

PIPELINE SCHEMATIC	HORIZONTAL STATIONS (2D)		SLOPE STATIONS (3D)	
	DESCRIPTION	STATION	DESCRIPTION	STATION
HEAVY WALL PIPE	MATCHLINE	390+00	MATCHLINE	390+00
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				
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**
- 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 422.96.
 - 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
2	30" O.D. X 0.388" W.T., API-5LX-70 W/FBE COATING	12,801'
3	30" O.D. X 0.516" W.T., API-5LX-70 W/FBE COATING & ABRASION RESISTANT OVERCOAT	131'
7	30" O.D. X 0.516" W.T., API-5LX-70 W/FBE COATING	80'

PIPELINE MARKERS	0 EA
PIPELINE WARNING SIGNS	13 EA
CATHODIC TEST STATION	2 EA
AERIAL MARKER	0 EA

REFERENCE DRAWINGS

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

REVISIONS

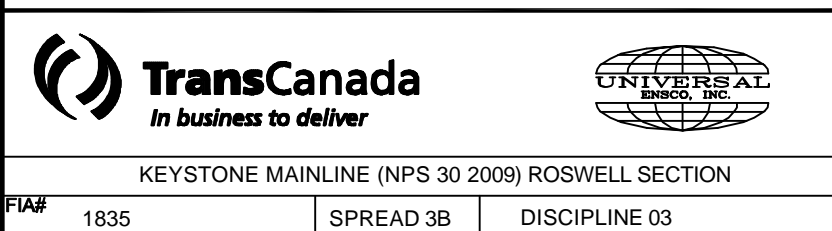
NO.	DATE	REV. BY	CHK. BY	APPR. BY	DESCRIPTION
1	5/17/08	UEI	RDG	LAG	ISSUED FOR CONSTRUCTION
2	9/17/14	UEI	RDG	LAG	ISSUED FOR AS-BUILT
					REPLACES COVERAGE OF IFC DRAWINGS
					1835-03-ML-02-005
					1835-03-ML-02-006
					1835-03-ML-02-007

ENGINEERING RECORDS

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

PROFESSIONAL ENGINEER

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



KEYSTONE MAINLINE (NPS 30 2009) ROSWELL SECTION
 SPREAD 3B DISCIPLINE 03

AS-BUILT ALIGNMENT
 M.P. 365.94 TO M.P. 368.41
 SHEET 4 OF 20 SHEETS
 STA. 390+24 TO STA. 520+36 (3D)
 DRAWING NO. 1835-03-ML-02-004 REV. 2