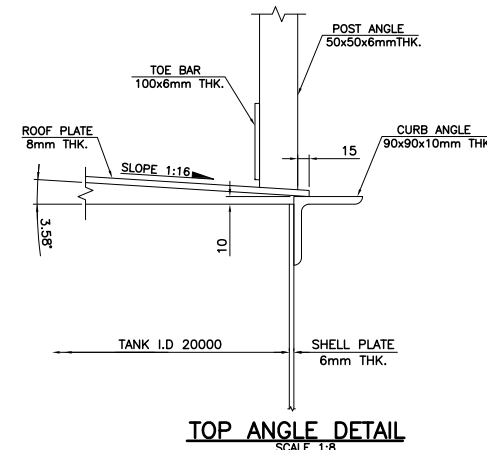


| NOZZLES DATA | | | | | | | | | |
|---------------|-----------|------|------------------------------------|----------------------------|-----------------|-----------|--------|-----------|---------|
| MARK NO. | INCH SIZE | QTY. | SERVICE | ELEVATION, RADIUS, "H"/"R" | PROJECTION, "P" | SCH./THK. | RATING | TYPE | REMARKS |
| ROOF NOZZLES | | | | | | | | | |
| N1 | 10" | 1 | (VPSV-6002) | 5500 | 200 | SCH. 40 | 150# | W.N./R.F. | - |
| N2 | 3" | 1 | LEVEL SWITCH HIGH HIGH (LSHH-6002) | 8500 | 150 | SCH. 80 | 150# | W.N./R.F. | - |
| N3 | 2" | 1 | TEMPERATURE ELEMENT (TE-6002) | 7500 | 150 | SCH. 80 | 150# | W.N./R.F. | - |
| N4 | 6" | 1 | LEVEL TRANSMITTER (LT-6002) | 6900 | 150 | SCH. 40 | 150# | W.N./R.F. | - |
| M1 | 24" | 1 | ROOF MANWAY | SEE DWG NO. 165-4-MST-009 | | | | | |
| SHELL NOZZLES | | | | | | | | | |
| N5 | 4" | 1 | INLET NOZZLE | 259 | 175 | SCH. 80 | 150# | W.N./R.F. | - |
| N6 | 4" | 1 | INLET NOZZLE | 259 | 175 | SCH. 80 | 150# | W.N./R.F. | - |
| N7 | 10" | 1 | OUTLET NOZZLE | 399 | 225 | SCH. 80 | 150# | W.N./R.F. | - |
| N8 | 10" | 1 | OUTLET NOZZLE | 399 | 225 | SCH. 80 | 150# | W.N./R.F. | - |
| N9 | 2" | 1 | SUMP CONNECTION | 175 | 150 | SCH. 80 | 150# | W.N./R.F. | - |
| N10 A/B | 2" | 2 | LEVEL SWITCH LOW LOW (LSLL-6002) | 407/763 | 150 | SCH. 80 | 150# | W.N./R.F. | - |
| N11 | - | - | FOAM POURER (ON HOLD) | - | - | - | - | - | - |
| M2 A/B | 24" | 2 | SHELL MANWAY | SEE DWG NO. 165-4-MST-007 | | | | | |



| REFERENCE DRAWING | |
|-------------------|---|
| NUMBER | TITLE |
| 165-4-MST-002 | BOTTOM PLATE DETAILS |
| 165-4-MST-003 | SHELL PLATE DETAILS |
| 165-4-MST-004 | ROOF STRUCTURE DETAILS |
| 165-4-MST-005 | SPRINKLER, PLATFORMS AND HANDRAIL DETAILS |
| 165-4-MST-006 | SHELL MANHOLES, NOZZLES AND EARTHING LUGS DETAILS |
| 165-4-MST-007 | DRAW-OFF SUMP DETAILS |
| 165-4-MST-008 | ROOF MANHOLE AND NOZZLES DETAILS |
| 165-4-MST-009 | DELUGE SYSTEM SUPPORTS REPAD LAYOUT DETAILS |
| 165-4-MST-010 | FOAM CHAMBER INSTALLATION DETAILS |
| 165-4-MST-011 | NAME PLATE DETAILS |

| DESIGN DATA | |
|--|--|
| DESIGN CODE | API 650 11TH EDITION ADDENDUM 2 |
| TAG NO. | T-6002 |
| SERVICE | STABILIZE CONDENSATE |
| QUANTITY | 01 |
| TANK SIZE : | INSIDE DIA mm 20000 |
| | HEIGHT mm 13510 |
| TANK CAPACITY: | |
| GEOMETRIC | m³ 4242 (26675 bbls) |
| OPERATING | m³ 3816 (24000 bbls) |
| DESIGN SPECIFIC GRAVITY | 0.724 |
| DESIGN PRESSURE / VACUUM | barg ATMOSPHERIC |
| ROOF TYPE | FIXED CONE SUPPORTED ON RAFTERS & COLUMN |
| VENT TYPE | P/V VENT |
| EMERGENCY VENT | NO |
| EARTHING LUGS | Q4 |
| CORROSION ALLOWANCE: SHELL/ROOF/BOTTOM/STRUCTURE | mm 3mm |
| WIND SPEED | Km/hr 161 (100 mph) |
| FOUNDATION TYPE | SAND PAD TYPE |
| RADIOGRAPHY | AS PER API 650 |
| VACUUM BOX TEST | YES |
| DESIGN LIQUID LEVEL / HYDROTEST LEVEL | mm UPTO CURB ANGLE / 50mm ABOVE CURB ANGLE |
| SEISMIC ZONE | 2A |
| WELD EXAMINATION | AS PER API 650 |
| SURFACE PREPARATION | INSIDE SAND BLASTING TO Sa 2.5 |
| | OUTSIDE AS PER SPEC NO.165-4-SPM-058 |
| PAINTING | |
| TOTAL WT. IN EMPTY CONDITION | Kg 112748 |
| TOTAL WT. FULL OF WATER | Kg 4354748 |
| TOTAL WT. FULL OF PRODUCT | Kg 3183956 |

