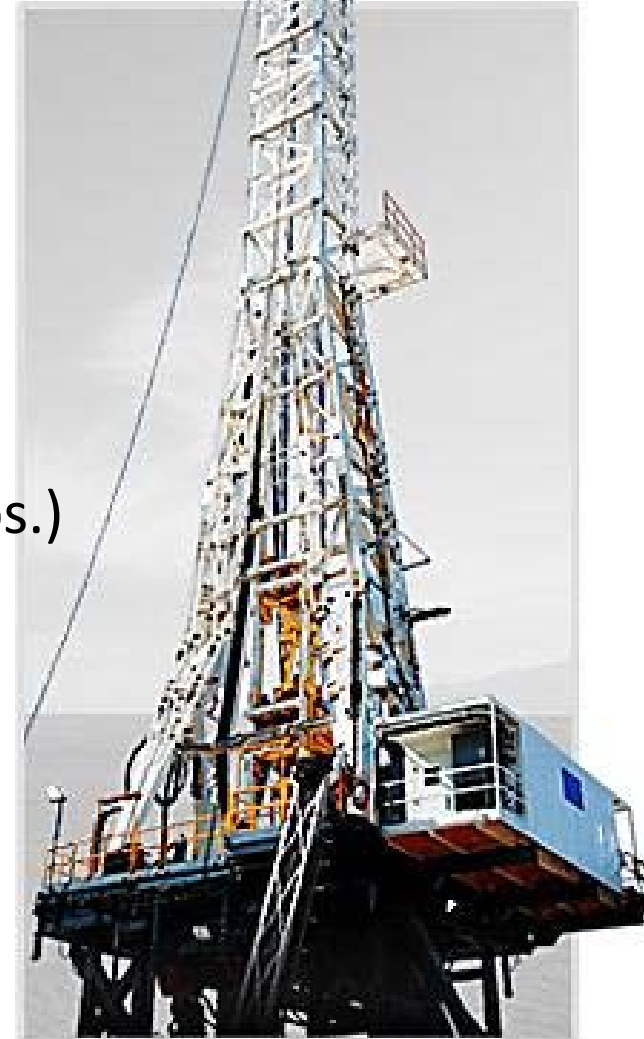


Blackpearl Services Limited



Le Tourneau Technologies – Lightning Rig™

- 2,000 HP VFD/SCR Land Drilling Unit
- Year of Manufacture: October 2008
- Mast GNC: 1,000 kips (1.0 MM lb.)
- Clear Height: 147 ft.
- Substructure Maximum Rated Static Hook/Rotary Capacity: 1,600 kips (1.6 MM lbs.)
- Maximum Rated Setback Capacity: 600 kips (0.6 MM lb.)
- Floor Height: 30 ft.
Clear Height below rotary: 25 ft.
- Mast & Sub structure hydraulically raised



Drilling Unit - Overview

TOP DRIVE

Direct Drive™ 500 ton L-DDTD – 500

- 1,040 hp continuous AC Driven, integral disc brake
 - 47,500 ft-lbs Continuous, 0 – 118 rpm
 - 80,000 ft-lbs Intermittent , 0 – 118 rpm

