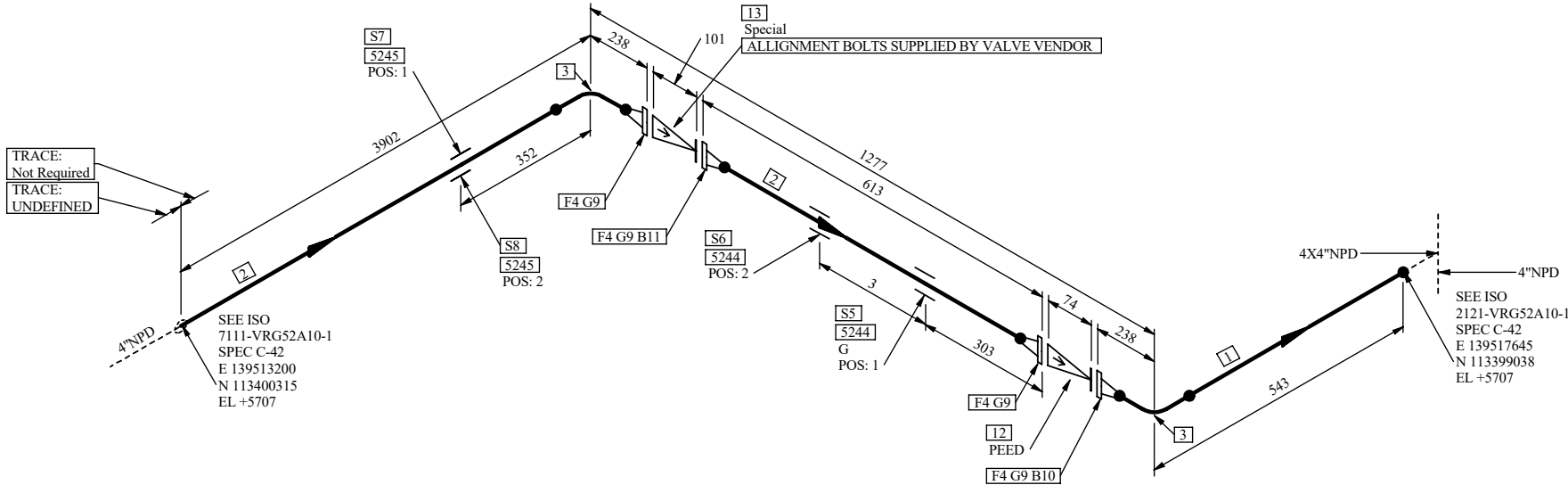
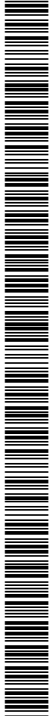


THIS DOCUMENT BELONGS TO REPSOL. IT CAN NOT BE COPIED, REPRODUCED AND/OR USED WITHOUT PREVIOUS AUTHORIZATION OF REPSOL. COMPUTERIZED DRAWING (HANDWRITING STRICTLY FORBIDDEN).

EXTR. DATE: 07-04-2023 13:14:26





STREAM NO.:4517

REV. CAUSE ID:



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° REP-PE-031 |
| | | | | | | | P & ID 19-A-19-000-1-01-00001 sheet 53 |
| 00 | ISSUED FOR CONSTRUCTION | 07-APR-2023 | M.YADAV | 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-19-000-2-00-86197 sheet 2 |

APPROVED FOR
CONSTRUCTION



Signature for construction is shown
on Iso list of relevant CWA

ISOMETRIC DRAWING
LINE

4"-VRG-52A10-C-42 (CG)

