STS GREEN CO., LTD.
3/23 Moo 5, Lat Sawai, Lam Luk Ka, Pathum Thani 12150, Thailand
Tel: +66 2101 3074-76 Fax: +66 21062513
E-mail: stsgreenlab@sts.co.th http://www.sts.co.th

TEST REPORT

Client	:	PTTEP Energy Development Company Limited	**Work Request No.**	:	529/25
Address	:	Energy Complex Building A, 19 th – 36 th Floor 555/1 Vibhavadi Rangsit Rd., Chatuchak, Bangkok 10900 Thailand	**Sample Received Date**	:	July 18, 2025
			Report No.	:	2273/25
Project Name	:	Marine Environmental Monitoring Post Exploration Drilling for WWT-57B Block G2/61 Project	**Reported Date**	:	August 13, 2025
Sample Type	:	Sediment			
Sampling By	:	Marine Survey Section/STS Green Co., Ltd.			
Sampling Date	:	July 7, 2025			

ID.No.	Location	Parameters	Analytical Methods	Analytical Date	Results	Units	Sample Description
180725/122	**WWT-57B-3**						
		Total Petroleum Hydrocarbon	Soxhlet Extraction, Gravimetric Method	July 23, 2025	383	mg/kg dry-weight	-
					0.04	%	-

Method : Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 24th edition, 2023.

Remarks : Reported results refer to submitted samples only. This analytical report will not be reproduced in part for such purposes.
% Solids = 46.99%
% Moisture = 53.01%

Panida K.
(Ms. Panida Kriangkeeratikul)
Chemist
August 13, 2025

Kasidit Y.
(Mr. Kasidit Yasongkram)
Laboratory Supervisor
August 13, 2025

STS GREEN CO., LTD.
3/23 Moo 5, Lat Sawai, Lam Luk Ka, Pathum Thani 12150, Thailand
Tel: +66 2101 3074-76 Fax: +66 21062513
E-mail: stsgreenlab@sts.co.th http://www.sts.co.th

TEST REPORT

Client	:	PTTEP Energy Development Company Limited	**Work Request No.**	:	529/25
Address	:	Energy Complex Building A, 19 th – 36 th Floor 555/1 Vibhavadi Rangsit Rd., Chatuchak, Bangkok 10900 Thailand	**Sample Received Date**	:	July 18, 2025
			Report No.	:	2273/25
Project Name	:	Marine Environmental Monitoring Post Exploration Drilling for WWT-57B Block G2/61 Project	**Reported Date**	:	August 13, 2025
Sample Type	:	Sediment			
Sampling By	:	Marine Survey Section/STS Green Co., Ltd.			
Sampling Date	:	July 8, 2025			

ID.No.	Location	Parameters	Analytical Methods	Analytical Date	Results	Units	Sample Description
180725/123	**WWT-57B-4**						
		Arsenic	Hydride Generation Atomic Absorption Spectrometric Method	August 8, 2025	1.23	mg/kg dry-weight	-
		Barium	Electrothermal Atomic Absorption Spectrometric Method	August 7, 2025	256.89	mg/kg dry-weight	-
		Cadmium	Electrothermal Atomic Absorption Spectrometric Method	August 5, 2025	<0.01	mg/kg dry-weight	-
		Chromium	Electrothermal Atomic Absorption Spectrometric Method	August 6, 2025	25.29	mg/kg dry-weight	-
		Copper	Electrothermal Atomic Absorption Spectrometric Method	August 5, 2025	12.03	mg/kg dry-weight	-
		Iron	Flame Atomic Absorption Spectrometric Method	August 7, 2025	26,044	mg/kg dry-weight	-
		Lead	Electrothermal Atomic Absorption Spectrometric Method	August 6, 2025	19.39	mg/kg dry-weight	-
		Manganese	Flame Atomic Absorption Spectrometric Method	August 6, 2025	522.82	mg/kg dry-weight	-
		Mercury	Cold-Vapor Atomic Absorption Spectrometric Method	July 30, 2025	0.039	mg/kg dry-weight	-
		Nickel	Electrothermal Atomic Absorption Spectrometric Method	August 5, 2025	20.64	mg/kg dry-weight	-
		Zinc	Flame Atomic Absorption Spectrometric Method	August 6, 2025	52.88	mg/kg dry-weight	-

Methods : United State Environmental Protection Agency. Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846.

Remarks : Reported results refer to submitted samples only. This analytical report will not be reproduced in part for such purposes.

Wilasinee S.
(Ms. Wilasinee Sawangphan)
Chemist
August 13, 2025

Kasidit Y.
(Mr. Kasidit Yasongkram)
Laboratory Supervisor
August 13, 2025

STS GREEN CO., LTD.
3/23 Moo 5, Lat Sawai, Lam Luk Ka, Pathum Thani 12150, Thailand
Tel: +66 2101 3074-76 Fax: +66 21062513
E-mail: stsgreenlab@sts.co.th http://www.sts.co.th

TEST REPORT

Client	:	PTTEP Energy Development Company Limited	**Work Request No.**	:	529/25
Address	:	Energy Complex Building A, 19 th – 36 th Floor 555/1 Vibhavadi Rangsit Rd., Chatuchak, Bangkok 10900 Thailand	**Sample Received Date**	:	July 18, 2025
			Report No.	:	2273/25
Project Name	:	Marine Environmental Monitoring Post Exploration Drilling for WWT-57B Block G2/61 Project	**Reported Date**	:	August 13, 2025
Sample Type	:	Sediment			
Sampling By	:	Marine Survey Section/STS Green Co., Ltd.			
Sampling Date	:	July 8, 2025			

ID.No.	Location	Parameters	Analytical Methods	Analytical Date	Results	Units	Sample Description
180725/123	WWT-57B-4						
		Total Petroleum Hydrocarbon	Soxhlet Extraction, Gravimetric Method	July 23, 2025	329	mg/kg dry-weight	-
					0.03	%	-

Method : Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 24th edition, 2023.

Remarks : Reported results refer to submitted samples only. This analytical report will not be reproduced in part for such purposes.

% Solids = 39.44%

% Moisture = 60.56%

Panida K.
(Ms. Panida Kriangkeeratikul)
Chemist
August 13, 2025

Kasidit Y.
(Mr. Kasidit Yasongkram)
Laboratory Supervisor
August 13, 2025

STS GREEN CO., LTD.
3/23 Moo 5, Lat Sawai, Lam Luk Ka, Pathum Thani 12150, Thailand
Tel: +66 2101 3074-76 Fax: +66 21062513
E-mail: stsgreenlab@sts.co.th http://www.sts.co.th

TEST REPORT

Client	:	PTTEP Energy Development Company Limited	**Work Request No.**	:	529/25
Address	:	Energy Complex Building A, 19 th – 36 th Floor 555/1 Vibhavadi Rangsit Rd., Chatuchak, Bangkok 10900 Thailand	**Sample Received Date**	:	July 18, 2025
			Report No.	:	2273/25
Project Name	:	Marine Environmental Monitoring Post Exploration Drilling for WWT-57B Block G2/61 Project	**Reported Date**	:	August 13, 2025
Sample Type	:	Sediment			
Sampling By	:	Marine Survey Section/STS Green Co., Ltd.			
Sampling Date	:	July 8, 2025			

ID.No.	Location	Parameters	Analytical Methods	Analytical Date	Results	Units	Sample Description
180725/124	WWT-57B-5						
		Arsenic	Hydride Generation Atomic Absorption Spectrometric Method	August 8, 2025	1.43	mg/kg dry-weight	-
		Barium	Electrothermal Atomic Absorption Spectrometric Method	August 7, 2025	136.28	mg/kg dry-weight	-
		Cadmium	Electrothermal Atomic Absorption Spectrometric Method	August 5, 2025	<0.01	mg/kg dry-weight	-
		Chromium	Electrothermal Atomic Absorption Spectrometric Method	August 6, 2025	24.23	mg/kg dry-weight	-
		Copper	Electrothermal Atomic Absorption Spectrometric Method	August 5, 2025	11.36	mg/kg dry-weight	-
		Iron	Flame Atomic Absorption Spectrometric Method	August 7, 2025	25,316	mg/kg dry-weight	-
		Lead	Electrothermal Atomic Absorption Spectrometric Method	August 6, 2025	20.72	mg/kg dry-weight	-
		Manganese	Flame Atomic Absorption Spectrometric Method	August 6, 2025	535.38	mg/kg dry-weight	-
		Mercury	Cold-Vapor Atomic Absorption Spectrometric Method	July 30, 2025	0.036	mg/kg dry-weight	-
		Nickel	Electrothermal Atomic Absorption Spectrometric Method	August 5, 2025	20.62	mg/kg dry-weight	-
		Zinc	Flame Atomic Absorption Spectrometric Method	August 6, 2025	48.29	mg/kg dry-weight	-

Methods : United State Environmental Protection Agency. Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846.

Remarks : Reported results refer to submitted samples only. This analytical report will not be reproduced in part for such purposes.

Wilasinee S.
(Ms. Wilasinee Sawangphan)
Chemist
August 13, 2025

Kasidit Y.
(Mr. Kasidit Yasongkram)
Laboratory Supervisor
August 13, 2025

STS GREEN CO., LTD.
3/23 Moo 5, Lat Sawai, Lam Luk Ka, Pathum Thani 12150, Thailand
Tel: +66 2101 3074-76 Fax: +66 21062513
E-mail: stsgreenlab@sts.co.th http://www.sts.co.th

TEST REPORT

Client	:	PTTEP Energy Development Company Limited	**Work Request No.**	:	529/25
Address	:	Energy Complex Building A, 19 th – 36 th Floor 555/1 Vibhavadi Rangsit Rd., Chatuchak, Bangkok 10900 Thailand	**Sample Received Date**	:	July 18, 2025
			Report No.	:	2273/25
Project Name	:	Marine Environmental Monitoring Post Exploration Drilling for WWT-57B Block G2/61 Project	**Reported Date**	:	August 13, 2025
Sample Type	:	Sediment			
Sampling By	:	Marine Survey Section/STS Green Co., Ltd.			
Sampling Date	:	July 8, 2025			

ID.No.	Location	Parameters	Analytical Methods	Analytical Date	Results	Units	Sample Description
180725/124	WWT-57B-5						
		Total Petroleum Hydrocarbon	Soxhlet Extraction, Gravimetric Method	July 23, 2025	424	mg/kg dry-weight	-
					0.04	%	-

Method : Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 24th edition, 2023.

Remarks : Reported results refer to submitted samples only. This analytical report will not be reproduced in part for such purposes.
% Solids = 36.44%
% Moisture = 63.56%

Panida K.
(Ms. Panida Kriangkeeratikul)
Chemist
August 13, 2025

Kasidit Y
(Mr. Kasidit Yasongkram)
Laboratory Supervisor
August 13, 2025

- End of Report -

STS GREEN CO., LTD.
3/23 Moo 5, Lat Sawai, Lam Luk Ka, Pathum Thani 12150, Thailand
Tel: +66 2101 3074-76 Fax: +66 21062513
E-mail: stsgreenlab@sts.co.th http://www.sts.co.th

TEST REPORT

Client	:	PTTEP Energy Development Company Limited	**Work Request No.**	:	534/25
Address	:	Energy Complex Building A, 19 th – 36 th Floor 555/1 Vibhavadi Rangsit Rd., Chatuchak, Bangkok 10900 Thailand	**Sample Received Date**	:	July 18, 2025
			Report No.	:	2278/25
Project Name	:	Marine Environmental Monitoring Post Exploration Drilling for WWT-57B Block G2/61 Project	**Reported Date**	:	August 13, 2025
Sample Type	:	Sediment			
Sampling By	:	Marine Survey Section/STS Green Co., Ltd.			
Sampling Date	:	July 5, 2025			

ID.No.	Location	Parameters	Analytical Methods	Analytical Date	Results	Units	Sample Description
180725/134	Reference						
		Arsenic	Hydride Generation Atomic Absorption Spectrometric Method	August 8, 2025	0.68	mg/kg dry-weight	-
		Barium	Electrothermal Atomic Absorption Spectrometric Method	August 7, 2025	21.34	mg/kg dry-weight	-
		Cadmium	Electrothermal Atomic Absorption Spectrometric Method	August 5, 2025	<0.01	mg/kg dry-weight	-
		Chromium	Electrothermal Atomic Absorption Spectrometric Method	August 6, 2025	14.31	mg/kg dry-weight	-
		Copper	Electrothermal Atomic Absorption Spectrometric Method	August 5, 2025	6.01	mg/kg dry-weight	-
		Iron	Flame Atomic Absorption Spectrometric Method	August 7, 2025	13,522	mg/kg dry-weight	-
		Lead	Electrothermal Atomic Absorption Spectrometric Method	August 6, 2025	14.47	mg/kg dry-weight	-
		Manganese	Flame Atomic Absorption Spectrometric Method	August 6, 2025	274.42	mg/kg dry-weight	-
		Mercury	Cold-Vapor Atomic Absorption Spectrometric Method	July 30, 2025	<0.030	mg/kg dry-weight	-
		Nickel	Electrothermal Atomic Absorption Spectrometric Method	August 5, 2025	10.03	mg/kg dry-weight	-
		Zinc	Flame Atomic Absorption Spectrometric Method	August 6, 2025	26.61	mg/kg dry-weight	-

Methods : United State Environmental Protection Agency. Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846.

Remarks : Reported results refer to submitted samples only. This analytical report will not be reproduced in part for such purposes.

Wilasinee S
(Ms. Wilasinee Sawangphan)
Chemist
August 13, 2025

Kasidit Y
(Mr. Kasidit Yasongkram)
Laboratory Supervisor
August 13, 2025

STS GREEN CO., LTD.
3/23 Moo 5, Lat Sawai, Lam Luk Ka, Pathum Thani 12150, Thailand
Tel: +66 2101 3074-76 Fax: +66 21062513
E-mail: stsgreenlab@sts.co.th http://www.sts.co.th

TEST REPORT

Client	:	PTTEP Energy Development Company Limited	**Work Request No.**	:	534/25
Address	:	Energy Complex Building A, 19 th – 36 th Floor 555/1 Vibhavadi Rangsit Rd., Chatuchak, Bangkok 10900 Thailand	**Sample Received Date**	:	July 18, 2025
			Report No.	:	2278/25
Project Name	:	Marine Environmental Monitoring Post Exploration Drilling for WWT-57B Block G2/61 Project	**Reported Date**	:	August 13, 2025
Sample Type	:	Sediment			
Sampling By	:	Marine Survey Section/STS Green Co., Ltd.			
Sampling Date	:	July 5, 2025			

ID.No.	Location	Parameters	Analytical Methods	Analytical Date	Results	Units	Sample Description
180725/134	**Reference**						
		Total Petroleum Hydrocarbon	Soxhlet Extraction, Gravimetric Method	July 23, 2025	373	mg/kg dry-weight	-
					0.04	%	-

Method : Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 24th edition, 2023.

Remarks : Reported results refer to submitted samples only. This analytical report will not be reproduced in part for such purposes.
% Solids = 54.80%
% Moisture = 45.20%

Panida K.
(Ms. Panida Kriangkeeratikul)
Chemist
August 13, 2025

Kasidit
(Mr. Kasidit Yasongkram)
Laboratory Supervisor
August 13, 2025

- End of Report -

ภาคผนวก ข3

ใบรับรองผลการจำแนกแพลงก์ตอนพืชจากห้องปฏิบัติการ

ภาควิชาวิทยาศาสตร์ทางทะเล

คณะประมง มหาวิทยาลัยเกษตรศาสตร์

TEST REPORT

Company name: STS Green Company Limited

Project name: Marine Environmental Monitoring Post Exploration Drilling for WWT-57B Block G2/61 Project

Parameter: Phytoplankton **Sample Type:** Seawater

Taxonomic categories	WWT-57B-3				Reference station			
	Surface		Euphotic		Surface		Euphotic	
	Sample1	Sample2	Sample3	Sample4	Sample1	Sample2	Sample3	Sample4
Phytoplankton (Unit: Units / m^3)								
Division Cyanophyta								
Class Cyanophyceae								
Trichodesmium erythraeum	357,000	545,600	491,300	550,000	178,500	258,300	223,550	353,600
Trichodesmium thiebautii	7,267,500	7,638,400	5,823,350	8,150,000	2,346,000	4,329,600	4,563,050	5,059,200
Richelia intracellularis		49,600	72,250	12,500	25,500	12,300	26,300	68,000
Division Chromophyta								
Class Bacillariophyceae								
Actinocyclus sp.	38,250	37,200	57,800	112,500	51,000	123,000	52,600	40,800
Amphora sp.							13,150	
Asteromphalus cleveanus	12,750	12,400	14,450					13,600
Asteromphalus flabellatus	114,750	186,000	101,150	150,000	38,250	61,500	26,300	68,000
Bacteriastrum comosum				12,500	25,500	12,300	13,150	13,600
Bacteriastrum delicatulum	153,000	272,800	274,550	362,500	76,500	172,200	105,200	122,400
Bacteriastrum furcatum	38,250	86,800	57,800	87,500	25,500	36,900	52,600	27,200
Bacteriastrum hylinum	12,750	24,800	28,900	12,500	25,500		39,450	27,200
Chaetoceros aequatorialis		37,200	14,450	37,500	63,750	98,400	39,450	40,800
Chaetoceros affinis	548,250	744,000	722,500	587,500	879,750	750,300	749,550	816,000
Chaetoceros borealis	12,750	74,400	72,250	25,000				
Chaetoceros coarctatus	178,500	210,800	173,400	162,500	165,750	61,500	92,050	149,600
Chaetoceros concavicomis	12,750	12,400	57,800	25,000			13,150	
Chaetoceros compressus	25,500	12,400	28,900	12,500		12,300	13,150	27,200
Chaetoceros curvisetus						24,600	39,450	68,000
Chaetoceros danicus	25,500			12,500				
Chaetoceros debilis	25,500	12,400	43,350	37,500	114,750	86,100	52,600	54,400
Chaetoceros decipiens			57,800	25,000				
Chaetoceros didymus	12,750	24,800	57,800	25,000	89,250	73,800	78,900	108,800
Chaetoceros diversus		12,400		62,500			13,150	

TEST REPORT

Company name: STS Green Company Limited

Project name: Marine Environmental Monitoring Post Exploration Drilling for WWT-57B Block G2/61 Project

Parameter: Phytoplankton **Sample Type:** Seawater

Taxonomic categories	WWT-57B-3				Reference station			
	Surface		Euphotic		Surface		Euphotic	
	Sample1	Sample2	Sample3	Sample4	Sample1	Sample2	Sample3	Sample4
Phytoplankton (Unit: Units / m^3)								
Chaetoceros lacinocus	38,250		57,800		51,000	123,000	92,050	122,400
Chaetoceros lorenzianus	89,250	99,200		12,500	102,000	98,400	39,450	81,600
Chaetoceros paradoxus	12,750	12,400	43,350	62,500	114,750	73,800	65,750	95,200
Chaetoceros peruvianus			28,900	12,500	12,750	49,200	26,300	27,200
Chaetoceros tortissimus			14,450					
Corethron hystrix	12,750		14,450	50,000		24,600	13,150	27,200
Coscinodiscus sp.	25,500	111,600	72,250	87,500	25,500	12,300	92,050	81,600
Dactyliosolen fragillissima			14,450	12,500		12,300		13,600
Dactyliosolen phuketensis	12,750	24,800	14,450	25,000	102,000	295,200	65,750	136,000
Eucampia cornuta	38,250	24,800		75,000	89,250	49,200	13,150	40,800
Grammatophora sp.	12,750	12,400	14,450					
Guinardia cylindrus		12,400	14,450	12,500	25,500	36,900	78,900	27,200
Guinardia flaccida	25,500		28,900	12,500	12,750	36,900	26,300	
Guinardia striata				12,500	76,500	49,200	39,450	27,200
Hemiaulus hauckii	12,750	37,200		25,000	51,000	61,500	52,600	68,000
Hemiaulus indicus					12,750		39,450	54,400
Hemiaulus membranaceus			43,350	62,500	12,750		52,600	95,200
Hemiaulus sinensis		12,400				24,600		
Laudaria sp.	25,500	24,800	14,450	12,500				
Leptocylindrus danicus	12,750	12,400	14,450	12,500		36,900		27,200
Navicula sp.	25,500	12,400	14,450		51,000	98,400	78,900	13600
Nitzschia sp.	306,000	248,000	158,950	475,000	63,750	246,000	197,250	435,200
Odontella sinensis				25,000	25,500	24,600	26300	13,600
Pseudo-nitzschia pungens	102,000	260,400	173,400	187,500	51,000	49,200	65,750	163,200
Probosia alata	89,250	210,800	187,850	250,000	178,500	184,500	144,650	122,400
Probosia indica		12,400					26,300	13,600
Rhizosolenia calcaravis					76,500	98,400	39,450	95,200
Rhizosolenia clevei	51,000	24,800	72,250	62,500	165,750	98,400	65,750	108,800

TEST REPORT

Company name: STS Green Company Limited

Project name: Marine Environmental Monitoring Post Exploration Drilling for WWT-57B Block G2/61 Project

Parameter: Phytoplankton **Sample Type:** Seawater

Taxonomic categories	WWT-57B-3				Reference station			
	Surface		Euphotic		Surface		Euphotic	
	Sample1	Sample2	Sample3	Sample4	Sample1	Sample2	Sample3	Sample4
Phytoplankton (Unit: Units / m^3)								
Rhizosolenia hebetata	369,750	458,800	245,650	425,000	612,000	984,000	1,170,350	1,088,000
Rhizosolenia imbricata			14,450					
Rhizosolenia striata				12,500				
Thalassionema nitzschioides	12,750	37,200	14,450		12,750			
Thalassiosira subtilis			28,900	75,000	12,750			
Thalassiothrix frauenfeldii	548,250	260,400	375,700	362,500	114,750	221,400	223,550	394,400
Thalassiothrix longissima	114,750	136,400	144,500	100,000	191,250	110,700	210,400	163,200
Class Chrysophyceae								
Dictyocha fibula	63,750	24,800	28,900	37,500				13,600
Class Dinophyceae								
Amphisolenia bidentata	38,250		14,450	12,500				
Amphisolenia lemmermannii								13,600
Blepharocysta sp.			14,450	12,500				27,200
Ceratium biceps			14,450					13,600
Ceratium carriense				25,000				
Ceratium dens						61,500	65,750	
Ceratium furca	25,500			12,500	12,750	12,300	26,300	13,600
Ceratium gibberum					12,750			
Ceratium trichoceros		24,800			51,000		13,150	13,600
Ceratium tripos					25,500			
Dinophysis doryphora						12,300		13,600
Dinophysis parvula	12,750	24,800		37,500	25,500			
Fragilidium sp.	12,750	24,800		12,500				13,600
Oxytoxum scolopax							13150	
Podolampas palmipes					12,750			13,600
Prorocentrum micans	12,750	12,400						13,600
Prorocentrum rhathymum					12,750	12,300	26,300	95,200
Prorocentrum sigmoides							13,150	

TEST REPORT

Company name: STS Green Company Limited

Project name: Marine Environmental Monitoring Post Exploration Drilling for WWT-57B Block G2/61 Project

Parameter: Phytoplankton **Sample Type:** Seawater

Taxonomic categories	WWT-57B-3				Reference station			
	Surface		Euphotic		Surface		Euphotic	
	Sample1	Sample2	Sample3	Sample4	Sample1	Sample2	Sample3	Sample4
Phytoplankton (Unit: Units / m^3)								
Prorocentrum conicoides							13,150	
Protoperidinium divergens	12,750					36,900	13,150	
Protoperidinium ovatum			14,450				13,150	13,600
Protoperidinium pyriforme	25,500	12,400	28,900	37,500	12,750		13,150	40,800
Protoperidinium sp.	293,250	186,000	202,300	312,500	216,750	369,000	355,050	285,600
Pyrocystis elegans		12,400						
Pyrophacus steinii		12,400				12,300		
Total	11,271,000	12,375,200	10,288,400	13,425,000	6,732,000	9,729,300	9,717,850	11,179,200
Number of Species	46	48	50	54	48	47	55	57
Diversity index	1.72	1.84	2.07	1.93	2.70	2.43	2.35	2.45
Richness index	2.77	2.88	3.03	3.23	2.99	2.86	3.36	3.45
Evenness index	0.45	0.48	0.53	0.48	0.70	0.63	0.59	0.61

Remark: This report certifies the analysis result of samples received only.

Analyzed by

Oning Veschasit

(Oning Veschasit)

Date. .....October 24, 2025.....

Approval by

(Prof. Shettapong Meksumpun)

Date. .....October 24, 2025.....

ภาคผนวก ข4

ใบรับรองผลการจำแนก

แพลงก์ตอนสัตว์จากห้องปฏิบัติการ

ภาควิชาวิทยาศาสตร์ทางทะเล

คณะประมง มหาวิทยาลัยเกษตรศาสตร์

TEST REPORT

Company name: STS Green Company Limited

Project name: Marine Environmental Monitoring Post Exploration Drilling for WWT-57B Block G2/61 Project

Parameter: Zooplankton **Sample Type:** Seawater

Taxonomic categories	WWT-57B-3	Reference station
Zooplankton (Unit: Individuals / m^3)		
Phylum Protozoa		
Class Sarcodina		
Order Radiolarida		
Acanthosphaera sp.	11	201
*Radiolarian	66	575
Phylum Coelenterata		
Class Hydrozoa		
Order Anthoathecata		
Bougainvillia sp.	1	
Sarsia sp.	2	5
Order Leptothecata		
Phialidium sp.		1
Order Siphonophora		
Abylopsis sp.	5	
Bassia sp.	8	1
Diphyes sp.	6	7
Lensia sp.	3	3
Muggiae sp.	6	7
Phylum Chaetognatha		
Class Sagittoidea		
Sagitta sp.	143	112
Phylum Annelida		
Class Polychaeta		
Order Phyllodocida		
*Polychaete larvae	43	21
Phylum Arthropada		
Class Crustacea		
Order Diplostrara		
Evadne sp.		6

TEST REPORT

Company name: STS Green Company Limited

Project name: Marine Environmental Monitoring Post Exploration Drilling for WWT-57B Block G2/61 Project

Parameter: Zooplankton **Sample Type:** Seawater

Taxonomic categories	WWT-57B-3	Reference station
Zooplankton (Unit: Individuals / m^3)		
Order Calanoida		
Acartia sp.	16	41
Calanus sp.	115	55
Candacia sp.	16	3
Calanopia sp.	3	2
Centropages sp.	6	3
Eucalanus sp.	33	
Labidocera sp.	14	27
Lucicutia sp.	4	
Temora sp.	18	8
Order Cyclopoida		
Oithona sp.	78	61
Copilia sp.	8	4
Corycaeus sp.	50	43
Sapphirina sp.	6	4
Oncea sp.	8	3
*Copepod Nauplius		3
Order Harpacticoida		
Tigriopus sp.	1	
Macrosetella sp.	5	1
Microsetella sp.	3	18
Order Ostracoda		
Conchoecia sp.	26	
Cypridina sp.	6	4
Class Malacostraca		
Order Amphipoda		
Hyperia sp.	9	
Hyperoides sp.	1	
Order Decapoda		
Anomuran zoea	1	
Callianassa larvae	1	
Caridean zoea	6	

TEST REPORT

Company name: STS Green Company Limited

Project name: Marine Environmental Monitoring Post Exploration Drilling for WWT-57B Block G2/61 Project

Parameter: Zooplankton **Sample Type:** Seawater

Taxonomic categories	WWT-57B-3	Reference station
Zooplankton (Unit: Individuals / m^3)		
Crab zoea	2	1
Metapenaeus larvae		1
Pagurid larvae		1
Solenocera mysis	1	
Phylum Mollusca		
Class Gastropoda		
Order Pteropoda		
Atlanta sp.	4	3
Carinaria sp.	25	4
Creseis sp.	13	14
Janthina sp.	13	1
Limacina sp.	22	6
*Gastropods larvae		3
Class Bivalvia		
*Bivalvia larvae	211	9
Phylum Ectoprocta (bryozoans)		
Cyphonautes larvae	2	
Phylum Echinodermata		
Class Echinoidea		
*Ophiopkiteus larvae	21	11
*Echinopluteus larvae	1	
Phylum Chordata		
Class Larvacea		
Order Copelata		
Fritillaria sp.	5	9
Oikopleura sp.	88	339
Class Thaliacea		
Order Doliolida		
Dolioletta sp.	7	
Doliolum sp.	7	4

TEST REPORT

Company name: STS Green Company Limited

Project name: Marine Environmental Monitoring Post Exploration Drilling for WWT-57B Block G2/61 Project

Parameter: Zooplankton **Sample Type:** Seawater

Taxonomic categories	WWT-57B-3	Reference station
Zooplankton (Unit: Individuals / m^3)		
Order Salpida		
Salpa sp.	56	9
Salpa maxima	3	8
Thalia democratica	1	1
Total	1,210	1,643
Number of taxa	53	44
Diversity index	3.07	2.24
Richness index	7.33	5.81
Evenness index	0.77	0.59

Remark: This report certifies the analysis result of samples received only.

* = Unidentify

Analyzed by
Oning Veschasit
(Oning Veschasit)
Date. .....October 24, 2025.....

Approval by
(Prof. Shettapong Meksumpun)
Date. .....October 24, 2025.....

ภาคผนวก ข5

ใบรับรองผลการจำแนก

สัตว์น้ำวัยอ่อนจากห้องปฏิบัติการ

ลูกปลาวัยอ่อน
คณะประมง มหาวิทยาลัยเกษตรศาสตร์
ภาควิชาชีววิทยาประมง

TEST REPORT

Company name: STS Green Company Limited

Project name: Marine Environmental Monitoring Post Exploration Drilling for WWT-57B Block G2/61 Project

Parameter: Larvae **Sample Type:** Seawater

Sampling name	WWT-57B-3	Reference station
Sampling date	8/7/2025	6/7/2025
Water volume (m^3)	494.17	434.07
Fish Larvae (Unit: Individuals / 1,000 m^3)		
Phylum Chordata		
Class Osteichthyes		
Subclass Actinopterygii		
Order Anguilliformes		
Family Anguillidae	9	
Family Muraenesocidae	25	
Order Carangiformes		
Family Carangidae	138	74
Order Clupeiformes		
Family Clupeidae	25	123
Family Engraulidae	340	
Order Gadiformes		
Family Bregmacerotidae	389	
Order Gobiiformes		
Family Gobiidae	227	187
Order Istiophoriformes		
Family Sphyraenidae		20
Order Lophiiformes		
Family Antennariidae	25	
Order Perciformes		
Family Ambassidae		
Family Mullidae		89
Family Lutjanidae	25	
Family Leiognathidae	57	
Family Priacanthidae	98	
Order Pleuronectiformes		
Family Bothidae	73	

TEST REPORT

Company name: STS Green Company Limited

Project name: Marine Environmental Monitoring Post Exploration Drilling for WWT-57B Block G2/61 Project

Parameter: Larvae **Sample Type:** Seawater

Sampling name	WWT-57B-3	Reference station
Sampling date	8/7/2025	6/7/2025
Water volume (m^3)	494.17	434.07
Fish Larvae (Unit: Individuals / 1,000 m^3)		
Family Cynoglossidae	25	
Order Scombriformes		
Family Scombridae	25	59
Family Trichiuridae	17	
Order Tetraodontiformes		
Family Tetraodontidae	57	5
Order Trachiniformes		
Family Champsodontidae	25	25
Fish Egg	583	368
Total	**1,580**	**582**
Number of taxa	**17**	**8**
Diversity index	**2.26**	**1.77**
Richness index	**2.17**	**1.10**
Evenness index	**0.84**	**0.85**

Remark: This report certifies the analysis result of samples received only.

Santi Poungcharean

(Dr. Santi Poungcharean)

Assistant Professor

Date : .....

สัตว์น้ำวัยอ่อนกลุ่มอื่น ๆ

TEST REPORT

Company name: STS Green Company Limited

Project name: Marine Environmental Monitoring Post Exploration Drilling for WWT-57B Block G2/61 Project

Parameter: Larvae **Sample Type:** Seawater

Sampling name	WWT-57B-3	Reference station
Sampling date	8/7/2025	6/7/2025
Water volume (m^3)	494.17	434.07
Other Larvae (Unit: Individuals / 1,000 m^3)		
Phylum Arthropoda		
Class Crustacea		
Subclass Copepoda	502	810
Order Decapodae		
Suborder Dendrobranchiata		
Family Sergestidae	469	206
Suborder Dendrobranchiata		
Family Luciferidae	81	59
Suborder Pleocyemata (Natantia)	413	374
Suborder Pleocyemata (Reptantia)	502	246
Order Stomatopoda	57	15
Phylum Cndaria		
Class Scyphozoa	89	103
Phylum Mollusca		
Class Gastropoda	65	8
Class Bivalvia	340	23
Total	2,518	1,844
Number of taxa	9	9
Diversity index	1.93	1.59
Richness index	1.02	1.06
Evenness index	0.88	0.72

Remark: This report certifies the analysis result of samples received only.

Santi Poungcharean

(Dr. Santi Poungcharean)

Assistant Professor

Date. .....

ภาคผนวก ข6

ใบรับรองผลการจำแนกสัตว์หน้าดินจากห้องปฏิบัติการ

ภาควิชาวิทยาศาสตร์ทางทะเล

คณะประมง มหาวิทยาลัยเกษตรศาสตร์

TEST REPORT

Company name: STS Green Company Limited

Project name: Marine Environmental Monitoring Post Exploration Drilling for WWT-57B Block G2/61

Parameter: Benthos **Sample Type:** Sediment

Taxonomic categories	WWT-57B-1			WWT-57B-2		
	Sample1	Sample2	Sample3	Sample1	Sample2	Sample3
Benthos (Unit: Individuals / m^2)						
Phylum Annelida						
Class Sipuncula						
Class Polychaeta						
Order Amphinomida						
Family Amphinomidae						
Chloeia sp.						
Order Phyllodocida						
Family Glyceridae						
Glycera sp.						
Family Nephtyidae						
Nephtys sp.		10			10	
Family Nereididae						
Nereis sp.				10	10	20
Family Pilargidae						
Sigambra sp.			10	150	140	20
Litocorsa sp.						
Family Paralacydoniidae						
Family Syllidae	10			10		
Family Polynoidae		10				
Order Eunicida						
Family Dorvilleidae	40			290	160	130
Family Eunicidae						
Family Lumbrineridae						
Lumbrineris sp.						
Order Scolecida						
Family Capitellidae	20	10	20	30	20	40
Family Maldanidae						
Euclymene sp.						
Order Spionida						
Family Magelonidae			10			
Family Poecilochaetidae		10				

TEST REPORT

Company name: STS Green Company Limited

Project name: Marine Environmental Monitoring Post Exploration Drilling for WWT-57B Block G2/61

Parameter: Benthos **Sample Type:** Sediment

Taxonomic categories	WWT-57B-1			WWT-57B-2		
	Sample1	Sample2	Sample3	Sample1	Sample2	Sample3
Benthos (Unit: Individuals / m^2)						
Family Spionidae						
Prionospio sp.						
Spio sp.						
Order Terebellida						
Family Ampharetidae						
Family Cirratulidae						
Cirriformis sp.				10	40	10
Family Sternaspidae						
Family Terebellidae						
Family Trichobranchidae						
Order Opheliida						
Family Orbiniidae			10			
Family Travisiidae						
Travisia sp.						
Phylum Nemertea						
Class Enopla						
Order Heteronemertea		40		10		
Phylum Arthropoda						
Class Malacostraca						
Class Copepoda						
Order Amphipoda						
Family Ampeliscidae						
Ampelisca sp.						
Ampithoe sp.	10					
Family Gammaridae						
Gammarus sp.						
Family Photidae						
Gammaropsis sp.						
Family Hyperiidae						
Hyperoides sp.						

TEST REPORT

Company name: STS Green Company Limited

Project name: Marine Environmental Monitoring Post Exploration Drilling for WWT-57B Block G2/61

Parameter: Benthos **Sample Type:** Sediment

Taxonomic categories	WWT-57B-1			WWT-57B-2		
	Sample1	Sample2	Sample3	Sample1	Sample2	Sample3
Benthos (Unit: Individuals / m^2)						
Order Isopoda						
Family Paranthuridae						
Paranthura sp.		20				
Family Cirolanidae						
Cirolana sp.						
Order Decapoda						
Family Alpheidae						
Alpheus sp.				10		
Family Penaeidae						
Penaeid mysis						
Family Callianassidae						
Callianassa sp.						
Family Euryplacidae						
Eucrate sp.						
Family Goneplacidae						
Carcinoplax sp.						
Family Pilumnidae						
Ceratoplax sp.	10					
***Brachyuran zoea*						
Order Stomatopoda						
Family Squillidae						
Anchisquilla sp.		10		10		
Class Ostracoda						
Order Myodocopida						
Family Cypridinidae						
Cypridina sp.						
Phylum Echinodermata						
Class Ophiuroidea						
Order Amphilepidida						
Family Amphiuridae						
Amphipholis sp.						
Amphiura sp.						

TEST REPORT

Company name: STS Green Company Limited

Project name: Marine Environmental Monitoring Post Exploration Drilling for WWT-57B Block G2/61

Parameter: Benthos **Sample Type:** Sediment

Taxonomic categories	WWT-57B-1			WWT-57B-2		
	Sample1	Sample2	Sample3	Sample1	Sample2	Sample3
Benthos (Unit: Individuals / m^2)						
Phylum Mollusca						
Class Gastropoda						
Order Neogastropoda						
Family Marginellidae						
Cryptospira ventricosa						
Family Nassariidae						
Nassarius sp.						
Order Littorinimorpha						
Family Naticidae						
Sinum planulatum				20		
Class Bivalvia						
Order Cardiida						
Family Tellinidae						
Tellina sp.			10			10
Order Venerida						
Family Veneridae						
Diplodonta sp.	20	30		4,820	2,730	3,200
Total	**110**	**140**	**60**	**5,370**	**3,110**	**3,430**
Number of taxa	**6**	**8**	**5**	**11**	**7**	**7**
Diversity index	**1.64**	**1.91**	**1.56**	**0.47**	**0.53**	**0.33**
Richness index	**1.06**	**1.42**	**0.98**	**1.16**	**0.75**	**0.74**
Evenness index	**0.92**	**0.92**	**0.97**	**0.20**	**0.27**	**0.17**

Remark: This report certifies the analysis result of samples received only.

TEST REPORT

Company name: STS Green Company Limited

Project name: Marine Environmental Monitoring Post Exploration Drilling for WWT-57B Block G2/61

Parameter: Benthos **Sample Type:** Sediment

Taxonomic categories	WWT-57B-3			WWT-57B-4		
	Sample1	Sample2	Sample3	Sample1	Sample2	Sample3
Benthos (Unit: Individuals / m^2)						
Phylum Annelida						
Class Sipuncula		10	10			
Class Polychaeta						
Order Amphinomida						
Family Amphinomidae						
Chloeia sp.						
Order Phyllodocida						
Family Glyceridae						
Glycera sp.		10				
Family Nephtyidae						
Nephtys sp.					10	10
Family Nereididae						
Nereis sp.		10				
Family Pilargidae						
Sigambra sp.		10	10	10	10	
Litocorsa sp.						
Family Paralacydoniidae						
Family Syllidae						
Family Polynoidae				10		
Order Eunicida						
Family Dorvilleidae	10		10	10		
Family Eunicidae						
Family Lumbrineridae						
Lumbrineris sp.					10	
Order Scolecida						
Family Capitellidae		10			10	
Family Maldanidae						
Euclymene sp.						
Order Spionida						
Family Magelonidae						
Family Poecilochaetidae		20	10			

TEST REPORT

Company name: STS Green Company Limited

Project name: Marine Environmental Monitoring Post Exploration Drilling for WWT-57B Block G2/61

Parameter: Benthos **Sample Type:** Sediment

Taxonomic categories	WWT-57B-3			WWT-57B-4		
	Sample1	Sample2	Sample3	Sample1	Sample2	Sample3
Benthos (Unit: Individuals / m^2)						
Family Spionidae						
Prionospio sp.			10		10	
Spio sp.						
Order Terebellida						
Family Ampharetidae						
Family Cirratulidae						
Cirriformis sp.			10		10	
Family Sternaspidae						10
Family Terebellidae					10	
Family Trichobranchidae						
Order Opheliida						
Family Orbiniidae						
Family Travisiidae						
Travisia sp.				10		10
Phylum Nemertea						
Class Enopla						
Order Heteronemertea			10			
Phylum Arthropoda						
Class Malacostraca						
Class Copepoda						
Order Amphipoda						
Family Ampeliscidae						
Ampelisca sp.			10			
Ampithoe sp.						
Family Gammaridae						
Gammarus sp.						
Family Photidae						
Gammaropsis sp.						10
Family Hyperiidae						
Hyperoides sp.		20				

TEST REPORT

Company name: STS Green Company Limited

Project name: Marine Environmental Monitoring Post Exploration Drilling for WWT-57B Block G2/61

Parameter: Benthos **Sample Type:** Sediment

Taxonomic categories	WWT-57B-3			WWT-57B-4		
	Sample1	Sample2	Sample3	Sample1	Sample2	Sample3
Benthos (Unit: Individuals / m^2)						
Order Isopoda						
Family Paranthuridae						
Paranthura sp.						
Family Cirolanidae						
Cirolana sp.						
Order Decapoda						
Family Alpheidae						
Alpheus sp.		20				
Family Penaeidae						
Penaeid mysis		10				
Family Callianassidae						
Callianassa sp.						
Family Euryplacidae						
Eucrate sp.		10				
Family Goneplacidae						
Carcinoplax sp.						
Family Pilumnidae						
Ceratoplax sp.						
***Brachyuran zoea*		10				
Order Stomatopoda						
Family Squillidae						
Anchisquilla sp.		10				
Class Ostracoda						
Order Myodocopida						
Family Cypridinidae						
Cypridina sp.						
Phylum Echinodermata						
Class Ophiuroidea						
Order Amphilepidida						
Family Amphiuridae						
Amphipholis sp.						
Amphiura sp.						

TEST REPORT

Company name: STS Green Company Limited

Project name: Marine Environmental Monitoring Post Exploration Drilling for WWT-57B Block G2/61

Parameter: Benthos **Sample Type:** Sediment

Taxonomic categories	WWT-57B-3			WWT-57B-4		
	Sample1	Sample2	Sample3	Sample1	Sample2	Sample3
Benthos (Unit: Individuals / m^2)						
Phylum Mollusca						
Class Gastropoda						
Order Neogastropoda						
Family Marginellidae						
Cryptospira ventricosa					10	
Family Nassariidae						
Nassarius sp.				10		
Order Littorinimorpha						
Family Naticidae						
Sinum planulatum			10			
Class Bivalvia						
Order Cardiida						
Family Tellinidae						
Tellina sp.						
Order Venerida						
Family Veneridae						
Diplodonta sp.	20		30	20		
Total	30	150	120	70	80	40
Number of taxa	2	12	10	6	8	4
Diversity index	0.64	2.43	2.21	1.75	2.08	1.39
Richness index	0.29	2.20	1.88	1.18	1.60	0.81
Evenness index	0.92	0.98	0.96	0.98	1.00	1.00

Remark: This report certifies the analysis result of samples received only.

TEST REPORT

Company name: STS Green Company Limited

Project name: Marine Environmental Monitoring Post Exploration Drilling for WWT-57B Block G2/61

Parameter: Benthos **Sample Type:** Sediment

Taxonomic categories	WWT-57B-5			Reference station		
	Sample1	Sample2	Sample3	Sample1	Sample2	Sample3
Benthos (Unit: Individuals / m^2)						
Phylum Annelida						
Class Sipuncula						10
Class Polychaeta						
Order Amphinomida						
Family Amphinomidae						
Chloeia sp.				20		
Order Phyllodocida						
Family Glyceridae						
Glycera sp.				10		
Family Nephtyidae						
Nephtys sp.			20	30	10	50
Family Nereididae						
Nereis sp.						
Family Pilargidae						
Sigambra sp.						
Litocorsa sp.	10					
Family Paralacydoniidae				10	10	40
Family Syllidae						
Family Polynoidae			10			10
Order Eunicida						
Family Dorvilleidae	10			10		
Family Eunicidae	10		20			
Family Lumbrineridae						
Lumbrineris sp.		10	20	20	10	
Order Scolecida						
Family Capitellidae	20		20		10	10
Family Maldanidae						
Euclymene sp.					20	
Order Spionida						
Family Magelonidae						
Family Poecilochaetidae		20	10			

TEST REPORT

Company name: STS Green Company Limited

Project name: Marine Environmental Monitoring Post Exploration Drilling for WWT-57B Block G2/61

Parameter: Benthos **Sample Type:** Sediment

Taxonomic categories	WWT-57B-5			Reference station		
	Sample1	Sample2	Sample3	Sample1	Sample2	Sample3
Benthos (Unit: Individuals / m^2)						
Family Spionidae						
Prionospio sp.					10	10
Spio sp.					30	10
Order Terebellida						
Family Ampharetidae				10		
Family Cirratulidae						
Cirriformis sp.			10			10
Family Sternaspidae						
Family Terebellidae						
Family Trichobranchidae		10	20	10	20	40
Order Opheliida						
Family Orbiniidae				10		10
Family Travisiidae						
Travisia sp.						
Phylum Nemertea						
Class Enopla						
Order Heteronemertea			40			
Phylum Arthropoda						
Class Malacostraca						
Class Copepoda						
Order Amphipoda						
Family Ampeliscidae						
Ampelisca sp.				20		20
Ampithoe sp.			10			
Family Gammaridae						
Gammarus sp.		10				
Family Photidae						
Gammaropsis sp.						
Family Hyperiidae						
Hyperoides sp.						

TEST REPORT

Company name: STS Green Company Limited

Project name: Marine Environmental Monitoring Post Exploration Drilling for WWT-57B Block G2/61

Parameter: Benthos **Sample Type:** Sediment

Taxonomic categories	WWT-57B-5			Reference station		
	Sample1	Sample2	Sample3	Sample1	Sample2	Sample3
Benthos (Unit: Individuals / m^2)						
Order Isopoda						
Family Paranthuridae						
Paranthura sp.						
Family Cirolanidae						
Cirolana sp.		20				
Order Decapoda						
Family Alpheidae						
Alpheus sp.						30
Family Penaeidae						
Penaeid mysis						
Family Callianassidae						
Callianassa sp.		20			10	10
Family Euryplacidae						
Eucrate sp.						10
Family Goneplacidae						
Carcinoplax sp.			20			
Family Pilumnidae						
Ceratoplax sp.						
***Brachyuran zoea*						
Order Stomatopoda						
Family Squillidae						
Anchisquilla sp.			10			
Class Ostracoda						
Order Myodocopida						
Family Cypridinidae						
Cypridina sp.					10	
Phylum Echinodermata						
Class Ophiuroidea						
Order Amphilepidida						
Family Amphiuridae						
Amphipholis sp.					10	10
Amphiura sp.					10	

TEST REPORT

Company name: STS Green Company Limited

Project name: Marine Environmental Monitoring Post Exploration Drilling for WWT-57B Block G2/61

Parameter: Benthos **Sample Type:** Sediment

Taxonomic categories	WWT-57B-5			Reference station		
	Sample1	Sample2	Sample3	Sample1	Sample2	Sample3
Benthos (Unit: Individuals / m^2)						
Phylum Mollusca						
Class Gastropoda						
Order Neogastropoda						
Family Marginellidae						
Cryptospira ventricosa						
Family Nassariidae						
Nassarius sp.						
Order Littorinimorpha						
Family Naticidae						
Sinum planulatum						
Class Bivalvia						
Order Cardiida						
Family Tellinidae						
Tellina sp.						
Order Venerida						
Family Veneridae						
Diplodonta sp.						
Total	50	90	210	150	160	280
Number of taxa	4	6	12	10	12	15
Diversity index	1.33	1.74	2.38	2.21	2.39	2.48
Richness index	0.77	1.11	2.06	1.80	2.17	2.48
Evenness index	0.96	0.97	0.96	0.96	0.96	0.92

Remark: This report certifies the analysis result of samples received only.

Analyzed by

Khanitta B.

(Khanitta Buakaew)

Date. .....October 24, 2025.....

Approval by

(Prof. Shettapong Meksumpun)

Date. .....October 24, 2025.....

ภาคผนวก 7

กิจกรรมการรับผิดชอบต่อชุมชน สังคม และสิ่งแวดล้อม

Engagement			
Asset:	G2/61		
Activity:	เข้าเยี่ยมคารวะ และสวัสดีปีใหม่ 2568 แก่หน่วยงานต่างๆ พร้อมทั้งการแจ้งแผนการเจาะหลุมประเมิน หลุมผลิต และการติดตั้งแท่นหลุมผลิตและท่อขนส่งก๊าซธรรมชาติ ประจำปี 2568		
Owner:	OSB/A Staff		
Location:	กรุงเทพ จังหวัดนครศรีธรรมราช จังหวัดสงขลา จังหวัดปัตตานี	Date:	มกราคม 2568
Stakeholder Group:	1. Government Agencies and Regulators		
	7. Communities and Society		
	8. Media		

Stakeholder Detail:	Name / Position	Attitude	
		Before	After
	1. หน่วยงานราชการ ในจังหวัดที่เกี่ยวข้อง		
	2. สมาคมประมง ในจังหวัดที่เกี่ยวข้อง		
	3. ชุมชนในอำเภอสิงหนคร		

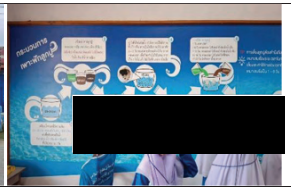
No. of Participation	No. of Stakeholder: 100
	No. of PTTEP staff as volunteer (if any): 15
No. of Beneficiaries	-
Activity Detail:	กลุ่มบริษัท ปตท.สผ. เข้าเยี่ยมคารวะ และสวัสดีปีใหม่ 2568 แก่หน่วยงานต่างๆ ดังนี้ 3 มกราคม 2568 สมาคมชาวประมงปากพนัง* สมาคมผู้ค้าสัตว์น้ำประมงอวนชั้งนครศรีธรรมราช* สมาคมประมงอำเภอขนอม* สมาคมประมงอำเภอสิชล* สำนักงานพลังงานจังหวัดนครศรีธรรมราช สำนักข่าวเสียงเด็ก *พร้อมทั้งแจ้งแผนการเจาะหลุมประเมิน หลุมผลิต และการติดตั้งแท่นหลุมผลิตและท่อขนส่งก๊าซธรรมชาติ ประจำปี 2568 9 มกราคม 2568 สำนักงานเจ้าท่าภูมิภาคที่ 4

	สำนักงานเจ้าท่าภูมิภาคสาขาสงขลา สำนักงานนำร่องสงขลา [redacted] ประธานภาคีคนรักเมืองสงขลาสมาคม ผู้อำนวยการภาคีคนรักเมืองสงขลาสมาคม 10 มกราคม 2568 กรมเจ้าท่า คณะการจัดการสิ่งแวดล้อม มหาวิทยาลัยสงขลานครินทร์ ภาควิชาชีววิทยา คณะวิทยาศาสตร์ มหาวิทยาลัยสงขลานครินทร์ [redacted] ผู้จัดการศูนย์บริหารกิจการวิทยุกระจายเสียงภาคใต้ บริษัท อสมท จำกัด (มหาชน) [redacted] ผู้จัดการศูนย์ข่าวภาคใต้ Modern Nine TV 14 มกราคม 2568 ศรชล. จังหวัดสงขลา สำนักงานประมงจังหวัดสงขลา สมาคมประมงสงขลา* *พร้อมทั้งแจ้งแผนการเจาะหลุมประเมิน หลุมผลิต และการติดตั้งแท่นหลุมผลิตและท่อขนส่งก๊าซธรรมชาติ ประจำปี 2568 15 มกราคม 2568 ศูนย์วิจัยทรัพยากรทางทะเลและชายฝั่งอ่าวไทยตอนล่าง สำนักทรัพยากรทางทะเลและชายฝั่งที่ 5 17 มกราคม 2568 [redacted] ผู้ช่วยผู้บัญชาการทหารเรือ 20 มกราคม 2568 สำนักงานทรัพยากรธรรมชาติและสิ่งแวดล้อมจังหวัดสงขลา

7-กลางรวมทรัพย์สินทางปัญญาของบริษัทฯ และผู้ถือลิขสิทธิ์

	21 มกราคม 2568 [redacted] ผู้ว่าราชการจังหวัดปัตตานี รองผู้ว่าราชการจังหวัดปัตตานี รองผู้ว่าราชการจังหวัดปัตตานี ศรชล. จังหวัดปัตตานี สำนักงานพลังงานจังหวัดปัตตานี สำนักงานประมงจังหวัดปัตตานี สำนักงานทรัพยากรทางทะเลและชายฝั่งที่ 9 สมาคมการประมงจังหวัดปัตตานี* *พร้อมทั้งแจ้งแผนการเจาะหลุมประเมิน หลุมผลิต และการติดตั้งแท่นหลุมผลิต และท่อขนส่งก๊าซธรรมชาติ ประจำปี 2568 22 มกราคม 2568 [redacted] ผู้ว่าราชการจังหวัดสงขลา รองผู้ว่าราชการจังหวัดสงขลา รองผู้ว่าราชการจังหวัดสงขลา สำนักงานพลังงานจังหวัดสงขลา คณะรองผู้บัญชาการทัพเรือภาคที่ 2 และเสนาธิการทัพเรือภาคที่ 2 นายวิษณุ วงศ์เสาวรภย์ นายด่านศุลกากรสงขลา 24 มกราคม 2568 ภาควิชาวิทยาศาสตร์ทางทะเล คณะประมง มหาวิทยาลัยเกษตรศาสตร์ 30 มกราคม 2568 [redacted] ผู้อำนวยการสถาบันพัฒนาฝีมือแรงงาน 12 สงขลา พร้อมทั้งได้พูดคุยเรื่องความร่วมมือในการพัฒนาฝีมือแรงงาน เพื่อบูรณาการเตรียมแผนงานที่จะจัดทำร่วมกันสำหรับปีงบประมาณ 2568 31 มกราคม 2568 สมาคมการประมงแห่งประเทศไทย พร้อมทั้งแจ้งแผนการเจาะหลุมประเมิน หลุมผลิต และการติดตั้งแท่นหลุมผลิต และท่อขนส่งก๊าซธรรมชาติ ประจำปี 2568

	มกราคม 2568 คณะกรรมการชุมชนบ้านทะเลนอก ประธานชุมชนบ้านบนเมือง ประธานชุมชนบ้านเขาแดง ประธานชุมชนบ้านสถิตย์ ประธานชุมชนบ้านหนองบ่อ ประธานศูนย์การเรียนรู้เพาะฟักสัตว์น้ำเศรษฐกิจ กลุ่มพังสาย ผู้จัดการศูนย์การเรียนรู้เพาะฟักสัตว์น้ำเศรษฐกิจ กลุ่มพังสาย ประธานสภาเทศบาลเมืองสิงหนคร คณะกรรมการชุมชนบ้านท่าเขา ผู้อำนวยการโรงพยาบาลส่งเสริมสุขภาพตำบลหัวเขา ผู้อำนวยการโรงพยาบาลส่งเสริมสุขภาพตำบลบ้านสถิตย์ ประธานชุมชนบ้านนอก ประธานชุมชนบ้านบ่อสวน คณะกรรมการชุมชนบ้านนอกป่า-สภ.สิงหนคร คณะกรรมการชุมชนบ้านหน้าเมือง ประธานชุมชนบ้านสี่เต้-ปากหาร ประธานชุมชนบ้านยางงาม ประธานชุมชนบ้านเจ้านคร ประธานชุมชนบ้านหัวเขา ประธานชุมชนบ้านแหลมสน สาธารณสุขอำเภอสิงหนคร ประมงอำเภอสิงหนคร ผู้อำนวยการโรงพยาบาลส่งเสริมสุขภาพตำบลชิงโค ประธานชุมชนบ้านใหม่ ประธานชุมชนบ้านนาออก ประธานชุมชนบ้านหัวเลน ประธานชุมชนบ้านสวนจันทร์ ประธานศูนย์การเรียนรู้เพาะฟักสัตว์น้ำเศรษฐกิจ กลุ่มพังเค็ม ประธานชมรมอนุรักษ์ป่าชายเลนตำบลหัวเขา	
Activity Communication	Communication materials used/provided	Post-activity communication (If any) - Line, Facebook

Social Development Projects			
Asset:	G2/61		
Theme:	1. Basic Needs		
Activity:	โครงการศูนย์การเรียนรู้เพาะฟักสัตว์น้ำเศรษฐกิจ ศูนย์การเรียนรู้เพาะฟักสัตว์น้ำเศรษฐกิจ กลุ่มปะนาเระ ปล่อยลูกปูคืนสู่ธรรมชาติ		
Owner:	[redacted] (Assistant Officer, Public Affairs; OSB/A) [redacted] (Officer, Public Affairs; OSB/A)		
Location:	จังหวัดสงขลา	Date:	1-31 มกราคม 2568
Stakeholder Group:	7. Communities and Society		
Stakeholder:	Name / Position	Attitude: Before	Attitude: After
	1. คณะกรรมการศูนย์การเรียนรู้เพาะฟักสัตว์น้ำเศรษฐกิจ กลุ่มปะนาเระ และประชาชนจิตอาสา		
No. of Participation	No. of Stakeholder: 657		
	No. of PTTEP staff as volunteer (if any): -		
No. of Beneficiaries	1,000		
Actual Activity Expense:	-		
Activity Detail:	ปตท.สผ. อีดี ร่วมกับ ศูนย์การเรียนรู้เพาะฟักสัตว์น้ำเศรษฐกิจ กลุ่มปะนาเระ จัดกิจกรรมปล่อยลูกปูคืนสู่ธรรมชาติ เพื่อเพิ่มทรัพยากรสัตว์น้ำให้แก่ท้องทะเล และฟื้นฟูทรัพยากรจากการประกอบอาชีพของชาวประมง เพื่อให้ทรัพยากรมีความอุดมสมบูรณ์ และสร้างรายได้ให้กับชาวประมงในพื้นที่ ทั้งนี้ เดือนมกราคม ศูนย์การเรียนรู้เพาะฟักสัตว์น้ำเศรษฐกิจ กลุ่มปะนาเระ ปล่อยลูกปูคืนสู่ธรรมชาติ จำนวน 36,000,000 ตัว		
Activity Communication	Communication materials used/provided Report	Post-activity communication (If any) - Facebook	
Photo:			

Social Development Projects			
Asset:	G2/61		
Theme:	4. Culture		
Activity:	โครงการสงขลาสู่มรดกโลก สนับสนุนเครือข่ายสถาปนิกสร้างสรรค์ทักษิณ ร่วมกับเครือข่ายภาคประชาสังคมในพื้นที่จังหวัดสงขลา จัดทำโครงการนำเยาวชนเรียนรู้องค์ความรู้จากภาคประชาสังคมด้านการอนุรักษ์วัฒนธรรมและเมืองเก่าสงขลา		
Owner:	Mrs. Wipawee Panyadee (Officer, Public Affairs; OSB/A)		
Location:	จังหวัดสงขลา	Date:	มกราคม 2568
Stakeholder Group:	7. Communities and Society		
	1. Government Agencies and Regulators		
Stakeholder:	Name / Position	Attitude: Before	Attitude: After
	1. [redacted] - ผู้ว่าราชการจังหวัดสงขลา		
	2. [redacted] - รองผู้ว่าราชการจังหวัดสงขลา		
	3. [redacted] - นายกเทศมนตรีนครสงขลา		
	4. [redacted] - วัฒนธรรมจังหวัดสงขลา		
	5. [redacted] - กรรมการมูลนิธิสงขลาสู่มรดกโลก		
	6 [redacted] - เลขานุการมูลนิธิสงขลาสู่มรดกโลก		
	7. [redacted] - นายกภาคีคนรักเมืองสงขลาสมาคม		
	8 [redacted] - ผู้อำนวยการภาคีคนรักเมืองสงขลาสมาคม		
	9. [redacted] - นักวิชาการ มหาวิทยาลัยราชมงคลศรีวิชัย รองประธานผู้ร่วมก่อตั้งภาคีคนรักเมืองสงขลาสมาคม ประธานเครือข่ายสถาปนิกด้านวัฒนธรรม		
	10. [redacted] - ผู้อำนวยการสำนักศิลปากรที่ 11 สงขลา		
No. of Participation	No. of Stakeholder: 5		
	No. of PTTEP staff as volunteer (if any): 1		
No. of Beneficiaries	-		

Actual Activity Expense:	-	
Activity Detail:	6 มกราคม 2568 ร่วมประชุมกับแกนนำเครือข่ายภาคประชาสังคม และเครือข่ายสถาปนิกสร้างสรรค์ทักษิณ เพื่อเตรียมจัดกิจกรรม นำเยาวชนเรียนรู้องค์ความรู้จากภาคประชาสังคม ด้านการอนุรักษ์มรดกทางวัฒนธรรม ในวันที่ 17-19 มกราคม 2568 15 มกราคม 2568 ประชุมกับภาคีคนรักเมืองสงขลาสมาคม และมูลนิธิสงขลาสู่มรดกโลก และสำนักงานทรัพยากรธรรมชาติและสิ่งแวดล้อมจังหวัดสงขลา เกี่ยวกับแผนการดำเนินงานโครงการสงขลาสู่มรดกโลก ที่ทั้ง 2 หน่วยงานกำลังนำเสนอคณะกรรมการระดับจังหวัด ณ ที่ทำการโรงสีแดง 17-19 มกราคม 2568 ปตท.สผ.อีดี สนับสนุนเครือข่ายสถาปนิกสร้างสรรค์ทักษิณ ร่วมกับเครือข่ายภาคประชาสังคมในพื้นที่จังหวัดสงขลา จัดทำโครงการนำเยาวชนเรียนรู้องค์ความรู้จากภาคประชาสังคมด้านการอนุรักษ์วัฒนธรรมและเมืองเก่าสงขลา มีเยาวชนจำนวน 35 คน และคณาจารย์จาก 4 มหาวิทยาลัย และแกนนำภาคประชาสังคมในพื้นที่ เข้าร่วมกิจกรรม โดยนายพงศ์ธันว์ สำเภาเงิน ผู้อำนวยการกองโบราณคดี เป็นวิทยากรพิเศษ และรศ.ดร.ณฐพงศ์ จิตนิรัตน์ อธิการบดีมหาวิทยาลัยทักษิณ เป็นประธานในพิธีเปิดโครงการ 21 มกราคม 2568 ประชุมประสานงานกับประธานเครือข่ายสถาปนิกสร้างสรรค์ทักษิณ สรุปงาน NGO Networks Knowledge Sharing พร้อมทั้งติดตามงาน Heritage Walk และห้องสิริกิติยา เจนเซน และคณะทำงานจาก มทร.ศรีวิชัย แจ้งการทำผังปรับปรุงนิทรรศการ ณ โรงสีแดง	
Activity Communication	Communication materials used/provided Report	Post-activity communication (If any) - Line, Facebook
Photo:	-	

Social Development Projects			
Asset:	G2/61		
Theme:	1. Basic Needs		
Activity:	โครงการพัฒนาคุณภาพชีวิต และฝึกอบรมวิชาชีพ จัดอบรมเชิงปฏิบัติการ หลักสูตรการซ่อมบำรุงเครื่องยนต์ดีเซลแบบ 4 สูบ ติดท้ายเรือประมงพื้นบ้าน แก่ชุมชนบ้านทะเลนอก		
Owner:	[redacted] (Assistant Officer, Public Affairs; OSB/A) [redacted] (Assistant Officer, Public Affairs; OSB/A) [redacted] (Officer, Public Affairs Support; OSB/A)		
Location:	อำเภอสิงหนคร จังหวัดสงขลา	Date:	18-19 มกราคม 2568
Stakeholder Group:	7. Communities and Society		
	1. Government Agencies and Regulators		

Stakeholder:	Name / Position	Attitude	
		Before	After
	1. ชุมชนบ้านทะเลนอก		
	2. คณะวิศวกรรมศาสตร์ มหาวิทยาลัยราชมงคลศรีวิชัย		
	3. ประมงอำเภอสิงหนคร		

No. of Participation	No. of Stakeholder: 10	
	No. of PTTEP staff as volunteer (if any): 3	
No. of Beneficiaries	30	
Actual Activity Expense:	-	
Activity Detail:	ปตท.สผ. อีดี ร่วมกับ คณะวิศวกรรมศาสตร์ มหาวิทยาลัยราชมงคลศรีวิชัย ประมงอำเภอสิงหนคร และชุมชนบ้านทะเลนอก จัดอบรมเชิงปฏิบัติการ หลักสูตรการซ่อมบำรุงเครื่องยนต์ดีเซลแบบ 4 สูบ ติดท้ายเรือประมงพื้นบ้าน เพื่อถ่ายทอดองค์ความรู้แก่ชุมชนให้เกิดความเข้าใจและมีทักษะ สามารถนำไปใช้ในการตรวจสอบ วิเคราะห์และแก้ไขปัญหาเครื่องยนต์ได้ด้วยตนเอง อีกทั้งเพื่อลดค่าใช้จ่ายตลอดจนความเสี่ยงขณะทำงานอยู่กลางทะเล ทั้งนี้ในการจัดฝึกอบรมมีทั้งภาคทฤษฎีและภาคปฏิบัติ โดยให้ชุมชนได้ลงมือปฏิบัติจริง ซึ่งมีผู้เข้าร่วมอบรมกว่า 30 คน	
Activity Communication	Communication materials used/provided Report	Post-activity communication (If any) - Line, Facebook

Social Development Projects			
Asset:	G2/61		
Theme:	3. Environment		
Activity:	โครงการอนุรักษ์ทรัพยากรธรรมชาติทางทะเล สนับสนุนกิจกรรมอนุรักษ์ทรัพยากรธรรมชาติทางทะเล แก่ศูนย์ป้องกันและปราบปรามประมงทะเลสงขลา		
Owner:	[redacted] (Assistant Officer, Public Affairs; OSB/A)		
Location:	จังหวัดสงขลา	Date:	23-24 มกราคม 2568
Stakeholder Group:	1. Government Agencies and Regulators		
	7. Communities and Society		
Stakeholder:	Name / Position	Attitude: Before	Attitude: After
	1. ศูนย์ป้องกันและปราบปรามประมงทะเลสงขลา		
No. of Participation	No. of Stakeholder: 3		
	No. of PTTEP staff as volunteer (if any): 1		
No. of Beneficiaries	50		
Actual Activity Expense:	3,000 THB		
Activity Detail:	ปตท.สผ. อีดี สนับสนุนน้ำดื่มและหมวกปีก แก่ศูนย์ป้องกันและปราบปรามประมงทะเลสงขลา สำหรับจัดกิจกรรมให้ความรู้แก่ชาวประมงเกี่ยวกับการอนุรักษ์ทรัพยากรธรรมชาติทางทะเล (กิจกรรมเก็บขยะชายหาด และปล่อยลูกพันธุ์ปูม้า) ณ ห้องประชุมเทศบาลเมืองม่วงงาม อำเภอสิงหนคร จังหวัดสงขลา		
Activity Communication	Communication materials used/provided Report	Post-activity communication (If any) - Line, Facebook	
Photo:			

