

	نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک							  
	MECHANICAL DATA SHEETS FOR LEAN GLYCOL STORAGE TANK							
شماره پیمان:	پروژه	بسته کاری	صادرکننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه
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طرح نگهداشت و افزایش تولید 27 مخزن

MECHANICAL DATA SHEETS FOR LEAN GLYCOL STORAGE TANK

نگهداشت و افزایش تولید میدان نفتی بینک

D02	MAY.2023	IFA	H.Adineh	M.Fakharian	M.A.Mohseni	
D01	DEC.2021	IFA	H.Adineh	M.Fakharian	M.Mehrshad	
D00	NOV.2021	IFC	H.Adineh	M.Fakharian	M.Mehrshad	
Rev.	Date	Purpose of Issue / Status	Prepared by:	Checked by:	Approved by:	CLIENT Approval

Class: 1 CLIENT Doc. Number: F0Z-708847

- status:
- IDC: Inter-Discipline Check
 - IFC: Issued For Comment
 - IFA: Issued For Approval
 - AFD: Approved For Design
 - AFC: Approved For Construction
 - AFP: Approved For Purchase
 - AFQ: Approved For Quotation
 - IFI: Issued For Information
 - AB-R: As-Built for CLIENT Review
 - AB-A: As-Built –Approved



نگهداشت و افزایش تولید میدان نفتی بینک
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General Notes

- The asterisk * denotes information and/or confirmation required from vendor. the vendor shall be fully responsible for design and supply of the tank. the tank shall be supplied in accordance with project "Specification For Atmospheric Above Ground Welded Steel Tanks.
- To be finalized/specified by VENDOR.
- The VENDOR/BIDDER shall design and supply the storage tank in accordance with "Specification For Atmospheric Above Ground Welded Steel Tanks" , Document No.: "BK-GNRAL-PEDCO-000-ME-SP-0002" and "Standard Detail Drawing For Storage Tanks", Document No.: BK-GNRAL-PEDCO-000-ME-DW-0002'. VENDOR/BIDDER shall provide completed datasheets with bid.
- Tank height shall be checked based on Freeboard calculation by vendor.
- The VENDOR/BIDDER shall be fully responsible for the complete mechanical design of the tank.
- External and internal surface of tank shall be coated in accordance with BK-GNRAL-PEDCO-000-PI-SP-0006 & BK-GNRAL-PEDCO-000-PI-SP-0007 respectively.
- All materials for pressure parts shall fulfill the impact test requirements of API-650 standard.
- For standard d MAY.2023
Doc. NO. "BK-GNERL-PEDCO-000-ME-DW-0002" and provide minimum two earthing terminals and two cables per tank.
- Manways shall be supplied complete with blind flange, external grab handles, internal grab handle and ladder rungs, nuts, bolting, gasket and proof load test davits. Davits shall be proof load tested on the vessel to 1.5 x Safe Working Load (SWL) and shall be marked accordingly.
- Instrument and piping nozzle flanges shall be in accordance with ASME B 16.5.
- Minimum width of shell courses plates shall be 1.5 m.
- Stairways shall meet the requirements of for IPS-G-ME-100 (Sec. 3.8.10), IPS-D-CE-141 & IPS-D-CE-142 and IPS-E-SF-400. The angle of stairways to horizontal plane shall not exceed 45°.
- Stand pipe connections on equipment shall be at least 3", 150# and for instruments installation on the stand pipe at least 2", 300# flanges shall be considered as per BK-GNRAL-PEDCO-000-IN-SP-0001.
- If any imposed load (by nozzles or their connections) causes high local stress in any part of shell and roof, the subjected component shall be investigated according to appendix 'P' of API Std. 650.
- Cone roof angle and roof plates joint shall be so selected that tank roof plate thickness will not be greater than 12mm.
- All nozzles equal / greater than 2" shall have reinforcement pad.
- All nozzles connection weld to tank shall be with full penetration.
- Necessity of wind girder and stiffening ring will be finalized by vendor.
- Allowable stress of anchor bolts shall not be greater than those are recommended in API 650 standard.
- The requirement of internal and external cathodic protection shall be considered by VENDOR.
- Seal materials shall have enough resistance against temperature changes, expansion & contraction, fluid weight changes and etc.
- Will be specified later.
- All dimensions are in "mm" unless otherwise specified.
- Vent size and quantity shall be specified/verified by vendor according to API 2000.
- Projection of Horizontal and Vertical nozzles are specified from tank centerline and top of top angle (roof line) respectively.
- For standard detail of earth lug execution refer to the project "standard detail drawing for storage tanks DOC. NO. "BK-GNRAL-PEDCO-000-ME-DW-0002" and provide minimum two earthing terminals and two cables per tank.
- All actual thicknesses shall be checked and calculated by vendor under mechanical guarantee accordingly.
- All nozzle loads shall not be less than specified values in the "Specification For Atmospheric Above Ground Welded Steel Tanks" , Document No.: "BK-GNRAL-PEDCO-000-ME-SP-0002"



