

Sevan Marine – Drilling Unit

Presentation – NFLB Conference

Bergen, February 10, 2007



SEVAN DRILLING UNIT TABLE OF CONTENT

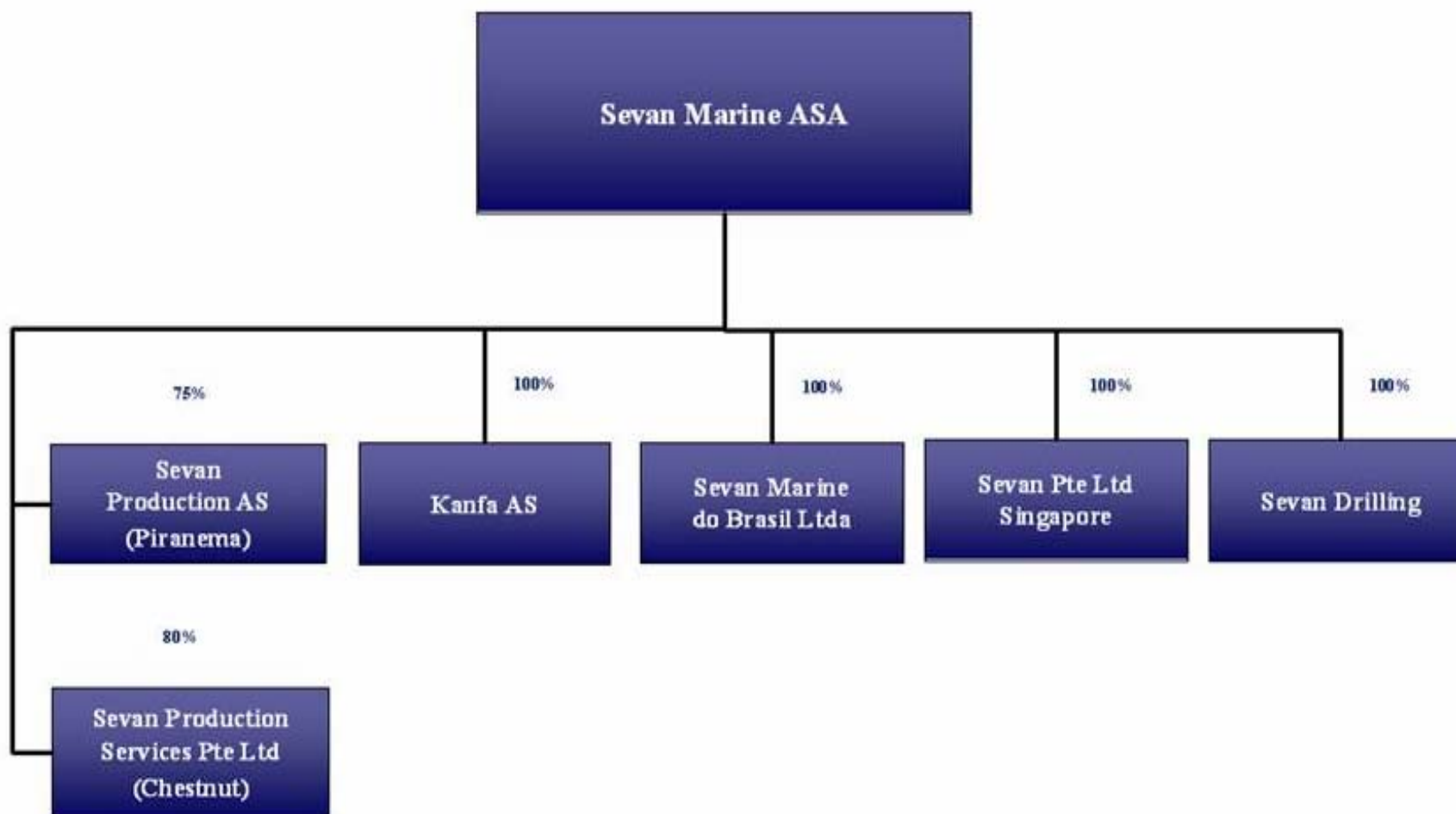
Company overview

- 1 Rig Concept and Design
- 2 Construction/Operations
- 3 Management
- 4 “FDPSO” Concept



COMPANY OVERVIEW

SEVAN MARINE ORGANISATION



COMPANY OVERVIEW

BUSINESS MODEL FOCUSES ON CORE COMPETENCIES

BOO – Build Own and Operate



COMPANY OVERVIEW

SEVAN HULL CONSTRUCTION PROGRAM

Hull #	Hull Size	Hull Delivery	Application	Client	Field/ Location
1	Sevan 300	Q2 2006	FPSO	Petrobras	Brazil
2	Sevan 300	Q1 2007	FPSO	Venture	UK CNS
3	Sevan 300	Q2 2007	FPSO	Oilexco	UK CNS
4	Sevan 300	Q4 2007	FPSO	Venture	UK CNS
5	Sevan 650	Q1 2008	Drilling	Petrobras	GOM



Hull No:1 at topside integration yard November 2006



Hull No:2 and 3 at construction yard January 2007*

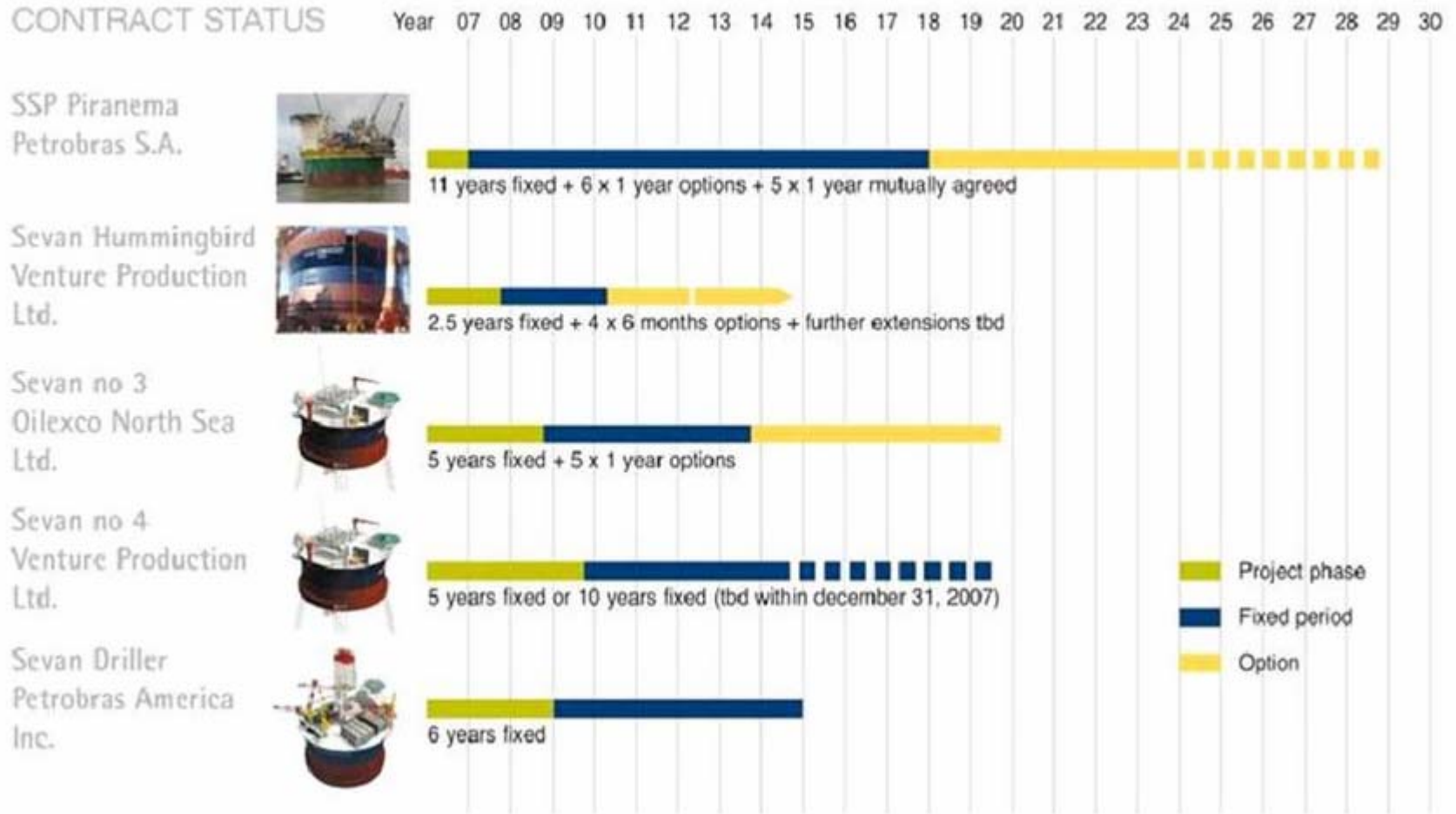


Global solutions: the Sevan Technology can be applied in all offshore markets



COMPANY OVERVIEW

CONTRACT STATUS



SEVAN DRILLING UNIT TABLE OF CONTENT

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3 Management

4 “FDPSO” Concept



RIG CONCEPT AND DESIGN

CAPACITY RANGE



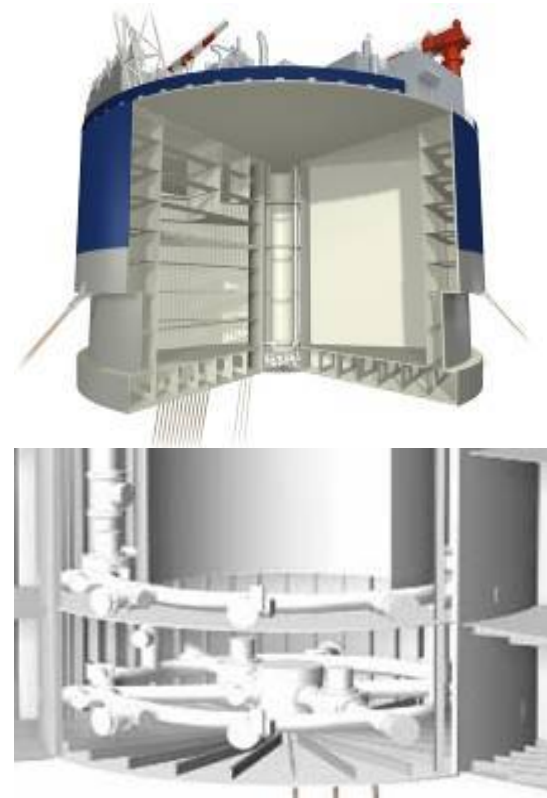
Typical Main Dimensions:

	Storage (bbl)	Displacement (mt)	Draft (m)	Diameter (m)		Deck Area (m ²)
				Hull	Deck	
SSP 300	300 000	55 000	18	60	64	3 220
SSP 650	650 000	110 000	22	75	80	5 020
SSP 1000	1 000 000	165 000	28	84	90	6 360
SSP 2000	2 000 000	305 000	33	106	114	10 200

