

 NISOC	نگهداشت و افزایش تولید میدان نفتی بینک فعالیت های رو زمینی در بسته های کاری تحت الارض ساخت موقعیت چاه، تأسیسات سرچاهی، خطوط جریانی، تسهیلات برق رسانی مربوط به موقعیت W007S و توسعه چندراهه کلاستر بینک DATA SHEETS FOR CORROSION COUPON / PROBE - EXTENTION OF BINAK B/C MANIFOLD						 		
	شماره پیمان: 053 - 073 - 9184	پروژه: BK	بسته کاری: W007S	صادرکننده: PEDCO	تسهیلات: 110	رشته: IN	نوع مدرک: DT	سریال: 0009	نسخه: D02

طرح نگهداشت و افزایش تولید 27 مخزن

DATA SHEETS FOR CORROSION COUPON / PROBE - EXTENTION OF BINAK B/C MANIFOLD

نگهداشت و افزایش تولید میدان نفتی بینک

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

Class: 1 COMPANY Doc. Number: F9Z-707979

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 COMPANY Review

AB-A: As-Built –Approved

 NISOC	نگهداشت و افزایش تولید میدان نفتی بینک فعالیت های رو زمینی در بسته های کاری تحت الارض								
	ساخت موقعیت چاه، تأسیسات سرچاهی، خطوط جرابانی، تسهیلات برق رسانی مربوط به موقعیت W007S و توسعه چندراهه کلاستر بینک								
	DATA SHEETS FOR CORROSION COUPON / PROBE - EXTENTION OF BINAK B/C MANIFOLD								
شماره پیمان: 053 - 073 - 9184	پروژه BK	بسته کاری W007S	صادر کننده PEDCO	تسهیلات 110	رشته IN	نوع مدرک DT	سریال 0009	نسخه D02	شماره صفحه: 2 از 8

REVISION RECORD SHEET

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3	X	X				67					
4	X	X				68					
5	X		X			69					
6	X		X			70					
7	X	X	X			71					
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 NISOC	نگهداشت و افزایش تولید میدان نفتی بینک فعالیت های رو زمینی در بسته های کاری تحت الارض ساخت موقعیت چاه، تأسیسات سرچاهی، خطوط جریانی، تسهیلات برق رسانی مربوط به موقعیت W007S و توسعه چندراهه کلاستر بینک								
	DATA SHEETS FOR CORROSION COUPON / PROBE - EXTENTION OF BINAK B/C MANIFOLD								
	شماره پیمان:	پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه
053 - 073 - 9184	BK	W007S	PEDCO	110	IN	DT	0009	D02	شماره صفحه: 3 از 8

REFERENCE DOCUMENTS :

Specification For Instrumentation	BK-GNRAL-PEDCO-000-IN-SP-0001
Process Basis Of Design	BK-GNRAL-PEDCO-000-PR-DB-0001
P&ID - Extension of Binak B/C Manifold	BK-W007S-PEDCO-110-PR-PI-0001
Piping Material Specification	BK-SSGRL-PEDCO-110-PI-SP-0001
Instrument & Control System Design Criteria	BK-SSGRL-PEDCO-110-IN-DC-0002
Process Flow Diagram - Extension of Binak B/C Manifold	BK-W007S-PEDCO-110-PR-PF-0001
Instrument Hook-up Diagram - Extension of Binak B/C Manifold	BK-W007S-PEDCO-110-IN-DG-0003

 NISOC		نگهداشت و افزایش تولید میدان نفتی بینک فعالیت های رو زمینی در بسته های کاری تحت الارض ساخت موقعیت چاه، تأسیسات سرچاهی، خطوط جریانی، تسهیلات برق رسانی مربوط به موقعیت W007S و توسعه چندراهه کلاستر بینک DATA SHEETS FOR CORROSION COUPON / PROBE - EXTENTION OF BINAK B/C MANIFOLD							
شماره پیمان:	پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه	شماره صفحه: 4 از 8
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GENERAL NOTES:

