

1481LI0080

1481TT0080

1481LT0072

1481PV0071

1481TI0096

148-T-102
L:148.10091-001-C
SEE ALSO PID : PID-1718-148-0030-0103
FOR PUMPS & PIPING

ITEM SERVICE TYPE ID x HEIGHT

148-T-102 BUTANE STORAGE TANK FULL CONTAINMENT 42250 mm x 27471 mm NOTES 27, 30

TOTAL VOL. WORKING VOL. DESIGN PRESS. DESIGN TEMP. LINING INSULATION

38514 35000 m³ -5/130 mbarg Min. -15 °C/Max: 55 °C NONE C

INSTRUMENTS	SET PRESSURE
RELIEF VALVES	130 mbarg
HIGH HIGH PRESSURE TRIP	110 mbarg
PRESSURE LETDOWN FROM BOG HEADER TO FLARE (PV-0041)	70 mbarg
CIRCULATION FLOW (PV-0045)	35 mbarg

INSTRUMENTS	SET PRESSURE
PRESSURE CONTROL (PV-0040)	25 mbarg
VACUUM PREVENTION GAS VALVES	10 mbarg
LOW LOW PRESSURE TRIP	5 mbarg
VACUUM BREAKER	-2 mbarg

NOTES

- TYPICAL NITROGEN PURGE AND VENT CONNECTION. TANK CONTRACTOR TO ENSURE THE CONFIGURATION ALLOWS PURGING DURING COMMISSIONING/OPERATION/DECOMMISSIONING.
- SKIN TYPE TEMP. INDICATORS. POINTS ATTACHED TO INNER SURFACE OF INNER TANK EQUALLY SPACED OVER SHELL HEIGHT (6 TOTAL), AND ON THE SUSPENDED DECK (2 TOTAL).
- SEVEN SKIN TEMPERATURE INDICATORS LOCATED EVENLY ON THE INNER TANK BOTTOM SURFACE.
- HIGH-HIGH LEVEL SHUTDOWN SHALL OCCUR ONLY IF 2 OF 3 LEVEL INSTRUMENTS AGREE, ONE OF THE THREE PRIMARY INSTRUMENTS TO BE OF DIFFERENT TYPE.
- TO BE LOCATED AT THE CENTER OF TANK DOME.
- STILLING WELL.
- DELETED.
- DELETED.
- PROVIDE WEEP HOLES AT LOW POINT OF PSV (DIA 13 mm), ORIENTATE TO SAFE LOCATION.
- NOZZLE FOR INSERTION OF TEMPERATURE DETECTOR/THERMOCOUPLE EXTENSION CABLE.
- TEMPERATURE SENSORS LOCATED UNDER THE INNER TANK. 6 ZONES ARE CONSIDERED. TWO TEMPERATURE TRANSMITTERS FOR EACH ZONE, ONE FOR CONTROL AND ONE FOR TRIP.
- COMMON ALARM FOR POWER FAILURE AND EARTH LEAKAGE CIRCUIT BREAKER TRIP IN EACH HEATER POWER SUPPLY.
- TYPICAL FOR ONE OF 3 VACUUM BREAKERS (INCLUDING ONE SPARE). VALVE ON SPARE TO BE CSC, OTHERS CSO. PROVISION SHOWN IS A MINIMUM. FINAL DESIGN IS THE TANK CONTRACTOR'S RESPONSIBILITY.
- TYPICAL FOR ONE OF 2 PILOT OPERATED PSV (INCLUDING ONE SPARE). VALVE ON SPARE TO BE CSC, OTHERS CSO. PROVISION SHOWN IS A MINIMUM. FINAL DESIGN IS THE TANK CONTRACTOR'S RESPONSIBILITY.
- JUNCTION BOX TO CONTAIN A SPARE RTD'S FOR EACH TRANSMITTER.
- TAIL PIPE CONFIGURATION IS PRELIMINARY. FINAL DESIGN, RESPECTING DISPERSION/IGNITED VENT DESIGN CRITERIA BY TANK CONTRACTOR.
- TWO INCLINOMETER CONDUITS SHALL BE PROVIDED IN BASE AT 90 DEGREES TO EACH OTHER.
- ONE OF TWO LOW LEVELS TO TRIP THE PUMPS.
- ONE INNER TANK DEFLECTION METER MEASURING VERTICAL AND HORIZONTAL DEFLECTION SHALL BE PROVIDED.
- TYPICAL PERLITE FILL CONNECTION: ONE EVERY 6m OR LESS AROUND TANK CIRCUMFERENCE.
- ALL TEMPERATURE ELEMENTS FOR FOLLOWING SHALL BE DUAL ELEMENT TYPE: TE-0081 TO TE-0092.
- FOR INSTALLATION OF TRAVERSING DENSITY MONITORING INSTRUMENT.
- LI-0072/0073 TO BE LOCATED CLOSE TO PUMP PLATFORM TO BE EASILY ACCESSIBLE BY OPERATOR.
- FOR DIRECTIONAL VIDEO CAMERA WITH INTERNAL LIGHTING, TO VIEW INNER TANK DURING OPERATION, NOZZLE AT CENTER OF TANK DOME.
- NITROGEN PURGE HEADER TO BE FITTED WITH PERFORATED DISTRIBUTOR RING.
- PSV-0073 TAIL PIPE WILL BE PROVIDED WITH DRY POWDER CONNECTION FOR SNUFFING.
- DELETED.
- DELETED.
- PSV IN CRYOGENIC SERVICE-CHECK FOR INSULATION IN ACCORDING TO TYPICAL NO. 7 OF THE PID-1718-999-0030-0005.
- DIMENSIONS REFER TO THE INNER TANK.
- CONNECTED TO TGS.
- MULTI-ELEMENT AVERAGE TEMPERATURE.
- SKIN TEMPERATURE LEAK DETECTOR SYSTEM.
- FOR NUMBER, SIZE AND POSITION OF MANWAYS REFER TO VENDOR DRAWING NO.VP-1718-148-T-101-2-121.
- HEATER ON-OFF-TRIP WITH FOLLOWING LOGIC:
 - ON: TT OF EACH ZONE REACH AT LOW TEMPERATURE.
 - OFF: TT OF EACH ZONE REACH AT HIGH TEMPERATURE.
 - TRIP: TT OF EACH ZONE REACH AT HIGH HIGH TEMPERATURE.
- BASE HEATING LOCAL CONTROL PANEL ARRANGEMENT WILL BE FINALIZED AFTER RECEIVING VENDOR INFORMATION.
- IN TANK VENDOR SCOPE OF SUPPLY.
- ALL TEMPERATURE ELEMENTS FOR FOLLOWING SHALL BE DUAL ELEMENT TYPE: TE-0074 TO TE-0079 TE-0083 TO TE-0089 TE-0100 TO TE-0101
- THE NUMBER OF LEAK DETECTIONS SHALL BE CONSIDERED 8. (IN TANK VENDOR SCOPE OF SUPPLY.)

