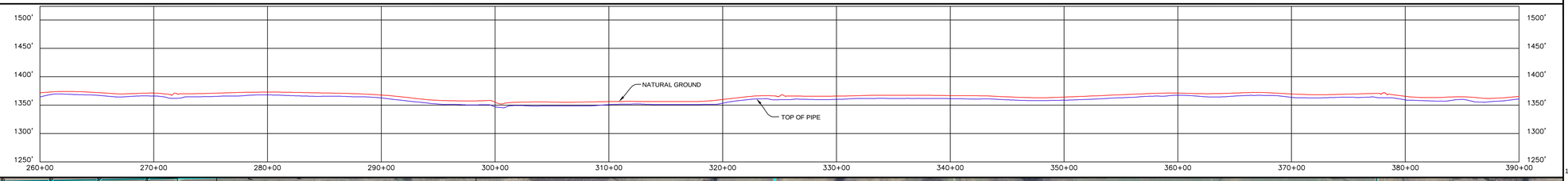
RIGHT-OF-WAY HORIZONTAL REPRESENTATION (2D)
TRACT NUMBER
OWNERSHIP/AGENCY
LENGTH
APPLICABLE DWG. NO.

LAND USE

260+00 | ML-SD-MN-0802.0000 | 271+85 | RD-SD-MN-0802.0000 241ST STREET | ML-SD-MN-0803.0000 | 275+22 | ML-SD-MN-0804.0000 | 298+27 | ML-SD-MN-0805.0000 | RD-SD-MN-0805.0000 242ND STREET | 325+18 | ML-SD-MN-0807.0001 | 351+76 | ML-SD-MN-0808.0001 | RD-SD-MN-0808.0001 243RD STREET | 378+11 | ML-SD-MN-0809.0000 | 390+00

PIPELINE PROFILE

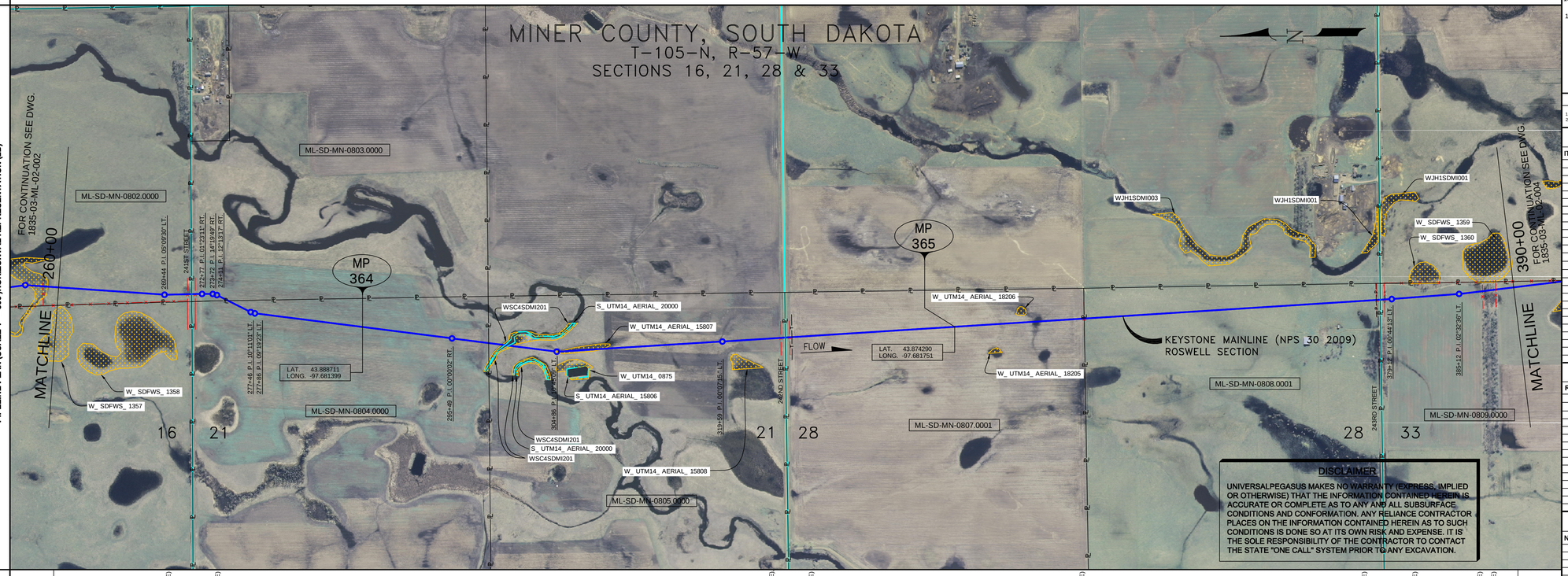
HORIZ: 1"=500' VER: 1"=100'
HORIZONTAL REPRESENTATION (2D)



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)



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

PIPELINE DATA STATION/DESCRIPTION

HORIZONTAL STATIONS (2D)

