

**RIGHT-OF-WAY HORIZONTAL REPRESENTATION (2D)**

TRACT NUMBER  
OWNERSHIP/AGENCY

LENGTH APPLICABLE DWG. NO.

LAND USE

**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

**PIPELINE SCHEMATIC**

- HEAVY WALL 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
- OPEN CUT
- BORER
- DRINKING WATER USA
- ECOLOGICAL USA
- HIGHLY POPULATED AREA
- OPERATOR (KEYSTONE) DEFINED
- OTHER POPULATED AREA
- SOURCE WATER PROTECTION AREA
- WELLHEAD PROTECTION AREA

**STATION DESCRIPTION**

**SLOPE STATIONS (3D)**

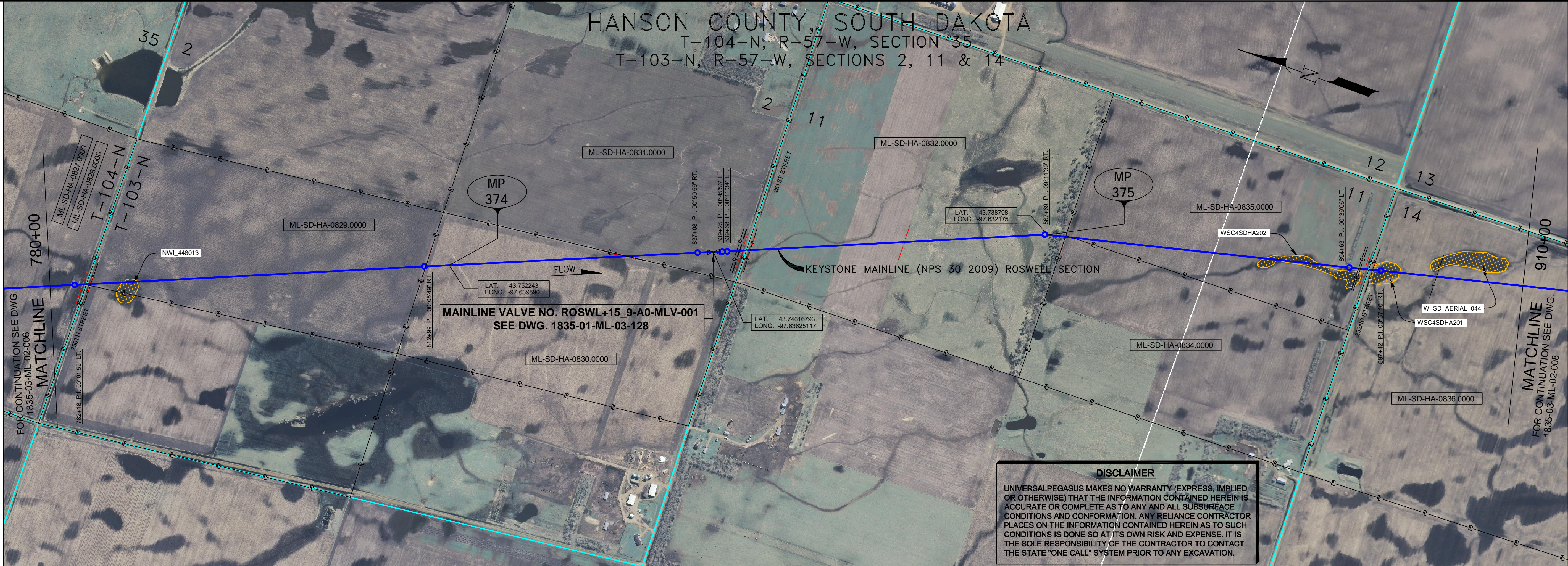
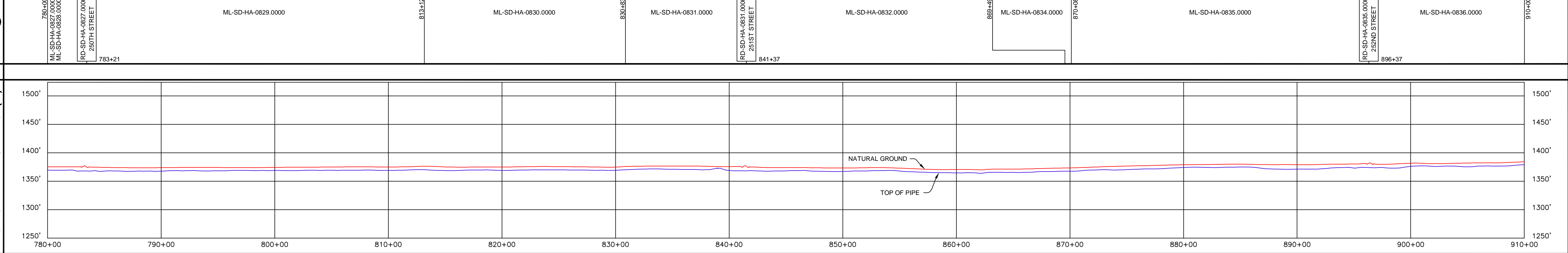
**HORIZONTAL STATIONS (2D)**

