طرح نگهداشت و افزایش تولید 27 مخزن

DATA SHEETS FOR PRESSURE / DIFF. PRESSURE TRANSMITTER

نگهداشت و افزایش تولید میدان نفتی بینک

D01	MAR.2023	IFA	P.Hajisadeghi	M.Fakharian	M.Mehrshad	
D00	APR.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-708925**

status:

IDC: Inter-Discipline Check

IFC: Issued For Comment

IFA: Issued For Approval

AFD: Approved For Design

AFC: Approved For Construction

AFP: Approved For Purchase

AFQ: Approved For Quotation

IFI: Issued For Information

AB-R: As-Built for CLIENT Review

AB-A: As-Built –Approved

REVISION RECORD SHEET

Page	D00	D01	D02	D03	D04
1	X	X			
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3	X	X			
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REFERENCE DOCUMENTS :

Specification For Instrumentation	BK-GNRAL-PEDCO-000-IN-SP-0001
Process Basis Of Design	BK-GNRAL-PEDCO-000-PR-DB-0001
Piping Material Specification	BK-GCS-PEDCO-120-PI-SP-0001
Hazardous Area Classification Layout	BK-GCS-PEDCO-120-SA-PY-0002
Instrument & Control System Design Criteria	BK-GCS-PEDCO-120-IN-DC-0002

D01

Symbol & Legend For PFD and P&ID	BK-GCS-PEDCO-120-PR-PI-0001
P&ID - Gas Compression Inlet Gas Pipeline (Binak)	BK-GCS-PEDCO-120-PR-PI-0002
P&ID - Gas Compression Inlet Gas Pipeline (Golkhari)	BK-GCS-PEDCO-120-PR-PI-0003
P&ID - Slug Catcher System	BK-GCS-PEDCO-120-PR-PI-0004
P&ID - Gas Compression Inlet Knock Out Drum	BK-GCS-PEDCO-120-PR-PI-0005
P&ID - 1st Stage Gas Compression Suction Drums	BK-GCS-PEDCO-120-PR-PI-0006
P&ID - 1st Stage Gas Compression Compressors	BK-GCS-PEDCO-120-PR-PI-0007
P&ID - 1st Stage Gas Compression Air Coolers	BK-GCS-PEDCO-120-PR-PI-0008
P&ID - 2nd Stage Gas Compression Suction Drums	BK-GCS-PEDCO-120-PR-PI-0009
P&ID - 2nd Stage Gas Compression Compressors	BK-GCS-PEDCO-120-PR-PI-0010
P&ID - 2nd Stage Gas Compression Air Coolers	BK-GCS-PEDCO-120-PR-PI-0011
P&ID - 2nd Stage Gas Compression Discharge Drum	BK-GCS-PEDCO-120-PR-PI-0012
P&ID - Gas Compression Dehydration Package	BK-GCS-PEDCO-120-PR-PI-0013
P&ID - Lean Glycol Storage Tank	BK-GCS-PEDCO-120-PR-PI-0014
P&ID - Instrument & Plant Air System	BK-GCS-PEDCO-120-PR-PI-0015
P&ID - Nitrogen Generation System	BK-GCS-PEDCO-120-PR-PI-0016
P&ID - Close Drain System	BK-GCS-PEDCO-120-PR-PI-0017
P&ID - Corrosion Inhibitor Package	BK-GCS-PEDCO-120-PR-PI-0018
P&ID - Methanol Injection Package	BK-GCS-PEDCO-120-PR-PI-0019
P&ID - LP Flare System	BK-GCS-PEDCO-120-PR-PI-0020
P&ID - Oily Water Sewer	BK-GCS-PEDCO-120-PR-PI-0021
P&ID - Fuel Gas System	BK-GCS-PEDCO-120-PR-PI-0022
P&ID - Diesel Oil System	BK-GCS-PEDCO-120-PR-PI-0023
P&ID - Potable Water System	BK-GCS-PEDCO-120-PR-PI-0024
P&ID - Glycol Sump Drum	BK-GCS-PEDCO-120-PR-PI-0025
P&ID - Fire Water Network	BK-GCS-PEDCO-120-SA-PI-0001
P&ID - Total Flooding System For Extension of Existing Elect. Building	BK-GCS-PEDCO-120-SA-PI-0002

GENERAL NOTES:

1 - Zero and span adjustment shall be included and be accessible from outside in addition to Hand Held Communicator.

2 - Over range protection (at least 1.3 of full scale) shall be considered.

3 - 304 Stainless Steel name plate shall be supplied for all instruments specified in this document. Following details shall be engraved on them:

- **Tag Number**
- **Range Limit**
- **Manufacture Model**
- **Manufacturer's Name**
- **Serial Number**
- **Supply Voltage**
- **Output Signal**
- **Hazardous Area Certification**

4 - Painting shall be in accordance with manufacturer standard.

5 - VTA : Vendor To Advise

6 - N/A : Not Applicable

7 - Environmental condition for field instrumentation of Binak Oilfield shall be considered as per the followings:

Maximum ambient temperature: 50 (°C) (Note *)
Minimum ambient temperature: 5 (°C) (Note *)
Maximum steel surface exposed to sun: 85 (°C) (Note *)
Maximum summer dry bulb: 50 (°C) (Note *)
DB/RH for Summer HVAC Design: 41 °C / 61 % (Note **/ Note*)**
DB FOR Winter HVAC Design: 6 °C (Note **)

*** Refer to "Process Basis Of Design Doc No.: BK-GNRAL-PEDCO-000-PR-DB-0001".**
**** Refer to " HVAC Design Criteria; N.I.O.C. NO.: F-1-B-422001".**
***** Refer to "NISOC Meteorological Studies Report".**

Relative Humidity:

- **Maximum Design relative humidity (%): 100**
- **Minimum Design relative humidity (%): 0**

8 - Material Test Certificate and calibration Certificate for all transmitters to be submitted by Vendor.

