

مرکت توری_د بتروایرا^ن





احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک

NISOC

DATA SHEETS FOR PRESSURE & SAFETY RELIEF VALVES

شماره پیمان: صادر کننده بسته کاری پروژه تسصلات نوع مدرك سريال نسخه شماره صفحه: ۱ از ۳۳ -08 - - 47 - 9144 BK GCS PEDCO 120 IN DT 0009 D02

طرح نگهداشت و افزایش تولید 27 مخزن

DATA SHEETS FOR PRESSURE & SAFETY RELIEF VALVES

نگهداشت و افزایش تولید میدان نفتی بینک

D02	SEP.2023	AFC	P.Hajisadeghi	M.Fakharian	A.M.Mohseni	
D01	OCT.2022	IFA	P.Hajisadeghi	M.Fakharian	M.Mehrshad	
D00	MAY.2022	IFC	P.Hajisadeghi	M.Fakharian	M.Mehrshad	
Rev.	Date	Purpose of Issue / Status	Prepared by:	Checked by:	Approved by:	CLIENT Approval

Class: 1 CLIENT Doc. Number: F9Z-708930

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 (will be finalized later)

AFQ: Approved For Quotation
IFI: Issued For Information
AB-R: As-Built for CLIENT Review

AB-A: As-Built -Approved



·07 - ·YT - 91AF

نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک





DATA SHEETS FOR PRESSURE & SAFETY RELIEF VALVES								
بسته کاری	صادر کننده	تسهيلات	رشته	نوع مدرك	سريال	نسخه		
GCS	PEDCO	120	IN	DT	0009	D02		

شماره صفحه: ۲ از۳۳

REVISION RECORD SHEET

Page	D00	D01	D02	D03	D04
1	Х	Х	Х		
3	X	X	X		
	X	X	X		
<u>4</u> 5	X	X	X		
6	X	X	X		
7	X	X	X		
8	X	X	X		
9	Х	X	Х		
10	X	X	Х		
11	X	Х	X		
12	X	X	X		
13	X	X	X		
14 15	X	X	X		
16	X	X	X		
17	X	X	X		
18	X	X	X		
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21	X	X	X		
22	X	X	X		
23	X	X	X		
24	X	X	X		
25	X	X	X		
26 27	X	X	X		
28	X	X	X		
29	X	X	X		
30	X	X	X		
31	X	X	X		
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پروژه شماره پیمان:

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مرکت تومد بترواری^{ان}





NISOC

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک

		DATA SHEETS FOR PRESSURE & SAFETY RELIEF VALVES							
شماره پیمان:	پروژه	بسته کاری	صادر کننده	تسهيلات	رشته	وع مدرك	سريال	نسخه	
·0" - ·Y" - 9114°	BK	GCS	PEDCO	120	IN	DT	0009	D02	

شماره صفحه: ۳ از ۳۳

D02

REFERENCE DOCUMENTS:

Specification For Instrumentation

Process Basis Of Design

Specification For Painting

Piping Material Specification

Specification For Pressure Safety Valves(PSV)

Instrument & Control System Design Criteria

Symbol & Legend For PFD and P&ID

P&ID - Gas Compression Inlet Gas Pipeline (Binak)

P&ID - Gas Compression Inlet Gas Pipeline (Golkhari)

P&ID - Slug Catcher System

P&ID - Gas Compression Inlet Knock Out Drum

P&ID - 1st Stage Gas Compression Suction Drums

P&ID - 1st Stage Gas Compression Compressors

P&ID - 1st Stage Gas Compression Air Coolers

P&ID - 2nd Stage Gas Compression Suction Drums

P&ID - 2nd Stage Gas Compression Compressors

P&ID - 2nd Stage Gas Compression Air Coolers

P&ID - 2nd Stage Gas Compression Discharge Drum

P&ID - Gas Compression Dehydration Package

P&ID - Lean Glycol Storage Tank

P&ID - Instrument & Plant Air System

P&ID - Nitrogen Generation System

P&ID - Close Drain System

P&ID - Corrosion Inhibitor Package

P&ID - Methanol Injection Package

P&ID - LP Flare System

P&ID - Oily Water Sewer

P&ID - Fuel Gas System

P&ID - Diesel Oil System

P&ID - Potable Water System

P&ID - Glycol Sump Drum

P&ID - Fire Water Network

P&ID - Total Flooding System For Extension of Existing Elect. Building

BK-GNRAL-PEDCO-000-IN-SP-0001_D04

BK-GNRAL-PEDCO-000-PR-DB-0001_D08

BK-GNRAL-PEDCO-000-PI-SP-0006

BK-GCS-PEDCO-120-PI-SP-0001_D02

BK-GNRAL-PEDCO-000-IN-SP-0007_D04

BK-GCS-PEDCO-120-IN-DC-0002 D01

BK-GCS-PEDCO-120-PR-PI-0001 D04

BK-GCS-PEDCO-120-PR-PI-0002_D06

BK-GCS-PEDCO-120-PR-PI-0003_D06

BK-GCS-PEDCO-120-PR-PI-0004_D06

DK-003-1 LD00-120-1 K-1 1-0004_D00

BK-GCS-PEDCO-120-PR-PI-0005_D06

BK-GCS-PEDCO-120-PR-PI-0006_D06

BK-GCS-PEDCO-120-PR-PI-0007 D06

BK-GCS-PEDCO-120-PR-PI-0008_D06

BK-GCS-PEDCO-120-PR-PI-0009_D06

BK-GCS-PEDCO-120-PR-PI-0010_D05

BK-GCS-PEDCO-120-PR-PI-0011_D06

BK-GCS-PEDCO-120-PR-PI-0012_D06

BK-GCS-PEDCO-120-PR-PI-0013_D06

BK-GCS-PEDCO-120-PR-PI-0014_D06

BK-GCS-PEDCO-120-PR-PI-0015_D06

BK-GCS-PEDCO-120-PR-PI-0016_D06

BK-GCS-PEDCO-120-PR-PI-0017_D06

BK-GCS-PEDCO-120-PR-PI-0018_D06 BK-GCS-PEDCO-120-PR-PI-0019_D06

BK-GCS-PEDCO-120-PR-PI-0020_D06

BK-GCS-PEDCO-120-PR-PI-0021_D05

BK-GCS-PEDCO-120-PR-PI-0022_D06

BK-GCS-PEDCO-120-PR-PI-0023 D06

BK-GCS-PEDCO-120-PR-PI-0024_D06

BK-GCS-PEDCO-120-PR-PI-0025_D06

BK-GCS-PEDCO-120-SA-PI-0001_D04

BK-GCS-PEDCO-120-SA-PI-0002_D02



. توسعه پشرواران





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احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک

		DATA SHEETS FOR PRESSURE & SAFETY RELIEF VALVES							
شماره پیمان:	پروژه نا	بسته کاری	صادر کننده	تسهيلات	رشته	نوع مدرك	سريال	نسخه	
·0" - ·Y" - 9114	BK	GCS	PEDCO	120	IN	DT	0009	D02	

شماره صفحه: ۴ از ۳۳

GENERAL NOTES:

- 1- All valves shall be clearly and permanently marked. The name plate shall be corrosion resistant Stainless Steel and pinned to the valve body. Wired on labels are not acceptable. Following information shall be submitted on nameplate for approval.
- Tag number
- Manufacturer name, model and serial number
- Set Pressure
- Pressure rating
- Body size and material
- Measurement Range
- Liquid density
- Degree of protection & electrical construction
- Marking as per IEC Codes
- Well name
- 2- Calculation sheet using API RP-520 formula shall be provided by vendor for each safety/relief valve in accordance with process values.
- 3- All wetted part material shall be in accordance with ISO 15156-2 region 2 or NACE MR-01-75 as specified in data sheets for each tag . For these mentioned tags, both the compliance shall be provided primary and secondary sides of valves shall meet NACE MR-01-75 requirements and certificate of
- 4- The safety/ relief valves shall comply with API RP 520, 521, 526 and 527 standards. All valves shall be supplied with ASME section VIII.
- 5- All valves shall be tested for leakage at the manufacturer's works in accordance with API 527. The procedures for these tests shall be submitted for approval.
- 6- Gasket material shall be suitable for the application.
- 7-The inlet/outlet sizes & rating and center to flange face dimensions for all valves shall be in accordance with API-526.
- 8- All the valves with the materials offered shall meet the set pressure and other design conditions for the orifice selected.
- 9-Vendor to advise all wetted parts materials include disc holder, stem guide, blowdown ring, ring pin, bushing and other internal components in contact with process fluid in bid stage
- 10 Environmental condition for field instrumentation of Binak Oilfield shall be considered as per the followings:

Maximum ambient temperature: 50 (°C)
Minimum ambient temperature: 5 (°C)
Maximum steel surface exposed to sun: 85 (°C)
Maximum summer dry bulb: 50 (°C)
DB/RH for Summer HVAC Design: 41 °C / 61 %

DB for Winter HVAC Design: 6 °C

Relative Humidity:

- Maximum Design relative humidity (%): 100
 Minimum Design relative humidity (%): 0
- 11 Material Test Certificate and calibration Certificate for all transmitters to be submitted by Vendor.
- 12- Body and other pressure parts subject to inlet pressure (primary pressure zone) shall be hydrostatically tested at a pressure of at least 1.5 times the design pressure of the parts
- 13- Safety relief valves shall be subject to a seat leakage test in accordance with API standard 527 as applicable, or as agreed upon by the manufacturer and the CLINET
- 14- Lifting lever shall be provided whenever the fluid to be relieved, is steam, air, or hot water (60°C and above)
- 15- Balanced bellows valves shall have open bonnet construction.
- 16- In valves with balancing bellow, the bonnet shall have a ½" threaded hole, NPT as per ANSI 1.20.1.
- 17- In bellows type, bonnet shall be vented separately from discharge.
- 18- Body color of Pressure & Safety Relief Valves shall be yellow. For more details referto the latest revision of Specification For Painting Doc No. "BK-GNRAL-PEDCO-000-PI-SP-0006"





نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک





شماره پیمان: · ۵۳ - · ۷۳ - 9144

DATA SHEETS FOR PRESSURE & SAFETY RELIEF VALVES نوع مدرك صادر کننده بسته کاری نسخه پروژه سريال GCS PEDCO DT BK 0009 D02 120

شماره صفحه: ۵ از ۳۳

			PRESSURE SAFET	Y VALVE				
	1	Tag Number		I		PSV-2111		
	2	Service				GAS		D02
	3	Line No.	Vessel No.	GAS-111-0013-AN07-	2" DT	V-2104		
		Pipe Class / C.A.	P&ID No.	AN07 / 6mm	·Z -F I		00 DD DI 000/	D06 (1 of 2)
GENERAL	5	Discharge to	P&ID NO.	AN07 / 6mm BK-GCS-PEDCO-120-PR-PI-0004-D06 (1 of 2) To LP FLARE HEADER				
	6	Protect Equipment		-	-N			
	7	· · ·		Zone 2, IIB T4				
	8			YES				
		Nozzle (Full, Semi)	omphanee	Full Nozzle				
		1102210 (1 4111, 001111)						
BASIS	10	Danism Toma	Safety, Relief, Safety-Relief	Safety				
BASIS	11	Design Type	Conventional, bellows, Pilot	Bellows				
	11		Op.	Bellows				
	12	Bonnet Type		Closed				
		Fluid	State	GAS		Singel F	Phase	
		Required Capacity			37247.20		kg/h	
	_	Molecular Mass	Sp. Gr.@ relief Tmp	48.1 kg/kmol		1.659		kg/m3
	16	Oper. Pressure	Set Pressure	5.3 /		9	bar-g	
	17	Oper. Temperature	RelievingTemp.	32	1	284	°C	
	18		Constant		-		bar-g	
	19	Back Pressure	Variable		3.4		bar-g	
PROCESS CONDITIONS	20		Total		3.4 bar-g			
1 KOOZOO CONDINONO		% Allowable Overpressure				21%		
		Over Pressure Factor				1.21		
		Compressibility Factor(Z)				0.95		
		Latent Heat of Vaporization				431.6		
		Ratio of Specific Heats(Cp/				1.223		
		Density @ flowing temprat	ure	12.837	kg/m3			
	27	Operating Viscosity		0.015	cP			
	28	Barometric Pressure		13.26 ~ 14.37	psia			
	29	Design Code	Sizing Basis	API 520				
	30	Construction Code				API 520		
	31	Fire		YES				
SELECTION	32	Basis of Selection	*****	FIRE				
	33	Calculated Area	MM ²	4134(VTC)				
		Required Area	MM ²	8742 (VTC)				
	35	Orifice Designation	In. det	CII 1		Q (VTC)		
CONNECTIONS	36	Size: Inlet	Outlet	6" in	ANCEDDE	8'		CED DE
		Rating & Facing :In	Outlet		ANGED RF		#150 FLAN	GED KF
		Body and Bonnet		ASTM A216 GR. WCE	o (VIC)			
	40	Seat and Disc (Trim) Nozzle		SS316+PTFE (VTC)				
MATERIALS (VTC)	41	Guide and Rings		SS316 (VTC) VTA				
MAI ENIALS (VIO)	41	Spring		ASTM A216 GR. WCE	3 (VTC)/Note2)			
	43	Bellows		SS316+PTFE (VTC)	(v i C)(NOIEZ)			
	44	Denotes		33310+F1FE (V1C)				
		Cap: Screwed or Bolted		Screwed				
	46	Lever: Plain or Packed		N/A				
		Test Gage		Yes				
OPTIONS		With Rupture Disc		No				
2	_	Hydro Test		Required				
		Seat Leakage Test						
			Required					
		Compliance Standard	N/A Will Be Finalized Later					
	51	Compliance Standard Manufacturer			r			
PURCHASE (will be finalized later)	51 52	Manufacturer		Will Be Finalized Late				
PURCHASE (will be finalized later)	51 52				r			

VTA: Vendor to Advise in bidding stage

VTC : Vendor to confirm in bidding stage

N/A: Not applicable

1- For material details refer to "Piping Material Specification Doc No." BK-GCS-PEDCO-120-PI-SP-000 Chrome Plated is

2- Suitable coating such as cadmiun plated shall be considered (vendor to advise)

recommended.

H.R. Cadmium plated has been specified as per your previous recommendation. since it is not mandatory, vendor advice will finalized the subject.



نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک





	شماره پیمان:
۹۱۸۴ - ۷۳ - ۹۱۸۴	

BK

	DATA SHEETS FOR PRESSURE & SAFETY RELIEF VALVES									
پروژه	بسته کاری	صادر کننده	تسهيلات	رشته	وع مدرك	سريال	نسخه			
BK	GCS	PEDCO	120	IN	DT	0009	D02			

شماره صفحه: ۶ از ۳۳

			PRESSURE SAFET	VALVE						$\overline{}$
	1	Tag Number					PSV-2112	2	_/	
	2	Service					GAS		D 02	
	3	Line No.	Vessel No.	GAS-111-0014	1-AN07-2	!"-PT	V-2104			
GENERAL	4	Pipe Class / C.A.	P&ID No.	AN07 / 6mm			BK-GCS-F	PEDCO-12	0-PR-PI-0004	4-D06 (1 of 2)
	5	<u> </u>		To FLARE						
	6	· · ·		-						
	7				Zone 2, IIB T4					
	8	NACE MR0175/ISO 15156 (Compliance	YES						
	9	Nozzle (Full, Semi)	T	Full Nozzle						
BASIS	10	Design Type	Safety, Relief, Safety-Relief	Safety						
	11		Conventional, bellows, Pilot Op.	Bellows						
	_	Bonnet Type		Closed						
	13		State	GAS				Singel P	hase	
	14	Required Capacity				37247.20			kg/h	
	15	Molecular Mass	Sp. Gr.@ relief Tmp	48.1 kg/k	mol			1.659		kg/m3
	16	Oper. Pressure	Set Pressure	5.3	/			9	bar-g	
	17	Oper. Temperature	RelievingTemp.	32	2	/		284	°C	
	18		Constant			-			bar-g	
	19	Back Pressure	Variable			3.4			bar-g	
PROCESS CONDITIONS	20	0/ Allamakia Omanasana	Total			3.4	040/		bar-g	
	21	% Allowable Overpressure Over Pressure Factor	<u>'</u>				21%			
	22						1.21			
	23 24	Compressibility Factor(Z) Latent Heat of Vaporization	. (V:/// a)				0.95 431.6			
	25	Ratio of Specific Heats(Cp					1.223			
				40.00	7	1/2	1.223			
-	26	Density @ flowing temprat Operating Viscosity	ure	12.837 0.015		kg/m3 cP				
	27 28	Barometric Pressure		13.26 ~						
	29	Design Code	Sizing Basis	API 520	- 14.37	psia				
	30	Construction Code	Sizing Basis	Al 1320			API 520			-
		Fire		YES						
SELECTION	32	Basis of Selection		FIRE						
	33	Calculated Area	MM ²	4134(VTC)						
	34	Required Area	MM²	8742 (VTC)						
	35	Orifice Designation					Q (VTC)	,		
	36	Size: Inlet	Outlet	6"	in		()	8"	in	
CONNECTIONS	37	Rating & Facing :In	Outlet			ANGED RF			#150 FLAN	IGED RF
	38			ASTM A216 G						
	39	Seat and Disc		SS316+PTFE		. ,				
	40	Nozzle		SS316 (VTC)						
MATERIALS (VTC)	41	Guide and Rings		VTA						
	42	Spring		ASTM A216 G	R. WCB	(VTC) (Note2)			
	43	Bellows		SS316+PTFE						
	44									
	45	Cap: Screwed or Bolted		Screwed						
	46	Lever: Plain or Packed		N/A						
	47	Test Gage		Yes						
OPTIONS		With Rupture Disc		No						
		Hydro Test		Required						
	50	Seat Leakage Test		Required						
	51	Compliance Standard		N/A						
PURCHASE (will be finalized	52	Manufacturer		Will Be Finaliz	ed Later					
later)	53	Model		Will Be Finaliz	ed Later					
	. —	Serial No.		Will Be Finalized Later						

VTA: Vendor to Advise in bidding stage

VTC : Vendor to confirm in bidding stage N/A: Not applicable

- 1- For material details refer to "Piping Material Specification Doc No." BK-GCS-PEDCO-120-PI-SP-0001-D02".
- 2- Suitable coating such as cadmiun plated shall be considered (vendor to advise)

Chrome Plated is recommended.



نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک





	شماره پیمان:	پروژه	زی
· ۵۳ - · ۷۳ - 91 A ۴		BK	C

DATA SHEETS FOR PRESSURE & SAFETY RELIEF VALVES								
بسته کاری	صادر کننده	تسهيلات	رشته	نوع مدرك	سريال	نسخه		
GCS	PEDCO	120	IN	DT	0009	D02		

شماره صفحه: ۷ از ۳۳

			PRESSURE SAFET	Y VALVE			
	1	Tag Number			PSV-2113 D02		
	2	Service			GAS		
	3	Line No.	Vessel No.	GAS-111-0021-AN07-2"-PT	V-2105		
GENERAL	4	Pipe Class / C.A.	P&ID No.	AN07 / 6mm	BK-GCS-PEDCO-120-PR-PI-0005_D06		
GENERAL	5	Discharge to		To FLARE			
	6	Protect Equipment		-			
	7	Area Clacification		Zone 2, IIB T4			
	8	NACE MR0175/ISO 15156 C	Compliance	Yes			
	9	Nozzle (Full, Semi)		Full Nozzle			
BASIS	10	Design Type	Safety, Relief, Safety-Relief	Safety			
BAOIO	11	Design Type	Conventional, bellows, Pilot Op.	Bellows			
	12	Bonnet Type	•	Closed			
	13	Fluid	State	GAS	Singel Phase		
	14	Required Capacity		17833.1	kg/h		
	15	Molecular Mass	Sp. Gr.@ relief Tmp	24.52 kg/kmol	0.846 kg/m3		
1	16	Oper. Pressure	Set Pressure	5.1 /	9 bar-g		
	17	Oper. Temperature	RelievingTemp.	36.92 /	36.92 °C		
	18		Constant	•	bar-g		
	19	Back Pressure	Variable	1.2			
PROCESS CONDITIONS	20		Total	1.2			
	21	·		10%			
	22	Over Pressure Factor			1.10		
	23	Compressibility Factor(Z) Latent Heat of Vaporization (Kj/Kg)			0.954		
	24				1994.0		
	25	Ratio of Specific Heats(Cp/		1.246 11.981 kg/m3			
	26	Density @ flowing temprat	ure	Ü			
	27	Operating Viscosity Barometric Pressure		* * * * * * * * * * * * * * * * * * * *			
	28 29	Design Code	Sizing Basis	13.26 ~ 14.37 psia API 520			
	30	Construction Code	Sizing Basis	API 520	API 520		
	31	Fire			NO NO		
SELECTION	32	Basis of Selection		Blocked Outlet			
0==0.1011	33	Calculated Area	MM²	2240.6 (VTC)			
	34	Required Area	MM²		3421 (VTC)		
	35	Orifice Designation			N (VTC)		
001111505-2-2-2	36	Size: Inlet	Outlet	4" in	6" in		
CONNECTIONS	37	Rating & Facing :In	Outlet	#300 FLANGED RF	#150 FLANGED RF		
	38	Body and Bonnet		ASTM A216 GR. WCB (VTC)			
	39	Seat and Disc		SS316+PTFE (VTC)			
	40	Nozzle		SS316 (VTC)			
MATERIALS (VTC)	41	Guide and Rings		VTA			
	42	Spring		ASTM A216 GR. WCB (VTC) (Note2)			
	43	Bellows		SS316+PTFE (VTC)			
	44						
	45	Cap: Screwed or Bolted		Screwed			
	46	Lever: Plain or Packed		N/A			
	47	Test Gage		Yes			
OPTIONS	48	With Rupture Disc		No			
	49	Hydro Test		Required			
	50	Seat Leakage Test		Required			
	51	Compliance Standard		N/A			
PURCHASE (will be finalized	52	Manufacturer		Will Be Finalized Later			
later)	53	Model		Will Be Finalized Later			
,	54	Serial No.		Will Be Finalized Later			
Notes:							

VTA: Vendor to Advise in bidding stage

VTC : Vendor to confirm in bidding stage N/A: Not applicable

- 1- For material details refer to "Piping Material Specification Doc No." BK-GCS-PEDCO-120-PI-SP-0001-D02 ".
- 2- Suitable coating such as cadmiun plated shall be considered (vendor to advise)

Chrome Plated is recommended.



نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک





شماره پیمان:

DATA SHEETS FOR PRESSURE & SAFETY RELIEF VALVES نوع مدرك صادر کننده بسته کاری نسخه پروژه سريال GCS PEDCO BK DT 0009 120 D02

شماره صفحه: ۸ از ۳۳

			PRESSURE SAFET	Y VALVE			^	
	-	Tan Namehan	T REGOOKE GATET	IVALVE		PSV-2114	$\overline{}$	
	1	Tag Number						
	2	Service		0.10 444	O. D.T.	GAS	D02	
	3	Line No.	Vessel No.	GAS-111-0022-AN07-	2"-PT	V-2105		
GENERAL	4	Pipe Class / C.A.	P&ID No.	AN07 / 6mm		BK-GCS-PEDCO-12	0-PR-PI-0005_D06	
	5	· ·		To FLARE				
	6	Protect Equipment		·				
	7	Area Clacification		Zone 2, IIB T4				
	8	NACE MR0175/ISO 15156 (Compliance	Yes				
	9	Nozzle (Full, Semi)		Full Nozzle				
BASIS	10	Design Type	Safety, Relief, Safety-Relief	Safety				
BASIS	11	Design Type	Conventional, bellows, Pilot Op.	Bellows	Bellows			
	12	Bonnet Type	1 -	Closed				
		Fluid	State	GAS		Singel P	hase	
			-		17833.1	123011	kg/h	
		Molecular Mass	Sp. Gr.@ relief Tmp	24.52 kg/kmol		0.84		
	16	Oper. Pressure	Set Pressure	·	5.1 /	9	bar-g	
	17	Oper. Temperature	RelievingTemp.	36.92	/	36.92	°C	
	18	, . p	Constant		-		bar-g	
	19	Back Pressure	Variable		1.2		bar-g	
	20	Buok i roosuro	Total		1.2		bar-g	
PROCESS CONDITIONS		% Allowable Overpressure	I .		1.2	10%	bai-g	
		Over Pressure Factor		1.10				
		Compressibility Factor(Z)						
		Latent Heat of Vaporization (Kj/Kg)				0.954		
						1994.0		
		Ratio of Specific Heats(Cp				1.246		
		Density @ flowing temprat	ure	11.981	kg/m3			
	27	Operating Viscosity		0.012	cP			
	28	Barometric Pressure		13.26 ~ 14.37	psia			
	29	Design Code	Sizing Basis	API 520			-	
	30	Construction Code		API 520				
	31	Fire		NO				
SELECTION	32	Basis of Selection		Blocked Outlet				
	33	Calculated Area	MM ²	2240.6 (VTC)				
	34	Required Area MM ²		3421 (VTC)				
	35	Orifice Designation		N (VTC)				
COMMESSIONS	36	Size: Inlet	Outlet	4" in 6" in				
CONNECTIONS		Rating & Facing :In	Outlet		ANGED RF		#150 FLANGED RF	
		Body and Bonnet		ASTM A216 GR. WCE				
	39	Seat and Disc		SS316+PTFE (VTC)				
	40	Nozzle		SS316 (VTC)				
MATERIALS (VTC)	41	Guide and Rings		VTA				
	42	Spring		ASTM A216 GR. WCB (VTC) (Note2)				
	43	Bellows						
	44	Delions		SS316+PTFE (VTC)				
		Con. Coround or Belta-l		Corowad				
		Cap: Screwed or Bolted Lever: Plain or Packed		Screwed				
	46			N/A				
OPTIONS		Test Gage		Yes				
OPTIONS		With Rupture Disc		No				
		Hydro Test		Required				
		Seat Leakage Test		Required				
		Compliance Standard		N/A				
PURCHASE (will be finalized			<u> </u>	Will Be Finalized Late				
later)		Model		Will Be Finalized Late				
iatei)	54	Serial No.		Will Be Finalized Late	r			
Notes: □								

VTA: Vendor to Advise in bidding stage

VTC : Vendor to confirm in bidding stage N/A: Not applicable

- 1- For material details refer to "Piping Material Specification Doc No." BK-GCS-PEDCO-120-PI-SP-0001-D02 ".
- 2- Suitable coating such as cadtaiun plated shall be considered (vendor to advise)

Chrome Plated is recommended.



نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک



نسخه

D02



 DATA SHEETS FOR PRESSURE & SAFETY RELIEF VALVES

 سریال
 وع مدر ک
 رشته
 تسهیلات
 صادر کننده
 بسته کاری
 پروژه
 شماره پیمان:

 ۰۵۳ - ۱۹۲۰ - ۱۹۲۹
 BK
 GCS
 PEDCO
 120
 IN
 DT
 0009

شماره صفحه: ۹ از ۳۳

			PRESSURE SAFET	TY VALVE				$_$ \land
	1	Tag Number				PSV-2121A		フ ゞ
	2	Service		GAS D02				D02
	3	Line No.	Vessel No.	GAS-111-0029A-AN07-2"-PT V-2101A				
GENERAL	4	Pipe Class / C.A.	P&ID No.	AN07 / 6mm		BK-GCS-PED	CO-120-PR-PI-000	6_D06 (1 OF 3)
GENERAL	5	Discharge to		To FLARE				_ ,
	6	Protect Equipment		-				
	7	• • •		Zone 2, IIB T4				
	8	NACE MR0175/ISO 15156 (Compliance	YES				
	9	Nozzle (Full, Semi)	•	Full Nozzle				
	10	, ,	Safety, Relief, Safety-Relief	Safety				
BASIS		Design Type	Conventional, bellows, Pilot Op.	Bellows				
	12	Bonnet Type	1-1	Closed				
		Fluid	State	GAS		Si	ngel Phase	
	14	Required Capacity			2166.00		kg/h	
	15	Molecular Mass	Sp. Gr.@ relief Tmp	24.55 kg/kmol			0.847	kg/m3
	16	Oper. Pressure	Set Pressure		4.9 /		9 bar-g	
	17	Oper. Temperature	RelievingTemp.	36.78	1		60 °C	
	18	- 1	Constant	220	-		bar-g	
	19	Back Pressure	Variable		0.5		bar-g	
	20		Total		0.5		bar-g	
PROCESS CONDITIONS		% Allowable Overpressure	I.		0.5	10%	bai g	
	22	•				1.10		
	23	Compressibility Factor(Z)				0.822		
	24					1827.0		
	25			04.400		1.457		
	26			24.192	kg/m3			
	27	Operating Viscosity		0.013	сР			
	28	Barometric Pressure		13.26 ~ 14.37	psia			
	29	Design Code	Sizing Basis	API 520				-
	30	Construction Code				API 520		
	31	Fire		YES				
SELECTION	32	Basis of Selection		Control Valve Failiure				
	33	Calculated Area	MM ²	107.25 (VTC)				
	34	Required Area	MM ²	153.938 (VTC)				
	35	Orifice Designation				E (VTC)		
CONNECTIONS		Size: Inlet	Outlet	1" in			2" in	
CONNECTIONS	37	Rating & Facing :In	Outlet	#300 FI	ANGED RF		#150 FLA	NGED RF
	38	Body and Bonnet		ASTM A216 GR. WCI	3 (VTC)			
	39	Seat and Disc		SS316+PTFE (VTC)				
	40	Nozzle		SS316 (VTC)				
MATERIALS (VTC)	41	Guide and Rings		VTA				
- , - ,	42	Spring		ASTM A216 GR. WCB (VTC) (Note2)				
	43	Bellows		SS316+PTFE (VTC)				
	44	- · · · ·		00010T1 11 E (V10)				
	45	Cap: Screwed or Bolted		Screwed				
	46	Lever: Plain or Packed		N/A				
		Test Gage						
OPTIONS	48	With Rupture Disc		Yes				
OF HONS	_	Hydro Test		No Described				
				Required				
		Seat Leakage Test		Required				
	51	Compliance Standard		N/A				
PURCHASE (will be finalized	52	Manufacturer		Will Be Finalized Late				
later)		Model Serial No.		Will Be Finalized Late				
lateri				Will Be Finalized Later				

VTA: Vendor to Advise in bidding stage

VTC : Vendor to confirm in bidding stage N/A: Not applicable

- 1- For material details refer to "Piping Material Specification Doc No." BK-GCS-PEDCO-120-PI-SP-0001-D02".
- 2- Suitable coating such as cadmiun plated shall be considered (vendor to advise)

Chrome Plated is recommended.



نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک





شماره پیمان: ۱۸۴۴ – ۷۲۰ – ۵۳۰
 DATA SHEETS FOR PRESSURE & SAFETY RELIEF VALVES

 نسخه
 سریال
 وع مدر ک
 رشته
 تسهیلات
 صادر کننده
 بسته کاری
 پروژه

 BK
 GCS
 PEDCO
 120
 IN
 DT
 0009
 D02

شماره صفحه: ۱۰ از ۳۳

PROCESS CONDITIONS 16 Oper. Pressure RelievingTemp. 36.78				
2 Service GAS CAS CAS PAID NO. Vessel No. GAS-111-0029B-AN07-2'-PT V-2101B	🔽			
SENERAL 3 Iun No. Vessel No. GAS-111-029E-NAIO7-2*-PT V-2101B	02			
A Pipe Class / C.A. PAID No. AND/ form BK-GCS-PEDCO-120-PR-PH0006_D				
Solicharge to To FLARE Florest Equipment Florest Equipment Florest Equipment Florest Equipment Florest Equipment Florest Capital Florest Equipment Florest Capital Florest Equipment Florest Capital Flore	006 (2 OF 3)			
T Area Clacification	, ,			
BASIS Safety Sa				
BASIS 10				
10				
BASIS 11				
11				
13 Fluid State GAS Singel Phase 14 Required Capacity 24.55 kg/kmol 0.847 15 Molecular Mass Sp. Gr. @ relief Tmp 24.55 kg/kmol 0.847 16 Oper. Pressure Set Pressure 4.9 9 bar-g 17 Oper. Temperature RelievingTemp. 36.78 / 60 °C Set Pressure Set Pressure 4.9 9 bar-g 18 Constant 5 5 5 5 5 5 5 5 5				
14 Required Capacity 24.55 kg/kmol 0.847				
15 Molecular Mass Sp. Gr.@ relief Tmp 24.55 kg/kmol 0.847 16 Oper. Pressure Set Pressure 4.9 / 9 bar-g 17 Oper. Temperature RelievingTemp. 36.78 / 60 °C 18 Constant				
The content of the				
PROCESS CONDITIONS 18	kg/m3			
18				
19 Back Pressure Variable 0.5 bar-g				
PROCESS CONDITIONS 20				
PROCESS CONDITIONS 21 % Allowable Overpressure				
21 % Allowable Overpressure				
23 Compressibility Factor(Z) 0.822 24 Latent Heat of Vaporization (Kj/Kg) 1827.0 25 Ratio of Specific Heats(Cp/Cv) 1.457 26 Density @ flowing temprature 24.192 kg/m3 27 Operating Viscosity 0.013 cP 28 Barometric Pressure 13.26 ~ 14.37 psia 29 Design Code Sizing Basis API 520				
24 Latent Heat of Vaporization (Kj/Kg) 1827.0 25 Ratio of Specific Heats(Cp/Cv) 1.457 26 Density @ flowing temprature 24.192 kg/m3 27 Operating Viscosity 0.013 cP 28 Barometric Pressure 13.26 ~ 14.37 psia 29 Design Code Sizing Basis API 520				
25 Ratio of Specific Heats(Cp/Cv) 26 Density @ flowing temprature 24.192 kg/m3				
26 Density @ flowing temprature 24.192 kg/m3 27 Operating Viscosity 0.013 cP 28 Barometric Pressure 13.26 ~ 14.37 psia				
27 Operating Viscosity 0.013 cP				
28 Barometric Pressure 13.26 ~ 14.37 psia				
29 Design Code Sizing Basis API 520 API 520				
SELECTION API 520				
SELECTION 31 Fire				
SELECTION 32 Basis of Selection				
33 Calculated Area MM² 107.25 (VTC)				
34 Required Area MM2 153.938 (VTC) 35 Orifice Designation E (VTC) 36 Size: Inlet Outlet 1" in 2" in 37 Rating & Facing: In Outlet #300 FLANGED RF #150 FLANGED RF 38 Body and Bonnet ASTM A216 GR. WCB (VTC) 39 Seat and Disc SS316+PTFE (VTC) 40 Nozzle SS316 (VTC) 41 Guide and Rings VTA 42 Spring ASTM A216 GR. WCB (VTC) (Note2) 43 Bellows SS316+PTFE (VTC)				
35 Orifice Designation E (VTC)				
CONNECTIONS 36 Size: Inlet Outlet 1" in 2" in 37 Rating & Facing :In Outlet #300 FLANGED RF #150 FLANGED RF #1				
37 Rating & Facing :In Outlet #300 FLANGED RF #150 FLANGE				
38 Body and Bonnet	ED RE			
39 Seat and Disc SS316+PTFE (VTC)				
MATERIALS (VTC)				
MATERIALS (VTC) 41 Guide and Rings VTA 42 Spring ASTM A216 GR. WCB (VTC) (Note2) 43 Bellows SS316+PTFE (VTC)	, ,			
42 Spring ASTM A216 GR. WCB (VTC) (Note2) 43 Bellows SS316+PTFE (VTC)	,			
43 Bellows SS316+PTFE (VTC)				
44				
45 Cap: Screwed or Bolted Screwed				
46 Lever: Plain or Packed N/A				
47 Test Gage Yes				
OPTIONS 48 With Rupture Disc No				
49 Hydro Test Required				
50 Seat Leakage Test Required				
51 Compliance Standard N/A				
52 Manufacturer Will Re Finalized Later				
PURCHASE (will be finalized 53 Model Will Be Finalized 1ster				
later) 5 Indeed Later Will Be Finalized Later Will Be Finalized Later				

Notes:

VTA: Vendor to Advise in bidding stage

VTC : Vendor to confirm in bidding stage N/A: Not applicable

- 1- For material details refer to "Piping Material Specification Doc No." BK-GCS-PEDCO-120-PI-SP-0001-D02 ".
- 2- Suitable coating such as cadmiun plated shall be considered (vendor to advise)

Chrome Plated is recommended.



نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک





	شماره پیمان:
.AW .VW 911F	

	DAT	A SHEETS	FOR PRE	SSURE &	SAFETY RI	ELIEF VALVES	
پروژه	بسته کاری	صادر کننده	تسهيلات	رشته	نوع مدرك	سريال	نسخه
BK	GCS	PEDCO	120	IN	DT	0009	D02

شماره صفحه: ۱۱ از ۳۳

			PRESSURE SAFET	Y VALVE			$\overline{}$	
	1	Tag Number			Р	SV-2121C	7 🔽	
	2	Service				GAS /	D02	
	3	Line No.	Vessel No.	GAS-111-0029C-AN07-	2"-PT	V-2101C		
GENERAL	4	Pipe Class / C.A.	P&ID No.	AN07 / 6mm		BK-GCS-PEDCO-120-PR-PI-000	06_D06 (3 OF 3)	
GENERAL	5	Discharge to To		To FLARE			, ,	
	6	Protect Equipment		-				
	7	Area Clacification		Zone 2, IIB T4				
	8	NACE MR0175/ISO 15156 (Compliance	YES				
	9	Nozzle (Full, Semi)	_	Full Nozzle				
BASIS	10	Design Type	Safety, Relief, Safety-Relief	Safety				
2.0.0	11		Conventional, bellows, Pilot Op.	Bellows				
	12	Bonnet Type						
		Fluid	State	GAS		Singel Phase		
	14				2166.00	kg/h		
		Molecular Mass	Sp. Gr.@ relief Tmp	24.55 kg/kmol		0.847	kg/m3	
	16	Oper. Pressure	Set Pressure	4.	9 /	9 bar-g		
	17	Oper. Temperature	RelievingTemp.	36.78	/	60 °C		
	18	David Barrana	Constant		-	bar-g		
PROCESS CONDITIONS	19	Back Pressure	Variable		0.5	bar-g		
	20	0/ Allamabla Omanasana	Total		0.5	bar-g 10%		
	21	% Allowable Overpressure Over Pressure Factor		1.10				
	23					0.822		
	24					1827.0		
	25	Ratio of Specific Heats(Cp/Cv)				1.457		
	26	Density @ flowing temprat		24.192	kg/m3	1.437		
	27	Operating Viscosity		0.013	cP			
	28			13.26 ~ 14.37	psia			
	29		Sizing Basis	API 520	pola		-	
	30	Construction Code	1- 3			API 520		
	31	Fire				YES		
SELECTION	32	Basis of Selection		Control Valve Failiure				
	33	Calculated Area	MM ²	107.25 (VTC)				
	34	Required Area	MM ²	153.938 (VTC)				
	35	Orifice Designation		E (VTC)				
CONNECTIONS	36	Size: Inlet	Outlet	1" in		2" in		
CONNECTIONS	37	Rating & Facing :In	Outlet		NGED RF	#150 FLA	NGED RF	
	38	Body and Bonnet		ASTM A216 GR. WCB	(VTC)			
	39	Seat and Disc		SS316+PTFE (VTC)				
	40	Nozzle		SS316 (VTC)				
MATERIALS (VTC)	41	Guide and Rings		VTA				
	42	Spring		ASTM A216 GR. WCB (VTC) (Note2)				
	43	Bellows		SS316+PTFE (VTC)				
	44	Can: Carourad as Baltad		Corowad				
	46	Cap: Screwed or Bolted Lever: Plain or Packed		Screwed				
	47	Test Gage		N/A Yes				
OPTIC	48							
OPTIONS		With Rupture Disc		No Populad				
OPTIONS		Hydro Test		Required				
OPTIONS	49	Hydro Test Seat Leakage Test		<u> </u>				
OPTIONS	49 50	Seat Leakage Test		Required				
	49 50 51			Required N/A				
OPTIONS PURCHASE (will be finalized later)	49 50 51 52	Seat Leakage Test Compliance Standard		Required				

VTA: Vendor to Advise in bidding stage

VTC : Vendor to confirm in bidding stage N/A: Not applicable

- 1- For material details refer to "Piping Material Specification Doc No." BK-GCS-PEDCO-120-PI-SP-0001-D02".
- 2- Suitable coating such as cadmiun plated shall be considered (vendor to advise)

Chrome Plated is recommended.



نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک





	ماره پیمان:
.0000 - 9146	

پروژه

BK

DAT	A SHEETS	FOR PRE	SSURE &	SAFETY RI	ELIEF VALVES	
بسته کاری	صادر کننده	تسهيلات	رشته	نوع مدرك	سريال	نسخه
GCS	PEDCO	120	IN	DT	0009	D02

شماره صفحه: ۱۲ از ۳۳

			PRESSURE SAFET	/ VALVE		^		
	1	Tag Number			PSV-2122/	4		
	2	Service		GAS DO2				
	3	Line No.	Vessel No.	GAS-111-0032A-CN05-2"-				
GENERAL	4	Pipe Class / C.A.	P&ID No.	CN05 / 3mm		EDCO-120-PR-PI-0007_D06 (1 OF 3)		
GENERAL	5	Discharge to		To FLARE				
	6	Protect Equipment	Protect Equipment -		-			
	7	Area Clacification		Zone 2, IIB T4				
	8	NACE MR0175/ISO 15156 C	Compliance	YES				
	9	Nozzle (Full, Semi)		Full Nozzle, Spring Loaded	d Type			
	10		Safety, Relief, Safety-Relief	Safety				
BASIS		Design Type	Conventional, bellows, Pilot Op.	Conventional				
	12	Bonnet Type		Closed				
		Fluid	State	GAS		Singel Phase		
	14	Required Capacity	•	8	3664.0	kg/h		
	15	Molecular Mass	Sp. Gr.@ relief Tmp	24.52 kg/kmol		0.85 kg/m3		
PROCESS CONDITIONS	16	Oper. Pressure	Set Pressure	19	1	22 bar-g		
	17	Oper. Temperature	RelievingTemp.	124.8	1	124.8 °C		
	18		Constant		-	bar-g		
	19	Back Pressure	Variable		0.9	bar-g		
	20		Total		0.9	bar-g		
	21	% Allowable Overpressure		10%				
	22	Over Pressure Factor			1.10			
	23	Compressibility Factor(Z)		0.964 693.3				
	24	Latent Heat of Vaporization (Kj/Kg)			693.3			
	25	Ratio of Specific Heats(Cp/Cv)		1.225 19.56 kg/m3				
	26	Density @ flowing temprat	ure					
	27	Operating Viscosity Barometric Pressure		0.015 cF 13.26 ~ 14.37				
	28	Design Code Sizing Basis		13.26 ~ 14.37 psia API 520 -				
	29 30	Construction Code	Sizing Basis	API 520	API 520	-		
	31	Fire			NO			
SELECTION	32	Basis of Selection		Blocked Outlet				
ozzzonon	33	Calculated Area	MM²	539.85 (VTC)				
	34	Required Area	MM²	1017(VTC)				
	35	Orifice Designation		J (VTC)				
	36	Size: Inlet	Outlet	2" in	5 (1.0)	3" in		
CONNECTIONS	37	Rating & Facing :In	Outlet	#300 FLANC	SED RF	#150 FLANGED RF		
	38	Body and Bonnet	•	ASTM A216 GR. WCB (VTC)				
	39	Seat and Disc		SS316+RPTFE				
	40	Nozzle		316 SS				
MATERIALS (VTC)	41	Guide and Rings		VTA				
	42	Spring		ASTM A216 GR. WCB (VTC) (Note2)				
	43	Bellows		N/A				
	44							
	45	Cap: Screwed or Bolted		Screwed				
	46	Lever: Plain or Packed		N/A				
	47	Test Gage		Yes				
OPTIONS	48	With Rupture Disc		No				
	49	Hydro Test		Required				
	50	Seat Leakage Test		Required				
	51	Compliance Standard		N/A				
PURCHASE (will be finalized	52	Manufacturer		Will Be Finalized Later				
later)	53	Model		Will Be Finalized Later				
Natara 5	54	Serial No.		Will Be Finalized Later				
Notes: □								

VTA: Vendor to Advise in bidding stage

VTC : Vendor to confirm in bidding stage N/A: Not applicable

- 1- For material details refer to "Piping Material Specification Doc No." BK-GCS-PEDCO-120-PI-SP-0001-D02 ".
- 2- Suitable coating such as cadmiun plated shall be considered (vendor to advise)

Chrome Plated is

H.R. as per previous pages.

recommended.



نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک





شماره پیمان: ·07 - ·YT - 91AF

DATA SHEETS FOR PRESSURE & SAFETY RELIEF VALVES نوع مدرك صادر کننده بسته کاری نسخه پروژه سريال BK GCS PEDCO DT 0009 120 IN D02

شماره صفحه: ۱۳ از ۳۳

			PRESSURE SAFET	Y VALVE			^
	1	Tag Number			PSV-21:	22B	$\overline{}$
	2	Service		 	GAS		D02
	3	Line No.	Vessel No.	GAS-111-0032B-CN05-2"-			D02
OFNED AL	4	Pipe Class / C.A.	P&ID No.	CN05 / 3mm		S-PEDCO-120-PR-PI-0007_D06	i (2 OF 3)
GENERAL	5	Discharge to	j. 6.12 116.	To FLARE			(= 51 5)
	6	Protect Equipment		-			
	7	Area Clacification		Zone 2, IIB T4			
	8	NACE MR0175/ISO 15156 C	Compliance	YES			
	9	Nozzle (Full, Semi)		Full Nozzle, Spring Loaded	d Type		
BASIS	10	Design Type	Safety, Relief, Safety-Relief	Safety			
BASIS	11	Design Type	Conventional, bellows, Pilot Op.	Conventional			
	12	Bonnet Type					
	13	Fluid	d State C			Singel Phase	
	14	Required Capacity		3	3664.0	kg/h	
	15	Molecular Mass	Sp. Gr.@ relief Tmp	24.52 kg/kmol			g/m3
	16	Oper. Pressure	Set Pressure	19	/	22 bar-g	
1	17	Oper. Temperature	RelievingTemp.	124.8	1	124.8 °C	
	18		Constant		-	bar-g	
	19	Back Pressure	Variable		0.9	bar-g	
PROCESS CONDITIONS	20		Total		0.9	bar-g	
	21	% Allowable Overpressure		10%			
	22	Over Pressure Factor			1.10		
	23	Compressibility Factor(Z)		0.964			
	24	Latent Heat of Vaporization (Kj/Kg)			693.3		
	25	Ratio of Specific Heats(Cp/Cv)		1.225			
	26	Density @ flowing temprat	ure		g/m3		
	27	Operating Viscosity		0.015 cl			
	28	Barometric Pressure		13.26 ~ 14.37	psia		
	29	Design Code	Sizing Basis	API 520		-	
	30	Construction Code			API 52	20	
	31	Fire		NO TO A COLUMN TO			
SELECTION	32	Basis of Selection		Blocked Outlet			
	33	Calculated Area	MM²	539.85 (VTC)			
	34	Required Area	MM ²		1017(V	,	
	35	Orifice Designation			J (VTC	<u> </u>	
CONNECTIONS	36	Size: Inlet	Outlet	2" in	255.55	3" in	D.F.
	37	Rating & Facing :In	Outlet	#300 FLANGED RF #150 FLANGED RF			RF
	38	Body and Bonnet		ASTM A216 GR. WCB (V	IC)		
	39	Seat and Disc		SS316+RPTFE			
MATERIA: 0 0.770	40	Nozzle		316 SS			
MATERIALS (VTC)	41	Guide and Rings		VTA			
	42	Spring		ASTM A216 GR. WCB (VTC) (Note2)			
	43	Bellows		N/A			
	44	Come Community in District		Caraviad			
	45	Cap: Screwed or Bolted Lever: Plain or Packed		Screwed			
	46			N/A			
OPTIONS	47	Test Gage		Yes			
OPTIONS	48	With Rupture Disc Hydro Test		No			
	49			Required			
	50	Seat Leakage Test		Required			
	51	Compliance Standard Manufacturer		N/A			
PURCHASE (will be finalized	52	Model		Will Be Finalized Later			
later)	53			Will Be Finalized Later			
Netes C	54	Serial No.		Will Be Finalized Later			
Notes:							

VTA: Vendor to Advise in bidding stage

VTC : Vendor to confirm in bidding stage N/A: Not applicable

- 1- For material details refer to "Piping Material Specification Doc No." BK-GCS-PEDCO-120-PI-SP-0001-D02 ".
- 2- Suitable coating such as cadmiun plated shall be considered (vendor to advise)

Chrome Plated is

H.R. as per previous pages.

recommended.



نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک





شماره پیمان: ۱۸۴۴ – ۷۲۰ – ۵۳۰
 DATA SHEETS FOR PRESSURE & SAFETY RELIEF VALVES

 نسخه
 سریال
 وع مدر ک
 رشته
 تسهیلات
 صادر کننده
 بسته کاری
 پروژه

 BK
 GCS
 PEDCO
 120
 IN
 DT
 0009
 D02

شماره صفحه: ۱۴ از ۳۳

			PRESSURE SAFET	Y VALVE		^	
	1	Tag Number			PS	V-2122C	
	2					GAS DO2	
	3		Vessel No.	GAS-111-0032C-CN05	-2"-PT -	B02	
GENERAL	4	Pipe Class / C.A.	P&ID No.	CN05 / 3mm		K-GCS-PEDCO-120-PR-PI-0007 D06 (3 OF 3)	
GENERAL	5	Discharge to		To FLARE		· · · · · ·	
	6	Protect Equipment					
	7	Area Clacification		Zone 2, IIB T4			
	8	NACE MR0175/ISO 15156	Compliance	YES			
	9	Nozzle (Full, Semi)		Full Nozzle, Spring Loa	ded Type		
BASIS	10	Design Type	Safety, Relief, Safety-Relief	Safety			
270.0	11		Conventional, bellows, Pilot Op.	Conventional			
	12	Bonnet Type					
		Fluid	State	GAS		Singel Phase	
	14				8664.0	kg/h	
		Molecular Mass	Sp. Gr.@ relief Tmp	24.52 kg/kmol		0.85 kg/m3	
	16	Oper. Pressure	Set Pressure	19)	22 bar-g	
	17	Oper. Temperature	RelievingTemp.	124.8	/	124.8 °C	
	18		Constant		-	bar-g	
	19	Back Pressure	Variable		0.9	bar-g	
PROCESS CONDITIONS	20	0/ 411	Total		0.9	bar-g	
	21	% Allowable Overpressure Over Pressure Factor		10% 1.10			
		Compressibility Factor(Z)					
	23					0.964 693.3	
	24 25	Ratio of Specific Heats(Cp				1.225	
	26	Density @ flowing temprature		19.56	kg/m3	1.223	
	27	Operating Viscosity		0.015	cP		
	28	Barometric Pressure		13.26 ~ 14.37	psia		
	29		Sizing Basis	API 520	pola		
	30	Construction Code	Jonath Street	7.1.1.020	A	PI 520	
	31	Fire				NO	
SELECTION	32	Basis of Selection		Blocked Outlet			
	33	Calculated Area	MM ²	539.85 (VTC)			
	34	Required Area	MM ²	1017(VTC)			
	35	Orifice Designation		J (VTC)			
CONNECTIONS	36	Size: Inlet	Outlet	2" in		3" in	
CONNECTIONS	37	Rating & Facing :In	Outlet	#300 FLA	NGED RF	#150 FLANGED RF	
	38	Body and Bonnet		ASTM A216 GR. WCB (VTC)			
	39	Seat and Disc		SS316+RPTFE			
	40	Nozzle		316 SS			
MATERIALS (VTC)	41	Guide and Rings		VTA			
	42	Spring		ASTM A216 GR. WCB (VTC) (Note2)			
	43	Bellows		N/A			
	44	0 0 1 0 1					
		Cap: Screwed or Bolted		Screwed			
	46	Lever: Plain or Packed		N/A			
OPTIONS	47 48	Test Gage		Yes No			
	48	With Rupture Disc					
OPTIONS	40	Hydro Test		Required			
OPTIONS	49 50			Required			
OPTIONS	50	Seat Leakage Test					
	50 51	Seat Leakage Test Compliance Standard		N/A			
OPTIONS PURCHASE (will be finalized later)	50 51 52	Seat Leakage Test					

VTA: Vendor to Advise in bidding stage

VTC : Vendor to confirm in bidding stage N/A: Not applicable

- 1- For material details refer to "Piping Material Specification Doc No." BK-GCS-PEDCO-120-PI-SP-0001-D02 ".
- 2- Suitable coating such as cadesiun plated shall be considered (vendor to advise)

Chrome Plated is recommended.



نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک



نسخه

D02



			DATA SHEETS FOR PRESSURE & SAFETY RELIEF VALVES							
	شماره پیمان:	پروژه	بسته کاری	صادر کننده	تسهيلات	رشته	نوع مدرك	سريال		
۹۱۸۴ – ۲۲۰ – ۳۵۰		BK	GCS	PEDCO	120	IN	DT	0009		

شماره صفحه: ۱۵ از ۳۳

			PRESSURE SAFET	Y VALVE			^	
	1	Tag Number			P	SV-2123A	$\overline{}$	
	2	Service				GAS	D02	
	3	Line No.	Vessel No.	GAS-111-0033A-CN05	-2"-PT -	:		
GENERAL	4	Pipe Class / C.A.	P&ID No.	CN05 / 3mm		BK-GCS-PEDCO-120-PR-PI-0	0007_D06 (1 OF 3)	
GENERAL	5	Discharge to	-	To FLARE			, ,	
	6	Protect Equipment		-				
	7	Area Clacification		Zone 2, IIB T4				
	8	NACE MR0175/ISO 15156	Compliance	YES				
	9	Nozzle (Full, Semi)		Full Nozzle, Spring Loa	ided Type			
BASIS	10	Design Type	Safety, Relief, Safety-Relief	Safety				
Broid	11		Conventional, bellows, Pilot Op.					
	12	Bonnet Type		Closed				
		Fluid	State	GAS		Singel Phase		
	14				8664.0	kg/h		
	_	Molecular Mass	Sp. Gr.@ relief Tmp	24.52 kg/kmol		0.85	kg/m3	
	16	Oper. Pressure	Set Pressure	1:	9 /	22 bar-g		
	17	Oper. Temperature	RelievingTemp.	124.8	/	124.8 °C		
	18		Constant		-	bar-g		
	19	Back Pressure	Variable		0.9	bar-g		
PROCESS CONDITIONS	20		Total		0.9	bar-g		
	21	% Allowable Overpressure	1			10%		
	_	Over Pressure Factor				1.10		
	23	Compressibility Factor(Z)	n /V:/// n\			0.964 693.3		
	24 25	Latent Heat of Vaporizatio Ratio of Specific Heats(Cp				1.225		
	26	Density @ flowing temprate		19.56	ka/m2	1.225		
	27	Operating Viscosity	luie	0.015	kg/m3 cP			
	28	Barometric Pressure		13.26 ~ 14.37	psia			
	29		Sizing Basis	API 520	рэга			
	30	Construction Code	Jerania audio	7.11.020		API 520		
	31					NO		
SELECTION	32	Basis of Selection			Blocked Outlet			
	33	Calculated Area			9.85 (VTC)			
	34	Required Area	MM ²	1017(VTC)				
	35	Orifice Designation		J (VTC)				
CONNECTIONS	36	Size: Inlet	Outlet	2" in		3" in		
CONNECTIONS	37	Rating & Facing :In	Outlet	#300 FL/	ANGED RF	#150 FI	ANGED RF	
	38	Body and Bonnet		ASTM A216 GR. WCB (VTC)				
	39	Seat and Disc		SS316+RPTFE				
	40	Nozzle		316 SS				
MATERIALS (VTC)	41	Guide and Rings		VTA				
	42	Spring		ASTM A216 GR. WCB (VTC) (Note2)				
	43	Bellows		N/A				
	44							
		Cap: Screwed or Bolted		Screwed				
	46	Lever: Plain or Packed		N/A				
ORTIONS	47	Test Gage		Yes				
OPTIONS	48	With Rupture Disc		No Described				
	49	Hydro Test		Required				
	50	Seat Leakage Test		Required				
	51	Compliance Standard Manufacturer		N/A				
PURCHASE (will be finalized	52			Will Be Finalized Later				
later)		Model Sarial Na		Will Be Finalized Later				
otes:	54	Serial No.		Will Be Finalized Later				

VTA: Vendor to Advise in bidding stage

VTC : Vendor to confirm in bidding stage N/A: Not applicable

- 1- For material details refer to "Piping Material Specification Doc No." BK-GCS-PEDCO-120-PI-SP-0001-D02".
- 2- Suitable coating such as cadmiun plated shall be considered (vendor to advise)

Chrome Plated is recommended.



نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک





DATA SHEETS FOR PRESSURE & SAFETY RELIEF VALVES

 نسخه
 سریال
 وع مدر ک
 رشته
 تسهیلات
 صادر کننده
 بسته کاری
 پروژه
 شماره پیمان:

 BK
 GCS
 PEDCO
 120
 IN
 DT
 0009
 D02

شماره صفحه: ۱۶ از ۳۳

			PRESSURE SAFET	Y VALVE	^			
	1	Tag Number			PSV-2123B			
	2	Service			GAS D02			
	3	Line No.	Vessel No.	GAS-111-0033B-CN05-2"-PT	- D02			
	4	Pipe Class / C.A.	P&ID No.		BK-GCS-PEDCO-120-PR-PI-0007 D06 (2 OF 3)			
GENERAL	5	Discharge to	1. 0.0 10.	To FLARE	21. 200 1 22 30 120 11. 1 1 2007 _ 200 (2 01 0)			
	6	Protect Equipment		-				
	7	Area Clacification		Zone 2, IIB T4				
	8	NACE MR0175/ISO 15156 C	Compliance	YES				
	9	Nozzle (Full, Semi)		Full Nozzle, Spring Loaded Type				
	10		Safety, Relief, Safety-Relief	Safety				
BASIS	11	Design Type	Conventional, bellows, Pilot Op.	Conventional				
	12	Bonnet Type	Ор.	Closed				
		Fluid	State	GAS Singel Phase				
		Required Capacity	Claro	8664.0	kg/h			
		Molecular Mass	Sp. Gr.@ relief Tmp	24.52 kg/kmol	0.85 kg/m3			
	16	Oper. Pressure	Set Pressure	19 /	22 bar-g			
	17	Oper. Temperature	RelievingTemp.	124.8 /	124.8 °C			
	18		Constant	-	bar-g			
	19	Back Pressure	Variable	0.9	bar-g			
PROCESS CONDITIONS	20		Total	0.9	bar-g			
PROCESS CONDITIONS	21	% Allowable Overpressure	•		10%			
	22	Over Pressure Factor			1.10			
	23	Compressibility Factor(Z)			0.964			
	24	Latent Heat of Vaporization	ı (Kj/Kg)		693.3			
		Ratio of Specific Heats(Cp/			1.225			
	26	Density @ flowing temprate	ure	19.56 kg/m3				
	27	Operating Viscosity		0.015 cP				
	28	Barometric Pressure		13.26 ~ 14.37 psia				
	29	Design Code	Sizing Basis	API 520	-			
	30	Construction Code			API 520			
	31	Fire			NO			
SELECTION	32	Basis of Selection		BI	ocked Outlet			
	33	Calculated Area	MM ²	5	39.85 (VTC)			
		Required Area	MM ²	1017(VTC)				
	_	Orifice Designation		J (VTC)				
CONNECTIONS			Outlet	2" in	3" in			
22200		Rating & Facing :In	Outlet	#300 FLANGEDRF	#150 FLANGED RF			
		Body and Bonnet		ASTM A216 GR. WCB (VTC)				
	39	Seat and Disc		SS316+RPTFE				
	40	Nozzle		316 SS				
MATERIALS (VTC)	41	Guide and Rings		VTA				
	42	Spring		ASTM A216 GR. WCB (VTC) (Note2)				
	43	Bellows		N/A				
	44							
		Cap: Screwed or Bolted		Screwed				
	_	Lever: Plain or Packed		N/A				
OPTIONS		Test Gage		Yes				
OPTIONS		With Rupture Disc		No Danisa I				
		Hydro Test		Required				
		Seat Leakage Test		Required				
	51	Compliance Standard		N/A				
PURCHASE (will be finalized		Manufacturer		Will Be Finalized Later				
later)		Model		Will Be Finalized Later				
Notes:	54	Serial No.		Will Be Finalized Later				

VTA : Vendor to Advise in bidding stage

VTC : Vendor to confirm in bidding stage N/A: Not applicable

- 1- For material details refer to "Piping Material Specification Doc No." BK-GCS-PEDCO-120-PI-SP-0001-D02 ".
- 2- Suitable coating such as cadmiun plated shall be considered (vendor to advise)

Chrome Plated is recommended.



نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک





شماره پیمان:

DATA SHEETS FOR PRESSURE & SAFETY RELIEF VALVES نوع مدرك صادر کننده بسته کاری نسخه پروژه سريال BK GCS PEDCO DT 0009 120 D02

شماره صفحه: ۱۷ از ۳۳

			PRESSURE SAFET	Y VALVE			
	1	Tag Number		T	PSV-2123C		
	2	Service		1	CAS		
	3	Line No.	Vessel No.	GAS-111-0033C-CN05-2"-PT	DO2		
	4	Pipe Class / C.A.	P&ID No.	CN05 / 3mm	BK-GCS-PEDCO-120-PR-PI-0007_D06 (3 OF 3)		
GENERAL	5	Discharge to	r dib No.	To FLARE	BR-000-1 EB00-120-1 R-1 1-0007_B00 (3 O1 3)		
	6	Protect Equipment		-			
	7	Area Clacification		Zone 2, IIB T4			
	8	NACE MR0175/ISO 15156 (Compliance	YES			
	9	Nozzle (Full, Semi)	·	Full Nozzle, Spring Loaded Type			
	10		Safety, Relief, Safety-Relief	Safety			
BASIS	11	Design Type	Conventional, bellows, Pilot Op.	Conventional			
	12			Closed			
		Fluid	State	GAS	Singel Phase		
	14	Required Capacity	•	8664.0	kg/h		
	15	Molecular Mass	Sp. Gr.@ relief Tmp	24.52 kg/kmol	0.85 kg/m3		
	16	Oper. Pressure	Set Pressure	19 /	22 bar-g		
	17	Oper. Temperature	RelievingTemp.	124.8 /	124.8 °C		
	18		Constant	-	bar-g		
	19	Back Pressure	Variable	0.9	bar-g		
PROCESS CONDITIONS	20	Total		0.9	bar-g		
		% Allowable Overpressure	· · · · · · · · · · · · · · · · · · ·		10%		
	22	Over Pressure Factor			1.10		
	23	Compressibility Factor(Z)			0.964		
	24	Latent Heat of Vaporization			693.3		
	25	Ratio of Specific Heats(Cp.			1.225		
-	26	Density @ flowing temprat	ure	19.56 kg/m3			
	27	Operating Viscosity		0.015 cP			
	28	Barometric Pressure		13.26 ~ 14.37 psia			
	29	Design Code	Sizing Basis	API 520	-		
	30	Construction Code			API 520		
	31	Fire			NO		
SELECTION	32	Basis of Selection			Blocked Outlet		
	33	Calculated Area	MM²		539.85 (VTC)		
	34	Required Area	MM ²	1017(VTC)			
	35	Orifice Designation	lo-d-d	Oll .	J (VTC)		
CONNECTIONS	36	Size: Inlet	Outlet	2" in	3" in		
	37	Rating & Facing :In	Outlet	#300 FLANGED RF	#150 FLANGED RF		
	38	Body and Bonnet		ASTM A216 GR. WCB (VTC)			
	39	Seat and Disc		SS316+RPTFE			
MATERIAL C (VTC)	40	Nozzle		316 SS			
MATERIALS (VTC)	41	Guide and Rings		VTA			
	42	Spring		ASTM A216 GR. WCB (VTC) (Note2	.)		
	43	Bellows		N/A			
	44	Cons Coroured on Dalte 4					
	45	Cap: Screwed or Bolted Lever: Plain or Packed		Screwed			
	46			N/A			
OPTIONS				Yes No			
OF HONS		With Rupture Disc Hydro Test					
		Seat Leakage Test		Required			
	_	Compliance Standard		Required N/A			
		Manufacturer					
PURCHASE (will be finalized		Model		Will Be Finalized Later Will Be Finalized Later			
later)	_	Serial No.		Will Be Finalized Later			
Notes: □	34	Deliai 110.		Will De I manzeu Later			
110100.							

VTA: Vendor to Advise in bidding stage

VTC : Vendor to confirm in bidding stage N/A: Not applicable

- $\hbox{1-For material details refer to "Piping Material Specification Doc No." BK-GCS-PEDCO-120-PI-SP-000 \hbox{1-D02}".}$
- 2- Suitable coating such as cadmiun plated shall be considered (vendor to advise)

Chrome Plated is recommended.







