

## ساخت موقعیت چاه، تاسیسات سرچاهی، خطوط جریانی، تسهیلات برق رسانی مربوط به موقعیت W007S و توسعه چندراهه کلاستر بینک



شماره پیمان:

.04 - .14 - 414

PMR For Pumps - Extension of Binak B/C Manifold							l	
پروژه	بسته کاری	صادر کننده	تسهيلات	رشته	نوع مدرك	سريال	نسخه	
BK	W007S	PEDCO	110	ME	MR	0001	D01	

شماره صفحه: ۱ از ۲۵

## طرح نگهداشت و افزایش تولید ۲۷ مخزن

### PMR For Pumps - Extension of Binak B/C Manifold

نگهداشت و افزایش تولید میدان نفتی بینک

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Rev.	Date	Purpose of Issue / Status	Prepared by:	Checked by:	Approved by:	CLIENT Approval
D00	SEP. 2022	IFI	H. Adineh	M. Fakharian	M. Mehrshad	
D01	OCT. 2023	IFI	H.Ghadyani	M. Fakharian	S.Faramarzpour	

Status: IDC: Inter-Discipline Check

IFC: Issued For Comment
IFA: Issued For Approval
AFD: Approved For Design
AFC: Approved For Construction
AFP: Approved For Purchase
AFQ: Approved For Quotation
IFI: Issued For Information
AB-R: As-Built for CLIENT Review

AB-A: As-Built -Approved



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چندراهه کلاستر بینک

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.04 - . 14 - 9114

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پروژه	بسته کاری	صادر کننده	تسهيلات	رشته	نوع مدرك	سريال	نسخه	
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#### 1.0 INTRODUCTION

Binak oilfield in Bushehr province is a part of the southern oilfields of Iran, is located 20 km northwest of Genaveh city.

With the aim of increasing production of oil from Binak oilfield, an EPC/EPD Project has been defined by NIOC/NISOC and awarded to Petro Iran Development Company (PEDCO). Also PEDCO (as General Contractor) has assigned the EPC-packages of the Project to "Hirgan Energy - Design and Inspection" JV.

As a part of the Project, construction of well location, access road, wellhead facilities (with electric power supply) for W007S shall be done. In addition, construction of new flowline from aforementioned well location to Binak B/C unit (with extension of relevant manifold) are in the Project scope of work.

#### **GENERAL DEFINITION**

The following terms shall be used in this document.

CLIENT: National Iranian South Oilfields Company (NISOC)

PROJECT: Binak Oilfield Development - Surface Fcilities; New

**Gas Compressor Station** 

EPD/EPC CONTRACTOR (GC): Petro Iran Development Company (PEDCO)

EPC CONTRACTOR: Joint Venture of : Hirgan Energy – Design & Inspection

(D&I) Companies

VENDOR: The firm or person who will fabricate the equipment or

material.

EXECUTOR: Executor is the party which carries out all or part of

construction and/or commissioning for the project.

THIRD PARTY INSPECTOR (TPI): The firm appointed by EPD/EPC CONTRACTOR (GC)

and approved by CLIENT (in writing) for the inspection

of goods.

SHALL: Is used where a provision is mandatory.

SHOULD: Is used where a provision is advisory only.

WILL: Is normally used in connection with the action by

CLIENT rather than by an EPC/EPD CONTRACTOR,

supplier or VENDOR.

MAY: Is used where a provision is completely discretionary.



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#### 2.0 GENERAL

- This document presents the item material requisitions for Contractor's use as appropriate.
- This material requisition covers the requirements for the design, manufacturing, testing and supply of general service pumps as listed below. All equipment/devices/items shall conform to this requisition and all specifications which have been mentioned in attachment 1 of this material requisition.
- The vendor's supply shall include:

No.	Item	Description	Total QTY.
1.	P-1701	Oil Sump Pump	1

#### 3.0 REFERENCE / ATTACHED DOCUMENTS

- a. Specified documents in attachment 1 shall be considered as a part of this material Requisition.
- **b.** All codes and standards which have been referenced in above mentioned specs shall be considered.
- c. In case of any conflict between the contents of this document or any discrepancy between this document and other project documents or reference standards, this issue must be reported to the CLIENT. The final decision in this situation will be made by CLIENT.

#### d. Deviations

Any exceptions/clarifications to codes/standards and specifications listed in attachment 1 must be clearly stated in a separate dedicated section of the proposal in the format submitted in attachment 3.

The proposed deviations/comments list shall include as minimum:

- Reference for the involved specification, chapter and paragraph.
- Technical justification for the non-compliance.
- Detailed description of the proposed alternative.

If no exceptions or clarifications exist, either for the complete referenced document or an individual paragraph, the supplier shall be considered to be in full compliance with the relevant document.



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نسخه سریال نوع مدرک رشته تسهیلات صادرکننده بسته کاری پروژه							نسخه
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The supplier may propose materials of equivalent or better quality compared to those indicated in the equipment data sheet. Even these cases shall be duly included/technically supported in the deviations/clarifications list.

#### 4.0 SUBJECT OF THE SUPPLY

The supplier shall supply centrifugal pumps each one shall be driven by an electromotor completely assembled and tested. The scope of supply is detailed at para. 5. The supplier shall include in the supply, all other equipment/devices/items not listed in the following, but necessary for a good design and a safe operation, taking into account process data and installation conditions such as area classification and climatic conditions.

