

UPS SINGLE LINE DIAGRAM EXTENSION OF BINAK B/C MANIFOLD

NOTES




LEGEND

REFERENCE DRAWING	DRG. No.
SPECIFICATION FOR UPS SYSTEM	BK-0NRAI-PBDCO-000-EL-SP-0000
CALCULATION NOTE FOR UPS SYSTEM EXTENSION OF BINAK B/C MANIFOLD	BK-00079-PBDCO-110-EL-CN-0000
DATA SHEET FOR UPS EXTENSION OF BINAK B/C MANIFOLD	BK-00079-PBDCO-110-EL-DT-0000

REV.	DESCRIPTION	BY	DATE	BY	DATE

PROJECT NAME: BINAK OILFIELD DEVELOPMENT/SUB-SURFACE WORK PACKAGES
W0079 WHF & EXTENSION OF BINAK B/C

PROJECT NO.: 971020

EPC CONTRACTOR:  HIRASAN ENERGY - DESIGN & INSPECTION COMPANIES		EPD/EPC CONTRACTOR (CO):  PETROIRAN DEVELOPMENT COMPANY		
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DATE	SCALE	DRAWN BY	CHECKED BY	PROJECT ENG.

DRAWING TITLE: UPS SINGLE LINE DIAGRAM - EXTENSION OF BINAK B/C MANIFOLD						NO CONSTRUCTION PERMITTED UNLESS DRAWING APPROVED					
APPROVED FOR CONSTRUCTION BY:						DATE:					
SCALE	SIZE	DRAWING NO.	SHEET NO.	REV.	BUDGET REF.	LOCATION	SIZE	CLASS	SERIAL NO.	SHEET	REVISION
N/A	A3	BK-00079-PBDCO-110-EL-0000	01 OF 04	004	003-078-9104	F	2	P	709008	01 OF 04	004

(VENDOR TITLE BLOCK)

TABULATION OF REVISED PAGES

PAGE	REV. 00	REV. 01	REV. 02	REV. 03	REV. 04	REV. 05
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NOTES

LEGEND

REFERENCE DRAWING	DRG. No.
SPECIFICATION FOR UPS SYSTEM	BK-CHRAL-PEDCO-000-EL-SP-0000
CALCULATION NOTE FOR UPS SYSTEM EXTENSION OF BINAK B/C MANIFOLD	BK-W0075-PEDCO-110-EL-CN-0002
DATA SHEET FOR UPS EXTENSION OF BINAK B/C MANIFOLD	BK-W0075-PEDCO-110-EL-DT-0002

REV.	DESCRIPTION	BY	DATE	BY	DATE

اصل و کاپی این نقشه و جزئیات متعلق به شرکت ملی صنایع پتروشیمی می باشد.
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DATE	SCALE	DRAWN BY	CHECKED BY	PROJECT ENG.



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 APPROVED FOR CONSTRUCTION BY: _____ DATE: _____

SCALE	SIZE	DRAWING NO.	SHEET NO.	REV.	BUDGET REF.	LOCATION	SIZE	CLASS	SERIAL NO.	SHEET	REVISION
NWS	A3	BK-W0075-PEDCO-110-EL-0002	02 OF 04	004	003-078-9104	F	2	P	709008	02 OF 04	004