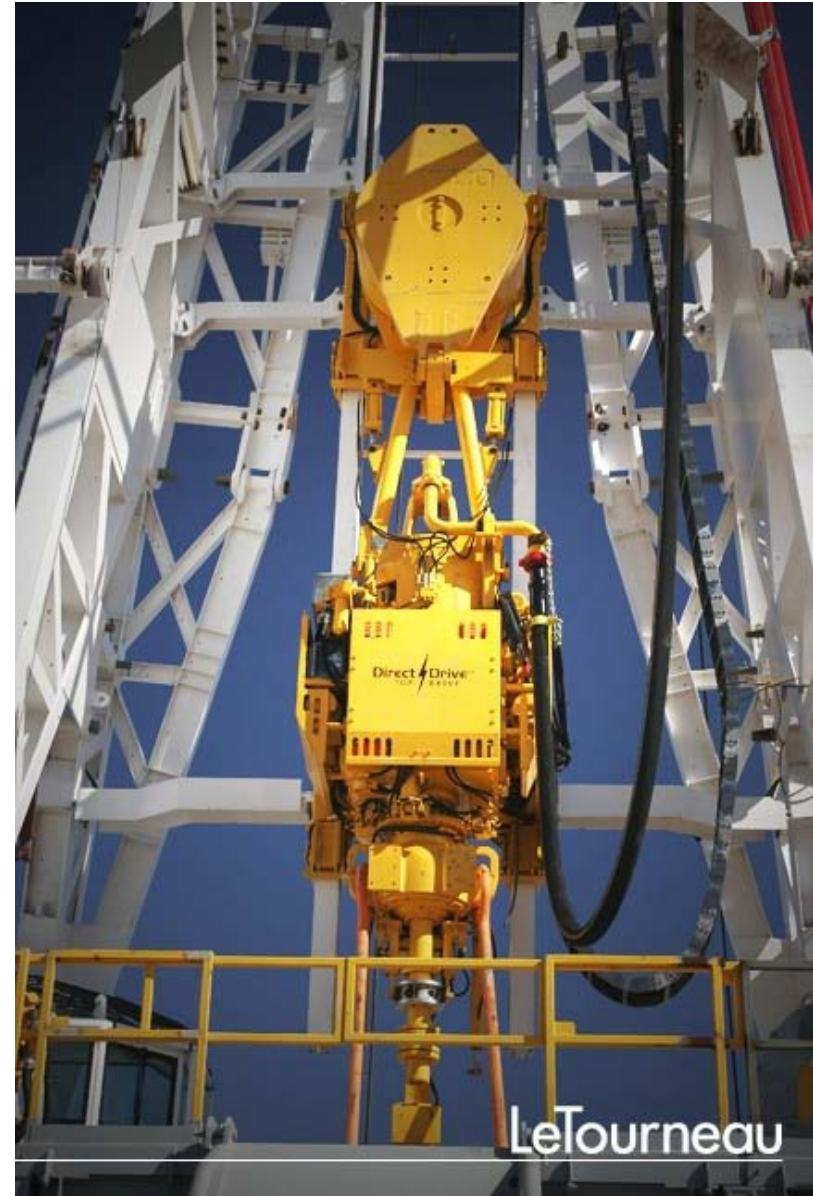
TRAVELLING BLOCK

LEWCO™ TBS 500

- 500 ton, 6 sheaves

ROTARY TABLE LTI L-275

- 27½ inches. Max table rpm: 400
- Maximum Static Rotary Capacity: 500 tons



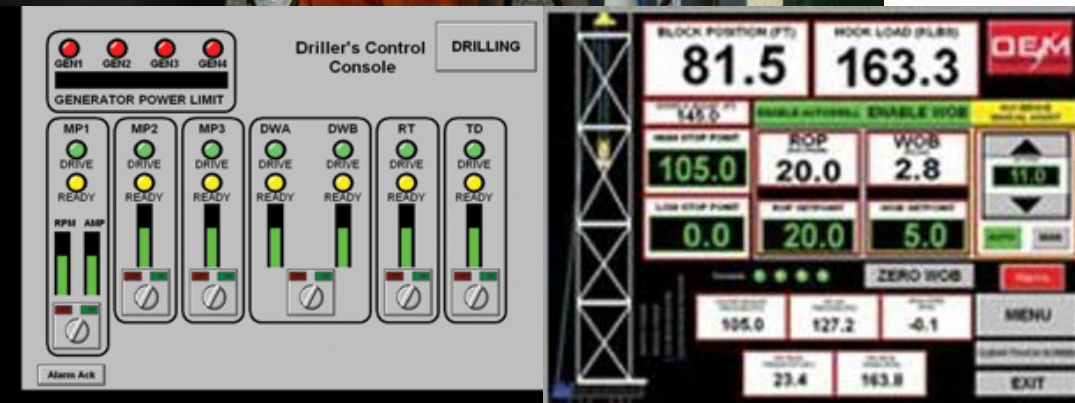
Drilling Unit - Overview

DRILLING CONTROL SYSTEM: Digital Drilling Control System™



■ Drilling Data Hub

- Depth
- Bit Location
- ROP
- Pipe Speed
- RPM – Rotary
- Torque – Rotary
- Top Drive RPM & Torque
- Pump Pressure & Speed
- Flow Rate
- Casing Pressure
- Drilling Gas
- Mud Weight In/Out