The grade of shop assembly of the equipment/devices/items supplied shall be at maximum extent to facilitate site erection and pre-commissioning activities.

#### 5.0 LIMITS OF SUPPLY

#### 5.1 SCOPE OF SUPPLY

#### 5.1.1 MAIN DESCRIPTION

- The scope of supply is detailed below
  - Centrifugal Pump
  - appropriate seal system according to its data sheets including all the relevant accessories
  - Coupling (dry flexible spacer with spark proof guard)
  - Electrical motor for each pump with terminal boxes and accessories incl. anti-condensation heater, RTD's and etc. (if applicable)
    - On-skid cabling, tray and fittings
    - Outdoor MCC for Auxiliaries Electrical Load (if any)
    - All motor junction boxes complete with necessary terminals
  - Instrumentation including junction box, wiring from instruments to the junction box and manifolds for pressure instruments



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- Earthing lugs and material
- All necessary lifting lugs
- Gasket, bolts and nuts for on-vessel items
- · Any other accessories and auxiliaries specify in data sheet
- · First fill of oil / grease
- Cooling plan with all required piping, valves instruments and etc. routed to the edge of skid
- Suction strainer
- All necessary accessories for utility distribution
- Name plates
- Thermal insulation jacket (if needed)
- Insulation clip and supports for line and equipment
- Clip and supports required for equipment fire proofing (if required)
- Sun protection facilities
- Special tools for erection and maintenance
- Spare Parts for erection, pre-commissioning, commissioning and start up and two years operation.
- · Capital spare parts (as option)
- All requirements for safe and easy start up of pumps
- Any other items not listed above which are necessary for satisfactory design and operation of the pump shall be furnished by vendor.

#### 5.1.2 ENGINEERING SERVICES

The supplier shall assume overall responsibility for the design, manufacture, assembly, test and performance of all equipment/devices/items supplied as indicated in this requisition. This shall include, but not be limited to:

 Resolve engineering issues relating to equipment/devices/items within the scope of supply.



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- Provide detailed design and documentation of all equipment/devices/items and components within the scope of supply in accordance with attachment 2 of this document.
- Provide all necessary information documents in order to allow the contractor to erect, install and verify the proposed equipment/devices/items.
- · Implement a quality assurance plan
- The quality plan applied to the scope of supply shall include:
  - QA/QC Organization Chart and procedures that shall be submitted for approval.
  - Plan for HOLD points in the production process proposed to PURCHASER for witness or approval particular activities.
  - Production schedule indicating main quality manufacturing processes, inspection and tests.
  - Qualification of all personnel performing tests to be reviewed by the inspector
  - Supplier shall also provide the description of the following quality activities:
    - Sub suppliers products quality
    - Quality check and identification of the materials and equipment entering in their manufacturing shop.
- Calibration of test instruments and equipment
- · Provide detailed specifications and data sheets.

#### 5.1.3 SPARE PARTS



Following items shall be considered (supplied) and included in the bid documentation:

- Spare parts for commissioning and start-up; a qualified and complete list based on PROJECT SPARE PART SUPPLY PROCEDURE (Doc. No. E&C-QC-SP-1).
- Spare parts for two years operation; a qualified and complete list based on PROJECT SPARE PART SUPPLY PROCEDURE (Doc. No. E&C-QC-SP-1).
- Capital spare parts (as option / if any)

#### 5.1.4 OTHER ITEMS

- Special tools required for installation and maintenance
- Noise acoustic protection and relevant ancillaries in order to match with max. noise level requirements (if necessary)





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- Name plate
- Earthing plate
- · Painting of all items in accordance with "Painting Specification".
- Preparation for shipment
- Packing for sea freight transportation
- Shop inspections and testing as per specifications & data sheets
- · Free access to manufacturing plants for the PURCHASER's inspectors
- Certificates or declarations of conformance (as required) of all Ex-equipment.
- Daily rate for erection supervision (separate price)
- Daily rate for commissioning and start-up supervision (separate price)
- Training for customer's personnel (separate price)
- KOM
- Technical/Clarification meeting
- Pre-Inspection Meeting

#### 5.2 SCOPE OF WORK

- · Engineering and Documentation
- Manufacturing and assembling
- Mechanical Guarantee
- Performance Guarantee
- Sub-Vendor Coordination
- Mounting of main driver and auxiliary driver on baseplate at shop
- · Inspection and testing at shop
- Piping within the Pump Package, all on skid piping/tubing with supports and all required fitting, valves, instruments and etc. on them. All on skid piping / tubing to be supplied by vendor and installed by him at shop
- Painting
- Prime Coats at Shop
- Finish Coats at Shop
- Packing Preservation suitable for more than 18 months at outdoor conditions of the site environment



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- Packing including suitable protection for both sea transport and road transport on rough tracks
- Rust prevention for long term (over 6 month)
- Shipping and transportation to point of delivery (according to delivery condition)
- Supervision for installation (Per diem rate and/or lump sum as an option)
- Supervision for erection, commissioning and start up (Per Diem rate and/or lump sum as an option)
- Preparing of Final Book (Data Book)