- Licensed software for probes and training Courses for End User engineering department shall be considered by vendor.
- One set of retriever tool kit and service valve and also other part necessary for mounting of all corrosion coupon and probes shall be provided by vendor. This set of retriever and service valve is common to all CC's fittings. Also any calibration set or special tools for test and installation shall be provided by vendor, as minimum on set portable corrosion meter for local monitoring of probes to be considered.
- Environmental Condition For Field Instrumentation Of Binak Oilfield Shall Be Considered As Per The Following:
 - Maximum ambient temperature: 50 (°C)
 - Minimum ambient temperature: -5 (°C)
 - Maximum steel surface exposed to sun: 85 (°C)
 - Maximum summer dry bulb: - (°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
- Training Courses for Installation, Calibration ... of corrosion transmitters shall be considered by vendor.
- Considering the fluid corrosibility, the Element material shall be in accordance with pipe material.
- All recommendations of IPS-I-TP-802 and NACE RP0775 for corrosion monitoring devices and accessories installation shall be followed by vendor.
- Service valve & retriever system to be have below specification:
 - Suitable connection for 2" Access fitting
 - Isolating Valve
 - Drain Plug
 - Pressure Gauge
 - Retriever/Service Valve Seal Kit
 - Retriever/Service valve Repair Kit
 - Diverter Hose Assembly, Retainer Clamp, Safety Hammer, Head Bar, Back Pressure Pump
 - To be suitable for 40 barg design pressure(suitable for high pressure) and 85° C design temperature.
- Mounting Position for oil services in flow lines, due to limitation in free space around should be at 12 O'clock Position for easy maintenance. For oil headers, 12 O'clock Position as per drawing F3L-527923 (DETAIL B) could be followed if there is no access for 6 o'clock position. Installation to be based on pipe diameter, design pressure, flow velocity, wake frequency analysis ...
- Wetted part material shall be according to NACE MR 01-175 where required as per piping material standard.
- Regarding protection of pipeline transportation system, ISO 15589 standards to be followed.
- For CC and CP installation on flow lines, 12 O'clock mounting position should be considered based on project Hook up drawing. Maximum 5 mm distance between below point of coupon and below point of pipe to be respected in oil services.
- Since pigging operation is not possible for insertion probe/coupon, exception for pipe line with pig service shall be considered for drawing F3L-527923 (DETAIL B), so in this case 6 o'clock mounting position with concrete pit for maintenance purpose is mandatory. However mounting position shall be finalized based on pipe diameter, design pressure, flow velocity, wake frequency analysis....
- One portable metering/monitoring device per plant to be provided by vendor to be connected to Corrosion Probes properly. It shall have LCD Indicator and Data logger.

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	DATA SHEETS FOR CORROSION COUPON / PROBE - EXTENTION OF BINAK B/C MANIFOLD							
شماره پیمان:	پروژه	بسته کاری	صادر کننده	تمهيلات	رشته	نوع مدرک	سریال	نسخه
053 - 073 - 9184	BK	W007S	PEDCO	110	IN	DT	0009	D02
								شماره صفحه: 5 از 8

