

## เอกสารแนบที่ 4

ผลการสำรวจสภาพพื้นท้องทะเลด้วย Side Scan Sonar  
ก่อนการติดตั้งแท่นเจาะสำหรับการเจาะหลุมสำรวจ  
และก่อนการติดตั้งแท่นหลุมผลิต และแนวท่อขนส่งใต้ทะเล

# TMA-22A A/E Well

In this report a sonar contact is classified as a point feature that exhibits anomalously high reflectivity but has no measurable height (nmh). Debris is classified as a point feature that exhibits anomalously high reflectivity and has minimum height 0.1m. Linear debris is classified as any item that been classified as debris with length to width proportion greater than 4.

Four (4) items of debris were observed within the survey corridor. None of these items debris located within 200m radius of the proposed TMA-22A location. SC03 and SC04 are associated with FAD's where fishing buoy are observed during survey campaign. The details of the sonar contacts are tabulated as below:

Contact Number	Easting	Northing	Dimensions (m)	Offset (m)	Description
			LxWxH		
SC01	851303	910035	1.5 x 1.0 x nmh	330m WNW	Debris
SC02	851598	909696	2.3 x 1.5 x nmh	256m SSW	Debris
SC03	852013	910323	2.3 x 0.5 x 0.2	537m NE	Debris of FAD's
SC04	852035	910284	2.5 x 0.9 x 0.5	527m NE	Debris of FAD's

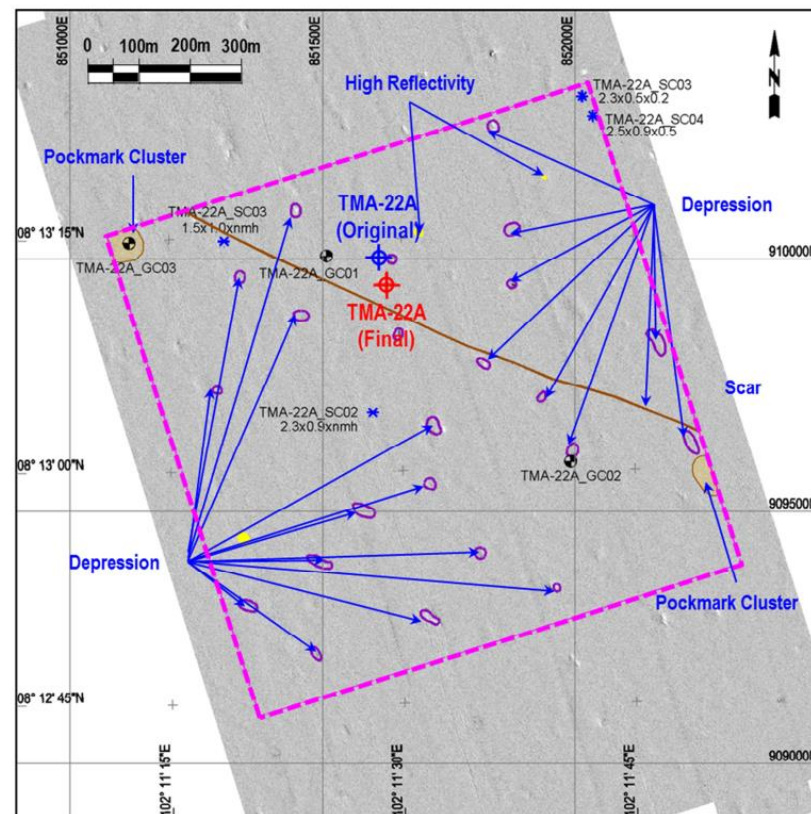


Figure 13: Side scan sonar mosaic of the whole site in NNW-SSE survey direction

# TMA-29A A/E Well

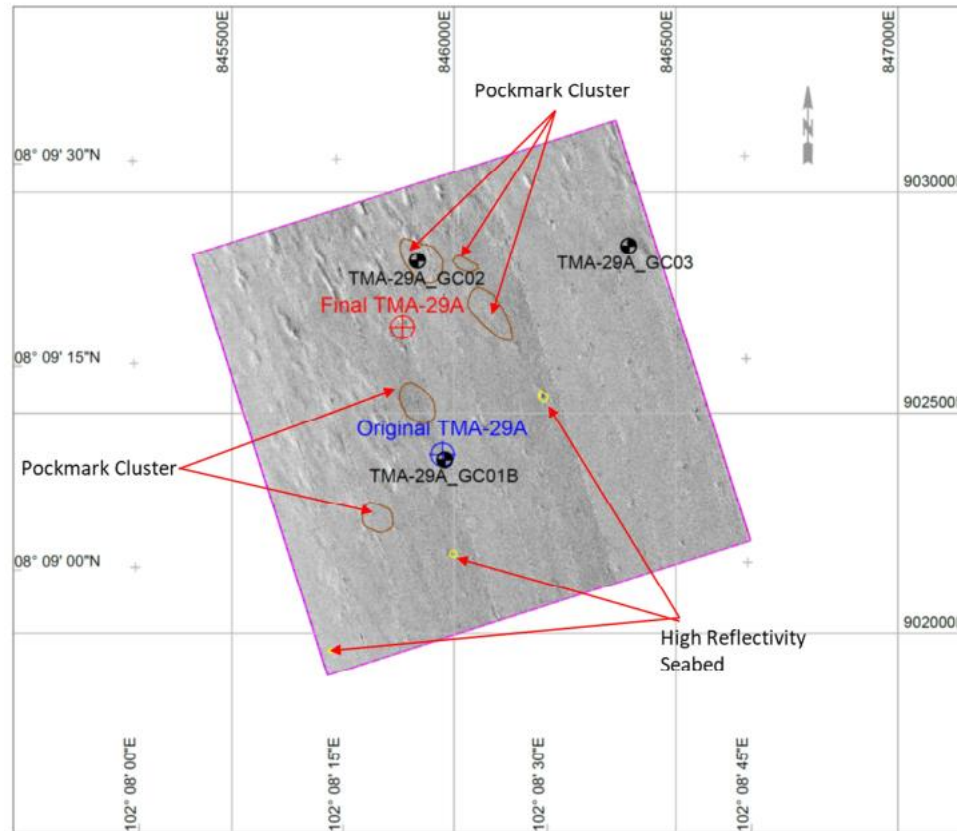


Figure 13: Sidescan sonar mosaic of the whole site in NNW-ESE survey direction

Numerous seabed scars were observed within the survey area which indicates frequent fishing activities within the area.

# TMA-40A A/E Well

In this report a sonar contact is classified as a point feature that exhibits anomalously high reflectivity but has no measurable height (nmh). Debris is classified as a point feature that exhibits anomalously high reflectivity and has minimum height 0.1m. Linear debris is classified as any item that been classified as debris with length to width proportion greater than 4.

A total of eleven (11) items of debris were identified from the TMA-40A site survey data available. None of the debris is located within 200m radius of the final proposed TMA-40A rig location. The details of the sonar contacts are tabulated as below:

Contact Number	Easting	Northing	Dimensions (m)	Offset to Final Proposed Location (m)	Description
			LxWxH		
SC01	850668	897730	3.4 x 3.8 x 1.4	466m WNW	Debris
SC02	850748	897948	3.1 x 1.5 x nmh	474m NW	Debris
SC03	850809	897819	2.4 x 1.4 x nmh	355m NW	Debris
SC04	850831	897247	2.5 x 1.4 x nmh	519m SW	Debris
SC05	850904	897643	1.8 x 1.2 x 0.7	229m WSW	Debris
SC06	850953	897485	2.7 x 1.4 x 0.7	257m SW	Debris
SC07	851118	897924	3.0 x 2.0 x 1.7	254m NNW	Debris
SC08	851117	898109	2.3 x 1.2 x 0.6	438m NNW	Debris
SC09	851296	898148	2.3 x 2.5 x nmh	504m NNE	Debris
SC10	851492	897467	2.9 x 1.5 x nmh	414m SE	Debris
SC11	851750	897668	3.0 x 0.8 x 2.0	617m E	Debris

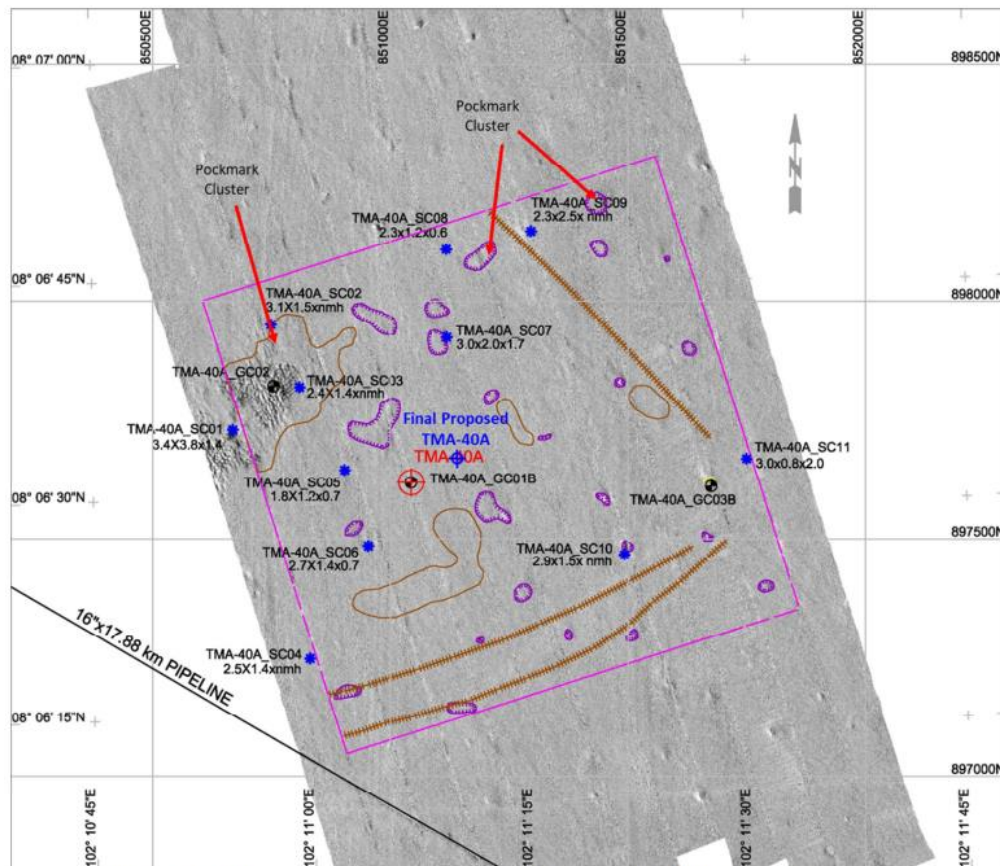


Figure 13: Sidescan sonar mosaic of the whole site in NNW-SSE survey direction



# CWT-12A A/E Well

*In this report a sonar contact is classified as a point feature that exhibits anomalously high reflectivity but has no measurable height (nmh). Debris is classified as a point feature that exhibits anomalously high reflectivity and has minimum height 0.1m. Linear debris is classified as any item that been classified as debris with length to width proportion greater than 4.*

A total of four (4) sonar contacts were observed within the survey corridor. Sonar contact is not observed within 200m radius to the final proposed location. The nearest sonar contact is located at 366m WNW of the proposed location. The details of the sonar contacts are tabulated as below:

Contact Number	Easting	Northing	Dimensions (m)	Offset (m)	Description
			LxWxH		
SC01	894846	840987	1.8 x 0.7 x nmh	734m SW	Sonar Contact
SC02	894915	841713	1.4 x 1.2 x nmh	366m WNW	Sonar Contact
SC03	895647	841200	2.3 x 1.1 x nmh	550m SE	Sonar Contact
SC04	895681	841211	0.9 x 0.8 x nmh	567m SE	Sonar Contact

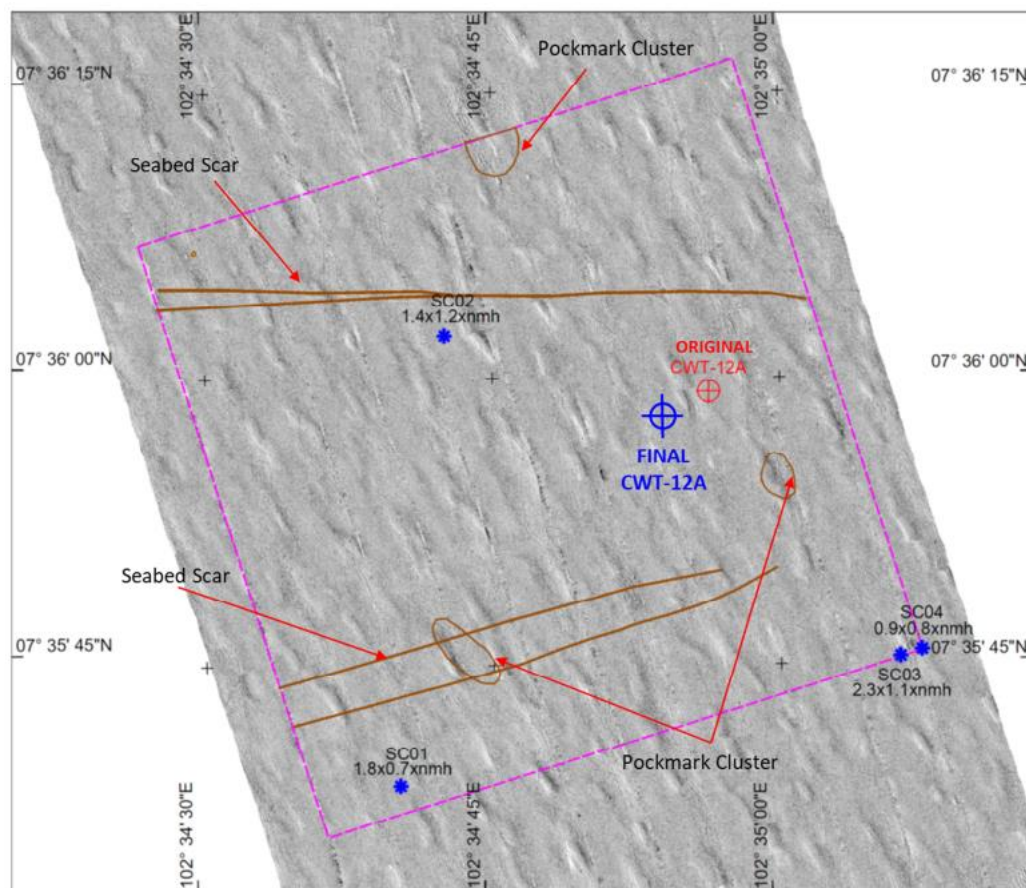


Figure 13: Sidescan sonar mosaic of the whole site in NNW-SSE survey direction

# TMA-22A A/E Well

Anomaly Group 1 is classified with a **MODERATE** probability of being gas associated. The proposed TMA-22A well trajectory does not intersect the Anomaly Group 1. The nearest Anomaly Group 1 is located 102m N of the final proposed TMA-22A.

Anomaly Group 1 is characterized by moderate to high amplitude event with chaotic seismic returns underlying the horizon. This anomaly is observed as two patches within the northern half of survey area and edge of survey boundary.

Anomaly Group 1 and Anomaly Group 3 are located within 200m radius of the proposed location. Caution at depth 310ms TWTT (243m TVDSS) at the AG1 with an offset 102m N and at depth 493ms TWTT (407m TVDSS) at the AG3 with an offset 160m NW to the final proposed location.

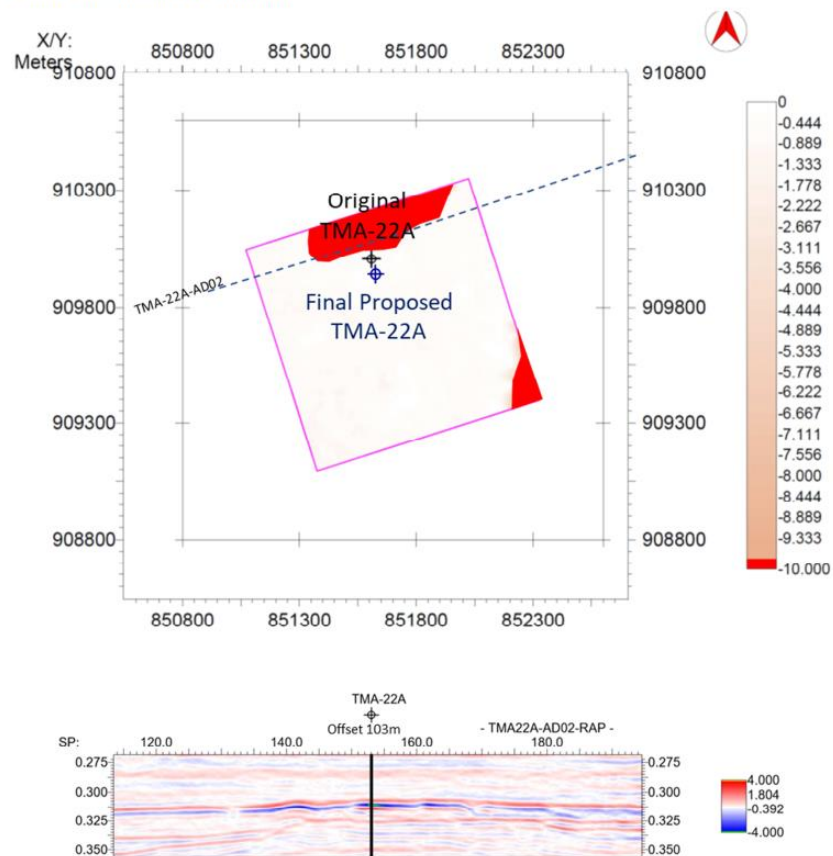


Figure 27: Distribution of Anomaly Group 1

[Note: color bar scale is reflector amplitude (no units)]



PTTEP

# TMA-29A A/E Well

Anomaly Group 1 is classified with a **LOW** probability of being gas associated. The final proposed TMA-29A well trajectory does not intersect the Anomaly Group 1. The nearest Anomaly Group 1 is located 99m SW of the final proposed TMA-29A.

Anomaly Group 1 is characterized by high amplitude event with phase reversal. The anomalies are likely to be associated with shallow channel. The sub-bottom profiler data confirmed the anomalies are unlikely to be gas charged. This anomaly group is observed as two medium sized patches within the southwestern quadrant.

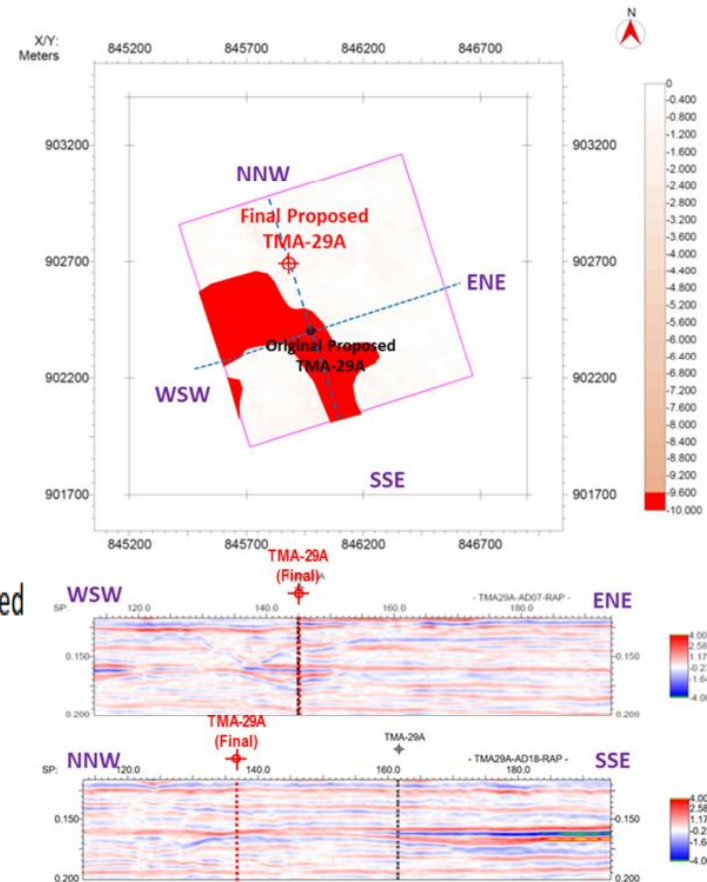


Figure 25: Distribution of Anomaly Group 1

[Note: Colour bar scale is reflector amplitude (no units)]

Anomaly Group 1 and Anomaly Group 1 4 are located within 200m radius of the proposed location.

# TMA-40A A/E Well

Anomaly Group 5 is classified with a **MODERATE** probability of being gas associated. The final proposed TMA-40A well trajectory does not intersect the Anomaly Group 5. The nearest Anomaly Group 5 is located 145m SW of the final proposed location.

Anomaly Group 5 is the deepest anomaly group observed on seismic data. It is characterized by a patch of low to moderate amplitude reflection with phase reversal and fault related. It is interpreted as gas-charged layer. This anomaly is observed as an elongated patch at southwestern half of the site survey.

No intersection with Anomaly Group. However the 200m radius to the final proposed location is Anomaly Group 3 (offset 156m NNW) at depth range 327m – 331m TVDSs and Anomaly Group 5 (offset 146m SW) at depth range 433m to 442m TVDSS.

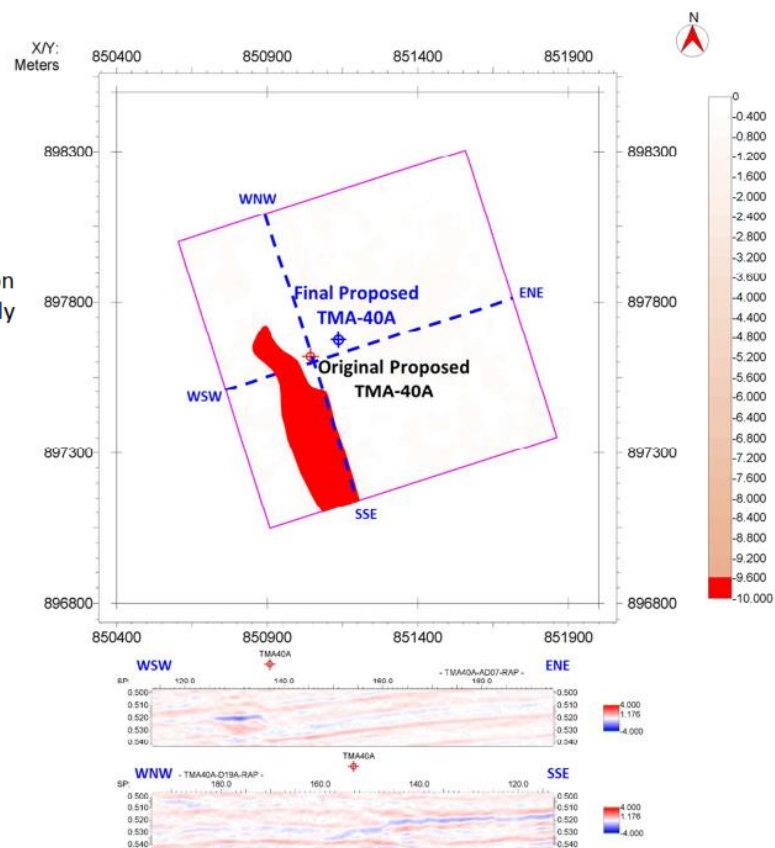


Figure 27: Distribution of Anomaly Group 5

[Note: Colour bar scale is reflector amplitude (no units)]



# CWT-12A A/E Well

Anomaly Group 1 is classified with a **MODERATE** probability of being gas associated. The proposed CWT-12A well trajectory does not intersect the Anomaly Group 1. The nearest Anomaly Group 1 is located 282m NNE of the final proposed CWT-12A.

Anomaly Group 1 is characterized by moderate to high amplitude event with phase reversal and severe to moderate acoustic masking. The anomalies show moderate acoustic masking to the underlying horizon. This anomaly group is observed as a patch in the north-eastern edge of survey area.

Expected to intersect shallow channel at approximately 28.5 m BML and intermediate channel at 443ms TWTT (363 m TVDSS)

Expected to intersect Intermediate fault at approximately 1091ms TWTT (1099m TVDSS).

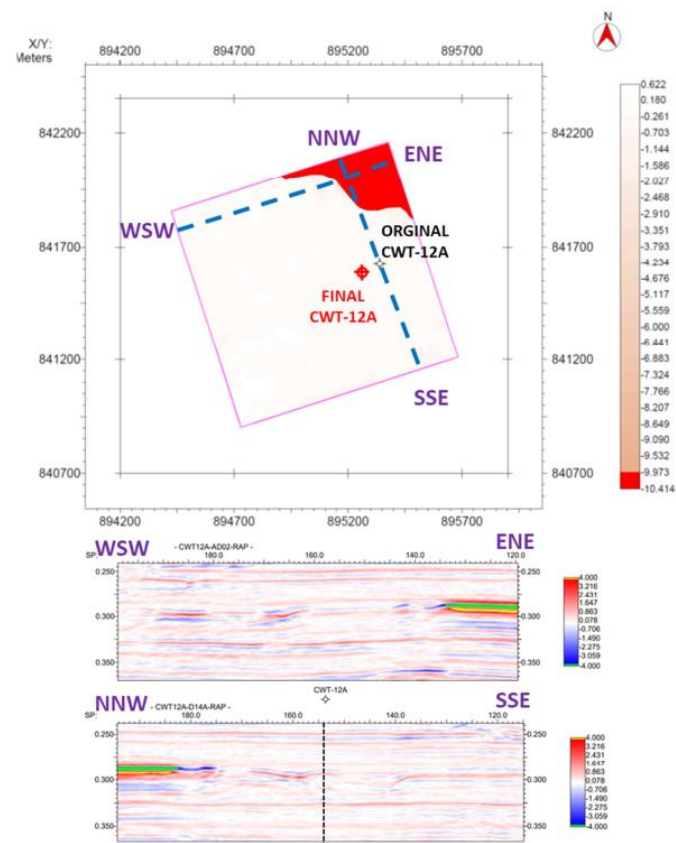


Figure 22: Distribution of Anomaly Group 1

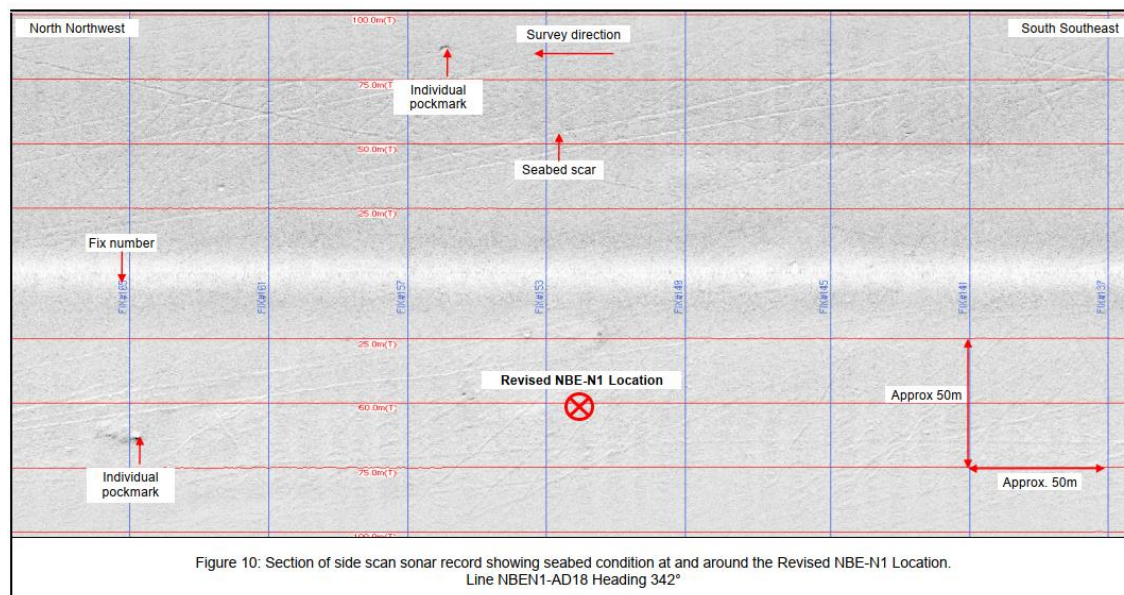
[Note: Colour bar scale is reflector amplitude (no units)]



# WP46(NBE-N1)

Sonar contacts are identified within the survey area as items with higher reflectivity than their surrounding seabed and occasionally show apparent heights. Details of the sonar contacts are tabulated below.

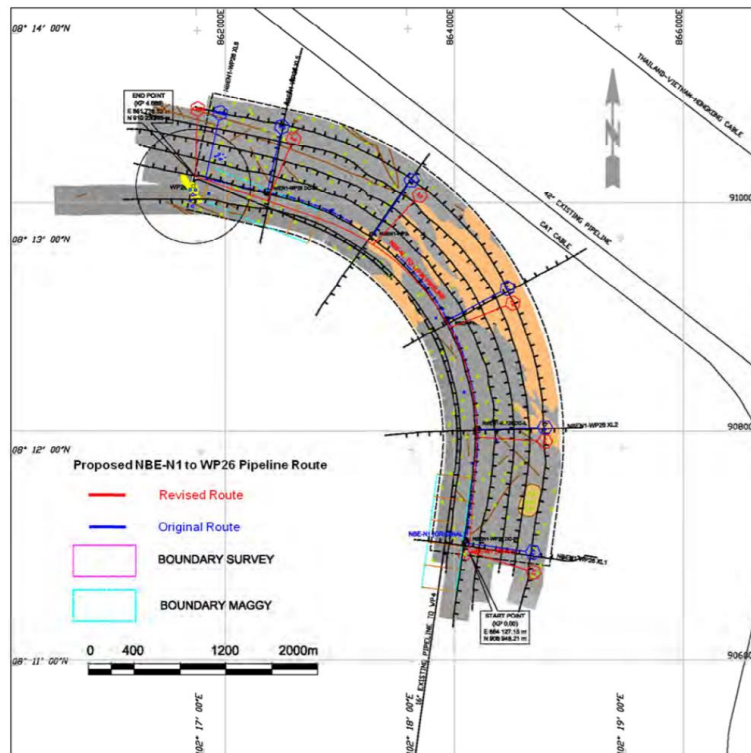
Features	Side Scan Sonar As Found Positions		Dimension (L x W x H) m	Nearest distance from the proposed NBE-N1 Location	Nearest distance from the revised NBE-N1 Location
	Easting (m)	Northing (m)			
SC01	863 506	907 336	2.1m x 0.8m x 0.3m	603m WNW	712m WNW
SC02	863 506	907 334	0.6m x 0.1m x nmh	602m WNW	704m WNW
SC03	863 506	907 321	2.2m x 1.1m x 0.3m	595m WNW	705m WNW
SC04	863 507	907 188	2.5m x 1.3m x 0.2m	529m WNW	636m WNW
SC05	863 983	906 930	3.2m x 2.8m x nmh	3.2m x 2.8m x nmh	88m WNW
SC06	863 999	906 918	2.0m x 0.4m x nmh	2.0m x 0.4m x nmh	88m WSW
SC07	863 800	906 809	2.5m x 0.8m x 0.1m	2.5m x 0.8m x 0.1m	307m WSW
SC08	863 725	906 678	2.5m x 0.3m x nmh	2.5m x 0.3m x nmh	435m WSW
SC09	863 724	906 674	1.8m x 0.1m x nmh	1.8m x 0.1m x nmh	440m WSW
SC10	863 722	906 673	1.6m x 2.4m x nmh	1.6m x 2.4m x nmh	441m WSW



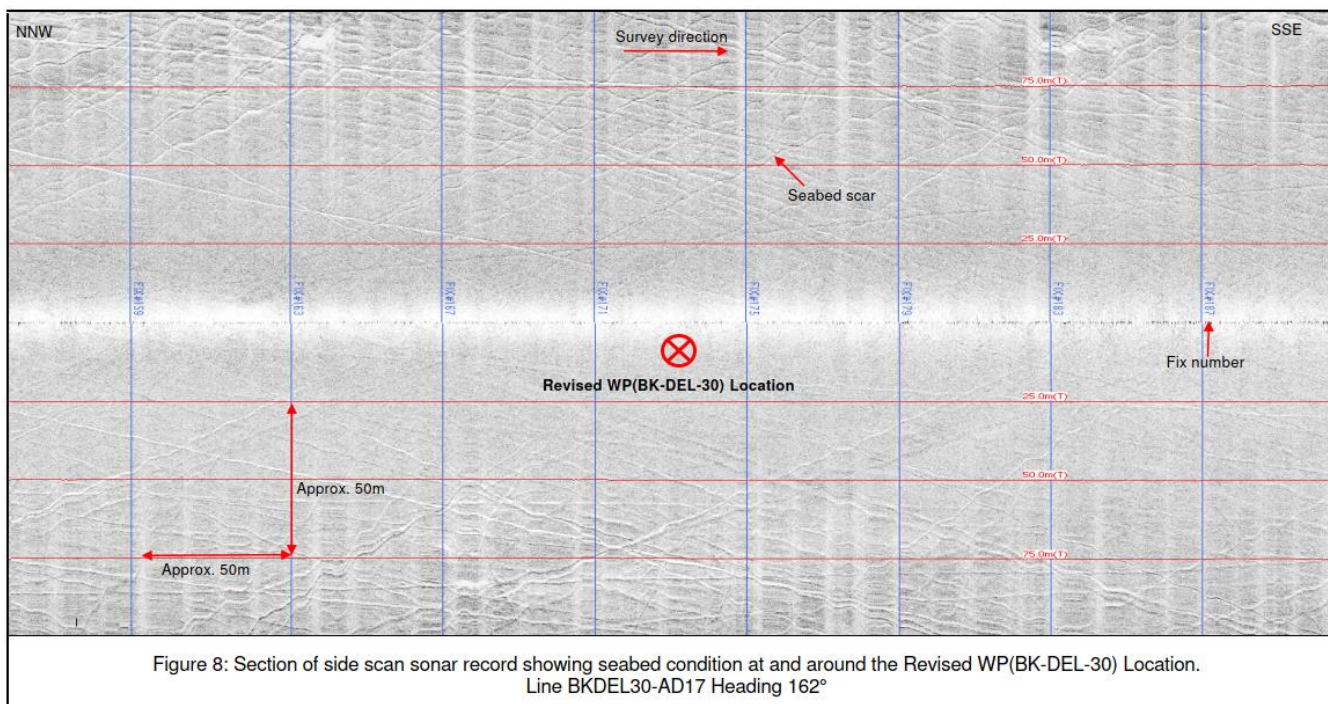
# WP46 PL

Four (4) items of sonar contact were identified and the nearest contact to the revised proposed route is SC07 at 8° 13' 08.730" N, 102° 17' 24.085" E (KP3.8) in 80m WD, with 30m offset to the south.