9 - This Data Sheets Has Been Prepared As Per Below Standard :

- **IPS-M-IN-110 Material and equipment standard for pressure instruments**
- **IPS-E-IN-110 Engineering standard for pressure instruments**
- **IPS-C-IN-110 Construction standard for pressure instruments**

10 - Material Test Certificate and calibration Certificate for all transmitters to be submitted by Vendor.

11 - All PT/DPT shall meet the following Radio Frequency Immunity (RFI) requirements that shall be tested at the acceptance test stage. Basic reference standard is IEC 60801 (part 3) for design and manufacturing considerations.

12 - Tropicalization shall be applied to protect electrical circuits and electronic cards from being degraded by corrosion and/or fungus growth.

PRESSURE TRANSMITTER

GENERAL DATA	1	Tag No.			SEE NEXT PAGE	
	2	P&ID No.			SEE NEXT PAGE	
	3	Equipment No. / Line No.			SEE NEXT PAGE	
	4	Area Classification			ZONE 2, IIB T4	
	5	Piping Class			SEE NEXT PAGE	
OPERATING CONDITIONS	6	Fluid			SEE NEXT PAGE	
	7	Phase			SEE NEXT PAGE	
	8	Operating Pressure		(bar-g)	SEE NEXT PAGE	
	9	Design Pressure		(bar-g)	SEE NEXT PAGE	
	10	Operating Temperature		(°C)	SEE NEXT PAGE	
	11	Design Temperature		(°C)	SEE NEXT PAGE	
TRANSMITTER	12	Element Type		(NOTE 4)	SEE NEXT PAGE	
	13	Size of Process Connection			SEE NEXT PAGE	
	14	Rating of Process Connection			SEE NEXT PAGE	
	15	Element Material			SEE NEXT PAGE	
	16	Enclosure Material			Die cast aluminium	
	17	Instrument Range			SEE NEXT PAGE	
	18	Power Supply			24 VDC-Loop powered	
	19	Output Signal			4-20mA	
	20	Communication Protocol			SMART HART(4-20mA)	
	21	Electrical Connection			ISO M20 x 1.5	
	22	Electrical Certification			EEx "i"	
	23	Ingress Protection			IP-65 as minimum	
	24	Accuracy			0.1% F.S	
	25	Repeatability			+/- 0.1% or better	
	26	Span and Zero Adjustment			Required	
	27	Over Range Protection			Yes	
DIAPHRAGM SEAL	28	Type			N/A	
	29	Size (In)			N/A	
	30	Fill Fluid			N/A	
	31	Diaphragm Material			N/A	
	32	Capillary Material			N/A	
	33	Capillary Length			N/A	
OPTIONS	34	Integral Indicator	Display Unit		Required	Bar-g
	35	Mounting Brackets			Required, 2" Support Pipe (Note 3)	
	36	Manifold	Body Material		2 Way Block & Bleed Manifold	316 S.S.L
	37	Connection			1/2 " NPT (Note 2,5,7)	
	38	Manifold Model	Manifold Manufacturer		-	VTA
	39	Integral Indicator Style			LCD TYPE	
	40	NACE Requirements			SEE NEXT PAGE	
PURCHASING DATA	41	Model	Manufacturer		Will Be Finilized Later	Will Be Finilized Later
	42	Supplier	Order		Will Be Finilized Later	Will Be Finilized Later

NOTES : VTA : VENDOR TO ADVISE

1 : Wetted part shall be according to NACE MR0175/ISO 15156 as per list.
2 : All manifolds shall be suitable for connection to transmitter and process line.
3 : Mounting Yoke, U-bolt , Nuts and all accessories shall be supplied by vendor.
4 : Suitable element type to be confirmed by vendor.
5 : For manifold rating, refer to "Piping Material Specification Doc No.: BK-GCS-PEDCO-120-PI-SP-0001
6 : Burn out direction shall be capable to set.
7 : Instrument/Process connection to be as bellows:
- Process Connection:1/2" NPTF
- Instrument Connection: 1/2" NPTF
- Drain Connection: 1/4" NPTF

