

Vendor Name: Penticton Foundry Ltd.

MR #: ALB-000-MR-PI-000003

PO#: 1399742

CNRL PROJECT NUMBER: KI191025-JPM INPIT CELL 1

MOC #: 2019-JPP-001

Document Title: ~~Bill of Materials~~ & Detailed Fabrication Drawings

CNRL VP Number: ~~JPP-300-C04-PI-000002-V~~/JPP-300-H03-PI-000095-V

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Canadian Natural Resources Limited

Albian - Oilsands Projects

VENDOR PRINT REVIEW STAMP

Submittal No. **001**

Permission to proceed does not constitute acceptance of design, details, calculations or analysis, test methods or materials developed or selected by Supplier and does not relieve Supplier from full compliance with contractual or other obligations



- ☐ 1. Accepted, proceed.
- ☐ 2. Proceed, incorporate comments and resubmit as final.
- ☒ 3. Do **NOT** proceed, revise and resubmit.
- ☐ 4. Proceed, review not required/completed.

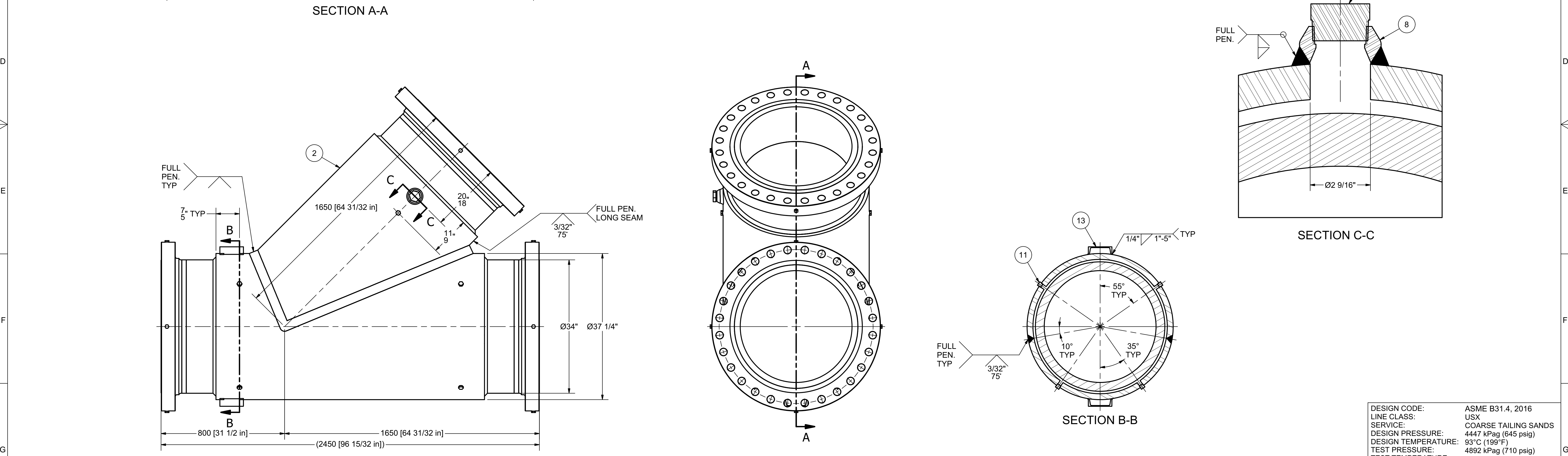
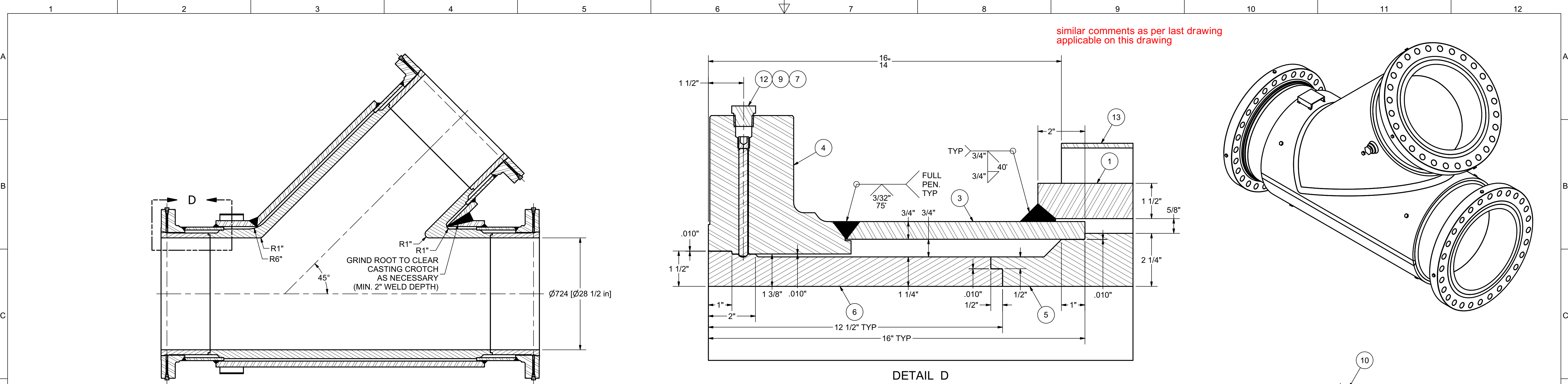
Signature: **Pir Dhalwala**