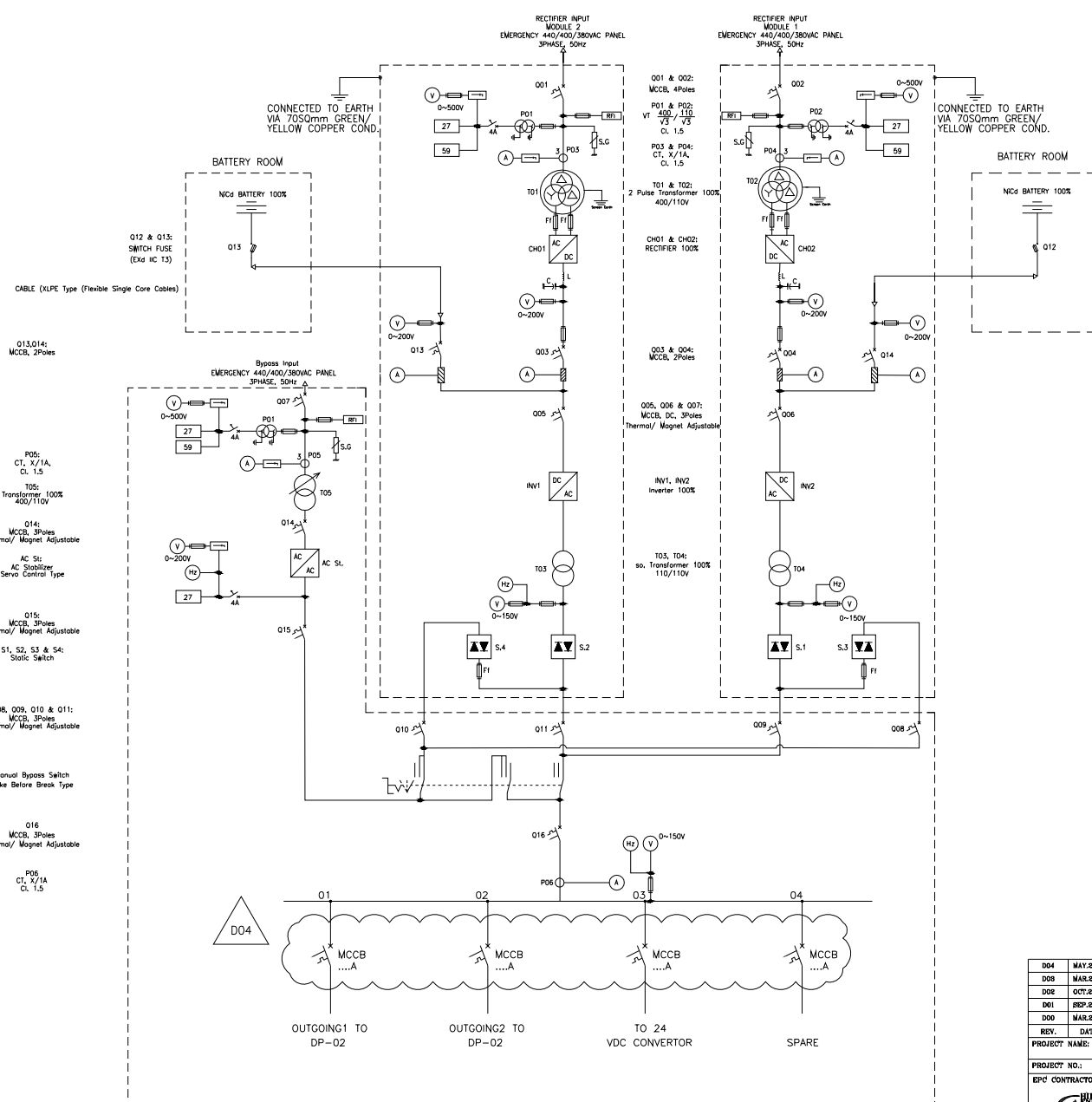
(VENDOR TITLE BLOCK)

DD4	MAY.2002	APC	K.SHAHBA	M.FARHANI	A.A.MOHAMMAD	** **
DD5	MAR.2002	APC	K.SHAHBA	M.FARHANI	M.HUSSEIN	** **
DD2	OCT.2002	IPA	K.SHAHBA	M.FARHANI	M.HUSSEIN	** **
DD1	SEP.2002	IPA	K.SHAHBA	M.FARHANI	M.HUSSEIN	** **
DD0	MAR.2002	IPC	K.SHAHBA	M.FARHANI	M.HUSSEIN	** **
REV.	DATE	P.O.I.#	PREP.	CHK.	APP.	AUT.