D01

PRESSURE TRANSMITTERS LIDT

Rev.	Item No.	Tag No.	SYSTEM	P&ID No.	Equipment No. / Line No.	Piping Class/ Rating	Manifold Rating	Fluid	Phase	Design Pressure (Barg)	Operating Pressure (Barg)	Design Temp. (°C)	Operating Temp. (°C)	Calibration Range (Barg) (Note 2)	Instrument Range (Barg) (Note 1)	Element Type	Element Material	Size of Process Connection / rate of process connection	Over Range protection (Note 2)	Manifold Requirement (Block & Bleed)	NACE	Model	Remark
D01	1	PIT-2102	DCS	BK-GCS-PEDCO-120-PR-PI-0002	GAS-111-0001-AN07-6"-PT	AN07 / 150#	6000#	PROCESS GAS	GAS	18.2	7.5	85	46.11/26.67	0-15	VTA	Diaphragm	SS 316L	1/2" NPT / 6000#	up to1.3 times design pressure	2 Way Manifold	YES	VTA	
D01	2	PIT-2104	DCS	BK-GCS-PEDCO-120-PR-PI-0003	GAS-111-0001-FN07-8"-PT	FN07 / 600#	9000#	PROCESS GAS	GAS	41.2	7.5	85	32/15.5	0-15	VTA	Diaphragm	SS 316L	1/2" NPT / 9000#	up to1.3 times design pressure	2 Way Manifold	YES	VTA	
D01	3	PIT-2111	ESD (NOTE 5)	BK-GCS-PEDCO-120-PR-PI-0004 (1 of 2)	GAS-111-0012-AN07-8"-PT	AN07 / 150#	6000#	PROCESS GAS	GAS	9	5.5	85	32/15.5	0-10	VTA	Diaphragm	SS 316L	1/2" NPT / 6000#	up to1.3 times design pressure	2 Way Manifold	YES	VTA	
D01	4	PIT-2112	DCS	BK-GCS-PEDCO-120-PR-PI-0004 (1 of 2)	V-2104	- / 150#	6000#	PROCESS GAS	GAS	9	5.5	85	32/15.5	0-10	VTA	Diaphragm	SS 316L	1/2" NPT / 6000#	up to1.3 times design pressure	2 Way Manifold	YES	VTA	
D01 Deleted		~~PIT-2113~~		~~BK-GCS-PEDCO-120-PR-PI-0004 (2 of 3)~~	~~V-2106~~	~~AN05 / 150#~~		~~PROCESS GAS~~	~~GAS~~	~~9~~	~~8.5~~	~~85~~	~~23.22/8.82~~	~~0-1~~	VTA	~~Diaphragm~~	~~SS 316L~~	~~1/2" NPT~~	~~up to1.3 times design pressure~~	~~2 Way Manifold~~	~~YES~~	~~VTA~~	
D01 Deleted		~~PIT-2113A~~		~~BK-GCS-PEDCO-120-PR-PI-0004 (3 of 3)~~	~~CDH-112-0010-AN05-4"-PT~~	~~AN05 / 150#~~		~~WATER+HYDROCARBON~~	~~LIQUID~~	~~4.76~~	~~1.26~~	~~85~~	~~23.22/8.82~~	~~0-3~~	VTA	~~Diaphragm~~	~~SS 316L~~	~~1/2" NPT~~	~~up to1.3 times design pressure~~	~~2 Way Manifold~~	~~YES~~	~~VTA~~	
D01	5	PIT-2214A	ESD (NOTE 5)	BK-GCS-PEDCO-120-PR-PI-0004 (2 of 2)	CDH-111-0010-AS00-4"-NP	AS00 / 150#	2000#	WATER+HYDROCARBON	LIQUID	9	5.5	85	23.22/8.82	0-10	VTA	Diaphragm	SS 316L	1/2" NPT / 2000#	up to1.3 times design pressure	2 Way Manifold	NO	VTA	
D01	6	PIT-2216A	ESD (NOTE 5)	BK-GCS-PEDCO-120-PR-PI-0004 (2 of 2)	CDH-112-0012-CN05-3"-PT	CN05 / 300#	3000#	WATER+HYDROCARBON	LIQUID	23.3	19.5	85	23.22/8.82	0-38	VTA	Diaphragm	SS 316L	1/2" NPT / 3000#	up to1.3 times design pressure	2 Way Manifold	YES	VTA	
D01	7	PIT-2114	DCS	BK-GCS-PEDCO-120-PR-PI-0004 (2 of 2)	CDH-112-0015-CN07-4"-PT	CN07 / 300#	3000#	WATER+HYDROCARBON	LIQUID	23.3	18.5	85	23.22/8.82	0-36	VTA	Diaphragm	SS 316L	1/2" NPT / 3000#	up to1.3 times design pressure	2 Way Manifold	YES	VTA	
D01	8	PIT-2115	ESD (NOTE 5)	BK-GCS-PEDCO-120-PR-PI-0004 (2 of 2)	CDH-112-0015-CN07-4"-PT	CN07 / 300#	3000#	WATER+HYDROCARBON	LIQUID	23.3	18.5	85	23.22/8.82	0-36	VTA	Diaphragm	SS 316L	1/2" NPT / 3000#	up to1.3 times design pressure	2 Way Manifold	YES	VTA	