RIG CONCEPT AND DESIGN PATENTED TECHNOLOGY



Hull in combination with motion dampening features



Tank arrangement



RIG CONCEPT AND DESIGN
HIGH DECK LOAD CAPACITY AND ROBUSTNESS

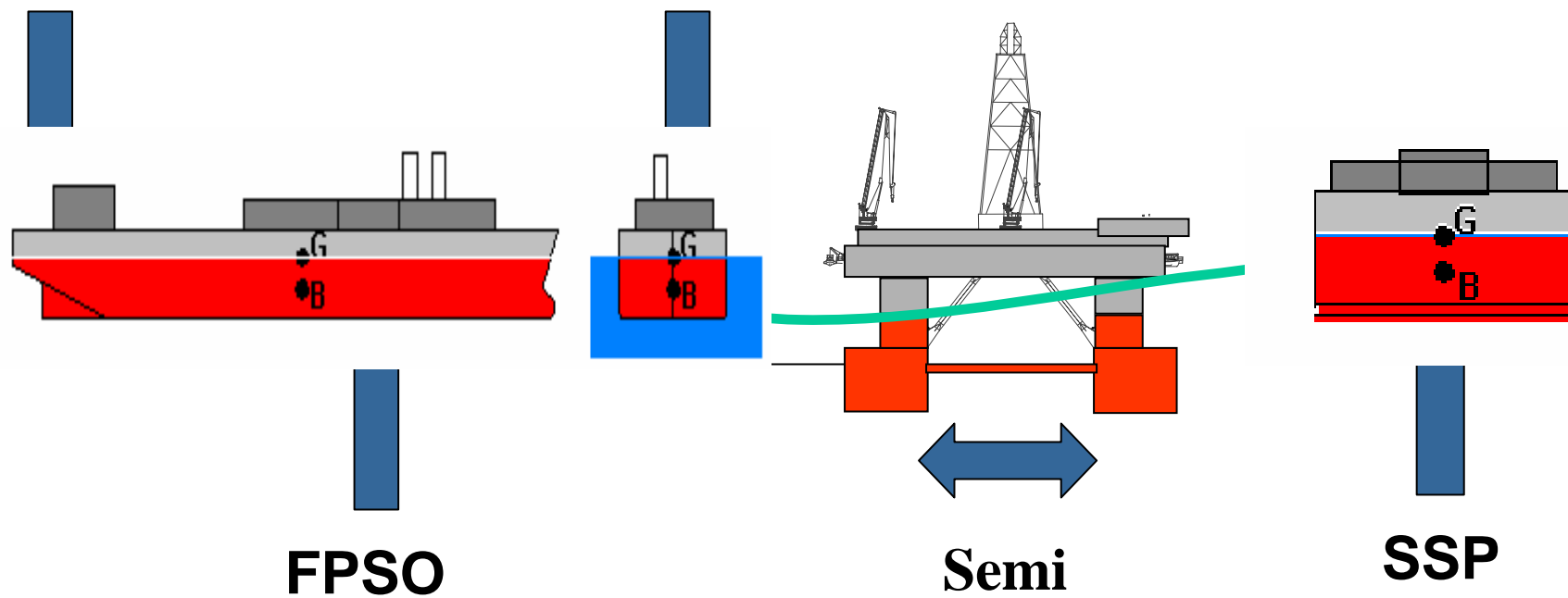
High Stability Reserves



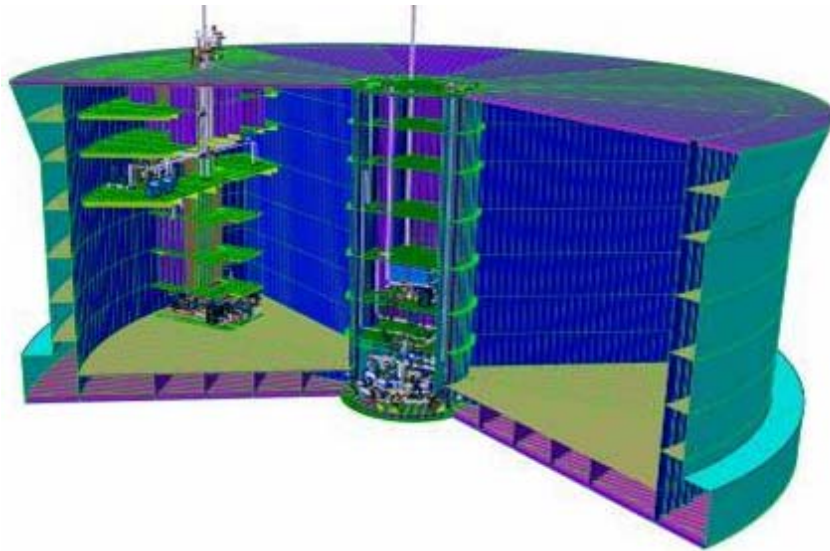
RIG CONCEPT AND DESIGN

INSIGNIFICANT BENDING STRESS

- Eliminating typical fatigue loads for traditional floaters



RIG CONCEPT AND DESIGN FAVOURABLE DESIGN

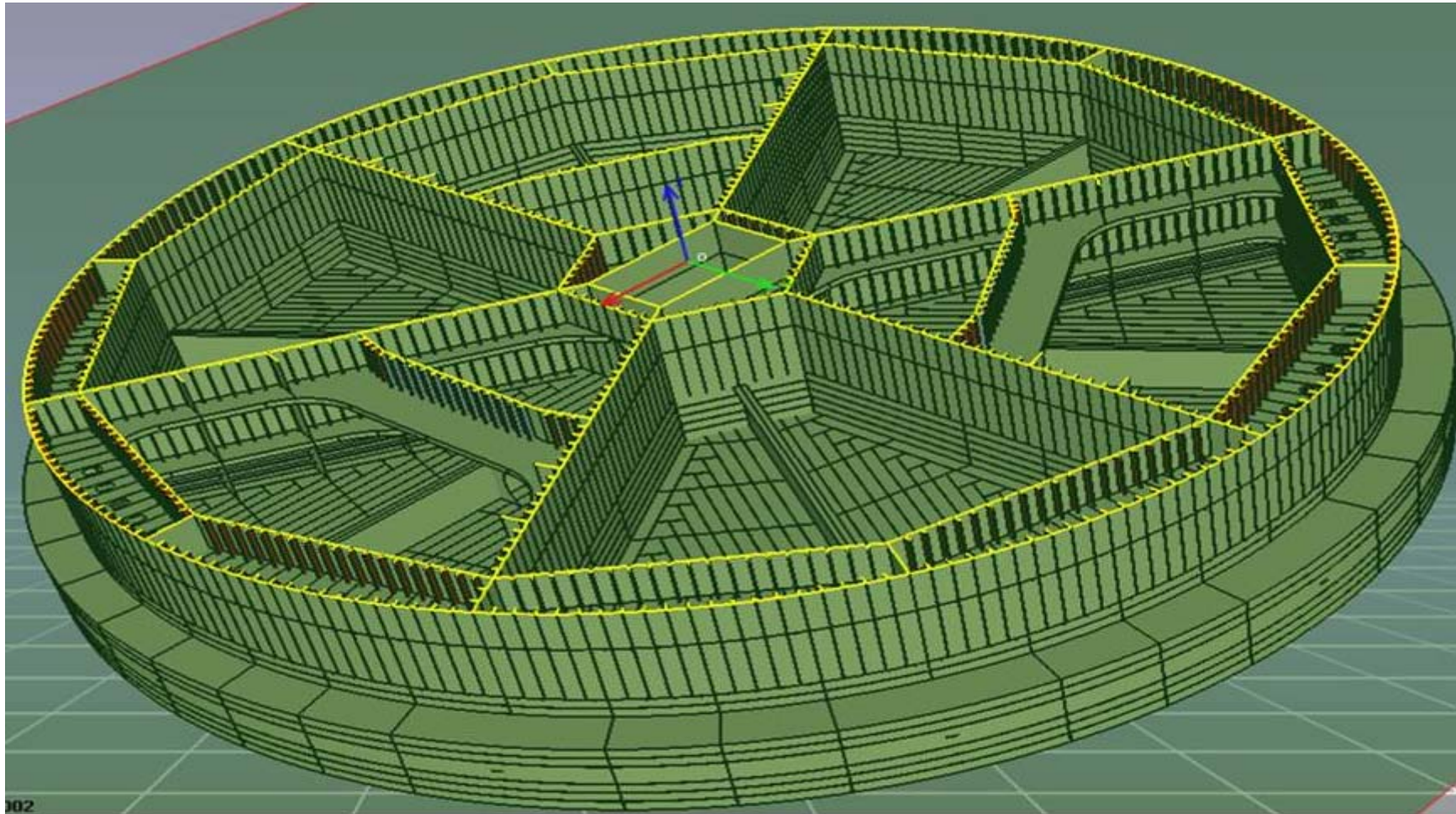


- Efficient hull construction with high repeatability around circle
- Standard panel and block fabrication
- All structural members are of standard dimensions and quality
- Short construction time
- Double sides/double bottom and segregated ballast
- Negligible fatigue loads



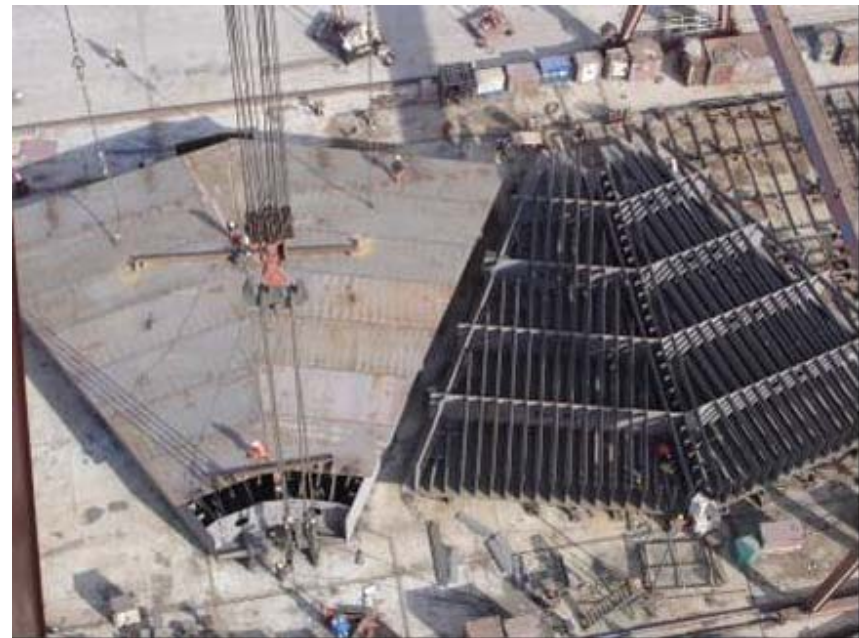
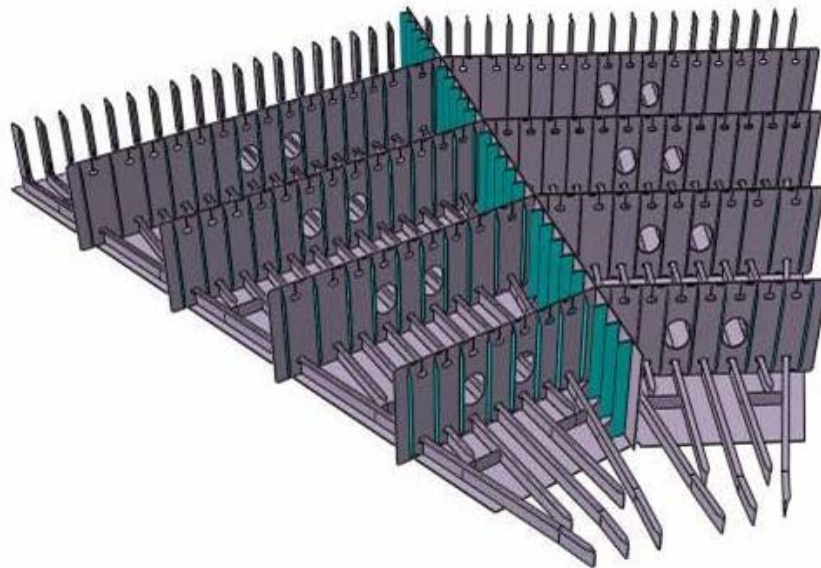
RIG CONCEPT AND DESIGN

STRUCTURAL DESIGN – LOWER PART OF HULL



RIG CONCEPT AND DESIGN

DOUBLE BOTTOM SECTIONS



RIG CONCEPT AND DESIGN SPECIFICATIONS FOR ULTRADEEP WATERS



- Ultra-deep water depths up to 3,000 m (10,000 ft)
- Storage capacity for 10,000 ft of risers
- Dual activity derrick – optimized drilling efficiency
- Deck area of 5,800 m²
- Variable deck load capacity of more than 15,000mT
- High storage capacity limiting need for re-supply
- High storage capacity for extended Well Testing
- Equipped with a total of 8 thrusters configured in accordance with IMO DP 3 class requirements



RIG CONCEPT AND DESIGN

ENVIRONMENTAL FRIENDLY AND SAFE OPERATIONS

- Zero discharge with closed drain system (all areas)
- Double barrier philosophy applied for all potential "discharge-to-sea" systems
- Large bunkering capacities reducing frequency of re-bunkering operations
- Latest technology equipment – low diesel consumption/less emissions
- Rig wide containment and vacuum system installed to handle any accidental spillage onboard
- High intact/damaged stability reserves
- Double side – double bottom
- Focus on good arrangements for access/maintenance of systems/equipment
- Remote operated pipe-handling



DESIGNED TO THE HIGHEST ENVIRONMENTAL AND SAFETY STANDARDS



RIG CONCEPT AND DESIGN

REGULATORY FRAMEWORK / CERTIFICATION

- ❑ Det Norske Veritas (DNV) Classification with the following class notations:
 - ❖ 1A1 Mobile Offshore Drilling & Storage Unit (N)
 - DRILL
 - DYNPOS-AUTRO (DP 3)
 - HELDK-SH
 - CRANE
 - STERN LOADING
 - ICS (Integrated Computer System)
 - LCS-DC (Loading Computer System)

- ❑ Designed in accordance with the following DNV specifications:
 - OSS-101 Rules for Classification of Offshore Drilling and Support Units
 - OSS-102 Rules for Classification of Floating Production and Storage Units



RIG CONCEPT AND DESIGN

REGULATORY FRAMEWORK / CERTIFICATION

- ❑ The vessel shall be registered in the Bahamas' Ship Register and comply with the latest and relevant International Rules and Regulations for world-wide operations including:
 - ✓ Governing Bahamas Maritime regulations
 - ✓ International Code for the Construction and Equipment of Mobile Offshore Drilling Units, 1989 (MODU Code1989).
 - ✓ International Convention for the Safety of Life at Sea of 1974, (SOLAS 1974) including applicable amendments.
 - ✓ International Convention of Load Lines 1966 including protocol of 1988.
 - ✓ International Convention for preventing Collisions at Sea
 - ✓ International Tele-Communications Union (ITU) Radio Regulations
 - ✓ International Conference for the Prevention of Pollution from Ships, 1973/1978 (MARPOL 73/78).
 - ✓ International Convention on Tonnage Measurement of Ships
 - ✓ ISO 7547 Air-conditioning and ventilation of accommodation spaces on board ships
 - ✓ IMO Code 645, "Guideline for the Vessels with Dynamic Positioning Systems"
 - ✓ US Coast Guard Regulations for Foreign Flagged Vessels operating in navigable waters of the US
 - ✓ CENELEC (EN 50000 series) or IEC 60079 – standard series.
 - ✓ Low Voltage Directive (LVD) 73/23/EEC amended by 93/68 EEC
 - ✓ Electromagnetic Compatibility Directive 89/336/EEC amended by 92/31 EEC and 93/68/EEC.

