

نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض

شرکت تومعه شروایرا^ن





احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک

NISOC

MECHANICAL DATA SHEETS FOR GLYCOL SUMP DRUM

شماره پیمان:	پروژه	بسته کاری	صادر كننده	تسهيلات	رشته	نوع مدرك	سريال	نسخه
3A18 - YY - TO.	BK	GCS	PEDCO	120	ME	DT	0036	D03

شماره صفحه: ۱ از ۸

طرح نگهداشت و افزایش تولید ۲۷ مخزن

MECHANICAL DATA SHEETS FOR GLYCOL SUMP DRUM

نگهداشت و افزایش تولید میدان نفتی بینک

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Rev.	Date	Purpose of Issue / Status	Prepared by:	Checked by:	Approved by:	CLIENT Approval
D00	DEC.2021	IFC	H.Adineh	M.Fakharian	M.Mehrshad	
D01	SEP.2022	IFA	H.Adineh	M.Fakharian	M.Mehrshad	
D02	SEP.2023	IFA	S.Salehi	M.Fakharian	A.M.Mohseni	
D03	SEP.2024	IFA	V.Amjadi	M.Fakharian	M. Sadeghian	
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Class:1 CLIENT Doc. Number: F0Z-709383

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



٠٥٣ - ٠٧٣ - ٩١٨٤

نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک

MECHANICAL DATA SHEETS FOR GLYCOL SUMP DRUM





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REVISION RECORD SHEET

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4	Χ				
5	Χ	Χ	Χ	Χ	
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نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک

MECHANICAL DATA SHEETS FOR GLYCOL SUMP DRUM

پروژه صادر کننده نسصلات وع مدرك نسخه شماره سمان: سر يال GCS PEDCO 120 DT D03 BK MF 0036



شماره صفحه: ۱۳ز ۸

General Notes

Rev

- 1. The Asterisk * denotes information and/or confirmation required from VENDOR. The Vendor shall be fully responsible for the complete mechanical design and supply of the vessel.
- Nozzles and flanges shall be suitably supported and reinforced based on nozzle loads provided in project Specification for Pressure Vessels, Document No. BK-GNRAL-PEDCO-000-ME-SP-0001.
- 3. VENDOR shall include for the services of a independent verification body for mechanical design, stage inspection, testing and stamping of the equipment (if possible).
- 4. Access Ladder & Platform to be considered .
- 5. Painting and coating (internal & external) shall be as per project "Specification for Painting, Doc. No. BK-GNRAL-PEDCO-000-PI-SP-0006" and "Specification for Lining (Internal Protection of Equipment by painting), Doc. No. BK-GNRAL-PEDCO-000-PI-SP-0007".
- 6. Flanges shall comply with ANSI B16.5. Series A. Nozzle bolt holes shall stradle the natural centerlines. VENDOR to confirm maximum allowable nozzle loads and moments. RF: Raised Face, WN: Welding Neck
- 7. For equipment requiring PWHT, final inspection and acceptance by the CLIENT or its nominated representative shall only be undertaken against NDE after PWHT. All weldings shall be made before vessel heat treatment (if any).
- 8. 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 1.5x Safe Working Load (SWL) and shall be marked accordingly.
- 9. Loads at support base, Shall be calculated and determined by vendor.
- 10. Location and number of lifting lugs on vessels shall be specificed on VENDOR drawing.
- 11. All external bolts and nuts shall be hot dip galvanized. Internal bolts and nuts shall be stainless steel.
- 12. All material, corrosion allowance and their suitability for the process fluid at design pressure and temperature to be confirmed by vendor,
- 13. The vendor shall be responsible for mechanical strength of the equipment based on mentioned condition in data sheets.
- 14. All nozzle locations and orientations will be finalized later.
- 15. Instrumentation items are excluded from vendor's scope of supply.
- 16. Any changes in material of construction, location & orientation of the nozzles shall be confirmed by client.
- 17. Structural surfaces of stainless steel internals shall be pickled & passivated.
- 18. All dimensions shown are in mm unless otherwise indicated. All nozzle sizes are in inch.
- 19. All materials shall be new and unused.
- 20. Prior to sealing the vessel for shipping and storage, the inside surface of the equipment shall be 100% visually inspected. Internal surfaces shall be clean and thoroughly dried. The CLIENT or its nominated representative shall witness the cleanliness of internal suarfaces. Flange faces shall be protected by wooden or plastic dummy flanges.
- 21. Fabrication tolerances for vessel shall be in accordance with requirement of ASME code.
- 22. All items shall be clearly match marked against vessel drawings to facilitate erection.
- 23. The elevation of equipment's nozzels should be specified as follows:
 - I. For vertical vessels: from bottom T.L.
 - II. For horizontal vessels : from Left T.L.
- 24. Vendor shall supply details of all welding connections and give general specification of used materials.
- 25. Specified accessories and attachments shall be supplied by vendor.
- 26. Gasket shall be spiral wound type, graphite filled with inner ring S.S.316 and outer ring S.S.
- 27. Deleted.
- 28. Deleted.
- 29. Equipment packaging, preparation for shipment and delivery shall be in accordance with the project Packing, Marking, Transportation Procedure Transportation Procedure Doc. No. "BK-GNRAL-PEDCO-000-QC-PR-0045".



نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض

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احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک

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	شماره پیمان:	پروژه	بسته کاری	صادر کننده	تسهيلات	رشته	نوع مدر ک	سريال	نسخه
٤٨١٤ – ٧٧٠ – ٥١٨٤		BK	GCS	PFDCO	120	MF	DT	0036	D03

شماره صفحه: ٤ از ٨

General Notes (Cont'd)

- 30. For standard detail of Earth lug execution refer to the Project "Standard Detail Drawing For Pressure Vessels and Heat Exchangers Doc. No. BK-GNRAL-PEDCO-000-ME-DW-0001".
- 31. Elliptical heads shall be Ultrasonic Tested for lamination after forming.
- 32. The projection of equipment's nozzles should be considered as per "Standard Detail Drawing For Pressure Vessels and Heat Exchangers, Doc. No. BK-GNRAL-PEDCO-000-ME-DW-0001". Projection of Horizontal & Vertical nozzles is from tengent line and centerline respectively.
- 33. Deleted
- 34. All reinforcement pads shall have 1/4" (6mm) tell-tale hole and 1/8" (3mm) vent hole as per "Standard Detail Drawing For Pressure Vessels and Heat Exchangers, Doc. No. BK-GNRAL-PEDCO-000-ME-DW-0001".
- 35. Minimum requirement for pre-commissioning, commissioning, start up and two years operation spare parts shall be in accordance 🛭 with document E&C-QC-SP-1.2
- 36. Nozzle loads shall be in accordance with Specification for Pressure Vessels, Doc. No. BK-GNRAL-PEDCO-ME-SP-0001. 🗵
- 37. All nozzles must be vertical or horizontal and not perpendicular or parallel to vessel center line.
- 38. Lifting Lugs / trunnions shall be provided to facilitate a single point lift. If a single point lift cannot be achieved without the use of a lifting beam, then VENDOR shall provide a suitable, certified, lifting beam.
- 39. Design pressure specified is at top of vessels. VENDOR design shall include static head for vessels flooded with specific gravity of the handled liquid.
- 40. VENDOR is to maximize shop fabrication based on the following transportation limits: 2
 - Maximum weight: 96 tonnes
 - Maximum load per axle: 12 tonnes
 - Maximum length: 50.0 m
 - Maximum width: 5.0 m
 - Maximum height: 5.2 m

For items with dimensions and weights greater than the road capacity specified above, VENDOR may be required to split the package into several components.

41. All external attachments directly welded to the pressure part shall be the same material as vessel grade.



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شماره پیمان:

نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک



پروژه صادر کننده بسته کاری تسهيلات نوع مدرك رشته سريال نسخه BK GCS PEDCO 0036 D03 120 ME DT



