



ABAN ABRAHAM IADC EQUIPMENT LIST

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1	05-07-11	UPDATED FOR PETROBRAS CONTRACT 2011	KK	RRP	RRP
2	23-06-15	UPDATED ALONG WITH DUM FOR PETROBRAS	SK / KK	RA	AR
3	23-08-16	UPDATED FOR ONGC CONTRACT 2016	SK / KK	RA	AR
4	01-09-18	UPDATED FOR NEW TENDER	HOD'S	PZ / RA	AR



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A. UNIT SPECIFICATIONS	
Drill ship type:	Dynamically positioned class 2
Unit/Design/Shape:	Gusto engineering "Pelican" class design
Unit flag:	Bahamas
Unit classification:	DNV~1A1 Ship-Shaped drilling unit, DYNPOS-AUTR.
IMO Certification:	Yes
Year of Construction:	1976
Construction Yard:	IHC Holland offshore division, Schiedam Holland
Type of Positioning system (anchor / DP / combined):	DP
A.1 MAIN DIMENSIONS / TECHNICAL DESCRIPTION	
Weight (light ship):	11,148 mt appx
Displacement at load line:	20,022mt @ 7.50 m (24.61 feet) draft
Draft at load line (deepest):	7.50 m
Overall length of unit: Mtr	159.30 m. (522.63 feet) (From Fwd Nav. Light to Aft. Bulwark) (With aft crane boom in aft boom rest this increases with 7.4m with the boom sticking out to the aft.
Overall width of unit: Mtr	29.75 m
Drilling draft/related displacement:Mtr	7.5 m
Transit draft/related displacement: ft/lt.	Depends on load
Survival draft/related displacement:Mtr.	7.5 m
Moon pool dimensions:	7.2 m x 8.2 m
Maximum opening through spider deck:	49-1/2"
Maximum Substructure/Rotary Load:	1000 Tons
Fuel Consumption (drilling): m3/day	54 Max
Fuel Consumption (transit): m3/day	36 Max
Accommodation for max. # of personnel:	136
A.2 STORAGE CAPACITIES	
Loading & Stability Manual AARU.ER.10.14 Rev A5	
Fuel: m3	2,152.0 m3
Drilling water: m3	1,005.2 m3
Potable water: m3	609.2 m3
Active Liquid Mud: m3	273 m3



Reserve liquid mud:	m3	397 m3
Bulk Bentonite/barite:	m3	301 m3 (3 @ 43 m3 / 4 @ 43 m3)
Bulk cement:	m3	303 m3 (4 @ 22m3 + 5 @ 43 m3)
Sacks storage:	m3	330 m3
Pipe racks area:	m3	2,700 m3
Riser racks:	m3	5,268 m3
Miscellaneous storage area:	m3	862 M3
Brine storage:	m3	381 m3
Heavy brine accepted (e.g. bromide):		Yes
Base oil storage:	m3	381 m3
Oil base mud storage:	m3	
Ballast system (or preload):	m3	4,785 m3
A.3 PROPULSION / THRUSTERS		
A.3.1 In-line Propulsion	yes/no	Yes 2 x Controllable Pitch Propeller. Hp - 3000, c/w 2 motors of 2,570 kW each on each shaft RPM 145. Propeller Dia 4000 mm. Number 5 + 2
A.3.2 Thrusters		
Quantity:	Qty.	5 Nos. Wartsila transverse Thrusters
Model: Fixed / Azimuth		Type: CT250, 3 fwd & 2 aft, 1,750 HP each Fixed Tunnel Thruster with pitch propeller. Propeller Diameter – 2,356 mm No. of Blades : 4 Gear Ratio – 716:244
		2 Nos. Azimuth Thrusters – Make : Thrustmaster Type: Thru- hull Mechanical L-drive Propulsion System, TH-2500-ML Propeller Type : Skewed Kaplan, fixed Pitch Rated Power Input :2,000KW Input Rpm : Up to 720 Open Water Bollard Pull : 346 KN Propeller Max. RPM : 235 Nozzle Type : Modified Kort 19A Direction of Rotation: Counter Clock wise (Looking from at stern side of the vessel) Steering Range and Speed: 3 RPM Fixed propeller but variable speed
Motors per thruster:	Qty.	ONE each



<p>Position Reference:</p>	<p>ADP system interfaces include following position measurement equipment – Sonardyne Dual redundant L / USBL acoustic system, Differential GPS / Glonass system ADP system interfaces include following sensors – Gyrocompass, Anemometer, Motion reference sensors 2 X PME workstation console located at the bridge – Position and velocity measurement system 1 X Independent joystick system 11 X series field stations Alarm and event printer 4 X UPS units, 1 phase, 230VAC, 6A, with minimum 30 minute backup time</p>
<p>A.4 OPERATIONAL CAPABILITIES Maximum designed water depth capability: ft Outfitted max. water depth capability: Normal min. water depth capability: Drilling depth capability (rated): Transit speed towed (historical avg.): Transit speed self propelled (historical avg.): kts</p>	<p>2,000 m (6,600 ft) 2,000 m 500 m (1,640 ft) subject to environmental conditions 7,600 m (25,000 ft) below mud line 8,0 – 9,0 knots</p>
<p>A.5 VARIABLE LOADING (VL) Transit VL: Drilling VL: 80% Consumable Survival VL: 80% Consumable</p>	<p>T 8948.4 T 8946.4 8880.4</p>
<p>A.6 ENVIRONMENTAL LIMITS Drilling Max. wave height: ft Max. wave period: sec Max. wind velocity: kts Max. current velocity: kts Max. heave (double amplitude): ft</p>	<p>20 8 – 15 50 2 12</p>



Operating Motion Limits	BOP on Deck	Running Riser	Landing BOP	Drilling & Tripping	Running Casing	Disconnect LMRP	Re-Connect LMRP
Heave (Mtrs)			7 ft	3.5/4.5	2	6.5 Mtr	1 Mtr
Pitch, Single Amplitude			2 deg	3 deg	2.5	3.2	2 deg
Roll, Single Amplitude			2 deg	2.8 deg	2.5	3.2	2 deg
Riser Angle			1 deg	4 deg		4 deg	1 deg
LMRP Angle			1 deg	4 deg		4 deg	1 deg
Flex Joint			1 deg	4 deg			1 deg
Survival Max. wave height: ft Max. wave period: sec Max. wind velocity: kts Max. current velocity: kts				6.1 m 8-15sec 50 knots 2 knots			
A.7 MOORING SYSTEM							
A.7.1 Anchor Windlass							
Quantity: Qty. Make/model: Type (electric/hydraulic/diesel): Motors Motor make/type: Total HP per winch: Speed low gear: Test load: Tons Control locations (local/remote/both): Emergency release (type/location):				1 no. Plimsol / PPC-EAW/GG-62 Electrical 1 ea FRENSTAT VFD 55 kw/ ip 56 23.8 RPM 30 hp Local Yes N.A			
A.7.2 Fairleads				Yes – 6 FWD & 6 AFT			



<p>A.7.3 Anchors & Chains</p>	<p>2 Bow anchors are available for use in shallow water 2 x 274 meters (900 ft) chain (10 shackles) Stockless Anchor Complying JIS Standard 6,000 kg each 1(Spare) Stockless Anchor Complying JIS Standard 6,000 Kg</p>
<p>A.7.4 Supply Vessel Mooring Lines</p> <p>Locations (port/stbd/both): System:</p>	<p>Yes. 5 nos Yokohama fender</p>
<p>A.7.5 Emergency Towing Stations</p>	<p>2 Ea. (1 Aft & 1 FWD) Mfg : Bridon. Towing Pennant 80 Mtr. Min. Breaking Strain 2000 Kn. Messenger Line 70 Mtr. Min Break Load 20 Tons. Smith Bracket 102 Tons.</p>
<p>A.8 MARINE LOADING HOSES</p>	
<p>Locations of loading manifolds (port/stbd/both):</p>	<p>Both sides</p>
<p>A.8.1 Potable Water Hose</p> <p>Quantity: Qty. Size: Feet Make/type: Gates Color coding: yes/no Make/type connection: Yes</p>	<p>3 4" – 110 feet long Gates Yes End Fitting 1: 4" NPT Male+Todo-Matic Brass 4" Female. End Fitting 2 : 4" NPT Male + Todo-Matic Brass 4" Male & Female. Cross over Camlock Fitting Female</p>
<p>A.8.2 Drilling Water Hose</p> <p>Quantity: no. Size: Feet Make/type: Gates Color coding: yes/no</p>	<p>3 4" – 110 feet long Gates yes</p>



Make/type connection:		End Fitting 1 : 4" NPT Male+Todo-Matic Brass 4" Female. End Fitting 2 : 4" NPT Male + Todo-Matic Brass 4" Male & Female. Cross over Camlock Fitting Female
A.8.3 Gas Oil Hose		
Quantity:	Qty.	3
Size:	in	4" – 110 feet long
Make/type:		Gates
Color coding:	yes/no	yes
Make/type connection:		End Fitting 1 : 4" NPT Male+Todo-Matic Brass 4" Female. End Fitting 2 : 4" NPT Male + Todo-Matic Brass 4" Male & Female. Cross over Camlock Fitting Female
A.8.4 Mud Chemical Hose		
Quantity:	Qty.	3
Size:	in	4" – 110 Feet long
Make/type:		Gates
Color coding:	yes/no	Yes
Make/type connection:		End Fitting 1 : 4" NPT Male+Todo-Matic Brass 4" Female. End Fitting 2 : 4" NPT Male + Todo-Matic Brass 4" Male & Female. Cross over Camlock Fitting Female
A.8.5 Cement Hose		
Quantity:	Qty.	3
Size:	in	5" – 110 feet long
Make/type:		Gates
Color coding:	yes/no	Yes
Make/type connection:		End Fitting : 4" Camlock Female Fittings
A.8.6 Base Oil Hose		
Quantity:	Qty.	3
Size:	in	4" – 110 feet long
Make/type:		Gates
Color coding:	yes/no	yes



<p>Whip capacity/hoist speed (ld / rad. / spd): lt./ft/(ft/sec)</p> <p>Hook load indicator automatically corrected for boom angle: yes/no</p> <p>Alarm (audible, visual, both): yes</p> <p>Automatic brake: yes/no</p> <p>Safety latch on hooks: yes/no</p> <p>Crown saver (limit switch): yes/no</p> <p>Boom illumination: yes/no</p> <p>Quantity: 1</p> <p>Specification (API, etc):</p> <p>Make: Amclyde</p> <p>Type: Model No. 20000; S/N 1711200</p> <p>Location (stbd, port, aft, fwd): Port</p> <p>Boom length: 120 ft</p> <p>Hook reach below main deck (block/whip): yes</p> <p>Block capacities & hoisting speeds Tons Load/radius/speed (minimum radius):</p> <p>Whip capacity/hoist speed (ld/rad./spd):</p> <p>Hook load indicator automatically corrected for boom angle: yes/no</p> <p>Alarm (audible, visual, both): Yes</p> <p>Automatic brake: yes/no</p> <p>Safety latch on hooks: yes/no</p> <p>Crown saver (limit switch): yes/no</p> <p>Boom illumination: yes/no</p> <p>A.9.2 Cranes, Revolving, Secondary</p> <p>Quantity: 1</p> <p>Specification (API, etc):</p> <p>Make: Houston Systems, USA</p> <p>Type: 50 Roto - Crane</p> <p>Location (aft) Poop Deck</p> <p>Boom length: 80</p> <p>Load/radius/speed (minimum radius):</p> <p>Whip capacity/hoist speed (ld/rad./spd):</p>	<p>Static Load : 9.1 MT at 80 deg Angle</p> <p>Dynamic Load : 8.3 MT at 80 deg Angle</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Static Load : 42.35 MT. 80 deg Angle</p> <p>Dynamic Load : 38.5 MT at 80 deg Angle</p> <p>Static Load : 9.1 MT at 80 deg Angle</p> <p>Dynamic Load : 8.3 MT at 80 deg Angle</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Static Load : 23.25 MT at 75 deg Angle.</p> <p>Dynamic Load : 21.14 MT at 75 deg angle</p> <p>Static Load : 3.33 MT at 75 deg Angle</p> <p>Dynamic Load : 3.03 MT at 75 deg Angle</p>
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Hook load indicator automatically corrected for boom angle:	yes/no	yes
Alarm (audible, visual, both):		yes
Automatic brake:	yes/no	Designed with two fail-safe brake system
Safety latch on hooks:	yes/no	yes
Crown saver (limit switch):	yes/no	yes
Boom illumination:	yes/no	yes
A.9.3 Forklifts		
Quantity:		1
Make/type:		Toyota / 2Z
Rated capacity:	lbs.	2.5 Ton
Explosion proof:	yes/no	Yes, Zone II
A.9.4 Gantry Cranes		
Quantity:		3
Make/Type:		Hessena Nederland B.V
Rated Capacity:	kg	2.5 MT, 14m span gantry cranes
Locations:		Storage holds 1, 2 & 3
A.9.5 BOP Handling System		
Make/type:		Patriot MH 2
Rated capacity:	Capacity	2 X 75 Ton
A.9.5a Riser Handling System		
Make		OHS Asia
Rated Capacity		25 T Capacity, capable of handling 80, 75, 65 and 50 feet risers, also fitted 2x 5 T auxiliary winches.
A.9.6 Air Hoists/Derrick Winches		
A.9.6.1 Drill Floor Winches (Non man-riding)		
Quantity:		4x Rig Flr.. 1x Dwks Roof..
Make:		1x Aft Riser Runway
Type:		Ingersoll Rand
Rated capacity:	lb. in	5000 Kg
Wire diameter:	yes/no	19 mm
Non-Twist Wire:		yes



Automatic brakes:	yes/no	Yes
Overload protection:	yes/no	Yes
Automatic spooling:	yes/no	Yes
A.9.6.2....Derrick Work Winch		
Quantity:		2 No.
A.9.6.3Drill Floor (Man Riding) Winches		
Quantity:		2
Make:		Ingersoll rand
Type:		
Rated capacity:	lbs.	150 kg
Wire diameter:	in	10 mm
Non-twist wire:	yes/no	
Automatic brakes:	yes/no	Yes
Overload protection:	yes/no	Yes
Automatic spooling:	yes/no	Yes
Certified for man-riding:	yes/no	Yes
A.9.6.4Utility Winch (i.e. Deck Winch)		
Quantity:		3 (Working)
A.9.6.5Cellar Deck Winch		
Quantity:		5 (Working) 2 (Man Rider)
Make:		Ingersoll rand
Type:		
Rated capacity:	lb. in	5000kg & 150 kg
Wire diameter:	yes/no	19mm & 10 mm
Non-Twist Wire:	yes/no	yes
Automatic brakes:	yes/no	yes Yes Yes
Overload protection:	yes/no	
Automatic spooling:	yes/no	
Certified for man-riding:		
A.10 HELICOPTER LANDING DECK		
Location:		Fwd
Dimensions:	ft x ft	72 Feet (22 m) in diameter



Perimeter safety net:	yes/no	Yes
Load capacity:	Tons	12.8
Designed for helicopter type:		Sikorski S61-N & S92
Tie down points:	yes/no	Yes
Covered by foam fire system:	yes/no	Yes
Heli-refueling system type:		Wilmax
Fuel storage capacity:	m3	2 tanks each having capacity 2.9m3
Helideck lighting to aviation specification as required by country of operation:	yes/no	Yes
A.10.1 Helicopter Refueling System		
Type		Mfg Wilmax engineering
Fuel storage capacity:	m3	2 X 2.9m3 Aviation Fuel transportable tank (Stored in base yard)
Jettisonable:	yes/no	Yes
Fuel transport containers:	qty	2 Nos
Volume (each):	M ³	2.9 M ³
Covered by foam fire system:	yes/no	Yes
A.11 AUXILIARY EQUIPMENT		
A.11.1 Water Distillation		
Quantity:		2 Nos
Make/type:		Alfa laval (JWP-36-C125DE & JWP-26-C100)
Capacity (each/total):	m3/day	45 m3 / 24 Hr & 30 m3/24 Hr
A.11.2 Air Conditioning		
Quantity:		3 (Accommodation)
Make/type:		Carlyle
Capacity (total system):	tons	3 x 80 tons
Quantity:		3 (AFT)
Make/type:		Carlyle
Capacity (total system):	tons	3 x 80 tons
A.11.3 Electric Welding Sets		
Quantity:		3
Current capacity:	amp	400 Amp
Make/model:		Lincoln ideal arc