Date: **Dec 18,2019**



weld map shall be added in the fabrication drawings

CNRL-OVR-STD-MC-00007 Shall follow							
REFER TO DRAWING A1-00001-100-01 FOR ALL GENERAL NOTES AND SPECIFICATIONS							
THIS DOCUMENT CONTAINS PROPRIETARY INFORMATION THE USE OF OTHERS MAY BE PROSECUTED. ANY REVISION NOT USED FOR THIS PROJECT WILL BE CANCELLED BY MAIL. WRITTEN PERMISSION FROM ALCO INC. OR PENITACORE IS REQUIRED.		EST. WT. 13,020 lbs.		DO NOT SCALE		 ALCO Industrial 2103 - 8 Street, Nisku, Alberta, Canada T9E 7Y9 Phone: (780) 451-6222 • Fax: (780) 452-4355	
		UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES. BREAK ALL SHARP CORNERS 01.03R OR .045 RADIUS PER ANSI Y14.5 STANDARD.		DRAWN BY: GVD DATE: 11/25/19			
		TOLERANCES ARE: X = ± .176 XX = ± .030 XXX = ± .015 XXXX = ± .005 ANGLES = ± 1/2°		CHECKED BY: DATE:		TITLE	
				APPROVED: DATE:		28" x 28" x 45° HCWL LATERAL CNUL ALBIAN	
		MATERIAL & HEAT TREAT		PROJECT NO. REFERENCE		REV.	
				A1-19037 3-2-0218 Sht.4 Of 7		B	
125% FINISH ON ALL MACHINED SURFACES				FILE NAME		SHEET 1 OF 1	
				A1-19037-100-00 28in lateral.idw			



BILL OF MATERIAL			
ITEM	ITEM QTY	PART NUMBER	DESCRIPTION
1	1	A1-19037-200-01 Trunk shell	112 5/16" x 69 15/32" x 1 1/2" PLATE, A516 Gr.70N, ROLLED TO 37 1/4" OD
2	1	A1-19037-200-02 Branch shell	112 5/16" x 50 29/32" x 1 1/2" PLATE, A516 Gr.70N, ROLLED TO 37 1/4" OD
3	3	A1-19037-200-03 34in pipe	34" x 3/4" WALL x 10 3/32" PIPE, API 5L X52 PSL-2
4	3	A1-19037-200-04 30in CL300 RF flange - custom	30" CLASS 300 B16.47 Ser.A FFSO FLANGE, A105N, Ø31 1/4" BORE
5	1	A1-19037-200-05 HCWI lateral	28 1/2" ID x 2 1/4" WALL x 45° HCWI LATERAL, 19 1/2" x 52 31/32" x 52 31/32", ASTM A532 CLASS III TYPE A, LEVEL 2, PF#(TBD)
6	3	A1-19037-200-06 HCWI liner - pup	28 1/2" ID x 1 1/4" WALL x 12 1/2" HCWI LINER, ASTM A532 CLASS III TYPE A, LEVEL 2, PF#(TBD)
7	12	A1-19037-200-07 Trap rod	Ø3/8" x 4 9/16" ROUND BAR, A36
8	1	A1-19037-200-08 2in x 38in threadolet	2" x 36" CLASS 3000 THREADOLET, A105N
9	12	ANSI B18.3 - 1/2-13 UNC x 0.5	1/2"-NC x 1/2" FLAT POINT SOCKET HEAD SET SCREW, PLATED
10	1	ASME B16.11 Hex Head Plug 2	2"-NPT HEX HEAD PLUG, A105N
11	10	ASME B16.11 Hex Head Plug 3/4	3/4"-NPT HEX HEAD PLUG, A105N
12	12	ASME B16.11 Hex Head Plug 1/2	1/2"-NPT HEX HEAD PLUG, A105N
13	2	Tag mount - 6in	C6x8.2 x 6" [152mm], 44W

REVISION HISTORY		
REV	DATE	DESCRIPTION
B	11/25/19	34" PIPE WAS PSL-1, ADDED "LEVEL 2" TO HCWI DESCRIPTIONS, UPDATED DESIGN DATA, ADDED TAG MOUNTS
A	11/14/19	ISSUED FOR REVIEW

DESIGN CODE: ASME B31.4, 2016
LINE CLASS: USX
SERVICE: COARSE TAILING SANDS
DESIGN PRESSURE: 4447 kPag (645 psig)
DESIGN TEMPERATURE: 93°C (199°F)
TEST PRESSURE: 4892 kPag (710 psig)
TEST TEMPERATURE: 15°C (59°F)
TEST DURATION: 30 MINUTES

CNRL-OVR-STD-MC-000007

REFER TO DRAWING A1-00001-100-01 FOR ALL GENERAL NOTES AND SPECIFICATIONS

EST. WT. 14,270 lbs.	DO NOT SCALE
UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN INCHES. BREAK ALL SHARP EDGES 0.1" R. 0.01" INTERPRET DWG PER ANSI Y14.5 STANDARD.	DRAWN BY: GVD DATE: 11/25/19
TOLERANCES: X = ± 1/16 X.X = ± .030 X.XX = ± .015 X.XXX = ± .005 ANGLES = ± 1/2°	CHECKED BY: DATE:
125/✓ FINISH ON ALL MACHINED SURFACES	APPROVED: DATE:
	MATERIAL & HEAT TREAT

ALCO Industrial		2103 - 8 Street, Nisku, Alberta, Canada T9E 7Y9 Phone: (780) 451-8222 • Fax: (780) 452-4355	
TITLE		30" x 30" x 45° HCWI LATERAL CNUL ALBIAN	
PROJECT No. A1-19037	REFERENCE 3-2-0218 Sht 5 OF 7	REV. B	1 OF 1
FILE NAME A1-19037-200-00 30in lateral.idw			

Changemark History

There are no outstanding changemarks on this document.