

# EARTHING LAYOUT FOR ELECTRICAL TOWER (GANTRY) OF WELL PADS

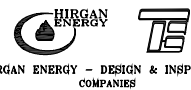

## NOTES

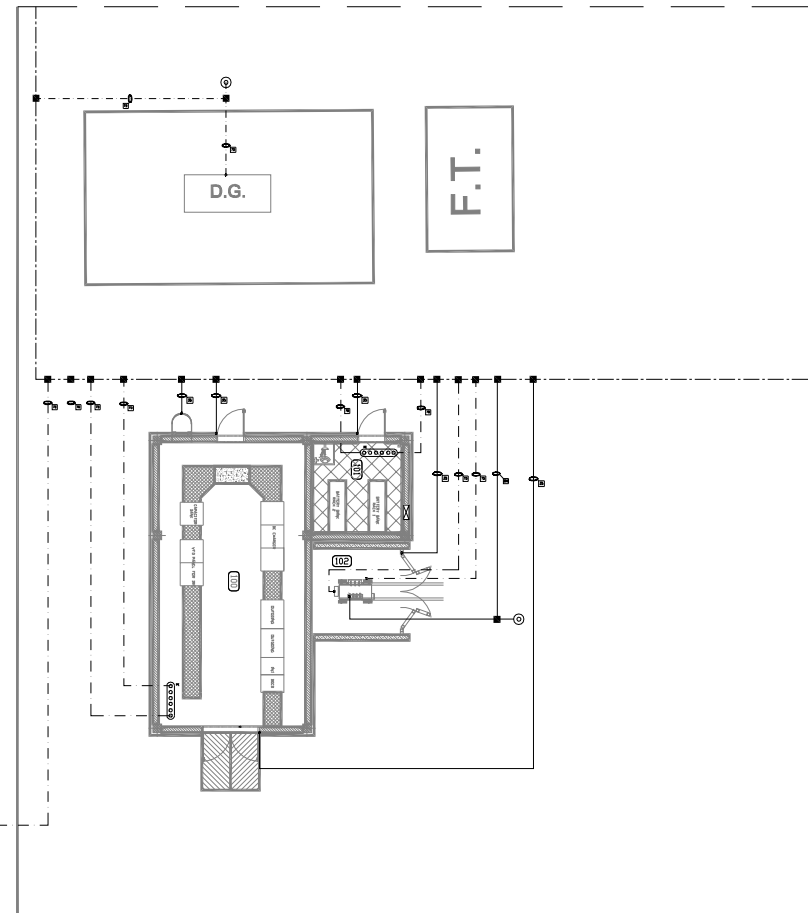
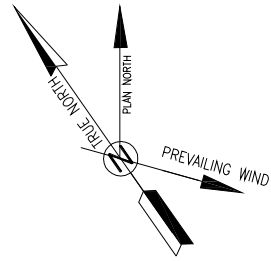
- 1-MAIN EARTHING CONDUCTOR IN UNDER GROUND SHOULD BE STRANDED ROUND BARE COPPER WIRE 70sqmm AND BRANCH EARTH CONDUCTORS AND ALL ABOVE EARTH CONDUCTORS SHOULD BE GREEN/YELLOW PVC.
- 2-THE CONNECTION OF ABOVEGROUND EARTHING CABLES SHALL BE CRIMP TYPE, FOR UNDERGROUND INSTALLATION THE WAGO-BELTED CONNECTION TYPE SHALL BE USED.
- 3-EARTHING CABLE WILL BE LAD IN TRENCH IN THE SAME ROUTE WITH TRENCH, IN CASE WHERE THERE IS NO TRENCH, IT WILL BE DIRECTLY BURIED (MIN.600mm) UNDERGROUND/UP CLIP TO THE STRUCTURE ABOVE GROUND. THE BELOW EARTH CONDUCTOR SHALL BE PROTECTED BY STEEL CONDUIT, WHEN RISE TO UPPER LEVELS LIKE PLATFORMS OR STRUCTURES.  
 - MORE THAN AND EQUAL TO 70sqmm : M32  
 - MORE THAN 16sqmm TO 35sqmm : M25

## LEGEND

REFERENCE DRAWING	DRG. No.
CALCULATION NOTE FOR EARTHING & LIGHTNING SYSTEM OF WELL PADS	BK-SSGRL-PEDCO-110-EL-CN-0007
SPECIFICATION FOR EARTHING & LIGHTNING SYSTEM	BK-QHRA-PEDCO-000-EL-SP-0006
TYPICAL INSTALLATION DETAILS & NOTES FOR EARTHING & LIGHTNING PROTECTION SYSTEM	BK-QHRA-PEDCO-000-EL-DB-0002
TYPICAL INSTALLATION DETAILS FOR OVER HEAD LINE EQUIPMENT	BK-QHRA-PEDCO-000-EL-DB-0001