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CONSTRUCTION DETAILS (TO BE COMPLETED BY MANUFACTURER AND/OR PURCHASER)

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1	1. MANUFACTURER									
2	ADDRESS:									
3	CITY:		PROV.:			POSTAL CODE:			PHONE:	
4	SERIAL NUMBER:									
5	2. FABRICATOR:									
6	ADDRESS:									
7	CITY:		PROV.:			POSTAL CODE:			PHONE:	
8	SERIAL NUMBER:									
9	3. MATERIAL SPECIFICATIONS:									
10	SHELL :					PIPE :				
11	A-283 GR.C					A-106 GR.B				
12	ROOF :					FLANGE :				
13	A-283 GR.C					A-105				
14	BOTTOM / ANNULAR BOTTOM :					EXT. BOLT / NUT :				
15	A-283 GR.C					A-193 GR.B7 / A-194 GR.2H				
16	FIXED INTERNALS :					INT. BOLT / NUT :				
17	C.S.					S.S.				
18	REMOVABLE INTERNALS :									
19	S.S.									
20	STRUCTURALS :					A-36				
21	4. NO. OF SHELL COURSES									
22	5. PLATE WIDTHS AND THICKNESSES (INCLUDING CORROSION ALLOWANCE) (NOTE 27)									
23	1.	1500	4.	500	7.	10.				
24	2.	1500	5.		8.	11.				
25	3.	1500	6.		9.	12.				
26	MAY.2023									
27	6. TANK BOTTOM: PLATE THICKNESS mm (Note 27) YES LAP BUTT SEAMS									
28	SLOPE 1:120 mm per meter TO YES FROM CENTER									
29	7. MINIMUM WIDTH AND THICKNESS OF BOTTOM ANNULAR PLATES (5.5) :									
30	8. ROOF-TO SHELL DETAIL (FIGURE F-2 'API-650') : Detail B (Note 15)									
31	9. INTERMEDIATE WIND GIRDER (Note 18) NO TOP WIND GIRDER FOR USE AS WALKWAY :									
32	10. ROOF TYPE : YES CONE (Supported) DOME SPHERE									
33	SLOPE OR RADIUS : 1:5 (Note 15)									
34	11. ROOF PLATE: THICKNESS (Note 27) mm YES LAP BUTT JOINT									
35	12. PAINT: (Note 6)									
36	SHELL :		EXTERIOR			YES		INTERIOR		
37	SURFACE PREPARATION		YES			YES		YES		
38	BOTTOM :		UNDERSIDE			YES		INTERIOR		
39	SURFACE PREPARATION		YES			YES		YES		
40	ROOF :		EXTERIOR			YES		INTERIOR		
41	SURFACE PREPARATION		YES			YES		YES		
42	STRUCTURAL STEEL :		EXTERIOR			YES		INTERIOR		
43	SPECIFICATION :		YES			YES		-		
44	13. TANK BOTTOM COATING: INTERIOR YES MATERIAL									
45	APPLICATION SPECIFICATION									
46	14. INSPECTION BY: SHOP FILED									
47	15. WELD EXAMINATION: Radiograph (extent of radiography as per IPS-G-ME-100)									
48	Supplementary liquid penetrant or ultrasonic									
49	JOINT EFFICIENCY: As Per Code									
50	16. FILMS : PROPERTY OF									
51	17. LEAK TESTING:									
52	YES		BOTTOM		YES		ROOF		YES	
53	YES		SHELL		YES		SHELL		YES	
54	18. MILL TEST REPORTS: REQUIRED									
55	PLATE STRUCTURAL SHAPES									
56	19. PURCHASER'S REFERENCE DRAWING :									
57	20. TANK SIZE :		DIAMETER		4000		mm HEIGHT		5000	
58										
59	DATE OF STANDARD 650 EDITION/REVISION :									
60	The Latest Edition									
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APPURTENANCES (TO BE COMPLETED BY MANUFACTURER AND/OR PURCHASER)

