



#### احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک

 MECHANICAL DATA SHEETS FOR CLOSED DRAIN PUMPS

 نسخه سریال نوع مدر ک رشته تسهیلات صادر کننده بسته کاری پروژه BK GCS PEDCO 120 ME DT 0022 D07

شماره صفحه: ۱ از ۱۰

#### طرح نگهداشت و افزایش تولید ۲۷ مخزن

#### MECHANICAL DATA SHEETS FOR CLOSED DRAIN PUMPS

نگهداشت و افزایش تولید میدان نفتی بینک

REV.	Date	Purpose of Issue/Status	Prepared by:	Checked by:	Approved by:	CLIENT Approval
D00	NOV.2021	IFC	H. Adineh	M.Fakharian	M. Mehrshad	
D01	JAN. 2022	IFA	H. Adineh	M.Fakharian	M. Mehrshad	
D02	MAR. 2022	IFA	H. Adineh	M.Fakharian	M. Mehrshad	
D03	APR. 2022	IFA	H. Adineh	M.Fakharian	M. Mehrshad	
D04	SEP. 2022	IFA	H. Adineh	M.Fakharian	M. Mehrshad	
D05	MAY. 2023	IFA	H. Adineh	M.Fakharian	A.M.Mohseni	
D06	OCT. 2023	IFA	H.Ghadyani	M.Fakharian	S.Faramarzpour	
D07	JUN. 2024	IFA	V.Amjadi	M.Fakharian	M.Sadeghian	

Class: 1 CLIENT Doc. Number: F0Z-708853

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



# Wing and The Exercis

#### NISOC

٤٨١٥ - ٣٧٠ - ٣١٨٤

#### احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک

شماره پیمان:		MECHANICAL DATA SHEETS FOR CLOSED DRAIN PUMPS											
	پروژه	بسته کاری	صادر کننده	تسهيلات	رشته	نوع مدرك	سريال	نسخه					
2	BK	GCS	PEDCO	120	ME	DT	0022	D07					

شماره صفحه: ۲ از ۱۰

#### **REVISION RECORD SHEET**

					REVISION						
page	D00	D01	D02	D03	D04	page	D05	D06	D07	D08	D09
1	Х	Х	Х	х	х	1	Х	Х	Х		
2	Х	Х	Х	х	х	2	Х	Х	Х		
3	Х	Х		Х	х	3	Х	Х			
4	Х					4					
5	Х	Х	Х	Х	х	5	Х		Х		
6	Х	Х	Х	х	х	6	х	х	Х		
7	Х					7					
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#### احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک



شماره پیمان:

MECHANICAL DATA SHEETS FOR CLOSED DRAIN PUMPS

•								
۱۸۶ – ۲۷۰ – ۱۸۶	پروژه	بسته کاری	صادر کننده	تسهيلات	رشته	نوع مدرك	سريال	نسخه
- 01 = - 11 = 11M2	BK	GCS	PEDCO	120	ME	DT	0022	D07

شماره صفحه: ۳ از ۱۰

#### **GENERAL NOTES**

- 1 Pumping fluid might be hydrocarbon, water or a mixture of both and also is corrosive / erosive / hazardous agents / flammable and its contamination is allowed.
- 2 Mass Density [kg/m3] at Min. / Norm / Max. Temp: 829/980/1023
- 3 Viscosity [cP] At Min. / Normal / Max. Temp: 0.443/0.46/1.37
- 4 Mechanical seal shall be as per API 682, 4th edition Data Sheet.
- 5 PMI Testing For Alloy Steel Shall be Done.
- 6 If NPSH margine be less than 1m, NPSH Test Shall be Done.
- 7 Pump drain shall be terminated at skid edge with flange connection and valved. Valves in the piping system shall be Welded Flanged type.
- 8 Design Condition:

Min./Max. Design Temperature: 5 / 85 °C Max. Design Pressure: 14.5 barg

- 9 API Seal Plan 31-53B shall be considred.(vendor to confirm)
- 10 Vendor shall submit ITP (Inspection & Testing Plan) with his proposal.
- 11 The motors, pump mechanical seal, pump coupling and pump accessories shall be supplied from the project's approved vendor list (A.V.L.). Chinese & Indian vendors are not acceptable for Mechanical seal, Electro motor and coupling subvendors.
- 12 Vendor is requested to confirm the material, or propose appropriate alternative.
- 13 The Tie-in flanges shall conform to ASME B-16.5
- 14 Ultrasonic Test shall be performed for forged shaft.
- 15 For pumps with vacuum suction pressure the minimum NPSH margin shall be 2 m. for other pumps the minimum NPSH margin shall be 1 m.
- 16 Spare parts shall be supplied by vendor according to 'MR's appendix for Centrifugal Pumps; Doc. No.; BK-GCS-PEDCO-120-ME-MR-0009"
- 17 Bearing temperature shall be measured during mechanical run test.
- 18 For electrical motor descriptions, refer to 'Specification For LV induction Motors' Doc. No.BK-GNRAL-PEDCO-000-EL-SP-0010. and Specification for MV induction motors' Doc.No. BK-GNRAL-PEDCO-000-EL-SP-0017.
- 19 Electrical motor shall be rated for the end of curve.
- 20 For site conditions refer to Process Basis of Design Document. Doc.No. BK-GNRAL-PEDCO-000-PR-DB-0001
- 21 Suction & Discharge line Size is 2".
- 22 Power Factor, efficiency, frequent, voltage, frequent variation and voltage variation of motor shall be specified by vendor in data sheet.
- 23 Allowable external forces and moments on nozzle equal to two times of table 5 of API 610-11th edition.
- 24 The material shall be in compliance with NACE MR0175/ISO15156 and Specification For Material Requirements in Sour service Document No. BK-GNRAL-PEDCO-000-PI-SP-0008
- 25 Range of ambient design temperature: Min. ambient design temperature: 5 °C, Max. ambient design temperature: 50 °C
- 26 Coupling shall be flexible with spacer and coupling guard shall be of Non-Spark type.
- 27 The elevation of pump centerline from ground is 76 cm.
- 28 Max allowable pressure at shut-off: 14.5 barg
- 29 Barometric pressure in Binak new GCS; winter: 14.37 psia summer: 13.26 psia
- 30 Barrel and pump shall have the same MAWP and to be hydrotest in same value with pump. According to API 610-11th edition for this type pump minimum MAWP shall be 40 bar @ 38 °C
- 31 All drain and vents (If any) to be manifolded, valved and routed to the skid edge. a drain line to be considered in barrel and to be pipe up to mounted skid.
- vendor shall fill in the blanks and return the complete data sheet along with motor data sheet,
  - Doc.No:BK-GCS-PEDCO-120-EL-DT-0008, With his proposal





NISOC

٤٨١٤ - ٧٣٠ - ٥١٨٤

#### احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک

MECHANICAL DATA SHEETS FOR CLOSED DRAIN PUMPS ( شماره پیمان: صادر کننده بسته کاری نوع مدرك نسخه پروژه تسهيلات رشته PEDCO ME DT 0022 D07 BK GCS 120

شماره صفحه: ٤ از ١٠

	CLIENT:	National Iranian South Oil Company (NISOC)			
	PROJECT TITLE:	BINAK New Compressor Gas Station			
	JOB NUMBER:				
E	QUIPMENT NUMBER:	P-2202 A/B			
E	QUIPMENT SERVICE:	CLOSED DRAIN PUMPS			
	SERIAL NUMBER:				
	REQ. / SPEC NO. :	BK-GCS-PEDCO-120-ME-SP-0003			
	PURCH ORDER NO.				
Cells coloured thus	contain drop-down	options			
	contain calculated	values based on input data; do not change.			
	identify a cross refe	erenced paragraph in the document note, and may also	contain a drop	down	
When you have com	npleted the DS, highlight the	whole page format cells pattern none			
Delete these notes o					
COMMENT	rs:				-
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	EM No. ATT	DATA SHEETS ITEM No.	ATT	ITEM No.	





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### احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک

	سسره پیس.						CLUSED DRAIN				1 10
٤٨١٤ – ٧٧٠ – ٥٠٠	-	پروژه	بسته کاری	صادر کننده			نوع مدرک رشا	سريال		نسخه	شماره صفحه: ۱۰ ۱۰
		BK	GCS	PEDCC	120	IV	IE DT	0022	<u> </u>	D07	
			API Std. 61	0 CENTRI	FUGAL PU	MP DATA	SHEET (SI UNIT)	- P-2202 A	/B (Shee	et 2 of 7)	
APPLICABLE TO: PROPO	SAL					APPI	ICABLE NTL/INTNTI	L STANDARI	D:		API 610 - 11th Edition, IPS-G-PM-105
FOR NISOC						UNIT					,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
SITE BINAK Gas Compres	sor Station					SERV	/ICE Closed D	rain Pump			
NO. REQ 2(1+1)	PUMP SI	ZE				TYPE	HORIZE	NTAL	$\wedge$	No. STAGE	GES
MANUFACTURER						MOD	OH2 (VT	(A)	7 <sub>D07</sub>	SERIAL N	NO.
						QUID CHA	RACTERISTICS	Ζ	7 007	7	
***************************************	Units	Maximum		Minimum	Note		SERVICE :				INTERMITTENT
LIQUID TYPE OR NAME	<del>                                       </del>	lydrocarbon Drai	in(HC)(NOTE	1)	Max & min		• IF INTERMITTENT		RTS:		
VAPOR PRESSURE	bara	1			values refer		PUMPS OPERATE IN				<del></del>
DENSITY (NOTE 2)	kg/m³	1023		829	only to the		CORROSION DUE TO				<u> </u>
SPECIFIC HEAT VISCOSITY (NOTE 3)	kj/kgC cP	1.37		0.443	property		EROSION DUE TO : (		(12 1 12)	`	861.46
VISCOSII I (NOTE 3)	1	TING CONDITION	ONS (6 1 2)	0.443	listed		H2S CONCENTRATI CHLORIDE CONCEN			,	001.40
D07	ated	Normal	Min	PARTICULATE SIZE							
NPSH <sub>A</sub> Datum:	Units	Maximum		. Impeller	TTOTTIAL		PARTICULATE CON			)	
PUMPING TEMPERATURE :	°C				(worse case)					<u> </u>	
FLOW:			,								
DISCHARGE PRESSURE:	m³/hr barg			7.0	3.0		ł				
SUCTION PRESSURE :	barg	1.00		7.0		0.3					
DIFFERENTIAL PRESSURE :	bar	1.00		7.0		0.5					
DIFFERENTIAL HEAD :	m			2.80			ł				
NPSH <sub>A</sub> :	m			2.5							
HYDRAULIC POWER:	KW		0	.60			İ				
	ı.			· ·	SI	TE AND U	TILITY DATA				
LOCATION:							COOLING WATER	:			my I marry I
OUTDOOR U MOUNTED AT :	INHEATED	TROI	ICALICATIO	N DEOID	_		TEMP			RETUR	JRN DESIGN
ELECTRIC AREA CLASSIFICA	TION:		PICALISATIO ZONE	N KEQ'D			PRESS.				
GROUP II B		TEMP CLASS	ZONE -	T3	_		SOURCE				
SITE DATA :		TEMI CEASS	-	10	_		COOLING WAT	ER CHLORID	E CONCE	ENTRATION:	<del>_</del>
ELEVATION (MSL): 12.5	m	BARG	OMETER:		(Note 28)	mBar	INSTRUMENT AIR			kg	MIN kg
RANGE OF DESIGN TEMPS:MIN	_	5		85 °C	()		STEAM		_		
RELATIVE HUMIDITY: MIN / MA	X	0	- 1	00 %	(@ 25.6 °C)	)	ı		DRIV	VERS HE	IEATING
UNUSUAL CONDITIONS:	-						TEMP				
UTILITY CONDITIONS:	•						PRESS.				
ELECTRICITY: DRIVERS	HEATING	CONTROL	SI	IUTDOWN				•			
VOLTAGE 400					_						
PHASE 3					_						
HERTZ 50			con.							nn	(F.4. P. QUOMY AN)
PROPOSAL CURVE NO.		PERFORMAN RPM	CE				Driver Type			DRIVER (	(7.1.5) (NOTE 22) MOTOR
As Tested Curve No.							GEAR				NO
IMPELLER DIA.: RATED	MAX.	MIN.			mm		VARIABLE SPEED R	REQUIRED			NO
RATED POWER Kw	EFF	CIENCY			(%)		SOURCE OF VARIA	BLE SPEED			<del></del>
RATED CURVE BEP FLOW (at rate	ed impeller dia)				m³/hr		OTHER				<u> </u>
MIN. FLOW:	kJ/Nm³				m³/hr		MANUFACTURER				
PREFERRED OPERATING REGIO	-		to		m³/hr		NAMEPLATE POWE	R AND POW	ER FAC	TOR	@Site Condition KW
ALLOWABLE OPERATING REGIO	-		to		m³/hr		Nominal RPM				
MAX HEAD @ RATED IMPELLER					m		RATED LOAD RPM				
MAX POWER @ RATED IMPELLI	ER				kW		FRAME OR MODEL				
NPSH3 AT RATED FLOW: CL PUMP TO U/S BASEPLATE				<del></del>	m		ORIENTATION LUBE				HORIZENTAL D07
NPSH MARGIN AT RATED FLOW	7 -		-		m m		BEARING TYPE:				
SPECIFIC SPEED (6.1.9)			-		m		RADIAL				
SUCTION SPECIFIC SPEED LIMIT	г						THRUST				
SUCTION SPECIFIC SPEED	•						STARTING METHOL	)		OPEN DIS	SCHARGE VALVE
MAX. ALLOW. SOUND PRESS. LI	EVEL REOD (	5.1.14)	- 8	5.00	(dBA)		INSULATION/TEMP.			OI EN DIS	F/B
EST MAX SOUND PRESS. LEVEL		,			(dBA)		Max Voltage Variation				±10%
MAX. SOUND POWER LEVEL RE	EQ'D (6.1.14)						Max Frequency Variati				±5%
ST MAX SOUND POWER LEVEL  ST MAX SOUND POWER LEVEL							Max Voltage and Freque		on togethe	r	±10%