CORROSION COUPONS

GENERAL	1	TAG NO	CC-1701A	CC-1701B	CC-1701C
	2	P&ID NO.	BK-W007S-PEDCO-110-PR-PI-0001 (3/6)	BK-W007S-PEDCO-110-PR-PI-0001 (3/6)	BK-W007S-PEDCO-110-PR-PI-0001 (4/6)
	3	SERVICE	FROM BINAK WELL NO. W018S	FROM BINAK WELL NO. W046S	FROM BINAK WELL NO. W008N
	4	LINE NO.	CRD-110-171A-FN05-4"-PT	CRD-110-171B-FN05-4"-PT	CRD-110-171C-FN05-4"-PT
	5	LINE SIZE / SCHEDULE	4" , SCH. 80 (Note 4)	4" , SCH. 80 (Note 4)	4" , SCH. 80 (Note 4)
	6	LINE/EQUIPMENT MATERIAL	ASTM A 106-Gr.B (Note 4)	ASTM A 106-Gr.B (Note 4)	ASTM A 106-Gr.B (Note 4)
	7	PIPING CLASS	FN05 (Note 4)	FN05 (Note 4)	FN05 (Note 4)
	8	AREA CLASSIFICATION	Zone 2,IIB T4	Zone 2,IIB T4	Zone 2,IIB T4
	9	NACE COMPLIANCE (as per NACE MR0175/ISO 15156)	Required	Required	Required
PROCESS DATA (NOTE 1)	10	FLUID	Crude Oil	Crude Oil	Crude Oil
	11	PHASE	3 phase (Crude oil/Water/Vapour)	3 phase (Crude oil/Water/Vapour)	3 phase (Crude oil/Water/Vapour)
	12	DESIGN PRESSURE (barg)	93	93	93
	13	OPERATING. PRESSURE (barg)	12.78	12.78	12.78
	14	DESIGN TEMPERATURE (°C)	85	85	85
	15	MIN DESIGN METAL TEMPERATURE (°C)	-5	-5	-5
	16	OPERATING TEMPERATURE (°C)	(22.62 - 36.31)	(15.20 - 31.6)	(33.75 - 46.19)
	17	MAX FLOW (Kg/hr)	11347	17421.9	11347
	18	NORMAL FLOW (Kg/hr)	-	-	-
	19	MEAN VELOCITY (m/s)	0.87	2.20	0.93
	20	VISCOSITY (Vapour/Liquid/Water) (cP)	0.011/8.654/0.69	0.011/5.99/0.77	0.011/7.403/0.58
	21	DENSITY (Vapour/Liquid/Water) (Kg/m3)	13.07/863.1/1172	13.6/823.9/1177	13.8/856.4/1164
	22	PIPING CORROSION ALLOWANCE (mm)	3	3	3
	23	WATER CUT	15%	40%	15%
	24	RATE OF CO2 CONTENT	0.0290 mole fraction in gas phase	0.0341 mole fraction in gas phase	0.0298 mole fraction in gas phase
	25	RATE OF CHLORIDE CONTENT	-	-	-
PROBE & TRANSMITTER	26		-	-	-
	27	PROBE TYPE	N/A	N/A	N/A
	28	PROBE INSERTION LENGTH	N/A	N/A	N/A
	29	PROBE HOLDER	N/A	N/A	N/A
	30	MATERIAL	N/A	N/A	N/A
	31	MOUNTING POSITION	N/A	N/A	N/A
	32	ENCLOSURE MATERIAL	N/A	N/A	N/A
	33	MEASURING RANGE	N/A	N/A	N/A
	34	OUTPUT SIGNAL	N/A	N/A	N/A
	35	COMMUNICATION PROTOCOL	N/A	N/A	N/A
	36	POWER SUPPLY	N/A	N/A	N/A
	37	ACCURACY	N/A	N/A	N/A
	38	INTEGRAL INDICATOR	N/A	N/A	N/A
	39	Ex PROTECTION	N/A	N/A	N/A
	40	INGRESS PROTECTION	N/A	N/A	N/A
	41	CABLE ENTRY	N/A	N/A	N/A
COUPON	42				
	43	COUPON TYPE	Strip Ladder (VTC) / D02	Strip Ladder (VTC) / D02	Strip Ladder (VTC) / D02
	44	COUPON MATERIAL	ASTM A 106-Gr.B (Note 4)	ASTM A 106-Gr.B (Note 4)	ASTM A 106-Gr.B (Note 4)
	45	COUPON HOLDER (Note 6)	Yes	Yes	Yes
	46	HOLDER MATERIAL	VTA	VTA	VTA
	47	HOLDER LENGTH	VTA	VTA	VTA
	48	COUPON INSERTION LENGTH	VTA	VTA	VTA
	49				
	50	STYLE	Retrievable (VTA)	Retrievable (VTA)	Retrievable (VTA)
	51	PROCESS CONNECTION	2", Flare Weld Type	2", Flare Weld Type	2", Flare Weld Type
ACCESS FITTING (Note 5)	52	MOUNTING POSITION	at 12'O Clock (Note 8 in General Note)	at 12'O Clock (Note 8 in General Note)	at 12'O Clock (Note 8 in General Note)
	53	BRANCH STANDOUT LENGTH	(Note 2)	(Note 2)	(Note 2)
	54	FITTING PLUG	Solid Plug	Solid Plug	Solid Plug
	55	MATERIAL	ASTM A 106-Gr.B (Note 4)	ASTM A 106-Gr.B (Note 4)	ASTM A 106-Gr.B (Note 4)
	56	PROTECTIVE COVER	Required	Required	Required
	57	RETRACTABLE TOOL	Required (Note 3)	Required (Note 3)	Required (Note 3)
	58	SERVICE VALVE	Required (Note 3)	Required (Note 3)	Required (Note 3)
	59	MANUFACTURE	Will Be Finalized Later	Will Be Finalized Later	Will Be Finalized Later
OTHER	60	MODEL NO.	Will Be Finalized Later	Will Be Finalized Later	Will Be Finalized Later
	61	TAG PLATE	Required	Required	Required
	62	WAKE FREQUENCY STANDARD (NOTE 2)	Required as per ASME PTC 19.3	Required as per ASME PTC 19.3	Required as per ASME PTC 19.3

NOTES : VTA : VENDOR TO ADVISE VTC : VENDOR TO CONFIRM N/A : NOT APPLICABLE

- All process data will be finalized later.
- Wake frequency analysis (stress calculation) according to ASME Power Test Code 19.3 shall be done & submitted by vendor.
- One set of retriever and service valve is common to all CC's fittings.
- Piping class, pipe schedule and materials related to Piping Material Specification, will be finalized after confirmation of this document.
- High pressure access fitting to be supplied by vendor.
- Length of stem holder for installation in 12 O'clock due to liquid service, to be the way that measure the corrosion at the bottom of line.