#### 5.3 EXCLUSIONS

The following items are excluded by the supplier scope of supply and will be provided by purchaser:

- Concrete foundation (which shall be anyway designed based on supplier's technical data)
- · Instrument air supply
- Nitrogen supply (if any)
- Electrical supply
- Interconnecting power cables among each skid mounted terminal boxes and remote switch gear
- Interconnecting cabling, serial link, between the remotely mounted unit control panel and the process control system in the main control room
- · Connection to plant earthing system
- · Transport from receiving port to site
- Shelter for Pumps
- Site erection
- · Lubricants (except first filling)

#### 5.4 BATTERY LIMITS

The battery limits are summarized as follows:

- a) Process
  - Outlet flange on pump
- b) Instrumentation and control



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- terminal strips inside junction boxes at skid edges
- c) Electrical
  - Electrical equipment terminal boxes on skids
  - Incoming Power Supply of AC or DC UPS (if Any)
  - Earth Bosses on Skids.

#### 6.0 INSPECTION AND TESTS



The equipment shall be inspected and tested in accordance with the Inspection &Test plan (ITP) issued by the vendor and approved by the CLIENT/EPC CONTRACTOR before the award of the order. The Inspection & Test plan (ITP) shall be at least according to the Commodity Procurement and Manufacturing Inspection Instruction (Docs .Nos. ICE-EID-MI-SP01-Rev01), Inspection Level of Commodity and Equipment (Docs .Nos. ICE-EID-MI-SP02-Rev01) and Data Sheets. The vendor shall in any case conduct all the tests required by contractual documents, specifications, codes and standards, manufacturer standard quality system and keep the relevant documentation. All required manufacturing and function test/inspection also Factory Acceptance Test /Site Acceptance Test and Quality Assurance requirements shall be considered in vendor responsibility as per project specification.

#### 7.0 VENDOR DOCUMENTATION REQUIREMENTS & SCHEDULE

- Vendor shall prepare and submit all of required documents as per relevant "Vendor Data" section of relevant reference standard (ISO 5199).
- As a minimum Vendor document shall be according to attachment 2 of this document.



- All documents, preliminary or final, are to be stamped and signed by the vendor.
- Failure in dispatch of the required documents shall cause the supply to be considered as unfulfilled.
- PURCHASER's approval does not relieve vendor, in any way, from his obligation to fulfill the requirements of the purchase order documents.
- All vendor drawings and documents shall be in English language.
- All drawings and documents are to be identified as per clause 1 "GENERAL DEFINITION"
- ITP, QCP, MPS documents shall be presented at the PIM by vendor





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#### 8.0 UNIT RESPONSIBILITY

VENDOR shall be responsible for the design, engineering, co-ordination, supply, delivery, testing, final check-out and satisfactory operation of the equipment/devices/items. The engineering coordination also includes responsibility for handing and expediting drawings.

Also VENDOR shall be responsible for ensuring that all relevant information and documentation is passed on the sub-suppliers.

#### 9.0 GUARANTEE AND WARRANTY

All material and Equipment/Devices/Items in VENDOR's scope of work/supply shall be guaranteed by VENDOR. The guarantee period shall be eighteen (18) months from the date of delivery and/or twelve (12) months from the installation date of each equipment/packages at site. VENDOR shall guarantee the performance of supplied items (if any). VENDOR shall guarantee that the Equipment/Device/Item is suitable for the operating conditions herein specified, and that all materials and components are free from any defects; verifications of all calculations are in VENDOR's responsibility.

VENDOR shall unconditionally guarantee the materials and workmanship of all material and/or services. If, within the guarantee period, any defects occur which are due to faulty material and/or services included in his scope (design, manufacturing, inspection, testing, supply & etc.), VENDOR shall, at his own expense, repair or adjust the condition, or replace the material and/or services to the complete satisfaction of CLIENT's representative. These repairs, replacement or adjustments shall be made only at such time as will be least detrimental to the operation of the CLIENT's business.

VENDOR warrants promptly repairing or replacing the defective parts in the warranty period.

Vendor shall ensure a correct and safe operation of the unit, providing all safety protection Devices.

Vendor shall be responsible for the safe, reliable, continuous functioning of the Equipment/Devices/Items.



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1119-771 - 4114

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VENDOR is fully responsible for the design of package for correct and safe operation based on project requirement during package life time; therefore, VENDOR shall specify any documents/specifications which may be required for design, manufacture and finalizing of Equipment/Devices/Items to avoid any problems during the package operation at site before P.O; otherwise, VENDOR shall be hold responsible for any corresponding deviation from expectations from the Equipment/Devices/Items.

#### 10.0 DEVIATION

VENDOR's proposal shall be prepared in strict compliance with the requirements set forth in the relevant specifications of tender documents.

VENDOR shall include in his proposal the statement of compliance with the tender documents should VENDOR wish to submit exception to the requirements of tender documents. They shall be submitted for PURCHASER's approval.

#### 11.0 PRICE BREAKDOWN



Breakdown price of following items shall be included in the proposal, as well as total price.