Existing Platform WP26 underwater jacket and leg were identified.



# WP47(DEL-30)



No seabed obstruction is observed in the vicinity of the Revised WP(BK-DEL-30) location.



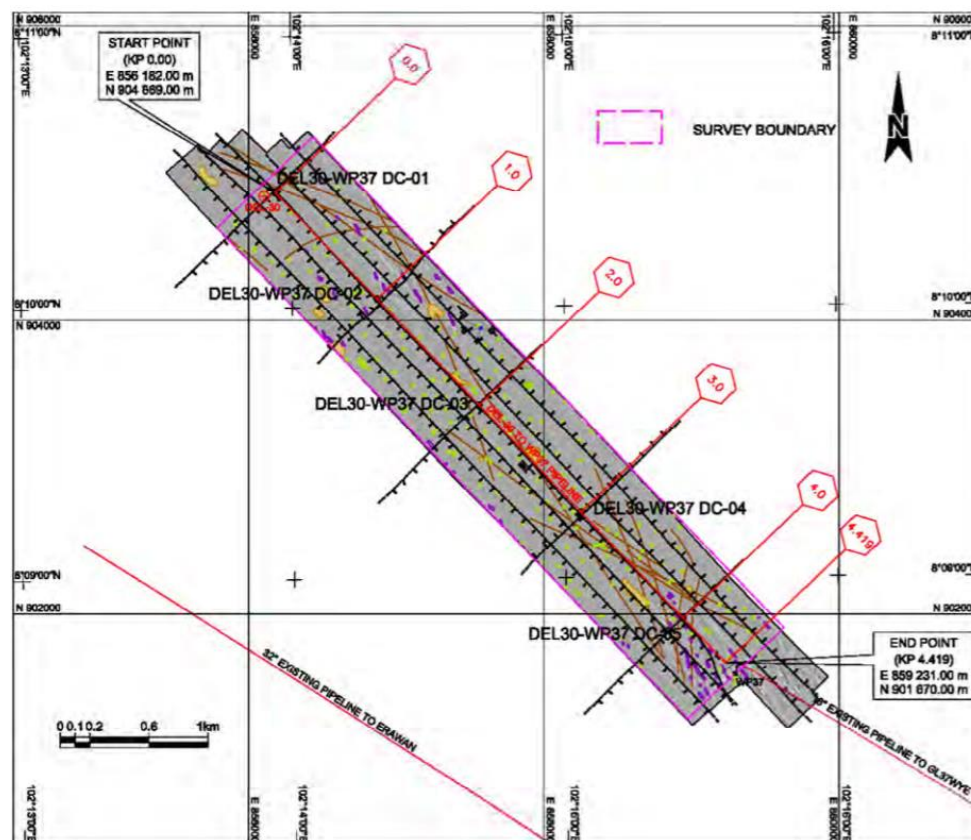
# WP47 PL

In this report a sonar contact is classified as a point feature that exhibits anomalously high reflectivity but has no measurable height (nmh). Debris is classified as a point feature that exhibits anomalously high reflectivity and has minimum height 0.1m.

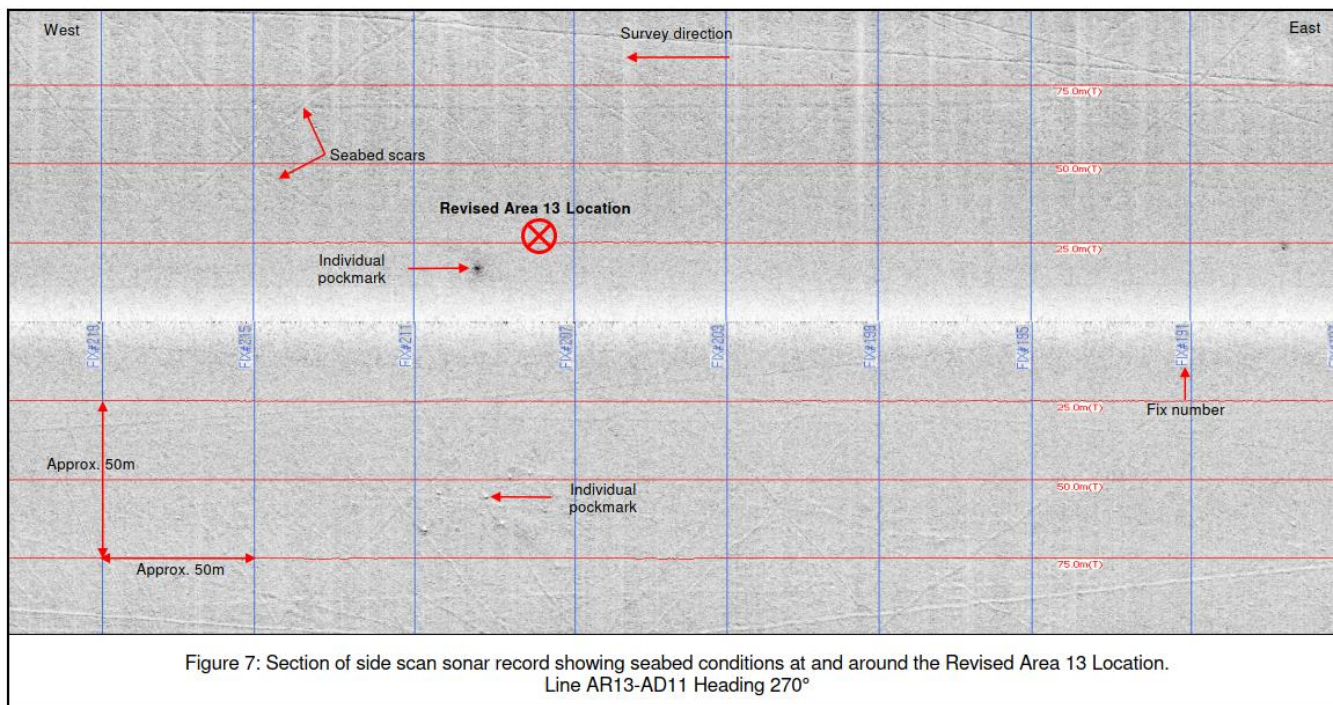
One (1) item of linear debris and four (4) items of debris were identified within the survey corridor. The linear debris DEL30\_WP37-SC01 is mapped within 50 metres corridor of the proposed pipeline route, 47m SW of KP 2.470. Details of the sonar contacts listed on the table below.

Contact Number	Easting	Northing	Dimension s (m)	KP	Offset	Description
			L x W x H			
DEL30_WP37-SC01	857851.	903048.	5.8x0.3x0.1	2.470	47m SW	Linear Debris
DEL30_WP37-SC02	857565.	903944.	2.7x1.5x0.4	1.624	364m NE	Debris
DEL30_WP37-SC03	857569.	903946.	2.8x1.6x0.3	1.625	368m NE	Debris
DEL30_WP37-SC04	857571.	903947.	1.5x1.5x0.2	1.626	370m NE	Debris
DEL30_WP37-SC05	857576.	903948.	1.7x1.0x0.2	1.629	374m NE	Debris

Table 4: Sonar Contact list within the proposed DEL30 to WP37 route



# WP48(AREA-13)



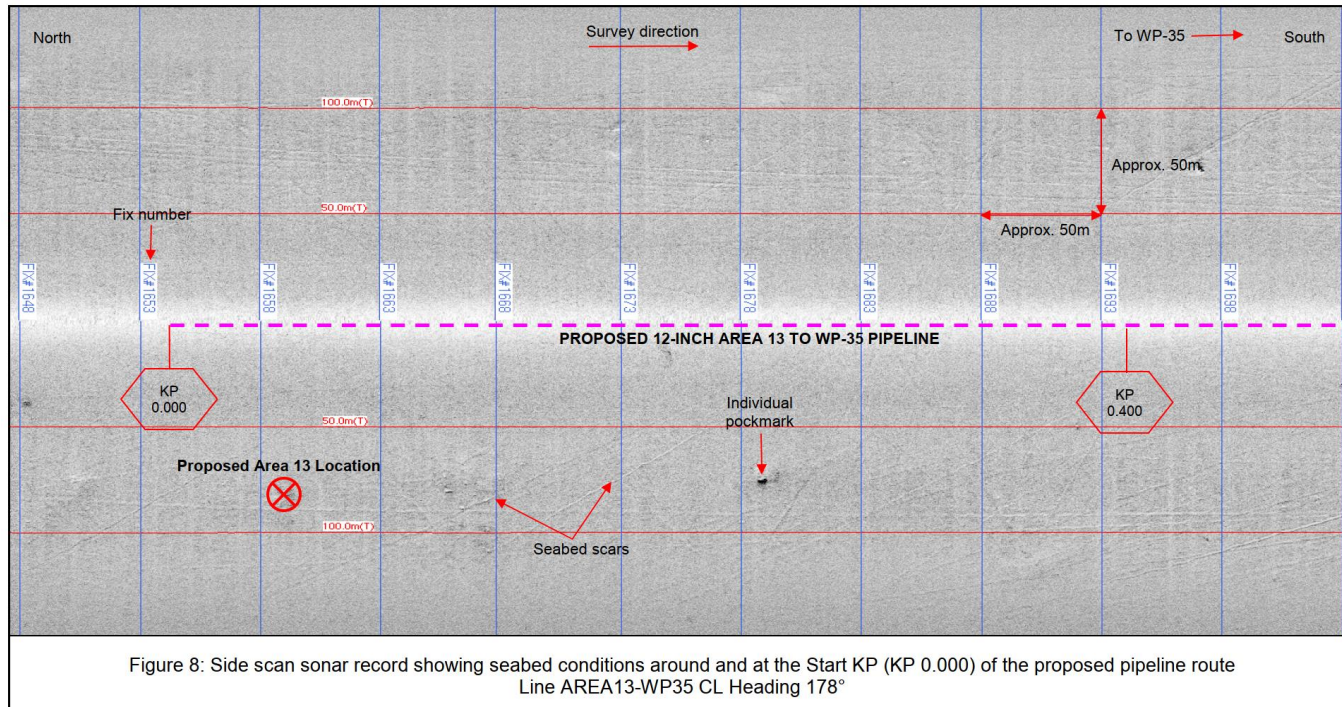
Details of this sonar contact are as below:

Sonar Contact	Dimensions, L x W x H in (m)	Nearest distance and direction from the Revised Area 13 Location
SC1	3.5 x 2.0 x 1.5	659m NNE

**This sonar contact should be considered during anchor planning/handling operations.**



# WP48 PL

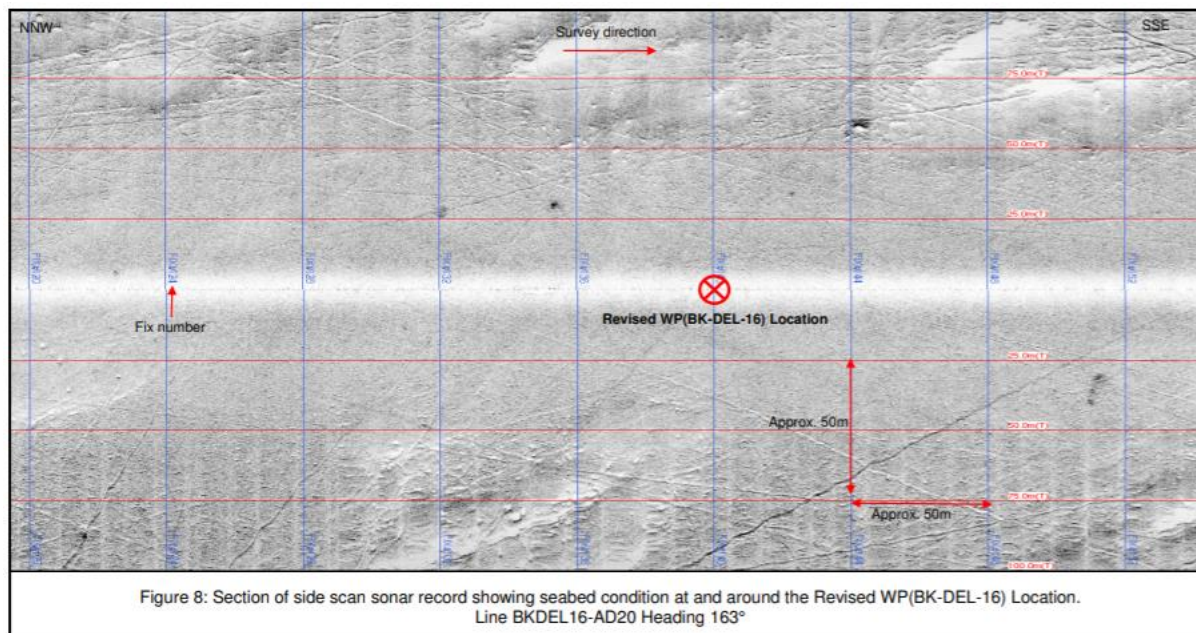


Two (2) patches of debris areas are observed within the survey corridor. These features are associated with fish trap/ fish attracting device locations.

The details of these debris areas are tabulated below:

ID	Dimension L x W (m)	Nearest distance to the proposed pipeline route
DP1	86 x 66	222m W of KP 1.535
DP2	14 x 12	365m W of KP 4.320

# WPS17(DEL-16)

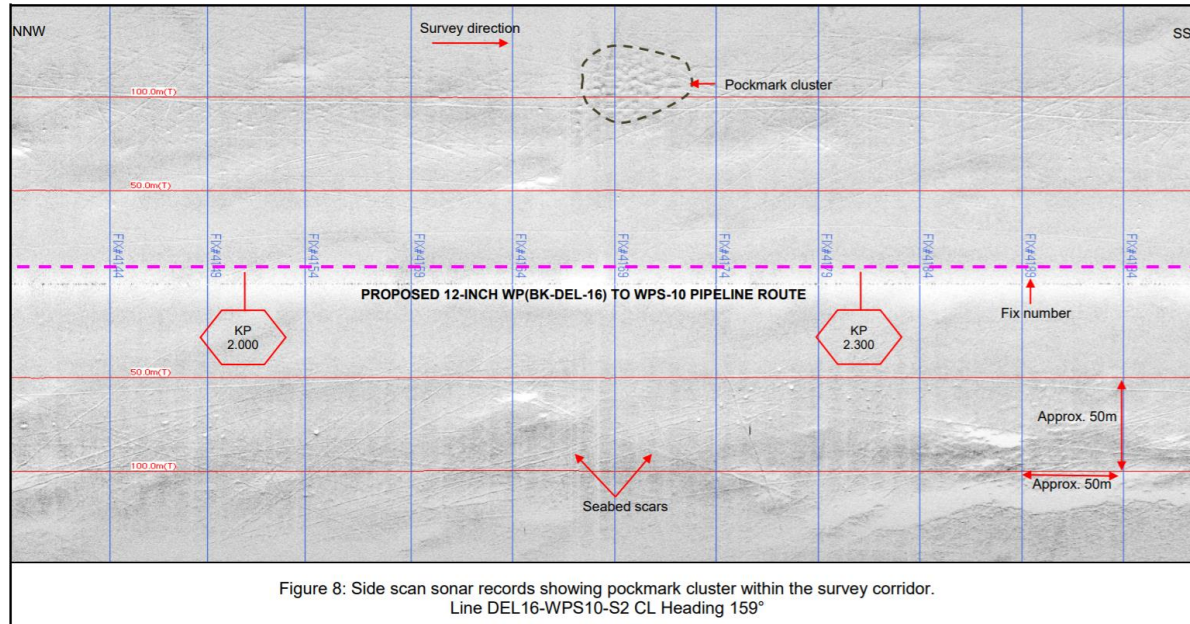


Seabed Feature	Dimensions (m)	Nearest distance and direction from the revised location
		WP(BK-DEL-16)
Sonar Contact, SC01	1.0 x 1.0 x nmh	205m W
Pockmark Cluster	85 x 45	452m SSW

\*nmh= non measurable height

No seabed obstruction is observed in the vicinity of the Revised WP(BK-DEL-16) Location.

# WPS17 PL



Two (2) patches of debris areas are observed within the survey corridor. These features are associated with fish trap/ fish attracting device locations.

The details of these debris areas are tabulated below:

ID	Dimension L x W (m)	Nearest distance to the proposed pipeline route
DP1	86 x 66	222m W of KP 1.535
DP2	14 x 12	365m W of KP 4.320



# Summary

No	Type	Location Name	General Measure – Exploration (Seabed Feature)	Exploration Drilling (Shallow Anomaly)	General Measure – Production (Seabed feature)
1	A/E Well	TMA-22A	No Debris observed within 200m from Site Center	No Intersection with Anomaly	-
2	A/E Well	TMA-29A	No Debris observed within 200m from Site Center	No Intersection with Anomaly	-
3	A/E Well	TMA-40A	No Debris observed within 200m from Site Center	No Intersection with Anomaly	-
4	A/E Well	TMK-04A	No Debris observed within 50m from Site Center	No Intersection with Anomaly	-
5	A/E Well	TMK-08A	No Debris observed within 200m from Site Center	No Intersection with Anomaly	-
6	A/E Well	CWT-12A	No Debris observed within 200m from Site Center	No Intersection with Anomaly	-
7	WHP/PL	WP46(NBE-N1), WP46 PL	-	-	No Debris observed within 50m from Site Center and 20m from pipeline Centerline
8	WHP/PL	WP47(DEL-30), WP47 PL	-	-	No Debris observed within 200m from Site Center and 20m from pipeline Centerline
9	WHP/PL	WP48(AREA-13), WP48 PL	-	-	No Debris observed within 200m from Site Center and 20m from pipeline Centerline
10	WHP/PL	WPS17(DEL-16), WPS17 PL	-	-	No Debris observed within 200m from Site Center and 20m from pipeline Centerline

## เอกสารแนบที่ 5

Contract SSHE Management Plan & Bridging Document  
of Provision of Offshore Jack-up Drilling Rig (SKALD)





PTT Exploration and Production Public Company Limited

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## **Contract SSHE Management Plan and Bridging Document**

**For Contract:**      **Contract No. THC20-5089**  
PROVISION OF OFFSHORE JACK-UP  
DRILLING RIG FOR BLOCK G1/61 AND  
G2/61 DRILLING CAMPAIGN 2021-2024  
(RIG SKALD)

**Contractor:**      **Borr Drilling (Borr)**

**Contract Mode:** 2

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**April 2021**

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## เอกสารแนบที่ 6

ตัวอย่างเอกสารการตรวจสอบแทนเจาะ  
(Statement of Fact, Commencement of Contract)

**STATEMENT OF FACT  
COMMENCEMENT OF CONTRACT**

**Rig Name:** SKALD

**Contract:** THC20-5089

**Acceptance Date:** 23 June 2021 @ 21:00

**Consumables Onboard**

Fuel	50	M3
Potable Water	250	M3
Drill Water	95	M3
Bulk Cement	NIL	Metric Ton
Bulk Barite	NIL	Metric Ton
Base Oil	NIL	M3

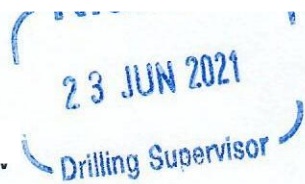
**Other:** .....

Borr Representative

Company Representative

Name:

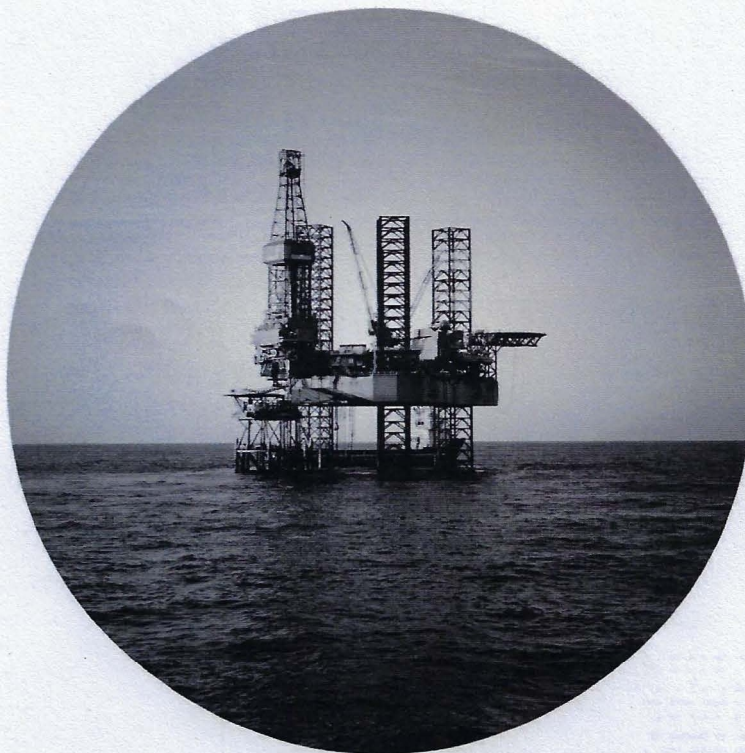
Name:





23 Jun 2021

## BORR DRILLING RIG "SKALD"



Certificate No. REP-CT-007

### OPS Oilfield Equipment & Services Ltd.



#### Certified Management Systems

Quality Management – ISO 9001:2015

Occupational Health & Safety Management – ISO 45001:2018

Environmental Management – ISO 14001:2015

No.: REP-CT-001		Revision: 01
Issue Date: 01 Oct 2020		Page 1 of 2
Author: Mike Gordon	Dept. Approval: Ole Siefert	QA Approval: Pimai
Date: 01 Oct 2020	Date: 01 Oct 2020	Date: 01 Oct 2020






## Project Details

<b>Client:</b>	PTTEP Energy Development Company Limited Thailand
<b>Client Project Title:</b>	1602 PTTEP ED BG2 – G2/61 “Rig SKALD: Inspection”
<b>Client Reference:</b>	3450028204
<b>Location:</b>	Bongkot Field Gulf of Thailand
<b>Rig Owner:</b>	Borr Drilling
<b>Rig Name</b>	Skald
<b>Rig Type</b>	Self-Elevating Mobile Offshore Drilling Unit
<b>Unit/Design/Shape</b>	Keppel FELS Super B Class Design / Triangular
<b>Flag</b>	Liberia
<b>Classification</b>	ABS A1, Self-Elevating Drilling Unit, ABS MODU 2014
<b>IMO Code Version</b>	MO MODU Code (2009)
<b>Year Constructed</b>	2018
<b>Construction Yard</b>	Keppel Fels Limited, Singapore
<b>Author:</b>	Mike Gordon

The Borr Drilling Jackup Drilling Rig “SKALD” is hereby accepted as being in compliance to the Contract NO. THC20-5089 between PTTEP and BORR SEA OPERATIONS INC. for the PROVISION OF OFFSHORE JACK-UP DRILLING RIG FOR BLOCK G1/61 AND G2/61 DRILLING CAMPAIGN 2021-20246 on 23 Jun 2021.

The Rig is in compliance to Applicable Laws (as defined in the Contract) the Skald Rig IADC Equipment List, Regulatory Body Rules / Regulations, OEM recommendations, Specifications, Standards and Publications.

All Critical items identified have been closed (reference the Corrective Action Report 23 Jun 2021).

Item	PTTEP THAILAND	OPS OES	BORR DRILLING
<b>Signature</b>			
<b>Name:</b>	Nithis Jamlongkaew	Mike Gordon	Jason Brown
<b>Title:</b>	Company Man	Surveyor	Rig Manager
<b>Date:</b>	23 Jun 2021	23 Jun 2021	23 Jun 2021





## COMPANY SSHE COMMENCEMENT CERTIFICATE

Contract Title:	Provision of Offshore Jack-Up Drilling Rig for G2/61 Asset (2021-2024)		
Contractor:	BORR SEA OPERATIONS INC.	Contract No:	THC20-5089
Sub-Contractors:			

**Note: Pls. put "N/A" with not concerned item and added the concern item in the table.**

Contract Plan Activity	Date Completed	Exceptions
Contract SSHE Management Plan Approved	6 May 2021	2021 OTF Contractor SSHE Plan Company: Borr Drilling
Contract Bridging Document Approved	7 Jun 2021	Contract SSHE Management Plan and Bridging Document
Post Award Meeting Held	17 Feb 2021	
Pre-Mobilization Audit Held	18 - 20 Jun 2021	Conducted by site PTTEP DSV and SSHE Supervisor at Rig SKALD
Kick-off Meeting Held	24 May 2021	Pre-spud meeting held with SSHE induction
Residential Camp Accepted	N/A	
Industrial Site Accepted	20 Jun 2021	Rig accepted date: 20 Jun 2021
Vehicle/Plant Accepted	2 Jun 2021	Helideck Landing Permit: 2 Jun 2021
Training Completed as per training matrix	Lastest update on 17 Jun 2021	100% annual medical check-up and sea survival. (referred SHV system)
Training Completed Required to attend within 2 months	15 - 21 Jun 2021	Start conduct PTTEP Safety Induction on 15 Jun 2021 by site SSHE supv
Essential Audit Items Completed	N/A	
Fitness to work approved by Company Medical Team	Medical certificates for all offshore workers are valid and approved by PTTEP Doctor	*Referred SHV system
Equipment, tools inspected and certified as company requirements. Equipment, tools provided are in good condition and comply with company standards	20 Jun 2021	Lifting gears & CCU verified by 3 <sup>rd</sup> parties
PPE provided are in good condition and complies to companies standards	20 Jun 2021	Provided PPR, safety devices.equipment including PPE for COVID19 situation, checked by contractor HSE manger and Rig Medic

**Notes:**

On behalf of the Contractor I confirm that the activities stated above have been carried out and we are capable of performing the work in a healthy, safe and environmentally responsible manner.

Name	Ref. Ind.	Responsibility	Signature
		Contractor	
We hereby agree that the SSHE status of this Contract allows work to proceed, subject to the above exceptions.			
22 JUN 2021		Responsibility	Signature
Drilling Supervisor		Company Site Representative	
		Contract Holder	



## เอกสารแนบที่ 7

ตัวอย่างแผนการดำเนินงาน และบันทึกเวลาการทำงานรายวันของแท่นเจาะ



Skald 5 day Lookahead - Predicted vs Actual Time



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Rig Name: Skald

Division: Eastern Hemisphere

Well Name: CWT 12A

## Well Data

Company:	PTTEP	Region:	Middle East and Asia	Latitude:	8° 6' 31.00"
Lease No.		Area:	Bongkot	Longitude:	102° 10' 57.00"
State:	in	ELFD:	05 Dec 2021	Days On Location/Platform:	38.71
Country:	Thailand	EWCD:	30 Nov 2021	Next Location:	TMK 08A

Contractor			Persons On Board	Contract	No. of Personnel	Operations Overview 24 Hrs. Summary: NPT Actual = 3hrs Main Well HT Jaw Misalignment, Pick up and RIH with 4" DP singles, Wash down and tag CMT. test casing ok. Status @ Midnight: Drill out cement & float collar. Operations Since Midnight: Continue to drill out float collar & cement to 4059m. circulate hole clean, displace Bop to sea water, remove Trip nipple. Day Plan: Make up & rack back spare bearing assy, Make up bearing assy & N/up MPD. perform fingerprinting, Drill out shoe, clean rat hole & 3m new formation, Circulate 7 condition, perform LOT drill 6 1/8" hole as per DD. Formation: MD: 4,066.0 Lithology: TVD: 2,753.2 Date Last BOP Pressure Test: 09 Nov 2021 Gas Data:
Position	Name	Days On Board	Borr Expat		5	
OIM	R. Boyle	19	Borr Nat		59	
Toolpusher Day	P. Thansuwan	28	Borr Personnel		0	
Toolpusher Nights	G. HAY	14	Borr Services		9	
Driller	D. SOPHONOW	14	Operator		4	
Driller	P. Temkantha	28	Operator Services		51	
Safety			Catering		8	
Last Safety Meeting			Others, if any		0	
Last Fire/Abandonment Drill			Total		136	
Last H2S Drill						
Days Since LTI Event						
Downtime						
Day		3.00				
Week		9.00				
Month		11.00				
Year		29.00				
Well		20.25				
Contract		29.00				

Day Breakdown						
	Day	Week	Month	Year	Well	Contract
100.0 % Repair 0 - 6hrs	0.00	4.00	6.00	20.75	12.00	20.75
100.0 % Full Operating	21.00	111.00	253.00	2959.00	842.00	2959.00
95.0 % Standby	0.00	0.00	0.00	128.50	0.00	128.50
95.0 % Rig Move	0.00	0.00	0.00	293.50	66.75	293.50
90.0 % Repair 6 - 24hrs	3.00	5.00	5.00	9.25	8.25	9.25
90.0 % Reduced Performance	0.00	0.00	0.00	0.00	0.00	0.00
80.0 % Repair 24-48hrs	0.00	0.00	0.00	0.00	0.00	0.00
0.0 % Repair >48hrs	0.00	0.00	0.00	0.00	0.00	0.00
0.0 % Zero Rate	0.00	0.00	0.00	48.00	0.00	48.00

Operating Parameters															
BHA Run #:	Bit Run #:	Depth (m)	Time:	Top Drive RPM (rpm)	Mud Motor Speed (rpm)	WOB (klbs)	Up Weight (klbs)	Down Weight (klbs)	Free Rot. Wgt. (klbs)	On/Off Bottom Torque (ft-lbs)	On/Off Bottom SPP (psi)	SPM (SPM)	Flow (L/min)	Formation	Drill Mode
		4,042	22:30			5	320	190	250	15	3,100		1,000		DRILL
		4,055	24:00							14	3,000				

Survey							
MD (m)	Deviation (°)	Horiz. Disp. (°)	TVD (m)	Vert. Sect. (m)	+N/-S (m)	+E/-W (m)	Direction (°)
3,936.69	60.13	273.82	2,688.54	2,295.32	695.72	-2,256.57	
3,965.52	60.21	273.63	2,702.88				
3,994.47	59.99	274.88	2,717.31				
4,023.45	59.96	273.24	2,731.81				
4,056.37	59.84	272.28	2,748.33	2,398.98	702.79	-2,359.99	

Mud							
MW:	10.70 ppg	WL:		Sand:		% Oil:	80.0 %
Vis:	52 s/qt	FC:	1 /32nd"	Solids:		LCM:	
Gels 10s/10m:	/19.00 22	PV:	23 23	Chloride (Cl):		pH:	
Mud Type:	Synthetic Oil Based	YP:	12 12				
MW:	10.70 ppg	WL:		Sand:		% Oil:	80.0 %
Vis:	51 s/qt	FC:	1 /32nd"	Solids:		LCM:	
Gels 10s/10m:	/20.00 22	PV:	24 24	Chloride (Cl):		pH:	
Mud Type:	Synthetic Oil Based	YP:	12 12				

Slow Circulating Rates							
Pump No.	Start Time	End Time	Depth	Mud Weight	Viscosity	SPM	Volume Flow Rate Out
1	16:00	21:00					224.53