 NISOC	نگهداشت و افزایش تولید میدان نفتی بینک فعالیت های روزمینی در بسته های کاری تحت الارض							 شرکت توسعه میدان بینک	 HIRGAN ENERGY	
	ساخت موقعیت چاه، تأسیسات سرچاهی، خطوط جریانی، تهیلات برق رسانی مربوط به موقعیت W007S و توسعه چندراهه کلاستر بینک									
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شماره پیمان:	پروژه	بسته کاری	صادرکننده	تهیلات	رشته	نوع مدرک	سریال	نسخه	شماره صفحه: 6 از 8	
053 - 073 - 9184	BK	W007S	PEDCO	110	IN	DT	0009	D02		

CORROSION COUPONS

GENERAL	1	TAG NO	CC-1701D	CC-1701E	CC-1701F
	2	P&ID NO.	BK-W007S-PEDCO-110-PR-PI-0001 (4/6)	BK-W007S-PEDCO-110-PR-PI-0001 (5/6)	BK-W007S-PEDCO-110-PR-PI-0001 (5/6)
	3	SERVICE	FROM BINAK WELL NO. W028	FROM BINAK WELL NO. W035	FROM BINAK WELL NO. W007S
	4	LINE NO.	CRD-110-171D-FN05-4"-PT	CRD-110-171E-FN05-4"-PT	CRD-110-171F-FN05-4"-PT
	5	LINE SIZE / SCHEDULE	4" , SCH. 80 (Note 4)	4" , SCH. 80 (Note 4)	4" , SCH. 80 (Note 4)
	6	LINE/EQUIPMENT MATERIAL	ASTM A 106-Gr.B (Note 4)	ASTM A 106-Gr.B (Note 4)	ASTM A 106-Gr.B (Note 4)
	7	PIPING CLASS	FN05 (Note 4)	FN05 (Note 4)	FN05 (Note 4)
	8	AREA CLASSIFICATION	Zone 2,IIB T4	Zone 2,IIB T4	Zone 2,IIB T4
	9	NACE COMPLIANCE (as per NACE MR0175/ISO 15156)	Required	Required	Required
PROCESS DATA (NOTE 1)  D02	10	FLUID	Crude Oil	Crude Oil	Crude Oil
	11	PHASE	3 phase (Crude oil/Water/Vapour)	3 phase (Crude oil/Water/Vapour)	3 phase (Crude oil/Water/Vapour)
	12	DESIGN PRESSURE (barg)	93	93	93
	13	OPERATING. PRESSURE (barg)	12.78	12.78	12.78
	14	DESIGN TEMPERATURE (°C)	85	85	85
	15	MIN DESIGN METAL TEMPERATURE (°C)	-5	-5	-5
	16	OPERATING TEMPERATURE (°C)	(32.15 - 44.41)	(27.31 - 40.71)	(22.21 - 41.52)
	17	MAX FLOW (Kg/hr)	29036.5	29036.5	11614.6
	18	NORMAL FLOW (Kg/hr)	-	-	-
	19	MEAN VELOCITY (m/s)	3.97	3.88	1.56
	20	VISCOSITY(Vapour/Liquid/Water) (cP)	0.012/5.17/0.60	0.012/5.386/0.64	0.012/5.33/0.63
	21	DENSITY(Vapour/Liquid/Water) (Kg/m3)	13.6/816.4/1165	13.6/818.6/1169	13.6/818/1168
	22	PIPING CORROSION ALLOWANCE (mm)	3	3	3
	23	WATER CUT	40%	40%	40%
	24	RATE OF CO2 CONTENT	0.0341 mole fraction in gas phase	0.0342 mole fraction in gas phase	0.0342 mole fraction in gas phase
PROBE & TRANSMITTER	25	RATE OF CHLORIDE CONTENT	-	-	-
	26		-	-	-
	27	PROBE TYPE	N/A	N/A	N/A
	28	PROBE INSERTION LENGTH	N/A	N/A	N/A
	29	PROBE HOLDER	N/A	N/A	N/A
	30	MATERIAL	N/A	N/A	N/A
	31	MOUNTING POSITION	N/A	N/A	N/A
	32	ENCLOSURE MATERIAL	N/A	N/A	N/A
	33	MEASURING RANGE	N/A	N/A	N/A
	34	OUTPUT SIGNAL	N/A	N/A	N/A
	35	COMMUNICATION PROTOCOL	N/A	N/A	N/A
	36	POWER SUPPLY	N/A	N/A	N/A
	37	ACCURACY	N/A	N/A	N/A
	38	INTEGRAL INDICATOR	N/A	N/A	N/A
	39	Ex PROTECTION	N/A	N/A	N/A
COUPON	40	INGRESS PROTECTION	N/A	N/A	N/A
	41	CABLE ENTRY	N/A	N/A	N/A
	42				
	43	COUPON TYPE	Strip Ladder (VTC)  D02	Strip Ladder (VTC)  D02	Strip Ladder (VTC)  D02
	44	COUPON MTRIAL	ASTM A 106-Gr.B (Note 4)	ASTM A 106-Gr.B (Note 4)	ASTM A 106-Gr.B (Note 4)
	45	COUPON HOLDER (Note 6)	Yes	Yes	Yes
	46	HOLDER MATERIAL	VTA	VTA	VTA
	47	HOLDER LENGTH	VTA	VTA	VTA
ACCESS FITTING (Note 5)	48	COUPON INSERTION LENGTH	VTA	VTA	VTA
	49				
	50	STYLE	Retrievable (VTA)	Retrievable (VTA)	Retrievable (VTA)
	51	PROCESS CONNECTION	2", Flare Weld Type	2", Flare Weld Type	2", Flare Weld Type
	52	MOUNTING POSITION	at 12'O Clock	at 12'O Clock	at 12'O Clock
	53	BRANCH STANDOUT LENGTH	(Note 2)	(Note 2)	(Note 2)
	54	FITTING PLUG	Solid Plug	Solid Plug	Solid Plug
	55	MATERIAL	ASTM A 106-Gr.B (Note 4)	ASTM A 106-Gr.B (Note 4)	ASTM A 106-Gr.B (Note 4)
OTHER	56	PROTECTIVE COVER	Required	Required	Required
	57	RETRACTABLE TOOL	Required(Note 3)	Required(Note 3)	Required(Note 3)
	58	SERVICE VALVE	Required(Note 3)	Required(Note 3)	Required(Note 3)
	59	MANUFACTURE	Will Be Finalized Later	Will Be Finalized Later	Will Be Finalized Later
	60	MODEL NO.	 D02 Will Be Finalized Later	 D02 Will Be Finalized Later	 D02 Will Be Finalized Later
	61	TAG PLATE	Required	Required	Required
	62	WAKE FREQUENCY STANDARD (NOTE 2)	Required as per ASME PTC 19.3	Required as per ASME PTC 19.3	Required as per ASME PTC 19.3