ABAN ABRAHAM
IADC Equipment List

Type: fixed/portable	Fixed
Quantity:	1
Current capacity: amp	
Make/model:	Nertazip 540 Plasma cutter
Type: fixed/portable	
Quantity:	3
Current capacity: amp	
Make/model:	Unitor uwi-350 Argon arc, Tig tac welding unit
Type: fixed/portable	



B. GENERAL DRILL SHIP SPECIFICATIONS

B.1 DERRICK AND SUBSTRUCTURE

Make/type:		Pyramid, Dynamic
Rated for wind speed		
With full set back:	kts	87
Height:	ft	160 ft
Dimensions of base:	ft x ft	44' 4" x 36'
Dimensions of crown:	ft²	23'4" x 18'
Gross nominal capacity:	lbs	1350 Kips
Maximum number of lines:	no.	14 lines
Ladders with safety cages and rests:	yes/no	Yes
Platform for crown sheave access:	yes/no	Yes
Counter balance, system for drill ship tongs and pipe spinning tong:	yes/no	Yes
Lighting system explosion proof:	yes/no	Yes

B.1.2 Racking Platform

Make/type:		
Racking platform capacity of 5-7/8" DP:	stds.	192
Racking platform capacity of 6-5/8" DP:	stds	N.A
Racking platform capacity of 8-1/2" DC:	stds	10
Racking platform capacity of 9-1/2" DC:	stds.	1

B1.3 Pipe Racking System

B.1.3.1 PHM (Pipe Handling Machine)

Make/type:	Varco BJ
Make Up Torque:	
Break Out Torque:	
Pipe Range:	3-1/2" Drill pipe to 9-1/2" Drill collars
Lifting Capacity:	
Drillpipe:	
Drill Collars:	

B.1.4 Casing Stabbing Board

Make/type:	Load Master
Adjustable from/to height above rotary:	yes



<p>B.1.5 Substructure</p> <p>Make/type: Height (above main deck): Length: Width: Length (Rig Floor inside Derrick): Width (Rig Floor inside Derrick): Setback capacity: Simultaneous setback + hook load capacity:</p>	<p>S S P L 11 Mtr 16 Mtr 23.5 Mtr 11.75 Mtr 14.2 Mtr 25.4 tons/m2. Total area 19.38 m2</p>
<p>B.1.6 Derrick TV Camera System</p> <p>Camera located at:</p> <p>Make/type: Zoom/Pan/Tilt-function: yes/no Monitor located at:</p>	<p>Crown block, Racking board 2 nos, Stabbing board, Drill floor, Shale shaker, Cement unit, Moon pool#1 & 2, port & stb side, life boat area, thruster room, propulsion room, Aux. pump room, Helideck, fwd thruster room. Jelec 360 degree Zoom/Pan/Tilt Drillers Cabin / Bridge/ECR/Company Mans Office/ DS Office</p>
<p>B.2 DRAWWORKS AND ASSOCIATED EQUIPMENT</p>	
<p>B.2.1 Draw works</p> <p>Make/type: Motors make/type: Quantity: Rated capacity: lbs. Rated input power continuous: hp Rated output power continuous: hp Drum Type: Drum diameter: ft Wire diameter: inch Maximum line pull 12 lines:</p>	<p>National 1625 DE, 3000 Horse power Joliet 3 1200000 1130 1365 Lebus Groved 10 ft 1-5/8" 1 million pounds</p>



Make up cathead type:	MH Aker Kvaerner Standard Hydraulic Cathead MK-1
Breakout cathead type:	MH Aker Kvaerner Standard Hydraulic Cathead MK-1
Crown block safety device make/type:	C V T
Independent fresh water cooling system for draw works and electric brake: yes/no	Yes
B.2.2 Auxiliary Brake	
Make:	NOV - Baylor Eddy Current Brake
Model:	7838
Independent back-up system type:	Baylor Model 56380, Battery Charger, switch over unit
B.2.3 Wire line	
Make:	Mathey style "Retriever"
Length capacity:	15,000 ft
Line size/type:	.092
B.2.4 Automatic Driller	
Make/type:	Converteam
B.3 DERRICK HOISTING EQUIPMENT	
B.3.1 Crown Block	
Make/type:	NOV
Rated capacity:	750 Ton
No. of sheaves:	6
Sheaves diameter:	68"
Sheave grooved for line size:	1-5/8"
B.3.2 Traveling Block	
Make/type:	American block
Rated capacity:	750 Tons
No. of sheaves:	7
Sheaves diameter:	68"
Sheave grooved for line size:	1-5/8"
B.3.3 Hook	
Make/type:	N/A
Rated capacity:	



B.3.4 Swivel	Integrated in TDS
Make/type:	Canrig
Rated capacity:	750 Ton
Test/working pressure: psi/psi	7500 psi / 5000 psi
Gooseneck and washpipe ID: inch	4" nominal bore with 2" NPT entry port
Left hand pin connection size: inch	
Access fitting for wireline entry on top of gooseneck: yes/no	Yes
B.3.5 Drilling Line	
Diameter: inch	1-5/8"
Type:	Bridon dyform bristar
Length (original): ft	7500 ft
Support frame for drum/cover: yes/no	Yes
Drilling line drum power driven: yes/no	Yes
Spare reel drilling line: yes/no	No
Location (rig, shore, etc.):	
B.3.6 Anchor Dead Line	
Make/type:	Maritime hydraulics
Weight sensor: yes/no	Yes
Max Rated Static Load:	140000 Lbs
Wire line size:	1-5/8"
Drum Diameter:	
B.3.7 Drilling String Motion Compensator	
Make/type:	Shaffer, Crown mounted
Stroke:	25 feet
Capacity - compensated:	600K
Capacity – hdr.locked:	600K
B.3.8 Block Guidance System	
Make/type:	Canrig Vertical Rail
B.3.9 Retraction System for Traveling Block	Hydraulic System
Make/type:	Canrig



B.4 ROTATING SYSTEM		
B.4.1 Rotary Table		
Make/type:		ABCO, Model RK-495 with adapter 37-1/2" – 49-1/2"
Maximum opening:	inch	49-1/2"
Static load capacity:		800 Tons
Rotating load capacity:		
Two speed gearbox:	yes/no	
Emergency chain drive:	yes/no	No
Driven by an independent Hydraulic Motor.		Parker series F12.
B.4.2 Master Bushings		
Make/type:		Varco
Insert bowls :		1 no - 37-1/2" Master bushing, Incl bowl no. 3 (P/N 6600-1)
		1 no – Insert bowl, Part 2 for 10-3/4" & 9-5/8" casing, MPCH Master bushing (P/N 6609)
		1 no – Insert bowl, Part 1 for 13-3/8" & 11-3/4" casing, MPCH Master bushing (P/N 6610)
B.4.3 Kelly Bushing		N.A
B.4.4 Top Drive		
Make:		Canrig
Type (electric/hydraulic):		Model 1275AC, Electric
Rated capacity:	Ton.	750 Ton
Test/working pressure:	psi/psi	7500 PSI / 5000 Psi
If driven by electric motor		with a redundant variable frequency drive
Make/type:		GE B20AC
Output power:	hp	1150 Hp continuous, 860 KW
Maximum continuous torque:	ft-lbs.	51400 ft-lbs @ 120 RPM
Two speed gearbox:	yes/no	no
Maximum rotary speed:	rpm	260 RPM @ 23500 ft-lbs
Cooling system type:		Standard: Local Blower



ABAN ABRAHAM

IADC Equipment List

B.4.4.1 Top Drive Makeup/Breakout System

Make:

Model:

**Max. breakout torque that can be applied
by system: ft-lbs.**

Canrig

TM120

90,000 ft-lbs



C. POWER SUPPLY SYSTEMS

C.1 DRILL SHIP POWER PLANT

C.1.1 Diesel Engines

Quantity:		6
Make/type:		EMD ME 16G7B
Maximum continuous power:	BHP	4000
At rotation speed of:	RPM	900
Equipped with spark arrestors:	yes/no	Yes
Mufflers installed:	yes/no	Yes

C.1.2 AC – Generator

Quantity:		6
Make/type:		Converteam Alstom
Continuous power:	kVA	6 X 4767
At rotation speed of:	rpm	900
Output volts:	KVolts	6

C.1.3 SCR System

Number of SCR:		10 SCR – 2 SWBD (5 SCR EACH)
Make/type:		Converteam
Maximum continuous power (total):kW		Drawworks Section’s rated – 1400ampDC
		Mud pump section’s rated - 1000ampDC
Output volts:	volts	750VDC

C.1.4 Transformer System

Quantity:		SERVICE TRANSFORMER
Make/type:		3
		TRAFO-UNION, GEAFOL, Type TGEJ6441K
Continuous power (each):	kVA	3000
Output volts:	volts	INPUT 6kV OUTPUT 465 V
Frequency:	Hz	60Hz 3PH
		Drilling Transformer



<p>Quantity: Make/type: Continuous power (each): kVa Output volts: volts Frequency: Hz</p>	<p>2 TRANSFOR 3000 INPUT 6Kv OUTPUT 630V 60HZ 3PH</p> <p>TDS Auto Transformer</p>
<p>Quantity: Make/type: Continuous power (each): kVa Output volts: volts Frequency: Hz</p>	<p>1 TRANSFOR 1060 INPUT 630V OUTPUT 737V 60HZ 3PH</p>
<p>C.1.5 Emergency Shutdown Emergency shutdown switches for the complete power system (AC & DC), located at the following points:</p>	<p>1 Station Drillers cabin 1 Station Engine control room 1 Station Bridge</p>
<p>C.1.6 Auxiliary Power Supply</p>	
<p>Power supply for a mud logging unit: yes/no Power supply available</p>	<p>Yes</p>
<p>Output volts: volts Frequency: Hz Current: amps Phase: single/three</p>	<p>440V 60 250 3</p>
<p>C.1.7 Compressed Air System</p>	
<p>Air Compressors - High Pressure:</p>	
<p>Quantity: Make: Model: Rated capacity: m3/hr Working press: psi Prime mover (electric/diesel): Continuous power: Kw Air dryers:</p>	<p>3 Comp Air 5436 MK 130 3000 Electric 45</p>
<p>Quantity: Make/type: Rated capacity: M3/hr</p>	<p>3 Zander 230</p>



<p>Air Compressors - Medium Pressure (rig air): Quantity:</p> <p>Make: Model: Working press: psi Prime mover (electric/diesel): Continuous power: hp</p>	<p>3 +1 (1 compressor dedicated for Drill floor use) Atlas Copco GA90W 150 Electrical 125</p>
<p>Air Compressors - Low Pressure (bulk air): Quantity:</p>	<p>Fitted Pressure Regulators. (Fisher Controls) 2 Nos</p>
<p>C.2 EMERGENCY GENERATOR</p>	
<p>C.2.1 Engine</p>	
<p>Quantity: Make/type: Maximum output: kW At rotation speed: rpm Starting methods (automatic, manual, air/hydraulic):</p>	<p>1 Cummins KTA 50-D(M1) 1291 KW, 1800 Automatic upon power failure 24VDC X 2 Battery banks</p>
<p>C.2.2 AC - Generator</p>	
<p>Quantity: Make/type: Maximum output: rpm At rotation speed: KVA Output volts: volts Capable of back-feeding power to main bus: yes/no</p>	<p>1 STAMFORD – PM 734E1 1800 1500/1968Amps 440 Yes</p>



D. DRILLSTRING EQUIPMENT		
D.1 TUBULARS		
D.1.1 Drill Pipe		
Drill pipe OD:	inch	5 1/2"
Grade:		S-135
Total length:		470 Joints
Range:		2
Weight:	lbs./ft	24.7
Internally plastic coated:	yes/no	Yes
Tool joint OD/ID:	in/in	7.00 x 4 x 5 1/2 FH;
Tool joint pin Tong length	inch	10.0
Tool Joint Box Tong Length	inch	15.0
Thread protectors:	yes/no	Yes
Drill pipe OD:	inch	3-1/2
Grade		S-135
Total length		156 Joints
Tool Joint		NC-38 (3-1/2" IF)
Tool Joint OD	inch	5
Tool Joint ID	inch	2-1/8
Tapered shoulder tool joints (box/pins):	degree/degree	18 deg box and 35 deg pin
Drill Pipe OD :	Inch	5
Grade		S135
Total Length		225 Joints
Tool Joint		NC 50 (4-1/2 IF)
Tool Joint OD	Inch	6-5/8
Tool Joint ID	Inch	2-3/4
Tapered shoulder tool joints (box/pins)		18 deg Pin Taper with Standard Tong Space with 200XT hard band on box Tool Joint.



D.1.2 Drill Pipe Pup Joints		
Tool joint OD/ID:	in/in	5" OD DP Pup joint, 6-5/8" OD Tool joint X 3-1/4" ID
Grade:		S-135
Weight:	lbs./ft	
Connection type:		4-1/2" IF Pin x 4-1/2" IF Box
Internally plastic coated:	yes/no	Yes
Thread protectors:	yes/no	Yes
Length:	Feet	5
Quantity:		3
Length:	Ft	10
Quantity:		3
Length	Ft.	15
Quantity		2
Length:	ft	20
Quantity:		2
Tool joint OD/ID:	in/in	3-1/2" OD DP Pup joint, 4-3/4" OD Tool joint X 2-1/4" ID
Grade:		S-135
Weight:	lbs./ft	
Connection type:		3-1/2" IF Pin x 3-1/2" IF Box
Internally plastic coated:	yes/no	Yes
Thread protectors:	yes/no	Yes
		5 ft
Length:	ft	5
Quantity:		2
Length	ft	10
Quantity		2
Length	ft	15
Quantity		2



Tool joint OD/ID:	in/in	5-1/2" OD Pup Joint, 7.00 x 4
Connection Type		FH
Length	Ft.	5
Quantity		2
Length	Ft.	10
Quantity		2
Length	Ft.	15
Quantity		2
 D.1.3 Casing Protectors		
	Size	16" Klamp-On
	Quantity	4
	Size	13-5/8" Klamp-On
	Quantity	4
	Size	10-3/4" Klamp-On
	Quantity	4
 D.1.4 Heavy Weight Drill Pipe (e.g. Hevi-Wate)		
Quantity		30 Jts
Nominal Size OD	inch	5 1/2"
Weight	lbs/ft	54.64
Tool Joint		5 1/2"FH
Tool Joint OD	inch	7.250
Tool Joint ID	inch	3.875



Quantity:		30 Jts
Nominal size OD:	inch	5"
Weight:	lbs./ft	49.3
Range:		
Tool joint OD:	inch	6.625"
Tool joint ID:	inch	3
Type of hardfacing:		Arnco 200XT hard banding
Internally plastic coated:	yes/no	Yes
Connection type:		NC-50 (4-1/2" IF)
Thread protectors:	yes/no	Yes
Nominal size OD:	inch	3-1/2"
Quantity	Nos.	30 Jts
Weight:	lbs./ft	25.3 lbs/ft
Range:		
Tool joint OD:	inch	4-3/4"
Tool joint ID:	inch	2-1/16"
Type of hard facing:		Arnco 200XT hard banding
Internally plastic coated:	yes/no	Yes
Connection type:		NC-38 (3-1/2" IF)
Thread protectors:	yes/no	Yes
D.1.5 Drill Collars.		
OD body:	inch	7
ID body:	inch	9-1/2"
Nominal length of each joint:	ft	3"
Drill collar body (slick/spiral):		31 ft
Recess for "zip" elevator:	yes/no	Spiral
Recess for slips:	yes/no	Yes
Stress relief pin groove:	yes/no	Yes
Boreback on box:	yes/no	
Connection type:		7-5/8" API Reg box B/B x 7-5/8" API Reg pin R/G
Quantity:		30
OD body:	inch	8"
ID body:	inch	3
Nominal length of each joint:	ft	31 ft