Positive News Report	
Asset:	G2/61
Media:	-
Date of publication:	มกราคม 2568
Headline:	สนับสนุนกิจกรรมวันเด็ก ของ ปตท.สผ. และ ปตท.สผ. อีดี ในพื้นที่ปฏิบัติการ
Detail / Photo:	• Thairath - https://fsv.iqnewsclip.com/DownloadFile.aspx?key=131F2D1767B4A36711351E647BA6AA65323132286CB4835C1F2D23030ABFAE44011C06277BAFA2752819256822F4E91045744A680CCCC5275E69342A61B0A05E1A0A1D0754BFF61F100D283A64A9A57D391923664B8392092A65301A5A8D8E7727634D016DB39E03715D704622E6E61E50684B6322C7 • Daily News - https://fsv.iqnewsclip.com/DownloadFile.aspx?key=131F2D1767B4A36711351E647BA6AA65323132286CB4835C1F2D23030ABFAE44011C06277BAFA2752819256822F4E91045774D680CC0C5205769342A61B0A05E1A0A1D0754BFF61F100D283A64A9A57D391923664B8392092A65301A5A8D8E7727634D016DB39E03715D704622E6E61050684B6322C7 • Daily News - https://www.dailynews.co.th/news/4289395/ • Songkhla Report - https://www.facebook.com/share/p/17F4H1pVNA/?mibextid=wwXIfr • สมิหลา ไทมส์ - https://www.facebook.com/share/15r3vLtfxs/?mibextid=wwXIfr • ข่าวสงขลา - https://www.facebook.com/share/p/15q1BLkmP2/?mibextid=wwXIfr • หาดใหญ่ข่าวเด็ด - https://www.facebook.com/share/p/18cvD82jrH/?mibextid=wwXIfr • Biz Goodness News - https://bizgoodness.com/v/790

Positive News Report	
Asset:	G2/61
Media:	ตะโละปาตานี- Teluk Patani : อ่าวปัตตานี
Date of publication:	19 มกราคม 2568
Headline:	รื้อฟื้นอาชีพ งม หาหอยในอ่าวปัตตานี 3 วัน ชาวบ้านเก็บได้ 1.6 ตัน
Detail / Photo:	● https://www.facebook.com/share/p/18qiWHgL9G/

Engagement			
Asset:	G2/61		
Activity:	จัดกิจกรรมกาแฟยามเช้าครอบครัวสิงหนคร		
Owner:	[redacted] (Manager, Songkhla Support Base Section; OSB/S) [redacted] (Manager, Public Affairs Section; OSB/A) OSB/A staff		
Location:	อำเภอสิงหนคร จังหวัดสงขลา	Date:	18 กุมภาพันธ์ 2568
Stakeholder Group:	1. Government Agencies and Regulators		
	7. Communities and Society		
Stakeholder Detail:	Name / Position	Attitude: Before	Attitude: After
	1. อำเภอสิงหนคร		
	2. หน่วยงานราชการและภาคเอกชนในพื้นที่		
	3. ชุมชนในพื้นที่		
No. of Participation	No. of Stakeholder: *3*		
	No. of PTTEP staff as volunteer (if any): 7		
No. of Beneficiaries	-		
Activity Detail:	ปตท.สผ. เป็นเจ้าภาพ จัดกิจกรรมกาแฟยามเช้าครอบครัวสิงหนคร ณ พื้นที่ชุมชนบ้านหน้าเมือง โดยมีหน่วยงานราชการ และภาคเอกชนในพื้นที่ ร่วมแลกเปลี่ยนและแบ่งปันกิจกรรมของแต่ละหน่วยงานในอำเภอสิงหนคร ทั้งนี้ ทาง ปตท.สผ. ได้แนะนำโครงการ CSR ที่จัดทำในพื้นที่ โดยมีนายเอกสิทธิ์ สองเมือง นายอำเภอสิงหนครเข้าร่วมด้วย		
Activity Communication	Communication materials used/provided Report	Post-activity communication (If any) - Line	
Photo:			

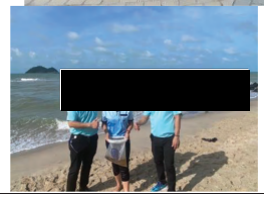
Social Development Projects			
Asset:	G2/61		
Theme:	4. Culture		
Activity:	โครงการส่งเสริมกิจกรรมทางศาสนา วัฒนธรรม และประเพณี มอบอินทผลัมและข้าวสารแก่มัสยิดและหน่วยงานในเขตเทศบาลเมืองสิงหนคร เนื่องในเดือนรอมฎอน		
Owner:	[redacted] (Assistant Officer, Public Affairs; OSB/A) [redacted] (Assistant Officer, Public Affairs; OSB/A)		
Location:	อำเภอสิงหนคร จังหวัดสงขลา	Date:	26 กุมภาพันธ์ 2568
Stakeholder Group:	7. Communities and Society		
	1. Government Agencies and Regulators		

Stakeholder:	Name / Position	Attitude	
		Before	After
	1. มัสยิดหัวสนอ่อน		
	2. มัสยิดสุลต่าน สุลัยมาน ชาห์		
	3. มัสยิดยาบัลเนี้ยหม๊ะ		
	4. มัสยิดยาบัลโรดเหร๊าะหม๊ะ		
	5. มัสยิดดารุสลาม		
	6. มัสยิดสีชมพู		
	7. มัสยิดยาบัลนูร		
	8. มัสยิดดารุลนาอีม		
	9. มัสยิดอีมาดลดีด		
	10. มัสยิดอีมาดลอิสลาม		
	11. มัสยิดอัลมูบาร๊อค		
	12. มัสยิดยาบัลยาแมะ		
	13. มัสยิดฉีอารุลอิสลาม		
	14. เทศบาลเมืองสิงหนคร		
	15. บาลายศาลาหุม		
	16. บาลายท่าเรือน้ำลึก		
	17. บาลายบุสตานูรด์เร๊าะห์หม๊ะฮ์		
	18. อำเภอสิงหนคร		
	19. ชุมชนอื่น ๆ		
No. of Participation	No. of Stakeholder: 19		

	No. of PTTEP staff as volunteer (if any): 2	
No. of Beneficiaries	1,800	
Actual Activity Expense:	135,120 THB	
Activity Detail:	ปตท.สผ. อีดี มอบอินทผลัมและข้าวสาร แก่มัสยิดในเขตเทศบาลเมืองสิงหนครเนื่องในเดือนรอมฎอน ซึ่งเป็นเดือนที่พี่น้องมุสลิมละเว้นจากการรับประทานอาหารและน้ำดื่ม ตั้งแต่ดวงอาทิตย์ขึ้นจนดวงอาทิตย์ลับของฟ้า เป็นระยะเวลา 1 เดือน และผู้ที่ถือศีลอดก็จะเดินทางมาปฏิบัติศาสนกิจที่มัสยิดและละศีลอดโดยพร้อมเพรียงกัน โดยมอบแก่ 13 มัสยิด 2 หน่วยงาน 3 บาลาย ดังนี้ 1. มัสยิดหัวสนอ่อน 2. มัสยิดสุลต่าน สุลัยมาน ชาห์ 3. มัสยิดยาบัลเนี้ยหม๊ะ 4. มัสยิดยาบัลโรดเหร๊าะหม๊ะ 5. มัสยิดดารุสลาม 6. มัสยิดสีชมพู 7. มัสยิดยาบัลนูร 8. มัสยิดดารุลนาอีม 9. มัสยิดอีมาดลดีด 10. มัสยิดอีมาดลอิสลาม 11. มัสยิดอัลมูบาร๊อค 12. มัสยิดยาบัลยาแมะ 13. มัสยิดฉีอารุลอิสลาม 14. เทศบาลเมืองสิงหนคร 15. บาลายศาลาหุม 16. บาลายท่าเรือน้ำลึก 17. บาลายบุสตานูรด์เร๊าะห์หม๊ะฮ์ 18. อำเภอสิงหนคร 19. ชุมชนอื่น ๆ	
Activity Communication	Communication materials used/provided Report	Post-activity communication (If any) - Line

Philanthropy and Donation							
Asset:	G2/61						
Activity / Stakeholder		Type of Donation	Amount (USD)	BN	EDU	ENV	CS
● สนับสนุนการจัดการประชุมใหญ่สามัญประจำปี 2568 แก่สมาคมการประมงแห่งประเทศไทย (100,000 บาท)		In cash	2,857.14				x
● สนับสนุนอุปกรณ์ด้านความปลอดภัย แก่ เทศบาลเมืองสิงหนคร		In kind	290.51	x			

Social Development Projects			
Asset:	G2/61		
Theme:	3. Environment		
Activity:	โครงการอนุรักษ์ทรัพยากรธรรมชาติทางทะเล จัดกิจกรรมปล่อยเต่าทะเลคืนสู่ธรรมชาติ ร่วมกับศูนย์วิจัยทรัพยากรทางทะเลและชายฝั่งอ่าวไทยตอนล่าง		
Owner:	[redacted] (Assistant Officer, Public Affairs; OSB/A) [redacted] (Officer, Public Affairs Support; OSB/A)		
Location:	หาดสมิหลา จังหวัดสงขลา	Date:	12 มีนาคม 2568
Stakeholder Group:	1. Government Agencies and Regulators		
	7. Communities and Society		
Stakeholder:	Name / Position	Attitude Before	Attitude After
	1. ศูนย์วิจัยทรัพยากรทางทะเลและชายฝั่งอ่าวไทยตอนล่าง		
No. of Participation	No. of Stakeholder: 5		
	No. of PTTEP staff as volunteer (if any): 4		
No. of Beneficiaries	100		
Actual Activity Expense:	-		
Activity Detail:	ปตท.สผ. อีดี ร่วมกับศูนย์วิจัยทรัพยากรทางทะเลและชายฝั่งอ่าวไทยตอนล่าง จัดกิจกรรมปล่อยเต่าตนุ และเต่ากระคืนสู่ธรรมชาติ จำนวน 8 ตัว โดยศูนย์วิจัยฯ ได้นำเต่าทะเลที่ได้รับบาดเจ็บจากการเกยตื้นหรือติดเครื่องมือประมงมาทำรับการรักษาอย่างถูกวิธี เมื่อหายดีจะปล่อยคืนสู่ธรรมชาติ อีกทั้งได้ปล่อยพันธุ์กุ้งกุลาดำ จำนวน 100,000 ตัว เพื่อเพิ่มความสมบูรณ์ให้กับระบบนิเวศน์ชายฝั่ง ประชาสัมพันธ์จังหวัดสงขลา - https://www.facebook.com/story.php?story_fbid=1218237459874052&id=100050634272897&mibextid=wwXIfr&rdid=JWOxJ2QqdDEVqyhY กรมทรัพยากรทางทะเลและชายฝั่ง - https://www.facebook.com/share/1A3rjpvayB/ Khao Sod - https://fsv.iqnewsclip.com/DownloadFile.aspx?key=131F2D1767B4A36711351E647BA6AA65323132286CB4835C1F2D23030ABFAE44011C06277BAFA2752819256822F4E910477445680CC2C5235E69342A61B0A05E1A0A1D0754BFF61F100D283A64A9A57D391923664B8392092A65301A5A8D8E7727634D016DB39E03715D704622E4E61E50684B6322C7		

Activity Communication	Communication materials used/provided Report	Post-activity communication (If any) - Line, Facebook
Photo:		

Social Development Projects			
Asset:	G2/61		
Theme:	1. Basic Needs		
Activity:	โครงการตรวจสุขภาพชุมชน จัดโครงการทันตกรรมชุมชนร่วมกับโรงพยาบาลสิงหนคร		
Owner:	[redacted] (Assistant Officer, Public Affairs; OSB/A) [redacted] (Officer, Public Affairs; OSB/A)		
Location:	จังหวัดสงขลา	Date:	1-18 เมษายน 2568
Stakeholder Group:	7. Communities and Society		
	1. Government Agencies and Regulators		
Stakeholder:	Name / Position	Attitude: Before	Attitude: After
	1. โรงพยาบาลสิงหนคร		
	2. ประชาชนในชุมชนรอบฐานสนับสนุนการพัฒนาปิโตรเลียม สงขลา และชุมชนในเขตเทศบาลเมืองสิงหนคร		
	3. เทศบาลเมืองสิงหนคร		
No. of Participation	No. of Stakeholder: 50		
	No. of PTTEP staff as volunteer (if any): -		
No. of Beneficiaries	300		
Actual Activity Expense:	-		
Activity Detail:	ปตท.สผ. อีดี ร่วมกับโรงพยาบาลสิงหนคร จัดโครงการทันตกรรมชุมชน ภายใต้โครงการตรวจสุขภาพชุมชน แก่ประชาชนในชุมชนรอบฐานสนับสนุนการพัฒนาปิโตรเลียม สงขลา และชุมชนในเขตเทศบาลเมืองสิงหนคร เพื่อเพิ่มอัตราการเข้าถึงบริการทันตกรรมของประชาชนในเขตเทศบาลเมืองสิงหนคร และเพื่อความต่อเนื่องในการให้บริการประชาชนที่เข้ารับบริการตรวจสุขภาพ โดยมีบริการตรวจสุขภาพช่องปาก ถอนฟัน อุดฟัน และขูดหินปูน ณ อาคารทันตกรรม โรงพยาบาลสิงหนคร (ส่วนหน้า) จังหวัดสงขลา		
Activity Communication	Communication materials used/provided Report	Post-activity communication (If any) - N/A	

Social Development Projects			
Asset:	G2/61		
Theme:	1. Basic Needs		
Activity:	โครงการศูนย์การเรียนรู้เพาะฟักสัตว์น้ำเศรษฐกิจ กิจกรรมจัดทำแนวเขตอนุรักษ์ชายฝั่งทะเลและวางซั้งบ้านปลา ร่วมกับกลุ่มเครือข่ายอนุรักษ์ทรัพยากรทางทะเลและชายฝั่ง จังหวัดสงขลา และนครศรีธรรมราช		
Owner:	[redacted] (Assistant Officer, Public Affairs; OSB/A) [redacted] (Officer, Public Affairs; OSB/A) [redacted] (Officer, Public Affairs; OSB/A)		
Location:	จังหวัดสงขลา และนครศรีธรรมราช	Date:	1-26 มิถุนายน 2568
Stakeholder Group:	7. Communities and Society		
Stakeholder Detail:	Name / Position	Attitude: Before	Attitude: After
	1. กลุ่มเครือข่ายอนุรักษ์ทรัพยากรทางทะเลและชายฝั่ง จังหวัดสงขลา และนครศรีธรรมราช จำนวน 15 กลุ่ม		
No. of Participation	No. of Stakeholder: 10		
	No. of PTTEP staff as volunteer (if any): 2		
No. of Beneficiaries	1,000		
Actual Activity Expense:	-		
Activity Detail:	ปตท.สผ. อีดี เข้าร่วมและสนับสนุนงบประมาณและอุปกรณ์ จัดกิจกรรมวางซั้งบ้านปลา แก่กลุ่มเครือข่ายอนุรักษ์ทรัพยากรทางทะเลและชายฝั่ง พื้นที่อำเภอเมืองสงขลา อำเภอระโนด อำเภอสทิงพระ อำเภอจะนะ อำเภอเทพา และอำเภอสิงหนคร จังหวัดสงขลา และ อำเภอหัวไทร จังหวัดนครศรีธรรมราช จำนวน 15 กลุ่ม โดยมี หน่วยงานราชการ ชาวประมง และสมาชิกกลุ่ม เข้าร่วมกิจกรรม		
Activity Communication	Communication materials used/provided Report	Post-activity communication (If any) - N/A	

ภาคผนวก 8

การจัดการด้านความปลอดภัย มั่นคง อาชีวอนามัย และสิ่งแวดล้อม

PTTEP

PTT Exploration and Production Public Company Limited

Petroleum Development Support Base (PSB)
SSHE Rules and Regulations Procedure

Document Code: 13279-PDR-SSHE-505/85-R00

September 2021

UNCONTROLLED when printed, visit PTTEP SSHE intranet for the latest version.

TABLE OF CONTENTS

INTRODUCTION 1
1. PURPOSE 1
2. SCOPE 1
REQUIREMENTS 1
3. PETROLEUM DEVELOPMENT SUPPORT BASE (PSB) SSHE RULES AND REGULATION 1
3.1 STOP WORK AUTHORITY (SWA) 2
4. PSB WORKPLACE PRINCIPLE 2
4.1 DRUG AND ALCOHOL REGULATION 2
4.2 SMOKING 6
4.3 HOUSEKEEPING 6
5. OPERATION SAFETY MANAGEMENT 6
5.1 RISK MANAGEMENT 6
5.2 PERMIT TO WORK SYSTEM 6
5.3 PERSONAL PROTECTIVE EQUIPMENT (PPE) 7
5.4 LAND TRANSPORATION RULES AND REGULATIONS 8
5.5 LIFTING OPERATION 12
5.6 GENERAL OPERATION 14
5.7 CONSTRUCTION SAFETY 22
6. OCCUPATIONAL HEALTH MANAGEMENT 24
6.1 GENERAL REQUIREMENT 24
6.2 FOOD HYGIENE CONTROL 25
6.3 MEDICAL EMERGENCY RESPONSE 26
7. ENVIRONMENTAL MANAGEMENT 26
APPENDICES 27
APPENDIX A: PSB JOURNEY MANAGEMENT ASSESSMENT AND APPROVAL FORM 27
ROLES AND RESPONSIBILITIES 29
DEFINITION AND ACRONYMS 30
REFERENCES 31

8.1 ขั้นตอนการปฏิบัติงานด้านความปลอดภัย อาชีวอนามัย และสิ่งแวดล้อม
ของผู้รับเหมาในพื้นที่ฐานสนับสนุนปิโตรเลียม

PTT Exploration and Production Public Company Limited

Operational Safety Management Standard

Document Number: 11038-STD-SSHE-505-R03

October 2025

TABLE OF CONTENTS

INTRODUCTION 1

1.0 PURPOSE 1

2.0 SCOPE 1

3.0 DEFINITIONS AND ACRONYMS 2

3.1 TERMS AND DEFINITIONS 2

3.2 ACRONYMS 2

REQUIREMENTS 2

4.0 ORGANIZATIONAL SAFETY REQUIREMENTS 2

4.1 LEADERSHIP AND COMMITMENT 3

4.2 POLICY AND STRATEGIC OBJECTIVES 4

4.3 ORGANIZATION, RESOURCES, AND DOCUMENTATION 5

4.4 EVALUATION AND RISK MANAGEMENT 8

4.5 PLANNING AND OPERATIONAL CONTROL 8

4.6 IMPLEMENTATION AND MONITORING 9

4.7 AUDIT AND REVIEW 10

ROLES AND RESPONSIBILITIES 12

REFERENCES 15

APPENDIX 17

APPENDIX A: OPERATIONAL SAFETY REQUIREMENTS SUMMARY 17

8.2 มาตรฐานการบริหารจัดการความปลอดภัยในการดำเนินงาน

ภาคผนวก 9

แผนตอบสนองกรณีเกิดเหตุฉุกเฉิน

PTTEP

PTT Exploration and Production Public Company Limited

Site Medical and Health Care Services Guideline

Document Code: 11038-GDL-SSHE-507/00/05-R02

November 2022

UNCONTROLLED when printed, visit PTTEP SSHE intranet for the latest version.

TABLE OF CONTENTS

INTRODUCTION 1

1. PURPOSE ... 1

2. SCOPE ... 2

REQUIREMENTS 2

3. MEDICAL SUPPORT SYSTEM ... 2

3.1 ON-SITE MEDICAL FACILITY AND SITE MEDICAL PERSONS ... 4

3.2 MEDICAL CONSULTANT CENTER SUPPORT ... 4

3.3 LOCAL MEDICAL PROVIDER (LMP) ... 10

4. AUDITS AND INSPECTION ... 11

4.1 AUDIT ... 11

4.2 HYGIENE INSPECTION ... 12

APPENDICES 13

APPENDIX A: INFECTIOUS DISEASE OUTBREAK MANAGEMENT ... 13

APPENDIX B: MEDICAL EMERGENCY MANAGEMENT ... 14

APPENDIX C: MEDICAL STANDARD REQUIREMENTS ... 15

APPENDIX D: SITE MEDICAL PERSON QUALIFICATION AND RESPONSIBILITIES ... 16

APPENDIX E: PTTEP MEDICAL WASTE MANAGEMENT INSTRUCTION ... 18

APPENDIX F: HYGIENE AUDIT & INSPECTION CHECKLIST ... 19

APPENDIX G: MEDICAL FORMS ... 20

APPENDIX H: MEDICAL PROTOCOL FOR SITE MEDICAL PERSONS ... 21

ROLES AND RESPONSIBILITIES 22

DEFINITIONs AND ACRONYMS 24

REFERENCES 26

REVISION HISTORY 27

ผู้ใช้งานเอกสารนี้ต้องตรวจสอบความถูกต้องของเอกสารก่อนนำไปใช้งาน

PTTEP

PTT Exploration and Production Public Company Limited

Tropical Cyclone Plan for Gulf of Thailand

Document Number: 12148-PDR-SSHE-501/07-R00

March 2024

TABLE OF CONTENTS

INTRODUCTION 1

1.0 PURPOSE 1

2.0 SCOPE 1

3.0 DEFINITIONS AND ACRONYMS 2

3.1 TERMS AND DEFINITIONS 2

3.2 ACRONYMS 2

REQUIREMENTS 2

4.0 TROPICAL CYCLONE MANAGEMENT PROCEDURE 2

4.1 RESPONSE TO TROPICAL CYCLONE 2

4.2 ORGANIZATION 13

4.3 TROPICAL CYCLONE NOTIFICATION 14

4.4 TROPICAL CYCLONE TEAMS 15

5.0 OFFSHORE EVACUATION AND ONSHORE STAND-BY GUIDELINE 24

5.1 EVACUATION BY BOAT 24

5.2 EVACUATION BY HELICOPTER 25

5.3 ONSHORE STAND-BY 25

6.0 COMMUNICATIONS 25

6.1 RADIO 25

6.2 TELEPHONE 26

7.0 TROPICAL CYCLONE CALL-OFF AND RESUMING OPERATIONS 26

7.1 CALL-OFF 26

7.2 RESUMING OPERATIONS 27

7.3 RE-MANNING TO OPERATION 27

ROLES AND RESPONSIBILITIES 29

REFERENCES 30

APPENDICES 31

APPENDIX A: TEMPLATE FOR DECLARE / CALL OFF TROPICAL CYCLONE PERIOD 31

APPENDIX B: TROPICAL CYCLONE PLOTTING CHART 33

APPENDIX C: WEATHER OBSERVATION REPORTING FORM 34

APPENDIX D: EXAMPLES OF TROPICAL CYCLONE CONTACT DIRECTORY 35

9.2 แผนการป้องกันและรับมือพายุหมุนเขตร้อนในอ่าวไทย

Table of Contents (continue)

APPENDIX E: TROPICAL CYCLONE DECLARATION AND CALL OFF FORM 36
APPENDIX F: EVACUATED PERSONNEL HANDOUT 38
APPENDIX G: FIELD DESIGN CRITERIA 40
APPENDIX H: REQUIRED TIME FOR SAFE PLANT RUN DOWN 46
APPENDIX I: PERSONNEL RECALL GUIDELINE 47
APPENDIX J: DETAILS OF FIELD PARTICULARS 48
APPENDIX K: WEATHER CONDITIONS DURING STS PABUK 49

PTT Exploration and Production Public Company Limited

Spill Management Plan

Document Number: 12146-PDR-SSHE-501/03-R04

November 2025

TABLE OF CONTENTS

INTRODUCTION 1

1.0 PURPOSE 1

2.0 SCOPE 1

3.0 DEFINITIONS AND ACRONYMS 1

3.1 TERMS AND DEFINITIONS 1

3.2 ACRONYMS 1

REQUIREMENTS 2

4.0 SPILL MANAGEMENT 2

4.1 SPILL MANAGEMENT ORGANIZATION 2

4.2 SPILL NOTIFICATION PROCESS 3

4.3 SPILL RESPONSE RESOURCES 4

ROLES AND RESPONSIBILITIES 16

REFERENCES 17

APPENDICES 18

APPENDIX A: RELEVANT DOCUMENTS OF THE SPILL MANAGEMENT PLAN 18

9.3 แผนการจัดการน้ำมันรั่วไหลในทะเล

ภาคผนวก 10

ตัวอย่างรายงานการฝึกซ้อมการตอบสนองต่อเหตุฉุกเฉิน

PTT Exploration and Production Public Company Limited

SUMMARY REPORT

2025 TROPICAL CYCLONE EXERCISE

OFFSHORE OPERATIONS

18 September 2025

Table of Contents

1.0 EXERCISE DETAIL 1
2.0 EXERCISE AGENDA 2
2.1 AIMS AND OBJECTIVE 2
2.2 PRE-EXERCISE BRIEFING 2
3.0 EXECUTIVE SUMMARY 3
4.0 STRENGTH POINTS, FINDINGS AND OBSERVATIONS 7
4.1 STRENGHT 7
4.2 FINDING AND OBSERVATION 8
5.0 REFERENCE DOCUMENTS 11
6.0 APPENDIX 12
6.1 SCENARIO OUTLINE 12
6.2 EVENT LOG 14
6.3 TROPICAL CYCLONE NOTIFICATION ALERT 18
6.4 PRIORITY AND ACTION BOARD 21
6.5 LOGISTIC AND RESOURCE 23
6.6 COMMUNICATION / MEDIA RESPONSE 24
6.6.1 SIMULATION NEWS & MEDIA 25
6.6.2 PRESS STATEMENT 28
6.7 REGISTRATION RECORD 34
6.8 EXERCISE PICTURES 35

เอกสารนี้เป็นกรรมสิทธิ์ของ ปตท.สผ. ห้ามนำไปใช้ประโยชน์ด้านการค้า ไม่ว่ากรณีใดๆ ทั้งสิ้น

1.0 EXERCISE DETAILS

2023 Tropical Cyclone Exercise			
EXERCISE DETAILS			
EXERCISE Title	2025 Tropical Cyclone Exercise		
PARTICIPANTS	1. Emergency Management Team (EMT) 2. G1 - Erawan 3. G1 - Funan 4. G1 - Satun 5. G1 - Platong 6. G1 - E2FSO 7. G1 - FSO 8. G2 - G2N - Great Bongkot North 9. G2 - G2S - Great Bongkot South 10. G2 – FSO2 11. Arthit 12. All drilling rigs. 13. Engineering Team (EWP, ECM, EDC) 14. Marine Operation Team 15. Concerned parties (Geomatics).		
VENUE	EMR room 19th floor and MS team with all other participants.		
Date	18 September 2025	Start time:	Finish Time:
		08.30	16.30

2.0 EXERCISE AGENDA

2.1 OBJECTIVES

The aim of the exercise was to assess and ensure that current Corporate and Asset's Emergency Response Plans and Tropical Cyclone Plan for Gulf of Thailand remain

effective and to allow both Emergency Management Team (EMT) and the Asset's Emergency Response Team to practice related plan and procedures to be able to adopt and apply them during a real Tropical Cyclone emergency.

In these circumstances, the CCT will be part of the injection for EMT leader to make decision / consideration of the action to be taken.

The exercise will simulate a three-day period from reaching the green zone on 18nd of September until 22nd of September until land fall. Operation prepares to evacuate from operation platform until re-manning process. Then the exercise controller uses the Time Drills to cover those 3 days period.

The objectives were:

- Evaluate emergency management preparedness and response of EMT:
  - Pre-alert briefing during Grey Alert zone quality.
  - Resources management i.e. vessel, crew boat, helicopter and other
  - Action as per alert level to comply with procedure.
- Assess the effectiveness of teamwork among EMT members and between EMT and ERT
- To review notification and decision-making process during the emergency.
- To evaluate the implementation procedure for any improvement.

2.2 PRE-EXERCISE BRIEFING

To ensure all EMT members understand the condition / limitation during the exercise, briefing has been provided.

- The EMT had utilized a 30-minute pre-exercise briefing prior to the exercise commencing to get common understanding.
- The briefing provided detailed expectations of the EMT performance and the priority tasks that they should perform.
- Assess and manage the "Potential" impacts of the incident & not to be over-focused on the response team actions occurring offshore
  - Identify what could occur because of the incident:
    1. People
    2. Environment
    3. Asset
    4. Reputation
  - Reduce the "Potential" impact of these occurrences.
- Ensure that the Emergency Response Priority Policy of PTTEP is adhered to.
- Manage effective communications – Internal, External and Media.
- Work as a "Teams" and use "Time-Outs" and "Brainstorm" sessions to explore potential escalations and create a Prioritized Action Plan

3.0 EXECUTIVE SUMMARY REPORT

In 2025 TC exercise preparation, the TC briefing was conducted on 3 September 2025 with 176 participants both online and onsite. The topic covered Tropical Cyclone basic knowledge, and summary of Tropical Cyclone plan for Gulf of Thailand.

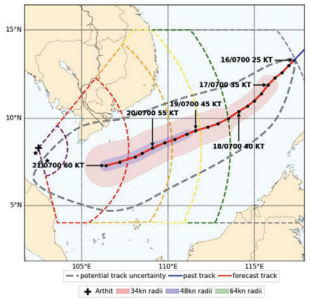
On 15 September 2025, pre-Tropical Cyclone exercise started. The weather service provider sent the weather forecast which showed the direction of the Tropical Depression outside Grey Alert Zone but potentially entering the grey zone on 16 September. OWS notified to TC advisor of the severe weather condition. TC advisor has called small group meeting (TC pre-alert group) with all offshore Production assets VP including Drilling team, Logistic team, Maintenance and Construction team and SSHE on 16 September 2025. Using the guideline in Grey Alert Zone briefing for reference to identify how much time is available for site and drilling rig for preparation. Then meeting decided to activate Bangkok EMT on 18 September 2025 as per the forecast.

The Tropical Cyclone direction to PTF3, then PTF3 SVP will be the initial IC for this emergency.

Valid Time of Forecast : 2025-09-16 0700 LT

****TC EXERCISE**TC EXERCISE**TC EXERCISE** Tropical Depression OWS88N25 west of Luzon is moving WSW-SW towards the Gulf of Thailand**

Client Threat Information	
System of Interest	OWS88N25
Current Threat Level[1]	rig alert
Maximum Forecast Threat Level[2]	red (red)
Distance from Client Location	937nm
Bearing from Client Location	east-northeast
Client Site	Arthit
Client Location	8.3N 102.5E



Latest System Information	
System ID	OWS88N25
System Name	-
Current Category	Tropical Depression
Position	13.5N 117.5E
Position Error	6.0 nm
Time at Position	16/0400 LT
Storm Speed	05kt
Storm Movement	southwest
Maximum Sustained Wind Speeds	25kt (+/- 10kt)
Wind Gusts	31kt
Central Pressure	1004 hpa

Tropical Depression location at Grey Zone

On 18 September 2025, Bangkok EMT has been activated to conduct Tropical Cyclone exercise. EMT members joining the Emergency Management Room 19th floor and all operation site together with support unit, drilling rigs and accommodation / construction barges were joining via MS Team. Emergency Management Team (EMT) was fully activated in accordance with Tropical Cyclone Plan for Gulf of Thailand, latest revision and additional to new addendum.

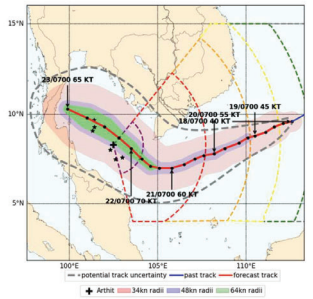
At starting phase Tropical Cyclone Advisor summarized the development of tropical cyclone since Grey Zone on 16 September 2025 until the latest report on 18 September 2025 @0700hr to the EMT member. It addressed the possible worse weather conditions, and time available.

All operation sites, drilling rigs, construction barges and others are reported the progress the preparation work that has been starting since received instruction during pre-alert briefing. (refer to the TC evacuation preparation work sheet)

Valid Time of Forecast : 2025-09-18 0700 LT

****TC EXERCISE**TC EXERCISE**TC EXERCISE** Tropical Storm TCEX25 (OWS88N25) continues to intensify as it moves WSW-SW towards the Gulf of Thailand**

Client Threat Information	
System of Interest	OWS88N25
Current Threat Level[1]	green
Maximum Forecast Threat Level[2]	purple (red)
Distance from Client Location	616nm
Bearing from Client Location	east
Client Site	Arthit
Client Location	8.3N 102.5E

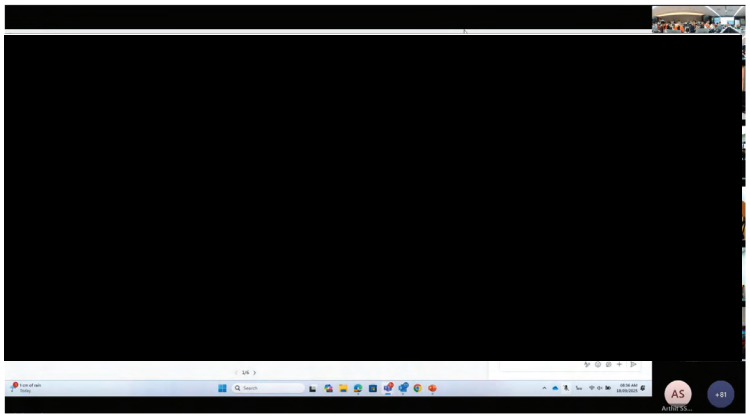


Latest System Information	
System ID	OWS88N25
System Name	TCEX25
Current Category	Tropical Storm
Position	9.7N 112.8E
Position Error	6.0 nm
Time at Position	18/0400 LT
Storm Speed	05kt
Storm Movement	west-southwest
Maximum Sustained Wind Speeds	40kt (+/- 10kt)
Wind Gusts	49kt
Central Pressure	996 hpa

Tropical Storm location approaching Green Zone

The attendees were very cooperative and intensive to participate. The emergency management team members mostly understand their roles and responsibilities. All members understand the site situation via monitor the “TC evacuation preparation worksheet”. There are some points that may need to be improved.

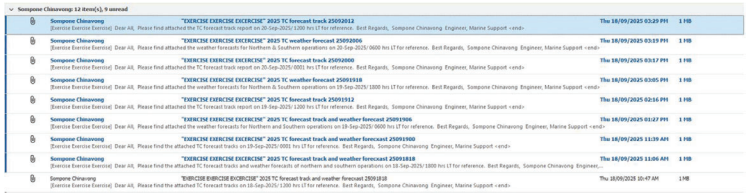
There are **177 accounts** participating in the exercise via MS Team with more than 50 accounts log in to EIMS system.



Communication:

Communication between site and EMR is allowed to utilize any means of communication available i.e. MS Team, phone and email. It was establishing a small group i.e. logistic group, drilling group for communication. Then it is found efficient communication between each duty and group or operation site under their responsibility

The TC alert track and weather forecast during the exercise was sent to Tropical Cyclone Group by exercise control team members.



The result of Tropical Cyclone exercise met all objectives as following.

- **Evaluate emergency management preparedness and response of EMT**
    - Pre-alert briefing during Grey Alert zone quality.
    - Resources management i.e. vessel, crew boat, helicopter and other
    - Action as per alert level to comply with procedure.

During the exercise, it was shown that team has responded to the situation align to the priority of safety of:

- **Personnel:** Proactive plans have been developed since TC has reached the Grey Alert zone. TC advisor provides information on the no-return line where all preparation must be done before that time and to start to evacuate from site. Resources were identified and make everyone clearly understand. Rigs knew when to start well-securing and de-anchor to meet the target timeline, Construction, accommodation and work barges knew when to start de-anchor and be ready on time. Operation site which needs a round trip has anticipated in earlier evacuation to ensure second trip will be finished within the timeline.
- **Environmental:** It was monitor but no issue from this exercise.
- **Asset:** Monitor the platform structure criteria and platform safe depressurization criteria. Perform safe depressurize prior to reaching wind speed limitation before evacuation.
- **Reputation:** Monitor the news in social, communicate with the stakeholder to get an accurate information.

- **To review notification and decision-making process during the emergency. (Objective)**

Since the pre-alert briefing was finished, the information was not notified directly to affected SVP as stipulated in the procedure. This needs to state clearly in Role & Responsibility and require Notification workflow update.

- **To evaluate the implementation procedure for any improvement.**

The exercise was conducted under existing current procedure with some revision of addendum which is still drafting and request approval process. The newly drafted information was followed i.e.

- The evacuation criteria require TC speed, wave height limitation for personnel transfer and resource available.
- Utilizing resources from resource sharing process. It has been brought into visualized for all units that need support resource.

ภาคผนวก 11

ตัวอย่างข้อมูลการสำรวจสภาพพื้นท้องทะเล

FINAL REPORT

SIDE SCAN SONAR SURVEY

PROPOSED TMK-03A WELL LOCATION

Report No.: GS-912-0225-TMK-03A
Revision: 1
Date: 24th June 2025

Vessel: ERA INDONESIA
Survey Date: 25th April 2025

PROJECT TITLE

PROVISION OF GEOPHYSICAL SITE INVESTIGATION (GSI) #1/2025 FOR BLOCK G1/61, G2/61, G1/65 & G3/65 OFFSHORE THAILAND

Prepared For :
PTTEP ENERGY DEVELOPMENT CO. LTD. (PTTEP ED)

Prepared by:
Geolantic Sdn. Bhd.(1221557-P)
Suite 9-06, Level 9, V Office,
Jalan Lingkaran SV, Sunway Velocity,
55100 Kuala Lumpur
MALAYSIA
T: +603-92028557

Be Alert, Be Safe

TABLE OF CONTENTS

EXECUTIVE SUMMARY **7**

1. INTRODUCTION **9**
1.1 General 9
1.2 Survey Objectives 13
1.3 Vessel and Equipment 13
1.4 Survey Location Area 14
1.5 Abbreviations 15
1.6 Report Listing 16

2. SURVEY SUMMARY **19**
2.1 Project Summary 19

3. GEODETIC PARAMETERS **21**
3.1 Vertical Datum 22

4. REGIONAL SETTING **23**
4.1 General 23
4.2 Geology of Block G2/61 24

5. SURVEY RESULTS **25**
5.1 Bathymetry 25
5.2 Seabed Features 31
5.2.1 Geotechnical Borehole Marks 31
5.2.2 Seabed Depressions 31
5.2.3 Isolated Pockmarks 31
5.2.4 Seabed Scars 32

6. CONCLUSIONS **36**
6.1 General 36
6.2 Anchoring Condition 37
6.3 Jack-up Rig Emplacement 37

ไม่อนุญาตให้ทำสำเนาหรือเผยแพร่เอกสารนี้ ยกเว้นได้รับอนุญาตจากผู้ถือลิขสิทธิ์ 11-ก.พ.-2569

LIST OF FIGURES

Figure 1: General Location Map 14

Figure 2: Planned Survey Grid 20

Figure 3: Illustration of the relationship between MSL and LAT 22

Figure 4: Sedimentary basin in Gulf of Thailand and cross-sectional model (modified from Racey 2011) 23

Figure 5: The stratigraphy, tectonic and Palao-environment of the North Malay Basin 24

Figure 6: Multibeam seabed image within the survey area 26

Figure 7: Seabed gradient within the survey area 27

Figure 8: Bathymetry within 200m radius of the Proposed TMK-03A Well Location 28

Figure 9: Multibeam seabed image with seabed profile crossing within 200m radius of the Proposed TMK-03A Well Location 29

Figure 10: Side scan sonar mosaic image and seabed features within the survey area 33

Figure 11: Section of side scan sonar mosaic image and seabed features within 200m radius of the Proposed TMK-03A Well Location 34

Figure 12: Side scan sonar mosaic and records images showing seabed features present within the survey area 35

LIST OF TABLES

Table 1: Coordinates of the Proposed TMK-03A Well Location 7

Table 2: List of sites covered by the survey campaign 12

Table 3: List of reports 18

Table 4: Project Summary 19

Table 5: Coordinate Conversion 21

Table 6: Harmonic constant a Bongkot Field tidal station 22

Table 7: Water depth at the proposed well location 25

Table 8: Water depths and slopes of 1st set of proposed jack-up rig legs (heading 180°) on the Proposed TMK-03A Well Location 30

APPENDICES

Appendix A Sound Velocity Profile

LIST OF CHARTS

DRAWING NO.	TITLE	SCALE
GS-912-0225-TMK03A-01-ANT	Analogue Survey Track Plot (Antenna Position)	1 : 2 500
GS-912-0225-TMK03A-02-BAT	Bathymetry	1 : 2 500
GS-912-0225-TMK03A-03-MSI	Multibeam Seabed Image	1 : 2 500
GS-912-0225-TMK03A-04-SSS	Seabed Features and Side Scan Sonar Mosaic	1 : 2 500

ภาคผนวก 12

ตัวอย่างรายงานข้อมูลการพยากรณ์อากาศ

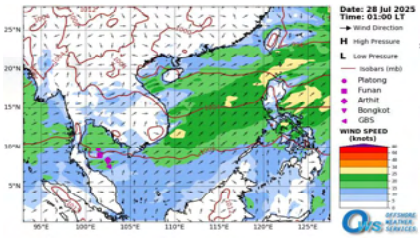
Offshore Weather Services Pty Ltd
277 Blackburn Road, Mt Waverley, Victoria 3149, Australia
ows@offshoreweather.com.au
offshoreweather.com.au

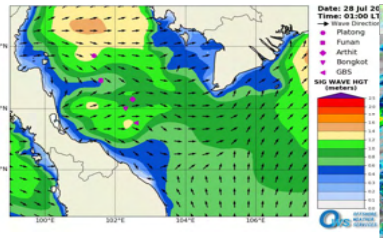
Weather Forecast for PTTEP Gulf of Thailand - Southern Operations - Arthit-Bongkot-Greater Bongkot South
Valid for 144 hours from 0600LT 28 Jul 2025

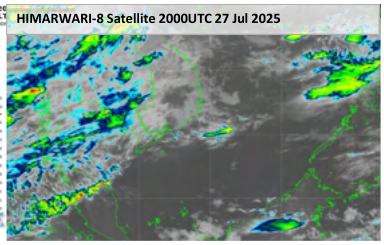
Tropical Advisory:
Nil.

Warnings:
MODERATE-HIGH risk of squalls to 25kt or more during heavy showers/thunderstomrs mainly in the mornings and evenings. Squalls lasting for periods up to 20-30 minutes with onset gusts to 35kt and temporarily raised seas expected.

Met Situation:
Broad trough lies over northern Thailand / northern Vietnam, and northern South China Sea / SE China. High pressure ridge across Borneo / southern Malay Peninsula persisting..







Weather Forecast for PTTEP - Greater Bongkot North and Arthit (near 8.3N 102.5E)
Valid for 144 hours from 0600LT 28 Jul 2025

Weather:
Isol - sct showers / isol thunderstorms, otherwise fair.

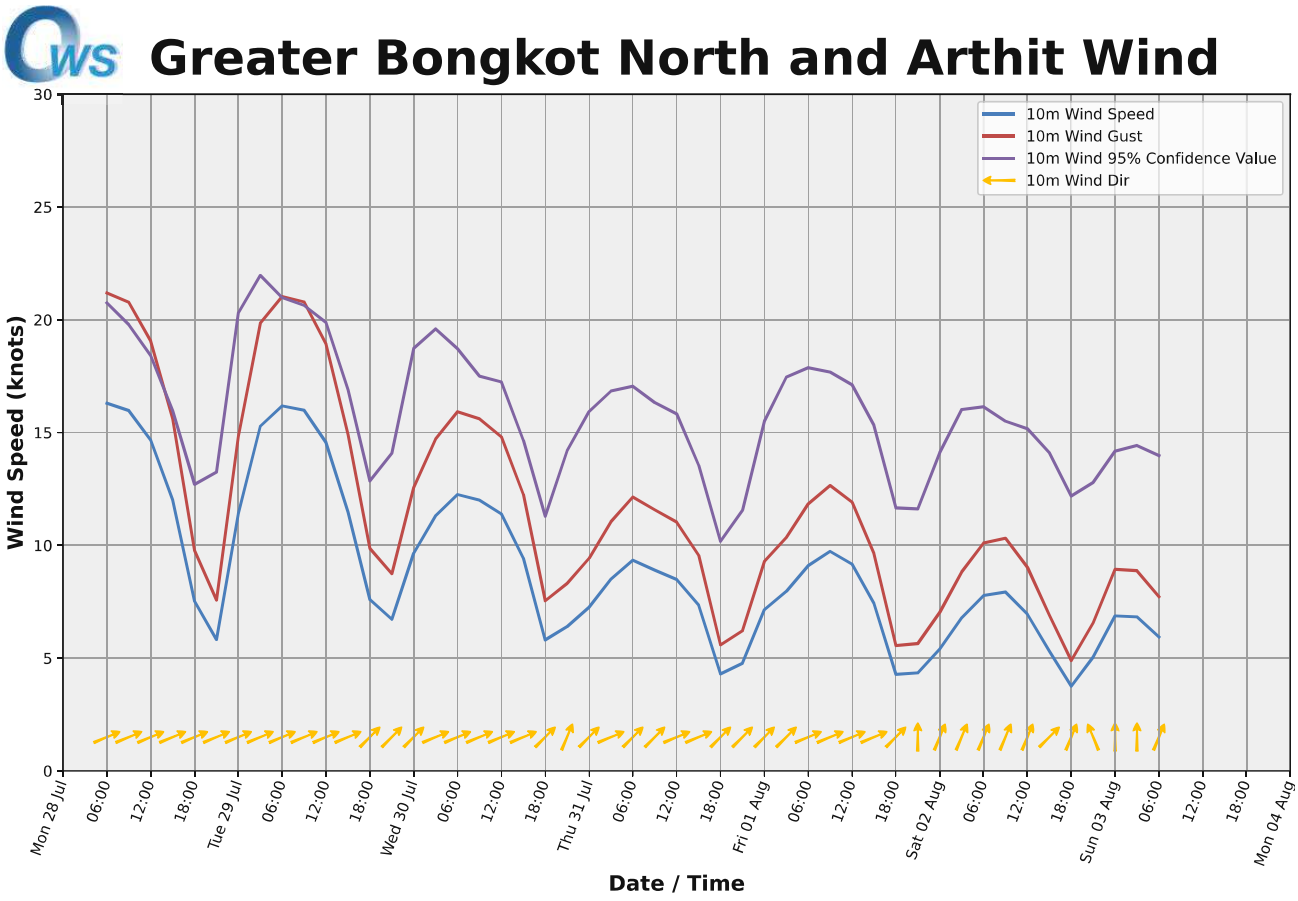
Date/Time LT		Wind (from / knots)					Sea Ht	Swell 1			Swell 2			Total Wave					Confidence
		Dir	Spd	95%*	Gust	50m		Dir	Per	Ht	Dir	Per	Ht	Sig	95%*	Max	Tp	PDir	
Mon 28-Jul	06:00	WSW	16	21	21	20	0.8	NW	5	0.4	WSW	4	1.0	1.3	1.7	2.4	4	WSW	High
	09:00	WSW	16	20	21	19	0.8	NW	5	0.3	WSW	5	1.0	1.3	1.6	2.4	5	WSW	
	12:00	WSW	15	18	19	18	0.8	NW	5	0.3	WSW	5	1.0	1.3	1.6	2.4	5	WSW	
	15:00	WSW	12	16	16	14	0.7	NW	6	0.4	WSW	4	0.9	1.2	1.5	2.2	4	WSW	
	18:00	WSW	8	13	10	9	0.3	NW	5	0.5	W	4	0.5	0.8	1.0	1.4	4	WSW	
	21:00	WSW	6	13	8	7	0.2	NW	5	0.4	SE	5	0.4	0.6	0.9	1.1	5	WSW	
Tue 29-Jul	00:00	WSW	11	20	15	14	0.3	NW	5	0.4	SE	5	0.5	0.7	1.1	1.3	5	SW	High
	03:00	WSW	15	22	20	18	0.7	W	4	0.9	SE	5	0.5	1.2	1.8	2.2	4	WSW	
	06:00	WSW	16	21	21	19	0.9	W	4	1.0	SE	5	0.5	1.4	1.9	2.5	4	WSW	
	09:00	WSW	16	21	21	19	0.9	W	5	0.9	SE	5	0.5	1.4	1.7	2.4	5	WSW	
	12:00	WSW	15	20	19	17	0.8	WSW	5	0.9	SE	5	0.5	1.3	1.7	2.4	5	WSW	
	15:00	WSW	11	17	15	14	0.7	WSW	4	0.8	SSE	5	0.5	1.1	1.5	2.1	4	SW	
	18:00	SW	8	13	10	9	0.3	W	4	0.7	SSE	5	0.5	0.9	1.2	1.6	5	WSW	
	21:00	SW	7	14	9	8	0.2	NW	5	0.4	SE	5	0.5	0.7	1.0	1.2	5	WSW	
Wed 30-Jul	00:00	SW	10	19	13	12	0.3	NW	5	0.4	SE	5	0.5	0.7	1.1	1.2	5	SSW	High
	03:00	WSW	11	20	15	14	0.4	NW	5	0.3	SE	5	0.6	0.8	1.3	1.4	5	SSE	
	06:00	WSW	12	19	16	15	0.5	NW	5	0.3	SE	6	0.6	0.9	1.4	1.6	6	SSE	
	09:00	WSW	12	18	16	14	0.6	NW	4	0.2	SE	6	0.7	0.9	1.4	1.7	6	SSE	
	12:00	WSW	11	17	15	14	0.5	WSW	4	0.4	SE	6	0.7	1.0	1.4	1.7	6	SSE	
	15:00	WSW	9	15	12	11	0.4	W	4	0.5	SE	6	0.7	1.0	1.3	1.7	6	S	
	18:00	SW	6	11	8	7	0.2	W	4	0.4	SE	6	0.7	0.8	1.2	1.5	6	S	
	21:00	SSW	6	14	8	8	0.2	NW	5	0.4	SE	6	0.6	0.7	1.1	1.3	6	S	
Thu 31-Jul	00:00	SW	7	16	9	9	0.2	NW	5	0.3	SE	5	0.6	0.7	1.1	1.3	5	S	High
	03:00	WSW	8	17	11	10	0.3	NW	4	0.3	SE	6	0.5	0.6	1.2	1.1	6	SSE	
	06:00	SW	9	17	12	11	0.3	NW	4	0.2	SSE	6	0.5	0.6	1.2	1.1	6	SSE	
	09:00	SW	9	16	12	11	0.3	WNW	4	0.3	SSE	6	0.6	0.7	1.3	1.3	6	SSE	
	12:00	WSW	8	16	11	10	0.3	WNW	4	0.3	SSE	6	0.5	0.6	1.2	1.2	6	SSE	
	15:00	WSW	7	14	10	9	0.3	WNW	4	0.2	SSE	6	0.5	0.6	1.0	1.1	6	SSE	
	18:00	SW	4	10	6	5	0.2	NW	6	0.2	SSE	6	0.5	0.6	0.9	1.0	6	SSE	
	21:00	SW	5	12	6	6	0.1	NW	5	0.3	SSE	6	0.5	0.6	0.9	1.1	6	SSE	
Fri 01-Aug	00:00	SW	7	15	9	9	0.2	NW	5	0.3	SSE	6	0.5	0.6	1.0	1.1	6	S	Moderate
	03:00	SW	8	17	10	10	0.2	WSW	3	0.4	SSE	6	0.5	0.7	1.2	1.2	6	S	
	06:00	WSW	9	18	12	11	0.3	NW	4	0.2	SSE	6	0.6	0.7	1.3	1.2	6	S	
	09:00	WSW	10	18	13	12	0.3	NW	4	0.2	SSE	6	0.5	0.6	1.2	1.1	6	SSE	
	12:00	WSW	9	17	12	11	0.3	NW	4	0.2	SSE	6	0.5	0.6	1.2	1.1	6	S	
	15:00	WSW	7	15	10	9	0.3	W	4	0.3	SSE	6	0.5	0.6	1.2	1.2	6	SSE	
	18:00	SW	4	12	6	5	0.2	WNW	4	0.2	SSE	6	0.5	0.6	1.0	1.0	6	SSE	
	21:00	S	4	12	6	5	0.1	W	3	0.2	SSE	5	0.5	0.6	1.0	1.0	5	SSE	

Date/Time LT		Wind (from / knots)					Sea	Swell 1			Swell 2			Total Wave					Confidence
		Dir	Spd	95%*	Gust	50m	Ht	Dir	Per	Ht	Dir	Per	Ht	Sig	95%*	Max	Tp	PDir	
Sat 02-Aug	00:00	SSW	5	14	7	6	0.2	NW	5	0.2	SSE	5	0.4	0.5	1.0	0.9	5	SSE	Moderate
	03:00	SSW	7	16	9	8	0.2	NW	5	0.2	SSE	5	0.4	0.5	1.1	0.9	5	SSE	
	06:00	SSW	8	16	10	9	0.2	NW	4	0.2	SSE	5	0.4	0.5	1.1	0.9	5	SSE	
	09:00	SSW	8	16	10	10	0.3	NW	4	0.2	SSE	5	0.5	0.6	1.2	1.1	5	SSE	
	12:00	SSW	7	15	9	8	0.2	NW	4	0.1	SSE	5	0.5	0.6	1.1	1.0	5	SSE	
	15:00	SW	5	14	7	6	0.2	WSW	2	0.1	SSE	5	0.5	0.5	1.1	1.0	5	SSE	
	18:00	SSW	4	12	5	5	0.1	WSW	3	0.1	SSE	5	0.5	0.5	1.1	1.0	5	SSE	
	21:00	SSE	5	13	7	6	0.1	W	3	0.1	SSE	5	0.5	0.5	1.1	1.0	5	SSE	
Sun 03-Aug	00:00	S	7	14	9	8	0.2	NW	5	0.1	SSE	5	0.6	0.6	1.2	1.1	5	SSE	Moderate
	03:00	S	7	14	9	8	0.2	NW	5	0.2	SSE	5	0.6	0.7	1.2	1.2	5	SSE	
	06:00	SSW	6	14	8	7	0.2	WNW	4	0.3	SSE	5	0.6	0.7	1.2	1.3	5	SSE	

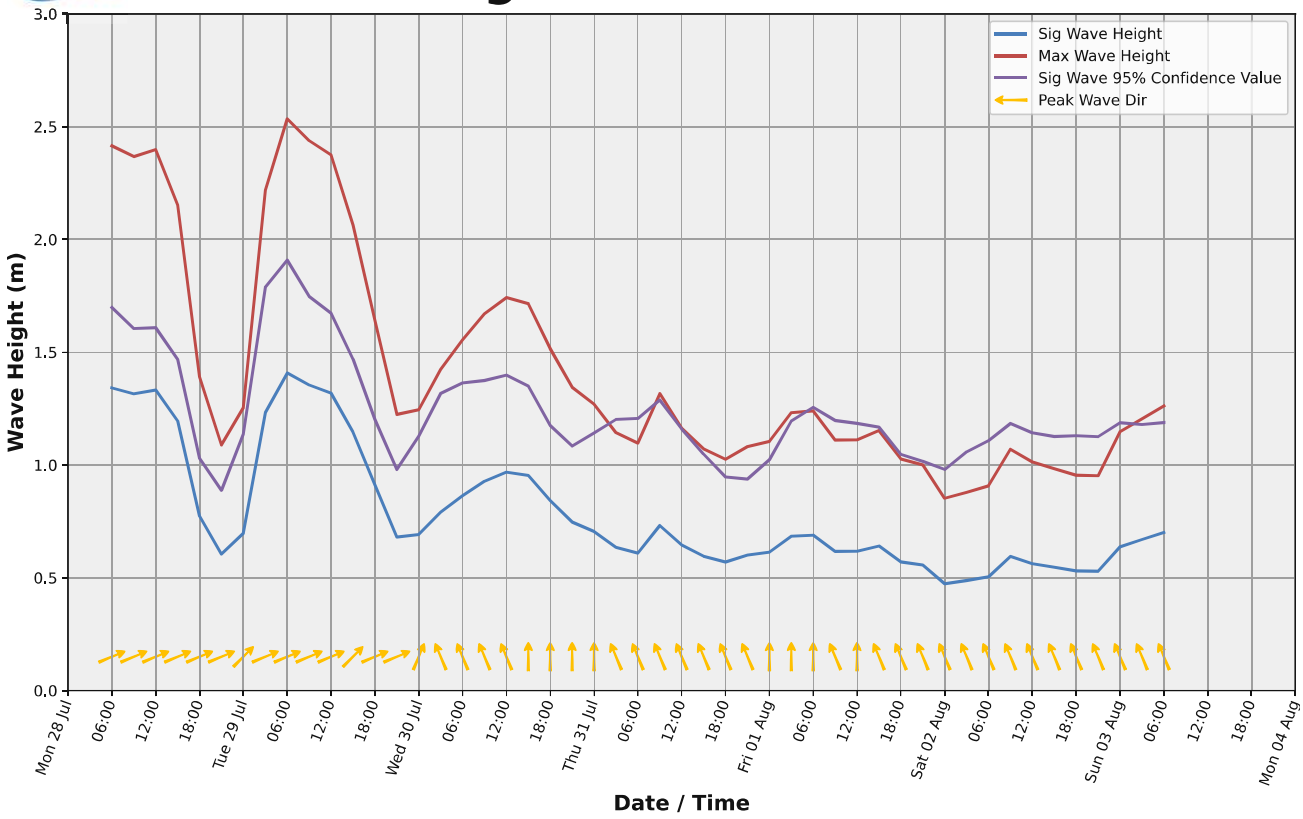
Units: wind speed/gust in knots; wave height in metres; wave periods in seconds; directions from

* Forecast mean wind / significant wave height upper bound (estimated 95% confidence).

Duty Forecaster: Lucrecio About



Greater Bongkot North and Arthit Wave



Weather Forecast for PTTEP - Greater Bongkot South (near 7.5N 102.6E)
Valid for 144 hours from 0600LT 28 Jul 2025

Weather:
Isol - sct showers / isol thunderstorms, otherwise fair.

Date/Time LT		Wind (from / knots)					Sea	Swell 1			Swell 2			Total Wave					Confidence
		Dir	Spd	95%*	Gust	50m	Ht	Dir	Per	Ht	Dir	Per	Ht	Sig	95%*	Max	Tp	PDir	
Mon 28-Jul	06:00	SW	16	20	20	19	0.7	WSW	4	0.8	NW	5	0.4	1.1	1.4	2.0	4	W	High
	09:00	SW	14	19	19	17	0.7	W	4	0.8	SE	4	0.3	1.1	1.4	2.0	4	WSW	
	12:00	SW	13	17	16	15	0.6	W	4	0.7	SE	4	0.4	1.0	1.3	1.8	4	WSW	
	15:00	WSW	9	13	11	10	0.4	W	4	0.7	SE	5	0.5	1.0	1.2	1.7	4	WSW	
	18:00	WSW	5	10	6	6	0.2	W	4	0.5	SE	5	0.5	0.7	1.0	1.3	5	SW	
	21:00	SSW	5	11	6	5	0.1	W	4	0.4	SE	5	0.6	0.7	1.0	1.3	5	S	
Tue 29-Jul	00:00	SW	9	16	11	10	0.2	NW	5	0.3	SE	5	0.6	0.7	1.1	1.3	5	SSE	High
	03:00	SW	12	19	16	15	0.4	NW	5	0.3	SE	5	0.6	0.8	1.2	1.4	5	SSE	
	06:00	WSW	13	19	17	16	0.6	WNW	4	0.6	SE	5	0.6	1.1	1.5	1.9	5	SSW	
	09:00	SW	12	18	16	15	0.6	WNW	4	0.7	SE	5	0.5	1.1	1.4	1.9	5	WSW	
	12:00	SW	10	16	13	12	0.5	WNW	4	0.7	SE	5	0.5	1.0	1.3	1.8	5	WSW	
	15:00	WSW	6	12	8	7	0.3	WNW	4	0.6	SE	5	0.6	0.9	1.2	1.6	5	SSW	
	18:00	SSW	4	9	5	5	0.2	WNW	4	0.5	SE	5	0.6	0.8	1.1	1.4	5	S	
	21:00	S	6	12	8	8	0.2	WNW	4	0.3	SE	5	0.6	0.7	1.0	1.2	5	SSE	
Wed 30-Jul	00:00	SW	8	17	11	10	0.2	NNW	6	0.3	SE	6	0.7	0.8	1.2	1.4	6	SE	High
	03:00	SW	8	18	11	10	0.3	NW	5	0.3	SE	5	0.7	0.8	1.3	1.5	5	SE	
	06:00	SW	9	16	11	10	0.3	NW	5	0.3	SE	6	0.8	0.9	1.4	1.6	6	SE	
	09:00	WSW	8	15	11	10	0.3	NW	5	0.2	SE	6	0.8	0.9	1.3	1.6	6	SE	
	12:00	WSW	8	14	10	9	0.3	NW	4	0.2	SE	6	0.8	0.9	1.3	1.6	6	SE	
	15:00	W	5	11	7	6	0.2	WNW	4	0.2	SE	6	0.7	0.8	1.1	1.4	6	SE	
	18:00	SSW	3	10	4	4	0.1	WNW	4	0.2	SE	6	0.6	0.6	1.0	1.2	6	SE	
	21:00	SSE	5	12	7	6	0.1	NW	5	0.2	SE	6	0.6	0.6	1.0	1.2	6	SE	
Thu 31-Jul	00:00	S	6	15	8	8	0.2	NW	6	0.3	SE	6	0.6	0.7	1.1	1.3	6	SE	High
	03:00	SW	8	17	10	10	0.2	NW	5	0.3	SE	6	0.6	0.7	1.2	1.3	6	SE	
	06:00	WSW	7	15	9	9	0.2	NW	5	0.3	SE	6	0.6	0.7	1.2	1.3	6	SE	
	09:00	SW	6	13	7	7	0.2	NW	4	0.2	SE	6	0.6	0.7	1.1	1.2	6	SE	
	12:00	WSW	5	13	7	6	0.2	NW	4	0.2	SE	6	0.6	0.7	1.1	1.2	6	SE	
	15:00	W	4	12	6	5	0.2	NW	4	0.1	SE	6	0.6	0.6	1.0	1.1	6	SE	
	18:00	NW	4	10	5	4	0.1	NW	4	0.1	SE	6	0.6	0.6	1.0	1.1	6	SE	
	21:00	S	4	10	5	5	0.1	NW	4	0.1	SE	6	0.6	0.6	0.9	1.1	6	SE	
Fri 01-Aug	00:00	S	5	13	7	6	0.2	NNW	6	0.1	SE	6	0.6	0.6	1.0	1.1	6	SE	Moderate
	03:00	SW	5	14	7	6	0.2	NNW	5	0.2	SE	6	0.6	0.7	1.1	1.2	6	SE	
	06:00	WSW	5	13	6	6	0.2	NNW	5	0.2	SE	6	0.5	0.6	1.1	1.0	6	SSE	
	09:00	SW	6	14	8	7	0.2	WNW	4	0.2	SE	6	0.5	0.6	1.1	1.0	6	SSE	
	12:00	SW	6	13	8	7	0.2	WNW	4	0.2	SE	5	0.5	0.6	1.1	1.0	5	SSE	
	15:00	SW	4	11	5	5	0.2	NW	4	0.1	SE	5	0.5	0.5	1.0	1.0	5	SSE	
	18:00	SSE	3	9	3	3	0.1	NW	4	0.2	SE	5	0.5	0.5	1.0	1.0	5	SSE	
	21:00	SE	4	11	6	5	0.1	NW	4	0.1	SE	5	0.5	0.5	1.0	0.9	5	SE	

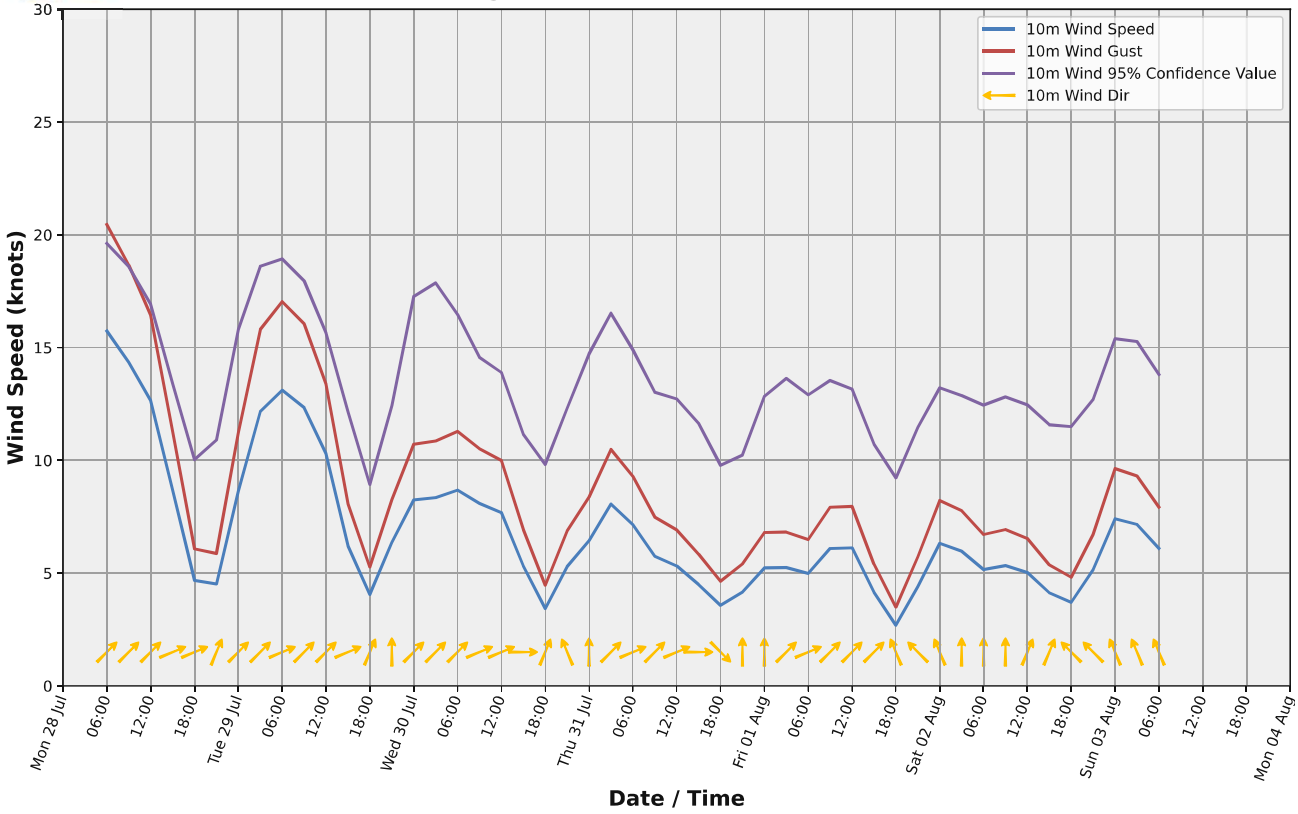
Date/Time LT		Wind (from / knots)					Sea	Swell 1			Swell 2			Total Wave					Confidence
		Dir	Spd	95%*	Gust	50m	Ht	Dir	Per	Ht	Dir	Per	Ht	Sig	95%*	Max	Tp	PDir	
Sat 02-Aug	00:00	SSE	6	13	8	8	0.2	NW	4	0.1	SE	5	0.5	0.5	1.0	1.0	5	SE	Moderate
	03:00	S	6	13	8	7	0.2	WNW	3	0.1	SE	5	0.5	0.5	1.0	1.0	5	SSE	
	06:00	S	5	12	7	6	0.2	NNW	5	0.1	SE	5	0.5	0.5	1.0	1.0	5	SSE	
	09:00	S	5	13	7	6	0.2	NW	5	0.1	SSE	5	0.5	0.5	1.0	1.0	5	SSE	
	12:00	SSW	5	12	7	6	0.2	NW	4	0.1	SE	5	0.5	0.5	1.0	1.0	5	SSE	
	15:00	SSW	4	12	5	5	0.1	NW	4	0.1	SSE	5	0.6	0.6	1.1	1.1	5	SSE	
	18:00	SE	4	11	5	4	0.1				SE	5	0.6	0.6	1.1	1.1	5	SE	
	21:00	SE	5	13	7	6	0.1				SE	5	0.6	0.6	1.2	1.1	5	SE	
Sun 03-Aug	00:00	SSE	7	15	10	9	0.2	SSE	6	0.3	SE	5	0.5	0.6	1.2	1.1	5	SE	Moderate
	03:00	SSE	7	15	9	9	0.2	SSE	6	0.2	SE	5	0.5	0.6	1.1	1.1	5	SE	
	06:00	SSE	6	14	8	7	0.2	SSE	6	0.2	SE	5	0.5	0.6	1.1	1.0	5	SE	

Units: wind speed/gust in knots; wave height in metres; wave periods in seconds; directions from

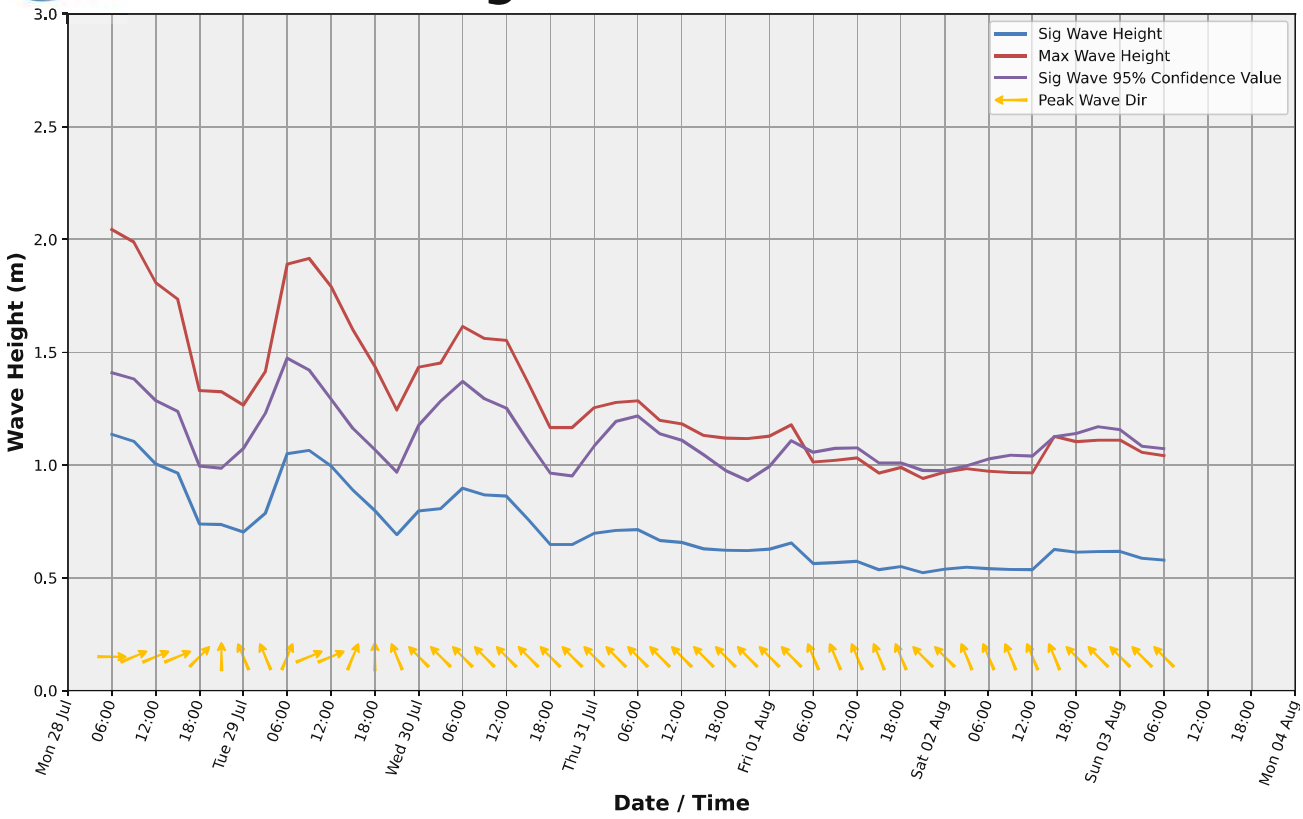
* Forecast mean wind / significant wave height upper bound (estimated 95% confidence).