Mechanical Equipment	
Equipment	Accumulated Hrs.
Swivel Packing	1,095.75



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Rig Name: Skald

Division: Eastern Hemisphere

Well Name: CWT 12A

**Mechanical Equipment**

Equipment	Accumulated Hrs.
IBOP Lower	1,103.25
IBOP Upper	1,103.25
Saver Sub (DP)	112.25

**Well Control Fluid Stock Tracking**

#	Stock Name	Unit	Starting Amount	Old Stock	Used	Loaded	Adjust	New Stock	Comment
1	ERIFON (Ltrs)	Ltrs		0.00	0.00	0.00	0.00	0.00	Koomey tank topped up with Erifon 1,600 Ltrs by mech 12-Oct-21 Due change out BOP form 13-5/8" to 26-3/4" 3,100 ltrs in tank. No Spare on deck Add Well Control Fluid Stock Tracking

**Casing Data**

Type	Size (OD)	Csg Top (m)	Csg Shoe (MD) (m)	Csg Shoe (TVD) (m)	Actual Weight (lbf/ft)	Grade	Burst (psi)
Surface Casing	20"	20.1	350.0	350.0	94.00		
Intermediate Casing	13 5/8"	18.2	1,300.7	1,300.7	68.00	N80	5,020.00
Intermediate Casing	9 5/8"	19.6	2,562.6	1,979.7	47.00	L80	6,870.00
Liner	7"	19.1	4,062.3	2,753.0	29.00	T-95	9,690.00

**LOT/FIT**

Test #	Test Type	Casing Size	Leak-Off Pressure (psi)	MAASP (psi)
3	Leak Off Test	7" 9 5/8"		928.00

**BHA**

BHA #:	6	Total Length:	314.96m	TOC:		Below Jars:	
BHA Type:	6.125 AGS STD_QBase	Corr Ring Installed?:		Buoyant Wt:	1klbs	Max Ov Pull:	
Total BHA Weight:	33klbs	Summary:					

**BHA Component**

No	Equipment	Length (m)	OD (in)	ID (in)	Description	Lower Thread	Upper Thread
1	Bit	0.18	6.25				
1	6 3/32" SMNB Stab	0.63	5.00	2.25		3-1/2" Reg.	3-1/2" Reg.
1	1' Extension Sub	0.30	5.00	2.25		HT38	HT38
1	6 1/8" Sperry-Sun AGS	3.20	6.13	1.00		HT38	HT38
1	X-Over Sub (P 4"HT38 x B	0.83	5.00	2.25		HT38	NC38 (3-1/2" IF)
1	Float Sub non-ported	0.59	5.00	2.25		NC38 (3-1/2" IF)	NC38 (3-1/2" IF)
1	4 3/4" Sub	0.89	5.00	1.40		NC38 (3-1/2" IF)	NC38 (3-1/2" IF)
1	4 3/4" Quasar Base +5 7/	8.13	4.75	2.25		NC38 (3-1/2" IF)	NC38 (3-1/2" IF)
1	Float sub ( Non Ported)	0.77	5.00	2.25		NC38 (3-1/2" IF)	NC38 (3-1/2" IF)
1	6" String Stabilizer	1.38	5.00	2.25		NC38 (3-1/2" IF)	HT38
1	PTT X-Over Sub (P 4"HT38	0.41	5.00	2.25	MT 39	HT38	
1	31x4" HWD (MT39)	297.65	5.00	2.56	MT39		

**Bit**

Bit #:	5	Size:	6 1/4"	Usage		Nozzles	
RR:	No	Date In:	10 Nov 2021 01:00	Rot. Hours:		#	Size
Make:	U516S	Date Out:		Total Hrs/Well:	0.00h	5	x 11/32nd"
Type:	PDC	Depth In:	4,066.0m	% Rot. :			

**Time Breakdown**

Date	Start	End	Hrs	Rate Code (%)	Comments
11 Nov 2021	00:00	00:45	0.75	100.0	<b>Programmed Event (P) - 5. Tripping - 5.3. Picking up Pipe - 5.3.1. Picking up Drill Pipe</b> Continue run in hole with 4" drill pipe single from deck from 1944 m. to 2014 m. Picking up 7 joints of 4" Drill Pipe
11 Nov 2021	00:45	01:15	0.50	90.0	<b>Unplanned Downtime (UT) - 15. Rig Downtime - 15.1. Repairing Equipment Failure</b> Whilst making up 4" drill pipe the main well HT showed a high pivot angle alarm which did not allow the operator move the HT from the cyber chair.
11 Nov 2021	01:15	01:45	0.50	100.0	<b>Programmed Event (P) - 5. Tripping - 5.3. Picking up Pipe - 5.3.1. Picking up Drill Pipe</b> The manual hydraulic override was activated on the HT and it was parked from the local control. During this time we continued to RIH at a reduced rate with manual tongs. Picking up 3 joints of 4" Drill Pipe



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Rig Name: Skald

Division: Eastern Hemisphere

Well Name: CWT 12A

## Time Breakdown

Date	Start	End	Hrs	Rate Code (%)	Comments
11 Nov 2021	01:45	04:15	2.50	90.0	<b>Unplanned Downtime (UT) - 15. Rig Downtime - 15.1. Repairing Equipment Failure</b> The RMS, Chief Mechanic and ET were called to the rig floor to troubleshoot the issue. At this time, they realigned the upper jaw and attempted to bring the pivot angle back within tolerance. It was observed that one of the pivot limit valves was stuck open which extended both torque wrench cylinders, forcing the torque beam back against the hard stops. The pivot limit valve was removed and freed up and put back in service. Once installed the pivot angle was brought back within tolerance and the Hydratong was put back into service.
11 Nov 2021	04:15	07:30	3.25	100.0	<b>Programmed Event (P) - 5. Tripping - 5.3. Picking up Pipe - 5.3.1. Picking up Drill Pipe</b> Continue run in hole with 4" drill pipe single from deck from 2042 m. to 2492 m. Picking up 47 joints of 4" Drill Pipe
11 Nov 2021	07:30	08:15	0.75	100.0	<b>Programmed Event (P) - 5. Tripping - 5.5. Other</b> Fill up string with 1.70 sg OBM, Test AGS with mud pump #1 and #2 1000 lpm. FG 3550 psi and UG 3150 psi.
11 Nov 2021	08:15	12:00	3.75	100.0	<b>Programmed Event (P) - 5. Tripping - 5.3. Picking up Pipe - 5.3.1. Picking up Drill Pipe</b> Continue run in hole with 4" drill pipe single from deck from 2492 m. to 3171 m. Perform trip drills crew install T.I.W valve 40 sec well secure. Picking up 71 joints of 4" Drill Pipe
11 Nov 2021	12:00	13:30	1.50	100.0	<b>Programmed Event (P) - 5. Tripping - 5.3. Picking up Pipe - 5.3.1. Picking up Drill Pipe</b> PJSM with crew. Tripping operations. Pick up singles of 4" DP from 3171m to 3465m. Perform trip drill at 3381m. Annulus at SOV is 30 BAR. Picking up 31 joints of 4" Drill Pipe
11 Nov 2021	13:30	14:45	1.25	100.0	<b>Programmed Event (P) - 4. Condition mud &amp; circulating - 4.1. Circulate hole</b> At 3465m, noticed that the string was taking excess drag. Make up TDS, break circulation. Circulate and condition mud. 830 LPM, 4300 PSI. Circulate hole between 3,465 m to 3,465 m, 830 L/min , 4,300 psi spp, 0 rpm , 0 ft-lbs TQ
11 Nov 2021	14:45	17:30	2.75	100.0	<b>Programmed Event (P) - 5. Tripping - 5.3. Picking up Pipe - 5.3.1. Picking up Drill Pipe</b> Run in hole with 4" DP singles from 3465m to 3920m. Make up TDX every 100m and break circulation with 1.29 SG. Picking up 48 joints of 4" Drill Pipe
11 Nov 2021	17:30	18:45	1.25	100.0	<b>Programmed Event (P) - 4. Condition mud &amp; circulating - 4.10. Other</b> At 3920m to 3990m wash down singles of 4" DP. 45 SPM, 4000 PSI. Circulate between 3,920 m to 3,990 m, 830 L/min , 4,000 psi spp, 0 rpm , 0 ft-lbs TQ
11 Nov 2021	18:45	19:15	0.50	100.0	<b>Programmed Event (P) - 4. Condition mud &amp; circulating - 4.10. Other</b> Wash down stands of 4" DP from 3990m to 4042m. Tag TOC at 4042m with 10K. 560 LPM, 3000 PSI. Circulate between 3,990 m to 4,042 m, 560 L/min , 3,000 psi spp, 0 rpm , 0 ft-lbs TQ
11 Nov 2021	19:15	20:30	1.25	100.0	<b>Programmed Event (P) - 4. Condition mud &amp; circulating - 4.1. Circulate hole</b> Circulate until MW in and out is 1.29 SG. 4042m. 1000 LPM, 3700 PSI, 40 RPM. Meanwhile, offline make up 1 stand of 4" DP from deck and rack into derrick. Circulate hole between 4,042 m to 4,030 m, 1,000 L/min , 3,700 psi spp, 40 rpm , 14 ft-lbs TQ
11 Nov 2021	20:30	21:00	0.50	100.0	<b>Programmed Event (P) - 8. Well Control - 8.13. Other</b> Perform choke drill with crew. Pressure up well with annular closed. 400 PSI. Bring pump rate up to 20 SPM kill rate and back down keeping BHP constant. Bleed off and open well.
11 Nov 2021	21:00	22:30	1.50	100.0	<b>Programmed Event (P) - 9. Pressure Test Hole - 9.3. Pressure Test Casing</b> Line up to cement unit. Flush lines to annulus and to string. Pressure test casing with MPR close. 4400 PSI. Bleed off and open well. Pressure Test 7" Casing to 4,400.00 psi
11 Nov 2021	22:30	24:00	1.50	100.0	<b>Programmed Event (P) - 2. Drilling - 2.3. Clean Out Shoe Track</b> Drill out cement in shoe track from 4042m to 4055m as instructed by DD. Clean Out Shoe Track from 4,042 m to 4,055 m with 80 rpm & 1,000 L/min , 3,100 psi spp on btm, 3,000 psi off btm, 5 klbs WOB, 6 1/8" OD hole, 320 klbs Up Wht, 190 klbs dwn Wht , 250 klbs Free Rot Wht, 15 ft-lbs on btm TQ, 14 ft-lbs off btm TQ





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Rig Name: Skald

Division: Eastern Hemisphere

Well Name: CWT 12A

## Weather (Current/2400/Max)

Time	18:00	Forecast	MODERATE-HIGH risk of squalls to 30kt or more in heavy showers/ thunderstorms tonight -12th. Squalls lasting for periods up to 20-30 minutes with onset gusts to 35-40kt and temporarily raised seas expected.		Weather Comment	A high pressure ridge lies over northern Indochina and the northern South China Sea. A trough from the southern Malay Peninsula to the Natuna Sea / southern South China Sea deepening and moving north over the Gulf of Thailand tonight / tomorrow. An embedded low-pressure circulation over the Natuna Sea is expected to move WNW-NNW and cross the southern Gulf of Thailand by tomorrow - 12th. There is a LOW risk that this low will develop into a tropical disturbance / weak tropical depression by tomorrow - 12th. HIMARWARI-			
<u>Air</u>		<u>Sea</u>		<u>Combined Sea Sig.</u>		<u>Combined Sea Max.</u>		<u>Wind</u>	
Temp. (°C)	25.00/29.00/-	Visibility (NM)	8.00/10.00/-	Period (s)	6.00/6.00/6.00	Period (s)	6.00/6.00/6.00	Speed (kn)	9/11/17
Barometer (hPa)	1,007.00/ 1,013.00/-	Temp. (°C)	25.0/29.0/-	Height (m)	1.4/1.8/2.6	Height (m)	1.4/1.8/2.6	Direction (°)	70/70/70
				Direction (°)	50/50/50	Direction (°)	50/50/50		

## Drill Line

Size (in)	Lines Cut Length (m)	Last Cut Date	Wear/Trips Since Last Cut	Ton Miles	Accum. Ton Miles
2.00	39.60	20 Oct 2021	4,401.00	538.00	22,479.00

## Marine

Standby Vessel:	Draft:	Jackup
Water Depth: 69.60m	Max VDL: 4,399.8	POW Aft Transom:
Air Gap: 10.0m	Curr VDL: 3,379.0MT	POW Off Center Line:
RT to MSL: 101.7 ft	GM:	
RT - Hanger: 20.1 m	Allowable GM:	
Trim:	Margin: 1,020.8MT	
	Bow Heading: 182°	
	List:	

Seq	Support Type	Initial Penetration (ft)	Initial Penetration (ft)	Final Penetration (ft)	Weight On Leg (MT)
	Bow Leg	52.2		98.8	
	Aft Port Leg	41.6		93.2	
	Aft Starboard Leg	59.4		96.7	

## Capacities

	Unit	Old St.	Loaded	Used	New St.
Cement(mt)	mt	170.00	0.00	0.00	170.00
drill water(m3)	m3	298.00	0.00	0.00	298.00
Base oil(bbl)	bbl	633.00	0.00	0.00	633.00
Barite(mt)	mt	227.00	0.00	0.00	227.00
fuel(m3)	m3	419.00	0.00	12.00	407.00
pot water(m3)	m3	288.00	50.00	-50.00	388.00

## Consumables

	Full	Empty	In Use
ACYTALINE(BOTTLE)	3	0	1
OXYGEN(BOTTLE)	12	7	1

## Drill String Inventory

Tubular	Size	Weight (lbs/ft)	Grade	Conn	On Rig	In Hole	Shore Base	Total	Comment
HWDP	4"	26.00	S-135	MT-39	66	0	0	66	PTTEP rental 4" HWDP sent in 33 joints to town for inspection. 30-9-21. Received 33 joint from town on 26-oct-21.
Drill Pipe	4"	14.00	S-135	MT-39	578		267	845	PTTEP rental 4" Dp pipe sent to town 270 joints for inspection 30-9-21. Received 360 joint from town on 26-Oct-21.
Drill Pipe	5"	19.50	S-135	NC-50	101	342	78	521	New Pipe loaded on rig in Singapore 521 joints 24-05-2021 Back loaded 200 joints to Songkla 20-6-21 Received 50 joints back from boat 24-6-21 Backload 208 jts 20.07.21 Received 280 joints from Town 07-10-21
HWDP	5"	54.46	S-135	NC-50	11	29	0	40	
Drill Collar	6 1/2"	91.58		NC-50	4	0	6	10	Backload 6 x jts 6 1/2" DC to town.10-July-2021 2100953, 2100949 ,2100979 ,2100977 , 2100972 .2100978

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**Rig Name:** Skald**Division:** Eastern Hemisphere**Well Name:** CWT 12A**Drill String Inventory**

Tubular	Size	Weight (lbs/ft)	Grade	Conn	On Rig	In Hole	Shore Base	Total	Comment
Drill Collar	8"	135.73		6 5/8R	0	0	16	16	BACK LOAD 10 x jts 8"DC to Town10-July-2021 S/N. 2100992, 2100993, 2101005, 2101007, 2101008, 2101009, 2101010, 2101013, 2101014 & 2101015. 6 X 8" DCS ON BOARD 29-9-21 Offload 6 x jts 8"DC 01.10.21

**Remarks**

Creator Rig Maintenance Supervisor Skald

Electrical --

- Check, inspect and clean the remote for Hydratong
- Replaced air filter for Mudlab.
- Check catwalk podium, Profibus cable and junction box on rigfloor.
- Start work for relocate the jacking consolette at bow leg.
- Lighting jobs in engine room.
- Droptools inspection.

Mechanical --

- HydraTong Pivot tilt did not came back to center, checked, and found a directional seat valve did not fully closed, serviced to restore operation
- HT well center: Replaced die.
- Main engine #1: Carried out 1000 hrs. pm
- IDS report.
- Jacking leg PM
- oil Inventory.
- Cleaning engine room.

ET --

- Fire System testing
- Assist with HT troubleshooting during early morning
- House keeping
- Following up on mails

Creator Barge Engineer Skald

- Pick up 4" DP
- Offload food containers from Bathera Mulia
- Deck management.
- Support Drilling operation.

## เอกสารแนบที่ 8

General Marine Instructions For Great Navamindra Field



**PTT Exploration and Production Public Company Limited**

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**GENERAL MARINE INSTRUCTIONS  
FOR GREAT NAVAMINDRA FIELD**

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**Document Code: 10009-OLG-WIS-4101**

**Revision: 01**

**12<sup>th</sup> March 2020**



Approval Register				
<b>Document Title:</b>	General Marine Instructions for Great Navamindra Field			
<b>Document Code:</b>	10009-OLG-WIS-4101			
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<b>Prepared By:</b>	GMC			12/03/2020
<b>Technical Review:</b>	PBN/F			14/03/2020
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Document Revision History			
Rev.	Description of Revision	Revised by	Date
00	Original version based on Company's Documentation Management Standards e.g. SSHE Documentation Management Standard, CMS Authoritative Document Standard and PTTEP Documentation Management Policy	Wanit S , OLG/O	31/08/2015
01	<p>Additional:-</p> <p><b>6.6.3</b> Instruction to Marine Vessel Navigation in PTTEP Restricted Area</p> <p><b>6.6.4</b> Approaching to Installations</p> <p><b>6.6.5</b> Standing Order For Marine Vessel Operations: 500m Safety Zone</p> <p><b>8.17.12</b> Instruction to Crew Boat tie up with platform for MGO / Fresh water transfer</p> <p><b>9.5.2</b> INFORMATION REQUIRED BY THE CONTROLLING AUTHORITY,</p> <p><b>Topic 4) &amp; 5)</b> Jack up rig approaching and leaving</p>	GMC	12/03/2020

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## **1.0 PURPOSE**

This Booklet is intended to acquaint OPERATORS and MASTERS of vessels engaged in operations within the RESTRICTED AREA to comply with COMPANY's safety and operational requirements.

In this instruction, "COMPANY" will refer to PTTEP.

Every effort has been made to ensure that all information given in this GENERAL MARINE INSTRUCTIONS are accurate at the date of issue, but it is not guaranteed in any way to replace other official publications relating to the RESTRICTED AREA. The COMPANY does not accept any responsibility for any error, omission, or for the consequences of using it for any purpose whatsoever. Masters of any VESSELS and/or of any type are; obviously, free to ask for any clarification on any subject mentioned in this document.

The COMPANY will periodically update the information given in these GENERAL MARINE INSTRUCTIONS.

## **2.0 INTRODUCTION**

### **2.1 DEFINITIONS**

#### **APPROVAL:**

Means written approval granted by the CONTROLLING AUTHORITY or its duly appointed deputy thereof (within the relevant delegation); APPROVE and APPROVED shall be construed accordingly.

#### **AREA:**

Any of the AREAS as defined in 2.1

Within the AREAS, the COMPANY is empowered to put in force REGULATIONS, in order to protect its interest without interfering with International or National Regulations, within the limitations described here after (See 2.5.).

See map in Appendix 4.

#### **ARTHIT CENTRAL COMPLEX:**

Means the group of platforms AQP/APP/AWP1, linked together by bridges.

#### **AUTHORITY:**

Means people in charge or in command of any VESSEL, and/or any OFF-SHORE SPREAD, and/or any OFF-SHORE WORKS.

#### **BARGE:**

Means any floating marine equipment that may, due to any circumstance, enter the RESTRICTED AREA. This may especially include, but not be limited to, non-propelled VESSEL, such as self-elevating platforms, semi-submersible units, mobile units and barges of any kind.

#### **BONGKOT NORTH CENTRAL COMPLEX:**

Means the group of platforms BQP/PP/WP1/RP/FP/SPP, linked together by bridges.

#### **BONGKOT SOUTH CENTRAL COMPLEX:**

Means the group of platforms QPS/PPS/WPS1, linked together by bridges.

**COMPANY:**

Means PTT Exploration and Production Public Company Limited

**COMPANY's REPRESENTATIVE:**

Means any person appointed by the COMPANY to represent their interests during the execution of a defined piece of work.

**COMPANY's MARINE REPRESENTATIVE:**

Means any person appointed by the CONTROLLING AUTHORITY, to represent the interests of the COMPANY during the execution of MARINE OPERATIONS.

**CONTRACTOR:**

Means a PARTY that provides goods and/or service to COMPANY. It shall include any and all SUBCONTRACTORS of every tier utilized by CONTRACTOR for the performance of the service

**CONTRACTOR's REPRESENTATIVE:**

Means any person appointed by the CONTRACTOR to represent their interests during the execution of a defined piece of work.

**CONTROLLING AUTHORITY:**

Means the “**GREAT NAVAMINDRA MARINE CONTROL**” (**GMC**) who is delegated and work on behalf of ARTHIT, BONGKOT NORTH and BONGKOT SOUTH FIELD MANAGER to exercise the authority as specified in GMI.

The Head of **GREAT NAVAMINDRA MARINE CONTROL** is based on the BONGKOT NORTH CENTRAL COMPLEX

Phone - (662) 537 4000 ext 8107204

Fax - (662) 537 7299

VHF CH : 06

E-Mail: Bongkot.LogMar-Supt@pttep.com

**ENTRY PERMIT**

Means a granted authorization following the procedure described in Chapter 5.5 (CONDITIONS FOR ENTRY INTO RESTRICTED AREA), to come into the RESTRICTED AREA. The ENTRY PERMIT is solely granted by the CONTROLLING AUTHORITY or its Deputy.

**FIELD MANAGER**

Field a person who is appointed by Company to act as the MANAGER of ARTHIT, BONGKOT NORTH and BONGKOT SOUTH field. He has ultimate authority over the restricted Area.

**FSO**

FSO is the acronym for Floating storage and Offloading Unit

## **GMI**

GMI is the acronym for GENERAL MARINE INSTRUCTIONS.

## **GREAT NAVAMINDRA AREA:**

Means the Concession area granted by Thai Authority to the Company for its offshore petroleum Exploration and Production activities (See Field Map in Appendix 4) which cover ARTHIT, BONGKOT NORTH and BONGKOT SOUTH field area.

**NON-ROUTINE LIFT:** (Refer to Lifting operation safety procedure; 12148-PDR-SSHE-505/01-R01)

Means Lifts that cannot be defined as routine lifts.

**NON ROUTINE CRITICAL LIFT** (Refer to Lifting operation safety procedure; 12148-PDR-SSHE-505/01-R01)

Means A Lift that has been identified as : a blind, complicated or complex lift; a heavy lift; a lift involving man riding work baskets; Non-Routine Critical Lift will always require additional supervision by the Work Team Leader who will write the JSA and procedure the Critical or Non-Routine the Critical or Non-Routine Lift Plan

## **OFF-SHORE WORKS**

Means any work which is not purely marine operations.

## **OFF-SHORE SPREAD**

Means the task force of associated VESSELS involved in OFF-SHORE WORKS.

## **OIM:**

Means Off-Shore Installation Manager who is in charge of Off-Shore spread and/or Off-Shore work.

## **POSITION:**

All positions given through the GMI are given in WGS 84 and/or the TRUE INDIAN 1975 (RTSD 181) Datum.

## **REGULATIONS:**

Means corpus of written Rules, Procedures and Recommendations set-up by the COMPANY and/or CONTRACTOR coming into any AREA within the RESTRICTED AREA for OFF-SHORE WORKS, in order to save their own interest.

The COMPANY's REGULATIONS supersede the CONTRACTOR's REGULATIONS in case of dispute and/or disagreement.

## **RESTRICTED AREA:**

Means the area shown on the marine charts as agreed by Thai Authorities, and granted to the COMPANY for its off-shore activities. (See map in Appendix 4).

## **SAFETY AREA:**

Means an area, defined by the OIM in charge of OFF-SHORE SPREAD and/or OFF-SHORE WORKS. This SAFETY AREA within the RESTRICTED AREA, is controlled by the OIM and/or CONTROLLING AUTHORITY.

The boundaries of the **SAFETY AREA** as defined by International Recommendations **ARE 500 METERS AROUND THE OFF-SHORE SPREAD**, but these boundaries may be

extended by the OIM in command considering the nature of the OFF-SHORE WORKS in progress. These new boundaries must be approved by the CONTROLLING AUTHORITY. The OIM in charge of his SAFETY AREA is responsible to comply with COMPANY's and/or CONTRACTOR REGULATIONS in force.

**VESSEL:**

Means any floating marine equipment that may, due to any circumstance, enter the RESTRICTED AREA. This may include, but not be limited to, ships, boats, self-elevating platforms, semi-submersible units, mobile units and barges of any kind.

**VHF WORKING CHANNEL:**

Means the Dedicated VHF Channel for MARINE COMMUNICATION and / or calling field radio station when the vessel operating within the restricted area of each field.

ARTHIT FIELD: VHF Channel 08

BONGKOT NORTH FIELD: VHF Channel 06

BONGKOT SOUTH FIELD: VHF Channel 09

**2.2 CONTROLLING AUTHORITY****2.2.1 AUTHORITY**

The CONTROLLING AUTHORITY has such authority vested in it by virtue of the Navigation Law in Thai Waters.

All matters relating to MARINE OPERATIONS inside RESTRICTED AREAS must be addressed to the GREAT NAVAMINDRA MARINE CONTROL unless specifically stated otherwise herein.

**2.2.2 CONTROLLING AUTHORITY POWER**

The CONTROLLING AUTHORITY is vested with authority to implement international, national, or COMPANY's REGULATIONS within the limits of the RESTRICTED AREA. More particularly, he is responsible for the implementation of the Navigation Law in Thai Waters and its appendixes, and also for the implementation of these "GENERAL MARINE INSTRUCTIONS". Consequently, it has full power to take any action: For reasons of safety, or because of non-adherence to COMPANY's REGULATIONS, or for COMPANY's logistical reasons, or for any other reason when work and/or marine activities in progress are not considered to be in accordance with good marine practice, then the CONTROLLING AUTHORITY has the right:

- To withdraw the permission granted to any or all VESSELS to move within the RESTRICTED AREA.
- To instruct any or all VESSELS and/or non-self-propelled VESSELS within the RESTRICTED AREA.

**2.3 DISTRIBUTION PROCEDURE**

At no time may the holder of this GENERAL MARINE INSTRUCTIONS Manual allow any part of it to be duplicated without the CONTROLLING AUTHORITY's APPROVAL.

All VESSELS working into AREAS will have to be provided with a copy of this GENERAL MARINE INSTRUCTIONS Manual. The dispatching of this manual will be as follows:

- a) COMPANY: A copy will be directly handed over to the CONTRACTOR by the COMPANY's Department in charge of the OFF-SHORE WORKS. This delivery will be checked through the ENTRY PERMIT Procedure, under the responsibility of the CONTROLLING AUTHORITY.
- b) OFF-SHORE WORKS: The engineer in charge will be provided with the necessary number of copies and it will be his responsibility to dispatch them to the concerned VESSELS and CONTRACTOR's REPRESENTATIVES. These copies will be returned to the CONTROLLING AUTHORITY after completion of the job and clearing of the area.
- c) CONTRACTOR: The marine service department of contracting companies which may be involved in operations within the RESTRICTED AREA shall be forwarded with one copy. Additional copies are available on request and should be returned after completion of operation. It is the CONTRACTOR's responsibility to ensure that copies of the manual, plus all relevant large scale plans and charts are on board of the VESSELS under their control and brought to the attention of the Masters. All copies remain the property of the COMPANY and will be returned to the CONTROLLING AUTHORITY after completion of the work.

## **2.4 PROCEDURE FOR AMENDMENT AND ADDITION**

In order to ensure that this GENERAL MARINE INSTRUCTIONS Manual is kept up to date, amendments, additions and/or corrections will be issued when necessary by the CONTROLLING AUTHORITY.

It is the responsibility of each holder to keep his copy up to date.

Each up-dating will be identified with number and date. It must be recorded in the GENERAL MARINE INSTRUCTIONS Manual on the special sheet provided to that effect (See Appendix 7).

Two kinds of up-dating will be applied:

- a) Hand corrections: for minor alterations
- b) Cancelling, addition and renewal of page(s): for major alterations. This will be explained for each operation.

## **2.5 PRECEDENT**

These GENERAL MARINE INSTRUCTIONS are not intended to limit or override the responsibility of Masters of VESSELS. Nor are they intended to conflict with established standards of good marine practice. Nor are they intended to cancel or overrule instructions issued by any Governmental or other Superior Authority. In the case of contradiction within these GENERAL MARINE INSTRUCTIONS or between these GENERAL MARINE INSTRUCTIONS and other relevant documents the more stringent case should be applied until clarification is given by the CONTROLLING AUTHORITY. The overriding criteria for operations with respect to these GENERAL MARINE INSTRUCTIONS are the safety of Personnel and Property.



### 3.0 PREAMBLE

#### 3.1 PRESENTATION OF DOCUMENT

Due to the presence of pipelines and other underwater appurtenances within the RESTRICTED AREA it is necessary to ensure close control over marine operations in the vicinity of such installations. This GENERAL MARINE INSTRUCTIONS Manual has therefore been written for :

- a) CONTRACTORS and Masters of all VESSELS operating in AREAS
- b) COMPANY REPRESENTATIVES on board VESSELS working in AREAS.

More generally, these GENERAL MARINE INSTRUCTIONS are addressed to all personnel responsible for performing or supervising any MARINE OPERATIONS being carried out in AREAS, notwithstanding their connection either to COMPANY or to CONTRACTOR. The contents follow these principles: The description of GREAT NAVAMINDRA FIELD is, giving limits, obstructions, etc :

- c) Constraints and procedures for OFF-SHORE WORKS are defined, whether they are external or internal to the COMPANY.
- d) Constraints and procedures for specific types of VESSELS are defined, whether they are external or internal to the COMPANY.
- e) Safety, cleanliness and pollution guidelines are defined.
- f) Appendices are finally attached for better understanding or easy access to basic information.

#### 3.2 AIM OF DOCUMENT

The reason for these GENERAL MARINE INSTRUCTIONS is firstly to give as much information as necessary to personnel dealing with marine operations and secondly to eliminate the possibility of an incident that may risk lives and cause damage to jackets, pipelines, etc... . Consequently to eliminate risks of important financial losses resulting from above damages by the implementation of rules herein contained.

#### 3.3 LIMITS OF DOCUMENT

These GENERAL MARINE INSTRUCTIONS do not concern any **Hydrocarbon Liquid** loading Terminal operations. Procedures and informations will be found in the Terminal Information Booklet. This booklet can be obtained from the GREAT NAVAMINDRA MARINE CONTROL. Safety and antipollution topics are included for some particular points which are purely marine.

## 4.0 FIELD INFORMATION

### 4.1 LOCATION AND ENVIRONMENT

#### 4.1.1 GEOGRAPHY

The RESTRICTED AREA is located at the inlet of the Gulf of THAILAND, approximately 650 km South of BANGKOK, and 220 km North-East from the coastal base of SONGKHLA.

Water depth is in the range from 60 to 80 meters. The level of reference of water depths and tides is taken at Chart Datum.

Chart Datum (C.D.) = Lowest Astronomical Tide (L.A.T.)

L.A.T. = Means Sea Level (M.S.L.) - 0.269 m (according report from RACAL SURVEY Nr TT-009) and RACAL Tidal Harmonic Analysis Report Nr TT-011.

#### 4.1.2 WINDS AND WAVES

Prevailing winds are subject to the regime of the Monsoons, generally blowing:

- from the North-East during from November to January, and
- from the South-West from May to September.

	Monsoon	Typhoon
1 minute mean	18 m/s	42 m/s
3 seconds gust	21 m/s	49 m/s

The above values are given at 20 m above the chart datum.

	1 year Monsoon	100 years Typhoon
Maximum height	6.00 m	12.04 m
Period of maximum wave	9 s	10 s
Maximum crest elevation	3.23 m	6.77 m

#### 4.1.3 Tide and currents

Lowest Astronomical Tide	= 0.00 m	(L.A.T.) ref. level
Mean Low Water	= + 0.21 m	(M.L.W.)
Mean High Water	= + 0.70 m	(M.H.W.)
Highest Astronomical Tide	= + 0.95 m	(H.A.T.)
Storm surge (100 years)	= + 0.60 m	

There is no dominant current system. Most of the drift experienced at any given time is tidal in nature. Surface currents are generally of the order of 1 or 2 knots or less and the maximum surface current has not been known to be exceeding 3 knots in the area. However, the speed and profile of combined current are as follows:

% of water depth	1 year velocity m/s	100 year velocity m/s
00	0.60	1.17
10	0.46	0.84
20	0.35	0.62
30	0.28	0.46
40	0.24	0.36
50	0.20	0.28
60	0.18	0.23
70	0.16	0.19
80	0.14	0.17
90	0.12	0.14
100	0.09	0.10

#### 4.1.4 Seabed

Seabed is generally composed of a soft layer of soft clay becoming firmer with depth. Its thickness varies from 1 to 4 meters.

## 4.2 FIELD LIMITS

Throughout this document, whenever the area is called RESTRICTED AREA, it is the AREA shown on the marine charts, and granted by THAI AUTHORITIES.

Field Limit or RESTRICTED AREA is shown in Appendix 4.

