



NISOC

نگهداشت و افزایش تولید میدان نفتی بینک  
سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک

MECHANICAL DATA SHEETS FOR ELEVATED POTABLE WATER TANK



شماره پیمان:

۰۵۳ - ۰۷۳ - ۹۱۸۴

پروژه

BK

بسته کاری

GCS

صادرکننده

PEDCO

تسهیلات

120

رشته

ME

نوع مدرک

DT

سریال

0011

نسخه

D02

شماره صفحه: ۱ از ۶

## طرح نگهداشت و افزایش تولید ۲۷ مخزن

### MECHANICAL DATA SHEETS FOR ELEVATED POTABLE WATER TANK

### نگهداشت و افزایش تولید میدان نفتی بینک

Rev.	Date	Purpose of Issue / Status	Prepared by:	Checked by:	Approved by:	CLIENT Approval
D02	NOV.2022	IFA	H.Adineh	M.Fakharian	M. Mehrshad	
D01	DEC.2021	IFC	H.Adineh	M.Fakharian	M. Mehrshad	
D00	NOV.2021	IFC	H.Adineh	M.Fakharian	M. Mehrshad	

Class: 2

CLIENT Doc. Number: F0Z-708842

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



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نسخه	سریال	نوع مدرک	رشته	تسهیلات	صادرکننده	بسته کاری	پروژه
D02	0011	DT	ME	120	PEDCO	GCS	BK

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REVISION RECORD SHEET

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3	X	X	X		
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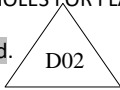
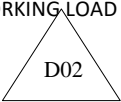


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نسخه

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شماره صفحه: ۶ از ۳

### General Notes

1. 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 STORAGE TANK', DOC. NO. BK-GNRAL-PEDCO-000-ME-SP-0002. THE MANUFACTURER SHALL CALCULATE THICKNESS AND LOADS OF THE TANK.
2. ALL MATERIAL, THICKNESS, CORROSION ALLOWANCE, DIMENSIONS AND THEIR SUITABILITY FOR THE FLUID AT DESIGN CONDITION TO BE CONFIRMED BY VENDOR.
3. ALL MATERIAL SHALL BE NEW AND UNUSED.
4. RF: RAISED FACE, SO: SLIP ON, WN: WELD NECK.
5. ACC. TO ANSI B16.5. & B16.47 SERIE A.
6. BOLT HOLES FOR FLANGES SHALL STRADDLE TANK NATURAL CENTRE LINES FOR HORIZONTAL NOZZLES.
7. Deleted. 
8. VENDOR SHALL SUPPLY DETAILS OF ALL WELDING CONNECTIONS AND GIVE GENERAL SPECIFICATION OF USED MATERIALS.
9. TANK SHALL BE THOROUGHLY CLEANED OUTSIDE AND INSIDE AND FREE FROM RUST, SLAG, SCALE, WELD SPATTER & FOREIGN MATTER.
10. ALL REINFORCING PADS SHALL HAVE ONE NPT 6mm TELL TALE HOLE.
11. SHALL BE HOT DIP GALVANIZED PER 'IPS-E-TP-100', SYSTEM '8C' OF TABLE '2' (WITH MIN. DFT 140 MIC.).
12. LIQUID LEVELS ARE FROM BELOW OF THE TANK FIRST SHELL COURSE PLATE.
13. INLET NOZZLE SHALL BE COMPLETED WITH INTERNAL LONG RADIUS ELBOW, DIP PIPE AND WEAR PLATE UNDER PIPE. SYPHON BREKER HOLE IS REQUIRED AT BELOW.
14. ALL INLET AND OUTLET CONNECTIONS TO TANK SHALL BE ISOLATED.
15. SITE CONDITION SUCH AS SEISMIC ZONE, SOIL PROFILE, WIND VELOCITY, WIND EXPOSURE SHALL AS PER PROJECT 'PROCESS BASIS OF DESIGN' DOCUMENT No. BK-GNRAL-PEDCO-000-PR-DB-0001.
16. ACCESS LADDER & PLATFORM TO BE CONSIDERED.
17. SPECIFIED ACCESSORIES AND ATTACHMENTS SHALL BE SUPPLIED BY VENDOR.
18. FOR INSTRUMENTS INSTALLATION ON THE STAND PIPE, 2", #300 FLANGES SHALL BE CONSIDERED AS PER BK-GNRAL-PEDCO-000-IN-SP-0001.
19. INSULATION SHALL BE AS PER PROJECT 'SPECIFICATION FOR INSULATION', DOCUMENT NO "BK-GENRAL-PEDCO-000-PI-SP-0019".
20. FIRE PROOFING REQUIREMENT WILL BE SPECIFIED AS PER RESULT OF FIRE PROOFING ZONE LAYOUT.
21. FOR STANDARD DETAIL OF EARTH LUG EXECUTION REFER TOTHE 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.
22. LOCATION OF CONNECTIONS SHALL BE FINALIZED LATTER.
23. 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 VESSELS TO 1.5 X SAFE WORKING LOAD (SWL) AND SHALL BE MARKED ACCORDINGLY.
24. VENDOR SHALL SUPPLY FOLLOWING ITEMS AS SPARE PARTS:  
TWO YEARS SPARE PARTS & COMMISSIONING SPARE PARTS SHALL BE CONSIDERED AS PER DOCUMENT NO. E&C-QC-SP-1. 
25. ALL DIMENSIONS ARE IN "MM" UNLESS OTHERWISE SPECIFIED.
26. VENDOR SHALL CALCULATED THE MECHANICAL CALCULATION AND SUBMITTED THE CALCULATION BOOK FOR TANK. 
27. ELEVATED POTABLE WATER TANK GEOMETRY SHALL BE IN ACCORDANCE WITH IPSSTANDARD DRAWING NO. IPS-D-CE-412. 



