

	نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض و ابنیه تحت الارض						 	
	خرید توپک ران و توپک گیر بسته خطوط لوله (قرارداد BK-HD-PPL-CO-0019_01)							
شماره پیمان: ۰۵۳ - ۰۷۳ - ۹۱۸۴	Inspection & Test Plan (ITP)						شماره صفحه: ۱ از ۱۱	
	پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه
	BK	PPL	BV	320	QC	PR	0001	V02

طرح نگهداشت و افزایش تولید ۲۷ مخزن

Inspection & Test Plan (ITP)

نگهداشت و افزایش تولید میدان نفتی بینک

Rev.	Date	Purpose of Issue/Status	Prepared by:	Checked by:	Approved by:	CLIENT Approval
V02	Apr 2024	AFC	VISTA Co.	M.Fakharian	S.Faramarz Pour	
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Status:

IFA: Issued for Approval

IFI: Issued for Information

AFC: Approved for Construction



نگهداشت و افزایش تولید میدان نفتی بینک
سطح الارض و ابنیه تحت الارض

خرید توپک ران و توپک گیر بسته خطوط لوله
(قرارداد BK-HD-PPL-CO-0019_01)



شماره پیمان:

۰۵۳ - ۰۷۳ - ۹۱۸۴

Inspection & Test Plan (ITP)

نسخه	سریال	نوع مدرک	رشته	تسهیلات	صادر کننده	بسته کاری	پروژه
V02	0001	PR	QC	320	BV	PPL	BK

شماره صفحه: ۲ از ۱۱

REVISION RECORD SHEET

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2	X	X	X		
3	X	X	X		
4	X	X	X		
5	X	X	X		
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 NISOC	نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض و ابنیه تحت الارض خرید توپک ران و توپک گیر بسته خطوط لوله (قرارداد BK-HD-PPL-CO-0019_01)								
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	BK	PPL	BV	320	QC	PR	0001	V02	

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 NISOC	نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض و ابنیه تحت الارض خرید توپک ران و توپک گیر بسته خطوط لوله (قرارداد BK-HD-PPL-CO-0019_01)								
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1. 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.



GENERAL DEFINITION

The following terms shall be used in this document.

CLIENT:	National Iranian South Oilfields Company (NISOC)
PROJECT:	Binak Oilfield Development – Manufacturing (w/Engineering & Material Supply) of Pig traps
EPD/EPC CONTRACTOR (GC):	Petro Iran Development Company (PEDCO)
EPC CONTRACTOR/PURCAHSE:	Joint Venture of: Hirgan Energy – Design & Inspection(D&I) Companies
VENDOR:	Nam Avaran Beh Koosh Vista
EXECUTOR:	Executor is the party which carries out all or part of construction and/or commissioning for the project.
TPI:	Third Party Inspector
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.

HOLD POINT:
(abbreviated: H)

Next operation is allowed only when test or inspection is accepted. Vendor must notify contractor of the dedicated inspection activity at least 7 Working days in advance. And the test must be performed in attendance of the inspectors; the vendor shall not depart from this role unless specifically approved by contractor in writing.

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	پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال		نسخه
	BK	PPL	BV	320	QC	PR	0001		V02

Review of Documents
(abbreviated R)

Check of certificate and/or documents with approved procedures, specification and acceptance criteria.

Review & Approved of Documents
(abbreviated: R/A)

Check and approve of certificate and/or documents with approved procedures, specification and acceptance criteria.

Witness point
(abbreviated: W)

Inspector's presence required; the inspection activity proceed if the involved parties does not attend. The vendor must notify contractor of the dedicated inspection activity at least 5 working days in advance if the inspection parties don't elect to be present, the vendor may proceed with his own inspection provide and test records are made available to contractor for review.

Spot Witness point
(abbreviated: S.W)

Means Inspector's presence required, the inspection activity proceed if the involved parties does not attend, the ratio of witness point is minimum 20%. The vendor must notify contractor of the dedicated inspection schedule at least 14 days. if the inspection parties don't elect to be present, the vendor may proceed with his own inspection provide and test records are made available to contractor for review.

