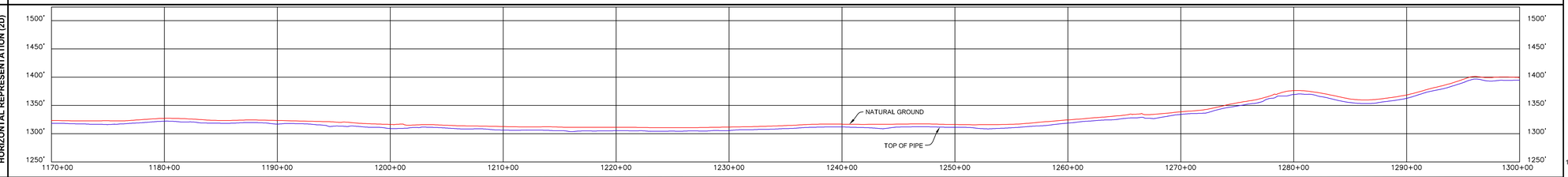
RIGHT-OF-WAY HORIZONTAL REPRESENTATION (2D)
TRACT NUMBER
OWNERSHIP/AGENCY
LENGTH
APPLICABLE DWG. NO.

1170+00 | ML-ND-SR-0425.0000 | 1195+26 | RD-ND-SR-0425.0000 79TH STREET SE | ML-ND-SR-0426.0000 | RD-ND-SR-0426.0000 116TH AVENUE SE | 1200+70 | ML-ND-SR-0427.0000 | 1230+42 | ML-ND-SR-0427.0001 | 1238+67 | ML-ND-SR-0428.0000 | RD-ND-SR-0428.0000 80TH STREET SE | ML-ND-SR-0429.0000 | 1266+00 | RD-ND-SR-0429.0000 117TH AVENUE | 1278+90 | ML-ND-SR-0430.0000 | 1299+93 | ML-ND-SR-0431.0000 | 1300+00

LAND USE

PIPELINE PROFILE

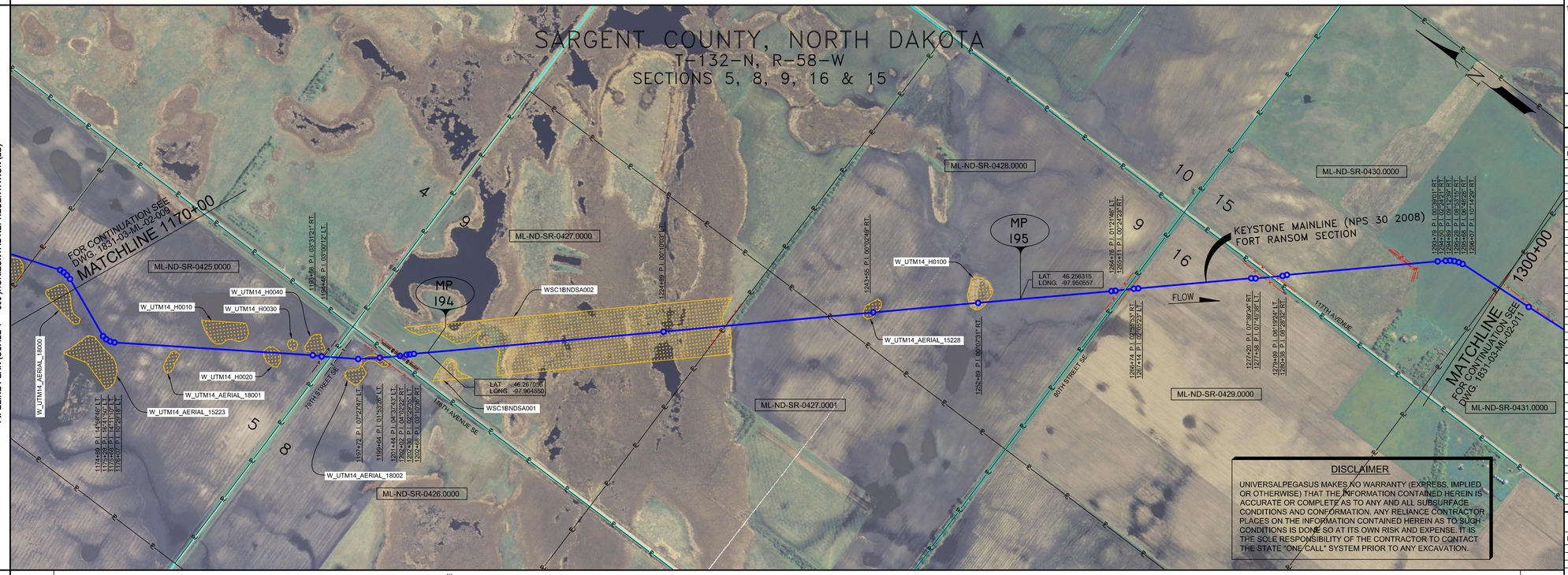
HORIZ. 1"=500' VER. 1"=100'
HORIZONTAL REPRESENTATION (2D)