شماره صفحه: ٥ از ٨

			Mech. Data Sheet For Glycol Sur	mp Drum (V-2107) / sheet 1 of 4		
Rev			DATA S	SHEET		Rev
	1		Sump Drum			
	2	Tag No. : V-2107		Quantity : 1 Set		
	3	Type : Pressu	re Vessel	Design Data		
	4 5	Contents	- Flocess I	Corrosive / Erosive	NO	-
		Operating Temp. (°C)	- AMB	Liquid Flow (kg/h)	-	
	-	Operating Press. (barg)	0.01	Vap. Molec. Weight (kg/kmol)	143.1	-
		Gas Flow (kg/h)	-	Liquid Sp. Gravity	1100	
		Liquid Viscosity (cP)	6.63	Lethal:	No	
	10		Mechanical I	Design Data (1) D03		
		Design Temp. (°C)	85	Vessel Orientation	Horizontal	
		Design Press. (barg)	3.5	LLLL / HHLL (mm)	150 / 800	
		Test Press. (barg)	Per Code & Spec. Requirements	Normal Liquid Vol. (m ³)	4	
		Internal Vacuum (barg)	F.V.	In. Dia. Of Boots (mm)	N/A	
		In. Dia. of Shell (mm)	1100	Boot Length (mm)	N/A	
		Tan/Tan Dim. (mm)	3600	Boot Head Type	N.A	
		Vessel Head Type Shell Wall Thk. (mm)	2:1 Elliptical (Note 31)	Corr. Allowance (mm)	3	_
		, ,	*(1) * (1)	Joint Efficiency	0.85 (Shell) / 1 (Head) 5 ~ 50	_
		, ,	Site Class: D, Code: ASCE 7-10	Ambient Temp. (°C)		
D03	20	Seismic Design	Fa=1,FV=1.33,S1=0.46,Ss=1.125,I=1.25	MDMT (°C)	5	
			Speed: 232 Km/hr (Max.), Code: ASCE 7-10	Insulation Required D03	-	
	22			ieriais		
	23	Code	ASME II /ASTM	Internal Welded Supports	A 516 70N	D03
D03		Shell	A 516 70N	Nozzle Necks	A 106 Gr.B	
D03		Heads	A 516 70N	Pipes	A 106 Gr.B	
	26	Lining	P8	Plates	A 516 70N	D03
	27	Saddles	A 283 Gr. C	Forgings	A 105N	D03
D03		Wear Plate Stiffening Rings	A 516 70N A 516 70N	Flanges Fittings	A 105N A 234 Gr. WPB	D03
		Gaskets	Note 26	Welded Internals	A 516 70N	D03
		Lifting Lugs	A 516 Gr.70 / A 283 Gr. C	External Bolts / Nuts (Note 11)	A 193 Gr. B7 / A 194 Gr. 2H	1003
D03	32	Reinforcing Pads	A 516 70N	Internal Bolts / Nuts (Note 11)	S.S.	
D03	33	Ladder & Platform	C.S.	External Welded Clips	A 516 Gr.70N	D03
		Gratings	Hot Dip Galvanized C.S.	Name Plate	S.S. 316	7
	35		REFERENCE STAND	OARDS & DOCUMENTS		
	36	Mechanical Design Code			S-G-ME-150 (Latest Edition)	
		Specification for Pressure Ve	essels		CO-000-ME-SP-0001	
		Process Basis of Design			CO-000-PR-DB-0001	
		Piping & Instrument Diagram	n (P&ID)		O-120-PR-PI-0025	
		Specification for Painting			CO-000-PI-SP-0006	
		Specification for Insulation Specification For Material Re	auiromente in Cour convice		CO-000-PI-SP-0019 CO-000-PI-SP-0008	_
		Specification For lining	equirements in Sour Service		CO-000-FI-SF-0008	
	44	Specification 1 of lifting	Fabrication and Inst	pection Requirements	CO-000-11-51-0007	
		Inspection Authority	TPI & Client	- Control Royallo Monto		
1	46	Material Certification	In Accordance with BS EN 10204:2004, 3	Type 3.1, Minimum for Pressure Con	taining and Attachments	1
	47	Hydro Test Medium	Water	Hydro Test Procedure	Yes;Per Code & Spec. Requirements	
1			Per Code & Spec. Requir.	ΡŤ	100%	
	49	MT	100 % on Lifting Lug Fillet Welds	UT	Yes;Per Code & Spec. Requirements	
	50	RT	100 % On T-Joints and Head Joint			
1	51			Circumferential Joints Butt-Welds,		
	52	DT D		k Fabricated Nozzle Neck Longitudin		_
	53	RT Report	Yes; Per Code & Spec. Requir.	PT Report	Yes; Per Code & Spec. Requirements	-
	54	MT Report	Yes; Per Code & Spec. Requir.	UT Report	Yes;Per Code & Spec. Requirements	4
	55 56	Fabrication Quality Control I Welding Procedure Review			Yes Vac	-
	56 57	Surface Preparation & Coating		Specification for Painting with Doc. No. "BK	Yes -GNRAL-PEDCO-PL-SP-0006"	_
	57 58	очнасе гтераганоп & Соатн	iiy	Specification for Painting with Doc. No. "BK-GN Specification For Lining, Doc. No.: "BK-GN		-
	58 59			specification For Linuing, DOC. NO.: BK-GN	141L 1 LDCO-000-1 1-31 -000/	-
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نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض

شرکت تومیر ایران HIRGAN ENERGY

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احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک

	شماره پیمان:	پروژه	بسته کاری	صادر کننده	تسهيلات	رشته	نوع مدرک	سريال	نسخه
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شماره صفحه: ٦ از ٨

Institute Action Institute	upporting S ccess Ladd sulation Su sulation sulation Co reproofing fting Lugs	der & Pla upport		ACCES							^			
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Institute Action Institute	ccess Ladd sulation Su sulation sulation Co reproofing	der & Pla upport			Acces			chments (/			D03			
Ins	sulation Su sulation sulation Co reproofing	upport						lame Plate						Yes Yes
Ins Ins Fir Lif Int Ta	sulation sulation Co reproofing		ittorm					lame Plate arthing Lug		(A)				Yes
Ins Fir Lif Int Ta	sulation Co	wor						ailing Lug	g (Note 3	0)				NC
Fir Lif Int Ta	reproofing								otection (Sacrif	cial Anodes)			NC
Lif Int Ta		Support						nchor Bolts		Odom	olai / triodes/			Yes
Int Ta	ung Lugs						Yes Ir	nstrumenta	tions					NC
	ternal/ Exte	ernal Clir	ps					Skid						NC
	amplate							Support Clip						Yes
	oot							ortex Brea						Yes
	avit for Mar		-i-ti\					Rung & Grip						Yes
Int	ternal Linin	g (By Pa	ainting)				Yes F	leating Coil	l					NC
	Mark	Qty.	Desc	cription	Size	Pipe	es Lis		Flange	D0 Face		Reinforce	ement O.D.	Remarks
	A	1	I	nlet	2"	-	-	WN	#150	RF	SEE DWG			
	В	1	Blan	ıketing	2"	-	-	WN	#150	RF	SEE DWG			
	V1	1		⁷ ent	2"	-	-	WN	#150	RF	SEE DWG			
	M	1		nhole	20"	-	-	WN	#150	RF	SEE DWG			
	S	1	-	Connection	2"	-	-	WN	#150	RF	SEE DWG			
	D P1	1		rain re gauge	2" 2"	-	-	WN WN	#150	RF RF	SEE DWG SEE DWG			
			FIESNI	re gauge		-	-		#300	$I \setminus I'$				
	L1 2	2			2"		_	WN	#300	RF	SFF DWG			
1	L1,2 PH	2	Level T	ransmitter	2" 24"	-	-	WN WN	#300 #150	RF RF	SEE DWG SEE DWG			
-		_	Level T Pum		2" 24" 2"		-	WN WN WN	#300 #150 #300	RF RF RF	SEE DWG SEE DWG SEE DWG			
	PH P2 PSV	2	Level T Pum Pressure Pressure	ransmitter pp Hole Transmitter Safety Valve	24" 2" 2"	-	-	WN WN WN	#150 #300 #300	RF RF RF	SEE DWG SEE DWG SEE DWG			
	PH P2	2 1 1	Level T Pum Pressure Pressure	ransmitter p Hole Transmitter	24"	-	-	WN WN	#150 #300	RF RF	SEE DWG SEE DWG			
	PH P2 PSV	2 1 1 1 1 1	Level T Pum Pressure Pressure Venu	ransmitter pp Hole Transmitter Safety Valve	24" 2" 2" 4"	- - - - -	ic Load	WN WN WN WN WN	#150 #300 #300 #150 * Note(9)	RF RF RF RF	SEE DWG SEE DWG SEE DWG SEE DWG	sting Condi	ition	
<u>™</u>	PH P2 PSV V2 Load Cond	2 1 1 1 1 1	Level T Pum Pressure Pressure Venu	ransmitter p Hole Transmitter Safety Valve tilation	24" 2" 2" 4"	nd Seismi	ic Load	WN WN WN WN WN	#150 #300 #300 #150 * Note(9)	RF RF RF RF	SEE DWG SEE DWG SEE DWG SEE DWG Te Max. Shear D Base (Kg)	ssting Conditions of the condi	w	eight (Kg)
4	PH P2 PSV V2 V2	2 1 1 1 1 1	Level T Pum Pressure Pressure Venu Emp Max. Shear @ Base	ransmitter up Hole Transmitter Safety Valve titlation oty Condition Max. Moment @ Base	24" 2" 4" Wind a	nd Seismi Max. She	ic Load	WN WN WN WN WN WN WN WN Max. Moment @ Base	#150 #300 #300 #150 #150	RF RF RF RF	SEE DWG SEE DWG SEE DWG SEE DWG Te Max. Shear D Base (Kg)	flax. nent @	w	_