THRUST

LUBRICATION:

(6.10.2.2) (6.11.3) (9.2.6)

ISO 10438 DATA SHEETS ATTACHED

Supplier

REQUIRED

PRESSURE LUBE SYSTEM TO ISO 10438-

Pressurized Lube Oil System mtd on pump baseplate

INTERCONNECTING PIPING PROVIDED BY

OIL VISC. ISO GRADE

CONSTANT LEVEL OILER :

Location of Pressurized Lube Oil System mounted on baseplate :

#### نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض



شماره صفحه: ۱۱ز ۱۰

#### NISOC

شماره پیمان:

#### احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک MECHANICAL DATA SHEETS FOR CLOSED DRAIN PUMPS

نوع مدرک رشته تسهیلات صادرکننده بسته کاری

				BK	GCS	PEDCO	120	ME	DT	0022	D07					
				API	Std. 610 CEN	TRIFUGAL PU	JMP DATA	SHEET (	SI UNIT) - P-2	202 A/B (Sheet 3	of 7)					-
										`						_
A DV DVIJAD TV DV		TV2		1 A DY (10.1	e )	$-\!$	CONSTR			~			CENTERN			_
API PUMP TYPE:	U	H2	[Bas	sed on API 610 d	efinitions	D07			ING MOUNTING ING TYPE:	<b>3</b> :	(6.3.10)	CINC	CENTERL LE VOLUTE	<del></del>	7	
NOZZLE CONNECTI	IONS:	(6.5	5)							LIFTING DEVICE		SING	LE VOLUTE	, / = 0		
NOZZEE CONNECTI	ions.	Size	Facing	Rating		Position	١ .	0113		PRESSURE RATI		30			_	
SUCTION		Note 21	RF	300		END			CASE	MAWP:	(6.3.5)	40	barg @	38		·
DISCHARGE		Note 21	RF	300		ТОР	/D07\			HYDROTEST :	(0.0.0)	1.5*MAWP	barg @			'n
PRESSURE CASING	AUX. CO	NECTION						_					8 @			Ĭ
	No.	Size	Type	Facing	Rating	Posn.			HYDROTEST (	OH PUMP AS ASS	EMBLY					
BAL./LEAK OFF									SUCT'N PRESS.	REGIONS DESIG	NED FOR MAWP			YES	_	
DRAIN				RF	300				ROTATION:		(VIEWED FROM	M COUPLING EN	(D)			
VENT				RF	300				•	IMPELLERS IND	IVIDUALLY SEC	URED:		YES		
PRESSURE GAGE									•	BOLT OH 3/4/5 P	UMP TO PAD / FO	OUNDATION:				
TEMP GAGE									•	PROVIDE SOLE	PLATE FOR OH 3/	4/5 PUMPS				
WARM-UP LINE									ROTOR:							
									SHAFT FLEXIB	SILITY INDEX (SF	(9.1.1.3)				_	
Drain Valve Supplie	-					PLIER			-	ed Wet (Multi stage					_	
DRAINS MANIFOL						PPLIER				BALANCE TO ISO						
VENT Valve Suppli	-				SUP	PLIER				IMITED MOVEME		. ,			_	
VENTS MANIFOL		- arrance							COUPLING:(7.	,	(7.2.13	5.f)				
THREAD. CONS FO									MANUFACTUR	ER					_	
SPECIAL FITTING CYLINDRICAL TH				5)					MODEL RATING (POWE	ED/100 DDM					_	
GUSSET SUPPORT			(0.4.3.6)				If Need		SPACER LENGT	,						
MACHINED AND			TIONS (6.4	2 12)			. II Necu	cu	SERVICE FACT					min 1.5	mm	
VS 6 DRAIN	STODDEL	CONNEC	110113 (0.4.	3.12)					RIGID (Note 26)					NO NO		
DRAIN TO SKID E	EDGE					YES				, ГН HYDRAULIC F	TT (7.2.10)					
			MATERI	AL (6.12.1.1)	VTA)			-		LANCED TO ISO		)		YE	S	
APPENDIX H CLASS				S-6	· /			_		TH PROPRIETARY				_	_	
MIN DESIGN METAL	TEMP (6.1	2.4.1)			5		°C									
REDUCED-HARDNES	S MATER	IALS REQ'I	0 (6.12.1.12	.1)	YE	(Note 24)			COUPLING IN	COMPLIANCE WI	ГН (7.2.4)		API 6	10 compliant		
Applicable Hardness Sta	andard (6.12	2.1.12.3)							COUPLING GU.	ARD STANDARD	PER (7.2.13.a)			ISO 14120	_	
BARREL :									Window on Coup	oling Guard						
CASE:																
DIFFUSERS											BASEP	LATE				
MPELLER:									API BASEPLAT							
MPELLER WEAR RIN	NG:									ONSTRUCTION (7	.3.14)					
CASE WEAR RING:										RAINAGE (7.3.1)			Entire Baser	plate Drain Pa	n	
SHAFT:									MOUNTING:							
Bowl (if VS-type)			-		10					ONSTRUCTION :						
Inspection Class		DEADI	NCC AND		vel 2			$\rightarrow$		ELING SCREWS  L DRIVER POSITI				QUIRED		
BEARING (TYPE / NU	MBED).	(6.11		LUBRICATI	ON (0.10.1.1)				SUPPLIED WITH			: ND VENT HOLE			YES	
RADIAL	MIDERJ.	(0.11	/						SCITLIED WITH		DRAIN CO				YES	
								1								