NOTES :

VTA : VENDOR TO ADVISE

VTC : VENDOR TO CONFIRM

N/A : NOT APPLICABLE

(1) All process data will be finalized later.

(2) Wake frequency analysis (stress calculation) according to ASME Power Test Code 19.3 shall be done & submitted by vendor.

(3) One set of retriever and service valve is common to all CC's fittings.

(4) Piping class, pipe schedule and materials related to Piping Material Specification, will be finalized after confirmation of this document.

(5) High pressure access fitting to be supplied by vendor.

(6) Length of stem holder for installation in 12 O'clock due to liquid service, to be the way that measure the corrosion at the bottom of line.

 NISOC	تگه‌داشت و افزایش تولید میدان نفتی بینک فعالیت های روزمینی در بسته‌های کاری تحت الارض ساخت موقعیت چاه، تأسیسات سرچاهی، خطوط جریانی، تهیلات برق‌رسانی مربوط به موقعیت W007S و توسعه چندراهه کلاستر بینک							 
	DATA SHEETS FOR CORROSION COUPON / PROBE - EXTENTION OF BINAK B/C MANIFOLD							
شماره پیمان:	پروژه	بسته کاری	صادر کننده	تهیلات	رشته	نوع مدرک	سریال	نسخه
053 - 073 - 9184	BK	W007S	PEDCO	110	IN	DT	0009	D02
								شماره صفحه: 7 از 8