D01 Deleted		~~PIT-2113B~~		~~BK-GCS-PEDCO-120-PR-PI-0004 (3 of 3)~~	~~CDH-112-0011-AN05-4"-PT~~	~~AN05 / 150#~~		~~WATER+HYDROCARBON~~	~~LIQUID~~	~~4.76~~	~~1.26~~	~~85~~	~~23.22/8.82~~	~~0-3~~	VTA	~~Diaphragm~~	~~SS 316L~~	~~1/2" NPT~~	~~up to1.3 times design pressure~~	~~2 Way Manifold~~	~~YES~~	~~VTA~~	
D01	9	PIT-2216B	ESD (NOTE 5)	BK-GCS-PEDCO-120-PR-PI-0004 (2 of 2)	CDH-112-0013-CN05-3"-PT	CN05 / 300#	3000#	WATER+HYDROCARBON	LIQUID	9	5.5	85	23.22/8.82	0-10	VTA	Diaphragm	SS 316L	1/2" NPT / 3000#	up to1.3 times design pressure	2 Way Manifold	YES	VTA	
D01	10	PIT-2214B	ESD (NOTE 5)	BK-GCS-PEDCO-120-PR-PI-0004 (2 of 2)	CDH-111-0011-AS00-4"-NP	AS00 / 150#	2000#	WATER+HYDROCARBON	LIQUID	23.3	19.5	85	23.22/8.82	0-38	VTA	Diaphragm	SS 316L	1/2" NPT / 2000#	up to1.3 times design pressure	2 Way Manifold	NO	VTA	
D01	11	PIT-2116	ESD (NOTE 5)	BK-GCS-PEDCO-120-PR-PI-0005	GAS-111-0005-AN07-10"-PT	AN07 / 150#	6000#	PROCESS GAS	GAS	9	5.3	85	37.17/19.23	0-10	VTA	Diaphragm	SS 316L	1/2" NPT / 6000#	up to1.3 times design pressure	2 Way Manifold	YES	VTA	
D01	12	PIT-2117	DCS	BK-GCS-PEDCO-120-PR-PI-0005	V-2105	- / 150#	6000#	PROCESS GAS	GAS	9	5.3	85	37.17/19.23	0-10	VTA	Diaphragm	SS 316L	1/2" NPT / 6000#	up to1.3 times design pressure	2 Way Manifold	YES	VTA	
D01	13	PIT-2121A	DCS	BK-GCS-PEDCO-120-PR-PI-0006 (1 of 3)	GAS-111-0031A-AN05-8"-ET	AN05 / 150#	2000#	PROCESS GAS	GAS	FV/9	4.9	85	36.78/18.88	0-9	VTA	Diaphragm	SS 316L	1/2" NPT / 2000#	up to1.3 times design pressure	2 Way Manifold	YES	VTA	
D01	14	PIT-2121B	DCS	BK-GCS-PEDCO-120-PR-PI-0006 (2 of 3)	GAS-111-0031B-AN05-8"-ET	AN05 / 150#	2000#	PROCESS GAS	GAS	FV/9	4.9	85	36.78/18.88	0-9	VTA	Diaphragm	SS 316L	1/2" NPT / 2000#	up to1.3 times design pressure	2 Way Manifold	YES	VTA	
D01	15	PIT-2121C	DCS	BK-GCS-PEDCO-120-PR-PI-0006 (3 of 3)	GAS-111-0031C-AN05-8"-ET	AN05 / 150#	2000#	PROCESS GAS	GAS	FV/9	4.9	85	36.78/18.88	0-9	VTA	Diaphragm	SS 316L	1/2" NPT / 2000#	up to1.3 times design pressure	2 Way Manifold	YES	VTA	
D01	16	PIT-2122A	ESD (NOTE 5)	BK-GCS-PEDCO-120-PR-PI-0007 (1 of 3)	GAS-111-0031A-AN05-8"-ET	AN05 / 150#	2000#	PROCESS GAS	GAS	FV/9	4.9	85	36.78/18.88	0-9	VTA	Diaphragm	SS 316L	1/2" NPT / 2000#	up to1.3 times design pressure	2 Way Manifold	YES	VTA	
D01	17	PIT-2125A	ESD (NOTE 5)	BK-GCS-PEDCO-120-PR-PI-0007 (1 of 3)	GAS-111-0036A-CN05-6"-NP	CN05 / 300#	3000#	PROCESS GAS	GAS	22	19	155	124.8/113.1	0-38	VTA	Diaphragm	SS 316L	1/2" NPT / 3000#	up to1.3 times design pressure	2 Way Manifold	YES	VTA	
D01	18	PIT-2122B	ESD (NOTE 5)	BK-GCS-PEDCO-120-PR-PI-0007 (2 of 3)	GAS-111-0031B-AN05-8"-ET	AN05 / 150#	2000#	PROCESS GAS	GAS	FV/9	4.9	85	36.78/18.88	0-9	VTA	Diaphragm	SS 316L	1/2" NPT / 2000#	up to1.3 times design pressure	2 Way Manifold	YES	VTA	
D01	19	PIT-2125B	ESD (NOTE 5)	BK-GCS-PEDCO-120-PR-PI-0007 (2 of 3)	GAS-111-0036B-CN05-6"-NP	CN05 / 300#	3000#	PROCESS GAS	GAS	22	19	155	124.8/113.1	0-38	VTA	Diaphragm	SS 316L	1/2" NPT / 3000#	up to1.3 times design pressure	2 Way Manifold	YES	VTA	
D01	20	PIT-2122C	ESD (NOTE 5)	BK-GCS-PEDCO-120-PR-PI-0007 (3 of 3)	GAS-111-0031C-AN05-8"-ET	AN05 / 150#	2000#	PROCESS GAS	GAS	FV/9	4.9	85	36.78/18.88	0-9	VTA	Diaphragm	SS 316L	1/2" NPT / 2000#	up to1.3 times design pressure	2 Way Manifold	YES	VTA	
