

Capability Presentation



October 2017





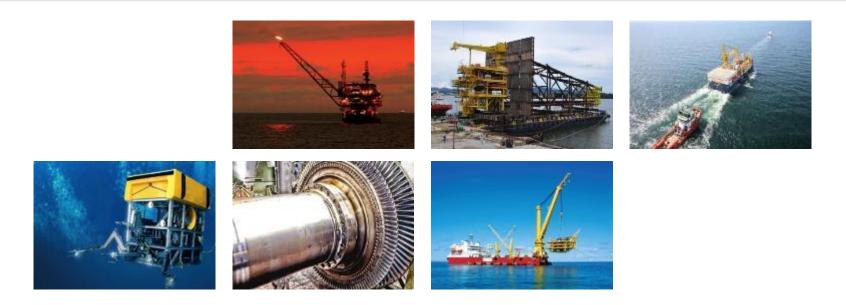
Corporate Presentation

Capabilities & Assets

Track Record



Section 1: Corporate Presentation





- Sapura Energy was established in the 1990s and is today an **integrated oil and gas services and solutions provider** operating across the entire upstream value chain. As a fully-fledged upstream player, the Group's spectrum of capabilities cover the exploration, development, production, rejuvenation, as well as decommissioning and abandonment stages of the value chain.
- With a highly skilled and technically capable multinational workforce, strategic world-class assets, and strong project management capabilities, the Group today has a global presence in over 20 countries.



Evolution of Sapura Energy





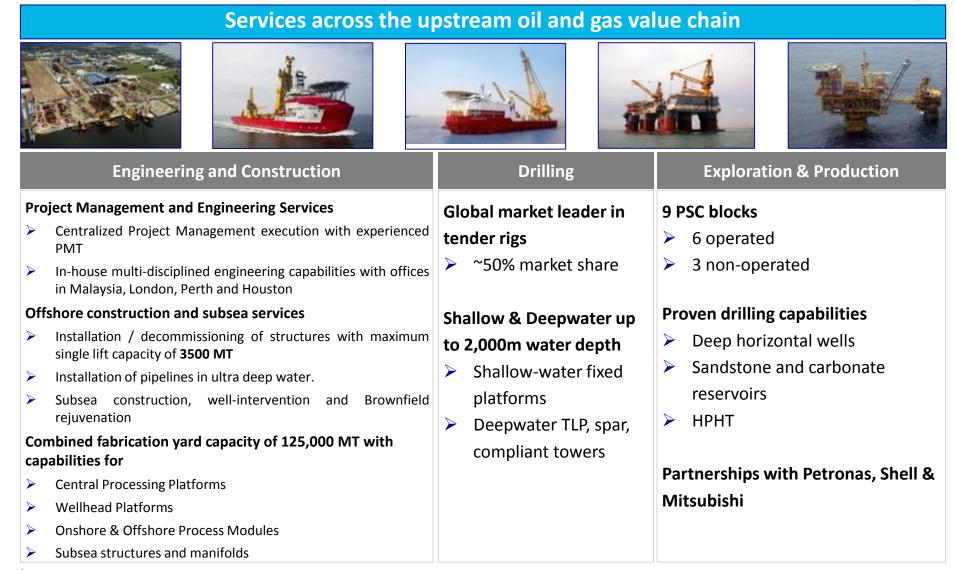
2000 Established Lumut Fabrication Yard

1990s Entry into upstream services

Pipelay and Heavy lift structures installation executed using two (2) Derrick Pipelay vessels Maintenance of equipment for offshore platforms

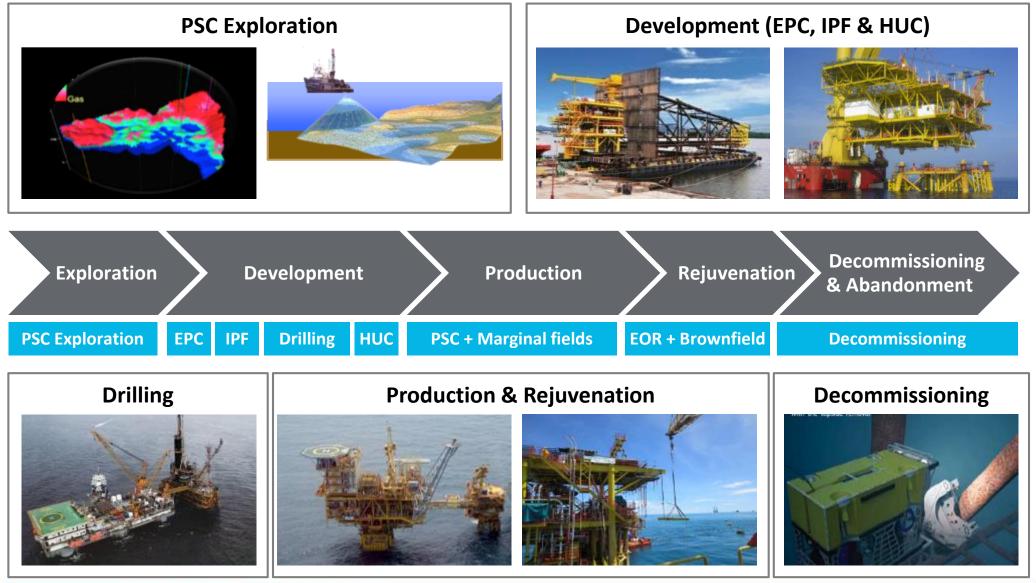
Organised to deliver services for the upstream industry





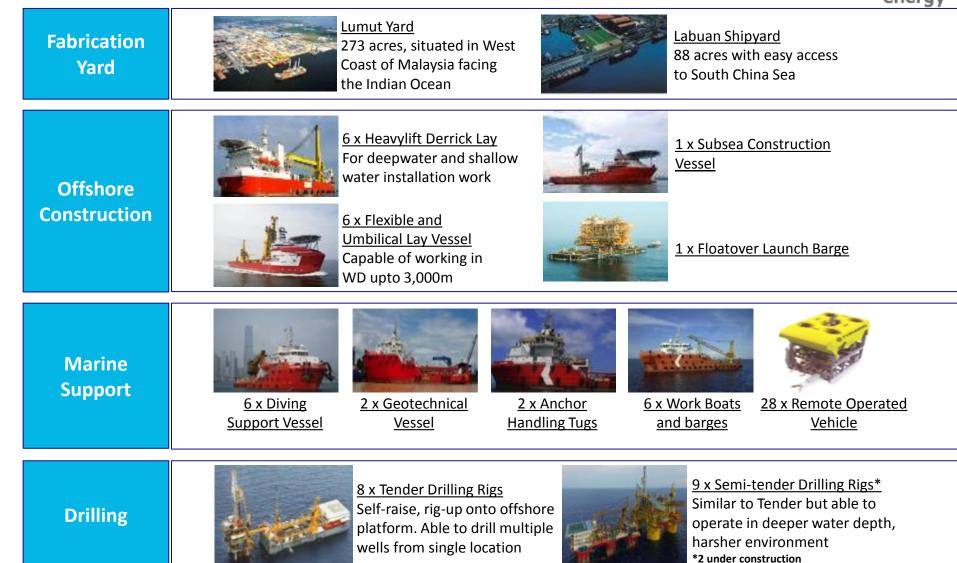
Services Across The Life-cycle of Oil and Gas Fields





