



PIPELINE SCHEMATIC	HORIZONTAL STATIONS (2D)	SLOPE STATIONS (3D)	PIPELINE DATA
HEAVY WALL PIPE	1170+00 MATCHLINE	1170+00 TELEPHONE LINE	1170+00 TELEPHONE LINE
WELD FITTING	1170+10 TELEPHONE LINE	1170+10 TELEPHONE LINE	1170+10 TELEPHONE LINE
TRANSITION PIECE	1170+31 TELEPHONE LINE	1170+31 TELEPHONE LINE	1170+31 TELEPHONE LINE
CASING PIPE	1170+71 ROAD BAR DITCH	1170+71 ROAD BAR DITCH	1170+71 ROAD BAR DITCH
CONCRETE COATING	1170+85 EDGE OF ROAD	1170+85 EDGE OF ROAD	1170+85 EDGE OF ROAD
SECTION WEIGHTS	1171+06 (88TH STREET)	1171+06 (88TH STREET)	1171+06 (88TH STREET)
PIPELINE MARKING SIGN	1171+17 EDGE OF ROAD	1171+17 EDGE OF ROAD	1171+17 EDGE OF ROAD
PIPELINE MARKER	1171+36 ROAD BAR DITCH	1171+36 ROAD BAR DITCH	1171+36 ROAD BAR DITCH
MATERIAL ITEM	1172+19 TELEPHONE LINE	1172+19 TELEPHONE LINE	1172+19 TELEPHONE LINE
GROUNDING MAT	1173+73 P.I. 02'16'00" RT.	1173+73 P.I. 02'16'00" RT.	1173+73 P.I. 02'16'00" RT.
ZINC RIBBON	1177+82 6.3' C.V.R.	1177+82 6.3' C.V.R.	1177+82 6.3' C.V.R.
AERIAL MARKER	1198+76 6.5' C.V.R.	1198+76 6.5' C.V.R.	1198+76 6.5' C.V.R.
CATHODIC TEST STATION	1200+35 WATER EDGE	1200+35 WATER EDGE	1200+35 WATER EDGE
MAINLINE VALVE	1202+49 8.7' C.V.R.	1202+49 8.7' C.V.R.	1202+49 8.7' C.V.R.
CHECK VALVE	1202+59 WATER EDGE	1202+59 WATER EDGE	1202+59 WATER EDGE
OPEN END	1202+99 P.I. 00'43'03" LT.	1202+99 P.I. 00'43'03" LT.	1202+99 P.I. 00'43'03" LT.
BORE	1213+15 TOP BANK	1213+15 TOP BANK	1213+15 TOP BANK
DRINKING WATER USA	1213+49 CLDRY CREEK	1213+49 CLDRY CREEK	1213+49 CLDRY CREEK
ECOLOGICAL USA	1214+17 TOP BANK	1214+17 TOP BANK	1214+17 TOP BANK
HIGHLY POPULATED AREA	1214+40 M.P. 23	1214+40 M.P. 23	1214+40 M.P. 23
OPERATOR (KEYSTONE) DEFINED	1223+14 P.I. 00'42'54" LT.	1223+14 P.I. 00'42'54" LT.	1223+14 P.I. 00'42'54" LT.
OTHER POPULATED AREA	1223+47 ROAD BAR DITCH	1223+47 ROAD BAR DITCH	1223+47 ROAD BAR DITCH
SOURCE WATER PROTECTION AREA	1223+51 EDGE OF ROAD	1223+51 EDGE OF ROAD	1223+51 EDGE OF ROAD
WELLHEAD PROTECTION AREA	1223+71 EDGE OF ROAD	1223+71 EDGE OF ROAD	1223+71 EDGE OF ROAD
	1223+83 ROAD BAR DITCH	1223+83 ROAD BAR DITCH	1223+83 ROAD BAR DITCH
	1225+81 7' FBE & ARO	1225+81 7' FBE & ARO	1225+81 7' FBE & ARO
	1226+16 5.15' FBE	1226+16 5.15' FBE	1226+16 5.15' FBE
	1234+66 2.33' FBE	1234+66 2.33' FBE	1234+66 2.33' FBE
	1251+12 7' FBE & ARO	1251+12 7' FBE & ARO	1251+12 7' FBE & ARO
	1252+16 5.3' C.V.R.	1252+16 5.3' C.V.R.	1252+16 5.3' C.V.R.
	1254+17 2.0' C.V.R. (ABOVE)	1254+17 2.0' C.V.R. (ABOVE)	1254+17 2.0' C.V.R. (ABOVE)
	1254+38 EDGE OF ROAD	1254+38 EDGE OF ROAD	1254+38 EDGE OF ROAD
	1254+48 CL PRIVATE DRIVE	1254+48 CL PRIVATE DRIVE	1254+48 CL PRIVATE DRIVE
	1254+66 6.7' C.V.R.	1254+66 6.7' C.V.R.	1254+66 6.7' C.V.R.
	1257+49 P.I. 03'44'01" RT.	1257+49 P.I. 03'44'01" RT.	1257+49 P.I. 03'44'01" RT.
	1257+64 P.I. 01'59'24" RT.	1257+64 P.I. 01'59'24" RT.	1257+64 P.I. 01'59'24" RT.
	1257+82 6.8' C.V.R.	1257+82 6.8' C.V.R.	1257+82 6.8' C.V.R.
	1257+90 M.P. 24	1257+90 M.P. 24	1257+90 M.P. 24
	1274+26 P.I. 00'17'34" LT.	1274+26 P.I. 00'17'34" LT.	1274+26 P.I. 00'17'34" LT.
	1274+28 P.I. 00'17'34" LT.	1274+28 P.I. 00'17'34" LT.	1274+28 P.I. 00'17'34" LT.
	1276+32 ROAD BAR DITCH	1276+32 ROAD BAR DITCH	1276+32 ROAD BAR DITCH
	1276+41 5.3' C.V.R.	1276+41 5.3' C.V.R.	1276+41 5.3' C.V.R.
	1276+54 CL 88TH STREET	1276+54 CL 88TH STREET	1276+54 CL 88TH STREET
	1276+62 EDGE OF ROAD	1276+62 EDGE OF ROAD	1276+62 EDGE OF ROAD
	1276+77 ROAD BAR DITCH	1276+77 ROAD BAR DITCH	1276+77 ROAD BAR DITCH
	1277+10 TELEPHONE LINE	1277+10 TELEPHONE LINE	1277+10 TELEPHONE LINE
	1282+67 6.2' C.V.R. (ABOVE)	1282+67 6.2' C.V.R. (ABOVE)	1282+67 6.2' C.V.R. (ABOVE)
	1282+75 OVERHEAD	1282+75 OVERHEAD	1282+75 OVERHEAD
	1284+48 OVERHEAD	1284+48 OVERHEAD	1284+48 OVERHEAD
	1284+49 CL SLOUGH	1284+49 CL SLOUGH	1284+49 CL SLOUGH
	1284+66 5.0' C.V.R.	1284+66 5.0' C.V.R.	1284+66 5.0' C.V.R.
	1284+85 P.I. 00'53'07" LT.	1284+85 P.I. 00'53'07" LT.	1284+85 P.I. 00'53'07" LT.
	1287+49 4.9' C.V.R.	1287+49 4.9' C.V.R.	1287+49 4.9' C.V.R.
	1287+55 P.I. 01'26'55" LT.	1287+55 P.I. 01'26'55" LT.	1287+55 P.I. 01'26'55" LT.
	1287+58 P.I. 02'10'04" LT.	1287+58 P.I. 02'10'04" LT.	1287+58 P.I. 02'10'04" LT.
	1287+70 P.I. 08'10'54" RT.	1287+70 P.I. 08'10'54" RT.	1287+70 P.I. 08'10'54" RT.
	1298+66 6.8' C.V.R.	1298+66 6.8' C.V.R.	1298+66 6.8' C.V.R.