Monitoring
(abbreviated: M)

Means that the Client requires monitoring during the Manufacturing of goods. However, if the work is performed as scheduled and if the Client is not present, Vendor will proceed with the work.

MOM

Minutes of meeting

PIM

Pre-Inspection Meeting

 NISOC	نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض و ابنیه تحت الارض خرید توپک ران و توپک گیر بسته خطوط لوله (قرارداد BK-HD-PPL-CO-0019_01)							
شماره پیمان: ۰۵۳ - ۰۷۳ - ۹۱۸۴	Inspection & Test Plan (ITP)							شماره صفحه: ۶ از ۱۱
	پروژه	بسته کاری	صادرکننده	تسهیلات	رشته	نوع مدرک	سریال	
	BK	PPL	BV	320	QC	PR	0001	V02

2. SCOPE

This document covers minimum necessary requirements for the inspect and control the quality of the 2 sets of Pig Launcher and Receiver Trap & final inspection to satisfy the quality of the execution process in accordance with the standard and Project Specification, And the use of the above document in the development project of Binak oil field.

3. NORMATIVE REFERENCES

3.1 Local Codes and Standards

- IPS-M-PI-130 (1) Material and Equipment Standard for Pig Launching and Receiving Traps
- IPS-G-ME-150 (1) Iranian Petroleum Standard – General Standard For Towers, Reactors, Pressure vessels & Internals
- S4L-6516 (REV. B) National Iranian Oil Company – Standard Drawing for Pipeline Pig Traps (for Intelligent Pig)
- IPS-E-IN-100 (2) Iranian Petroleum Standard – Engineering Standard for General Instrumentation
- IPS-E-TP-740 (1) Iranian Petroleum Standard – Engineering Standard for Corrosion Considerations in Material Selection
- IPS-G-GN-210 General standard for packing and packaging
- IPS-E-TP-100 (1) Engineering Standards for Paints
- IPS-C-TP-102 (1) Construction Standard for Painting



3.2 International Codes and Standards

- ASME Sec. VIII, div. 1 (2019)
- ASME B 31.4 (2022)
- Deleted
- ASME Sec. V (2021)
- ASTM International (2022)
- ASME Sec. II (2019)
- NACE MR 0175/ISO 15156 (2021)
- ISO 8501 (2020)

 NISOC	نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض و ابنیه تحت الارض خرید توپک ران و توپک گیر بسته خطوط لوله (قرارداد BK-HD-PPL-CO-0019_01)								
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	پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال		نسخه
	BK	PPL	BV	320	QC	PR	0001	V02	



3.3 The Project Documents

- BK-PPL-PEDCO-320-ME-MR-0001-D03 PMR FOR PIG TRAPS
- BK-GNRAL-PEDCO-000-ME-DC-0001-D03 Mechanical Design Criteria
- BK-PPL-PEDCO-320-ME-SP-0001-D02 Spec. for Pig Launching / Receiving Traps
- BK-PPL-PEDCO-320-ME-DT-0001-D04 Data Sheets For Pig Traps
- BK-GNRAL-PEDCO-000-QC-PR-0015-D00 Specification for Welding Procedure
- BK-GNRAL-PEDCO-000-QC-PR-0045-D00 Packing, Marking, Transportation Procedure
- ICE-EID-MI-SP01-Rev.01 دستورالعمل بازرسی، خرید و ساخت کالا
- E&C -QC-SP-1-D01 دستورالعمل تامین قطعات بدکی راه اندازی و راهبری دو سالانه
- BK-GNRAL-PEDCO-000-PI-SP-0011-D01 Specification of welding of plant piping system & NDT
- BK-GNRAL-PEDCO-000-PI-SP-0008-D01 Specification for Material Requirements in Sour service
- BK- PPL -PEDCO-120-PI-SP-0001-D02 Piping Material Specification (PMS)
- BK-GNRAL-PEDCO-000-PI-SP-0005-D02 Specification for Fittings, Flanges, Gaskets and Bolts
- BK-GNRAL-PEDCO-000-PI-SP-0006-D04 Specification for Painting
- BK-GNRAL-PEDCO-000-PI-SP-0001-D02 Specification for color coding and marking
- BK-GNRAL-PEDCO-000-PI-SP-0017-D03 Specification for Cleaning and Flushing
- BK-GNRAL-PEDCO-000-PL-SP-0015-D01 Specification for Pig
- BK-GNRAL-PEDCO-000-ME-DW-0001-D02 Standard Detail Drawing for Pressure Vessel & Heat Exchanger

3.4 Order of Precedence

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.