| MATERIALS | |
|----------------------|--|
| PLATES | ASTM A-36 |
| PIPES | ASTM A-106 Gr.B |
| FLANGES | ASTM A-105 |
| BOLTING / NUTS | ASTM A-193 Gr.B7 / A-194 2H |
| STRUCTURAL MATERIALS | ASTM A-36 |
| GASKET | 1/8" FLEXIBLE GRAPHITE W/304 OR 316 SS CORRUGATED INSERT |
| FITTINGS | A-234 WPB |

| WEIGHTS | |
|-------------------------------------|---------------|
| ITEM | WEIGHT (Kg) |
| BOTTOM PLATES | 23138 |
| ROOF PLATES | 20436 |
| SHELL PLATES | 55018 |
| ROOF STRUCTURE | 9270 |
| MANHOLES, NOZZLES & STAIR CASE ETC. | 4886 |
| TOTAL | 112748 |

- NOTES :**
- ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE STATED.
 - GRIND ALL SHARP EDGES, REMOVE ALL BURRS AND WELD SPATTERS.
 - WELD SEAMS TO BE ARRANGED SO THAT THEY DO NOT INTERSECT NOZZLES AND OTHER ATTACHMENTS.
 - STUD BOLT HOLES ON CONNECTING FLANGES SHALL STRADDLE THE MAIN AXIS.
 - ALL REINFORCEMENT PADS TO BE PROVIDED WITH Ø ¼"NPT VENT HOLES AT LOWEST POSITION. THESE HOLES TO BE FILLED WITH GREASE AFTER PRESSURE TESTING. ALL REINFORCEMENT TELLTALE HOLES SHALL BE PNEUMATICALLY TESTED AT 1 bar PRIOR TO HEAT TREATMENT AND BEFORE THE HYDROTEST.
 - ALL FILLET WELDS TO BE EXAMINED BY DPT.
 - PRIOR TO FINAL INSPECTION AND HYDROSTATIC TEST, THE INSIDE AND OUTSIDE OF THE TANK SHALL BE THOROUGHLY CLEANED AND SHALL BE FREE FROM ALL SLAG, SCALE, DIRT, GRIT WELD SPATTER, AND PIECES OF METAL, PAINT, OIL, ETC.
 - CORNER WELD MUST BE CONTOUR ROUND.
 - UPON COMPLETION OF WELDING THE TANK BOTTOM, ALL BOTTOM JOINTS INCLUDING BOTTOM TO SHELL JOINTS SHALL BE TESTED BY USING A VACUUM BOX, FIT FOR THE JOINTS GEOMETRY. WITH A SOAP SOLUTION, BEFORE ANY COATING IS APPLIED. WATER SHALL NOT BE PUMPED UNDERNEATH THE BOTTOM TO DETECT LEAKS.
 - NOZZLE ORIENTATION TO BE VERIFIED FROM PIPING DRAWINGS.
 - 'H' IS THE HEIGHT OF CENTER LINE OF NOZZLE FROM THE TOP OF BOTTOM PLATE IN MM.
 - 'J' IS THE PROJECTION OF NOZZLE FROM INSIDE FACE OF TANK TO OUTSIDE FACE OF NOZZLE IN MM.
 - ALL NOZZLES AND REINFORCING PADS SHALL BE CLEAR OF WELD SEAMS.
 - NOZZLE SHOWN IN ELEVATION ARE INDICATIVE ONLY, FOR ACTUAL LOCATION REFER PLAN.
 - TOP OF BOTTOM PLATE TAKEN EL. 0.00 FOR TANK FABRICATION PURPOSE.

| | | | | | |
|------|------------|-------------------------------|-------|---------|-------|
| REV. | DATE | DESCRIPTION OF REVISION | DRAWN | CHECKED | APPR. |
| C3 | 04-04-2016 | RE-ISSUED FOR CONSTRUCTION | MH | MMA | MAS |
| C2 | 06-02-2016 | RE-ISSUED FOR CONSTRUCTION | MH | MMA | MAS |
| C1 | 31-08-2015 | REVISED AS PER KR/JI COMMENTS | MH | MMA | MAS |
| C0 | 05-08-2015 | ISSUED FOR CONSTRUCTION | MH | MMA | MAS |

CLIENT: **OIL & GAS DEVELOPMENT COMPANY LTD.**
OGDOL HOUSE TOWER-8, FIRST FLOOR F616, BLUE AREA, JINNAH AVENUE ISLAMABAD PAKISTAN
FAX: +92 51 262353, PHONE: +92 51 3028850

CONSULTANT: **Zishan Engineers (Pvt.) Ltd.**
An ISO 9001-2008 certified company
47/F Block G, FECHS, Karama-Pakistan
Tel: (92-21) 34393045-48, & 34310151-54, Fax: (92-21) 34533430 & 34310156
E-Mail: contact@zishanengineers.com Website: www.zishanengineers.com

| | | | |
|-----------|---|----------|---------------|
| PROJECT : | KPD-TAY INTEGRATED DEVELOPMENT PROJECT PHASE-II | DWG. NO. | 165-4-MST-001 |
| TITLE : | GENERAL ARRANGEMENT DRAWING FOR CONDENSATE TANK (T-6002) (20m DIA. x13.510m HT) | REV. C3 | |
| | | JOB NO. | 165-4 |
| | | SIZE | A1 |
| | | SCALE | 1:100 |
| | | SHEET | 1 OF 1 |