CORROSION PROBE

GENERAL	1	TAG NO	CP-1701A	CP-1701B	CP-1701C
	2	P&ID NO.	BK-W007S-PEDCO-110-PR-PI-0001 (3/6)	BK-W007S-PEDCO-110-PR-PI-0001 (3/6)	BK-W007S-PEDCO-110-PR-PI-0001 (4/6)
	3	SERVICE	FROM BINAK WELL NO. W018S	FROM BINAK WELL NO. W046S	FROM BINAK WELL NO. W008N
	4	LINE NO.	CRD-110-171A-FN05-4"-PT	CRD-110-171B-FN05-4"-PT	CRD-110-171C-FN05-4"-PT
	5	LINE SIZE / SCHEDULE	4" , SCH. 80 (Note 4)	4" , SCH. 80 (Note 4)	4" , SCH. 80 (Note 4)
	6	LINE/EQUIPMENT MATERIAL	ASTM A 106-Gr.B (Note 4)	ASTM A 106-Gr.B (Note 4)	ASTM A 106-Gr.B (Note 4)
	7	PIPING CLASS	FN05 (Note 4)	FN05 (Note 4)	FN05 (Note 4)
	8	AREA CLASSIFICATION	Zone 2,IIB T4	Zone 2,IIB T4	Zone 2,IIB T4
	9	NACE COMPLIANCE (as per NACE MR0175/ISO 15156)	Required	Required	Required
PROCESS DATA (NOTE 1)	10	FLUID	Crude Oil	Crude Oil	Crude Oil
	11	PHASE	3 phase (Crude oil/Water/Vapour)	3 phase (Crude oil/Water/Vapour)	3 phase (Crude oil/Water/Vapour)
	12	DESIGN PRESSURE (barg)	93	93	93
	13	OPERATING. PRESSURE (barg)	12.78	12.78	12.78
	14	DESIGN TEMPERATURE (°C)	85	85	85
	15	MIN DESIGN METAL TEMPERATURE (°C)	-5	-5	-5
	16	OPERATING TEMPERATURE (°C)	(22.62 - 36.31)	(15.20 - 31.6)	(33.75 - 46.19)
	17	MAX FLOW (Kg/hr)	11347	17421.9	11347
	18	NORMAL FLOW (Kg/hr)	-	-	-
	19	MEAN VELOCITY (m/s)	0.876	2.20	0.93
	20	VISCOSITY(Vapour/Liquid/Water) (cP)	0.011/8.654/0.69	0.011/5.99/0.77	0.011/7.403/0.58
	21	DENSITY(Vapour/Liquid/Water) (Kg/m3)	13.07/863.1/1172	13.6/823.9/1177	13.8/856.4/1164
	22	PIPING CORROSION ALLOWANCE (mm)	3	3	3
	23	WATER CUT	15%	40%	15%
	24	RATE OF CO ₂ CONTENT	0.0290 mole fraction in gas phase	0.0341 mole fraction in gas phase	0.0298 mole fraction in gas phase
	25	RATE OF CHLORIDE CONTENT	-	-	-
	26		-	-	-
PROBE & TRANSMITTER	27	PROBE TYPE/ SHIELD TYPE	LPR probes (VTC)/ required (VTA)	LPR probes (VTC)/ required (VTA)	LPR probes (VTC)/ required (VTA)
	28	PROBE INSERTION LENGTH	VTA	VTA	VTA
	29	PROBE HOLDER	Yes	Yes	Yes
	30	PROBE MATERIAL	ASTM A 106-Gr.B (Note 4)	ASTM A 106-Gr.B (Note 4)	ASTM A 106-Gr.B (Note 4)
	31	MOUNTING POSITION	Top of line	Top of line	Top of line
	32	ENCLOSURE MATERIAL	VTA	VTA	VTA
	33	MEASURING RANGE	VTA	VTA	VTA
	34	OUTPUT SIGNAL	(Note 13 in General Note)	(Note 13 in General Note)	(Note 13 in General Note)
	35	COMMUNICATION PROTOCOL	(Note 13 in General Note)	(Note 13 in General Note)	(Note 13 in General Note)
	36	POWER SUPPLY	(Note 13 in General Note)	(Note 13 in General Note)	(Note 13 in General Note)
	37	ACCURACY	(Note 13 in General Note)	(Note 13 in General Note)	(Note 13 in General Note)
	38	INTEGRAL INDICATOR	No	No	No
	39	Ex PROTECTION	Eex "ia"	Eex "ia"	Eex "ia"
	40	INGRESS PROTECTION	IP 65	IP 65	IP 65
	41	CABLE ENTRY	ISO M20 x 1.5	ISO M20 x 1.5	ISO M20 x 1.5
	42		Retrievable Type	Retrievable Type	Retrievable Type
COUPON	43	COUPON TYPE	N/A	N/A	N/A
	44	COUPON MTRIAL	N/A	N/A	N/A
	45	COUPON HOLDER (Note 6)	N/A	N/A	N/A
	46	HOLDER MATERIAL	N/A	N/A	N/A
	47	HOLDER LENGTH	N/A	N/A	N/A
	48	COUPON INSERTION LENGTH	N/A	N/A	N/A
	49		N/A	N/A	N/A
	50	STYLE	N/A	N/A	N/A
ACCESS FITTING (Note 5)	51	PROCESS CONNECTION	2", Flare Weld Type	2", Flare Weld Type	2", Flare Weld Type
	52	MOUNTING POSITION	at 12'O Clock (Note 8 in General Note)	at 12'O Clock (Note 8 in General Note)	at 12'O Clock (Note 8 in General Note)
	53	BRANCH STANDOUT LENGTH	(Note 2)	(Note 2)	(Note 2)
	54	FITTING PLUG	Hollow Plug	Hollow Plug	Hollow Plug
	55	MATERIAL	ASTM A 106-Gr.B (Note 4)	ASTM A 106-Gr.B (Note 4)	ASTM A 106-Gr.B (Note 4)
	56	PROTECTIVE COVER	Required	Required	Required
	57	RETRACTABLE TOOL	Required(Note 3)	Required(Note 3)	Required(Note 3)
	58	SERVICE VALVE	Required(Note 3)	Required(Note 3)	Required(Note 3)
OTHER	59	MANUFACTURE	Will Be Finalized Later	Will Be Finalized Later	Will Be Finalized Later
	60	MODEL NO.	Will Be Finalized Later	Will Be Finalized Later	Will Be Finalized Later
	61	TAG PLATE	Required	Required	Required
	62	WAKE FREQUENCY STANDARD (NOTE 2)	Required as per ASME PTC 19.3	Required as per ASME PTC 19.3	Required as per ASME PTC 19.3