Ownership of Strategic Asset to Ensure Timely Project Delivery

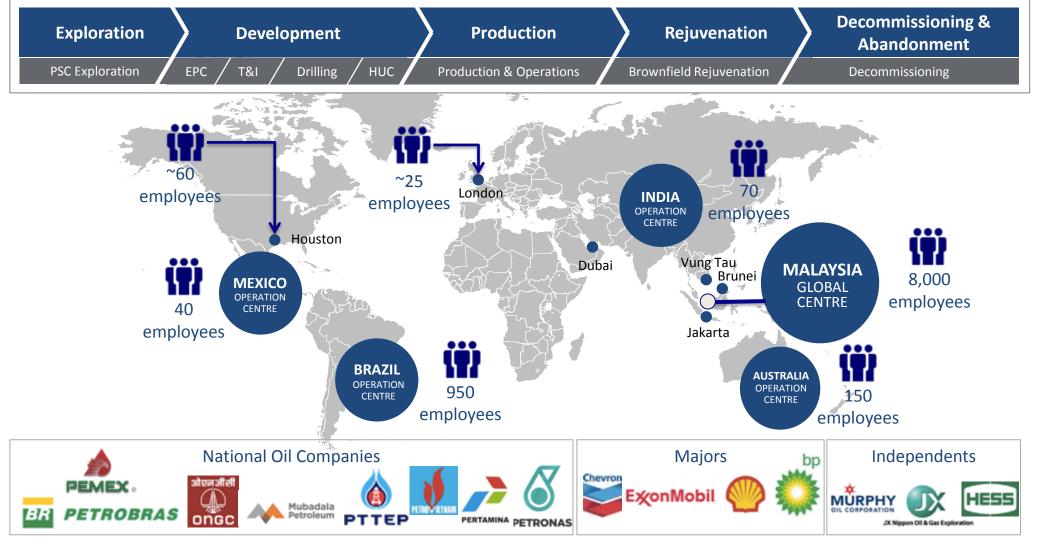




Project Management Solutions Across The Upstream Oil and Gas Value Chain Globally

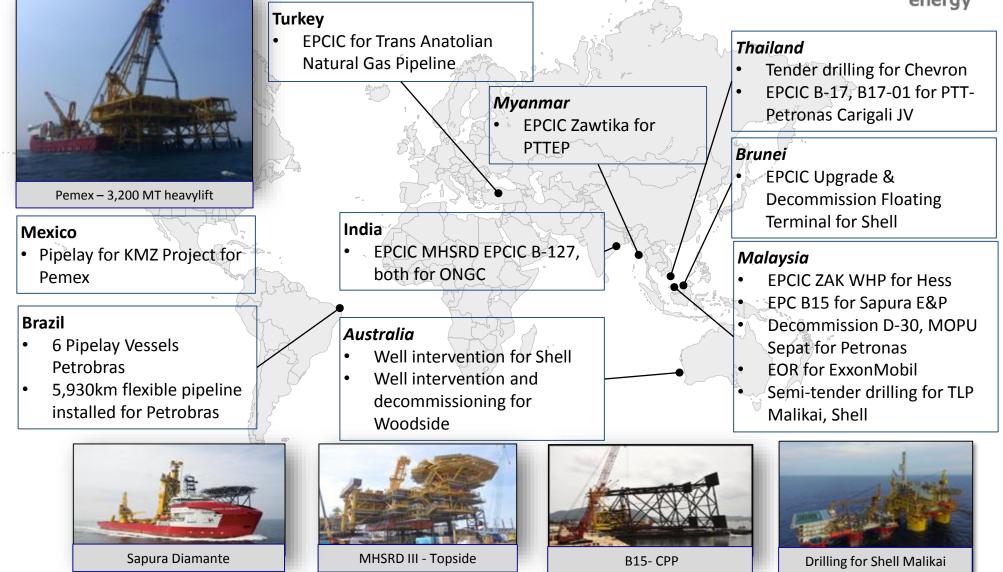


Our capabilities in upstream value chain



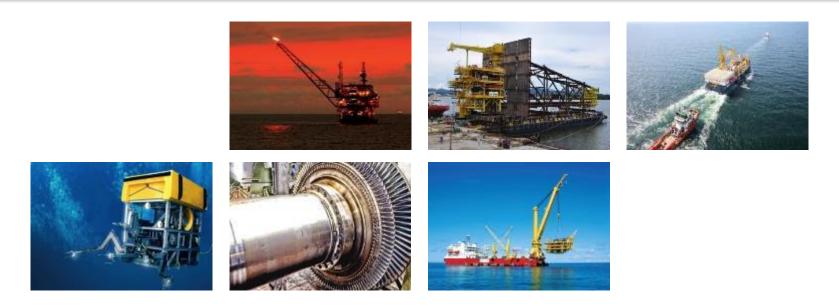
Ongoing and Recently Completed Key Projects Globally



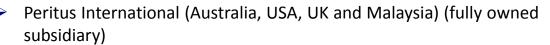




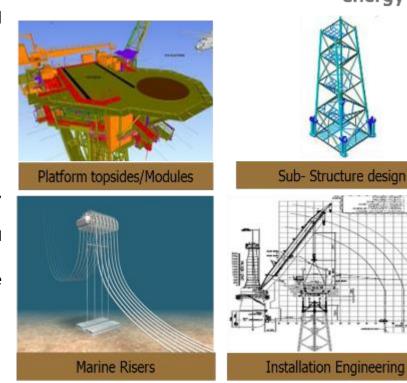
Section 2: Capabilities And Assets

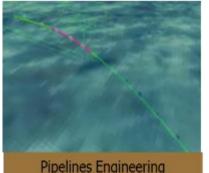


In-house Multi-disciplined Engineering Capabilities



- Advanced subsea, deepwater pipeline and riser engineering. \geq
- Shallow water/ near shore pipelines.
- Floating systems engineering. \geq
- Developments in remote, hostile or deepwater environments
- SapuraKencana Engineering (Malaysia)
 - Conceptual / Front End Design, Detailed Engineering Design, Procurement Support & Commissioning Support.
 - Design pressure vessels, shell & tube exchangers, air-cooled exchangers, skidded & modularized process systems.
 - Design equipment modules for FPSO's, onshore plants & offshore platforms.
 - EPCC of new plants & plant upgrades /modifications.
- Ocean Flow International (USA) (fully owned subsidiary)
 - Subsea & Offshore development projects around the world.
 - Deep water and subsea development while possess extensive experience in shallow water development.
- T&I Engineering and Constructability
 - Complete in-house T&I engineering capability for platform facilities, shallow and deepwater pipeline, marine system, SURF and decommissioning engineering
- Excellent working relationship with International Engineering companies to meet demand and client need







Project Management



Fabrication Asset: Lumut Yard

- J1: 20,000MT J3: 30,000MT 1. Shipbuilding Yard 6. Pipe Workshop Centre 2. Heavy Structure Erection Area 7. Heavy Structures Prefab/Auto Production Line c/w 2 units of 3. Open Area for Assembly Work 75T & 2 units of 25T Gantry Crane 4. Module Assembly Line c/w 2 units of 25T Gantry
- Crane 5. Administrative Building
- 8. CNC Pile Profiling Machine & Minor Fabrication Workshop
- 9. Open Storage Area (10,000 tons Material Storage Capacity)

- 10. Warehouse, Canteen & Car Park
- 11. Fabrication Workshops: Module Fabrication, Piping Fabrication, Structural Fabrication

J10: 3,000MT

- 12. Fabrication Workshops: Blasting & Painting, Piping Fabrication, Structural, Storage Area
- 13. Open Storage: Auto Blast Workshop, Painting Workshop

TOTAL YARD SPACE	COVERED FABRICATION AREA	OPEN SPACE FABRICATION AREA AND OPEN STORAGE AREA		YEARLY CAPACITY
273 acres	129,302 m²	967,197m ²		Max up to 90,000 mt
TOTAS OFFICE SPACE	QUAY WATER DEPTH	LOADOUT WHARF LENGTH	WHARF LOADOUT CAPACITY	
22,350 m ²	-6m to -12m	770m	Ranging from 5,000MT to 30,000MT	

