

Certificate No : 2019-PTR-OFE-001-05
Date : September 1st, 2019



CERTIFICATE OF ACCOMPLISHMENT

This is to certify that

PETRUS WELDARSO

ID NUMBER : PTR-OFE-001-05

has completed

OFFSHORE STRUCTURE TRANSPORTATION & INSTALLATION METHOD TRAINING

Held by **PETROS OIL GAS TRAINING** - Jakarta, August 31st to September 1st, 2019
covering the subjects as listed on the back page

Yosua Mangngallo, ST
Senior Offshore Installation Engineer

Heru Prasadia, ST
Director

OFFSHORE STRUCTURE TRANSPORTATION & INSTALLATION METHOD - TRAINING

1	ELEMENTS OF PLATFORM	4	WORKING BARGE MOORING / ANCHOR PATTERN	6	INSTALLATION – FOUNDATION PILE
2	MARINE WARRANTY SURVEYOR	4.1	Elements Of Mooring	6.1	Type Of Foundation Pile
2.1	What is Marine Warranty Surveyor	4.1.1	Mooring Winches	6.2	Pile Handling
2.2	Role of MWS	4.1.2	Fairleader	6.2.1	Lifting
2.3	General Scope of MWS	4.1.3	Wire Rope	6.2.2	Upending
		4.1.4	Chain	6.2.3	Stabbing
		4.1.5	Anchor	6.2.4	Analysis
3	TRANSPORTATION	4.1.6	Crossing Elements	6.2.5	Equipment
3.1	Dry Tow / Cargo Barge Towing	4.2	Defining Anchor Pattern	6.3	Pile Joint/Welding
3.1.1	Common Transportation Configuration	4.3	Catenary	6.4	Pile Driving
3.1.2	Cargo Barge Components	4.4	Mooring Analysis	6.4.1	Hammer
3.1.3	Cargo Barge Selection			6.4.2	Analysis
3.1.3.1	Availability	5	INSTALLATION – JACKET	6.4.3	Cushion Block Qty
3.1.3.2	Deck Space	5.1	Jacket Lifting	6.4.4	Pile Driving Monitoring System
3.1.3.3	Barge Strength	5.1.1	Horizontal Lifting	6.4.5	Refusal
3.1.3.4	Stability	5.1.2	Vertical Lifting	6.5	Pile Make Up & Marking
3.1.3.5	Cargo On Motion Response	5.1.3	Lift Calculation	6.6	Pile Driving Sequence
3.1.3.6	Draught & Trim	5.2	Jacket Launching		
3.1.3.7	Suitability With Loadout	5.2.1	Type Of Jacket Launching	7	INSTALLATION – SUBSTRUCTURE APPURTENANCES
3.1.3.8	Suitability With Installation Methods	5.2.2	Launching Barge	7.1	Conductor
3.1.3.9	Required Documentation	5.2.3	Launching Equipments	7.2	Boatlanding
3.1.4	Typical Towing Tug	5.2.4	Launching Analysis	7.2.1	Lifting
3.1.5	Towing Tug Selection	5.3	Jacket Free Floating	7.2.2	Elevation
3.2	Transportation Layout	5.4	Jacket Upending	7.3	Drill Deck
3.3	Grillage And Seafastening	5.4.1	Upending From Free Floating	7.4	Transition Pieces
3.4	Wet Tow	5.4.2	2 Blocks Upending	7.4.1	Cut-Offs
3.5	Voyage Planning	5.4.3	Self Upending	7.5	Other Typical Offshore Installed Items
		5.4.4	Upending Analysis		
		5.5	Jacket Set Down	8	INSTALLATION – TOPSIDE
		5.5.1	Positioning	8.1	Lifting Method
		5.5.2	Docking	8.2	Float Over Method
		5.5.3	On-Bottom Stability	8.3	Versa Truss Method
		5.6	Installation Aids	8.4	Other Parts Of Topside
		5.7	Other Methods		

Certificate No : 2019-PTR-LE-001-08
Date : October 21st , 2019



CERTIFICATE OF ACCOMPLISHMENT

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PETRUS WELDARSO
ID NUMBER : PTR-LE-001-08

has completed

LIFTING/RIGGING ENGINEER TRAINING

Trainer :
TAUFIQURRAHMAN, ST
Certified Advanced Rigging Engineer - CA 90722 Wood Group

Held by **Petros Oil Gas Training** – Jakarta
October 19th to 21st , 2019 , covering the subjects as listed on the back page



Heru Prasadja, ST
Director

www.oilgas-training.com

LIFTING/RIGGING ENGINEER TRAINING

SUBJECTS :

- Basic Rigging
- Comprehensive Kinds of Wire Sling To Be Used For Lifting
- Wire Sling Using Methods
- Comprehends and Know Angle & Load Factor of Lifting
- Comprehends Formula for SWL/WLL & Load Calculation
- Comprehensive Kinds of Lifting Accessories
- Ascertain of General Lifting Procedure and Related Government Regulation for Lifting
- Qualifications of An Advanced Rigging
- Planning & Preparation
- Lift Plans for Dual Lifts
- Load Equalizing Gear
- Purchases
- Rigging of Cranes & Hoists
- Determine Center of Gravity
- Multi-Crane Lifts
- Shear Legs
- Flying Foxes & Cable Ways
- Towing, Dragging Loads

EXAMINATION : PASSED

CERTIFICATE



PHITAGORAS
TRAINING AND CONSULTING

This is to certify that :

Petrus Weldarso

Has successfully completed

Training
Understanding and Implementing
ISO 45001:2018

Held on October 12th, 2019
at Universitas Indonesia
Jawa Barat - Indonesia

Ir. Indra Kurniadi, M.M.
Managing Director

Certificate Serial Number : OHS38190108

CERTIFICATE



PHITAGORAS
TRAINING AND CONSULTING

This is to certify that :

Petrus Weldarso

Has successfully completed

Training
ISO 31000:2018 Risk Management

Held on October 12th, 2019
at Universitas Indonesia
Jawa Barat - Indonesia

Ir. Indra Kurniadi, M.M.
Managing Director



Certificate Serial Number : ISO09190052

CERTIFICATE



PHITAGORAS
TRAINING AND CONSULTING

This is to certify that :

Petrus Weldarso

Has successfully completed

Training
Understanding and Implementing
ISO 9001:2015

Held on October 5th, 2019
at Universitas Indonesia
Jawa Barat - Indonesia

Ir. Indra Kurniadi, M.M.
Managing Director



Certificate Serial Number : ISO01190117

CERTIFICATE



PHITAGORAS
TRAINING AND CONSULTING

This is to certify that :

Petrus Weldarso

Has successfully completed

Training
Implementation ISO 27001:2013
Information Security Management System

Held on October 5th, 2019
at Universitas Indonesia
Jawa Barat - Indonesia

Ir. Indra Kurniadi, M.M.
Managing Director



Certificate Serial Number : ISO07190037