

BONGA NORTH EPC 1

JOB CARD NUMBER: A02.L1-TI-0012 WORKPACK NUMBER: A02

| VOCA DE MESONA TON | | | | | | |
|---|--|------------------------|----------------------|--------------------|----------------------------|--|
| JOBCARD INFORMATION | | | | | | |
| PREPARED BY: Vitor Pereira DATE OF: 20/06/2025 | | 25 | REV.: | | STATUS: None | |
| APPROVED BY: None DATE OF: | | | | | | |
| SUBSYSTEM: 03-03A_BN | | DISCIPLINE: TIE-IN W | | WORKING CODE: TDA | | |
| SYSTEM: 03 | | LOCATION: A02 | | SEQUENTIAL NUMBER: | | |
| TAG: TP-01 | | TOTAL MAN-HOURS: 83.00 | | MATERIAL: | | |
| JOB CARD DESCRIPTION: | | | | | | |
| COMMENTS: None | | | | | | |
| | | | | | | |
| ACTIVITY ID P6: CST-EPC1-6450 HOT-WORK REQUIRED: NO | | RED: NO | TOTAL WEIGHT (kg): 0 | | TOTAL DURATION (hs): 10.00 | |
| | | | | | | |

TASK DESCRIPTION TASK DESCRIPTION COMPLETED? Perform leak test 40,96% 59,04%

| TASK NUMBER DURATION (hs) | | | MAN-H | | | | |
|---------------------------|-------------|----------------------|------------|------|-------|-------|--|
| | 12 | | 5,00 | | 34,00 | | |
| | 13 | | 5,00 | | | 49,00 | |
| ITEM | TASK NUMBER | | SPECIALIST | | | QTY | |
| 1 | 12 | Foreman | | 3,00 | | 1,00 | |
| 2 | 12 | Welder | | 5,00 | | 2,00 | |
| 3 | 12 | Firewatch | Firewatch | | | 1,00 | |
| 4 | 12 | Mechanical assembler | 5,00 | 1,00 | | | |
| 5 | 12 | Pipe fitter | | 2,00 | | 4,00 | |
| 6 | 12 | Rigger_M | | 4,00 | | 1,00 | |
| 7 | 13 | Foreman | | 5,00 | | 1,00 | |
| 8 | 13 | Welder | | 4,00 | | 2,00 | |
| 9 | 13 | Firewatch | Firewatch | | | 1,00 | |
| 10 | 13 | Mechanical assembler | | 5,00 | 1,00 | | |
| 11 | 13 | Pipe fitter | | 4,00 | | 4,00 | |
| 12 | 13 | Rigger_M | | 5,00 | 1,00 | | |
| 13 | 13 | Scaffolder | | 5,00 | | 1,00 | |