Drill collar body (slick/spiral):		Spiral
Recess for “zip” elevator:	yes/no	Yes
Recess for slips:	yes/no	Yes
Stress relief pin groove:	yes/no	
Boreback on box:	yes/no	
Connection type:		6-5/8” Reg box B/B x 6-5/8” Reg pin R/G
Quantity:		30
OD body:	inch	6-13/4”
ID body:	inch	2-13/16”
Nominal length of each joint:	ft	31 ft
Drill collar body (slick/spiral):		Spiral
Recess for “zip” elevator:	yes/no	Yes
Recess for slips:	yes/no	Yes
Stress relief pin groove:	yes/no	
Boreback on box:	yes/no	
Connection type:		NC50 (4-1/2”IF) Box B/B x NC50 (4-1/2” IF) Pin R/G
D.1.6 Inside BOP Valve		Yes (5” DP & 3-1/2” DP = 2 nos each)
D.1.7 Fast Shut-Off Coupling		N/A
D.1.8 Circulation Head		Yes
D.1.9 Top Drive IBOP’s		
Upper:		
Quantity:		3
Make/type:		Canrig
Working pressure:	psi	10K
Lower		
Quantity:		3
Make/type:		Canrig
Working pressure:	psi	10K
D.1.10.1 Circulation Head		
Quantity:		6
Make/type:		
OD body:		Circulating Head 5 1/2”FH Box x 2” Weco1502



Dressing kits: Connection type:		
Quantity: Make/type: OD body:		2 Circulating Head 4-1/2 IF Box x 2" Weco Fig 1502
Dressing kits: Connection type:		
Quantity: Make/type: OD body:		2 Circulating Head 4-1/2 IF Pin x 2" Weco Fig 1502
D.1.10.1 Side Entry	Size	9-5/8" Circulating Head 9-5/8 BTC x 2" Fig 1502 1
	Qty.	7" Circulating Head 7" BTC x 2" Fig 1502
	Size	1
	Qty.	Side Entry 5 1/2"FH pin x box x2" Weco Fig 1502.
	Size	1
D.1.10.2 Landing Sub	Qty.	Side Entry 4-1/2 IF pin x box x 2" Weco Fig 1502.
	Connection	1
	Make Qty.	Side Entry 3-1/2 IF pin x box x 2" Weco Fig 1502. 1
		Landing sub Hydril 15000 psi. 4-1/2 IF Pin x box Hydril 1



D.1.11 Grey Valve	Qty	Grey Valve 10,000 PSI – 5 ½”FH Pin x Box
		2
	Qty	Grey Valve 10,000 PSI – 4-1/2 IF Pin x Box
		2
D.1.12 Kelly Guard	Qty Make	Kelly Guard 3-1/4 x 10000 PSI – 5 ½”FH Pin x Box
		2
		Hydril
	Qty	Kelly Guard 4-1/4 x 10000 PSI – 4-1/2 IF Pin x Box
		2
	Make	Hydril



	Qty Make	Kelly Guard 3-1/2 x 10000 PSI – 4-1/2 IF Pin x Box 1 Hydril
	Qty. Make	Kelly Guard 3-1/2 x 10000 PSI – 3-1/2 IF Pin x Box 2 Hydril
	Qty. Make	Kelly Guard 4-1/2 IF Pin x Box 2 Hydril
	Qty. Make	Kelly Guard 3-1/2 IF Pin x Box 2 Hydril
D.1.13 Dart	Yes/No	Yes. Dart #48
D.1.14 Bit Subs (Box-Box)		
Serial No.		
Length:		36" OAL
Quantity:	no.	2
OD size:	in	9-1/2"
ID size:	in	3"
Top connection:		7-5/8" Reg Box
Bottom connection:		7-5/8" Reg Box
Bored for float valve:	yes/no	Yes
Float size:	in	5F6R
Length:		
Quantity:	no.	2
OD size:	in	9-1/2"
ID size:	in	3"
Top connection:		7-5/8" Reg Box
Bottom connection:		6-5/8" Reg Box
Bored for float valve:	yes/no	Yes
Float size:	in	5F6R
Length:		
		36" OAL



Quantity:	no.	2
OD size:	in	8"
ID size:	in	2-13/16"
Top connection:		6-5/8" Reg Box
Bottom connection:		6-5/8" Reg Box
Bored for float valve:	yes/no	Yes
Float size:	in	5F6R
Length:		
		36" OAL
Quantity:	no.	2
OD size:	in	6-1/2"
ID size:	in	2-13/16"
Top connection:		4-1/2" IF (NC-50) Box
Bottom connection:		4-1/2" Reg Box
Bored for float valve:	yes/no	Yes
Float size:	in	4R
Length :		
		36" OAL
Quantity:	no.	2
OD size:	in	6-1/2"
ID size:	in	2-13/16"
Top connection:		4" IF (NC-46) Box
Bottom connection:		4-1/2" Reg Box
Bored for float valve:	yes/no	Yes
Float size:	in	4R
Length:		
		36" OAL
Quantity:	no.	2
OD size:	in	4-3/4"
ID size:	in	2-1/4"
Top connection:		3-1/2" IF (NC-38) Box
Bottom connection:		3-1/2" Reg Box
Bored for float valve:	yes/no	Yes
Float size:	in	2F3R
Length:		
		36" OAL
Quantity:	no.	2
OD size:	in	4-3/4"
ID size:	in	1-1/4"
Top connection:		3-1/2" IF (NC-38) Box
Bottom connection:		2-7/8" Reg Box



Bored for float valve:	yes/no	Yes
Float size:	in	2F3R
D.1.15 Crossover Subs		
Type		7-5/8 Reg Pin x 7-5/8 Reg Pin
Quantity		1
Type		7-5/8 Reg Pin x 6-5/8 Reg Box
Quantity		3
Type		7-5/8 Reg Pin x 6-5/8 Reg Pin
Quantity		1
Type		7-5/8 Reg Pin x 6-5/8 Reg Box
Quantity		2
Type		7-5/8 Reg Pin x XT57 Box
Quantity		1
Type		7-5/8 Reg Pin x 4-1/2 IF Box (safety)
Quantity		1
Type		7-5/8 Reg Pin x 4-1/2 IF Box
Quantity		2
Type		6-5/8 Reg Box x XT57 Box
Quantity		6
Type		6-5/8 Reg Box x 4-1/2 IF Box
Quantity		2
Type		6-5/8 Reg Box x 4-1/2 IF Pin
Quantity		2
Type		6-5/8 Reg Pin x XT 57 Box
Quantity		3
Type		6-5/8 Reg Pin x 4-1/2 IF Box
Quantity		3
Type		6-5/8 Reg Pin x 4-1/2 Reg Pin
Quantity		3



Type Quantity	6-5/8 Reg Pin x 4 IF Box 2
Type Quantity	6-5/8 Reg Pin x 6-5/8 Reg Pin 2
Type Quantity	6-5/8 Reg Pin x 4-1/2 IF Box 1
Type Quantity	6-5/8 Reg Pin x 4-1/2 IF Box 1
Type (safety) Quantity	5 1/2"FH Box 7-5/8 Reg Pin 1
Type Quantity	5 1/2"FH Box x 7-5/8 Reg Pin 2
Type Quantity	5 1/2"FH Box x XT57 Box 2
Type Quantity	5 1/2"FH Pin x XT57 Pin 2
Type Quantity	5 1/2"FH Box x 4-1/2 IF Pin 2
Type Quantity	5 1/2"FH Box x 4-1/2 IF Pin 1
Type Quantity	5 1/2"FH Pin x 4-1/2 IF Box 2
Type Quantity	5 1/2" Pin x 4-1/2 Reg Pin 2
Type Quantity	5 1/2" Pin x 3-1/2 IF Box 2
Type Quantity	XT57 Pin x 4-1/2 EU Box 2
Type Quantity	XT57 Box x 4-1/2 IF Box 5



Type Quantity	5 1/2"FH Box x 4-1/2 Reg pin 2
Type Quantity	XT57 Box x 3-1/2 IF Pin 7
Type Quantity	5 1/2"FH Box x 3-1/2 Reg Pin 2
Type Quantity	4-1/2 Reg Pin x 4-1/2 IF Box 1
Type Quantity	4-1/2 Reg Pin x 4-1/2 IF Box 1
Type Quantity	4-1/2 Reg Pin x 4-1/2 IF Pin 2
Type Quantity	4-1/2 IF Box x 4" IF Pin (Safety) 1
Type Quantity	4-1/2 IF Pin x 3-1/2 IF Box 4
Type Quantity	4-1/2 IF Pin x 4-1/2 EU Box 2
Type Quantity	4-1/2 IF Box 4 IF Pin 2
Type Quantity	4-1/2 IF Box x 3-1/2 IF Pin 3
Type Quantity	4-1/2 IF Box x 4-1/2 EUE Pin 1
Type Quantity	4-1/2 IF Box x 3-1/2 Reg Pin 2
Type	4-1/2 IF Box x 4-1/2 IF Box



Quantity	2
Type	4-1/2 IF Pin x 4-1/2 IF Pin
Quantity	2
Type	3-1/2 IF Box x 3-1/2 reg Pin
Quantity	5
D.1.16 Dart Sub	
Quantity:	no. 1
ID size:	in
OD size (max/min):	in/in
Top connection size:	4-1/2"
Type (pin/box):	IF
Bottom connection size:	4-1/2"
Type (pin/box):	IF
D.2 HANDLING TOOLS	
D.2.1 Drill Pipe Elevators	
Size:	5 1/2"
Quantity:	2
Make:	Make: Blohm + Voss ACL 350 Tons
Model:	Air Operated



IADC Equipment List

Rated capacity:	350
Size :	5 1/2"
Quantity	2
Make	Blohm + Voss ACL 350 Tons
Type	Manual
Rated Capacity	350 Tons
Size:	3-1/2 to 7"
Quantity	1
Make	Blohm + Voss VES-CL 750 Tons
Type	Manual
Rated Capacity	750 Tons
Size:	6-5/8"
Quantity	1
Make	Blohm + Voss CL750
Type	Manual
Rated Capacity	750 Tons
Size:	3-1/2"
Quantity:	3
Make:	Varco
Type:	MGG
Rated capacity:	250 T
Size :	4-1/2" to 5"
Quantity	2
Make	Varco
Type	GG
Rated capacity	350 Ton
Size :	4-1/2" to 5"
Quantity	1
Make	Varco
Type	HGG
Rated capacity	500 Tons



D.2.2 Drill Collar Elevators

Size:
Quantity:
Make:
Model:
Type:
Rated capacity:

9 1/2"
01
BV
ZDC
Manual
150 Ton

Size:
Quantity:
Make:
Model:
Type:
Rated capacity:

8"
01
BV
ZDC
Manual
150 Ton

Size:
Quantity:
Make:
Model:
Type:
Rated capacity:

6 1/2
01
BV
ZDC
Manual
150 Ton

D.2.3 Auxiliary Mouse hole

N.A

Make:



D.2.4 Drill Pipe Hand Slips	
Size:	6-7/8"
Quantity:	2
Make	Varco BJ
Type	SDXL
Range	5-5/8 to 6-7/8
Size	6-5/8"
Quantity	1
Make	Blohm + Voss
Type	RSX
Range	6-5/8 to 5-7/8
Size	5-1/2"
Quantity	1
Make	Varco
Type	SDHL
Range	4-1/2 to 5-1/2"
Size:	5-1/2"
Quant:	3
Make:	Varco
Type:	SDXL
Range:	4 1/2" TO 5 1/2"
Size:	4-1/2"
Quantity:	2
Make	Varco
Type	SDXL
Range	3-1/2 to 4-1/2"
D.2.5 Hydraulic Power Slips	B+V Type PS-500 Hydraulic operated Power Slip.
D.2.6 Drill Collar Slips	
Range:	8" x 9-1/2"
Quantity:	3
Make	Varco
Type	DCS-L
Range:	6-3/4" X 8-1/4"
Quantity:	3
Make	Varco
Type:	DCS-L



Range: Quantity: Make Type:		5-1/2" x 7" 3 Varco DCS-R
Range Quantity Make Type		4-1/2" x 6" 2 Varco DCS-R
Range: Quantity: Make Type:		4" x 4-7/8" 1 Varco DCS-S
D.2.7 Drill Collar Safety Clamps		
Range:	in-in	5-1/2" – 6-5/8", 6-1/2" – 8-1/4", 8-1/2" – 9-5/8" & 9-1/2" – 10-5/8"
Quantity: Make/Type	no.	4 nos on each range mentioned above Varco
D.2.8 Tubing Slips		
Client provided		
D.2.9 Tubing Spider		
Client provided		
D.2.10 Drill Collar Lifting Subs		
Quantity: For OD DC: Connection Type:	no. in	3 9-1/2" 7-5/8" Reg pin
Quantity: For OD DC: Connection Type:	no. in	8 8" 6-5/8" Reg pin
Quantity: For OD DC: Connection Type:	no. in	8 (15) 6" 4-1/2" Reg pin
Quantity: For OD DC: Connection Type:	no. in	6 4-3/4" 3-1/2" Reg pin



D.2.11 DC Lifting Plugs		2
D.2.12 Bit Breakers		
Quantity:	no.	1
For bit size:	in	26" OD
Quantity:	no.	1
For bit size:	in	17-1/2" OD
Quantity:	no.	1
For bit size:	in	16" OD
Quantity:	no.	1
For bit size:	in	12-1/4" OD
Quantity:	no.	1
For bit size:	in	8-1/2" OD
Bit Gauge Rings		1
Quantity:	no.	6" OD
For bit size:	in	26" OD
Quantity:	no.	1
For bit size:	in	17-1/2" OD
Quantity:	no.	1
For bit size:	in	12-1/4" OD
Quantity:	no.	1
For bit size:	in	8-1/2" OD
Quantity:	no.	1
For bit size:	in	6" OD
D.2.13 Elevator Links		
Quantity of sets:	no.	1
Make/type:		Varco, AP18C-PSL1
Size:	in	2-3/4"
Length:	ft	132"
Rated capacity:	st	350 Ton



Quantity of sets:	no.	1
Make/type:		Varco, AP18C-PSL1
Size:	in	3-1/2"
Length:	ft	180"
Rated capacity:	st	500 Ton
Quantity of sets		1
Make		Varco
Size		3-1/2"
Length		264"
Rated Capacity		500 Tons
Quantity of sets:		1
Make		Blohm & Voss
Size		2-3/4"
Length		168"
Rated Capacity		350 Tons
Quantity of sets :		1
Make		Blohm & Voss
Size		4-3/4"
Length		186"
Rated Capacity		750 Tons (500Tons)
D.2.14 Kelly Spinner		N/A
D.2.15 Drill pipe Spinner		
Make/type:		Varco, SSW-40 Air operated
Size (max/min):	in/in	3-1/2" thru 9-1/2"
D.2.16 Mud Saver Bucket		
Make:		Oteco, MG-600
Size:	in	5-7/8"
D.2.17 Hydraulic Catheads		Make up & Break out
Make/type:		Aker-Kvaerner, MK-1
Maximum line pull:	N	140.00 N



D.2.18 Rotary Rig Tongs		
Quantity (sets):	no.	2
Make/type:		Varco, HT-35
Size range (max OD/min OD):	in/in	2-3/8" – 11"
Torque rating:	ft-lbs.	35,000
D.2.19 Tubing Tongs (manual)		Client provided
Quantity (sets):	no.	
Make/type:		
Size range (max OD/min OD):	in/in	
Torque rating:	ft-lbs	
D.2.20 Tubing Tong Power		Client provided
D.2.21 Iron Roughneck		
<i>Hydraulic Spinner Wrench</i>		
Make/type:		Canrig, Pedestal mounted Torq-matic TM120
Size range (max OD/min OD):	in/in	2-7/8" to 11"
D.2.22		
Casing Tong		
Make / type :		2 x 14" Casing Hydraulic Power Tong. 14" HS (Hydra - Shift) Casing Tong Make: Eckel International Inc
D.3 FISHING EQUIPMENT		
D.3.1 Overshots		
Quantity:		1
Make/type:		Bowen FS Series 150 Assy P/N 5329
Overshot OD:		11-3/4
Max Catch Spiral		10-1/8
Min Catch Basket		9-3/8
Max Overpull w/spiral		616000 Lbs
Max overpull w/basket		528500 Lbs
Top Sub Connection		6-5/8 Reg Box