D01	21	PIT-2125C	ESD (NOTE 5)	BK-GCS-PEDCO-120-PR-PI-0007 (3 of 3)	GAS-111-0036C-CN05-6"-NP	CN05 / 300#	3000#	PROCESS GAS	GAS	22	19	155	124.8/113.1	0-38	VTA	Diaphragm	SS 316L	1/2" NPT / 3000#	up to1.3 times design pressure	2 Way Manifold	YES	VTA	
D01	22	PIT-2131A	ESD (NOTE 5)	BK-GCS-PEDCO-120-PR-PI-0010 (1 of 3)	GAS-111-0044A-CN05-6"-ET	CN05 / 300#	3000#	PROCESS GAS	GAS	FV/22	18.1	115.4	59.88	0-36	VTA	Diaphragm	SS 316L	1/2" NPT / 3000#	up to1.3 times design pressure	2 Way Manifold	YES	VTA	
D01	23	PIT-2134A	ESD (NOTE 5)	BK-GCS-PEDCO-120-PR-PI-0010 (1 of 3)	GAS-111-0051A-FN05-6"-IS	FN05 / 600#	6000#	PROCESS GAS	GAS	62	54.8	175	142.3/149.5	0-100	VTA	Diaphragm	SS 316L	1/2" NPT / 6000#	up to1.3 times design pressure	2 Way Manifold	YES	VTA	
D01	24	PIT-2131B	ESD (NOTE 5)	BK-GCS-PEDCO-120-PR-PI-0010 (2 of 3)	GAS-111-0044B-CN05-6"-ET	CN05 / 300#	3000#	PROCESS GAS	GAS	FV/22	18.1	115.4	59.88	0-36	VTA	Diaphragm	SS 316L	1/2" NPT / 3000#	up to1.3 times design pressure	2 Way Manifold	YES	VTA	
D01	25	PIT-2134B	ESD (NOTE 5)	BK-GCS-PEDCO-120-PR-PI-0010 (2 of 3)	GAS-111-0051B-FN05-6"-IS	FN05 / 600#	6000#	PROCESS GAS	GAS	62	54.8	175	142.3/149.5	0-100	VTA	Diaphragm	SS 316L	1/2" NPT / 6000#	up to1.3 times design pressure	2 Way Manifold	YES	VTA	
D01	26	PIT-2131C	ESD (NOTE 5)	BK-GCS-PEDCO-120-PR-PI-0010 (3 of 3)	GAS-111-0044C-CN05-6"-ET	CN05 / 300#	3000#	PROCESS GAS	GAS	FV/22	18.1	115.4	142.3/149.5	0-36	VTA	Diaphragm	SS 316L	1/2" NPT / 3000#	up to1.3 times design pressure	2 Way Manifold	YES	VTA	
D01	27	PIT-2134C	ESD (NOTE 5)	BK-GCS-PEDCO-120-PR-PI-0010 (3 of 3)	GAS-111-0051C-FN05-6"-IS	FN05 / 600#	6000#	PROCESS GAS	GAS	62	54.8	175	142.3/149.5	0-100	VTA	Diaphragm	SS 316L	1/2" NPT / 6000#	up to1.3 times design pressure	2 Way Manifold	YES	VTA	
D01	28	PIT-2135A	DCS	BK-GCS-PEDCO-120-PR-PI-0011 (1 of 3)	GAS-111-0057A-FS00-4"-NP	FS00 / 600#	3000#	PROCESS GAS	GAS	62	54.1	175	60	0-100	VTA	Diaphragm	SS 316L	1/2" NPT / 3000#	up to1.3 times design pressure	2 Way Manifold	NO	VTA	
D01	29	PIT-2135B	DCS	BK-GCS-PEDCO-120-PR-PI-0011 (2 of 3)	GAS-111-0057B-FS00-4"-NP	FS00 / 600#	3000#	PROCESS GAS	GAS	62	54.1	175	60	0-100	VTA	Diaphragm	SS 316L	1/2" NPT / 3000#	up to1.3 times design pressure	2 Way Manifold	NO	VTA	
D01	30	PIT-2135C	DCS	BK-GCS-PEDCO-120-PR-PI-0011 (3 of 3)	GAS-111-0057C-FS00-4"-NP	FS00 / 600#	3000#	PROCESS GAS	GAS	62	54.1	175	60	0-100	VTA	Diaphragm	SS 316L	1/2" NPT / 3000#	up to1.3 times design pressure	2 Way Manifold	NO	VTA	
D01	31	PIT-2151	DCS	BK-GCS-PEDCO-120-PR-PI-0013 (1 of 3)	GAS-111-0072-FN05-6"-PT	FN05 / 600#	6000#	PROCESS GAS	GAS	62	50.92	90	58.27/57.74	0-100	VTA	Diaphragm	SS 316L	1/2" NPT / 6000#	up to1.3 times design pressure	2 Way Manifold	YES	VTA	
D01	32	PIT-2161	DCS	BK-GCS-PEDCO-120-PR-PI-0014	TK-2102	- / 150#	2000#	LEAN GLYCOL	LIQUID	ATM+FULL OF WATER+160mbarg/-7mbarg	0.1	85	AMB	0-0.2	VTA	Diaphragm	SS 316L	1/2" NPT / 2000#	up to1.3 times design pressure	2 Way Manifold	NO	VTA	

