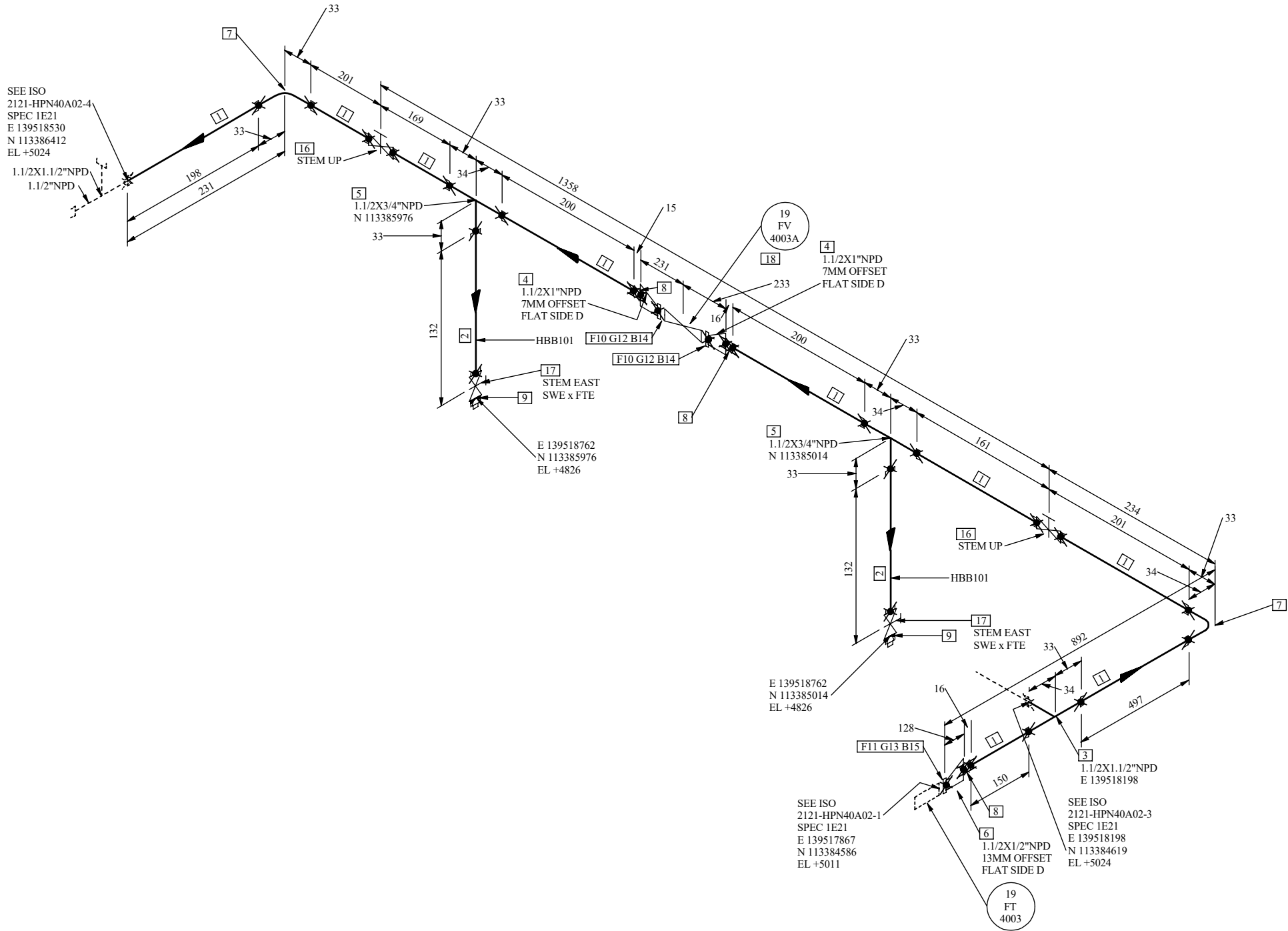


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EXTR. DATE: 27-02-2024 18:46:21