Extension Sub Length	36"
Qty	1
Over Size Guide	16"
Qty	1
Grapples	Spiral
	1 x 9-1/2"
	Basket
	2 x 8-1/4"
	1 x 8"
	1 x 6-5/8"
	1 x 6-1/2"
	1 x 5"
	1 x 4-3/4"
Quantity:	1
Make/type:	Bowen overshort series 150, Model FS
	Assy P/N 8960
Overshot OD:	10-1/8"
Max Catch Spiral	8-1/2"
Min Catch Basket	7-3/4"
Max Overpull w/spiral	602000 Lbs
Max overpull w/basket	492500 Lbs
Top Sub Connection	6-5/8" Reg Box
Extension Sub Length	32"
Qty	1
Over Size Guide	16"
Qty	1
Grapples	Spiral
	2 x 8-1/4"
	1 x 8"
	Basket
	1 x 6-1/2"
	1 x 5"
	1 x 4-3/4"
	1 x 3-1/2"
Quantity:	1
Make/type:	Bowen overshort series 150, Model FS
	Assy P/N 264
Overshot OD:	9-5/8"



Max Catch Spiral Min Catch Basket Max Overpull w/spiral Max overpull w/basket Top Sub Connection Extension Sub Length Qty Over Size Guide Qty Grapples	8" 7-1/4" 602700 Lbs 510750 Lbs 6-5/8 Reg Box 1 x 42" & 1 x 60" 11" 1 Spiral 2 x 8" 2 x 7-7/8" 2 x 7-3/4" 2 x 7-5/8" 2 x 7-1/2" Basket 2 x 6-3/4" 2 x 65/8" 2 x 6-1/2" 2 x 6-3/8" 2 x 6-1/4" 2 x 4-7/8" 2 x 5-7/8" 1 Bowen overshort series 150, Model SH series. Assy P/N 9850 8-7/8" Oversized 9-1/8" 7-3/4" 7-1/8" 548000 Lbs 435000 Lbs 4-1/2 IF Box 1 x 42" & 1 x 60" 1 Spiral 2 x 7-3/4", 2 x 7-5/8", 2 x 7-1/2", 2 x 7-3/8", 2 x 7-1/4" Basket 2 x 7-1/8", 2 x 7", 2 x 6-7/8", 2 x 6-3/4" 2 x 6-5/8", 2 x 6-1/2", 2 x 5-7/8", 2 x 5-1/2", 2 x 5", 3-1/2" IF BOX
Quantity: Make/type: Overshot OD: Max Catch Spiral Min Catch Basket Max Overpull w/spiral Max overpull w/basket Top Sub Connection Extension Sub Length Qty Over Size Guide Qty Grapples	1 Bowen overshort series 150, Model SH series. Assy P/N 9850 8-7/8" Oversized 9-1/8" 7-3/4" 7-1/8" 548000 Lbs 435000 Lbs 4-1/2 IF Box 1 x 42" & 1 x 60" 1 Spiral 2 x 7-3/4", 2 x 7-5/8", 2 x 7-1/2", 2 x 7-3/8", 2 x 7-1/4" Basket 2 x 7-1/8", 2 x 7", 2 x 6-7/8", 2 x 6-3/4" 2 x 6-5/8", 2 x 6-1/2", 2 x 5-7/8", 2 x 5-1/2", 2 x 5", 3-1/2" IF BOX



<p>Qty Make / Type</p> <p>Overshot OD Max Catch Spiral Min Catch Basket Max Overpull w/spiral Max overpull w/basket Top Sub Connection Extension Sub Length Qty Over Size Guide Qty Grapples</p>	<p>1 Bowen Overshot SH Series 150 Assy P/N 9217 8-1/8 7" 6-3/8" 453000 Lbs 429500 Lbs 4-1/2 IF Box 32" 1 1 x 16" & x 1 x 11-1/2"</p> <p>Spiral 2 x 7" 1 x 6-5/8" 3 x 6-1/2" Basket 1 x 5" 1 x 4-3/4" 1 x 3-1/2"</p>
<p>Qty Make / Type</p> <p>Overshot OD Max Catch Spiral Min Catch Basket Max Overpull w/spiral Max overpull w/basket Top Sub Connection Extension Sub Length Qty Over Size Guide Qty Grapples</p>	<p>1 Bowen Overshot SH Series Assy P/N C-11823 5-3/4" 5-1/8" 4-5/8" 135000 Lbs 115500 Lbs 3-1/2" IF Box 32" 1 8" 1 Spiral 1 x 4-3/4" 2 x 5" Basket 1 x 4-1/8" 1 x 3-1/2" 1 x 3-3/8"</p>



<p>D.3.2 Hydraulic Fishing Jar</p>	<p>(7-3/4)OD x 3-1/16" ID Type 'Z' Oil Jar Assy with 6-5/8" Reg Box x Pin Connection.</p>
<p>Qty.</p>	<p>1</p>
	<p>6 1/4"OD x 2-1/4" ID Type 'Z' Oil Jar Assy with 4-1/2" IF Box x Pin Connection.</p>
<p>Qty.</p>	<p>1</p>
	<p>4-3/4" OD x 2" ID Type 'Z' Oil Jar Assy with 3-1/2" IF Box x Pin Connection</p>
<p>Qty.</p>	<p>1</p>
<p>D.3.3 Jar Intensifier</p>	<p>Qty. 1</p>
<p>Mandrel Length Max Overpull Max Torque</p>	<p>7-3/4 Jar Intensifier Assy P/N 55910 4.09 Mts 13" 1587000 Lbs 32010 Ft/Lb in Continue 64020 Ft/Lb in intermittance</p>
<p>Qty.</p>	<p>1 6-3/4 Jar Intensifier Assy P/N 50720 3.95 Mtr 13" 1013800 Lbs 24330 Ft/Lb in continue 48660 Ft/Lb in intermittance</p>
<p>Mandrel Length Max Overpull Max Torque</p>	
<p>D.3.4. Drilling Jar</p>	
<p>Mandrel Length Max Max Torque</p>	<p>Qty. 02 8" Drilling Jar (Connection 6 5/8 Reg) 5.86 Mts 56,000(FT-LBS)</p>
<p>Qty.</p>	<p>02 6 1/2 Drilling (Connection 4 1/2 IF) 5.96 Mts 35,000 (FT-LBS)</p>
<p>Mandrel Length Max Max Torque</p>	



Note :Surface Jar

Client provided

D.3.5 Fishing Bumper subs

Quantity:

1

Make

Bowen

OD body:

8"

Mandrel Length

20"

Max overpull

1060000 Lbs

Max Torque

546000 Ft/lb

Connection type:

6-5/8" Reg



Quantity:	1
Make/type:	Bowen
OD body:	6-1/2"
Mandrel Length	20"
Max overpull Max	864000 Lbs
Torque	42000 Ft/Lb
Connection type:	4-1/2" API
Quantity	1
Make	Bowen
OD Body	7-3/4"
Mandrel Length	60"
Max overpull	1060000 Lbs
Max Torque	50400 Ft/Lb
Connection type	
Quantity	6-1/4"
Make	Bowen
OD Body	6-1/4
Mandrel Length	60"
Max overpull	864000 Lb
Max Torque	38000 Ft/Lb
Connection Type	4-1/2 IF
Quantity	1
Make	Bowen
OD body	4-3/4
Mandrel Length	20"
Max Overpull	465000 Lbs
Max Torque	8200 ft/lb
D.3.6 Safety Joints	1 X Bowen, 8" OD, 3-1/2" ID, 6-5/8" Reg Connection 1 X Bowen, 6-1/2" OD, 2-3/4" ID, 4-1/2" IF Connection 1 X Bowen, 4-3/4" OD, 1-7/8" ID, 3-1/2" IF Connection
D.3.7 Junk Baskets (Reverse Circulation)	



Quantity:	no.	1
Make/type:		Bowen
For hole size:	in	
OD body:	in	12 7/8"
Connection type:		Top connection 6-5/8" Reg box
Inside magnet available:	yes/no	Yes
Mill shoes type B:	yes/no	Yes
Quantity:	no.	1
Make/type:		Bowen
For hole size:	in	
OD body:	in	11-3/4"
Connection type:		Top connection 6-5/8" Reg box
Inside magnet available:	yes/no	Yes
Mill shoes type B:	yes/no	Yes
Quantity:	no.	1
Make/type:		Bowen
For hole size:	in	
OD body:	in	7-7/8"
Connection type:		Top connection 4-1/2" Reg box
Inside magnet available:	yes/no	Yes
Mill shoes type B:	yes/no	Yes
Quantity:	no.	1
Make/type:		Bowen
For hole size:	in	
OD body:	in	6-1/4"
Connection type:		Top connection 4-1/2" Reg box
Inside magnet available:	yes/no	Yes
Mill shoes type B:	yes/no	Yes
Quantity:	no.	1
Make/type:		Bowen
For hole size:	in	
OD body:	in	5-1/8"
Connection type:		Top connection 3-1/2" IF box
Inside magnet available:	yes/no	Yes
Mill shoes type B:	yes/no	Yes



D.3.8 Junk Subs

Quantity:	no.	1
Make/type:		
For hole size:	in	12-1/4" Hole
OD body:	in	
Connection type:		6-5/8" Reg box x 6-5/8" Reg box

Quantity:	no.	2
Make/type:		
For hole size:	in	8-1/2" Hole
OD body:	in	

Connection type:		4-1/2" Reg box x 4-1/2" IF box
------------------	--	--------------------------------

Quantity:	no.	2
Make/type:		
For hole size:	in	6 5/8" Hole
OD body:	in	
Connection type:		3-1/2" Reg box x 3-1/2" IF box

D.3.9 Flat Bottom Junk Mill

12-1/4" hole 6-5/8" reg, 8-1/2" hole 4-1/2" API, 6" hole 3-1/2" API

D.3.10 Magnet Fishing Tools

Quantity:	no.	1
Make/type:		Bowen, Type K
OD body:	in	10" OD
Connection type:		6-5/8" Reg connection

Quantity:	no.	1
Make/type:		Bowen, Type K
OD body:	in	7" OD
Connection type:		4-1/2" IF connection

Quantity:	no.	1
Make/type:		Bowen, Type K
OD body:	in	5" OD
Connection type:		3-1/2" Reg connection

D.3.11 Taper Taps

Quantity:	no.	1
Make/type:		Bowen
OD (Max/Min):	in/in	1-3/8" to 2-3/8"
OD body:	in	3-3/8" OD
Length:	ft	37" long
Connection type:		2 7/8" IF Screw Connection



<p>Quantity: no. 1</p> <p>Make/type: Bowen</p> <p>OD (Max/Min): in/in 1-1/4" to 2-3/8"</p> <p>OD body: in 4-1/8" OD</p> <p>Length: ft 37" long</p> <p>Connection type: 2 7/8" IF Screw Connection</p>	<p>Quantity: no. 1</p>
<p>Make/type: Bowen</p> <p>OD (Max/Min): i 2-3/16" to 3-11/16"</p> <p>OD body: i 4-3/4" OD</p> <p>Length: f 37" long</p> <p>Connection type: 3 1/2" IF Screw Connection</p>	
<p>Quantity: no. 1</p> <p>Make/type: Bowen</p> <p>OD (Max/Min): in/in 3-1/4" to 4-3/4"</p> <p>OD body: in 6-1/8" OD</p> <p>Length: ft 37" long</p> <p>Connection type: 4 1/2" IF Screw Connection</p>	
<p>Quantity: Make/type: no. 1</p> <p>OD (Max/Min): in/in 3" to 4-3/4"</p> <p>OD body: in 7-3/4" OD</p> <p>Length: ft 37" long</p> <p>Connection type: 6 5/8" REG Connection</p>	
<p>Quantity: Make/type: no. 1</p> <p>OD (Max/Min): in/in 3" to 4-3/4"</p> <p>OD body: in 8" OD</p> <p>Length: ft 35" long</p> <p>Connection type: 6 5/8" REG Connection</p>	
<p>D.3.12 Die Collars</p> <p>D.3.13 Dressing Mill for Pipe Hung-off in BOP's</p> <p>D.3.14 Impression Blocks</p>	<p>1 X Bowen 8" OD impression block with 4-1/2" Reg pin top connection</p> <p>1 X Bowen 5-3/4" OD impression block with 3-1/2" Reg pin top connection.</p> <p>1 X Bowen 11 3/4" OD impression block with 6-5/8" Reg pin top connection</p>



D.3.15 Kangaroos

Qty.	1
Size	5 1/2"
Length	3.89Mtr

Qty.	1
Size	7 1/2"
Length	3.8Mtr

Qty.	1
Size	9 5/8"
Length	4.12Mtr

Qty.	1
Size	13 1/2"
Length	4.15Mtr



E. WELL CONTROL / SUBSEA EQUIPMENT

**E.1 LOWER RISER DIVERter ASSEMBLY
(used when drilling for the surface casing)**

E.1.1 Hydraulic Connector

Not Applicable

Size: in
 Make:
 Surface controlled hydraulic operated
 dump valves: no.
 Size: in

E.1.2 Flex Joint/Riser Adaptor

Flex joint
 Make/type:
 Size: in
 Max. deflection: degrees

Ball Joint,
 VETCO (GE) DR-1
 NOM24.0, 38" OD x 23" ID x 32.44
 30

Riser adaptor:
 Make/type:
 Size: in

Dril Quip
 21" , 19.62"

**E.2 PRIMARY BOP STACK
(from bottom to top)**

Stack complete with
 -guide frame: yes/no
 -pick up attachment yes/no
 -transport base: yes/no
 Size (bore): in

NO. Guidance on the Spider Beams
 Yes
 Yes. Skid Base (BOP Trolley)
 18-3/4"

Working pressure: psi
 H2S service: yes/no

10K
 Yes



E.2.1 Alternate Hydraulic Connector		
Alternate connector available:	yes/no	Yes
Connector make/model:		Vetco H4 16-3/4"-10K, Model ExF
Adaptor available:	yes/no	Yes
E.2.2 Hydraulic Wellhead Connector		
Size: Make/type:	in	18-3/4" Vetco H4 – 10K Model E
Working pressure:	psi	10K
Hot tap for underwater intervention:	yes/no	Has port for glycol injection, has ROV hot stab
Spare Connector same type:	yes/no	No
E.2.3 Ram Type Preventers		Dril Quip 15 K DX with VX Gasket prep.
Preventers:		
Quantity:	no.	4
Bore size:	in	18-3/4"
Working pressure:	psi	15,000 PSI
Make:		Hydril
Model:		Compact
Type (single/double):		2 Singles + 1 Double
Ram locks:	yes/no	Yes. Multiple Position Lock
Preventers connection type - top:		Studded
Preventers connection type - bottom:		Flanged
Side outlets:	yes/no	Yes
Size:	in	4-1/16"
Connection type:		API 15K Flange
Pipe rams:		
Quantity:	no.	1
Size:	in	5 1/2"
Blind/shear rams		
Quantity:	no.	1
Variable rams		
Quantity:	no.	1
Size range (min/max):	in/in	4-1/2" – 7"
Quantity:	no.	1
Size range (min/max):	in/in	3-1/2" x 5-7/8"



E.2.4 Stack Configuration (Blind/Shear/Pipe/Variable)		
Top rams: Upper rams: Middle rams: Lower rams:		Blind Shear Ram Variable Pipe Ram Fixed Pipe Ram Variable Pipe ram
Position of side outlets - kill:		
Upper: Lower:		Below BSR Below MPR
Position of side outlets-choke:		
Upper: Lower:		Below UPR Below LPR
E.2.5 Annular Type Preventer On Stack		No
Size:	in	
Working pressure:	psi	
Make/type:		
E.2.6 Mandrel		
Make/type:		18-3/4" 10K Drilquip DX mandrel with VX prep
Size:	in	18-3/4"
E.2.7 Fail-Safe Hydraulic Valves (Kill and Choke)		EEC
Quantity on each side outlet:	no.	2
Size (ID):	in	3-1/16"
Make/type:		EEC
Working pressure:	psi	10 K
Solid block:	yes/no	Yes (dual)
E.2.8 Subsea Accumulators (see also E.7.1.-Surface Accumulator Unit)		82x15gal and 4x40gal on Surface 15 gal= 5.3 gal / 40 gal = 17.33
Quantity:	no.	4 on LMRP + 4 on Lower Stack
Useful capacity per accumulator (w/o precharge):	U.S. gal	4x80 Gallons and 4x160 Gallons 80Gal = 29.33 / 160Gal
Bottle working pressure:	psi	6,000 psi



E.2.9 Hydraulic Control Pod / Receptacles		
Quantity:	no.	2
Redundancy:	%	100%
Color coded:	yes/no	Yes – Blue and Yellow
Remote regulation of operating pressure for functions requiring lower operating pressure:	yes/no	Yes
Spare control pod:	yes/no	Yes. 1 Green Pod
E.3 PRIMARY LOWER MARINE RISER PACKAGE (From Bottom to Top)		
E.3.1 Hydraulic Connector		
Make/type:		DrilQuip DX 18-3/4” 10K LMRP Connector with Vx Gasket prep.
Size:	in	18-3/4”
Working pressure:	psi	10K
Hot tap for underwater intervention:	yes/no	Yes.
Spare connector same type:	yes/no	No.
E.3.2 Annular Type Preventer (LMRP)		
Size:	in	Hydril GX 18-3/4”10K - Dual Annular c/w 2 x 3 -1/16”15K - BX 154 side outlets 18-3/4”
Working pressure:	psi	10 K
Make/type:		Hydril
E.3.3 Flex Joint		
Make/type:		Oil States
Size:	in	18-3/4”
Max deflection:	degrees	15
Make/type:		
Size:	in	18-3/4”
E.3.5 Connection Lines to Riser		
		Coflexip to kick-out subs on adaptor for Kill and Choke lines.