Lumut Yard and Marine Base Facilities





Navigation Channel Depth: -12m ACD

Fabrication Yard (2): Labuan Shipyard





Offshore Assets: Deepwater (Rigid Pipeline)





SapuraKencana 1200 DP-3 HLV 1,200MT crane, 520MT tension S-lay



Sapura 3000 DP-2 HLV 2,722MT crane, 240MT tension S-lay, 400MT tension J-lay, 360MT A&R and A-frame capacity



SapuraKencana 3500 DP-3 HLV 3,500MT crane, 390MT tension S-lay



SapuraKencana Constructor 250MT AHC crane, Sat system

Offshore Assets: Deepwater (Flexible Pipeline and Umbilical)





Sapura Diamante 550MT VLS



Sapura Esmeralda 300MT VLS



Sapura Topazio 550MT VLS



Sapura Jade 550MT VLS



Sapura Onix 550MT VLS



Sapura Ruby 550MT VLS

Offshore Assets: Conventional and Installation Support





LTS 3000 DLB 3,000MT crane, 200MT tension, self propelled



SapuraKencana 2000 DLB 2,000MT crane, 140MT tension



SapuraKencana 900 DLB 9,00MT crane, 120MT tension



FLB-1 Floatover launch barge 16,000MT



6 x ACB



4 x DSV



2 x AHTs



28 x Remotely Operated Vehicles



10 x Air dive system 4 x portable sat system 1x Hyperbaric Rescue Facility (HRF)

HUC & Modification Capabilities







Hook up Works

WHP, CPP, Compression Module, Riser Platform, Bridge, LQs, Flaring Platform

Brownfield Modification & Topside Major Maintenance Works

- Launcher & Receiver
- Riser Tie-in
- Installation of New Equipment
- Piping Works, Plant Turnaround, Valve Overhaul, Structural Repair
- Electrical & Instrumentation Works
- Repair and maintenance work on existing facilities



Offshore Assets: HUC & Modification

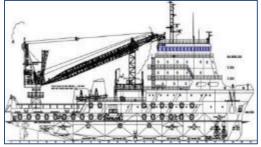




KPV REDANG 200 Pax Crane Capacity: 25T DP2



SARKU SANTUBUNG 123 Pax Crane Capacity: 33T DP2



SK DUYONG DP2 200Pax Crane Capacity: 50MT



SK AMAN DP2 200Pax Crane Capacity: 50MT



SARKU 300 300 Pax Crane Capacity: 300T



SARKU 2000 270 Pax Crane Capacity: 96T

Subsea Services Capabilities

Inspection, Repair & Maintenance

- Major inspection, repair and maintenance of platforms, pipelines, FPSO, FSO etc.
- Installation, repair and inspection of subsea facilities and infrastructures
- Pipeline repair and stabilization
- Risk-based integrity management (RBI)

Other Services (non-exhaustive)

- Air & Saturation Diving
- Provision of Diving Support Vessel
- ROV pipeline survey / debris survey
- Underwater NDT survey
- Subsea Wellhead intervention
- Pipeline intervention / sectional replacements
- Underwater inspection in lieu of dry docking (UWILD)
- Anode retrofits
- Underwater inspection & report writing

















Subsea Services Assets

- \geq Three (3) active Dynamic Positioning (DP) II Diving vessels
- \geq Six (6) Saturation Diving Systems (Three Classed Systems)
- \geq Eight (8) Air Diving Systems (Two Classed Systems)
- Twenty Two (22) Remotely Operated Vehicles (ROV) and \geq
- \geq Four (4) Drilling Support ROV



SapuraKencana Achiever



SapuraKencana Conquest



SapuraKencana Jane



Drill Support ROV

Work Class ROV





Observation Class ROV



SM1 DX300, 12-manned SM2 DX300, 12-manned sat system (Classed)



sat system (Classed)



Sat-001, 6-manned sat system



Sat-02, 9-manned sat system



Sat-03, 9-manned sat system (Classed)



LWI and P&A Capabilities



Light Well Intervention / Plug & Abandonment

- > Well Intervention
- Well Suspension and Pre-abandonment Tasks / Full Well Abandonment
- Well head severance and recovery (below mud line)

LWI / P&A Assets



Subsea Intervention Device SID



AXE WH Severance System



Intervention Compensation System (ICS)



DSIS Down Hole Survey & Inspection Tool



WHAF WH Alignment Frame



Hot Stab Manifold

De-commissioning Capabilities



Planning Site Clearance Inspections & Remediation Permitting Regulation Substructure Removal & Disposal Well P&A "DECOMMISSIONING" The process of shutting down operations, closing the wells, cleaning & making the platform safe and removing, disposing of or relocating facilities. **Topsides Removal Platform Preparation** & Disposal Conductor Pipeline Removal Abandonment

Drilling Capabilities







Deepwater drilling capabilities

Semi-submersible tender rigs capable of drilling in up to 2,000 m of water

Demonstrated capability in development drilling off deepwater platforms

- Tension-leg platforms
- Compliant towers
- Spars
- World-wide experience with deepwater development drilling
 - West Seno TLP, Indonesia (1,100 m)
 - Kikeh Spar, Malaysia (1,300 m)
 - Tombua-Landana Compliant Tower, Angola (300 m)
 - Hess Okume/Ebano TLP and Oveng TLP, Equatorial Guinea (500 m)

Drilling Assets : Tender Assisted Drilling (TAD)





SKD T-9



SKD T-10



SKD T-11



SKD T-12



SKD T-17



SKD T-18









Drilling Assets : Semi TAD





SKD Pelaut



SKD Menang



SKD Alliance



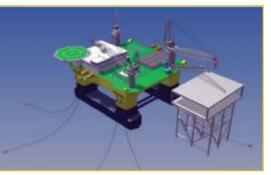
SKD Berani



SKD Setia



SKD Esperanza



SKD Kinabalu (Under Construction)



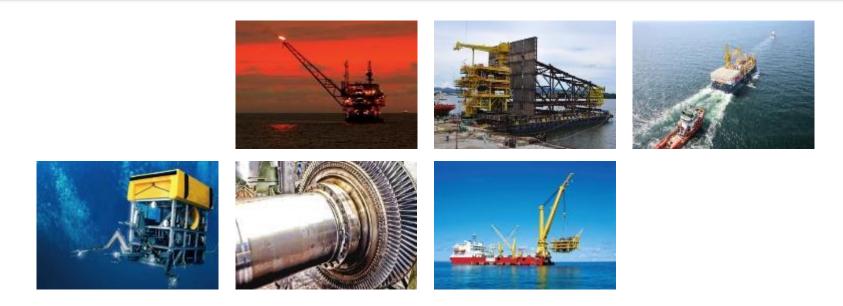
SKD Jaya



SKD Raiqa (Under Construction)



Section 3: Track Record



Track Record: Summary of E&C Track Record





Total Platform Fabricated : 46 no. of Topsides / 54 no. of Jackets

Largest structure fabricated : 14,143 MT Kebabangan Jacket for KPOC (2012)

Total Subsea Structures Fabricated : ~69 no. of structures (PLEM, PLET, manifold)

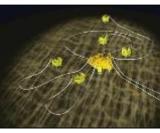
Fabrication of other structures: ~20 (MOPU, compressor modules, bridges, piles, etc.)



