FLOATING ASSET TECHNICAL SPECIFICATION

FPSO LEWEK EMAS

PRINCIPAL PARTICULARS

Name of Asset	:	FPSO Lewek Emas
Owner	:	PV-Keez Pte. Limited, Singapore
Type	:	Floating, Production, Storage and Offloading unit (FPSO)
Propulsion Equipment	:	Decommissioned
Classification	:	ABS A1 Floating Production and Offloading System
Port of Registry	:	Singapore
Flag	:	Singapore
IMO Number	:	7506039
Gross Tonnage	:	95,852
Net Tonnage	:	34,092
Deadweight	:	170,615 MT
Lightweight	:	22,469 MT
Built / Hull No	:	1978 / National Steel & Shipbuilding Corp, Japan / 406
Converted to FPSO	:	2011 / Keppel Shipyard, Singapore
Mooring Type	:	Internal Turret /weathervane
Length Overall (LOA)	:	290.37 m
Breadth (Mld)	:	50.60 m
Depth (Mld)	:	23.77 m
Offloading	:	Tandem
Storage Tanks	:	5 x Centre Tanks
Slop Tanks	:	Port & Stbd
Wing Tanks	:	4 x P/S Tanks
Tanks used for Crude Storage	:	Five (5) excluding Slops
Cargo Tank Capacity 98%	:	683,024 bbls (excl Slops)
Accommodation capacity	:	120 pax
Life-saving & Fire-fighting	:	Comply to SOLAS, CLASS & MODU Code Requirement
Classification	:	American Bureau of Shipping (ABS)
Class Notation	:	✠A1, Floating Production, Storage and Offloading System (FPSO) (CI), RFL (20), 2031, Block 12W Chim Sao Field, Offshore Vietnam, CRC, RBI(Topside Facility), RRDA
Deployment History	:	Chim Sao Field (Block 12W), Vietnam since October 2011
Facility Performance	:	99% uptime since deployment
Asset Design Life	:	20 years until October 2031

TANK STORAGE CAPACITY

- Cargo Storage Capacity : 575,899 bbls (98%)
  (5 x Centre storage tanks)
- Slop Tanks Port & Stbd : 42,062 bbls (98%)
- Wing Tanks 4 P&S : 108,648 bbls (98%)

TECHNICAL PARAMETER

The primary system associated with the Process facility are;

- Oil Separation and Treatment System
- Gas Treatment and Compression
- Produced Water Treatment System
- Water Injection Facilities
- Utilities

PROCESS TRAIN

- 2 x 100% LP/MP gas compression
- 3 x 33% HP compression
- 2 x 50% Gas lift/ Gas Export compression
- 1 x 100% oil train.

PROCESS CAPACITY

- Total Fluid handling rate : 100,000 bbls
- Oil Production maximum : 50,000 bopd
- Gas Production maximum : 48.00 mmscfd
- Water Production maximum : 50,000 bwpd
- Water Injection : 60,000 bwpd

POWER GENERATION

- Steam Turbine generator (STG) : (2 x 9.2 MW) + (1 x 3.0 MW) + (1 x 1.5 MW)
- Black-start Diesel Generator : 1 x 2.5 MW
- Emergency Diesel Generator : 1 x 750 Kw

EXPORT SYSTEM

- Cargo Oil Pump (COP) : 3 units x Horizontal Centrifugal Pump x 4572 m3/hr
  (Steam Turbine driven)

STEAM PRODUCTION PLANT

- Main Water Tube HP Boiler in ER. : 2 units x 60 Bar WP
  (Single burner fires on Gas & MDO)
- LP Boiler on Aft Deck : 3 units x 20 Bar WP
  (single burner fires on Gas & MDO)

CHEMICAL INJECTION SYSTEM

- Chemical Injection system & tanks are available for oil & water treatment.

PEDESTAL CRANE

Two(2) Favelle Favco offshore rated/man-riding cranes designed in accordance to API RP 2C.

- Crane (midship Port) : SWL - Main 15.0 MT / Aux 4.0 MT
- Crane (midship Stbd) : SWL - Main 25.0 MT / Aux 4.0 MT

LIFEBOAT

- Portside : Fwd 80pax / Aft 40pax capacity
- Stbdside : Fwd 80 pax / Aft 40 pax capacity

HELIDECK

- The Helideck design conforms to CAP 437.

Cargo Tank Capacity Table

CARGO OIL TANKS				
Tank	Frame Location	Volume (m3) 100% Full	Volume (m3) 98% Full	98% Capacity in BBLS
No.1 Centre	27 – 32	11362.02	11134.78	70035.80
No.2 Centre	32 – 43	24995.98	24496.06	154075.89
No.3 Centre	43 – 53	22724.03	22269.55	140071.30
No.4 Centre	53 – 62	20451.63	20042.60	126064.10
No.5 Centre	62 – 68	13648.13	13375.17	84127.30
No.4 Wing P	53 – 62	8813.05	8636.79	54324.44
No.4 Wing S	53 – 62	8813.05	8636.79	54324.44
Slop Tank P	68 – 71	3412.04	3343.80	21031.88
Slop Tank S	68 – 71	3412.04	3343.80	21031.88
Total		117474.00	115124.52	
Total (excluding Slop Tanks) at 98% Filling = Approx. 683024 BBLS