Attachment B – Typical Mud System

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Described below is a typical mud system.

I. Mud Pumps and Equipment

1. Pumps

Two (2) Oil well, A- 1700-PT (triplex, single acting pistons), 7-3/4" bore and 12" stroke x 5,000 PSI fluid end discharge manifold system. Gear end equipped with electric-driven lube oil pump, filtration, Glycol heat exchanger thermostat controlled cooling system. Pistons and. liners are flushed cooled by electric suction charging pumps, engage a few moments prior to the pistons. Pumps are driven by two (2) each traction motors and torque team belts designed to stroke pumps at a maximum of 120 SPM under full load. Fluid ends are equipped with 611 liners and pistons which produce a nominal 530 GPM at a maximum of 120 rpm up to a nominal of 3,900 PSI.

A. 3 " Demco pressure relief valves.

B. 2" Oteco 0-6,000 psi mud gauge.

2. Pulsation Dampeners

Two (2) Hydril K20-5,000 pulsation dampeners.

3. Suction Dampeners

Oilwell 10" suction stabilizer.

4. Suction Strainers

Suction strainers mounted on mud tank suction piping, basket type, shop made.

5. Centrifugals

All pumps are 6" x 8" x 14" Mission Magnum with 12 ½" impellers, 1 7/8" diameter shaft. Rated at 900 gpm at 65 feet: of head. Mud system complete with the following charging pumps:

A. Two (2) pumps for charging two (2) triplex pumps - 1,200 rpm each.
B. One (1) pump for desander - 1,800 rpm.
C. One (1) pump for mud cleaner - 1,800 rpm.
D. One (1) pump for hopper and gun lines - 1,800 rpm.
E. One (1) pump for transfer to mud storage and back up for hopper and gun lines - 1,800 rpm.

F. All pumps powered by one (1) each 100 HP explosion-proof, 460 volt, three-phase, 60 Hz, electric motor with Dodge Paraflex coupling.

6. Trip Tank

Trip tank mounted in substructure tank, 40 bbl capacity, with one (1) 3" x 4" x 13" Mission Magnum pump with 10" impeller, rated at 300 gpm at 48 feet of head with 25 HP explosion proof motor.

7. Drains

Mud module constructed with integrated drains to consolidate all waste fluids from mud pump, processing area.

II. Mud Pits and Related Equipment

1. Active Tank

Processing tank 430 bbl nominal volume which consists of:

A. 30 bbl sand trap.
B. 105 bbl degasser tank.
C. 80 bbl desander tank.
D. 80 bbl mud cleaner tank.
E. 80 bbl centrifuge tank.
F. 55 bbl slugging and pill tank.

2. Auger

All solids control equipment located such that all solids can be easily consolidated, and moved to the center of the platform using a 16" auger. This system can be utilized on any leg by changing the screw direction. An 8" auger takes the mud cleaner underflow to the main 16' auger.

3. Solids Control Equipment

A. Three (3) each MI SWACO Mongoose PT flow line shale shaker screen angle adjustment from +3° to -3°. 120" long x 68.9” wide x 51" high.

B. One (1) Standard model 518 centrifuge and feed pump. 119” long x 70” wide x 50” high.

C. One (1) MI SWACO Mongoose PT Mud Cleaner, combination 8T4 de-silter [sixteen (16) each 4" cones]. The discard from the cones passes onto the pretensioned screens and the majority of the desired Barite passes through the

screens and returns to the mud system. Undesirable solids are discarded. Unit is rated at a nominal flow of 900 gpm each.

D. Degasser - One (1) Drillco See-Flow Degasser, vented to outside at the mud module nominally rated at 800 gpm.

E. Agitators

One (1) 5-HP Brandt agitator for pill pit, 24" impeller.
Four (4) each 15 HP Brandt mud agitators for active mud tank, 32" impellers.

F. Mud Hopper - Geosource Model 8900 Sidewinder, rated at 900 gpm at 70' of head without back pressure. Hopper conveniently mounted on mud dock so that mud pallets can be placed by the crane and moved to the hopper with mud module in any drilling leg location.

4. Mud Logging

Mud logging unit to be set on platform main deck. Use Mud Logger from 3,500'+/- to TD

5. Cuttings Chute

16" x 50' auger incorporated into first floor of mud module, which allows the system to be run in a dry mode. This allows cuttings to be diverted to cuttings chute with rig over any leg.

III. Logging

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Gamma Ray / Resistivity Logging While Drilling (LWD) from 1800'+/- to TD