



## Rig #21 Specifications

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<u>Drilling Range:</u>	23,000' With 5" Drill Pipe.
<u>Drawworks:</u>	American Block Model 1,500 Driven by 1,500 HP GE AC Motor.
<u>Mast:</u>	Process Systems 142' Telescoping Derrick, Rated at 750,000# Static Hook Capacity.
<u>Substructure:</u>	Process Systems 25' High Sling Shot With 21' Clearance With 750,000# Capacity and an IDE Walking system.
<u>Mud pump #1:</u>	Gardner Denver PZ11 1,600 HP Triplex Pump With 7,500# Manifold Rating Powered GE 1,500 HP AC Motor Charged by (1)-6x8 Centrifugal Pump.
<u>Mud pump #2:</u>	Gardner Denver PZ11 1,600 HP Triplex Pump With 7,500# Manifold Rating Powered GE 1,500 HP AC Motor Charged by (1)-6x8 Centrifugal Pump.
<u>Mud pump #3:</u>	Gardner Denver PZ11 1,600 HP Triplex Pump With 7,500# Manifold Rating Powered GE 1,500 HP AC Motor Charged by (1)-6x8 Centrifugal Pump.
<u>Rotary Table:</u>	37-1/2" American Block Powered by 600 HP AC Motor.
<u>Automatic Catwalk:</u>	Forum PWS-3550 System.
<u>Floorhand:</u>	Blohm + Voss Oil Tools Auto Floorhand.
<u>Traveling assembly:</u>	American Block 400 Ton Block.
<u>Top Drive:</u>	Canrig Model 1035 AC-500 350 Ton Top Drive.
<u>Generator package:</u>	(4)-3512B Caterpillar Diesel Engines (1,496 HP Each) Driving (4)-Kato 1,400 KW Generators.
<u>AC/VFD House:</u>	IDE 4X5 VFD Power System with Auto Drill, WOB, Rate of Penetration and Pressure Control, Crown and Floor Block position, Bridge and Overpull Protection With a Drillers Cabin.
<u>Mud system:</u>	(2)-Pit System, 1,000 Active bbls With 100 bbl Slug Tank & 100 bbl Trip Tank; (7)-Mud Agitators; (4)-Centrifugal Pumps; (2)-Mixing Hoppers; (3)-King Cobra Shale Shakers.
<u>B.O.P.E.:</u>	13-5/8" 5,000# Annular, 13-5/8" 10,000# Double Ram, 10,000# Choke Manifold. 160 Gallon Accumulator With a Poor Boy Gas Buster.
<u>Water/ Fuel Storage:</u>	500 bbl Water Tank With (2)-Transfer Pumps; 18,000 Gallon Fuel Storage; (2)-Transfer Pumps.
<u>Auxiliary Equipment:</u>	(2)-12,000# Hydraulic Floor Winches; 25,000' Survey Unit; (1)-Skid Mounted Rig Manager Quarters; (1)-Skid Mounted Crew Change Quarters; (3)-Sets of Pipe Racks; (1)-Parts House.