GENERAL NOTES

ALL INSTRUMENT TAGS TO READ:
LETTERS NUMBER
1481 FFFF NNNN

EQUIPMENT LIST

TANK			
148-T-102			

FOR CONSTRUCTION

REV.	DATE	DESCRIPTION	ORIG.	PREP.	CHKD.	APPD.	AUTH.
8	26.JUL.2016	APPROVED FOR CONSTRUCTION	IDRO	RT	RT	HRR	MD
7	07.JAN.2015	APPROVED FOR CONSTRUCTION	IDRO	RT	GS	GS	MD
6	08.JAN.2012	APPROVED FOR CONSTRUCTION	IDRO	SB	NS	MF	AKH
5	07.DEC.2010	ISSUED FOR APPROVAL	IDRO	MK	NS	MF	AKH
4	30.DEC.2009	ISSUED FOR APPROVAL	IDRO	NB	AD	MF	AKH
3	15.DEC.2008	ISSUED FOR COMMENT	IDRO	NB	NZ	MF	AKH
2	01/02/08	APPROVED FOR DESIGN	WP	RI	AF	RPW	MS
1	26/10/07	ISSUED FOR HAZOP	WP	RI	AB	RPW	MS
0	08/08/07	ISSUED FOR COMPANY APPROVAL	WP	RI	AF	RPW	MS

SOUTH PARS GAS FIELD DEVELOPMENT-
PHASES 17 & 18, ASSALUYEH-IRAN
ONSHORE FACILITIES

PROJECT No.: POGC-84-801-244	DOC. CLASS. 1	SCALE : N/A
WorleyParsons	IDRO	OIEC

TITLE: UNIT 148:BUTANE STORAGE AND EXPORT
BUTANE STORAGE TANK INSTRUMENTATION
PIPING AND INSTRUMENT DIAGRAM

DWG No. PID-1718-148-0030-0105 SHEET No. 1 OF 1 REV. 8

SIZE: A1