- 1) Material and Fabrication for each Section Separately
- 2) Pre-commissioning & commissioning spare parts (E&C-QC-SP-1)
- 3) 2 years operational spare parts (E&C-QC-SP-1)
- 4) Capital spare parts
- 5) Packing & transportation
- 6) Other fee (if any)



## ساخت موقعیت چاه، تاسیسات سرچاهی، خطوط جریانی، تسهیلات برق رسانی مربوط به موقعیت W007S و توسعه چندراهه کلاستر بینک



شماره پیمان:

۶۵۳ - ۲۷۰ - ۹۱۸۴

	PMR For Pumps - Extension of Binak B/C Manifold								
پروژه	بسته کاری	صادر کننده	تسهيلات	رشته	نوع مدرك	سر يال	نسخه		
BK	W007S	PEDCO	120	ME	MR	0001	D01		

شماره صفحه: ۱۶ از ۲۵

#### **ATTACHMENT 1**

#### **LIST OF REFRENCE / APPLICABLE DOCUMENTS**



No.	Document No.	Document Title	Rev.
Proc	ess		
1	BK-GNRAL-PEDCO-000-PR-DB-0001	Process Basis of Design	D08
2	BK-GNRAL-PEDCO-000-PR-DC-0001	Process Design Criteria	D02
3	BK-W007S-PEDCO-110-PR-PF-0001	Process Flow Diagram - Extension of Binak B/C Manifold	D04
4	BK-W007S-PEDCO-110-PR-PI-0001	P&ID - Extension of Binak B/C Manifold	D04
5	BK-W007S-PEDCO-110-PR-CN-0001	Calculation book for (Pump) - Extension of Binak B/C Manifold	D02
Mecl	hanical		
6	BK-W007S-PEDCO-110-ME-DT-0001	Data Sheets For Oil Sump Pump - Extension of Binak B/C Manifold	D04
7	BK-GCS-PEDCO-120-ME-SP-0004	Specification for Centrifugal Pumps for General Services	D03
Pipir	ng & Material		
8	BK-GNRAL-PEDCO-000-PI-SP-0005	Specification For Fittings, Flanges, Gaskets and Bolts	D02
9	BK-GNRAL-PEDCO-000-PI-SP-0006	Specification For Painting	D04
10	BK-GNRAL-PEDCO-000-PI-SP-0019	Specification For Insulation	D02
11	BK-GNRAL-PEDCO-000-PI-SP-0009	Specification For Manual Valves	D01
12	BK-GNRAL-PEDCO-000-PI-SP-0011	Specification For Welding of Plant Piping System	D01
13	BK-GNRAL-PEDCO-000-PI-DC-0001	Piping Design Criteria	D03
14	BK-GNRAL-PEDCO-000-PI-SP-0003	Specification For the Design of Piping in Mechanical Packages	D01
15	BK-GNRAL-PEDCO-000-PI-SP-0007	Specification For Lining (Internal Protection of Equipment by Painting)	D02
16	BK-GNRAL-PEDCO-000-PI-SP-0017	Specification For Piping Cleaning and Flushing	D03
17	BK-GNRAL-PEDCO-000-QC-PR-0041	NDT Plan For steel Structures	D00
18	BK-GNRAL-PEDCO-000-PI-SP-0008	Specification For Material Requirements in Sour service	D01
19	BK-GNRAL-PEDCO-000-PI-SP-0004	Specification For Metallic Pipes	D06
20	BK-GNRAL-PEDCO-000-PI-SP-0001	Specification For Color Coding and Marking	D02
21	BK-GNRAL-PEDCO-000-PI-SP-0010	Specification For Plant Piping Systems Pressure Testing	D03
Stru	cture		
22	BK-GNRAL-PEDCO-000-ST-DC-0001	Structural Design Criteria	D02
23	BK-GNRAL-PEDCO-000-ST-DW-0002	Standard Drawing For Anchor Bolts	D02
Cont	trol & Instrumentation		
24	BK-GNRAL-PEDCO-000-IN-SP-0001	Specification For Instrumentation	D04
25	BK-GNRAL-PEDCO-000-IN-SP-0004	Specification For Instrument and Control of package Unit System (PU)	D02



# ساخت موقعیت چاه، تاسیسات سرچاهی، خطوط جریانی، تسهیلات برق رسانی مربوط به موقعیت W007S و توسعه چندراهه کلاستر بینک



شماره پیمان:

 $\bullet \Delta T - \bullet V T - 91 \Lambda F$ 

PMR For Pumps - Extension of Binak B/C Manifold							
پروژه	بسته کاری	صادر کننده	تسهيلات	رشته	نوع مدرك	سريال	نسخه
BK	W007S	PEDCO	120	ME	MR	0001	D01