MOUNTING PADS SIZED FOR BASEPLATE LEVELING (7.3.5)

MOUNTING PADS TO BE MACHINED (7.3.6)
PROVIDE SPACER PLATE UNDER ALL EQUIPMENT FEET

REMARKS:





#### NISOC

٤٨١٤ - ٧٧٠ - ٣٥٠

#### احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک

 MECHANICAL DATA SHEETS FOR CLOSED DRAIN PUMPS

 نسخه سریال نوع مدر ک رشته تسهیلات صادر کننده استه کاری پروژه

 BK
 GCS
 PEDCO
 120
 ME
 DT
 0022
 D07

شماره صفحه: ۷ از ۱۰

API Std.
610 CE
NTRIFLIC
GAL PI
IMP DAT
ASHEET
(SLUNIT)
- P-2202
A/B (Sheet
4 of 7)

API Std. 010 CENTRIFUGAL PUNIP	GAL PUMP DATA SHEET (SI UNIT) - P-2202 A/B (Sheet 4 of 7)						
INSTRUMENTATION	SEAL SUPPORT S	YSTEM MOUNTING					
SEE ATTACHED API-670 DATA SHEET	SEAL SUPPORT SYSTEM MOUNTED ON PUMP BAS	SEPLATE					
ACCELEROMETER (7.4.2.1)		(7.5.1.4)					
Number of Accelerometers	IDENTIFY LOCATION ON BASEPLATE	( , ,					
Mounting Location of Accelerometers							
	INTERCONNECTING PIPING BY		Supplier				
PROVISION FOR MTG ONLY (6.10.2.10)	INTERCONNECTING THE ROOT		Баррист				
Number of Accelerometers	MECHANICAL	SEAL (6.8.1) (VTS)					
Mounting Location of Accelerometers	SEE ATTACHED ISO 21049/API 682 DATA SHEET	SEAE (0.0.1) (* 13)		(NOTE 4)			
Woulding Location of Acceleronicers	ADDITIONAL CENTRAL FLUSH PORT	(6.8.9)		(NOTE 4)			
FLAT SURFACE REQUIRED (6.10.2.11) YES	HEATING JACKET REO'D.	(6.8.11)					
	· ·	(0.6.11)	21 - 52D	(NOTE 9,1)			
Number of Accelerometers	FLUSH PLAN		31+53B	(NOTE 9,1)			
Mounting Location of Accelerometers							
VIBRATION PROBES (7.4.2.2)		OLING (6.1.17) (VTS)					
PROVISIONS FOR VIB. PROBES	COOLING REQ'D						
NUMBER PER RADIAL BEARING	COOLING WATER PIPING PLAN						
NUMBER PER AXIAL BEARING	COOLING WATER PIPING						
		FITTINGS					
MONITORS AND CABLES SUPPLIED BY (7.4.2.4)	COOLING WATER PIPING MATERIALS						
	COOLING WATER REQUIREMENTS:						
TEMPERATURE (7.4.2.3)							
PROVISIONS FOR TEMP PROBES							
RADIAL BEARING TEMP.	TOTAL COOLING WATER						
NUMBER PER RADIAL BEARING	HEATING MEDIUM						
THRUST BEARING TEMP.	OTHER						
NUMBER PER THRUST BEARING ACTIVE SIDE	HEATING PIPING						
NUMBER PER THRUST BEARING INACTIVE SIDE							
TEMP. GAUGES (WITH THERMOWELLS) (9.1.3.6)	DIDING & ADI	PURTENANCES					
PRESSURE GAUGE TYPE	MANIFOLD PIPING FOR PURCHASER CONNECTIO	N (7.5.1.6)					
Remarks	VENT		YES				
	DRAIN		YES				
	VALVES	Y	(ES (NOTE 7)				
	COOLING WATER		YES				
	TAG ALL ORIFICES (7.5.2.4)		YES				
	SOCKET WELD CONN ON SEAL GLAND (7.5.	.2.8)					
- <del></del>							
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#### **NISOC**

### احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک

MECHANICAL DATA SHEETS FOR CLOSED DRAIN PUMPS

نوع مدر ک رشته تسهیلات صادر کننده بسته کاری پروژه BK GCS PEDCO 120 ME DT شماره صفحه: ۱۸ز ۱۰

نسخه

D07

0022

#### API Std. 610 CENTRIFUGAL PUMP DATA SHEET (SI UNIT) - P-2202 A/B (Sheet 5 of 7)

		SURFACE	PREPARA	TION AND PAIN	NT			Т	EST	
MANUFACT	URER'S STAI	NDARD				_	SHOP INSPECTION (8.1.1)			
OTHER (SEE	E BELOW)				YES	_	PERFORMANCE CURVE			
SPECIFICAT	ION NO.	As per Projec	t Specification				& DATA APPROVAL PRIOR	TO SHIPMENT.		YES
"Specification	of or Painting;	BK-GNRAL-	PEDCO-000-P	'I-SP-0006"			TEST WITH SUBSTITUTE SE	AL (8.3.3.2.b)		NO
PUMP:							MATERIAL CERTIFICATION	REQUIRED	CASING	YES
PUMP SURF	ACE PREPAR	RATION		BY VENDO	OR	_	SHAFT	YES	(6.12.1.8) IMPELLER	YES
PRIMER		_		BY VEND	OR		OTHER	YES		
FINISH COA	T	_		BY VEND	OR		CASTING REPAIR WELD PRO	OCEDURE APPR	REQD	YES
BASEPLAT	E:						INSPECTION REQUIRED FOR	R CONNECTION	WELDS (6.12.3.4.d)	
	SURFACE PI	REPARATION		BY VENDO	OR	_	LIQUID PENETRANT	YES	MAG PARTICLE	YES
PRIMER:		-		BY VEND	OR		ULTRASONIC		RADIOGRAPHY	
FINISH COA							INSPECTION REQUIRED FOR	R CASTINGS		
	PETAILS OF LIFTING DEVICES						LIQUID PENETRANT	YES	MAG PARTICLE	YES
	HIPMENT: (8.4.1) EXPORT						ULTRASONIC (NOTE 14)		RADIOGRAPHY	
	EXPORT BOXING REQUIRED  YES					_	HARDNESS TEST REQUIRE			
OUTDOOR STORAGE MORE THAN 6 MONTHS  YES						=.	ADDNL SUBSURFACE EXAM	MINATION (6.12.		
									FOR	
		TATION (9.2.8				_			METHOD	
		ONTAINER FO	OR VERT STO	RAGE (9.2.8.3)						
N <sub>2</sub> PURGE (9						_	PMI TESTING REQUIRED (8.			YES
SPARE PAR	TS						COMPONENTS T			
START-UP					YES	-	RESIDUAL UNBALANCE TE	` ′		
NORMAL M	AINTENANC!	E			YES		NOTIFICATION OF SUCCESS			
PTPM NI-	DUMD	DRIVER	CEAD	DAGE	TO	m i T	PERFORMANCE TEST (8.1.1.	c) (8.3.3.5)	(WIT)	YES
ITEM No	PUMP	DRIVER	GEAR	BASE	10	TAL	BASEPLATE TEST (7.3.21) HYDROSTATIC			WIT
				I			HYDROSTATIC TEST OF BO	WLS & COLUMN	N (9.3.13.2)	WIT
							PERFORMANCE TEST		,	WIT
		OTHER PU	JRCHASER	REQUIREMEN	TS		TEST IN COMPLIANCE WITH	H (8.3.3.2)		8.3.3.2
COORDI	NATION MEI	ETING REQUI	RED (10.1.3)		YES		TEST DATA POINTS TO (8.3.	3.3)		8.3.3.3
MAXIM	UM DISCHAR	RGE PRESSUR	E TO INCLUD	E		=	TEST TOLERANCES TO (8.3.	3.4)		