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1	1. STAIRWAY STYLE (Note 12)	YES	CIRCULAR	STRAIGHT	ANGLE TO HORIZONTAL	DEGREES
2	2. WALKWAY:		ROLLING LADDER			
3			WIDTH	mm	LENGTH	mm
4	3. DRAW -OFF SUMP:	YES	STANDARD	SPECIAL		
5	4. BOLTED DOOR SHEET :	NO	(APPENDIX A TANKS ONLY)	RAISED	FLUSH	
6	5. SCAFFOLD HITCH					
7	6. INTERNAL PIPING:		SWING LINE	SUCTION LINE		
8			HEATING COIL SURFACE AREA	m ²		
9	7. ROOF DRAIN:		HOSE	JOINTED		
10			SIPHON			
11	8. NO. AND SIZE OF SHELL MANHOLES	1x 24"				
12	9. NO. AND SIZE OF ROOF MANHOLES	1 x 20"				

SHELL NOZZLES LIST (Notes 1,2,16,17 , 24 , 27 & 28)

MARK	QTY.	DESCRIPTION	PIPE			FLANGE			PROJ. (mm)	REINF.		REMARKS
			Size(in.)	Thk.	Sch.	Type	Rate.	Face		Thk.	O.D.	
A	1	Inlet	2			WN	150 #	RF	2200			
B1	1	Outlet	2			WN	150 #	RF	2200			
M1	1	Manhole	24			WN	150 #	RF	2250			
L1,2	2	Stand Pipe	3			WN	150 #	RF	2200			
L3,4	2	Level Transmitter	2			WN	300 #	RF	2200			
CC	2	Corrosion Coupon	2			WN	300 #	RF	2200			
S	1	Utility Connection	2			WN	150 #	RF	2200			
D	1	Drain	2			WN	150 #	RF	SEE DWG			
B2	1	Outlet to Glycol Regeneration Package	2			WN	150 #	RF	2200			

ROOF NOZZLES LIST (Notes 1, 2&27)

MARK	QTY.	DESCRIPTION	PIPE			FLANGE			PROJ. (mm)	REINF.		REMARKS
			Size(in.)	Thk.	Sch.	Type	Rate.	Face		Thk.	O.D.	
V1	1	Vent	6			WN	150 #	RF	600			
V2	1	Gauge Hatch	(By Vendor)			WN	150 #	RF	1100			
M2	1	Roof Manhole	20			WN	150 #	RF	1500			
PVSV 1,2	2	Pressure Vacume Safty Valve	(By Vendor)			WN	150 #	RF	NOTE 22			
N	1	Blanketing	2 (HOLD)			WN	150 #	RF	1050			

TOTAL WEIGHT (kg) (Note 2)

FABRICATION	OPERATION	HYDROSTATIC TEST	REMOVABLE STANDARD	LADDER & PLATFORM

LOADING (Note 2)