| ERECTION | ERECTION MATERIALS | | | | | | | |
|----------|--|------------------|-------|----------|--|--|--|--|
| ITEM | DESCRIPTION | PMTO CODE | QTY | COMMENTS | | | | |
| 1 | PIPE, CARBON STEEL, DIMENSIONS ACCORDING ASME B36.10, MATERIAL ASTM A333 GR.6 - SEAMLESS, BEVELLED ENDS ASME B16.25, ACCORDING NACE MR0175. | PAPAA.100.00895 | 1,30 | TAM 2026 | | | | |
| 2 | FLANGE,WN,RF,CL600,ASME B16.5 ASTM A105, NACE MR-01-75 SCH 100 | PAAAA.160.00086E | 2,00 | TAM 2026 | | | | |
| 3 | FLANGE BLIND, RF, CL600 ASME B16.5 ASTM A 105 NACE MR-01-75 SCH 100 | PAAAA.160.00086E | 1,00 | TAM 2026 | | | | |
| 4 | FLANGE, WN, RF, CL600, ASME B16.5 AST M A105, NACE MR-01-75 SCH 100 | PAAAA.140.00086 | 2,00 | TAM 2026 | | | | |
| 5 | FLANGE BLIND, RAISED FACE, CLASS 600 ASME B16.5, CARBON STEEL ASTM A105, NACE MR-01-75/ISO15156 (1) Controlled Hardness per NACE MR-0175; SCH 100. | N/A | 2,00 | TAM 2026 | | | | |
| 6 | REDUCING TEE, SMLS, ASTM A420 GR WPL6, BUTT WELD, ASME B16.9, NACE MR-01-75/ISO15156 | PAFTF.160.05003 | 2,00 | TAM 2026 | | | | |
| 7 | 300 STUDBOLT WITH NUTS, ASTM A193-B7/A194-2H WITH HOT-DIP GALVANISED | 300_BOLT_OPT21'1 | 20,00 | TAM 2026 | | | | |
| 8 | STUD BOLT WITH 2 HEAVY HEXAGONAL NUTS, BOLT MATERIAL ASTM A193 Gr B7, NUTS MATERIAL HEX HEAVY ASTM A194 Gr 2H; BOLT THREAD TYPE; -1 - ASME B1.1, UNC 2A; 1? -3 - ASME B1.1, UN 2A -8 thdin; NUT THREAD TYPE; -1 -8 SME B1.1, UNC 3A; 1? -3 - ASME B1.1, UNC 3A; 17 -3 -3 SME B1.1, UNC 3A; 17 -3 -3 SME B1.1, UNC 3A; 18 -3 SM | N/A | 40,00 | TAM 2026 | | | | |
| 9 | STUD BOLT WITH 2 HEAVY HEXAGONAL NUTS, BOLT MATERIAL ASTM A193 Gr B7, NUTS MATERIAL HEX HEAVY ASTM A194 Gr 2H; BOLT THREAD TYPE; -1 -1 ASME B1.1, UNC 2A; 1? -3 - ASME B1.1, UN 2A -8 thd/in; NUT THREAD TYPE; -1 -4 -8 ME B1.1, UNC 2A; 1? -3 - ASME B1.1, UN 2A -8 thd/in; COAT ING ZIMC PLATED PER ASTM B833 (ASME B1.5, SC.2 (0.0003 PLATING THICHNESS), TYPE II (WITH A SUPPLEMENTARY YELLOW CHROMATE TREATMENT). | N/A | 20,00 | TAM 2026 | | | | |
| 10 | GASKET, SPIRAL WOUND NON-ASBESTOS FLEXITE SUPER FILLER WITH STAINLESS STEEL AISI 304 WINDINGS, FLEXITALIUS STYLE GO ROS ADDS APPROVED ED ASME BIS 20, RF CLASS 600. THIS 3.2 mm, ASME BIS 420 FOR FLANGE ASME BIS 5. THE MATERIAL SHALL BE THE REQUIREMENTS OF THE NACE MR-01-75 / ISO 15156 STANDARD. | PZGAY.160.00002 | 2,00 | TAM 2026 | | | | |
| 11 | KaMOS GASKET RF CL. 600. | K6CS-CL600RF.16 | 2,00 | TAM 2026 | | | | |
| 12 | PADDLE BLANK AND SPACER; ASTM A516 GR. 70; CARBON STEEL; ASME B16.48 STANDARD; CLASS 600; BET WEEN FLANGES, ASME B16.5, RAISED FACE, FINISHING SPIRAL SERRATED, MINI 125 TO MAX 250 AARH; THE MATERIAL SHALL BE COMPLIANT WITH THE NACE WR-01-75 / ISIO 15156 STANDARD REQUIRE MENTS. | N/A | 1,00 | TAM 2026 | | | | |
| 13 | Truniion Pipe supports and base plate Plate 15mm Thk. S355 (0.5m x 0.5m) Pipe 8 Sch.80 ASTM A 106 GR B SMLS (1.5mtr length) | N/A | 1,00 | TAM 2026 | | | | |