It is strictly forbidden to steam through the RESTRICTED AREA without clearance given by CONTROLLING AUTHORITY and/or GREAT NAVAMINDRA MARINE CONTROL. This area includes the ARTHIT, BONGKOT NORTH AND BONGKOT SOUTH CENTRAL COMPLEX, and the remote platforms.

The geometric center of each facility is given through the marine charts.

These coordinates are given at the center of the platform which is assumed to be at the geometric center of the rectangle defined by the 4 pile axes at the sea-bottom level. All MARINE OPERATIONS within these AREAS are controlled by the CONTROLLING AUTHORITY.

## 4.3 PROHIBITED ANCHORAGE

Due to the presence of subsea installations, anchorage in the RESTRICTED AREA is subject to strict REGULATIONS.

In all case, authorization to set anchors must be obtained from the CONTROLLING AUTHORITY, for which all procedures described in these GMI's shall apply.

However, in a **1.5** nautical mile radius circle around the FSO, which is at the center of the dedicated AREA for Export/Shuttle Tanker maneuverings, CONTRACTORS may be requested by CONTROLLING AUTHORITY to remove anchors prior to tanker movement.

#### **4.4 NAVIGATIONAL AIDS**

ALL FOG HORNS have the following particular

- Range 2 nautical miles, U Morse every 30 seconds

ALL WHITE LIGHTS have the following particular

- Range 10 nautical miles, U Morse every 15 seconds

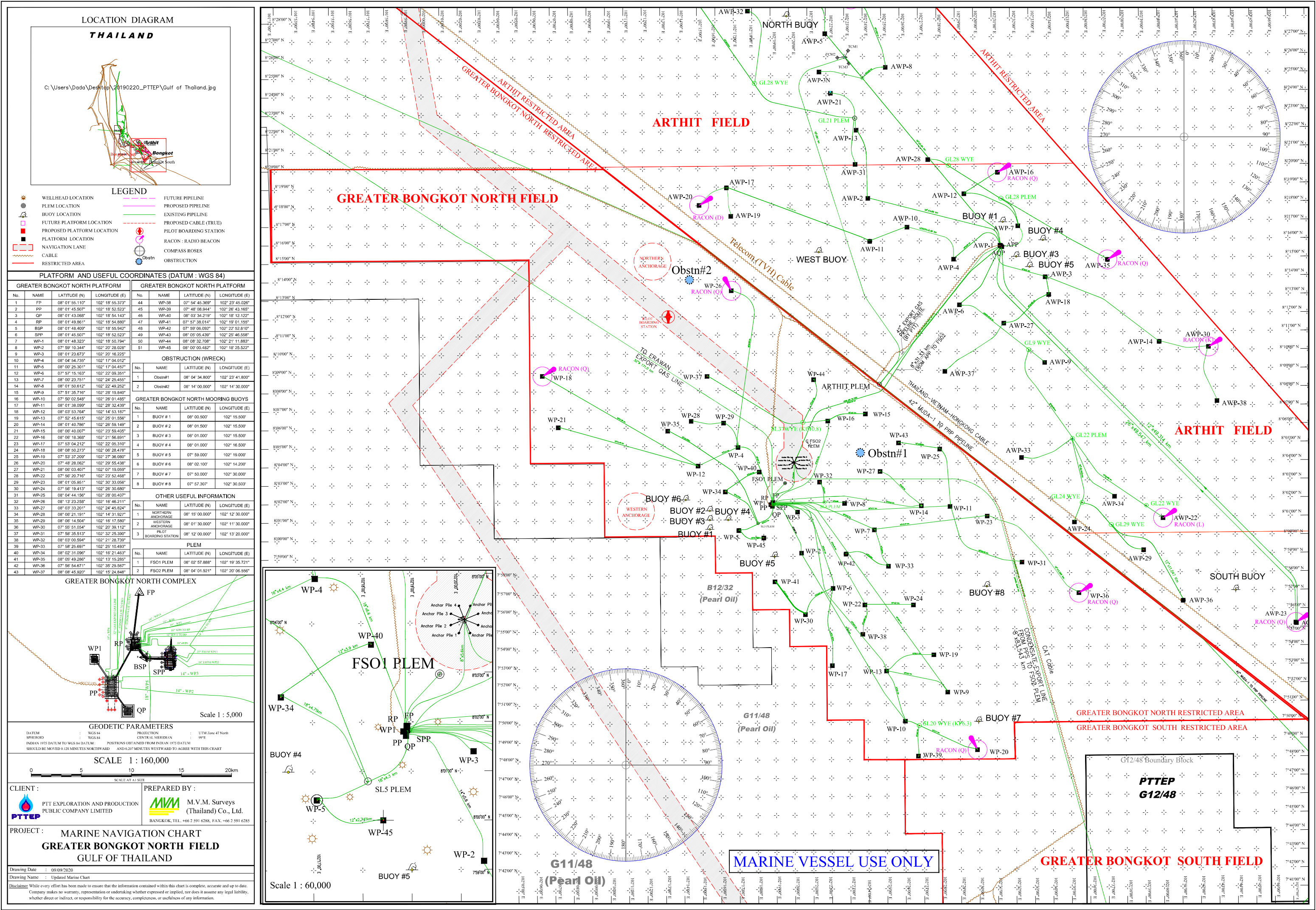
RACONS installed at Arthit and Bongkot Wellhead Platforms with particularities are shown in Appendix 4.

NOTE: Temporary obstruction may be caused by drilling rigs. Additional structures and navigation aids may be installed without notice.

## เอกสารแนบที่ 9

Marine Navigation Chart GREATER BONGKOT NORTH FIELD





## เอกสารแนบที่ 10

ตัวอย่างเอกสาร Offshore Vessels Inspection Database (OVID)



Oil Companies International Marine Forum

# Offshore Vessels Inspection Database (OVID)

## OVIQ3

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Report Number	FSTW-9754-6352-6160
Vessel Name	Bahtera Makmur
Vessel IMO	9619141
Vessel VIN	
Vessel Registered Number	19924J
Date of Inspection	20 Mar 2021
Port of Inspection	Songkhla Port
Inspecting Company	PTT Exploration and Production Public Company Limited
Selected Variants	DP
Selected Operations	Anchor handling Supply Towing/pushing

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## Section 1



## Chapter 1: General information

### Vessel/unit particulars

1.1.1	Name of the vessel/unit	Bahtera Makmur
1.1.2	IMO Number	9619141
1.1.3	Reg number	19924J
1.1.4	VIN (Vessel Identification Number)	Not applicable
1.1.5	Country of registration of vessel/unit	Malaysia
1.1.6	Gross tonnage	2245.00
1.1.7	Date vessel/unit delivered	20 Jun 2013
1.1.8	Date of most recent major conversion, if applicable	Not applicable
1.1.9	Place of inspection	Songkhla Port
1.1.10	Name of the company commissioning the inspection	PTT Exploration and Production Public Company Limited
1.1.11	Time the inspector boarded the vessel/unit	20 Mar 2021. 08:00 (UTC +07:00)
1.1.12	Time the inspector departed the vessel/unit	20 Mar 2021. 20:00 (UTC +07:00)
1.1.13	Time taken for Inspection <a href="#">Other Inspector Comments: Total Inspection time 11 hours 30 minutes.</a>	11.30
1.1.14	Name of the inspector	For inspecting company only
1.1.15	Is an up to date OCIMF OVPQ available on board?	Yes
1.1.16	Name of the vessel/unit's operator	Bahtera Sri Kandi Marine Sdn Bhd
1.1.17	E-mail address of the operator	operations.bahtera-srikandi-marine@bskhonline.com
1.1.18	Date the current operator assumed responsibility for the vessel/unit	20 Jun 2013
1.1.19	Specify the Geographic Region in which the inspection took place	South East Asia

### Additional Comments

1.99 Additional Comments

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## Chapter 2: Certification and documentation

### Certification

2.1.2	Name of Classification Society	Bureau Veritas
-------	--------------------------------	----------------

2.1.3	Name of P and I Club	Standard Club
-------	----------------------	---------------

Other Inspector Comments: Valid up to 20 Feb 2022.

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### Class documentation and surveys

2.3.1	Date of departure from the last drydock or underwater inspection	19 Oct 2019
-------	--	-------------

Other Inspector Comments: Last dry dock was conducted in Batam.

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## Section 2

Questions marked Yes without comment.

### Chapter 1: General information

Vessel/unit particulars

1.1.15

### Chapter 2: Certification and documentation

Certification

2.1.1

Safety management

2.2.1, 2.2.4, 2.2.5

### Chapter 3: Crew and contractor management

General

3.1.1, 3.1.2, 3.1.3, 3.1.4, 3.1.5, 3.1.8

Crew-specific (non barge)

3.3.1, 3.3.4, 3.3.5, 3.3.9, 3.3.10

Contractor-specific

3.5.1, 3.5.4, 3.5.6, 3.5.7

### Chapter 4: Navigation

Navigation

4.1.1, 4.1.2, 4.1.3, 4.1.4, 4.1.5, 4.1.7, 4.1.8, 4.1.9, 4.1.10, 4.1.11, 4.1.12, 4.1.13, 4.1.14, 4.1.19, 4.1.20, 4.1.22, 4.1.23, 4.1.24, 4.1.25, 4.1.26, 4.1.27

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## Chapter 5: Safety and security management

### General

5.1.1, 5.1.3, 5.1.4, 5.1.5, 5.1.7, 5.1.8, 5.1.10, 5.1.11, 5.1.12, 5.1.13, 5.1.14, 5.1.15

### Medical

5.2.1, 5.2.5, 5.2.7, 5.2.8, 5.2.9

### Management of change

5.3.1, 5.3.3

### Drills, training and familiarisation

5.4.1, 5.4.3

### Ship security

5.5.1, 5.5.4

### Control of work

5.6.1, 5.6.2, 5.6.3, 5.6.4, 5.6.5, 5.6.6, 5.6.7, 5.6.9, 5.6.11, 5.6.12, 5.6.13, 5.6.14, 5.6.16, 5.6.17, 5.6.18, 5.6.21

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5.7.2, 5.7.3, 5.7.4, 5.7.5, 5.7.6, 5.7.7, 5.7.8, 5.7.9

### Offshore personnel transfer

5.9.1, 5.9.5

### Life saving appliances

5.10.1, 5.10.3, 5.10.7, 5.10.8, 5.10.9, 5.10.10, 5.10.11, 5.10.12, 5.10.13, 5.10.15, 5.10.16, 5.10.17

### Fire-fighting

5.11.1, 5.11.2, 5.11.4, 5.11.5, 5.11.6, 5.11.8, 5.11.10, 5.11.11, 5.11.12, 5.11.14, 5.11.16

### Access

5.12.1, 5.12.2, 5.12.3

## Chapter 6: Pollution prevention and environmental management

### Pollution prevention

6.1.1, 6.1.2, 6.1.3, 6.1.4, 6.1.5, 6.1.6, 6.1.7, 6.1.9

### Shipboard oil and marine pollution emergency plans

6.2.2

### Bulk liquid transfers

6.3.1, 6.3.2, 6.3.3, 6.3.4, 6.3.5, 6.3.7

### Ballast water management

6.4.1, 6.4.2

### Waste management

6.5.1, 6.5.2, 6.5.3

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## Chapter 7: Structural condition

### General

7.1.1, 7.1.2, 7.1.3, 7.1.4, 7.1.5

### Stability

7.2.1, 7.2.2, 7.2.4, 7.2.5, 7.2.6, 7.2.8, 7.2.9

## Chapter 8: Operations

### Anchor handling

8.6.2, 8.6.3, 8.6.4, 8.6.5, 8.6.7, 8.6.8, 8.6.9, 8.6.10, 8.6.11, 8.6.12, 8.6.14, 8.6.16, 8.6.19, 8.6.23, 8.6.24, 8.6.26

### Towing/pushing

8.7.2, 8.7.4, 8.7.6, 8.7.7, 8.7.8, 8.7.9, 8.7.10, 8.7.13, 8.7.20, 8.7.23, 8.7.25, 8.7.26, 8.7.27, 8.7.28, 8.7.30, 8.7.31, 8.7.32, 8.7.33, 8.7.34

### Supply

8.8.1, 8.8.2, 8.8.4, 8.8.5, 8.8.6, 8.8.7, 8.8.8, 8.8.9, 8.8.10, 8.8.12, 8.8.13, 8.8.14, 8.8.15, 8.8.16, 8.8.19, 8.8.20, 8.8.21, 8.8.22, 8.8.24, 8.8.25, 8.8.26, 8.8.27, 8.8.28

## Chapter 9: Mooring

### General

9.1.1, 9.1.2, 9.1.3, 9.1.4

### Mooring procedures.

9.2.1, 9.2.2, 9.2.5, 9.2.6, 9.2.7

### Equipment

9.3.1, 9.3.3, 9.3.4, 9.3.5

### Anchoring equipment

9.4.1, 9.4.2, 9.4.3

## Chapter 10: Communications

### General

10.1.1, 10.1.2, 10.1.3, 10.1.4, 10.1.5, 10.1.6, 10.1.8, 10.1.9, 10.1.10, 10.1.11

### Equipment

10.2.1, 10.2.2, 10.2.3, 10.2.4

## Chapter 11: Propulsion, power generation and machinery

### Policies, procedures and documentation

11.1.1, 11.1.2, 11.1.3, 11.1.6, 11.1.7, 11.1.8, 11.1.9, 11.1.11, 11.1.12

### Planned maintenance

11.3.2, 11.3.3

### Safety management

11.4.1, 11.4.2, 11.4.3, 11.4.6, 11.4.7, 11.4.8, 11.4.9, 11.4.10, 11.4.13, 11.4.14, 11.4.15, 11.4.16, 11.4.17, 11.4.18, 11.4.19, 11.4.20, 11.4.21, 11.4.22, 11.4.24, 11.4.25

### Machinery status

11.5.1, 11.5.2, 11.5.3, 11.5.4, 11.5.6, 11.5.7, 11.5.8

### Emergency steering

11.6.1, 11.6.3, 11.6.4, 11.6.6, 11.6.7, 11.6.9, 11.6.10

## Chapter 12: General appearance and condition

### Hull, superstructure and external weather decks

12.1.2, 12.1.3, 12.1.4, 12.1.5, 12.1.6, 12.1.7, 12.1.8, 12.1.10, 12.1.11, 12.1.12, 12.1.13

### Electrical equipment

12.2.1, 12.2.2

### Internal spaces

12.3.1, 12.3.2

### Accommodation Areas

12.4.1, 12.4.2, 12.4.3, 12.4.4, 12.4.5, 12.4.6, 12.4.8, 12.4.9, 12.4.10

## Chapter 15: DP operations

### General

15.1.4, 15.1.5, 15.1.7, 15.1.8, 15.1.11, 15.1.13, 15.1.15, 15.1.16, 15.1.17, 15.1.18

### Operations

15.2.1, 15.2.2, 15.2.3, 15.2.4, 15.2.5, 15.2.6, 15.2.8, 15.2.9, 15.2.10, 15.2.11, 15.2.14, 15.2.15, 15.2.17

### Equipment

15.3.2, 15.3.3, 15.3.4, 15.3.6, 15.3.8, 15.3.10, 15.3.12, 15.3.13, 15.3.14, 15.3.15



## Section 3

### Chapter 2: Certification and documentation

#### Safety management

2.2.2 Where appropriate, is there objective evidence that the safety management system complies with the requirements of the ISM Code? ☒ Y ☐ N  
Other Inspector Comments: SMC certificate valid up to 08/06/2025.

2.2.3 Does an operator's representative visit the vessel/unit at least twice annually? ☒ Y ☐ N  
Other Inspector Comments: Last management visit was conducted on 07/09/2020.

#### Class documentation and surveys

2.3.2 Is the vessel/unit free of conditions of class or recommendations, visas, memoranda or notations? Y ☒ N  
Inspector Observations: MLC convention deficiencies had closed out but not verified by class. Class will verify at the next schedule inspection.  
Initial Operator Comments: Deficiencies had been closed out from vessel and waiting for verification by BV surveyor at next attendance (To be discussed with BV). Attached herewith the SOF & evidence for closure for your perusal.  
Attachment: SOF - 2.3.2.pdf

Attachment: SOF - 2.3.2 Additional.pdf

#### Publications

2.4.1 Are the publications listed in the guidance, as applicable to the vessel/unit, available? Y ☒ N  
Inspector Observations: List of radio signal update edition was not available on board.  
Initial Operator Comments: Publication was supplied onboard. Attached herewith the SOF & evidence for closure for your perusal.  
Attachment: SOF - 2.4.1.pdf

#### Additional Comments

2.99 Additional Comments

### Chapter 3: Crew and contractor management

#### General

3.1.6 Does the operator have a policy for unannounced drug and alcohol testing? ☒ Y ☐ N  
Other Inspector Comments: Last unannounced of alcohol test was conducted on 21/01/2021.

3.1.7	Is there a common language stipulated and is the safety management system documentation in this common language? Other Inspector Comments: English language is stipulated	<input checked="" type="checkbox"/> Y	N
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## Crew-specific

3.2.1	Does the manning level meet or exceed that required by the Minimum Safe Manning Document? Other Inspector Comments: Actual manning is 13 crew on board. Minimum safe manning certificate require 11 crew on board.	<input checked="" type="checkbox"/> Y	N
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## Crew-specific (non barge)

3.3.2	Is there a competence assessment process for the marine crew on board? Other Inspector Comments: HSSE awareness was one of the appraised behaviours. Master responsible for deck officer and deck crew. Chief engineer responsible for engineer and engine crew.	<input checked="" type="checkbox"/> Y	N
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3.3.3	Does the company operate a formal appraisal system for marine crew? Other Inspector Comments: Formal appraisal will conduct at the end of each contract for all marine crew.	<input checked="" type="checkbox"/> Y	N
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3.3.6	Have the Master and/or any officers with direct responsibility for ship handling received appropriate formal training in ship handling for the type of vessel/unit? Inspector Observations: Second Officer did not have any formal training in ship handling for the type of vessel. Initial Operator Comments: Vessel will be manned-up with certified shipboard personnel prior commencement of campaign. We will arrange in house training by master. Evidences will be provided accordingly.	Y	<input checked="" type="checkbox"/> N
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3.3.7	If the Master has been newly-hired within the last 12 months, did he receive appropriate pre-command training, including documented understanding of the Company's expectations? Other Inspector Comments: Master had promoted for 6 years and completed all pre command training.	Y	N	<input checked="" type="checkbox"/> NA
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3.3.8	Have all the deck officers received documented training and competence assessment for the navigational equipment fitted on board? Other Inspector Comments: Mentor base training.	<input checked="" type="checkbox"/> Y	N
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## Contractor-specific

3.5.2	Is there evidence of all contractors being familiarised with the vessel/unit's emergency procedures and requirements? Other Inspector Comments: There were no contractors that would joined with a vessel.	Y	N	<input checked="" type="checkbox"/> NA
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3.5.3	Are contractors encouraged to be involved in the vessel/unit's safety management processes, such as safety meetings? Other Inspector Comments: There were no contractors that would join with a vessel.	Y	N	<input checked="" type="checkbox"/> NA
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3.5.5	Is there evidence that operator verify the adequacy of contractor's equipment prior first use?	<input checked="" type="checkbox"/>	N	NA
	Other Inspector Comments: Followed vessel PTW system.			

## Additional Comments

3.99 Additional Comments

## Chapter 4: Navigation

## Navigation

4.1.6	Is operator's guidance on minimum under keel clearance and squat implemented on board?	<input checked="" type="checkbox"/>	N	
	Other Inspector Comments: Minimum under keel clearance is 2 meters all time.			

4.1.15	Has a system been established to ensure that nautical publications and charts, paper and/or electronic, for the intended voyage are on board, current and corrected up-to-date?	<input checked="" type="checkbox"/>	N	
	Other Inspector Comments: Last notice to mariner Week no. 11/2021 was available on board.			

4.1.16	If fitted, are Master and deck officers familiar with the operation of the ECDIS on board?	Y	N	<input checked="" type="checkbox"/>
	Other Inspector Comments: ECDIS was not fitted on board.			

4.1.17	If the vessel is equipped with an Electronic Chart Display and Information System (ECDIS) are the Master and deck officers able to produce appropriate documentation that generic training and type-specific familiarisation has been undertaken?	Y	N	<input checked="" type="checkbox"/>
	Other Inspector Comments: ECDIS was not fitted on board.			

4.1.18	If the vessel is provided with an Electronic Chart Display and Information System (ECDIS) does it meet the requirements of SOLAS and is an approved backup system provided?	Y	N	<input checked="" type="checkbox"/>
	Other Inspector Comments: ECDIS was not fitted on board.			

4.1.21	Is the echo sounder recorder marked with a reference date and time on each occasion it is switched on?	Y	<input checked="" type="checkbox"/>	
	Inspector Observations: Echo Sounder were not marked with a reference date and time on each occasion it is switch on.			
	Initial Operator Comments: Vessel has properly record the operation of Echo Sounder in the log book when it is being used. Attached herewith the SOF & evidence for closure for your perusal.			
	Attachment: SOF - 4.1.21.pdf			

## Additional Comments

4.99 Additional Comments

## Chapter 5: Safety and security management

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## General

5.1.2 Has a vessel/unit safety officer been designated and trained to undertake this role? ☒ Y N NA  
 Other Inspector Comments: Chief Officer has designated as a Ship Safety Officer.

5.1.6 Are regular safety meetings held, are the minutes recorded and does the operator provide shore management responses? ☒ Y N  
 Other Inspector Comments: Last safety meeting was conducted on 27/02/2021.

5.1.9 Have officers responsible for incident investigation on board received incident investigation training? ☒ Y N  
 Other Inspector Comments: In house training was conducted on board.

## Medical

5.2.2 Is an alarm system fitted in the hospital and is it regularly tested? ☒ Y N NA  
 Other Inspector Comments: Witnessed test during attendance, Satisfactory condition.

5.2.3 Is there an appropriately qualified individual designated to provide medical care on board? ☒ Y N  
 Other Inspector Comments: Second Officer has designated officer to provide medical care on board

5.2.4 Is there a system for verifying and checking medical stores? ☒ Y N NA  
 Other Inspector Comments: Medical chest certificate by Nautica Medicare - valid up to 04 Jan 2022.

5.2.6 If cardiopulmonary resuscitation (CPR) equipment is carried, including oxygen resuscitators and/or defibrillators, is it regularly tested? ☒ Y N NA  
 Other Inspector Comments: Last check was conducted on 23/07/2020.

5.2.10 Are medical drills carried out at periodic intervals? ☒ Y N  
 Other Inspector Comments: Last drill was conducted on 06/01/2021.

## Management of change

5.3.2 Is there evidence to demonstrate that the MoC process is being properly applied? ☒ Y N  
 Other Inspector Comments: Last MOC document - 15 June 2020 - Shore leave for Thai Fleet.

## Drills, training and familiarisation

5.4.2 Are emergency drills being carried out regularly? ☒ Y N  
 Other Inspector Comments: Last Fire drill was conducted on 27/01/2021.

## Ship security

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5.5.2	If vessel/unit has an approved SSP, has a ship security officer been designated and do they hold appropriate certification? <i>Other Inspector Comments: Chief Officer is designated as a Ship security Officer.</i>	<input checked="" type="checkbox"/> Y	N	NA
5.5.3	If the vessel/unit is NOT required to have an approved Ships Security Plan (SSP) because of vessel/unit's tonnage or trading area, are there Security Procedures in place? <i>Other Inspector Comments: Approved SSP was available on board.</i>	Y	N	<input checked="" type="checkbox"/> NA
5.5.5	If required, are security drills carried out at regular intervals? <i>Other Inspector Comments: Last drill was conducted on 15/03/2021.</i>	<input checked="" type="checkbox"/> Y	N	NA
5.5.6	Are officers aware of the function of the ship security alert system and how to operate it? <i>Other Inspector Comments: Last test was conducted on 23/07/2020.</i>	<input checked="" type="checkbox"/> Y	N	NA
<b>Control of work</b>				
5.6.8	Is there evidence that an effective isolation process is implemented on board as part of the PTW system? <i>Other Inspector Comments: Lock out / Tag out equipment were available on board</i>	<input checked="" type="checkbox"/> Y	N	
5.6.10	If the vessel/unit has high voltage equipment, are staff suitably trained to perform maintenance on it? <i>Other Inspector Comments: High Voltage equipment was not fitted on board.</i>	Y	N	<input checked="" type="checkbox"/> NA
5.6.15	Are there documented procedures in place covering the use of portable electrical equipment on deck? <i>Other Inspector Comments: Inspected by Electrician on monthly basis.</i>	<input checked="" type="checkbox"/> Y	N	NA
5.6.19	Are portable gas and oxygen analysers provided appropriate to the vessel/unit's operations and are they calibrated and in good order? <i>Inspector Observations: Portable Oxygen analyser was available on board. Span gas was not available on board.</i> Initial Operator Comments: No span gas is required if the portable O2 analyser will be calibrated by shore technician. Attached herewith the SOF & evidence for closure for your perusal.  Attachment: SOF - 5.6.19.pdf	Y	<input checked="" type="checkbox"/> N	NA
	Attachment: SOF - 5.6.19 PR.pdf			
5.6.20	Are personnel onboard trained in the use and calibration of portable oxygen and gas analysers? <i>Other Inspector Comments: Span Gas was not available on board.</i>	Y	N	<input checked="" type="checkbox"/> NA

**Lifting equipment**

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5.7.1	Are up to date records maintained for the regular inspection, maintenance and testing of all lifting equipment/devices?  <b>Inspector Observations: Maintenance plan for loose lifting equipment was available on board but not identified with each certificates.</b>  Initial Operator Comments: Vessel has made the proper maintenance record for loose lifting equipment with identified certificates. Attached herewith the SOF & evidence for closure for your perusal.  Attachment: SOF - 5.7.1.pdf	Y	<input type="checkbox"/> N	NA
5.7.10	Are any personnel elevators (lifts) onboard the vessel included in the vessel/unit's PMS and in good order?  Other Inspector Comments: Lift was not fitted on board.	Y	N	<input type="checkbox"/> NA
Offshore personnel transfer				
5.9.2	Are all personnel transfer equipment subject to an inspection and certification regime?  Other Inspector Comments: Personnel transfer equipment was not provided on board.	Y	N	<input type="checkbox"/> NA
5.9.3	Have all personnel involved in lifting/man riding operations been trained and certified to carry out such operations?  <b>Inspector Observations: There were no crew hold banksman certificate with OPITO stage 3 available on board. Crew hold rigging/slinging certificates which covered for banksman.</b>  Initial Operator Comments: We will arrange the deck crew whom already hold the banksman certificate with OPITO stage 3 prior commencement of charter.	Y	<input type="checkbox"/> N	NA
5.9.4	Where fitted, is the offshore personnel gangway certified and subject to an inspection programme?  Other Inspector Comments: Offshore personnel gangway was not fitted on board.	Y	N	<input type="checkbox"/> NA
5.9.6	If the gangway is stabilised, does the control function use a dedicated crew?  Other Inspector Comments: Stabilised gangway was not fitted on board.	Y	N	<input type="checkbox"/> NA
Life saving appliances				
5.10.2	Are vessel/unit-specific life-saving equipment maintenance instructions available and are weekly and monthly inspections being carried out?  Other Inspector Comments: Rescue boat was fitted on board.	<input type="checkbox"/> Y	N	
5.10.4	Is there a maintenance and test schedule for lifeboat, Rescue boat on-load release gear, davit launched liferaft automatic release hooks, and free-fall lifeboat release systems, where fitted?  Other Inspector Comments: Lifeboat was not fitted on board. Rescue boat was fitted on board.	<input type="checkbox"/> Y	N	NA
5.10.5	If vessel/unit has lifeboats, are the lifeboats, including their equipment and launching mechanisms, in good order?  Other Inspector Comments: Lifeboat was not fitted on board.	Y	N	<input type="checkbox"/> NA

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5.10.6	Are lifeboat (if fitted) and liferaft operating instructions displayed? <a href="#">Other Inspector Comments: Lifeboat was not fitted on board. Liferafts were fitted on board.</a>	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> NA
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5.10.14	If vessel is outfitted with immersion suits, are the immersion suits available for use and free of defects ? <a href="#">Other Inspector Comments: Immersion suit was not available on board. Vessel operate not more than Lat 32 N and 32 S.</a>	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> NA
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#### Fire-fighting

5.11.3	Are records available to show that samples of foam compound have been tested at regular intervals? <a href="#">Other Inspector Comments: Foam compound was not provided on board.</a>	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> NA
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5.11.7	Are fixed fire detection and alarm systems, if fitted, in good order and tested regularly? <a href="#">Other Inspector Comments: Witnessed test during attendance. Satisfactory condition.</a>	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> NA
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5.11.9	Is the emergency fire pump in full operational condition and are starting instructions clearly displayed? <a href="#">Other Inspector Comments: Witnessed test during attendance. Satisfactory condition.</a>	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> NA
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5.11.13	Are accommodation and ventilation fan emergency stops in good order and clearly marked to indicate the spaces they serve? <a href="#">Other Inspector Comments: Witnessed test during attendance. Satisfactory condition.</a>	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> NA
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5.11.15	If vessel has FiFi notation, is the associated equipment in good order? <a href="#">Other Inspector Comments: Vessel is FiFi 1 notation.</a>	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> NA
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#### Additional Comments

5.99 Additional Comments

## Chapter 6: Pollution prevention and environmental management

#### Pollution prevention

6.1.8	Is there evidence that the oily water separator control system and engine room bilge oily water separator/filtering system is maintained in good working order? <a href="#">Other Inspector Comments: Witnessed test during attendance. Satisfactory condition.</a>	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> NA
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6.1.10	Are there any bilge spaces pumped directly overboard and are appropriate arrangements in place to monitor and prevent "contaminants" being discharged overboard ? <a href="#">Other Inspector Comments: No bilge spaces that pumped directly overboard fitted on board. All bilge discharge via oily water separator system.</a>	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> NA
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## Shipboard oil and marine pollution emergency plans

6.2.1	Is an approved MARPOL Shipboard Oil Pollution Emergency Plan (SOPEP) or Shipboard Marine Pollution Emergency Plan (SMPEP) provided? <i>Other Inspector Comments: SMPEP book was available on board.</i>	<div style="border: 1px solid black; padding: 2px 5px;">Y</div>	N	NA
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6.2.3	Is there evidence that the vessel/unit has carried out regular drills and that the contents of the SOPEP/SMPEP Manual have been reviewed? <i>Other Inspector Comments: Last drill was conducted on 14/03/2021.</i>	<div style="border: 1px solid black; padding: 2px 5px;">Y</div>	N	NA
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## Bulk liquid transfers

6.3.6	Are transfer hoses fitted with lifting saddles and stowed in racks? <i>Other Inspector Comments: Lifting saddle was not fitted on the hose.</i>	Y	N	<div style="border: 1px solid black; padding: 2px 5px;">NA</div>
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## Additional Comments

6.99	Additional Comments
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## Chapter 7: Structural condition

## General

7.1.6	If there has been any significant structural damage to the vessel/unit, have repairs been undertaken to the satisfaction of an attending Class surveyor? <i>Other Inspector Comments: There was no structural damage to the vessel.</i>	Y	N	<div style="border: 1px solid black; padding: 2px 5px;">NA</div>
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7.1.7	If the vessel has any through-hull penetrations, are they in good order and subjected to Class approval? <i>Other Inspector Comments: Through hull penetration was not existed on board.</i>	Y	N	<div style="border: 1px solid black; padding: 2px 5px;">NA</div>
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## Stability

7.2.3	Is an approved stability book available onboard that includes both intact and damage stability scenarios? <i>Other Inspector Comments: Intact and damage stability booklet were approved by Classification.</i>	<div style="border: 1px solid black; padding: 2px 5px;">Y</div>	N	
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7.2.7	Is there a system of verifying and recording the calibration of tank gauging systems and level alarms ? <i>Other Inspector Comments: The manual sounding was done by daily basis.</i>	<div style="border: 1px solid black; padding: 2px 5px;">Y</div>	N	NA
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## Structural modifications

7.3.1	Has the vessel/unit's Classification society or certifying authority been involved in assessing/approving any structural modifications to the vessel/unit? <i>Other Inspector Comments: There was no structure modification occurred on board.</i>	Y	N	<div style="border: 1px solid black; padding: 2px 5px;">NA</div>
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7.3.2	Is there evidence that the vessel/unit's stability information has been updated when structural or mission specific equipment modifications have taken place? <i>Other Inspector Comments: There was no structure modification occurred on board.</i>	Y	N	NA
7.3.3	If applicable, are the vessel/unit's Master and Officers fully aware of the changes to stability information as a result of the structural or plant modifications? <i>Other Inspector Comments: There was no structure modification occurred on board.</i>	Y	N	NA
7.3.4	If structural modifications have been undertaken, do they agree with the details recorded on the OVPQ? <i>Other Inspector Comments: There was no structure modification occurred on board.</i>	Y	N	NA