NISOC

۰۵۳ - ۲۷۳ - ۹۱۸۴

شماره پیمان:

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک

DATA SHEETS FOR PRESSURE & SAFETY RELIEF VALVES رشته تسهیلات صادر کننده بسته کاری نسخه پروژه نوع مدرک سريال GCS PEDCO 120 DT 0009 D02

شماره صفحه: ۱۸ از ۳۳

		PRESSURE SAF	ETY VALVE	^			
	1 Tag Number			PSV-2131A			
	2 Service			GAS D02			
	3 Line No.	Vessel No.	GAS-111-0042A-CN05-2"-PT	- 502			
	4 Pipe Class / C.A.	P&ID No.	CN05 / 3mm	BK-GCS-PEDCO-120-PR-PI-0009_D06 (1 OF 3)			
GENERAL	5 Discharge to	T GID 140.	To FLARE	ER			
	6 Protect Equipment		-				
	7 Area Clacification		Zone 2, IIB T4				
	8 NACE MR0175/ISO 1515	6 Compliance	YES				
	9 Nozzle (Full, Semi)	o Compilation	Full Nozzle				
	10	Safety, Relief, Safety-Relief	Safety				
BASIS	Design Type	Conventional, bellows, Pilot Op.	Bellows				
	12 Bonnet Type	јор.	Closed				
		Chata		Cinnal Dhana			
	13 Fluid	State	GAS 982.27	Singel Phase			
	14 Required Capacity	Co. Co. @ roll-f T		kg/h			
	15 Molecular Mass	Sp. Gr.@ relief Tmp	24.52 kg/kmol	0.85 kg/m3			
	16 Oper. Pressure	Set Pressure	18.1 /	22 bar-g			
	17 Oper. Temperature	RelievingTemp.	60 /	208 °C			
	18	Constant	-	bar-g			
	19 Back Pressure	Variable	3.4	bar-g			
PROCESS CONDITIONS	20	Total	3.4 bar-g				
T ROOLOG CONDITIONS	21 % Allowable Overpressi	ure		21%			
	22 Over Pressure Factor			1.21			
	23 Compressibility Factor(Z)		0.936			
	24 Latent Heat of Vaporizat	tion (Kj/Kg)		1807.0			
	25 Ratio of Specific Heats(1.278			
	26 Density @ flowing temp		17.34 kg/m3				
	27 Operating Viscosity		0.017 cP				
	28 Barometric Pressure		13.26 ~ 14.37 psia				
	29 Design Code	Sizing Basis	API 520				
	30 Construction Code	Olzing Basis	AT 1 020	API 520			
				YES			
SELECTION	31 Fire 32 Basis of Selection			FIRE			
SELECTION	32 Calculated Area	MM ²		59.62 (VTC)			
				153.93 (VTC)			
	35 Orifice Designation	la « ·	D (VTC)				
CONNECTIONS	36 Size: Inlet	Outlet	1" in	2" in			
	37 Rating & Facing :In	Outlet	#300 FLANGED RF	#300 FLANGED RF			
	38 Body and Bonnet		ASTM A216 GR. WCB (VTC)				
	39 Seat and Disc		SS316+RPTFE				
	40 Nozzle		316 SS				
MATERIALS (VTC)	41 Guide and Rings		VTA				
	42 Spring		ASTM A216 GR. WCB (VTC) (Note2)				
	43 Bellows		SS316+PTFE (VTC)				
	44						
	45 Cap: Screwed or Bolted		Screwed				
	46 Lever: Plain or Packed		N/A				
	47 Test Gage		Yes				
OPTIONS	48 With Rupture Disc		No No				
	49 Hydro Test		Required				
	50 Seat Leakage Test		Required				
	51 Compliance Standard		N/A				
	52 Manufacturer						
PURCHASE (will be finalized			Will Be Finalized Later Will Be Finalized Later				
OROTINOL (WILL DO IIII GILLOG			EVVIII BE FINGUZER I STET				
later)	53 Model 54 Serial No.		Will Be Finalized Later				

VTA: Vendor to Advise in bidding stage

VTC : Vendor to confirm in bidding stage N/A: Not applicable

- 1- For material details refer to "Piping Material Specification Doc No." BK-GCS-PEDCO-120-PI-SP-0001-D02 ".
- 2- Suitable coating such as cadmiun plated shall be considered (vendor to advise)

Chrome Plated is recommended.







NISOC

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک

			DATA SHEETS FOR PRESSURE & SAFETY RELIEF VALVES								
	شماره پیمان:	پروژه	بسته کاری	صادر کننده	تسهيلات	رشته	وع مدر ک	سريال	نسخه		
· ۵۳ - · ۷۳ - ۹ ۱ ۸۴		BK	GCS	PEDCO	120	IN	DT	0009	D02		

شماره صفحه: ۱۹ از ۳۳

			PRESSURE SAFI	ETY VALVE				
	1	Tag Number		1	PSV-2131	В		
	2	Service			GAS			
	3	Line No.	Vessel No.	GAS-111-0042B-CN05-2"-PT	1-	D02		
GENERAL	4	Pipe Class / C.A.	P&ID No.	CN05 / 3mm	BK-GCS-PE	EDCO-120-PR-PI-0009 D06 (2 OF 3)		
GENERAL	5	Discharge to		To FLARE				
		Protect Equipment		-	-			
	7	Area Clacification		Zone 2, IIB T4				
	8	NACE MR0175/ISO 15156 (Compliance	YES				
	9	Nozzle (Full, Semi)		Full Nozzle				
	10		Safety, Relief, Safety-Relief	Safety				
BASIS	11	Design Type	Conventional, bellows, Pilot Op.	Bellows				
	12	Bonnet Type		Closed				
		Fluid	State	GAS		Singel Phase		
		Required Capacity	•	982.27		kg/h		
		Molecular Mass	Sp. Gr.@ relief Tmp	24.52 kg/kmol		0.85 kg/m3		
	_	Oper. Pressure	Set Pressure	18.1 /		22 bar-g		
	17	Oper. Temperature	RelievingTemp.	60 /		208 °C		
	18	,	Constant	-		bar-g		
	19	Back Pressure	Variable	3.4		bar-g		
	20	†	Total	3.4	3			
PROCESS CONDITIONS		% Allowable Overpressure	1		21%			
		Over Pressure Factor			1.21			
	_	Compressibility Factor(Z)			0.936			
		Latent Heat of Vaporization	n (Ki/Ka)		1807.0			
		Ratio of Specific Heats(Cp.			1.278			
		Density @ flowing temprat		17.34 kg/m3				
		Operating Viscosity		0.017 cP				
		Barometric Pressure		13.26 ~ 14.37 psia				
		Design Code	Sizing Basis	API 520				
		Construction Code			API 520			
		Fire			YES			
SELECTION		Basis of Selection			FIRE			
	_	Calculated Area	MM²		59.62 (VT	C)		
		Required Area	MM²		153.93 (VT			
		Orifice Designation		D (VTC)				
		Size: Inlet	Outlet	1" in	()	2" in		
CONNECTIONS		Rating & Facing :In	Outlet	#300 FLANGED RF		#300 FLANGED RF		
		Body and Bonnet	•	ASTM A216 GR. WCB (VTC)				
		Seat and Disc		SS316+RPTFE				
		Nozzle		316 SS				
MATERIALS (VTC)	41	Guide and Rings		VTA				
, ,	42			ASTM A216 GR. WCB (VTC) (Note2)				
	43			SS316+PTFE (VTC)				
	44			,				
		Cap: Screwed or Bolted		Screwed				
		Lever: Plain or Packed		N/A				
	_	Test Gage		Yes				
OPTIONS		With Rupture Disc		No No				
		Hydro Test		Required				
		Seat Leakage Test		Required				
		Compliance Standard		N/A				
		Manufacturer		Will Be Finalized Later				
PURCHASE (will be finalized		Model		Will Be Finalized Later				
later)		Serial No.		Will Be Finalized Later				
otes:	J-7							

VTA : Vendor to Advise in bidding stage

VTC : Vendor to confirm in bidding stage N/A: Not applicable

- 1- For material details refer to "Piping Material Specification Doc No." BK-GCS-PEDCO-120-PI-SP-0001-D02 ".
- 2- Suitable coating such as cadmiun plated shall be considered (vendor to advise)

Chrome Plated is recommended.



نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک





شماره پیمان: ·07 - ·YT - 91AF

DATA SHEETS FOR PRESSURE & SAFETY RELIEF VALVES نوع مدرك صادر کننده بسته کاری نسخه پروژه سريال BK GCS PEDCO DT 0009 120 D02

شماره صفحه: ۲۰ از ۳۳

1 Tag Number		PRESSURE SAFETY VALVE										
Service GAS DO2		1	Tag Number			PSV-2131	C					
SENERAL 4 PRO Class / C.A. PAID No. CR05/3 mm SCGS PEDCO-120-PSR-P-00009 D00(0 OF 3)			•									
Process Proc				Vessel No	GAS-111-0042C-CN05-2"-PT	I-	D02	\sim				
Solicharge to	OFNED AL					BK-GCS-	PEDCO-120-PR-PI-0009 D06/3 C	OF 3)				
Protect Equipment	GENERAL							,				
BASIS NACE MR0175/ISO 15156 Compliance YES					-							
BASIS 10					Zone 2, IIB T4							
BASIS 10 Design Type		8	NACE MR0175/ISO 15156 C	Compliance	YES							
BASIS		9	Nozzle (Full, Semi)		Full Nozzle							
1	DACIC	10	Decima Tune	Safety, Relief, Safety-Relief	Safety							
13 Fluid State GAS Singe Phase	BASIS	11	Design Type		Bellows							
14 Required Capacity		12	Bonnet Type C		Closed							
15 Molecular Mass Sp. Gr. @ relief Tmp 24.52 kg/mol 0.85 kg/m3				State	GAS		Singel Phase					
Fig. Set Pressure Set Pressure 18.1 / 22 barg							kg/h					
PROCESS CONDITIONS Formatting Relieving Tomp. Formatting For				·	ŭ		Ÿ	3				
PROCESS CONDITIONS 19							<u> </u>					
PROCESS CONDITIONS 19			Oper. Temperature		60 /		208 °C					
PROCESS CONDITIONS												
PROCESS CONDITIONS 2 1			Back Pressure									
22 Over Pressure Factor 1.21	PROCESS CONDITIONS		2.11		3		bar-g					
22 Compressibility Factor(Z) 0.936												
Latent Heat of Vaporization (KJKGy) 1807.0 1.278												
25 Ratio of Specific Heats(Cp/CV) 1.278				- (12/112)								
26 Density @ Howing temprature												
27 Operating Viscosity 0.017 cP					47.24	1.278						
28 Barometric Pressure	-			ure								
Purchase Purchase												
SELECTION 31 Fire				Sizina Basis								
SELECTION 31 Fire				Sizing basis	AT 1320	API 520	-					
SELECTION 32 Basis of Selection												
Sequired Area MM2 S9.62 (VTC) S18, Required Area MM2 S15.93 (VTC) S	SELECTION											
Second S				MM²								
S Orifice Designation			Required Area	MM ²								
Size: Inlet							,					
MATERIALS (VTC) 37 Rating & Facing :In Outlet #300 FLANGED RF #300 FLANGED RF	CONNECTIONS	36		Outlet	1" in		2" in					
MATERIALS (VTC) 38 Body and Bonnet ASTM A216 GR. WCB (VTC)	CONNECTIONS		Rating & Facing :In	Outlet	#300 FLANGED RI	=						
MATERIALS (VTC) 40 Nozzle 316 SS NOZZIE 316 SS		38	Body and Bonnet		ASTM A216 GR. WCB (VTC)							
MATERIALS (VTC) 41 Guide and Rings VTA 42 Spring ASTM A216 GR. WCB (VTC) (Note2) 43 Bellows \$\$\$316+PTFE (VTC) 44 Cap: Screwed or Bolted Screwed 45 Cap: Screwed or Bolted Screwed 46 Lever: Plain or Packed N/A 47 Test Gage Yes 48 With Rupture Disc No 49 Hydro Test Required 50 Seat Leakage Test Required 51 Compliance Standard N/A PURCHASE (will be finalized Later 1ater) 52 Model Will Be Finalized Later 53 Model Will Be Finalized Later Will Be Finalized Later					SS316+RPTFE							
42 Spring							·					
43 Bellows SS316+PTFE (VTC)	MATERIALS (VTC)				VTA							
1		_				te2)						
PURCHASE (will be finalize later) 45 Cap: Screwed or Bolted Screwed N/A 46 Lever: Plain or Packed N/A 47 Test Gage Yes 48 With Rupture Disc No 49 Hydro Test Required 50 Seat Leakage Test Required 51 Compliance Standard N/A 7 PURCHASE (will be finalized Later 53 Model Will Be Finalized Later 54 Serial No. Will Be Finalized Later 55 Will Be Finalized Later 56 Will Be Finalized Later 57 Will Be Finalized Later 58 Will Be Finalized Later 59 Will Be Finalized Later 60 Will Be Finalized Later 7 Will Be Finalized Later 8 Will Be Finalized Later 9 Will Be Finalized Late			Bellows		SS316+PTFE (VTC)							
Head					1							
Yes OPTIONS 48 With Rupture Disc No 49 Hydro Test Required 50 Seat Leakage Test Required 51 Compliance Standard N/A PURCHASE (will be finalized Later 30 Model Will Be Finalized Later 53 Model Will Be Finalized Later 54 Serial No. Will Be Finalized Later		_										
OPTIONS 48 With Rupture Disc No 49 Hydro Test Required 50 Seat Leakage Test Required 51 Compliance Standard N/A PURCHASE (will be finalized Later) 52 Manufacturer Will Be Finalized Later 53 Model Will Be Finalized Later 54 Serial No. Will Be Finalized Later					-							
49 Hydro Test Required	007											
The second color of the	OPTIONS											
The second color of the			-		•							
PURCHASE (will be finalized later Jater) 52 Manufacturer Will Be Finalized Later Will Be Finalized Later Will Be Finalized Later Will Be Finalized Later												
The state The state												
54 Serial No. Will Be Finalized Later												
	later)											
Notes:	Notes: □	34	Delial 110.		Will De I Illalized Latel							

VTA: Vendor to Advise in bidding stage

VTC : Vendor to confirm in bidding stage N/A: Not applicable

- 1- For material details refer to "Piping Material Specification Doc No." BK-GCS-PEDCO-120-PI-SP-0001-D02 ".
- 2- Suitable coating such as cadmiun plated shall be considered (vendor to advise)

Chrome Plated is recommended.



نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک





شماره پیمان:

DATA SHEETS FOR PRESSURE & SAFETY RELIEF VALVES نوع مدرك صادر کننده بسته کاری نسخه پروژه سريال BK GCS PEDCO DT 0009 120 D02

شماره صفحه: ۲۱ از ۳۳

			PRESSURE SAFET	Y VALVE				
	1	Tag Number			PSV-2132A			
	2	Service		1	040			
	3	Line No.	Vessel No.	GAS-111-0047A-FN05-2"-PT	GAS D02			
	4	Pipe Class / C.A.	P&ID No.	FN05 / 3mm	BK-GCS-PEDCO-120-PR-PI-0010_D05 (1 OF 3)			
GENERAL	5	Discharge to	r dib No.	To FLARE	BR-000-1 EB00-120-1 R-1 1-0010_B03 (1 01 3)			
	6	Protect Equipment		-				
	7	Area Clacification		Zone 2, IIB T4				
	8	NACE MR0175/ISO 15156 (Compliance	YES				
	9	Nozzle (Full, Semi)		Full Nozzle, Spring Loaded Type				
	10		Safety, Relief, Safety-Relief	Safety				
BASIS	11	Design Type	Conventional, bellows, Pilot Op.	Conventional				
	12	Bonnet Type		Closed				
	13	Fluid	State	GAS	Singel Phase			
	14	Required Capacity		8664.0	kg/h			
	15	Molecular Mass	Sp. Gr.@ relief Tmp	24.52 kg/kmol	0.85 kg/m3			
	16	Oper. Pressure	Set Pressure	54.80 /	62 bar-g			
	17	Oper. Temperature	RelievingTemp.	142.3 /	142.3 °C			
	18		Constant	-	bar-g			
	19	Back Pressure	Variable	1.0	bar-g			
PROCESS CONDITIONS	20		Total	1.0	bar-g			
	_	% Allowable Overpressure	1		10%			
	22	Over Pressure Factor			1.10			
	23	Compressibility Factor(Z)	. (12'02)		0.923			
	24	Latent Heat of Vaporization			566.7			
	25	Ratio of Specific Heats(Cp			1.28			
-	26	Density @ flowing temprat	ure	54.06 kg/m3				
	27	Operating Viscosity		0.017 cP				
	28	Barometric Pressure	la:	13.26 ~ 14.37 psia				
	29	Design Code	Sizing Basis	API 520	- A DI 500			
	30	Construction Code			API 520			
OF LEGIS	31	Fire			NO Planta to that			
SELECTION	32	Basis of Selection	BARA2		Blocked Outlet			
	33	Calculated Area	MM ²		193.67 (VTC)			
	34	Required Area	MM ²	397.60 (VTC)				
	35	Orifice Designation Size: Inlet	Outlet	1 1/2" in	G (VTC)			
CONNECTIONS	36 37	Rating & Facing :In	Outlet	1 1/2" in #600 FLANGED RF	3" in #150 FLANGED RF			
	38	Body and Bonnet	Outlet	ASTM A216 GR. WCB (VTC)	#100 FLANGED RF			
	39	Seat and Disc						
	40	Nozzle		SS316+RPTFE 316 SS				
MATERIALS (VTC)	41	Guide and Rings		VTA				
MATERIALO (VIO)	42	Spring		ASTM A216 GR. WCB (VTC) (Note2))			
	43	Bellows		N/A	,			
	44	50110113		IN/FX				
	45	Cap: Screwed or Bolted		Screwed				
	46	Lever: Plain or Packed		N/A				
				N/A Yes				
OPTIONS		With Rupture Disc		No				
C		Hydro Test		Required				
		Seat Leakage Test		Required				
	_	Compliance Standard		N/A				
		Manufacturer		Will Be Finalized Later				
PURCHASE (will be finalized	_	Model		Will Be Finalized Later Will Be Finalized Later				
later)	_	Serial No.		Will Be Finalized Later				
Notes: □	, ,,	~ 		Do i manzos zator				

VTA: Vendor to Advise in bidding stage

VTC : Vendor to confirm in bidding stage N/A: Not applicable

- $\hbox{1- For material details refer to "Piping Material Specification Doc No." BK-GCS-PEDCO-120-PI-SP-0001-D02~".}\\$
- 2- Suitable coating such as cadmiun plated shall be considered (vendor to advise)

Chrome Plated is recommended.



نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک





شماره پیمان: ۱۸۴۴ – ۷۲۳ – ۰۵۳
 DATA SHEETS FOR PRESSURE & SAFETY RELIEF VALVES

 نسخه
 سریال
 وع مدر ک
 رشته
 تسهیلات
 صادر کننده
 بسته کاری
 پروژه

 BK
 GCS
 PEDCO
 120
 IN
 DT
 0009
 D02

شماره صفحه: ۲۲ از ۳۳

			PRESSURE SAFET	YVALVE			
	1	Tag Number			PSV-2133A		
	2	Service			GAS		
	3	Line No.	Vessel No.	GAS-111-0048A-FN05-2"-PT	- D02		
CENEDAL	4	Pipe Class / C.A.	P&ID No.	FN05 / 3mm	BK-GCS-PEDCO-120-PR-PI-0010_D05 (1 OF 3)		
GENERAL		Discharge to	1. 5	To FLARE			
	6	Protect Equipment		-			
	7	Area Clacification		Zone 2, IIB T4			
	8	NACE MR0175/ISO 15156 (Compliance	YES			
		Nozzle (Full, Semi)	<u>-</u>	Full Nozzle, Spring Loaded Type			
	10		Safety, Relief, Safety-Relief	Safety			
BASIS	11	Design Type	Conventional, bellows, Pilot Op.	Conventional			
	12	Bonnet Type	ор.	Closed			
		Fluid	State	GAS	Singel Phase		
	14	Required Capacity	State	8664.0	-		
		Molecular Mass	Sp. Gr.@ relief Tmp	24.52 kg/kmol	kg/h 0.85 kg/m3		
	16	Oper. Pressure	Set Pressure	54.80 /	Ü		
	17	Oper. Temperature	RelievingTemp.	142.3	62 bar-g 142.3 °C		
		Oper. remperature	Constant				
	18 19	Back Pressure	Variable	- bar-g			
		Back Fressure		1.0 bar-g			
PROCESS CONDITIONS	20	Total % Allowable Overpressure		1.0 bar-g 10%			
		•					
	22	Over Pressure Factor			1.10		
	23	Compressibility Factor(Z)			0.923		
		Latent Heat of Vaporization			566.7		
	_	Ratio of Specific Heats(Cp			1.28		
	26	Density @ flowing temprat	ure	54.06 kg/m3			
	27	Operating Viscosity		0.017 cP			
	28	Barometric Pressure		13.26 ~ 14.37 psia			
	29	Design Code	Sizing Basis	API 520	-		
	30	Construction Code			API 520		
	31	Fire			NO		
SELECTION	32	Basis of Selection		Blocked Outlet			
	33	Calculated Area	MM ²		193.67 (VTC)		
	34	Required Area	MM²		397.60 (VTC)		
	35	Orifice Designation			G (VTC)		
CONNECTIONS	36	Size: Inlet	Outlet	1 1/2" in	3" in		
CONNECTIONS	37	Rating & Facing :In	Outlet	#600 FLANGED RF	#150 FLANGED RF		
	38	Body and Bonnet		ASTM A216 GR. WCB (VTC)	•		
	39	Seat and Disc		SS316+RPTFE			
	40	Nozzle		316 SS			
MATERIALS (VTC)	41	Guide and Rings		VTA			
- ,	42	Spring		ASTM A216 GR. WCB (VTC) (Note2)			
	43	Bellows		N/A	,		
	44						
	45	Cap: Screwed or Bolted		Screwed			
	46	Lever: Plain or Packed					
	-			N/A			
OPTIONS		Test Gage With Rupture Disc		Yes			
OF HONS	_	Hydro Test		No Dogwind			
				Required			
		Seat Leakage Test		Required			
		Compliance Standard		N/A			
URCHASE (will be finalized		Manufacturer		Will Be Finalized Later			
	53	Model		Will Be Finalized Later			
later)		Serial No.		Will Be Finalized Later			

VTA: Vendor to Advise in bidding stage

VTC : Vendor to confirm in bidding stage N/A: Not applicable

- $\hbox{1- For material details refer to "Piping Material Specification Doc No." BK-GCS-PEDCO-120-PI-SP-0001-D02~".}\\$
- 2- Suitable coating such as cadmiun plated shall be considered (vendor to advise)

Chrome Plated is recommended.



نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک





			پیمان:	ماره
	 ٠.	. 40		

	DATA SHEETS FOR PRESSURE & SAFETY RELIEF VALVES									
پروژه	بسته کاری	صادر کننده	تسهيلات	رشته	نوع مدرك	سريال	نسخه			
BK	GCS	PEDCO	120	IN	DT	0009	D02			

شماره صفحه: ۲۳ از ۳۳

			PRESSURE SAFET	Y VALVE				^
	1	Tag Number				PSV-2132E	3	$\overline{}$
	2	Service				GAS		D02
	3		Vessel No.	GAS-111-0047B-	FN05-2"-PT	I-		D02
GENERAL	4	Pipe Class / C.A.	P&ID No.	FN05 / 3mm		BK-GCS-P	EDCO-120-PR-PI-001	0 D05 (2 OF 3)
GENERAL	5	Discharge to	•	To FLARE		•		
	6	Protect Equipment		-				
	7	Area Clacification		Zone 2, IIB T4				
	8	NACE MR0175/ISO 15156 (Compliance	YES				
	9	Nozzle (Full, Semi)		Full Nozzle, Sprin	ng Loaded Type			
BASIS	10	Design Type	Safety, Relief, Safety-Relief	Safety				
BAGIG	11	Design Type	Conventional, bellows, Pilot Op.	Conventional				
	12	Bonnet Type	•	Closed				
	13		State	GAS			Singel Phase	
	14				8664.0		kg/h	
	15	Molecular Mass	Sp. Gr.@ relief Tmp	24.52 kg/kmc			0.85	kg/m3
	16	Oper. Pressure	Set Pressure		54.80 /		62 bar-g	
	17	Oper. Temperature	RelievingTemp.	142.3			142.3 °C	
	18		Constant		-		bar-g	
	19	Back Pressure	Variable		1.0		bar-g	
PROCESS CONDITIONS	20		Total		1.0		bar-g	
	21	% Allowable Overpressure				10%		
	22	Over Pressure Factor				1.10		
	23	, ,	acting)			0.923		
25	24	Latent Heat of Vaporization				566.7		
	25	Ratio of Specific Heats(Cp.		5100	1 / -	1.28		
	26	Density @ flowing temprat	ure	54.06 0.017	kg/m3 cP			
	27	Operating Viscosity Barometric Pressure						
	28		Sining Basis	13.26 ~ 14	4.37 psia	1		
	29 30		Sizing Basis	API 520		API 520		-
	31	Fire				NO NO		
SELECTION	32	Basis of Selection				Blocked Out	let	
GELEGIIGN	33	Calculated Area	MM²			193.67 (VTC		
	34	Required Area	MM²			397.60 (VTC		
	35	Orifice Designation				G (VTC)	-,	
	36		Outlet	1 1/2" in		3 (1.13)	3" in	
CONNECTIONS		Rating & Facing :In	Outlet		00 FLANGED RF		#150 FLAI	NGED RF
	38	Body and Bonnet	•	ASTM A216 GR.		ı		
	39	Seat and Disc		SS316+RPTFE	, ,			
	40	Nozzle		316 SS				
MATERIALS (VTC)	41	Guide and Rings		VTA				
	42	Spring		ASTM A216 GR.	WCB (VTC) (Note	2)		
	43	Bellows		N/A				
	44							
	45			Screwed				
	46			N/A				
		Test Gage		Yes				
OPTIONS	48	With Rupture Disc		No				
	49	Hydro Test		Required				
	50	Seat Leakage Test		Required				
	51	Compliance Standard		N/A				
PURCHASE (will be finalized	52			Will Be Finalized				
later)		Model		Will Be Finalized				
•	54	Serial No.		Will Be Finalized	Later			

VTA: Vendor to Advise in bidding stage

VTC : Vendor to confirm in bidding stage N/A: Not applicable

- 1- For material details refer to "Piping Material Specification Doc No." BK-GCS-PEDCO-120-PI-SP-0001-D02 ".
- 2- Suitable coating such as cadmiun plated shall be considered (vendor to advise)

Chrome Plated is recommended.



نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک





شماره پیمان: · ۵۳ - · ۷۳ - 9144

DATA SHEETS FOR PRESSURE & SAFETY RELIEF VALVES نوع مدرك صادر کننده بسته کاری نسخه پروژه سريال GCS PEDCO BK DT 0009 D02 120

شماره صفحه: ۲۴ از ۳۳

			PRESSURE SAFET	Y VALVE				^
	1	Tag Number				PSV-2133E	3	\nearrow $\overline{}$
	2	Service				GAS		D02
	3	Line No.	Vessel No.	GAS-111-0048B-FN05-	-2"-PT	-		502
GENERAL	4	Pipe Class / C.A.	P&ID No.	FN05 / 3mm		BK-GCS-PI	EDCO-120-PR-PI-0010	D05 (2 OF 3)
GENERAL	5	Discharge to	•	To FLARE				, ,
	6	Protect Equipment		-				
	7	Area Clacification		Zone 2, IIB T4				
	8	NACE MR0175/ISO 15156 C	Compliance	YES				
	9	Nozzle (Full, Semi)		Full Nozzle, Spring Loa	ided Type			
BASIS	10	Design Type	Safety, Relief, Safety-Relief	Safety				
21.0.0	11		Conventional, bellows, Pilot Op.	Conventional				
	_	Bonnet Type		Closed				
	13		State	GAS			Singel Phase	
		Required Capacity			8664.0		kg/h	
		Molecular Mass	Sp. Gr.@ relief Tmp	24.52 kg/kmol			0.85	kg/m3
	16	Oper. Pressure	Set Pressure	54.5	80 /		62 bar-g	
	17	Oper. Temperature	RelievingTemp.	142.3	/		142.3 °C	
	18	B B	Constant		- 10		bar-g	
	19	Back Pressure	Variable		1.0		bar-g	
PROCESS CONDITIONS	20	% Allowable Overpressure	Total		1.0	10%	bar-g	
	21	Over Pressure Factor				1.10		
	22					0.923		
	23 Compressibility Factor(Z) 24 Latent Heat of Vaporizatio 25 Ratio of Specific Heats(C) 26 Density @ flowing tempra	(Ki/Ka)			566.7			
					1.28			
		Density @ flowing temprat		54.06	kg/m3	1.20		
	27	Operating Viscosity	uic	0.017	cP			
	28	Barometric Pressure		13.26 ~ 14.37	psia			
	29	Design Code	Sizing Basis	API 520	Para			
	30	Construction Code				API 520		
	31	Fire				NO		
SELECTION	32	Basis of Selection			E	Blocked Outl	et	
	33	Calculated Area	MM ²			193.67 (VTC	;)	
	34	Required Area	MM ²			397.60 (VTC	()	
	35	Orifice Designation				G (VTC)		
CONNECTIONS	36	Size: Inlet	Outlet	1 1/2" in			3" in	
	37	Rating & Facing :In	Outlet		ANGED RF		#150 FLAN	IGED RF
	38			ASTM A216 GR. WCB	(VTC)			
	39	Seat and Disc		SS316+RPTFE				
MATERIAL O OTO	40	Nozzle		316 SS				
MATERIALS (VTC)	41	Guide and Rings		VTA	(\/TC\ (\)I=+= 2\			
	42	Spring Bellows		ASTM A216 GR. WCB	(VIC) (Note2)	1		
	43	Deliuws		N/A				
	44	Cap: Screwed or Bolted		Screwed				
	46	Lever: Plain or Packed		N/A				
	47	Test Gage		Yes				
OPTIONS	48	With Rupture Disc		No				
	49	Hydro Test		Required				
	50	Seat Leakage Test		Required				
	51	Compliance Standard		N/A				
	52			Will Be Finalized Later				
PURCHASE (will be finalized	53	Model		Will Be Finalized Later				
later)		Serial No.		Will Be Finalized Later				
Notes: □	•	•		<u>-</u>				

VTA: Vendor to Advise in bidding stage

VTC : Vendor to confirm in bidding stage N/A: Not applicable

- 1- For material details refer to "Piping Material Specification Doc No." BK-GCS-PEDCO-120-PI-SP-0001-D02".
- 2- Suitable coating such as cadmiun plated shall be considered (vendor to advise)

Chrome Plated is recommended.



نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک





			DAT	A SHEETS	FOR PRE	SSURE & S	SAFETY RI	ELIEF VALVES	
	شماره پیمان:	پروژه	بسته کاری	صادر کننده	تسهيلات	رشته	نوع مدرك	سريال	نسخه
·0" - ·Y" - 9114		BK	GCS	PEDCO	120	IN	DT	0009	D02

شماره صفحه: ۲۵ از ۳۳

			PRESSURE SAFET	V VALVE	
	1.	Tan Niverban	FRESSURE SAFET		PSV-2132C
	1	Tag Number			
	2	Service	T	OAO AAA OO ATO ENOS OU DE	GAS D02
	3	Line No.	Vessel No.	GAS-111-0047C-FN05-2"-PT	-
GENERAL	4	Pipe Class / C.A.	P&ID No.	FN05 / 3mm	BK-GCS-PEDCO-120-PR-PI-0010_D05 (3 OF 3)
		Discharge to		To FLARE	
		Protect Equipment		- 7 0 HD T4	
	7	Area Clacification	O	Zone 2, IIB T4	
	8	NACE MR0175/ISO 15156	Compliance	YES Full Nozzle, Spring Loaded Type	
	9	Nozzle (Full, Semi)		Full Nozzie, Spring Loaded Type	
BASIS	10	Design Type	Safety, Relief, Safety-Relief	Safety	
DAGIO	11	Doolgii Type	Conventional, bellows, Pilot Op.	Conventional	
	12	Bonnet Type	1.	Closed	
	_	Fluid	State	GAS	Singel Phase
			•	8664.0	kg/h
	15		Sp. Gr.@ relief Tmp	24.52 kg/kmol	0.85 kg/m3
	16	Oper. Pressure	Set Pressure	54.80 /	62 bar-g
	17	Oper. Temperature	RelievingTemp.	142.3 /	142.3 °C
	18		Constant	-	bar-g
	19	Back Pressure	Variable	1.0	bar-g
PROCESS CONDITIONS	20	1	Total	1.0	bar-g
PROCESS CONDITIONS	21	% Allowable Overpressure	•		10%
	22	Over Pressure Factor			1.10
	23	Compressibility Factor(Z)			0.923
	24 Latent Heat of Vaporization	n (Kj/Kg)		566.7	
	25	Ratio of Specific Heats(Cp	n/Cv)		1.28
	26	Density @ flowing tempra	ture	54.06 kg/m3	
	27	Operating Viscosity		0.017 cP	
	28	Barometric Pressure		13.26 ~ 14.37 psia	
	29	Design Code	Sizing Basis	API 520	-
	30	Construction Code			API 520
	31	Fire			NO
SELECTION	32	Basis of Selection			locked Outlet
	33	Calculated Area	MM ²		93.67 (VTC)
		Required Area	MM²	3	397.60 (VTC)
	35	Orifice Designation	T=		G (VTC)
CONNECTIONS	36		Outlet	1 1/2" in	3" in
		Rating & Facing :In	Outlet	#600 FLANGED RF	#150 FLANGED RF
		Body and Bonnet		ASTM A216 GR. WCB (VTC)	
	39 40	Seat and Disc Nozzle		SS316+RPTFE	
MATERIALS (VTC)	41			316 SS VTA	
MATERIALS (VIC)	41	Guide and Rings Spring		ASTM A216 GR. WCB (VTC) (Note2)	
	42	Bellows		N/A	
	44	DOUGHA		IVA	
		Cap: Screwed or Bolted		Screwed	
	_	Lever: Plain or Packed		N/A	
		Test Gage		Yes	
OPTIONS		With Rupture Disc		No	
		Hydro Test		Required	
		Seat Leakage Test		Required	
	51	Compliance Standard		N/A	
		Manufacturer		Will Be Finalized Later	
PURCHASE (will be finalized		Model		Will Be Finalized Later	
later)		Serial No.		Will Be Finalized Later	
Notes: □	1 37			Do . manzos zator	

Notes:

 $\label{eq:VTA:Vendor} \mbox{VTA: Vendor to Advise in bidding stage}$

VTC : Vendor to confirm in bidding stage N/A: Not applicable

- 1- For material details refer to "Piping Material Specification Doc No." BK-GCS-PEDCO-120-PI-SP-0001-D02".
- 2- Suitable coating such as cadmiun plated shall be considered (vendor to advise)

Chrome Plated is recommended.



نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک





شماره پیمان: ۹۱۸۴ – ۷۷۳ – ۰۵۳

 DATA SHEETS FOR PRESSURE & SAFETY RELIEF VALVES

 نسخه
 سریال
 وع مدر ک
 رشته
 تسهیلات
 صادر کننده
 بسته کاری
 پروژه

 BK
 GCS
 PEDCO
 120
 IN
 DT
 0009
 D02

شماره صفحه: ۲۶ از ۳۳

			PRESSURE SAFET	Y VALVE			
	1	Tag Number			PSV-2133	С	$\overline{}$
	2	Service			GAS		D02
	3	Line No.	Vessel No.	GAS-111-0048C-FN05-2"-PT	-		
GENERAL	4	Pipe Class / C.A.	P&ID No.	FN05 / 3mm	BK-GCS-F	PEDCO-120-PR-PI-001	0_D05 (3 OF 3)
CENERAL	5	Discharge to		To FLARE			
	6	Protect Equipment		-	Singel Phase 4.0 kg/h 0.85 kg/m 62 bar-g 142.3 °C - bar-g 1.0 bar-g 1.0 bar-g 1.0 bar-g 1.10 bar-g 1.10 566.7 1.28		
	7	Area Clacification		Zone 2, IIB T4			
	8	NACE MR0175/ISO 15156	Compliance	YES			
	9	Nozzle (Full, Semi)		Full Nozzle, Spring Loaded Type			
BASIS	10	Design Type	Safety, Relief, Safety-Relief	Safety			
27.0.0	11		Conventional, bellows, Pilot Op.	Conventional			
	12	Bonnet Type		Closed			
		Fluid	State	GAS		Singel Phase	
	14			8664.0			
		Molecular Mass	Sp. Gr.@ relief Tmp	24.52 kg/kmol			kg/m3
	16	Oper. Pressure	Set Pressure	54.80 /			
	17	Oper. Temperature	RelievingTemp.	142.3 /			
	18		Constant				
	19	Back Pressure	Variable				
PROCESS CONDITIONS	20	0, 411	Total	1	-	bar-g	
	21	% Allowable Overpressure	1				
		Over Pressure Factor					
2	23	Compressibility Factor(Z)	(V:/Va)				
	24 25	Latent Heat of Vaporizatio Ratio of Specific Heats(Cp					
	26	Density @ flowing temprate		54.06 kg/m3	1.20		
	27	Operating Viscosity	ure	0.017 cP			
	28	Barometric Pressure		13.26 ~ 14.37 psia			
	29		Sizing Basis	API 520			
	30	Construction Code	0.19 2.00.0	7.1.1.020	API 520		
	31	Fire			NO		
SELECTION	32	Basis of Selection			Blocked Out	tlet	
	33	Calculated Area	MM ²		193.67 (VT	C)	
	34	Required Area	MM ²		397.60 (VT	C)	
	35	Orifice Designation			G (VTC)		
CONNECTIONS	36	Size: Inlet	Outlet	1 1/2" in		3" in	
CONNECTIONS	37	Rating & Facing :In	Outlet	#600 FLANGED RF		#150 FLAN	NGED RF
	38	Body and Bonnet		ASTM A216 GR. WCB (VTC)			
	39	Seat and Disc		SS316+RPTFE			
	40	Nozzle		316 SS			
MATERIALS (VTC)	41	Guide and Rings		VTA			
	42	Spring		ASTM A216 GR. WCB (VTC) (No	te2)		
	43	Bellows		N/A			
	44	0 0 1 0 1					
		Cap: Screwed or Bolted		Screwed			
	46	Lever: Plain or Packed		N/A			
	47	Test Gage With Rupture Disc		Yes			
OBTIONS		with Kupture DISC		No Required			
OPTIONS	48	Hydro Test					
OPTIONS	49	Hydro Test					
OPTIONS	49 50	Seat Leakage Test		Required			
	49 50 51	Seat Leakage Test Compliance Standard		Required N/A			
OPTIONS PURCHASE (will be finalized later)	49 50 51 52	Seat Leakage Test		Required			

VTA: Vendor to Advise in bidding stage

VTC : Vendor to confirm in bidding stage N/A: Not applicable

1- For material details refer to "Piping Material Specification Doc No." BK-GCS-PEDCO-120-PI-SP-0001-D02".

2- Suitable coating such as cadmiun plated shall be considered (vendor to advise)

Chrome Plated is recommended.



نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک





	ئىمارە پىمان:
.AW .VW 411F	

	DAT	A SHEETS	FOR PRE	SSURE &	SAFETY R	ELIEF VALVES	
پروژه	بسته کاری	صادر کننده	تسهيلات	رشته	وع مدرك	سريال	نسخه
BK	GCS	PEDCO	120	IN	DT	0009	D02

شماره صفحه: ۲۷ از ۳۳

			PRESSURE SAFET	Y VALVE		^
	1	Tag Number			PS	SV-2141
	2	Service				GAS D02
	3	Line No.	Vessel No.	GAS-111-0060-FN05-2		
GENERAL	4	Pipe Class / C.A.	P&ID No.	FN05 / 3mm		K-GCS-PEDCO-120-PR-PI-0012 D06
GENERAL		Discharge to		To FLARE		-
	6	Protect Equipment		-		
	7	Area Clacification		Zone 2, IIB T4		
	8	NACE MR0175/ISO 15156 (Compliance	YES		
	9	Nozzle (Full, Semi)		Full Nozzle, Spring Loa	ded Type	
BASIS	10	Design Type	Safety, Relief, Safety-Relief	Safety		
BASIS	11	Design Type	Conventional, bellows, Pilot Op.	Conventional		
	12	Bonnet Type	1 -	Closed		
	13	Fluid	State	GAS		Singel Phase
	14	Required Capacity			17252.50	kg/h
	15	Molecular Mass	Sp. Gr.@ relief Tmp	24.562 kg/kmol		0.85 kg/m3
	16	Oper. Pressure	Set Pressure	53	3.9 /	62 bar-g
	17	Oper. Temperature	RelievingTemp.	60	/	60 °C
	18		Constant		-	bar-g
	_	Back Pressure	Variable		1.0	bar-g
PROCESS CONDITIONS			Total		1.0	bar-g
	20 21 % Allowable Overpressu 22 Over Pressure Factor 23 Compressibility Factor(Z 24 Latent Heat of Vaporizati 25 Ratio of Specific Heats(C 26 Density @ flowing tempr 27 Operating Viscosity	1			10%	
						1.10
						0.823
						456.0
			•	70.00		1.461
			ure	78.39	kg/m3	
				0.015	cP	
		Barometric Pressure Design Code	Sizing Basis	13.26 ~ 14.37 API 520	psia	
		Construction Code	Sizilig Basis	AFT 520	Δ	PI 520
	31	Fire				NO NO
SELECTION	32	Basis of Selection			Block	ked Outlet
	33	Calculated Area	MM²			1 (VTC)
		Required Area	MM ²			.01 (VTC)
		Orifice Designation				(VTC)
CONNECTIONS	36	Size: Inlet	Outlet	2" in		3" in
CONNECTIONS	37	Rating & Facing :In	Outlet	#600 FL/	ANGEDRF	#150 FLANGEDRF
		Body and Bonnet		ASTM A216 GR. WCB	(VTC)	
		Seat and Disc		SS316+RPTFE		
	40	Nozzle		316 SS		
MATERIALS (VTC)	41	Guide and Rings		VTA		
	42	Spring		ASTM A216 GR. WCB	(VTC) (Note2)	
	43	Bellows		N/A		
	44					
		Cap: Screwed or Bolted		Screwed		
		Lever: Plain or Packed		N/A		
OPTIONS	47	Test Gage		Yes		
OPTIONS		With Rupture Disc Hydro Test		No Required		
	50	Seat Leakage Test		Required		
	51	Compliance Standard		Required N/A		
		Manufacturer		Will Be Finalized Later		
PURCHASE (will be finalized		Model		Will Be Finalized Later		
later)		Serial No.		Will Be Finalized Later		
Notes: □	- 54	· · · · · ·		Doanzoa zatol		

VTA: Vendor to Advise in bidding stage

VTC : Vendor to confirm in bidding stage N/A: Not applicable

- 1- For material details refer to "Piping Material Specification Doc No." BK-GCS-PEDCO-120-PI-SP-0001-D02".
- 2- Suitable coating such as cadmiun plated shall be considered (vendor to advise)

Chrome Plated is recommended.



نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک





شماره پیمان: ۹۱۸۴ – ۷۷۳ – ۰۵۳
 DATA SHEETS FOR PRESSURE & SAFETY RELIEF VALVES

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

 BK
 GCS
 PEDCO
 120
 IN
 DT
 0009
 D02

شماره صفحه: ۲۸ از ۳۳

			PRESSURE SAFET	Y VALVE			^
	1	Tag Number		I		PSV-2142	$\overline{}$
	2	Service				GAS	D02
	3	Line No.	Vessel No.	GAS-111-0062-FN05-	2"-PT	J.	D02
	4	Pipe Class / C.A.	P&ID No.	FN05 / 3mm	2 1 1	BK-GCS-PEDCO-120-PR-PI-0	012 D06
GENERAL	5	Discharge to	I dib No.	To FLARE		DR 0001 2000 1201 R 110	012_000
	6	Protect Equipment		-			
	7	Area Clacification		Zone 2, IIB T4			
	8	NACE MR0175/ISO 15156 (Compliance	YES			
	9	Nozzle (Full, Semi)	•	Full Nozzle, Spring Lo	aded Type		
	10		Safety, Relief, Safety-Relief	Safety	,		
BASIS	11	Design Type	Conventional, bellows, Pilot Op.	Conventional			
	12	Bonnet Type	1-1	Closed			
		Fluid	State	GAS		Singel Phase	
	14				17252.50	kg/h	
	15	Molecular Mass	Sp. Gr.@ relief Tmp	24.562 kg/kmol		0.85	kg/m3
	16	Oper. Pressure	Set Pressure		53.9 /	62 bar-g	
	17	Oper. Temperature	RelievingTemp.	60	/	60 °C	
	18		Constant		-	bar-g	
	19	Back Pressure	Variable		1.0	bar-g	
PROCESS CONDITIONS	20		Total		1.0	bar-g	
PROCESS CONDITIONS	21	% Allowable Overpressure	1			10%	
	22	Over Pressure Factor				1.10	
		Compressibility Factor(Z)				0.823	
	24	Latent Heat of Vaporization	n (Kj/Kg)			1456.0	
	25	Ratio of Specific Heats(Cp	/Cv)			1.461	
	26	Density @ flowing temprat	ure	78.39	kg/m3		
	27	Operating Viscosity		0.015	cP		
	28	Barometric Pressure		13.26 ~ 14.37	psia		
	29	Design Code	Sizing Basis	API 520			-
	30	Construction Code				API 520	
	31	Fire				NO	
SELECTION	32	Basis of Selection			Blo	ocked Outlet	
	33	Calculated Area	MM ²		;	311 (VTC)	
	34	Required Area	MM ²		62	29.01 (VTC)	
	35	Orifice Designation				H (VTC)	
CONNECTIONS	36	Size: Inlet	Outlet	2" in		3" in	
CONNECTIONS	37	Rating & Facing :In	Outlet		LANGEDRF	#150 FI	_ANGEDRF
	38	Body and Bonnet		ASTM A216 GR. WCI	3 (VTC)		
	39	Seat and Disc		SS316+RPTFE			
	40	Nozzle		316 SS			
MATERIALS (VTC)	41	Guide and Rings		VTA			
	42	Spring		ASTM A216 GR. WCI	3 (VTC) (Note2)		
	43	Bellows		N/A			
	44						-
	45	Cap: Screwed or Bolted		Screwed			
	46	Lever: Plain or Packed		N/A			
	47	Test Gage		Yes			
OPTIONS	48	With Rupture Disc		No			
	49	Hydro Test		Required			
	50	Seat Leakage Test		Required			
	51	Compliance Standard		N/A			
DUDCHASE (will be finely - 1	52	Manufacturer		Will Be Finalized Late	r		
PURCHASE (will be finalized		Model		Will Be Finalized Late			
later)	54			Will Be Finalized Late			
Notes: □		•		-			

VTA: Vendor to Advise in bidding stage

VTC : Vendor to confirm in bidding stage N/A: Not applicable

- 1- For material details refer to "Piping Material Specification Doc No." BK-GCS-PEDCO-120-PI-SP-0001-D02 ".
- 2- Suitable coating such as cadmiun plated shall be considered (vendor to advise)

Chrome Plated is recommended.



نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک





شماره پیمان: • DT - • YT - 91AF

DATA SHEETS FOR PRESSURE & SAFETY RELIEF VALVES نوع مدر ک صادر کننده بسته کاری تسهيلات نسخه پروژه سريال GCS PEDCO DT BK 0009 D02 120

شماره صفحه: ۲۹ از ۳۳

			PRESSURE SAFET	Y VALVE					$\overline{\wedge}$
	1	Tag Number					PSV-2201		\nearrow $\overline{}$
	2	Service					GAS		D02
	3	Line No.	Vessel No.	ISA-112-0	008-AZ00-2"	-NP	-		
GENERAL		Pipe Class / C.A.	P&ID No.	AZ00 / 0m	m		BK-GCS-P	EDCO-120-PR-PI-001	15_D06
GENERAL	5	Discharge to	•	To ATM					
	6	Protect Equipment		-					
		Area Clacification		Zone 2, IIE	3 T4				
	8	NACE MR0175/ISO 15156 (Compliance	No					
	9	Nozzle (Full, Semi)		Full Nozzle	e, Spring Loa	ided Type			
BASIS	10	Design Type	Safety, Relief, Safety-Relief	Safety					
BASIS	11	Design Type	Conventional, bellows, Pilot Op.	Convention	nal				
	12	Bonnet Type	1 -	Closed					
	13	Fluid	State	GAS				Singel Phase	
	14	Required Capacity				1071.8		kg/h	
		Molecular Mass	Sp. Gr.@ relief Tmp	28.95	kg/kmol			1.00	kg/m3
	_	Oper. Pressure	Set Pressure			8.00		12.5 bar-g	
		Oper. Temperature	RelievingTemp.		65	/		323.4 °C	
	18		Constant			-		bar-g	
		Back Pressure	Variable			0.0		bar-g	
PROCESS CONDITIONS	20		Total			0.0		bar-g	
		% Allowable Overpressure	· · · · · · · · · · · · · · · · · · ·				21%		
		Over Pressure Factor					1.21		
		Compressibility Factor(Z)					0.99		
<u> </u>		Latent Heat of Vaporization					1949.0		
		Ratio of Specific Heats(Cp.	•				1.42		
		Density @ flowing temprat	ure).37	kg/m3			
		Operating Viscosity		_	.032	cP			
		Barometric Pressure			26 ~ 14.37	psia			
		Design Code	Sizing Basis	API 520					-
		Construction Code					API 520		
	_	Fire					Yes		
SELECTION		Basis of Selection					FIRE		
		Calculated Area	MM²				13.24 (VT	,	
		Required Area	MM²			1	53.95 (VTC	C)	
		Orifice Designation	1=				E (VTC)		
CONNECTIONS		Size: Inlet	Outlet	1"	in			2" in	
		Rating & Facing :In	Outlet			ANGED RF		#150 FLA	NGED RF
		Body and Bonnet			18 UNS C958				
		Seat and Disc			18 UNS C958	300			
MATERIAL S STO		Nozzle		316 SS					
MATERIALS (VTC)	41	Guide and Rings		VTA	0.00.14/05	0.770) (11.77)			
		Spring			б GR. WCB	(VTC) (Note2)			
	-	Bellows		N/A					
	44	0 0		0					
	_	Cap: Screwed or Bolted		Screwed					
	-	Lever: Plain or Packed		N/A					
		Test Gage		Yes					
OPTIONS		With Rupture Disc		No					
		Hydro Test		Required					
		Seat Leakage Test		Required					
		Compliance Standard		N/A					
PURCHASE (will be finalized		Manufacturer		_	nalized Later				
(No illianzou	53	Model		Will Be Fir	nalized Later				
later)		Serial No.			nalized Later				

VTA: Vendor to Advise in bidding stage

VTC : Vendor to confirm in bidding stage N/A: Not applicable

- 1- For material details refer to "Piping Material Specification Doc No." BK-GCS-PEDCO-120-PI-SP-0001-D02 ".
- 2- Suitable coating such as cadmiun plated shall be considered (vendor to advise)

Chrome Plated is recommended. H.R. as per previous pages.



نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک





شماره پیمان: • DT - • YT - 91AF

DATA SHEETS FOR PRESSURE & SAFETY RELIEF VALVES نوع مدرك صادر کننده بسته کاری نسخه پروژه سريال GCS PEDCO DT 0009 BK 120 D02

شماره صفحه: ۳۰ از ۳۳

			PRESSURE SAFET	Y VALV	E				
	1	Tag Number					PSV-2211A		\neg
	2	Service		1			GAS		D02
	3	Line No.	Vessel No.	NIT-112	2-0022-AN01-2	"-PT	-		
OFNED 41	4	Pipe Class / C.A.	P&ID No.	AN01 /			BK-GCS-PE	EDCO-120-PR-PI-001	16 D06
GENERAL	5	Discharge to		To ATM					, o = 00
	6	Protect Equipment		-					
	7	Area Clacification		Zone 2,	IIB T4				
	8	NACE MR0175/ISO 15156 C	Compliance	No					
	9	Nozzle (Full, Semi)		Full No:	zzle, Spring Loa	aded Type			
D.4.010	10	B	Safety, Relief, Safety-Relief	Safety					
BASIS	11	Design Type	Conventional, bellows, Pilot Op.	Conven	itional				
	12	Bonnet Type	1 - 1:	Closed					
		Fluid	State	GAS			[Singel Phase	
	14	Required Capacity				500.4		kg/h	
	15	Molecular Mass	Sp. Gr.@ relief Tmp	28	kg/kmol			0.97	kg/m3
	16	Oper. Pressure	Set Pressure			8.00		12.5 bar-g	
	17	Oper. Temperature	RelievingTemp.		60	/		323.4 °C	
	18		Constant			-		bar-g	
	19	Back Pressure	Variable			0.5		bar-g	
	20		Total			0.5		bar-g	
PROCESS CONDITIONS		% Allowable Overpressure					21%	<u></u>	
	22	Over Pressure Factor					1.21		
	23	Compressibility Factor(Z)					0.99		
		Latent Heat of Vaporization	ı (Ki/Ka)				1950.0		
		Ratio of Specific Heats(Cp/					1.40		
		Density @ flowing temprat			7.60	kg/m3			
		Operating Viscosity	uio		0.030	cP			
		Barometric Pressure			13.26 ~ 14.37	psia			
	29	Design Code	Sizing Basis	API 520		pola			_
	30	Construction Code	Olema Buolo	711 1 020			API 520		
	31	Fire					Yes		
SELECTION	32	Basis of Selection					FIRE		
00	33	Calculated Area	MM²				54.241 (VTC	:)	
		Required Area	MM²				153.9 (VTC)	,	
		Orifice Designation					D (VTC)		
		Size: Inlet	Outlet	1	" in		2 (1.0)	2" in	
CONNECTIONS		Rating & Facing :In	Outlet			ANGED RF			NGED RF
		Body and Bonnet	**	A216 G	Gr. WCB				
	39	Seat and Disc		13Cr+P					
	40	Nozzle		316 SS					
MATERIALS (VTC)	41	Guide and Rings		VTA					
(,	42	Spring			A216 GR. WCB	(VTC) (Note2)			
	43	Bellows		N/A		, , (
	44								
	_	Cap: Screwed or Bolted		Screwe	d d				
		Lever: Plain or Packed		N/A	-				
		Test Gage		Yes					
OPTIONS	_	With Rupture Disc		No					
S. 110H5		Hydro Test		Require	2d				
		Seat Leakage Test		Require					
		Compliance Standard		N/A	;u				
	51	Manufacturer		_	Finalize 41 at a				
PURCHASE (will be finalized		Manufacturer			Finalized Later				
later)		Model			Finalized Later				
•	52	Serial No.		Will Be	Finalized Later	r			
Notes:									

VTA: Vendor to Advise in bidding stage

VTC : Vendor to confirm in bidding stage N/A: Not applicable

1- For material details refer to "Piping Material Specification Doc No." BK-GCS-PEDCO-120-PI-SP-0001-D02 ".

2- Suitable coating such as cadmiun plated shall be considered (vendor to advise)

Chrome Plated is recommended.



نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک





DATA SHEETS FOR PRESSURE & SAFETY RELIEF VALVES

نوع مدرك صادر کننده بسته کاری شماره پیمان: پروژه سريال GCS PEDCO · ۵۳ - · ۷۳ - 9144 BK DT 0009 D02 120

شماره صفحه: ۳۱ از ۳۳

			PRESSURE SAFET	Y VALVE			/	$\overline{}$
	1	Tag Number				PSV-2271	$\overline{}$	D02
	2	Service		1		GAS		
		Line No.	Vessel No.	FLG-111-0011-AN07-2	2"-PT	-		
GENERAL		Pipe Class / C.A.	P&ID No.	AN07 / 6mm		BK-GCS-PEDCO-1	20-PR-PI-0022	_D06
GENERAL		Discharge to		To FLARE				
	6	Protect Equipment		-				
	7	Area Clacification		Zone 2, IIB T4				
	8	NACE MR0175/ISO 15156 C	ompliance	Yes				
	9	Nozzle (Full, Semi)		Full Nozzle				
BASIS	10	Decima Time	Safety, Relief, Safety-Relief	Safety				
BASIS	11	Design Type	Conventional, bellows, Pilot Op.	Bellows				
	12	Bonnet Type	•	Closed				
	13	Fluid	State	GAS		Singel I	Phase	
	14	Required Capacity			174.5		kg/h	
	15	Molecular Mass	Sp. Gr.@ relief Tmp	18.02 kg/kmol		(0.62	kg/m3
	16	Oper. Pressure	Set Pressure		4.90	9	bar-g	
	17	Oper. Temperature	RelievingTemp.	36.78	1	182.6		
	18		Constant		-		bar-g	
		Back Pressure	Variable		3.2		bar-g	
PROCESS CONDITIONS	20		Total		3.2		bar-g	
		% Allowable Overpressure				21%		
		Over Pressure Factor				1.21		
1		Compressibility Factor(Z)				0.975		
		Latent Heat of Vaporization				1994.0		
		Ratio of Specific Heats(Cp/		0.40		1.25		
		Density @ flowing tempratu	ıre	6.46 0.012	kg/m3			
		Operating Viscosity Barometric Pressure		13.26 ~ 14.37	cP			
		Design Code	Sizing Basis	API 520	psia			
		Construction Code	Sizing Basis	AF1 520		API 520	-	
		Fire				NO NO		
SELECTION		Basis of Selection				FIRE		
	33	Calculated Area	MM²			28.75(VTC)		
		Required Area	MM ²			153.9 (VTC)		
	-	Orifice Designation				D (VTC)		
		Size: Inlet	Outlet	1" in		2	" in	
CONNECTIONS		Rating & Facing :In	Outlet		ANGED RF		#150 FLAN	GED RF
		Body and Bonnet		ASTM A216 GR. WCE	3			
•		Seat and Disc		SS316+PTFE				
	40	Nozzle		316SS				
MATERIALS (VTC)	41	Guide and Rings		VTA				· ·
	42	Spring		ASTM A216 GR. WCE	3 (VTC) (Note2)			
	43	Bellows		SS316+PTFE (VTC)				
	44							
		Com. Consumed on Dolford		Screwed				
		45 Cap: Screwed or Bolted		N/A				
	46	Lever: Plain or Packed						
	46 47	Lever: Plain or Packed Test Gage		Yes				
OPTIONS	46 47 48	Lever: Plain or Packed Test Gage With Rupture Disc		Yes No				
OPTIONS	46 47 48 49	Lever: Plain or Packed Test Gage With Rupture Disc Hydro Test		Yes No Required				
OPTIONS	46 47 48 49 50	Lever: Plain or Packed Test Gage With Rupture Disc Hydro Test Seat Leakage Test		Yes No Required Required				
OPTIONS	46 47 48 49 50 51	Lever: Plain or Packed Test Gage With Rupture Disc Hydro Test Seat Leakage Test Compliance Standard		Yes No Required Required N/A				
OPTIONS PURCHASE (will be finalized	46 47 48 49 50 51	Lever: Plain or Packed Test Gage With Rupture Disc Hydro Test Seat Leakage Test		Yes No Required Required				

VTA: Vendor to Advise in bidding stage

VTC : Vendor to confirm in bidding stage N/A: Not applicable

- 1- For material details refer to "Piping Material Specification Doc No." BK-GCS-PEDCO-120-PI-SP-0001-D02".
- 2- Suitable coating such as cadmiun plated shall be considered (vendor to advise)

Chrome Plated is recommended. H.R. as per previous pages.



رگت قبد پترواریا^ن





NISOC

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک

DATA SHEETS FOR PRESSURE & SAFETY RELIEF VALVES تسهيلات صادر كننده بسته كارى وع مدر ک رشته نسخه شماره پیمان: پروژه سريال D02 •0T - •YT - 91AF BK GCS PEDCO 120 IN DT 0009

شماره صفحه: ۳۲ از ۳۳

			PRESSURE SAFETY	/ VALVE				
	1		PRESSURE SAFETY	VALVE		/-2293 D02		
	1	Tag Number						
	2	Service		GAS				
	3	Line No.	Vessel No.	TEG-111-0113-AN04-2"-PT	-			
GENERAL	4	Pipe Class / C.A.	P&ID No.	AN04 / 3mm	BK-	GCS-PEDCO-120-PR-PI-0025_D06		
	5	Discharge to		To FLARE				
		Protect Equipment		-				
	7	Area Clacification		Zone 2, IIB T4				
	8	NACE MR0175/ISO 15156 Compliance		Yes				
	9	Nozzle (Full, Semi)		Full Nozzle, Spring Loaded	Туре			
	10		Safety, Relief, Safety-Relief	Safety				
BASIS	-	Design Type	Conventional, bellows, Pilot					
	11		Op.	Conventional				
	12	Bonnet Type	Op.	Closed				
		Fluid	State	GAS		Singel Phase		
		Required Capacity		20	kg/h			
		Molecular Mass	Sp. Gr.@ relief Tmp	143.6 kg/kmol		4.95 kg/m3		
		Oper. Pressure	Set Pressure	0.10)	3.5 bar-g		
	17	Oper. Temperature	RelievingTemp.	AMB	/	335.9 °C		
	18	Open remperature	Constant	7 11112	<u>-</u>	bar-q		
		Back Pressure	Variable		0.1	bar-g		
	20	Back Flessure	Total		0.1	bar-g		
PROCESS CONDITIONS		% Allowable Overpressure	lotai			1%		
	22	•		1.21				
				0.646				
				314.3				
		, ., .,		1.08				
		Density @ flowing temprature Operating Viscosity		5				
				0.010 cP 13.26 ~ 14.37 psia				
			Sining Books	API 520	ISIA			
		ŭ ŭ		API 520	A.D.	-		
	30	Construction Code Fire		API 520 NO				
SELECTION	31							
SELECTION	_			FIRE				
	33			275(VTC)				
				397.6 (VTC) G (VTC)				
			Outlet	4.4/0" :	G (
CONNECTIONS	36	Size: Inlet Outlet		1 1/2" in	ED BE	3" in		
		Rating & Facing :In Outlet Body and Bonnet		#300 FLANGED RF #150 FLANGED RF				
		,		ASTM A105				
	39	Nozzle		SS316+PTFE				
MATERIALS (VTC)	40	Guide and Rings		316 SS				
IVIA I ERIALS (VIC)	41	-		VTA				
	42 43	Spring Bellows		ASTM A216 GR. WCB (VTC) (Note2)				
	43	Deliows		N/A				
	44	Can: Carawad at Baltad		0				
	44 45	Cap: Screwed or Bolted		Screwed				
	44 45 46	Lever: Plain or Packed		N/A				
OPTIONS	44 45 46 47	Lever: Plain or Packed Test Gage		N/A Yes				
OPTIONS	44 45 46 47 48	Lever: Plain or Packed Test Gage With Rupture Disc		N/A Yes No				
OPTIONS	44 45 46 47 48 49	Lever: Plain or Packed Test Gage With Rupture Disc Hydro Test		N/A Yes No Required				
OPTIONS	44 45 46 47 48 49 50	Lever: Plain or Packed Test Gage With Rupture Disc Hydro Test Seat Leakage Test		N/A Yes No Required Required				
OPTIONS	44 45 46 47 48 49 50	Lever: Plain or Packed Test Gage With Rupture Disc Hydro Test Seat Leakage Test Compliance Standard		N/A Yes No Required Required N/A				
	44 45 46 47 48 49 50 51	Lever: Plain or Packed Test Gage With Rupture Disc Hydro Test Seat Leakage Test Compliance Standard Manufacturer		N/A Yes No Required Required N/A Will Be Finalized Later				
OPTIONS PURCHASE (will be finalized later)	44 45 46 47 48 49 50 51 52	Lever: Plain or Packed Test Gage With Rupture Disc Hydro Test Seat Leakage Test Compliance Standard		N/A Yes No Required Required N/A				

Notes:

VTA : Vendor to Advise in bidding stage

VTC : Vendor to confirm in bidding stage N/A: Not applicable

- 1- For material details refer to "Piping Material Specification Doc No." BK-GCS-PEDCO-120-PI-SP-0001-D02 ".
- 2- Suitable coating such as cadmiun plated shall be considered (vendor to advise)

Chrome Plated is recommended.



ر شرکت تومه پترواریا^ن





NISOC

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک

DATA SHEETS FOR PRESSURE & SAFETY RELIEF VALVES تسهیلات صادر کننده بسته کاری شماره پیمان: فوع مدرك رشته نسخه پروژه سريال BK D02 ۹۱۸۴ - ۲۷۰ - ۳۵۰ GCS PEDCO 120 IN DT 0009

شماره صفحه: ۳۳ از ۳۳

			TEMPERATURE SAFE	TY VALVE					
	1						TSV-2281	DO	02
GENERAL	2	Service		LIQUID					
	3	Line No. Vessel No.		DO-112-0005A-AN01-1"-PT -					
	4	Pipe Class / C.A.	P&ID No.	AN01 / 1mm			BK-GCS-PE	EDCO-120-PR-PI-0023 D06 (1 0	OF 3)
	5	Discharge to		To DIESEL OIL DRUM					
	6	Protect Equipment		-					
	7	Area Clacification		Zone 2, IIB	Γ4				
		NACE MR0175/ISO 15156 Compliance		NO					
	9	Nozzle (Full, Semi)	Full Nozzle, Spring Loaded Type						
BASIS	10	Design Type	Safety, Relief, Safety-Relief	Safety					
	11		Conventional, bellows, Pilot Op.	Conventiona	ıl				
	12			Closed					
	13	Fluid	State	LIQUID			9	Singel Phase	
	14	Required Capacity				39.537 (V.T.C)		kg/h	
	15	Molecular Mass	Sp. Gr.@ relief Tmp	1	184.4			0.85	
	16	Oper. Pressure	Set Pressure			0.10			
	17	Oper. Temperature	RelievingTemp.	4	AMB	/		VTA °C	
	18		Constant			-		bar-g	
	19	Back Pressure	Variable			0.0			
PROCESS CONDITIONS	20		Total			0.0		bar-g	
		% Allowable Overpressure					10%		
	22			110%					
							-		
		Latent Heat of Vaporization (Kj/Kg) Ratio of Specific Heats(Cp/Cv)					1.118		
	26			850.00					
	27	Operating Viscosity (cp)		2.143					
	28			13.26 ~ 14.37 psia					
		Design Code	Sizing Basis	-	3 14.0	polu	1.		
	30	Construction Code	[0.2g 2000				-		
	31								
SELECTION	32			Thermal Expansion					
	33	Calculated Area MM ²		0.00003					
	34	Required Area MM ²		0.0000709676 (V.T.C)					
	35	Orifice Designation					D	0.85 3.5 bar-g VTA °C bar-g bar-g bar-g	
CONNECTIONS		Size: Inlet	Outlet	3/4"	in				
COMILECTIONS	37	Rating & Facing :In	Outlet			FLANGED RF		#150 FLANGED RF	=
		Body and Bonnet		ASTM A105					
		Seat and Disc		SS316+PTFE					
MATERIAL C (VTC)	40			316 SS					
MATERIALS (VTC)	41			VTA					
	42	Spring Bellows		ASTM A216 GR. WCB (VTC) (Note2) N/A					
	44			N/A					
		45 Cap: Screwed or Bolted		Screwed					
OPTIONS	46	•		N/A					
	47			Yes					
	48	· · ·		No No					
	_	Hydro Test		Required					
	50			Required					
	51			N/A					
DUDOUAGE (will be fire !!	_	•			Will Be Finalized Later				
DUDCHASE (will be fire!!	52	Manufacturer		Will be Filla	IIZCU LU	.01			
PURCHASE (will be finalized later)	53	Model Serial No.		Will Be Fina					

Notes:

VTA : Vendor to Advise in bidding stage

VTC : Vendor to confirm in bidding stage N/A: Not applicable

- 1- For material details refer to "Piping Material Specification Doc No." BK-GCS-PEDCO-120-PI-SP-0001-D02 ".
- 2- Suitable coating such as cadeoiun plated shall be considered (vendor to advise)

Chrome Plated is recommended. H.R. as per previous pages.