	MAX RELAT	TVE DENSITY	7		YES	1023 kg/m <sup>3</sup>	NPSH (8.3.4.3.1) (8.3.4.3.4) (N	OTE 6)		WIT
	OF	PERATION TO	TRIP SPEED			= '	NPSH-1ST STG ONLY (8.3.4.3	3.2)		
	MAX DIA. II	MPELLERS AN	ND/OR NO OF	STAGES	YES	_	NPSH TESTING TO HI 1.6 OR	R ISO 9906 (8.3.4.3	3.3)	
CONNEC	CTION DESIG	N APPROVAL	. (9.2.1.4)			-	TEST NPSHA LIMITED TO 11	10% SITE NPSHA	(8.3.3.6)	
TORSIO	NAL ANALYS	SIS / REPORT	(6.9.2.10)			_	RETEST ON SEAL LEAKAGE	E (8.3.3.2.d)		
PROGRE	SS REPORTS	5				-	RETEST REQUIRED AFTER I	FINAL HEAD AD	J (8.3.3.7.b)	
OUTLIN	E OF PROC F	OR OPTIONAL	L TESTS (10.2.	5)		_	COMPLETE UNIT TEST (8.3.4	4.4.1)		
ADDITIO	ONAL DATA I	REQUIRING 20	0 YEARS RET	ENTION (8.2.1.1)		-	SOUND LEVEL TEST (8.3.4.5	)		WIT
						-	CLEANLINESS PRIOR TO FIT	NAL ASSEMBLY	(8.2.2.6)	NON-WIT
LATERA	L ANALYSIS	REQUIRED (9	9.1.3.4) (9.2.4.1	.3)		-	LOCATION OF CLEANLINES	SS INSPECTION		
MODAL	ANALYSIS R	EQUIRED (9.3	3.9.2)			=	NOZZLE LOAD TEST			
DYNAM	IC BALANCE	ROTOR (6.9.4	1.4)		-	=	CHECK FOR CO-PLANAR M	OUNTING PAD	SURFACES	
INSTALI	LATION LIST	IN PROPOSAL	L (10.2.3.l)		YES	=	MECHANICAL RUN TEST UI	NTIL OIL TEMP	STABLE	WIT
VFD STI	EADY STATE	DAMPED RES	SPONSE ANA	LYSIS (6.9.2.3)		=	4 HR. MECH RUN AFTER OI	L TEMP STABLE	E (8.3.4.2.1)	WIT
TRANSI	ENT TORSION	NAL RESPONS	SE				4 HR. MECH RUN TEST (8.3.4	4.2.2)		
BEARIN	G LIFE CALC	ULATIONS RI	EQUIRED (6.1	0.1.6)	YES	_	BRG HSG RESONANCE TEST	Γ (8.3.4.7)		
IGNITIO	N HAZARD A	ASSMT TO EN	13463-1 (7.2.1	3.e)			STRUCTURAL RESONANCE	TEST (9.3.9.2)		
CASING	RETIREMEN	T THICKNESS	S DRAWING (	0.3.2.3)		_	REMOVE / INSPECT HYDRO	DYNAMIC BEAF	RINGS AFTER TEST	
FLANGE	S RQD IN PL	ACE OF SKT V	WELD UNION	S (7.5.2.8)	YE	S	(9.2.7.5)			
INCLUD	E PLOTTED V	VIBRATION SI	PECTRA (6.9.3	.3)	-		AUXILIARY EQUIPMENT TE	EST (8.3.4.6)		
CONNEC	CTION BOLTI	NG (7.5.1.7)		SS		=	EQUIPMENT TO BE INCLUD	ED IN AUXILIAF	RY TESTS	
CADMIU	JM PLATED E	BOLTS PROHI	BITED			=	LOCATION OF AUXILIARY	EQUIPMENT TES	ST	
VENDO	R TO KEEP RI	EPAIR AND H	T RCDS (8.2.1	1.c)	YES	-	IMPACT TEST	PER	EN 13445	
VENDO	R SUBMIT TE	ST PROCEDU	RES (8.3.1.1)		YES	-		PER	ASME SECTION VIII	
SUBMIT	INSPECTION	CHECK LIST	(8.1.5)		YES	_	REMOVE CASING AFTER TE	EST		