Total Platform Installed : ~400 no. of structures (topside, jacket, module, etc.) Heaviest structure lift : 3,120 MT Kuil-B Topside for PEMEX Mexico (2015) Largest Floatover Installation : 15,000 MT DPP Topside for Conoco Phillips, Indonesia (2004)

Heaviest Jacket installation : 13,485 MT MHN Jacket for ONGC, India (2011)





Total Rigid Pipeline Installed : ~5,800 km of rigid pipelines
Total Flexible Pipeline Installed : ~6,000km of flexible pipe
Largest Diameter Lay – Carbon Steel : 46" dia for Pertamina, Indonesia (1994)
Largest Diameter Lay – CRA : 24" dia for Carigali Hess, Malaysia-Thailand JDA (2012)
Longest Pipelay : 200km pipeline for Sabah Shell Petroleum Company, Malaysia (2015)
Deepest installation work – Rigid pipelay : 1,450m WD for Murphy Oil, Malaysia (2008)
Deepest installation work – SURF : 2,500m WD for Petrobras, Brazil (2015)

Track Record: Major EPCIC Experience



Project Name	Scope	Client	Year
CELSE GNL Terminal Project, Brazil	EPCIC of 18" x 8km pipeline, and T&I of mooring yoke tower	CELSE	2017 – 2018 (Ongoing)
B127 Pipeline RTR Project, India	EPCIC of 11 segments pipeline (114km), topside modification, mooring buoys, PLEM and SPM	ONGC	2016 – 2018 (Ongoing)
Zawtika Phase 1C, Myanmar	EPCIC of 4 pipelines (53km), T&I of 4 WHPs	PTTEP	2016 – 2018 (Ongoing)
TANAP Natural Gas Pipeline, Turkey	EPCIC of 2 pipelines (35km)	TANAP	2016 – 2018 (Ongoing)
MHSRD Phase III Project, India	EPCIC of 3 WHPs, 15 pipelines (116km) and modification on existing 18 platforms	ONGC	2015 – 2017
CPOC Phase 3 Development Project, JDA	EPCIC of 4 WHPs and 4 pipelines (44km with 5.5km CRA)	СРОС	2014 – 2017
EPCIC of WHP for NMB, Malaysia	EPCIC of 3 remote WHPs	Hess	2014 – 2016
EVA Trunkline Project, Malaysia	EPCIC of riser platform and pipeline (75km)	TTM	2013 – 2016
Pearl Manora Development Project, JDA	EPCIC of 1 WPP and 2 pipelines (2km)	Mubadala	2012 – 2014
Berantai Project, Malaysia	EPCIC of WHP, 30km pipeline and 4km flexible flowlines	Petrofac	2011 – 2012
Gumusut-Kakap Project, Malaysia	EPCIC of 200km PL & subsea structures WD 1,200m	SSPC	2010 – 2014
EPCIC for JDA B-17 Project, JDA	EPCIC of pipelines (48km) and T&I of 6 WHPs	СРОС	2007 – 2009
Kikeh Development Project, Malaysia	EPCIC of 88.5km PL & subsea structures WD 1,450m	Murphy	2006 – 2008
EPCIC of MOPU Seabase Phase 1, Malaysia	EPCIC of MOPU	PCSB	2014 – 2015
B15 Jacket and CPP Topside, Malaysia	EPCIC of B15 CPP topside and jacket	SKE	2016 – 2017
BNJT-K & TTJT-A WHP, Malaysia	EPCIC of 2 WHPs	PCSB	2014 – 2017
Layang Development Project, Malaysia	EPCIC of 1 WHP	JX Nippon	2014 – 2015
EPCIC for Bumi, Bulan & Suriya, JDA	EPCIC of 3 WHPs	стос	2006 – 2007
EPCIC of Serendah and Patricia, Malaysia	EPCIC of Serendah topside and Patricia topside	MOC	2012 – 2013

Track Record: Major Pipelay Experience



Project and Location	Client	Year	Scope
CELSE GNL Terminal Project, Brazil	CELSE	2017 – 2018	EPCIC of 18" x 8km pipelines (onshore and offshore)
Trans Anatolian Natural Gas Pipeline, Turkey	Tanap Dogalgaz Iletim	2016 – 2018	EPCIC of 2 x 36" x 17.6km pipelines
Guntong Pipeline Project, Malaysia	ExxonMobil	2016	T&I of 12" x 11.58km pipelines
MHS Rd Phase III, India	ONGC	2015 – 2017	EPCIC of 15 pipelines (total length: 116km)
KJG Onshore & Offshore Pipeline, Indonesia	PT PGas Solution	2014 – 2015	T&I of 14" x 198km pipelines (onshore and offshore)
Pan Malaysia 2014 (ExxonMobil), Malaysia	ExxonMobil	2014	T&I (6" – 18") pipelines (total length: 42km)
Nam Con Son 2 Gas Pipeline, Vietnam	PV Gas	2014 – 2015	T&I of 26" x 151km pipelines
CPOC Phase 3 Development, JDA	СРОС	2014 – 2016	EPCIC of 4 x 18" pipelines (44km; 5.5km CRA)
MB Platform and Pipeline Project, India	BG India	2014 – 2015	T&I of 2 x 14" pipeline + 5" piggyback (30km)
EVA Trunkline Project, JDA	TTM	2013 – 2015	EPCIC of 24" x 75km pipelines
Pan Malaysia 2013 (ExxonMobil), Malaysia	ExxonMobil	2013	T&I (6" – 18") pipelines (total length: 37km)
Pan Malaysia 2012 (ExxonMobil), Malaysia	ExxonMobil	2012	T&I (10" – 28") pipelines (total length: 90km)
Bumi-B and Cakerawala-D Project, JDA	СНОС	2011 – 2012	24" x 6.4 and 10" x 3.9km CRA pipelines
T&I for Puteri Pipeline Restoration, Malaysia	Newfield	2011	T&I of 12" & 8" pipe-in-pipe with 4" piggyback pipelines
Pan Malaysia 2010 (ExxonMobil), Malaysia	ExxonMobil	2010	T&I of 12" x 4km CRA pipelines
Gumusut Kakap Development, Malaysia	Shell	2010 - 2014	EPCIC of deepwater pipelines (WD 1,200m)
Kikeh Gas Pipeline Project, Malaysia	Murphy	2006 – 2008	EPCIC of 12" x 88km deepwater pipelines (WD 1,450m)

Total Length of Rigid Pipeline Laid : ~5,800km

Track Record Snapshot: EPCIC Mumbai High South Phase III





Client:	ONGC	9Y
Field:	Mumbai High South	
Scope:	EPCIC of 3nos Wellhead Platforms, 18 nos. platfor	ms
	modification and 177km of pipelay and Subsea	
	repair works	
Period: Ma	ay 2015 – April 2017	
Tonnage:	17,386 MT	
Manhours:	6,951,732	



Track Record Snapshot: EPCIC CPOC Phase 3 Development



Client: Carigali-PTTEP Operating Company

Field: MTJDA

- Scope: EPCIC of 4 WHPs, 4 x 18" pipeline (total length 44km with 5.5km CRA) and Brownfield modifications
- Period :
 June 2014 Feb 2018

 Tonnage:
 5,576MT

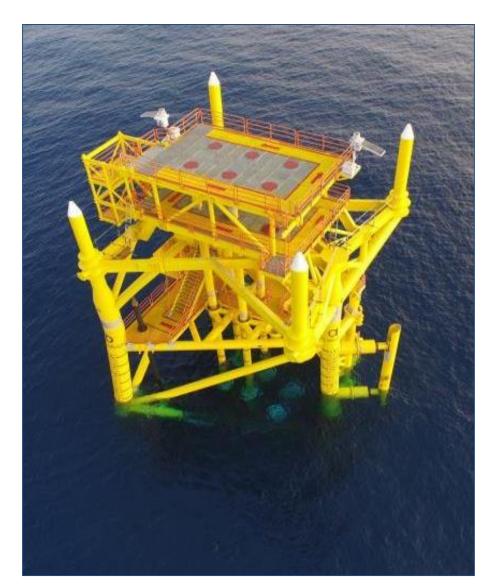






Track Record Snapshot: EPCIC HESS CDK Development





Client:	HESS
Field :	North Malay Basin
Scope:	FEED + EPCIC (FEPCIC) of 3 nos Remote
	Wellhead Platforms (RWHP)
Period:	May 2014 – Sept 2016
Tonnage:	7,039 MT