Drilling Unit - Overview

DRILLING CONTROL SYSTEM: Digital Drilling Control System™



■ Pump and Mud Data Hub

- Total Pump Output – gpm
- Strokes per Minute - SPM
- Total Strokes
- Mud Pit Volume
- Trip Tank volume
- Mud Temperature – IN/OUT
- Gas Detection System



Drilling Unit - Overview

DRAWWORKS

- LEWCO™ LDW 1000K
- 2,000 hp AC Gear-Driven
- 2 ea TT 1500 AC Vector Drive Motors



Drilling Unit - Overview

- **MUD PUMPS:** 2 x 1,600 hp LEWCO™ WH – 1612 TRIPLEX
- 2 x 800 hp DC drive motors per pump
- 6, 6½, 7, 7½ inch liners
- 120 spm maximum pump speed
- 5,000 psi maximum WP



Drilling Unit - Overview

BLOW OUT PREVENTER: Control Flow Inc.

- 13 $\frac{5}{8}$ inch 5k psi Annular Preventer
- 13 $\frac{5}{8}$ inch 10k psi Class “U” Double Ram Preventer

BOP CONTROL UNIT: BOPC Inc.

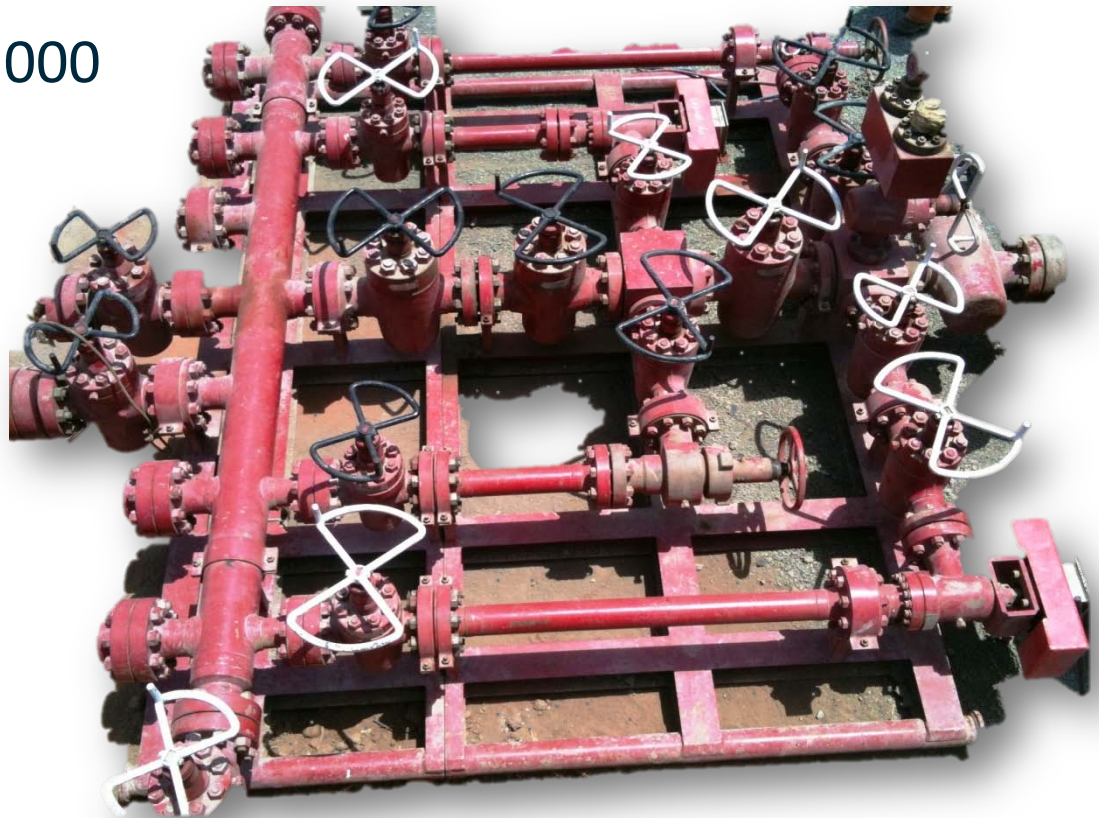
- 6 Station
- 2 Remote Control Stations



CHOKE MANIFOLD

CONTROL FLOW

- 3 $\frac{1}{16}$ inch 10,000 psi WP
- 2 Manual 3 $\frac{1}{16}$ inch 10,000 psi WP Chokes
- 2 Automatic 3 $\frac{1}{16}$ inch 10,000 psi WP Chokes