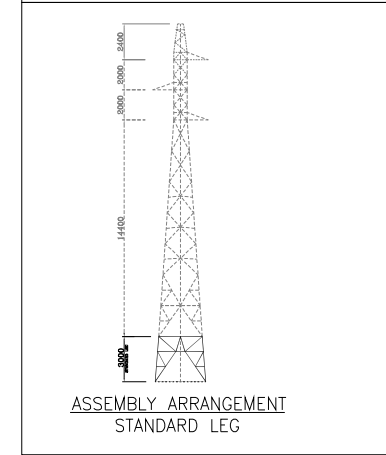
## KEY PLAN

REV.	DESCRIPTION	BY	DATE	BY	DATE
DOO	NOV.2022	IPC	H.SHAHBA	M.FAKHARIAN	M.MEHRSHAD
REV.	DATE	P.O.I.S	PREP.	CHK.	APP.
AUT.					
<b>PROJECT NAME:</b> BINAK OILFIELD DEVELOPMENT/SUB-SURFACE WORK PACKAGE GENERAL <b>PROJECT NO.:</b> 971020					
<b>EPC CONTRACTOR:</b>  HIRGAN ENERGY - DESIGN & INSPECTION COMPANIES		<b>EPD/BPC CONTRACTOR (GC):</b>  PETROIRAN DEVELOPMENT COMPANY			
<b>DRAWING TITLE:</b> EARTHING LAYOUT FOR ELECTRICAL TOWER (GANTRY) OF WELL PADS					
SCALE	SIZE	DRAWING NO.	SHEET NO.	REV.	BUDGET REF.
1:500	A3	BK-SSGRL-PEDCO-110-EL-PY-0001	1 OF 2	DOO	053-073-9184
		LOCATION	SIZE	CLASS	SERIAL NO.
		F	2	P	707403
			SHEET	REVISION	
			1 OF 2	DOO	



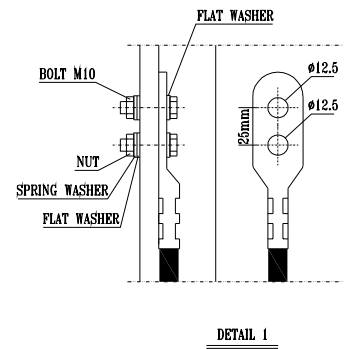
FOR MORE DETAIL SEE DRAWING No. :  
BK-SSGRL-PEDCO-110-EL-PY-0010

NOTES:1) TOTAL ERECTION WEIGHT OF THIS BLOCK IS 1465.5 KG.  
2) EACH STEP BOLT ASSEMBLY INCLUDES ONE STEP-BOLT, TWO M16 NUTS AND TWO CURVED SPRING LOCK WASHERS.

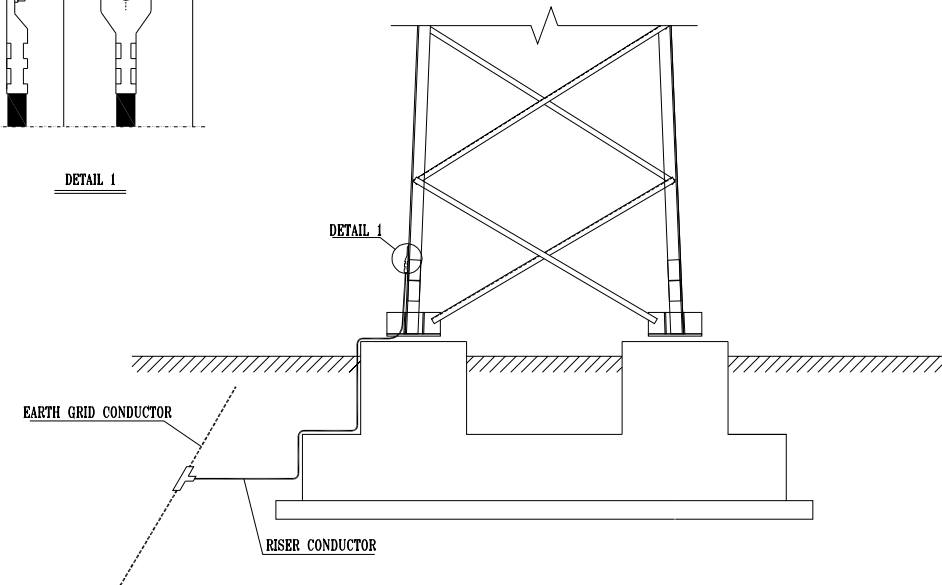


FIL. FILLER PLATE  
N.S. NEAR SIDE  
F.S. FAR SIDE  
○ BOLTED CONNECTION, HOLE  $\phi$ 13.5  
● STEP BOLT, HOLE  $\phi$ 17.5

1- ALL DIMENSIONS ARE IN MILLIMETER.  
2- ALL UNSPECIFIED HOLE DIAMETERS ARE  $\phi$ 13.5 MM, UNLESS OTHERWISE SPECIFIED.