نگهداشت و افزایش تولید میدان نفتی بینک

سطح الارض



NISOC

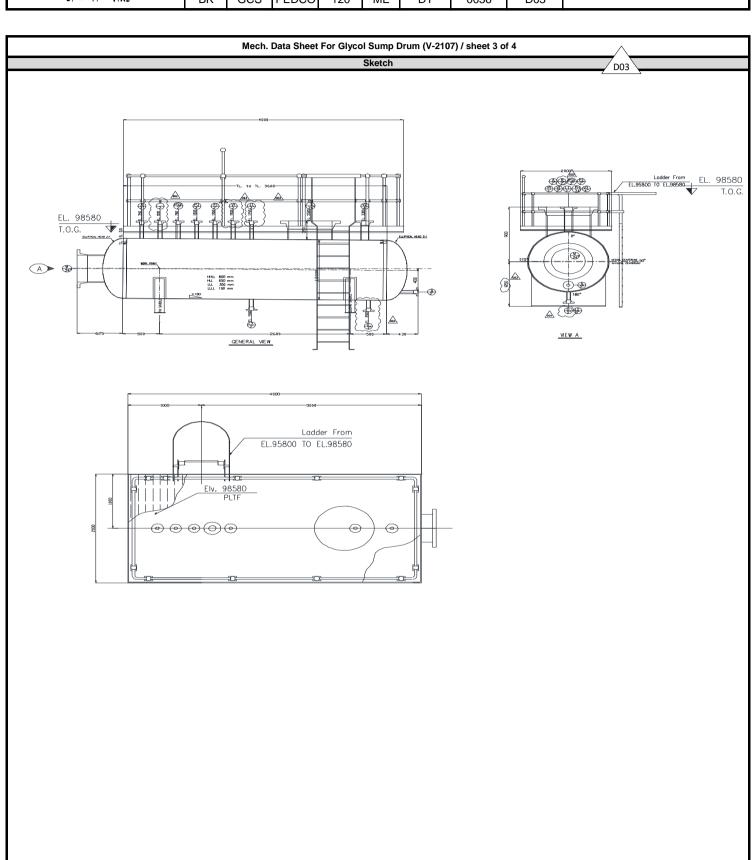
احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک

MECHANICAL DATA SHEETS FOR GLYCOL SUMP D	INA

شماره پیمان: ٤٨١٤ - ٣٧٠ - ٣٥٠

 پروژه	بسته کاری	صادر کننده	تسهيلات	رشته	نوع مدرك	سريال	نسخه
BK	GCS	PEDCO	120	ME	DT	0036	D03

شماره صفحه: ۷ از ۸





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شماره پیمان:

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احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک



MECHANICAL DATA SHEETS FOR GLYCOL SUMP DRUM

پروژه بسته کاری صادر کننده تسهيلات رشته نوع مدرك سريال نسخه BK GCS **PEDCO** 120 ME DT 0036 D03



شماره صفحه: ۱ از ۱