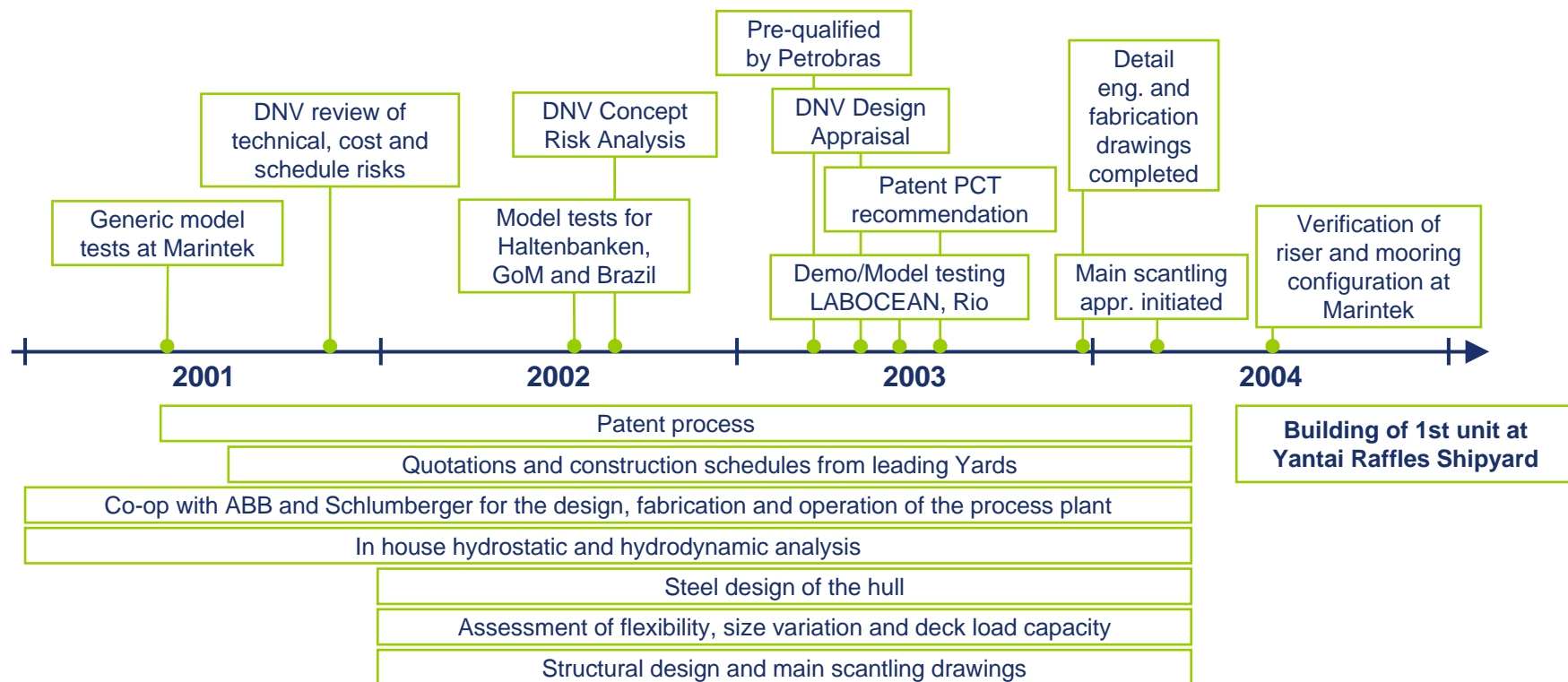
 - ✓ Norwegian Helicopter Deck regulations BSL D-51 issued by the Norwegian Civil Aviation Authority
 - ✓ CAP437 issued by UK Civil Aviation Authority
 - ✓ Regulations and guidelines for potable water systems and potable water supply on offshore units issued by the Norwegian Institute for Public Health.



RIG CONCEPT AND DESIGN

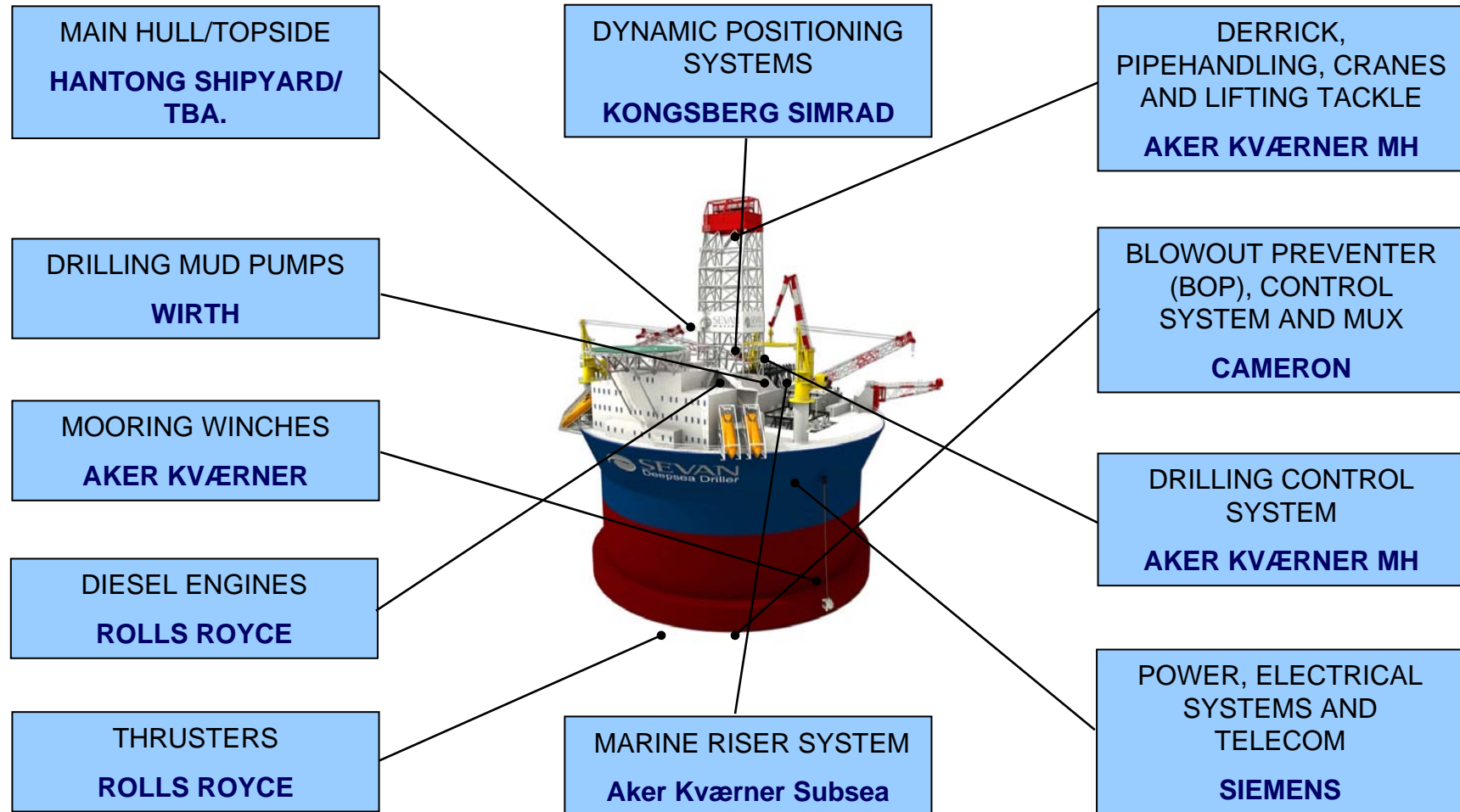
CONCEPT VERIFICATION PROCESS

- Sevan has over the last three years invested ~NOK 50 million on the development of the Sevan technology



RIG CONCEPT AND DESIGN

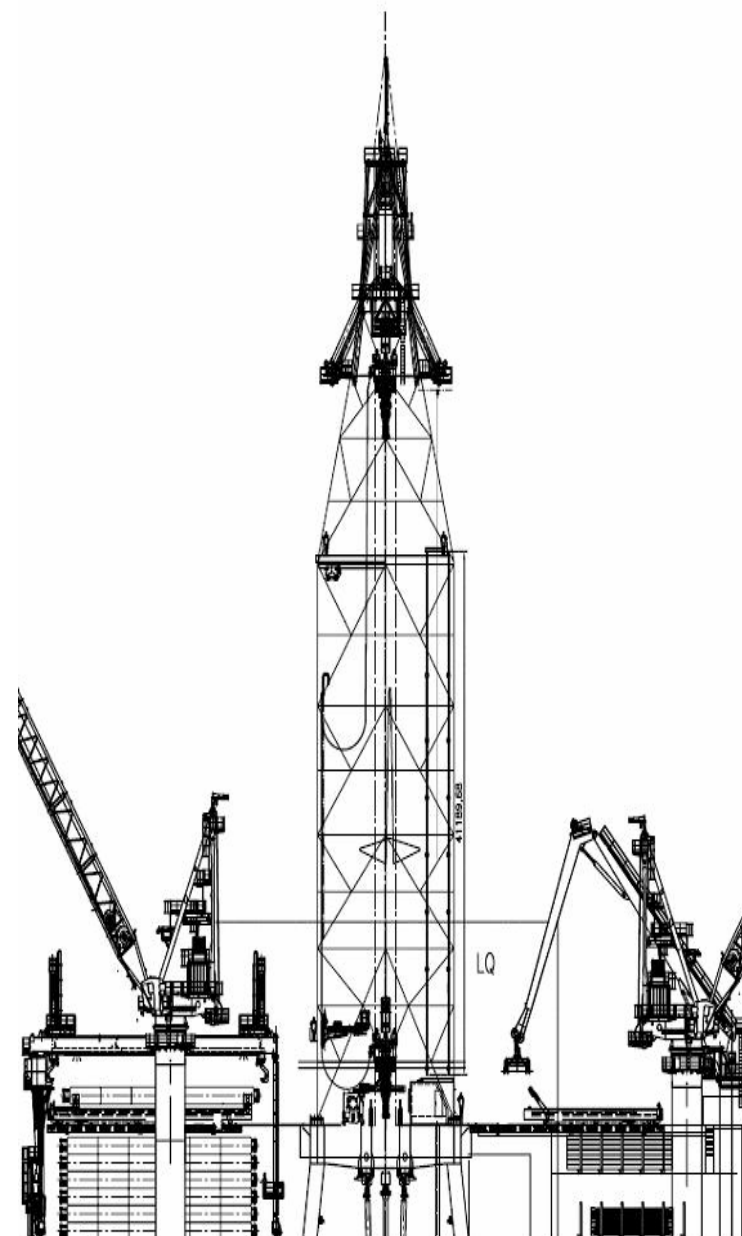
KEY EQUIPMENT CONTRACTS



RIG CONCEPT AND DESIGN

OPTIMISED DRILLING EFFICIENCY

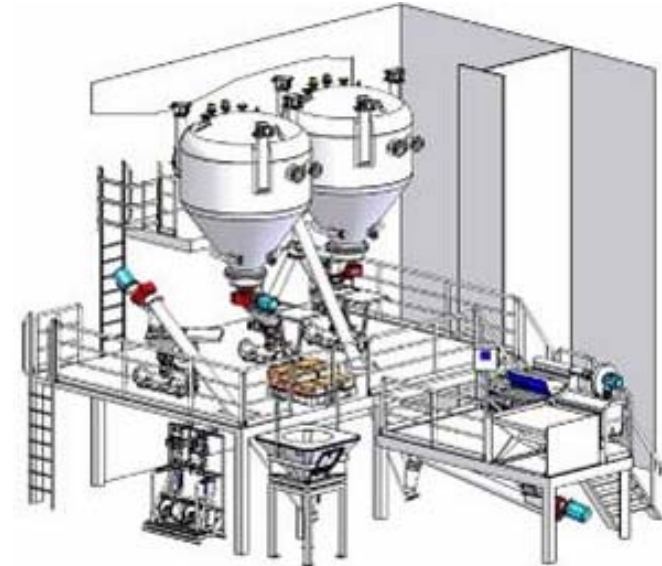
- Wirth GH 4500-EG-AC-SV drawwork, with Baylor Brake & feed off control/Auto Driller
- Drillers control room with 2 operator stations
- Derrick, 46 x 52 ft base, 210 ft height, SWL 2,000,000 lbs (1,000 sh.t)
- Standbuilding while drilling (drillpipe / casing)
- Racking capacity 40,000 ft DP and 10,000 ft casing
- Drill String Compensator 1,000 kips, 25 ft stroke
- Bridge crane vertical pipe handling system
- Two iron roughnecks on drill floor
- MH DDM-1000-AC-2M Top drive, 1,000 t
- Rotary table, 60 ½" hydraulic
- Kill & choke manifold, 15,000 PSI
- Mud standpipe manifold, 7,500 PSI
- Skid-off position 12 ft from centre with Riser and BOP deployed



RIG CONCEPT AND DESIGN

OPTIMISED DRILLING EFFICIENCY CONT.

