

 NISOC	نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک							
	Process Data Sheets For Gas Compressors Packages							
شماره پیمان:	پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه
۰۵۳ - ۰۷۳ - ۹۱۸۴	BK	GCS	PEDCO	120	PR	DT	0030	D03
شماره صفحه: ۱ از ۵								

طرح نگهداشت و افزایش تولید ۲۷ مخزن

Process Data Sheets For Gas Compressors Packages

نگهداشت و افزایش تولید میدان نفتی بینک

D03	AUG.2022	IFA	M.Aryafar	M.Fakharian	M.Mehrshad	
D02	MAR.2022	IFA	M.Aryafar	M.Fakharian	M.Mehrshad	
D01	DEC.2021	IFA	M.Aryafar	M.Fakharian	M.Mehrshad	
D00	NOV.2021	IFC	M.Aryafar	M.Fakharian	M.Mehrshad	
Rev.	Date	Purpose of Issue / Status	Prepared by:	Checked by:	Approved by:	CLIENT Approval

Class: 2	CLIENT Doc. Number: F0Z-708774
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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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نگهداشت و افزایش تولید میدان نفتی بینک
سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک

Process Data Sheets For Gas Compressors Packages



شماره پیمان:

۰۵۳ - ۰۷۳ - ۹۱۸۴

نسخه	سریال	نوع مدرک	رشته	تسهیلات	صادرکننده	بسته کاری	پروژه
D03	0030	DT	PR	120	PEDCO	GCS	BK

شماره صفحه: ۲ از ۵

REVISION RECORD SHEET

Page	D00	D01	D02	D03	D04
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نگهداشت و افزایش تولید میدان نفتی بینک
سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک

Process Data Sheets For Gas Compressors Packages



شماره پیمان:

۰۵۳ - ۰۷۳ - ۹۱۸۴

پروژه

بسته کاری

صادر کننده

تسهیلات

رشته

نوع مدرک

سریال

نسخه

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شماره صفحه: ۳ از ۵

1	REV													
2	GENERAL DATA													
3	Item	(Note 13)					No. of Main / Stand By Units					(Note 13)		
4	Service	Sour Gas					Type of Driver					Electrical		
5	Equipment	☒ Compressor ☐ Expander ☐ Compressor & Expander												
6	General Type	☐ Centrifugal ☒ Reciprocating ☐ Axial												
7	Operation	☒ Continuous ☐ Discontinuous ☐ Other												
8	Installation	☐ Indoor ☒ Outdoor ☐ Other												
9	CHARACTERISTICS OF GAS													
10	Gas Handled													
11	Corrosive Compounds	Yes / No					Yes							
12	Toxicity of Gas	Yes / No					Yes							
13	Presence of Solids or Mist	Yes / No					No							
14	PROCESS OPERATING DATA													
15	Operating Case						Summer			Winter				
16	Stage						1st stage		2nd stage		1st stage		2nd stage	
17	Mass Flow Rate	☒ Wet	Dry	kg/h	8664		8664		7585		7585			
18	03	Certified Point					X			X				
19	Inlet Conditions					Summer			Winter					
20	Stage						1st stage		2nd stage		1st stage		2nd stage	
21	Flow Rate	Nm³/h			7918		7918		7887		7887			
22		Am³/h			1501		479		1411		485			
23	Pressure (Note 2)	barg			4.9		18.1		4.9		18.1			
24	Temperature	°C			36.8		59.9		18.9		59.9			
25	Compressibility Factor				0.975		0.936		0.977		0.951			
26	Specific Heat Ratio	CP/CV			1.245		1.278		1.280		1.295			
27	Relative Humidity	%												
28	Dew Point	°C												
29	Discharge Conditions					Summer			Winter					
30	Stage						1st stage		2nd stage		1st stage		2nd stage	
31	Pressure	barg			19.0		54.8		19.0		54.8			
32	Temperature (Estimated)	°C			124.8		142.3		113.1		149.5			
33	Compressibility Factor				0.964		0.923		0.970		0.948			
34	Specific Heat Ratio	CP/CV			1.225		1.278		1.253		1.281			
35	Brake HP (Estimated)	Kw			484.3		436.5		463.4		448.3			
36	Polytropic Efficiency	%			85.0		85.0		85.0		85.0			
37	DESIGN DATA					1st stage			2nd stage					
38														
39	Design Temperature (SUC / DISCH.)	°C			155		175							
40	Design Pressure (SUC / DISCH.)	barg			22		62							
41	MECHANICAL DATA													
42	Gas Contamination Allowed	Yes / No					No							
43	03	Internal Lubrication for Reciprocating Compressor					Lube or Non Lube					Lube		
44	Internal Lubrication for Rotary Compressor					Dry Screw or Flooded Screw					NA			
45	Allowable Leakage at Shaft Seal					Yes / No					No			
46	03	Buffer Gas Type / Start-up Gas Type										(Note 16) N2/-		
47	Automatic Sequence for Start-up / Shut-down					Yes / No								
48	Reacceleration Required					Yes / No					NA			
49	Settling Out Pressure					barg					(Note 12)			
50	Safety Valve Set Pressure (Inlet / Discharge)					barg					(Note 12)			
51	Material in Contact with Gas Handled (Minimum Requirement)					-					-			
52	Casing Corrosion Allowance (Minimum)					-					-			
53	Suction Line (Diameter / Rating)					8"		150#		6"		300#		
54	Sidestream Line (Diameter / Rating)													
55	Discharge Line (Diameter / Rating)					6"		300#		6"		600#		



احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک



شماره صفحه: ۴ از ۵

بیمان:

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NISOC

نگهداشت و افزایش تولید میدان نفتی بینک
سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک

Process Data Sheets For Gas Compressors Packages



شماره پیمان:

۰۵۳ - ۰۷۳ - ۹۱۸۴

نسخه	سریال	نوع مدرک	رشته	تسهیلات	صادر کننده	پسته کاری	پروژه
D02	0030	DT	PR	120	PEDCO	GCS	BK

شماره صفحه: ۵ از ۵

Note	REV	
1		Following items to be confirmed / specified by vendor
		- Discharge tempreture
		- Specification of strainer at compressor suction line
		- Max. pressure drop across strainer
2		Suction pressure is specified at upstream of strainer.
3		Nitrogen for seal gas is available.For nitrogen Operating Conditions Refer to "Process Basis Of Design; Doc. No.BK-GNRAL-PEDCO-000-PR-DB-0001".
4		Deleted.
5		Deleted.
6		For available utilities, refer to "Process Basis Of Design; Doc. No.BK-GNRAL-PEDCO-000-PR-DB-0001".
7		Manufacturer to consider in design the risk of hydrate formation.
8		Process turndown is 35% of Winter Case Flowrate.
9		Requirement of start-up (auto / manual, local / remote with permissives from main control room and local technical room) shall be considered.
10		0.9 bar pressure drop between stages has been considered (inter air cooler, suction scrubber and relevant piping).
11		Inlet gas are in water saturated condition.
12		To be finalized by vendor.
13		Train 1 are including C 2101 A (as Stage 1) and C 2102 A (as Stage 2).
		Train 2 are including C 2101 B (as Stage 1) and C 2102 B (as Stage 2).
		Train 3 are including C 2101 C (as Stage 1) and C 2102 C (as Stage 2).
		<u>2 trains as operating+1 train as stand-by</u>
14		<u>Spill Back Valve to be supplied by Vendor.</u>
15		Site Condition:
		Min .Absolut air temperature(°C): 5 °C
		Max .Absolut air temperature(°C): 50 °C
		Humidity Maximum Range (%): 0 ~ 100
		Elevation from sea level ~ 12.5 m
16	03	For intermediate partition purge, N2 gas has been considered as inert buffer purge gas