

REVISION						REVISION									
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FOR GENERAL NOTES REFER TO SHEET NUMBER 03.

LEGEND

LS.: N.I.S.: J/BOX: DIA.: ELECT: REF: SWA: INSTS: MIN:

REFERENCE DRAWING	DRG. No.
Specification For Instrumentation	BK-GNRAL-PEDCO-000-IN-SP-0001
Specification For Control System	BK-GNRAL-PEDCO-000-IN-SP-0002
Specification For Instrument and Control of Fackage Unit System (PU)	BK-GNRAL-PEDCO-000-IN-SP-0004
Specification For Earthing & Lightning System	BK-GNRAL-PEDCO-000-EL-SP-0006
Engineering Standard For Electrical System Design (Industrial And Non-Industrial)	IPS-E-EL-100
Engineering Standard For Transmission Systems	IPS-E-IN-190
Engineering And Installation Standard For Control Centers	IPS-G-IN-220
Electrical System Design Criteria	BK-GNRAL-PEDCO-000-EL-DC-0001
Specification For Earthing & Lightning System	BK-GNRAL-PEDCO-000-EL-SP-0008
Area Earthing Layout in Stahmakan Gas Injection	BK-PPL-PEDCO-320-EL-PY-0001
KEY PLAN	

PROJECT NAME: BINAK OILFIELD DEVELOPMENT/SURFACE FACILITIES  GAS & GAS—CONDENSATE PIPELINES								
REV.	DATE	P.O.I.S	PREP.	СНК.	APP.	AUT.		
D00	DEC.2021	IPI	P.HAJISADEGHI	M.PAKBARIAN	M.MEERSHAD	**,**	Ľ	
D01	APR.2021	IF1	P.HAJISADEGHI	M.PAKHARIAN	M.MESERSHAD	**,**	R	
D05	JUL.2022	IFI	P.HAJISADEGHI	M.PAKHARIAN	M.MEERSHAD	**,**	•	
D03	DEC.2022	IP1	P.HAJISADECHI	M.PAKHARIAN	M.MERIRSHAD	**.**		
D04	FEB.2023	IPI	P.HAJISADECHI	M.PAKHARIAN	M.MEHRSHAD	00,00		
D05	JUN.2023	m	P.BAJISADEGHI M.PAKHARIAN		A.M.MOHSENI	₩,₩		

BY DATE BY DATE
CHECKED REV. APPR. امل و کلیه نسخ این نقشه و حق اقتباس متعلق به شرکت ملی مناطق نفت خیز جنوب میباشد.

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PETROIRAN
DEVELOPMENT
COMPANY

BINAK OILFIELD DEVELOPMENT SURFACE FACILITIES GAS & GAS-CONDENSATE PIPELINES DATE SCALE DRAWING BY CHECKED BY PROJECT ENG.