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MECHANICAL DATA SHEETS FOR ELEVATED POTABLE WATER TANK

شماره پیمان:

۰۵۳ - ۰۷۳ - ۹۱۸۴

پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه
BK	GCS	PEDCO	120	ME	DT	0011	D02

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Mech. Data Sheets for Elevated Potable Water Tank (TK-2209) / Sheet 4 of 6

Rev.	GENERAL DATA							
	<b>General Information</b>							
1	PROJECT :				COMPANY :			
2	LOCATION : <i>BINAK, 20 km NORTHWEST of GENAVEH CITY</i>				ALTITUDE :			
3	ITEM NO. : <i>TK-2209</i>				QUANTITY :			
4	FLUID : <i>POTABLE WATER</i>				SERVICE :			
5								
6	<b>Process Data</b>							
7	NOMINAL / WORKING CAPACITY		<i>25 / 20</i>	(m <sup>3</sup> )	OPERATING TEMPERATURE		<i>AMB.</i>	(°C)
8	DIMENSION ( INTERNAL DIA./ HEIGHT)		<i>3500 x 2600</i>	(mm)	OPERATING PRESSURE		<i>ATM.</i>	(barg)
9	ELEVATION (L. L.-OUTLET FLANGE C.L.)		<i>6000</i>	(m)				
10	L.L.L. / H.L.L. (NOTE 12)		<i>150 / 2250</i>	(mm)				
11	DENSITY		<i>1000</i>	(kg/m <sup>3</sup> )				
12	<b>Design Data</b>							
13	INSTALLATION POSITION :			HORIZONTAL	VERTICAL	<i>YES</i>	TANK TYPE: <i>CYLINDRICAL SELF SUPPORTED CONE ROOF</i>	
14	SHELL / BOTTOM / ROOF THICKNESS			<i>*(NOTE 1)</i>		(mm)	ROOF SLOPE <i>1/5</i>	
15	DESIGN TEMPERATURE			<i>85</i>		(°C)	TEST PRESS. <i>ATM + FULL OF WATER</i> (barg)	
16	DESIGN PRESSURE			<i>ATM + FULL OF WATER</i>		(barg)	WIND DESIGN <i>ASCE 7-10</i> WIND SPEED <i>120</i> (Km/hr)	
17	MAX. ALLOWABLE WORKING PRESSURE			<i>(1)</i>		(barg)	MIN./MAX. RECORDED AMB. TEMPERATURE <i>5 / 50</i> (°C)	
