

RIGHT-OF-WAY HORIZONTAL REPRESENTATION (2D)

TRACT NUMBER
OWNERSHIP/AGENCY

LENGTH
APPLICABLE DWG. NO.

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)
PIPELINE MILEPOST
DIRECTION OF FLOW
HOUSE
BUILDING
WATER WELL
MAINLINE VALVE
TRACT NUMBER

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
BORE
DRINKING WATER USA
ECOLOGICAL USA
HIGHLY POPULATED AREA
OPERATOR (KEYSTONE)
DEFINED
OTHER POPULATED AREA
SOURCE WATER PROTECTION AREA
WELLHEAD PROTECTION AREA

TEST SECTIONS (3D)

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 10, 2009 FOR M.P. 301.75 TO M.P. 343.98 AND OCTOBER 31, 2009 FOR M.P. 343.98 TO 377.31.
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 16432+39 AND DIVIDE BY 5280.

OPERATING AND TEST PRESSURE

1. THE MAXIMUM OPERATING PRESSURE (MOP) IS 1440 PSIG.
2. THE MINIMUM TEST PRESSURE WAS 1803 PSIG.

BILL OF MATERIALS (3D)

ITEM NO.	DESCRIPTION	QUANTITY
2	30" O.D. X 0.386" W.T., API -SLX-70 W/FBE COATING	12,948'
7	30" O.D. X 0.516" W.T., API -SLX-70 W/FBE COATING	161'

REFERENCE DRAWINGS

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

REVISIONS

NO.	DATE	REV. BY	CHECK BY	APP'D. BY	ENV. APP'D. BY	DESCRIPTION
1	5/12/08	UEI	RDC	LAC	SEC	ISSUED FOR CONSTRUCTION
2	10/12/09	UEI				ISSUED FOR AS-BUILT
						1834-03-ML-02-019 REPLACES COVERAGE OF IFC DRAWINGS
						1834-03-ML-02-030,
						1829-03-ML-02-031

ENGINEERING RECORDS

DRAWN BY	INITIAL	DATE	ENV. APP'D.	INITIAL	DATE
UEI		10/02/15			

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) CARPENTER SECTION

1834 SPREAD 3B DISCIPLINE 03

AS-BUILT ALIGNMENT

M.P. 355.56 TO M.P. 358.03
SHEET 19 OF 20 SHEETS
STA. 2341+33 TO STA. 2471+42

DRAWINGS NO. 1834-03-ML-02-019