Duty Forecaster: Lucrecio About

Greater Bongkot South Wind



Greater Bongkot South Wave



Additional route / area weather forecasts:

Supply Base to Arthit & Bongkot fields, valid for 24 hours:

Winds: WSW 06-16kt.
Seas: 0.2-0.9m.
Swell: NW-W 0.3-1.0m/4-6sec.

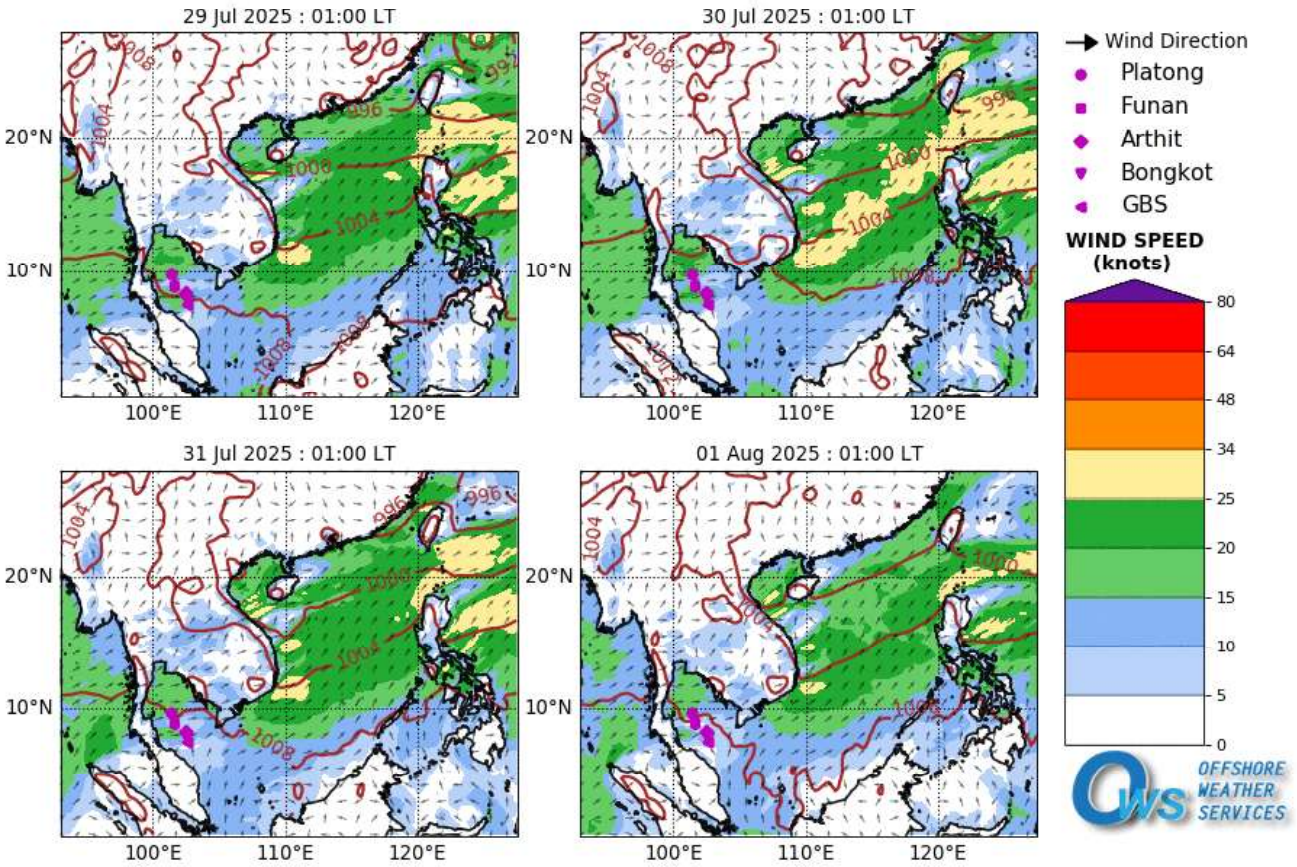
Weather: Isol - sct showers / isol thunderstorms, otherwise fair.

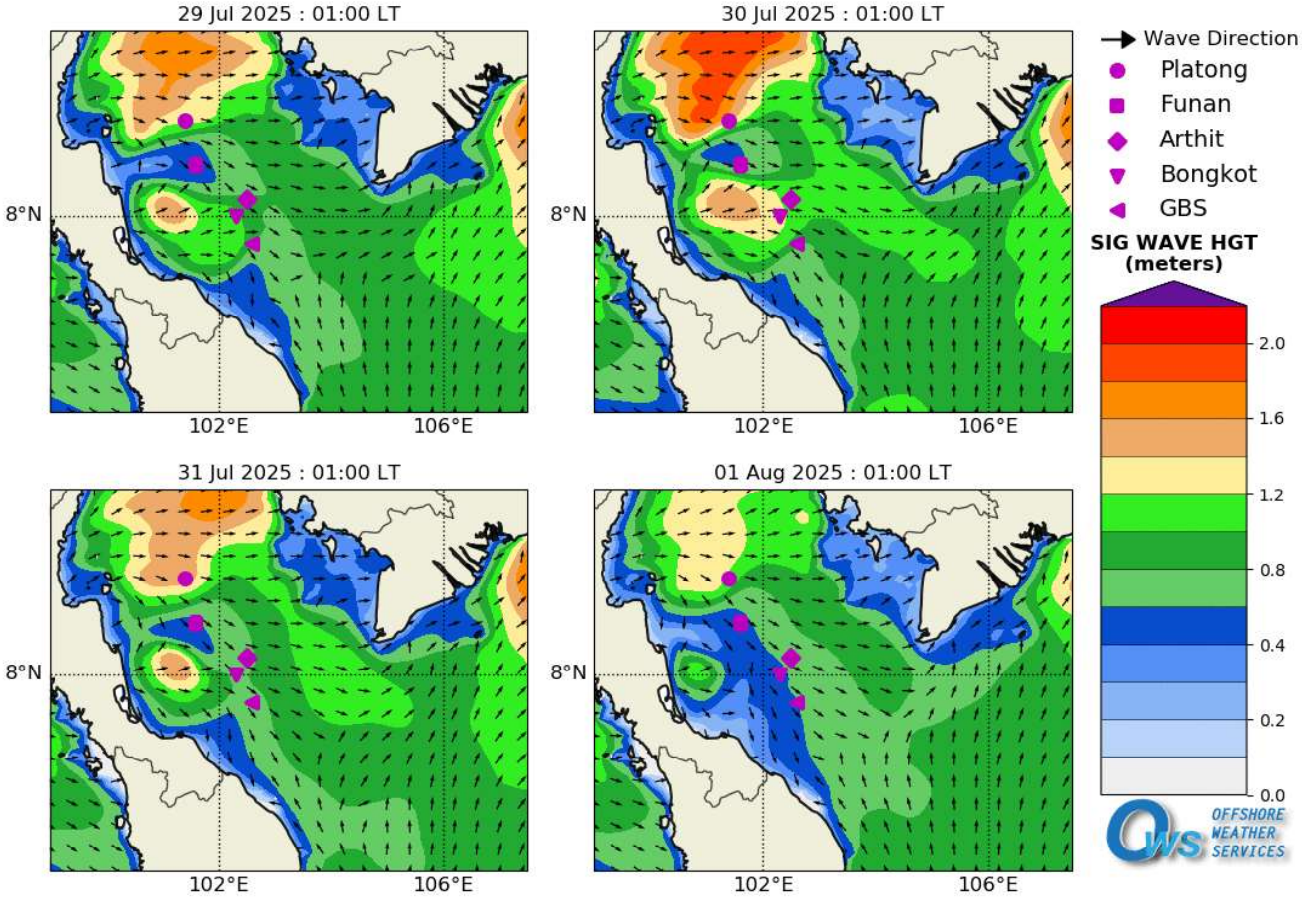
Supply Base to Greater Bongkot South field, valid for 24 hours:

Winds: WSW-SSW 05-16kt.
Seas: 0.1-0.7m.
Swell: NW-WSW 0.3-0.8m/4-5sec.

Weather: Isol - sct showers / isol thunderstorms, otherwise fair.

Duty Forecaster: OWS Forecast Team


29 Jul 2025 : 01:00 LT
30 Jul 2025 : 01:00 LT
31 Jul 2025 : 01:00 LT
01 Aug 2025 : 01:00 LT
20°N
10°N
100°E
110°E
120°E
Wind Direction
Platong
Funan
Arthit
Bongkot
GBS
WIND SPEED
(knots)
80
64
48
34
25
20
15
10
5
0
OFFSHORE
WEATHER
SERVICES


29 Jul 2025 : 01:00 LT
30 Jul 2025 : 01:00 LT
31 Jul 2025 : 01:00 LT
01 Aug 2025 : 01:00 LT
8°N
102°E
106°E
Wave Direction
Platong
Funan
Arthit
Bongkot
GBS
SIG WAVE HGT
(meters)
2.0
1.6
1.2
0.8
0.4
0.2
0.0
OFFSHORE
WEATHER
SERVICES

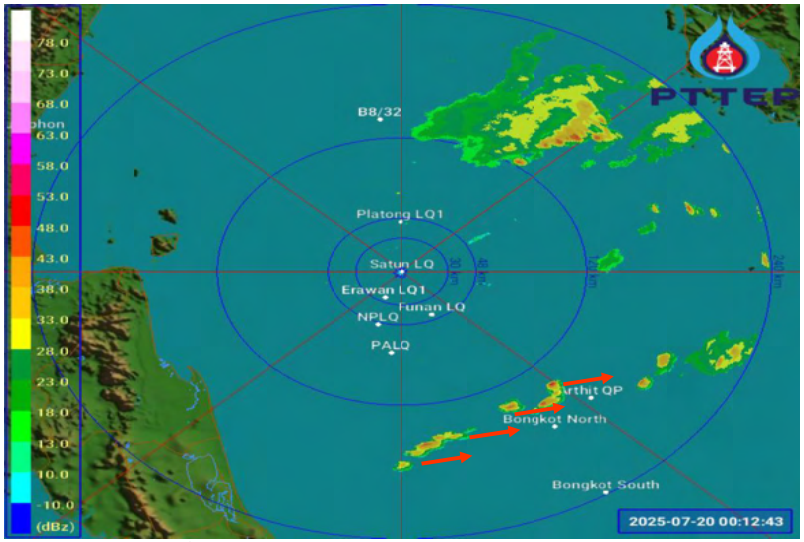
Offshore Weather Services Pty Ltd
277 Blackburn Road, Mt Waverley, Victoria 3149, Australia
Telephone: **+61 9887 8613** Facsimile: **+61 3 9886 7216**
ows@offshoreweather.com.au
offshoreweather.com.au

Squall Warning for Arthit/Bongkot PTTEP Fields

Time of Issue: 0730LT 20 Jul 2025
Validity Period: 0730-1130LT

Latest high resolution satellite and radar imageries, combined with the thunderstorm monitoring software indicate a line of moderate to strong convection approaching from the W-WSW of the Arthit/Bongkot PTTEP fields and moving E-ENE at about 15-20kt.

There is a **MODERATE-HIGH** risk of squalls to 25kt affecting the Arthit/Bongkot PTTEP fields during the next 1 - 4 hours. Squalls lasting for periods of up to 20 minutes with onset gusts to 35kt and temporarily raised seas.



Duty Forecaster: Lucrecio About

ภาคผนวกแท่นเจาะ

ภาคผนวกแท่นเจาะ-1

ข้อกำหนดและนโยบายต่าง ๆ ของแท่นเจาะ

ที่ปฏิบัติงานในโครงการฯ

ADMARINE 502

Emergency Response Plan

Doc. No.: ADM502-002

Revision: 01

Issued date :25 Feb 2025

Prepared by: ADM-502 OIM

Approved by: [redacted] (Rig Manager)

Table of content

1 INTRODUCTION **1**
1.1 Purpose 4
1.2 Scope and applicability 4
1.3 Responsibilities 4
2 AREA OF OPERATIONS ERP REQUIREMENTS **4**
2.1 Linked Plans 5
2.1.1 Emergency Command and Teams Structure 6
2.1.2 Support Structure 7
2.1.3 External Support Structure 8
3 ACTIVATION AND RESPONSE **10**
4 NOTIFICATION **10**
4.1 Coordination of Emergency Response Flowchart 12
5 ROLES AND RESPONSIBILITIES - ERT POSITIONS **15**
Emergency Team Coordinator 16
Muster Controller 17
Event Logging 18
Administrator / Radio Operator 19
Client Representatives 20
On Scene Commander 21
Fire Team Leaders 22
Fire Team Member 23
Medic 24
First Aid / Stretcher Team Members 25
Helideck Team 26
Muster Checkers 27
Coxswains 28
Well Control Team 29
6 INCIDENT MANAGEMENT GUIDES **32**
6.1 Major Accident Hazards Risks from Bow Ties 32
H-1 Hydrocarbons in Formation During Drilling / Loss of Containment 33
H-2 Hydrocarbons in Formation During Well Testing / Loss of Containment 40
H-3 Hydrocarbons in Sea Floor Infrastructure / Loss of Containment 41
H-6 Structural Failure / Loss of Position 50
H-7 Vessel Transit / Loss of Control During Transit 49
H-9A Accommodation Fire 60
H-9B Fire / Explosion 57
H-10 Explosives (E.g. Perforating Gun Charges) / Explosion on Rig 70
H-11 Objects Lifted at Height - Crane / Deck / Dropped Object 74
H-12 Objects Lifted at Height - Derrick / Drill Floor / Dropped Object 69
H-13A Helicopter Crash on Rig 82
H-13B Helicopter Ditching 87
H-14A Marine Traffic / Vessel on Collision Course 92
H-14B Marine Traffic / Vessel Collision 98
H-15 Moving / Rotating / Pressurized Equipment / Mechanical Failure 103
H-16 Working Alongside Production Platform 107
H-17A Serious Crime 108
H-17B Bomb Threat 101
H-18 Personnel Exposure to Hazardous Atmosphere / Asphyxiates 107
6.2 Other Significant Hazard Risks 113
H-19 Missing Person / Man Overboard 115

เอกสารฉบับนี้เป็นกรรมสิทธิ์ของ บริษัท เอดีส์ มารีน จำกัด ห้ามนำไปใช้ประโยชน์ในทางมิชอบ

H-20 Non-Government Organisation 119
H-21 Tropical Cyclone Plan for Gulf of Thailand 117
6.3 Abbreviations 124
7 RISK EVALUATION 146
8 DOCUMENT CONTROL AND REFERENCES 146
9 APPENDIX - FORMS 146
Initial Emergency Status Information For IMT 147
Event Status Update to Onshore IMT 148
Time Out Structure 149
Abandonment Time Out Checklist ..... **Error! Bookmark not defined.**
ADM-502 Rig Evacuation Status Report 150
ADM-502 Rig Resume Status Report 151
ADM-502 Timeline of activities Required to Evacuate Rig 152
ADM-502 Station Bill 153

MEDICAL EVACUATION RESPONSE PLAN (MERP)

Client: ADES For Drilling Services Ltd (ADES)

Vessel: ADMARINE 502

Platform Name: WP17 Platform, Block G2/61, Gulf of Thailand

Project Access No.: [redacted] ***(Topside)***

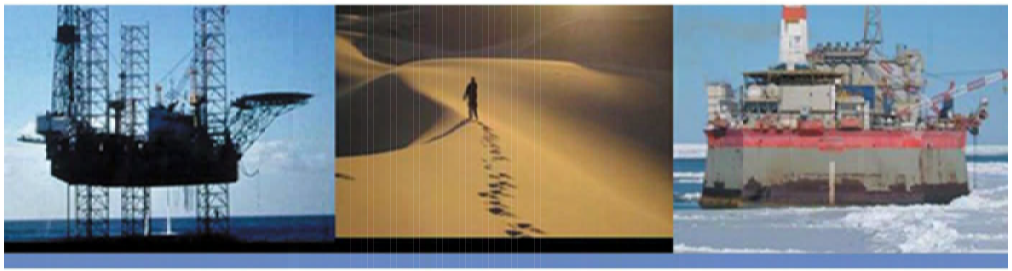
Location: Offshore Songkhla, Thailand

Latitude: 07° 52' 54.344" N; Longitude: 102° 22' 16.013" E

Field Operator: PTTEP

Created Date: 17 July 2024

Update Date: 25th Sep 2025 **Version: 2.6**



WORLDWIDE REACH. HUMAN TOUCH.

Disclaimer

This report is written as a general guide only and the information stated therein is provided on an "as is" and "as available" basis. **International SOS** *(hereinafter referred to as "Intl.SOS") will take reasonable care in preparing this report. However, Intl.SOS, its holding, subsidiary, group companies, affiliates, third-party content providers or licensors and each of their respective officers, directors, employees, representatives, licensees and agents (hereinafter collectively referred to as the ("Intl.SOS Parties") do not make any representations or warranties of any kind, express or implied, about the completeness, accuracy, authenticity, reliability, or suitability with respect to this report. Intl.SOS hereby disclaims and* ***ADES*** *hereby waives on its behalf and on behalf of its holding, subsidiary, group companies, affiliates and each of their respective officers, directors, employees, representatives and agents its and their respective rights to claim against any or all of the Intl.SOS Parties for any or all liability including, without limiting the generality of the foregoing, any loss or damage to property; bodily injury or death; loss or anticipated loss of profit, loss or anticipated loss of revenue, economic loss or loss of data, whether or not flowing directly or indirectly from the information, act or omission in question; business interruption, loss of use of equipment, loss of contract or loss of business opportunity; or indirect, special, incidental, consequential, exemplary, contingent, penal or punitive damages, howsoever arising, including out of negligence or wilful default or out of the information contained in or omitted from the report or other information which is referenced by, or linked to this report.*

The entire liability of Intl.SOS under or in connection with this report, whether for negligence, breach of contract, misrepresentation or otherwise is limited to the charges paid for the services of Intl.SOS for producing this report up to a maximum amounting to charges paid during the period of 1 year preceding the claim.

This document contains information related to emergency response planning and actions for offshore projects.

This Medical Evacuation Response Plan is subject to change in light of experience and feedback and it is the responsibility of all potential users, including but not only any Medic or Physician deployed, to review the plan on arrival on board and contact Intl.SOS if any difficulties seem likely in making use of the plan.

This is not a First Phase Evacuation plan and does not include responsibilities for all necessary activities related to onshore incident management whether or not patients and casualties are involved (e.g. H_2S emergency, riot / insurrection, man overboard, epidemic quarantine, etc.).

Author

This document was prepared by the Project Access team, Consulting Knowledge Centre.

Reviewers

This document was issued for review to:

Intl.SOS MERP Team	Date
BKK MERP Team and KUL MERP Team	19 July 2024

Correspondence

All correspondence regarding this report should be directed to:

[redacted] AM

International SOS Tel: [redacted] *E-mail:* [redacted]

www.internationalsos.com

© 2025 AEA International Holdings Pte. Ltd. All rights reserved.

This report is prepared solely for the benefit of and use by **ADES** *and may not be sold, reproduced or in any other way copied or transferred by the customer to anyone else, whether in whole or in part. Intl.SOS owns and retains all intellectual property rights in this report including, without limiting the generality of foregoing, all copyrights.*

เอกสารนี้เป็นลิขสิทธิ์ของ ADMARINE 502 ห้ามนำไปใช้ประโยชน์ในเชิงพาณิชย์ ห้ามทำซ้ำ ดัดแปลง หรือเผยแพร่ต่อสาธารณะ

Table of Contents

Acronyms and Definitions 3

1. Objectives of this Document 4

2. Summary of MERP 4

3. Responsibilities for First and Second Phase Evacuations 6

4. Key Information 7

- 4.1 International SOS Assistance Centre 7
- 4.2 Authorised Person Details 7
- 4.3 Case Management Instructions 8
- 4.4 Client Contact Details 9
- 4.5 Medic Contact Details 9

5. Location Geography 10

- 5.1 Vessel Details 10
- 5.2 Vessel Description and JPEG Files of Rig 10
- 5.3 Maps 11

6. First Phase Evacuation Details 12

7. Second Phase Evacuation Details 15

Appendix 1: Description of International SOS Services On-Site 19

Appendix 2: Medsite Medical Escalation Report 20

Appendix 3: Release of Medical Information Form 26

© 2025 AEA International Holdings Pte. Ltd.

Rev.0

PTTEP

PTT Exploration and Production Public Company Limited

Contract SSHE Management Plan and Bridging Document

For Contract: **2023.0432 Provision of Offshore Jack-up Drilling Rig for Drilling Campaign 2024-2026(RIG#15)**

Contractor: **ADES Holding for Drilling Services Ltd**

For Contract: **2023.0598 Managed Pressure Drilling Services for Offshore Operation 2024-2026 (Call-Off)**

Halliburton Energy Services Inc

Contract Mode: **2**

August 2024

Revision History			
Rev.	**Description of Revision**	**Authorized by**	**Date**
0	First issued	OTF/D	May 2024

เอกสารนี้เป็นกรรมสิทธิ์ของ ปตท.สผ.

TABLE OF CONTENTS

1. PURPOSE 1
2. SCOPE 1
3. REFERENCES 2
3.1 PTTEP SSHE CONTROLLING DOCUMENTS 2
3.2 ADES DOCUMENTS 3
3.3 HALLIBURTON DOCUMENTS 4
4. DEFINITIONS 6
4.1 GENERAL DEFINITIONS 6
4.2 ORGANISATION AND DEPARTMENTS 7
4.3 LANGUAGE 8
4.4 COMMON ACRONYMS 8
5. ROLES AND RESPONSIBILITIES 9
5.1 DOCUMENT OWNER 9
5.2 DOCUMENT CUSTODIAN 9
6. INTRODUCTION OF PROVISION OF OFFSHORE DRILLING RIG PROJECT 9
6.1 PROJECT DESCRIPTION 9
6.2 PROJECT OBJECTIVES AND TARGET 10
6.3 AREA, LOCATION AND OVERALL MAP 10
6.4 FACILITIES DESCRIPTION 12
6.5 PROJECT SCHEDULING OR WORK PLAN 14
7. SSHE MANAGEMENT SYSTEM (SSHE MS) FOR PROVISION OF OFFSHORE DRILLING RIG PROJECT 15
7.1 LEADERSHIP AND COMMITMENT 17
7.2 POLICY AND STRATEGIC OBJECTIVE 20
7.3 ORGANISATION, RESOURCES AND DOCUMENTATION 23
7.4 EVALUATION AND RISK MANAGEMENT 39
7.5 PLANNING AND OPERATION CONTROL 42
7.6 IMPLEMENTATION AND MONITORING 79
7.7 AUDIT AND REVIEW 81

Contract SSHE Management Plan & Bridging Document of Offshore Jack-up Drilling Rig for Drilling Campaign 2024-2026 (RIG#15) August 2024

APPENDIX A: SSHE POLICIES 83
APPENDIX A1: PTTEP SSHE POLICY 83
APPENDIX A2: ADES QHSSE POLICY 85
APPENDIX A3: HALLIBURTON HSE POLICY SET 89
APPENDIX B1: ADES TRAINING MATRIX 92
APPENDIX B2: HALLIBURTON TRAINING MATRIX 96
APPENDIX C1: PTTEP RISK ASSESSMENT MATRIX 98
aPPENDIX C2: ADES RISK MATRIX 99
APPENDIX C3: HALLIBURTON RISK MATRIX 100
APPENDIX D1: ADES HAZARD REGISTER FOR DRILLING 102
APPENDIX D2: HALLIBURTON MPD RISK ASSESSMENT 138
APPENDIX E1: ADES SSHE MONITORING PROGRAM OR ADES SSHE PLAN 142
APPENDIX F: PTTEP NOTIFICATION OF INCIDENT 148
APPENDIX G: PROJECT INCIDENT NOTIFICATION FLOW CHART AND PROJECT EMERGENCY RESPONSE PLAN 150
APPENDIX H: PTTEP LIFTING COLOR CODE 153
APPENDIX I: LIFT CATEGORIZATION AND APPROVAL PROCESS 156
APPENDIX J: PTTEP H2S FACILITY CLASSIFICATION & BASIC REQUIREMENTS 158
APPENDIX K: TROPICAL CYCLONE (TC) CLASSIFICATION 160
APPENDIX L: PTTEP ADDITIONAL MEDICAL CHECKUP FOR SPECIFIC TASKS 169

ADES

CAMS

CORE ADES MANAGEMENT SYSTEM

LEVEL 02

MANUAL 04.2

WELL CONTROL

Table of Contents (TOC)

Document No.	Document Title	Rev No.
CAMS 04.2-01-GEN	**Well Control Introduction**	1
CAMS 04.2-02-GEN	**Well Control Requirements**	1
CAMS 04.2-03-GEN	**Well Control Roles and Responsibilities**	1
Standards		
CAMS 04.2-01-STD	Well Control Principles Standard	1
CAMS 04.2-02-STD	Well Control Shut-In Instructions Standard	1
CAMS 04.2-03-STD	Well Control Hardware components Standard	1
CAMS 04.2-04-STD	Well Control Operations Issues Guidance Standard	1
CAMS 04.2-05-STD	Well Control Training Requirements Standard	1
CAMS 04.2-06-STD	Well Control Equipment Management Standard	2
CAMS 04.2-06-STD-01	Dedicated Shear Accumulator Unit Drawdown Test	1
CAMS 04.2-06-STD-02	Main Accumulator Unit Drawdown Test	1
CAMS 04.2-01-PRO	Well Control Equipment Tracking	1

ឯកសារនេះជាកម្មសិទ្ធិរបស់ក្រុមហ៊ុន ADES International Holding PLC ។ ការចម្លង ការប្រើប្រាស់ ឬការបង្ហាញដោយគ្មានការអនុញ្ញាតជាលាយលក្ខណ៍អក្សរពីមុនគឺត្រូវបានហាមឃាត់យ៉ាងតឹងរ៉ឹង ។

Manual Control Sheet (MCS)

Document No.	Document Title	Rev No.	Issue/Rev. Date	Comments
CAMS-04.2	Well Control Manual	01-00	16-09-2024	New Edition
CAMS 04.2-06-STD	Well Control Equipment Management Standard	01-00	13-02-2025	New Edition
CAMS 04.2-06-STD-01	Dedicated Shear Accumulator Unit Drawdown Test	01-00	13-02-2025	New Edition
CAMS 04.2-06-STD-02	Main Accumulator Unit Drawdown Test	01-00	13-02-2025	New Edition
CAMS 04.2-06-STD	Well Control Equipment Management	02-00	18-09-2025	Update procedure content, all changed items highlighted

Note:

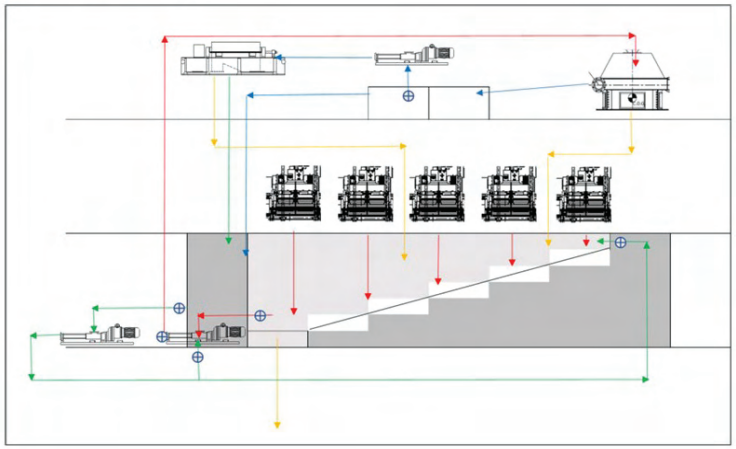
All modifications and changes have been indicated with a left border line.

ADM 502 - Emergency Response Exercise and Drill Matrix

	WEEK :	From previous weeks.	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52
Fire/Emergency Drill (Weekly)	Office/Cabin/Radio Room/Galley/Laundry room	5																						
	Paint Locker																							
	Crane																							
	Helideck / Refueling unit																							
	Engine Room	1																						
	Welding Shop	1																						
	Shale Shaker area	1																						
	Mud Pump Room					1																		
	Mud Pit Room	1		1																				
	Emergency Generator Room	1																						
	Drill Floor	1																						
	Warehouse/Heavy tool Store	1								1														
	Water maker room	1																						
	Sack room								1															
	Under Cantilever / Cement unit area	3																						
	Filling Station - Port and Starboard main deck				1																			
	Auxiliary Machinery room																							
Abandon Rig Drill (Weekly)	52 Per Year	29	1	1	1	1	1	1	1	1														
First Aid / Man down casualty / Medivac - Annually	1 per Year																							
Spill Drill (SOPEP) - Quarterly	4 Per Year	1				1																		
Lifeboat Launching -Quarterly	4 Per Year																							
Man Overboard Drill - Quarterly	4 Per Year	1																						
Line Throwing Apparatus - Quarterly	4 Per Year																							
Confined Space Rescue Drill - Every two Month	6 Per Year	1				1																		
Rescue at Heights Drill - Annually/crew	4 Per Year	1				1																		
H2S Drill - When potential H2S platform	begin prior to drilling into formations thought to contain H2S,	9		1			1	1																
Helicopter crash near rig - Annually / OIM	2 Per Year	1																						
Helicopter crash on landing rig - Annually / OIM	2 Per Year					1																		
Hull Damage/flooding Drill - Quarterly	4 Per Year																							
Collision Drill - Annually / OIM	2 Per Year																							
Kick / Trip Drill	1 Per week for each crew	32			1		1	1	2	1														
Shut in Drill / Well Kill Drills	1 Per week for each crew																							
Pit Drill	1 Per week for each crew	28																						
Choke Drill - When above reservoir	before drill out drilling shoe																							
Surface BOP Accumulator test	as per Client																							
Stripping Drill -	1 Per Year																							
Hole Monitoring Drills	1 Per week for each crew																							
Hang-Off Drill	1 Per week for each crew																							
Disaster Drill - Annually	1 Per Year																							

แก้ไขครั้งที่ 1.5 ใช้งานตั้งแต่ วันที่ 1 มกราคม พ.ศ. 2568

Processing Shaker Cuttings



System requirements are

- process shaker cuttings via dryer and recovered fluid via centrifuge.
- process active fluid while drilling with centrifuge.
- process fluid off line with centrifuge.

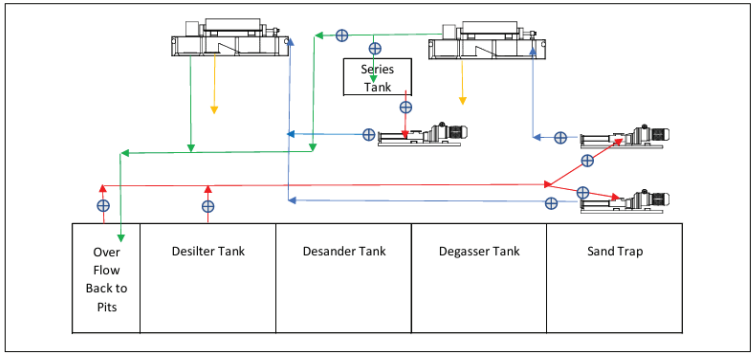
Red Lines – Shaker cuttings drop into the inboard side of the shaker ditch and are flushed down to the cuttings pump. Cuttings pump then pumps the slurry to cutting dryer.

Brown Lines – Solids discharge from the dryer and dryer centrifuge to the overboard side of the shaker ditch.

Blue Lines – Recovered fluid from the processed shaker cuttings discharged to dryer catch tank and pumped to dryer centrifuge for further processing.

Green Lines – Active system fluid, used to flush the cuttings ditch and fluidize the cuttings pump, as well as processed recovered dryer fluid reintroduced back into active system.

Processing Active System



Red Lines – Active system suction at the surface tanks.

Blue Lines – Centrifuge feed pump discharge.

Green Lines – Centrifuge processed fluid return.

Brown Lines – Centrifuge solids discharge overboard.

PTT Exploration and Production Public Company Limited

DETAILED DRILLING PROGRAM

WWT-57B

DRILLING OPERATIONS SECTION,
THAI OFFSHORE WELL OPERATIONS DEPARTMENT

Bangkok; Dec 2024

TABLE OF CONTENTS

1. GENERAL

1.1 Reference
1.2 General SSHE Considerations
1.3 Well Objectives
1.4 Scope of Work
1.5 General Well Information

2. DRILLING PROGRAM

2.1 Rig Move
2.2 13-3/8" Casing Drill-in Phase
2.3 12-1/4" x 9-5/8" Phase
2.4 8-1/2" x 7" Phase
2.5 6-1/8" Phase
2.6 Plug and Abandon

APPENDICES

1. Depth-Time Curve
2. Geological Prognosis
3. Seismic Section
4. Formation Pressure
5. Formation Temperature
6. Spider map and Well Trajectory
7. Planning Report
8. Anti-Collision Report
9. Kick Margin
10. BOP Diagram
11. Mud & Cement Program
12. Centralization Program and Summary
13. Torque and Drag, Hydraulics
14. Shallow Gas Hazard Summary
15. DMAP

แก้ไขครั้งที่ 1.7 ข้อมูลทั่วไป Detailed Drilling Program

SAFETY DATA SHEET

Hardtop XP Comp A

SDS Number: AA00319-0000000044

In accordance with the Standard for Classification and Labeling of Chemical Substance and Safety Data Sheet, Article 10 Paragraph 1

Section 1. Chemical product and company identification

A. Product name : Hardtop XP Comp A

Product code : 3140

Product description : Paint.

B. Relevant identified uses of the substance or mixture and uses advised against

C. Manufacturer : Chokwang Jotun Ltd.
96, Gwahaksandan 1-ro
Gangseo-gu, Busan
South Korea
Tel: +82 51 797 6000
Fax: +82 51 711 7735
SDSJotun@jotun.com

Emergency telephone number : H.G.LEE Chokwang Jotun Ltd.
Tel: +82 51 797 6000

Section 2. Hazards identification

A. Hazard classification : FLAMMABLE LIQUIDS - Category 3
SKIN IRRITATION - Category 2
EYE IRRITATION - Category 2A
SKIN SENSITISATION - Category 1
LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3

This product is classified in accordance with the Industrial Safety and Health Act and the Chemical Control Act.

B. GHS label elements, including precautionary statements

Symbol :

Signal word : Warning.

Hazard statements : H226 - Flammable liquid and vapour.
H315 - Causes skin irritation.
H317 - May cause an allergic skin reaction.
H319 - Causes serious eye irritation.
H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements

Section 2. Hazards identification

Prevention : P280 - Wear protective gloves, protective clothing and eye or face protection.
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P273 - Avoid release to the environment.
P261 - Avoid breathing vapour.
P264 - Wash hands thoroughly after handling.
P272 - Contaminated work clothing should not be allowed out of the workplace.

Response : P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P302 + P352 - IF ON SKIN: Wash with plenty of water.
P333 + P313 - If skin irritation or rash occurs: Get medical advice or attention.
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 - If eye irritation persists: Get medical advice or attention.

Storage : P403 + P235 - Store in a well-ventilated place. Keep cool.

Disposal : P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

C.

Other hazards which do not result in classification : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Other means of identification : Not available.

Ingredient name	Common name	Identifiers	%
xylene	xylene	CAS: 1330-20-7	≥10 - ≤15
n-butyl acetate	n-butyl acetate	CAS: 123-86-4	≤10
ethylbenzene	ethylbenzene	CAS: 100-41-4	≤5
hydrocarbons, C9, aromatics	hydrocarbons, C9, aromatics	CAS: 64742-95-6	≤4.5
titanium dioxide	titanium dioxide	CAS: 13463-67-7	≤5
propanoic acid, 3-ethoxy-, ethyl ester	ethyl 3-ethoxy propionate	CAS: 763-69-9	≤3
c.i. pigment yellow 42	iron hydroxide oxide yellow	CAS: 51274-00-1	≤3
decanedioic acid, 1,10-bis (1,2,2,6,6-pentamethyl-4-piperidinyl) ester, mixt. with 1-methyl 10-(1,2,2,6,6-pentamethyl-4-piperidinyl) decanedioate	Reaction mass of bis (1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	CAS: 82919-37-7, 41556-26-7	≤0.3

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

แก้ไขครั้งที่ 1.8 ข้อมูลความปลอดภัยสำหรับผู้ใช้งานเท่านั้น

Section 4. First aid measures

A. Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.

B. Skin contact : Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

C. Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

D. Ingestion : Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

E. Notes to physician : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Specific treatments : No specific treatment.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Firefighting measures

A. Extinguishing media

Suitable extinguishing media : Use dry chemical, CO_2, water spray (fog) or foam.

Unsuitable extinguishing media : Do not use water jet.

B. Specific hazards arising from the chemical : Flammable liquid and vapour. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
metal oxide/oxides

Section 5. Firefighting measures

C. Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Special precautions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Section 6. Accidental release measures

A. Personal precautions, protective equipment and emergency procedures : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

B. Environmental precautions : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.

C. Methods and material for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

A. Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapour or mist. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Section 7. Handling and storage

B. Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Separate from oxidising materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

A. Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Xylene	**Ministry of Employment and Labor (Republic of Korea, 1/2020). [Xylene]** STEL: 150 ppm 15 minutes. TWA: 100 ppm 8 hours.
n-butyl acetate	**Ministry of Employment and Labor (Republic of Korea, 1/2020).** STEL: 200 ppm 15 minutes. TWA: 150 ppm 8 hours.
ethylbenzene	**Ministry of Employment and Labor (Republic of Korea, 1/2020).** STEL: 125 ppm 15 minutes. TWA: 100 ppm 8 hours.

B. Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

C. Personal protective equipment

Respiratory protection : If workers are exposed to concentrations above the exposure limit, they must use a respirator according to EN 140. Use respiratory mask with charcoal and dust filter when spraying this product, according to EN 14387(as filter combination A2-P2). In confined spaces, use compressed-air or fresh-air respiratory equipment. When use of roller or brush, consider use of charcoalfilter.

Eye protection : Use safety eyewear designed to protect against splash of liquids.

Hand protection : There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals.
The breakthrough time must be greater than the end use time of the product.
The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed.
Gloves should be replaced regularly and if there is any sign of damage to the glove material.
Always ensure that gloves are free from defects and that they are stored and used correctly.
The performance or effectiveness of the glove may be reduced by physical/chemical damage and poor maintenance.
Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred.

Section 8. Exposure controls/personal protection

Wear suitable gloves tested to ISO 374-1:2016.
May be used, gloves(breakthrough time) 4 - 8 hours: butyl rubber (> 0.4 mm), neoprene (> 0.35 mm), PVC (> 0.5 mm)
Not recommended, gloves(breakthrough time) < 1 hour: Viton® (> 0.7 mm)
Recommended, gloves(breakthrough time) > 8 hours: Teflon (> 0.35 mm), 4H/Silver Shield® (> 0.07 mm), polyvinyl alcohol (PVA) (> 0.3 mm), nitrile rubber (> 0.75 mm)

For right choice of glove materials, with focus on chemical resistance and time of penetration, seek advice by the supplier of chemical resistant gloves.

The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user's risk assessment.

Body protection : Use chemical-resistant protective suit / disposable overall.

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Section 9. Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

A. Appearance

Physical state : Liquid.

Colour : Brown., Black, Blue., Brown., Clear., Green., Grey, MCI Base 1, MCI Base 2, MCI Base 3, MCI Base 5, MCI Base 6, Off-white., Orange, Purple., Red, Metallic, Violet., White.,Yellow.

B. Odour : Characteristic.

C. Odour threshold : Not applicable.

D. pH : Not applicable.

E. Melting/freezing point : Not applicable.

F. Boiling point, initial boiling point, and boiling range : Lowest known value: 126°C (258.8°F) (n-butyl acetate). Weighted average: 140.78°C (285.4°F)

G. Flash point : Closed cup: 32°C

H. Evaporation rate : Highest known value: 1 (n-butyl acetate) Weighted average: 0.79compared with butyl acetate

I. Flammability (solid, gas) : Not applicable.

J. Lower and upper explosive (flammable) limits : Greatest known range: Lower: 1.05% Upper: 9.8% (propanoic acid, 3-ethoxy-, ethyl ester)

K. Vapour pressure : Highest known value: 1.5 kPa (11.3 mm Hg) (at 20°C) (n-butyl acetate). Weighted average: 0.95 kPa (7.13 mm Hg) (at 20°C)

L. Solubility : cold water Not soluble
hot water Not soluble

M. Vapour density : Highest known value: 4 (Air = 1) (n-butyl acetate). Weighted average: 3.79 (Air = 1)

N. Relative density : 1.205 to 1.452 g/cm³

O. Partition coefficient: n-octanol/water : Not available.

Section 9. Physical and chemical properties

P. Auto-ignition temperature : Lowest known value: 280 to 470°C (536 to 878°F) (hydrocarbons, C9, aromatics).

Q. Decomposition temperature : Not available.

R. Viscosity : Kinematic (40°C (104°F)): >20.5 mm^2/s (>20.5 cSt)

S. Molecular weight : Not applicable.

Particle characteristics

Median particle size : Not applicable.

Section 10. Stability and reactivity

A. Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

B. Conditions to avoid : Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

C. Incompatible materials : Keep away from the following materials to prevent strong exothermic reactions: oxidising agents, strong alkalis, strong acids.

D. Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

There are no data available on the mixture itself. See Sections 2 and 3 for details.

Exposure to component solvent vapour concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin. Ingestion may cause nausea, diarrhea and vomiting.

A. Information on likely routes of exposure : Not available.

Potential acute health effects

Inhalation : No known significant effects or critical hazards.

Ingestion : No known significant effects or critical hazards.

Skin contact : Causes skin irritation. May cause an allergic skin reaction.

Eye contact : Causes serious eye irritation.

Over-exposure signs/symptoms

Inhalation : No specific data.

Ingestion : No specific data.

Skin contact : Adverse symptoms may include the following:
irritation
redness

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

B. Health hazards

Acute toxicity

Section 11. Toxicological information

Product/ingredient name	Result	Species	Dose	Exposure
xylene	LC50 Inhalation Vapour	Rat	11 mg/l	4 hours
	LD50 Oral	Rat	4300 mg/kg	-
	TDLo Dermal	Rabbit	4300 mg/kg	-
n-butyl acetate	LC50 Inhalation Vapour	Rat	>21.1 mg/l	4 hours
	LD50 Dermal	Rabbit	>17600 mg/kg	-
	LD50 Oral	Rat	13100 mg/kg	-
ethylbenzene	LC50 Inhalation Vapour	Rat - Male	11 mg/l	4 hours
	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	3500 mg/kg	-
propanoic acid, 3-ethoxy-, ethyl ester	LD50 Oral	Rat	3200 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
xylene	Eyes - Mild irritant	Rabbit	-	87 milligrams	-
	Skin - Mild irritant	Rat	-	8 hours 60 microliters	-
titanium dioxide	Skin - Mild irritant	Human	-	72 hours	-
propanoic acid, 3-ethoxy-, ethyl ester	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-

Sensitisation

Not available.

CMR - ISHA Article 42 Occupational Exposure Limits

Product/ingredient name	Identifiers	Classification
Ethyl benzene	CAS: 100-41-4	CARCINOGENICITY - Category 2
Titanium dioxide	CAS: 13463-67-7	CARCINOGENICITY - Category 2

Mutagenicity

Conclusion/Summary : No known significant effects or critical hazards.

Carcinogenicity

Conclusion/Summary : No known significant effects or critical hazards.

Classification

Product/ingredient name	OSHA	IARC	NTP	ACGIH
ethylbenzene	-	2B	-	A3

Reproductive toxicity

Not available.

Teratogenicity

Conclusion/Summary : No known significant effects or critical hazards.

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
xylene	Category 3	-	Respiratory tract irritation
n-butyl acetate	Category 3	-	Narcotic effects
hydrocarbons, C9, aromatics	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects

Specific target organ toxicity (repeated exposure)

Section 11. Toxicological information

Product/ingredient name	Category	Route of exposure	Target organs
ethylbenzene	Category 2	-	hearing organs

Aspiration hazard

Product/ingredient name	Result
xylene	ASPIRATION HAZARD - Category 1
ethylbenzene	ASPIRATION HAZARD - Category 1
hydrocarbons, C9, aromatics	ASPIRATION HAZARD - Category 1

Potential chronic health effects

Chronic toxicity

General : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Reproductive toxicity : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
Hardtop XP Comp A	N/A	9487.6	N/A	71.1	N/A
xylene	4300	1100	N/A	11	N/A
n-butyl acetate	13100	N/A	N/A	N/A	N/A
ethylbenzene	3500	N/A	N/A	11	N/A
propanoic acid, 3-ethoxy-, ethyl ester	3200	N/A	N/A	N/A	N/A

Section 12. Ecological information

A. Ecotoxicity

This material is harmful to aquatic life with long lasting effects.

Product/ingredient name	Result	Species	Exposure
xylene	Acute LC50 8500 µg/l Marine water	Crustaceans - Palaemonetes pugio	48 hours
	Acute LC50 13400 µg/l Fresh water	Fish - Pimephales promelas	96 hours
ethylbenzene	Acute EC50 7700 µg/l Marine water	Algae - Skeletonema costatum	96 hours
	Acute EC50 2.93 mg/l	Daphnia	48 hours
	Acute LC50 4.2 mg/l	Fish	96 hours
hydrocarbons, C9, aromatics	Acute EC50 <10 mg/l	Daphnia	48 hours
	Acute IC50 <10 mg/l	Algae	72 hours
	Acute LC50 <10 mg/l	Fish	96 hours
titanium dioxide	Acute LC50 3 mg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Neonate	48 hours
	Acute LC50 6.5 mg/l Fresh water	Daphnia - Daphnia pulex - Neonate	48 hours
	Acute LC50 >1000000 µg/l Marine water	Fish - Fundulus heteroclitus	96 hours
propanoic acid, 3-ethoxy-, ethyl ester	Acute EC50 480 mg/l	Daphnia	48 hours
	Acute LC50 50 mg/l	Fish	96 hours
decanedioic acid, 1,10-bis (1,2,2,6,6-pentamethyl-4-piperidinyl) ester, mixt. with 1-methyl 10-	Acute EC50 1.68 mg/l	Algae	96 hours

Section 12. Ecological information

(1,2,2,6,6-pentamethyl-4-piperidinyl) decanedioate	Acute LC50 0.9 mg/l Chronic NOEC 1 mg/l	Fish Daphnia	96 hours 21 days

B. Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
xylene	-	-	Readily
ethylbenzene	-	-	Readily
hydrocarbons, C9, aromatics	-	-	Not readily

C. Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
xylene	3.12	8.1 to 25.9	low
n-butyl acetate	2.3	-	low
ethylbenzene	3.6	-	low
hydrocarbons, C9, aromatics	-	10 to 2500	high
propanoic acid, 3-ethoxy-, ethyl ester	1.47	-	low

D. Mobility in soil

Soil/water partition coefficient (K_{OC}) : Not available.

E. Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

A. Disposal methods : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

B. Disposal precautions : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapour from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	UN	IMDG	IATA
A. UN number	UN1263	UN1263	UN1263
B. UN proper shipping name	Paint	Paint	Paint

Section 14. Transport information

C. Transport hazard class(es)	3	3	3
D. Packing group	III	III	III
E. Environmental hazards	No.	No.	No.

Additional information

UN : UN: Viscous substance. Not goods of class 3, ref. 2.3.2.5 (only applicable to receptacles < 450 litre capacity).

IMDG : **Emergency schedules** F-E, S-E

IMDG: Viscous substance. Transport in accordance with 2.3.2.5 of the IMDG Code (only applicable to receptacles < 450 litre capacity).

ADR/RID : **Hazard identification number** 30
Special provisions 640E
Tunnel code (D/E)

ADR/RID: Viscous substance. Not goods of class 3, ref. 2.2.3.1.5 (only applicable to receptacles < 450 litre capacity).

F. Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to IMO instruments : Not available.

Transport in accordance with ADR/RID, IMDG/IMO and ICAO/IATA and national regulation.

Section 15. Regulatory information

A. Regulation according to ISHA

ISHA article 117 (Harmful substances prohibited from manufacture) : None of the components are listed.

ISHA article 118 (Harmful substances requiring permission) : None of the components are listed.

Article 2 of Youth Protection Act on Substances Hazardous to Youth : Not applicable.

Exposure Limits of Chemical Substances and Physical Factors

The following components have an OEL:
xylene
n-butyl acetate
ethylbenzene

ISHA Enforcement Regs Annex 19 (Exposure standards established for harmful factors) : None of the components are listed.

Section 15. Regulatory information

ISHA Enforcement Regs Annex 21 (Harmful factors subject to Work Environment Measurement) : The following components are listed: xylene, n-butyl acetate, ethyl benzene, titanium dioxide, iron oxide

ISHA Enforcement Regs Annex 22 (Harmful Factors Subject to Special Health Check-up) : The following components are listed: Xylene, Ethyl benzene, Iron oxide (dust, fume)

Standard of Industrial Safety and Health Annex 12 (Hazardous substances subject to control) : The following components are listed: xylene, n-butyl acetate, ethyl benzene, titanium dioxide, iron and its compounds

B. Regulation according to Chemicals Control Act

AREC Article 17 (TRI) : The following components are listed: Xylene including o-,m-,p- isomer, Ethylbenzene

AREC Article 32 (Banned) : None of the components are listed.

Article 19 Subject to authorization (K-Reach Article 25) : None of the components are listed.

AREC Toxic chemicals : Not applicable

AREC Article 32 (Restricted) : None of the components are listed.

CCA Article 39 (Accident Precaution Chemicals) : None of the components are listed.

Existing Chemical Substances Subject to Registration : The following components are listed: Xylene, Toluene

C. Dangerous Materials Safety Management Act : **Class:** Class 4 - Flammable Liquid
Item: 4. Class 2 petroleums - Water-insoluble liquid
Designated quantity: 1000 L
Danger category: III
Signal word: Contact with sources of ignition prohibited

D. Wastes regulation : Dispose of contents and container in accordance with all local, regional, national and international regulations.

E. Regulation according to other foreign laws

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Section 16. Other information

A. References : - Registry of Toxic Effects of Chemical Substances
- United States Environmental Protection Agency ECOTOX

B. Date of issue : 25.01.2022

Date of revision : 19.11.2024

C. Version : 1.09

Date of printing : **19.11.2024**

D. Other

Indicates information that has changed from previously issued version.

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
N/A = Not available
SGG = Segregation Group
UN = United Nations

Notice to reader

The information in this document is given to the best of Jotun's knowledge, based on laboratory testing and practical experience. Jotun's products are considered as semi-finished goods and as such, products are often used under conditions beyond Jotun's control. Jotun cannot guarantee anything but the quality of the product itself. Minor product variations may be implemented in order to comply with local requirements. Jotun reserves the right to change the given data without further notice.

Users should always consult Jotun for specific guidance on the general suitability of this product for their needs and specific application practices.

If there is any inconsistency between different language issues of this document, the English (United Kingdom) version will prevail.

SAFETY DATA SHEET

JOTUN Jotun Protects Property

Tankguard 412 Comp A

Section 1. Identification

Product name : Tankguard 412 Comp A

Code : 2063

Product description : Paint.

Product type : Liquid.

Other means of identification : Not available.

Relevant identified uses of the substance or mixture and uses advised against

Identified uses

Use in coatings - Industrial use
Use in coatings - Professional use

Supplier : Jotun Australia Pty. Ltd.
59 Calarco Drive,
Derrimut, VIC 3026,
Australia

Phone: + 61 39314 0722
E-mail: SDSJotun@jotun.com

Emergency telephone number : Medical Emergencies 24 hours: Poisons Information Centre (Australia) 131 126

Section 2. Hazard(s) identification

Classification of the substance or mixture : SKIN CORROSION/IRRITATION - Category 2
SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2A
SKIN SENSITISATION - Category 1
GERM CELL MUTAGENICITY - Category 2
LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2

GHS label elements

Hazard pictograms :

Signal word : **WARNING**

Hazard statements : **H315 - Causes skin irritation.**
H317 - May cause an allergic skin reaction.
H319 - Causes serious eye irritation.
H341 - Suspected of causing genetic defects.
H411 - Toxic to aquatic life with long lasting effects.

Precautionary statements

Section 2. Hazard(s) identification

Prevention : P201 - Obtain special instructions before use.
P280 - Wear protective gloves, protective clothing, eye protection, face protection, or hearing protection.
P273 - Avoid release to the environment.
P261 - Avoid breathing vapour.

Response : P391 - Collect spillage.
P308 + P313 - IF exposed or concerned: Get medical advice or attention.
P362 + P364 - Take off contaminated clothing and wash it before reuse.
P302 + P352 - IF ON SKIN: Wash with plenty of water.
P333 + P313 - If skin irritation or rash occurs: Get medical advice or attention.
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 - If eye irritation persists: Get medical advice or attention.

Storage : Not applicable.

Disposal : P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements : Not applicable.

Other hazards which do not result in classification : None known.

Section 3. Composition and ingredient information

Substance/mixture : Mixture

Other means of identification : Not available.

CAS number/other identifiers

CAS number : Not applicable.

EC number : Mixture.

Product code : 2063

Ingredient name	% (w/w)	CAS number
epoxy resin (MW ≤ 700) 2,3-epoxypropyl neodecanoate	≥30 - ≤60 ≤10	1675-54-3 26761-45-5

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Section 4. First aid measures

Skin contact : Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion : Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : No known significant effects or critical hazards.

Skin contact : Causes skin irritation. May cause an allergic skin reaction.

Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : No specific data.

Skin contact : Adverse symptoms may include the following:
irritation
redness

Ingestion : No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments : No specific treatment.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Firefighting measures

Extinguishing media

Suitable extinguishing media : Recommended: alcohol-resistant foam, CO_2, powders, water spray.

Unsuitable extinguishing media : Do not use water jet.

Specific hazards arising from the chemical : In a fire or if heated, a pressure increase will occur and the container may burst. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Section 5. Firefighting measures

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
sulfur oxides
metal oxide/oxides

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Hazchem code : •3Z

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

Methods and material for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

Precautions for safe handling

Section 7. Handling and storage

Protective measures : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapour or mist. Avoid release to the environment. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

See Technical Data Sheet / packaging for further information.

Section 8. Exposure controls and personal protection

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

Control parameters

Occupational exposure limits

epoxy resin (MW ≤ 700)	**DFG MAC-values list (Germany, 10/2021). Skin sensitiser.**

Appropriate engineering controls : If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying to ISO 16321-1:2022 should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Skin protection

Section 8. Exposure controls and personal protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals.
The breakthrough time must be greater than the end use time of the product.
The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed.
Gloves should be replaced regularly and if there is any sign of damage to the glove material.
Always ensure that gloves are free from defects and that they are stored and used correctly.
The performance or effectiveness of the glove may be reduced by physical/chemical damage and poor maintenance.
Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred.

Wear suitable gloves tested to ISO 374-1:2016.
Recommended, gloves(breakthrough time) > 8 hours: polyvinyl alcohol (PVA) (> 0.3 mm), nitrile rubber (> 0.4 mm), neoprene (> 0.35 mm), PVC (> 0.5 mm), butyl rubber (> 0.4 mm)

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid.

Colour : Black, Green., Red, White.

Odour : Characteristic.

Odour threshold : Not applicable.

pH : Not applicable.

Melting point : Not applicable.

Boiling point : Lowest known value: >260°C (>500°F)(epoxy resin (MW ≤ 700)).

Flash point : Closed cup: 100°C (212°F)

Evaporation rate : Not available.

Flammability (solid, gas) : Not available.

Lower and upper explosive (flammable) limits : Not applicable.

Vapour pressure : Highest known value: 0.01 kPa (0.1 mm Hg) (at 20°C) (2,3-epoxypropyl neodecanoate). Weighted average: 0.002 kPa (0.02 mm Hg) (at 20°C)

Vapour density : Highest known value: 11.7 (Air = 1) (epoxy resin (MW ≤ 700)).

Relative density : 1.72 to 1.77 g/cm³

Section 9. Physical and chemical properties

Solubility : Insoluble in the following materials: cold water and hot water.

Partition coefficient: n-octanol/water : Not available.

Auto-ignition temperature : Not available.

Decomposition temperature : Not available.

Viscosity : Kinematic (40°C (104°F)): >20.5 mm^2/s (>20.5 cSt)

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : No specific data.

Incompatible materials : Keep away from the following materials to prevent strong exothermic reactions: oxidising agents, strong alkalis, strong acids.

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

There are no data available on the mixture itself. The mixture has been assessed following the conventional method of the CLP Regulation (EC) No 1272/2008 and is classified for toxicological properties accordingly. See Sections 2 and 3 for details.

Exposure to component solvent vapour concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness.
Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin.
If splashed in the eyes, the liquid may cause irritation and reversible damage.
This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Based on the properties of the epoxy constituent(s) and considering toxicological data on similar mixtures, this mixture may be a skin sensitiser and an irritant. It contains low molecular weight epoxy constituents which are irritating to eyes, mucous membrane and skin. Repeated skin contact may lead to irritation and to sensitisation, possibly with cross-sensitisation to other epoxies. Skin contact with the mixture and exposure to spray mist and vapour should be avoided.

Contains epoxy resin (MW ≤ 700), 2,3-epoxypropyl neodecanoate. May produce an allergic reaction.

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
epoxy resin (MW ≤ 700)	LD50 Dermal LD50 Oral	Rabbit Mouse	20 g/kg 15600 mg/kg	- -
2,3-epoxypropyl neodecanoate	LD50 Oral	Rat	>10 g/kg	-

Irritation/Corrosion

Section 11. Toxicological information

Product/ingredient name	Result	Species	Score	Exposure	Observation
epoxy resin (MW ≤ 700)	Eyes - Severe irritant	Rabbit	-	24 hours 2 milligrams	-
	Skin - Mild irritant	Rabbit	-	500 milligrams	-
2,3-epoxypropyl neodecanoate	Skin - Moderate irritant	Rabbit	-	0.5 Mililiters	-

Sensitisation

Product/ingredient name	Route of exposure	Species	Result
epoxy resin (MW ≤ 700)	skin	Mammal - species unspecified	Sensitising
2,3-epoxypropyl neodecanoate	skin	Mammal - species unspecified	Sensitising

Conclusion/Summary

Skin : May cause an allergic skin reaction.

Mutagenicity

Not available.

Conclusion/Summary : Suspected of causing genetic defects.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on likely routes of exposure : Not available.

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : No known significant effects or critical hazards.

Skin contact : Causes skin irritation. May cause an allergic skin reaction.

Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : No specific data.

Section 11. Toxicological information

Skin contact : Adverse symptoms may include the following:
irritation
redness

Ingestion : No specific data.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : Suspected of causing genetic defects.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Not available.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
epoxy resin (MW ≤ 700)	Acute EC50 1.4 mg/l Acute LC50 3.1 mg/l Chronic NOEC 0.3 mg/l	Daphnia Fish - pimephales promelas Fish	48 hours 96 hours 21 days

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
epoxy resin (MW ≤ 700)	-	-	Not readily
2,3-epoxypropyl neodecanoate	-	-	Not readily

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
epoxy resin (MW ≤ 700)	2.64 to 3.78	31	low
2,3-epoxypropyl neodecanoate	4.4	-	high

Section 12. Ecological information

Mobility in soil

Soil/water partition coefficient (K_{OC}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

Do not allow to enter drains or watercourses. Material and/or container must be disposed of as hazardous waste.

Section 14. Transport information

	ADG	ADR/RID	IMDG	IATA
UN number	UN3082	UN3082	UN3082	UN3082
UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s. (epoxy resin (MW ≤ 700), 2,3-epoxypropyl neodecanoate)	Environmentally hazardous substance, liquid, n.o.s. (epoxy resin (MW ≤ 700), 2,3-epoxypropyl neodecanoate)	Environmentally hazardous substance, liquid, n.o.s. (epoxy resin (MW ≤ 700), 2,3-epoxypropyl neodecanoate)	Environmentally hazardous substance, liquid, n.o.s. (epoxy resin (MW ≤ 700), 2,3-epoxypropyl neodecanoate)
Transport hazard class(es)	9	9	9	9
Packing group	III	III	III	III
Environmental hazards	Yes.	Yes.	Yes.	Yes.
Additional information	The product is not regulated as a dangerous good when transported by road or rail in either an IBC, or in other container types if ≤500 kg. This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the	This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8. **Hazard identification number** 90 **Tunnel code** (-)	This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8. **Emergency schedules** F-A, S-F	This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8.

Section 14. Transport information

	packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8. **Hazchem code** •3Z			

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to IMO instruments : Not available.

Marine pollutant substances : epoxy resin (MW ≤ 700), 2,3-epoxypropyl neodecanoate

Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in accordance with ADR/RID, IMDG/IMO and ICAO/IATA and national regulation.

This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.

Marking : The environmental hazardous / marine pollutant mark is only applicable for packages containing more than 5 litres for liquids and 5 kg for solids.

Section 15. Regulatory information

Standard for the Uniform Scheduling of Medicines and Poisons

5

Model Work Health and Safety Regulations - Scheduled Substances

No listed substance

Australia inventory (AIIC) : Not determined.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Section 16. Any other relevant information

History

Date of printing : 17.06.2023

Date of issue/Date of revision : 17.06.2023

Date of previous issue : 15.06.2023

Version : 1.09

Section 16. Any other relevant information

Key to abbreviations : ADG = Australian Dangerous Goods
ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
NOHSC = National Occupational Health and Safety Commission
SUSMP = Standard for the Uniform Scheduling of Medicines and Poisons
UN = United Nations

Procedure used to derive the classification

Classification	Justification
SKIN CORROSION/IRRITATION - Category 2	Calculation method
SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2A	Calculation method
SKIN SENSITISATION - Category 1	Calculation method
GERM CELL MUTAGENICITY - Category 2	Calculation method
LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2	Calculation method

References : Not available.

Indicates information that has changed from previously issued version.

Disclaimer

The information in this document is given to the best of Jotun's knowledge, based on laboratory testing and practical experience. Jotun's products are considered as semi-finished goods and as such, products are often used under conditions beyond Jotun's control. Jotun cannot guarantee anything but the quality of the product itself. Minor product variations may be implemented in order to comply with local requirements. Jotun reserves the right to change the given data without further notice.

Users should always consult Jotun for specific guidance on the general suitability of this product for their needs and specific application practices.

If there is any inconsistency between different language issues of this document, the English (United Kingdom) version will prevail.

Company requirements	Company reference document	ADES reference document	HAL reference document	Gaps to be bridged	Document primacy	Comments/Agreements
7.3.6 Documentation Management	11038-PDR-SSHE-304/01-R00 SSHE Documentation Management Procedure	ADM200 Document Control	Document Control (ST-GL-HAL-HMS-401)	None	PTTEP and ADES	A copy of the Company & Contractor SSHE Standards shall be readily available to all personnel on-site (electronic/hard copy/Intranet).
7.3.7 Training and Competence	11038-STD-SSHE-305-R06 SSHE Training and Competency Standard	P&O.06.01 Learning & Development Management and Competency Manual	Hiring, Training and Competency ST-GL-HAL-HMS-602	PTTEP SSHE Training requirement and legal/DMF requirements shall be incorporated with ADES and Halliburton Training Matrix for this project.	ADES Project SSHE Training Matrix Halliburton Project Training Matrix	PTTEP, ADES and Halliburton Managers are responsible for ensuring all personnel have sufficient competency to perform job assignment and to manage incidents and emergencies. ADES shall train their staff and assess competency in accordance with the training plan and training matrix (Appendix B1). ADES shall notify PTTEP if any change in critical positions/Key personnel (as per contract requirement) occurs and provide the new incumbents CV demonstrating competency for the position. The change in position must be approved by PTTEP

Company requirements	Company reference document	ADES reference document	HAL reference document	Gaps to be bridged	Document primacy	Comments/Agreements
						Contract Holder and Company Site Representative. Remark: Sr. and Jr. Safety officer shall be the local personnel as per the contract requirement. The Contractors (ADES and Halliburton) shall maintain job descriptions and competency profiles for personnel. Halliburton shall train their staff and assess competency in accordance with the training plan and training matrix (Appendix B2). Safety officer shall have qualification as per contract requirement.
7.3.8 Regulatory Compliance and Standard	11038-STD-SSHE-306-R04 SSHE Regulatory Compliance Standard	ISO45001/9001/14001/IADC/LOLER/IMO/MARPOL/100.34/API	Halliburton Management system Manual MAN-GL-HAL-HMS-100	None	Applicable Law and Regulations	PTTEP, ADES and Halliburton shall follow any applicable law and regulations which are related in the operation. ADES and Halliburton HSE Manager/Supervisor and SSHE Representative is responsible for ensuring regulatory compliance and keep up to date the Regional QHSE Legislative Register.