18	SEISMIC DESIGN <i>ASCE 7-10</i> ZONE			IMPORT. FACTOR <i>1.25</i>			EARTHING CONTINUITY <i>YES</i>	
19	JOINT EFFICIENCY <i>0.85</i>						INSULATION <i>No</i>	
20	FLANGE FACE FINISH <i>Ra 3.2 to 6.4 µm</i>							
21	CORROSION ALLOWANCE SHEEL& BOTTOM / ROOF / STRUCTURE						<i>1.6 / 1.6 / 1.6</i> (mm)	
22								
23	<b>Reference Codes and the Project Documents</b>							
24	DESIGN CODE			<i>AWWA D-100 , IPS-G-ME-100</i>				
25	SPECIFICATION FOR ATMOSPHERIC ABOVE GROUND WELDED STEEL TANKS			<i>BK-GNRAL-PEDCO-000-ME-SP-0002</i>				
26	STANDARD DETAILS DRAWINGS FOR STORAGE TANKS			<i>BK-GNRAL-PEDCO-000-ME-DW-0002</i>				
27	PROCESS BASIS OF DESIGN			<i>BK-GNRAL-PEDCO-000-PR-DB-0001</i>				
28	STRUCTURAL DESIGN CRITERIA			<i>BK-GNRAL-PEDCO-000-ST-DC-0002</i>				
29	SPECIFICATION FOR INSULATION			<i>BK-GNRAL-PEDCO-000-PI-SP-0019</i>				
30	SPECIFICATION FOR PAINTING			<i>BK-GNRAL-PEDCO-000-PI-SP-0006</i>				
31	P&ID			<i>BK-GCS-PEDCO-120-PR-PI-0024 (11)</i>				
32	IPS Standard Drawing			<i>IPS-D-CE-412</i>				
33								
34	<b>Materials</b>							
35	SHELL/BOTTOM/ROOF :			<i>A-283 Gr.C + Lining food grade (11)</i>		REINFORCING PAD:		<i>A-283 Gr.C</i>
36	NOZZLE NECK PIPES :			<i>A-106 Gr. B-Galvanneized</i>		INSUL. SUPPORT CLIP:		<i>A-283 Gr.C</i>
37	FLANGES :			<i>A-105-Galvanneized</i>		INTERNAL LADDER:		<i>A-36 + Lining food grade (NOTE 11)</i>
38	FITTINGS :			<i>A-234 Gr. WPB-Galvanneized</i>		EXTERNAL SUPPORTS:		<i>A-283 Gr.C</i>