Drilling Unit - Overview

MUD GAS SEPARATOR

TechnoStrength

- 30 inch Diameter, 10 ft high
- 16 ft Mud Seal
- 25 psi Maximum Operating Pressure



Drilling Unit - Overview

RIG POWER SYSTEM

- 4 Generators Caterpillar Model 6P6 – 3300, 1365 kW,
- Engines CAT 3512, 1,476 hp
- Alternators – KATO 346/600 Volt 60Hz
- VFD Unit PLC Drive System
 - Input Voltage 600VAC Output Voltage 750 VDC



Drilling Unit - Overview

MUD TANK SYSTEM

- ~ 2,200 bbls Surface Mud Volume
 - Active Volume – 1,051 bbls
 - Reserve Volume – 1,152 bbls
- 3 Water Tanks – 1,152 bbls

SHALE SHAKERS

- 3 Fluid Systems Inc. 5000B4X – 14 VGS linear motion

DESANDERS

3 Fluid Systems Inc. 1,500 gpm Capacity

MUD MIXING HOPPERS

2 Fluid Systems Inc. with LNT TENGYL
100 hp centrifugal pumps



Drilling Unit - Overview

MUD CLEANER

Fluid Systems Inc. 5000B4X – 102 DHC

- Capacity 1,400 gpm

VACUUM DEGASSER

Fluid Systems Inc. FSI VAK – 1200



Drilling Unit - Overview

- **Casing Power Tong**
- Power tong for casing 5" To 18 5/8" size(Make clincher)
- Power Tong for tubing 2 3/8" to 4 1/2" size(Make clincher)



Drilling Unit - Overview

Drilling Capacity: 6000 Meters

Rig Package: LTI Houston USA (Letourneau Technologies Inc.) Year of construction of rig package: 2008

Draw works: 2000 HP (AC) Direct Gear , Powered by: 2 x TT 1500 AC Vector Motor Drive

Make LTI.

Mast & Hook Load Capacity: 1 Million Lbs (LTI Make Accordance With API specification 4F) Clear Height 147 Ft. Equipped with all required accessories Such as Stabbing board Top man escape and Fall Prevention devices. Hydraulically Raised

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Drilling Unit - Overview

- **Travelling Block Make LTI & Model: TB 500 (Manufactured as per API 8C PSL-1)**
- **Capacity: 500 Ton (1,000,000 lbs)**
- **Substructure: 30 X 34 feet, Clear Height below rotary 25 feet Make LTI Hydraulically Raised. Casing load Capacity – 1,000,000 lbs**
- **Top Drive: 500 Ton (AC) Power 1040 HP Continuous, Integral Disc braking System.**
- **Two Rig Floor Winch(Five Ton Each) and One Man rider**
- **Two Nos. of Ezy Torques: 1,50,000 ft-lb each**
- **Power tong for casing 5" To 18 5/8" size(Make clincher)**
- **Power Tong for tubing 2 3/8" to 4 1/2" size(Make clincher)**

Drilling Unit - Overview

Well Control Equipment

21 ¼" - 2000 PSI - Annular – Make: Control Flow, with diverter valves, spool & lines. Fluid to close -32gal. Fluid to open- 16.6gal.

13 5/8"- 5000 PSI – Annular - Control Flow, with bottom flange-10000 psi

13 5/8" – 10,000 PSI – Double ram { PIPE,SHEAR/BLIND RAM} - CONTROL FLOW ,

20-3/4" to 11" ,2000 to 10,000psi, adapter flanges and spool.

BOP CONTROL UNIT *One no. 6 station BOP accumulator* Total Capacity 264 gallons with complete skid and two remote control

BOP Control Testing Unit for 10 M W.P. with recorder.