- 4 of Wirth HP mud pumps, 7,5"x14"x2200, 7,500 psi
- 5 of Derrick® Flo-line ® Cleaner Model #FLC503 Shale shakers
- Flexible mud system - high storage capacity
- Optimised tank design for effective cleaning and operation
- 1 of Derrick® Flo-line ® Cleaner Model #FLC503 Mud Cleaner
- Automated mixing system
- Direct Acting Riser Tensioner system 3,200,000 lbs
- BOP skid, 400 mT
- BOP overhead crane, 2 x 200 mT
- Utility winches, 6 ea 5 mT, 1 x 10 mT. 4 ea manrider utility winches



RIG CONCEPT AND DESIGN

RIG CAPACITIES

	DRILL SHIP	6TH GENERATION SEMI	SSP DRILLER
- GENERAL CAPACITIES -			
Operating displacement (mT)	60 000 – 80 000	51 000 – 63 000	61 250
Deck load capacity (mT)	15 000 – 20 000	7 000 – 7 700	> 15 000
Deck area (m ²)	5 500 – 7 000	5 000 – 7 000	5 500
Accommodation	120 – 140	120 – 160	150
Water depth (ft)	10,000	10,000	10,000
- STORAGE CAPACITIES -			
Fuel storage (m ³)	3 000 – 5 000	3 100 – 4 500	5 000
Base oil (m ³)	600 – 1 000	600	1 000
Drill water (m ³)	2 000 – 3 000	2 600 – 3 100	5 000
Liquid mud (m ³)	2 000 – 3 000	1 700 – 3 200	5 000
Bulk mud (m ³)	600 – 850	600 – 850	780
Bulk Cement (m ³)	300 – 500	280 – 460	780
Crude oil storage (bls)	Up to 100 000	NA	Up to 150 000
- STATION KEEPING -			
Power (kW)	30 000 – 48 000	32 000 – 44 200	44 280
Thrusters (kW)	22 000 – 35 000	26 400 – 36 000	30 400
Transit speed (knots)	9 – 13	6 – 7	7 – 9
North Sea Operation (m Hs)	6 – 7	7 – 8	7 – 8

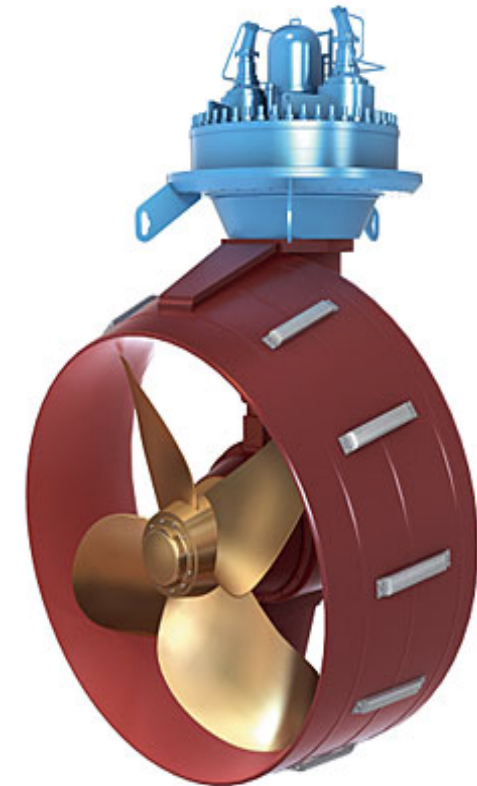
Source: Sevan Marine and other Drilling Company presentations



RIG CONCEPT AND DESIGN

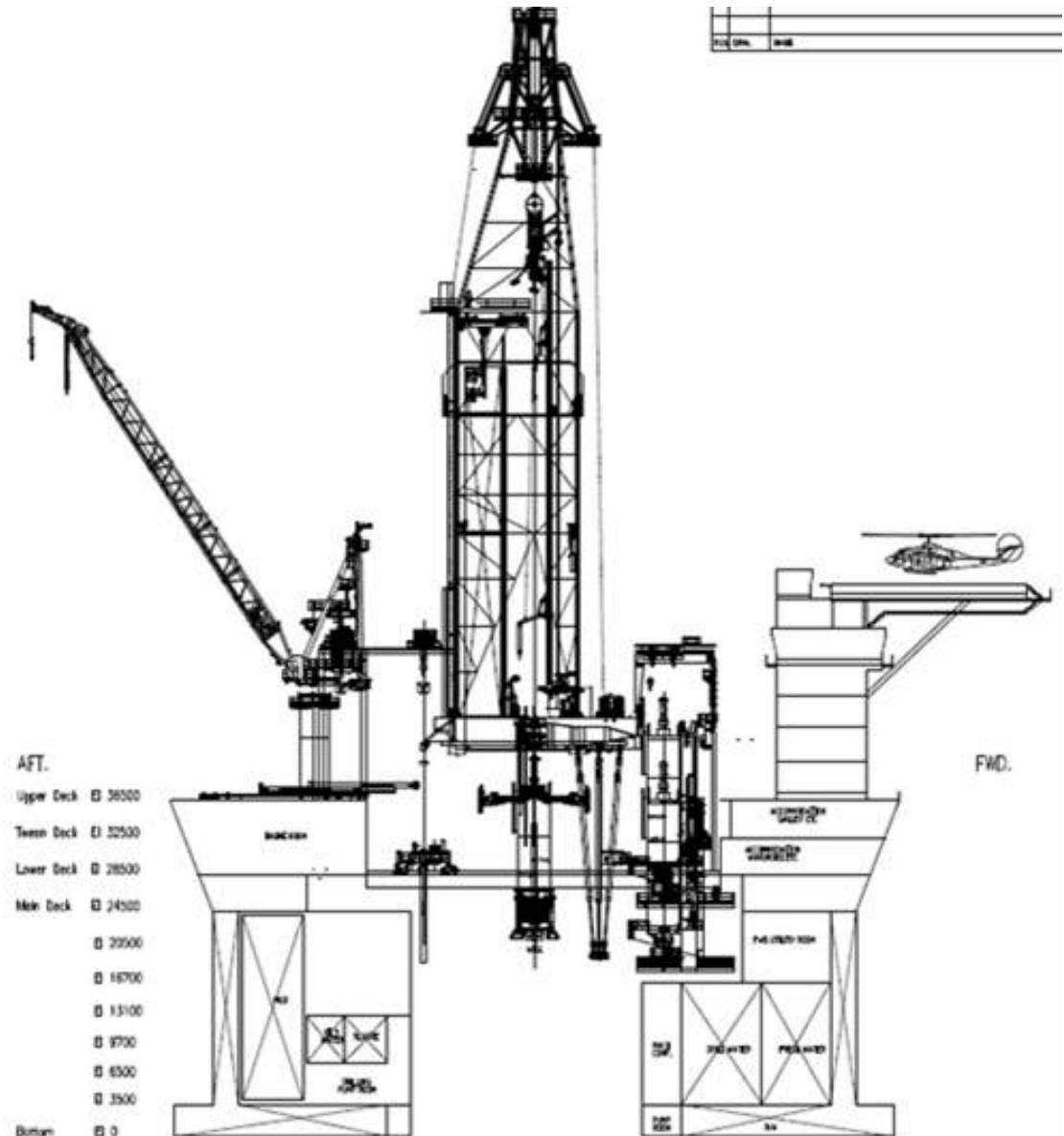
MACHINERY AND PROPULSION

- 8 ea Rolls Royce B32:40V12A Diesel Generators, Max 5535kW continuous alternator rating.
- Siemens power distribution and VFD's.
- 2 ea Offshore deck cranes, lift radius 10m to 50m, 60mT.
- 8 ea Rolls Royce Aquamaster UUC 355 Thrusters, 3800kW.