PROJECT NAME: BINAK OILFIELD DEVELOPMENT/SUB-SURFACE WORK PACKAGES
 W0075 WHF & EXTENSION OF BINAK B/C
 PROJECT NO.: 971020

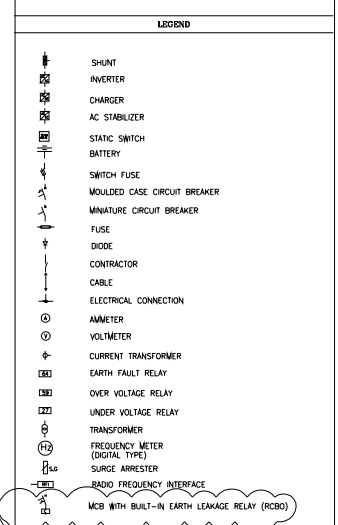
EPC CONTRACTOR:	EPD/EPC CONTRACTOR (CO):
 HIRASAN ENERGY - DESIGN & INSPECTION COMPANIES	 PETROIRAN DEVELOPMENT COMPANY

DRAWING TITLE:
 UPS SINGLE LINE DIAGRAM - EXTENSION OF BINAK B/C MANIFOLD



- O12 & O13: SWITCH FUSE (EXG IC 13)
- CABLE (XLPE Type (Flexible Single Core Cables))
- O13.O14: MCCB, 2Poles
- O05, O06 & O07: MCCB, DC, 3Poles Thermal/ Magnet Adjustable
- O03 & O04: MCCB, 2Poles
- O01 & O02: MCCB, 4Poles
- P01 & P02: VT 400/110 Cl. 1.5
- P03 & P04: CT, X/1A, Cl. 1.5
- T01 & T02: 2 Pulse Transformer 400/110V
- CH01 & CH02: RECTIFIER 100%
- INV1, INV2: Inverter 100%
- T03, T04: so. Transformer 100% 110/110V
- O14: MCCB, 3Poles Thermal/ Magnet Adjustable
- AC St: AC Stabilizer Servo Control Type
- O15: MCCB, 3Poles Thermal/ Magnet Adjustable
- S1, S2, S3 & S4: Static Switch
- O08, O09, O10 & O11: MCCB, 3Poles Thermal/ Magnet Adjustable
- Manual Bypass Switch Make Before Break Type
- O16: MCCB, 3Poles Thermal/ Magnet Adjustable
- P05: CT, X/1A, Cl. 1.5

- NOTES**
- 1- MANUAL BYPASS SWITCH SHALL BE CONSIDERED MAKE BEFORE BREAK TYPE.
 - 2- THE OVERALL ALARM/FAULT SIGNAL SHALL BE SENT TO PROCESS CONTROL SYSTEM (PCS) PANEL BY DRY CONTACT.
 - 3- OUTPUT FEEDERS TO PCS PANEL SHALL BE CONSIDERED DOUBLE AND SEPARATE.
 - 4- AC STABILIZER SHALL BE CONSIDERED SERVO CONTROL TYPE.
 - 5- UPS SHALL BE CONSIDERED 12 PULSE.
 - 6- CABLE SIZES SHALL BE SIZED AFTER FINALIZING ELECTRICAL POWER & CONTROL CABLE LIST - EXTENSION OF BINAK B/C MANIFOLD. NO'BK-W007S-PEDCO-110-EL-LI-0002'
 - 7- THIS SINGLE LINE DIAGRAM IS VALID FOR 110 VAC UPS.
 - 8- ALL DEVICES SHALL BE SIZED BY VENDOR.
 - 9- INTERLOCKS WILL BE PROVIDED TO INHIBIT BATTERY BOOST CHARGE IF BATTERY ROOM VENTILATION IS OUT OF SERVICE.
 - 10- INTERLOCKS WILL BE PROVIDED TO ACTIVE BATTERY ROOM VENTILATION WHEN UPS IS ON BATTERY BOOST CHARGE MODE.
 - 11- AUTOMATIC BATTERY ISOLATION FACILITY SHALL BE PROVIDED FOR INCOMING MCCB OF BATTERY BANK. INCOMING MCCB OF BATTERY BANK SHALL BE OPEN WHEN FAS SYSTEM SEND BATTERY ISOLATION SIGNAL TO THE UPS.
 - 12- AN EARTH FAULT MONITORING SHALL BE CONSIDERED FOR EVERY 10 FEEDERS FOR EASY OF FINDING FAULTY BRANCH.
 - 13- METERING AND PROTECTION SYSTEM SHALL BE COMPLETED BASED ON AC UPS SPECIFICATION AND DETAILED INFORMATION SHALL BE INDICATED ON VENDOR DRAWING.
 - 14- THE BODY OF PANELS SHALL BE EARTHED DIRECTLY FROM TWO POINT
 - 15- SINCE 1 KW OF 110 VAC UPS WILL SUPPLY 24 VDC EXISTING MANHOLDING SYSTEM THEREFORE A CONVERTOR 110 VAC TO 24 VDC SHALL BE CONSIDERED BY VENDOR ON DISTRIBUTION PANEL OF UPS.
 - 16- AT THE BID STAGE, VENDOR SHALL CONSIDER IF IT IS POSSIBLE TO CONNECT THE 1 KW EXISTING 24 VDC EXISTING TO DC LINK OR NOT. IF YES, THE NOTE 15 WILL BE DELETED & ONLY CONVERTOR 110 VDC TO 24 VDC IS SUFFICIENT.
 - 17- DISTRIBUTION PANEL (DP-02) FOR 110 VAC WHICH WILL BE INSTALLED IN CONTROL ROOM, SHALL BE MANUFACTURED & CONSIDERED BY VENDOR.