NOTES :

VTA : VENDOR TO ADVISE

VTC : VENDOR TO CONFIRM

N/A : NOT APPLICABLE

(1) All process data will be finalized later.

(2) Wake frequency analysis (stress calculation) according to ASME Power Test Code 19.3 shall be done & submitted by vendor.

(3) One set of retriever and service valve is common to all CC's fittings.

(4) Piping class, pipe schedule and materials related to Piping Material Specification, will be finalized after confirmation of this document.

(5) High pressure access fitting to be supplied by vendor.

(6) Length of stem holder for installation in 12 O'clock due to liquid service, to be the way that measure the corrosion at the bottom of line.

 NISOC	تگداشت و افزایش تولید میدان نفتی بینک فعالیت های روزمینی در بسته های کاری تحت الارض ساخت موقعیت چاه، تأسیسات سرچاهی، خطوط جریانی، تسهیلات برق رسانی مربوط به موقعیت W007S و توسعه چندراهه کلاستر بینک							 	
	DATA SHEETS FOR CORROSION COUPON / PROBE - EXTENTION OF BINAK B/C MANIFOLD								
شماره پیمان:	پروژه	بسته کاری	صادرکننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه	شماره صفحه: 8 از 8
053 - 073 - 9184	BK	W007S	PEDCO	110	IN	DT	0009	D02	