MATCHLINE 260+00
269+44 P.I. 05°09'30" LT. — 271+48 FENCE (BARBED WIRE) 271+60 ROAD BAR DITCH
271+75 EDGE OF ROAD 271+85 CL 24TH STREET 272+93 EDGE OF ROAD 272+07 ROAD BAR DITCH
272+18 FENCE (BARBED WIRE)
272+77 P.I. 01°23'11" RT.
272+72 P.I. 14°19'49" RT.
274+41 P.I. 12°13'17" RT.
277+46 P.I. 10°11'01" LT.
279+86 P.I. 09°19'23" LT.
295+49 P.I. 00°00'02" RT.
299+71 WATER EDGE 300+01 CL 24TH STREET 300+76 WATER EDGE
304+86 P.I. 10°45'09" LT.
319+59 P.I. 00°07'15" LT.
324+78 FENCE (BARBED WIRE) 325+18 CL 24ND STREET 325+30 EDGE OF ROAD
325+58 FENCE (BARBED WIRE)
325+77 TELEPHONE LINE
351+76 FENCE (BARBED WIRE)
377+77 OVERHEAD POWERLINE 377+98 FENCE (BARBED WIRE)
378+01 EDGE OF ROAD 378+11 CL 24RD STREET 378+35 EDGE OF ROAD 378+48 FENCE (BARBED WIRE)
379+12 P.I. 00°44'18" LT.
385+12 P.I. 02°32'36" LT.
387+22 FENCE (BARBED WIRE)
388+40 FENCE (BARBED WIRE)
MATCHLINE 390+00

SLOPE STATIONS (3D)

MATCHLINE 260+17
269+50 P.I. 05°09'30" LT.
271+63 FENCE (BARBED WIRE) 271+75 EDGE OF ROAD 271+79 ROAD BAR DITCH, CVR, LINK
271+84 EDGE OF ROAD 272+00 CL 24TH STREET 272+11 EDGE OF ROAD 272+25 ROAD BAR DITCH, CVR, LINK
272+40 FENCE (BARBED WIRE)
272+46 P.I. 01°23'11" RT.
272+96 P.I. 14°19'49" RT.
274+51 P.I. 12°13'17" RT.
277+46 P.I. 10°11'01" LT.
279+05 P.I. 09°19'23" LT.
287+71 M.P. 364
289+18 4.9' CVR.
295+69 P.I. 00°00'02" RT.
299+92 WATER EDGE 300+01 CL 24TH STREET 300+96 WATER EDGE
301+23 8.3' CVR.
305+07 P.I. 10°45'09" LT.
313+81 5.1' CVR.
319+81 P.I. 00°07'15" LT.
325+00 FENCE (BARBED WIRE) 325+18 CL 24ND STREET 325+53 EDGE OF ROAD
325+72 5.6' CVR.
325+80 FENCE (BARBED WIRE)
325+99 TELEPHONE LINE 6.0' CVR. 3.0' CLR. (ABOVE)
340+51 M.P. 365
340+72 5.1' CVR.
351+99 FENCE (BARBED WIRE)
359+83 4.7' CVR.
377+98 7.6' CVR.
378+01 EDGE OF ROAD
378+10 OVERHEAD POWERLINE 378+11 FENCE (BARBED WIRE) 378+25 EDGE OF ROAD 7.0' CVR.
378+35 CL 24RD STREET 378+59 ROAD BAR DITCH, 6.0' CVR.
378+72 FENCE (BARBED WIRE) 378+73 6.3' CVR.
379+37 P.I. 00°44'18" LT.
385+36 P.I. 02°32'36" LT.
387+47 FENCE (BARBED WIRE)
388+65 FENCE (BARBED WIRE)
MATCHLINE 390+24

PIPE SLOPE REPRESENTATION (2D)

260+17 | ② 1,146' FBE | 271+63 | ⑦ 77' FBE O.C. | 272+40 | 294+39 | ② 5,240' FBE | +299+93 | (93) | 308+79 | 324+80 | ⑦ 80' FBE O.C. | 325+60 | ③ 39' FBE & ARO | 325+99 | 351+99 | ② 5,197' FBE | 377+96 | 380 | ⑦ 80' FBE BR. | 378+76 | ② 1,148' FBE | 387+47 | 388+65 | 390+24

CPS (3D)

TEST SECTIONS (3D) — TEST SECTION 3B-3 ILTO-026-2010

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 OCTOBER 31, 2009 FOR M.P. 343.98 TO 377.31, NOVEMBER 01, 2009 FOR M.P. 377.29 TO 403.97 AND AUGUST 17, 2009 FOR M.P. 403.90 TO 422.96.
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 18931+49 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	12,731'
3	30" O.D. X 0.516" W.T., API-5LX-70 W/FBE COATING & ABRASION RESISTANT OVERCOAT	39'
7	30" O.D. X 0.516" W.T., API-5LX-70 W/FBE COATING	237'
	PIPELINE MARKERS	0 EA
	PIPELINE WARNING SIGNS	9 EA
	CATHODIC TEST STATION	2 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	10/12/10	UEI				ISSUED FOR AS-BUILT 1835-03-ML-02-003 REPLACES COVERAGE OF IFC DRAWINGS 1835-03-ML-02-004, 1835-03-ML-02-005

ENGINEERING RECORDS

	INITIAL	DATE		INITIAL	DATE
DRAWN BY	UEI	10/02/22	ENV. APPRD.		
CHECKED BY			APPRD. BY		
			COMPANY APPROVED		

PROFESSIONAL ENGINEER

NAME	STATE	LIC#	REV#	DATE
LOYS ALVIN GRAY, III	SD	CE9004		

SCALE: 0 125 250 500 Feet

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TransCanada
In business to deliver

KEYSTONE MAINLINE (NPS 30 2009) ROSWELL SECTION

FIA#	SPREAD	DISCIPLINE
1835	SPREAD 3B	DISCIPLINE 03

AS-BUILT ALIGNMENT

M.P. 363.48 TO M.P. 365.94

SHEET 3 OF 20 SHEETS

STA. 260+17 TO STA. 390+24 (3D)

DRAWING NO.	REV.
1835-03-ML-02-003	2