<p>Type (rigid loops, coflexip, etc.):</p>	<p>Rigid loops for hydraulic lines</p>
<p>E.4 SECONDARY BOP STACK (from bottom to top)</p>	<p>Not applicable</p>
<p>E.5 SEC. LOWER MARINE RISER PACKAGE (from Bottom to Top)</p>	<p>Not Applicable</p>
<p>E.6 PRIMARY MARINE RISER SYSTEM</p>	
<p>E.6.1 Marine Riser Joints</p>	
<p>Make/model:</p>	<p>Drilquip 21" OD FRC Flange Riser</p>
<p>OD: in</p>	<p>21"</p>
<p>ID: in</p>	<p>19.62"</p>
<p>Wall thickness: in</p>	<p>0.688"</p>
<p>Average length of each joint: ft</p>	<p>75 Feet</p>
<p>Weight of one complete joint (in air): lbs.</p>	<p>38,200 lbs</p>
<p>Quantity: no.</p>	<p>36 (with buoyancy modules)</p>
<p>Pipe material: grade</p>	<p>X80 API 5L</p>
<p>Minimum yield strength: psi</p>	
<p>Type riser connectors:</p>	<p>FRC Flange Riser,</p>
<p>Dogs: no.</p>	
<p>P/N #:</p>	<p>2-603707-75</p>
<p>Make/model:</p>	<p>Drilquip 21" OD FRC Flange Riser,</p>
<p>OD: in</p>	<p>21"</p>
<p>ID: in</p>	<p>19.75"</p>
<p>Wall thickness: in</p>	<p>0.625"</p>
<p>Average length of each joint: ft</p>	<p>75 feet</p>
<p>Weight of one complete joint (in air): lbs.</p>	<p>34,200 lbs</p>
<p>Quantity: no.</p>	<p>51 (with buoyancy modules)</p>
<p>Pipe material: grade</p>	<p>X80 API 5L</p>
<p>Minimum yield strength: psi</p>	
<p>Type riser connectors:</p>	<p>FRC Flange Riser,</p>
<p>Dogs: no.</p>	
<p>P/N #:</p>	<p>2-603704-75</p>
<p>Make/model:</p>	<p>Drilquip 21" OD FRC Flange Riser,</p>
<p>OD: in</p>	<p>21"</p>
<p>ID: in</p>	<p>19.62"</p>
<p>Wall thickness: in</p>	<p>0.688"</p>
<p>Average length of each joint: ft</p>	<p>75</p>
<p>Weight of one complete joint (in air): lbs</p>	<p>23,800 lbs</p>
<p>Quantity: no.</p>	<p>7 (without buoyancy)</p>



Pipe material:	grade	X80 API 5L
Minimum yield strength:	psi	
Type riser connectors:		FRC Flange Riser,
Dogs:	no.	
P/N #:		2-603708-75
Pup Joints:		
Quantity:	no.	1
Length:	ft	40 ft
Serial #:		
Quantity:	no.	1
Length:	ft	30 ft
Serial #:		
Quantity:	no.	1
Length:	ft	20 ft
Serial #:		
Quantity:	no.	1
Length:	ft	15ft
Serial #:		
Quantity:	no.	1
Length:	ft	10 ft
Serial #:		
Quantity:	no	1
Length:	ft	5 ft
E.6.2 Telescopic Joint		
Make/type:		DrilQuip Type FRC
Inner Barrel Size (OD):		21"
Outer Barrel Size (OD):		26"
Stroke:		55 ft
Wall Thickness		0.750
Grade		X80 API 5L
Double seals:	yes/no	Yes +
		EMERGENCY PACKER
Spare telescoping joint:	yes/no	Yes
Location:		Shore
Rotating support ring for riser tensioners:		Yes
type		
Connection points:		DrilQuip STR - 10 Pad eyes – 1600 Kips
E.6.3 Kill/Choke Lines		
Quantity:	no.	2
Outside diameter:	in	5.5"
Inside diameter:	in	4"



Working pressure:	psi	10K
E.6.4 Booster Lines (if Fitted)		
Quantity:	no.	1
Outside diameter:	in	4.5"
Inside diameter:	in	3.5"
Working pressure:	psi	5K
E.6.5 Hydraulic Supply Lines		
Quantity:	no.	2 + Hot line
Outside diameter:	in	3.5"
Inside diameter:	in	2.75"
Working pressure:	psi	5 K
E.6.6 Upper Ball (Flex) Joint		
Make/type:		Oil States 18-3/4" 3.5K ball joint
Size:	in	18-3/4
Maximum deflection:	deg.	15
Spare upper ball (flex) joint:	yes/no	No
E.6.7 Buoyancy Modules (if Fitted)		
Make:		Matrix
Quantity of buoyed riser joints:	no.	80 sets of buoyancy modules rated up to 6000 feet of water depth
E.6.8 Marine Riser Spider		
Make/type:		DrilQuip 49-1/2" ID Sliding Plates
E.6.9 Marine Riser Gimbal		
Make/type:		DrilQuip +/- 6deg consisting of 6 flex rubber elements
E.6.10 Riser Handling Tools		
Quantity:	no.	2
Type:		Hydraulic riser handling tool 6-5/8" full hole box up – 1500 Kips rated



Quantity:	no.	1 x Manual riser Handling tool.
Type:		
E.6.12 Instrumented Riser Joint		Not applicable.
E.6.13 Riser Floor/Fill System		
Quantity:	no.	1
Make:		Riser Auto Fill up Valve
Type:		FRC
Length:		9 ft
Automatic operation:	yes/no	Yes
Manual override:	yes/no	Yes
No. of inlet valves:	no.	4
Size of valves (ID):	in	Not applicable. Sliding sleeve.
E.7 SECONDARY MARINE RISER SYSTEM		
E.8 DIVERTER BOP (For installation in fixed bell nipple)		
Make/type: Max.		Regan KFDS
bore size: Working	in	49"
pressure:	psi	500 psi
Number of diverter outlets:	no.	4
Outlet OD:	in	1x12", 1x14" & 2x3"
Insert packer size ID:	in	10"
E.8.1 Diverter Flowlines		
Quantity:	no.	2
OD of flowlines:	in	12" & 14"
Running from diverter to:		12" Stab overboard and 14" to Port overboard and 14" to shakers
Valve types:		
Size:	in	14" & 12" x 2
Working pressure:	psi	ANSI Class 300 WP 720 PSI
Control valve type (air/hydraulic/etc.):		Hydraulic
Remote controlled from:	location	Drillers panel
	location	Tool Pusher's panel



E.8.2 Diverter Control Panels		
Driller's panel		
Make:		Cameron
Model:		
Location:		Driller's cabin - Rigfloor
Locking/unlocking control:	yes/no	Yes
Remote panel		
Make:		Cameron
Model:		
Location:		Tool Pusher's office
Locking/unlocking control:	yes/no	Yes
E.9 SUBSEA SUPPORT SYSTEM		
E.9.1 Riser Tensioners		
Quantity:	no.	4 x Dual Tensioners = 8
	no.	2 x Single Tensioners = 2
Make/type:		ControlFlow
Capacity each tensioner:	lbs	160K
Maximum stroke:	ft	12.5
Wireline size:	in	2-1/4"
Line travel:	ft	50 ft
Independent air compressors:	yes/no	Yes - 3
Independent air drying unit:	yes/no	Yes - 3
E.9.6 Tensioner/Compensator Air Pressure Vessels		
Quantity:	no.	46
Total capacity:	gals	14,227 Gallons
Rated working pressure:	psi	3500
Pressure relief valve installed:	yes/no	Yes
E.9.7 Tensioner/Compensator Air Driers		
Quantity:	no.	3
Make:		Zander
Model:		HDK-MT20-50
Rated capacity:	M ³ /Hr	230



E.9.8 Tensioner/Compensator Compressor		
Quantity:	no.	3
Make:		Comp Air
Model:		H5436MK2
Rated capacity:	cfm	75
Working Pressure:	psi	3600
Powered by:		Electric Motor
Make:		
Type:		
 E.10 BOP CONTROL SYSTEM		
 E.10.1 Surface Accumulator Unit (see also E.2.8 & E.4.8 - Subsea Accumulators)		
Make:		Cameron
Model/type:		
Location:		Stb Diverter Room
Soluble oil reservoir capacity:	U.S. gal	500 Gal
Oil/water mix capacity:	U.S. gal/min	1100 Gal
Glycol reservoir capacity:	U.S. gal	275 gal
No. of bottles installed:	no.	90
Useful capacity per accumulator (w/o pre-charge):	U.S. gal	1350 Gal
Bottle working pressure:	psi	3000 psi
Control manifold model:		
Regulator type:		MKR
Total useful accumulator volume (surface and stack) equals all preventer opening and closing volumes:	yes/no	Yes
 E.10.2 Accumulator Hydraulic Pumps		
Electric driven		
Quantity:	no.	3
Make:		FMC
Model:		Triplex
Each driven by motor of power:	hp	75 Hp
Flow rate of each pump:	LPM	133 LPM
At minimum operating pressure:	psi	3000 psi



E.11 SUBSEA CONTROL SYSTEM		
E.11.1 Hose Reels		
Quantity:	no.	2
Serial #		
Location:		Moon Pool
Make/type:		Plimsoll
Maximum storage length each:	ft	8,000 Ft x 1" Hose
E.11.2 Umbilical Cable (Mux)		
Location:		Moon Pool f 7150 ft
Length:		2
Quantity total:	no.	
Quantity spare (when new):	no.	1 spare 8000 feet Mux cable Complete with spare Drum
E.12 ACOUSTIC EMERGENCY BOP CONTROL SYSTEM		
Make/model:		Sonardyne/Cameron Hyd POD
Type (fixed/portable):		1 fixed unit + 1 portable unit
Number of functions:	no.	8 + 3 spare
Type of functions:		
LMRP connector release:	yes/no	Yes
Shear ram close:	yes/no	Yes
Other:		LPR close, WHC latch, EDS, Arm, Reset,
E.13 SUBSEA AUXILIARY EQUIPMENT		
E.13.1 Hole Position Indicator		
Make/type		Cameron
Quantity of monitors:	no.	2
Monitor location:		Sub Sea Office
Recorder:	yes/no	Yes
E.13.2 Riser Angle Indicator		
Make/type		
Quantity of monitors:	no.	2
Monitor location:		Tool pusher's office and Bridge
Recorder:	yes/no	Yes



E.13.3 Slope Indicators		
Make:		
Quantity:	no.	3
Provision for installation on BOP:	yes/no	Yes
Pin connector:	yes/no	Yes
Other:		Yes. Lower Flex joint
E.13.4 Underwater TV System		None
Make/type:		
Quantity of TV monitors:	no.	
Monitor location:		
Reels/cables for maximum water depth:		
TV frame type:		
Pan/tilt unit:	yes/no	
Spare camera:	yes/no	
Spare cable:	yes/no	
E.13.5 ROV System		Operator Supply
E.14 CHOKE MANIFOLD		
E.14.1 Choke Manifold (for instrumentation, see H.3)		
Make:		EEC
Minimum ID:	in	3-1/16"
Maximum WP:	psi	10,000
H2S service:	yes/no	Yes
Quantity of fixed chokes:	no.	Not Applicable
Make:		
Model:		
Size (ID):	in	
Quantity of adjustable chokes:	no.	2, Manual
Make:		EEC
Model:		Ultraflow Type XC2
Size (ID):	in	
Quantity of power chokes:	no.	2 Hydraulic operated
Make:		EEC
Model:		Ultraflow Type E-H2
Size (ID):	in	
Power choke remote control panel:	yes/no	Yes



Make: Model: Location Glycol injection: yes/no E.14.2 Flexible Choke & Kill Lines (Connecting riser to Drill Ship) Make/type: ID: in Working pressure: psi	EFC E-C DUAL CHOKE Driller's cabin Yes Choke, Kill & Booster Copperstate Copperstate 3" 10,000. Booster Hose 5,000
E.15 BOP TESTING EQUIPMENT	
E.15.1 Hydraulic BOP Test Pump Make: Model/type: Pressure rating: psi Chart recorder: yes/no	CAD 15K-S-H30-2 CAD15000 Yes 15,000 psi Yes
E.15.2 BOP Test Stump	
Quantity: no. Test pressure: psi Type: Size: in Connected to deck (welded/bolted):	1 15,000 PSI DrilQuip DX 18-3/4" Bolted on BOP Skid
Quantity: no. Test pressure: psi Type: Size: in Connected to deck (welded/bolted):	1 10,000 PSI DrilQuip DX 18-3/4" Bolted on LMRP Skid
E.16 WELLHEAD RUNNING / RETRIEVING/ TESTING TOOLS (RT/RRT/TT)	N.A



F. MUD SYSTEM/BULK SYSTEM	
F.1 HIGH PRESSURE MUD SYSTEM	
System working pressure:	psi 5000
System test pressure:	psi 7500
Built to which design pressure:	
F.1.1 Mud Pumps	
Quantity:	3 nos
Make:	National oilwell
Model:	12P-160
Type: (Triplex/Duplex):	Triplex
Serial Number:	
#1	1
#2	2
#3	3
#4	4 8P-80 Booster Pump
Type / Qty	Joliet / 7 Motors
Continuous Power Rating per motor:	1130 HP
Fluid end type:	National
Maximum Working Pressure:	5000 Psi
Test Pressure:	7500 Psi
Pump Stroke counter:	yes
Liner Sizes Available:	6-1/2" & 6" For 12P-160 & 6" For 8P-80
Discharge/suction Line ID:	5" / 10"
Working flow rate per pump at 90% of max spm:	2115 Ltr/min For 12P-160, 1276 Ltr/min For 8P-80
Liner Size:	in. 6-1/2" (For 12P-160)
Pump Speed (90% of max):	spm 108
Pump Pressure:	psi 3980
Working Flowrate @ 100% volumetric output: GPM	517 GPM
Liner Size:	in. 6" (For 8P-80)
Pump Speed (90% of max):	spm 108
Pump Pressure:	psi 2470