BILL OF MATERIAL

| PT NO | COMPONENT DESCRIPTION | N.S. (IN) | ITEM CODE | QTY | HOLD STATUS |
|------------------------|---|-----------|-----------|-------|-------------|
| PIPE | | | | | |
| 1 | PIPE - A333-6 BE SMLS T01AC22V02 S-STD <PIPL020B14STD> (L-8199) | 4 | I146310 | 0.4 M | |
| 2 | PIPE - A333-6 BE SMLS T01AC22V02 S-STD <PIPL020B14STD> (L-8199). | 4 | I146310 | 4.2 M | |
| FITTINGS | | | | | |
| 3 | 90 LR ELBOW ASME B16.9 A420-WPL6 BE SMLS C01DC09V01 S-STD <90LL210F34STD> (L-7966). | 4 | I213646 | 2 | |
| FLANGES | | | | | |
| 4 | WN FLANGE ASME B16.5 300# A350-LF2 Class 1 RFFE BE 125 - 250 AARH F01CFC07BV05 S-STD <WNFL300R354STD> (L-7981). | 4 | I219623 | 4 | |
| PIPE SUPPORTS | | | | | |
| 5 | CLAMPED GUIDE,COLD INS. -F2G1 H=150 L=300 | 4 | 5244 | 1 | |
| 6 | STAKES SUPPORTS ST02 HEA120 | 4 | 5244 | 1 | |
| 7 | RESTING SHOE CLAMPED,COLD INS. -F2A1 H=150 L=300 | 4 | 5245 | 1 | |
| 8 | STAKES SUPPORTS ST01 HEA100 | 4 | 5245 | 1 | |
| GASKETS | | | | | |
| 9 | SPIRAL WOUND GASKET ASME B16.20 300# RFTBE 316/GRAP LTCS SS 316 ASME B16.5 G03GFP11AG8 <N/A> (N/A) | 4 | I46364709 | 4 | |
| BOLTS | | | | | |
| 10 | STUD BOLTS&NUTS ASME B18.31.2/ B18.2.2 A320-L7/A194-7 INCH SIZE I01OB5301 <SB2R55G3/473/4> - 2 NUTS PER BOLT - 195 mm Length | 3/4 | I55705101 | 8 | |
| 11 | STUD BOLTS&NUTS ASME B18.31.2/ B18.2.2 A320-L7/A194-7 INCH SIZE I01OB5301 <SB2R55G3/483/4> - 2 NUTS PER BOLT - 220 mm Length | 3/4 | I55705106 | 8 | |
| VALVES / IN-LINE ITEMS | | | | | |
| 12 | TILTING CHECK LUG ASME B16.34 300# A352-LCC RFTBE DISC:DI SEAT:PEEK 125 - 250 AARH ASME B16.5 V49JFC82P13 NREQD <N/A> (N/A). | 4 | I66040865 | 1 | |
| 13 | DISC CHECK WFR VALVE ASME B16.34 300# A352-LCC RFTBE 316/PEEK 125 - 250 AARH SL VERTICAL&HORIZONTAL CRACKING PRESSURE AT 4.25 PSI ASME B16.5 V40JFC82P12 NREQD <N/A> (N/A). | 4 | I66040922 | 1 | |

| | | | |
|-----------------------------|---|----------------------------|---|
| PIPE MATERIAL | NOTES: 1. FOR TECHNICAL DETAILS SEE LINE LIST. 2. FOR VENT, DRAIN OR INSTRUMENT CONNECTION DETAILS SEE 45-L-45-000-2-00-800102. 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, low temperature | | | |
| HEAT TREATMENT (PWHIT) | | | |
| N | | | |
| PAINTING SCHEME (3) | CONTRACTOR: | CONTRACTOR DRAWING NUMBER: | PROJECT: |
| 20 |  | 4274-XH-DL-2121VRG52A10-2 | 4001008 |
| PIPING CLASS | LOW LINEAL DENSITY POLYETHYLENE (PEL) AND POLYPROPYLENE (PP) PLANTS CLIENT / COMPLEX | | |
| C-42 | REPSOL POLYMEROS/ SINES INDUSTRIAL COMPLEX | | |
| WELDING CLASS (4) |  | | |
| M | | | |
| PED CATEGORY | FOR PROJECT - ALBA PROJECT | | |
| II | | | |
| INSULATION CODE / THK. (mm) | ANNEX 19 | SPEC. L | DRAWING NUMBER 19-000-2-02-00001 sheet 2121VRG52A10-2 |
| CG 65 | | | REV. 00 |