



- ### GENERAL NOTES
- COVER NOT IN PARENTHESIS IS TO TOP OF KEYSTONE PIPELINE. COVER IN PARENTHESIS IS TO TOP OF FOREIGN PIPELINE OR UTILITY LINE.
 - 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 LOW LEVEL CROSSING. 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 SEPTEMBER 23, 2009 FOR M.P. 114.00 TO M.P. 130.00, AUGUST 05, 2009 FOR M.P. 129.90 TO M.P. 168.72 AND AUGUST 07, 2009 M.P. 168.73 TO M.P. 195.68.
 - 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 6528+26 AND DIVIDE BY 5280.

OPERATING AND TEST PRESSURE

- THE MAXIMUM OPERATING PRESSURE (MOP) IS 1440 PSIG.
- THE MINIMUM TEST PRESSURE WAS 1901 PSIG.

BILL OF MATERIALS (3D)

ITEM NO.	DESCRIPTION	QUANTITY
1	30" O.D. X 0.438" W.T., API-5LX-70 WFBE COATING	35'
2	30" O.D. X 0.386" W.T., API-5LX-70 WFBE COATING	3,113'
3	30" O.D. X 0.516" W.T., API-5LX-70 WFBE COATING & ABRASION RESISTANT OVERCOAT	193'
410	FORT RANSOM PUMP STATION ASSEMBLY (+355')	1 EA
FR-4A	30" - 45' 3" DIA RAD WELD FITTING 0.429" W.T., Y-70	1 EA
FR-4B	30" - 45' 3" DIA RAD WELD FITTING 0.429" W.T., Y-70	1 EA
FR-6A	30" - 30" 3" DIA RAD WELD FITTING 0.515" W.T., Y-70	1 EA
FR-6B	30" - 30" 3" DIA RAD WELD FITTING 0.515" W.T., Y-70	1 EA

REFERENCE DRAWINGS

REF. NO.	DRAWING NO.	REV. NO.	DRAWING TITLE
410	1831-01-ML-03-110	4	FORT RANSOM PUMP STATION
	1831-01-ML-03-111	6	FORT RANSOM PUMP STATION
	1831-01-ML-03-112	6	FORT RANSOM PUMP STATION
	1831-01-ML-03-113	7	FORT RANSOM PUMP STATION
	1831-01-ML-03-114	7	FORT RANSOM PUMP STATION

REVISIONS

NO.	DATE	REV. BY	CHKD. BY	APPRD. BY	DESCRIPTION
1	5/17/08	UEI	RDG	LAG	ISSUE FOR CONSTRUCTION
2	8/17/08	UEI	RDG	LAG	SHEPHERD RIVER REROUTE ISSUED FOR AS-BUILT
3	10/17/08	UEI	RDG	LAG	REPLACES COVERAGE OF 1830-03-ML-02-020 IFC DRAWINGS
					1830-03-ML-02-031
					1830-03-ML-02-032

ENGINEERING RECORDS

DRAWN BY	INITIAL	DATE	ENY APPRD.	INITIAL	DATE
UEI		10/01/18			

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) LUVIERNE SECTION
FR# 1830 SPREAD 2A DISCIPLINE 03

AS-BUILT ALIGNMENT
M.P. 170.48 TO M.P. 171.18
SHEET 20 OF 20 SHEETS
STA. 2472+94 TO STA. 2509+90 (3D)
DRAWING NO. 1830-03-ML-02-020 REV. 3