Working Flowrate @ 100% volumetric output: GPM	
Supercharging Pumps 8 X 6 Impeller: 14"	
Type:	Halco
Output:	
Model:	2500 Supreme
Serial Number:	
#1 Charging Pump 75 HP Motor	07611
#2 Charging Pump 75 HP Motor Serial No.	07605
#3 Charging Pump 75 HP Motor Serial No.	S 25837 – Mission Supreme C07T0048XW14
Reset Relief Valves	
Type:	Titan Class C Reset Relief Valve
Pump 1	Yes / No
Pump 2	Yes / No
Pump 3	Yes / No
Pump 4	Yes / No
Mixing pumps	
Quantity:	2
Make:	Halco
Model:	2500 Supreme
Type:	H84016002A0
Drive motor type:	
Power output:	100 HP
Pulsation Dampeners	4
F.1.3 Booster Pump	1 no (National 8P-80)
F.1.4 Standpipe Manifold	
Quantity of standpipes:	
Standpipes ID:	5"



H-Type Standpipe manifold:	yes/no	Yes
Kill line outlet:	yes/no	Yes
Fill-up/bleed-off line outlet:	yes/no	Yes
Outlets (total):		
Type connections:		5" Fig 1003 Female X 2" Fig 1502 Male
Dimensions OD x ID:	in x in	5" x 3" x 2"
Design standard:		7500
F. 1.5 Rotary Hoses		
Quantity:	no.	2
Make/type:		NRP-Jones
ID x length:	in x ft	3-1/2" x 85 ft long, 5000 PSI WP
Snubbing lines:	yes/no	Yes
Serial Numbers:		
F.1.6 Cementing Hose		
Type (coflexip, etc):		Make: Good all
Length:		60 ft long
ID:		3" ID
Working pressure:	psi	10 K Max W.P
F.1.7 Chiksans		
Integral on		Yes
Make/type		Chiksan
ID:		2"
Low Torque Valves		
Quantity:	no.	3



F.2 LOW PRESSURE MUD SYSTEM		
F.2.1 Mud Tanks		
Height:		
Capacity, tank No. 1 P:	M ³	82.0
Type (active/reserve):		Active
Capacity, tank No. 2 S:	M ³	82.0
Type (active/reserve):		Active
Capacity, tank No. 3 S:	M ³	55.0
Type (active/reserve):		Active
Capacity, tank No. 4 A S:	M ³	24.2
Type (active/reserve):		Mixing
Capacity, tank No. 4 B S:	M ³	15.4
Type (active/reserve):		Mixing
Capacity, tank No. 4 C S:	M ³	15.4
Type (active/reserve):		Mixing
Capacity, tank No. 6 P:	M ³	13.0
Type (active/reserve):		Active
Capacity, tank No. 7 S:	M ³	58.8
Type (active/reserve):		Active
Capacity, tank No. 8 P:	M ³	38.9
Type (active/reserve):		Active
Capacity, tank No. 9 MID:	M ³	24.8
Type (active/reserve):		Active
Capacity, tank No. 66P:	M ³	72.5
Type (active/reserve):		Reserve
Capacity, tank No. 67S:	M ³	72.5
Type (active/reserve):		Reserve
Capacity, tank No. 68 P (10):	M ³	72.5
Type (active/reserve):		Active
Capacity, tank No. 69 S (11)	M ³	72.5
Type (active/reserve):		Active
Capacity, tank No. 70 P (12) :	M ³	69.0
Type (active/reserve):		Active



Capacity, tank No. 71 S (13) :	M ³	72.5
Type (active/reserve):		Active
Capacity, tank No. 72 P (ST6):	M ³	12.6
Type (active/reserve):		Process mud
Capacity, tank No. 73 P (ST2):	M ³	13.5
Type (active/reserve):		Process mud
Capacity, tank No. 74 P (ST5):	M ³	16.0
Type (active/reserve):		Process mud
Capacity, tank No. 75 P (ST1):	M ³	13.5
Type (active/reserve):		Process mud
Capacity, tank No. 76 P (ST4):	M ³	16.0
Type (active/reserve):		Process Mud
Capacity, tank No. 77 P (ST3):	M ³	12.6
Type (active/reserve):		Process Mud
Capacity, tank No. 80 MID:	M ³	35.2
Type (Skimmer):		Skimmer
Total capacity:	M ³	960.40 M ³
F.2.3 Pill/Slug Tank / Chemical Mixing		
Capacity:	BBL	100 BBL No
Mud agitator:	yes/no	Yes
Mud guns:	yes/no	
F.2.4 Trip Tank		
Capacity:	m3	5.1 m3
Level indicator:	yes/no	Yes
Electric pump make:		Mission Magnum
Model/type:		4 x 3 x 13
Motor output:	hp	20 HP Yes
Facility for casing fill-up:	yes/no	
F.2.5 Stripping Tank		
Capacity:	bbl	10BBL
Equalizing facility with trip tank:	yes/no	No
Transfer pump:	yes/no	No
F.2.6 Chemical Mixing Tank		
Capacity:	bbl	Refer F 2.3
Chemical mixer type:		



F.2.7 Shale Shakers	
Primary:	4
Quantity: no.	Brandt NOV,
Make/model:	VSM 300
Type:	
Driven by no. of electric motors:	
Design flowrate (total): bbl/min	
Shale Shaker # 1	Brandt NOV,
Serial No.	VSM 300
Motor No.	2
Shale Shaker # 2	Brandt NOV,
Serial No.	VSM 300
Motor No.s	2
Shale Shaker # 3	Brandt NOV,
Serial No.	VSM 300
Motor No.s	2
Shale Shaker # 4	Brandt NOV,
Serial No.	VSM 300
Motor No.s	2
Shale	
Scalpers	VSM 300
Quantity:	NA
Serial No.	
F.2.8.0 Mud Cleaners	
Quantity:	1 (Brandt NOV)
Model No.	King cobra plus
Serial No.	166697330
F.2.8 Desander/Mud Cleaner	
Quantity: no.	1 (Included in mud conditioner)
Serial No.	
Make/model:	Brandt NOV
Type:	King cobra plus
Number of cones x size: no. x in	3 x 12" cones



Centrifugal pump type:		Halco Supreme 2500
Centrifugal pump size:	in x in	6x8x14
Driven by electric motor of:	hp	100 HP
Is pump dedicated to desander:	yes/no	Yes
Max. flowrate:	bbl/min	Capacity 1500 GPM @ 75 ft head pressure

F.2.9 Desilter/Mud Cleaner

Quantity:	no.	1
Serial No.		
Make/model:		Brandt NOV
Type:		
Number of cones x size:	no. x in	24 x 4" Hydroclone
Centrifugal pump type:		Halco 2500 Supreme
Centrifugal pump size:	in x in	6x8x14
Driven by electric motor of:		100 HP
Is pump dedicated to desander:	yes/no	
Max. flowrate:	bbl/min	Capacity 1500 GPM @ 75 ft head pressure

F.2.11 Mud/Gas Separator (Poor Boy)

Make/type:		Brandt NOV
Serial No.		
Gas discharge line ID:		8" Vent line
Gas discharge location, primary:		At top of vessel (Primary)
Can discharge be tied into burner system:		No
Mud seal height:	ft	Min 10 ft
Calculated gas throughput:		

F.2.12 Degasser

Make/type:		Brandt NOV, Type VG-1
Serial No.		
Agitators		1000 GPM
Location: Tank # 1P		
Manufacture:		Brandt NOV
Model/Type:		MA-30RG
Serial No.		



Motor Rating/Horsepower: Gear Ratio: Location: Tank # 2S Manufacture: Model/Type: Serial No. Motor Rating/Horsepower: Gear Ratio:	30 HP Brandt NOV MA-30 RG 30 HP
Location: Tank # 3S Manufacture: Model/Type: Serial No. Motor HP: Gear Ratio: Location: Tank # 4AS Manufacture: Model/Type: Serial No. Motor Rating/Horsepower: Gear Ratio: Location: Tank # 4BS Manufacture: Model/Type: Serial No. Motor Rating/Horsepower: Location: Tank # 4CS Manufacture: Model/Type: Serial No. Motor Rating/Horsepower: Location: Tank # 6P Manufacture: Model/Type: Serial No. Motor Rating/Horsepower: Gear Ratio: Location: Tank # 7S Manufacture: Model/Type: Serial No. Motor Rating/Horsepower: Location: Tank # 8P Manufacture: Model/Type: Serial No. Motor Rating/Horsepower:	Lightning 74Q15 15 HP Lighting 74Q15 15 HP Lighting 74Q15 15 HP Derrick DE-AG-10-H Derrick 10 HP Brandt-NOV MA-10 10 HP Brandt-NOV MA-15 15 HP Brandt-NOV MA-10 10HP



Location: Tank # 9MID Manufacture: Model/Type: Serial No. Motor Rating/Horsepower:	Brandt-NOV MA-10 10HP
Location: Tank 66 P Manufacture: Model/Type: Serial No. Motor Rating/Horsepower: Gear Ratio:	ITT Flygt- Submersible Agitator (will be replace by Brandt NOV MA 30 RG Agitator) 40 HP
Location: Tank 67S Manufacture: Model/Type: Serial No. Motor Rating/Horsepower: Gear Ratio:	ITT Flygt- Submersible Agitator (will be replace by Brandt NOV MA 30 RG Agitator) 40 HP
Location: Tank 68P (10) Manufacture: Model/Type: Serial No. Motor Rating/Horsepower: Gear Ratio:	Brandt NOV MA30RG 30 HP
Location: Tank 69S (11) Manufacture: Model/Type: Serial No. Motor Rating/Horsepower: Gear Ratio:	Brandt NOV MA 30RG 30 HP
Location: Tank 70P (12) Manufacture: Model/Type: Serial No. Motor Rating/Horsepower: Gear Ratio:	Brandt NOV MA30RG 30 HP



<p>Location: Tank 71S (13) Manufacture: Model/Type: Serial No. Motor Rating/Horsepower:</p> <p>F.2.14 Mud Centrifuge</p>	<p>Brandt-NOV 30RG 30 HP</p> <p>Provided by Client</p>
<p>F.2.15 Mud Hopper</p> <p>Make/model: no.</p> <p>Mixing Pumps no.</p> <p>F.2.16 Mud Laboratory and Facilities</p> <p>Separate room: Equipped with</p> <p>F.3 BULK SYSTEM</p> <p>F.3.1 Barite/Bentonite Silos</p> <p>Quantity: no.</p> <p>Capacity of each silo: cu ft</p> <p>Locations: Manufacturer: Pressure rating: Barg Relief valve(s) installed: yes/no Serial No.</p> <p>F.3.2 Cement Silos</p> <p>Quantity: no.</p> <p>Capacity of each silo: cu ft</p> <p>Locations: Manufacturer: Pressure rating: Relief valve(s) installed: Separate mud/cement loading facilities: Discharge line for cement independent from barite/bentonite discharge line:</p>	<p>2 1 LP Venturi type & 1 Vortex venture shear hopper 2</p> <p>Client provided</p> <p>Yes</p> <p>5</p> <p>4 nos for Baryte & 3nos of Bentonite @ 43 Cum</p> <p>3 Bar Yes (Rupture Discs)</p> <p>9 5 @ 43 Cum & 4 @ 22 Cum</p> <p>3 Bar Rupture Disc Yes Yes</p>



F.3.3 Surge Tank for Baryte / Bentonite		no. cu ft	1 2.04 m3
Capacity of each silo:			Sack Room
Locations:			Capacity 5000 Kg
Type weight loadcell:			MD Totco
Manufacturer:			
Pressure rating:		psi	
Relief valve(s) installed:		yes/n	Yes
Serial No.			10255957
F.3.4 Surge Tank for Cement			
Quantity:		no.	1
Capacity of each tank:		cu ft	2.04 m3
Type weight loadcell:			Capacity 5000 Kg
Manufacturer:			MD Totco
Pressure rating:		psi	
Relief valve(s) installed:		yes/no	Yes
Serial No.			10255959
F.3.5 Bulk Transfer System			
(see also C.1.8 - Compressed Air Systems)			
Independent air system for the silos and surgetanks consisting of a high-volume low-pressure compressor and			Automatic panel to control electric solenoid air actuated butterfly valves to all silo discharge outlets. Low pressure air is provided from the rig air system. Bentonite and Barite bulk tanks are interchangeable.
air dryer :yes/no			
Air reduced from main air supply through pressure regulators:		yes/no	Yes
Separate volume tank and drier:		yes/no	Tank (yes), Drier (No)



G. CASING/CEMENTING EQUIPMENT		
G.1 CASING EQUIPMENT		
G.1.1 API Casing Drifts		
For casing OD, weight, quantity: in/lbs./ft/no.		1 X Rig fabricated for each of following sizes: 13-3/8", 9-5/8", 7" & 4-1/2"
G.1.2 Clamp-On Type Casing Thread Protect		
For casing OD, quantity:	in/no.	2 nos – For 20" casing
For casing OD, quantity:	in/no.	2 nos – For 13-3/8" casing
For casing OD, quantity:	in/no.	2 nos – For 9-5/8" casing
For casing OD, quantity:	in/no.	2 nos – For 7" casing
For casing OD, quantity:	in/no.	2 nos – For 4-1/2" casing
G.1.3 Side Door Casing Elevator		2 nos each for the following casing sizes 30", 20", 13-3/8", 9-5/8" & 7"
Quantity:	no.	Varco
For OD casing:	in	30" (150 T), 20" (250 T), 13-3/8" & 9-5/8" (350 T), 7" (150 T)
Make/type:		
Capacity:	st	1 no. each for the following casing sizes 16", 14", 13-5/8", 13-3/8", 10-3/4" & 3-1/2"
G.1.4 Single Joint Casing Elevators		Varco
Quantity:	no.	16" (250 T), 14" (250 T), 13-5/8" & 13-3/8" (250 T), 3-1/2" (100 T)
For OD casing:	in	2 nos each for the following casing sizes 30", 20", 16", 14", 13-5/8", 13-3/8" & 10-3/4"
Make/type		3 nos each 9-5/8"
Safety latches:	yes/no	
Wire rope size:	in	1 no each for the following casing sizes 7" (5t), 7" (15t), 5-1/2"- 7-5/8" & 5' DP
Swivel size:		Varco
G.1.5 Slip Type Elevator/Spiders		Yes
Quantity:	no.	
Make/type:		
Capacity:	st	Client Provided
W/slips for OD casing sizes:	in	
G.1.6 Casing Slips		
Quantity:	no.	8



<p>Make/type: For OD casing: in</p>	<p>Varco 2 nos each for the following casing sizes 20", 13-3/8", 9-5/8" & 7"</p>
<p>G.1.7 Casing Bowls</p> <p>Quantity: no. Make/type: For OD casing (max/min): in/in</p>	<p>Client Provided</p>
<p>G.1.8 Casing Tongs</p> <p>Quantity (sets): no. Make/type: W/jaws for OD casing (max/min): in/in Lever Rated Capacity ft/lbs</p>	<p>2 14" Casing Hydraulic Power Tong. Eckel International Inc, Capacity Pipe Od 4 - 14 Inch Gear Ratio- High 26.29:1 Low 95.23:1</p>
<p>G.1.9 Power Casing Tongs</p> <p>Quantity: no. Make/type: W/jaws for OD casing (max/min): in/in Max output torque: ft lbs. Torque indicator: yes/no Back-up arm: yes/n</p>	<p>Same as above</p>
<p>G.1.10 Power Unit for Casing & Tubing Tongs</p> <p>Quantity: no. Driven by electric motor: yes/no</p>	<p>2 Yes</p>



G.1.11 Casing Circulating Head (Swedge)		
Size	Connection	14" Circulating Head
	Qty.	14" BTC x 2" Fig 1502
		1
	Size	13-3/8" Circulating Head
	Connection	13-5/8 BTC X 2" Fig 1502
	Qty.	1
	Size	13-3/8" Circulating Head
	Connection	13-3/8 BTC x 2" Fig 1502
	Qty.	1
	Size	10-3/4" Circulating Head
	Connection	10-3/4 BTC x 2" Fig 1502
	Qty.	1
	Size	9-5/8" Circulating Head
	Connection	9-5/8 BTC x 2" Fig 1502
	Qty.	1
	Size	7" Circulating Head
	Connection	7" BTC x 2" Fig 1502
	Qty.	1
G.1.12 Casing Spears (Internal)		Client Provided
Quantity:	no.	
Make/type:		
For OD casing:	in	
For casing weight:	lbs./ft	
Pack-off:	yes/no	
G.1.13 Casing Cutters (Internal)		Client Provided
Quantity:	no.	
Make/type:		
For OD casing (max/min):	in/in	
G.1.14 Crossover to Handle Casing with DP		Client Provided
Quantity:	no.	