D01

D01	33	PIT-2202	ESD (NOTE 5)	BK-GCS-PEDCO-120-PR-PI-0015 (1 of 2)	PLA-112-0010-AN04-1 1/2"-PT	AN04 / 150#	2000#	PLANT AIR	GAS	12.5	9	90	65	0-18	VTA	Diaphragm	SS 316L	1/2" NPT / 2000#	up to1.3 times design pressure	2 Way Manifold	NO	VTA	
D01	34	PIT-2201	DCS	BK-GCS-PEDCO-120-PR-PI-0015 (1 of 2)	PLA-112-0010-AN04-1 1/2"-PT	AN04 / 150#	2000#	PLANT AIR	GAS	12.5	9	90	65	0-18	VTA	Diaphragm	SS 316L	1/2" NPT / 2000#	up to1.3 times design pressure	2 Way Manifold	NO	VTA	
D01	35	PIT-2203	DCS	BK-GCS-PEDCO-120-PR-PI-0015 (2 of 2)	ISA-112-0012-AZ00-2"-NP	AZ00 / 150#	2000#	INSTRUMENT AIR	GAS	12.5	8	85	65	0-16	VTA	Diaphragm	SS 316L	1/2" NPT / 2000#	up to1.3 times design pressure	2 Way Manifold	NO	VTA	
D01	36	PIT-2201A	ESD (NOTE 5)	BK-GCS-PEDCO-120-PR-PI-0015 (2 of 2)	ISA-112-0012-AZ00-2"-NP	AZ00 / 150#	2000#	INSTRUMENT AIR	GAS	12.5	8	90	65	0-16	VTA	Diaphragm	SS 316L	1/2" NPT / 2000#	up to1.3 times design pressure	2 Way Manifold	NO	VTA	
D01	37	PIT-2201B	ESD (NOTE 5)	BK-GCS-PEDCO-120-PR-PI-0015 (2 of 2)	ISA-112-0012-AZ00-2"-NP	AZ00 / 150#	2000#	INSTRUMENT AIR	GAS	12.5	8	90	65	0-16	VTA	Diaphragm	SS 316L	1/2" NPT / 2000#	up to1.3 times design pressure	2 Way Manifold	NO	VTA	
D01	38	PIT-2201C	ESD (NOTE 5)	BK-GCS-PEDCO-120-PR-PI-0015 (2 of 2)	ISA-112-0012-AZ00-2"-NP	AZ00 / 150#	2000#	INSTRUMENT AIR	GAS	12.5	8	90	65	0-16	VTA	Diaphragm	SS 316L	1/2" NPT / 2000#	up to1.3 times design pressure	2 Way Manifold	NO	VTA	
D01	39	PIT-2213	DCS	BK-GCS-PEDCO-120-PR-PI-0016	NIT-112-0021-AN01-2"-PT	AN01 / 150#	2000#	NITROGEN RECEIVER	GAS	12.5	7.5	85	60	0-15	VTA	Diaphragm	SS 316L	1/2" NPT / 2000#	up to1.3 times design pressure	2 Way Manifold	NO	VTA	
D01	40	PIT-2214	DCS	BK-GCS-PEDCO-120-PR-PI-0016	NIT-112-0021-AN01-2"-PT	AN01 / 150#	2000#	NITROGEN RECEIVER	GAS	12.5	7.5	85	60	0-15	VTA	Diaphragm	SS 316L	1/2" NPT / 2000#	up to1.3 times design pressure	2 Way Manifold	NO	VTA	
D01	41	PIT-2211	ESD (NOTE 5)	BK-GCS-PEDCO-120-PR-PI-0016	NIT-112-0024-AN01-2"-PT	AN01 / 150#	2000#	NITROGEN RECEIVER	GAS	12.5	7.5	85	60	0-15	VTA	Diaphragm	SS 316L	1/2" NPT / 2000#	up to1.3 times design pressure	2 Way Manifold	NO	VTA	
~~D01 Deleted~~		~~PIT-2211B~~		~~BK-GCS-PEDCO-120-PR-PI-0016~~	~~NIT-112-0021-AN01-2"-PT~~	~~AN01 / 150#~~		~~NITROGEN RECEIVER~~	~~GAS~~	~~12.5~~	~~8~~	~~85~~	~~60~~	~~0-15~~	VTA	~~Diaphragm~~	~~SS 316L~~	~~1/2" NPT~~	~~up to1.3 times design pressure~~	~~2 Way Manifold~~	~~NO~~	~~VTA~~	
~~D01 Deleted~~		~~PIT-2211C~~		~~BK-GCS-PEDCO-120-PR-PI-0016~~	~~NIT-112-0021-AN01-2"-PT~~	~~AN01 / 150#~~		~~NITROGEN RECEIVER~~	~~GAS~~	~~12.5~~	~~8~~	~~85~~	~~60~~	~~0-15~~	VTA	~~Diaphragm~~	~~SS 316L~~	~~1/2" NPT~~	~~up to1.3 times design pressure~~	~~2 Way Manifold~~	~~NO~~	~~VTA~~	
D01	42	PIT-2222A	ESD (NOTE 5)	BK-GCS-PEDCO-120-PR-PI-0017 (2 of 2)	CDH-112-0032-AN07-2"-PT	AN07 / 150#	6000#	CLOSED DRAIN	LIQUID	14.5	0.8	85	5	0-1.6	VTA	Diaphragm	SS 316L	1/2" NPT / 6000#	up to1.3 times design pressure	2 Way Manifold	YES	VTA	
D01	43	PIT-2222B	ESD (NOTE 5)	BK-GCS-PEDCO-120-PR-PI-0017 (2 of 2)	CDH-112-0033-AN07-2"-PT	AN07 / 150#	6000#	CLOSED DRAIN	LIQUID	14.5	0.8	85	5	0-1.6	VTA	Diaphragm	SS 316L	1/2" NPT / 6000#	up to1.3 times design pressure	2 Way Manifold	YES	VTA	
D01	44	PIT-2252	DCS	BK-GCS-PEDCO-120-PR-PI-0020 (2 of 3)	FL-112-0004-AN07-10"-PT	AN07 / 150#	6000#	FLARE GAS	GAS	F.V/7.5	0.5	85	32	0-1	VTA	Diaphragm	SS 316L	1/2" NPT / 6000#	up to1.3 times design pressure	2 Way Manifold	YES	VTA	
D01	45	PIT-2251A	ESD (NOTE 5)	BK-GCS-PEDCO-120-PR-PI-0020 (2 of 3)	CDH-112-0038-AN07-2"-PT	AN07 / 150#	6000#	FLARE PUMP	LIQUID	9	0.6	85	5	0-1.2	VTA	Diaphragm	SS 316L	1/2" NPT / 6000#	up to1.3 times design pressure	2 Way Manifold	YES	VTA	
D01	46	PIT-2251B	ESD (NOTE 5)	BK-GCS-PEDCO-120-PR-PI-0020 (2 of 3)	CDH-112-0036-AN07-2"-PT	AN07 / 150#	6000#	FLARE PUMP	LIQUID	9	0.6	85	5	0-1.2	VTA	Diaphragm	SS 316L	1/2" NPT / 6000#	up to1.3 times design pressure	2 Way Manifold	YES	VTA	
D01	47	PIT-2272	DCS	BK-GCS-PEDCO-120-PR-PI-0022	FLG-112-0006-AN07-3"-PT	AN07 / 150#	6000#	FUEL GAS	GAS	F.V/9	4.9	85	36.7	0-9	VTA	Diaphragm	SS 316L	1/2" NPT / 6000#	up to1.3 times design pressure	2 Way Manifold	YES	VTA	
D01	48	PIT-2271	DCS	BK-GCS-PEDCO-120-PR-PI-0022	FLG-112-0106-AN07-2"-PT	AN07 / 150#	6000#	FUEL GAS	GAS	F.V/9	4.9	85	36.7	0-9	VTA	Diaphragm	SS 316L	1/2" NPT / 6000#	up to1.3 times design pressure	2 Way Manifold	YES	VTA	
~~D01 Deleted~~		~~PIT-2281~~		~~BK-GCS-PEDCO-120-PR-PI-0023~~	~~DO-112-0007-AN01-2"-PT~~	~~AN01 / 150#~~		~~DIESEL OIL~~	~~GAS~~	~~2.5~~	~~0.2~~	~~85~~	~~AMB~~	~~0-0.5~~	VTA	~~Diaphragm~~	~~SS 316L~~	~~1/2" NPT~~	~~up to1.3 times design pressure~~	~~2 Way Manifold~~	~~NO~~	~~VTA~~	
D01	49	PIT-2191	DCS	BK-GCS-PEDCO-120-PR-PI-0025	V-2107	- / 150#	2000#	GLYCOL SUMP DRUM	LIQUID	F.V/3.5	0.1	85	AMB	0-0.2	VTA	Diaphragm	SS 316L	1/2" NPT / 2000#	up to1.3 times design pressure	2 Way Manifold	NO	VTA	