REFERENCE DRAWING

REFERENCE DRAWING	DRG. No.
SPECIFICATION FOR UPS SYSTEM	BK-CHRAL-PEDCO-000-BL-SP-0008
CALCULATION NOTE FOR UPS SYSTEM EXTENSION OF BINAK B/C MANIFOLD	BK-W007S-PEDCO-110-BL-CN-0002
INVA SHEETS FOR UPS EXTENSION OF BINAK B/C MANIFOLD	BK-W007S-PEDCO-110-EL-DT-0002

REV.	DATE	P.O.I.F	PREP.	CHK.	APP.	AUT.
D04	MAY.2022	APC	R.BHAGH	M.JANSHARIAN	M.JANSHARIAN	***
D03	MAR.2022	APC	R.BHAGH	M.JANSHARIAN	M.JANSHARIAN	***
D02	OCT.2022	IPN	R.BHAGH	M.JANSHARIAN	M.JANSHARIAN	***
D01	SEP.2022	IPN	R.BHAGH	M.JANSHARIAN	M.JANSHARIAN	***
DDO	MAR.2022	IPN	R.BHAGH	M.JANSHARIAN	M.JANSHARIAN	***

PROJECT NAME: BINAK OILFIELD DEVELOPMENT/SUB-SURFACE WORK PACKAGES 7007S WHF & EXTENSION OF BINAK B/C

PROJECT NO.: 971020

EPD/EPIC CONTRACTOR: IRISAN ENERGY - DESIGN & INSPECTION COMPANIES

EPD/EPIC CONTRACTOR (GO): PETROIRAN DEVELOPMENT COMPANY

DRAWING TITLE: UPS SINGLE LINE DIAGRAM - EXTENSION OF BINAK B/C MANIFOLD

SCALE	SIZE	DRAWING NO.	SHEET NO.	REV.	BUDGET REF.	LOCATION	SIZE	CLASS	SERIAL NO.	DATE	SHEET	REVISION
N/A	A3	BK-W007S-PEDCO-110-EL-0002	03 OF 04	D04	003-078-9194	P	2	P	709008	03 OF 04	D04	

امثل كلفه ايچ ان خطه و جرح ايراني مشقور به تركه درك على مناطق نفت غير جديرو مهندسه

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BINAK OILFIELD DEVELOPMENT SUB-SURFACE WORK PACKAGES 7007S WHF & EXTENSION OF BINAK B/C