شماره صفحه: ۱۵ از ۲۵ D01

No.	Document No.	Document Title	Rev.
26	BK-GNRAL-PEDCO-000-IN-SP-0010	Specification For Instrument/F&G Cables	D02
Elec	trical		
27	BK-GNRAL-PEDCO-000-EL-DC-0001	Electrical System Design Criteria	D02
28	BK-GNRAL-PEDCO-000-EL-SP-0001	Specification For LV Switchgear & Motor Control Centers	D03
29	BK-GNRAL-PEDCO-000-EL-SP-0010	Specification For LV Induction Motors	D03
30	BK-GNRAL-PEDCO-000-EL-SP-0017	Specification For MV Induction Motors	D03
31	BK-GNRAL-PEDCO-000-EL-SP-0011	Specification For Electrical Requirements of Packaged Units	D03
32	BK-GCS-PEDCO-120-EL-DT-0008	Data Sheets For LV Induction Motors	D03
33	BK-GCS-PEDCO-120-EL-DT-0009	Data Sheets For MV Induction Motors	D03
Safe	ty & Fire Fighting		
34	BK-GNRAL-PEDCO-000-SA-SP-0002	Specification For Hazardous Area Classification	D03
35	BK-W007S-PEDCO-110-SA-PY-0001	Hazardous Area Classification Layout - Extension of Binak B/C Manifold	D01
Gene	eral		
36	ICE-EID-MI-SP01	دستورالعمل بازرسی، خرید و ساخت کالا	D01
37	E&C-QC-SP-1	دستورالعمل تامین قطعات یدکی راه اندازی وراهبری دو سالانه	D00
38	ICE-EID-MI-SP02-REV-01	دستورالعمل انتخاب سطح بازرسي كالا و تجهيزات	D01
39	BK-GNRAL-PEDCO-000-QC-PR-0022	Specification For Final Data Book (FDB) Requirements	D00
40	BK-GNRAL-PEDCO-000-QC-PR-0045	Packing, Marking, Transportation Procedure	D00



ساخت موقعیت چاه، تاسیسات سرچاهی، خطوط جریانی، تسهیلات برق رسانی مربوط به موقعیت W007S و توسعه چندراهه کلاستر بینک



شماره پیمان:

· ۵۳ - · ۷۳ - 9 1 1 A F

	PMR For Pumps - Extension of Binak B/C Manifold							
پروژه	بسته کاری	صادر کننده	تسهيلات	رشته	نوع مدرك	سريال	نسخه	
BK	W007S	PEDCO	120	ME	MR	0001	D01	

شماره صفحه: ۱٦ از ٢٥



## ATTACHMENT 2

### VENDOR DOCUMENTS MIN. REQUIREMENT

		With Bid		TIME SCH	HEDULE	
9		With Bid	For R	eview	Final	Issue
Item No.	Document	Copies No./Type (7)	Copies No./Type (1)	Solar days (2)	Copies No./Typ e (1)	Calenda r days (3)
MANAG	EMENT					
001	Vendor Document Index and Schedule (Deleted)	4N	6C+E		6C+E	
002	Organization Brief	3N	6C+E			
003	Schedule Level 1, 2, 3 & 4 showing Engineering, Procurement, Fabrication, Inspection, Testing, and Delivery Plan.  6C+E			6C+E		
004	Physically Progress Report (Every 2 Weeks))		6C+E			
005	Project Organization Chart	3N	6C+E			
006	Reference List	3N				
007	Vendor Catalogue	3N				
QUALIT	Y					
008	Quality Assurance Manual /Quality Management System Certificate (according to latest rev. of ISO)	4N			6C+E	
009	Preliminary Inspection and Test Plan	4N				
010	Inspection and Test Plan		6C+E		6C+E	
HSE						
011	HSE Procedure		6C+E		6C+E	
012	Noise & Vibrations Calculations / Reports (If any)		6C+E		6C+E	
INTERF	ACE					
013	Electrical & Instrumentation Cable Schedule (for all systems)		6C+E		6C+E	
014	Electrical & Instrumentation Wiring Drawings (for all systems)		6C+E		6C+E	



## ساخت موقعیت چاه، تاسیسات سرچاهی، خطوط جریانی، تسهیلات برق رسانی مربوط به موقعیت W007S و توسعه چندراهه کلاستر بینک



شماره پیمان:

· ۵۳ - · ۷۳ - 9 1 1 4 F

PMR For Pumps - Extension of Binak B/C Manifold									
پروژه	بسته کاری	صادر کننده	تسهيلات	رشته	نوع مدرك	سر يال	نسخه		
BK	W007S	PEDCO	120	ME	MR	0001	D01		

شماره صفحه: ۱۷ از ۲۵

		With Dist		TIME SCH	HEDULE	
ġ.		With Bid	For R	eview	Final Issue	
Item No.	Document	Copies No./Type (7)	Copies No./Type (1)	Solar days (2)	Copies No./Typ e (1)	Calenda r days (3)
015	Pump Data Sheets	4N	6C+E		6C+E	
016	Reliability, Availability, Maintainability Calculations/Reports	4N	6C+E		6C+E	
017	Performance Curves		6C+E		6C+E	
018	PFD's	4N	6C+E		6C+E	
019	Functional Description		6C+E		6C+E	
020	General Arrangements Drawings	4N	6C+E		6C+E	
021	Mechanical Equipment List	3N	6C+E		6C+E	
022	Electrical Equipment List	3N	6C+E		6C+E	
023	Control, Instrument & Cable List		6C+E		6C+E	
024	Interface Block Diagrams	3N	6C+E		6C+E	
025	Junction Box, Local Panels & Cabinets: wiring diagrams & termination drawings		6C+E		6C+E	
026	Functional Logic Diagram		6C+E		6C+E	
027	P & ID's	3N	6C+E		6C+E	
028	Utility Consumption List	3N	6C+E		6C+E	
029	Power Supply Requirements	3N	6C+E		6C+E	
030	Single Line Diagram	3N	6C+E		6C+E	
031	Earthing Details	3N	6C+E		6C+E	
032	Weight / Centre of Gravity Drawings & Data's		6C+E		6C+E	
033	External Static and Dynamic Forces & Moments (present during test, start-up, normal/maximum operation, shutdown, and other conditions of service)		6C+E		6C+E	
034	Wind and Seismic Loads including shear and moment forces on supports and foundation.		6C+E		6C+E	
035	Anchor Bolt Details Drawings (incl. size, type, locations relative to the equipment center-lines in three planes).		6C+E		6C+E	