HIRGAN ENERGY - DESIGN & INSPECTION COMPANIES DRAWING TITLE: NO CONSTRUCTION PERMITTED UNLESS DRAWING APPROVED
APPROVED FOR CONSTRUCTION BY: DATE: INSTRUMENT EARTHING TYPICAL DIAGRAM (VENDOR TITLE BLOCK)\*\* 
 SCALE
 SIZE
 DRAWING NO.
 SHEET NO.
 REV.
 BUDGET REF.
 LOCATION
 SIZE
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 1. CABLE SCREENS SHALL BE EARTHED AT ONE POINT ONLY THIS SHALL BE AT THE INSTRUMENT EQUIPMENT ROOM EARTH BARS. CONTINUITY OF THE SIGNAL SHALL BE MAINTAINED THROUGHOUT THE CABLE RUN. 2. FIELD JUNCTION BOXES TO BE DEDICATED TO ONE SIGNAL CATEGORY ONLY. 3. I.S. AND NON-I.S. SIGNALS/CABLES SHALL NOT BE MIXED. 4. ALL SPARE CORES WITH IN FIELD I.S. MULTICORE CABLES SHALL BE CONNECTED TO I.S. TERMINALS AT BOTH ENDS AND EARTHED DOWN AT LOCAL EQUIPMENT ROOM TO THE CLEAN EARTH. INTERCONNECTION BETWEEN EARTH BARS SHALL BE DOUBLE BOLTED FOR SECURITY. 6. CABLE TRAY TO BE EARTED AT EACH END OF A RUN. 7. TAPE AND INSULATE NON GROUNDED ENDS OF SCREENS OF SIGNAL CABLES. 8. FIELD EARTHING FOR INSTRUMENT EQUIPMENT TO BE TERMINATED AT LOCAL EARTHING BARS (SUPPLIED BY ELECT GROUP). 9. WHERE BARRIERS ARE BAR (AS OPPOSED TO RAIL) MOUNTED THEN MOUNTING BAR TO BE INSULATED & LINKED TO INSTRUMENT EARTH. 10.THE RESISTANCE TO EARTH FOR THE INSTRUMENT EARTH AND I.S. EARTH SHALL BE LESS THAN 0.5 OHM INDEPENDENTLY OF SAFETY EARTH. 11.CABLE SWA WILL BE EARTHED VIA THE CABLE GLAND TO THE JUNCTION BOX/LOCAL CONTROL PANEL. 12.FOR INTERCONNECTING HARDWIRED CABLES BETWEEN THE MAIN CONTROL BUILDING AND OTHER BUILDING, SCREEN SHALL BE EARTHED AT THE MAIN CONTROL BUILDING ONLY. 13.SCREEN EARTHED AT SYSTEM CABINET OR MARSHALLING CABINET ONLY. 14.EARTHING OF DATA HIGHWAYS ACCORDING TO SYSTEM SUPPLIER'S REQUIREMENTS. 15.THIS DRAWING IS A "PHILOSOPHY ONLY" DRAWING SPECIFIC EARTHING REQUIREMENTS WILL BE SHOWN ON EARTHING SCHEMATICS OR SYSTEM SUPPLIER'S DOCUMENTATION. 16.EARTH RESISTIVELY AT SITE IS REFERRED TO EARTHING SYSTEM CALCULATION BASED ON THE GEOTECHNICAL STUDY OF SITE. 17.SYSTEM REF. EARTHS ARE NOT PREFERRED. 18.SCREENS OF CABLES CARRYING I.S. SIGNALS SHALL BE CONNECTED TO AN EARTH BAR SEPARATED FROM EARTH BAR USED FOR SCREENS OF CABLES CARRYING NON I.S. SIGNALS. 19.NOT APPLICABLE TO DCS, ESD AND F&G AS PER VENDOR'S REQUIREMENT (SYSTEM EARTH FOR SAFETY SYSTEM IS INTEGRATED INTO SAFETY EARTH AS PER VENDOR'S STANDARD). 20. GROUNDING CABLE FOR ONLY SAFETY SYSTEM CABINET (ESD, F&G) SHALL TO GROUNDING BAR INDIVIDUALLY. LEGEND 21. ALL INTERCONNECTIONS BETWEEN EARTH BARS TO BE 35mm CONDUCTORS. Non Intrins N.I.S.: 22. ALL EARTH STUDS FOR JUNCTION BOXES J/BOX FRAMES ETC. SHALL BE 10mm DIA. MIN. 23. ALL INSTRUMENT STANDS, JUNCTION BOXES, CABLE RACK, TRAY AND TRUNKING ETC SHALL BE CONNECTED TO PLANT EARTH BY 16mm INSTALLATIONS OVER 20m IN LENGTH 10mm FOR INSULATIONS LESS THAN 20m ELECT: **Clectrical** REP: LENGTH. COLORED YELLOW/GREEN. 