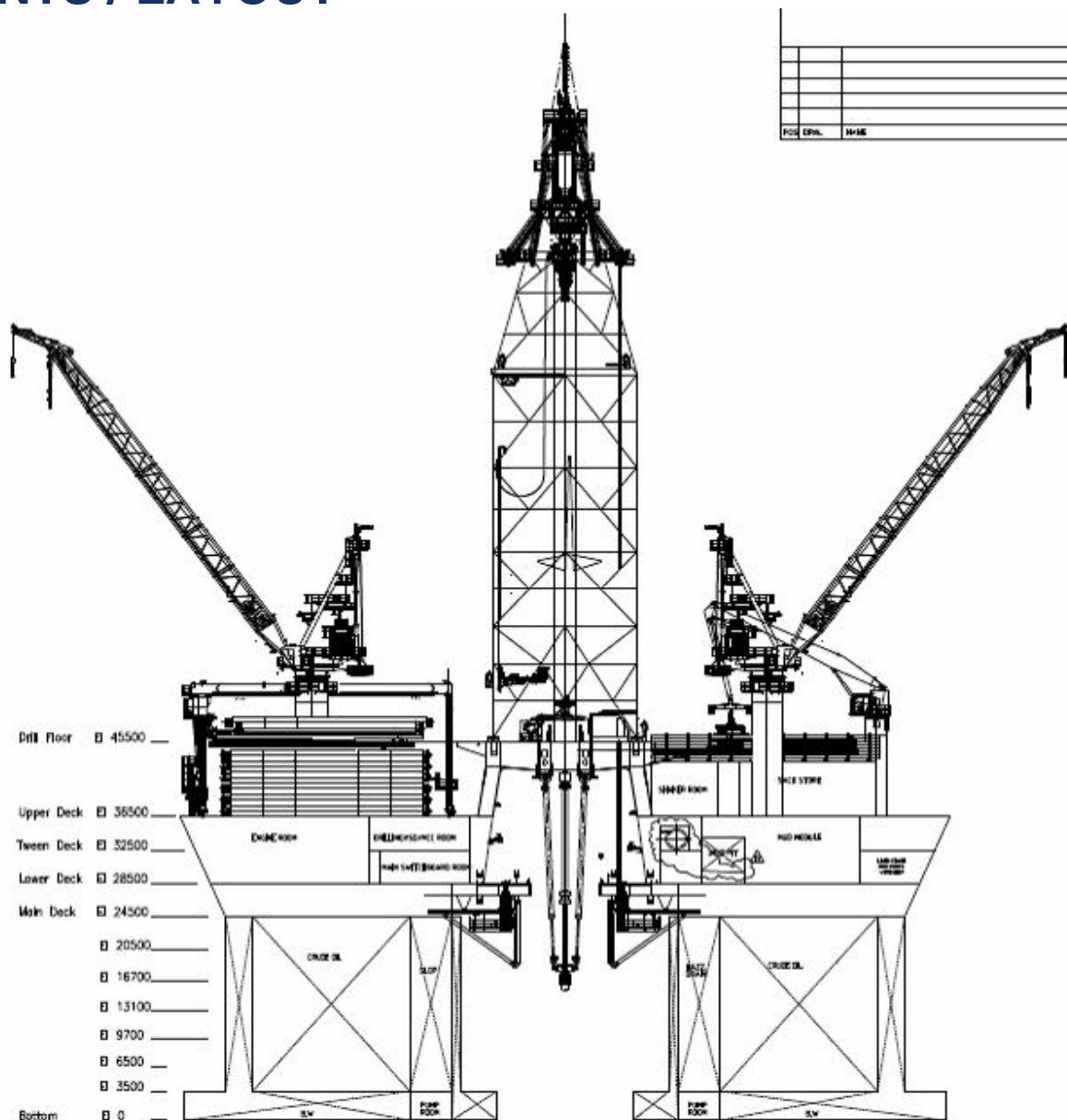
SEVAN DRILLER GENERAL ARRANGEMENTS / LAYOUT

- Profile in Center View



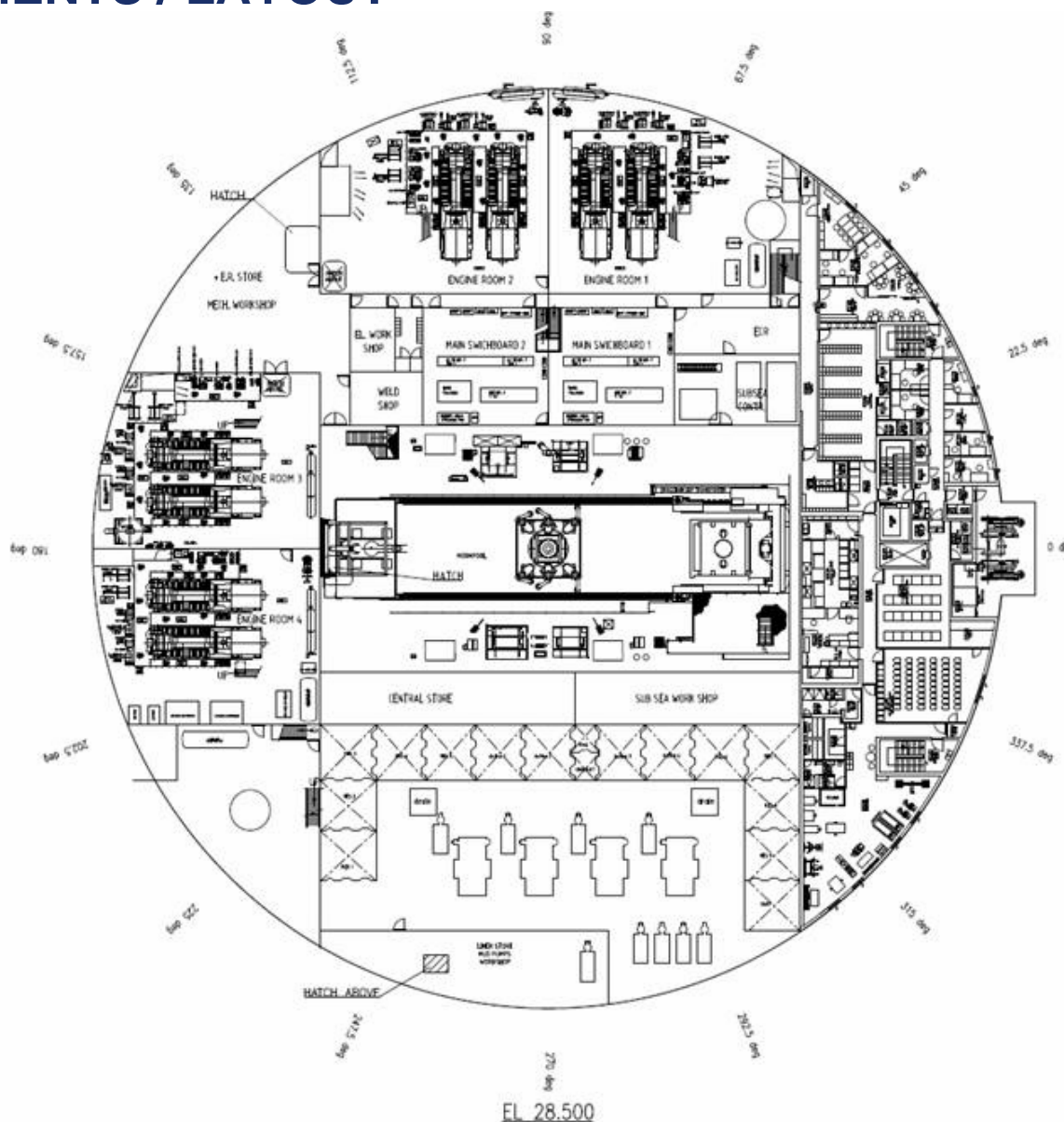
SEVAN DRILLER GENERAL ARRANGEMENTS / LAYOUT

- Profile in Midship View



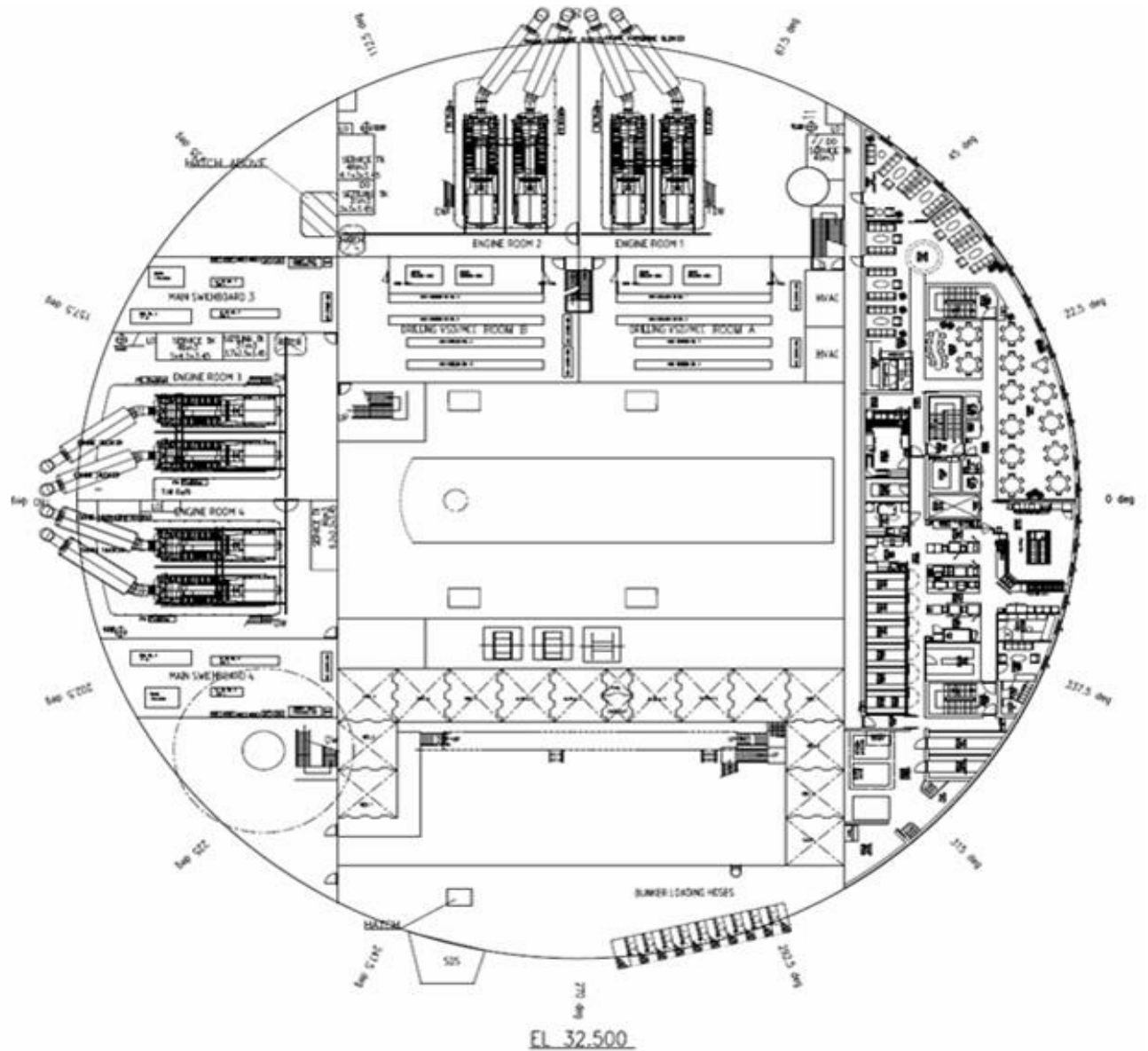
SEVAN DRILLER GENERAL ARRANGEMENTS / LAYOUT

- Upper Hull
El. 28.500



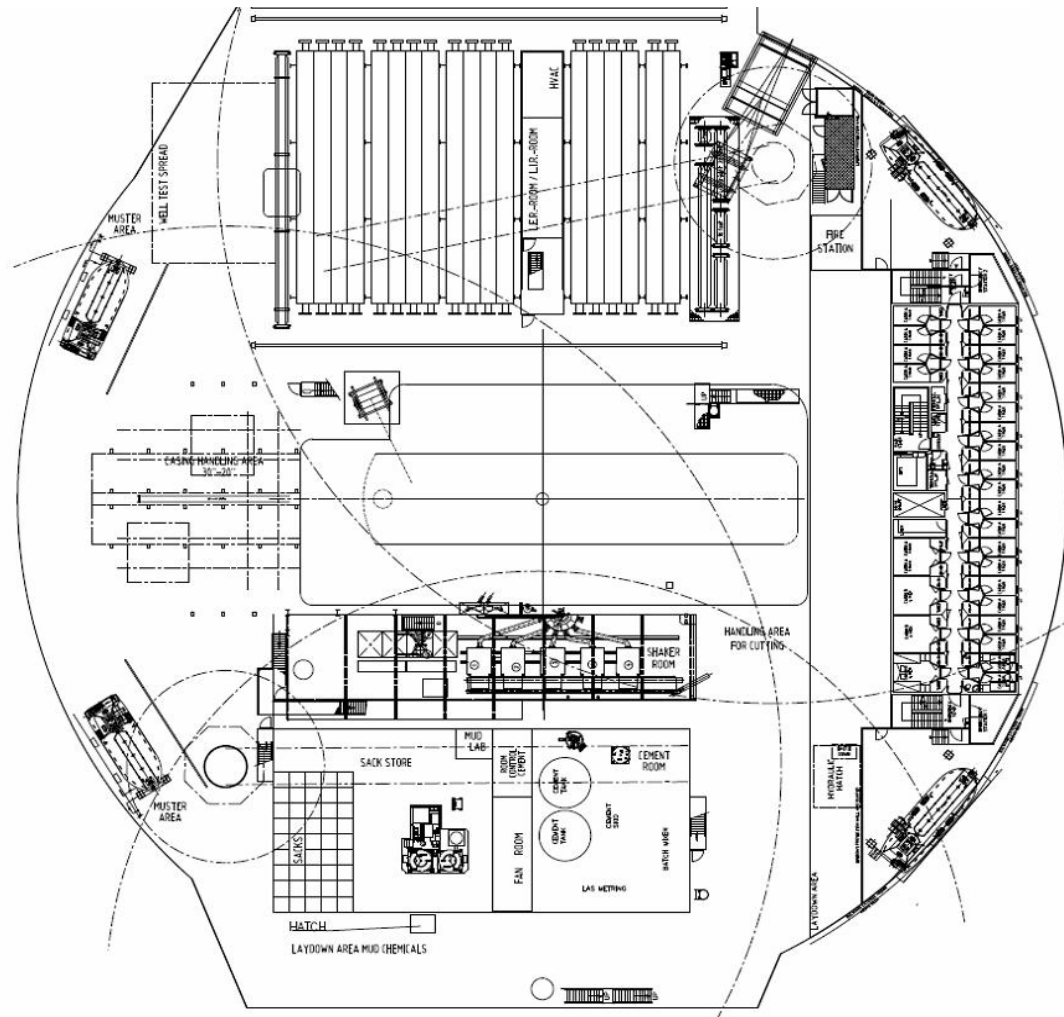
SEVAN DRILLER GENERAL ARRANGEMENTS / LAYOUT

- Upper Hull
El. 32.500



SEVAN DRILLER GENERAL ARRANGEMENTS / LAYOUT

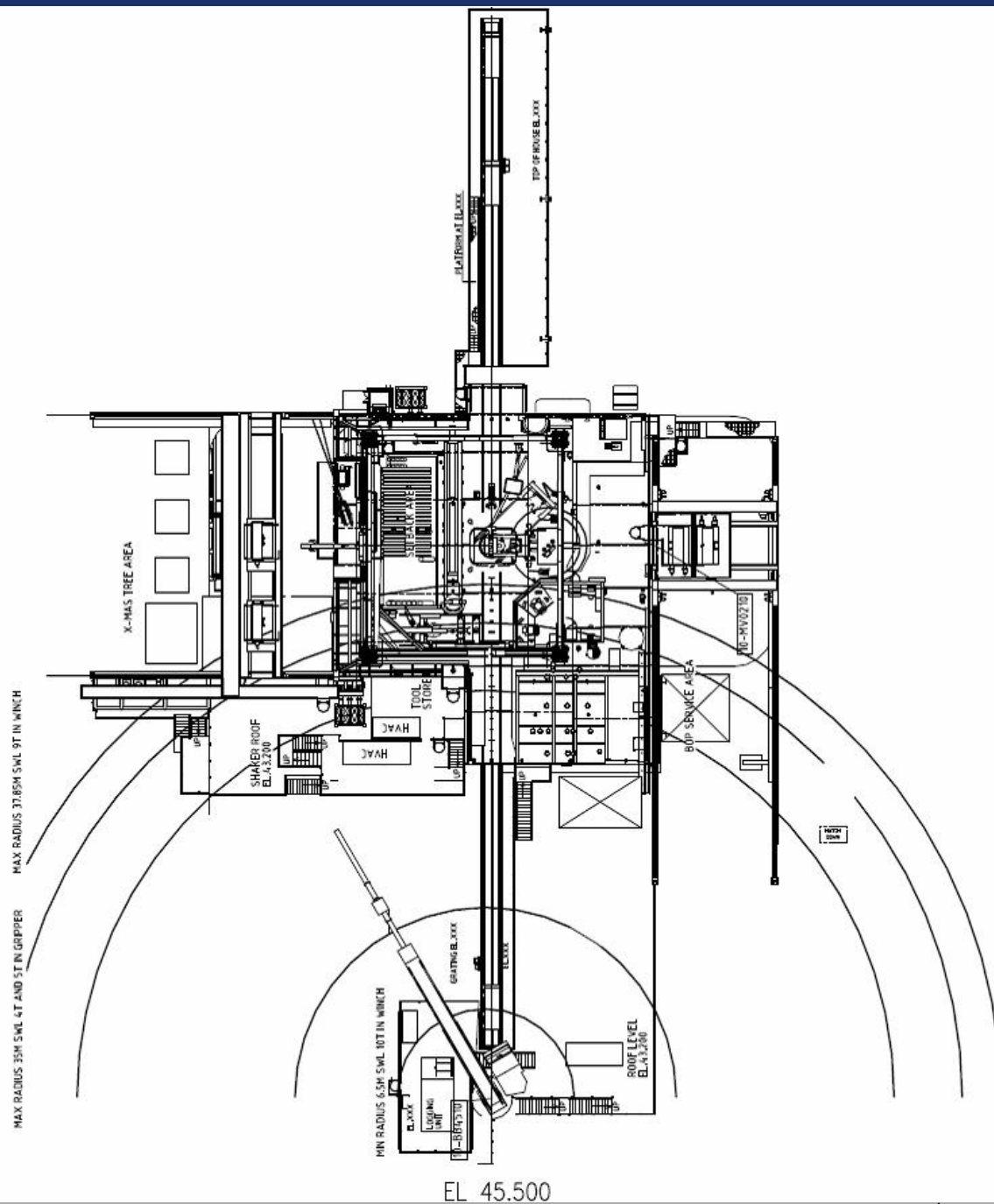
- Upper Hull
El. 36.500



EL 36.500

SEVAN DRILLER GENERAL ARRANGEMENT

- Upper Hull
El. 45.500

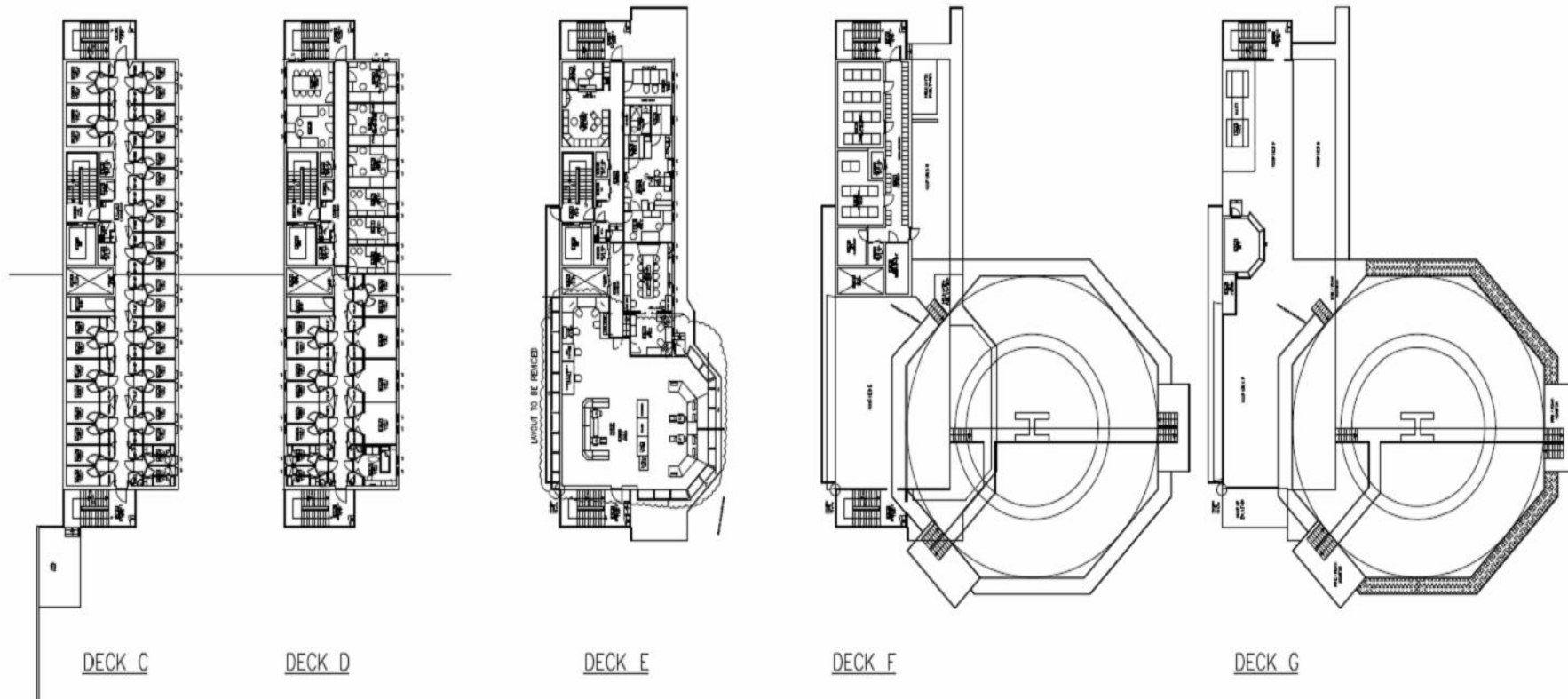


SEVAN DRILLER

GENERAL ARRANGEMENTS / LAYOUT

□ Upper Hull

Living Quarters Deck C, D, E, F and G



SEVAN DRILLING UNIT TABLE OF CONTENT

Company overview

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CONSTRUCTION PROJECT

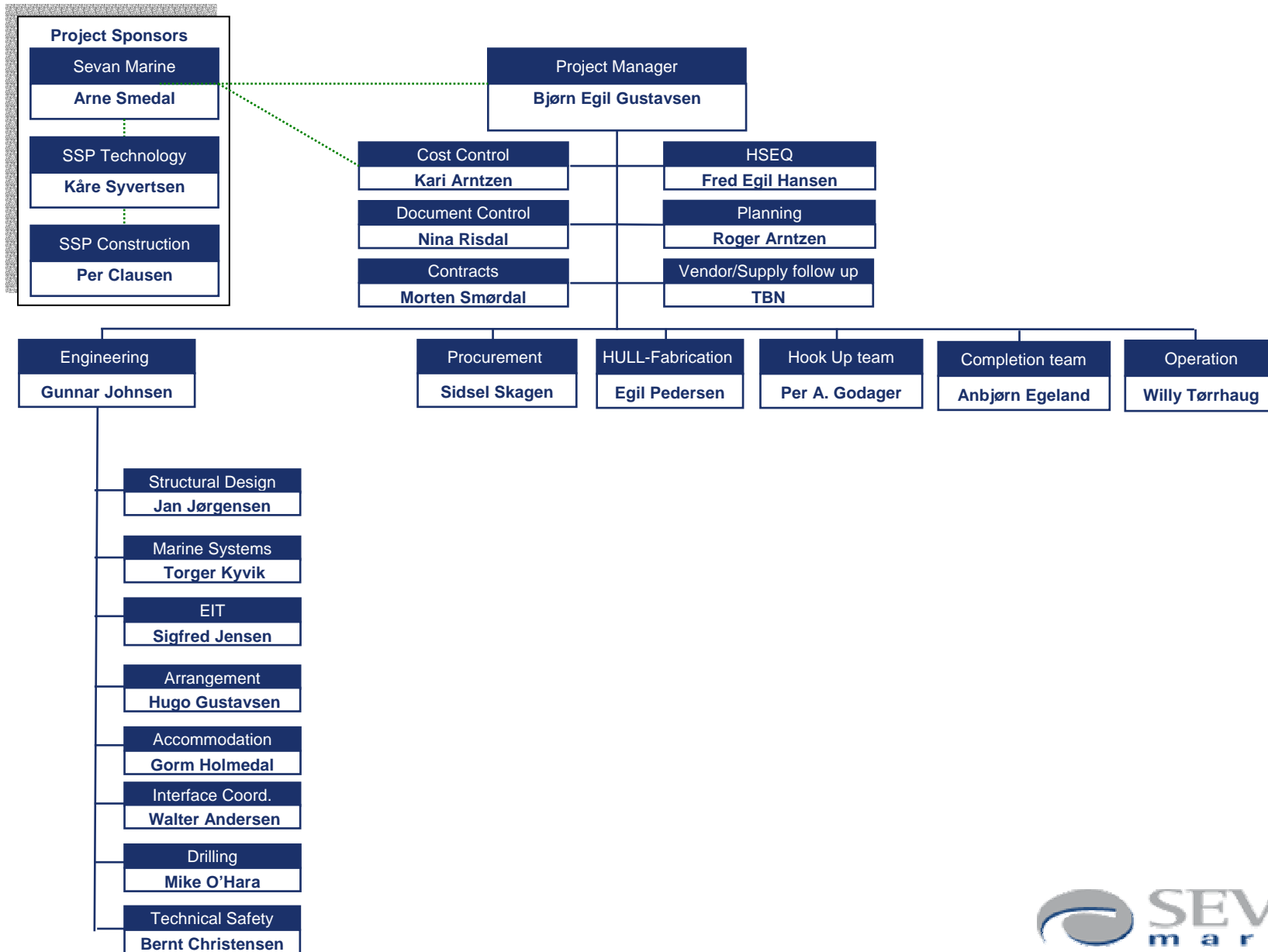
PROJECT EXECUTION

The project execution will be divided in the following main phases:

- ***Project Definition*** System engineering, Layout drawings, design basis documents
- ***Detail Design and Engineering*** Structural and mechanical analyses, Design verification, Design drawings issued for construction.
- ***Procurement*** Specification of Bid packets. Bid evaluations, Production of components and modules, Procurement support, expediting, Quality Surveillance, component testing