เอกสารนี้เป็นทรัพย์สินของ ปตท.สผ. ห้ามนำไปใช้ประโยชน์ หรือเผยแพร่ต่อบุคคลภายนอก โดยไม่ได้รับอนุญาตเป็นลายลักษณ์อักษรจากบริษัทฯ

ADES

CAMS

CORE ADES MANAGEMENT SYSTEM

LEVEL 02

MANUAL 04.2

WELL CONTROL

Table of Contents (TOC)

Document No.	Document Title	Rev No.
CAMS 04.2-01-GEN	**Well Control Introduction**	1
CAMS 04.2-02-GEN	**Well Control Requirements**	1
CAMS 04.2-03-GEN	**Well Control Roles and Responsibilities**	1
Standards		
CAMS 04.2-01-STD	Well Control Principles Standard	1
CAMS 04.2-02-STD	Well Control Shut-In Instructions Standard	1
CAMS 04.2-03-STD	Well Control Hardware components Standard	1
CAMS 04.2-04-STD	Well Control Operations Issues Guidance Standard	1
CAMS 04.2-05-STD	Well Control Training Requirements Standard	1
CAMS 04.2-06-STD	Well Control Equipment Management Standard	2
CAMS 04.2-06-STD-01	Dedicated Shear Accumulator Unit Drawdown Test	1
CAMS 04.2-06-STD-02	Main Accumulator Unit Drawdown Test	1
CAMS 04.2-01-PRO	Well Control Equipment Tracking	1

Manual Control Sheet (MCS)

Document No.	Document Title	Rev No.	Issue/Rev. Date	Comments
CAMS-04.2	Well Control Manual	01-00	16-09-2024	New Edition
CAMS 04.2-06-STD	Well Control Equipment Management Standard	01-00	13-02-2025	New Edition
CAMS 04.2-06-STD-01	Dedicated Shear Accumulator Unit Drawdown Test	01-00	13-02-2025	New Edition
CAMS 04.2-06-STD-02	Main Accumulator Unit Drawdown Test	01-00	13-02-2025	New Edition
CAMS 04.2-06-STD	Well Control Equipment Management	02-00	18-09-2025	Update procedure content, all changed items highlighted

Note:

All modifications and changes have been indicated with a left border line.

1.0 PURPOSE

1.1 The lifting operations procedure establishes the requirements and guidelines for safe lifting operations.

2.0 SCOPE

2.1 This procedure applies to all rigs and facilities owned or operated by ADES Company and its direct and indirect subsidiaries.

3.0 DEFINITIONS AND ACRONYMS

3.1 **Asymmetrical Load –** An object with an unknown center of gravity due to its shape or composition.

3.2 **Boom Angle -** The angle above or below horizontal of the longitudinal axis of the base of the boom section.

3.3 **CCU - Cargo Carrying Unit -** Load Carriers (Container/ Basket/ Half Height/ Tank/ Rack)

3.4 **PMS -** Preventive Maintenance System

3.5 **Competent Person -** A person who has been suitably trained to perform a task to the required standard, i.e., has completed the relevant training (such as crane operator school, rigger school, etc.) and has the applicable certifications required for the operations.

3.6 **Deck Crane -** A slewing crane for general use mounted on an installation and which is used to handle loads to and from boats.

3.7 **Elevated Working Platform -** A mechanically operated work platform that moves vertically in guides.

3.8 **Heavy Lift -** Any load weighing twenty (20) Metric ton or greater.

3.9 **Fixed Attachment Point for Lifting -** A place for temporary attachment of lifting equipment.

3.10 **Inspection -** A visual control of lifting equipment for defects and a check of operating controls, limit switches, and indicators.

3.11 **Lifting Appliance -** Mechanical support devices that do the lifting.

3.12 **Lifting Appliance Operator -** An individual who is qualified to operate mechanical support devices that do the lifting other than the deck crane.

3.13 **Lifting Accessories -** Below the hook rigging or equipment that connects items being lifted.

3.14 **Load Rating -** The crane ratings in pounds (kilograms) established by the manufacturer.

3.15 **Nominal Capacity -** The actual hook load that the crane is designed to lift in each operating condition. Nominal capacity for an offshore crane is stated in the crane's load chart for different significant wave heights.

3.16 **Personnel Lifting -** Operations where a lifting appliance transfers personnel to, from, and around offshore & Onshore rigs by suitable certified equipment and personnel carriers.

3.17 **Safe Working Load -** The maximum load the sling or lifting component is certified to withstand under normal use and in each configuration.

© ADES This document is copyrighted, and the content of this document is confidential and intended solely for the recipient. All printed or downloaded versions of this document are uncontrolled copies.

3.18 **Banksman -** A competent person who is responsible for directing the movement of the crane and the load.

3.19 **Significant Wave Height -** The average height of the highest third of prevailing waves, typically measured over a period of three hours. In general, the Significant Wave Height is about half the maximum wave height.

3.20 **Slinger -** The individual responsible for ensuring that all slings, chains, and hooks are properly secured on the load and that the load is prepared to travel.

3.21 **Snatch Block -** Consists of at least one sheave in a frame with an attachment point for rope, wire sling, or chain that can be attached to a load. Snatch Blocks are used in heavy lifts by helping give mechanical advantage and to change the direction in which a lifting appliance moves the load.

3.22 **Suspended Work Platform -** A mechanically operated work platform that can move freely.

3.23 **Swivel -** A load-carrying member with thrust bearings that permit rotation under load in a place perpendicular to the direction of the load.

3.24 **Tandem Lift -** Lifting a load with two or more cranes, lifting appliances, or hoists on a single crane.

3.25 **Temporary Lifting Appliance -** Lifting Appliances that are not permanently installed and used for rigging, for example, a chain hoist suspended from a beam clamp that will be removed as soon as the lift is complete.

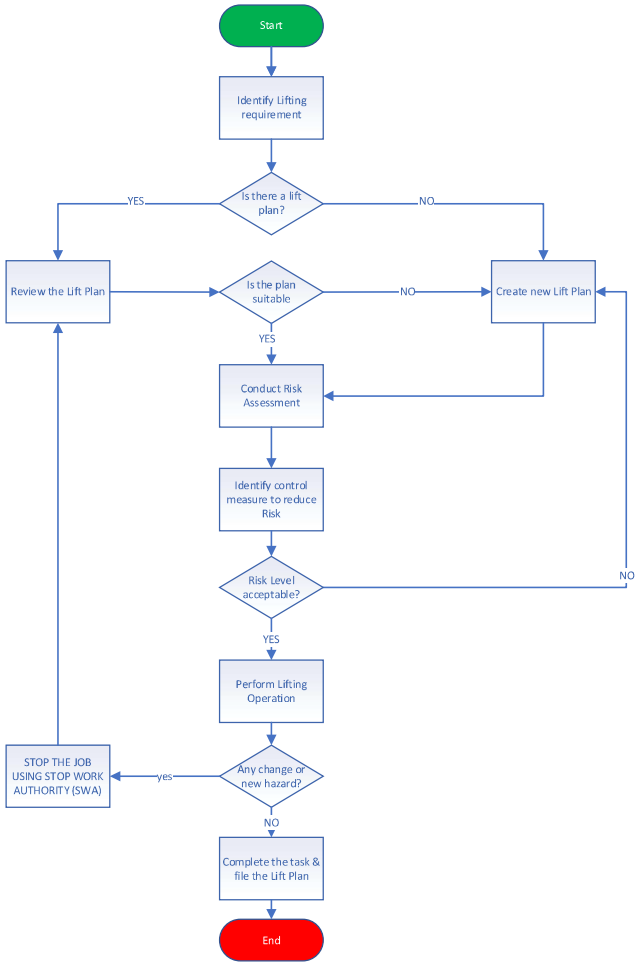
Note: If a chain hoist is part of a designed and permanent lifting arrangement it would not be considered temporary; for example, a certified and inspected lifting appliance that consists of a chain hoist attached to a trolley and trolley beam designed specifically, to assist in mud pump maintenance.

3.26 **Working Load Limit (WLL) -** The maximum load the lifting equipment is certified to withstand under normal usage.

© ADES This document is copyrighted, and the content of this document is confidential and intended solely for the recipient. All printed or downloaded versions of this document are uncontrolled copies.

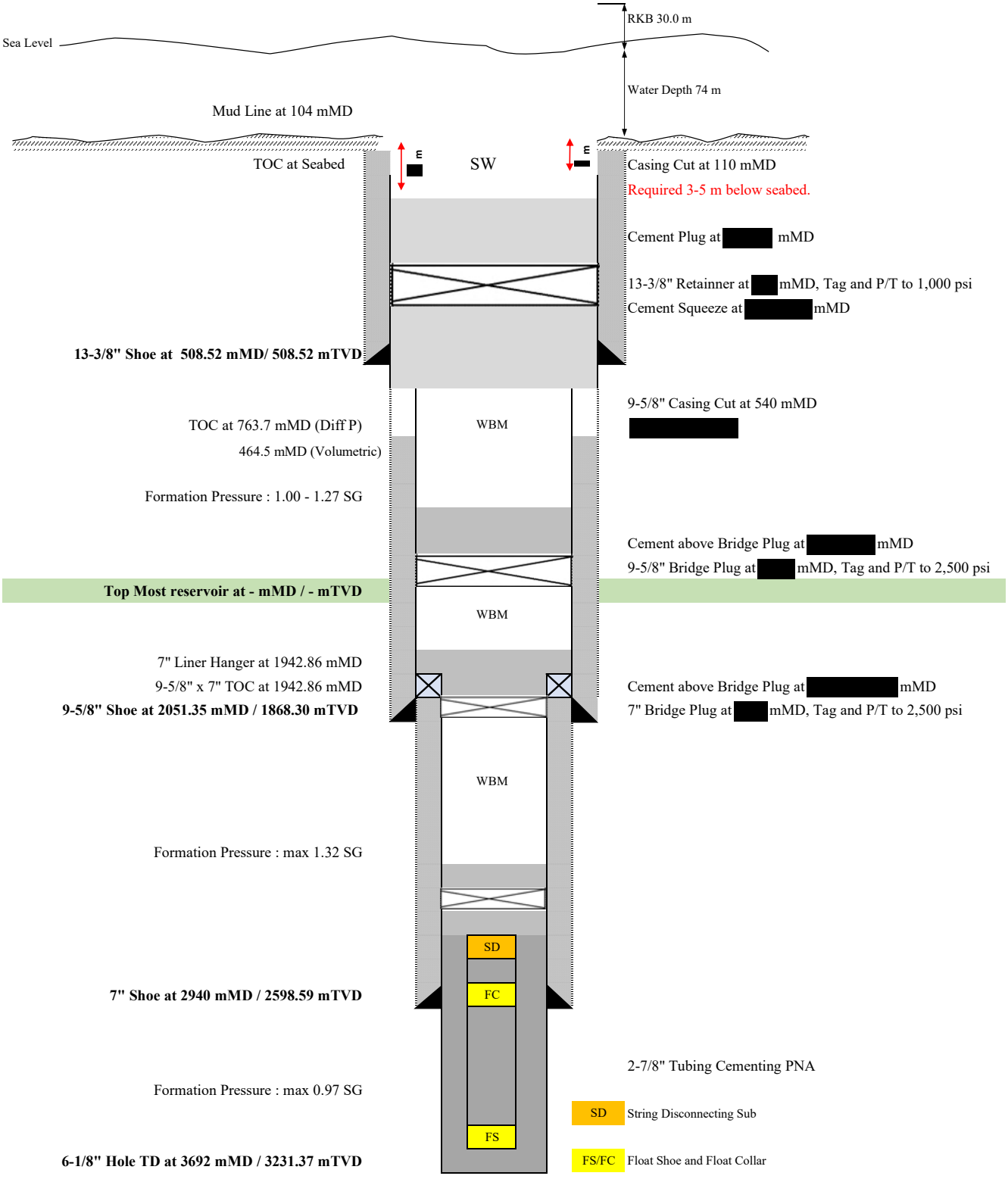
هذا المستند هو ملكية خاصة لشركة أدس ويحتوي على معلومات سرية ومحمية بحقوق الطبع والنشر

4.0 WORKFLOW



© ADES This document is copyrighted, and the content of this document is confidential and intended solely for the recipient. All printed or downloaded versions of this document are uncontrolled copies.

WWT-57B: Draft PNA Schematic - rev 2025.03.29



ภาคผนวกแท่นเจาะ-2

ใบรับรองต่าง ๆ ของแท่นเจาะที่ปฏิบัติงานในโครงการฯ

Certificate No.: 13228707-5680493-082

REPUBLIC OF LIBERIA
MINISTRY OF FINANCE
Bureau of Maritime Affairs

INTERNATIONAL SEWAGE POLLUTION PREVENTION CERTIFICATE

Issued under the provisions of
the International Convention for the Prevention of Pollution from Ships, 1973
as modified by the Protocol of 1978 relating thereto,
and as amended by resolution MEPC.115(51), (hereinafter referred to as "the Convention")
under the authority of the Government of:

Republic of Liberia
(name of state)

by **American Bureau of Shipping**

Particulars of Ship:

Name of ship	Distinctive number or letters	Port of Registry
ADMARINE 502	22391 5LIO3	Monrovia
Gross tonnage	Number of persons which the ship is certified to carry	IMO Number[1]
10429	150	8771265

New Ship / ~~Existing Ship~~ *

Type of ship for the application of regulation 11.3:*

~~New~~ / ~~Existing Passenger ship~~ *

Ship other than a passenger ship

Date on which keel was laid or ship was at a similar stage of construction or where applicable, date on which work for a conversion or an alteration or modification of a major character was commenced 05 October 2011

THIS IS TO CERTIFY:

(1) That the ship is equipped with a Sewage Treatment Plant / ~~Comminuter~~ / ~~Holding Tank~~ * and a discharge pipeline in compliance with regulations 9 and 10 of Annex IV of the Convention as follows:

*(1.1) **Description of the sewage treatment plant :**

Type of sewage treatment plant Super Trident ST13-C Biochemical Oxygen

Name of manufacturer Hamworthy Water Systems Limited

The sewage treatment plant is certified by the Administration to meet the effluent standards as provided for in resolution MEPC.159 (55).

~~*(1.2) Description of comminuter:~~

Type of comminuter N/A

Name of manufacturer N/A

Standard of sewage after disinfection N/A

~~*(1.3) Description of holding tank:~~

Total capacity of the holding tank N/A m^3

Location N/A

(1.4) A pipeline for the discharge of sewage to a reception facility, fitted with a standard shore connection.

* Delete as appropriate

1 In accordance with resolution A.600(15) - IMO Ship Identification Number Scheme, this information may be included voluntarily

(2) The ship has been surveyed in accordance with regulation 4 of Annex IV of the Convention.

(3) That the survey shows that the structure, equipment, systems, fittings, arrangements and material of the ship and the condition thereof are in all respects satisfactory and the ship complies with the applicable requirements of Annex IV of the Convention.

N/A

This certificate is valid until 14 April 2028 [2] subject to surveys in accordance with regulation 4 of Annex IV of the Convention.

Completion date of the survey on which this certificate is based: 17 February 2023

Issued at Offshore, Kingdom of Saudi Arabia on 17 February 2023

ABS

Electronically Signed By
[redacted] Dammam Port LTD
(Surveyor, American Bureau of Shipping)

DAMMAM

2 Insert the date of expiry as specified by the Administration in accordance with regulation 8.1 of Annex IV of the Convention. The day and the month of this date correspond to the anniversary date as defined in regulation 1.8 of Annex IV of the Convention.

แบบมาตรฐาน-2.1 International Sewage Pollution Prevention Certificate

Endorsement to extend the Certificate if valid for less than 5 years where regulation 8.3 applies.

The ship complies with the relevant provisions of the Convention, and this Certificate shall, in accordance with regulation 8.3 of Annex IV of the Convention, be accepted as valid until _____.

Signed: _____
(Signature of authorized official)

Place: _____

(Seal or Stamp of the authority, as appropriate) Date: _____

Endorsement where the renewal survey has been completed and regulation 8.4 applies.

The ship complies with the relevant provisions of the Convention, and this Certificate shall, in accordance with regulation 8.4 of Annex IV of the Convention, be accepted as valid until _____.

Signed: _____
(Signature of authorized official)

Place: _____

(Seal or Stamp of the authority, as appropriate) Date: _____

Endorsement where the renewal survey has been completed and regulation 8.5 or 8.6 applies.

This Certificate shall, in accordance with regulation 8.5 or 8.6 of Annex IV of the Convention, be accepted as valid until _____.

Signed: _____
(Signature of authorized official)

Place: _____

(Seal or Stamp of the authority, as appropriate) Date: _____

Certificate No.: 13228707-5680493-077

INTERNATIONAL OIL POLLUTION PREVENTION CERTIFICATE

REPUBLIC OF LIBERIA
MINISTRY OF FINANCE
Bureau of Maritime Affairs

(This Certificate shall be supplemented by a Record of Construction and Equipment)

Issued under the Provisions of the
International Convention for the Prevention of Pollution from Ships, 1973,
as modified by the Protocol of 1978 relating thereto and as amended,
(hereinafter referred to as "the Convention")
under the authority of the Government of

Republic of Liberia
(name of state)

by American Bureau of Shipping

Particulars of Ship

Name of Ship	Distinctive Number or Letters	Port of Registry
ADMARINE 502	22391 5LIO3	Monrovia
Gross Tonnage [1] a) According to footnote 1[2] ~~b) According to footnote 1~~[3]	Maximum Deadweight of Ship (metric tons) [4]	IMO Number
10429	-	8771265

Type of Ship[1] :
~~Oil Tanker~~ –
~~Ship other than an oil tanker with cargo tanks coming under Regulation 2(2) of Annex I of the Convention~~ –
Ship other than any of the above

THIS IS TO CERTIFY:

1. That the ship has been surveyed in accordance with Regulation 6 of Annex I of the Convention;
2. That the survey shows that the structure, equipment, systems, fittings, arrangement and material of the ship and the condition thereof are in all respects satisfactory and that the ship complies with the applicable requirements of Annex I of the Convention.

This Certificate is valid only when Supplement Form A issued at Offshore, Kingdom of Saudi Arabia on 17 February 2023 is attached.

This certificate is valid until **14 April 2028** [5] subject to surveys in accordance with Regulation 6 of Annex I of the Convention.

Completion date of the survey on which this certificate is based: **17 February 2023**

Issued at Offshore, Kingdom of Saudi Arabia *(Place of Issue of Certificate)* on 17 February 2023 *(Date of Issue)*

ABS

Electronically Signed By
[redacted] **Dammam Port LTD**
Surveyor, American Bureau of Shipping

1 Delete as appropriate
2 The above gross tonnage has been determined in accordance with the International Convention on Tonnage Measurement of Ships, 1969.
3 The above gross tonnage has been determined by the authorities of the Administration in accordance with the national tonnage rules which were in force prior to the coming into force for existing ships of the International Convention on Tonnage Measurement of Ships, 1969.
4 For oil tankers.
5 Insert the date of expiry as specified by the Administration in accordance with regulation 10.1 of Annex I of the Convention. The day and the month of date corresponds to the anniversary date as defined in regulation 1.27 of Annex I of the Convention, unless amended in accordance with regulation 10.8 of Annex I of the Convention.

Certificate No.: 13228707-5680493-077

ENDORSEMENT FOR ANNUAL AND INTERMEDIATE SURVEYS

THIS IS TO CERTIFY that, at a survey required by Regulation 6 of Annex I of the Convention, the ship was found to comply with the relevant requirements of the Convention.

Annual Survey:
Signed: [redacted] Electronically Signed By [redacted] Dammam Port LTD
(Surveyor, American Bureau of Shipping)
Place: Offshore, Kingdom of Saudi Arabia
Date: 26 March 2024

Annual / Intermediate[1] Survey:
Signed: *(Surveyor, American Bureau of Shipping)*
Place:
Date:

Annual / Intermediate[1] Survey:
Signed: *(Surveyor, American Bureau of Shipping)*
Place:
Date:

Annual Survey:
Signed: *(Surveyor, American Bureau of Shipping)*
Place:
Date:

ABS

1 Delete as appropriate

ภาคผนวก-2.2 International Oil Pollution Prevention Certificate

ANNUAL / INTERMEDIATE SURVEY IN ACCORDANCE WITH REGULATION 10.8.3

THIS IS TO CERTIFY that, at an annual / intermediate[1] survey in accordance with Regulation 10.8.3 of Annex I of the Convention, the ship was found to comply with the relevant provisions of the Convention.

Signed: _____
(Surveyor, American Bureau of Shipping)

Place: _____

Date: _____

ENDORSEMENT TO EXTEND THE CERTIFICATE IF VALID FOR LESS THAN 5 YEARS WHERE REGULATION 10.3 APPLIES

The ship complies with the relevant provisions of the Convention, and this Certificate shall, in accordance with Regulation 10.3 of Annex I of the Convention, be accepted as valid until _____

Signed: _____
(Surveyor, American Bureau of Shipping)

Place: _____

Date: _____

ENDORSEMENT WHERE THE RENEWAL SURVEY HAS BEEN COMPLETED AND REGULATION 10.4 APPLIES

The ship complies with the relevant provisions of the Convention, and this Certificate shall, in accordance with Regulation 10.4 of Annex I of the Convention, be accepted as valid until _____

Signed: _____
(Surveyor, American Bureau of Shipping)

Place: _____

Date: _____

ENDORSEMENT TO EXTEND THE VALIDITY OF THE CERTIFICATE UNTIL REACHING THE PORT OF SURVEY OR FOR A PERIOD OF GRACE WHERE REGULATION 10.5 OR 10.6 [1] APPLIES

This Certificate shall, in accordance with regulation 10.5 /10.6 [1] of Annex I of the Convention, be accepted as valid until _____

Signed: _____
(Surveyor, American Bureau of Shipping)

Place: _____

Date: _____

1 Delete as appropriate

ENDORSEMENT FOR ADVANCEMENT OF ANNIVERSARY DATE WHERE REGULATION 10.8 APPLIES

In accordance with Regulation 10.8 of Annex I of the Convention, the new anniversary date is _____

Signed: _____
(Surveyor, American Bureau of Shipping)

Place: _____

Date: _____

In accordance with Regulation 10.8 of Annex I of the Convention, the new anniversary date is _____

Signed: _____
(Surveyor, American Bureau of Shipping)

Place: _____

Date: _____

Certificate No.: 13228707-5783197-090

REPUBLIC OF LIBERIA
MINISTRY OF FINANCE
Bureau of Maritime Affairs

MOBILE OFFSHORE DRILLING UNIT SAFETY CERTIFICATE (1989)

ISSUED UNDER THE PROVISIONS OF THE IMO CODE FOR
THE CONSTRUCTION AND EQUIPMENT OF MOBILE OFFSHORE DRILLING UNITS, 1989 AS AMENDED
UNDER THE AUTHORITY OF THE GOVERNMENT OF

Republic of Liberia
Name of State

By American Bureau of Shipping

Distinctive Identification (Name or Number)	Type (Section 1.3 of the Code)	Port of Registry
ADMARINE 502	Self Elevating Unit	Monrovia
22391 5LIO3		
8771265		

Date on which keel was laid or unit was at a similar stage of construction or on which major conversion was commenced
05 October 2011

THIS IS TO CERTIFY:

1. That the above-mentioned unit has been duly surveyed in accordance with the applicable provisions of the Code for the Construction and Equipment of Mobile Offshore Drilling Units, 1989.
2. That the survey showed that the structure, equipment, fittings, radio station arrangements and materials of the unit and the condition thereof are in all respects satisfactory and that the unit complies with the relevant provisions of the Code.
3. That the life-saving appliances provide for a total number of 150 persons and no more as follows:
   Four(4) rigid totally enclosed motor propelled and fire-protected survival craft of aggregate capacity for 300 persons.
   Six(6) survival craft, capable of floating and breaking free in the event of the unit becoming submerged of aggregate capacity for 150 persons.
   One (1) rescue boats capable of carrying 6 persons.
   213 Lifejackets and - immersion suits
4. That, in accordance with Section 1.4 of the Code if applicable, the provisions of the Code are modified in respect of the unit in the following manner:
   - Requirements of Immersion Suits Reg. 10.12.1
5. That this Unit has been issued with an approval for the continuous survey techniques under paragraph 1.6.4 of the Code in lieu of periodical and intermediate surveys in respect of:
   Hull [–] Machinery [–]

(Signature and Seal of approving authority) (Date of continuous survey programme approval)

That the survey showed that unit complies with the applicable shipborne navigational equipment requirements of Chapter V of SOLAS.

Completion date of the survey on which this certificate is based: 13 April 2023

This Certificate is valid until 14 April 2028

Issued at Offshore, Kingdom of Saudi Arabia (Place of issue of Certificate) on 13 April 2023 (Date of issue of Certificate)

Electronically Signed By
[redacted]ammam Port LTD
Surveyor, American Bureau of Shipping
(Seal or stamp of the issuing authority, as appropriate)

ENDORSEMENT FOR ANNUAL AND INTERMEDIATE SURVEYS

THIS IS TO CERTIFY that, at a survey under Section 1.6 of the 1989 MODU Code, this unit was found to comply with the relevant provisions of the Code.

Annual Survey:
Signed: Electronically Signed By [redacted]Port LTD
(Surveyor, American Bureau of Shipping)
Place: Offshore, Kingdom of Saudi Arabia
Date: 26 March 2024

Annual / ~~Intermediate~~[1] Survey:
Signed: Electronically Signed By [redacted]Bangkok Port
(Surveyor, American Bureau of Shipping)
Place: Offshore, Gulf of Thailand
Date: 20 June 2025

Annual / Intermediate[1] Survey:
Signed:
(Surveyor, American Bureau of Shipping)
Place:
Date:

Annual Survey:
Signed:
(Surveyor, American Bureau of Shipping)
Place:
Date:

1 Delete as appropriate.

ภาคผนวก 2-2.3 Mobile Offshore Unit Safety Certificate

ANNUAL / INTERMEDIATE SURVEY IN ACCORDANCE WITH PARAGRAPH 1.6.11.7.3 OF THE CODE

THIS IS TO CERTIFY that, at an annual / intermediate[1] survey in accordance with paragraph 1.6.11.7.3 of the Code, this unit was found to comply with the relevant provisions of the Code.

Signed: _____

(Surveyor, American Bureau of Shipping)

Place: _____

Date: _____

ENDORSEMENT FOR THE DRY-DOCK SURVEY

THIS IS TO CERTIFY that, at a survey under Section 1.6 of the Code, this unit was found to comply with the relevant provisions of the Code.

First Inspection:

Signed: _____

(Surveyor, American Bureau of Shipping)

Place: _____

Date: _____

Second Inspection:

Signed: _____

(Surveyor, American Bureau of Shipping)

Place: _____

Date: _____

1 Delete as appropriate.

ENDORSEMENT TO EXTEND THE CERTIFICATE IF VALID FOR LESS THAN 5 YEARS WHERE PARAGRAPH 1.6.11.3 OF THE CODE APPLIES

This unit complies with the relevant provisions of the Code, and this certificate should, in accordance with paragraph 1.6.11.3 of the Code, be accepted as valid until _____

Signed: _____

(Surveyor, American Bureau of Shipping)

Place: _____

Date: _____

ENDORSEMENT WHERE THE RENEWAL SURVEY HAS BEEN COMPLETED AND PARAGRAPH 1.6.11.4 OF THE CODE APPLIES

This unit complies with the relevant provisions of the Code, and this certificate should, in accordance with paragraph 1.6.11.4 of the Code, be accepted as valid until _____

Signed: _____

(Surveyor, American Bureau of Shipping)

Place: _____

Date: _____

ENDORSEMENT TO EXTEND THE VALIDITY OF THE CERTIFICATE UNTIL REACHING THE PORT OF SURVEY WHERE PARAGRAPH 1.6.11.5 OF THE CODE APPLIES

This Certificate should, in accordance with paragraph 1.6.11.5 of the Code, be accepted as valid until _____

Signed: _____

(Surveyor, American Bureau of Shipping)

Place: _____

Date: _____

ENDORSEMENT FOR THE ADVANCEMENT OF THE ANNIVERSARY DATE WHERE PARAGRAPH 1.6.11.7 OF THE CODE APPLIES

In accordance with paragraph 1.6.11.7 of the Code, the new anniversary date is _____

Signed: _____

(Surveyor, American Bureau of Shipping)

Place: _____

Date: _____

In accordance with paragraph 1.6.11.7 of the Code, the new anniversary date is _____

Signed: _____

(Surveyor, American Bureau of Shipping)

Place: _____

Date: _____

ภาคผนวกแท่นเจาะ-3

บันทึกต่าง ๆ ของแท่นเจาะที่ปฏิบัติงานในโครงการฯ

NAME OF SHIP: ADM 502
DISTINCTIVE NUMBER OR LETTERS: 5LI03
IMO NUMBER: 8771265
MACHINERY SPACE OPERATIONS

DATE (dd-MONTH-yyyy)	CODE (letter)	ITEM (number)	Record of operations/signature of officer in charge of operation concerned
29-JUN-25	H	26.1	WP-07, PLATFORM Lat: 08° 00' 16.13"N
			Long: 102° 24' 37.839"E
			GULF OF THAILAND
		26.2	START : 02:02 (COMPLETED) STOP - 04:12 HRS
		26.3	RECVD 150 m³ (124.5 MT) OF DIESEL
			INTO FO # 2P. FROM BOS CHALLENGE
			TOTAL CONTENT # 368 m³ [redacted]
07-JULY-2025	C	11.1	DIRTY OIL TANK P.dm
		11.2	8.32 m³
		11.3	6.7 m³
06-JULY-2025	H	26.1	WP 7, PLATFORM Ø 08° 00' 16.13" N, A 102° 24' 37.839" E
			GULF OF THAILAND
		26.2	START : 2301 HRS, STOP : 2359 HRS
		26.3	RCVD' 200 m³ (167 MT) OF DIESEL INTO
			F/O TK 2P FROM BOS CHALLENGE [redacted]
			TOTAL CONTENT 390 m³
9 JULY-2025	Partial C B	11.1 B	DIRTY OIL DRUMS (200 LITRES X 8 DRUMS)
		26.1	WP7 PLATFORM Ø 08° 00' 16.13"N, A 102° 24' 37.839"E
		11.1	1
		11.1	200 LITRES X 8 DRUMS = 1.6 m³ BACKLOADED TO
			BOS CHALLENGE TO SUL SUBORBASE
14-July-2025	C	11.1	DIRTY OIL TANK
		11.2	8.32 m³ [redacted]
		11.3	6.7 m³

Signature of Master: [redacted]

16

NAME OF SHIP: ADM 502
DISTINCTIVE NUMBER OR LETTERS: 5LI03
IMO NUMBER: 8771265
MACHINERY SPACE OPERATIONS

DATE (dd-MONTH-yyyy)	CODE (letter)	ITEM (number)	Record of operations/signature of officer in charge of operation concerned
18-Jun-25	H	26.1	WP-7 PLATFORM @ 0800ON λ 103 24.3 E
			GULF OF THAILAND
		26.2	START : 1948, STOP : 2218 HRS.
		26.3	RCVD 150 m³ (131 MT) OF DIESEL INTO
			FO.TK # 2P FROM MV. B. JINDARATNEE
			TOTAL CONTENT 386 m³ (337 MT)
21-July-2025	C	11.1	DIRTY OIL TANK
		11.2	8.32 m³
		11.3	2.14 m³
04-AUGUST-2025	H	26.1	WP 17 PLATFORM Ø 07°52'54"N, λ 102°22'36"E
			GULF OF THAILAND
		26.2	START : 1336 HRS STOP : 1515 HRS
		26.3	RCVD' 150 m³ (131 MT) OF DIESEL INTO F/O TK#2P
			FROM BANTERA MULIA, TOTAL CONTENT 194 m³ (164 MT)
07-AUGUST-2025	C	11.1	DIRTY OIL TANK
		11.2	8.32 m³
		11.3	2.38 m³
14-AUGUST-2025	H	26.1	WP 17 PLATFORM Ø 07°52'54"N, λ 102°22'36"E
			GULF OF THAILAND [redacted]
		26.2	START 1600 HRS, STOP 1730 HRS
		26.3	RCVD 100 m³ (82.9 MT) OF DIESEL INTO F/O TK#2S
			FROM TAN CANG 89, TOTAL CONTENT 218.5 m³ (181 MT)

Signature of Master: [redacted]

17

OIL RECORD BOOK

PART I – MACHINERY SPACE OPERATIONS
(ALL SHIPS)

The Republic of Liberia
Liberia Maritime Authority

NAME OF SHIP: ADM 502
IMO NUMBER: 8771265
NUMBERS OR LETTERS: 5LI03
GROSS TONNAGE: 10430
DEADWEIGHT IN METRIC TONS: 3129
SHIP TYPE: MODU (SPECIFY)
COVERING THE PERIOD: FROM _____ TO _____

Note: Oil Record Book Part I shall be provided to every oil tanker of 150 gross tonnage and above and every ship of 400 gross tonnage and above, other than oil tankers, to record relevant machinery space operations. For oil tankers, Oil Record Book Part II shall also be provided to record relevant cargo/ballast operations.

THIS ENTRY LOG MUST BE PRESERVED FOR THREE (3) YEARS FROM DATE OF LAST ENTRY

RLM-121 REV 2011

NAME OF SHIP: ADM 502
DISTINCTIVE NUMBER OR LETTERS: 5LI03
IMO NUMBER: 8771265
MACHINERY SPACE OPERATIONS

DATE (dd-MONTH-yyyy)	CODE (letter)	ITEM (number)	Record of operations/signature of officer in charge of operation concerned
19-AUGUST-2025	C	11.1	DIRTY OIL TANKS
		11.2	8.32 m³
		11.3	2.97 m³
21-AUGUST-2025 TO 22-AUGUST-2025	H	26.1	WP 12 PLATFORM @ 07°52'54"N, 102°22'16"E GULF OF THAILAND, PTTEP
		26.2	START 2024 (21 AUG 25), STOP 0124 (22 AUG 25)
		26.3	RCVD 230 m³ (190 MT) OF DIESEL INTO TK 2P, 2S FROM TC JUPITER, TOTAL CONTENT 312 m³ (256 MT)
~~22-AUGUST~~ 21-AUGUST			
21-AUGUST-2025	C	11.1	DIRTY OIL TANKS
		11.2	8.32 m³
		11.3	3.09 m³
24-AUGUST-2025	C	11.1	DIRTY OIL TANK
		11.2	8.32 m³
		11.3	3 m³
31-AUGUST-2025	C	12.1	DIRTY OIL DRUMS (200 LITERS X 5 DRUMS) = 1M³
		12.1	DIRTY OIL ~~Drums~~ TOTE TANKS (1.5 m³ X 2 TANKS) = 3 m
		12.1	4 m³ OF DIRTY OIL BACKLOAD TO PORT SONGKHLA
			VIA BOS CHALLENGE BY INDICATED CONTAINMENT.
01-September-2025	H	26.1	WP-14 Lat: 07° 53.0'N Long: 102° 24'E Gulf of Thailand
		26.2	START 09:53 HRS, STOP 1230 HRS
		26.3	RCVD: 150 m³ (124 MT) of Diesel Into Tk 1P & 2S, From BB Jimdamaru 00
			Total Content 285 m³ (235 MT)

ADM SHIPPING OMI 9771265 ADMSHINE 502

Signature of Master:

18

NAME OF SHIP: ADM 502
DISTINCTIVE NUMBER OR LETTERS: 5LI03
IMO NUMBER: 8771265
MACHINERY SPACE OPERATIONS

DATE (dd-MONTH-yyyy)	CODE (letter)	ITEM (number)	Record of operations/signature of officer in charge of operation concerned
07-SEPTEMBER-2025	H	26.1	WP-17 PLATFORM @ 07°52'54"N & 102°22'16"E GULF OF THAILAND PTTEP
		26.2	START 1600 Hrs, STOP 1742 hrs.
		26.3	RCVD 80 m³ (66.4 MT) OF DIESEL INTO TK 2S FROM BOS CHALLENGE, TOTAL CONTENT 334M³ (272 MT)
07-SEPTEMBER-2025	C	11.1	DIRTY OIL TANK
		11.2	8.32 m³
		11.3	3.65 m³
12-SEP-2025	H	26.1	WP-17 PLATFORM @ 07° 53.54"N & 102° 22.16" E GOF
		26.2	START 1312 HRS, STOP 15.00 HRS
		26.3	RCVD 150 m³ (131.25 MT) OF DIESEL INTO TANK 2P FROM MV. MULIA, TOTAL CONTENT 350 m³ (306.25 MT)
14-SEP-2025	C	11.1	DIRTY OIL TANK
		11.2	8.32 m³
		11.3	3.82 m³
21-SEP-2025	C	11.1	DIRTY OIL TANK.
		11.2	8.32 m³
		11.3	3.95 m³

Signature of Master:

19

NAME OF SHIP:
DISTINCTIVE NUMBER OR LETTERS:
IMO NUMBER:
MACHINERY SPACE OPERATIONS

DATE (dd-MONTH-yyyy)	CODE (letter)	ITEM (number)	Record of operations/signature of officer in charge of operation concerned

Signature of Master:

20

NAME OF SHIP:
DISTINCTIVE NUMBER OR LETTERS:
IMO NUMBER:
MACHINERY SPACE OPERATIONS

DATE (dd-MONTH-yyyy)	CODE (letter)	ITEM (number)	Record of operations/signature of officer in charge of operation concerned

Signature of Master:

21

DISPATCH ADVISE NOTE FORM

DAN # : ADM502-WP-17-022/2025
Date : 20-Sep-25

☐ G1/61 ☐ PTTEPI
☐ Arthit ☐ B13 / 38 ☑ Others, specify.....

FROM	TO	MEAN OF TRANSPORT	DATE/TIME DEPARTURE
RIG ADM502 (WP-17)	SKL JETTY	BOS CHALLENGE	

NO	ITEM NUMBER	QTY	UNIT	DESCRIPTION	WO/SIR	PO	Wt (Kgs)
1		1	SKIP	BLUE RUBBISH SKIP WITH GENERAL WASTE No.'BS6-006			4,000
2		1	CTN	CARTON BOX CONTAINED : Chemical product sample from Rig ADM502 [redacted]			10 Kgs

BAKER HUGHES
SDF CHEMICALS SAMPLE
CONTENT:
- OVAGEL HT
- OVA-VIS
- LIME
- MAGMA-PLEX™ 1822DF
- MAGMA-TROL 472 DF
- Calcium Chloride 5008DF
- OVATROL XHT
- OVA TROL HT
- CARBOMUL TH 9061DF
- MUL HT 450 9061DF
- MIL-BAR™ 1151DF

BHI MUD ENGINEER [redacted]

ADM 502 COMPANY MAN [redacted]

PREPARED AND ISSUED	RECEIVED AND CHECK	COMMENT ON RECEPTION	PACKING DETAILS :
Name: [redacted]	Name :		-Total of packings(s) :
Date : 20-Sep-25	Date :		-DIM :
			-Total weight (kgs.) :

แนบเอกสาร 3.2 ข้อมูลการขนส่งสินค้าอันตราย

ใบกำกับการขนส่งของเสียอันตราย
(Uniform Hazardous Waste Manifest)

หมายเลขใบกำกับการขนส่งของเสียอันตราย : Manifest No. 6194

1. ส่วนของผู้ก่อกำเนิดของเสียอันตราย : This section must be completed by the Generator

1) ชื่อ : name อะเดส ฟอร์ ดิสสิ่ง เซอร์วิสเซอ เคลลีดี | 2) เลขประจำตัวผู้ก่อกำเนิดของเสียอันตราย : Generator's ID

สถานก่อกำเนิด : Generator address 159 ม.2 ต.ชิงโค อ.เมืองสระแก้ว จ.สระแก้ว 27000 โทรศัพท์ : Phone โทรสาร : Fax. กรณีฉุกเฉิน : Emergency

3) ผู้ขนส่งของเสียอันตราย : Transporter

รายที่ 1 ชื่อบริษัท : First company name บจก.สยาม เพาเวอร์ ออยล์ | เลขประจำตัวผู้ขนส่งของเสียอันตราย รายที่ 1 : Transporter's ID DEW-T 095600011

รายที่ 2 ชื่อบริษัท : Second company name | เลขประจำตัวผู้ขนส่งของเสียอันตราย รายที่ 2 : Transporter's ID

4) ผู้เก็บรวบรวม ปรับปรุง และกำจัดของเสียอันตราย : Treatment Storage Disposal Facilities (TSDF's)

รายที่ 1 ชื่อบริษัท : First TSDF 's name บจก.สยาม เพาเวอร์ ออยล์ | เลขประจำตัวผู้เก็บรวบรวม บำบัด และกำจัดของเสียอันตราย รายที่ 1 Disposer's ID DEW-D-075600015

รายที่ 2 ชื่อบริษัท : Second TSDF's name | เลขประจำตัวผู้เก็บรวบรวม บำบัด และกำจัดของเสียอันตราย รายที่ 2 Disposer's ID

5) รายละเอียดของของเสียอันตรายที่ขนส่งครั้งนี้ :

ลำดับ No.	รายละเอียด (Description)	รหัสของเสียอันตราย : Waste ID	หมวดข้อวัสดุที่ไม่ใช้แล้ว หมวด	ชนิด	ภาชนะบรรจุ : Containers จำนวน : No.	ชนิด : Type	ปริมาตรสุทธิ Quantity	หน่วยน้ำหนัก Unit Wt/Vol	รายละเอียดเพิ่มเติม Additional Information
1	น้ำมันใช้แล้ว	13 02 08	13	08	1	Tank Truck	31,600	ลิตร	

รวมปริมาตรของเสียอันตรายทั้งหมด : Total Quantity ของเหลว : liquid 31,600 ลิตร / ลูกบาศก์เมตร : Liters / cu.m ของแข็ง : solid – กิโลกรัม / ตัน : Kgs. / tons

6) การปฏิบัติที่มีลักษณะพิเศษและข้อมูลเพิ่มเติม
Special handling Instructions and additional information

7) คำรับรอง : ข้าพเจ้าขอรับรองว่าได้ส่งมอบของเสียอันตรายแล้วตามที่ระบุข้างต้น และมีการบรรจุคีดป้ายหรือฉลากอย่างเหมาะสมตรงตามข้อกำหนดของกฎหมายทุกประการ
Generator Certificate : I hereby declare that the contents of this consignment are accurately described above and have been packed and labeled and are in proper condition for transport according to regulation.

ลงชื่อ Generator's name [redacted] ลายเซ็น : Signature [redacted] วันที่ : Date 8 เดือน : Month NOV พ.ศ. : Year 2025

2. ส่วนของผู้ขนส่งของเสียอันตราย : This section must be completed by the Transporter

1) ชื่อผู้ขนส่งรายที่ 1 : Transporter's name บจก.สยาม เพาเวอร์ ออยล์
เลขประจำตัวผู้ขนส่ง Transporter's ID. DEW-T 095600011
โทรศัพท์ : Phone 074 305700
โทรสาร : Fax. ฉุกเฉิน : Emergency 089-4178445

2) พาหนะที่ใช้ Vehicle: ☑ รถบรรทุก Truck ☐ รถไฟ Train ☐ เรือ Ship ☐ เครื่องบิน Plane

3) เลขทะเบียนพาหนะ : Vehicle ID. 71-7128 สพ / 71-8989 สพ

4) คำรับรอง : ข้าพเจ้าขอรับรองว่าได้ส่งมอบของเสียอันตรายแล้วตามที่ระบุข้างต้น และการขนส่งเป็นไปตามข้อกำหนดของกฎหมายทุกประการ
Transporter Certification : I hereby declare that I have received the type and quantity of waste as described above by the generator and that waste has been transported according to regulations.

โดยขนส่งจากจังหวัด : From สระแก้ว ไปยังจังหวัด : To สระแก้ว ใช้ระยะเวลาประมาณ : Time spending 3 ชม. / วัน : hours / day

ลงชื่อผู้ขนส่งรายที่ 1 : Transporter's name นายสมชาย นวลแก้ว ลายเซ็น : Signature วันที่ : Date 8 เดือน : Month 11 พ.ศ. : Year 25

5) ชื่อผู้ขนส่งรายที่ 2 : Transporter's name
เลขประจำตัวผู้ขนส่ง : Transporter's ID.
โทรศัพท์ : Phone
โทรสาร : Fax. ฉุกเฉิน : Emergency

6) พาหนะที่ใช้ Vehicle: ☐ รถบรรทุก Truck ☐ รถไฟ Train ☐ เรือ Ship ☐ เครื่องบิน Plane

7) เลขทะเบียนพาหนะ : Vehicle ID.

8) คำรับรอง : ข้าพเจ้าขอรับรองว่าได้ส่งมอบของเสียอันตรายแล้วตามที่ระบุข้างต้น และการขนส่งเป็นไปตามข้อกำหนดของกฎหมายทุกประการ
Transporter Certification : I hereby declare that I have received the type and quantity of waste as described above by the generator and that waste has been transported according to regulations.

โดยขนส่งจากจังหวัด : From ไปยังจังหวัด : To ใช้ระยะเวลาประมาณ : Time spending ชม. / วัน : hours / day

ลงชื่อผู้ขนส่งรายที่ 1 : Transporter's name ลายเซ็น : Signature วันที่ : Date เดือน : Month พ.ศ. : Year

3. ส่วนของผู้ประกอบการสถานเก็บรวบรวม บำบัด และกำจัดของเสียอันตราย : This section must be completed by TSDF's

1) ชื่อผู้รับกำจัด : TSDF's name บจก.สยาม เพาเวอร์ ออยล์
สถานที่กำจัด : TSDF's address 228 ม.14 ต.ชิงโค อ.เมืองสระแก้ว จ.สระแก้ว 27000

2) เลขประจำตัวผู้รับกำจัด : TSDF's ID. DEW-D-075600015
โทรศัพท์ : Phone 074-305700
โทรสาร : Fax. กรณีฉุกเฉิน : Emergency 089-4178445

3) คำรับรอง : ข้าพเจ้าขอรับรองว่าได้รับของเสียอันตรายแล้วตามปริมาณที่ระบุข้างต้นนี้ TSDF certificate of arrival : I hereby declare that I have received the reference load.
และสามารถกำจัดของเสียที่รับมานี้ได้ภายในระยะเวลา : Treatment period ☐ วัน : day ☐ เดือน : month ☐ ปี : Year นับจากวันที่ได้รับของเสีย : since the day that received waste

ลงชื่อผู้รับกำจัด : TSDF's name นายสำราญ ชมเมืองสระแก้ว ลายเซ็น : Signature วันที่ : Date เดือน : Month พ.ศ. : Year

4) กรณีของเสียอันตรายไม่ตรงตามที่แจ้ง : Discrepancy Notification

ประเภทของเสียอันตราย : Type of waste ปริมาณ : Quantity

การดำเนินงาน : Action taken ☐ ส่งคืน : Returned ☐ จัดประเภทใหม่ : Reclassified / รหัส : Waste ID ☐ รับกำจัด : Accepted

เหตุผล : Reason of action

วันที่ส่งคืน : Date returned / / (วัน/เดือน/ปี : dd/mm/yy/) หมายเลขใบกำกับการขนส่งของเสียอันตรายที่ส่งกลับ : Returned manifest no

ชื่อผู้ส่งคืน : TSDF's name ลายเซ็นผู้ส่งคืน : TSDF's Signature

หมายเหตุ : 1. หลังจากการดำเนินการสิ้นสุด ใบกำกับการขนส่งของเสียอันตรายแต่ละฉบับจะถูกที่สถานที่ต่างๆ ดังนี้ ฉบับที่ 2
ฉบับที่ 1 (ต้นฉบับ) กรมโรงงานอุตสาหกรรม ฉบับที่ 2 ผู้ก่อกำเนิดของเสียอันตราย ฉบับที่ 3 กรมโรงงานอุตสาหกรรม ฉบับที่ 4 ผู้ขนส่งของเสียอันตราย
ฉบับที่ 5 ผู้ประกอบการสถานเก็บรวบรวม บำบัด และกำจัดของเสียอันตราย ฉบับที่ 6 ผู้ก่อกำเนิดของเสียอันตราย
2. ของเสียอันตรายเป็นสิ่งปฏิกูลหรือวัสดุที่ใช้แล้ว ตามประกาศกระทรวงอุตสาหกรรม ฉบับที่ 6 (พ.ศ. 2540) ออกตามความในพระราชบัญญัติโรงงาน พ.ศ. 2535 ให้ระบุลักษณะและคุณสมบัติ (หมวด ข้อ) ตามบัญชีแนบท้ายประกาศ

ADES	JOB SAFETY ANALYSIS การวิเคราะห์ความปลอดภัยในการทำงาน	DOCUMENT NO: CAMS 02.1-03-PRO-01-ADM502-D-012
		REV: 0 / PAGE: 1 of
RIG/FACILITY: ADMARINE502 ชื่อริก: แอดมารีน 502	DATE & TIME : วันที่ & เวลา:	JOB SUPERVISOR: หัวหน้างานที่ควบคุมงานนี้:
		PEOPLE REQUIRED FOR THE JOB #: ตำแหน่งของผู้ปฏิบัติงานที่จำเป็นสำหรับงานนี้ :
SPECIFIC JOB DESCRIPTION: Service TDS and drops inspection รายละเอียดงานเฉพาะ : บำรุงรักษาหัวปั๊มไดร์ฟและตรวจตราวัตถุที่อาจจะตกหล่น	PROCEDURE #: เอกสารอ้างอิง# :	PTW #: เลขที่ใบอนุญาตทำงาน:

MANDATORY QUESTIONS. DO NOT PROCEED IF THE ANSWER IS "NO" คำถามบังคับ ห้ามดำเนินการต่อหากคำตอบคือ "ไม่ใช่" (Y = ใช่ , N = ไม่ใช่ , N/A = ไม่เกี่ยวข้อง)								GUIDELINES - แนวทาง
➢ Is HFT applicable for use in this task? If yes, the task must not start without utilizing the suitable HFT. มีการใช้ แฮนด์ทิทุล (อุปกรณ์เพื่อใช้แทนการใช้มือจับวัตถุโดยตรง) ในงานนี้หรือไม่? หากใช่ งานจะต้องไม่เริ่มต้นจนกว่าจะใช้อุปกรณ์ที่เหมาะสมแล้ว	Y	N	N/A	➢ Isolation required & function test before start? ต้องมีการแยกพลังงาน (Isolation) และทดสอบการทำงานก่อนเริ่มงานหรือไม่?	Y	N	N/A	• Use the Risk Matrix below to rate the initial and residual risk level. • ใช้ตารางวิเคราะห์ความเสี่ยงด้านล่างเพื่อประเมินระดับความเสี่ยงเริ่มต้นและความเสี่ยงคงเหลือ • OIM/STP must be consulted when residual risk is Medium • ต้องปรึกษา โอเอ็มหรือซีเนียร์ทุลพุชเชอร์ เมื่อความเสี่ยงคงเหลืออยู่ในระดับปานกลาง • Rig Manager must also be consulted when residual risk is High. •ต้องปรึกษาริกแมเนเจอร์ เมื่อความเสี่ยงคงเหลืออยู่ในระดับสูง • The job must be ALARP before the job can start. • งานที่จะทำได้ ต้องมีความเสี่ยงอยู่ในระดับต่ำที่สุดเท่าที่สามารถทำได้อย่างสมเหตุสมผลก่อนเริ่มทำงาน • SWA is the responsibility of each employee. • ใช้สิทธิในการหยุดงานหากไม่ปลอดภัย เป็นความรับผิดชอบของพนักงานทุกคน • No Supervision no work. STOP If Supervisor is not at job location. • ไม่มีหัวหน้างาน = ไม่ทำงาน ต้องหยุดงานทันทีหากหัวหน้างานไม่อยู่ ณ สถานที่ทำงาน
➢ If HFT can't be used. Does the GREEN-ON-GREEN rule apply หากไม่สามารถใช้ แฮนด์ทิทุลได้ มีการใช้กฎการวางมือในตำแหน่งสีเขียวที่ปลอดภัย หรือไม่?	Y	N	N/A	➢ For Confined Space. Is rescue plan in Place? กรณีทำงานในที่อับอากาศ มีแผนช่วยเหลือฉุกเฉินพร้อมหรือไม่?	Y	N	N/A	
➢ Is the Line of Fire (LOF) Position identified? If yes, Are the risk reduction measures adequate? ได้มีการระบุจุดเสี่ยงจากวิถีอันตราย แล้วหรือไม่? หากใช่ มาตรการลดความเสี่ยงเพียงพอหรือไม่?	Y	N	N/A	➢ Chemical SDS Reviewed มีการทบทวนเอกสาร SDS (ข้อมูลความปลอดภัยของสารเคมี) แล้วหรือไม่?	Y	N	N/A	
➢ Is the dropped object hazard identified? If yes, Are the risk reduction measures & Redzone in place? ได้มีการระบุอันตรายจากวัตถุตกหล่นแล้วหรือไม่? หากใช่ มาตรการลดความเสี่ยงและเขตอันตรายสีแดง (Redzone) ได้ถูกกำหนดไว้หรือไม่?	Y	N	N/A	➢ OEM Instructions Reviewed ได้ทบทวนคู่มือคำแนะนำจากผู้ผลิตแล้วหรือไม่?	Y	N	N/A	
➢ Is there a Short Service Employee involved in this task? If "yes" is his mentor supervising him? มีพนักงานใหม่เข้าร่วมในงานนี้หรือไม่? หาก "มี" เขาได้ควบคุมดูแลด้วยที่เลี้ยงหรือไม่?	Y	N	N/A	➢ TOFS / Stop Work Authority Discussed? มีการพูดคุยเกี่ยวกับ ขอเวลานอกเพื่อความปลอดภัย / สิทธิในการหยุดงานแล้วหรือไม่?	Y	N	N/A	

TASK PROMPT CARD (รายการสิ่งที่ต้องคำนึงถึงก่อนเริ่มงาน)

JOB TASKS (งาน)

What are you about to do? - กำลังจะทำงานอะไร ?

- ☐ Catering/ Galley งานแคทเธอริ่ง
- ☐ Unloading/ Loading/ Trucking การขนถ่ายของขึ้นลงรถบรรทุก
- ☐ Confined Space Entry งานในที่อับอากาศ
- ☐ Welding/Grinding/Cutting งานเชื่อม / งานเจียร / งานตัด
- ☐ Crating/ Uncrating การบรรจุและการเปิดลัง
- ☐ Working at Height การทำงานบนที่สูง
- ☐ Crane Operation งานยกโดยใช้เครน
- ☐ Working Over Water การทำงานที่อาจมีโอกาสตกลงทะเล
- ☐ Electrical Work งานที่เกี่ยวข้องกับไฟฟ้า
- ☐ Other: _____ อื่นๆ

HAZARDS (อันตราย)

What can hurt you? - สิ่งที่อาจเป็นอันตราย ?

BIOLOGICAL - ชีวภาพ

- ☐ Bacteria, Virus or Parasite แบคทีเรีย ไวรัส หรือปรสิต
- ☐ Wildlife (Plant/Animal) สิ่งมีชีวิตตามธรรมชาติ (พืช/สัตว์)
- ☐ Other: _____ อื่นๆ

CHEMICAL/SUBSTANCE - สารเคมี

- ☐ Asbestos, Corrosive, Toxic, etc. แร่ใยหิน สารกัดกร่อน สารพิษ และอื่น ๆ
- ☐ Explosive/Flammable วัตถุระเบิดและวัตถุไวไฟ

CONTROLS MITIGATIONS (มาตรการควบคุม)

How can you control the hazards? - จะควบคุมอันตรายอย่างไร ?

- ☐ Absorbent Material/Spill Kit วัสดุดูดซับ / ชุดอุปกรณ์จัดการสารหกทั่วไหล
- ☐ Secondary Retention ระบบยึดหรือป้องกันเพิ่มเติมจากระบบป้องกันหลัก
- ☐ Barrier/Control Access/Warning Sign แผงกั้น / การควบคุมการเข้าพื้นที่ / ป้ายเตือน
- ☐ Tag Line (Proper Length)/ Push Pole เชือกบังคับทิศทาง (ความยาวเหมาะสม) ค้ำมเพื่อให้ดังหรือดันโหลด แทนการใช้มือสัมผัสโหลด
- ☐ Barrier Cream ครีมเคลือบผิวหนังเพื่อป้องกันสารเคมี
- ☐ Tie Off Tool อุปกรณ์ยึดเครื่องมือกับร่างกายหรือโครงสร้าง
- ☐ Body Posture ท่าทางในการทำงาน
- ☐ Tyvek® Suit ชุดป้องกันสารเคมี
- ☐ Communication - Radio/ Sign การสื่อสาร – วิทยุ / สัญญาณมือ
- ☐ Whip Check/ Safety Line สายรัดกันการสะบัด

TASK PROMPT CARD (รายการสิ่งที่ต้องคำนึงถึงก่อนเริ่มงาน)

JOB TASKS (งาน)

What are you about to do? - กำลังจะทำงานอะไร ?

- ☐ Explosives Handling งานที่เกี่ยวข้องกับวัตถุระเบิดได้
- ☐ Forklift Operation รถยก
- ☐ Fuel Transfer การขนถ่ายสารเคมี
- ☐ Hand/Power Tool Usage การใช้เครื่องมือช่างหรือเครื่องมือที่ใช้ไฟฟ้า
- ☐ High Pressure Washing การล้างที่ต้องใช้แรงดันสูง
- ☐ Man Riding Operation งานแมนไรด้ง
- ☐ Manual Handling งานที่ต้องใช้แรงงานคน
- ☐ Mixing/Handling Substance การทำงานกับสารเคมี
- ☐ Painting งานทาสี
- ☐ Personnel Transfer งานยก หรือ เคลื่อนย้ายคน
- ☐ Pressure Testing งานทดสอบแรงดัน
- ☐ Pushing/Pulling งานลาก หรือ ดัน
- ☐ Radioactive Handling งานเกี่ยวกับสารกัมตรังรังสี
- ☐ Scaffolding งานตั่งนั่งร้าน
- ☐ Simultaneous Operation การดำเนินงานหลายอย่างพร้อมกันในพื้นที่หรือเวลาเดียวกัน
- ☐ Slinging/Rigging/Securing Load การผูกยึด โหลด การติดตั้งอุปกรณ์เยก และการตรึงโหลดให้ปลอดภัย
- ☐ Stacking/Storing การวางซ้อน / การจัดเก็บ
- ☐ Third Party Operation/ Equipment การปฏิบัติงาน / อุปกรณ์จากหน่วยงานภายนอก
- ☐ Tubular Handling การจัดการท่อเจาะ

HAZARDS (อันตราย)

What can hurt you? - สิ่งที่อาจเป็นอันตราย ?

- ☐ Hazardous Atmosphere (Fume, Dust, Oxygen Deficiency, etc.) บรรยากาศอันตราย (ไอสารเคมี, ฝุ่น, การขาดออกซิเจน เป็นต้น)
- ☐ Other: _____ อื่นๆ

ELECTRICAL - ไฟฟ้า

- ☐ Low/High Voltage แรงดันต่ำ / แรงดันสูง
- ☐ Static ไฟฟ้าสถิตย์
- ☐ Other: _____ อื่นๆ

GRAVITY - แรงโน้มถ่วง

- ☐ Overhead Tool or Equipment เครื่องมือหรืออุปกรณ์ที่อยู่ด้านบน (เหนือศีรษะ)
- ☐ Working at Height/Open Deck การทำงานบนที่สูง / ช่องเปิด
- ☐ Other: _____ อื่นๆ

MECHANICAL - อุปกรณ์เครื่องจักรกล

- ☐ Rotating Equipment/Moving Part อุปกรณ์หมุนและชิ้นส่วนที่เคลื่อนไหว
- ☐ Sharp Edge ขอบแหลมคม
- ☐ Other: _____ อื่นๆ

MOTION - การเคลื่อนไหว

- ☐ Vessel/Equipment Movement การเคลื่อนย้ายภาชนะ/อุปกรณ์
- ☐ Awkward Position/ Repetitive/ Lifting/ Bending ท่าทางไม่เหมาะสม / การทำซ้ำ ๆ / การยกของ / การก้มตัว
- ☐ Flowing Water/High Wind น้ำไหลแรง / ลมแรง
- ☐ Other: _____ อื่นๆ

NOISE/VIBRATION- เสียงดังและการสั่นสะเทือน

- ☐ Loud Noise Equipment or Tool เครื่องมือ/อุปกรณ์ที่ส่งเสียงดัง
- ☐ Vibration (Hand/Arm/Body) การสั่นสะเทือน (มือ/แขน/ร่างกาย)
- ☐ Communication Problem ปัญหาการสื่อสาร
- ☐ Other: _____ อื่นๆ

PRESSURE - แรงดัน

- ☐ High Pressure แรงดันสูง
- ☐ Gas Under Pressure ก๊าซภายใต้แรงดัน
- ☐ Low Pressure and High Vol. แรงดันต่ำ และ ปริมาตรสูง
- ☐ Trapped Pressure แรงดันที่ค้างในระบบ

RADIATION - รังสี

- ☐ Lighting (Glare/Insufficient) การให้แสงสว่าง (แสงจ้า / แสงไม่เพียงพอ)
- ☐ Ionizing Radiation รังสีที่ทำให้เกิดไอออน

CONTROLS MITIGATIONS (มาตรการควบคุม)

How can you control the hazards? - จะควบคุมอันตรายอย่างไร ?

- ☐ Cooling/ Hydration การทำให้ร่างกายเย็นลง / การดื่มน้ำให้เพียงพอ
- ☐ Work Instruction/ Procedure/ OEM Manual คำแนะนำการปฏิบัติงาน/คู่มือจากผู้ผลิต
- ☐ Energy Isolation การตัดแยกพลังงาน
- ☐ Work Vest/ Lifejacket เสื้อกั๊กทำงาน / เสื้อชูชีพ
- ☐ Equipment Inspection การตรวจสอบอุปกรณ์
- ☐ Other: _____ อื่นๆ
- ☐ Escape Route เส้นทางหลบหนีจากอันตราย
- ☐ Fall Protection การป้องกันการพลัดตกจากที่สูง
- ☐ Fire Watch/ Extinguisher ผู้เฝ้าระวังไฟ / อุปกรณ์ดับเพลิง
- ☐ Gas Detection อุปกรณ์ตรวจจับก๊าซ
- ☐ Gloves (Right Type for the Job) ถุงมือนิรภัย (ชนิดที่เหมาะสมกับงาน)
- ☐ Goggles/ Face Shield แว่นครอบตานิรภัย/กระบังหน้า
- ☐ Hand Placement/ Hands Off การป้องกันการบาดเจ็บที่มือ/การวางมือในตำแหน่งปลอดภัย
- ☐ Hearing Protection การป้องกันการสูญเสียการได้ยิน
- ☐ Housekeeping การรักษาความสะอาดเรียร้อย
- ☐ Radiation Control มาตรการควบคุมอันตรายจากรังสี
- ☐ Rescue Plan แผนช่วยชีวิต
- ☐ Respiratory Protection มาตรการป้องกันระบบทางเดินหายใจ
- ☐ Rig Announcement การประกาศแจ้งข่อมูลในริก

TASK PROMPT CARD (รายการสิ่งที่ต้องคำนึงถึงก่อนเริ่มงาน)		
JOB TASKS (งาน)	**HAZARDS (อันตราย)**	**CONTROLS MITIGATIONS (มาตรการควบคุม)**
What are you about to do? ***กำลังจะทำงานอะไร?***	***What can hurt you?*** ***สิ่งที่อาจเป็นอันตราย ?***	***How can you control the hazards?*** ***จะควบคุมอันตรายอย่างไร ?***
	☐ Electromagnetic, UV, IR คลื่นแม่เหล็กไฟฟ้า , รังสีอัลตราไวโอเลต , รังสีอินฟาเรด ☐ Other: _____ อื่นๆ ***TEMPERATURE - อุณหภูมิ*** ☐ Heat ความร้อน ☐ Cold/Cryogenic ความเย็น/ความเย็นจัด ☐ Other: _____ อื่นๆ	

JSA PARTICIPANTS (Including any 3rd Party personnel) - รายชื่อผู้เข้าร่วม JSA (รวมบุคคลจากบริษัทภายนอก)					
NAME - ชื่อ	**POSITION - ตำแหน่ง**	**SIGNATURE - ลายเซ็น**	**NAME - ชื่อ**	**POSITION - ตำแหน่ง**	**SIGNATURE - ลายเซ็น**

JOB ANALYSIS - การวิเคราะห์งาน

MAIN JOB STEPS ขั้นตอนงานหลัก	SPECIFIC HAZARD อันตรายที่เกี่ยวข้องกับงานนี้	INITIAL RISK ความเสี่ยงก่อนมีมาตรการควบคุมอันตราย (L/ M/ H) (ต่ำ / กลาง/ สูง)	CONTROL / MITIGATION MEASURE มาตรการควบคุม / มาตรการลดความเสี่ยง	RESIDUAL RISK ความเสี่ยงที่เหลืออยู่หลังมีมาตรการคุม (L/ M/ H) (ต่ำ / กลาง/ สูง)	JOB STEP ASSIGNED TO ขั้นตอนงานมอบหมายให้กับผู้รับผิดชอบ
1. Brief with crew ☐ ทำการพูดคุยรายละเอียดก่อนเริ่มงาน	Not understand job steps พนักงานไม่เข้าใจขั้นตอนการทำงาน	L2	Translate as required, prompt crew for understanding. สอบถามทีมงานเพื่อให้แน่ใจว่าเข้าใจงานอย่างถูกต้อง และหาผู้ช่วยแปลหากจำเป็น	L1	
2. Raise PTW for manriding.☐ เปิดใบอนุญาตการทำงานแมนไรด์ง	Hazards not controlled. ไม่มีมาตรการควบคุมอันตราย	M6	Raise PTW and review JSA for manriding. เปิดใบอนุญาติการทำงานแมนไรด์ง และทำการพิจารณาใบอนุญาติ	L4	
3. Prepare tools and equipment for work at heights, manrider, grease gun, barrier tape. เตรียมเครื่องมือและอุปกรณ์สำหรับการทำงานบนที่สูง, งานแมนไรด์ง, ปืนจาระบี เทปสำหรับกันพื้นที่☐	Grease gun not full, area not clear below for dropped object and worker safety. มีจาระบีไม่เต็มปืน, พื้นที่ด้านล่างยังไม่ได้รับการเคลียร์ อาจเกิดอันตรายจากวัตถุตกหล่น และเสี่ยงต่อความปลอดภัยของพนักงานที่อยู่ด้านล่าง	M6	Ensure grease gun full and working prior to go up. Ensure barricade area below. Make a PA announcement work to begin at heights, NO SIMOPS during manriding on drill floor ตรวจสอบให้แน่ใจว่าปืนมีจาระบีเต็มพร้อมใช้งานและทำงานได้ปกติก่อนจะขึ้นไปทำงานที่สูง กันพื้นที่ด้านล่าง และทำการประกาศแจ้งว่าจะมีการเริ่มงานบนที่สูง ห้ามมีการทำงานอย่างอื่นร่วมเมื่องานแมนไรดิ้งกำลังดำเนินอยู่ที่รีกฟลอร์	L4	
4. Perform checklist manrider and check harness, drop tools lanyards.☐ ดำเนินการตรวจสอบรายการก่อนใช้งานสำหรับระบบแมนไรเดอร์ และ ตรวจสอบสายรัดตัว, สายกันตก	Tool left at heights, faulty equipment or harness. ลืมเครื่องมือไว้บนที่สูง อุปกรณ์เหรือสายรัดนิรภัยที่มีปัญหา/ชำรุด	M6	Ensure use all log sheets for tools at heights, go through the checklist if anything wrong STOP the job and talk to supervisor. ตรวจสอบที่สมุดบันทึกเครื่องมือการทำงานบนที่สูงทั้งหมด ตรวจสอบตามขบการเบิดลิสต์ทั้งหมด ถ้าพบสิ่งผิดปกติให้หยุดงานทันทีและแจ้งหัวหน้างาน	L4	
5. Perform greasing and drops inspection at heights on TDS.☐ ทำการอัดจาระบีและตรวจสอบวัตถุตกหล่นบนที่สูงของท็อปไดร์ฟ	Driller forget and move blocks, fall from heights, dropped objects. ดริลเลอร์ลืมและทำการเคลื่อนบล็อกส์ตกจากที่สูง และ วัตถุตกหล่น	M6	Barrier area below, warning sign at driller console and STOP the draworks, make PA announcement. กั้นพื้นที่ด้านล่าง, ติดป้ายเตือนที่แผงควบคุมของ ดริลเลอร์, หยุดการทำงานของ ดรอวเวิร์คและทำการประกาศแจ้งเตือน	L4	
6. Stow tools and equipment after use. Driller confirm tools are down. จัดเก็บเครื่องมือและอุปกรณ์ให้เรียบร้อยหลังใช้งาน และให้ ดริลเลอร์ยืนยันว่าเครื่องมือทั้งหมดถูกนำลงมาแล้ว	Tools left at heights. ลืมเครื่องมือไว้บนที่สูง	M6	Bring down all tools and sign off on tools at heights log book, cross check by driller. นำเครื่องมือทั้งหมดลงมาจากที่สูง และลงชื่อในสมุดบันทึกเครื่องมือใช้งานที่สูง โดยให้ดริลเลอร์ตรวจสอบยืนยันร่วมด้วย	L4	
7. Debrief with crew after job complete ทำการประชุมหลังเสร็จงานกับพนักงานทุกคน	Not shared or capture lessons learnt. ไม่มีการแชร์บทเรียนจากการปฏิบัติงาน	L2	All crew input to the debrief session, TP to update JSA if any changes to be made ทีมงานทุกคนให้ความเห็นในที่ประชุมหลังเสร็จงาน ทูลพุชเชอร์ทำการอัพเดท เจเอสเอ ในกรณีที่มีการเปลี่ยนแปลงหรือเพิ่มเติมข้อมูลใดๆ	L1	

SIMPLIFIED RISK MATRIX - ตารางคำนวณความเสี่ยง

Severity		Likelihood 1 Frequency = once in the industry	2 Frequency > once in the industry	3 Frequency = once in ADES	4 Frequency = once at same site	5 Frequency > once at same site
5	• Multiple fatalities • Spill > 5000 bbl. • PD > $250k • PSE Level 5	Medium (5)	Medium (10)	High (15)	High (20)	High (25)
4	• FTL/Total disability • Spill 500>5000 bbl. • PD $100k>250k • PSE Level 4	Low (4)	Medium (8)	Medium (12)	High (16)	High (20)
3	• LTI/ Partial disability • Spill 50>500 bbl. • PD $50k>100k • PSE Level 3	Low (3)	Medium (6)	Medium (9)	Medium (12)	High (15)
2	• MTC or RWC • Spill 25>50 bbl. • PD $10k>50k • PSE Level 2	Low (2)	Low (4)	Medium (6)	Medium (8)	Medium (10)
1	• FAC • Spill <25 bbl. • PD <$10k • PSE Level1	Low (1)	Low (2)	Low (3)	Low (4)	Medium (5)

POST JOB REVIEW (WHAT WENT WELL? / WHAT CAN BE IMPROVED?)
การทบทวนงานหลังจบงาน (อะไรที่ทำได้ดี? / อะไรที่ควรปรับปรุง?)