CORROSION PROBE

GENERAL	1	TAG NO	CP-1701D	CP-1701E	CP-1701F
	2	P&ID NO.	BK-W007S-PEDCO-110-PR-PI-0001 (4/6)	BK-W007S-PEDCO-110-PR-PI-0001 (5/6)	BK-W007S-PEDCO-110-PR-PI-0001 (5/6)
	3	SERVICE	FROM BINAK WELL NO. W028	FROM BINAK WELL NO. W035	FROM BINAK WELL NO. W007S
	4	LINE NO.	CRD-110-171D-FN05-4"-PT	CRD-110-171E-FN05-4"-PT	CRD-110-171F-FN05-4"-PT
	5	LINE SIZE / SCHEDULE	4" , SCH. 80 (Note 4)	4" , SCH. 80 (Note 4)	4" , SCH. 80 (Note 4)
	6	LINE/EQUIPMENT MATERIAL	ASTM A 106-Gr.B (Note 4)	ASTM A 106-Gr.B (Note 4)	ASTM A 106-Gr.B (Note 4)
	7	PIPING CLASS	FN05 (Note 4)	FN05 (Note 4)	FN05 (Note 4)
	8	AREA CLASSIFICATION	Zone 2,IIB T4	Zone 2,IIB T4	Zone 2,IIB T4
	9	NACE COMPLIANCE (as per NACE MR0175/ISO 15156)	Required	Required	Required
PROCESS DATA (NOTE 1)	10	FLUID	Crude Oil	Crude Oil	Crude Oil
	11	PHASE	3 phase (Crude oil/Water/Vapour)	3 phase (Crude oil/Water/Vapour)	3 phase (Crude oil/Water/Vapour)
	12	DESIGN PRESSURE (barg)	93	93	93
	13	OPERATING. PRESSURE (barg)	12.78	12.78	12.78
	14	DESIGN TEMPERATURE (°C)	85	85	85
	15	MIN DESIGN METAL TEMPERATURE (°C)	-5	-5	-5
	16	OPERATING TEMPERATURE (°C)	(32.15 - 44.41)	(27.31 - 40.71)	(22.21 - 41.52)
	17	MAX FLOW (Kg/hr)	29036.5	29036.5	11614.6
	18	NORMAL FLOW (Kg/hr)	-	-	-
	19	MEAN VELOCITY (m/s)	3.97	3.88	1.56
	20	VISCOSITY(Vapour/Liquid/Water) (cP)	0.012/5.17/0.60	0.012/5.386/0.64	0.012/5.33/0.63
	21	DENSITY(Vapour/Liquid/Water) (Kg/m3)	13.6/816.4/1165	13.6/818.6/1169	13.6/818/1168
	22	PIPING CORROSION ALLOWANCE (mm)	3	3	3
	23	WATER CUT	40%	40%	40%
	24	RATE OF CO2 CONTENT	0.0341 mole fraction in gas phase	0.0342 mole fraction in gas phase	0.0342 mole fraction in gas phase
	25	RATE OF CHLORIDE CONTENT	-	-	-
	26		-	-	-
PROBE & TRANSMITTER	27	PROBE TYPE/ SHIELD TYPE	LPR probes (VTC)/ required (VTA)	LPR probes (VTC)/ required (VTA)	LPR probes (VTC)/ required (VTA)
	28	PROBE INSERTION LENGTH	VTA	VTA	VTA
	29	PROBE HOLDER	Yes	Yes	Yes
	30	PROBE MATERIAL	ASTM A 106-Gr.B (Note 4)	ASTM A 106-Gr.B (Note 4)	ASTM A 106-Gr.B (Note 4)
	31	MOUNTING POSITION	Top of line	Top of line	Top of line
	32	ENCLOSURE MATERIAL	VTA	VTA	VTA
	33	MEASURING RANGE	VTA	VTA	VTA
	34	OUTPUT SIGNAL	(Note 13 in General Note)	(Note 13 in General Note)	(Note 13 in General Note)
	35	COMMUNICATION PROTOCOL	(Note 13 in General Note)	(Note 13 in General Note)	(Note 13 in General Note)
	36	POWER SUPPLY	(Note 13 in General Note)	(Note 13 in General Note)	(Note 13 in General Note)
	37	ACCURACY	(Note 13 in General Note)	(Note 13 in General Note)	(Note 13 in General Note)
	38	INTEGRAL INDICATOR	No	No	No
	39	Ex PROTECTION	Eex "ia"	Eex "ia"	Eex "ia"
	40	INGRESS PROTECTION	IP 65	IP 65	IP 65
	41	CABLE ENTRY	ISO M20 x 1.5	ISO M20 x 1.5	ISO M20 x 1.5
	42		Retrievable Type	Retrievable Type	Retrievable Type
COUPON	43	COUPON TYPE	N/A	N/A	N/A
	44	COUPON MTRIAL	N/A	N/A	N/A
	45	COUPON HOLDER (Note 6)	N/A	N/A	N/A
	46	HOLDER MATERIAL	N/A	N/A	N/A
	47	HOLDER LENGTH	N/A	N/A	N/A
	48	COUPON INSERTION LENGTH	N/A	N/A	N/A
	49		N/A	N/A	N/A
	50	STYLE	N/A	N/A	N/A
ACCESS FITTING (Note 5)	51	PROCESS CONNECTION	2", Flare Weld Type	2", Flare Weld Type	2", Flare Weld Type
	52	MOUNTING POSITION	at 12'O Clock (Note 8 in General Note)	at 12'O Clock (Note 8 in General Note)	at 12'O Clock (Note 8 in General Note)
	53	BRANCH STANDOUT LENGTH	(Note 2)	(Note 2)	(Note 2)
	54	FITTING PLUG	Hollow Plug	Hollow Plug	Hollow Plug
	55	MATERIAL	ASTM A 106-Gr.B (Note 4)	ASTM A 106-Gr.B (Note 4)	ASTM A 106-Gr.B (Note 4)
	56	PROTECTIVE COVER	Required	Required	Required
	57	RETRACTABLE TOOL	Required(Note 3)	Required(Note 3)	Required(Note 3)
	58	SERVICE VALVE	Required(Note 3)	Required(Note 3)	Required(Note 3)
OTHER	59	MANUFACTURE	Will Be Finalized Later	Will Be Finalized Later	Will Be Finalized Later
	60	MODEL NO.	Will Be Finalized Later	Will Be Finalized Later	Will Be Finalized Later
	61	TAG PLATE	Required	Required	Required
	62	WAKE FREQUENCY STANDARD (NOTE 2)	Required as per ASME PTC 19.3	Required as per ASME PTC 19.3	Required as per ASME PTC 19.3

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- All process data will be finalized later.
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