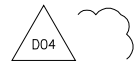
DATE: _____ DRAWING BY: _____ CHECKED BY: _____ REV. APPR. _____

NO CONSTRUCTION PERMITTED UNLESS DRAWING APPROVED

APPROVED FOR CONSTRUCTION BY: _____ DATE: _____

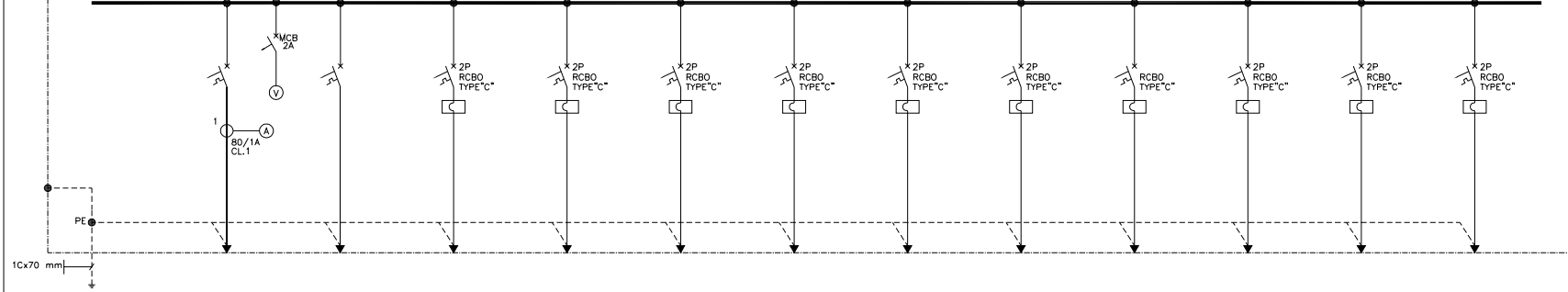
NOTES

- 1- MANUAL BYPASS SWITCH SHALL BE CONSIDERED MAKE BEFORE BREAK TYPE.
- 2- THE OVERALL ALARM/FAULT SIGNAL SHALL BE SENT TO PROCESS CONTROL SYSTEM (PCS) PANEL BY DRY CONTACT.
- 3- OUTPUT FEEDERS TO PCS PANEL SHALL BE CONSIDERED DOUBLE AND SEPARATE.
- 4- AC STABILIZER SHALL BE CONSIDERED SERVO CONTROL TYPE.
- 5- UPS SHALL BE CONSIDERED 12 PULSE.
- 6- CABLE SIZES SHALL BE CONSIDERED AFTER FINALIZING ELECTRICAL POWER & CONTROL CABLE LIST - EXTENSION OF BINAK B/C MANIFOLD/DOC. NO'BK-W007S-PEDCO-110-EL-LI-0002'
- 7- THIS SINGLE LINE DIAGRAM IS VALID FOR 110 VAC UPS.
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- 9- INTERLOCKS WILL BE PROVIDED TO INHIBIT BATTERY BOOST CHARGE IF BATTERY ROOM VENTILATION IS OUT OF SERVICE.
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- 12- AN EARTH FAULT MONITORING SHALL BE CONSIDERED FOR EVERY 10 FEEDERS FOR EASY OF FINDING FAULTY BRANCH.
- 13- METERING AND PROTECTION SYSTEM SHALL BE COMPLETED BASED ON AC UPS SPECIFICATION AND DETAILED INFORMATION SHALL BE INDICATED ON VENDOR DRAWING.
- 14- THE BODY OF PANELS SHALL BE EARTHED DIRECTLY FROM TWO POINT
- 15- SINCE 1.5 KW OF 110 VAC UPS WILL SUPPLY 24 VDC EXISTING MARSHALING SYSTEM. THEREFORE A CONVERTER 110 VAC TO 24 VDC SHALL BE CONSIDERED BY VENDOR ON DISTRIBUTION PANEL OF UPS.
- 16- AT THE BID STAGE, VENDOR SHALL CONSIDER IF IT IS POSSIBLE TO CONNECT THE 1.5 KW DEMAND OF 24 VDC EXISTING TO DC LINK OR NOT. IF YES, THE NOTE 15 WILL BE DELETED & ONLY CONVERTOR 110 VDC TO 24 VDC IS SUFFICIENT.
- 17- DISTRIBUTION PANEL (DP-02) FOR 110 VAC WHICH WILL BE INSTALLED IN CONTROL ROOM, SHALL BE MANUFACTURED & CONSIDERED BY VENDOR.