## Additional Comments

7.99 Additional Comments

## Chapter 8: Operations

## Anchor handling

8.6.1	Is the vessel classed for anchor handling operations? <i>Other Inspector Comments: I + HULL + MACH Tug / Supply Vessel -Oil Product -LHNS / Oil Recovery Ship. FI-FI 1 -Water Spraing / Special Service, Anchor Handling Unrestricted Navigation</i>	Y	N	
8.6.6	Are emergency release systems regularly tested and records maintained? <i>Other Inspector Comments: Witnessed test during attendance. Satisfactory condition.</i>	Y	N	
8.6.13	Do documented procedures address the use of anti-roll tanks during anchor handling? <i>Other Inspector Comments: Anti roll tanks were not fitted on board.</i>	Y	N	NA
8.6.15	Does the vessel have a tension gauge and/or tension limiter to monitor bollard pull and is it regularly calibrated? <i>Other Inspector Comments: Last calibration was conducted on 22 June 2020.</i>	Y	N	NA
8.6.17	If anchor handling pennant is not fitted with quick release, does the vessel have cutting gear readily available? <i>Other Inspector Comments: Anchor handling pennant is fitted with quick release.</i>	Y	N	NA
8.6.18	Are tugger winches and wires in a satisfactory condition? <i>Other Inspector Comments: Tugger wire certificate date 19 Nov 2019. Size 20 mm MBL 30.4 T</i>	Y	N	NA

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8.6.20	Does the Master, Bridge Officers and Deck Personnel have appropriate anchor handling training and experience?  <b>Inspector Observations: There were no records of formal training of anchor handling course for the crew available on board. In house training was conducted on board.</b>  Initial Operator Comments: We will conduct in-house training for anchor handling on board / to arrange the crew whom have already attended the anchor handling course.	Y	<input checked="" type="checkbox"/> N	
8.6.21	Are records available confirming the formal training of winch operators?  Other Inspector Comments: Chief Engineer has 5 years of experience with anchor operation.	<input checked="" type="checkbox"/> Y	N	
8.6.22	Where winches are not visible from the bridge, is there a system in place to enable remote monitoring?  Other Inspector Comments: CCTV was fitted on board.	<input checked="" type="checkbox"/> Y	N	NA
8.6.25	Are anchor handling winch and wire/chain stopper in good order and reported to be fully operational?  Other Inspector Comments: Witnessed test during attendance. Satisfactory condition,	<input checked="" type="checkbox"/> Y	N	NA
8.6.27	Is deck sheathing free of defects?  <b>Inspector Observations: Some deck sheath area was not in good condition.</b>  Initial Operator Comments: The vessel has received the wooden plank and the damaged deck sheath were renewed by crews. Attached herewith the SOF & evidence for closure for your perusal.  Attachment: SOF - 8.6.27.pdf	Y	<input checked="" type="checkbox"/> N	NA
8.6.99	Additional Comments			

## Towing/pushing

8.7.1	Is the vessel classed/certified for Towing and/or Pushing operations?  Other Inspector Comments: I + HULL + MACH Tug / Supply Vessel -Oil Product -LHNS / Oil Recovery Ship. FI-FI 1 -Water Spraying / Special Service, Anchor Handling Unrestricted Navigation.	<input checked="" type="checkbox"/> Y	N	
8.7.3	Is tow winch, including associated hoses and brake linings, in good order?  Other Inspector Comments: Witnessed break holding test during attendance. Satisfactory condition.	<input checked="" type="checkbox"/> Y	N	
8.7.5	Does the vessel adhere to the IMO guidelines with regard to the minimum breaking load (MBL) of the towline?  Other Inspector Comments: Size 56 mm x 1200 m. MBL 2420 KN.	<input checked="" type="checkbox"/> Y	N	
8.7.11	Is the winch fitted with equipment to measure the tension of the towline and is the information displayed in the wheelhouse?  Other Inspector Comments: Last calibration was conducted on 22 June 2020.	<input checked="" type="checkbox"/> Y	N	NA

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8.7.12	Is a tow winch brake alarm fitted and audible in the wheelhouse?  <b>Inspector Observations: Break slippage alarm was not fitted on board.</b> Initial Operator Comments: Vessel requisition has been raised for shore assistance. Shore electrician completed the installation of the break slippage alarm for towing winch. Attached herewith the SOF & evidence for closure for your perusal.  Attachment: SOF - 8.7.12.pdf	Y	<input type="checkbox"/> N	NA
8.7.14	Does the vessel Operator have an adequate replacement policy with valid certificates for the towing line(s) in use?  Other Inspector Comments: All wire rope terminations were Gold nose socket type.	<input type="checkbox"/> Y	N	NA
8.7.15	If using HMPE, is the contact surface for the HMPE tow line clean and sufficiently smooth to avoid damage to tow line?  Other Inspector Comments: HMPE was not available on board.	Y	N	<input type="checkbox"/> NA
8.7.16	If applicable is there a system for prevention of chafing of the tow-wire?  Other Inspector Comments: Tow wire protector was available on board.	<input type="checkbox"/> Y	N	NA
8.7.17	If applicable, does the vessel have a suitable towing wire arrangement to prevent girting?  Other Inspector Comments: Gog wire was fitted on board.	<input type="checkbox"/> Y	N	NA
8.7.18	Are emergency release systems regularly tested and records maintained?  Other Inspector Comments: Witnessed test during attendance. Satisfactory condition.	<input type="checkbox"/> Y	N	NA
8.7.19	If towline is not provided with quick release capability, does the vessel have cutting gear readily available?  Other Inspector Comments: Towline is provided with quick release capability.	Y	N	<input type="checkbox"/> NA
8.7.21	If used, do synthetic shock lines have the capability to deal with the expected dynamic loads?  Other Inspector Comments: Shock line dia 96 mm. Breaking load - 405.5 MT	<input type="checkbox"/> Y	N	NA
8.7.22	Has the Master appropriate experience of towing/pushing operations on this particular type of vessel?  Other Inspector Comments: Master had 5 years of towing/pushing experience.	<input type="checkbox"/> Y	N	
8.7.24	Are effective documented procedures in place for the use of small boats that include working from them, personnel transfer and the launch and recovery?  Other Inspector Comments: No small boat fitted on board.	Y	N	<input type="checkbox"/> NA
8.7.29	Are the calculated indirect towing forces available to the Master and deck officers?  Other Inspector Comments: Indirect towing forces was not available on board.	Y	N	<input type="checkbox"/> NA

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8.7.35	Does the operator have a policy in place covering the use of recessed bitts? <a href="#">Other Inspector Comments: Recessed bitts were not fitted on board.</a>	Y	N	NA
8.7.36	If the vessel has a STAPLE, is the SWL for the staple and the angles of operability known to the vessel master and deck officers? <a href="#">Other Inspector Comments: Towing fair lead was fitted on board.</a>	Y	N	NA
8.7.99	Additional Comments			
<b>Supply</b>				
8.8.3	Are officers aware of maximum deck load capacity and deck strength? <a href="#">Other Inspector Comments: Deck Strength 5 T / m2</a>	Y	N	
8.8.11	Are the emergency stops for bulk transfer pumps tested and are records available? <a href="#">Other Inspector Comments: Last test was conducted on 28/02/2021.</a>	Y	N	NA
8.8.17	Are bulwarks, cargo stanchions and the deck sheathing free of defects? <b>Inspector Observations: Some deck sheath area was not in good condition.</b> Initial Operator Comments: The vessel has received the wooden plank and the damaged deck sheath were renewed by crews. Attached herewith the SOF & evidence for closure for your perusal.  Attachment: SOF - 8.8.17.pdf	Y	N	
8.8.18	Does the 500 meters zone pre-entry check list require vessel propulsion and machinery to be set up in such a way as to ensure redundancy whilst carrying out supply operations? <a href="#">Other Inspector Comments: Covered under 500 meter zone check list.</a>	Y	N	NA
8.8.23	Is there evidence that 500m Safety Zone pre-entry checks have been carried out in conjunction with the installation? <a href="#">Other Inspector Comments: Last 500 meter zone was conducted on 18/03/2021.</a>	Y	N	
8.8.29	If vessel/unit is classified to carry Methanol or other alcohol based substances, is the vessel equipped with an alcohol resistant type foam extinguishing system? <a href="#">Other Inspector Comments: Vessel is not classified to carry Methanol</a>	Y	N	NA
8.8.99	Additional Comments			

## Chapter 9: Mooring

### Mooring procedures.

9.2.3	Are all powered mooring lines correctly reeled on drums? <a href="#">Other Inspector Comments: Powered mooring lines were not fitted on board.</a>	Y	N	NA
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9.2.4	If fitted are all powered mooring lines secured on brakes and are the winches out of gear?	Y	N	NA
	Other Inspector Comments: Powered mooring lines were not fitted on board.			

## Equipment

9.3.2	Are mooring wires and ropes in good order?	Y	N	
	Other Inspector Comments: Mooring wires were not available on board. Mooring ropes were available on board.			

## Additional Comments

9.99 Additional Comments

## Chapter 10: Communications

## General

10.1.7	Are GMDSS requirements met with regard to qualified radio operator personnel, watchkeeping, and designation for distress communications?	Y	N	NA
	Other Inspector Comments: Chief Officer and Second Officer designated to handle distress communication.			

## Additional Comments

10.99 Additional Comments

## Chapter 11: Propulsion, power generation and machinery

## Policies, procedures and documentation

11.1.4	If the machinery space is certified for unmanned operation, is it being operated in that mode?	Y	N	NA
	Other Inspector Comments: The vessel is certified for unmanned operation but not operated in that mode due to have enough engineer to keep watch for ensure safety of engine room.			

11.1.5	If the machinery space is being operated manned, are there sufficient engineers on board?	Y	N	NA
	Other Inspector Comments: There were three engineers on board. (Chief engineer, Second engineer and third engineer )			

11.1.10	Does the operator subscribe to a fuel, lubricating and hydraulic oil testing programme, and is there a procedure in place to take into account the results?	Y	N	NA
	Inspector Observations: There was no subscription for diesel oil analysis. Lube oil and hydraulic oil analysis were sent on quarterly basis.			
	Initial Operator Comments: Vessel received BDN every bunkering (including the certificate of quality). Attached herewith the SOF & evidence for closure for your perusal.			
	Attachment: SOF - 11.1.10.pdf			

## Planned maintenance

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11.3.1	Is a planned maintenance system in place, being followed and is it up to date? Other Inspector Comments: PMS was in Computer based system.	<input checked="" type="checkbox"/>	N
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## Safety management

11.4.4	Are vessel/unit's engine/boiler exhausts fitted with spark arresters for safe operation? Other Inspector Comments: As built spark arresters were fitted on board.	<input checked="" type="checkbox"/>	N
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11.4.5	Do records indicate the regular testing of emergency equipment? Other Inspector Comments: Emergency generator was last tested on the 20/03/2021.	<input checked="" type="checkbox"/>	N
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11.4.11	Are main engine bearing temperature monitors, or the crankcase oil mist detector, in good order? Other Inspector Comments: Main engine bearing temperature and crankcase oil mist detector were not available on board.	Y	N	<input type="checkbox"/>
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11.4.12	Where hydraulic aggregate pumps (hydraulic power units -HP/Hydraulic Power Packs-HPP) are located within the main engine compartment, is an oil mist detector fitted? Other Inspector Comments: Hydraulic aggregate pumps were located outside the main engine compartment.	Y	N	<input type="checkbox"/>
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11.4.23	Are bilge high level alarm systems regularly tested and are records maintained? Other Inspector Comments: Witnessed the test during attendance. Satisfactory condition.	<input checked="" type="checkbox"/>	N
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## Machinery status

11.5.5	Where an emergency generator is not fitted, are engine room emergency batteries in good order and fully charged? Other Inspector Comments: Emergency generator was fitted on board.	Y	N	<input type="checkbox"/>
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## Emergency steering

11.6.2	If applicable has the emergency steering arrangement been tested within the past three months and are the results recorded? Other Inspector Comments: Witnessed during attendance. Satisfactory condition.	<input checked="" type="checkbox"/>	N	NA
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11.6.5	If applicable, is the steering gear emergency reserve tank fully charged? Other Inspector Comments: Stern Thrusters were fitted on board.	Y	N	<input type="checkbox"/>
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11.6.8	If applicable is there a means for indicating the rudder angle or thruster direction at the emergency steering position? Other Inspector Comments: Thruster direction indicator was fitted on board,	<input checked="" type="checkbox"/>	N	NA
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## Additional Comments

11.99 Additional Comments

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## Chapter 12: General appearance and condition

### Hull, superstructure and external weather decks

12.1.1 Is the general condition, visual appearance and cleanliness of the hull satisfactory? Y ☒ N NA

**Inspector Observations:** There were some marine growth existed on Starboard side hull area.

Initial Operator Comments: Vessel crew has scrapped marine growth and applied the FW high pressure during last maintenance day. Attached herewith the SOF & evidence for closure for your perusal.

Attachment: SOF - 12.1.1.pdf

12.1.9 If fitted are all watertight door position indicators operating correctly? ☒ Y N NA

Other Inspector Comments: Watertight door position indicators were tested on the 20 March 2021,

### Accommodation Areas

12.4.7 Are personnel alarms in refrigerated spaces in good order and regularly tested? ☒ Y N NA

Other Inspector Comments: Personnel alarms in refrigerated spaces were tested on weekly basis.

12.4.11 Are tests undertaken of the potable water system and is regular maintenance carried out and recorded for both domestic and supplied potable water? Y N ☒ NA

Other Inspector Comments: Bottled water supplied on board.

### Additional Comments

12.99 Additional Comments

## Chapter 15: DP operations

### General

15.1.1 Does the vessel have on board a copy of the most recent FMEA ? ☒ Y N

Other Inspector Comments: Pirie and Smith - 16 Dec 2019

15.1.2 Are the FMEA study and FMEA proving trials reports less than 5 years old? ☒ Y N NA

Other Inspector Comments: FMEA verification trial - by Mr. Neoh Wen Keat - Date 13th - 14th Oct 2019.

15.1.3 If the DP system is not classed, has the FMEA been assessed against IMO MSC.Circ 645? Y N ☒ NA

Other Inspector Comments: Vessel Class is DP 2.

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15.1.6	If modifications have been undertaken, has the FME(C)A been up-dated and the modifications proven by testing? <i>Other Inspector Comments: No modification was existed on board.</i>	Y	N	NA
15.1.9	Have the recommendations (if any) from the proving trials been addressed? <i>Other Inspector Comments: There were no findings from the latest proving trial report.</i>	Y	N	NA
15.1.10	Does the vessel have on board a copy of the most recent annual DP trial report? <i>Other Inspector Comments: Last DP trial - 21 July 2020 by DP tech Mr. Anuchit Jaipinit</i>	Y	N	NA
15.1.12	Have recommendations from the annual DP trial report been addressed and closed out as required? <i>Other Inspector Comments: No recommendations from previous DP trial report.</i>	Y	N	NA
15.1.14	Do the failure modes meet IMO MSC Circ.645 with 'fail as set, or fail to zero' and are DPO's aware of failure modes? <i>Other Inspector Comments: Failure mode is fail to zero.</i>	Y	N	
<b>Operations</b>				
15.2.7	Does the vessel have a vessel specific DP operating manual on board? <i>Other Inspector Comments: Approved by Class.</i>	Y	N	
15.2.12	Are DP footprints regularly recorded and compared against previous footprints and the DP Capability Plots? <i>Other Inspector Comments: Last DP foot print was conducted on 18/03/2021.</i>	Y	N	
15.2.13	Depending on vessel activity and if required, are Activity Specific Operating Guidelines (ASOG) or Well Specific Operations Guidelines (WSOG) or Field Specific Operations Guidelines (FSOG) in place and utilized? <i>Other Inspector Comments: ASOG document was available on board.</i>	Y	N	NA
15.2.16	Is the DP alert triggering system in immediate reach of the DPO at console? <i>Inspector Observations: DP alert triggering system was not fitted on board.</i> <i>Initial Operator Comments: Closed out via waiver due to Non-DP vessel contract for PTTEP.</i>	Y	N	
<b>Equipment</b>				
15.3.1	Is the Dynamic Positioning control systems in good order? <i>Other Inspector Comments: Last maintenance was conducted on 21 July 2020.</i>	Y	N	
15.3.5	Does each thruster have an independent emergency stop that is well protected against inadvertent operation? <i>Other Inspector Comments: Last test was conducted on 21 July 2020.</i>	Y	N	

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15.3.7	Does the vessel have a data recorder that records all DP parameters including operator keystrokes?	Y	N	NA
Other Inspector Comments: Data recorder was not fitted on board.				

15.3.9	If vessel/unit is DP class 2 or 3, does the DP system have a continuous analysis function checking that in terms of thruster and power can maintain position after the worst case failure (consequence analysis function)?	Y	N	NA
Other Inspector Comments: Vessel is DP 2 Class.				

15.3.11	Is the bus bar configuration in accordance with the FMEA?	Y	N	
Other Inspector Comments: Bus Bar is open.				

#### Competence

15.4.1	Are the vessels crew suitably qualified for DP Operations?	Y	N	
Inspector Observations: There two DPO joined on board. The vessel could not operate for 24 hours operation.				
Initial Operator Comments: Closed out via waiver due to Non-DP vessel contract for PTTEP.				

15.4.2	Is there an Engineer and or Electronic Technician on-board with approved training on the DP system?	Y	N	
Inspector Observations: There was no ETO joined on board.				
Initial Operator Comments: Closed out via waiver due to Non-DP vessel contract for PTTEP.				

#### Additional Comments

15.99 Additional Comments

Operator's initial comments entered by: Syarizad Masri [Syarizad.MASRI@bskh-online.com]

Operator's Initial General Comments

## เอกสารแนบที่ 11

ตัวอย่างเอกสารรับรองการติดตั้งระบบจัดการสิ่งปฏิกูล  
ของเรือที่ใช้ในการปฏิบัติงานของโครงการฯ



# INTERNATIONAL SEWAGE POLLUTION PREVENTION CERTIFICATE

No DKT0/KHR/20191015003211

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

## MALAYSIA

By BUREAU VERITAS

Name of Ship BV No : 19924J	IMO	Distinctive Number or Letters	Port of Registry	Gross Tonnage	Number of persons which the ship is certified to carry
BAHTERA MAKMUR	9619141	9WND6	PORT KELANG	2245	26

Type of ship\* ☒ New ☐ Existing

Type of ship for the application of regulation 11.3\*:

- ☐ Passenger ship ☐ New ☐ Existing  
☒ 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 a conversion or an alteration or modification of a major character was commenced **12 Nov 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 plants: JOWA STP 2010-40

Name of manufacturer: JOWA AB

- ☐ The sewage treatment plant is certified by the Administration to meet the effluent standards as provided for in resolution MEPC.2(VI).  
☒ The sewage treatment plant is certified by the Administration to meet the effluent standards as provided for in resolution MEPC.159(55).  
☐ The sewage treatment plant is certified by the Administration to meet the effluent standards as provided for in the Guidelines on implementation of effluent standards and performance test for sewage treatment plants, adopted by resolution MEPC.227(64), as amended, \*\* the standards of section 4.2 thereof.

#### 1.2 ☐ Description of the comminuter

Type of comminuter: -

Name of manufacturer: -

Standard of sewage after disinfection: -



**INTERNATIONAL SEWAGE POLLUTION PREVENTION CERTIFICATE No : DKT0/KHR/20191015003211**  
**NAME OF SHIP : BAHTERA MAKMUR**  
**BV REGISTER : 19924J**

**1.3 [ X ] Description of the holding tank equipment**

Total capacity of the holding tank : 14.66 x 2 m<sup>3</sup>  
Location : P/S at Fr.71~76 in tank farm

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

- 2** That 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 materials of the ship and the condition thereof in all respects satisfactory and that the ship complies with the applicable requirements of Annex IV of the Convention.

This certificate is valid until **19 June 2023**

subject to surveys in accordance with regulation 4 of the Annex IV of the Convention.

Completion date of the survey on which this certificate is based : **15 Oct 2019**

Issued at Batam Indonesia, on the 15 October 2019

KHR

**BUREAU VERITAS**

By Order of the Secretary





INTERNATIONAL SEWAGE POLLUTION PREVENTION CERTIFICATE No : DKT0/KHR/20191015003211  
NAME OF SHIP : BAHTERA MAKMUR  
BV REGISTER : 19924J

**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 .....  
(Surveyor to BUREAU VERITAS)

Place .....

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 .....  
(Surveyor to BUREAU VERITAS)

Place .....

Date .....

**Endorsement to extend the validity of the Certificate until reaching the port of survey  
or for a period of grace where 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 .....  
(Surveyor to BUREAU VERITAS)

Place .....

Date .....

## เอกสารแนบที่ 12

ตัวอย่างเอกสารรับรองการติดตั้งอุปกรณ์กรองน้ำมัน  
ของเรือที่ใช้ในการปฏิบัติงานของโครงการฯ



# INTERNATIONAL OIL POLLUTION PREVENTION CERTIFICATE

No KLP0/DWO/20180612165926

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, as amended,  
(hereinafter referred to as "the Convention")  
under the authority of the Government of

**MALAYSIA**

By BUREAU VERITAS

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

Name of Ship BV No : 19924J	Distinctive Number or Letters	Port of Registry	Gross Tonnage	IMO Number
BAHTERA MAKMUR	9WND6 900041	PORT KELANG	2245	9619141

Deadweight of ship (metric tons) (for oil tankers) :

☐ Oil tanker

☒ Ship other than 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; and
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 until **20 June 2022 \***

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 : 21 June 2017

Issued at Miri, Malaysia, on the 12 June 2018

Valid only when the Supplement No. KLP0/DWO/20180612170134 is available for inspection.

The undersigned declares that he is duly authorized by the said Government to issue this certificate.



**BUREAU  
VERITAS**



David Wong Ing Sing  
By Order of the Secretary

\* 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 month of this date correspond 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.

IOPP CERTIFICATE No : KLP0/DWO/20180612165926

NAME OF SHIP : BAHTERA MAKMUR

BV REGISTER : 19924J

**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 provisions of the Convention :

Annual survey

Signed : David Wong Ing Sing  
(Surveyor to BUREAU VERITAS)

Place : Labuan, Malaysia

Date : 12 June 2018

☐ Annual survey☒ Intermediate survey

Signed :  
(Surveyor to BUREAU VERITAS)

Place :

Date :

15/10/2019

☐ Annual survey☐ Intermediate survey

Signed :  
(Surveyor to BUREAU VERITAS)

Place :

Date :

Annual survey

Signed :  
(Surveyor to BUREAU VERITAS)

Place :

Date :

IOPP CERTIFICATE No : **KLP0/DWO/20180612165926**  
NAME OF SHIP : **BAHTERA MAKMUR**  
BV REGISTER : **19924J**

**Annual / intermediate survey in accordance with regulation 10.8.3**

THIS IS TO CERTIFY that, at an ☐ annual ☐ intermediate 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 to BUREAU VERITAS)

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 to BUREAU VERITAS)

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 to BUREAU VERITAS)

Place :  
Date :



IOPP CERTIFICATE No : KLP0/DWO/20180612165926

NAME OF SHIP : BAHTERA MAKMUR

BV REGISTER : 19924J

**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 applies**

This Certificate shall, in accordance with regulation of Annex I of the Convention, be accepted as valid until

Signed :  
(Surveyor to BUREAU VERITAS)

Place :  
Date :

**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 to BUREAU VERITAS)

Place :  
Date :

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

Signed :  
(Surveyor to BUREAU VERITAS)

Place :  
Date :

**SUPPLEMENT TO THE  
INTERNATIONAL OIL POLLUTION PREVENTION CERTIFICATE  
(IOPP CERTIFICATE)**

**RECORD OF CONSTRUCTION AND EQUIPMENT FOR OIL TANKERS**

In respect of the provisions of Annex I of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (hereinafter referred to as "the Convention").

**Notes :**

1. This form is to be used for the first two types of ships as categorized in the IOPP Certificate, i.e. oil tankers and ships other than oil tankers with cargo tanks coming under regulation 2.2 of Annex I of the Convention. For the third type of ships as categorized in the IOPP Certificate, Form A shall be used.
2. This Record shall be permanently attached to the IOPP Certificate. The IOPP Certificate shall be available on board the ship at all times.
3. If the language of the original Record is neither English nor French, nor Spanish, the text shall include a translation into one of these languages.
4. Entries in boxes shall be made by inserting either a cross (x) for the answers "yes" and "applicable" or a dash (-) for the answers "no" and "not applicable" as appropriate.
5. Unless otherwise stated, regulations mentioned in this Record refer to regulations of Annex I of the Convention and resolutions refer to those adopted by the International Maritime Organization.

**1. PARTICULARS OF SHIP**

1.1 Name of ship : **BAHTERA MAKMUR**

BV Register : **19924J**

1.2 Distinctive number or letters : **9WND6 900041**

1.3 Port of Registry : **PORT KELANG**

1.4 Gross tonnage : **2245**

1.5 Carrying capacity of ship (in m3) : **749.000**

1.6 Deadweight of ship (in metric tons) (regulation 1.23) : **1902**

1.7 Length of ship (in m) (regulation 1.19) : **60.068**



**BUREAU  
VERITAS**

FORM B No : KLP0/DWO/20180612170134  
NAME OF SHIP : BAHTERA MAKMUR  
BV REGISTER : 19924J

1.8 Date of build :

1.8.1 Date of building contract : **28 June 2010**

1.8.2 Date on which keel was laid or ship was at a similar stage of construction : **12 November 2011**

1.8.3 Date of delivery : **20 June 2013**

1.9 Major conversion (if applicable) :

1.9.1 Date of conversion contract : -

1.9.2 Date on which conversion was commenced : -

1.9.3 Date of completion of conversion : -

1.10 Unforeseen delay in delivery :

[ - ] 1.10.1 The ship has been accepted by the Administration as a "ship delivered on or before 31 December 1979" under regulation 1.28.1 due to unforeseen delay in delivery

[ - ] 1.10.2 The ship has been accepted by the Administration as an "oil tanker delivered on or before 1 June 1982" under regulation 1.28.3 due to unforeseen delay in delivery

[ - ] 1.10.3 The ship is not required to comply with the provisions of regulation 26 due to unforeseen delay in delivery

1.11 Type of ship :

[ - ] 1.11.1 Crude oil tanker

[ - ] 1.11.2 Product carrier

[ - ] 1.11.3 Product carrier not carrying fuel oil or heavy diesel oil as referred to in regulation 20.2, or lubricating oil

[ - ] 1.11.4 Crude oil / product carrier

[ - ] 1.11.5 Combination carrier

[ x ] 1.11.6 Ship other than an oil tanker, with cargo tanks coming under regulation 2.2 of Annex I of the Convention

[ - ] 1.11.7 Oil tanker dedicated to the carriage of products referred to in regulation 2.4

## **2. EQUIPMENT FOR THE CONTROL OF OIL DISCHARGE FROM MACHINERY SPACES BILGES AND OIL FUEL TANKS (regulations 16 and 14)**

2.1 Carriage of ballast water in oil fuel tanks :

[ - ] 2.1.1 The ship may under normal conditions carry ballast water in oil fuel tanks

2.2 Type of oil filtering equipment fitted :

[ - ] 2.2.1 Oil filtering (15 ppm) equipment (regulation 14.6)

[ x ] 2.2.2 Oil filtering (15 ppm) equipment with alarm and automatic stopping device (regulation 14.7)

2.3 Approval standards\* :

2.3.1 The separating / filtering equipment :

[ - ] .1 has been approved in accordance with resolution A.393(X)

[ - ] .2 has been approved in accordance with resolution MEPC.60(33)

[ x ] .3 has been approved in accordance with resolution MEPC.107(49)

*\* Refer to recommendation on international performance and test specifications of oily-water separating equipment and oil content meters adopted by the Organization on 14 November 1977 by resolution A.393(X), which superseded resolution A.223(VII). Further reference is made to the Guidelines and specifications for pollution prevention equipment for machinery spaces bilges adopted by the Marine Environment Protection Committee of the Organization by resolution MEPC.60(33), which, effective on July 1993, superseded resolutions A.393(X) and A.444(XI); and to the revised guidelines and specifications for pollution prevention equipment for machinery spaces of ships adopted by the Marine Environment Protection Committee of the Organization by Resolution MEPC.107(49) which, effective on 1 January 2005, superseded resolutions MEPC.60(33), A.393(X) and A.444(XI).*

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- ☐ .4 has been approved in accordance with resolution A.233(VII)
- ☐ .5 has been approved in accordance with national standards not based upon resolution A.393(X) or A.233(VII)
- ☐ .6 has not been approved

☐ 2.3.2 The process unit has been approved in accordance with resolution A.444(XI)

2.3.3 The oil content meter

- ☐ .1 has been approved in accordance with resolution A.393(X)
- ☐ .2 has been approved in accordance with resolution MEPC.60(33)
- ☒ .3 has been approved in accordance with resolution MEPC.107(49)

2.4 Maximum throughput of the system is 1 m<sup>3</sup>/h

2.5 Waiver of regulation 14

☐ 2.5.1 The requirements of regulation 14.1 and 14.2 are waived in respect of the ship in accordance with regulation 14.5.

☐ The ship is engaged exclusively on voyages within special area(s) :

☐ 2.5.2 The ship is fitted with holding tank(s) for the total retention on board of all oily bilge water as follows :

Tank Identification	Tank Location		Volume (m <sup>3</sup> )
	Frames (from) - (to)	Lateral position	
Total Volume (m <sup>3</sup> )			0

☐ 2.5.3 In lieu of holding tank(s) the ship is provided with arrangements to transfer bilge water to the slop tank

2A.1 The ship is required to be constructed according to regulation 12A and complies with the requirements of:

- ☒ paragraphs 6 and either 7 or 8 (double hull construction)
- ☐ paragraph 11 (accidental oil fuel outflow performance).

☐ 2A.2 The ship is not required to comply with the requirements of regulation 12A.



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3.1 The ship is provided with oil residue (sludge) tanks for retention of oil residues (sludge) on board as follows :

Discharged to shore reception facilities

Tank Identification	Tank Location		Volume (m3)
	Frames (from) - (to)	Lateral position	
Oily water tank	59-71	Center	20.8
		Total Volume (m3)	20.8



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#### 4. STANDARD DISCHARGE CONNECTION (regulation 13)

[x] 4.1 The ship is provided with a pipeline for the discharge of residues from machinery bilges to reception facilities, fitted with a standard discharge connection in accordance with regulation 13

## 5. CONSTRUCTION (regulations 18, 19, 20, 21, 22, 23, 26, 27, 28 and 33)

[ - ] 5.1 In accordance with the requirements of regulation 18, the ship is qualified as a segregated ballast tanker in compliance with regulation 18.9

5.2 Segregated ballast tanks (SBT) in compliance with regulation 18 are distributed as follows :

Tank	Volume (m3)	Tank	Volume (m3)
		Total Volume (m3)	0

### 5.3 Crude oil washing (COW)

[-] 5.3.1 The ship is equipped with a COW system in compliance with regulation 33

[ - ] 5.3.2 The ship is equipped with a COW system in compliance with regulation 33 except that the effectiveness of the system has not been confirmed in accordance with regulation 33.1 and paragraph 4.2.10 of the Revised COW specifications (resolution A.446(XI) as amended by resolution A.497(XII) and A.897(21))

[ - ] 5.3.3 The ship has been supplied with a valid Crude Oil Washing Operations and Equipment Manual, which is dated -

[ - ] 5.3.4 The ship is not required to be but is equipped with COW in compliance with the safety aspects of Revised COW Specifications (resolution A.446(XI) as amended by resolution A.497(XII) and A.897(21))

#### 5.4 Limitation of size and arrangements of cargo tanks (regulation 26)

[ - ] 5.4.1 The ship is required to be constructed according to, and complies with, the requirements of regulation 26

[x] 5.4.2 The ship is required to be constructed according to, and complies with, the requirements of regulation 26.4 (see regulation 2.2)

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5.5 Subdivision and stability (regulation 28)

- [ - ] 5.5.1 The ship is required to be constructed according to, and complies with, the requirements of regulation 28
- [ - ] 5.5.2 Information and data required under regulation 28.5 have been supplied to the ship in an approved form
- [ - ] 5.5.3 The ship is required to be constructed according to, and complies with the requirements of regulation 27
- [ - ] 5.5.4 Information and data required under regulation 27 for combination carriers have been supplied to the ship in a written procedure approved by the Administration.
- [ - ] 5.5.5 The ship is provided with an Approved Stability Instrument in accordance with regulation 28(6)
- [ - ] 5.5.6 The requirements of regulation 28(6) are waived in respect of the ship in accordance with regulation 3.6. Stability is verified by the following means:
  - [ - ] .1 loading only to approved conditions defined in the stability information provided to the master in accordance with regulation 28(5)
  - [ - ] .2 verification is made remotely by a means approved by the Administration
  - [ - ] .3 loading within an approved range of loading conditions defined in the stability information provided to the master in accordance with regulation 28(5)
  - [ - ] .4 loading in accordance with approved limiting KG/GM curves covering all applicable intact and damage stability requirements defined in the stability information provided to the master in accordance with regulation 28(5)

5.6 Double hull construction

5.6.1 The ship is required to be constructed according to regulation 19 and complies with the requirements of :

- [ - ] .1 paragraph (3) (double-hull construction)
- [ - ] .2 paragraph (4) (mid-height deck tankers with double side construction)
- [ - ] .3 paragraph (5) (alternative method approved by the Marine Environment Protection Committee)

[ - ] 5.6.2 The ship is required to be constructed according to and complies with the requirements of regulation 19.6

[ x ] 5.6.3 The ship is not required to comply with the requirements of regulation 19

5.6.4 The ship is subject to regulation 20 and :

- [ - ] .1 is required to comply with paragraph 2 to 5, 7 and 8 of regulation 19 and regulation 28 in respect of paragraph 28.6 not later than -

[ - ] .2 is allowed to continue operation in accordance with regulation 20.5 until -

[ - ] .3 is allowed to continue operation in accordance with regulation 20.7 until -

[ x ] 5.6.5 The ship is not subject to regulation 20.