24. ALL WIRE LINK CONNECTIONS TO EARTH BARS IN EQUIPMENT CABINETS SHALL BE 1.00mm PVC COVERED CONDUCTORS (YELLOW/GREEN) 25. ALL EQUIPMENT CABINET/PANEL EARTH BARS TO BS2874(C-103) OR EQUIVALENT AND OF 75mm CROSS SECTIONAL AREA (MIN.) BARS MOUNTED ON INSULATORS SHALL BE SPACED AT A MIN. OF 25mm FROM CABINET FRAME. 26. TWO IDENTICAL INSULATED 70mm CONDUCTORS OF THE SAME LENGTH SHALL BE BOLTED TO THE INSTRUMENT EQUIPMENT ROOM EARTH BAR INSTALLATIONS AND TO PLANT EARTH SYSTEM OR MASTER REF GROUND REFERENCE DRAWING DRG. No. ELECTRODE (BY ELECT DEPT) CONDUCTORS TO BE SPACED 150mm APART (MIN). Specification For Instrumentatio BK-CNRAL-PEDCO-000-IN-SP-0001 27. CABLES SHALL BE CLAMPED TO A RAIL AT THE BASE OF THE CABINET. THE INSULATION AND ARMOUR IS TO BE CUT BACK AND THE ARMOUR CONNECTED TO THE NON-INSULATED SAFETY EARTH USING 2.5mm EARTH CABLE. BK-GNRAL-PKDCO-000-IN-SP-0004 28. INSTS/JUNCTION BOXES AND ARMOUR OF FIELD CABLES MAY BE BONDED TO OTHER STAND/FRAMES WITH 6mm CONDUCTOR. THE STAND OR FRAME IS THEN BONDED TO PLANT EARTH IN ACCORDANCE WITH NOTE-23. IPS-E-EL-100 IPS-R-IN-190 29. ALL WIRE LINK CONNECTION TO EARTH BARS IN EQUIPMENT CABINETS SHALL BE A MIN. 1.5mm PVC COVERED CONDUCTORS. 30. EARTH BUSES SHALL BE TYPICALLY COPPER, 6 mm THICKNESS AND 40 mm WIDE (IPS-G-IN-220(1)) BK-GNRAL-PEDCO-000-EL-DC-00 ation For Earthing & Lightning System 31. EARTH BAR FOR PE., I.S & N.I.S. ARE SEPARATE FROM EACH OTHER. Area Earthing Layout in Siahmakan Gas Injection | BK-PPL-PEDCO-320-EL-PY-000 KEY PLAN 32. MIN DISTANCE BETWEEN P.E. AND C.E. EARTH TB BE 20 METER. 33. FOR MTO PLEASE REFER TO MTO For EARTHING & LIGHTING SYSTEM IN SIAHMAKAN GAS INJECTION. DOC. NO. BK-PPL-PEDCO-320-EL-MT-0001) FEB.2023 34. EARTHING SYS. FOR NEW GAS COMPRESSOR OF BINAK HAS BEEN SHOWN IN DOCUMENT NO. "BK-GCS-PEDCO-120-IN-DG-0001". EARTHING SYSTEM DEC.2022 лп. 2022 OF SIAHMAKAN SHALL BE CONNECTED TO EXISTING EARTHING SYSTEM. EFFICIENCY ENDORSE OF EXISTING EARTH SYSTEMS HAS BEEN DONE BY ELECTRICAL DEPARTMENT D01 APR.2021 \*\*.\*\* BY DATE BY DATE IFI P.HAJISADEGHI M.PAKHARIAN M.MEHRSHAD D00 DEC.2021 CHECKED REV. APPR. اصل و کلیه نمخ این نقشه و حق اقدباس متعلق به شرکت ملی مناطق نفت خیز جنوب میباشد. NEW STANDARD SYSTEM SHALL BE DESIGNED IF REQUIRED REV. DATE P.O.I.S PREP. CHK. APP. AUT. BINAK OILFIELD DEVELOPMENT/SURFACE FACILITIES
GAS & GAS-CONDENSATE PIPELINES THE ORIGINAL AND ALL COPIES OF THIS DRAWING TOGETHER WITH THE COPYRIGHT THEREIN ARE THE SOLE PROPERTY OF N.I.S.O.C./ FIELDS 971020 EPD/EPC CONTRACTOR (GC) BINAK OILFIELD DEVELOPMENT SURFACE FACILITIES PETROIRAN GAS & GAS-CONDENSATE PIPELINES DEVELOPMENT DATE SCALE DRAWING BY CHECKED BY PROJECT ENG COMPANY

FOR CENERAL NOTES REFER TO SHEET NUMBER O

NO CONSTRUCTION PERMITTED UNLESS DRAWING APPROVED

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BY:

INSTRUMENT EARTHING TYPICAL DIAGRAM

BK-PPL-PEDCO-320-IN-DG-0001

SHEET NO. REV.

(VENDOR TITLE BLOCK)\*