·07- YT-91AE

#### نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض



#### احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک

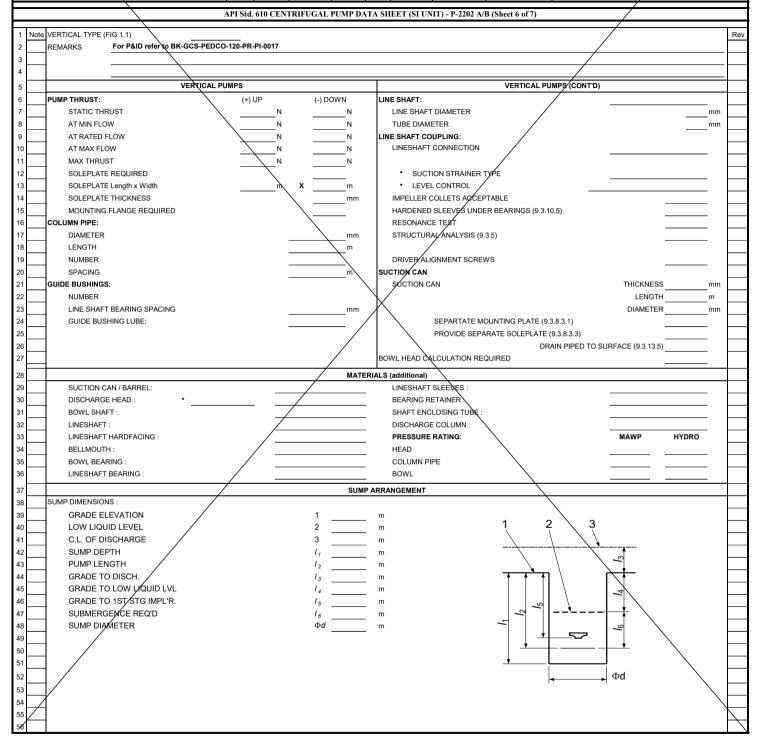
شماره پیمان:

 MECHANICAL DATA SHEETS FOR CLOSED DRAIN PUMPS

 نسخه
 سریال
 نوع مدر کف
 رشته
 تسهیلات
 صادر کننده
 بینه کاری
 پروژه

 BK
 GCS
 PEDCO
 120
 ME
 DT
 0022
 D07

شماره صفحه: ۹ از ۱۰







#### احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک

شماره پیمان:

MECHANICAL DATA SHEETS FOR CLOSED DRAIN PUMPS

۱۸۶ – ۲۲۰ – ۲۰۰

پروژه	بسته کاری	صادر کننده	تسهيلات	رشته	نوع مدرک	سريال	نسخه
BK	GCS	PEDCO	120	ME	DT	0022	D07

شماره صفحه: ۱۰ از ۱۰

	BK	GUS	PEDCO	120	ME	וט	0022	D07		
	API Std. 610 CENTRIFUGAL PUMP DATA SHEET (SI UNIT) - P-2202 A/B (Sheet 7 of 7)									
THESE DEPENDAGES A STORY	I IOTED DV T	THE MANUE		URE VESSI	EL DESIGN	CODE REFEI	RENCES			
THESE REFERENCES MUST BI										
	ACTORS USEI URCE OF MAT									-
30	UKCE OF MAI	EKIAL FRO	FERTIES							-
				WELL	DING AND	REPAIRS				
THESE REFERENCES MUST BE LISTED BY	THE PURCHA	SER. (DEFAU	ULT TO TABL				STATED)			
ALTERNATE WELDING CODES AND STAN							,			
WELDING REQUIREMENT (APPLICABLE C	ODE OR STAN	(DARD)							REQUIRED	-
WELDER/OPERATOR QUALIFICATION								-	REQUIRED	-
WELDING PROCEDURE QUALIFICATION								-		•
NON-PRESSURE RETAINING STRUCTURAL	L WELDING SU	JCH AS BAS	EPLATES OR S	SUPPORTS				•		•
MAGNETIC PARTICLE OR LIQUID PENETR	ANT EXAMINA	ATION OF P	LATE EDGES							_
POSTWELD HEAT TREATMENT										_
POSTWELD HEAT TREATMENT OF CASING	G FABRICATIO	ON WELDS								_
THESE DEPENDINGS MUST BE LISTED BY	THE DUD ON A	CED		MAT	ERIAL INSI	PECTION		DEFAULT TO TA	DIE 14	
THESE REFERENCES MUST BE LISTED BY ALTERNATIVE MATERIAL INSPECTIONS A			DIA (CEE TADI	E 15) (9 2 2 :	5)			DEFAULT TO TA	BLE 14 YES	-
TYPE OF INSPECTION	LID ACCEPTA		THOD	LL 12) (0.2.2.	1	FOR FABRI	CATIONS		FOR CASTINGS	1
RADIOGRAPHY		ME	ПОБ			FOR FABRI	CATIONS		FOR CASTINGS	†
ULTRASONIC INSPECTION										1
MAGNETIC PARTICLE INSPECTION										1
LIQUID PENETRANT INSPECTION										1
VISUAL INSPECTION (all surfaces)										
								•		•
REMARKS:										
-										