



- 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 08, 2009 FOR M.P. 259.21 TO M.P. 301.75 AND OCTOBER 10, 2009 FOR M.P. 301.75 TO M.P. 343.98.
  - 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 1643+39 AND DIVIDE BY 5280.

**OPERATING AND TEST PRESSURE**

1. THE MAXIMUM OPERATING PRESSURE (MOP) IS 140 PSIG.
2. THE MINIMUM TEST PRESSURE WAS 160 PSIG.

**BILL OF MATERIALS (3D)**

ITEM NO.	DESCRIPTION	QUANTITY
2	30" O.D. X 0.386" W.T., API-SLX-70 W/FBE COATING	12,519'
3	30" O.D. X 0.516" W.T., API-SLX-70 W/FBE COATING & ABRASION RESISTANT OVERCOAT	238'
420	CARPENTER PUMP STATION ASSEMBLY (#256)	
	PIPELINE MARKERS	0 EA
	PIPELINE WARNING SIGNS	4 EA
	CATHODIC TEST STATION	2 EA
	AERIAL MARKER	0 EA

**REFERENCE DRAWINGS**

REF. NO.	DRAWING NO.	REV. NO.	DRAWING TITLE
420	1834-01-ML-03-124	5	CARPENTER PUMP STATION
	1834-01-ML-03-125	0	CARPENTER PUMP STATION
	1834-01-ML-03-126	0	CARPENTER PUMP STATION

**REVISIONS**

NO.	DATE	REV. BY	CHKD. BY	APPRD. BY	DESCRIPTION
1	5/17/08	UEI	RDG	LAG	ISSUED FOR CONSTRUCTION
2	10/17/10	UEI			ISSUED FOR AS-BUILT
					REPLACES COVERAGE OF IFC DRAWINGS
					1834-03-ML-02-001
					1834-03-ML-02-002

**ENGINEERING RECORDS**

DRAWN BY	INITIAL	DATE	ENY. APPRD.	INITIAL	DATE
UEI		10/02/15			

**PROFESSIONAL ENGINEER**

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

**SCALE:** 0 125 250 500 Feet

**TransCanada**  
In business to deliver

KEYSTONE MAINLINE (NPS 30 2009) CARPENTER SECTION

1834 1834 SPREAD 3B DISCIPLINE 03

**AS-BUILT ALIGNMENT**

M.P. 311+22 TO M.P. 313.68

SHEET 1 OF 20 SHEETS

STA. 0+00 TO STA. 130+13

DRAWING NO. 1834-03-ML-02-001 (3D) REV. 2