DOES THE JSA NEED TO BE UPDATED?
จำเป็นต้องปรับปรุง JSA หรือไม่?

Yes - ใช่ | No - ไม่ใช่

SIGNATURE: OIM / STP / PIC
ลายเซ็น: โอไอเอ็ม /ซีเนียร์ทูลพุชเชอร์) / ผู้รับผิดชอบ (PIC)

ADES

JOB SAFETY ANALYSIS
การวิเคราะห์ความปลอดภัยในการทำงาน

DOCUMENT NO: CAMS 02.1-03-PRO-01-ADM502-D-013
REV: 0 | PAGE: 1 of

RIG/FACILITY: ADMARINE502 ชื่อริก: แอดมาริน 502	DATE & TIME : วันที่ & เวลา:	JOB SUPERVISOR: หัวหน้างานที่ควบคุมงานนี้:	PEOPLE REQUIRED FOR THE JOB #: ตำแหน่งของผู้ปฏิบัติงานที่จำเป็นสำหรับงานนี้ :
SPECIFIC JOB DESCRIPTION: Slip and cut drill line. รายละเอียดงานเฉพาะ : เลื่อนและตัดสายดริลไลน์		PROCEDURE #: เอกสารอ้างอิง# :	PTW #: เลขที่ใบอนุญาตทำงาน:

MANDATORY QUESTIONS. DO NOT PROCEED IF THE ANSWER IS "NO"
คำถามบังคับ ห้ามดำเนินการต่อหากคำตอบคือ "ไม่ใช่" (Y = ใช่ , N = ไม่ใช่ , N/A = ไม่เกี่ยวข้อง)

➢ Is HFT applicable for use in this task? If yes, the task must not start without utilizing the suitable HFT. มีการใช้ แฮนด์ทิพุล (อุปกรณ์เพื่อใช้แทนการใช้มือจับวัตถุโดยตรง) ในงานนี้หรือไม่? หากใช่ งานจะต้องไม่เริ่มต่นจนกว่าจะใช่อุปกรณ์ที่เหมาะสมแล้ว	Y	N	N/A	➢ Isolation required & function test before start? ต้องมีการแยกพลังงาน (Isolation) และทดสอบการทำงานก่อนเริ่มงานหรือไม่?	Y	N	N/A
➢ If HFT can't be used. Does the GREEN-ON-GREEN rule apply หากไม่สามารถใช้ แฮนด์ทิพุลได้ มีการใช้กฎการวางมือในตำแหน่งสีเขียวที่ปลอดภัย หรือไม่?	Y	N	N/A	➢ For Confined Space. Is rescue plan in Place? กรณีทำงานในที่อับอากาศ มีแผนช่วยเหลือฉุกเฉินพร้อมหรือไม่?	Y	N	N/A
➢ Is the Line of Fire (LOF) Position identified? If yes, Are the risk reduction measures adequate? ได้มีการระบุจุดเสี่ยงจากวิถีอันตราย แล้วหรือไม่? หากใช่ มาตรการลดความเสี่ยงเพียงพอหรือไม่?	Y	N	N/A	➢ Chemical SDS Reviewed มีการทบทวนเอกสาร SDS (ข้อมูลความปลอดภัยของสารเคมี) แล้วหรือไม่?	Y	N	N/A
➢ Is the dropped object hazard identified? If yes, Are the risk reduction measures & Redzone in place? ได้มีการระบุอันตรายจากวัตถุตกหล่นแล้วหรือไม่? หากใช่ มาตรการลดความเสี่ยงและเขตอันตรายสีแดง (Redzone) ได้ถูกกำหนดไว้หรือไม่?	Y	N	N/A	➢ OEM Instructions Reviewed ได้ทบทวนคู่มือคำแนะนำจากผู้ผลิตแล้วหรือไม่?	Y	N	N/A
➢ Is there a Short Service Employee involved in this task? If "yes" is his mentor supervising him? มีพนักงานใหม่เข้าร่วมในงานนี้หรือไม่? หาก "มี" เขาได้ควบคุมดูแลด้วยพี่เลี้ยงหรือไม่?	Y	N	N/A	➢ TOFS / Stop Work Authority Discussed? มีการพูดคุยเกี่ยวกับ ขอเวลานอกเพื่อความปลอดภัย / สิทธิในการหยุดงานแล้วหรือไม่?	Y	N	N/A

GUIDELINES - แนวทาง

- Use the Risk Matrix below to rate the initial and residual risk level.
- ใช้ตารางวิเคราะห์ความเสี่ยงด้านล่างเพื่อประเมินระดับความเสี่ยงเริ่มต้นและความเสี่ยงคงเหลือ
- OIM/STP must be consulted when residual risk is Medium
- ต้องปรึกษา โอเอ็มหรือซีเนียร์ทูลพุชเชอร์ เมื่อความเสี่ยงคงเหลืออยู่ในระดับปานกลาง
- Rig Manager must also be consulted when residual risk is High.
- ต้องปรึกษากัปตนแนเจอร์ เมื่อความเสี่ยงคงเหลืออยู่ในระดับสูง
- The job must be ALARP before the job can start.
- งานที่จะทำได้ ต้องมีความเสี่ยงอยู่ในระดับต่ำที่สุดเท่าที่สามารถทำได้อย่างสมเหตุสมผลก่อนเริ่มทำงาน
- SWA is the responsibility of each employee.
- ใช่สิทธิในการหยุดงานหากไม่ปลอดภัย เป็นความรับผิดชอบของพนักงานทุกคน
- No Supervision no work. STOP If Supervisor is not at job location.
- ไม่มีหัวหน้างาน = ไม่ทำงาน ต้องหยุดงานทันทีหากหัวหน้างานไม่อยู่ ณ สถานที่ทำงาน

TASK PROMPT CARD (รายการสิ่งที่ต้องคำนึงถึงก่อนเริ่มงาน)

JOB TASKS (งาน)
What are you about to do? - กำลังจะทำงานอะไร ?

- ☐ Catering/ Galley งานแคทเธอริ่ง
- ☐ Unloading/ Loading/ Trucking การขนส่งของขึ้นลงรถบรรทุก
- ☐ Confined Space Entry งานในที่อับอากาศ
- ☐ Welding/Grinding/Cutting งานเชื่อม / งานเจียร / งานตัด
- ☐ Crating/ Uncrating การบรรจุและการเปิดลัง
- ☐ Working at Height การทำงานบนที่สูง
- ☐ Crane Operation งานยกโดยใช้เครน
- ☐ Working Over Water การทำงานที่อาจมีโอกาสตกลงทะเล
- ☐ Electrical Work งานที่เกี่ยวข้องกับไฟฟ้า
- ☐ Other: _____ อื่นๆ

HAZARDS (อันตราย)
What can hurt you? - สิ่งที่อาจเป็นอันตราย ?

BIOLOGICAL - ชีวภาพ

- ☐ Bacteria, Virus or Parasite แบคทีเรีย ไวรัส หรือปรสิต
- ☐ Wildlife (Plant/Animal) สิ่งมีชีวิตตามธรรมชาติ (พืช/สัตว์)
- ☐ Other: _____ อื่นๆ

CHEMICAL/SUBSTANCE - สารเคมี

- ☐ Asbestos, Corrosive, Toxic, etc. แร่ใยหิน สารกัดกร่อน สารพิษ และอื่น ๆ
- ☐ Explosive/Flammable วัตถุระเบิดและวัตถุไวไฟ

CONTROLS MITIGATIONS (มาตรการควบคุม)
How can you control the hazards? - จะควบคุมอันตรายอย่างไร ?

- ☐ Absorbent Material/Spill Kit วัสดุดูดซับ / ชุดอุปกรณ์จัดการสารหกรั่วไหล
- ☐ Secondary Retention ระบบยึดหรือป้องกันเพิ่มเติมจากระบบป้องกันหลัก
- ☐ Barrier/Control Access/Warning Sign แผงกั้น / การควบคุมการเข้าพื้นที่ / ป้ายเตือน
- ☐ Tag Line (Proper Length)/ Push Pole เชือกบังคับทิศทาง (ความยาวเหมาะสม) ด้าม เพื่อให้ยังหรือดันโหลด แทนการใช้มือสัมผัสโหลด
- ☐ Barrier Cream ครีมเคลือบผิวหนังเพื่อป้องกันสารเคมี
- ☐ Tie Off Tool อุปกรณ์ยึดเครื่องมือกับร่างกายหรือโครงสร้าง
- ☐ Body Posture ท่าทางในการทำงาน
- ☐ Tyvek® Suit ชุดป้องกันสารเคมี
- ☐ Communication - Radio/ Sign การสื่อสาร – วิทยุ / สัญญาณมือ
- ☐ Whip Check/ Safety Line สายรัดกันการสะบัด

TASK PROMPT CARD (รายการสิ่งที่ต้องคำนึงถึงก่อนเริ่มงาน)

JOB TASKS (งาน)	HAZARDS (อันตราย)	CONTROLS MITIGATIONS (มาตรการควบคุม)
What are you about to do? - กำลังจะทำงานอะไร ?	*What can hurt you? - สิ่งที่อาจเป็นอันตราย ?*	*How can you control the hazards? - จะควบคุมอันตรายอย่างไร ?*
☐ Explosives Handling งานที่เกี่ยวข้องกับวัตถุระเบิด ได้ ☐ Forklift Operation รถยก ☐ Fuel Transfer การขนถ่ายสารเคมี ☐ Hand/Power Tool Usage การใช้เครื่องมือช่างหรือเครื่องมือที่ใช้ไฟฟ้า ☐ High Pressure Washing การล้างที่ต้องใช้แรงดันสูง ☐ Man Riding Operation งานแมนไรด์ดิ้ง ☐ Manual Handling งานที่ต้องใช้แรงงานคน ☐ Mixing/Handling Substance การทำงานกับสารเคมี ☐ Painting งานทาสี ☐ Personnel Transfer งานยก หรือ เคลื่อนย้ายคน ☐ Pressure Testing งานทดสอบแรงดัน ☐ Pushing/Pulling งานลาก หรือ ดึง ☐ Radioactive Handling งานเกี่ยวกับสารกัมตรังรังสี ☐ Scaffolding งานตั้งนั่งร้าน ☐ Simultaneous Operation การดำเนินงานหลายอย่างพร้อมกันในพื้นที่หรือเวลาเดียวกัน ☐ Slinging/Rigging/Securing Load การยกยึด โหลด การผูกตั้งอุปกรณ์ยก และการตรึงโหลดให้ปลอดภัย ☐ Stacking/Storing การวางซ้อน / การจัดเก็บ ☐ Third Party Operation/ Equipment การปฏิบัติงาน / อุปกรณ์จากหน่วยงานภายนอก ☐ Tubular Handling การจัดการท่อเจาะ	☐ Hazardous Atmosphere (Fume, Dust, Oxygen Deficiency, etc.) บรรยากาศอันตราย (ไอสารเคมี, ฝุ่น, การขาดออกซิเจน เป็นต้น) ☐ Other: _____ อื่นๆ ***ELECTRICAL - ไฟฟ้า*** ☐ Low/High Voltage แรงดันต่ำ / แรงดันสูง ☐ Static ไฟฟ้าสถิตย์ ☐ Other: _____ อื่นๆ ***GRAVITY - แรงโน้มถ่วง*** ☐ Overhead Tool or Equipment เครื่องมือหรืออุปกรณ์เหนือผู้ดำเนิน (เหนือศีรษะ) ☐ Working at Height/Open Deck การทำงานบนที่สูง / ช่องเปิด ☐ Other: _____ อื่นๆ ***MECHANICAL - อุปกรณ์เครื่องจักรกล*** ☐ Rotating Equipment/Moving Part อุปกรณ์หมุนและชิ้นส่วนที่เคลื่อนไหว ☐ Sharp Edge ขอบแหลมคม ☐ Other: _____ อื่นๆ ***MOTION - การเคลื่อนไหว*** ☐ Vessel/Equipment Movement การเคลื่อนย้ายภาชนะ/อุปกรณ์ ☐ Awkward Position/ Repetitive/ Lifting/ Bending ท่าทางไม่เหมาะสม / การทำซ้ำ ๆ / การยกของ / การก้มตัว ☐ Flowing Water/High Wind น้ำไหลแรง / ลมแรง ☐ Other: _____ อื่นๆ ***NOISE/VIBRATION- เสียงดังและการสั่นสะเทือน*** ☐ Loud Noise Equipment or Tool เครื่องมือ/อุปกรณ์ที่ส่งเสียงดัง ☐ Vibration (Hand/Arm/Body) การสั่นสะเทือน (มือ/แขน/ร่างกาย) ☐ Communication Problem ปัญหาการสื่อสาร ☐ Other: _____ อื่นๆ ***PRESSURE - แรงดัน*** ☐ High Pressure แรงดันสูง ☐ Gas Under Pressure ก๊าซภายใต้แรงดัน ☐ Low Pressure and High Vol. แรงดันต่ำ และ ปริมาตรสูง ☐ Trapped Pressure แรงดันที่ค้างในระบบ ***RADIATION - รังสี*** ☐ Lighting (Glare/Insufficient) การให้แสงสว่าง (แสงจ้า / แสงไม่เพียงพอ) ☐ Ionizing Radiation รังสีก่อไห้เกิดไอออน	☐ Cooling/ Hydration การทำให้ร่างกายเย็นลง / การดื่มน้ำให้เพียงพอ ☐ Work Instruction/ Procedure/ OEM Manual คำแนะนำการปฏิบัติงาน/คู่มือจากผู้ผลิต ☐ Energy Isolation การตัดแยกพลังงาน ☐ Work Vest/ Lifejacket เสื้อกั๊กทำงาน / เสื้อชูชีพ ☐ Equipment Inspection การตรวจสอบอุปกรณ์ ☐ Other: _____ อื่นๆ ☐ Escape Route เส้นทางหลบหนีจากอันตราย ☐ Fall Protection การป้องกันการพลัดตกจากที่สูง ☐ Fire Watch/ Extinguisher ผู้เฝ้าระวังไฟ / อุปกรณ์ดับเพลิง ☐ Gas Detection อุปกรณ์ตรวจจับก๊าซ ☐ Gloves (Right Type for the Job) ถุงมือนิรภัย (ชนิดที่เหมาะสมกับงาน) ☐ Goggles/ Face Shield แว่นครอบตานิรภัย/กระบังหน้า ☐ Hand Placement/ Hands Off การป้องกันการบาดเจ็บที่มือ/การวางมือในตำแหน่งปลอดภัย ☐ Hearing Protection การป้องกันการสูญเสียการได้ยิน ☐ Housekeeping การรักษาความสะอาดเรียบร้อย ☐ Radiation Control มาตรการควบคุมอันตรายจากรังสี ☐ Rescue Plan แผนช่วยชีวิต ☐ Respiratory Protection มาตรการป้องกันระบบทางเดินหายใจ ☐ Rig Announcement การประกาศแจ้งข้อมูลไนริก
	☐ Electromagnetic, UV, IR คลื่นแม่เหล็กไฟฟ้า , รังสีอัลตราไวโอเลต , รังสีอินฟาเรด ☐ Other: _____ อื่นๆ ***TEMPERATURE - อุณหภูมิ*** ☐ Heat ความร้อน ☐ Cold/Cryogenic ความเย็น/ความเย็นจัด ☐ Other: _____ อื่นๆ	

JSA PARTICIPANTS (Including any 3rd Party personnel) - รายชื่อผู้เข้าร่วม JSA (รวมบุคคลจากบริษัทภายนอก)

NAME - ชื่อ	POSITION - ตำแหน่ง	SIGNATURE - ลายเซ็น	NAME - ชื่อ	POSITION - ตำแหน่ง	SIGNATURE - ลายเซ็น

JOB ANALYSIS - การวิเคราะห์งาน

MAIN JOB STEPS ขั้นตอนงานหลัก	SPECIFIC HAZARD อันตรายที่เกี่ยวข้องกับงานนี้	INITIAL RISK ความเสี่ยงก่อนมีมาตรการควบคุมอันตราย (L/ M/ H) (ต่ำ / กลาง/ สูง)	CONTROL / MITIGATION MEASURE มาตรการควบคุม / มาตรการลดความเสี่ยง	RESIDUAL RISK ความเสี่ยงที่เหลืออยู่หลังมีมาตรการคุม (L/ M/ H) (ต่ำ / กลาง/ สูง)	JOB STEP ASSIGNED TO ขั้นตอนงานมอบหมายให้กับผู้รับผิดชอบ
1. Brief with crew ☐ ทำการพูดคุยรายละเอียดก่อนเริ่มงาน	Crew not understand พนักงานไม่เข้าใจงาน	L2	Translate as required, prompt crew for understanding. สอบถามทีมงานเพื่อให้แน่ใจว่าเข้าใจงานอย่างถูกต้อง และหาผู้ช่วยแปลหากจำเป็น	L1	
2. Prepare PTW for slip and cut and manrider, print procedure to slip and cut. Print and read JSA with crew. Prepare tools and equipment. ☐ เปิดใบอนุญาตทำงานสำหรับการติดสายตริลไลน์ พร้อมแมนไรเดอร์ พิมพ์กระบวนการทำงานออกมา พิจารณาร่วมกับทีมงาน เตรียมเครื่องมือและอุปกรณ์ให้ครบ	Not control hazards. Not understand the job steps. Faulty tools. ไม่มีการควบคุมอันตราย ไม่เข้าใจขั้นตอนการทำงาน เครื่องมือผิดหรือบกพร่อง	M6	All crew to attend JSA manriding and slip and cut meeting. Check tools prior to use. พนักงานทุกคนต้องเข้าร่วมประชุมแมนไรดิ้งและตัดสายตริลไลน์ ตรวจสอบเครื่องมือก่อนใช้งานทุกชิ้น	L4	

3. Hang the blocks and remove the draworks guards.☐ แขวนบล็อกไว้ และถอดแผงป้องกันที่ดรอว์เวิร์คออก	Dropped object, fall from heights, pinch points. วัตถุล่วงหล่น, ตกจากที่สูง, จุดหนีบ	M6	Barrier area below, PA announcement, use SRL fall arrest when manriding, use headsets for communication, be aware of hand placement. กั้นพื้นที่ด้านล่าง, ประกาศแจ้ง ใช้ชุดกันตกแบบดึงกลับอัตโนมัติ (เอส อาร์ แอล) ขณะทำงานแมนไรด์ิง ใช้ชุดหูฟังสำหรับการสื่อสาร ระมัดระวังตำแหน่งมือขณะทำงาน	L4	
4. Mark line to cut off and remove from the drum to cut point, cut the line.☐ ทำเครื่องหมายบนสายสำหรับจุดที่จะทำการตัด ดึงสายออกจากดรัมจนถึงจุดที่ต้องการตัด ตัดดริลไลน์ตามจุดที่กำหนดไว้	Line of fire, manual handling. วิถีอันตราย, การยกของโดยบุคคล	M6	Be aware of line of fire when cut the rope it may spring and strike worker, stand on the line, secure drill line, use many guys make light work as drilling line heavy. ระวังแนวของวิถีอันตรายขณะตัดเชือกเพราะอาจดีดกลับและกระแทกคนได้ อย่ายืนอยู่ในแนวของเชือก ยึดสายดริลไลน์ไฟแน่น ใช้หลายๆคนช่วยกันทำงานเพื่อลดน้ำหนักเนื่องจากสายดริลไลน์หนักมาก	L4	
5. Pull excess line off the drum, coil it up and transfer to steel bin.☐ ดึงดริลไลน์ส่วนเกินออกจากดรัม ม้วนสายไฟเรียบร้อยนำไปเก็บในถังเหล็ก	Dropped object. วัตถุล่วงหล่น	M6	Tie the wraps up in 3-4 places so not to drop when crane pick it up. มัดสายพันให้แน่น 3–4 จุด เพื่อป้องกันไม่ให้หล่นเมื่อเครนยกขึ้น		
6. Install new line to clamp and torque as procedure, loosen dead man clamps, driller spool wraps on to drum to original mark while supply reel operator pay out line. ติดตั้งสายไหม่เข้ากับแคลมป์และขันแรงบิดตามขั้นตอน คลายแคลมป์เด็ดแมน ให้ดริลเลอร์ม้วนดริลไลน์กลับเข้าดรัมจนถึงตำแหน่งที่ทำเครื่องหมายไว้ ขณะเดียวกันให้ผู้ควบคุมรอกจ่ายดริลไลน์ ปล่อยดริลไลน์ออกอย่างต่อเนื่อง	Pinch points, miscommunication. จุดหนีบ, การสื่อสารผิดพลาด	M6	Be aware of hand placement, use headsets for good communication between driller, AD and supply reel operator. ระมัดระวังตำแหน่งมือขณะทำงาน ใช้ชุดหูฟังเพื่อให้การสื่อสารระหว่างดริลเลอร์, เอดี และผู้ควบคุมรอกจ่ายดริลไลน์		
7. Tighten dead man clamps bolts and remove block hanging line.☐ ขันโบลต์ของแคลมป์เด็ดแมนให้แน่น และถอดบล็อกที่ใช้แขวนดริลไลน์ออก	Pinch points, dropped object. จุดหนีบ, วัตถุล่วงหล่น	M6	Be aware of hand placement when torque the bolts, keep area below TDS clear when remove block hanging line. ระวังจุดวางมือที่เหมาะสมในการทำงานเมื่อทำการหมุนบิดขันน็อต, พื้นที่ใต้ทีอปไดร์ฟต้องโล่งว่างเมื่อทำการเคลื่อนไหวบล็อคและจุดที่หยุดแขวนอยู่		
8. Install back draworks guard.☐ ติดตั้งการ์ดป้องกันที่ด้านหลังของดรอว์เวิร์ค	Pinch points. จุดหนีบ	M6	Be aware of hand placement. ระวังจุดวางมือที่เหมาะสมในการทำงาน		
9. Callibrate blocks and set upper and lower limits, set pneumatic crown saver and test it is working.☐ ปรับเทียบบล็อก และตั้งค่าขีดจำกัดสูงขึ้นต่ำลง ตั้งค่าอุปกรณ์ป้องกันการชนกับคราวน์แบบลม ทดสอบการทำงานเพื่อให้แน่ใจว่าใช้งานได้ปกติ	Hit the crown or the floor during operations ตีกระแทกคนที่ทำงานกันอยู่ด้านล่าง	M6	Ensure limits set and tested. แน่ใจว่าได้ตั้งขอบเขตจำกัดเรียบร้อยและทำการทดสอบ		
10 . Stow tools and equipments. เก็บอุปกรณ์เข้าที่	Lost tools. Damaged tools. เครื่องมือสูญหาย หรือ เสียหาย	L4	Report to supervisor if any issue with tools. หากพบว่ามีประเด็นใดๆเกี่ยวกับเครื่องมือให้แจ้งหัวหน้างานทันที	L2	
11. Debrief with crew after job complete ทำการประชุมหลังเสร็จงานกับพนักงานทุกคน	Not shared or capture lessons learnt. ไม่มีการแชร์บทเรียนจากการปฏิบัติงาน	L2	All crew input to the debrief session, TP to update JSA if any changes to be made ทีมงานทุกคนให้ความเห็นในที่ประชุมหลังเสร็จงาน ทุลพุชเซอร์ทำการอัพเดท เจเอสเอ ในกรณีที่มีการเปลี่ยนแปลงหรือเพิ่มเติมข้อมูลใดๆ	L1	

SIMPLIFIED RISK MATRIX - ตารางค่านวณความเสี่ยง

Severity	Likelihood 1 Frequency = once in the industry	2 Frequency > once in the industry	3 Frequency = once in ADES	4 Frequency = once at same site	5 Frequency > once at same site
5 • Multiple fatalities • Spill > 5000 bbl. • PD > $250k • PSE Level 5	Medium (5)	Medium (10)	High (15)	High (20)	High (25)
4 • FTL/Total disability • Spill 500>5000 bbl. • PD $100k>250k • PSE Level 4	Low (4)	Medium (8)	Medium (12)	High (16)	High (20)
3 • LTI/ Partial disability • Spill 50>500 bbl. • PD $50k>100k • PSF Level 3	Low (3)	Medium (6)	Medium (9)	Medium (12)	High (15)
2 • MTC or RWC • Spill 25>50 bbl. • PD $10k>50k • PSE Level 2	Low (2)	Low (4)	Medium (6)	Medium (8)	Medium (10)
1 • FAC • Spill <25 bbl. • PD <$10k • PSE Level1	Low (1)	Low (2)	Low (3)	Low (4)	Medium (5)

POST JOB REVIEW (WHAT WENT WELL? / WHAT CAN BE IMPROVED?)
การทบทวนงานหลังจบงาน (อะไรที่ทำได้ดี? / อะไรที่ควรปรับปรุง?)

DOES THE JSA NEED TO BE UPDATED?
จำเป็นต้องปรับปรุง JSA หรือไม่?

Yes - ใช่	No - ไม่ใช่

SIGNATURE: OIM / STP / PIC
ลายเซ็น: โอไอเอ็ม /ซีเนียร์ทูลพุชเซอร์) / ผู้รับผิดชอบ (PIC)

JOB SAFETY ANALYSIS
การวิเคราะห์ความปลอดภัยในการทำงาน

FACILITY: ADMIN/MUSO2 ชื่อรัก: แอดมิน/MUSO2	DATE & TIME : วันที่ & เวลา: 09-10-25 / 18.00	JOB SUPERVISOR: หัวหน้างานที่ควบคุมงานนี้: [redacted]	DOCUMENT NO: CAMS 02.1-03-PRO-01-ADMIN02-MAR-007
			REV: 0 PAGE: 1 of
SPECIFIC JOB DESCRIPTION: Personnel transfer by Billy Pugh basket /Man basket รายละเอียดงานเฉพาะ : การขนส่งบุคคลด้วยกระเช้า หรือ ตะกร้า		PROCEDURE #: เอกสารอ้างอิงที่ :	PEOPLE REQUIRED FOR THE JOB #: ตำแหน่งของผู้ปฏิบัติงานที่จำเป็นสำหรับงานนี้ :
			PTW #: เลขที่ใบอนุญาตทำงาน: 1709

MANDATORY QUESTIONS. DO NOT PROCEED IF THE ANSWER IS "NO" คำถามบังคับ เงื่อนสำเนินการต่อหากคำตอบคือ "ไม่ใช่" (Y = ใช่, N = ไม่ใช่, N/A = ไม่เกี่ยวข้อง)				GUIDELINES - แนวทาง
> Is HPT applicable for use in this task? If yes, the task must not start without utilizing the suitable HPT. มีความจำเป็นต้องใช้อุปกรณ์ที่มีความปลอดภัยสูงในงานนี้หรือไม่? หากใช่ งานจะต้องไม่เริ่มจนกว่าจะได้รับการอนุมัติที่เหมาะสม	Y / N / N/A	> Isolation required & function test before start? ต้องมีการแยกพลังงาน (Isolation) และทดสอบการทำงานก่อนเริ่มงานหรือไม่?	Y / N / N/A	• Use the Risk Matrix below to rate the initial and residual risk level. • ใช้เมทริกซ์ความเสี่ยงด้านล่างเพื่อประเมินระดับความเสี่ยงเริ่มต้นและความเสี่ยงที่เหลืออยู่ • QHSE/SP must be consulted when residual risk is Medium • ต้องปรึกษา จป.เมื่อความเสี่ยงที่เหลืออยู่อยู่ในระดับปานกลาง • Rig Manager must also be consulted when residual risk is High. • ต้องปรึกษาผู้จัดการแท่นขุดเจาะ เมื่อความเสี่ยงที่เหลืออยู่อยู่ในระดับสูง • The job must be ALARP before the job can start. • งานนี้จะทำได้ ต้องมีการลดความเสี่ยงอยู่ในระดับที่ต่ำที่สุดเท่าที่จะเป็นไปได้ (ALARP) ก่อนเริ่มงาน • SWA is the responsibility of each employee. • ใบอนุญาตทำงานเป็นความรับผิดชอบของพนักงานทุกคน • No Supervision no work. STOP if Supervisor is not at job location. • ไม่มีหัวหน้างาน = ไม่ทำงาน ต้องหยุดงานทันทีหากหัวหน้างานไม่อยู่ ณ สถานที่ทำงาน
> If HPT can't be used. Does the GREEN-OR-GREEN rule apply หากไม่สามารถใช้ HPT ได้ การใช้กฎการเขียวล้วนเขียวเท่านั้นสามารถนำมาใช้ได้หรือไม่?	Y / N / N/A	> For Confined Space. Is rescue plan in Place? หลังจากงานนี้เสร็จสมบูรณ์ มีแผนกู้ภัยพร้อมหรือไม่?	Y / N / N/A	
> Is the Line of fire (LOF) Position identified? If yes, Are the risk reduction measures adequate? ได้มีการระบุพื้นที่จากการใช้งานหรือไม่ หากใช่ มาตรการลดความเสี่ยงเพียงพอหรือไม่?	Y / N / N/A	> Chemical SDS Reviewed มีการทบทวนเอกสาร SDS (ข้อมูลความปลอดภัยของสารเคมี) แล้วหรือไม่?	Y / N / N/A	
> Is the dropped object hazard identified? If yes, Are the risk reduction measures & Restore in place? ได้มีการระบุอันตรายจากวัตถุตกหล่นแล้วหรือไม่? หากใช่ มาตรการลดความเสี่ยงและคืนสภาพเดิมพร้อมหรือไม่? (Restore) ได้ถูกดำเนินการแล้วหรือไม่?	Y / N / N/A	> OEM Instructions Reviewed ได้ทบทวนคู่มือคำแนะนำจากผู้ผลิตแล้วหรือไม่?	Y / N / N/A	
Hire? มีคนงานใหม่เข้าทำงานหรือไม่? หาก "ใช่" เขาได้รับมอบหมายแล้วหรือยังหรือไม่?	Y / N / N/A	> TOPS / Stop Work Authority Discussed? มีการพูดคุยถึงงาน ขอบเขตงานที่ชัดเจน / สิทธิ์ในการหยุดงานแล้วหรือไม่?	Y / N / N/A	

TASK PROMPT CARD (รายการสิ่งที่ต้องดำเนินการก่อนเริ่มงาน)

JOB TASKS (งาน)	HAZARDS (อันตราย)	CONTROLS MITIGATIONS (มาตรการควบคุม)
What are you about to do? - งานที่กำลังดำเนินการอยู่คืออะไร?	What can hurt you? - สิ่งใดอาจเป็นอันตราย !	How can you control the hazards? - จะควบคุมอันตรายอย่างไร ?
☐ Catering/ Galley งานอาหารและอื่น ☐ Confined Space Entry งานในที่อับอากาศ ☐ Craging/ Uncraging งานขึ้นและลงกระเช้า ☐ Crane Operation งานยกโดยใช้เครน ☐ Electrical Work งานที่เกี่ยวข้องกับไฟฟ้า ☐ Unloading/ Loading/ Trucking งานขนส่งของขึ้นและลงจากรถ ☐ Welding/Grinding/Cutting งานเชื่อม / งานเจียร / งานตัด ☐ Working at Height งานทำงานบนที่สูง ☐ Working Over Water งานทำงานที่อาจมีโอกาสตกลงทะเล ☐ Other: _____ อื่นๆ	BIOLOGICAL - ทางชีวภาพ ☐ Bacteria, Virus or Parasite แบคทีเรีย ไวรัส หรือปรสิต ☐ Wildlife (Plant/Animal) สิ่งมีชีวิตจากพืชหรือสัตว์ ☐ Other: _____ อื่นๆ CHEMICAL/SUBSTANCE - สารเคมี ☐ Asbestos, Corrosive, Toxic, etc. แร่ใยหิน สารกัดกร่อน สารพิษ และอื่น ๆ ☐ Explosive/Flammable วัตถุระเบิดและไวไฟ/ไวไฟ	☐ Absorbent Material/Spill Kit วัสดุดูดซับ / ชุดอุปกรณ์กู้ล้างสารเคมีหกไหล ☐ Barrier/Control Access/Warning Sign รั้วกั้น / การควบคุมการเข้าพื้นที่ / ป้ายเตือน ☐ Barrier Cream ครีมกันสิ่งสกปรกหรือน้ำมันกันสารเคมี ☐ Body Posture ท่าทางในการทำงาน ☐ Communication - Radio/ Sign การสื่อสาร – วิทยุ / สัญญาณมือ ☐ Secondary Retention การป้องกันหรือป้องกันพื้นที่ภายนอกบริเวณที่เกิดเหตุ ☐ Tag Line (Proper Length)/ Push Pole เชือกนำทิศทาง (ความยาวเหมาะสม) ด้าม เพื่อไม่ให้เกิดพื้นที่ไหลลง และการใช้เชือกนำทิศทางที่ถูกต้อง ☐ Tie Off Tool อุปกรณ์ผูกยึดเครื่องมือกันการตกจากโครงสร้าง ☐ Tyvek® Suit ชุดป้องกันสารเคมี ☐ Whip Check/ Safety Line สายกันกันการตกลง

TASK PROMPT CARD (รายการสิ่งที่ต้องดำเนินการก่อนเริ่มงาน)

JOB TASKS (งาน)	HAZARDS (อันตราย)	CONTROLS MITIGATIONS (มาตรการควบคุม)
What are you about to do? - งานที่กำลังดำเนินการอยู่คืออะไร ?	What can hurt you? - สิ่งใดอาจเป็นอันตราย !	How can you control the hazards? - จะควบคุมอันตรายอย่างไร ?
☐ Explosives Handling งานเกี่ยวข้องกับวัตถุระเบิด ใช่/ไม่ ☐ Forklift Operation รถยก ☐ Fuel Transfer การขนส่งเชื้อเพลิง ☐ Hand/Power Tool Usage การใช้เครื่องมือด้วยมือหรือเครื่องมือที่ใช้ไฟฟ้า ☐ High Pressure Washing การทำงานที่ต้องใช้แรงดันสูง ☐ Man Riding Operation งานบนรถโฟล์ค ☐ Manual Handling งานที่ต้องใช้แรงงาน ☐ Mixing/Handling Substance การทำงานกับสารเคมี ☐ Painting งานสี ☐ Personnel Transfer งานยก หรือ เคลื่อนย้ายคน ☐ Pressure Testing งานทดสอบแรงดัน ☐ Pushing/Pulling งานลาก หรือ ดัน ☐ Radioactive Handling งานเกี่ยวกับสารกัมมันตรังสี ☐ Scaffolding งานนั่งร้าน ☐ Simultaneous Operation การทำงานหลายอย่างพร้อมกันในพื้นที่เดียวกันหรือใกล้เคียงกัน ☐ Slinging/Rigging/Securing Load การผูกยึด โยก การยึดสิ่งของให้แน่น และการเก็บกวาดพื้นที่ของยก ☐ Stacking/Storing การวางซ้อน / การเก็บกัน ☐ Third Party Operation/ Equipment การใช้บริการ / อุปกรณ์จากหน่วยงานภายนอก ☐ Tubular Handling การจัดการท่อต่างๆ	☐ Hazardous Atmosphere (Pure, Dust, Oxygen Deficiency, etc.) บรรยากาศที่อันตราย (ไอระเหยที่, ฝุ่น, ออกซิเจน เป็นต้น) ☐ Other: _____ อื่นๆ ELECTRICAL - ไฟฟ้า ☐ Low/High Voltage แรงดันต่ำ / แรงดันสูง ☐ Static ไฟฟ้าสถิต / ☐ Other: _____ อื่นๆ GRAVITY - แรงโน้มถ่วง ☐ Overhead Tool or Equipment เครื่องมือหรืออุปกรณ์ที่อยู่เหนือ (หล่นลงมา) ☐ Working at Height/Open Deck การทำงานบนที่สูง / ช่องเปิด ☐ Other: _____ อื่นๆ MECHANICAL - อุปกรณ์เครื่องจักรกล ☐ Rotating Equipment/Moving Part อุปกรณ์หมุนและชิ้นส่วนที่เคลื่อนไหว ☐ Sharp Edge ขอบแหลมคม ☐ Other: _____ อื่นๆ MOTION - การเคลื่อนไหว ☐ Vessel/Equipment Movement การเคลื่อนที่ของเรือ/อุปกรณ์ ☐ Awkward Position/ Repetitive/ Lifting/ Bending ท่าทางไม่เหมาะสม / การทำซ้ำ ๆ ☐ Flowing Water/High Wind น้ำไหลแรง / ลมแรง ☐ Other: _____ อื่นๆ NOISE/VIBRATION - เสียงดังและการสั่นสะเทือน ☐ Loud Noise Equipment or Tool เครื่องมือ/อุปกรณ์ที่ส่งเสียงดัง ☐ Vibration (Hand/Arm/Body) การสั่นสะเทือน (มือ/แขน/ทั้งกาย) ☐ Communication Problem ปัญหาการสื่อสาร ☐ Other: _____ อื่นๆ PRESSURE - แรงดัน ☐ High Pressure แรงดันสูง ☐ Gas Under Pressure ก๊าซภายใต้แรงดัน ☐ Low Pressure and High Vol แรงดันต่ำ และ ปริมาตรสูง ☐ Trapped Pressure แรงดันที่ถูกกักไว้ภายใน RADIATION - รังสี ☐ Lighting (Glare/Insufficient) การให้แสงสว่าง (แสงจ้า / แสงไม่เพียงพอ) ☐ Ionizing Radiation รังสีก่อไอออน	☐ Cooling/ Hydration การปรับอุณหภูมิของร่างกาย / การดื่มน้ำให้เพียงพอ ☐ Energy Isolation การตัดแหล่งพลังงาน ☐ Equipment Inspection การตรวจสอบอุปกรณ์ ☐ Escape Route เส้นทางหลบหนีจากอันตราย ☐ Fall Protection การป้องกันการตกจากที่สูง ☐ Fire Watch/ Extinguisher ผู้เฝ้าระวังไฟ / อุปกรณ์ดับเพลิง ☐ Gas Detection อุปกรณ์ตรวจวัดก๊าซ ☐ Gloves (Right Type for the Job) ถุงมือ (ชนิดที่เหมาะสมกับงาน) ☐ Goggles/ Face Shield หน้ากากอนามัย/แว่นตากัน ☐ Hand Placement/ Hands Off การวางมือในการจับยึด/การหลีกเลี่ยงตำแหน่งมือ ☐ Hearing Protection การป้องกันการสูญเสียการได้ยิน ☐ Housekeeping การจัดการความสะอาดเรียบร้อย ☐ Radiation Control มาตรการควบคุมรังสีจากการใช้ ☐ Rescue Plan แผนกู้ภัยใช้ ☐ Respiratory Protection มาตรการป้องกันระบบทางเดินหายใจ ☐ Rig Announcement การประกาศเรื่องข้อมูลในงาน ☐ Work Instruction/ Procedure/ OEM Manual คำแนะนำการปฏิบัติงาน/ขั้นตอนการปฏิบัติงาน/คู่มือ ☐ Work Vest/ Lifejacket เสื้อกั๊กชูชีพ / เสื้อชูชีพ ☐ Other: _____ อื่นๆ

TASK PROMPT CARD (รายการสิ่งที่ต้องดำเนินการก่อนเริ่มงาน)

JOB TASKS (งาน)	HAZARDS (อันตราย)	CONTROLS MITIGATIONS (มาตรการควบคุม)
What are you about to do? - งานที่กำลังดำเนินการอยู่คืออะไร ?	What can hurt you? - สิ่งใดอาจเป็นอันตราย !	How can you control the hazards? - จะควบคุมอันตรายอย่างไร ?
☐ Explosives Handling งานเกี่ยวข้องกับวัตถุระเบิด ใช่/ไม่ ☐ Forklift Operation รถยก ☐ Fuel Transfer การขนส่งเชื้อเพลิง ☐ Hand/Power Tool Usage การใช้เครื่องมือด้วยมือหรือเครื่องมือที่ใช้ไฟฟ้า ☐ High Pressure Washing การทำงานที่ต้องใช้แรงดันสูง ☐ Man Riding Operation งานบนรถโฟล์ค ☐ Manual Handling งานที่ต้องใช้แรงงาน ☐ Mixing/Handling Substance การทำงานกับสารเคมี ☐ Painting งานสี ☐ Personnel Transfer งานยก หรือ เคลื่อนย้ายคน ☐ Pressure Testing งานทดสอบแรงดัน ☐ Pushing/Pulling งานลาก หรือ ดัน ☐ Radioactive Handling งานเกี่ยวกับสารกัมมันตรังสี ☐ Scaffolding งานนั่งร้าน ☐ Simultaneous Operation การทำงานหลายอย่างพร้อมกันในพื้นที่เดียวกันหรือใกล้เคียงกัน ☐ Slinging/Rigging/Securing Load การผูกยึด โยก การยึดสิ่งของให้แน่น และการเก็บกวาดพื้นที่ของยก ☐ Stacking/Storing การวางซ้อน / การเก็บกัน ☐ Third Party Operation/ Equipment การใช้บริการ / อุปกรณ์จากหน่วยงานภายนอก ☐ Tubular Handling การจัดการท่อต่างๆ	☐ Hazardous Atmosphere (Pure, Dust, Oxygen Deficiency, etc.) บรรยากาศที่อันตราย (ไอระเหยที่, ฝุ่น, ออกซิเจน เป็นต้น) ☐ Other: _____ อื่นๆ ELECTRICAL - ไฟฟ้า ☐ Low/High Voltage แรงดันต่ำ / แรงดันสูง ☐ Static ไฟฟ้าสถิต / ☐ Other: _____ อื่นๆ GRAVITY - แรงโน้มถ่วง ☐ Overhead Tool or Equipment เครื่องมือหรืออุปกรณ์ที่อยู่เหนือ (หล่นลงมา) ☐ Working at Height/Open Deck การทำงานบนที่สูง / ช่องเปิด ☐ Other: _____ อื่นๆ MECHANICAL - อุปกรณ์เครื่องจักรกล ☐ Rotating Equipment/Moving Part อุปกรณ์หมุนและชิ้นส่วนที่เคลื่อนไหว ☐ Sharp Edge ขอบแหลมคม ☐ Other: _____ อื่นๆ MOTION - การเคลื่อนไหว ☐ Vessel/Equipment Movement การเคลื่อนที่ของเรือ/อุปกรณ์ ☐ Awkward Position/ Repetitive/ Lifting/ Bending ท่าทางไม่เหมาะสม / การทำซ้ำ ๆ ☐ Flowing Water/High Wind น้ำไหลแรง / ลมแรง ☐ Other: _____ อื่นๆ NOISE/VIBRATION - เสียงดังและการสั่นสะเทือน ☐ Loud Noise Equipment or Tool เครื่องมือ/อุปกรณ์ที่ส่งเสียงดัง ☐ Vibration (Hand/Arm/Body) การสั่นสะเทือน (มือ/แขน/ทั้งกาย) ☐ Communication Problem ปัญหาการสื่อสาร ☐ Other: _____ อื่นๆ PRESSURE - แรงดัน ☐ High Pressure แรงดันสูง ☐ Gas Under Pressure ก๊าซภายใต้แรงดัน ☐ Low Pressure and High Vol แรงดันต่ำ และ ปริมาตรสูง ☐ Trapped Pressure แรงดันที่ถูกกักไว้ภายใน RADIATION - รังสี ☐ Lighting (Glare/Insufficient) การให้แสงสว่าง (แสงจ้า / แสงไม่เพียงพอ) ☐ Ionizing Radiation รังสีก่อไอออน	☐ Cooling/ Hydration การปรับอุณหภูมิของร่างกาย / การดื่มน้ำให้เพียงพอ ☐ Energy Isolation การตัดแหล่งพลังงาน ☐ Equipment Inspection การตรวจสอบอุปกรณ์ ☐ Escape Route เส้นทางหลบหนีจากอันตราย ☐ Fall Protection การป้องกันการตกจากที่สูง ☐ Fire Watch/ Extinguisher ผู้เฝ้าระวังไฟ / อุปกรณ์ดับเพลิง ☐ Gas Detection อุปกรณ์ตรวจวัดก๊าซ ☐ Gloves (Right Type for the Job) ถุงมือ (ชนิดที่เหมาะสมกับงาน) ☐ Goggles/ Face Shield หน้ากากอนามัย/แว่นตากัน ☐ Hand Placement/ Hands Off การวางมือในการจับยึด/การหลีกเลี่ยงตำแหน่งมือ ☐ Hearing Protection การป้องกันการสูญเสียการได้ยิน ☐ Housekeeping การจัดการความสะอาดเรียบร้อย ☐ Radiation Control มาตรการควบคุมรังสีจากการใช้ ☐ Rescue Plan แผนกู้ภัยใช้ ☐ Respiratory Protection มาตรการป้องกันระบบทางเดินหายใจ ☐ Rig Announcement การประกาศเรื่องข้อมูลในงาน ☐ Work Instruction/ Procedure/ OEM Manual คำแนะนำการปฏิบัติงาน/ขั้นตอนการปฏิบัติงาน/คู่มือ ☐ Work Vest/ Lifejacket เสื้อกั๊กชูชีพ / เสื้อชูชีพ ☐ Other: _____ อื่นๆ

JOB TASKS (งาน)	HAZARDS (อันตราย)	CONTROLS MITIGATIONS (มาตรการควบคุม)
What are you about to do? - งานที่กำลังดำเนินการอยู่คืออะไร ?	What can hurt you? - สิ่งใดอาจเป็นอันตราย !	How can you control the hazards? - จะควบคุมอันตรายอย่างไร ?
☐ Electromagnetic, UV, ☐ Other: _____ อื่นๆ TEMPERATURE - อุณหภูมิ ☐ Heat ☐ Cold/Cryogenic ☐ Other: _____ อื่นๆ		

JSA PARTICIPANTS (Including any 3rd Party personnel) - รายชื่อผู้เข้าร่วม JSA (รวมบุคคลจากบริษัทภายนอก)

NAME - ชื่อ	POSITION - ตำแหน่ง	SIGNATURE - ลายเซ็น	NAME - ชื่อ	POSITION - ตำแหน่ง	SIGNATURE - ลายเซ็น
[redacted]	[redacted]	[redacted]			

JOB ANALYSIS - การวิเคราะห์งาน

MAIN JOB STEPS ขั้นตอนงานหลัก	SPECIFIC HAZARD อันตรายที่เกี่ยวข้องกับงานนี้	INITIAL RISK ความเสี่ยงก่อนการควบคุมเพิ่มเติม (L/M/H) (ต่ำ / ปานกลาง สูง)	CONTROL / MITIGATION MEASURE มาตรการควบคุม / มาตรการลดความเสี่ยง	RESIDUAL RISK ความเสี่ยงที่เหลืออยู่หลังการควบคุม (L/M/H) (ต่ำ / ปานกลาง สูง)	JOB STEP ASSIGNED TO ขั้นตอนงานมอบหมายให้กับผู้รับผิดชอบ
1. Job Preparation - Obtain PTW and associated document such as lift plan , rescue plan . Pre use man basket/ billy pugh inspection checklist etc. - Inspect the Basket - Check Load Weight - Secure Contents - Clear Pathway - Check weather - Prepare team member - Prepare PPE การเตรียมการก่อนทำงาน - ตรวจสอบงานก่อน - ตรวจสอบน้ำหนักบรรทุก - จัดเก็บสิ่งของให้เรียบร้อย - เคลียร์ทางเดิน - ตรวจสอบสภาพอากาศ	Not authorised to make transfer Damage to any lifting gear can cause failure when lifting. High winds, rough seas, rain, or low visibility can increase the risk of accidents Lift plan not in place ไม่มีอำนาจทำการขนส่งของ ความเสียหายต่ออุปกรณ์ยกใดๆ สามารถทำให้เกิดความล้มเหลวเมื่อยกได้ สภาพอากาศที่มีลมแรง คลื่นสูง ฝนตก หรือทัศนวิสัยไม่ดี อาจเพิ่มความเสี่ยงของอุบัติเหตุ ไม่มีแผนการยกไม่มี หรือ ไม่พร้อมใช้งาน พนักงานไม่ได้ติดตามใบงานปฏิบัติงาน	M6	Obtain permit and get authorisation Inspected, rated and color coded Basket and Lifting gear before lift made. Ensure the basket/Billy pugh is in good condition, with no visible damage. Confirm that the basket's weight is within the lifting equipment's capacity. Review and follow safe lift plan. Ensure all items in the basket are properly secured to prevent shifting during the transfer. Remove obstacles from the storage area to the main deck. Inform all personnel involved about the transfer plan and their roles. Ensure everyone wears helmets, gloves, steel-toe boots, and other necessary PPE. รถโฟลคูลูกจ้างงานและอุปกรณ์ที่ใช้ในการขนย้ายได้ รวมถึงใบอนุญาตทำงาน เครื่องมือสลาวโปแลนูลูกจ้างงาน แผนการยกที่เหมาะสม เช่น แผนการชั่งน้ำหนักของวัตถุ ตรวจสอบ ยืนยันน้ำหนักของวัตถุที่จะยก ตรวจสอบ ยืนยันน้ำหนักของวัตถุที่จะยก และการเตรียมพื้นที่ทำงาน

4. Personnel transfer from boat to rig or vice versa การโดนย้ายบุคลากรจากเรือไปยังแท่นขุดเจาะหรือในทางกลับกัน	Persons all from height onto boat or into water High winds, rough seas, rain, or low visibility can increase the risk of accidents Man overboard. Falls/Slips/Trips. Poor Communication SIMOP. ความเร็วลมสูง ในทะเลที่มีคลื่นแรง ฝนตก หรือมีทัศนวิสัยไม่ดี อาจทำให้เพิ่มความเสี่ยงในการเกิดอุบัติเหตุ คนตกน้ำ ลื่น หกล้ม การสื่อสารที่ไม่ดี หรือ ไม่มีประสิทธิภาพ ระหว่างผู้ที่เกี่ยวข้อง มีแนวโน้มที่จะเกิดอุบัติเหตุได้	12	Inspect lifting gear, Billy Pugh, current color code, positive locking hooks, hooked up properly, CENTER BLOCK, PTW, Critical lift and Rescue plans required . Inform rescue team. Use work vest with light, hook Pugh safety lanyard to person, correct body position and wrap two hands around rope, Raise/Lower Billy Pugh over water before swing over to boat. Competent Crane operator ,Center block and signal man, stay clear from structure, C/O RISK ASSESS WIND LEVEL. ตรวจสอบอุปกรณ์ยกของก่อนทำงาน ตะขอ กรงกันล็อคมีน้ำหนัก ตรวจสอบให้ล็อคอย่างถูกต้อง เชื่อมกระดาษ มี PTW แผนการกอบกู้ที่ชัดเจน ใช้ท่าที่ปลอดภัย ยกขึ้น ค่อยๆ ให้กับผู้ที่อยากจะขึ้นเรือ ความเสี่ยงที่เกี่ยวข้องกับการขนส่งทางน้ำ ปรึกษาหน่วยงานที่เกี่ยวข้อง และขึ้นลงเรือ ตรวจสอบสภาพอากาศ ก่อนการปฏิบัติงาน	12	
5. landing personnel on deck การลงจอดบุคลากรบนดาดฟ้าที่กำหนด	swinging Pugh, Hard landing due to sea swells, Injured personnel, Impact with cargo on boat, HIT RIGGER กระแทก แรงไม่นิ่ง ลงจอดอาจเนื่องจากคลื่นลมแรง บุคลากรได้รับบาดเจ็บ การชนกับสิ่งกีดขวางบนเรือ ขนถ่ายกับแท่นขุดเจาะ	12	Competent C/O, bend knees when landing, clear landing area and monitor sea swells, use tagline / PUSH PULL STICK เคลียร์โซนลงจอดที่กำหนดที่มีความสามารถ หมั่นงานต้องเครื่องเล่น ตรวจสอบน้ำมันเครื่องยนต์ เชือกนำขึ้นลงจอด เสถียรที่จะขึ้นลงจอดและติดตามสัญญาณ ใช้เท้าไล่ หรือ อุปกรณ์ยนต์ที่ เช่น ไม้ สัญญาณไฟ	12	
6. Completion of the task การดำเนินการสิ้นสุด	Damaged Billy Pugh from poor storage กระทำ เนื่องจากการจัดเก็บที่ไม่ดี	11	Proper stowage after use Check for any damage to the lifting gear or basket. Ensure the basket is securely placed and cannot move unexpectedly. Close out PTW and inform all involved person to be aware of completion of the task. การจัดเก็บที่เหมาะสมหลังการใช้งาน ตรวจสอบว่าอุปกรณ์ยกหรือตะกร้าได้รับความเสียหายหรือไม่ ตรวจสอบให้แน่ใจว่าวางอย่างมั่นคงและไม่สามารถเคลื่อนย้ายได้โดยไม่ตั้งใจ ปิด PTW และแจ้งให้ผู้ที่เกี่ยวข้องทั้งหมดทราบเมื่องานเสร็จสิ้น	11	

SIMPLIFIED RISK MATRIX - ตารางคำนวณความเสี่ยง

Severity	Likelihood 1	2	3	4	5
	Frequency = once in the industry	Frequency > once in the industry	Frequency = once in ADES	Frequency = once at same site	Frequency > once at same site
5 • Multiple fatalities • Spill > 5000 bbl. • PD > $250k • PSE Level 5	Medium (5)	Medium (10)	High (15)	High (20)	High (25)
4 • FTL/Total disability • Spill 500>5000 bbl. • PD $100k>250k • PSE Level 4	Low (4)	Medium (8)	Medium (12)	High (16)	High (20)
3 • LTI/ Partial disability • Spill 50>500 bbl. • PD $50k>100k • PSE Level 3	Low (3)	Medium (6)	Medium (9)	Medium (12)	High (15)
2 • MTC or RWC • Spill 25>50 bbl. • PD $10k>50k • PSE Level 2	Low (2)	Low (4)	Medium (6)	Medium (8)	Medium (10)
1 • FAC • Spill <25 bbl. • PD <$10k • PSE Level1	Low (1)	Low (2)	Low (3)	Low (4)	Medium (5)

POST JOB REVIEW (WHAT WENT WELL? / WHAT CAN BE IMPROVED?)
การทบทวนงานหลังงานงาน (อะไรที่ทำได้ดี? / อะไรที่ควรปรับปรุง?)

DOES THE JSA NEED TO BE UPDATED?
ข้อมูลต้องปรับปรุง JSA หรือไม่?

Yes - ใช่ | No - ไม่ใช่

SIGNATURE: OIM / STP / PIC
ลายเซ็น: โอไอเอ็ม /ซีเนียร์บุลลุชาระเซอร์) / ผู้รับผิดชอบ (PIC)

[redacted]

Scanned with CamScanner

129

ADES

Pre Lifting Personnel Check List
รายการตรวจสอบบุคลากรก่อนการยกคน

stions to ask prior to any lifting personnel operation
คำถามที่ต้องถามก่อนเริ่มดำเนินการยกคน

1. Do we have to do this task? *If there is a safer alternative method available and feasible, personnel hoisting operation shall not proceed.* เราจำเป็นต้องทำภารกิจนี้หรือไม่ หากมีวิธีทางเลือกที่ปลอดภัยกว่าและเป็นไปได้ การดำเนินการยกบุคลากรจะไม่ดำเนินการต่อ	Yes ใช่ ☐	No ไม่ใช่ ☐
2. Is this the correct time and weather conditions to undertake the task? เวลาและสภาพอากาศที่เหมาะสมในการดำเนินการงานหรือไม่?	Yes ใช่ ☐	No ไม่ใช่ ☐
3. Is the Permit signed on and JSA discussed? มีการลงนามในอนุญาตและมีการพูดคุยเกี่ยวกับแอดมหรือไม่	Yes ใช่ ☐	No ไม่ใช่ ☐

Personnel Basket Checklist (รายการตรวจสอบตะกร้าหรือกระเช้าสำหรับยกคน)

1. Trial Lift Completed with anticipated lift weight: SWL 2,000 (lbs. o (kg) การยกทดลองเสร็จสิ้นด้วยน้ำหนักที่คาดว่าจะยก: _____ (ปอนด์หรือกก.)	Yes ใช่ ☐	No ไม่ใช่ ☐
2. Are all manufacturer markings visible and in place (e.g. OEM Plate) มีเครื่องหมายผู้ผลิตทั้งหมดที่เรียงเห็นได้และอยู่ในตำแหน่งหรือไม่ (เช่น แผ่นป้ายผู้ผลิตอิสระ)	Yes ใช่ ☐	No ไม่ใช่ ☐
3. Is the basket holding a valid 3rd party inspection? ตะกร้าได้รับการรับรองการตรวจสอบจากบุคคลที่สามที่ถูกต้องหรือไม่?	Yes ใช่ ☐	No ไม่ใช่ ☐
4. Is the basket access gate locking mechanism working? กลไกการล็อคประตูของตะกร้าทำงานได้ปกติหรือไม่?	Yes ใช่ ☐	No ไม่ใช่ ☐
5. Are the anchorage points in good condition for attaching personnel fall protection lanyard? จุดยึดเพื่อติดเชือกนิรภัยกันการตกสำหรับบุคลากรอยู่ในสภาพดีหรือไม่?	Yes ใช่ ☐	No ไม่ใช่ ☐
6. Is the suspensions system (wire ropes/shackles/master link) holding a valid 3rd party inspection and a SWL as per OEM Specifications? ระบบกันระย้าเหล็ก (ลวดสลิง/กุญแจคล้อง/ลิงค์หลัก) ได้รับการตรวจสอบจากบุคคลที่สามอย่างถูกต้องและมี SWL ตาม ข้อกำหนดของผู้ผลิตหรือไม่	Yes ใช่ ☐	No ไม่ใช่ ☐

Winch Check List (รายการตรวจสอบเครื่องยกวาน)

1. Is winch in good condition. (And check for any Defects recorded)? กว้านอยู่ในสภาพดีหรือไม่ (และตรวจสอบว่ามีข้อบกพร่องใด ๆ ที่ควรบันทึกหรือไม่)	Yes ใช่ ☐	No ไม่ใช่ ☐
2. Is there sufficient air supply for a safe operation of winch? มีอากาศเพียงพอต่อการทำงานของเครื่องกว้านอย่างปลอดภัยหรือไม่	Yes ใช่ ☐	No ไม่ใช่ ☐
3. Is the emergency brake in good condition and operable? ระบบเบรคฉุกเฉินอยู่ในสภาพดีและใช้งานได้หรือไม่?	Yes ใช่ ☐	No ไม่ใช่ ☐
4. Is wire rope no older than 6 months? Is 4 part shackle in good condition and with valid 3rd party certification? ลวดสลิงมีอายุไม่เกิน 6 เดือนหรือไม่? เชคเกิล 4 ส่วนอยู่ในสภาพดีและมีใบรับรองจากบุคคลที่สามที่ถูกต้องหรือไม่?	Yes ใช่ ☐	No ไม่ใช่ ☐

Crane Check List (รายการตรวจสอบเครน)

1. Is crane designed for personnel lifting and is it equipped with an anti-two block device in working condition? *If the answer is no, personnel hoisting shall not proceed.* เครนได้รับการออกแบบมาเพื่อการยกของบุคลากรหรือไม่ และมีอุปกรณ์ป้องกันการเลื่อนลงอันตรายอยู่ในสภาพการทำงานหรือไม่ หากคำตอบคือไม่ การยกของบุคลากรจะไม่สามารถดำเนินการได้	Yes ใช่ ☐	No ไม่ใช่ ☐
2. Is wire rope and emergency brake in good condition and operable? ลวดสลิงและเบรคฉุกเฉินอยู่ในสภาพดีและใช้งานได้หรือไม่?	Yes ใช่ ☐	No ไม่ใช่ ☐
3. Is the load line hook attached to the basket having a locking type safety latch? ขอเกี่ยวที่ติดอยู่กับตะกร้ามีตัวล็อคนิรภัยหรือไม่?	Yes ใช่ ☐	No ไม่ใช่ ☐
4. Has the crane been set up on level ground, with outriggers fully extended and on mats? เครนได้รับการติดตั้งบนพื้นที่ราบ โดยมีขาตั้งยื่นออกมาเต็มที่ และอยู่บนแผ่นรองหรือไม่?	Yes ใช่ ☐	No ไม่ใช่ ☐

Pre Hoisting Operation Discussion (การสนทนาเกี่ยวกับการปฏิบัติการก่อนการยก)

1. Do all personnel involved fully understand the correct Hand Signals? (Review signals) บุคลากรที่เกี่ยวข้องทั้งหมดเข้าใจสัญญาณมือที่ถูกต้องอย่างถ่องแท้หรือไม่ (ตรวจสอบสัญญาณ)	Yes ใช่ ☐	No ไม่ใช่ ☐

Scanned with CamScanner

ADES

Pre Lifting Personnel Check List
รายการตรวจสอบบุคลากรก่อนการยกคน

2.	e Crane / Winch operator deemed competent to undertake this operation? ผู้ควบคุมเครน / กว้าน มีความสามารถในการดำเนินการนี้หรือไม่?	Yes ใช่ ✓	No ไม่ใช่ ☐
3.	Has a signalman/banksman selected for this lifting operation? มีการเลือกคนส่งสัญญาณ/แบงก์แมนสำหรับปฏิบัติการยกนี้หรือไม่?	Yes ใช่ ✓	No ไม่ใช่ ☐
4.	Have all parties discussed Rescue/Recovery Plan and ensured a full and certified 15 Min BA Pack was offered for each person lifted as well Operator (For H_2S Environment only)? ทุกฝ่ายได้หารือกันถึงแผนการกู้ภัย/กู้ชีพหรือไม่ และได้แน่ใจว่ามีการเตรียมถังอากาศเพื่อจัดหา 15 นาที ไว้อย่างครบถ้วนสำหรับพนักงานทุกคนที่เกี่ยวข้องกับการควบคุมลูก (สำหรับสภาพแวดล้อม H2S เท่านั้น)	Yes ใช่ ✓	No ไม่ใช่ ☐
5.	Have all the tools been registered in the Tools at height log. Are they secured? เครื่องมือทั้งหมดได้รับการลงทะเบียนในบันทึกเครื่องมือที่ความสูงแล้วหรือไม่ มีการจัดการอย่างปลอดภัยหรือไม่	Yes ใช่ ✓	No ไม่ใช่ ☐
6.	Has TDS and Rotary been isolated so no lifting personnel operation is taking place while pipe or travelling block is in movement. มีการควบคุมงาน TDS และ Rotary ออกจากกัน เมื่อทำงานแยกคนของช่างไม่ทำพร้อมกันกับการทำงานเครื่องยกท่อหรือบล็อก	Yes ใช่ ✓	No ไม่ใช่ ☐
7.	Has the Personnel Lifting Area been barricaded? พื้นที่ยกบุคลากรมีการปิดกั้นหรือไม่?	Yes ใช่ ✓	No ไม่ใช่ ☐

Approval อนุมัติ	Name ชื่อ	Signature ลายเซ็นต์	Date วันที่
Crane Operator พนักงานขับเครน	[redacted]	[redacted]	09-10-25
OIM โอไอเอ็ม	[redacted]	[redacted]	

Scanned with CamScanner

ADES

BILLY PUGH -X-904 Pre-Use Inspection
รายการตรวจสอบก่อนการใช้งานกระเช้า X-904

Date วันที่	09-10-25
Name ชื่อ	[redacted]
Signature ลายเซ็นต์	[redacted]

Item to be inspected รายการตรวจสอบ	Pass ผ่าน	Fail ไม่ผ่าน
1.General Damage (การตรวจสอบความเสียหายทั่วไป)		
Check for any damage or defect on all parts of the unit. ตรวจสอบว่ามีความเสียหายหรือข้อบกพร่องใด ๆ บนส่วนต่าง ๆ ของอุปกรณ์หรือไม่	✓	
2.Safety Load Line (สายรับน้ำหนักเพื่อความปลอดภัย)		
Visually inspect safety load line when attaching the X-904 to the crane hook ตรวจสอบสายรับน้ำหนักเพื่อความปลอดภัยด้วยสายตา เมื่อทำการติดตั้ง X-904 เข้ากับตะขอของเครน	✓	
3. 4-part Sling (สายสลิง 4 ส่วน)		
Visually inspect the 4-part sling and all hardware as well as the load line.excessive wear or damage, ตรวจสอบสายสลิงแบบ 4 ส่วน รวมถึงอุปกรณ์ประกอบทั้งหมดและสายรับน้ำหนักด้วยสายตา เพื่อตรวจหาการสึกหรอหรือความเสียหายที่มากเกินไป	✓	
4.Stabilizer (ตัวกันโคลง)		
Visually inspect the fabric covered stabilizer. Look for crimps, broken wires or excessive wear or rust. If any of these problems exist, take the unit out of service immediately and replace the stabilizer. ตรวจสอบตัวกันโคลงที่หุ้มด้วยวัสดุผ้าด้วยสายตา ตรวจหาการบีบงอ (crimps) ลวดที่ขาด การสึกหรอที่มากเกินไป หรือสนิม หากพบปัญหาใด ๆ เหล่านี้ ให้นำอุปกรณ์ออกจากการใช้งานทันทีและเปลี่ยนตัวกันโคลงใหม่	✓	
5.Crane Hook (ตะขอเครน)		
Inspect crane hook positive locking device for function and physical condition. ตรวจสอบอุปกรณ์ล็อกตะขอเครนเพื่อให้แน่ใจว่าใช้งานได้ปกติและอยู่ในสภาพที่ดี	✓	
6.Top & Bottom Ring (วงแหวนด้านบนและด้านล่าง)		
Visually inspect all the load bearing areas of the X-904 for excessive wear or damage, ตรวจสอบพื้นที่ที่รองรับน้ำหนักทั้งหมดของ X-904 ด้วยสายตา เพื่อตรวจหาการสึกหรอหรือความเสียหายที่มากเกินไป	✓	
7.Rigging Lines (สายรัดยก)		
Visually inspect the rigging lines (inner and outer). ตรวจสอบสายรัดยกทั้งด้านในและด้านนอกด้วยสายตา	✓	
8.Center Pole (เสากลาง)		
Visually inspect the aluminum center section for damage,cracks, or excessive wear. ตรวจสอบส่วนกลางของเสาอะลูมิเนียมด้วยสายตา เพื่อหาความเสียหาย รอยแตกร้าว หรือการสึกหรอที่มากเกินไป	✓	
9.Quick Release Hook (ตะขอปลดเร็ว)		
Inspect the stainless quick release hooks. Regularly spray with a lubricant (i.e. WD-40) to protect from corrosion. ตรวจสอบตะขอปลดเร็วสเตนเลสให้อยู่ในสภาพดี และควรฉีดสารหล่อลื่นเป็นประจำ (เช่น WD-40) เพื่อป้องกันการเกิดสนิม	✓	
Crane Check List (รายการตรวจสอบเครน)		
1. Is crane designed for personnel lifting and is it equipped with an anti-two block device in working condition? *If the answer is no, personnel hoisting shall not proceed.* *เครนถูกออกแบบสำหรับการยกบุคคลและมีอุปกรณ์ป้องกันการชน (Anti-Two Block Device) ที่ใช้งานได้หรือไม่? หากคำตอบคือ "ไม่" ห้ามดำเนินการยกบุคคล*	✓	
2. Is wire rope and emergency brake in good condition and operable? ลวดสลิงและเบรกฉุกเฉินอยู่ในสภาพดีและใช้งานได้หรือไม่?	✓	
3. Is the load line hook attached to the basket having a locking type safety latch? ตะขอสายรับน้ำหนักที่เชื่อมต่อกับกระเช้าสำหรับบุคคลมีตัวล็อกนิรภัยแบบล็อกอัตโนมัติหรือไม่?	✓	

Scanned with CamScanner

MAN BASKET CHECK LIST
รายการตรวจสอบก่อนใช้งานตะกร้าสำหรับยกคน

Date วันที่	09-10-25
Name ชื่อ	[redacted]
Signature ลายเซ็นต์	[redacted]

Item to be Inspected รายการตรวจสอบ	Pass ผ่าน	Fail ไม่ผ่าน
1.General Damage (ความเสียหายทั่วไป)		
Check for any damage or defect on all parts of the unit. ตรวจสอบความเสียหายหรือชำรุดบกพร่องในส่วนประกอบทั้งหมดของอุปกรณ์	✓	
2.Safety Load Line (สายรับน้ำหนักเพื่อความปลอดภัย)		
Visually inspect safety load line when attaching the Man Basket to the crane hook ตรวจสอบสายรับน้ำหนักเพื่อความปลอดภัยด้วยสายตาเมื่อทำการติดตั้ง ตะกร้าสำหรับยกคน เข้ากับตะขอเครน	✓	
3. 4-part Sling (สายสลิง 4 ส่วน)		
Visually inspect the 4-part sling and all hardware as well as the load line.excessive wear or damage, ตรวจสอบสายสลิงแบบ 4 ส่วน รวมถึงอุปกรณ์ประกอบทั้งหมดและสายรับน้ำหนักด้วยสายตา เพื่อตรวจหาการสึกหรอหรือความเสียหายที่มากเกินไป	✓	
4. Man Basket Door (ประตูของตะกร้า)		
Visually inspect the door is latching correctly in closed position ตรวจสอบว่า ประตูของ Man Basket สามารถล็อกได้อย่างถูกต้องในตำแหน่งปิด	✓	
5.Crane Hook (ตะขอเครน)		
Inspect crane hook positive locking device for function and physical condition. ตรวจสอบอุปกรณ์ล็อกตะขอเครนเพื่อให้แน่ใจว่าใช้งานได้ปกติและอยู่ในสภาพที่ดี	✓	
6.Top & Bottom if man basket (ด้านบนและด้านล่างของ ตะกร้าสำหรับยกคน)		
Visually inspect the bottom of the basket for any cracked or damaged plating. Visually inspct the top of any signs of over loading of the pad eyes and correctly color coded ตรวจสอบด้านล่างของ ตะกร้าสำหรับยกคน ว่ามีการแตกหักหรือความเสียหายของแผ่นเหล็กหรือไม่ ตรวจสอบด้านบนของ ตะกร้าสำหรับยกคน เพื่อหาสัญญาณของการบรรทุกเกินหรือการเสียหายของจอยึด	✓	
7.Rigging Lines (สายรัดยก)		
Visually inspect the rigging lines (inner and outer). ตรวจสอบสายรัดยกทั้งด้านในและด้านนอกด้วยสายตา	✓	
8.Lanyard tie off points (จุดผูกสายปลอดภัย)		
Visually inspect that lanyard tie off points are in good condition and no broken welds. ตรวจสอบจุดผูกสายปลอดภัยว่าอยู่ในสภาพดีและไม่มีการเชื่อมต่อที่ขาดหรือเสียหาย	✓	
Crane Check List (รายการตรวจสอบเครน)		
1. Is crane designed for personnel lifting and is it equipped with an anti-two block device in working condition? *If the answer is no, personnel hoisting shall not proceed.* *เครนถูกออกแบบสำหรับการยกบุคคลและมีอุปกรณ์ป้องกันการชน (Anti-Two Block Device) ที่ใช้งานได้หรือไม่? หากคำตอบคือ "ไม่" ห้ามดำเนินการยกบุคคล*	✓	
2. Is wire rope and emergency brake in good condition and operable? ลวดสลิงและเบรกฉุกเฉินอยู่ในสภาพดีและใช้งานได้หรือไม่?	✓	
3. Is the load line hook attached to the basket having a locking type safety latch? ตะขอสายรับน้ำหนักที่เชื่อมต่อกับกระเช้าสำหรับบุคคลมีตัวล็อกนิรภัยแบบล็อกอัตโนมัติหรือไม่?	✓	

Scanned with CamScanner

ADES Billy Pugh transfer Rescue Plan

Man Overboard

The OIM shall be responsible for the safe guard of life as priority
The severity of the incident must be established at the shortest time possible.
Consult with the Barge Master with regards to the rescue resources and support for rescue of the man from the water.
To consult with the Client Representative who will be in assistance in arranging support from marine vessels, installations, aviation and medical.