NOTE:

1- Instrument range shall be finalized by vendor.

2- Pressure limit valve to be considered by vendor (as per project specification and related standards due to vendor selected instrument range)

3- Existing data to be submitted /confirmed by client.

4- For manifold rating (treaded connection), bolt & gasket material refer to "Piping Material Specification DOC No.: BK-GCS-PEDCO-120-PI-SP-0001

5- Transmitters shall be of the smart transmitter type with HART communication protocol, except those connected to the ESD/HIPPS/FGS system that will be preferably of conventional electronic type. If smart type transmitters are selected for ESD applicatio they shall be configured as "write protected".

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DIFF. PRESSURE TRANSMITTER						
GENERAL DATA	1	Tag No.			SEE NEXT PAGE	
	2	P&ID No.			SEE NEXT PAGE	
	3	Equipment No. / Line No.			SEE NEXT PAGE	
	4	Area Classification			ZONE 2, IIB T4	
	5	Piping Class			SEE NEXT PAGE	
OPERATING CONDITIONS	6	Fluid			SEE NEXT PAGE	
	7	Phase			SEE NEXT PAGE	
	8	Operating Pressure		(bar-g)	SEE NEXT PAGE	
	9	Design Pressure		(bar-g)	SEE NEXT PAGE	
	10	Operating Temperature		(°C)	SEE NEXT PAGE	
	11	Design Temperature		(°C)	SEE NEXT PAGE	
TRANSMITTER	12	Element Type		(NOTE 4)	SEE NEXT PAGE	
	13	Size of Process Connection			SEE NEXT PAGE	
	14	Rating of Process Connection			SEE NEXT PAGE	
	15	Element Material			SEE NEXT PAGE	
	16	Enclosure Material			Die cast aluminium	
	17	Instrument Range			SEE NEXT PAGE	
	18	Power Supply			24 VDC-Loop powered	
	19	Output Signal			4-20mA	
	20	Communication Protocol			SMART HART(4-20mA)	
	21	Electrical Connection			ISO M20 x 1.5	
	22	Electrical Certification			EEx "i"	
	23	Ingress Protection			IP-65 as minimum	
	24	Accuracy			0.1% F.S	
	25	Repeatability			+/- 0.1% or better	
	26	Span and Zero Adjustment			Required	
	27	Over Range Protection			Yes	
DIAPHRAGM SEAL	28	Type			N/A	
	29	Size (In)			N/A	
	30	Fill Fluid			N/A	
	31	Diaphragm Material			N/A	
	32	Capillary Material			N/A	
	33	Capillary Length			N/A	
OPTIONS	34	Integral Indicator	Display Unit		Required	Bar-g
	35	Mounting Brackets			Required, 2" Support Pipe (Note 3)	
	36	Manifold	Body Material		5 Way Block & Bleed Manifold	316 S.S.L
	37	Connection			1/2 " NPT (Note 2,5,7)	
	38	Manifold Model	Manifold Manufacturer		-	VTA
	39	Integral Indicator Style			LCD TYPE	
	40	NACE Requirements			SEE NEXT PAGE	
PURCHASING DATA	41	Model	Manufacturer		Will Be Finilized Later	Will Be Finilized Later
	42	Supplier	Order		Will Be Finilized Later	Will Be Finilized Later

NOTES : VTA : VENDOR TO ADVISE

1 : Wetted part shall be according to NACE MR0175/ISO 15156 as per list.
2 : All manifolds shall be suitable for connection to transmitter and process line.
3 : Mounting Yoke, U-bolt , Nuts and all accessories shall be supplied by vendor.
4 : Suitable element type to be confirmed by vendor.
5 : For manifold rating, refer to "Piping Material Specification Doc No.: BK-GCS-PEDCO-120-PI-SP-0001
6 : Burn out direction shall be capable to set.
7 : Instrument/Process connection to be as bellows:
- Process Connection:1/2" NPTF
- Instrument Connection: 1/2" NPTF
- Drain Connection: 1/4" NPTF

NISOC

نگهداشت و افزایش تولید میدان نفتی بینک
سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک

DATA SHEETS FOR PRESSURE / DIFF. PRESSURE TRANSMITTER

شماره پیمان	پروژه	بسته کاری	سازنده		تجهیزات	رشته	نوع مدرک	سریال		نسخه
053 - 073 – 9184	BK	GCS	PEDCO		120	IN	DT	0004		D01