[ - ] .1 The ship is less than 5,000 tonnes deadweight

[ - ] .2 The ship complies with regulation 20.1.2

[ - ] .3 The ship complies with regulation 20.1.3

[ - ] 5.6.6 The ship is subject to regulation 21 and :

[ - ] .1 is required to comply with regulation 21.4 not later than -

[ - ] .2 is allowed to continue operation in accordance with regulation 21.5 until -

[ - ] .3 is allowed to continue operation in accordance with regulation 21.6.1 until -

[ - ] .4 is allowed to continue operation in accordance with regulation 21.6.2 until -

[ - ] .5 is exempted from the provisions of regulation 21 in accordance with regulation 21.7.2.

[ - ] 5.6.7 The ship is not subject to regulation 21.

[ - ] .1 The ship is less than 600 tonnes deadweight

[ - ] .2 The ship complies with regulation 19 (deadweight tonnes  $\geq$  5,000)

[ - ] .3 The ship complies with regulation 21.1.2

[ - ] .4 The ship complies with regulation 21.4.2 ( $600 \leq$  deadweight tonnes  $<$  5,000)

[ - ] .5 The ship does not carry "heavy grade oil" as defined in regulation 21.2 of MARPOL Annex I



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- 5.6.8 The ship is subject to regulation 22 and:  
[-] .1 complies with the requirements of regulation 22.2  
[-] .2 complies with the requirements of regulation 22.3  
[-] .3 complies with the requirements of regulation 22.5  
[x] 5.6.9 The ship is not subject to regulation 22

- 5.7 Accidental oil outflow performance  
[-] 5.7.1 The ship complies with the requirements of regulation 23

## 6. RETENTION OF OIL ON BOARD (regulation 29, 31 and 32)

### 6.1 Oil discharge monitoring and control system

- [-] 6.1.1 The ship comes under category oil tanker as defined in resolution [-] A.496(XII) [-] A.586(14)\*  
[-] 6.1.2 The oil discharge monitoring and control system has been approved in accordance with resolution MEPC.108(49)

\*\*

*\* For oil tankers the keels of which are laid, or which are at a similar stage of construction, on or after 2 October 1986 should be fitted with a system approved under resolution A.586(14)*

*\*\* Oil tankers the keels of which are laid, or which are at a similar stage of construction, on or after 1 January 2005 should be fitted with a system approved under resolution MEPC.108(49)*

#### 6.1.3 The system comprises :

- [-] .1 control unit  
[-] .2 computing unit  
[-] .3 calculating unit

#### 6.1.4 The system is :

- [-] .1 fitted with a starting interlock  
[-] .2 fitted with automatic stopping device

#### 6.1.5 The oil content meter is approved under the terms of resolution

- [-] A.393(X)  
[-] A.586(14)\*\*\*  
[-] MEPC.108(49)

suitable for :

- [-] .1 crude oil  
[-] .2 black products  
[-] .3 white products

*\*\*\* For oil content meters installed on tankers built prior to 2 October 1986, refer to the Recommendation on international performance and test specifications for oily-water separating equipment and oil content meters adopted by the Organization by resolution A.393(X). For oil content meters as part of discharge monitoring and control systems installed on tankers built on or after 2 October 1986, refer to the Guidelines and specifications for oil discharge monitoring and control systems for oil tankers adopted by the Organization by resolution A.586(14). For oil content meters as part of discharge monitoring and control systems installed on tankers the keel of which are laid or are in a similar stage of construction on or after 1 January 2005, refer to the revised Guidelines and specifications for oil discharge monitoring and control systems for oil tankers adopted by the Organization by resolution MEPC.108(49).*

- [-] 6.1.6 The ship has been supplied with an operations manual for the oil discharge monitoring and control system

### 6.2 Slop tanks

- [-] 6.2.1 The ship is provided with dedicated slop tank(s) with the total capacity of m<sup>3</sup> which is % of the oil carrying capacity, in accordance with :

- [-] .1 Regulation 29.2.3  
[-] .2 Regulation 29.2.3.1  
[-] .3 Regulation 29.2.3.2  
[-] .4 Regulation 29.2.3.3

- [-] 6.2.2 Cargo tanks have been designated as slop tanks

### 6.3 Oil/water interface detectors

- [-] 6.3.1 The ship is provided with oil / water interface detectors approved under the terms of resolution MEPC.5(XIII)\*

*\* Refer to the Specification for oil/water interface detectors adopted by the Marine Environment Protection Committee of the Organization by resolution MEPC.5(XIII)*

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6.4 Exemptions from regulation 29, 31 and 32

- ☐ 6.4.1 The ship is exempted from the requirements of regulation 29, 31 and 32 in accordance with regulation 2.4  
☒ 6.4.2 The ship is exempted from the requirements of regulation 29, 31 and 32 in accordance with regulation 2.2

6.5 Waiver of regulation 31 and 32

6.5.1 The requirements of regulation 31 and 32 are waived in respect of the ship in accordance with regulation 3.5. The ship is engaged exclusively on :

- ☐ .1 Specific trade under regulation 2.5 :  
☐ .2 Voyages within special area(s) :  
☐ .3 Voyages within 50 miles of the nearest land outside special area(s) of 72 hours or less in duration restricted to :

**7. PUMPING, PIPING AND DISCHARGE ARRANGEMENTS (regulation 30)**

7.1 The overboard discharge outlets for segregated ballast are located :

- ☒ 7.1.1 above the waterline  
☐ 7.1.2 below the waterline

7.2 The overboard discharge outlets, other than the discharge manifold, for clean ballast are located (*Only those outlets which can be monitored are to be indicated*) :

- ☐ 7.2.1 above the waterline  
☐ 7.2.2 below the waterline

7.3 The overboard discharge outlets, other than the discharge manifold, for dirty ballast water or oil-contaminated water from cargo tank areas are located :

- ☐ 7.3.1 above the waterline  
☐ 7.3.2 below the waterline in conjunction with the part flow arrangements in compliance with Regulation 30.6.5  
☐ 7.3.3 below the waterline

7.4 Discharge of oil from cargo pumps and oil lines (regulation 30.4 and 30.5)

- 7.4.1 Means to drain all cargo pumps and oil lines at the completion of cargo discharge  
☐ .1 drainings capable of being discharged to a cargo tank or slop tank  
☐ .2 for discharge ashore a special small diameter line is provided

**8. SHIPBOARD OIL POLLUTION EMERGENCY PLAN (regulation 37)**

- ☐ 8.1 The ship is provided with a shipboard oil pollution emergency plan in compliance with regulation 37  
☒ 8.2 The ship is provided with a shipboard marine pollution emergency plan in compliance with regulation 37.3

**8A. SHIP-TO-SHIP OIL TRANSFER OPERATIONS AT SEA (regulation 41)**

- ☐ 8A.1 The oil tanker is provided with an STS operations Plan in compliance with regulation 41.

**9. EXEMPTION**

☐ 9.1 Exemptions have been granted by the Administration from the requirements of chapter 3 of Annex I of the Convention in accordance with regulation 3.1 on those items listed under paragraph(s) of this Record.

**10. EQUIVALENTS (regulation 5)**

☐ 10.1 Equivalents have been approved by the Administration for certain requirements of Annex I on those items listed under paragraph(s) of this Record.

**11 COMPLIANCE WITH PART II-A – CHAPTER 1 OF THE POLAR CODE**

☐ 11.1 The ship is in compliance with additional requirements in the environment-related provisions of the introduction and section 1.2 of chapter I of part II-A of the Polar Code.

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THIS IS TO CERTIFY that this Record is correct in all respects.

Issued at Miri, Malaysia, on the 12 June 2018




David Wong Ing Siing  
By Order of the Secretary



## เอกสารแนบที่ 13

ตัวอย่างแผนการจัดการสิ่งแวดล้อมของเรือที่ใช้ในการปฏิบัติงานโครงการฯ

	Date : 01/01/2017	Revision : 2	Ref : P-10-01
	Originator by : Sonthi Rodmong Technical Manager	Reviewed by : Ongarj Sombutwatanangura QAS Manager	Approved by : Surachai Nimnual Executive Vice President Marine
	<b>ENVIRONMENTAL MANAGEMENT</b>		


## SECTION 10 : ENVIRONMENTAL MANAGEMNT

**P-10-01**

### Environmental Management


Originator : __	, Name : Title : Technical Manager
Approved by : __	, Name : Title : EVP - Marine

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	<b>ENVIRONMENTAL MANAGEMENT</b>		

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## 1. OBJECTIVES


- The Company endeavors to meet the requirements of MARPOL Convention, as voluntary international standard through which the necessary waste from ship operational and marine and/or air pollution prevention are established, documented, implemented, maintained and continuously improved.
- An Environmental Management System meeting the requirements of MARPOL Annex VI is a management tool enabling the Company to:
  - Establish a formal framework for compliance with national and international regulations, MARPOL Convention, and customer expectations;
  - Identify and control the environmental impact of its activities, products or services;
  - Improve its environmental performance continually;
  - Implement a systematic approach to setting environmental objectives and targets, to achieving these and to demonstrating that they have been achieved;
  - Develop and implement procedures to measure the environmental impact of operations;
  - Development of a [Shipboard Energy Efficiency Management Plan](#).

## 2. SCOPE

- The Company has developed environmental management procedures that shall be used to identify, evaluate, reduce and monitor the environmental effects of operations, including provisions for the following:
  - The systematic identification and assessment of sources of marine pollution;
  - Ensuring the safe and responsible disposal of residual wastes;
  - Contingency plans for dealing with potential pollution incidents;
  - Reporting arrangements for all pollution incidents or near-miss occurrences that could have resulted in pollution;
  - Establishing requirements for Ballast Water Management.
- This procedure is not implemented when emergency which has risks to Safety of Life and/or Ship at sea.

## 3. DEFINITIONS

N/A

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## 4. RESPONSIBILITY

### **Executive/Senior Vice President**

Ensuring that the requirements of this procedure are implemented, applied and complied.


### **Technical Manager**

Ensuring that the requirements and expectations for environmental management are communicated and implemented onboard all vessels under his/her jurisdiction.

### **Vessel Master**

Ensuring the implementation and application of this procedure onboard the vessel under his command.



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## 5. PROCEDURE

### 5.1 Sources of Marine and Atmospheric Pollution

#### 5.1.1 Marine Pollution


- The **Master** shall ensure that the suitably and properly environmental prevention measures have been developed and effectively implemented onboard in accordance with the MARPOL convention.
- The following specific preventing procedures, but not limited to, shall be developed for protection against related pollution from the following sources:-
  - Oils or Hydro Carbon substances Pollution,
  - Noxious Liquid Substances,
  - Sewage Pollutions,
  - Garbage onboard Pollutions
  - Engine exhaust emissions and volatile organic compounds pollution,
  - Ballast Water Management,
  - Anti-Fouling Paints Pollution
- The systematic identification and assessment of sources of marine pollution is carried out through the continuous monitoring, evaluation and assessment of all the records and reports associated with environmental issues: waste management, refrigerant management and oil and hydrocarbon products. Incident reports and investigations, including near misses are studied. The data is carefully analyzed to determine trends to ensure marine pollution is kept to an absolute minimum.
- **Masters** are responsible for reporting incidents involving environmental pollution and the Company is responsible for the investigation of incidents involving environmental pollution as described within the *SMS Section 8 – Incident Management, Reporting, and Investigation*.

#### 5.1.2 Air Pollution

- The **Master**, as the company's representative overall in command on board, shall be ensured that his ship's emissions are always properly and suitably controlled within limitations that are in accordance with the requirement of MARPOL Annex VI.
- The following gasses/activities emissions are defined as risks to air pollutant:-
  - Ozone depleting substances,
  - Nitrogen Oxides (NO<sub>x</sub>),
  - Sulphur Oxides (SO<sub>x</sub>),
  - Volatile Organic Compounds (VOCs), and
  - Emissions from shipboard incinerator, when fitted.

#### 5.1.3 Management Objectives

- The target is ZERO accidental environment releases (pollution) and a continual reduction in environmental indicators defined by *Management SHE planning*.

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## 5.2 Environmental Management System

- An Environmental Management System is a structured system or management tool, which once implemented, helps the Company to identify the environmental impacts due to nature of the business activities and to improve its environmental performance. The system aims to provide a methodical approach to planning, implementing and reviewing an organization's environmental management.

### 5.2.1 Environmental Aspect

- Company shall ensure that all environmental aspects that may pose significant impacts to the environment are under control and prioritized for improvements.

### 5.2.2 Environmental Impact

- In cause and effect, if one considers an environmental aspect to be the cause, then the environmental impact is the effect. An environmental impact is any change to the environment, whether adverse or beneficial, wholly or partially resulting from the organization's activities, products or services. Essentially, the environmental impact is the result of the environmental aspect.

### 5.2.3 Significant Environmental Aspect


- A significant environmental aspect is one that can have a significant environmental impact. These environmental aspects are recorded periodically and initiatives for continuous improvements are elaborated and executed.

## 5.3 Oily and Hydro Carbon Pollution Management

- Generally, sources of this type of pollution are, not limited to:-
  - Bilges water within the engine compartments which is occurred from engines/systems operational such as contaminated cooling water of main or auxiliary engines, propeller shafts or lubricating oils or from any leakages;
  - Oily residues or sludge which have occurred from the process of bilges discharging or Oily-water separator operating and lubricating oil;
  - Contaminated oily-water from the Cargo Tanks Cleaning operational when cargo types switching requires;
  - Contaminated oily-water from the F.O. Tanks cleaning process;

### 5.3.1 Bilge water discharges

- Bilge waters discharging shall be granted by the **Chief Engineer** approval only;
- Discharging process shall be performed in accordance with the MARPOL Annex I, reg. 17;
- The Oily-Water Separator Equipment shall be classification approved type (MARPOL Annex I, reg. 14: not exceeding to 15 ppm);

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- Loading and discharging hydrocarbon products including fuel oil, base oil and oil-base mud are subject to full pre-task planning, including risk assessment and checklist use prior to starting the operation.
- It is the responsibility of the **Master** to ensure that the *Oil Record Book* is updated. (*Part I is for Technical Operations while Part II is for Deck Operations*);
- Recording shall be complied with those are addressed in the MARPOL Annex I, reg.17\_Oil Record Book Part 1 – Machinery Space operations.
- Any minor spillage shall be immediately cleaned up using onboard spill clean-up equipment.
- Larger spillage on deck or into the water shall be attended to as described in the vessel's *Shipboard Oil/Marine Pollution Emergency Plan (SOPEP/SMPEP)*.

### 5.3.2 Oils residues or Sludge discharges

- Onboard Oily Residues or Sludge shall be eliminated by burning in shipboard incinerator, when applicable, or discharges into shore facilities;
- The **Chief Engineer** shall ensure for the *Oil Record Book Part-1* recording prior the Master's verification;

### 5.3.3 Bunkers Tanks Cleaning discharges


- This contaminated type must be directly discharged into the shore facilities only;
- All discharging shall be clearly recorded within the *Oil Record Book Part-1* with documented evidence;

## 5.4 Noxious Liquids Substances management

- When ship has classified as the NLS Ship, the **Master** shall ensure that the specific *Procedure and Arrangement Manual (P&A Manual)* as well as the *Shipboard Marine Pollution Emergency Plan (SMPEP)* which are approved by the Administration or recognized organization are well kept and maintained in place on board;
- All discharging of the NLS cargo's residues, Ballast waters and Tank's cleaning waters shall be complied with the MARPOL Annex II, Reg. 13;
  - Underway with speed not less than 7 knots and not less than 4 knots (when un-self propelled);
  - Under water discharges outlet within limitation rate;
  - Distance more than 12 nautical miles and in depth of water not lesser than 25 meters;
- Records of discharging shall be clearly addressed within the *Cargo Record Book* in compliance with Cargo Record Book for ships carrying Noxious Liquids Substance in bulk the MARPOL Annex II, Reg. 15;

## 5.5 Sewage discharges management

- The following items are classified as Sewage;
  - Drainage and other wastes from any form of toilets and urinals.
  - Drainage from medical premises (dispensary, sick bay, etc.) via wash tubs, and suppers located in such premises.

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- Drainage from spaces containing living animals
- Other waste waters when mixed with the drainages defined above.
- All sewages are prohibited to discharge into the sea except the following:
  - Discharge through Sewage Treatment Plant which complied either IMO Resolution MEPC.2(VI) or MEPC.159 (55).
- The Overboard Sewage discharging shall be complied with the MARPOL Annex IV, reg. 11 throughout the approved treatment system (Refer to MARPOL Annex IV, Reg. 9.1.2);
  - Discharge is only to take place while vessel is underway and making way on passage.
  - All bilge waters shall be passed through an approved oily water separator equipped with a 15 ppm sensor.
  - Discharge at distance more than 3 nautical miles if the vessel is installed sewage comminuting and disinfecting system.
  - Discharge at distance more than 12 nautical miles if sewage is stored in holding tanks. Discharge shall not be done instantaneously but at moderate rate when the ship is en-route and proceeding at not less than 4 knots. **The discharge rate approved by flag / RO shall be provided on board.**
- Maximum discharging shall not over limit of holding tank capacities, which is certified by the Administration;
- Testing report of the shipboard treatment system shall be stated within the *International Sewage Pollution Prevention Certificate*;
- Discharge to shore facility through standard discharge connection. Documented evidence for this discharge shall be retained on board.

## 5.6 Waste (Garbage) Management

- Shipboard waste (garbage) management shall be complied in accordance with the MARPOL Annex V, Reg. 9;
- The **Master** shall ensure that the particular *Garbage Management Plan* as well as the *Garbage Record Book* are well kept and maintained onboard;
- Records of all discharging with documented evidences shall be kept and maintained;
- *Placards of the Shipboard Garbage Management Guidelines* shall be clearly posted in places for ensuring that all shipboard personnel are well understood and familiarized with discharging operation; refer to vessel's Garbage Management Plan

## 5.7 Engine Exhaust Emissions and Volatile Organic Compounds

- The atmospheric pollutant which addressed in the MARPOL Annex VI, those might be occurred by the shipboard operations (but not limited to):-

	Date : 01/01/2017	Revision : 2	Ref : P-10-01
	Originator by : Sonthi Rodmong Technical Manager	Reviewed by : Ongarj Sombutwatanangura QAS Manager	Approved by : Surachai Nimnual Executive Vice President Marine
	<b>ENVIRONMENTAL MANAGEMENT</b>		

### 5.7.1 Ozone Depleting Substances

- Any deliberate emissions of ozone depleting substances shall be prohibited. Deliberate emissions include emissions occurring in the course of maintaining, servicing, repairing or disposing of systems or equipment, except that deliberate emissions do not include minimal releases associated with recapture or recycling of this substances;
- The Shipboard Ozone Depleting Substances are, but not limited to, HALON (Halon 1211, 1301, 2402) in the fire-extinguishing system and CHLOROFLUOROCARBON - CFC (CFC no.11, 12, 113, 114, 115) in the air conditioner or cooling system includes within the vary insulations;
- The *Ozone Depleting Substances – Record Book* shall be provided for recording without delays on each occasion, in respect of the following:-
  - recharge, full or partial, of equipment containing ozone depleting substances;
  - repair or maintenance of equipment containing ozone depleting substances;
  - discharge of ozone depleting substances to the atmosphere:
    - deliberate; and
    - non-deliberate;
  - discharge of ozone depleting substances to land-based reception facilities; and
  - supply of ozone depleting substances to the ship.
- The *Ozone Depleting Substances – Record Book* may developed as part of an existing *log-book* or *electronic recording system* as approved by the Administration.

### 5.7.2 Nitrogen Oxides (NOx)


- The Specific NOx controls in accordance with the MARPOL Annex VI, Reg. 13, is apply to all marine diesel engines with a power output more than 130 kW installed on a ship;
- Exempted other those are solely for emergencies or engine installed in lifeboats intended to be used solely for emergencies;
- The requirements has divided into THREE TIERS which is described as below:-

Constructed date	RPM < 130	RPM 130 < 2000	RPM 2000 or more
Tier #1 After 1 January 2000 Prior 1 January 2011	17.0 g/kWh	$45 \times n^{(-0.2)}$ g/kWh	9.8 g/kWh
Tier # 2 After 1 January 2011	14.4 g/kWh	$44 \times n^{(-0.23)}$ g/kWh	7.7 g/kWh
Tier # 3 On or After 1 January 2016	3.4 g/kWh	$9 \times n^{(-0.2)}$ g/kWh	2.0 g/kWh

Remark: when “n” = rated engine speed (crankshaft revolutions per minute)

- The **Master** shall ensure that the *International Air Pollution Prevention Certificate* has been certified by the Administration or recognized organization, and maintained in place;



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	<b>ENVIRONMENTAL MANAGEMENT</b>		

- The *Certification of an Approved Method* shall be provided to the manufacturer, the Company shall ensure that all repairs and/or maintenance shall be provided in line with the manufacturer's guidelines only without different spare-part changes;
- The NOx Technical Code 2008 is comply for the marine diesel engines durability and reliability;

### 5.7.3 Sulphur Oxides (SOx)

- The Specific SOx controls in accordance with the MARPOL Annex VI, Reg. 14, which is developed for control the Sulphur content of any fuel oil used on board ships shall not exceed the following limits;


Outside an ECA established to limit Sox and particulate matter emissions	Inside an ECA established to limit Sox and particulate matter emissions
4.50% m/m prior to 1 <sup>st</sup> January 2012	1.50% m/m prior to 1 <sup>st</sup> July 2010
3.50% m/m on and after 1 <sup>st</sup> January 2012	1.00% m/m on and after 1 <sup>st</sup> July 2010
0.50% m/m on and after 1 <sup>st</sup> January 2020*	0.10% m/m on and after 1 <sup>st</sup> January 2015

Remark: The Emission Control Areas (ECA) are established and defined in MARPOL as following;

1. Baltic Sea area – as defined in Annex I of MARPOL (SOx only);
  2. North Sea area – as defined in Annex V of MARPOL (SOx only);
  3. North American area (entered into effect 1 August 2012) – as defined in Appendix VII of Annex VI of MARPOL (SOx, NOx and PM); and
  4. United States Caribbean Sea area (entered into effect 1 January 2014) – as defined in Appendix VII of Annex VI of MARPOL (SOx, NOx and PM).
- The **Master** shall ensure that all *Bunkers Delivery Note* shall be identified the Sulphur Content of the fuel oils that is comply in accordance with the above table prior commence bunkering on board;

### 5.7.4 Shipboard Incinerator

- The MARPOL Annex VI, Reg. 16, is comply only in a shipboard incinerator only;
- The following substances shall be prohibited for incineration:-
  1. residues of cargoes subject to Annex I, II or III or related contaminated packing materials;
  2. polychlorinated biphenyls (PCBs);
  3. garbage, as defined by Annex V, containing more than traces of heavy metals;
  4. refined petroleum products containing halogen compounds;
  5. sewage sludge and sludge oil either of which are not generated on board the ship; and
  6. exhaust gas cleaning system residues.
- **Designated crew** shall be trained to implement the guidance provided in the manufacturer's operating manual as required by MARPOL;

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	ENVIRONMENTAL MANAGEMENT		

### 5.7.5 Energy Efficiency Design Index (EEDI)


- The attained EEDI shall be specific to each ship and shall indicate the estimated performance of the ship in terms of energy efficiency, and be accompanied by the *EEDI Technical File* that contains the information necessary for the calculation of the attained EEDI and that shows the process of calculation.
- The attained EEDI shall be verified, based on the EEDI technical file, either by the Administration or by any organization duly authorized by it.
- Attained EEDI  $\leq$  Required EEDI =  $(1-X/100) \times$  reference line value  
where 'X' is the reduction factor specified in table 1 for the required EEDI compared to the EEDI reference line
- The EEDI calculation has been clearly addressed within the particularly *Ship Energy Efficiency Management Plan (SEEMP)*.

### 5.7.6 Ship Energy Efficiency Management Plan (SEEMP)

- The **Master** shall ensure that the specific *SEEMP* has been developed and kept in place onboard;
- On the operational side for energy efficient ship operation, the *Ship Energy Efficient Management Plan (SEEMP)* has been developed to assist the shipping industry in achieving energy efficiency improvements in order to reduce Greenhouse Gas Emission to Atmosphere.
- The Company works continuously to reduce fuel consumption and emission of greenhouse gases from their vessels. Fuel consumption management is a high priority in order to comply with international environmental requirements and to support an ambitious CO<sub>2</sub> reduction plan.
  - During the vessels' lifetime, a number of operational strategies are applied to achieve fuel savings;
  - Optimized voyage planning is used to identify the most fuel efficient route and a "just in time" steady running strategy is applied to keep the engine load at a minimum;
  - Weather routing is considered when planning the voyage;
  - Minimum safe ballast is carried to ensure enabling fuel consumption optimization at high safety standards;
  - Hull and propeller maintenance is conducted.

## 5.8 Ballast Water Management

- The **Master** shall ensure that the particular vessel's *Ballast Water Management Plan*, which has been approved by the Administration or recognized organization, is well kept and maintained in place;
- All shipboard personnel shall well understood and familiarized with all contents by periodically shipboard trainings, records of training shall be retained on board.
- Since 8<sup>th</sup> September 2017 or the first renewal survey in associated with IOPP certification, the D-2 Ballast Water Management Systems shall be put in place on board for ensuring that all discharged ballast into the sea shall not exceed the specified concentrations requirements.

	Date : 01/01/2017	Revision : 2	Ref : P-10-01
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	ENVIRONMENTAL MANAGEMENT		

## 5.9 Anti – Fouling Management

- The **Master** in liaison with the **Technical Manager** or **Designated Superintendent** shall be ensured that there is this suitable Anti Fouling Systems which are effective and environmentally safe;
- This system is fitted to prevent the built up of organisms on the surface on ships is of critical importance to address the harmful effects of anti-fouling systems used on board as a matter of urgency;
- The specific *AFS Certificate* shall be valid and kept in place onboard.

## 5.10 Reporting and Record Keeping

### 5.10.1 Garbage Records


- Refer to vessel's *Garbage Management Plan* and the *Garbage Record Book*.

### 5.10.2 Waste Oil Transfer Certificate

- When waste oil offloaded ashore, to another vessel or to an offshore installation, the receiving facility shall provide a *certified transferring certificate/documentation*.
- The document shall specify the category of the waste oil (sludge, engine oil etc.), quantity of the waste oil, location, and date.
- The document shall bear the name of the reception facility and relevant license (as applicable) and be signed by a responsible person at the receiving facility.
- The document shall be kept on board in the *Oil Record Book* for a period of TWO years.
- When the company vessel is the receiving vessel, the document shall be completed and provided to the issuing vessel.
- In the event that this procedure cannot be followed (as in when the reception facility cannot for any reason complete or issue the document) an entry is to be made in the *Oil Record Book* giving details accordingly.
- When recording of operations in the *Oil Record Book*:
  - The operations shall be recorded in chronological order as they have been executed on board;
  - The dates shall be entered in day month and year format (dd-mm-yy); for example 23-05-15 (23<sup>rd</sup> May 2015);
  - All entries are to be made and signed by the **Officer or Officers in charge** of the operations concerned and each completed page shall be signed by the **Master**;
  - If a wrong entry has been recorded in the *Oil Record Book*, it shall immediately be struck through with a single line in such a way that the wrong entry is still legible. The wrong entry shall be initiated and dated, with the new corrected entry following;
  - Tank nomenclature shall be recorded as per the format noted within the *International Oil Pollution Prevention Certificate (IOPPC)*;

### 5.10.3 Ballast Water Management Log

- It is part of the specific ship's *Ballast Water Management Plan*, thus the **Master** shall ensure that it will have up to date recorded and maintained;

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	Originator by : Sonthi Rodmong Technical Manager	Reviewed by : Ongarj Sombutwatanangura QAS Manager	Approved by : Surachai Nimnual Executive Vice President Marine
	<b>ENVIRONMENTAL MANAGEMENT</b>		

#### 5.10.4 Pollution Incident Reporting

- All pollution incidents and near-miss occurrences shall be reported and investigated as required in accordance with the procedures detailed in SMS Section 8 *Incident Management, Reporting, and Investigation* and SMS form '*Initial Incident Report (F-08-SHE/01)*'

## 6. RELATED FORMS

F-08-SHE/01 Initial Incident Report

## 7. APPENDIX

N/A

## เอกสารแนบที่ 14

ตัวอย่างบันทึกการขนส่งของเสียของแท่นเจาะ



No.	Collection Date	Manifest collection no.	Asset	Location	Type of waste	Waste List	Final Disposer	Qty (if any)	Remaining weight (kg)	Incoming weight (kg)	Disposal weight (kg)	Ending balance	Disposal date	Disposal Leadtime (day)	Manifest disposal no.
1	13-Sep-21	480997	G2/61	G2/61-Drilling	Haz	0701 - Paint sludge	ESBEC	1	51.00		51.00	-	6-Oct-21	23	480519
2	20-Sep-21	483375	G2/61	G2/61-Drilling	Non-Haz	1902 - General non-hazardous waste (SCG)	SCG-Thungsong	1	463.00		463.00	-	7-Oct-21	17	481607
3	27-Sep-21	482047	G2/61	G2/61-Drilling	Non-Haz	1902 - General non-hazardous waste (SCG)	SCG-Thungsong	2	356.00		356.00	-	10-Oct-21	13	482193
4	27-Sep-21	482047	G2/61	G2/61-Drilling	Non-Haz	1902 - General non-hazardous waste (BPEC)	BPEC	1	85.00		85.00	-	5-Oct-21	8	486887
5	4-Oct-21	480501	G2/61	G2/61-Drilling	Non-Haz	1902 - General non-hazardous waste (BPEC)	BPEC	2		737.00	737.00	-	13-Oct-21	9	486888
6	9-Oct-21	480550	G2/61	G2/61-Drilling	Non-Haz	1902 - General non-hazardous waste (SCG)	SCG-Thungsong	2		653.00	653.00	-	16-Oct-21	7	482194
7	16-Oct-21	480656	G2/61	G2/61-Drilling	Non-Haz	1902 - General non-hazardous waste (SCG)	SCG-Thungsong	2		636.00	636.00	-	24-Oct-21	8	482195
8	16-Oct-21	480657	G2/61	G2/61-Drilling	Non-Haz	1902 - General non-hazardous waste (SCG)	SCG-Thungsong	1		490.00	490.00	-	24-Oct-21	8	482195
9	16-Oct-21	480657	G2/61	G2/61-Drilling	Non-Haz	1308 - Steel band (Recyclable)	WMSD	1		204.00	204.00	-	16-Oct-21	0	480657
10	16-Oct-21	480657	G2/61	G2/61-Drilling	Non-Haz	1406 - Discarded sling (Recyclable)	WMSD	1		464.00	464.00	-	16-Oct-21	0	480657
11	16-Oct-21	480657	G2/61	G2/61-Drilling	Haz	0503 - Used Oil filter / membrane	WMSD	2		134.00	134.00	-	30-Oct-21	14	494479
12	25-Oct-21	494327	G2/61	G2/61-Drilling	Non-Haz	1902 - General non-hazardous waste (SCG)	SCG-Thungsong	1		301.00		301.00		-44494	
13	25-Oct-21	494327	G2/61	G2/61-Drilling	Non-Haz	1902 - General non-hazardous waste (BPEC)	BPEC	1		275.00		275.00		-44494	
14	27-Oct-21	494401	G2/61	G2/61-Drilling	Non-Haz	1902 - General non-hazardous waste (SCG)	SCG-Thungsong	1		422.00		422.00		-44496	
15	27-Oct-21	494401	G2/61	G2/61-Drilling	Non-Haz	1306 - Plastic Scrap (Recyclable)	WMSD	1		32.00	32.00	-	27-Oct-21	0	494401

## เอกสารแนบที่ 15

ภาพถ่ายถังเก็บวัสดุอุปกรณ์สำหรับการตอบสนองต่อการหกรั่วไหล  
ในพื้นที่ปฏิบัติงานบริเวณต่างๆ บนแท่นเจาะ



## เอกสารแนบที่ 16

ตัวอย่างเอกสารรับรองการติดตั้งอุปกรณ์สำหรับการจัดการของเสีย  
ของแท่นเจาะที่ใช้ในการปฏิบัติงานจาก American Bureau of Shipping



# American Bureau of Shipping

## SKALD

Class No YY255736

Report No.: SG2682097

Date 07 May 2021

### STATEMENT OF FACT

#### MARPOL ANNEX V (GARBAGE) - EQUIPMENT AND ARRANGEMENTS

THIS IS TO REPORT that the undersigned Surveyor to this Bureau did, at the request of the Builders, Keppel FELS, Singapore, attended the vessel name "SKALD", Flag state Republic of Liberia, Port of Monrovia, IMO No. 9719018, Call letters D5UJ3 and 19404 of Gross Tonnage 11508, known as the Builder's Hull No. B365, on the 20th March 2015 and subsequent dates at the Builder's yard in order to examine and report on the equipment and arrangements on board the vessel with reference to Annex V of MARPOL 73/78 "Regulation for the Prevention of Pollution by Garbage from Ships" and "Guidelines for the Implementation of Annex V of MARPOL 73/78".