نگهداشت و افزایش تولید میدان نفتی بینک
سطح الارض و ابنیه تحت الارض

عمومی و مشترک



شماره پیمان:

۰۵۳ - ۰۷۳ - ۹۱۸۴

ITP FOR PIG TRAP

نسخه	سریال	نوع مدرک	رشته	تسهیلات	صادرکننده	بسته کاری	پروژه
V02	001	PR	QC	۳۲۰	BV	PPL	BK

شماره صفحه: ۸ از ۱۱

V02

4. ITP FOR PIG TRAP

No.	Description of Inspection and Test	Refrence Code/Standard / Specification	Acceptance Criteria	Confirmation documents	Inspection Authority					Report	Remark
					VISTA	TPI	HIRGAN	PEDCO	NISOC		
Before Fabrication											
A1	PIM	Project Document	---	MOM	H	H	H	H	H	✖	---
A2	Technical document Design and General drawing	Project Document	Project Spec / Procedure	Approved document	H	---	RA	RA	R	---	Note 1
A3	VPIS	Project Document	Project Spec / VPIS	Approved document	H	---	RA	RA	R	---	---
Raw Material Inspection											
B1	Mill test certificate & origin	Project Spec / Data sheet	Project Spec & Standard NACE MR 0175/ISO 15156 & IPS-M-PI-130	Mill Certificate EN 10204 3.1	H	W	W	W	W	✓	Note 3
B2	Material sampling & Lab test (if required)	Project Spec / Data sheet	Project Spec & Standard NACE MR 0175/ISO 15156 & IPS-M-PI-130	Lab Report	H	H	R	R	R	✓	Note 3
B3	Dimension check and visual inspection	Data sheet & DWGs	DWGs & Data Sheet	Inspection Report	H	H	R	R	R	✓	---
B4	Consumable material inspection	Project Spec / Data sheet	ASME BPVC Sec.II Part C / Project Spec & Standard	Certifications	H	RA	R	R	R	✓	---



نگهداشت و افزایش تولید میدان نفتی بینک
سطح الارض و ابنیه تحت الارض

عمومی و مشترک



 NISOC	نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض و ابنیه تحت الارض عمومی و مشترک							
شماره پیمان: ۰۵۳ - ۰۷۳ - ۹۱۸۴	ITP FOR PIG TRAP							شماره صفحه ۹: از ۱۱
	نسخه	سریال	نوع مدرک	رشته	تسهیلات	صادرکننده	بسته کاری	
	V02	001	PR	QC	۳۲۰	BV	PPL	

Welding Document											
C1	WPS	Project Spec / ASME Sec. IX	ASME Sec. IX & NACE MR 0175/ISO 15156 & IPS-M-PI-130	WPS	H	RA	R	R	R	✓	---
C2	PQR	Project Spec / ASME Sec. IX	ASME Sec. IX & NACE MR 0175/ISO 15156 & IPS-M-PI-130	PQR	H	RA	R	R	R	✓	---
C3	Welder qualification test	Project Spec / ASME Sec. IX	ASME Sec. IX	Welder Certificate	H	RA	R	R	R	✓	---
C4	NDT operator certificate (Level II)	Project Spec / NDE Procedure	ASME BPVC Sec.V & ASNT SNT-TC--1A	NDT Certificate	H	RA	R	R	R	✓	---
C5	Measurement tools calibration	Related Standards	Related Standards	Calibration Certificate	H	RA	R	R	R	✓	---
During Fabrication											
D1	Cutting & beveling	DWG	DWG	QC Report	H	SW	R	R	R	✓	---
D2	Fit up C.W. L	DWG	DWG	QC Report	H	SW	R	R	R	✓	---
D3	Marking & opening of nozzle location	DWG	DWG	QC Report	H	SW	R	R	R	✓	---
D4	Dimensional & visual check (fit up)	DWG	DWG	QC Report	H	SW	R	R	R	✓	---
D5	Welding	WPS & PQR	WPS & PQR	QC Report	H	SW	R	R	R	✓	---
D6	Dimensional & visual check	DWG	DWG	QC Report	H	W	R	R	R	✓	---
D7	NDT befor PWHT (100% VT & RT)	NDT Procedure / NDT Map	NDT Procedure	NDT Report	H	W	R	R	R	✓	---
D8	Weld Repair (if required)	WPS & PQR	WPS & PQR	QC Report	H	SW	R	R	R	✓	---