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
- B — BUILDING
- W — WATER WELL
- MAINLINE VALVE
- ML-XX-XX-0000.0000 — TRACT NUMBER

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



DISCLAIMER

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PIPELINE SCHEMATIC

- HEAVYWALL PIPE
- WELD FITTING
- TRANSITION PIECE
- CASING PIPE
- CONCRETE COATING
- (3) — SET-ON WEIGHTS
- PIPELINE WARNING SIGN
- PIPELINE MARKER
- (1) — MATERIAL ITEM
- GM — GROUNDING MAT
- ZINC RIBBON
- ZINC — 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

STATIONING/DESCRIPTION

HORIZONTAL STATIONS (2D)

MATCHLINE 1170+00

1169+18 BEGIN SLOUGH
1169+41 END SLOUGH
1169+48 P.I. 03°31'21" RT.
1169+48 P.I. 03°30'12" LT.
1169+55 CL SLOUGH
1169+67 EDGE OF ROAD
1169+67 POWERLINE
1169+94 TELEPHONE LINE
1170+09 BEGIN SLOUGH
1170+41 END SLOUGH
1170+79 POWERLINE, HT = UNK.
1171+09 MATCHLINE 1171+09

SLOPE STATIONS (3D)

MATCHLINE 1171+09

1174+89 P.I. 14°58'46" LT.
1175+68 P.I. 14°11'10" LT.
1175+78 P.I. 14°11'10" RT.
1177+17 P.I. 10°29'18" LT.
1177+36 S.O.R. 5.0' CVR.

PIPE SLOPE REPRESENTATION (3D)

1171+09

2
2,470'
FBE

3
120'
FBE & ARO
BR.

1195+79

1195+89

2
42'
FBE

1196+89

3
119'
FBE & ARO
BR.

1201+26

1202+45

CPS (3D)

TEST SECTIONS (3D)

TEST SECTION 2A-2
ILTO-023-2010

1299+47

TEST SECTION 2A-3
ILTO-023-2010

PIPELINE DATA

1189+31 BEGIN SLOUGH
1189+72 END SLOUGH
1189+79 P.I. 03°31'21" RT.
1189+79 P.I. 03°30'12" LT.
1189+87 CL SLOUGH
1189+97 EDGE OF ROAD
1189+97 POWERLINE
1190+27 EDGE OF ROAD
1190+36 EDGE OF ROAD
1190+36 POWERLINE, HT = UNK.
1196+27 EDGE OF ROAD
1196+36 EDGE OF ROAD
1197+06 TELEPHONE LINE
7.0' CVR.
4.0' CLR. (ABOVE)
1199+64 P.I. 01°32'26" LT.
1200+73 UNDERGROUND
FIBER OPTIC
3.0' CLR. (ABOVE)
1200+83 POWERLINE, HT = 20'
1200+76 EDGE OF ROAD
1200+86 FENCE
(BARBED WIRE)
1201+03 EDGE OF ROAD
1201+16 CL FIBER AVENUE SE
1202+44 FIBER OPTIC CABLE
2.0' CLR. (ABOVE)
1202+49 BEGIN ROCK SHIELD
1202+56 P.I. 04°37'45" LT.
1202+59 FIBER OPTIC CABLE
1.0' CLR. (ABOVE)
1202+61 FENCE (BARBER WIRE)
6.0' CVR.
1202+77 FENCE (BARBER WIRE)
1203+14 END ROCK SHIELD
1203+26 CL SLOUGH
1203+41 P.I. 02°29'35" LT.
1206+04 M.P. 194
1211+31 BEGIN SLOUGH
1220+23 CL SLOUGH
1226+02 P.I. 00°10'03" LT.