Track Record Snapshot: EPCIC TANAP Natural Gas Pipeline



ANATOLIAN

SIDE

Sapu

MOGING

STATION

UMBER

PROJECT DETAILS - SCHEMATIC Client: Tanap Doğalgaz İletim A.Ş Field: Dardanelles Straight, Turkey EUROPEAN MARMARA SEA CHANNEL Scope: EPCIC of 2 x 36" x 17.6km pipelines W-DS-FI ASSYE MALE ENV-05-F101 ASSAE BOLD EPCIC of 4 x Fibre optic cable 9 COST BREAK AND DATERY LIMITS CODE BREAK AND Include shore approach installation DARDANELLES STRAIT APPROX. 17.6 km **Period**: July 2016 – Ongoing (expected completion in MANNER SEACH MANTELE SOCAR 1A SM 192 CORES TANAP 1A SM 48 CORES July 2018) PICGING 36" PIPELINE CI: TENPOSARY PG TRAPS TEMPOR EUROPEAN -Chillippest 36" :PIPELINE 6.17 CLUP. HUNGARY ROMANIA TANAP 24 SM 48 CORES SOCAR 2A EM 192 CORES CROATIA Belgyde BEACH BEACH BOSNIA ERZEGOVINA Buchara SERBIA IONTENEGRO BULGARIA F.Y.R.O.M.TAP Arkara TANAP ZERBAIJAN TURKEY SYRIA T.R.N.C. diterrane IRAN LEBANON **TANAP Offshore Section**

Track Record Snapshot: EPCIC ONGC B127 Pipeline Project



- Field:Bassein & Mumbai High South Field
- Scope: EPCIC of 11 segments pipelines (total length 114km)

Topside modification and riser installation

Period : Sept 2016 – March 2018







Track Record Snapshot: EPCIC Tukau and Baronia Development sa

- Client: Petronas Carigali Sdn Bhd
- Field: Tukau & Baronia Field
- **Scope:** EPCIC of 2 nos Wellhead Platforms
- **Period:** April 2014 July 2015
- **Tonnage:** 10,075 MT







Track Record Snapshot: EPCIC Layang Development Project





Client:	JX Nippon
Field:	Layang Field
Scope:	EPCIC of 1 nos Wellhead Platform
Period:	April 2014 – July 2015
Tonnage:	3,644 MT





Track Record Snapshot: EPCIC Kikeh Deepwater Project



- Client: Murphy Oil Corporation
- Field: **Kikeh Field**
- 12" export x 138km pipeline, PLEM, tie-in jumper Scope: spool and in-line future tap tie-in installation
- 2006 2007**Period**: Water depth: 1,450m



1st Deepwater project in Malaysia



The Kikeh field was discovered in Aug 2003 and was the first offshore deepwater development in Malaysia. The field is located in 1,450 meters water depth offshore Sabah, making the Kikeh gas pipeline the deepest rigid pipeline installed in Asia Pacific region to date. The project was successfully completed in 2008 with minimum installation downtime

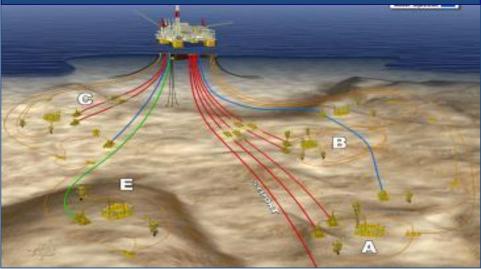
Track Record Snapshot: EPCIC Gumusut-Kakap Project



- **Client:** Sabah Shell Petroleum Company
- Field:Gumusut Kakap Deepwater Offshore
(Block J & K)
- Scope: 18" x 200km export pipeline including shore approach, 8" & 12" flowlines with SCRs, 5 no. Subsea Manifolds, 9 no. PLETS & 7 nos. sleds

Period: 2008 – 2009 **Water depth**: 1,200m

2nd Deepwater project in Malaysia







Track Record Snapshot: EPC of Kebabangan Jacket



- Client: Kebabangan Petroleum Oil Company (KPOC)
- Field:Kebabangan Northern HubDevelopment Project
- Scope: EPC for 8-legged floatover jacket
- **Period:** April 2011 Sept. 2012

Tonnage: 14,143 MT





Track Record Snapshot: EPC Chevron Wheatstone LNG Module



- **Client:** Bechtel (West Australia) Pty Ltd
- **Scope:** Fabrication of LNG ISBL Module for Chevron Wheatstone Project
- **Period :** 2012 2015
- **Tonnage :** 65,909+ MT.







Track Record Snapshot: Chevron Gorgon LNG Project Pre-assembled Pipe Rack (PAR)



Client: Saipem SA

- Scope : Fabrication of Pre- Assembled Pipe Rack (PAR)
- **Period:** April 2011- Nov 2013
- **Tonnage:** 15,406 MT







Track Record Snapshot: PEMEX Platform Installation & Pipelay



Client: PEMEX

Field: Bay of Campeche, Mexico

- **Scope:** Installation of fixed marine platforms, pipelaying and lifting of major power generation equipment, utilizing DP3 vessel SapuraKencana 3500
- Period: April Oct 2015

Cumulative Track Record by SK3500 in region:

- Total tonnage Installed till date: 10,987 MT
- Total pipelay: 40 km (up to 36")

Heaviest Lift with SK3500 for Kuil B Topsides 3,200MT





Track Record Snapshot: ONGC MHN Project





Client:	ONGC
Field:	Mumbai High North ,
	India
Scope:	Transport and
	Installation of Platforms
	(MNP, MLQ, MNF 1 &
	MNF 2)
Period:	Dec 2010 – May 2011

Heaviest Jacket Launched and Installed (13,380MT)

Track Record Snapshot: VSP Nam Con Son 2 Project









- **Client:** Vietsovpetro (VSP)
- Field: Nam Con Son Basin, Offshore Vietnam
- Scope: 26" x 151km Offshore Pipeline Construction for Nam Con Son 2 Gas Pipeline

Period: Jul 2014 till Nov 2015

Track Record Snapshot: Thai Binh – Ham Rong Project



- **Client:** PTSC Offshore Services
- Field : Thai Binh Field, Offshore Vietnam
- Scope:T&I of 12" x 5.28 km nearshore scope, 12" x 13.1km offshore and beachpull (3.1km), tripod jacket at 541MT,
3 x 54" OD pile, 2 x 26" OD conductor, Boat landing 73.75MT, Riser guard 33.77MT and a Topside 787MT.
- **Period:** Nov 2014 Oct 2015



Track Record Snapshot: BG India MB Project







Client: BG India Field: Panna-Mukta Field, India

Scope:

Transportation & Installation of:

- > One WHP (≈1500MT)
- Pipeline 14" + 5" piggyback x 25km
- Pipeline 14" + 5" piggyback x 5km

Period : 2014 – 2015

Track Record Snapshot: Deepwater Pipelay for Petrobras (1)





Track Record Snapshot: Deepwater Pipelay For Petrobras (2)





- Installation of
 - 1,226km of flexible pipeline at Lula Field, Brazil (Max WD 2,252m)
 - 57km of flexible pipeline at Entorno de Iara Field (Max WD 2,250m)
 - 100km of flexible pipeline and 600m flexible jumper at Iracema Sul Field(Max WD 2,228m)
 - 290km of flexible pipeline at Sapinhoa field (Max WD 2,130m)



- Installation of
 - 482km of flexible pipeline at Lapa Field (Max WD 2,149m)
 - 621km of flexible pipeline at Lula Field (Max WD 2,130m)
 - 21km of flexible pipeline at Sapinhoa Field(Max WD 2,154m)
 - 8km of flexible pipeline at Marlim Sul field (Max WD 1,188m)