WINDSHEAR (KG)	WIND OVERTURNING MOMENT (KG.M)	EARTHQUAKE SHEAR (KG)	EARTHQUAKE OVERTURNING MOMENT (KG.M)



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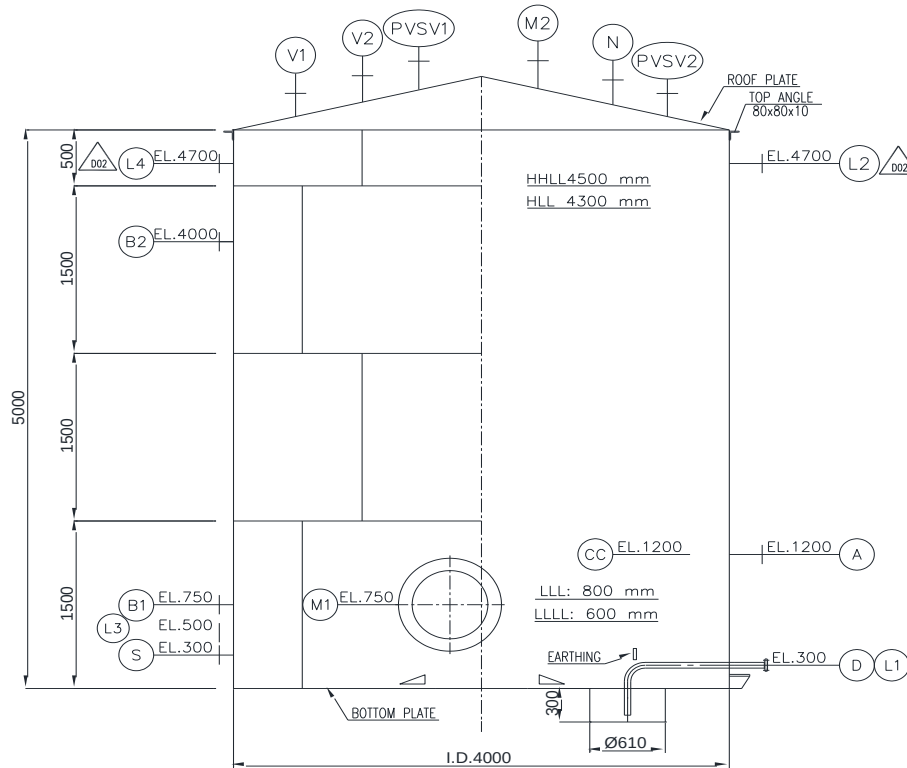
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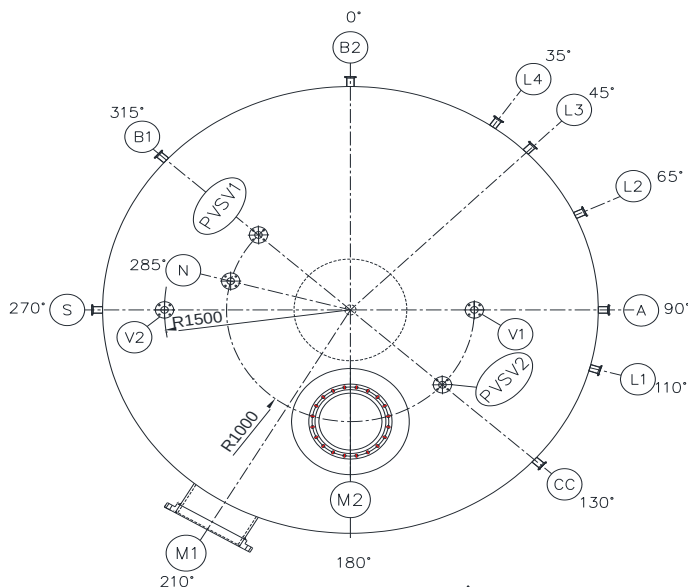
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GENERAL ARRANGEMENT VIEW



ELEVATION VIEW



ORIENTATION VIEW