Client Representative
The Client Representative to consult with the rig OIM, establishing a communications link between the rig and the onshore emergency response coordinators. To arrange the initiation for the marine services aviation and medical support as per PTTEP– ERP

Person observing the incident
In the event of person falling to the sea from the Billy Pugh, then the person observing the incident will be responsible for the following actions:
Throwing a flotation Ring Buoy or smoke and light marker Buoy aid to the person in the water.
Raising the alarm by shouting 'MAN OVERBOARD' or contacting the Control Room on the nearest telephone, ensuring that the person in the water is kept in sight at all times.
Passing the following information to the Radio Operator (RO)
There is a man overboard situation
Their own location and the location of the person in the water
If the person in the water is no longer in sight – state the last known location, in relation to the installation.
ADM 502 Radio Room Operator (RO)

On being informed of a man overboard incident, the Radio Operator will
Immediately notify the standby vessel of the incident, giving the last known location of the person in the water.
Advise the OIM of the incident
Sound the man overboard alarm of three long blasts (Marine when the rig is afloat.)
Sound the general alarm followed by PA announcement of man over board (when the rig is jacked up)
Maintain radio contact with the transfer vessel & ADM 502 OIM

On being advised that there is a man overboard situation, the OIM will
Dispatch the Barge Master, with a portable radio, to a location where he can observe the person in the water
Proceed to Control Room and act in the capacity of Incident Coordinator
Ensure that the following are notified of the incident:
Relevant Authorities
The ADES Drilling Onshore Duty Manager
Alert the Rig Medic to be prepared to transfer to the standby vessel to treat the person who has been in the water
Instruct the Crane Operator to complete the Billy Pugh transfer personnel to and from the standby vessel and be prepared to recover the person in the water.

Inform relevant authorities, when the person in the water has been recovered to safety and arrange Medivac /Medrescue as appropriate via the Clients Senior Representatives.
In the event of the person not being recovered from the water request the relevant authorities to mobilize additional search and rescue (SAR) assets

ADM 502 Barge Master
On being advised by the OIM of the man overboard incident, the Barge Master will:
Proceed immediately, with a portable radio, to the location on the installation from where the person in the water can either be seen or was last seen
Make and maintain radio contact with the transfer vessel, fast rescue craft if available and installation Control Room
Direct the fast rescue craft to the location of the person in the water, or if out of sight the location where the person was last observed
When the person is recovered from the water inform the installation Control Room accordingly

Scanned with CamScanner

ADES Billy Pugh transfer Rescue Plan

Proceed to the location of the personnel basket and supervise transfer operations between the installation and the transfer vessel.
Should the transfer vessel not have FRC or it is faster to launch the rig rescue craft then the Barge Master will launch the craft and recover the person from the water

Transfer Vessel Master
On being advised by the ADM 502 that there is a person in the water, the standby vessel master will:
Immediately launch his fast rescue craft (FRC)if available to search for and recover the person
Maintain radio contact with the FRC crew and the ADM 502 Barge Master
Keep the ADM 502 updated on the status of the rescue operation
On recovery of the casualty and the FRC to the transfer vessel inform the ADM 502 OIM accordingly and request that the Rig Medic be transferred from the rig to attend to the casualty
In the event of the person in the water not being located immediately work in conjunction with other SAR assets in the search for the casualty

ADM 502 Rig Medic
On being alerted by the OIM that there is a man overboard situation, the Rig Medic will:
Prepare to be transferred to the standby vessel to examine and treat the casualty
Proceed to the location of the personnel basket
Transfer to the transfer vessel to receive the casualty
After examining the casualty decide whether he is well enough to be transferred to the installation for further treatment or should remain on the standby vessel pending arrival of a Doctor/SAR helicopter
Contact the Topside Medical Cover onshore doctor and advise him of the status of the casualty requesting his presence if applicable
If the casualty is to remain on the standby vessel awaiting treatment by the doctor and transfer to onshore for further treatment stay with him until such a time as he is evacuated
If the casualty is fit to be transferred to the installation, accompany him on the personnel basket back to the rig
Once the casualty is accommodated in the ADM 502 hospital inform the onshore doctor of the situation, that the casualty is being transferred to onshore and request that he arrange for he/she to have an in-depth medical examination to confirm that there were no aftereffects of the immersion
Request the OIM to implement Medivac or Medi rescue arrangements as applicable via Clients Senior Representative.

Emergency Contact Information

Information to Forward

Clearly state This is a Man Overboard Emergency at ADES ADM 502
On Well # _Platform_ or Under tow from_____To____.
Position of rig, Latitude ° N Longitude ° E.
Name (ADES ADM 502) Type of installation: Jack-up
Whether installation is anchored or afloat
Location – last known and direction whilst under tow
Name and call sign of attendant vessel (s):
Number of persons in the water overboard
Time of incident

Crane Power Failure

Operator must be fully aware of Emergency Lowering procedure:
If slew is still possible then position crane boom over Rig Deck or Transfer vessel and commence lowering in controlled manner.
If slew capability is lost, then assess possibilities for lowering in position consider repair time and safety of passengers for immediate actions on.

Scanned with CamScanner

ADES

Lifting Operation Plan

(Each Piece Of Participating Lifting Equipment Shall Have A Separate Critical Lift Plan)

Facility/Unit: ADM502 | Working Area / Location: Topdeck | Date: 9-10-25 | PTW#: 1209 | JSA: 100.8

Description Of Lifting Operation (Step By Step): Routine ☐ Non-Routine ☑
Personnel Transfer by Billy Pugh

Crane Type: Varer | Weight Load: SWL 2 T
Crane Model No.: 7.5 / 10K
Crane Capacity: whip line SWL 10 T
Inspection Sticker valid: ☑ Yes ☐ No
Crane condition is accepted for lifting operation: ☑ Yes ☐ No

Are Diagram / Sketch / Calculations Of Lifting Operation Enclosed? ☐ Yes ☑ No
Lifting / Spreader Beam Needed? ☐ Yes ☑ No
Does Beam Have Current / valid Inspection Sticker? ☐ Yes ☐ No

Required Boom Length (On shore): — NA — ft/meter
Operating Radius: ft/meter
Boom Angle: ft/meter

Rigging accessories description:
Current Color Code: Pink
Sling Type(s): 4 Legs
Sling Size(s): 3/4
Shackle Type(s): 4 Part
Shackle Size(s): 3/4

The Rigging Configuration is acceptable and in load capacity range: ☐ Yes ☐ No

Steps Taken To Eliminate Danger To Personnel Involved and Others (including barrien where appropriate):
- Pass bete stad the jar
- Monitor weather condition
- Check all equipment
- Use hand free tools

Method(s) Of Communication To Be Used: Radio ☐ Verbal ☐ Hand Signals ☐

Crane suspended personnel platforms (Man Baskets):
→ Have the Checklist for Man basket completed and attached to the PTW form: ☐ Yes ☐ No

Energized Power Lines and Explosion Hazards:
→ Energized Power-Lines Within Boom Radius? ☐ Yes ☐ No
NO

Line Voltage Absolute Limit of Approach	Safety Distance
Up to 50,000 volts	3.0 meters / 10 feet
50,000 to 250,000 volts	4.6 meters / 20 feet
Over 250,000 volts	7.6 meters / 25 feet

→ Explosion / Fire / High Heat Hazards within Boom Radius? ☐ Yes ☐ No

All Lifting Operations Require The Following To Be Considered (list is not exhaustive):
☐ Cultural, communication and language difficulties
☐ Conflicting tasks in area

Scanned with CamScanner

ES

Lifting Operation Plan

ection blue sticker available and valid

Weight, size, shape and centre of gravity of load

- [ ] Availability of approved lifting points on load
- [ ] Method of slinging / attaching / detaching the load
- [ ] Overturning / load integrity / need for tag lines
- [ ] Suitability and condition of lifting equipment to be used
- [ ] Initial and final load positions and how it will get there
- [ ] Ground and underground considerations
- [ ] Lifting over plant/equipment / assets
- [ ] Number and duration of lift(s)
- [ ] Lifting of chemicals
- [ ] Other:

- [ ] The load is completely free from other surrounding load
- [ ] Environmental conditions including weather and permissible limits
- [x] Lighting in the pick-up and lay-down areas;
- [x] Proximity hazards, obstructions, path of load
- [x] Forbid working under suspended loads
- [x] Access and emergency escape routes
- [x] Settable number of personnel to carry out the lift safely
- [x] Experience, competence and training of personnel
- [x] Competent adequate supervision
- [x] Pre-Use inspection of equipment & lifting gears
- [x] Visibility of the load
- [ ] Other:

Prepared By:	[redacted]	Position	Crane	Signature [redacted]
Approved By:	[redacted]	OIM/STP/PIC	Russell A.	Signature [redacted]
Certificate No.:	1709			

Scanned with CamScanner

.BRIEF

ADES ADVANCED ENERGY SYSTEMS

ID WE ACHIEVE THE OBJECTIVE? Yes
เราบรรลุเป้าหมายหรือไม่
DID WE FOLLOW THE PROCEDURE?
เราทำตามขั้นตอนหรือไม่

TASK / STEP-BY-STEP: ชื่องาน Personal Transfer
DEPT: ตำแหน่ง ๓/R
DATE: วันที่ 09-10-25

WHAT WENT WELL?
อะไรทำไปได้ด้วยดีบ้าง

- Two way communication
- Check all equipment
- Monitor weather condition
- Plan Toss

WHAT COULD WE HAVE DONE BETTER?
มีอะไรบ้างที่เราจะทำได้ดีขึ้น

- เพิ่มความถี่ในการสื่อสารกับ [illegible]

ANY ACTIONS TO TAKE?

จะทำอะไรเพิ่มเติม

RESPONSIBLE PERSON TO UPDATE PROCEDURE / ACTION?
ผู้รับผิดชอบในการปรับปรุงขั้นตอน

Scanned with CamScanner

ADES

PERMIT TO WORK

CAMS 02.1-01-PRO-01 Rev.01

Rig Name	Work Description and Location	Previous Isolation # (if required)	PTW Number
ADM-502	Pump overboard Clean pit 6 log, Premix 1 P3	Previous Isolation PTW Number	001179

ISOLATION ☑ CONFINED SPACE ☐ HOT ☐ COLD ☐

PERMIT APPLICATION

I have prepared the PTW and all the documented controls, and I request authorization to perform the work.

PERMIT APPLICANT (PA)	Print Name	Position	Sign	Date	Time
	[redacted]	PIM		1-8-25	13.30

ADDITIONAL CONTROLS

Gas Test Form ☐ Confined Space Entry Checklist ☐ Rescue Plan ☐ Firewatch Checklist ☐ Lift Plan ☐ Radio Channel ☐ Other:

ISOLATION DESCRIPTION AND METHOD

Both the OIM and PA must put a lock on the Active Isolation lockbox for short term isolations keys, and both will retain their lock box keys. Long term isolation keys will be controlled by OIM/STP/PIC. All Deisolations must be approved by the OIM/STP/PIC

ACTIVE LOCKBOX #

LOCK / TAG #	ISOLATION DESCRIPTION & METHOD Mechanical (M) / Electrical (E)	PERSON CONDUCTING ISOLATION NAME	PERSON CONDUCTING ISOLATION DATE	MOVED TO LONG TERM (if applicable) DATE	PERSON CONDUCTING DE-ISOLATION NAME	PERSON CONDUCTING DE-ISOLATION DATE
Manifold Pit 5 log Pit 3 Premix 1	M - 01 M - 29 M - 19 M - 28	Thongpat N	1-8-25 13.30		Thongpat N	1-8-25 13.30

If Function test Required	Function test performed by:	OIM / STP / PIC approval to Function test >	Sign:	Date:
Prior approval required for de-isolating equipment by OIM / STP / PIC and all required personnel to be notified of the de-isolation		OIM / STP / PIC approval to De-isolate >	Sign:	Date: 1-9-25

INITIAL GAS TEST READING (if Required)

Hydrogen Sulfide (H2S) 0ppm	Flammable (LEL) 0%	Oxygen (O2) 19.5% to 23.5%	Carbon Monoxide (CO) 0 to 25 ppm

I have taken the initial gas readings to confirm the area is safe for Confined space entry or Hot work.

Authorized Gas Tester (AGT)

Print Name:	Sign:	Time of Reading

RESCUE TEAM for Confined Space or Rescue at Height (As required)

I have completed a rescue plan and assigned duties to the rescue team. I have inspected the rescue equipment and ensure it is available at the worksite location.

RESCUE TEAM LEADER (RTL)	Print Name	Sign	Date	Time

CONFINED SPACE ATTENDANT (As Required)

I understand my roles and responsibilities as a confined space attendant. I have made radio contact with the Radio Room and assigned a channel for Confined space work. I understand that I must never leave a confined space unattended while personnel are inside.

CONFINED SPACE ATTENDANT (CSA)	Print Name	Sign	Date	Time

WORKSITE SUPERVISOR

I understand my roles and responsibilities as the Worksite Supervisor for this task. I confirm I will be at the worksite during the job to supervise the work party and ensure the task is carried out in line with the job plan. SWA will be used if the plan changes

	Print Name	Sign	Date	Time
WORKSITE SUPERVISOR	[redacted]		1-9-25	13.30
WORKSITE SUPERVISOR HANDOVER (if required)	Print Name	Sign	Date	Time

AREA AUTHORITY

I understand my roles and responsibilities as the area authority for this task.I have inspected the worksite and confirm that the area is safe. Any isolated equipment has been verified (tried to operate) and I confirm the task can begin / continue

	Print Name	Sign	Date	Time
AREA AUTHORITY (AA)	[redacted]		1-9-25	13.30
AA HANDOVER: (if required)	Print Name	Sign	Date	Time

PERMIT APPROVAL

I have reviewed the Permit to Work and all associated documents. I authorize work to begin following the worksite inspection by the AA & worksite supervisor. I have made reasonable steps to confirm work does not conflict with other ongoing operations.

	Print Name	Sign	Date	Time
OIM / STP/ PIC	[redacted]		1-9-25	14.40
Company Man (if required)	[redacted]			

WORKSITE AUDIT (during the task)

Position	Print Name	Sign	Date	Time
RSO	[redacted]		1/9/25	14.40

Comments:

REMOVAL OF CONTROLS - AA

I have visited the work site and confirm that the job is complete / incomplete and the work area is in a safe condition Any barriers are removed or retained as shown. Any isolations are removed or retained as shown and all personnel involved are accounted for.

I declare that the work has been properly performed and is: COMPLETE ☑ INCOMPLETE ☐ If Job is Incomplete add comments :

The area is SAFE and All controls are: REMOVED ☑ RETAINED ☐ If Controls are retained add comments :

	Print Name	Sign	Date	Time
Area Authority (AA)	[redacted]		2-9-25	00:00

PERMIT CLOSURE - OIM / STP / PIC

I am satisfied that work is complete or incomplete as stated on this PTW and controls are removed or retained as required.

	Print Name	Sign	Date	Time
OIM / STP / PIC	[redacted]		2-9-25	0600
Permit Suspension / Cancellation				

Permit to Work is valid for a maximum of 12 hours or when the permit applicant shift ends, whichever comes first. If the Isolation is still in place then this PTW becomes a long term isolation permit and is returned to the OIM with all other forms and Isolation keys to be tracked under long term until the equipment is de-isolated & put back in service. (refer to PTW isolation procedure)

Permit Top Copy = Permit Control / 2nd Copy at worksite / 3rd Copy with AA.

10

ADES

PERMIT TO WORK

CAMS 02.1-01-PRO-01 Rev.01

Rig Name	Work Description and Location	Previous Isolation # (if required)	PTW Number
ADM-502	Pump overboard Clean pit 3 - Pit. 7	Previous Isolation PTW Number	001351

ISOLATION ☑ CONFINED SPACE ☐ HOT ☐ COLD ☑

PERMIT APPLICATION

I have prepared the PTW and all the documented controls, and I request authorization to perform the work.

PERMIT APPLICANT (PA)	Print Name	Position	Sign	Date	Time
	[redacted]	Sr. PIM		12-9-25	24.00

ADDITIONAL CONTROLS

Gas Test Form ☐ Confined Space Entry Checklist ☐ Rescue Plan ☐ Firewatch Checklist ☐ Lift Plan ☐ Radio Channel ☐ Other:

ISOLATION DESCRIPTION AND METHOD

Both the OIM and PA must put a lock on the Active Isolation lockbox for short term isolations keys, and both will retain their lock box keys. Long term isolation keys will be controlled by OIM/STP/PIC. All Deisolations must be approved by the OIM/STP/PIC

ACTIVE LOCKBOX #

LOCK / TAG #	ISOLATION DESCRIPTION & METHOD Mechanical (M) / Electrical (E)	PERSON CONDUCTING ISOLATION NAME	PERSON CONDUCTING ISOLATION DATE	MOVED TO LONG TERM (if applicable) DATE	PERSON CONDUCTING DE-ISOLATION NAME	PERSON CONDUCTING DE-ISOLATION DATE
01	M	Thongpat W	12-9-25 12.30		Thongpat W	12-9-25 24.00
17	M					
21	M					

If Function test Required	Function test performed by:	OIM / STP / PIC approval to Function test >	Sign:	Date: 12-9-25
Prior approval required for de-isolating equipment by OIM / STP / PIC and all required personnel to be notified of the de-isolation		OIM / STP / PIC approval to De-isolate >	Sign:	Date: 12-9-25

INITIAL GAS TEST READING (if Required)

Hydrogen Sulfide (H2S) 0ppm	Flammable (LEL) 0%	Oxygen (O2) 19.5% to 23.5%	Carbon Monoxide (CO) 0 to 25 ppm

I have taken the initial gas readings to confirm the area is safe for Confined space entry or Hot work.

Authorized Gas Tester (AGT)

Print Name:	Sign:	Time of Reading

RESCUE TEAM for Confined Space or Rescue at Height (As required)

I have completed a rescue plan and assigned duties to the rescue team. I have inspected the rescue equipment and ensure it is available at the worksite location.

RESCUE TEAM LEADER (RTL)	Print Name	Sign	Date	Time

CONFINED SPACE ATTENDANT (As Required)

I understand my roles and responsibilities as a confined space attendant. I have made radio contact with the Radio Room and assigned a channe for Confined space work. I understand that I must never leave a confined space unattended while personnel are inside.

CONFINED SPACE ATTENDANT (CSA)	Print Name	Sign	Date	Time

WORKSITE SUPERVISOR

I understand my roles and responsibilities as the Worksite Supervisor for this task. I confirm I will be at the worksite during the job to supervise the work party and ensure the task is carried out in line with the job plan. SWA will be used if the plan changes

	Print Name	Sign	Date	Time
WORKSITE SUPERVISOR	Weraton W		12-9-25	24.00
WORKSITE SUPERVISOR HANDOVER (if required)	Print Name	Sign	Date	Time

AREA AUTHORITY

I understand my roles and responsibilities as the area authority for this task.I haveinspected the worksite and confirm that the area is safe. Any isolated equipmenthas been verified (tried to operate) and I confirm the task can begin / continue

	Print Name	Sign	Date	Time
AREA AUTHORITY (AA)	[redacted]		12/9/25	000
AA HANDOVER: (if required)	Print Name	Sign	Date	Time

PERMIT APPROVAL

I have reviewed the Permit to Work and all associated documents. I authorize work to begin following the worksite inspection by the AA & worksite supervisor. I have made reasonable steps to confirm work does not conflict with other ongoing operations.

	Print Name	Sign	Date	Time
OIM/ STP/ PIC	[redacted]		12/9/25	000
Company Man (if required)	[redacted]		12-09-25	0000

WORKSITE AUDIT (during the task)

Position	Print Name	Sign	Date	Time
RSO	[redacted]		12/9/25	04.00

Comments:

REMOVAL OF CONTROLS - AA

I have visited the work site and confirm that the job is complete / incomplete and the workarea is in a safe condition Any barriers are removed or retained as shown. Any isolations are removed or retained as shown and all personnel involved are accounted for.

I declare that the work has been properly performed and is: COMPLETE ☑ INCOMPLETE ☐ If Job is Incomplete add comments :

The area is SAFE and All controls are: REMOVED ☑ RETAINED ☐ If Controls are retained add comments :

	Print Name	Sign	Date	Time
AreaAuthority (AA)	[redacted]		12/9/25	12

PERMIT CLOSURE - OIM / STP / PIC

I am satisfied that work is complete or incomplete as stated on this PTW and controls are removed or retained as required.

	Print Name	Sign	Date	Time
OIM / STP / PIC	[redacted]		12/9/25	12
Permit Suspension / Cancellation				

Permit to Work is valid for a maximum of 12 hours or when the permit applicant shift ends, whichever comes first. If the Isolation is still in place then this PTW becomes a long term isolation permit and is returned to the OIM with all other forms and Isolation keys to be tracked under long term until the equipment is de-isolated & put back in service. (refer to PTW isolation procedure)

Permit Top Copy = Permit Control / 2nd Copy at worksite / 3rd Copy with AA.

เอกสารประกอบการพิจารณาคดีหมายเลขดำที่ 3.4 ศาลแรงงานภาค 9

ADES QHSSE Internal Audit Checklist

Total	
Open	
Ongoing	
Closed	

The priority in this report will be defined as:
1 = Immediately
2 = within 14 days
3 = within 45 days
4 = Indicate negotiated closed out date

Auditor Name: John (RMI)/Ironlee(Operation Eng) /Senisa (QHSSE Sup.) OIM: Russell / Richard

Rig / Facility: ADM502 Date:

Accommodation

S/N	Requirement Description	Compliant (Y/N)	Finding/ Comment	Photo Before	Rig Action Immediate/ Corrective	Action Party	PR/PO If Applicable	Priority	Target Date	Photo After	Action Status (Open/Closed)
1	Emergency lights are available and working properly?	N	There are unservice light found in the several area inside accom.				TBA	3	15-May-25		open
2	Air conditions are working and in good condition?	Y	Air conditions are working and in good condition								Closed
3	Are safety signs posted at galley and mess hall?	Y	safety signs posted at galley and mess hall								Closed
4	Anti-slip treads for all stair steps is installed in good condition (if applicable)	Y	Anti-slip treads for all stair steps is installed in good condition								Closed
5	All stair handrails comply with standard (42" handrail, 21" knee rail, 4" toe board))	Y	All stair handrails in good condition								Closed
6	Emergency exits are available and no obstructions in front of them.	Y	Emergency exits are available and no obstructions observed								Closed
7	Sufficient SOLAS Approved Life Jackets on board, one for each bunk and an excess capacity of a minimum of 25 per cent.	Y	Sufficient SOLAS Approved Life Jackets on board, one for each bunk and an excess capacity of a minimum of 25 per cent.								Closed
8	Station Bills are located strategically throughout the accommodation	Y	Station Bills are located in all level inside accom.								Closed
9	All fire fighting equipment are available and distributed as per fire safety plan layout and inspected.	Y	All fire fighting equipment are available and distributed as per fire safety plan Monthly inspection Tag are up to date,								Closed
10	Good housekeeping maintained (no Tripping or slipping hazards).	Y	Good housekeeping observed.								Closed
11	Smoke/heat detectors are available and working properly.	Y	Smoke/heat detectors are available and working properly.								Closed
12	Are all electrical cables-wires- plugs with good condition and comply with standard.	Y	all electrical cables-wires- plugs with good condition								Closed
13	Is hot and cold water provided at each wash basin?	Y	hot and cold water provided at each wash basin								Closed
14	water/weather tight doors rubber seal condition	Y	water/weather tight doors rubber seal condition . in good condition.								Closed
15	Are lighting system is working properly.	N	There are unservice light found in the several area inside accom.					TBA	3	15-May-25	open
16	Is there specific identified smoking area?	Y	2 different areas on the rig								Closed
17	Light fixtures secured by a secondary retention.	Y	Light fixtures secured by a secondary retention.								Closed
18	Mess hall is in good condition.	Y	Mess hall is in good condition.								Closed
19	Mess hall Receptacles and plugs are in good condition.	Y	Mess hall Receptacles and plugs are in good condition.								Closed
20	Are all galley equipment's working properly and in good condition.	Y	all galley equipment's working properly and in good condition during audit								Closed
21	Is the galley ventilation system working properly.	Y	galley ventilation system working properly .								Closed
22	Is the galley fire suppression system	Y	galley fire suppression system is in place . wet chemical/CO2								Closed
23	Refrigerator & freezers temperature degree complies with standard range [37°-41° F [3°-5° C]; freezers: -5°-0° F [-23° - -18° C]).	Y	Refrigerator & freezers temperature degree complies with standard range								Closed
24	periodically temperature ranges is maintained and recorded	Y	periodically temperature ranges is maintained and recorded								Closed
25	Are foods in refrigerators and freezers stored in clean, covered, labeled and separated?	Y	during audit , raw/material in the freezer property stored / labelled.								Closed
26	Foods adequately wrapped and dated	Y	Foods adequately wrapped and dated								Closed
27	Are the knives, cutting boards in good condition and color coded at galley.	Y	All knives, cutting boards in good condition and color coded at galley.								Closed
28	Are sufficient cleaning tools and materials available to support the cleaning and preventive maintenance program?	Y	sufficient cleaning tools and materials available, Camptoss shall keep monitor.								Closed
29	Are the Waste Management maintained and the waste segregation procedure followed at mess hall?	Y	Waste Management complied with all requirement. Waste segregation education shall be monitored.								Closed
30	Are the catering staff trained and competent	Y	catering staff trained and competent, Training cert shared to RSO/Medic/QHSSE sup. before mobilization of SSE.								Closed
31	Are all catering staff wear there PPE	Y	During audit, all catering staff wear there PPE Camptoss keep monitor as daily basis.								Closed
32	Dry goods will be located in climate-controlled spaces.	Y	Dry goods stored in the proper area/ on shelves.								Closed
33	Galley personnel training records available and updated	Y	Galley personnel training records available and updated								Closed
34	Weekly sanitation inspection reports available	Y	Weekly sanitation inspection reports available , refer to case 27594128								Closed
35	The dishwasher temperatures will be verified and must be hot enough to allow rapid air-drying (Recommended temperature is about 180° F (82° C).	Y	The dishwasher is in good condition.								Closed
36	Food preparation procedures is implemented	Y	Food preparation procedures is followed.								Closed
37	Food stocks are rotated and used within manufacturer's stamped dates,	Y	Food stocks are rotated and used within manufacturer's stamped dates/Expiry date, Medic/Camptoss shall monitor/Random check through weekly hygiene inspection								Closed

แบบรายงานผลการตรวจวัดและวิเคราะห์สภาวะการทำงาน
เกี่ยวกับความร้อน แสงสว่าง และเสียงภายในสถานประกอบกิจการ
อะเดส ฟอร์ ดริลลิ่ง เซอร์วิสเซส แอลทีดี
(ADES for Drilling Services Ltd)
สาขา ฐานปฏิบัติการขุดเจาะแอดมารีน 502
(Admarine 502)

แบบรายงานผลการตรวจวัดและวิเคราะห์สภาวะการทำงาน
เกี่ยวกับความร้อน แสงสว่าง และเสียงภายในสถานประกอบกิจการ
ตามข้อ ๑๕ แห่งกฎกระทรวงกำหนดมาตรฐานในการบริหาร จัดการ และดำเนินการด้านความปลอดภัย อาชีวอนามัย และสภาพแวดล้อมในการทำงานเกี่ยวกับความร้อน แสงสว่าง และเสียง พ.ศ. ๒๕๕๙

๑. ข้าพเจ้า (นาย/~~นาง~~/~~นางสาว~~) [redacted] นายจ้าง/ผู้มีอำนาจกระทำแทน
๒ .ชื่อสถานประกอบกิจการ อะเดส ฟอร์ ดริลลิ่ง เซอร์วิสเซส แอลทีดี (ADES for Drilling Services Ltd)
เลขทะเบียนนิติบุคคล [redacted] ประกอบกิจการ การทำธุรกิจนวิการรับจ้างขุดเจาะก๊าซธรรมชาติ น้ำมันดิบ และสารปิโตรเลียมอื่น ๆ ให้แก่ผู้รับสัมปทานปิโตรเลียมจากกระทรวงพลังงาน
ตั้งอยู่เลขที่ 555 รสา วัน อาคาร บี ชั้นที่ 14 ห้องเลขที่ 1406 หมู่ที่ - ตรอก/ซอย - ถนน พหลโยธิน
แขวง/ตำบล จตุจักร เขต/อำเภอ จตุจักร จังหวัด กรุงเทพมหานคร รหัสไปรษณีย์ 10900
โทรศัพท์ - โทรสาร - โทรศัพท์มือถือ [redacted]
๓. การดำเนินการตรวจวัดและวิเคราะห์สภาวะการทำงาน
❍ บุคคลที่ขึ้นทะเบียนเจ้าหน้าที่ความปลอดภัยในการทำงานระดับวิชาชีพ หรือบุคคลผู้สำเร็จ การศึกษาไม่ต่ำกว่าปริญญาตรี สาขาอาชีวอนามัยหรือเทียบเท่าที่ขึ้นทะเบียนเป็นเจ้าหน้าที่ความปลอดภัยในการทำงานของสถานประกอบกิจการ *เป็นผู้ดำเนินการเอง* (แนบสำเนาเอกสารการขึ้นทะเบียน และสำเนาวุฒิการศึกษาพร้อมรับรองความถูกต้อง)

ชื่อ-นามสกุลผู้ดำเนินการ ตรวจวัดและวิเคราะห์สภาวะการทำงาน	ประเภท ของเจ้าหน้าที่ความปลอดภัยในการทำงาน	เลขทะเบียน เจ้าหน้าที่ความปลอดภัยในการทำงาน
๑.)		
๒.)		
๓.)		

รายการผลการตรวจวัดและวิเคราะห์สภาวะการทำงาน
☐ แบบรายงานผลการตรวจวัดและวิเคราะห์สภาวะการทำงานเกี่ยวกับความร้อน (แบบ รสส. ๑)
☐ แบบรายงานผลการตรวจวัดและวิเคราะห์สภาวะการทำงานเกี่ยวกับแสงสว่าง (แบบ รสส. ๒)
☐ แบบรายงานผลการตรวจวัดและวิเคราะห์สภาวะการทำงานเกี่ยวกับเสียง (แบบ รสส. ๓)

☑ บุคคลที่ได้รับใบขึ้นทะเบียนตามมาตรา ๙ หรือนิติบุคคลที่ได้รับใบอนุญาตตามมาตรา ๑๑
แห่งพระราชบัญญัติความปลอดภัย อาชีวอนามัย และสภาพแวดล้อมในการทำงาน พ.ศ. ๒๕๕๔
(แนบสำเนาเอกสารใบขึ้นทะเบียน/ใบอนุญาตตามมาตรา ๙ หรือมาตรา ๑๑ พร้อมรับรองความถูกต้อง)

ชื่อ-นามสกุล บุคคลหรือนิติบุคคลผู้ดำเนินการตรวจวัดและวิเคราะห์สภาวะการทำงาน	**เลขที่ใบขึ้นทะเบียน/เลขที่ใบอนุญาต**	**ระยะเวลาที่ได้รับการขึ้นทะเบียนและได้รับใบอนุญาต ตั้งแต่วันเดือนปี ถึง วันเดือนปี**
บริษัท เอสจีเอส (ประเทศไทย) จำกัด [redacted]	[redacted]	22 มีนาคม 2568 - 21 มีนาคม 2571

หมายเหตุ: สามารถเพิ่มบุคคลหรือนิติบุคคลผู้ดำเนินการตรวจวัดและวิเคราะห์สภาวะการทำงาน เป็นลำดับในตาราง

รายการผลการตรวจวัดและวิเคราะห์สภาวะการทำงาน

☑ แบบรายงานผลการตรวจวัดและวิเคราะห์สภาวะการทำงานเกี่ยวกับความร้อน (แบบ รสส. ๑)

☑ แบบรายงานผลการตรวจวัดและวิเคราะห์สภาวะการทำงานเกี่ยวกับแสงสว่าง (แบบ รสส. ๒)

☑ แบบรายงานผลการตรวจวัดและวิเคราะห์สภาวะการทำงานเกี่ยวกับเสียง (แบบ รสส. ๓)

ลงชื่อ [redacted] .....

บุคคลหรือนิติบุคคลผู้ดำเนินการตรวจวัด
และวิเคราะห์สภาวะการทำงาน

ลงชื่อ [redacted]

นายจ้าง/ผู้มีอำนาจกระทำแทน

ADES ADVANCED ENERGY SYSTEMS	HEALTH, SAFETY AND ENVIRONMENT	
	Emergency Drill Report	
Doc. No: FRM-HSE-002-07	Rev: 02-00	Page 1 of 2

Installation / Facility ADM-502 ☒ *Planned* ☐ *Unplanned*

Date: 23-Aug-2025 (Week # 34) **Time:** 14:30-15:00Hrs. **Duration:** 30 Minutes

Operator: PTTEP **Location:** WP-17

1.	DRILL DETAILS		COMMENTS
	TYPE OF DRILL	SOPEP Emergency Drill (Tabletop)	STBD side main deck
	TIME OF FIRST REPORT AND ALARM SOUNDED	N/A	
	OIM/PIC	Russell Airey	
	LIFEBOAT # 1 COMMAND	N/A	
	LIFEBOAT # 2 COMMAND	N/A	
	LIFEBOAT # 3 COMMAND	N/A	
	LIFEBOAT # 4 COMMAND	N/A	
	TIME MUSTER REPORTED COMPLETE	N/A	
	POB.	132	
	NUMBER OF EXCUSED PERSONS	None	
	INTERNAL COMMUNICATIONS ADEQUATE	Yes ☒ No ☐	
	LIFEBOAT # 1 MUSTER DUTY	N/A	
	LIFEBOAT # 2 MUSTER DUTY	N/A	
	LIFEBOAT # 3 MUSTER DUTY	N/A	
	LIFEBOAT # 4 MUSTER DUTY	N/A	
	SHORE BASE AND STANDBY BOAT ADVISED	Yes ☒ No ☐	Notified Vessel
	TIME ALARM SOUNDED FOR ABANDON SHIP	N/A	
	TIME DRILL SECURED	30 Minutes	
	CRITIQUE CONDUCTED	Yes ☐ No ☒	
	AUDIBLE AND VISIBLE ALARMS CHECKED	Yes ☐ No ☒	
	LIFEBOATS LOWERED 10 FT	Yes ☐ No ☒	
	LIMIT SWITCHES CHECKED	Yes ☐ No ☒	

2.	GENERAL REMARKS AND OBSERVATIONS
14:30	Getting information from marine crew found diesel oil spilling on coupling hose while transferring to STBD crane at STBD main deck. Call radio to boat to stop pump transfer immediately.
14:31	The Marine crew had informed Radio Operator and Barge Engineer to provide ERT team to act on worksite.
14:33	Barge Engineer informed OIM, RSO to follow ERP instruction
14:35	Barge Engineer informed the ERT team to the onsite to take response immediately for control leaking and spill
14:36	All Hot work stops
14:36	ERT team had used the soak boom back up and blocked all drainage of the rig protecting spill overboard.
14:46	Clean up all diesel oil with explosion proof material
14:53	Diesel oil sends back to tank and contaminated spill kit sent to hazardous waste for dispose.
15:00	Maintain the area clean, End of tabletop

DESIGNATION	OIM/PIC	DSV	BE	RSO
SIGNATURE			[redacted]	
DATE	23rd Aug 2025	23rd Aug 2025	23rd Aug 2025	23rd Aug 2025

ADES ADVANCED ENERGY SYSTEMS	HEALTH, SAFETY AND ENVIRONMENT	
	Emergency Drill Report	
Doc. No: FRM-HSE-002-07	Rev: 02-00	Page 1 of 2

Installation / Facility ADM-502 ☒ *Planned* ☐ *Unplanned*

Date: 26-Apr-2025 (Week # 17) **Time:** 10:33-10:45 Hrs. **Duration:** 12 Minutes

Operator: PTTEP **Location:** JS-05

1.	DRILL DETAILS		COMMENTS
	TYPE OF DRILL	Fire and Abandon drills	Fire at Gymnasium
	TIME OF FIRST REPORT AND ALARM SOUNDED	10:33 hrs.	
	OIM/PIC	Russell Airey	
	LIFEBOAT # 1 COMMAND	Asst. Electrician (Off duty)	
	LIFEBOAT # 2 COMMAND	Asst. Mechanic. (Off duty)	
	LIFEBOAT # 3 COMMAND	N/A	
	LIFEBOAT # 4 COMMAND	N/A	
	TIME MUSTER REPORTED COMPLETE	10:40 hrs.	
	POB.	129	
	NUMBER OF EXCUSED PERSONS	None	
	INTERNAL COMMUNICATIONS ADEQUATE	Yes ☒ No ☐	
	LIFEBOAT # 1 MUSTER DUTY	Headcount at muster station	Driller (Off Duty)
	LIFEBOAT # 2 MUSTER DUTY	Headcount at muster station	Material Admin (Day)
	LIFEBOAT # 3 MUSTER DUTY	N/A	
	LIFEBOAT # 4 MUSTER DUTY	N/A	
	SHORE BASE AND STANDBY BOAT ADVISED	Yes ☒ No ☐	Notified to vessel
	TIME ALARM SOUNDED FOR ABANDON SHIP	10:40 hrs.	
	TIME DRILL SECURED	10:45 hrs.	
	CRITIQUE CONDUCTED	Yes ☒ No ☐	
	AUDIBLE AND VISIBLE ALARMS CHECKED	Yes ☒ No ☐	
	LIFEBOATS LOWERED 10 FT	Yes ☐ No ☒	
	LIFEBOATS CHECKED	Yes ☐ No ☒	

2.	GENERAL REMARKS AND OBSERVATIONS
	10:33 Fire Alarm Sounded / Fire at Gymnasium 10:34 Notify to all station / Notify to town 10:36 Accommodations clear 10:38 Well secured 10:40 Full muster (7 min) 10:40 Abandon rig alarm sounded / Fire out of control 10:43 Well secured 10:45 Full Muster - End of drills. (5 min.) 10:45 Debriefing. 10:45 All alarm Sound testing

DESIGNATION	OIM/PIC	DSV	BE	RSO
SIGNATURE		[redacted]		
DATE	26th April 2025	26th April 2025	26th April 2025	26th April 2025

เอกสารนี้เป็นทรัพย์สินของ ปตท.สผ. ห้ามนำไปใช้ประโยชน์ เผยแพร่ หรือทำสำเนาโดยไม่ได้รับอนุญาตเป็นลายลักษณ์อักษรจากบริษัทฯ

DEBRIEFING

POSITIVE FINDING:

- Good and clear announcement from CCR
- Good communication between muster area and CCR

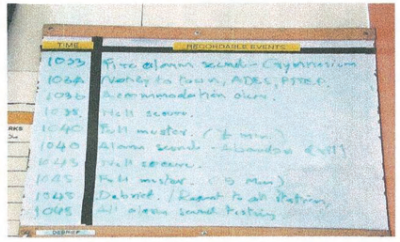
OPPUTUNITY TO IMPROVE:

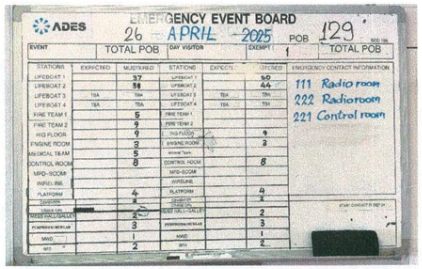
- Someone forgot the radio and came back to pick radio at radio room
- SCBA checklist has not up to date at fire team No # 1
- Ensure and no doubt when an emergency drill has occurred.
- Change the white boards color shade is back only.
- SSE personal not understanding to stand on the line.

Photo of Drill

[redacted]

[redacted]





[redacted]

Post-drill evaluation

International SOS MERP Drill

Assessment Score

© International SOS, 2015. All rights reserved.

SCORE SHEET

Assistance Center Details:

Responding CSE	xxxxxxxxxx
Responding CD	xxxxxxxxxx
Evaluating Drill Supervisor	xxxxxxxxxx

Site Details:

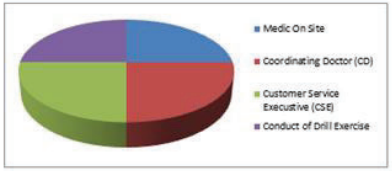
Client Name	ADES For Drilling Services Ltd (ADES)
Site Name / Location	ADMARINE 502, Offshore Songkhla, Thailand
Date and Time of Simulation	24 November 2025 at 13.00 hrs
Medical Professional Onsite	xxxxxxxxxx

Score Summary

Medic On Site	100%
Coordinating Doctor (CD)	100%
Customer Service Executive (CSE	100%
Conduct of Drill Exercise	100%

Over All Score

100%



MEDSITE MERP SCENARIO 0657

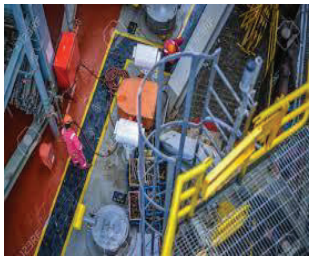
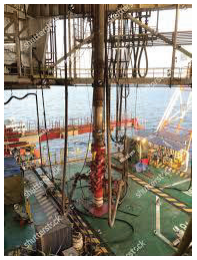
A) Offshore rig in the gulf of Thailand,

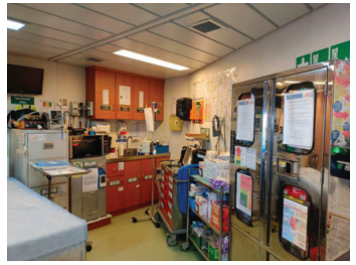
ADM502 is a Jack up rig, Operated under contract by **Drilling Company.**

Crew Manifest: 150 personnel aboard, including engineers, navigators, and support staff.
Medical Support: Onboard medical services provided by a **Thai International SOS medic**, equipped for both emergency care and health surveillance.

Mission Profile:

The ADM 502 a long-term offshore drilling campaign in the Gulf of Thailand for the Thai state-owned energy company, PTTEP Energy Development Company Limited (PTTEP) The rig is deployed to bolster Thailand's domestic hydrocarbon exploration and production (E&P) activities.



1. *Call, Client & Site Details*

Date of Call (DD/MM/YY):	today
Time of Call:	5 minutes before the drill
Name of Client:	Your client
Location of Vessel/Site:	Gulf of Thailand
Name of Vessel/Site:	Your vessel name
Medic/Doctor Name:	Your name
Site phone number:	Your telephone
Notification Type:	First Notification

2. *Patient Details*

Full Name of Patient:	[redacted]
Name of Company employing the patient : (For PTTEP, please provide : ID,section)	
Nationality:	
Age:	
Job Position:	
Date patient came on board/site:	
Date patient due to sign off:	
Mobile Tel. of patient:	

3. *Other information*

Name of Rig Manager (please note not the OIM)	Name of rig manager
Mobile Tel. of Rig Manager/Site Manager	Rig manager phone
Next crew change chopper/boat available:	Date of next crew change boat

4. *Details of Condition*

Type of Condition:	illness
Date of First Consultation:	today
Past Medical History (PMH):	
Date & Time/ Chronology of Accident/Illness (including circumstances of accident, Dates of symptoms):	
Date of symptoms: today, 5 minutes ago	

Details of Accident/illness (History & Clinical Findings):

Chief Complaint (CC): Sudden onset of severe abdominal cramps.

History of Present Illness (HPI)

This is a 32-year-old male with no significant past medical history who presented to the clinic few minutes ago with a sudden onset of severe, crampy epigastric pain that began 15 minutes prior to arrival. He described the pain as a 6-7/10.
He also reported a vague sense of "abnormal breathing," though denied frank shortness of breath at that time. He denies any recent trauma, fever, nausea, or vomiting.

Initial Presentation:
Vitals: Temp: 38 °C, Heart Rate: 126 bpm, Resp Rate: 22/min, BP: 145/94 mmHg, O_2 Sat: 94 % on room air.
Physical Exam: Patient appeared uncomfortable. Abdominal exam revealed epigastric tenderness with voluntary guarding. He was reluctant to lie flat. Lungs were clear to auscultation bilaterally.
Initial Treatment: The patient was treated symptomatically with warm compresses to the abdomen, two tablets of Paracetamol (1000 mg), and an oral rehydration solution (ORS). After 30 minutes, he reported improvement with the pain score decreasing to 2-3/10 and resolution of the abdominal guarding.

Physical Examination:

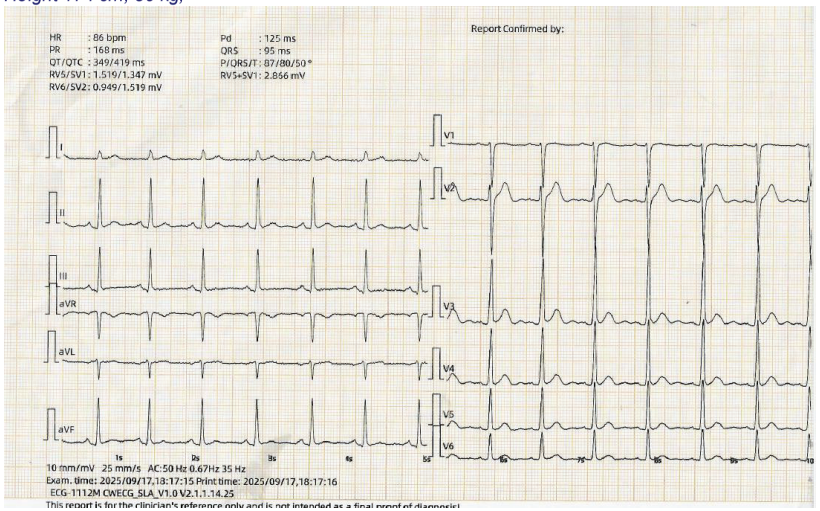
E4V5M6

General: Alert and oriented, but anxious and in moderate respiratory distress.
Airway/Breathing: Airway patent. Tachypneic with a respiratory rate of 22/min. Lungs remained clear to auscultation bilaterally. O_2 saturation was 94% on room air, improving to 98% with 2L of oxygen via nasal cannula.
Circulation: Tachycardic at 126 bpm, regular rhythm. BP 145/94 mmHg.
Abdomen: Marked tenderness and guarding in the epigastric region. Bowel sounds were present and normal. No rebound tenderness.
Extremities: No calf swelling, erythema, or tenderness noted.

Vital signs:

Temp: 38 C	*BP: 145/94 mmHg*	*Respiration: 22 times per minute*	*Pulse: 126 beats per minute, regular rhythm*	*O2 Sat: 94 % on room air*

Others:
Height 174 cm, 59 kg,



L4 MS MERP Scenario V2.04
January 2019
Approved by [redacted], Group Medical Director MS

For Intl.SOS Internal Use Only

Working Diagnoses: Acute Sepsis, ?cause (source of infection)

Differential diagnosis:
Cardiac: Pulmonary embolism, Myocardial infarction
Inflammatory: Acute pancreatitis
Endocrine: Thyroid storm, Diabetic Ketoacidosis (DKA)
Drug related: Alcohol or Sedative Withdrawal

Treatment Plan

- **Ibuprofen** 400 mg, one tablet administered orally, stat.
- **Intravenous (IV) fluids initiated:** 1000 mL of Normal Saline (0.9% NaCl) infusing at a rate of 120 mL/hr.
- **Ceftriaxone 2 g** administered intravenously.
- **Morphine 3 mg** administered intravenously, stat, for pain management.
- **Respiratory Support:** Oxygen administered at **3 liters per minute (LPM)** via nasal cannula. Patient's O_2 saturation is stable at 98-99%.
- **Monitoring:** Continuous monitoring of vital signs and reassessment of symptoms.

Medic /Doctor Request for Assistance from the Alarm Centre (delete as appropriate)**:**	
Medical Advice	Yes
Non urgent disembarkation	No
Urgent Disembarkation	Yes

Scenario Instructions to the site's medical team (doctor and nurse).

After getting the initial information, do a preliminary assessment focusing on the medical history and observations, and

1. Suggest a tentative diagnosis (without regarding the information in the rest of the Scenario)

2. Suggest a differential diagnosis

3. Demonstrate how you handle this situation in regard of

   a. Giving feedback and advice to the patient

   b. Escalating this case to International SOS

   c. The documentation and follow-up plan

Currently, Medic place a call to International SOS Bangkok Assistance Center.

Include the following in your presentation of the case to Bangkok Assistance Centre:

- What do you think the diagnosis is?
- What is your differential diagnosis?
- How do you propose to deal with the situation? Towards the patients:

Medical evacuation of the patients:

1. When you make the call to the Bangkok Assistance Centre support center, please state:
'THIS IS A DRILL. THIS IS A DRILL. THIS IS A DRILL.'

2. You will be transferred to the Coordinating Doctor, please review the available information with the Coordinating Doctor.

- Provide the relevant details related to the patients including mentioning of the suspicion of her having an acute contagious disease.
- Further preparation before evacuating the patient

3. Initial assessment?

Diagnosis?
Initial treatment for stabilization on site?
Which equipment? medications? Intravenous? Oral medications? Oxygen?

4. Treatment given during transferring on Ground ambulance.

3. Once all the above is done, and you are off the phone, complete the medical records and notifications (Print a referral note to accompany the patient to the receiving Hospital)

L4 MS MERP Scenario V2.04
January 2019
Approved by [redacted] Group Medical Director MS
For Intl.SOS Internal Use Only

Offshore projects in the gulf of Thailand and case management capabilities

[redacted]

Stabilisation hub : Songkhla, Thailand

[redacted]

[redacted]

[redacted]

- Offshore medical disembarkation arranged by client and/or field operator
- Emergency stabilization and case management at onshore medical facilities

International SOS Activation

- Onsite Case Management & Monitoring
- Third-party medical escort for patient transfer from offshore
- Ground Ambulance Transport / Client Transport
- Guarantee of Payment
- Onshore Case Management at Bangkok – Hatyai Hospital

www.adesgroup.com
info@adesgroup.com

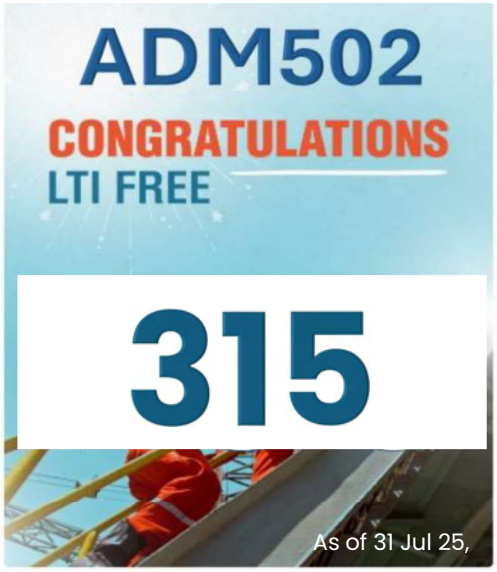
ADES
ADVANCED ENERGY SYSTEMS

OTF/OTF1 Drilling-SSHE Contractor Monthly Meeting No.08/2025

ADMARINE 502

Date : 28 August 2025

SSHE Performance – as of 31 Jul 25



Safe Work Man-Hours

ADES & Contractor 33,972 PTTEP & Service Partner 14,112	Jul 48,084
Total Accumulated Safe Man-Hours(2025)	331,836
Total Accumulated Safe Man-Hours(Sep 2024-2025)	530,568

ADES
ADVANCED ENERGY SYSTEMS

SSHE Performance – as of 31 Jul 25

	Indicator	This Month ADES	This Month Non-ADES	This Month Total	YTD ADES	YTD Non-ADES	YTD Total	Target
Safety	Fatality	0	0	0	0	0	0	0
	Restricted Workday	0	0	0	0	0	0	0
	Medical Treatment	0	0	0	0	0	0	0
	First Aid	0	0	0	0	0	0	0
	Near Miss	0	0	0	0	0	0	0
	Property Damaged	0	0	0	0	0	0	0
	Dropped Object	0	0	0	0	0	0	0
	Fire	0	0	0	0	0	0	0
	Vessel	0	0	0	0	0	0	0
	Security	0	0	0	0	0	0	0
Environment	LOPC - Inboard	0	0	0	0	0	0	0
	LOPC - Outboard	0	0	0	0	0	0	0
SHIELD Card	Unsafe (UA)	908 (20.5%)			5,429 (18.36%)			
	Unsafe (UC)	1,168 (26.37%)			7,354 (24.87%)			
	Safe Card	2,353 (51.13%)			16,778 (56.77%)			
	Total	4,429 (100%)			29,561 (100%)			

	Indicator	This Month	Last Month	Target
Training Compliance	Thai Law	95%	93%	100% (592)
	DMF	93%	90%	100% (414)
	ADES	95%	94%	100% (2,597)
SSE	SSE	23%	12%	
	Non-SSE	77%	88%	

PTTEP SSHE MS and Safety Audit Findings (27-31 May 25)

Total	Month	No. of Completed Items	% Completion
Total 9 items	Jun'25	2	67%
	Jul'25	2	
	Aug'25	2	
	Sep'25	TBA	

แท่นเจาะ-3.8 ตัวอย่างบันทึกปริมาณและรายการสารเคมีและโคลนเจาะ

Rig No.: ADM- 502					Week No.: 37
Chemical Sack/Bags Lifting & Handling Equipment Inspection Chec		Yes	No	N/A	
1	Is the lifting equipment designed and rated for lifting chemical sacks/bags?	✓			
2	Has the lifting equipment been inspected and certified according to regulatory requirements?	✓			
3	Are the lifting tools (slings, shackles, hooks, etc.) in good condition and free from visible damage?	✓			
4	Are there any cracks detected when the MPI is performed?		✓		
5	Are the slings (webbing, chain, or wire rope) free from wear, fraying, corrosion, or cuts?	✓			
6	Are locking mechanisms on hooks functional and secure?	✓			
7	Is there a color-coded or tagging system in place for identifying the inspection status of slings and lifting accessories?	✓			

Rig Floor and Cellar Area:

	General Condition	Yes	No	Remarks / Action
1	Are tools properly stored when employees are through with them?	✓		
2	Is the work area swept up or washed of any dirt or mud as soon as possible?	✓		
3	Are there any loose steps, unsecured handrails or and unstable walkways?		✓	
4	Is there an accumulation of oil on the rig floor or in the cellar area?		✓	

5	Are BOPs and cellar area clean and is the cellar jetted to below the lowest valve?	✓		
6	Is all trash and miscellaneous rubbish cleaned from sub-structure area?	✓		
7	Do any pipes, cables, etc. present tripping hazards?		✓	
8	Are the water hoses clean and coiled up when not in use?	✓		
9	Are any flammable materials stored or used on rig floor?		✓	
10	Is fire fighting equipment clear of obstructions and ready for use?	✓		
11	Are all first aid kits and supplies clean, filled and ready for use?	✓		

PPE & Safety Equipments:

	General Condition	Yes	No	Remarks / Action
1	Are all gravity eye wash stations capable of providing a minimum of 15 minutes of fresh, clean water?	✓		
2	Are eye wash / shower stations supplied with fixed hard pipes flushed for a minimum of three (3) minutes?	✓		
3	Are ear plugs sufficient & available at high noise area entrance?	✓		
4	Is mixing area PPE box tidy and provided with apron, rubber boots, face shield, goggles, rubber gloves & dust masks?	✓		
5	Are all respirators clean and ready for use?	✓		
6	Are stretchers situated as per rig layout and fitted with proper straps?	✓		
7	Are wind socks in a good condition?	✓		

8	Are BA sets distributed as per contract and in good condition?	✓		
9	Is all safety equipment identified with appropriate safety signs and is it accessible?	✓		

Chemical Area:

	General Condition	Yes	No	Remarks / Action
1	Are there any worn/cuts in chemicals bags/containers?		✓	
2	Is there any chemical leak on ground?		✓	
3	Are there any flammable chemicals stored under direct sun light or near heat / ignition source ?		✓	
4	Are there any hazardous to health chemicals stored without barrier / caution sign?		✓	
5	Is there any water leaks beside or near chemical storage area?		✓	
6	Are there SDS available? and updated with all chemicals available on site?	✓		

Mud Lab:

	General Condition	Yes	No	Remarks / Action
1	Is the mud lab well maintained and adequately ventilated?	✓		
2	Is SDS for reagents used inside mud lab available?	✓		
3	Are all testing equipment in good condition and calibrated?	✓		

4	Is there any water leaks from water sinks?		✓	
5	Are PPE (Googles, respiratory protection, rubber gloves, Apron) available and used?	✓		
6	Are testing gas cylinders (e.g. Nitrogen) are stored in the rack in upright position and has valid hydro test certificate?	✓		
7	Are the following sings and poster posted in the mud lab? "No Smoking/No Matches or lighters" signs. "Mud Engineers should never leave Mud Lab while any testing is in progress	✓		
8	Are there any flammable materials stored underneath/near mud lab test equipment (e.g. Mud Lab Retort Kit)?		✓	
9	Are the HAZCOM certificates of mud engineers still valid?	✓		
10	Is chemical Inventory available and updated inside Mud Lab?	✓		
11	Are Hazcom labels color printed to properly show the color coded and number rating?	✓		
12	Are chemicals within their expiration date and following FIFO?	✓		
13	Are Fire equipment (fire blanket, extinguisher) are accessible and clear of obstruction?	✓		
14	Are Extension leads / power boards are used as designed (no temporary or makeshift leads/power boards, double adaptors, overloading)?	✓		
15	Are all power leads, outlets and switches are in good condition (not broken)?	✓		

Oil Drums Storage Area & Paint Store:

	General Condition	Yes	No	Remarks / Action
1	Are all oil drums stored on the rack?	✓		

2	Is there any oil leaks?		✓	
3	Is there any oil drum left open?		✓	
4	Is oil spill kit in place and ready for use?	✓		
5	Is there any paint stored outside?		✓	
6	Are all paint buckets covered?	✓		
7	Is the paint store AC working?			N/A
8	Is there any nearby ignition / heat source?		✓	
9	Is the paint store door kept closed?	✓		
10	Is a fire extinguisher in place and ready for use?	✓		

Other Comments / Observations:

RSO / Barge Master:

Name: [redacted] Signature: [redacted] Date: 14.09.25

PIC (OIM / STP):

Name: [redacted] Signature: ADES OIM IMO 8771265 MARINE 502 Date: 14.09.25

ADES

HAZARDOUS MATERIAL (HAZMAT) INVENTORY (HL MPD)

Item No.	HAZMAT Name	Manufacturer Name	SDS Available	Quantity on Board	HAZMAT Arrival Date	HAZMAT Removal Expect Date	Staff Training Required	Location of HAZMAT Usage and Storage	PPE	Flammability Hazard	Health Hazard	Reactivity Hazard	Special Hazards
1	Omala 320	Shell	Yes ■ No ☐	1.5 drums	5-Mar-25	31-Mar-25		MPD Secondary Containment at Main Deck	YES	NO	YES	NO	NO
2	Tellus 32	Shell	Yes ■ No ☐	2 drums	5-Mar-25	31-Mar-25		MPD Secondary Containment at Main Deck	YES	NO	YES	NO	NO
3	All purpose Industrial Cleaner " Oiler-1"	Oiler	Yes ■ No ☐	3 jerry cans	5-Mar-25	31-Mar-25		MPD Tool House Container	YES	NO	YES	NO	NO
4	Aeroshell Fluid 41, Mineral hydraulic fluidfor air craft	Shell	Yes ■ No ☐	11 jery cans	5-Mar-25	31-Mar-25		MPD Tool House Container	YES	NO	YES	NO	NO
5	Mobile grease X HP 222	Mobil	Yes ■ No ☐	1.5 bucket	5-Mar-25	31-Mar-25		MPD Tool House Container	YES	NO	YES	NO	NO
6	Tellus S2 MX 68	Shell	Yes ■ No ☐	0.5 bucket	5-Mar-25	31-Mar-25		MPD Tool House Container	YES	NO	YES	NO	NO
7	WD-40 can 400ml	WD40	Yes ■ No ☐	0.2 cans	5-Mar-25	27-Mar-25		MPD DAS Lab	YES	YES	YES	NO	NO
8	Contact cleaner Spray	CRC	Yes ■ No ☐	1 can	5-Mar-25	27-Mar-25		MPD DAS Lab	YES	YES	YES	NO	NO
9	Orange Lotion pumice hand cleaner " Dreumex"	Dreumex	Yes ■ No ☐	1 gallons = 3.78litre	5-Mar-25	31-Mar-25		MPD Tool House Container	YES	NO	YES	NO	NO
10	Loctite 243 for thread locker	Henkel	Yes ■ No ☐	6 bottle	5-Mar-25	31-Mar-25		MPD Tool House Container	YES	NO	YES	NO	NO
11	High temperature RTV silicone (gasket maker)	Permatex	Yes ■ No ☐	1 tube	5-Mar-25	31-Mar-25		MPD Tool House Container	YES	NO	YES	NO	NO
12	Spray colour blue "WIN"	WIN	Yes ■ No ☐	4 cans	5-Mar-25	31-Mar-25		MPD Tool House Container	YES	YES	YES	NO	NO
13	Spray colour red "WIN"	WIN	Yes ■ No ☐	4 cans	5-Mar-25	31-Mar-25		MPD Tool House Container	YES	YES	YES	NO	NO
14	Spray colour white "WIN"	WIN	Yes ■ No ☐	4 cans	5-Mar-25	31-Mar-25		MPD Tool House Container	YES	YES	YES	NO	NO
15	Plug Valve Lubricant LQ-TRAC Halliburton	Plusco	Yes ■ No ☐	1 box	5-Mar-25	31-Mar-25		MPD Tool House Container	YES	NO	YES	NO	NO
			☐										
			☐										

NOTES: Refer to the Safety Data Sheet (SDS) for specifics on hazards, place the appropriate severity in the hazard section using the following Hazard Ratings: 0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme
If "NO" is checked in the "SDS Available" column, an action item shall be written to provide the SDS and tracked until SDS is received.