**PIPELINE DATA REPRESENTATION (3D)**

**TEST SECTIONS (3D)**

**ENVIRONMENTAL MITIGATION/RECLAMATION STATIONS (2D)**

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



**STATION DESCRIPTION**

**SLOPE STATIONS (3D)**

**HORIZONTAL STATIONS (2D)**

**PIPELINE DATA REPRESENTATION (3D)**

**TEST SECTIONS (3D)**

838+27 838+43 839+43 840+43 841+25 841+30 841+30 841+45 841+45 841+48 841+48 842+24 842+24 850+88 850+88 858+81 858+81 868+48 868+48 868+21 868+21 870+02 870+02 886+45 886+45 887+45 887+45 888+04 888+04 888+35 888+35 888+40 888+40 888+45 888+45 888+50 888+50 888+55 888+55 888+60 888+60 888+65 888+65 888+70 888+70 888+75 888+75 888+80 888+80 888+85 888+85 888+90 888+90 888+95 888+95 889+00 889+00 889+05 889+05 889+10 889+10 889+15 889+15 889+20 889+20 889+25 889+25 889+30 889+30 889+35 889+35 889+40 889+40 889+45 889+45 889+50 889+50 889+55 889+55 889+60 889+60 889+65 889+65 889+70 889+70 889+75 889+75 889+80 889+80 889+85 889+85 889+90 889+90 889+95 889+95 890+00 890+00 890+05 890+05 890+10 890+10 890+15 890+15 890+20 890+20 890+25 890+25 890+30 890+30 890+35 890+35 890+40 890+40 890+45 890+45 890+50 890+50 890+55 890+55 890+60 890+60 890+65 890+65 890+70 890+70 890+75 890+75 890+80 890+80 890+85 890+85 890+90 890+90 890+95 890+95 900+00 900+00 900+05 900+05 900+10 900+10 900+15 900+15 900+20 900+20 900+25 900+25 900+30 900+30 900+35 900+35 900+40 900+40 900+45 900+45 900+50 900+50 900+55 900+55 900+60 900+60 900+65 900+65 900+70 900+70 900+75 900+75 900+80 900+80 900+85 900+85 900+90 900+90 900+95 900+95 910+00 910+00 910+05 910+05 910+10 910+10 910+15 910+15 910+20 910+20 910+25 910+25 910+30 910+30 910+35 910+35 910+40 910+40 910+45 910+45 910+50 910+50 910+55 910+55 910+60 910+60 910+65 910+65 910+70 910+70 910+75 910+75 910+80 910+80 910+85 910+85 910+90 910+90 910+95 910+95

**GENERAL NOTES**

- ALL CHAINAGES ARE IN FEET UNLESS OTHERWISE SPECIFIED.
- DATUM ELEVATION AND PROJECTION ARE BASED ON MEAN SEA LEVEL AND NAD 83.
- FIELD PIPE LOCATING REQUIRED TO DETERMINE PLACEMENT OF PIPELINE WITHIN PERMANENT EASEMENT.
- UNLESS OTHERWISE NOTED, 48 INCHES MINIMUM COVER EXCEPT 36 INCHES IN AREAS OF CONSOLIDATED ROCK.
- NO ACTUAL AS-BUILT GROUND SHOTS WERE TAKEN AT THIS LOCATION. THE PROFILE REPRESENTS A PROJECTION FROM SHOTS TAKEN AT 150' TO 250' INTERVALS.
- 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.
- 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 422.56.
- ORIGINAL IN-SERVICE DATE OF THE KEYSTONE PIPELINE (PHASE 1): JUNE 30, 2010.
- CPS CALCULATION DATE: MAY 2010.
- ORION STATION SERIES NUMBER: 1182700.
- 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**

- THE MAXIMUM OPERATING PRESSURE (MOP) IS 1400 PSIG.
- THE MINIMUM TEST PRESSURE WAS 1600 PSIG.

**BILL OF MATERIALS (3D)**

ITEM NO.	DESCRIPTION	QUANTITY
1	30" O.D. X 0.438" W.T., API-XL-70 W/FBE COATING	234'
2	30" O.D. X 0.386" W.T., API-XL-70 W/FBE COATING	12,478'
3	30" O.D. X 0.516" W.T., API-XL-70 W/FBE COATING & ABRASION RESISTANT OVERCOAT	156'
7	30" O.D. X 0.516" W.T., API-XL-70 W/FBE COATING	120'
429	MAINLINE VALVE ASSEMBLY ROSWL+15 9-A0-MLV-001 (+18)	1 EA

**REFERENCE DRAWINGS**

REF. NO.	DRAWING NO.	REV. NO.	DRAWING TITLE
429	1835-01-ML-03-128	3	MAINLINE VALVE
			PIPELINE WARNING SIGNS
			CATHODIC TEST STATION
			AERIAL MARKER

**REVISIONS**

NO.	DATE	REV. BY	CHECKED BY	APPROVED BY	DESCRIPTION
1	5/17/08	UEI	RDG	JAG	ISSUED FOR CONSTRUCTION
2	7/15/09	UEI	JAR	LAG	ADDED FOREIGN PIPELINE NAME AND REVISED DRAWING NOS.
3	10/12/14	UEI			ISSUED FOR AS-BUILT

**ENGINEERING RECORDS**

DRAWN BY	INITIAL	DATE	ENY APPRD.	INITIAL	DATE
UEI		10/02/22			

**PROFESSIONAL ENGINEER**

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

**SCALE:** 0 125 250 500 Feet

**TransCanada**  
In business to deliver

KEYSTONE MAINLINE (NPS 30 2009) ROSWELL SECTION

**AS-BUILT ALIGNMENT**

M.P. 373.33 TO M.P. 375.80  
SHEET 7 OF 20 SHEETS

STA. 780+49 TO STA. 910+55 (3D)  
DRAWING NO. 1835-03-ML-02-007 REV 3