EQUIPMENT & SPECIAL TOOLING

MAN-HOUR - DESCRIPTION

| ITEM | SPECIAL TOOLING | QTY |
|------|---|------|
| 1 | 10 LOCKING PLIERS | 1,00 |
| 2 | 8 INSULATED UNIVERSAL PLIERS | 1,00 |
| 3 | 12 ADJUSTABLE HACKSAW | 1,00 |
| 4 | WOODEN FILE HANDLE | 1,00 |
| 5 | ALLEN WRENCH 1/16, 3/32, 1/8, 3/16, 1/4 | 1,00 |
| 6 | SCREWDRIVER 3/16 x 4, 1/4 x 6, 1/4 x 8, 5/16 x 10 | 1,00 |
| 7 | OPEN-END WRENCH 1/4 x 5/16, 3/8 x 7/16, 1/2 x 9/16, 1/4 x 25/32, 1 x 5/16 | 1,00 |
| 8 | 12 ADJUSTABLE WRENCH | 1,00 |
| 9 | 10 HALF-MOON COMPASS | 1,00 |
| 10 | 300 mm STAINLESS STEEL RULER | 1,00 |
| 11 | STEEL BRUSH | 1,00 |
| 12 | CARPENTER'S SQUARE | 1,00 |

| | ITEM | SPECIAL TOOLING | QTY |
|---|------|--|------|
| | 1 | 12 FLAT, ROUND, HALF-ROUND, AND SQUARE FILES | 1,00 |
| | 2 | HYDRAULIC JACK, 5 TON | 1,00 |
| | 3 | BALL-PEEN HAMMER 500 g, 1000 g | 1,00 |
| | 4 | IRON LEVEL | 1,00 |
| | 5 | 300 g CENTER PLUMB | 1,00 |
| | 6 | PUNCH | 1,00 |
| | 7 | SCRIBER | 1,00 |
| | 8 | MANUAL HOIST, 1 TON | 1,00 |
| | 9 | CHISEL | 1,00 |
| | 10 | TIRFOR, 1.6 TON | 1,00 |
| T | 11 | BOMBA DE TESTE HIDROST. | 1,00 |
| | 12 | LIXADEIRA | 1,00 |
| | 13 | TALHA MANUAL, 1 TON | 1,00 |

| JobCard N°: A02.L1-TI-0012 | QC INSPECTOR | SNEPCo | MABU |
|----------------------------|--------------|-----------|-----------|
| | SIGNATURE | SIGNATURE | SIGNATURE |
| | NAME | NAME | NAME |
| | DATE | DATE | DATE |



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JOB CARD NUMBER: A02.L1-TI-0012 WORKPACK NUMBER: A02

| SAFETY - CONDITIONS & RECOMMENDATIONS | | | | | | | |
|---------------------------------------|---------------------------------|--------------------|------------|---|--------------------------|--|--|
| PPE E GENERAL | COLD WORK PERMIT | FIRE EXTINGUISHER | FALL PROTE | CTION | MARINE SAFETY | | |
| BLIND ISOLATION SYSTEM | HOT WORK PERMIT | FIRE WATCH | SPARK PRO | FECTION | SEVERE WEATHER PREP | | |
| JOB SAFETY ANALYSIS | BARRICADES | DIVER SAFETY | SIMULTANEO | DUSLY DRILL | ENVIRONMENTAL PROTECTION | | |
| GAS LEAK PROTECTION | LIFTING PLAN | HAZARDOUS MATERIAL | WEATHER P | WEATHER PROTECTION REQUIRED PPE SPECIAL | | | |
| OTHER/COMMENTS: | | | • | • | | | |
| | | | | | | | |
| | | | | | | | |
| QUALITY CONTROL AND INSPECTION | | | | | | | |
| CO FORMS: | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| ENGINEERING DOCUMENTS | | | | | | | |
| Discipline Document Tag Rev. Status | | | | | | | |
| TIE-IN | BNO-NETCO-300-PX-2365-21014-001 | | TP-01 | 02A | None | | |
| TIE-IN | BNO-NETCO-300-PX-2365-21024-001 | | TP-01 | 02A | None | | |
| COMPANY COMMENTS | | | | | | | |

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|----------------------------|--------------|-----------|-----------|
| | SIGNATURE | SIGNATURE | SIGNATURE |
| | NAME | NAME | NAME |
| | DATE | DATE | DATE |