- Installation of
 - 265km of flexible pipeline at Lula Field (Max WD 2,252m)
 - 129km of flexible pipeline at Cernambi Field (Max WD 2,246m)
 - 5.6km of flexible pipeline at Iracerma Norte Field(Max WD 2,240m)
 - 365km of flexible pipeline at Sapinhoa field (Max WD 2,221m)

Track Record Snapshot: Deepwater Pipelay For Petrobras (3)





- Installation of
 - 343km of flexible pipeline at Lula Field, Brazil (Max WD 2,248m)
 - 73km of flexible pipeline at Iracerma Norte Field (Max WD 2,240m)
 - 119km of flexible pipeline and 600m flexible jumper at Iracema Sul Field(Max WD 1,323m)



- Installation of
 - 1.8km of flexible pipeline at Espadarte Sul Field (Max WD 2,500m)
 - 594km of flexible pipeline at Lula Field (Max WD 2,260m)
 - 24km of flexible pipeline at Sapinhoa Field (Max WD 2,179m)
 - 1.4km of flexible pipeline at Jubarte field (Max WD 1,371m)



- Installation of
 - 93km of flexible pipeline at Lula Field (Max WD 2,248m)
 - 427km of flexible pipeline at Sapinhoa Field (Max WD 2,165m)
 - 10km of flexible pipeline at Sepia Field(Max WD 2,135m)
 - 10km of flexible pipeline at Itapu field (Max WD 2,009m)

Track Record Snapshot: Bayu Undan Project (Floatover)





Track Record Snapshot: Woodside Angel Topside Floatover





Track Record Snapshot: EPC of Subsea Systems (1)





Title Woodside GWF Project

Client / Owner FMC Technologies (Singapore) Pte Ltd / Woodside Limited (Australia)

Work Scope

Engineering, Procurement and Construction of 2 manifolds and 2 skids

Period October 2012 – March 2014

Tonnage

480 MT



Title Shell Prelude Project

Client / Owner FMC Technologies (Singapore) Pte Ltd / Sarawak Shell Limited

Work Scope

Engineering, Procurement and Construction of 2 Production Manifolds with mudmats, 1 Riser Base Manifold with mudmat

Period February 2013 – October 2015

Tonnage 833 MT

Track Record Snapshot: EPC of Subsea Systems (2)





Title Ichthys Project

Client / Owner GE Vetco Gray Scandinavia AS

Work Scope Fabrication of 5 units Manifold with Foundations and 1 unit SDH with Foundation for Ichthys project

Construction Period July 2013 – Dec 2015

Tonnage 2,058 MT



Title Upper Pyrenees Moondyne Dev Proj

Client / Owner Cameron Limited

Work Scope Fabrication and Supply of 4-Slot Production Manifold

Construction Period Dec 2012 – July 2013

Tonnage 118 MT



Title Julimar Development Project

Client / Owner GE Oil & Gas , Vetco Gray Scandinavia AS

Work Scope Engineering & Construction of 1 Production Manifold & Foundation, 1 Cross Over Manifold & Foundation, 3 pig launchers, 14 Jumper kit and 3 PLETs

Construction Period April 2013 – October 2015

Tonnage 2,160 MT

Track Record Snapshot: EPC of Subsea Systems (3)





Title BHP Pyrenees Project

Client / Owner Cameron Limited / BHP Billiton (AUSTRALIA)

Work Scope

EPC of subsea manifolds and foundation mud mats.

Period 2007 – 2009

Tonnage 810 MT



Title Reliance KG-D6

Client / Owner Aker Kvaerner (M) Sdn Bhd / Reliance Industries Limited. Ltd. (INDIA)

Work Scope

9 units: 3 manifolds, 6 suction anchors for manifolds, 1 DWPLEM with suction anchor, 1 UDH with suction anchor, 3 SDA with suction anchors.

Period 2006 – 2007

Tonnage 2,337 MT



Title Gumusut-Kakap Project

Client / Owner FMC Wellhead Equipment Sdn Bhd (MALAYSIA)

Work Scope 5 Subsea Manifolds Gumusut-Kakap

Period 2008 – 2009

Tonnage 600 MT

Track Record Snapshot: EPC of FDSO / FDPSO Modules





M20, Bumi Armada

Client / Owner Bumi Armada

Work Scope Engineering, Procurement & Construction

Period 2008 – 2009



Prosafe Azurite Development Module Construction

Client / Owner Prosafe Production Services Pte Ltd

Work Scope Detail engineering for Electrical Module and work drawings for all other Module, Procurement, Fabrication, Assemble, Erection T&C

Period 2007 – 2008

Major Track Record: Brownfield



	Project Title	Client	Man Hours	Duration
1	Tapis Enhanced Oil Recovery (EOR) – Rejuvenation & Retrofit Project	EMEPMI	2,400,000	Feb 2014 – 2018 (On Going)
2	Provision of Hook-Up, Commissioning and Topside Major Maintenance Services for 2013 to 2018	EMEPMI	3,400,000	May 2013 – 2018 (On Going)
3	Provision of Construction Services For Brownfield Projects. DU3744A2	EMEPMI	2,227,469	July 2009 – Apr 2013
4	Provision Of Hook-up And Commissioning For Platform Upgrading, Modification For MHSRD III Project Phase 2	ONGC	1,650,000 (Phase 1) 1,200,000 (Phase 2)	Oct 2015 – Apr 2017 (On Going)
5	Provision Of Phase 2 Early Gas Brownfield Construction For Cakerawala Gas Field Development	Carigali-HESS	2,953,590	May 2006 – May 2008
6	Provision Of Hook Up & Commissioning for Restoration Of Bekok-C	Petronas Carigali / Petrofac	2,229,882	Jun 2012 – Feb 2014
7	Provision of Hook-Up and Commissioning for Platform Upgrading, Revisit and IO Modification for Samarang Redevelopment Project (Phase 2) including LQ upgrade	Petronas Carigali	1,500,000	Aug 2012 – Dec 2014
8	Brownfield Works on MDPP, MDB and JKB Platforms for JDA Block B-17 and B-17-01 field phase 3 development project.	Carigali- PTTEP	242,545	Jan 2015 – Nov 2015
9	Provision Of Topside Major Maintenance, Hookup ,Commissioning and Construction Services	Sarawak Shell / Sabah Shell	7,2000,000	Sept 2008 – Dec 2013
		Total Mhrs	25,003,186	

Track Record Snapshot: HUC and Brownfield (1)





Retrofits Project (long term)

Client / Owner ExxonMobil Exploration & Production Malaysia Inc.

Period February 2014 – 2018 (Ongoing)

Man-Hours 2.3 million (HSE LTI-0)

Major Maintenance Services for 2013 to Projects. DU3744A2 (long term) 2018 (long term)

Client / Owner ExxonMobil Exploration & Production Malaysia Inc.

Period May 2013 – 2018 (Ongoing)

Man-Hours 4 million (HSE LTI: 0) **Construction Services For Brownfield**

Client / Owner ExxonMobil Exploration & Production Malaysia Inc.