Drilling Unit - Overview

- **Rig Instrumentation**

- **PETRON DRILLER'S COMPUTER: 15 HI-BRIGHT LCD, FLAT PANEL DISPLAY WITH TOUCH SCREEN AND INTEGRAL HIGH PERFORMANCE COMPUTER UTILIZE BOTH RS-485 AND ETHERNET CONNECTIVITY**

- **DRILLING DATA HUB: DEPTH, BIT LOCATION, ROP, PIPE VELOCITY, ROTARY RPM, ROTARY TORQUE, TOP DRIVE RPM AND TORQUE, PUMP PRESSURE, CASING PRESSURE, FLOW RATE, DRILLING GAS, MUD WT-OUT**

- **PUMP AND MUD DATA HUB: TOTAL PUMP OUT PUT{GPM}, SPM-1, SPM-2, SPM-3, TOTAL STROKE1, TOTAL STROKE2, TOTAL STROKE3, MUD PIT 1-10, TRIP TANK- &2, MUD TEMP IN AND OUT.**

Drilling Unit - Overview

GAS DETECTION SYSTEM -CONTROLLER, 12 CHANNEL, NEMA 4X ENCLOSURE.

RIG INTERCOM FOR COMMUNICATION AND PA SYSTEM

Sufficient No Tool Bins for Handling tool and Pipe bins .12Nos of store container with Separately Air condition storage for Rubber items.

Rig is Equipped with Clinic , Dinning Area , Meeting Room etc.Mechanical Work shop with required Equipments.

Black Pearl # 1: Drilling Unit - Overview

OPERATING PERFORMANCE

Activity	Well number & Operator	Period from	Period To	Days	Well Depth (Meters)	Remarks
Rig Commissioning	P # 2 (Nafto Gaz India Pvt. Ltd.)	April 16, 2010	June 15, 2010	60		Initial Commissioning
Well Drilling	P # 2 (Nafto Gaz India Pvt. Ltd.)	June 16, 2010	August 08, 2010	50	3700	First well
Inter Location Move (ILM)	P # 2 To P # 3	August 08, 2010	September 18, 2010	42		Delay due to bad road condition
Well Drilling & abandoning	P # 3 (Nafto Gaz India Pvt. Ltd.)	September 18, 2010	October 09, 2010	21	2875	Casing retrieved
Inter Location Move	P # 3 To P # 1	October 09, 2010	November 03, 2011	25		Drill site not ready
Well Drilling & Testing	P # 1 (Nafto Gaz India Pvt. Ltd.)	November 03, 2010	April 05, 2011	154	3253	3 side tracks, Testing 48 days

Black Pearl # 1: Drilling Unit - Overview

OPERATING PERFORMANCE

Activity	Well number & Operator	Period from	Period To	Days	Well Depth (Meters)	Remarks
Rig Move	P # 1 To CBY 76H	April 18, 2011	June 08, 2011	51	Long move 270 Km	New Contract.
Well Drilling	CBY 76H (Oilex)	May 08, 2011	July 06, 2011	28	2740 m	700 mts Horizontal section & SOBM
Rig Move	CBY 76 H to Nagaylanka SE Cairn Energy Ltd	September 25, 2011	November 25, 2011	60	Long move 1700 Km	New Contract
Well Drilling	Nagaylanka SE	November 25, 2011	February 4, 2012	72	4700 m	HPHT well 5 CP
Rig Move	Nagaylanka # SE (Cairn Energy Ltd) To Tralsa # 1 (Nafto Gaz India Pvt. Ltd.)	February 05, 2012	March 31, 2012	55	Long move 1700 Km	New Contract
Well Drilling & abandoning	Tralsa # 1	April 01, 2012	May 10, 2012	39	2800	Drilled & abandoned (due to stuck up & fishing)

Black Pearl # 1: Drilling Unit - Overview

OPERATING PERFORMANCE

- Safely carried out without any incidence
- Rig moved from port to drill site: 15 Days (including custom clearance & insurance survey).
- Rig commissioning in 45 days of arrival of first load at drill site
- First well (P # 2) drilling up to 3700 meters in 50 days
- First ILM took 42 days as road & drill site condition got deteriorated due to extreme rains
- Second well (P # 3) drilled up to 2875 meters & abandoned (after casing retrieving) in 21.2 days
- Second ILM took 25 days as drill-site was not ready
- Third well (P # 1) drilled up to 3253 meters, tested & abandoned in 154 days. (A total depth of 4373 meters with 3 side tracks. Drilling Days 106, Testing Days 48, Total Days 154).