The Vessel is fitted or provided with the following equipment and arrangements.

Reference	Equipment / Arrangements
Type of Garbage Reg. 1(9) of Annex V 1.6 of Guidelines	Types of garbage normally produced during ships voyage: a) Domestic wastes: Foods & Refuse b) Operational wastes: Maintenance wastes
Placards Reg. 10(1) of Annex V 4.4 of Guidelines	Placards are posted in a conspicuous place in the Galley, Mess rooms, Main deck, Engine room and in garbage collecting area.
Garbage Management Plan and Garbage Record Book onboard. Reg. 10(2) & 10(3) of Annex V 2.3.4 and MEPC.220(63)	The garbage management plan and garbage record book are provided
Garbage processing equipment 2.6 & 2.8 of Guidelines	The following garbage processing equipment are provided on board: a) Food waste disposer installed in the galley Manufacturer: Loipart Model: 400MC Capacity: 100-150 kg/hr Type of garbage: Food waste b) Food waste disposer installed in the scullery Manufacturer: Loipart Model: 510 Capacity: 300kg/Hr Type of garbage: Food waste c) Compactor installed on main deck Manufacturer: Haaribol Pte. Ltd Model: Enviro-Pak 3000EMR

Note: This Report does not constitute validation of any ABS Rule requirement relating to the captioned equipment or documentation, as no evaluation of acceptance or rejection is made by the signatory. This Report is issued solely for the use of the Bureau, its committees, its clients or other authorized entities. Parties are advised to review the Rules for the scope and conditions of classification and to review the survey records for a fuller description of any restrictions or limitation on the vessel's service or surveys. The validity, applicability and interpretation of this Report is governed by the Rules and standards of American Bureau of Shipping who shall remain the sole judge thereof. Nothing contained in this Report or in any notation made in contemplation of this Report shall be deemed to relieve any designer, builder, owner, manufacturer, seller, supplier, repairer, operator or other entity of any warranty express or implied.



**ABS****American Bureau of Shipping**

Document No

YY255736-2682097-437

**SKALD**

Class No

YY255736

Garbage Collection and Storage  
4.3 and 4.5 of Appendix I

Garbage storage provided on board:

- a) Garbage area is provided with metal receptacles for separating and retaining domestic and operational waste

Electronically Signed By  
Yanawin Nakorn, Singapore Port  
Surveyor



**Note:** This Report does not constitute validation of any ABS Rule requirement relating to the captioned equipment or documentation, as no evaluation of acceptance or rejection is made by the signatory. This Report is issued solely for the use of the Bureau, its committees, its clients or other authorized entities. Parties are advised to review the Rules for the scope and conditions of classification and to review the survey records for a fuller description of any restrictions or limitation on the vessel's service or surveys. The validity, applicability and interpretation of this Report is governed by the Rules and standards of American Bureau of Shipping who shall remain the sole judge thereof. Nothing contained in this Report or in any notation made in contemplation of this Report shall be deemed to relieve any designer, builder, owner, manufacturer, seller, supplier, repairer, operator or other entity of any warranty express or implied.

## เอกสารแนบที่ 17

ตัวอย่าง Food waste management on board ของเรือที่ใช้ในการปฏิบัติงาน



## FOOD WASTE MANAGEMENT

Effective Date: Jun 09, 2021

# Food Waste Management

Ship Name : **SC BONGKOT**

Verified by :  (Master)	
Originator by :  Title : Marine QSHE Manager	
Approved by :  Title : Deputy Managing Director	

## 1. Objective:

For ensuring the shipboard food waste management is strictly complies in accordance with the MARPOL Annex V and according to resolutions MEPC.201(62), MEPC.220(63), MEPC.227(70) and MEPC.295(71)

## 2. Scope:

SC BONGKOT which is services under PTTEP contract

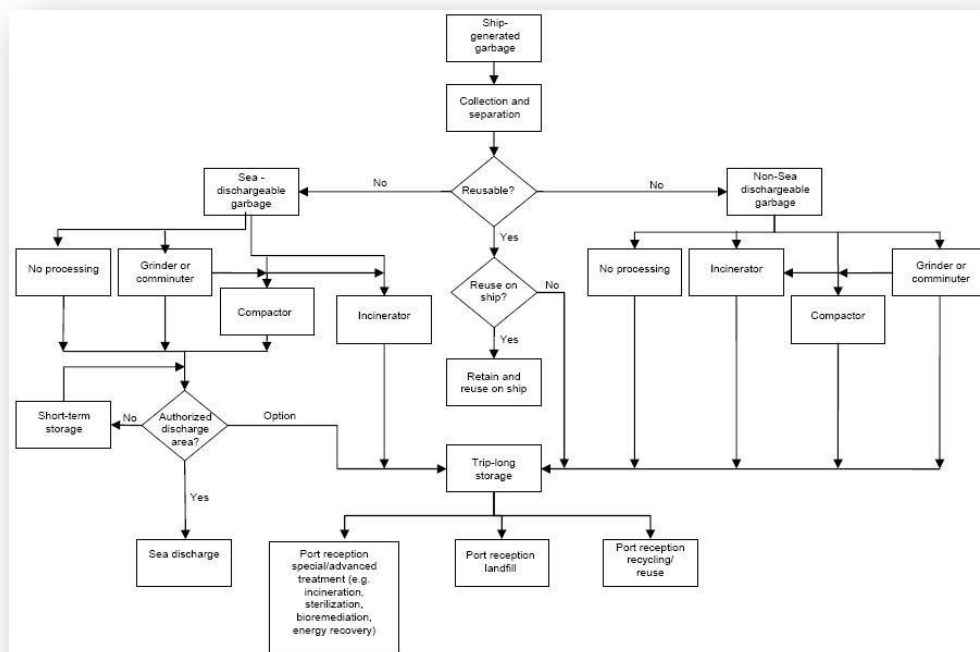
## 3. Responsible

- 3.1 Master is overall in command to fully comply in accordance with MARPOL Annex V as well as relevant end client's guidelines
- 3.2 Chief Officer is responsible to shipboard garbage disposal handling as well as recording
- 3.3 Cook is responsible to food waste collecting, segregating, down-sizing and disposal
- 3.4 Mess boy is responsible to assist the cook, as requested.

## 4. Procedures:

The specific **"Garbage Management Plan (GMP)"**, certified by THAILAND Marine Department, is addressed how to handling and disposition board-generated garbage. Food waste is part of type of garbage and classify by Category "B"

Refer GMP Chart below " Options for shipboard handling and discharge of garbage " .



## Food waste generation and processing to disposal:

Accordingly, Food waste is principally generated within the GALLEY and MESS ROOM where is designated as a shipboard canteen.

1/ Particularly garbage container for food waste is clearly marked with color (but not limited to be wholly container in green)



Garbage color code is strictly comply with the **PTTEP garbage management guideline**





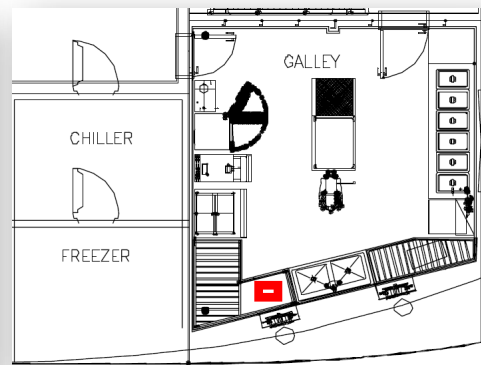
**2/** The Master shall be ensured all crew and passengers, when applicable, is well understood and familiarized how to dispose their individual food waste from meal into the particular food garbage container



Existing crew is generally review and remind in respect of SHIpboar Garbage Management in regular monthly thorough the Monthly Shipboard Safety Meeting.

While, new joiners whether crew and passnger will be clearly briefed at first meal on board by the Chief Officer or Cook.

**3/** Designated COOK is responsible to ensure that this food garbage container is always closed after uses. (Automatic shut off is advised without flammable material)



Aluminum Garbage bin with pedal type, that is capacity 50 litres in dimension of (23 x 35 x 60 cm) is available on SC BONGKOT

This type of garbage bin is placed at the Navigation Bridge and other locations on board (please refer to marking on the garbage bin cover)

**4/** Periodically check amount of food waste inside the garbage bin should take place in every after meal, at minimum but not limited to other occasion that number of food waste may be much generated

**5/ 85%** full is recommended to replace with new garbage bag (inside the bin)

**6/** Designated COOK is responsible to segregate all of food waste by size, where a quite large size of food waste shall be de-sized by ship's **Comminutor** in limit not grater then 25 mm.

## Description of Comminutor:

Maker: TGA,

Model: SS75 ,

Power: 440V & 60Hz, 3 phases,  
560W

Location: Galley compartment



## 7/ Schedule of collection and disposal

Generally, daily collection is taking place at: -

1<sup>st</sup>: 0500-0700 hrs. Food waste generated in Galley about 0.10 cbm.

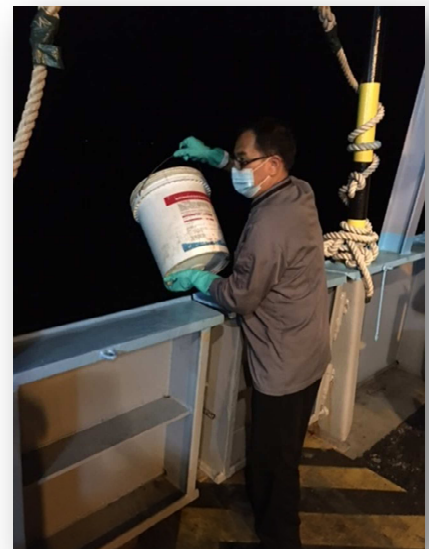
2<sup>nd</sup>: 1100-1300hrs. Food waste generated in Galley about 0.15 cbm.

3<sup>rd</sup>: 1700-1900hrs. Food waste generated in Galley about 0.15 cbm.

Summary of food waste either de-sized by comminutor or limited small size will be disposed into sea in accordance with MARPOL Annex V regulation that is state location, depth of water and speed of ship during the disposal operating.

Disposal is responsible by the Designated Cook or Mess man in evening 1800-1900hrs daily.

Capacity of food waster that is generated on SC BONGKOT is estimated 0.03 -0.04cbm /day (with 15 persons).

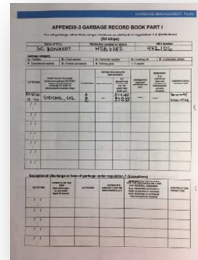
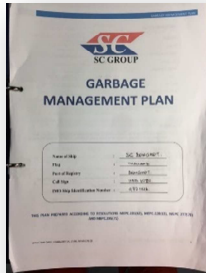




# FOOD WASTE MANAGEMENT

Effective Date: Jun 09, 2021

Weight and capacity of Disposed food waste is report to the Chief Officer for daily recording in the Garbage Record Book (GRB)



APPENDIX-3 GARBAGE RECORD BOOK PART I					
For all garbage other than cargo residues as defined in regulation 1.2 (Definition) (All ships)					
Name of ship		Distinctive number or letters		IMO number	
SC BONGKOT		HSP 6282		972-1516	
Garbage category					
A. Plastic		B. Food wastes		C. Domestic wastes	
D. Operational wastes		E. Animal carcasses		F. Fishing gear	
G. Cooking oil		H. E-waste		I. Incinerator ashes	
DATE/TIME	POSITION OF THE SHIP (approximate latitude and longitude or discharge station, offshore, or ship or discharge in another ship)	CATEGORY	ESTIMATED AMOUNT (kg)	REMARKS (e.g. marking, time and position of incineration, general remarks)	CERTIFICATION / SIGNATURE
24/6/21 11:00	GIRICHOL, SKL	A	8 = 0.440 B = 0.144 C = 0.396		2021.0524

When in port, this food waste shall be cumulative disposed within the particularly larger garbage bin that is placed on deck prior discharging ashore to designated garbage receiver.

The Master should notice in advance to the PSB – SKL or the Operations Manager prior arrival.



## 8/ Training

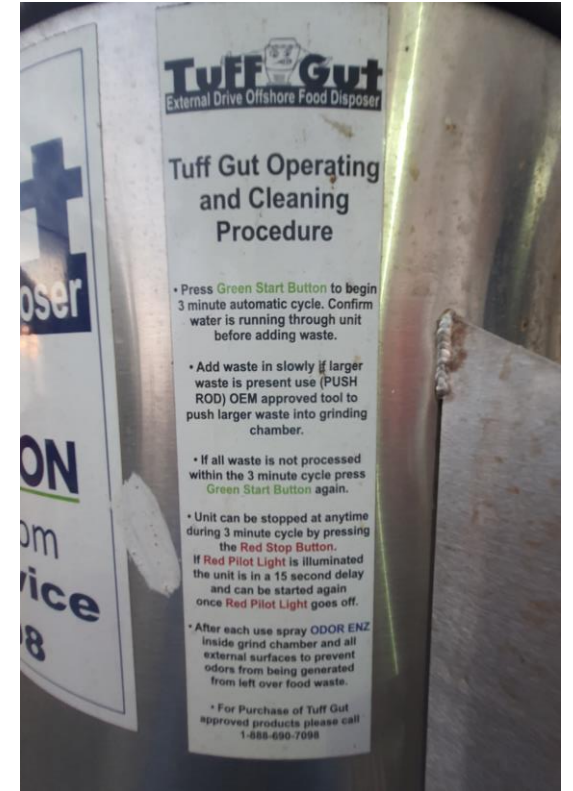
Monthly on board training will be held in especially those who are new joiners, record of training will be logged in the company SMS form name, F-03-CRW/24, page 4.

## เอกสารแนบที่ 18

รูปถ่ายเครื่องบดเศษอาหารติดตั้งอยู่บนแท่นเจาะที่ใช้ในการปฏิบัติงาน



# Macerator and WI



## เอกสารแนบที่ 19


ตัวอย่างเอกสารกำกับการขนส่งของเสีย (Dispatch Advice Note)



**G2 Asset**

Weight of full blue and red rubbih skips report for 01-30 November 2021

Line	Date	Location	DAN#No	QTY		Win No	Blue	Win No	Red	UWM	Remark
1	03/11/21	RIG SKALD	SKD-P-036/21	1	-	80739	460	-	-	494551	Bahtera makmur
2	06/11/21	RIG T-17	T17-P-001/21	1	-	80715	580	-	-	494626	Bahtera makmur
3	06/11/21	RIG T-17	T17-P-001/21	1	-	80733	770	-	-	494626	Bahtera makmur
4	06/11/21	RIG SKALD	SKD-P-037/21	1	-	80727	200	-	-	494626	Bahtera makmur
5	08/11/21	RIG SKALD	SKD-P-038/21	-	1	-	-	AORU77004900	270	494652	SC BONGKOT
6	08/11/21	RIG SKALD	SKD-P-038/21	-	1	-	-	80270	1,080	494652	SC BONGKOT
7	10/11/21	RIG T-17	T17-P-002/21	1	-	AORU8600881	620	-	-	494718	BAHTERA MULIA
8	10/11/21	RIG SKALD	SKD-P-039/21	1	-	80721	470	-	-	494718	BAHTERA MULIA
9	15/11/21	RIG SKALD	SKD-P-040/21	1	-	AORU8600644	1,400	-	-	494861	SC BONGKOT
10	16/11/21	RIG T-17	T17-P-003/21	1	1	81204	2,650	AORU7700314	1,070	494893, 494894	BAHTERA MULIA
11	23/11/21	RIG SKALD	SKD-P-041/21	1	-	AORU8600881	480	-	-	484773	SC WINTER
12	25/11/21	RIG T-17	T17-P-006/21	1	-	80951	1,070	-	-	484804	BAHTERA MULIA
13	25/11/21	RIG T-17	T17-P-006/21	1	-	BS6-006	980	-	-	484804	BAHTERA MULIA
14	25/11/21	RIG T-17	T17-P-006/21	1	-	AORU8600644	1,190	-	-	484804	BAHTERA MULIA
15	25/11/21	RIG T-17	T17-P-006/21	1	-	AORU8600808	670	-	-	484806	BAHTERA MULIA
16	25/11/21	RIG T-17	T17-P-006/21	1	-	13137	3,140	-	-	484806	BAHTERA MULIA
17	25/11/21	RIG T-17	T17-P-006/21	1	-	13149	1,220	-	-	484806	BAHTERA MULIA
18	29/11/21	RIG SKALD	SKD-P-042/21	1	-	80933	950	-	-	484869	SC BONGKOT
19	30/11/21	RIG T-17	T17-P-007/21	1	-	AORU8601002	2,330	-	-	484925	BAHTERA MULIA
20	-	-	-	-	-	-	-	-	-	-	-
21	-	-	-	-	-	-	-	-	-	-	-
22	-	-	-	-	-	-	-	-	-	-	-
23	-	-	-	-	-	-	-	-	-	-	-
24	-	-	-	-	-	-	-	-	-	-	-
25	-	-	-	-	-	-	-	-	-	-	-
26	-	-	-	-	-	-	-	-	-	-	-
27	-	-	-	-	-	-	-	-	-	-	-
28	-	-	-	-	-	-	-	-	-	-	-
29	-	-	-	-	-	-	-	-	-	-	-
30	-	-	-	-	-	-	-	-	-	-	-
31	-	-	-	-	-	-	-	-	-	-	-
32	-	-	-	-	-	-	-	-	-	-	-
33	-	-	-	-	-	-	-	-	-	-	-
34	-	-	-	-	-	-	-	-	-	-	-
35	-	-	-	-	-	-	-	-	-	-	-
36	-	-	-	-	-	-	-	-	-	-	-
37	-	-	-	-	-	-	-	-	-	-	-
38	-	-	-	-	-	-	-	-	-	-	-
39	-	-	-	-	-	-	-	-	-	-	-
40	-	-	-	-	-	-	-	-	-	-	-
41	-	-	-	-	-	-	-	-	-	-	-
42	-	-	-	-	-	-	-	-	-	-	-
43	-	-	-	-	-	-	-	-	-	-	-
44	-	-	-	-	-	-	-	-	-	-	-
45	-	-	-	-	-	-	-	-	-	-	-
46	-	-	-	-	-	-	-	-	-	-	-
47	-	-	-	-	-	-	-	-	-	-	-
48	-	-	-	-	-	-	-	-	-	-	-
49	-	-	-	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	-	-	-	-
Total				17	3		19,180		2,420		

Checked and Reportor By: 

[illegible]



บริษัท ปตท.สำรวจและผลิตปิโตรเลียม จำกัด(มหาชน)

222 หมู่ 1 ต.หัวเขา อ.สิงหนคร จ.สงขลา 90280

ใบชั่งน้ำหนัก

เลขที่ใบชั่ง : 03112021-08

ทะเบียนรถ : 80739

วันที่ : 3/11/2021

ชนิดสินค้า : BLUE SKIP

ชื่อผู้ส่ง : WMS Company

รายการ	ลำดับ	วันที่	เวลา	น้ำหนัก(กก.)
รถเข้า >>>		3/Nov/2021	11:00	2,180
<<< รถออก		3/Nov/2021	11:30	2,640
หมายเหตุ : 2021110008, SKD-P-036/21, (G2)			น้ำหนักสุทธิ	460

พนักงานชั่ง

พนักงานขับรถ



DISPATCH ADVISE NOTE FORM

DAN #: **T17-P-001/2021(1)**

Date : 03-Nov-21



**Bongkot**



PTK01



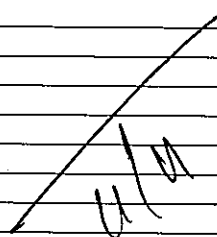
Author



613 / 38



Others, specify                     

FROM		TO		MEAN OF TRANSPORT		DATE/TIME DEPARTURE	
RJG T-17 (WP-47)		SKL JETTY		BAHTERA MAKMUR		03-Nov-21	
NO	ITEM NUMBER	QTY	UNIT	DESCRIPTION		WO/SIR	PO
1		1	SKIP	80715/BLUE RUBBISH SKIP contains General rubbish for disposal		HT	580 kg
2		1	SKIP	80733/BLUE RUBBISH SKIP contains General rubbish for disposal		HT	770 kg
<div style="display: flex; justify-content: space-between;"> <span>2021110048</span> <span>UWM494626</span> </div>							
							
PREPARED AND ISSUED		RECEIVED AND CHECK		COMMENT ON RECEPTION		PACKING DETAILS:	
Name: <i>Beatha</i>		Name: <i>...</i>				-Total of packings(s):	
Date: 3-Nov-21		Date: 6-11-21				-DIM:	
						-Total weight (tun):	



บริษัท ปตท.สำรวจและผลิตปิโตรเลียม จำกัด(มหาชน)

ปตท.สผ.

222 หมู่ 1 ต.หัวเขา อ.สิงหนคร จ.สงขลา 90280

ใบชั่งน้ำหนัก

เลขที่ใบชั่ง : 0045894

ทะเบียนรถ : 80715

วันที่ : 06/11/2564

ชนิดสินค้า : Blue skip

ชื่อผู้ส่ง : WMS company

รายการ .	ลำดับ	วันที่	เวลา	น้ำหนัก(กก.)
รถเข้า >>>	19842	30/09/2564	10:26:51	2,180
<<< รถออก	11741	06/11/2564	10:43:28	2,760
หมายเหตุ: T17-P-007/21, RIG T-17, (G2)			น้ำหนักสุทธิ	580

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พนักงานชั่ง

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พนักงานขับรถ





# บริษัท ปตท.สำรวจและผลิตปิโตรเลียม จำกัด(มหาชน)

ปตท.สม.

222 หมู่ 1 ต.หัวเขา อ.สิงหนคร จ.สงขลา 90280

## ใบชั่งน้ำหนัก

เลขที่ใบชั่ง : 0045893

ทะเบียนรถ : 80733

วันที่ : 06/11/2564

ชนิดสินค้า : Blue skip

ชื่อผู้ส่ง : WMS company

รายการ	ลำดับ	วันที่	เวลา	น้ำหนัก(กก.)
รถเข้า >>>	19617	07/09/2564	10:07:39	2,250
<<< รถออก	11740	06/11/2564	10:41:07	3,020
หมายเหตุ: T17-P-007/21, RIG T-17, (G2)			น้ำหนักสุทธิ	770

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พนักงานชั่ง

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พนักงานขับรถ





ปตท.สผ.

บริษัท ปตท.สำรวจและผลิตปิโตรเลียม จำกัด(มหาชน)

222 หมู่ 1 ต.หัวเขา อ.สิงหนคร จ.สงขลา 90280

## ใบชั่งน้ำหนัก

เลขที่ใบชั่ง : 0045895

ทะเบียนรถ :80727

วันที่ : 06/11/2564

ชนิดสินค้า :Blue skip

ชื่อผู้ส่ง :WMS company

รายการ	ลำดับ	วันที่	เวลา	น้ำหนัก(กก.)
รถเข้า >>>	19789	23/09/2564	15:11:58	2,430
<<< รถออก	11742	06/11/2564	10:48:38	2,630
หมายเหตุ: SKD-P-037/21, RIG SKALD, (G2)			น้ำหนักสุทธิ	200

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พนักงานชั่ง

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พนักงานขับรถ



FROM		TO		MEAN OF TRANSPORT		DATE/TIME DEPARTURE		
RIG SKALD (CWT-12A)		SKL JETTY		SC BONGKOT		07-Nov-21		
NO	ITEM NUMBER	QTY	UNIT	DESCRIPTION		WO/SIR	PO	Wt ( Kgs)
1	HT	1	SKIP	RED RUBBISH SKIP 80270				
				UWM 494652				1,080 kg
2	HT	1	SKIP	RED RUBBISH SKIP AORU770049-0				
				UWM 494652				270 kg
2021110056								
<div>11/11</div>								
PREPARED AND ISSUED		RECEIVED AND CHECK		COMMENT ON RECEPTION		PACKING DETAILS :		
Name: Venus V.		Name				-Total of packings(s) :		
Date: 7-Nov-21		Date: 08-11-21				-DIM :		
						-Total weight (Kgs) :		



บริษัท ปตท.สำรวจและผลิตปิโตรเลียม จำกัด(มหาชน)

ปตท.สผ.

222 หมู่ 1 ต.หัวเขา อ.สิงหนคร จ.สงขลา 90280

ใบชั่งน้ำหนัก

เลขที่ใบชั่ง : 0045921

ทะเบียนรถ :80270

วันที่ : 08/11/2564

ชนิดสินค้า :Red skip

ชื่อผู้ส่ง :WMS company

รายการ	ลำดับ	วันที่	เวลา	น้ำหนัก(กก.)
รถเข้า >>>	19772	22/09/2564	13:50:06	1,720
<<< รถออก	11758	08/11/2564	14:00:39	2,800
หมายเหตุ: 2021110056, SKD-P-038/21, RIG SKALD, (G2)			น้ำหนักสุทธิ	1,080

พนักงานชั่ง

พนักงานขับรถ



ปตท.สพ.

บริษัท ปตท.สำรวจและผลิตปิโตรเลียม จำกัด(มหาชน)

222 หมู่ 1 ต.หัวเขา อ.สิงหนคร จ.สงขลา 90280

ใบชั่งน้ำหนัก

เลขที่ใบชั่ง : 0045974

ทะเบียนรถ : AORU770049-0

วันที่ : 11/11/2564

ชนิดสินค้า : Red skip

ชื่อผู้ส่ง : WMS company

รายการ	ลำดับ	วันที่	เวลา	น้ำหนัก(กก.)
รถเข้า >>>	19902	08/11/2564	13:58:36	1,560
<<< รถออก	11791	11/11/2564	10:22:25	1,290
หมายเหตุ: 2021110056, SKD-P-038/21, RIG SKALD, (G2)			น้ำหนักสุทธิ	270

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พนักงานชั่ง

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พนักงานขับรถ



DAN #: T17-P-002/2021  
Date: 09-Nov-21

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**Bangkok G2/61**

11

**PTEPI**

114

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B13 / 38

11

Others, specify \_\_\_\_\_

[illegible]



ปตท.สผ.

# บริษัท ปตท.สำรวจและผลิตปิโตรเลียม จำกัด(มหาชน)

222 หมู่ 1 ต.หัวเขา อ.สิงหนคร จ.สงขลา 90280

## ใบขนถ่ายน้ำมัน

เลขที่ใบขนถ่าย : 0045968

ทะเบียนรถ : AORU8600881

วันที่ : 10/11/2564

ชนิดสินค้า : Blue skip

ชื่อผู้ส่ง : WMS company

รายการ	ลำดับ	วันที่	เวลา	น้ำมัน(กก.)
รถเข้า >>>	15272	02/07/2563	10:07:06	1,620
<<< รถออก	11787	10/11/2564	16:11:30	2,240
หมายเหตุ: T17-P-002/21, RIG T-17, (G2)			น้ำมันสุทธิ	620

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พนักงานส่ง

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พนักงานขับรถ



## DISPATCH ADVISE NOTE FORM

DAN #: SKD-P-039/2021

Date: 09-Nov-21



Bongkot G2/61



PTTEPI



Arthit



813 / 38



Others, specify.....

FROM		TO		MEAN OF TRANSPORT		DATE/TIME DEPARTURE	
RIG SKALD (CWT-12A)		SKL JETTY		SC BONGKOT		09-Nov-21	
NO	ITEM NUMBER	QTY	UNIT	DESCRIPTION	WO/SIR	PO	Wt (Kgs)
1		1	SKIP	BLUE RUBBISH SKIP 80721			470kg
OWN: 494718							
2021110087							
<del>18/11</del>							
PREPARED AND ISSUED		RECEIVED AND CHECK		COMMENT ON RECEPTION		PACKING DETAILS :	
Name: <i>Vinay V.</i>		Name: <i>Am. J. M.</i>				-Total of packings(s) :	
Date: 9-Nov-21		Date: 10-11-21				-DIM :	
						-Total weight (Kgs.) :	



บริษัท ปตท.สำรวจและผลิตปิโตรเลียม จำกัด(มหาชน)

ปตท.สผ.

222 หมู่ 1 ต.หัวเขา อ.สิงหนคร จ.สงขลา 90280

ใบชั่งน้ำหนัก

เลขที่ใบชั่ง : 0045969

ทะเบียนรถ : 80721

วันที่ : 10/11/2564

ชนิดสินค้า : Blue skip

ชื่อผู้ส่ง : WMS company

รายการ	ลำดับ	วันที่	เวลา	น้ำหนัก(กก.)
รถเข้า >>>	19865	01/10/2564	10:51:39	2,330
<<< รถออก	11788	10/11/2564	16:17:08	2,800
หมายเหตุ: 2021110087, SKD-P-039/21, RIG SKALD, (G2)			น้ำหนักสุทธิ	470

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พนักงานชั่ง

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พนักงานขับรถ





บริษัท ปตท.สำรวจและผลิตปิโตรเลียม จำกัด(มหาชน)

ปตท.สผ.

222 หมู่ 1 ต.หัวเขา อ.สิงหนคร จ.สงขลา 90280

ใบชั่งน้ำหนัก

เลขที่ใบชั่ง : 0046037

ทะเบียนรถ : AORU860064-4

วันที่ : 15/11/2564

ชนิดสินค้า : Blue skip

ชื่อผู้ส่ง : WMS company

รายการ	ลำดับ	วันที่	เวลา	น้ำหนัก(กก.)
รถเข้า >>>	19926	10/11/2564	13:17:05	1,640
<<< รถออก	11821	15/11/2564	14:43:43	3,040
หมายเหตุ: 2021110098, SKD-P-040/21, RIG SKALD, (G2)			น้ำหนักสุทธิ	1,400

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พนักงานชั่ง

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พนักงานขับรถ





DAN # : T17-P-003/2021  
Date : 15-Nov-21

<input checked="" type="checkbox"/>	Bangkok G2/G1	<input type="checkbox"/>	PTTEPI
<input type="checkbox"/>	Arthit	<input type="checkbox"/>	B13 / 58

[illegible]



ปตท.สผ.

บริษัท ปตท.สำรวจและผลิตปิโตรเลียม จำกัด(มหาชน)

222 หมู่ 1 ต.หัวเขา อ.สิงหนคร จ.สงขลา 90280

ใบชั่งน้ำหนัก

เลขที่ใบชั่ง : 0046099

ทะเบียนรถ : AORU770031-4

วันที่ : 20/11/2564

ชนิดสินค้า : Red skip

ชื่อผู้ส่ง : WMS company

รายการ	ลำดับ	วันที่	เวลา	น้ำหนัก(กก.)
รถเข้า >>>	19979	16/11/2564	14:10:18	2,340
<<< รถออก	11857	20/11/2564	09:53:02	1,270
หมายเหตุ: T17-P-003/21, RIG T-17, (G2)			น้ำหนักสุทธิ	1,070

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พนักงานชั่ง

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พนักงานขับรถ



ปตท.สผ.

บริษัท ปตท.สำรวจและผลิตปิโตรเลียม จำกัด(มหาชน)

222 หมู่ 1 ต.หัวเขา อ.สิงหนคร จ.สงขลา 90280

ใบขนาน้ำหนัก

เลขที่ใบขนาน้ำหนัก : 0046123

ทะเบียนรถ : 81204

วันที่ : 22/11/2564

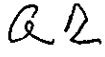
ชนิดสินค้า : Blue skip

ชื่อผู้ส่ง : WMS company

รายการ	ลำดับ	วันที่	เวลา	น้ำหนัก(กก.)
รถเข้า >>>	19978	16/11/2564	14:06:06	4,980
<<< รถออก	11867	22/11/2564	13:43:52	2,330
หมายเหตุ: T17-P-003/21, RIG T-17, (G2)			น้ำหนักสุทธิ	2,650

พนักงานชั่ง

พนักงานขับรถ



2



ปตท.สผ.