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 11, 2009 FOR M.P. 0.30 TO M.P. 31.03 AND AUGUST 12, 2009 FOR M.P. 31.03 TO M.P. 66.93.
- 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 0+00 AND DIVIDE BY 5280.

OPERATING AND TEST PRESSURE

1. THE MAXIMUM OPERATING PRESSURE (MOP) IS 1400 PSIG.
2. THE MINIMUM TEST PRESSURE WAS 180 PSIG.

BILL OF MATERIALS (3D)

ITEM NO.	DESCRIPTION	QUANTITY
2	30" O.D. X 0.386" W.T. API 5LX-70 W/FBE COATING	12,691'
3	30" O.D. X 0.516" W.T. API 5LX-70 W/FBE COATING & ABRASION RESISTANT OVERCOAT	319'

REVISIONS

NO.	DATE	REV. BY	CHKD. BY	APP'D. BY	ENV. APP'D.	DESCRIPTION
1	5/17/08	UEI	RDG	LAG	SEC	ISSUE FOR CONSTRUCTION
2	9/11/11	UEI				ISSUED FOR AS-BUILT
						1827-03-ML-02-010
						REPLACES COVERAGE OF IFC DRAWINGS 1827-03-ML-02-015, 1827-03-ML-02-016, 1827-03-ML-02-017

ENGINEERING RECORDS

DRAWN BY	INITIAL	DATE	ENV. APP'D.	INITIAL	DATE
UEI		09/12/21			

PROFESSIONAL ENGINEER

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

SCALE: 0 125 250 500 Feet

TransCanada
In business to deliver

KEYSTONE MAINLINE (NPS 30 2008) WALHALLA SECTION

FR# 1827 SPREAD 1A DISCIPLINE 03

AS-BUILT ALIGNMENT

M.P. 22.19 TO M.P. 24.65
SHEET 10 OF 14 SHEETS

STA. 1171+63 TO STA. 1301+73 (3D)

DRAWING NO. 1827-03-ML-02-010 REV. 2

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