## ساخت موقعیت چاه، تاسیسات سرچاهی، خطوط جریانی، تسهیلات برق رسانی مربوط به موقعیت W007S و توسعه چندراهه کلاستر بینک



شماره پیمان:

· ۵۳ - · ۷۳ - 9 1 A F

	PMR For Pumps - Extension of Binak B/C Manifold									
پروژه	بسته کاری	صادر کننده	تسهيلات	رشته	نوع مدرك	سريال	نسخه			
BK	W007S	PEDCO	120	ME	MR	0001	D01			

شماره صفحه: ۱۸ از ۲۵

				TIME SCH	HEDULE	
<u>o</u>		With Bid	For R	eview	Final	Issue
Item No.	Document	Copies No./Type (7)	Copies No./Type (1)	Solar days (2)	Copies No./Typ e (1)	Calenda r days (3)
036	Ladder & Platform Detail Drawing		6C+E		6C+E	
037	Steel Structure Detail Drawing		6C+E		6C+E	
ENGINE	ERING					
038	Detailed Functional Design Specification		6C+E		6C+E	
039	Detailed Overall Description		6C+E		6C+E	
040	Mechanical Detailed Specifications (one per component)		6C+E		6C+E	
041	Detailed Design / Fabrication Drawings for Equipment & Auxiliary Parts		6C+E		6C+E	
042	Cross Sectional Drawings with Part Lists		6C+E		6C+E	
043	Assembly Drawings		6C+E		6C+E	
044	Design Calculation Notes		6C+E		6C+E	
045	Pressure Parts Calculations		6C+E		6C+E	
046	Piping Detailed Specifications (one per component)		6C+E		6C+E	
047	Piping Routing		6C+E		6C+E	
048	Valves & Instruments Location Drawings (incl. provisions for operational and maintenance access)		6C+E		6C+E	
049	Electrical Detailed Specifications (one per component)		6C+E		6C+E	
050	Electrical Cables Routing (incl. cable trays & junction boxes)		6C+E		6C+E	
051	Electrical Equipment Location Drawings (incl. provisions for operational and maintenance access)		6C+E		6C+E	
052	Protection Device Operating Curves		6C+E		6C+E	
053	Electrical Control Schematics		6C+E		6C+E	
054	Instrument & Control Detailed Specifications (one per component)		6C+E		6C+E	
055	Instrument cables routing (incl. cable trays		6C+E		6C+E	



## ساخت موقعیت چاه، تاسیسات سرچاهی، خطوط جریانی، تسهیلات برق رسانی مربوط به موقعیت W007S و توسعه چندراهه کلاستر بینک



شماره پیمان:

.04 - . 14 - 9114

PMR For Pumps - Extension of Binak B/C Manifold								
پروژه	بسته کاری	صادر کننده	تسهيلات	رشته	نوع مدرك	سريال	نسخه	
BK	W007S	PEDCO	120	ME	MR	0001	D01	

شماره صفحه: ۱۹ از ۲۵

		With Did		TIME SCH	HEDULE	
ġ.		With Bid	For R	eview	Final Issue	
Item No.	Document	Copies No./Type (7)	Copies No./Type (1)	Solar days (2)	Copies No./Typ e (1)	Calenda r days (3)
	& junction boxes)					
056	Instrument Equipment Location Drawings (incl. provisions for operational and maintenance access)		6C+E		6C+E	
057	Hook-Up Diagrams		6C+E		6C+E	
058	Wiring Loops Diagrams		6C+E		6C+E	
059	Instrument Control Schematics		6C+E		6C+E	
060	Instrument Mounting & Housing Instructions		6C+E		6C+E	
061	Power Distribution & Consumption		6C+E		6C+E	
062	Cause & Effect Charts		6C+E		6C+E	
063	Original Software for Control & Monitoring System		6C+E		6C+E	
064	Software System Specifications		6C+E		6C+E	
065	Approximate Weight & Dimension	4N				
066	Shipping Detail Drawing		6C+E		6C+E	
067	Final Data Book		6C+E		6C+E	
068	Pressure Loss Calculations		6C+E		6C+E	
069	Lubrication System Detailed Specifications / Drawings		6C+E		6C+E	
070	Cooling System Detailed Specifications/Drawings		6C+E		6C+E	
071	Shaft Sealing System Detailed Specifications/Drawings	4N	6C+E		6C+E	
072	Completed Equipment Datasheets	4N	6C+E		6C+E	
073	Calculation sheets for safety valves, control valves & orifice plate		6C+E		6C+E	
074	Complex loop & automation descriptions, list of alarms & shutdown with set points		6C+E		6C+E	
075	Electrical Equipment Catalogue	3N	6C+E		6C+E	
076	Electrical Interface Block Diagrams		6C+E		6C+E	
077	Local Control Station of motors wiring		6C+E		6C+E	