- ***Construction*** Main construction of Hull and decks at selected Ship yard. Construction of Drilling and Mud Module at Nymo. Construction of engine room modules, etc. at selected construction sites.
- ***Transport*** Transport of SSP hull from construction yard to installation and hook-up yard in Europe. Transport of equipment and modules to installation yard.
- ***Hook-Up*** Install all equipment and Modules on main hull
- ***MC and Commissioning*** Mechanical completion of modules and Commissioning of complete system. (for hull systems; partly at hull construction yard)
- ***Offshore Commissioning and Start-Up***



CONSTRUCTION PROJECT PROJECT MANAGEMENT ORGANISATION



CONSTRUCTION PROJECT KEY MILESTONES – ENGINEERING & CONSTRUCTION

- ❖ Project Start Up May 2006
- ❖ Long Lead Items Ordered Oct 2006
- ❖ Start Detailed Engineering Dec 2006
- ❖ Start Fabrication / Steel Cutting April 2007
- ❖ Start Hook-up / Installation in China Feb 2008
- ❖ Start final integration and commissioning (EU Yard) Aug 2008
- ❖ Sail Away from Yard Jan 2009
- ❖ Arrival Drilling Location (GoM) Mar 2009



OPERATIONS MANAGEMENT

PROCORP OFFSHORE MANAGEMENT SERVICES AS

POMS

- Established in June 2006.
- Headquarter in Trondheim, office in Oslo
- Ownership: ProCorp ASA (51%), Management 49%

Ambition

- To build an independent offshore drilling and production management services company that will:
 - Cover all geographical areas
 - Be a preferred partner for the owners in all aspect of the drilling/production operation