DP-02

110VAC, 80A, 10KA, 1SEC, 1PH+N+PE



CATEGORY

CODE	F01	F02	F03	F04	F05	F06	F07	F08	F09	F10	F11	F12
P (KW)	5.92 KW	5.92 KW	1 KW	1 KW	0.7 KW	0.7 KW	0.6 KW	0.6 KW	0.6 KW	0.6 KW	1 KW	1 KW
CB TYPE/RATING	MCCB/80A	MCCB/80A	RCBO/16A	RCBO/16A	RCBO/16A	RCBO/16A	RCBO/16A	RCBO/16A	RCBO/16A	RCBO/16A	RCBO/16A	RCBO/16A
CABLE SIZE	NOTE 6	NOTE 6	2x6	2x6	2x6	2x6	2x6	2x6	2x6	2x6	-	-
DESCRIPTION OF FEEDER	INCOMING FROM 110VAC UPS (INVERTER)	INCOMING FROM 110VAC UPS (INVERTER)	DCS (SYSTEM & MARSHALING) PANEL	DCS (SYSTEM & MARSHALING) PANEL (REDUNDANT)	ESD (SYSTEM & MARSHALING) PANEL	ESD (SYSTEM & MARSHALING) PANEL (REDUNDANT)	OPERATOR WORKSTATION	DCS ENGINEERING WORKSTATION	ESD ENGINEERING WORKSTATION	PRINTERS	SPARE	SPARE

LEGEND

- SHUNT
- INVERTER
- CHARGER
- AC STABILIZER
- STATIC SWITCH
- BATTERY
- SWITCH FUSE
- MOULDED CASE CIRCUIT BREAKER
- MINIATURE CIRCUIT BREAKER
- FUSE
- DIODE
- CONTRACTOR
- CABLE
- ELECTRICAL CONNECTION
- AMMETER
- VOLTMETER
- CURRENT TRANSFORMER
- EARTH FAULT RELAY
- OVER VOLTAGE RELAY
- UNDER VOLTAGE RELAY
- TRANSFORMER
- FREQUENCY METER (DIGITAL TYPE)
- SURGE ARRESTER
- RADIO FREQUENCY INTERFACE
- MCB WITH BUILT-IN EARTH LEAKAGE RELAY (RCBO)



REFERENCE DRAWING	DRG. No.
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CALCULATION NOTE FOR UPS SYSTEM EXTENSION OF BINAK B/C MANIFOLD	BK-W007S-PEDCO-110-BL-CN-0002
DATA SHEET FOR UPS EXTENSION OF BINAK B/C MANIFOLD	BK-W007S-PEDCO-110-BL-DT-0002

REV.	DESCRIPTION	BY	DATE	BY	DATE

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PROJECT NO.: 971020

EPD CONTRACTOR: HIRASAN ENERGY SERVICES & INSPECTION COMPANIES

EPD/EPD CONTRACTOR (GO): PETROIRAN DEVELOPMENT COMPANY

BINAK OILFIELD DEVELOPMENT SUB-SURFACE WORK PACKAGES 7007S WHF & EXTENSION OF BINAK B/C

SCALE	SHEET NO.	REV.	BUDGET REF.	LOCATION	SIZE	CLASS	SERIAL NO.	SHEET	REVISION					
N/A	A3	BK-W007S-PEDCO-110-BL-0002	D4	OP	D4	D4	003-078-9194	P	2	P	700008	D4	OP	D4

(VENDOR TITLE BLOCK)