(P) POWERED BY PARKER 2000 HP, AC Variable Frequency Drive Land Drilling Rig

Year Built: 2006

Rated Drilling Depth

5 in. Drill Pipe: 13,000 – 20,000 feet

(4,000 m - 6,000 m)

4-1/2 in. Drill Pipe: 14,500 – 23,000 feet

(4,500 m-7,000 m)

Mast

Make: BOMCO JJ450/45-K Height and Type: 152 ft (46.5 m), cantilever

Max. Hookload: 1 million lbs

Drawworks

Make: BOMCO JC70DB Rated Input: 2,000 hp (1,470 kW)

Input Power: Two (2) 1,000 hp (800 kW) VFD-

controlled AC motors

Drilling Line: 1-1/2 in. (38 mm)

Traveling Equipment

Traveling Block: BOMCO YC450
Max. Load: 1 million lbs
Swivel: BOMCO SL450-5

Max. Load: 1 million lbs

Substructure

Make: BOMCO D2450/10.5-X

Type: Swing lift
Clear Working Height: 29 feet (9 m)
Setback Load: 495.000 lbs

Rotary Equipment

Top Drive: National Oilwell Varco TDS11 Input Power: Two (2) 400 hp (298 kW) AC

motors

Rotary Table: BOMCO 37-1/2 in. (952.5mm)
Input Power: One (1) 1,073 hp AC motor (800

Static Load Rating: kW)

1.3 million lbs

BOP System

Annular Preventer:

Ram Preventers: One (1) Hydril 5,000 psi

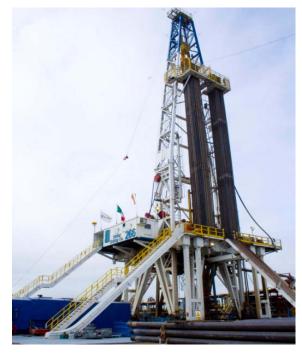
One (1) 13-5/8 in. Cameron 10,000

psi single ram

One (1) Cameron 13-5/8 in. 10,000

psi double ram

PARKER WELLBORE



Gensets

Five (5) Caterpillar 3512-C diesel engines: Each rated 1,476 hp (1,101

kW) @ 1,200 rpm.

Generators: Five (5) Kato 1,365 kW generators

(1,950 kVA)

Power Distribution

Gen. Control: M&I system equipped with

Woodward EGCP-2 / Woodward 2301D / Basler RSS125-12

VFD: Nine (9) Eaton inverters and five (5)

M&I Electric Industries converters

MCC: 600 V, 480 V, 120 V

Mud Pumps

Pumps: Three (3) BOMCO F-1600 triplex

pumps, each rated 1,600 hp (1,193

(W)

Input Power: Each pump driven by two (2) 1,073

hp (800 kW) AC motors

Mud Handling/Solids Control

Mud System Capacity: 2,000 bbls (320 m³)

Shale Shaker: Three (3) Derrick FLC 2000 3-panel

shakers; 525 gpm each

Mud Cleaner: One (1) Derrick FLC 2000

(combination desander, desilter) Vacuum, 1,000 gpm (4 m³/min)

Degasser:

2103 CityWest Blvd Suites. 300-400 Houston, TX 77042



2000 HP, AC Variable Frequency Drive Land Drilling Rig

Design Features (All main components conform to API specifications)

Mast & Substructure

- Mast and substructure raise and lower by a single wire rope reeving with hoisting power generated from the drawworks.
- Mast is completely assembled at ground level.
- Beams are integrated into the mast structure for the dissipation of torque generated by the top drive during operation.
- Substructure's slingshot design allows floor equipment to be installed in its lower position and swing up in place during the raising operation. Subsequently, it is all lowered simultaneously as the rig is lowered.
- Maximum package for transportation for either the mast or substructure is 44.3 feet in length x 10.5 feet in width x 8.5 feet in height. Maximum weight associated with this package is 44,000 lbs, or 20 metric tons.

Mud Pumps

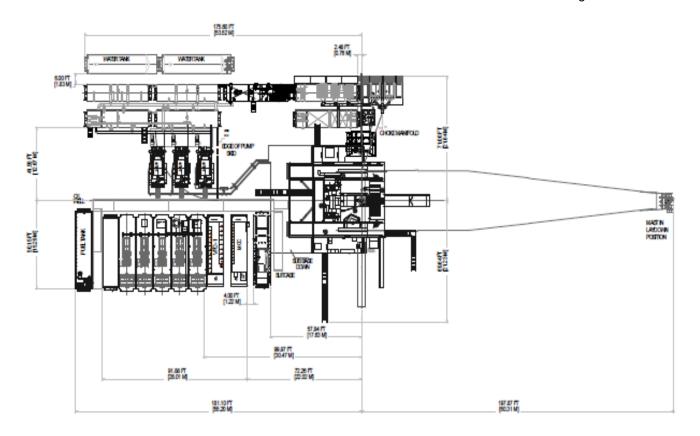
 Three F-1600 mud pump packages each driven by 1,600kW (2,146hp) through belt drives. During normal working conditions, two mud pumps are used.

Drawworks

- Digital closed-loop controls and dynamic braking systems take full advantage of integrated automation during tripping operations and zero-speed hovering.
- Can achieve constant bit weight and automatic bit feed control 0.3 – 197 ft/hr (0.1-60 m/hr).
- Drawworks features a simple mechanical transmission and reliable controls.
- Brake system is a combination of hydraulic disc brakes and dynamic braking.
- Motor, gearbox, drum, lubricating system and disc brake are installed on skid as one piece for ease of transportation.
- Digital control of drawworks parameters, such as hook speed, hook position, automatic drilling and dynamic braking. Drawworks' air and hydraulic systems controlled by the programmable logic controller (PLC) system in driller's console.

Controls

 Intelligent driller control uses advanced variable frequency drive (VFD) control technologies and integrated PLCs.
 Driller monitors and operates essential drilling functions from a driller's chair located on the rig floor.



Note: Equipment subject to client-specific requirements. No part of this document may be reproduced or transmitted without prior consent of Parker Drilling. Rev 09/08