39	GASKETS :			<i>NON-ASBESTOS , FLAT &amp; GRAPHITE FILLED</i>		EXTERNAL BOLTS / NUTS:		<i>A-193 Gr. B7 / SA-194 Gr. 2H</i>
40	ELECTRODES :			<i>ACC. TO AWS</i>		EARTHING LUG / PLUG:		<i>S.S.</i>
41	EXT. STRUCTURAL PIPE :			<i>API 5L Gr. B / A53 Gr.B</i>		NAME PLATE/BACKET:		<i>S.S. 316 / C.S.</i>
42	CHECKERED PLATE :			<i>ST-37</i>		BASE PLATE :		<i>ST-37</i>
43	ANCHOR BOLT :			<i>A-307 Gr. B</i>		INT. REMOV. WETTED PARTS:		<i>A-283 Gr.C + Lining food grade (NOTE 11)</i>
44	Lining :			<i>P5 (Food Grade Epoxy)</i>				
45								
46	<b>Surface Preparation &amp; Coating</b>							
47	TANK INTERIOR & EXTERIOR SURFACES			<i>YES ; ACC. TO SPECIFICATION NO.BK-GNRAL-PEDCO-000-PI-SP-0006 &amp; BK-GNRAL-PEDCO-000-PI-SP-0007 RESPECTIVELY.</i>				
48	RELATED SUPPORTS & STRUCTURES :			<i>YES ; ACC. TO SPECIFICATIONS NO. BK-GNRAL-PEDCO-000-ST-DC-0001, BK-GNRAL-PEDCO-000-ST-SP-0003, BK-GNRAL-PEDCO-000-ST-SP-0005.</i>				
49								
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52	RISER PIPES(INLET, OUTLET,DRAIN & OVERFLOW),FLANGES & ELBOWS :			<i>SHALL BE GALVANIZED C.S. (11)</i>				
53	ALL EXTERNAL BOLTS AND NUTS :			<i>SHALL BE GALVANIZED C.S.(11)</i>				
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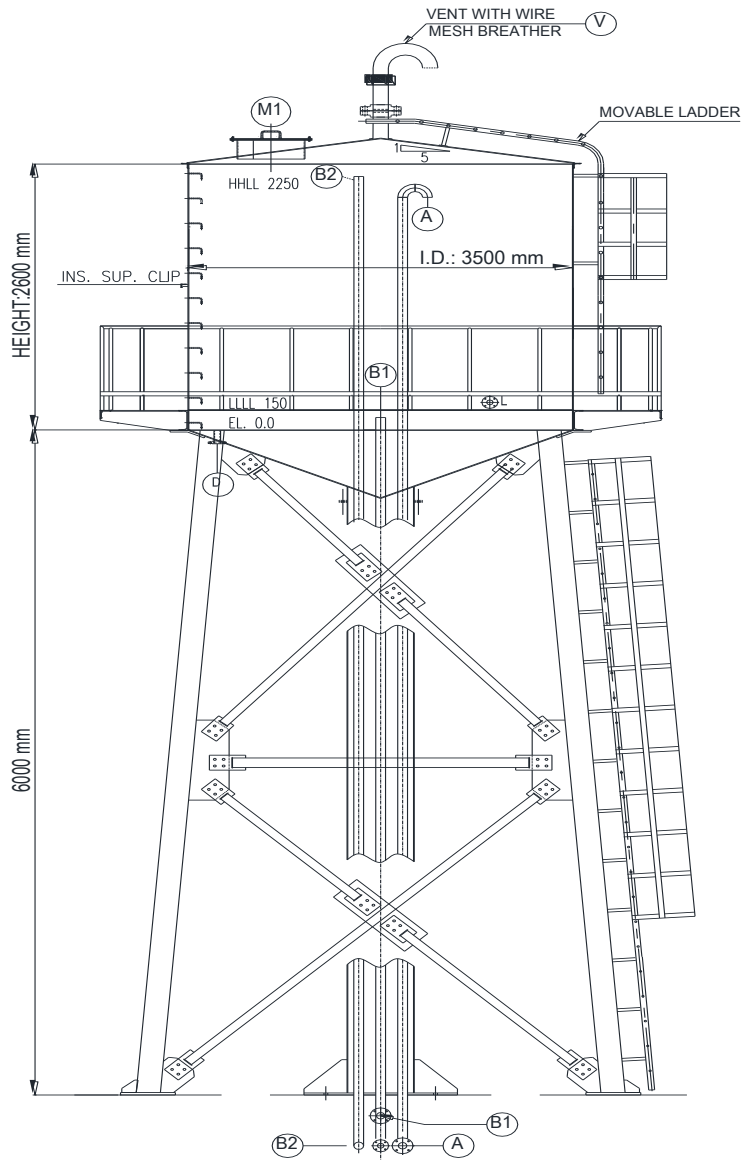
نسخه

D02

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Mech. Data Sheets for Elevated Potable Water Tank (TK-2209) / Sheet 6 of 6

Sketch



NOZZLES ORIENTATION AND ELEVATION WILL BE FINALIZED BY PIPING DISC. LATER.

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