DETAIL 1



NOTES

1- MAIN EARTHING CONDUCTOR IN UNDER GROUND SHOULD BE STRANDED ROUND BARE COPPER WIRE 70sqmm AND BRANCH EARTH CONDUCTORS AND ALL ABOVE EARTH CONDUCTORS SHOULD BE GREEN/YELLOW PVC.  
2- THE CONNECTION OF ABOVEGROUND EARTHING CABLES SHALL BE CRIMP TYPE, FOR UNDERGROUND INSTALLATION THE RING-BELTED CONNECTION TYPE SHALL BE USED.  
3- EARTHING CABLE WILL BE LAD IN TRENCH IN THE SAME ROUTE WITH TRENCH, IN CASE WHERE THERE IS NO TRENCH, IT WILL BE DIRECTLY BURIED (MIN. 600mm) UNDERGROUND UP TO THE STRUCTURE ABOVE GROUND. THE BELOW EARTH CONDUCTOR SHALL BE PROTECTED BY STEEL CONDUIT, WHEN RISE TO UPPER LEVELS LIKE PLATFORMS OR STRUCTURES.  
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LEGEND

---	700	BARE COPPER EARTHING CABLE, 70mm <sup>2</sup> .
---	35	EARTHING CABLE, 35mm <sup>2</sup> , WITH Y/G PVC COVER
---	70	EARTHING CABLE, 70mm <sup>2</sup> , WITH Y/G PVC COVER
---	300	EARTHING CABLE, 300mm <sup>2</sup> , WITH Y/G PVC COVER
---	○	EARTHING EQUIPMENT CONNECTION
○	○	EARTHING ROD WITH TEST WELL
○	○	EARTHING ROD, 2x1.5M LENGTH, 0.019mm <sup>2</sup> DIAMETER GALVANIZED STEEL/COPPER ROD
○	○	ELECTRICAL EARTHING DISPATCHER (MIN. 10NO. HOLES)
■	■	CADWELDED JOINT
○	M	MOTOR GENERAL

REFERENCE DRAWING

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SPECIFICATION FOR EARTHING & LIGHTNING SYSTEM	BK-CARAL-PEDCO-000-EL-SP-0006
TYPICAL INSTALLATION DETAILS & NOTES FOR EARTHING & LIGHTNING PROTECTION SYSTEM	BK-CARAL-PEDCO-000-EL-DB-0002
TYPICAL INSTALLATION DETAILS & NOTES FOR OVER HEAD LINE EQUIPMENT	BK-SSGRL-PEDCO-110-EL-DB-0001

KEY PLAN

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DOO	NOV.2022	IPC	H.SHAKIBA	M.FAKHARIAN	M.MEHRSHAD	
REV.	DATE	P.O.I.S	PREP.	CHK.	APP.	AUT.
PROJECT NAME: BINAK OILFIELD DEVELOPMENT/SUB-SURFACE WORK PACKAGES GENERAL						
PROJECT NO.: 971020						
EPC CONTRACTOR: HIRGAN ENERGY - DESIGN & INSPECTION COMPANIES			EPD/BPC CONTRACTOR (GC): PETROIRAN DEVELOPMENT COMPANY			
DRAWING TITLE: EARTHING LAYOUT FOR ELECTRICAL TOWER (GANTRY) OF WELL PADS						
SCALE	SIZE	DRAWING NO.	SHEET NO.	REV.	BUDGET REF.	
NTS	A3	BK-SSGRL-PEDCO-110-EL-PY-0001	2 OF 2	DOO	063-073-9184	
NO CONSTRUCTION PERMITTED UNLESS DRAWING APPROVED						
APPROVED FOR CONSTRUCTION			BY:	DATE:		
DATE	SCALE	DRAWING BY	CHECKED BY	PROJECT ENG.		
SCALE	SIZE	DRAWING NO.	SHEET NO.	REV.	BUDGET REF.	
NTS	A3	BK-SSGRL-PEDCO-110-EL-PY-0001	2 OF 2	DOO	063-073-9184	