Black Pearl # 1: Drilling Unit - Overview

OPERATING PERFORMANCE

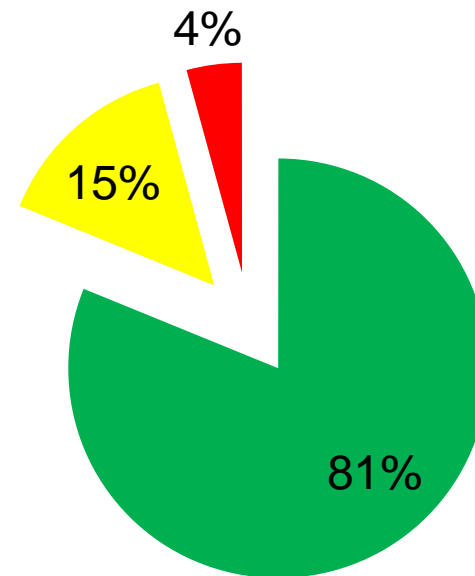
- Forth well (CBY 76H): Drilled in 28 days (2740 meters). 700 meters Horizontal Section. Drilled with SOBM
- Fifth well (Nagyalanka SE): Drilled HPHT Well 4700 meters (4 casings) in 72 days.
- Sixth well (Tralsa # 1) : Drilled & abandoned (due to stuck pies and complicated fishing operations) in 39 days (2800 meters)

Drilling Unit - Overview

OPERATING PERFORMANCE

Well	Client	Operating HRS (R1)	Stand By HRS (R2)	Repairing HRS (R3)	TOTAL HRS
Koth # 1 (P # 2)	Nafto Gaz India	1028.75	97.75	82.5	1209
Tankaria # 1 (P # 3)	Nafto Gaz India	469.25	27.75	11.75	508.75
Kurchan # 1 (P # 1)	Nafto Gaz India	2698.25	880.25	80.5	3659
Cambay 76 H	Oilex India	668.5	35	4.5	708
Nayalanka SE # 1	Cairn India	1464.5	96	152	1712.5
Total		6329.25	1136.75	331.25	7164.75

Performance



■ Operating
 ■ Stand by
 ■ Repairing

Vision Statement

To be a world class drilling services provider & rig management organization driving continuously the approach on performance excellence in the domains of quality, safety, efficiency, creativity, customer satisfaction, employee's welfare and corporate social responsibility.

Mission Statement

Motivating employees to drive the company to achieve world class oil rig management organization status through uncompromised Quality Standards.
Assisting customers to achieve success through on time Drilling Services.
Imbibing high standards of business ethics and organizational values
Abiding commitment to safety, health and environment to enrich quality of community life.

IMS POLICY




BLACK PEARL SERVICES LIMITED

KSI Shah & Associates
Suite 1003, Khalid-Al-Attar Tower, Sheikh Zayed Road, P.O.Box 71241 Dubai, UAE
Tel: +971 433 25657, Fax: 971 433 25667

IMS POLICY / MANAGEMENT POLICY

We are committed to conduct all our drilling operational activities as per requirements of our customers at all sites. We believe that Health, Safety & protection of environment is above all project schedule and targets. We are therefore committed to protect and safeguard our employee, equipment and the environment against potential effects arising from our business by:

- implementing & maintaining an effective Quality, Environmental, Occupational Health & Safety Management System
- adopt and comply all applicable rules, regulations, legislative requirements to provide and maintain a safe and pollution free working environment
- Mitigate environmental pollutions, health and safety hazards, with adequate training and facilities for all employees.
- to reduce number of incidents, loss to property
- Prevent injury and occupational related illnesses to personnel associated with our Organization.
- to promote Environment, Health & Safety issues to all interested parties
- conserve natural resources, minimize waste and control pollutions, across the Organization
- Review all objectives & targets periodically on Quality, Environment, and Occupational Health & Safety Management System for continual improvement.


A.M. Uplenchwar
Director
Black Pearl Services Ltd.

Date: October 1st, 2010

Project Office: C/o. Gujarat State Export Corporation Ltd., 2nd Floor, Gujarat Chamber of Commerce Building, Ashram Road, Ahmedabad-380015, Gujarat, India.
Phone : +91 79 25557025 / 2557143 Email: blackpearlserviceslimited@gmail.com

CONTROLLED SUBSTANCE POLICY



“Controlled Substance” Alcohol & Drug Policy

“BSL” is committed to provide safe & healthy work environment for all BSL employees, Contractor’s employees & visitors. In accordance with our commitment, it is here by notify to all our employees, employees of contractors & company and visitor that the use, possession, distribution, or sale, purchase a “controlled substances” on company property is prohibited. Controlled substances are defined as Alcohol, illegal Drugs, narcotics; any solvent used or intended to be used for the purpose of intoxication.