For OD casing:	in	
Casing connection:		
Drill pipe connection type:		
Rated capacity:	st	
G.1.15 Casing Scrapers		Client Provided
Quantity:	no.	
Make:		
For OD casing:	in	
For casing weight:	lbs./ft	
OD body:	in	
Connection type:		
G.2 CEMENTING EQUIPMENT		
G.2.1 Cement Unit		Client provided



H. INSTRUMENTATION/COMMUNICATION	
H.1 DRILLING INSTRUMENTATION AT DRILLER'S POSITION	
H.1.1 Weight Indicator	
Make/type:	Martin decker, Type E
Calibrated for number of lines strung (6,8,10, 12, etc): no.	
H.1.2 Standpipe Pressure	
Make/type:	RB Pipetech
Pressure range (gauge): psi - psi	5000
H.1.3 Choke Manifold Pressure	
Make/type:	EEC
Pressure range: psi	10000, H2S Service
H.1.4 Rotary Speed Tachometer	
Make/type:	Incorporated CVT Drilling Instrumentation
H.1.5 Rotary Torque Indicator	
Make/type:	Incorporated CVT Drilling Instrumentation
H.1.6 Motion Compensator Instruments	
Make/type:	Yes
Stroke position indicator: yes/no	Yes (Hydraulic Lock)
Lock/unlock indicator: yes/no	
H.1.7 Pump Stroke Counters	
Make/type:	Incorporated CVT Drilling Instrumentation
One pump stroke indicator and one cumulative pump stroke counter for each pump: yes/no	



<p>H.1.8 Tong Torque Indicator</p> <p>Make/type:</p>	<p>Incorporated CVT Drilling Instrumentation</p>
<p>H.1.9 Pit Volume Totalizer</p> <p>Make/model:</p> <p>Floats in active mud tanks: yes/no</p> <p>Floats in reserve mud tanks: yes/no</p> <p>Loss/Gain indicator: yes/no</p> <p>Alarm (audio and visual): yes/no</p>	<p>Incorporated CVT Drilling Instrumentation</p> <p>Yes</p> <p>Yes</p>
<p>H.1.10 Mud Flow Indicator</p> <p>Make/model:</p> <p>High/low alarm (audio and visual):yes/no</p>	<p>Incorporated CVT Drilling Instrumentation</p>
<p>H.1.11 Trip Tank Indicator</p> <p>Make/model:</p> <p>Chart recorder: yes/no</p> <p>Alarm: yes/no</p>	<p>Incorporated CVT Drilling Instrumentation</p>
<p>H.1.12 General Alarm System yes/no</p>	<p>Yes</p>
<p>H.1.13 Automatic Driller</p> <p>Make/type:</p>	<p>CVT</p>
<p>H.1.14 Remote Choke Control Unit (see E.14.1)</p> <p>Make/model:</p>	
<p>H.2 DRILLING PARAMETER RECORDER</p> <p>Make/type:</p> <p>Quantity: no.</p> <p>Location:</p>	<p>C V T</p>



H.3 INSTRUMENTATION AT CHOKE MANIFOLD		
H.3.1 Standpipe Pressure Gauge		
Make/type:		Scan Sense
Pressure range (maximum):	psi	10000
H.3.2 Choke Manifold Pressure Gauge		
Make/type		Wadeco Inc. Houston.
Pressure range (maximum)	psi	10000
H.3.1 and H.3.2 combined on one panel:yes/n		
Visible from choke operation position: yes/n		
H.4 STANDPIPE PRESSURE GAUGE		
Make/type:		Scan Sense
Pressure range:	psi	10000 psi
Visible from driller's position:	yes/no	Yes
H.5 DEVIATION EQUIPMENT		
H.5.1 Measuring Device		
Quantity:	no.	1 complete set
Make/type:		MD Totco
Deviation range:	degree	8 deg & 16 Deg Chart recorder
H.5.2 Wireline Winch		
Make/model:		Mathey style "wire line Retriver"
Wire length (nominal):	ft	15000
Depth counter:	yes/no	Yes
Wire size:	in	0.092
Pull indicator:	lbs.	
H.6 CALIBRATED PRESSURE GAUGES		
Make/type instrument gauges:		
Facilities to install gauges on:		
Standpipe manifold:	yes/no	yes
Choke manifold:	yes/no	yes
Cement unit:	yes/no	Yes



H.7 DRILL SHIP COMMUNICATION SYSTEM	
H.7.1 Telephone System	
No. of stations:	no. 98
Make/type:	VODAVI XTS-IP
Explosion proof:	yes/no
H.7.2 Public Address System	
Can be combined with above:	yes/no Yes
Make/type:	VODEC VA300
Explosion proof:	yes/no
H.7.3 Drill Floor - Derrickman's Talkback (For Intercom System)	
No. of stations:	no. 20
Location:	Drillers Cabin, Tool pusher Office
Location:	Company Man Office,
Location:	Site Manager Office
Location:	Captain's Office,
Location:	Drill Floor, Upper Racking Cabin,
Location:	Lower Racking Cabin, Shale Shaker
Location:	BOP Winches, ,
Location:	Moonpool, Cement Unit
Location:	ROV Station, Pump Rm
Location:	Mud Lab, Bulk Control
Location:	Sack Store,
Location:	Steering Gear Rm., ECR,
Location:	Propulsion Rm.,
Make/type:	INTRON-D 19'
Explosion proof:	yes/no No
H.7.4 Hand-Held VHF / UHF Radios	
Quantity:	no. 8 x UHF + 8 x Marine VHF
Make/type:	Motorola (Intrinsically safe)
Quantity:	no.
Make/type:	
H.8 ENVIRONMENTAL INSTRUMENTATION	
H.8.1 Temperature Indicators	



Air temperature:	yes/no	Yes
Make/model:		
Sea water temperature:	yes/no	Yes
Make/model:		
Recorder:	yes/no	Yes
H.8.2 Barometric Pressure Indicator		
Make/model:		
Recorder:	yes/no	Yes
Make/model:		
Recorder:	yes/no	Yes
H.8.3 Humidity Sensing Indicator		
Make/model:		
Recorder:	yes/no	Yes
H.8.4 Wind Speed/Direction Meter		
Make/model:		Wind Tracker
Recorder:	yes/no	Yes
H.8.5 Wave Profile Recorder		
Make/model:		
Recorder:	yes/no	yes
H.9 ADDITIONAL MODU SPECIFIC INSTRUMENTATION		
H.9.1 Voyage Data Recorder		
Make/model:		Totem Plus VDR, Type VDR 1.2. Danelec Marine DM200 Type S-VDR S/N: A06971-001239
Recorder:	yes/no	Yes. Protective Capsule PMC 1.1
Serial No.:		A07121-001144
H.9.2 Gyro Compass		
Make/model:		Raytheon Anschutz Gmbh
Located at:		Electronic Workshop



Serial No.:		
H.9.3 Echo Sounder		
Make/model:		Elac lag, 5100 IMO type
Located at:		Chart Room
Recorder:	yes/no	yes
Serial No.:		D-24024
H.9.4 Speed log		
Make/model:		Furuno, Model DS-80
Located at:		Navigation Bridge
Recorder:	yes/no	
H.9.5 Weather Facsimile Recorder		
Make/model:		Furuno, FAX-408
Located at:		Chart Room
Recorder:	yes/no	yes
H.9.6 Radar		
Quantity:	no.	1
Make/model:		Furuno FAR 2827 X-Band radar
Located at:		Navigation Bridge
Bandwidth:	cm	
Serial No.:		
Quantity:	no.	1
Make/model:		Furuno FAR 2837 S-Band radar
Located at:		Navigation Bridge
Bandwidth:	cm	
Serial No.:		
H.10 RADIO EQUIPMENT		
Location:		Bridge and Communications Room
H.10.1 MF/HF Radio SSB		
Quantity:	no.	2 Nos
Make/model:		Sailor – RE 2100
Power:	watts	600
Frequency range:	kHz - MHz	(1.6 - 30 Mhz)



(Synthesized/crystal):		
Facsimile capable:	yes/no	Weather Fax, Make Furuno, Fax 408
Telex capable:	yes/no	yes – NBD Radio telex
Serial No.		913200142
 H.10.2 E.P.I.R.B.'s		
Quantity:	no.	1
Make/model:		Jotron, Tron 60S
Serial No.		11933
 H.10.3 VHF Radio Telephone		
Quantity:	no.	2
Make/model:		Sailor – RT 2048
Power:	watts	25 W
Channels:		159 – 163.75 MHz
Serial No.		571861 & 7930785
 Quantity:	 no.	 3
Make/model:		Sailor VHF/DSC – RT 5022 & RM2042
Power:	watts	25 W
Channels:		156 – 163 MHz
Serial No.		7888154 & 7888136 & 572051
 H.10.5 Radio Beacon Transmitter		
Quantity:	no.	1
Make/model:		Southern Avionics – SA 100
Power:	watts	100 W
Frequency:		190 – 535 KHz
Serial No.		
 H.10.6 Aeronautical VHF Transceiver		
Quantity:	no.	1
Make/model:		DX RADIO SYSTEM 9800TX
Power:	watts	7 W



Frequency range: (Synthesized/crystal):	Hz - MHz	118 – 136.975 MHz
Serial No.		97-320
Quantity:	no.	1
Make/model:		JOTRON TR 810
Power:	watts	5.0 / 1.5 W
Frequency range:	Hz - MHz	118 – 136.975 MHz
Serial No.:		
H.10.7 Watch Receiver		
Quantity:	no.	1
Make/model		Sailor 6301
Frequency:	kHz	1622 – 2157 Khz
Location:		Radio Room
Serial No.:		913200142
H.10.8 Scrambler		
Quantity:	no.	N.A
Make/model:		
H.10.9 Radio Telex - NBD		
Quantity:	no.	1
Make/model:		Sailor - 6006
H.10.10 Satellite Communication System		
Make/model:		Furuno / FELCOM 70 & Sailor / FBB
Type:		SF-270 & TT3606E & TT3738A
Facsimile link:	yes/no	Yes
Telex link:	yes/no	
Telephone link:	yes/no	Yes
Other capabilities:		Data Tx
Serial No.:		3540-1501, 7879348 & 10447322
Make/model:		
Type:		
Facsimile link:	yes/no	No
Telex link:	yes/no	
Telephone link:	yes/no	No
Other capabilities:		
Serial No.:		



H.10.11

Helideck Monitoring System

1 x Interface - Converteam Wind Speed and Direction (NMEA / RS 232/422/485)

1 x Interface - Gyro to measure the vessels heading in order to correct wind direction

signals to due North (RS 232).

1 x Interface - GPS to measure the vessel position

1 x Interface - Converteam VRU to measure and record pitch, roll and heave (RS422/485).

1 x Combined Air Temperature and Air Humidity and Barometric Pressure Sensor

This includes

· Air inlet unit to give static air pressure according to the Meteorological Standard as

well as radiation shield.

· Vaisala Model PTU303 with digital output.

· Range of 500 to 1100 hPa.

· Accuracy +/- 0.05% FS

**I. PRODUCTION TEST EQUIPMENT****I.1 BURNERS**

Client Provided

Make/type:

Quantity: no.

Capacity: bbl/day

Weight:

Water requirement at 100 psi: bbl/min

I.2 BURNER BOOMS

Make/type:

IPS

Quantity: no.

1

Length:

80

Horizontal: yes/no

No

Height above sea level (at drilling draft):

11.5

Maximum wind speed: knots

Walkway and handrails: yes/no

yes

Burner platform size: mtr x mtr

2 each (2.43 m x 0.7 m)

Burner mounting rotatable: yes/no

yes

Regulatory approvals:

Yes. DNV

I.3 LINES REQUIRED ON BURNER BOOMS**I.3.1 Oil Line**

ID: in

4 Inch

Working pressure: psi

Connection type at burner end: type

Hammer Union

H2S: yes/no

Pressure gauge connection at barge end:

I.3.2 Gas Line

ID: in

4 Inch

Working pressure: psi

Extended beyond burner by: ft

Connection type at burner end: type

H2S: yes/no

Pressure gauge connection at barge end:

I.3.3 Water Line

ID: in

2"



<p>Working Pressure: psi Connection type at burner end: type Pressure gauge connection at barge end:</p> <p>I.3.4 Air Line</p> <p>ID: in 1" Working Pressure: psi Connection type at burner end: type Pressure gauge connection at barge end:</p> <p>I.3.5 Pilot Gasoline</p> <p>ID: in Working Pressure: psi Connection type at burner end: type Pressure gauge connection at barge end:</p> <p>I.4 SPRINKLER SYSTEM</p> <p>Sufficient to give protection to rig and personnel against heat radiation damage from the burners: yes/no Yes</p> <p>I.5 FIXED LINES FOR WELL TESTING</p> <p>I.5.1 Drill floor to Separator Area</p> <p>Type (screwed/welded, both): Quantity: no. 1 Size ID: 4" Working pressure: psi Connection type on drill floor: UNION FIG1502 Connection type at separator: UNION FIG1502 Number of valves/lines: no. Size of valves: in H2S: yes/no</p> <p>I.5.2 Separator Area to Each Burner Boom</p> <p>Type (screwed/welded, both): Quantity: no. 5 Size ID: 2"(2Nos.) & 3"(3Nos.) Working pressure: psi Connection type on separator: UNION</p>	
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<p>Connection type at boom: type</p> <p>Number of valves/lines: no.</p> <p>Size of valves: in</p> <p>H2S: yes/no</p> <p>Valves installed near separator area for switching gas to either burner: yes/no</p> <p>I.5.3 Mud Pumps to Both Burner Booms</p> <p>Type (screwed/welded, both):</p> <p>Quantity: no.</p> <p>Size ID:</p> <p>Working pressure: psi</p> <p>Number of valves required: no.</p> <p>Size of valves: in</p> <p>Connected to fire fighting pumps: yes/no</p> <p>Rated line capacity at 300 psi: bbl/hr</p> <p>I.5.4 Rig Air System to Burners</p> <p>Type (screwed/welded, both):</p> <p>Quantity: no.</p> <p>Size ID:</p> <p>Working pressure: psi</p> <p>Non-return valves fitted: yes/no</p> <p>I.5.5 Oil Storage Tank To Overboard</p> <p>Type (screwed / welded, both):</p> <p>Quantity: no.</p> <p>Size ID:</p> <p>Working pressure: psi</p> <p>Height above water level: ft</p> <p>Connection type at separator area:type</p> <p>I.5.6 Separator to Ventstack of Drill ship</p> <p>Type (screwed/welded, both):</p> <p>Quantity: no.</p> <p>Size ID:</p> <p>Working pressure: psi</p> <p>Connection type at separator area:type</p>	<p>UNION</p> <p>5</p> <p>2"(2Nos.) & 3"(3Nos.)</p> <p>No</p> <p>1</p> <p>4"</p> <p>psi</p> <p>no.</p> <p>in</p> <p>yes</p> <p>bbl/hr</p> <p>1</p> <p>1"</p> <p>psi</p> <p>yes/no</p> <p>120</p> <p>no</p> <p>1</p> <p>2"</p> <p>psi</p> <p>ft</p> <p>Flange</p> <p>1</p> <p>no.</p> <p>psi</p> <p>psi</p> <p>psi</p>
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I.6 AUXILIARY POWER AVAILABILITY