1195+79 — 120' FBE & ARO BR. — 1196+89

1196+89 — 42' FBE — 1201+26

1201+26 — 119' FBE & ARO BR. — 1202+45

1202+45 — 1210+50

1211+26

(197)

1230+76 — 1232+36

2
6,405'
FBE

1231+49 FENCE (BARBED WIRE)
1233+32 END SLOUGH
1239+35 FENCE (BARBED WIRE)
1241+18 END SLOUGH
1243+08 BEGIN SLOUGH
1243+70 CL SLOUGH
1244+05 P.I. 00°10'03" RT.
1244+66 END SLOUGH
1252+62 5.0' CVR.
1253+07 BEGIN SLOUGH
1254+06 CL SLOUGH
1254+06 P.I. 00°10'03" RT.
1254+96 END SLOUGH
1257+84 M.P. 195
1264+76 P.I. 01°21'46" LT.
1265+11 P.I. 00°24'23" RT.
1265+56 FENCE (BARBED WIRE)
1266+72 EDGE OF ROAD
1266+72 EDGE OF ROAD (BARBED WIRE)
1267+10 EDGE OF ROAD
1267+21 EDGE OF ROAD (BARBED WIRE)
1267+64 P.I. 02°55'33" RT.
1268+36 P.I. 02°55'33" LT.

1266+50 — 120' FBE & ARO O.C. — 1267+70

1267+70

2
1,206'
FBE

1274+03 4.6' CVR.
1278+36 P.I. 07°39'34" RT.
1278+76 P.I. 07°45'38" LT.
1279+45 FENCE (BARBED WIRE)
1279+76

1279+76 — 121' FBE & ARO BR. — 1280+97

1280+97

2
2,025'
FBE

1281+17 P.I. 08°19'24" LT.
1281+56 P.I. 08°29'52" RT.
1284+99 P.I. 01°39'01" RT.
1285+11 P.I. 01°39'01" LT.
1286+10 P.I. 09°12'58" RT.
1286+48 P.I. 08°43'15" RT.
1286+48 P.I. 08°43'15" LT.
1287+74 P.I. 02°55'33" RT.
1288+07 P.I. 10°14'29" RT.
1289+07 P.I. 10°14'29" LT.
1289+68 FENCE (BARBED WIRE)
1291+05 FENCE (BARBED WIRE)
1291+19 FENCE (HOG WIRE)
1291+44 FENCE (BARBED WIRE)
1293+79 P.I. 00°39'01" RT.
1294+11 P.I. 00°39'01" LT.
1294+89 P.I. 09°12'58" RT.
1295+26 P.I. 08°43'15" RT.
1295+26 P.I. 08°43'15" LT.
1296+07 P.I. 10°14'29" RT.
1296+07 P.I. 10°14'29" LT.
1299+68 FENCE (BARBED WIRE)
MATCHLINE 1300+00

1301+20 FENCE (BARBED WIRE)
MATCHLINE 1301+22

1301+22

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	12,533'
3	30" O.D. X 0.516" W.T., API -5LX-70 W/FBE COATING & ABRASION RESISTANT OVERCOAT	480'
	PIPELINE MARKERS	0 EA
	PIPELINE WARNING SIGNS	7 EA
	CATHODIC TEST STATION	4 EA
	AERIAL MARKER	1 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	6/11/08	UEI	RDG	LAG	SEC	INSERTED ML-ND-SR-0427.0001 REVISIO
3	10/12/02	UEI				ISSUED FOR AS-BUILT
						1831-03-ML-02-010 REPLACES COVERAGE OF IFC DRAWINGS
						1831-03-ML-02-015, 1831-03-ML-02-016, 1831-03-ML-02-017

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 PEGASUS INTERNATIONAL

KEYSTONE MAINLINE (NPS 30 2008) FORT RANSOM SECTION

F(A)#	SPREAD	DISCIPLINE
1831	SPREAD 2A	DISCIPLINE 03

AS-BUILT ALIGNMENT

M.P. 193.36 TO M.P. 195.82

SHEET 10 OF 19 SHEETS

STA. 1171+09 TO STA. 1301+22 (3D)

DRAWING NO. 1831-03-ML-02-010 REV. 3

Z:\00_KEYSTONE_AS_BUILT\4-alignment sheets for North Dakota\ND1831_ASBUILTWD1831-010.dwg, 3/10/2011 7:26:21 AM, pdfFactory.pc3