



NOTES:

1. SPOOL TO BE HYDROTESTED PRIOR TO INSTALLATION OF HCWI LINER.

2. LENGTH OVER FLANGES TO BE DETERMINED BY FIELD MEASUREMENT. 51mm (2") PROVIDED ON FLANGE FACE TO PERMIT MACHINING TO FIELD SPECIFIED LENGTH.

3. LENGTH OF LINER INSERTION TO BE DETERMINED BY FIELD MEASUREMENT.

DESIGN CODE:	ASME B31.3, 2018
SERVICE: <td>HYDROTRANSPORT SLURRY</td>	HYDROTRANSPORT SLURRY
DESIGN PRESSURE: <td>1770 kPag (257 psig)</td>	1770 kPag (257 psig)
DESIGN TEMPERATURE: <td>94°C (201°F)</td>	94°C (201°F)
TEST PRESSURE: <td>2950 kPag (428 psig)</td>	2950 kPag (428 psig)
TEST TEMPERATURE: <td>15°C (59°F)</td>	15°C (59°F)
TEST DURATION: <td>10 MINUTES</td>	10 MINUTES

BILL OF MATERIAL				REVISION HISTORY									
ITEM	ITEM QTY	PART NUMBER	DESCRIPTION	REV	DATE	DESCRIPTION	INITIALS	EST. WT. 2,790 lbs.	DO NOT SCALE	ALCO Industrial			
1	1	A1-19027-300-01 32in pipe	32" XS x 6 1/32" PIPE, API 5L X65M	0	2/12/20	ISSUED FOR CONSTRUCTION, PIPE WAS X56	BEM	UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN INCHES. BREAK ALL SHARP EDGES 0.1" R. 0.10" INTERPRET DWG PER ANSI Y14.5 STANDARD.	DRAWN BY: GVD DATE: 1/07/20	PROJECT No. A1-19027 REFERENCE RD-235-002-D-002-1 Rev.A4 FILE NAME A1-19027-300-00 RD-235-2-D-2-1.idw			
2	1	A1-19027-300-02 32in CL150 RF flange	32" CLASS 150 B16.47 Ser.A RF FLANGE, A350 LF2, 2" THICKER	C	2/11/20	ADD PF NUMBERS, HOLE DIMENSION	KLS	TOLERANCES: X = ±.118 X.X = ±.050 X.XX = ±.015 X.XXX = ±.005	CHECKED BY: KLS DATE: 2/12/20				
3	1	A1-19027-300-03 32in CL150 FFWN flange	32" x 3/4" WALL CLASS 150 FFWN FLANGE, A105N	B	1/21/20	FLANGE WAS 30" ALCO FLANGE, LENGTH WAS 407mm (16 1/32"), PLUGS WERE AT 8 1/2". NOTE 3 CHANGED, HYDROTEST PRESSURE WAS 2950 kPag (385 psig), UPDATED BoM, ADDED FLOW INDICATOR	GVD	FINISH ON ALL MACHINED SURFACES	APPROVED: BEM DATE: 2/12/20				
4	1	A1-19027-300-04 HCWI liner - nozzle	28 1/2" ID x 1" WALL x 53 7/32" HCWI NOZZLE LINER, ASTM A532 CLASS III TYPE A, PF# 470289	A	1/07/20	ISSUED FOR REVIEW	GVD			TITLE SPOOL RD-235-2-D-2-1 SYNCRUDE AURORA HT2 MAIN LINE			
5	2	ASME B16.11 Hex Head Plug 3/4	3/4"-NPT HEX BULL PLUG, SA234 WPB-S9							REV. 0			
6	2	Tag mount - 3in	C3x4.1 x 1", 44W							SHEET 1 OF 1			