“BSL” reserves right at all time to conduct unannounced inspection or searches of personal effects, lockers, baggage & Vehicles for the purpose of determining “Controlled substances” on company-owned or controlled property by authorized & competent persons. If such persons are in possession of controlled Substances, “BSL” reserves the right at all time without any pre announcement to have authorized persons conduct blood testing & urinalysis of BSL employees & Employees of contractor & company.

A positive test result or refusal to submit to a drug or alcohol test is grounds for disciplinary action, including immediate removal of employee from the work place & will not be permitted on BSL properties .Any Controlled substance or items prohibited by this policy or any other material that are illegal to possess, will be taken in to custody of “BSL” may be turn over to the custody of appropriate law enforcement authorities.

For Black Pearl Services

A handwritten signature in blue ink, appearing to read 'Madhav Labhe', written over a light blue horizontal line.

Madhav Labhe

Vice President (Drilling)

Date 01.10.2010

IMS DOCUMENTS

Policies, Vision & Mission

IMS Manual

Standard Operating Procedures

Work Instructions

Reference Documents

LIST OF PROCEDURES

- Procedure on Hazards Identification and Risk Analysis.
- Procedure on Identification of Aspect and Impact.
- Procédure on Communication, Participation & Consultation.
- Procedure on Identification of legal and other requirements.
- Procedure on Emergency Response and Preparedness.
- Procedure on Control of Documents and records.
- Procedure on Internal Audit.
- Procedure on Monitoring and Measurements.
- Procedure NC & Corrective and Preventive Action.
- Procedure on Quality Assurance.
- Procedure on Management of Change.

LIST OF PROCEDURES

- **Procedures For First Aid and Medical Facility.**
- **Procedure on Waste Management.**
- **Procedure on Fire Safety.**
- **Procedure on Personal protective Equipments.**
- **Procedure on Job Safety Analysis.**
- **Procedure on Incident response and Investigation**
- **Procedure on Permit to work System.**
- **Procedure on Energy Isolation.**
- **Procedure on Confine Space Entry.**
- **Procedure on Gas Monitoring**
- **Procedure on Training Certification and Orientation.**
- **Procedure on Safety Meeting.**

LIST OF PROCEDURES

Procedure on Well control Practices.

Procedure on pressure Test of Well control Equipments.

Procedure on Drill Line Inspection & maintenance.

Procedure for Inspection of Tubular and BHA.

Procedure on Tripping heavy drill pipe.

Procedure on lowering casing-Liner.

Procedure on Lifting Gears and cranes.

Procedure on Handling Compressed Gas.

Procedure on Material Handling and use of Cranes.

Procedure on working at Height.

Procedure on Electrical Safety.

Procedure on Rig Move.

LIST OF PROCEDURES

- **Procedure on Customer Property.**
- **Procedure for Raising and Lower Substructure and Mast.**
- **Procedure on Hydrogen Sulphide.**
- **Procedure on Emergency Drills.**
- **Procedure on Planning**

WORK INSTRUCTIONS

WI on House Keeping.

WI for Pre Tour Safety Meeting.

WI for Use of PPE.

WI for Use of Hand Tools.

WI for Rig floor safety

WI for Safety Signs.

WI for Security at site

WI for Use of Portable Electrical Equipment

WI for Working on Cellar Area.

WI for Working on Derrick.

WI for Manual Handling

WORK INSTRUCTIONS

WI for Handling Chemicals.

WI for Lock out and Tag out.

WI for Diesel Transfer.

WI for Cutting Welding and Grinding Operation

WI for Tugger Operation.

WI for Operation with Explosive.

WI for Radio Active source handling .

WI for Man Riding Operation

WI for Tripping Operation

WI for working at Height

REFERENCE DOCUMENTS

1. HIRA Register
2. Aspect/ Impact Register
3. Project HSE Plan
4. Emergency Response Plan
5. Quality Assurance Plan

Thank You Very Much

For more information please contact
madhav.labhe@blackpearlserviceslimited.com

mglabhe@yahoo.com