# ساخت موقعیت چاه، تاسیسات سرچاهی، خطوط جریانی، تسهیلات برق رسانی مربوط به موقعیت W007S و توسعه چندراهه کلاستر بینک



شماره پیمان:

· ۵۳ - · ۷۳ - 9 1 1 A F

	PMR For Pumps - Extension of Binak B/C Manifold								
پروژه	بسته کاری	صادر کننده	تسهيلات	رشته	نوع مدرك	سر يال	نسخه		
BK	W007S	PEDCO	120	ME	MR	0001	D01		

شماره صفحه: ۲۰ از ۲۰

		With Bill		TIME SCH	IEDULE	
ġ		With Bid	For Review		Final Issue	
Item No.	Document	Copies No./Type (7)	Copies No./Type (1)	Solar days (2)	Copies No./Typ e (1)	Calenda r days (3)
	diagram, termination drawing and general arrangement					
078	Gear System Detailed Specifications / Drawings		6C+E		6C+E	
079	Coupling System Detailed Specifications / Drawings		6C+E		6C+E	
PROCU	REMENT					
080	List of Sub-Suppliers (table giving: part of equipment, tag no., sub-supplier reference)(5.1.3)			6C+E		
081	Unpriced copy of sub-orders		6C+E			
MANUF	ACTURING					
082	Weld and NDT Map		6C+E		6C+E	
083	Surface Preparation and Painting Procedures		6C+E		6C+E	
084	Heat Treatment Procedures		6C+E		6C+E	
085	Welding Procedure Specification (including repair procedures).		6C+E		6C+E	
086	Welder Qualification Procedure		6C+E		6C+E	
087	Fabrication Degree	3N				
TESTIN	G					
088	Hydrostatic / Pneumatic Testing Procedure		6C+E		6C+E	
089	Performance & Functional Test Procedure		6C+E		6C+E	
090	Non-Destructive Testing/Examination Procedures		6C+E		6C+E	
091	Factory Acceptance Test (FAT) Procedure		6C+E		6C+E	
092	Motor Routine Test Procedure		6C+E		6C+E	
093	Motor Type Test Procedure		6C+E		6C+E	
094	SAT Procedure		6C+E		6C+E	
RECOR	DS, REPORTS & CERTIFICATES					
095	Material Conformity Certificate		6C+E		6C+E	



# ساخت موقعیت چاه، تاسیسات سرچاهی، خطوط جریانی، تسهیلات برق رسانی مربوط به موقعیت W007S و توسعه چندراهه کلاستر بینک



شماره پیمان:

.04 - . 14 - 9114

PMR For Pumps - Extension of Binak B/C Manifold								
پروژه	بسته کاری	صادر کننده	تسهيلات	رشته	نوع مدرك	سريال	نسخه	
BK	W007S	PEDCO	120	ME	MR	0001	D01	

شماره صفحه: ۲۱ از ۲۵

		With Did		TIME SCH	IEDULE	
ġ.		With Bid	For R	eview	Final	Issue
Item No.	Document	Copies No./Type (7)	Copies No./Type (1)	Solar days (2)	Copies No./Typ e (1)	Calenda r days (3)
096	Testing Authority Approval Certificate (if any)		6C+E		6C+E	
097	Hazardous Area Certificates.		6C+E		6C+E	
098	Ingress Protection Certificate		6C+E		6C+E	
099	Conformity Certificates (subsupplier/equipment)		6C+E		6C+E	
100	Material Certificates Identification Diagram. (cross-reference material location; certificates for critical components)		6C+E		6C+E	
101	Welding Procedure Qualification Record		6C+E		6C+E	
102	Welder Qualification Records.		6C+E		6C+E	
103	NDT Operator Qualifications		6C+E		6C+E	
104	Detailed NDT Reports		6C+E		6C+E	
105	Weld/ NDT Identification Diagram. (Cross-reference weld locations, WPS, welders, NDT reports).		6C+E		6C+E	
106	Dimensional Control Reports		6C+E		6C+E	
107	Hardness Test Reports		6C+E		6C+E	
108	PWHT Charts & Reports, including calibration records of recorders (for each heat treatment)		6C+E		6C+E	
109	Pressure Test Reports / Certificates		6C+E		6C+E	
110	FAT Test Report / Certificates		6C+E		6C+E	
111	Performance Test Report / Certificates		6C+E		6C+E	
112	Noise & Vibration Test Report / Certificates		6C+E		6C+E	
113	Electric Motor Type Test Report (if any)		6C+E		6C+E	
114	Electric Motor Routine Test Report		6C+E		6C+E	
115	Cable Continuity and Resistance Test Reports		6C+E		6C+E	
116	Calibration Curves of Control Equipment		6C+E		6C+E	
117	Calibration Test Certificates		6C+E		6C+E	
118	Surface Preparation & Coating Reports		6C+E		6C+E	



# ساخت موقعیت چاه، تاسیسات سرچاهی، خطوط جریانی، تسهیلات برق رسانی مربوط به موقعیت W007S و توسعه چندراهه کلاستر بینک



شماره پیمان:

1 A 1 P - 47 - 41 A F

PMR For Pumps - Extension of Binak B/C Manifold									
پروژه	بسته کاری	صادر کننده	تسهيلات	رشته	نوع مدرك	سريال	نسخه		
BK	W007S	PEDCO	120	ME	MR	0001	D01		

شماره صفحه: ۲۲ از ۲۵

			TIME SCHEDULE				
ġ.		With Bid	For R	eview	Final	Issue	
Item No.	Document	Copies No./Type (7)	Copies No./Type (1)	Solar days (2)	Copies No./Typ e (1)	Calenda r days (3)	
119	Hydrostatic / Pneumatic Testing Certificates		6C+E		6C+E		
120	Welding Consumable Certificate		6C+E		6C+E		
121	Inspection and Test Reports(if any)		6C+E		6C+E		
122	Rust Prevention Report		6C+E		6C+E		
123	Non-Conformities Report		6C+E		6C+E		
INSTAL	LATION						
124	Sub-Assembly Documentation		6C+E		6C+E		
125	Sub-Assembly Drawings		6C+E		6C+E		
126	Erection/Installation Manual (if required)		6C+E		6C+E		
127	Name Plate Documents		6C+E		6C+E		
128	Handling, Transportation & Storage Instructions		6C+E		6C+E		
129	Unpacking & Inspection Instructions		6C+E				
130	Preliminary Packing List	4N					
131	Packing List		6C+E		6C+E		
OPERA	TION & MAINTENANCE						
132	Operating Instructions		6C+E		6C+E		
133	Maintenance Instructions (if required)		6C+E		6C+E		
134	Commissioning & Start-up Manual		6C+E		6C+E		
135	List of Spare Parts Commissioning & Start- up	4N	6C+E		6C+E		
136	List of Spare Parts 2 Years Operation	4N	6C+E		6C+E		
137	List of Special Tools	4N	6C+E		6C+E		
138	Lube Oil Schedule		6C+E		6C+E		
139	Software Manual (incl. Troubleshooting)		6C+E		6C+E		
140	Consumables List		6C+E		6C+E		
141	Function Test Procedure		6C+E		6C+E		



## ساخت موقعیت چاه، تاسیسات سرچاهی، خطوط جریانی، تسهیلات برق رسانی مربوط به موقعیت W007S و توسعه چندراهه کلاستر بینک



شماره پیمان:

· 24 - · 74 - 9 1 A F

PMR For Pumps - Extension of Binak B/C Manifold							
پروژه	بسته کاری	صادر کننده	تسهيلات	رشته	نوع مدرك	سريال	نسخه
BK	W007S	PEDCO	120	ME	MR	0001	D01

شماره صفحه: ۲۳ از ۲۵

	Document	With Bid	TIME SCHEDULE				
ġ			For Review		Final Issue		
Item No.		Copies No./Type (7)	Copies No./Type (1)	Solar days (2)	Copies No./Typ e (1)	Calenda r days (3)	
OTHERS							
142	All others documents (if required) will be listed in the order		6C+E				

#### NOTES:

- (1) N= Number of document, C=Copy, E=Electronic Copy
- (2) Starting from date of order placement
- (3) Starting from reception of documentation without comments
- (4) First issue of the document is subjected to the release of payment milestone as per purchase order
- (5) Calendar days after reception of drive data
- (6) Prior to testing
- (7) One copy each bid copy
- (8) List of Documents will be Finalized in VPIS



# ساخت موقعیت چاه، تاسیسات سرچاهی، خطوط جریانی، تسهیلات برق رسانی مربوط به موقعیت W007S و توسعه چندراهه کلاستر بینک



شماره پیمان:

۹۱۸۴ - ۲۷۰ - ۳۵۰

Requisition No.:

Equipment No.:

Description:

PMR For Pumps - Extension of Binak B/C Manifold							
پروژه	بسته کاری	صادر کننده	تسهيلات	رشته	نوع مدرك	سر يال	نسخه
BK	W007S	PEDCO	120	ME	MR	0001	D01

شماره صفحه: ۲۶ از ۲۵

## ATTACHMENT 3 DEVIATIONS / EXCEPTIONS TO JOB SPECIFICATION

Item No.	Description of Proposed Exception	Recommended Revision to JOB SPECIFICATION	Reason for Proposed Exception	Effect on Base PROPOSAL if CONTRACTOR Rejects Exception



## ساخت موقعیت چاه، تاسیسات سرچاهی، خطوط جریانی، تسهیلات برق رسانی مربوط به موقعیت W007S و توسعه چندراهه کلاستر بینک



شماره پیمان:

Requisition No.:

Description:

PMR For Pumps - Extension of Binak B/C Manifold								
پروژه	بسته کاری	صادر کننده	تسهيلات	رشته	نوع مدرك	سريال	نسخه	
BK	W007S	PEDCO	120	ME	MR	0001	D01	

شماره صفحه: ۲۵ از ۲۵

## ATTACHMENT 4 ALTERNATIVES TO JOB SPECIFICATION

Equipme	quipment No.:							
Item No.	Job Specification No. & Paragraph No.	Requirements of Job Specification	Description of Proposed Alternative	Reason for Proposed Alternative				