D01

DIFF. PRESSURE TRANSMITTERS LIST

Rev.	Item No.	Tag No.	SYSTEM	P&ID No.	Equipment No. / Line No.	Piping Class/ Rating	Manifold Rating	Fluid	Phase	Design Pressure (Bar-g)	Operating Pressure (Bar-g)	Design Temp. (°C)	Operating Temp. (°C)	Calibration Range (Barg) (Note 2)	Instrument Range (Barg) (Note 1)	Element Type	Element Material	Size of Process Connection / rate of process connection	Over Range Protection (Note 2)	Manifold Requirement (Block & Bleed)	NACE	Model	Remark
D01	1	PDIT-2111	DCS	BK-GCS-PEDCO-120-PR-PI-0004 (1 of 2)	GAS-111-0019-AN07-8"-PT	AN07 / 150#	300#	SLUG CATCHER	GAS	FV/9	5.3	85	31.86/15.35	0-10	VTA	Diaphragm	SS 316L	1/2" NPT / 6000#	up to1.3 times design pressure	5-Way Valve (1/2"NPTFx1/2"NPTF)	YES	VTA	
D01	2	PDIT-2112	DCS	BK-GCS-PEDCO-120-PR-PI-0005	V-2105	- / 150#	300#	PROCESS GAS	GAS	FV/9	5.1	85	36.92	0-10	VTA	Diaphragm	SS 316L	1/2" NPT / 6000#	up to1.3 times design pressure	5-Way Valve (1/2"NPTFx1/2"NPTF)	YES	VTA	
D01	3	PDIT-2121A	DCS	BK-GCS-PEDCO-120-PR-PI-0006 (1 of 3)	V-2101-A	- / 150#	300#	PROCESS GAS	GAS	FV/9	4.9	85	36.78/18.88	0-9	VTA	Diaphragm	SS 316L	1/2" NPT / 6000#	up to1.3 times design pressure	5-Way Valve (1/2"NPTFx1/2"NPTF)	YES	VTA	
D01	4	PDIT-2121B	DCS	BK-GCS-PEDCO-120-PR-PI-0006 (2 of 3)	V-2101-B	- / 150#	300#	PROCESS GAS	GAS	FV/9	4.9	85	36.78/18.88	0-9	VTA	Diaphragm	SS 316L	1/2" NPT / 6000#	up to1.3 times design pressure	5-Way Valve (1/2"NPTFx1/2"NPTF)	YES	VTA	
D01	5	PDIT-2121C	DCS	BK-GCS-PEDCO-120-PR-PI-0006 (3 of 3)	V-2101-C	- / 150#	300#	PROCESS GAS	GAS	FV/9	4.9	85	36.78/18.88	0-9	VTA	Diaphragm	SS 316L	1/2" NPT / 6000#	up to1.3 times design pressure	5-Way Valve (1/2"NPTFx1/2"NPTF)	YES	VTA	
D01	6	PDIT-2131A	DCS	BK-GCS-PEDCO-120-PR-PI-0009 (1 of 3)	V-2102-A	- / 300#	300#	PROCESS GAS	GAS	FV/22	18.1	115.5	60	0-36	VTA	Diaphragm	SS 316L	1/2" NPT / 3000#	up to1.3 times design pressure	5-Way Valve (1/2"NPTFx1/2"NPTF)	YES	VTA	
D01	7	PDIT-2131B	DCS	BK-GCS-PEDCO-120-PR-PI-0009 (2 of 3)	V-2102-B	- / 300#	300#	PROCESS GAS	GAS	FV/22	18.1	115.5	60	0-36	VTA	Diaphragm	SS 316L	1/2" NPT / 3000#	up to1.3 times design pressure	5-Way Valve (1/2"NPTFx1/2"NPTF)	YES	VTA	
D01	8	PDIT-2131C	DCS	BK-GCS-PEDCO-120-PR-PI-0009 (3 of 3)	V-2102-C	- / 300#	300#	PROCESS GAS	GAS	FV/22	18.1	115.5	60	0-36	VTA	Diaphragm	SS 316L	1/2" NPT / 3000#	up to1.3 times design pressure	5-Way Valve (1/2"NPTFx1/2"NPTF)	YES	VTA	
D01	9	PDIT-2143	DCS	BK-GCS-PEDCO-120-PR-PI-0012	GAS-111-0366-FN05-6"-PT	FN05 / 600#	600#	PROCESS GAS	GAS	FV/62	53.9	130	59.89	0-100	VTA	Diaphragm	SS 316L	1/2" NPT / 6000#	up to1.3 times design pressure	5-Way Valve (1/2"NPTFx1/2"NPTF)	YES	VTA	
D01	10	PDIT-2141	DCS	BK-GCS-PEDCO-120-PR-PI-0012	V-2103	- / 600#	6000#	PROCESS GAS	GAS	FV/62	53.9	130	59.89	0-100	VTA	Diaphragm	SS 316L	1/2" NPT / 6000#	up to1.3 times design pressure	5-Way Valve (1/2"NPTFx1/2"NPTF)	YES	VTA	

NOTE:

1- Instrument range shall be finalized by vendor.

2- Pressure limit valve to be considered by vendor (as per project specification and related standards due to vendor selected instrument range)

3- Existing data to be submitted /confirmed by client.

4- For manifold rating (treaded connection), bolt & gasket material refer to "Piping Material Specification DOC No.: BK-GCS-PEDCO-120-PI-SP-0001

5- Transmitters shall be of the smart transmitter type with HART communication protocol, except those connected to the ESD/HIPPS/FGS system that will be preferably of conventional electronic type. If smart type transmitters are selected for ESD applicatio n they shall be configured as "write protected".