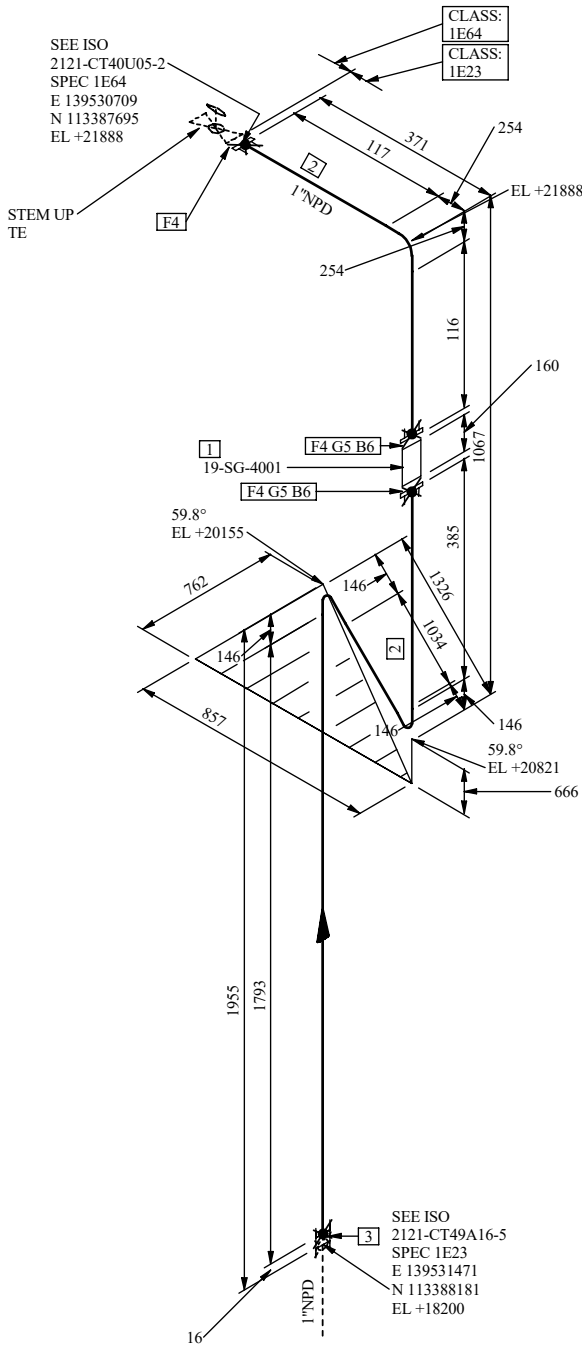



THIS DOCUMENT BELONGS TO REPSOL. IT CAN NOT BE COPIED, REPRODUCED AND/OR USED WITHOUT PREVIOUS AUTHORIZATION OF REPSOL. COMPUTERIZED DRAWING (HANDWRITING STRICTLY FORBIDDEN).










EXTR. DATE: 07-07-2023 11:24:51

STREAM NO.:4549 REV. CAUSE ID:



BILL OF MATERIAL				
PT NO	COMPONENT DESCRIPTION	N.S. (IN)	ITEM CODE	HOLD STATUS
FITTINGS				
1	SPECIALTY COMPONENT	1	19-SG-4001	1
PIPE				
2	PIPE - A106-B PE SMLS T01AC03Z02 S-XS <PIPA010A11XS> (L-6679)	1	1132793	4.4 M
FITTINGS				
3	COUPLING ASME B16.11 3000# A105N SWE SWE - R01FNC441101 NREQD <FCPA300LBK1> (L-180)	1	11651677	1
FLANGES				
4	SW FLANGE ASME B16.5 300# A105N RFFE SWE 125 - 250 AARH F02CFC44B105 S-XS <SWFA300R351XS> (L-375)	1	14217823	3
GASKETS				
5	SPIRAL WOUND GASKET ASME B16.20 300# RFFE 304/PTFE CARBON STEEL SS 304 ASME B16.5 G03GFB11G12 <SPAQ505R3EA1> (L-SPA05)	1	163598746	2
BOLTS				
6	STUD BOLTS&NUTS ASME B18.31.2/ B18.2.2 A193-B7/A194-2H INCH SIZE I01OB0301 <SB2R51G5/831/4> - 2 NUTS PER BOLT - 80 mm Length	5/8	153437418	8

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:  DENOTES PARTS LIST NO  PIPE SUPPORT  A=RESTING SUPPORT  G=GUIDE  F= AXIAL STOP  B=ANCHOR  M=SPRING  S=TEFLON PAD
WHERE  WITHOUT NUMBERING IS INDICATED, THIS MEANS THAT THERE IS A REST DIRECTLY ON STEEL STRUCTURE.

							STRESS CALC. N°
							-
							P & ID 19-A-19-000-1-01-00001 sheet 57
00	ISSUED FOR REFERENCE	07-JUL-23	U.CHAVAN	P.VAZE	G.PAGANONI		LINE LIST N° 19-L-19-000-2-00-80602
REV.	DESCRIPTION	DATE	DRW. BY	CHECK BY	APPR. BY	APPR. CLIENT	PIPE LAYOUT N° 19-L-19-000-2-00-86196 sheet 5

ISSUED FOR REFERENCE

Signature for construction is shown on Iso list of relevant CWA

TITLE

ISOMETRIC DRAWING LINE

1"-CT-49A16-1E23

PIPE MATERIAL

CS

HEAT TREATMENT (PWHT)

N

PAINTING SCHEME (3)

1

PIPING CLASS

1E23

WELDING CLASS (4)

E-1

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:

CONTRACTOR DRAWING NUMBER:

PROJECT:

4001008

LOW LINEAL DENSITY POLYETHYLENE (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 2121CT49A16-6

REV. 00