Baker Hughes

Product Costs Inventory & Consumption	Unit Size	Final Stock
BENTONITE, 25 kg	25 kg	200
BRIDGEFORM, 25 lb bag	25 lb bag	20
BRINE-PAC 1500 A, 5 gal	5 gal	19
CaCl2, 25 kg bag	25 kg bag	200
CaCo3 GM 150, 25 kg bag	25 kg bag	134
CARBO-MUL TH, 55 gal	55 gal	45
CHEK-LOSS, 25 lb bag	25 lb bag	210
DFE-938, 25 lb bag	25 lb bag	193
DIAMOND DUST, 40 lb bag	40 lb bag	125
H2S SCAV , 55 gal	55 gal	4
HDC MK II , 55 gal dr	55 gal dr	8
KCl, 25 kg bag	25 kg bag	80
LIME, 25 kg bag	25 kg bag	172
MAGMA-PLEX, 50 lb bag	50 lb bag	99
MAGMA-TROL, 25 kg bag	25 kg bag	49
MIL-BAR, MT	MT	190
MUL HT 450, 55 gal dr	55 gal dr	33
NOXYGEN XT, 25 kg bag	25 kg bag	3
OMNILUBE 655, 55 gal	55 gal	30
OVA-KLEAN, 55 gal dr	55 gal dr	3
OVA-VIS, 55 gal	55 gal	6
OVAGEL HT, 25 kg bag	25 kg bag	57
OVATROL HT, 50 lb bag	50 lb bag	48
OVATROL XHT, 50 lb bag	50 lb bag	255
PAC LV, 25 kg bag	25 kg bag	15
PHPA, 25 kg bag	25 kg bag	48
SARALINE 185V Q3/2025	1 m3	224
SODA ASH, 25 kg bag	25 kg bag	12
SYN GRAPHITE F, 25 kg bag	25 kg bag	96
THPS 35%, 5 gal	5 gal	36
XAN PLEX D, 25 kg bag	25 kg bag	71
XANPLEX XPR, 25 kg bag	25 kg bag	55

Baker Hughes Confidential

ADES	Maintenance Work Order Report	Printed user : ADM502.RMS Print time: 22-Sep-25

Source of Data		Work order	
Rig ID	502	Status	
Asset Group		Work Order Type	
Asset Number	502 MAIN AIR COMPRESSOR #1	Include View Costs	Y
Asset Activity		Include Materials & Purchase Details	Y
Department		Include Operation Tasks	Y
Date From	01-JAN-25	Include Operation Quality Plan	Y
Date To	21-SEP-25		

Rig ID 502
Equipment Description MAIN AIR COMPRESSOR #1 — Asset Serial Number: ACSUL.00273
Description 1,000 hrs service — Equipment Serial Number : 201104260052
Scheduled Start Date 04-SEP-25
Actual Completion Date
Work Order Number CM3403987
Work Order Source CURRENT
Work Order Status Unreleased
Accounting Class 5061801
Department Mechanical
Work Order Type Corrective Maintenance
Shutdown Type Not Required
Priority N
Asset Number 502 MAIN AIR COMPRESSOR #1
Asset Activity
Comment
Eq. Condition Before 3 Fair - Some Maintenance Required
Eq. Condition After 2 Acceptable - No Maintenance Required

ADES	Maintenance Work Order Report	Printed user : ADM502.RMS Print time: 22-Sep-25

Rig Comment Carried out 1,000 hrs service.
Work Order Sign No
OIM Comment
Engineering Comment
Additional Description Carried out 1,000 hrs service.
Replaced oil filters and checked as per 1,000 hrs service.
Surapong Sr.Mechanic

Operations

Opr.Seq.No. 10 **Department** Mechanical **Completed** NO

Description:-
Default Operation for Work Order
Long Description:-

Assign Person:-

Materials

Operation Sequence Number	Item	Item Description	Quantity			Date Required	Estimated Cost
			Required	Issued	Allocated		
10	5061800.01.11.00362	FILTER, ELEMENT (REPLACEMENT) - MFG: SUL - P/N# 250025-526	1		0	04-SEP-25	

Rig ID	502	
Equipment Description	MAIN AIR COMPRESSOR #1	Asset Serial Number: ACSUL.00273
Description	AIR COMPRESSOR/SULLAIR-QUINCY-GD/1M	Equipment Serial Number : 201104260052
Scheduled Start Date	06-AUG-25	
Actual Completion Date	06-AUG-25	
Work Order Number	2796552	
Work Order Source	CURRENT	
Work Order Status	Complete	
Accounting Class	5061801	
Department	Maint.	
Work Order Type		
Shutdown Type		
Priority		
Asset Number	502 MAIN AIR COMPRESSOR #1	
Asset Activity	AIR COMPRESSOR/SULLAIR-QUINCY-GD/1M	
Comment		
Eq. Condition Before	2 Acceptable - No Maintenance Required	
Eq. Condition After	2 Acceptable - No Maintenance Required	
Rig Comment	PM done as per task description	
Work Order Sign	No	
OIM Comment		
Engineering Comment		
Additional Description		

Meters

Meter Name	Last RHS Reading	Last Reading Date
502 MAIN AIR COMPRESSOR #1/METER	44476	06-AUG-25

	Maintenance Work Order Report	Printed user : ADM502.RMS Print time: 22-Sep-25

Operations

Opr.Seq.No 10 **Department** Mechanical **Completed** Yes

.

Description:-

Long Description:-

Safety Considerations:
1- Carry out pre job planning and risk assessment as per company HS&E manual.
2- Ensure work permits, are obtained, if required, and all energy sources isolated before working on this equipment, Use the right and assign tools for the job.
3- Personnel performing this maintenance should be competent, be familiar with the equipment and have received adequate instructions toperform the maintenance safely, Always use complete and right PPE for the job.

Assign Person:-

Opr.Seq.No 20 **Department** Mechanical **Completed** Yes

.

Description:-

Long Description:-

Maintenance tasks:
Check fluid level in the sump. If the level is too low, add the necessary amount.
Check all instruments and gauges are working properly.
Check all valves for proper function.
Carry out function test for the air compressor high temperature shutdown.
Ensure that all filters are working properly.
Check there is sufficient ventilation around the compressor.
Check for any abnormal noises and vibrations.
Keep the unit clean, clean up any spills immediately.

Clean the return line strainer.
Clean the sight glass on the separator tank.

Clean cooler.
Check water system for possible restriction including water temperature regulating valve, clean or adjust as required.
If system equipped with heat exchanger, Checks the Zinc Anodes - Replace as required

Ensure pressure range and pressure differential are adjusted correctly. Refer to Service Manual for details.

Check the drive coupling gap and ensure it is within limits given below (If equipped)x4196 Horsepower Coupling gap Tightening Torquex4196 40, 50 (30, 40 kW) 1-13/16 (46mm) 55 ft-lbs (75Nm)x4196 60, 75, 100 (45, 55, 75 kW) 1-1/16 (52mm) 110 ft-lbs (149Nm).

Assign Person:-

Opr.Seq.No	30	Department	Electrical	Completed	Yes

.

Description:-

Long Description:-

Safety Considerations:
1- Carry out pre job planning and risk assessment as per company HS&E manual.
2- Ensure work permits, are obtained, if required, and all energy sources isolated before working on this equipment, Use the right and assign tools for the job.
3- Personnel performing this maintenance should be competent, be familiar with the equipment and have received adequate instructions toperform the maintenance safely, Always use complete and right PPE for the job.

Assign Person:-

Opr.Seq.No	40	Department	Electrical	Completed	Yes

.

Description:-

Long Description:-

Maintenance tasks:
Electric Motor:
Check insulation for all connections in motor junction box.
Megger test the motor.
Measure the current consumed under normal load.
Check that it is within nameplate data.
On three phase motors, measure current in all three phases.

Assign Person:-

Rig ID	502		
Equipment Description	MAIN AIR COMPRESSOR #1	Asset Serial Number: ACSUL.00273	
Description	AIR COMPRESSOR/SULLAIR-QUINCY-GD/1M	Equipment Serial Number : 201104260052	
Scheduled Start Date	07-JUL-25		
Actual Completion Date	07-JUL-25		
Work Order Number	2796133		
Work Order Source	CURRENT		
Work Order Status	Complete		
Accounting Class	5061801		
Department	Maint.		
Work Order Type	Preventive Maintenance		
Shutdown Type	Not Required		
Priority	N		
Asset Number	502 MAIN AIR COMPRESSOR #1		
Asset Activity	AIR COMPRESSOR/SULLAIR-QUINCY-GD/1M		
Comment			
Eq. Condition Before	2 Acceptable - No Maintenance Required		
Eq. Condition After	2 Acceptable - No Maintenance Required		
Rig Comment	pm done as job describtion		
Work Order Sign	No		
OIM Comment			
Engineering Comment			
Additional Description			

Operations

Opr.Seq.No	10	Department	Mechanical	Completed	Yes

.

Description:-

Long Description:-

Safety Considerations:
1- Carry out pre job planning and risk assessment as per company HS&E manual.
2- Ensure work permits, are obtained, if required, and all energy sources isolated before working on this equipment, Use the right and assign tools for the job.
3- Personnel performing this maintenance should be competent, be familiar with the equipment and have received adequate instructions toperform the maintenance safely, Always use complete and right PPE for the job.

Assign Person:-

Opr.Seq.No	20	Department	Mechanical	Completed	Yes

.

Description:-

Long Description:-

Maintenance tasks:
Check fluid level in the sump. If the level is too low, add the necessary amount.
Check all instruments and gauges are working properly.
Check all valves for proper function.
Carry out function test for the air compressor high temperature shutdown.
Ensure that all filters are working properly.
Check there is sufficient ventilation around the compressor.
Check for any abnormal noises and vibrations.
Keep the unit clean, clean up any spills immediately.

Clean the return line strainer.
Clean the sight glass on the separator tank.

Clean cooler.
Check water system for possible restriction including water temperature regulating valve, clean or adjust as required.
If system equipped with heat exchanger, Checks the Zinc Anodes - Replace as required

Ensure pressure range and pressure differential are adjusted correctly. Refer to Service Manual for details.

Check the drive coupling gap and ensure it is within limits given below (If equipped)x4196 Horsepower Coupling gap Tightening Torquex4196 40, 50 (30, 40 kW) 1-13/16 (46mm) 55 ft-lbs (75Nm)x4196 60, 75, 100 (45, 55, 75 kW) 1-1/16 (52mm) 110 ft-lbs (149Nm).

Assign Person:-

Opr.Seq.No	30	Department	Electrical	Completed	Yes

.

Description:-

Long Description:-

Safety Considerations:
1- Carry out pre job planning and risk assessment as per company HS&E manual.
2- Ensure work permits, are obtained, if required, and all energy sources isolated before working on this equipment, Use the right and assign tools for the job.
3- Personnel performing this maintenance should be competent, be familiar with the equipment and have received adequate instructions toperform the maintenance safely, Always use complete and right PPE for the job.

Assign Person:-

Opr.Seq.No	40	Department	Electrical	Completed	Yes

.

Description:-

Long Description:-

Maintenance tasks:
Electric Motor:
Check insulation for all connections in motor junction box.
Megger test the motor.
Measure the current consumed under normal load.
Check that it is within nameplate data.
On three phase motors, measure current in all three phases.

Assign Person:-

Source of Data		Work order	
Rig ID	502	Status	
Asset Group		Work Order Type	
Asset Number	502 MAIN GENERATOR #1	Include View Costs	Y
Asset Activity		Include Materials & Purchase Details	Y
Department		Include Operation Tasks	Y
Date From	01-JAN-25	Include Operation Quality Plan	Y
Date To	21-SEP-25		

Rig ID 502
Equipment Description MAIN GENERATOR #1 — Asset Serial Number: GENGR00098
Description GENERATOR / BAYLOR / 1 MONTHLY — Equipment Serial Number : QG142664-1
Scheduled Start Date 14-SEP-25
Actual Completion Date 14-SEP-25
Work Order Number 2797124
Work Order Source CURRENT
Work Order Status Complete
Accounting Class 5060702
Department Maint.
Work Order Type
Shutdown Type
Priority
Asset Number 502 MAIN GENERATOR #1
Asset Activity GENERATOR/BAYLOR 1M
Comment
Eq. Condition Before 2 Acceptable - No Maintenance Required
Eq. Condition After 2 Acceptable - No Maintenance Required

	Maintenance Work Order Report	Printed user : ADM502.RMS Print time: 22-Sep-25

Rig Comment PM done as per task description
Work Order Sign No
OIM Comment
Engineering Comment
Additional Description

Operations

Opr.Seq.No 10 **Department** Electrical **Completed** Yes

Description:-

Long Description:-

Safety Considerations:
1- Carry out pre job planning and risk assessment as per company HS&E manual.
2- Ensure work permits, are obtained, if required, and all energy sources isolated before working on this equipment, Use the right and assign tools for the job.
3- Personnel performing this maintenance should be competent, be familiar with the equipment and have received adequate instructions to perform the maintenance safely, Always use complete and right PPE for the job.

Assign Person:-

Opr.Seq.No 20 **Department** Electrical **Completed** Yes

Description:-

Long Description:-

Maintenance Tasks:
Carry out the daily PM.

With the generator stopped carry out the following:
1- Clean the outside of the generator and its ventilation screens, to remove dirt, dust, oil or other contaminants.
2- Inspect the generator for loose or damaged windings, cracked, burned or broken insulation, loose mounting components, loose hold down bolts, and the presence of moisture or other foreign material.
3- Inspect the area surrounding the bearings for signs of excessive leakage of oil or grease. If oil lubricated, determine that the oil level is correct. Lubricate the bearings in accordance with the recommendations set forth in the bearing lubrication instructions provided in the equipment OEM manual.
4- Inspect the lead wires and control device wiring for cracked or damaged insulation and loose terminals.
5- Observe any unusual noise or vibration.
6- Inspect the generator control and monitoring devices for correct adjustment and operation.

Assign Person:-

	Maintenance Work Order Report	Printed user : ADM502.RMS Print time: 22-Sep-25

Rig ID	502	
Equipment Description	MAIN GENERATOR #1	Asset Serial Number: GENGR00098
Description	GENERATOR / BAYLOR / 6 MONTHLY	Equipment Serial Number : QG142664-1
Scheduled Start Date	15-AUG-25	
Actual Completion Date	15-AUG-25	
Work Order Number	2796677	
Work Order Source	CURRENT	
Work Order Status	Complete	
Accounting Class	5060702	
Department	Maint.	
Work Order Type	Preventive Maintenance	
Shutdown Type	Not Required	
Priority		
Asset Number	502 MAIN GENERATOR #1	
Asset Activity	GENERATOR/BAYLOR 6M	
Comment		
Eq. Condition Before	2 Acceptable - No Maintenance Required	
Eq. Condition After	2 Acceptable - No Maintenance Required	
Rig Comment	PM done as per task description	
Work Order Sign	No	
OIM Comment		
Engineering Comment		
Additional Description		

Operation Quality Plan

SeQ	Element Name	Value
10	MEGGER TEST_MAIN ROTOR_MOHM	550
100	EXC_STATOR COIL RESISTANCE_OHM	.2
110	EXC_ROTOR COIL RESISTANCE_OHM	.2

20	MEGGER TEST_MAIN STATOR_MOHM	186
30	AIR GAP TOP_THAU	.039
40	AIR GAP BOTTOM_THAU	.023
50	AIR GAP LEFT_THAU	.025
60	AIR GAP RIGHT_THAU	.035
80	EXCITER STATOR MEGGER_MOHM	550
90	EXCITER ROTOR MEGGER_MOHM	550

Operations

Opr.Seq.No 10 **Department** Electrical **Completed** Yes

.

Description:-

Long Description:-

Safety Considerations:
1- Carry out pre job planning and risk assessment as per company HS&E manual.
2- Ensure work permits, are obtained, if required, and all energy sources isolated before working on this equipment, Use the right and assign tools for the job.
3- Personnel performing this maintenance should be competent, be familiar with the equipment and have received adequate instructions to perform the maintenance safely, Always use complete and right PPE for the job.

Assign Person:-

Opr.Seq.No 20 **Department** Electrical **Completed** Yes

.

Description:-

Long Description:-

Maintenance Tasks:
Carry out 3M maintenance.

Assign Person:-

Opr.Seq.No 30 **Department** Electrical **Completed** Yes

.

Description:-

Long Description:-

Clean out old grease from generator bearing, unplug release plug and pump the new grease (Use Special Grease for motors and generators - Refer to lubrication chart).

Clean all covers and screens, Clean all windings and poles from magnetic dirt using compressed air and CRC.
Dry with compressed air first and use heating source to get complete dry out. Dry the generator with heater or hot air to get megger test more than 100 M ohm. Varnish all windings after cleaning using 3M Isolation spray, if required.

Clean the governors speed pick-up magnet and re-adjust its clearance to read 8-11 volts at generator max rated speed.

If Generator set working with actuator:
Adjust actuator m Amp not to exceed 10 - 15% difference between all engines actuator Actuator arm, linkage, to be checked for loose or wear, grease end bearing. Space heater to be checked for condition and functioning.

All electronic devices shall be disconnected before megger test. Megger test the generator (main stator, main rotor, exciter rotor, and exciter stator), the result should be more than 2 M ohm. After megger testing ensures that all wires are fastened back properly. Measure air gab between exciter rotor & stator The minimum acceptable reading is within (Top reading + Bottom reading)/ 20-21 THOU.

Assign Person:-

Opr.Seq.No 40 **Department** Electrical **Completed** Yes

.

Description:-

Long Description:-

Inspect and re-tight all power cables bolts to their specific torque. Inspect for loose connections, termination, wires and check Cable's sheath for wear or Cracks and correct if any. Open grease release plug on both bearing and run the generator for 30 Minutes before Inspect for loose connections, termination, wires and check Cable's sheath for wear or Cracks and correct if any. Tighten any loose bolts or connections.

Test run the generator:
-Check generator's winding temperature.
-Check generator's noises and vibrations.
-Ensure that the out voltage is correct at rated speed.
-Ensure that governor's response to load changes is fast and stable.

Assign Person:-

Opr.Seq.No 50 **Department** Electrical **Completed** Yes

.

Description:-

Long Description:-

Carry out MPI for Gen-set skidding welding areas.
Report the last MPI done in work order.

Ensure all related data is recorded in the work order
(Add comment for 6M PM intervals and above highly recommended, MRR in case additional tasks done, abnormal conditions are observed, materials used, inspection reports)

Assign Person:-

	Maintenance Work Order Report	Printed user : ADM502.RMS Print time: 22-Sep-25

Source of Data		Work order	
Rig ID	502	Status	
Asset Group		Work Order Type	
Asset Number	502 GAUGES & SAFETY VALVES	Include View Costs	Y
Asset Activity		Include Materials & Purchase Details	Y
Department		Include Operation Tasks	Y
Date From	21-SEP-24	Include Operation Quality Plan	Y
Date To	21-SEP-25		

Rig ID 502
Equipment Description GAUGES AND SAFETY VALVES — Asset Serial Number: PRVLV.00091
Description SAFETY VALVE/GENERAL 1Y — Equipment Serial Number :
Scheduled Start Date 12-JUL-25
Actual Completion Date 12-JUL-25
Work Order Number 2796200
Work Order Source CURRENT
Work Order Status Complete
Accounting Class 5090019
Department Maint.
Work Order Type
Shutdown Type Required
Priority
Asset Number 502 GAUGES & SAFETY VALVES
Asset Activity SAFETY VALVE/GENERAL 1Y
Comment
Eq. Condition Before 2 Acceptable - No Maintenance Required
Eq. Condition After 2 Acceptable - No Maintenance Required

Rig Comment Completed PM
Work Order Sign No
OIM Comment
Engineering Comment
Additional Description After 1 hour and 4 attempts unable to load the report for this PM, can be found in annual inspections in pdrive. Done 20 may-1 june 2025 by ocean 21

Work order Attachments

SEQ	TYPE	DETAILS
10	File	5946678_WO_Pages from 0401 Final Report ADM502 PRV & GAUGES.pdf
10	File	5946678_WO_Pages from 0401 Final Report ADM502 PRV & GAUGES.pdf

Operations

Opr.Seq.No 10 **Department** OIM **Completed** Yes

Description:-

Long Description:-

Safety Considerations:
1- Carry out pre job planning and risk assessment as per company HS&E manual.
2- Ensure work permits, are obtained, if required, and all energy sources isolated before working on this equipment, Use the right and assign tools for the job.
3- Personnel performing this maintenance should be competent, be familiar with the equipment and have received adequate instructions toperform the maintenance safely, Always use complete and right PPE for the job.

Maintenance tasks:
Arrange for 3rd party to carry out the yearly recertification
Complete inspection , Calibration and recertification must be applied annually for the following:
- safety valves.
- Relief valves.
- Pop off valves for mud system.

A complete list of safety valves including rating must be kept in the description field for the equipment.The list to include certificate number and date for easy reference to the certificate file.A complete set of current test certificates to be kept onboard.

Ensure all related data is recorded in the work order

	Maintenance Work Order Report	Printed user : ADM502.RMS Print time: 22-Sep-25

Source of Data		Work order	
Rig ID	502	Status	
Asset Group		Work Order Type	
Asset Number	502 SEWAGE TREATMENT UNIT	Include View Costs	Y
Asset Activity		Include Materials & Purchase Details	Y
Department		Include Operation Tasks	Y
Date From	01-JAN-25	Include Operation Quality Plan	Y
Date To	21-SEP-25		

Rig ID 502
Equipment Description SEWAGE TREATMENT UNIT — Asset Serial Number: SWGPT.00076
Description Replace Blower #2 for Sewage treatment unit — Equipment Serial Number : 97569-01
Scheduled Start Date 16-JUL-25
Actual Completion Date
Work Order Number CM3385456
Work Order Source CURRENT
Work Order Status Unreleased
Accounting Class 5061710
Department Electrical
Work Order Type Corrective Maintenance
Shutdown Type Not Required
Priority
Asset Number 502 SEWAGE TREATMENT UNIT
Asset Activity
Comment
Eq. Condition Before 3 Fair - Some Maintenance Required
Eq. Condition After 3 Fair - Some Maintenance Required

Rig Comment	Need to replace Blower #2 due stuck
Work Order Sign	No
OIM Comment	
Engineering Comment	
Additional Description	Part on order under ELE-IRR-239

Operations

Opr.Seq.No	10	**Department**	Electrical	**Completed**	NO

.

Description:-
Default Operation for Work Order
Long Description:-

Assign Person:-

Materials

Operation Sequence Number	Item	Item Description	Quantity			Date Required	Estimated Cost
			Required	Issued	Allocated		
10	5060900.02.11.00115	PUMP, VACUUM , FOR SEWAGE TREATMENT PLANT , MFG: RIETSCHLE , MFG P/N DTA80	1		0	16-JUL-25	

	Maintenance Work Order Report	Printed user : ADM502.RMS Print time: 22-Sep-25

Rig ID	502		
Equipment Description	SEWAGE TREATMENT UNIT	Asset Serial Number: SWGPT.00076	
Description	Discharge pump #1 is leaking	Equipment Serial Number : 97569-01	
Scheduled Start Date	12-JUL-25		
Actual Completion Date			
Work Order Number	CM3384601		
Work Order Source	CURRENT		
Work Order Status	Released		
Accounting Class	5061710		
Department	Mechanical		
Work Order Type	Corrective Maintenance		
Shutdown Type	Not Required		
Priority	N		
Asset Number	502 SEWAGE TREATMENT UNIT		
Asset Activity			
Comment			
Eq. Condition Before	3 Fair - Some Maintenance Required		
Eq. Condition After	3 Fair - Some Maintenance Required		
Rig Comment	Discharge pump #1 is leaking waiting for spare part on ordered.		
Work Order Sign	No		
OIM Comment			
Engineering Comment			
Additional Description	Discharge pump #1 is leaking waiting for spare part on ordered		

Operations

Opr.Seq.No	10	**Department**	Mechanical	**Completed**	NO

.

Description:-
Default Operation for Work Order
Long Description:-

Assign Person:-

Work Instruction Report

RIG Code: 502
Asset Activity: AIR COMPRESSOR/ATLAS COPCO 1M AIR COMPRESSOR/ATLAS COPCO 1M

Oper Seq. No.	10	**Department**	Mechanical
Description	Safety Considerations: 1- Carry out pre job planning and risk assessment as per company HS&E manual. 2- Ensure work permits, are obtained, if required, and all energy sources isolated before working on this equipment, Use the right and assign tools for the job. 3- Personnel performing this maintenance should be competent, be familiar with the equipment and have received adequate instructions to perform the maintenance safely, Always use complete and right PPE for the job. Maintenance tasks: Check fluid level in the sump. If the level is too low, add the necessary amount. Check all instruments and gauges are working properly. Check all valves for proper function. Carry out function test for the air compressor high temperature shutdown. Ensure that all filters are working properly. Check there is sufficient ventilation around the compressor. Check for any abnormal noises and vibrations. Keep the unit clean, clean up any spills immediately. Clean the return line strainer. Clean the sight glass on the separator tank. Clean cooler. Check water system for possible restriction including water temperature regulating valve, clean or adjust as required. Ensure pressure range and pressure differential are adjusted correctly. Refer to Service Manual for details. Check the drive coupling gap and ensure it is within limits given below (If equipped)x4196 Horsepower Coupling gap Tightening Torquex4196 40, 50 (30, 40 kW) 1-13/16 (46mm) 55 ft-lbs (75Nm)x4196 60, 75, 100 (45, 55, 75 kW) 1-1/16 (52mm) 110 ft-lbs (149Nm).		
Oper Seq. No.	20	**Department**	Electrical
Description	Safety Considerations:		

Work Instruction Report

RIG Code: 502
Asset Activity: AIR COMPRESSOR/ATLAS COPCO 1M AIR COMPRESSOR/ATLAS COPCO 1M

1- Carry out pre job planning and risk assessment as per company HS&E manual.
2- Ensure work permits, are obtained, if required, and all energy sources isolated before working on this equipment, Use the right and assign tools for the job.
3- Personnel performing this maintenance should be competent, be familiar with the equipment and have received adequate instructions to perform the maintenance safely, Always use complete and right PPE for the job.

Maintenance tasks:
Electric Motor:
Check insulation for all connections in motor junction box.
Megger test the motor
Measure the current consumed under normal load.
Check that it is within nameplate data.
On three phase motors, measure current in all three phases.

Work Instruction Report

RIG Code: 502
Asset Activity: FIRE FIGHTING SYSTEM/1M FIRE FIGHTING SYSTEM/ 1 MONTHLY

Oper Seq. No.	10	**Department**	Barge Mst.
Description	Safety Considerations: 1- Carry out pre job planning and risk assessment as per company HS&E manual. 2- Ensure work permits, are obtained, if required, and all energy sources isolated before working on this equipment, Use the right and assign tools for the job. 3- Personnel performing this maintenance should be competent, be familiar with the equipment and have received adequate instructions to perform the maintenance safely, always use complete and right PPE for the job. Work instruction reference. - OEM maintenance manual. - OEM product bulletin. - Check Equipment asset/WO attachment for OEM bulletin, Alerts, instructions. - ADES Manuals. Maintenance tasks: Carry out the weekly PM.		
Oper Seq. No.	20	**Department**	Barge Mst.
Description	Maintenance Tasks: 1. Verify all fire pumps have been operated in last 30 days. 2. Open and inspect all fire hydrant stations. Verify hose spanners, hoses and nozzles are in place and in good working condition and stations are numbered clearly and access is not obstructed. Caution: Use care in removing a protective cap from the hydrant prior to hooking up the hose. If the valve has been leaking, there could be pressure built up behind the cap. If a cap comes with a vent hole verify the hole or vent is clear. 3. Select two stations and run out hose from each station. Open the fire hydrant valve and pressure test the hose. NOTE: Select different stations to test each month. Hose station testing can be done in conjunction with fire drills. 4. Flush each hydrant under test until water is clean. Check nozzles for signs of corrosion and proper operation. Lubricate as required. 5. Remove hose from stations under test and check valve for leakage. 6. Dry out hoses. Reconnect to hydrant and restore hoses.		

Work Instruction Report

RIG Code:	502
Asset Activity:	FIRE FIGHTING SYSTEM/1M — FIRE FIGHTING SYSTEM/ 1 MONTHLY

	7. Document date of test on valve tag and list stations tested on work order. 8. Verify all fixed fire fighting system stop valves are in correct open or closed position. 9. Check fans.
Oper Seq. No.	30 **Department** Barge Mst.
Description	SPRINKLER SYSTEM Task Items: 1. Check sprinkler system charge pressure. 2. Verify correct reading on tank sight glass, clean as required. 3. Verify all sprinkler pumps automatically operate on reduction of pressure in the system. 4. Verify all valves are in correct operating position. DELUGE SYSTEM (IF EQUIPPED) Task Items: NOTE: Perform dry function tests on each fixed system onboard the vessel. 1. Verify main supply valve is closed and isolated before function testing all valves within the system. 2. Open each manual valve and confirm smooth operation, lubricate as required. 3. Function test AOVs and MOVs within the system and verify correct operation, where indication is applicable verify correct function of valve positioning. 4. Visually inspect all pipe work for signs of corrosion. 5. Inspect discharge nozzles for signs of damage and blockages. 6. Confirm all valves and pipe work are correctly identified and legible. 7. Return all valves to their normal operating position and remove isolation from mains supply valve.
Oper Seq. No.	40 **Department** Barge Mst.
Description	Check and updated the Rig Fire Station inventory list. Ensure all related data is recorded in the work order (It's highly recommended to add comment for 6M PM intervals and above, MRR in case additional tasks done, abnormal conditions are observed, materials used, inspection reports).
Oper Seq. No.	50 **Department** Barge Mst.
Description	Safety Considerations: 1- Carry out pre job planning and risk assessment as per company HS&E manual. 2- Ensure work permits, are obtained, if required, and all energy sources isolated before working on this equipment, Use the right and assign tools for the job. 3- Personnel performing this maintenance should be competent, be familiar with the equipment and have received adequate instructions to

Work Instruction Report

RIG Code:	502
Asset Activity:	FIRE FIGHTING SYSTEM/1M — FIRE FIGHTING SYSTEM/ 1 MONTHLY

	perform the maintenance safely, always use complete and right PPE for the job. Maintenance Tasks: 1) Visually inspect overall condition of batteries and battery charger Panel. 2) Open, visually inspect and clean panel interior. 3) All electrical wiring and connections to be checked for integrity and tightness, replace any cracked or broken terminals. 4) Check fans. 5) Verify operation of panel controls and indicating lights. 6) Ensure that back up system working in good performance. Repair / replace as required.

Work Instruction Report

RIG Code: 502
Asset Activity: GENERATOR/6M GENERATOR / 6 MONTHLY

Oper Seq. No.	10	**Department**	Electrical
Description	Safety Considerations: 1- Carry out pre job planning and risk assessment as per company HS&E manual. 2- Ensure work permits, are obtained, if required, and all energy sources isolated before working on this equipment, Use the right and assign tools for the job. 3- Personnel performing this maintenance should be competent, be familiar with the equipment and have received adequate instructions toperform the maintenance safely, Always use complete and right PPE for the job.		
Oper Seq. No.	20	**Department**	Electrical
Description	Maintenance tasks: Carry out 3M maintenance.		
Oper Seq. No.	30	**Department**	Electrical
Description	Clean out old grease from generator bearing, unplug release plug and pump the new grease. Clean all covers and screens. Clean all windings and poles from magnetic dirt using compressed air and CRC. Dry with compressed air first and use heating source to get complete dry out. Dry the generator with heater or hot air to get megger test more than 100 M ohm. Varnish all windings after cleaning using 3M Isolation spray, if required. Clean the governors speed pick-up magnet and re-adjust its clearance to read 8-11 volts at generator max rated speed. If Generator set working with actuator: Adjust actuator m Amp not to exceed 10 - 15% difference between all engines actuator Actuator arm, linkage, to be checked for loose or wear, grease end bearing. Space heater to be checked for condition and functioning. All electronic devices shall be disconnected before megger test.Megger test the generator (main stator, main rotor, exciter rotor, and exciter stator), the result should be more than 2 M ohm.After megger testing ensures that all wires are fastened back properly.Measure air gab between exciter rotor & stator The minimum acceptable reading is within (Top reading + Bottom reading)/ 20-21 THAW.		
Oper Seq. No.	40	**Department**	Electrical
Description	Inspect and re-tight all power cables bolts to their specific torque.		

Work Instruction Report

RIG Code: 502
Asset Activity: GENERATOR/6M GENERATOR / 6 MONTHLY

	Inspect for loose connections, termination, wires and check Cable's sheath for wear or Cracks and correct if any. Open grease release plug on both bearing and run the generator for 30 Minutes before closing the plug. Clean all extra grease and fit the plug. Test run the generator: -Check generator's winding temperature. -Check generator's noises and vibrations. -Ensure that the out voltage is correct at rated speed. -Ensure that governor's response to load changes is fast and stable.		
Oper Seq. No.	50	**Department**	Electrical
Description	Carry out MPI for Gen-set skidding welding areas. Report the last MPI done in work order. Ensure all related data is recorded in the work order (Add comment for 6M PM intervals and above highly recommended, MRR in case additional tasks done, abnormal conditions are observed, materials used, inspection reports)		

Private and Confidential

LIFTING GEAR INSPECTION (LGI)

Witness by 3rd Party Lloyd

Conducted By:

LRQA (Thailand) Limited

Installation Name	Job Number	PO Number
ADM 502	LRQA24-SK-050	119

Inspector	Peer Review	Insp. Date	Validity	Reference	Distribution
[redacted]	[redacted]	OCTOBER 2024	6 Months	LGI	ADES

TABLE OF CONTENTS

Foreward .....

Thorough Examination Register ..... **SECTION 1**

Quarantine Items ..... **SECTION 2**

Rejected Items ..... **SECTION 3**

Thorough Visual Certificate ..... **SECTION 4**

เอกสารนี้เป็นเอกสารที่ได้รับการรับรองจากกรมธุรกิจพลังงาน ตามประกาศกรมธุรกิจพลังงาน เรื่อง หลักเกณฑ์การรับรองเอกสารด้านความปลอดภัย ฯ

Item No.	Equipment Description	Serial No / ID No.	Location of Equipment	SWL / WLL	OEM	Date of manufacture	Inspection Date	Recommended Next Inspection Date	TER Report No.	Status
1	24MM DYFORM 6X36 IWRC 1960-GAL RHL C/W1" CROSBY S-421T WEDGE SOCKET ASSEMBLY ONE END & OTHER END FUSED & TAPERED LENGTH 200 MTR	J624791	Port Aft Crane	49.6 Ton MBL	Bridon	23/12/2022	08/10/2024	07/04/2025	PRJ11100418957/1123	IN USE
2	Auxiliary Block Assembly	M530-0095-000-R0109	Port Aft Crane	14 Ton	Favco	24/03/2023	08/10/2024	07/04/2025	PRJ11100418957/1124	IN USE
3	Auxiliary Hook Crane 14 Ton & Wedge Socket	M530-0095-000-R0109	Port Aft Crane	14 Ton	Favco	24/03/2023	08/10/2024	07/04/2025	PRJ11100418957/1125	IN USE
4	Main Block Assembly	272012-849-R27557	Port Aft Crane	50 Ton	Favco	24/03/2023	08/10/2024	07/04/2025	PRJ11100418957/1126	IN USE
5	Main Hook Crane 50 Ton & Wedge Socket	272012-849-R27557	Port Aft Crane	50 Ton	Favco	24/03/2023	08/10/2024	07/04/2025	PRJ11100418957/1127	IN USE
6	Pedestal Crane Auxiliary Wire - 24.88mm x 143m	Q629241-4	Port Aft Crane	54.1 Ton MBL	Bridon	13/10/2020	08/10/2024	07/04/2025	PRJ11100418957/1128	IN USE
7	Pedestal Crane Main Wire - 33.2mm x 345m	Q627871-2	Port Aft Crane	95.8 Ton MBL	Bridon	13/08/2020	08/10/2024	07/04/2025	PRJ11100418957/1129	IN USE
8	Pedestal Crane Pendant - 40mm x 20m - Both ends have open spelter socket	SL91094-1/1	Port Aft Crane	28.8 Ton	Bridon	13/08/2020	08/10/2024	07/04/2025	PRJ11100418957/1130	IN USE
9	Pedestal Crane Pendant - 40mm x 20m - Both ends have open spelter socket	SL91094-1/2	Port Aft Crane	28.8 Ton	Bridon	13/08/2020	08/10/2024	07/04/2025	PRJ11100418957/1131	IN USE
10	24MM DYFORM 6X36 IWRC 1960-GAL RHL C/W1" CROSBY S-421T WEDGE SOCKET ASSEMBLY ONE END & OTHER END FUSED & TAPERED LENGTH 200 MTR	J602471	Port Fwd Crane	49.6 Ton MBL	Bridon	25/01/2021	08/10/2024	07/04/2025	PRJ11100418957/1132	IN USE

Lifting Equipment Register
(Crane)

Client: ADES GROUP
Facility : ADM-502 Jack Up Rig

Item No.	Equipment Description	Serial No / ID No.	Location of Equipment	SWL / WLL	OEM	Date of manufacture	Inspection Date	Recommended Next Inspection Date	TER Report No.	Status
11	Auxiliary Block Assembly	M530-0095-0000-1778 (R0027)	Port Fwd Crane	10 Ton	Favco	Unknown	08/10/2024	07/04/2025	PRJ11100418957/1133	IN USE
12	Auxiliary Hook Crane 10 Ton & Wedge Socket	M530-0095-0000-1778	Port Fwd Crane	10 Ton	Favco	Unknown	08/10/2024	07/04/2025	PRJ11100418957/1134	IN USE
13	Main Block Assembly	M530-0074-0000-1779 (R0030)	Port Fwd Crane	50 Ton	Favco	Unknown	08/10/2024	07/04/2025	PRJ11100418957/1135	IN USE
14	Main Hook Crane 50 Ton & Wedge Socket	M530-0074-0000-1779	Port Fwd Crane	50 Ton	Favco	Unknown	08/10/2024	07/04/2025	PRJ11100418957/1136	IN USE
15	Pedestal Crane Auxiliary Wire - 24.88mm x 143m	Q605441	Port Fwd Crane	54.1 Ton MBL	Bridon	01 Aug 2019	08/10/2024	07/04/2025	PRJ11100418957/1137	IN USE
16	Pedestal Crane Main Wire - 33.2mm x 345m	Q624331-3	Port Fwd Crane	95.8 Ton MBL	Bridon	16/07/2020	08/10/2024	07/04/2025	PRJ11100418957/1138	IN USE
17	Pedestal Crane Pendant - 40mm x 20m - Both ends have open spelter socket	SL-8670	Port Fwd Crane	28.8 Ton	Bridon	08/11/2021	08/10/2024	07/04/2025	PRJ11100418957/1139	IN USE
18	Pedestal Crane Pendant - 40mm x 20m - Both ends have open spelter socket	SL-8673	Port Fwd Crane	28.8 Ton	Bridon	08/11/2021	08/10/2024	07/04/2025	PRJ11100418957/1140	IN USE
19	24MM DYFORM 34LR 34X7 WSC 1960 GAL RHL MBL 54.1T C/W 1' CROSBY S-42 WEDGE SOCKET ASSEMBLY ONE END & OTR END FUSED & TAPERED X143 MTR	J614051	Starboard Crane	54.1 Ton MBL	Bridon	25/02/2022	08/10/2024	07/04/2025	PRJ11100418957/1141	IN USE
20	24MM X 200MTR DYFORM 6X36 IWRC 1960 GAL RHLL MBL 49.7T C/W 1' CROSBY S-421T WEDGE SOCKET ASSEMBLY ONE END & OTHER END FUSED & TAPERED	J612501	Starboard Crane	49.6 Ton MBL	Bridon	25/02/2022	08/10/2024	07/04/2025	PRJ11100418957/1142	IN USE

Item No.	Equipment Description	Serial No / ID No.	Location of Equipment	SWL / WLL	OEM	Date of manufacture	Inspection Date	Recommended Next Inspection Date	TER Report No.	Status
21	Auxiliary Block Assembly	M530-0074-0000-1795	Starboard Crane	14 Ton	Favco	22/09/2017	08/10/2024	07/04/2025	PRJ11100418957/1143	IN USE
22	Auxiliary Hook Crane 14 Ton & Wedge Socket (SN:92464-2/4)	M530-0095-0000-1795	Starboard Crane	14 Ton	Favco	22/09/2017	08/10/2024	07/04/2025	PRJ11100418957/1144	IN USE
23	BRIDON ENDURANCE DYFORM 34LR PI HIGH PERFORMANCE CRANE ROPE 33.11MM X 350MTR	Q640031-2	Starboard Crane	95.8 Ton MBL	Bridon	25 Nov 2021	08/10/2024	07/04/2025	PRJ11100418957/1145	IN USE
24	Main Block Assembly	M530-0074-0000-1795 (R0037)	Starboard Crane	50 Ton	Favco	22/09/2017	08/10/2024	07/04/2025	PRJ11100418957/1146	IN USE
25	Main Hook Crane 50 Ton & Wedge Socket (SN:92464-2/1)	M530-0074-0000-1795	Starboard Crane	50 Ton	Favco	22/09/2017	08/10/2024	07/04/2025	PRJ11100418957/1147	IN USE
26	Pedestal Crane Pendant - 40mm x 20.5m - Both ends have open spelter socket	SL-8671	Starboard Crane	28.8 Ton	Bridon	08/11/2021	08/10/2024	07/04/2025	PRJ11100418957/1148	IN USE
27	Pedestal Crane Pendant - 40mm x 20m - Both ends have open spelter socket	SL-8672	Starboard Crane	28.8 Ton	Bridon	08/11/2021	08/10/2024	07/04/2025	PRJ11100418957/1149	IN USE
28	Air Powered Utility Winch Model:FA5A/E11110	MW019545	Drill Floor	10000 LBS	Ingersoll Rand	30/04/2012	08/10/2024	07/04/2025	PRJ11100418957/2211	IN USE
29	Man Rider Winch Model:FA5I-MR24MK1J12P-CE	A022534	Drill Floor	5000 kg	Ingersoll Rand	01/01/2013	08/10/2024	07/04/2025	PRJ11100418957/2211	IN USE

Item No.	Equipment Description	Serial No / ID No.	Location of Equipment	SWL / WLL	OEM	Date of manufacture	Inspection Date	Recommended Next Inspection Date	TER Report No.	Status
30	Air Winch Model:FA5A/E11110A	MW019669	Drill Floor	10000 LBS	Ingersoll Rand	01/01/2012	08/10/2024	07/04/2025	PRJ11100418957/2211	IN USE
31	Man Rider Winch Model:FA150KGIMR12A1-CE	KG020432	Drill Floor	150 kgs	Ingersoll Rand	01/01/2012	08/10/2024	07/04/2025	PRJ11100418957/2212	IN USE
32	Man Rider Winch Model:FA150KGIMR12A1-CE	KG019315	Under Drill Floor	150 kgs	Ingersoll Rand	01/01/2012	08/10/2024	07/04/2025	PRJ11100418957/2212	IN USE

INSPECTION CERTIFICATE

Office: Bangkok

Date: 08 October 2024

This Certificate is issued to Siaptek (Thailand) Co.,Ltd. address 36/37 Moo 5, Plutaluang, Sattahip, Chonburi, Thailand to certify that a LRQA's Inspector to this society did attend at the premise of ADM502 Request to services for equipment of ADES - Advanced Energy Systems Company Limited to carry out scope of inspection for the equipment as descripted below:

Scope of inspection: Thorough Visual Inspection
Reference Standards or Documents:

PTTEP : Lifting Equipment Inspection Requirement Summary Guideline : 12089-GDL-5-INT-001-R00, June 2023
Integrity Management of Lifting Appliance Guideline (Cranes & Hoists) : 10017-GDL-5-INT-006-R00, December 2022
General Instruction for PTTEP Lifting Equipment Integrity Inspection Procedure : 10017-PDR-5-INT-012-R00, December 2022

A) Description :

Equipment : Main Hook Crane 50 Ton & Wedge Socket **Serial No. : 272012-849-R27557**
Location : Port Aft Crane
WLL : 50 Ton

B) Results:
1. Inspection with a thorough visual inspection and revealed no visible defect that time of inspection.

Date of Inspection	**8 October 2024**
Next Visual Inspection	**7 April 2025**

Name of Inspector: Manop Pattanaprakrom
LRQA Representative

LRQA (Thailand) Limited
Name: Manorot Chotinuchit
Date: 15 November 2024
Ref No.: PRJ1100418957
Office: Bangkok
Signature:
Approved by Manorot Chotinuchit
Surveyor to LRQA (Thailand) Limited
A member of the LRQA Group Limited
LRQA003 11.2021

A subsidiary of LRQA Group Limited

LRQA Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as 'LRQA'. LRQA assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant LRQA entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.

INSPECTION CERTIFICATE

Office: Bangkok

Date: 08 October 2024

This Certificate is issued to Siaptek (Thailand) Co.,Ltd. address 36/37 Moo 5, Plutaluang, Sattahip, Chonburi, Thailand to certify that a LRQA's Inspector to this society did attend at the premise of ADM502 Request to services for equipment of ADES - Advanced Energy Systems Company Limited to carry out scope of inspection for the equipment as descripted below:

Scope of inspection: Thorough Visual Inspection
Reference Standards or Documents:

PTTEP : Lifting Equipment Inspection Requirement Summary Guideline : 12089-GDL-5-INT-001-R00, June 2023
Integrity Management of Lifting Appliance Guideline (Cranes & Hoists) : 10017-GDL-5-INT-006-R00, December 2022
General Instruction for PTTEP Lifting Equipment Integrity Inspection Procedure : 10017-PDR-5-INT-012-R00, December 2022

A) Description :

Equipment : Pedestal Crane Auxiliary Wire - 24.88mm x 143m **Serial No. : Q629241-4**
Location : Port Aft Crane
WLL : 54.1 Ton MBL

B) Results:
1. Inspection with a thorough visual inspection and revealed no visible defect that time of inspection.

Date of Inspection	**8 October 2024**
Next Visual Inspection	**7 April 2025**

Name of Inspector: Manop Pattanaprakrom
LRQA Representative

LRQA (Thailand) Limited
Name: Manorot Chotinuchit
Date: 15 November 2024
Ref No.: PRJ1100418957
Office: Bangkok
Signature:
Approved by Manorot Chotinuchit
Surveyor to LRQA (Thailand) Limited
A member of the LRQA Group Limited
LRQA003 11.2021

A subsidiary of LRQA Group Limited

LRQA Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as 'LRQA'. LRQA assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant LRQA entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.

INSPECTION CERTIFICATE

Office: Bangkok

Date: 08 October 2024

This Certificate is issued to Siaptek (Thailand) Co.,Ltd. address 36/37 Moo 5, Plutaluang, Sattahip, Chonburi, Thailand to certify that a LRQA's Inspector to this society did attend at the premise of ADM502 Request to services for equipment of ADES - Advanced Energy Systems Company Limited to carry out scope of inspection for the equipment as descripted below:

Scope of inspection: Thorough Visual Inspection
Reference Standards or Documents:

PTTEP : Lifting Equipment Inspection Requirement Summary Guideline : 12089-GDL-5-INT-001-R00, June 2023
Integrity Management of Lifting Appliance Guideline (Cranes & Hoists) : 10017-GDL-5-INT-006-R00, December 2022
General Instruction for PTTEP Lifting Equipment Integrity Inspection Procedure : 10017-PDR-5-INT-012-R00, December 2022

A) Description :

Equipment : Wire Rope Sling Single Leg @ 8mm x 1.5mtr **Serial No. : ID3734**
Location : Main Deck
WLL : 820 kg

Equipment : Wire Rope Sling Single leg wire rope sling thimble eye to plane end - 8 mm x 60 ft **Serial No. : SL 6719**
Location : Mian Deck bugfan
WLL : 820 kg

B) Results:

1. Inspection with a thorough visual inspection and revealed no visible defect that time of inspection.

Date of Inspection	**8 October 2024**
Next Visual Inspection	**7 April 2025**

Name of Inspector: Manop Pattanaprakrom
LRQA Representative

LRQA (Thailand) Limited
Name: Manorot Chotinuchit
Date: 25 November 2024
Ref No.: PRJ11100418957
Office: Bangkok
Signature:
Approved by Manorot Chotinuchit
Surveyor to LRQA (Thailand) Limited
A member of the LRQA Group Limited

LRQA003 11.2021
A subsidiary of LRQA Group Limited

LRQA Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as 'LRQA'. LRQA assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant LRQA entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.

ADES	Spill Kit Inventory		Location							Remark
NO.	Item	Quantity	Rig Floor	Main Deck-Port	Main Deck-STBD	Main Deck - Under Port FWD	Sack Room	Engine Room	Saker Area	Remark
1	Plastic Shovel	1	1	1	1	1	1	No	1	
2	Soak-up Pads	Bag	No	No	No	No	No	No	No	PO No.#146
3	Spill Cushions/ Socks	Bag	2	2	2	2	2	2	2	
4	Rubber Gloves	2 Pairs	2	2	2	2	2	2	2	
5	Rubber Boot	1	1	1	1	1	1	1	1	
6	Tyvek Suits	2	2	2	2	2	2	2	2	
7	Googles	2	2	2	2	2	2	2	2	
8	Face Shield	1	1	1	1	1	1	1	1	
9	Apron	1	1	1	1	1	1	1	1	
10	Tie Wraps	5pcs	5	5	5	5	5	5	5	
Status			Pass	Pass	Pass	Pass	Pass	Pass	Pass	

Inspected By:
Signature:
Full Name [redacted]
Position RSO
Date: 9/9/2025

Aknowledged by:
Signature:
Full Name [redacted]
Position OIM
Date: 9/9/2025

ADES OIM IMO 8771265 ADMARINE 502

แท่นเจาะ-3.11 รายการอุปกรณ์ทำความสะอาดเมื่อเกิดการรั่วไหลของน้ำมันดิบ

ORACLE

Enterprise Asset Management

Maintenance Work Order Detail Report

Work Order	3319689	**Description**	LIFE BOATS/GENERAL 1Y
Asset Number	502 LIFEBOAT #1 - STBD	**Asset Description**	LIFEBOAT #1 - STBD
Asset Group	LIFE BOATS & DAVIT SYSTEM	**Asset Group Description**	LIFE BOATS AND DAVIT SYSTEM
Area	502	**Area Description**	ADES - ADMARINE 502
Department	Maint.	**Department Description**	Maintenance
Activity	LIFE BOATS/GENERAL 1Y	**Activity Description**	LIFE BOATS/GENERAL 1Y
Status	Complete	**Pending**	
Project		**Priority**	
Task		**Accounting Class Code**	5061101
Asset Criticality	S10	**Asset Status**	CREATED

Additional Description

Electrical : Checked Charger, Batteries, Radio Communication, lighting system.
Mechanical:
Carried out Grease stern tube bearing.
Check the overall condition and not any fluid leaks found
Replace crankcase Oil along with the filter .
Check Engine Cooling water level is OK.
Replace gerabox & transmission oil
Check the fuel level and Drain water sediments of the fuel oil tank.
Check all transmission linkages, engine throttle controls and steering wheel are free from binding or corrosion
Function test running the unit , is normal operation .

Scheduled Duration (hours)	1	**Actual Duration (hours)**	38.43
Scheduled Start Date	23-MAY-2025 21:26:24	**Actual Start Date**	22-MAY-2025 08:00:44
Scheduled Completion Date	23-MAY-2025 22:26:24	**Actual Completion Date**	23-MAY-2025 22:26:24
Target Start Date		**Completion Comments**	
Target Completion Date			

ORACLE

Enterprise Asset Management

Maintenance Work Order Detail Report

Request Number		**Parent Work Order**	
Firm	Yes	**Activity Type**	1Y
Work Order Type		**Activity Cause**	
Shutdown Type		**Activity Source**	
Warranty Status		**Warranty Active**	
Warranty Expiration Date		**Enable Material Issue Request**	Yes
Material Shortage	No	**Tagout Required**	No
As Of Date	22-MAY-2025 07:59:35	**Notification Required**	No
Planned	Yes	**Planner**	

Preventive Maintenance Information

PM Schedule Name	502 LIFEBOAT #1 - STBD PM	**Base Date**	13-APR-2023 22:00:00
PM Suggested Start Date	23-MAY-2025 21:26:24	**Base Meter**	
PM Suggested End Date			

Failure Information

Failure Required		**Failure Date**	
Failure Code		**Comments**	
Cause Code		**Failure Set**	

Resolution Code

Operations

Sequence Number	Description	Shutdown	Completed	Department	Scheduled Date		Actual Date	
					Start	End	Start	End
10			Yes	Barge Mst.	23-MAY-2025 21:26:24	23-MAY-2025 22:26:24	23-MAY-2025 21:26:24	23-MAY-2025 22:26:24
20			Yes	Barge Mst.	23-MAY-2025 21:26:24	23-MAY-2025 22:26:24	23-MAY-2025 21:26:24	23-MAY-2025 22:26:24
30			Yes	Barge Mst.	23-MAY-2025 21:26:24	23-MAY-2025 22:26:24	23-MAY-2025 21:26:24	23-MAY-2025 22:26:24
40			Yes	Electrical	23-MAY-2025 21:26:24	23-MAY-2025 22:26:24	22-MAY-2025 08:00:44	22-MAY-2025 08:00:44
50			Yes	Mechanical	23-MAY-2025 21:26:24	23-MAY-2025 22:26:24	23-MAY-2025 05:30:03	23-MAY-2025 05:30:03

Operation Description

Sequence Number	Long Description
10	Safety Considerations: 1- Carry out pre job planning and risk assessment as per company HS&E manual. 2- Ensure work permits, are obtained, if required, and all energy sources isolated before working on this equipment, Use the right and assign tools for the job. 3- Personnel performing this maintenance should be competent, be familiar with the equipment and have received adequate instructions to perform the maintenance safely, always use complete and right PPE for the job. Maintenance tasks: 1) Arrange to carry out yearly inspection by authorized 3rd party on board. 2) Annual inspection of the lifeboats revealed cracks to the fiber glassaround the lifting point. 3) Check the overall condition of the lifeboats, both externally and internally. 4) Check all doors and latches for proper closing and sealing (check the packers). 5) Make sure all latches can operate freely.

Sequence Number	Long Description
	6) Clean the windows inside and outside. 7) Check the rudder movements. 8) Check the pressure in the air system feeding bottles is at least 180bar. 9) Inspect condition of each radio. Check and verify that nameplate and identification number are legible. 10) Carry out function test on all radios. 11) Lubricate all sheaves, shafts, wires and bearings as per OEM.
20	Wire Rope Inspection: 1) During routine test runs of rescue boat carefully inspect full length of hoist wire, checking for corrosion, broken wires kinking or other damage. 2) Check condition of wire rope dressing and recoat as required to ensure good lubrication and corrosion protection. 3) Record in the WO last date wire changed. - Wire Rope to be replaced as per the condition or max. every 5 year as per SOLAS Ch. III/Regulation 20. Lifeboat Testing: With attendance from the rig mechanic and rig Electrician. 1) Test-run the boat engine on weekly basis while suspended at the launch platform. 2) Quarter basis, Test-run the boat engine Lifeboat to be lowered to the water and start drive for 15 minutes in the water. 3) Hoist the lifeboat to its place again. 4) While lowering/hoisting the boat take the opportunity to grease the running sheaves. 5) Make sure always to refill the fuel oil tank after engine test-run If the boat for any circumstances has to enter the water for exercise, this can only be done when a Tow-master is present for supervision.
30	Launching Platform Maintenance: 1) Check overall condition of platform, grating, hand railing and equipment located here. 2) Grease all rotating part fitted with grease nipples. 3) Oil lubricate the rollers for the boat releasing wire rope. 4) Make sure the rollers are running freely. 5) Check the winch electrical motor according to 1 yearly work instruction. Ensure all related data is recorded in the work order (It's highly recommended to add comment for 6M PM intervals and above, MRR in case additional tasks done, abnormal conditions are observed, materials used, inspection reports).
40	Safety Considerations: 1- Carry out pre job planning and risk assessment as per company HS&E manual. 2- Ensure work permits, are obtained, if required, and all energy sources isolated before working on this equipment, Use the right and assign tools for the job. 3- Personnel performing this maintenance should be competent, be familiar with the equipment and have received adequate instructions to perform the maintenance safely, always use complete and right PPE for the job. Maintenance tasks: a) Check battery pack. b) Clean and apply vaseline on the terminals. c) Check for proper operation of lifeboat radios.

Sequence Number	Long Description
	Ensure all related data is recorded in the work order (It's highly recommended to add comment for 6M PM intervals and above, MRR in case additional tasks done, abnormal conditions are observed, materials used, inspection reports).
50	Safety Considerations: 1- Carry out pre job planning and risk assessment as per company HS&E manual. 2- Ensure work permits, are obtained, if required, and all energy sources isolated before working on this equipment, Use the right and assign tools for the job. 3- Personnel performing this maintenance should be competent, be familiar with the equipment and have received adequate instructions to perform the maintenance safely, always use complete and right PPE for the job. Maintenance tasks: a) Grease stern tube bearing. b) Lubricate the sprinkler pump and test the sprinkler system. 3) Engine Maintenance: a) Take oil samples from Engine and Transmission oils and send it with required data for analysis. b) Change Engine and Transmission oils and Coolant. c) Replace lubrication oil filter insert. d) Check the fuel level and Drain water sediments of the fuel oil tank, Replace the fuel completly and clean the tank before replace. e) Check the air filter, clean thoroughly. f) Grease and lubricate as required. g) Check V-belt tension. Replace as required. h) Check all transmission linkages, engine throttle controls and steering wheel for binding or corrosion. Launching Platform Maintenance: 1) Change oil in the launch winch gear box. 2) Change the reduction gear box oil. 3) Change the brake oil yearly. 4) Change the friction lining. Ensure all related data is recorded in the work order (It's highly recommended to add comment for 6M PM intervals and above, MRR in case additional tasks done, abnormal conditions are observed, materials used, inspection reports).

Resources

Sequence Number	Resource Sequence Number	Code	Usage Rate	UOM	Basis	Actual Hours Charged	Scheduled Start Date	Scheduled Completion Date
10	10	Barge Mst.	1	HO	Item	0	23-MAY-2025 21:26:24	23-MAY-2025 22:26:24
20	10	Barge Mst.	1	HO	Item	0	23-MAY-2025 21:26:24	23-MAY-2025 22:26:24
30	10	Barge Mst.	1	HO	Item	0	23-MAY-2025 21:26:24	23-MAY-2025 22:26:24
40	10	Electrical	1	HO	Item	0	23-MAY-2025 21:26:24	23-MAY-2025 22:26:24
50	10	Mechanical	1	HO	Item	0	23-MAY-2025 21:26:24	23-MAY-2025 22:26:24

End of Report

No Data Found

Maintenance Work Order Detail Report

Work Order	2794255	**Description**	LIFE RAFT/VIKING 1Y
Asset Number	502 LIFERAFT #1	**Asset Description**	LIFERAFT #1 - PORT FWD UP
Asset Group	LIFE RAFT	**Asset Group Description**	LIFE RAFT
Area	502	**Area Description**	ADES - ADMARINE 502
Department	Maint.	**Department Description**	Maintenance
Activity	LIFE RAFT/VIKING 1Y	**Activity Description**	LIFE RAFT/VIKING 1Y
Status	Complete	**Pending**	
Project		**Priority**	
Task		**Accounting Class Code**	5061102
Asset Criticality	S10	**Asset Status**	CREATED

Additional Description We don't send in for inspection. 12 new rafts are sent out & changed out with old. As per Viking contract.

Scheduled Duration (hours)	1	**Actual Duration (hours)**	1
Scheduled Start Date	24-FEB-2025 22:01:12	**Actual Start Date**	24-FEB-2025 22:01:12
Scheduled Completion Date	24-FEB-2025 23:01:12	**Actual Completion Date**	24-FEB-2025 23:01:12
Target Start Date		**Completion Comments**	
Target Completion Date			

Request Number		**Parent Work Order**	
Firm	Yes	**Activity Type**	1Y
Work Order Type	Marine	**Activity Cause**	
Shutdown Type		**Activity Source**	

ORACLE
Enterprise Asset Management

Maintenance Work Order Detail Report

Warranty Status		**Warranty Active**	
Warranty Expiration Date		**Enable Material Issue Request**	Yes
Material Shortage	No	**Tagout Required**	No
As Of Date	27-FEB-2025 07:03:03	**Notification Required**	No
Planned	Yes	**Planner**	

Preventive Maintenance Information

PM Schedule Name	502 LIFERAFT #1 PM	**Base Date**	25-FEB-2023 22:00:00
PM Suggested Start Date	24-FEB-2025 22:01:12	**Base Meter**	
PM Suggested End Date			

Failure Information

Failure Required		**Failure Date**	
Failure Code		**Comments**	
Cause Code		**Failure Set**	
Resolution Code			

Operations

Sequence Number	Description	Shutdown	Completed	Department	Scheduled Date		Actual Date	
					Start	End	Start	End
10			Yes	Barge Mst.	24-FEB-2025 22:01:12	24-FEB-2025 23:01:12	24-FEB-2025 22:01:12	24-FEB-2025 23:01:12
20			Yes	Barge Mst.	24-FEB-2025 22:01:12	24-FEB-2025 23:01:12	24-FEB-2025 22:01:12	24-FEB-2025 23:01:12
30			Yes	Barge Mst.	24-FEB-2025 22:01:12	24-FEB-2025 23:01:12	24-FEB-2025 22:01:12	24-FEB-2025 23:01:12

Operation Description

Sequence Number	Long Description
10	Safety Considerations: 1- Carry out pre job planning and risk assessment as per company HS&E manual. 2- Ensure work permits, are obtained, if required, and all energy sources isolated before working on this equipment, Use the right and assign tools for the job. 3- Personnel performing this maintenance should be competent, be familiar with the equipment and have received adequate instructions to perform the maintenance safely, always use complete and right PPE for the job.
20	Maintenance tasks: Life Raftn Arrange to sent the raft to 3rd company to carryout the yearly inspection and recertification. Inspect slip hooks and lubricate hinge pin. Check tie down straps Life rafts securing cable/straps inspected and free from defect. Check for damage or worn traps. Replace straps that observed not fit for service. . Inspect hydro static release device. Check service date on unit.
30	Upon receival of serviced unit from service station check the following: Condition of container for any damaged or defect related to transportation and service. All certificates, date and serial number are in accordance with marking on container. All lines are located on their correct position and in good condition. Ensure all related data is recorded in the work order (Add comment for 6M PM intervals and above highly recommended, MRR in case additional tasks done, abnormal conditions are observed, materials used, inspection reports)

Resources

ORACLE
Enterprise Asset Management
Maintenance Work Order Detail Report

Sequence Number	Resource Sequence Number	Code	Usage Rate	UOM	Basis	Actual Hours Charged	Scheduled Start Date	Scheduled Completion Date
10	10	Barge Mst.	1	HO	Item	0	24-FEB-2025 22:01:12	24-FEB-2025 23:01:12
20	10	Barge Mst.	1	HO	Item	0	24-FEB-2025 22:01:12	24-FEB-2025 23:01:12
30	10	Barge Mst.	1	HO	Item	0	24-FEB-2025 22:01:12	24-FEB-2025 23:01:12

End of Report

No Data Found

ADES	**Maintenance Work Order Report**	Printed user : ADM502.RMS Print time: 21-Sep-25

Source of Data		Work order	
Rig ID	502	Status	
Asset Group		Work Order Type	
Asset Number	502 ANNULAR BOP #1	Include View Costs	Y
Asset Activity		Include Materials & Purchase Details	Y
Department		Include Operation Tasks	Y
Date From	01-JAN-25	Include Operation Quality Plan	Y
Date To	21-SEP-25		

Rig ID 502
Equipment Description ANNULAR BOP #1 - 13 5/8" — Asset Serial Number: BOPNP.00133
Description ANNULAR PREVENTER/GENERAL 1M — Equipment Serial Number : 152461-1714
Scheduled Start Date 03-SEP-25
Actual Completion Date 03-SEP-25
Work Order Number 2796944
Work Order Source CURRENT
Work Order Status Complete
Accounting Class 5060602
Department Maint.
Work Order Type
Shutdown Type
Priority
Asset Number 502 ANNULAR BOP #1
Asset Activity ANNULAR PREVENTER/GENERAL 1M
Comment
Eq. Condition Before 2 Acceptable - No Maintenance Required
Eq. Condition After 2 Acceptable - No Maintenance Required

ADES	**Maintenance Work Order Report**	Printed user : ADM502.RMS Print time: 21-Sep-25

Rig Comment Completed PM
Work Order Sign No
OIM Comment
Engineering Comment
Additional Description Visually inspected no leaks or Wash out the inside of the BOP.
Visually checked the upper housing, piston, and lower housing bores no wear.
Clean out side and packing element.
Visually checked the packing element.

Asset Attachments

SEQ	TYPE	DETAILS
10	File	4808741_ASSET_CoC April 2021 Annular 5k Sn1714.pdf
10	File	4808741_ASSET_CoC April 2021 Annular 5k Sn1714.pdf
20	File	4980245_ASSET_Well Control Bolting Inspection..pdf
20	File	4980245_ASSET_Well Control Bolting Inspection..pdf

Operations

Opr.Seq.No 10 **Department** Drilling **Completed** Yes

.

Description:-

Long Description:-

Safety Considerations:
1- Carry out pre job planning and risk assessment as per company HS&E manual.
2- Ensure work permits, are obtained, if required, and all energy sources isolated before working on this equipment, Use the right and assign tools for the job.
3- Personnel performing this maintenance should be competent, be familiar with the equipment and have received adequate instructions to perform the maintenance safely, always use complete and right PPE for the job.

Work instruction reference.
- OEM maintenance manual.
- OEM product bulletin.
- Check Equipment asset/WO attachment for OEM bulletin, Alerts, instructions.
- ADES Manuals
- API S 53

Assign Person:-

Opr.Seq.No	20	**Department**	Drilling	**Completed**	Yes

Description:-

Long Description:-

Maintenance tasks:
Inspect the unit visually for leaks.
Wash out the inside of the BOP and inspect without removing the upper house.

Assign Person:-

Opr.Seq.No	30	**Department**	Drilling	**Completed**	Yes

Description:-

Long Description:-

Visually check the upper housing, piston, and lower housing bores for excessive wear.
The bore should not be worn more than 1/8".
Clean out side and packing element.

- Visually check the packing element for excessive wear on the element ID at the top or other discrepancies, replace as required.