I.6.1 For Field Laboratory

Quantity:	kw	
Volts:	v	460 / 220V
Frequency:	Hz	60

I.6.2 For Crude Transfer Pump

Quantity:	kw	
Volts:	v	460 / 220 V
Frequency:	Hz	60

I.6.3 For Electric Heaters

Quantity:	no.	
Volts:	v	460 / 220 V
Frequency:	Hz	60



K. ACCOMMODATIONS

K.1 OFFICES

Equipped with Air conditioned space for 136 personnel

K.1.1 Operator Representative's Office

Quantity:	no.	1
Complete with desk, filing cabinets (s) and other necessary furniture:	yes/no	Yes
Unrestricted view to drill floor:	yes/no	Yes

K.1.2 Contractor's Representative's Office

Quantity:	no.	1
Unrestricted view to drill floor:	yes/no	

K.1.3 Radio Room

Quantity:	no.	1
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K.1.4 Hospital Room

Number of beds/bunks:	no.	1
Wash basin:	yes/no	Yes
Medical cabinet:	yes/no	Yes
Dangerous drugs:	yes/no	

K.2 LIVING QUARTERS

K.2.1 Accommodations

Total beds:	no.	136
Quantity of single bed rooms:	no.	2
toilets (private/shared/communal):		private
Quantity of two bed rooms:	no.	19
toilets (private/shared/communal):		private
Quantity of four bed rooms:	no.	24
toilets (private/shared/communal):		private



K.2.2 Galley

Quantity:	no.	1
K.2.3 Mess Seating Capacity		
Main mess:	no.	58
K.2.4 Meeting Rooms		
Quantity:	no.	1
K.2.5 Recreation Rooms		
Quantity:	no.	
Recreation facilities		
TV:	no.	Yes
VCR:	no.	
Pool Table:		
Ping Pong Table:	no.	
Computer:		Yes
Other:		
K.2.6 Other Rooms		
Laundry:	no.	2
Dry food storage:	no.	2
Refrigerator:		2
Change rooms:	no.	1
Workout Room:	no.	
Sauna:		
Non-Smoking Break Room:	no.	1
Smoking Break Room:	no.	
K.2.7 Gym		
Quantity:	no.	1
K.2.8 Conference Room		
Quantity:	no.	



L. SAFETY EQUIPMENT

L.1 GENERAL SAFETY EQUIPMENT

L.1.1 General Personnel Protective Gear
Safety hats (contractor only/everyone/not supplied):

Will be provided

Safety boots (contractor only/everyone/not supplied):

Will be provided

Safety clothing (contractor only/everyone/not supplied):

Will be provided

Ear protection (contractor only/everyone/not supplied):

Will be provided

Rubber gloves (contractor only/everyone/not supplied):

Will be provided

Rubber aprons (contractor only/everyone/not supplied):

Will be provided

Fullface visors (contractor only/everyone/not supplied):

Will be provided

Eye shields (for grinding machines, etc.) (contractor only/everyone/not supplied):

Will be provided

Dust masks: (contractor only/everyone/not supplied):

Will be provided

Rubber gloves - elbow length for chemical handling

Will be provided

(contractor only/everyone/not supplied):

Explosion proof handtorches c/w batteries (contractor only/everyone/not supplied):

Will be provided

Safety belts c/w lines

Will be provided

(contractor only/everyone/not supplied):

L.1.2 Eye Wash Stations

Quantity:

5

Make/model:

Located at:

Sack room, Pump room, Cementing unit, Drill Floor, Shale Shaker.

Located at:

Located at:

Quantity: Make/model

Location:



<p>L.2.2 Combustible Gas Monitoring System</p> <p>Make/type:</p> <p>Sampling points at:</p> <p>Bellnipple:</p> <p>Drill floor: yes/no</p> <p>Shale shaker: yes/no</p> <p>Mud tanks: yes/no</p> <p>Ventilation system into living quarters</p> <p>Other:</p> <p>General alarm: yes/no</p> <p>Alarm types (audible, visual, both) at Driller's console:</p> <p>Other:</p>	<p>Detcon Model FP 524 C Combustible gas sensors</p> <p>yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p>
<p>L.2.3 H2S Detectors (Portable)</p> <p>Quantity: no.</p> <p>Make/type:</p> <p>L.2.4 CO2 Gas Detectors (Portable)</p> <p>Quantity: no.</p> <p>Make/type:</p> <p>Phials for CO2: measuring range</p> <p>From 20 to 200 ppm: no.</p> <p>From 100 to 600 ppm: no.</p>	<p>4 - BW Microclip XL x 2 / BW Max XT II x 1 GasClip MGC Simple x 1</p> <p>2</p>
<p>L.2.5 Explosimeters</p> <p>Quantity: no.</p> <p>Make/type:</p>	<p>3 - BW Microclip XL x 2 / BW Max XT II x 1</p>
<p>L.2.6 Fire/Smoke Detectors in Accommodation</p> <p>Make/type:</p> <p>Fire detection: yes/no</p> <p>Smoke detection: yes/no</p> <p>Central alarm panel: yes/no</p> <p>Location:</p>	<p>Autronica, BS-320 (BHH-300 & BDH-300)</p> <p>Yes</p> <p>Yes</p> <p>Yes</p>



L.3 FIRE FIGHTING EQUIPMENT		
L.3.1 Fire Pumps		
Quantity:	no.	2 + 2
Make/model:		Hamworthy
Type:		CGC-125-V48-AAN-EHD – 2 Ea CGA-65-V-48-AAN – 2 Ea
Output (each):		190 m3 & 70 m3 respectively
M ³ / Hour		
All offtake points supplied by each pump:		Yes
yes/no		
Location of pumps:		Prop. Room, Fwd Thruster Room, Main Deck
Jockey Fire Pump		
Quantity:		1
Make/ Model:-		Lowara/ 3SV11N0226T/D
Output:-		1.4- 5.2 m3/h
Fire fighting water delivery conforms to		
IMO MODU Spec:	yes/no	
IMO MODU Spec Version:		yes
Quantity:	no.	
Make/model:		
Type:		
Output (each):	US Gal/min	
All offtake points supplied by each pump:		
yes/no		
Location of pumps:		
Fire fighting water delivery conforms to		
IMO MODU Spec:	yes/no	
IMO MODU Spec Version:		yes
L.3.2 Hydrants and Hoses		
Hydrants positioned such that any point may be reached by a single hose length from two separate hydrants:	yes/no	Yes
Quantity of hydrants:	no.	57
Hose connections/hydrant:	no.	57
Hose max. diam.:	in	2"
Length:		60 ft
L.3.3 Portable Fire Extinguishers		
Quantity (total):	no.	149 Nos
Type 1 - CO2:	no./lbs.	Portable – 26 Nos CO2 (9 & 6 & 4.5 Kgs)



<p>Type 2 - Dry chemical:</p>	<p>no./lbs. no./lbs. no./lbs. no./lbs. no./lbs. no./lbs. no./lbs.</p>	<p>Dry chemical powder – 110 Nos 8 x 45 Kgs + 100 x 9 Kgs + 2 x 20 Kgs Water – nil Nos Foam – Semi portable & Portable – 13 Nos 4 x 45 Liters + 9 x 9 Liters</p>
<p>Mounted adjacent to access ways and escape routes:</p>	<p>yes/no</p>	
<p>L.3.4 Fire Blankets</p>		
<p>Location:</p>		<p>Fireman’s Crash Kit, Galley</p>
<p>Location:</p>		
<p>Location:</p>		
<p>Location:</p>		
<p>Location:</p>		
<p>Quantity:</p>	<p>no.</p>	<p>2</p>
<p>L.3.5 Fixed Foam System</p>		
<p>Automatically injected into fixed fire water system at central point with remote manual control:</p>	<p>yes/no</p>	<p>Yes</p>
<p>Make/type:</p>		<p>1,000 Liters (2 x 400 liters in 2 tanks) + 200 liters in Jerrycans</p>
<p>Quantity foam stored on site:</p>	<p>ft3</p>	<p>yes</p>
<p>Inductor tube:</p>	<p>yes/no</p>	<p>Foam applicators – 3 Nos</p>
<p>Foam nozzles:</p>	<p>no.</p>	<p>Helideck locker x 2 pcs</p>
<p>Located at:</p>		<p>Fwd Fire station x 1 pc</p>
<p>Located at:</p>		
<p>L.3.6 Helideck Foam System</p>		
<p>Dedicated system adequate for at least 10 minutes fire fighting at the rate quoted in the IMO MODU code:</p>	<p>yes/no</p>	<p>Yes</p>
<p>IMO MIDU code version:</p>		
<p>Make/type:</p>		
<p>Quantity of monitors:</p>	<p>no.</p>	<p>3</p>



<p>Foam type: Rate: U.S. gals/min</p> <p>L.3.7 Fixed Fire Extinguishing System</p> <p>Protected spaces Engine room, type (Halon/CO2): Paint locker, type (Halon/CO2): Emergency generator, type (Halon/CO2): SCR room, type (Halon/CO2): Other - location: Type: Alarms (audible, visual or both): Automatic shutting of mechanical ventilation in protected spaces: yes/no Remote manual release located at: Remote manual release located at: Remote manual release located at: Remote manual release located at: Remote manual release located at: Remote manual release located at:</p> <p>L.3.8 Manual Water Deluge System yes/no</p> <p>Protected spaces: Protected spaces:</p> <p>Water supplied from fire main line: yes/no</p> <p>L.3.9 Water Sprinkler System in Accommodation</p> <p>Automatic: yes/no Working pressure: psi Pressurized tank capacity: ft3</p> <p>L.4 BREATHING APPARATUS</p> <p>L.4.1 General Sets</p> <p>Quantity: no.</p>	<p>AFFF – for 15 minutes 3,700 l/min @ 10 bars</p> <p>CO2 CO2 CO2 CO2 Propulsion room & AFT Thruster room CO2 Both Yes</p> <p>Paint store Emergency Generator Room Rope Store</p> <p>Yes</p> <p>Drill Floor. Cement Unit & Gas storage rack in Poop Deck Yes</p> <p>24 - As per LSA Plan</p>
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L.4.4 Breathing Air Recharge Compressor		
Quantity:	no.	1
Make/type:		Bauer Junior II E
Located at:		STB Locker – Boat Deck
L.5 EMERGENCY FIRST AID EQUIPMENT		
L.5.1 First Aid Kits		As per LSA Plan
Quantity:	no.	4
L.5.2 Burn Kits		
Quantity:	no.	
L.5.3 Resuscitators		As per LSA Plan
Quantity:		
L.5.4 Stretchers		As per LSA Plan
L.6 HELIDECK RESCUE EQUIPMENT		
L.6.1 Storage Boxes		
Quantity:	no.	1
Construction material:		
L.6.2 Equipment		
Aircraft axe:	yes/no	Yes
Large fireman’s rescue axe:	yes/no	Yes
Crowbar:	yes/no	Yes
Heavy duty hacksaw:	yes/no	Yes
Spare blades:	yes/no	Yes
Grapple hook:	yes/no	Yes
Length of wire rope attached:	ft	50
Quick release knife:	yes/no	Yes
Bolt croppers:	yes/no	
L.7 DRILL SHIP SAFETY STORE		



Equipment to repair, recharge and restock safety equipment as listed below:	As per FFE Plan
Foam concentrate: yes/no	Yes
Dry chemical charges: yes/no	Yes
CO2 charges for dry chemical extinguishers: yes/no	Yes
CO2 charges for water extinguishers: yes/	Yes
CO2 charges for foam extinguishers: yes/	Yes
Discharge hoses, control nozzles and washers for dry chemical extinguishers: yes/no	Yes
Discharge hoses, control nozzles and horns and washers for Co2 : yes/no	Yes
Fire blankets: yes/	Yes
Fireproof gloves: yes/no	Yes
Rubber gloves - elbow length: yes/no	Yes
Rubber aprons: yes/no	Yes
Rubber boots: yes/no	Yes
Full face visors: yes/no	Yes
Eye shields (for grinding machines, etc.):yes/no	Yes
Dust masks: yes/	Yes
Spare safety helmets, boots, overalls: yes/	Yes
Gloves, hand torches, batteries, etc: yes/	Yes
Spare lifebuoys: yes/no	Yes
Spare lifebuoy lights: yes/no	Yes
Fresh air blowers/inductors for ventilating enclosed spaces:	Yes
Spare life jackets: yes/no	Yes
Safety belts c/w line: yes/no	Yes
Full safety harnesses: yes/no	Yes
Spare derrickman's safety belts: yes/no	Yes
Spare CABA bottles, charged: yes/no	Yes
L.8 EMERGENCY WARNING ALARMS	
Approved system to give warning of different emergencies: yes/no	Yes
L.9 SURVIVAL EQUIPMENT	
L.9.1. Lifeboats	
Make/type:	Schat – Harding, Type MCB34



Quantity:	no.	2
Capacity:	person	80 persons
Locations (fore, aft, port, Stbd):		Fore PS & STB
Fire protection:	yes/no	Yes
Radios:	yes/no	Yes
Flares:	yes/no	Yes
Food:	yes/no	Yes
First aid kits:	yes/no	Yes
Make/type:		Schat – Harding, Type BEIHAI BH-8
Quantity:	no.	2
Capacity:	person	50 persons
Locations (fore, aft, port, stbd):		Aft PS & STB
Fire protection:	yes/no	
Radios:	yes/no	Yes
Flares:	yes/no	Yes
Food:	yes/no	Yes
First aid kits:	yes/no	Yes
L.9.2 Life Rafts		
Make/type:		RFD. Surviva MK IV
Quantity:	no.	11
Capacity:	person	20 person
Davit launched:	yes/no	No
Locations (fore, aft, port, stbd):		Yes
Fire protection:	yes/no	
Radios:	yes/no	Yes
Flares:	yes/no	Yes
Food:	yes/no	Yes
First aid kits:	yes/no	Yes
L.9.3 Rescue Boat		
Make/type:		FRB 650 B+ S 236, GRP Fast Rescue Boat Model NOREQ-FRB 650- Cap : 9 Person
Engine power:	hp	Inboard Jet engine BUHK STEYR MO 236K42I
L.9.4 Life Jackets		
Make/type:		Coleman Cie - SOLAS 2010 - Model I 160
Quantity:	no.	243
L.9.5 Life Buoys		



Make/type: Quantity:	no.	Perry Buoy COSALTA 4 Kg With line 30m 6
Make/type	no.	Perry Buoy COSALTA 4 Kg With light 8
Make/type	no.	Perry Buoy COSALTA 4 Kg With light & smoke 2
L.9.6 Work Vest		
Make/type: Quantity:	no.	12 Around Moonpool Area
L.9.7 Escape Ladders/Nets		
Make/type: Quantity: Location:	no.	Type A. JISF2617 9 Main Deck Fwd & Aft & Poop Deck – PS & STBD & AFT
L.9.8 Distress Signals		
Make/type: Quantity:	no.	Pains Wessex 12 – Chart Room



M. POLLUTION PREVENTION EQUIPMENT

M.1. SEWAGE TREATMENT

Make/model:

**Hamworthy, ST-6A (2 Nos) & 1 Evac
Orca II A-24 Sewage Treatment Plant.**

System type:

Biological Sewage Treatment

Conforms to (Marpol, Annex IV, etc.):

IMO & MED Approved

M.2 GARBAGE COMPACTION

Make/model:

Trash Compactor

PHILIP Hydraulics

PHJ 03 15 09

System type:

Hydraulic - Elect

Conforms to (Marpol Annex IV, etc.)

Yes

M.3 GARBAGE DISPOSAL/GRINDER

Make/model:

Macerator

Laboremus

TRO-3000AG

System type:

Electrical

Conforms to (Marpol Annex IV, etc.):

Yes