Period July 2009 – April 2013

Man-Hours 2.2 million (HSE LTI: 0)

Track Record Snapshot: HUC and Brownfield (2)









Title

Hook Up Commissioning for Platform Upgrading, Revisit and IO Modification for Samarang Redevelopment Project (Phase 2) including LQ Upgrade

Client / Owner PETRONAS Carigali Sdn Bhd

Period: August 2012 – December 2014

Man-hours 1.5 Million (HSE LTI – 0)

Title

Brownfield Works On MDPP, MDB, and JKB Platforms For Phase 3 Development Project

Client Carigali-PTTEP Operating Company Sdn Bhd (CPOC)

Period:

January 2015 – November 2015

Man-Hours 250,000 (HSE LTI : 0) Title

Hook-Up and Commissioning for Restoration of BEKOK-C

Client Petronas Carigali / Petrofac Engineering and Construction

Period June 2012 – February 2014

Man-hours 2.2 Million (HSE LTI–0)

Track Record Snapshot: HUC and Brownfield (3)









Title

GREENFIELD - EPCIC of JDA Gas Balancing Evacuation Project (EVA Project for Trans Thai-Malaysia (Malaysia) Sdn Bhd

Client / Owner Trans-Thai Malaysia Sdn Bhd

Period: July 2013 – April 2015

Man-hours: 245,000

Title

GREENFIELD - EPCC of KAMELIA-A Wellhead Platform (WHP) for Early Production Scheme (EPS), North Malay Basin Field

Client Hess Exploration and Production Malaysia B.

Period December 2011 – March 2013

Man-Hours: 330,000

Title

GREENFIELD - Provision of Hook-Up and Commissioning Services for Kebabangan Northern Hub Development Project

Client / Owner Kebabangan Petroleum Operating Company Sdn Bhd (KPOC)

Period June 2012 –December 2014

Man-hours: 700,000

Track Record Snapshot: HUC and Brownfield (4)









Title

GREENFIELD – EPC of Serendah (SN-PA) & Serendah Accommodation (SN-AA) Substructure for Murphy's Sarawak SK309/311 SPSA Sarawak Development Project

Client Murphy Sarawak

Murphy Sarawak Oil

Period June 2012 – October 2014

Man-hours: 300,000

Title

GREENFIELD - EPCIC of Patricia Satellite, PT-SA & West Patricia, WP-PA Topsides Facilities for SK309/311 Murphy's Sarawak Development Project

Client Murphy Sarawak Oil

Period February 2013 - August 2013

Man-Hours: 90,000

Title

GREENFIELD - PCSB HUC for Kanowit CPP KAKG-A Platform (Kumang Cluster Development Project- Phase 1)

Client / Owner Petronas Carigali Sdn Bhd

Period 2010 – 2011

Man-hours: 700,000

Track Record Snapshot: HUC and Brownfield (5)





GREENFIELD - Offshore HUC Works for Kinabalu NAG Processing Platform B (KNPG-B)

Client / Owner

Malaysian Marine Heavy Engineering Sdn Bhd/ PCSB

- 1st Gas introduction achieved on 31 Dec 2012
- Platform Living Quarters habitation completed within 11 days on 7th August 2012.

Period

Aug 2012 – Mar 2013

Man-Hours: 1.5 Million



GREENFIELD - Supply, Delivery, Installation & Commissioning Of Refurbished Wellhead Platform, Pipeline & Host Tie-In For D21 Project

Client / Owner

IEV Group Sdn Bhd/Petronas Carigali Sdn Bhd

- 1st oil introduction achieved on 31 December 2012
- Installation of A2 Flow Line Well completed

Period Feb 2012 – July 2013

Man-Hours: 86,600

Decommissioning Track Record: Dana & D30



Project Details			
Project Name	EPRD of Dana & D30 Decommissioning		
Location	Offshore Sarawak, Malaysia		
Client	PCPP Operating Company Sdn. Bhd.		
Contractor	Sapura Offshore Sdn Bhd		
Year	2017		
Water Depth	80 meters		
Vessel Utilised	SK 3500		
Scope of Work	Engineering, preparation, removal and decommissioning of:Dana and D30 light weight structurePipeline end capping and burial		
Detail of structure	Dana LWS: • Jacket: 461MT • Topside: 77MT D30 LWS: • Jacket: 410MT • Topside: 535MT		





Decommissioning Track Record: Woodside Balnaves



	Project Details			
Project Name	Balnaves Phase 2 and 3A			
Location	NWS Western Australia			
Client	Woodside Energy Limited			
Contractor	Sapura Energy Australia			
Year	2016			
Water Depth	500m			
Vessel Utilised	SK Constructor			
Scope of Work	 (i) Disconnection of risers and flowline from FPSO Armada Claire DTM (ii) Recovery of buoyancy modules, mooring chains, riser, flowlines, manifold, jumpers, spools and riser tether base (iii) Towing of DTM to 500m zone 			

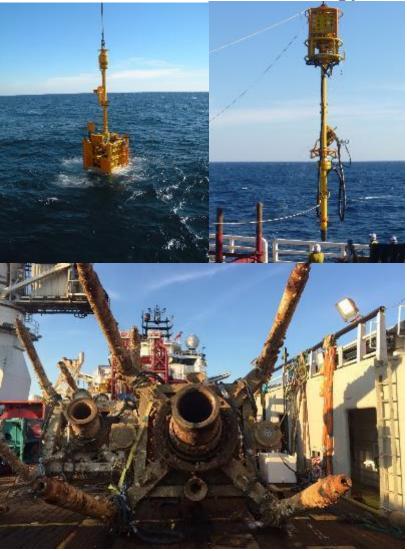




Decommissioning Track Record: Shell LWI and WH Severance



Project Details			
Project Name	Provision of LWI Services for Shell		
Location	Australia		
Client	Shell Australia		
Contractor	Sapura Energy Australia		
Year	2016 – 2017		
Water Depth	170m		
Vessel Utilised	SK Constructor		
Scope of Work	 (i) Light well intervention services for Prelude Commissioning (ii) Subsea Wellhead severance and retrieval in Crux & Block F 		



Decommissioning Track Record: Buffalo Project



Project Details			
Project Name	Buffalo De-Commissioning Project		
Location	Buffalo Field, Australia		
Client	Modec Inc		
Contractor	Sapura Energy Australia		
Year	Between 2004 – 2005		
Water Depth	Between 30 – 300 meters		
Vessel Utilised	SK 900		
Scope of Work	 (i) Plugging and abandonment of all production wells and flowlines (ii) Disconnection of the flexible flowlines and umbilical from the FPSO (Buffalo Venture) (iii) Recovery of the flexible flowlines, rigid flowlines and umbilical in water depths up to 300m (iv) Removal of the wellhead platform including topside, jacket and well conductors 		
Detail of de-commissioned structure	 (i) Rigid flowlines (10"x2.8km & 4"x2.8km) (ii) Flexible flowlines (~600m) (iii) Umbilical (~2.8km) (iv) Topside (Weight = 330MT) 		









Decommissioning Track Record: Baram-8 Structure Removal



Project Details			
Project Name	Baram-8 Structure Removal		
Location	Offshore Sarawak, Malaysia		
Client	Sarawak Shell Berhad (SSB)		
Contractor	Sapura Offshore Sdn Bhd		
Year	Between 2004 – 2005		
Water Depth	Approx. 56 meters		
Vessel Utilised	DLB 332		
Scope of Work	 (i) To remove the abandoned Ba-8 Tripod structure (ii) Relocate the de-commissioned jacket to Siwa Coral area as an artificial reef 		
Detail of structure	Tripod Jacket (Weight = 500MT)		

- Baram-8 was damaged in a storm and collapsed to the seabed in 1975
- Baram-8 decommissioning project was a salvage operation
- The recovered jacket was made into the first artificial reef in Malaysia





Decommissioning Track Record: Demobilization of FSO Abu



Project Details			
Project Name	Provision for Demobilization of FSO Abu		
Location	South Angsi Field, Offshore Terengganu		
Client	MISC Offshore Floating Terminals Ltd.		
Contractor	Sapura Offshore Sdn Bhd		
Year	2016		
Water Depth	Approx. 70 meters		
Vessel Utilised	SK 1200, SK Achiever		
Scope of Work	 (i) Disconnection of FSO incl. 2 flexible risers, floating hose and 6 mooring legs (ii) Towing of FSO to yard in Johor Bahru 		