Assign Person:-

Work Instruction Report

RIG Code: 502
Asset Activity: ANNULAR PREVENTER/GENERAL 1Y ANNULAR PREVENTER/GENERAL 1Y

Pressure test evaluation periods shall be a minimum five minutes
No Visible leaks
The pressure shall remain stable during the evaluation period
The pressure shall not decrease below the intended test pressure
If the BOP is in operation, the test is to be conducted during the BOP next planned maintenance

Ensure all related data is recorded in the work order
(Add comment for 6M PM intervals and above highly recommended, MRR in case additional tasks done, abnormal conditions are observed, materials used, inspection reports)

Oper Seq. No.	40	**Department**	Mechanical
Description	Safety Considerations: 1- Carry out pre job planning and risk assessment as per company HS&E manual. 2- Ensure work permits, are obtained, if required, and all energy sources isolated before working on this equipment, Use the right and assign tools for the job. 3- Personnel performing this maintenance should be competent, be familiar with the equipment and have received adequate instructions to perform the maintenance safely, always use complete and right PPE for the job. Work instruction reference. - OEM maintenance manual. - OEM product bulletin. - Check Equipment asset/WO attachment for OEM bulletin, Alerts, instructions. - ADES Manuals - API S 53		

Oper Seq. No.	50	**Department**	Mechanical
Description	Remove upper cap: - Clean the inside sphere thoroughly to remove all dirt and corrosion. - Inspect the inside sphere ID for deep nicks or scratches. - Visual inspect the sealing area for pits and scratches, replace seals if necessary. - Visual check the bore area for excessive wear due to drill pipe rotating against the ID of the BOP. The bore should not be worn more than 1/8".		

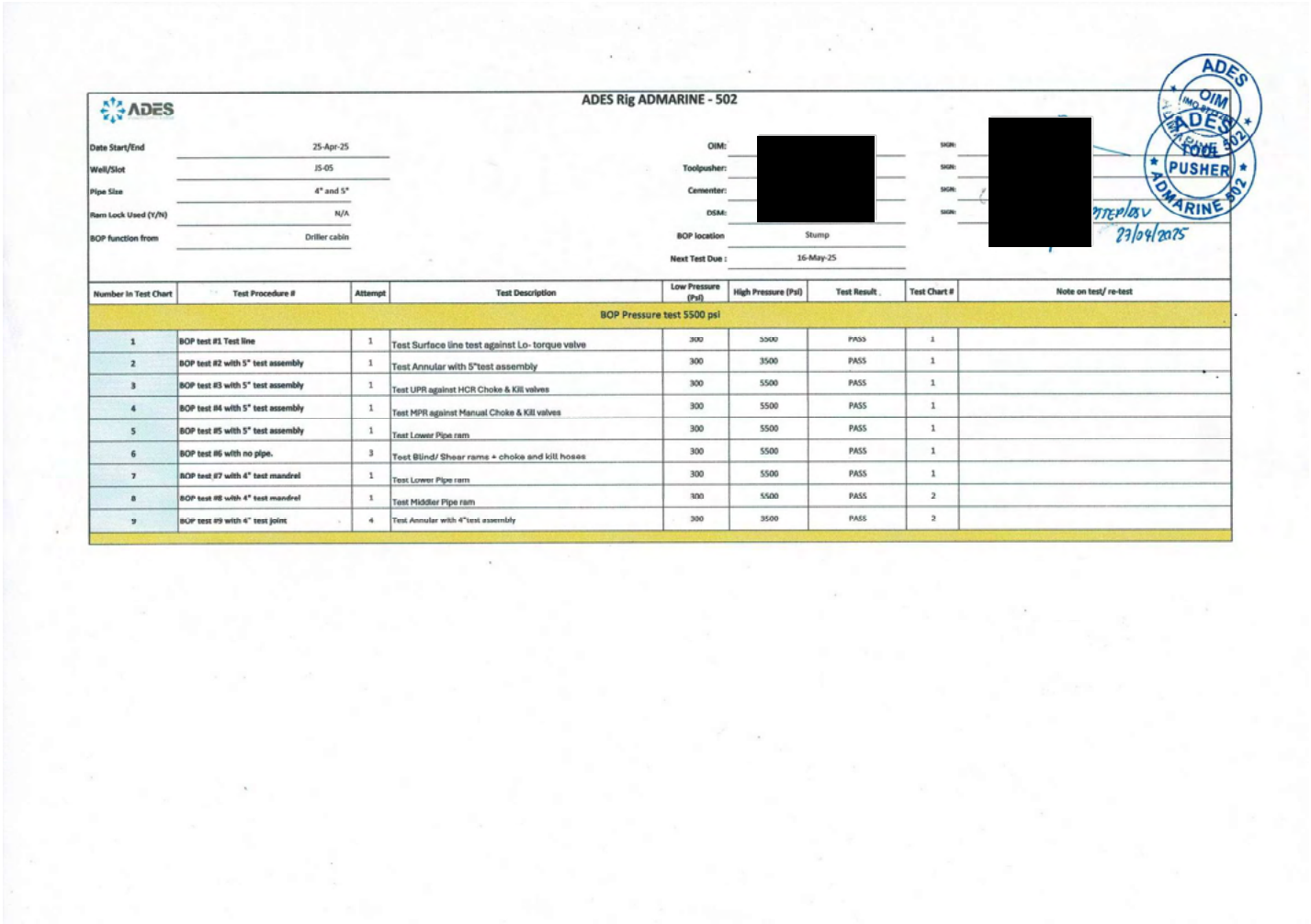
Work Instruction Report

RIG Code: 502
Asset Activity: ANNULAR PREVENTER/GENERAL 1Y ANNULAR PREVENTER/GENERAL 1Y

- Lubricate the sphere surface of upper housing with grease.
- Check Hydraulic lines for loose connection, repair/ replace as required
- Check wear plate for excessive wear
- Visually check the piston and seals for deep scoring
- Clean accessible sealing area, avoid high pressure wash near the seals to avoid seals protruding

For Cameron annular,
- Inspect top trash seals
- Clean the cavity around the head of each actuator screw
- Grease the cavity around the head of each actuators screw

Ensure all related data is recorded in the work order
(Add comment for 6M PM intervals and above highly recommended, MRR in case additional tasks done, abnormal conditions are observed, materials used, inspection reports)



ADES Rig ADMARINE - 502

Date Start/End	25-Apr-25
Well/Slot	J5-05
Pipe Size	4" and 5"
Ram Lock Used (Y/N)	N/A
BOP function from	Driller cabin

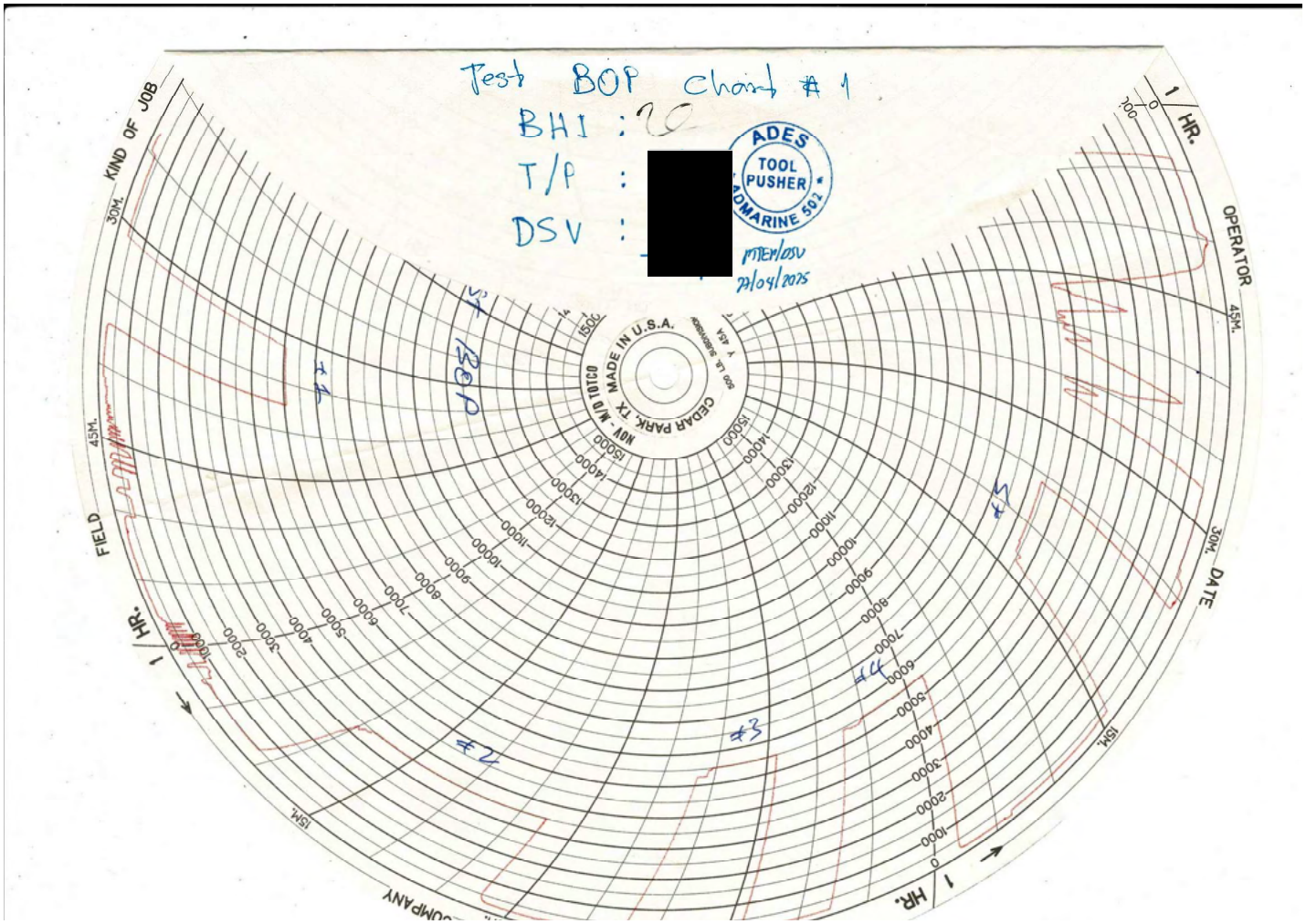
OIM: [redacted]
Toolpusher:
Cementer:
DSM:
BOP location: Stump
Next Test Due : 16-May-25

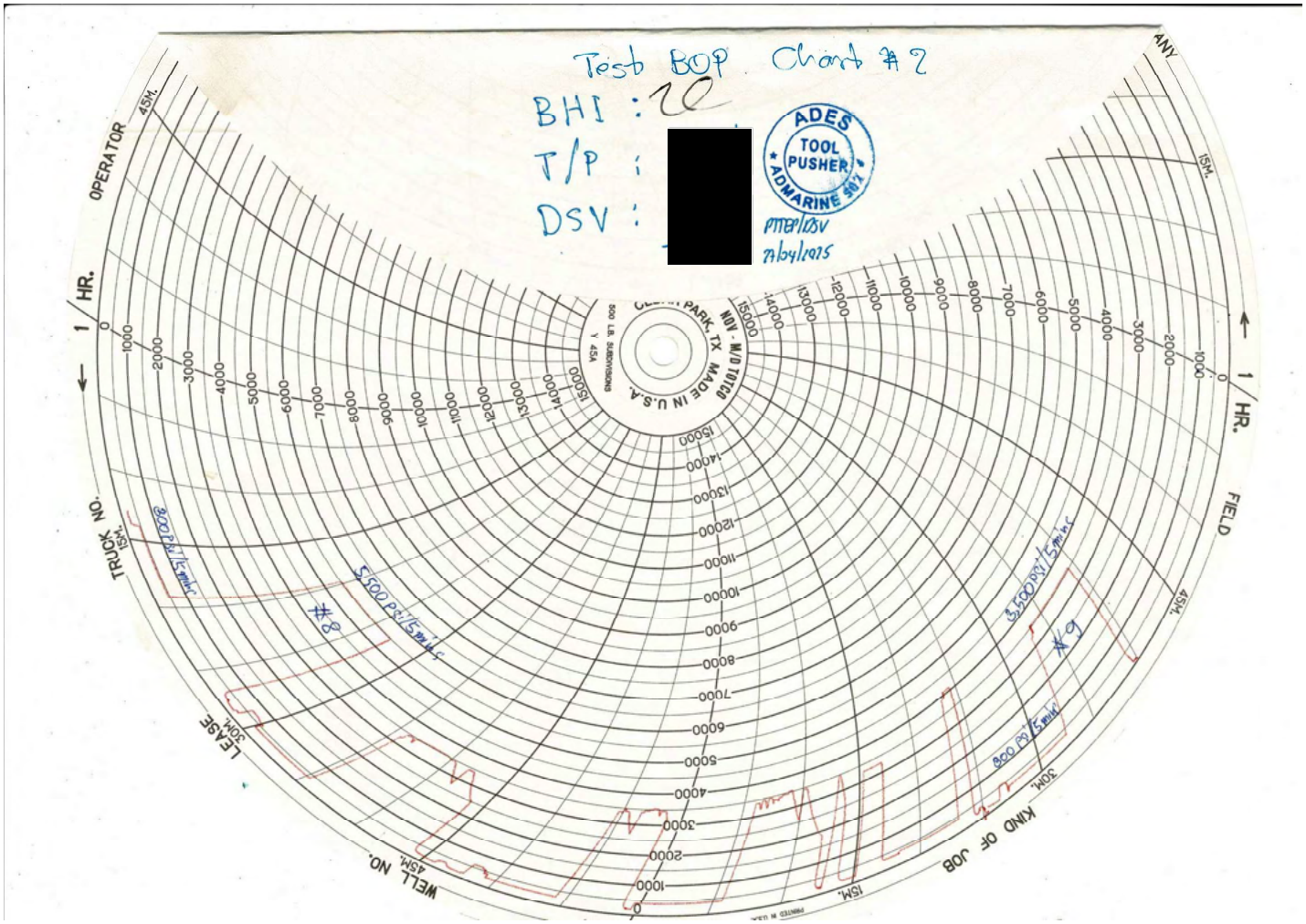
SIGN: [redacted]

Number in Test Chart	Test Procedure #	Attempt	Test Description	Low Pressure (Psi)	High Pressure (Psi)	Test Result	Test Chart #	Note on test/ re-test
BOP Pressure test 5500 psi								
1	BOP test #1 Test line	1	Test Surface line test against Lo- torque valve	300	5000	PASS	1	
2	BOP test #2 with 5" test assembly	1	Test Annular with 5"test assembly	300	3500	PASS	1	
3	BOP test #3 with 5" test assembly	1	Test UPR against HCR Choke & Kill valves	300	5500	PASS	1	
4	BOP test #4 with 5" test assembly	1	Test MPR against Manual Choke & Kill valves	300	5500	PASS	1	
5	BOP test #5 with 5" test assembly	1	Test Lower Pipe ram	300	5500	PASS	1	
6	BOP test #6 with no pipe.	3	Test Blind/ Shear rams + choke and kill hoses	300	5500	PASS	1	
7	BOP test #7 with 4" test mandrel	1	Test Lower Pipe ram	300	5500	PASS	1	
8	BOP test #8 with 4" test mandrel	1	Test Middler Pipe ram	300	5500	PASS	2	
9	BOP test #9 with 4" test joint	4	Test Annular with 4"test assembly	300	3500	PASS	2	

ADES OIM ADES 502 PUSHER ADMARINE 502

27/04/2025


Test BOP Chart # 1
BHI : 20
T/P : [redacted]
DSV : [redacted]
ADES TOOL PUSHER ADMARINE 501
mterlosv
21/04/2025
KIND OF JOB
OPERATOR
FIELD
DATE
COMPANY
1 HR.
#1
#2
#3
#4
#5
#6


Test BOP Chart # 2
BHI : 20
T/P : [redacted]
DSV : [redacted]
ADES TOOL PUSHER ADMARINE 501
mterlosv
21/04/2025
OPERATOR
FIELD
TRUCK NO.
LEASE
WELL NO.
KIND OF JOB
ANY
1 HR.
#8
#9
5,500 PSI/15min
800 PSI/15min

ADES Rig ADMARINE - 502

Date Start/End	25-Apr-25	OIM:	Russell Airey
Well/Slot	JS-05	Toolpusher:	Anusorn P./ Kachanon
Pipe Size	N/A	Cementer:	Minh Vu
Ram Lock Used (Y/N)	N/A	DSM:	Thosapon Ariyaarunotai
BOP function from	N/A	BOP location	Stump
		Next Test Due :	16-May-25

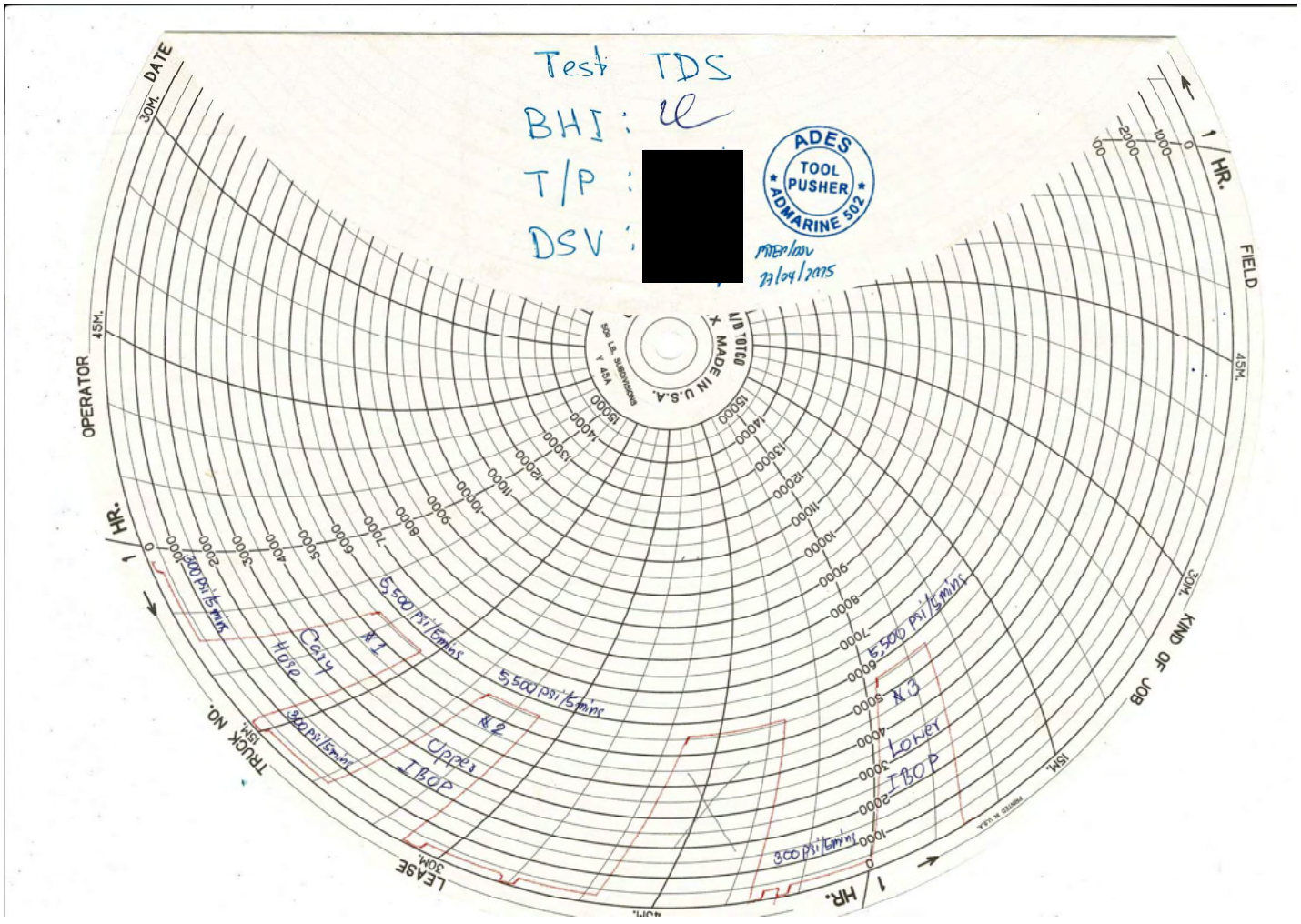
SIGN: [redacted]

ADES OIM IMO 8771 ADMARINE 502

ADES TOOL PUSHER ADMARINE 502

mter/ดว 23/04/2025

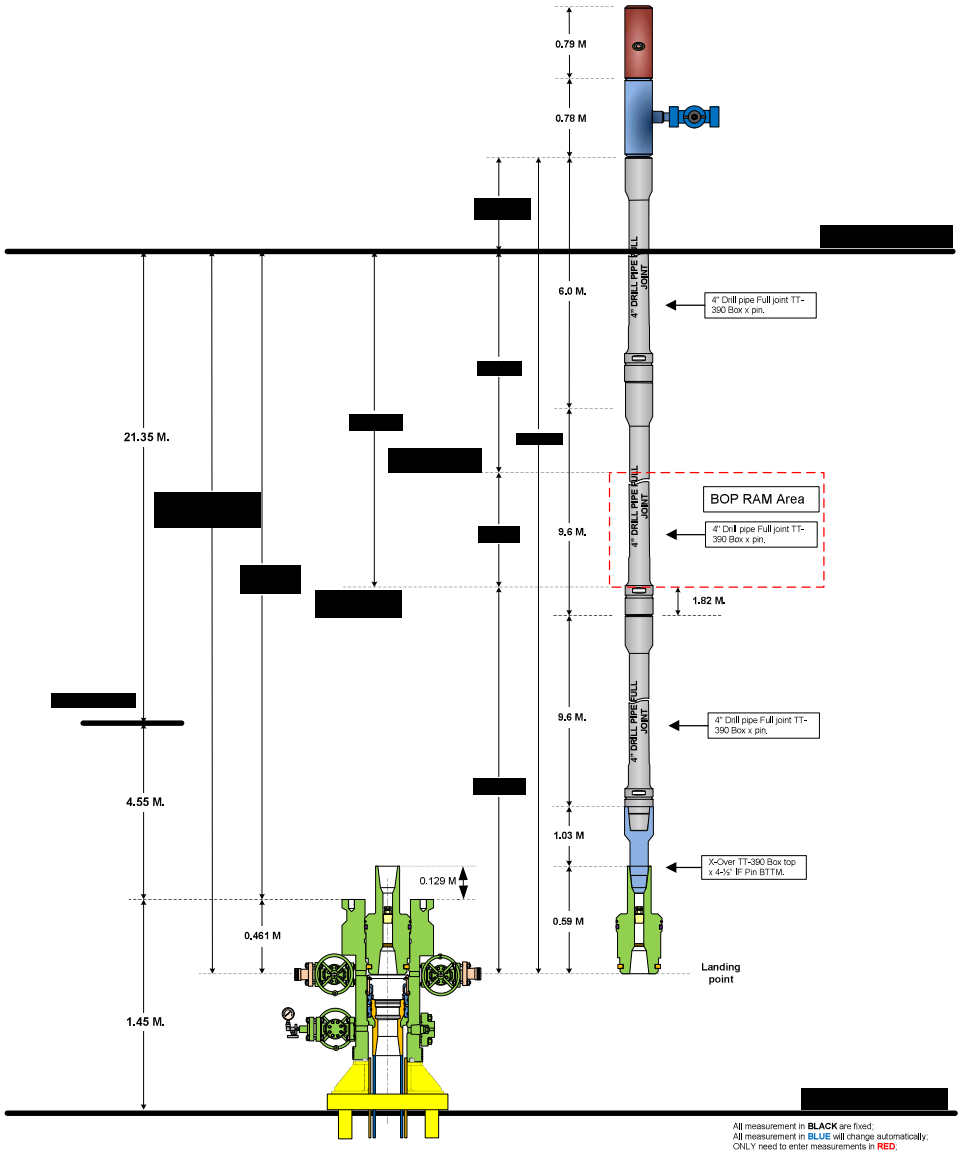
Number in Test Chart	Test Procedure #	Attempt	Test Description	Low Pressure (Psi)	High Pressure (Psi)	Test Result	Test Chart #	Note on test/ re-test
PRESSURE TEST TDS 5500 PSI								
1	TDS Test #1	1	Test Wash pipe and kelly hose	300	5500	PASS	1	
2	TDS Test #2	1	Test UPPER IBOP	300	5500	PASS	1	
3	TDS Test #3	2	Test LOWER IBOP	300	5500	PASS	1	



Client : PTTEP
Rig : ADMARINE 502
Platform : WP-17
Well No. : N/A.
Elevation section : 4" DP BOP Test Plug
Casing Program : 9-5/8" x 7" x 2-7/8" (Tubing)
Wellhead System : 10" 2-Stage Wellhead (MW-I)

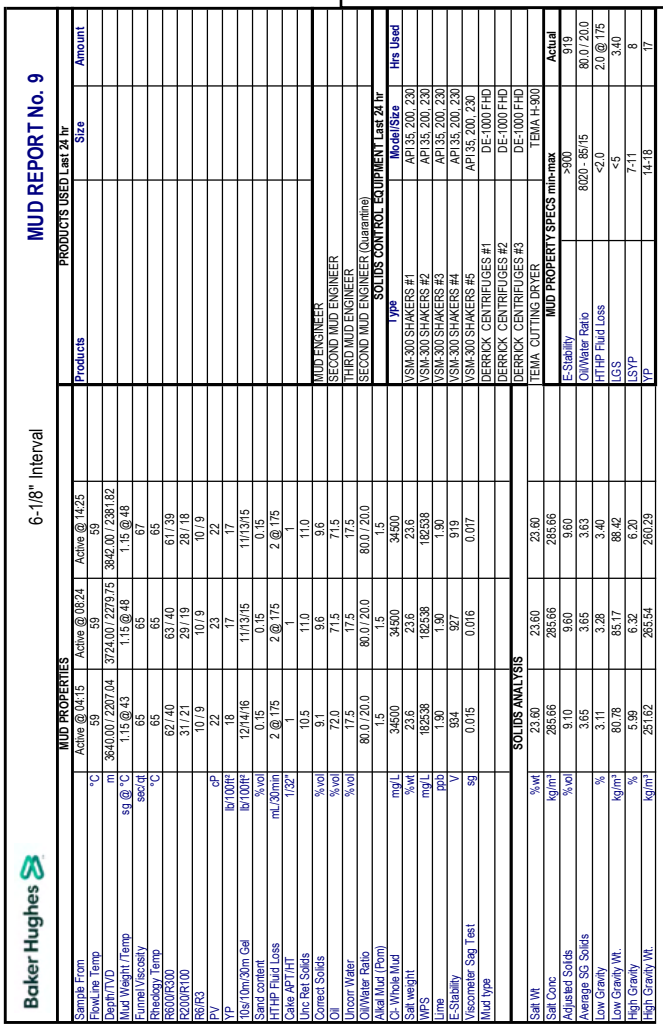
STACK UP DRAWING

STU Drawing No : WP-17-2025
Update Date : Aug 21,2025



All measurement in **BLACK** are fixed;
All measurement in **BLUE** will change automatically;
ONLY need to enter measurements in **RED**.

แท่นเจาะ-3.14 ตัวอย่างบันทึกปริมาณน้ำมันที่ติดไปกับเศษหิน (OOC)



Baker Hughes

MUD REPORT No. 9

6-1/8" Interval

		MUD PROPERTIES			PRODUCTS USED Last 24 hr		
		Active @ 04:15	Active @ 08:24	Active @ 14:25	Products	Size	Amount
Sample From		59	59	59			
Flow Line Temp	°C	59	59	59			
Depth /TVD	m	3640.00 / 2307.04	3724.00 / 2279.75	3842.00 / 2381.82			
Mud Weight /Temp	sg @ °C	1.15 @ 43	1.15 @ 48	1.15 @ 48			
Funnel Viscosity	sec/qt	65	65	67			
Rheology Temp	°C	65	65	65			
R600/R300		62 / 40	63 / 40	61 / 39			
R200/R100		31 / 21	29 / 19	28 / 18			
R6/R3		10 / 9	10 / 9	10 / 9			
PV	cP	22	23	22			
YP	lb/100ft²	18	17	17			
10s/10m/30m Gel	lb/100ft²	12/14/16	11/13/15	11/13/15			
Sand content	%vol	0.15	0.15	0.15			
HTHP Fluid Loss	mL/30min	2 @ 175	2 @ 175	2 @ 175			
Cake API/HT	1/32"	1	1	1			
Unc Ret Solids		10.5	11.0	11.0			
Correct Solids	%vol	9.1	9.6	9.6			
Oil	%vol	72.0	71.5	71.5			
Uncorr Water	%vol	17.5	17.5	17.5			
Oil/Water Ratio		80.0 / 20.0	80.0 / 20.0	80.0 / 20.0			
Alkal Mud (Pom)		1.5	1.5	1.5			
Cl- Whole Mud	mg/L	34500	34500	34500			
Salt weight	%wt	23.6	23.6	23.6			
WPS	mg/L	182538	182538	182538			
Lime	ppb	1.90	1.90	1.90			
E-Stability	V	934	927	919			
Viscometer Sag Test	sg	0.015	0.016	0.017			
Mud type							
SOLIDS ANALYSIS							
Salt Wt.	%wt	23.60	23.60	23.60			
Salt Conc	kg/m³	285.66	285.66	285.66			
Adjusted Solids	%vol	9.10	9.60	9.60			
Average SG Solids		3.65	3.65	3.63			
Low Gravity	%	3.11	3.28	3.40			
Low Gravity Wt.	kg/m³	80.78	85.17	88.42			
High Gravity	%	5.89	6.32	6.20			
High Gravity Wt.	kg/m³	251.62	265.54	260.29			

MUD ENGINEER	
SECOND MUD ENGINEER	
THIRD MUD ENGINEER	
SECOND MUD ENGINEER (Quarantine)	

SOLIDS CONTROL EQUIPMENT Last 24 hr		
Type	Model/Size	Hrs Used
VSM-300 SHAKERS #1	API 135, 200, 230	
VSM-300 SHAKERS #2	API 135, 200, 230	
VSM-300 SHAKERS #3	API 135, 200, 230	
VSM-300 SHAKERS #4	API 135, 200, 230	
VSM-300 SHAKERS #5	API 135, 200, 230	
DERRICK CENTRIFUGES #1	DE-1000 FHD	
DERRICK CENTRIFUGES #2	DE-1000 FHD	
DERRICK CENTRIFUGES #3	DE-1000 FHD	
TEMA CUTTING DRYER	TEMA H-900	

MUD PROPERTY SPECS min-max		Actual
E-Stability	>900	919
Oil/Water Ratio	80/20 - 86/15	80.0 / 20.0
HTHP Fluid Loss	<2.0	2.0 @ 175
LGS	<5	3.40
LSYP	7-11	8
YP	14-18	17

Baker Hughes

Drilling Fluids Program:	**WP-17**	Prepared by: [redacted]	Date : 07 July 2025
Well Design :	**3 String**	Verified date/by:	No: Rev 03 (Rian)
Rig :	**Admarine 502**	Approved date/by:	

PTTEP

12-1/4" Section — **1.20 SG XANPLEX XPR WBM mud for TD displacement and pumping out** — **12-1/4" Product Concentration**

Depth (m) MD/TVD					MW SG	Funnel Visc, sec.	PV cP	YP lb/100 ft2	pH
Well	MD	TVD	Max Angle	OH length	1.10-1.20	45-55	ALAP	> 12	9.0 - 10.5
BK-17-L_R	305	298	28	194					
BK-17-F_R2	308	298	33	197					
BK-17-C_R	308	298	32	197					
BK-17-G_R	305	298	28	194					
BK-17-J_R	308	298	33	197					

Drilling Fluids Preparation :

- First the required amount of Seawater is added to the pit. Then the initial 0.75 – 1.0 ppb of XAN-PLEX XPR is added.
- The mixed fluid is weighed to 1.20 SG. After the required weight is achieved, then further 0.75-1.0 ppb of XAN-PLEX XPR is added for final concentration.
- The XANPLEX fluid left over is to be transferred to the next well in batch.
- If necessary, 0.5-1.0 L/m3 THPS 35% can be added to prevent bacterial degradation and fermentation of polymer.

Drilling Procedures :

- The section will be drilled riserless with returns to the seabed.
- The surface hole section is drilled riserless with a 12-1/4" bit to a depth of approximately 300m TVD and followed by 9-5/8" casing.
- Hole angles in this section vary from vertical up to 40°.
- After tagging the mud line, the hole will be drilled from the mud line with seawater. After one stand, continue drilling to TD with 1.10 - 1.20 SG XAN-PLEX WBM (Split Stream of 50:50 1.20 SG XAN-PLEX WBM : Seawater) with returns to the sea floor until section TD at a constant flow rate of 800 GPM (3000 LPM) and takes approximately one hour.
- On the last stand, pump 1.20 SG Hi-Vis sweep, circulate and displace hole with 1.20 SG PAD WBM.
- Once at TD, no bottoms up are circulated prior to backreaming out of the hole up to one stand below mud line. While backreaming out, the hole is displaced at 200% of the open hole volume.
- Run and cement 9-5/8 " casing.

Note :

- To minimize mixing time, the double concentration 1.2 SG XANPLEX WBM, shall be prepared with 1-1.5 ppb of XAN-PLEX XPR, weight up with bartie to desired MW and then add additional XAN-PLEX XPR to reach desired concentration.

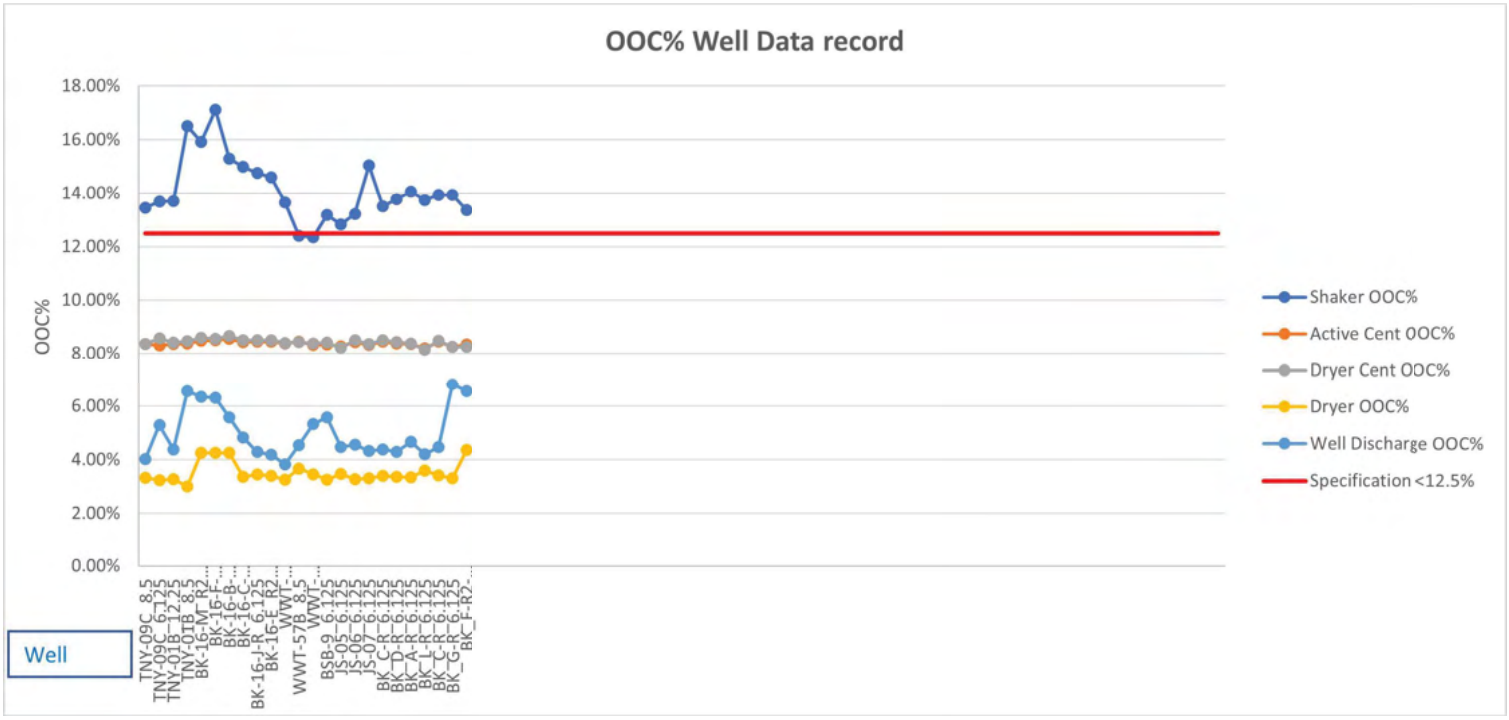
1.20 SG Concentrated XANPLEX XPR WBM

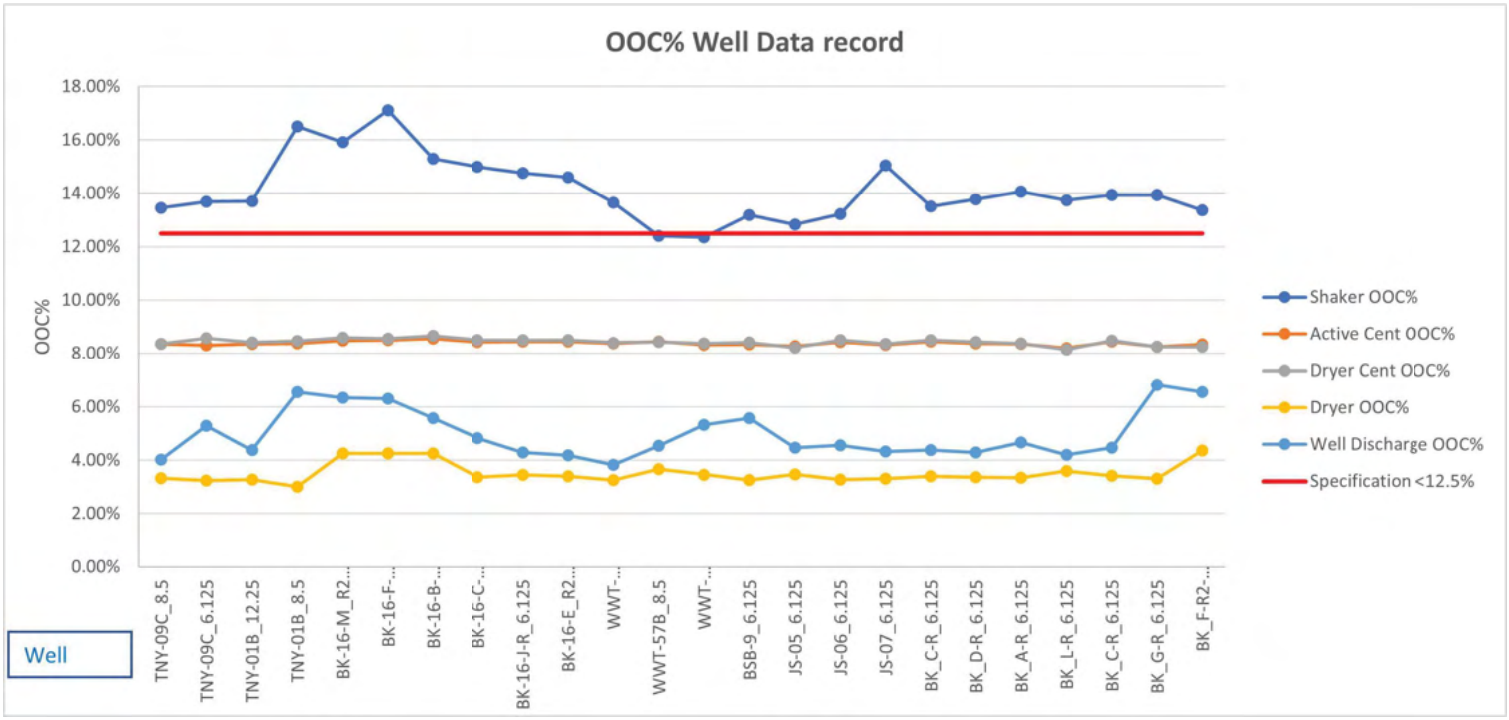
Product	Function	Conc. (ppb)
Seawater	Base Fluid	As required
Soda Ash	Alkalinity	0.5
XANPLEX XPR	Viscosifier	1.5-2
MIL-BAR	Weighting agent	For 1.20 SG

1.20 SG XANPLEX/ PAC WBM mud for TD displacement and pumping out

Product	Function	Conc. (ppb)
Seawater	Base Fluid	As required
Soda Ash	Alkalinity	0.25
XANPLEX XPR	Viscosifier	1-2
PAC LV	Fluid loss Control	1
MIL-BAR	Weighting agent	For 1.20 SG
PHPA	Encapsulater/Inhibitor	Optional

Baker Hughes Confidential


OOC% Well Data record
18.00%
16.00%
14.00%
12.00%
10.00%
8.00%
6.00%
4.00%
2.00%
0.00%
OOC%
Shaker OOC%
Active Cent OOC%
Dryer Cent OOC%
Dryer OOC%
Well Discharge OOC%
Specification <12.5%
Well


OOC% Well Data record
18.00%
16.00%
14.00%
12.00%
10.00%
8.00%
6.00%
4.00%
2.00%
0.00%
OOC%
Shaker OOC%
Active Cent OOC%
Dryer Cent OOC%
Dryer OOC%
Well Discharge OOC%
Specification <12.5%
TNY-09C_8.5
TNY-09C_6.125
TNY-01B_12.25
TNY-01B_8.5
BK-16-M_R2...
BK-16-F-...
BK-16-B-...
BK-16-C-...
BK-16-J-R_6.125
BK-16-E_R2...
WWT-...
WWT-57B_8.5
WWT-...
BSB-9_6.125
JS-05_6.125
JS-06_6.125
JS-07_6.125
BK_C-R_6.125
BK_D-R_6.125
BK_A-R_6.125
BK_L-R_6.125
BK_C-R_6.125
BK_G-R_6.125
BK_F-R2-...
Well

Jul-25

No	First Aid	Expiration date	Week 1		Week 2		Week 3		Week 4	
			Quantity	Condition	Quantity	Condition	Quantity	Condition	Quantity	Condition
1	RADIO ROOM	NA	1	Good	1	Good	1	Good	1	Good
2	GALLEY	NA	1	Good	1	Good	1	Good	1	Good
3	WAREHOUSE	NA	1	Good	1	Good	1	Good	1	Good
4	EMERGENCY LOCKER NO.1 - BOW LEG	NA	1	Good	1	Good	1	Good	1	Good
5	EMERGENCY LOCKER NO.2 HELI CREASH LOCKER	NA	1	Good	1	Good	1	Good	1	Good
6	HELI DECK LOCKER	NA	1	Good	1	Good	1	Good	1	Good
7	WELDING SHOP	NA	1	Good	1	Good	1	Good	1	Good
8	ELECTRICAL SHOP	NA	1	Good	1	Good	1	Good	1	Good
9	RIG FLOOR	NA	1	Good	1	Good	1	Good	1	Good
10	MUD LAB	NA	1	Good	1	Good	1	Good	1	Good

No	Eye wash Bottle	Expiration date	Week 1		Week 2		Week 3		Week 4	
			Quantity	Condition	Quantity	Condition	Quantity	Condition	Quantity	Condition
1	WAREHOUSE	1-Oct-25	1	Good	1	Good	1	Good	1	Good
2	ELECTRICAL SHOP	1-Oct-25	1	Good	1	Good	1	Good	1	Good
3	SACK ROOM	1-Oct-25	2	Good	2	Good	2	Good	2	Good
4	WELDING SHOP	1-Oct-25	1	Good	1	Good	1	Good	1	Good

No	Eye wash Station	Expiration date	Week 1		Week 2		Week 3		Week 4	
			Quantity	Condition	Quantity	Condition	Quantity	Condition	Quantity	Condition
1	MAIN DECK PORT SIDE	NA	1	Good	1	Good	1	Good	1	Good
2	PIT ROOM	NA	1	Good	1	Good	1	Good	1	Good
3	Pump Room	NA	1	Good	1	Good	1	Good	1	Good
4	SACK ROOM (Replaced by eye wash bottle)	NA	1	Good	1	Good	1	Good	1	Good
5	RIG FLOOR	NA	1	Good	1	Good	1	Good	1	Good
6	Shacker	NA	1	Good	1	Good	1	Good	1	Good

No	Stretcher	Expiration date	Week 1		Week 2		Week 3		Week 4	
			Quantity	Condition	Quantity	Condition	Quantity	Condition	Quantity	Condition
1	RIG FLOOR	NA	1	Good	1	Good	1	Good	1	Good
2	BOW LEG (STBD SIDE)	NA	1	Good	1	Good	1	Good	1	Good
3	Heli-Crash Kit Locker	NA	1	Good	1	Good	1	Good	1	Good

No	AED	Expiration date	Week 1		Week 2		Week 3		Week 4	
			Quantity	Condition	Quantity	Condition	Quantity	Condition	Quantity	Condition
1	SICK BAY	NA	1	Good	1	Good	1	Good	1	Good
2	RADIO ROOM	NA	1	Good	1	Good	1	Good	1	Good
3	ELECTRICAL SHOP	NA	1	Good	1	Good	1	Good	1	Good

No	BLOOD SPILL KIT	Expiration date	Week 1		Week 2		Week 3		Week 4	
			Quantity	Condition	Quantity	Condition	Quantity	Condition	Quantity	Condition
1	RADIO ROOM	16-Jun-28	1	Good	1	Good	1	Good	1	Good
2	GALLEY	16-Jun-28	1	Good	1	Good	1	Good	1	Good
3	WAREHOUSE	16-Jun-28	1	Good	1	Good	1	Good	1	Good
4	RIG FLOOR	16-Jun-28	1	Good	1	Good	1	Good	1	Good
5	ELECTRICAL SHOP	16-Jun-28	1	Good	1	Good	1	Good	1	Good
	Inspected by (Initial name)		YD		YD		YD		YD	
	Inspection date		3-Jul-25		10-Jul-25		17-Jul-25		24-Jul-25	

Jun-25

No	First Aid	Expiration date	Week 1		Week 2		Week 3		Week 4	
			Quantity	Condition	Quantity	Condition	Quantity	Condition	Quantity	Condition
1	RADIO ROOM	NA	1	Good	1	Good	1	Good	1	Good
2	GALLEY	NA	1	Good	1	Good	1	Good	1	Good
3	WAREHOUSE	NA	1	Good	1	Good	1	Good	1	Good
4	EMERGENCY LOCKER NO.1 - BOW LEG	NA	1	Good	1	Good	1	Good	1	Good
5	EMERGENCY LOCKER NO.2 HELI CREASH LOCKER	NA	1	Good	1	Good	1	Good	1	Good
6	HELI DECK LOCKER	NA	1	Good	1	Good	1	Good	1	Good
7	WELDING SHOP	NA	1	Good	1	Good	1	Good	1	Good
8	ELECTRICAL SHOP	NA	1	Good	1	Good	1	Good	1	Good
9	RIG FLOOR	NA	1	Good	1	Good	1	Good	1	Good
10	MUD LAB	NA	1	Good	1	Good	1	Good	1	Good

No	Eye wash Bottle	Expiration date	Week 1		Week 2		Week 3		Week 4	
			Quantity	Condition	Quantity	Condition	Quantity	Condition	Quantity	Condition
1	WAREHOUSE	1-Oct-25	1	Good	1	Good	1	Good	1	Good
2	ELECTRICAL SHOP	1-Oct-25	1	Good	1	Good	1	Good	1	Good
3	SACK ROOM	1-Oct-25	2	Good	2	Good	2	Good	2	Good
4	WELDING SHOP	1-Oct-25	1	Good	1	Good	1	Good	1	Good

No	Eye wash Station	Expiration date	Week 1		Week 2		Week 3		Week 4	
			Quantity	Condition	Quantity	Condition	Quantity	Condition	Quantity	Condition
1	MAIN DECK PORT SIDE	NA	1	Good	1	Good	1	Good	1	Good
2	PIT ROOM	NA	1	Good	1	Good	1	Good	1	Good
3	Pump Room	NA	1	Good	1	Good	1	Good	1	Good
4	SACK ROOM (Replaced by eye wash bottle)	NA	1	Good	1	Good	1	Good	1	Good
5	RIG FLOOR	NA	1	Good	1	Good	1	Good	1	Good
6	Shacker	NA	1	Good	1	Good	1	Good	1	Good

No	Stretcher	Expiration date	Week 1		Week 2		Week 3		Week 4	
			Quantity	Condition	Quantity	Condition	Quantity	Condition	Quantity	Condition
1	RIG FLOOR	NA	1	Good	1	Good	1	Good	1	Good
2	BOW LEG (STBD SIDE)	NA	1	Good	1	Good	1	Good	1	Good
3	Heli-Crash Kit Locker	NA	1	Good	1	Good	1	Good	1	Good

No	AED	Expiration date	Week 1		Week 2		Week 3		Week 4	
			Quantity	Condition	Quantity	Condition	Quantity	Condition	Quantity	Condition
1	SICK BAY	NA	1	Good	1	Good	1	Good	1	Good
2	RADIO ROOM	NA	1	Good	1	Good	1	Good	1	Good
3	ELECTRICAL SHOP	NA	1	Good	1	Good	1	Good	1	Good

No	BLOOD SPILL KIT	Expiration date	Week 1		Week 2		Week 3		Week 4	
			Quantity	Condition	Quantity	Condition	Quantity	Condition	Quantity	Condition
1	RADIO ROOM	16-Jun-28	1	Good	1	Good	1	Good	1	Good
2	GALLEY	16-Jun-28	1	Good	1	Good	1	Good	1	Good
3	WAREHOUSE	16-Jun-28	1	Good	1	Good	1	Good	1	Good
4	RIG FLOOR	16-Jun-28	1	Good	1	Good	1	Good	1	Good
5	ELECTRICAL SHOP	16-Jun-28	1	Good	1	Good	1	Good	1	Good
	Inspected by (Initial name)		YT		YT		YT		YT	
	Inspection date		3-Jun-25		10-Jun-25		17-Jun-25		24-Jun-25	

Aug-25

No	First Aid	Expiration date	Week 1		Week 2		Week 3		Week 4		Week 5	
			Quantity	Condition	Quantity	Condition	Quantity	Condition	Quantity	Condition	Quantity	Condition
1	RADIO ROOM	NA	1	Good	1	Good	1	Good	1	Good	1	Good
2	GALLEY	NA	1	Good	1	Good	1	Good	1	Good	1	Good
3	WAREHOUSE	NA	1	Good	1	Good	1	Good	1	Good	1	Good
4	EMERGENCY LOCKER NO.1 - BOW LEG	NA	1	Good	1	Good	1	Good	1	Good	1	Good
5	EMERGENCY LOCKER NO.2 HELI CREASH LOCKER	NA	1	Good	1	Good	1	Good	1	Good	1	Good
6	HELI DECK LOCKER	NA	1	Good	1	Good	1	Good	1	Good	1	Good
7	WELDING SHOP	NA	1	Good	1	Good	1	Good	1	Good	1	Good
8	ELECTRICAL SHOP	NA	1	Good	1	Good	1	Good	1	Good	1	Good
9	RIG FLOOR	NA	1	Good	1	Good	1	Good	1	Good	1	Good
10	MUD LAB	NA	1	Good	1	Good	1	Good	1	Good	1	Good

No	Eye wash Bottle	Expiration date	Week 1		Week 2		Week 3		Week 4		Week 5	
			Quantity	Condition	Quantity	Condition	Quantity	Condition	Quantity	Condition	Quantity	Condition
1	WAREHOUSE	1-Oct-25	1	Good	1	Good	1	Good	1	Good	1	Good
2	ELECTRICAL SHOP	1-Oct-25	1	Good	1	Good	1	Good	1	Good	1	Good
3	SACK ROOM	1-Oct-25	2	Good	2	Good	2	Good	2	Good	2	Good
4	WELDING SHOP	1-Oct-25	1	Good	1	Good	1	Good	1	Good	1	Good

No	Eye wash Station	Expiration date	Week 1		Week 2		Week 3		Week 4		Week 5	
			Quantity	Condition	Quantity	Condition	Quantity	Condition	Quantity	Condition	Quantity	Condition
1	MAIN DECK PORT SIDE	NA	1	Good	1	Good	1	Good	1	Good	1	Good
2	PIT ROOM	NA	1	Good	1	Good	1	Good	1	Good	1	Good
3	Pump Room	NA	1	Good	1	Good	1	Good	1	Good	1	Good
4	SACK ROOM (Replaced by eye wash bottle)	NA	1	Good	1	Good	1	Good	1	Good	1	Good
5	RIG FLOOR	NA	1	Good	1	Good	1	Good	1	Good	1	Good
6	Shacker	NA	1	Good	1	Good	1	Good	1	Good	1	Good

No	Stretcher	Expiration date	Week 1		Week 2		Week 3		Week 4		Week 5	
			Quantity	Condition	Quantity	Condition	Quantity	Condition	Quantity	Condition	Quantity	Condition
1	RIG FLOOR	NA	1	Good	1	Good	1	Good	1	Good	1	Good
2	BOW LEG (STBD SIDE)	NA	1	Good	1	Good	1	Good	1	Good	1	Good
3	Heli-Crash Kit Locker	NA	1	Good	1	Good	1	Good	1	Good	1	Good

No	AED	Expiration date	Week 1		Week 2		Week 3		Week 4		Week 5	
			Quantity	Condition	Quantity	Condition	Quantity	Condition	Quantity	Condition	Quantity	Condition
1	SICK BAY	NA	1	Good	1	Good	1	Good	1	Good	1	Good
2	RADIO ROOM	NA	1	Good	1	Good	1	Good	1	Good	1	Good
3	ELECTRICAL SHOP	NA	1	Good	1	Good	1	Good	1	Good	1	Good

No	BLOOD SPILL KIT	Expiration date	Week 1		Week 2		Week 3		Week 4		Week 5	
			Quantity	Condition	Quantity	Condition	Quantity	Condition	Quantity	Condition	Quantity	Condition
1	RADIO ROOM	16-Jun-28	1	Good	1	Good	1	Good	1	Good	1	Good
2	GALLEY	16-Jun-28	1	Good	1	Good	1	Good	1	Good	1	Good
3	WAREHOUSE	16-Jun-28	1	Good	1	Good	1	Good	1	Good	1	Good
4	RIG FLOOR	16-Jun-28	1	Good	1	Good	1	Good	1	Good	1	Good
5	ELECTRICAL SHOP	16-Jun-28	1	Good	1	Good	1	Good	1	Good	1	Good
	Inspected by (Initial name)		YT		JK		JK		YT		YD	
	Inspection date		1-Aug-25		5-Aug-25		12-Aug-25		19-Aug-25		26-Aug-25	

Scomi Oiltools

Derrick DE-1000 FHD Centrifuge

COMMISSIONING / MAINTENANCE CHECKLIST

A. GENERAL DETAIL			
PROJECT NO.:	PTTEP THAILAND	DATE:	7 September 2025
MODEL NO.:	DE-1000 FHD	CUSTOMER:	PTTEP Offshore
MANUFACTURER	Derrick	RIG	ADM502
SERIAL NO.:	CF-231	ASSET NO.	N/A
MOTOR SER. NO.:	N/A	LOCATION	WP-17
COMMISSIONING:	OK	MAINTENANCE:	OK

B. CHECKLIST

N.B – IF APPLICABLE OBTAIN PERMIT TO WORK PRIOR TO OPERATING OR SERVICING MACHINERY

		OK	COMMENTS
1.	Ensure Centrifuge is level	☒	**OK**
2.	Remove Shipping Brackets	☒	**N/A**
3.	Torque main bearing pillow block bolts (197 ft. / lbs / 267Nm)	☒	**N/A**
4.	Belts condition & tension within tolerance (Refer to Manual)	☒	**Good and normal tension.**
5.	Ensure RA rotates freely with no obstruction	☒	**OK. Normal**
6.	Grease main bearing (one shot per shift)	☒	**Grease**
7.	Purge conveyor bearings (Every 2 weeks of operation)	☒	**Follow as stated.**
8.	Remove and clean flinger cover (monthly)	☒	**Cleaned**
9.	Joints and connections in good condition	☒	**All good.**
10.	Panels and cladding secure and in good condition	☒	**Good**
11	Motor and vibration mount secure and in good condition	☒	**Normal**
12.	Condition of drive shafts, Keyways, Taper locks & pulleys	☒	**Good**
13.	Check gap between scroll and bowl for tile wear	☒	**Normal**
14.	Condition of effluent port (Liquid bowl head)	☒	**Good**
15.	Effluent port settings	☒	**3.5**
16.	Check condition of wear inserts (solid discharge)	☒	**Good condition**
17.	Check interior & exterior in case of wear & accumulated solids	☒	**Every maintenance.**

UNCONTROLLED WHEN PRINTED

Scomi Oiltools

Derrick DE-1000 FHD Centrifuge

COMMISSIONING / MAINTENANCE CHECKLIST

18.	Check for conveyor blockage	☒	**Good**
19.	Test operation of vibration switch (40 Hours)	☒	**Good**
20.	Check flushing lines are operational and in good condition	☒	**Good**
21.	Inspect skid frame for external damage	☒	**Good**
22.	Inspect liquid discharge connections for leaks	☒	**Good condition.**
23.	Remove, clean and inspect feed tube (weekly)	☒	**Good**
C. HYDRAULIC & CONTROL SYSTEM INSPECTION			
24.	Check hydraulic oil level	☒	**Regularly check and refill periodically.**
25.	Check all hydraulic line are leak free and in good condition	☒	**Good**
26.	Check Rotor diff is leak free	☒	**Good**
27.	Check Port block is leak free	☒	**Good**
28.	Check hydrostatic pump is leak free	☒	**Good**
29.	Pressure relief valve operation (min/max)	☒	**Max**
30.	Check condition and operation of bowl speed control	☒	**Good**
31.	Check condition and operation of conveyor control	☒	**Good**
32.	Check condition and operation of boost system	☐	**Can't use**
33.	Check condition and operation of conveyor speed indicator	☒	**Good**
34.	Check condition and operation of bowl speed indicator	☒	**OK**
35.	Check condition and operation of bowl speed pressure gauge	☒	**Good**
36.	Check condition and operation of conveyor pressure gauge	☒	**Good**
37.	Check condition and operation of charge pressure gauge	☒	**Good**
D. ELECTRICAL INSPECTION			
		Last inspection	Next Inspection
		27 August 2025	N/A
38.	Clean and inspection condition of electrical enclosure	☒	**OK**
39.	Inspect and check condition of all cables and glands on cabinet, motors and JB's.	☒	**Good**
40.	Inspect airs supply filter and drain excess fluid. Record Condition indicator position and air pressure.	☒	**Good**

UNCONTROLLED WHEN PRINTED

เอกสารนี้เป็นเอกสารที่ควบคุมโดยระบบคุณภาพ ห้ามนำออกนอกบริษัทฯ หากไม่ได้รับอนุญาตจากผู้มีอำนาจ

41.	Check condition of purge unit air filter element and clean and replace as necessary.	☒	**Good**
42.	Test Vibration switch for operation.	☒	**OK**
43.	Check all main electrical connections are secure and in good condition.	☒	**Good**
44.	Test Emergency stop button operational	☒	**Good**

D. COMMENTS

E. Equipment Pictures

Insert Picture of Equipment Damage or Wear if necessary

F. FINAL INSPECTION & CUSTOMER APPROVAL

SCM Oiltools Engineer: [redacted]	**Customer:** [redacted]
Signature: Click here to enter text.	**Signature:** Click here to enter text.
Date: 7 September 2025	**Date::** 7 September 2025

G. DISTIRBUTION

Equipment MDB, Service Record and Certification File

H. NOTES

All Non-Conformances should be noted on a Non-Conformance Report and hand over to the QHSE Representative

PLEASE REMEMBER.....SAFETY IS NO ACCIDENT!!!

UNCONTROLLED WHEN PRINTED

Scomi Oiltools

Derrick DE-1000 FHD Centrifuge

COMMISSIONING / MAINTENANCE CHECKLIST

A. GENERAL DETAIL

PROJECT NO.:	PTTEP THAILAND	DATE:	7 September 2025
MODEL NO.:	DE-1000 FHD	CUSTOMER:	PTTEP Offshore
MANUFACTURER	Derrick	RIG	ADM502
SERIAL NO.:	CF-002090	ASSET NO.	N/A
MOTOR SER. NO.:	N/A	LOCATION	WP-17
COMMISSIONING:	OK	MAINTENANCE:	OK

B. CHECKLIST

N.B – IF APPLICABLE OBTAIN PERMIT TO WORK PRIOR TO OPERATING OR SERVICING MACHINERY

		OK	COMMENTS
1.	Ensure Centrifuge is level	☒	**Normal level.**
2.	Remove Shipping Brackets	☒	**N/A**
3.	Torque main bearing pillow block bolts (197 ft. / lbs / 267Nm)	☒	**N/A**
4.	Belts condition & tension within tolerance (Refer to Manual)	☒	**OK**
5.	Ensure RA rotates freely with no obstruction	☒	**OK**
6.	Grease main bearing (one shot per shift)	☒	**Follow as per indication.**
7.	Purge conveyor bearings (Every 2 weeks of operation)	☒	**Cleaned**
8.	Remove and clean flinger cover (monthly)	☒	**Cleaned**
9.	Joints and connections in good condition	☒	**OK**
10.	Panels and cladding secure and in good condition	☒	**Good**
11	Motor and vibration mount secure and in good condition	☒	**Normal**
12.	Condition of drive shafts, Keyways, Taper locks & pulleys	☒	**Normal**
13.	Check gap between scroll and bowl for tile wear	☒	**Normal**
14.	Condition of effluent port (Liquid bowl head)	☒	**Good**
15.	Effluent port settings	☒	**3.5**
16.	Check condition of wear inserts (solid discharge)	☒	**Good.**
17.	Check interior & exterior in case of wear & accumulated solids	☒	**Every maintenance.**

UNCONTROLLED WHEN PRINTED

18.	Check for conveyor blockage	☒	**Good**
19.	Test operation of vibration switch (40 Hours)	☒	**Good**
20.	Check flushing lines are operational and in good condition	☒	**Good**
21.	Inspect skid frame for external damage	☒	**Good**
22.	Inspect liquid discharge connections for leaks	☒	**Good**
23.	Remove, clean and inspect feed tube (weekly)	☒	**Good**
C. HYDRAULIC & CONTROL SYSTEM INSPECTION			
24.	Check hydraulic oil level	☒	**Good**
25.	Check all hydraulic line are leak free and in good condition	☒	**Good**
26.	Check Rotor diff is leak free	☒	**Good**
27.	Check Port block is leak free	☒	**Good**
28.	Check hydrostatic pump is leak free	☒	**Good**
29.	Pressure relief valve operation (min/max)	☒	**Max**
30.	Check condition and operation of bowl speed control	☒	**Good**
31.	Check condition and operation of conveyor control	☒	**Good**
32.	Check condition and operation of boost system	☐	**Can't use**
33.	Check condition and operation of conveyor speed indicator	☒	**Good**
34.	Check condition and operation of bowl speed indicator	☒	**Good**
35.	Check condition and operation of bowl speed pressure gauge	☒	**Good**
36.	Check condition and operation of conveyor pressure gauge	☒	**Good**
37.	Check condition and operation of charge pressure gauge	☒	**Good**
D. ELECTRICAL INSPECTION			
		Last inspection	Next Inspection
		29 July 2025	N/A
38.	Clean and inspection condition of electrical enclosure	☒	**OK**
39.	Inspect and check condition of all cables and glands on cabinet, motors and JB's.	☒	**Good**
40.	Inspect airs supply filter and drain excess fluid. Record Condition indicator position and air pressure.	☒	**Good**

Scomi Oiltools

Derrick DE-1000 FHD Centrifuge

COMMISSIONING / MAINTENANCE CHECKLIST

41.	Check condition of purge unit air filter element and clean and replace as necessary.	☒	**Good**
42.	Test Vibration switch for operation.	☒	**OK**
43.	Check all main electrical connections are secure and in good condition.	☒	**Good**
44.	Test Emergency stop button operational	☒	**Good**

D. COMMENTS

E. Equipment Pictures

Insert Picture of Equipment Damage or Wear if necessary

F. FINAL INSPECTION & CUSTOMER APPROVAL

SCM Oiltools Engineer: [redacted]	**Customer:** [redacted]
Signature: Click here to enter text.	**Signature:** Click here to enter text.
Date: 7 September 2025	**Date: : 7 September 2025**

G. DISTIRBUTION

Equipment MDB, Service Record and Certification File

H. NOTES

All Non-Conformances should be noted on a Non-Conformance Report and hand over to the QHSE Representative

PLEASE REMEMBER.....SAFETY IS NO ACCIDENT!!!

Scomi
Scomi Oiltools

SO-V03 & SO-V04
VERTICAL CUTTINGS DRYER
COMMISSIONING / MAINTENANCE CHECKLIST

A. GENERAL DETAIL			
PROJECT NO.:	PTTEP THAILAND	DATE:	7 Sep 2025
MODEL NO.:	H900	CUSTOMER:	PTTEP Offshore
MANUFACTURER	Derrick	RIG	ADM502
SERIAL NO.:	1103	ASSET NO.	N/A
MOTOR SER. NO.:	N/A	LOCATION	WP-17
COMMISSIONING:	OK	MAINTENANCE:	OK

B. CHECKLIST

N.B – IF APPLICABLE OBTAIN PERMIT TO WORK PRIOR TO OPERATING OR SERVICING MACHINERY

		OK	COMMENTS
1.	Water shield Condition	☒	**Good**
2.	Vibration	☒	**Normal**
3.	Abnormal Noise (s)	☒	**Normal**
4.	Drive Belts	☒	**Good**
5.	Integrities of stand / support structure	☒	**Good**
6.	Screen & Scroll Clearance	☒	**Good**
7.	Condition of Scroll blades / wear parts	☒	**Good**
8.	Gearbox Oil Levels (Mobil gear 626)	☒	**Full and refill when it getting low.**
9.	Fluid Coupling Oil Levels (Hydraulic)	☒	**Good**
10.	Main Drive Motor Slide	☒	**Good**
11.	Pressure Switch	☒	**Good**
12.	Pressure Gauge (if applicable)	☒	**Good**
13.	Flow Switch	☒	**Good**
14.	Condition of filters (if applicable)	☒	**Good**
15.	Condition of Dryer Inlet	☒	**Good**
16.	Condition of Dryer Outlet	☒	**Good**
17.	Water Flush Available	☒	**Good**
18.	Sample Points Operational and Clear of Debris	☒	**Good**
19.	Condition of Coating	☒	**Normal**

C. ELECTRICAL INSPECTION

1.	Mains Power OFF / ON Switch	☒	**Good**
2.	All screws / bolts present and secure	☒	**Good**
3.	Isolate Panel. Open, Inspect and Grease threads / flame paths	☒	**Good**

UNCONTROLLED WHEN PRINTED

Scomi
Scomi Oiltools

SO-V03 & SO-V04
VERTICAL CUTTINGS DRYER
COMMISSIONING / MAINTENANCE CHECKLIST

4.	Check Integrity of Cable Glands	☒	**Good**
5.	Check integrity of all Earth Bonding	☒	0.4 Ohm.
6.	Check all Overload Settings are Correct	☒	**OK**
7.	Check all Indication Lamps	☒	**Good**
8.	Note Hour (s) Run Data	☒	
9.	Close Panel. Secure all screws/bolts. De-isolate and confirm operational	☐	**OK**

Last inspection	Next Inspection
25 July 2025	Rig Move operation

D. COMMENTS

E. EQUIPMENT PICTURES

Insert Picture of Equipment Damage or Wear if necessary

F. FINAL INSPECTION & CUSTOMER APPROVAL

SCM Oiltools Engineer: [redacted]	**Customer:** [redacted]
Signature: Click here to enter text.	**Signature:** Click here to enter text.
Date: 6 Sep 2025	**Date: 6 Sep 2025**

G. DISTIRBUTION

Equipment MDB, Service Record and Certification File

H. NOTES

All Non-Conformances should be noted on a Non-Conformance Report and hand over to the QHSE Representative

PLEASE REMEMBER.....SAFETY IS NO ACCIDENT!!!

UNCONTROLLED WHEN PRINTED