نگهداشت و افزایش تولید میدان نفتی بینک
سطح الارض و ابنیه تحت الارض

عمومی و مشترک



شماره پیمان: ۰۵۳ - ۰۷۳ - ۹۱۸۴	ITP FOR PIG TRAP								شماره صفحه ۱۰ از ۱۱	
	پروژه BK	بسته کاری PPL	صادر کننده BV	تسهیلات ۳۲۰	رشته QC	نوع مدرک PR	سریال 001	نسخه V02		

D9	NDT after repairing (VT & RT)	NDT Procedure / NDT Map	NDT Procedure	NDT Report	H	W	R	R	R	✓	---
D10	PWHT	Project Spec / PWHT Procedure according to NACE MR 0175/ISO 15156	PWHT Procedure	PWHT Report & Graph	H	W	W	W	W	✓	---
D11	Hardness test	Project Spec / Hardness Procedure according NACE MR 0175/ ISO 15156	According NACE MR 0175 / ISO 15156 & IPS- M-PI-130	Hardness Report	H	SW	R	R	R	✓	---
D12	NDT after PWHT (100% VT & RT & PT or MT)	NDT Procedure / NDT Map	NDT Procedure	NDT Report	H	W	R	R	R	✓	---
D13	Final visual dimensional check	Approved DWG	Approved DWG	DT, VT report	H	H	R	R	R	✓	---
D14	Hydrostatic test	Hydrostatic Procedure	Hydrostatic Procedure	QC report & Calibration Certificate	H	H	H	H	H	✓	---
D15	Closure functional test	Closure Function Test Procedure	Closure functional test Procedure	QC Report	H	H	H	H	H	✓	---
D16	Check of surface preparation	Surface Preparation and Painting Procedure	Surface Preparation and Painting Procedure	QC Report	H	W	R	R	R	✓	---
D17	Surface Preparation and Painting Procedure	Project Document	Project Spec / Surface Preparation and Painting Procedure	Approved document	H	R	RA	RA	RA	---	---
D18	Raw material (abrasive & paint) inspection Data sheet, Laboratory test results	Project Spec / Data sheet	Project Spec & Standard	Certificate	H	H	W	W	W	✓	---

 NISOC	نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض و ابنیه تحت الارض عمومی و مشترک							
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	پروژه	بسته کاری	صادرکننده	تسهیلات	رشته	نوع مدرک	سریال	
	BK	PPL	BV	۳۲۰	QC	PR	001	

D19	Surface Preparation (Cleanliness & Roughness)	Surface Preparation and Painting Procedure	Surface Preparation and Painting Procedure	QC Report	H	H	R	R	R	---	---
D20	Painting	Surface Preparation and Painting Procedure	Surface Preparation and Painting Procedure	QC Report	H	H	R	R	R	✓	Report (Note2)
After Fabrication											
E1	Name Plate Check	Name Plate Drawing	Name Plate Drawing	QC Paint Report	H	H	R	R	R	✓	---
E2	Packing visual inspection	Packing Procedure	Packing Procedure	Packing List	H	H	R	R	R	✓	---
E3	Final Inspection and Inspection Release note (IRN)	---	---	IRN	H	H	RA	RA	RA	✓	---
E4	Final book	FDB Index	FDB Index	FDB	H	RA	RA	RA	RA	✓	---
E5	Issue Inspection Certificate (IC)	---	---	IC	---	H	RA	RA	RA	✓	---

Note:

- 1- According to approved VPIS.
- 2- First layer inspection is a Hold point for TPI.
- 3- If Material Certificate is not original, then laboratory test is required. Required test shall be done in qualified laboratories in presence of TPI.