Decommissioning Track Record: Iwaki Platform Project



Project Details			
Project Name	Iwaki Platform Decommissioning Project		
Location	Iwaki Gas Field, Japan		
Client	Offshore Iwaki Petroleum Co. Ltd.		
Contractor	SapuraAcergy (50% owned by SEB)		
Year	2009 - 2010		
Water Depth	154 meters		
Vessel Utilised	Sapura 3000		
Scope of Work	 (i) Removal of topside facilities and module support frame (ii) Cutting jacket members at EL-92 meters (iii) Lifting of upper section of jacket, lowering onto seabed and toppling (iv) Cutting and stabilising export pipeline 		
Detail of structures	(i) 8-legged platform weighing 20,735MT(ii) 12" gas export pipeline		



- Topside removal is made in 16 modular topside lifts ranging from 10MT to 1100MT
- Jacket de-commissioning is made with 188 subsea cuts, at depth of 92m
- Upper section of jacket (1500MT) was lifted and lowered to the seabed
- Iwaki platform was the biggest platform in the Asia Pacific region to be decommissioned

De-commissioning Track Record: Well P&A (1)



INSTALLATION	COUNTRY	OPERATOR	FIELD	WELL
T7	Thailand	Chevron Thailand	Satun	1
T10	Malaysia	Petronas Carigali	ANGSI	Angsi-B Slot #6
T3	Thailand	PTTEP	Arthit - WP9	AT-9-C
T4	Thailand	Chevron Thailand	Erawan	C-07
SKD Pelaut	Brunei	Brunei Shell Petroleum	Champion	CP 05
SKD Pelaut	Brunei	Brunei Shell Petroleum	Champion West	CW38
T11	Thailand	Chevron Thailand	Erawan	ERWG-11
T11	Thailand	Chevron Thailand	Erawan	ERWL 22
T11	Thailand	Amerada Hess Ltd.	1074R	ERWL 23
T11	Thailand	Chevron Thailand	Erawan	ERWL 25
T11	Thailand	Chevron Thailand	Erawan	ERWL 34
T11	Thailand	Chevron Thailand	Funan	FUWM 03
T11	Thailand	Chevron Thailand	Funan	FUWM 07
T11	Thailand	Chevron Thailand	Funan	FUWM 08
T11	Thailand	Chevron Thailand	Funan	FUWM 25
T11	Thailand	Chevron Thailand	Funan	FUWM 27
T11	Thailand	Chevron Thailand	Funan	FUWM-02
T11	Thailand	Chevron Thailand	Funan	FUWM-04
T11	Thailand	Chevron Thailand	Funan	FUWM-06
T11	Thailand	Chevron Thailand	Funan	FUWM-09
T11	Thailand	Chevron Thailand	Funan	FUWM-10

De-commissioning Track Record: Well P&A (2)



INSTALLATION	COUNTRY	OPERATOR	FIELD	WELL
T11	Thailand	Chevron Thailand	Funan	FUWM-11
T11	Thailand	Chevron Thailand	Funan	FUWM-12
T11	Thailand	Chevron Thailand	Funan	FUWM-13
T11	Thailand	Chevron Thailand	Funan	FUWM-15
T11	Thailand	Chevron Thailand	Funan	FUWM-17
T11	Thailand	Chevron Thailand	Funan	FUWM-18
T11	Thailand	Chevron Thailand	Funan	FUWM-20
T11	Thailand	Chevron Thailand	Funan	FUWM-21
T11	Thailand	Chevron Thailand	Funan	FUWM-24
T11	Thailand	Chevron Thailand	Funan	FUWM-26
T11	Thailand	Chevron Thailand	Erawan	P&A ERWG-17
T11	Thailand	Chevron Thailand	Erawan	P&A ERWG-20
T11	Thailand	Chevron Thailand	Erawan	P&A ERWG-21
T11	Thailand	Chevron Thailand	Erawan	P&A ERWG-22
T11	Thailand	Chevron Thailand	Erawan	P&A ERWG-24
T11	Thailand	Chevron Thailand	Erawan	P&A ERWG-26
SKD Menang	Malaysia	Murphy	Kikeh	PS21
SKD Menang	Malaysia	Murphy	Kikeh	PS21P A
T18	Thailand	Chevron Thailand	Pakarang	Rig Move to SPWB
T18	Thailand	Chevron Thailand	Pakarang	SPWB Slot-B
T18	Thailand	Chevron Thailand	Pakarang	SPWB Slot-C

De-commissioning Track Record: Well P&A (3)



INSTALLATION	COUNTRY	OPERATOR	FIELD	WELL	
T18	Thailand	Chevron Thailand	Pakarang	SPWB Slot-E	
T18	Thailand	Chevron Thailand	Pakarang	SPWB Slot-F	
T18	Thailand	Chevron Thailand	Pakarang	SPWB Slot-G	
T18	Thailand	Chevron Thailand	Pakarang	SPWB Slot-I	
T18	Thailand	Chevron Thailand	Pakarang	SPWB Slot-J	
T18	Thailand	Chevron Thailand	Pakarang	SPWB Slot-L	
T18	Thailand	Chevron Thailand	Pakarang	SPWB Slot-T	
T18	Thailand	Chevron Thailand	Pakarang	SPWB Slot-W	
SKD Pelaut	Brunei	Brunei Shell Petroleum	AMPA	SWA 129 Abandonment	
SKD Pelaut	Brunei	Brunei Shell Petroleum	AMPA	SWA 134	
SKD Pelaut	Brunei	Brunei Shell Petroleum	SWA	SWA 137	
SKD Pelaut	Brunei	Brunei Shell Petroleum	AMPA	SWA 304st1 abandonment	
T7	Thailand	Chevron Thailand	Baanpot	T-7 BAWC P&A programme	
T4	Thailand	Chevron Thailand	Erawan	WS 03	

Drilling Track Record Last 5 Years



Unit	Work Description	Client	Location	Year			
Semi-TAD							
SKD Esperanza	Development Drilling	SSB / SSPC	Malikai Field	2013 – 2018			
	Development Drilling	Hess	Okume Field, Equatorial Guinea	2013 – 2015			
SKD Jaya	Development Drilling	BP	Chaugauramas Bay, Trinidad & Tobago	2011 – 2016			
SKD Berani	Development Drilling	JX Nippon	Helang & Layang Field, Malaysia	2015 – 2016			
	Development Drilling	Total E&P	N'Kossa, Congo	2014 – 2015			
	Development Drilling	COPI	Block B Natuna Field	2012 – 2014			
SKD Setia	Development Drilling	Chevron	Tombua-Landana, Angola	2009 – 2016			
SKD Alliance	Development Drilling	Foxtrot	Ivory Coast	2015 – 2016			
	Development Drilling	SSB	Jintan Field, Malaysia	2005 – 2015			
SKD Menang	Development Drilling	Murphy	Kikeh SPAR, Malaysia	2011 – 2015			
SKD Pelaut	Development Drilling	BSP	Various Brunei Fields, Brunei	2009 – 2017			
Barge-TAD							
SKD T-20	Development Drilling	CNR International	Espoir Field, Ivory Coast	2014 – 2016			
SKD T-19	Development Drilling	PCSB	Various Field, Malaysia	2010 – 2015			
SKD T-18	Development Drilling	Chevron	Erawan Field, Thailand	2014 – 2019			
SKD T-17	Development Drilling	PTTEP	Arthit Field, Thailand	2014 – 2019			
SKD T-12	Development Drilling	Chevron	Lanta & Kaphong Field, Thailand	2011 – 2016			
SKD T-10	Development Drilling	PCSB	Terengganu, Malaysia	2014 – 2019			
	Development Drilling	Chevron	Gulf of Thailand, Thailand	2012 - 2014			
SKD T-9	Development Drilling	PCSB	Offshore Terangganu, Malaysia	2014 – 2019			



THANK YOU