Scope of Work

- **Operation of offshore mobile drilling and production units**

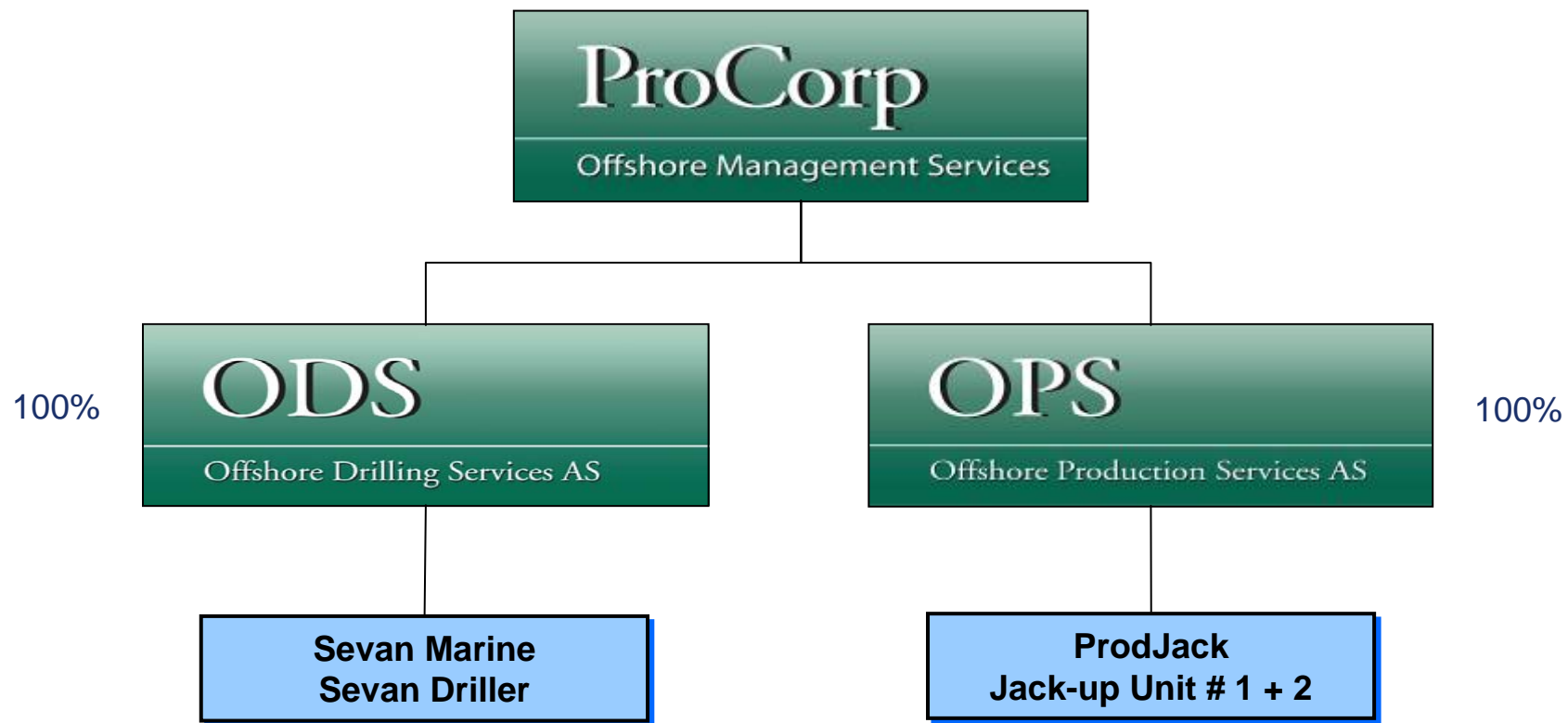
<u>Systems</u>	<u>People</u>
– Operations	- Qualifications
– Maintenance	- Training
– Procurement	- Incentives
– HSE	

Business Model

- Provide highly qualified operational services



PROCORP OFFSHORE MANAGEMENT SERVICES AS OPERATIONS MANAGEMENT



OPERATIONS MANAGEMENT

OPERATIONAL MANAGEMENT RESPONSIBILITY



PROCORP OFFSHORE MANAGEMENT SERVICES AS PEOPLE AND OPERATIONAL EXPERIENCE

Management

Christian Huseby

Norwegian State Authorised Public Accountant
Master of Science, Business Administration



OCEAN RIG



ProCorp

Senior Partner

Stein Eggen

BA (Hons) Business Organization



VP – Commercial/Business Development

Willy Tørhaug

Certified Drilling Superintendent / Company man.



OCEAN RIG



SVP Operations

Dag Eggen

Master of Science, Environmental Engineering



OCEAN RIG



SVP HES&Q

Operational Experience

- Operation of Offshore Units from shallow to ultra-deep harsh environment waters
- Start-up and running of a new Drilling Company (e.g. Ocean Rig)
- Development of total integrated HES&Q management system for overall management of a drilling contractor to comply with requirements from both regulators and operators
- Operational interface to yard/new-build projects
- Co-ordination and preparation of safety/risk- and working environment related analysis/assessments required to achieve compliance with class, flag state and coastal authorities
- Preparation of required applications for Regulatory Compliance, and interface with relevant regulators /Clients to achieve final operational Certification in relevant countries
- Recruitment and training of operational personnel to professionally operate the unit, meeting the qualification requirements as defined in the HES&Q management system and set forth by clients/regulators
- General operational management of offshore unit(s) on behalf of Owner
- Marketing/Contract Management



OPERATIONS MANAGEMENT

OPERATIONAL MANAGEMENT EXPERIENCE

Key Operational Experience

- Operation of Ocean Rig's SSDR Leiv Eiriksson and SSDR Eirik Raude from shallow to ultra-deep (2100 meters) harsh environment waters including:
 - West Africa - Angola/Congo (> 20 deepwater wells) (2002 – 2006)
 - East Coast Canada - Nova Scotia (4 deepwater wells) and Newfoundland (Flemish Pass 2 deepwater wells) (2002 – 2004)
 - Cuba (1 deepwater well) (2004)
 - UK West of Shetland (1 deepwater well) (2004)
 - Norwegian North Sea (2 deepwater wells) (2004 – 2006)
 - Norwegian Barents Sea (4 wells – DP/POS MOOR ATA Mode) (2004 – 2006)
- Above operations with Clients - Exxon Mobil, Chevron, BP, TotalFinaElf, Shell, BG Group, Repsol, EnCana, PetroCanada, Statoil, Hydro and Eni.



OPERATIONS MANAGEMENT

OPERATIONAL MANAGEMENT EXPERIENCE

Key Operational Experience

- Operational interface management during shipyard construction/completion of SSSR Leiv Eiriksson and Eirik Raude in Mississippi, US and Halifax, Canada (1997 – 2002) including;
 - Build-up of operational organisation onshore/offshore
 - Development of total integrated QHSE management system for overall management of a drilling contractor
 - Preparation of Operational Acceptance Test Criteria and management of Acceptance Testing from shipyard
 - Recruitment and training of operational personnel
 - Co-ordination and preparation of safety/risk- and working environment related analysis/assessments
 - Preparation of required applications for Regulatory Compliance/Certification including Norwegian PSA, UK HSE, Canada Petroleum Boards (CNSOPB & CNLOPB), MMS/US Coast Guard etc.
 - Client interface – operational acceptance and contract management



OPERATIONS MANAGEMENT

OPERATIONAL MANAGEMENT EXPERIENCE

Key Operational Experience

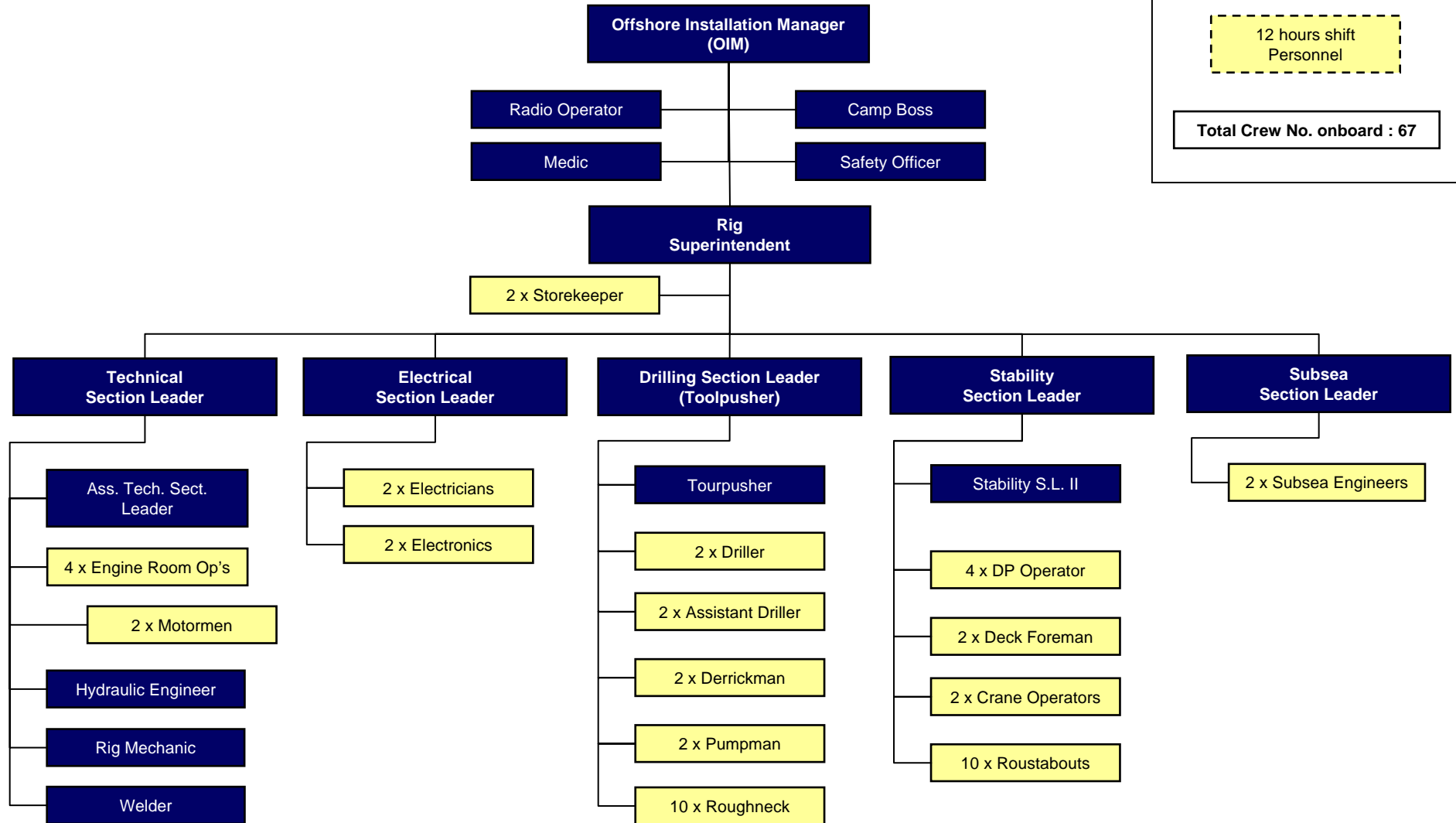
- Start-up and running of a new Drilling Company (e.g. Ocean Rig) including establishment of local operational entities in US (Houston/Pascagoula), West Africa (Luanda/Cabinda/Point Noire), Canada (Halifax/St. John's), Cuba (Havana), UK (Aberdeen) and Norway (Stavanger/Bergen/Harstad/Hammerfest)

- Operational preparations and start-up in the GoM including;
 - Sea Trials and Client Acceptance Testing (ExxonMobile)
 - MMS/US Coast Guard Rig Acceptance and Certification (Letter of Inspection) including co-ordination of US CG Documentation Reviews/Rig Inspections
 - Management of Visa application process for non-US crew and onshore base personnel in the GoM
 - Offshore operations/reporting under the US MMS/OSHA regime.

- Previous operational management history with Transocean, Saipem, Norcem, Golar Nor etc.