STREAM NO.:4202      STREAM REV. NO. : 10      REV. CAUSE ID: 8



BILL OF MATERIAL					
PT NO	COMPONENT DESCRIPTION	N.S. (IN)	ITEM CODE	QTY	HOLD STATUS
PIPE					
1	PIPE - A106-B PE SMLS T01AC03Z02 S-XS <PIPA010A111/2XS> (L-6679)	1.1/2	I132809	1.8 M	
2	PIPE - A106-B PE SMLS T01AC03Z02 S-XS <PIPA010A13/4XS> (L-6679)	3/4	I132785	0.2 M	
FITTINGS					
3	TEE ASME B16.11 3000# A105N SWE SWE - R11FNC441101 NREQD <TESA300LBK11/2> (L-179)	1.1/2X1.1/2	I1651302	1	
4	ECCENTRIC SWAGE MSS SP-95 - A105N PE PE SMLS SCH1-XS SCH2-XS R22FQC44ZZ01 <ESWA010AR13161216> (L-ESW31)	1.1/2X1	I62946435	2	
5	REDUCING TEE ASME B16.11 3000# A105N SWE SWE - R12FNC441101 NREQD <RTEA300KBK11/23/4> (L-RTE15)	1.1/2X3/4	I1651306	2	
6	ECCENTRIC SWAGE MSS SP-95 - A105N PE PE SMLS SCH1-XS SCH2-XS R22FQC44ZZ01 <ESWA010AR13161016> (L-ESW31)	1.1/2X1/2	I63782607	1	
7	90 ELBOW ASME B16.11 3000# A105N SWE SWE - R31FNC441103 NREQD <90FA300LBK11/2> (L-178)	1.1/2	I1651297	2	
8	COUPLING ASME B16.11 3000# A105N SWE SWE - R01FNC441101 NREQD <FCPA300LBK11/2> (L-180)	1.1/2	I1651679	3	
9	PLUG ROUND HEAD ASME B16.11 - A105N MTE NREQD - R42FQC44W001 NREQD <PLUA300CK3/4> (L-77)	3/4	I10088232	2	
FLANGES					
10	SW FLANGE ASME B16.5 300# A105N RFFE SWE 125 - 250 AARH F02CFC44B105 S-XS <SWFA300R351XS> (L-375)	1	I4217823	2	
11	SW FLANGE ASME B16.5 300# A105N RFFE SWE 125 - 250 AARH F02CFC44B105 S-XS <SWFA300R351/2XS> (L-375)	1/2	I9762189	1	
GASKETS					
12	SPIRAL WOUND GASKET ASME B16.20 300# RFTBE 304/GRAFOIL CARBON STEEL SS 304 ASME B16.5 G03GFP1IS12 <N/A> (N/A)	1	I63508951	2	
13	SPIRAL WOUND GASKET ASME B16.20 300# RFTBE 304/GRAFOIL CARBON STEEL SS 304 ASME B16.5 G03GFP1IS12 <N/A> (N/A)	1/2	I63508949	1	
BOLTS					
14	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	I53437418	8	
15	STUD BOLTS&NUTS ASME B18.31.2/ B18.2.2 A193-B7/A194-2H INCH SIZE I01OB0301 <SB2R51G1/221/2> - 2 NUTS PER BOLT - 65 mm Length	1/2	I53437190	4	
VALVES / IN-LINE ITEMS					
16	GATE VALVE API 602 800# A105N SWE SWE 8-F6&HF WB-OS&Y SOW API 602 HW V01GIC4411BL NREQD <G611_2L-GA1313-B> (L-GA1313-B)	1.1/2	I10015421	2	
17	GATE VALVE API 602 800# A105N SWE FTE 8-F6&HF WB-OS&Y SOW API 602 HW V01GIC4412BL NREQD <N/A> (N/A)	3/4	I10015410	2	
INSTRUMENTS					
18	INSTRUMENT COMPONENT	1	I9-FV-4003A	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:**  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.



02	ISSUED FOR REFERENCE	29-FEB-24	M.YADAV	P.VAZE	G.PAGANONI		STRESS CALC. N° -
01	ISSUED FOR REFERENCE	24-NOV-23	M.YADAV	P.VAZE	G.PAGANONI		P & ID 19-A-19-000-1-01-00001 sheet 28
00	ISSUED FOR REFERENCE	07-APR-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 2

ISSUED FOR  
REFERENCE

Signature for construction is shown  
on Iso list of relevant CWA

TITLE  
**ISOMETRIC DRAWING  
LINE**

1-1/2"-HPN-40A02-1E21

PIPE MATERIAL		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".			
CS					
HEAT TREATMENT (PWHT)					
N					
PAINTING SCHEME (3)			CONTRACTOR:	CONTRACTOR DRAWING NUMBER:	PROJECT:
I					
PIPING CLASS					
IE21		4274-XH-DL-2121HPN40A02-2			
WELDING CLASS (4)		 <div>LOW LINEAL DENSITY POLYETHYLENE (PEL) AND POLYPROPYLENE (PP) PLANTS FOR PROJECT - ALBA PROJECT</div>			
E					
PED CATEGORY					
I		CLIENT / COMPLEX REPSOL POLYMEROS/ SINES INDUSTRIAL COMPLEX			
INSULATION CODE / THK. (mm)		ANNEX 19	SPEC. L	DRAWING NUMBER 19-000-2-02-00001 sheet 2121HPN40A02-2	REV. 02
N                  0					