIBER OPTIC CABLE
	10.0' CVR.
279+64	6.7' CLR. (ABOVE)
280+65	P.I. 01°29'25" RT.
280+77	TELEPHONE LINE
	7.5' CVR.
	5.2' CLR. (ABOVE)
283+69	P.I. 05°09'07" LT.
288+60	BEGIN SLOUGH
289+38	CL SLOUGH
290+20	END SLOUGH
292+64	5.0' CVR.
296+88	BEGIN SLOUGH
298+18	CL SLOUGH
299+70	END SLOUGH
305+02	5.1' CVR.
305+71	FENCE (BARBED WIRE)
305+98	P.I. 11°42'48" LT.
306+38	P.I. 04°19'03" LT.
307+44	M.P. 177
312+61	P.I. 02°17'19" RT.
312+84	P.I. 01°02'00" RT.
312+84	4.8' CVR.
316+54	P.I. 09°41'24" RT.
331+49	P.I. 03°48'05" RT.
331+88	P.I. 05°53'59" LT.
332+22	TELEPHONE LINE
	6.0' CVR.
	CLR. UNK.
332+42	EDGE OF ROAD
332+50	CL 63RD STREET SE
332+59	EDGE OF ROAD
332+86	FENCE (BARBED WIRE)
332+96	P.I. 05°03'17" LT.
333+15	P.I. 01°04'41" LT.
333+48	P.I. 04°42'10" RT.
333+87	P.I. 03°21'56" RT.
341+44	P.I. 00°41'47" RT.
344+21	P.I. 13°59'47" RT.
345+44	BEGIN SLOUGH
345+87	CL SLOUGH
346+38	END SLOUGH
347+66	P.I. 00°16'16" RT.
352+61	P.I. 00°19'54" RT.
358+19	P.I. 04°27'59" LT.
358+90	P.I. 09°44'04" LT.
359+39	FENCE (BARBED WIRE)
360+24	M.P. 178
363+81	5.3' CVR.
364+28	P.I. 00°42'42" LT.
366+79	5.3' CVR.
367+83	P.I. 00°46'31" LT.
377+39	P.I. 00°51'57" LT.
382+51	P.I. 02°16'53" RT.
	5.3' CVR.
384+45	TELEPHONE LINE
	6.6' CVR.
	4.0' CLR. (ABOVE)
384+75	P.I. 05°29'20" RT.
385+19	P.I. 05°18'55" LT.
385+54	FIBER OPTIC CABLE
	6.0' CVR.
	2.1' CLR. (ABOVE)
385+72	EDGE OF ROAD
385+80	CL 64TH STREET SE
385+89	EDGE OF ROAD
386+78	P.I. 02°14'34" LT.
MATCHLINE 390+47	

PIPE SLOPE REPRESENTATION (3D)

From	To	Item	Length	Description
260+34	277+70	(2)	1,736'	FBE
277+70	279+71	(3)	201'	FBE & ARO BR.
279+71	332+09	(2)	5,238'	FBE
332+09	332+89	(3)	80'	FBE & ARO BR.
332+89	385+40	(2)	5,251'	FBE
385+40	386+20	(3)	80'	FBE & ARO BR.
386+20	390+47	(2)	427'	FBE

CPS (3D)

TEST SECTIONS (3D): TEST SECTION 2A-2 ILTO-022-2010

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 07, 2009 FOR M.P. 168.73 TO M.P. 195.68 AND SEPTEMBER 01, 2009 FOR M.P. 195.68 TO M.P. 218.50.
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 9038+16 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	12,652'
3	30" O.D. X 0.516" W.T., API -5LX-70 W/FBE COATING & ABRASION RESISTANT OVERCOAT	361'
	PIPELINE MARKERS	0 EA
	PIPELINE WARNING SIGNS	6 EA
	CATHODIC TEST STATION	3 EA
	AERIAL MARKER	0 EA

REFERENCE DRAWINGS

REF. NO.	DRAWING NO.	REV. NO.	DRAWING TITLE

REVISIONS

NO.	DATE	REV. BY	CHCK. BY	APPRD. BY	ENV. APPRD	DESCRIPTION
1	5/12/08	UEI	RDG	LAG	SEC	ISSUED FOR CONSTRUCTION
2	10/12/02	UEI				ISSUED FOR AS-BUILT 1831-03-ML-02-003 REPLACES COVERAGE OF IFC DRAWINGS 1831-03-ML-02-004, 1831-03-ML-02-005

ENGINEERING RECORDS

	INITIAL	DATE		INITIAL	DATE
DRAWN BY	UEI	10/01/25	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 ENSCO, INC.

KEYSTONE MAINLINE (NPS 30 2008) FORT RANSOM SECTION

FIA# 1831 | SPREAD 2A | DISCIPLINE 03

AS-BUILT ALIGNMENT

M.P. 176.11 TO M.P. 178.57

SHEET 3 OF 19 SHEETS

STA. 260+34 TO STA. 390+47 (3D)

DRAWING NO. 1831-03-ML-02-003 REV. 2

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