SEVAN DRILLER OFFSHORE ORGANISATION



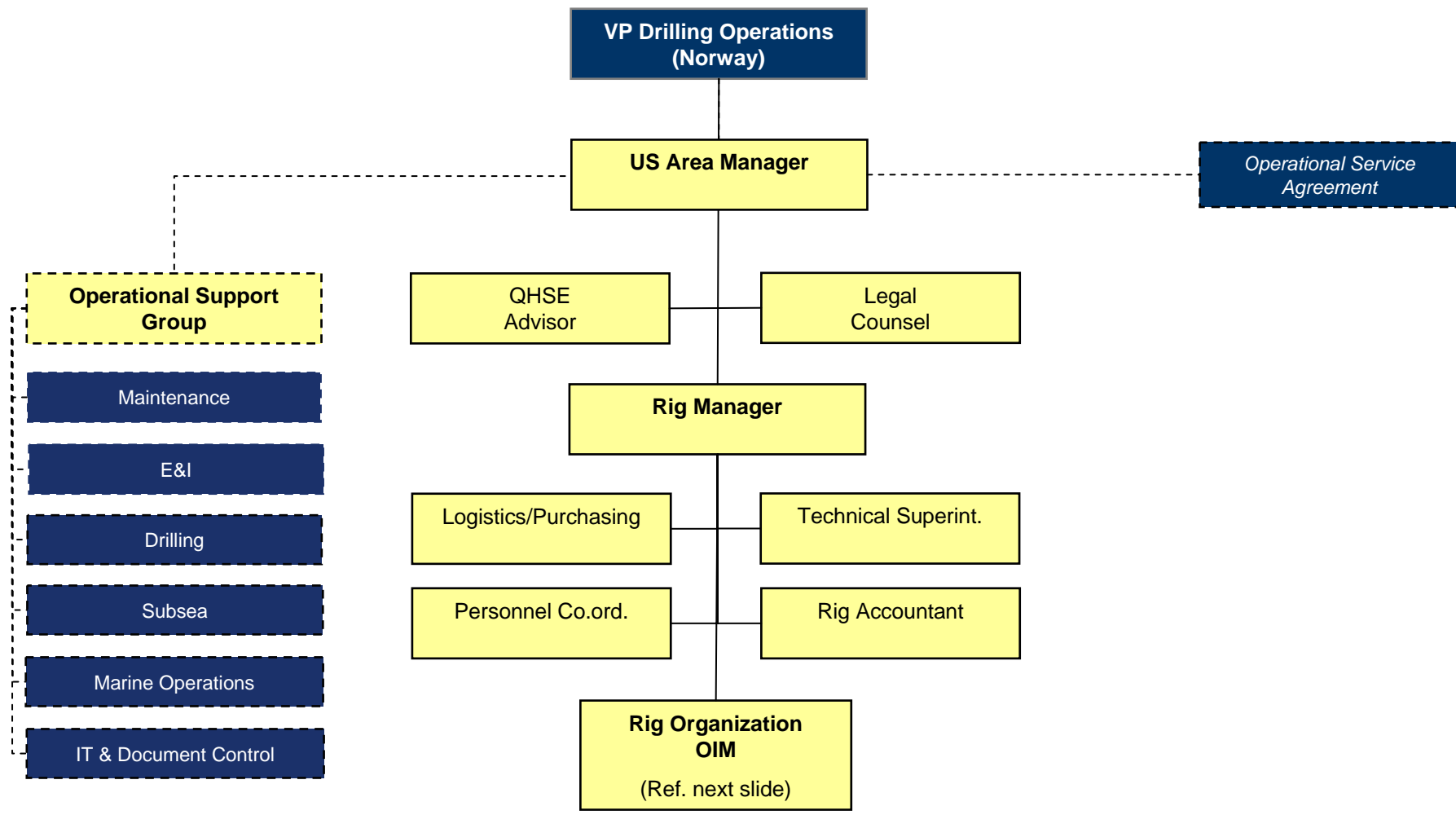
Dayshift/Nightshift Personnel

12 hours shift Personnel

Total Crew No. onboard : 67

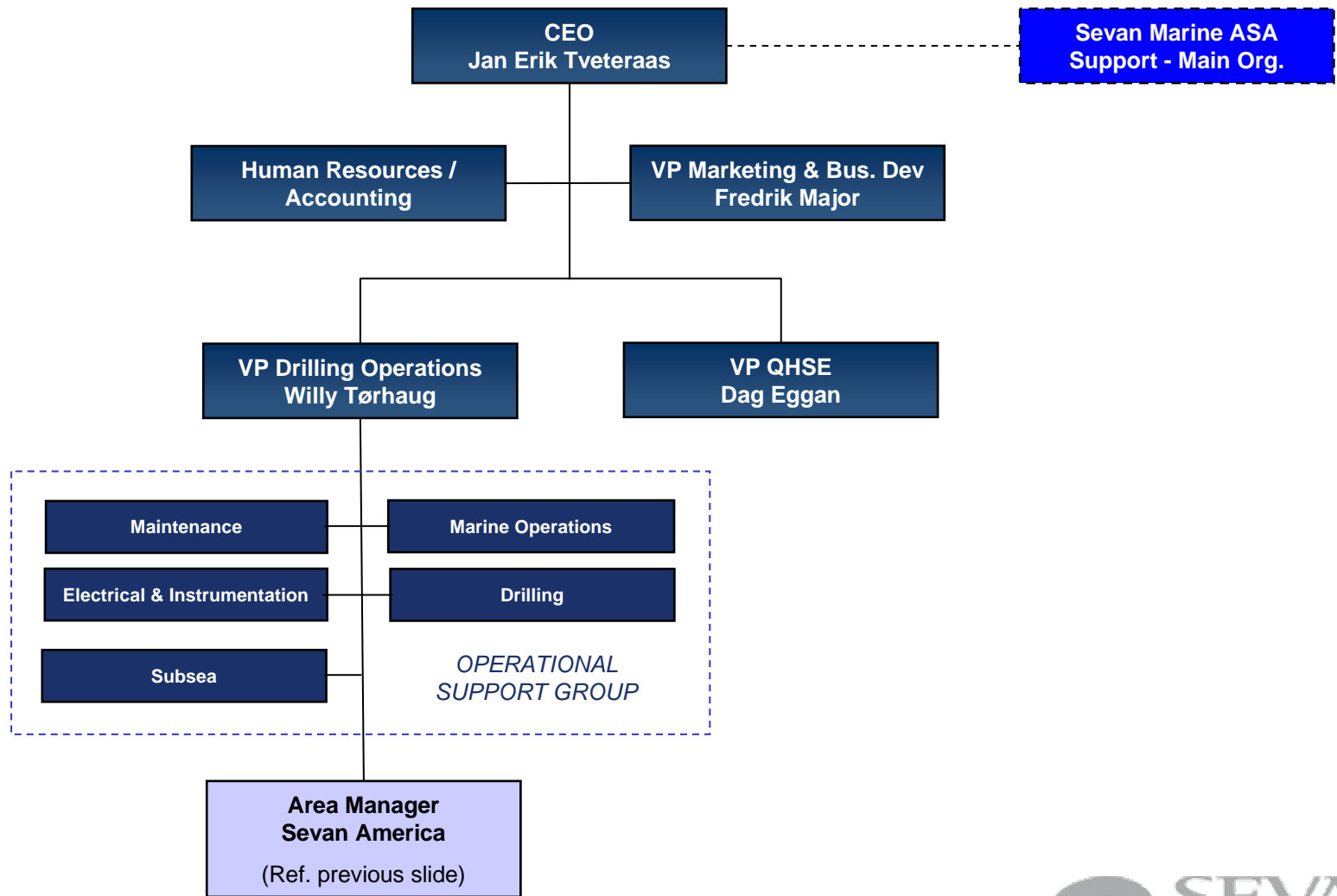


SEVAN DRILLER OPERATIONAL BASE ORGANISATION – US BRANCH OFFICE



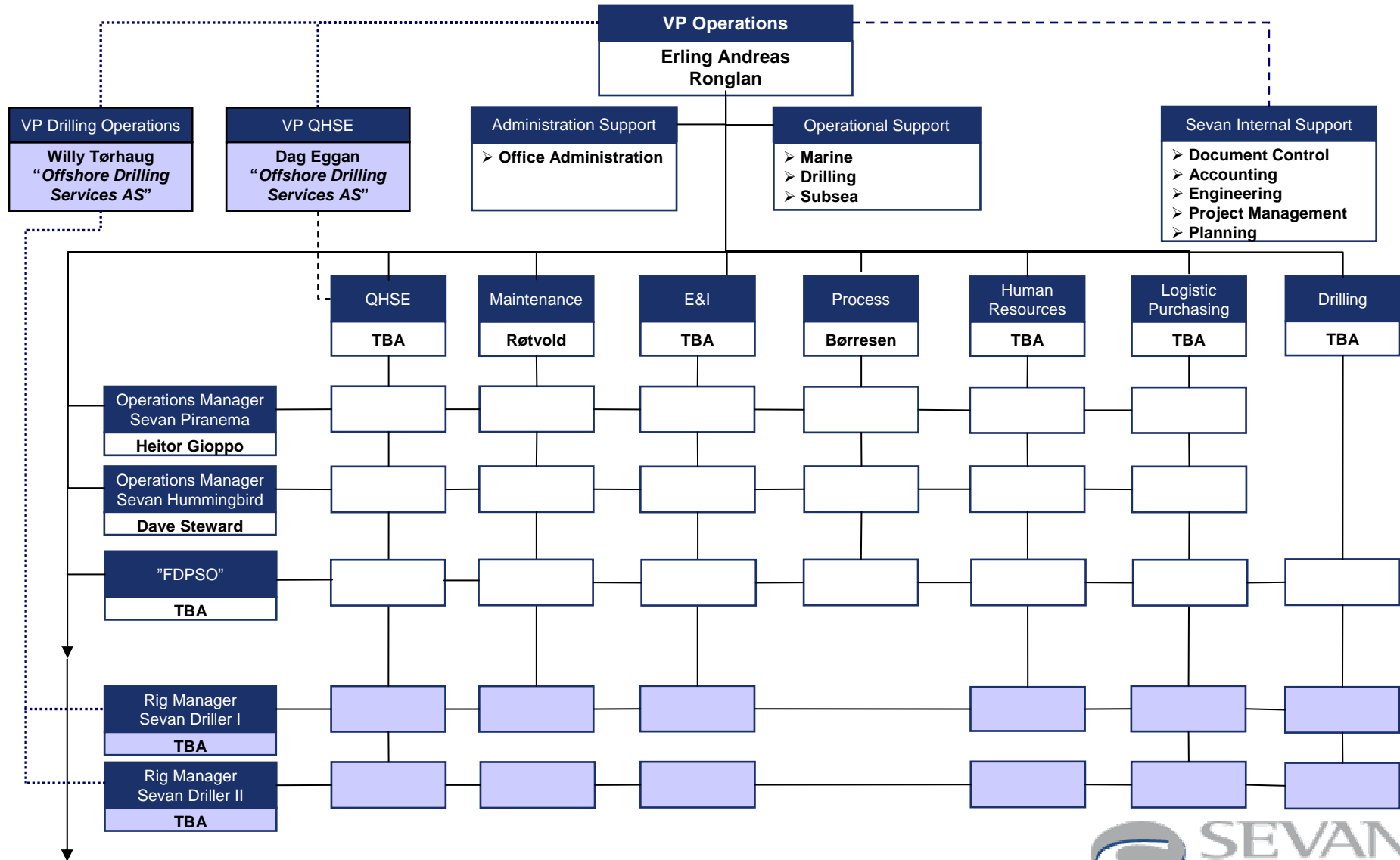
OPERATIONS

SEVAN DRILLING – SENIOR MANAGEMENT



SEVAN FDP SO ORGANISATION

SEVAN INTEGRATED OPERATING ORGANISATION



OPERATIONS MANAGEMENT

PREPARATION FOR OPERATIONS – KEY OBJECTIVES

- ❑ Verify Safety of Operations
- ❑ Verify Functionality of Systems
- ❑ Verify Maintainability of Systems
- ❑ Develop QHSE, Operations & Administrative Manuals, Procedures and other required controlling documentation including:
 - US Coast Guard “LoI” (Letter of Inspection)
 - Acknowledgement of Compliance (“AoC”) to PSA and UK Safety Case
 - Operational Risk Analysis & Assessment including QRA, PFEER and Emergency Preparedness Analysis.
 - ISM Code Certification (i.e. Rig Safety Management Certificate/Company Document of Compliance)
 - ISPS Code Certification including Ship Security Assessment and Ship Security Plan
- ❑ Logistics
 - Order Spare Parts
 - Establish, update and implement planned maintenance register and system for rigs



OPERATIONS MANAGEMENT

PREPARATION FOR OPERATIONS – KEY OBJECTIVES CONT.

- ❑ Operational Familiarization & Training
 - QHSE Management System/Leadership Training
 - Regulatory Training
 - Vendor Training
 - In-house system & equipment training
- ❑ Client relations
 - Participation in development of bids for contracts
 - Co-ordination and follow-up of rig visit's from Clients
 - Interface Client/Operation/Project
- ❑ Quality Compliance with respect to Internal Company/Client procedures etc.
- ❑ Prepare and co-ordinate Contract Quality Plan and Client Bridging Documents



OPERATIONS MANAGEMENT

OPERATIONAL FAMILIARIZATION AND TRAINING

- ❑ Recruitment and training of operational personnel to professionally operate the unit, meeting the qualification requirements as defined in the QHSE management system and set forth by Clients/Regulators (including Emergency Preparedness training)
- ❑ Establishment of specific “pre-hire” Qualification Requirements for each position to be hired for offshore operations (Bahamas/Local Coastal Requirements)
- ❑ Definition of position specific in-house Competency Development/Assurance Schemes for company/rig specific systems & equipment training, e.g;
 - QHSE Training
 - Rig Emergency Preparedness training
 - Position/Function oriented training
- ❑ Definition of external training matrix for onshore regulatory/emergency preparedness/vendor specific training, and co-ordination of same
- ❑ Implementation of personnel database system for detailed control of competency compliance and personnel co-ordination



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“FDPSO” Concept



The Sevan Platform - the versatile technology



FPSO

Floating Production
Storage Offloading



MODU

Mobile Offshore Drilling
Unit



FDPSO

Floating Drilling Production
Storage Offloading



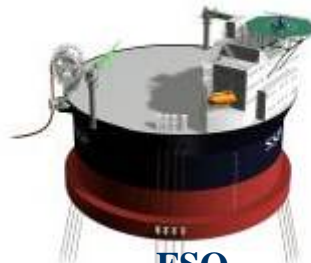
Gas Treatment Plant

LNG, GTW, LPG, Power Terminal



SICV

Subsea Installation
Construction Vessel



FSO

Floating Storage
Offloading



ACCOMMODATION

Service platform



“FDPSO” CONCEPT FLOATING DRILLING AND PRODUCTION UNIT – NEXT GENERATION

