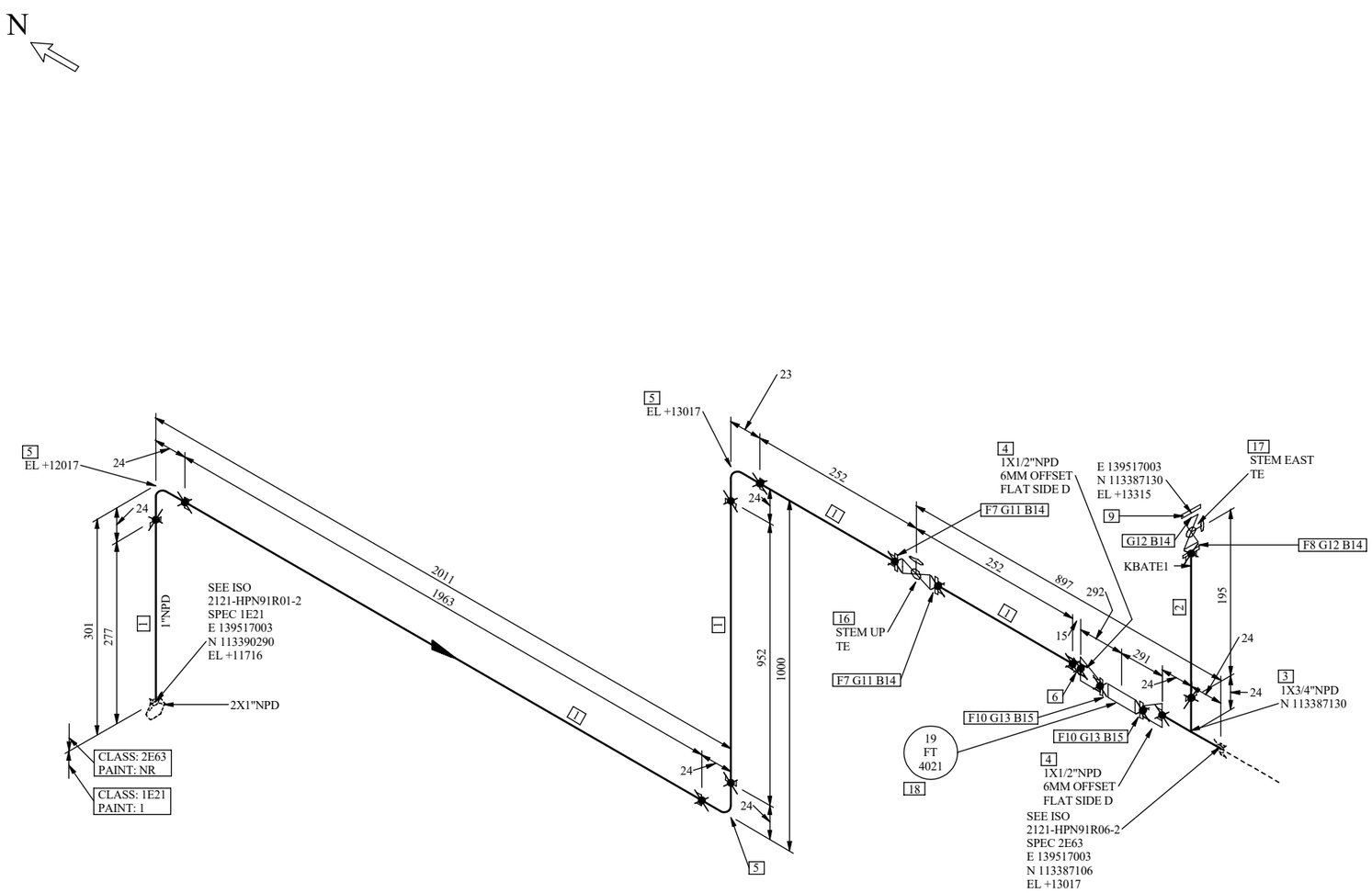
EXTR. DATE: 07-04-2023 13:40:45 STREAM NO.:4214 STREAM REV. NO. : 7 REV. CAUSE ID:



BILL OF MATERIAL

PT NO	COMPONENT DESCRIPTION	N.S. (IN)	ITEM CODE	QTY	HOLD STATUS
	PIPE				
1	PIPE - A312-TP304/304L DUAL GR PE SMLS T01AL2CZ02 S-40S <PIPB04DA2140S> (L-PIP111)	1	I2257939	3.5 M	
2	PIPE - A312-TP304/304L DUAL GR PE SMLS T01AL2CZ02 S-40S <PIPB04DA23/440S> (L-PIP111)	3/4	I2257938	0.1 M	
	FITTINGS				
3	REDUCING TEE ASME B16.11 3000# A182-F304/304L DUAL GR SWE SWE - R12FNL2A1101 NREQD <RTEB450LBK13/4> (L-RTE18)	1X3/4	I2258205	1	
4	ECCENTRIC SWAGE MSS SP-95 - A182-F304/304L DUAL GR PE PE SMLS SCH1-40S SCH2-40S R22FQL2AZZ04 <ESWB04DAR12011001> (L-ESW23)	1X1/2	I49166458	2	
5	90 ELBOW ASME B16.11 3000# A182-F304/304L DUAL GR SWE SWE - R31FNL2A1103 NREQD <90FB450LBK1> (L-90F05)	1	I2258117	3	
6	COUPLING ASME B16.11 3000# A182-F304/304L DUAL GR SWE SWE - R01FNL2A1101 NREQD <FCPB450LBK1> (L-FCP08)	1	I2258105	1	
	FLANGES				
7	SW FLANGE ASME B16.5 300# A182-F316/316L DUAL GR RFFE SWE 125 - 250 AARH F02CFL1MB105 S-40S <SWFB34DR35140S> (L-SWF37)	1	I2500941	2	
8	SW FLANGE ASME B16.5 300# A182-F316/316L DUAL GR RFFE SWE 125 - 250 AARH F02CFL1MB105 S-40S <SWFB34DR353/440S> (L-SWF37)	3/4	I2500940	1	
9	BLIND FLANGE ASME B16.5 300# A182-F316/316L DUAL GR RFFE NREQD 125 - 250 AARH F10CFL1MB005 <BLFB34DR353/4> (L-BLF36)	3/4	I2254550	1	
10	SW FLANGE ASME B16.5 300# A182-F316/316L DUAL GR RFFE SWE 125 - 250 AARH F02CFL1MB105 S-40S <SWFB34DR351/240S> (L-SWF37)	1/2	I2500939	2	
	GASKETS				
11	SPIRAL WOUND GASKET ASME B16.20 300# RFTBE 304/PTFE SS 304 SS 304 ASME B16.5 G03GFP1IG04 <N/A> (N/A)	1	I219568	2	
12	SPIRAL WOUND GASKET ASME B16.20 300# RFTBE 304/PTFE SS 304 SS 304 ASME B16.5 G03GFP1IG04 <N/A> (N/A)	3/4	I219567	2	
13	SPIRAL WOUND GASKET ASME B16.20 300# RFTBE 304/PTFE SS 304 SS 304 ASME B16.5 G03GFP1IG04 <N/A> (N/A)	1/2	I219566	2	
	BOLTS				
14	STUD BOLTS&NUTS ASME B18.31.2/ B18.2.2 A320-L7/A194-7 INCH SIZE I01OB5301 <SB2R55G5/831/4> - 2 NUTS PER BOLT - 80 mm Length	5/8	I55705037	16	
15	STUD BOLTS&NUTS ASME B18.31.2/ B18.2.2 A320-L7/A194-7 INCH SIZE I01OB5301 <SB2R55G1/221/2> - 2 NUTS PER BOLT - 65 mm Length	1/2	I55704809	8	
	VALVES / IN-LINE ITEMS				
16	BALL VALVE ASME B16.34 300# A351-CF8M RFFE 316/R-PTFE, GF A193-B8M CL2/8MA 125 - 250 AARH 2PSB-FULL BORE FLOATING BALL OHW ASME B16.5 V04JFL08B05C NREQD <N/A> (N/A)	1	I64815734	1	
17	BALL VALVE ASME B16.34 300# A351-CF8M RFFE 316/R-PTFE, GF A193-B8M CL2/8MA 125 - 250 AARH 2PSB-FULL BORE FLOATING BALL OHW ASME B16.5 V04JFL08B05C NREQD <N/A> (N/A)	3/4	I64815733	1	
	INSTRUMENTS				
18	INSTRUMENT COMPONENT	1/2	19-FT-4021	1	