บริษัท ปตท.สำรวจและผลิตปิโตรเลียม จำกัด(มหาชน)

222 หมู่ 1 ต.หัวเขา อ.สิงหนคร จ.สงขลา 90280

## ใบชั่งน้ำหนัก

เลขที่ใบชั่ง : 0046171

ทะเบียนรถ : AORU860088-1

วันที่ : 23/11/2564

ชนิดสินค้า : Blue skip

ชื่อผู้ส่ง : WMS company

รายการ	ลำดับ	วันที่	เวลา	น้ำหนัก(กก.)
รถเข้า >>>	19957	15/11/2564	09:57:38	1,590
<<< รถออก	11896	23/11/2564	14:11:30	2,070
หมายเหตุ: SKD-P-047/21, RIG SKALD, (G2)			น้ำหนักสุทธิ	480

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พนักงานชั่ง

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พนักงานขับรถ

DAN #: T17-P-006/2021  
Date: 23-Nov-21

<input checked="" type="checkbox"/>	Bongkot G2/G1	<input type="checkbox"/>	PTTEP:
<input type="checkbox"/>	Arthit	<input type="checkbox"/>	B13 / 38

Others, specify.....

[illegible]





บริษัท ปตท.สำรวจและผลิตปิโตรเลียม จำกัด(มหาชน)

ปตท.สผ.

222 หมู่ 1 ต.หัวเขา อ.สิงหนคร จ.สงขลา 90280

ใบชั่งน้ำหนัก

เลขที่ใบชั่ง : 0046210

ทะเบียนรถ :80951

วันที่ : 25/11/2564

ชนิดสินค้า :Blue skip

ชื่อผู้ส่ง :WMS company

รายการ	ลำดับ	วันที่	เวลา	น้ำหนัก(กก.)
รถเข้า >>>	19995	18/11/2564	10:00:46	2,290
<<< รถออก	11914	25/11/2564	10:26:40	3,360
หมายเหตุ: T17-P-006/21, RIG T-17, (G2)			น้ำหนักสุทธิ	1,070

พนักงานชั่ง

พนักงานขับรถ



ปตท.สผ.

บริษัท ปตท.สำรวจและผลิตปิโตรเลียม จำกัด(มหาชน)

222 หมู่ 1 ต.หัวเขา อ.สิงหนคร จ.สงขลา 90280

ใบชั่งน้ำหนัก

เลขที่ใบชั่ง : 0046209

ทะเบียนรถ : AORU860064-4

วันที่ : 25/11/2564

ชนิดสินค้า : Blue skip

ชื่อผู้ส่ง : WMS company

รายการ	ลำดับ	วันที่	เวลา	น้ำหนัก(กก.)
รถเข้า >>>	20004	20/11/2564	09:55:33	1,620
<<< รถออก	11913	25/11/2564	10:22:23	2,810
หมายเหตุ: T17-P-006/21, RIG T-17, (G2)			น้ำหนักสุทธิ	1,190

พนักงานชั่ง

พนักงานขับรถ



# บริษัท ปตท.สำรวจและผลิตปิโตรเลียม จำกัด(มหาชน)

ปตท.สผ.

222 หมู่ 1 ต.หัวเขา อ.สิงหนคร จ.สงขลา 90280

## ใบชั่งน้ำหนัก

เลขที่ใบชั่ง : 0046207

ทะเบียนรถ : BS6-006

วันที่ : 25/11/2564

ชนิดสินค้า : Blue skip

ชื่อผู้ส่ง : WMS company

รายการ	ลำดับ	วันที่	เวลา	น้ำหนัก(กก.)
รถเข้า >>>	19993	18/11/2564	09:54:52	1,430
<<< รถออก	11911	25/11/2564	10:18:19	2,410
หมายเหตุ: T17-P-006/21, RIG T-17, (G2)			น้ำหนักสุทธิ	980

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พนักงานชั่ง

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พนักงานขับรถ



ปตท.สผ.

บริษัท ปตท.สำรวจและผลิตปิโตรเลียม จำกัด(มหาชน)

222 หมู่ 1 ต.หัวเขา อ.สิงหนคร จ.สงขลา 90280

ใบชั่งน้ำหนัก

เลขที่ใบชั่ง : 0046312

ทะเบียนรถ :13149

วันที่ : 30/11/2564

ชนิดสินค้า :Blue skip

ชื่อผู้ส่ง :WMS company

รายการ	ลำดับ	วันที่	เวลา	น้ำหนัก(กก.)
รถเข้า >>>	20066	25/11/2564	10:49:44	2,690
<<< รถออก	11967	30/11/2564	13:31:54	1,470
หมายเหตุ: T17-P-006/21, RIG T-17, (G2)			น้ำหนักสุทธิ	1,220

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พนักงานชั่ง

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พนักงานขับรถ



ปตท.สพ.

บริษัท ปตท.สำรวจและผลิตปิโตรเลียม จำกัด(มหาชน)

222 หมู่ 1 ต.หัวเขา อ.สิงหนคร จ.สงขลา 90280

ใบชั่งน้ำหนัก

เลขที่ใบชั่ง : 0046311

ทะเบียนรถ :13137

วันที่ : 30/11/2564

ชนิดสินค้า :Blue skip

ชื่อผู้ส่ง :WMS company

รายการ	ลำดับ	วันที่	เวลา	น้ำหนัก(กก.)
รถเข้า >>>	20065	25/11/2564	10:46:57	4,630
<<< รถออก	11966	30/11/2564	13:29:40	1,490
หมายเหตุ: T17-P-006/21, RIG T-17, (G2)			น้ำหนักสุทธิ	3,140

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พนักงานชั่ง

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พนักงานขับรถ



ปตท.สผ.

บริษัท ปตท.สำรวจและผลิตปิโตรเลียม จำกัด(มหาชน)

222 หมู่ 1 ต.หัวเขา อ.สิงหนคร จ.สงขลา 90280

## ใบชั่งน้ำหนัก

เลขที่ใบชั่ง : 0046273

ทะเบียนรถ : AORU860080-8

วันที่ : 29/11/2564

ชนิดสินค้า : Blue skip

ชื่อผู้ส่ง : WMS company

รายการ	ลำดับ	วันที่	เวลา	น้ำหนัก(กก.)
รถเข้า >>>	20067	25/11/2564	10:53:50	2,270
<<< รถออก	11944	29/11/2564	10:25:26	1,600
หมายเหตุ: T17-P-006/21, RIG T-17, (G2)			น้ำหนักสุทธิ	670

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พนักงานชั่ง

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พนักงานขับรถ







ปตท.สผ.

บริษัท ปตท.สำรวจและผลิตปิโตรเลียม จำกัด(มหาชน)

222 หมู่ 1 ต.หัวเขา อ.สิงหนคร จ.สงขลา 90280

ใบชั่งน้ำหนัก

เลขที่ใบชั่ง : 0046277

ทะเบียนรถ : 80933

วันที่ : 29/11/2564

ชนิดสินค้า : Blue skip

ชื่อผู้ส่ง : WMS company

รายการ	ลำดับ	วันที่	เวลา	น้ำหนัก(กก.)
รถเข้า >>>	20005	20/11/2564	10:02:06	2,160
<<< รถออก	11948	29/11/2564	10:59:32	3,110
หมายเหตุ: SKD-P-042/21, RIG SKALD, (G2)			น้ำหนักสุทธิ	950

พนักงานชั่ง

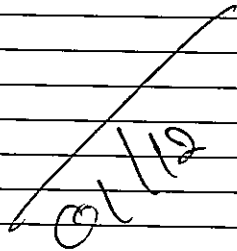
พนักงานขับรถ

DAN #: T17-P-007/2021

Date : 27-Nov-21

<input checked="" type="checkbox"/>	Bongkot G2/61	<input type="checkbox"/>	PTTEPI
<input type="checkbox"/>	Arthlit	<input type="checkbox"/>	B13 / 38

Others, specify\_\_\_\_\_

FROM		TO		MEAN OF TRANSPORT		DATE/TIME DEPARTURE	
RIG T-17 (WP-47)		SKL JETTY		BAHTERA MULIA		27-Nov-21	
NO	ITEM NUMBER	QTY	UNIT	DESCRIPTION		WO/SIR	PO
1		1	SKIP	BLUE RUBBISH SKIP NO. AORU860100-2		HT	2,330 kg
ULM: 484925 , Ht 202110798							
							
<div> <div> <div>PREPARED AND ISSUED</div> <div> <div>Name: Michael O.</div> <div>Date: 27-Nov-21</div> </div> </div> <div> <div>RECEIVED AND CHECK</div> <div> <div>Name: -</div> <div>Date: 30-11-21</div> </div> </div> <div> <div>COMMENT ON RECEPTION</div> <div> <div>PACKING DETAILS:</div> <div>-Total of packings(s) :</div> <div>-DIM :</div> <div>-Total weight (Kgs) :</div> </div> </div> </div>							



ปตท.สผ.

บริษัท ปตท.สำรวจและผลิตปิโตรเลียม จำกัด(มหาชน)

222 หมู่ 1 ต.หัวเขา อ.สิงหนคร จ.สงขลา 90280

ใบชั่งน้ำหนัก

เลขที่ใบชั่ง : 0046317

ทะเบียนรถ : AORU860100-2

วันที่ : 30/11/2564

ชนิดสินค้า : Blue skip

ชื่อผู้ส่ง : WMS company

รายการ	ลำดับ	วันที่	เวลา	น้ำหนัก(กก.)
รถเข้า >>>	19654	09/09/2564	10:28:01	1,590
<<< รถออก	11970	30/11/2564	14:23:23	3,920
หมายเหตุ: T17-P-007/21, RIG T-17, (G2)			น้ำหนักสุทธิ	2,330

.....  
พนักงานชั่ง

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พนักงานขับรถ

## เอกสารแนบที่ 20

ตัวอย่าง ใบกำกับการขนส่งของเสียอันตราย (Uniform Waste Manifest)  
สำหรับของเสียอันตราย และของเสียไม่อันตราย

## ใบกำกับการณ์ขนส่งของเสีย (Uniform Waste Manifest)

หมายเลขใบกำกับการณ์ขนส่งของเสีย : Manifest No.

484563

## 1. ส่วนของผู้ก่อการณ์ขนส่งของเสีย : This section must be completed by the Generator

1) ชื่อ : Name **บริษัท ปตท. เอนเนอร์ยี่ สวิสเซอร์แลนด์ จำกัด** 2) เลขประจำตัวผู้ก่อการณ์ขนส่งของเสีย : Generator's ID **90280 025374000**  
 สถานก่อการณ์ : Generator's address **222 Moo 1, T. Huakao, A.Singhanakorn, Songkhla 90280** โทรศัพท์ : Phone โทรสาร : Fax กรณีฉุกเฉิน : Emergency

3) ผู้ขนส่งของเสีย : Transporter **(815/21/004686)**

รายชื่อบริษัท : The first company name เลขประจำตัวผู้ขนส่งของเสีย รายที่ 1 : Transporter's ID

รายชื่อบริษัท : The second company name **บริษัท เวสต์เทคเนคัล สยาม จำกัด** เลขประจำตัวผู้ขนส่งของเสีย รายที่ 2 : Transporter's ID **DIW-T-050200708**

4) ผู้เก็บรวบรวม บำบัด และกำจัดของเสีย : Treatment Storage Disposal Facilities (TSDF's)

รายชื่อบริษัท : First TSDF's company name **WMS Depot Co. Ltd.- (Songkhla Transfer Station)** เลขประจำตัวผู้เก็บรวบรวม บำบัด และกำจัดของเสีย รายที่ 1 : Disposer's ID **DIW-D-125600015**

รายชื่อบริษัท : Second TSDF's company name เลขประจำตัวผู้เก็บรวบรวม บำบัด และกำจัดของเสีย รายที่ 2 : Disposer's ID

5) รายละเอียดของของเสียที่ขนส่งเคลื่อนย้าย **Ref In ME 494652**

ลำดับ No.	รายละเอียด Description	รหัสข้อมูลของเสีย : Waste profile no.	รหัสวัสดุที่ไม่ใช่แล้ว Waste ID	ลักษณะของเสีย อันตราย Hazardous	ไม่อันตราย Nonhazardous	ภาชนะบรรจุ : Containers จำนวน : No.	ชนิด : Type	ปริมาณสุทธิ : Quantity	หน่วยน้ำหนัก : Unit Wt / Vol	รายละเอียดเพิ่มเติม : Additional Information
	Used oil filter/ Me	H92718	150202	X		X	Unit			
	Used oil filter/ Membrane G2/61					2	5D900L	124	KG	
	UN1325-FLAMMABLE SOLID									
	Oil filter recycle									Visual inspection

รวมปริมาณของเสียทั้งหมด : Total Quantity ของเหลว : Liquid ☐ ลิตร : Liters ☐ ลูกบาศก์เมตร : cu.m ของแข็ง : Solid ☐ กิโลกรัม : Kgs. ☐ ตัน : Tons

6) การปฏิบัติที่มีลักษณะพิเศษและข้อมูลเพิ่มเติม

Special Handling Instructions and additional information

7) คำรับรอง : ข้าพเจ้าขอรับรองว่าได้ส่งมอบของเสียแล้วตามที่ระบุข้างต้น และมีการบรรจุติดป้ายหรือฉลากอย่างเหมาะสมตรงตามข้อกำหนดของกฎหมายทุกประการ :

Generator Certification : I hereby declare that the contents of this consignment are accurately described above and have been packed and labeled and are in the proper condition for transport according to regulations

ลงชื่อ : Generator's name **.....** ลายเซ็น : Signature **.....** วันที่ : Date **30** เดือน : Month **11** พ.ศ. : Year **21**

## 2. ส่วนของผู้ขนส่งของเสีย : This section must be completed by the Transporter

1) ชื่อผู้ขนส่งของเสียรายที่ 1 : The first Transporter's name **บริษัท เวสต์เทคเนคัล สยาม จำกัด** 2) พาหนะที่ใช้ ☐ รถบรรทุก ☐ รถไฟ ☐ เรือ ☐ เครื่องบิน  
 เลขประจำตัวผู้ขนส่ง : Transporter's ID **DIW-T-050200708** Vehicle Truck Train Ship Plane  
 โทรศัพท์ : Phone **0 2745 6926-7** โทรสาร : Fax **0 2745 6928** กรณีฉุกเฉิน : Emergency

4) คำรับรอง : ข้าพเจ้าขอรับรองว่าได้รับของเสียแล้วตามที่ระบุข้างต้น 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 **.....**

5) ชื่อผู้ขนส่งของเสียรายที่ 2 : The second transporter's name 6) พาหนะที่ใช้ ☐ รถบรรทุก ☐ รถไฟ ☐ เรือ ☐ เครื่องบิน  
 เลขประจำตัวผู้ขนส่ง : Transporter's ID Vehicle Truck Train Ship Plane  
 โทรศัพท์ : Phone โทรสาร : Fax กรณีฉุกเฉิน : Emergency 7) เลขทะเบียนพาหนะ : Vehicle ID

8) คำรับรอง : ข้าพเจ้าขอรับรองว่าได้รับของเสียแล้วตามที่ระบุข้างต้น และการขนส่งเป็นไปตามข้อกำหนดของกฎหมายทุกประการ

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

โดยขนส่งจากจังหวัด : From **.....** ไปยังจังหวัด : To **.....** ใช้ระยะเวลาประมาณ : Time Spending **.....** ชม./วัน : Hours/Day

ลงชื่อผู้ขนส่งรายที่ 2 : Transporter's Name **.....** ลายเซ็น : Signature **.....** วันที่ : Date **.....** เดือน : Month **.....** พ.ศ. : Year **.....**

## 3. ส่วนของผู้ประกอบการสถานที่เก็บรวบรวม บำบัด และกำจัดของเสีย : This section must be completed by TSDF's

1) ผู้เก็บรวบรวม TSDF's name **.....** สถานที่ขนถ่ายและเก็บรวบรวม : TSDF's address **.....**  
 ลงชื่อผู้เก็บรวบรวม : TSDF's name **.....** ลายเซ็น : Signature **.....** วันที่ : Date **.....** เดือน : Month **.....** พ.ศ. : Year **.....**

2) ชื่อผู้รับกำจัด : TSDF's name **WMS Depot Co. Ltd.- (Songkhla Transfer Station)** 3) เลขประจำตัวผู้รับกำจัด : TSDF's ID **DIW-D-125600015**  
 สถานที่กำจัด : TSDF's address **31/9 Moo 4, T. Chalung, A.Hatyai, Songkhla 90110** โทรศัพท์ : Phone **074-206048-9** โทรสาร : Fax **074-206050** กรณีฉุกเฉิน : Emergency

4) คำรับรอง : ข้าพเจ้าขอรับรองว่าได้รับของเสียแล้วตามที่ระบุข้างต้น TSDF certificate of arrival : I hereby declare that I have received the reference load.

และสามารถกำจัดของเสียที่รับมาได้ในระยะเวลา : Treatment period ☐ วัน : Day ☐ เดือน : Month ☐ ปี : Year นับจากวันที่ได้รับของเสีย : Since the day that received waste

ลงชื่อผู้รับกำจัด : TSDF's name **สิริพรรณ ตูลาตาอุจน์** ลายเซ็น : Signature **.....** วันที่ : Date **30** เดือน : Month **11** พ.ศ. : Year **21**

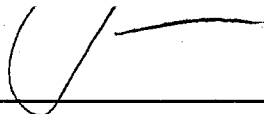
5) กรณีของเสียไม่ตรงตามที่แจ้ง : Discrepancy Notification

ประเภทของเสีย : 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) หมายเลขใบกำกับการณ์ขนส่งของเสียที่ส่งกลับ : Returned manifest no **.....**

ชื่อผู้ส่งคืน : TSDF's name **.....** ลายเซ็น : Signature **.....**

TICKET No.: 390622					
License Plate: 1-511		Truck No.:		Transaction Type: MA	
Customer: PTTEP ENERGY DEVELOPMENT		Address: 222 Moo 1.			
Date: 30/11/2021		Time: 09:48		Manifest No.: 484563	
Waste Profile: H92718 G2/61-Used Oil filter / m		Transport Request Order No.: X			
Treatment Decision: 49-F		MOI Code:			
Gross Weight: 124 Kg		Date: 04/12/2021		Time: 09:48	
Tare Weight: 0 Kg		Date: / /		Time: :	
Transporter Name: WMS DEPOT CO.		Container: FB		Operator: 5002	
T.A.C. 100		Note: 2SD200L			
Driver Name : X					
Weight by:		Verified by:			
(  )		( )			



หมายเลขใบกำกับการขนส่งของเสีย : Manifest No. **481609**  
**ใบกำกับการขนส่งของเสีย (Uniform Waste Manifest)**

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

1) ชื่อ : Name **บริษัท คัมมิว เอนเนค ดีพี จำกัด** 2) เลขประจำตัวผู้ก่อการเกิดของเสีย : Generator's ID **DIW-G-125600023**  
 สถานะก่อนเกิด : Generator's address **31/9 ม. 4 ต.หนอง อ.กุดชุมหี อ.ย.ย. 90110** โทรศัพท์ : Phone โทรสาร : Fax กรณีฉุกเฉิน : Emergency  
 3) ผู้ขนส่งของเสีย : Transporter **(DIW-T-050200708)**  
 รายที่ 1 ชื่อบริษัท : The first company name เลขประจำตัวผู้ขนส่งของเสีย รายที่ 1 : Transporter's ID  
 รายที่ 2 ชื่อบริษัท : The second company name **บริษัท เมทเทคเอนเนค ดีพี จำกัด** เลขประจำตัวผู้ขนส่งของเสีย รายที่ 2 : Transporter's ID **DIW-T-050200708**  
 4) ผู้เก็บรวบรวม บำบัด และกำจัดของเสีย : Treatment Storage Disposal Facilities (TSDF's)  
 รายที่ 1 ชื่อบริษัท : First TSDF's company name **บริษัท บางปู อเนกโรนเนคเอนเนค ดีพี จำกัด** เลขประจำตัวผู้เก็บรวบรวม บำบัด และกำจัดของเสีย รายที่ 1 : Disposer's ID **DIW-D-075800102**  
 รายที่ 2 ชื่อบริษัท : Second TSDF's company name เลขประจำตัวผู้เก็บรวบรวม บำบัด และกำจัดของเสีย รายที่ 2 : Disposer's ID

5) รายละเอียดของของเสียที่ขนส่งเคลื่อนย้าย

ลำดับ No.	รายละเอียด Description	รหัสข้อมูลของเสีย Waste profile no.	รหัสวัสดุที่ไม่ใช่แล้ว Waste ID	ลักษณะของเสีย อันตราย Hazardous	ไม่อันตราย Nonhazardous	ภาชนะบรรจุ : Containers จำนวน : No.	ชนิด : Type	ปริมาณสุทธิ : Quantity	หน่วยน้ำหนัก : Unit Wt / Vol	รายละเอียดเพิ่มเติม : Additional Information
	<b>Commercial waste</b>	<b>901205</b>	<b>191212</b>		<b>X</b>	<b>1</b>	<b>Unit</b>			<b>3067</b>
	<b>Commercial waste</b>	<b>G261 ขยะมูลฝอยทั่วไป</b>					<b>Skip</b>	<b>275</b>	<b>Kg</b>	
			<b>Incinerator</b>							

รวมปริมาณของเสียทั้งหมด : Total Quantity ของเหลว : Liquid ☐ ลิตร : Liters ☐ ลูกบาศก์เมตร : cu.m ของแข็ง : Solid ☒ กิโลกรัม : Kgs. ☐ ตัน : Tons

6) การปฏิบัติที่มีลักษณะพิเศษและข้อมูลเพิ่มเติม  
 Special Handling Instructions and additional information **ขง. 30 & RV 3067**

7) คำรับรอง : ข้าพเจ้าขอรับรองว่าได้ส่งมอบของเสียแล้วตามที่ระบุข้างต้น และมีการบรรจุติดป้ายหรือฉลากอย่างเหมาะสมตรงตามข้อกำหนดของกฎหมายทุกประการ  
 Generator Certification : I hereby declare that the contents of this consignment are accurately described above and have been packed and labeled and are in the proper condition for transport according to regulations  
 ลงชื่อ : Generator's name **Siripon S.** ลายเซ็น : Signature **Siripon S.** วันที่ : Date **8** เดือน : Month **11** พ.ศ. : Year **21**

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

1) ชื่อผู้ขนส่งของเสีย : The first Transporter's name **บริษัท เมทเทคเอนเนค ดีพี จำกัด** พาหนะที่ใช้ ☒ รถบรรทุก ☐ รถไฟ ☐ เรือ ☐ เครื่องบิน  
 เลขประจำตัวผู้ขนส่ง : Transporter's ID **DIW-T-050200708** Vehicle **Truck** Train Ship Plane  
 โทรศัพท์ : Phone **0 2745 6926-7** โทรสาร : Fax **0 2745 6928** กรณีฉุกเฉิน : Emergency 3) เลขทะเบียนพาหนะ : Vehicle ID **99-4182 กทว, 98-0877 กทว**  
 4) คำรับรอง : ข้าพเจ้าขอรับรองว่าได้รับของเสียแล้วตามที่ระบุข้างต้น 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 **อยุธยา** ไปยังจังหวัด : To **สมุทรปราการ** ใช้ระยะเวลาประมาณ : Time spending **8** ชม./วัน : Hours/Day  
 ลงชื่อผู้ขนส่งรายที่ 1 : Transporter's name **สุพิณ** ลายเซ็น : Signature **สุพิณ** วันที่ : Date **8** เดือน : Month **11** พ.ศ. : Year **69**  
 5) ชื่อผู้ขนส่งของเสีย : The second transporter's name 6) พาหนะที่ใช้ ☐ รถบรรทุก ☐ รถไฟ ☐ เรือ ☐ เครื่องบิน  
 เลขประจำตัวผู้ขนส่ง : Transporter's ID Vehicle **Truck** Train Ship Plane  
 โทรศัพท์ : Phone โทรสาร : Fax กรณีฉุกเฉิน : Emergency 7) เลขทะเบียนพาหนะ : Vehicle ID

8) คำรับรอง : ข้าพเจ้าขอรับรองว่าได้รับของเสียแล้วตามที่ระบุข้างต้น และการขนส่งเป็นไปตามข้อกำหนดของกฎหมายทุกประการ  
 Transporter Certification : I hereby declare that I have received the type and quantity of waste as described by the generator and that waste has been transported according to regulations.  
 โดยขนส่งจากจังหวัด : From ไปยังจังหวัด : To ใช้ระยะเวลาประมาณ : Time Spending ชม./วัน : Hours/Day  
 ลงชื่อผู้ขนส่งรายที่ 2 : Transporter's Name ลายเซ็น : Signature วันที่ : Date เดือน : Month พ.ศ. : Year

3. ส่วนของผู้ประกอบการสถานที่เก็บรวบรวม บำบัด และกำจัดของเสีย : This section must be completed by TSDF's

1) ผู้เก็บรวบรวม TSDF's name สถานที่ขนถ่ายและเก็บรวบรวม : TSDF's address  
 ลงชื่อผู้เก็บรวบรวม : TSDF's name ลายเซ็น : Signature วันที่ : Date เดือน : Month พ.ศ. : Year  
 2) ชื่อผู้รับกำจัด : TSDF's name **บริษัท บางปู อเนกโรนเนคเอนเนค ดีพี จำกัด** 3) เลขประจำตัวผู้รับกำจัด : TSDF's ID **DIW-D-075800102**  
 สถานที่กำจัด : TSDF's address **ถนนอุตสาหกรรมบางปู 965 หมู่ 2 ซอย 3 ต.บางปูใหม่ อ.เมือง อ.ย.ย. 1013016** โทรศัพท์ : Phone **02-7092547** โทรสาร : Fax **02-7092547** กรณีฉุกเฉิน : Emergency  
 4) คำรับรอง : ข้าพเจ้าขอรับรองว่าได้รับของเสียแล้วตามที่ระบุข้างต้นนี้ TSDF certificate of arrival : I hereby declare that I have received the reference load.  
 และสามารถกำจัดของเสียที่รับมาได้ในระยะเวลา : Treatment period ☐ วัน : Day ☐ เดือน : Month ☐ ปี : Year นับจากวันที่ได้รับของเสีย : Since the day that received waste  
 ลงชื่อผู้รับกำจัด : TSDF's name **พร อดิเรก** ลายเซ็น : Signature **พร อดิเรก** วันที่ : Date **9** เดือน : Month **11** พ.ศ. : Year **21**  
 5) กรณีของเสียไม่ตรงตามที่แจ้ง : Discrepancy Notification  
 ประเภทของเสีย : Type of waste ปริมาณ : Quantity  
 การดำเนินการ : Action taken ☐ ส่งคืน : Returned ☐ จัดประเภทใหม่ : Reclassified / รหัส : Waste ID ☐ รับกำจัด : Accepted เหตุผล : Reason of action  
 วันที่ส่งคืน : Date returned (วัน/เดือน/ปี : dd / mm / yy) หมายเลขใบกำกับการขนส่งของเสียที่ส่งกลับ : Returned manifest no. **No. 3642253**  
 ชื่อผู้ส่งคืน : TSDF's name ลายเซ็นผู้ส่งคืน : TSDF's Signature

TICKET No.: 512256					
License Plate: 99-4182		Truck No.:		Transaction Type: WA	
Customer: WMS DEPOT., LTD		Address: (Songkhla Transfer Station)			
Date: 08/11/2021	Time: 10:52	Manifest No.: 481609		Transport Request Order No: 02435	
Waste Profile: 901205 Commercial waste G2/61				MOI Code:	
Treatment Decision: 14				Origin: 90110	
Gross Weight: 14535 Kg	Date: 09/11/2021	Time: 10:51	WB No.: MANUAL	Net: 275 Kg	
				Net Client: 0 Kg	
Tare Weight: 14260 Kg	Date: 09/11/2021	Time: 10:51	WB No.: MANUAL	Quantity: 1.00	
Transporter Name: EASTERN SEABOAR		Container: 3067		Operator: 3008	
T.A.C. 3 Driver Name :			Note:		
Weight by:			Verified by:		
( )			( )		

## เอกสารแนบที่ 21

ตัวอย่างแบบรายงานการจัดการของเสียรายเดือน

### แบบรายงานการจัดการของเสียรายเดือน

ชื่อโครงการ/แหล่ง โครงการเจาะสำรวจและผลิตปิโตรเลียมในแปลงสำรวจในทะเลอ่าวไทยหมายเลข G2/61 G2/61

ประเภทโครงการ กิจกรรมอื่นๆ

บริษัทผู้รับสัมปทาน บริษัท ปตท.สผ. เอนเนอร์ยี่ ดีเวลลอปเม้นท์ จำกัด

แปลงสำรวจหมายเลข G2/61

สัมปทานเลขที่ 2/2561/2

รายละเอียดของเสียและการจัดการประจำเดือน กรกฎาคม พ.ศ. 2564

ลำดับที่	ของเสียและประเภท		ปริมาณของเสีย			การจัดการของเสีย				
	รหัส	ชื่อหรือคำบรรยาย	หน่วย	ของเสียทั้งหมด	ของเสียที่นำไปจัดการ	รหัส	สถานที่	ผู้ขนส่ง	ผู้บำบัดและกำจัด	เลขที่ใบกำกับการขนส่ง
1	03 01	เศษดินเศษหินจากการขุดเจาะช่วงบนโดยใช้น้ำทะเล	ตัน	0.00	0.00	082	บริเวณใต้ฐานเจาะ			
2	03 01	เศษดินเศษหินจากการขุดเจาะช่วงที่ใช้โคลนที่มีน้ำเป็นองค์ประกอบหลัก	ตัน	981.00	981.00	082	บริเวณใต้ฐานเจาะ			
3	03 03	เศษดินเศษหินจากการขุดเจาะโดยใช้โคลนที่มีสารสังเคราะห์เป็นองค์ประกอบหลัก	ตัน	543.00	543.00	082	บริเวณใต้ฐานเจาะ			
4	05 03	ผ้าสำหรับเช็ดที่ปนเปื้อนน้ำมัน	กิโลกรัม	97.00	97.00	042	ดับบลิว เอ็ม เอส ดี โป จำกัด	DIW-T-050200708	DIW-D-125600015	486905
5	11 09	กระสอบบรรจุสารเคมี	กิโลกรัม	130.00	130.00	042	ดับบลิว เอ็ม เอส ดี โป จำกัด	DIW-T-050200708	DIW-D-125600015	486905

ลำดับที่	ของเสียและประเภท		ปริมาณของเสีย			การจัดการของเสีย				
	รหัส	ชื่อหรือคำบรรยาย	หน่วย	ของเสียทั้งหมด	ของเสียที่นำไปจัดการ	รหัส	สถานที่	ผู้ขนส่ง	ผู้นำบำบัดและกำจัด	เลขที่ใบกำกับการขนส่ง
6	11 11	กระป๋องสีใช้แล้ว	กิโลกรัม	40.00	40.00	069	อีสเทิร์น ซีบอร์ด เอนไวรอนเม้นทอลคอมเพล็กซ์ จำกัด	DIW-T-050200708	DIW-D-050900091	486905
7	13 08	สแตนเลส	กิโลกรัม	29.00	29.00	011	ดับบลิว เอ็ม เอส ดีโป จำกัด	DIW-T-050200708	DIW-D-125600015	485572
8	13 14	ยางและท่อยาง	กิโลกรัม	18.00	18.00	075	อัคคีปราการ จำกัด (มหาชน)	DIW-T-050200708	DIW-D-085800027	487118
9	19 02	ขยะมูลฝอยทั่วไป	กิโลกรัม	3,277.00	3,277.00	042	SCG Thungsong	DIW-T-050200708	DIW-D-052200029	35747, 486777, 48684

สรุปรายการของเสียอันตรายที่ส่งไปกำจัดนอกพื้นที่สถานประกอบการปิโตรเลียม

ลำดับที่	ของเสียอันตราย		
	รหัส	หน่วย	ปริมาณ
1	05 03	กิโลกรัม	97.00
2	11 09	กิโลกรัม	130.00
3	11 11	กิโลกรัม	40.00

ขอรับรองว่ารายงานข้างต้นถูกต้องทุกประการ

2021.09.13  
13:28:47 +07'00'

ผู้จัดทำรายงาน (ลายมือชื่อ).....  
(ชื่อสกุล/ตำแหน่ง) นางธนันต์ ฐานะจาโร / ผู้จัดการ แผนกวางแผน และสนับสนุนงานปฏิบัติการหลุมเจาะ  
(วันที่) 13 กันยายน 2564

ผู้ควบคุมการจัดการของเสีย (ลายมือชื่อ).....

(ชื่อสกุล/ตำแหน่ง) นายสหวิช วรรณวิทย์ / ผู้ช่วยกรรมการผู้จัดการใหญ่ สายงานวิศวกรรมและปฏิบัติการหลุมเจาะ  
(วันที่) 13 กันยายน 2564