REMARKS FOR MECHANICAL SUBCONTRACTOR:
1) LINES 1.1/2" AND SMALLER SHALL BE SUPPORTED IN FIELD IF NOT OTHERWISE INDICATED.
2) ALL DIMENSION AND PROPER CONFIGURATION FOR LINES NPS 1.1/2" AND SMALLER SHALL BE CHECKED IN FIELD BEFORE CONSTRUCTION.
3) FOR THE COMPONENTS MARKED AS FIELD WELDED WITH THIS SYMBOL ✕ , ONE WELD FOR ADJUSTMENT OF IN LINE COMPONENT MUST BE LEFT
4) FOR EXTRA PIPE LENGTH REFER TO 4274-LZ-PC-00000603.
5) GUSSETING TO BE IMPLEMENTED BY MECHANICAL SUBCONTRACTOR AS PER 45-L-45-000-2-00-80004 / 4274-XH-SG-00000002.
6) CROSSING BETWEEN WELDS ON PIPELINE SHALL NOT BE ADMITTED.
7) IN CASE OF DISCREPANCIES BETWEEN DATA SHOWN ON ISO AND IN LINE LIST (AS APPLICABLE, DATA SHOWN IN LINE LIST GOVERN.
8) ACTUAL CUT LENGTH OF PIPE AND FIELD WELDS SHALL BE DEFINED BY MECHANICAL SUBCONTRACTOR (REF.TO 4274-LZ-PC-00000603).
9) WHERE EARTHING BONDING IS REQUIRED, MECHANICAL SUBCONTRACTOR TO PERFORM IT BASED ON DOC. 45-P-000-7-06-00902/ 4274 -NN-DW-00000002 AND ASSEMBLY NO FEA005 AND FE019.

SUPPORTS LEGEND: [1] DENOTES PARTS LIST NO — PIPE SUPPORT

A = RESTING SUPPORT G = GUIDE F = AXIAL STOP B = ANCHOR M = SPRING S = TEFLON PAD
WHERE [A] WITHOUT NUMBERING IS INDICATED, THIS MEANS THAT THERE IS A REST DIRECTLY ON STEEL STRUCTURE.

REV.	DESCRIPTION	DATE	DRW. BY	CHECK BY	APPR. BY	APPR. CLIENT
00	ISSUED FOR REFERENCE	07-APR-23	U.CHAVAN	P.VAZE	G.PAGANONI	

STRESS CALC. Nº: -
P & ID: 19-A-19-000-1-01-00001 sheet 114
LINE LIST Nº: 19-L-19-000-2-00-80602
PIPE LAYOUT Nº: 19-L-19-000-2-00-86196 sheet 4

ISSUED FOR REFERENCE

Signature for construction is shown on Iso list of relevant CWA

TITLE

ISOMETRIC DRAWING LINE

1"-HPN-91R06-2E63

PIPE MATERIAL: CS, low temperature
HEAT TREATMENT (PWHT): N
PAINTING SCHEME (3): NR
PIPING CLASS: 2E63
WELDING CLASS (4): M
PED CATEGORY: Art 4.3
INSULATION CODE / THK. (mm): N 0

NOTES:
1. FOR TECHNICAL DETAILS SEE LINE LIST.
2. FOR VENT, DRAIN OR INSTRUMENT CONNECTION DETAILS SEE 45-L-45-000-2-00-80102.
3. WELDING ACCORDING TO 45-L-45-000-2-00-80021.
4. PAINTING ACCORDING TO 45-A-45-000-1-00-20160.
5. CODE SHOWN IN BOM BETWEEN "<" & ">" DENOTES REPSOL UNICODE. "<N/A>" MEANS UNICODE IS "NOT AVAILABLE".

CONTRACTOR: Tecnimont
CONTRACTOR DRAWING NUMBER: 4274-XH-DL-2121HPN91R06-1
PROJECT: 4001008

REPSOL
LOW LINEAL DENSITY POLYETHILENE (PEL) AND POLYPROPYLENE (PP) PLANTS FOR PROJECT - ALBA PROJECT
CLIENT / COMPLEX: REPSOL POLYMEROS/ SINES INDUSTRIAL COMPLEX

ANNEX: 19
SPEC.: L
DRAWING NUMBER: 19-000-2-02-00001 sheet 2121HPN91R06-1
REV.: 00

FILENAME: 19-000-2-02-00001 sheet 2121HPN91R06-1.dwg